



## Soft X-ray Nanoprobe: Upcoming New Nanoscale X-ray Imaging Capabilities at NSLS-II

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Soft X-ray spectromicroscopy provides excellent chemical sensitivity through near edge spectroscopy (NEXAFS), geometric and magnetic anisotropy through linear and circular dichroism, and the highest spatial resolution of all synchrotron-based imaging methods. The new Soft X-ray Nanoprobe (SXN) beamline presently under construction at NSLS-II will provide state-of-the-art soft x-ray nano-imaging and spectroscopy tools with world-leading coherent high photon flux in the energy range from 250 eV – 2500 eV and full polarization control. I will present the challenge and opportunities in the design of the beamline and the nanoISM endstation, and will outline research challenges in materials science, energy, bio-geo-chemistry and biology that this new facility will help tackle. I will also give an overview of the current and near-future nanoscale X-ray microscope instruments at NSLS-II.