

Effect of film thickness on magnetic properties of Co/SmCo bilayers

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Effect of film thickness on magnetic properties of Co/SmCo bilayers

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Abstract:

Au/Co/SmCo/Au films with different SmCo and Co thickness were grown on silicon (100) substrates by electron-beam evaporation. The morphology of these films has been analyzed by transmission electron microscopy. The magnetic properties of the bilayers were investigated by magneto-optical Kerr effect. Hysteresis loops show a SmCo/Co single-phase behavior indicating a strong exchange coupling between the soft and hard phases. Also, we have shown that the magnetization reversal dynamics is dominated by domain wall motion.

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