<table>
<thead>
<tr>
<th>Time</th>
<th>Event</th>
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<tbody>
<tr>
<td>09.00</td>
<td>Registration &amp; Refreshments</td>
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<tr>
<td>09.45</td>
<td>Introduction &amp; Welcome</td>
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| 09.50 | Plenary Talk: From volcanoes to urban air quality; extending the range of amperometric gas sensors  
John Saffell, Technical Director, Alphansense Ltd., UK |
| 10.40 | Refreshments, Poster & Exhibition                                     |
| 11.00 | Sessions (please see below for details)                               |
| 12.50 | Lunch (and at 13.20) RSC/SCI AGM’s                                   |
| 14.20 | Sessions (please see below for details)                               |
| 15.40 | Refreshments, Poster & Exhibition                                     |
| 16.10 | Sessions (please see below for details)                               |
| 17.30 | Drinks Reception, Poster & Exhibition                                 |
| 19.30 | Gala Dinner                                                           |

**Tuesday 14 September**

### Symposium Keynote Lecture: Advances in fuel cell metrology diagnostics, imaging and sensors
Dan Brett, The Centre for CO2 Technology, UCL, UK

### Carbon materials for the negative electrode in the Zn-Ce redox flow cell
Leonard Berlouis, University of Strathclyde, UK

### Oxygen electrodes for lithium air rechargeable batteries
Olubukun Oloniyo, Newcastle University, UK

### An introduction to sacrificial salts as candidates for an alternative approach to overlithiation
Devaraj Shanmukaraj, Universite de Picardie Jules Vern, France

### Classical simulation of electrochemistry on the nanoscale
Tommi Jaervi, Fraunhofer-Institut für Werkstoffmechanik IWM, Germany

### Sub-Micron tomography of electrochemical devices
Paul R. Shearing, Imperial College, London, UK

### Photoelectrochemical reactors for H2 production using solar energy
C.K. Ong, Imperial College, London, UK

### Rapid sintering of TiO2 layers for metal based dye-sensitized solar cells
Trystan Watson, Swansea University, UK

### Nanocrystalline ZnFe2O4 electrodes for photoelectrochemical water splitting
Asif Ali Tahir, Loughborough University, UK

### High performance polymer electrolyte membrane water electrolyser for hydrogen economy
Wu Xu, Newcastle University, UK

### Studying the oxygen reduction reaction under realistic fuel cell conditions
Chris Zalitis, Imperial College, London, UK

### Polypyrrole/cellulose-based electrochemical supercapacitors
Soon Yee Liew, University of Nottingham, UK
11.10 Symposium Keynote Lecture: Robust individual gold nanowire-based electrode for electrochemistry
Alan O’Riordan, University College Cork, Republic of Ireland

11.50 Development and characterisation of microfabricated electrode systems
Andrew R. Mounta, School of Chemistry, Edinburgh, UK

12.10 Electroanalysis at a junction
Frank Marken, University of Bath, UK

12.30 Novel liquid chromatographic dual electrode detection system for the determination of rohypnol, ativan and valium in serum samples
Kevin C. Honeychurch, University of the West of England, UK

14.20 Iron (II) phthalocyanine modified carbon for oxygen reduction in alkaline membrane fuel cells
Xu Wang, Newcastle University, UK

14.40 Localized surface plasmon resonance (LSPR) sensors based on gold island films
Alexander Vaskevich, Weizmann Institute of Science, Israel

15.00 Electrochemical characterisation of mutant glucose oxidase obtained from directed evolution
James. Merotra, Newcastle University, UK

15.20 Permeability measurements under hydrodynamic control
Matej Velicky, University of Manchester, UK

Lab to market

11.10 Symposium Keynote Lecture: Experiences of commercialising electrochemistry
Graham Cooley, ITM Power PLC, UK

11.50 Spinning out a fuel cell company - the Ceres Power story
Nigel Brandon, Imperial College London, UK

12.10 Patents with a chemical spin
Joanna Westwood, Withers & Rogers LLP, UK

12.30 Innovation in water treatment: the spin-out of Arvia Technology Ltd.
Edward. Roberts, University of Manchester, UK

14.20 Metal finishing using ionic liquids
Andrew P. Abbott, Department of Chemistry, University of Leicester, UK

14.40 Exploiting University IP - The Role of the Technology Transfer Office
Tim Fishlock, UCL Business PLC, Centre for Materials Research, UK

15.00 Recruiting CXOs for a Spin-Out
Frank Suhadolnik, The Praesumo Partnership, UK

16.10 VC Panel
Andrew Oldfield, Mark Rhan and Mark Payton
09.00 Plenary Talk: New directions in electrochemical imaging  
Professor Patrick Unwin, University of Warwick, UK
09.50 Refreshments, Poster & Exhibition
10.30 Sessions (please see below for details)
12.10 Lunch
13.30 Sessions (please see below for details)
14.30 Refreshments, Poster & Exhibition

Electrochemical surface technology  
Wednesday 15 September
Lecture Theatre

10.30 Symposium Keynote Lecture: Colloidal templates for the electrodeposition of structured surfaces  
Philip N. Bartlett, School of Chemistry, University of Southampton, UK
11:10 Electrodeposition of copper composites from deep eutectic solvents based on choline chloride  
Karl S. Ryder, University of Leicester, UK
11.30 Electrodeposition of Cu from room temperature ionic liquids  
Swatilekha Ghosh, Newcastle University, UK
11.50 Electrolytic deposition and stripping of Zn metal from deep eutectic solvents  
Emma L. Smith, University of Leicester, UK
13.30 Surface alloying during Pb underpotential deposition on Au(111)  
Jeerapat Nutariya, University of Bristol, UK
13.50 Electroless and electrochemically deposited nickel as potential underlayers for chromium plating of aluminium alloys  
Chike F. Oduoza, University of Wolverhampton, UK
14.10 Magnetic field effect on copper growth modes at different \( j/j_{\text{L}} \) ratios. Characterization by electrochemical noise  
Dámaris Fernández, Trinity College Dublin, Republic of Ireland
15.00 Electrochemical analysis of electrodeposited Tin-Copper solder alloys from Methanesulfonic Electrolytes  
Naray Pewnim, Newcastle University, UK
15.20 The electrochemical synthesis of ferritic stainless steel alloyed with niobium in sulphuric acid solution  
Hulya Demirorena, University of Firat, Turkey
15.40 Understanding the effect of surface machining of 304L stainless steel by in-situ electrochemical study at high temperature and pressure  
Swati Ghosh, Bhabha Atomic Research Center, India
16.00 Electrochemical oxygen reduction activity of pyrolysed carbon nitrides
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<tr>
<th>Time</th>
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<tr>
<td>10.30</td>
<td>Symposium Keynote Lecture: Nanomaterials-based microfluidic arrays for multiplexed detection of cancer biomarker proteins</td>
<td>James F. Rusling, University of Connecticut</td>
<td>USA</td>
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<tr>
<td>11.10</td>
<td>Electrochemistry within lyotropic liquid crystal nanostructures</td>
<td>Jay Wadhawan, University of Hull</td>
<td>UK</td>
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<tr>
<td>11.30</td>
<td>Titanium oxide nanotubes: synthesis, characterisation and coatings</td>
<td>Dmitry Bavykin, University of Southampton</td>
<td>UK</td>
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<tr>
<td>11.50</td>
<td>Functionalised Metal Nanoparticles as Hydrophobic Electro catalysts for Oxygen Reduction</td>
<td>Fakhradin Mirkhalaf, University of Coventry</td>
<td>UK</td>
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<tr>
<td>13.30</td>
<td>Electrodeposition of nanostructured platinum films through self-assembled cubic templates</td>
<td>Samina Akbar, University of Reading</td>
<td>UK</td>
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<tr>
<td>13.50</td>
<td>Electrodeposited Ni, Co, and their alloys from gluconate baths</td>
<td>Mosaad Negema, Newcastle University</td>
<td>UK</td>
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<tr>
<td>14.10</td>
<td>Electrodeposition of nickel micropatterns without photolithography using EnFACE</td>
<td>Tri Widayatno, Newcastle University</td>
<td>UK</td>
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<td><strong>Environmental treatment and recycling</strong></td>
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<td><strong>Wednesday 15 September</strong></td>
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<tr>
<td>10.30</td>
<td>Symposium Keynote Lecture: Water treatment by adsorption and electrochemical regeneration</td>
<td>Edward Roberts, University of Manchester</td>
<td>UK</td>
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<tr>
<td>11.10</td>
<td>Possibilities of electrochemical oxidation at BDD anodes in waste water treatment and reclamation</td>
<td>Angela Anglada, University of Cantabria</td>
<td>UK</td>
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<tr>
<td>11.30</td>
<td>Non-Platinum ORR catalyst for a microbial fuel cell</td>
<td>Richard Burkitt, Newcastle University</td>
<td>UK</td>
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<tr>
<td>11.50</td>
<td>Electrochemical recovery of nickel from nickel sulfamate effluents</td>
<td>Anna Kovalev, Imperial College London</td>
<td>UK</td>
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<tr>
<td>13:30</td>
<td>Comparison of the electrochemical recovery of palladium using a parallel flat plate and rotating cylinder electrode reactors</td>
<td>Carlos Ponce de Leon, University of Southampton</td>
<td>UK</td>
</tr>
<tr>
<td>13:50</td>
<td>Application bio-electrochemical systems inorganic water treatment</td>
<td>Jeet Varia, Newcastle University</td>
<td>UK</td>
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</table>
15.00  Symposium Keynote Lecture
    Paul Lansdell, Kohler Mira, UK

15.40 Surface decontamination by photocatalysis
    Richard Wilbraham, Lancaster University, UK

16.00 Electrochromic enhancement of latent fingerprints on metal
    Ann L. Beresford, Leicester, UK

16.20 An investigation into bronze being a substitute for nickel in the chromium electroplating process
    Stacey Handy, University of Wolverhampton, UK

16.40 Dynamic theory of liquid junction potentials
    Edmund J. F. Dickinson, University of Oxford, UK

17.00 Electrode materials for lightweight lead acid batteries
    L. Wallis, University of Southampton, UK

17.20 Enhanced nickel hydroxide electrochromic performance for low energy consumption
    Zeeshan Sialvi, Loughborough University, UK