9.7 cm

INFLUENCE OF FILM THICKNESS ON THE MICROSTRUCTURE AND MAGNETIC PROPERTIES OF FINEMETIC THIN FILMS

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The aim of this work was to study the influence of film thickness on the structure and magnetic properties of finemetic thin films after annealing. Thin films with various thickness (from 20nm up to 1000nm) were prepared by DC sputtering method. Heat treatments of the films for further structural and magnetic observations were performed at the temperature range 300-550^{o}C for 15 minutes in a vacuum furnace. Structural observations were carried out by X-ray diffractometry and transmission electron microscopy. The bulk value of coercivity was determined from hysteresis loops traced with fluxmeter. All the experimental results confirm a different magnetic behaviour of the thin films according to their thickness.

13.4 cm

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