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**ABSTRACT**

The effect of annealing on the magnetic and structural properties of evaporated CoCr thin films onto silicon substrates has been investigated, the annealing temperature being 700°C. Coercivity and saturation magnetization evolutions versus chromium content have been studied. After annealing of the CoCr/Si thin films, remarkable observations are made; the absence of crossroad hysteresis loops that characterized some films before annealing, is observed. We note here that all the films remain ferromagnetic at 700°C. After annealing, we measure an increase of the remanence and the coercive force for most of the films. However, the saturation moment decreases. This variation is related to the changes of the films microstructure, transition phase from hcp to fcc after annealing, and probably the oxidation of chromium and cobalt atoms during the heat treatment. .


**References**

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