

WORKSHOP 1: NANOSCALE SCIENCE USING SYNCHROTRON TECHNIQUES

Brian Stephenson and John Carlisle, organizers

Tuesday, October 9, 2001
8:30–Noon & 1:30–5:00 pm

Nanoscience is an emerging, multidisciplinary field involving the study of materials having novel properties and functionality due to confinement and proximity effects at the 1–100 nm length scale. To fabricate nanoscale structures, both "top-down" (e.g., lithographic) and "bottom-up" (e.g., molecular self assembly) approaches are being pursued, often in combination, using hybrids of various types of materials. Nanoscience draws from fundamental synthesis and characterization tools taken from all the traditional fields of science: chemistry, physics, materials science, and molecular biology. This workshop will focus on current status and future prospects for synchrotron-based nanoscale characterization. Presentations will highlight current scientific results relevant to this rapidly evolving area, novel technical features of beamlines and experiments, and new directions in nanoscience at APS.