# Study of the Magnetization Reversal Behavior of exchange-Biased System Using Polarized Neutron Reflectometry 

Sungkyun Park ${ }^{*}$, Ki-Yeon Kim ${ }^{1}$, Ji-Wan Kim ${ }^{2}$, Hyeok-Cheol Choi ${ }^{3}$, A. Teichert ${ }^{4}$, Chun-Yeol You ${ }^{3}$, Sung-Cheol Shin ${ }^{2}$, Jeong-Soo Lee ${ }^{1}$ and M. R. Fitzsimmons ${ }^{5}$<br>DepartmentofPhysics,PusanNationalUniversity,Busan609-735,Korea<br>${ }^{1}$ Neutron Science Division, Korea Atomic Energy Research Institute., 305-353 Daejeon, Korea<br>${ }^{2}$ Department of Physics and Center for Nanospinics of Spintronic Materials,<br>Korea Advanced Institute of Science and Technology, Daejeon 305-701, Korea<br>${ }^{3}$ Department of Physics, Inha University, Incheon 402-751, Korea<br>${ }^{4}$ Helmholtz Zentrum Berlin für Materialien und Energie, Glienicker Strasse 100, D-14109 Berlin, Germany<br>${ }^{5}$ Lujan Center, Los Alamos Neutron Science Center, Los Alamos National Lab. 87544 USA<br>*Corresponding author: psk@pusan.ac.kr

Since the first discovery of exchange anisotropy on $\mathrm{Co} / \mathrm{CoO}$ system[1], there have been numerous studies to explore the physical origin of exchange-biased system[2,3]. In this presentation, we report that how the polarized neutron reflectomery can be applied to study the magnetization reversal behavior of the exchange biased system. As an example, the detailed magnetization reversal mechanism of the exchange-biased $\mathrm{Py}(30 \mathrm{~nm}) / \mathrm{FeMn}(0,15$, $30 \mathrm{~nm}) / \mathrm{CoFe}(30 \mathrm{~nm})$ trilayers was studied and found that the 15 nm antiferromagnetic FeMn layer mediates the magnetization reversal behaviors of both Py and CoFe layers through interlayer exchange bias coupling. We also update the current activities in polarized neutron reflectometer in HANARO.

## 참고문헌

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