The U.S. Department of Energy's
Advanced Photon Source
Argonne National Laboratory

ADVANCED PHOTON SOURCE

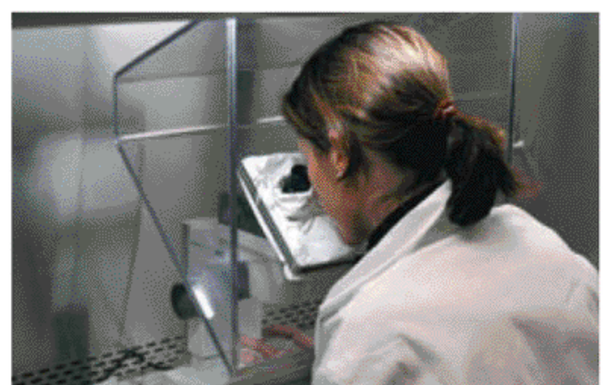
The Center for Nanoscale Materials Breaks Ground

The Center for Nanoscale Materials (CNM) is one of five Nanoscale Science Research Centers funded by the U.S. Department of Energy's (DOE's) Office of Basic Energy Sciences (BES) and constructed at the DOE's national laboratories. The CNM is a $72M federal/State-of-Illinois partnership for designing, synthesizing, fabricating, and characterizing materials at the nanoscale. The CNM will provide the scientific community with a broad complement of tools for advanced nanocharacterization, nanolithography, and synthesis. A centerpiece of the CNM will be the Nanoprobe beamline, the facility's premier nanocharacterization tool, designed to afford capabilities for fluorescence, diffraction, and transmission imaging at a spatial resolution of 30 nm or better. Funding for the Nanoprobe beamline is provided by DOE-BES. The Nanoprobe is expected to advance the state of the art in nanoscience by providing the highest-spatial-resolution hard x-ray beamline in the world. Formal groundbreaking ceremonies for the CNM are scheduled for this fall.

The BSL-3 Biosafety Facility at BioCARS

A new facility at the APS will allow studies of a wide range of viruses and toxins. The facility, part of the Consortium for Advanced Radiation Sources BioCARS beamlines, can accommodate work with materials classified as Biosafety Level (BSL)-2 agents (i.e., measles and hepatitis B) or BSL-3 agents, such as tuberculosis, encephalitis, and West Nile virus. BioCARS is now the only functioning synchrotron-based x-ray diffraction laboratory in the U.S. that can be used for the safe study of these types of samples.

Utmost attention has been paid to safety, with all U.S. safety requirements met for handling BSL-2- and BSL-3-level materials. The equipment added to the BioCARS research station at APS sector 14 includes infrastructure such as HEPA filters and air-handling units.



BioCARS biosafety cabinet.

At the APS, our door is open to experimenters from all scientific disciplines, whose research requires the highest-brilliance hard x-ray beams in the Western Hemisphere.

General-user proposals for beam time during Run 2005-2 are due by March 11, 2005.
Information on access to beam time at the APS is at:
http://www.aps.anl.gov/user/beamtime/get_beam.html
or contact Dr. Dennis Mills, DMM@aps.anl.gov, 630/252-5680.

Information on APS research techniques and beamline capabilities is at:
http://www.aps.anl.gov/user/beamtime/get_beam.html

lightsources.org

A group of communicators from light source facilities worldwide has formed a collaboration to develop a World Wide Web site called lightsources.org (http://www.lightsources.org/). This site will serve the general public, the media, government decision makers, and the international light source research community as a source for news, facility information, and light-source-related educational materials. The endeavor is supported by a growing list of light source facilities from Europe, North America, and Asia. The collaboration expects to launch lightsources.org before the end of 2004. For more information or to make suggestions, contact us at info@lightsources.org

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