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Effect of Interlayer Coupling in Co/Al2O3/Co

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Abstract : We show the effect of interlayer coupling on magnetization reversal in purely dipolar coupled magnetic multilayers. Longitudinal magneto-optic Kerr microscopy (LMOKE) has been performed on [Co(10nm)/Al2O3(t)/Co(10nm)] for various thicknesses of Al2O3(t). We will show that inter-layer coupling interactions lead to layer-by-layer reversal in the magnetic multilayers. Also transverse component of magnetization was observed for higher thickness of the spacer layer.

 $\textbf{Keywords:} \ \textbf{Interlayer coupling, Magnetic domains, Magneto-Optic Kerr effect microscopy, Magnetization reversal, Magnetic Magnetic$

thin film

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