

5th Workshop on Fats and Oils as Renewable Feedstock for the Chemical Industry

Karlsruhe, Germany, March 18 – 20, 2012

<http://www.abiosus.org/kit-workshop-2012.html>

Sunday, March 18, 2012

Registration

Registration will be opened from 13:00 - 19:00

15.30 **Welcome and Opening**

16.00 – 18.00 *First Session*

16:00 – 16:30 **Isomerizing transformations of fatty acids (M)**
L1 Lukas J. Gooßen, Dominik M. Ohlmann, University of
Kaiserslautern, Germany

16.30 – 17.00 **Unprecedented selectivities in oleochemicals conversion (M)**
L2 Bert Sels, K.U.Leuven, Heverlee, Belgium

17.00 – 17.30 **Polymers from vegetable oils by click chemistry (M)**
L3 Zoran Petrovic, Jian Hong, Bipin K. Shah, Pittsburg State
University, Kansas, USA

17.30 – 18.00 **Sustainability evaluation as key factor for the selection of
processes and materials (M)**
L4 Peter Saling, BASF, Germany

18.00 – 20.30 **Poster Session and Opening Mixer**
Posters will be displayed until the end of the workshop

(M) Main Lecture 30 min including discussion

(D) Discussion Lecture 20 min including discussion

Monday, March 19, 2012

9.00 – 10.30 *First morning session*

9.00 – 9.30 **Ruthenium catalysis for cross metathesis and sequential reactions adding value to renewable oils (M)**

L5 Christian Bruneau, Pierre Henri Dixneuf, Cédric Fischmeister, Xiaowei MIAO, Université de Rennes 1, Sciences Chimiques, Rennes, France

9.30 – 9.50 **Polymer precursors from catalytic reactions of natural oils (D)**

L6 Marc R. L. Furst¹, David J. Cole-Hamilton¹, Ronan Le Goff¹, CatherineH. Botting¹, Dorothee Quinzler², Stefan Mecking²
¹St. Andrews, Scotland, UK ; ²University of Konstanz, Konstanz, Germany

9.50 – 10.10 **Novel Monomers and Polymers from Plant oils via ADMET and ROMP (D)**

L7 Hatice Mutlu, Michael A. R. Meier, Karlsruhe Institute of Technology, Karlsruhe, Germany

10.10 – 10.30 **Synthesis of fatty acid derived monomers and polymers thereof via efficient catalytic and non-catalytic approaches (D)**

L8 Oguz Türünc, Michael A. R. Meier, Karlsruhe Institute of Technology, Karlsruhe, Germany

10.30 – 11.00 **Coffee break**

11.00 – 13.00 *Second morning session*

11.00 – 11.30 **Renewable materials @Bayer MaterialScience (M)**

L9 Gesa Behnken, Bayer MaterialScience, Germany

11.30 – 12.00 **Utilization of vegetable oils and fats in the Brazilian Chemical Industry (M)**

L10 Ulf Schuchardt, Sergio Teixeira, Universidade Estadual de Campinas (UNICAM), Campinas, Sao Paulo, Brasilien

- 12.00 – 12.20 **Synthesis of 3,6-disubstitued-1,2,3,6-tetrahydro phthalic acid anhydride derivatives by Rhodium catalyzed addition of maleic anhydride to fatty acids (D)**
L11 Steven Eschig, Tunga Salthammer, Claudia Philipp, Fraunhofer-Institute for Wood Research, Wilhelm-Klauditz-Institute, Braunschweig, Germany
- 12.20 – 12.40 **Design of Ru-Zeolites for Hydrogen-free Production of Conjugate Linoleic Acids and Conjugated Oils (D)**
L12 An Philippaerts¹, Steven Goossens¹, Moniek Tromp², Stuart Turner³, Oleg I. Lebedev³, Gustaaf van Tendeloo³, Pierre Jacobs¹, Bert Sels¹, ¹K.U.Leuven, Heverlee, Belgium; ² Technische Universität München, München, Germany; ³ University of Antwerp, Antwerpen, Belgium
- 12.40 – 13.00 **Supported ionic liquid phase catalysis with supercritical flow (D)**
L13 Ruben Dugue, Eva Öchsner, Herve Clavier, Marc Mauduit, Steven P. Nolan, and David J. Cole-Hamilton, St. Andrews, Scotland, UK
- 13.00 – 14.00 **Lunch break**
- 14.00 – 15.30 *First afternoon session*
- 14.00 – 14.30 **Optimizing wax ester production in oil seed-crops (M)**
L14 Mareike Heilmann, Tim Iven, Ivo Feußner, University of Göttingen, Göttingen, Germany
- 14.30 – 15.00 **Pathways for the chemo-catalytic transformation of sugars (M)**
L15 Regina Palkovits¹, Marcus Rose¹, Tajvidi Kameh², Jens U. Oltmanns¹, Stefan Palkovits³, Mohammad G. Al-Shaal¹, William H.R. Wright¹, ¹Institut für Technische und Makromolekulare Chemie, RWTH Aachen, Aachen, Germany; ²Max-Planck-Institut für Kohlenforschung, Mülheim, Germany; ³ Center of Molecular Transformations, RWTH Aachen, Aachen, Germany
- 15.00 – 15.30 **Transformation of terpenes into fine chemicals (M)**
L16 Wilfried Schwab, Biotechnology of Natural Products, Technical University München, Freising, Germany
- 15.30 – 16.00 **Coffee break**

- 16.00 – 17.30 *Second afternoon session*
- 16.00 – 16.30 **Sustainable Fatty Acid Derivates (M)**
L17 Stefan Buchholz, Evonik, Germany
- 16.30 – 16.50 **Lipophilic Antioxidants from Fatty Acids (D)**
L18 Hans J. Schäfer, Christian Kalk, Universität Münster, Germany
- 16.50 – 17.10 **New Generation Cationic Amphiphiles for Use as Surfactants
and Ionic liquids (D)**
L19 Sukhprit Singh, Avinash Bhadani, Raman Kamboj, Vinay Chauhan,
Dev University, Amritsar, India
- 17.10 – 17.30 **Epoxidation with hydrogen peroxide of unsaturated FAMES over
Nb(V)-silica catalysts (D)**
L20 Vladimiro Dal Santo, Alessandro Gallo, Rinaldo Psaro, Cristina
Tiozzo, Matteo Guidotti, CNR-ISTM, Milan, Italy

19.30 *Conference Dinner*

Renaissance Karlsruhe Hotel

Tuesday, March 20, 2011

- 9.00 – 10.20 *First morning session*
- 9.00 – 9.30 **Functional group metathesis polymerization of biorenewable
feedstocks (M)**
L21 Stephen A. Miller, Department of Chemistry, University of Florida,
Gainesville, Florida, USA
- 9.30 – 10.00 **Strategies for polymerizing cyclohexadiene from plant oils (M)**
L22 Robert Mathers, Penn State, New Kensington, USA (M)
- 10.00 – 10.20 **Vegetable-based building-blocks for the synthesis of
renewable polyurethanes and polyesters (D)**
L23 Henri Cramail^{1,2}, Carine Alfos³, Lise Maisonneuve^{1,2}, Thomas

Lebarbé^{1,2}, Arvind More^{1,2}, Eric Cloutet^{1,2}, Benoit Gadenne³; ¹ Université de Bordeaux, Pessac, France; ² CNRS, Pessac, France ; ³ ITERG, Pessac, France

- 10.20 – 10.40 **Impact of functionality on properties of vegetable oil-based thermosetting coatings (D)**
L24 Thomas J Nelson, Dean Webster, North Dakota State University, Fargo, ND, USA
- 10.40 – 11.10 **Coffee Break**
- 11.10 – 12.30 *Second morning session*
- 11.10 – 11.40 **Oleochemicals in Personal Care (M)**
L25 Markus Dierker, BASF, Germany
- 11.40 – 12.00 **Glycerol-Based Polymers Bearing Acetal and Carbonate Groups: Switchable physical and thermal properties (D)**
L26 Dien P. Pham, Vincent Lapinte, Sophie Monge, Yann Raoul, Prolea, Jean Jacques Robin, Université de Montpellier, France
- 12.00 – 12.20 **Formic acid as hydrogen donor molecule in the glycerol hydrogenolysis to 1,2-propanediol (D)**
L27 Andreas Martin, Udo Armbruster, Inaki Gandarias, Pedro Arias, Leibniz-Institut für Katalyse e.V., Rostock, Germany
- 12.20 – 12.40 **Preparation of asymmetric chlorohydrin esters from glycerol (D)**
L28 Carmen E. Solarte, Mercè Balcells, Mercè Torres, Núria Sala, Jordi Eras, Ramon Canela-Garayoa, Universitat de Lleida, Spain
- 12.40 – 13.00 **Novel catalysts derived from hydrothermally synthesized phyllosilicates for the selective preparation of glycerol ethers or esters (D)**
L29 S. Valange, M.V. Sivaiah, J. Barrault, S. Petit, CNRS, Poitiers, France
- 13.00 – 14.00 **Lunch break**
- 14.00 – 16.00 *Afternoon session*

- 14.00 – 14.30 **New routes for the catalytic valorisation of biomass-derived oxygenates (M)**
L30 Pieter C. A. Bruijninx, Bert M. Weckhuysen, Utrecht University, Utrecht, The Netherlands
- 14.30 – 14.50 **The relevance of the anhydride reaction pathway for selective deoxygenation of stearic acid in the absence of H₂. (D)**
L31 Stefan Hollak¹, J. H. Bitter², J. van Haveren¹, K. P. de Jong², D. S. van Es¹, ¹ Wageningen, The Netherlands; ² Utrecht University, Utrecht, The Netherlands
- 14.50 – 15.10 **Ethanolysis of Jathropa Curcas L. oil in a centrifugal contactor separator (D)**
L32 Muhammad Yusuf Abduh¹, Wouter van Ulden¹, Vijay Kalpoe¹, Robert Manurung², H.J. Heeres¹, ¹University of Groningen, The Netherlands; ² Institut Teknologi Bandung, Indonesia
- 15.10 – 15.40 **An assessment of the potential of critical fluids to support sustainable integrated biorefining, with a focus on oleochemistry (M)**
L33 Muhammad Noman BAIG^{1,2,3}, Regina Santos¹, Carsten Zetzl⁴, Jerry King⁵, Steve Bowra², Daniel Pioch³, ¹ University of Birmingham, UK; ² Phytatec; ³ CIRAD, France; ⁴ Technical University Hamburg-Harburg, Germany; ⁵ University of Arkansas, USA
- 15.40 **Poster Award and Closing Remarks**
- Best Poster Award**
Award committee
- Closing remarks**
Michael A. R. Meier
- 16.00 **End of Workshop**