

Future Energy: Chemical Solutions

12 – 14 September 2007

University of Nottingham, UK

Programme

Wednesday 12 September 2007

11:00	Registration (Exchange Building)
12.15	Lunch (<i>Ticket Only</i>) - C33
13:25	Welcome - Dr Mercedes Maroto-Valer Conference, Co-Chair
	Session 1: Energy Materials Morning Session Chair: Dr Mercedes Maroto-Valer University of Nottingham, UK
13.30	Keynote Future energy materials: a challenge for materials chemistry Peter Edwards, FRS <i>University of Oxford, UK</i>
14.10	Keynote Molecular semiconductor photovoltaic devices Sir Richard Friend FRS <i>University of Cambridge, UK</i>
14.50	Electrochemical energy storage: beyond the horizon Yuri G. Andreev <i>University of St Andrews, UK</i>
15.20	High H₂ adsorption by porous co-ordination framework materials Xiang Lin, Junjua Jia, Alexander J Blake, Claire Wilson, Neil R Champness, Peter Hubberstey, Gavin Walker and Martin Schröder* <i>University of Nottingham, UK</i>
15.50	Afternoon Coffee – C33 Afternoon Session Chair: Professor Paul Rutter Imperial College London, UK
16.20	Atomic-scale insight into solid state materials for fuel cells and lithium ion batteries M Saiful Islam*, Craig A J Fisher and Peter R Slater <i>University of Bath, UK</i>
16.50	New complex light hydrides for potential hydrogen storage Paul A Anderson* and Philip A Chater <i>University of Birmingham, UK</i>
17.20	Hydrogen storage in novel nitrides Catherine M Jewell, Jinhan Yao and Duncan H Gregory* <i>University of Glasgow, UK</i>
17:50	Close of session
18:15	Dinner (<i>Ticket only</i>) – <i>Catering Atrium</i>
19:30	Poster session and Drinks Reception – C33
20:30	Poster session closes

Thursday 13 September 2007

08.45	<p>Plenary Technologies for secure and sustainable energy Steve Koonin, <i>BP, UK</i></p>
	<p>Session 2: Energy Innovation and Policy Session chair: Dr Matthew Leach <i>Imperial College London, UK</i></p>
09.25	<p>Keynote Title TBC Dave Vincent, <i>The Carbon Trust, UK</i></p>
10.05	<p>Keynote The links between transport, air quality and climate change David Carslaw, <i>University of Leeds, UK</i></p>
10:45	Morning Coffee – C33
11.15	<p>Supergen-bioenergy A Bridgewater*, J M Jones, Alan Williams, G Kelsall and I Sheild <i>Aston University, UK</i></p>
11:45	<p>Unlocking the petroleum-chemical complex: the relevance of chemical production in the transition to sustainable energy systems Simon J Bennett* and Peter J G Pearson, <i>Imperial College London, UK</i></p>
	<p>Session 3: Fuel Cells Session Chair: Dr Dennis Lewis</p>
12.15	<p>Understanding bioelectricity generation and biodiversity in microbial fuel cells S B Velasquez Orta*, K P Katuri, I M Head, T Curtis and K Scott <i>University of Newcastle, UK</i></p>
12:45	<p>Microbial fuel cells extract sustainable energy from wastewater H Hu* and John Andresen <i>University of Nottingham, UK</i></p>
13.15	Lunch (<i>No tickets required</i>) – <i>Catering Atrium</i>
	<p>Session 4: Carbon Capture and Storage Session Chair: Professor Mike Pilling <i>University of Leeds, UK</i></p>
14:30	<p>Keynote Burning fossil fuels – how do we evaluate their net impact on climate? Keith Shine, <i>University of Reading, UK</i></p>
15:10	<p>Understanding the chemical transformations in ferric iron containing sediments during carbon dioxide sequestration Susana Garcia* and Mercedes Maroto-Valer, <i>University of Nottingham, UK</i></p>
15:40	Afternoon Coffee – C33
16:10	<p>Amine scrubbing for CO₂ capture from power plant flue gas N J Booth*, <i>Power Technology, UK</i></p>
16:40	<p>Development of adsorbent technologies for pre and post-combustion CO₂ T C Drage*, A Arenillas, C Pevida, K M Smith and C E Snape <i>University of Nottingham, UK</i></p>
	<p>Session 5: Nuclear Waste Management Session Chair: Professor Mike Pilling <i>University of Leeds, UK</i></p>

17.10	Keynote Nuclear fuel cycle and waste management: status, prospects and challenges Bernard Boullis, <i>CEA, France</i>
17.50	Close of sessions
18:30	Pre-Dinner Drinks – <i>Catering Atrium</i>
19:00	Conference Dinner (<i>Ticket only</i>) – <i>Catering Atrium</i>
19:10	Presentation by Professor David Garner

Friday 14 September 2007

	Session 6: Bio-Energy Session chair: Dr Dennis Lewis
08.45	Keynote Fuels chemistry: history, trends and challenges for alternative fuels John Griffiths <i>University of Leeds, UK</i>
09.25	Cofiring of coal and biomass- a major contribution to carbon dioxide reduction L Ma, J M Jones, M Pourkashanian and Alan Williams <i>University of Leeds, UK</i>
09.55	Bio-diesel from refining wastes of crude vegetable oil V Madhusudhan Rao* and P Ashok Kumar <i>Vignans Engineering College Vadlamudi, India</i>
10.25	Morning coffee – C33
	Session 7: Catalysts for Energy Session Chair: Professor Alan Williams <i>University of Leeds, UK</i>
10.55	Compact and safe hydrogen storage in solid metal ammines Rasmus Zink Sorensen*, Asbjorn Klerke, Jacob Birke Reves, Ulrich Quaade, Jens Kehlet Norskov and Claus Hviid Christensen <i>Technical University of Denmark</i>
11.25	High throughput nanoceramics discovery; efficient methods for making energy materials Jawwad A Darr* <i>University College London, UK</i>
11.55	Development of new nano-catalysts for cleaner energy provisions Edman Tsang* <i>University of Reading, UK</i>
12.25	New insight into the reactivity of LiNH₂ with LiH J H Yao, K F Aguey-Zinsou* and X. Guo <i>Queen Mary University of London, UK</i>
12.55	Closing - Professor Mike Pilling Conference, Co-Chair

*denotes presenter to whom affiliation applies