

Soft X-ray beamlines at Institute of Advanced Science Facility and its application on Biology

The fourth-generation synchrotron radiation light source has the outstanding advantages such as low divergence and high brightness, facilitating high spatial and energy resolution X-ray spectroscopy studies and the detection of “light-in-light-out” photon-hungry spectroscopy. The proposed high-resolution soft X-ray spectroscopy beamlines of Shenzhen Industrial Light Source (SILF) will set up multi-functional experimental platforms for biology application such as XANES, STXM for low Z element ranges from Carbon to Aluminum. In this talk, the design for soft X-ray beamlines with energies from 200 to 1600 eV would be mentioned with capabilities for in-situ. Some results for biology application, including Al K edge XANES on soybean and potential mapping capabilities using STXM for plant tissues would be introduced.

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