Article

Influence of the Substrate on the Exchange Coupling of NiO/FeCo Bilayers

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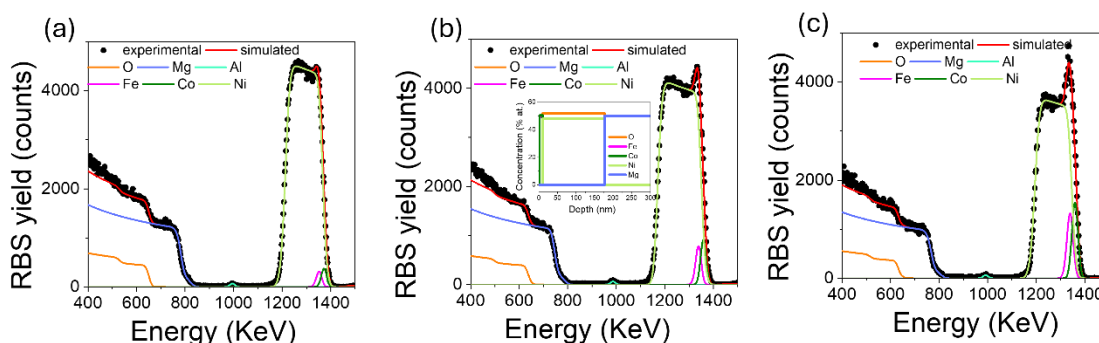* Correspondence: pilar.prieto@uam.es

Figure S1: Random RBS spectra of NiO/FeCo bilayers with FeCo thickness of (**a**) 3 nm, (**b**) 8nm and (**c**) 16 nm, obtained with ^{4}He+ ions at 1.8 MeV grown on MgO (001) substrates, respectively. The simulation with SIMNRA program including the fitting signal for O, Ni, Fe, Co, Mg and Al from the capping are also included. In the inset of (**b**) it is included for the intermediate FeCo thicknes, i.e., 8nm, the atomic concentrations of the different elements as a function of depth (nm).

Table S1: Thickness and composition of NiO and FeCo layers determined by RBS and SIMNRA simulation. The samples are labelled with the thickness of the FeCo layer.:

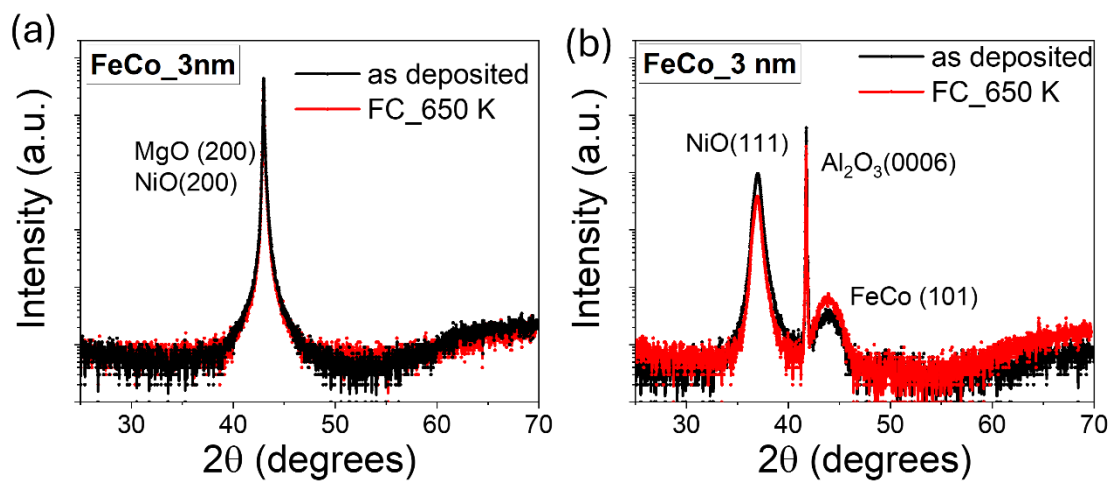| Sample	NiO RBS thickness (nm)	NiO composition	FeCo RBS thickness (nm)	FeCo composition
S1_3nm	144.4	$Ni_{0.48}O_{0.52}$	2.8	$Fe_{0.49}Co_{0.51}$
S2_8nm	165.2	$Ni_{0.48}O_{0.52}$	8.0	$Fe_{0.49}Co_{0.51}$
S3_16nm	143.1	$Ni_{0.48}O_{0.52}$	16.5	$Fe_{0.49}Co_{0.51}$

Figure S2. XRD diffraction pattern of NiO/FeCo bilayer with d_{FeCo} = 3 nm on (**a**) MgO (001) and (**b**) Al_2O_3 (0001) substrates before and after FC.