# Neutrons for Materials Science and Engineering

## Oak Ridge Chapter of ASM Educational Symposium

**April 18, 2007**

**Spallation Neutron Source**
**Oak Ridge National Laboratory**
**Oak Ridge, TN 37831**

### Symposium Details

http://www.sns.gov/workshops/EdSym2007/

### Agenda

Agenda as of Feb. 8, 2007

### Important Dates

**March 10: Scholarship application deadline**
**March 15: Student scholarship announcement**
**March 17: Hotel registration closes**
**April 1: Registration closes**

### Confirmed Speakers

**Dr. Ian Anderson, Director, NSSD, ORNL**
**Prof. Despina Louca, Physics Dept., U. Virginia**
**Dr. Xun-Li Wang, NSSD, ORNL**
**Dr. Greg Smith, NSSD, ORNL**
**Dr. Donald Brown, LANSCE, LANL**
**Dr. John Root, NRC-CNRC, Chalk River**
**Dr. James Richardson, IPNS, ANL**
**Dr. Dean Myles, CSD, ORNL**
**Dr. Craig Brown, NIST**

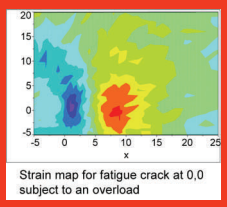
### Sponsors

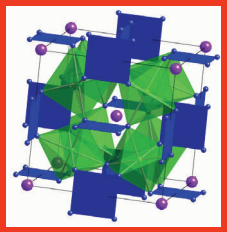
**Oak Ridge Chapter of ASM**
**ORNL: Neutron Sciences Directorate and HTML User program**
**UT-ANSWER (NSF International Materials Institute program)**
**UT/ORNL-Joint Institute for Neutron Sciences**

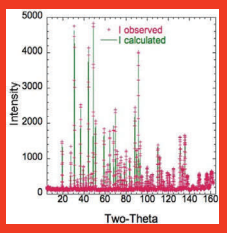
The **ASM Educational Symposium on Neutrons for Materials Science and Engineering** has been developed to expand the awareness of North American students and faculty involved in materials science and engineering studies to the diverse applications of neutron scattering and to the expanding facilities in North America. The Symposium is also open to scientists and engineers who wish to obtain a broad overview of the many applications of neutron scattering to the studies of materials.

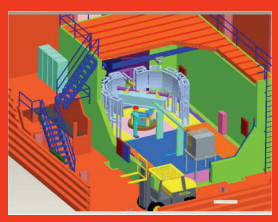
### Program Highlights

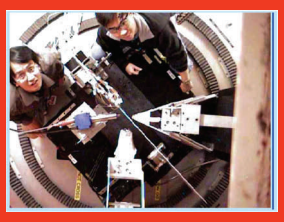
- Basics of production of neutrons & uses
- Overview of neutron scattering and diffraction methods
- Presentations on neutrons scattering for studying:
  - Phase transformations
  - Engineering stresses
  - Materials deformation behavior
  - Polymer and soft materials
  - Biomedical and bio-related materials
  - Fuel cell and hydrogen storage materials
  - Engineering and industrial applications
- Tours of the recently commissioned SNS and the upgraded HFIR sources and associated neutron scattering instruments

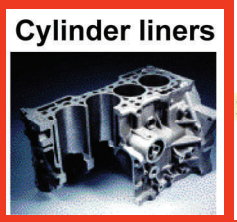


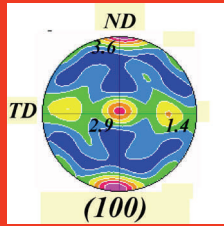










**Satellite Workshop, April 19, 2007**

**Neutron Stress, Texture, and Phase Transformation for Industry – NST$^2$**

http://www.sns.gov/workshops/nst2/