9.7 cm

# MAGNETIZATION REVERSAL PROCESSES IN ULTRATHIN Co/Pt FILMS

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Magnetization reversal processes in ferromagnetic ultrathin Pt/Co/Pt structures, deposited on Si/SiN substrates, were investigated by polar magneto-optical Kerr magnetometry. The spin reorientation transition takes place for a Co thickness t=1.6nm; for t<1.6nm the easy anisotropy axis lies perpendicular to the film while it falls in-plane at larger thickness. We have limited the present study to samples with t<1.4nm, which exhibit square histeresis loops. The in-field magnetization processes and their dynamics, starting from saturated or demagnetized state, obtained under a perpendicular magnetic field, have been studied for different field directions. In particular, the magnetic aftereffect strongly depends on the field configuration. Numerical simulations, similar to these developed in Ref.[1], allow to describe the magnetic non-reversibility as related to time dependent effects. Experimental data have been succesfully compared with those obtained previously [1] on Au/Co/Au films. The in-plane field magnetization processes investigation was used for the magnetic anisotropy study.

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