

## LECTURE PROGRAMME

### Sunday, 10 October 2010

- 12:00 **EXCURSION LAKE KÖNIGSSEE**
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- 18:00 **WELCOME RECEPTION**  
at the Kongresshaus Berchtesgaden
- 
- 19:45 **OPENING ADDRESS**  
W. Leitner, RWTH Aachen/D
- 
- 20:00 **OPENING LECTURE**  
**The search for green solvents: we're half way there!**  
P.G. Jessop, Queen's University, Kingston Ontario/CDN



## LECTURE PROGRAMME

### Monday, 11 October 2010

- Chair: K.R. Seddon, Queen's University of Belfast/UK*
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- 8:30 **KEYNOTE LECTURE**  
**Green solvents in the pharmaceutical industry**  
P.J. Dunn, Pfizer Global Research and Development, Sandwich/UK
- 
- 9:10 **Ionic liquids as effective reaction medium for the synthesis of DMC from CO<sub>2</sub> and methanol**  
V. Eta, P. Mäki-Arvela, D. Yu. Murzin, T. Salmi, Åbo Akademi, Turku/FIN; J-P. Mikkola, Umeå University/S
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- 9:35 **Processing polymeric bio-materials using supercritical CO<sub>2</sub>**  
Z. Knez, E. Markocic, M. Škerget, University of Maribor/SLO
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- 10:00 *Coffee break*
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- Chair: C. Chiappe, University of Pisa/I*
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- 10:30 **KEYNOTE LECTURE**  
**Continuous flow for and with ionic liquids**  
L. Greiner, DECHEMA e.V., Frankfurt am Main/D
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- 11:10 **Supercritical CO<sub>2</sub> as novel particle formation media: applications to the formation of metallic nanoparticles**  
M. Türk, Karlsruhe Institute of Technology (KIT)/D
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- 11:35 **γ – Vaterolactone for γ – Vaterolactone**  
L. Qi, G.R. Akien, I.T. Horváth, City University of Hong Kong/HK
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- 12:00 *Lunch*
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- 12:00 **Mitgliederversammlung**  
13:00 **der Fachsektion „Advanced Fluids“**

## LECTURE PROGRAMME

## Monday, 11 October 2010

*Chair: M. Hempel, Deutsche Bundesstiftung Umwelt, Osnabrück/D*

- 13:30 **KEYNOTE LECTURE**  
**Carbon dioxide as a greener solvent and reactant for catalytic reactions**  
 T. Ikariya, Tokyo Institute of Technology/J
- 14:10 **On the applicability of biodiesel as absorbent for the improvement of aromatic hydrocarbons removal: an industrial application**  
 M.T. Müller, H. Arellano-Garcia, TU Berlin/D; H. Thielert, Uhde GmbH, Dortmund/D; G. Wozny, TU Berlin/D
- 14:35 **Investigating the influence of neoteric solvents on the Pd(II) catalysed oxidation of alcohols**  
 D.S. Bailie, L. Bartek, E. Brennan, G.M.A Clendenning, Queen's University of Belfast/UK; B.A. Core, University of St. Andrews/UK; L. Liang, M.J. Muldoon, Queen's University of Belfast/UK
- 15:00 **Ionic liquids: media for size controlled synthesis of nanoparticles and safe-to-handle nanoparticle dispersions**  
 A. Willm, T.J.S Schubert, F. Stiemke, IOLITEC GmbH, Heilbronn/D
- 15:25 *Coffee break*
- Chair: K. Massonne, BASF SE, Ludwigshafen/D*
- 15:55 **KEYNOTE LECTURE**  
**Supercritical CO<sub>2</sub> processes applications: from extraction plants to material science**  
 S. Sarrade, CEA Marcoule, Bagnols-sure Cèze/F
- 16:35 **Green supercritical route for super hybrid materials**  
 T. Adschiri, Tohoku University, Sendai/J
- 17:00 **Analysis of evaporation and thermal decomposition of ionic liquids by thermogravimetry at ambient pressure and UHV**  
 F. Heym, University of Bayreuth/D; B.M. Etzold, University of Erlangen-Nuremberg/D; C. Kern, A. Jess, University of Bayreuth/D
- 17:25 **KEYNOTE LECTURE**  
**Ionic liquids in heterogeneous catalysis**  
 P. Wasserscheid, University of Erlangen-Nuremberg/D

18:05  
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 20:00 **POSTER SESSION**

## LECTURE PROGRAMME

## Tuesday, 12 October 2010

*Chair: U. Kragl, University of Rostock/D*

- 8:30 **KEYNOTE LECTURE**  
**Aqueous and ionic liquid two-phase hydroformylation and hydroaminomethylation**  
 D. Vogt, TU Eindhoven/NL
- 9:10 **New ionic liquids from perhydroazepine and 3-methylpiperidine**  
 T. Belhocine, A.V. Puga, K.R. Seddon, G. Srinivasan, Queen's University of Belfast/UK; S. Forsyth, K. Whiston, INVISTA, Wilton/UK
- 9:35 **Biodiesel production potential of algal lipids extracted with supercritical carbon dioxide**  
 L. Soh, J.B. Zimmerman, Yale University, New Haven, CT/USA
- 10:00 *Coffee break*
- Chair: A. Behr, TU Dortmund/D*
- 10:30 **KEYNOTE LECTURE**  
**Fluorous solvents for catalyst recovery, catalyst activation and product protection**  
 J.A. Gladysz, Texas A&M University, College Station, TX/USA
- 11:10 **Aqueous micellar solutions as green solvents for hydrogenation reactions: reaction and catalyst recycling**  
 M. Schwarze, T. Hamerla, TU Berlin/D; J.S. Milano-Brusco, RWTH Aachen/D; S. Wille, L. Mokrushina, University of Erlangen-Nuremberg/D; I. Smirnova, TU Hamburg-Harburg/D; W. Arlt, University of Erlangen-Nuremberg/D; R. Schomäcker, TU Berlin/D
- 11:35 **New ionic liquid catalyst systems for direct dehydration of glucose and its polymers into 5-hydroxymethylfurfural**  
 T. Ståhlberg, A. Riisager, S. Rodríguez, P. Fristrup, TU Denmark, Lyngby/DK
- 12:00 *Lunch*

## LECTURE PROGRAMME

**Tuesday, 12 October 2010**

*Chair: S.-E. Park, Inha University, Incheon/ROK*

13:30 **KEYNOTE LECTURE**  
**Polymeric materials for medical applications: a supercritical approach**  
 S.M. Howdle, University of Nottingham/UK

14:10 **Extremely functional and easily tunable green ionic liquids**  
 M. Fabris, V. Lucchini, M. Noè, A. Perosa, M. Selva,  
 University of Venice/I

14:35 **Thermoregulated PEG biphasic system for separation and recovery of transition-metal nanoparticle catalyst**  
 Z. Sun, Y.H. Wang, J.Y. Jiang, Z.L. Jin, Dalian University of Technology/PRC

15:00 **KEYNOTE LECTURE**  
**Carbonate solvents for selective homogeneous catalysis**  
 C. Fischmeister, University of Rennes/F

15:40 *Coffee break*

*Chair: D. Vogt, TU Eindhoven/NL*

16:10 **KEYNOTE LECTURE**  
**Integrated technology of hydrothermal synthesis and supercritical water oxidation**  
 Y.-W. Lee, Seoul National University/ROK

16:50 **New chiral catalysts for asymmetric oxidation in green media**  
 F. Szydło, M.Y. Elkadiri, B. Andrioletti, University Claude Bernard Lyon 1, Villeurbanne/F

17:15 **Sustainable production of tetrahydrocannabinol using supercritical carbon dioxide**  
 H. Perrotin-Brunel, W. Buijs, TU Delft/NL; M.J.E. Roosmalen van, FeyeCon D&I B.V, Weesp/NL; J. Spronsen van, TU Delft/NL; R. Verpoorte, University of Leiden/NL; C.J. Peters, Petroleum Institute, Abu Dhabi/UAE; G.J. Witkamp, TU Delft /NL

17:40 **KEYNOTE LECTURE**  
**Biocatalysis in non-conventional media – past, present and future**  
 U. Kragl, University of Rostock/D

18:20 **END OF LECTURE PROGRAMME**

19:30 **BAVARIAN CONFERENCE DINNER**

## LECTURE PROGRAMME

**Wednesday, 13 October 2010**

*Chair: H. Olivier-Bourbigou, IFP-Lyon, Solaize/F*

8:30 **KEYNOTE LECTURE**  
**Ionic liquids: commercial applications, toxicological assessments and regulatory requirements**  
A. Alemany, K. Müller, BASF SE, Ludwigshafen/D

9:10 **Dehydration of ethanol in water under sub- and supercritical conditions**  
H. Busch, H. Vogel, TU Darmstadt/D

9:35 **Batch and continuous flow efficient enzymatic synthesis of biodiesel in mono- and multiphase systems based on ILs and  $\text{scCO}_2$**   
P. Lozano, J. Bernal, University of Murcia/E; M. Vaultier, CNRS, Rennes/F

10:00 **Utilisation of  $\text{CO}_2$  via catalysis with ionic liquids**  
R. Heyn, K. Thorshaug, T. Didriksen, Ø. Vistad, SINTEF Materials and Chemistry, Oslo/N

10:25 *Coffee break*

*Chair: P. Wasserscheid, University of Erlangen-Nuremberg/D*

10:55 **KEYNOTE LECTURE**  
**Heterogeneous catalysis in dense carbon dioxide: opportunities, limitations and understanding**  
 J.-D. Grunwaldt, Karlsruhe Institute of Technology (KIT)/D

11:35 **From plant to drug – ionic liquids for the isolation of valuable ingredients from biomass**  
K. Bica, P. Gaertner, TU Vienna/A

12:00 **Merging the worlds of bio- and metal organic catalysis – tandem reactions in aqueous media**  
 K. Tenbrink, H. Gröger, M. Seßler, J. Schatz, University of Erlangen-Nuremberg/D

12:25 **KEYNOTE LECTURE**  
**The role of ionic liquids in the conversion of biomass to fuels and chemicals**  
 A.T. Bell, University of California, Berkeley, CA/USA

13:05 **POSTER AWARD AND CLOSING REMARKS**

13:15 **End of conference**