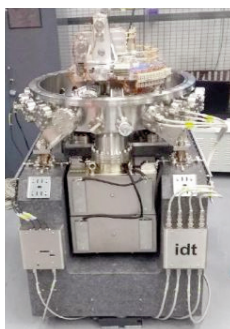


THE ADVANCED PHOTON SOURCE

PROGRESS AT THE APS UPGRADE PROJECT



The completed Long Beamline Building for the APS Upgrade Project.



Horizontal double-crystal monochromator.

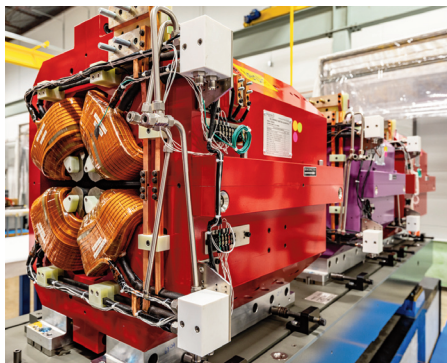


Fully assembled mock-up of one MBA-lattice storage ring sector on a plinth.

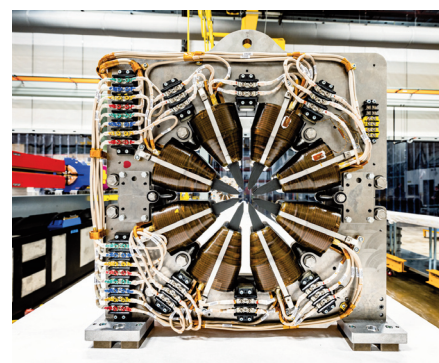
For more than 25 years, the APS has been one of the most productive x-ray light sources in the world. The APS Upgrade (APS-U) Project transforms today's APS into a powerful storage-ring-based, hard x-ray light source. The current electron storage ring is replaced by a state-of-the-art multi-bend achromat lattice. The project includes several new feature beamlines along with significant enhancements to multiple existing beamlines to make use of the increased brightness and coherence of APS x-ray beams. It also includes construction of the Long Beamline Building, which houses two of the feature beamlines.

In the face of pandemic and supply chain impacts, the APS-U Project has made steady progress toward a year-long installation period scheduled to begin in April of 2023.

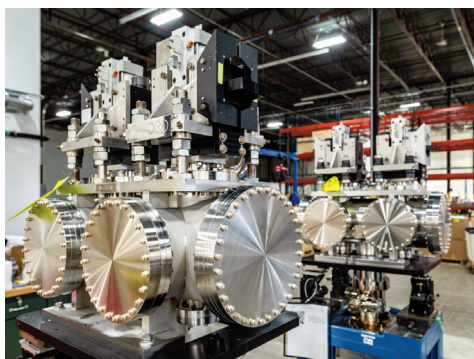
The new Coherent High Energy X-ray insertion device (ID) beamline at Sector 28 is taking commissioning beam, as is the enhanced Advanced Spectroscopy & LERIX ID beamline at Sector 25.



More than 75 of the needed storage ring modules have been partially assembled in anticipation of the year long installation period.



An 8-pole fast corrector magnet, one of 1,321 electromagnets that make up the new APS-U multi-bend achromat storage ring.



Work is under way to upgrade nearly all of the front-end systems at the APS, which connect the storage ring with the beamlines.



Two of the new front-end table systems under construction in the APS-U offsite building.

CALL FOR APS GENERAL-USER PROPOSALS

The Advanced Photon Source is open to experimenters who can benefit from the facility's high-brightness hard x-ray beams.

General-user proposals for beam time during Run 2023-1 are due by October 28, 2022.

Information on access to beam time at the APS is at <https://bit.ly/3xt98Ts> or contact Dr. Dennis Mills, DMM@aps.anl.gov, 630/252-5680.

Argonne National Laboratory is a U.S. Department of Energy (DOE) laboratory managed by UChicago Argonne, LLC

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