

Abstract Submitted
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Plans for an Upgrade of the Advanced Photon Source¹ DENNIS MILLS, Argonne National Laboratory, APS-U PROJECT TEAM — We are presently developing plans for an upgrade of the Advanced Photon Source facility. Science has formally issued Critical Decision 0 and approved the Mission Need Statement in April of 2010, authorizing the APS to develop a conceptual design for the APS Upgrade (APS-U) project. The proposed upgrade will include enhancements to the accelerator, beamlines, and facility infrastructure. The high brilliance x-ray beams at high photon energy (e.g. > 25 keV) provided by the APS Upgrade will have strong impact on research in energy, the environment, new or improved materials, and biological studies. High-energy x-rays can penetrate into a wide range of realistic and/or extreme environments and allow imaging of structures and processes in unprecedented detail on picosecond time scales and nanometer length scales. The presentation will include some of the essential goals of the APS-U and proposed strategies to attain those goals.

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