

# SATELLITE WORKSHOP - Photon Science



## X-ray Absorption Spectroscopy and X-ray Diffraction

24. 01. 2022

Online

Multimodal measurement techniques are of ever-increasing demand to tackle many pressing questions in a multitude of research fields. Especially the combination of complementary techniques in one single experiment offers many advantages, since it makes results directly comparable. So far, most experiments, which required information from X-ray Absorption Spectroscopy (XAS) and from X-ray Diffraction (XRD) measurements were performed at two different instruments. Just a few combined experiments have been performed at DESY in recent years. This satellite meeting will give an overview on how results from XAS and XRD measurements are combined in current research at DESY, and what the future developments at PETRA III and PETRA IV for combined experiments could look like.

Organiser: A. Schoekel, W. Caliebe

### DRAFT PROGRAMME

13:00	Welcome, Introduction	Alexander Schoekel	DESY
13:05	Advanced catalysts by reduction and growth of perovskite dopants	Simone Mascotto	Dep. Chemistry, Hamburg University
13:25	Combination of XAS and XRD techniques for structural analysis of materials for electrochemical energy storage	Daria Mikhailova	Electrochemical Storage Systems, IFW Dresden
13:45	Synchrotron-based in operando techniques for beyond Li-ion batteries	Qiang Fu	Institute for Applied Materials - Energy Storage Systems (IAM-ESS), KIT
14:05	Metal-Organic Framework Materials for Clean Energy Conversion and Storage	Zhehao Huang	Dep. Mat. Env. Chemistry, Stockholm Univ.
14:25	<b>Coffee break (15 Min.)</b>		
14:40	Combined QEXAFS & XRD Measurements at Beamline P64	Sebastian Paripsa	Bergische Universität Wuppertal
15:00	Evolution of catalysts for CO <sub>2</sub> electroreduction under dynamic reaction conditions	Janis Timoshenko	Fritz Haber Institute
15:20	Structural Characterization of Osmium Double Perovskites	Jagadesh Kopula Kesavan	Hybrid Nanostructures, Univ. Hamburg
15:40	Combining X-ray spectroscopy and small angle scattering - New opportunities for understanding biological energy transduction	Serena DeBeer	Max-Planck Institute for Chemical Energy Conversion
16:00	The new Material Science Lab Beamline at PETRA IV	Wolfgang Caliebe	DESY
16:20		Discussion	
17:00	<b>End of the workshop</b>		