

## MSDG Christmas Meeting 2013 Final Programme

08:30 Registration and poster-set-up

08:55 Welcome and Introduction from Professor Andrew Abbott

09:00 Invited Lecture

### **The Simple Molten Salt Reactor – Safe, cheap nuclear energy at last?**

Ian Scott

*Somerset House, Strand, London, WC2R 1LA*

Contact E-mail: [ian.scott@the-weinberg-foundation.org](mailto:ian.scott@the-weinberg-foundation.org)

09:40 Technical Sessions 1 Chair Professor Geir Martin Harberg

09:40 **Recent Developments in Metalysis Metal Powder Production and its Associated Processing**

Lucy Grainger, Ian Mellor, Kartik Rao, Greg Doughty

Metalysis Ltd.

10:05 **Can Ionic Liquids Provide an Alternative Pathway to Processing Lignocellulosic Materials to Biofuels?**

R. J. Gammons<sup>1,2</sup>, J. M. Slattery<sup>1</sup>, S. Shimuzu<sup>1</sup>, N. C. Bruce<sup>2</sup> & S. J. McQueen-Mason<sup>2</sup>

<sup>1</sup>Department of Chemistry, University of York, Heslington, York, YO10 5DD, UK

<sup>2</sup>CNAP, Department of Biology, University of York, Heslington, York, YO10 5DD, UK

Contact E-mail: [rjg501@york.ac.uk](mailto:rjg501@york.ac.uk).

10:30 Morning coffee and Poster Session No. 1

11:00 Technical Sessions 2 Chair Professor George Chen

11:00 **Thermoelectric cells with molten carbonate electrolytes**

Geir Martin Harberg<sup>1</sup>, Signe Kjelstrup<sup>2</sup>, Marit Takla<sup>2</sup> and Xue Kang<sup>2</sup>

<sup>1</sup> Department of Materials Science and Engineering, Norwegian University of Science and Technology, NO-7491Trondheim, Norway

<sup>2</sup> Department of Chemistry, Norwegian University of Science and Technology, NO-7491Trondheim, Norway Contact E-mail: [geir.martin.haarberg@ntnu.no](mailto:geir.martin.haarberg@ntnu.no)

11:25 **A Fluidised Cathode Process for the Direct Electrochemical Reduction of Tungsten Oxide in a Molten LiCl-KCl Eutectic**

Rema Abdulaziz, L.D.Brown, D.Inman, S. Simons, P.R.Shearing & D.J.L.Brett

<sup>1</sup> Electrochemical Innovation Lab, Department of Chemical Engineering, University College London, Torrington Place, London, WC1E 7JE, United Kingdom. Contact E-mail: [d.brett@ucl.ac.uk](mailto:d.brett@ucl.ac.uk)

11:50 **Uranium electroplating in molten lithium chloride-potassium chloride eutectic**

Leon D.Brown, R.Abdulaziz, S.Simons D.Inman, D.J.L.Bret, P.R.Shearing

Electrochemical Innovation Laboratory, Dept. Chemical Engineering, UCL, London, WC1E 7JE.

Contact E-mail: [d.brett@ucl.ac.uk](mailto:d.brett@ucl.ac.uk)

12:15 **Chromium electrodeposition using a novel type IV deep eutectic solvent**

Azeez A. Al-Barzinjy<sup>1,2</sup>, Andrew. P. Abbott<sup>1</sup> & Karl S. Ryder<sup>1</sup>

<sup>1</sup> Department of Chemistry, University of Leicester, Leicester, LE1 7RH, UK

<sup>2</sup>Department of Physics, College of Education, University of Salahaddin, Hawler, Iraq

Contact E-mail: [aa643@le.ac.uk](mailto:aa643@le.ac.uk)

- 12:40 **What is at the outer ionic liquid/gas surface? A LEIS study**  
Ignacio J. Villar-Garcia<sup>1</sup>, Sarah Fearn<sup>1</sup>, Gilbert De Gregorio<sup>2</sup>, Nur Liyana Ismail<sup>2</sup>, Alastair J. S. McIntosh<sup>2</sup>, Kevin R. J. Lovelock<sup>2</sup>  
<sup>1</sup> Department of Materials, Imperial College London. <sup>2</sup> Department of Chemistry, Imperial College London. [kevin.lovelock@imperial.ac.uk](mailto:kevin.lovelock@imperial.ac.uk)
- 13:05 Lunch, & Poster Session No. 2
- 14:00 Annual General Meeting of the MSDG.
- 14:30 Technical Session No. 3 Chair Dr Trevor Griffiths
- 14:30 **Funding a feasibility study for a pilot scale MSR**  
Jasper Tomlinson and Trevor Griffiths
- 14:55 **Extraction of CO<sub>2</sub> from diluted flue gases – a new application for molten salts**  
Espen Olsen<sup>1</sup>, V. Tomkute<sup>1</sup> and A. Solheim<sup>2</sup>  
<sup>1</sup>Dep. Mathematical Sciences and Technology, Norwegian University of Life Sciences, Drøbakveien 31, N-1432 Ås, Norway, <sup>2</sup>SINTEF Materials and Chemistry, Sem Sælands vei 2a, N-7439 Trondheim, Norway  
[espen.olsen@umb.no](mailto:espen.olsen@umb.no)
- 15:20 **Probing the Complex Structure of Ionic Liquids using MD Simulations**  
K. Shimizu<sup>1,2</sup>, C. E. S. Bernardes<sup>1</sup>, José N. Canongia Lopes<sup>1,2</sup>  
<sup>1</sup>Centro de Química Estrutural, Instituto Superior Técnico, 1049 001 Lisboa, Portugal  
<sup>2</sup>Instituto de Tecnologia Química e Biológica, Universidade Nova de Lisboa, 2780 901 Oeiras, Portugal  
Contact E-mail: [jnlopes@ist.utl.pt](mailto:jnlopes@ist.utl.pt)
- 15:45 Afternoon tea and Poster Session No. 3
- 16:15 Technical Session No. 4 Chair Dr Robert Watson
- 16:15 **Flue Gas Cleaning by Ionic Liquids**  
Peter Thomassen, Andreas J. Kunov-Kruse, Susanne, L. Mossin, Helene Kolding, Søren Kegnæs, Anders Riisager, Rolf W. Berg and Rasmus Fehrmann  
Centre for Catalysis and Sustainable Chemistry, Department of Chemistry, Technical University of Denmark Building 207, Kemitorvet, DK-2800 Kgs. Lyngby, Denmark
- 16:40 **50 Years ago in America: my time in Oak Ridge**  
Trevor R. Griffiths
- 17:15 Wine and Cheese Reception
- 18:00 Close of Meeting.