

Effect of CoO/Ni orthogonal exchange coupling on perpendicular anisotropy of Ni films on Pd(001)

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The effect of orthogonal exchange coupling between CoO and Ni/Pd(001) on perpendicular anisotropy of Ni films is studied. The thickness range in which Ni films are perpendicularly magnetized is extended by growing CoO on top of it, however, only at temperatures below T_N^{CoO} . The perpendicular orientation of Ni spins and the in-plane orientation of CoO spins are confirmed by MOKE/XMCD and XMLD, respectively.