

Abstract Submitted
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Spin-flipping at Sputtered Co/Ag Interfaces¹ HOANG NGUYEN, REZA LOLOEE, WILLIAM PRATT, JACK BASS, Department of Physics and Astronomy, Michigan State University — We measured at 4.2K the Current-Perpendicular-to-Plane Magnetoresistances (CPP-MRs) of sputtered ferromagnetically coupled [Co(3 nm)/Ag(1.8 or 2.0 nm)]_nCo(3 nm) multilayers with $n = 0$ to 8 that were imbedded in the middle of symmetric, Py-based, double exchange-biased spin-valves. The measurements yielded the parameter for spin-flipping at the Co/Ag interface, $\delta_{Co/Ag} = 0.30_{-0.1}^{+0.05}$. δ is related to the probability P of spin-flipping at the Co/Ag interface by $P = [(1-\exp(-\delta))]$. Despite the expected larger lattice-mismatch-induced disorder at the Co/Ag interface, this value is similar to that reported earlier for the Co/Cu interface [1], suggesting that such disorder does not play a major role in $\delta_{F/N}$ at ferromagnetic/non-magnetic (F/N) interfaces.

[1] B. Dassonneville et al., Appl. Phys. Lett. 96, 022509 (2010).

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