

Studying of Novel/Nano Materials by X-ray Spectro- and Microscopic Techniques

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Abstract

The presentation will focus on the use of synchrotron radiation-based spectro- and microscopic techniques for probing the electronic and atomic structures of novel/nano and related condensed materials. Specifically, the studies primarily have been involved with using X-ray absorption spectroscopy (XAS), X-ray emission spectroscopy (XES)/resonance inelastic X-ray scattering (RIXS) at Taiwan Photon Source (TPS) and other synchrotron-related facilities. This presentation will report the current achievements and perspectives of XAS, XES/RIXS and Scanning Transmission X-ray Microscopy techniques on relevant materials. Emerging characterization tool developed at TPS 45A and 27A beamlines will be also presented.

Keywords –XAS, XES/RIXS, STXM.