Abstract Submitted
for the MAR11 Meeting of
The American Physical Society

Relation between electric phase and magnetic ordering of Y-type Hexaferrite WOO-SUK NOH, H. JANG, K.-T. KO, J.-H PARK, c-CCMR & Dept. of Physics, POSTECH, S.H. CHUN, K.H KIM, XMPL, Seoul National University, B.-G PARK, J.-Y KIM, PAL, POSTECH — Y-type hexaferrite $Ba_{0.5}Sr_{1.5}Zn_2Fe_{12}O_{22}$(BSZFO), one of multiferroic materials, we could acquire magnetic field-induced commensurate phase, changing of magnetic phase of BSZFO and $Ba_{0.5}Sr_{1.5}Zn_2(Fe_{1-x}Al_x)_{12}O_{22}$ (x = 0.08)(BSZFAO) using resonant soft X-ray scattering(RSXS) experiment. Also we could confirm that magnetic ordering changing has some relation with electric phase transition, q=1.5 at ferroelectric phase not only BSZFO but also BSZFAO. This research results were acquired by using 2A EPU beamline at PAL.

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Date submitted: 24 Nov 2010 Electronic form version 1.4