

**Nanotechnology and Advanced Materials  
Graduate Student Talent Series**

**Date:** Thursday, April 28, 2011

**Location:** 4<sup>th</sup> Floor Whitaker Lab, Room 451

Lehigh University, 5 E. Packer Ave. Bethlehem, PA 18015

**Time:** 12:00 pm – 2:00 pm

**Cost:** Free (Lunch Included)

**Registration:** <http://www.lehigh.edu/lnn/events.shtml>  
or email [jdsj@lehigh.edu](mailto:jdsj@lehigh.edu)



Center for  
*Advanced Materials*  
and *Nanotechnology*



**AGENDA:**

**12:00-12:10**      **Welcome (Lunch to be Served)**

**12:10-12:40**      **Dr. Sreya Dutta => Tailored Alumina Sol-gel Coatings for Improved Optical and Corrosion Applications**



**Education:**

Ph.D. Materials Science and Engineering, Lehigh University, 2009

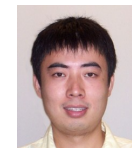
M.S. Materials Science Program, Indian Institute of Technology, Kanpur, India 2002

B.S. Ceramic Technology, Calcutta University (College of Ceramic Technology), Calcutta, India 1999

**Research activities, consulting, patents, etc.:**

Worked on synthesis and processing of thin films, powders and bulk materials. Characterization skills comprise of advanced electron microscopy (SEM, FIB, TEM, EBSD, EDS), optical microscopy, AFM and Impedance Spectroscopy. Currently concentrating on optimization of sol-gel alumina coating on sapphire and patterning it for application in LED's, lasers etc. Another recent project focusing on application of the ceramic coating on austenitic steel used in supercritical steam power plants under extreme conditions.

**12:40-1:10**      **Weihao Weng => Analytical Electron Microscopy Studies of Complex Oxide Catalysts and Nano-structured Materials .**



**Education:**

Ph.D., Materials Science and Engineering, Lehigh University, 2011 (*expected*)

M.E., Materials Science and Engineering, Zhejiang University, Hangzhou, China, 2007

B.E., Polymeric Materials Science and Engineering, Nanjing University of Technology, Nanjing, China 2005

**Research activities, consulting, patents, etc.:**

Nanostructural and chemical characterization of complex oxide catalysts and nanomaterials by analytical electron microscopy; Investigation of the active phase and phase transformations in catalyst systems; Design of novel synthesis methods for preparing catalysts with higher catalytic performance; *Development of new atomic-scale electron microscopy characterization methods for analyzing the beam sensitive materials; Expert in advanced electron microscopy techniques (e.g., SEM, TEM, STEM, XuM, EDS, EELS, Spectrum imaging).*

**1:10-1:20**      **Questions for Student Panel**

**1:20-2:00**      **Lehigh Nanotech Network(LNN) Advanced Materials Focus Group Meeting**