PRODUCTION SCIENTIFIQUE ANNEE 2001

Reference Type: Journal Article
Record Number: 1
Author: Abbaoui, K. Pujol, M. J. Cherruault, Y. Himoun, N. Grimalt, P.
Year: 2001
Title: A new formulation of Adomian method - Convergence result
Journal: Kybernetes
Volume: 30
Issue: 9-10
Pages: 1183-1191
Short Title: A new formulation of Adomian method - Convergence result
ISSN: 0368-492X
DOI: 10.1108/eum0000000006549
Accession Number: WOS:000173337900015
Abstract: A new approach of the decomposition method (Adomian) in which the Adomian scheme is obtained in a more natural way than in the classical presentation, is given. A new condition for obtaining convergence of the decomposition series is also included.
Notes: Abbaoui, K Pujol, MJ Cherruault, Y Himoun, N Grimalt, P
URL: <Go to ISI>://WOS:000173337900015

Reference Type: Journal Article
Record Number: 2
Author: Abdessemed, F. Benmahammed, K.
Year: 2001
Title: A two-layer robot controller design using evolutionary algorithms
Journal: Journal of Intelligent & Robotic Systems
Volume: 30
Issue: 1
Pages: 73-94
Date: Jan
Short Title: A two-layer robot controller design using evolutionary algorithms
ISSN: 0921-0296
DOI: 10.1023/a:1008122728715
Accession Number: WOS:000166545900004
Abstract: The results obtained by a rule-based proportional, integral, derivative (PID) precompensator controller applied to a two-joint manipulator are discussed. The end effector is made to follow a specified trajectory obtained from the inverse kinematics by an appropriate design of a fuzzy control law. The desired trajectory is determined by the values of the joint variables and the structural kinematics parameters of the manipulator. The performance of the PID controller is exploited here to build a fuzzy precompensator that will enhance the conventional PID and to obtain better performances and results. The fuzzy rule base of the precompensator designed is found by associating two evolutionary algorithms that search for the optimal solution.
Notes: Abdessemed, F Benmahammed, K
URL: <Go to ISI>://WOS:000166545900004

Reference Type: Journal Article
Record Number: 3
Author: Benaniba, M. T. Belhaneche-Bensemra, N. Gelbard, G.
Year: 2001
Title: Stabilizing effect of epoxidized sunflower oil on the thermal degradation of poly(vinyl chloride)
Journal: Polymer Degradation and Stability
Volume: 74
Issue: 3
Pages: 501-505
Short Title: Stabilizing effect of epoxidized sunflower oil on the thermal degradation of poly(vinyl chloride)
ISSN: 0141-3910
DOI: 10.1016/s0141-3910(01)00170-7
Accession Number: WOS:000172361500017

Abstract: Unsaturated triglyceride oil (sunflower) was obtained from commercial sources. It was epoxidized and characterized by chemical and spectroscopic methods. The thermo-oxidative degradation of poly(vinyl chloride) at 180 degreesC was investigated. The effects of different metal carboxylate combinations (Ba/Cd and Ca/Zn stearates) in the presence of epoxidized sunflower oil on static heat treatment of PVC have been studied. In order to compare the efficiency of the epoxidized sunflower oil with these metal soap stabilizers, thermal stabilities were evaluated on the basis of evolved hydrogen chloride determined by potentiometric titration and the degree of discoloration are discussed. The development of color and the dehydrochlorination rates were compared for PVC sheets containing epoxidized sunflower oil (ESO) or epoxidized soya bean oil (ESBO). It was found that ESO exerted a stabilizing effect on the degradation of PVC. Further-more, the thermal degradation of PVC with metal soaps and ESO was investigated by thermogravimetric analysis (TG) and differential thermogravimetric analysis (DTG). (C) 2001 Elsevier Science Ltd. All rights reserved.
Notes: Benaniba, MT Belhaneche-Bensemra, N Gelbard, G 1st International Conference on Polymer Modification, Degradation and Stabilisation (MoDeSt): Thermal Degradation, Combustion and Fire Retardance Symposium Sep, 2000 Polermo, italy
URL: <Go to ISI>://WOS:000172361500017

Reference Type: Journal Article

Record Number: 4

Author: Benghanem, F. Chafaa, S. Bouet, G. M. Khan, M. A.

Year: 2001

Title: Potentiometric studies of 4-mono(dihydroxyphosphonyl) methylphenol and 2,6-bis(dihydroxyphosphonyl) methyl 4-methyl phenol complexes with cobalt(II), nickel (II), copper (II), zinc (II) and cadmium (II)

Journal: Phosphorus Sulfur and Silicon and the Related Elements

Volume: 170

Pages: 159-169

Short Title: Potentiometric studies of 4-mono(dihydroxyphosphonyl) methylphenol and 2,6-bis(dihydroxyphosphonyl) methyl 4-methyl phenol complexes with cobalt(II), nickel (II), copper (II), zinc (II) and cadmium (II)

ISSN: 1042-6507

DOI: 10.1080/10426500108040592

Accession Number: WOS:000171514700013

Abstract: The overall stability of the two acids: 4-mono(dihydroxy-phosphonyl) methyl phenol (LI) and 2,6-bis(dihydroxyphosphonyl)methyl 4-methyl phenol (L2) complexes with five divalent metal cations Co-II, Ni-II Cu-II, Zn-II and Cd-II were determined patentiometrically at constant ionic strength of 0.1 mol.L-1 and at 25.0 +/- 0.1 degreesC (298.0 +/- 0.1 K) in water. The values are as follows. For L1: Ni-II, 5.27; Co-II, 5.65; Cu-II, 7.69; Zn-II, 7.39 and Cd-II, 5.75. For L2: Ni-II, 7.24; Co-II, 7.47; Cu-II, 12.76; Zn-II, 11.39 and Cd-II, 7.94.

Notes: Benghanem, F Chafaa, S Bouet, GM Khan, MA

URL: <Go to ISI>://WOS:000171514700013

Reference Type: Journal Article
Record Number: 5
Author: Benkerri, M. Halimi, R. Bouabellou, A. Mosser, A. Sens, J. P.
Year: 2001
Title: Antimony dopant redistribution during copper silicide formation
Journal: International Journal of Inorganic Materials
Volume: 3
Issue: 8
Pages: 1299-1301
Date: Dec
Short Title: Antimony dopant redistribution during copper silicide formation
ISSN: 1466-6049
DOI: 10.1016/s1466-6049(01)00141-6
Accession Number: WOS:000172877700047

Abstract: In the present work, copper silicide formation and the redistribution of implanted Sb+ ions were studied by means of Rutherford backscattering spectrometry (RBS) and X-ray diffraction (XRD). Copper thin films, of 500 A thickness, were evaporated, at room temperature, onto Sb implanted Si(111) wafers. Two doses, 5 x 10(14) and 5 x 10(15) Sb+ cm(-2), were used at 130 keV. The samples were heat treated in vacuum by conventional thermal annealing in the temperatures range 500-700 degreesC for various times. It was observed that, independent of Sb implant dose, two silicides (Cu_3Si and Cu_4Si) were formed in the considered temperature range. Antimony ions implanted initially in the Si substrates were found to redistribute towards the sample free surface. (C) 2001 Elsevier Science Ltd. All rights reserved.

Notes: Benkerri, M Halimi, R Bouabellou, A Mosser, A Sens, JP Spring Meeting of the European-Materials-Research-Society May 29-jun 02, 2000 Strasbourg, france European Mat Res Soc
URL: <Go to ISI>://WOS:000172877700047

Reference Type: Journal Article
Record Number: 6
Author: Benouattas, N. Halimi, R. Bouabellou, A. Mosser, A.
Year: 2001
Title: Effect of implanted phosphorus on silicide formation in the Cr/Si(111) system
Journal: Thin Solid Films
Volume: 385
Issue: 1-2
Pages: 61-65
Date: Apr
Short Title: Effect of implanted phosphorus on silicide formation in the Cr/Si(111) system
ISSN: 0040-6090
DOI: 10.1016/s0040-6090(00)01864-2
Accession Number: WOS:000167666600010

Abstract: Chromium layers 800 Angstrom thick are deposited by electron gun evaporation on: respectively, non-implanted, 5 x 10(14) and 5 x 10(15) at./cm(2) P+-implanted Si(111) substrates. The redistribution of phosphorus and the influence on chromium silicide growth are analyzed by secondary ion mass spectroscopy (SIMS) and Rutherford backscattering spectroscopy (RBS) after annealing between 450 degrees and 550 degreesC. It is shown that chromium silicide formation is retarded or inhibited by the presence of phosphorus. The implant diffuses out of the CrSi2 surface layer in both implantation cases, but also accumulates at the CrSi2/Si interface in the case of the higher dose. (C) 2001 Elsevier Science B.V. All rights reserved.
Notes: Benouattas, N Halimi, R Bouabellou, A Mosser, A
URL: <Go to ISI>://WOS:000167666600010

Reference Type: Journal Article
Record Number: 7
Author: Benterki, D. Merikhi, B.
Year: 2001
Title: A modified algorithm for the strict feasibility problem
Journal: Rairo-Recherche Operationnelle-Operations Research
Volume: 35
Issue: 4
Pages: 395-399
Date: Oct-Dec
Short Title: A modified algorithm for the strict feasibility problem
ISSN: 0399-0559
DOI: 10.1051/ro:2001121
Accession Number: WOS:000175135900002
Abstract: In this note, we present a slight modification of an algorithm for the strict feasibility problem. This modification reduces the number of iterations.
Notes: Benterki, D Merikhi, B
URL: <Go to ISI>://WOS:000175135900002

Abstract: We have investigated the mechanical properties and elastic constants of zinc-blende Ga1-xInxN alloys, using the pseudopotential method within the virtual crystal approximation combined with the Harrison bond-orbital model. The agreement between our results and the available experimental and other theoretical data was generally satisfactory. Special attention has been given to the effect of alloy disorder on the studied quantities. For this purpose, the compositional disorder is added to the virtual crystal approximation as an effective potential. It is found that except for the anisotropy factor, the compositional disorder should not be ignored in the calculations of the remaining studied quantities of alloys of interest.
Notes: Bouarissa, N Kassali, K
URL: <Go to ISI>://WOS:000173140500007

Reference Type: Journal Article

Record Number: 9

Author: Bouzid, D. Zegadi, R. Jungstand, U. Herold, V.

Year: 2001

Title: Investigation of cerium oxide pellets for optical glass polishing

Journal: Glass Technology

Volume: 42

Issue: 2

Pages: 60-62

Date: Apr

Short Title: Investigation of cerium oxide pellets for optical glass polishing

ISSN: 0017-1050

Accession Number: WOS:000170791500004

Abstract: Optical glass polishing using cerium oxide abrasive bonding with resin permitted its to achieve high quality surfaces in a short time. The glass surface roughness is influenced by, the surface state of the cerium oxide pellet. We found that the pellet's surface and the glass surface are abraded during the polishing process and that there is a proportionality between the removal rates of the optical glass and of the cerium oxide pellets characterised by the relative volumetric wear.

Notes: Bouzid, D Zegadi, R Jungstand, U Herold, V

URL: <Go to ISI>://WOS:000170791500004

Reference Type: Journal Article
Record Number: 10
Author: Bouzid, S. Nyoungue, A. Azari, Z. Bouaouadja, N. Pluvinage, G.
Year: 2001
Title: Fracture criterion for glass under impact loading
Journal: International Journal of Impact Engineering
Volume: 25
Issue: 9
Pages: 831-845
Date: Oct
Short Title: Fracture criterion for glass under impact loading
ISSN: 0734-743X
DOI: 10.1016/s0734-743x(01)00023-9
Accession Number: WOS:000170803700002
Abstract: Resistance to impact of brittle materials has been the subject of many recent studies. Glass material with its various applications is very sensitive to impact loading. Under impact conditions where stress waves and their interactions are dominant, failure may be initiated simultaneously at some sites. The stress distribution varies rapidly with time and position. This study, based on previous works on cumulative damage models, concerns a glass plate subjected to impact at different loading rates using two methods: a compression split Hopkinson pressure bar and the normalized drop ball test. In order to evaluate the damage development and the fragmentation, we propose a damage model characterized by the damage volume affected by impact. This volume is a function of impact duration and critical stress. Damage rate is therefore predicted by the severity of a dynamic contact between the projectile and the target. Indeed, the multi-activation of micro-defects depends on this volume. Perforation of the glass plate occurs at a level of stress close to ten times the tensile strength. (C) 2001 Elsevier Science Ltd. All rights reserved.
Notes: Bouzid, S Nyoungue, A Azari, Z Bouaouadja, N Pluvinage, G
URL: <Go to ISI>://WOS:000170803700002

Reference Type: Journal Article
Record Number: 11
Author: Chegaar, M. Chibani, A.
Year: 2001
Title: Global solar radiation estimation in Algeria
Journal: Energy Conversion and Management
Volume: 42
Issue: 8
Pages: 967-973
Date: May
Short Title: Global solar radiation estimation in Algeria
ISSN: 0196-8904
DOI: 10.1016/s0196-8904(00)00105-9
Accession Number: WOS:000167484600006
Abstract: In this paper, two models for estimating monthly average daily global radiation on a horizontal surface have been applied to four different locations. The first one is an empirical model, originally formulated by Barbaro et al. (Solar Energy 20 (1978) 431). Some modifications have been suggested. The second one is a regression equation of the Angstrom type. The agreement between the measured and the computed values is remarkable, and the models are both recommended for use in Algeria and in any location with similar climatic parameters. (C) 2001 Elsevier Science Ltd. All rights reserved.
Notes: Chegaar, M Chibani, A
URL: <Go to ISI>://WOS:000167484600006

Reference Type: Journal Article
Record Number: 12
Author: Chegaar, M. Ouennoughi, Z. Hoffmann, A.
Year: 2001
Title: A new method for evaluating illuminated solar cell parameters
Journal: Solid-State Electronics
Volume: 45
Issue: 2
Pages: 293-296
Date: Feb
Short Title: A new method for evaluating illuminated solar cell parameters
ISSN: 0038-1101
DOI: 10.1016/s0038-1101(00)00277-x
Accession Number: WOS:000167775000013
Abstract: A new method to evaluate the five illuminated solar cell parameters (series resistance R-s, the ideality factor n, the photocurrent I-ph, the shunt conductance G(sh) and the diode saturation current I-s) is described. The method uses the measured current voltage data and the resulting calculated conductance of the device. By using the conductance, the number of parameters which has to be calculated is reduced and then only four parameters have to be extracted. A nonlinear least squares optimization algorithm based on the Newton model is hence used to evaluate these parameters. To overcome the difficulty in initializing the cell parameters, the simple conductance technique is used. When incorporated into microcomputer-based data acquisition software, the program allows theoretical modeling of solar cells. Results obtained for a commercial solar cell and a module an given. Comparison with other commonly used methods is also discussed. (C) 2001 published by Elsevier Science Ltd.
Notes: Chegaar, M Ouennoughi, Z Hoffmann, A
URL: <Go to ISI>://WOS:000167775000013

Reference Type: Journal Article
Record Number: 13
Author: Djidjelli, H. Kaci, M. Sadoun, T. Benachour, D. Farenc, J. Martinez-Vega, J. J.
Year: 2001
Title: Effect of hydrothermic ageing on dielectric and mechanical properties of rigid poly(vinyl chloride)
Journal: Macromolecular Materials and Engineering
Volume: 286
Issue: 7
Pages: 407-411
Date: Jul
Short Title: Effect of hydrothermic ageing on dielectric and mechanical properties of rigid poly(vinyl chloride)
ISSN: 1438-7492
DOI: 10.1002/1439-2054(20010701)286:7<407::aid-mame407>3.0.co;2-f
Accession Number: WOS:000170917300005

Abstract: An accelerated hydrothermic ageing (according to N.F.T. 54043 method) was performed on samples of rigid poly(vinyl chloride). The test consisted of sample immersion in boiling water at 100 degreesC for different exposure periods up to 480 h. The samples were removed from the boiling water every two hours for mechanical and dielectric characterization and color test. The dielectric measurements carried out on aged samples, up to 40 h, showed that the permittivity remained almost constant and its value was found to be 2.3 in the range -100 to +62.8 degreesC. However, as the temperature approaches the glass transition (T-g = 88.3 degreesC), the permittivity was observed to increase rapidly. It was also found that the permittivity of aged samples was lower than that of the non-aged samples. The dielectric loss factor (tan delta) measurements with respect to temperature have confirmed the presence of two relaxations: beta at low temperature (around -35 degreesC) and a near the T-g. The combined action of water and temperature reduced the intensity of the corresponding relaxation peaks. The sample color index was evaluated up to 480 h using the SYNMERO scale in order to estimate the degradation extent. Unexpectedly, elongation at break under uniaxial traction remained unaffected by the hydrothermic ageing, meaning that two competing processes were involved simultaneously (sample degradation via chain scission and sample plastification via water absorption).
Notes: Djidjelli, H Kaci, M Sadoun, T Benachour, D Farenc, J Martinez-Vega, JJ
URL: <Go to ISI>://WOS:000170917300005

14

Reference Type: Journal Article
Record Number: 14
Author: Gharzouli, K. Balint, G. A. Galfi, M. Rimanoczy, A. Juhasz, A.
Year: 2001
Title: The effect of osmolality changes on gastric mucosal endogenous prostacyclin levels in drug-induced experimental ulcer model of rat
Journal: Experimental and Toxicologic Pathology
Volume: 53
Issue: 5
Pages: 409-411
Date: Oct
Short Title: The effect of osmolality changes on gastric mucosal endogenous prostacyclin levels in drug-induced experimental ulcer model of rat
ISSN: 0940-2993
DOI: 10.1078/0940-2993-00208
Accession Number: WOS:000172380300011
Abstract: Osmolality changes evoked with intragastric administration of natural honey or mannitol, significantly decreased the gastric ulceration of rats induced by indomethacin. Together with this effect, a parallel increase was detectable in the mucosal level of endogenous prostacyclin. Although many processes may be involved in this phenomenon, the authors explain their data with a stimulating effect on gastric mucosal microcirculation due to osmolality changes.
Notes: Gharzouli, K Balint, GA Galfi, M Rimanoczy, A Juhasz, A
URL: <Go to ISI>://WOS:000172380300011

Reference Type: Journal Article

Record Number: 15

Author: Gharzouli, K. Gharzouli, A. Amira, S. Khennouf, S.

Year: 2001

Title: Protective effect of mannitol, glucose-fructose-sucrose-maltose mixture, and natural honey hyperosmolar solutions against ethanol-induced gastric mucosal damage in rats

Journal: Experimental and Toxicologic Pathology

Volume: 53

Issue: 2-3

Pages: 175-180

Date: Jun

Short Title: Protective effect of mannitol, glucose-fructose-sucrose-maltose mixture, and natural honey hyperosmolar solutions against ethanol-induced gastric mucosal damage in rats

ISSN: 0940-2993

DOI: 10.1078/0940-2993-00175

Accession Number: WOS:000170039000011

Abstract: Background: We have previously shown that natural honey is able to protect the rat stomach against acute ethanol- and indomethacin-induced lesions. The present investigations were undertaken to examine the role of intraluminal osmolality in this protective effect. Methods: Mannitol, glucose-fructose-sucrose-maltose mixture (GFSM) and natural honey (300, 600, 1800 mOsmol/kg water) were given orally to rats 30 min before administration of 70% ethanol for a further 15-min period. Lesions area of the excised stomachs were evaluated. Pylorus-ligated stomachs were filled with mannitol, GFSM mixture and honey (1800 mOsmol/kg water) to test the effect of the hyperosmolar solutions on gastric fluid content and acid secretion. The rate of gastric emptying of the three rest solutions (1800 mOsmol/kg) was measured by the phenol red method. Results: Intragastric administration of mannitol. GFSM mixture or honey prevented the formation of mucosal lesions in an osmolality-dependent manner. Using the pylorus-ligated stomach model, the test solutions led to a net increase of luminal fluid volume without affecting acid content. Hyperosmolar solutions presented a delayed gastric emptying if compared to a nonnutrient solution made of carboxymethyl cellulose. Conclusions: The observed results suggest that hyperosmolar solutions can prevent the formation of hemorrhagic lesions by luminal dilution of the necrotising agent and acid, an effect which may be potentiated by a lowered gastric emptying rate.

Notes: Gharzouli, K Gharzouli, A Amira, S Khennouf, S

URL: <Go to ISI>://WOS:000170039000011

16

Reference Type: Journal Article
Record Number: 16
Author: Gharzouli, K. Gharzouli, A. Amira, S. Khennouf, S.
Year: 2001
Title: Untitled
Journal: Pharmacological Research
Volume: 43
Issue: 5
Pages: 509-509
Date: May
Short Title: Untitled
ISSN: 1043-6618
DOI: 10.1006/phrs.2000.0792
Accession Number: WOS:000169597400014
Notes: Gharzouli, K Gharzouli, A Amira, S Khennouf, S
URL: <Go to ISI>://WOS:000169597400014

Reference Type: Journal Article

Record Number: 17

Author: Guemmaz, M. Mosser, A. Ahuja, R. Parlebas, J. C.

Year: 2001

Title: Theoretical and experimental investigations on elastic properties of substoichiometric titanium nitrides: influence of lattice vacancies

Journal: International Journal of Inorganic Materials

Volume: 3

Issue: 8

Pages: 1319-1321

Date: Dec

Short Title: Theoretical and experimental investigations on elastic properties of substoichiometric titanium nitrides: influence of lattice vacancies

ISSN: 1466-6049

DOI: 10.1016/s1466-6049(01)00151-9

Accession Number: WOS:000172877700052

Abstract: Substoichiometric titanium nitrides have been synthesized by multiple energy ion implantation at the surface of pure titanium. Elastic properties have been studied by nanoindentation. Self consistent Full Potential Linear Muffin Tin Orbital (FP-LMTO) calculation with empty spheres in place of the missing nitrogen atoms gives the corresponding bulk modulus and lattice parameter values. The results, both experimentally and theoretically, show the same evolution of the lattice parameter and the bulk modulus, as a function of vacancy concentration. The agreement between experimental and theoretical values is discussed in relation with the vacancy effect. (C) 2001 Elsevier Science Ltd. All rights reserved.

Notes: Guemmaz, M Mosser, A Ahuja, R Parlebas, JC Spring Meeting of the European-Materials-Research-Society May 29-jun 02, 2000 Strasbourg, france European Mat Res Soc

URL: <Go to ISI>://WOS:000172877700052

18 **Reference Type: Journal Article**
Record Number: 18
Author: Kahoul, A. Nkeng, P. Hammouche, A. Naamoune, F. Poillerat, G.
Year: 2001
Title: A sol-gel route for the synthesis of Bi2Ru2O7 pyrochlore oxide for oxygen reaction in alkaline medium
Journal: Journal of Solid State Chemistry
Volume: 161
Issue: 2
Pages: 379-384
Date: Nov
Short Title: A sol-gel route for the synthesis of Bi2Ru2O7 pyrochlore oxide for oxygen reaction in alkaline medium
ISSN: 0022-4596
DOI: 10.1006/jssc.2001.9346
Accession Number: WOS:000172466400027

Abstract: In this investigation, Bi2Ru2O7 pyrochlore-type oxide was prepared using the Pechini process. We employed a sol-gel route, in which a solution of Ru(III) and BI(III) in a mixture of citric acid and ethylene glycol was heated to form a polymeric precursor, followed by an annealing at higher temperatures during various periods. The oxide obtained was identified by X-ray diffraction analysis. The results revealed that the formation of homogeneous oxide with a single pyrochlore structure phase occured at or above 650 degreesC. Sample powders consisted of fine grains with homogeneous morphology and an average size of about 0.5 mum. This new preparation procedure yielded an electrode material with improved electrochemical activity compared to those elaborated through conventional methods. (C) 2001 Academic Press.
Notes: Kahoul, A Nkeng, P Hammouche, A Naamoune, F Poillerat, G
URL: <Go to ISI>://WOS:000172466400027

Reference Type: Journal Article
Record Number: 19
Author: Lamari, S.
Year: 2001
Title: Rashba effect in inversion layers on p-type InAs MOSFET's
Journal: Physical Review B
Volume: 64
Issue: 24
Date: Dec
Short Title: Rashba effect in inversion layers on p-type InAs MOSFET's
ISSN: 1098-0121
DOI: 10.1103/PhysRevB.64.245340
Article Number: 245340
Accession Number: WOS:000173082500092

Abstract: For electrons in the inversion layer on bulk p-type InAs, the Rashba spin-orbit parameter is computed self-consistently as a function of areal electron density Ns. The spin splitting increases with Ns but is not a linear function of in-plane wave vector k and the corresponding Rashba parameter increases with increasing electric field but decreases very strongly with k. For the ground subband, and at the fermi level, this decrease with k combined with subband occupation yields a decreasing Rashba parameter alpha for Ns < 1.97 x 10(12) cm(-2) and a nearly constant average value of 1.46 x 10(-11) eV m above. At the doping level considered here (1.8 x 10(17) cm(-3)) the highest achievable value of alpha congruent to 1.92 x 10(-11) eV m. Moreover alpha is a nonlinear function of Ns. Our results are compared to recent experimental work by Matsuyama et al. [Phys. Rev. B 61, 15 588 (2000)] and previous theoretical treatments.
Notes: Lamari, S
URL: <Go to ISI>://WOS:000173082500092

Reference Type: Journal Article
Record Number: 20
Author: Laouamri, S. Hamdi-Cherif, M. Sekfali, N. Mokhtari, L. Kharchi, R.
Year: 2001
Title: Dietary risk factors of nasopharyngeal carcinoma in the Setif area in Algeria
Journal: Revue D Epidemiologie Et De Sante Publique
Volume: 49
Issue: 2
Pages: 145-156
Date: Apr
Short Title: Dietary risk factors of nasopharyngeal carcinoma in the Setif area in Algeria
ISSN: 0398-7620
Accession Number: WOS:000168696100005
Abstract: Background: The aim of our work was to identify risk factors specific to populations in our region for primary prevention of risk behaviors, particularly eating habits. Methods: We conducted a case-control study on dietary factors of nasopharyngeal carcinoma in the Setif area in Algeria. The study included 72 cases and 72 controls matched for age, sex and area of residence. The variables analyzed were identified by an anthropological study. Results: Increased risk of disease was associated with consumption of traditionally preserved foods such as "harissa ", pickled fruit and vegetables and dried and salted meat. These factors were commonly found in other endemic areas. Certain products appeared to be specific to the Setif area including dried and salted far, especially after prolonged exposure. Rancid butter was related to a 4 to 7-fold increase in risk and use of pickling increased the risk of nasopharyngeal carcinoma 4 to 12-fold depending on the type of food. Conclusions: These data point to the need for biochemical analysis of food specimens to search for the carcinogenic agents and to the importance of an immediate information and education program on food habits for the populations living in this area.
Notes: Laouamri, S Hamdi-Cherif, M Sekfali, N Mokhtari, L Kharchi, R
URL: <Go to ISI>://WOS:000168696100005

Reference Type: Journal Article

Record Number: 21

Author: Layadi, A.

Year: 2001

Title: Investigation of off-aligned exchange coupling by torque curve and ferromagnetic resonance

Journal: Journal of Applied Physics

Volume: 90

Issue: 9

Pages: 4651-4656

Date: Nov

Short Title: Investigation of off-aligned exchange coupling by torque curve and ferromagnetic resonance

ISSN: 0021-8979

DOI: 10.1063/1.1394919

Accession Number: WOS:000171594800049

Abstract: Off-aligned exchange coupling in bilayer thin film is investigated by torque curve and ferromagnetic resonance (FMR). In off-aligned exchange coupling, the unidirectional anisotropy axis makes an angle beta with the anisotropy axis of the ferromagnetic layer. The torque curves of the off-aligned exchange are shifted with respect to the ones of the aligned case (beta =0). From the experimental measure of the shift angle alpha (0) and of the torque curve slope at alpha (0), one can determine independently the exchange anisotropy field H-E and beta values. A description of the FMR modes in such an off-aligned exchange coupling is given. The FMR mode position and linewidth are studied as a function of the anisotropy fields, of the off-aligned angle values, and of the applied field direction. The resonance frequency and frequency linewidth present particular features which will help to do the right interpretation of FMR spectra of these systems. (C) 2001 American Institute of Physics.

Notes: Layadi, A

URL: <Go to ISI>://WOS:000171594800049

Reference Type: Journal Article
Record Number: 22
Author: Layadi, A.
Year: 2001
Title: Ferromagnetic resonance modes in single and coupled layers with oblique anisotropy axis
Journal: Physical Review B
Volume: 63
Issue: 17
Date: May
Short Title: Ferromagnetic resonance modes in single and coupled layers with oblique anisotropy axis
ISSN: 1098-0121
DOI: 10.1103/PhysRevB.63.174410
Article Number: 174410
Accession Number: WOS:000168487300060

Abstract: Ferromagnetic resonance (FMR) modes in thin films with oblique anisotropy axis are investigated. In such films, the anisotropy axis is tilted from the normal with a tilt angle delta. The equivalent magnetic field of such an anisotropy is derived. The mode position (resonant field) H-R, the linewidth DeltaH, and the peak intensity have been calculated. The effect of the tilt angle on these parameters is discussed. The FMR modes of two coupled ferromagnetic thin films with oblique anisotropy axes have also been studied. Analytical expressions for the resonance condition have been found for strong ferromagnetic and antiferromagnetic coupling.
Notes: Layadi, A
URL: <Go to ISI>://WOS:000168487300060

Reference Type: Journal Article

Record Number: 23

Author: Louahdi, R. Saindrenan, G. Le Gall, R. Liao, G. Paillard, P.

Year: 2001

Title: Influence of recovery on dynamic segregation of sulphur to surface of cold rolled nickel

Journal: Materials Science and Technology

Volume: 17

Issue: 2

Pages: 175-181

Date: Feb

Short Title: Influence of recovery on dynamic segregation of sulphur to surface of cold rolled nickel

ISSN: 0267-0836

Accession Number: WOS:000167456400010

Abstract: It is now well established that the kinetics of impurity segregation is greatly increased by the defect annihilation process occurring during the return to equilibrium of a material initially in a metastable state (quenched, irradiated, cold worked). During the return to equilibrium of a cold worked material, i.e. during a recrystallisation anneal, both the recovery and recrystallisation stages contribute to the acceleration of the segregation kinetics. In this work, an attempt is made to study the contribution of each stage separately, with particular emphasis on the recovery mechanisms of cold worked pure nickel and the way these mechanisms affect sulphur segregation taking place in this material. For this purpose, recrystallisation and segregation anneals at 455 degreesC were carried out on lightly (0.25 true strain) and heavily (0.8 true strain) cold rolled nickel. It was found that sulphur segregation in the lightly deformed material took place entirely during the incubation time preceding recrystallisation, i.e. during the recovery stage. The process is thought to involve dislocation pipe diffusion for which a diffusion coefficient of 6.4 x 10(-9) m(2) s(-1) was estimated. In the heavily deformed material, segregation was concomitant with recrystallisation and the mechanism thought to be most probable is that involving impurity drag.

Notes: Louahdi, R Saindrenan, G Le Gall, R Liao, G Paillard, P

URL: <Go to ISI>://WOS:000167456400010

Reference Type: Journal Article
Record Number: 24
Author: Louail, L. Azizi, A. Moula, B.
Year: 2001
Title: Measurement of magnetocrystalline anisotropy constants of Co/Pt multilayer by torque magnetometer
Journal: Materials Letters
Volume: 47
Issue: 4-5
Pages: 199-204
Date: Feb
Short Title: Measurement of magnetocrystalline anisotropy constants of Co/Pt multilayer by torque magnetometer
ISSN: 0167-577X
DOI: 10.1016/s0167-577x(00)00235-4
Accession Number: WOS:000167033700003

Abstract: In this paper. we present the behavior of magnetocrystalline anisotropy constants of the Co/Pt multilayer. as a function of temperature and external magnetic field, observed by means of a torque magnetometer in an in-plane configuration. The [Co32 APt10 A](6) multilayer is prepared by molecular beam epitaxy. We have determined the magnetocrystalline anisotropy constants K-ul, K-2, and K-3 for different temperatures and in magnetic fields ranging from 2 to 10 kOe. taking into account the angle difference between the directions of the external magnetic field and the magnetization. The most prominent result in this work consists of the need to introduce the anisotropy constant of third order in the analysis. (C) 2001 Elsevier Science B.V. All rights reserved.
Notes: Louail, L Azizi, A Moula, B
URL: <Go to ISI>://WOS:000167033700003

Abstract: In this paper we give a general method to solve a time-dependent Schrodinger equation. The formalism developed is based on the quantum variational principle conveniently 'averaged'. In addition, we apply our method to study the time-dependent systems in which the Harniltonians are linear functions of SU(1, 1) and SU(2) Lie algebras.

Reference Type: Journal Article
Record Number: 26
Author: Malek, R. Belateche, F. Laouamri, S. Hamdi-Cherif, M. Touabti, A. Bendib, W. Nechadi, A. Mekideche, F. Z. Hanat, S.
Year: 2001
Title: Prevalence of type 2 diabetes mellitus and glucose intolerance in the Setif area (Algeria)
Journal: Diabetes & Metabolism
Volume: 27
Issue: 2
Pages: 164-171
Date: Apr
Short Title: Prevalence of type 2 diabetes mellitus and glucose intolerance in the Setif area (Algeria)
ISSN: 0338-1684
Accession Number: WOS:000168531400011

Abstract: Objective: Diabetes mellitus stands as a major public health issue in Algeria and has an important socioeconomical impact. Our study involved a representative sample of 1457 subjects and aimed at assessing the prevalence of type 2 diabetes and glucose intolerance in the population of Setif Wilaya, aged between 30 and 64 years old. Material and Methods: Diagnosis was based on oral glucose tolerance test, according to World Health Organisation criteria. Results: Diabetes prevalence was 8.2% (CI: 95%: 6.8% to 9.6%). It increased with age, while 50% of cases were undiagnosed, without any difference according to sex nor urban (7.3%)/rural (9.7%) distribution. Glucose intolerance prevalence was 7.1 (CI 95%: 5,8% to 8,4%). Age-standardized prevalence, according to world population data provided by WHO, was 9.08% for diabetes and 7.5% for glucose intolerance. When the new American Diabetes Association Criteria were used, prevalence of type 2 diabetes was 8.8 (CI: 95%: 7.3% to 10.2%) and that of fasting hyperglycemia was 6.9% (CI: 95%: 5.6 to 8.2). According to these new criteria, among the 66 cases with undiagnosed diabetes, 79% presented with a fasting blood glucose greater than or equal to 126 mg/dl. Conclusion: This relatively high diabetes prevalence calls for an appropriate management and health education, particularly focused on high risk subjects. These results bring the the first detailed prevalence data in an Algerian population.
Notes: Malek, R Belateche, F Laouamri, S Hamdi-Cherif, M Touabti, A Bendib, W Nechadi, A Mekideche, FZ Hanat, S 1
URL: <Go to ISI>://WOS:000168531400011

Reference Type: Journal Article
Record Number: 27
Author: Mayouf, A. Djahli, F. Lakhlef, F. Omeir, Y.
Year: 2001
Title: Full-wave characterisation of superconducting microstrip lines
Journal: Iee Proceedings-Microwaves Antennas and Propagation
Volume: 148
Issue: 2
Pages: 97-102
Date: Apr
Short Title: Full-wave characterisation of superconducting microstrip lines
ISSN: 1350-2417
DOI: 10.1049/ip-map:20010336
Accession Number: WOS:000169356300005

Abstract: A new theoretical model is presented to characterise a superconducting microstrip line on a lossy substrate, and the effects of strip thickness and losses on circuit performance studied. Although the high-T-c superconductor is considered anisotropic; the effect of this anisotropy may be neglected in the characterisation of the microstrip transmission line. New integral equations for the electric field components are formulated in the spectral domain using the exact dyadic Green's function of Mao ct nl,, applied to the superconducting microstrip structures. A suitable procedure is developed for a CAD tool to analyse the lines of lossy substrates. Results for attenuation constant and effective permittivity as a function of frequency and normalised temperature are obtained.
Notes: Mayouf, A Djahli, F Lakhlef, F Omeir, Y
URL: <Go to ISI>://WOS:000169356300005

Reference Type: Journal Article
Record Number: 28
Author: Mendil, B. Benmahammed, K.
Year: 2001
Title: Activation and defuzzification methods for fuzzy rule-based systems
Journal: Journal of Intelligent & Robotic Systems
Volume: 32
Issue: 4
Pages: 437-444
Date: Dec
Short Title: Activation and defuzzification methods for fuzzy rule-based systems
ISSN: 0921-0296
DOI: 10.1023/a:1014221616461
Accession Number: WOS:000173989900004
Abstract: In this paper, a Selective Inference Engine (SIE) is first proposed. SIE predicts the rules that will be fired, based on an anticipated location procedure, and then performs the inference calculations only on the latter. This anticipated location is based on the projection of the input data on the conditional space of the fuzzy system and the delimitation of the excited region. Then, the fired rules can be aggregated using the appropriate scheme. In the second part of this work, we propose new defuzzification methods which take into account the consequent membership function shapes.
Notes: Mendil, B Benmahammed, K
URL: <Go to ISI>://WOS:000173989900004

Reference Type: Journal Article
Record Number: 29
Author: Moutet, J. C. Zouaoui, A.
Year: 2001
Title: Poly (3-pyrrol-1-ylpropyl)malonic acid : synthesis, ion-exchange properties and complexation of copper cations
Journal: Electrochimica Acta
Volume: 46
Issue: 26-27
Pages: 4035-4041
Date: Aug
Short Title: Poly (3-pyrrol-1-ylpropyl)malonic acid : synthesis, ion-exchange properties and complexation of copper cations
ISSN: 0013-4686
DOI: 10.1016/s0013-4686(01)00702-2
Accession Number: WOS:000172355600012
Abstract: Poly(pyrrole-malonate) films have been synthesised by oxidative electropolymerisation of the new pyrrole-malonic acid monomer 1. Poly1 films partition strongly the hexaaamine ruthenium cations from aqueous electrolytes, allowing an estimation of the acidity constant values of poly1 from cyclic voltammetry data. The complexation of copper(II) cations in this chelating polymer was evidenced by FT-IR and electrochemical experiments. Electroreduction of the complexed poly1-Cu(II) leads to the precipitation of copper metal in the polymer film. (C) 2001 Elsevier Science Ltd. All rights reserved.
Notes: Moutet, JC Zouaoui, A 51st Annual Meeting of the International-Society-of-Electrochemistry (ISE 2000) Sep 03-08, 2000 Warsaw, poland Int Soc Electrochem
URL: <Go to ISI>://WOS:000172355600012

Reference Type: Journal Article
Record Number: 30
Author: Nancib, N. Nancib, A. Boudjelal, A. Benslimane, C. Blanchard, F. Boudrant, J.
Year: 2001
Title: The effect of supplementation by different nitrogen sources on the production of lactic acid from date juice by Lactobacillus casei subsp rhamnosus
Journal: Bioresource Technology
Volume: 78
Issue: 2
Pages: 149-153
Date: Jun
Short Title: The effect of supplementation by different nitrogen sources on the production of lactic acid from date juice by Lactobacillus casei subsp rhamnosus
ISSN: 0960-8524
DOI: 10.1016/s0960-8524(01)00009-8
Accession Number: WOS:000167917800006

Abstract: Production of lactic acid from date juice by fermentation has been studied using Lactobacillus casei subsp. rhamnosus as the producer organism. The optimum substrate concentration, expressed in its glucose content, was 60 g l(-1). Various nitrogen sources were compared with yeast extract in terms of their efficiency for lactic acid production. None of these nitrogen sources gave lactic acid concentrations as high as that obtained with yeast extract. As yeast extract supplementation was not economically attractive, different proportions of $(NH_4)_2SO_4$ and yeast extract were used. When the elemental nitrogen ratio of $(NH_4)_2SO_4$ to yeast extract was 4:1, the substrate use and efficiency of lactic acid production were the same as in date juice supplemented with 20 g l(-1) yeast extract (0:5). (C) 2001 Elsevier Science Ltd. All rights reserved.
Notes: Nancib, N Nancib, A Boudjelal, A Benslimane, C Blanchard, F Boudrant, J
URL: <Go to ISI>://WOS:000167917800006

Reference Type: Journal Article
Record Number: 31
Author: Sahnouni, M. Denadji, A. Hadjouis, D. Canals, A. Medig, M. Belahrech, H.
Abdesselam, S. Harichane, Z. Rabhi, M.
Year: 2001
Title: Continuing investigations in the Early Pleistocene locality of Ain Hanech, northeastern
Algeria
Journal: Journal of Human Evolution
Volume: 40
Issue: 3
Pages: A18-A19
Date: Mar
Short Title: Continuing investigations in the Early Pleistocene locality of Ain Hanech,
northeastern Algeria
ISSN: 0047-2484
Accession Number: WOS:000167254300032
Notes: Sahnouni, M Denadji, A Hadjouis, D Canals, A Medig, M Belahrech, H Abdesselam, S
Harichane, Z Rabhi, M
URL: <Go to ISI>://WOS:000167254300032

Reference Type: Journal Article
Record Number: 32
Author: Selloum, L. Reichl, S. Muller, M. Sebihi, L. Arnhold, J.
Year: 2001
Title: Effects of flavonols on the generation of superoxide anion radicals by xanthine oxidase and stimulated neutrophils
Journal: Archives of Biochemistry and Biophysics
Volume: 395
Issue: 1
Pages: 49-56
Date: Nov
Short Title: Effects of flavonols on the generation of superoxide anion radicals by xanthine oxidase and stimulated neutrophils
ISSN: 0003-9861
DOI: 10.1006/abbi.2001.2562
Accession Number: WOS:000172239600007
Abstract: The effects of three aglycon flavonols (myricetin, quercetin, and kaempferol) and the natural glycoside rutin on superoxide anion radical generating systems were investigated. Quercetin, myricetin, and kaempferol inhibited the formation of uric acid from xanthine by xanthine oxidase, while rutin was ineffective. The generation of superoxide anion radicals by this system was determined by either reduction of cytochrome c or Pholasin luminescence. A scavenging of superoxide was only observed for myricetin and to a small extent for rutin. All flavonols tested inhibited the Pholasin luminescence of fMet-Leu-Phe-stimulated neutrophils. Rutin influenced the oxidative burst of neutrophils in the same way as wortmannin and LY294002, two inhibitors of the phosphoinositide 3-kinase gamma. Indeed, rutin inhibited the activity of this enzyme, whereas the three other flavonols showed no effect. Thus, an inhibition of enzymes involved in signaling rather than a scavenging of superoxide anion radicals dominates in fMet-Leu-Phe-stimulated neutrophils exposed to flavonols. (C) 2001 Academic Press.
Notes: Selloum, L Reichl, S Muller, M Sebihi, L Arnhold, J
URL: <Go to ISI>://WOS:000172239600007

Reference Type: Journal Article
Record Number: 33
Author: Wernicke, G. Bouamama, L. Kruschke, O. Demoli, N. Gruber, H. Kruger, S.
Year: 2001
Title: Some investigations in holographic microscopic interferometry with respect to the estimation of stress and strain in micro-opto-electromechanical systems (MOEMS)
Journal: Optics and Lasers in Engineering
Volume: 36
Issue: 5
Pages: 475-485
Date: Nov
Short Title: Some investigations in holographic microscopic interferometry with respect to the estimation of stress and strain in micro-opto-electromechanical systems (MOEMS)
ISSN: 0143-8166
DOI: 10.1016/s0143-8166(01)00073-2
Accession Number: WOS:000171960500007
Abstract: Holographic microscopy with conjugate reconstruction for the interferometric determination of three-dimensional displacement was used for the investigation of the mechanical behaviour of micromechanic and microelectronic components. An experimental set-up for the exposure of the holographic interferograms is described for the application of the spatial heterodyne technique, for the application of phase shifting, and for electro-optic holography, Three holograms for different illumination directions recorded on one holographic plate were reconstructed conjugately, and spatial-heterodyne technique as well as phase-shift technique were used to evaluate the interferograms. Only by conjugated reconstruction. it is possible to obtain a perfectly optimised interferometer for the static evaluation method. The evaluation of interferograms, which are strongly disturbed by speckle noise. can be performed successfully. A comparison of the results of the application of these techniques is given. The influence of the speckle effect on the resolution was investigated. (C) 2001 Elsevier Science Ltd. All rights reserved.
Notes: Wernicke, G Bouamama, L Kruschke, O Demoli, N Gruber, H Kruger, S Si
URL: <Go to ISI>://WOS:000171960500007

Reference Type: Book
Record Number: 1
Author: Bekka, R. E. Mihi, A. Chikouche, D.
Year: 2001
Title: Analysis of spectral density compression of a surface EMG signal using fast Fourier transform methods
Series Editor: Dunne, S.
Series Title: Canadian Conference on Electrical and Computer Engineering 2001, Vols I and Ii, Conference Proceedings
Number of Pages: 1403-1408
Short Title: Analysis of spectral density compression of a surface EMG signal using fast Fourier transform methods
ISBN: 0-7803-6715-4
Accession Number: WOS:000171525900237
Notes: Bekka, RE Mihi, A Chikouche, D Canadian Conference on Electrical and Computer Engineering May 13-16, 2001 Toronto, canada IEEE Canada, Gen Elect Co, Gennum Corp, Sympatico, Bell Nexxia
URL: <Go to ISI>://WOS:000171525900237

Reference Type: Book
Record Number: 2
Author: Bekka, R. E. Reffad, A. Chikouche, D.
Year: 2001
Title: Improved control in spectral density compression of a surface EMG signal: Application to fatigue
Series Editor: Dunne, S.
Series Title: Canadian Conference on Electrical and Computer Engineering 2001, Vols I and Ii, Conference Proceedings
Number of Pages: 1397-1402
Short Title: Improved control in spectral density compression of a surface EMG signal: Application to fatigue
ISBN: 0-7803-6715-4
Accession Number: WOS:000171525900236
Notes: Bekka, RE Reffad, A Chikouche, D Canadian Conference on Electrical and Computer Engineering May 13-16, 2001 Toronto, canada IEEE Canada, Gen Elect Co, Gennum Corp, Sympatico, Bell Nexxia
**URL:** <Go to ISI>://WOS:000171525900236

Reference Type: Book
Record Number: 3
Author: Ghennam, S. Benmahammed, K.
Year: 2001
Title: Adaptive image restoration using Hopfield neural network
Series Editor: Miller, D. J. Adali, T. Larsen, J. VanHulle, M. Douglas, S.
Series Title: Neural Networks for Signal Processing Xi
Number of Pages: 569-578
Short Title: Adaptive image restoration using Hopfield neural network
ISBN: 0-7803-7196-8
DOI: 10.1109/nnsp.2001.943161
Accession Number: WOS:000172099600057
Abstract: In this paper, a solution to the restoration problem of degraded and noisy image is proposed, using the modified Hopfield network. To improve the network performances, the eliminating highest error EHE is used. In order to keep the image structures unaltered, an adaptive regularization scheme is employed that allows better compromise between inversion degradation process and smoothing. To do this, the statistics analysis is used to assign each pixel one regularization parameter according to its spatial activity.
Notes: Ghennam, S Benmahammed, K 11th IEEE Workshop on Neural Networks for Signal Processing (NNSP 2001) Sep 10-12, 2001 Falmouth, ma IEEE Signal Processing Soc
URL: <Go to ISI>://WOS:000172099600057

Reference Type: Book
Record Number: 4
Author: Guenifi, N. Hemissi, M. Djahli, F. Mayouf, A.
Year: 2001
Title: Study of the ageing phenomena of the TMOS submicronic
Series Editor: Dunne, S.
Series Title: Canadian Conference on Electrical and Computer Engineering 2001, Vols I and Ii, Conference Proceedings
Number of Pages: 743-746
Short Title: Study of the ageing phenomena of the TMOS submicronic
ISBN: 0-7803-6715-4
Accession Number: WOS:000171525900126
Abstract: In this work, we have implemented a model of the charge pumping technique in SPICE 3F4, to which we added a generator of current between drain and substrate for the measurement of the charge pumping current. This current, measured versus the different levels of the gate bias, can provide many interesting results concerning the parameters of the considered MOSFET. The simulated results are in a good agreement with recent and different experimental results.
Notes: Guenifi, N Hemissi, M Djahli, F Mayouf, A Canadian Conference on Electrical and Computer Engineering May 13-16, 2001 Toronto, canada IEEE Canada, Gen Elect Co, Gennum Corp, Sympatico, Bell Nexxia
URL: <Go to ISI>://WOS:000171525900126

Reference Type: Book
Record Number: 5
Author: Haloui, N. Chikouche, D. Djahli, F. Felkaoui, A.
Year: 2001
Title: Comparison of spectral analysis methods using AR and ARMA models - Application to gear defect detection
Series Editor: Dunne, S.
Series Title: Canadian Conference on Electrical and Computer Engineering 2001, Vols I and Ii, Conference Proceedings
Number of Pages: 277-281
Short Title: Comparison of spectral analysis methods using AR and ARMA models - Application to gear defect detection
ISBN: 0-7803-6715-4
Accession Number: WOS:000171525900047
Notes: Haloui, N Chikouche, D Djahli, F Felkaoui, A Canadian Conference on Electrical and Computer Engineering May 13-16, 2001 Toronto, canada IEEE Canada, Gen Elect Co, Gennum Corp, Sympatico, Bell Nexxia
URL: <Go to ISI>://WOS:000171525900047

Reference Type: Book
Record Number: 6
Author: Kebaili, S. Adjeroud, F. Zehar, K.
Year: 2001
Title: Extension of the modified Newton method for radial distribution systems load flow
Series Editor: Dunne, S.
Series Title: Canadian Conference on Electrical and Computer Engineering 2001, Vols I and Ii, Conference Proceedings
Number of Pages: 781-784
Short Title: Extension of the modified Newton method for radial distribution systems load flow
ISBN: 0-7803-6715-4
Accession Number: WOS:000171525900133

Abstract: In this paper we develop and compare two different methods, based on the branch-oriented techniques, for the resolution of load flow in radial distribution systems. The former is the current summation method and the later is the modified Newton method. The extension of these methods is that the load shall be represented with its variation with respect to the voltage magnitude (Constant power load, Constant current load, Constant admittance load). Our comparative study gives some tables and graphical plots of the convergence characteristics of the two methods.
Notes: Kebaili, S Adjeroud, F Zehar, K Canadian Conference on Electrical and Computer Engineering May 13-16, 2001 Toronto, canada IEEE Canada, Gen Elect Co, Gennum Corp, Sympatico, Bell Nexxia
URL: <Go to ISI>://WOS:000171525900133

Reference Type: Book
Record Number: 7
Author: Kemiha, F. Zegadi, A. Mohamadi, T.
Year: 2001
Title: Study and caracterization of copper-indium-diteleride
Series Editor: Dunne, S.
Series Title: Canadian Conference on Electrical and Computer Engineering 2001, Vols I and Ii, Conference Proceedings
Number of Pages: 601-606
Short Title: Study and caracterization of copper-indium-diteleride
ISBN: 0-7803-6715-4
Accession Number: WOS:000171525900102
Abstract: In this paper, single crystals of Chalcopyrite semiconductor CuInTe2 has been grown by a vertical Bridgman technique. Hall effect, mobility, resistively and carrier concentration data have been obtained for several sample as grown using van der pawn technique. The optical properties were studied by Photoacoustic spectroscopy (PAS) in order to determine parameters such as: absorption spectra, bad gap and defect level state. Resultats are compared with the published one.
Notes: Kemiha, F Zegadi, A Mohamadi, T Canadian Conference on Electrical and Computer Engineering May 13-16, 2001 Toronto, canada IEEE Canada, Gen Elect Co, Gennum Corp, Sympatico, Bell Nexxia
URL: <Go to ISI>://WOS:000171525900102

Reference Type: Book
Record Number: 8
Author: Mohamadi, T. Gharbi, A. H. Mezaache, S. Harrag, A.
Year: 2001
Title: Automated speech recognition by multi-stream dynamic time warping
Series Editor: Dunne, S.
Series Title: Canadian Conference on Electrical and Computer Engineering 2001, Vols I and Ii, Conference Proceedings
Number of Pages: 527-531
Short Title: Automated speech recognition by multi-stream dynamic time warping
ISBN: 0-7803-6715-4
Accession Number: WOS:000171525900089
Notes: Mohamadi, T Gharbi, AH Mezaache, S Harrag, A Canadian Conference on Electrical and Computer Engineering May 13-16, 2001 Toronto, canada IEEE Canada, Gen Elect Co, Gennum Corp, Sympatico, Bell Nexxia
URL: <Go to ISI>://WOS:000171525900089
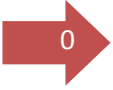
PRODUCTION SCIENTIFIQUE ANNEE 2002

Reference Type: Journal Article
Record Number: 1
Author: Abdollahi, A. Trabelsi, N.
Year: 2002
Title: Some extensions of Paul Erdos problem on groups
Journal: Bulletin of the Belgian Mathematical Society-Simon Stevin
Volume: 9
Issue: 2
Pages: 205-215
Date: Apr-Jun
Short Title: Some extensions of Paul Erdos problem on groups
ISSN: 1370-1444
Accession Number: WOS:000183864600006
Abstract: In this paper, we consider some combinatorial conditions on infinite subsets of groups, and we obtain in terms of these conditions some characterizations of nilpotent-by-finite and finite-by-nilpotent groups on the class of finitely generated soluble groups.
Notes: Abdollahi, A Trabelsi, N
URL: <Go to ISI>://WOS:000183864600006

Reference Type: Journal Article
Record Number: 2
Author: Ait-Kaki, A. Boulakroune, M. Boukezzata, M. Berrabah, M. Djahli, F. Bellatreche, M. S. Bielle-Daspet, D.
Year: 2002
Title: Characterization of sub-micrometre silicon films (Si-LPCVD) heavily in situ boron-doped and submitted to treatments of dry oxidation
Journal: Semiconductor Science and Technology
Volume: 17
Issue: 9
Pages: 983-992
Date: Sep
Short Title: Characterization of sub-micrometre silicon films (Si-LPCVD) heavily in situ boron-doped and submitted to treatments of dry oxidation
ISSN: 0268-1242
Article Number: Pii s0268-1242(02)24097-3
Accession Number: WOS:000178307600018

Abstract: We present the results of a comprehensive investigation concerning changes in the structural and electrical properties of heavily ($2 \times 10(20)$ cm(-3)) in situ boron-doped polysilicon thin films by the low pressure chemical vapour deposition method before and after thermal oxidation treatments. Secondary ion mass spectrometry and transmission electron microscopy, with their associated diffraction diagrams, and four-point probe resistivity measurements are performed on sub-micrometre layers (approximate to 300 nm) deposited at two interesting temperatures T-d1 = 520 degreesC and T-d2 = 605 degreesC. The thermal oxidation experiments are carried out under dry oxygen (O-2) at three oxidation temperatures, T-ox, of 840, 945 and 1050 degreesC for several durations. After these thermal oxidation processes, remarkable changes in the behaviour of the doping profile, grain growth and electrical conductivity have been observed. This behaviour seems to be typically characteristic of the in situ heavily boron-doped films. In addition, to the presence of some saturation thermal dependence phenomena, we find that these results correlate well with, and support the presence of, another phenomena called the 'differential of oxidation rate' which is evidenced as typical of the in situ doped films.

Notes: Ait-Kaki, A Boulakroune, M Boukezzata, M Berrabah, M Djahli, F Bellatreche, MS Bielle-Daspet, D
URL: <Go to ISI>://WOS:000178307600018

Reference Type: Journal Article
Record Number: 3
Author: Aliouane, N. Hammouche, A. De Doncker, R. W. Telli, L. Boutahala, M. Brahimi, B.
Year: 2002
Title: Investigation of hydration and protonic conductivity of H-montmorillonite
Journal: Solid State Ionics
Volume: 148
Issue: 1-2
Pages: 103-110
Date: May
Short Title: Investigation of hydration and protonic conductivity of H-montmorillonite
ISSN: 0167-2738
DOI: 10.1016/s0167-2738(02)00049-8
Article Number: Pii s0167-2738(02)00049-8
Accession Number: WOS:000175980300011

Abstract: In this work, the hydration and protonic conductivity of H-montmorillonite were investigated. The hydration water state,, as characterized by DTA, TGA and XRD at different environmental relative humidities (RH). The results, showing good reproducibility and consistency, mark two distinguishable categories of hydration water: molecular H_2O and H_3O-species, those coordinated with the proton, The proportion of each was quantitatively analyzed. The electrical conductivity measured by impedance spectroscopy increases with RH front $10^{(-7)}$ $Omega^{(-1)}$ $cm^{(-1)}$ at 0.2 RH up to $0.6 \times 10^{(-2)}$ $Omega^{(-1)}$ $cm^{(-1)}$ at 0.9 RH at 20degreesC. The mechanism of protonic conduction involved in H-montmorillonite is also discussed. (C) 2002 Elsevier Science B.V. All rights reserved.
Notes: Aliouane, N Hammouche, A De Doncker, RW Telli, L Boutahala, M Brahimi, B
URL: <Go to ISI>://WOS:000175980300011

Reference Type: Journal Article

Record Number: 4

Author: Bartel, J. Bencheikh, K.

Year: 2002

Title: Nuclear mean fields through self-consistent semiclassical calculations

Journal: European Physical Journal A

Volume: 14

Issue: 2

Pages: 179-190

Date: Jun

Short Title: Nuclear mean fields through self-consistent semiclassical calculations

ISSN: 1434-6001

DOI: 10.1140/epja/i2000-10157-x

Accession Number: WOS:000177242700006

Abstract: Semiclassical expansions derived in the framework of the Extended Thomas-Fermi approach for the kinetic energy density tau((r) over right arrow) and the spin-orbit density (J) over right arrow((r) over right arrow)as functions of the local density rho((r) over right arrow) are used to determine the central nuclear potentials V-n((r) over right arrow) and V-p((r) over right arrow) of the neutron and proton distribution for effective interactions of the Skyrme type. We demonstrate that the convergence of the resulting semiclassical expansions for these potentials is fast and that they reproduce quite accurately the corresponding Hartree-Fock average fields.

Notes: Bartel, J Bencheikh, K

URL: <Go to ISI>://WOS:000177242700006

Reference Type: Journal Article
Record Number: 5
Author: Bekka, R. E. Boudaoud, S. Chikouche, D.
Year: 2002
Title: The use of a neural network system in the identification of motor unit characteristics from surface detected action potentials: a simulation study
Journal: Journal of Neuroscience Methods
Volume: 116
Issue: 1
Pages: 89-98
Date: Apr
Short Title: The use of a neural network system in the identification of motor unit characteristics from surface detected action potentials: a simulation study
ISSN: 0165-0270
DOI: 10.1016/s0165-0270(02)00031-6
Article Number: Pii s0165-0270(02)00031-6
Accession Number: WOS:000176049000009

Abstract: The surface detected motor unit action potential (MUAP) morphology depends on many physiological and anatomical characteristics of the contracting muscle that are not directly accessible to measurement. In this paper, a neural network based approach is proposed to estimate the motor unit (MU) parameters from a simulated single surface MUAP. We have developed an estimation system that is composed of the following stages: conduction velocity estimation, signal dimension reduction, MU parameters estimation, and number of MU fibres estimation. The parameter estimation stage employs four multilayer neural networks trained on simulated MUAPs corresponding to various ranges of MU parameters. In the estimation mode, this module produces four MU parameters sets. The selected set of the five muscle characteristics is that which minimises an error criterion on a signal reconstructed from the estimated parameters. The proposed system is tested with several simulated MUAPs signals with additive white noise in order to evaluate its performance. It is shown that the technique performs well when the signal to noise ratio is greater than 20 dB. (C) 2002 Elsevier Science B.V. All rights reserved.

Notes: Bekka, RE Boudaoud, S Chikouche, D
URL: <Go to ISI>://WOS:000176049000009

Reference Type: Journal Article
6
Record Number: 6
Author: Belkhir, A.
Year: 2002
Title: Detailed study of silver metallic film diffusion in a soda-lime glass substrate for optical waveguide fabrication
Journal: Applied Optics
Volume: 41
Issue: 15
Pages: 2888-2893
Date: May
Short Title: Detailed study of silver metallic film diffusion in a soda-lime glass substrate for optical waveguide fabrication
ISSN: 1559-128X
DOI: 10.1364/ao.41.002888
Accession Number: WOS:000175697300020

Abstract: We present the study of multimode glass waveguides fabricated by a silver-ion electromigration process followed by a diffusion process. The study is concerned mainly with the diffusion process, which occurs by variation of the diffusion time. The obtained guides are analyzed by the prism-coupling technique, which determines their effective refractive indices that are treated by the inverse WKB method, assumed to be proportional to the silver ions' concentration profiles, for which a Gaussian model is attributed. Diffusion coefficients then are determined from these Gaussian profiles experimentally by both methods. These diffusion coefficients show a concentration dependence related to the variation of the diffusion time. A mathematical model representing the best fit to this dependence is also presented. Finally,our results are compared with other research results, with which we find good agreement. (C) 2002 Optical Society of America.
Notes: Belkhir, A
URL: <Go to ISI>://WOS:000175697300020

Reference Type: Journal Article
Record Number: 7
Author: Benia, H. M. Guemmaz, M. Schmerber, G. Mosser, A. Parlebas, J. C.
Year: 2002
Title: Investigations on non-stoichiometric zirconium nitrides
Journal: Applied Surface Science
Volume: 200
Issue: 1-4
Pages: 231-238
Date: Nov
Short Title: Investigations on non-stoichiometric zirconium nitrides
ISSN: 0169-4332
DOI: 10.1016/s0169-4332(02)00925-x
Article Number: Pii s0169-4332(02)00925-x
Accession Number: WOS:000178896900025

Abstract: Non-stoichiometric zirconium nitride thin films were prepared by reactive dc magnetron sputtering. Structural, optical and electrical properties were investigated with respect to nitrogen gas flow. The film characterization was obtained through various techniques: Rutherford back scattering (RBS), X-ray diffraction (XRD), reflectometry and a four probe method. We found that the deposition rate decreases while the nitrogen flow increases. Also it was shown that a stoichiometric compound (ZrN) is formed at a 4 sccm nitrogen flow. It has a rock-salt structure and presents a minimum of resistivity and a gold-like color. As nitrogen flow increases, films become more and more amorphous, semi-transparent and electrically resistive. Furthermore, at a nitrogen flow of 9 sccm, the nitrogen to zirconium atomic concentration ratio is near 1.33 and the film exhibits properties close to those of a Zr_3N_4 phase. (C) 2002 Elsevier Science B.V. All rights reserved.

Notes: Benia, HM Guemmaz, M Schmerber, G Mosser, A Parlebas, JC
URL: <Go to ISI>://WOS:000178896900025

Reference Type: Journal Article
Record Number: 8
Author: Bottreau, A. M. Bouzit, N. Merzouki, A.
Year: 2002
Title: Dielectric behavior study of some composites polyester/MTiO3 by time domain spectroscopy
Journal: European Physical Journal-Applied Physics
Volume: 18
Issue: 1
Pages: 17-24
Date: Apr
Short Title: Dielectric behavior study of some composites polyester/MTiO3 by time domain spectroscopy
ISSN: 1286-0042
DOI: 10.1051/epjag:2002022
Accession Number: WOS:000175146800003

Abstract: The objective of this paper is to explore the possibility to use composites polyester/titanates ($M^{2+} Ti^{4+} O_3^{2-}$) with M = Ba^{2+}, Sr^{2+}, Ca^{2+}, Mg^{2+}) to get a miniature high-frequency components, and the proposal of signal processing allowing to minimize the different errors particular to the temporal spectroscopy in matched line for two spaces (time, frequency), and the establishment of an expression that determines directly the permittivity without having to make the inverse resolution transcendent equations related to the propagation. Analysis of results obtained by this signal processing, confirms the validity of Bottreau's modeling law, in low frequency according to the volume fraction and the spectral viewpoint, which allows to anticipate the composition of materials to be used to reply to electromagnetic predefined characteristics.
Notes: Bottreau, AM Bouzit, N Merzouki, A
URL: <Go to ISI>://WOS:000175146800003

Reference Type: Journal Article
Record Number: 9
Author: Bouarissa, N. Kassali, K.
Year: 2002
Title: Mechanical properties and elastic constants of zincblende Ga1-xInxN alloys (vol 228, pg 663, 2001)
Journal: Physica Status Solidi B-Basic Research
Volume: 231
Issue: 1
Pages: 294-294
Date: May
Short Title: Mechanical properties and elastic constants of zincblende Ga1-xInxN alloys (vol 228, pg 663, 2001)
ISSN: 0370-1972
DOI: 10.1002/1521-3951(200205)231:1<294::aid-pssb294>3.0.co;2-d
Accession Number: WOS:000176126500034
Notes: Bouarissa, N Kassali, K
URL: <Go to ISI>://WOS:000176126500034

Abstract: In the present paper we investigate a two dimensional potential flow produced by a submerged sink of fluid of infinite depth located at the vertex on a sloping bottom. We considered the cusp configuration. Both the effects of the acceleration of gravity g and the surface tension T are included in the free surface condition. We computed numerically the solutions via a series tuncation method for different values of the angle gamma(0 less than or equal to gamma < pi/2). The numerical computation shows that there exist two critical values (μ) over bar and mu(min) of the importance measure of surface tension mu for all values of gamma (0 less than or equal to y < pi/2). When mu --> infinity, the results of Craya, Hocking, Tuck, Vanden-Broeck and Keller are reproduced and confirmed.

Reference Type: Journal Article

Record Number: 11

Author: Boudissa, M. Halimi, R. Frikach, K. Senoussi, S.

Year: 2002

Title: Influence of twins on the vortex pinning in YBa2Cu3O7-delta single crystals in tilted field

Journal: Physica C-Superconductivity and Its Applications

Volume: 366

Issue: 3

Pages: 211-215

Date: Jan

Short Title: Influence of twins on the vortex pinning in YBa2Cu3O7-delta single crystals in tilted field

ISSN: 0921-4534

DOI: 10.1016/s0921-4534(01)00896-6

Accession Number: WOS:000173232300010

Abstract: In this work, we present a systematic study of magnetization hysteresis loops of twinned and detwinned YBa2Cu3O7-delta single crystals at temperatures ranging from for 4.2 to 90 K, magnetic fields up to 6 T and various angles between the applied field H and the c-axis. The samples were prepared by a conventional self-flux method and their critical temperatures were determined by using a quantum design SQUID. The magnetization measurements were carried out on a vibrating sample magnetometer. Comparison between data for the twinned and detwinned samples showed clearly the effect of twin pinning in the low and intermediate temperature region and that the pinning properties of the twin planes depend sensibly on the field orientation with respect to the crystalline axis of the sample. An attempt is made to describe the possible mechanisms governing these phenomena and conclusions concerning the twin pinning are drawn. (C) 2002 Elsevier Science B.V. All rights reserved.

Notes: Boudissa, M Halimi, R Frikach, K Senoussi, S

URL: <Go to ISI>://WOS:000173232300010

Reference Type: Journal Article
Record Number: 12
Author: Bourzami, A. Lenoble, O. Bobo, J. F. Layadi, A. Piecuch, M.
Year: 2002
Title: Enhancement of longitudinal Kerr rotation in Fe/Al2O3 composite multilayers
Journal: European Physical Journal-Applied Physics
Volume: 20
Issue: 1
Pages: 9-14
Date: Oct
Short Title: Enhancement of longitudinal Kerr rotation in Fe/Al2O3 composite multilayers
ISSN: 1286-0042
DOI: 10.1051/epjap:2002070
Accession Number: WOS:000178620800002

Abstract: We present experimental results on longitudinal magneto-optic Kerr effect in composite systems based on thin Fe layers associated with amorphous alumina (Al2O3). [Al2O3Fe](m) samples (m = 1, 2) have been prepared by rf magnetron sputtering onto Si(100) substrate. We have investigated the effect of the Al2O3 and Fe thicknesses on the Kerr rotation. The geometry of the multilayers is predicted theoretically by using deduced experimental magneto-optical constants. It will be shown how large Kerr rotation values can be obtained by adjusting sample parameters. For instance, a Kerr rotation close to 7 has been observed from an Al2O3Fe/ Al2O3Fe/Si multilayer. The reflectivity and the figure of merit are discussed as a function of the Al2O3 thickness.
Notes: Bourzami, A Lenoble, O Bobo, JF Layadi, A Piecuch, M
URL: <Go to ISI>://WOS:000178620800002

Reference Type: Journal Article
Record Number: 13
Author: Chaoui, Z. Bouarissa, N.
Year: 2002
Title: Monte Carlo simulation of slow electrons impinging on metals
Journal: Physics Letters A
Volume: 297
Issue: 5-6
Pages: 432-435
Date: May
Short Title: Monte Carlo simulation of slow electrons impinging on metals
ISSN: 0375-9601
DOI: 10.1016/s0375-9601(02)00031-2
Article Number: Pii s0375-9601(02)00031-2
Accession Number: WOS:000176132100025

Abstract: A Monte Carlo simulation technique is used to investigate slow electrons penetration in semi-infinite aluminium and gold in the energy range of 500-4000 eV Elastic scattering is based on a modified Rutherford differential cross section where the numerical coefficient in the atomic screening parameter is taken to be variable. To model inelastic core and valence electron excitation, we have used the Gryzinski's expression. Our simulated results are compared with the experimental backscattering; data and good agreement is observed which suggests that both the transport model and the scattering cross sections used in the present work are reliable. (C) 2002 Elsevier Science B.V. All rights reserved.
Notes: Chaoui, Z Bouarissa, N
URL: <Go to ISI>://WOS:000176132100025

Reference Type: Journal Article
Record Number: 14
Author: Chemam, F. Bouabellou, A. Layadi, A. Senoussi, S.
Year: 2002
Title: In-plane anisotropy and coupling in Fe/Ag superlattices
Journal: Materials Science & Engineering C-Biomimetic and Supramolecular Systems
Volume: 19
Issue: 1-2
Pages: 125-128
Date: Jan
Short Title: In-plane anisotropy and coupling in Fe/Ag superlattices
ISSN: 0928-4931
DOI: 10.1016/s0928-4931(01)00462-3
Accession Number: WOS:000173080700026

Abstract: We studied the magnetic properties of Fe/Ag superlattices grown by molecular beam epitaxy (MBE) on MgO(001) single crystals. The Fe thickness is fixed at 20 Angstrom and the Ag thickness varied from 7 to 20 Angstrom. Epitaxial quality and superlattice structure were verified by reflection high-energy electron diffraction (RHEED) and X-ray diffraction (XRD). The magnetization measurements in the temperature range of 5-300 K revealed the presence of in-plane uniaxial anisotropy. Ferromagnetic resonance (FMR) measurements performed at room temperature (RT) with a magnetic field applied perpendicularly to the film plane confirmed the easy axis in the film plane and showed a spacer thickness-dependent ferromagnetic exchange coupling. (C) 2002 Elsevier Science B.V. All rights reserved.

Notes: Chemam, F Bouabellou, A Layadi, A Senoussi, S EMRS Spring Meeting Jun 05-08, 2001 Strasbourg, france Emrs Si
URL: <Go to ISI>://WOS:000173080700026

Reference Type: Journal Article
Record Number: 15
Author: Choutri, H. Maamache, M. Menouar, S.
Year: 2002
Title: Geometric phase for a periodic non-Hermitian Hamiltonian
Journal: Journal of the Korean Physical Society
Volume: 40
Issue: 2
Pages: 358-360
Date: Feb
Short Title: Geometric phase for a periodic non-Hermitian Hamiltonian
ISSN: 0374-4884
Accession Number: WOS:000173900700029
Abstract: Using Floquet decomposition of the evolution operator associated with the periodic Hamiltonian. we extend Berry's formulation of the geometric phase for a non-Hermitian Hamiltonian. A two-level dissipative system is discussed as an illustrative example.
Notes: Choutri, H Maamache, M Menouar, S
URL: <Go to ISI>://WOS:000173900700029

Reference Type: Journal Article
Record Number: 16
Author: Djidjelli, H. Martinez-Vega, J. J. Farenc, J. Benachour, D.
Year: 2002
Title: Effect of wood flour content on the thermal, mechanical and dielectric properties of poly(vinyl chloride)
Journal: Macromolecular Materials and Engineering
Volume: 287
Issue: 9
Pages: 611-618
Date: Oct
Short Title: Effect of wood flour content on the thermal, mechanical and dielectric properties of poly(vinyl chloride)
ISSN: 1438-7492
DOI: 10.1002/1439-2054(20020901)287:9<611::aid-mame611>3.0.co;2-l
Accession Number: WOS:000178853100007

Abstract: Full Paper: Several composite formulations of poly(vinyl chloride)/olive wood flour (PVC/WF) were manufactured by dry-blending PVC, wood flour, plasticizer and other processing additives in a high-intensity mixer. The dry-blended compounds were calendered into film samples (T = 180degreesC, calendered time = 8 min). The films obtained are cut into normalized samples for thermal, mechanical, and dielectric characterization. The results obtained show that stress as well as strain at break decrease sharply as the wood flour content increases. On the other hand, this filler content has little influence on the glass transition temperature. It decreases the temperature of decomposition setting and retards the PVC thermal decomposition. It increases permittivity as well as dielectric losses. The thermal stability, as measured by thermogravimetry (TGA) and differential scanning calorimetry (DSC) methods, is good enough to permit processing of these types of PVC compounds using conventional processing techniques and temperatures under 210degreesC.
Notes: Djidjelli, H Martinez-Vega, JJ Farenc, J Benachour, D
URL: <Go to ISI>://WOS:000178853100007

Reference Type: Journal Article
Record Number: 17
Author: Ferhat-Hamida, A. Ouennoughi, Z. Hoffmann, A. Weiss, R.
Year: 2002
Title: Extraction of Schottky diode parameters including parallel conductance using a vertical optimization method
Journal: Solid-State Electronics
Volume: 46
Issue: 5
Pages: 615-619
Date: May
Short Title: Extraction of Schottky diode parameters including parallel conductance using a vertical optimization method
ISSN: 0038-1101
DOI: 10.1016/s0038-1101(01)00337-9
Article Number: Pii s0038-1101(01)00337-9
Accession Number: WOS:000175658000002
Abstract: An improved method based on a computer-aided curve fitting technique that uses vertical optimization for the simultaneous determination of various Schottky diode parameters (I-S, n, R-S, and G(P)) From the I-V characteristics has been re-examined. In particular, it is shown that the inclusion of the effect of a shunt Conductance ill the analysis of transport properties allows the determination of more realistic values for the parameters of various quality diodes. The present method appears to be accurate even in the presence of noise and/or random errors during measurements. (C) 2002 Elsevier Science Ltd. All rights reserved.
Notes: Ferhat-Hamida, A Ouennoughi, Z Hoffmann, A Weiss, R
URL: <Go to ISI>://WOS:000175658000002

Reference Type: Journal Article
Record Number: 18
Author: Gharzouli, K. Amira, S. Gharzouli, A. Khennouf, S.
Year: 2002
Title: Gastroprotective effects of honey and glucose-fructose-sucrose-maltose mixture against ethanol-, indomethacin-, and acidified aspirin-induced lesions in the rat
Journal: Experimental and Toxicologic Pathology
Volume: 54
Issue: 3
Pages: 217-221
Date: Nov
Short Title: Gastroprotective effects of honey and glucose-fructose-sucrose-maltose mixture against ethanol-, indomethacin-, and acidified aspirin-induced lesions in the rat
ISSN: 0940-2993
DOI: 10.1078/0940-2993-00255
Accession Number: WOS:000179466800007

Abstract: The gastric cytoprotective properties of natural honey (monofloral and polyfloral specimens) and of a glucose-fructose-sucrose-maltose mixture (GFSM) was evaluated in the rat using absolute ethanol, indomethacin and acidified acetylsalicylic acid (ASA-HCl) as necrotising agents. Prior gastric administration of honey (2.5 g/kg) to animals induced a net reduction of hemorrhagic lesions length of the mucosa. Protection of the stomach elicited by both types of honey and GFSM was almost total against ethanol-induced lesions. Similar results were also observed when using ASA-HCl except that the percent protection was 87%. The percent reduction of indomethacin-induced gastric lesions was variable according to the nature of the test solution: GFSM mixture (41.1%) < polyfloral honey (55.2%) < monofloral honey (64.0%). Perfusion of the stomach with isotonic honey resulted in (1) a 70% reduction of the area of the lesions caused by ethanol, (2) the failure to prevent the transmural potential difference fall induced by ethanol, (3) an increase of basal and histamine-stimulated acid secretion. These results suggest that sugar rich solutions (GFSM and honey) may prevent gastric damage by a mechanism involving the release of some protective agents.
Notes: Gharzouli, K Amira, S Gharzouli, A Khennouf, S
URL: <Go to ISI>://WOS:000179466800007

Abstract: This paper investigates a fuzzy model reference adaptive controller (FMRAC) for continuous-time multiple-input-multiple-output (MIMO) nonlinear systems. The proposed adaptive scheme uses a Takagi-Seguno (TS) fuzzy adaptive system, which allows for the inclusion of a priori information in terms of qualitative knowledge about the plant operating points or analytical regulators (e.g., state feedback) for those operating points. A proportional-integral update law is used to obtain a fast parameters adaptation. Stability and robustness of this adaptive scheme are established using Lyapunov stability tools. The simulation results, for a two-link robot, confirm the performance of the proposed approach.
Notes: Golea, N Golea, A Benmahammed, K
URL: <Go to ISI>://WOS:000177372700002

Reference Type: Journal Article
Record Number: 20
Author: Guenifi, N. Djahli, F.
Year: 2002
Title: A study of the degradation of short-channel TMOSs using SPICE3F4
Journal: Semiconductor Science and Technology
Volume: 17
Issue: 3
Pages: 219-226
Date: Mar
Short Title: A study of the degradation of short-channel TMOSs using SPICE3F4
ISSN: 0268-1242
Accession Number: WOS:000174718400008
Abstract: The VLSI-component industry requires ever increasing financial investment in order to measure the growing sophistication of the manufactured products and for the equipment necessary to their development. So the modelling of electric components constitutes a research field that is currently very important throughout the world. To follow this evolution, the existing models must be improved and new models must be developed. So we regularly see improvements of simulation software. In this work, we develop a model of the charge pumping technique to study the degradation of a MOSFETs. This model, implemented in the simulator SPICE3F4, takes into account the majority of the physical effects describing the real behaviour of the device. The validation of our model provided us with results concerning the charge pumping current I_{cp} (while disregarding the effect of the temperature on parameters of the TMOS), versus high and low levels of the gate impulse (V_{gh} and V_{gl}) and versus the temperature. Our results are compared with experimental results, analysed and discussed in order to be able to extricate some practical convenient conclusions that are of such a nature as to interest all those who have to realize circuits involving VLSI technology.
Notes: Guenifi, N Djahli, F
URL: <Go to ISI>://WOS:000174718400008

Abstract: Three new hydrolyzable tannins, cocciferins. D-1 (1), D-2 (2), and T-1 (4), were isolated from the leaves of Quercus coccifera. Cocciferin D-2 (2) and two additional new tannins, cocciferins D-3 (3) and T-2 (5), were also obtained from the leaves of Quercus suber. Their oligomeric structures were elucidated on the basis of spectroscopic methods and chemical evidence. Compounds 2, 3, and 5 were rare oligomers possessing glucose cores with both open-chain and pyranose forms.

Abstract: Using the empirical pseudo-potential method combined with the improved virtual crystal approximation where compositional disorder is included as an effective potential, we report on the results of composition and temperature-dependent optical band gaps, of the ZnSe1-xSx (0 less than or equal to x less than or equal to 1) type alloys. The obtained results compare reasonably well with the available experimental data. The fundamental band gap is found to vary non-linearly with composition, showing a bowing. Similar bowing is also observed from the temperature-dependent fundamental band gap. This bowing decreases with increasing temperature over the range 0-200 K, but it increases gradually on going from 200 to 300 K. The expression $E\text{-}g(x, T) = 2.828 + 0.45x + 0.53x(2) + T(-3.45x(2) + 3.22x - 3.88) \times 10(-4)$ was obtained from the data can be used to obtain the energy gap as a function of x and T over a large range of these variables. (C) 2002 Elsevier Science B.V. All rights reserved.
Notes: Kassali, K Bouarissa, N
URL: <Go to ISI>://WOS:000176920200007

Reference Type: Journal Article

Record Number: 23

Author: Krim, F.

Year: 2002

Title: Design and implementation of a novel microcontroller-based battery charge controller for maximum-power operation of stand-alone photovoltaic power systems

Journal: Canadian Journal of Electrical and Computer Engineering-Revue Canadienne De Genie Electrique Et Informatique

Volume: 27

Issue: 2

Pages: 55-59

Date: Apr

Short Title: Design and implementation of a novel microcontroller-based battery charge controller for maximum-power operation of stand-alone photovoltaic power systems

ISSN: 0840-8688

Accession Number: WOS:000179123900002

Abstract: A novel, intelligent microcontroller-based battery charge controller (BCC for stand-alone photovoltaic (PV) systems is described. This BCC presents the advantage of allowing maximum-power tracking for battery charging as well as real-time battery state-of-charge (SOC) monitoring. For these purposes, a new control and regulation technique combining coulometric measurement technique and open-circuit voltage (OCV) reading technique has been developed and implemented. A prototype of the BCC has been built and tested. The experimental results confirm good reliability and performance of this new BCC.

Notes: Krim, F

URL: <Go to ISI>://WOS:000179123900002

Reference Type: Journal Article
Record Number: 24
Author: Lamari, S.
Year: 2002
Title: Zero field spin splitting in inversion layers on p-InSb: A fully numerical study (vol 91, pg 1698, 2002)
Journal: Journal of Applied Physics
Volume: 91
Issue: 9
Pages: 6212-6212
Date: May
Short Title: Zero field spin splitting in inversion layers on p-InSb: A fully numerical study (vol 91, pg 1698, 2002)
ISSN: 0021-8979
DOI: 10.1063/1.1470662
Accession Number: WOS:000175069000110
Notes: Lamari, S
URL: <Go to ISI>://WOS:000175069000110

Reference Type: Journal Article

Record Number: 25

Author: Lamari, S.

Year: 2002

Title: Zero field spin splitting in inversion layers on p-InSb: A fully numerical study

Journal: Journal of Applied Physics

Volume: 91

Issue: 3

Pages: 1698-1700

Date: Feb

Short Title: Zero field spin splitting in inversion layers on p-InSb: A fully numerical study

ISSN: 0021-8979

DOI: 10.1063/1.1423783

Accession Number: WOS:000173418500124

Abstract: Within Kane's multiband Hamiltonian, the subband spin splitting of electrons in the inversion layer on bulk p-InSb is investigated self-consistently as a function of the electron sheet density N(s). The splitting delta(k) is a nonlinear function of wave vector k, and depends strongly on density N(s) and subband nu. The concomitant Rashba spin-orbit parameter alpha(k) decreases substantially with k and nu and is maximal for nu=0 as k-->0. At the Fermi level the spin splitting delta, the Rashba parameter alpha and the product m(*)alpha computed for each subband in the range 0.14x10(12) cm(-2) - 3.07x10(12) cm(-2) increase nonlinearly with N(s) except for higher subbands. (C) 2002 American Institute of Physics.

Notes: Lamari, S

URL: <Go to ISI>://WOS:000173418500124

Reference Type: Journal Article
Record Number: 26
Author: Lamari, S.
Year: 2002
Title: Zero field spin-splitting and Rashba parameter in inversion layers on p-InAs mosfets: results of fully numerical multi-band computations
Journal: Physica E-Low-Dimensional Systems & Nanostructures
Volume: 12
Issue: 1-4
Pages: 435-438
Date: Jan
Short Title: Zero field spin-splitting and Rashba parameter in inversion layers on p-InAs mosfets: results of fully numerical multi-band computations
ISSN: 1386-9477
DOI: 10.1016/s1386-9477(01)00334-4
Article Number: Pii s1386-9477(01)00334-4
Accession Number: WOS:000175206300107
Abstract: The sub-band spin splitting of the energy levels due to spin-orbit and the strong surface electric field is computed self-consistently for electrons in InAs mosfets using the envelope function approximation and the 8 x 8 Kane Hamiltonian, The concomitant Rashba parameter is studied as a function of areal electron density where at the Fermi level it shows unexpected and counter-intuitive behaviors due to its k-dependence which cannot be neglected. (C) 2002 Elsevier Science B.V. All rights reserved.
Notes: Lamari, S 14th International Conference on the Electronic Properties of Two-Dimensional Systems Jul 30-aug 03, 2001 Prague, czech republic
URL: <Go to ISI>://WOS:000175206300107

Abstract: A description of ferromagnetic resonance (FMR) modes is given for an exchanged (F)/(AF) bilayer thin films using the static-(AF) model. Included in the analysis are the exchange anisotropy field H-E, the off-aligned exchange coupling angle beta, the in-plane uniaxial, and the cubic magnetocrystalline anisotropies. The resonance field H-R vs applied field angle alpha curves for an off-aligned exchange system are shifted with respect to the aligned (beta=0) curve; from the experimental measure of the angle alpha(min) corresponding to the curve minimum, a beta value can be derived. The dispersion relation is described; depending on the frequency range and beta values, up to three modes are expected in the cubic system while one mode at most will appear for the uniaxial one. The linewidth DeltaH monotonically increases with H for free (F) layer and aligned exchanged F/AF; for betanot equal0, the DeltaH vs H curves go through a minimum. A general formula for mode intensity, I, is derived. Taking the rf field h in plane, as the dc field is rotated in plane, the intensity is expected to vanish for an applied field angle alpha(1). A simple relation between alpha(1) and H-E is found. For aligned exchange and low-beta values, I decreases monotonically with increasing H, while for a 90degrees coupling and high-beta values, the I vs H curves go through a maximum; for strong fields all FMR intensities tend to the same asymptotic value. At fixed frequency, the decrease of I with increasing H-E for the 90degrees-coupling could be used as a means to distinguish the 90degrees coupling from the aligned exchange coupling case.

Abstract: Ferromagnetic resonance modes are investigated for a trilayer system consisting of two ferromagnetic films interacting through a nonmagnetic interlayer. Included in the model are the bilinear $J(1)$ and biquadratic $J(2)$ couplings and in-plane uniaxial magnetocrystalline anisotropies with anisotropy axis directions in the two layers making a dangle. An analytical expression for the mode intensity is derived. The saturation (H-sat) and critical (H-crit) fields, the resonant frequency, and the mode intensity are discussed as functions of $J(1)$, $J(2)$, and delta. For a given positive $J(1)$, an additional $J(2)(J(2)<0)$ will lead to an increase (a decrease) of the optical (acoustic) mode intensity. For fixed $J(1)<0$, and if the magnetizations are parallel (H>H-sat) only the acoustic mode will appear with constant mode position and intensity for all $J(2)$ values, making it difficult to detect any additional biquadratic coupling. On the other hand, and for the same parameters, if the magnetizations are antiparallel (H<H-crit), then two modes are predicted; as $\J(2)\$ increases the intensity of the acoustic (optical) mode will increase (decrease), while the resonant frequency of both modes decrease.

Abstract: CoAg granular films are prepared by molecular beam epitaxy at 250 degreesC with Co concentration ranging from 25% to 100%. From the torque experimental curves, we determine the values of the magneto crystalline anisotropy constants as a function of temperature. We follow the magnetization shift of these samples from perpendicular to in-plane direction with increasing Co concentration and we correlate this phenomenon to the analysis based on the minimization of the magnetocrystalline anisotropy energy expression. (C) 2002 Elsevier Science B.V. All rights reserved.

Reference Type: Journal Article

Record Number: 30

Author: Louail, L. Maouche, D. Hachemi, H. Roumili, A.

Year: 2002

Title: Irreversibility in magnetic torque curves of Co/Tb multilayer

Journal: Materials Letters

Volume: 57

Issue: 1

Pages: 252-259

Date: Nov

Short Title: Irreversibility in magnetic torque curves of Co/Tb multilayer

ISSN: 0167-577X

DOI: 10.1016/s0167-577x(02)00775-9

Article Number: Pii s0167-577x(02)00775-9

Accession Number: WOS:000179186600047

Abstract: The magnetic anisotropy behavior of a [Co10 AngstromTb10 Angstrom](10) superlattice prepared by molecular beam epitaxy has been studied by means of a torque magnetometer. A complex magnetic behavior has been noticed. The rotational hysteresis loop has been analysed and interpreted as a function of both the temperature and the external magnetic field. (C) 2002 Elsevier Science B.V. All rights reserved.

Notes: Louail, L Maouche, D Hachemi, H Roumili, A

URL: <Go to ISI>://WOS:000179186600047

Reference Type: Journal Article
Record Number: 31
Author: Mayouf, A. Djahli, F. Mayouf, F.
Year: 2002
Title: Full-wave modelling of microstrip line and its sensitivities on lossy multilayer dielectric substrate and superstrate with laminated ground plane
Journal: International Journal of Numerical Modelling-Electronic Networks Devices and Fields
Volume: 15
Issue: 2
Pages: 221-240
Date: Mar-Apr
Short Title: Full-wave modelling of microstrip line and its sensitivities on lossy multilayer dielectric substrate and superstrate with laminated ground plane
ISSN: 0894-3370
DOI: 10.1002/jnm.454
Accession Number: WOS:000174504300007
Abstract: This paper presents a new formulation useful for modelling multilayered microstrip and its geometrical sensitivities with laminated ground plane. New integral equations are formulated, in the spectral domain, using the exact dyadic Green's function of bianisotropic planar media. We have applied a dynamic two-dimensional least-square algorithm as an optimization procedure. Obtained results agree well with those of other approaches. Copyright (C) 2002 John Wiley Sons, Ltd.
Notes: Mayouf, A Djahli, F Mayouf, F
URL: <Go to ISI>://WOS:000174504300007

Abstract: LaNi5 intermetallic-hydride forming compound and several metal-substituted derivatives have been compared in terms of cycling behavior observed by means of the cavity microelectrode (CME) at high scan rates (50 mV s(-1)). LaNi3.55Mn0.4Al0.3Co0.75 was found to have a stable behavior over 1000 cycles, whereas, the capacity of LaNi5 decreases after only 200 cycles. The performances for the mono-substituted compounds are intermediate. The rechargeability decreases according to the following order: LaNi4.06Mn0.4 > LaNi4.7Al0.3 > LaNi4.25Co0.75 > LaNi5. This study demonstrates the capability of the CME to check numerous battery materials in a very short period of time, which allows to bring out the effect due to the corrosion of the material. (C) 2002 Elsevier Science B.V. All rights reserved.

Reference Type: Journal Article
Record Number: 33
Author: Ngarhasta, N. Some, B. Abbaoui, K. Cherruault, Y.
Year: 2002
Title: New numerical study of Adomian method applied to a diffusion model
Journal: Kybernetes
Volume: 31
Issue: 1
Pages: 61-75
Short Title: New numerical study of Adomian method applied to a diffusion model
ISSN: 0368-492X
DOI: 10.1108/03684920210413764
Accession Number: WOS:000175805700005
Abstract: We prove in this paper the convergence of Adomian method applied to linear or nonlinear diffusion equations. The results show that the convergence of this method is not influenced by the choice of the linear inversible operator L in the equation to be solved Furthermore we give some particular examples about a new canonical form where the initial value u(0) of Adomian senses is chosen in some special form which verifies the initial and boundary conditions. Then Adomian series converges to exact solution or all approximated (truncated series) solutions verify these conditions.
Notes: Ngarhasta, N Some, B Abbaoui, K Cherruault, Y
URL: <Go to ISI>://WOS:000175805700005

Reference Type: Journal Article

Record Number: 34

Author: Ruberto, G. Baratta, M. T. Sari, M. Kaabeche, M.

Year: 2002

Title: Chemical composition and antioxidant activity of essential oils from Algerian Origanum glandulosum Desf

Journal: Flavour and Fragrance Journal

Volume: 17

Issue: 4

Pages: 251-254

Date: Jul-Aug

Short Title: Chemical composition and antioxidant activity of essential oils from Algerian Origanum glandulosum Desf

ISSN: 0882-5734

DOI: 10.1002/ffj.1101

Accession Number: WOS:000176749800004

Abstract: The essential oils obtained from Origanum glandulosum Desf., collected in four different localities of the Setif region (north-eastern Algeria), were analysed by GC-MS and assayed for their antioxidative effectiveness. The antioxidant capacity of the oils was measured by the modified thiobarbituric acid reactive species (TBARS) assay, using egg yolk as oxidizable substrate in presence of the radical inducer 2,2'-azobis(2-amidinopropane) dihydrochloride (ABAP). The activity was compared with those of alpha-tocopherol and 2,6-ditertbutyl-4-methyl phenol (BHT, butylated hydroxy toluene). The four oils were also endowed with a high degree of activity at the lowest concentration (100 ppm). This activity is to be ascribed to the high content of phenol components, viz. thymol and carvacrol, which strongly characterize the composition of these oils. Copyright (C) 2002 John Wiley Sons, Ltd.

Notes: Ruberto, G Baratta, MT Sari, M Kaabeche, M

URL: <Go to ISI>://WOS:000176749800004

Reference Type: Journal Article
Record Number: 35
Author: Sahnouni, M. Hadjouis, D. Abdesselam, S. Olle, A. Verges, J. M. Derradji, A. Belahrech, H. Medig, M.
Year: 2002
Title: El-Kherba: a Lower Pleistocene butchery site in northeastern Algeria
Journal: Journal of Human Evolution
Volume: 42
Issue: 3
Pages: A31-A31
Date: Mar
Short Title: El-Kherba: a Lower Pleistocene butchery site in northeastern Algeria
ISSN: 0047-2484
Accession Number: WOS:000175111600051
Notes: Sahnouni, M Hadjouis, D Abdesselam, S Olle, A Verges, JM Derradji, A Belahrech, H Medig, M
URL: <Go to ISI>://WOS:000175111600051

Reference Type: Journal Article
Record Number: 36
Author: Sahnouni, M. Hadjouis, D. van der Made, J. Derradji, A. E. K. Canals, A. Medig, M. Belahrech, H. Harichane, Z. Rabhi, M.
Year: 2002
Title: Further research at the Oldowan site of Ain Hanech, North-eastern Algeria
Journal: Journal of Human Evolution
Volume: 43
Issue: 6
Pages: 925-937
Date: Dec
Short Title: Further research at the Oldowan site of Ain Hanech, North-eastern Algeria
ISSN: 0047-2484
DOI: 10.1006/jhev.2002.0608
Accession Number: WOS:000179875400007

Abstract: Further investigations were carried out at Ain Hanech, Algeria in 1998 and 1999 to explore its potential for investigating early hominid behavioral patterns and adaptation. Research concentrated on the stratigraphy and dating, identifying new archaeological deposits, and excavating the Ain Hanech and El-Kherba localities. To enhance the chronological control within a biostratigraphic framework, the Ain Boucherit fossil-bearing stratum, yielding a Plio-Pleistocene fauna, is correlated with the regional stratigraphy. In the stratigraphic sequence, the Ain Boucherit stratum, located 13 m below the Ain Hanech Oldowan occurrences, is found in Unit Q of the Ain Hanech Formation. Unit Q shows a paleomagnetically reversed polarity, which may be correlated with an age earlier than the Olduvai normal subchron (1(.)95-1(.)77 Ma). Based on test trenches and stratigraphic analyses, additional Oldowan deposits A, B, and C are identified at Ain Hanech. All three deposits and the El-Kherba site contain Mode I technology artefacts associated with an Early Pleistocene fauna. El-Kherba is stratigraphically equivalent to Ain Hanech. These two archaeological sites are estimated to be dated to about 1(.)8 Ma. (C) 2002 Elsevier Science Ltd. All rights reserved.
Notes: Sahnouni, M Hadjouis, D van der Made, J Derradji, AEK Canals, A Medig, M Belahrech, H Harichane, Z Rabhi, M
URL: <Go to ISI>://WOS:000179875400007

37 **Reference Type: Journal Article**
Record Number: 37
Author: Trabelsi, N.
Year: 2002
Title: Soluble groups with a condition on infinite subsets
Journal: Algebra Colloquium
Volume: 9
Issue: 4
Pages: 427-432
Date: Dec
Short Title: Soluble groups with a condition on infinite subsets
ISSN: 1005-3867
Accession Number: WOS:000179095400007

Abstract: We prove that a finitely generated soluble group G is nilpotent-by-finite (respectively, finite-by-nilpotent) if every infinite subset of G contains two elements x,y generating a nilpotent-by-finite (respectively, finite-by-nilpotent) group. Moreover, for a positive integer k, if we suppose (x,y) is (nilpotent of class k)-by-finite (respectively, finite-by-(nilpotent of class k)), then there is an integer $c = c(k)$ such that G is (nilpotent of class c)-by-finite (respectively, finite-by-(nilpotent of class c)). 2000 Mathematics Subject Classification: 20F16, 20F99.
Notes: Trabelsi, N
URL: <Go to ISI>://WOS:000179095400007

38 **Reference Type:** Book Section
Record Number: 25
Author: Ghennam, S. Benmahammed, K.
Year: 2002
Title: Multiresolution support for adaptive image restoration using neural networks
Editor: Dorronsoro, J. R.
Book Title: Artificial Neural Networks - Icann 2002
Volume: 2415
Pages: 1201-1206
Series Title: Lecture Notes in Computer Science
Short Title: Multiresolution support for adaptive image restoration using neural networks
ISBN: 0302-9743 3-540-44074-7
Accession Number: WOS:000181441900194

Abstract: This paper treats the restoration problem of degraded and noisy image. In order to keep the image structures unaltered, an adaptive regularization scheme is employed that allows better compromise between the inversion degradation process and the smoothing. The inversion process is achieved by means the modified Hopfield neural network. Moreover, the smoothing operation is accomplished in the wavelets basis by using the a trou algorithm. A multiresolution support is deduced, and combined with a statistics analysis, for computing the adaptive regularization, in which, each scale (sub-image) is assigned to one regularization parameter according to a spatial activity of the pixels which constitute it.

Notes: Ghennam, S Benmahammed, K 12th International Conference on Artifical Neural Networks (ICANN 2002) Aug 28-30, 2002 Madrid, spain Univ Autonoma Madrid, Neural Network Grp Escuela Tecn Superior Ingenier Informat, European Neural Networks Soc, Spain Minist Cienc Tecnol, Inst Ingenier Conocimiento, FET Program, European Commiss, IEEE Neural Network Council, Japanese Neural Network Soc, Asia Pacific Neural Assembly, IEEE NNC, Spanish RIG
URL: <Go to ISI>://WOS:000181441900194

39 **Reference Type:** **Book**
Record Number: 1
Author: Abbas, K. Chouya, F. Madani, T. Inra, Inra,
Year: 2002
Title: Reproduction improvment factors in sheep systems of algerian semi arid areas
Series Title: 9th Meeting on Ruminant Research
Number of Pages: 130-130
Short Title: Reproduction improvment factors in sheep systems of algerian semi arid areas
ISBN: 2-84148-045-3
Accession Number: WOS:000181658200054
Notes: Abbas, K Chouya, F Madani, T 9th Meeting on Ruminant Research Dec 04-05, 2002 Paris, france Inra
URL: <Go to ISI>://WOS:000181658200054

Reference Type: Book
Record Number: 2
Author: Benbahouche, L. Latrech, S. Gontrand, C.
Year: 2002
Title: New numerical power IGBT model and simulation of its electrical characteristics
Series Editor: Breza, J. Donoval, D.
Series Title: Asdam '02, Conference Proceedings
Number of Pages: 211-214
Short Title: New numerical power IGBT model and simulation of its electrical characteristics
ISBN: 0-7803-7276-X
Accession Number: WOS:000180302100046

Abstract: The great advances in power electronic technology and the rapid development of power semiconductor device both in power and switching frequency ranges, have led to an increasing interest in the use of Insulated Gate Bipolar Transistor (IGBT) device in industrial application. At the same time, the importance of simulation in the research and development increases. For cars, this fact could be observed in microelectronics whereas in power electronics simulation has mostly been restricted. This luck of simulation is due to limitation in two key elements., simulation tools and models for power devices like IGBT. The aim of this paper, is to present a new approach which consists in defining our computer program (numerical model) of the IGBT based on the finite element technique (FEM), to offer an easy to use IGBT and other devices for our program, showing short computing lime and reasonable accuracy, to predict and understand the behavior of various topologies of devices, to perform automated layout of the device to overcome some of the difficulties associated will? analytical methods and to identify the failure mechanisms, then we propose some remedies. The validity of our computer program (this approach) is confirmed by comparison between simulation and theory results as well as the manufacture's data, and a good agreement is recorded for IGBT devices.
Notes: Benbahouche, L Latrech, S Gontrand, C 4th International Conference on Advanced Semiconductor Devices and Microsystems Oct 14-16, 2002 Smolenice castle, slovakia Slovak Univ Tehcnol, Slovak Republic, Minist Educ, Promos Fdn, IEEE Electron Devices Soc
URL: <Go to ISI>://WOS:000180302100046

Reference Type: Book
Record Number: 3
Author: Benmahammed, K. Hamzaoui, A. Ieee, Ieee,
Year: 2002
Title: Application of the SD to LCTI systems: Part 1
Series Title: 2002 Ieee International Symposium on Circuits and Systems, Vol Iii, Proceedings
Number of Pages: 500-502
Short Title: Application of the SD to LCTI systems: Part 1
ISBN: 0-7803-7448-7
Accession Number: WOS:000186328000126
Abstract: This paper presents In a unified manner the spectral decomposition (SD) of the state matrix of a linear continuous time invariant (LCTI) system. It Introduces methods for computing the constituent matrices of a SD of a matrix with distinct and repeated eigenvalues.
Notes: Benmahammed, K Hamzaoui, A IEEE International Symposium on Circuits and Systems May 26-29, 2002 Phoenix, az IEEE, IEEE Circuits & Syst Soc
URL: <Go to ISI>://WOS:000186328000126

Reference Type: Book
Record Number: 4
Author: Benmahammed, K. Hamzaoui, A. Ieee, Ieee,
Year: 2002
Title: Application of the SD to LCTI systems: Part 2
Series Title: 2002 Ieee International Symposium on Circuits and Systems, Vol Iii, Proceedings
Number of Pages: 503-506
Short Title: Application of the SD to LCTI systems: Part 2
ISBN: 0-7803-7448-7
Accession Number: WOS:000186328000127
Abstract: This paper presents some of the algorithms used in control theory, but using different frame of work, namely the spectral decomposition (SD) of the state matrix of a linear continuous time invariant (LCTI) system.
Notes: Benmahammed, K Hamzaoui, A IEEE International Symposium on Circuits and Systems May 26-29, 2002 Phoenix, az IEEE, IEEE Circuits & Syst Soc
URL: <Go to ISI>://WOS:000186328000127

Reference Type: Book

Record Number: 5

Author: Chikouche, D. Bekka, R. E. Boucenna, A.

Year: 2002

Title: Recursive filters using systolic architectures and switched capacitor techniques

Series Editor: Baric, A. Magjarevic, R. Pejcinovic, B. ChrzanowskaJeske, M.

Series Title: Ices 2002: 9th Ieee International Conference on Electronics, Circuits and Systems, Vols I-111, Conference Proceedings

Number of Pages: 595-598

Short Title: Recursive filters using systolic architectures and switched capacitor techniques

ISBN: 0-7803-7596-3

Accession Number: WOS:000180927800146

Abstract: In this paper, the discrete state space recursive filters are implemented in the form of parallel array processors. The state space description permits the straightforward application of systolic architectures to realize recursive filters of 1D and 2D types. We show that the recursivity inherent to the filtering algorithm introduces a latency proportional to the filter order. Morover, we show that the use of CTP decomposition technique together with the cylindrical-type structures reduces significantly this latency and improves the computation throughput of these arrays. The processing cells of the systolic array are designed via Switched-Capacitor techniques.

Notes: Chikouche, D Bekka, RE Boucenna, A 9th IEEE International Conference on Electronics, Circuits and Systems Sep 15-18, 2002 Dubrovnik, croatia IEEE CAS Soc, Univ Zagreb, Fac Elect Engn & Comp, Portland State Univ, Elect & Comp Engn Dept, IEEE Reg 8, Croatian Acad Sci & Arts, Ericsson, IBM, HP Invent, Hrvatski Telekom, Croatia Airlines

URL: <Go to ISI>://WOS:000180927800146

Reference Type: Book
Record Number: 6
Author: Dekhili, M. Inra, Inra,
Year: 2002
Title: Reproductive performance between single and twin Ouled-Djellal ewes
Series Title: 9th Meeting on Ruminant Research
Number of Pages: 155-155
Short Title: Reproductive performance between single and twin Ouled-Djellal ewes
ISBN: 2-84148-045-3
Accession Number: WOS:000181658200064
Notes: Dekhili, M 9th Meeting on Ruminant Research Dec 04-05, 2002 Paris, france Inra
URL: <Go to ISI>://WOS:000181658200064

Reference Type: Book
Record Number: 7
Author: Khemliche, M. Mokeddem, D. Khellaf, A. Ieee, Ieee,
Year: 2002
Title: Design of a fuzzy controller of PH by the genetic algorithms
Series Title: Pcc-Osaka 2002: Proceedings of the Power Conversion Conference-Osaka 2002, Vols I - Iii
Number of Pages: 912-916
Short Title: Design of a fuzzy controller of PH by the genetic algorithms
ISBN: 0-7803-7156-9
Accession Number: WOS:000178264800158
Abstract: The fast extension of systems enslaved by the modern algorithm development making call to the practiced, network-fuzzy systems, genetic algorithms... In general manner the controls appropriate of the pH, put the inherent problem to the no linearity. We transplant art GA to the FLC developed previously for a regulation of the pH and tempt to explain in our work grounds of our choice and improvements gotten.
Notes: Khemliche, M Mokeddem, D Khellaf, A Power Conversion Conference (PCC) Apr 02-05, 2002 Osaka, japan Ind Appl Soc, IEE Japan, IEEE Ind Appl Soc, IEEE Ind Electr Soc, IEEE Power Electr Soc, IEEE Japan Council, China Electrotech Soc, Japan Soc Power Electr, Korean Inst Electr Engineers, Soc Instrument Control Engineers, Illuminat Engn Inst Japan, European Power Electr & Drives Assoc, Inst Syst, Control & Informat Engineers, Inst Electr, Informat & Communicat Engineers
URL: <Go to ISI>://WOS:000178264800158

Reference Type: Book
Record Number: 8
Author: Madani, T. Far, Z. Inra, Inra,
Year: 2002
Title: Performances of improved dairy cattle breeds in Algerian semi-arid area
Series Title: 9th Meeting on Ruminant Research
Number of Pages: 121-121
Short Title: Performances of improved dairy cattle breeds in Algerian semi-arid area
ISBN: 2-84148-045-3
Accession Number: WOS:000181658200045
Notes: Madani, T Far, Z 9th Meeting on Ruminant Research Dec 04-05, 2002 Paris, france
Inra
URL: <Go to ISI>://WOS:000181658200045
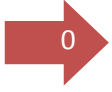
PRODUCTION SCIENTIFIQUE ANNEE 2003

Reference Type: Journal Article
Record Number: 1
Author: Beale, G. Hollins, A. J. Benboubetra, M. Sohail, M. Fox, S. P. Benter, I. Akhtar, S.
Year: 2003
Title: Gene silencing nucleic acids designed by scanning arrays: Anti-EGFR activity of siRNA, ribozyme and DNA enzymes targeting a single hybridization-accessible region using the same delivery system
Journal: Journal of Drug Targeting
Volume: 11
Issue: 7
Pages: 449-456
Date: Aug
Short Title: Gene silencing nucleic acids designed by scanning arrays: Anti-EGFR activity of siRNA, ribozyme and DNA enzymes targeting a single hybridization-accessible region using the same delivery system
ISSN: 1061-186X
DOI: 10.1080/1061186042000207039
Accession Number: WOS:000220307800008
Abstract: Gene silencing nucleic acids such as ribozymes, DNA enzymes (DNAzymes), antisense oligonucleotides (ODNs), and small interfering (si)RNA rely on hybridization to accessible sites within target mRNA for activity. However, the accurate prediction of hybridization accessible sites within mRNAs for design of effective gene silencing reagents has been problematic. Here we have evaluated the use of scanning arrays for the effective design of ribozymes, DNAzymes and siRNA sequences targeting the epidermal growth factor receptor (EGFR) mRNA. All three gene silencing nucleic acids designed to be complementary to the same array-defined hybridization accessible-site within EGFR mRNA were effective in inhibiting the growth of EGFR over-expressing A431 cancer cells in a dose dependent manner when delivered using the cationic lipid (Lipofectin) delivery system. Effects on cell growth were correlated in all cases with concomitant dose-dependent reduction in EGFR protein expression. The control sequences did not markedly alter cell growth or EGFR expression. The ribozyme and DNAzyme exhibited similar potency in inhibiting cell growth with IC50 values of around 750 nM. In contrast, siRNA was significantly more potent with an IC50 of about 100 nM when delivered with Lipofectin. The potency of siRNA was further enhanced when Oligofectamine was used to further improve both the cellular uptake and subcellular distribution of fluorescently labelled siRNA. Our studies show that active siRNAs can be designed using hybridization accessibility profiles on scanning arrays and that siRNAs targeting the same array-designed hybridization accessible site in EGFR mRNA and delivered using the same delivery system are more potent than ribozymes and DNAzymes in inhibiting EGFR expression in A431 cells.
Notes: Beale, G Hollins, AJ Benboubetra, M Sohail, M Fox, SP Benter, I Akhtar, S
URL: <Go to ISI>://WOS:000220307800008

Reference Type: Journal Article
Record Number: 2
Author: Bekkar, H. Benamira, F. Maamache, M.
Year: 2003
Title: Comment on "Solution of the Schrodinger equation for the time-dependent linear potential"
Journal: Physical Review A
Volume: 68
Issue: 1
Date: Jul
Short Title: Comment on "Solution of the Schrodinger equation for the time-dependent linear potential"
ISSN: 1050-2947
DOI: 10.1103/PhysRevA.68.016101
Article Number: 016101
Accession Number: WOS:000184571600153
Abstract: We present the correct way to obtain the general solution of the Schrodinger equation for a particle in a time-dependent linear potential following the approach used in the paper of Guedes [Phys. Rev. A 63, 034102 (2001)]. In addition, we show that, in this case, the solutions (wave packets) are described by the Airy functions.
Notes: Bekkar, H Benamira, F Maamache, M
URL: <Go to ISI>://WOS:000184571600153

Reference Type: Journal Article
Record Number: 3
Author: Benaniba, M. T. Belhaneche-Bensemra, N. Gelbard, G.
Year: 2003
Title: Stabilization of PVC by epoxidized sunflower oil in the presence of zinc and calcium stearates
Journal: Polymer Degradation and Stability
Volume: 82
Issue: 2
Pages: 245-249
Date: Nov
Short Title: Stabilization of PVC by epoxidized sunflower oil in the presence of zinc and calcium stearates
ISSN: 0141-3910
DOI: 10.1016/s0141-3910(03)00178-2
Accession Number: WOS:000185974300015
Abstract: Sunflower oil was epoxidized and characterized. Epoxidized sunflower oil (ESO) was used as an organic thermal co-stabilizer for plasticized polyvinyl chloride (PVC) in the presence of Zn and Ca stearates. The thermo-oxidative degradation of PVC was studied in the presence of this ternary stabilizer system at 170 degreesC. The rates of dehydrochlorination were measured by potentiometric titration and the extents of discoloration were evaluated. The formation of polyene sequences was investigated by UV-visible spectroscopy. The influence of the ratio of Zn and Ca stearates (1/2, 1/1 and 2/1) and of the amount of oxirane oxygen in the HTE were considered. Synergistic effects were found. (C) 2003 Elsevier Ltd. All rights reserved.
Notes: Benaniba, MT Belhaneche-Bensemra, N Gelbard, G 2nd International Conference on Polymer Modification Degradation and Stabilization (MODEST 2002) Jun 30-jul 04, 2002 Budapest, hungary
URL: <Go to ISI>://WOS:000185974300015

Reference Type: Journal Article
Record Number: 4
Author: Benbahouche, S. Roumili, F. Zegadi, R.
Year: 2003
Title: Effect of water on the impact strength of glass plates with eroded surfaces
Journal: Materials Science
Volume: 39
Issue: 1
Pages: 148-152
Date: Jan-Feb
Short Title: Effect of water on the impact strength of glass plates with eroded surfaces
ISSN: 1068-820X
DOI: 10.1023/a:1026103202424
Accession Number: WOS:000187846900022
Notes: Benbahouche, S Roumili, F Zegadi, R
URL: <Go to ISI>://WOS:000187846900022

Reference Type: Journal Article
Record Number: 5
Author: Bencheikh, K.
Year: 2003
Title: Spin-orbit coupling in the spin-current-density-functional theory
Journal: Journal of Physics a-Mathematical and General
Volume: 36
Issue: 48
Pages: 11929-11936
Date: Dec
Short Title: Spin-orbit coupling in the spin-current-density-functional theory
ISSN: 0305-4470
DOI: 10.1088/0305-4470/36/48/002
Article Number: Pii s0305-4470(03)64019-9
Accession Number: WOS:000188062700003

Abstract: Starting from the spin-current-density-functional theory for electronic systems, we extend the formulation to include spin-orbit coupling. Particular attention is devoted to the symmetry of the problem. Here we show that the exchange-correlation energy functional is invariant by the U(1)(em) x SU(2)(spin) gauge transformations. We give the transformation laws of the paramagnetic current and also the paramagnetic spin current density by the U(1)(em) x SU(2)(spin) pin gauge transformations. For the case where the spin-orbit coupling is taken into account, we generalize the equations of continuity satisfied by the current density and the spin current density, derived by Vignale and Rasolt.
Notes: Bencheikh, K
URL: <Go to ISI>://WOS:000188062700003

Reference Type: Journal Article

Record Number: 6

Author: Benia, H. M. Guemmaz, M. Schmerber, G. Mosser, A. Parlebas, J. C.

Year: 2003

Title: Optical properties of non-stoichiometric sputtered zirconium nitride films

Journal: Applied Surface Science

Volume: 211

Issue: 1-4

Pages: 146-155

Date: Apr

Short Title: Optical properties of non-stoichiometric sputtered zirconium nitride films

ISSN: 0169-4332

DOI: 10.1016/s0169-4332(03)00246-0

Accession Number: WOS:000183170000018

Abstract: Non-stoichiometric do magnetron-sputtered ZrN films on silicon have been optically and electrically characterized through spectral reflectance measurements and a four-probe method, respectively. The deposition of the films was monitored by the nitrogen gas flow which has been increased from 1 to 11 sccm. Experimental results show that the reflectivity as well as the electrical resistivity strongly depends on the nitrogen concentration. In order to determine the optical constants of the various ZrN layers, Drude's model was used to fit the reflectance spectra of the films with a metallic behavior, and an extended model for the films with a more insulating behavior. The optical resistivity for the frequency omega = 0 was derived from the optical constants and compared to the electrical resistivity obtained by the four-probe method. A good agreement between electrical and optical resistivities was obtained. (C) 2003 Elsevier Science B.V. All rights reserved.

Notes: Benia, HM Guemmaz, M Schmerber, G Mosser, A Parlebas, JC

URL: <Go to ISI>://WOS:000183170000018

Reference Type: Journal Article
Record Number: 7
Author: Berdjane, K. Berdjane, Z. Rueda, D. R. Benachour, D. Balta-Calleja, F. J.
Year: 2003
Title: Microhardness of ternary blends of polyolefins with recycled polymer components
Journal: Journal of Applied Polymer Science
Volume: 89
Issue: 8
Pages: 2046-2050
Date: Aug
Short Title: Microhardness of ternary blends of polyolefins with recycled polymer components
ISSN: 0021-8995
DOI: 10.1002/app.11972
Accession Number: WOS:000183757900006

Abstract: Microhardness tests, Fourier transform infrared spectroscopy (FTIR), and differential scanning calorimetry (DSC) measurements were performed on melt-pressed films of multicomponent blends based on low-density polyethylene (LDPE), linear LDPE (LLDPE), high-density polyethylene (HDPE), and polypropylene (PP), and their recycled homologues. Some of the PE blends also contained ethylene-propylene-diene monomer (EPDM) as compatibilizer. In all cases, the variation of microhardness as a function of content of the recycled component follows the additivity law of components. Thus, the range of hardness values of polyolefin blends can be controlled by choice of both components and their relative content in the blend. The hardness of the components increases from LDPE, to LLDPE, to HDPE, to PP and increases from 20 to 84 MPa. For recycled components, the hardness values are reduced by similar to15%. According to DSC results, all the blends are immiscible. Results are discussed in terms of the levels of crystallinity reached for the different blends. (C) 2003 Wiley Periodicals, Inc.

Notes: Berdjane, K Berdjane, Z Rueda, DR Benachour, D Balta-Calleja, FJ
URL: <Go to ISI>://WOS:000183757900006

Reference Type: Journal Article

Record Number: 8

Author: Boukaroura, A.

Year: 2003

Title: Two conditions for infinite groups to satisfy certain laws

Journal: Algebra Colloquium

Volume: 10

Issue: 1

Pages: 75-80

Date: Mar

Short Title: Two conditions for infinite groups to satisfy certain laws

ISSN: 1005-3867

Accession Number: WOS:000181761400010

Abstract: Let G be an infinite group and m is an element of {2(k) \ k is an element of N*}. In this paper, we prove that G satisfies the,law [x(m), y(m)] = 1 if and only if in any two infinite subsets X and Y of G, there exist a is an element of X and b is an element of Y such that [a(m), b(m)] = 1. We also prove that G satisfies the law (x(1)(m),x(2)(m)... x(n)(m))(2) = 1 if and only if in any n infinite subsets X-1, X-2,..., X-n, there exist a(i) is an element of X-i (i= 1, ..., n) such that (a(1)(m)a(2)(m ...) a(n)(m))(2) = 1.

Notes: Boukaroura, A

URL: <Go to ISI>://WOS:000181761400010

Reference Type: Journal Article
Record Number: 9
Author: Bouriche, H. Selloum, L. Tigrine, C. Boudoukha, C.
Year: 2003
Title: Effect of Cleome arabica leaf extract on rat paw edema and human neutrophil migration
Journal: Pharmaceutical Biology
Volume: 41
Issue: 1
Pages: 10-15
Date: Feb
Short Title: Effect of Cleome arabica leaf extract on rat paw edema and human neutrophil migration
ISSN: 1388-0209
DOI: 10.1076/phbi.41.1.10.14698
Accession Number: WOS:000181798600003

Abstract: The anti-inflammatory activity of Cleome arabica leaf extract was studied in vivo and in vitro. Firstly, the extract was examined for its anti-inflammatory activity using carrageenan-induced rat paw edema as a model of acute inflammation. A subplantar injection of 0.1 ml of carrageenan 1% induced a progressive swelling of the rat paw in all time points, that reached a maximal volume in placebo group within 5 h. Results showed that pre-treatment of rats by Cleome arabica leaf extract, 1 h prior the injection of the phlogogenic agent, prevented the increase of the edema in dose-dependent manner with an ED50 of 231 mg/kg, body weight. The extract doses 100, 200 and 300 mg/kg, reduced edema to $65.54 \pm 5.2\%$, $57.86 \pm 8\%$, and $41.54 \pm 3.6\%$, respectively, 5 h after the carrageenan injection. Secondly, we have examined the effect of Cleome arabica leaf extract on human neutrophil migration induced by fMLP (10^{-7} M), using 48-well chemotaxis chamber. Results showed that the extract inhibited neutrophil chemotaxis significantly ($p < 0.01$) and in a dose-dependent manner. Neutrophil migration was reduced to $16.71 \pm 4.6\%$ in presence of 50 μg/ml of Cleome arabica leaf extract. It appears that the antiinflammatory activity of Cleome arabica leaf extract, observed in vivo as well as in vitro, could be due to its high flavonoid content (19%). These results may contribute to explain the use of this plant in folk medicine.

Notes: Bouriche, H Selloum, L Tigrine, C Boudoukha, C
URL: <Go to ISI>://WOS:000181798600003

Abstract: The purpose of this work is to study the effect of ion exchange strengthening on the erosion wear resistance of a soda lime glass exposed to sand blasting and to examine the influence of the residual stresses introduced during sand blasting. All sand blasting erosion tests were carried out in laboratory at normal incidence with a sand flux velocity of 12 m/s using incremental eroding masses up to a cumulative mass of erodent of 210 g. Three sets of glass samples were used for this study. The first set of glass samples was strengthened by ion exchange in a salt bath containing a mass of 98% KNO3 and 2% Al2O3. Glass samples of the second set were exposed to sand blasting in their as received state whereas those of the third set were submitted to an annealing treatment after each incremental erosion test in order to eliminate any residual stresses introduced during sand blasting. After a detailed characterization of the sand used and the determination of the mechanical properties (microhardness and fracture toughness) of both the treated and untreated glasses, we compared the evolution of the mass loss, the erosion rate, the roughness and the optical transmission as a function of the eroding mass for the three sets of glass samples. The results show that the ion exchange treatment improves slightly the glass erosion resistance mainly for small eroding sand masses. The ion exchange treatment becomes less effective beyond an erodent mass of 120 g where the erosion rate for the different sets tend toward nearly the same steady state. All the mean arithmetic roughness curves show a maximum in the interval (90-120) g and tend after a slight decrease toward the same value (Raapproximate to2.2 mum). The optical transmission decreased sharply for all glasses independently of the treatment they received after a surface degradation with a mass of 210 g. The difference in the behavior of the as received glass samples and of those annealed after each incremental test reveals the importance of the residual stresses introduced during sand blasting. They seem to effectively enhance the mass loss. (C) 2002 Elsevier Science Ltd. All rights reserved.

Reference Type: Journal Article

Record Number: 11

Author: Bouzid, S. Hamidouche, M. Bouzid, D. Azari, Z. Pluvinage, G.

Year: 2003

Title: Cyclical loading of indented glass by ball impact

Journal: Glass Technology

Volume: 44

Issue: 5

Pages: 199-204

Date: Oct

Short Title: Cyclical loading of indented glass by ball impact

ISSN: 0017-1050

Accession Number: WOS:000187201200005

Abstract: In many applications glass surfaces are exposed to a variety of external aggressive conditions such as corrosion, chemical reactions and mechanical damage. One such mechanical damage process is sand erosion where contact between the impacting particle and the glass surface leads to erosion by chipping This is the result of elastic-plastic fracture and it involves the intersection of cracks with the surface leading to material removal. The similarities between the surface damage caused by sand erosion and Vickers indentation haw motivated us to apply the indentation technique in a contact damage mechanism study. Residual stresses can influence the deformation and fracture processes that occur during indentation in brittle materials. This study describes an analysis of Vickers indentation and the interaction between two adjacent indentations in soda-lime-silica glass. The residual state stress at the first indentation has an important influence on the development of the crack system of a second adjacent indentation. Microscopic investigations reveal that the angular deviation of adjacent indentation cracks depends on the separation-distance. The effect of cyclic fatigue loading on crack initiation around small indentations and on the evolution of radial cracks around such indentations are also investigated for specimens indented with one and two indents. Strength tests on indented specimens are used to quantify the degree of damage. When specimens are indented once, the radial cracks grow relatively slowly; in the case of two indentations, the radial cracks develop and interact with the adjacent indentation more rapidly. It is shown that the presence of residual stress caused by the indentation leads to more rapid fatigue.

Notes: Bouzid, S Hamidouche, M Bouzid, D Azari, Z Pluvinage, G

URL: <Go to ISI>://WOS:000187201200005

Reference Type: Journal Article
Record Number: 12
Author: Chefrour, M. T. Benamira, F. Guechi, L. Mameri, S.
Year: 2003
Title: Path integral treatment of a family of super-integrable systems in n-dimensional Euclidean space
Journal: Chinese Journal of Physics
Volume: 41
Issue: 6
Pages: 582-594
Date: Dec
Short Title: Path integral treatment of a family of super-integrable systems in n-dimensional Euclidean space
ISSN: 0577-9073
Accession Number: WOS:000187238800002

Abstract: The exact path integration for a family of maximally super-integrable systems generalizing the hydrogen atom in n-dimensional Euclidean space, is presented. The Green's function is calculated in both the parabolic rotational and spherical coordinate systems. The energy spectrum and the correctly normalized wave functions of the bound states are obtained from the poles of the Green's function and their residues, respectively.
Notes: Chefrour, MT Benamira, F Guechi, L Mameri, S
URL: <Go to ISI>://WOS:000187238800002

Reference Type: Journal Article

Record Number: 13

Author: Djennad, M. Benachour, D. Berger, H. Schomacker, R.

Year: 2003

Title: Poly(vinyl alcohol) Ultrafiltration Membranes: Synthesis, Characterization, the Use for Enzyme Immobilization

Journal: Engineering in Life Sciences

Volume: 3

Issue: 11

Pages: 446-452

Date: Nov

Short Title: Poly(vinyl alcohol) Ultrafiltration Membranes: Synthesis, Characterization, the Use for Enzyme Immobilization

ISSN: 1618-0240

DOI: 10.1002/elsc.200301849

Accession Number: WOS:000208918500003

Abstract: An enzymatic hydrolysis in a symmetric membrane, combining reaction and separation, has been studied. PVA hydrogel was chosen because of its hydrophilicity expecting to minimize membrane fouling and concentration polarization. The membrane pores containing covalently bound enzymes serve as catalyst support. The membrane immobilization of the enzyme and the filtration mode of operating the process were chosen in order to avoid product inhibition of the enzyme. The properties of cross-linked PVA hydrogel were investigated. The conversion of the hydrolysis of p-nitrophenyllaurate with two different loadings of Cr lipase was evaluated. The conversion of the reaction decreased with both increasing substrate flux and initial concentration. The kinetic parameters were obtained. Compared to the free lipase, the K_m of the membrane bonded enzyme was lower and its R_{max} approximately the same.

Notes: Djennad, M'hamed Benachour, Djafer Berger, Hartmut Schomaecker, Reinhard

URL: <Go to ISI>://WOS:000208918500003

Reference Type: Journal Article
Record Number: 14
Author: Djidjelli, H. Kaci, M. Boukerrou, A. Benachour, D. Martinez-Vega, J. J.
Year: 2003
Title: Hydrothermic aging of plasticized poly(vinyl chloride): Its effect on the dielectric, thermal, and mechanical properties
Journal: Journal of Applied Polymer Science
Volume: 89
Issue: 13
Pages: 3447-3457
Date: Sep
Short Title: Hydrothermic aging of plasticized poly(vinyl chloride): Its effect on the dielectric, thermal, and mechanical properties
ISSN: 0021-8995
DOI: 10.1002/app.12554
Accession Number: WOS:000184411200005

Abstract: Accelerated hydrolytic aging (according to the NFT 5166 method) was performed on samples of poly(vinyl chloride) (PVC) plasticized with dioctylphthalate (DOP) and dinonylaclipate (DNA) at different concentration ratios. The aging test consisted of immersing the samples in boiling water at 100degreesC. The samples were removed from water regularly, that is, every 2 h, for mechanical, thermal, and dielectric characterizations. Thermograms of PVC plasticized with DOP revealed no migration of the plasticizer independent of the concentration used. Moreover, the thermal stability of the samples was not affected by the hydrothermal aging. However, for PVC samples plasticized with DNA, a small amount of the plasticizer migrated from the polymer matrix with a considerable effect on the thermal stability. In fact, the data indicated a decrease in the decomposition temperature from 275 to 225degreesC, particularly for samples containing 50% (w/w) DNA immersed up to 10 h. The mechanical results showed that for a plasticizer content greater than 30% (w/w), the strain at break obtained for samples plasticized with DNA was lower than that for samples plasticized with DOP because the DNA molecules were more likely to be removed by water on account of their polarity and dimension. Finally, the dielectric measurements showed that the permittivity of all the PVC samples plasticized with DOP and immersed in boiling water was higher than that of the virgin samples. On the contrary, the permittivity of the aged unplasticized PVC was less than that of the nonimmersed samples. (C) 2003 Wiley Periodicals, Inc.
Notes: Djidjelli, H Kaci, M Boukerrou, A Benachour, D Martinez-Vega, JJ
URL: <Go to ISI>://WOS:000184411200005

Reference Type: Journal Article
Record Number: 15
Author: Douadi, T. Benabid, S. Cariou, M.
Year: 2003
Title: Differences of behaviour in electrooxidation of 3,3 '-dimethoxybenzidine and its N,N,N ',N '-tetraalkylated derivatives: a further example of potential inversion
Journal: Electrochimica Acta
Volume: 48
Issue: 18
Pages: 2659-2665
Date: Aug
Short Title: Differences of behaviour in electrooxidation of 3,3 '-dimethoxybenzidine and its N,N,N ',N '-tetraalkylated derivatives: a further example of potential inversion
ISSN: 0013-4686
DOI: 10.1016/s0013-4686(03)00313-x
Accession Number: WOS:000184233800014
Abstract: The anodic oxidation of 3,3'-dimethoxybenzidine and its derivatives were studied by cyclic voltammetry, voltammetry at a rotating platinum electrode, chronopotentiometry and constant potential coulometry. The exhaustive oxidation of 3,3'-dimethoxybenzidine led at the potential of the first oxidation peak and second oxidation peak, respectively, to a stable cation radical salt (characterized by ESR spectroscopy) and to a quinone-diimine. Whereas, 3,3'-dimethoxy-N,N,N,N'-tetramethylbenzidine afforded directly a dication salt owing to potential inversion 3,3'-dimethoxy-N,N,N',N'-tetraethylbenzidine gave the corresponding soluble cation radical salt. (C) 2003 Elsevier Science Ltd. All rights reserved.
Notes: Douadi, T Benabid, S Cariou, M
URL: <Go to ISI>://WOS:000184233800014

Abstract: Two heterocyclic compounds based on the thieno[3,4-c]thiophene structure with four aryl substituents were prepared and their behavior in electrooxidation studied. These tetraarylthieno[3,4-c]thiophenes were synthesized in three steps starting from 1,3-dibenzoylmethane. in the case of 1,3,4,6-tetraphenyl-2lambda(4)delta(2) -thieno[3,4-c]thiophene 1a and from 1,3-bis(4'-methoxyphenyl)propane-1,3-dione in the case of 1,3,4,6-tetrakis(4'-methoxyphenyl)-2lambda(4)delta(2)-thieno[3,4-c]thiophene 1b, a new compound. Both cyclic and hydrodynamic voltamperometric analyses indicate two reversible one-electron oxidation stages for compound 1b, while for compound 1a only the first stage is reversible. The preparative electrooxidation of the two compounds results in the opening of one thiophene ring giving rise to gamma-keto-thioketones.

Reference Type: Journal Article
Record Number: 17
Author: Gasmi, A. Mekias, H.
Year: 2003
Title: The effect of surface tension on the contraction coefficient of a jet
Journal: Journal of Physics a-Mathematical and General
Volume: 36
Issue: 3
Pages: 851-862
Date: Jan
Short Title: The effect of surface tension on the contraction coefficient of a jet
ISSN: 0305-4470
DOI: 10.1088/0305-4470/36/3/318
Article Number: Pii s0305-4470(03)39613-1
Accession Number: WOS:000185020200021
Abstract: Two-dimensional free surface potential flow issued from an opening of a container is considered. The flow is assumed to be inviscid and incompressible. The mathematical problem, which is characterized by the nonlinear boundary condition on the free surface of an unknown equation, is solved via a series truncation. We computed solutions for all Weber numbers. Our problem is an extension of the work done by Ackerberg and Liu (1987 Phys. Fluids 30 289-96), the results confirm and extend their results.
Notes: Gasmi, A Mekias, H
URL: <Go to ISI>://WOS:000185020200021

Reference Type: Journal Article
Record Number: 18
Author: Golea, N. Golea, A. Benmahammed, K.
Year: 2003
Title: Stable indirect fuzzy adaptive control
Journal: Fuzzy Sets and Systems
Volume: 137
Issue: 3
Pages: 353-366
Date: Aug
Short Title: Stable indirect fuzzy adaptive control
ISSN: 0165-0114
DOI: 10.1016/s0165-0114(02)00279-8
Article Number: Pii s0165-0114(02)00279-8
Accession Number: WOS:000184222100004
Abstract: This paper investigates new fuzzy model-based observer adaptive control for multi-input multi-output continuous-time nonlinear systems. The proposed adaptive scheme uses Takagi-Seguno (TS) fuzzy models to estimate the plant states and dynamics. Using stability arguments, it is shown that the proposed scheme is globally asymptotically stable. The observation and tracking errors are shown to converge asymptotically to zero, despite the presence of external disturbances and approximation errors. The performance of the developed approach is illustrated, by simulation, on two-link robot model. (C) 2002 Elsevier B.V. All rights reserved.
Notes: Golea, N Golea, A Benmahammed, K
URL: <Go to ISI>://WOS:000184222100004

Reference Type: Journal Article
Record Number: 19
Author: Hafsi, M. Pfeiffer, W. H. Monneveux, P.
Year: 2003
Title: Flag leaf senescence, carbon content and carbon isotope discrimination in durum wheat grown under semi-arid conditions
Journal: Cereal Research Communications
Volume: 31
Issue: 1-2
Pages: 161-168
Short Title: Flag leaf senescence, carbon content and carbon isotope discrimination in durum wheat grown under semi-arid conditions
ISSN: 0133-3720
Accession Number: WOS:000183156300020
Abstract: Flag leaf senescence was compared among twenty-one durum wheat genotypes grown under semi-arid conditions in the Algerian High-Plateau using numerical image analysis. A significant correlation was found between senescence at the end of the grain filling period and grain yield. Carbon content of the flag leaf at anthesis (CL) also correlated with grain yield. The association between grain yield and carbon isotope discrimination (Delta) in flag leaves was not significant. A negative correlation between Delta and CL revealed that genotypes with high transpiration efficiency (low Delta) had higher carbon content in the leaves. Results suggest that high flag leaf carbon content at anthesis and low senescence at the end of grain filling are positively associated with grain yield under drought and heat stress.
Notes: Hafsi, M Pfeiffer, WH Monneveux, P
URL: <Go to ISI>://WOS:000183156300020

20 ▶ **Reference Type: Journal Article**
Record Number: 20
Author: Hamidouche, M. Bouaouadja, N. Olagnon, C. Fantozzi, G.
Year: 2003
Title: Thermal shock behaviour of mullite ceramic
Journal: Ceramics International
Volume: 29
Issue: 6
Pages: 599-609
Short Title: Thermal shock behaviour of mullite ceramic
ISSN: 0272-8842
DOI: 10.1016/s0272-8842(02)00207-9
Accession Number: WOS:000184380200001

Abstract: The aim of this work is to study some aspects of the thermal shock of mullite ceramic. Mullite samples are submitted to mild thermal shock by quenching in a compressed air flow using a Biot number beta = 0.3. The cooling duration is 6 s with a superficial heat exchange coefficient h = 600 W/m(2)degreesC. This duration is sufficient for the transient thermal stress to reach its maximal value. The critical temperature difference DeltaT(c) found equal to 750 degreesC was obtained by measuring the retained mechanical strength and the Young's modulus. For determining the failure time and DeltaT(c), we used the acoustic emission technique. Finally, the thermal shock experiments are modelled by a two dimensional cooling model, allowing a precise determination of the induced stress intensity factor K-1. (C) 2003 Elsevier Ltd and Techna S.r.l. All rights reserved.
Notes: Hamidouche, M Bouaouadja, N Olagnon, C Fantozzi, G
URL: <Go to ISI>://WOS:000184380200001

Reference Type: Journal Article
Record Number: 21
Author: Himoun, N. Abbaoui, K. Cherruault, Y.
Year: 2003
Title: New results on Adomian method
Journal: Kybernetes
Volume: 32
Issue: 3-4
Pages: 523-539
Short Title: New results on Adomian method
ISSN: 0368-492X
DOI: 10.1108/03684920310463911
Accession Number: WOS:000182443000022
Abstract: In this work new results about the Adomian method are presented Also we prove a new and general result of convergence of the Adomain method, and give two results of convergence of this method applied to ordinary differential equations. Finally, we generalize the Adomian method and prove two new results of convergence with one of them applied to the modified method.
Notes: Himoun, N Abbaoui, K Cherruault, Y
URL: <Go to ISI>://WOS:000182443000022

Reference Type: Journal Article
Record Number: 22
Author: Horchani, K. Gacon, J. C. Ferid, M. Trabelsi-Ayedi, M. Krachni, O. Liu, G. K.
Year: 2003
Title: Energy levels of Pr3+ in CsPrP4O12 and RbPrP4O12 cyclotetraphosphates
Journal: Optical Materials
Volume: 24
Issue: 1-2
Pages: 169-174
Date: Oct-Nov
Short Title: Energy levels of Pr3+ in CsPrP4O12 and RbPrP4O12 cyclotetraphosphates
ISSN: 0925-3467
DOI: 10.1016/s0925-3467(03)00121-6
Accession Number: WOS:000186194600026
Abstract: Single crystals of CsPrP4O12 and RbPrP4O12 cyclotetraphosphates were grown using the flux method. CsPrP4O12 crystallizes in the cubic I-43d space group whereas RbPrP4O12 crystallizes either in the cubic I-43d or monoclinic C2/c space group. The Pr3+ ions occupy sites of S-4 and C-2 symmetries in the cubic and monoclinic phases, respectively, with an eightfold coordination in both phases. The present work reports on an analysis of the Pr3+ 4f(2) energy level diagram based on the low temperature fluorescence spectra under laser selective excitation in the P-3(2) states of the cubic CsPrP4O12 and monoclinic RbPrP4O12 compounds. The experimental energy levels are fitted using the SPECTRA program available on the Argonne National Laboratory website. The best fits lead to standard deviations in the order of 28 and 21 cm(-1) for the CsPrP4O12 and RbPrP4O12 materials, respectively. (C) 2003 Elsevier B.V. All rights reserved.
Notes: Horchani, K Gacon, JC Ferid, M Trabelsi-Ayedi, M Krachni, O Liu, GK 5th French-Israeli Workshop on Optical Properties of Inorganic Materials Dec 08-12, 2002 Claude bernard lyon univ 1, villeurbanne, france Min foreign Affairs France, French Embassy Israel, CNRS, Dept Chem, France-Israel Rhone Alpea Chamber Commerce, Reg Rhone Alpes
URL: <Go to ISI>://WOS:000186194600026

Reference Type: Journal Article
Record Number: 23
Author: Houamer, S. Mansouri, A. Dal Cappello, C. Lahmam-Bennani, A. Elazzuzi, S. Moulay, M. Charpentier, I.
Year: 2003
Title: Second Born approximation for the ionization of H-2 by electron impact
Journal: Journal of Physics B-Atomic Molecular and Optical Physics
Volume: 36
Issue: 14
Pages: 3009-3024
Date: Jul
Short Title: Second Born approximation for the ionization of H-2 by electron impact
ISSN: 0953-4075
DOI: 10.1088/0953-4075/36/14/304
Article Number: Pii s0953-4075(03)61926-7
Accession Number: WOS:000184991100004
Abstract: The second Born approximation is applied to study the (e, 2e) reaction for H-2 targets. The results of this approximation are compared to a new set of experimental data obtained at about 600 eV impact energy, as well as to previous experiments performed at larger (similar to4 keV) or smaller (250 eV) energy. Several single-centre wavefunctions are used to describe the initial state and excited states of the molecule. A generally good agreement is obtained with the experiments and with recent calculations.
Notes: Houamer, S Mansouri, A Dal Cappello, C Lahmam-Bennani, A Elazzuzi, S Moulay, M Charpentier, I
URL: <Go to ISI>://WOS:000184991100004

Reference Type: Journal Article
Record Number: 24
Author: Houcher, B. Candito, M. Gibelin, P. Caramella, A. De Courcy, G. P. Naimi, D. Lefebvre, J. C. Van Obberghen, E.
Year: 2003
Title: Assessment of folate status: Measurement of homocysteine versus vitamin B12 and folate
Journal: Pteridines
Volume: 14
Issue: 1
Pages: 27-33
Date: Mar
Short Title: Assessment of folate status: Measurement of homocysteine versus vitamin B12 and folate
ISSN: 0933-4807
Accession Number: WOS:000183529100006

Abstract: This study was based on 63 subjects (mean age 50 9) including 41 patients with clinical and objective investigational evidence of vascular disease (age 30 30-66 years) and 22 control subjects (age 26-54 years). Dietary intake of folate was estimated from a food questionnaire of folate (Q.folate). There was no statistically significant difference between controls and patients for dietary folate. Also the plasma folate level did did noly slightly differ between the controls and patients (6.68 +/- 2.52 ng/mL versus 5.62 +/- 4.16 ng/mL, not significant). Patients had higher average homocysteine concentrations than control subjects (12.93 +/- 8.79 vs 9.07 +/- 3.08 mumol/l, $p<0.05$). A significant relationship was observed in controls between plasma folate concentrations and the homocysteine levels (rs = - 0.538; $p<0.01$), and the folate questionnaire (rs = 0.697; $p<0.001$). We found in controls significant positive correlation between vitamin B12 and vitamin B6 (rs = 0.475, $p<0.05$). By contrast, no association was found in patients between folate and homocysteine concentrations and the dietary nutrient intake of folate. On the other hand vitamin B12 is inversely associated with homocysteine (rs = -0.333, $p<0.05$). These data provide further evidence that plasma homocysteine is an independent risk factor for myocardial infraction. Homocysteine is a valuable functional index of micronutrient status and intakes for people, which can assist the development of the public health. In our population, folate was the most important determinant of plasma homocysteine, even in subjects with apparently adequate nutritional status of this vitamin.
Notes: Houcher, B Candito, M Gibelin, P Caramella, A De Courcy, GP Naimi, D Lefebvre, JC Van Obberghen, E
URL: <Go to ISI>://WOS:000183529100006

Reference Type: Journal Article
Record Number: 25
Author: Houcher, B. De Courcy, G. P. Candito, M. Van Obberghen, E. Naimi, D.
Year: 2003
Title: Nutritional assessment of folate status in a population of Setif, Algeria
Journal: Pteridines
Volume: 14
Issue: 4
Pages: 138-142
Date: Dec
Short Title: Nutritional assessment of folate status in a population of Setif, Algeria
ISSN: 0933-4807
Accession Number: WOS:000188993400007
Abstract: The present study evaluates the folate status in a selected group of men and women living in Setif, Algeria. Eighty-three subjects (55 males, 28 females), aged 18 - 63 years, participated as random volunteers in an original study. There appeared to be significant effect of gender on the dietary intake of folate. However, examination of data for individual subjects indicated that, with exception of folate in females, a great percentage of males had intake of folate below the 67(th) percentile of the Reference Nutrient Intake (RNI). Analysis by two methods, the Canadian RNI and the Dietary Reference Values for folate in the U.K., revealed a large proportion of subjects presenting with less than the RNI (84% of males and 57% of females) and (71% of males and 69% of females), respectively. The study clearly indicates that, although mean values for dietary intakes of folate may be adequate, analysis of individual data allows to identify an appreciable proportion of the study population at risk of deficiency.
Notes: Houcher, B De Courcy, GP Candito, M Van Obberghen, E Naimi, D Free Morrocan Congress on Vitamines and Microelements Oct 28-31, 2002 Rabat, morocco
URL: <Go to ISI>://WOS:000188993400007

26 **Reference Type: Journal Article**
Record Number: 26
Author: Kerouani, D. Benachour, D. Kerouani, N.
Year: 2003
Title: A study of the complexation of Ph2+ and Co2+ metallic ions by chemical and electrochemical poly-dibenzo crown ether
Journal: Annales De Chimie-Science Des Materiaux
Volume: 28
Issue: 5
Pages: 117-124
Date: Sep-Oct
Short Title: A study of the complexation of Ph2+ and Co2+ metallic ions by chemical and electrochemical poly-dibenzo crown ether
ISSN: 0151-9107
DOI: 10.1016/s0151-9107(03)00111-9
Accession Number: WOS:000186276500010

Abstract: A study of the complexation of Pb^{2+} and Co^{2+} metallic ions by chemical and electrochemical poly-dibenzo crown ether. The present work deals with the study of the complexation of Pb^{2+} and Co^{2+} metallic ions in aqueous medium, by poly-dibenzo crown ether, as a function of three parameters: temperature, time, and concentration. The poly-dibenzo crown ether was synthesized by two methods: chemically and electrochemically. The behaviour of the two polymers was found to be different, and very interesting for the chemical poly-dibenzo crown ether under specific conditions. The chemical and electrochemical poly-dibenzo crown ether exhibit different extraction properties with respect to the complexation of the two cations. This work also showed that doped polymers may have an appropriate electric conductivity that can be improved after complexation of the metallic ions. It was noticed that the best results were obtained with the chemical poly-dibenzo crown ether for all ions, at the temperature of 25degreesC.
Notes: Kerouani, D Benachour, D Kerouani, N
URL: <Go to ISI>://WOS:000186276500010

Reference Type: Journal Article
Record Number: 27
Author: Kerouani, N. Chelali, N. Kerouani, D.
Year: 2003
Title: Electrochemical and kinetic behavior of the MnOX/C-beta-PbO2 electrode
Journal: Journal of Solid State Electrochemistry
Volume: 8
Issue: 1
Pages: 34-36
Date: Dec
Short Title: Electrochemical and kinetic behavior of the MnOX/C-beta-PbO2 electrode
ISSN: 1432-8488
DOI: 10.1007/s10008-003-0406-8
Accession Number: WOS:000187186000010
Abstract: The MnOX/C-beta-PbO2 electrode was obtained by admixture of beta-PbO2 to MnOX/C. Slow scan voltammetry shows a double reduction peak which is discussed. Galvanostatic intermittent titration technique curves are also used and the value of the proton diffusion coefficient, D(H+), is determined. All studies are made in 2 M KOH.
Notes: Kerouani, N Chelali, N Kerouani, D 3rd International Meeting on Advanced Batteries and Accumulators Jun 16-20, 2002 Brno, czech republic
URL: <Go to ISI>://WOS:000187186000010

Abstract: The gastroprotective effects of 70% acetone extracts of Quercus suber and Quercus coccifera leaves and of tannins (pedunculagin, castalagin, phillyraeoidin A, and acutissimin B) purified from these extracts were examined in the mouse using the ethanol-induced gastric ulcer model. Both extracts (25, 50, and 100 mg/kg), given orally, prevented the formation of ethanol-induced lesions in the stomach. The percent protection varied between 68 and 91%. Purified tannins (50 mg/kg) were also effective in protecting the stomach against ethanol, and the percent protection varied from 66 to 83%. Castalagin was the most potent. Both extracts and all of the tannins tested (10, 25, and 50 mug/mL) strongly inhibited (55-65%) the lipid peroxidation of rabbit brain homogenate. These results suggest that the gastroprotective effects of extracts of Q. suber and Q. coccifera leaves and the purified tannins in this experimental model are related to their anti-lipoperoxidant properties.

Reference Type: Journal Article
Record Number: 29
Author: Kolli, M. Schatzman, M.
Year: 2003
Title: Approximation of a semilinear elliptic problem in an unbounded domain
Journal: Esaim-Mathematical Modelling and Numerical Analysis-Modelisation Mathematique Et Analyse Numerique
Volume: 37
Issue: 1
Pages: 117-132
Date: Jan-Feb
Short Title: Approximation of a semilinear elliptic problem in an unbounded domain
ISSN: 0764-583X
DOI: 10.1051/m2an:2003017
Accession Number: WOS:000181708900006

Abstract: Let f be an odd function of a class C-2 such that $f(1) = 0$, $f'(0) < 0$, $f'(1) > 0$ and x bar right arrow $f(x)/x$ increases on [0, 1]. We approximate the positive solution of $-\Delta u + f(u) = 0$, on R-+(2) with homogeneous Dirichlet boundary conditions by the solution of $-\Delta u(L) + f(u(L)) = 0$, on] 0, L[(2) with adequate non-homogeneous Dirichlet conditions. We show that the error $u(L) - u$ tends to zero exponentially fast, in the uniform norm.
Notes: Kolli, M Schatzman, M
URL: <Go to ISI>://WOS:000181708900006

Reference Type: Journal Article
Record Number: 30
Author: Lamari, S.
Year: 2003
Title: Effect of the doping concentration on the zero-field spin splitting and Rashba parameter in a p-InAs MOSFET
Journal: Physical Review B
Volume: 67
Issue: 16
Date: Apr
Short Title: Effect of the doping concentration on the zero-field spin splitting and Rashba parameter in a p-InAs MOSFET
ISSN: 1098-0121
DOI: 10.1103/PhysRevB.67.165329
Article Number: 165329
Accession Number: WOS:000182824200074

Abstract: Using the Hartree approximation, the 8x8 Kane Hamiltonian, and the envelope-function scheme the electronic structure of electrons bound within an inversion layer on p-InAs in a Mosfet geometry is computed self-consistently and studied as a function of the two-dimensional electron density $N(S)$ and the doping concentration $N(A)$-$N(D)$. The subband spin splitting $delta(k)(nu)$ at an in-plane wave vector k varies almost linearly with $N(S)$, and for the same electron density and k it is larger in the lower subbands. Likewise, the k-dependent subband Rashba parameter $alpha(k)(nu)$ at a given k shows an analogous behavior. Varying the doping concentration in the interval $1.8x10(15)$-$1.8x10(17)$ cm(-3), in subband nu the spin-splitting $delta(nu)$ at the Fermi level is computed for $N(S)$ in the range $10(11)$-$4.8x10(12)$ cm(-2), where it is found to be an increasing function of $N(S)$; moreover, it is largest in the ground subband. At the Fermi level, the corresponding Rashba parameter $alpha(nu)$ is also computed as a function of $N(S)$ in both the ground and first excited subbands while $N(A)$-$N(D)$ is varied from $0.433x10(17)$ to $1.8x10(17)$ cm(-3). In this range, whereas $alpha(1)$ simply shows a decreasing trend as a function of $N(S)$, $alpha(0)$ exhibits new and counterintuitive $N(S)$ dependencies as $N(A)$-$N(D)$ is varied. Moreover, $alpha(1)$ can either be larger or smaller than $alpha(0)$, even when tunneling into the barrier is completely neglected. In addition, the role of the first excited subband on the overall $N(S)$ dependence of $alpha(0)$ turns out to be crucial.
Notes: Lamari, S
URL: <Go to ISI>://WOS:000182824200074

Reference Type: Journal Article
Record Number: 31
Author: Laouer, H. Zerroug, M. M. Sahli, F. Chaker, A. N. Valentini, G. Ferretti, G. Grande, M. Anaya, J.
Year: 2003
Title: Composition and antimicrobial activity of Ammoides pusilla (Brot.) Breistr. essential oil
Journal: Journal of Essential Oil Research
Volume: 15
Issue: 2
Pages: 135-138
Date: Mar-Apr
Short Title: Composition and antimicrobial activity of Ammoides pusilla (Brot.) Breistr. essential oil
ISSN: 1041-2905
Accession Number: WOS:000181559500028

Abstract: The essential oil of the aerial parts of Ammoides pusilla was analyzed using both GC and GC/MS. The results revealing no less than 46 constituents among which thymol (44.5%), gamma-terpinene (32.9%) and p-cymene (13.5%) were the most abundant. The antimicrobial activity of A. pusilla oil was studied using the agar diffusion test on eight strains of bacteria, and against fungus and yeast. The two-fold oil solution showed an important antimicrobial activity against Serratia marcescens, Salmonella enteritidis, Escherichia coli (ATCC 25922), Pseudomonas aeruginosa (ATCC 27853), Staphylococcus aureus (ATCC 25923), Klebsiella pneumoniae, Pseudomonas syringae pv. syringae, Pseudomonas syringae pv. mosprunorum, Aspergillus niger and Candida albicans.
Notes: Laouer, H Zerroug, MM Sahli, F Chaker, AN Valentini, G Ferretti, G Grande, M Anaya, J
URL: <Go to ISI>://WOS:000181559500028

Reference Type: Journal Article
Record Number: 32
Author: Layadi, A.
Year: 2003
Title: Study of the resonance modes in coupled ferromagnetic layers: effect of the in-plane anisotropy axis directions
Journal: Journal of Magnetism and Magnetic Materials
Volume: 266
Issue: 3
Pages: 282-289
Date: Nov
Short Title: Study of the resonance modes in coupled ferromagnetic layers: effect of the in-plane anisotropy axis directions
ISSN: 0304-8853
DOI: 10.1016/s0304-8853(03)00289-0
Accession Number: WOS:000186265300006

Abstract: The resonance modes of two coupled ferromagnetic layers are investigated as a function of the relative directions of the in-plane anisotropy easy axes of the layers, measured by the angle delta. It is found that the angle delta affects differently the acoustic and the optical mode positions and intensities. These effects are described. In some cases, the changes induced by delta on the mode position and intensity are similar to those induced by the bilinear $J(1)$ and biquadratic $J(2)$ coupling strengths. This may lead to incorrect interpretation of the FMR data and consequently to erroneous values of $J(1)$ and $J(2)$. For ferromagnetic coupling ($J(1) > 0$) and for magnetizations which are parallel, the variation of the resonant frequency and mode intensity with 6 is qualitatively similar to that corresponding to a decrease in the bilinear coupling strength, $J(1)$. In this case, if delta is omitted, then the $J(1)$ value derived from FMR will be underestimated. When the magnetizations are antiparallel ($J(1) < 0$), a coupled system with a small 6 value will produce the same FMR spectrum (position and intensity) as one with a small $\backslash J(2)\backslash$ value; and even the critical field will be the same. Hence, a slight deviation of the easy axis direction of one layer with respect to the one of the second layer may be interpreted as the existence of a small biquadratic coupling. A relation establishing the equivalence between $J(2)$ and delta in the small ($J(2)$, delta) region, is derived. (C) 2003 Elsevier B.V. All rights reserved.
Notes: Layadi, A
URL: <Go to ISI>://WOS:000186265300006

Abstract: Transition metal/rare-earth multilayers show some unusual magnetic properties and are potential candidates as magneto-optical recording media. In this paper, we study by means of a torque magnetometer, the magnetic behavior of [Co-xAngstrom/Tb-15Angstrom](10) multilayers prepared by molecular beam epitaxy. We are interested here in the rotational hysteresis energy as a function of both the temperature and the Co thickness. (C) 2003 Elsevier Science B.V. All rights reserved.

Reference Type: Journal Article
Record Number: 34
Author: Louail, L. Maouche, D. Cheriat, A.
Year: 2003
Title: Saturation magneto striction in Co-Ag films
Journal: Materials Letters
Volume: 57
Issue: 22-23
Pages: 3486-3494
Date: Jul
Short Title: Saturation magneto striction in Co-Ag films
ISSN: 0167-577X
DOI: 10.1016/s0167-577x(03)00103-4
Accession Number: WOS:000184050700033
Abstract: Magnetostriction can be described as the fractional change in length of a sample depending on the state of magnetization and describes the contribution to the magnetic anisotropy energy resulting from the interaction between film strain and magnetization direction. In this paper, both longitudinal (lambda(//)) and transverse (lambda(perpendicular to)) saturation magnetostrictions of a Co-Ag granular system, prepared by molecular beam epitaxy, are studied as a function of Co concentration and temperature. (C) 2003 Elsevier Science B.V. All rights reserved.
Notes: Louail, L Maouche, D Cheriat, A
URL: <Go to ISI>://WOS:000184050700033

Reference Type: Journal Article

35

Record Number: 35
Author: Maamache, M. Bekkar, H.
Year: 2003
Title: Evolution of Gaussian wave packet and nonadiabatic geometrical phase for the time-dependent singular oscillator
Journal: Journal of Physics a-Mathematical and General
Volume: 36
Issue: 23
Pages: L359-L364
Date: Jun
Short Title: Evolution of Gaussian wave packet and nonadiabatic geometrical phase for the time-dependent singular oscillator
ISSN: 0305-4470
DOI: 10.1088/0305-4470/36/23/105
Article Number: Pii s0305-4470(03)56345-4
Accession Number: WOS:000184057000005
Abstract: We investigate the dynamics and - geometric phases of a time-dependent singular oscillator. We construct certain Gaussian wave packet solutions of the corresponding Schrodinger equation, relate the latter with the classical equation of motion and explore the relationship between the associated quantum and phase angles. It is shown by a simple geometrical approach that the geometrical phase is connected with the classical nonadiabatic Hannay angle of the generalized harmonic oscillator. Our geometric approach is based on a rule for a 'natural transport' of the complex two-dimensional vector in the phase space and the results obtained are quite suggestive of similarities to. the quantum mechanical two-state evolution.
Notes: Maamache, M Bekkar, H
URL: <Go to ISI>://WOS:000184057000005

Reference Type: Journal Article
Record Number: 36
Author: Mansouri, A. Houamer, S. Moulay, M.
Year: 2003
Title: Analytical representation of total cross-sections for electron atom scattering: Application to atomic helium
Journal: Acta Physica Polonica A
Volume: 104
Issue: 1
Pages: 25-34
Date: Jul
Short Title: Analytical representation of total cross-sections for electron atom scattering: Application to atomic helium
ISSN: 0587-4246
Accession Number: WOS:000184972300002

Abstract: Based on the series expansion formalism, an analytical approach is proposed to evaluate the total cross-sections induced by electron impact excitation. As an illustration, an analytical expression of the total cross-section of the double excitation of helium atom by electron impact is obtained for the $2p(2)$ P-3 and $2p3p$ P-1 transitions within the framework of the distorted wave Born approximation. The available experimental data are well reproduced by the obtained expression of the total cross-section which is function of the only parameter of the incident electron energy. Comparisons are also made with numerical calculations.
Notes: Mansouri, A Houamer, S Moulay, M
URL: <Go to ISI>://WOS:000184972300002

Reference Type: Journal Article
Record Number: 37
Author: Merabet, A. Gontrand, C.
Year: 2003
Title: Volume and grain boundary diffusivity of boron in polycristalline silicon during rapid thermal annealing
Journal: Materials Science and Engineering B-Solid State Materials for Advanced Technology
Volume: 102
Issue: 1-3
Pages: 257-261
Date: Sep
Short Title: Volume and grain boundary diffusivity of boron in polycristalline silicon during rapid thermal annealing
ISSN: 0921-5107
DOI: 10.1016/s0921-5107(02)00742-0
Accession Number: WOS:000185174800050
Abstract: The diffusion of boron and arsenic from polycristalline silicon into single crystal silicon during rapid thermal annealing (RTA) at temperature between 1000 and 1150 degreesC for 20 s has been investigated. Samples were characterised by secondary ion mass spectrometry (SIMS). The volume and intergranular diffusion coefficient has been deduced from the boron profiles. Depth profiles are analysed using the Suzuoka model. It is established that the grain boundary diffusivities are two to three times larger than the volume diffusivities. (C) 2003 Elsevier B.V. All rights reserved.
Notes: Merabet, A Gontrand, C Spring Meeting of the European-Materials-Research-Society (E-MRS) Jun 18-21, 2002 Strasbourg, france European Mat Res Soc
URL: <Go to ISI>://WOS:000185174800050

Reference Type: Journal Article
Record Number: 38
Author: Moulay, M. Mansouri, A. Houamer, S.
Year: 2003
Title: Simple approach for the bound-state energy spectrum of the generalized exponential-cosine Coulomb potential
Journal: Physical Review E
Volume: 67
Issue: 1
Date: Jan
Short Title: Simple approach for the bound-state energy spectrum of the generalized exponential-cosine Coulomb potential
ISSN: 1539-3755
DOI: 10.1103/PhysRevE.67.017701
Article Number: 017701
Accession Number: WOS:000181018000098

Abstract: Based on the series expansion formalism, a relatively simple approach is proposed to solve the eigenvalues problems with partially screened and screened exponential-cosine Coulomb potentials. This approach is used to derive solutions to the Schrodinger equation with the two forms of potentials. The eigenenergies are explicitly deduced from solving the obtained corresponding polynomial equations. For illustration, high accuracy results have been obtained in the entire range of parameter values of these potential forms, with no constraints or adjustable constants. The present approach compares well, with existing methods, the results of which are precisely recovered as particular cases and does allow solutions to eigenvalues problems with any combination of potential parameters.
Notes: Moulay, M Mansouri, A Houamer, S 2
URL: <Go to ISI>://WOS:000181018000098

Reference Type: Journal Article
Record Number: 39
Author: Rachidi, W. Mange, A. Senator, A. Guiraud, P. Riondel, J. Benboubetra, M. Favier, A. Lehmann, S.
Year: 2003
Title: Prion infection impairs copper binding of cultured cells
Journal: Journal of Biological Chemistry
Volume: 278
Issue: 17
Pages: 14595-14598
Date: Apr
Short Title: Prion infection impairs copper binding of cultured cells
ISSN: 0021-9258
DOI: 10.1074/jbc.C300092200
Accession Number: WOS:000182516100003

Abstract: The molecular mechanism of neurodegeneration in transmissible spongiform encephalopathies (TSEs) remains unclear. Using radioactive copper (Cu-64) at physiological concentration, we showed that prion infected cells display a marked reduction in copper binding. The level of full-length prion protein known to bind the metal ion was not modified in infected cells, but a fraction of this protein was not releasable from the membrane by phosphatidylinositol-specific phospholipase C. Our results suggest that prion infection modulates copper content at a cellular level and that modification of copper homeostasis plays a determinant role in the neuropathology of TSE.
Notes: Rachidi, W Mange, A Senator, A Guiraud, P Riondel, J Benboubetra, M Favier, A Lehmann, S
URL: <Go to ISI>://WOS:000182516100003

Reference Type: Journal Article

Record Number: 40

Author: Selloum, L. Bouriche, H. Tigrine, C. Boudoukha, C.

Year: 2003

Title: Anti-inflammatory effect of rutin on rat paw oedema, and on neutrophils chemotaxis and degranulation

Journal: Experimental and Toxicologic Pathology

Volume: 54

Issue: 4

Pages: 313-318

Date: Mar

Short Title: Anti-inflammatory effect of rutin on rat paw oedema, and on neutrophils chemotaxis and degranulation

ISSN: 0940-2993

DOI: 10.1078/0940-2993-00260

Accession Number: WOS:000182016300008

Abstract: Background: Rutin, a natural flavone derivative, is known for its pharmacological properties. We have previously reported that this flavonol exerted a potent inhibitory effect on respiratory burst of fMet-Leu-Phe-stimulated neutrophils, as well as on phosphoinositide 3-kinase gamma activity in a cell free system. In the present study, the anti-inflammatory effect of rutin was investigated in vivo and in vitro. Methods: rutin or aspirin (100 mg/kg, body weight) were given orally to rats I hour before paw oedema induction, using lambda-carrageenan 1%. The rat paw volume was measured by mean of plethysmometer, initially and during 6 hours. The chemotaxis of neutrophils towards 10(-7) M fMet-Leu-Phe was performed using 48-well chemotaxis chamber. Neutrophils that migrated through 5 pm pore size polycarbonate filter, in presence or in absence of rutin, were counted microscopically. Elastase exocytosis of either phorbol 12-myristate 13-acetate or fMet-Leu-Phe/cytochalasin B-stimulated neutrophils was assessed in absence or in presence of rutin using the synthetic substrate N-Suc-Ala-Ala-Ala-p-nitroanilide. The absorbance of released p-nitroaniline was measured at 405 nm using microplate reader. Results: The maximal swelling in placebo group was observed at 5 hours, after lambda-carrageenan injection. Oral administration of rutin reduced rat paw swelling starting 2 hours after lambda-carrageenan injection. Rutin reduced significantly ($p < 0.05$) and in a dose-dependant manner the polymorphonuclear neutrophils chemotaxis to fMet-Leu-Phe. Furthermore, elastase exocytosis, induced by both stimuli, was partially inhibited by rutin up to 25 muM. Conclusion: The present study revealed that rutin possesses anti-inflammatory properties.

Notes: Selloum, L Bouriche, H Tigrine, C Boudoukha, C

URL: <Go to ISI>://WOS:000182016300008

Reference Type: Journal Article
Record Number: 41
Author: Torche, M. Schmerber, G. Guemmaz, M. Mosser, A. Parlebas, J. C.
Year: 2003
Title: Non-stoichiometric niobium nitrides: structure and properties
Journal: Thin Solid Films
Volume: 436
Issue: 2
Pages: 208-212
Date: Jul
Short Title: Non-stoichiometric niobium nitrides: structure and properties
ISSN: 0040-6090
DOI: 10.1016/s0040-6090(03)00616-3
Article Number: Pii s0040-6090(03)00616-3
Accession Number: WOS:000183945700010
Abstract: Non-stoichiometric niobium nitride films of various nitrogen compositions were deposited on glass and silicon (111) substrates, heated to 150 C, by direct current reactive magnetron sputtering from a niobium metal target in an argon-nitrogen atmosphere. The argon gas flow was fixed at 20 seem and the nitrogen gas flow was changed from 0 to 8 seem. Composition, structure, electrical and optical properties of the films were studied using respectively, energy dispersion spectroscopy, X-ray diffraction, four probes method and optical spectrometry. Thickness was measured by X-ray reflectometry. The structures found were hexagonal for the 2 seem sample and of NaCl type for 4 seem samples and beyond. The film thickness indicates that the deposition rate decreases as the nitrogen gas flow increases. Electrical resistivity increases with the nitrogen content for samples having NaCl structures. Moreover, optical spectrometry shows that samples with NaCl structure have a high reflectivity in infrared region while reflectivity remains low in the ultraviolet region. (C) 2003 Elsevier Science B.V. All rights reserved.
Notes: Torche, M Schmerber, G Guemmaz, M Mosser, A Parlebas, JC
URL: <Go to ISI>://WOS:000183945700010

Reference Type: Journal Article
Record Number: 42
Author: Trabelsi, N.
Year: 2003
Title: Centre-by-metabelian groups with a condition on infinite subsets
Journal: Publicacions Matematiques
Volume: 47
Issue: 2
Pages: 451-457
Short Title: Centre-by-metabelian groups with a condition on infinite subsets
ISSN: 0214-1493
Accession Number: WOS:000185712200008

Abstract: In this note, we consider some combinatorial conditions on infinite subsets of groups and we obtain in terms of these conditions some characterizations of the classes L(N-k)F and FL(N-k) for the finitely generated centre-by-metabelian groups, where L(N-k) (respectively, F) denotes the class of groups in which the normal closure of each element is nilpotent of class at most k (respectively, finite groups).
Notes: Trabelsi, N
URL: <Go to ISI>://WOS:000185712200008

43 **Reference Type: Journal Article**
Record Number: 43
Author: Zitouni, R. Keraghel, A.
Year: 2003
Title: Resolution of a capacitated transportation problem with four subscripts
Journal: Kybernetes
Volume: 32
Issue: 9-10
Pages: 1450-1463
Short Title: Resolution of a capacitated transportation problem with four subscripts
ISSN: 0368-492X
DOI: 10.1108/03684920310493341
Accession Number: WOS:000186599000014

Abstract: The classical transportation problem is actually well known both in theory and numerical resolution. We are interested in the multi-subscripts capacitated transportation problem of axial sum launched by specialists some years ago. Our work deals with the capacitated problem with four subscripts for which we have established an existence criterion, an optimality condition and an algorithm of resolution.
Notes: Zitouni, R Keraghel, A
URL: <Go to ISI>://WOS:000186599000014

44 **Reference Type: Book**
Record Number: 1
Author: Bekka, R. E. Chikouche, D. Ieee,
Year: 2003
Title: Effect of the window length on the EMG spectral estimation through the Blackman-Tukey method
Series Title: Seventh International Symposium on Signal Processing and Its Applications, Vol 2, Proceedings
Number of Pages: 17-20
Short Title: Effect of the window length on the EMG spectral estimation through the Blackman-Tukey method
ISBN: 0-7803-7946-2
DOI: 10.1109/isspa.2003.1224804
Accession Number: WOS:000189296800005
Abstract: This paper presents the application of spectral analysis methods that are based on the FFT algorithm to the study of the surface EMG power spectrum compression. Some preferred characteristic frequencies used to monitor the spectral compression are the mean and median frequencies. In this work, we show that the spectral density estimation by the Blackman-Tukey method associated with the weighting windows permits a better track of the compression with regard to the periodogram. The effect of the type and tire size of windows is examined in order to determine the appropriate window that well describes the spectral compression, and thus the best process descriptor of the muscular fatigue.
Notes: Bekka, RE Chikouche, D 7th International Symposium on Signal Processing and Its Applications Jul 01-04, 2003 Paris, france EURASIP, IEEE, IEEE French Chapter
URL: <Go to ISI>://WOS:000189296800005

Reference Type: Book
Record Number: 2
Author: Chemali, H. Latoui, A. Aktouf, C.
Year: 2003
Title: An optical boundary scan cell for on line testing of embedded systems
Series Editor: Arabnia, H. R. Yang, L. T.
Series Title: Esa'03: Proceedings of the International Conference on Embedded Systems and Applications
Number of Pages: 155-160
Short Title: An optical boundary scan cell for on line testing of embedded systems
ISBN: 1-932415-15-7
Accession Number: WOS:000186712000024
Abstract: The problem of on-line testing does not have a satisfying solution, particularly, for transient faults. In this paper, a new technique which permits real time checking by combining duplication, and comparison at remote system on using standard boundary scan 1149.1 is proposed. A novel boundary scan cell is proposed. Simulation results showed that during system normal operation, faults are detected soon as they occur. In addition, one should note how easily a boundary scan register is scanned. A single shifting operation is required to achieve stuck at fault testing without affecting system normal operation.
Notes: Chemali, H Latoui, A Aktouf, C International Conference on Embedded Systems and Applications (ESA 03) Jun 23-26, 2003 Las vegas, nv Comp Sci Res, Educ & Appl Res, Int Technol Inst, Korean Soc Internet Informat, World Acad Sci Informat Technol
URL: <Go to ISI>://WOS:000186712000024

Reference Type: Book
Record Number: 3
Author: Laib, S. Djahli, F. Mayouf, A. Ieee,
Year: 2003
Title: Full-wave characterization of open-end and gap discontinuities of shielded coplanar striplines
Series Title: 2003 IEEE International Symposium on Electromagnetic Compatibility
Number of Pages: 359-362
Short Title: Full-wave characterization of open-end and gap discontinuities of shielded coplanar striplines
ISBN: 0-7803-7779-6
DOI: 10.1109/icsmc2.2003.1428265
Accession Number: WOS:000228094500089
Abstract: In this work, we study the two discontinuities open-end and series gap in the coplanar striplines. New integral equations for the electrical field components are formulated, in the spectral domain, using an exact dyadic Green's function, applied to the coplanar stripline structure. The use of this type of Green's function, we permeate the consideration of the effects of the dielectric losses, surface waves excitation and space waves radiation on the propagation characteristics of the coplanar strip line and its two discontinuities. The resulting integral equation has been solved by the two-dimensional Galerkin's technique. The resulting matrix equation resolution we gives the S-parameters of the two studied discontinuities. Our results are compared to those of other approaches.
Notes: Laib, S Djahli, F Mayouf, A Emc IEEE International Symposium on Electromagnetic Compatibility (EMC) May 11-16, 2003 Istanbul, TURKEY Ieee
URL: <Go to ISI>://WOS:000228094500089

47 **Reference Type: Book**
Record Number: 4
Author: Toumi, B. Guemmadi, Z. Houari, H.
Year: 2003
Title: The dam of Beni Haroun - Algeria
Series Editor: Berga, L. Buil, J. M. Jofre, C. Chonggang, S.
Series Title: Roller Compacted Concrete Dams
Number of Pages: 379-383
Short Title: The dam of Beni Haroun - Algeria
ISBN: 90-5809-564-9
Accession Number: WOS:000188415100043
Abstract: Roller compacted concrete is a new proceeding in Algeria. This technique is applied to dam construction. The dam of Beni Haroun constructed in Wilaya of Mila is one of the biggest dams in Africa and one of the first executed with roller compacted concrete. The present paper describes the different steps from the concrete formulation, to the fabrication and control. This new technique is destined to reduce the cost and dams construction time without affecting their security. For Algeria that the need of water is very important, it is well to more developing this proceeding.
Notes: Toumi, B Guemmadi, Z Houari, H 4th International Symposium on Roller Compacted Concrete Dams Nov 17-19, 2003 Madrid, spain Spanish Natl Comm Large Dams, Spanish Inst Cement & Applicat, Chinese Natl Comm Large Dams
URL: <Go to ISI>://WOS:000188415100043

PRODUCTION SCIENTIFIQUE ANNEE 2004

Reference Type: Journal Article
Record Number: 1
Author: Abdessemed, F. Benmahammed, K. Monacelli, E.
Year: 2004
Title: A fuzzy-based reactive controller for a non-holonomic mobile robot
Journal: Robotics and Autonomous Systems
Volume: 47
Issue: 1
Pages: 31-46
Date: May
Short Title: A fuzzy-based reactive controller for a non-holonomic mobile robot
ISSN: 0921-8890
DOI: 10.1016/j.robot.2004.02.006
Accession Number: WOS:000221368200003
Abstract: This paper presents the theoretical development of a complete navigation problem of an autonomous mobile robot. The situation for which the vehicle tries to reach the endpoint is treated using a fuzzy logic controller. The problem of extracting the optimized IF-THEN rule base is solved using an evolutionary algorithm. A new approach based on fuzzy concepts is presented in this paper to avoid any collision with the surrounding environment when this latter becomes relatively complex. Simulation results show that the designed fuzzy controller achieves effectively any movement control of the vehicle front its current position to its end motion and without any collision. (C) 2004 Elsevier B.V. All rights reserved.
Notes: Abdessemed, F Benmahammed, K Monacelli, E
URL: <Go to ISI>://WOS:000221368200003

Reference Type: Journal Article
Record Number: 2
Author: Atmani, D. Benboubetra, M. Harrison, R.
Year: 2004
Title: Goats' milk xanthine oxidoreductase is grossly deficient in molybdenum
Journal: Journal of Dairy Research
Volume: 71
Issue: 1
Pages: 7-13
Date: Feb
Short Title: Goats' milk xanthine oxidoreductase is grossly deficient in molybdenum
ISSN: 0022-0299
DOI: 10.1017/s0022029903006514
Accession Number: WOS:000220639900002
Abstract: Xanthine oxidoreductase (XOR) was purified from goats' milk. The u.v.-visible absorption spectrum was essentially identical to those of the corresponding bovine and human milk enzymes and showed an A(280)/A(450) ratio of 5(.)20 +/- 0(.)12, indicating a high degree of purity. Like bovine and human milk XORs, enzyme purified from goats' milk showed a single band on SDS-PAGE corresponding to a subunit with approximate M-r 150000. On Western blotting, mouse monoclonal anti-human XOR antibody cross-reacted with purified caprine and bovine XORs. The specific xanthine oxidase activity of goats' milk XOR, however, was very much lower than that of bovine XOR, although NADH oxidase activities of XOR from the two sources were similar. In these respects, the caprine milk XOR mirrors the human milk enzyme, in which case the kinetic effects have previously been attributed to relatively low molybdenum content. The molybdenum content of goats' milk XOR also was shown to be relatively low, with 0(.)09 atoms Mo per subunit, compared with 0(.)55 atoms Mo per subunit for the bovine enzyme. A parallel purification of human milk XOR showed 0(.)03 atoms Mo per subunit. The possible physiological significance of the low molybdenum content of the caprine milk enzyme and of its correspondingly low enzymic activity is discussed.
Notes: Atmani, D Benboubetra, M Harrison, R
URL: <Go to ISI>://WOS:000220639900002

3

Reference Type: Journal Article
Record Number: 3
Author: Azizi, A. Sahari, A. Felloussia, M. L. Schmerber, G. Meny, C. Dinia, A.
Year: 2004
Title: Growth and properties of electrodeposited cobalt films on Pt/Si(100) surface
Journal: Applied Surface Science
Volume: 228
Issue: 1-4
Pages: 320-325
Date: Apr
Short Title: Growth and properties of electrodeposited cobalt films on Pt/Si(100) surface
ISSN: 0169-4332
DOI: 10.1016/j.apsusc.2004.01.026
Accession Number: WOS:000221367000045

Abstract: In this paper, the growth, structural and magnetic properties of cobalt (Co) films electrodeposited on a Pt/Si(1 0 0) substrate have been investigated. Co films with metallic appearance were obtained from aqueous solution of 0.1 M CoSO4, 10 mM CoCl2 as the source of metal ions and 1 M NaSO4 as a supporting electrolyte with 0.5 M H3BO3 at pH 4.2. This electrochemical technique indicated a deposition peak signature of limited diffusion growth with the transition from progressive to instantaneous nucleation mechanism. The atomic force microscopy (AFM) images showed a granular structure of the electrodeposited layers. X-ray measurements (XRD) and nuclear magnetic resonance (NMR) indicate a small grain size with the presence of a mixture of Co hcp and fcc structures. The magnetic properties of the deposited films were investigated with a magnetic field in the parallel and perpendicular direction and showed that the easy magnetization axis is in the plane. (C) 2004 Elsevier B.V. All rights reserved.
Notes: Azizi, A Sahari, A Felloussia, ML Schmerber, G Meny, C Dinia, A
URL: <Go to ISI>://WOS:000221367000045

Reference Type: Journal Article

Record Number: 4

Author: Baitiche, M. Mahamoud, A. Benachour, D. Merbah, M. Barbe, J.

Year: 2004

Title: Synthesis of new quinazoline derivatives

Journal: Heterocyclic Communications

Volume: 10

Issue: 4-5

Pages: 269-272

Short Title: Synthesis of new quinazoline derivatives

ISSN: 0793-0283

Accession Number: WOS:000223305200002

Abstract: New quinazoline derivatives were prepared by the reaction of 4-hydroxy-quinazoline with alkyl halides under phase transfer-catalysis conditions. The hydroxy group was readily converted into a thiol function by treating with phosphorus pentasulfide in pyridine and the subsequent alkylation of the thiol group was carried out under PTC conditions. Chlorination of 4-hydroxyquinazoline was carried out with phosphorus oxychloride. Branching of alkylamino side chains to the 4-OH, 4-S, and 4-Cl quinazolines has resulted in the synthesis of several compounds identified by H-1 NMR.

Notes: Baitiche, M Mahamoud, A Benachour, D Merbah, M Barbe, J

URL: <Go to ISI>://WOS:000223305200002

Reference Type: Journal Article
Record Number: 5
Author: Bartel, J. Bencheikh, K. Quentin, P.
Year: 2004
Title: Currents, spin densities and mean-field form factors in rotating nuclei: A semi-classical approach
Journal: International Journal of Modern Physics E-Nuclear Physics
Volume: 13
Issue: 1
Pages: 225-233
Date: Feb
Short Title: Currents, spin densities and mean-field form factors in rotating nuclei: A semi-classical approach
ISSN: 0218-3013
DOI: 10.1142/s0218301304001989
Accession Number: WOS:000220350700034

Abstract: We present self-consistent semi-classical local densities characterising the structure of rotating nuclei. A particular emphasis is put on those densities which are generated by the breaking of time-reversal symmetry through the cranking piece of the Routhian, namely the current density and the spin vector density. Our approach which is based on the Extended-Thomas-Fermi method goes beyond the Inglis cranking approach and contains naturally the Thouless-Valatin self-consistency terms expressing the response of the mean field to the time-odd part of the density matrix.

Notes: Bartel, J Bencheikh, K Quentin, P Workshop on Nuclear Physics Sep, 2003 Kazimierz Dolny, POLAND
URL: <Go to ISI>://WOS:000220350700034

Reference Type: Journal Article
Record Number: 6
Author: Belattar, N. Mekhalif, T.
Year: 2004
Title: Adsorption of human serum albumin on to synthesized dye-like polystyrene gel beads
Journal: Materials Science & Engineering C-Biomimetic and Supramolecular Systems
Volume: 24
Issue: 4
Pages: 507-511
Date: Jun
Short Title: Adsorption of human serum albumin on to synthesized dye-like polystyrene gel beads
ISSN: 0928-4931
DOI: 10.1016/j.msec.2004.01.004
Accession Number: WOS:000221992700009

Abstract: In bioseparation, adsorption of proteins on to various polymer surfaces plays an important role in different fields, particularly in pseudo-affinity chromatography techniques. In this context, this study aims to synthesize cross-linking polystyrene gel beads as packing material in column chromatography for albumin purification. Suitable chemical groups, such as sulfonate and L-cysteine with high affinity towards human serum albumin were introduced on the aromatic ring of the hydrophobic adsorbing polystyrene support. These functional groups were chosen on the basis of the interactions of albumin with their exogenous and endogenous ligands in such manner to confer this material a highly binding ability and enhance its efficacy. Adsorption of human albumin on to these two synthesized adsorbents was performed at 37 degreesC in physiological pH 7.3 during 20 min of incubation. The adsorbed albumin content at interface allows to establish the adsorption isotherm curves. The adsorption rate on both resins was found to be significantly high and the affinity constants, evaluated by the Langmuir model, were: 7.5 x 10(5) and 1.45 x 10(6) M-1 for poly(styrene sodium sulfonate) and poly(styrene cysteine sulfamide), respectively. Thus, the obtained material gel beads could be used advantageously as a dye-like stationary phase in chromatographic separation of albumin instead of other conventional supports. (C) 2004 Elsevier B.V All rights reserved.
Notes: Belattar, N Mekhalif, T
URL: <Go to ISI>://WOS:000221992700009

Reference Type: Journal Article
Record Number: 7
Author: Belhattab, R. Larous, L. Kalantzakis, G. Boskou, D. Exarchou, V.
Year: 2004
Title: Antifungal properties of Origanum glandulosum Desf. extracts
Journal: Journal of Food Agriculture & Environment
Volume: 2
Issue: 1
Pages: 69-73
Date: Jan
Short Title: Antifungal properties of Origanum glandulosum Desf. extracts
ISSN: 1459-0255
Accession Number: WOS:000208575000011
Abstract: Hexane extracts, decoctions and the essential oil obtained from Origanum glandulosum Desf., an oregano species grown wild in North Africa and used as a herb tea or a medicine, were checked for their inhibitory effect on various fungi and yeasts isolated at the Central University Hospital of Setif, Algeria. The microorganisms Aspergillus flavus, Aspergillus niger, Aspergillus fumigatus, Penicillium expansum, Fusarium solani, Uloclodium sp., Trichophyton rubrum, Microsporum canis, Pityrosporum orbicular and Candida albicans were tested using the disk diffusion assay and macrodilution test. Additionally, Thin Layer Chromatography and Nuclear Magnetic Resonance spectroscopy were used to detect the presence of important phytochemical antioxidants, such as hydroxycinnamic acids and flavonols. All the extracts and the essential oils showed an inhibitory effect on yeasts and fungi. In the test with saprophytic fungi the highest activity was observed with the essential oil on P. expansum and the hexane extract and chloroform extract of the decoction on P. expansum and F. solani. Polyphenol content of the water and acetone extracts expressed as caffeic acid was 118 and 261 g kg(-1) of extract respectively. TLC chromatography and colour reactions indicated the presence of caffeic acid and rosmarinic acid, bound forms of 3- and 5-hydroxylated flavonoids and free flavonoids. NMR spectroscopy confirmed the presence of quercetin.
Notes: Belhattab, Rachid Larous, Larbi Kalantzakis, Georgios Boskou, Dimitrios Exarchou, Vassiliki
URL: <Go to ISI>://WOS:000208575000011

Reference Type: Journal Article
Record Number: 8
Author: Benazzouz, C. Benouattas, N. Iaiche, S. Bouabellou, A.
Year: 2004
Title: Study of diffusion at surface of multilayered Cu/Au films on monocrystalline silicon
Journal: Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms
Volume: 213
Pages: 519-522
Date: Jan
Short Title: Study of diffusion at surface of multilayered Cu/Au films on monocrystalline silicon
ISSN: 0168-583X
DOI: 10.1016/s0168-583x(03)01617-3
Accession Number: WOS:000187020700100

Abstract: Multilayered of pure gold and copper films were evaporated alternatively on (100) monocrystal silicon substrates. Annealing, in a furnace vacuum, were carried out at 200 and 400 degreesC for 30 min. The obtained samples were analyzed by means of Rutherford backscattering spectrometry, X-ray diffraction and scanning electron microscopy techniques. The interdiffusion of the different elements and the thermodynamic transformations at Cu/Au and Au/Si interfaces have been investigated. (C) 2003 Elsevier B.V. All rights reserved.
Notes: Benazzouz, C Benouattas, N Iaiche, S Bouabellou, A 5th International Topical Meeting on Industrial Radiation and Radioisotope Measurement Applications Jun 09-14, 2002 Bologna, italy Univ Bologna, Amer Nucl Soc, Int Atom Energy Acgy, Natl Inst Phys Matter, INFN, CNR, ENEA, EPS, ICS UNIDO, ICTP, Int Radiat Phys Soc, Italian Natl Soc Appl & Ind Math, NC State Univ, Ctr Engn Applicat Radioisotopes, Fdn Monte, Fdn Flaminia, Fdn CARISBO, Museum Ind Patrimony Bologna, Emilia Romagna Reg
URL: <Go to ISI>://WOS:000187020700100

Reference Type: Journal Article
Record Number: 9
Author: Benboubetra, M. Baghiani, A. Atmani, D. Harrison, R.
Year: 2004
Title: Physicochemical and kinetic properties of purified sheep's milk xanthine oxidoreductase
Journal: Journal of Dairy Science
Volume: 87
Issue: 6
Pages: 1580-1584
Date: Jun
Short Title: Physicochemical and kinetic properties of purified sheep's milk xanthine oxidoreductase
ISSN: 0022-0302
Accession Number: WOS:000221797500002

Abstract: Xanthine oxidoreductase (XOR) was purified for the first time from sheep's milk. The ultraviolet-visible absorption spectrum was essentially identical to those of the corresponding bovine, human, and goats' milk enzymes and showed an A(280)/A(450) ratio of 5.35 +/- 0.24, indicating a high degree of purity. Like milk XOR from other species, sheep's milk enzyme showed a single band on SDS-PAGE corresponding to a subunit with approximate M-r 150,000. Xanthine oxidase activity of purified sheep's milk XOR (0.69 +/- 0.04 mumole urate min(-1) mg(-1)) was low relative to that of the bovine milk enzyme (1.83 +/- 0.02 mumole urate min(-1) mg(-1)), but higher than those of human or goats' milk XOR. As in the latter 2 cases, the low activity of sheep's milk XOR can be attributed to its relatively low molybdenum content (0.18 atoms per subunit), compared with that of the bovine milk enzyme (0.56 atoms Mo per subunit). Consistent with this, NADH oxidase activity of sheep's milk XOR was similar to that of enzymes purified from bovine, human, or goats' milk. The presence of desulpho-enzyme in sheep's milk XOR was demonstrated by resulfuration experiments, whereby xanthine oxidase activity was increased by approximately 75%.
Notes: Benboubetra, M Baghiani, A Atmani, D Harrison, R
URL: <Go to ISI>://WOS:000221797500002

Reference Type: Journal Article
Record Number: 10
Author: Bencheikh, K. Berkane, K. Bouizane, S.
Year: 2004
Title: The extended Thomas-Fermi kinetic energy density functional with position-dependent effective mass in one dimension
Journal: Journal of Physics a-Mathematical and General
Volume: 37
Issue: 45
Pages: 10719-10725
Date: Nov
Short Title: The extended Thomas-Fermi kinetic energy density functional with position-dependent effective mass in one dimension
ISSN: 0305-4470
DOI: 10.1088/0305-4470/37/45/001
Article Number: Pii s0305-4470(04)80163-x
Accession Number: WOS:000225442000003
Abstract: The point canonical transformations map the Schrodinger equation with constant mass to a wave equation with a position-dependent effective mass. Using such a technique we derive, for a one-dimensional inhomogeneous system of noninteracting fermions with density p(x) and spatially dependent effective mass distribution m(x), the semiclassical kinetic energy density functional tau(p) in the so-called extended Thomas-Fermi model up to order h(2). For a given position-dependent mass, we compare numerically the total semiclassical kinetic energy with its exact quantum mechanical counterpart. The qualitative agreement is excellent.
Notes: Bencheikh, K Berkane, K Bouizane, S
URL: <Go to ISI>://WOS:000225442000003

Reference Type: Journal Article
Record Number: 11
Author: Bencherif-Madani, A. Pardoux, E.
Year: 2004
Title: Locally periodic homogenization
Journal: Asymptotic Analysis
Volume: 39
Issue: 3-4
Pages: 263-279
Date: Sep
Short Title: Locally periodic homogenization
ISSN: 0921-7134
Accession Number: WOS:000226003900003
Abstract: In this paper, two linear second PDEs are homogenized. The coefficients are supposed to be locally periodic, Lipschitz and bounded. Compared to our previous work [1], we provide a new and simpler proof and weaken the hypotheses of the main theorem. We use both probabilistic and analytic arguments.
Notes: Bencherif-Madani, A Pardoux, E
URL: <Go to ISI>://WOS:000226003900003

Reference Type: Journal Article
Record Number: 12
Author: Benia, H. M. Guemmaz, A. Schmerber, G. Mosser, A. Parlebas, J. C.
Year: 2004
Title: Optical and electrical properties of sputtered ZrN compounds
Journal: Catalysis Today
Volume: 89
Issue: 3
Pages: 307-312
Date: Mar
Short Title: Optical and electrical properties of sputtered ZrN compounds
ISSN: 0920-5861
DOI: 10.1016/j.cattod.2003.12.006
Accession Number: WOS:000220602300009

Abstract: We studied zirconium nitride layers prepared by reactive direct current (dc) magnetron sputtering and synthesized with nitrogen gas flow ranging from 1 to 9 sccm (standard centimeter cube per minute) N-2. We measured their electrical resistivity and recorded their X-ray diffraction patterns as well as their RBS spectra and optical reflectance curves. Thus we could determine their crystallographic structure, their nitrogen content and their optical properties by simulating the reflectance curves with Drude's model for stoichiometric and sub-stoichiometric samples, and an extended Drude model for over-stoichiometric samples. In this work, we focus on our stoichiometric sample S4, in order to compare the dielectric function as well as the optical indexes n and k, deduced from fit optical parameters, with those given in literature. There is a good agreement between these results. Besides, we determined the "optical resistivity" of our several samples and compared them with the "electrical resistivity" measured by a four-probe method. Also, a good agreement is found between both curves, which confirms that the formalism used to simulate the reflectance curves is well adapted to these compounds. (C) 2004 Elsevier B.V. All rights reserved.
Notes: Benia, HM Guemmaz, A Schmerber, G Mosser, A Parlebas, JC 1st French-Algerian Scientific Congress on Emerging Materials Feb 22-25, 2003 Tamanrasset, ALGERIA
URL: <Go to ISI>://WOS:000220602300009

Reference Type: Journal Article

Record Number: 13

Author: Benkerri, M. Halimi, R. Bouabellou, A. Benouattas, N.

Year: 2004

Title: Effect of Sb+ implantation on copper silicides formation and morphology after annealing of Cu/Si structures

Journal: Materials Science in Semiconductor Processing

Volume: 7

Issue: 4-6

Pages: 319-324

Date: Aug-Dec

Short Title: Effect of Sb+ implantation on copper silicides formation and morphology after annealing of Cu/Si structures

ISSN: 1369-8001

DOI: 10.1016/j.mssp.2004.09.119

Accession Number: WOS:000225855200027

Abstract: In this work, the solid state reaction between a thin film of copper and silicon has been studied using Rutherford backscattering spectroscopy, X-ray diffraction, scanning electron microscopy and microprobe analysis. Cu films of 400 and 900 A thicknesses are thermally evaporated on Si(l 1 1) substrates, part of them had previously been implanted with antimony ions of 5 x 10(14) or 5 x 10(15) at. cm(-2) doses. The samples are heat-treated in vacuum at temperatures in the range 200-700 degreesC for various times. The results show the growth and formation Of Cu3Si and Cu4Si silicides under crystallites shape dispatched on the sample surface, independently of the implantation dose. On the other hand, it is established that the copper layer is less and less consumed as the antimony dose increases, resulting in the accumulation of Sb+ ions at silicide/Si interface and in the silicide layer close to surface. The exposure of samples to air at room temperature shows the stability Of Cu4Si phase whereas the Cu3Si silicide disappears to the benefit of the silicon dioxide formation. The observed phenomena are discussed. (C) 2004 Elsevier Ltd. All rights reserved.

Notes: Benkerri, M Halimi, R Bouabellou, A Benouattas, N Symposium on New Materials in Future Silicon Technology Held at the E-MAR 2004 Spring Meeting 2004 Strasbourg, FRANCE

URL: <Go to ISI>://WOS:000225855200027

Reference Type: Journal Article
Record Number: 14
Author: Berrimi, S. Messaoudi, S. A.
Year: 2004
Title: EXPONENTIAL DECAY OF SOLUTIONS TO A VISCOELASTIC EQUATION WITH NONLINEAR LOCALIZED DAMPING
Journal: Electronic Journal of Differential Equations
Short Title: EXPONENTIAL DECAY OF SOLUTIONS TO A VISCOELASTIC EQUATION WITH NONLINEAR LOCALIZED DAMPING
ISSN: 1072-6691
Article Number: 88
Accession Number: WOS:000208969900088

Abstract: In this paper we consider the nonlinear viscoelastic equation [GRAPHICS] in a bounded domain. Without imposing geometry restrictions on the boundary, we establish an exponential decay result, under weaker conditions than those in [3].
Notes: Berrimi, Said Messaoudi, Salim A.
URL: <Go to ISI>://WOS:000208969900088

Abstract: The high development of numerical image and signal processing techniques, may lead to the replacement of conventional photosensitive media used in holography by CCD sensors: hence, to the field of digital holography. The hologram is saved in the host memory of a computer and can be reconstructed on the same place or elsewhere in a numerical manner. The development of liquid crystal displays (LCD) directly addressed by computer permits to think of opto-digital holography. The observation of the reconstructed image at a limited distance is possible when using adequate optical components, which makes not only the possibility to observe the image at a defined distance but also to control its magnification (opto-digital holographic microscopy). Since it is possible to control all experimental steps by adequate software, it is then possible to make real time opto-digital holographic microscopy. In this work, we show the experimental set-up and the obtained results, showing that this technique can be used to study different kinds of materials, connected to different conventional microscopes and to make holographic interferometry. (C) 2003 Elsevier B.V. All rights reserved.
Notes: Bouamama, L Bouafia, M Wernicke, G Krueger, S Gruber, H 1st French-Algerian Scientific Congress on Emerging Materials Feb 22-25, 2003 Tamanrasset, ALGERIA
URL: <Go to ISI>://WOS:000220602300014

Abstract: The elastic constants of lattice matched and mismatched Ga1-xInxNyAs1-y alloys with the zincblende structure have been calculated using a pseudopotential formalism combined with the Harrison bond orbital model. The calculations are generally in satisfactory agreement with the experimental results, which are only available for the binary parent compounds. All elastic constants are predicted to significantly increase when further increasing the nitrogen content or the lattice mismatch. (C) 2004 Published by Elsevier Ltd.
Notes: Bouarissa, N Kassali, K
URL: <Go to ISI>://WOS:000223511800013

Reference Type: Journal Article
Record Number: 17
Author: Boukaroura, A.
Year: 2004
Title: Characterisation of finitely generated soluble finite-by-nilpotent groups
Journal: Rendiconti Del Seminario Matematico Della Universita Di Padova
Volume: 111
Pages: 119-126
Short Title: Characterisation of finitely generated soluble finite-by-nilpotent groups
ISSN: 0041-8994
Accession Number: WOS:000222313600006

Abstract: We say that a group G has finite lower central depth if the lower central series of G stabilises after a finite number of steps, that is, G has finite lower central depth if and only if gamma(k) (G) = gamma(k + 1) (G) for some positive integer k. The least integer k such that gamma(k) (G) = gamma(k + 1)(G), is called the depth of G. We denote by Omega the class of groups which has finite lower central depth. If k is a positive integer, we denote by Omega(k) the class of all groups having finite lower central depth at most k. Let G be a finitely generated soluble group. In this note we prove, G is finite-by-nilpotent if and only if in every infinite set of elements of G there exist two distinct elements x, y such that <x, y> is an element of Omega, and G is finite by a group in wich every two generator subgroup is nilpotent of class at most k if and only if in every infinite set of elements of G there exist two distinct elements x, y such that <x, y> is an element of Omega(k).

Notes: Boukaroura, A
URL: <Go to ISI>://WOS:000222313600006

Reference Type: Journal Article
Record Number: 18
Author: Boutahala, M. Djellouli, B. Zouaoui, N. Garin, F.
Year: 2004
Title: Ethylcyclopentane reactions on alumina supported low loaded platinum-copper catalysts
Journal: Catalysis Today
Volume: 89
Issue: 3
Pages: 379-385
Date: Mar
Short Title: Ethylcyclopentane reactions on alumina supported low loaded platinum-copper catalysts
ISSN: 0920-5861
DOI: 10.1016/j.cattod.2003.12.012
Accession Number: WOS:000220602300020

Abstract: This work is focused on the catalytic behaviour of alumina supported low loaded Pt-Cu catalysts. Ethylcyclopentane is the probe molecule. In fact this molecule can lead to several primary reactions as: (i) ring opening, (ii) ring enlargement, (iii) aromatisation, and (iv) hydrocracking. Due to these various pathways we can follow the modifications of the catalytic activities as well as selectivity changes when the surface composition of the catalyst is changed. Various techniques were used to characterise these catalysts: (i) by TPR we showed that an interaction between platinum and copper is present and (ii) by hydrogen chemisorption we found that the platinum dispersion decreased from 100 to 20% when the copper content increased. The ring opening reaction is non-selective for platinum catalysts and for Pt-Cu systems with low copper content and is selective for catalysts with a high copper content. We noted that the apparent activation energy values also changed with the amount of copper which confirms the modifications in the catalytic mechanisms when changing copper concentration. We proposed that the ring enlargement reaction is similar to a bond shift reaction, when ring opening corresponds to hydrocracking reactions. Such comparative relation can help to understand the results obtained. (C) 2004 Elsevier B.V. All rights reserved.

Notes: Boutahala, M Djellouli, B Zouaoui, N Garin, F 1st French-Algerian Scientific Congress on Emerging Materials Feb 22-25, 2003 Tamanrasset, ALGERIA
URL: <Go to ISI>://WOS:000220602300020

Reference Type: Journal Article

Record Number: 19

Author: Candito, M. Houcher, B. Boisson, C. Abellard, J. Demarcq, M. J. Gueant, J. L. Benhacine, K. Gerard, P. Van Obberghen, E.

Year: 2004

Title: Neural tube defects and vitamin B12: a report of three cases

Journal: Annales De Biologie Clinique

Volume: 62

Issue: 2

Pages: 235-238

Date: Mar-Apr

Short Title: Neural tube defects and vitamin B12: a report of three cases

ISSN: 0003-3898

Accession Number: WOS:000220492400015

Abstract: Periconceptional folic acid supplementation reduces the frequency of embryological neural tube defects (NTD). This fact led the USA to fortify grain products with folic acid (140 mug/100 g) starting in January 1998, with a resultant decrease in the incidence of NTD. Folate deficiency is thus confirmed to be a risk factor for NTD. However, in a prospective study, we investigated three women who conceived a fetus with NTD; no folate deficiency was found in these women but all three had decreased vitamin B 12 levels (cobalamin), which can be an other risk factor. Samples were obtained from two women in Algeria, 2 days after interruption of pregnancy, and from a vegetarian woman, in France, one month after interruption of pregnancy. Red cell folate and plasma folate, vitamin B 12, B6 and homocysteine were assayed and the mutations C677T (in metylenetetrahydrofolate reductase gene), A2756G (in methionine synthase gene) and A66G (in methionine synthase reductase gene) were sought. Elevated plasma folate levels were found in both Algerian women. Vitamin B 12 levels in all three women were decreased or in the lowest quartile of normal values. One woman presented simultaneously a vitamin B 12 deficiency, and heterozygous mutations in the three genes. The second woman presented a A66G homozygous mutation and the third heterozygous C677T and A66G mutations. Acquired and inborn factors are intricated in some cases of pregnancies with NTD and B12 deficiency can be responsible for intracellular folate cycle failure. It would therefore be advisable to consider fortifying grain products with both folic acid and vitamin B12.

Notes: Candito, M Houcher, B Boisson, C Abellard, J Demarcq, MJ Gueant, JL Benhacine, K Gerard, P Van Obberghen, E

URL: <Go to ISI>://WOS:000220492400015

20 **Reference Type: Journal Article**
Record Number: 20
Author: Chaoui, Z. Bouarissa, N.
Year: 2004
Title: Positron and electron backscattering from elemental solids in the 1-10 keV energy range
Journal: Journal of Physics-Condensed Matter
Volume: 16
Issue: 6
Pages: 799-808
Date: Feb
Short Title: Positron and electron backscattering from elemental solids in the 1-10 keV energy range
ISSN: 0953-8984
DOI: 10.1088/0953-8984/16/6/010
Accession Number: WOS:000220021100015
Abstract: Electron and positron backscattering coefficients are analytically calculated for a number of selected atomic targets in the energy range 1-10 keV and for incident angles between 0degrees and 80degrees. The dependence of the backscattering coefficient on the material, on the projectile primary energy and on the incidence angle has been examined and discussed. Our results are found to be in better agreement with experiment than earlier Monte Carlo simulations.
Notes: Chaoui, Z Bouarissa, N
URL: <Go to ISI>://WOS:000220021100015

Reference Type: Journal Article
Record Number: 21
Author: Chaoui, Z. Bouarissa, N.
Year: 2004
Title: Implantation profiles for low energy electrons in metals: scaling properties
Journal: Applied Surface Science
Volume: 221
Issue: 1-4
Pages: 114-119
Date: Jan
Short Title: Implantation profiles for low energy electrons in metals: scaling properties
ISSN: 0169-4332
DOI: 10.1016/s0169-4332(03)00870-5
Accession Number: WOS:000187721700018

Abstract: The scaling of electron implantation profiles with incident energies over the range 0.5-4 keV at normal angle of incidence are presented using the Monte Carlo scheme to generate stopping profiles in semi-infinite Al and An. A simple scaling relationship which reduced the stopping profiles onto a single universal curve for that studied material is proposed with only two fitting parameters instead of four parameters previously reported in the literature. This permits accurate profiles for low energy electrons in metals to be obtained in a simple way that does not require any recourse to Monte Carlo calculations in the generation of electron stopping profiles. (C) 2003 Elsevier B.V. All rights reserved.
Notes: Chaoui, Z Bouarissa, N
URL: <Go to ISI>://WOS:000187721700018

Reference Type: Journal Article

Record Number: 22

Author: Chaoui, Z. E. A. Bouarissa, N.

Year: 2004

Title: Slow positrons elastically scattered by solid targets

Journal: Journal of Applied Physics

Volume: 96

Issue: 1

Pages: 807-812

Date: Jul

Short Title: Slow positrons elastically scattered by solid targets

ISSN: 0021-8979

DOI: 10.1063/1.1739289

Accession Number: WOS:000222093300128

Abstract: Total and transport elastic scattering cross sections for positrons impinging on solid targets have been computed for energies in the range 10-10 000 eV. The phase shifts have been calculated by numerically solving the Schrodinger equation. The results have been discussed and compared where possible with other tabulations. Special attention has been given to the effect of the correlation potential. The latter was found to have much effect on the total elastic scattering cross sections while its effect on transport elastic scattering cross sections is more important when the positron energy is lowered. (C) 2004 American Institute of Physics.

Notes: Chaoui, ZEA Bouarissa, N

URL: <Go to ISI>://WOS:000222093300128

Reference Type: Journal Article
Record Number: 23
Author: Chegaar, M. Ouennoughi, Z. Guechi, F.
Year: 2004
Title: Extracting dc parameters of solar cells under illumination
Journal: Vacuum
Volume: 75
Issue: 4
Pages: 367-372
Date: Aug
Short Title: Extracting dc parameters of solar cells under illumination
ISSN: 0042-207X
DOI: 10.1016/j.vacuum.2004.05.001
Accession Number: WOS:000223218500011
Abstract: This paper presents a comparative study of four methods for extracting solar cell parameters of the single diode lumped circuit model. These parameters are usually the saturation current, the series resistance, the ideality factor, the shunt conductance and the photocurrent. The methods are the vertical optimization method, the modified analytical five-point method, and two methods we have proposed, are based on the current-voltage characteristics and the subsequently calculated conductance. Parameter values were extracted using these different methods from experimental I-V characteristics of a commercial solar cell and a module. (C) 2004 Elsevier Ltd. All rights reserved.
Notes: Chegaar, M Ouennoughi, Z Guechi, F
URL: <Go to ISI>://WOS:000223218500011

Abstract: The present work revealed that the chemical polymerization of ortho-ethoxyaniline yields two types of polymers not only with different spectroscopic properties but also with different molecular weights: (1) a green form, which corresponds to the high molecular weight fraction of the polymer with a molecular weight of 800,000 g mol(-1) based on the polystyrene calibration. It is mainly composed of quinoid and benzoid structures, which is an indication of a half-oxidized polymer (emeraldine). This form of the polymer is insoluble in water-miscible solvents like ethanol and methanol and thus cannot be tested in terms of corrosion inhibition efficiency; (2) a red form, which corresponds to the low molecular weight fraction of the polymer with a molecular weight of 44,000 g mol(-1). It is composed mostly of quinold structures and exhibits an oxidation state similar to that of the completely oxidized polymer (pernigraniline). In our case, the polymer fraction, which is soluble in alcohol was first tested as a corrosion inhibitor for mild steel in acidic media, not only at conventional molecular weight (44,000 g mol(-1)) but also at different molecular weights. These different molecular weights of the polymer were obtained by adding varying amounts of neutral salt to the synthesis environment. Next, the effect of the molecular weight of the red form of the polymer on the corrosion inhibition efficiency of mild steel in hydrochloric acid solutions was investigated. The obtained results showed that the adsorption of the polymer alcoholic form obeys a Temkin adsorption isotherm with no significant change as function of inhibition efficiencies for a series of molecular weights ranging from 13,000 to 124,000 g mol(-1). The effect of temperature on the corrosion behavior of mild steel in 1M HCl with addition of 100 ppm of the alcoholic form of poly(ortho-ethoxyaniline) was studied in the temperature range 25-60degreesC. The associated activation corrosion energy was determined. (C) 2003 Wiley Periodicals, lnc.

Abstract: The hydrothermal ageing of wood-flour-filled PVC produced by dry-blending in a high-speed mixer in the presence of a plasticizer and other processing additives was carried out to investigate its thermal behaviour, and the results obtained were compared with those for the unfilled material. The dry-blended compounds were prepared as films by a calendering process. The accelerated hydrothermal ageing was carried out by immersing the samples in boiling water at 100degreesC for 110 h. The thermal behaviour of the reference and the aged samples in water was characterized by differential scanning calorimetry (DSC) and determination of the weight changes. The study has shown that during hydrothermal ageing, the samples from the whole formulations absorbed water, for instance, for 30 wt% filled PVC (F30), 16 wt% of water absorption was obtained, while this was only 2.2 wt% for unfilled PVC (F0). It was also noticed that the formulations filled with wood flour up to 10 wt% exhibited similar water absorption kinetics, i.e. the water was mostly absorbed during the first 50 h and the amount absorbed was less than 5 wt%. On the other hand, the 30 wt% filled samples regularly absorbed water up to almost 16 wt% after 100 h of immersion. The DSC data showed that hydrothermal ageing significantly affected the onset temperature of decomposition (T-d) of the unfilled samples by decreasing this temperature from 228 to 215degreesC. For the 30 wt% filled samples, only additive migration was observed, while the T-d remained almost unchanged. Furthermore, from the DSC data, processability of the 30 wt% filled PVC samples at elevated temperatures, i.e. 180 to 200degreesC was shown. (C) 2004 Society of Chemical Industry.

Reference Type: Journal Article
Record Number: 26
Author: Garin, F. Parlebas, J. C. Minot, C. Guemmaz, M.
Year: 2004
Title: Emerging materials - Preface
Journal: Catalysis Today
Volume: 89
Issue: 3
Pages: 253-254
Date: Mar
Short Title: Emerging materials - Preface
ISSN: 0920-5861
DOI: 10.1016/j.cattod.2003.12.001
Accession Number: WOS:000220602300001
Notes: Garin, F Parlebas, JC Minot, C Guemmaz, M
URL: <Go to ISI>://WOS:000220602300001

Reference Type: Journal Article
Record Number: 27
Author: Gharzouli, K. Holzer, P.
Year: 2004
Title: Inhibition of guinea pig intestinal peristalsis by the flavonoids quercetin, naringenin, apigenin and genistein
Journal: Pharmacology
Volume: 70
Issue: 1
Pages: 5-14
Date: Jan
Short Title: Inhibition of guinea pig intestinal peristalsis by the flavonoids quercetin, naringenin, apigenin and genistein
ISSN: 0031-7012
DOI: 10.1159/000074237
Accession Number: WOS:000186817500002

Abstract: Flavonoids are known to relax precontracted intestinal smooth muscle and to delay intestinal transit. We therefore investigated the effects of quercetin, naringenin, apigenin and genistein on intestinal peristalsis in vitro. Peristalsis in fluid-perfused segments of the guinea pig small intestine was recorded through the intraluminal pressure changes associated with the peristaltic waves. Alterations of distension sensitivity were reflected by changes in the peristaltic pressure threshold and alterations of peristaltic performance by changes in the maximal acceleration, amplitude and residual baseline pressure of the peristaltic waves. Quercetin, naringenin, apigenin and genistein (10-300 mumol/l) depressed intestinal peristalsis in a structure- and concentration-dependent manner. The flavonoid-evoked changes in peristalsis parameters made it possible to distinguish between two patterns of peristaltic motor inhibition: a decrease in distension sensitivity and peristaltic performance (apigenin and genistein) and a decrease in distension sensitivity without a major change in peristaltic performance (quercetin and naringenin). The antiperistaltic effect of quercetin was partially prevented by apamin (0.5 mumol/l), N-nitro-L-arginine methylester (100 mumol/l) and naloxone (0.5 mumol/l), whereas the effect of genistein was hardly affected by these drugs. Peristaltic motor activity suppressed by quercetin (300 mumol/l), but not genistein (100 mumol/l), was partially restored by apamin. In contrast, neostigmine (0.3 mumol/l) caused a significant recovery of peristalsis from blockade by genistein but failed to reverse peristaltic motor blockade due to quercetin. These observations suggest that naringenin and quercetin inhibit peristalsis by facilitating inhibitory enteric pathways, whereas apigenin and genistein interfere with muscle excitation or excitation-contraction coupling. Copyright (C) 2004 S. Karger AG, Basel.
Notes: Gharzouli, K Holzer, P
URL: <Go to ISI>://WOS:000186817500002

Reference Type: Journal Article
Record Number: 28
Author: Hachemi, H. Hachemi, A. Louail, L.
Year: 2004
Title: Relaxation time of superparamagnetic particles with uniaxial symmetry in the presence of an external magnetic field
Journal: Materials Letters
Volume: 58
Issue: 5
Pages: 824-828
Date: Feb
Short Title: Relaxation time of superparamagnetic particles with uniaxial symmetry in the presence of an external magnetic field
ISSN: 0167-577X
DOI: 10.1016/j.matlet.2003.07.020
Accession Number: WOS:000188216300055

Abstract: The dynamics of a set of non-interacting single-domain particles is given by a stochastic phenomenological equation due to Gilbert. The relaxation time of fluctuation is calculated in the case of uniaxial magnetocrystalline anisotropy with and without magnetic field. An approximation formula for relaxation time c of the magnetization for superparamagnetic particles, using the theory of Brownian motion, is given. It is found different from the results of previous work, but is in good agreement with the asymptotic formula derived by Brown for low-energy barriers. A mathematical method is used to solve the Fokker-Planck equation derived by Brown. This one describes the evolution of the probability density. The advantage of this method is its ability to provide an analytical formulation of the solution. In addition to numerical results, it allows the computation of relaxation time for various magnitudes of an external magnetic field. (C) 2003 Elsevier B.V. All rights reserved.
Notes: Hachemi, H Hachemi, A Louail, L
URL: <Go to ISI>://WOS:000188216300055

Reference Type: Journal Article

Record Number: 29

Author: Haffar, D. Douadi, T. Chafaa, S. Khan, M. A. Bouet, G.

Year: 2004

Title: Synthesis, characterisation and electrochemical study of 4,4 '-bis(salicylideneimino) diphenylethane and its complexes with cobalt(II), copper(II) and cadmium(II)

Journal: Transition Metal Chemistry

Volume: 29

Issue: 3

Pages: 245-250

Date: Apr

Short Title: Synthesis, characterisation and electrochemical study of 4,4 '-bis(salicylideneimino) diphenylethane and its complexes with cobalt(II), copper(II) and cadmium(II)

ISSN: 0340-4285

DOI: 10.1023/B:TMCH.0000020350.06940.ac

Accession Number: WOS:000220303000003

Abstract: We have prepared and characterised a new series of metal complexes obtained from 4,4'-bis(salicylideneimino) diphenylethane (saldipH(2)) and cobalt(II), copper(II) and cadmium(II) chlorides. In every case, the coordinating atoms are N and O. However, each compound has its own structure: [Co(saldip)] . 2 H2O is monomeric and a mononuclear species, [Cu-2(saldip)(2)(H2O)] is a binuclear complex and finally the cadmium complex is formulated as: [(CdCl2)(2)(saldipH(2))] . CdCl2. An electrochemical study (cyclic voltammetry) indicates that the reduction, as well as the oxidation, of copper in [Cu-2(saldip)(2)(H2O)] proceeds in two steps. For the reduction of the two other complexes, two steps are indicated out: the first is attributed to the reduction of the metal and the second to the reduction of the coordinated ligands.

Notes: Haffar, D Douadi, T Chafaa, S Khan, MA Bouet, G

URL: <Go to ISI>://WOS:000220303000003

Reference Type: Journal Article
Record Number: 30
Author: Hamzaoui, A. Essounbouli, N. Benmahammed, K. Zaytoon, J.
Year: 2004
Title: State observer based robust adaptive fuzzy controller for nonlinear uncertain and perturbed systems
Journal: Ieee Transactions on Systems Man and Cybernetics Part B-Cybernetics
Volume: 34
Issue: 2
Pages: 942-950
Date: Apr
Short Title: State observer based robust adaptive fuzzy controller for nonlinear uncertain and perturbed systems
ISSN: 1083-4419
DOI: 10.1109/tsmcb.2003.818562
Accession Number: WOS:000220359900011

Abstract: A robust adaptive fuzzy controller, based on a state observer, for a nonlinear uncertain and perturbed system is presented. The state observer is introduced to resolve the problem of the unavailability of the state variables. Two control signals are added to a basic state feedback control law, deduced from a nominal model, to guarantee the tracking performance in the presence of structural uncertainties and external disturbances. The first control signal is computed from an adaptive fuzzy system and eliminates the effect of structural uncertainties and estimation errors. Updating the adjustable parameters is ensured by a PID law to obtain a fast convergence.. Robustness of the closed-loop system is guaranteed by an Hinfinity supervisor computed from a Riccati type equation. Simulation example is presented to show the efficiency of the proposed method.

Notes: Hamzaoui, A Essounbouli, N Benmahammed, K Zaytoon, J
URL: <Go to ISI>://WOS:000220359900011

Abstract: Purpose. To evaluate low generation, G2 and G3, poly(propylenimine) dendrimers for the potential cellular delivery of antisense oligonucleotides (ODNs) targeting the epidermal growth factor receptor (EGFR) in A431 epidermoid carcinoma cells. Methods. Cell cytotoxicity of the dendrimers was evaluated using trypan blue exclusion assays. Cellular uptake studies of fluorescently labeled ODNs were performed using fluorescence-activated cell sorting analysis. Intracellular fate of dendrimer-delivered ODNs was assessed in both fixed and live cells using fluorescent microscopy. Antisense ODN activity was assessed in terms of cancer cell growth, inhibition of target EGFR protein, and reduction in mRNA levels. Results. G2 dendrimer (DAB-8) was less toxic than G3 (DAB-16) dendrimer in A431 cells, with IC50 of >175 and approximate to30 mug/ml, respectively. Uptake of fluorescently labeled ODN: dendrimer complexes was increased by up to 100-fold compared to a marker of fluid-phase endocytosis and up to 9-fold over free ODN at the optimal dendrimer: ODN (w/w) ratio of 5:1. Uptake of dendrimer: ODN complexes was significantly reduced at 4degreesC (p < 0.05). Live cell fluorescent microscopy resulted in an intracellular distribution of dendrimer: ODN complexes that was suggestive of endocytic uptake; in contrast, cell fixation resulted in an artefactual nuclear localization. Treatment of A431 cells with anti-EGFR antisense ODN: dendrimer complexes inhibited cell growth, protein, and mRNA expression to levels comparable to Oligofectamine-mediated delivery. Conclusions. G2 and G3 poly(propylenimine) dendrimers markedly improved the delivery and activity of ODNs and thus may represent general reagents for the delivery of ODNs to cells in culture.

Reference Type: Journal Article
Record Number: 32
Author: Kacha, A. Grenez, F. De Doncker, P. Benmahammed, K.
Year: 2004
Title: A wavelet-based approach for disturbance line identification in printed circuit boards
Journal: Journal of Electromagnetic Waves and Applications
Volume: 18
Issue: 5
Pages: 675-690
Short Title: A wavelet-based approach for disturbance line identification in printed circuit boards
ISSN: 0920-5071
DOI: 10.1163/156939304774114709
Accession Number: WOS:000220520000008
Abstract: The problem of identifying disturbance lines in printed circuit boards is addressed. Identification is achieved by estimating the disturbance frequency and the separation distance between the coupled lines. Frequency estimation uses a wavelet coefficients thresholding method to reconstruct the interference caused by the disturbance line. The separation distance is computed using two empirical laws based on physical ground and verified by simulation. The performance of the proposed method is illustrated by simulation results.
Notes: Kacha, A Grenez, F De Doncker, P Benmahammed, K
URL: <Go to ISI>://WOS:000220520000008

Abstract: Electrocatalytic activity versus oxygen evolution of perovskite-type cobalt oxide (La1-xCaxCoO3, with x = 0.0, 0.2, 0.4 and 0.6) was evaluated by potentiostatic polarization technique, as a function of the electrode chemical composition. Stability of the electrode material in alkaline medium under stressing galvanostatic conditions was investigated. Highly sensitive differential pulse adsorptive stripping voltammetry (DPAdSV) technique was successfully applied for determination of traces of dissolved cobalt in the electrolyte solution. The results point out the optimum electrode activity and stability of the x = 0.4 composition. (C) 2003 Elsevier B.V. All rights reserved.

Reference Type: Journal Article

Record Number: 34

Author: Khan, A. Benboubetra, M. Sayyed, P. Z. Ng, K. W. Fox, S. Beck, G. Benter, I. F. Akhtar, S.

Year: 2004

Title: Sustained polymeric delivery of gene silencing antisense ODNs, siRNA, DNAzymes and ribozymes: in vitro and in vivo studies

Journal: Journal of Drug Targeting

Volume: 12

Issue: 6

Pages: 393-404

Short Title: Sustained polymeric delivery of gene silencing antisense ODNs, siRNA, DNAzymes and ribozymes: in vitro and in vivo studies

ISSN: 1061-186X

DOI: 10.1080/10611860400003858

Accession Number: WOS:000224164300010

Abstract: Small interfering RNA (siRNA), antisense oligonucleotides (ODNs), ribozymes and DNAzymes have emerged as sequence-specific inhibitors of gene expression that may have therapeutic potential in the treatment of a wide range of diseases. Due to their rapid degradation in vivo, the efficacy of naked gene silencing nucleic acids is relatively short lived. The entrapment of these nucleic acids within biodegradable sustained-release delivery systems may improve their stability and reduce the doses required for efficacy. In this study, we have evaluated the potential in vitro and in vivo use of biodegradable poly (D,L-lactide-co-glycolide) copolymer (PLGA) microspheres as sustained delivery devices for ODNs, ribozyme, siRNA and DNA enzymes. In addition, we investigated the release of ODN conjugates bearing 5'-end lipophilic groups. The in vitro sustained release profiles of microsphere-entrapped nucleic acids were dependent on variables such as the type of nucleic acid used, the nature of the lipophilic group, and whether the nucleic acid used was single or double stranded. For in vivo studies, whole body autoradiography was used to monitor the bio-distribution of either free tritium-labelled ODN or that entrapped within PLGA microspheres following subcutaneous administration in Balb-c mice. The majority of the radioactivity associated with free ODN was eliminated within 24 h whereas polymer-released ODN persisted in organs and at the site of administration even after seven days post-administration. Polymer microsphere released ODN exhibited a similar tissue and cellular tropism to the free ODN. Micro-autoradiography analyses of the liver and kidneys showed similar bio-distribution for polymer-released and free ODNs with the majority of radioactivity being concentrated in the proximal convoluted tubules of the kidney and in the Kupffer cells of the liver. These findings suggest that biodegradable PLGA microspheres offer a method for improving the in vivo sustained delivery of gene silencing nucleic acids, and hence are worthy of further investigation as delivery systems for these macromolecules.

Notes: Khan, A Benboubetra, M Sayyed, PZ Ng, KW Fox, S Beck, G Benter, IF Akhtar, S

URL: <Go to ISI>://WOS:000224164300010

Reference Type: Journal Article

Record Number: 35

Author: Kharmouche, A. Cherif, S. M. Bourzami, A. Layadi, A. Schmerber, G.

Year: 2004

Title: Structural and magnetic properties of evaporated Co/Si(100) and Co/glass thin films

Journal: Journal of Physics D-Applied Physics

Volume: 37

Issue: 18

Pages: 2583-2587

Date: Sep

Short Title: Structural and magnetic properties of evaporated Co/Si(100) and Co/glass thin films

ISSN: 0022-3727

DOI: 10.1088/0022-3727/37/18/014

Article Number: Pii s0022-3727(04)81643-7

Accession Number: WOS:000224418000015

Abstract: A series of Co thin films have been evaporated onto Si(100) and glass substrates. The Co thickness, t(Co), ranges from 50 to 195 nm. The structural and magnetic properties have been investigated by x-ray diffraction, hysteresis curves, Brillouin light scattering and magnetic force microscopy (MFM) techniques. The Co thin films are found to be polycrystalline with (0001) texture. There is an increase of the grain size with increasing film thickness. The coercive fields range from values as low as 2 Oe in thinner films to the highest values, 2500 Oe, in 195 nm thick Co/Si films. The magnetocrystalline anisotropy field H-a decreases as the thickness increases; surface and stress induced anisotropies seem to contribute to the value of H-a. MFM images reveal a well-defined stripe pattern for thicker Co/Si samples. Such domains are not observed in the case of the thinner films. These so-called weak-stripe domains appear in magnetic films with a low or intermediate perpendicular anisotropy. Similar behaviour was observed in Co/glass samples, in addition, cross-tie walls were seen in thinner ones.

Notes: Kharmouche, A Cherif, SM Bourzami, A Layadi, A Schmerber, G

URL: <Go to ISI>://WOS:000224418000015

Reference Type: Journal Article

Record Number: 36

Author: Krache, R. Benachour, D. Potschke, P.

Year: 2004

Title: Binary and ternary blends of polyethylene, polypropylene, and polyamide 6,6: The effect of compatibilization on the morphology anal rheology

Journal: Journal of Applied Polymer Science

Volume: 94

Issue: 5

Pages: 1976-1985

Date: Dec

Short Title: Binary and ternary blends of polyethylene, polypropylene, and polyamide 6,6: The effect of compatibilization on the morphology anal rheology

ISSN: 0021-8995

DOI: 10.1002/app.21098

Accession Number: WOS:000224759700017

Abstract: The effects of two compatibilizing agents, polystyrene-polyethylene butylene)-polystyrene copolymer (SEBS) and SEBS-grafted maleic anhydride (SEBS-g-MAH), on the morphology of binary and ternary blends of polyethylene, polypropylene, and polyamide 6,6 were investigated with scanning electron microscopy and melt rheology measurements. The addition of the compatibilizers led to finer dispersions of the particles of the minor component and a decrease in their size; this induced a significant change in the blend morphology. The rheological measurements confirmed the increased interaction between the blend components, especially with SEBS-g-MAH as the compatibilizer. New covalent bonds could be expected to form through an amine-anhydride reaction. (C) 2004 Wiley Periodicals, Inc.

Notes: Krache, R Benachour, D Potschke, P

URL: <Go to ISI>://WOS:000224759700017

Reference Type: Journal Article
Record Number: 37
Author: Lacheheb, A. Ouyahia, A. Mechakra, S. Nouasria, B. Guenifi, W. Gasmi, A. Tiouri, M. Houari, M. Sahli, F.
Year: 2004
Title: Epidemic of human brucellosis in Ain Tagrourt Algeria
Journal: International Journal of Antimicrobial Agents
Volume: 24
Pages: S158-S158
Date: Dec
Short Title: Epidemic of human brucellosis in Ain Tagrourt Algeria
ISSN: 0924-8579
Accession Number: WOS:000225734000252
Notes: Lacheheb, A Ouyahia, A Mechakra, S Nouasria, B Guenifi, W Gasmi, A Tiouri, M Houari, M Sahli, F 6th European Congress of Chemotherapy and Infection/24th Interdisciphinary Meeting of Chimiotherapie Anit-Infections Dec 01-03, 2004 Paris, FRANCE 2
URL: <Go to ISI>://WOS:000225734000252

Reference Type: Journal Article

Record Number: 38

Author: Layadi, A.

Year: 2004

Title: Theoretical study of resonance modes of coupled thin films in the rigid layer model

Journal: Physical Review B

Volume: 69

Issue: 14

Date: Apr

Short Title: Theoretical study of resonance modes of coupled thin films in the rigid layer model

ISSN: 1098-0121

DOI: 10.1103/PhysRevB.69.144431

Article Number: 144431

Accession Number: WOS:000221426200081

Abstract: An investigation of the ferromagnetic resonance (FMR) modes is done for a two coupled ferromagnetic film system in the framework of the rigid layer model. In this case, one of the layers (the driver layer) has a strong in-plane anisotropy compared to the coupling strength and to in-plane anisotropy of the other layer (the sensor). The curves of dispersion relation, the resonant frequency f, and the mode intensity I vs applied field H are discussed as a function of the bilinear J(1) and biquadratic J(2) coupling terms, and of the angle delta between the in-plane uniaxial anisotropy easy axis directions in the two layers. Depending on the coupling strength and delta values and the anisotropy of the sensor layer, as the applied field is increased, the sensor layer magnetization may smoothly rotate or suddenly switch from the antiparallel configuration to the saturated state. In the latter case, a discontinuity is observed in the mode position as well as in the FMR intensity. The discontinuities are more important for the optical than for the acoustic modes. Moreover, the coupling strengths (J(1),J(2)) affect the mode intensity but, practically, not the position of the acoustic mode; while for the optical mode, the effect of these parameters on the f vs H and I vs H curves is more apparent. Also, for all delta angles (other than 0 and 90degrees), no effect of delta is observed on the position and intensity of the high-frequency mode but delta does affect the lower-frequency mode position.

Notes: Layadi, A

URL: <Go to ISI>://WOS:000221426200081

Reference Type: Journal Article

Record Number: 39

Author: Louail, L. Maouche, D. Roumili, A. Sahraoui, F. A.

Year: 2004

Title: Calculation of elastic constants of 4d transition metals

Journal: Materials Letters

Volume: 58

Issue: 24

Pages: 2975-2978

Date: Sep

Short Title: Calculation of elastic constants of 4d transition metals

ISSN: 0167-577X

DOI: 10.1016/j.matlet.2004.04.033

Accession Number: WOS:000223446900007

Abstract: From first principles, we calculated the elastic constants C-11, C-12, C-44, bulk modulus, and tetragonal shear of 4d transition metals (Nb, MO, Rh, Pd, and Ag). The calculations are based on the local spin-density functional theory with both the local density approximation (LDA) and the generalized gradient approximation (GGA) corrections. These two methods are found to describe the properties of these materials rather well. In most cases, we obtained good agreement with experimental data. (C) 2004 Elsevier B.V. All rights reserved.

Notes: Louail, L Maouche, D Roumili, A Sahraoui, FA

URL: <Go to ISI>://WOS:000223446900007

40 **Reference Type: Journal Article**
Record Number: 40
Author: Maamache, M. Lakehal, H.
Year: 2004
Title: Solution of the generalized Dirac equation in a time-dependent linear potential: Relativistic geometric amplitude factor
Journal: Europhysics Letters
Volume: 67
Issue: 5
Pages: 695-699
Date: Sep
Short Title: Solution of the generalized Dirac equation in a time-dependent linear potential: Relativistic geometric amplitude factor
ISSN: 0295-5075
DOI: 10.1209/epl/i2004-10109-6
Accession Number: WOS:000224199800001

Abstract: We present exact solutions of the Dirac equation for a particle with time-dependent mass moving in a time-dependent linear potential. In addition, we show that the time evolution can be described in terms of classical concept which leads to solve this problem by standard techniques of Hamiltonian mechanics. Geometric amplitude emerges as an adiabatic limit of the exact dynamics.
Notes: Maamache, M Lakehal, H
URL: <Go to ISI>://WOS:000224199800001

41 **Reference Type:** **Journal Article**
Record Number: 41
Author: Mansouri, A. Dal Cappello, C. Houamer, S. Charpentier, I. Lahmam-Bennani, A.
Year: 2004
Title: Double ionization of H-2 by electron impact: a second Born treatment
Journal: Journal of Physics B-Atomic Molecular and Optical Physics
Volume: 37
Issue: 6
Pages: 1203-1214
Date: Mar
Short Title: Double ionization of H-2 by electron impact: a second Born treatment
ISSN: 0953-4075
DOI: 10.1088/0953-4075/37/6/006
Article Number: Pii s0953-4075(04)71868-4
Accession Number: WOS:000220878800009

Abstract: A second Born treatment is applied to study the (e, 3e) and (e, 3 - 1e) reactions for H-2 targets. The results of this approximation are compared to the (e, 3 - I e) experimental data obtained at about 600 eV impact energy. Several single-centre wavefunctions are used to describe the initial state and excited states of the molecule. Even if the second Born approximation is able to explain part of the experimental results the agreement is not good, similar to the case of the double ionization of helium.

Notes: Mansouri, A Dal Cappello, C Houamer, S Charpentier, I Lahmam-Bennani, A
URL: <Go to ISI>://WOS:000220878800009

Reference Type: Journal Article

Record Number: 42

Author: Merabet, A.

Year: 2004

Title: The effect of the rapid thermal annealing on the interdiffusion and the reaction at the interface of the binary system Cr/Si

Journal: Materials Science and Engineering B-Solid State Materials for Advanced Technology

Volume: 114

Pages: 214-217

Date: Dec

Short Title: The effect of the rapid thermal annealing on the interdiffusion and the reaction at the interface of the binary system Cr/Si

ISSN: 0921-5107

DOI: 10.1016/j.mseb.2004.07.014

Accession Number: WOS:000226016400038

Abstract: In order to understand the growth mechanism of the silicides and the effect of the dopant on the electrical activity, a thin layer of chromium (100 nm) is deposited on the single crystal silicon (1 0 0) substrate implanted (10(15) As+ atoms/cm(2), 100 keV) and non implanted. Afterwards, we performed a rapid thermal annealing in the interval of temperature (450-600degreesC) for a fixed duration of 45 s. The samples are analyzed by X ray-diffraction (XRD) and Rutherford backscattering spectrometry (RBS). The electrical activity has been investigated by the method of the four-point probes. The analysis of the samples by XRD and RBS showed that the rapid thermal annealing (RTA) leads to a reaction at the interface Cr/Si inducing the formation and the growth of the unique silicide CrSi2. It is also established that the kinetics growth of CrSi2 presents a linear evolution with temperature. This fact shows that the growth is governed by a chemical reaction of the interface. Sheet resistance measurements have been performed to study the electrical behavior for these structures. It is worth to point out that the presence of the implanted arsenic in the single crystal silicon increased the resistance in a significant manner. (C) 2004 Elsevier B.V. All rights reserved.

Notes: Merabet, A Symposium on Material Science Issues in Advanced CMOS Source-Drain Engineeing held at the E-MRS 2004 Spring Meeting Jan 31, 2004 Strasbourg, FRANCE

URL: <Go to ISI>://WOS:000226016400038

Reference Type: Journal Article
Record Number: 43
Author: Merabet, A.
Year: 2004
Title: Diffusion and segregation of arsenic and boron in polysilicon/silicon systems during rapid thermal annealing
Journal: Journal of Alloys and Compounds
Volume: 382
Issue: 1-2
Pages: 300-304
Date: Nov
Short Title: Diffusion and segregation of arsenic and boron in polysilicon/silicon systems during rapid thermal annealing
ISSN: 0925-8388
DOI: 10.1016/j.jallcom.2004.05.028
Accession Number: WOS:000225154200049

Abstract: Comparative studies of arsenic and boron diffusion as well as segregation in polysilicon on single-crystal silicon systems have been performed by secondary ion mass spectroscopy. Arsenic ($10(16)$ atoms/cm(2); 100 keV) or boron ($2 \times 10(15)$ atoms/cm(2); 30 keV), (and both of them with As and followed by B), have been implanted in 380 nm polysilicon laid by low-pressure chemical vapor deposition have been diffused into the underlying silicon substrate in effect of rapid thermal annealing for 20 s at temperatures ranging from 1000 to 1150degreesC. Before the deposition of polysilicon, the oxide film has been removed. Up to about 11 and 10% of implanted arsenic atoms are segregated at the interface in the case of diffusion and co-diffusion, respectively, while up to 2.6% (diffusion) and 4.45% (co-diffusion) of the implanted boron atoms are segregated at the interface. The As and B doses distributed in the substrate are smaller than the doses segregated at the interface. The continuity of arsenic and boron profiles extrapolated at the interface, shows on absence of the diffusion barrier. Diffused arsenic dose to the single crystalline Si shows a reduction of about 50% in the case of,co-diffusion if compared to diffusion. As boron is concerned, the difference is even higher which confirms the stopping of the diffusion of the boron in the presence of the arsenic. (C) 2004 Elsevier B.V. All rights reserved.

Notes: Merabet, A Fall Meeting of the European-Materials-Research-Society Sep 15-19, 2003 Warsaw, poland European Mat Res Soc
URL: <Go to ISI>://WOS:000225154200049

44 **Reference Type: Journal Article**
Record Number: 44
Author: Omidit, Y. Benboubetra, M. Hollins, A. J. Drayton, R. M. Akhtar, S.
Year: 2004
Title: Dendrimeric delivery systems for siRNA and gene therapy intrinsically alter gene expression in human epithelial cells
Journal: Journal of Pharmacy and Pharmacology
Volume: 56
Pages: S19-S19
Date: Sep
Short Title: Dendrimeric delivery systems for siRNA and gene therapy intrinsically alter gene expression in human epithelial cells
ISSN: 0022-3573
Accession Number: WOS:000203408100053
Notes: Omidit, Y. Benboubetra, M. Hollins, A. J. Drayton, R. M. Akhtar, S. S
URL: <Go to ISI>://WOS:000203408100053

Reference Type: Journal Article
Record Number: 45
Author: Rahmani, L. Krim, F. Bouafia, A.
Year: 2004
Title: Deadbeat control for PWM AC chopper
Journal: Electric Power Components and Systems
Volume: 32
Issue: 5
Pages: 453-466
Date: May
Short Title: Deadbeat control for PWM AC chopper
ISSN: 1532-5008
DOI: 10.1080/15325000490224238
Accession Number: WOS:000220845600002
Abstract: This article presents a novel robust control technique for application to PWM AC choppers with ability of generating high quality sinusoidal waveforms with adjustable amplitudes over a wide range control. For this purpose a deadbeat based digital controller has been developed to perform tight closed-loop control of the A C chopper. This controller is based on the generalized predictive control approach. The proposed controller presents the advantages of allowing a very fast transient response and compensating effectively load disturbance and nonlinear loads effects. Computer simulations are performed to investigate the proposed controller performances. The simulation analysis of the PWM AC chopper has been carried out in detail. The simulation results show that the designed controller has a good dynamic behavior, a good rejection of impact load disturbance and very robust. Then computer results have been validated experimentally.
Notes: Rahmani, L Krim, F Bouafia, A
URL: <Go to ISI>://WOS:000220845600002

Reference Type: Journal Article

Record Number: 46

Author: Rahmani, L. Krim, F. Khanniche, M. S. Bouafia, A.

Year: 2004

Title: Control for PWM ac chopper feeding nonlinear loads

Journal: International Journal of Electronics

Volume: 91

Issue: 3

Pages: 149-163

Date: Mar

Short Title: Control for PWM ac chopper feeding nonlinear loads

ISSN: 0020-7217

DOI: 10.1080/00207210410001672674

Accession Number: WOS:000220894800002

Abstract: This paper presents a novel robust control technique for PWM ac choppers with the ability to generate high quality sinusoidal waveforms with adjustable amplitudes over a wide range control. For this purpose a deadbeat-based digital controller has been developed to perform tight closed-loop control of the ac chopper. This controller is based on a generalized predictive control (GPC) approach. A dedicated control algorithm has been developed and implemented. The proposed controller presents the advantages of allowing a very fast transient response and compensating effectively for load disturbance and the effects of nonlinear loads. Computer simulations are performed to investigate the proposed controller performance. The simulation results show that the designed controller has a good dynamic behaviour, a good rejection of impact load disturbance, and is ;very robust. To evaluate the proposed approach an experimental prototype has been constructed. Experimental results under various loading conditions have demonstrated that the system performs well.

Notes: Rahmani, L Krim, F Khanniche, MS Bouafia, A

URL: <Go to ISI>://WOS:000220894800002

Reference Type: Journal Article
Record Number: 47
Author: Rowley, N. Grar, N.
Year: 2004
Title: Measuring capture cross sections for heavy-element production
Journal: International Journal of Modern Physics E-Nuclear Physics
Volume: 13
Issue: 1
Pages: 293-300
Date: Feb
Short Title: Measuring capture cross sections for heavy-element production
ISSN: 0218-3013
DOI: 10.1142/s0218301304002077
Accession Number: WOS:000220350700043

Abstract: The creation of the nucleus of a superheavy element follows an extremely complex reaction path starting with the crossing of an external potential barrier (or distribution of barriers). This is followed by the evolution towards an equilibrated compound nucleus, which takes place in competition with pre-compound-nucleus fission (quasi-fission). Once formed the equilibrated compound nucleus must still survive against true fusion to yield a relatively long-lived evaporation residue. Much of this path is poorly understood, though recently, progress has been made on the role of the entrance-channel in quasi-fission. This will be briefly reported and a method proposed to measure the total capture cross section for such systems directly.
Notes: Rowley, N Grar, N Workshop on Nuclear Physics Sep, 2003 Kazimierz Dolny, POLAND
URL: <Go to ISI>://WOS:000220350700043

48

Reference Type: Journal Article
Record Number: 48
Author: Sahnouni, M. Hadjouis, D. van der Made, J. Derradji, A. Canals, A. Medig, M.
Belahrech, H. Harichane, Z. Rabhi, M.
Year: 2004
Title: On the earliest human occupation in North Africa: a response to Geraads et al
Journal: Journal of Human Evolution
Volume: 46
Issue: 6
Pages: 763-775
Date: Jun
Short Title: On the earliest human occupation in North Africa: a response to Geraads et al
ISSN: 0047-2484
DOI: 10.1016/j.jhevol.2004.04.003
Accession Number: WOS:000222281300008
Notes: Sahnouni, M Hadjouis, D van der Made, J Derradji, A Canals, A Medig, M Belahrech, H
Harichane, Z Rabhi, M
URL: <Go to ISI>://WOS:000222281300008

Reference Type: Journal Article

Record Number: 49

Author: Samah, M. Khelfane, H. Bouguerra, M. Chergui, A.

Year: 2004

Title: Structural and optical properties of silver bromide aggregates in an ionic matrix

Journal: Annales De Chimie-Science Des Materiaux

Volume: 29

Issue: 2

Pages: 49-54

Date: Mar-Apr

Short Title: Structural and optical properties of silver bromide aggregates in an ionic matrix

ISSN: 0151-9107

DOI: 10.3166/acsm.29.2.49-54

Accession Number: WOS:000223467000005

Abstract: Structural and optical properties of silver bromide aggregates in an ionic matrix. In this work, we investigated the optical properties and the evolution of the AgBr semiconductor aggregates dispersed in an ionic crystalline matrix, KBr. These aggregates were obtained by doping the KBr matrix with silver powder. Microcrystals of AgBr of various sizes were consequently obtained. A thermal annealing, whose principal effect was a variation of crystallite sizes, was then carried out. The study was undertaken in a systematic way by optical absorption measurements, Xray diffraction (XRD) and photoluminescence (PL). A relation between the size of the microcrystals and the displacement of the absorption peaks towards low energies is shown. Optical absorption and photoluminescence showed the presence of the silver bromide aggregates and their photosensitivity revealed by the formation of silver clusters.

Notes: Samah, M Khelfane, H Bouguerra, M Chergui, A

URL: <Go to ISI>://WOS:000223467000005

Reference Type: Journal Article
Record Number: 50
Author: Samah, M. Khelfane, H. Bouguerra, M. Chergui, A. Belkhir, M. A. Mahtout, S.
Year: 2004
Title: Optical responses of alkali-halide matrix (NaCl)-doped silver
Journal: Physica E-Low-Dimensional Systems & Nanostructures
Volume: 23
Issue: 1-2
Pages: 217-220
Date: Jun
Short Title: Optical responses of alkali-halide matrix (NaCl)-doped silver
ISSN: 1386-9477
DOI: 10.1016/j.physe.2004.03.009
Accession Number: WOS:000222073300037
Abstract: In this work, we investigated the optical properties and the evolution of AgCl semiconductor aggregates dispersed in an ionic crystalline matrix, NaCl. These aggregates were obtained by doping the NaCl matrix with a silver powder (Ag). Microcrystals of AgCl of various sizes were consequently obtained with a mean size of 30 Angstrom. A thermal annealing, whose principal effect is the variation of crystallite sizes, was then carried out. The study was undertaken in a systematic way by PL, CL measurements and X-ray diffraction (XRD). PL spectrum exhibits a response leading to the formation of AgCl aggregates within NaCl host confirmed by DRX patterns. Also photoluminescence showed the presence of the silver chloride aggregates and their photosensitivity was revealed by the formation of silver clusters. (C) 2004 Elsevier B.V. All rights reserved.
Notes: Samah, M Khelfane, H Bouguerra, M Chergui, A Belkhir, MA Mahtout, S
URL: <Go to ISI>://WOS:000222073300037

Reference Type: Journal Article
Record Number: 51
Author: Selloum, L. Bouriche, H. Sebihi, L. Boudoukha, C. Tigrine, C. Djellili, H. Zaidi, F.
Year: 2004
Title: Inhibition of neutrophil pholasin chemiluminescence by Cleome arabica leaf extract
Journal: Pharmaceutical Biology
Volume: 42
Issue: 7
Pages: 534-541
Date: Oct
Short Title: Inhibition of neutrophil pholasin chemiluminescence by Cleome arabica leaf extract
ISSN: 1388-0209
DOI: 10.1080/13880200490893393
Accession Number: WOS:000226445000013
Abstract: The antioxidative activity of Cleome arabica L. leaf extract was studied toward superoxide anion radical generating systems. The extract at 10 mug/ml has no scavenger effect on superoxide anion radicals generated by the xanthine-xanthine oxidase system, as determined by either the reduction of cytochrome c or pholasin luminescence. Also, this extract, up to 50 mug/ml, did not affect the uric acid production by xanthine oxidase. However, the extract showed a great inhibition activity, in a dose-dependent manner, of neutrophil pholasin luminescence stimulated by formyl-methionyl-leucyl-phenylalanine (fMLP). Indeed, the inhibition of pholasin luminescence was 80.22 +/- 2.9%, 90.22 +/- 4.0%, and 101.0 +/- 1.0% in presence of the extract at concentrations of 1, 2, and 10 mug/ml, respectively. Thereby, it is likely that Cleome arabica leaf extract showed an inhibitory effect on enzyme(s) involved in signaling pathways of fMLP-stimulated neutrophils. Effectively, the extract exerted a significant inhibitory effect ($p < 0.05$), in a dose-dependent manner, on elastase release by fMLP/cytochalasin B-stimulated neutrophils.
Notes: Selloum, L Bouriche, H Sebihi, L Boudoukha, C Tigrine, C Djellili, H Zaidi, F
URL: <Go to ISI>://WOS:000226445000013

Reference Type: Journal Article
Record Number: 52
Author: Senator, A. Rachidi, W. Lehmann, S. Favier, A. Benboubetra, M.
Year: 2004
Title: Prion protein protects against DNA damage induced by paraquat in cultured cells
Journal: Free Radical Biology and Medicine
Volume: 37
Issue: 8
Pages: 1224-1230
Date: Oct
Short Title: Prion protein protects against DNA damage induced by paraquat in cultured cells
ISSN: 0891-5849
DOI: 10.1016/j.freeradbiomed.2004.07.006
Accession Number: WOS:000224329400013

Abstract: Exposure of cells to paraquat leads to production of superoxide anion ($O_2(.-)$). This reacts with hydrogen peroxide to give the hydroxyl radical ($(OH)O-.$), leading to lipid peroxidation and cell death. In this study, we investigated the effects of cellular prion protein (PrPC) overexpression on paraquat-induced toxicity by using an established model system, rabbit kidney epithelial A74 cells, which express a doxycycline-inducible murine PrPC gene. PrPC overexpression was found to significantly reduce paraquat-induced cell toxicity, DNA damage, and malondialdehyde acid levels. Superoxide dismutase (total SOD and CuZn-SOD) and glutathione peroxidase activities were higher in doxycycline-stimulated cells. Our findings clearly show that PrPC overexpression plays a protective role against paraquat toxicity, probably by virtue of its superoxide dismutase-like activity. (C) 2004 Elsevier Inc. All rights reserved.
Notes: Senator, A Rachidi, W Lehmann, S Favier, A Benboubetra, M
URL: <Go to ISI>://WOS:000224329400013

Reference Type: Journal Article
Record Number: 53
Author: Zamora, F. Gonzalez, M. C. Benachour, D. Bouzerafa, B.
Year: 2004
Title: Thermal Behavior of an Fe(III)-2,9,16,23-tetramidephthalocyanine-grafted poly(N-vinylcarbazole)
Journal: Journal of Macromolecular Science-Physics
Volume: B43
Issue: 4
Pages: 763-774
Short Title: Thermal Behavior of an Fe(III)-2,9,16,23-tetramidephthalocyanine-grafted poly(N-vinylcarbazole)
ISSN: 0022-2348
DOI: 10.1081/mb-120030020
Accession Number: WOS:000222310500004

Abstract: The introduction of 2,9,16,23-tetramide-Fe(III)phthalocyanine [Fe(III)taPc] units into phosphorylated poly(N-vinylcarbazole) yields an amorphous grafted polymer containing free carbazolyl groups, phosphonic acid attached to carbazolyl groups, and grafted Fe(III)taPc units as evidenced by infrared spectroscopy. Several thermal transitions were detected by differential scanning calorimetry (DSC). The thermodegradation of the grafted sample, analyzed by simultaneous thermogravimetry-differential thermal analysis (TG-DTA), showed successive endo- and exothermal reactions resulting from the development of a cross-linked structure. To determine kinetic parameters, both isothermal and dynamic experiments were performed at the different steps of the degradation process and theoretical methods were applied.
Notes: Zamora, F Gonzalez, MC Benachour, D Bouzerafa, B
URL: <Go to ISI>://WOS:000222310500004

54 **Reference Type: Book Section**
Record Number: 1
Author: Bakhouche, B. Medjahed, A. Bencheikh, H. Takakura, Y. T.
Year: 2004
Title: Polarimetric imagery by matrix of Muller of multidiffusants mediums
Editor: Wyrowski, F.
Book Title: Photon Management
Volume: 5456
Pages: 333-342
Series Title: Proceedings of the Society of Photo-Optical Instrumentation Engineers (Spie)
Short Title: Polarimetric imagery by matrix of Muller of multidiffusants mediums
ISBN: 0277-786X 0-8194-5383-8
DOI: 10.1117/12.545667
Accession Number: WOS:000224432600036

Abstract: The object of these article is the conception, the realization and the used of a new imaging process based on the study of the polarization in the light-media interaction. In this investigation, a polarization-based imaging system is developed and described that measures the two-dimensional effective backscattering Mueller matrix of a sample. As is well known, a Mueller matrix can provide considerable information on the makeup and optical characteristics of a sample (depolarization,retardance, diattenuation...), but The reliability of measure and the reconstruction of the mueller matrix require the analysis of the error and the calibration of a Mueller polarimetre. Simulations enabled us, first, to determine the measurement error on each element of the Mueller matrix without a sample and, second, to adopt a method of calibration. therefore, the precision of experimentals results given by the Mueller matrix is drastically improved. The studies presented were performed with cancerous tissues and another non cancerous. The results demonstrate how these techniques could provide information that may be of diagnostic value in the physical detection of lesion.
Notes: Bakhouche, B Medjahed, A Bencheikh, H Takakura, YT Conference on Photon Management Apr 27-28, 2004 Strasbourg, FRANCE SPIE, European Opt Soc, Soc Francaise Opt, Soc Italiana Ottica Foton, Deutsch Gesell Angewandte Opt, IEE, Photon Clusters, Oemagazine, Network Excellence Micro-Opt, Reg Alsace, Commun Urbaine Strasbourg, Conseil Gen Bas-Rhin, Alsace Dev Agcy, European Off Aerosp Res & Dev, USAF Off Sci Res
URL: <Go to ISI>://WOS:000224432600036

Reference Type: Book Section
Record Number: 2
Author: Bouafia, M. Bencheikh, A. Bouamama, L. Weber, H.
Year: 2004
Title: M-2 quality factor as a key to mastering laser beam propagation
Editor: Wyrowski, F.
Book Title: Photon Management
Volume: 5456
Pages: 130-140
Series Title: Proceedings of the Society of Photo-Optical Instrumentation Engineers (Spie)
Short Title: M-2 quality factor as a key to mastering laser beam propagation
ISBN: 0277-786X 0-8194-5383-8
DOI: 10.1117/12.545578
Accession Number: WOS:000224432600015
Abstract: One of the most important properties of a laser resonator is the highly collimated or spatially coherent nature of the laser output beam. The spatial beam quality of the output beam, namely beam diameter and propagation factor M-2 are critical parameters in a wide range of practical laser applications. This is because the spatial beam quality determines how tightly the beam can be focused or how well the beam propagates over long distances without significant spreading. It was investigated by many authors in previous years how to define and on how to measure the laser beam quality. An ISO working Draft Committee has also been organized to set-up a standard for definitions and test methods of the laser beam quality. In this work, the quality factor is studied with different methods.
Notes: Bouafia, M Bencheikh, A Bouamama, L Weber, H Conference on Photon Management Apr 27-28, 2004 Strasbourg, FRANCE SPIE, European Opt Soc, Soc Francaise Opt, Soc Italiana Ottica Foton, Deutsch Gesell Angewandte Opt, IEE, Photon Clusters, Oemagazine, Network Excellence Micro-Opt, Reg Alsace, Commun Urbaine Strasbourg, Conseil Gen Bas-Rhin, Alsace Dev Agcy, European Off Aerosp Res & Dev, USAF Off Sci Res
URL: <Go to ISI>://WOS:000224432600015

56 **Reference Type:** **Book Section**
Record Number: 3
Author: Bouamama, L. Segueni, S. Mellah, R. Bouafia, M. Ayadi, K. Wernicke, G. Krueger, S. Gruber, H.
Year: 2004
Title: Direct phase distribution evaluation by continuous Paul wavelet transforms
Editor: Osten, W. Takeda, M.
Book Title: Optical Metrology in Production Engineering
Volume: 5457
Pages: 765-771
Series Title: Proceedings of the Society of Photo-Optical Instrumentation Engineers (Spie)
Short Title: Direct phase distribution evaluation by continuous Paul wavelet transforms
ISBN: 0277-786X 0-8194-5379-X
DOI: 10.1117/12.545260
Accession Number: WOS:000224432300084

Abstract: Continuous Paul Wavelet is a suitable tool for direct phase distribution evaluation in the case of digital interferograms. The method is based on the correlation in the Fourier domain between the digitized ineterferogram and the optical Paul wavelet filter spectrums. This correlation can be made directly with a computer or in optical set-up using an addressable liquid crystals display. We present the technique and the obtained results on simulated interferograms.
Notes: Bouamama, L Segueni, S Mellah, R Bouafia, M Ayadi, K Wernicke, G Krueger, S Gruber, H Conference on Optical Metrology in Production Engineering Apr 27-30, 2004 Strasbourg, FRANCE SPIE, European Opt Soc, Soc Francaise Opt, Soc Italiana Ottica Foton, Deutsch Gesell Angewandte Opt, IEE, Photon Clusters, Oemagazine
URL: <Go to ISI>://WOS:000224432300084

57 **Reference Type:** Book Section
Record Number: 4
Author: Manallah, A. Bouafia, M.
Year: 2004
Title: Characterization of surface qualities of polished optical glass by ellipsometric way
Editor: Osten, W. Takeda, M.
Book Title: Optical Metrology in Production Engineering
Volume: 5457
Pages: 772-780
Series Title: Proceedings of the Society of Photo-Optical Instrumentation Engineers (Spie)
Short Title: Characterization of surface qualities of polished optical glass by ellipsometric way
ISBN: 0277-786X 0-8194-5379-X
DOI: 10.1117/12.545711
Accession Number: WOS:000224432300085
Abstract: Ellipsometry is a technique of surfaces analysis, founded on the measure of light polarization state after reflection on a plane surface. Work consists in characterizing the surface quality of polished optical glass by ellipsometry. The measured ellipsometric parameters enabled us to lead to a correlation with roughness while being based on the theory of Maxwell-Garnett to determine the optical properties of the effective milieu.
Notes: Manallah, A Bouafia, M Conference on Optical Metrology in Production Engineering Apr 27-30, 2004 Strasbourg, FRANCE SPIE, European Opt Soc, Soc Francaise Opt, Soc Italiana Ottica Foton, Deutsch Gesell Angewandte Opt, IEE, Photon Clusters, Oemagazine
URL: <Go to ISI>://WOS:000224432300085

58

Reference Type: Book
Record Number: 1
Author: Bencheikh, L.
Year: 2004
Title: Multiple scattering of water waves by N floating bodies using boundary integral equation methods
Series Editor: Constanda, C. Ahues, M. Largillier, A.
Series Title: Integral Methods in Science and Engineering: Analytic and Numerical Techniques
Number of Pages: 13-18
Short Title: Multiple scattering of water waves by N floating bodies using boundary integral equation methods
ISBN: 0-8176-3228-X
Accession Number: WOS:000189399800003
Notes: Bencheikh, L International Conference on Integral Methods in Science and Engineering (IMSE 2002) 2002 Univ St Etienne, St Etienne, FRANCE
URL: <Go to ISI>://WOS:000189399800003

Reference Type: Book

Record Number: 2

Author: Khemliche, M. Dif, I. Latreche, S. Bouamama, B. O. Ieee, Ieee,

Year: 2004

Title: Modelling and analysis of an active suspension (1)/(4) of vehicle with bond graph

Series Title: Isccsp : 2004 First International Symposium on Control, Communications and Signal Processing

Number of Pages: 811-814

Short Title: Modelling and analysis of an active suspension (1)/(4) of vehicle with bond graph

ISBN: 0-7803-8379-6

Accession Number: WOS:000221478300201

Abstract: This paper presents the modelling by bond graph of a system of suspension quarter (1/4) of vehicle, equipped by a generator with effort whose presence confers on the suspension, an active character. The law of order used by this generator is of quadratic form (LQR). A work of simulation on the software Symbols and Matlab/Simulink makes it possibleto display satisfactory results compared to the passive suspension.

Notes: Khemliche, M Dif, I Latreche, S Bouamama, BO 1st IEEE International Symposium on Control, Communications and Signal Processing (ISCCSP 2004) Mar 21-24, 2004 Hammamet, TUNISIA IEEE, European Soc Signal Proc, Minist Enseignement Super Rech Sci Technol, Minist Technol Commun Transport, Minist Commerce Tourisme Artisanat Tunisia

URL: <Go to ISI>://WOS:000221478300201

Reference Type: Book
Record Number: 3
Author: Khemliche, M. Latreche, S. Khellaf, A. Ieee, Ieee,
Year: 2004
Title: Modelling and identification of the asynchronous machine
Series Title: Isccsp : 2004 First International Symposium on Control, Communications and Signal Processing
Number of Pages: 815-818
Short Title: Modelling and identification of the asynchronous machine
ISBN: 0-7803-8379-6
Accession Number: WOS:000221478300202
Abstract: In order to identify an asynchronous machine by a fuzzy controller while using the method of STREJC, it is necessary to mention that the establishment of a mathematical model of asynchronous machine which the complexity and the no linearity have been reduced in return for a certain number of simplifying hypotheses and while applying the transformation of PARK of a parametric identification and a simulation of the model then the identification of the transfer function by the method of STREJC and in short the improvement of this one while integrating the fuzzy logic for the correction and the adaptation of the model in view of the identification of the asynchronous machine.
Notes: Khemliche, M Latreche, S Khellaf, A 1st IEEE International Symposium on Control, Communications and Signal Processing (ISCCSP 2004) Mar 21-24, 2004 Hammamet, TUNISIA IEEE, European Soc Signal Proc, Minist Enseignement Super Rech Sci Technol, Minist Technol Commun Transport, Minist Commerce Tourisme Artisanat Tunisia
URL: <Go to ISI>://WOS:000221478300202

Reference Type: Book

Record Number: 4

Author: Ouennoughi, Z. Weiss, R. Benlala, S. Ryssel, H.

Year: 2004

Title: Extracting of Silicon carbide Schottky diode model parameters using lateral optimization method including the parallel conductance

Series Editor: Osvald, J. Hascik, S.

Series Title: ASDAM 2004: The Fifth International Conference on Advanced Semiconductor Devices and Microsystems

Number of Pages: 271-274

Short Title: Extracting of Silicon carbide Schottky diode model parameters using lateral optimization method including the parallel conductance

ISBN: 0-7803-8535-7

Accession Number: WOS:000228828900064

Abstract: In this study, A nonlinear least squares optimization algorithm is used for extracting Silicon carbide Schottky parameters of the single model is presented. Parameters values were extracted using this method from experimental characteristics collected from Tungsten (W), Nickel (Ni) and Molybdenum (Mo) Schottky on 4.H-SiC under forward and reverse bias and at different temperatures. The method is found to be reliable and accurate in situations where the model is a good approximation of Schottky diode performance. The diodes showed a barrier height of phi(b) = 1. 013e V for Mo and phi(b) = 1. 15 eV for W and phi(b) = 1. 5 7 e Vfor Ni. The diodes showed also a series resistance in the range of 6 0 to 15 12 and a shunt conductance in the range of 10(-12) S to 10(-11) S. The ideality factor is close to unity. Indications are given on the validity of the used technique and its main limitations.

Notes: Ouennoughi, Z Weiss, R Benlala, S Ryssel, H 5th International Conference on Advanced Semiconductor Devices and Microsystems Oct 17-21, 2004 Smolenice, SLOVAKIA Slovak Acad Sci, Inst Elect Engn, Slovak Univ Technol, Fac Elect Engn& Informat Technol, MIcroelectron Dept, European Comm Represented Commiss European Comm Res Directorate Gen, IEEE Elect Dev Soc

URL: <Go to ISI>://WOS:000228828900064
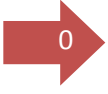
PRODUCTION SCIENTIFIQUE ANNEE 2005

Reference Type: Journal Article
Record Number: 1
Author: Aibeche, A. Favini, A.
Year: 2005**Title:** Coerciveness estimate for Ventcel boundary value problem for a differential equation
Journal: Semigroup Forum
Volume: 70
Issue: 2
Pages: 269-277
Date: Mar-Apr
Short Title: Coerciveness estimate for Ventcel boundary value problem for a differential equation
ISSN: 0037-1912
DOI: 10.1007/s00233-004-0170-9
Accession Number: WOS:000228332500009
Abstract: We give some simple algebraic conditions on the coefficients of a boundary value problem for a differential equations of Ventcel type, depending Oil a, spectral parameter, which guarantee the existence, uniqueness of a solution and coerciveness estimate, for a spectral parameter lying in some sector.
Notes: Aibeche, A Favini, A
URL: <Go to ISI>://WOS:000228332500009

Reference Type: Journal Article
Record Number: 2
Author: Aliouane, T. Bouzid, D. Belkhir, N. Bouzid, S. Herold, V.
Year: 2005
Title: Evaluation of mechanic characteristics of the polyurethane polisher used as an abrasive door during the process of polishing optic glass
Journal: Journal De Physique Iv
Volume: 124
Pages: 123-128
Date: May
Short Title: Evaluation of mechanic characteristics of the polyurethane polisher used as an abrasive door during the process of polishing optic glass
ISSN: 1155-4339
DOI: 10.1051/jp4:2005124019
Accession Number: WOS:000230021800020
Notes: Aliouane, T Bouzid, D Belkhir, N Bouzid, S Herold, V 4th Conference of Discreet Mathematics and Algorithmics, Polytechnic Univerisity of Madrid May 26-28, 2004 Beirut, LEBANON
URL: <Go to ISI>://WOS:000230021800020

Reference Type: Journal Article
Record Number: 3
Author: Amira, S. Gharzouli, K. Khennouf, S. Gharzouli, A.
Year: 2005
Title: Abstracts of papers accepted for presentation at the XXVITH Conference of the International Society for Fluoride Research, Wiesbaden, Germany, September 26-29, 2005 - Abstracts
Journal: Fluoride
Volume: 38
Issue: 3
Pages: 220-259
Date: Aug
Short Title: Abstracts of papers accepted for presentation at the XXVITH Conference of the International Society for Fluoride Research, Wiesbaden, Germany, September 26-29, 2005 - Abstracts
ISSN: 0015-4725
Accession Number: WOS:000231582900009
Notes: Amira, S Gharzouli, K Khennouf, S Gharzouli, A
URL: <Go to ISI>://WOS:000231582900009

Reference Type: Journal Article
Record Number: 4
Author: Amira, S. Mule, F.
Year: 2005
Title: Effects of sodium fluoride on the mechanical activity in mouse gastric preparations
Journal: Canadian Journal of Physiology and Pharmacology
Volume: 83
Issue: 4
Pages: 367-373
Date: Apr
Short Title: Effects of sodium fluoride on the mechanical activity in mouse gastric preparations
ISSN: 0008-4212
DOI: 10.1139/y05-021
Accession Number: WOS:000229413900005

Abstract: The aim of the present study was to investigate the responses induced by sodium fluoride (NaF) on gastric mechanical activity, using mouse whole-stomach preparations. The mechanical activity was recorded in vitro as changes of intraluminal pressure. In most of the preparations, NaF induced a tetrodotoxin-insensitive biphasic effect characterized by early relaxation followed by slowly developing contractile response. The contraction was dependent on the concentration of NaF, whereas the relaxation was observed at only 10-30 mmol/L NaF. The contractile effect was significantly reduced by nifedipine (an L-type Ca^{2+} channel blocker), ryanodine or ruthenium red (inhibitors of Ca^{2+} release from sarcoplasmic reticulum), and GF109203X (a protein kinase C inhibitor). Moreover, it was abolished by neomycin (an inhibitor of phospholipase C) and potentiated by SQ22536 (an inhibitor of adenylyl cyclase). All the drugs significantly increased the relaxation, except SQ22536, which abolished it. The present results suggest that NaF causes a complex mechanical response in the whole-stomach, which might explain gastric discomfort after fluoride ingestion. The relaxation appears owing to production of cAMP, while the contractile effects imply activation of phospholipase C, protein kinase C, influx of Ca^{2+}, and release of Ca^{2+} from ryanodine-sensitive intracellular store.
Notes: Amira, S Mule, F
URL: <Go to ISI>://WOS:000229413900005

Reference Type: Journal Article
Record Number: 5
Author: Amira, S. Soufane, S. Gharzouli, K.
Year: 2005
Title: Effect of sodium fluoride on gastric emptying and intestinal transit in mice
Journal: Experimental and Toxicologic Pathology
Volume: 57
Issue: 1
Pages: 59-64
Date: Aug
Short Title: Effect of sodium fluoride on gastric emptying and intestinal transit in mice
ISSN: 0940-2993
DOI: 10.1016/j.etp.2005.04.002
Accession Number: WOS:000231019100007
Abstract: Fluoride, a well-recognised harmful substance, is easily absorbed by the gastrointestinal mucosa. It is therefore conceivable that any alteration of the gastrointestinal motility can affect the rate of absorption of fluoride and leads to aggravation of its toxic effects. The effects of fluoride on gastric emptying and intestinal transit were studied in the mouse using a carboxymethyl cellulose (CMC) solution as a non-nutrient meal. The participation of the cholinergic and nitrergic systems in these effects was also evaluated. Oral gavage of 5 mM NaF had no significant effect on gastric emptying and intestinal transit of the CMC meal, whereas a decrease of gastric emptying (-33%, $P<0.05$) and an increase in intestinal transit (+20.7%, $P<0.05$) were observed with 20 mM NaF. Atropine injection induced a significant decrease of gastric emptying. Combined treatment of atropine with 20 mM NaF brought about a further, but not significant decrease in gastric emptying. N-G-nitro-L-arginine-methyl ester (L-NAME) treatment with or without oral administration of NaF decreased gastric emptying. Atropine treatment significantly depressed intestinal transit from 56.5% to 37.7% in the absence of NaF and from 70.1% to 42.8% in its presence. in contrast, L-NAME administration either alone or with fluoride increased intestinal transit ($P<0.05$). The present results suggest that fluoride alter gastrointestinal motility, an effect that may partly involve the cholinergic pathway. (C) 2005 Elsevier GmbH. All rights reserved.
Notes: Amira, S Soufane, S Gharzouli, K
URL: <Go to ISI>://WOS:000231019100007

Reference Type: Journal Article

Record Number: 6

Author: Annicchiarico, P. Abdellaoui, Z. Kelkouli, M. Zerargui, H.

Year: 2005

Title: Grain yield, straw yield and economic value of tall and semi-dwarf durum wheat cultivars in Algeria

Journal: Journal of Agricultural Science

Volume: 143

Pages: 57-64

Date: Feb

Short Title: Grain yield, straw yield and economic value of tall and semi-dwarf durum wheat cultivars in Algeria

ISSN: 0021-8596

DOI: 10.1017/s0021859605004855

Accession Number: WOS:000230861800008

Abstract: In cereal-livestock farming systems of North Africa and West Asia the straw of durum wheat [Triticum turgidum (L.) Thell. ssp. turgidum conv. durum (Desf.) MacKey] is frequently used for feeding animals during the dry season and may enhance the sustainability and the flexibility of farming in various respects. In Algeria the average sale price per unit weight of the durum straw is around 30 % of that of grain. Six tall and 18 semi-dwarf locally well-adapted cultivars were grown in the season 2000/01 at five Algerian locations representing the main durum wheat cropping areas to verify: (i) the impact of straw yield on the economic merit of cultivars for recommendation and (ii) the interest of tall v. semi-dwarf plant types for breeding. The tall material comprised four cultivars derived from local landraces and two old varieties. The semi-dwarf germplasm originated from CIMMYT, ICARDA or various Mediterranean countries. In the economic assessment the straw value was expressed in terms of grain-equivalent, defining an economic yield as: grain yield+(0.30 x straw yield). The merit of individual cultivars was markedly affected by ignoring or taking into account the straw yield. On average, tall germplasm had a moderate (about 3 %) but significant (P < 0.02) economic advantage over semi-dwarf material as a result of much higher straw yield (+25 %) and aerial biomass (+ 12 %) and somewhat lower grain yield (-7 %). However, three semi-dwarf varieties from CIMMYT were top-ranking for economic yield. They possessed outstanding aerial biomass and similar harvest index compared with the mean response of other semi-dwarf germplasm. On average, the tall germplasm showed higher grain yield stability (P < 0.01), lower straw yield stability (P < 0.01) and slightly higher stability of economic yield (P < 0.11) than the semi-dwarf group as measured by Shukla's stability variance. Grain yield was negatively correlated with straw yield (r=-0.41, P < 0.05), and was not correlated with aerial biomass, in the whole set of cultivars. However, it was not correlated with straw yield, and was positively correlated with aerial biomass (r=0.61, P < 0.01), within the semi-dwarf germplasm. Information on straw yield can improve the targeting of cultivars for cereal-livestock farming systems. Breeding for these systems may target either a tall type within semi-dwarf material (i.e. a 'tall dwarf'), or a truly tall plant type.

Notes: Annicchiarico, P Abdellaoui, Z Kelkouli, M Zerargui, H 1

URL: <Go to ISI>://WOS:000230861800008

Reference Type: Journal Article
Record Number: 7
Author: Atmani, D. Baghiani, A. Harrison, R. Benboubetra, M.
Year: 2005
Title: NADH oxidation and superoxide production by caprine milk xanthine oxidoreductase
Journal: International Dairy Journal
Volume: 15
Issue: 11
Pages: 1113-1121
Date: Nov
Short Title: NADH oxidation and superoxide production by caprine milk xanthine oxidoreductase
ISSN: 0958-6946
DOI: 10.1016/j.idairyj.2004.11.004
Accession Number: WOS:000232192100004

Abstract: Xanthine oxidoreductase (XOR) was purified from caprine milk where more than 90% exists in demolybdo 'inactive' form. The dehydrogenase form of the enzyme, oxidises nicotinamide adenine dinucleotide (reduced) (NADH), in the presence of oxygen, and generates superoxide anion radical ($O_2(\cdot-)$)) significantly faster than does the oxidase form. The corresponding forms of human and bovine milk enzymes behaved similarly. The steady-state kinetics of NADH oxidation and $O_2(\cdot-)$ production, in the absence and presence of $NAD(+)$, by the dehydrogenase form of XOR from the three species, are analysed. Allopurinol, oxypurinol and amflutizole blocked the reducing substrates that act at the molybdenum site, and all of which were ineffective in the case of NADH oxidase activity. However, and as expected, diphenyleneiodonium was a powerful inhibitor of NADH oxidation. The possible physiological and pathological significance of reactive oxygen species, especially $O_2(\cdot-)$, arising from NADH oxidation by caprine XOR is discussed. (c) 2004 Elsevier Ltd. All rights reserved.
Notes: Atmani, D Baghiani, A Harrison, R Benboubetra, M
URL: <Go to ISI>://WOS:000232192100004

Abstract: Granular Co-Ag alloy films elaborated by molecular-beam epitaxy at three temperatures: 20, 250 and 450 degrees C, have been investigated. The influence of substrate temperatures on the growth and the structural properties is studied, using reflection high-energy electron diffraction (RHEED) and X-ray diffraction (XRD) techniques. For all growth temperatures, the in situ RHEED patterns of the Co-Ag alloys exhibit an in-plane six-fold symmetry, which indicates that the Co and Ag deposits are in epitaxy with the Ru buffer surface. At 20 degrees C, the RHEED patterns show a unique lattice with diffuse lines, which is a feature of a rough surface. However, at 250 degrees C, the RHEED patterns show double lines, which indicate the existence of two lattices, associated with Ag and Co metals. RHEED analysis indicates that the Co lattice constant relaxes to its bulk value after a critical thickness of 20 angstrom, while the Ag has already relaxed at the growth beginning. XRD studies give evidence of a strongly textured alloy films, along the growth direction. It is found that, at 20 degrees C, Co impurities are embedded in the Ag matrix. However, in the range 250-450 degrees C, the system segregates and gives the formation of chemically pure entities of Co and Ag. (c) 2004 Elsevier B.V. All rights reserved.
Notes: Azizi, A Arabski, J Dinia, A
URL: <Go to ISI>://WOS:000229344800020

Reference Type: Journal Article
Record Number: 9
Author: Baouz, T. Fellahi, S.
Year: 2005
Title: Interfacial modification of high density polyethylene/glass fiber reinforced and non reinforced polyamide 66 blends
Journal: Journal of Applied Polymer Science
Volume: 98
Issue: 4
Pages: 1748-1760
Date: Nov
Short Title: Interfacial modification of high density polyethylene/glass fiber reinforced and non reinforced polyamide 66 blends
ISSN: 0021-8995
DOI: 10.1002/app.22359
Accession Number: WOS:000232255100034

Abstract: High density polyethylene (HDPE) and polyamide (PA66) are well known to be incompatible. An ionomer (Surlyn) was added as a compatibilizer to HDPE and glass fiber reinforced (HDPE/GFRPA66) and non-reinforced (HDPE/PA66) blends. Two compositions were considered: 25/75 wt % and 75/25 wt %, with an emphasis on the former formulation. The influence of the compatibilizer on the rheology, thermal properties, and the morphology, as well as mechanical properties of the blends, was investigated using melt flow index measurements, DSC, scanning electron microscopy (SEM), and impact strength. The ionomer was found to be more effective as a compatibilizer with HDPE as a minor phase compared to the case when HDPE becomes the major phase. The results indicated that the interfacial properties of the blends were improved, with a maximum appearing at a critical concentration of the ionomer (7.5 vol %). At this level of compatibilization, SEM analysis revealed better interfacial adhesion and a finer dispersion. MFI results revealed a probable reaction between the amine groups of PA66 and the acid functions of the ionomer. The mechanical properties support the above results and showed that the addition of 25 wt % HDPE did not affect the properties of PA66 much and the presence of glass fiber did not hinder the effect of the compatibilizer. Only 20% decrease in notched Izod impact strength of the blends is observed at 7.5 vol % ionomer content, suggesting that the addition of 25 wt % of HDPE to PA66 is not detrimental at this level of compatibilization. The emulsification curve was established and revealed that, in terms of impact properties, the finer the particle size, the higher the impact strength corresponding to 7.5 vol % ionomer content. (c) 2005 Wiley Periodicals, Inc.
Notes: Baouz, T Fellahi, S
URL: <Go to ISI>://WOS:000232255100034

Reference Type: Journal Article

Record Number: 10

Author: Bartel, J. Bencheikh, K. Quentin, P.

Year: 2005

Title: Cranking of nuclei at finite temperature: A semiclassical approach

Journal: International Journal of Modern Physics E-Nuclear Physics

Volume: 14

Issue: 3

Pages: 437-444

Date: Apr

Short Title: Cranking of nuclei at finite temperature: A semiclassical approach

ISSN: 0218-3013

DOI: 10.1142/s0218301305003247

Accession Number: WOS:000229619600021

Abstract: We present a generalization of the Extended Thomas Fermi (ETF) theory to fermionic systems at finite temperature and finite angular momentum. In fact the present approach is more general in the sense that it is able to treat an excited system of fermions subject to an external vector field which in the case of nuclear rotations, developed more extensively here, is simply r x w.

Notes: Bartel, J Bencheikh, K Quentin, P 11th Nuclear Physics Workshop Sep 23-26, 2004 Kazimierz, POLAND

URL: <Go to ISI>://WOS:000229619600021

Reference Type: Journal Article
Record Number: 11
Author: Belafrites, A. Nourreddine, A. Mouhssine, D. Nachab, A. Boucenna, A.
Year: 2005
Title: Response of PN3 dosimeters to Pu-239-Be neutrons
Journal: Radiation Measurements
Volume: 39
Issue: 2
Pages: 241-244
Date: Feb
Short Title: Response of PN3 dosimeters to Pu-239-Be neutrons
ISSN: 1350-4487
DOI: 10.1016/j.radmeas.2004.07.003
Accession Number: WOS:000225631100018
Abstract: CR-39 type PN3 plastic detectors associated with a polyethylene or PN3 radiator or without radiator were exposed to Pu-Be neutrons to evaluate their effectiveness as fast neutron dosimeters. The detectors were chemically etched and track counting was performed using an automated system. It was found that the dosimeter responses were linear up to a neutron dose equivalent of 200 mSv and that the simple PN3 detector without radiator has the same response as the two-element dosimeters and thus appears as a promising fast neutron dosimeter. (C) 2004 Elsevier Ltd. All rights reserved.
Notes: Belafrites, A Nourreddine, A Mouhssine, D Nachab, A Boucenna, A
URL: <Go to ISI>://WOS:000225631100018

Reference Type: Journal Article
Record Number: 12
Author: Belarbi, K. Titel, F. Bourebia, W. Benmahammed, K.
Year: 2005
Title: Design of Mamdani fuzzy logic controllers with rule base minimisation using genetic algorithm
Journal: Engineering Applications of Artificial Intelligence
Volume: 18
Issue: 7
Pages: 875-880
Date: Oct
Short Title: Design of Mamdani fuzzy logic controllers with rule base minimisation using genetic algorithm
ISSN: 0952-1976
DOI: 10.1016/j.engappai.2005.03.003
Accession Number: WOS:000232425500011

Abstract: This paper presents a design procedure for Mamdani fuzzy logic controller including rule base minimisation. The rules are modelled with binary weights on which constraints are imposed in order to ensure consistency. A genetic algorithm is used for finding stabilising controllers that minimise the number of rules. The cost function includes a stability/performance coefficient which insures that stable, performance satisfying controllers are given the highest possible fitness. The number of fuzzy sets for the input and the control variables are set by the user and the design procedure is concerned only with the rule base and the distribution of the fuzzy sets in the universes of discourses. Two examples were studied: the control of the pole and cart system and the control of the concentration in CSTR. In both cases, the fuzzy sets were isosceles triangles evenly distributed, in the universe of discourses. (c) 2005 Elsevier Ltd. All rights reserved.
Notes: Belarbi, K Titel, F Bourebia, W Benmahammed, K 9th International Workshop on Cooperative Information Agents 2004 Erfurt, GERMANY
URL: <Go to ISI>://WOS:000232425500011

Reference Type: Journal Article
Record Number: 13
Author: Belhattab, R. Larous, L. Figueiredo, A. C. Santos, P. A. G. Barroso, J. G. Pedro, L. G.
Year: 2005
Title: Origanum glandulosum Desf. grown wild in Algeria: essential oil composition and glycosidic bound volatiles
Journal: Flavour and Fragrance Journal
Volume: 20
Issue: 2
Pages: 209-212
Date: Mar-Apr
Short Title: Origanum glandulosum Desf. grown wild in Algeria: essential oil composition and glycosidic bound volatiles
ISSN: 0882-5734
DOI: 10.1002/ffj.1387
Accession Number: WOS:000227347400025

Abstract: The essential oils, isolated by distillation-extraction (DE) and hydrodistillation (H) for different extraction periods, from the aerial parts of Origanum glandulosum collected at the flowering phase in Algeria, were analysed by GC and GC-MS. The oil yields determined by hydrodistillation attained 1.8% (v/w) and 2.7% (v/w) when extracted for 10 min and 3 h, respectively. The essential oils were dominated by the monoterpene fraction (DE 95-96% and H 86-97%), carvacrol being the main component of all oils (49-57 and 45-47% for DE and H oils, respectively). The other main components (> 5%) were gamma-terpinene (DE 17-13 and H 18-13%), p-cymene (DE 14-10 and H 17-11%) and thymol (DE 7 and H 5-7%). The composition of the glycosidic bound vollatiles showed very little resemblance to the corresponding essential oil fraction. Thirteen components were detected in the glycosidic bound volatiles, only six of which were also present in the essential oil. The oxygen-containing monoterpenes were the dominant fraction (75-97%) of the glycosidic bound volatiles, but the main component was dependent on the extraction period and not on the isolation procedure. Carvacrol (71% for DE and 61% for H) dominated the 10 min distillation, whereas thymoquinone, which was not present on the essential oil, was the dominant component in the 3 h distillation (79% for DE and 59% for H). Copyright (c) 2004 John Wiley & Sons, Ltd.
Notes: Belhattab, R Larous, L Figueiredo, AC Santos, PAG Barroso, JG Pedro, LG
URL: <Go to ISI>://WOS:000227347400025

Reference Type: Journal Article

Record Number: 14

Author: Benazzouz, C. Benouattas, N. Bouabellou, A.

Year: 2005

Title: Competitive diffusion of gold and copper atoms in Cu/Au/Si and Au/Cu/Si annealed systems

Journal: Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms

Volume: 230

Pages: 571-576

Date: Apr

Short Title: Competitive diffusion of gold and copper atoms in Cu/Au/Si and Au/Cu/Si annealed systems

ISSN: 0168-583X

DOI: 10.1016/j.nimb.2004.12.103

Accession Number: WOS:000228126500098

Abstract: Thermal evaporation is used to deposit Au/Cu and Cu/Au bilayers on (111) monocrystalline silicon substrates. The layers composition and surface morphology are performed as function of annealing temperature at 200 and 400 degrees C using X-ray diffraction, Rutherford backscattering spectroscopy and scanning electron microscopy. Independently to the sequence of copper and gold deposition, Cu3Si and Cu4Si copper silicides result to the reaction and interdiffusion at the different interfaces. The 1000 and 1200 angstrom thickness of gold and copper diffusion barriers are insufficient to prevent the diffusion of copper and gold atoms respectively, after an annealing of only 200 degrees C. The fitting of concentration profiles of RBS spectra by using the RUMP software revealed a growth of silicides layers not uniform laterally and in depth. (c) 2004 Elsevier B.V. All rights reserved.

Notes: Benazzouz, C Benouattas, N Bouabellou, A 21st International Conference on Atomic Collisions in Solids Jul 04-09, 2004 Genova, ITALY Si

URL: <Go to ISI>://WOS:000228126500098

15 **Reference Type:** **Journal Article**
Record Number: 15
Author: Bencheikh, K. Nieto, L. M. Maamache, M.
Year: 2005
Title: Derivation of the differential equation for the Slater sum and of the differential virial theorem using the Wigner transform
Journal: Journal of Physics a-Mathematical and General
Volume: 38
Issue: 37
Pages: 7989-7996
Date: Sep
Short Title: Derivation of the differential equation for the Slater sum and of the differential virial theorem using the Wigner transform
ISSN: 0305-4470
DOI: 10.1088/0305-4470/38/37/004
Accession Number: WOS:000233541400006

Abstract: Using the Wigner transform, we present an alternative derivation of the partial differential equation satisfied by the Slater sum, which is the diagonal element of the canonical Bloch density matrix. This is done in one dimension for the case of a general confining potential and also for the case of N independent fermions harmonically confined in d dimensions. We also present a simple proof of the so-called differential virial theorem for each of these cases.
Notes: Bencheikh, K Nieto, LM Maamache, M
URL: <Go to ISI>://WOS:000233541400006

Reference Type: Journal Article
Record Number: 16
Author: Benneouala, T. Cherruault, Y. Abbaoui, K.
Year: 2005
Title: New methods for applying the Adomian method to partial differential equations with boundary conditions
Journal: Kybernetes
Volume: 34
Issue: 7-8
Pages: 924-933
Short Title: New methods for applying the Adomian method to partial differential equations with boundary conditions
ISSN: 0368-492X
DOI: 10.1108/03684920510605740
Accession Number: WOS:000231868000002

Abstract: Purpose - To find methods for solving non-linear partial differential equations. The decomposition method may be applied, but a difficulty arises when applied to non-linear partial differential equations with initial and boundary conditions. In this work, two methods are described that take into account the boundary conditions. Design/methodology/approach - The decomposition method whilst being a powerful tool for solving non-linear functional equations encounters difficulties in finding solutions of partial differential equations with boundary conditions. In this paper, two methods are introduced which consist of setting boundary conditions to the equations so that the decomposition methods can be applied. Findings - By using the two proposed methods the decomposition method can then be easily used. In this work the two methods taking account of the boundary conditions were found to be efficient and allows a solution to be found using the Adomian decomposition method. Research limitations/implications - The two new methods provide solutions by the application of the decomposition method of George Adomian as extended by other researchers. Both are efficient: the first giving interesting results for linear and non-linear problems; the second one is also efficient, but difficulties could arise from the calculations of the required series. Practical implications - The research provides two efficient methods. The first method gives the demonstrated results for linear and non-linear problems due to the use of symbolic software such as Mathematica or Maple. Originality/value - Both methods illustrate the powerful use of the decomposition techniques pioneered by Adomian and as a result of their application may be applied to the solving of non-linear functional equations of any kind. This paper tackles the problems by introducing new methods of applying the Adomian techniques to partial differential equations with boundary conditions.
Notes: Benneouala, T Cherruault, Y Abbaoui, K
URL: <Go to ISI>://WOS:000231868000002

Reference Type: Journal Article
Record Number: 17
Author: Benter, I. F. Yousif, M. H. M. Griffiths, S. M. Benboubetra, M. Akhtar, S.
Year: 2005
Title: Epidermal growth factor receptor tyrosine kinase-mediated signalling contributes to diabetes-induced vascular dysfunction in the mesenteric bed
Journal: British Journal of Pharmacology
Volume: 145
Issue: 6
Pages: 829-836
Date: Jul
Short Title: Epidermal growth factor receptor tyrosine kinase-mediated signalling contributes to diabetes-induced vascular dysfunction in the mesenteric bed
ISSN: 0007-1188
DOI: 10.1038/sj.bjp.0706238
Accession Number: WOS:000230588500016

Abstract: 1 In order to characterize the roles of tyrosine kinases (TKs) and epidermal growth factor receptor (EGFR) in diabetes-induced vascular dysfunction, we investigated the ability of a chronic administration of genistein, a broad-spectrum inhibitor of TKs and AG1478, a specific inhibitor of EGFR TK activity to modulate the altered vasoreactivity of the perfused mesenteric bed to common vasoconstrictors and vasodilators in streptozotocin (STZ)-induced diabetes in rats. 2 The vasoconstrictor responses induced by norepinephrine (NE), endothelin-1 (ET-1) and angiotensin II (Ang II), were significantly increased, whereas vasodilator responses to carbachol and histamine were significantly reduced in the perfused mesenteric bed of STZ-induced diabetic rats in comparison with healthy rats. Treatment of diabetic animals with genistein or AG1478 produced a significant normalization of the altered agonist- induced vasoconstrictor and vasodilator responses without affecting blood glucose levels. In contrast, neither inhibitor had any effect on the vascular responsiveness of control (nondiabetic) animals. Treatment of diabetic animals with diadzein, an inactive analogue of genistein, did not affect the vasoconstrictor and vasodilator responses in control or diabetic animals. Phosphorylated EGFR levels were markedly raised in the mesenteric bed from diabetic animals and were normalized upon treatment with AG1478 or genistein. 3 These data suggest that activation of TK-mediated pathways, including EGFR TK signalling are involved in the development of diabetic vascular dysfunction.
Notes: Benter, IF Yousif, MHM Griffiths, SM Benboubetra, M Akhtar, S
URL: <Go to ISI>://WOS:000230588500016

Reference Type: Journal Article
Record Number: 18
Author: Berkane, K. Bencheikh, K.
Year: 2005
Title: Extended Thomas-Fermi kinetic energy density functional with spatially varying effective mass in d=1,2,3 dimensions
Journal: Physical Review A
Volume: 72
Issue: 2
Date: Aug
Short Title: Extended Thomas-Fermi kinetic energy density functional with spatially varying effective mass in d=1,2,3 dimensions
ISSN: 1050-2947
DOI: 10.1103/PhysRevA.72.022508
Article Number: 022508
Accession Number: WOS:000231564200088
Abstract: For first-principles density functional theory of a many fermion system, the determination of the kinetic energy functional is important. We consider N independent fermions with spatially varying effective mass in two dimensions, we derive the corresponding kinetic energy density using the h semiclassical approach. Our result reduces, as expected, to the one obtained in the literature for a constant effective mass. We examine the analytical expressions of the position dependent effective mass terms in the kinetic energy density functional with respect to the dimensionality d=1,2,3 of the space.
Notes: Berkane, K Bencheikh, K
URL: <Go to ISI>://WOS:000231564200088

Reference Type: Journal Article
Record Number: 19
Author: Bouamama, K. Daoud, K. Kassali, K.
Year: 2005
Title: Ab initio calculations in the virtual-crystal approximation of the structural and the elastic properties of BeSxSe1-x alloys under high pressure
Journal: Modelling and Simulation in Materials Science and Engineering
Volume: 13
Issue: 7
Pages: 1153-1162
Date: Oct
Short Title: Ab initio calculations in the virtual-crystal approximation of the structural and the elastic properties of BeSxSe1-x alloys under high pressure
ISSN: 0965-0393
DOI: 10.1088/0965-0393/13/7/010
Accession Number: WOS:000233224700010

Abstract: We report the first-principles calculation results on the structural and elastic properties of BeSxSe1-x alloys. These are done using the density functional theory within the local density approximation and employing virtual-crystal approximation. It is found that the lattice parameter, the phase transition pressure and elastic constants (and their derivatives with respect to the pressure) follow a quadratic law in x.
Notes: Bouamama, K Daoud, K Kassali, K
URL: <Go to ISI>://WOS:000233224700010

Reference Type: Journal Article
Record Number: 20
Author: Bouamama, K. Lebgaa, N. Kassali, K.
Year: 2005
Title: High-pressure calculations of the elastic properties of ZnSxSe1-x alloy in the virtual-crystal approximation
Journal: High Pressure Research
Volume: 25
Issue: 3
Pages: 217-225
Date: Sep
Short Title: High-pressure calculations of the elastic properties of ZnSxSe1-x alloy in the virtual-crystal approximation
ISSN: 0895-7959
DOI: 10.1080/08957950500259041
Accession Number: WOS:000232952500005

Abstract: We report first-principles calculation results on the structural and elastic properties of ZnSxSe1-x alloy. The calculations done using density functional theory within the local density approximation and employing the virtual-crystal approximation. It is found that the lattice parameter, the phase transition pressure, and the elastic constants (and their derivative with respect to the pressure) follow a quadratic law in x.
Notes: Bouamama, K Lebgaa, N Kassali, K
URL: <Go to ISI>://WOS:000232952500005

Reference Type: Journal Article
Record Number: 21
Author: Bouhemadou, A. Khenata, R. Sahnoun, M. Baltache, H. Kharoubi, M.
Year: 2005
Title: First-principles study of structural, elastic and high-pressure properties of cerium chalcogenides
Journal: Physica B-Condensed Matter
Volume: 363
Issue: 1-4
Pages: 255-261
Date: Jun
Short Title: First-principles study of structural, elastic and high-pressure properties of cerium chalcogenides
ISSN: 0921-4526
DOI: 10.1016/j.physb.2005.03.029
Accession Number: WOS:000229654700034
Abstract: A theoretical study of structural, elastic and high-pressure properties of cubic CeS, CeSe and CeTe is presented, using the full-potential augmented plane wave method plus local orbitals (FP-APW + lo) as implanted in the WIEN2K code. In this approach, the generalized gradient approximation (GGA) is used for the exchange-correlation (XC) potential. Results are given for lattice constant, bulk modulus, its pressure derivative and elastic constants for both NaCl- and CsCl-type structures. The pressure transition at which these compounds undergo structural phase transition from NaCl-B1 to CsCl-B2 phases are also calculated. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A Khenata, R Sahnoun, M Baltache, H Kharoubi, M
URL: <Go to ISI>://WOS:000229654700034

Abstract: The effects of Cleome arabica leaf extract, rutin and quercetin on soybean lipoxygenase (Lox) activity and on calcium ionophore (A23187)-stimulated generation of the leukotriene B-4 and prostaglandin E-2 by human neutrophils were examined. The extract (25 mug/ml), rutin (25 muM) and quercetin (25 muM) inhibited LTB4 synthesis at all concentrations of A23187 used. The extract at 1-100 mug/ml and rutin at 1-100 muM inhibited LTB4 generation by neutrophils stimulated with 1 muM A23187 by about 50%. PGE(2) production in response to different concentrations of A23187 was affected in a biphasic manner by the extract and rutin. Quercetin at 1-100 muM caused concentration-dependent inhibition of LTB4 and PGE(2) production. The extract, rutin and quercetin caused concentration-dependent inhibition of soybean Lox activity. These results indicate that rutin, quercetin and an extract of C arabica containing these compounds inhibit Lox activity, consequently decreasing LTB4 production. Thus, these compounds or extracts containing them may be beneficial for the treatment of inflammatory conditions, particularly those characterised by excessive leukotriene generation. (C) 2004 Elsevier Ltd. All rights reserved.

Reference Type: Journal Article

Record Number: 23

Author: Bourzami, A. Ghebouli, B. Kharmouche, A. Guittoum, A. Layadi, A. Lenoble, O. Piecuch, M.

Year: 2005

Title: The influence of substrate and thickness on the magnetic properties of dc sputtered Ni thin films

Journal: Annales De Chimie-Science Des Materiaux

Volume: 30

Issue: 2

Pages: 207-215

Date: Mar-Apr

Short Title: The influence of substrate and thickness on the magnetic properties of dc sputtered Ni thin films

ISSN: 0151-9107

DOI: 10.3166/acsm.30.207-215

Accession Number: WOS:000229910400008

Abstract: The effects of the substrate and thickness on the magnetic properties of Ni thin films were investigated. Series of Ni thin films were prepared by dc diode sputtering on four different substrates : glass, Si(111), Si(100) and mica; the Ni thickness ranged from about 295 angstrom to 3080 angstrom. By X-ray diffraction, we observed that Ni grown on glass has no texture. On the other hand Ni deposited on Si gets the < 111 > preferred orientation for all samples. Kerr effect experiments were done using light of wavelength lambda = 6328 angstrom and a magnetic field varying from 0 to 7 kOe. Longitudinal and polar Kerr effect measurements were performed on these samples. Kerr rotation theta(K) and coercivity H-c were deduced from the hysteresis curves. These parameters were studied as a function of the substrate, the film thickness, the grain size and the texture. The experimental results are interpreted and discussed.

Notes: Bourzami, A Ghebouli, B Kharmouche, A Guittoum, A Layadi, A Lenoble, O Piecuch, M

URL: <Go to ISI>://WOS:000229910400008

Reference Type: Journal Article
Record Number: 24
Author: Bousetla, A. Akkal, S. Medjroubi, K. Louaar, S. Azouzi, S. Djarri, L. Zaabat, N. Laouer, H. Chosson, E. Seguin, E.
Year: 2005
Title: Flavonoid glycosides from Ammoides pusilla
Journal: Chemistry of Natural Compounds
Volume: 41
Issue: 1
Pages: 95-96
Date: Jan-Feb
Short Title: Flavonoid glycosides from Ammoides pusilla
ISSN: 0009-3130
DOI: 10.1007/s10600-005-0085-z
Accession Number: WOS:000230984800026
Notes: Bousetla, A Akkal, S Medjroubi, K Louaar, S Azouzi, S Djarri, L Zaabat, N Laouer, H Chosson, E Seguin, E
URL: <Go to ISI>://WOS:000230984800026

Reference Type: Journal Article

Record Number: 25

Author: Candito, M. Houcher, B. Roux, F. de Courcy, G. P. Caramella, A. Berthier, F. Aberkane, A. Van Obberghen, E. E.

Year: 2005

Title: Influence of meal on plasma folate and vitamin B12, by three methods - and on vitamin B6, homocysteine and red blood cell folate

Journal: Pteridines

Volume: 16

Issue: 1

Pages: 22-26

Date: Mar

Short Title: Influence of meal on plasma folate and vitamin B12, by three methods - and on vitamin B6, homocysteine and red blood cell folate

ISSN: 0933-4807

Accession Number: WOS:000228942300005

Abstract: Vitamins are brought by meals. Some of them are cofactors in homocysteine metabolism, and, if plasma homocysteine values are not known to have a circadian rhythm, little is known about meal influence on blood folate, and vitamins B12 and B6. The aim of this study is to analyze the effect of breakfast and lunch on plasma folate, vitamins B12 and B6, homocysteine and red cell folate (RCF) in 13 subjects; and, in 6 of them, to compare plasma folate and vitamin B12 values with three analytical methods. In the 13 subjects, folate, vitamins B12 and B6 and RCF were analyzed by RIA, homocysteine by fluorescence polarization immunoassay and vitamin B6 by HPLC. In 6 of the subjects, additionally, plasma folate and vitamin B12 were analyzed by microbiology and by enzymoimmunoassay (EIA). Mean plasma folate levels at 11AM, 2PM, and 4PM were not significantly different, compared with 9AM mean values, independent of the method, while, when analyzed by microbiology, mean vitamin B12 concentrations decreased significantly (-12%), but not by RIA or by microbiology. Plasma folate concentrations, obtained by the different methods, and RCF concentrations were correlated, as for vitamin B12 concentrations. But, when analyzed by EIA, vitamin B 12 values were higher than by the two other methods. We conclude that plasma folate levels were constant at the different sampling hours, while vitamin B12 levels were decreased at 11AM, 2PM and 4PM, when compared with the fasting concentrations, and when assayed by microbiology. No difference was seen by RIA or by EIA. The evaluation of clinical data is not easy, due to the lack of a standardized analytical method, and international standards are needed.

Notes: Candito, M Houcher, B Roux, F de Courcy, GP Caramella, A Berthier, F Aberkane, A Van Obberghen, EE

URL: <Go to ISI>://WOS:000228942300005

26 **Reference Type: Journal Article**
Record Number: 26
Author: Chaoui, Z. Bouarissa, N.
Year: 2005
Title: Slow electrons penetration in gold at normal and oblique angles of incidence
Journal: International Journal of Modern Physics B
Volume: 19
Issue: 11
Pages: 1955-1963
Date: Apr
Short Title: Slow electrons penetration in gold at normal and oblique angles of incidence
ISSN: 0217-9792
DOI: 10.1142/s0217979205029559
Accession Number: WOS:000229380000005
Abstract: Electron penetration in semi-infinite An for normal and oblique angles of incidence at energies between 0.5 and 4 keV is simulated within a Monte-Carlo frame work. The elastic scattering cross sections have been obtained from a modified Rutherford differential cross section, whereas inelastic core and valence electron excitation are calculated using the Gryzinski's expression. The dependence of the backscattering coefficient, mean implantation depth and stopping profiles on the angle of incidence has been examined. These quantities are found to be significantly enhanced as the angle of incidence becomes higher which is generally in consistent with previous simulations.
Notes: Chaoui, Z Bouarissa, N
URL: <Go to ISI>://WOS:000229380000005

Reference Type: Journal Article

Record Number: 27

Author: Cherif, S. M. Roussigne, Y. Kharmouche, A. Chauveau, T. Billet, D.

Year: 2005

Title: Effect of grain misorientation on the stripe domains in evaporated cobalt films

Journal: European Physical Journal B

Volume: 45

Issue: 3

Pages: 305-309

Date: Jun

Short Title: Effect of grain misorientation on the stripe domains in evaporated cobalt films

ISSN: 1434-6028

DOI: 10.1140/epjb/e2005-00190-7

Accession Number: WOS:000232038900003

Abstract: X-ray diffraction and magnetic force microscopy techniques were used to investigate the structural and the static magnetic properties of vapor-deposited cobalt films with various thicknesses t ranging from 50 to 195 nm. Texture measurements revealed that as the thickness increases, the films become predominantly c-axis oriented. Magnetic stripe domains structure was only observed for the thicker films, with t = 195, 173 and 125 nm, while such a magnetic configuration was expected for all the samples based on the theoretical studies. Since the layers present increasing c-axis misorientation when the thickness decreases, we assume that this effect can prevent the stripe domains formation. This behavior is qualitatively explained by a simple model which describes the stripe domains structure taking into account the role of a small misorientation of the anisotropy axis.

Notes: Cherif, SM Roussigne, Y Kharmouche, A Chauveau, T Billet, D

URL: <Go to ISI>://WOS:000232038900003

Abstract: Atractylis gummifera L. (Asteraceae) is a thistle located in the Mediterranean re ions. Despite the plant's well-known toxicity, its ingestion continues to be a common cause Of Poisoning. The toxicity of Atractylis gummifera resides in atractyloside and carboxyatractyloside, two diterpenoid glucosides capable of inhibiting mitochondrial oxidative phosphorylation. Both constituents interact with a mitochondrial protein. the adenine nucleotide translocator, responsible for the ATP/ADP antiport and involved in mitochondrial membrane permeabilization. Poisoned patients manifest characteristic symptoms such as nausea. vomiting, epigastric and abdominal pain, diarrhoea, anxiety, headache and convulsions. often followed by coma. No specific pharmacological treatment for Atractylis gummifera intoxication is yet available and all the current therapeutic approaches are only symptomatic. In vitro experiments showed that some compounds such as verapamil, or dithiothreitol could protect against the toxic effects of atractyloside, but only if administered before atractyloside exposure. New therapeutic approaches Could come front immunotherapy research: some Studies have already tried to produce polyclonal Fab fragments against the toxic components of Atractylis gummifera. (C) 2004 Elsevier Ireland Ltd. All rights reserved.
Notes: Daniele, C Dahamna, S Firuzi, O Sekfali, N Saso, L Mazzanti, G
URL: <Go to ISI>://WOS:000227312000001

Reference Type: Journal Article
Record Number: 29
Author: Debbi, L. Dozzi, M.
Year: 2005
Title: On the solutions of nonlinear stochastic fractional partial differential equations in one spatial dimension
Journal: Stochastic Processes and Their Applications
Volume: 115
Issue: 11
Pages: 1764-1781
Date: Nov
Short Title: On the solutions of nonlinear stochastic fractional partial differential equations in one spatial dimension
ISSN: 0304-4149
DOI: 10.1016/j.spa.2005.06.001
Accession Number: WOS:000232740200002
Abstract: Existence, uniqueness and regularity of the trajectories of mild solutions of one-dimensional nonlinear stochastic fractional partial differential equations of order alpha > 1 containing derivatives of entire order and perturbed by space-time white noise are studied. The fractional derivative operator is defined by means of a generalized Riesz-Feller potential. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Debbi, L Dozzi, M
URL: <Go to ISI>://WOS:000232740200002

Abstract: A mathematical model for the hydrolysis reaction of p-nitro phenol laurate catalyzed by a lipase immobilized in a membrane was developed. In an earlier study this model reaction was found to show very different reaction rates when it was performed in aqueous micellar solution with free enzyme and with membrane immobilized enzyme. It was assumed that a local accumulation of substrate in the membrane is responsible for the observed rate enhancement. The conversion of p-nitro phenol ester within the membrane was modeled by considering a combination of the convective flow through poly(vinyl alcohol) membrane pores, concentration polarization of substrate containing micelles at the membrane surface and the kinetics of the reaction with free enzymes. It was demonstrated that the model offered a comprehensive understanding of the interaction of the involved phenomena. The modeling results are in good agreement with the experimental data from 10 runs with different enzyme and substrate concentrations. The substrate concentration at the membrane surface increased by up to a factor of 3 compared to the feed concentration. This effect explains the observed rate enhancement. Moreover, the model was used to determine the unknown parameters, i.e., the intrinsic retention and the mass transfer coefficient, by fitting the model to the experimental data. The model may also be used to calculate the optimum operating conditions and design parameters of such a reactor.

Reference Type: Journal Article
Record Number: 31
Author: Djerboua, F. Benachour, D. Touroude, R.
Year: 2005
Title: On the performance of a highly loadedCO/SiO2 catalyst in the gas phase hydrogenation of crotonaldehyde thermal treatments - catalyst structure-selectivity relationship
Journal: Applied Catalysis a-General
Volume: 282
Issue: 1-2
Pages: 123-133
Date: Mar
Short Title: On the performance of a highly loadedCO/SiO2 catalyst in the gas phase hydrogenation of crotonaldehyde thermal treatments - catalyst structure-selectivity relationship
ISSN: 0926-860X
DOI: 10.1016/j.apcata.2004.12.016
Accession Number: WOS:000227868500016

Abstract: This paper reports on the performance and its relation with the structure of a highly loaded (41 Wt.%) CO/SiO2 catalyst in the gas phase hydrogenation of crotonaldehyde when varying the thermal treatments to which the catalyst precursor has been subjected. The optimum calcination and reduction temperatures were identified where the highest selectivity to crotyl alcohol (around 90%) was obtained with the catalyst calcined at 400 degrees C and reduced at 350 degrees C even at conversions as high as 60%. Higher temperature of calcination was found to lower the crotyl alcohol selectivity. Both, lower and higher reduction temperatures will not favour the crotyl alcohol formation. These results were interpreted and correlated with the surface structure of the catalyst which was shown by temperature programmed reduction (TPR) and X-ray photoelectron spectroscopy (XPS) analysis. Depending on the thermal conditions imposed, the surface consisted of either Co metal, or coexisting metal and its oxide; structure which favours the high crotyl alcohol selectivity. By TEM analysis, large particles (diameter exceeding 50 nm) were identified after reduction at 350 degrees C. A global activation energy of 44 kJ/mol was obtained with this catalyst. In the light of the obtained results a discussion on the reaction mechanism involving metal, metal-oxide double sites has been put forward. It was emphasised that, for selective hydrogenation of crotonaldehyde into unsaturated alcohol, Co catalysts compete favourably with platinum based catalysts. (c) 2004 Elsevier B.V. All rights ieserved.
Notes: Djerboua, F Benachour, D Touroude, R
URL: <Go to ISI>://WOS:000227868500016

Reference Type: Journal Article
Record Number: 32
Author: Guenifi, N. Djahli, F. Keraghel, F.
Year: 2005
Title: Modeling of submicronic TMOS
Journal: Journal De Physique Iv
Volume: 124
Pages: 293-301
Date: May
Short Title: Modeling of submicronic TMOS
ISSN: 1155-4339
DOI: 10.1051/jp4:2005124043
Accession Number: WOS:000230021800047
Abstract: We have developed a model of TMOS submicronic with ultra thin oxide layers as small as 4,5-nm in order to study MOSFET's output characteristics and its associated characterization facility for advanced integrated-circuit design are described. This model makes use of the SPICE3F4 simulator and takes in consideration the majority of the physical effects describing the device's real behavior. The validation of our model has provided us with results on the drain current I-DS versus drain voltage V-DS. Our analysis and conclusions should be of interest to all who work with VLSI circuit technology.
Notes: Guenifi, N Djahli, F Keraghel, F 4th Conference of Discreet Mathematics and Algorithmics, Polytechnic Univerisity of Madrid May 26-28, 2004 Beirut, LEBANON
URL: <Go to ISI>://WOS:000230021800047

Reference Type: Journal Article

Record Number: 33

Author: Iaiche, S. Benouattas, N. Bouabellou, A. Osmani, L. Salik, L.

Year: 2005

Title: Atomic diffusion at the Cu-Au-Si multilayers interface

Journal: Microelectronic Engineering

Volume: 81

Issue: 2-4

Pages: 349-352

Date: Aug

Short Title: Atomic diffusion at the Cu-Au-Si multilayers interface

ISSN: 0167-9317

DOI: 10.1016/j.mee.2005.03.030

Accession Number: WOS:000231964900029

Abstract: Si(l 00) and (I 11) oriented silicon wafers were used as a substrate for metallic bilayers deposition of copper and gold. Cu/Au/Si structures were obtained by thermal evaporation and then heated below 400 degrees C in vacuum. These solid-state reactions occurred in the samples have been studied using X-ray diffraction (XRD), Rutherford backscattering spectroscopy (RBS), scanning electronic microscopy (SEM) and X-ray dispersive energy analyzer (XDE). The study shows that heat treatment at 200 degrees C of the multilayered Cu/Au/Si structure leads to the formation and the co-existence of both Cu_3Si and Cu_4Si copper rich-silicides with the expansion of their respective cells, independently of the orientation of the substrate. The increasing of the annealing temperature until 400 degrees C leads to the growth of well-oriented crystallites corresponding to Cu_3Si and Cu_4Si silicides on Si(111) but only Cu_4Si crystallites with square and rectangular shapes on Si(100). The thermal stability of formed copper silicides after heat treatment at 400 degrees C during 30 min for both Cu/Au/Si(100) and Cu/Au/Si(111) systems is analyzed. (c) 2005 Elsevier B.V. All rights reserved.

Notes: Iaiche, S Benouattas, N Bouabellou, A Osmani, L Salik, L 2nd International Symposium on Nano- and Giga-Challenges in Microelectronics Sep 12-17, 2004 Cracow, POLAND

URL: <Go to ISI>://WOS:000231964900029

Abstract: The 4,4'-bis(salicyleneimino) diphenyl ether is a N2O3 Schiff base but it acts as a tetradentate ligand. Its complexes with cobalt (II), copper(II), zinc(II), and cadmium (II) were characterised using spectroscopic determinations, d.s.c. and cyclic voltammetry. In these compounds, the coordination occurs through the non-ionised phenolic hydroxyl of the ligand and the nitrogen atom of the azomethine moiety. These new complexes should be formulated [CuCl2(H2L)]center dot H2O, [(CoCl2)(2)(H2L)(H2O)(4)]center dot 2H(2)O, [Zn2Cl2(H2L)] and [Cd(H2L)]Cl-2 respectively. The copper(II) and cadmium(II) complexes are mononuclear while the cobalt(II) and zinc(II) appeared to be binuclear species. The anodic oxidations of cobalt (II), zinc(II), and cadmium(II) compounds show only one peak attributed to the oxidation of the phenolic moiety of the ligand. In addition, the copper complex [CuCl2(H2L)]center dot H2O exhibits two peaks at +680 mV (ECS) and +965 mV (ECS) corresponding to the complexed couples Cu-II/Cu-III and Cu-I/Cu-II.
Notes: Issaadi, S Haffar, D Douadi, T Chafaa, S Seraphin, D Khan, M Bouet, G
URL: <Go to ISI>://WOS:000234429400020

Reference Type: Journal Article
Record Number: 35
Author: Izerrouken, M. Guedioura, B. Saichi, B. Nedjar, A. Meftah, A. Nekab, M.
Year: 2005
Title: NUR reflectometer for neutron optics device investigations
Journal: Physica B-Condensed Matter
Volume: 364
Issue: 1-4
Pages: 29-32
Date: Jul
Short Title: NUR reflectometer for neutron optics device investigations
ISSN: 0921-4526
DOI: 10.1016/j.physb.2005.03.005
Accession Number: WOS:000230253100003

Abstract: A reflectometer with vertical sample position has been recently installed at the research reactor NUR. In this paper, a description of this instrument is presented. The test has been performed with a ten nickel-titanium bilayers monochromator with a total thickness of 300 nm. The nominal thicknesses of each bilayer are 15 mn Ti and 15 nm Ni. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Izerrouken, M Guedioura, B Saichi, B Nedjar, A Meftah, A Nekab, M
URL: <Go to ISI>://WOS:000230253100003

Abstract: This paper presents a new time-frequency distribution which uses a time-dependent two-sided linear predictor model. The current sample is estimated as a weighted sum of the past and future values. The two-sided linear prediction approach yields a smaller prediction error than that obtained by using the usual one-sided linear predictor model. To estimate the time-dependent coefficients of the two-sided linear predictor, these are expanded as a linear combination of a set of time functions basis which leads to an ensemble of equations of the type of Yule-Walker equations. The nonstationary power spectrum estimate is used as a time-frequency distribution to characterize the signal jointly in the time domain and the frequency domain. We show that two-sided prediction-based time-frequency distribution can discriminate two close components in the time-frequency plane that neither Choi-Williams distribution nor one-sided prediction-based time-frequency distribution are capable of resolving. Also, the proposed time-frequency distribution is used to estimate the instantaneous frequency. Examples show that the proposed approach outperforms the usual technique based on the nonstationary autoregressive model. (C) 2004 Elsevier B.V. All rights reserved.
Notes: Kacha, A Grenez, F Bertmahammed, K
URL: <Go to ISI>://WOS:000227190600005

37 **Reference Type: Journal Article**
Record Number: 37
Author: Kahoul, A. Nekab, M.
Year: 2005
Title: L1, L2 and L3 subshell ionization cross sections for elements with 71 <= Z <= 80 for protons of 0.5 to 3.0 MeV
Journal: Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms
Volume: 234
Issue: 4
Pages: 412-418
Date: Jul
Short Title: L1, L2 and L3 subshell ionization cross sections for elements with 71 <= Z <= 80 for protons of 0.5 to 3.0 MeV
ISSN: 0168-583X
DOI: 10.1016/j.nimb.2005.02.013
Accession Number: WOS:000230261900003

Abstract: We present in this contribution theoretical predictions of the L-i (i = 1, 2, 3) subshells ionization cross sections within the ECPSSR theory for elements with atomic number 71 <= Z <= 80 for protons with energy of 0.5 to 3.0 MeV. These predictions are compared to the experimental data reported by Orlic et al. [At. Data Nucl. Data Tables 56 (1994) 159] and by Sokhi and Crumpton [At. Data Nucl. Data Tables 30 (1984) 49] by plotting the ratio S = sigma(exp)/sigma(ECPSSR) as a function of the reduced velocity parameter for each individual subshell L1, L2 and L3. By fitting separately the ratio S, we deduced reference ionization cross sections for each Li subshell. On the other hand, we report empirical ionization cross sections and make a comparison between the reference cross sections, the empirical cross sections reported in this paper and those reported by Sow et al. [Nucl. Instr. and Meth. B 75 (1993) 58] and by Orlic et al. [Int. J. PIXE 4 (4) (1994) 217]. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Kahoul, A Nekab, M
URL: <Go to ISI>://WOS:000230261900003

Reference Type: Journal Article
Record Number: 38
Author: Khanafi-Benghalem, N. Loucif, K. Benghalem, K. L. Boudoukha, H. Louahdi, R.
Year: 2005
Title: Control of temperature during the wear and tear process of Z12CNS20 steel chafing with Z200C13 steel
Journal: Journal De Physique Iv
Volume: 124
Pages: 189-194
Date: May
Short Title: Control of temperature during the wear and tear process of Z12CNS20 steel chafing with Z200C13 steel
ISSN: 1155-4339
DOI: 10.1051/jp4:2005124027
Accession Number: WOS:000230021800031
Notes: Khanafi-Benghalem, N Loucif, K Benghalem, KL Boudoukha, H Louahdi, R 4th Conference of Discreet Mathematics and Algorithmics, Polytechnic Univerisity of Madrid May 26-28, 2004 Beirut, LEBANON
URL: <Go to ISI>://WOS:000230021800031

Reference Type: Journal Article
Record Number: 39
Author: Kharfi, F. Boukerdja, L. Attari, A. Abbaci, M. Boucenna, A.
Year: 2005
Title: Implementation of neutron tomography around the Algerian Es-Salam research reactor: preliminary studies and first steps
Journal: Nuclear Instruments & Methods in Physics Research Section a-Accelerators Spectrometers Detectors and Associated Equipment
Volume: 542
Issue: 1-3
Pages: 213-218
Date: Apr
Short Title: Implementation of neutron tomography around the Algerian Es-Salam research reactor: preliminary studies and first steps
ISSN: 0168-9002
DOI: 10.1016/j.nima.2005.01.102
Accession Number: WOS:000229295300034

Abstract: During the last three years a static neutron radiography facility has been designed and installed around one of the horizontal neutron beam channels of the Es-Salam research reactor. In order to extend the field of application of neutron radiography, a development project is actually undertaken. The purpose of this project is the implementation of neutron tomography (NT). The Es-Salam research reactor provides a $10(9)n/cm(2)s$ thermal neutron beam for the installation of a tomography facility. The aim of this Tomography facility will be to visualize dynamic processes and to implement fast reconstruction methods. A first step in this direction was the design and the realization of an exposition cell, a beam-catcher, a turn table and a neutron beam collimation system. All electronic parts of the detection system will be provided and installed within the frame work of a Technical Cooperation Project (TCP) with the International Atomic Energy Agency (IAEA). This paper describes the estimation procedure of the main design parameters according to the measurement of the beam properties for final tomography station as well as the composition and the performance of the proposed detection system. Moreover, the influence of physical parameters of the irradiation in-pile parts on the image quality and acquisition process is discussed. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Kharfi, F Boukerdja, L Attari, A Abbaci, M Boucenna, A 5th International Topical Meeting on Neutron Radiography Jul 26-30, 2004 Tech univ Munchen, Munich, GERMANY
URL: <Go to ISI>://WOS:000229295300034

Reference Type: Journal Article
Record Number: 40
Author: Layadi, A.
Year: 2005
Title: Study of the resonance modes of a magnetic tunnel junction-like system
Journal: Physical Review B
Volume: 72
Issue: 2
Date: Jul
Short Title: Study of the resonance modes of a magnetic tunnel junction-like system
ISSN: 1098-0121
DOI: 10.1103/PhysRevB.72.024444
Article Number: 024444
Accession Number: WOS:000230890100103

Abstract: The ferromagnetic resonance (FMR) modes of a magnetic tunnel junction-like system are investigated. Such a system consists of an interfacial (F/AF) interaction described by an exchange anisotropy field H-E and a magnetic coupling of two ferromagnetic layers separated by a nonmagnetic interlayer. The latter interaction is accounted for by bilinear J(1) and biquadratic J(2) coupling strengths. The dispersion relation, the resonant frequency, f, as well as the corresponding mode intensity, I, versus applied field H curves, have been studied. Analytical formulas for the resonance condition and intensity have been derived for the low magnetic coupling/high exchange anisotropy case. In this situation, the system is found to behave as two uncoupled layers with magnetic characteristics different from those of the initial layers; the effect of the low coupling is to modify the different anisotropies: J(1) contributes to the exchange anisotropy while J(2) modifies the magnetocrystalline anisotropies. For very strong coupling, the system behaves as a single (F/AF) system with effective exchange and magnetocrystalline anisotropy fields; these fields have been derived as a function of the individual layer magnetic parameters.
Notes: Layadi, A
URL: <Go to ISI>://WOS:000230890100103

Reference Type: Journal Article
Record Number: 41
Author: Louahdi, R. Hayes, V. Marchand, R. Saindrenan, G.
Year: 2005
Title: A study of impurity segregation to the surface of an austenitic stainless steel using Auger electron spectroscopy
Journal: Journal De Physique Iv
Volume: 123
Pages: 105-110
Date: Mar
Short Title: A study of impurity segregation to the surface of an austenitic stainless steel using Auger electron spectroscopy
ISSN: 1155-4339
DOI: 10.1051/jp4:2005123017
Accession Number: WOS:000228377800018
Abstract: The object of this work is to study the segregation of elements such as chromium, phosphorous, sulphur and nitrogen to the surface of an austenitic stainless steel made by UGINE (France). The Investigation is carried out by in-situ annealing inside the ultra-vacuum chamber of an Auger electron spectrometer (AES). The specimens are initially homogenised by an anneal at 1050 degrees C inside evacuated silica capsules. They are then introduced inside the vacuum chamber of the AES where they are first of all activated, at room temperature, by ionic bombardment and then heat treated at various temperatures ranging from 600 degrees C to 900 degrees C. The results are obtained in the form of AES spectra recorded in the differential mode. It is found that the surface of the material undergoes alterations, some of which are temporary and others durable. These alterations are : co-segregation of nitrogen and chromium, segregation of sulphur and competition between nitrogen and sulphur and between phosphorous and sulphur. The driving force of segregation is in the following order: S > P > N.
Notes: Louahdi, R Hayes, V Marchand, R Saindrenan, G 9th International Seminar on the Physical Chemistry of Solid States Materials Oct 30-nov 01, 2002 Agadir, MOROCCO IBN ZOHR Univ
URL: <Go to ISI>://WOS:000228377800018

Reference Type: Journal Article
Record Number: 42
Author: Louail, L. Maouche, D. Roumili, A. Hachemi, A.
Year: 2005
Title: Pressure effect on elastic constants of some transition metals
Journal: Materials Chemistry and Physics
Volume: 91
Issue: 1
Pages: 17-20
Date: May
Short Title: Pressure effect on elastic constants of some transition metals
ISSN: 0254-0584
DOI: 10.1016/j.matchemphys.2004.10.040
Accession Number: WOS:000227378200003

Abstract: We study the effect of pressure on the structural and mechanical properties of Pt, Ni and Pd using a first-principle pseudopotential method within the gradient correct approximation of the density functional theory. Our results concerning the effect of pressure on equilibrium volume, elastic constants and bulk modulus were compared with other theoretical calculations and experimental data and are in reasonable agreement. (C) 2004 Elsevier B.V. All rights reserved.
Notes: Louail, L Maouche, D Roumili, A Hachemi, A
URL: <Go to ISI>://WOS:000227378200003

43 **Reference Type: Journal Article**
Record Number: 43
Author: Loucif, K. Keraghel, F. Alem, S.
Year: 2005
Title: Elaboration of bronze Cu-8%Sn sintered under pressure and study of its by absorption
Journal: Journal De Physique Iv
Volume: 124
Pages: 135-140
Date: May
Short Title: Elaboration of bronze Cu-8%Sn sintered under pressure and study of its by absorption
ISSN: 1155-4339
DOI: 10.1051/jp4:2005124021
Accession Number: WOS:000230021800022
Notes: Loucif, K Keraghel, F Alem, S 4th Conference of Discreet Mathematics and Algorithmics, Polytechnic Univerisity of Madrid May 26-28, 2004 Beirut, LEBANON
URL: <Go to ISI>://WOS:000230021800022

Reference Type: Journal Article
Record Number: 44
Author: Louzazna, K. Haroun, A.
Year: 2005
Title: Electronic and magnetic structure of multilayered Co-x=1,Co-3,Co-5 on Pd-5(111) systems
Journal: Journal of Applied Physics
Volume: 97
Issue: 8
Date: Apr
Short Title: Electronic and magnetic structure of multilayered Co-x=1,Co-3,Co-5 on Pd-5(111) systems
ISSN: 0021-8979
DOI: 10.1063/1.1866499
Article Number: 083906
Accession Number: WOS:000228729500069

Abstract: In the present work, the electronic structure and the magnetic behavior of multilayered Co-x/Pd-5(111), where x=1, 3, and 5 monolayers, are investigated using the self-consistent tight-binding linear muttin-tin method with local-density approximation. Such artificially layered magnetic structures attract a great attention, because of their interesting physical properties, which are quite different from that of the bulks, and their potential device applications. At the interface, the Co-Pd spacing distance d(Co-Pd) is found to be close to the average < d >(Co-Pd) of the bulk fcc Co and fcc Pd spacing. This is the reason for which all the investigated systems show a large Co magnetic moment at their interfaces (I). From a magnetic point of view, the multilayered magnetic films of Co exhibit a ferromagnetic interlayer and intralayer order, i.e., between the Co atoms in successive planes and in the same plane. The magnetic moments of the Co atoms at the interface (I) are found to be larger than that obtained for the magnetic atoms located at the central planes. Particularly, the monolayer of Co in the multilayered Co-1/Pd-5(111) shows a magnetic moment (2.03 mu(B)) bigger than that of the isolated Co-1 monolayer (1.97 mu(B)). The Palladium layers were slightly polarized (similar to 0.3 mu(B)) by the epitaxied magnetic films. (C) 2005 American Institute of Physics.
Notes: Louzazna, K Haroun, A
URL: <Go to ISI>://WOS:000228729500069

Reference Type: Journal Article
Record Number: 45
Author: Malou, Z. Hamidouche, M. Madjoubi, M. A. Bousbaa, C. Bouaouadja, N.
Year: 2005
Title: Modelling a soft thermic shock of a glass of SSC using a thermomechanical approach
Journal: Journal De Physique Iv
Volume: 124
Pages: 261-267
Date: May
Short Title: Modelling a soft thermic shock of a glass of SSC using a thermomechanical approach
ISSN: 1155-4339
DOI: 10.1051/jp4:2005124039
Accession Number: WOS:000230021800043
Notes: Malou, Z Hamidouche, M Madjoubi, MA Bousbaa, C Bouaouadja, N 4th Franco-Lebanese Conference on Materials Science May 26-28, 2004 Beirut, LEBANON Univ Libanaise, CNRS Liban, ICSI CNRS, Univ Haute Alsace, CNRS, Ambassade France, Beyrouth
URL: <Go to ISI>://WOS:000230021800043

Reference Type: Journal Article
Record Number: 46
Author: Merabet, A.
Year: 2005
Title: Simulations of arsenic and boron co-implanted in silicon during RTA for ultra-shallow junctions realizations
Journal: Materials Science and Engineering B-Solid State Materials for Advanced Technology
Volume: 124
Pages: 419-423
Date: Dec
Short Title: Simulations of arsenic and boron co-implanted in silicon during RTA for ultra-shallow junctions realizations
ISSN: 0921-5107
DOI: 10.1016/j.mseb.2005.08.021
Accession Number: WOS:000233895800087

Abstract: We have used the simulator of TITAN process. The latter uses the finished elements method for the equations resolution of codiffusion. We have simulated arsenic ($10(16)$ atoms cm(-2), 100 keV) and boron ($2 \times 10(15)$ atoms cm(-2), 30 keV) codiffusion profiles in the monosilicon, after rapid thermal annealing (RTA) by using the parameters by defect of simulator. We have noted the difference between the experimental distribution profiles measured with secondary ion mass spectrometry (SIMS) and those simulated. This lead us to readjust the profiles, changing the dopant diffusion coefficient in order to obtain the simulated profiles corresponding in a better way to the experimental profiles. The arsenic diffusivity values vary from $2 \times 10(-13)$ to $2 \times 10(-12)$ cm(2)/s in the amorphised zone; and from $4 \times 10(-16)$ to $6 \times 10(-14)$ cm(2)/s in the crystalline zone. As far as boron is concerned, they are from $10(-15)$ to $6 \times 10(-14)$ cm(2)/s and from $10(-14)$ to $4 \times 10(-11)$ cm(2)/s in the two zones cited, respectively. (c) 2005 Elsevier B.V. All rights reserved.

Notes: Merabet, A Symposium on Materials Science and Device Issues for Futrue Si-Based Technologies held at the 2005 EMRS Meeting May 31-jun 03, 2005 Strasbourg, FRANCE European Mat Res Soc Si
URL: <Go to ISI>://WOS:000233895800087

Reference Type: Journal Article
Record Number: 47
Author: Merazig, H. Setifi, F. Setifi, Z. Bird, P. H. Denes, G. Tam, K.
Year: 2005
Title: K3Sn5Cl3F10 with a corrugated layered structure
Journal: Acta Crystallographica Section E-Structure Reports Online
Volume: 61
Pages: I120-I122
Date: Jun
Short Title: K3Sn5Cl3F10 with a corrugated layered structure
ISSN: 1600-5368
DOI: 10.1107/s1600536805016351
Accession Number: WOS:000229464500010
Abstract: Single crystals of K3Sn5Cl3F10, tripotassium trichlorodeca-fluoropentastannate(II), were isolated from a batch of needle-shaped crystals containing several potassium tin(II) fluorides, chlorides and chloride fluorides. The title compound crystallizes in the centrosymmetric space group Cmcm and the unit cell contains three crystallographically distinct tin units, with one SnF3Cl2E, in the unusual SnX5E pseudo-octahedral coordination, while the other two are in an SnX4E pseudo-trigonal bipyramid (E is a stereoactive lone pair). The SnF3Cl2 units form [SnF2Cl2](n)(2n-) rows parallel to the a axis of the unit cell, sandwiched between rows of [Sn2F4](n) units also parallel to the a axis, with adjacent [Sn2F4](n) rows being held together by rows of Cl- ions, also parallel to a. This ensemble forms [(Sn2F4)(SnF2Cl2)(Sn2F4)Cl](n)(3n-) anionic planes parallel to ac. Two adjacent anionic planes, their terminal F atoms pointing towards each other, are held together by K+ ions and form bilayers. Each pair of adjacent bilayers is separated by a sheet of Sn lone pairs, making the structure highly layered.
Notes: Merazig, H Setifi, F Setifi, Z Bird, PH Denes, G Tam, K 6
URL: <Go to ISI>://WOS:000229464500010

Reference Type: Journal Article
Record Number: 48
Author: Mosbah, A. Moustaghfir, A. Abed, S. Bouhssira, N. Aida, M. S. Tomasella, E. Jacquet, M.
Year: 2005
Title: Comparison of the structural and optical properties of zinc oxide thin films deposited by d.c. and r.f sputtering and spray pyrolysis
Journal: Surface & Coatings Technology
Volume: 200
Issue: 1-4
Pages: 293-296
Date: Oct
Short Title: Comparison of the structural and optical properties of zinc oxide thin films deposited by d.c. and r.f sputtering and spray pyrolysis
ISSN: 0257-8972
DOI: 10.1016/j.surfcoat.2005.02.012
Accession Number: WOS:000232327800065

Abstract: ZnO thin films were deposited using three processes: d.c. reactive sputtering of Zn, r.f. sputtering of ZnO, and spray pyrolysis. The influence of the temperature (substrate temperature or post-deposition annealing) on composition, structural, and optical properties of these thin films was investigated. All sputtered ZnO thin film exhibit a preferred orientation along the c-axis of the hexagonal structure if they have a crystallised phase. An increase of the substrate temperature to 498 K favours the crystallinity of the samples deposited by reactive sputtering of Zn. At 598 K the preferred orientation disappears and the deposit becomes almost amorphous. The optical transmittance of the ZnO films increases with the substrate temperature. The influence of the post-deposition thermal treatments of the samples obtained by sputtering of ZnO on the optical properties, composition and stress variations is discussed. The spray pyrolysis process using a $ZnCl_2$ solution led to obtain ZnO deposits highly orientated along the c-axis at a temperature close to 573 K. (c) 2005 Elsevier B.V. All rights reserved.

Notes: Mosbah, A Moustaghfir, A Abed, S Bouhssira, N Aida, MS Tomasella, E Jacquet, M 9th International Conference on Plasma Surface Engineering Sep 13-17, 2004 Garmisch Partenkirchen, GERMANY European Joint Comm Plasma & Ion Surface Engn
URL: <Go to ISI>://WOS:000232327800065

Reference Type: Journal Article
Record Number: 49
Author: Nancib, A. Nancib, N. Meziane-Cherif, D. Boubendir, A. Fick, M. Boudrant, J.
Year: 2005
Title: Joint effect of nitrogen sources and B vitamin supplementation of date juice on lactic acid production by Lactobacillus casei subsp rhamnosus
Journal: Bioresource Technology
Volume: 96
Issue: 1
Pages: 63-67
Date: Jan
Short Title: Joint effect of nitrogen sources and B vitamin supplementation of date juice on lactic acid production by Lactobacillus casei subsp rhamnosus
ISSN: 0960-8524
DOI: 10.1016/j.biortech.2003.09.018
Accession Number: WOS:000224664000010
Abstract: The use of date juice as a substrate for lactic acid production was investigated. Various nitrogen sources were compared with yeast extract for efficient lactic acid production by Lactobacillus casei subsp. rhamosus. Among different nitrogen sources added to date juice (yeast extract, ammonium sulfate, tryptic soy, urea, peptone, and casein hydrolysate), yeast extract was the most efficient. The effect of yeast extract could have been due to its B vitamin content. The addition of five B vitamins at less than 25 mg/l to date juice with any nitrogen source enhanced lactic acid production to some extent, except for date juice with yeast extract or urea or peptone. The most significant increase was obtained with ammonium sulfate. Half of the yeast extract content (10 g/l) in a supplemented date juice could be replaced by a mixture of B vitamins at less than 25 mg/l, and ammonium Sulfate at 2.6 g/l with no significant decrease in lactic acid production. (C) 2004 Elsevier Ltd. All rights reserved.
Notes: Nancib, A Nancib, N Meziane-Cherif, D Boubendir, A Fick, M Boudrant, J
URL: <Go to ISI>://WOS:000224664000010

Reference Type: Journal Article
Record Number: 50
Author: Sahari, A. Azizi, A. Fenineche, N. Schmerber, G. Dinia, A.
Year: 2005
Title: Nucleation and surface morphology of cobalt films electrodeposited on Pt/Si substrates
Journal: Surface Review and Letters
Volume: 12
Issue: 3
Pages: 391-396
Date: Jun
Short Title: Nucleation and surface morphology of cobalt films electrodeposited on Pt/Si substrates
ISSN: 0218-625X
DOI: 10.1142/s0218625x05007189
Accession Number: WOS:000232129400010

Abstract: Co films deposited on Pt/Si(100) surface by electrodeposition from mixed sulphate chloride baths are investigated. The influence of applied potentials on nucleation, growth and morphological properties is studied using electrochemistry, scanning electronic microscopy (SEM) and atomic force microscopy (AFM) measurements. The electrochemical techniques show a deposition peak characteristic of diffusion-limited growth. For both applied potentials, we note that deposition occurs by instantaneous nucleation and diffusion-limited growth of 3D nucleation mechanism. Morphology observations reveal the granular structure of the electrodeposited Co layers surface with the root-mean-square roughness, R-q, varied between 7.80 and 8.95 nm. The average sizes of the Co crystallites depend strongly on the film thickness and applied potentials.
Notes: Sahari, A Azizi, A Fenineche, N Schmerber, G Dinia, A
URL: <Go to ISI>://WOS:000232129400010

Reference Type: Journal Article
Record Number: 51
Author: Saindrenan, G. Simonetta-Perrot, M. T. Le Gall, R. Louahdi, R.
Year: 2005
Title: A study of the high temperature tensile properties of an Fe-Ni alloy
Journal: Journal De Physique Iv
Volume: 123
Pages: 111-115
Date: Mar
Short Title: A study of the high temperature tensile properties of an Fe-Ni alloy
ISSN: 1155-4339
DOI: 10.1051/jp4:2005123018
Accession Number: WOS:000228377800019
Abstract: Tensile tests carried out at different temperatures on Fe-Ni alloys with different sulphur contents revealed a marked drop in ductility in the temperature range 600 degrees C to 1000 degrees C. The presence of manganese was found to reduce the loss of ductility. The morphology of the fracture surface revealed smooth intergranular failure in the most severe cases and failures showing local indications of ductility (dimples) for the less severe cases. The behaviour is explained in terms of sulphur segregation to the grain boundaries and the action of Mn is related to the formation of MnS precipitates which hinder segregation of free sulphur. The presence of nitride formers such as Boron and aluminium was found to have a detrimental effect if these elements are in their combined form (i.e., nitrides) and a beneficial effect if they are in their free atomic form. This behaviour is related to the formation and dissolution of BN and AIN precipitates.
Notes: Saindrenan, G Simonetta-Perrot, MT Le Gall, R Louahdi, R 9th International Seminar on the Physical Chemistry of Solid States Materials Oct 30-nov 01, 2002 Agadir, MOROCCO IBN ZOHR Univ
URL: <Go to ISI>://WOS:000228377800019

Reference Type: Journal Article
Record Number: 52
Author: Sellai, A. Ouennoughi, Z.
Year: 2005
Title: Extraction of illuminated solar cell and Schottky diode parameters using a genetic algorithm
Journal: International Journal of Modern Physics C
Volume: 16
Issue: 7
Pages: 1043-1050
Date: Jul
Short Title: Extraction of illuminated solar cell and Schottky diode parameters using a genetic algorithm
ISSN: 0129-1831
DOI: 10.1142/s0129183105007704
Accession Number: WOS:000231926600004
Abstract: Details concerning the implementation of a versatile genetic algorithm axe presented. Solar cell and Schottky diode model parameters are extracted based on the fitness of experimental data to theoretical curves simulated in the framework of certain physical processes and the use of this genetic algorithm. The method is shown to be a reliable alternative to conventional numerical techniques in fitting experimental data to model calculations and the subsequent determination of model related parameters. It is demonstrated, through two examples in particular, that some of the drawbacks associated with the conventional methods can be circumvented if a genetic algorithm is used instead. For instance, a good initial guess is not a critical requirement for convergence and an initial broad range for each of the fitting parameters is enough to achieve reasonably good fits.
Notes: Sellai, A Ouennoughi, Z
URL: <Go to ISI>://WOS:000231926600004

Reference Type: Journal Article
Record Number: 53
Author: Sellami, M. Bouchemat, M. Kahouadji, M. Djahli, F.
Year: 2005
Title: Characterization of interface traps on MOS transistor submicronic by the three level charge pumping
Journal: Journal De Physique Iv
Volume: 124
Pages: 321-325
Date: May
Short Title: Characterization of interface traps on MOS transistor submicronic by the three level charge pumping
ISSN: 1155-4339
DOI: 10.1051/jp4:2005124047
Accession Number: WOS:000230021800051
Abstract: Because of its efficiency, its high precision and its easy use regarding to classical techniques of Si-Sio2 (C-V, DLTS, Conductance...), interface characterization, the charge pumping technique has seen a large evolution these years. Many improvements have been made other, derivation techniques have been developed (at three-level charge pumping, spectroscopic charge pumping...) This technique is particularly used for very slight geometry MOS transistors damaging, where other techniques have no utility. This damaging often leads to the creation of a fixed trapped charge in the oxide coat and active electronically defaults in the oxide Semi-conductor interface after the application of ageing constraint (ionizing radiation, injection carrier). This ageing is so pronounced when the dimensions are slight this represents the main obstacle that the microelectronics must face. In this article we simulate the three-level charge pumping technique with SPICE3F4 simulator. This simulation will permit the obtaining of spatial and energetic spread of defaults at the interface.
Notes: Sellami, M Bouchemat, M Kahouadji, M Djahli, F 4th Conference of Discreet Mathematics and Algorithmics, Polytechnic Univerisity of Madrid May 26-28, 2004 Beirut, LEBANON
URL: <Go to ISI>://WOS:000230021800051

Reference Type: Journal Article
Record Number: 54
Author: Selmani, M. Merouani, B. Selmani, L.
Year: 2005
Title: Analysis of a class of frictional contact problems for the Bingham fluid
Journal: Mediterranean Journal of Mathematics
Volume: 2
Issue: 1
Pages: 113-124
Short Title: Analysis of a class of frictional contact problems for the Bingham fluid
ISSN: 1660-5446
DOI: 10.1007/s00009-005-0033-y
Accession Number: WOS:000239024100007
Abstract: We consider a mathematical model which describes the stationary flow of a Bingham fluid with friction. The frictional contact is modeled by a general velocity dependent dissipation functional. We derive a weak formulation of the model which consists in a variational inequality for the velocity field. We establish the existence and uniqueness of the weak solution as well as its continuous dependence with respect to the contact condition. Finally, we describe a number of concrete friction conditions which may be set in this general framework and for which our results apply.
Notes: Selmani, Mohamed Merouani, Boubakeur Selmani, Lynda
URL: <Go to ISI>://WOS:000239024100007

Reference Type: Journal Article
Record Number: 55
Author: Trabelsi, N.
Year: 2005
Title: Soluble groups with many 2-generator torsion-by-nilpotent subgroups
Journal: Publicationes Mathematicae-Debrecen
Volume: 67
Issue: 1-2
Pages: 93-102
Date: Jun
Short Title: Soluble groups with many 2-generator torsion-by-nilpotent subgroups
ISSN: 0033-3883
Accession Number: WOS:000231946500007
Abstract: We prove in this paper that a finitely generated soluble group in which every infinite subset contains a pair of distinct elements x, y such that (x,y) is torsion-by-nilpotent (respectively, (x,x(y)) is Chernikov-by-nilpotent), is itself torsion-by-nilpotent (respectively, finite-by-nilpotent).
Notes: Trabelsi, N
URL: <Go to ISI>://WOS:000231946500007

Abstract: Let B-p,B-q be the R-2-valued process (B-p, B-q) with independent Bessel components B-p and B-q with indices p and q strictly positive. In this paper we compute explicitly the law of the hitting time and place of a circle, centered at the origin, when B-p,B-q starts from the center and deduce a Reuter-type independence result. We use mainly analytical tools from PDE theory. (C) 2004 Academie des sciences. Published by Elsevier SAS. All rights reserved.

Reference Type: Journal Article
Record Number: 57
Author: Ziadi, A. Guettal, D. Cherruault, Y.
Year: 2005
Title: Global optimization: the Alienor mixed method with Piyavskii-Shubert technique
Journal: Kybernetes
Volume: 34
Issue: 7-8
Pages: 1049-1058
Short Title: Global optimization: the Alienor mixed method with Piyavskii-Shubert technique
ISSN: 0368-492X
DOI: 10.1108/03684920510605867
Accession Number: WOS:000231868000014

Abstract: Purpose - Aims to present study of the coupling of the Alienor method with the algorithm of Piyavskii-Shubert for global optimization applications.
Design/methodology/approach - The Alienor method allows us to transform a multivariable function into a function of a single variable for which it is possible to use an efficient and rapid method for calculating the global optimum. This simplification is based on the use of the established Alienor methodology. Findings - The Alienor method allows us to transform a multidimensional problem into a one-dimensional problem of the same type. It was then possible to use the Piyavskii-Shubert method based on sub-estimators of the objectives function. The obtained algorithm from coupling the two methods was found to be simple and easy to implement on any multivariable function. Research limitations/implications - This method does not require derivatives and the convergence of the algorithm is relatively rapid if the Lipschitz constant is small. Practical implications - The classical multidimensional global optimization methods involve great difficulties for their implementation to high dimensions. The coupling of two established methods produces a practical easy to implement technique. Originality/value - New method couples two established ones and produces a simple and user-friendly technique.
Notes: Ziadi, A Guettal, D Cherruault, Y
URL: <Go to ISI>://WOS:000231868000014

Reference Type: Journal Article

Record Number: 58

Author: Ziadi, A. Khelladi, S. Cherruault, Y.

Year: 2005

Title: The Alienor method coupled to the Brent algorithm

Journal: Kybernetes

Volume: 34

Issue: 7-8

Pages: 1059-1069

Short Title: The Alienor method coupled to the Brent algorithm

ISSN: 0368-492X

DOI: 10.1108/03684920510605876

Accession Number: WOS:000231868000015

Abstract: Purpose - Classical multidimensional global optimization methods are difficult to implement in high dimensions. To show that the Alienor method coupled with the Brent algorithm can avoid this difficulty. Design/methodology/approach - Use is made of the Alienor method and the Brent algorithm to obtain algorithms that were applied to test functions having several local minima. Findings - Interesting results concerning the number of evaluation points were obtained. It was shown that this coupling can be improved if a-dense curves of minimal length were used. Research limitations/implications - Multidimensional global optimization problems have proven to be difficult to implement in high dimensions. This research continues the search for improved methods by coupling existing established methods such as Alienor with others such as the Brent algorithm. Originality/value - A new coupled method has been developed and algorithms obtained to tackle such global optimization problems. The coupling is unique and the algorithms are tested numerically on selected functions.

Notes: Ziadi, A Khelladi, S Cherruault, Y

URL: <Go to ISI>://WOS:000231868000015

Reference Type: Book Section

Record Number: 1

Author: Abdallah, K. Mohamed, T. Louis, F.

Year: 2005

Title: Knowledge-Based Approach and System for Process of School/University Orientation

Editor: Ardil, C.

Book Title: Proceedings of World Academy of Science, Engineering and Technology, Vol 10

Volume: 10

Pages: 238-244

Series Title: Proceedings of World Academy of Science Engineering and Technology

Short Title: Knowledge-Based Approach and System for Process of School/University Orientation

ISBN: 1307-6884

Accession Number: WOS:000260416300045

Abstract: The school / university orientation interests a broad and often badly informed public. Technically, it is an important multicriterion decision problem, which supposes the combination of much academic professional and/or lawful knowledge, which in turn justifies software resorting to the techniques of Artificial Intelligence. CORUS is an expert system of the "Conseil et ORientation Universitaire et Scolaire", based on a knowledge representation language (KRL) with rules and objects, called/ known as Ibn Rochd. CORUS was developed thanks to DeGSE, a workshop of cognitive engineering which supports this LRC. CORUS works out many acceptable solutions for the case considered, and retains the most satisfactory among them. Several versions of CORUS have extended its services gradually.

Notes: Abdallah, Khababa Mohamed, Touahria Louis, Frecon Conference of the World-Academy-of-Science-Engineering-and-Technology Dec 16-18, 2005 Cracow, POLAND

URL: <Go to ISI>://WOS:000260416300045

Reference Type: Book Section
Record Number: 2
Author: Bakhti, A. Benbaouche, L. Ieee,
Year: 2005
Title: Simulink-rtwtgt co-design of real time digital interfaces
Book Title: 2005 44th IEEE Conference on Decision and Control & European Control Conference, Vols 1-8
Pages: 7593-7596
Series Title: Ieee Conference on Decision and Control - Proceedings
Short Title: Simulink-rtwtgt co-design of real time digital interfaces
ISBN: 0191-2216 0-7803-9567-0
Accession Number: WOS:000240653707041
Abstract: This paper describes the Simulink design of real time digital interfaces linked to I/O devices. This method is a hardware-software co-design of digital blocks, based on Simulink and real time windows target and is an alternative to S-function tool, which is a computer language description of a Simulink block. It gives a better level of abstraction of digital design and is straightforward applicable to I/O devices described by timing diagrams. This method seeks the use microcontroller resources such CPU, AID, PWM in a control system designed in Simulink environment. A Simulink interface to a PIC 18Fxx8 microcontroller, operating at low level and involved in a two level hierarchical control system, is presented. The capability of the method as an alternative tool for S-function is detailed through an interfacing example of an A/D converter and a Simulink block. The procedure of real time simulation is described and the simulation result of the A/D conversion is presented and discussed.
Notes: Bakhti, A. Benbaouche, L. 44th IEEE Conference on Decision Control/European Control Conference (CCD-ECC) Dec 12-15, 2005 Seville, SPAIN IEEE Control Syst Soc, European Union Control Assoc, IFAC, INFORMS, SIAM, SICE, Honeywell, MathWorks
URL: <Go to ISI>://WOS:000240653707041

Reference Type: Book Section
Record Number: 3
Author: Bencherif-Madani, A. Pardoux, T.
Year: 2005
Title: Homogenization of a diffusion with locally periodic coefficients
Editor: Emery, M. Ledoux, M. Yor, M.
Book Title: Seminaire De Probabilities Xxxviii
Volume: 1857
Pages: 363-392
Series Title: Lecture Notes in Mathematics
Short Title: Homogenization of a diffusion with locally periodic coefficients
ISBN: 0075-8434 3-540-23973-1
Accession Number: WOS:000228297100024
Abstract: We present a result of homogenization for a class of second order parabolic partial differential equations with locally periodic coefficients, and highly oscillating potential. Our method of proof is mainly probabilistic. We deduce the homogenization result from weak convergence for a class of diffusion processes.
Notes: Bencherif-Madani, A Pardoux, T
URL: <Go to ISI>://WOS:000228297100024

Reference Type: Book Section
Record Number: 4
Author: Demagh, N. E. Guessoum, A. Aissat, H.
Year: 2005
Title: Chemical etching concave cone end fiber for core fibers alignment
Editor: Voet, M. Willsch, R. Ecke, W. Jones, J. Culshaw, B.
Book Title: 17th International Conference on Optical Fibre Sensors, Pts 1 and 2
Volume: 5855
Pages: 363-366
Series Title: Proceedings of the Society of Photo-Optical Instrumentation Engineers (Spie)
Short Title: Chemical etching concave cone end fiber for core fibers alignment
ISBN: 0277-786X 0-8194-5855-4
DOI: 10.1117/12.623472
Accession Number: WOS:000231443000087

Abstract: Concave cone fabricated by chemical etching process similar to previous technique used to make fiber tips (convex cone) is presented. Typically, optical fibers are etched in a fluorhydric (HF) solution with a thin layer of oil floating on top of the HF. The present investigation shows that concave cone etched fiber (CCEF) can be obtained by following the beginning of etching process. Comprehensive measurements of the dependence of the width and height of taper angle of the concave cone are plotted. The results of this investigation have led to an optimum approach for fiber cores alignment that is suitable for use in connecting fibers for efficient coupling between single-mode fibers.
Notes: Demagh, NE Guessoum, A Aissat, H 17th International Conference on Optical Fibre Sensors May 23-27, 2005 Brugge, BELGIUM I D FOS Res, Fibre Opt Sensors & Sensing Syst, European Off Aerosp Res & Dev, USAF Res Lab, Network Excellence Micro Opt, SCK CEN, Belgian Nucl Res Ctr, FWO, FNRS, Export Flanders, Flanders Foreign Investment Off, ESF, European Opt Soc, Inst Phys, IEEE, SPIE, Inst Measurement & Control UK, IEEE LEOS, Opt Soc Amer, AMA German Sensor Technol Assoc, DGaO German Soc Appl Opt, OptecNet German Network Competence Opt Photon Technologies, Sensors Web Portal
URL: <Go to ISI>://WOS:000231443000087

Reference Type: Book Section
Record Number: 5
Author: Mohamed, T. Abdallah, K. Louis, F.
Year: 2005
Title: A Knowledge Engineering Workshop: Application for Choise Car
Editor: Ardil, C.
Book Title: Proceedings of World Academy of Science, Engineering and Technology, Vol 10
Volume: 10
Pages: 245-248
Series Title: Proceedings of World Academy of Science Engineering and Technology
Short Title: A Knowledge Engineering Workshop: Application for Choise Car
ISBN: 1307-6884
Accession Number: WOS:000260416300046
Abstract: This paper proposes a declarative language for knowledge representation (Ibn Rochd), and its environment of exploitation (DeGSE). This DeGSE system was designed and developed to facilitate Ibn Rochd writing applications. The system was tested on several knowledge bases by ascending complexity, culminating in a system for recognition of a plant or a tree, and advisors to purchase a car, for pedagogical and academic guidance, or for bank savings and credit. Finally, the limits of the language and research perspectives are stated.
Notes: Mohamed, Touahria Abdallah, Khababa Louis, Frecon Conference of the World-Academy-of-Science-Engineering-and-Technology Dec 16-18, 2005 Cracow, POLAND
URL: <Go to ISI>://WOS:000260416300046

Reference Type: Book
Record Number: 1
Author: Bayadi, A. Harid, N. Zehar, K. Univ West, England
Year: 2005
Title: Dynamic surge arrester protection performance on high voltage systems using EMTP
Series Title: UPEC 2004: 39th International Universitities Power Engineering Conference, Vols 1-3, Conference Proceedings
Number of Pages: 118-122
Short Title: Dynamic surge arrester protection performance on high voltage systems using EMTP
ISBN: 1-86043-365-0
Accession Number: WOS:000231594700023
Abstract: Insulation co-ordination requires accurate prediction of the overvoltages at different points in the substation resulting from a lightning stroke outside the substation from the point of view of equipment protection. For that purpose, one of the most important aspects is to consider the dynamic characteristics of metal-oxide surge arresters. Among several models, proposed in the literature, the modified IEEE recommended model is chosen. This dynamic model is used to evaluate lightning overvoltage protection in a complete three-phase scheme of an operational 220 kV substation (El-Hassi, Algeria). The effect of metal oxide surge arrester connections are also taken into account. Lightning overvoltage is generated by back-flashovers on physical multi-conductor model of real lines. The resulting overvoltages shapes and magnitudes in several basic points in the substation (line input, bus and power transformer) are computed. The simulations are performed with the Alternative Transients Program (ATP) version of Electromagnetic Transient Program (EMTP).
Notes: Bayadi, A Harid, N Zehar, K 39th International Universities Power Engineering Conference (UPEC 2004) Sep 06-08, 2004 Univ West England, Bristol, ENGLAND Power Syst & Elect Res Grp, IEEE Comp Soc, IEE, Int Councik Large Elect Syst, IEEE Reg 8, Power Engn Soc, Natl Grid Transco, EDF, WUHAN HI-TECH Elect Engn Co China
URL: <Go to ISI>://WOS:000231594700023

Reference Type: Book
Record Number: 2
Author: Berrimi, S. Messaoudi, S. A.
Year: 2005
Title: A decay result for a quasilinear parabolic system
Series Editor: Bandle, C. Berestycki, H. Brighi, B. Brillard, A. Chipot, M. Coron, J. M. Sbordon, C. Shafrir, I. Valente, V. Caffarelli, G. V.
Series Title: Elliptic and Parabolic Problems: A SPECIAL TRIBUTE TO THE WORK OF HAIM BREZIS
Volume: 63
Number of Pages: 43-50
Short Title: A decay result for a quasilinear parabolic system
ISBN: 3-7643-7249-4
Accession Number: WOS:000234130600005
Abstract: In this paper we consider a quasilinear parabolic system of the form A(t) vertical bar u(t)vertical bar (m-2) u(t) - Delta u = u vertical bar u vertical bar(p-2), m >= 2, p > 2, in a bounded domain associated with initial and Dirichlet boundary conditions. We show that, for suitable initial datum, the energy of the solution decays "in time" exponentially if m = 2 whereas the decay is of a polynomial order if m > 2.
Notes: Berrimi, S Messaoudi, SA 5th European Conference on Elliptic and Parabolic Problems - A Special Tribute to the Work of Haim Brezis Mar 05, 2004 Gaeta, ITALY iii
URL: <Go to ISI>://WOS:000234130600005

Reference Type: Book

Record Number: 3

Author: Harrag, A. Mohamadi, T. Serignat, J. F. Ieee,

Year: 2005

Title: LDA combination of pitch and MFCC features in speaker recognition

Series Title: INDICON 2005 Proceedings

Number of Pages: 237-240

Short Title: LDA combination of pitch and MFCC features in speaker recognition

ISBN: 0-7803-9503-4

Accession Number: WOS:000235478300053

Abstract: This paper assesses two popular speaker features pitch and cepstral coefficient (static and dynamic). We compare the performance of individual features and features combined via LDA. The identification process can be performed both in the temporal and cepstral domains. The temporal analysis determines which phonemes or.-utterances exhibit the highest degree of speaker specificity, while the cepstral analysis examines individual cepstra within these temporal divisions.

Notes: Harrag, A Mohamadi, T Serignat, JF IEEE INDCON 2005 International Conference Dec 11-13, 2005 Indian Inst Technol Madras, Chennai, INDIA IEEE Madras Sect, TATA Consultancy Serv, Numer Power Syst Ltd

URL: <Go to ISI>://WOS:000235478300053

Reference Type: Book
Record Number: 4
Author: Hemsas, K. E. Ouhrouche, M. Khenfer, N. Leulmi, S.
Year: 2005
Title: Neural networks and neuro-fuzzy based states and parameters estimation in induction motor sensorless drive
Series Editor: Srovnal, V. Mastorakis, N.
Series Title: Proceedings of the 7th WSEAS International Conference on Automatic Control, Modeling and Simulation
Number of Pages: 324-329
Short Title: Neural networks and neuro-fuzzy based states and parameters estimation in induction motor sensorless drive
ISBN: 960-8457-12-2
Accession Number: WOS:000231379200058

Abstract: During the last decade, speed sensorless field-oriented control of induction motor has given a particular attention by researchers worldwide and a great number of papers have been published on this issue. In most of them, the authors proposed the speed estimation algorithms based on Kalman filter theory, neural networks and model of reference. In indirect vector control strategy, the accurate knowledge of the rotor resistance is critical to ensure field-orientation. However, very few papers have been published on the simultaneous estimation of the speed and the rotor resistance. This paper describes the use of artificial neural networks and neuro-fuzzy networks for the simultaneous estimation of the speed, rotor flux and rotor resistance of an induction motor. This achievement is in authors' opinion a great contribution. Simulation results showed the effectiveness of the proposed schemes.
Notes: Hemsas, KE Ouhrouche, M Khenfer, N Leulmi, S 7th International Conference on Automatic Control, Modeling and Simulation Mar 13-15, 2005 Prague, CZECH REPUBLIC World Sci & Eng Acad & Soc
URL: <Go to ISI>://WOS:000231379200058

Reference Type: Book
Record Number: 5
Author: Kadem, A.
Year: 2005
Title: The relation between the topological structure of the set of controllable affine systems and topological structures of the set of controllable homogenuous systems in low dimension
Series Editor: Gaera, G. Prinari, B. RauchWojciechowshi, S.
Series Title: Spt 2004: Symmetry and Perturbation Theory
Number of Pages: 141-150
Short Title: The relation between the topological structure of the set of controllable affine systems and topological structures of the set of controllable homogenuous systems in low dimension
ISBN: 981-256-091-2
DOI: 10.1142/9789812702142_0018
Accession Number: WOS:000234137600018
Abstract: In this paper, we establish the existence of a relation between the topological structures of the set of controllable affine systems denoted by C-a and topological structures of the set of controllable homogeneous systems C-h. We consider the following affine system x= Ax + u (Dx + b) x epsilon R-2 , b epsilon R-2 , u epsilon R. where u is a piecewise constant control with values in the subset Q of R, bounded or not; A and D are two real 2 x 2 matrices. To (1) we associate the homogeneous system x= (A + uD)x x epsilon R-2 - {0} , u epsilon R. It is known that if (2) is controllable in R-2 - {0} and (1) has not a fixed point, then (1) is completely controllable in R-2 (2). It turns out that in certain cases (1) can be controllable but (2) is not controllable, but that these cases are marginal. The set of such pairs is the boundary of the set of controllable pairs, the interior being constituted by pairs for which (2) is controllable. It is also known on the one hand that the set C-h is connected and its boundary present two types of boundary points, on the other hand the set C-a is connected. The question is: can one establish a relation between the boundary of C-a and the one of C-h ?
Notes: Kadem, A Conference on Symmetry and Perturbation Theory May 30-jun 06, 2004 Cala Gonone, ITALY GNFM-INdAM, Dipartimento Mat, Rettore Univ Milano, Dipartmento Fis Univ Lecce
URL: <Go to ISI>://WOS:000234137600018

Reference Type: Book
Record Number: 6
Author: Khaber, F. Hamzaoui, A. Zehar, K.
Year: 2005
Title: LMI approach for Takagi-Sugeno fuzzy controller design
Series Editor: Srovnal, V. Mastorakis, N.
Series Title: Proceedings of the 7th Wseas International Conference on Automatic Control, Modeling and Simulation
Number of Pages: 357-362
Short Title: LMI approach for Takagi-Sugeno fuzzy controller design
ISBN: 960-8457-12-2
Accession Number: WOS:000231379200064

Abstract: In this paper, we introduce a robust state feedback controller design using Linear Matrix Inequalities (LMIs) and guaranteed cost approach for Takagi-Sugeno fuzzy systems. The purpose on this work is to establish a systematic method to design controllers for a class of uncertain linear and non linear systems. Our approach utilizes a certain type of fuzzy systems that are based on Takagi-Sugeno fuzzy models to approximate nonlinear systems. We use a robust control methodology to design controllers. This method not only guarantees stability, but also minimizes an upper bound on a linear quadratic performance measure. A simulation example is presented to show the effectiveness of this method.
Notes: Khaber, F Hamzaoui, A Zehar, K 7th International Conference on Automatic Control, Modeling and Simulation Mar 13-15, 2005 Prague, CZECH REPUBLIC World Sci & Eng Acad & Soc
URL: <Go to ISI>://WOS:000231379200064
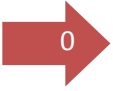
PRODUCTION SCIENTIFIQUE ANNEE 2006

Reference Type: **Journal Article**
Record Number: 1
Author: Abdollahi, A. Daoud, B. Endimioni, G.
Year: 2006
Title: Generalized n-abelian groups
Journal: Bulletin of the Belgian Mathematical Society-Simon Stevin
Volume: 13
Issue: 2
Pages: 287-294
Date: Apr-Jun
Short Title: Generalized n-abelian groups
ISSN: 1370-1444
Accession Number: WOS:000245884200008
Abstract: Let n be an integer >= 2. A group G is called generalized n-abelian if it admits a positive polynomial endomorphism of degree n, that is if these exist n elements a(1), a(2),..., a(n) of G such that the function phi : x -> x(a1)x(a2) ... x(an) is an endomorphism of G. In this paper we give some sufficient conditions for a generalized n-abelian group to be abelian. In particular, we show that every group admitting a positive polynomial monomorphism of degree 3 is abelian.
Notes: Abdollahi, A. Daoud, B. Endimioni, G.
URL: <Go to ISI>://WOS:000245884200008

Reference Type: Journal Article
Record Number: 2
Author: Achache, M.
Year: 2006
Title: A new primal-dual path-following method for convex quadratic programming
Journal: Computational & Applied Mathematics
Volume: 25
Issue: 1
Pages: 97-110
Short Title: A new primal-dual path-following method for convex quadratic programming
ISSN: 0101-8205
Accession Number: WOS:000208135500005
Abstract: In this paper, we describe a new primal-dual path-following method to solve a convex quadratic program (QP). The derived algorithm is based on new techniques for finding a new class of search directions similar to the ones developed in a recent paper by Darvay for linear programs. We prove that the short-update algorithm finds an epsilon-solution of (QP) in a polynomial time.
Notes: Achache, Mohamed
URL: <Go to ISI>://WOS:000208135500005

Reference Type: Journal Article

Record Number: 3

Author: Aggoun, A. Benmahammed, K. Dekhili, M.

Year: 2006

Title: Effects of environmental factors on kernel weight in five Algerian durum wheat populations (Triticum durum Desf.)

Journal: Cahiers Agricultures

Volume: 15

Issue: 5

Pages: 425-431

Date: Sep-Oct

Short Title: Effects of environmental factors on kernel weight in five Algerian durum wheat populations (Triticum durum Desf.)

ISSN: 1166-7699

Accession Number: WOS:000241511200004

Abstract: This study analyses the thousand kernel weight (TKW) component of grain yield in five local Algerian populations of durum wheat in the Setif area, taking into account the geographic location, the climatic conditions, and eight morphological traits related to plant development and car yield. The data analysed cover two years (1994 and 1995) and two contrasting locations. The multivariate analysis of variance (Manova) and the general linear model (GLM) are used to show the relationship existing between the TKW and the set of factors-variables considered. This approach aims at highlighting some of the genotype x environment interaction aspects in populations in a Mediterranean area. Each method demonstrates the influence of morphological traits on yield (TKW) and the variability specific to the location and year for each population.

Notes: Aggoun, A. Benmahammed, K. Dekhili, M.

URL: <Go to ISI>://WOS:000241511200004

Abstract: This paper deals with the miscibility of polyvinyl chloride (PVC) with polymethyl methacrylate (PMMA). Blends of variable compositions from 0 to 100 wt% were prepared in the presence (15, 30 and 50 wt%) and in the absence of di ethyl-2 hexyl phtalate as plasticizer. Their miscibility was investigated by using various analytical methods: determination of the Vicat softening temperature, alpha viscometry method based on the a criterion of polymer-polymer miscibility, differential scanning calorimetry (DSC) and Fourier transform infrared spectroscopy (FTIR). The results show that the plot of Vicat temperature against composition is a continuous curve, indicating the miscibility of the blend. The viscometry method and DSC find that the two polymers are miscible up to about 60 wt% of PMMA. This miscibility is due to a specific interaction of hydrogen bonding type between carbonyl groups $(C = O)$ of PMMA and hydrogen from (CHCl) groups of PVC, as evidenced by FTIR spectroscopy. The two-band deconvolution shows an increase in associated groups percentage in the domain of miscibility. (C) 2006 Elsevier Ltd. All rights reserved.

Reference Type: Journal Article
Record Number: 5
Author: Aouachria, K. Belhaneche-Bensemra, N.
Year: 2006
Title: Thermo-oxidative dehydrochlorination of rigid and plasticised poly(vinyl chloride)/poly(methyl methacrylate) blends
Journal: Polymer Degradation and Stability
Volume: 91
Issue: 3
Pages: 504-511
Date: Mar
Short Title: Thermo-oxidative dehydrochlorination of rigid and plasticised poly(vinyl chloride)/poly(methyl methacrylate) blends
ISSN: 0141-3910
DOI: 10.1016/j.polymdegradstab.2005.01.054
Accession Number: WOS:000234162800014

Abstract: The aim of this work was to study the thermo-oxidative dehydrochlorination of rigid and plasticised poly(vinyl chloride)/poly(methyl methacrylate) blends. For that purpose. blends of variable compositions from 0 to 100 wt% were prepared in the presence (15, 30 and 50 wt%) and in the absence of diethyl-2-hexyl phthalate as plasticiser. Their miscibility was investigated by using differential scanning calorimetry (DSC) and Fourier transform infrared spectroscopy (FTIR). Their thermo-oxidative degradation at 180 +/- 1 degrees C was studied and the amount of HCl released from PVC was measured by a continuous potentiometric method. Degraded samples were characterised, after purification, by FTIR spectroscopy and UV-visible spectroscopy. The results showed that the two polymers are miscible up to 60 wt% of poly(methyl methacrylate) (PMMA). This miscibility is clue to a specific interaction of hydrogen bonding type between carbonyl groups (C=O) of PMMA and hydrogen (CHCl) groups of PVC as shown by FTIR analysis. On the other hand, PMMA exerted a stabilizing effect on the thermal degradation of PVC by reducing the zip dehydrochlorination, leading to the formation of shorter polyenes. (c) 2005 Elsevier Ltd. All rights reserved.
Notes: Aouachria, K Belhaneche-Bensemra, N 3rd International Conference on Polymer Modification, Degradation and Stabilisation Aug, 2004 Lyon, FRANCE
URL: <Go to ISI>://WOS:000234162800014

Reference Type: Journal Article
Record Number: 6
Author: Asadzadeh, M. Kadem, A.
Year: 2006
Title: Chebyshev spectral-S-N method for the neutron transport equation
Journal: Computers & Mathematics with Applications
Volume: 52
Issue: 3-4
Pages: 509-524
Date: Aug
Short Title: Chebyshev spectral-S-N method for the neutron transport equation
ISSN: 0898-1221
DOI: 10.1016/j.camwa.2005.11.039
Accession Number: WOS:000241268700023

Abstract: We study convergence of a combined spectral and (S-N) discrete ordinates approximation for a multidimensional, steady state, linear transport problem with isotropic scattering. The procedure is based on expansion of the angular flux in a truncated series of Chebyshev polynomials in spatial variables that results in the transformation of the multidimensional problems into a set of one-dimensional problems. The convergence of this approach is studied in the context of the discrete-ordinates equations based on a special quadrature rule for the scattering integral. The discrete-ordinates and quadrature errors are expanded in truncated series of Chebyshev polynomials of degree $\leq L$, and the convergence is derived assuming $L \leq \sigma(t)-4 \pi \sigma(s)$, where $\sigma(t)$ and $\sigma(s)$ are total and scattering cross-sections, respectively. (c) 2006 Elsevier Ltd. All rights reserved.
Notes: Asadzadeh, M. Kadem, A.
URL: <Go to ISI>://WOS:000241268700023

Reference Type: Journal Article
Record Number: 7
Author: Bartel, J. Bencheikh, K. Quentin, P.
Year: 2006
Title: Spin densities and currents in the Routhian approximation
Journal: International Journal of Modern Physics E-Nuclear Physics
Volume: 15
Issue: 2
Pages: 553-559
Date: Mar
Short Title: Spin densities and currents in the Routhian approximation
ISSN: 0218-3013
DOI: 10.1142/s021830130600451x
Accession Number: WOS:000235760600042

Abstract: The structure of spin densities and the associated spin-current densities, induced by the coupling of external vector fields to the orbital and spin degrees of freedom, is studied within the framework of the Extended Thomas-Fermi method, a semiclassical version of the density-functional theory. A special emphasis is put on the rotational case where our approach amounts to perform a semiclassical approximation of the so-called generalized Routhian approach.
Notes: Bartel, J Bencheikh, K Quentin, P 12th Workshop on Nuclear Physics - Marie and Pierre Curie Sep 21-25, 2005 Kazimierz Dolny, POLAND
URL: <Go to ISI>://WOS:000235760600042

Abstract: A scanning electron microscopic (SEM) study of the aerial parts of Marrubium vulgare L. grown wild in Algeria showed a dense woolly indumentum of stellate, nonglandular, point-shaped trichomes that completely hide both the adaxial and abaxial leaf epidermes, as well as the stem and flower surfaces bearing the glandular trichomes. Peltate and two types of capitate trichomes constitute the morphological distinct glandular trichomes that are spread over the vegetative and reproductive organs. The essential oils of M. vulgare were obtained by hydrodistillation and distillation-extraction from the aerial parts collected during the flowering (F) and vegetative phases (V), and analyzed by GC and GC/MS. The essential oils were obtained in a yield of $\leq$ 0.05 % (v/w). Eugenol was the main component in the F oil (50%) but comprised only 16% in the V oil. beta-Bisabolene was the dominant component of the V oil (29%) and the second main component in the F oil (11%).
Notes: Belhattab, Rachid Larous, Larbi Figueiredo, A. Cristina Santos, Pedro A. G. Costa, Monya M. Barroso, Jose G. Pedro, Luis G.
URL: <Go to ISI>://WOS:000239770100006

Reference Type: Journal Article
Record Number: 9
Author: Benahmed, M. Akkal, S. Louaar, S. Laouer, H. Duddeck, H.
Year: 2006
Title: A new furanocoumarin glycoside from Carum montanum (Apiaceae)
Journal: Biochemical Systematics and Ecology
Volume: 34
Issue: 8
Pages: 645-647
Date: Aug
Short Title: A new furanocoumarin glycoside from Carum montanum (Apiaceae)
ISSN: 0305-1978
DOI: 10.1016/j.bse.2006.02.007
Accession Number: WOS:000239130200006
Notes: Benahmed, M. Akkal, S. Louaar, S. Laouer, H. Duddeck, H.
URL: <Go to ISI>://WOS:000239130200006

Reference Type: Journal Article
Record Number: 10
Author: Benaidja, N. Khenfer, N.
Year: 2006
Title: Identification of asynchronous machine parameters by evolutionary techniques
Journal: Electric Power Components and Systems
Volume: 34
Issue: 12
Pages: 1359-1376
Date: Dec
Short Title: Identification of asynchronous machine parameters by evolutionary techniques
ISSN: 1532-5008
DOI: 10.1080/15325000600748897
Accession Number: WOS:000240501600007
Abstract: Four evolutionary techniques (scatter search, evolutionary programming, ant colony, and particle swarm algorithms) were used for off-line identification of three phase asynchronous machine parameters. Optimization techniques were then tested on two distinct machines. In order to evaluate how much good the achieved machines parameters obtained, experimental and simulation input-output behaviors are presented for each method. The performances in term of objective function and convergence time prove the effectiveness of this class of optimization methods.
Notes: Benaidja, N. Khenfer, N.
URL: <Go to ISI>://WOS:000240501600007

Reference Type: Journal Article
Record Number: 11
Author: Benazzouz, C. Benouattas, N. Hammoudi, H. Tobbeche, S. Bouabellou, A.
Year: 2006
Title: Study on the solid state reaction between bilayered Pd/Au films and silicon substrates
Journal: Vacuum
Volume: 81
Issue: 4
Pages: 489-493
Date: Nov
Short Title: Study on the solid state reaction between bilayered Pd/Au films and silicon substrates
ISSN: 0042-207X
DOI: 10.1016/j.vacuum.2006.07.004
Accession Number: WOS:000242527300014

Abstract: Bilayers of pure palladium and gold films were evaporated alternatively on (100) and (111) monocrystalline silicon substrates. After annealing, in a vacuum furnace from 100 to 650 degrees C during 30 min, the growth sequence of the Pd2Si and PdSi phases that evolved as the result of the diffusion reaction was examined by means of Rutherford backscattering spectrometry (RBS), X-ray diffraction (XRD), whereas the surface morphology was investigated by scanning electron microscopy (SEM) technique. The effect of the intermediate gold layer is investigated in order to test its effectiveness as barrier for Cu and Si atoms interdiffusion and its influence on the morphology of the formed palladium silicides. The effect of substrate orientation on the palladium silicides growth and formation was also explored. (c) 2006 Elsevier Ltd. All rights reserved.
Notes: Benazzouz, C. Benouattas, N. Hammoudi, H. Tobbeche, S. Bouabellou, A.
URL: <Go to ISI>://WOS:000242527300014

Reference Type: Journal Article
Record Number: 12
Author: Benbahouche, S. Roumili, F. Seghir, A. Zegadi, R.
Year: 2006
Title: Effect of water on the transmittance of glass plates with eroded surfaces
Journal: Journal of the European Ceramic Society
Volume: 26
Issue: 9
Pages: 1673-1678
Short Title: Effect of water on the transmittance of glass plates with eroded surfaces
ISSN: 0955-2219
DOI: 10.1016/j.jeurceramsoc.2005.03.249
Accession Number: WOS:000237174000019

Abstract: The corrosion is a chemical phenomenon which can affect the quality of a glass Surface, since the glass can fail as a result of its continuous exposure to a corrosive environment. If a glass surface is put into contact with water or with any aqueous Solution, it may chemically react with this medium and this chemical exchange may spread all over the Surface of the glass, hence causing some undesirable effects, particularly a change in mechanical strength as well as the transmittance. Therefore, the objective of this work was to study the effect of water attacks on the transmittance of glass plates, which have been damaged by sand and then immersed in water at different temperatures and for different immersion times. (c) 2005 Elsevier Ltd. All rights reserved.
Notes: Benbahouche, S Roumili, F Seghir, A Zegadi, R
URL: <Go to ISI>://WOS:000237174000019

Reference Type: Journal Article
Record Number: 13
Author: Bencheikh, K. Bartel, J. Quentin, P.
Year: 2006
Title: Semiclassical description of finite fermion systems at finite temperature in a generalised Routhian approach
Journal: Nuclear Physics A
Volume: 764
Pages: 79-108
Date: Jan
Short Title: Semiclassical description of finite fermion systems at finite temperature in a generalised Routhian approach
ISSN: 0375-9474
DOI: 10.1016/j.nuclphysa.2005.08.018
Accession Number: WOS:000234580100005

Abstract: A semiclassical description at finite temperature is presented for an N fermion system experiencing velocity fields coupling to the linear momentum of each of the particles. Spin degrees of freedom are also considered. Analytical expressions are derived for various local and integrated physical quantities in the framework of the Extended Thomas-Fermi method. Low and high-temperature limits are carefully examined. This formalism is then applied to the particular case of hot rotating nuclei. (c) 2005 Elsevier B.V. All rights reserved.

Notes: Bencheikh, K Bartel, J Quentin, P
URL: <Go to ISI>://WOS:000234580100005

Reference Type: **Journal Article**

Record Number: 14

Author: Benmahammed, K. Hamzaoui, A. Essounbouli, N.

Year: 2006

Title: Partial fraction decomposition and correlation sequence in 2D systems

Journal: Multidimensional Systems and Signal Processing

Volume: 17

Issue: 1

Pages: 75-87

Date: Jan

Short Title: Partial fraction decomposition and correlation sequence in 2D systems

ISSN: 0923-6082

DOI: 10.1007/s11045-005-6238-1

Accession Number: WOS:000236542500005

Abstract: In this paper, results of the one-dimensional (1D) digital filtering are extended to the two-dimensional (2D) case. it introduces a technique and an algorithm for the computation of the product $H(z(1), z(2)2)H(z(1)(-1), z(2)(-1))$. The technique is used to find a minimum phase transfer function of a 2D system Such that the previous product matches a given correlation sequence. The algorithm requires less arithmetic operations than the traditional methods. The former is based on a matrix formulation of the product, which is used to investigate the 2D partial fraction decomposition (PFD) and stability.

Notes: Benmahammed, K Hamzaoui, A Essounbouli, N

URL: <Go to ISI>://WOS:000236542500005

Reference Type: Journal Article
Record Number: 15
Author: Benouattas, N. Mosser, A. Bouabellou, A.
Year: 2006
Title: Surface morphology and reaction at Cu/Si interface - Effect of native silicon suboxide
Journal: Applied Surface Science
Volume: 252
Issue: 20
Pages: 7572-7577
Date: Aug
Short Title: Surface morphology and reaction at Cu/Si interface - Effect of native silicon suboxide
ISSN: 0169-4332
DOI: 10.1016/j.apsusc.2005.09.010
Accession Number: WOS:000240478100034

Abstract: Copper thin films are deposited by thermal evaporation on unetched and etched monocrystalline silicon. The study by alpha particles backscattering (RBS) raises a strong diffusion of copper in silicon substrates with and without native suboxide layer. On the other hand, the X-rays diffraction shows the formation and the growth Of CU3Si and Cu4Si silicides. Whereas the scanning microscopy underlines large crystallites growth surrounded by black zones of silicon coming from the uncovered substrate, independently to the surface state of the substrate, after annealing at high temperature. The presence of native silicon suboxide at Cu/Si interface, influences in a drastic way the minimal temperature to which the interfacial reaction occurs. The oxygen impurities detected by microanalysis, after heat treatment under vacuum, are closely related to the growth of silicides crystallites. (c) 2006 Published by Elsevier B.V.
Notes: Benouattas, N. Mosser, A. Bouabellou, A.
URL: <Go to ISI>://WOS:000240478100034

Reference Type: Journal Article

Record Number: 16

Author: Benouattas, N. Osmani, L. Salik, L. Benazzouz, C. Benkerri, M. Bouabellou, A. Halimi, R.

Year: 2006

Title: Epitaxial growth of copper silicides by "bilayer" technique on monocrystalline silicon with and without native SiOx

Journal: Materials Science and Engineering B-Solid State Materials for Advanced Technology

Volume: 132

Issue: 3

Pages: 283-287

Date: Aug

Short Title: Epitaxial growth of copper silicides by "bilayer" technique on monocrystalline silicon with and without native SiOx

ISSN: 0921-5107

DOI: 10.1016/j.mseb.2006.04.032

Accession Number: WOS:000240149800009

Abstract: Cu/Au and Au/Cu multilayered films were thermally evaporated alternatively on (100) and (111) monocrystal silicon substrates with and without native silicon oxide. After heat treatment in situ either at 400 or at 600 degrees C, the interfacial transformations were analyzed by Rutherford backscattering spectrometry, theta-2 theta X-ray diffraction and scanning electron microscopy. It was found, that the samples surface was covered with Cu_3Si and Cu_4Si crystallites of square, rectangular and hexagonal basis shapes well-oriented on Si(100) and of triangular shape on Si(111) owing to the strong intermixing between the different elements. The dilution of the entire gold deposited layer in the Cu-Au-Si formed mixture suggests that gold atoms have a high limit solubility in the formed polycrystalline Cu_3Si and Cu_4Si silicides. (c) 2006 Published by Elsevier B.V.

Notes: Benouattas, N. Osmani, L. Salik, L. Benazzouz, C. Benkerri, M. Bouabellou, A. Halimi, R.

URL: <Go to ISI>://WOS:000240149800009

Reference Type: Journal Article

Record Number: 17

Author: Berrimi, S. Messaoudi, S. A.

Year: 2006

Title: Existence and decay of solutions of a viscoelastic equation with a nonlinear source

Journal: Nonlinear Analysis-Theory Methods & Applications

Volume: 64

Issue: 10

Pages: 2314-2331

Date: May

Short Title: Existence and decay of solutions of a viscoelastic equation with a nonlinear source

ISSN: 0362-546X

DOI: 10.1016/j.na.2005.08.015

Accession Number: WOS:000237045200010

Abstract: In a bounded domain, we consider u(tt) - Delta u + integral(t g)(0)(t - tau)Delta u d tau = vertical bar u vertical bar(gamma)u, where gamma > 0, and g is a nonnegative and decaying function. We prove a local existence theorem and show, for certain initial data and suitable conditions on g and gamma, that this solution is global with energy which decays exponentially or polynomially depending on the rate of the decay of the relaxation function g. (c) 2005 Elsevier Ltd. All rights reserved.

Notes: Berrimi, S Messaoudi, SA

URL: <Go to ISI>://WOS:000237045200010

Reference Type: Journal Article
Record Number: 18
Author: Boudjenouia, A. Fleury, A. Tacherift, A.
Year: 2006
Title: Status of periurban agriculture in Setif (Algeria): Land reserve or urban project?
Journal: Cahiers Agricultures
Volume: 15
Issue: 2
Pages: 221-226
Date: Mar-Apr
Short Title: Status of periurban agriculture in Setif (Algeria): Land reserve or urban project?
ISSN: 1166-7699
Accession Number: WOS:000237307200007

Abstract: Setif, a mid-sized city located on the Algerian highlands, was founded in 1847; its agriculture was soon wholly devoted to large-scale grain farming without any green belt to feed its inhabitants. Setif is growing rather quickly today and takes mainly periurban farmland for new construction. Moreover, new towns are planned to surround Setif, at 2 to 5 kms from the city limits, which ultimately threatens the ring of farmland between them and the central city. This paper analyzes the possible role of periurban agriculture in the urban policy of Setif: is the loss of farmland a problem from the city's point of view? Annual urban expansion has been about 50 ha since 1966. Government policy has sometimes been oriented towards urban planning, sometimes more market-oriented and liberal. Agriculture is still directed mainly towards the Algerian market, not only for cereals, but also for new products, Such as ornamentals; trends for the urban area are very similar to those for the entire wilaya (administrative region). Moreover, one effect of globalisation is the reduced necessity for farmland. There is thus not really any local interest in preventing construction of farmland. Until now, neither farmers, as owners as well as new city dwellers, nor urban planners have been sensitive to the urban values of agriculture (landscape, green belt, etc.). Nevertheless, some signs of other points of view are now discernible: some people seek local production for its specific qualities (especially freshness), and some families want gardens for their own consumption. At the same time, a new concept of rural amenities is emerging, as seen in oued Boussellam valley or Zenadia forest, now designed as green belt. On a larger scale, the Algerian government is again anxious to improve food security, which today depends mainly on importation. We concluded that although farmland today is considered only a land reserve for construction, local planning policies may soon take other, newer concepts into account.
Notes: Boudjenouia, A Fleury, A Tacherift, A
URL: <Go to ISI>://WOS:000237307200007

Abstract: We use the Lewis-Riesenfeld theory to determine the exact form of the wavefunctions of a two-dimensionnal harmonic oscillator with time-dependent mass and frequency in presence of the Aharonov-Bohm effect (AB). We find that the auxiliary equation is independent of the AB magnetic flux. In the particular case of quantized AB magnetic flux the wavefunctions coincide exactly with the wavefunctions of the 2D time-dependent harmonic oscillator.
Notes: Bouguerra, Y. Maamache, M. Bounames, A.
URL: <Go to ISI>://WOS:000241750400018

Abstract: First principle calculations of structural and elastic properties of ZnAl2O4, ZnGa2O4 and ZnIn2O4 compounds are presented, using the pseudo-potential plane-waves approach based on density functional theory, within the generalized gradient approximation GGA. The lattice constants and internal parameters are in good agreement with the available experimental results. Young's modulus, Poisson ratio, bulk modulus, elastic constants and their pressure dependence are also calculated. As the experimental elastic constants are not available hence our results were only compared with the available theoretical values obtained at equilibrium volume. (c) 2006 Elsevier B.V. All rights reserved.

21 **Reference Type: Journal Article**
Record Number: 21
Author: Bouhemadou, A. Khenata, R. Maamache, M.
Year: 2006
Title: Structural phase stability and elastic properties of lanthanum monochalcogenides at high pressure
Journal: Journal of Molecular Structure-Theochem
Volume: 777
Issue: 1-3
Pages: 5-10
Date: Nov
Short Title: Structural phase stability and elastic properties of lanthanum monochalcogenides at high pressure
ISSN: 0166-1280
DOI: 10.1016/j.theochem.2006.08.031
Accession Number: WOS:000242759200002

Abstract: Ab initio calculations have been performed on the structural, elastic and high pressure properties of cubic inter-metallic LaS, LaSe and LaTe compounds. The Kohn-Sham equations were solved by applying the full-potential (linear) augmented plane wave method plus local orbitals (FP-(L)APW+lo) as implanted in the WIEN2K package. In this approach, the generalized gradient approximation (GGA) and the local density approximations (LDA) are used for the exchange-correlation (XC) potential. Results are given for lattice constant, bulk modulus and its pressure derivative. The pressure transition at which these compounds undergo structural phase transition from NaCl-type (B1) to CsCl-type (B2) structure are calculated and compared with previous calculations and available experimental data. The elastic constants at room conditions and under pressure in both B1 and B2 phases are also calculated. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A. Khenata, R. Maamache, M. Meeting on Digital Simulation Mar 25-27, 2006-3006 Mustapha Stambouli Univ Ctr, Mascara, ALGERIA Ferhat Abbas Univ Setif, Louis Pasteur Univ Strasbourg
URL: <Go to ISI>://WOS:000242759200002

Reference Type: Journal Article
Record Number: 22
Author: Bouhemadou, A. Khenata, R. Zegrar, F. Sahnoun, M. Baltache, H. Reshak, A. H.
Year: 2006
Title: Ab initio study of structural, electronic, elastic and high pressure properties of barium chalcogenides
Journal: Computational Materials Science
Volume: 38
Issue: 2
Pages: 263-270
Date: Dec
Short Title: Ab initio study of structural, electronic, elastic and high pressure properties of barium chalcogenides
ISSN: 0927-0256
DOI: 10.1016/j.commatsci.2006.03.001
Accession Number: WOS:000242875400005

Abstract: A theoretical studies of structural, electronic, elastic and high pressure properties in barium chalcogenides BaX (X = S, Se, Te, Po) are performed, using the full-potential augmented plane wave plus local orbitals method (FP-APW + lo). In this approach the local-density approximation (LDA) and generalized gradient approximation (GGA) are used for the exchange-correlation (XC) potential. Moreover, the alternative form of GGA proposed by Engel and Vosko (GGA-EV) is also used for band structure calculations. The equilibrium lattice constant and the bulk modulus agree well with the experiments. The pressures at which these compounds undergo structural phase transition from NaCl (B1) to CsCl (B2) phase were found to be in good agreement with the available experimental data. Results obtained for band structure using GGA-EV show a significant improvement over other theoretical work and are closer to the experimental data. A linear relationship is observed between theoretical band gap and $1/\alpha^2$ (where a is lattice constant). We have determined the elastic constants C-11, C-12 and C-44 at ambient conditions in both B1 and B2 structures, which have not been established neither experimentally nor theoretically. Further, we have also calculated the pressure dependence of the elastic constants for the B1 structure of the four compounds. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A. Khenata, R. Zegrar, F. Sahnoun, M. Baltache, H. Reshak, A. H.
URL: <Go to ISI>://WOS:000242875400005

Reference Type: Journal Article
Record Number: 23
Author: Bouhssira, N. Abed, S. Tomasella, E. Cellier, J. Mosbah, A. Aida, M. S. Jacquet, M.
Year: 2006
Title: Influence of annealing temperature on the properties of ZnO thin films deposited by thermal evaporation
Journal: Applied Surface Science
Volume: 252
Issue: 15
Pages: 5594-5597
Date: May
Short Title: Influence of annealing temperature on the properties of ZnO thin films deposited by thermal evaporation
ISSN: 0169-4332
DOI: 10.1016/j.apsusc.2005.12.134
Accession Number: WOS:000238623300086

Abstract: ZnO thin films were deposited by thermal evaporation of a ZnO powder. The as-deposited films are dark brown, rich zinc and present a low transmittance. Then, these films were annealed in air atmosphere at different temperatures between 100 and 400 degrees C. Their microstructure and composition were studied using XRD and RBS measurements respectively. By increasing the temperature, it was found that film oxidation starts at 250 degrees C. XRD peaks related to ZnO appear and peaks related to Zn decrease. At 300 degrees C, zinc was totally oxidised and the films became totally transparent. The electrical conductivity measurement that were carried out in function of the annealing temperature showed the transition from highly conductive Zn thin film to a lower conductive ZnO thin film. The optical gap (E-g) was deduced from the UV-vis transmittance, and its variation was linked to the formation of ZnO. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Bouhssira, N Abed, S Tomasella, E Cellier, J Mosbah, A Aida, MS Jacquet, M 8th International Conference on Atomically Controlled Surfaces, Interfaces, and Nanostructures/13th International Congress on Thin Films Jun 20-23, 2005 Stockholm, SWEDEN Swedish Res Council, Royal Swedish Acad Sci, Nobel Comm Phys & Chem, Swedish Fdn Strateg Res
URL: <Go to ISI>://WOS:000238623300086

Abstract: A problem of oxygen diffusion in absorbing medium is complex. A mathematical model of this problem is presented, which has previously been investigated by Crank and Gupta (J. Inst. Math. Appl. 1972; 10: 19-33) is studied using a different method of solution. Approximate analytical and numerical solutions of its partial differential equations are obtained, which describe the diffusion of oxygen in absorbing tissue. A moving boundary is an essential feature of this problem but the conditions which determine its movements are different. The results are compared with those of Crank and Gupta. In most cases the agreement is fair. Copyright (C) 2006 John Wiley & Sons, Ltd.
Notes: Boureghda, Abdellatif
URL: <Go to ISI>://WOS:000240666700001

Reference Type: Journal Article
Record Number: 25
Author: Catoire, F. Staicu-Casagrande, E. M. Nekkab, M. Dal Cappello, C. Bartschat, K. Lahmam-Bennani, A.
Year: 2006
Title: Investigation of the (e, 2e) single ionization of He and Ar at large energy loss close to minimum momentum transfer
Journal: Journal of Physics B-Atomic Molecular and Optical Physics
Volume: 39
Issue: 12
Pages: 2827-2838
Date: Jun
Short Title: Investigation of the (e, 2e) single ionization of He and Ar at large energy loss close to minimum momentum transfer
ISSN: 0953-4075
DOI: 10.1088/0953-4075/39/12/016
Accession Number: WOS:000239306700019
Abstract: We report new coplanar (e, 2e) measurements for ionization of He and Ar under kinematics characterized by large energy transfer and close to minimum momentum transfer from the projectile to the target. These kinematics have remained rather unexplored to date due to the smallness of the corresponding cross sections. They could be investigated here thanks to the high sensitivity of our multi-collection spectrometer. The experimental results are used as a sensitive test of state-of-the-art available theoretical models for multi-electron atoms, namely the BBK and a hybrid DWBA+R-matrix (close coupling) models. An overall satisfactory agreement with experiment is obtained for the hybrid DWBA results for both targets. However, a close inspection of the remaining discrepancies calls for further refinement of the theory.
Notes: Catoire, F. Staicu-Casagrande, E. M. Nekkab, M. Dal Cappello, C. Bartschat, K. Lahmam-Bennani, A.
URL: <Go to ISI>://WOS:000239306700019

Reference Type: Journal Article

Record Number: 26

Author: Champion, C. Cappello, C. D. Houamer, S. Mansouri, A.

Year: 2006

Title: Single ionization of the water molecule by electron impact: Angular distributions at low incident energy

Journal: Physical Review A

Volume: 73

Issue: 1

Date: Jan

Short Title: Single ionization of the water molecule by electron impact: Angular distributions at low incident energy

ISSN: 1050-2947

DOI: 10.1103/PhysRevA.73.012717

Article Number: 012717

Accession Number: WOS:000235008900105

Abstract: Recent experimental results of Milne-Brownlie on the ionization of the water molecule by low-energy electron (250 eV) have been compared to theoretical predictions performed in the distorted-wave first Born model [Phys. Rev. A 69, 032701 (2004)]. It was found that this theory was unable to predict the very large recoil scattering observed experimentally. In this work, more sophisticated theoretical models are investigated in order to better understand the water ionization process at the multidifferential level and to reproduce the experimental observations.

Notes: Champion, C Cappello, CD Houamer, S Mansouri, A

URL: <Go to ISI>://WOS:000235008900105

Reference Type: Journal Article
Record Number: 27
Author: Chaoui, Z.
Year: 2006
Title: Analytic simulation of the backscattering of hundreds eV positrons from elemental solids
Journal: Applied Surface Science
Volume: 252
Issue: 9
Pages: 3362-3367
Date: Feb
Short Title: Analytic simulation of the backscattering of hundreds eV positrons from elemental solids
ISSN: 0169-4332
DOI: 10.1016/j.apsusc.2005.08.058
Accession Number: WOS:000236021300044

Abstract: Backscattering (Bcs) coefficients for low-energy positrons (similar to 100 eV) from elemental solids have been simulated using an analytic approach. The model is based on the use of the transport cross-sections (TCSs) and the stopping power calculated from partial wave methods and the best-fit stopping power data of Ashley, respectively. The new result is an extension of recent calculations in the medium energy range. Comparisons, when possible, with experimental and Monte-Carlo (MC) simulation data have been made. (c) 2005 Elsevier B.V. All rights reserved.

Notes: Chaoui, Z 10th International Workshop on Slow Positron Beam Techniques for Solids and Surfaces Mar 19-25, 2005 Univ Qatar, Doha, QATAR
URL: <Go to ISI>://WOS:000236021300044

28 **Reference Type:** **Journal Article**
Record Number: 28
Author: Chaoui, Z. E. A.
Year: 2006
Title: Improved elastic scattering model of electrons in limited media
Journal: Applied Physics Letters
Volume: 88
Issue: 2
Date: Jan
Short Title: Improved elastic scattering model of electrons in limited media
ISSN: 0003-6951
DOI: 10.1063/1.2164897
Article Number: 024105
Accession Number: WOS:000234606900090
Abstract: An improved practical method to simulate elastic electron scattering is described. Single scattering events are simulated using simple analytical expressions derived from the Wentzel model. The present paper shows that simulating with the Wentzel model reduces to a pure problem of optimization. Indeed, a novel method of optimization, based on genetic algorithms, has been applied so as to reproduce the values of the total elastic cross sections and the first and second transport cross sections obtained from partial wave calculations. The resulting model yields a simple analytical formula for the random sampling of the angular deflection that overcomes the problem of the unfeasibility of the detailed simulation when the energy of the incident particles is larger than a hundred keV.
Notes: Chaoui, ZEA
URL: <Go to ISI>://WOS:000234606900090

Reference Type: Journal Article
Record Number: 29
Author: Chaoui, Z. E. A. Bichsel, H.
Year: 2006
Title: Straggling of fast electrons
Journal: Surface and Interface Analysis
Volume: 38
Issue: 4
Pages: 664-667
Date: Apr
Short Title: Straggling of fast electrons
ISSN: 0142-2421
DOI: 10.1002/sia.2170
Accession Number: WOS:000237437100117
Abstract: The energy losses of fast electrons vary because of the stochastic nature of the interactions. In order to describe these processes and calculate the spectra of the total energy loss (straggling spectra), Monte Carlo simulations of fast electrons traversing a thin silicon absorber have been used. The distribution functions needed are described by the electronic energy losses in single collision calculated by Bichsel. Comparison between straggling spectra calculated on the basis of the single collision spectrum and that from its first moment (very often 'stopping power' in the literature), shows that the latter, the so-called 'Continuous Slowing Down Approximation (CSDA),' is a poor approximation in its description of the individual energy deposition. Copyright (C) 2006 John Wiley & Sons, Ltd.
Notes: Chaoui, ZEA Bichsel, H 11th European Conference on Applications of Surface and Interface Anlaysis Sep 25-30, 2005 Vienna, AUSTRIA
URL: <Go to ISI>://WOS:000237437100117

Reference Type: Journal Article

Record Number: 30

Author: Chegaar, M. Azzouzi, G. Mialhe, P.

Year: 2006

Title: Simple parameter extraction method for illuminated solar cells

Journal: Solid-State Electronics

Volume: 50

Issue: 7-8

Pages: 1234-1237

Date: Jul-Aug

Short Title: Simple parameter extraction method for illuminated solar cells

ISSN: 0038-1101

DOI: 10.1016/j.sse.2006.05.020

Accession Number: WOS:000240668200013

Abstract: This paper presents a simple and successful method for evaluating the series resistance, the ideality factor, the saturation current and the shunt conductance in illuminated solar cells. The approach involves the use of an auxiliary function and a computer-fitting routine. The validity of this method has been confirmed by the way of current-voltage measurements of a commercial silicon solar cell, a module and a plastic solar cell. (c) 2006 Elsevier Ltd. All rights reserved.

Notes: Chegaar, M. Azzouzi, G. Mialhe, P.

URL: <Go to ISI>://WOS:000240668200013

Reference Type: Journal Article
Record Number: 31
Author: Chergui, A. Samah, M. Bouguerra, M. Guerbous, L.
Year: 2006
Title: Non-linear emissions of MOVPE ZnSe epilayers
Journal: Materials Science and Engineering B-Solid State Materials for Advanced Technology
Volume: 131
Issue: 1-3
Pages: 177-180
Date: Jul
Short Title: Non-linear emissions of MOVPE ZnSe epilayers
ISSN: 0921-5107
DOI: 10.1016/j.mseb.2006.04.007
Accession Number: WOS:000239289100031

Abstract: Non-linear photoluminescence emissions of n-type ZnSe epitaxial layers grown by MOVPE have been studied at low temperature. The processes involved in the spectra of photoluminescence in highly excited ZnSe epilayers are assumed to be a combination of exciton-exciton (P-bands) and electron exciton collisions (M-band). Recombination processes by inelastic collisions of free excitons are then predominant. They are the principal processes of stimulated emission. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Chergui, A. Samah, M. Bouguerra, M. Guerbous, L.
URL: <Go to ISI>://WOS:000239289100031

Reference Type: Journal Article
Record Number: 32
Author: Chiter, L.
Year: 2006
Title: DIRECT algorithm: A new definition of potentially optimal hyperrectangles
Journal: Applied Mathematics and Computation
Volume: 179
Issue: 2
Pages: 742-749
Date: Aug
Short Title: DIRECT algorithm: A new definition of potentially optimal hyperrectangles
ISSN: 0096-3003
DOI: 10.1016/j.amc.2005.11.127
Accession Number: WOS:000241640400033

Abstract: We propose a new version of potentially optimal intervals for the DIRECT algorithm. A two-point based sampling method is presented. The method starts from a distinguished point (the peak point) by forming an initial triangle. The idea is to sample the midpoint of a specific interval: the basis of the resulting triangle. This specific interval is obtained by translating the initial interval towards the lowest function value: min $\{f(c(i)),f(c(i+1))\}$ and then overcoming the disadvantage if the global minimum lies at the boundaries. Two-dimensional version of our subdivision and sampling method is also discussed. (c) 2005 Published by Elsevier Inc.
Notes: Chiter, Lakhdar
URL: <Go to ISI>://WOS:000241640400033

Reference Type: Journal Article
Record Number: 33
Author: Chiter, L.
Year: 2006
Title: A new sampling method in the DIRECT algorithm
Journal: Applied Mathematics and Computation
Volume: 175
Issue: 1
Pages: 297-306
Date: Apr
Short Title: A new sampling method in the DIRECT algorithm
ISSN: 0096-3003
DOI: 10.1016/j.amc.2005.07.051
Accession Number: WOS:000241776800023

Abstract: Drawing inspiration from the fact that each point sampled by the DIRECT algorithm will be a midpoint of the center subinterval, we present a one-dimensional version which considers two symmetric points, the one-third and two-third of the length of the considered interval. The center subinterval will be the region of interest. The interval is then bisected and two new points are added at every step. The two points sampled before became two-third and one-third, respectively. Two possibilities of definition of potentially optimal intervals are given. The proposed version predicts a fast convergence, and overcomes some disadvantages of the DIRECT in the case where the global minimum lies at the boundaries. (c) 2005 Elsevier Inc. All rights reserved.
Notes: Chiter, Lakhdar
URL: <Go to ISI>://WOS:000241776800023

Reference Type: Journal Article
Record Number: 34
Author: Dal Cappello, C. Mansouri, A. Houamer, S. Joulakian, B.
Year: 2006
Title: Second-order effects in (e, 2e) ionization-excitation of H-2
Journal: Journal of Physics B-Atomic Molecular and Optical Physics
Volume: 39
Issue: 11
Pages: 2431-2443
Date: Jun
Short Title: Second-order effects in (e, 2e) ionization-excitation of H-2
ISSN: 0953-4075
DOI: 10.1088/0953-4075/39/11/009
Accession Number: WOS:000238378500013

Abstract: Ionization-excitation by electron impact of diatomic species in general and hydrogen molecule in particular presents very interesting mechanisms which can be observed in coincidence (e, 2e) experiments. The dissociative character of the final excited state makes these types of experiments easier to perform than those of atomic targets for which the coincidence measurement of the emitted electron and the photon is necessary. Recently Takahashi et al (2003) Phys. Rev. A 68 042710 have shown large disagreements between their experimental results and theoretical ones obtained by the first-order plane-wave impulse approximation at intermediate impact energies. These authors conclude that a second-order treatment, including the two-step mechanisms (TS1 and TS2), would be necessary to explain these differences. In this paper, we present a second-order Born treatment including the two-step mechanisms and study the simple ionization of H-2 and the ionization-excitation of H-2 to the $(2)\Sigma(g)(2s \sigma(g))$ and $(2)\Sigma(u)(2p \sigma u)$ levels of H-2(+) by electron impact.
Notes: Dal Cappello, C Mansouri, A Houamer, S Joulakian, B
URL: <Go to ISI>://WOS:000238378500013

Reference Type: Journal Article
Record Number: 35
Author: Demagh, N. E. Guessoum, A. Aissat, H.
Year: 2006
Title: Chemical etching of concave cone fibre ends for core fibre alignment
Journal: Measurement Science and Technology
Volume: 17
Issue: 1
Pages: 119-122
Date: Jan
Short Title: Chemical etching of concave cone fibre ends for core fibre alignment
ISSN: 0957-0233
DOI: 10.1088/0957-0233/17/1/019
Accession Number: WOS:000234953600021

Abstract: Concave cone fabricated by a chemical etching process similar to the technique used to make fibre tips (convex cone) is presented. Typically, optical fibres are etched in a hydrofluoric (HF) solution with a thin layer of oil floating on top of the HF solution. The present investigation shows that concave cone etched fibre (CCEF) can be obtained by following the beginning of the etching process. Comprehensive measurements of the dependence of the width and height of the taper angle of the concave cone are plotted. The results of this investigation have led to an optimum approach for core fibre alignment that is suitable for use in connecting fibres for efficient coupling between single-mode fibres.
Notes: Demagh, NE Guessoum, A Aissat, H
URL: <Go to ISI>://WOS:000234953600021

Reference Type: Journal Article
Record Number: 36
Author: Djedouani, A. Bendaas, A. Bouacida, S. Beghidja, A. Douadi, T.
Year: 2006
Title: Bis 3-acetyl-6-methyl-2H-pyran-2,4(3H)-dionato bis(dimethyl sulfoxide) copper(II)
Journal: Acta Crystallographica Section E-Structure Reports Online
Volume: 62
Pages: M133-M135
Date: Jan
Short Title: Bis 3-acetyl-6-methyl-2H-pyran-2,4(3H)-dionato bis(dimethyl sulfoxide) copper(II)
ISSN: 1600-5368
DOI: 10.1107/s1600536805041760
Accession Number: WOS:000234446900060
Abstract: In the structure of the mononuclear title complex, [Cu(C8H7O4)(2)(C2H6OS)(2)],the Cu II atom lies on an inversion centre and has an octahedral coordination geometry of type MO6. The bidentate dehydroacetic acid (DHA) ligands occupy the equatorial plane of the complex in a trans configuration, and the dimethylsulfoxide (DMSO) ligands are weakly coordinated through their O atoms.
Notes: Djedouani, A Bendaas, A Bouacida, S Beghidja, A Douadi, T 1
URL: <Go to ISI>://WOS:000234446900060

Reference Type: Journal Article
Record Number: 37
Author: Ferria, K. Grulkowski, I. Kwiek, P.
Year: 2006
Title: Acousto-optic lens based on interaction of narrow laser beam with cylindrical ultrasound
Journal: Journal De Physique Iv
Volume: 137
Pages: 67-72
Date: Nov
Short Title: Acousto-optic lens based on interaction of narrow laser beam with cylindrical ultrasound
ISSN: 1155-4339
DOI: 10.1051/jp4:2006137013
Accession Number: WOS:000243690500013

Abstract: Experimental studies of narrow light beam interaction with cylindrical standing ultrasonic wave are presented. As the focusing and defocusing effects are observed, the considered arrangement appears to be an acousto-optic lens. The proposed system acts as an equivalent optical spherical lens whose focal length changes periodically. Additionally, the system based on cylindrical ultrasound serves as an efficient laser light modulator with the rise time of 100 ns. The parameters of both considered modalities (lens and modulator) can be easily controlled.
Notes: Ferria, K. Grulkowski, I. Kwiek, P. 35th Winter School on Wave and Quantum Acoustics Feb 27-mar 03, 2006 Ustroti, POLAND Polish State Comm Sci Res, Polish Acoust Sco, Upper Silesian Div, Silesian Univ Technol
URL: <Go to ISI>://WOS:000243690500013

Reference Type: Journal Article
Record Number: 38
Author: Garin, F. Maamache, M. Schmerber, G. Demangeat, C.
Year: 2006
Title: Untitled
Journal: Catalysis Today
Volume: 113
Issue: 3-4
Pages: 131-132
Date: Apr
Short Title: Untitled
ISSN: 0920-5861
DOI: 10.1016/j.cattod.2005.11.060
Accession Number: WOS:000236458600001
Notes: Garin, F Maamache, M Schmerber, G Demangeat, C
URL: <Go to ISI>://WOS:000236458600001

Reference Type: Journal Article
Record Number: 39
Author: Ghames, A. Douadi, T. Haffar, D. Chafaa, S. Allain, M. Khan, M. A. Bouet, G. M.
Year: 2006
Title: Structural and electrochemical studies of Co(II), Ni(II), Cu(II) and Cd(II) complexes with a new symmetrical N2O2 Schiff base: Crystal structure of the ligand 1,2-di 4-(2-imino 4-oxo pentane)phenyl ethane
Journal: Polyhedron
Volume: 25
Issue: 16
Pages: 3201-3208
Date: Nov
Short Title: Structural and electrochemical studies of Co(II), Ni(II), Cu(II) and Cd(II) complexes with a new symmetrical N2O2 Schiff base: Crystal structure of the ligand 1,2-di 4-(2-imino 4-oxo pentane)phenyl ethane
ISSN: 0277-5387
DOI: 10.1016/j.poly.2006.05.019
Accession Number: WOS:000242506300016
Abstract: The crystal structure of a new Schiff base: 1,2-di[4-(2-imino 4-oxo pentane)phenyl]ethane (H2L) is described. This molecule undergoes tautomerism with three tautomers: keto-imine, enol-imine and keto-amine. It acts mainly as a tetradentate ligand. Its complexes with cobalt(II), nickel(II), copper(II) are characterised using spectroscopic determinations and cyclic voltammetry. These new complex species are formulated as [CoL] center dot (H2O)(3), [(NiCl2)(2)(H2L)], [CuCl2(H2L)] and [CdCl2(H2L)], respectively. The coordination occurs through the N2O2 system, using various tautomers. (C) 2006 Elsevier Ltd. All rights reserved.
Notes: Ghames, Amel Douadi, Tahar Haffar, Djahida Chafaa, Salah Allain, Magali Khan, Mustayeen A. Bouet, Gilles M.
URL: <Go to ISI>://WOS:000242506300016

Abstract: Power systems stiffer from various types of disturbances, which may cause serious damage to system components (generators. receptors, storage elements. power control systems). These disturbances can create system instability and can lead to significant imbalances between energy production and consumption. Because of its importance to the reliability and continuity of service. the problem of power system transient stability has received a great deal of attention. Over the yews, various models and analysis methods have been proposed to handle specific types of problems related to transient stability. This paper surveys the different methodologies for assessing power system transient stability. The methods are organized chronologically with an emphasis on their advantages and disadvantages.
Notes: Gherbi, A Francois, B Belkacemi, M
URL: <Go to ISI>://WOS:000236089500002

Reference Type: Journal Article

Record Number: 41

Author: Gibelin, P. Serre, S. Candito, M. Houcher, B. Berthier, F. Baudouy, M.

Year: 2006

Title: Prognostic value of homocysteinemia in patients with congestive heart failure

Journal: Clinical Chemistry and Laboratory Medicine

Volume: 44

Issue: 7

Pages: 813-816

Date: Jul

Short Title: Prognostic value of homocysteinemia in patients with congestive heart failure

ISSN: 1434-6621

DOI: 10.1515/cclm.2006.138

Accession Number: WOS:000239591500005

Abstract: Background: Elevated plasma homocysteine levels are associated with increased risk of vascular disease and of congestive heart failure (CHF), with a relationship between homocysteine values and disease severity. Hyperhomocysteinemia is a risk factor for cardiac dysfunction. In this study, the predictive value of elevated homocysteine levels was investigated in the prognosis of ischemic and non-ischemic CHF. Methods: A total of 159 patients with CHF, 89 with non-ischemic and 70 with ischemic CHF (83% males, mean age 62 years, mean ejection fraction 27%), and 119 controls (79% males, mean age 59.8 years) had fasting blood samples taken to measure plasma homocysteine, vitamin B-12 and folate levels. Coronary angiography was performed for all patients. The mean duration of follow-up was 49.6 +/- 36.7 months. Results: As in other studies, the mean level of homocysteinemia was significantly higher in the CHF group (15.80 mmol/L) than in the control group (10.90 mmol/L) (p = 0.001) whatever the etiology (non-ischemic, 16.11 +/- 6.84 mmol/L; ischemic, 15.41 +/- 6.45 mmol/L). This result was observed without vitamin deficiency, but in patients, the mean creatinine value was moderately higher than in controls. We found a positive correlation between plasma homocysteine levels and New York Heart Association (NYHA) classification, creatinine and age. Moreover, hyperhomocysteinemia appears to be a powerful predictive factor of mortality in CHF patients (relative risk of death, 4.23; p = 0.0003). In the follow-up of this study, 41.5% of patients with homocysteinemia > 17 mu mol/L died vs. 21.3% of patients with levels < 17 mu mol/L. In multivariate analysis, when homocysteine levels were adjusted for a second parameter (age, NYHA, creatinine, diabetes), the risk of death remained significant after each adjustment. Conclusions: Elevated homocysteine levels observed in CHF patients, whatever the etiology of their heart disease (ischemic or non-ischemic), were correlated with the severity of the disease. Hyperhomocysteinemia appears to be a predictive factor of mortality in CHF patients.

Notes: Gibelin, Pierre Serre, Stephanie Candito, Mirande Houcher, Bakhouche Berthier, Frederic Baudouy, Marcel

URL: <Go to ISI>://WOS:000239591500005

Reference Type: Journal Article
Record Number: 42
Author: Gueddaoui, H. Schmerber, G. Abes, M. Guemmaz, A. Parlebas, J. C.
Year: 2006
Title: Effects of experimental parameters on the physical properties of non-stoichiometric sputtered vanadium nitrides films
Journal: Catalysis Today
Volume: 113
Issue: 3-4
Pages: 270-274
Date: Apr
Short Title: Effects of experimental parameters on the physical properties of non-stoichiometric sputtered vanadium nitrides films
ISSN: 0920-5861
DOI: 10.1016/j.cattod.2005.11.079
Accession Number: WOS:000236458600023
Abstract: Polycrystalline vanadium nitrides thin films were deposited onto (100)-oriented silicon wafers by reactive dc planar magnetron sputtering. The influence of the nitrogen gas flow (from 0 to 15 sccm) was studied. Several substrate temperatures were investigated: 150, 400 and 650 degrees C. Analytical techniques including X-ray diffraction and reflectivity, atomic force microscopy and optical photospectrometry were used to characterize the structure, the morphology and the optical properties of the films. The measured thickness indicates that the deposition rate is decreased (from 3.5 angstrom for 0 sccm to 1.5 angstrom for 15 sccm) with increasing nitrogen gas flow. Obtained structures depend on the substrate temperature. The structure of pure vanadium (0 sccm) varies from amorphous phase at 150 and 400 degrees C to alpha-V phase at 650 degrees C. The films crystallize dominantly in beta-V2N1-x phase at low nitrogen gas flows and in delta-VN1-x phase at high nitrogen gas flows. The as-deposited VN films were highly textured. The texture seems to depend on the nitrogen gas flow. The root mean square (rms) derived from atomic force microscopy (AFM) varies with the nitrogen gas flow. The optical reflectivity of VN films shows high values in the infrared region. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Gueddaoui, H Schmerber, G Abes, M Guemmaz, A Parlebas, JC Colloquium on Environment, Materials, Energy Dec 11-13, 2004 Ouargla, ALGERIA
URL: <Go to ISI>://WOS:000236458600023

Reference Type: Journal Article
Record Number: 43
Author: Guerbous, L. Krachni, O.
Year: 2006
Title: The 4f-5d luminescence transitions in cerium-doped LuF3
Journal: Journal of Modern Optics
Volume: 53
Issue: 14
Pages: 2043-2053
Date: Sep
Short Title: The 4f-5d luminescence transitions in cerium-doped LuF3
ISSN: 0950-0340
DOI: 10.1080/09500340600792424
Accession Number: WOS:000240353500009

Abstract: Emission and excitation spectra of the Ce3+ ion in LuF3 single crystal were measured at 77 K. The broad bands observed in these spectra were attributed to the parity-allowed electric-dipole 4f <-> 5d transitions within Ce3+ ion. No zero-phonon lines were observed, which is 3 indicative of a strong electron-phonon coupling in this host. It is shown that Ce3+ 5d excited configuration splits into five crystal-field components in LuF3. The influence of the crystalline environment on the position of the lowest Ce3+ 5d level is investigated. The energy of the lowest level of the 4f(N-1)5d excited configuration was predicted for all the trivalent rare earth ions embedded in LuF3. Positions of crystal field spitting levels of 4f(N-1)5d configuration relative to the host electronic bands were discussed.
Notes: Guerbous, L. Krachni, O.
URL: <Go to ISI>://WOS:000240353500009

Reference Type: Journal Article
Record Number: 44
Author: Guerbous, L. Krachni, O.
Year: 2006
Title: Luminescence of Ce3+ traces in Pr3+-doped LuBO3 and YBO3 orthoborates
Journal: Radiation Effects and Defects in Solids
Volume: 161
Issue: 3
Pages: 199-206
Date: Mar
Short Title: Luminescence of Ce3+ traces in Pr3+-doped LuBO3 and YBO3 orthoborates
ISSN: 1042-0150
DOI: 10.1080/10420150600575959
Accession Number: WOS:000237478400006
Abstract: The luminescence of three orthoborates: LuBO3 with calcite and vaterite structures and vaterite YBO3 doped with Pr3+ ions has been investigated. The intense broad bands observed in the emission and excitation spectra were attributed to Pr-3 4f5d <-> 4f(2) transitions. The emission was ascribed to four spin-allowed transitions and one spin-forbidden from the lowest 4f5d level to 4f(2) configuration multiplets. Two additional broad emission bands with very weak intensity at 440 and 580 nm were studied. Evidence of the presence of Ce3+ traces is reported and their influence on Pr3+ luminescence is discussed.
Notes: Guerbous, L. Krachni, O.
URL: <Go to ISI>://WOS:000237478400006

Reference Type: Journal Article
Record Number: 45
Author: Hammouche, A. Kahoul, A. Sauer, D. U. De Doncker, R. W.
Year: 2006
Title: Influential factors on oxygen reduction at La1-xCaxCoO3 electrodes in alkaline electrolyte
Journal: Journal of Power Sources
Volume: 153
Issue: 2
Pages: 239-244
Date: Feb
Short Title: Influential factors on oxygen reduction at La1-xCaxCoO3 electrodes in alkaline electrolyte
ISSN: 0378-7753
DOI: 10.1016/j.jpowsour.2005.05.028
Accession Number: WOS:000236479000007

Abstract: Reduction of oxygen was investigated on porous electrodes made of La1-xCaxCoO3 (with $0 <= x <= 0.6$) perovskite-structured oxides, prepared by a sol-gel process. It was found that both the reaction rate and the electrode active surface area (determined by cyclic voltammetry in a narrow capacitive potential range and by impedance spectroscopy) depend on the partial substitution ratio x, both displaying a maximum value for x nearly equal to 0.4. However, in spite of the parallel trend exhibited by the reduction current and the electroactive surface area parameter, the current varies much more with x, that is, while the change in the surface area amounts to approximately 40% over the explored x range, the current increases fivefold. Subsequent investigation of the electrode surface composition revealed that surface cobalt concentration (estimated by XPS analysis) deviates significantly from the nominal bulk composition (determined by EDX analysis). It follows a similar dependence on x, showing equally a maximum for x near to 0.4. Such a behaviour seems to have a greater effect on the reaction rate, since Co cations are the surface active sites for oxygen electro-reduction. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Hammouche, A Kahoul, A Sauer, DU De Doncker, RW Meeting of the International-Battery-Association (IBA) Apr 18-22, 2004 Graz, AUSTRIA Int Battery Assoc
URL: <Go to ISI>://WOS:000236479000007

46

Reference Type: Journal Article
Record Number: 46
Author: Hannat, S. Chermat, R. Nechadi, A. Skhettabi, F. Z. M. Malek, R.
Year: 2006
Title: Cerebral vascular accident in diabetic patients in the hospital
Journal: Diabetes & Metabolism
Volume: 32
Pages: S86-S86
Date: Mar
Short Title: Cerebral vascular accident in diabetic patients in the hospital
ISSN: 1262-3636
Accession Number: WOS:000236344600277
Notes: Hannat, S Chermat, R Nechadi, A Skhettabi, FZM Malek, R 1
URL: <Go to ISI>://WOS:000236344600277

Abstract: We concentrate on the dynamics of one-dimensional and two-dimensional cubic maps, it describes how complex behaviors can possibly arise as a system parameter changes. This is a large class of diffeomorphisms which provide a good starting point for understanding polynomial diffeomorphisms with constant Jacobian and equivalent to a composition of generalized Henon maps. Due to the theoretical and practical difficulties involved in the study, computers will presumably play a role in such efforts.
Notes: Ilhem, Djellit Amel, Kara
URL: <Go to ISI>://WOS:000242562500001

Abstract: The present work is devoted to study the short-time reactor neutron irradiation of yttria stabilised zirconia (YSZ) at 315 K. The samples were prepared by the reactive calcination method and characterised by X-ray diffraction (XRD) analysis and scanning electronic microscope. The prepared samples were irradiated by reactor neutrons at different exposure times and investigated by XRD analysis. The results obtained show good radiation resistance of YSZ to reactor neutron irradiation.
Notes: Izerrouken, M Boucheffa, Y Souami, S Sari, A Hammache, A Meftah, A Nekab, M
URL: <Go to ISI>://WOS:000237847400004

Reference Type: Journal Article

Record Number: 49

Author: Kacem, R. Meraihi, Z.

Year: 2006

Title: Effects of essential oil extracted from Nigella sativa (L.) seeds and its main components on human neutrophil elastase activity

Journal: Yakugaku Zasshi-Journal of the Pharmaceutical Society of Japan

Volume: 126

Issue: 4

Pages: 301-305

Date: Apr

Short Title: Effects of essential oil extracted from Nigella sativa (L.) seeds and its main components on human neutrophil elastase activity

ISSN: 0031-6903

DOI: 10.1248/yakushi.126.301

Accession Number: WOS:000237312200006

Abstract: The effects of essential oil extracted from Nigella saliva (L.) seeds and its main components on human neutrophil elastase (HNE) activity were investigated. Essential oil was extracted from N. saliva (L.) seeds using hydrodistillation. The yield was equal to 0.4%. Inhibition of HNE activity by essential oil was found to be dose dependent. The highest inhibitory concentration (HIC) of essential oil which caused total inhibition of HNE activity was 5.8 mg/ml. Microassays carried out to evaluate the inhibitory effect of major components of essential oil on HNE activity revealed that carvacrol (5-isopropyl-2-methylphenol) showed marked HNE inhibitory activity with a very low IC50 value (12 mu m). Based on these results, the inhibitory effects of essential oil on HNE activity are due to the presence of bioactive molecules, mainly carvacrol this compound is an inhibitor of HNE and could be considered as a natural antielastase agent and possible candidate for phytotherapy in the treatment of injuries that appear in some pathologic cases such as chronic obstructive pulmonary disease and emphysema.

Notes: Kacem, R Meraihi, Z

URL: <Go to ISI>://WOS:000237312200006

Reference Type: Journal Article
Record Number: 50
Author: Kadem, A.
Year: 2006
Title: Study of the connexity of the set of affine controllable systems
Journal: Kybernetes
Volume: 35
Issue: 5-6
Pages: 726-734
Short Title: Study of the connexity of the set of affine controllable systems
ISSN: 0368-492X
DOI: 10.1108/03684920610662476
Accession Number: WOS:000238997900010
Abstract: Purpose - This paper sets out to review a study of the set of affine controllable systems connexity denoted by C-a. Design/methodology/approach - With each affine system a homogeneous system is associated. Jurdjevic and Sallet proved that, if a homogeneous system is controllable in R-2 - {0} and, if the affine system has not a fixed point, then the affine system is controllable in R-2. Findings - It is shown that these systems are denoted by S, and are dense in C-a. Research limitations/implications - Allows one to tackle the problem by using the connexity of a dense set in S. Originality/value - Succeeds in completing a study of the set of affine controllable systems connexity denoted by C-a.
Notes: Kadem, Abdelouahab
URL: <Go to ISI>://WOS:000238997900010

Reference Type: Journal Article

Record Number: 51

Author: Kerkache, L. Layadi, A. Dogheche, E. Remiens, D.

Year: 2006

Title: Physical properties of RF sputtered ITO thin films and annealing effect

Journal: Journal of Physics D-Applied Physics

Volume: 39

Issue: 1

Pages: 184-189

Date: Jan

Short Title: Physical properties of RF sputtered ITO thin films and annealing effect

ISSN: 0022-3727

DOI: 10.1088/0022-3727/39/1/027

Accession Number: WOS:000235411300028

Abstract: The structural, electrical and optical properties of RF sputtered In2O3 : Sn (ITO) thin films and the effect of post-deposition annealing have been studied. The thickness ranges from 225 to 862 nm. X-ray diffraction, scanning electron microscopy (SEM) and atomic force microscopy (AFM) experiments were performed to study the structure and the surface morphology of these samples. We found that thinner films have a $< 100 >$ texture and as the film grows the preferred orientation changes from $< 100 >$ to $< 111 >$. The lattice parameters are found to be larger than the bulk value, indicating that the samples are under a tensile stress. The grain size increases with increasing thickness. SEM images show a dense granular structure with grains having different shapes and sizes. From AFM images, the average surface roughness (rms) was estimated to be 3.89 nm. The energy gap was found to decrease from 3.65 to 3.50 eV as t increases from 225 to 866 nm. Annealing experiments were done, in the air, at temperature T in the 100-500 degrees C range. We found that the $< 111 >$ texture becomes stronger after the annealing treatment. A large increase of the grain size with increasing T is observed. The lattice constant decreases with T to become closer to the bulk value, i.e. annealing seems to relieve the stress present in the as-deposited films; T = 400 degrees C seems to be the best temperature to obtain practically a stress free sample. We observe a large decrease in the electrical resistivity p after annealing. The lowest p value ($16 \times 10^{(-4)}$ Omega cm) was noted in the 699 nm thick sample annealed at 500 degrees C. The decrease of p seems to be the consequence of a larger grain size and a stronger $< 111 >$ texture.

Notes: Kerkache, L Layadi, A Dogheche, E Remiens, D

URL: <Go to ISI>://WOS:000235411300028

Abstract: This paper deals with the synthesis of a new robust adaptive fuzzy control for a class of nonlinear and disturbed single-input single-output (SISO) systems. To attenuate the effect of both of the approximation errors and the external disturbances to a prescribed level, two signals are added to the indirect adaptive fuzzy control law: the first deduced from a fuzzy system allows approximation errors and external disturbances to eliminated; the second signal deduced from the Riccati equation attenuates the effect of the residual errors to a prescribed level. To illustrate the efficiency of the proposed approach, a simulation example is presented.

Reference Type: Journal Article

Record Number: 53

Author: Kharfi, F. Bastuerk, M. Boucenna, A.

Year: 2006

Title: Characterization of weak, fair and strong neutron absorbing materials by means of neutron transmission: Beam hardening effect

Journal: Nuclear Instruments & Methods in Physics Research Section a-Accelerators Spectrometers Detectors and Associated Equipment

Volume: 565

Issue: 2

Pages: 416-422

Date: Sep

Short Title: Characterization of weak, fair and strong neutron absorbing materials by means of neutron transmission: Beam hardening effect

ISSN: 0168-9002

DOI: 10.1016/j.nima.2006.06.042

Accession Number: WOS:000240713100008

Abstract: The characterization of neutron absorbing materials as well as quantification of neutron attenuation through matter is very essential in various fields, namely in shielding calculation. The objective of this work is to describe an experimental procedure to be used for the determination of neutron transmission through different materials. The proposed method is based on the relation between the gray value measured on neutron radiography image and the corresponding inducing neutron beam. For such a purpose, three kinds of materials (in shape of plate) were investigated using thermal neutrons: (1) boron-alloyed stainless steel as strong absorber; (2) copper and steel as fair absorbers and (3) aluminum as weak absorber. This work is not limited to the determination of neutron transmission through matters; it is also spread out to the measure of the surface density of the neutron absorbing elements (p,) as a function of thickness of neutron absorbing material such as boron-alloyed stainless steel. The beam hardening effect depending on material thickness was also studied using the neutron transmission measurements. A theoretical approach was used to interpret the experimental results. The neutron transmission measurements were performed at the Neutron Radiography and Tomography facility of the Atomic Institute of the Austrian Universities in Vienna. Finally, a Maxwellian neutron distribution of incident neutron beam was used in the theoretical calculations of neutron energy shift in order to compare with experiments results. The obtained experimental results are in a good agreement with the developed theoretical approach. (c) 2006 Elsevier B.V. All rights reserved.

Notes: Kharfi, F. Bastuerk, M. Boucenna, A.

URL: <Go to ISI>://WOS:000240713100008

Reference Type: Journal Article

Record Number: 54

Author: Khenata, R. Bouhemadou, A. Hichour, M. Baltache, H. Rached, D. Rerat, M.

Year: 2006

Title: Elastic and optical properties of BeS, BeSe and BeTe under pressure

Journal: Solid-State Electronics

Volume: 50

Issue: 7-8

Pages: 1382-1388

Date: Jul-Aug

Short Title: Elastic and optical properties of BeS, BeSe and BeTe under pressure

ISSN: 0038-1101

DOI: 10.1016/j.sse.2006.06.019

Accession Number: WOS:000240668200035

Abstract: We have performed the first principles full-potential linearized augmented plane wave calculations (FP-LAPW) with density functional theory in local density approximations (LDA), in aim to determine and to predict the pressure dependence of structural and optical properties of zinc-blende BeS, BeSe and BeTe compounds. The elastic constant, refractive index and its variation with hydrostatic pressure are well described. (c) 2006 Elsevier Ltd. All rights reserved.

Notes: Khenata, R. Bouhemadou, A. Hichour, M. Baltache, H. Rached, D. Rerat, M.

URL: <Go to ISI>://WOS:000240668200035

Reference Type: Journal Article

Record Number: 55

Author: Khenata, R. Bouhemadou, A. Sahnoun, M. Reshak, A. H. Baltache, H. Rabah, M.

Year: 2006

Title: Elastic, electronic and optical properties of ZnS, ZnSe and ZnTe under pressure

Journal: Computational Materials Science

Volume: 38

Issue: 1

Pages: 29-38

Date: Nov

Short Title: Elastic, electronic and optical properties of ZnS, ZnSe and ZnTe under pressure

ISSN: 0927-0256

DOI: 10.1016/j.commatsci.2006.01.013

Accession Number: WOS:000241300200004

Abstract: The results of first-principles theoretical study of the structural, electronic and optical properties of zinc monochacogenides ZnS, ZnSe and ZnTe, have been performed using the full-potential linear augmented plane-wave method plus local orbitals (FP-APW + lo) as implemented in the WIEN2k code. In this approach the local density approximation (LDA) is used for the exchange-correlation (XC) potential. Results are given for lattice constant, elastic constant, bulk modulus, and its pressure derivative. The band structure, density of states, pressure coefficients of elastic constants, energy gaps and refractive indices are also given. The results are compared with previous theoretical calculations and the available experimental data. (c) 2006 Elsevier B.V. All rights reserved.

Notes: Khenata, R. Bouhemadou, A. Sahnoun, M. Reshak, Ali H. Baltache, H. Rabah, M.

URL: <Go to ISI>://WOS:000241300200004

Reference Type: Journal Article
Record Number: 56
Author: Krachni, O. Guerbous, L. Louail, L.
Year: 2006
Title: Evolution of luminescence spectra of Ce3+-ion in the solid solutions Ca1-xSrxS
Journal: Modern Physics Letters B
Volume: 20
Issue: 22
Pages: 1405-1416
Date: Sep
Short Title: Evolution of luminescence spectra of Ce3+-ion in the solid solutions Ca1-xSrxS
ISSN: 0217-9849
DOI: 10.1142/s0217984906011657
Accession Number: WOS:000241459400005
Abstract: Luminescence spectra of Ce3+-ion in Ca1-xSrxS solid solutions have been investigated. It has been shown that the evolution of Ce3+ excitation and emission spectra through the concentration range may be interpreted in correlation with the variations, with the host lattice composition, of the lattice constant, the local structure in the activator neighborhood and the band gap. Under activator excitation, in addition to the two conventional bands, an additional band peaking at about 650 nm was observed (mainly in SrS) and was related to the contamination of the samples as a consequence of extended storage. Except for this band, the luminescence properties did not change relatively to those obtained previously on the same samples. The most drastic modification affected SrS:Ce3+, despite the fact that all the samples have been stored in the same conditions.
Notes: Krachni, O. Guerbous, L. Louail, L.
URL: <Go to ISI>://WOS:000241459400005

57 **Reference Type:** Journal Article
Record Number: 57
Author: Laouer, R. Akkal, S. Debarnot, C. Canard, B. Meierhenrich, U. J. Baldovini, N.
Year: 2006
Title: Chemical composition and antimicrobial activity of the essential oil of Saccocalyx satureioides coss. et dur
Journal: Natural Product Communications
Volume: 1
Issue: 8
Pages: 645-650
Short Title: Chemical composition and antimicrobial activity of the essential oil of Saccocalyx satureioides coss. et dur
ISSN: 1934-578X
Accession Number: WOS:000249006500009
Abstract: The chemical composition of the essential oil of Saccocalyx satureioides Coss. et Dur. (Lamiaceae) was analyzed by chiral and achiral GC/MS and 42 components were identified. The main constituents were (+)-alpha-terpineol (35.9%), thymol (15.6%) and borneol (12.4%). The in vitro antibacterial and antifungal activities of the essential oil were assessed by the disc diffusion method, and were significant on the six microorganisms tested. A moderate inhibitory activity against hepatitis C virus polymerase was also evidenced.
Notes: Laouer, Rocine Akkal, Salah Debarnot, Claire Canard, Bruno Meierhenrich, Uwe J. Baldovini, Nicolas
URL: <Go to ISI>://WOS:000249006500009

Abstract: Magnetization curves are predicted for a magnetic-tunnel-junction-like system in some special cases of interest: (i) weak interlayer magnetic coupling/high exchange anisotropy field H-E and (ii) strong coupling/low H-E. Analytical expressions for different switching fields are derived in these situations. These fields depend on the magnetizations (M-A,M-B) and thicknesses (t(A),t(B)) of the two ferromagnetic layers, on the bilinear (J(1)) and biquadratic (J(2)) coupling parameters, and on the exchange (H-E) and uniaxial (H-A) anisotropy fields of the pinned layer. In the first case, the whole system is found to behave as two uncoupled layers with equivalent exchange and planar anisotropy fields. The effect of the biquadratic coupling J(2) on the hysteresis curves is discussed for both ferromagnetic and antiferromagnetic coupling cases. In the second case, the system behaves as a single (ferromagnetic/antiferromagnetic) bilayer with effective exchange and magnetocrystalline anisotropy fields. These findings confirm some of the results inferred from a ferromagnetic resonance analysis and previously reported. (c) 2006 American Institute of Physics.
Notes: Layadi, A.
URL: <Go to ISI>://WOS:000241721900059

Reference Type: Journal Article
Record Number: 59
Author: Lopes, I. El Hassan, N. Guerba, H. Wallez, G. Davidson, A.
Year: 2006
Title: Size-induced structural modifications affecting Co3O4 nanoparticles patterned in SBA-15 silicas
Journal: Chemistry of Materials
Volume: 18
Issue: 25
Pages: 5826-5828
Date: Dec
Short Title: Size-induced structural modifications affecting Co3O4 nanoparticles patterned in SBA-15 silicas
ISSN: 0897-4756
DOI: 10.1021/cm061630o
Accession Number: WOS:000242515600006
Notes: Lopes, Irene El Hassan, Nissrine Guerba, Hadjira Wallez, Gilles Davidson, Anne
URL: <Go to ISI>://WOS:000242515600006

60 **Reference Type: Journal Article**
Record Number: 60
Author: Louail, L. Maouche, D. Hachemi, A.
Year: 2006
Title: Elastic properties of InAs under pressure up to 18 GPa
Journal: Materials Letters
Volume: 60
Issue: 27
Pages: 3269-3271
Date: Nov
Short Title: Elastic properties of InAs under pressure up to 18 GPa
ISSN: 0167-577X
DOI: 10.1016/j.matlet.2006.03.011
Accession Number: WOS:000240901500017
Abstract: We have carried out the first-principles total energy calculations to investigate the elastic properties of both the zinc-blende and rocksalt structures of InAs. We found the transition pressure and we report the elastic constants as a function of the hydrostatic pressure. Detailed comparisons with the available measured values and with the results obtained in previous theoretical studies reveal good agreement concerning some quantities and discrepancies for another. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Louail, L. Maouche, D. Hachemi, A.
URL: <Go to ISI>://WOS:000240901500017

Abstract: We show that the procedure used by Ferreira [Phys. Rev. A 66, 024103 (2002)] is not correct for the following reasons: (i) the invariant I(t) they derived does not satisfy the Liouville-Von Neuman equation. (ii) They found that the eigenvalues of I(t) are time dependent which should not be the case according to the Lewis-Riesenfeld theory. We give a correct procedure to find the solution of the system they considered, i.e., the Schrodinger equation for a two-dimensional harmonic oscillator with time-dependent mass and frequency in the presence of a static magnetic field.

Abstract: By using the Lewis-Riesenfeld theory and algebraic method, we present an alternative approach to obtain the exact solution of time-dependent Hamiltonian systems involving quadratic, inverse quadratic and $(1/x)p+p(1/x)$ terms. This solution is discussed and compared with that obtained by Choi, J. R. (2003). [International Journal of Theoretical Physics 42, 853].
Notes: Maamache, M. Menouar, S. Krache, L.
URL: <Go to ISI>://WOS:000241889800015

Reference Type: Journal Article
Record Number: 63
Author: Maouche, B. Feliachi, M. Khenfer, N.
Year: 2006
Title: A half-analytical formulation for the impedance variation in axisymmetrical modelling of eddy current non destructive testing
Journal: European Physical Journal-Applied Physics
Volume: 33
Issue: 1
Pages: 59-67
Date: Jan
Short Title: A half-analytical formulation for the impedance variation in axisymmetrical modelling of eddy current non destructive testing
ISSN: 1286-0042
DOI: 10.1051/epjap:2005093
Accession Number: WOS:000234712400008

Abstract: We present the calculation of the impedance variation using a half-analytical formulation based on coupled electromagnetic variables. Such a formulation concerns an axisymmetrical device constituted with a voltage supplied solenoidal inductor and a conducting workpiece. In this field of modelling, authors have already developed a method [Maouche and Feliachi, J. Phys. III France 10, 1967 (1997)] that determines the current distribution inside inductor coil loops in the case of weak skin depth and a low number of these coil loops. In the proposed development, the number of loops is relatively large and the skin effect in these loops is negligible. This formulation uses a voltage excitation, which makes the source field depending on induced currents and permits to consider the real geometry of the inductor. The model is applied to study an eddy current non destructive testing (ECNDT) device. The variation of the system impedance is calculated in the case of an axisymmetrical device. The obtained modelling results are validated by comparison to measurements and finite element computations [Remy, Ph. D. thesis, University of Compiegne, France, 1997; La et al., Rev. Prog. Quant. Non-Destructive Eval. 16A, 295 (1997)]. Once validated, the proposed model is applied to determine geometrical and physical characteristics of an ECNDT device. To assemble this interest, we visualise the evolution of the impedance variation according respectively to the air-gap, to the thickness of the workpiece and its electric conductivity. The model is implemented within a software tool (CECM: Coupling Electromagnetic Circuits Method) developed in Matlab environment.
Notes: Maouche, B Feliachi, M Khenfer, N
URL: <Go to ISI>://WOS:000234712400008

Reference Type: Journal Article
Record Number: 64
Author: Mayouf, A. Mayouf, F. Djahli, F.
Year: 2006
Title: A generalized CAD model for the full-wave modelling of microstrip line and its regular and irregular discontinuities
Journal: International Journal of Numerical Modelling-Electronic Networks Devices and Fields
Volume: 19
Issue: 4
Pages: 365-390
Date: Jul-Aug
Short Title: A generalized CAD model for the full-wave modelling of microstrip line and its regular and irregular discontinuities
ISSN: 0894-3370
DOI: 10.1002/jnm.617
Accession Number: WOS:000239030700005

Abstract: In this paper we present a new theoretical model for the modelling of the microstrip line as well as two types of discontinuities: regular (open end, step, bend and T- and cross-junctions) and irregular (stub and bent-stub). The two-dimensional exact dyadic Green function of a grounded dielectric slab has been used with the Galerkin's technique. The subdivision of the discontinuity in a network of juxtaposed unit cells. characterized by their own longitudinal and transversal current distributions. allowed the treatment of a large class of irregular discontinuities in addition to the regular discontinuities. The obtained results have been commented and compared with those of different approaches and with experimental results where a good concordance has been observed. Copyright (C) 2006 John Wiley & Sons. Ltd.
Notes: Mayouf, A. Mayouf, F. Djahli, F.
URL: <Go to ISI>://WOS:000239030700005

Abstract: The solvent extraction of zinc and cadmium from phosphoric acid solutions using di-2-ethyl hexyl phosphoric acid, D2EHPA, in treated kerosene as diluent has been investigated. The influence of the following parameters was investigated: the extractant concentration, the organic/aqueous phase ratio and the equilibrium pH. Extraction experiments were carried out to determine the effects of equilibrium pH, O/A phase ratio and D2EHPA concentration and their interactions on the extraction yield of zinc and cadmium by using the factorial design and the Yates algorithm for non-linear regression. Based on the above results and taking into consideration that D2EHPA exists in a dimeric form in kerosene, the extraction of 0.45 x 10(-2) mol/L zinc and 0.05 x 10(-2) mol/L cadmium from 5.5 M phosphoric acid solution by D2EHPA in kerosene could be represented at equilibrium by Zn-aq(2+) + 1.5(H(2)A(2))(org) -> ZnA(2)(HA)(org) + 2H(aq)(2+) and Cd-aq(2+) + 1.25(H(2)A(2))(org) CdA(2)(HA)(1/2 org) + 2H(aq)(+). The equilibrium constants for the extraction of zinc and cadmium from phosphoric acid solution were found to be 1.28 x 10(-2) mol/(1/2) L-1/2 and 3.50 x 10(-4) mol(3/4) L-3/4, respectively. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Mellah, A Benachour, D
URL: <Go to ISI>://WOS:000237839600007

Abstract: The solvent extraction of zinc, cadmium and chromium contained in 5.5 mol/L phosphoric acid solutions (30% P2O5) was investigated using 7-(4-ethyl-1-methyloctyl)-8-hydroxyquinoline-Kelex 100 (R) as extractant and treated kerosene as diluent. At organic-to-aqueous phase ratio (1/1) and at room temperature, 58% of zinc, 34% of chromium and 15% of cadmium were recovered in 240 min. In order to improve the kinetics of extraction, a modifier reagent was added to the organic phase. The addition of n-decanol (10 vol.%) increased the rate metals extraction by reducing the equilibrium time from 240 min to 30 min, along with 60% recovery of metals. Extraction of metal ions increased with increasing aqueous phase pH. The pH(0.5) values difference of 0.1 M with Kelex 100 (R) indicates the possible separation of cadmium, zinc and chromium. Increasing the concentration of Kelex 100 (R) increased the percentage extraction of metal ions. The loading capacity values were found to be 83%, 80% and 71% for zinc, chromium and cadmium, respectively, at 0.4 M Kelex 100 (R) concentration, indicating that the extractant is highly selective for the metal ions considered. (c) 2005 Elsevier B.V All rights reserved.

Notes: Mellah, A Benachour, D

URL: <Go to ISI>://WOS:000235599100003

Reference Type: Journal Article
Record Number: 67
Author: Merabet, A. Marcon, J.
Year: 2006
Title: The effect of arsenic fluence on the boron diffusion in the polysilicon on monosilicon during rapid thermal annealing
Journal: Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms
Volume: 253
Issue: 1-2
Pages: 122-125
Date: Dec
Short Title: The effect of arsenic fluence on the boron diffusion in the polysilicon on monosilicon during rapid thermal annealing
ISSN: 0168-583X
DOI: 10.1016/j.nimb.2006.10.017
Accession Number: WOS:000243178600025
Abstract: In this work we study the dopant redistribution of arsenic and boron during rapid thermal annealing (RTA) from implantation-doped polycrystalline silicon films into underlying single crystalline silicon. Arsenic ($2 \times 10(15)$ or $5 \times 10(15)$ atoms/cm(2); 100 keV) and boron (10(16) atoms/cm(2); 25 keV) codiffusion are studied in an emitter and extrinsic base of bipolar transistor in PNP configuration. The purpose of this study has been carried out to test the effect of arsenic fluence on the boron redistribution for annealing 1000-1150 degrees C and of 1-20 s duration. The increase arsenic fluence products a delay boron diffusion which becomes more significant at 1150 degrees C. At this temperature, the stopping is estimated at 500 angstrom. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Merabet, A. Marcon, J. Symposium on Si-Bases Materials for Advanced Microelectronic Devices held at the 2006 E-MRS Spring Meeting May 29-jun 02, 2006 Nice, FRANCE European Mat Res Soc, IUMRS, ICEM
URL: <Go to ISI>://WOS:000243178600025

Abstract: We present in this contribution, semi-empirical production cross sections of the main X-ray lines L alpha, L beta and L gamma for elements from Sn to U and for protons with energies varying from 0.5 to 3.0 MeV. The theoretical X-ray production cross sections are firstly calculated from the theoretical ionization cross sections of the Li (i = 1, 2,3) subshell within the ECPSSR theory. The semi-empirical L alpha, L beta and L gamma cross sections are then deduced by fitting the available experimental data normalized to their corresponding theoretical values and give the better representation of the experimental data in some cases. Oil the other hand, the experimental data are directly fitted to deduce the empirical L X-ray production cross sections. A comparison is made between the semi-empirical cross sections, the empirical cross sections reported in this work and the empirical ones reported by Reis and Jesus [M.A. Reis, A.P. Jesus, Atom. Data Nucl. Data Tables 63 (1996) 1] and those of Strivay and Weber [Strivay, G. Weber, Nucl. Instr. and Meth. B 190 (2002) 112]. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Nekab, M Kahoul, A
URL: <Go to ISI>://WOS:000236500500007

Abstract: Salicylaldehyde or 5-bromosalicylaldehyde reacted with 2,3-diaminophenol in absolute EtOH in a 2:1 molar ratio to give new unsymmetrical Schiff bases (H2L). The bases were used as ligands to coordinate Mn(III), Ni(II) and Cu(II) chlorides leading to [(MnClL)-Cl-III] center dot EtOH and [(ML)-L-II] or [(ML)-L-II] center dot 2H(2)O (M = Ni or Cu) complexes. Their structures were determined using mass spectroscopy, IR, u.v.-vis and H-1-n.m.r. The cyclic voltammetry in acetonitrile showed irreversible waves for both ligands. Under the same experimental conditions, the complexes exhibited mainly the non-reversible reduction of the Ni(II) or Cu(II) ion to Ni(0) or Cu(0), while the reduction of Mn(III) to Mn(II) was found to be a quite reversible phenomenon.
Notes: Ourari, A Ouari, K Moumeni, W Sibous, L Bouet, GM Khan, MA
URL: <Go to ISI>://WOS:000235447200005

Reference Type: Journal Article
Record Number: 70
Author: Rouabhia, S. Bounecer, H. Abbas, L. Azizi, D. Laouar, A. K. Boukrousse, H.
Benouar, A. Mallem, D. Malek, R.
Year: 2006
Title: Hepatobiliar attacks and diabetes
Journal: Diabetes & Metabolism
Volume: 32
Pages: S96-S96
Date: Mar
Short Title: Hepatobiliar attacks and diabetes
ISSN: 1262-3636
Accession Number: WOS:000236344600321
Notes: Rouabhia, S Bounecer, H Abbas, L Azizi, D Laouar, AK Boukrousse, H Benouar, A
Mallem, D Malek, R 1
URL: <Go to ISI>://WOS:000236344600321

Reference Type: Journal Article
Record Number: 71
Author: Rouabhia, S. Bounecer, H. Abbas, L. Azizi, D. Mallem, D. Malek, R.
Year: 2006
Title: Prevalence of diabetes of type 2 in the region of Batna by one simple method
Journal: Diabetes & Metabolism
Volume: 32
Pages: S66-S67
Date: Mar
Short Title: Prevalence of diabetes of type 2 in the region of Batna by one simple method
ISSN: 1262-3636
Accession Number: WOS:000236344600196
Notes: Rouabhia, S Bounecer, H Abbas, L Azizi, D Mallem, D Malek, R 1
URL: <Go to ISI>://WOS:000236344600196

Abstract: Symmetric heavy-ion collisions are known to display an 'extra-push' effect. That is, the energy at which the s-wave transmission is 0.5 lies significantly higher than the nominal Coulomb barrier. Despite this, however, the capture cross section is still greatly enhanced below the uncoupled barrier. It is shown that this phenomenon can be simply explained in terms of entrance-channel effects which account for long-range Coulomb excitations. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Rowley, N Grar, N Hagino, K
URL: <Go to ISI>://WOS:000234727200019

Reference Type: Journal Article
Record Number: 73
Author: Sahari, A. Azizi, A. Schmerber, G. Abes, M. Bucher, J. P. Dinia, A.
Year: 2006
Title: Electrochemical nucleation and growth of Co and CoFe alloys on Pt/Si substrates
Journal: Catalysis Today
Volume: 113
Issue: 3-4
Pages: 257-262
Date: Apr
Short Title: Electrochemical nucleation and growth of Co and CoFe alloys on Pt/Si substrates
ISSN: 0920-5861
DOI: 10.1016/j.cattod.2005.11.075
Accession Number: WOS:000236458600021
Abstract: Electrochemical nucleation and growth of Co and CoFe alloys on Pt/Si(100) surface from watts (mixed chloride sulfate) baths were studied by voltammetric, chronoamperometric and AFM measurements. The CoFe alloys were deposited from solution with molar ratio of (1/1) and (10/1). The Scharifker and Hills model was employed to analyse the current transients. For both Co and CoFe (10/1) alloys the nucleation was a good agreement with the instantaneous model followed by 3D diffusion-limited growth. Inversely, for CoFe (1/1) alloy the nucleation was an agreement with the progressive model. It is evident that the compositions of the electrolyte influence greatly the type of nucleation. The atomic force microscopy (AFM) images revealed a compact and a granular structure of the electrodeposited Co layers and CoFe alloys. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Sahari, A Azizi, A Schmerber, G Abes, M Bucher, JP Dinia, A Colloquium on Environment, Materials, Energy Dec 11-13, 2004 Ouargla, ALGERIA
URL: <Go to ISI>://WOS:000236458600021

Reference Type: Journal Article
Record Number: 74
Author: Sari, M. Biondi, D. M. Kaabeche, M. Mandalari, G. D'Arrigo, M. Bisignano, G. Saija, A. Daquino, C. Ruberto, G.
Year: 2006
Title: Chemical composition, antimicrobial and antioxidant activities of the essential oil of several populations of Algerian Origanum glandulosum Desf
Journal: Flavour and Fragrance Journal
Volume: 21
Issue: 6
Pages: 890-898
Date: Nov-Dec
Short Title: Chemical composition, antimicrobial and antioxidant activities of the essential oil of several populations of Algerian Origanum glandulosum Desf
ISSN: 0882-5734
DOI: 10.1002/ffj.1738
Accession Number: WOS:000242225500007

Abstract: Essential oils extracted by hydrodistillation from the aerial parts of 23 samples of Algerian Origanum glandulosum Desf. were analysed by gas chromatography (GC) and GC-mass spectrometry (MS). Overall, 30 components have been fully characterized. However, all the oils were characterized by the predominance of four components, thymoll (18.5-73.1%), carvacrol (7.6-72.6%), p-cymene (1.7-18.5%) and gamma-terpinene (1.1-18.7%). Cluster analysis of the identified components allowed us to establish the presence of three main groups, characterized by carvacrol, thymoll and comparable amounts of both compounds, respectively. The free radical scavenging activity of essential oils was determined by the 1,1-diphenyl-2-pierylhydrazyl (DPPH) model system. The SC50 (scavenging concentration) values were in the range 16.2-26.7 mu g/ml, representing a good antioxidant effectiveness. The roles of thymol and carvacrol, the main components of all oils, were estimated by measuring their stoichiometric factors. The essential oils were also evaluated for their antimicrobial activity by the agar disc diffusion method and the determination of minimum inhibitory concentration (MIC) against six standard strains (Escherichia coli, Pseudomonas aeruginosa, Staphylococcus aureus, Enterococcus hirae, Candida albicans, Candida tropicalis). All microbial strains employed (Gram-positive and Gram-negative bacteria and yeasts) showed a fairly similar degree of susceptibility to the essential oils under investigation, although no evident difference was observed in their sensitivity. Furthermore, a similar level of toxicity was observed for all oils examined, with MIC values of 31.25-125.00 mu g/ml. Finally, the addition of the emulsifier Tween 80 to the oil or to the agar markedly decreases the antimicrobial activity of the essential oils against all microbial strains employed, thus suggesting that the antimicrobial activity of the essential oils is dependent on the physicochemical characteristics of their components and also on the microbial strains employed. Copyright (c) 2006 John Wiley & Sons, Ltd.
Notes: Sari, Madani Biondi, Daniela M. Kaabeche, Mohamed Mandalari, Giuseppina D'Arrigo, Manuela Bisignano, Giuseppe Saija, Antonella Daquino, Carmelo Ruberto, Giuseppe
URL: <Go to ISI>://WOS:000242225500007

Reference Type: Journal Article
Record Number: 75
Author: Selmani, L. Selmani, M.
Year: 2006
Title: Analysis of a viscoelastic contact problem with Normal damped response and damage
Journal: Bulletin of the Belgian Mathematical Society-Simon Stevin
Volume: 13
Issue: 2
Pages: 207-220
Date: Apr-Jun
Short Title: Analysis of a viscoelastic contact problem with Normal damped response and damage
ISSN: 1370-1444
Accession Number: WOS:000245884200002
Abstract: We consider a mathematical model for the process of contact between a viscoelastic body and a reactive foundation. The material is viscoelastic with internal state variable which may describe the damage of the system. We establish a variational formulation for the model and prove the existence and uniqueness result of the weak solution. Finally we prove a dependence result with respect to the data.
Notes: Selmani, L. Selmani, M.
URL: <Go to ISI>://WOS:000245884200002

Abstract: We consider two quasistatic frictionless contact problems for viscoelastic bodies with long memory. In the first problem the contact is modelled with Signorini's conditions and in the second one is modelled with normal compliance. In both problems the adhesion of the contact surfaces is taken into account and is modelled with a surface variable, the bonding field. We provide variational formulations for the mechanical problems and prove the existence of a unique weak solution to each model. The proofs are based on arguments of time-dependent variational inequalities, differential equations, and a fixed point theorem. Moreover, we prove that the solution of the Signorini contact problem can be obtained as the limit of the solutions of the contact problem with normal compliance as the stiffness coefficient of the foundation converges to infinity. Copyright (C) 2006 M. Selmani and M. Sofonea. This is an open access article distributed under the Creative Commons Attribution License, which permits unrestricted use, distribution, and reproduction in any medium, provided the original work is properly cited.
Notes: Selmani, Mohamed Sofonea, Mircea
URL: <Go to ISI>://WOS:000240191600001

Abstract: One-pot reaction of copper(II) chloride dihydrate CuCl2 (.) 2H(2)O with sodium adipate Na(2)adip (adip(2-) = O2C(CH2)(4)CO22-) in the presence of 2,2'-bipyridyl (bpy = C10H8N2) and potassium 1,1,3,3-tetracyano-2-ethoxypropenide (tcnp- = (NC)(2)CC(OEt)C(CN)(2)(-)) gives the new compound [Cu-4(bpy)(4)(adip)(3)](tcnp)(2) (1), which was characterized by single crystal X-ray diffraction analysis. Each metal ion presents an elongated square pyramidal CuN2O3 environment, with an oxygen atom in apical position and a base plane involving almost equivalent bond lengths. The structure can be described as a pseudo dinuclear species in which two Cu(bpy) units are triply bridged by two unsymmetrical bridging oxygen atoms of two carboxylate groups with a k-mu-bridging mode and by an almost symmetrical OCO unit with a bidentate syn-syn k:k-mu-bridging mode. Such coordination modes generate the tetranuclear Cu-2(adip)(2)Cu-2 units which are bound by a symmetrical adipate ligand through a k-mu-bridging mode to lead to infinite chains involving a succession of Cu, units alternatively bridged by one or two aliphatic chains of adipate ligands. Magnetic measurements exhibit a maximum in the chi(m) versus T plot (at similar to 15.2 K), which is characteristic of weak antiferromagnetic exchange interactions between the Cu(II) ions bridged by the carboxylate groups. Fit of the magnetic data with appropriate model led to J value of -7.74 cm(-1) (the Hamiltonian is written as H = -2JS(a)S(b)). (c) 2006 Elsevier B.V. All rights reserved.

Notes: Setifi, Fatima Bouchama, Abdelaziz Sala-Pala, Jean Salaun, Jean-Yves Triki, Smail

URL: <Go to ISI>://WOS:000238877200023

Abstract: The proton diffusion coefficient for both fresh and heat-treated (140 and 230 degrees C, respectively) alpha and beta-PbO2 electrodes was estimated at room temperature using Galvanostatic Intermittent Titration Technique (GITT). PbO2 samples were prepared by electroformation of cured plates. HSbO3 center dot xH_2O with a conductivity of 3.29 x 10(-3) Omega(-1) cm(-1), was used as solid protonic conductor (SPC) electrolyte. It was found that when structural water is removed, the capacity of both alpha and P-PbO2 electrodes decreases and the ohmic drop increases. The departure of structural water affects considerably the value of proton diffusion coefficient. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Zerroual, L. Fitas, R. Djellouli, B. Chelali, N. 6th International Conference on Lead-Acid Batteries (LABAT 2005) Jun 13-16, 2005 Varna, BULGARIA Lead-Acid Battery Dept, Inst Electrochem & Energy Syst, Bulgarian Acad Sci, SOFIA 1113, Monbat PLC Si
URL: <Go to ISI>://WOS:000240842800006

79 **Reference Type: Journal Article**
Record Number: 79
Author: Zerroug, S. Ali Sahraoui, F. Bouarissa, N.
Year: 2006
Title: Elastic properties of AlxIn1-xPySb1-y and AlxGa1-xPySb1-y lattice matched to InAs substrate
Journal: Materials Letters
Volume: 60
Issue: 4
Pages: 546-550
Date: Feb
Short Title: Elastic properties of AlxIn1-xPySb1-y and AlxGa1-xPySb1-y lattice matched to InAs substrate
ISSN: 0167-577X
DOI: 10.1016/j.matlet.2005.09.032
Accession Number: WOS:000233881800028

Abstract: The elastic constants and related properties of zinc-blende $Al(x)ln(1-x)P(y)Sb(1-y)$ and AlxGa1-xPySb1-y quaternary semiconductor alloys lattice matched to InAs substrate are obtained for various aluminium concentrations over the range 0-1 using the pseudopotential method within the virtual crystal approximation combined with the Harrison bond-orbital model. The agreement between our results and published experimental data, which are only available for binary parent compounds, is generally satisfactory, while our calculated results for quaternaries of interest are predictions. Except for the internal strain parameter, all studied quantities are found to exhibit the same qualitative behavior with respect to the composition x when replacing the indium (In) by the gallium (Ga). The numerically calculated results provide more opportunities to obtain diverse elastic properties while still controlling the composition components. (c) 2005 Elsevier B.V. All rights reserved.
Notes: Zerroug, S Ali Sahraoui, F Bouarissa, N
URL: <Go to ISI>://WOS:000233881800028

Reference Type: Journal Article
Record Number: 80
Author: Zerroug, S. Sahraoui, F. A. Bouarissa, N.
Year: 2006
Title: Elastic properties of AlxIn1-xPySb1-y and AlxGa1-xPySb1-y lattice matched to InAs substrate (vol 60, pg 546, 2006)
Journal: Materials Letters
Volume: 60
Issue: 19
Pages: 2428-2428
Date: Aug
Short Title: Elastic properties of AlxIn1-xPySb1-y and AlxGa1-xPySb1-y lattice matched to InAs substrate (vol 60, pg 546, 2006)
ISSN: 0167-577X
DOI: 10.1016/j.matlet.2005.12.114
Accession Number: WOS:000238472200029
Notes: Zerroug, S Sahraoui, FA Bouarissa, N
URL: <Go to ISI>://WOS:000238472200029

Reference Type: Journal Article
Record Number: 81
Author: Zidelkheir, B. Boudjemaa, S. Abdel-Goad, M. Djellouli, B.
Year: 2006
Title: Preparation and characterization of polystyrene/montmorillonite nanocomposite by melt intercalative compounding
Journal: Iranian Polymer Journal
Volume: 15
Issue: 8
Pages: 645-653
Date: Aug
Short Title: Preparation and characterization of polystyrene/montmorillonite nanocomposite by melt intercalative compounding
ISSN: 1026-1265
Accession Number: WOS:000242143600004
Abstract: Polymer composites based on modified montmorillonite (OMMT) and polystyrene (PS) were prepared with different compositions by melt processing. The pristine montmorillonite (MMT) was obtained from Algerian plant with a cation exchange capacity (CEC) of 119 meq/100 g. The modification of MMT was carried out by treating with octadecylammonium cation. The polymer composites were characterized using different techniques such as X-ray diffraction (XRD), infrared spectrophotometery (IR), differential scanning calorimetery (DSC), thermal gravimetric analysis (TGA), and rheology and tensile measurements. The results were showed that, the basal space of the silicate layer increased, as determined by XRD, from 12.6 to 32.3 angstrom. The microstructure was detected by X-ray patterns and transmission electronic microscopy (TEM) at 2 wt% OMMT, however, higher than 2 wt% OMMT reveals partial intercalation structure. The composite with 5 wt% was indicated the greatest improvement in thermal stability. The rheological properties of the PS/OMMT composites were investigated using ARES-rheometer operated in the dynamic mode with a parallel plate geometry. The storage and loss moduli were increased with increasing the clay content. The stress-at-break is also improved relatively compared to the virgin polystyrene in our experimental conditions.
Notes: Zidelkheir, Belkacem Boudjemaa, Soufiane Abdel-Goad, Mahmoud Djellouli, Brahim
URL: <Go to ISI>://WOS:000242143600004

82 **Reference Type:** Book Section
Record Number: 1
Author: Bakhti, A. Benbaouche, L. Ieee,
Year: 2006
Title: Simulink-DSP co-design of a fuzzy logic controller
Book Title: Iecon 2006 - 32nd Annual Conference on Ieee Industrial Electronics, Vols 1-11
Pages: 3497-3502
Series Title: IEEE Industrial Electronics Society
Short Title: Simulink-DSP co-design of a fuzzy logic controller
ISBN: 1553-572X 978-1-4244-0135-2
Accession Number: WOS:000245905006087
Abstract: This paper gives a general design of a fuzzy logic controller (FLC), based on Simulink and DSP engine, and is an alternative to fuzzy processors in terms of speed and generality. This design can be implemented easily on FPGA's and digital signal controller (DSC) chips too. The implementation on DSC chips, outlined in this paper, aims to emphasize the feasibility of inexpensive implementation of FLC with microcontroller technology. More, DSC resources such as A/D. PWM and I/O ports can be designed in Simulink environment and added to the design of an embedded controller. This idea is applied to design an FLC dedicated to a PCB shunt current sensing resistor. The FLC is simulated in Simulink environment. The simulation results show that the designed FLC operates successfully and yield results similar to those given by the FLC designed by means of the Fuzzy Logic Toolbox of MATLAB.
Notes: Bakhti, Abderrachid Benbaouche, Lahcene 32nd Annual Conference of the IEEE-Industrial-Electronics-Society Nov 07-10, 2006 Paris, FRANCE IEEE Ind Elect Soc
URL: <Go to ISI>://WOS:000245905006087

Reference Type: Book Section
Record Number: 2
Author: Boudissa, M. Halimi, R. Frikach, K. Senoussi, S.
Year: 2006
Title: Fishtail effect in twinned and detwinned YBCO single crystals
Editor: Stutzmann, M.
Book Title: Physica Status Solidi C - Current Topics in Solid State Physics, Vol 3, No 9
Volume: 3
Series Volume: 9
Pages: 3044-3047
Series Title: Physica Status Solidi C-Current Topics in Solid State Physics
Short Title: Fishtail effect in twinned and detwinned YBCO single crystals
ISBN: 1610-1634
DOI: 10.1002/pssc.200567133
Accession Number: WOS:000241696600025

Abstract: We have studied the magnetization hysteresis loops of a twinned and detwinned single crystals in a temperature range between 4.2 and 100 K and a magnetic field (H) range between 0 and 6 T. We carried out relaxation measurements on the samples at different temperatures and magnetic fields. We investigated the twin pinning as a function of temperature (T) and the fishtail anomaly in the critical current density of the two samples. We tried in this study to confirm or infirm the different models which explain the fishtail effect by confronting them to our experimental results We found that the collective creep theory is consistent with the results of our experiment in the field region where the magnetization is at its minimum. This field marks a crossover between the small and large bundle pinning regimes. (c) 2006 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.

Notes: Boudissa, M. Halimi, R. Frikach, K. Senoussi, S. 4th International Conference on Magnetic and Superconducting Materials Sep 05-08, 2006 Agadir, MOROCCO
URL: <Go to ISI>://WOS:000241696600025

Reference Type: Book Section
Record Number: 3
Author: Boudissa, M. Halimi, R. Senoussi, S.
Year: 2006
Title: Anisotropic effects in a powder oriented YBCO sample using a three axes magnetometer
Editor: Stutzmann, M.
Book Title: Physica Status Solidi C - Current Topics in Solid State Physics, Vol 3, No 9
Volume: 3
Series Volume: 9
Pages: 3023-3026
Series Title: Physica Status Solidi C-Current Topics in Solid State Physics
Short Title: Anisotropic effects in a powder oriented YBCO sample using a three axes magnetometer
ISBN: 1610-1634
DOI: 10.1002/pssc.200567132
Accession Number: WOS:000241696600020
Abstract: To measure the components of the magnetization vector along the XYZ directions of a reference frame, in the superconducting materials, we have conceived a three axes magnetometer, with a detection system equipped with three series of pick-up coils with axes parallel to the three directions X,Y, and Z. We describe in this paper the details of the design and the method of measurement, with some results obtained by magnetic measurements on samples of oriented YBCO powder, with size of the grains between 20 gin and 40 mu m, for values of the angle theta between the magnetic field H and the c-axis, between 0 degrees and 90 degrees and for values of fields up to 12 T. The direct measurement of the Z and the XY components of the irreversible magnetization vector, M-irr, allowed us to observe the twin effect (channeling) on the vortex pinning observed by many authors, the evolution of the magnetization vector and to measure with a high accuracy the anisotropy factor of our samples. (c) 2006 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.
Notes: Boudissa, M. Halimi, R. Senoussi, S. 4th International Conference on Magnetic and Superconducting Materials Sep 05-08, 2006 Agadir, MOROCCO
URL: <Go to ISI>://WOS:000241696600020

Reference Type: Book Section

Record Number: 4

Author: Chaoui, A. Gaubert, J. P. Krim, F. Rambault, L. Ieee,

Year: 2006

Title: IP controlled three-phase shunt active power filter for power improvement quality

Book Title: Iecon 2006 - 32nd Annual Conference on Ieee Industrial Electronics, Vols 1-11

Pages: 4601-4606

Series Title: IEEE Industrial Electronics Society

Short Title: IP controlled three-phase shunt active power filter for power improvement quality

ISBN: 1553-572X 978-1-4244-0135-2

Accession Number: WOS:000245905009019

Abstract: The simulation and experimental study of new IT (Integrator Proportional) controlled DC bus voltage of three phase shunt active power filter (APF), to improve power quality by compensating harmonics and reactive power required by nonlinear load is proposed. The compensation process is based on sensing mains currents only, an approach different from conventional methods, which require harmonics or reactive volt-ampere values of the load. The not sinusoidal mains voltage form problem is resolved by using PLL system. PWM signal generation is based on hysteresis control comparators to obtain the switching signals. Various simulation and experimental results are presented under steady state and transient conditions.

Notes: Chaoui, Abdelmadjid Gaubert, Jean-Paul Krim, Fateh Rambault, Laurent 32nd Annual Conference of the IEEE-Industrial-Electronics-Society Nov 07-10, 2006 Paris, FRANCE IEEE Ind Elect Soc

URL: <Go to ISI>://WOS:000245905009019

Reference Type: Book Section
Record Number: 5
Author: Chaoui, S. Mehamha, A. Willenbacher, N. V. Di Berichte
Year: 2006
Title: Characterization of PP/organoclay prepared via solvent casting
Book Title: Nanofair 2006 New Ideas for Industry
Volume: 1940
Pages: 131-140
Series Title: Vdi Berichte
Short Title: Characterization of PP/organoclay prepared via solvent casting
ISBN: 0083-5560 978-3-18-091940-9
Accession Number: WOS:000244471700028
Abstract: As first part of this project, Polypropylene/organoclay nanocomposites have been prepared via solvent casting in order to study their viscoelastic properties. The extent of this clay inside the matrix can be later evaluated by melt rheology beside more techniques like electron microscopy, FTIR and X-ray diffraction. The clay used in our work (Montmorillonite) was prepared und organophilicaly modified under several conditions depending on the alkyl ammonium content and the cationic exchange capacity (CEC). Scanning electron microscopy was used in order to verify the intercalation of alkylammonium in the interlayer space of clay. The results are in good agreement with the results of FTIR and X-ray diffraction, which proved also, in case of nanocomposite, the intercalation of polymer chains into the interlayer space. Rheological investigation in melt state of polypropylene will be done. The preparation of nanocomposite using melt-compounding method is being prepared and the results will be exposed in a forthcoming report.
Notes: Chaoui, S. Mehamha, A. Willenbacher, N. 5th International Nanotechnology Symposium Nov 21-22, 2006 Karlsruhe, GERMANY
URL: <Go to ISI>://WOS:000244471700028

Reference Type: Book Section

Record Number: 6

Author: Ferahta, N. Moussaoui, A. Benmahammed, K. Chen, V.

Year: 2006

Title: New Fuzzy Clustering Algorithm Applied to RMN Image Segmentation

Editor: Ardil, C.

Book Title: Proceedings of World Academy of Science, Engineering and Technology, Vol 12

Volume: 12

Pages: 9-13

Series Title: Proceedings of World Academy of Science Engineering and Technology

Short Title: New Fuzzy Clustering Algorithm Applied to RMN Image Segmentation

ISBN: 1307-6884

Accession Number: WOS:000260420400002

Abstract: An entirely automatic procedure for the classification of cerebral tissues from magnetic resonance nuclear imaging (MRN) 3D of the head are described in this paper. This procedure doesn't make any assumption nor on the number of classes nor on the shape of the density. Indeed, this last is estimated by a non parametric method, it is about the method of the Parzen's Kernel. A new objective function is proposed to improve the FCM algorithm by the addition of one term of entropy aiming to maximize the number of "good" ordering. A supplementary correction is operated by a probabilistic procedure said of fuzzy relaxation including the probabilities of the neighboring points. The validation of the algorithm is made on simulated data and on real cerebral imaging RMN.

Notes: Ferahta, Nabila Moussaoui, Abdelouahab Benmahammed, Khier Chen, Victor

Conference of the World-Academy-of-Science-Engineering-and-Technology Mar 29-31, 2006 Vienna, AUSTRIA

URL: <Go to ISI>://WOS:000260420400002

Reference Type: Book Section

Record Number: 7

Author: Grar, N. Rowley, N.

Year: 2006

Title: An extra push from entrance-channel effects

Editor: Corradi, L. Fioretto, E. Gadea, A. Ackermann, D. Haas, F. Pollarolo, G. Scarlassara, F. Szilner, S. Trotta, M.

Book Title: FUSION06: Reaction Mechanisms and Nuclear Structure at the Coulomb Barrier

Volume: 853

Pages: 181-186

Series Title: Aip Conference Proceedings

Short Title: An extra push from entrance-channel effects

ISBN: 0094-243X 0-7354-0349-X

Accession Number: WOS:000240548300028

Abstract: The fusion probability for heavy symmetric systems is known to show certain very specific features. Apart from the large variance of the fusion barrier distribution, it is found that the energy at which the s-wave transmission is 0.5 is shifted to an energy significantly higher than the nominal (e.g. Bass) Coulomb barrier. This last feature is referred to in the literature as the 'extra push' effect. Many models have been devised to explain the origin of these findings. It is worth noting, however, that despite the extra push, the capture cross section is still greatly enhanced at the very lowest energies. This fact cannot be explained within the framework of macroscopic theories involving conditional saddle points or frictional forces. We have performed full coupled-channel calculations for heavy, symmetric systems treating correctly the long-range Coulomb excitations of the collective quadrupole- and octupole-phonon states in the target and projectile. The results obtained show that the extra push and the overall shape of the fusion probability are simply explained by these entrance-channel effects.

Notes: Grar, Nabila Rowley, Neil International Conference on Reaction Mechanisms and Nuclear Structure Mar 19-23, 2006 Coulomb Barrier, Venice, ITALY

URL: <Go to ISI>://WOS:000240548300028

Reference Type: Book Section

Record Number: 8

Author: Moussaoui, A. Ferahta, N. Chen, V.

Year: 2006

Title: A New Hybrid RMN Image Segmentation Algorithm

Editor: Ardil, C.

Book Title: Proceedings of World Academy of Science, Engineering and Technology, Vol 12

Volume: 12

Pages: 1-8

Series Title: Proceedings of World Academy of Science Engineering and Technology

Short Title: A New Hybrid RMN Image Segmentation Algorithm

ISBN: 1307-6884

Accession Number: WOS:000260420400001

Abstract: The development of aid's systems for the medical diagnosis is not easy thing because of presence of inhomogeneities in the MRI, the variability of the data from a sequence to the other as well as of other different source distortions that accentuate this difficulty. A new automatic, contextual, adaptive and robust segmentation procedure by MRI brain tissue classification is described in this article. A first phase consists in estimating the density of probability of the data by the Parzen-Rozenblatt method. The classification procedure is completely automatic and doesn't make any assumptions nor on the clusters number nor on the prototypes of these clusters since these last are detected in an automatic manner by an operator of mathematical morphology called skeleton by influence zones detection (SKIZ). The problem of initialization of the prototypes as well as their number is transformed in an optimization problem; in more the procedure is adaptive since it takes in consideration the contextual information presents in every voxel by an adaptive and robust non parametric model by the Markov fields (MF). The number of bad classifications is reduced by the use of the criteria of MPM minimization (Maximum Posterior Marginal).

Notes: Moussaoui, Abdelouahab Ferahta, Nabila Chen, Victor Conference of the World-Academy-of-Science-Engineering-and-Technology Mar 29-31, 2006 Vienna, AUSTRIA

URL: <Go to ISI>://WOS:000260420400001

Reference Type: Book
Record Number: 1
Author: Sait, B. Khanniche, M. S. Ieee,
Year: 2006
Title: Monitoring and diagnostics of the induction motor by the methods of relation of redundancy analytical
Series Title: Proceedings of the 41st International Universities Power Engineering Conference, Vols 1 and 2
Number of Pages: 739-743
Short Title: Monitoring and diagnostics of the induction motor by the methods of relation of redundancy analytical
ISBN: 978-1-86135-342-9
Accession Number: WOS:000256054900150

Abstract: Although the Induction Motor (IM) is considered by its qualities of robustness and low cost of construction, it happens nevertheless that this one presents an electric breakdown or mechanics, which can reveal expensive in term of immobilization and maintenance time of the production equipment. Therefore it required the integration of a diagnosis and monitoring system there. This last be to detect and locate the faults of the system and y to propose quite obvious solutions. In this paper we will develop a method currently very answered which uses the Relations of Redundancies Analytical (RRA) for faults detection. The generation of such relations makes it possible to generate residues for the detection of defects based on the use of models. A residue is temporal signal, function of the inputs and Outputs Of the process. In absence of faults, this residue is statically zero. During the appearance of a fault, its amplitude vary significantly. Finally the analysis of these residues makes it possible to detect the time of appearance of faults.

Notes: Sait, Belkacern Khanniche, M. S. 41st International Universities Power Engineering Conference Sep 06-08, 2006-2008 Newcastle upon Tyne, ENGLAND Ieee
URL: <Go to ISI>://WOS:000256054900150

Reference Type: Book
Record Number: 2
Author: Semcheddine, S. Aitouche, A. Cassar, J. P.
Year: 2006
Title: Detecting modes in fed-batch fermented process. Application to Escherichia coli cultivation
Series Editor: Sun, F. Liu, H. P.
Series Title: 2006 IMACS: Multiconference on Computational Engineering in Systems Applications, Vols 1 and 2
Number of Pages: 858-863
Short Title: Detecting modes in fed-batch fermented process. Application to Escherichia coli cultivation
ISBN: 978-7-302-13922-5
Accession Number: WOS:000244084600162
Abstract: This paper presents a strategy based on residual generation to detect acetate formation during a culture of Escherichia coli as producer of recombinant proteins. Indeed protein productivity is both affected by acetate concentration that inhibits cell growth and by acetate production that reduces protein production. Formation of acetate occurs when the specific glucose uptake exceeds a critical value. This situation must consequently be avoid. The proposed approach deeply uses a model that gathers the knowledge about the process. It aims to study the possibility to identify the current biological behaviour from this model and from a reduced instrumentation. Depending on the instrumentation, specialized residuals are generated for the different biological modes. These residuals, calculated from the available measurement, have to be close to zero when the mode they have been design for is active. According to the residuals that trigger a deviation from zero test, it is then possible to recognize the current mode and, that way, to determine the strain biological activity.
Notes: Semcheddine, S. Aitouche, A. Cassar, J. P. IMACS Multiconference on Computational Engineering in Systems Applications (CESA 2006) Oct 04-06, 2006 Beijing, PEOPLES R CHINA IMACS, IEEE SMC Soc, Tsinghua Univ, Ecole Centrale Lille, Ecole Natl Superieure Arts & Ind Textiles, Natl Nat Sci Fdn China
URL: <Go to ISI>://WOS:000244084600162

PRODUCTION SCIENTIFIQUE ANNEE 2007

Reference Type: Journal Article
Record Number: 1
Author: Adjouadi, N. Laouar, N. Bousbaa, C. Bouaouadja, N. Fantozzi, G.
Year: 2007
Title: Study of light scattering on a soda lime glass eroded by sandblasting
Journal: Journal of the European Ceramic Society
Volume: 27
Issue: 10
Pages: 3221-3229
Short Title: Study of light scattering on a soda lime glass eroded by sandblasting
ISSN: 0955-2219
DOI: 10.1016/j.jeurceramsoc.2007.01.011
Accession Number: WOS:000246744200015
Abstract: in Saharan areas of Algeria, sandstorms can damage vehicles windshields inducing incidental light diffusion that affects the driver's visibility. Vehicles technical controllers find some difficulties with damaged windshields. The control being made visually with the naked eye, it is therefore difficult to judge when a damaged windshield is no more valid to use. In this context, we studied the influence of the surface state of a soda lime glass on the scattering of a white light. The varying parameters considered are the projected sand mass, the opening of the light beam and the distance sample-receptor. By increasing the projected sand mass up to 200 g, the optical transmission falls from 91.6 to 13% and the roughness increases from 0.035 up to 2.27 mu m and then tends toward a constant level. For the as-received state, the image obtained using a CCD camera presents a net boundary and the transmission profile shows a saturation plateau. By damaging the surface, the image boundary deforms and becomes diffuse. For the highly damaged states, the image become completely blurred and the transmission profile disappears. The variation of the transmission according to roughness shows an inflection point at T= 73% and R-a = 1.5 mu m. This point seems to separate two domains: a transparent field (R-a < 1.5 mu m) and a blur field (R-a > 1.5 mu m). The visibility limit obtained in our tests conditions is estimated at about 73%. (C) 2007 Elsevier Ltd. All rights reserved.
Notes: Adjouadi, Nora Laouar, Naamane Bousbaa, Chabane Bouaouadja, Nourredine Fantozzi, Gilbert
URL: <Go to ISI>://WOS:000246744200015

Reference Type: Journal Article

Record Number: 2

Author: Amrani, N. Boucenna, A.

Year: 2007

Title: Evaluation of technetium transmutation in the experimental fast reactor "JOYO"

Journal: Annals of Nuclear Energy

Volume: 34

Issue: 9

Pages: 703-706

Date: Sep

Short Title: Evaluation of technetium transmutation in the experimental fast reactor "JOYO"

ISSN: 0306-4549

DOI: 10.1016/j.anucene.2007.04.002

Accession Number: WOS:000250021300003

Abstract: In this study the effectiveness of transmutation for the long lived fission product technetium-99 in the experimental fast reactor "JOYO" is evaluated. The cluster of reflector subassembly was replaced with a new moderator and target subassembly. The Beryllium metal is selected as moderator. The calculation of Ruthenium concentration evolution under irradiation was performed using Chain-Solver 2.20 code. For 140 full power irradiation days, the transmutation yield is similar to 30% and 87% in the radial reflector and target subassembly, respectively. The approximation used for the transmutation calculation is the assumption that the influence of change in irradiated materials structures on the reactor operator mode characteristics is insignificant. (c) 2007 Elsevier Ltd. All rights reserved.

Notes: Amrani, Naima Boucenna, Ahmed

URL: <Go to ISI>://WOS:000250021300003

Reference Type: Journal Article
Record Number: 3
Author: Arrouf, M. Ghabrour, S.
Year: 2007
Title: Modelling and simulation of a pumping system fed by photovoltaic generator within the Matlab/Simulink programming environment
Journal: Desalination
Volume: 209
Issue: 1-3
Pages: 23-30
Date: Apr
Short Title: Modelling and simulation of a pumping system fed by photovoltaic generator within the Matlab/Simulink programming environment
ISSN: 0011-9164
DOI: 10.1016/j.desal.2007.04.004
Accession Number: WOS:000246790900004

Abstract: In spite of poor efficiency of the photovoltaic systems developed up to date and the high cost of the installations of the equipment of this kind of station of solar energy conversion into electric power, this did not stop the researchers to continue to make efforts in this field in order to minimize the expenses of installation of equipment and to increase the output efficiency of the photovoltaic systems. In order to make solar energy competitive with the other forms of renewable energies, a better exploitation of its advantages especially environmental side, this will be possible only with the development of the less expensive and high output efficiency systems. The objective of this work is to bring a contribution to the study of the behaviours of the photovoltaic generators and converters used to feed a well defined load, in our case an asynchronous machine actuating a centrifugal pump, this through modelling and simulation of the various stages that constitute the overall system.
Notes: Arrouf, M. Ghabrour, S. 9th Arab International Conference on Solar Energy (AICSE-9) Nov 05-07, 2006 Bahrain
URL: <Go to ISI>://WOS:000246790900004

Reference Type: Journal Article
Record Number: 4
Author: Balannec, B. Bouguettoucha, A. Amrane, A.
Year: 2007
Title: Unstructured model for batch cultures without pH control of Lactobacillus helveticus - Inhibitory effect of the undissociated lactic acid
Journal: Biochemical Engineering Journal
Volume: 35
Issue: 3
Pages: 289-294
Date: Aug
Short Title: Unstructured model for batch cultures without pH control of Lactobacillus helveticus - Inhibitory effect of the undissociated lactic acid
ISSN: 1369-703X
DOI: 10.1016/j.bej.2007.01.023
Accession Number: WOS:000247896100005

Abstract: During lactic acid fermentation, the positive effect of precultivating without pH control is now clearly established. At acidic pH, growth was inhibited. To account for this inhibition, the well-known Luedeking-Piret model was modified by introducing an additional term involving the undissociated form of the lactic acid, the main inhibitory species. The Henderson-Hasselbach equation was also considered in the model to describe the relationship between pH, also involved in growth inhibition, and both the dissociated and the undissociated forms of lactic acid. The model was found to describe satisfactory experimental growth and production data in a wide range of culture conditions. Indeed, whey permeate supplemented by a large range of nitrogen supplementations was considered and analysed, since the growth- and non-growth-associated part of the production can be easily deduced from the model. High supplementation of whey permeate, namely 20 g l(-1) yeast extract and 10 g l(-1) peptones, the usual seed culture supplementation, led to the main part of the lactic acid produced by a growth-associated mechanism (74%). (C) 2007 Elsevier B.V. All rights reserved.

Notes: Balannec, Beatrice Bouguettoucha, Abdellah Amrane, Abdeltif
URL: <Go to ISI>://WOS:000247896100005

Reference Type: Journal Article
Record Number: 5
Author: Barra, K. Benmahammed, K.
Year: 2007
Title: New extended cascaded predictive control with multiple reference models ECGPC/MRM of an induction motor drive with efficiency optimization
Journal: Journal of Electrical Engineering-Elektrotechnicky Casopis
Volume: 58
Issue: 2
Pages: 71-78
Date: Mar-Apr
Short Title: New extended cascaded predictive control with multiple reference models ECGPC/MRM of an induction motor drive with efficiency optimization
ISSN: 1335-3632
Accession Number: WOS:000255737700002

Abstract: In this paper, a new extended cascaded predictive control with multiple reference models method ECGPC/MRM is synthesized under energy saving control of an induction motor drive to improve high efficiency of the drive system. The method gives the possibility to control at the same time different variables more than in conventional CGPC. For this method, the plant is assumed to be divided into three parts and three G.P.C algorithms must be computed. The control law is then derived under polynomial structure in order to analyze the stability of the different controlled open loops in the frequency domain. Simulation results demonstrate the performance of the proposed method.
Notes: Barra, Kamel Benmahammed, Khier
URL: <Go to ISI>://WOS:000255737700002

Reference Type: Journal Article
Record Number: 6
Author: Bartil, T. Bounekhel, M. Calberg, C. Jerome, R.
Year: 2007
Title: Thermosensitives hydrogels based on poly (ethylene glycol) - I. Synthesis, characterization and release
Journal: Annales De Chimie-Science Des Materiaux
Volume: 32
Issue: 5
Pages: 431-446
Date: Sep-Oct
Short Title: Thermosensitives hydrogels based on poly (ethylene glycol) - I. Synthesis, characterization and release
ISSN: 0151-9107
DOI: 10.3166/acsm.32.431-446
Accession Number: WOS:000249783900002

Abstract: Thermosensitives hydrogels based on poly(ethylene glycol) (PEG), diisocyanate (aromatic or aliphatic) and glycerol were prepared. The influence of the molecular weight, nature and amount of the crosslinking agent on the swelling properties and the mechanism of water transport through these hydrogels were examined. The exponential relation ship $M\text{-}t/M\text{-}infinity = kt(n)$ was applied to calculate the exponent (n) describing the Fickian or non-Fickian behaviour of swelling polymer networks. Diffusion coefficients of an anti-inflammatory agent and network properties of hydrogels systems were calculated. The microscopic pore properties of the hydrogels were determined by SEM, which indicated an interconnected cylindrical porous structure and a few structural imperfections. The average diameter of the pores was 0.4 mu m, which depends on the molar mass of PEG. The release of the anti-inflammatory agent from hydrogels was studied by determination of the diffusion coefficient which are in the range of $(0.4\text{-}10).10(\text{-}6)$ cm(2)/s.
Notes: Bartil, Tahar Bounekhel, Mahmoud Calberg, Cedric Jerome, Robert
URL: <Go to ISI>://WOS:000249783900002

Reference Type: Journal Article
Record Number: 7
Author: Belattar, N.
Year: 2007
Title: Affinity adsorption of human vitamin K-dependent coagulation factor IX onto heparin-like poly (styrene sodium sulfonate) adsorbent
Journal: Materials Science & Engineering C-Biomimetic and Supramolecular Systems
Volume: 27
Issue: 4
Pages: 849-854
Date: May
Short Title: Affinity adsorption of human vitamin K-dependent coagulation factor IX onto heparin-like poly (styrene sodium sulfonate) adsorbent
ISSN: 0928-4931
DOI: 10.1016/j.msec.2006.10.003
Accession Number: WOS:000246630600039

Abstract: Adsorption of proteins on polymer material plays an important role in a number of fields, particularly in separation of biomolecules by chromatographic methods. The work reports here the synthesis of modified cross-linked polystyrene gel beads as a stationary phase in liquid chromatography for the purification of factor IX. Suitable chemical groups, such as sulfonate which confer this polymer heparin-like adsorbing property, were grafted on the aromatic ring of the hydrophobic matrix. This functional group was chosen on the basis of the biospecific molecular interactions between factor IX and its ligand particularly heparin in such manner to enhance its binding ability and efficacy. Adsorption of factor IX on to this functional polymer was performed under physiological conditions according two modes: non-competitive adsorption (adsorption of factor IX alone) and competitive adsorption (adsorption of factor IX in the presence of another vitamin-K dependent coagulation factors). The adsorbed factor IX content at the interface allows to establish the chemisorption isotherm curves. The adsorption rate in both cases was found to be significantly high and the affinity constants, estimated by the Langmuir model, were: 4.7×10^{8} and 4.1×10^{8} I/M respectively. Affinity chromatography on column using this functional polymer as a stationary phase confirms its high ability to adsorb factor IX at low ionic strength. Thus, the synthesized packing material gel functionalised by sulfonate group can be used advantageously as a heparin-like adsorbent in purification of factor IX. (C) 2006 Elsevier B.V. All rights reserved.
Notes: Belattar, Noureddine
URL: <Go to ISI>://WOS:000246630600039

Reference Type: Journal Article

Record Number: 8

Author: Belhouchet, H. Hamidouche, M. Bouaouadja, N. Garnier, V. Fantozzi, G.

Year: 2007

Title: Elaboration and microstructural characterization of a mullite-zirconia composite obtained by reaction sintering

Journal: Annales De Chimie-Science Des Materiaux

Volume: 32

Issue: 6

Pages: 605-614

Date: Nov-Dec

Short Title: Elaboration and microstructural characterization of a mullite-zirconia composite obtained by reaction sintering

ISSN: 0151-9107

DOI: 10.3166/acsm.32.605-614

Accession Number: WOS:000251675600006

Abstract: A significant toughening could be obtained by incorporating zirconia (ZrO_2) particles in a mullite matrix ($3Al_2O_3 \cdot 2SiO_2$). The mechanism involved in the toughening of mullite composites by zirconia addition is a stress-induced structural transformation of zirconia (tetragonal to monoclinic). In this work, we elaborated by reaction sintering a mullite-zirconia composite from a stoichiometric powder mixture of monohydrated alumina (Boehmite AlOOH) and zircon ($ZrSiO_4$). Reactions and phase transformations during the powder sintering were studied by dilatometry, DTA-TGA, XRD and SEM. The dilatometric curves and differential thermal analysis showed several microstructure transformations in these mixtures. From the X-ray diffractograms, we put in evidence the zircon decomposition (into zirconia and silica) and the rnullite-zirconia composite formation, by reaction sintering (with the boehmite), starting from a temperature of 1450 degrees C. The micrographic observations of the samples showed also a presence of dispersed fine zirconia particles of rounded shape in the mullite matrix.

Notes: Belhouchet, Hocine Hamidouche, Mohamed Bouaouadja, Nourredine Garnier, Vincent Fantozzi, Gilbert

URL: <Go to ISI>://WOS:000251675600006

Reference Type: Journal Article
Record Number: 9
Author: Belkhiat, S. Keraghel, F.
Year: 2007
Title: Characterisation of Al-3,49wt%-Li alloy oxidised surface using Auger electron spectroscopy
Journal: Romanian Journal of Physics
Volume: 52
Issue: 3-4
Pages: 309-317
Short Title: Characterisation of Al-3,49wt%-Li alloy oxidised surface using Auger electron spectroscopy
ISSN: 1221-146X
Accession Number: WOS:000255028600010

Abstract: Auger Electron Spectroscopy (AES) has been used to study the surface of aluminium-Lithium alloy (Al-3,49wt%-Li). In this work, the surface atomic composition as a function of temperature was followed. A great amount of Chemisorbed oxygen and carbon induce the Li segregation and shows that oxygen reacts first with the segregated Li, then with both Li and Al. The carbon adsorbed forms the lithium carbonate which decomposes to form a lithium oxide. The formed Li oxides have been characterised using the activation energy of Li segregation determined experimentally. The heat of the Li2CO3 formation and the Li oxide layer formed have been estimated.
Notes: Belkhiat, S. Keraghel, F.
URL: <Go to ISI>://WOS:000255028600010

Reference Type: Journal Article
Record Number: 10
Author: Belkhir, N. Bouzid, D. Herold, V.
Year: 2007
Title: Correlation between the surface quality and the abrasive grains wear in optical glass lapping
Journal: Tribology International
Volume: 40
Issue: 3
Pages: 498-502
Date: Mar
Short Title: Correlation between the surface quality and the abrasive grains wear in optical glass lapping
ISSN: 0301-679X
DOI: 10.1016/j.triboint.2006.05.001
Accession Number: WOS:000242523100010

Abstract: The subject of this study is to determine the relation between the optical glass surface quality and the wear of abrasive grains used in finishing process. The glass surface quality was characterized by the roughness (rms,CLA and peak to valley). Alumina abrasive grains (Al2O3) are used with average sizes (80, 40, 20, 7 mu rn) respectively. After 2 min lapping for each fraction of grains the following RMS are obtained 1.39, 0.57, 0.51, 0.33 mu m. The corresponding peak to valley are respectively 7.5, 3.66, 2.88, 2. 10 mu m. The grains wear was characterized by the grains edges wear (roundness) and by their fractures. An optical microscope (CMM Scope Check) and a SEM are used for their observation. The alumina grains size distribution was also studied using a laser diffraction particle size analyzer (Shimadzu Said-2001). (c) 2006 Elsevier Ltd. All rights reserved.
Notes: Belkhir, N. Bouzid, D. Herold, V.
URL: <Go to ISI>://WOS:000242523100010

11 **Reference Type: Journal Article**
Record Number: 11
Author: Bellal, T. Brown, F. E.
Year: 2007
Title: Spatial structure of the M'zabite home: Family and gender
Journal: Journal of Architectural and Planning Research
Volume: 24
Issue: 1
Pages: 1-22
Date: Spr
Short Title: Spatial structure of the M'zabite home: Family and gender
ISSN: 0738-0895
Accession Number: WOS:000245600400001

Abstract: This study examines the use of space in the traditional M'zabite dwelling in the Algerian Sahara. Domestic space in the M'zab is typically divided into several distinct zones, where identity is derived mainly from the gender of the occupants. The paper considers the house as a composition of zones of users and seeks to shed light on the configurational properties of these zones. The innovation here is to analyze space as zones of users rather than zones of functions, employing the methodology of space syntax to interrogate the plans and explore the way social ideology may be embedded in spatial genotypes. Analysis of a sample of houses, drawn from the five settlements of the M'zab, shows that the house is transpatially organized, with space structured in accordance with male and female solidarities. The results also show that female zones are well integrated with respect to the dwelling as a whole and not segregated as might be expected. The paper points to the need for a reassessment of the received view of design strategy and suggests an agenda for the development of research in the area of lifestyles in relation to domestic space. The patterns of spatial organization in the houses of the M'zab clearly express social and cultural practice.
Notes: Bellal, Tahar Brown, Frank E.
URL: <Go to ISI>://WOS:000245600400001

Abstract: Composite coatings suitable for protection against corrosion were prepared by electrodeposition of chloride-nickel coating containing silicon carbide particles maintained in the suspension. The Ni-SiC composite coatings showed a better corrosion resistance in 0.6 M NaCl solution and high hardness than nickel, electrodeposited under the same conditions. The coatings deposited were uniform and adherent to the substrates. X-Ray diffraction (XRD) studies showed that the nickel coatings grow with (111) preferred orientation.
Notes: Ben Temam, Hachemi Zeroual, Larbi Chala, Abdelouahad Rahmane, Saad Nouveau, Corinne 1
URL: <Go to ISI>://WOS:000207735200119

Reference Type: Journal Article

Record Number: 13

Author: Benaniba, M. T. Belhaneche-Bensemra, N. Gellbard, G.

Year: 2007

Title: Kinetics of tungsten-catalyzed sunflower oil epoxidation studied by H-1 NMR

Journal: European Journal of Lipid Science and Technology

Volume: 109

Issue: 12

Pages: 1186-1193

Date: Dec

Short Title: Kinetics of tungsten-catalyzed sunflower oil epoxidation studied by H-1 NMR

ISSN: 1438-7697

DOI: 10.1002/ejlt.200700114

Accession Number: WOS:000252207500007

Abstract: Sunflower oil (SO) is a renewable resource that can be epoxidized, and the epoxidized SO has potential uses as an environmentally friendly and reactive material in polymeric formulations, especially for polyvinyl chloride. SO was epoxidized with peracetic acid, which was either preformed or prepared in situ. In order to optimize the formation of oxirane rings, the epoxidation and the extent of the side reactions were studied at different temperatures. The peracetic acid was obtained by acidic catalysis in the presence of a cation-exchange resin. The optimum conversions were obtained within a 4-h reaction period at 55 degrees C by the in situ epoxidation technique. The epoxidation was also carried out with hydrogen peroxide in the presence of peroxotungstic acid complexed with lipophilic phosphorus-based ligands. H-1 NMR was used to define the new indices A and Q, which are the mean numbers of C=C double bonds and oxirane rings per fatty acid chain, respectively. This allowed monitoring of the reaction and quantification of the results. Peroxotungstic catalysts appeared less performing than peracids in the epoxidation of SO, but were found very efficient for the epoxidation of the SO methyl esters.

Notes: Benaniba, Mohamed Tahar Belhaneche-Bensemra, Naima Gellbard, Georges

URL: <Go to ISI>://WOS:000252207500007

Reference Type: Journal Article
Record Number: 14
Author: Benbahouche, L. Merabet, A. Zegadi, A.
Year: 2007
Title: Numerical analysis and comparative study of short circuit stress in IGBTs devices (IR, IXYS)
Journal: Microelectronics Reliability
Volume: 47
Issue: 9-11
Pages: 1773-1778
Date: Sep-Nov
Short Title: Numerical analysis and comparative study of short circuit stress in IGBTs devices (IR, IXYS)
ISSN: 0026-2714
DOI: 10.1016/j.microrel.2007.07.062
Accession Number: WOS:000250604600088

Abstract: In recent years, great progress in the development of new power semiconductor devices has been made and called the insulated gate bipolar transistor (IGBT). It has been widely used in new power electronics application which are adjustable speed motor drives, appliance controls and robotics/numerical controls and was the most commercially advanced devices. The aim of this paper is to present a detailed study and to achieve an improved understanding of commercially available IGBTs of IXYS and International Rectifier subjected to extreme stress. In this paper, we will focus on the simulation of IGBTs (IR and IXYS) under short circuit situation using a design (at first, simple design where an ideal switch is used and secondly a power switch is used) which will require both understanding of underlying physical mechanisms and adequate testing procedures for IGBT. On the other hand, the influence of temperature, short circuit voltage, short circuit pulse duration t(cc) shows to be an important failure mechanisms. However, the relation between basic physical phenomena and the resulting short circuit response deserves more attention. Besides, our approach is an attempt to focalise the behavior study of IGBT of IR and IXYS, where we will try to understand the influence of IGBT structure on aptitude to stain the short circuit and to determine the physical destruction mechanisms. All the simulation results presented in this paper are compared with measurement other structures of IGBTs presented by Calmon [F. Calmon, Participation du comportement electrothermique des IGBTs (Transistor Bipolaire a Grille Isolee), Doctorat. Thesis, INSA Lyon, France, 1995] and identified from studies of the physical description of IGBT structure. (C) 2007 Published by Elsevier Ltd.
Notes: Benbahouche, Ly. Merabet, A. Zegadi, A. 18th European Symposium on Reliability of Electron Devices, Failure Physics and Analysis 2007 Arcachon, FRANCE IEEE Electron Devices Soc, EEE Reliabil Soc Si
URL: <Go to ISI>://WOS:000250604600088

15 **Reference Type: Journal Article**
Record Number: 15
Author: Bencheikh, K. Nieto, L. M.
Year: 2007
Title: On the density profile in Fourier space of harmonically confined ideal quantum gases in d dimensions
Journal: Journal of Physics a-Mathematical and Theoretical
Volume: 40
Issue: 45
Pages: 13503-13510
Date: Nov
Short Title: On the density profile in Fourier space of harmonically confined ideal quantum gases in d dimensions
ISSN: 1751-8113
DOI: 10.1088/1751-8113/40/45/001
Accession Number: WOS:000250687300003
Abstract: Closed-form analytical expressions and asymptotic results are obtained for the density distribution in Fourier space of harmonically trapped fermion gases at zero and nonzero temperatures in d dimensions. The result is applied to weakly interacting Fermi gases and to the elastic scattering from atomic nuclei. The Fourier transform of the momentum density for a d-dimensional harmonic confinement is also found.
Notes: Bencheikh, K. Nieto, L. M.
URL: <Go to ISI>://WOS:000250687300003

Reference Type: Journal Article
Record Number: 16
Author: Bendjeddou, A. Cheurfa, R.
Year: 2007
Title: On the exact limit cycle for some class of planar differential systems
Journal: Nodea-Nonlinear Differential Equations and Applications
Volume: 14
Issue: 5-6
Pages: 491-498
Short Title: On the exact limit cycle for some class of planar differential systems
ISSN: 1021-9722
DOI: 10.1007/s00030-007-4005-8
Accession Number: WOS:000252402400002

Abstract: Inspired by a recent paper of Giacomini et al [3], we give the exact expression of the limit cycles for a class of two-dimensional differential systems. We study also the uniqueness of such limit cycles. An application to Lienard equation and several examples are given at the end.
Notes: Bendjeddou, A. Cheurfa, R.
URL: <Go to ISI>://WOS:000252402400002

Reference Type: Journal Article
Record Number: 17
Author: Benterki, D. Crouzeix, J. P. Merikhi, B.
Year: 2007
Title: A numerical feasible interior point method for linear semidefinite programs
Journal: Rairo-Operations Research
Volume: 41
Issue: 1
Pages: 49-59
Date: Jan-Mar
Short Title: A numerical feasible interior point method for linear semidefinite programs
ISSN: 0399-0559
DOI: 10.1051/ro:2007006
Accession Number: WOS:000245504500004
Abstract: This paper presents a feasible primal algorithm for linear semidefinite programming. The algorithm starts with a strictly feasible solution, but in case where no such a solution is known, an application of the algorithm to an associate problem allows to obtain one. Finally, we present some numerical experiments which show that the algorithm works properly.
Notes: Benterki, Djamel Crouzeix, Jean-Pierre Merikhi, Bachir
URL: <Go to ISI>://WOS:000245504500004

Reference Type: Journal Article
Record Number: 18
Author: Bouafia, A. Krim, F.
Year: 2007
Title: Direct power control of three-phase PWM rectifier based on fuzzy logic controller
Journal: International Review of Electrical Engineering-Iree
Volume: 2
Issue: 1
Pages: 59-67
Date: Jan-Feb
Short Title: Direct power control of three-phase PWM rectifier based on fuzzy logic controller
ISSN: 1827-6660
Accession Number: WOS:000255214100008

Abstract: In this paper, direct power control (DPC) of three-phase PWM rectifiers based on fuzzy logic controller is presented, without line voltage sensors. The instantaneous active and reactive powers, directly controlled by selecting the optimum stale of the converter, are used as the PWM control variables instead of the phase line currents being used The proposed fuzzy logic controller presents the advantage to be based on linguistic description and does not require a mathematical model of the system. The controller ensures a good regulation of the output voltage, and guarantees the power factor close to one, The simulation results show that the designed fuzzy controller has a good dynamic behavior, a good rejection of impact load disturbance, and is very robust Copyright (c) 2007 Praise Worthy Prize S. r. l. - All rights reserved.

Notes: Bouafia, A. Krim, F.
URL: <Go to ISI>://WOS:000255214100008

Reference Type: Journal Article
Record Number: 19
Author: Bouamama, K. Djemia, P.
Year: 2007
Title: Theoretical investigation of the elastic properties and Lattice dynamics of the MgSxSe1-x alloy
Journal: Modern Physics Letters B
Volume: 21
Issue: 5
Pages: 249-259
Date: Feb
Short Title: Theoretical investigation of the elastic properties and Lattice dynamics of the MgSxSe1-x alloy
ISSN: 0217-9849
DOI: 10.1142/s0217984907012621
Accession Number: WOS:000251352700002
Abstract: Structural and elastic properties as well as lattice dynamics of ternary MgSxSe1-x alloy have been studied using first-principles calculations. These are done using density functional theory (DFT) and density functional perturbation theory (DFPT) within the local density approximation (LDA) and employing the virtual-crystal approximation (VCA). We found that the lattice parameters, the elastic constants and the phonon frequencies follow a quadratic law in x.
Notes: Bouamama, K. Djemia, P.
URL: <Go to ISI>://WOS:000251352700002

Reference Type: Journal Article

Record Number: 20

Author: Bouamama, K. Djemia, P. Lebga, N. Kassali, K.

Year: 2007

Title: Ab initio calculation of the lattice dynamics of the boron group-V compounds under high pressure

Journal: High Pressure Research

Volume: 27

Issue: 2

Pages: 269-277

Short Title: Ab initio calculation of the lattice dynamics of the boron group-V compounds under high pressure

ISSN: 0895-7959

DOI: 10.1080/08957950701265359

Accession Number: WOS:000248751300007

Abstract: High-pressure effects on the lattice dynamics and dielectric properties of the BN, BP, BAs, BSb and BBi alloys have been carried out using the density-functional perturbation theory within the local density approximation. We study the variation of the optical phonon frequencies ($\omega(TO)$ and $\omega(LO)$), the high-frequency dielectric coefficient ($\epsilon(\infty)$) and the dynamic effective charge (Z^*) with pressure. The $\omega(TO)$ and $\omega(LO)$ have a quadratic form with pressure for all boron compounds. The obtained $\epsilon(\infty)$ and Z^* for BN, BP remain constant with pressure. However, for BAs, BSb and BBi, $\epsilon(\infty)$ and Z^* have a quadratic form with pressure. Our results are in good agreement with the available experimental data for BN and BP and they allow prediction for BAs, BSb and BBi.

Notes: Bouamama, K. Djemia, P. Lebga, N. Kassali, K.

URL: <Go to ISI>://WOS:000248751300007

Abstract: The title compound, C20H16N2O, obtained from the reaction of benzil with phenylhydrazine, crystallizes with two crystallographically independent and conformationally different molecules in the asymmetric unit. The dihedral angle between the two phenyl rings of the benzil unit is 15.04 (6)degrees in one molecule and 68.81 (5)degrees in the other. The crystal structure is stabilized by N-H center dot center dot center dot O and C-H center dot center dot center dot O intermolecular hydrogen bonds and C-H center dot center dot center dot pi interactions.
Notes: Bouchama, Abdelaziz Bendaas, Abderrahmen Bouacida, Sofiane Yahiaoui, Messaoud Benard-Rocherulle, Patricia Djedouani, Amel 4
URL: <Go to ISI>://WOS:000245436300309

Reference Type: Journal Article
Record Number: 22
Author: Bouchama, A. Bendaas, A. Chiter, C. Beghidja, A. Djedouani, A.
Year: 2007
Title: Bis(3-acetyl-6-methyl-2-oxo-2H-pyran-4-olato)bis(dimethylformamide) copper(II)
Journal: Acta Crystallographica Section E-Structure Reports Online
Volume: 63
Pages: M2397-U1364
Date: Sep
Short Title: Bis(3-acetyl-6-methyl-2-oxo-2H-pyran-4-olato)bis(dimethylformamide) copper(II)
ISSN: 1600-5368
DOI: 10.1107/s1600536807040585
Accession Number: WOS:000249759900126

Abstract: The title compound, [Cu(C8H7O4)(2)(C3H7NO)(2)], is a mononuclear copper(II) complex where the Cu-II atom, lying on an inversion center, is coordinated in elongated octahedral fashion by six O atoms, four from two 3-acetyl-6-methyl-2-oxo-2H-pyran-4-olate ligands in equatorial positions and the remaining two from dimethylformamide molecules in axial positions.

Notes: Bouchama, Abdelaziz Bendaas, Abderrahmen Chiter, Chaabane Beghidja, Adel Djedouani, Amel 9
URL: <Go to ISI>://WOS:000249759900126

Reference Type: Journal Article

Record Number: 23

Author: Bouguettoucha, A. Balannec, B. Nacef, S. Amrane, A.

Year: 2007

Title: A generalised unstructured model for batch cultures of Lactobacillus helveticus

Journal: Enzyme and Microbial Technology

Volume: 41

Issue: 3

Pages: 377-382

Date: Aug

Short Title: A generalised unstructured model for batch cultures of Lactobacillus helveticus

ISSN: 0141-0229

DOI: 10.1016/j.enzmictec.2007.03.005

Accession Number: WOS:000247360900028

Abstract: During lactic acid fermentation, seed cultures are usually carried out without pH control to obtain active cells, while cultures are usually carried out at pH maintained at the optimal value, 5.9, to overcome inhibitory effects. The Luedeking-Piret expression was therefore previously modified by introducing an additional term (i) involving the residual lactose concentration to account for the carbon substrate limitation, responsible for cessation of production during cultures at controlled pH, on one hand; (ii) or involving the undissociated form of the lactic acid, the main inhibitory species, in case of an absence of pH control, narnely the usual seed culture conditions, on the other hand. To avoid the use of two different expressions, depending on the culture conditions, a generalised model for production was developed, involving a unique expression taking into account both a nutritional limitation and an inhibitory effect. The nutritional limitation term was modified by introducing the carbon limitation constant, in place of the residual lactose concentration, which varied in absence of pH control, namely in absence of carbon limitation. The model proved to be satisfactory in a large range of culture conditions; and also allow to deduce accurately the growth- and non-growth-associated parts of the production. (c) 2007 Elsevier Inc. All rights reserved.

Notes: Bouguettoucha, Abdellah Balannec, Beatrice Nacef, Saci Amrane, Abdeltif

URL: <Go to ISI>://WOS:000247360900028

Reference Type: Journal Article
Record Number: 24
Author: Bouguezel, S. Ahmad, M. O. Swamy, M. N. S.
Year: 2007
Title: A general class of split-radix FFT algorithms for the computation of the DFT of length-2(m)
Journal: Ieee Transactions on Signal Processing
Volume: 55
Issue: 8
Pages: 4127-4138
Date: Aug
Short Title: A general class of split-radix FFT algorithms for the computation of the DFT of length-2(m)
ISSN: 1053-587X
DOI: 10.1109/tsp.2007.896110
Accession Number: WOS:000248352800016

Abstract: In this paper, a general class of split-radix fast Fourier transform (FFT) algorithms for computing the length-2(m) DFT is proposed by introducing a new recursive approach coupled with an efficient method for combining the twiddle factors. This enables the development of higher split-radix FFT algorithms from lower split-radix FFT algorithms without any increase in the arithmetic complexity. Specifically, an arbitrary radix-2/2(s) FFT algorithm for any value of s, 4 <= s <= m, is proposed and its arithmetic complexity analyzed. It is shown that the number of arithmetic operations (multiplications plus additions) required by the proposed radix-2/2(s) FFT algorithm is independent of s and is (2m-3)2(m+1) + 8 regardless of whether a complex multiplication is carried out using four multiplications and two additions or three multiplications and three additions. This paper thus provides a variety of choices and ways for computing the length-2(m) DFT with the same arithmetic complexity.
Notes: Bouguezel, Saad Ahmad, M. Omair Swamy, M. N. S.
URL: <Go to ISI>://WOS:000248352800016

Abstract: Reversibly crosslinked isotactic polypropylene (iPP) was prepared in the presence of dicumyl peroxide. The effects of the peroxide oxy-radicals in the melt were investigated in relation to the modification of the polymer. The dynamic rheology analysis of the crosslinking process was carried out by using a plastograph. The crosslinking reaction was evaluated by the Monsanto method. The resulting structure of the modified samples was studied by means of differential scanning calorimetry (DSC), wide-angle X-ray scattering (WAXS), microhardness, and mechanical properties. The degree of crystallinity of the modified iPP, derived from DSC and WAXS, remains almost unchanged, i.e., the crystalline structure is unaffected, though the lamellar thickness slightly decreases. The impact strength of the crosslinked iPP is greatly improved with reference to that of the unmodified material. A transition from brittle to ductile behavior appears in the modified iPP for all the crosslinking agents studied. (c) 2006 Wiley Periodicals, lnc.

Reference Type: Journal Article
Record Number: 26
Author: Bouhemadou, A. Khenata, R.
Year: 2007
Title: Calculated structural, elastic and electronic properties of SiX2O4 (X = Mg, Zn, Cd) compounds under pressure
Journal: Modelling and Simulation in Materials Science and Engineering
Volume: 15
Issue: 7
Pages: 787-798
Date: Oct
Short Title: Calculated structural, elastic and electronic properties of SiX2O4 (X = Mg, Zn, Cd) compounds under pressure
ISSN: 0965-0393
DOI: 10.1088/0965-0393/15/7/006
Accession Number: WOS:000250140200006

Abstract: Using first-principles density functional calculations, the effect of high pressures, up to 30 GPa, on the structural, elastic and electronic properties of SiX2O4, with X = Mg, Zn and Cd, was studied by means of the pseudo-potential plane-waves method. We used both the local density approximation and the generalized gradient approximation to the exchange-correlation approximation energy. The results of bulk properties, including lattice constants, internal parameters, bulk modulus and derivatives, are obtained. The elastic constants and their pressure dependence are calculated using the static finite strain technique. We derived the bulk modulus, shear modulus, Young's modulus and Poisson's ratio for ideal polycrystalline SiX2O3 aggregates. We estimated the Debye temperature of SiX(2)O4 from the average sound velocity. Band structure, density of states and press(u)re coefficients of some gaps are also given. This is the first quantitative theoretical prediction of the elastic and electronic properties of SiMg2O4, SiZn2O4 and SiCd2O4 compounds, and still awaits experimental confirmation.
Notes: Bouhemadou, A. Khenata, R.
URL: <Go to ISI>://WOS:000250140200006

Abstract: Using first-principles density functional calculations, the effect of high pressures, up to 20 GPa, on the structural and elastic properties of M2GaC, with M=Ti, V, Nb, and Ta, were studied by means of the pseudopotential plane-waves method. Calculations were performed within the local density approximation to the exchange-correlation approximation energy. The lattice constants and the internal parameters are in agreement with the available results. The elastic constants and their pressure dependence are calculated using the static finite strain technique. We derived the bulk and shear moduli, Young's moduli, and Poisson's ratio for ideal polycrystalline M2GaC aggregates. We estimated the Debye temperature of M2GaC from the average sound velocity. This is a quantitative theoretical prediction of the elastic properties of Ti2GaC, V2GaC, Nb2GaC, and Ta2GaC compounds and it still awaits experimental confirmation. (c) 2007 American Institute of Physics.

Reference Type: Journal Article
Record Number: 28
Author: Bouhemadou, A. Khenata, R.
Year: 2007
Title: Ab initio study of the structural, elastic, electronic and optical properties of the antiperovskite SbNMg3
Journal: Computational Materials Science
Volume: 39
Issue: 4
Pages: 803-807
Date: Jun
Short Title: Ab initio study of the structural, elastic, electronic and optical properties of the antiperovskite SbNMg3
ISSN: 0927-0256
DOI: 10.1016/j.commatsci.2006.10.003
Accession Number: WOS:000247516700010
Abstract: A theoretical study of structural, elastic, electronic and optical properties of the cubic antiperovskite SbNMg3 is presented using the pseudo-potential plane wave method (PP-PW) within the generalized gradient approximation (GGA). Results are given for lattice constant, elastic constants and their pressure dependence. Band structure, density of states and pressure coefficients of energy gaps are also given. Furthermore, the optical reflectivity, refractive index, extinction coefficient, dielectric function and electron energy loss are calculated for radiation up to 30 eV. The results are compared with the available theoretical and experimental data. (C) 2006 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A. Khenata, R.
URL: <Go to ISI>://WOS:000247516700010

29 **Reference Type:** **Journal Article**
Record Number: 29
Author: Bouhemadou, A. Khenata, R.
Year: 2007
Title: First-principles studies of pressure dependence of elastic and electronic properties in filled tetrahedral semiconductors LiMgX (X = N, P, and As)
Journal: Journal of Physics and Chemistry of Solids
Volume: 68
Issue: 4
Pages: 549-555
Date: Apr
Short Title: First-principles studies of pressure dependence of elastic and electronic properties in filled tetrahedral semiconductors LiMgX (X = N, P, and As)
ISSN: 0022-3697
DOI: 10.1016/j.jpcs.2007.01.022
Accession Number: WOS:000246739300011

Abstract: The elastic and electronic properties of the filled tetrahedral semiconductors LiMgX (X = N, P, As) under pressure effect have been investigated using the pseudo-polential plane wave method within density functional theory. The equilibrium lattice constant of LiMgX compounds were calculated. A numerical first-principles calculation of the elastic constants was used to calculate C-11, C-12, C-44 and their pressure derivatives. Band structure, density of states and pressure dependence of band gaps were investigated. The results are compared with the available theoretical and experimental data. (c) 2007 Elsevier Ltd. All rights reserved.
Notes: Bouhemadou, A. Khenata, R.
URL: <Go to ISI>://WOS:000246739300011

30 **Reference Type: Journal Article**
Record Number: 30
Author: Bouhemadou, A. Khenata, R.
Year: 2007
Title: Ab initio study of structural phase stability and elastic properties of ScSb and YSb under pressure effect
Journal: Physics Letters A
Volume: 362
Issue: 5-6
Pages: 476-479
Date: Mar
Short Title: Ab initio study of structural phase stability and elastic properties of ScSb and YSb under pressure effect
ISSN: 0375-9601
DOI: 10.1016/j.physleta.2006.10.054
Accession Number: WOS:000245382300028

Abstract: A theoretical studies of structural, elastic and high pressure properties in MSb (M = Sc, Y) are performed, using the full-potential augmented plane wave plus local orbitals method (FP-APW + lo). The equilibrium lattice constant and the bulk modulus agree well with the experiments. The pressures at which these compounds undergo structural phase transition from NaCl (B1) to CsCl (B2) phase were found to be in good agreement with the available experimental data. We have determined the elastic constants C-11, C-12 and C-44 at zero pressure in both B1 and B2 structures, which have not been established neither experimentally nor theoretically. Further, we have also calculated the pressure dependence of the elastic constants. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A. Khenata, R.
URL: <Go to ISI>://WOS:000245382300028

Abstract: Using first-principles density functional calculations, the effect of high pressures, up to 20 GPa, on the structural and elastic properties of Zr2AlX and Ti2AlX, with X = C and N, were studied by means of the pseudo-potential plane-waves method. Calculations were performed within the local density approximation to the exchange-correlation approximation energy. The lattice constants and the internal parameters are in agreement with the available results. The elastic constants and their pressure dependence are calculated using the static finite strain technique. We derived the bulk and shear moduli, Young's moduli and Poisson's ratio for ideal polycrystalline Zr2AlX and Ti2AlX aggregates. We estimated the Debye temperature of Zr2AlX and Ti2AlX from the average sound velocity. This is the first quantitative theoretical prediction of the elastic properties of Zr2AlC, Zr2AlN and Ti2AlN compounds, and it still awaits experimental confirmation.
Notes: Bouhemadou, A. Khenata, R. Chegaar, M.
URL: <Go to ISI>://WOS:000246277300006

Abstract: The density functional theory (DFT) calculations of structural, elastic, electronic and optical properties of the cubic antiperovskite AsNMg3 has been reported using the pseudo-potential plane wave method (PP-PW) within the generalized gradient approximation (GGA). The equilibrium lattice, bulk modulus and its pressure derivative have been determined. The elastic constants and their pressure dependence are calculated using the static finite strain technique. We derived the bulk and shear moduli, Young's modulus and Poisson's ratio for ideal polycrystalline AsNMg3 aggregate. We estimated the Debye temperature of AsNMg3 from the average sound velocity. This is the first quantitative theoretical prediction of the elastic properties of AsNMg3 compound, and it still awaits experimental confirmation. Band structure, density of states and pressure coefficients of energy gaps are also given. The fundamental band gap (F-F) initially increases up to 4 GPa and then decreases as a function of pressure. Furthermore, the dielectric function, optical reflectivity, refractive index, extinction coefficient, and electron energy loss are calculated for radiation up to 30 eV. The all results are compared with the available theoretical and experimental data. (c) 2007 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A. Khenata, R. Chegaar, M. Maabed, S.
URL: <Go to ISI>://WOS:000251498900014

Reference Type: Journal Article
Record Number: 33
Author: Bouhemadou, A. Khenata, R. Rached, D. Zerarga, F. Maamache, M.
Year: 2007
Title: Structural, electronic and optical properties of spinel oxides: cadmium gallate and cadmium indate
Journal: European Physical Journal-Applied Physics
Volume: 38
Issue: 3
Pages: 203-210
Date: Jun
Short Title: Structural, electronic and optical properties of spinel oxides: cadmium gallate and cadmium indate
ISSN: 1286-0042
DOI: 10.1051/epjap:2007094
Accession Number: WOS:000247671500002

Abstract: The structural, electronic and optical properties of two principal representatives of spinel oxides $CdGa_2O_4$ and $CdIn_2O_4$ have been investigated using the full-potential augmented plane-wave plus local orbitals method within density functional theory. We used the generalized gradient approximation (GGA) for the exchange-correlation (XC) potential. Moreover, the alternative form of GGA proposed by Engel and Vosko (GGA-EV) is also used for the band structure calculations. The equilibrium lattice constants and the internal parameters are in agreement with the available experimental results. Results obtained for band structure using GGA-EV show a significant improvement over other theoretical work and are closer to the experimental data. The pressure dependence of band gaps is investigated. The dielectric function, reflectivity spectra and refractive index are calculated up to 50 eV. Pressure and volume dependence of the static refractive index have been also calculated.
Notes: Bouhemadou, A. Khenata, R. Rached, D. Zerarga, F. Maamache, M.
URL: <Go to ISI>://WOS:000247671500002

Reference Type: Journal Article
Record Number: 34
Author: Bouhemadou, A. Khenata, R. Zerarga, F.
Year: 2007
Title: Prediction study of structural and elastic properties under pressure effect of CdX2O4 (X = Al, Ga, In) spinel oxides
Journal: Computational Materials Science
Volume: 39
Issue: 3
Pages: 709-712
Date: May
Short Title: Prediction study of structural and elastic properties under pressure effect of CdX2O4 (X = Al, Ga, In) spinel oxides
ISSN: 0927-0256
DOI: 10.1016/j.commatsci.2006.09.002
Accession Number: WOS:000247056700028
Abstract: First principle calculations of structural and elastic properties of CdAl2O4, CdGa2O4 and CdIn2O4 compounds are presented, using the pseudo-potential plane-waves approach based on density functional theory, within the generalized gradient approximation GGA. The lattice constants and internal parameters are in good agreement with the available experimental results. Young modulus, Poisson ratio, bulk modulus, elastic constants and their pressure dependence are also calculated. Since, the elastic constants and their pressure derivatives of these compounds have not yet been established theoretically or experimentally, our results can serve as a prediction for future investigations. (C) 2006 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A. Khenata, R. Zerarga, F.
URL: <Go to ISI>://WOS:000247056700028

Reference Type: Journal Article
Record Number: 35
Author: Bouhemadou, A. Khenata, R. Zerarga, F.
Year: 2007
Title: Ab initio study of the structural and elastic properties of spinels MgX2O4 (X = Al, Ga, In) under pressure
Journal: European Physical Journal B
Volume: 56
Issue: 1
Pages: 1-5
Date: Mar
Short Title: Ab initio study of the structural and elastic properties of spinels MgX2O4 (X = Al, Ga, In) under pressure
ISSN: 1434-6028
DOI: 10.1140/epjb/e2007-00003-1
Accession Number: WOS:000245449900001

Abstract: We perform ab initio calculations using a pseudo-potential plane-wave method based on density functional theory, within the local density approximation and generalized gradient approximation, in order to determine and predict the pressure dependence of structural and elastic properties of spinel compounds: MgAl2O4, MgGa2O4 and MgIn2O4. The results are in agreement with the available experimental data and other theoretical calculations.
Notes: Bouhemadou, A. Khenata, R. Zerarga, F.
URL: <Go to ISI>://WOS:000245449900001

36 **Reference Type: Journal Article**
Record Number: 36
Author: Bouhemadou, A. Khenata, R. Zerarga, F.
Year: 2007
Title: Prediction study of elastic properties under pressure effect for filled tetrahedral semiconductors LiZnN, LiZnP and LiZnAs
Journal: Solid State Communications
Volume: 141
Issue: 5
Pages: 288-291
Date: Feb
Short Title: Prediction study of elastic properties under pressure effect for filled tetrahedral semiconductors LiZnN, LiZnP and LiZnAs
ISSN: 0038-1098
DOI: 10.1016/j.ssc.2006.10.034
Accession Number: WOS:000243798300011
Abstract: First principle calculations of elastic properties under pressure of the filled tetrahedral semiconductors LiZnN, LiZnP and LiZnAs are presented, using the pseudo-potential plane-waves approach based on density functional theory, within the local density approximation. Elastic constants, bulk modulus, Young's modulus and Poisson's ratio are calculated at zero pressure. A linear dependence of the bulk modulus and elastic constants with applied pressure is found. As the experimental elastic constants are not available for LiZnX, we have also calculated the elastic constants of GaN, GaP and GaAs, the binary analogues of LiZnN, LiZnP and LiZnAs, respectively, for checking the reliability and accuracy of our predicted results for LiZnX. The obtained results agree well with the available experimental data. (C) 2006 Elsevier Ltd. All rights reserved.
Notes: Bouhemadou, A. Khenata, R. Zerarga, F.
URL: <Go to ISI>://WOS:000243798300011

Reference Type: Journal Article
Record Number: 37
Author: Boumaza, M. Lamari, S.
Year: 2007
Title: Elastic scattering of holes by acoustic phonons in thin GaAs/GaAlAs quantum wells
Journal: Superlattices and Microstructures
Volume: 41
Issue: 4
Pages: 256-263
Date: Apr
Short Title: Elastic scattering of holes by acoustic phonons in thin GaAs/GaAlAs quantum wells
ISSN: 0749-6036
DOI: 10.1016/j.spmi.2007.01.004
Accession Number: WOS:000247315900006

Abstract: The rates of scattering by acoustic phonons $y(i \to j)$ from subband $i \to j$ are calculated for holes in a narrow GaAs quantum well using the deformation potential, the Luttinger hamiltonian and the Debye approximation. At room temperature, we find that the energy dependences for both intra- and inter-subband scattering rates follow roughly the behavior of the density of states in the subband to which the hole scatters. Moreover, we study the influence of the overlap between the initial and final states, and for elastic processes we find that, unlike for the case of wide quantum wells, for narrow ones integration over the phonon transverse wavevector $q(z)$ should be restricted to about 4% of the bulk Brillouin zone extent. In addition the impact of the well width on $y(i \to j)$ is investigated. (C) 2007 Elsevier Ltd. All rights reserved.
Notes: Boumaza, Mohamed Lamari, Saadi
URL: <Go to ISI>://WOS:000247315900006

Reference Type: Journal Article
Record Number: 38
Author: Bouriche, H. Salavei, P. Lessig, J. Arnhold, J.
Year: 2007
Title: Differential effects of flavonols on inactivation of alpha(1)-antitrypsin induced by hypohalous acids and the myeloperoxidase-hydrogen peroxide-halide system
Journal: Archives of Biochemistry and Biophysics
Volume: 459
Issue: 1
Pages: 137-142
Date: Mar
Short Title: Differential effects of flavonols on inactivation of alpha(1)-antitrypsin induced by hypohalous acids and the myeloperoxidase-hydrogen peroxide-halide system
ISSN: 0003-9861
DOI: 10.1016/j.abb.2006.10.030
Accession Number: WOS:000244846600017
Abstract: alpha(1)-Antitrypsin is well known for its ability to inhibit human neutrophil elastase. Pretreatment of alpha(1)-antitrypsin with hypohalous acids HOCl and HOBr as well as with the myeloperoxidase-hydrogen peroxide-chloride (or bromide) system inactivated this proteinase. The flavonols rutin, quercetin, myricetin, and kaempferol inhibited the inactivation of alpha(1)-antitrypsin by HOCl and HOBr with rutin having the most pronounced effect. In contrast, these flavonols did not remove the proteinase inactivation by the myeloperoxidase-hydrogen peroxide-halide system. Taurine did not protect against the inactivation of alpha(1)-antitrypsin by HOCl, HOBr, or the myeloperoxidase-hydrogen peroxide-halide system, while methionine was efficient in all systems. A close association between myeloperoxidase and alpha(1)-antitrypsin was revealed by native gel electrophoresis and in-gel peroxidase staining. In addition, alpha(1)-antitrypsin binds to the myeloperoxidase components transferred after SDS-PAGE on a blotting membrane. With this complex formation, myeloperoxidase overcomes the natural antioxidative protective system of plasma and prevents the inactivation of alpha(1)-antitrypsin. (c) 2006 Elsevier Inc. All rights reserved.
Notes: Bouriche, Hamama Salavei, Pavel Lessig, Jacqueline Arnhold, Juergen
URL: <Go to ISI>://WOS:000244846600017

Abstract: This paper presents a new technique for the evaluation of the parameters of illuminated solar cell with a single diode lumped circuit model and considering the series and shunt resistances. This method includes the presentation of the standard $I=f(V)$ function as $V=f(I)$ and the determination of the factors C-0, C-1, C-2 of this function that provide the calculation of the illuminated solar cell parameters. These parameters are usually the saturation current (I-s), the series resistance (R-s), the ideality factor (n), the shunt conductance (G(sh) = 1/R-sh) and the photocurrent (I-ph). Parameter values were extracted using the present method from experimental I-V characteristics of commercial solar cells and modules. The method proposed below appears to be accurate even in the presence of noise and/or random errors during measurement and it needs no a prior knowledge of the parameters compared to other methods. (C) 2007 Elsevier B.V. All rights reserved.
Notes: Bouzidi, K. Chegaar, M. Bouhemadou, A.
URL: <Go to ISI>://WOS:000249898100001

Reference Type: Journal Article
Record Number: 40
Author: Bouzit, N. Fornies-Marquina, J. M. Benhamouda, A. Bourouba, N.
Year: 2007
Title: Modelling and dielectric behavior of ternary composites of epoxy (BaTiO3/CaTiO3)
Journal: European Physical Journal-Applied Physics
Volume: 38
Issue: 2
Pages: 147-152
Date: May
Short Title: Modelling and dielectric behavior of ternary composites of epoxy (BaTiO3/CaTiO3)
ISSN: 1286-0042
DOI: 10.1051/epjap:2007063
Accession Number: WOS:000246870600007
Abstract: The aim of this article is to explore materials made of polymer-titanate composites for application towards the size reduction of high frequency electronic components. A study has therefore been done on the dielectric effect of composites made of an epoxy matrix loaded with a mixture of barium titanate and calcium titanate. The effects have been quanti. ed according to volume fraction of load. Results obtained from time domain reflectometry have been compared to modelling predictions from the generalized Lichtenecker law. Low frequency analysis (in the range DC - 500 MHz) has also been performed throughout this work, and it has primarily concentrated on conductivity behaviour which may be attributed to the effects of a percolation process. The study has confirmed the validity of the ternary mixture law being applied in order to predict the electromagnetic behaviour of the composite material. This material family may therefore. nd use in microelectronic applications and in the miniaturization of circuit components (substrates, components, cavities, antennas, etc.).
Notes: Bouzit, N. Fornies-Marquina, J. M. Benhamouda, A. Bourouba, N.
URL: <Go to ISI>://WOS:000246870600007

Abstract: We report new coplanar measurements of the (e,2e) TDCS for the ionisation of helium Is-shell and argon 3p- and 2p-shells. The kinematics employed remained rather unexplored to date, and could be investigated here using an improved version of our multi-angle (e,2e) spectrometer, with increased sensitivity. The results are discussed in the light of state-of-the-art theoretical models. (c) 2007 Elsevier B.V. All rights reserved.
Notes: Casagrande, E. M. Staicu Catoire, F. Naja, A. Ren, X. G. Lahmam-Bennani, A. Nekkab, M. Dal Cappello, C. Bartschat, K. Whelan, C. T. International Conference on Many Particle Spectroscoph of Atoms, Molecules, Clusters and Surfaces Jun 22-24, 2006 Rome, ITALY
URL: <Go to ISI>://WOS:000250688500007

Reference Type: Journal Article
Record Number: 42
Author: Chabou, M. C. Sebai, A. Feraud, G. Bertrand, H.
Year: 2007
Title: Ar-40/Ar-39 dating of the central atlantic magmatic province (CAMP) in southwestern Algeria
Journal: Comptes Rendus Geoscience
Volume: 339
Issue: 16
Pages: 970-978
Date: Dec
Short Title: Ar-40/Ar-39 dating of the central atlantic magmatic province (CAMP) in southwestern Algeria
ISSN: 1631-0713
DOI: 10.1016/j.crte.2007.09.011
Accession Number: WOS:000251997800003

Abstract: Ar-40/Ar-39 step-heating analyses performed on plagioclase separates from seven doleritic basalts (four sills, one dyke and two lava flows) from southwestern Algeria display disturbed age spectra, reflecting various contributions of alteration by sericite and/or excess argon. Weighted mean ages corresponding to the less altered plagioclase fractions yielded minimum ages ranging from 192.7 +/- 3.0 to 197.9 +/- 2.0 Ma and a minimum date of 198.9 +/- 1.8 Ma was obtained on a saddle-shaped age spectrum (excess argon). These ages are in accordance with those previously obtained on the CAMP province and partly in agreement with the peak activity of the CAMP at 198 Ma, highlighted in the neighbouring Taoudenni basin (Mali). In Algeria, the eastern boundary of the CAMP seems to coincide with the Pan-African suture zone.
Notes: Chabou, Moulley Charaf Sebai, Amar Feraud, Gilbert Bertrand, Herve
URL: <Go to ISI>://WOS:000251997800003

Abstract: Fuzzy modelling is an important topic in fuzzy sets theory and applications. An efficient method for automatically constructing a Takagi-Sugeno (TS) fuzzy model, where only the input-output data of the identified system are available, is presented. The TS fuzzy model is automatically generated by the process of structure and parameter identification. In the structure identification step, a clustering method based on the Gustafson-Kessel algorithm is proposed. In the parameter identification step, the Kalman filter algorithm is applied twice to choose the parameter values in the premise and consequent parts from the given membership functions defined point-wise and from input-output data. The effectiveness of this approach is demonstrated using two examples.
Notes: Chafaa, K. Ghanai, M. Benmahammed, K.
URL: <Go to ISI>://WOS:000245667400008

44 **Reference Type:** Journal Article
Record Number: 44
Author: Chaoui, A. Gaubert, J. P. Krim, F. Champenois, G.
Year: 2007
Title: PI controlled three-phase shunt active power filter for power quality improvement
Journal: Electric Power Components and Systems
Volume: 35
Issue: 12
Pages: 1331-1344
Short Title: PI controlled three-phase shunt active power filter for power quality improvement
ISSN: 1532-5008
DOI: 10.1080/15325000701426062
Accession Number: WOS:000250007300004
Abstract: The simulation and experimental study of proportional integrator (PI) controlled DC bus voltage of three phase shunt active power filter (APF) to improve power quality by compensating harmonics and reactive power required by nonlinear load is proposed. The compensation process is based on sensing mains currents only, an approach different from conventional methods, which usually require harmonics or reactive volt- ampere values of the load. The non- sinusoidal mains voltage problem is resolved by using phase locked loop (PLL) system. Pulse width modulation (PWM) signal generation is based on hysteresis control comparators to obtain the switching signals. u Various simulation and experimental results are presented under steady state and transient conditions.
Notes: Chaoui, Abdelmadjid Gaubert, Jean Paul Krim, Fateh Champenois, Gerard
URL: <Go to ISI>://WOS:000250007300004

Reference Type: Journal Article
Record Number: 45
Author: Cherbal, O. Drir, M. Maamache, M. Trifonov, D. A.
Year: 2007
Title: Fermionic coherent states for pseudo-Hermitian two-level systems
Journal: Journal of Physics a-Mathematical and Theoretical
Volume: 40
Issue: 8
Pages: 1835-1844
Date: Feb
Short Title: Fermionic coherent states for pseudo-Hermitian two-level systems
ISSN: 1751-8113
DOI: 10.1088/1751-8113/40/8/010
Accession Number: WOS:000245026300013

Abstract: We introduce creation and annihilation operators of pseudo-Hermitian fermions for two-level systems described by a pseudo-Hermitian Hamiltonian with real eigenvalues. This allows the generalization of the fermionic coherent states approach to such systems. Pseudo-fermionic coherent states are constructed as eigenstates of two pseudo-fermion annihilation operators. These coherent states form a bi-normal and bi-overcomplete system, and their evolution governed by the pseudo-Hermitian Hamiltonian is temporally stable. In terms of the introduced pseudo-fermion operators, the two-level system Hamiltonian takes a factorized form similar to that of a harmonic oscillator.
Notes: Cherbal, O. Drir, M. Maamache, M. Trifonov, D. A.
URL: <Go to ISI>://WOS:000245026300013

Reference Type: Journal Article
Record Number: 46
Author: Cherif, S. M. Layadi, A. Ben Youssef, J. Nacereddine, C. Roussigne, Y.
Year: 2007
Title: Study of the magnetic anisotropy in Ni/Cu and Ni/glass thin films
Journal: Physica B-Condensed Matter
Volume: 387
Issue: 1-2
Pages: 281-286
Date: Jan
Short Title: Study of the magnetic anisotropy in Ni/Cu and Ni/glass thin films
ISSN: 0921-4526
DOI: 10.1016/j.physb.2006.04.037
Accession Number: WOS:000243886100045

Abstract: The magnetic properties of evaporated Ni/Cu and Ni/glass thin films have been investigated by means of the vibrating sample magnetometer (VSM), the Brillouin light scattering (BLS) and magnetic force microscopy (MFM). The Ni thickness, t, ranges from 31 to 165 nm. The second- and fourth-order magnetic anisotropy constants, K_1 and K_2, have been included; for the Ni/Cu series, K_1 was found to decrease from $1.0 \times 10(6)$ to $0.18 \times 10(6)$ erg/cm(3) as t increases from 31 to 165 nm, while K increased from $0.24 \times 10(6)$ to $0.8 \times 10(6)$ erg/cm(3). Over all the thickness range, the magnetization easy axis is in plane. For thinner films, there is a good agreement between anisotropy constant values inferred from VSM and BLS. Stripe domains were observed for $t >= 165$ mn in Ni/glass and $t >= 90$ nm in Ni/Cu. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Cherif, S. -M. Layadi, A. Ben Youssef, J. Nacereddine, C. Roussigne, Y.
URL: <Go to ISI>://WOS:000243886100045

Reference Type: Journal Article
Record Number: 47
Author: Dahia, M. Laouer, H. Chaker, A. N. Prado, S. Meierhenrich, U. J. Baldovini, N.
Year: 2007
Title: Chemical composition and antibacterial activity of Pituranthos chloranthus volatile oil
Journal: Natural Product Communications
Volume: 2
Issue: 11
Pages: 1159-1162
Short Title: Chemical composition and antibacterial activity of Pituranthos chloranthus volatile oil
ISSN: 1934-578X
Accession Number: WOS:000251248900023
Abstract: The chemical composition of the essential oil of Pituranthos chloranthus ssp. cossonianus Maire (Apiaceae) was investigated by gas chromatography (GC) and gas chromatography-mass spectrometry (GC-MS) to reveal 54 compounds. The main constituents were myristicine (27.4%), limonene (15.8%), alpha-pinene (11.4%), and alpha-phellandrene (8.3%). The antibacterial activity of the oil was evaluated against several strains and was shown to be significant against Pseudomonas aeruginosa.
Notes: Dahia, Mostepha Laouer, Hocine Chaker, Adel N. Prado, Soizic Meierhenrich, Uwe J. Baldovini, Nicolas
URL: <Go to ISI>://WOS:000251248900023

Reference Type: Journal Article
Record Number: 48
Author: Djabi, S. Boudoukha, H. Djabi, M.
Year: 2007
Title: Optical bistability in a laser containing a saturable absorber
Journal: Annales De Physique
Volume: 32
Issue: 2-3
Pages: 63-65
Short Title: Optical bistability in a laser containing a saturable absorber
ISSN: 0003-4169
DOI: 10.1051/anphys:2008008
Accession Number: WOS:000256153700009
Abstract: In this work, the theory of optical bistability for the homogeneously broadening of a nonlinear absorber inside Fabry-Perot interferometer is treated. The theoretical influence of the resonator losses on the optical bistability is examined mainly in the cases for which losses depend on both the mode frequency and the density of photons. On the basis of the Rate Equation Approach (REA), we analytically and numerically solved this type of equation for stationary case.
Notes: Djabi, S. Boudoukha, H. Djabi, M. 10th Colloquium on Lasers and Quantum Optics (COLOQ 10) Jul 02-05, 2007 Grenoble, FRANCE
URL: <Go to ISI>://WOS:000256153700009

Abstract: The title compound, C15H15NO3, derived from the condensation of dehydroacetic acid and p-toluidine, crystallizes in a zwitterionic form with cationic iminium and anionic enolate groups, which complete a six-membered pseudocycle via an intramolecular N-H center dot center dot center dot O hydrogen bond. C-H center dot center dot center dot O interactions link the molecules into a two-dimensional network.
Notes: Djedouani, Amel Bendaas, Abderrahmen Boufas, Sihem Allain, Magali Bouet, Gilles Khan, Mustayeen 3
URL: <Go to ISI>://WOS:000245434500209

Reference Type: Journal Article
Record Number: 50
Author: Djemia, P. Tetard, F. Bouamama, K. Charron, E. Tetard, D. Rabinovitch, Y.
Year: 2007
Title: Elasticity and lattice vibrational properties of transparent polycrystalline yttrium-aluminium garnet: Experiments and pair potential calculations
Journal: Journal of the European Ceramic Society
Volume: 27
Issue: 16
Pages: 4719-4725
Short Title: Elasticity and lattice vibrational properties of transparent polycrystalline yttrium-aluminium garnet: Experiments and pair potential calculations
ISSN: 0955-2219
DOI: 10.1016/j.jeurceramsoc.2007.02.216
Accession Number: WOS:000251803600035
Abstract: Brillouin light scattering, Raman light scattering and visible-infrared reflectometry techniques have been used to investigate, respectively, the elastic properties, the phonons and the optical properties of bulk textured polycrystalline yttrium-aluminum garnet doped with 2 at% neodymium obtained by the sintering of commercial oxides. From the analysis of the observed bulk longitudinal and transverse acoustic modes with the knowledge of the refractive index 1.81 inferred from the visible reflectometry, the two independent effective elastic constants of the isotropic polycrystal $C_{11} = 362$ GPa and $(C_{11} - C_{12})/2 = 121$ GPa are determined leading to the value of the bulk modulus $B = (C_{11} + 2C_{12})/3 = 200$ GPa. The ratio $\epsilon(0)/\epsilon(\infty) = 3.1$ and the optic permittivity $\epsilon(\infty) = 3.46$ are derived from the infrared reflectivity data. Pair potential calculations of the three single crystal elastic constants $c_{11} = 340$, $c_{12} = 127$ and $c_{44} = 112$ GPa, of the bulk modulus $B = (c_{11} + 2c_{12})/3 = 198$ GPa, of the zone-center (Gamma) phonons and of the permittivity function provide good comparison with our experimental results. (C) 2007 Elsevier Ltd. All rights reserved.
Notes: Djemia, P. Tetard, F. Bouamama, K. Charron, Eric Tetard, D. Rabinovitch, Y.
URL: <Go to ISI>://WOS:000251803600035

Abstract: Composites from PVC and chemically treated olive pomace have been prepared. The effect of the incorporation of virgin and benzylated olive pomace in the poly(vinyl chloride) matrix on dielectric, mechanical and thermal stability properties, of /olive pomace composites was studied. The mechanical properties of the benzylated composites were improved. Furthermore, the thermal characterization of the different samples carried out by thermogravimetric analysis revealed an increase in the onset temperatures of decomposition for the treated composites. The dielectric investigation indicated that the samples containing olive pomace treated with the benzyl chloride can be used in electrical applications as insulators.
Notes: Djidjelli, H. Benachour, D. Boukerrou, A. Zefouni, O. Martinez-Vega, J. Farenc, J. Kaci, M.
URL: <Go to ISI>://WOS:000206190200011

Abstract: Mechanical property changes, thermal stability, and water absorption capacity of poly(vinyl chloride) (PVC)/sisal fiber composites were assessed with respect to the effect of maleic anhydride chemical treatments of the sisal fiber, for five different sisal fiber contents, varying from 0 to 30% by weight in the composite. The composites prepared with the untreated sisal exhibited higher tensile modulus and hardness than the unloaded resin, while elongation and tensile strength were reduced. The deterioration in the mechanical properties of PVC blended with sisal fiber is attributed to the presence of moisture, interfacial defects at the fiber and polymer interface, and fiber dispersion in the PVC matrix. The amount of absorbed water is a function of the amount of fiber in the composite (F0 = 0 phr, F5 = 0.77 phr, and F20 = 4.83 phr). The comparison of the results of characterization of F5, F20, and F30 formulations prepared with the untreated fibers and the treated ones showed a reduction in absorbed water after the chemical treatment of fiber with maleic anhydride (170 0 phr, F5 = 0.28 phr, and F20 = 2.99 phr), thus improving the mechanical properties of composites prepared with the treated sisal. (c) 2006 Wiley Periodicals, Inc.
Notes: Djidjelli, Hocine Boukerrou, A. Founas, R. Rabouhi, A. Kaci, M. Farenc, J. Martinez-Vega, Juan-Jorge Benachour, Djafer
URL: <Go to ISI>://WOS:000243982000024

Reference Type: Journal Article
Record Number: 53
Author: Elamri, A. Lallam, A. Harzallah, O. Bencheikh, L.
Year: 2007
Title: Mechanical characterization of melt spun fibers from recycled and virgin PET blends
Journal: Journal of Materials Science
Volume: 42
Issue: 19
Pages: 8271-8278
Date: Oct
Short Title: Mechanical characterization of melt spun fibers from recycled and virgin PET blends
ISSN: 0022-2461
DOI: 10.1007/s10853-007-1590-1
Accession Number: WOS:000248302000044
Abstract: In this study two Poly (Ethylene Terephthalate) (PET) polymers obtained from mineral water bottles and a virgin fiber grade PET polymer were investigated. In order to improve their properties when reprocessed at high temperatures, recycled polymers were blended with virgin one. Thermal and rheological properties of extruded recycled/virgin (PET-V/R) blends showed a good microstructural stability compared to extruded pure recycled polymers. Mechanical behaviour of melt spun fibers obtained from recycled/virgin blends were investigated in static (tensile) and dynamic (DMA) modes and gave interesting properties. Fatigue failure of fibers was also studied and resulting fracture morphologies were analysed by Scanning Electron microscopy (SEM).
Notes: Elamri, A. Lallam, A. Harzallah, O. Bencheikh, L.
URL: <Go to ISI>://WOS:000248302000044

Reference Type: Journal Article
Record Number: 54
Author: Erani, P. Cristofolini, L. Baleani, M. Bignozzi, M. C. Cotifava, M. Ihaddadene, N. Tomei, F. Viceconti, M.
Year: 2007
Title: Quantitative crack surface morphology of bone cements in relation to propagation rate
Journal: Fatigue & Fracture of Engineering Materials & Structures
Volume: 30
Issue: 9
Pages: 783-795
Date: Sep
Short Title: Quantitative crack surface morphology of bone cements in relation to propagation rate
ISSN: 8756-758X
DOI: 10.1111/j.1460-2695.2007.01152.x
Accession Number: WOS:000248961600001

Abstract: Morphology of the crack surface of surgical bone cements has seldom been studied in the past despite the clinical relevance of cement failure. Previous studies on a specific cement type suggest that crack morphology depends on crack propagation rate. The objectives of this work were: (i) to develop a quantitative indicator for describing crack morphology; and (ii) to assess if dependency on crack-propagation rate is affected by cement formulation. Known crack surfaces were obtained from specimens under controlled loading conditions. Crack surface roughness was measured for different crack-propagation rates, and compared against the amount of cleaved pre-cured beads (measured with a semi-automated procedure based on micrographs). Such indicators were extremely robust, operator-independent, highly correlated, and sensitive to the type of fracture. Moreover, it was found that crack surface morphology heavily depends upon cement composition. Thus, crack surface roughness is proposed as a method for quantitatively identifying crack morphology, and finally classifying fracture type.
Notes: Erani, Paolo Cristofolini, Luca Baleani, Massimiliano Bignozzi, Maria Chiara Cotifava, Marco Ihaddadene, Nabila Tomei, Federico Viceconti, Marco
URL: <Go to ISI>://WOS:000248961600001

Reference Type: Journal Article
Record Number: 55
Author: Felkaoui, A. Bekka, R. E. Antoni, J. Sidahmed, M. Fedala, S.
Year: 2007
Title: Bearing fault diagnosis of an induction motor: Feature selection importance in pattern recognition analysis
Journal: International Review of Electrical Engineering-Iree
Volume: 2
Issue: 4
Pages: 587-592
Date: Jul-Aug
Short Title: Bearing fault diagnosis of an induction motor: Feature selection importance in pattern recognition analysis
ISSN: 1827-6660
Accession Number: WOS:000255406900014
Abstract: In this paper we present a selection strategy of a reduced relevant and non redundant number of parameter to represent a vibratory signature of the bearing defects. We show that the performance of the pattern recognition method is closely related to these reduced indicators. The method has been validated by using real vibration data of a rig set-tip with normal and defective bearings. Copyright (c) 2007 Praise Worthy Prize S.r.l. - All rights reserved.
Notes: Felkaoui, A. Bekka, R. E. Antoni, J. Sidahmed, M. Fedala, S.
URL: <Go to ISI>://WOS:000255406900014

Reference Type: Journal Article
Record Number: 56
Author: Feng, B. J. Jalbout, M. Ben Ayoub, W. Khyatti, M. Dahmoul, S. Ayad, M. Maachi, F. Bedadra, W. Abdoun, M. Mesli, S. Hamili-Cherif, M. Boualga, K. Bouaouina, N. Chouchane, L. Benider, A. Ben Ayed, F. Goldgar, D. Corbex, M.
Year: 2007
Title: Dietary risk factors for nasopharyngeal carcinoma in Maghrebian countries
Journal: International Journal of Cancer
Volume: 121
Issue: 7
Pages: 1550-1555
Date: Oct
Short Title: Dietary risk factors for nasopharyngeal carcinoma in Maghrebian countries
ISSN: 0020-7136
DOI: 10.1002/ijc.22813
Accession Number: WOS:000249109600019

Abstract: North Africa is one of the major Nasopharyngeal Carcinoma (NPC) endemic regions. Specific food items unique to this area were implicated to be associated with NPC risk, but results were inconsistent. Here we have performed a large-scale case-control study in the Maghrebian population from Tunisia, Algeria and Morocco. From 2002 to 2005, interviews were conducted on 636 cases and 615 controls. Controls were hospitalized individuals from 15 non-cancer hospital departments, or friends and family members of non-NPC cancer subjects, matched by center, childhood household type (rural or urban), age and sex. Conditional logistic regression is used to evaluate the risk of factors. In results, consumption of rancid butter, rancid sheep fat and preserved meat not spicy (mainly quaddid) were associated with significantly increased risk of NPC, while consumption of cooked vegetables and industrial preserved fish was associated with reduced risk. Other foods such as fresh citrus fruits and spicy preserved me., (mainly osban) in childhood, industrial made olive condiments in adulthood, were marginally associated. In multivariate analyses, only rancid butter, rancid sheep fat and cooked vegetables were significantly associated with NPC. In regard to possible causative substances, our results implicate the involvement of butyric acid, a potential Epstein-Barr virus (EBV) activator. (C) 2007 Wiley-Liss, Inc.

Notes: Feng, Bing-Jian Jalbout, Majida Ben Ayoub, Wided Khyatti, Meriem Dahmoul, Sami Ayad, Messaoud Maachi, Fatima Bedadra, Wided Abdoun, Meriem Mesli, Sarah Hamili-Cherif, Mokhtar Boualga, Kada Bouaouina, Noureddine Chouchane, Lotfi Benider, Abdellatif Ben Ayed, Farhat Goldgar, David Corbex, Marilys
URL: <Go to ISI>://WOS:000249109600019

Abstract: We present experimental results on the structural and magnetic properties of series of Fe thin films evaporated onto Si(1 1 1), Si(1 0 0) and glass substrates. The Fe thickness, t, ranges from 6 to 110 nm. X-ray diffraction (XRD) and atomic force microscopy (AFM) have been used to study the structure and surface morphology of these films. The magnetic properties were investigated by means of the Brillouin light scattering (BLS) and magnetic force microscopy (MFM) techniques. The Fe films grow with (1 1 0) texture; as t increases, this (1 1 0) texture becomes weaker for Fe/Si, while for Fe/glass, the texture changes from (1 1 0) to (2 1 1). Grains are larger in Fe/Si than in Fe/glass. The effective magnetization, 4 pi M-eff, inferred from BLS was found to be lower than the 4 pi M-S bulk value. Stress induced anisotropy might be in part responsible for this difference. MFM images reveal stripe domain structure for the 110 nm thick Fe/Si(1 0 0) only. (C) 2006 Elsevier B.V. All rights reserved.

Reference Type: Journal Article
Record Number: 58
Author: Gonin, J. Kadiri, H. Bensaci, S. Le Tourneau, A. Molina, T. J. Diebold, J. Abdellouche, D. J. Audouin, J.
Year: 2007
Title: Primary mediastinal anaplastic alk-1-positive large-cell lymphoma of T/NK-cell type expressing CD20
Journal: Virchows Archiv
Volume: 450
Issue: 3
Pages: 355-358
Date: Mar
Short Title: Primary mediastinal anaplastic alk-1-positive large-cell lymphoma of T/NK-cell type expressing CD20
ISSN: 0945-6317
DOI: 10.1007/s00428-007-0371-1
Accession Number: WOS:000244752900015

Abstract: We describe an unusual case of ALK-1-positive primary mediastinal lymphoma with the morphology of an anaplastic large-cell lymphoma (ALCL) of T/NK cell type but expressing CD20. This tumour had T/NK morphology and immunophenotype, as demonstrated by its expression of CD30, EMA, ALK-1, CD7 and TiA-1 and the lack of expression of B-cell markers other than CD20. The significance of such a co-expression of a B cell-associated antigen in a case of ALCL of T/NK cell type is discussed.
Notes: Gonin, J. Kadiri, H. Bensaci, S. Le Tourneau, A. Molina, T. J. Diebold, J. Abdellouche, D. J. Audouin, J.
URL: <Go to ISI>://WOS:000244752900015

Reference Type: Journal Article

Record Number: 59

Author: Gueddaoui, H. Maabed, S. Schmerber, G. Guemmaz, M. Parlebas, J. C.

Year: 2007

Title: Structural and optical properties of vanadium and hafnium nitride nanoscale films: effect of stoichiometry

Journal: European Physical Journal B

Volume: 60

Issue: 3

Pages: 305-312

Date: Dec

Short Title: Structural and optical properties of vanadium and hafnium nitride nanoscale films: effect of stoichiometry

ISSN: 1434-6028

DOI: 10.1140/epjb/e2006-00350-9

Accession Number: WOS:000252224600004

Abstract: Vanadium and hafnium nitride nanoscale films were synthesized onto (100)-oriented silicon wafers by reactive dc-magnetron sputtering. The temperature of the substrate was fixed at 150 degrees C. Several analysis techniques were used to characterize the resulting films: Wave Dispersion Spectroscopy (WDS) to determine nitrogen concentration, X-ray Diffraction (XRD) to study crystallographic structures, X-ray Reflectivity (XRR) to estimate their thicknesses and finally optical spectrophotometry (UV-Vis-IR) to measure the optical reflectance. The experimental conditions were selected in order to achieve two goals. The first one is to obtain ultra thin films (in the nanoscale range). The second one is to compare two symmetric systems, in terms of stoichiometry: over-stoichiometric hafnium nitrides and sub-stoichiometric vanadium nitrides. The XRR results showed that all synthesized films approximately presented the same thickness in the nanoscale range (less than 70 nm). The nitrogen concentration, measured by means of WDS, was in the sub-stoichiometric region for vanadium nitrides (N/V atomic ratio between 0.78 and 0.83) and over-stoichiometric region for hafnium nitrides (N/Hf atomic ratio between 1.18 and 1.25). From XRD patterns, the crystallographic film structure was found to be of NaCl type for the two systems, delta-VN and delta-HfN, with an amorphous part in the first system. Optical constants were derived from experimental reflectance spectra. Good agreement was found between experimental and calculated reflectance spectra using Drude and extended Drude models.

Notes: Gueddaoui, H. Maabed, S. Schmerber, G. Guemmaz, M. Parlebas, J. C.

URL: <Go to ISI>://WOS:000252224600004

Reference Type: Journal Article
Record Number: 60
Author: Hafsi, M. Akhter, J. Monneveux, P.
Year: 2007
Title: Leaf senescence and carbon isotope discrimination in durum wheat (Triticum durum Desf.) under severe drought conditions
Journal: Cereal Research Communications
Volume: 35
Issue: 1
Pages: 71-80
Date: Mar
Short Title: Leaf senescence and carbon isotope discrimination in durum wheat (Triticum durum Desf.) under severe drought conditions
ISSN: 0133-3720
DOI: 10.1556/crc.35.2007.1.9
Accession Number: WOS:000244878000009

Abstract: The relationships between leaf senescence, carbon isotope discrimination and yield performance were examined in durum wheat (Triticum durum Desf.), in the high plains of Setif, eastern Algeria. Ten CIMMYT high-yielding cultivars were grown during two cropping seasons characterized by low rainfall (217 and 162 mm, respectively), freezing temperatures at heading stage and terminal heat stress. Senescence was assessed using numerical image analysis (NIA). Carbon isotope discrimination was analyzed in flag leaves at anthesis and grain at maturity. Senescence was significantly negatively correlated to grain yield in season 1, but not in season 2. There was no relationship between Delta and grain yield in both seasons. The absence of association between Delta and grain yield is likely to be due to a strong contribution of pre-anthesis assimilates to yield together with a sink limitation of yield.
Notes: Hafsi, M. Akhter, J. Monneveux, P.
URL: <Go to ISI>://WOS:000244878000009

Abstract: A zircon-mullite composite was made by reaction sintering from a mixture of mullite and zircon powders. The thermomechanical characterization (strength and toughness) revealed an intermediate behavior between mullite and zircon. The composite presents a high cooling thermal shock resistance for temperatures between the ambient and 1000 degrees C. Bending creep tests were made at temperatures between 1100 and 1300 degrees C using stresses from 10 up to 90 MPa. The stress exponent value is between 2 and 3 while the activation energy varies from 280 up to 900 kJ mol(-1) between 1000 and 1300 degrees C. Microscopic observations suggest an intergranular creep mechanism. The grain interface forces between mullite and zircon are more important than those of zircon-zircon grains. The incorporation of mullite particles in a zircon matrix produces a composite that has both the good mullite behavior toward creep and the high thermal shock resistance of,zircon. (c) 2006 Elsevier Ltd and Techna Group S.r.l. All rights reserved.
Notes: Hamidouche, M. Bouaouadja, N. Torrecillas, R. Fantozzi, G.
URL: <Go to ISI>://WOS:000246260000023

Reference Type: Journal Article
Record Number: 62
Author: Houamer, S. Dal Cappello, C. Mansouri, A.
Year: 2007
Title: Differential and total cross sections for the ionization of water molecule by electron impact
Journal: Journal of Electron Spectroscopy and Related Phenomena
Volume: 161
Issue: 1-3
Pages: 38-42
Date: Oct
Short Title: Differential and total cross sections for the ionization of water molecule by electron impact
ISSN: 0368-2048
DOI: 10.1016/j.elspec.2007.02.025
Accession Number: WOS:000250688500010
Abstract: A theoretical approach is presented to calculate multiply differential and total cross sections of the ionization of H_2O molecule in the vapour phase. The wave function of the target is described by molecular orbitals consisting of a linear combination of slater type atomic orbitals centered on the heaviest atom which is the oxygen atom in this case. The calculations are carried out in the first Born approximation where the projectile is described by a plane wave while the ejected electron is described by a coulomb wave taking into account its interaction with the residual ion. The spherical average over the Euler solid angle due to the randomly oriented gaseous target molecule is carried out analytically using the rotation matrix properties. The differential and total cross sections are thus evaluated without any special difficulty and compared with experiments and distorted wave calculations. Fair agreements are observed. (c) 2007 Elsevier B.V. All rights reserved.
Notes: Houamer, S. Dal Cappello, C. Mansouri, A. International Conference on Many Particle Spectroscoph of Atoms, Molecules, Clusters and Surfaces Jun 22-24, 2006 Rome, ITALY
URL: <Go to ISI>://WOS:000250688500010

Reference Type: Journal Article
Record Number: 63
Author: Houcher, B. Candito, M. Gibelin, P.
Year: 2007
Title: Plasma total homocysteine, folate, and vitamin B12 status and hospitalizations for cardiovascular disease
Journal: Pteridines
Volume: 18
Issue: 4
Pages: 122-127
Date: Dec
Short Title: Plasma total homocysteine, folate, and vitamin B12 status and hospitalizations for cardiovascular disease
ISSN: 0933-4807
Accession Number: WOS:000257417700002

Abstract: Elevated plasma total homocysteine (tHcy) is an independent risk factor for cardiovascular disease (CVD). Also known is that plasma folate and vitamin B12 influence homocysteine metabolism as cosubstrate and cofactor, respectively. This population-based study was conducted to evaluate the plasma concentrations of tHcy, folate, and vitamin B12 in 54 older patients aged $>= 51$ years (40 males; 14 females) of Nice hospital cardiology service. After excluding cases with a serum creatinine >120 mmol/L, we established the test properties of a plasma tHcy concentration <15 mu mol/L (Group 1) or $>= 15$ mu mol/L (Group 2). In the population aged $>= 51$ years, plasma tHcy was higher in women (18.0 mu mol/L) than in men (15.5 mu mol/L; not significant), conversely, serum vitamin B12 was higher in men (376.9 pg/ml) than in women (340.7 pg/ml; not significant). Average plasma tHcy was 11.5 mu mol/L in Group 1 and 21.6 mu mol/L in Group 2. Vice versa, serum vitamin B12 was higher in Group 1 (419.5 pg/ml) than in Group 2 (307.2 pg/ml) ($p < 0.05$). Correlation analysis (Pearson's r) in the total study population (20-84 years) indicated an inverse correlation between serum folate and age ($r = -0.231$, $p < 0.05$). In the subjects, aged = 51 years, there was a significant negative correlation between age and tHcy levels ($r = -0.283$, $p < 0.05$) and serum vitamin B12 concentrations ($r = -0.326$, $p < 0.01$) but not with serum folate. However, in subjects with tHcy < 15 mu mol/L, a significant inverse correlation existed between plasma tHcy and serum folate ($r = -0.455$; $p < 0.05$). In conclusion, these results highlight the relevance of the vitamin status and particularly of folate levels in the modulation of fasting tHcy levels in the patients with clinical hyperhomocysteinemia, defined as plasma tHcy >15 mu mol/L.
Notes: Houcher, Bakhouche Candito, Mirande Gibelin, Pierre
URL: <Go to ISI>://WOS:000257417700002

Reference Type: Journal Article

Record Number: 64

Author: Houcher, Z. Boudiaf, K. Benboubetra, M. Houcher, B.

Year: 2007

Title: Effects of methanolic extract and commercial oil of Nigella sativa L. on blood glucose and antioxidant capacity in alloxan-induced diabetic rats

Journal: Pteridines

Volume: 18

Issue: 1

Pages: 8-18

Date: Mar

Short Title: Effects of methanolic extract and commercial oil of Nigella sativa L. on blood glucose and antioxidant capacity in alloxan-induced diabetic rats

ISSN: 0933-4807

Accession Number: WOS:000257417400002

Abstract: Nigella sativa is a medicinal plant widely used in the Arabic and Islamic world against a number of human pathologies. In this present study the methanol extraction (85% then 50%) of plant seeds gave an important yield of 27% of dry substance. The anti-hyperglycaemia effect of the crude methanolic extract and the commercial oil of these seeds were tested in alloxan-induced, intra peritoneal, diabetic rats (150 mg/kg). Effects of these two substances on other diabetes-linked factors such as the reducing power of the plasma and the osmotic fragility of erythrocytes. The daily orally administration of the crude methanolic extract (810 mg/kg/day) and the oil (2.5 ml/kg/day) for 25 days leads to a significant decrease of glycaemia, especially during the first 10 days of treatment (decreases of 58.09 and 73.27% respectively). However, the dose of 270 mg/kg of crude methanolic extract had no effect, which is probably due to the low dose. In addition the antioxidant capacity, measured by the ferric reducing ability of plasma (FRAP) technique, increased in all diabetic rats and the introduction of either the crude methanolic extract or the oil fraction showed any improvement on this factor. However, a slight resistance, not reaching significance, against the osmotic fragility of erythrocytes was induced in diabetic rats. The anti-hyperglycaemic effect of both substances is not related to inhibition of intestinal glucose absorption or stimulation of insulin secretion. We suggest that the action is a result of the inhibition of enzymes involved in the neoglucogenesis pathway in the liver. As shown the stress associated with the metabolic perturbation observed in diabetes induces a physiological anti-oxidant response, which probably masks the antioxidant effect of our two substances of this medicinal plant.

Notes: Houcher, Zahira Boudiaf, Khaouther Benboubetra, Mustapha Houcher, Bakhouche

URL: <Go to ISI>://WOS:000257417400002

Reference Type: Journal Article
Record Number: 65
Author: Hugtenburg, R. P. Chaoui, Z. Pattison, J. E.
Year: 2007
Title: Microdosimetric event distributions in sub-cellular volumes with a general purpose Monte Carlo code
Journal: Nuclear Instruments & Methods in Physics Research Section a-Accelerators Spectrometers Detectors and Associated Equipment
Volume: 580
Issue: 1
Pages: 157-160
Date: Sep
Short Title: Microdosimetric event distributions in sub-cellular volumes with a general purpose Monte Carlo code
ISSN: 0168-9002
DOI: 10.1016/j.nima.2007.05.057
Accession Number: WOS:000249741300041

Abstract: The general purpose Monte Carlo code PENELOPE is used to calculate microdosimetric quantities including dose-weighted lineal energy spectra, which can be used to predict relative biological effect (RBE), for binary radiation therapies that utilise the photoabsorption of X-ray of high-Z materials. Spectra are calculated for Gd homogenously distributed at a concentration of 10 mg/ml in water and irradiated by 70 keV monoenergetic photons, around 20 keV above the k-edge of Gd (50.239 keV), which has been shown to give optimal dose enhancement, and for a metallic Gd surface in close proximity (within 2 mu m) to a sensitive component of the nucleosome, modelled as a sphere of water of 1 mu m diameter, for 60 and 70 keV monoenergetic X-rays. X-ray interactions with homogenously distributed Gd lead to a greater population of high lineal energy electrons than in liquid water, probably due to the creation of short range Auger electrons and photoelectrons, whereas interactions with Gd outside of the sensitive volume are longer ranged increasing the population of low lineal energy electrons. The data does not support increased therapeutic advantage through increased RBE in the case of Gd bearing contrast systems where little cellular absorption of Gd occurs. Homogenously distributed Gd leads to higher lineal energies than pure water, probably due to the creation of short range, high LET Auger and photoelectrons, whereas photoelectrons that originate in Gd that are outside the sensitive volume tend to have relatively higher energies and long ranges increasing the population of low LET electrons. Crown Copyright (C) 2007 Published by Elsevier B.V. All rights reserved.
Notes: Hugtenburg, R. P. Chaoui, Z. Pattison, J. E. 10th International Symposium on Radiation Physics Sep 17-22, 2006 Univ Coimbra, Coimbra, PORTUGAL
URL: <Go to ISI>://WOS:000249741300041

Abstract: The induced damage in single crystals of yttrium alumina garnet (Y3Al5O12) bombarded at GANIL with 561 MeV Cr-51, 466 MeV Te-128, and 957 MeV Pb-208 ions, and at Algiers with reactor neutrons has been studied by optical measurements. Optical absorption bands centered at 250, 300 and 380 nm are observed after irradiation with ions and neutrons. The variation of the absorption as a function of fluence and electronic stopping power are presented and discussed. Photoluminescence, excited from 380 nm optical absorption band of this garnet is measured at room temperature. The results show the increase of the emission band width with increasing electronic stopping power. The confrontation of the results obtained with ions and neutrons irradiation confirm the contribution of the energetic heavy ions to point defects production. Furthermore, the existence of an electronic stopping power threshold between 10 and 15 keV/nm for oxygen ions displacements is derived. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Izerrouken, M. Meftah, A. Guerbous, L. Nekkab, M. 22nd International Conference on Atomic Collisions in Solids Jul 21-26, 2006 Tech Univ Berlin, Berlin, GERMANY
URL: <Go to ISI>://WOS:000245959300054

Reference Type: Journal Article
Record Number: 67
Author: Izerrouken, M. Meftah, A. Nekkab, M.
Year: 2007
Title: Color centers in neutron-irradiated Y3Al5O12, CAF(2) and LiF single crystals
Journal: Journal of Luminescence
Volume: 127
Issue: 2
Pages: 696-702
Date: Dec
Short Title: Color centers in neutron-irradiated Y3Al5O12, CAF(2) and LiF single crystals
ISSN: 0022-2313
DOI: 10.1016/j.jlumin.2007.04.005
Accession Number: WOS:000249567300062

Abstract: The thermal annealing behavior of the Y3Al5O12, CaF2 and LiF single crystals bombarded at Algiers with reactor neutrons has been monitored by optical absorption spectroscopy. The irradiation was performed at about 315 K. On heating samples after irradiation, the optical absorption bands decrease and disappear completely at 873 and 523 K in the case Of Y3Al5O12 and CaF2, respectively. Activation energies of 1.2 +/- 0.02 and 0.9 +/- 0.2 eV are estimated for Y3Al5O12 and CaF2, respectively. On the other hand, the LiF crystal shows a complex annealing behavior. Here, the optical absorption spectrum presents different shapes after each annealing temperature. Four steps are distinguished and discussed on heating samples from 300 to 673 K. Above 673 K, the absorption drops by about 50%; it completely disappears at 773 K. (C) 2007 Elsevier B.V. All rights reserved.
Notes: Izerrouken, M. Meftah, A. Nekkab, M.
URL: <Go to ISI>://WOS:000249567300062

Reference Type: Journal Article
Record Number: 68
Author: Izerrouken, M. Meftah, A. Nekkab, M.
Year: 2007
Title: Radiation damage induced by swift heavy ions and reactor neutrons in Y3Al5O12 single crystals
Journal: Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms
Volume: 258
Issue: 2
Pages: 395-402
Date: May
Short Title: Radiation damage induced by swift heavy ions and reactor neutrons in Y3Al5O12 single crystals
ISSN: 0168-583X
DOI: 10.1016/j.nimb.2007.02.092
Accession Number: WOS:000246810000016

Abstract: The induced damage in single crystals of Yttrium aluminium garnet (Y3Al5O12) bombarded at GANIL with 561 (MeVCr)-Cr-51, 466 MeV Te-123, 880 and 957 (MeVPb)-Pb-208 and 885 (MeVU)-U-238 ion beams, and at Algiers with reactor neutrons has been studied by optical measurements, profilometry and X-ray diffraction techniques (XRD). The optical absorption spectrum increases with fluence up to saturation level and absorption bands at about 250, 300, and 380 are observed after irradiation with ions and neutrons. X-ray diffraction as well as profilometry measurements show the volume expansion of the sample after irradiation due to the phase transformation from crystalline to amorphous phase. This volume expansion increases as a function of fluence and mean electronic stopping power S-e. It reaches saturation at high fluence, but the evolution with Se shows a maximum at 17 keV/nm then it decreases significantly at 31 keV/nm. The track radii deduced from these techniques is seen to increase as a function of mean electronic stopping power from 8 to 17 keV/nm. From the analysis of the results, it is clear that the color centres do not contribute significantly to the swelling in the case of heavier ions with S-e larger than 12 keV/nm. (c) 2007 Elsevier B.V. All rights reserved.
Notes: Izerrouken, M. Meftah, A. Nekkab, M.
URL: <Go to ISI>://WOS:000246810000016

69 **Reference Type:** Journal Article
Record Number: 69
Author: Kaabi, I. Douadi, T. Haffar, D. Chafaa, S. Allain, M. Khan, M. A. Bouet, G. M.
Year: 2007
Title: Crystal structure of a new pentadentate symmetrical: di 4-(phenylimino)pentan-2-one ether. Structural and electrochemical studies of its Co-II, Ni-II, Cu-II and Cd-II complexes
Journal: Transition Metal Chemistry
Volume: 32
Issue: 5
Pages: 666-673
Date: Aug
Short Title: Crystal structure of a new pentadentate symmetrical: di 4-(phenylimino)pentan-2-one ether. Structural and electrochemical studies of its Co-II, Ni-II, Cu-II and Cd-II complexes
ISSN: 0340-4285
DOI: 10.1007/s11243-007-0229-z
Accession Number: WOS:000248116900017

Abstract: The crystal structure of a new symmetrical pentadentate N2O3 Schiff base: di[4-(phenylimino)pentan-2-one] ether (H2L) is described. In the solid state, the ligand appears as a keto-imine tautomer, while in DMSO solution, the eneamine form is observed. This ligand coordinates cobalt(II), nickel(II), copper(II) and cadmium(II). The structures of these new complexes are described using infrared and electronic spectroscopy, H-1-n.m.r. and d.s.c. The cyclic voltammograms of the ligand and the complexes in DMF are discussed.
Notes: Kaabi, Ilhem Douadi, Tahar Haffar, Djahida Chafaa, Salah Allain, Magali Khan, Mustayeen A. Bouet, Gilles M.
URL: <Go to ISI>://WOS:000248116900017

Abstract: Purpose - The paper presents a method for solving the 3D steady state, linear transport equation in bounded domain. Design/methodology/approach - The method can be extended easily to general linear transport problem. Findings - The idea of using the spectral method for searching solutions to the multi-dimensional transport problems, leads us to a solution for all values of the independent variables. Research limitations/implications - The procedure is based on the development of the angular flux in a truncated series of Chebyshev polynomials in the spatial variables. Practical implications - The methodology used will permit us to transform the 3D problem into a set of 1D problems. The convergence of this approach is studied in the context of the discrete-ordinates method. Originality/value - An adaptation of this method for the convergence of the spectral solution within the framework of the analytical solution to study and prove convergence is relatively new.
Notes: Kadem, Abdelouahab
URL: <Go to ISI>://WOS:000246779000018

Reference Type: Journal Article
Record Number: 71
Author: Kebbiche, Z. Keraghel, A. Yassine, A.
Year: 2007
Title: Extension of a projective interior point method for linearly constrained convex programming
Journal: Applied Mathematics and Computation
Volume: 193
Issue: 2
Pages: 553-559
Date: Nov
Short Title: Extension of a projective interior point method for linearly constrained convex programming
ISSN: 0096-3003
DOI: 10.1016/j.amc.2007.03.066
Accession Number: WOS:000253495600027
Abstract: In this paper, we propose an interior point method of type projective to minimize a nonlinear function under linear constraints. We combine the approach of linearization with ingredients brought by Karmarkar. The theoretical results deduct of those established later. (C) 2007 Elsevier Inc. All rights reserved.
Notes: Kebbiche, Z. Keraghel, A. Yassine, A.
URL: <Go to ISI>://WOS:000253495600027

72 **Reference Type: Journal Article**
Record Number: 72
Author: Kharmouche, A. Ben Youssef, J. Layadi, A. Cherif, S. M.
Year: 2007
Title: Ferromagnetic resonance in evaporated Co/Si(100) and Co/glass thin films
Journal: Journal of Applied Physics
Volume: 101
Issue: 11
Date: Jun
Short Title: Ferromagnetic resonance in evaporated Co/Si(100) and Co/glass thin films
ISSN: 0021-8979
DOI: 10.1063/1.2740349
Article Number: 113910
Accession Number: WOS:000247306000095
Abstract: Ferromagnetic resonance, at different frequencies (6-12 GHz), has been used to investigate the magnetic properties of a series of Co thin films evaporated onto Si (100) and glass substrates. The Co thickness t(Co) ranges from 50 to 195 nm. The thinner films are characterized by a single magnetic region; as the film grows, a second magnetic region appears and becomes even more important than the first one as t(Co) is increased further. The first region, presumably located at the substrate-film interface, is characterized by a magnetocrystalline anisotropy constant K-u(1) between (3.05 and 4.31)x10(6) erg/cm(3). The constant K-u(2) of the second region, located next to the surface, is practically the same for all thick samples (about 2.5x10(6) erg/cm(3)), i.e., K-u(2) is independent of the substrate and of the Co thickness. Moreover, K-u(2) is always lower than K-u(1). The linewidth Delta H-(1) of the peak associated with the interfacial region is larger than Delta H-(2) of the surface region, indicating that the surface region is magnetically more homogeneous (probably less anisotropy axis dispersion) than the interfacial region. Moreover, a sequence of spin wave resonance (SWR) modes is observed when H is applied perpendicular to the film plane. These SWR modes follow, mainly, the low resonant field indicating a pinning of the interfacial layer. It was found that the linewidth of the nth mode Delta H-n varies as Delta H-n=n(2)(Delta H-')+Delta H-'; this type of linewidth variation suggests that the spin waves are associated with dynamic pinning. (c) 2007 American Institute of Physics.
Notes: Kharmouche, A. Ben Youssef, J. Layadi, A. Cherif, S.-M.
URL: <Go to ISI>://WOS:000247306000095

73 **Reference Type: Journal Article**
Record Number: 73
Author: Kharmouche, A. Cherif, S. M. Schmerber, G. Bourzami, A.
Year: 2007
Title: Magnetic and structural properties of evaporated CoxCr1-x/Si(100) and CoxCr1-x/glass thin films
Journal: Journal of Magnetism and Magnetic Materials
Volume: 310
Issue: 1
Pages: 152-158
Date: Mar
Short Title: Magnetic and structural properties of evaporated CoxCr1-x/Si(100) and CoxCr1-x/glass thin films
ISSN: 0304-8853
DOI: 10.1016/j.jmmm.2006.08.012
Accession Number: WOS:000242703100021

Abstract: Series of CoxCr1-x thin films have been evaporated under vacuum onto Si(I 0 0) and glass substrates, where x variations were between 0.51 and 0.61. Thickness ranges from 350 to 4000 angstrom. DRX measurements show an hcp structure. AGFM measurement gives saturation magnetization ranging from a negligible value to 120 emu/cm(3). Coercive field may reach values up to 200 Oe, depending on the percentage of chromium. The saturation magnetization decreases as the Cr content increases. Magnetic force microscopy (MFM) study reveals the absence of stripe domains equilibrium magnetization structure. Brillouin light scattering (BLS) measurements were possible only for the 1800 angstrom thick sample. They confirm, through the derived magnetic parameters, the absence of stripe magnetic domains as observed by MFM on one hand, and, on the other hand, the adjustment of theoretical and experimental results lead to a stiffness constant 10 times lower than pure Co one. These results are analyzed and correlated. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Kharmouche, A. Cherif, S. -M. Schmerber, G. Bourzami, A.
URL: <Go to ISI>://WOS:000242703100021

74 **Reference Type: Journal Article**
Record Number: 74
Author: Khelil, K. Bekka, R. E. H. Djebari, A. Rouvaen, J. M.
Year: 2007
Title: Multiple description wavelet-based image coding using correlating transforms
Journal: Aeu-International Journal of Electronics and Communications
Volume: 61
Issue: 6
Pages: 411-417
Short Title: Multiple description wavelet-based image coding using correlating transforms
ISSN: 1434-8411
DOI: 10.1016/j.aeue.2006.07.003
Accession Number: WOS:000246817700008
Abstract: The objective of multiple description coding (MDC) is to represent a source into multiple descriptions such that various reconstruction qualities are obtained from different subsets of the descriptions. In this paper, we propose a simple scheme that combines the multiple descriptions transform coding (MDTC) method with the discrete wavelet transform (DWT). We compare the performance of the proposed scheme with a discrete cosine transform (DCT)-based scheme prevalent in other papers. Simulation results show that our proposed DWT technique outperforms both objectively and subjectively the method based on DCT in the case of packet loss. (C) 2006 Elsevier GmbH. All rights reserved.
Notes: Khelil, Khaled Bekka, Rais El Hadi Djebari, Ali Rouvaen, Jean M.
URL: <Go to ISI>://WOS:000246817700008

Abstract: The complex density-functional theory calculations of structural, electronic, and optical properties for two principal representatives of the filled skutterudites CeFe4P12 and ThFe4P12 have been reported using the full-potential linearized augmented plane-wave method plus local orbitals, as implemented in the WIEN2K code. In this approach, the local-density approximation is used for the exchange-correlation potential. We performed these calculations with and without spin-orbit interactions. Results are given for lattice constant, bulk modulus, and its pressure derivative. Band structure, density of states, pressure coefficients of energy gaps, and refractive indices are also given. We note that both CeFe4P12 and ThFe4P12 are semiconductors with indirect and direct energy gaps, respectively. The valence-band maximum is located at Gamma for both compounds, whereas the conduction-band minimum is located at Gamma for ThFe4P12 and at N for CeFe4P12. Our results are compared with previous theoretical calculations and experimental data.

Reference Type: Journal Article
Record Number: 76
Author: Khireddine, A. Benmahammed, K. Puech, W.
Year: 2007
Title: Digital image restoration by Wiener filter in 2D case
Journal: Advances in Engineering Software
Volume: 38
Issue: 7
Pages: 513-516
Date: Jul
Short Title: Digital image restoration by Wiener filter in 2D case
ISSN: 0965-9978
DOI: 10.1016/j.advengsoft.2006.10.001
Accession Number: WOS:000246956800006
Abstract: Modern digital technology has made it possible to manipulate multi-dimensional signals with systems that range from simple digital circuits to advanced parallel computers. The goal of this manipulation can be divided into three categories: Image Processing image in -> image out. Image Analysis image in -> measurements out. Image Understanding image in -> high-level description out. Further, we will restrict ourselves to two-dimensional (2D) image processing although most of the concepts and techniques that are to be described can be extended easily to three or more dimensions. The Wiener filter is a solution to the restoration problem based upon the hypothesized use of a linear filter and the minimum mean-square (or rms) error criterion. In the example given below the image a[m, n] was distorted by a bandpass filter and then white noise was added to achieve an SNR = 30 dB. (C) 2006 Published by Elsevier Ltd.
Notes: Khireddine, A. Benmahammed, K. Puech, W.
URL: <Go to ISI>://WOS:000246956800006

Abstract: A refractory material was elaborated from kaolin extracted from the region of Djebel Debbagh (Algeria). Kaolin grog was obtained by calcination at a temperature of 1350 degrees C during I h. It was used as aggregates with granulometric distribution composed of fine fraction (mean grain size: 100-250 mu m) and coarse fraction (mean grain size: 1000-2500 mu m). Crude kaolin (size < 75 mu m) was also used as a binder with an amount representing 15% of the dry material. After a 9.28% moistening and a rotting of I day, cylindrical samples were shaped by uniaxial pressure at 80 MPa. The samples were submitted to a natural drying during 24 h, a stoving at 100 degrees C and a calcination at 600 degrees C during 1 h. They were fired at high temperatures between 1250 and 1450 degrees C. An X-ray diffraction (XRD) analysis showed that the refractory samples are composed of mullite and silica. Silica is a mixture of a vitreous phase and cristobalite at 1300, 1350 and 1400 degrees C and becomes completely amorphous when the samples are fired at higher temperature (1450 degrees Q. The sample porosity is about 30%. The mechanical tests carried out as a function of temperature revealed different behaviours of the material. From the ambient up to 600 'C, the refractory behaviour is pseudo-plastic caused by micro-cracking. Between 700 and 900 degrees C, the samples become more rigid. At 1000 'C, the material exhibits a visco-plastic behaviour. The amorphous phase governs the sample properties variation with temperature increasing. Its content varies between 28% and 34% according to the firing temperature. Thermal shock tests realized in water showed that the refractory samples present good thermal shock resistance. (c) 2007 Elsevier Ltd and Techna Group S.r.l. All rights reserved.

Notes: Kolli, M. Hamidouche, M. Fantozzi, G. Chevalier, J.

URL: <Go to ISI>://WOS:000250424800005

Abstract: The competition between alpha, beta and gamma polymorphs has been studied in a P-nucleated metallocenic isotactic polypropylene, iPP, as a function of the cooling rate and of the isothermal crystallization temperature, by performing X-ray diffraction and DSC experiments. It was found that the addition of a 1% by weight of a typical P-nucleating agent is not enough to develop any appreciable amount of beta modification, at least under the crystallization conditions used, which cover a wide range of cooling rates. In comparison, the same amount of nucleating agent added to a Ziegler-Natta iPP leads to almost 100% of beta form at low cooling rates. It seems that such amount of beta nucleating agent is not enough to counterbalance the well-known gamma nucleation ability of the relatively high content of defects (stereo- and regioerrors) which are present in the studied metallocenic iPP, and only different proportions of gamma and a modifications are obtained in this sample, the relative amount of them depending on the cooling rate. On the contrary, if a 5% nucleating agent is added, the beta modification is also obtained, in addition to the gamma and alpha polymorphs. However, now the amount of beta crystals as a function of the cooling rate follows a trend opposite to that for the Ziegler-Natta iPP: the higher are the cooling rates (or the lower are the isothermal crystallization temperatures) the larger proportions of beta modification are obtained. It is deduced, therefore, that the nucleation ability of the chain errors which leads to the development of the gamma form predominates over that one of the nucleating agent. The enthalpies for the 100% crystalline modifications, estimated from the enthalpies of melting and from the X-ray determined proportions of the different polymorphs, are rather similar: 162, 159, and 158 J/g for the alpha, beta and gamma phases, respectively. These values are inside the experimental error.

79 **Reference Type: Journal Article**
Record Number: 79
Author: Lamari, S.
Year: 2007
Title: Effective mass theory of the Rashba effect in heterostructures
Journal: Physical Review B
Volume: 75
Issue: 15
Date: Apr
Short Title: Effective mass theory of the Rashba effect in heterostructures
ISSN: 1098-0121
DOI: 10.1103/PhysRevB.75.155302
Article Number: 155302
Accession Number: WOS:000246075300062
Abstract: Within the envelope function scheme, a theory of the Rashba spin-orbit parameter is developed for an arbitrary heterostructure with sharp interfaces. In the first order of perturbation theory, the zero-field spin splitting in a given subband is found to be determined solely by the properties of the wave function at the interfaces; moreover, our results identify the proper electric field responsible for this splitting. The present work gives clear-cut proof that discontinuities in the band-structure parameters in the conduction band are the origin of the Rashba effect. Comparing our results to the Raman scattering data of Jusserand [Phys. Rev. B 51, R4707 (1995)], in its simplest form our present theory rules out the valence-band offset as the source of the Rashba spin splitting, contrary to common belief. The corrections found here give hope for the use of accurate measurements of the Rashba spin splitting in heterostructures as a means to deduce conduction band offsets.
Notes: Lamari, Saadi
URL: <Go to ISI>://WOS:000246075300062

Reference Type: Journal Article
Record Number: 80
Author: Latreche, S. Boutahala, M. Kahoul, A.
Year: 2007
Title: Catalytic combustion of soot with an O-2/NO mixture on Pt/Bi2Ru2O7 catalysts
Journal: Annales De Chimie-Science Des Materiaux
Volume: 32
Issue: 3
Pages: 297-305
Date: May-Jun
Short Title: Catalytic combustion of soot with an O-2/NO mixture on Pt/Bi2Ru2O7 catalysts
ISSN: 0151-9107
DOI: 10.3166/acsm.32.297-305
Accession Number: WOS:000247097800006
Abstract: Catalytic combustion of soot with an O-2/NO mixture on Pt / Bi2Ru2O7 catalysts. Catalytic combustion of soot with an O-2/NO mixture on pyrochlore Bi2Ru2O7 and 0.2%Pt/pyrochlore supported (0.2%Pt/Bi2Ru2O7) was studied for diesel soot. Calcination of the pyrochlore (Bi2Ru2O7) under oxygen gas and addition of 0.2%Pt to this sample improved the catalytic activity by reducing the temperature of soot oxidation. The results showed no effect of feed oxygen gas on carbon oxidation. The oxidation rate was mainly favoured by the oxygen of the pyrochlore.
Notes: Latreche, Soulef Boutahala, Mokhtar Kahoul, Abdelkrim
URL: <Go to ISI>://WOS:000247097800006

Reference Type: Journal Article
Record Number: 81
Author: Lerguet, Z. Shillor, M. Sofonea, M.
Year: 2007
Title: A FRICTIONAL CONTACT PROBLEM FOR AN ELECTRO-VISCOELASTIC BODY
Journal: Electronic Journal of Differential Equations
Short Title: A FRICTIONAL CONTACT PROBLEM FOR AN ELECTRO-VISCOELASTIC BODY
ISSN: 1072-6691
Article Number: 170
Accession Number: WOS:000208974800004
Abstract: A mathematical model which describes the quasistatic frictional contact between a piezoelectric body and a deformable conductive foundation is studied. A nonlinear electro-viscoelastic constitutive law is used to model the piezoelectric material. Contact is described with the normal compliance condition, a version of Coulomb's law of dry friction, and a regularized electrical conductivity condition. A variational formulation of the model, in the form of a coupled system for the displacements and the electric potential, is derived. The existence of a unique weak solution of the model is established under a smallness assumption on the surface conductance. The proof is based on arguments of evolutionary variational inequalities and fixed points of operators.
Notes: Lerguet, Zhor Shillor, Meir Sofonea, Mircea
URL: <Go to ISI>://WOS:000208974800004

Reference Type: Journal Article
Record Number: 82
Author: Liolios, C. Laouer, H. Boulaacheb, N. Gortzi, O. Chinou, I.
Year: 2007
Title: Chemical composition and antimicrobial activity of the essential oil of Algerian Phlomis bovei De Noe subsp bovei
Journal: Molecules
Volume: 12
Issue: 4
Pages: 772-781
Date: Apr
Short Title: Chemical composition and antimicrobial activity of the essential oil of Algerian Phlomis bovei De Noe subsp bovei
ISSN: 1420-3049
DOI: 10.3390/12040772
Accession Number: WOS:000246524700007

Abstract: The chemical composition of essential oil obtained by steam distillation of dried aerial parts of Phlomis bovei De Noe subsp. bovei collected from Algeria, was analyzed by GC and GC/MS. Seventy five constituents (corresponding to 86.37% of the total weight) were identified. The main components were: germacrene D, fl-caryophyllene, beta-bournonene, thymol and hexahydrofarnesyl acetone. Furthennore, the antimicrobial activity of the oil was evaluated against six Gram (+/-) bacteria and three pathogenic fungi, using the agar dilution technique. It was found that the oil exhibited strong antimicrobial activity against most of the tested microorganisms.
Notes: Liolios, Christos Laouer, Hocine Boulaacheb, Nacira Gortzi, Olga Chinou, Ioanna
URL: <Go to ISI>://WOS:000246524700007

83 **Reference Type: Journal Article**
Record Number: 83
Author: Louaar, S. Akkal, S. Laouer, H. Guilet, D.
Year: 2007
Title: Flavonoids of Retama sphaerocarpa leaves and their antimicrobial activities
Journal: Chemistry of Natural Compounds
Volume: 43
Issue: 5
Pages: 616-617
Date: Sep
Short Title: Flavonoids of Retama sphaerocarpa leaves and their antimicrobial activities
ISSN: 0009-3130
DOI: 10.1007/s10600-007-0207-x
Accession Number: WOS:000252223000031
Notes: Louaar, S. Akkal, S. Laouer, H. Guilet, D.
URL: <Go to ISI>://WOS:000252223000031

84 **Reference Type:** **Journal Article**
Record Number: 84
Author: Madjoubi, M. A. Hamidouche, M. Bouaouadja, N. Chevalier, J. Fantozzi, G.
Year: 2007
Title: Experimental evaluation of the double torsion analysis on soda-lime glass
Journal: Journal of Materials Science
Volume: 42
Issue: 18
Pages: 7872-7881
Date: Sep
Short Title: Experimental evaluation of the double torsion analysis on soda-lime glass
ISSN: 0022-2461
DOI: 10.1007/s10853-007-1660-4
Accession Number: WOS:000248057300037
Abstract: According to the classical model developed by Evans and co-workers on the double torsion test [(1972) J Mater Sci 7:1137 and (1973) J Testing Eval 1:264], the stress intensity factor is independent of the crack length. Recent applications and analysis question this independency (Chevalier et al (1996) Cer Inter 22:171, Ciccotti et al (2000) Inter J Rock Mech Min Sci 37:1103). This work consists of using samples with different lengths of a typical brittle material (a soda-lime glass) in order to discuss on the validity of the different equations proposed to analyse the DT technique. Experimental compliance tests always showed linear variations with crack length. Successive relaxation tests revealed, however, a clear dependency of the stress intensity factor on crack length. This dependency, observed through the non reproducibility of the V-K-I diagrams, is reduced as the sample length increases. The corrections proposed by Chevalier and Ciccotti on Evans model revealed that their applications remain limited to the sample and the loading configurations used by the authors. The application of Evans model without correction is conditioned by the use of sufficiently long samples and advanced crack lengths.
Notes: Madjoubi, M. A. Hamidouche, M. Bouaouadja, N. Chevalier, J. Fantozzi, G.
URL: <Go to ISI>://WOS:000248057300037

Abstract: Mn-doped ZnO is anti-ferromagnetic spin glass state, however, it becomes half-metallic ferromagnets upon hole doping. In this Letter we report a theoretical study of (Zn, Mn)O system codoped with N, and show that this codoping can change the ground state from anti-ferromagnetic to ferromagnetic. We have carried out the first-principles electronic structure calculations and report total energy to estimate whether the ferromagnetic state was stable or not. Our approach is based on the spin-polarized relativistic Korringa-Kohn-Rostoker (SPR-KKR) density functional theoretical (DFT) method, within the coherent potential approximation (CPA). Self-consistent electronic structure calculations were performed within the local density approximation, using the Vosko-Wilk-Nusair parameterization of the exchange-correlation energy functional. Our results for energy difference between ferromagnetic sate and spin glass state as well as their dependence on concentrations were presented and discussed. (C) 2007 Elsevier B.V All rights reserved.

Reference Type: Journal Article
Record Number: 86
Author: Maouche, D. Saoud, F. S. Louail, L.
Year: 2007
Title: Dependence of structural properties of ZnO on high pressure
Journal: Materials Chemistry and Physics
Volume: 106
Issue: 1
Pages: 11-15
Date: Nov
Short Title: Dependence of structural properties of ZnO on high pressure
ISSN: 0254-0584
DOI: 10.1016/j.matchemphys.2007.05.029
Accession Number: WOS:000250600400004
Abstract: We have carried out the first-principles total energy calculations to investigate the structural properties of ZnO, we report total energy calculations for ZnO in the B4 (wurtzite), B3 (zinc blende), B2 (cesium chloride), and B1 (rocksalt) crystal structure over a range of pressure and we present a description of the transition phases of ZnO. The calculations are based on the density functional theory and we have used both the generalized gradient approximation (GGA) and local density approximation (LDA) for the exchange and correlation potential. Our results for transition pressures and equilibrium lattice parameters as well as their dependence on pressure were compared with experimental data and previous calculations. (C) 2007 Elsevier B.V. All rights reserved.
Notes: Maouche, D. Saoud, F. Saad Louail, L.
URL: <Go to ISI>://WOS:000250600400004

Abstract: This work is devoted to the physico-chemical characterization of pretreated phosphoric acid produced at the Annaba plant (East of Algeria) and the activation of bentonite, used for the elimination of heavy metals contained in the pretreated phosphoric acid. The pretreatment of phosphoric acid is performed using activated carbon to remove organic matter. The activation of bentonite was carried out by a chemical process, by using H_2SO_4. Two important parameters were examined, concentration of the acid and temperature. Adsorption tests of zinc (II), cadmium (II) and chromium (III), contained in pretreated H_3PO_4 5.5 M (30% P_2O_5), were carried out under various conditions of temperature, pH and quantities of bentonite, with the aim of developing a process of fixing on the laboratory scale. A modeling of this process was also carried out. The model application, defined in the experimental range $1.25 \leq pH \leq 2.50$; $0.50g \leq$ mass of bentonite ≤ 2.5 g; 20 degrees C $\leq T \leq 70$ degrees C, made it possible to give an average yield of 88 % for the adsorption of zinc (II) and 89 % for cadmium (II) and chromium (III).
Notes: Mellah, Abdelhamid Benachour, Djafar
URL: <Go to ISI>://WOS:000249783900005

Reference Type: Journal Article
Record Number: 88
Author: Mellah, A. Benachour, D.
Year: 2007
Title: The solvent extraction of zinc, cadmium and chromium from phosphoric acid solutions by tri-n butyl phosphate in kerosene diluent
Journal: Separation and Purification Technology
Volume: 56
Issue: 2
Pages: 220-224
Date: Aug
Short Title: The solvent extraction of zinc, cadmium and chromium from phosphoric acid solutions by tri-n butyl phosphate in kerosene diluent
ISSN: 1383-5866
DOI: 10.1016/j.seppur.2007.01.037
Accession Number: WOS:000248029100013

Abstract: In this paper, the solvent extraction of zinc(II), cadmium(II) and chromium(III) from phosphoric acid solutions by tri-n butyl phosphate (TBP) in kerosene as diluent was investigated. The distribution coefficients were determined and the results showed clearly a maximum values at 5.5 mol/L H_3PO_4 concentration and a minimum values at 1.0 mol/L H_3PO_4 concentration. The apparent standard molar enthalpies triangle H degrees for extraction of zinc(II), cadmium(II) and chromium(III) were found to be, respectively, 51.11, 45.43 and 59.87 kJ/mol which indicate the endothermic nature of the extraction process. The apparent standard entropies triangle S degrees were also determined 1.685 x 10(-3), 1.377 x 10(-3) and 1.961 x 10(-3) kJ/mol K. The apparent standard Gibbs free energies triangle G degrees of extraction of zinc(II), cadmium(II) and chromium(III) were consequently calculated. Based on the regression analysis of the data, the equations for prediction of the distribution coefficients D of zinc(II), cadmium(II) and chromium(III), respectively were obtained. (c) 2007 Elsevier B.V. All rights reserved.
Notes: Mellah, Abdelhamid Benachour, Djafer
URL: <Go to ISI>://WOS:000248029100013

Reference Type: Journal Article
Record Number: 89
Author: Nabti, E. Sahnoune, M. Adirad, S. Van Dommelen, A. Ghoul, M. Schmid, M. Hartmann, A.
Year: 2007
Title: A halophilic and osmotolerant Azospirillum brasilense strain from Algerian soil restores wheat growth under saline conditions
Journal: Engineering in Life Sciences
Volume: 7
Issue: 4
Pages: 354-360
Date: Jul
Short Title: A halophilic and osmotolerant Azospirillum brasilense strain from Algerian soil restores wheat growth under saline conditions
ISSN: 1618-0240
DOI: 10.1002/elsc.200720201
Accession Number: WOS:000248203100007
Abstract: A new bacterial isolate (NH) from salt-affected soil was identified as Azospirillum brasilense using phenotypic analyses and 16SrDNA-based phylogeny. This isolate showed resistance towards 3,4-dehydroproline and optimal growth at 200 mmol/L NaCl, tolerating salt stress of 300 mmol/L NaCl in the absence of osmoprotectants and up to 600 mmol/L NaCl in the presence of glycine betaine and Ova lactuca extracts. This effect was enhanced with extracts of the marine algae Ova lactuca. A. brasilense strain NH can produce auxin indole acetic acid under saline conditions. The hypothesis was tested that the inoculation of this osmotolerant rhizosphere strain could improve the growth of wheat under saline stress conditions. Normal wheat growth was restored in the presence of both 150 mmol/L and 200 mmol/L NaCl after inoculation with A. brasilense NH. Under saline conditions, its effect of promoting plant growth of wheat was significantly superior to that of A. brasilense Sp7, the non-halotolerant type strain. A. brasilense NH restored wheat growth at elevated salt concentrations in pot and field experiments even better in the presence of osmoprotective Ulva lactuca extracts.
Notes: Nabti, E. Sahnoune, M. Adjrad, S. Van Dommelen, A. Ghoul, M. Schmid, M. Hartmann, A.
URL: <Go to ISI>://WOS:000248203100007

Reference Type: Journal Article

Record Number: 90

Author: Nacef, S. Poncin, S. Bouguettoucha, A. Wild, G.

Year: 2007

Title: Drift flux concept in two- and three-phase reactors

Journal: Chemical Engineering Science

Volume: 62

Issue: 24

Pages: 7530-7538

Date: Dec

Short Title: Drift flux concept in two- and three-phase reactors

ISSN: 0009-2509

DOI: 10.1016/j.ces.2007.08.031

Accession Number: WOS:000251763600062

Abstract: The drift flux concept has been used to describe and analyse some hydrodynamic parameters such as the flow regimes and the retention phases in three-phase fluidised and fixed bed reactors. The effects of the gas, liquid and solid properties and the characteristics of the apparatus (distributor quality) on the hydrodynamics have been studied. Two hydrodynamic data banks as well as experimental results have been used to study the influence of the coalescence inhibiting behaviour of liquids and to deter-mine flow regime transitions and phase retentions. In heterogeneous regime, the ratio of the drift flux density to the superficial gas velocity tends to a limit, approximately independent on the liquid velocity in both fixed and fluidised beds. Two correlations of the drift flux have been developed by this analysis; the first of which is valid in the three-phase fluidised beds and the other in the three-phase fixed beds. (c) 2007 Elsevier Ltd. All rights reserved.

Notes: Nacef, Saci Poncin, Souhila Bouguettoucha, Abdallah Wild, Gabriel 8th International Conference on Gas-Liquid and Gas-Liquid-Solid Reactor Engineering Dec 16-19, 2007 Indian Inst Technol Delhi, New Delhi, INDIA Si

URL: <Go to ISI>://WOS:000251763600062

91 **Reference Type: Journal Article**
Record Number: 91
Author: Nacereddine, C. Layadi, A. Guittoum, A. Cherif, S. M. Chauveau, T. Billet, D. Ben Youssef, J. Bourzami, A. Bourahli, M. H.
Year: 2007
Title: Structural, electrical and magnetic properties of evaporated Ni/Cu and Ni/glass thin films
Journal: Materials Science and Engineering B-Solid State Materials for Advanced Technology
Volume: 136
Issue: 2-3
Pages: 197-202
Date: Jan
Short Title: Structural, electrical and magnetic properties of evaporated Ni/Cu and Ni/glass thin films
ISSN: 0921-5107
DOI: 10.1016/j.mseb.2006.09.021
Accession Number: WOS:000243843800018

Abstract: The structural, electrical and magnetic properties of Ni thin films evaporated onto glass and polycrystalline Cu substrates have been investigated. The Ni thickness ranges from 31 to 165 nm. X-ray diffraction (XRD), scanning electron microscopy (SEM) and atomic force microscopy (AFM) have been used to study the structure and morphology of these systems. The Ni/Cu and Ni/glass thin films are found to be polycrystalline with a (I 11) texture. There is an overall increase of the grain size with increasing thickness. A negative strain was noted indicating that all the samples are under a compressive stress. Diffusion at the grain boundaries seems to be a major contribution to the electrical resistivity in this thickness range. Study of the hysteresis curves, obtained by vibrating sample magnetometer (VSM), indicates that all samples are characterized by an in-plane magnetization easy axis. Higher in-plane coercive fields seem to be associated with higher grain size, indicating that coercivity may be due to nucleation of reverse domains rather than pinning of domain walls. The saturation field and the squareness have been studied as a function of the Ni thickness. (c) 2006 Elsevier B.V. All rights reserved.
Notes: Nacereddine, C. Layadi, A. Guittoum, A. Cherif, S. -M. Chauveau, T. Billet, D. Ben Youssef, J. Bourzami, A. Bourahli, M. -H.
URL: <Go to ISI>://WOS:000243843800018

Abstract: Measurements of the (e, 2e) triply differential cross sections (TDCS) are presented
for the ionization of the nitrogen molecule in coplanar asymmetric geometry at an incident
energy of about 600 eV and a large energy transfer to the target. The experimental results are
compared with state- of- the- art available theoretical models for treating differential electron
impact ionization of molecules. The experimental TDCS are characterized by a shift towards
larger angles of the angular distribution with respect to the momentum transfer direction, and by
a large intensity in the recoil region, especially for ionization of the 'inner' 2 sigma(g) molecular
orbital. Such shifts and intensity enhancement are not predicted by the model calculations which
rather yield a TDCS symmetrically distributed around the momentum transfer direction.

Reference Type: Journal Article

Record Number: 93

Author: Rached, D. Ameri, M. Rabah, M. Khenata, R. Bouhemadou, A. Benkhettou, N. el Hannani, M. D.

Year: 2007

Title: Electronic structure calculations of europium chalcogenides EuS and EuSe

Journal: Physica Status Solidi B-Basic Solid State Physics

Volume: 244

Issue: 6

Pages: 1988-1996

Date: Jun

Short Title: Electronic structure calculations of europium chalcogenides EuS and EuSe

ISSN: 0370-1972

DOI: 10.1002/pssb.200642450

Accession Number: WOS:000247328200037

Abstract: We have performed ab-initio self-consistent calculations on the full-potential linear muffin-tin orbital method with the local-density approximation and local spin-density approximation to investigate the structural and electronic properties of EuS and EuSe in its stable (NaCl-B1) and high-pressure phases. The magnetic phase stability was determined from the total energy calculations for both the nonmagnetic (NM) and magnetic (M) phases. These theoretical calculations clearly indicate that both at ambient and high pressures, the magnetic phase is more stable than the nonmagnetic phase. The transition pressure at which these compounds undergo the structural phase transition from NaCl-B1 to CsCl-B2 phase is calculated. The elastic constants at equilibrium in both NaCl-B1 and CsCl-B2 structures are also determined. (c) 2007 WILEY-VCH Verlag GmbH & Co. KGaA, Weinheim.

Notes: Rached, D. Ameri, M. Rabah, M. Khenata, R. Bouhemadou, A. Benkhettou, N. el Hannani, M. Dine

URL: <Go to ISI>://WOS:000247328200037

Reference Type: Journal Article
Record Number: 94
Author: Ramdani, M. Rached, O. Laouer, H. El Koli, M. Lograda, T.
Year: 2007
Title: Chemical composition and antibacterial activity of Cupressus dupreziana A. camus
Journal: Natural Product Communications
Volume: 2
Issue: 9
Pages: 945-949
Short Title: Chemical composition and antibacterial activity of Cupressus dupreziana A. camus
ISSN: 1934-578X
Accession Number: WOS:000249008100016
Abstract: The essential oils obtained by hydrodistillation from the green branchlets of Cupressus dupreziana A. Camus growing wild in Tassili n'Ajjer (Algeria) were analyzed by GC and GC/MS. The main constituents of the essential oils were alpha-pinene (27.2% - 44.2%), germacrene D (16.2% - 27.2%) and Delta(3)-carene (14.2% - 26.7%). The oils showed insignificant activity on the growth of Escherichia coli (ATCC 25922), Pseudomonas aeruginosa (ATCC 27853) and Staphylococcus aureus (ATCC 25923), when investigated by the diffusion method.
Notes: Ramdani, Messaoud Rached, Oualida Laouer, Hocine El Koli, Meriern Lograda, Takia
URL: <Go to ISI>://WOS:000249008100016

Abstract: The motor unit action potential (MUAPs) shapes depend on the anatomy and the physiology of the contracted muscle. The aim of this work is the identification of some characteristics of the motor unit (MU) and the volume conductor, namely the MU depth, the innervation zone width and the thickness of fat and skin layers based on MUAP signal parameters. The relationship between these characteristics and MUAP parameters are non-linear and complex. Thus, the use of the neural networks approach becomes an efficient tool to put in evidence this relationship. We have used the similarity and the homogeneity of the parameter criterions to choose which parameters are appropriate for the extraction. Two identification systems are presented and compared, a global system and a separate one. In order to evaluate the performance of each system, we have tested them using several simulated MUAP signals corrupted with additive Gaussian noise at different signal to noise ratios (SNR). A new test is introduced in which the electrode radius, the bar electrode dimensions and inclination angles for the detection system, fixed during the training process, are changed. (c) 2007 Elsevier B.V. All rights reserved.
Notes: Reffad, A. Bekka, R. E. Mebarkia, K. Chikouche, D.
URL: <Go to ISI>://WOS:000248737600016

Abstract: The effects of quenching temperature including different thermal histories on mechanical, physical, and thermal properties of pigmented polycarbonate (PC/TiO2) were investigated. Tensile test, Izod impact strength and heat distortion temperature (HDT) were performed on specimens of 3 mm thickness. Pigment content and quenching temperature are two key factors that affect the properties of the materials. A higher content of pigments results in an increase of modulus of elasticity and a decrease of unotched and notched Izod impact strength, as well as elongation at break. A maximum of yield stress and HDT is obtained at 3% of TiO2, which was considered as the optimum level of pigment. An additional second quenching at 40 degrees C has allowed to improve Izod impact strength and elongation at break of specimens with 3% of TiO2; whereas modulus of elasticity, density, yield stress, and HDT were minimum at this quenching temperature. (c) 2007 Wiley Periodicals, Inc.

Reference Type: Journal Article
Record Number: 97
Author: Rouabhi, T. Trabelsi, N.
Year: 2007
Title: A note on torsion-by-nilpotent groups
Journal: Rendiconti Del Seminario Matematico Della Universita Di Padova
Volume: 117
Pages: 175-179
Short Title: A note on torsion-by-nilpotent groups
ISSN: 0041-8994
Accession Number: WOS:000249272700010
Abstract: In this note we prove that a finitely generated soluble-by-finite group G is torsion-by-nilpotent if and only if every infinite subset contains two distinct elements x, y such that (x, x(y)) is torsion-by-nilpotent.
Notes: Rouabhi, Tarek Trabelsi, Nadir
URL: <Go to ISI>://WOS:000249272700010

Reference Type: Journal Article
Record Number: 98
Author: Rouag, N. Boussouar, L. Toumi, S. Ouennoughi, Z. Djouadi, M. A.
Year: 2007
Title: On the difference in the apparent barrier height of inhomogeneous Schottky diodes with a Gaussian distribution
Journal: Semiconductor Science and Technology
Volume: 22
Issue: 4
Pages: 369-373
Date: Apr
Short Title: On the difference in the apparent barrier height of inhomogeneous Schottky diodes with a Gaussian distribution
ISSN: 0268-1242
DOI: 10.1088/0268-1242/22/4/012
Accession Number: WOS:000246104100012

Abstract: The differences in the calculated apparent Schottky barrier heights as obtained from different approaches assuming a Gaussian distribution model of barrier potential are discussed. A modified theoretical expression for the saturation current and consequently a new expression for the apparent barrier height, evaluated numerically, are proposed. The current-voltage (I-V) expression obtained is subsequently used to generate I-V curves. An adequate genetic algorithm has been used to extract diode parameters. While the previous approaches used may lead to an unphysical negative apparent barrier height at low temperatures, or may suggest the existence of a lowest critical temperature up to which the apparent barrier height can be calculated, our approach presented here yields results for the apparent barrier height in good agreement with the extracted values at different temperatures. Therefore, it is concluded that the temperature dependence of the apparent Schottky barrier height can be successfully explained with the presently proposed approach, the detailed aspects of which are presented in this contribution.
Notes: Rouag, N. Boussouar, L. Toumi, S. Ouennoughi, Z. Djouadi, M. A.
URL: <Go to ISI>://WOS:000246104100012

Reference Type: Journal Article
Record Number: 99
Author: Sahraoui, F. A. Zerroug, S. Louail, L. Maouche, D.
Year: 2007
Title: Effect of pressure on the structural and elastic properties of ZnS and MgS alloys in the B3 and B1 phases
Journal: Materials Letters
Volume: 61
Issue: 10
Pages: 1978-1981
Date: Apr
Short Title: Effect of pressure on the structural and elastic properties of ZnS and MgS alloys in the B3 and B1 phases
ISSN: 0167-577X
DOI: 10.1016/j.matlet.2006.07.170
Accession Number: WOS:000245760900006

Abstract: From the first-principles calculations, we have investigated the elastic stiffness coefficients C-11, C-12, C-44 and the bulk modulus B of the II-VI semiconductors ZnS and MgS under hydrostatic pressure. The calculations are based on the density functional theory within the generalized gradient approximation (GGA) for exchange-correlation interaction. For the structural properties we have shown that ZnS adopt the rocksalt (NaCl or B1) structure over 11.87 GPa pressure, the same character is adopted by MgS over 0.8 GPa. The elastic coefficients have the same behavior for the different structures of alloys; they increase with increasing pressure values. Our results for the structural parameters and equilibrium phase elastic constants are in good agreement with the available theoretical and experimental data. (c) 2006 Elsevier B.V All rights reserved.
Notes: Sahraoui, F. Ali Zerroug, S. Louail, L. Maouche, D.
URL: <Go to ISI>://WOS:000245760900006

Reference Type: **Journal Article**
Record Number: 100
Author: Selmani, L. Bensebaa, N.
Year: 2007
Title: A frictionless contact problem with adhesion and damage in elasto-viscoplasticity
Journal: Rendiconti Del Seminario Matematico Della Universita Di Padova
Volume: 118
Pages: 49-71
Short Title: A frictionless contact problem with adhesion and damage in elasto-viscoplasticity
ISSN: 0041-8994
Accession Number: WOS:000252631800003
Abstract: We consider a model for the quasistatic, adhesive and frictionless contact problem for an elasto-viscoplastic material with damage. The adhesion process on the contact surface is modelled by a surface internal variable, the bonding field, and the tangential shear due to the bonding field is included. The problem is formulated as a system of a variational equality for the displacements, an inclusion of parabolic type for the damage field and an integro-differential equation for the bonding field. The existence of the weak solution for the problem is established by monotone operator and fixed-point arguments.
Notes: Selmani, Lynda Bensebaa, Nadjet
URL: <Go to ISI>://WOS:000252631800003

Reference Type: Journal Article
Record Number: 101
Author: Setifi, F. Benmansour, S. Triki, S. Gomez-Garcia, C. J. Marchivie, M. Salaun, J. Y. Mustapha, M.
Year: 2007
Title: New coordination polymer based on a triply bridged dicarboxylate ligand: Synthesis, structure, and magnetic properties of the adipato complex Cu-4(bpy)(4)(adip)(3) (tcnoet)(2) center dot 2H(2)O {bpy=C10H8N2; adip(2-) = O2C(CH2)(4)CO2 (2-); tcnoet(-) = (NC)(2)CC(OEt)C(CN)(2) (-1)}
Journal: Inorganica Chimica Acta
Volume: 360
Issue: 13
Pages: 3879-3886
Date: Oct
Short Title: New coordination polymer based on a triply bridged dicarboxylate ligand: Synthesis, structure, and magnetic properties of the adipato complex Cu-4(bpy)(4)(adip)(3) (tcnoet)(2) center dot 2H(2)O {bpy=C10H8N2; adip(2-) = O2C(CH2)(4)CO2 (2-); tcnoet(-) = (NC)(2)CC(OEt)C(CN)(2) (-1)}
ISSN: 0020-1693
DOI: 10.1016/j.ica.2007.03.005
Accession Number: WOS:000250291300016
Abstract: A new compound of formula [Fe(qsal)(2)][Ni(dmit)(2)] (1) has been synthesised, structurally and magnetically characterised (qsalH = N(8-quinolyl)salicylaldimine, dmit(2-) = 1,3-dithiol-2-thione-4,5-dithiolato). Its structural features and its magnetic behaviour were compared with those of [Fe(qsal)(2)]-based complexes, and more particularly [Fe(qsal)(2)][Ni(dmit)(2)] center dot 2CH(3)CN. (c) 2007 Elsevier B.V. All rights reserved.
Notes: Setifi, Fatima Benmansour, Sarnia Triki, Smail Gomez-Garcia, Carlos J. Marchivie, Mathieu Salauen, Jean-Yves Mustapha, Maamache 1st European Conference on Molecular Magnetism Oct 10-15, 2006 Tomar, PORTUGAL
URL: <Go to ISI>://WOS:000250291300016

Abstract: Dairy cattle production has always been considered as an important axis of all agricultural policies adopted by Maghreb countries since the beginning of the post independence era (Algeria, Morocco, and Tunisia). It has mainly been encouraged as a means of securing income and employment at the farm level. it is also considered to be a relevant way of ensuring the supply of high quality protein for rapidly growing populations characterised by changing nutritional habits. Dairy policies vary from country to country (Supply with imported milk in Algeria, local dairy cattle production in Morocco and an intermediary choice in Tunisia), relying on different approaches and producing contrasting results. Thus, Obvious differences exist between countries in terms of dairy performance and domestic market Supply. This paper aims at comparing the recent dynamics of dairy production in the Maghreb countries with an emphasis on their future prospects: challenges due to the continuing effort to secure supply and to the upgrading of the, whole supply chain by a better management of dairy goods quality and an equitable distribution of the income to dairy operators.
Notes: Srairi, Mohamed Taher Ben Salem, Mondher Bourbouze, Alain Eloumi, Mohammed Faye, Bernard Madani, Taoufik Yakhlef, Hacene
URL: <Go to ISI>://WOS:000249253000002

Reference Type: Journal Article
Record Number: 103
Author: Titaouine, M. Neto, A. G. Baudrand, H. Djahli, F.
Year: 2007
Title: Analysis of frequency selective surface on isotropic/anisotropic layers using WCIP method
Journal: Etri Journal
Volume: 29
Issue: 1
Pages: 36-44
Date: Feb
Short Title: Analysis of frequency selective surface on isotropic/anisotropic layers using WCIP method
ISSN: 1225-6463
DOI: 10.4218/etrij.07.0106.0123
Accession Number: WOS:000244169300005
Abstract: The wave concept iterative procedure (WCIP) is used to analyze arbitrarily shaped frequency selective surfaces (FSS). The WCIP method is developed from the fast modal transform based on a two-dimensional fast Fourier transform algorithm. Using the proposed procedure, less computing time and memory are needed to calculate the scattering parameters of the FSS structure. The method is applied to the modeling of an FSS structure of a rectangular patch and a comparison with experimental results confirms good agreement.
Notes: Titaouine, Mohammed Neto, Alfredo Gomes Baudrand, Henry Djahli, Fadd
URL: <Go to ISI>://WOS:000244169300005

Reference Type: Journal Article
Record Number: 104
Author: Trabelsi, N.
Year: 2007
Title: On minimal non-(torsion-by-nilpotent) and non-((locally finite)-by-nilpotent) groups
Journal: Comptes Rendus Mathematique
Volume: 344
Issue: 6
Pages: 353-356
Date: Mar
Short Title: On minimal non-(torsion-by-nilpotent) and non-((locally finite)-by-nilpotent) groups
ISSN: 1631-073X
DOI: 10.1016/j.crma.2007.02.009
Accession Number: WOS:000245936100002

Abstract: Let Omega be a class of groups. A group is said to be minimal non-Omega if it is not an Omega-group, while all its proper subgroups belong to Omega. In this Note we prove that a minimal non- (torsion-by-nilpotent) (respectively, non-((locally finite)-by-nilpotent)) group G is a finitely generated perfect group which has no proper subgroup of finite index and such that G/Frat(G) is an infinite simple group, where Frat(G) stands for the Frattini subgroup of G.
Notes: Trabelsi, Nadir
URL: <Go to ISI>://WOS:000245936100002

Reference Type: Journal Article
Record Number: 105
Author: Zerroug, M. M. Bouznad, Z. Larous, L. Strange, R. N.
Year: 2007
Title: Production of solanapyrone a by Algerian isolates of Ascochyta rabiei as the cause of the toxicity of culture filtrates to chickpea (Cicer arietinum seeds and seedlings
Journal: Journal of Plant Pathology
Volume: 89
Issue: 2
Pages: 227-232
Date: Jul
Short Title: Production of solanapyrone a by Algerian isolates of Ascochyta rabiei as the cause of the toxicity of culture filtrates to chickpea (Cicer arietinum seeds and seedlings
ISSN: 1125-4653
Accession Number: WOS:000247707800008

Abstract: Cultures, designated Ag1, Ag2 and Ag3, of a fungus resembling Ascochyta rabiei, Didymella rabiei (teleomorph), were isolated from blighted chickpea plants growing in three regions of Algeria. The isolates were shown to be the cause of the disease by fulfilling Koch's postulates and were identified as A. rabiei by sequencing ribosomal DNA. When grown on a defined liquid medium, consisting of Czapek Dox nutrients and five cations, the filtrates inhibited germination of chickpea seed, and elongation of hypocotyls and radicles of seedlings. All three isolates produced the phytotoxin solanapyrone A in culture and maximal concentrations in the culture filtrates, recorded after incubation for 14 days were 15.1 +/- 1.29 mu g/ml, 8.4 +/- 1.19 mu g/ml and 7.4 +/- 0.85 mg/ml for Ag1 Ag2 and Ag3, respectively. ED50 values were 7.15 +/- 1.77, 5.87 +/- 1.40 and 3.60 +/- 1.47 mu g solanapyrone A/ml for inhibition of germination, hypocotyl elongation and radicle elongation, respectively. Concentrations of solanapyrone A in dilutions of culture filtrates that caused 50% inhibition of these three parameters were sufficient to explain their inhibitory effects in all cases except the inhibition of germination and hypocotyl elongation by filtrates of Ag2 and Ag3. Here they were only 65 % and 58 % of the amount required to cause the inhibition of germination, respectively and 60% and 63% of the amount required to inhibit hypocotyl elongation, respectively, suggesting that other factors may be involved.
Notes: Zerroug, M. M. Bouznad, Z. Larous, L. Strange, R. N.
URL: <Go to ISI>://WOS:000247707800008

Reference Type: Journal Article
Record Number: 106
Author: Zerroug, S. Sahraoui, F. A. Bouarissa, N.
Year: 2007
Title: Structural parameters and pressure coefficients for CdSxTe1-x: FP-LAPW calculations
Journal: European Physical Journal B
Volume: 57
Issue: 1
Pages: 9-14
Date: May
Short Title: Structural parameters and pressure coefficients for CdSxTe1-x: FP-LAPW calculations
ISSN: 1434-6028
DOI: 10.1140/epjb/e2007-00157-8
Accession Number: WOS:000247484500002
Abstract: The structural parameters and hydrostatic pressure coefficients of CdSxTe1-x in the two phases, namely zinc-blende and NaCl as well as the transition pressures from zinc-blende to NaCl structures at various S concentrations are presented. The calculations are performed using the full potential linearized augmented plane wave (FP-LAPW) method within the density functional theory (DFT) in the local density approximation (LDA), and two developed refinements, namely the generalized gradient approximation (GGA) of Perdew et al. for the structural properties and Engel-Vosko for the band structure calculations. Detailed comparisons are made with published experimental and theoretical data and show generally good agreement. The present results regarding the studied quantities for compositions x in the 0-1 range (0 < x < 1) and for the NaCl phase are predictions and may serve as a reference for experimental work.
Notes: Zerroug, S. Sahraoui, F. Ali Bouarissa, N.
URL: <Go to ISI>://WOS:000247484500002

Reference Type: Journal Article
Record Number: 107
Author: Zerrougui, Z. Merzouki, A. Vincent, D.
Year: 2007
Title: High frequency characterization of the thin film ferrites BaM and YIG
Journal: European Physical Journal-Applied Physics
Volume: 39
Issue: 1
Pages: 45-50
Date: Jul
Short Title: High frequency characterization of the thin film ferrites BaM and YIG
ISSN: 1286-0042
DOI: 10.1051/epjap:2007105
Accession Number: WOS:000248046700008

Abstract: New microwave electronic technology challenges require the integration of many passive components onto chips. Among them, isolators and circulators are non-reciprocal passive devices that contain magnetic materials. It is therefore important to know the magnetic properties of suitable materials. The permeability tensor is the most important parameter to de. ne, because it governs the interaction between the electromagnetic wave and the material, and is thus the origin of all magnetic phenomenons. Our work consists of performing the characterization of thin films of BaM and YIG over a frequency range of 0.4 GHz to 65 GHz. The work shows the presence of a gyroresonance phenomenon and locates the resonance frequencies. The technique is based on S parameter measurements on the magnetic materials performed with a network analyser and a probe tester. Polder's model is used to calculate the different elements of the permeability tensor, which consider the ferrite in its saturated state.
Notes: Zerrougui, Z. Merzouki, A. Vincent, D.
URL: <Go to ISI>://WOS:000248046700008

Reference Type: Journal Article
Record Number: 108
Author: Zidelkheir, B. Boudjemaa, S. Abdel-Goad, M. Djellouli, B.
Year: 2007
Title: Synthesis and morphology of polystyrene/organically modified montmorillonite composite via melt intercalation process
Journal: Journal of Polymer Materials
Volume: 24
Issue: 3
Pages: 223-231
Date: Jul-Sep
Short Title: Synthesis and morphology of polystyrene/organically modified montmorillonite composite via melt intercalation process
ISSN: 0973-8622
Accession Number: WOS:000253958400001
Abstract: Polymer composites based on modified montmorillonite (OMMT) and polystyrene (PS) were prepared with different compositions by melt processing. The modification of MMT-Na was carried out by treating with octadecylammonium cation. The polymer composites were characterized using different techniques such as x-ray diffraction (XRD), infrared spectrophotometer (IR), differential scanning calorimetry (DSC), Thermogravimetric analysis (TGA), rheology and tensile measurements. The results showed that, the basal space of the silicate layer increased due to the cationic exchange of the sodium ions by the long chains of octadecylammonium ions, as determined by XRD analysis, from 12.6 to 32.3 angstrom. A microstructure was detected by x-ray patterns and the TEM (transmission electronic microscopy) micrograph at 2 wt % OMMT However, the sample with higher than 2 wt % OMMT reveals partial intercalation structure. The composite with 5 wt % OMMT indicated the highest improvement in thermal stability. The rheological properties of the PS/OMMT composites were investigated using ARES-rheometer operated in the dynamic mode with a parallel plate geometry. The storage and loss moduli increased with increasing the clay content. The stress at break is also improved relatively to the virgin polystyrene in our experimental conditions.
Notes: Zidelkheir, Belkacem Boudjemaa, Soufiane Abdel-Goad, Mahmoud Djellouli, Brahim
URL: <Go to ISI>://WOS:000253958400001

Reference Type: Book Section

Record Number: 1

Author: Lamari, S.

Year: 2007

Title: Role of potential steps on the Rashba effect in quantum wells

Editor: Salamin, Y. I. Hamdan, N. M. AlAwadi, H. Jisrawi, N. M. Tabet, N.

Book Title: Nanotechnology and Its Applications

Volume: 929

Pages: 51-54

Series Title: Aip Conference Proceedings

Short Title: Role of potential steps on the Rashba effect in quantum wells

ISBN: 0094-243X 978-0-7354-0439-7

Accession Number: WOS:000250403600010

Abstract: Following the seminal paper of Datta and Das(1) where a new device called the spin FET was proposed, the study of of spin orbit effects in semiconductor research has increased tremendously(2). In this new device spin polarized electrons are injected by a ferromagnetic source and collected by a ferromagnetic drain. If the length of the conduction channel is smaller than the length of spin dephasing through Dyakonov Perel mechanism(3) then transport is ballistic and a phase shift Delta theta appears between spin components. With m being the effective mass and a the Rashba parameter(4) this phase shift is 2 m alpha L. The same authors then predicted spin modulation of current by a gate. This outstanding idea was greeted with much enthusiasm and motivated a large number of experiments worldwide(5). Nonparabolicity(6,7), and population? of subbands turned out essential. Our work in Ref. 7 was numerical, but recently(8) we introduced a fully analytic theory of the Rashba parameter using the invariant expansion of Rossler et al(9). The present contribution is a numerical implementation of this framework.

Notes: Lamari, S. 1st Sharjah International Conference on Nanotechnology and Its Applications Apr 10-12, 2007 Sharjah, U ARAB EMIRATES Al Sharif Grp LLC, ADNOC & Its Grp Co, Petrofac, Sharjah Chamber Commerce & Ind, Sharjah Municipal, Dubai Silicon Oasis Author, Veeco, Agilent Technologies

URL: <Go to ISI>://WOS:000250403600010

Reference Type: Book
Record Number: 1
Author: Abdelaziz, M. Ghedjati, K.
Year: 2007
Title: Control by feedback linearization of the torque and the flux of the induction motor
Series Editor: Le, M. H. Demiralp, M. Mladenov, V. Bojkovic, Z.
Series Title: Proceedings of the 7th Wseas International Conference on Systems Theory and Scientific Computation
Number of Pages: 84-90
Short Title: Control by feedback linearization of the torque and the flux of the induction motor
ISBN: 978-960-8457-98-0
Accession Number: WOS:000257305100014

Abstract: The theory of input-output feedback linearization is extensively used for the control of nonlinear systems. In this paper, this theory is developed of the mathematical view point, and then, applied for the regulation of the torque and the flux of the induction machine. The results of simulations testify the hardiness of the method developed.

Notes: Abdelaziz, M. Ghedjati, K. Istacs'07 7th WSEAS International Conference on Systems Theory and Scientific Computation Aug 24-26, 2007 Vouliagmeni, GREECE Wseas
URL: <Go to ISI>://WOS:000257305100014

11 **Reference Type: Book**
Record Number: 2
Author: Abdelaziz, M. Ghedjati, K.
Year: 2007
Title: Model reference adaptive control for linear time varying and nonlinear systems using virtual linearization
Series Editor: Le, M. H. Demiralp, M. Mladenov, V. Bojkovic, Z.
Series Title: Proceedings of the 7th Wseas International Conference on Systems Theory and Scientific Computation
Number of Pages: 91-95
Short Title: Model reference adaptive control for linear time varying and nonlinear systems using virtual linearization
ISBN: 978-960-8457-98-0
Accession Number: WOS:000257305100015
Abstract: Model reference adaptive control is applied to linear time varying systems and to nonlinear systems amenable to virtual linearization. Asymptotic stability is guaranteed even if the perfect model following conditions do not hold, provided that some sufficient conditions are satisfied. Simulations show the scheme to be capable of effectively controlling certain nonlinear systems.
Notes: Abdelaziz, M. Ghedjati, K. Istacs'07 7th WSEAS International Conference on Systems Theory and Scientific Computation Aug 24-26, 2007 Vouliagmeni, GREECE Wseas
URL: <Go to ISI>://WOS:000257305100015

Reference Type: Book
Record Number: 3
Author: Aibeche, A. Favini, A.
Year: 2007
Title: Coerciveness estimate for ventcel boundary value problem for a differential equation
Series Editor: Trimeche, K. Zarati, S.
Series Title: Proceedings of the Tunisian Mathematical Society, Volume 11
Number of Pages: 1-8
Short Title: Coerciveness estimate for ventcel boundary value problem for a differential equation
ISBN: 978-1-60021-014-3
Accession Number: WOS:000254271000001

Abstract: We give some simple algebraic conditions on the coefficients of a boundary value problem for a differential equations of Ventcel type, depending on a spectral parameter, which guarantee the existence, uniqueness of a solution and coerciveness estimate, for a spectral parameter lying in some sector.
Notes: Aibeche, Aissa Favini, Angelo 12th Symposium of the Tunisian-Mathematical-Society Mar 18-23, 2004 Mahdia, TUNISIA Tunisian Math Soc
URL: <Go to ISI>://WOS:000254271000001

Reference Type: Book
Record Number: 4
Author: Chaoui, A. Gaubert, J. P. Krim, F. Rambault, L. Ieee,
Year: 2007
Title: Direct power control of shunt active filter
Series Title: 2007 European Conference on Power Electronics and Applications, Vols 1-10
Number of Pages: 3770-3780
Short Title: Direct power control of shunt active filter
ISBN: 978-90-75815-11-5
Accession Number: WOS:000255993602060
Abstract: This paper presents a new control method entitled direct power control (DPC) for shunt active power filtering, which is applied to eliminate line current harmonics and compensate reactive power. Its main goal is to rebuild active and reactive powers to be compared to references values using hysteresis control. The outputs of hysteresis controllers associated with a switching table, control the instantaneous active and reactive power by selecting the optimum switching state of the voltage source inverter (VSI). A theoretical analysis with a complete simulation of the system and experimental results are presented to prove the excellent performance of the proposed technique.
Notes: Chaoui, Abdelmadjid Gaubert, Jean-Paul Krim, Fateh Rambault, Laurent 2007 European Conference on Power Electronics and Applications Sep 02-05, 2007 Aalborg, DENMARK Ieee
URL: <Go to ISI>://WOS:000255993602060

Reference Type: Book
Record Number: 5
Author: Mechta, D. Harous, S. Djoudi, M. Douar, A. Ieee,
Year: 2007
Title: An agent-based approach for designing and implementing a virtual laboratory
Series Title: 2007 Innovations in Information Technologies, Vols 1 and 2
Number of Pages: 209-213
Short Title: An agent-based approach for designing and implementing a virtual laboratory
ISBN: 978-1-4244-1840-4
Accession Number: WOS:000255983000043

Abstract: Virtual laboratories are necessary in e-learning environments, especially in technical and scientific disciplines. Our research objectives consist in proposing an environment to allow, on one hand, teachers to design virtual practical works, and on the other hand, learners to work together and perform laboratory experiments from remote locations through a web browser in distant Environment with virtual objects and appropriate pedagogical scenarios. In this article we describe the design and implementation of an agent based environment of a virtual laboratory for cooperative learning over the web.

Notes: Mechta, Djamila Harous, Saad Djoudi, Mahieddine Douar, Amel 4th International Conference on Innovations in Information Technology Nov 18-20, 2007 Dubai, U ARAB EMIRATES Ieee
URL: <Go to ISI>://WOS:000255983000043

Reference Type: Book
Record Number: 6
Author: Radjeai, H. Abdessemed, R. Tnani, S. Mouni, E. Ieee,
Year: 2007
Title: A method to improve the synchronous machines equivalent circuits
Series Title: Eurocon 2007: The International Conference on Computer as a Tool, Vols 1-6
Number of Pages: 1837-1842
Short Title: A method to improve the synchronous machines equivalent circuits
ISBN: 978-1-4244-0812-2
Accession Number: WOS:000257261901072

Abstract: In this Paper, we present a systematically method based on the transformer coupling effect to establish the d- and q- axes equivalent circuits, which can describe the transient behavior of the synchronous machine. The MATLAB/Simulink Power System Blockset tools (PSB) is used for the simulation of synchronous machines by their equivalent circuits. One used an empirical method, based on the comparison between the practical and numerical results, to elaborate an improved synchronous machine model during dynamic behaviors.
Notes: Radjeai, H. Abdessemed, R. Tnani, S. Mouni, E. International Conference on Computer as a Tool (EUROCON 2007) Sep 09-12, 2007 Warsaw, POLAND
URL: <Go to ISI>://WOS:000257261901072
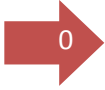
PRODUCTION SCIENTIFIQUE ANNEE 2008

Reference Type: Journal Article
Record Number: 1
Author: Abdelhafid, B.
Year: 2008
Title: Parameter identification of ZnO surge arrester models based on genetic algorithms
Journal: Electric Power Systems Research
Volume: 78
Issue: 7
Pages: 1204-1209
Date: Jul
Short Title: Parameter identification of ZnO surge arrester models based on genetic algorithms
ISSN: 0378-7796
DOI: 10.1016/j.epsr.2007.10.001
Accession Number: WOS:000256277100010
Abstract: The correct and adequate modelling of ZnO surge arresters characteristics is very important for insulation coordination studies and systems reliability. In this context many researchers addressed considerable efforts to the development of surge arresters models to reproduce the dynamic characteristics observed in their behaviour when subjected to fast front impulse currents. The difficulties with these models reside essentially in the calculation and the adjustment of their parameters. This paper proposes a new technique based on genetic algorithm to obtain the best possible series of parameter values of ZnO surge arresters models. The validity of the predicted parameters is then checked by comparing the predicted results with the experimental results available in the literature. Using the ATP-EMTP package, an application of the arrester model on network system studies is presented and discussed. (c) 2007 Elsevier B.V. All rights reserved.
Notes: Abdelhafid, Bayadi
URL: <Go to ISI>://WOS:000256277100010

Reference Type: Journal Article
Record Number: 2
Author: Aissat, K. Nicot, P. C. Guechi, A. Bardin, M. Chibane, M.
Year: 2008
Title: Grey mould development in greenhouse tomatoes under drip and furrow irrigation
Journal: Agronomy for Sustainable Development
Volume: 28
Issue: 3
Pages: 403-409
Date: Jul-Sep
Short Title: Grey mould development in greenhouse tomatoes under drip and furrow irrigation
ISSN: 1774-0746
DOI: 10.1051/agro:2008016
Accession Number: WOS:000258262600006
Abstract: Several methods can be used to provide water to plants in cropping systems where irrigation is necessary. For instance, drip irrigation has recently received much attention due to its advantages for water conservation. The type of irrigation can also impact the development of several pathogens responsible for soilborne diseases. Here, we studied the effect of drip irrigation and furrow irrigation on the development of grey mould, caused by the airborne fungus Botrytis cinerea, on tomato plants. A field experiment was conducted in 2004 in five unheated greenhouses. Plants were examined individually every 8 days and the proportion of plants attacked by grey mould on leaves, stems or fruits was recorded from the end of March until the end of June. Our results show that the attacks of Botrytis on the stems occurred earlier in furrow irrigation, 98.8 days after planting on average, than in drip irrigation: 106.3 days after planting. The kinetics of plant infection on stems, leaves and fruits were higher under furrow than under drip irrigation. Disease severity was measured by the average number of stem lesions per plant. Disease severity was higher in plants under furrow than under drip irrigation, reaching 1.32 and 0.99, respectively, at the end of June. Plant mortality due to grey mould was first recorded at 94 and 110 days after planting, respectively, in the furrow- and in the drip-irrigated greenhouses. These results suggest that drip irrigation could be a useful tool for the implementation of integrated protection schemes and for reducing the use of pesticides in unheated tomato greenhouses. They may also provide an additional incentive for growers to switch from furrow to drip irrigation in sheltered tomato production.
Notes: Aissat, Kamel Nicot, Philippe C. Guechi, Abdelhadi Bardin, Marc Chibane, Mohamed
URL: <Go to ISI>://WOS:000258262600006

3 **Reference Type: Journal Article**
Record Number: 3
Author: Alikhodja, C. E. Chermat, R. Khettabi, S. Hannat, S. Mekideche, F. Z. Rezig, M. F. Malek, R.
Year: 2008
Title: Evaluation of care and treatment of type 2 diabetes in general practitioners
Journal: Diabetes & Metabolism
Volume: 34
Pages: A65-A66
Date: Mar
Short Title: Evaluation of care and treatment of type 2 diabetes in general practitioners
ISSN: 1262-3636
Accession Number: WOS:000255327900215
Notes: Alikhodja, C. E. Chermat, R. Khettabi, S. Hannat, S. Mekideche, F. Z. Rezig, M. F. Malek, R. 1
URL: <Go to ISI>://WOS:000255327900215

Reference Type: Journal Article
Record Number: 4
Author: Amira, S. Rotondo, A. Mule, F.
Year: 2008
Title: Relaxant effects of flavonoids on the mouse isolated stomach: Structure-activity relationships
Journal: European Journal of Pharmacology
Volume: 599
Issue: 1-3
Pages: 126-130
Date: Dec
Short Title: Relaxant effects of flavonoids on the mouse isolated stomach: Structure-activity relationships
ISSN: 0014-2999
DOI: 10.1016/j.ejphar.2008.09.021
Accession Number: WOS:000261157500020

Abstract: Flavonoids are a large heterogeneous group of benzo-gamma-pyrone derivatives, which are abundantly present in our diet. In this study we investigated the effects of six flavonoids (apigenin, genistein, quercetin, rutin, naringenin and catechin) on the gastric tone in mouse isolated stomach. The mechanical activity was recorded as changes of intraluminal pressure. All flavonoids tested produced a concentration-dependent relaxation, which was reversible after washout. The relative order of potency of the flavonoids was apigenin >= genistein > quercetin > naringenin >= rutin > catechin. Analysis of the chemical structure showed that the relaxant activity was progressively diminished by the presence of hydroxyl group at C-3, saturation of the C-2, C-3 double bound, saturation of the C-2. C-3 double bound coupled with lack of the C-4 carbonyl and glycosylation. The flavonoid-induced relaxations were not modified in the presence of tetrodotoxin, a voltage-dependent Na(+)-channel blocker, N(omega)-nitro-L-arginine methyl ester (L-NAME), an inhibitor of nitric oxide synthase, indomethacin, an inhibitor of cycloxygenase or tetraethylammonium, a non-selective blocker of potassium channels. In conclusion, this study provides the first experimental evidence for gastric relaxant activity of flavonoids. This action is influenced to a great extent by the structure of the molecules and it seems not to be dependent on neural action potentials, NO/prostaglandin production or activation of K(+) channels. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Amira, Smain Rotondo, Alessandra Mule, Flavia
URL: <Go to ISI>://WOS:000261157500020

Reference Type: Journal Article
Record Number: 5
Author: Amrani, N. Boucenna, A.
Year: 2008
Title: Transmutation of Technetium into stable Ruthenium in high flux conceptual research reactor
Journal: Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms
Volume: 266
Issue: 6
Pages: 926-928
Date: Mar
Short Title: Transmutation of Technetium into stable Ruthenium in high flux conceptual research reactor
ISSN: 0168-583X
DOI: 10.1016/j.nimb.2008.01.047
Accession Number: WOS:000255701800013

Abstract: The effectiveness of transmutation for the long-lived fission product Technetium-99 in a high flux research reactor is evaluated, taking into account its large capture cross section in the thermal and epithermal regions. Calculation of the evolution of the Ruthenium concentration under irradiation was performed using the ChainSolver 2.20 code. The results on Technetium transmutation suggest an effective use of this kind of research reactors and describes a new concept of multi-recycle Technetium transmutation using HFRTRAN (high flux research reactor for transmutation). (C) 2008 Elsevier B.V. All rights reserved.

Notes: Amrani, Naima Boucenna, Ahmed
URL: <Go to ISI>://WOS:000255701800013

Abstract: Sulla coronaria (L.) Choi & Ohashi (syn. Hedysarum coronarium L.) may become a major forage species in various Mediterranean-climate areas. This study aimed to assess the extent of genotype x environment (GE) interaction in the western Mediterranean region and its implications for breeding programmes. The milestone Italian varieties Grimaldi and Sparacia, one recent Italian variety, and the Tunisian cv. D'Italie (evolved under moderately favourable conditions from Italian germplasm introduced about 40 years ago) were evaluated in three environments of Tunisia (of which two were irrigated), two of Algeria, and one of Sardinia (Italy). Water available over the crop cycle (rainfall+possible irrigation from October 2004 to June 2006), ranging from 881 to 1906 mm, accounted for 85% of the variation among environments and 72% of the GE interaction variation for dry matter yield. The latter was adequately described by one- covariate factorial regression, which was preferable to joint regression and additive main effects and multiplicative interaction modelling. D'Italie was speci. cally adapted to environments with available water exceeding 1200 mm, Grimaldi was top-ranking between 950 and 1200 mm, and Sparacia below 950 mm. The crossover GE interaction between top-yielding material (P < 0.05) has implications for adaptation targets, genetic resources, selection environments, and opportunities for international co- operation between breeding programmes. It suggests breeding either for rainfed cropping in semi-arid or near semi-arid environments, or for definitely subhumid or irrigated environments.

Reference Type: Journal Article

Record Number: 7

Author: Aouadi, S. Rodriguez-Hernandez, P. Kassali, K. Munoz, A.

Year: 2008

Title: Lattice dynamics properties of zinc-blende and Nickel arsenide phases of AlP

Journal: Physics Letters A

Volume: 372

Issue: 32

Pages: 5340-5345

Date: Aug

Short Title: Lattice dynamics properties of zinc-blende and Nickel arsenide phases of AlP

ISSN: 0375-9601

DOI: 10.1016/j.physleta.2008.06.010

Accession Number: WOS:000258254400017

Abstract: Ab initio calculations, based on norm-conserving non-local pseudopotentials and the density functional theory (DFT), have been performed to investigate the behaviour under hydrostatic pressure of the Structural, electronic, elastic and dynamical properties of AlP, in both zinc-blende and nickel arsenide phases. Our calculated structural and electronic properties are in good agreement with previous theoretical and experimental results. The phonon dispersion curves, the elastic constants, Born effective charge, etc., were calculated with the local density approximation and the density functional perturbation theory (DFPT). Our results in the pressure behaviour of the elastic and dynamical properties of both phases are in agreement with the experimental data when available, in other case they can be considered as predictions. (C) 2008 Elsevier B.V. All rights reserved.

Notes: Aouadi, S. Rodriguez-Hernandez, P. Kassali, K. Munoz, A.

URL: <Go to ISI>://WOS:000258254400017

Reference Type: Journal Article
Record Number: 8
Author: Arrar, L. Hanachi, N. Rouba, K. Charef, N. Khennouf, S. Baghiani, A.
Year: 2008
Title: Anti-xanthine oxidase antibodies in sera and synovial fluid of patients with rheumatoid arthritis and other joint inflammations
Journal: Saudi Medical Journal
Volume: 29
Issue: 6
Pages: 803-807
Date: Jun
Short Title: Anti-xanthine oxidase antibodies in sera and synovial fluid of patients with rheumatoid arthritis and other joint inflammations
ISSN: 0379-5284
Accession Number: WOS:000258010600001

Abstract: Objectives: To study anti-bovine milk xanthine oxidoreductase (XOR) antibody levels in synovial fluid as well as in serum of patients suffering from rheumatoid affections to assess a possible correlation between antibody titres and severity of disease. Methods: Sera and synovial fluids were collected from volunteer donors at Setif University Hospital, Setif, Algeria from 2001-2007 with the consent of patients. Human IgG and IgM levels of free and bound anti-bovine milk XOR antibodies were determined using bovine XOR as antigen, with enzyme-linked immunosorbent assay (ELISA). Results: Serum IgG anti-(bovine milk XOR) titres in 30 healthy normal subjects (2-74+/-2.31 mu g/mL) are in agreement with that reported in the literature. Immunoglobulin G and IgM anti-(bovine milk XOR) antibody titres were found to be significantly higher in serum from patients with rheumatoid arthritis (RA), and latex positives subjects. Synovial IgM antibody titres to bovine XOR were found to be significantly higher in rheumatoid arthritis patients compared to patients with other joint inflammations. Conclusion: In rheumatoid arthritis patients, high concentrations of antibodies against XOR were noticed. These antibodies may play a major role in RA by inhibiting both xanthine and NADH oxidase activities of XOR. They may also play a key role in eliminating XOR from serum and synovial fluid (positive role) but unfortunately, immune complex formation could also activate complement and participate in self maintenance of inflammation.
Notes: Arrar, Lekhmici Hanachi, Nadjet Rouba, Khaled Charef, Noureddine Khennouf, Seddik Baghiani, Abderrahmane
URL: <Go to ISI>://WOS:000258010600001

Abstract: Sr2CoMoO6 and Sr2CoMoO6-delta ceramics have been obtained by solid state reaction in air and in a H-2/N-2 gas mixture. At room temperature, as shown by X-ray diffraction, both compounds have a tetragonal perovskite-like structure with doublet unit-cell parameters, space group I4/m, with a=5.5575, c=7.9342 in Sr2CoMoO6 and a=5.5683 and c=7.9395 in Sr2CoMoO0.95. The latter contains small traces of Co and SrCoO2.61, with an almost expansion. The magnetic susceptibility indicates that Sr2CoMoO6 is an antiferromagnet with T-N=37 K. The magnetization was found to be the same in both samples, while the electric properties, originating from the oxygen content, are drastically affected.

Reference Type: Journal Article
Record Number: 10
Author: Bahlouli, F. Bouzerzour, H. Benmahammed, A.
Year: 2008
Title: Effects of speed and the duration of grain filling and the accumulation of assimilates of the stem in developing the durum wheat yield (Triticum durum Desf.) in the culture conditions of the high plains of eastern Algeria
Journal: Biotechnologie Agronomie Societe Et Environnement
Volume: 12
Issue: 1
Pages: 31-39
Short Title: Effects of speed and the duration of grain filling and the accumulation of assimilates of the stem in developing the durum wheat yield (Triticum durum Desf.) in the culture conditions of the high plains of eastern Algeria
ISSN: 1370-6233
Accession Number: WOS:000256941400004
Abstract: The present study was led on the experimental site of station ITGC in Setif. The objective is to determine the differences of duration and speed of filling and the contribution of the assimilates of the stems to the yield of 5 durum wheat genotypes (Triticum durum Desf.). The year effect is significant, what explains the fluctuation of the conditions of one growth year to another. The grain yield is associated to the great quantity of assimilates stored and transferred from the stems to the grain filling. The Mbb genotype which has an important stem height transfers more assimilates. The genotypes ADS497 and Deraa present large standard leaves. The beginning of the active phase of the grain filling corresponds to the beginning of the foliar senescence. Mbb presents a slower foliar drying rate, the speed of drying stationary recorded by ADS497 is of -0.5957 cm(2) per day. The speed of grain filling is negatively related to the duration of filling. The participation of the assimilates coming from the stem decreases when the environment allows the expression of a better grain yield. Keywords. Wheat, assimilates, duration of filling, yield, speed of filling, Algeria.
Notes: Bahlouli, Faycal Bouzerzour, Hamenna Benmahammed, Ammar
URL: <Go to ISI>://WOS:000256941400004

Reference Type: Journal Article

Record Number: 11

Author: Bartel, J. Bencheikh, K. Meyer, J.

Year: 2008

Title: Extended Thomas-Fermi density functionals in the presence of a tensor interaction in spherical symmetry

Journal: Physical Review C

Volume: 77

Issue: 2

Date: Feb

Short Title: Extended Thomas-Fermi density functionals in the presence of a tensor interaction in spherical symmetry

ISSN: 0556-2813

DOI: 10.1103/PhysRevC.77.024311

Article Number: 024311

Accession Number: WOS:000253764600019

Abstract: For a one-body Hamiltonian obtained from the energy-density functional associated with a Skyrme effective interaction, including a tensor force, semiclassical functional densities are derived in the framework of the Extended Thomas-Fermi method, in spherical symmetry, for the kinetic energy and spin-orbit density. The structure of the self-consistent mean-field potentials constructed with such semiclassical functionals is studied. The impact of the tensor force in particular on the spin-orbit form factor clearly indicates the necessity of including such tensor-force terms in the theoretical description of atomic nuclei and their possible influence on the shell structure of exotic nuclei.

Notes: Bartel, J. Bencheikh, K. Meyer, J.

URL: <Go to ISI>://WOS:000253764600019

12 **Reference Type: Journal Article**
Record Number: 12
Author: Belhattab, R. Larous, L.
Year: 2008
Title: Antimicrobial Activity and Inhibition of Aflatoxin B1 Production by Essential Oils Origanum glandulosum Desf
Journal: Egyptian Journal of Biological Pest Control
Volume: 18
Issue: 1
Pages: 127-131
Short Title: Antimicrobial Activity and Inhibition of Aflatoxin B1 Production by Essential Oils Origanum glandulosum Desf
ISSN: 1110-1768
Accession Number: WOS:000273511300018
Abstract: Origanum glandulosum Desf., an endemic species of Algeria is used not only as a herb tea but as medicinal plant to cure several pains including cough and rhumatism. The oil was obtained from the aerial parts of the plant by hydrodistillation and analysed by GC and GC-MS. The main components of the oil were carvacrol (57%), thymol (7%), and their biogenic precursor's gamma-terpinene (13%) and p-cymene (11%). The antibacterial activity of a serial dilution of the oil was evaluated against ten strains of bacteria using the disk diffusion test. Escherichia coli and Acinetobacter boumanii were the most susceptible to the oil, whereas Pseudomonas aeroginosa ATCC 27853 was the least one. The ability of the oil to inhibit Aspergillus favus growth and aflatoxin B(1) (AFB(1)) production was conducted on yeast extract sucrose (YES) medium. The minimal inhibitory concentration (MIC) for the growth of this fungus was at 400 ppm, whereas that for the AFB(1) production was 200 ppm. Carvacrol was used as control and the values for the two MICs were 180 ppm and 50 ppm, respectively.
Notes: Belhattab, R. Larous, L.
URL: <Go to ISI>://WOS:000273511300018

Reference Type: Journal Article
Record Number: 13
Author: Benabdallah, H. Messaoudi, D. Gharzouli, K.
Year: 2008
Title: The spontaneous mechanical activity of the circular smooth muscle of the rabbit colon in vitro
Journal: Pharmacological Research
Volume: 57
Issue: 2
Pages: 132-141
Date: Feb
Short Title: The spontaneous mechanical activity of the circular smooth muscle of the rabbit colon in vitro
ISSN: 1043-6618
DOI: 10.1016/j.phrs.2008.01.002
Accession Number: WOS:000254691000005

Abstract: The spontaneous mechanical activity of the proximal, middle and distal colon of the rabbit shows in vitro two types of contractions: phasic contractions with low amplitude and high frequency, giant contractions (GCs) with high amplitude and low frequency. Both patterns of contractions did not present differences according to the region. Investigations on the neural control of giant contractions in the middle colon gave the following results. (1) GCs are insensitive to muscarinic antagonism by atropine and ganglionic blockade by hexamethonium; (2) GCs are converted into phasic contractions following the inhibition of acetylcholinesterase by neostigmine, and are abolished for a short period by dimethyl-phenyl-piperazinium, a ganglionic nicotinic receptor agonist; (3) application of L-arginine, the substrate of nitric oxide (NO) synthase prolonged the duration of GCs without affecting their amplitude; sodium nitroprusside, a donor of NO, reduced both the amplitude and frequency of GCs; (4) inhibition of guanylate cyclase by methylene blue converted GCs into phasic contractions; (5) blockade of K^+ channels with the non-selective blocker, tetraethylammonium, or with the more selective apamin-sensitive Ca^{2+}-dependent K^+ channels blocker, dequaliniun, increased the resting tone and decreased the amplitude of contractions; whereas opening of ATP-sensitive K^+ channels by diazoxide abolished any rhythmic contractile activity. These data taken together suggest that the amplitude and frequency of GCs are controlled by the endogenous release of NO which activates guanylate cyclase, the subsequent formation of cGMP activates in turn the opening of Ca^{2+}-dependent K^+ channels. The cholinergic input seems to be responsible of the resting tone, and an increase of this tone is prone to impose the phasic contractions pattern to the tissue. (C) 2008 Elsevier Ltd. All rights reserved.
Notes: Benabdallah, Hassiba Messaoudi, Dahla Gharzouli, Kamel
URL: <Go to ISI>://WOS:000254691000005

14

Reference Type: Journal Article
Record Number: 14
Author: Benahmed, M. Akkal, S. Elomri, A. Laouer, H. Verite, P. Seguin, E.
Year: 2008
Title: Secondary Constituents from Carum montanum
Journal: Chemistry of Natural Compounds
Volume: 44
Issue: 4
Pages: 510-511
Date: Jul
Short Title: Secondary Constituents from Carum montanum
ISSN: 0009-3130
DOI: 10.1007/s10600-008-9114-z
Accession Number: WOS:000260850300024
Notes: Benahmed, M. Akkal, S. Elomri, A. Laouer, H. Verite, P. Seguin, E.
URL: <Go to ISI>://WOS:000260850300024

Reference Type: Journal Article
Record Number: 15
Author: Benahmed, M. Elomri, A. Akkal, S. Laouar, H. Verite, P. Seguin, E.
Year: 2008
Title: Flavonoids from Bupleurum montanum Coss. (Apiaceae)
Journal: Planta Medica
Volume: 74
Issue: 9
Pages: 1055-1055
Date: Jul
Short Title: Flavonoids from Bupleurum montanum Coss. (Apiaceae)
ISSN: 0032-0943
Accession Number: WOS:000258261801009
Notes: Benahmed, M. Elomri, A. Akkal, S. Laouar, H. Verite, P. Seguin, E. 7th Joint Meeting
of the Association-Francophone-pour-l'Enselgnement-et-la-Recherche-en-Pharmacog
nosie/American-Society-of-Pharmacognosy/Society-for-Medicinal-Plant-Rese arch/Phytochem-
Society-of-Europe/Societa-Italiana-di-Fitochimica Aug 03-08, 2008 Athens, GREECE Assoc
Francophone Enseignement Rech Pharmacognosie, Amer Soc Pharmacognosy, Soc Medicinal
Plant Res, Phytochem Soc Europe, Soc Italiana Fitochim
URL: <Go to ISI>://WOS:000258261801009

Reference Type: Journal Article

Record Number: 16

Author: Benalia, S. Ameri, M. Rached, D. Khenata, R. Rabah, M. Bouhemadou, A.

Year: 2008

Title: First-principle calculations of elastic and electronic properties of the filled skutterudite CeFe4P12

Journal: Computational Materials Science

Volume: 43

Issue: 4

Pages: 1022-1026

Date: Oct

Short Title: First-principle calculations of elastic and electronic properties of the filled skutterudite CeFe4P12

ISSN: 0927-0256

DOI: 10.1016/j.commatsci.2008.02.018

Accession Number: WOS:000260916900056

Abstract: A theoretical study of elastic and electronic properties of the filled skutterudite CeFe4P12 is presented, using the full-potential linear muffin-tin orbital (FP-LMTO) method. In this approach the local spin density approximation (LSDA) was used for the exchange-correlation (XC) potential. Results are given for lattice constant, bulk modulus, its pressure derivative and elastic constants. Our calculations performed for band structure and density of state show that this compound is an indirect band gap material (Gamma-N). The results are compared with previous calculations and experimental data. (C) 2008 Elsevier B.V. All rights reserved.

Notes: Benalia, S. Ameri, M. Rached, D. Khenata, R. Rabah, M. Bouhemadou, A.

URL: <Go to ISI>://WOS:000260916900056

Reference Type: Journal Article
Record Number: 17
Author: Benaniba, M. T. Belhaneche-Bensemra, N. Gelbard, G.
Year: 2008
Title: Epoxidation of sunflower oil with peroxoacetic acid in presence of ion exchange resin by various processes
Journal: Energy Education Science and Technology
Volume: 21
Issue: 1-2
Pages: 71-82
Date: Jun-Sep
Short Title: Epoxidation of sunflower oil with peroxoacetic acid in presence of ion exchange resin by various processes
ISSN: 1301-8361
Accession Number: WOS:000258530300003

Abstract: Sunflower oil is a renewable resource that can be epoxidised. Epoxidised sunflower oil has the potential for use as an environmentally friendly, reactive material in polymer I c formulations. Sunflower oil of iodine value 130 was epoxidized in situ, with preformed peracetic acid, or using a mixed strategy, to determine the optimisation of double bond to oxirane rings. The epoxidation of sunflower oil and the extent of side reactions were studied at different temperature. Epoxidation was carried out in toluene with preformed peroxoacetic acid, in situ with partially preformed peroxoacetic acid and with "in situ" formed peroxoacetic acid in the presence of an ion exchange resin as the catalyst. H-1 nuclear magnetic resonance spectra of a series of epoxidized sunflower oil were recorded with a 200 MHz instrument using deuterated chloroform as solvent. The optimum conversions were obtained with 4 hours reaction period at 55 degrees C by the in situ epoxidation technique; using 30% hydrogen peroxide and ion exchange resin as catalyst the mole ratio of the reactants was unsaturation /hydrogen peroxide/acetic acid (1/1.5/0.5). The epoxidized oil obtained from various processes was determined by analytical titration.

Notes: Benaniba, M. T. Belhaneche-Bensemra, N. Gelbard, G.
URL: <Go to ISI>://WOS:000258530300003

Reference Type: Journal Article
Record Number: 18
Author: Bencheikh, K. Nieto, L. M.
Year: 2008
Title: Wigner-transform phase-space densities of a two-dimensional harmonically confined charged quantum gas subjected to a magnetic field
Journal: Physical Review A
Volume: 78
Issue: 5
Date: Nov
Short Title: Wigner-transform phase-space densities of a two-dimensional harmonically confined charged quantum gas subjected to a magnetic field
ISSN: 1050-2947
DOI: 10.1103/PhysRevA.78.053614
Article Number: 053614
Accession Number: WOS:000261215600131
Abstract: Closed form analytical expressions are obtained for the Wigner transform of the Bloch density matrix and for the Wigner phase-space density of a two-dimensional harmonically trapped charged quantum gas in a uniform magnetic field of arbitrary strength, at zero and nonzero temperatures. An exact analytic expression is also obtained for the autocorrelation function. The strong magnetic field case, where only few Landau levels are occupied, is also examined, and useful approximate expressions for the spatial and momentum densities are given.
Notes: Bencheikh, K. Nieto, L. M.
URL: <Go to ISI>://WOS:000261215600131

Reference Type: Journal Article
Record Number: 19
Author: Bencheikh, K. Vignale, G.
Year: 2008
Title: Temperature dependence of persistent spin currents in a spin-orbit-coupled electron gas: A density-matrix approach
Journal: Physical Review B
Volume: 77
Issue: 15
Date: Apr
Short Title: Temperature dependence of persistent spin currents in a spin-orbit-coupled electron gas: A density-matrix approach
ISSN: 1098-0121
DOI: 10.1103/PhysRevB.77.155315
Article Number: 155315
Accession Number: WOS:000255457400085
Abstract: We present a simple analytical method, based on the canonical density matrix, for the calculation of the equilibrium spin current as a function of temperature in a two-dimensional electron gas with both Rashba and Dresselhaus spin-orbit coupling terms. We find that the persistent spin current is extremely robust against thermal disorder: its variation with temperature is exponentially small (proportional to $e^{(F)(-T)/T}$) at temperatures much smaller than the Fermi temperature $T(F)$ and changes to a power law $T(F)/T$ for $T > T(F)$.
Notes: Bencheikh, K. Vignale, G.
URL: <Go to ISI>://WOS:000255457400085

20 **Reference Type:** Journal Article
Record Number: 20
Author: Benmansour, S. Setifi, F. Gomez-Garcia, C. J. Triki, S. Coronado, E. Salaun, J. Y.
Year: 2008
Title: A novel polynitrile ligand with different coordination modes: Synthesis, structure and magnetic properties of the series M(tcnoprOH)(2)(H2O)(2) (M = Mn, Co and Cu) (tcnoprOH(-) = (NC)(2)CC(OCH2CH2CH2OH)C(CN)(2) (-))
Journal: Journal of Molecular Structure
Volume: 890
Issue: 1-3
Pages: 255-262
Date: Nov
Short Title: A novel polynitrile ligand with different coordination modes: Synthesis, structure and magnetic properties of the series M(tcnoprOH)(2)(H2O)(2) (M = Mn, Co and Cu) (tcnoprOH(-) = (NC)(2)CC(OCH2CH2CH2OH)C(CN)(2) (-))
ISSN: 0022-2860
DOI: 10.1016/j.molstruc.2008.04.044
Accession Number: WOS:000261121100041

Abstract: A novel polynitrile ligand (tcnoprOH(-) = [(NC)(2)CC(OCH2CH2CH2H)C(CN)(2)](-)) with up to five potentially coordinating groups has been synthesized in a one-pot reaction from a cyclic acetal and malononitrile. The combination of this novel ligand with different transition metal ions has led to the synthesis of two different structural types with the same formula but with different coordination modes in the ligand. Mn(II) and Cu(II) lead to a mu(2)-N,O-coordinating mode in the series of compounds formulated as [M(N,O-tcnoprOH)(2)(H2O)(2)] (M = Mn-II (1) and Cu-II (2)), whereas Co(II) and, most probably Ni(II), lead to a mu(2)-N,N'-coordinating mode in [Co(N,N'-tcnoprOH)(2)(H2O)(2)] (3). Both structural types consist of linear chains of metal ions connected by a double tcnoprOH(-) bridge. These ligands are connected to the metal ions through one -CN and one -OH group in compounds 1 and 2 (N,O-coordinating mode) or through two -CN groups in compound 3. Magnetic measurements show that all compounds are paramagnetic with a low zero field splitting for the Mn derivative. (c) 2008 Elsevier B.V. All rights reserved.

Notes: Benmansour, Samia Setifi, Fatima Gomez-Garcia, Carlos J. Triki, Smail Coronado, Eugenio Salaun, Jean-Yves Si
URL: <Go to ISI>://WOS:000261121100041

Abstract: The present work deals with the study of a composite based on poly(vinyl chloride) (PVC) and aluminum hydroxide (Al(OH)(3)) which is treated with different concentrations of the silane coupling agent N-(2-aminoethyl)-3-aminopropyltrimethoxysilane. The composites containing untreated Al(OH)(3) and those treated with the coupling agent were prepared by melt mixing using a two-roll mill. Analysis of the treated filler by means of Fourier Transform Infrared spectroscopy (FTIR) showed the formation of oligoaminosilanes resulting from the condensation of the silane coupling agent. The tensile properties of the PVC/Al(OH)(3) composite reflected the effect of the addition of the mineral filler and also the influence of the chemical treatment on the interfacial adhesion. The incorporation of aluminum hydroxide into PVC resulted in an increase of Young's modulus and the yield stress. From the calculation of a parameter B which was used to quantify the state of adhesion between the polymeric matrix and the filler, it was concluded that the surface chemical treatment of the filler with the silane coupling agent leads to higher reinforcement as a result of the interfacial interactions developed between PVC and Al(OH)(3).
Notes: Benmesli, S. Riahi, F. Doufnoune, R.
URL: <Go to ISI>://WOS:000260779500005

Abstract: The results of first-principles theoretical study of the structural, electronic and optical properties of SrCl2 in its cubic structure, have been performed using the full-potential linear augmented plane-wave method plus local orbitals (FP-APW+lo) as implemented in the WIEN2k code. In this approach both the local density approximation (LDA) and the generalized gradient approximation (GGA) are used for the exchange-correlation (XC) potential. Also we have used the Engel-Vosko GGA formalism, which optimizes the corresponding potential for band structure calculations. We performed these calculations with and without spin-orbit interactions. Including spin-orbit coupling cause to lifts the triple degeneracy at Gamma point and a double degeneracy at X point. Results are given for structural properties. The pressure dependence of elastic constants and band gaps are investigated. The dielectric function, reflectivity spectra and refractive index are calculated up to 30 eV. Also we calculated the pressure and volume dependence of the static optical dielectric constant.
Notes: Benmimoun, Y. Bouhemadou, A. Khenata, R. Reshak, A. H. Amrani, B. Ameri, M. Baltache, H.
URL: <Go to ISI>://WOS:000253216400008

23 **Reference Type: Journal Article**
Record Number: 23
Author: Bensaci, S. Mezhoud, M. Abdellouche, D. Achour, H.
Year: 2008
Title: Evolutive profile and prognostic factors of nephroblastoma. Regarding a set of 125 cases
Journal: Bulletin Du Cancer
Volume: 95
Issue: 6
Pages: 579-580
Date: Jun
Short Title: Evolutive profile and prognostic factors of nephroblastoma. Regarding a set of 125 cases
ISSN: 0007-4551
Accession Number: WOS:000257127700012
Notes: Bensaci, S. Mezhoud, M. Abdellouche, D. Achour, H.
URL: <Go to ISI>://WOS:000257127700012

Reference Type: Journal Article
Record Number: 24
Author: Bentarzi, M. Guerbyenne, H. Hemis, R.
Year: 2008
Title: Predictive density order selection of periodic AR models
Journal: Communications in Statistics-Simulation and Computation
Volume: 37
Issue: 6
Pages: 1167-1182
Short Title: Predictive density order selection of periodic AR models
ISSN: 0361-0918
DOI: 10.1080/03610910701877579
Accession Number: WOS:000257078200010
Abstract: This article considers the order selection problem of periodic autoregressive models. Our main goal is the adaptation of the Bayesian Predictive Density Criterion (PDC), established by Djuric' and Kay (1992) for selecting the order of a stationary autoreg-ressive model, to deal with the order identification problem of a periodic autoregressive model. The performance of the established criterion, (P-PDC), is compared, via simulation studies, to the performances of some well-known existing criteria.
Notes: Bentarzi, Mohamed Guerbyenne, Hafida Hemis, Roukia
URL: <Go to ISI>://WOS:000257078200010

Reference Type: Journal Article
Record Number: 25
Author: Benterki, D. Leulmi, A.
Year: 2008
Title: An improving procedure of the interior projective method for linear programming
Journal: Applied Mathematics and Computation
Volume: 199
Issue: 2
Pages: 811-819
Date: Jun
Short Title: An improving procedure of the interior projective method for linear programming
ISSN: 0096-3003
DOI: 10.1016/j.amc.2007.10.014
Accession Number: WOS:000255320900039

Abstract: We propose in this study, a practical modi. cation of Karmarkar's projective algorithm for linear programming problems. This modi. cation leads to a considerable reduction of the cost and the number of iterations. This claim is confirmed by many interesting numerical experimentations. (C) 2007 Elsevier Inc. All rights reserved.
Notes: Benterki, D. Leulmi, A.
URL: <Go to ISI>://WOS:000255320900039

Reference Type: Journal Article

Record Number: 26

Author: Berthiller, J. Straif, K. Boniol, M. Voirin, N. Benhaim-Luzon, V. Ben Ayoub, W. Dari, I. Laouamri, S. Hamdi-Cherif, M. Bartal, M. Ben Ayed, F. Sasco, A. J.

Year: 2008

Title: Cannabis Smoking and Risk of Lung Cancer in Men A Pooled Analysis of Three Studies in Maghreb

Journal: Journal of Thoracic Oncology

Volume: 3

Issue: 12

Pages: 1398-1403

Date: Dec

Short Title: Cannabis Smoking and Risk of Lung Cancer in Men A Pooled Analysis of Three Studies in Maghreb

ISSN: 1556-0864

Accession Number: WOS:000261712300007

Abstract: Background: Cannabis is the most widely consumed illicit drug worldwide and the relation between cannabis smoking and lung cancer is suggestive, albeit inconclusive. Method: We conducted three hospital based case-control studies in Tunisia, Morocco, and Algeria, three areas of high prevalence of cannabis C011SUMption as well as production. This paper presents the pooled analysis of these three Studies restricted to men with a total of 430 case., and 778 controls. Results: Ninety-six percent of the cases and 67.8% of the controls were tobacco smokers and 15.3% of the cases and 5% of the controls were ever cannabis smokers. All cannabis snickers were tobacco users. Adjusting for country, age, tobacco smoking, and occupational exposure. the odds ratio (OR) for lung cancer was 2.4 (95% confidence interval [CI]: 1.6-3.8) for ever cannabis smoking. This association remained after adjustment for lifetime tobacco packyears as continuous variable, OR = 2.3 (95% CI: 1.5-3.6). The OR adjusted for intensity of tobacco smoking (cigarette/d) among current tobacco snickers and never cannabis smokers was 10.9 (95% CI: 6.0-19.7) and the OR among current tobacco users and ever cannabis smokers was 18.2 (95% CI: 8.0-41.0). The risk of lung cancer increased with increasing joint-years, but not with increasing dose or duration of cannabis smoking. Conclusion: Our results suggest that cannabis smoking may be a tobacco smoking or other potential confounders may explain part of the increased risk.

Notes: Berthiller, Julien Straif, Kurt Boniol, Mathieu Voirin, Nicolas Benhaim-Luzon, Veronique Ben Ayoub, Wided Dari, Iman Laouamri, Slimane Hamdi-Cherif, Mokhtar Bartal, Mohamed Ben Ayed, Fahrat Sasco, Annie J.

URL: <Go to ISI>://WOS:000261712300007

Reference Type: Journal Article
Record Number: 27
Author: Bouchareb, B. Benaniba, M. T.
Year: 2008
Title: Effects of epoxidized sunflower oil on the mechanical and dynamical analysis of the plasticized poly(vinyl chloride)
Journal: Journal of Applied Polymer Science
Volume: 107
Issue: 6
Pages: 3442-3450
Date: Mar
Short Title: Effects of epoxidized sunflower oil on the mechanical and dynamical analysis of the plasticized poly(vinyl chloride)
ISSN: 0021-8995
DOI: 10.1002/app.27458
Accession Number: WOS:000252815300002

Abstract: Epoxidized soybean oil (ESBO), is one of the most commonly used epoxides because of its typical combined roles as a plasticizer and heat stabilizer. In this study, a novel plasticizer of poly(vinyl chloride) (PVC) resins, epoxidized sunflower oil (ESO), was synthesized, and its performance was evaluated. ESO was designed to act as a coplasticizer and a heat stabilizer like ESBO. ESO is used as organic coplasticizer for plasticized PVC containing Ca and Zn stearates as primary stabilizers and stearic acid as lubricant. Di-(2-ethylhexyl) phthalate (DEHP), a conventional plasticizer for PVC, was partially replaced by were investigated. The performance of ESO to ESBO (20 g) for comparison, indicated that ESO could be used as secondary plasticizer for PVC in combination with DEHP. All mechanical and dynamical properties of plasticized PVC sheets varied with the oxirane oxygen of the ESO. (c) 2007 Wiley Periodicals, Inc.
Notes: Bouchareb, Badra Benaniba, Mohamed Tahar
URL: <Go to ISI>://WOS:000252815300002

28 **Reference Type: Journal Article**
Record Number: 28
Author: Boucherit, S. Bouamama, L. Benchickh, H. Lenoir, J. M. Simoens, S.
Year: 2008
Title: Three-dimensional solid particle positions in a flow via multiangle off-axis digital holography
Journal: Optics Letters
Volume: 33
Issue: 18
Pages: 2095-2097
Date: Sep
Short Title: Three-dimensional solid particle positions in a flow via multiangle off-axis digital holography
ISSN: 0146-9592
DOI: 10.1364/ol.33.002095
Accession Number: WOS:000259891400026

Abstract: We present a new development of digital off-axis (OA) holography for determining the instantaneous solid particle positions in a flow. This holographic imaging method uses a CCD camera for the simultaneous digital recording of two views of digital Fresnel OA holograms on the same support. The reconstruction is obtained numerically. The method provides two orthogonal views of the same flow area of interest at the same instant. It helps to overcome the depth of focus problem existing for the particle image reconstructions and that is inherent to the method. This method has the advantage of being simpler than the methods presently available, and it does not suffer from the flaws of in-line holographic configuration. Furthermore it is completely digital and thus avoids the cumbersome analysis following hologram recording. Digital holograms and digital reconstructions are obtained for solid particles of 200 mu m moving into a stirred flow cell of 5 cm(3). (c) 2008 Optical Society of America
Notes: Boucherit, Sebti Bouamama, Larbi Benchickh, Halim Lenoir, Jean-Michel Simoens, Serge
URL: <Go to ISI>://WOS:000259891400026

29 **Reference Type: Journal Article**
Record Number: 29
Author: Bouchoul, F. Mostefai, M.
Year: 2008
Title: From e-manufacturing to m-manufacturing
Journal: International Arab Journal of Information Technology
Volume: 5
Issue: 2
Pages: 140-147
Date: Apr
Short Title: From e-manufacturing to m-manufacturing
ISSN: 1683-3198
Accession Number: WOS:000257681100006

Abstract: This paper studies the impact of wireless technologies on enterprises. A multitude of new paradigms and new software technologies have emerged from the web. E-business' and e-manufacturing have really transformed concepts and practices in enterprises. Wireless technologies added new possibilities for these technologies, by this work we propose m-manufacturing as a component of e-manufacturing when practiced in mobile environment, then compare e-manufacturing to m-manufacturing. We applied our proposed approach to model m-maintenance of spare parts. Combination of mobile agent technology and fault-tolerant principles has given an appropriate global solution tom m-maintenance issues.
Notes: Bouchoul, Faiza Mostefai, Mohamed
URL: <Go to ISI>://WOS:000257681100006

Reference Type: Journal Article
Record Number: 30
Author: Boudjenouia, A. Fleury, A. Tacherift, A.
Year: 2008
Title: Suburban agriculture in Setif (Algeria): which future in face of urban growth?
Journal: Biotechnologie Agronomie Societe Et Environnement
Volume: 12
Issue: 1
Pages: 23-30
Short Title: Suburban agriculture in Setif (Algeria): which future in face of urban growth?
ISSN: 1370-6233
Accession Number: WOS:000256941400003

Abstract: The suburban agriculture in Setif which is mainly based on the specialized agricultural activities (cereals, animal production) has an important role. Its economic and social values are regarded in terms of the hugeness of its areas, the number of its manpower and the quality of its production. It covers 75% of the municipality surface and production systems are generally organized according to the climatic conditions. However, the new, rapid and diffused urban growth greatly affects these traditional structures. It is subjected to different inconvenient factors from the nearby urban area and has difficulties in functioning due to vandalism of the cultures, neighboring conflicts often due to environmental problems such as degradation of the material, defection of irrigation network, illegal grazing, soil stamping, car traffic, etc. The conversion of agricultural lands, generally of high quality, into non-agricultural lands results mainly from the urban development at the expense of agriculture. The socio-economic needs in land have rendered the agricultural activities difficult and decreased the agriculture in suburban areas. Landscape is not considered as an essential structure by the city. Urban planning, decided only by the elected members, is somewhat inefficient in terms of agricultural land protection. Paradoxically, the laws of protection exist but are not applied. Four major considerations have been pointed out by this study: the constraints generated by the suburban agriculture in Setif, the situation of the agricultural land, the high urban pressure and its consequences, and the need to define the place of the suburban agriculture in the sustainable development of the city.
Notes: Boudjenouia, Abdelmalek Fleury, Andre Tacherift, Abdelmalek
URL: <Go to ISI>://WOS:000256941400003

Reference Type: Journal Article
Record Number: 31
Author: Bouguerra, Y. Bounames, A. Maamache, M. Saadi, Y.
Year: 2008
Title: Time-dependent Pauli equation in the presence of the Aharonov-Bohm effect
Journal: Journal of Mathematical Physics
Volume: 49
Issue: 4
Date: Apr
Short Title: Time-dependent Pauli equation in the presence of the Aharonov-Bohm effect
ISSN: 0022-2488
DOI: 10.1063/1.2903752
Article Number: 042107
Accession Number: WOS:000255456400007
Abstract: We use the Lewis-Riesenfeld theory to determine the exact form of the wavefunctions of a two-dimensional Pauli equation of a charged spin 1/2 particle with time-dependent mass and frequency in the presence of the Aharonov-Bohm effect and a two-dimensional time-dependent harmonic oscillator. We find that the irregular solution at the origin as well as the regular one contributes to the phase of the wavefunction. (c) 2008 American Institute of Physics.
Notes: Bouguerra, Y. Bounames, A. Maamache, M. Saadi, Y.
URL: <Go to ISI>://WOS:000255456400007

Reference Type: Journal Article
Record Number: 32
Author: Bouguettoucha, A. Balannec, B. Amrane, A.
Year: 2008
Title: Unstructured generalized models for the analysis of the inhibitory and the nutritional limitation effects on Lactobacillus helveticus growth - Models validation
Journal: Biochemical Engineering Journal
Volume: 39
Issue: 3
Pages: 566-574
Date: May
Short Title: Unstructured generalized models for the analysis of the inhibitory and the nutritional limitation effects on Lactobacillus helveticus growth - Models validation
ISSN: 1369-703X
DOI: 10.1016/j.bej.2007.11.007
Accession Number: WOS:000255803800019

Abstract: During lactic acid fermentation, an inhibitory effect was recorded during seed cultures, usually carried out without pH control; while nutritional limitations (nitrogen) were observed during cultures, carried out at pH controlled at 5.9, which ceased when carbon became limiting. To avoid the use of two different expressions, depending on culture conditions, a generalized model for production was developed, involving a unique expression taking into account both a nutritional limitation and an inhibitory effect. In some conditions, namely at acidic pH control, the model failed to describe accurately growth- and non-growth-associated production. Therefore, the inhibitory term related to the undissociated lactic acid inhibition was added in the growth relation (modified Verlhust model), instead of the production model. The modified Verlhust model allowed a dissociation of the inhibitory and the nutritional effects. A modified Luedeking-Piret expression, involving a carbon substrate limitation to account for cessation of production was considered for the production model. This model proved to satisfactory describes growth and production data in the wide range of culture conditions examined; it also allowed a fine identification and characterization of growth and production parameters. (c) 2007 Elsevier B.V. All rights reserved.
Notes: Bouguettoucha, Abdellah Balannec, Beatrice Amrane, Abdeltif
URL: <Go to ISI>://WOS:000255803800019

33 **Reference Type: Journal Article**
Record Number: 33
Author: Bouguezel, S. Ahmad, M. O. Swamy, M. N. S.
Year: 2008
Title: Low-complexity 8 x 8 transform for image compression
Journal: Electronics Letters
Volume: 44
Issue: 21
Pages: 1249-U30
Date: Oct
Short Title: Low-complexity 8 x 8 transform for image compression
ISSN: 0013-5194
DOI: 10.1049/el:20082239
Accession Number: WOS:000260471700016
Abstract: An efficient 8 x 8 sparse orthogonal transform matrix is proposed for image compression by appropriately introducing some zeros in the 8 x 8 signed discrete cosine transform (SDCT) matrix. An algorithm for its fast computation is also developed. It is shown that the proposed transform provides a 25% reduction in the number of arithmetic operations with a performance in image compression that is much superior to that of the SDCT and comparable to that of the approximated discrete cosine transform.
Notes: Bouguezel, S. Ahmad, M. O. Swamy, M. N. S.
URL: <Go to ISI>://WOS:000260471700016

Reference Type: Journal Article
Record Number: 34
Author: Bouhelal, S. Cagiao, M. E. Khellaf, S. Benachour, D. Calleja, F. J. B.
Year: 2008
Title: Structure and properties of new reversibly crosslinked iPP/LDPE blends
Journal: Journal of Applied Polymer Science
Volume: 109
Issue: 2
Pages: 795-804
Date: Jul
Short Title: Structure and properties of new reversibly crosslinked iPP/LDPE blends
ISSN: 0021-8995
DOI: 10.1002/app.28194
Accession Number: WOS:000256267200015

Abstract: Reversibly crosslinked blends of isotactic polypropylene and low density polyethylene (iPP/LDPE) were prepared in the presence of crosslinking agents using reactive extrusion. The structure and properties of the modified blends were investigated by means of wide-angle X-ray scattering (WAXS), differential scanning calorimetry (DSC), and macro- and micro-mechanical measurements. The crystallinity of the modified samples (LDPE, iPP, and their blends) does not seem to be so much affected by the crosslinking process. Results show that the microhardness of the iPP/LDPE blends notably increases with the iPP content. The micromechanical properties of the modified blends only improve slightly as a consequence of the crosslinking process. In the iPP samples, and also in the iPP/LDPE blends, this process gives rise to the appearance of new, crystalline ethylenic chains, as evidenced by the calorimetric measurements. Furthermore, the impact strength of the modified materials is improved as compared with that of the original ones, while some of the crosslinked blends show a ductile fracture behavior. (C) 2008 Wiley Periodicals, Inc.
Notes: Bouhelal, S. Cagiao, M. E. Khellaf, S. Benachour, D. Calleja, F. J. Balta
URL: <Go to ISI>://WOS:000256267200015

Abstract: We present first-principles calculations on the structural, elastic and high pressure properties of yttrium pnictide compounds, using the pseudo-potential plane-waves approach based on density functional theory, within the generalized gradient approximation. Results are given for lattice constant, bulk modulus and its pressure derivative. The pressure transition at which these compounds undergo structural phase transition from NaCl-type (B1) to CsCl-type (B2) structure is calculated and compared with previous calculations and available experimental data. The elastic constants and their pressure dependence are calculated using the static finite strain technique. We derived the bulk and shear moduli, Young's modulus and Poisson's ratio of the B1 phase for YN, YP, YAs and YSb compounds. We estimated the Debye temperature of these compounds from the average sound velocity. This is the first quantitative theoretical prediction of the elastic properties of YN, YP, YAs and YSb compounds, and it still awaits experimental confirmation. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A.
URL: <Go to ISI>://WOS:000260916900070

36 **Reference Type: Journal Article**
Record Number: 36
Author: Bouhemadou, A.
Year: 2008
Title: Calculated structural and elastic properties of M2InC (M = Sc, Ti, V, Zr, Nb, Hf, Ta)
Journal: Modern Physics Letters B
Volume: 22
Issue: 22
Pages: 2063-2076
Date: Aug
Short Title: Calculated structural and elastic properties of M2InC (M = Sc, Ti, V, Zr, Nb, Hf, Ta)
ISSN: 0217-9849
DOI: 10.1142/s0217984908016807
Accession Number: WOS:000259234700003
Abstract: Using ab initio calculations, we have studied the structural and elastic properties of M(2)Inc, with M = Sc, Ti, V, Zr, Nb, Hf and Ta. Geometrical optimization of the unit cell is in agreement with the available experimental data. We have observed a quadratic dependence of the lattice parameters versus the applied pressure. We derived the bulk and shear moduli, Young's moduli and Poisson's ratio for ideal polycrystalline M2InC aggregates. We estimated the Debye temperature of M2InC from the average sound velocity. This is the first quantitative theoretical prediction of the elastic properties of Sc2InC, Ti2InC, V2InC, Zr2InC, Hf2InC and Ta2InC compounds, and it still awaits experimental confirmation.
Notes: Bouhemadou, A.
URL: <Go to ISI>://WOS:000259234700003

Reference Type: Journal Article
Record Number: 37
Author: Bouhemadou, A.
Year: 2008
Title: Prediction study of structural and elastic properties under pressure effect of M2SnC (M = Ti, Zr, Nb, Hf)
Journal: Physica B-Condensed Matter
Volume: 403
Issue: 17
Pages: 2707-2713
Date: Aug
Short Title: Prediction study of structural and elastic properties under pressure effect of M2SnC (M = Ti, Zr, Nb, Hf)
ISSN: 0921-4526
DOI: 10.1016/j.physb.2008.02.014
Accession Number: WOS:000257915100033

Abstract: Using first-principles calculations, we have studied the structural and elastic properties of M2SnC, with M = Ti, Zr, Nb and HE Geometrical optimization of the unit cell is in good agreement with the available experimental data. The effect of high pressures, up to 20 GPa, on the lattice constants shows that the contractions along the a-axis were higher than those along the c-axis. We have observed a quadratic dependence of the lattice parameters versus the applied pressure. The elastic constants and their pressure dependence are calculated using the static finite strain technique. A linear dependence of the elastic stiffnesses on the pressure is found. We derived the bulk and shear moduli, Young's moduli and Poisson's ratio for ideal polycrystalline M2SnC aggregates. We estimated the Debye temperature of M2SnC from the average sound velocity. This is the first quantitative theoretical prediction of the elastic properties of Ti2SnC, Zr2SnC, Nb2SnC, and Hf2SnC compounds. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A.
URL: <Go to ISI>://WOS:000257915100033

38 **Reference Type:** **Journal Article**
Record Number: 38
Author: Bouhemadou, A.
Year: 2008
Title: Theoretical study of the structural, elastic and electronic properties of the GeX2O4 (X = Mg, Zn, Cd) compounds under pressure
Journal: Modelling and Simulation in Materials Science and Engineering
Volume: 16
Issue: 5
Date: Jul
Short Title: Theoretical study of the structural, elastic and electronic properties of the GeX2O4 (X = Mg, Zn, Cd) compounds under pressure
ISSN: 0965-0393
DOI: 10.1088/0965-0393/16/5/055007
Article Number: 055007
Accession Number: WOS:000257338300007

Abstract: The effect of high pressures, up to 30GPa, on the structural, elastic and electronic properties of GeX2O4, with X = Mg, Zn and Cd, were studied by means of the pseudo-potential plane waves method within the local density approximation for exchange and correlation. The results of bulk properties, including lattice constants, internal parameters, bulk modulus and derivatives are obtained. The band structures show a direct (Gamma-Gamma) band gap for the three compounds. All the calculated band gaps increase with increasing pressure and fit well to a quadratic function. The analysis of the density of states revealed that the lowering of the direct gap Gamma-Gamma from GeMg2O4 to GeZn2O4 to GeCd2O4 can be attributed to the p-d mixing in the upper valence band of GeZn2O4 and GeCd2O4. The elastic constants and their pressure dependence are calculated using the static finite strain technique. We have observed a linear dependence of the elastic moduli on the pressure. We derived the bulk modulus, shear modulus, Young's modulus and Poisson's ratio for ideal polycrystalline GeX2O3 aggregates. We estimated the Debye temperature of GeX2O4 from the average sound velocity.
Notes: Bouhemadou, A.
URL: <Go to ISI>://WOS:000257338300007

Abstract: The structural and elastic properties under pressure effect of Hf2AlC and Hf2AlN have been studied using the pseudo-potential plane-waves method based on density functional theory. Lattice parameters and their pressure dependence as well as elastic constants and their pressure dependence were calculated. We derived the bulk and shear moduli, Young's modulus and Poisson's ratio for ideal polycrystalline Hf2AlX aggregates. We estimated the Debye temperature of Hf2AlX from the average sound velocity. This is the first quantitative theoretical prediction of the elastic properties of Hf2AlC and Hf2AlN compounds, and it still awaits experimental confirmation.
Notes: Bouhemadou, A.
URL: <Go to ISI>://WOS:000255207500006

Reference Type: Journal Article
Record Number: 40
Author: Bouhemadou, A. Djabi, F. Khenata, R.
Year: 2008
Title: First principles study of structural, elastic, electronic and optical properties of the cubic perovskite BaHfO3
Journal: Physics Letters A
Volume: 372
Issue: 24
Pages: 4527-4531
Date: Jun
Short Title: First principles study of structural, elastic, electronic and optical properties of the cubic perovskite BaHfO3
ISSN: 0375-9601
DOI: 10.1016/j.physleta.2008.04.015
Accession Number: WOS:000257203700037

Abstract: First principles study of structural, elastic, electronic and optical properties of the cubic perovskite-type BaHfO3 has been reported using the pseudo-potential plane wave method within the local density approximation. The calculated equilibrium lattice is in a reasonable agreement with the available experimental data. The elastic constants and their pressure dependence are calculated using the static finite strain technique. A linear pressure dependence of the elastic stiffnesses is found. Band structures show that BaHfO3 is a direct band gap between the occupied O 2p and unoccupied Hf d states. The variation of the gap versus pressure is well fitted to a quadratic function. Furthermore, in order to understand the optical properties of BaHfO3, the dielectric function, absorption coefficient, optical reflectivity, refractive index, extinction coefficient, and electron energy loss are calculated for radiation up to 30 eV. We have found that O 2p states and Hf 5d states play a major role in the optical transitions as initial and final states, respectively. This is the first quantitative theoretical prediction of the elastic, electronic and optical properties of BaHfO3 compound, and it still awaits experimental confirmation. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A. Djabi, F. Khenata, R.
URL: <Go to ISI>://WOS:000257203700037

Reference Type: Journal Article
Record Number: 41
Author: Bouhemadou, A. Khenata, R.
Year: 2008
Title: Structural, electronic and elastic properties of M2SC (M = Ti, Zr, Hf) compounds
Journal: Physics Letters A
Volume: 372
Issue: 42
Pages: 6448-6452
Date: Oct
Short Title: Structural, electronic and elastic properties of M2SC (M = Ti, Zr, Hf) compounds
ISSN: 0375-9601
DOI: 10.1016/j.physleta.2008.08.066
Accession Number: WOS:000260656200027
Abstract: Using ab initio calculations, we have studied the structural, electronic and elastic properties of M2SC, with M = Ti, Zr and Hf. Geometrical optimization of the unit cell are in good agreement with the available experimental data. The band structures show that all three materials are conducting. The analysis of the site and momentum projected densities shows that the bonding is achieved through a hybridization of M-atom d states with S and C-atom p states. The Md-Sp bonds are lower in energy and are stiffer than Md-Cp bonds. The elastic constants are calculated using the static finite strain technique. We derived the bulk and shear moduli, Young's moduli and Poisson's ratio for ideal polycrystalline M2SC aggregates. We estimated the Debye temperature of M2SC from the average sound velocity. This is a quantitative theoretical prediction of the elastic properties of Ti2SC, Zr2SC, and Hf2SC compounds, and it still awaits experimental confirmation. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A. Khenata, R.
URL: <Go to ISI>://WOS:000260656200027

42 **Reference Type: Journal Article**
Record Number: 42
Author: Bouhemadou, A. Khenata, R.
Year: 2008
Title: Elastic, electronic and optical properties of the filled tetrahedral semiconductor LiCdP
Journal: Semiconductor Science and Technology
Volume: 23
Issue: 10
Date: Oct
Short Title: Elastic, electronic and optical properties of the filled tetrahedral semiconductor LiCdP
ISSN: 0268-1242
DOI: 10.1088/0268-1242/23/10/105024
Article Number: 105024
Accession Number: WOS:000259480100024
Abstract: The elastic, electronic and optical properties of the filled tetrahedral semiconductor LiCdP have been investigated using the pseudo-potential plane wave method within the local density functional theory. A numerical first-principles calculation of the elastic constants was used to calculate C_{11}, C_{12} and C_{44}. The values of the sound velocities in different directions have been calculated. We derived the bulk and shear moduli, Young modulus and Poisson's ratio for ideal polycrystalline LiCdP. We estimated the Debye temperature of LiCdP from the average sound velocity. Band structures show that LiCdP is a direct band gap. The density of states and Mulliken charge populations analysis show that the Cd-P bond is typically covalent with a strong hybridization as well as that the Li-P bond has a significant ionic character. The variation of the gap versus pressure is well fitted to a quadratic function and a direct to an indirect band gap transition occurs at 6.80 GPa. Furthermore, the dielectric function, optical reflectivity, refractive index, extinction coefficient and electron energy loss are calculated for radiation up to 20 eV. The results are compared with the available theoretical and experimental data.
Notes: Bouhemadou, A. Khenata, R.
URL: <Go to ISI>://WOS:000259480100024

Abstract: Using first-principles calculations, the structural and elastic properties of Sc(2)AC, with A = Al, Ga, In and Tl, were studied by means of the pseudo-potential plane-waves method. Calculations were performed within the local density approximation to the exchange-correlation approximation energy. The effect of high pressures, LIP to 20 GPa, on the lattice constants and the internal parameters is calculated. The elastic constants are calculated using the static finite strain technique. We derived the bulk and shear moduli, Young's moduli and Poisson's ratio for ideal polycrystalline Sc(2)AC aggregates. We estimated the Debye temperature of Sc(2)AC from the average sound velocity. This is the first quantitative theoretical prediction of the elastic properties of Sc2AlC, Sc2GaC, Sc2InC and Sc2TlC compounds, and it still awaits the experimental confirmation. (C) 2008 Elsevier Ltd. All rights reserved.
Notes: Bouhemadou, A. Khenata, R. Kharoubi, A. Medkour, Y.
URL: <Go to ISI>://WOS:000255210800016

Reference Type: **Journal Article**

Record Number: 44

Author: Boukelkoul, M. Kharoubi, M. Haroun, A.

Year: 2008

Title: Magnetic and magneto-optical properties of ultrathin films of iron epitaxied on iridium (001)

Journal: Canadian Journal of Physics

Volume: 86

Issue: 12

Pages: 1421-1426

Date: Dec

Short Title: Magnetic and magneto-optical properties of ultrathin films of iron epitaxied on iridium (001)

ISSN: 0008-4204

DOI: 10.1139/p08-103

Accession Number: WOS:000262674000009

Abstract: We have theoretically studied the structural, magnetic, and magneto-optical behaviours of Fe ultra-thin films pseudomorphically epitaxied on semi-infinite Ir(001). The magnetic film crystallizes in the body-centered tetragonal (bct) structure with a tetragonality ratio 1.21. The new crystalline structure of iron in the magnetic film enhances the magnetic properties and a correlation between the interlayer spacing and the magnetic moment is found. The calculation of the magnetic properties shows a ferromagnetic interlayer coupling. The polar magneto-optical Kerr effect (P-MOKE) spectra are calculated over a photon energy range extended to 10 eV. The microscopic origin of the most interesting features is explained from interband transitions in various regions of the Brillouin zone.

Notes: Boukelkoul, M. Kharoubi, M. Haroun, A.

URL: <Go to ISI>://WOS:000262674000009

Reference Type: Journal Article
Record Number: 45
Author: Boureghda, A.
Year: 2008
Title: Numerical solution of the oxygen diffusion problem in cylindrically shaped sections of tissue
Journal: International Journal for Numerical Methods in Fluids
Volume: 56
Issue: 10
Pages: 1945-1960
Date: Apr
Short Title: Numerical solution of the oxygen diffusion problem in cylindrically shaped sections of tissue
ISSN: 0271-2091
DOI: 10.1002/fld.1591
Accession Number: WOS:000254455700007
Abstract: A mathematical model is presented which describes the diffusion of oxygen in absorbing tissue, and numerical solution of its partial differential equation is obtained by the finite difference equations. The diffusion with absorption model is associated with the process of a moving boundary which marks the furthest penetration of oxygen in the absorbing cylindrically shaped sections of tissue and also allows for an initial distribution of oxygen through the absorbing tissue. Copyright (C) 2007 John Wiley & Sons, Ltd.
Notes: Boureghda, Abdellatif
URL: <Go to ISI>://WOS:000254455700007

Reference Type: Journal Article

Record Number: 46

Author: Bourouina, M. Ourari, A. Bourouina-Bacha, S.

Year: 2008

Title: The effect of membrane permeability on the response of a catechol biosensor

Journal: Microchimica Acta

Volume: 163

Issue: 3-4

Pages: 171-178

Date: Oct

Short Title: The effect of membrane permeability on the response of a catechol biosensor

ISSN: 0026-3672

DOI: 10.1007/s00604-008-0010-9

Accession Number: WOS:000260526300005

Abstract: A mathematical model is developed for the simulation of the amperometric response of a biosensor for catechol using polyphenoloxidase. The model is based on transient diffusion equations containing nonlinear terms of Michaelis-Menten for two space regions: the diffusion layer and the biomembrane containing the immobilized enzyme. The set of partial derivatives of nonlinear equations and the corresponding boundary and initial conditions was solved using the implicit finite difference technique. This numerical solution was then exploited to study the effects of permeability and thickness of the biomembrane on the maximum response of the reduction current and the amplification factor corresponding to the maximum of catalytic activity of the enzyme. This amplification factor increases with the thickness of the biomembrane while permeability is weak. In the case of the low initial concentrations (10(-6) to 5.10(-4) mM), its value is maximal and remains independent of substrate concentration. Also, the amplification factor is more significant when the diffusion resistance is more important, i.e. for high thicknesses or weak permeabilities of the biomembranes.

Notes: Bourouina, Mustapha Ourari, Ali Bourouina-bacha, Saliha 3rd International Workshop on Biosensors for Food Safety and Environmentsl Monitoring Oct 18-20, 2007 Fez, MOROCCO

URL: <Go to ISI>://WOS:000260526300005

Reference Type: Journal Article
Record Number: 47
Author: Chaoui, A. Krim, F. Gaubert, J. P. Rambault, L.
Year: 2008
Title: DPC controlled three-phase active filter for power quality improvement
Journal: International Journal of Electrical Power & Energy Systems
Volume: 30
Issue: 8
Pages: 476-485
Date: Oct
Short Title: DPC controlled three-phase active filter for power quality improvement
ISSN: 0142-0615
DOI: 10.1016/j.ijepes.2008.04.009
Accession Number: WOS:000259763200006
Abstract: This paper presents a new control method entitled direct power control (DPC for shunt active power filtering (5th, 7th, 11th,...) (SAPF), which is applied to eliminate line current harmonics and compensate reactive power. Its main goal is to rebuild active and reactive powers to be compared to references values using hysteresis control. The outputs of hysteresis controllers associated with a switching table, control the instantaneous active and reactive power by selecting the optimum switching state of the voltage source inverter(VSI). A theoretical analysis with a complete simulation of the system and experimental results are presented to prove the excellent performance of the proposed control technique. (c) 2008 Elsevier Ltd. All rights reserved.
Notes: Chaoui, Abdelmadjid Krim, Fateh Gaubert, Jean-Paul Rambault, Laurent
URL: <Go to ISI>://WOS:000259763200006

Reference Type: Journal Article
Record Number: 48
Author: Chaoui, Z. E. A.
Year: 2008
Title: Electron energy loss modelling in small volumes: A Monte Carlo study
Journal: Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms
Volume: 266
Issue: 23
Pages: 4976-4979
Date: Dec
Short Title: Electron energy loss modelling in small volumes: A Monte Carlo study
ISSN: 0168-583X
DOI: 10.1016/j.nimb.2008.08.011
Accession Number: WOS:000261824100003
Abstract: In thin target and sub-volumes, electronic energy losses in single collisions vary considerably for individual charged particles. These fluctuations resulting from the stochastic nature of the interactions can be described through a simulation with Monte Carlo calculations. Models used in the present simulations to describe the electron scattering processes are derived from quantum mechanics. The resulting cross sections for energies up to 200 keV are shown for both processes, i.e. elastic and inelastic interactions. Influence of the Monte Carlo strategy adopted to calculate energy loss spectra (straggling functions) is discussed. Straggling functions calculated from the general purpose Monte Carlo code Penelope and the convolution method of Bichsel are included for comparisons. The results are new. In fact, disagreements have been found in the calculated energy spectra when using different strategies. These deviations are explained in the present study by investigating the thickness dependence on the electron energy. As a central result, energy deposition in silicon detectors can be described accurately when event by event Monte Carlo strategy is used. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Chaoui, Zine-EI-Abidine
URL: <Go to ISI>://WOS:000261824100003

Reference Type: Journal Article
Record Number: 49
Author: Chegaar, M. Nehaoua, N. Bouhemadou, A.
Year: 2008
Title: Organic and inorganic solar cells parameters evaluation from single I-V plot
Journal: Energy Conversion and Management
Volume: 49
Issue: 6
Pages: 1376-1379
Date: Jun
Short Title: Organic and inorganic solar cells parameters evaluation from single I-V plot
ISSN: 0196-8904
DOI: 10.1016/j.enconman.2008.01.002
Accession Number: WOS:000256273400009
Abstract: This paper presents a new method to determine the five solar cell parameters of the single diode lumped circuit model. These parameters are usually the saturation current, the series resistance, the ideality factor, the shunt conductance and the photocurrent. This method is based on the measured current-voltage data. The method has been successfully applied to a commercial silicon solar cell, a module and an organic solar cell. (C) 2008 Elsevier Ltd. All rights reserved.
Notes: Chegaar, M. Nehaoua, N. Bouhemadou, A.
URL: <Go to ISI>://WOS:000256273400009

Reference Type: Journal Article
Record Number: 50
Author: Djedouani, A. Boufas, S. Allain, M. Bouet, G. Khan, M.
Year: 2008
Title: Zwitterionic 6-methyl-2-oxo-3- 1-(ureidoiminio)ethyl -2H-pyran-4-olate monohydrate
Journal: Acta Crystallographica Section E-Structure Reports Online
Volume: 64
Pages: O1785-U2203
Date: Sep
Short Title: Zwitterionic 6-methyl-2-oxo-3- 1-(ureidoiminio)ethyl -2H-pyran-4-olate monohydrate
ISSN: 1600-5368
DOI: 10.1107/s1600536808026032
Accession Number: WOS:000258832300204

Abstract: The title compound, $C(9)H(11)N(3)O(4)$ center dot $H(2)O$, was prepared by the reaction of dehydroacetic acid and semicarbazide hydrochloride. It crystallizes in a zwitterionic form with cationic iminium and anionic enolate groups. In the crystal structure, the almost planar molecules are held together by N-H center dot center dot center dot O, O-H center dot center dot center dot O and C-H center dot center dot center dot O hydrogen bonds, some of them involving the water molecules.

Notes: Djedouani, Amel Boufas, Sihem Allain, Magali Bouet, Gilles Khan, Mustayeen
URL: <Go to ISI>://WOS:000258832300204

Reference Type: Journal Article

Record Number: 51

Author: Djerdali, S. Tortosa, F. S. Hillstrom, L. Doumandji, S.

Year: 2008

Title: Food supply and external cues limit the clutch size and hatchability in the White Stork Ciconia ciconia

Journal: Acta Ornithologica

Volume: 43

Issue: 2

Pages: 145-150

Date: Win

Short Title: Food supply and external cues limit the clutch size and hatchability in the White Stork Ciconia ciconia

ISSN: 0001-6454

DOI: 10.3161/000164508x395252

Accession Number: WOS:000262817800004

Abstract: Clutch size is an important life history trait, and factors such as nest predation and food availability can both be of crucial importance for its variation in nature. The aim of the present Study was to evaluate the effects of extra food on clutch size, laying date and hatching success in the White Stork. Three different colonies of White Storks were studied in northern Algeria over a three-year period (2002-2004) that was characterised by considerable variation in both food availability and precipitation. This study demonstrated that an extra food supply during the pre-laying period had a positive effect on clutch size - nests with extra food had larger clutches, There was also an advance in laying date and a greater hatching success in nests with access to extra food. In addition to food supply, clutch size was independently affected by the year, which could have been due to differences in rainfall. Furthermore, the results of this study suggest that extra food during the incubation period could help the parent birds resolve the conflict between incubation behaviour and minimizing the time off the nest, i.e. increasing nest attentiveness in nests with extra food and enhancing hatching success.

Notes: Djerdali, Sofia Tortosa, Francisco S. Hillstrom, Lars Doumandji, Salaheddine

URL: <Go to ISI>://WOS:000262817800004

Reference Type: Journal Article
Record Number: 52
Author: Djerdali, S. Tortosa, F. S. Doumandji, S.
Year: 2008
Title: Do white stork (Ciconia ciconia) parents exert control over food distribution when feeding is indirect?
Journal: Ethology Ecology & Evolution
Volume: 20
Issue: 4
Pages: 361-374
Date: Dec
Short Title: Do white stork (Ciconia ciconia) parents exert control over food distribution when feeding is indirect?
ISSN: 0394-9370
Accession Number: WOS:000263306200004

Abstract: Intra-brood food distribution in altricial birds can strongly affect nestling competitive hierarchies and Subsequent brood reduction. Food allocation patterns result from scramble competitions among the nestlings, various forms of parental favoritism, and/or agonistic interactions among nestlings. Food allocation is related to agonistic interactions among nestlings or to parental favouritism in non-aggressive species. Since white stork chicks are not aggressive and they do not receive direct feeding, parental infanticide has been proposed as an alternative mechanism to control brood reduction. The capacity of white stork parents to control food allocation was examined. We hypothesized that parents favour the senior chick by adjusting prey size to suit its ingestion capacity. We experimentally manipulated (Spain 1996 and Algeria 2004) nestling size by exchanging the senior chick for a larger one. After the exchange parents delivered longer and heavier prey items and they increased the total food amount delivered to the brood, which benefited not only the senior chick but also its smaller nestmate. We also discuss the effect of environmental conditions over brood reduction by comparing chick mortality, intrabrood weight asymmetries and fledging success in years with above (2003 and 2004) and below (2002) average rainfall in the area. We conclude that parents may control intra-brood food distribution which enables them to invest more in larger sibs but not (under favourable conditions) at the expense of junior chicks.
Notes: Djerdali, S. Tortosa, F. S. Doumandji, S.
URL: <Go to ISI>://WOS:000263306200004

Abstract: In this study many composites based on low density polyethylene (LDPE) with calcium carbonate ($CaCO_3$) and maleic anhydride-grafted polyethylene (MAH-g-LDPE) as a compatibilizer have been investigated in order to study their behavior and the reinforcing mechanisms involved. Different types of chemical modifications of the filler surface were carried out in an attempt to enhance the interactions with the polymeric matrix by using silane and zirconate coupling agents. The compatibilizer was created using a single screw extruder by impregnating LDPE granulates with a solution obtained by dissolving in acetone the dicumyl peroxide used as the initiator for the grafting reaction, maleic anhydride as the grafting monomer, and triphenyl phosphine (TPP) as the stabilizer. Titration measurements indicated that the extent of grafting achieved was 0.21% by weight. The composites containing different concentrations of untreated $CaCO_3$ and those treated with 2% of the compatibilizer were prepared by melt mixing using a two roll mill. It was found that the mechanical properties, which depended greatly on the state of the dispersion of the filler as well as the nature of the interface, were relatively better than the composites prepared by the humid method. Higher reinforcement was obtained with the composites treated with the zirconate coupling agent than those modified with the silane coupling agent.
Notes: Doufnoune, R. Haddaoui, N. Riahi, F.
URL: <Go to ISI>://WOS:000260762700001

Reference Type: Journal Article
Record Number: 54
Author: Doufnoune, R. Haddaoui, N. Riahi, F.
Year: 2008
Title: The Effects of Coupling Agents on the Mechanical, Rheological and Thermal Properties of Calcium Carbonate-Filled LDPE Compatibilized with Maleic Anhydride-g-LDPE (Part II)
Journal: International Journal of Polymeric Materials
Volume: 57
Issue: 7
Pages: 690-708
Short Title: The Effects of Coupling Agents on the Mechanical, Rheological and Thermal Properties of Calcium Carbonate-Filled LDPE Compatibilized with Maleic Anhydride-g-LDPE (Part II)
ISSN: 0091-4037
DOI: 10.1080/00914030801891237
Accession Number: WOS:000260778900004
Abstract: This study deals with the chemical modification of calcium carbonate (CaCO3) by means of coupling agents and its effect on the mechanical, rheological, and thermal properties of the ternary composite of low density polyethylene (LDPE), calcium carbonate (CaCO3), and maleic anhydride-grafted low density polyethylene (MAH-g-LDPE). The variations in the properties were dependent on the treatment method and on the nature and extent of the interactions developed between the filler particles, the matrix and the compatibilizer. The impact resistance results revealed a transition in the behavior of the composite from ductile to brittle. This embrittlement becomes more pronounced as the concentration of CaCO3 and that of the coupling agents are increased. The rheological characterization showed that the interactions developed at the interface greatly affected the flow of the material. The differential scanning calorimetry results showed that even though the fusion temperature and the crystallization temperature were not influenced by the filler or by its treatment, crystallization was altered. Finally, the thermogravimetric analysis showed that the dispersion and the adhesion of the filler with the matrix significantly affect the thermal stability.
Notes: Doufnoune, R. Haddaoui, N. Riahi, F.
URL: <Go to ISI>://WOS:000260778900004

Reference Type: Journal Article
Record Number: 55
Author: Guechi, F. Mekias, H.
Year: 2008
Title: A cybernetic approach to the problem of pouring flows
Journal: Kybernetes
Volume: 37
Issue: 6
Pages: 749-756
Short Title: A cybernetic approach to the problem of pouring flows
ISSN: 0368-492X
DOI: 10.1108/03684920810876954
Accession Number: WOS:000257527800005
Abstract: Purpose - This study aims to calculate 2D free surface potential flow of a liquid poured from a container when the liquid runs along the underside of the spout. Design/methodology/approach - The effect of surface tension is taken into consideration and gravity is neglected. The solutions for the free-surface profiles were computed numerically using a boundary-integral equation. Findings - The numerical computation shows that the solutions are found for different values of a and a train of capillary waves in the far field for $4.16 \leq$ alpha $<$ 10. Research limitations/implications - No solutions were found for alpha < 4.16. Originality/value - The study provides an application of the use of cybernetic methodology to a practical problem.
Notes: Guechi, F. Mekias, H.
URL: <Go to ISI>://WOS:000257527800005

56 **Reference Type: Journal Article**
Record Number: 56
Author: Guessoum, M. Haddaoui, N. Fenouillot-Rimlinger, F.
Year: 2008
Title: Effects of Reactive Extrusion and Interchange Catalyst on the Thermal Properties of Polycarbonate/Poly (Ethylene Terephthalate) System
Journal: International Journal of Polymeric Materials
Volume: 57
Issue: 7
Pages: 657-674
Short Title: Effects of Reactive Extrusion and Interchange Catalyst on the Thermal Properties of Polycarbonate/Poly (Ethylene Terephthalate) System
ISSN: 0091-4037
DOI: 10.1080/00914030801891195
Accession Number: WOS:000260778900002
Abstract: This study was performed in order to evaluate the effects of transesterification reactions on the thermal properties of the PC/PET system, as a function of homopolymer and exchange catalyst concentrations. DSC results support well that when transesterification occurs, the glass transition temperature of the PC-rich phase decreases with the increase of the catalyst's concentration. The evaluation of the PC-rich phase composition using Wood's equation showed its strong dependence on the catalyst concentration and on the initial amount of homopolymers in the system. Furthermore, it was found that the thermal stability of the studied blends falls in between those of the two homopolymers and shows an evident improvement relatively to that of the neat PET.
Notes: Guessoum, M. Haddaoui, N. Fenouillot-Rimlinger, F.
URL: <Go to ISI>://WOS:000260778900002

57 **Reference Type: Journal Article**
Record Number: 57
Author: Guessoum, M. Nekkaa, S. Haddaoui, N.
Year: 2008
Title: Effects of Blending Conditions and Catalyst Concentration on the Structural, Thermal and Morphological Properties of Polycarbonate/Poly (Ethylene Terephthalate) Blends
Journal: International Journal of Polymeric Materials
Volume: 57
Issue: 8
Pages: 759-770
Short Title: Effects of Blending Conditions and Catalyst Concentration on the Structural, Thermal and Morphological Properties of Polycarbonate/Poly (Ethylene Terephthalate) Blends
ISSN: 0091-4037
DOI: 10.1080/00914030801891179
Accession Number: WOS:000260779100001

Abstract: The effects of mixing conditions and transesterification catalyst concentration on the structural, thermal and morphological properties of a 50/50 polycarbonate (PC)/poly (ethylene terephthalate) (PET) system were investigated by differential scanning calorimetry (DSC), scanning electron microscopy (SEM) and by solubility measurements. From the increase in the solubility of the blends in dichloromethane and the decrease of their degree of crystallinity, it was concluded that on increasing the mixing time and the catalyst concentration, transesterification becomes more important. Thermal analysis revealed also a noticeable increase of the crystallization temperature and a slight decrease of the melting temperature. These results suggest that when transesterification occurs extensively, the crystallization tendency declines progressively until finally a completely soluble material is obtained as revealed by solubility measurements.
Notes: Guessoum, M. Nekkaa, S. Haddaoui, N.
URL: <Go to ISI>://WOS:000260779100001

Abstract: We report on the effect of thickness on the structural and electrical properties of permalloy thin films Ni81Fe19 (Py). Permalloy films were deposited onto Si(100) substrates at room temperature using a KrF (wavelength of 248 nm, pulse duration of 30 ns) excimer laser at a fluence of 3 J/cm(2). The thickness ranges from 25 nm to 250 nm. The micrographs reveal the formation of irregular droplets with dimensions between 4.6 mu m and 0.24 mu m. We show that all samples presented a strong < 100 > texture. The lattice constant (a) monotonously increases with increasing thickness. Also, we note that for thickness below 127 nm, the lattice constant (a) is lower than the bulk value, however, for thickness more than 127 nm, (a) is higher than a(bulk). The grain size increases from 30 nm to 54 nm as the thickness increases from 45 nm to 250 nm. The different contributions to the electrical resistivity are investigated as a function of the Py thickness.
Notes: Guittoum, A. Layadi, A. Kerdja, T. Lafane, S. Bouterfaia, S.
URL: <Go to ISI>://WOS:000257337500008

59 **Reference Type: Journal Article**
Record Number: 59
Author: Haddadi, K. Louail, L. Maouche, D.
Year: 2008
Title: Elastic properties of potassium halides under pressure
Journal: Journal of Materials Science & Technology
Volume: 24
Issue: 2
Pages: 241-244
Date: Mar
Short Title: Elastic properties of potassium halides under pressure
ISSN: 1005-0302
Accession Number: WOS:000254637200021
Abstract: The moderate-pressure elastic properties of potassium halides KX (X=F, Cl, Br) was studied theoretically using the density functional theory (DFT) with normconserving pseudopotentials method. The phase transformation from the B1 phase (NaCl-type structure) to the denser B2 phase (CsCl-type structure) occurred at 7.7, 3.46 and 2.96 GPa for KF, KCl and KBr, respectively. The elastic stiffness coefficients and bulk modulus of these materials were calculated as function of hydrostatic pressure and compared with both the experimental and theoretical values.
Notes: Haddadi, K. Louail, L. Maouche, D.
URL: <Go to ISI>://WOS:000254637200021

Reference Type: Journal Article
Record Number: 60
Author: Hamadou, A. Thobel, J. L. Lamari, S.
Year: 2008
Title: Modelling of temperature effects on the characteristics of mid-infrared quantum cascade lasers
Journal: Optics Communications
Volume: 281
Issue: 21
Pages: 5385-5388
Date: Nov
Short Title: Modelling of temperature effects on the characteristics of mid-infrared quantum cascade lasers
ISSN: 0030-4018
DOI: 10.1016/j.optcom.2008.07.036
Accession Number: WOS:000260086400020
Abstract: The effect of temperature on the characteristics of GaAs/AlGaAs quantum cascade lasers operating in the mid-infrared range is theoretically investigated and compared with reported experimental results. We have included the dependence of the phonon scattering rate linewidth variations and thermionic lifetime, on temperature. It is found that the characteristics depend strongly on temperature. Our model yields threshold current densities in good agreement with the experiments. The effect of injection efficiency on the unsaturated modal gain is also considered. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Hamadou, A. Thobel, J. -L. Lamari, S.
URL: <Go to ISI>://WOS:000260086400020

Reference Type: Journal Article

Record Number: 61

Author: Hannachi, L. Bouarissa, N.

Year: 2008

Title: Electronic structure and optical properties of CdSexTe1-x mixed crystals

Journal: Superlattices and Microstructures

Volume: 44

Issue: 6

Pages: 794-801

Date: Dec

Short Title: Electronic structure and optical properties of CdSexTe1-x mixed crystals

ISSN: 0749-6036

DOI: 10.1016/j.spmi.2008.09.013

Accession Number: WOS:000261812200010

Abstract: The band structure and optical properties of the CdSexTe1-x ternary mixed crystals have been studied using the pseudopotential formalism under an improved virtual crystal approximation approach. Quantities such as, energy gaps, band-gap bowing parameters, electron effective mass and dielectric constants are calculated. Our results agree well with the available data in the literature. The composition dependence of all studied quantities has been expressed by quadratic polynomial forms. (C) 2008 Elsevier Ltd. All rights reserved.

Notes: Hannachi, L. Bouarissa, N.

URL: <Go to ISI>://WOS:000261812200010

Abstract: Using first-principle density functional calculations, the structural, electronic and magnetic properties of cubic perovskite LaMnO3 were studied by means of the full-potential linear muffin-tin orbital method. Calculations were performed within the local spin density approximation (LSDA) to the exchange correlation potential. The magnetic phase stability was determined from the total energy calculations for both ferromagnetic (FM) and non-magnetic (NM) phases. Our calculations show that the magnetic phase is more stable than the non-magnetic phase. To our knowledge the elastic constants of this compound have not yet been measured or calculated, hence our results serve as a first quantitative theoretical prediction for future study. Additionally, the band structure, the density of state and the magnetic moments were analyzed. (C) 2009 Elsevier Ltd. All rights reserved.

Reference Type: Journal Article
Record Number: 63
Author: Hannat, S. Khettabi, S. Chermat, R. Nechadi, A. Malek, R.
Year: 2008
Title: Trophic diabetic foot lesions. Regarding 236 cases
Journal: Diabetes & Metabolism
Volume: 34
Pages: A73-A73
Date: Mar
Short Title: Trophic diabetic foot lesions. Regarding 236 cases
ISSN: 1262-3636
Accession Number: WOS:000255327900249
Notes: Hannat, S. Khettabi, S. Chermat, R. Nechadi, A. Malek, R. 1
URL: <Go to ISI>://WOS:000255327900249

Reference Type: Journal Article
Record Number: 64
Author: Hannat, S. Sahli, F. Khettabi, S. Chermat, R. Mekideche, F. Z. Malek, R.
Year: 2008
Title: Bacteriological profile of diabetic trophic foot lesions and their resistance to antibiotics
Journal: Diabetes & Metabolism
Volume: 34
Pages: A73-A73
Date: Mar
Short Title: Bacteriological profile of diabetic trophic foot lesions and their resistance to antibiotics
ISSN: 1262-3636
Accession Number: WOS:000255327900248
Notes: Hannat, S. Sahli, F. Khettabi, S. Chermat, R. Mekideche, F. Z. Malek, R. 1
URL: <Go to ISI>://WOS:000255327900248

Abstract: We study the thermal stability, local structure, and electrical properties of the alpha-MnO2 phase doped with Sn and Co. It is found that doping prevents the transformation from alpha-MnO2 to alpha-Mn2O3 that occurred in the temperature range of 500-600 degrees C. Samples have been synthesized in an acidic medium using the reduction of potassium permanganate by fumaric acid. X-ray diffraction patterns (XRD) of pure and doped alpha-MnO2 prepared at 450 degrees C do not show new peaks related to dopant species. Thermogravimetric analysis (TGA) of the Sn and Co doped MnO2 reveals that transformation from MnO2 to alpha-Mn2O3 starts above 700 degrees C. The increase in the thermal stability is attributed to the presence of Sn or Co ions incorporated inside the large 2 x 2 tunnels as revealed by Fourier transform infrared (FTIR) spectra measurements. An increase in the electrical conductivity with the presence of Sn or Co ions is observed. Electrochemical features of the doped MnO2 samples in alkaline cells are reported and compared with that of the pristine alpha-MnO2 phase.

Reference Type: Journal Article
Record Number: 66
Author: Hemmous, M. Layadi, A. Guittoum, A. Bourzami, A. Benabbas, A.
Year: 2008
Title: Effect of deposition rate and thickness on the structural and electrical properties of evaporated Ni/glass and Ni/Si(100) thin films
Journal: Microelectronics Journal
Volume: 39
Issue: 12
Pages: 1545-1549
Date: Dec
Short Title: Effect of deposition rate and thickness on the structural and electrical properties of evaporated Ni/glass and Ni/Si(100) thin films
ISSN: 0026-2692
DOI: 10.1016/j.mejo.2008.03.005
Accession Number: WOS:000261647800029

Abstract: We have studied the effect of substrates [glass and Si(1 0 0)], of Ni thickness (t(Ni)) and of the deposition rate [v(1) = 13 nm/min and v(2) = 22 nm/min] on the structural and electrical properties of evaporated Ni thin films. The Ni thickness, measured by the Rutherford backscattering (RBS) technique, ranges from 28 to 200 nm. From X-ray diffraction, it was found that all samples are polycrystalline and grow with the < 111 > texture. From the measure of the lattice constant, we inferred that Ni/Si samples are under a higher tensile stress than the Ni/glass ones. Moreover, in Ni/glass deposited at nu(1), stress is relived as t(Ni) increases while those deposited at nu(2) are almost stress-free. The grain size (D) in Ni/glass with low deposition rate monotonously increases (from 54 to 140 angstrom) as tNi increases and are lower than those corresponding to Ni/Si. On the other hand, samples grown at nu(2) have a constant D(i) for small t(Ni) with D in Ni/glass larger than D in Ni/Si. Ni/glass deposited at low nu(1) are characterized by a higher electrical resistivity (p) than those deposited at nu(2). For the litter series, rho is practically constant with t(Ni) but decreases with increasing grain size, indicating that diffusion at the grain boundaries rather than surface effect is responsible for the variation of rho in this thickness range. For the Ni/glass deposed at nu(1) and the Ni/Si series, rho has a more complex variation with thickness and deposition rate. These results will be discussed and correlated. (c) 2008 Elsevier Ltd. All rights reserved.
Notes: Hemmous, M. Layadi, A. Guittoum, A. Bourzami, A. Benabbas, A.
URL: <Go to ISI>://WOS:000261647800029

Reference Type: Journal Article
Record Number: 67
Author: Houcher, B. Bourouba, R. Djabi, F. Houcher, Z.
Year: 2008
Title: The prevalence of neural tube defects in Setif University Maternity Hospital, Algeria-3 years review (2004-2006)
Journal: Pteridines
Volume: 19
Issue: 1
Pages: 12-18
Date: Mar
Short Title: The prevalence of neural tube defects in Setif University Maternity Hospital, Algeria-3 years review (2004-2006)
ISSN: 0933-4807
Accession Number: WOS:000259454000002

Abstract: Neural tube defects (NTDs) including spina bifida, anencephaly and encephalocele are among the most common birth defects, with high associated mortality and morbidity. There are no data concerning the incidence, associated anomalies, treatment and outcome of NTDs in Algeria. The objective of this study is to analyse data on NTD cases from 2004-2006 at Setif Hospital, a hospital with 8,000-10,000 deliveries annually. A retrospective chart review of patients with NTDs was performed, who were born at Setif Hospital 2004-2006. During the 3 year period we examined, there were 215 patients with NTDs treated in the Setif Hospital. The incidence of NTD is 7.5 per 1,000 births. The sex distribution was not equal among NTD cases, 126 (58.6%) females, 88 (40.9%) males and one (0.5%) unidentified sex. Among all NTD cases, there where 122 (56.7%) with spina bifida, 69 (32.1%) with anencephaly, 1 (0.5%) with encephalocele and 23 (10.7%) with anencephaly and spina bifida. Hundred and seventeen (54.4%) cases died in utero and 4 cases (1.9%) unknown. The rate of consanguinity among all NTD cases was 13% (28/215). The rate of affected newborns was highest in mothers aged 31-35 years (21.9%). The peak prevalence was in June (15.8%). A half of NTDs were spina bifida and there was a high rate of mortality. This study demonstrates that NTD represents a significant public health problem in Algeria. In Algeria there were no population-wide educational campaigns about folic acid or its association with the prevention of birth defects. Public health interventions aimed at increasing the periconceptional consumption of folic acid should be implemented or enhanced to reduce the incidence of NTDs in Algeria.
Notes: Houcher, Bakhouche Bourouba, Romyla Djabi, Farida Houcher, Zahira 27th International Winter Workshop on Clinical, Chemical and Biochemical Aspects of Pteridines Mar 02-09, 2008 St Christoph, AUSTRIA Int Soc Peridinol, Austrian Soc Lab Med & Clin Chem
URL: <Go to ISI>://WOS:000259454000002

Reference Type: Journal Article

Record Number: 68

Author: Kacha, A. Grenez, F. Benmahammed, K.

Year: 2008

Title: Time-frequency analysis of multichannel signals using two-sided autoregressive modeling

Journal: Circuits Systems and Signal Processing

Volume: 27

Issue: 3

Pages: 309-330

Date: Jun

Short Title: Time-frequency analysis of multichannel signals using two-sided autoregressive modeling

ISSN: 0278-081X

DOI: 10.1007/s00034-008-9032-0

Accession Number: WOS:000256909900004

Abstract: In this paper, we propose a time-varying vector two-sided autoregressive (VTAR) model for time-frequency analysis of multichannel signals. The multichannel approach is suitable in many applications, such as electroencephalogram analysis and spatial data processing, where the signals are recorded from several sensors, giving rise to vector or multichannel processes. In VTAR modeling, the current sample of the signal in some channel is estimated by a symmetrically weighted sum of past and future samples of this channel as well as of the other channels. The multidimensional VTAR parameters are assumed to be time varying and they are modeled as a linear combination of a set of basis functions. The recursive least-squares algorithm is used to estimate the coefficients of the linear combination. The VTAR model requires a smaller order than the conventional vector autoregressive (VAR) model to achieve better resolution in the time-frequency plane. Numerical examples are given in order to compare the VTAR-based time-frequency distribution with the conventional VAR-based time-frequency distribution and the Choi-Williams distribution.

Notes: Kacha, A. Grenez, F. Benmahammed, K.

URL: <Go to ISI>://WOS:000256909900004

69 **Reference Type: Journal Article**
Record Number: 69
Author: Kadem, A.
Year: 2008
Title: Solving transport equation via Walsh function and Sumudu transform
Journal: Applied and Computational Mathematics
Volume: 7
Issue: 1
Pages: 107-118
Short Title: Solving transport equation via Walsh function and Sumudu transform
ISSN: 1683-3511
Accession Number: WOS:000257297000008

Abstract: A method for the solution of the neutron transport equation in three-dimensional case by using Walsh function and the Sumudu transform formulation is presented. The main characteristic of this technique is that it reduces these problems to those of solving a system of algebraic equations, thus greatly simplifying the problem.
Notes: Kadem, A.
URL: <Go to ISI>://WOS:000257297000008

Abstract: We report on the carrier doping effect (achieved through La doping) on the electronic structure, crystalline structure, grain morphology, and electric and magnetic properties of the ferromagnetic perovskite Sr2FeMoO6. X-ray diffraction on Sr2-xLaxFeMoO6 (x=0, 0.25, 0.5, and 1) ceramic powders shows that all compounds have the tetragonal crystal structure with I4/mmm symmetry. The cell parameter a and the volume of the tetragonal structure increase with the La doping and the grain size is halved with respect to that of undoped Sr2FeMoO6. Mossbauer spectroscopy shows that the presence of La reduces the degree of ordering on the Fe and Mo sites which causes a reduction of the saturation magnetization M-S. However, the addition of electrons in the system results in an increase of the Curie temperature of the Sr2FeMoO6. All these results are supported by ab initio calculations which indicate that the half-metallic character is preserved upon doping and that the magnetization decreases for perfect samples by 1 mu(B)/La atom in a formula unit.
Notes: Kahoul, A. Azizi, A. Colis, S. Stoeffler, D. Moubah, R. Schmerber, G. Leuvrey, C. Dinia, A.
URL: <Go to ISI>://WOS:000262225100072

71 **Reference Type: Journal Article**
Record Number: 71
Author: Kahoul, A. Nekkab, M. Deghfel, B.
Year: 2008
Title: Empirical K-shell ionization cross-sections of elements from Be-4 to U-92 by proton impact
Journal: Nuclear Instruments & Methods in Physics Research Section B-Beam Interactions with Materials and Atoms
Volume: 266
Issue: 23
Pages: 4969-4975
Date: Dec
Short Title: Empirical K-shell ionization cross-sections of elements from Be-4 to U-92 by proton impact
ISSN: 0168-583X
DOI: 10.1016/j.nimb.2008.09.008
Accession Number: WOS:000261824100002

Abstract: A large database containing about 5400 experimental K-shell ionization cross-sections by protons for elements from Be to U is collected from various sources and compilations available in the literature from 1953 to 1999. The data are divided into groups corresponding to their atomic numbers and fitted separately by analytical functions to deduce empirical K-shell ionization cross-sections. The deduced empirical K-shell ionization cross-sections are presented together with the reference ones obtained by Paul and Sacher for selected elements [H. Paul, J. Sacher, At. Data Nucl. Data Tables 42 (1989) 105]. The two sets of results are compared to the calculations within the ECPSSR theory and discussed. (C) 2008 Elsevier B.V. All rights reserved.

Notes: Kahoul, A. Nekkab, M. Deghfel, B.
URL: <Go to ISI>://WOS:000261824100002

Reference Type: Journal Article
Record Number: 72
Author: Kahoul, A. Nekkab, M. Deghfel, B.
Year: 2008
Title: SEMI-empirical and empirical formulas for calculation of K-shell ionization cross sections by proton impact: a comparison
Journal: X-Ray Spectrometry
Volume: 37
Issue: 5
Pages: 536-543
Date: Sep-Oct
Short Title: SEMI-empirical and empirical formulas for calculation of K-shell ionization cross sections by proton impact: a comparison
ISSN: 0049-8246
DOI: 10.1002/xrs.1084
Accession Number: WOS:000259539800010

Abstract: According to the plane wave Born approximation (PWBA) and the binary encounter approximation (BEA) models, it is possible to fit the cross sections obtained with any atomic element at any particle energy using a scaling law for a K-shell. The semi-empirical K-shell ionization cross sections are then deduced by fitting the available experimental data normalized to their corresponding theoretical values. For the empirical K-shell ionization cross sections, a third-order polynomial was used to fit the same experimental data for protons. Our results are compared with the predictions of the ECPSSR theory and with other earlier works. Good agreement is obtained, but it is emphasized that the ultimate solution is to deduce the cross sections by fitting the available experimental data for each element separately. Copyright (c) 2008 John Wiley & Sons, Ltd.

Notes: Kahoul, A. Nekkab, M. Deghfel, B.
URL: <Go to ISI>://WOS:000259539800010

Reference Type: Journal Article
Record Number: 73
Author: Khachai, H. Khenata, R. Bouhemadou, A. Reshak, A. H. Haddou, A. Rabah, M. Soudini, B.
Year: 2008
Title: First principles study of the elastic properties in X2S (X = Li, Na, K and Rb) compounds under pressure effect
Journal: Solid State Communications
Volume: 147
Issue: 5-6
Pages: 178-182
Date: Aug
Short Title: First principles study of the elastic properties in X2S (X = Li, Na, K and Rb) compounds under pressure effect
ISSN: 0038-1098
DOI: 10.1016/j.ssc.2008.05.028
Accession Number: WOS:000258263200005

Abstract: We have performed first principles full-potential augmented plane wave plus local orbitals (FP-APW+lo) calculations within the local density approximation (LDA) and the generalized gradient approximation (GGA), with the aim to determine and predict the elastic constants and their pressure dependence for the alkali-metal sulfides Li2S, Na2S, K2S and Rb2S. The ground state properties are found to agree with the experimental and other theoretical results. The calculated elastic constants at zero pressure for Li2S and Na2S are compared with the available experimental data and other theoretical results. With regard to K2S and Rb2S, we are not aware of any experimental or theoretical data for the elastic constants and their pressure dependence, so that the data here represent the first determination of these quantities. The shear modulus, Young's modulus and the Poisson's ratio for these compounds are derived. The Debye temperature is also estimated from the average sound velocity. (c) 2008 Elsevier Ltd. All rights reserved.
Notes: Khachai, H. Khenata, R. Bouhemadou, A. Reshak, Ali. H. Haddou, A. Rabah, M. Soudini, B.
URL: <Go to ISI>://WOS:000258263200005

Abstract: Series of CoxCr1 x thin films have been evaporated under vacuum onto Si (1 0 0) and glass substrates. Chemical composition and interface properties have been studied by modelling Rutherford backscattering spectra (RBS) using SIMNRA programme. Thickness ranges from 17 to 220 nm, and x from 0.80 to 0.88. Simulation of the energy spectra shows an interdiffusion pro. le in the thickest films, but no diffusion is seen in thinner ones. Microscopic characterizations of the films are done with X-ray diffraction (XRD) measurements. All the samples are polycrystalline, with an hcp structure and show a $< 0\ 0\ 0\ 1 >$ preferred orientation. Atomic force microscopies (AFM) reveal very smooth film surfaces. (c) 2008 Elsevier B.V. All rights reserved.
Notes: Kharmouche, A. Djouada, I.
URL: <Go to ISI>://WOS:000256815000015

Reference Type: Journal Article
Record Number: 75
Author: Korichi, M. Gerbaud, V. Floquet, P. Meniai, A. H. Nacef, S. Joulia, X.
Year: 2008
Title: Computer aided aroma design I-Molecular knowledge framework
Journal: Chemical Engineering and Processing
Volume: 47
Issue: 11
Pages: 1902-1911
Date: Oct
Short Title: Computer aided aroma design I-Molecular knowledge framework
ISSN: 0255-2701
DOI: 10.1016/j.cep.2008.02.008
Accession Number: WOS:000259718200002

Abstract: Computer aided aroma design (CAAD) is likely to become a hot issue as the REACH EC document targets many aroma compounds to require substitution. The two crucial steps in computer aided molecular design (CAMD) are the generation of candidate molecules and the estimation of properties, which can be difficult when complex molecular structures like odours are sought and when their odour quality are definitely subjective whereas their odour intensity are partly subjective as stated in Rossitier's review [K.J. Rossitier, Structure-odour relationships, Chem. Rev. 96 (1996) 3201-3240]. In part I, provided that classification rules like those presented in part II exist to assess the odour quality, the CAAD methodology presented proceeds with a multi-level approach matched by a versatile and novel molecular framework. It can distinguish the infinitesimal chemical structure differences, like in isomers, that are responsible for different odour quality and intensity. Besides, its chemical graph concepts are well suited for genetic algorithm sampling techniques used for an efficient screening of large molecules such as aroma. Finally, an input/output eXtensible Markup Language (XML) format based on the aggregation of Chemical Markup Language (CML) and ThermoML enables to store the molecular classes but also any subjective or objective property values computed during the CAAD process. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Korichi, Mourad Gerbaud, Vincent Floquet, Pascal Meniai, A. -Hassan Nacef, Saci Joulia, Xavier 6th SIMO Symposium 2006 Oct 11-12, 2006 Toulouse, FRANCE Chem Engn Lab, Proc Syst Engn Dept, Soc Chem Ind, Inst Natl Polytech Toulouse
URL: <Go to ISI>://WOS:000259718200002

Abstract: Computer-aided aroma design (CAAD) is likely to become a hot issue as the REACH EC document targets many aroma compounds to require substitution. The two crucial steps in computer-aided molecular design (CAMD) are the generation of candidate molecules and the estimation of properties, which can be difficult when complex molecular structures like odours are sought and their odour quality are definitely subjective or their odour intensity are partly subjective as stated in Rossitier's review [K.J. Rossitier, Structure-odour relationships, Chem. Rev. 96 (1996) 3201-3240]. The CAAD methodology and a novel molecular framework were presented in part I. Part 11 focuses on a classification methodology to characterize the odour quality of molecules based on structure-odour relation (SOR). Using 2D and 3D molecular descriptors, linear discriminant analysis (LDA) and artificial neural network are compared in favour of LDA. The classification into balsamic/non-balsamic quality was satisfactorily solved. The classification among five sub-notes of the balsamic quality was less successful, partly due to the selection of the Aldrich's catalog as the reference classification. For the second case, it is shown that the sweet sub-note considered in Aldrich's catalog is not a relevant sub-note, confirming the alternative and popular classification of Jaubert et at. [J.N. Jaubert, C. Tapiero, J.C. Dore, The field of odour: toward a universal language for odour relationships, Perfumer Odourist 20 (2) (1995) 1-16], the field of odours. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Korichi, Mourad Gerbaud, Vincent Talou, Thierry Floquet, Pascal Meniai, A. -Hassan Nacef, Saci 6th SIMO Symposium 2006 Oct 11-12, 2006 Toulouse, FRANCE Chem Engn Lab, Proc Syst Engn Dept, Soc Chem Ind, Inst Natl Polytech Toulouse
URL: <Go to ISI>://WOS:000259718200003

Reference Type: Journal Article
Record Number: 77
Author: Laghrib, S. Amardjia-Adnani, H. Abdi, D. Pelletier, J. M.
Year: 2008
Title: Tin oxide thin layers obtained by vacuum evaporation of tin and annealing under oxygen flow
Journal: Vacuum
Volume: 82
Issue: 8
Pages: 782-788
Date: Apr
Short Title: Tin oxide thin layers obtained by vacuum evaporation of tin and annealing under oxygen flow
ISSN: 0042-207X
DOI: 10.1016/j.vacuum.2007.11.010
Accession Number: WOS:000255666100008

Abstract: Tin dioxide layers have been prepared by vacuum evaporation of tin on ordinary glass substrates. Thickness of the deposited tin layers was 500 or 1000 angstrom. Enrichment in oxygen was ensured by a thermal annealing at temperatures between 300 and 500 degrees C, for 1, 2, 4, 6, 8 and 10 h. The layers were characterized using X-ray diffraction, environmental scanning electron microscopy and EDX analysis and conductivity by the 4 point method. Oxygen enrichment of these films during annealing at high temperature induces the formation of the nanocrystalline tin oxide. (C) 2007 Elsevier Ltd. All rights reserved.
Notes: Laghrib, Souad Amardjia-Adnani, Hania Abdi, Djamila Pelletier, Jean Marc
URL: <Go to ISI>://WOS:000255666100008

Reference Type: Journal Article
Record Number: 78
Author: Lamari, S.
Year: 2008
Title: Role of band offsets on the zero-field spin splitting in heterostructures
Journal: Physica E-Low-Dimensional Systems & Nanostructures
Volume: 40
Issue: 5
Pages: 1718-1721
Date: Mar
Short Title: Role of band offsets on the zero-field spin splitting in heterostructures
ISSN: 1386-9477
DOI: 10.1016/j.physe.2007.10.106
Accession Number: WOS:000254646400247

Abstract: The zero-field spin properties of GaAs/Ga0.67Al0.33As quantum wells are investigated numerically through extensive self-consistent computations for selected geometries. Different mechanisms are found to contribute to the Rashba parameter alpha, the main ones being the conduction band offsets and the bulk spin-orbit coupling constant discontinuities at interfaces. Mismatches at the interfaces of both the normal and parallel effective masses do contribute, but are about an order of magnitude less important. Addition of a Ga0.8Al0.2As step reduces a, while in a narrow well a vanishes for some specific doping profile. (c) 2007 Elsevier B.V. All rights reserved.

Notes: Lamari, Saadi 17th International Conference on Electronic Properties of Two-Dimensional Systems Jul 15-20, 2007 Genoa, ITALY European Off Aerosp Res & Dev, Air Force Off Sci Res, USAF Res Lab, Off Naval Res Global, Int Union Pure & Appl Phys, Scuola Normale Superiore Pisa, Int Ctr Theoret Phys, Oxford Instruments, Off Naval Res, Natl Enterprise NanoSci & NanoTechnol CNR INFM, Fondazione Carige Genova
URL: <Go to ISI>://WOS:000254646400247

Reference Type: Journal Article
Record Number: 79
Author: Laouer, H. Boulaacheb, N. Akkal, S. Singh, G. Marimuthu, P. de Heluani, C.
Catalan, C. Baldovini, N.
Year: 2008
Title: Composition and antibacterial activity of the essential oil of Ammoides atlantica (Coss. et
Dur.) Wolf
Journal: Journal of Essential Oil Research
Volume: 20
Issue: 3
Pages: 266-269
Date: May-Jun
Short Title: Composition and antibacterial activity of the essential oil of Ammoides atlantica
(Coss. et Dur.) Wolf
ISSN: 1041-2905
Accession Number: WOS:000255916700021
Abstract: In Algerian traditional medicine, the aerial parts of Ammoides atlantica (Coss. et
Dur.) Wolf. (Apiaceae) are reported to have a,vide range of biological activities such as
antibacterial and antidiarrheic activity. The in vitro antibacterial activity of the oil was evaluated
by Disc diffusion method against several strains of bacteria, and this activity was shown to be
very strong against most of the tested microorganisms, especially Escherichia coli ATCC 25922,
Staphylococcus aureus ATCC 25923, and Enterococcus faecalis ATCC 29212. The MIC was
also carry Out and Bacillus subtilis ATCC 6633 (vegetative form) resulted to be the most
sensitive microorganism with a MIC value inferior of 6.25 mg/L. The essential oil was analyzed
by GC and GUMS. The main. components were thymol (53.2%), gamma-terpinene (19.4%) and
p-cymene (10.6%).
Notes: Laouer, Hocine Boulaacheb, Nacira Akkal, Salah Singh, Gurdip Marimuthu, Palanisamy
de Heluani, Carola Catalan, Cesar Baldovini, Nicolas
URL: <Go to ISI>://WOS:000255916700021

Reference Type: Journal Article
Record Number: 80
Author: Larous, L. Kameli, A. Losel, D. M.
Year: 2008
Title: Ultrastructural observations on Puccinia menthae infections
Journal: Journal of Plant Pathology
Volume: 90
Issue: 2
Pages: 185-190
Date: Jul
Short Title: Ultrastructural observations on Puccinia menthae infections
ISSN: 1125-4653
Accession Number: WOS:000258147000004

Abstract: Haustoria and associated regions of the host-pathogen interfaces of the autoecious rust Puccinia menthae, during mono- and dikariotic phases of development on its host Mentha spicata, differed in ultrastructural and cytochemical features. By application of the PA-TCH-SP procedure, polysaccharides were shown not only to be major constituents of the walls of intercellular hyphae, haustorial mother cells (HMC) and haustoria of both the monokaryon and dikaryon (m- and d-haustoria, respectively) of P. menthae, but were also present within the extra-haustorial matrix (EM) of both types of haustoria. In the neck region of d-haustoria, which is structurally more differentiated than in m-haustoria, there was evidence for the presence of lipopolysaccharides and glycoprotein. However, the characteristic neck-band, which stains densely in conventional staining of the d-haustorium, did not react with PA-TCH-SP The outermost layer of the dikaryotic HMC wall was completely digested by protease, whereas treatment with protease and cellulase did not affect either mono- or dikariotic intercellular hyphae or walls of m-haustoria, although these treatments indicated the presence of protein and cellulose in the EM. In dikaryotic infections, protein was found to be a major constituent of the EM. Cellulase treatment resulted in almost complete digestion of the host wall, except for a thin outer layer, whereas hyphal and haustorial walls were unaffected. The morphology and structural differences observed between the mono- and dikaryotic infection structures of P. menthae, and their interactions with host cells were clarified, and confirmed the possibility of their functional differences. Such information should facilitate further comparative studies on host-parasite interfaces at different stages of the rust life cycle and other biotrophic fungi.
Notes: Larous, L. Kameli, A. Loesel, D. M.
URL: <Go to ISI>://WOS:000258147000004

Abstract: Co3O4 and Mn3O4 nanoparticles were successfully impregnated on SBA-15 mesoporous silica. A high dispersion of these metal oxide particles was achieved while using a "two-solvents" procedure, allowing a proper control of the metal oxides loading (7 wt%) and size (10-12 nm). These Co3O4 and Mn3O4 supported oxides on SBA-15 were characterised by means of XRD, BET and TEM techniques. The influence of the nature of the silica support was investigated in terms of porosity and specific surface area. Since, an improved catalytic activity was achieved over SBA-15 mesoporous silica; it appears that its organised porous meso-structure creates a confinement medium which permits a high dispersion of metal oxide nanoparticles. Supported Co3O4/SBA-15 (7 wt%) showed the highest catalytic performance in the combustion of methane under lower explosive limit conditions, comparable to perovskites. These materials become therefore novel efficient combustion catalysts at low metal loading.
Notes: Laugel, G. Arichi, J. Guerba, H. Moliere, M. Kiennemann, A. Garin, F. Louis, B.
URL: <Go to ISI>://WOS:000259189200003

82 **Reference Type: Journal Article**
Record Number: 82
Author: Louaar, S. Akkal, S. Bayet, C. Laouer, H. Guilet, D.
Year: 2008
Title: Flavonoids of Aerial Parts of an Endemic Species of the Apiaceae of Algeria, Ammoides atlantica
Journal: Chemistry of Natural Compounds
Volume: 44
Issue: 4
Pages: 516-517
Date: Jul
Short Title: Flavonoids of Aerial Parts of an Endemic Species of the Apiaceae of Algeria, Ammoides atlantica
ISSN: 0009-3130
DOI: 10.1007/s10600-008-9110-3
Accession Number: WOS:000260850300027
Notes: Louaar, S. Akkal, S. Bayet, C. Laouer, H. Guilet, D.
URL: <Go to ISI>://WOS:000260850300027

83 **Reference Type: Journal Article**
Record Number: 83
Author: Louail, L. Haddadi, K. Maouche, D. Sahraoui, F. A. Hachemi, A.
Year: 2008
Title: Electronic band structure of calcium selenide under pressure
Journal: Physica B-Condensed Matter
Volume: 403
Issue: 18
Pages: 3022-3026
Date: Sep
Short Title: Electronic band structure of calcium selenide under pressure
ISSN: 0921-4526
DOI: 10.1016/j.physb.2008.03.009
Accession Number: WOS:000259626500013

Abstract: Energy band structures under pressure of calcium selenide (CaSe) were calculated using the plane-wave pseudopotential code CASTEP. The results show a progressive transition from a direct to an indirect gap semiconductor at a pressure of about 2 GPa, in the B1 phase. An insulator-conductor change was also observed at 70 GPa, in the B2 phase. Concerning CaSe, these two results could not be evidenced in previous literature. Hence, our work is a first attempt in this direction. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Louail, L. Haddadi, K. Maouche, D. Sahraoui, F. Ali Hachemi, A.
URL: <Go to ISI>://WOS:000259626500013

Abstract: By defining "a virtual gap" for the continuous spectrum through the notion of eigendifferential (Weyl's packet) and using the differential projector operator, we present a rigorous demonstration and discussion of the quantum adiabatic theorem and the validity condition of the adiabatic approximation for systems having a nondegenerate continuous spectrum. We show that a quantal system in an eigenstate, of operators with a continuous nondegenerate eigenvalue spectrum, slowly transported around a closed curve C by varying parameters in its Hamiltonian, will acquire a generalized geometrical phase factor where an explicit formula is derived in terms of the eigenstates of the Hamiltonian. Examples are given for illustration.

Reference Type: Journal Article
Record Number: 85
Author: Maamache, M. Saadi, Y.
Year: 2008
Title: Adiabatic Theorem and Generalized Geometrical Phase in the Case of Continuous Spectra
Journal: Physical Review Letters
Volume: 101
Issue: 15
Date: Oct
Short Title: Adiabatic Theorem and Generalized Geometrical Phase in the Case of Continuous Spectra
ISSN: 0031-9007
DOI: 10.1103/PhysRevLett.101.150407
Article Number: 150407
Accession Number: WOS:000259965000007
Abstract: By defining "a virtual gap" for the continuous spectrum through the notion of eigendifferential (Weyl's packet) and using the differential projector operator, we present a rigorous demonstration and discussion of the quantum adiabatic theorem for systems having a nondegenerate continuous spectrum. An explicit formula for a generalized geometrical phase is derived in terms of the eigenstates of the Hamiltonian. Examples are given for illustration.
Notes: Maamache, M. Saadi, Y.
URL: <Go to ISI>://WOS:000259965000007

Reference Type: Journal Article
Record Number: 86
Author: Maouche, N. Nessark, B.
Year: 2008
Title: Electrochemical behavior of polyterthiophene-coated types 304 and 316 stainless steels and its corrosion performance
Journal: Corrosion
Volume: 64
Issue: 4
Pages: 315-324
Date: Apr
Short Title: Electrochemical behavior of polyterthiophene-coated types 304 and 316 stainless steels and its corrosion performance
ISSN: 0010-9312
Accession Number: WOS:000254826500004

Abstract: Polyterthiophene (P3T)film was synthesized on Types 304 (UNS S30400) and 316 (UNS S31600) stainless steel (SS) electrodes from an acetonitrile (ACN) solution containing $10(-2)$ M terthiophene (3T) and $10(-1)$ M lithium perchlorate (LiClO4), by cycling voltammetry between 0 and 1.20 V, with a scan rate of 25 mV/s. The electrochemical behavior of the SS samples with and without polymerfilms were studied in 0.5 M sulfuric acid (H2SO4) and 3016 sodium chloride (NaCl) solutions, using cyclic voltammetry, electrochemical impedance spectroscopy (EIS), and open-circuit potential measurements. It was shown that homogeneous and adherent P3T films deposited on the electrode surface reduce the corrosion rate of SS, but it does not protect the metal completely against corrosion. The obtained results were promising for using the conducting polymers in corrosion protection.
Notes: Maouche, N. Nessark, B.
URL: <Go to ISI>://WOS:000254826500004

Reference Type: Journal Article
Record Number: 87
Author: Marcon, J. Merabet, A.
Year: 2008
Title: Diffusion modelling of low-energy ion-implanted BF2 in crystalline silicon: Study of fluorine vacancy effect on boron diffusion
Journal: Materials Science and Engineering B-Advanced Functional Solid-State Materials
Volume: 154
Pages: 216-220
Date: Dec
Short Title: Diffusion modelling of low-energy ion-implanted BF2 in crystalline silicon: Study of fluorine vacancy effect on boron diffusion
ISSN: 0921-5107
DOI: 10.1016/j.mseb.2008.10.001
Accession Number: WOS:000262187600047
Abstract: We have investigated and modelled the diffusion of boron implanted into crystalline silicon in the form of boron difluoride BF2+. We have used published data for BF2+ implanted with an energy of 2.2 keV in crystalline silicon. Fluorine effects are considered by using vacancy-fluorine pairs which are responsible for the suppression of boron diffusion in crystalline silicon. Following Uematsu's works, the simulations satisfactory reproduce the SIMS experimental profiles in the 800-1000 degrees C temperature range. The boron diffusion model in silicon of Uematsu has been improved taking into account the last experimental data. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Marcon, J. Merabet, A. Symposium on Front-End Junction and Contact Formation in Future Silicon/Germanium based Devices held at the 2008 E-MRS Spring Meeting May 26-29, 2008 Strasbourg, FRANCE European Mat Res Soc Si
URL: <Go to ISI>://WOS:000262187600047

Reference Type: Journal Article
Record Number: 88
Author: Medkour, Y. Bouhemadou, A. Roumili, A.
Year: 2008
Title: Structural and electronic properties of M2InC (M = Ti, Zr, and Hf)
Journal: Solid State Communications
Volume: 148
Issue: 9-10
Pages: 459-463
Date: Dec
Short Title: Structural and electronic properties of M2InC (M = Ti, Zr, and Hf)
ISSN: 0038-1098
DOI: 10.1016/j.ssc.2008.09.006
Accession Number: WOS:000261406000026
Abstract: Using pseudopotential plane waves approach based on density functional theory within the generalized gradient approximation, we have performed a study of the structural and electronic properties of selected M2InC compounds belonging to the so-called MAX phases, with M = Ti, Zr, and HE The calculated equilibrium lattice parameters are in good agreement with the experimental values. The effect of high pressures, up to 50 GPa, on the lattice constants shows that the contractions along the c-axis were higher than along a axis. The elastic constants are calculated using the static finite strain technique. The analysis of the band structure, density of states and electron charge density show that these compounds are electrical conductors, with a strong directional bonding between M and C atoms assured by the hybridisation of M-atom d states with C-atom p states. The hydrostatic pressure effect on the bond lengths showed that strengthens of M-C and M-In bonds decreases in the sequence Hf2InC -> Ti2InC -> Zr2InC. (c) 2008 Elsevier Ltd. All rights reserved.
Notes: Medkour, Y. Bouhemadou, A. Roumili, A.
URL: <Go to ISI>://WOS:000261406000026

Reference Type: Journal Article
Record Number: 89
Author: Menouar, S. Maamache, M. Saadi, Y. Choi, J. R.
Year: 2008
Title: Exact wavefunctions for a time-dependent Coulomb potential
Journal: Journal of Physics a-Mathematical and Theoretical
Volume: 41
Issue: 21
Date: May
Short Title: Exact wavefunctions for a time-dependent Coulomb potential
ISSN: 1751-8113
DOI: 10.1088/1751-8113/41/21/215303
Article Number: 215303
Accession Number: WOS:000256387800017
Abstract: The one-dimensional Schrodinger equation associated with a time-dependent Coulomb potential is studied. The invariant operator method (Lewis and Riesenfeld) and unitary transformation approach are employed to derive quantum solutions of the system. We obtain an ordinary second-order differential equation whose analytical exact solution has been unknown. It is confirmed that the form of this equation is similar to the radial Schrodinger equation for the hydrogen atom in a (arbitrary) strong magnetic field. The qualitative properties for the eigenstates spectrum are described separately for the different values of the parameter omega(0) appearing in the x(2) term, x being the position, i.e., omega(0) > 0, omega(0) < 0 and omega(0) = 0. For the omega(0) = 0 case, the eigenvalue equation of invariant operator reduces to a solvable form and, consequently, we have provided exact eigenstates of the time-dependent Hamiltonian system.
Notes: Menouar, S. Maamache, M. Saadi, Y. Choi, J. R.
URL: <Go to ISI>://WOS:000256387800017

Reference Type: Journal Article
Record Number: 90
Author: Moakafi, M. Khenata, R. Bouhemadou, A. Khachai, H. Amrani, B. Rached, D.
Rerat, M.
Year: 2008
Title: Electronic and optical properties under pressure effect of alkali metal oxides
Journal: European Physical Journal B
Volume: 64
Issue: 1
Pages: 35-42
Date: Jul
Short Title: Electronic and optical properties under pressure effect of alkali metal oxides
ISSN: 1434-6028
DOI: 10.1140/epjb/e2008-00286-6
Accession Number: WOS:000258317100004

Abstract: We report results of first-principles calculations for the electronic and optical properties under pressure effect of Li_2O, Na_2O, $Ki_{(2)}O$ and Rb_2O compounds in the cubic antifluorite structure, using a full relativistic version of the full-potential augmented plane-wave plus local orbitals (FP-APW+lo) method based on density functional theory, within the local density approximation (LDA) and the generalized gradient approximation (GGA). Moreover, the alternative form of GGA proposed by Engel and Vosko (GGA-EV) is also used for band structure calculations. The calculated equilibrium lattices and bulk moduli are in good agreement with the available data. Band structure, density of states, and pressure coefficients of the fundamental energy gap are given. The critical point structure of the frequency dependent complex dielectric function is also calculated and analyzed to identify the optical transitions. The pressure dependence of the static optical dielectric constant is also investigated.
Notes: Moakafi, M. Khenata, R. Bouhemadou, A. Khachai, H. Amrani, B. Rached, D. Rerat, M.
URL: <Go to ISI>://WOS:000258317100004

Reference Type: Journal Article
Record Number: 91
Author: Moussa, K. A. Clement, G. Guennoune, H. Leygnac, C.
Year: 2008
Title: Three-dimensional Chern-Simons black holes
Journal: Physical Review D
Volume: 78
Issue: 6
Date: Sep
Short Title: Three-dimensional Chern-Simons black holes
ISSN: 1550-7998
DOI: 10.1103/PhysRevD.78.064065
Article Number: 064065
Accession Number: WOS:000259692800136
Abstract: We construct black hole solutions to three-dimensional Einstein-Maxwell theory with both gravitational and electromagnetic Chern-Simons terms. These intrinsically rotating solutions are geodesically complete, and causally regular within a certain parameter range. Their mass, angular momentum and entropy are found to satisfy the first law of black hole thermodynamics. These Chern-Simons black holes admit a four-parameter local isometry algebra, which generically is sl(2, R) x R, and may be generated from the corresponding vacua by local coordinate transformations.
Notes: Moussa, Karim Ait Clement, Gerard Guennoune, Hakim Leygnac, Cedric
URL: <Go to ISI>://WOS:000259692800136

Abstract: The thermal and crystallization behavior of PP/Spartium junceum fiber composites were studied by thermogravimetry (TGA) and differential scanning calorimetry (DSC). The surface modification of Spartium junceum fibers was carried out using silane coupling agents in order to improve the interfacial adhesion between the fiber and the matrix. The effects of fiber content and chemical treatment on thermal properties were evaluated. It was found that Spartium junceum fiber degraded before the PP matrix but the thermal stability of the PP/Spartium junceum fiber composites was higher than those of the fiber and the matrix. DSC measurements showed that the incorporation of Spartium junceum fiber caused an increase in the crystallinity of the matrix. These effects have been attributed to the fact that the surfaces of Spartium junceum fibers act as nucleating agents for the crystallization of the polymer, promoting the growth and the formation of transcrystalline regions around the fibers.
Notes: Nekkaa, S. Guessoum, M. Chebira, F. Haddaoui, N.
URL: <Go to ISI>://WOS:000260779100002

Reference Type: Journal Article
Record Number: 93
Author: Noureddine, C. Lekhmici, A. Mubarak, M. S.
Year: 2008
Title: Sorption properties of the iminodiacetate ion exchange resin, amberlite IRC-718, toward divalent metal ions
Journal: Journal of Applied Polymer Science
Volume: 107
Issue: 2
Pages: 1316-1319
Date: Jan
Short Title: Sorption properties of the iminodiacetate ion exchange resin, amberlite IRC-718, toward divalent metal ions
ISSN: 0021-8995
DOI: 10.1002/app.26627
Accession Number: WOS:000250822400075

Abstract: The sorption properties of the commercially available cationic exchange resin, Amberlite IRC-718, that has the iminodiacetic acid functionality toward the divalent metal-ions, Fe^{2+}, Cu^{2+}, Zn^{2+}, and N^{2+} were investigated by a batch equilibration technique at 25 degrees C as a function of contact time, metal ion concentration, mass of resin used, and pH. Results of the study revealed that the resin exhibited higher capacities and a more pronounced adsorption toward Fe^{2+} and that the metal-ion uptake follows the order: $Fe^{2+} > Cu^{2+} > Zn^{2+} > Ni^{2+}$. The adsorption and binding capacity of the resin toward the various metal ions investigated are discussed. (C) 2007 Wiley Periodicals, Inc.
Notes: Noureddine, Charef Lekhmici, Arrar Mubarak, Mohammad S.
URL: <Go to ISI>://WOS:000250822400075

Reference Type: Journal Article
Record Number: 94
Author: Ourari, A. Baameur, L. Khan, M. A. Bouet, G.
Year: 2008
Title: Is the electrocatalytic epoxidation of stilbene isomers using manganese (III) tetradentate Schiff bases complexes stereoselective?
Journal: Electrochemistry Communications
Volume: 10
Issue: 11
Pages: 1736-1739
Date: Nov
Short Title: Is the electrocatalytic epoxidation of stilbene isomers using manganese (III) tetradentate Schiff bases complexes stereoselective?
ISSN: 1388-2481
DOI: 10.1016/j.elecom.2008.08.053
Accession Number: WOS:000260992900021

Abstract: Three manganese (III) complexes were obtained with H(2)Salen derivatives and used as catalysts in the epoxidation reactions of E- and Z-stilbene isomers. The preparative electrolyses were carried out at 25 degrees C in acetonitrile solution containing 0.1 M TBAP, 10(-3) M complex, 10(-2) M 2-methylimidazole and 0.1 M benzoic anhydride plus stilbene as substrate. Our results showed clearly that E-stilbene was totally converted to Z-stilbene oxide whereas Z-stilbene leads to a mixture in which the benzaldehyde was the major by-product. In our experimental conditions, the turnovers recorded for different experiments were located in the 3.7-6.6 range. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Ourari, Ali Baameur, Lotfi Khan, Mustayeen A. Bouet, Gilles
URL: <Go to ISI>://WOS:000260992900021

Reference Type: Journal Article
Record Number: 95
Author: Ourari, A. Ouari, K. Khan, M. A. Bouet, G.
Year: 2008
Title: Dioxygen activation with a cytochrome P450 model. Characterization and electrochemical study of new unsymmetrical tetradentate Schiff-base complexes with iron(III) and cobalt(II)
Journal: Journal of Coordination Chemistry
Volume: 61
Issue: 23
Pages: 3846-3859
Short Title: Dioxygen activation with a cytochrome P450 model. Characterization and electrochemical study of new unsymmetrical tetradentate Schiff-base complexes with iron(III) and cobalt(II)
ISSN: 0095-8972
DOI: 10.1080/00958970802178257
Accession Number: WOS:000260213200012
Abstract: Salicylaldehyde or 5-bromosalicylaldehyde react with 2,3-diaminophenol to give two unsymmetrical Schiff-bases H(2)L(1), H(2)L(2), respectively. With Fe(III) and Co(II), these ligands lead to four complexes: Fe(III)ClL(1), Fe(III)ClL(2), Co(II)L(1), Co(II)L(2). The structures of these complexes were determined by mass spectroscopy, infrared and electronic spectra. Cyclic voltammetry in dimethylformamide (DMF) showed irreversible waves for both ligands. In the same experimental conditions, Fe(III)ClL(1) exhibited a reversible redox couple Fe(III)/Fe(II) while the three other complexes showed quasi-reversible systems. The behavior of some of these complexes in the presence of dioxygen and the comparison with cytochrome P450 are described.
Notes: Ourari, Ali Ouari, Kamel Khan, Mustayeen A. Bouet, Gilles
URL: <Go to ISI>://WOS:000260213200012

Reference Type: Journal Article
Record Number: 96
Author: Rahal, M. Ziadi, A.
Year: 2008
Title: A new extension of Piyavskii's method to Holder functions of several variables
Journal: Applied Mathematics and Computation
Volume: 197
Issue: 2
Pages: 478-488
Date: Apr
Short Title: A new extension of Piyavskii's method to Holder functions of several variables
ISSN: 0096-3003
DOI: 10.1016/j.amc.2007.07.067
Accession Number: WOS:000254254200002
Abstract: In this paper we suggest a new extension of the method of Piyavskii for global optimization of a Holder function with exponent 1/beta (beta > 1). In the one-dimensional case a modification of Piyavskii's algorithm is introduced and it is based on the construction of sub-estimators which are piecewise linear. The algorithm is then some what easily. Moreover, the results we obtain seem interesting. In the higher dimension, a new variant of the Alienor reducing transformation, which has been devised for exploiting one-dimensional global optimization techniques known for their great efficiency, is used. The method consists in reducing a multidimensional problem to a one-dimensional one using the so called alpha-dense curves. The convergence of the methods is also studied. (c) 2007 Elsevier Inc. All rights reserved.
Notes: Rahal, Mohamed Ziadi, Abdelkader
URL: <Go to ISI>://WOS:000254254200002

Reference Type: Journal Article
Record Number: 97
Author: Riahi, F. Bouaziz, A. Benmesli, S. Doufnoune, R.
Year: 2008
Title: Synthesis and Characterization of an Acrylamide-Based Resin for Coating Application
Journal: International Journal of Polymeric Materials
Volume: 57
Issue: 7
Pages: 745-758
Short Title: Synthesis and Characterization of an Acrylamide-Based Resin for Coating Application
ISSN: 0091-4037
DOI: 10.1080/00914030801963424
Accession Number: WOS:000260778900008
Abstract: To synthesize an acrylamide-based resin, two functional acrylamide monomers, N-methylolacrylamide and N-butoxymethylolacrylamide, were prepared and copolymerized separately with two methacrylate esters: methylmethacrylate and butylmethacrylate. The resin derived from N-methylolacrylamide proved to be inadequate due to its instability. To adjust the necessary amount of the reagents needed for the synthesis, different concentrations of the initiator, benzoyl peroxide, and various concentrations of the molecular weight regulator, tertio-dodecyl mercaptan transfer agent, were tested by monitoring the resulting viscosity and conversion. The paint formulation containing N-butoxymethylolacrylamide co-monomer was characterized in terms of hardness, impact and embossing resistance, gloss and adhesion to a metal substrate. The performance properties, which were compared with those of a commercial paint composition, considered as a reference, were overall satisfactory.
Notes: Riahi, F. Bouaziz, A. Benmesli, S. Doufnoune, R.
URL: <Go to ISI>://WOS:000260778900008

Abstract: The effect of different thermal treatments on the mechanical and thermal properties of polycarbonate was investigated. The first quenching procedure which involves the quench of the samples from the melt state to different temperatures allowed improving impact strength and elongation at break for a quenching temperature of 0 degrees C. A second quenching procedure, corresponding to specimens heated again at 160 degrees C (T-g + 15 degrees C) and quenched a second time, showed a better enhancement of the impact strength and elongation at break to the detriment of other properties such as elastic modulus, density, yield stress, and heat distortion temperature, for a quenching temperature of 40 degrees C. This effect was associated to the existence of a relaxation mode around 35 degrees C. (C) 2008 Wiley Periodicals, Inc.
Notes: Rouabah, F. Fois, M. Ibos, L. Boudenne, A. Picard, C. Dadache, D. Haddaoui, N.
URL: <Go to ISI>://WOS:000256854200018

Reference Type: Journal Article
Record Number: 99
Author: Rouag, N. Guechi, A. Matic, S. Myrta, A.
Year: 2008
Title: Viruses and viroids of stone fruits in Algeria
Journal: Journal of Plant Pathology
Volume: 90
Issue: 2
Pages: 393-395
Date: Jul
Short Title: Viruses and viroids of stone fruits in Algeria
ISSN: 1125-4653
Accession Number: WOS:000258147000031

Abstract: Field surveys were carried out in the major stone fruit growing areas of eastern Algeria to assess the sanitary status of stone fruits. A total of 454 samples from peach, apricot, almond, sweet and sour cherry, plum and myrobalan were tested by ELISA or RT-PCR for the presence of Prunus necrotic ringspot virus (PNRSV), Prune dwarf virus (PDV), Apple mosaic virus (ApMV), Apple chlorotic leaf spot virus (ACLSV) Apricot latent virus (ApLV), Cherry virus A (CVA), Cherry green ring mottle virus (CGRMV), and Plum bark necrosis stem pitting-associated virus (PBNSPaV). The overall average infection level was 10.4%. The most frequent virus was PNRSV (56.8%), followed by PDV (27.2%) and ApMV (22.7%). The most infected species was cherry (21.9%) and the less almond (4.4%). ACLSV, ApLV, CVA, CGRMV and PBNSPaV were not detected. Of 531 samples tested for the presence of viroids by tissue-print hybridization, 28 (5.2%) were infected. Peach latent mosaic viroid (PLMVd) and Hop stunt viroid (HSVd) were detected in 15 and 13 samples, respectively. This is the first large-scale study on viruses and viroids of stone fruits in Algeria and reports for the first time the presence of HSVd in the country.

Notes: Rouag, N. Guechi, A. Matic, S. Myrta, A.
URL: <Go to ISI>://WOS:000258147000031

Reference Type: **Journal Article**
Record Number: 100
Author: Sahari, A. Azizi, A. Schmerber, G. Dinia, A.
Year: 2008
Title: NUCLEATION, GROWTH, AND MORPHOLOGICAL PROPERTIES OF ELECTRODEPOSITED NICKEL FILMS FROM DIFFERENT BATHS
Journal: Surface Review and Letters
Volume: 15
Issue: 6
Pages: 717-725
Date: Dec
Short Title: NUCLEATION, GROWTH, AND MORPHOLOGICAL PROPERTIES OF ELECTRODEPOSITED NICKEL FILMS FROM DIFFERENT BATHS
ISSN: 0218-625X
Accession Number: WOS:000262617800002
Abstract: The processes of nickel electrodeposition on Pt/Si(100) substrate from an aqueous sulfate, Watts, and chloride solution have been studied using electrochemical techniques and atomic force microscopy (AFM). It was found that hydrogen evolution reaction (HER) was shifted more cathodically and the nickel electrodeposition obeys to inhibition process, caused by adsorbed species in surface substrate. At early stage of the deposition chronoamperometric results were compared with Sharifker and Hills theoretical model. The nucleation was in agreement with progressive mode followed by 3D diffusion growth mechanism. The nucleation is generally slow at low over potentials, in all studied baths. AFM images show distribution nickel clusters, with different sizes.
Notes: Sahari, A. Azizi, A. Schmerber, G. Dinia, A.
URL: <Go to ISI>://WOS:000262617800002

Reference Type: Journal Article
Record Number: 101
Author: Sahari, A. Azizi, A. Fenineche, N. Schmerber, G. Dinia, A.
Year: 2008
Title: Electrochemical study of cobalt nucleation mechanisms on different metallic substrates
Journal: Materials Chemistry and Physics
Volume: 108
Issue: 2-3
Pages: 345-352
Date: Apr
Short Title: Electrochemical study of cobalt nucleation mechanisms on different metallic substrates
ISSN: 0254-0584
DOI: 10.1016/j.matchemphys.2007.10.003
Accession Number: WOS:000255081500032

Abstract: In this report, several materials such as M/glass (M = Cu, Ru, Ag and Pt) and Pt/Si were investigated to test their suitability for studying the early nucleation stage and growth of cobalt clusters. It was found that most of these materials stand as good substrates to be used in the study of the nucleation and growth of electrodeposited cobalt from aqueous solution containing $CoSO_4$, $CoCl_2$, Na_2SO_4 and H_3BO_3. Among theses substrates, Ag shows a transition from instantaneous to progressive nucleation. In the other hand the cobalt electrodeposited on Cu, Ru and Pt substrates followed progressive nucleation. Pt/Si substrates gave short transient time at maximum transient current and instantaneous cobalt nucleation on it surface. (C) 2007 Elsevier B.V. All rights reserved.
Notes: Sahari, A. Azizi, A. Fenineche, N. Schmerber, G. Dinia, A.
URL: <Go to ISI>://WOS:000255081500032

Reference Type: Journal Article
Record Number: 102
Author: Sahnoune, F. Chegaar, M. Saheb, N. Goeuriot, P. Valdivieso, F.
Year: 2008
Title: Algerian kaolinite used for mullite formation
Journal: Applied Clay Science
Volume: 38
Issue: 3-4
Pages: 304-310
Date: Feb
Short Title: Algerian kaolinite used for mullite formation
ISSN: 0169-1317
DOI: 10.1016/j.clay.2007.04.013
Accession Number: WOS:000253740900016
Abstract: In the present study, mullite was synthesized through reaction sintering of Algerian kaolinite and high purity alumina. The raw powders were wet ball milled in a planetary ball mill. Powders' morphology and the microstructure of the sintered samples were characterized by means of a scanning electron microscope. An X-ray diffractometer equipped with a heating facility and a differential thermal analyzer were used to follow mullite formation. Cylindrical specimens were produced by uniaxial cold compaction at a pressure of 75 MPa and sintered at different sintering temperatures for different sintering times. The heating rate was 10 degrees C/min. It was found that Algerian kaolinite was suitable for mullite production through reaction sintering with pure Al2O3. Formation of complete mullite occurred at 1550 degrees C. A relative density of 94% (of the theoretical density) was achieved at a relatively low sintering temperature of 1600 degrees C and a sintering time of 4 h. (C) 2007 Elsevier B.V. All rights reserved.
Notes: Sahnoune, F. Chegaar, M. Saheb, N. Goeuriot, P. Valdivieso, F.
URL: <Go to ISI>://WOS:000253740900016

Reference Type: Journal Article
Record Number: 103
Author: Sahraoui, F. A. Arab, F. Zerroug, S. Louail, L.
Year: 2008
Title: First-principles study of structural and elastic properties of MgSe under hydrostatic pressure
Journal: Computational Materials Science
Volume: 41
Issue: 4
Pages: 538-541
Date: Feb
Short Title: First-principles study of structural and elastic properties of MgSe under hydrostatic pressure
ISSN: 0927-0256
DOI: 10.1016/j.commatsci.2007.05.015
Accession Number: WOS:000254338800014

Abstract: The structural and elastic properties were calculated using ab initio plane wave pseudopotential method within the generalized gradient approximation (GGA). Our results indicated that MgSe undergoes a structural phase transition from NaCl-type (B1) to FeSi-type (1328) at a pressure near to about 111 GPa. The calculated elastic stiffness coefficients presented a linear behaviour versus pressure. The structural parameters and elastic constants of the fundamental ground are generally in good agreement with the available theoretical and experimental data. (C) 2007 Elsevier B.V. All rights reserved.
Notes: Sahraoui, F. Ali Arab, F. Zerroug, S. Louail, L.
URL: <Go to ISI>://WOS:000254338800014

Reference Type: Journal Article

Record Number: 104

Author: Sayah, S. Zehar, K.

Year: 2008

Title: Modified differential evolution algorithm for optimal power flow with non-smooth cost functions

Journal: Energy Conversion and Management

Volume: 49

Issue: 11

Pages: 3036-3042

Date: Nov

Short Title: Modified differential evolution algorithm for optimal power flow with non-smooth cost functions

ISSN: 0196-8904

DOI: 10.1016/j.enconman.2008.06.014

Accession Number: WOS:000260898500012

Abstract: Differential evolution (DE) is a simple but powerful evolutionary optimization algorithm with continually outperforming many of the already existing stochastic and direct search global optimization techniques. DE algorithm is a new optimization method that can handle non-differentiable, non-linear, and multi-modal objective functions. This paper presents an efficient modified differential evolution (MDE) algorithm for solving optimal power flow (OPF) with non-smooth and non-convex generator fuel cost curves. Modifications in mutation rule are suggested to the original DE algorithm, that enhance its rate of convergence with a better solution quality. A six-bus and the IEEE 30 bus test systems with three different types of generator cost curves are used for testing and validation purposes. Simulation results demonstrate that MDE algorithm provides very remarkable results compared to those reported recently in the literature. (C) 2008 Elsevier Ltd. All rights reserved.

Notes: Sayah, Samir Zehar, Khaled Si

URL: <Go to ISI>://WOS:000260898500012

Reference Type: Journal Article
Record Number: 105
Author: Sellai, A. Ouennoughi, Z.
Year: 2008
Title: Analysis of frequency- and temperature-dependent interface states in PtSi/p-Si Schottky diodes
Journal: Materials Science and Engineering B-Advanced Functional Solid-State Materials
Volume: 154
Pages: 179-182
Date: Dec
Short Title: Analysis of frequency- and temperature-dependent interface states in PtSi/p-Si Schottky diodes
ISSN: 0921-5107
DOI: 10.1016/j.mseb.2008.09.048
Accession Number: WOS:000262187600039
Abstract: To yield quantitative information about their interface states, PtSi/p-Si Schottky structures have been studied using conductance and capacitance measurements over a wide range of frequencies (1 kHz to 1 MHz) and at several temperatures (80-140 K). The increase in capacitance at lower frequencies is seen as a signature of interface states, the densities of which are evaluated to be of the order of similar to $10(12)$ eV(-1) cm(-1). The presence of interface states is also evidenced as a peak in the conductance-frequency characteristics that increases in magnitude with decreasing temperatures. The variations of interface conductance are best described by an analytical equation derived assuming an energy-dependent cross-section of these interface states. The conductance data is subsequently used to extract the relaxation times of interface states and their energy distribution with respect to the top of the valence band. Relaxation times, in particular, while temperature dependent with an average value of similar to 4 mu s, show a noticeably weak dependence on bias. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Sellai, A. Ouennoughi, Z. Symposium on Front-End Junction and Contact Formation in Future Silicon/Germanium based Devices held at the 2008 E-MRS Spring Meeting May 26-29, 2008 Strasbourg, FRANCE European Mat Res Soc
URL: <Go to ISI>://WOS:000262187600039

Reference Type: Journal Article
Record Number: 106
Author: Sofonea, M. Chouchane, L. Selmani, L.
Year: 2008
Title: Analysis of an Antiplane Contact Problem with Adhesion for Electro-Viscoelastic Materials
Journal: Nonlinear Analysis-Modelling and Control
Volume: 13
Issue: 3
Pages: 379-395
Date: Aug
Short Title: Analysis of an Antiplane Contact Problem with Adhesion for Electro-Viscoelastic Materials
ISSN: 1392-5113
Accession Number: WOS:000207801200007

Abstract: We consider a mathematical model which describes the antiplane shear deformation of a cylinder in frictionless contact with a rigid foundation. The adhesion of the contact surfaces, caused by the glue, is taken into account. The material is assumed to be electro-viscoelastic and the foundation is assumed to be electrically conductive. We derive a variational formulation of the model which is given by a system coupling an evolutionary variational equality for the displacement field, a time-dependent variational equation for the electric potential field and a differential equation for the bonding field. Then we prove the existence of a unique weak solution to the model. The proof is based on arguments of evolution equations with monotone operators and fixed point.
Notes: Sofonea, M. Chouchane, L. Selmani, L.
URL: <Go to ISI>://WOS:000207801200007

Abstract: The electrooxidation of ring-substituted bromobenzylgermatranes in CH(3)CN and DMF solutions was studied. By cyclic voltammetry supported by DFT B3LYP/6-311G calculations, donor activity of the nitrogen atom was shown to be substantially reduced because of the dative N --> Ge coordination compared to Et(3)N and (HOCH(2)CH(2))(3)N. In the electrochemical context, the transmission of electronic effects between the ArCH(2) moiety and the reaction center (the lone pair of N pointed inside the atrane cage) is well described by the generalized additive inductive model including mesomeric interactions. The oxidation process follows classical scheme for tertiary amines - reversible electron transfer with the ensuing deprotonation of alpha-carbon atom; at low scan rates the process is reversible/quasi-reversible and at higher rates it is under electron transfer control. Anodic cyanation of m-bromobenzylgermatrane was performed. (C) 2008 Elsevier B.V. All rights reserved.

Reference Type: Journal Article
Record Number: 108
Author: Soukkou, A. Khellaf, A. Leulmi, S. Boudeghdegh, K.
Year: 2008
Title: OPTIMAL CONTROL OF A CSTR PROCESS
Journal: Brazilian Journal of Chemical Engineering
Volume: 25
Issue: 4
Pages: 799-812
Date: Oct-Dec
Short Title: OPTIMAL CONTROL OF A CSTR PROCESS
ISSN: 0104-6632
DOI: 10.1590/s0104-66322008000400017
Accession Number: WOS:000261207700017

Abstract: Designing an effective criterion and learning algorithm for find the best structure is a major problem in the control design process. In this paper, the fuzzy optimal control methodology is applied to the design of the feedback loops of an Exothermic Continuous Stirred Tank Reactor system. The objective of design process is to find an optimal structure/gains of the Robust and Optimal Takagi Sugeno Fuzzy Controller (ROFLC). The control signal thus obtained will minimize a performance index, which is a function of the tracking/regulating errors, the quantity of the energy of the control signal applied to the system, and the number of fuzzy rules. The genetic learning is proposed for constructing the ROFLC. The chromosome genes are arranged into two parts, the binary-coded part contains the control genes and the real-coded part contains the genes parameters representing the fuzzy knowledge base. The effectiveness of this chromosome formulation enables the fuzzy sets and rules to be optimally reduced. The performances of the ROFLC are compared to these found by the traditional PD controller with Genetic Optimization (PD_GO). Simulations demonstrate that the proposed ROFLC and PD_GO has successfully met the design specifications.
Notes: Soukkou, A. Khellaf, A. Leulmi, S. Boudeghdegh, K.
URL: <Go to ISI>://WOS:000261207700017

Reference Type: Journal Article
Record Number: 109
Author: Titaouine, M. Neto, A. G. Baudrand, H. Djahli, F.
Year: 2008
Title: Determination of metallic ring FSS scattering characteristics using WCIP method
Journal: Microwave and Optical Technology Letters
Volume: 50
Issue: 5
Pages: 1324-1328
Date: May
Short Title: Determination of metallic ring FSS scattering characteristics using WCIP method
ISSN: 0895-2477
DOI: 10.1002/mop.23383
Accession Number: WOS:000255081700051

Abstract: Wave concept iterative procedure (WCIP) is used for the determination of scattering characteristics of single and double metallic ring frequency selective surfaces (FSS). In the WCIP method, the analysis of the FSS is reduced to that of the unit cell. Basically, the WCIP method consists of scattering the incident waves at the interface and the reflection of the scattered waves by the closing ends of the periodic wall box containing the FSS unit cell. The use of the two dimensional fast Fourier transform algorithm results in a reduction of the running time and memory space. FSSs based on single and double metallic rings are analyzed by the WCIP method. A good agreement is observed between the WCIP results and the experimental results. (c) 2008 Wiley Periodicals, Inc.
Notes: Titaouine, M. Neto, A. Gornes Baudrand, H. Djahli, F.
URL: <Go to ISI>://WOS:000255081700051

Reference Type: Journal Article
Record Number: 110
Author: Winkler, C. Schroecksnadel, K. Ledochowski, M. Schennach, H. Houcher, B. Fuchs, D.
Year: 2008
Title: In vitro Effects of Nigella sativa Seeds Extracts on Stimulated Peripheral Blood Mononuclear Cells
Journal: Pteridines
Volume: 19
Issue: 4
Pages: 101-106
Date: Dec
Short Title: In vitro Effects of Nigella sativa Seeds Extracts on Stimulated Peripheral Blood Mononuclear Cells
ISSN: 0933-4807
Accession Number: WOS:000265600200002

Abstract: Nigella sativa, commonly known as black cumin seed, belongs to the botanical family of Ranunculaceae. The active antioxidant components of Nigella sativa display a remarkable array of biochemical, immunological and pharmacological actions, including bronchodilatory, anti-inflammatory, antibacterial, hypoglycaemic, antitumoural and immunopotentiating effects. Effects of Nigella sativa seeds extracts were investigated in freshly isolated human peripheral blood mononuclear cells stimulated with the mitogens phytohaemagglutinin and concanavalin A in vitro. Tryptophan degradation and neopterin production were monitored in culture supernatants, both these immunobiochemical pathways are induced by pro-inflammatory cytokine interferon-gamma. Compared to unstimulated cells, the mitogens enhanced degradation of tryptophan and production of neopterin. Nigella sativa seeds extracts significantly suppressed both pathways in a dose-dependent way. Suppression of tryptophan degradation and neopterin formation by Nigella sativa seeds extracts demonstrates an inhibitory influence on activated T-cells and macrophages. Data are in line with an anti-inflammatory activity of the extracts.
Notes: Winkler, Christiana Schroecksnadel, Katharina Ledochowski, Maximilian Schennach, Harald Houcher, Bakhouche Fuchs, Dietmar
URL: <Go to ISI>://WOS:000265600200002

Reference Type: Journal Article
Record Number: 111
Author: Zaidi, Z. Hamdicherif, M. Mehnane, A. Laouarnri, S. Moussaoui, H. Abdellouche,
D. Harndi, S. Abdoun, M.
Year: 2008
Title: Evolution of cancer incidence in wilaya de Setif; Algeria 1986-2005
Journal: Bulletin Du Cancer
Volume: 95
Issue: 6
Pages: 640-640
Date: Jun
Short Title: Evolution of cancer incidence in wilaya de Setif; Algeria 1986-2005
ISSN: 0007-4551
Accession Number: WOS:000257127700103
Notes: Zaidi, Z. Hamdicherif, M. Mehnane, A. Laouarnri, S. Moussaoui, H. Abdellouche, D.
Harndi, S. Abdoun, M.
URL: <Go to ISI>://WOS:000257127700103

Abstract: Harmful ecological effects caused by the emission of gaseous pollutants like sulfur dioxide (SO2) and nitrogen oxides (NO,), can be reduced by load adequate distribution between power plants. However, this leads to a noticeable increase in their operating cost. In order to eliminate this conflict, and to study the trade-off relation between fuel cost and emissions, an approach to solve this multiobjective environmental/economic load dispatch problem, based on an efficient successive linear programming technique is proposed. Simulation results on the Algerian 59-bus power system prove the efficiency of this method thus confirming its capacity to solve the environmental/economic power dispatch problem. (C) 2008 Elsevier Ltd. All rights reserved.
Notes: Zehar, Khaled Sayah, Samir 3rd International Conference on Thermal Engineering May 21-23, 2007 Amman, JORDAN Hashemite Univ, Ryerson Univ Si
URL: <Go to ISI>://WOS:000260898500056

Reference Type: **Journal Article**

Record Number: 113

Author: Zerroug, S. Sahraoui, F. A. Bouarissa, N.

Year: 2008

Title: Ab initio calculations of structural properties of ScxGa1-xN

Journal: Journal of Applied Physics

Volume: 103

Issue: 6

Date: Mar

Short Title: Ab initio calculations of structural properties of ScxGa1-xN

ISSN: 0021-8979

DOI: 10.1063/1.2884580

Article Number: 063510

Accession Number: WOS:000254536900026

Abstract: We present first-principles total energy calculations within the full-potential linearized augmented plane wave method in the gradient-generalized approximation so as to study the structural properties of ScxGa1-xN in zinc blende, NaCl and CsCl-like structures at normal, and under hydrostatic pressure. Our results showed generally reasonable agreement with the available experimental and theoretical findings. It is found that with scandium concentrations of 0%, 25%, and 50%, zinc blende is the most stable configuration among those considered here, whereas for scandium concentrations of 75% and 100%, rocksalt is the most stable one. Deviation of the lattice constants from Vegard's law is shown to be alloy composition dependent. We provide analytical expressions for the scandium concentration dependence of the lattice constant, bulk modulus, and its pressure derivative. (c) 2008 American Institute of Physics.

Notes: Zerroug, S. Sahraoui, F. Ali Bouarissa, N.

URL: <Go to ISI>://WOS:000254536900026

Reference Type: Journal Article
Record Number: 114
Author: Zoukrami, F. Haddaoui, N. Vanzeveren, C. Sclavons, M. Devaux, J.
Year: 2008
Title: Effect of compatibilizer on the dispersion of untreated silical in a polypropylene matrix
Journal: Polymer International
Volume: 57
Issue: 5
Pages: 756-763
Date: May
Short Title: Effect of compatibilizer on the dispersion of untreated silical in a polypropylene matrix
ISSN: 0959-8103
DOI: 10.1002/pi.2406
Accession Number: WOS:000255313300013
Abstract: BACKGROUND: A new processing method for polypropylene-untreated precipitated silica (PP/SiO2) Composites based on the incorporation of a second polymer phase of polyamide 6 (PA6) is presented and compared with a more classic one making use of compatibilizers: glycerol monostearate (GMS), ethylene acrylic acid ionomer (IAAZE) and maleic anhydride grafted polypropylene (NIA-graft-PP). The effects of processing methods and conditions on the microstructure and properties Of PP/SiO2 Composites prepared by melt compounding are investigated with a view to reduce the size of aggregates of silica from the micrometre to the nanometre scale and to improve the link between filler and matrix. RESULTS: On the one hand, the presence of GMS and LAAZE compatibilizers significantly improves the dispersion of the silica particles. On the other hand, when using a PA6 second phase, the SiO2 particles are dispersed in PA6 nodules. Within these nodules, SiO2 appears dispersed at the nanoscale but with larger particles ('aggregates') of about 200 nm. Significant improvements in tensile strength and modulus are obtained using MA-graft-PP compatibilizer. An increase in impact strength is observed in the case of GMS compatibilizer. Thermal parameters indicate also that silica plays the role of nucleation agent for PP matrix. All improvements (tensile strength, modulus and impact strength) increase with the addition of compatibilized PA6 second phase. CONCLUSION: By the incorporation of masterbatch of silica in PA6 as a second polymer polar phase, a successful new production method for PP/SiO2 nanocomposites has been developed. Interestingly, this method does not require any (expensive) pre-treatment of the silica. (c) 2007 Society of Chemical Industry.
Notes: Zoukrami, Fouzia Haddaoui, Nacereddine Vanzeveren, Celine Sclavons, Michel Devaux, Jacques
URL: <Go to ISI>://WOS:000255313300013

Reference Type: Book Section
Record Number: 1
Author: Azizi, H. Zouaui, L. Mokhnache, S.
Year: 2008
Title: VLSI cells placement using the neural networks
Editor: Arioui, H. Merzouki, R. Abbassi, H. A.
Book Title: Intelligent Systems and Automation
Volume: 1019
Pages: 308-312
Series Title: AIP Conference Proceedings
Short Title: VLSI cells placement using the neural networks
ISBN: 0094-243X 978-0-7354-0540-0
Accession Number: WOS:000257193900051
Abstract: The artificial neural networks have been studied for several years. Their effectiveness makes it possible to expect high performances. The privileged fields of these techniques remain the recognition and classification. Various applications of optimization are also studied under the angle of the artificial neural networks. They make it possible to apply distributed heuristic algorithms. In this article, a solution to placement problem of the various cells at the time of the realization of an integrated circuit is proposed by using the KOHONEN network.
Notes: Azizi, Hacene Zouaui, Lamri Mokhnache, Salah 1st Mediterranean Conference on Intelligent Systems and Automation (CISA 2008) Jun 30-jul 02, 2008 Annaba, ALGERIA Univ Evry, Natl Agcy Res Univ, Univ Annaba, CNRS, Foreign France Minist
URL: <Go to ISI>://WOS:000257193900051

Reference Type: Book Section

Record Number: 2

Author: Benbahouche, L. Merabet, A. Zegadi, A. Ieee,

Year: 2008

Title: An improved understanding of IGBT behavior under thermal stress

Book Title: 2008 26th International Conference on Microelectronics, Vols 1 and 2, Proceedings

Pages: 189-192

Series Title: International Conference on Microelectronics-MIEL

Short Title: An improved understanding of IGBT behavior under thermal stress

ISBN: 2159-1660 978-1-4244-1881-7

DOI: 10.1109/icmel.2008.4559255

Accession Number: WOS:000257432600038

Abstract: About fifteen years ago, the challenge of simulation in power electronics was to predict and understand the global behavior of various topologies of devices. For years, this fact could be observed in microelectronics, whereas in power electronics simulation has mostly been restricted to system design. Recently, the insulated gate bipolar transistor (IGBT) has gained increasing acceptance as a power transistor for a variety of power electronic applications. At the same time, the ever increasing calculation power of computers allows representing the devices more accurately to aid to design of the switching section (design of the snubbers, prediction of the current and voltage overshoots, study and optimization of the losses in the switch etc...). Moreover, The ability of the IGBT transistors to sustain increasingly strong voltages and currents as well as increasingly high switching frequencies has increased to need to detect impending degradation, which might appear during the operation of this power device, leading to its destruction. Then, the degradation study of power IGBT device has received as much attention. The aim of this paper, two dimensional numerical simulation are carried out to demonstrate the static and dynamic performance of two commercial IGBTs, IRGBC40F for international Rectifier and IXHG40N60A for IXYS and to analyze the forward voltage drops of IGBTs (IR and IXYS) as function of its conception and of temperature. Furthermore, this paper provides detailed analyses of the (dv/dt) capability for (IR and IXYS) IGBTs devices and examination of their response at turn-off with variations in gate resistor, Cd freewheeling diode capacitance and in temperature. At the same time, we try to study and investigate the evolution of electrical properties of IGBT submitted to thermal stress where the influence of temperature during IGBT operation is dominant. Thermal stress technique can be used to simulated and evaluated natural ageing and its resulting parameters degradation of the device when the later found to operate under normal conditions. Our study is then validated by use of two (213) dimensional modeling tool (Pspice, Spice). I hope that this paper can contribute to the understanding the dv/dt capability, to detect impending degradation under thermal stress of commercial IGBT (IR, IXYS) devices operation, show how it relates to some underlying physical mechanisms and achieve high power switching efficiency, reduced cost, improved reliability and reduced parasitic. Comparison between measurements and simulation shows good agreement.

Notes: Benbahouche, Ly. Merabet, A. Zegadi, A. 26th International Conference on Microelectronics (MIEL 2008) May 11-14, 2008 Nis, SERBIA IEEE Serbia & Montenegro Sect, ES SSC Chapter, IEEE Electron Devices Soc, IEEE Solid State Circuits Soc

URL: <Go to ISI>://WOS:000257432600038

Reference Type: Book Section
Record Number: 3
Author: Bouguezel, S. Ahmad, M. O. Swamy, M. N. S. Ieee,
Year: 2008
Title: A new blind-block reciprocal parametric transform
Book Title: Proceedings of 2008 Ieee International Symposium on Circuits and Systems, Vols 1-10
Pages: 3102-3105
Series Title: IEEE International Symposium on Circuits and Systems
Short Title: A new blind-block reciprocal parametric transform
ISBN: 0271-4302 978-1-4244-2078-0
Accession Number: WOS:000258532102236

Abstract: In this paper, we define a blind-block reciprocal-transpose matrix operator (BBRT). One of the interesting proprieties of the BBRT matrix is that it is very easy to obtain its inverse. We then propose a new blind-block reciprocal parametric transform and show that its matrix operator is a BBRT matrix. The transform has a large number of independent parameters that are useful for many applications and can specifically be used as an additional secret key for encryption and watermarking. It is shown that the proposed transform reduces to some of the existing transforms and also to new classes of parametric transforms having some desirable proprieties.

Notes: Bouguezel, Saad Ahmad, M. Omair Swamy, M. N. S. IEEE International Symposium on Circuits and Systems May 18-21, 2008 Seattle, WA Ieee
URL: <Go to ISI>://WOS:000258532102236

11 **Reference Type: Book Section**
Record Number: 4
Author: Bourahala, F. Khaber, F.
Year: 2008
Title: New stability conditions of Takagi-Sugeno fuzzy systems via LMI
Editor: Arioui, H. Merzouki, R. Abbassi, H. A.
Book Title: Intelligent Systems and Automation
Volume: 1019
Pages: 109-114
Series Title: Aip Conference Proceedings
Short Title: New stability conditions of Takagi-Sugeno fuzzy systems via LMI
ISBN: 0094-243X 978-0-7354-0540-0
Accession Number: WOS:000257193900018
Abstract: This paper presents new stability conditions for the continuous Takagi-Sugeno (T-S) fuzzy systems by using the Linear Matrix Inequality (LMI) approach. These new conditions are applied to design problems of fuzzy regulator. First Takagi-Sugeno fuzzy models and some stability results are recalled. To design fuzzy control systems, nonlinear systems are represented by Takagi-Sugeno fuzzy models. The concept of parallel distributed compensation (PDC) is employed to design fuzzy controllers from the Takagi-Sugeno fuzzy models. New stability conditions are obtained by relaxing the classical stability conditions. The stability conditions (classic and relaxed) of the closed -loop system are expressed in terms of LMI. Design examples for nonlinear systems demonstrate the utility of the relaxed stability conditions and the LMI procedures.
Notes: Bourahala, F. Khaber, F. 1st Mediterranean Conference on Intelligent Systems and Automation (CISA 2008) Jun 30-jul 02, 2008 Annaba, ALGERIA Univ Evry, Natl Agcy Res Univ, Univ Annaba, CNRS, Foreign France Minist
URL: <Go to ISI>://WOS:000257193900018

Reference Type: Book Section

Record Number: 5

Author: Daachi, M. E. Achili, B. Daachi, B. Chikouche, D.

Year: 2008

Title: Neural network identification for a C5 parallel robot

Editor: Arioui, H. Merzouki, R. Abbassi, H. A.

Book Title: Intelligent Systems and Automation

Volume: 1019

Pages: 228-233

Series Title: Aip Conference Proceedings

Short Title: Neural network identification for a C5 parallel robot

ISBN: 0094-243X 978-0-7354-0540-0

Accession Number: WOS:000257193900039

Abstract: This paper presents the design and analysis of a neural network-based identification of the inverse dynamic model of a C5 parallel robot. The identification structure is designed using the black box form (the dynamic model is completely unknown). This identification uses real data acquired on the C5 parallel robot by applying a nominal control scheme (PD). The desired trajectories of this scheme are based on Fourier series and the coefficients are chosen in a heuristic way. We have used this type of desired trajectories to obtain exciting trajectories for identification procedure. Three identification schemes are tested and compared. The comparison is performed based on the number of parameters used in each architecture and the quality of the generalization error. The used neural network is of MLP type and composed of one hidden layer.

Notes: Daachi, M. E. Achili, B. Daachi, B. Chikouche, D. 1st Mediterranean Conference on Intelligent Systems and Automation (CISA 2008) Jun 30-jul 02, 2008 Annaba, ALGERIA Univ Evry, Natl Agcy Res Univ, Univ Annaba, CNRS, Foreign France Minist

URL: <Go to ISI>://WOS:000257193900039

Reference Type: Book Section

Record Number: 6

Author: Djaghloul, M. Boumous, Z. Belkhiat, S.

Year: 2008

Title: Driving forces study in the ultrasonic motor

Editor: Arioui, H. Merzouki, R. Abbassi, H. A.

Book Title: Intelligent Systems and Automation

Volume: 1019

Pages: 420-426

Series Title: Aip Conference Proceedings

Short Title: Driving forces study in the ultrasonic motor

ISBN: 0094-243X 978-0-7354-0540-0

Accession Number: WOS:000257193900068

Abstract: This work presents an overview on ultrasonic motors of type traveling wave (TWUSMs). The mathematical model for the TWUSMs is developed where two additional cases, neglected in the literature, concerning the dynamic behavior of the rotor and the stator, are detailed. The major utility of this study is to detail the various additional cases, describing more the functional work of the motor, by exposing particular cases which represent our contributions and also by putting in value our results of simulation, implemented and realized in the environment Matlab/Simulink. The refined model resulting of this study is implemented on software Matlab/Simulink. This mathematical model describes the dynamic behavior of ultrasonic motor AMW90. The implementation is based on the aptitude of the different blocks of simulation in to be adapted according to our needs. The obtained simulation results in comparison with manufacturer measures are satisfactory, and confirm the robustness of the refined model.

Notes: Djaghloul, M. Boumous, Z. Belkhiat, S. 1st Mediterranean Conference on Intelligent Systems and Automation (CISA 2008) Jun 30-jul 02, 2008 Annaba, ALGERIA Univ Evry, Natl Agcy Res Univ, Univ Annaba, CNRS, Foreign France Minist

URL: <Go to ISI>://WOS:000257193900068

Reference Type: Book Section
Record Number: 7
Author: Doudou, S. Khaber, F.
Year: 2008
Title: Adaptive fuzzy control of a class of SISO nonaffine nonlinear systems
Editor: Arioui, H. Merzouki, R. Abbassi, H. A.
Book Title: Intelligent Systems and Automation
Volume: 1019
Pages: 103-108
Series Title: Aip Conference Proceedings
Short Title: Adaptive fuzzy control of a class of SISO nonaffine nonlinear systems
ISBN: 0094-243X 978-0-7354-0540-0
Accession Number: WOS:000257193900017
Abstract: The aim of this paper is to control a nonaffine nonlinear system single input single output (SISO). Based on the implicit function theory, the existence of an unknown ideal controller is demonstrated. A fuzzy system is used to approximate this controller and its parameters are updated according to gradient descend method. The closed-loop control structure stability is guaranteed using Lyapunov analysis. An illustrative simulation example is given to demonstrate the feasibility of the proposed method.
Notes: Doudou, S. Khaber, F. 1st Mediterranean Conference on Intelligent Systems and Automation (CISA 2008) Jun 30-jul 02, 2008 Annaba, ALGERIA Univ Evry, Natl Agcy Res Univ, Univ Annaba, CNRS, Foreign France Minist
URL: <Go to ISI>://WOS:000257193900017

12 **Reference Type: Book Section**
Record Number: 8
Author: Ghedjati, K. Abdelaziz, M.
Year: 2008
Title: Control of perturbed systems in the frequency domain
Editor: Arioui, H. Merzouki, R. Abbassi, H. A.
Book Title: Intelligent Systems and Automation
Volume: 1019
Pages: 369-374
Series Title: Aip Conference Proceedings
Short Title: Control of perturbed systems in the frequency domain
ISBN: 0094-243X 978-0-7354-0540-0
Accession Number: WOS:000257193900060
Abstract: One present in this paper the design of a robust direct model reference adaptive control (DMRAC) algorithm which will be applied to systems with unmodeled dynamics, These unmodeled dynamics are represented as either additive or multiplicative norm bounded perturbations in the transfer function. Frequency domain design conditions for a feedforward compensator have been developed. The validity of the algorithm is illustrated by means of examples.
Notes: Ghedjati, Keltoum Abdelaziz, Mourad 1st Mediterranean Conference on Intelligent Systems and Automation (CISA 2008) Jun 30-jul 02, 2008 Annaba, ALGERIA Univ Evry, Natl Agcy Res Univ, Univ Annaba, CNRS, Foreign France Minist
URL: <Go to ISI>://WOS:000257193900060

Reference Type: Book Section
Record Number: 9
Author: Hamdi-Cherif, A. Kara-Mohammed, C. Hamdi-Cherif, A.
Year: 2008
Title: Agent-based elearning environment
Editor: Harkiolakis, N. Halkia, D. Mastorakis, N. Niola, V. Hebei, X. Catsigeras, E.
Book Title: Advances in Applied Mathematics, Systems, Communications and Computers
Pages: 81-87
Series Title: Mathematics and Computers in Science and Engineering
Short Title: Agent-based elearning environment
ISBN: 1792-4308 978-960-6766-69-5
Accession Number: WOS:000257984000013
Abstract: We describe an attempt of bridging the gap between web-based learning and agents capable of learning from experience. The emphasis is made on the interaction between two core fields, namely agents and Unified Modeling Language (UML) as a standard for Object Oriented Design. The tangible results remain the integration of agents for elearning based on machine learning methods such as entropy-based Decision Tree Learning, AdaBoost and First Order Inductive Learning (FOIL). As a special case of soft computing methods, fuzzy agents are used for profile personalization. Prospectively, much effort is still required to meet the actual challenges so as to scale up to real-life problems of any significant complexity.
Notes: Hamdi-Cherif, Aboubekeur Kara-Mohammed, Chafia Hamdi-Cherif, Alias Conference on Advances in Applied Mathematics, Systems, Communications and Computers Jun 01-03, 2008 Marathon Beach, GREECE Hellen Amer Univ, Hellen Amer Union, N Atlant Univ Union
URL: <Go to ISI>://WOS:000257984000013

Reference Type: Book Section
Record Number: 10
Author: Khanafi-Benghalem, N. Benghalem, K. Boudoukha, H.
Year: 2008
Title: Effect Of Laser CO2 Parameters In Marking Of Glass
Editor: Amara, E. H. Boudjemai, S. Doumaz, D.
Book Title: Laser and Plasma Applications in Materials Science
Volume: 1047
Pages: 204-207
Series Title: Aip Conference Proceedings
Short Title: Effect Of Laser CO2 Parameters In Marking Of Glass
ISBN: 0094-243X 978-0-7354-0575-2
Accession Number: WOS:000260450900044

Abstract: Currently many techniques of marking are exploited in a great number of sectors, on various materials (cardboard, textile, wood, leather, plastic, metal, ceramics and glass). The printing is done on supports of great or small dimension for all geometrical forms (plane, round, conical and ovalised). We can print colour as much than we wish. The marking technology for the identification of the glass parts knows a remarkable development carried by the new needs for the industrialists using transparent materials such as the optical, chemical, pharmaceutical sectors, the luxury and drink industries or publicity and decoration (neon signs, advertising mirrors). The objective of our work consists particularly in engraving on glass the measurement scales forming a whole of ordered graduation which the goal is to carry out reading systems of measuring apparatus about 1/10 mu m of precision. We used as tool for marking the laser CO2. Our choice is justified by the flexibility of the laser, the permanent lifespan of the graduations carried out and the guarantee of the facility of reading incidentally the precision and the accuracy of the measuring apparatus. The study parameters of the laser beam are the velocity (400, 600, 800, 1000 m/s.), the power (25, 75 and 80% of 25W) and the numbers pass (one, two and three pass). The optical observations results obtained suggest that the highest and the average power used remain the favourable parameters for the quality of the graduations carried out.
Notes: Khanafi-Benghalem, Nafissa Benghalem, Kamel Boudoukha, Hassina 1st International Conference on Laser and Plasma Applications in Materials Science Jun 23-26, 2008 Algiers, ALGERIA Adv Technol Dev Ctr, Minist Higher Educ & Sci Res, Natl Oil & Gas Co, Natl Elect & Gas Distribut Co, Commiss Atomic Energy, Univ Res Dev, Natl Agecy, French Solid Lasers Mfg Quantel, Embassy France Algeria, African Lser Ctr, African Laser Atomic, Mole & Opt Sci LAM Netwrok
URL: <Go to ISI>://WOS:000260450900044

12 **Reference Type: Book Section**
Record Number: 11
Author: Mokaddem, S. Khaber, F.
Year: 2008
Title: Comparative study of adaptive type-1 and type-2 fuzzy controls for nonlinear systems under uncertainty
Editor: Arioui, H. Merzouki, R. Abbassi, H. A.
Book Title: Intelligent Systems and Automation
Volume: 1019
Pages: 363-368
Series Title: Aip Conference Proceedings
Short Title: Comparative study of adaptive type-1 and type-2 fuzzy controls for nonlinear systems under uncertainty
ISBN: 0094-243X 978-0-7354-0540-0
Accession Number: WOS:000257193900059
Abstract: This work presents a development of adaptive type-1 and type-2 fuzzy controls for uncertain nonlinear systems. Using the adaptive type-1 fuzzy control, the dynamic of the nonlinear systems is approximated with type-1 fuzzy systems whose parameters are adjusted by appropriate law adaptation. For adaptive type-2 fuzzy control, the dynamic of the nonlinear systems is approximated with interval type-2 fuzzy systems. The use of this type-2 control requires an additional operation witch is the type reduction, in comparing with typ-1 control. The closed-loop system stability is guaranteed by the Lyaponov synthesis. To show the performance of the developed controls, a comparative study is realized through the application of these controls so that an inverted pendulum tracks a given trajectory in presence of disturbances.
Notes: Mokaddem, S. Khaber, F. 1st Mediterranean Conference on Intelligent Systems and Automation (CISA 2008) Jun 30-jul 02, 2008 Annaba, ALGERIA Univ Evry, Natl Agcy Res Univ, Univ Annaba, CNRS, Foreign France Minist
URL: <Go to ISI>://WOS:000257193900059

Reference Type: Book Section
Record Number: 12
Author: Saoudi, K. Bouchama, Z. Harmas, M. N. Zehar, K.
Year: 2008
Title: Indirect adaptive fuzzy power system stabilizer
Editor: Arioui, H. Merzouki, R. Abbassi, H. A.
Book Title: Intelligent Systems and Automation
Volume: 1019
Pages: 512-515
Series Title: Aip Conference Proceedings
Short Title: Indirect adaptive fuzzy power system stabilizer
ISBN: 0094-243X 978-0-7354-0540-0
Accession Number: WOS:000257193900085
Abstract: A power system stabilizer based on adaptive fuzzy technique is presented. The design of a fuzzy logic power system stabilizer (FLPSS) requires the collection of fuzzy IF-THEN rules which are used to initialize an adaptive fuzzy power system AFPSS. The rule-base can be then tuned on-line so that the stabilizer can adapt to the different operating conditions occurring in the power system. The adaptation laws are developed based on a Lyapunov synthesis approach. Assessing the validity of this technique simulation of a power system is conducted and results are discussed.
Notes: Saoudi, Kamel Bouchama, Ziad Harmas, Mohamed Naguib Zehar, Khaled 1st Mediterranean Conference on Intelligent Systems and Automation (CISA 2008) Jun 30-jul 02, 2008 Annaba, ALGERIA Univ Evry, Natl Agcy Res Univ, Univ Annaba, CNRS, Foreign France Minist
URL: <Go to ISI>://WOS:000257193900085

Reference Type: Book Section
Record Number: 13
Author: Zouaoui, L. Azizi, H. Boughazi, M. Akdag, H.
Year: 2008
Title: Development of algorithms for the classification of the benign and malignant tumors
Editor: Arioui, H. Merzouki, R. Abbassi, H. A.
Book Title: Intelligent Systems and Automation
Volume: 1019
Pages: 503-506
Series Title: Aip Conference Proceedings
Short Title: Development of algorithms for the classification of the benign and malignant tumors
ISBN: 0094-243X 978-0-7354-0540-0
Accession Number: WOS:000257193900083
Abstract: The main objective of this paper is to develop and implement new algorithms of classification and show that the method of the nearest neighbors rule can be also applied successfully to deal with the medical classification problems. In this context, we developed two original algorithms of classification by the method of the nearest neighbors rule and we validated them by a real application in the field of classification for the assistance to the treatment of the breast cancer to detect possible benign or malignant tumors.
Notes: Zouaoui, L. Azizi, H. Boughazi, M. Akdag, H. 1st Mediterranean Conference on Intelligent Systems and Automation (CISA 2008) Jun 30-jul 02, 2008 Annaba, ALGERIA Univ Evry, Natl Agcy Res Univ, Univ Annaba, CNRS, Foreign France Minist
URL: <Go to ISI>://WOS:000257193900083

Reference Type: Book
Record Number: 1
Author: Abdeldjebar, B. Khier, B. Icros/Komma,
Year: 2008
Title: Generalized predictive control: Application of the induction motor
Series Title: 2008 International Conference on Smart Manufacturing Application
Number of Pages: 526-529
Short Title: Generalized predictive control: Application of the induction motor
ISBN: 978-89-950038-8-6
DOI: 10.1109/icsma.2008.4505580
Accession Number: WOS:000257506800109
Abstract: Generalized predictive control (GPC) is nowadays, widely spread in control theory as well as in the industrial world. Generalized predictive control (GPC) belong to this family has been demonstrated as a powerful controlling process plants, In this work a polynomial approach of generalized predictive control is proposed whose aim to find optimal values for the tuning control and application of predictive control with polynomial form RST and application of induction motor and developed prediction optimal equation with cost function and resolved of the Diophantine equations this application is reserved in our work for the induction motor with example of a dynamic system and non linear multivariable with load torque.
Notes: Abdeldjebar, Bektache Khier, Benmahammed International Conference on Smart Manufacturing Application Apr 09-11, 2008 Goyangsi, SOUTH KOREA
URL: <Go to ISI>://WOS:000257506800109

Reference Type: Book
Record Number: 2
Author: Abdeldjebar, B. Khier, B.
Year: 2008
Title: Generalized predictive controller design for AC motors
Series Editor: Li, Q. Chen, S. Y. Xu, A. Li, M.
Series Title: Recent Advances in Systems, Communications and Computers
Number of Pages: 78-82
Short Title: Generalized predictive controller design for AC motors
ISBN: 978-960-6766-61-9
Accession Number: WOS:000257983900016
Abstract: Generalized predictive control (GPC) is nowadays, widely spread in control theory as well as in the industrial world. Generalized predictive control (GPC) belong to this family has been demonstrated as a powerful controlling process plants, In this work a polynomial approach of generalized predictive control is proposed whose aim to find optimal values for the tuning control and application of predictive control with polynomial form RST and application of induction motor and developed prediction optimal equation with cost function and resolved of the Diophantine equations this application is reserved in our work for the induction motor with example of a dynamic system and non linear multivariable with load torque.
Notes: Abdeldjebar, Bektache Khier, Benmahammed WSEAS Conference on Recent Advances in Systems, Communications and Computers Apr 06-08, 2008 Hangzhou, PEOPLES R CHINA
URL: <Go to ISI>://WOS:000257983900016

Reference Type: Book
Record Number: 3
Author: Adel, A. Adel, S.
Year: 2008
Title: A meta-Ontology for Architecture Description Languages and MDA Platforms
Series Editor: Mohammadian, M.
Series Title: 2008 International Conference on Computational Intelligence for Modelling Control & Automation, Vols 1 and 2
Number of Pages: 118-123
Short Title: A meta-Ontology for Architecture Description Languages and MDA Platforms
ISBN: 978-1-4244-3329-2
DOI: 10.1109/cimca.2008.62
Accession Number: WOS:000277076500021
Abstract: Ontology is increasingly seen as key factor for sharing and understanding concepts among heterogeneous implementation platforms and Architecture Description Languages (ADLs). Ensuring various views as desired by its stakeholders requires conformance to sound principals and rules of ontology engineering. In this article we propose a meta-ontology called (OntoArch) to describe ADLs and MDA (Model Driven Architecture) platforms from their core level, rather than architecture and implementation. Our objective is to increase the high level of systems' concepts abstracting for wrapping and integrating heterogeneous software concepts into MDA platforms via a top-level ontology.
Notes: Adel, Alti Adel, Smeda International Conference on Computational Intelligence for Modelling, Control and Automation Dec 10-12, 2008 Vienna, AUSTRIA
URL: <Go to ISI>://WOS:000277076500021

Reference Type: Book
Record Number: 4
Author: Adel, A. Adel, S.
Year: 2008
Title: Integration of architectural design and implementation decisions into the MDA framewrok
Series Editor: Cordeiro, J. Shishkov, B. Ranchordas, A. Helfert, M.
Series Title: Icsoft 2008: Proceedings of the Third International Conference on Software and Data Technologies, Vol Pl/Dps/Ke
Number of Pages: 366-371
Short Title: Integration of architectural design and implementation decisions into the MDA framewrok
ISBN: 978-989-8111-51-7
Accession Number: WOS:000258925200050

Abstract: Model Driven Development (MDD) is typically based on models which heavily lead the quality production of application's architecture. This is because architectural decisions are often implicitly embedded in software engineering, therefore lacks first-class consideration. Architecture has been established as a key to develop software systems that meet quality expectations of their stakeholders. The explicit definition of architectural decisions, aims to well control the quality on the software development process. In this paper, we propose to extend the MDA framework by integrating decision aspects. We propose also an approach to use architectural decisions as a meta-model for the MDD process. Integration of architectural decisions allows architectural design to be defined explicitly and guides architects in creating systems with desirable qualities; and for MDA it extends the approach by integrating true decisional concerns into MDD process.
Notes: Adel, Alti Adel, Smeda 3rd International Conference on Software and Data Technologies Jul 05-08, 2008 Oporto, PORTUGAL Inst Syst & Technologies Informat, Control & Commun, Workflow Management Coalit, Proc Thought Leadership, IICREST
URL: <Go to ISI>://WOS:000258925200050

13 **Reference Type: Book**
Record Number: 5
Author: Ati, A. Ieee
Year: 2008
Title: An Automatic Transformation From COSA Software Architecture To EJB Platform
Series Title: 2008 3rd International Conference on Information and Communication Technologies: From Theory to Applications, Vols 1-5
Number of Pages: 1529-1534
Short Title: An Automatic Transformation From COSA Software Architecture To EJB Platform
ISBN: 978-1-4244-1751-3
Accession Number: WOS:000261578000279
Abstract: EJB components' communication in current implementations of EJB plate-form often suffer from unreasonable interactions overheads when the dependences among components are complex. This is because connectors are often considered to be explicit at the level of architecture and implicit in a system's implementation. Elimination of these overheads is quite beneficial to crucial applications especially real-time ones. The explicit separation of architecture and implementation is the main concern of the Model Driven Architecture (MIDA), aiming to well understanding and controlling interactions and inter-connections among components. This article defines an automatic transformation from COSA (Component Object based Software Architecture), which is software architecture model that describes systems as a collection of components and connectors, to a standard java platform EJB using UML profiles. The goal of our work is rapid mapping and smooth integration of COSA concepts into EJB platform in order to achieve a higher level of abstraction.
Notes: Ati, Adel 3rd International Conference on Information and Communication Technologies Apr 07-11, 2008 Damascus, SYRIA
URL: <Go to ISI>://WOS:000261578000279

Reference Type: Book
Record Number: 6
Author: Bouafia, A. Gaubert, J. P. Krim, F. Ieee,
Year: 2008
Title: Analysis and Design of New Switching Table for Direct Power Control of Three-Phase PWM Rectifier
Series Title: 2008 13th International Power Electronics and Motion Control Conference, Vols 1-5
Number of Pages: 703-709
Short Title: Analysis and Design of New Switching Table for Direct Power Control of Three-Phase PWM Rectifier
ISBN: 978-1-4244-1741-4
DOI: 10.1109/epepemc.2008.4635347
Accession Number: WOS:000262093800110
Abstract: In this paper, a new switching table is presented for direct power control (DPC) of three-phase PWM rectifiers. The proposed switching table is synthesized by analyzing the instantaneous active and reactive power correction. For this reason, and based on the sign and magnitude of the change in instantaneous active and reactive power, the best converter switching state allowing smooth control of active and reactive power simultaneously during each sector is selected. The dc-bus voltage is maintained at the required level by controlling active power to be constant and equal to its reference value. The unity power factor (UPF) operation of the converter is achieved by maintaining the reactive power zero during all sectors. Simulation and experimental results have proven that the proposed DPC is much better than the classical one and verify the validity and performance of the presented DPC.
Notes: Bouafia, Abdelouahab Gaubert, Jean-Paul Krim, Fateh 13th International Power Electronics and Motion Control Conference Sep 01-03, 2008 Poznan, POLAND Poznan Univ, Fac elect Engn, Polish Soc Theoret & Appl Elect Engn, Poznan Sect
URL: <Go to ISI>://WOS:000262093800110

13 **Reference Type: Book**
Record Number: 7
Author: Bouafia, A. Krim, F. Gaubert, J. P. Ieee,
Year: 2008
Title: Direct Power Control of Three-Phase PWM Rectifier Based on Fuzzy Logic controller
Series Title: 2008 Ieee International Symposium on Industrial Electronics, Vols 1-5
Number of Pages: 52-57
Short Title: Direct Power Control of Three-Phase PWM Rectifier Based on Fuzzy Logic controller
ISBN: 978-1-4244-1665-3
Accession Number: WOS:000266702100010
Abstract: In this paper, direct power control (DPC) of three-phase PWM rectifiers based on fuzzy logic controller is presented, without tine voltage sensors. The instantaneous active and reactive powers, directly controlled by selecting the optimum state of the converter, are used as the PWM control variables instead of the phase line currents being used. The proposed fuzzy logic controller presents the advantage that is based on linguistic description and does not require a mathematical model of the system. The controller ensures a good regulation of the output voltage, and guarantees the power factor close to one. The simulation and experimental results show that the designed fuzzy controller has a good dynamic behavior, a good rejection of impact load disturbance, and is very robust.
Notes: Bouafia, Abdelouahab Krim, Fateh Gaubert, Jean-Paul IEEE International Symposium on Industrial Electronics Jun 30-jul 02, 2008 Cambridge, ENGLAND Ieee
URL: <Go to ISI>://WOS:000266702100010

Reference Type: Book
Record Number: 8
Author: Bouguezel, S. Ahmad, M. O. Swamy, M. N. S. Ieee,
Year: 2008
Title: A New Parametric Transform
Series Title: Scs: 2008 2nd International Conference on Signals, Circuits and Systems
Number of Pages: 180-183
Short Title: A New Parametric Transform
ISBN: 978-1-4244-2627-0
Accession Number: WOS:000267291600037

Abstract: In this paper, a novel method for the parameterization of the Hadamard matrices is proposed. The resulting parametric Hadamard matrix of order N has N/2-1 independent parameters. It is a normalized matrix and its inverse can easily be obtained by taking the reciprocal of each of the N/2-1 independent parameters in the forward matrix and transposing the resulting matrix. The corresponding transform reduces to a new parametric integer transform when the independent parameters in the proposed matrix operator are all from the set {+/- 2(m), +/- 2(n) j, 2(l) (+/- 1 +/- j)}, where m, n and l are chosen positive or negative integers. Other interesting special cases of the proposed transform can also be obtained. In addition, the proposed parametric transform can be computed using an algorithm having a very simple structure. This transform can be used in many transform-based applications. For example, it can be employed in watermarking and encryption where its independent parameters can be used as an additional secret key.
Notes: Bouguezel, Saad Ahmad, M. Omair Swamy, M. N. S. 2nd International Conference on Signals, Circuits and Systems Nov 07-09, 2008 Nabeul, TUNISIA Natl Engn Sch Sfax, Elect Microtechnol & Commun Lab, IEEE Signal Proc Soc, IEEE Circuits & Syst Soc, Assoc Univ Environm
URL: <Go to ISI>://WOS:000267291600037

Reference Type: Book
Record Number: 9
Author: Bouguezel, S. Ahmad, M. O. Swamy, M. N. S. Ieee,
Year: 2008
Title: A Multiplication-free Transform for Image Compression
Series Title: Scs: 2008 2nd International Conference on Signals, Circuits and Systems
Number of Pages: 184-187
Short Title: A Multiplication-free Transform for Image Compression
ISBN: 978-1-4244-2627-0
Accession Number: WOS:000267291600038

Abstract: In this paper, we propose an efficient 8x8 multiplication-free transform operator for image compression by appropriately introducing some zeros in the 8x8 signed DCT matrix. We also develop fast algorithms for the computation of the proposed transform as well as for its inverse. Compared to the existing 8x8 approximated DCT matrices, it is shown that savings of 12.5% in the number of additions can easily be achieved using the proposed transform operator without noticeable degradations in the reconstructed images. We also present simulations on some standard test images to show the efficiency of the proposed transform in image compression.

Notes: Bouguezel, Saad Ahmad, M. Omair Swamy, M. N. S. 2nd International Conference on Signals, Circuits and Systems Nov 07-09, 2008 Nabeul, TUNISIA Natl Engn Sch Sfax, Elect Microtechnol & Commun Lab, IEEE Signal Proc Soc, IEEE Circuits & Syst Soc, Assoc Univ Environm
URL: <Go to ISI>://WOS:000267291600038

Reference Type: Book
Record Number: 10
Author: Chaoui, A. Gaubert, J. P. Krim, F. Rambault, L. Ieee,
Year: 2008
Title: On the Design of Shunt Active Filter for Improving Power Quality
Series Title: 2008 Ieee International Symposium on Industrial Electronics, Vols 1-5
Number of Pages: 2331-2337
Short Title: On the Design of Shunt Active Filter for Improving Power Quality
ISBN: 978-1-4244-1665-3
Accession Number: WOS:000266702101063

Abstract: Several schemes and control techniques have been proposed in active power filtering these last years, often assuming that all the components are well sized, or at least the), do not affect the control algorithm performance. The first step in designing an active filter is to select suitable values. This allows to reduce costs and avoids a lot of control problems. This paper deals with design, simulation and experimentation of a Shunt Active Power Filter (SAPF) to improve power quality. After recalling and comparing some methods already published in this area, a design procedure of a 20 KVA SAPF is presented. Afterwards, the study of the impact of parameters on signals quality is discussed. In order to control capacitor DC voltage and mains current with fixed carrier PWM in d-q frame, simulated and experimental results are provided to prove parameters choice and demonstrate the effectiveness of the proposed approach.
Notes: Chaoui, Abdelmadjid Gaubert, Jean-Paul Krim, Fateh Rambault, Laurent IEEE International Symposium on Industrial Electronics Jun 30-jul 02, 2008 Cambridge, ENGLAND Ieee
URL: <Go to ISI>://WOS:000266702101063

Reference Type: Book
Record Number: 11
Author: Harrag, F. Hamdi-Cherif, A. El-Qawasmeh, E. Ieee,
Year: 2008
Title: Vector Space Model for Arabic Information Retrieval - Application to "Hadith" Indexing
Series Title: 2008 First International Conference on the Applications of Digital Information and Web Technologies, Vols 1 and 2
Number of Pages: 114-119
Short Title: Vector Space Model for Arabic Information Retrieval - Application to "Hadith" Indexing
ISBN: 978-1-4244-2623-2
Accession Number: WOS:000263224700021
Abstract: The Arabic language is one of the most important languages because it is the sacred and liturgical language of Islam, one of the influential monotheistic religions of our times. In the post-9/11 aftermath, Islam suddenly dominated western actuality for the remaining years of the present decade. Al-Qur'an- The Reading par Excellence - and "Hadith " - Saying - represent the two fundamental scriptural sources of Islamic Legislation. Specifically, "Hadith ", or Prophetic Traditions, are sayings and doings of the Prophet of Islam (Peace and Blessings be upon Him). Researchers need automatic search tools within large "Hadith " databases to access one of the original sources of Islam. For this purpose, we describe the development of AuthenTique, an updated automatic text mining search tool, based on the vector space model (VSM). The aim is to allow the provision of a list of "Hadiths" classified according to their degrees of similarity based on a given user's query.
Notes: Harrag, Fouzi Hamdi-Cherif, Aboubekeur El-Qawasmeh, Eyas 1st International Conference on the Applications of Digital Information and Web Technologies Aug 04-06, 2008 Technol Univ Ostrava, Ostrava, CZECH REPUBLIC IEEE Commun Soc
URL: <Go to ISI>://WOS:000263224700021
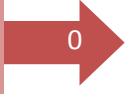
PRODUCTION SCIENTIFIQUE ANNEE 2009

Abstract: The current study evaluates the impact of low or moderate levels of lead acetate (PbAc) on sperm parameters, gonadotropins (FSH, LH) and testosterone. Adult albino wistar male rats were allocated to five groups and given 0%, 0.025%, 0.05%, 0.1% and 0.3% PbAc in distilled drinking water for 24 weeks. There was no change in body weight gain and in absolute or relative weight of testes, epididymides and seminal vesicles. The ventral prostate weight was decreased in groups exposed to 0.05%, 0.1% and 0.3% PbAc without statistically significant differences. Sperm velocity was decreased in all treated groups while reduction of sperm motility was observed in rats exposed to 0.05%, 0.1% and 0.3% PbAc without statistically significant differences compared to the control group. However, there was a significant increase greater than 100% in the total percentage of abnormal sperm in groups treated with 0.1% ($p<0.01$) and 0.3% PbAc ($p<0.05$). The frequency of dead sperm was significantly increased only in the 0.3% PbAc group ($p<0.01$). Significant increases in frequencies of amorphous head sperm ($p<0.01$) and abnormal tails ($p<0.01$) were found in the group exposed to 0.1% PbAc, while the frequency of neck abnormalities was increased in the high-lead-exposed group ($p<0.01$). The levels of LH and FSH were not significantly affected after lead treatment and significant increase in serum testosterone level was noted only in animals administered 0.05% PbAc ($p<0.01$). In conclusion, our results reveal that some sperm parameters were altered at low or moderate lead concentrations with no obvious alteration of hypothalamic-pituitary function. The increase of testosterone level observed suggests that lead may target testicular function. (C) 2008 Elsevier GmbH. All rights reserved.
Notes: Allouche, Lynda Hamadouche, Mohamed Touabti, Abderrezek
URL: <Go to ISI>://WOS:000269480500010

Reference Type: Journal Article

Record Number: 2

Author: Aouachria, K. Massardier, V. Belhaneche-Bensemra, N.

Year: 2009

Title: Isothermal and Dynamic Thermogravimetric Degradation of Rigid and Plasticized Poly(Vinyl Chloride)/Poly(Methyl Methacrylate) Blends

Journal: International Journal of Polymeric Materials

Volume: 58

Issue: 6

Pages: 336-346

Short Title: Isothermal and Dynamic Thermogravimetric Degradation of Rigid and Plasticized Poly(Vinyl Chloride)/Poly(Methyl Methacrylate) Blends

ISSN: 0091-4037

DOI: 10.1080/00914030902852237

Article Number: Pii 910280395

Accession Number: WOS:000265296200004

Abstract: The thermal degradation of rigid and plasticized poly(vinyl chloride) (PVC)/poly (methyl methacrylate) (PMMA) blends was investigated by means of isothermal and dynamic thermogravimetric analysis in a flowing atmosphere of air. For that purpose, blends of variable composition from 0 to 100wt% were prepared in the presence (15, 30 and 50wt%) and in the absence of di-(2-ethyl hexyl) phthalate (DEHP) as plasticizer. The thermal degradation of the blends was investigated by isothermal thermogravimetry at 180C during 120min. It was found that the main processes are the dehydrochlorination of PVC and depolymerization of PMMA. The dynamic thermogravimetric experiments were carried out in the temperature range of 30-550C. The results showed that the thermal degradation of rigid and plasticized PVC/PMMA blends in this broad range of temperatures is a three-step process and that PMMA exerted a stabilizing effect on the thermal degradation of PVC during the first step by reducing the dehydrochlorination.

Notes: Aouachria, K. Massardier, V. Belhaneche-Bensemra, N.

URL: <Go to ISI>://WOS:000265296200004

Abstract: The crystalline structure, grain morphology, electrical and electrochemical properties of Sr2-xLaxFeMoO6 (x = 0, 0.25, 0.5 and 1) double perovskite has been investigated by means of X-ray powder diffraction, scanning electron micrography, electrical and electrochemical measurements. It was found that the grain morphology, the resistivity and the electrochemical activity are strongly influenced by La doping. While the surface area as the determining factor in the oxygen reaction rate was excluded, the electrical resistivity was found to have a great effect on the electrochemical activity of the compounds. (C) 2009 Elsevier B.V. All rights reserved.

Reference Type: Journal Article
Record Number: 4
Author: Belattar, N.
Year: 2009
Title: Adsorption property and affinity chromatography of polystyrene derivative sorbent towards cow's milk xanthine oxidase
Journal: Materials Science & Engineering C-Biomimetic and Supramolecular Systems
Volume: 29
Issue: 5
Pages: 1540-1544
Date: Jun
Short Title: Adsorption property and affinity chromatography of polystyrene derivative sorbent towards cow's milk xanthine oxidase
ISSN: 0928-4931
DOI: 10.1016/j.msec.2008.12.005
Accession Number: WOS:000267025900007

Abstract: On the basis of the biospecific molecular recognition between complementary chemical groups of xanthine oxidase (XO) and their ligands particularly sulphated glycoaminoglycans and heparin. Poly (styrene chlorosulfonyl) particles modified by sulfonate sodium groups was synthesized and its adsorption property towards cow's milk XO was established. The adsorption of XO) onto this functional polymer was performed in batch at 4 degrees C and at pH 6.0 during 30 min. of incubation. The adsorbed XO content at the interface allows establishing the chemisorption isotherm curve. The affinity association estimated from this adsorption isotherm according to the Langmuir equation was found to be significantly high in the magnitude of $1.25 \times 10(6) M(-1)$. Affinity chromatography on column using this functional polymer as a stationary phase confirms its high ability to adsorb XO at low ionic strength. In fact, the xanthine oxidase of the crude extract is strongly adsorbed onto the sorbent and is eluted at high ionic strength with out any significant loss of its biological activity. The purified enzyme possesses a protein flavin ratio (PFR) of 6.05 with a specific activity of 1.78 Ul/mg. On the other hand, the electrophoresis of XO fraction showed a single band with a molecular weight of about 150 kDa. Thus, the synthesized beads functionalized by sulfonate group could be used efficiently and advantageously in the purification of XO instead of other conventional chromatographic methods which need several steps. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Belattar, Noureddine
URL: <Go to ISI>://WOS:000267025900007

Reference Type: Journal Article
Record Number: 5
Author: Belhaouchet, N. Rahmani, L. Begag, S.
Year: 2009
Title: A novel adaptive HBCC technique for three-phase shunt APF
Journal: Electric Power Systems Research
Volume: 79
Issue: 7
Pages: 1097-1104
Date: Jul
Short Title: A novel adaptive HBCC technique for three-phase shunt APF
ISSN: 0378-7796
DOI: 10.1016/j.epsr.2009.01.006
Accession Number: WOS:000265898200012
Abstract: This paper proposes an important improvement of the hysteresis band current control (HBCC) technique for three-phase shunt active power filter (APF) to eliminate harmonics and to compensate the reactive power generated by three-phase rectifier. In this technique,a simple and quick prediction of the hysteresis band is added to a phase-locked-loop (PILL) control to ensure constant switching frequency and synchronization of modulation pulses independently on system parameters. This allows the advantages of quick response, good Current tracking accuracy and minimal ripple in three-phase systems. This technique is robust and it is characterized by the simplicity, this aspect is very significant for a practice realization because it constitutes the factors which determine the cost and the reliability of industrial assembly. The proposed technique determines the switching signals of the three-phase shunt APF and the algorithm which is based on the dc bus capacitors voltage regulation using proportional-integral (PI) controller is used to determine the suitable current reference signals. The behavior of the proposed technique has been fully verified by digital simulation, where the obtained results show that the proposed technique can improve shunt APF performances noticeably. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Belhaouchet, N. Rahmani, L. Begag, S.
URL: <Go to ISI>://WOS:000265898200012

Abstract: Three-phase AC choppers are widely used to obtain a variable alternative voltage from a fixed alternative source for the control of alternative motors at variable speeds. The hysteresis current control is one of the simplest techniques used to control the magnitude and phase angle of three-phase motor currents for high-speed drive systems, primarily because of its implementation simplicity, fast current control response, and inherent peak current limiting capability. However, conventional fixed hysteresis-band current control has a variable switching frequency throughout the fundamental period, and consequently, the load current harmonic ripple is not optimum. In this article, a simple, novel adaptive hysteresis-band current control technique is proposed, where the hysteresis band is controlled as variation of input voltage, output voltage, and slope of the current error to achieve constant switching frequency at any operating condition. The high performances of this novel technique are verified by digital simulation.
Notes: Belhaouchet, N. Rahmani, L.
URL: <Go to ISI>://WOS:000266024500001

Reference Type: Journal Article
Record Number: 7
Author: Belhouchet, H. Hamidouche, M. Bouaouadja, N. Garnier, V. Fantozzi, G.
Year: 2009
Title: ELABORATION AND CHARACTERIZATION OF MULLITE-ZIRCONIA COMPOSITES FROM GIBBSITE, BOEHMITE AND ZIRCON
Journal: Ceramics-Silikaty
Volume: 53
Issue: 3
Pages: 205-210
Short Title: ELABORATION AND CHARACTERIZATION OF MULLITE-ZIRCONIA COMPOSITES FROM GIBBSITE, BOEHMITE AND ZIRCON
ISSN: 0862-5468
Accession Number: WOS:000273725800011

Abstract: In this study we prepared mullite-zirconia composites by reactive sintering of gibbsite and boehmite as alumina sources and zircon powder All raw materials have been ball milled and isostatically pressed followed by sintering in the temperature range of 1400-1600 degrees C during 2 h of soaking. Then the sintered samples have been characterized by X-ray diffraction, ATD/TG analysis and microstructural observation. X-ray diffraction peaks showed the formation of mullite-zirconia composites in both mixtures. The microstructure of all composites was composed of irregularly shaped mullite grains and round-shaped zirconia grains, which are distributed intragranularly and intergranularly. These microstructures had microcracks in the samples prepared from gibbsite and zircon, contrary to the samples prepared from boehmite and zircon where no microcracks were present. These microcracks are caused by evaporation of structure water at 300 degrees C So the preparation of mullite-zirconia composites with the substitution of the alpha-alumina by the boehmite is feasible.
Notes: Belhouchet, Hocine Hamidouche, Mohamed Bouaouadja, Noureddine Garnier, Vincent Fantozzi, Gilbert
URL: <Go to ISI>://WOS:000273725800011

Abstract: The rheological behavior of ceramic oxide hydroxide alumina pastes with high solid loading is investigated. In order to enable an adequate and experimentally rheological characterization, the measurements are carried out with a Rheostress viscometer under isothermal conditions. Various compositions of a commercial AlOOH powder and binder mixture are investigated. We discuss the variation of loss modulus G, storage modulus G ", apparent and complex viscosities eta, eta* as function of frequency and shear rate. The solid phase used here is the boehmite; the most important precursor for the gamma-Al(2)O(3) phase for several applications such as catalysts or functional layers of ceramics. Solid phase compositions used are justified by the applications of boehmite in the manufacturing of catalytic materials. A transition zone that appears at a concentration Of 55%wt of the solid phase (Pural) and at which the rheological behavior changes from viscoelastic to elastic is observed. This transition is of a importance as far as ceramic manufacturing is concerned.
Notes: Belkham, N. H. Mehamha, A. Benachour, D.
URL: <Go to ISI>://WOS:000273803800004

Reference Type: Journal Article
Record Number: 9
Author: Belkhir, N. Bouzid, D. Herold, V.
Year: 2009
Title: Wear behavior of the abrasive grains used in optical glass polishing
Journal: Journal of Materials Processing Technology
Volume: 209
Issue: 20
Pages: 6140-6145
Date: Nov
Short Title: Wear behavior of the abrasive grains used in optical glass polishing
ISSN: 0924-0136
DOI: 10.1016/j.jmatprotec.2009.04.012
Accession Number: WOS:000272780900014

Abstract: In this work the wear behavior of cerium oxide abrasive grains during the glass polishing was studied. Polishing tests have been done by different types of cerium oxide abrasive grains. The grains have been recovered and examined during the operation. The morphology, the granulometric distribution, the chemical composition and the agglomeration phenomenon of recovered grains have been studied. The results showed that the fracture is the main cause of the abrasive grain wear of the cerium oxide abrasive grains, which permitted to the abrasive grains to preserve their initial morphology for a long time during the process. The cerium oxide abrasive grains undergo a partial wear during their use in polishing and it is closely related to the process parameters. The granular agglomeration phenomenon of the abrasive powder is very much present in the polishing process and generates bigger grains being able to influence the product quality. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Belkhir, N. Bouzid, D. Herold, V. 1st International Conference on Abrasive Processes Sep 21-25, 2008 Churchill Coll, Cambridge, ENGLAND
URL: <Go to ISI>://WOS:000272780900014

Reference Type: Journal Article
Record Number: 10
Author: Belkhir, N. Bouzid, D. Herold, V.
Year: 2009
Title: Surface behavior during abrasive grain action in the glass lapping process
Journal: Applied Surface Science
Volume: 255
Issue: 18
Pages: 7951-7958
Date: Jun
Short Title: Surface behavior during abrasive grain action in the glass lapping process
ISSN: 0169-4332
DOI: 10.1016/j.apsusc.2009.04.178
Accession Number: WOS:000267469500018
Abstract: In this study the surface behavior during its contact with the abrasive grain in the glass lapping process was studied using practical simulation which is the scratch test and the real contact between glass surfaces and alpha-alumina abrasive grains during lapping process. Formations and dimensions of the produced scratches were investigated to explain the grain action on the surface and the glass material removal rate. It has been found that humid environment created by the use of the slurry of loose abrasives causes more significant damages than the dry one. The use of slurry produces higher glass material removal rate in this environment and proves its utility in the lapping process. The shape of abrasive grains influences the nature of their action. Indeed, the worn grains produce scratches and chippings less than the sharp grains. During lapping, the number of scratches and theirs dimensions depend on the contact time and the abrasive grain size. It was concluded that the glass material removal rate during lapping depends on the cumulative actions of individual grains which produce scratches and chippings. (C) 2009 Elsevier B. V. All rights reserved.
Notes: Belkhir, Nabil Bouzid, Djamel Herold, Volker
URL: <Go to ISI>://WOS:000267469500018

Reference Type: Journal Article

Record Number: 11

Author: Belkhir, N. Bouzid, D. Herold, V.

Year: 2009

Title: Determination of the Friction Coefficient During Glass Polishing

Journal: Tribology Letters

Volume: 33

Issue: 1

Pages: 55-61

Date: Jan

Short Title: Determination of the Friction Coefficient During Glass Polishing

ISSN: 1023-8883

DOI: 10.1007/s11249-008-9391-5

Accession Number: WOS:000261577700007

Abstract: In this paper, the friction coefficient was measured using a computer-controlled electrical system. The obtained results of the friction behavior during the polishing process indicate that the friction coefficient increases in the first minutes of polishing and then tends to be stable. The effect of some polishing parameters such as velocity and polishing pad nature was studied. It was found that these parameters have an important influence on the friction behavior. Indeed, it was found that the increase of the velocity reduces the friction coefficient. However, the nature of the polishing pads produces enormous variation of the friction coefficient.

Notes: Belkhir, N. Bouzid, D. Herold, V.

URL: <Go to ISI>://WOS:000261577700007

Abstract: CuInSe2 films of 2 mu m thickness were electrodeposited potentiostatically, from aqueous solution containing thiocyanate as a complexing agent, on Mo substrates. For all the experiments, the potential of the potentiostatic deposition of the materials was chosen to be -1 V, whereas the bath temperature of electrolyte was varied from 20 to 80 degrees C. It was found that the electrodeposited CuInSe2 was characterized by an amorphous layer and densely-packed nanometric grains with a good homogeneity. After vacuum annealing at 200 degrees C, glancing angle X-ray diffraction revealed the presence of the CuInSe2 phase whereas annealing under selenium atmosphere lead to the growth of molybdenum selenide compound MoSe2, in addition to a better crystallization of the copper indium diselenide compound. Scanning electron microscopic revealed that despite an increase in the grains dimensions, there was no significant change in the films surface morphology when the bath temperature was varied from 20 to 80 degrees C. At the same time, the composition of the electrodeposited Cu-In-Se layers becomes richer in copper. This increase in copper concentration is mainly compensated by a deficit in selenium atoms. (C) 2008 Published by Elsevier B.V.

Reference Type: Journal Article
Record Number: 13
Author: Bencherif-Madani, A. Pardoux, E.
Year: 2009
Title: A Probabilistic Formula for a Poisson Equation with Neumann Boundary Condition
Journal: Stochastic Analysis and Applications
Volume: 27
Issue: 4
Pages: 739-746
Short Title: A Probabilistic Formula for a Poisson Equation with Neumann Boundary Condition
ISSN: 0736-2994
DOI: 10.1080/07362990902976520
Article Number: Pii 912614407
Accession Number: WOS:000267263900007
Abstract: In this work we extend Brosamler's formula (see oA probabalistic solution to the Neumann problem,o Math. Scand. 1976, 38:137-147) and give a probabilistic solution of a non degenerate Poisson type equation with Neumann boundary condition in a bounded domain of the Euclidean space.
Notes: Bencherif-Madani, A. Pardoux, E.
URL: <Go to ISI>://WOS:000267263900007

Reference Type: Journal Article

Record Number: 14

Author: Benhamouda, A. Fornies-Marquina, J. M. Bouzit, N. Bourouba, N.

Year: 2009

Title: Dielectric behavior of ternary composites of epoxy/BaTiO3/(CuO or MgO)

Journal: European Physical Journal-Applied Physics

Volume: 46

Issue: 2

Date: May

Short Title: Dielectric behavior of ternary composites of epoxy/BaTiO3/(CuO or MgO)

ISSN: 1286-0042

DOI: 10.1051/epjap/2009043

Article Number: 20404

Accession Number: WOS:000265245000008

Abstract: The work we present in this article is an investigation of the optimal dielectric behaviour of a ternary composite based on a mixture of epoxy resin, titanates and oxides. Titanates are known by their capacity to provide high dielectric constant values that make their use very important in system of telecommunication, transmission microwaves, and in integrated circuit technology. A comparative study is established on two types of oxides added to titanates of either calcium, barium, or magnesium following different proportions. The protocol used to characterise different mixtures is the Time Domain Reflectometry (TDR). The acquired results show a good concordance between the experimental values of the ternary mixture dielectric constant and the theoretical models deduced from the Lichtenecker modified law. The copper oxide (CuO) is revealed to be more influential than the magnesium oxide (MgO) on the added titanate because of an insignificant dielectric behaviour that the latter presents. On the other hand, the linear behaviour of epsilon(s) appeared with a CuO concentration round about 15% in a RE.BT.CuO mixture. For a fixed barium titanate fraction (27%) this linear evolution is located between the upper and the lower limits derivative from direct and inverse Wiener laws.

Notes: Benhamouda, A. Fornies-Marquina, J. M. Bouzit, N. Bourouba, N.

URL: <Go to ISI>://WOS:000265245000008

Reference Type: Journal Article
Record Number: 15
Author: Benmansour, S. Setifi, F. Triki, S. Thetiot, F. Sala-Pala, J. Gomez-Garcia, C. J. Colacio, E.
Year: 2009
Title: High-dimensional mixed-valence copper cyanide complexes: Syntheses, structural characterizations and magnetism
Journal: Polyhedron
Volume: 28
Issue: 7
Pages: 1308-1314
Date: May
Short Title: High-dimensional mixed-valence copper cyanide complexes: Syntheses, structural characterizations and magnetism
ISSN: 0277-5387
DOI: 10.1016/j.poly.2009.02.015
Accession Number: WOS:000266136300016

Abstract: Reactions of CuCl(2) with different CN complexes in presence of a neutral ancillary ligand lead to two novel mixed-valence Cu complexes [Cu(II)(bpy)Cu(I)(CN)(3)](n), 1 (bpy = 2,2'-bipyridine) and {[Cu(II)(tn)(2)][Cu(4)(CN)(6)]}(n). 2 (tn = 1,3-diaminopropane). For compound 1, the asymmetric unit involves two Cu ions Cu1 and Cu2 (Cu(I) and Cu(II) centres, respectively) which strongly differ in their environments. The Cu1 ion presents a CuC(4) pseudo-tetrahedral geometry, while the Cu2 ion presents a CuN(5) slightly distorted square-pyramidal geometry. The extended structure of 1 is generated by three cyano ligands which differ in their coordination modes. One CN group has a mu(3) coordination mode and bridges two Cu(I) and one Cu(II) ion, while the two other CN groups act as 12 bridges leading to a sophisticated 3-D structure. As for 1, the asymmetric unit of 2 involves three crystallographically different Cu ions (Cu1A and Cu1B, presumably Cu1 centres, and Cu2 presumably Cu(II) centres). The Cu2 ion presents centrosymmetric CuN(4) coordination environments involving four nitrogen atoms from two bidentate tn ligands; while the Cu1A and Cu1B ions are three coordinated to cyano groups. The structure can be described as formed by 18-membered "[Cu(I)(CN)](6)" planar metallocycles that are connected to their six neighbors to generate 2-D sheets; these sheets stack forming infinite hexagonal channels in which the [Cu(tn)(2)](2+) units are located. Magnetic measurements show an unexpected weak ferromagnetic coupling (theta = 0.239(1) K) of the Cu(II) ions through the long and "a priori diamagnetic" NC-Cu(I)-CN-bridges in compound 1 and an essentially paramagnetic behavior in compound 2. (C) 2009 Elsevier Ltd. All rights reserved.
Notes: Benmansour, Samia Setifi, Fatima Triki, Smail Thetiot, Franck Sala-Pala, Jean Gomez-Garcia, Carlos J. Colacio, Enrique
URL: <Go to ISI>://WOS:000266136300016

Reference Type: Journal Article
Record Number: 16
Author: Benniou, R. Aubry, C.
Year: 2009
Title: Place and role of livestock farming in the agricultural production systems of the semi-arid region of Eastern Algeria
Journal: Fourrages
Issue: 198
Pages: 239-251
Date: Jun
Short Title: Place and role of livestock farming in the agricultural production systems of the semi-arid region of Eastern Algeria
ISSN: 0429-2766
Accession Number: WOS:000268558900009
Abstract: The association of cereal growing and livestock rearing, with fallow grazing (by sheep and by cattle), which is observed on the farms of the upper semi-arid plains of Eastern Algeria, may be considered as resulting from strategies to ensure the sustainability of the farms that are worth analysing. The analysis of the diversity of production systems on the farms of this region identifies several types in relation to the structural and environmental factors. The study of the choice of enterprise, of the forage system, of the livestock-rearing system, and of the production goals throws light on the orientations of these production systems, which are largely dependent on the climatic storey and the availability of irrigation water. When the working of the whole system is considered, the cropping system (fallows included) and the rearing of livestock are found to be mutually serviceable. The form and the organization of the livestock farming and of the forage systems, together with the adjustments of stock numbers and of the management of flocks and herds relatively to the resources and their variability (especially through the use of fallows) are thus able to meet various goals.
Notes: Benniou, R. Aubry, C.
URL: <Go to ISI>://WOS:000268558900009

Abstract: In this work, we have conducted a comparative study between the transport of electrons and positrons in aluminum and gold solid thin. films, in the examined primary energy range (0-4 keV), by using the Monte Carlo method. This comparative study has been used for three transport phenomena: transmission, absorption and backscattering and it will be useful for experimenters to choose between electron or positron beams for thin. film characterizations. Here, we have calculated quantities such as absorption probability, mean penetration depth, transmission probability, transmission energy distributions and backscattering coefficient, for both electron and positron. The agreement between our results and the available experimental data is found to be good within the limits of the statistical accuracy. (C) 2009 Elsevier B. V. All rights reserved.

Reference Type: Journal Article
Record Number: 18
Author: Benter, I. F. Benboubetra, M. Hollins, A. J. Yousif, M. H. M. Canatan, H. Akhtar, S.
Year: 2009
Title: Early inhibition of EGFR signaling prevents diabetes-induced up-regulation of multiple gene pathways in the mesenteric vasculature
Journal: Vascular Pharmacology
Volume: 51
Issue: 4
Pages: 236-245
Date: Oct
Short Title: Early inhibition of EGFR signaling prevents diabetes-induced up-regulation of multiple gene pathways in the mesenteric vasculature
ISSN: 1537-1891
DOI: 10.1016/j.vph.2009.06.008
Accession Number: WOS:000271283700003

Abstract: Diabetes mellitus is associated with vascular complications including an impairment of vascular function and alterations in the reactivity of blood vessels to vasoactive hormones. However, the signaling mechanisms leading to vascular dysfunction in diabetes are not fully understood. This microarray-based study was designed to identify differential gene expression between the normal and diabetic mesenteric vasculature and to investigate the effect of inhibiting epidermal growth factor receptor (EGFR) signaling on global gene expression in the mesenteric bed of streptozotocin (STZ)-induced diabetic rats Transcriptome analysis was performed in triplicate using oligonucleotide microarrays housing 10,000 rat genes on the mesenteric bed of normal. diabetic. and diabetic rats treated with AG1478, a selective inhibitor of EGFR Four weeks of diabetes led to a profound alteration in gene expression within the mesenteric bed with 1167 of the 3074 annotated genes being up-regulated and 141 genes down-regulated by at least 2-fold. The up-regulated gene ontologies included receptor tyrosine kinases. G-protein coupled receptors and ion channel activity. In particular, significant overexpressions of colipase, phospholipase A2. carboxypeptidases. and receptor tyrosine kinases such as EGFR, erbB2 and fibroblast growth factor receptor were observed in diabetes mesenteric vasculature. A 4 week intraperitoneal treatment of diabetic animals with AG1478 (1.2 mg/kg/alt diem) beginning on the same day as STZ injection prevented up-regulation of the majority (similar to 95%) of the genes associated with STZ diabetes including those apparently "unrelated" to the known EGFR pathway without correction of hyperglycemia These results suggest that activation of EGFR signaling is a key initiating step that leads to induction of multiple signaling pathways in the development of diabetes-induced vascular dysfunction. Thus, therapeutic targeting of EGFR may represent a novel strategy for the prevention and/or treatment of vascular dysfunction in diabetes. (C) 2009 Elsevier Inc All rights reserved.
Notes: Benter, Ibrahim F. Benboubetra, Mustapha Hollins, Andrew J. Yousif, Mariam H. M. Canatan, Halit Akhtar, Saghir
URL: <Go to ISI>://WOS:000271283700003

Abstract: This paper proposes a novel and simple direct power control (DPC) scheme of a three-phase pulsewidth-modulated rectifier without the use of a predefined switching table. The converter switching state selection is based on fuzzy logic rules, using the instantaneous active and reactive power tracking errors as fuzzy logic variables. The basic idea of fuzzy rules synthesis is based on the knowledge of the instantaneous variation of active and reactive power. According to the input fuzzy variables and in a specific moment, the best switching state of the converter is chosen to restrict the instantaneous active and reactive power tracking errors simultaneously, for maintaining the dc-bus voltage close to the reference value and guarantying the unity-power-factor operation. The main advantages of the proposed DPC scheme, compared to the classical one, are that it is not necessary to use hysteresis comparators, and smooth control of active and reactive power is obtained during all sectors. Finally, the developed DPC was tested both in simulations and experimentally, and illustrative results are presented here. Results have proven excellent performance, and verify the validity of the proposed DPC scheme which is much better than the classical DPC.

Abstract: This paper proposes direct power control (DPC) for three-phase PWM rectifiers using a new switching table, without line voltage sensors. The instantaneous active and reactive powers, directly controlled by selecting the optimum state of the converter, are used as the PWM control variables instead of the phase line currents being used. The main goal of the control system is to maintain the dc-bus voltage at the required level, while input currents drawn from the power supply should be sinusoidal and in phase with respective phase voltages to satisfy the unity power factor (UPF) operation. Conventional PI and a designed fuzzy logic-based controller, in the dc-bus voltage control loop, have been used to provide active power command. A dSPACE based experimental system was developed to verify the validity of the proposed DPC. The steady-state, and dynamic results illustrating the operation and performance of the proposed control scheme are presented. As a result, it was confirmed that the novel DPC is much better than the classical one. Line currents very close to sinusoidal waveforms (THD < 2%) and good regulation of dc-bus voltage are achieved using PI or fuzzy controller. Moreover, fuzzy logic controller gives excellent performance in transient state, a good rejection of impact load disturbance, and a good robustness. (C) 2008 Elsevier Ltd. All rights reserved.
Notes: Bouafia, Abdelouahab Krim, Fateh Gaubert, Jean-Paul
URL: <Go to ISI>://WOS:000262890100002

Reference Type: Journal Article
Record Number: 21
Author: Bouamama, K. Djemia, P. Daoud, K. Cherif, S. M.
Year: 2009
Title: Ab initio calculation of the elastic properties and the lattice dynamics of the AgBr1-xClx alloy
Journal: Computational Materials Science
Volume: 47
Issue: 2
Pages: 308-313
Date: Dec
Short Title: Ab initio calculation of the elastic properties and the lattice dynamics of the AgBr1-xClx alloy
ISSN: 0927-0256
DOI: 10.1016/j.commatsci.2009.08.006
Accession Number: WOS:000273115500003
Abstract: The lattice dynamics and elastic properties of the ternary AgBr1-xClx alloy have been studied using first-principles calculations. These are done using the density-functional perturbation theory (DFPT) and employing the virtual-crystal approximation (VCA). We study the variation of the optical phonon frequencies (omega(TO) and omega(LO)) and of the acoustical phonon frequencies (omega(TA) and omega(LA)), the high-frequency dielectric coefficient (epsilon(infinity)), the dynamic effective charge (Z^*) and the elastic constants (C-11, C-12, C-44) as a function of the composition (x). We find that the phonon frequencies as well as the elastic constants follow a quadratic law in x and agree well with the available experimental results. The elastic constant tensors for simple cubic 8-atom supercells with x = 0.25, 0.5 and 0.75 have been computed and are in good agreement with those obtained from VCA and experiments. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Bouamama, Kh Djemia, P. Daoud, K. Cherif, S. M.
URL: <Go to ISI>://WOS:000273115500003

Reference Type: Journal Article
Record Number: 22
Author: Bouamama, K. Djemia, P. Lebga, N. Kassali, K.
Year: 2009
Title: AB INITIO CALCULATION OF THE LATTICE DYNAMICS OF THE ZnSe1-xTex ALLOY
Journal: Modern Physics Letters B
Volume: 23
Issue: 29
Pages: 3453-3462
Date: Nov
Short Title: AB INITIO CALCULATION OF THE LATTICE DYNAMICS OF THE ZnSe1-xTex ALLOY
ISSN: 0217-9849
DOI: 10.1142/s021798490902151x
Accession Number: WOS:000272249100002

Abstract: The lattice dynamics of the ternary ZnSe1-xTex alloy have been studied using first principles calculations. These are done using the density-functional perturbation theory (DFPT) within the local density approximation (LDA) and employing the virtual-crystal approximation (VCA). We study the variation of the optical phonon frequencies (omega(TO) and omega(LO)), the high-frequency dielectric coefficient (epsilon(infinity)) and the dynamic effective charge (Z*) as a function of the composition (x). We found that the omega(TO) and omega(LO) follow a quadratic law in x and agree well with the experiment which proves that the VCA is a reliable method for mixed modes determination (2 bonds-1 mode). The obtained epsilon(infinity) and Z* have a quadratic form with x. We have also predicted the behavior of the optical and acoustical phonons with x at the high symmetry point X and L.
Notes: Bouamama, K. Djemia, P. Lebga, N. Kassali, K.
URL: <Go to ISI>://WOS:000272249100002

23 **Reference Type: Journal Article**
Record Number: 23
Author: Bouamama, K. Djemia, P. Lebga, N. Kassali, K.
Year: 2009
Title: Ab initio calculation of the elastic properties and the lattice dynamics of the ZnxCd1-xSe alloy
Journal: Semiconductor Science and Technology
Volume: 24
Issue: 4
Date: Apr
Short Title: Ab initio calculation of the elastic properties and the lattice dynamics of the ZnxCd1-xSe alloy
ISSN: 0268-1242
DOI: 10.1088/0268-1242/24/4/045005
Article Number: 045005
Accession Number: WOS:000266052900006

Abstract: The lattice dynamics and elastic properties of the ternary ZnxCd1-xSe alloy have been studied using first-principle calculations. These are done using the density-functional perturbation theory (DFPT) within local density approximation (LDA) and employing virtual-crystal approximation (VCA). We study the variation of the optical phonon frequencies (ω(TO) and ω(LO)), the high-frequency dielectric coefficient (ϵ(infinity)), the dynamic effective charge (Z^*) and the elastic constants (C-11, C-12, C-44) as a function of the composition (x). We found that the ω(TO) and ω(LO) follow a quadratic law in x and agree well with the experiment. The obtained ϵ(infinity), Z^*, C-11, C-12 and C-44 have a quadratic form with x. The elastic constant tensors for simple cubic eight-atom supercells with x = 0.25, 0.5 and 0.75 have been computed and are in good agreement with those obtained from VCA.
Notes: Bouamama, K. Djemia, P. Lebga, N. Kassali, K.
URL: <Go to ISI>://WOS:000266052900006

Abstract: Healthcare information systems (HCIS) are complex, heterogeneous, and spread out over multiple locations making their management and exploitation very onerous and lacking efficiency. Integration of these sub-systems seems necessary and needs a judicious choice of technologies and an adapted architecture. Significant benefits in terms of better economic costs and higher quality of care can be obtained by adopting good integration strategies and suitable technologies. This paper studies the importance of HCIS integration and proposes the design of MOBIFLEX, a generic architecture well suited for integrating HCIS. The architecture is a combination of mobile agents, static agents and agents-services. The aim of the combination of these new technologies is to ease flexible integration and exploitation of disparate HCIS sub-systems. As mobility is inherent to healthcare environments, the architecture is managed by mobile workflows and empowered by fault-tolerance mechanisms. Finally, technical solutions are proposed to implement the architecture in JADE platform enhanced with LEAP and JADEX.

Reference Type: Journal Article
Record Number: 25
Author: Boudebbouz, O. Zehar, K. Boukadoum, A.
Year: 2009
Title: HARMONIC SIGNATURE FOR DIAGNOSIS PURPOSES IN UNBALANCED
DISTRIBUTION SYSTEMS
Journal: Arabian Journal for Science and Engineering
Volume: 34
Issue: 2B
Pages: 461-476
Date: Oct
Short Title: HARMONIC SIGNATURE FOR DIAGNOSIS PURPOSES IN UNBALANCED
DISTRIBUTION SYSTEMS
ISSN: 1319-8025
Accession Number: WOS:000273653600013
Abstract: In this paper, distorted and unbalanced three-phase bus voltages (DUTBV) of
distribution systems are analyzed by means of symmetrical harmonic components (SHCs). A
new method which characterizes the dual behavior of unbalance and harmonics on steady state
distribution system operations is presented. The SHCs of DUTBV are deduced for a whole range
of harmonic orders of interest by the use of three matrices' transformations. Each matrix is
applied to a sub-set of harmonic orders of which the corresponding balanced three-phase
quantities rotate in the same sequence. The unbalanced voltage phasors abc at each h(th)
harmonic order are then transformed to three new phasors called balanced, first unbalanced, and
second unbalanced. Their representation in Fourier series allows us to identify a harmonic
signature of DUTBV in analytical or graphical ways. The method is applied to typical three-
phase distribution systems. The obtained results confirm the efficiency of the proposed method
for power quality monitoring and reporting and it can be used as a powerful diagnosis tool.
Notes: Boudebbouz, O. Zehar, K. Boukadoum, A.
URL: <Go to ISI>://WOS:000273653600013

Reference Type: Journal Article

Record Number: 26

Author: Bouguettoucha, A. Nacef, S. Balannec, B. Amrane, A.

Year: 2009

Title: Unstructured models for growth and lactic acid production during two-stage continuous cultures of Lactobacillus helveticus

Journal: Process Biochemistry

Volume: 44

Issue: 7

Pages: 742-748

Date: Jul

Short Title: Unstructured models for growth and lactic acid production during two-stage continuous cultures of Lactobacillus helveticus

ISSN: 1359-5113

DOI: 10.1016/j.procbio.2009.03.010

Accession Number: WOS:000266796100009

Abstract: During lactic acid fermentation, seed culture is usually carried out without pH control, while culture is carried out at pH controlled at the optimal value to overcome inhibitory effects. The Luedeking-Piret expression was therefore previously modified by introducing additional terms involving the undissociated form of the lactic acid, the main inhibitory species, in case of batch cultures without pH control or involving the residual lactose concentration to account for the carbon substrate limitation, responsible for cessation of production during batch cultures of Lactobacillus helveticus at controlled pH. Both expressions were also merged to deduce a generalized model. Both models, as well as the Luedeking-Piret model, were developed to describe continuous two-stage culture of L helveticus. By considering the parameter values obtained from the fitting of batch culture data, both modified Luedeking-Piret models showed interesting predictive potential. Indeed, some rather reliable predictive calculated values were recorded in both stages; the residual standard deviations were 0.5 and less than 8.8 for the biomass and the product concentrations at steady-state in the culture stage (second stage). The optimization of the parameters for growth- and non-growth-associated parameters improved the fitting in the culture stage, leading to residual standard deviations below 2.6 for lactic acid concentrations at steady-state. (C) 2009 Elsevier Ltd. All rights reserved.

Notes: Bouguettoucha, Abdallah Nacef, Saci Balannec, Beatrice Amrane, Abdeltif

URL: <Go to ISI>://WOS:000266796100009

Reference Type: Journal Article

Record Number: 27

Author: Bouguezel, S. Ahmad, M. O. Swamy, M. N. S.

Year: 2009

Title: A New Class of Reciprocal-Orthogonal Parametric Transforms

Journal: Ieee Transactions on Circuits and Systems I-Regular Papers

Volume: 56

Issue: 4

Pages: 795-805

Date: Apr

Short Title: A New Class of Reciprocal-Orthogonal Parametric Transforms

ISSN: 1549-8328

DOI: 10.1109/tcsi.2008.2002923

Accession Number: WOS:000265376500009

Abstract: In this paper, a new class of reciprocal-orthogonal parametric (ROP) transforms having 3N/2 independent parameters for a sequence length N that is a power of two is proposed. The basic idea behind the proposed transforms is to appropriately combine a new parametric kernel with that of the well-known Walsh-Hadamard transform that results in a square parametric matrix operator of order N with some very interesting properties. It is shown that the inverse matrix operator of the proposed class of transforms can be easily obtained by taking the reciprocal of each of the entries of the forward matrix and then transposing the resulting matrix. In addition, a simple method is introduced in order to facilitate the generation of the matrix operator of the proposed ROP transforms. This method is then used specifically to construct new classes of unitary and multiplication-free transforms. Many other new transforms, as well some of the existing ones, can be derived from these proposed ROP transforms. An efficient algorithm is developed for a fast computation of the proposed transforms. In view of the availability of this fast algorithm and the property of easily computable inverse transform, the proposed ROP transforms can be used in many transform-based applications, with their independent parameters providing more degrees of freedom such as affording an additional secret key in watermarking and encryption applications.

Notes: Bouguezel, Saad Ahmad, M. Omair Swamy, M. N. S.

URL: <Go to ISI>://WOS:000265376500009

28 **Reference Type: Journal Article**
Record Number: 28
Author: Bouhemadou, A.
Year: 2009
Title: Structural, electronic and elastic properties of Ti2TlC, Zr2TlC and Hf2TlC
Journal: Central European Journal of Physics
Volume: 7
Issue: 4
Pages: 753-761
Date: Dec
Short Title: Structural, electronic and elastic properties of Ti2TlC, Zr2TlC and Hf2TlC
ISSN: 1895-1082
DOI: 10.2478/s11534-009-0022-z
Accession Number: WOS:000268295800014

Abstract: Using First-principle calculations, we have studied the structural, electronic and elastic properties of M2TlC, with M = Ti, Zr and Hf. Geometrical optimization of the unit cell is in good agreement with the available experimental data. The effect of high pressures, up to 20 GPa, on the lattice constants shows that the contractions are higher along the c-axis than along the a axis. We have observed a quadratic dependence of the lattice parameters versus the applied pressure. The band structures show that all three materials are electrical conductors. The analysis of the site and momentum projected densities shows that bonding is due to M d-C p and M d-Tl p hybridizations. The M d-C p bonds are lower in energy and stiff er than M d-Tl p bonds. The elastic constants are calculated using the static finite strain technique. We derived the bulk and shear moduli, Young's modulus and Poisson's ratio for ideal polycrystalline M2TlC aggregates. We estimated the Debye temperature of M2TlC from the average sound velocity. This is the first quantitative theoretical prediction of the elastic properties of Ti2TlC, Zr2TlC, and Hf2TlC compounds that requires experimental confirmation.
Notes: Bouhemadou, Abdelmadjid
URL: <Go to ISI>://WOS:000268295800014

Reference Type: Journal Article
Record Number: 29
Author: Bouhemadou, A.
Year: 2009
Title: Structural, electronic and elastic properties of MAX phases M2GaN (M = Ti, V and Cr)
Journal: Solid State Sciences
Volume: 11
Issue: 11
Pages: 1875-1881
Date: Nov
Short Title: Structural, electronic and elastic properties of MAX phases M2GaN (M = Ti, V and Cr)
ISSN: 1293-2558
DOI: 10.1016/j.solidstatesciences.2009.08.002
Accession Number: WOS:000272116800006

Abstract: Based on first-principles total energy calculations, we have investigated the systematic trends for structural, electronic and elastic properties of the MAX phases M2GaN depending on the type of M transition metal (M are Ti, V and Cr). The optimized zero pressure geometrical parameters: the two unit cell lengths (a, c), the internal coordinate z and the bulk modulus are calculated. The results for the lattice constants are in agreement with the available experimental data. The band structures show that all studied materials are electrical conductors. The analysis of the site-projected l-decomposed density of states shows that bonding is due to M d-N p and M d-Ga p hybridizations. The elastic constants are calculated using the static finite strain technique. The shear modulus C-44, which is directly related to the hardness, reaches its maximum when the valence electron concentration is in the range 10.5-11.0. The isotropic elastic moduli, namely, bulk modulus (B), shear modulus (G), Young's modulus (E) and Poisson's ratio (sigma) are calculated in framework of the Voigt-Reuss-Hill approximation for ideal polycrystalline M2GaN aggregates. We estimated the Debye temperature Of M2GaN from the average sound velocity. This is the first quantitative theoretical prediction of the electronic structures, and elastic constants and related properties for Ti2GaN, V2GaN and Cr2GaN compounds that require experimental confirmation. (C) 2009 Elsevier Masson SAS. All rights reserved.
Notes: Bouhemadou, A.
URL: <Go to ISI>://WOS:000272116800006

Abstract: The structural and elastic properties of perovskite-type RCRh3, with R = Sc, Y, La and Lu, under pressure effects have been investigated using the pseudo-potential plane-wave method based on the density functional theory within the generalized gradient approximation. For monocrystalline RCRh3, the optimized lattice constants, elastic constants and directional elastic wave velocities are calculated and analyzed in comparison with the available experimental and theoretical data. An increase in the lattice constant has been found with increasing atomic size of the R element and a corresponding decrease in the hardness. The anisotropic elastic constants and directional elastic wave velocities increase linearly with increasing pressure. A set of elastic parameters and related properties, namely bulk and shear moduli, Young's modulus, Poisson's ratio, Lame's coefficients, average sound velocity and Debye temperature are predicted in the framework of the Voigt-Reuss-Hill approximation for polycrystalline RCRh3, We have found that the toughness of RCRh3 compounds can be improved at high pressure. (C) 2009 Elsevier Ltd. All rights reserved.
Notes: Bouhemadou, A.
URL: <Go to ISI>://WOS:000270128700019

Abstract: Using ab initio calculations, we have studied the structural, electronic and elastic properties of M2GeC, with M=Ti, V, Cr, Zr, Nb, Mo, Hf, Ta and W. Geometrical optimizations of the unit cell are in agreement with the available experimental data. The band structures show that all studied materials are electrical conductors. The analysis of the site and momentum projected densities shows that bonding is due to M d-C p and M d-Ge p hybridizations. The elastic constants are calculated using the static finite strain technique. The shear modulus C (44), which is directly related to the hardness, reaches its maximum when the valence electron concentration is in the range 8.41-8.50. We derived the bulk and shear moduli, Young's moduli and Poisson's ratio for ideal polycrystalline M2GeC aggregates. We estimated the Debye temperature of M2GeC from the average sound velocity. This is the first quantitative theoretical prediction of the elastic constants of Ti2GeC, V2GeC, Cr2GeC, Zr2GeC, Nb2GeC, Mo2GeC, Hf2GeC, Ta2GeC and W2GeC compounds, and it still awaits experimental confirmation.
Notes: Bouhemadou, A.
URL: <Go to ISI>://WOS:000268293100023

Reference Type: Journal Article

Record Number: 32

Author: Bouhemadou, A.

Year: 2009

Title: Elastic, electronic and optical properties of the filled tetrahedral semiconductor alpha-LiCdAs

Journal: Materials Science in Semiconductor Processing

Volume: 12

Issue: 4-5

Pages: 198-205

Date: Aug-Oct

Short Title: Elastic, electronic and optical properties of the filled tetrahedral semiconductor alpha-LiCdAs

ISSN: 1369-8001

DOI: 10.1016/j.mssp.2009.11.001

Accession Number: WOS:000276134600012

Abstract: We have investigated the elastic, electronic and optical properties of the Nowotny-Juza filled tetrahedral semiconductor alpha-LiCdAs using the pseudo-potential plane-wave within the density functional theory. A numerical first-principles calculation of the elastic constants was used to calculate C(11), C(12) and C(44). The values of the sound velocities in different directions have been calculated. The isotropic elastic moduli, namely bulk modulus, shear modulus, Young's modulus, Poisson's ratio and Lame's constants are calculated in framework of the Voigt-Reuss-Hill approximation for ideal polycrystalline alpha-LiCdAs aggregate. We estimated the Debye temperature of alpha-LiCdAs from the average sound velocity. The analysis of the site and momentum projected densities and charge density reveals strongly covalent Cd-As and strongly ionic Li-As bonds. Band structures show that alpha-LiCdAs is a narrow direct band gap. The variation of the fundamental band gap versus pressure is well fitted to a quadratic function and a direct to an indirect band gap transition occurs at 15.30 GPa. Furthermore, the dielectric function, optical reflectivity, refractive index, extinction coefficient and electron energy loss are calculated for radiation up to 20 eV. The results are compared with the available experimental and theoretical results. (C) 2009 Elsevier Ltd. All rights reserved.

Notes: Bouhemadou, A.

URL: <Go to ISI>://WOS:000276134600012

Reference Type: Journal Article

Record Number: 33

Author: Bouhemadou, A. Al-Douri, Y. Khenata, R. Haddadi, K.

Year: 2009

Title: Structural, elastic, electronic, optical and thermal properties of c-SiGe2N4

Journal: European Physical Journal B

Volume: 71

Issue: 2

Pages: 185-194

Date: Sep

Short Title: Structural, elastic, electronic, optical and thermal properties of c-SiGe2N4

ISSN: 1434-6028

DOI: 10.1140/epjb/e2009-00272-6

Accession Number: WOS:000270745800002

Abstract: We have investigated the structural, elastic, electronic, optical and thermal properties of c-SiGe2N4 by using the ultrasoft pseudopotential density functional method within the generalized gradient approximation. The calculated structural parameters, including the lattice constant, the internal free parameter, the bulk modulus and its pressure derivative are in agreement with the available data. The independent elastic constants and their pressure dependence, calculated using the static finite strain technique, satisfy the requirement of mechanical stability, indicating that c-SiGe2N4 compound could be stable. We derive the shear modulus, Young's modulus, Poisson's ratio and Lame's coefficients for ideal polycrystalline c-SiGe2N4 aggregate in the framework of the Voigt-Reuss-Hill approximation. We estimate the Debye temperature of this compound from the average sound velocity. Band structure, density of states, Mulliken charge populations and pressure coefficients of energy band gaps are investigated. Furthermore, in order to understand the optical properties of c-SiGe2N4, the dielectric function, refractive index, extinction coefficient, optical reflectivity and electron energy loss are calculated for radiation up to 40 eV. Thermal effects on some macroscopic properties of c-SiGe2N4 are predicted using the quasi-harmonic Debye model in which the lattice vibrations are taken into account. We have obtained successfully the variations of the primitive cell volume, volume expansion coefficient, heat capacities and Debye temperature with pressure and temperature in the ranges of 0-40 GPa and 0-2000 K. For the first time, the numerical estimates of the elastic constants and related parameters, and the thermal properties are performed for c-SiGe2N4.

Notes: Bouhemadou, A. Al-Douri, Y. Khenata, R. Haddadi, K.

URL: <Go to ISI>://WOS:000270745800002

Reference Type: Journal Article
Record Number: 34
Author: Bouhemadou, A. Khenata, R. Amrani, B.
Year: 2009
Title: Structural and thermodynamic properties of the cubic perovskite BiAlO3
Journal: Physica B-Condensed Matter
Volume: 404
Issue: 20
Pages: 3534-3538
Date: Nov
Short Title: Structural and thermodynamic properties of the cubic perovskite BiAlO3
ISSN: 0921-4526
DOI: 10.1016/j.physb.2009.05.052
Accession Number: WOS:000271602500039
Abstract: The structural and elastic properties of the cubic perovskite-type BiAlO3 are studied using the pseudopotential plane wave method within the local density approximation. The calculated structural parameters are in good agreement with previous calculations. The elastic constants are calculated using the static finite strain technique. Thermal effects on some macroscopic properties of BiAlO3 are predicted using the quasi-harmonic Debye model, in which the lattice vibrations are taken in account. We have obtained successfully the variations of the lattice constant, volume expansion coefficient, heat capacities and Debye temperature with pressure and temperature in the ranges of 0-30GPa and 0-1000K. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A. Khenata, R. Amrani, B.
URL: <Go to ISI>://WOS:000271602500039

Abstract: The effect of high-pressures on the structural and elastic properties of XP zinc-blende compounds, with $X = B$, Al, Ga and In, has been investigated using the full-potential augmented plane wave plus local orbitals method within density functional theory. The bulk properties, including lattice constant, bulk modulus and its pressure derivative are obtained. The elastic constants and their pressure dependence are calculated using total energy variation with strain technique. We derived the bulk modulus, shear modulus, Young's modulus and Poisson's ratio for ideal polycrystalline XP aggregates. We estimated the Debye temperature of XP compounds from the average sound velocity. Our results are in reasonable agreement with the available theoretical and experimental data. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Bouhemadou, A. Khenata, R. Kharoubi, M. Seddik, T. Reshak, Ali H. Al-Douri, Y.
URL: <Go to ISI>://WOS:000265005500041

Reference Type: Journal Article
Record Number: 36
Author: Bouhemadou, A. Khenata, R. Djabi, F.
Year: 2009
Title: Structural, elastic, electronic and optical properties of the cubic perovskite BiAlO3
Journal: Solid State Sciences
Volume: 11
Issue: 2
Pages: 556-561
Date: Feb
Short Title: Structural, elastic, electronic and optical properties of the cubic perovskite BiAlO3
ISSN: 1293-2558
DOI: 10.1016/j.solidstatesciences.2008.08.006
Accession Number: WOS:000263991100046

Abstract: We report first-principles study of structural, elastic, electronic and optical properties of the cubic perovskite-type BiAlO3 using the pseudopotential plane waves method within the local density approximation. The calculated structural parameters are in good agreement with previous calculations. The elastic constants and their pressure dependence are calculated using the static finite strain technique. A linear pressure dependence of the elastic stiffness is found. Band structures show that BiAlO3 has an indirect band gap between the occupied O 2p and unoccupied Bi 6p states. The density of states and Mulliken charge populations analysis shows that AI-O and Bi-O bonds are covalent with a strong hybridization. The variation of the gap versus pressure is well fitted to a quadratic function and an indirect to direct band gap transition occurs at 15.5 GPa. Furthermore, in order to understand the optical properties of BiAlO3, the dielectric function, absorption coefficient, refractive index, extinction coefficient, optical reflectivity and electron energy loss are calculated for radiation up to 30 eV. (c) 2008 Elsevier Masson SAS. All rights reserved.
Notes: Bouhemadou, A. Khenata, R. Djabi, F.
URL: <Go to ISI>://WOS:000263991100046

Abstract: Polycrystalline thin films CuGa0.3In0.7Se2 (CIGS) were deposited onto coated soda-lime glass and transparent conducting oxide (SnO2) substrates at 480 degrees C substrate temperature with a low cost and potentially large area deposition method by using close-spaced vapor transport technique (CSVT) designed in our laboratory (LAMPS). Morphological, structural and compositional properties were determined using X-ray diffraction (XRD), scanning electron microscopy (SEM) and energy dispersive spectroscopy (EDS), respectively. Optical transmission spectra were used to determine absorption coefficient and gap energy of the sample. Using photoacoustic spectroscopy, we report the activation energies of shallow and deep levels. Finally, we discuss the results obtained. (C) 2009 Published by Elsevier Ltd.
Notes: Bouloufa, A. Djessas, K. Todorovic, D. 7th Workshop on Epitaxial Semiconductor on Patterned Substrate and Novel Index Surfaces (ESPS-NIS) Apr, 2008 Marseilles, FRANCE Si
URL: <Go to ISI>://WOS:000272821900017

Abstract: The discontinuous precipitation kinetics in Al-30% wt. Zn alloy have been investigated at temperatures ranging from 348 to 503 K (75 to 230 degrees C) by using an optical microscopy, X-ray diffraction, differential dilatometer, differential scanning calorimetry and microhardness measurement. We have found that at all temperatures less than 180 degrees C the supersaturated solid solution of quenched alloy was observed to decompose completely by a cellular precipitation reaction. Quantitative metallography methods have been applied to measure the corresponding transformed volume fractions at different temperatures and times of precipitation. The variation of the heating rate and the application of different methods have allowed us to calculate two kinetic parameters of precipitation: the activation energy of the process and the Avrami exponent. (C) 2008 Elsevier Inc. All rights reserved.
Notes: Boumerzoug, Z. Fatmi, M.
URL: <Go to ISI>://WOS:000267725000002

Reference Type: Journal Article
Record Number: 39
Author: Boumous, Z. Belkhiat, S. Kebbab, F. Z.
Year: 2009
Title: Effect of shearing deformation on the transient response of a traveling wave ultrasonic motor
Journal: Sensors and Actuators a-Physical
Volume: 150
Issue: 2
Pages: 243-250
Date: Mar
Short Title: Effect of shearing deformation on the transient response of a traveling wave ultrasonic motor
ISSN: 0924-4247
DOI: 10.1016/j.sna.2008.12.018
Accession Number: WOS:000264649600013
Abstract: Some works take into account the shearing deformation of frictional material, but its effect on the transient response has not yet been considered. In this paper, optimal deformation angle and resonance frequency of frictional material are investigated. Force expressions in the stator/rotor interface are developed. Mechanical characteristics taking into account the effect of shearing deformation are deduced and presented. It is shown that the shearing deformation affects the initial state as well as on the steady state. Also, the fast time response of the motor is deduced. Results of the simulation are validated using the measurements made by other researchers on traveling wave piezoelectric motor AWM90-X, Daimler-Benz type, and a prototype USM(AWM-90). (C) 2008 Elsevier B.V. All rights reserved
Notes: Boumous, Z. Belkhiat, S. Kebbab, F. Z.
URL: <Go to ISI>://WOS:000264649600013

Abstract: The polymorphic mutation 677 C-T in the methylenetetrahydrofolate reductase (MTHFR) gene presents a heterogeneous worldwide distribution and is associated with different disorders such as cardiovascular disease. Its frequency shows great ethnic and geographic variations. The aim of this work is to determine the frequency of MTHFR 677 C-T and coexistence of MTHFR 677 C-T with 2 other common, hereditary thrombophilia causes-namely, factor V 1691 G-A and prothrombin (PT) 20210 G-A mutation-in the Setif region of Algeria. The study involved 147 apparently healthy participants (82 men and 65 women). Genotyping was carried out by a real-time polymerase chain reaction. The MTHFR 677T carrier frequency was found to be 54.4% (80/147); 59 individuals were heterozygous (40.1%), and 21 were homozygous (14.3%). The frequency of MTHFR 677T was found to be 34.3%. Among the 147 individuals, 3 (2.0%) had factor V Leiden, and 5 (3.4%) had PT 202 10 A mutation. Of the 80 participants with MTHFR 677T mutation, 2 had heterozygote factor V 1691 G-A gene mutation, and 4 had heterozygote PT 202 10 G-A gene mutation. The results showed that MTHFR 677T prevalence is quite high: an allelic frequency of 34.3% with a genotype frequency of 14.3%. Factor V 1691 G-A and PT 20210 G-A gene Mutations are rare in the healthy population of the Setif region of Algeria.
Notes: Bourouba, Romyla Houcher, Bakhouche Djabi, Farida Egin, Yonca Akar, Nejat
URL: <Go to ISI>://WOS:000270345500006

Reference Type: Journal Article
Record Number: 41
Author: Brodu, N.
Year: 2009
Title: A Synthesis and a Practical Approach to Complex Systems
Journal: Complexity
Volume: 15
Issue: 1
Pages: 36-60
Date: Sep-Oct
Short Title: A Synthesis and a Practical Approach to Complex Systems
ISSN: 1076-2787
DOI: 10.1002/cplx.20239
Accession Number: WOS:000270107900004
Abstract: This document is both a synthesis of current notions about complex systems and a practical approach description. A disambiguation is proposed and exposes possible reasons for controversies related to causation and emergence. Theoretical considerations about simulations are presented. A justification is then given for the development of practical tools and techniques for the investigation of complex systems. A methodology for the usage of these tools is finally suggested, illustrated by application examples. (C) 2008 Wiley Periodicals, Inc. Complexity 15: 36-60, 2009
Notes: Brodu, Nicolas
URL: <Go to ISI>://WOS:000270107900004

Reference Type: Journal Article
Record Number: 42
Author: Chahmana, N. Matrakova, M. Zerroual, L. Pavlov, D.
Year: 2009
Title: Influence of some metal ions on the structure and properties of doped beta-PbO(2)
Journal: Journal of Power Sources
Volume: 191
Issue: 1
Pages: 51-57
Date: Jun
Short Title: Influence of some metal ions on the structure and properties of doped beta-PbO(2)
ISSN: 0378-7753
DOI: 10.1016/j.jpowsour.2008.11.066
Accession Number: WOS:000266894900011
Abstract: The lead dioxide active mass of positive lead-acid battery plates is a gel-crystal system with proton and electron conductivity of the hydrated gel zones. This paper discusses the influence of $Sn(2+)$, $Sb(3+)$, $Co(2+)$, $Mg(2+)$ and $Al(3+)$ ions, added to the formation electrolyte, upon the stoichiometry, structure and phase composition of the $PbO(2)$ positive active material (PAM) of lead-acid batteries. PAM samples doped with the above metal ions are characterized by: X-ray diffraction (XRD), thermal gravimetric analysis (TGA), scanning electron microscopy (SEM), inductively coupled plasma atomic emission spectroscopy (ICP-AES) and chemical analysis. The obtained results show that different metal ions are incorporated in different quantities in the $PbO(2)$ particles. Under the influence of dopants, the stoichiometric coefficient of lead dioxide decreases, i.e. dopants increase the non-stoichiometry of $PbO(2)$. The foreign ions in the formation electrolyte exert strong influence on the microstructure of PAM and change the proportion between crystal and hydrated gel zones in the particles. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Chahmana, N. Matrakova, M. Zerroual, L. Pavlov, D.
URL: <Go to ISI>://WOS:000266894900011

Abstract: The relationship between the hydrogen content of the crystal lattice of PbO(2) and the capacity of PAM is still a subject of interest. The present paper concerns the effect of the doping of beta-lead dioxide on the composition of PAM gel zones and its relationship to battery performance. Differential scanning calorimetry (DSC) and thermogravimetry (TG) as well as X-ray diffraction analysis were used as techniques of investigation in this study. The results showed that the quantity of water present in the gel zones and PAM discharge capacity are mainly dependant of the nature of the dopant. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Chahmana, N. Zerroual, L. Matrakova, M.
URL: <Go to ISI>://WOS:000266894900023

Abstract: Nanocomposites polypropylene and modified montmorillonite were prepared by mixture in the melted state using an internal mixer. The effect of the PP-g-MA/Mmt-C18 ratio on the quality of clay dispersion was examined. Results obtained showed that clay is mainly intercalated. The mixture whose PP-g-MA/Mmt-C(18) ratio is 3/1 presents the best dispersion of clay. The microstructure and scaling of rheological properties of polypropylene/montmorillonite nanocomoposite have been investigated. The dynamic modulus follows a power law of the type G' similar to m(p)(s). This evolution show tow zone with different values of the critical exponent s, which can give information about dominant forces in the formed structure.

Reference Type: Journal Article
Record Number: 45
Author: Chaoui, Z. Ding, Z. J. Goto, K.
Year: 2009
Title: Energy spectra of electron yields from silicon: Theory and experiment
Journal: Physics Letters A
Volume: 373
Issue: 18-19
Pages: 1679-1682
Date: Apr
Short Title: Energy spectra of electron yields from silicon: Theory and experiment
ISSN: 0375-9601
DOI: 10.1016/j.physleta.2009.02.069
Accession Number: WOS:000269486700016
Abstract: In order to simulate the energy deposited of low energy electrons in a solid state silicon detector, a detailed Monte Carlo technique has been applied to describe electron scattering processes from silicon in the keV and sub-keV electron energy range. However, the precision on the energy deposited depends strongly on the accuracy of the energy of the total backscattered electrons. Thus, accurate models are needed to simulate the energy spectra of primary, secondary and Auger electron yields. In the present Letter, we show that the inclusion of ionizations, excitations, secondary electron generation, relaxations and Auger emissions provide a better description of the experimental measurements. (c) 2009 Elsevier B.V. All rights reserved.
Notes: Chaoui, Z. Ding, Z. J. Goto, K.
URL: <Go to ISI>://WOS:000269486700016

Reference Type: Journal Article
Record Number: 46
Author: Chettah, H. Abdi, D. Amardjia, H. Haffar, H.
Year: 2009
Title: Electrosynthesis of TiO(2) oxide film on ITO substrate and electrochemical comparative study of the oxide with its hydrated gel
Journal: Ionics
Volume: 15
Issue: 2
Pages: 169-176
Date: Apr
Short Title: Electrosynthesis of TiO(2) oxide film on ITO substrate and electrochemical comparative study of the oxide with its hydrated gel
ISSN: 0947-7047
DOI: 10.1007/s11581-008-0246-8
Accession Number: WOS:000264836200006

Abstract: Thin TiO(2) films obtained by cathodic electrosynthesis from an acidic aqueous bath containing TiOSO(4), H(2)O(2) and KNO(3) on conductive glass indium tin oxide have been physically and electrochemically characterised. Secondary ion mass spectroscopy profile of the crystallised gel after heat treatment at 400 A degrees C shows the presence of TiO(2) with traces of TiO and oxygen. X-ray patterns confirm the presence of anatase nanocrystallites for the annealed film and an amorphous structure for the non-annealed gel. Scattering electron microscopy surface micrographies reveal an opened porous nanostructure of the deposits. Cyclic voltammetry and impedance spectroscopic measurements reveal the different behaviour of the films obtained before and after the annealing, showing an important electrical activity of the non-annealed films. The dependence of capacitance values with potential in the anodic domain of depletion is obviously remarked from impedance plots for both gel and crystal forms of the film, which confirmed the fact that films obtained in this way have n-type properties. The potential of flat band equals -0.6 V/Ag/AgCl in pH range of 6.5 has been estimated according to Mott-Shottky curves for the crystallised oxide; meanwhile, the Mott-Shottky curve for the hydrated gel was nonlinear.
Notes: Chettah, H. Abdi, D. Amardjia, H. Haffar, H.
URL: <Go to ISI>://WOS:000264836200006

Reference Type: Journal Article
Record Number: 47
Author: Chihi, T. Boucetta, S. Maouche, D.
Year: 2009
Title: Behaviour of Di-Transition-Metal Nitride Ti1-xZrxN Alloy at High Pressure
Journal: Acta Physica Polonica A
Volume: 116
Issue: 6
Pages: 1085-1089
Date: Dec
Short Title: Behaviour of Di-Transition-Metal Nitride Ti1-xZrxN Alloy at High Pressure
ISSN: 0587-4246
Accession Number: WOS:000274113100020

Abstract: By means of density-functional theory with the generalized gradient approximation and using the virtual-crystal approximation, we report first-principles calculation results on the structural and elastic properties of Ti1-xZrxN alloy. In order to gain some further information on the mechanical properties of Ti0.5Zr0.5N compound, we also calculated the Young modulus, Poisson ratio, and anisotropy factor. The variation of calculated unit cell parameter for Ti1-xZrxN structure increases with Zr content x. A linear dependence of the elastic constants and the bulk modulus over a range of composition x is found. All the C-ij of Ti0.5Zr0.5N increase linearly with increasing pressure. The same behaviour is observed for the other compounds with Zr compositions x.
Notes: Chihi, T. Boucetta, S. Maouche, D.
URL: <Go to ISI>://WOS:000274113100020

Reference Type: Journal Article
Record Number: 48
Author: Choi, J. R. Yeon, K. H. Maamache, M. Menouar, S.
Year: 2009
Title: Exact Quantum Solutions for Time-Dependent Charged Oscillator
Journal: Journal of the Physical Society of Japan
Volume: 78
Issue: 5
Date: May
Short Title: Exact Quantum Solutions for Time-Dependent Charged Oscillator
ISSN: 0031-9015
DOI: 10.1143/jpsj.78.054001
Article Number: 054001
Accession Number: WOS:000266341900009

Abstract: The quantum states for a time-dependent charged oscillator are investigated by an invariant operator method and a unitary transformation approach. The wave functions are derived precisely in both cases of discrete and continuous quantum spectra. By choosing time functions of the Hamiltonian in different forms, our theory can be applied to diverse types of quantum dynamical systems. In the limit of a simple case, we confirmed that our result associated with a discrete spectrum recovers to that of Storchak.
Notes: Choi, Jeong Ryeol Yeon, Kyu Hwang Maamache, Mustapha Menouar, Salah
URL: <Go to ISI>://WOS:000266341900009

Reference Type: Journal Article
Record Number: 49
Author: Dahia, M. Siracusa, L. Laouer, H. Ruberto, G.
Year: 2009
Title: Constituents of the Polar Extracts from Algerian Pituranthos scoparius
Journal: Natural Product Communications
Volume: 4
Issue: 12
Pages: 1691-1692
Date: Dec
Short Title: Constituents of the Polar Extracts from Algerian Pituranthos scoparius
ISSN: 1934-578X
Accession Number: WOS:000272754100019
Abstract: The methanolic and aqueous extracts of Pituranthos scoparius (Coss. & Dur.) Benth. & Hook. (Apiaceae) have beep analyzed and fifteen metabolites were identified: two cinnamic acids (5-O-caffeoyl quinic acid and 5-feruloyl quinic acid), and thirteen known flavonoids (vicenin-2, six quercetin and six isorhamnetin O-glycosylated derivatives). 5-O-caffeoylquinic acid was the main component, while, of the flavonoids, the isorhamnetin derivatives were present to a greater extent.
Notes: Dahia, Mostefa Siracusa, Laura Laouer, Hocine Ruberto, Giuseppe
URL: <Go to ISI>://WOS:000272754100019

Reference Type: Journal Article
Record Number: 50
Author: Deffar, K. Shi, H. L. Li, L. Wang, X. Z. Zhu, X. J.
Year: 2009
Title: Nanobodies - the new concept in antibody engineering
Journal: African Journal of Biotechnology
Volume: 8
Issue: 12
Pages: 2645-2652
Date: Jun
Short Title: Nanobodies - the new concept in antibody engineering
ISSN: 1684-5315
Accession Number: WOS:000268831200001
Abstract: Nanobodies are antibody-derived therapeutic proteins that contain the unique structural and functional properties of naturally occurring heavy-chain antibodies. The Nanobody technology was originally developed following the discovery that camelidae (camels and llamas) possess fully functional antibodies that lack light chains. These heavy-chain antibodies contain a single variable domain (VHH) and two constant domains (CH2 and CH3). Importantly, the cloned and isolated VHH domain is a perfectly stable polypeptide harboring the full antigen-binding capacity of the original heavy-chain antibody. These newly discovered VHH domains with their unique structural and functional properties form the basis of a new generation of therapeutic antibodies which were named Nanobodies. The aim of this paper is to show the properties of Nanobodies, their production and expression, applications and their clinical status.
Notes: Deffar, Khalissa Shi, Hengliang Li, Liang Wang, Xingzhi Zhu, Xiaojuan
URL: <Go to ISI>://WOS:000268831200001

Reference Type: **Journal Article**
Record Number: 51
Author: Deghfel, B. Nekkab, M. Kahoul, A.
Year: 2009
Title: M X-ray production cross sections for heavy elements by proton impact
Journal: X-Ray Spectrometry
Volume: 38
Issue: 5
Pages: 399-405
Date: Sep-Oct
Short Title: M X-ray production cross sections for heavy elements by proton impact
ISSN: 0049-8246
DOI: 10.1002/xrs.1191
Accession Number: WOS:000270062600006
Abstract: We present in this paper, M-shell ionization cross sections and M X-ray production cross sections calculated within the Energy loss, Coulomb deflection, Perturbed Stationary State and Relativistic effects (ECPSSR) theory for elements with $72 <= Z <= 90$ for protons with 0.1-4.0 MeV energy. Our results are compared to the plane wave Born approximation (PWBA) predictions, the relativistic plane-wave Born approximation including corrections for binding and Coulomb deflection effect (RPWBA-BC) results and the ECPSSR calculations from earlier works. On the other hand, semiempirical and empirical M X-ray production cross sections are deduced from the polynomial fitting of the available experimental data collected from different sources. A comparison is made between the different sets of results. The differences between the above calculations and the experimental results are pointed out and discussed. Copyright (C) 2009 John Wiley & Sons, Ltd.
Notes: Deghfel, B. Nekkab, M. Kahoul, A.
URL: <Go to ISI>://WOS:000270062600006

Reference Type: Journal Article
Record Number: 52
Author: Djedouani, A. Boufas, S. Bendaas, A. Allain, M. Bouet, G.
Year: 2009
Title: Bis(3-acetyl-6-methyl-2-oxo-2H-pyran-4-olato)bis(dimethyl sulfoxide)nickel(II)
Journal: Acta Crystallographica Section E-Structure Reports Online
Volume: 65
Pages: M1205-+
Date: Oct
Short Title: Bis(3-acetyl-6-methyl-2-oxo-2H-pyran-4-olato)bis(dimethyl sulfoxide)nickel(II)
ISSN: 1600-5368
DOI: 10.1107/s1600536809034655
Accession Number: WOS:000270450400041

Abstract: In the title compound, [Ni(C(8)H(7)O(4))(2){(CH(3))(2)SO}(2)], the Ni(II) atom is located on a crystallographic centre of symmetry and has a distorted octahedral coordination geometry of type MO(6). The bidentate dehydroacetic acid (DHA) ligands occupy the equatorial plane of the complex in a trans configuration, and the dimethyl sulfoxide (DMSO) ligands are weakly coordinated through their O atoms in the axial positions.
Notes: Djedouani, Amel Boufas, Sihem Bendaas, Abderrahmen Allain, Magali Bouet, Gilles 10
URL: <Go to ISI>://WOS:000270450400041

Reference Type: Journal Article
Record Number: 53
Author: Djellali, S. Benmahmoud, N. Sadoun, T.
Year: 2009
Title: BIODEGRADATION OF LOW DENSITY POLYETHYLENE/STARCH FILMS EXPOSED TO SOIL BURIAL
Journal: Annales De Chimie-Science Des Materiaux
Volume: 34
Issue: 1
Pages: 41-48
Date: Jan-Feb
Short Title: BIODEGRADATION OF LOW DENSITY POLYETHYLENE/STARCH FILMS EXPOSED TO SOIL BURIAL
ISSN: 0151-9107
DOI: 10.3166/acsm.34.41-48
Accession Number: WOS:000265443600005
Abstract: Blends of low density polyethylene with two types of starch, wheat starch and soluble starch, were prepared and submitted to biodegradation in natural environment. Films of PE/starch. blends of different composition (starch content range from 0 to 15% w/w PE) were buried in the soil of public dump. The extent of biodegradation of these films was evaluated by the examination, of their mass loss and the changes in their percentage of elongation at break, crystallinity and. infrared spectra after soil burial. Films with soluble starch undergo weight losses greater than those of films with wheat starch. The evaluation of crystallinity rate reveals more important amorphous fraction destruction for films with soluble starch. The biodegradation is then more considerable for PE/soluble starch films than for PE/wheat starch films.
Notes: Djellali, Souad Benmahmoud, Nassima Sadoun, Tahar
URL: <Go to ISI>://WOS:000265443600005

Abstract: Bithiophene (BiTh) was galvanostatically polymerized in the presence of gallium arsenide (GaAs) particles at different concentration. The properties of the composite layers were studied by electrochemical method (cyclic voltammetry), UV-vis spectroscopy and photocurrent measurements. From UV-vis spectroscopy studies, the absorbance of the composites is larger than the polybithiophene absorbance in the UV region. The p-type semiconducting behaviour of the reduced polybithiophene was studied by photocurrent measurements. It was observed that the photocurrents of the composites was higher than that of the PBiTh without GaAs, and increased with GaAs concentration. Crown Copyright (C) 2009 Published by Elsevier B.V. All rights reserved.
Notes: Elhames, F. Hab Nessark, B. Boumaza, N. Bahloul, A. Bouhafs, D. Cheriet, A.
URL: <Go to ISI>://WOS:000268426600023

Abstract: BACKGROUND: The lifestyle risk factors for nasopharyngeal carcinoma (NPC) in North Africa are not known. METHODS: From 2002 to 2005, we interviewed 636 patients and 615 controls from Algeria, Morocco and Tunisia, frequency-matched by centre, age, sex, and childhood household type (urban/rural). Conditional logistic regression was used to evaluate the association of lifestyles with NPC risk, controlling for socioeconomic status and dietary risk factors. RESULTS: Cigarette smoking and snuff (tobacco powder with additives) intake were significantly associated with differentiated NPC but not with undifferentiated carcinoma (UCNT), which is the major histological type of NPC in these populations. As demonstrated by a stratified permutation test and by conditional logistic regression, marijuana smoking significantly elevated NPC risk independently of cigarette smoking, suggesting dissimilar carcinogenic mechanisms between cannabis and tobacco. Domestic cooking fumes intake by using kanoun (compact charcoal oven) during childhood increased NPC risk, whereas exposure during adulthood had less effect. Neither alcohol nor shisha (water pipe) was associated with risk. CONCLUSION: Tobacco, cannabis and domestic cooking fumes intake are risk factors for NPC in western North Africa. British Journal of Cancer (2009) 101, 1207-1212. doi:10.1038/sj.bjc.6605281 www.bjcancer.com Published online 1 September 2009 (C) 2009 Cancer Research UK

Abstract: In order to enhance the electrochemical performance of solid oxide fuel cells (SOFCs), La2Ni1-xCuxO4+delta (x = 0, 0.01, 0.02, 0.05 and 0.1) doped with copper in percentages, varying between 1% and 10%, were prepared following the modified Pechini method. The microstructure and morphology of the samples were analyzed by XRD and SEM. The electrochemical performance was followed by impedance spectroscopy. La2Ni0.99Cu0.01O4+delta samples showed good electrochemical and physicochemical properties with respect to the undoped material and is potentially a promising cathode. Indeed, doping with such small amounts of copper (1%) into the nickel site led to the formation of pure phases and stabilized the material before and after use at high temperature under air. In contrast, doping with higher amounts of copper (2%, 5% and 10%) led, after heating at 1000 degrees C for 48 h, to the formation of another phase resulting from the diffusion of copper into the YSZ electrolyte, limiting the interest to these materials as SOFC cathodes. (c) 2009 Elsevier Ltd. All rights reserved.

Abstract: In the present work, we studied the behaviour of 3BS and lead oxide paste as a function of soaking time in two sulfuric acid solutions respectively with 1.05 and 1.20 g cm(-3) specific gravity. The study was based on X-ray diffraction analysis (XRD), thermogravimetry (TG), differential scanning calorimetry (DSC) and chemical analysis. The results showed that during plates soaking, 3BS and PbO are converted to monobasic lead sulphate (1BS) and lead sulphate (PbSO(4)). During plate formation in 1.05 s.g. H(2)SO(4) solution, these compounds are oxidized to PbO(2), the XRD patterns showed that the longer is the time of plates soaking prior formation the lower is alpha-PbO(2) content in positive active material. On forming, PbSO(4) crystals convert to beta-PbO(2) whereas alpha-PbO(2) is a result of 3BS oxidation. The capacity and cycle life of PAM decrease with soaking time, the concentration of the H(2)SO(4) Solution during soaking exerts stronger influence than the duration of soaking. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Foudia, M. Zerroual, L. Matrakova, M.
URL: <Go to ISI>://WOS:000266894900013

Reference Type: Journal Article
Record Number: 58
Author: Ghebouli, B. Ghebouli, M. A. Chihi, T. Fatmi, M. Boucetta, S. Reffas, M.
Year: 2009
Title: First-principles study of structural, elastic, electronic and optical properties of SrMO3 (M = Ti and Sn)
Journal: Solid State Communications
Volume: 149
Issue: 47-48
Pages: 2244-2249
Date: Dec
Short Title: First-principles study of structural, elastic, electronic and optical properties of SrMO3 (M = Ti and Sn)
ISSN: 0038-1098
DOI: 10.1016/j.ssc.2009.09.001
Accession Number: WOS:000271843400030
Abstract: We present structural, elastic, electronic and optical properties of the perovskites SrMO3 (M = Ti, and Sri) for different pressure. The computational method is based on the pseudo-potential plane wave method (PP-PW). The exchange-correlation energy is described in the generalized gradient approximation (GGA). The calculated equilibrium lattice parameters are in reasonable agreement with the available experimental data. This work shows that the perovskites SrTiO3, and SrSnO3 are mechanically stable and present an indirect band gaps at the Fermi level. Applied pressure does not change the shape of the total valence electronic charge density and most of the electronic charge density is shifted toward O atom. Furthermore, in order to understand the optical properties of SrMO3, the dielectric function, absorption coefficient, optical reflectivity, refractive index, extinction coefficient and electron energy-loss are calculated for radiation up to 80 eV. The enhancement of pressure decreases the dielectric function and refractive indices of SMO3 and SrSnO3. Crown Copyright (C) 2009 Published by Elsevier Ltd. All rights reserved.
Notes: Ghebouli, B. Ghebouli, M. A. Chihi, T. Fatmi, M. Boucetta, S. Reffas, M.
URL: <Go to ISI>://WOS:000271843400030

Author: Ghebouli, B. Layadi, A. Guittoum, A. Kerkache, L. Benkerri, M. Klimov, A. Preobrazhensky, V. Pernod, P.
Year: 2009
Title: Electrical properties and Kerr effect study of evaporated Fe/Si and Fe/glass thin films
Journal: European Physical Journal-Applied Physics
Volume: 48
Issue: 3
Date: Dec
Short Title: Electrical properties and Kerr effect study of evaporated Fe/Si and Fe/glass thin films
ISSN: 1286-0042
DOI: 10.1051/epjap/2009183
Article Number: 30503
Accession Number: WOS:000271987200010
Abstract: Electrical and magnetic properties were studied for evaporated Fe thin films on glass and Si substrates. These properties were investigated by means of the four point probe and the magneto-optical Kerr effect techniques. Rutherford backscattering (RBS) and scanning electron microscopy (SEM) experiments show no interdiffusion at the interface Fe/Si for these samples. The electrical resistivity rho is found to be larger in Fe/glass than in Fe/Si for the same thickness. Diffusion at the grain boundaries seems to be the dominant factor in the rho values in this 6 to 110 nm thickness range; the reflection coefficient is smaller in Fe/glass (R approximate to 0.40) than in Fe/Si(100) (R approximate to 0.65). Saturation field and strain values confirm that Fe films have a stress induced magnetic anisotropy. Coercive field H(C) values range from 2.45 Oe for Fe/Si(100) to 17.65 Oe for Fe/Si(111) for the same Fe thickness (45 nm).
Notes: Ghebouli, B. Layadi, A. Guittoum, A. Kerkache, L. Benkerri, M. Klimov, A. Preobrazhensky, V. Pernod, P.
URL: <Go to ISI>://WOS:000271987200010

Reference Type: Journal Article
Record Number: 60
Author: Guellal, M. Abdesselm, H.
Year: 2009
Title: Empirical correlation for the time lag of double pipe heat exchanger operating with variable flow rates
Journal: Energy Conversion and Management
Volume: 50
Issue: 4
Pages: 970-976
Date: Apr
Short Title: Empirical correlation for the time lag of double pipe heat exchanger operating with variable flow rates
ISSN: 0196-8904
DOI: 10.1016/j.enconman.2008.12.022
Accession Number: WOS:000264606800015

Abstract: The behavior of a heat exchanger in variable regime can be described by a two parameter model with a time lag and a time constant. In many studies, the analytical calculation based on the energy balance permitted to express the time constant in various configurations of the device operating. However, the time lag is only experimentally determined. We propose in this paper an empirical method for the prediction of this parameter when a double pipe heat exchanger is submitted to a flow rate step at the entrance. Experimental data are used for developing correlations of both hot and cold fluids. (c) 2008 Elsevier Ltd. All rights reserved.
Notes: Guellal, M. Abdesselm, H.
URL: <Go to ISI>://WOS:000264606800015

Reference Type: Journal Article
Record Number: 61
Author: Guellal, M. Sadat, H.
Year: 2009
Title: Second-Order Model for Transient Heat Conduction in a Sphere
Journal: Journal of Thermophysics and Heat Transfer
Volume: 23
Issue: 4
Pages: 852-854
Date: Oct-Dec
Short Title: Second-Order Model for Transient Heat Conduction in a Sphere
ISSN: 0887-8722
DOI: 10.2514/1.44636
Accession Number: WOS:000271002100026
Notes: Guellal, Messaoud Sadat, Hamou
URL: <Go to ISI>://WOS:000271002100026

Reference Type: Journal Article
Record Number: 62
Author: Guellal, M. Sadat, H. Prax, C.
Year: 2009
Title: A Simple Model for Transient Heat Conduction in an Infinite Cylinder With Convective Boundary Conditions
Journal: Journal of Heat Transfer-Transactions of the Asme
Volume: 131
Issue: 5
Date: May
Short Title: A Simple Model for Transient Heat Conduction in an Infinite Cylinder With Convective Boundary Conditions
ISSN: 0022-1481
DOI: 10.1115/1.3082428
Article Number: 054501
Accession Number: WOS:000264374400018
Abstract: A perturbation method is used to solve an unsteady one-dimensional heat conduction problem in a cylinder. A simple second order explicit solution is obtained. It is shown that this solution is accurate even for high values of the Biot number in a region surrounding the center of the cylinder.
Notes: Guellal, Messaoud Sadat, Hamou Prax, Christian
URL: <Go to ISI>://WOS:000264374400018

Reference Type: Journal Article

Record Number: 63

Author: Gueribiz, D. Rahmani, M. Jacquemin, F. Freour, S. Guillen, R. Loucif, K.

Year: 2009

Title: Homogenization of Moisture Diffusing Behavior of Composite Materials with Impermeable or Permeable Fibers - Application to Porous Composite Materials

Journal: Journal of Composite Materials

Volume: 43

Issue: 12

Pages: 1391-1408

Date: Jun

Short Title: Homogenization of Moisture Diffusing Behavior of Composite Materials with Impermeable or Permeable Fibers - Application to Porous Composite Materials

ISSN: 0021-9983

DOI: 10.1177/0021998308104229

Accession Number: WOS:000266374000005

Abstract: In order to predict the long-term durability of polymer matrix composite materials submitted to humid environments, the moisture diffusion behavior has to be investigated. The knowledge of the effective diffusivity is actually required, for estimating the moisture content of polymer-based fiber-reinforced materials, even when a basic behavior such as Fick's law is assumed to occur. The original contribution of the present work is to provide new analytical solutions for the effective diffusivities from the solving of unit cell problems on representative volume elements by means of several multi-scale approaches. Composite materials with impermeable or permeable fibers are extensively investigated. The proposed approaches are extended to the practical case of composite materials containing realistic voids volume fractions.

Notes: Gueribiz, D. Rahmani, M. Jacquemin, F. Freour, S. Guillen, R. Loucif, K.

URL: <Go to ISI>://WOS:000266374000005

Abstract: Using a full-relativistic version of the full-potential augmented plane wave plus local orbitals (FP-APW + lo) method within the local density approximation (LDA), we have studied the elastic, electronic and optical properties of the filled skutterudites CeFe4As12 and CeFe4Sb12. Structural parameters, including lattice constant, internal free parameters and, bulk modulus and its pressure derivative were calculated. We have determined the full set of first-order elastic constants, Young's modulus, Poisson's ratio and the Debye temperature of these compounds. Band structures, density of states, pressure coefficients of energy band gaps are also given. It is found that both CeFe4As12 and CeFe4Sb12 are indirect band gap semiconductors. The valence band maximum (VBM) is located at Gamma point, whereas the conduction band minimum (CBM) is located at N point. Optical constants, including the dielectric function, optical reflectivity, refractive index and electron energy loss were calculated for radiation up to 30 eV. This is the first quantitative theoretical prediction of the elastic and optical properties for these compounds, and it still awaits experimental confirmation. (C) 2009 Elsevier Ltd. All rights reserved.

Abstract: A study of the high-pressure anisotropy of MgO was conducted using first-principles calculations based on density functional theory within the generalized gradient approximations. The pressure dependence of the elastic stiffness coefficients and the anisotropy parameters, in both B1 and B2 phases, shows that for high-hydrostatic compression the easiest deformation is the shear along (100) plane and the the material's response to deformation and to shearing strains is quite the same. According to the calculations of the velocities of propagation of elastic waves, we deduced that MgO develop an elastic anisotropy, especially, in the B1 phase. We present the B2 phase elastic properties which are not already studied under high pressure.

Notes: Hachemi, A. Saoudi, A. Louail, L. Maouche, D. Bouguerra, A.

URL: <Go to ISI>://WOS:000262436300009

Abstract: Based on first-principles total energy calculations, we predict the elastic and electronic properties of the anti-perovskites AsNSr3, SbNSr3 and BiNSr3 Compounds. The calculated lattice constants are in good agreement with the available results. The independent elastic constants (C-11, C-12 and C-44) and their pressure dependence are calculated using the static finite strain technique. The isotropic elastic moduli, namely, bulk modulus (B), shear modulus (G), Young's modulus (E), Poisson's ratio (sigma) and Lame's constants (lambda and mu) are calculated in framework of the Voigt-Reuss-Hill approximation for ideal polycrystalline ANSr(3) aggregates. By analysing the ratio between the bulk and shear moduli, we conclude that ANSr(3) compounds are brittle in nature. We estimated the Debye temperature of ANSr(3) from the average sound velocity. The band structures show that all studied materials are semiconductors. The analysis of the site and momentum projected densities, charge transfer and charge densities show that bonding is of covalent-ionic nature. This is the first quantitative theoretical prediction of the elastic and electronic properties of AsNSr3, SbNSr3 and BiNSr3 compounds that requires experimental confirmation. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Haddadi, K. Bouhemadou, A. Louail, L. Rahal, F. Malabed, S.
URL: <Go to ISI>://WOS:000271024000014

Abstract: Using first-principles density functional calculations, the effect of high pressures, up to 40 GPa, on the structural and elastic properties of ANCa(3). with A = P, As, Sb, and Bi, were studied by means of the pseudo-potential plane-waves method. Calculations were performed within the local density approximation and the generalized gradient approximation for exchange-correlation effects. The lattice constants are in good agreement with the available results. The elastic constants and their pressure dependence are calculated using the static finite strain technique. We derived the bulk and shear moduli, Young's modulus, Poisson's ratio and Lame's constants for ideal polycrystalline ANCa3 aggregates. By analysing the ratio between the bulk and shear moduli, we conclude that ANCa3 compounds are brittle in nature. We estimated the Debye temperature of ANCa3 from the average sound velocity. This is the first quantitative theoretical prediction of the elastic properties of PNCa3, AsNCa3, SbNCa3. and BiNCa3 compounds, and it still awaits experimental confirmation. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Haddadi, K. Bouhemadou, A. Louail, L. Maabed, S. Maouche, D.
URL: <Go to ISI>://WOS:000265671900015

Abstract: Using ab initio calculations, we have studied the structural, elastic and electronic properties of XNCa3, with X = Ge, Sn and Pb. Geometrical optimization of the unit cell are in agreement with the available experimental data. The band structures show that all studied materials are electrical conductors. The analysis of the site and momentum projected densies, charge transfer and total valence charge density shows that the chemical bonding in XNCa3 compounds is of covalent-ionic nature with the presence of metallic character. The elastic constants and their pressure dependence are calculated using the static finite strain technique. We derived the bulk, shear and Young's moduli for ideal polycrystalline XNCa3 aggregates. By analysing the ratio between the bulk and shear moduli, we conclude that: XNCa3 compounds are brittle in nature. We estimated the Debye temperature of XNCa3 from the average sound velocity. (C) 2009 Elsevier Ltd. All rights reserved.
Notes: Haddadi, K. Bouhemadou, A. Louail, L. Medkour, Y.
URL: <Go to ISI>://WOS:000264942200011

Abstract: We present first-principle calculations on the structural, elastic, and high-pressure properties of rubidium halides compounds, using the pseudo-potential plane-waves approach based on density functional theory, within the generalized gradient approximation. Results are given for lattice constant, bulk modulus and its pressure derivative. The pressure transition at which these compounds undergo structural phase transition from NaCl-type to CsCl-type structure are calculated and compared with previous calculations and available experimental data. The elastic constants and their pressure dependence are calculated using the static finite strain technique. We derived the bulk and shear moduli, Young's modulus and Poisson's ratio for ideal polycrystalline RbF, RbCl, RbBr, and RbI aggregates. We estimated the Debye temperature of these compounds from the average sound velocity.
Notes: Haddadi, K. Bouhemadou, A. Louail, L. Maouche, D.
URL: <Go to ISI>://WOS:000265582500008

Reference Type: Journal Article
Record Number: 70
Author: Hamadou, A. Lamari, S. Thobel, J. L.
Year: 2009
Title: Dynamic modeling of a midinfrared quantum cascade laser
Journal: Journal of Applied Physics
Volume: 105
Issue: 9
Date: May
Short Title: Dynamic modeling of a midinfrared quantum cascade laser
ISSN: 0021-8979
DOI: 10.1063/1.3124379
Article Number: 093116
Accession Number: WOS:000266263300017
Abstract: Based on a three-level rate equations model, we analyze through numerical simulations the population and photon number dynamics present within the cavity of a midinfrared quantum cascade laser. We find in particular that the injection current influences significantly the electron number dynamics trajectory. In addition, the equations that allow for the determination of the turn-on delay (t(th)) and buildup (Delta t) times are derived within the premises of our model in the most general case. The effects of the spontaneous emission factor beta on Delta t are also explored. (C) 2009 American Institute of Physics. [DOI: 10.1063/1.3124379]
Notes: Hamadou, A. Lamari, S. Thobel, J. -L.
URL: <Go to ISI>://WOS:000266263300017

Abstract: The k(0)-standardization method of NAA is known as one of the most remarkable progress of NAA with its many advantages. Recently, our laboratory is highly involved in various areas of application of k(0)-NAA. This paper focuses on the application of the k(0)-NAA method in Nutritional and Health-Related Environmental field. Tobacco holds a leading position among different commodities of human consumption. The adverse health effects of toxic and trace elements in tobacco smoke on smokers and non-smokers are a special concern. In the present study, the concentration of 24 trace elements in cigarette tobacco of five different brands of Algerian and American cigarettes have been determined by k(0)-based INAA method. The results were compared with those obtained for samples from Iranian, Turkish, Brazilian and Mexican cigarettes tobacco. To evaluate the accurate of the results the SRM IAEA-140/TM was executed. The analytical results showed that the relative error of most of the elements was less than 10%.

Reference Type: Journal Article
Record Number: 72
Author: Hanachi, N. Charef, N. Baghiani, A. Khennouf, S. Derradji, Y. Boumerfeg, S. Harzallah, D. Arrar, L.
Year: 2009
Title: Comparison of xanthine oxidase levels in synovial fluid from patients with rheumatoid arthritis and other joint inflammations
Journal: Saudi Medical Journal
Volume: 30
Issue: 11
Pages: 1422-1425
Date: Nov
Short Title: Comparison of xanthine oxidase levels in synovial fluid from patients with rheumatoid arthritis and other joint inflammations
ISSN: 0379-5284
Accession Number: WOS:000273458400008

Abstract: Objectives: To search whether xanthine oxido-reductase (XOR) present in the synovium is also liberated, to determine its activity in synovial fluid and to establish a possible relationship between XOR levels in rheumatoid arthritis (RA) and non-RA patients. Methods: This study was carried out in the Laboratory of Immunology, University Ferhat Abbas, Setif, Algeriafrom 2001-2008. This study is a retrospective controlled study matching cases with RA to non rheumatoid joint inflammations. Synovial fluid (SF) samples were collected with consent of the patients, at Setif University Hospital, from adults suffering from RA (n=36) or only with joint inflammations (n=52). After its detection in SF with indirect enzyme-linked immunosorbent assay (ELISA) and dot-immunobinding, using anti-bovine XOR as first antibodies, XOR was assayed with capture ELISA. Results: Xanthine oxidoreductase is found in all studied SE Capture ELISA showed levels up to 0.762 and 0.143 mg/mL in SF of RA and other joint inflammations patients, respectively. In most cases, more than 50% of synovial XOR is present as oxidase form. Positive correlation was observed between enzyme level and the disease severity since RA patients had a significantly high enzyme amount compared to patients with other less severe arthritic pathologies. Conclusion: These results suggest that the enzyme could well be involved in joint inflammation probably by producing reactive oxygen species.
Notes: Hanachi, Nadjet Charef, Noureddine Baghiani, Abderrahmane Khennouf, Seddik Derradji, Yacine Boumerfeg, Sabah Harzallah, Daoud Arrar, Lekhmici
URL: <Go to ISI>://WOS:000273458400008

Abstract: Theoretical investigations of the electronic, optical and elastic properties of cadmium and zinc chalcogenides in the zinc-blende structure are performed using a pseudopotential formalism. Our results are in reasonable agreement with the available experimental data. Polynomial expressions are obtained for the electron effective mass and the static dielectric constant as a function of the fundamental energy band-gap. Relations of elastic constants ratio to the ionicity are also examined and discussed. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Hannachi, L. Bouarissa, N.
URL: <Go to ISI>://WOS:000271602500057

Abstract: TiO(2) thin films were prepared by sol-gel method. The structural investigations performed by means of X-ray diffraction (XRD) technique and scanning electron microscopy (SEM) showed the shape structure at T = 600 degrees C. The optical constants of the deposited film were obtained from the analysis of the experimentally recorded transmittance spectral data in the wavelength of 200-3000 nm range. The values of some important parameters of the studied films are determined, Such as refractive index n and thickness d. In this work, using the transmission spectra, we have calculated the dielectric constant (epsilon(infinity)) for four layered TiO(2) films; a simple relation is suggested to estimate the third-order optical nonlinear susceptibility chi((3)), it has been found that the dispersion data obeyed the single oscillator of the Wemple-DiDomenico model, from which the dispersion parameters and high-frequency dielectric constant were determined. The estimations of the corresponding band gap Eg, chi((3)) and epsilon(infinity) are 2.57 eV, 0.021 - 10(-10) esu and 5.20, respectively. (c) 2008 Elsevier B.V. All rights reserved.
Notes: Hemissi, M. Amardjia-Adnani, H. Plenet, J. C.
URL: <Go to ISI>://WOS:000264737400001

Abstract: The single capture total cross section (TCS) for scattering of high energy protons from some noble gases and small molecules is calculated by using the full plane wave first Born approximation (PWFBA). It is shown that even deep subshells have a noticeable contribution to the resulting TCS. We also find that the exchange mechanism which can also be incorporated in the PWFBA gives rise to a small effect on TCS for all the investigated targets. (C) 2009 Elsevier B.V. All rights reserved.

Abstract: The electron capture process induced by fast protons impinging upon water has been theoretically studied for very small scattering angles. Singly differential and total cross sections have been calculated for scattering angles ranging from 0 to 0.5 mrad and compared to the existing experimental data. For the sake of comparison, we have also presented the theoretical charge transfer cross sections for proton-helium collisions. (C) 2009 Elsevier B.V. All rights reserved.

Reference Type: Journal Article
Record Number: 77
Author: Houcher, B. Bourouba, R. Djabi, F. Yilmaz, E. Egin, Y. Akar, N.
Year: 2009
Title: Polymorphisms of 5,10-Methylenetetrahydrofolate Reductase and Cystathionine beta-Synthase Genes as a Risk Factor for Neural Tube Defects in Setif, Algeria
Journal: Pediatric Neurosurgery
Volume: 45
Issue: 6
Pages: 472-477
Short Title: Polymorphisms of 5,10-Methylenetetrahydrofolate Reductase and Cystathionine beta-Synthase Genes as a Risk Factor for Neural Tube Defects in Setif, Algeria
ISSN: 1016-2291
DOI: 10.1159/000283086
Accession Number: WOS:000274593300015

Abstract: Background: Neural tube defects (NTD) are severe congenital malformations due to a failure in neural tube formation at the beginning of pregnancy. The etiology of NTD is multifactorial, with environmental and genetic determinants. We suggest a study of gene-gene interactions regarding the possible association of NTD with specific mutations of 5,10-methylenetetrahydrofolate reductase (MTHFR) and cystathionine beta-synthase (CBS) genes. Patients and Methods: The genetic analysis of the MTHFR C677T polymorphism was performed by real-time polymerase chain reaction (PCR) on a Light Cycler, the CBS genotype was analyzed by PCR in a thermal cycler. Ninety-two mothers who had conceived NTD children and 48 fathers were investigated. A group of 147 adults, including 82 apparently healthy women, was used as control. Results: Among control mothers, 35 (43%) were heterozygous for the C677T variant and 14 (17%) were TT homozygous. Among the cases, 25 (52%) out of 48 mothers and 22 (46%) out of 48 fathers carried the T allele; 9 mothers (19%) and 5 fathers (10%) had the TT genotype. A homozygous C677T mutation was not an NTD risk factor in this preliminary study in an Algerian population; a possible gene-gene interaction between the MTHFR C677T polymorphism and the CBS 844ins68 has also been examined in relation to NTD, but no such association has been shown. There was a statistically significant difference between the heterozygosity genotype frequency of CBS polymorphisms in mothers with a previous child with NTD compared with the mother controls (odds ratio: 3.72; 95% CI: 1.59-8.73). Conclusion: Our results with Algerian NTD mothers did not show a significant association for any group, suggesting that the thermolabile variant C677T in the MTHFR gene is not a risk factor for a mother to have NTD offspring; rather, folic acid supplementation or fortification should become mandatory for all women of reproductive age in Algeria. Copyright (C) 2010 S. Karger AG, Basel
Notes: Houcher, Bakhouche Bourouba, Romyla Djabi, Farida Yilmaz, Erkan Egin, Yonca Akar, Nejat
URL: <Go to ISI>://WOS:000274593300015

Abstract: This study was aimed to investigate the effect of essential oil on human neutrophil (HN) functions. The neutrophils were isolated on percoll gradients, counted, and tested for viability using the trypan blue exclusion method. The chemotactic response was based on a multiple blind well assay system. The control movement and chemotactic response of neutrophils to 0.1 mu M fMLP were reduced at a dose-dependent manner. The essential oil significantly inhibited neutrophil chemotaxis from 0.05 to 0.5 mg mL-1. The inhibitory concentrations (IC50) showing 50% inhibition to induced neutrophil chemotaxis, and control movement were 0.08 and 0.07 mg mL-1, respectively. The human neutrophil elastase secretion was inhibited by essential oil at a concentration dependent manner from 0.5 to 2.5 mg mL-1. The components of essential oil are potent inhibitors for polymorpho nuclear leukocytes functions. The observed inhibition of neutrophil functions occurred via intracellular pathway. Active serine protease could be essential for neutrophil responding process and/or signal transduction pathways.
Notes: Kacem, Rachid Meraihi, Zahia
URL: <Go to ISI>://WOS:000269588700002

Reference Type: Journal Article
Record Number: 79
Author: Kada, I. Mansouri, A. Dal Cappello, C. Hervieux, P. A. Roy, A. C.
Year: 2009
Title: Ab initio calculation of differential cross sections for the double ionization of water vapour by electron impact
Journal: Journal of Physics B-Atomic Molecular and Optical Physics
Volume: 42
Issue: 2
Date: Jan
Short Title: Ab initio calculation of differential cross sections for the double ionization of water vapour by electron impact
ISSN: 0953-4075
DOI: 10.1088/0953-4075/42/2/025201
Article Number: 025201
Accession Number: WOS:000262374800008

Abstract: We carry out a theoretical analysis of the double ionization of the water molecule by fast electrons. The analysis is based on a perturbative approach. For the final state we employ the well-known 3C wavefunction which has the correct asymptotic behaviour when all interparticle distances are large. The initial state of the target is described by an accurate molecular wavefunction proposed by Moccia (1964 J. Chem. Phys. A 40 2186). We present five-fold differential cross sections for a wide variety of kinematical conditions. We show that a simple summation over four indices is able to avoid a time-consuming triple numerical integration required to take account of the orientation of the molecule in space. The mechanisms of the double ionization of the water molecule are identified and discussed.
Notes: Kada, I. Mansouri, A. Dal Cappello, C. Hervieux, P. A. Roy, A. C.
URL: <Go to ISI>://WOS:000262374800008

Abstract: We present results on the effect of the partial pressure of oxygen (ppo) on the structural and optical properties of tin-doped indium oxide, In_2O_3:Sn (ITO), thin films deposited on glass substrates by reactive dc diode sputtering. The deposition rate decreases with increasing ppo. The ppo, did not affect the chemical composition of the ITO films as inferred from X-ray photoemission spectroscopy (XPS). From X-ray diffraction. we find out that the samples have crystalline structure in the ppo range 2×10 (4) to 6×10 (4) mbar and are amorphous outside this range. These samples have a (1 0 0) preferred orientation for ppo, between 2×10 (4) and $4.5 \times 10(-4)$ mbar, but as the ppo increased beyond 4.7×10 (4) mbar, the (1 1 1) texture dominates. This change occurs for the same substrate temperature (about 130 degrees C). The grain size decreases as the ppo increases Atomic Force Microscopy (AFM) and Scanning Electron Microscopy (SEM) have been used to investigate the surface roughness and the morphology of these samples The optical transmission is greater than 90% in the visible region and does depend on the ppo. The refractive index n values are found to be in the 1.68-1.86 range. The energy gap values are between 3.1 and 3.5 eV. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Kerkache, L. Layadi, A. Mosser, A.
URL: <Go to ISI>://WOS:000271542900024

Abstract: The electronic and optical properties of M2S (M = Li, Na, K and Rb) compounds in the cubic antifluorite structure have been calculated, using a full relativistic version of the full-potential augmented plane-wave plus local orbitals method based on density functional theory, within both the local density approximation (LDA) and the generalized gradient approximation (GGA). Moreover, the Engel-Vosko GGA formalism (EV-GGA) is applied so as to optimize the corresponding potential for band structure calculations. The calculated equilibrium lattices and bulk moduli are in good agreement with the available data. Band structure, density of states, electron charge density and pressure coefficients of energy gaps are given. Results obtained for band structure using EV-GGA are larger than those with LDA and GGA. It is found that the spin-orbit coupling lifts the triple degeneracy at the Gamma point and the double degeneracy at the X point. The analysis of the electron charge density shows that the M-S bonds have a significant ionic character. The complex dielectric functions epsilon(2)(omega) for alkali metal sulfides were calculated for radiation up to 30 eV and the assignment of the critical points to the band structure energy differences at various points of the Brillouin zone was made. The pressure and volume dependence of the static dielectric constant and the refractive index are calculated.
Notes: Khachai, H. Khenata, R. Bouhemadou, A. Haddou, A. Reshak, Ali H. Amrani, B. Rached, D. Soudini, B.
URL: <Go to ISI>://WOS:000263414800018

Abstract: Series of CoxCr1 (x) thin films have been evaporated under vacuum onto Si(1 0 0) and glass substrates. Thickness ranges from 17 to 220 nm, and x from 0.80 to 0.88. Alternating gradient field magnetometer (AGFM) measurements provided saturation magnetization values ranging from 220 to 1200 emu/cm(3). Values of squareness exceeding 0.8 have been measured. Coercive field may reach values up to 700 Oe, depending on the percentage of chromium, as well as the substrate nature and the direction of the applied magnetic field. The saturation magnetization value decreases as the Cr content increases. In order to study their dynamical magnetic properties, Brillouin Light Scattering (BLS) measurements have been performed on these samples. Stiffness constant value and anisotropy magnetic field were adjusted to fit the experimental BLS spectra. These results are analyzed and correlated. (C) 2009 Elsevier B. V. All rights reserved.
Notes: Kharmouche, A. Cherif, S. -M. Roussigne, Y. Schmerber, G.
URL: <Go to ISI>://WOS:000264408000023

Abstract: The initial stages of Cu electrode position onto fluor-tin-oxide (FTO) coated glass and n-Si(1 0 0) substrates from sulfate solutions containing respectively 5 x 10(-3) M $CuSO_4$, 1 M Na_2SO_4 and 0.5 M H_3BO_3 are studied using cyclic voltammetry and chronoamperometry and the Scharifker-Hills model is used to analyse the current transients. For electrodeposited Cu on both FTO and n-Si(l 0 0) electrodes, the nucleation is in a good agreement with the instantaneous nucleation and three-dimensional (3D) diffusion-limited growth. The values of kinetic parameters, number density of active sites N_o, and diffusion coefficient D for Cu(2+) ions are also calculated. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Khelladi, M. R. Mentar, L. Azizi, A. Sahari, A. Kahoul, A.
URL: <Go to ISI>://WOS:000264841900067

Abstract: Our objective in this work is to study the HF etching chemical treatment effect on the mechanical and optical properties of soda-lime glass eroded with 200 g fixed sand mass. We followed the evolution of these properties in relation to the chemical attack duration. The results show a clear improvement of the measured properties. The strength of the eroded samples is 44.23 +/- 0.91 Mpa. It increases up to 57.73 +/- 1.76 MPa after 15 min of treatment and reaches 181.43 +/- 23.69 MPa after I h. This last value is much higher than the as receive glass strength (117.5 +/- 10.48 MPa). The optical transmission of the eroded samples is about 18.5%. During the first 2 min of the chemical treatment, an important drop of the optical transmission (12%) was observed. However, improvement of the transmission was achieved for longer chemical treatment durations. After 8 h of treatment, the optical transmission increases up to 57%. Microscopic observations show that the HF attack causes the opening and the blunting of the surface cracks. In general, the surface state is improved during the chemical treatment. (C) 2009 Elsevier Ltd. All rights reserved.
Notes: Kolli, M. Hamidouche, M. Bouaouadja, N. Fantozzi, G.
URL: <Go to ISI>://WOS:000268401700005

Reference Type: Journal Article
Record Number: 85
Author: Krache, L. Maamache, M. Saadi, Y. Beniaiche, A.
Year: 2009
Title: Generalized Coherent States of a Particle in a Time-Dependent Linear Potential
Journal: Chinese Physics Letters
Volume: 26
Issue: 7
Date: Jul
Short Title: Generalized Coherent States of a Particle in a Time-Dependent Linear Potential
ISSN: 0256-307X
Article Number: 070307
Accession Number: WOS:000268157100010
Abstract: We derive, with an invariant operator method and unitary transformation approach, that the Schroodinger equation with a time-dependent linear potential possesses an infinite string of shape-preseving wave-packet states |phi(alpha,lambda)(t)> having classical motion. The qualitative properties of the invariant eigenvalue spectrum (discrete or continuous) are described separately for the different values of the frequency.. of a harmonic oscillator. It is also shown that, for a discrete eigenvalue spectrum, the states |phi(alpha,n)(t)> could be obtained from the coherent state |phi(alpha,0)(T)>.
Notes: Krache, L. Maamache, M. Saadi, Y. Beniaiche, A.
URL: <Go to ISI>://WOS:000268157100010

86 **Reference Type: Journal Article**
Record Number: 86
Author: Lacheheb, A. Raoult, D.
Year: 2009
Title: Seroprevalence of Q-fever in Algeria
Journal: Clinical Microbiology and Infection
Volume: 15
Pages: 167-168
Date: Dec
Short Title: Seroprevalence of Q-fever in Algeria
ISSN: 1198-743X
DOI: 10.1111/j.1469-0691.2008.02211.x
Accession Number: WOS:000272864900078
Notes: Lacheheb, A. Raoult, D. 2
URL: <Go to ISI>://WOS:000272864900078

Abstract: The triply differential cross section has been measured for electron-impact ionization
of the outer valence 1t(2) and the inner valence 2a(1) orbitals of methane using the (e,2e)
technique with coplanar asymmetric kinematics. The measurements are performed at scattered
electron energy of 500 eV, ejected electron energy of 12, 37 and 74 eV and for scattering angle
of the fast outgoing electron of 6 degrees. This kinematics is characterized by a target ion recoil
momentum ranging from moderate (0.25 au) to very large (3.2 au) values. The results are
compared with theoretical cross sections calculated using the 1CW and the BBK models recently
extended to molecules. The experimental cross sections exhibit a very large recoil scattering,
especially for the inner 2a(1) molecular orbital, which is not predicted by the theory. The
differences between experiment and theory are attributed to the very strong scattering from the
ion, not properly accounted for by theory. This indicates the need for further theoretical
developments as well as experimental investigations in order to correctly model the process of
molecular ionization.
Notes: Lahmam-Bennani, A. Naja, A. Casagrande, E. M. Staicu Okumus, N. Dal Cappello, C.
Charpentier, I. Houamer, S.
URL: <Go to ISI>://WOS:000268696400019

88 **Reference Type: Journal Article**
Record Number: 88
Author: Lahoucine, H. K. O. Chetouani, L.
Year: 2009
Title: Green's function for an electron model with a plane wave
Journal: Central European Journal of Physics
Volume: 7
Issue: 1
Pages: 184-192
Date: Mar
Short Title: Green's function for an electron model with a plane wave
ISSN: 1895-1082
DOI: 10.2478/s11534-008-0131-0
Accession Number: WOS:000265521700023

Abstract: The Green function for a Dirac particle subject to a plane wave field is constructed according to the path integral approach and the Barut's electron model. Then it is exactly determined after having fixed a matrix U chosen so that the equations of motion are those of a free particle, and by using the properties of the plane wave and also with some shifts.
Notes: Lahoucine, Hassen K. Ould Chetouani, Lyazid
URL: <Go to ISI>://WOS:000265521700023

Reference Type: Journal Article
Record Number: 89
Author: Laouamri, A. Djahli, F. Rabhi, A. Benhamadouche, A. Ballouti, A. Bendjadou, A.
Year: 2009
Title: A Virtual Prototype of Proton Exchange Membrane Fuel Cell Using VHDL-AMS Language
Journal: Journal of Fuel Cell Science and Technology
Volume: 6
Issue: 2
Date: May
Short Title: A Virtual Prototype of Proton Exchange Membrane Fuel Cell Using VHDL-AMS Language
ISSN: 1550-624X
DOI: 10.1115/1.2971056
Article Number: 024502
Accession Number: WOS:000264024900025
Abstract: The aim of this paper is to introduce a novel modeling method for the Proton exchange membrane full cell (PEMFC) based on the novel concept of "virtual prototyping" and to present a simple and accurate model of the cell performance by using the mixed-technology modeling language VHDL-AMS. This model describes the steady state and the dynamic behavior of a PEM fuel cell using its characteristic equations. The phenomenon of a charge double layer and the electrochemical parameters such as resistivity of membrane, concentration of hydrogen (oxygen) in catalytic interface of anode (cathode), and current density are considered in this modeling method. These parameters are adjustable and present a good solution to predict output voltage, efficiency, and output power of the PEMFC.
Notes: Laouamri, A. Djahli, F. Rabhi, A. Benhamadouche, A. Ballouti, A. Bendjadou, A. 2nd European Fuel Cell Technology and Applications Conference Dec, 2007 Rome, ITALY
URL: <Go to ISI>://WOS:000264024900025

Reference Type: Journal Article
Record Number: 90
Author: Laouer, H. Boulaacheb, N. Akkal, S. Meierhenrich, U. J. Baldovini, N. Prado, S.
Year: 2009
Title: Composition and In vitro Antimicrobial Activities of the Essential Oils of Two Populations of Thymus numidicus Poiret
Journal: Journal of Essential Oil Research
Volume: 21
Issue: 4
Pages: 374-377
Date: Jul-Aug
Short Title: Composition and In vitro Antimicrobial Activities of the Essential Oils of Two Populations of Thymus numidicus Poiret
ISSN: 1041-2905
Accession Number: WOS:000267903900023
Abstract: We investigated the chemical composition and the antibacterial activity of the essential oils Of, two populations of Thymus numidicus Poiret. differentiated by the color of the flowers. Forty-two compounds were identified by gas chromatography (GC) and gas chromatography/mass spectrometry (GC/MS), representing more than 97% of the oil. The main components of both oils were thymol (59.0%, 68.0%), gamma-terpinene (8.5%, 4.2%), p-cymene (5.8%, 4.5%), carvacrol (3.7%,4.2%) and alpha-pinene (5.3%,3.5%) (purplish-white and violet varieties, respectively). The oils exhibited promising activity in the disc diffusion antibacterial assay.
Notes: Laouer, Hocine Boulaacheb, Nacira Akkal, Salah Meierhenrich, Uwe J. Baldovini, Nicolas Prado, Soizic
URL: <Go to ISI>://WOS:000267903900023

Abstract: The hydrodistilled oils from the aerial parts of Bupleurum montanum and B. plantagineum, which are endemic to North Africa, including Algeria, were analyzed by gas chromatography-mass spectrometry (GC-MS). Ninety-eight compounds were detected in the oil of B. montanum, representing 98.6% of the total oil, and 68 in the oil of B. plantagineum, representing 99.8% of the total. Megastigma-4,6-(E),8(2)-triene was the major constituent of B. montana oil (25.3%). Other important compounds were myrcene, cc-pinene and benzyl tiglate. Conversely, the major constituents of the oil of B. plantagineum were alpha-pinene (31.9%), cis-chrysanthenyl acetate (28.2%), and myrcene (24.8%), followed by the monoterpene hydrocarbon limonene (5.1%). The mutagenic, antiplasmodial and antimicrobial activities of the essential oils were individually evaluated against eleven microorganisms, using the agar diffusion method, by determination of MIC values. The investigated oils exhibited moderate antimicrobial activity. Maximum activity of the oils was observed against Nocardia asteroides, Staphylococcus aureus and Enterococcus faecalis. Fungicidal activity against Candida albicans was also found for both oils.

Abstract: The volatile constituents of the aerial parts of Carum montanum (Coss. et Dur.) Benth. et Hook. were analysed by GC-FID and GC-MS, and the main component was isolated and identified as nothoapiole. The antibacterial and antifungal activities of this compound and of the total oil were investigated against Gram-negative (P. aeruginosa, E. coli), Gram-positive (E. faecalis, S. aureus, S. epidermitis, S. saprophyticus, S. simulans, S. lugdunensis) bacteria and on one strain of fungus (C. tropicalis). Copyright (C) 2009 John Wiley & Sons, Ltd.
Notes: Laouer, Hocine Meriem, El Kolli Prado, Soizic Baldovini, Nicolas
URL: <Go to ISI>://WOS:000272570300012

Reference Type: Journal Article
Record Number: 93
Author: Laouer, H. Yabrir, B. Djeridane, A. Yousfi, M. Beldovini, N. Lamamra, M.
Year: 2009
Title: Composition, Antioxidant and Antimicrobial Activities of the Essential Oil of Marrubium deserti
Journal: Natural Product Communications
Volume: 4
Issue: 8
Pages: 1133-1138
Date: Aug
Short Title: Composition, Antioxidant and Antimicrobial Activities of the Essential Oil of Marrubium deserti
ISSN: 1934-578X
Accession Number: WOS:000269433300024
Abstract: The essential oil from aerial part of Marrubium deserti De Noe (Lamiaceae), obtained by hydrodistillation was analyzed by gas chromatography (GC) and gas chromatography-mass spectrometry (GC-MS), and evaluated for in vitro antimicrobial activity. The antioxidant activity was determined using three in vitro assays: scavenging effect on DPPH, the ABTS test and the phosphomolybdenum method. Thirty-seven compounds were identified in the oil, with germacrene D as the major component (45.7%). This oil was characterized by an important hydrocarbon fraction (78.1%) and by the predominance of sesquiterpenes (67.4%). M. deserti essential oil had no activity on the tested microorganisms (Staphylococcus aureus ATCC 25923, Echerichia coli ATCC 25922, Pseudomonas aeruginosa ATCC 27853, Candida albicans and Aspergillus flavus). However the oil presented an antioxidant activity.
Notes: Laouer, Hocine Yabrir, Benalia Djeridane, Amar Yousfi, Mohamed Beldovini, Nicolas Lamamra, Mebarka
URL: <Go to ISI>://WOS:000269433300024

94 **Reference Type:** **Journal Article**
Record Number: 94
Author: Laribi, R. Rovellini, P. Deflaoui, L. Aidli, A. Mettouchi, S. Arrar, L. Tamendjari, A.
Year: 2009
Title: Evolution of biophenolic compounds in virgin olive oil during olive ripening of Algerian cultivars
Journal: Rivista Italiana Delle Sostanze Grasse
Volume: 86
Issue: 3
Pages: 151-161
Date: Jul-Sep
Short Title: Evolution of biophenolic compounds in virgin olive oil during olive ripening of Algerian cultivars
ISSN: 0035-6808
Accession Number: WOS:000270693000002

Abstract: The present study was carried out to estimate the evolution of olive oil biophenols during the ripening process. The work was focused on four Algerian olive varieties (Chemlal, Boughenfous, Blanquette and Takesrit). For the analysis, colorimetric and HPLC methods were used. The results showed that both maturation and cultivars influenced significantly the quantity and the quality of olive oil phenolic fraction. During olive maturation, all varieties registered a decrease of total biophenols, however it is very important to underline that this decrease differed in the amount from one cultivar to another. Cv. Chemlal had the least important diminution.
Notes: Laribi, R. Rovellini, P. Deflaoui, L. Aidli, A. Mettouchi, S. Arrar, L. Tamendjari, A.
URL: <Go to ISI>://WOS:000270693000002

Abstract: Analytical expressions involving features from torque curves are derived for an exchange coupled [(AF)/(F)] bilayer, a coupled trilayer [(F)/(N-M)/(F)], and a magnetic tunnel junction (MTJ)-like [(AF)/(F)/(N-M)/(F)] system. Included in the model are the exchange anisotropy field H(E), the off-alignment angle beta, the bilinear J(1), and the biquadratic J(2) coupling strengths and the in-plane magnetocrystalline anisotropy fields of the two layers whose easy axes make an angle delta. It will be shown how these parameters can be analytically derived from the torque curve. For the strong coupling case the MTJ-like system behaves as (AF)/(F) bilayer; for arbitrary delta value, the magnetic anisotropy field of the resulting system has a nonlinear relationship with the individual layer anisotropy fields.

Reference Type: Journal Article

Record Number: 96

Author: le Roux, C. Bouazid, T.

Year: 2009

Title: Subsistence Living and Eco-Positive Behaviour: Two Diametrically Opposed Concepts? A Case Study of Farmers' Perspectives in Sefiane, Algeria

Journal: Arab Gulf Journal of Scientific Research

Volume: 27

Issue: 1-2

Pages: 59-69

Date: Mar-Jun

Short Title: Subsistence Living and Eco-Positive Behaviour: Two Diametrically Opposed Concepts? A Case Study of Farmers' Perspectives in Sefiane, Algeria

ISSN: 1015-4442

Accession Number: WOS:000270377600009

Abstract: This study focuses on the relationship between land degradation and human activities in a semi-desert region, the area of Sefiane in Algeria, whose inhabitants are typically rural farmers and agro-pastoralists depending almost exclusively on their natural environment for subsistence. The study aimed at determining Sefiane community's perceptions of the impact of desertification and land degradation on their community and to identify how this affects their way of life and means of survival. The study has shown that the population have a strong desire to be assisted in the development of guidelines for environmental education initiatives that would enable them as a community to deal with desertification and land degradation in an attempt to relieve poverty and develop a more sustainable lifestyle. The proposed environmental education program should not be limited to the development of biophysical resources, but must include also the support of societal and personal resources and capacities that are inherent to the community.

Notes: le Roux, Cheryl Bouazid, Tayeb

URL: <Go to ISI>://WOS:000270377600009

Abstract: The quantum states of the 2D time-dependent harmonic oscillator with the Aharonov-Bohm (AB) effect are investigated by employing the invariant operator method and the unitary transformation approach. The time-dependent radius case of a solenoid is treated. The qualitative properties of the invariant operator spectrum are described separately for the different values of the parameter C appearing in the nonlinear auxiliary equation, i.e. $C > 0$, $C = 0$ and $C < 0$. Following the C values, the spectrum of the invariant operator is discrete ($C > 0$) or continuous ($C <= 0$). The time-dependent cross section for a free particle scattered by the AB potential is obtained.

Reference Type: Journal Article
Record Number: 98
Author: Maamache, M. Lahoulou, C. Saadi, Y.
Year: 2009
Title: Influence of Auxiliary Equation on Wave Functions for Time-Dependent Pauli Equation in Presence of Aharonov-Bohm Effect
Journal: Communications in Theoretical Physics
Volume: 51
Issue: 5
Pages: 803-810
Date: May
Short Title: Influence of Auxiliary Equation on Wave Functions for Time-Dependent Pauli Equation in Presence of Aharonov-Bohm Effect
ISSN: 0253-6102
Accession Number: WOS:000266219300009
Abstract: Invariant operator method for discrete or continuous spectrum eigenvalue and unitary transformation approach are employed to study the two-dimensional time-dependent Pauli equation in presence of the Aharonov-Bohm effect (AB) and external scalar potential. For the spin particles the problem with the magnetic field is that it introduces a singularity into wave equation at the origin. A physical motivation is to replace the zero radius flux tube by one of radius R, with the additional condition that the magnetic field be confined to the surface of the tube, and then taking the limit $R \to 0$ at the end of the computations. We point that the invariant operator must contain the step function $\theta(r - R)$. Consequently, the problem becomes more complicated. In order to avoid this difficulty, we replace the radius R by $\rho(t)R$, where $\rho(t)$ is a positive time-dependent function. Then at the end of calculations we take the limit $R \to 0$. The qualitative properties for the invariant operator spectrum are described separately for the different values of the parameter C appearing in the nonlinear auxiliary equation satisfied by $\rho(t)$, i.e., $C > 0$, $C = 0$, and $C < 0$. Following the C's values the spectrum of quantum states is discrete ($C > 0$) or continuous ($C \le 0$).
Notes: Maamache, M. Lahoulou, C. Saadi, Y.
URL: <Go to ISI>://WOS:000266219300009

Reference Type: Journal Article
Record Number: 99
Author: Madani, T. Chouia, F. Abbas, K.
Year: 2009
Title: Effect of Oestrus Synchronisation and Body Condition on Reproduction of Anoestrous Ouled Djellal Ewes
Journal: Asian Journal of Animal and Veterinary Advances
Volume: 4
Issue: 1
Pages: 34-40
Date: Jan-Feb
Short Title: Effect of Oestrus Synchronisation and Body Condition on Reproduction of Anoestrous Ouled Djellal Ewes
ISSN: 1683-9919
Accession Number: WOS:000265384100006
Abstract: The objective of this study was to determine the effects of progestagen treatment administrated alone or coupled to an injection of eCG to synchronize oestrus on sheep reproductive traits during the anoestrus season under extensive management conditions of Algeria. Two flocks differing by level of body condition score were used. Fertility rates of treated groups, when compared to control groups, were higher for ewes matted at lean body condition (0.45-0.47 versus 0.10), whereas ewes matted at moderate body condition recorded higher performance during first estrus (0.37-0.45 versus 0.10) and comparable fertility rate for all mating period. Higher prolificacy rates were performed in synchronized groups of poor body condition (1.38 versus 1.00) when compared to control group. For moderate body condition flock, if progesterone and eCG treated ewes performed higher level of litter size than do control ewes (1.54 versus 1.20) for first estrus, prolificacy rate was similar between all groups for all mating period. Extra lambs weaned were significant for lean body condition synchronized groups (0.45) and for moderate body condition progestagen-gonadotropin treated group (0.33). Results indicated that it is possible to increase extra lambs weaned in anestrous Ouled Djellal ewes after artificially induced oestrus.
Notes: Madani, T. Chouia, F. Abbas, K.
URL: <Go to ISI>://WOS:000265384100006

Abstract: We report new results for differential cross sections for the double ionization of water molecule by 1 keV electron impact. The present calculation is based on the first Born approximation. We describe the water molecule by a single centre wave function of Moccia. For the final state, an approximation of the well-known 3C wave function is used. An extensive study has been made by varying the angles of detection and the energies of each ejected electron. We have investigated the double ionization of each molecular state ($1b(1)$, $3a(1)$, $1b(2)$ and $2a(1)$) and identified the mechanisms of this process. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Mansouri, A. Dal Cappello, C. Kada, I. Champion, C. Roy, A. C.
URL: <Go to ISI>://WOS:000269295800010

101 **Reference Type:** Journal Article
Record Number: 101
Author: Mansouri, M. Delenne, J. Y. El Youssoufi, M. S. Seridi, A.
Year: 2009
Title: A 3D DEM-LBM approach for the assessment of the quick condition for sands
Journal: Comptes Rendus Mecanique
Volume: 337
Issue: 9-10
Pages: 675-681
Date: Sep-Oct
Short Title: A 3D DEM-LBM approach for the assessment of the quick condition for sands
ISSN: 1631-0721
DOI: 10.1016/j.crme.2009.09.010
Accession Number: WOS:000271401500007
Abstract: We present a 3D numerical model to assess the quick condition (the onset of the boiling phenomenon) in a saturated polydisperse granular material. We use the Discrete Element Method (DEM) to study the evolution of the vertical intergranular stress in a granular sample subjected to an increasing hydraulic gradient. The hydrodynamic forces on the grains of the sample are computed using the Lattice Boltzmann Method (LBM). The principal assumption used is that grains remain at rest until the boiling onset. We show that the obtained critical hydraulic gradient is close to that defined in classical soil mechanics. To cite this article: M. Mansouri et al., C R. Mecanique 337 (2009). (C) 2009 Academie des sciences. Published by Elsevier Masson SAS. All rights reserved.
Notes: Mansouri, M. Delenne, J-Y. El Youssoufi, M. S. Seridi, A.
URL: <Go to ISI>://WOS:000271401500007

Reference Type: Journal Article
Record Number: 102
Author: Medkour, Y. Roumili, A. Maouche, D. Saoudi, A.
Year: 2009
Title: A first-principles study on the structural, elastic and electronic properties of AlCSc3 and AlNSc3
Journal: Solid State Communications
Volume: 149
Issue: 41-42
Pages: 1840-1842
Date: Nov
Short Title: A first-principles study on the structural, elastic and electronic properties of AlCSc3 and AlNSc3
ISSN: 0038-1098
DOI: 10.1016/j.ssc.2009.07.003
Accession Number: WOS:000270690000026
Abstract: We present an ab initio study of the structural, elastic and electronic properties of the antiperovskite compounds AlCSc3 and AlNSc3. The calculated lattice parameters and equilibrium volumes are in good agreement with the available experimental data. Single-crystal elastic constants were calculated and the polycrystalline elastic moduli were estimated according to Voigt, Reuss and Hill's approximations. The band structure shows a metallic character of both compounds; strong hybridization between Sc d-C p (or N p) and Sc d-Al p states was observed from the partial density of states. A significant charge transfer from Al to C (or N) atoms was observed. Moreover, these compounds are bonded by a mixture of ionic-covalent bonding. (C) 2009 Elsevier Ltd. All rights reserved.
Notes: Medkour, Y. Roumili, A. Maouche, D. Saoudi, A.
URL: <Go to ISI>://WOS:000270690000026

Abstract: First principle calculations were performed to investigate the structural, elastic and electronic properties of unexplored antiperovskite ACTi(3), with A = Al, In and Tl. The calculated structural parameters were found to be in good agreement with the available experimental data, with deviations being less than 2.7%. The bulk modulus was found to be equal to 155 GPa for AlCTi3 and to a value 5% lower, 147 GPa, for TlCTi3. For values of applied pressures up to 40 GPa, elastic moduli were calculated and the mechanical stability criteria were verified. The band structure of these compounds has been found to display a metallic character, with strong ionic-covalent bonds between Ti and C atoms, and ionic bonds along A and Ti atoms. The overlap population analysis showed that the stiffness decreases with an increase in the antibonding state between Ti and A atoms. (c) 2009 Elsevier Ltd. All rights reserved.
Notes: Medkour, Y. Roumili, A. Boudissa, M. Maouche, D.
URL: <Go to ISI>://WOS:000266747400006

Reference Type: Journal Article
Record Number: 104
Author: Medkour, Y. Roumili, A. Maouche, D. Louail, L. Haddadi, K.
Year: 2009
Title: Ab initio study of structural, electronic, and elastic properties of M2SbP (M = Ti, Zr, and Hf)
Journal: European Physical Journal B
Volume: 68
Issue: 2
Pages: 193-196
Date: Mar
Short Title: Ab initio study of structural, electronic, and elastic properties of M2SbP (M = Ti, Zr, and Hf)
ISSN: 1434-6028
DOI: 10.1140/epjb/e2009-00089-3
Accession Number: WOS:000264843800004

Abstract: This study predicts the structural behaviour of selected M2SbP compounds with the same structure as MAX phases. Zero pressure results of the lattice parameters, equilibrium volume, and the internal parameter Z(M) are calculated with an error less than 3%. Band structure, total and partial density of states were calculated and show the metallic character of these phases. Moreover we observed strong hybridising states; M d-P p, and M d-Sb p. The pressure dependence of the volume, and the lattice parameters were studied. The stiffness of M-P, and M-Sb bonds was discussed in term of relative length change under hydrostatic pressure. Hf2SbP present the highest bulk modulus and the unidirectional elastic modulus C-33 is slightly greater than C-11.
Notes: Medkour, Y. Roumili, A. Maouche, D. Louail, L. Haddadi, K.
URL: <Go to ISI>://WOS:000264843800004

Reference Type: Journal Article
Record Number: 105
Author: Mekideche, F. Mekideche, F. Z. Chermat, R. Malek, R.
Year: 2009
Title: Microalbuminuria and metabolic syndrome
Journal: Diabetes & Metabolism
Volume: 35
Pages: A43-A43
Date: Mar
Short Title: Microalbuminuria and metabolic syndrome
ISSN: 1262-3636
Accession Number: WOS:000264586100171
Notes: Mekideche, F. Mekideche, F. Z. Chermat, R. Malek, R.
URL: <Go to ISI>://WOS:000264586100171

Reference Type: Journal Article
Record Number: 106
Author: Melki, T. Zouaoui, A. Bendemagh, B. de Oliveira, I. M. F. de Oliveira, G. F. Lepretre, J. C. Bucher, C. Moutet, J. C.
Year: 2009
Title: Electrosynthesis and Catalytic Activity of Polymer-Nickel Particles Composite Electrode Materials
Journal: Journal of the Brazilian Chemical Society
Volume: 20
Issue: 8
Pages: 1523-1534
Short Title: Electrosynthesis and Catalytic Activity of Polymer-Nickel Particles Composite Electrode Materials
ISSN: 0103-5053
Accession Number: WOS:000271226900020
Abstract: Nickel-polymer cornposite electrode materials have been synthesized using various strategies, all comprising the electrochemical reduction of nickel(II) cations or complexes, incorporated by either ion-exchange or complexation into various poly(pyrrole-carboxylate) thin films coated by oxidative electropolymerization onto carbon electrodes. The electrocatalytic activity and the stability of the different composites have been then evaluated in the course of the electrocatalytic hydrogenation of ketones and enones in aqueous electrolytes. The best results were obtained using nickel-polymer composites synthesized by electroreduction of nickel(II) ions complexed into polycarboxylate films, which are characterized by a high catalytic activity and a good operational stability.
Notes: Melki, Tahar Zouaoui, Ahmed Bendemagh, Barkahoum de Oliveira, Ione M. F. de Oliveira, Gilver F. Lepretre, Jean-Claude Bucher, Christophe Moutet, Jean-Claude
URL: <Go to ISI>://WOS:000271226900020

Abstract: The performance of a continuous electrocoagulation (EC) process was investigated for decolorization and chemical oxygen demand (COD) abatement of a synthetic textile wastewater using aluminum electrodes. The effects of the relevant wastewater characteristics such as conductivity, influent pH and inlet dye concentration, but also of the key operating conditions such as current density and residence time were studied in order to optimize process performance. The results showed that color induced by a red dye was effectively removed (with a removal yield higher than 85%) for wastewater with a COD of 2500 mg/L and a dye concentration lower than 200 mg/L when pH ranged from 6 to 9, residence time was 14 min, current density was 31.25 mA/cm(2) and water conductivity was 2.4 mS/cm for an inter-electrode distance of I cm. Under these conditions, the COD abatement was also higher than 80%. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Merzouk, B. Gourich, B. Sekki, A. Madani, K. Vial, Ch. Barkaoui, M.
URL: <Go to ISI>://WOS:000265422700024

Reference Type: Journal Article
Record Number: 108
Author: Mezache, N. Akkal, S. Laouar, H. Seguin, E.
Year: 2009
Title: Flavonoids from Chrysanthemum myconis and their antibacterial activity
Journal: Chemistry of Natural Compounds
Volume: 45
Issue: 5
Pages: 715-716
Date: Sep
Short Title: Flavonoids from Chrysanthemum myconis and their antibacterial activity
ISSN: 0009-3130
DOI: 10.1007/s10600-009-9421-z
Accession Number: WOS:000272158100027
Notes: Mezache, Nadjet Akkal, Salah Laouar, Hocine Seguin, Elisabeth
URL: <Go to ISI>://WOS:000272158100027

Reference Type: Journal Article
Record Number: 109
Author: Mezache, N. Derbre, S. Akkal, S. Laouer, H. Seraphin, D. Richomme, P.
Year: 2009
Title: Fast Counter Current Chromatography of n-Butanolic Fraction from Senecio giganteus (Asteraceae)
Journal: Natural Product Communications
Volume: 4
Issue: 10
Pages: 1357-1362
Date: Oct
Short Title: Fast Counter Current Chromatography of n-Butanolic Fraction from Senecio giganteus (Asteraceae)
ISSN: 1934-578X
Accession Number: WOS:000270962600009
Abstract: Phenolic derivatives such as quinones, acid-phenols and flavonoids were successfully isolated from a n-butanolic fraction of Senecio gigantelis Desf. (Asteraceae) flowers, namely jacaranone (1), 3a-hydroxy-3,3a,7,7a-tetrahydrobenzofuran-2,6-dione (2), chlorogenic acid (3), hyperoside (4), quercetin 3-O-beta-D-robinobioside (5), lsorhamnetin-3-O-beta-D-glucuronide (6), quercetin-3-O-beta-D-glucuronide (7), and isorhamnetin-3-O-beta-D-glucuronide-6"-methyl ester (8). These compounds were purified through either classical polyamide filtration followed by fractionation on Si get, or through fast centrifugal partition chromatography (FCPC). Using FCPC, the major compounds Could be readily isolated from the crude n-butanolic fraction. Compounds 1-8 were identified by means of spectroscopic and spectrometric analysis (UV, (1)H, (13) C and 2D NMR, and MS). This work described for the first time the phytochemical composition of this endemic Algerian plant.
Notes: Mezache, Nadjet Derbre, Severine Akkal, Salah Laouer, Hocine Seraphin, Denis Richomme, Pascal
URL: <Go to ISI>://WOS:000270962600009

Reference Type: Journal Article

Record Number: 110

Author: Moakafi, M. Khenata, R. Bouhemadou, A. Semari, F. Reshak, A. H. Rabah, M.

Year: 2009

Title: Elastic, electronic and optical properties of cubic antiperovskites SbNCa3 and BiNCa3

Journal: Computational Materials Science

Volume: 46

Issue: 4

Pages: 1051-1057

Date: Oct

Short Title: Elastic, electronic and optical properties of cubic antiperovskites SbNCa3 and BiNCa3

ISSN: 0927-0256

DOI: 10.1016/j.commatsci.2009.05.011

Accession Number: WOS:000271024000036

Abstract: The structural, elastic, electronic and optical properties of ANCa(3) (A = Sb and Bi) compounds with the cubic antiperovskite structure have been investigated using a full relativistic version of the full-potential augmented plane-wave plus local orbitals method based on the density functional theory, in conjunction with both the local density approximation and the generalized gradient approximation (GGA). For reliable description of energy band gap values, another form of GGA developed by Engel and Vosko (GGA-EV) has been applied. The calculated structural properties, namely equilibrium lattice constant, bulk modulus and its first-order pressure derivative, are in good agreement with the available theoretical and experimental results. We have determined the full set of first-order elastic constants, shear modulus, Young's modulus, Poisson's ratio and Debye temperature of these compounds. Band structures reveal that these compounds are direct energy band gap semiconductors. The analysis of the site and momentum projected densities shows that bonding is of covalent-ionic nature. The obtained energy band gap values using GGA-EV are larger than those obtained within LDA and GGA. The optical constants, including the dielectric function, optical reflectivity, refractive index and electron energy loss, are calculated for radiation up to 15 eV. This is the first quantitative theoretical prediction of the optical properties for these compounds that requires experimental confirmation. (C) 2009 Elsevier B.V. All rights reserved.

Notes: Moakafi, M. Khenata, R. Bouhemadou, A. Semari, F. Reshak, Ali H. Rabah, M.

URL: <Go to ISI>://WOS:000271024000036

Reference Type: Journal Article
Record Number: 111
Author: Moakafi, M. Khenata, R. Bouhemadou, A. Benkhettou, N. Rached, D. Reshak, A. H.
Year: 2009
Title: Elastic, electronic and optical properties of SiGe2N4 under pressure: An ab initio study
Journal: Physics Letters A
Volume: 373
Issue: 27-28
Pages: 2393-2398
Date: Jun
Short Title: Elastic, electronic and optical properties of SiGe2N4 under pressure: An ab initio study
ISSN: 0375-9601
DOI: 10.1016/j.physleta.2009.05.004
Accession Number: WOS:000267348900017
Abstract: Using first-principles density functional calculations, the structural, electronic, elastic and optical properties of cubic spinel SiGe2N4 were studied by means of the full-relativistic version of the full-potential augmented plane wave plus local orbitals. We employed both the generalized-gradient approximation (GGA), which is based on exchange-correlation energy optimization to calculate the total energy, and the Engel-Vosko formalism, which optimizes the corresponding potential for band structure calculations. The calculated bulk properties, including lattice parameters, bulk modulus and their pressure derivatives, are in reasonable agreement with the available data. We have determined the full set of first-order elastic constants and their pressure dependence, which have not been calculated and measured yet. Band structure, density of states and pressure coefficients of energy band gaps are given. The obtained results for band structure using EV-GGA are larger than that of GGA. We calculated the frequency dependent complex dielectric function epsilon(2)(omega) for radiation up to 30 eV. The assignment of the critical points to the band structure difference at various points of the Brillouin zone was made. The pressure and volume dependence of the static dielectric constant and the refractive index were calculated. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Moakafi, M. Khenata, R. Bouhemadou, A. Benkhettou, N. Rached, D. Reshak, Ali H.
URL: <Go to ISI>://WOS:000267348900017

Abstract: Optimal design problem are widely known by their multiple performance measures that are often competing with each other. In this paper, an optimal multiproduct batch chemical plant design is presented. The design is firstly formulated as a multiobjective optimization problem, to be solved using the well suited non dominating sorting genetic algorithm (NSGA-II). The NSGA-II have capability to achieve fine tuning of variables in determining a set of non dominating solutions distributed along the Pareto front in a single run of the algorithm. The NSGA-II ability to identify a set of optimal solutions provides the decision-maker DM with a complete picture of the optimal solution space to gain better and appropriate choices. Then an outranking with PROMETHEE II helps the decision-maker to finalize the selection of a best compromise. The effectiveness of NSGA-II method with multiojective optimization problem is illustrated through two carefully referenced examples. Copyright (C) 2009 D. Mokeddem and A. Khellaf.
Notes: Mokeddem, Diab Khellaf, Abdelhafid
URL: <Go to ISI>://WOS:000267549800001

Abstract: The production of lactic acid from date juice by single and mixed cultures of Lactobacillus casei and Lactococcus lactis was investigated. In the present conditions, the highest concentration of lactic acid (60.3 g l(-1)) was obtained in the mixed culture system while in single culture fermentations of Lactobacillus casei or Lactococcus lactis, the maximum concentration of lactic acid was 53 and 46 g l(-1), respectively. In the case of single Lactobacillus casei or Lactococcus lactis, the total percentage of glucose and fructose utilized were 82.2; 94.4% and 93.8; 60.3%, respectively, whereas in the case of mixed culture, the total percentage of glucose and fructose were 96 and 100%, respectively. These results showed that the mixed culture system gave better results than single cultures regarding lactic acid concentration, and sugar consumption.
Notes: Nancib, Aicha Nancib, Nabil Boudrant, Joseph
URL: <Go to ISI>://WOS:000267916900013

Abstract: This paper presents the influence of Spartium junceum (SJ) fiber content, surface treatment and temperature on the water uptake of polypropylene/Spartium junceum fiber (PP/SJ) composites. Composites specimens were dried at 70 degrees C to reach a constant weight and then were submerged in distilled water at different temperatures, 23 degrees C and 85 degrees C. Water uptake of PP/SJ fiber composites was found to increase with fiber content. Impact strength properties are dramatically affected by the water absorption. Water-saturated samples present poor impact strength. The SEM micrograph of Spartium junceum fiber untreated and treated with silane (Z-6020) illustrate the reduction of roughness via surface treatment of fiber.

Reference Type: Journal Article
Record Number: 115
Author: Nessark, B. Maouche, N.
Year: 2009
Title: Electrochemical Impedance Spectroscopic Measurements of Sexithiophene-Effect of the Electrode Nature and the Dopant (CuCl2) Content
Journal: Chinese Journal of Chemistry
Volume: 27
Issue: 4
Pages: 655-659
Date: Apr
Short Title: Electrochemical Impedance Spectroscopic Measurements of Sexithiophene-Effect of the Electrode Nature and the Dopant (CuCl2) Content
ISSN: 1001-604X
Accession Number: WOS:000265717900007

Abstract: Electrochemical impedance spectroscopic (EIS) measurements of sexithiophene (6T) were carried out according to the Pt/6T/M sandwich structure configuration, for various electrode materials (M = GC, ITO, Ag, Cu, Al) and for different doping levels of copper chloride (CuCl2). The results demonstrate that two types of charge transport are involved in the redox process at the electrode/6T interface and inside the bulk oligomer. The complex-plane impedance plots obtained for various doping levels Of CuCl2 exhibit arc shapes. The charge-transfer resistance measured from the diagrams decreases systematically with the addition of the salt, leading to an increase of the oligothiophene conductivity.
Notes: Nessark Belkacem Maouche Naima
URL: <Go to ISI>://WOS:000265717900007

Abstract: The nucleophilic aromatic substitution under ultrasound irradiation of a dichlorobenzene iron eta(6)-complex with various secondary amines is reported. The reaction time at moderate temperatures is considerably shortened (15 min) compared to non sonicated reaction conditions at room temperature (several days) or at solvent refluxing temperature (12-48 h). Controlled mono- or di-substitution was achieved by the tuning of the amine nucleophilicity and the solvent polarity. The method was successfully applied to the synthesis of differently substituted phenylenediamines. (C) 2009 Elsevier Ltd. All rights reserved.
Notes: Raouafi, Noureddine Belhadj, Nadra Boujlel, Khaled Ourari, Ali Amatore, Christian Maisonhaute, Emmanuel Schoellhorn, Bernd
URL: <Go to ISI>://WOS:000264428300018

Abstract: We report theoretical calculations of the band structure and density of states for orthorhombic LiGaS2 (LGS) and LiGaSe2 (LGSe). These calculations are based on the full potential linear augmented plane wave (FP-LAPW) method within a framework of density functional theory. Our calculations show that these crystals have similar band structures. The valence band maximum (VBM) and the conduction band minimum (CBM) are located at Gamma, resulting in a direct energy band gap. The VBM is dominated by S/Se-p and Li-p states, while the CBM is dominated by Ga-s, S/Se-p and small contributions of Li-p and Ga-p. From the partial density of states we find that Li-p hybridizes with Li-s below the Fermi energy (EF), while Li-s/p hybridizes with Ga-p below and above EF. Also, we note that S/Se-p hybridizes with Ga-s below and above EF.
Notes: Reshak, Ali H. Auluck, S. Kityk, I. V. Al-Douri, Y. Khenata, R. Bouhemadou, A.
URL: <Go to ISI>://WOS:000261257100017

Abstract: The Vicanek and Urbassek theory [M. Vicanek, H. M. Urbassek, Phys. Rev. B 44 (1991) 7234] combined with a Monte Carlo simulation are used to investigate the transport of 0.5-4 keV electrons in solid targets. The cross-sections used to describe the electron transport have been calculated via a new improved version of the approximate analytical expression given by Jablonski [A. Jablonski, Phys. Rev. B 58 (1998) 16470]. Some applications are presented here for the calculation of electron backscattering coefficient in semi-infinite Al and Cu targets. The obtained results accord with success with the experiment and clearly represent an improvement with respect to previous theoretical calculations. (C) 2009 Elsevier B.V. All rights reserved.
Notes: Rouabah, Z. Bouarissa, N. Champion, C. Bouaouadja, N.
URL: <Go to ISI>://WOS:000264408000031

Abstract: Epidemiologic studies have suggested a relation between hepatitis C virus (HCV) infection and diabetes mellitus. HCV infection is emerging as a metabolic disease, and diabetes mellitus as a risk factor for HCV infection. However, some data on the prevalence of antibodies to HCV in patients with diabetes are conflicting. These seroprevalence data should be interpreted with caution. Some potential bias may occur in those clinic-based studies that target a specific disease group. In this letter we explain some reasons for these conflicting studies. (C) 2009 The WJG Press and Baishideng. All rights reserved.
Notes: Rouabhia, Samir Malek, Rachid Bounecer, Hocine
URL: <Go to ISI>://WOS:000271268300021

Reference Type: Journal Article
Record Number: 120
Author: Roumili, A. Medkour, Y. Maouche, D.
Year: 2009
Title: ELASTIC AND ELECTRONIC PROPERTIES OF Hf2SnC AND Hf2SnN
Journal: International Journal of Modern Physics B
Volume: 23
Issue: 26
Pages: 5155-5161
Date: Oct
Short Title: ELASTIC AND ELECTRONIC PROPERTIES OF Hf2SnC AND Hf2SnN
ISSN: 0217-9792
DOI: 10.1142/s0217979209053370
Accession Number: WOS:000271863700006
Abstract: Using plane wave pseudopotential calculations and the generalized gradient approximation, we have studied the structural, elastic, and electronic properties of Hf2SnC and Hf2SnN. Lattice parameters and equilibrium volume are in satisfactory agreement with the experimental values. Electronic properties show a metallic character of both compounds. Bonds are originally made from hybridized Hf d C p(or N p) states, and Hf d-Sn p states, confirmed by strong coupling between Hf-C (or N), and Hf-Sn bonding from the charge density distribution.
Notes: Roumili, A. Medkour, Y. Maouche, D.
URL: <Go to ISI>://WOS:000271863700006

Abstract: Tertiary phosphines react, at -80 degrees C, with the pyruvoyl-substituted iron complex $(CO)(4)Fe[C(O)C(O)CH(3)](CO(2)CH(3))$ (1) to give rise to phosphonium-substituted metallalactones fac-$(CO)(3)Fe[C(O)C(CH(3))(PR(3))OC(O)](CO(2)CH(3))$ (2). These zwitterionic compounds are formed by an initial addition of the phosphine to the noncoordinated carbonyl of the pyruvoyl unit followed by the addition of the oxygen of this C=O on a terminal carbonyl. They display an anionic metal center substituted by three organic ligands and a positive charge located on a phosphonium group. Attempts to extend the reaction to the related cationic pentacarbonyl pyruvoyl-substituted iron complex failed, as no reaction was observed with the same reagents. However, the expected products of these reactions, cationic phosphonium metallalactones $\{(CO)(4)Fe[C(O)C(CH(3))(PR(3))OC(O)]\}(+)$, were obtained by acidic dissociation of the alkoxycarbonyl ligand of the relevant zwitterionic metallalatones.

Reference Type: Journal Article
Record Number: 122
Author: Samai, M. Loulou, T.
Year: 2009
Title: A COMPARATIVE STUDY OF HEAT FLUX AND TEMPERATURE BASED OBJECTIVE FUNCTIONAL TO SOLVE INVERSE HEAT CONDUCTION PROBLEMS
Journal: Numerical Heat Transfer Part B-Fundamentals
Volume: 56
Issue: 1
Pages: 75-104
Short Title: A COMPARATIVE STUDY OF HEAT FLUX AND TEMPERATURE BASED OBJECTIVE FUNCTIONAL TO SOLVE INVERSE HEAT CONDUCTION PROBLEMS
ISSN: 1040-7790
DOI: 10.1080/10407790902932197
Accession Number: WOS:000267918400005

Abstract: This work provides a comparative study between two approaches in solving inverse heat conduction problems. The conjugate gradient method is employed in both approaches, and the adjoint state equations are used to build analytically the gradient of the objective functional. One of the two approaches consists of using, as additional information, temperature data in the objective functional, while the other uses the heat flux records, for the same inverse problem. In both approaches, the nature of the additional data has its own advantages and drawbacks in handling inverse heat conduction problems. Using the heat flux data as additional information to solve inverse heat conduction problems was and is still rarely employed either for design problems or for identification of parameters or functions problems. The difference between the two approaches is highlighted through two basic inverse heat conduction engineering examples and represents the aim of this research. The results from this study show the feasibility of solving various inverse problems using heat flux data. All the observations in terms of convergence rate, computation time, and accuracy of the results give the advantage to the heat flux data over the temperature data.
Notes: Samai, Mustapha Loulou, Tahar
URL: <Go to ISI>://WOS:000267918400005

Reference Type: Journal Article
Record Number: 123
Author: Sofonea, M. Chouchane, L.
Year: 2009
Title: Quasistatic Adhesive Contact of Piezoelectric Cylinders
Journal: Nonlinear Analysis-Modelling and Control
Volume: 14
Issue: 1
Pages: 123-142
Date: Mar
Short Title: Quasistatic Adhesive Contact of Piezoelectric Cylinders
ISSN: 1392-5113
Accession Number: WOS:000207801900010

Abstract: We consider two mathematical models which describe the antiplane shear deformation of a piezoelectric cylinder in adhesive contact with a rigid foundation. The material is assumed to be electro-viscoelastic in the first model and electro-elastic in the second one. In both models the process is quasistatic, the foundation is electrically conductive and the adhesion is described with a surface variable, the bonding field. We derive a variational formulation of the models which is given by a system coupling two variational equations for the displacement and the electric potential fields, respectively, and a differential equation for the bonding field. Then we prove the existence of a unique weak solution to each model. We also investigate the behavior of the solution of the electro-viscoelastic problem as the viscosity converges to zero and prove that it converges to the solution of the corresponding electro-elastic problem.
Notes: Sofonea, M. Chouchane, L.
URL: <Go to ISI>://WOS:000207801900010

Abstract: Under semi and cropping conditions, soil degradation is a rapid process, which could be alleviated through sewage sludge application, as continuous production of these wastes increased the awareness of their safe disposal. A field experiment was conducted to study the effects of sewage sludge application on the growth and yield components of durum wheat (Triticum durum Desf.). Treatments were mineral fertilization with 33 kg ha(-1) N as urea, 20, 30 and 40 tons dry sludge ha(-1), applied at the tillering stage and an un-amended control. The results showed an increase in grain yield and yield components, mainly spike fertility and straw yield. 30 tons ha(-1) of sewage sludge dry matter were as efficient as 66 kg ha(-1) of mineral nitrogen. Results suggested that sewage sludge application could be used as a mean to increase and stabilize durum wheat yield under semi and conditions and as a safe disposal mean of these wastes.

Abstract: The Gaussian distribution model have been used to analyze the anomalies observed in tungsten (W)/4H-SiC current voltage characteristics due to the barrier inhomogeneities that prevail at the metal-semiconductor interface. From the analysis of the forward I-V characteristics measured at elevated temperatures within the range of 303-448 K and by the assumption of a Gaussian distribution (GD) of barrier heights (BHs), a mean barrier height (phi) over bar (B0) of 1.277 eV, a zero-bias standard deviation sigma(0) = 0.092 V and a factor T-0 of 21.69 K have been obtained. Furthermore the modified Richardson plot according to the Gaussian distribution model resulted in a mean barrier height (phi) over bar (B0) and a Richardson constant (A*) of 1.276 eV and 145 A/cm(2) K-2, respectively. The A* value obtained from this plot is in very close agreement with the theoretical value of 146 A/cm(2) K-2 for n-type 4H-SiC. Therefore, it has been concluded that the temperature dependence of the forward I-V characteristics of the W/4H-SiC contacts can be successfully explained on the basis of a thermionic emission conduction mechanism with Gaussian distributed barriers. In addition, a comparison is made between the present results and those obtained previously assuming the pinch-off model. (C) 2008 Elsevier B.V. All rights reserved.
Notes: Toumi, S. Ferhat-Hamida, A. Boussouar, L. Sellai, A. Ouennoughi, Z. Ryssel, H.
URL: <Go to ISI>://WOS:000264743100020

Abstract: In this study three types of dressings in the form of thin films were prepared from a mixture of two natural biopolymers, namely gelatin and pectin. The protein and the polysaccharide were chosen because of their hydrosolubility and interactivity, respectively. Glutaraldehyde was also used to crosslink the films. The physical properties of the resulting films were evaluated through measurements of absorption capacity and water vapor permeability. FTIR and UV spectroscopy were also used to characterize the films. It was found that crosslinking much increased the absorption capacity, reflecting the strong interactions that developed between gelatin and pectin. It was also found that the water vapor permeability depends greatly on the film thickness and evolves linearly with time. The FTIR analysis also allowed us to identify the different functional groups through which gelatin and pectin chemically interacted. The quantitative analysis of the residue by means of UV spectroscopy indicated that the films were biodegradable and therefore can be used for biomedical applications.
Notes: Zaher, K. El Kolli, M. Riahi, F. Doufnoune, R.
URL: <Go to ISI>://WOS:000269807600006

Reference Type: Journal Article
Record Number: 127
Author: Zerroug, S. Sahraoui, F. A. Bouarissa, N.
Year: 2009
Title: Ab initio calculations of yttrium nitride: structural and electronic properties
Journal: Applied Physics a-Materials Science & Processing
Volume: 97
Issue: 2
Pages: 345-350
Date: Nov
Short Title: Ab initio calculations of yttrium nitride: structural and electronic properties
ISSN: 0947-8396
DOI: 10.1007/s00339-009-5243-x
Accession Number: WOS:000269844400013

Abstract: Using first principles total energy calculations within the full-potential linearized augmented plane wave method, we have studied the structural and electronic properties of yttrium nitride (YN) in the three phases, namely wurtzite, caesium chloride and rocksalt structures. The calculations are performed at zero and under hydrostatic pressure. In agreement with previous findings, it is found that the favored phase for YN is the rocksalt-like structure. We predict that at zero pressure YN in the rocksalt structure is a semiconductor with an indirect bandgap of 0.8 eV. A phase transition from a rocksalt to a caesium chloride structure is found to occur at similar to 134 GPa. Besides, a transition from an indirect (I"-X) bandgap semiconductor to a direct (X-X) one is predicted at pressure of similar to 84 GPa. For the electron effective mass of rocksalt YN, these are the first results, to our knowledge. The information derived from the present study may be useful for the use of YN as an active layer in electronic devices such as diodes and transistors.
Notes: Zerroug, S. Sahraoui, F. Ali Bouarissa, N.
URL: <Go to ISI>://WOS:000269844400013

Abstract: The results are presented of an ab initio total energy study of the high-pressure phases of GaNxAs1-x dilute alloys calculated within the full-potential linearized augmented plane wave method in the generalized gradient approximation. Three candidate structures, namely zinc-blende, rocksalt and CsCl, have been considered. In each case, the structural parameters and transition pressures of dilute alloys of interest are calculated. In agreement with earlier calculations of Stenuit and Fahy [Phys. Rev. B 76 (2007) 035201], the deviation of the lattice constants from Vegard's law for zinc-blende GaNxAs1-x alloys is found to be negligible.
Notes: Zerroug, S. Sahraoui, F. Ali Bouarissa, N.
URL: <Go to ISI>://WOS:000268606200003

Reference Type: Book Section
Record Number: 1
Author: Belkhiat, S. Keraghel, F.
Year: 2009
Title: Segregation Study of the beta phase on the Al-Li Alloy Surface using Auger Electron Spectroscopy
Editor: Cheikhrouhou, A.
Book Title: Proceedings of the Jmsm 2008 Conference
Volume: 2
Series Volume: 3
Pages: 1343-1349
Series Title: Physics Procedia
Short Title: Segregation Study of the beta phase on the Al-Li Alloy Surface using Auger Electron Spectroscopy
ISBN: 1875-3892
DOI: 10.1016/j.phpro.2009.11.101
Accession Number: WOS:000282008100098
Abstract: Auger Electron spectroscopy (AES) has been used to study lithium segregation on Al-3.49wt%-Li alloy surface. In this work, the surface atomic composition as a function of temperature was followed. In our previous works, the activation energy of Li segregation has been determined experimentally being in agreement with the resulted theoretical value. In this paper, one showed that the segregation energy of Li on the surface depends of the crystalline structure and of the Li content in the Al-Li alloy matrix. beta-AlLi phase on the alloy surface, used in the power sources for the propulsion of electrical vehicles and for stocking energy, is obtained by progressive heating. We showed that the segregated lithium on the alloy surface is reversible as a function of decreasing temperature and consequently beta-AlLi phase is converted in alpha-AlLi phase. On the other hand, the brutal heating of the sample drives to the conversion of the beta-AlLi phase to beta-AlLi phase and stabilizes the surface towards other segregation; therefore the conversion of beta-AlLi phase to beta-AlLi phase is irreversible. (C) 2009 Elsevier B.V. All rights reserved
Notes: Belkhiat, S. Keraghel, F. 11th Maghreb Days Conference on Materials Science/JMSM 2008 Nov 04-08, 2008 Mahdia, TUNISIA
URL: <Go to ISI>://WOS:000282008100098

Reference Type: Book Section
Record Number: 2
Author: Bencheikh, A. Bouafia, M. Boubetra, D.
Year: 2009
Title: Effect of Quartic Phase Optical Aberration on Laser Beam Quality
Editor: Harith, M. A.
Book Title: 7th International Conference on Laser Applications-Icla 2009
Volume: 1172
Pages: 40-43
Series Title: AIP Conference Proceedings
Short Title: Effect of Quartic Phase Optical Aberration on Laser Beam Quality
ISBN: 0094-243X 978-0-7354-0711-4
Accession Number: WOS:000270919200009
Abstract: Laser beam quality is related to the aberration effect. Quartic phase aberration, more commonly known as spherical aberration, can result from aberrated optical components such as beam expanding telescopes, focusing or collimating lenses, or other conventional optical elements; from thermal focusing or thermal blooming in high power laser windows, lenses, amplifier rods, optical isolators, and other absorbing media. In general any kind of quartic aberration will lead to increased far field beam spread, degraded laser beam focusability and increased values of the beam quality. Currently, a well established quality parameter for laser beams is the $M(2)$ factor. This paper presents a new mathematical set for the spherical aberration coefficient $C(4)$ of Gaussian beams. The main idea comes from the estimation of the laser beam quality factor $M(2)$ given by Siegman. We show that this coefficient concerns only the case of geometrical optics.
Notes: Bencheikh, A. Bouafia, M. Boubetra, Dj. 7th International Conference on Laser Applications May 17-21, 2009 Cairo, EGYPT Natl Inst Laser Enhanced Sci, African Laser Ctr, Photon Sci, Pfizer Middle E
URL: <Go to ISI>://WOS:000270919200009

Reference Type: Book Section
Record Number: 3
Author: Bouaouadja, N. Bousbaa, C. Mahdaoui, T. Laouamri, H. Madjoubi, M. A.
Year: 2009
Title: Improvement of the optical transmission of an eroded soda lime glass by PVB and PES coatings
Editor: Cheikhrouhou, A.
Book Title: Proceedings of the Jmsm 2008 Conference
Volume: 2
Series Volume: 3
Pages: 1351-1357
Series Title: Physics Procedia
Short Title: Improvement of the optical transmission of an eroded soda lime glass by PVB and PES coatings
ISBN: 1875-3892
DOI: 10.1016/j.phpro.2009.11.102
Accession Number: WOS:000282008100099
Abstract: The aim of this work is to improve the optical transmission of a soda lime glass eroded by sandblasting by using polyvinyl butyrate (PVB) and polyester (PES) coatings. Various damage states were obtained in laboratory by varying the projected erodent sand mass ($Mp = 10$-200 g). Transparent layers of PVB and PES were deposited on damaged surfaces. Uncoated eroded glass samples have their optical transmission T strongly deteriorated with the increase of sand mass. It decreases to 27% for a mass of 200 g. The use of the PVB and PES coatings on damaged surface ameliorate substantially the optical transmission. For the extreme case ($Mp = 200$ g), the two deposited layers improve respectively to 87% and 81% with the PVB and the PES films. After a subsequent sandblasting damage on the covered glasses, the evaluation of the optical transmission shows that it only decreases to intermediate values (57% for PVB and 50% for PES). (C) 2009 Elsevier B.V. All rights reserved
Notes: Bouaouadja, N. Bousbaa, C. Mahdaoui, T. Laouamri, H. Madjoubi, M. A. 11th Maghreb Days Conference on Materials Science/JMSM 2008 Nov 04-08, 2008 Mahdia, TUNISIA
URL: <Go to ISI>://WOS:000282008100099

Reference Type: Book Section
Record Number: 4
Author: Bouras, N. Madjoubi, M. A. Kolli, M. Benterki, S. Hamidouche, M.
Year: 2009
Title: Thermal and mechanical characterization of borosilicate glass
Editor: Cheikhrouhou, A.
Book Title: Proceedings of the Jmsm 2008 Conference
Volume: 2
Series Volume: 3
Pages: 1135-1140
Series Title: Physics Procedia
Short Title: Thermal and mechanical characterization of borosilicate glass
ISBN: 1875-3892
DOI: 10.1016/j.phpro.2009.11.074
Accession Number: WOS:000282008100071

Abstract: The aim of this work is to characterize thermally (dilatometric analysis) and mechanically a Pyrex type borosilicate glass. The mechanical tests (Vickers indentations, mechanical strength and fracture toughness) were made on the glass in an annealed state and after a chemical strengthening treatment by ionic exchange. The indentations imprints morphologies and details were observed by optical and scanning electron microscopy. The dilatometric analysis shows that the thermal expansion variation with temperature is essentially non linear, increasing rapidly up to 200 degrees C and slowing down beyond. The optimal glass chemical strengthening was obtained for a bath duration of 15 hours. This corresponds to a relatively moderate increase of the mechanical strength (similar to 70%). The fracture toughness measured by indentation was appreciably improved by the chemical treatment. It seems also to increase with the applied indentation load. (C) 2009 Elsevier B.V. All rights reserved

Notes: Bouras, N. Madjoubi, M. A. Kolli, M. Benterki, S. Hamidouche, M. 11th Maghreb Days Conference on Materials Science/JMSM 2008 Nov 04-08, 2008 Mahdia, TUNISIA
URL: <Go to ISI>://WOS:000282008100071

133 **Reference Type: Book Section**
Record Number: 5
Author: Bousbaa, C. Kolli, M. Madjoubi, M. A. Malou, Z. Mahdaoui, T. Bouaouadja, N.
Year: 2009
Title: Damage survey of a vehicle windshield exposed to sandblasting in Sahara
Editor: Cheikhrouhou, A.
Book Title: Proceedings of the Jmsm 2008 Conference
Volume: 2
Series Volume: 3
Pages: 1141-1145
Series Title: Physics Procedia
Short Title: Damage survey of a vehicle windshield exposed to sandblasting in Sahara
ISBN: 1875-3892
DOI: 10.1016/j.phpro.2009.11.075
Accession Number: WOS:000282008100072
Abstract: In the present work, we describe the damage of a vehicle windshield caused by sandblasting erosion in Saharan climate conditions. In order to evaluate this damage, we carried out a survey on samples taken from a windshield that was used during two years in the region of Ouargla in the south of Algeria. The survey concerns primarily a description of the damage flaws (morphology, flaw size distribution and density) and an evaluation of the roughness and the optical transmission. The results show that the samples average flaw density (number of flaws per cm(2) surface) is 316 +/- 65. The mean size based on a large number of flaws from all samples is 245 +/- 128 mu m. Microscopic observations reveal that the flaws vary also in their morphologies. The main flaw types (micro-cracks, flakes and pits) extend differently in length and depth. The evaluation of the optical transmission reveals a decrease from 92% down to 58% using a light flux normal to the glass samples surface. (c) 2009 Elsevier B.V. All rights reserved
Notes: Bousbaa, C. Kolli, M. Madjoubi, M. A. Malou, Z. Mahdaoui, T. Bouaouadja, N. 11th Maghreb Days Conference on Materials Science/JMSM 2008 Nov 04-08, 2008 Mahdia, TUNISIA
URL: <Go to ISI>://WOS:000282008100072

Reference Type: Book Section
Record Number: 6
Author: Iratni, A. Katebi, R. Vilanova, R. Mostefai, M. Ieee,
Year: 2009
Title: On Estimation of Unknown State Variables in Wastewater Systems
Book Title: 2009 Ieee Conference on Emerging Technologies & Factory Automation
Series Title: IEEE International Conference on Emerging Technologies and Factory Automation-ETFA
Short Title: On Estimation of Unknown State Variables in Wastewater Systems
ISBN: 1946-0740 978-1-4244-2728-4
Accession Number: WOS:000355314000068

Abstract: This paper focuses on the estimation of the nonmeasurable physical states of wastewater systems when nonlinear models with uncertainties describe the processes. The Activated Sludge Process (ASP), as the most commonly applied biological wastewater purification technique, attracts a great deal of attention from the research community. We developed for this class of processes a State Dependent Differential Riccati Filter (SDDRF) for state estimation of nonlinear model describing the system. The resulting software sensor is simple to implement and has a relatively low computational cost. The results are compared with the Extended Kalman Filter (EKF) in order to demonstrate the better performance of the SDDRF filter. The filter allows the on-line tracking of process variables, which are not directly measurable. The simulation results point out to the advantage of using this approach.
Notes: Iratni, A. Katebi, R. Vilanova, R. Mostefai, M. Efta 2009 14th IEEE International Conference on Emerging Technologies and Factory Automation (ETFA) Sep 22-25, 2009 Univ Balear Isl, Mallorca, SPAIN IEEE, IEEE Ind Elect Soc, Tech Univ Catalonia, Gobierno Espana, Ministerio Ciencia & Innovac, Univ Empresa, Dept Innovacio, Generalitat Catalunya, Red Electrica Espana, GESA ENDESA, TIRME, IEEE Transact Ind Informat
URL: <Go to ISI>://WOS:000355314000068

Reference Type: Book Section
Record Number: 7
Author: Kharmouche, A.
Year: 2009
Title: Structural, static and dynamic magnetic studies of evaporated Co(x)Cr(1-x)/Si (100) and Co(x)Cr(1-x)/glass thin films
Editor: Gencer, A. Grasso, G.
Book Title: International Conference on Superconductivity and Magnetism
Volume: 153
Series Title: Journal of Physics Conference Series
Short Title: Structural, static and dynamic magnetic studies of evaporated Co(x)Cr(1-x)/Si (100) and Co(x)Cr(1-x)/glass thin films
ISBN: 1742-6588
DOI: 012056 10.1088/1742-6596/153/1/012056
Accession Number: WOS:000298993000056

Abstract: We have evaporated a series of Co(x)Cr(1-x) thin films under vacuum onto Si (100) and glass substrates, with a perpendicular incidence. The thickness of the magnetic layer ranged from 17 to 220 nm, and the content chromium, from 0.12 to 0.20, values determined by means of Rutherford Backscattering Spectrometry (R.B.S.) spectra using SIMNRA programme. Microscopic characterizations of the films were done with X-ray diffraction (XRD) measurements and infer that all the samples were polycrystalline, with an hcp structure and show a $< 0001 >$ preferred orientation, and with the grain size increasing with the chromium content decrease. Atomic force microscopy (A.F.M.) observations reveal very smooth film surfaces. The static and dynamic magnetic properties have been investigated by means of Alternating Gradient Field Magnetometer (A.G.F.M.), and Brillouin Light Scattering (B.L.S.) measurements. The saturation magnetization M(s) was found to decrease from 1200 emu/cm(3) to 220 emu/cm(3) as the chromium content increases from 12% at. to 20% at., whatever the thickness is. From the fit of the B.L.S. spectra, we have computed effective magnetic anisotropy factors, as well. All the results are discussed and correlated.
Notes: Kharmouche, A. Icsm International Conference on Superconductivity and Magnetism (ICSM) Aug 25-29, 2008 Ankara Univ, Side, TURKEY
URL: <Go to ISI>://WOS:000298993000056

Abstract: Chemically modified electrodes prepared by electropolymerization of oligothiophenes such as: 2,2'-bithiophene (BT), 2,2'-bithiophene-5-carboxylic acid (BTCA) and terthiophene aldehyde (TTCHO) on platinum (Pt) electrodes, in acetonitrile solution containing 0.1 M tetrabutylammonium perchlorate (TBAP) and 0.01 M of monomer, are characterized by cyclic volammetry (CV), and X-ray photoelectron spectroscopy (XPS) measurements. By immersing the prepared modified electrodes in transition metals ($Cu(2+)$, $Co(2+)$ and $Ag(+)$) solutions, the metal ions were complexed with films. The electrochemical response shows clearly, the presence of oxidation and reduction peaks corresponding to metallic couple redox. XPS technique reveal that the films complexed with metal ions and determine the mode of the connection with film's atoms. The obtained polyoligothiophenes-metal modified electrodes exhibited good electrocatalytic properties towards ascorbic acid (AA) oxidation after their complexation with metallic ions. The electrocatalytic response was evaluated by cyclic voltammetry with regard to the film nature, the metallic ion nature, immersion time, ascorbic acid concentration, and other variables. The results reveal that the catalytic activity of $Ag(+)$ complexed with BTCA thin-film is the best toward AA oxidation and it can be detected a very low concentration (similar to 1 mu M), of AA in a solution which can be utilized as an efficient electrochemical sensor. (C) 2009 Elsevier B.V. All rights reserved

137 **Reference Type: Book**
Record Number: 1
Author: Azzou, S. A. K. Larabi, S. Djeraba, C.
Year: 2009
Title: ANGLES ESTIMATION OF ROTATING CAMERA
Series Editor: Ranchordas, A. Araujo, H.
Series Title: Visapp 2009: Proceedings of the Fourth International Conference on Computer Vision Theory and Applications, Vol 1
Number of Pages: 575-578
Short Title: ANGLES ESTIMATION OF ROTATING CAMERA
ISBN: 978-989-8111-69-2
Accession Number: WOS:000266585100088
Abstract: We address the problem of camera motion from points and line correspondences across multiple views. We investigate firstly the mathematical mathematical formula between slopes of lines in the different images acquired after rotation motion of camera. Assuming that lines in successive images are tracked, this relation is used for estimating rotation angles of the camera. Experiments are conducted over real images and the obtained results are presented and discussed.
Notes: Azzou, Samira Ait Kaci Larabi, Slimane Djeraba, Chabane 4th International Conference on Computer Vision Theory and Applications Feb 05-08, 2009 Lisbon, PORTUGAL Inst Syst & Technologies Informat, Control & Commun, ACM SIGGRAPH
URL: <Go to ISI>://WOS:000266585100088

Reference Type: Book
Record Number: 2
Author: Benaicha, S. Zidani, F. Said, R. N. Said, M. S. N. Ieee,
Year: 2009
Title: Direct Torque with Fuzzy logic Torque Ripple Reduction based Stator Flux Vector Control
Series Editor: Jusoff, K. Mahmoud, S. S. Sivakumar, R.
Series Title: Second International Conference on Computer and Electrical Engineering, Vol 2, Proceedings
Number of Pages: 128-133
Short Title: Direct Torque with Fuzzy logic Torque Ripple Reduction based Stator Flux Vector Control
ISBN: 978-0-7695-3925-6
DOI: 10.1109/iccee.2009.236
Accession Number: WOS:000276905300027

Abstract: The major disadvantages of the conventional direct torque control (DTC) drive is the steady state ripples in torque and flux Using space vector control (SVM) method reduce the torque and stator flux ripples. In this paper, the use of SVM technique, a torque fuzzy controller is proposed to improve DTC performance and reduce significantly torque ripple. Simulation results will be presented and discussed to prove the effective new of the proposed
Notes: Benaicha, S. Zidani, F. Said, Rachid Nait Said, Med Said Nait 2nd International Conference on Computer and Electrical Engineering Dec 28-30, 2009 Dubai, U ARAB EMIRATES Int Assoc Comp Sci & Informat Technol
URL: <Go to ISI>://WOS:000276905300027

Reference Type: Book
Record Number: 3
Author: Chaoui, A. Gaubert, J. P. Krim, F. Ieee,
Year: 2009
Title: Experimental Evaluation of a Simple Robust Control for Active Power Filtering Under Unfavourable Conditions
Series Title: Epe: 2009 13th European Conference on Power Electronics and Applications, Vols 1-9
Number of Pages: 4590-4600
Short Title: Experimental Evaluation of a Simple Robust Control for Active Power Filtering Under Unfavourable Conditions
ISBN: 978-1-4244-4432-8
Accession Number: WOS:000275384102042
Abstract: This paper deals with shunt active power filtering for power quality improvement under unfavourable non-linear load and source conditions. A simple hybrid control strategy is used, based on a numerical Integrator Proportional (IP) DC bus controller combined with a Phase-locked loop (P.L.L.) output to generate reference currents. A second analogue current controller is developed to insure- three phase sinusoidal synchronised waveforms of the main currents. The experimental evaluation of the robustness control is verified using 20 KVA Shunt Active Power Filter (SAPF) not only for transient conditions (step load, switch-on of SAPF) but also for the worst case of unbalanced loads (break phase) and source voltages. Several experimental results are presented and discussed to prove the robustness and the excellent performance of the proposed technique.
Notes: Chaoui, Abdelmadjid Gaubert, Jean-Paul Krim, Fateh 13th European Conference on Power Electronics and Applications (EPE 2009) Sep 08-10, 2009 Barcelona, SPAIN
URL: <Go to ISI>://WOS:000275384102042

140 **Reference Type: Book**
Record Number: 4
Author: Chemseddine, Z. Benadealziz, F. Lashab, M. Ieee,
Year: 2009
Title: Resonant frequency of a Microstrip Antenna on a Uniaxial Electric Superstrate
Series Title: 2009 Mediterranean Microwave Symposium
Number of Pages: 167-169
Short Title: Resonant frequency of a Microstrip Antenna on a Uniaxial Electric Superstrate
ISBN: 978-1-4244-4664-3
Accession Number: WOS:000283768100042
Abstract: In this paper, we study the effects of the uniaxial permittivity anisotropy of the substrate, on the resonant frequency and the bandwidth of a rectangular microstrip antenna of the structure as: substrate; patch; superstrate. The problem is rigorously formulated by using the integral equation based on the dyadic spectral Green's function. To obtain the complex resonant frequency of mode TM(01), the method of Galerkin have been used to solve the integral equation, by choosing sinusoidal basis functions. The results obtained are compared with the isotropic substrate case.
Notes: Chemseddine, Zebiri Benadealziz, F. Lashab, M. Mediterranean Microwave Symposium Nov 15-17, 2009 Tangiers, MOROCCO
URL: <Go to ISI>://WOS:000283768100042

Reference Type: Book
Record Number: 5
Author: Douar, A. Harous, S. Djoudi, M. Mechta, D. Ieee,
Year: 2009
Title: An Interactive 3D Distributed Environment For Distance Practical Works
Series Title: 2009 International Conference on Innovations in Information Technology
Number of Pages: 76-80
Short Title: An Interactive 3D Distributed Environment For Distance Practical Works
ISBN: 978-1-4244-5698-7
Accession Number: WOS:000283476800016
Abstract: This work is in line with the framework of the development of a 3D interactive environment to make it easy for university students to do their distant practical works (PW). This environment allows several learners to share a 3D work space.. Therefore this is a multi users environment, distributed over a network and uses the virtual reality which allows the performance of many activities. We propose in this paper the description of a PW generic classroom which has all the necessary virtual objects to accomplish the different experiments. The interaction with this work is done through a java Applet, shared between learners, that allows the manipulation of these objects to attain the expected objective of the experiment.
Notes: Douar, Amel Harous, Saad Djoudi, Mahieddine Mechta, Djamila International Conference on Innovations in Information Technology Dec 15-17, 2009 Al Ain, U ARAB EMIRATES Ieee
URL: <Go to ISI>://WOS:000283476800016

Reference Type: Book
Record Number: 6
Author: Harrag, F. El-Qawasmah, E. Ieee,
Year: 2009
Title: Neural Network for Arabic Text Classification
Series Title: 2009 Second International Conference on the Applications of Digital Information and Web Technologies
Number of Pages: 778-783
Short Title: Neural Network for Arabic Text Classification
ISBN: 978-1-4244-4456-4
DOI: 10.1109/icadiwt.2009.5273841
Accession Number: WOS:000288359000131
Abstract: This paper proposes the application of Artificial Neural Network for the classification of Arabic language documents. The automatic classification of Arabic documents using ANN has not been explored in detail so far. In this paper, an Arabic corpus is used to construct and test the ANN model. Methods of document representation, assigning weights that reflect the importance of each term are discussed. Each Arabic document is represented by the term-weighting scheme. As the number of unique words in the collection set is big, the Singular Value Decomposition (SVD) has been used to select the most relevant features for the classification. The experimental results show that ANN model using SVD achieves 88.33% which is better than the performance of basic ANN which yields 85.75% on Arabic document classification.
Notes: Harrag, Fouzi El-Qawasmah, Eyas Icadiwt 2009 2nd International Conference on the Applications of Digital Information and Web Technologies Aug 04-06, 2009 London, ENGLAND ICADIWT, London Metropolitan Business School, IEEE UKRI Section
URL: <Go to ISI>://WOS:000288359000131

143 **Reference Type:** **Book**
Record Number: 7
Author: Harrag, F. El-Qawasmeh, E. Pichappan, P. Ieee,
Year: 2009
Title: Improving Arabic Text Categorization using Decision Trees
Series Title: Ndt: 2009 First International Conference on Networked Digital Technologies
Number of Pages: 110-115
Short Title: Improving Arabic Text Categorization using Decision Trees
ISBN: 978-1-4244-4614-8
Accession Number: WOS:000279656200021
Abstract: This paper presents the results of classiying Arabic text documents using a decision tree algorithm. Experiments are performed over two self collected data corpus and the results show that the suggested hybrid approach of Document Frequency Thresholding using an embedded information gain criterion of the decision tree algorithm is the preferable feature selection criterion. The study concluded that the effectiveness of the improved classifier is very good and gives generalization accuracy about 0.93 for the scientific corpus and 0.91 for the literary corpus and we also conclude that the effectiveness of the decision tree classifier was increased as we increase the training size, and the nature of the corpus has such a influence on the classifier performance.
Notes: Harrag, Fouzi El-Qawasmeh, Eyas Pichappan, Pit 1st International Conference on Networked Digital Technologies (NDT 2009) Jul 28-31, 2009 VSB Tech Univ Ostrava, Fac Elect Engn & Comp Sci, Ostrava, CZECH REPUBLIC IEEE Commun Soc
URL: <Go to ISI>://WOS:000279656200021

Reference Type: Book
Record Number: 8
Author: Harrag, F. Hamdi-Cherif, A. Al-Salman, A. M. S. Ieee,
Year: 2009
Title: Applying Topic Segmentation Algorithms on Arabic Language
Series Title: 2009 Ieee/Acs International Conference on Computer Systems and Applications, Vols 1 and 2
Number of Pages: 865-868
Short Title: Applying Topic Segmentation Algorithms on Arabic Language
ISBN: 978-1-4244-3807-5
DOI: 10.1109/aiccsa.2009.5069432
Accession Number: WOS:000271458300145
Abstract: The need of having a topic segmentation system for Arabic text is to improve the functionalities of Arabic Information Retrieval (AIR). Topic segmentation of texts has been used to improve the accuracy of the subsequent processes such as question answering and information retrieval. In this paper, we present the assessment of two algorithms for Arabic text segmentation which are TextTilling and C99. We evaluate the performance of these algorithms using the classical Recall/Precision metrics and the Reader Judgment method.
Notes: Harrag, Fouzi Hamdi-Cherif, Aboubekeur Al-Salman, Abdul Malik S. 7th ACS/IEEE International Conference on Computer Systems and Applications (AICCSA-09) May 10-oct 13, 2009 Rabat, MOROCCO Acs, ieee
URL: <Go to ISI>://WOS:000271458300145