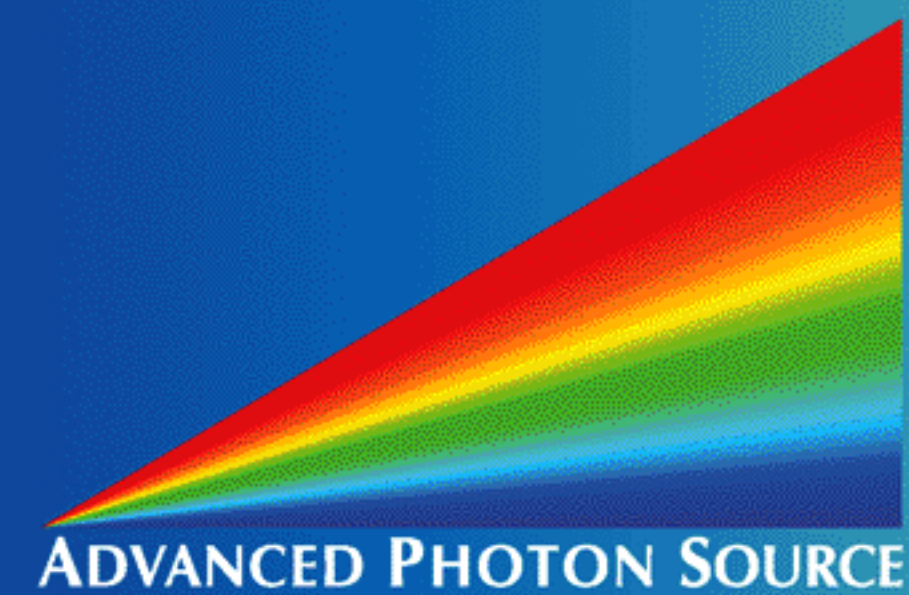
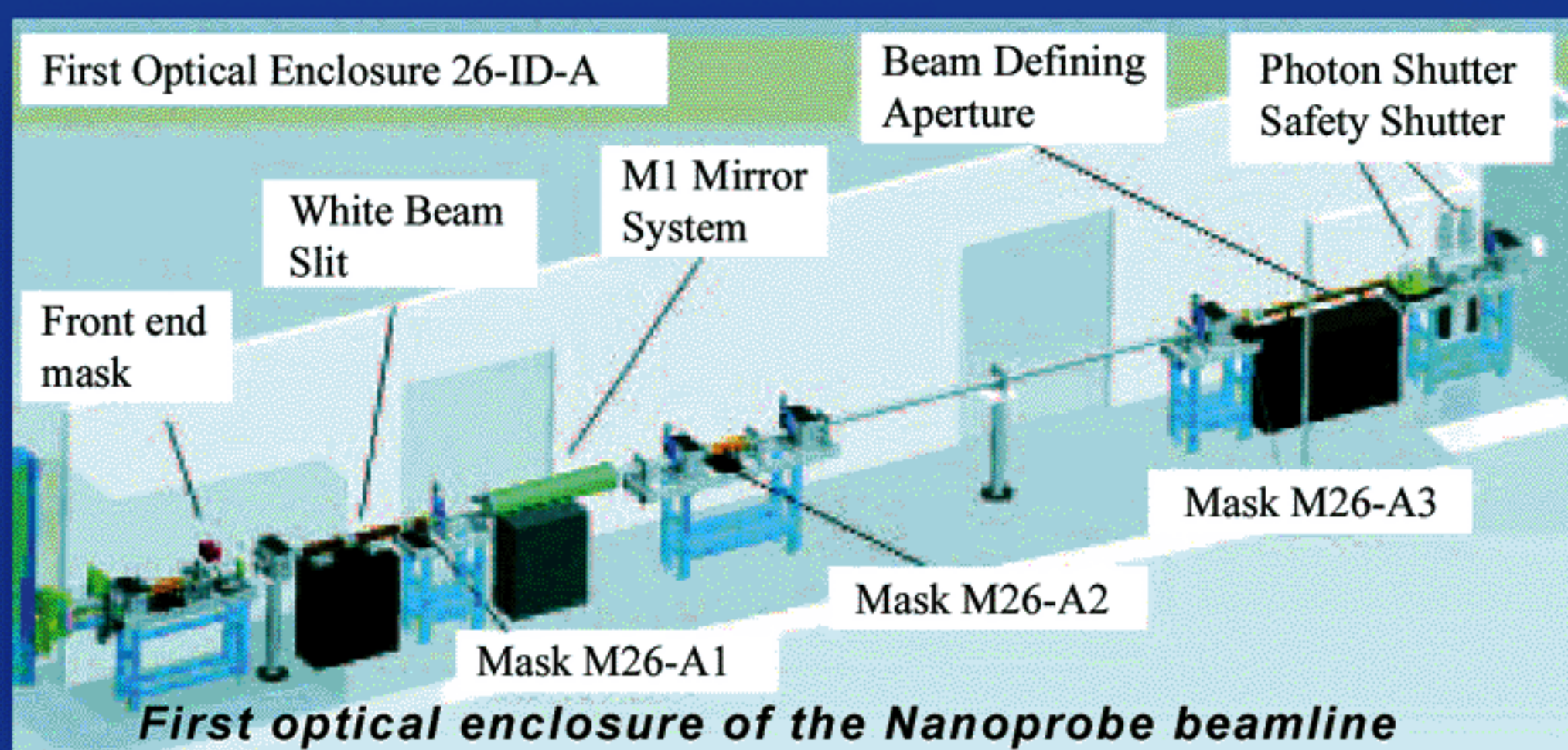


The U.S. DEPARTMENT OF ENERGY'S ADVANCED PHOTON SOURCE ARGONNE NATIONAL LABORATORY



News

A Hard X-ray Nanoprobe Beamline for the CNM



Construction of the hard x-ray Nanoprobe beamline for the Argonne National Laboratory Center for Nanoscale Materials (CNM) on APS sector 26 has begun. The beamline is designed to characterize nanoscale systems and devices at a spatial resolution of 30 nm, using x-ray fluorescence spectroscopy, x-ray diffraction, and transmission imaging. Two collinear insertion devices with periods of 3.3 cm are used as the x-ray source, providing a brilliance of 10^{20} photons/s/mm²/mrad²/0.1%BW at photon energies between 3 and 10 keV. The nanoprobe beamline will deliver x-rays with photon energies between 3 keV and 30 keV to the nanoprobe instrument, thus allowing x-ray fluorescence spectroscopy of most elements in the periodic system. The beamline optics are designed to provide a spatially coherent wave front for illumination of the focusing optics in the nanoprobe instrument, allowing imaging with diffraction-limited resolution.



Construction progress at the Argonne CNM, as of 2.2.05.

Information on CNM science and technology capabilities is at: <http://nano.anl.gov/>

2005 APS/CNM Users Meeting: May 2-6, 2005

The joint 2005 Users Meeting for the Advanced Photon Source (APS) and the Center for Nanoscale Materials (CNM) will be held the week of May 2-6, 2005, at Argonne National Laboratory. Workshops being planned are: Biological and Chemical Nanoscale Materials (T. Rajh); The Art of Collecting Good Diffraction Data (Z. Dauter, S. Ginell); Metals and Metalloids in Cell Biology (G. Woloschak, D. Mandoli); Advanced Nanopatterning (D. Mancini, L. Ocola); Science with the Nanoprobe (J. Maser, B. Stephenson, P. Evans); Scattering from Liquid Surfaces and Interfaces (B. Lin, I. Kuzmenko); Applications of Grazing Incidence Small-Angle X-ray Scattering (J. Wang, R. Winans); Deep X-ray Lithography and LIGA (C. Segre, D. Mancini, J. Kropf).

Registration information and schedule are available on the Web at <http://www.aps.anl.gov/Users/Meeting>.

Call for Proposals

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 2005-3 are due by July 15, 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 also at:

http://www.aps.anl.gov/user/beamtime/get_beam.html

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