Applications of soft X-ray absorption spectroscopy

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Abstract

Because of the characteristic binding energy of each element, one could extract the individual information of each constitution in complicated systems by use of the X-ray Absorption Spectroscopy (XAS). Moreover, the dipole selection rules limit allowed transitions, leading to rather sharp spectral features which are sensitive to valence, orbital, and spin state. Therefore, one could use XAS to investigate the electronic structures of the systems and thus further to understand their transport properties. In this talk, I would like to present some cases to show the characteristics and capacity of X-ray absorption spectroscopy.

