

Photons and Neutrons for Research in Electrochemistry Workshop

Cosener's House, Oxfordshire

Day one: Monday 4th November 2019

Time	Title	Speaker/s
09:00	Arrival, registration, tea & coffee	
Session 1 – chaired by Jorg Zegehnagen, Diamond Light Source		
09:50	Welcome	Jorg Zegehnagen
10:00	ISIS Introduction	Peter Baker, Jos Cooper, Franz Demmel, Maria Diaz-Lopez
10:45	Electrochemistry Research at Diamond	Francesco Carla & Phil Chater
11:30	Update on Research at The Faraday Institution	Ian Ellerington, The Faraday Institution
12:00	Materials Engineering for Solid Oxide Fuel Cells	Professor Nigel Brandon, Imperial College London
12:30	Lunch	
Session 2 – chaired by Martin Owen Jones, ISIS		
13:30	Operando XAS and XES of Oxide Electrocatalysts	Professor Andrea Russell, University of Southampton
14:00	Operando Studies of Energy Conversion Devices	Professor John Irvine, St Andrews University
14:30	Electrodes for high power aqueous aluminium ion batteries	Dr Richard Wills, University of Southampton
15:00	Afternoon tea and coffee break	
Session 3 – chaired by Francesco Carla, Diamond Light Source		
15:30	Probing the charge distribution at the electrochemical interface	Dr Yvonne Grunder, University of Liverpool
16:00	Atomic Structure of Ionic Liquid Gate Induced Metallized Thin Oxide Films	Dr Holger Meyerheim, Max-Planck-Institute Halle, Germany
Session 4 – chaired by Andrea Russell, University of Southampton		
16:30	Li-ion Batteries Ageing Studied by Advanced Spectroscopic and Computational Techniques	Bernardo Barbiellini, LUT University, Finland
16:50	Insight into Sodium Diffusion in Hard Carbon	Anders Jensen, Queen Mary University, London
17:10	Surface X-ray Scattering Studies on Electrochemical Energy Conversion Processes and Battery Projects in Japan	Professor Kohei Uosaki, National Institute for Materials Science Tsukuba
17:40	Discussion	
18:00	Drinks reception at the bar (main house)	
19:00	Dinner in the restaurant (main house)	

Invited speaker talks: 25 mins + 5 min Q&A

Contributed speaker talks: 15 mins + 5 mins Q&A

Jointly organised by:



Day two: Tuesday 5th November 2019

Time	Title	Speaker/s
08:30	Arrival, registration, tea & coffee	
Session 5 – chaired by Jorg Zegenhagen, Diamond Light Source		
09:00	In-Situ Analysis of Electrochemical Interfaces with Ellipsometry and Reflection Anisotropy Spectroscopy	Dr. Christoph Cobet, Johannes Kepler University
09:30	Local Structure Studies of Lithium- and Sodium-Ion Battery Materials	Dr. Phoebe Allan, University of Birmingham
Session 6 – chaired by Martin Owen Jones, ISIS		
10:00	Characterisation and Operando Studies of Materials for Lithium Ion Battery Developments	Dr. Samuel Booth, University of Sheffield
10:30	Operando multi-lengthscale characterization of nanostructured rock-salt cathodes for Li-ion batteries	Dr Maria Diaz-Lopez, Diamond Light Source/ISIS
11:00	Mid-morning tea & coffee break	
Session 7 – chaired by Phoebe Allan, University of Birmingham		
11:30	Developments in Materials Characterisation to Accelerate the Development of Electrochemical Devices	Professor Paul Shearing, University College London
12:00	Shedding Light on Corrosion	Professor Alison Davenport, University of Birmingham
12:30	Lunch	
Session 8 – chaired by Alison Davenport, University of Birmingham		
13:30	Ultrafast vibrational spectroscopy and spectroelectrochemistry	Dr Paul Donaldson, Central Laser Facility, Harwell
14:00	Low Cost High Performance Materials for Electrochromic and Supercapacitor Applications	Dr Caroline Kirk, University of Edinburgh
14:30	Onset of Galvanic Corrosion in Steel Thin Films Investigated by Synchrotron X-rays, Debi Garai	Debi Garai, Diamond Light Source
14:50	Afternoon tea & coffee break	
Session 4 – chaired by Phil Chater, Diamond Light Source		
15:05	Using Neutron Reflectometry to Reveal the Behaviour of Biological Redox Species under Applied Potential	Mary Wood, École Polytechnique Lausanne, Switzerland
15:25	In situ X-ray Photoelectron Spectroscopy for Liquid Samples and Solid/Liquid Interfaces	Dr Takuya Masuda, National Institute for Materials Science Tsukuba
15:45	Flash Presentation	Linh Tran Thi Ngoc, Queen Mary University London
15:55	Wrap up	
16:00	Meeting close	

Invited talks: 25 mins + 5 min Q&A

Contributed talks: 15 mins + 5 mins Q&A

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