



Inaugural STFC Network Meeting: June 27-28th 2013, Cosener's House, Abingdon

Draft Programme

Introduction

10.30 – Paul Shearing, *Welcome and Introduction to the Network*

Session 1: “State of the Nation”: current status in key research areas:

Chair: Peter Lee

10.45 Saiful Islam, University of Bath: *Atomic-Scale Insights into Energy Materials - Batteries Included*

11.15 Bill David – ISIS/Oxford University: *H2 Storage Title TBC*

11.45 Coffee

12.00 Laurence Hardwick, University of Liverpool: *The Lithium-Oxygen Battery: Challenges and Expectations*

12.30 Peter Hall – Sheffield University: *Super-capacitors Title TBC*

13.00 Dan Brett – UCL: *Current challenges in fuel cell research and commercialisation*

13.30 Lunch

Session 2: Techniques: current state of the art in technique development

Chair: Dan Brett

14.20 Peter Lee, University of Manchester: *Imaging Developments at Diamond*

14.40 Stephen Hull, ISIS: *Crystallography/Spectroscopy at ISIS, Title TBC*

15.00 Nic Harrison, Imperial College/STFC Hartree Centre: *Atomistic and First Principles Materials Modelling – An Overview*

15.20 Alexei Kornyshev, Imperial College: *UNDERSTANDING ENERGY STORAGE AND CHARGING DYNAMICS OF NANOSTRUCTURES SUPERCAPACITORS: THEORY, SIMULATIONS, EXPERIMENTS*

15.40 Coffee

Chair Nic Harrison

16.00 Burkhard Kaulich, Diamond: *Developments at Beamline I08*

16.20 Simon Jacques, University of Manchester: *X-ray based physico-chemical imaging*

16.40 Kevin Smith, STFC: *The STFC Energy Futures Programme*

17.00 Paul Shearing, UCL: *Launch of the STFC Futures Early Career Award*

19.00 Pre-dinner drinks

19.30 Dinner

Day 2 Applications

Session 3: Batteries:

Chair Paul Shearing

9.30 – Vanessa Wood, ETH Zurich: *Imaging Batteries at TOMCAT, Title TBC*

9.50 David Eastwood, University of Manchester: *4D in situ X-Ray Imaging of Operational Batteries*

10.10 Fiona Strobridge, University of Cambridge: *Developing synchrotron techniques to help enhance the performance of olivine cathode materials*

10.30 Jawwad Darr, UCL: *Scale-up Continuous Hydrothermal Manufacture of Nano Li-ion Battery Materials for Excellent High Rate Performance*

10.50 Coffee

Chair Bill David

11.10 Benedetto Bozzini, Università del Salento: *IN SITU CHARACTERIZATION OF PEMFC, SOFC AND SUPERCAPACITOR COMPONENTS BY SOFT X-RAY ABSORPTION, FLUORESCENCE AND PHOTOELECTRON MICROSCOPY*

11.30 Chiu Tang, Diamond: *I11 Long Duration Experimental Facility for Energy Research*

11.50 Robert Hillman, University of Leicester: *Ion and solvent transfer dynamic control of charge storage in conducting polymer films*

12.10- TBC

12.30 Lunch

Session 4: Fuel Cells and Hydrogen:

Chair: Stephen Skinner

13.30 Paul Andersen, University of Birmingham: *Mixed-Anion Light Metal Complex Hydrides for Energy Applications*

13.50 Stephen Price, University of Southampton: *Studies of Core-shell electrocatalysts*

14.10 Ryan Bayliss, Imperial College: *Title TBC*

14.30 Paul Shearing, UCL: *Imaging and spectroscopy of SOFC electrodes*

14.50 Closing Remarks

15.15 – Minibus departs for optional tour at Diamond Lightsource