

IMAGE – A beamline project for microradiography and tomography at ANKA

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IMAGE, a new hard X-ray beamline dedicated to full-field imaging techniques, is currently under design at the ANKA synchrotron light source operated by Forschungszentrum Karlsruhe, Germany.

X rays in a range of photon energies from approximately 7 to 65 keV will be available for absorption and phase-contrast microradiography and tomography, laminography, and rocking-curve imaging, with a spatial resolution down to the micrometer. The beamline will take radiation from a superconducting insertion device. A multilayer monochromator as well as a crystal monochromator will be available to provide, respectively, sufficient flux for fast imaging applications in real space, and the resolution in reciprocal space needed for diffraction imaging techniques. While the IMAGE beamline as a whole will not be operational before 2008, the tomography instrument is planned to be provisionally hosted on the bending-magnet beamline TOPO-TOMO and be open to users in 2007.

The poster presentation will address the methods that will be implemented, the main scientific goals, and the current status of the project.

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