Coexistence of positive and negative exchange bias in CrMn/Co bilayers

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Abstract: Exchange-biased CrMn/Co bilayers with various thicknesses of Co sputtered onto Si(1 0 0) substrates by the RF sputtering system have been studied. Double-shifted loops have been observed with the thickness of Co layer in a narrow range and become single-shifted loops after some cycles of measurement. Those results are interpreted as the association of positive and negative exchange bias.
Author Keywords: Double-shifted loop; Exchange bias; Magnetic thin film; Training effect
Index Keywords: Cobalt; Magnetic thin films; Magnetization; Magnetron sputtering; Silicon; Substrates; Double-shifted loops; Exchange bias; Single-shifted loops; Training effects; Chromium alloys

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