Training Effect in Exchange Biased FeMn/Co Thin Films

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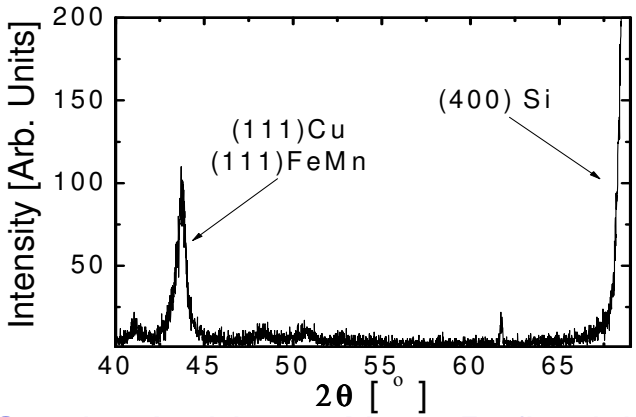
NNIN Facilities: Characterization Facility

- X-ray Characterization of Films

  Si / SiOx / Cu(300 Å) / Co (60 Å)/ FeMn(5-200 Å) / Al(20 Å)

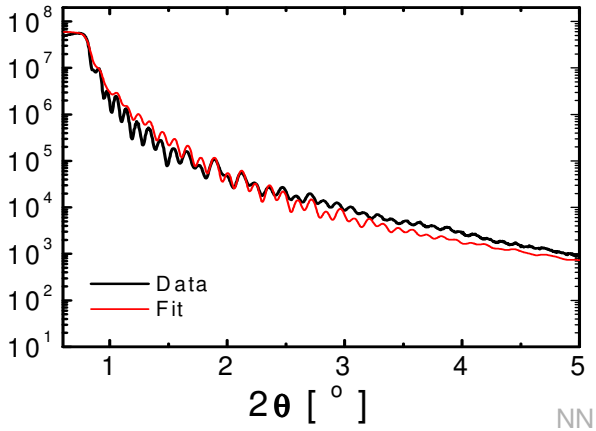
  ## Wide Angle X-ray Diffraction:

  To determine film quality.

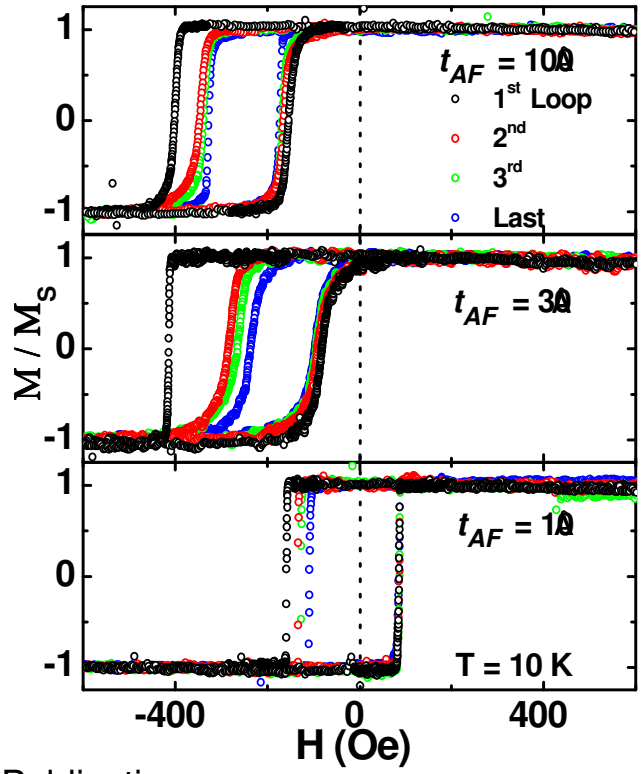


  ## Grazing Incidence X-ray Reflectivity:

  To determine film thicknesses and interface roughness



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



- Publications

  M. Chan, J.S. Parker, P.A. Crowell, C. Leighton, Phys. Rev. B **77**,0114420 (2008)