

Abstract Submitted
for the MAR08 Meeting of
The American Physical Society

Fabrication and magnetic characterization of ferromagnetic nanotubes REHANA SHARIF, SHAMAILA SHAHZADI, HAN YUNAN, MING MA, HAN XIU-FENG, Institute of Physics Chinese Academy of Sciences — During the last decade, interesting properties of magnetic nanowires have attracted much attention. Besides their interesting basic properties, there is evidence that these can be used in the fabrication of new nanodevices. Recently magnetic nanotubes have been successfully fabricated and have become a symbol of new and fast developing research area of nanotechnology because of their technological applications in patterned recording media, magnetic sensors and magnetic biotechnology. Ferromagnetic nanotubes have been fabricated using templates (Alumite, PCTE) which can provide us a straight forward route to fabrication of the nanotubes. The anisotropy of the tubes is governed by shape anisotropy and the switching field of the tubes is consistent with that expected from curling mechanism in which the magnetization rotates within the plane of the tube wall.

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Date submitted: 08 Feb 2008

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