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Light When YOU Need it: SER-CAT's Beamlines at the Advanced Photon Source. B.C. Wang, J. Chrzas, G. Rosenbaum, J. Rose, J. Fait, J. Gonczy, S. Foundling, Z. Jin, K. Morris, L. Horanyi, M. Graham, SER-CAT, Dept. of Biochemistry and Molecular Biology Univ. of Georgia, Athens, GA 30602, Advanced Photon Source, Argonne National Laboratory, Argonne, IL 60439.

SER-CAT, Sector 22 APS, provides an insertion device (22ID) and a bending magnet (22BM) beamline for macromolecular crystallography. 22ID (5×10^{11} photons/sec over $100 \times 100 \mu\text{m}$) hosts a MAR 300 CCD detector. 22BM ($2\text{-}3 \times 10^{11}$ photons/sec over $80 \times 80 \mu\text{m}$), which hosts a MAR 225 CCD detector, will be brought on-line as a fully automatic beamline with an ALS automounter and remote user participation capabilities. The current experimental envelope for 22ID ranges from 0.5 \AA to 2 \AA with a $\Delta E/E$ of 5×10^{-5} . Both beamlines are MAD/SAD capable.

SER-CAT's goal is to provide its members with immediate access to one of the best synchrotron data collection facilities in the world. This is done by the continued integration of new technologies and methodologies, and by providing its users with outstanding user support.

Since October 2003, 22ID has hosted more than 410 investigators from its 23 member institutions. Over 7000 data sets have been collected that contributed to 110 PDB deposits and 83 published papers. SER-CAT's General User's Program for 22ID will begin in January 2005.