Workshop 7 — *In-situ* Chemistry
Thursday, May 1, 2003 (afternoon)

In-situ Chemical Processes Studied by Synchrotron X-rays

Kathleen Carrado, Lin Chen, co-organizers

Knowledge of molecular identities and structures during the course of chemical reactions is crucial in understanding fundamental aspects of molecular reactivities and reaction mechanisms. This workshop presents frontier *in-situ* chemistry research in catalysis, electrochemistry, polymer synthesis, and combustion processes using x-rays, as well as recent technical development in dynamics studies at the APS.

EXAFS Characterization of the Local Environment of Fe in Fe-ZSM-5 and Fe-Silicalite
Alex Bell, *University of California, Berkeley*

Redox Speciation with XAFS Spectroelectrochemistry
Mark Antonio, *Argonne National Laboratory*

Catalysis: *in-situ* XAFS Studies from the UOP Frontier
Simon Bare, *UOP*

***In-situ* Observations of Nanoscopic Template Formation in Block Copolymers**
Thomas Russell, *University of Massachusetts*

***In-situ* Small Angle X-ray Scattering Studies of High-Temperature Reactions**
Randy Winans, *Argonne National Laboratory*

***In-situ* SAXS Studies of the Structural Changes of Electrode Materials Used in Rechargeable Systems**
Giselle Sandi, *Argonne National Laboratory*

Synchrotron Techniques Development for *in-situ* Dynamic Studies at Sector 1
Peter Lee, *Argonne National Laboratory*