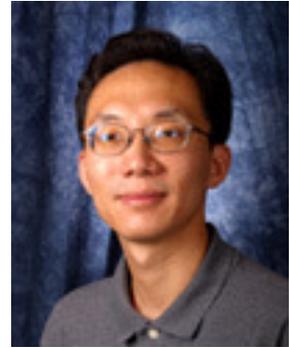


# T<sub>c</sub>SAM Bi-Weekly Brown Bag Seminar

Texas Center for Superconductivity and Advanced Materials



## Li Sun

Bill D. Cook Endowed Assistant Professor  
Department of Mechanical Engineering  
University of Houston

## “Magnetic Nanowires”

**Friday, November 07, 2003**

Room 102, University of Houston  
Houston Science Center  
12:00 p.m. – 1:00 p.m.

### Abstract

Nanoscience and technology as an emerging interdisciplinary research area has caught a lot of attention in recent years. Nanostructured materials exhibit novel properties bulk samples do not possess, however, fabrication of well-controlled nanostructures, understanding physics at the reduced dimensionality and device application of individual nanomaterial still remain challenging. Here we use nanowires as an example to show how magnetic properties of materials can be designed and tuned by nanofabrication. Magnetic shape anisotropy, finite size effects and magnetization switching in these quasi-one dimensional structures has been studied. Manipulation and potential application of individual single elemental and multi-component magnetic nanowires will be discussed.

### Brief Bio

Dr. Li Sun received his Ph. D. in Materials Science and Engineering from the Johns Hopkins University in 2002. There he studied magnetic nanostructures under the direction of Dr. Peter C. Searson and Dr. Chia-Ling Chien. He continued as a postdoctoral fellow in the MRSEC at Hopkins for another year. In August 2003, he became a faculty member in the Mechanical Engineering Department here at University of Houston. His research interests include nanomaterials fabrication, characterization and biomedical application, spintronics, and electrochemistry.

*Persons with disabilities who require special accommodations in attending this lecture should call (713) 743-8210 as soon as possible.*

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