



Contribution ID: 126

Type: Talk

## Present status of Soft X-ray RIXS in SPring-8; electronic structure of liquids and protein

*Saturday, 17 September 2011 15:40 (30 minutes)*

Soft X-ray RIXS is a powerful tool for studies of electronic structure of various materials, such as semiconductors, ionic materials, simple metals, and strongly correlated materials. Furthermore, Soft X-ray RIXS is also powerful for the liquids and wet samples. Electronic structures of these materials are very challenging. We will discuss about the electronic states of transition metal ions of proteins in water, which play important roles in protein-function [1]. The electronic structure of acetic acid is also discussed [2,3]. Recently, the University of Tokyo constructed a new beamline that has a 25-m long undulator. We will introduce the new RIXS spectrometer whose resolution is about 10,000[4].

### References

- [1] Harada et al., Journal of the Physical society of Japan. 78(2009) 44802.
- [2] Horikawa et al., Phys.Chem.Chem.Phys., 11(2009)8786 and 12(2010)9165
- [3] Tokushima et al., Phys.Chem.Chem.Phys., 11(2009)1679
- [4] Harada et al., unpublished.

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RIXS

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Talk

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**Session Classification:** Resonant Inelastic and Elastic X-ray Scattering

**Track Classification:** Resonant Inelastic and Elastic X-ray Scattering