Training Effect in Exchange Biased FeMn/Co Thin Films

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NNIN Facilities: Characterization Facility

- **X-ray Characterization of Films**
  Si / SiO\textsubscript{x} / Cu(300 Å) / Co (60 Å) / FeMn(5-200 Å) / Al(20 Å)

**Wide Angle X-ray Diffraction:**
To determine film quality.

![Wide Angle X-ray Diffraction](image)

**Grazing Incidence X-ray Reflectivity:**
To determine film thicknesses and interface roughness

![Grazing Incidence X-ray Reflectivity](image)

- **Major Observations**
  - Samples were cooled from 400 K to 10 K in a magnetic field. Subsequent hysteresis loops show two types of training effects.

![Hysteresis Loops](image)

- **Publications**