

## RECENT INNOVATIONS IN FLUID SEPARATIONS including CO<sub>2</sub> CAPTURE

**Pusey Room, Keble College, Oxford**

***Wednesday 25 May 2011***

At the heart of most chemical plants lie fluid separation processes, many based on distillation and absorption, and this symposium highlights some of the most recent innovative research and novel developments within these technologies, ranging from measurement of thermodynamic properties to intensified equipment design and operations.

A particular topic of the symposium is CO<sub>2</sub> capture.

The symposium is organised by the European Federation of Chemical Engineering's Working Party on Fluid Separations in collaboration with the IChemE's Fluid Separations Subject Group.

**Event registration:** Pre-registration is essential. To reserve your place, please complete and return the accompanying registration form with your payment. Places are limited — book early to avoid disappointment.

For further information please contact: Dr Eva Sorensen at [e.sorensen@ucl.ac.uk](mailto:e.sorensen@ucl.ac.uk)

**Map & directions:** Keble College is situated on the northern edge of Oxford city centre, just off Banbury Road and the northern end of St Giles. It is opposite the University science area and the University Parks. Directions can be found on: <http://www.keble.ox.ac.uk/about/location>  
Directions to the Pusey Room can be found on:  
<http://www.keble.ox.ac.uk/conferences/colourplan.pdf>

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### Programme

09:30	<b>Welcome &amp; Coffee</b>
10:00	<b>Fast cation-exchange separation of proteins in a plastic microcapillary disc</b> Nicholas Darton, University of Cambridge
10:20	<b>Development of multistage distillation in a microfluidic chip</b> Eva Sorensen, UCL
10:40	<b>A modular and flexible approach to micro-structured devices for desorption: The high efficiency contactor</b> Zarko Olujic, Delft University of Technology
11:00	<b>COFFEE</b>
11:15	<b>Interfacial turbulence and its effect on gas-liquid interfacial mass transfer</b> Xigang Yuan, Tianjin University
11:35	<b>Thermodynamic properties of ionic liquid mixtures to be used as reaction media in Ru-BINAP catalysed stereoselective hydrogenations</b> Magdalena Bendova, Academy of Sciences of the Czech Republic
11:55	<b>Application of ionic liquids for biofuel extraction</b> Martin Stoffers and Andrzej Gorak, University of Dortmund
12:15	<b>The allocation of emission rights under the EU Emission Trading System for the 3rd trading period 2013-2020</b> George Debryn, Antwerp
12:30	<b>LUNCH</b>
14:00	<b>The role of CO<sub>2</sub> capture technology in the mitigation of greenhouse gas emissions from power plants</b> Stanley Santos, IEA
14:25	<b>Comparing air capture and CO<sub>2</sub> capture from power plants</b> Stefano Brandani, University of Edinburgh
14:50	<b>Compact CO<sub>2</sub> capture</b> Henrik Solgaard Andersen, Statoil
15:15	<b>Recent equipment developments in post combustion technology</b> Lothar Spiegel, Sulzer
15:35	<b>TEA</b>
16:00	<b>Forward osmosis for low energy membrane desalination</b> Nick Hankin, University of Oxford
16:20	<b>A more general approach to distillation limit</b> Lechoslaw Krolikowski, Wroclaw University of Technology
16:40	<b>Thermodynamic optimisation of distillation columns</b> Megan Jobson, University of Manchester
17:00	<b>Energy savings in distillation via identification of useful configurations</b> Rakesh Agrawal, Purdue University
17:20	<b>A new energy distribution system based on energy carrying compounds</b> Wolfgang Arlt, Erlangen University
17:45	<b>Discussion</b>
18:00	<b>CLOSE</b>