

COSMIC – Future facilities at the ALS for Diffraction Microscopy and XPCS

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With the ALS upgrade to top-off operation during this calendar year, the brightness of the source and hence the coherent soft X-ray flux will increase by an order of magnitude or more. With a dedicated elliptically polarizing undulator, and optimized beamline designs we expect to dramatically increase the capabilities available at the ALS for diffraction microscopy and XPCS. Construction of this facility, named COSMIC has been designated the top priority in the ALS Strategic Plan. The optical design of COSMIC, based on a pair of coherence conserving spherical grating monochromators will be presented.