

APS at MRS Fall 2003

- December 2-4
- Boston
- Booth 205

Jane Andrew

x 0909

Poster

RESEARCH OPPORTUNITIES AT THE ADVANCED PHOTON SOURCE

The full capabilities of the APS are now available to the scientific community at large through the **General User Program**

Selected Techniques for Materials Research

- High-pressure studies
- Time-resolved studies
- Magnetic and polarization studies
- Powder diffraction
- Imaging
- Microscopy/microprobe
- Reflectivity
- X-ray absorption fine structure (XAFS)
- High-energy scattering
- Inelastic scattering (IXS)
- Liquid surface scattering
- Small angle x-ray scattering (SAXS)

Selected Applications in Materials Research

- **Structural studies**
• Thin films • Buried interfaces • Epitaxial materials • Atomic-scale ordering
• Melting/crystallization processes • Alloying in nanoparticles
- **Electronic and magnetic materials**
• Ferroelectric and ferromagnetic materials • Magnetic domain formation
• and orientation • Magnetoresistance
- **Engineering materials and applications**
• Engineered nanomaterials • Polycrystalline composites
• 3-D structural microscopy
- **Soft materials and liquids**
• Self-assembly • Biomimetalization • Structure of liquids at solid-liquid
interfaces • Liquid crystalline polymers • Diblock copolymers
- **Environmental, geological, and planetary science**
• Limonite bioprecipitation • Hydrothermal fluid systems
• Viscosity of liquid iron

Located near Chicago, Illinois, the APS is one of the world's **foremost resources for materials research**, providing radiation in the energy ranges and flux densities needed to solve **cutting-edge problems**

Argonne National Laboratory
is operated by The University of Chicago for the
U.S. Department of Energy, Office of Science

10000 S. Cass Ave., Argonne, IL 60439-3099, Tel: 630/252-1500, Fax: 630/252-1501, www.aps.anl.gov

Pens, Packets, Pads...

Your giveaway goodies could also be here...



Booth 205

Contact

Jane Andrew
x 0909

