Program

Kobayashi Hall, Kenkyu Honkan Bldg., KEK

December 8 (Thu), 2011

8:30 – 9:00	**Opening**	Page
8:30-8:45	Introduction to the Workshop and Presentation of IUCr SR and XAFS Commissions Strategies toward Standardization *- S. Wakatsuki (Photon Factory) 15 min.*	1
8:45-9:00	IXAS Strategy toward Standardization *-H. Oyanagi (AIST) 15 min.*	2
9:00-11:45	**S1: Chair: K. Asakura (Hokkaido University)** **To Establish Standardization of XAFS Set-ups Including Bio-XAFS, Similar to Crystallography I (Standardization of Experimental Methods and Data Formats for Higher-throughput of XAFS experiments).**	
9:00-9:30	Toward the Standardization of XAFS, Transmission mode XAFS Setup *- M. Nomura (Photon Factory) 30 min.*	3
9:30-10:00	Toward the standardization of BioXAS *-I. Ascone (CNRS) 30 min.*	6
10:00-10:30	A Step toward Standardization: Development of Accurate Measurements of X-ray Absorption *- C. T. Chantler (Melbourne University) 30 min.*	7
10:30-10:45	Coffee break 15 min.	
10:45-11:45	Open Discussion 60 min. Discussion Leader: K. Asakura (Hokkaido University)	
11:45-12:15	**S2 Chair: H. Oyanagi (AIST)** **To Establish Experimental Protocols for Measurements (e.g. Energy Calibration, Beam Stability, Polarization etc.) to Obtain High Quality Data in Physics, Chemistry and Materials Sciences.**	
11:45-12:15	XAFS Data Collection: an Integrated Approach to Delivering Good Data *- S. Diaz-Moreno (Diamond) 30 min.*	8
12:15-13:00	Lunch 45 min.	
13:00 – 16:00	**S2 Chair: H. Oyanagi (AIST) (continue)** **To Establish Experimental Protocols for Measurements (e.g. Energy Calibration, Beam Stability, Polarization etc.) to Obtain High Quality Data in Physics, Chemistry and Materials Sciences.**	
13:00-13:20	A Data Interchange Standard for XAS and Related Spectroscopies *- B. Ravel (NSLS) 20 min.*	9
13:20-13:50	HDF5, NeXus and Beyond – Approach to a Standard Data Format *- V. A. Sole (ESRF) 30 min.*	10
13:50-14:20	XAFS Data Library for Standard Data on Model Compounds *- M. Newville (University of Chicago) 30 min.*	11
(14:20-14:30)	(Short break 10 min.)	
14:30-15:00	Imagining a CIF-based XAFS Data Exchange Framework *-J. Hester (ANSTO) 30 min.*	12
15:00-16:00	Open Discussion 60 min. Discussion Leader: A. Sole (ESRF) and M. Newville (Univ. of Chicago)	
16:00 - 16:15	Coffee break 15 min.	
16:15-19:00	**S3-I Chair : K. Hodgson (SSRL)** **Advanced Techniques and Newly Developed XAFS Beamlines with Advance Specifications I : New Development for Existing or New Beamlines: Combining XAFS and Other Techniques (XES etc.).**	

16:15-16:45	Structural Molecular Biology/XAS Beamline: Experiences at SSRL *– B. Hedman (SSRL) 30 min.*	13
16:45-17:15	The BioXAS beamlines at the Canadian Light Source *- G. N. George (University of Saskatchewan) 30 min.*	14
17:15- 17:30	Coffee break 15 min.	
17:30-18:00	Metal Speciation in Biological Systems with XANES and XAFS *– P. A. Lay (University of Sydney) 30 min.*	15
18:00-18:30	Energy Dispersive XAS: Worldwide Context *- S. Pascarelli (ESRF) 30 min.*	16
18:30-19:00	Quick XAFS Techniques - Current status and New Challenges at PETRA III *- R. Frahm (Bergische Universität Wuppertal) 30 min.*	17
19:30-21:30	Banquet at the foyer	

December 9 (Fri), 2011

9:00-10:30	**S3-II Chair: M. Newville (Univ. of Chicago)** **Advanced Techniques and Newly Developed XAFS Beamlines with Advance Specifications II.**	
9:00-9:30	An Advanced Beamline for XAS and IR Simultaneous Time Resolved experiments. A new Approach to Characterize Non Equilibrium Phenomena. *-A. Marcelli (INFN) 30 min.*	18
9:30-10:00	Opportunities and Traps of Hard X-ray Photon-in/Photon-out Spectroscopy *- P. Glatzel (ESRF) 30 min.*	19
10:00-10:30	Ideas for Assuring Data Quality and Comparability at The New PETRA III EXAFS Beamlines *- E. Welter (DESY) 30 min.*	20
10:30-10:45	Coffee break 15 min.	
10:45-11:45	**Brief Summary Report I– K. Asakura (Hokkaido University) 20 min.** **Discussion 40 min.**	
11:45-13:00	Lunch 75 min.	
13:00-13:30	**S4 Chair: S. Pascarelli (ESRF)** **XAFS in Green Technology (Science and Technology Related to Environments and Energy Generations/Savings): Requirements for Industrial Use.**	
13:00-13:30	Insight through in situ XAS studies of Catalytic materials *- G. Sankar (University college London) 30 min.*	21
CANCELLED	*In situ* structural studies of catalysts under high gas pressure environment *- O. V. Safonova (PSI) 30 min.*	22
13:30-14:35	**S5 Selected Poster Talks Coordinator: H. Abe 65 min.**	
	Single Crystal XAS Studies on Metalloprotein Intermediates *-R. Sarangi (Stanford University)*	23
	T-REX for advanced QEXAFS data analysis *-J. Stötzel (Bergische Universität Wuppertal)*	24
	In situ Time-resolved XAFS Study of the Formation Mechanism of Rh NPs in the Presence of Quaternary Ammonium Bromide *- H. Asakura (Kyoto University)*	25
14:35-14:50	Short break 15 min.	
14:50-15:50	**Brief Summary Report II – I. Ascone (CNRS) 20 min.** **Open Discussion 40 min.**	
15:50-16:10	Coffee break 20 min.	
16:10-17:50	**S6 Chair: H. Abe**	

	New Challenges in XAFS Research and Requirements on Light Sources and Beamlines	
16:10-16:50	Recent Developments with the LCLS X-ray FEL at SLAC and Prospects for Future Science *- K. O. Hodgson (SSRL) 40 min.*	26
16:50-17:50	Panel Discussion 60 min. Future prospects and demands on XAFS beamlines Discussion leaders: Moderator: P. Lay (from Asia-Oceania) Panellist: S. Pascarelli, P. Glatzel (from EU), M. Nomura, B. Hedman, G. George (from North America)	
18:00-20:15	**Poster session with a buffet-style dinner at the foyer**	
20:15-20:30	**Poster Awards Ceremony 15 min.**	
	Presenter: I. Ascone (CNRS), Support presenter: H. Abe (KEK)	
20:30-20:45	**Summary Report & Closing 15 min.**	
21:00-23:00	**Closed Night Session for Summary Report Preparation**	

Poster Presentation

Poster #	Title/Presenter	Page
P-01	*In situ* Observation of Reduction Reactions of Iron Oxides by XAFS [1]. *- T. Takayama (Nippon Steel Corp.)*	27
P-02	Understanding the Nature of the Kinetic Process in a VO_2 Metal-Insulator Transition *- Q. Liu (University of Science and Technology of China)*	28
P-03	Single Crystal XAS Studies on Metalloprotein Intermediates *- R. Sarangi (Stanford University)*	23
P-04	New Development of 1W1B-XAFS Station in Beijing Synchrotron Radiation Facility *- Z. Jing (Institute of High Energy Physics)*	29
P-05	Time-resolved XAS beamline at SLRI *- P. Chirawatkul (Synchrotron Light Research Institute)*	30
P-06	XANES Database in the C*K*, N*K*, and O*K* Regions of Standard Organic Compounds and Metal Compounds for Chemical Analysis *- Y. Nakayasu (University of Hyogo)*	31
P-07	Total-Electron-Yield (TEY) Soft X-Ray Absorption Spectroscopy of the sp^2/sp^3-Carbon Mixtures; Relationship between the TEY Efficiency and Electrical Conductivity *- Y. Muramatsu (University of Hyogo)*	32
P-08	In situ Time-resolved XAFS Study of the Formation Mechanism of Rh NPs in the Presence of Quaternary Ammonium Bromide *- H. Asakura (Kyoto University)*	25
P-09	Continuous Observation by Dispersive XAFS Technique for Catalytic Reaction *- D. Matsumura (Japan Atomic Energy Agency)*	33
P-10	XAFS measurements from Mg to Zn *K*-edges at Beamline 8 of Siam Photon Laboratory *- W. Klysubun (Synchrotron Light Research Institute)*	34
P-11	Time-resolved *In situ* XAFS Studies on Formation and Oxidation of Pd-Zn nanoparticles on ZnO *- Y. Uemura (KEK-PF)*	35
P-12	Determination of Electronic and Geometric Structure of Molybdenum in Molybdenum-based Catalysts using L-edge X-ray Absorption Spectroscopy *- C. Kongmark (Synchrotron Light Research Institute)*	36
P-13	Week Interaction Effect Study of Blue Copper Protein with XAS *-T. Yamaguchi (Ibaraki University)*	37
P-14	XAS Studies on Electronic Structure of Metal Sites in a Blue Copper Protein, Plastocyanin form Fern *Dryopteris crassirhizoma*	38

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