

## EUROPACAT- VIII

Scientific program (names of confirmed presenters are underlined).

### **Berzelius Lecture**

*27.8. 2007, Monday, 9.00-10.00. Hall A*

**Professor R.H. Grubbs (California Institute of Technology), *New Ligands and Applications for Olefin Metathesis Catalysts***

### **Boudart Award Lecture**

*31.8. 2007, Friday, 14.00-15.00. Hall A*

**Professor Alexis T. Bell (University of California, Berkeley), *Probing Catalyst Structure-Performance Relationships through Studies of Reaction Mechanism and Kinetics***

### **Plenary lectures**

*26.8. 07, Sunday, 18.00-19.00. Hall A*

**PL-1. Dr. Herman P.C.E. Kuipers (Shell Global Solutions), *Hydrogen: From petrochemical workhorse to clean fuel***

*28.8. 07, Tuesday, 9.00-10.00. Hall A*

**PL-2. Professor Jens K. Nørskov (Technical University of Denmark), *A Molecular View Of Heterogeneous Catalysis***

*29.8. 07, Wednesday, 9.00-10.00. Hall A*

**PL-3. Professor Ferdi Schüth (Max-Planck-Institut für Kohlenforschung), *From Materials Discovery Via High Throughput Experimentation To Catalyst Materials By Design***

*30.8. 07, Thursday, 9.00-10.00. Hall A*

**PL-4. Professor Irina I. Ivanova (Moscow State University), *Molecular Aspects Of Alkanes Activation Over Acidic And Bifunctional Catalysts: Insights From In Situ NMR***

*31.8. 07, Friday, 9.00-10.00. Hall A*

**PL-5. Professor James A. Dumesic (University of Wisconsin- Madison), *Catalytic Production of Fuels and Chemicals from Biomass-derived Oxygenated Hydrocarbons***

### **Session 1. Catalysis from first principles**

*28.8. 07, Tuesday, 10.00-17.10. Auditorium 2*

*Key-note lectures & Oral presentations*

*28.8. 07, Tuesday*

10.00-10.20. **O1-1**

Atsushi Urakawa, Marcella Iannuzzi, Jürg Hutter, Alfons Baiker, ETH Zurich, *Towards Rational Design Of Ruthenium CO<sub>2</sub>-Hydrogenation Catalysts By Ab Initio Metadynamics*

10.20-10.40. **O1-2**

Glenn Jones, Martin P. Anderson, Thomas Bligaard, Claus H. Christensen, Jens K. Nørskov, Danish Technical University, *Modeling Fischer Tropsch Catalysis: CxHy Species On Ru{1 0 -1 5}*

*Coffee break*

11.10-11.30. **O1-3**

V. Nieminen, A. Taskinen, J. Sinkkonen, I. Busygin, E. Toukoniitty, D. Yu. Murzin, Åbo Akademi University, *The Role Of Modifier Structure And Conformation In Heterogeneous Enantioselective Hydrogenation*

11.30-11.50. **O1-4**

Sven Tobisch, Sasol Technology (UK) Ltd., *Role Of Lewis Acids In The Tungsten-Imido-Catalysed Dimerisation Of Alpha-Olefins: A Computational Mechanistic Study*

11.50-12.30. **K1-1**

**Prof. G. Pacchioni, Università di Milano-Bicocca, Milan, DFT calculations and the design of new catalytic materials: unusual properties of Au clusters supported on oxide ultra-thin films**

12.30-12.50. **O1-5**

H. Petitjean, C. Chizallet, K. Tarasov, G. Costentin, H. Lauron-Pernot, M. Che, M.C. Paganini, E. Giamello, B. Moulin, P. Bazin, F. Maugé, F. Delbecq, P. Sautet, Université Pierre et Marie Curie Paris VI, *Description Of Brønsted Basic Sites Of MgO By Microcalorimetry, Spectroscopy And DFT Calculations Of Water And Methanol Adsorption.*

12.50-13.10. **O1-6**

P. Hejduk, M. Witko, Institute of Catalysis and Surface Chemistry, *The Role Of V<sub>2</sub>O<sub>5</sub> Low-Indices Surfaces In SCR Mechanism -Cluster DFT Study Of Ammonia Adsorption*

*Lunch*

14.40-15.00. **O1-7**

Evgeny A. Pidko, Rutger A. Van Santen, Schuit Institute of Catalysis, Eindhoven University of Technology, *Selective Oxidation Of Hydrocarbons Over Alkali-Earth Faujasites*

15.00-15.20. **O1-8**

Tomas Bucko, Lubomir Benco, Jürgen Hafner, Janos G. Angyan, University of Vienna, *Proton Exchange Between Small Hydrocarbons And Acidic Chabazite: Ab-Initio Study.*

15.20-16.00. **K1-2**

**Dr. H. Toulhoat, Institut Français du Pétrole, Paris, Description of periodic trends in heterogeneous catalysis from first principles: an update**

*Coffee break*

16.30-16.50. **O1-9**

P. Mignon, P. Geerlings, R.A. Schoonheydt, K.U.Leuven, *Basicity Of Zeolites*

16.50-17.10. **O1-10**

P. Raybaud, D. Costa, C. Arrouvel, M. Breysse, H. Toulhoat, IFP, *Edge wetting Effects of  $\gamma$ -Al<sub>2</sub>O<sub>3</sub> and Anatase-TiO<sub>2</sub> Supports by MoS<sub>2</sub> and CoMoS Active Phases: a DFT study*

*Poster presentations*

28.8. 07, Tuesday, 17.10-19.00

**Session 2.** Nanotechnology in catalysis, novel catalytic materials

30.8. 07, Thursday, 10.00-17.10. Hall C.

31.8.07. Friday, 10.00-13.10. Auditorium 1.

*Key-note lectures & Oral presentations*

30.8. 07, Thursday

10.00-10.20. **O2-1**

R. Arrigo, U. Wild, M. Lerch, R. Schlögl, D. S. Su, Fritz-Haber Institute der Max-Planck-Gesellschaft, *Synthesis Of N-Containing Carbon Nanotubes*

10.20-10.40. **O2-2**

Tiejun Zhao, Jun Zhu, Ingvar Kvande, De Chen, Xinggui Zhou, Weikang Yuan, Norwegian University of Science and Technology, *Controlled Synthesis Of Carbon Nanostructures By Growth Temperature*

*Coffee break*

11.10-11.50. **K2-1**

**Prof M. Muhler**, Ruhr University Bochum, *The total gas-phase synthesis of hierarchical carbon nanotube composite*

11.50-12.10. **O2-3**

Wataru Ueda, Tomokazu Kato, Nobufumi Watanabe, Takao Kuranishi, Katsunori Kodato, Takumi Fujisawa, Feng Wang, Masahiro Sadakane, Catalysis Research Center, Hokkaido University, *High Catalytic Oxidation Performance Of Crystalline Mo<sub>3</sub>VO<sub>x</sub> Oxides With Orthorhombic And Trigonal Structures*

12.10-12.30. **O2-4**

Zi-Rong Tang, Jennifer K. Edwards, Jonathan K. Bartley, Stuart H. Taylor, Albert F. Carley, Andrew A. Herzing, Christopher J. Kiely, Graham J. Hutchings, Cardiff University, *Nanocrystalline Cerium Oxide Produced By Supercritical Antisolvent Precipitation As A Support For High Activity Gold Catalysts*

12.30-12.50. **O2-5**

Silvio Carrettin, M. Carmen Blanco, Patricia Concepción, Avelino Corma, A. Stephen K. Hashmi, Instituto de Tecnología Química, Universidad Politécnica de Valencia, *Au(III) On Nanocrystalline CeO<sub>2</sub> Catalyses The Isomerization Of Alkynylfurans To Phenols*

12.50-13.10. **O2-6**

N.V. Maksimchuk, M.N. Timofeeva, O.A. Kholdeeva, Yu.A. Chesalov, D.N. Dybtsev, V.P. Fedin, Boreskov Institute of Catalysis, *Novel Nanocatalysts Based On Coordination Polymers And Transition Metal Substituted Polyoxometalates For Liquid Phase Selective Oxidations*

*Lunch*

14.40-15.00. **O2-7**

Michael Paul, Massimiliano Comotti, Pablo Arnal, Ferdi Schüth, Max-Planck-Institute for Coal Research, *Novel High-Temperature-Stable Catalysts By Encapsulating Au- And Pt-Nanoparticles In MeOx Hollow Spheres*

15.00-15.20. **O2-8**

Hanne Falsig, Britt H. Larsen, Iben S. Kristensen, Thomas Bligaard, Claus Hviid Christensen, Jens K. Nørskov, Center for Sustainable and Green Chemistry, DTU, *Trends In Catalytic CO Oxidation On Different Metal Nanoparticles*

15.20-16.00. **K2-2**

**Prof. J. Y. Ying**, Institute of Bioengineering and Nanotechnology, Singapore, *Nanostructure Processing of Advanced Catalytic Materials*

*Coffee break*

16.30-16.50. **O2-9**

Leticia Espinosa Alonso, Krijn P. De Jong, Bert M. Weckhuysen, Utrecht University, *Spatially Resolved UV-Vis Micro-Spectroscopy: A Physicochemical Study On The Preparation Of Metal-Ion Supported Catalysts*

16.50-17.10. **O2-10**

D. Chiche, C. Chanéac, R. Revel, M. Digne, J.-P. Jolivet, Université Pierre et Marie Curie IV, *Size and Shape Control of AlOOH Boehmite Nanoparticles, Toward Enhanced gamma-Alumina Catalyst Supports*

31.8. 07, Friday

10.00-10.20. **O2-11**

Elena Groppo, Jane Estephane, Alessandro Damin, Jenny G. Vitillo, Carlo Lamberti, Silvia Bordiga, Adriano Zecchina, University of Turin, *Structure And Reactivity Of Chromocene Confined Into Nanovoids With A Different Polarity: A Spectroscopic And Theoretical Investigation*

10.20-10.40. **O2-12**

R. T. Knapp, T. E. Müller, J. A. Lercher, Technische Universität München, *Catalysts With Ionic Liquid Mediated Metal Nano-Particles*

*Coffee break*

11.10-11.50. **K2-3**

**Dr. C. Louis**, Université Pierre et Marie Curie, Paris, **Gold Nanoparticles for Catalysis**

11.50-12.10. **O2-13**

Véronique Dufaud, Ryan K. Zeidan, Mark E. Davis, CNRS, *Enhanced Cooperative, Catalytic Behavior Of Organic Functional Groups By Immobilization*

12.10-12.30. **O2-14**

G. Bellussi, A. Carati, U. Díaz, R. Millini, W.O. Parker, Jr., C. Rizzo, S. Zanardi, Eni S.p.A. Refining & Marketing Division, *ECS-Materials: Synthesis And Characterization Of A New Class Of Crystalline Organic-Inorganic Hybrid Alumino-Silicates*

12.30-12.50. **O2-15**

Jasmina Hafizovic, Morten Bjørgen, Unni Olsbye, Pascal D. C. Dietzel, Silvia Bordiga, Carmelo Prestipino, Carlo Lamberti, Karl Petter Lillerud, University of Oslo, *The Inconsistency In Measured And Expected Adsorption Properties Of Metal Organic Frameworks, Exemplified By MOF-5*

12.50-13.10. **O2-16**

Maya Boutros, Audrey Nowicki, Alain Roucoux, Franck Launay, Antoine Gédéon, Université Paris VI, *A Surfactant-Assisted Preparation Of Well-Dispersed Rhodium Nanoparticles Within The Pore Of Al-SBA-15 : Characterisation And Use In Catalysis*

*Poster presentations*

30.8. 07, Thursday, 17.10-19.00

### Session 3. Surface science in catalysis

30.8. 07, Thursday, 10.00-17.10. Auditorium 1.

*Key-note lectures & Oral presentations*

30.8. 07, Thursday

10.00-10.20. **O3-1**

S. Schauermann, B. Brandt, T. Schalow, J.-H. Fischer, J. Libuda, H.-J. Freund, Fritz-Haber-Institut der Max-Planck-Gesellschaft, *Metal-Support Interaction In Surface Reactions: Partial Oxidation And Catalytic Activity Of Pd/Fe<sub>3</sub>O<sub>4</sub> Model Catalyst.*

10.20-10.40. **O3-2**

S. Wendt, D. Matthey, J. G. Wang, J. Matthiesen, R. Schaub, E. Lægsgaard, B. Hammer, F. Besenbacher, Interdisciplinary Nanoscience Center (iNANO), University of Aarhus, *Enhanced Bonding Of Gold Nanoparticles On Oxidized TiO<sub>2</sub>(110)*

*Coffee break*

11.10-11.30. **O3-3**

R. Blume, M. Hävecker, S. Zafeiratos, D. Teschner, E.Vass, P. Schnörch, A. Knop-Gericke, R. Schlögl, S. Lizzit, P. Dudin, A. Barinov, M. Kiskinova, Fritz-Haber-Institut, *Methanol Oxidation On Ru Catalysts: Reaction Pathways And Catalytically Active States*

11.30-11.50. **O3-4**

A.V.Matveev, C.J. Weststrate, A.A. Sametova, V.V. Gorodetskii, B.E. Nieuwenhuys, Borekov Institute of Catalysis, *States And Reactivity Of Oxygen Species On The Pt-Group Metal Surfaces*

11.50-12.30. **K3-1**

**Prof. W. T. Tysoe**, Department of Chemistry, University of Wisconsin, *Understanding Reaction Pathways on Model Catalyst Surfaces*

12.30-12.50. **O3-5**

A. Languille, F.J. Cadete Santos Aires, B.S. Mun, M.C. Saint-Lager, Y. Jugnet, O. Robach, P. Dolle, S. Garaudée, J.C. Bertolini, Institut de Recherches sur la Catalyse et l'Environnement de Lyon, *CO, O<sub>2</sub> And CO+O<sub>2</sub> Adsorption On PdAu(110) Studied By In Situ Complimentary Techniques (STM, PM-IRRAS, XPS, SXRD)*

12.50-13.10. **O3-6**

T. Visart De Bocarmé, T.D. Chau, Y. De Decker, P. Gaspard, N. Kruse, Université Libre de Bruxelles, *NO-H<sub>2</sub> Reaction Over Pd And Pt Crystallites : Studies On The Nanometer Scale By Field Ion Microscopy And Pulsed Field Desorption Mass Spectrometry*

*Lunch*

14.40-15.00. **O3-7**

M. Johansson, O. Lytken, I. Chorkendorff, Technical University of Denmark, *Hydrogen Splitting On Transition Metals At 1 Bar*

15.00-15.20. **O3-8**

S. Giorgio, M. Cabié, G. Sitja, C.R. Henry, CNRS, *Environmental High Resolution Electron Microscopy With A Closed Ecell: Application To Gold Catalysts*

15.20-15.40. **O3-9**

Cheol-Woo Yi, Charles H.F. Peden, János Szanyi, Institute for Interfacial Catalysis, Pacific Northwest National Laboratory, *NO<sub>2</sub> Chemistry On BaO/Al<sub>2</sub>O<sub>3</sub>/NiAl(110) Model NO<sub>x</sub> Storage Materials*

15.40-16.00. **O3-10**

H. Ariga, T. Taniike, M. Tada, K. Watanabe, Y. Matsumoto, S. Ikeda, K. Saiki, Y. Iwasawa, The University of Tokyo, *Surface-Mediated Visible-Light Photo-Oxidation On A TiO<sub>2</sub>(001) Surface*

*Coffee break*

16.30-17.10. **K3-2**

**Dr. P. Thüne**, Eindhoven University of Technology, *Olefin Polymerization on Flat Model Catalyst*

*Poster presentations*

30.8. 07, Thursday, 17.10-19.00

#### **Session 4. New experimental approaches and characterization under reaction conditions (combinatorial methods included)**

27.8. 07, Monday, 10.00-17.10. Auditorium 1.

*Key-note lectures & Oral presentations*

27.8. 07, Monday

10.00-10.20. **O4-1**

Marianne H.F. Kox, Eli Stavitski, Bert M. Weckhuysen, Utrecht University, *Non-Uniform Catalytic Behaviour Of Zeolite Crystals As Revealed By In-Situ Optical Micro-Spectroscopy*

10.20-10.40. **O4-2**

Jan-Dierk Grunwaldt, Stefan Hannemann, Bertram Kimmerle, Alfons Baiker, Pit Boye, Jens Patommel, Christian G. Schroer, ETH Zurich, *2D-Mapping Of Supported Noble Metal Catalysts At Work*

*Coffee break*

11.10-11.30. **O4-3**

F. C. Meunier, D. Reid, S. Shekhtman, A. Goguet, C. Hardacre, R. Burch, W. Deng, M. Flytzani-Stephanopoulos, Queen's University Belfast, *Operando Quantification Of*

*Reaction Intermediates In The Water-Gas Shift Reaction On Au/Ce(La)O<sub>2</sub>: Elimination Of Formates Seen By DRIFT As A Key Intermediate.*

11.30-11.50. **O4-4**

A.A. Lysova, I.V. Koptug, J.A. Bergwerff, L. Espinosa Alonso, B.M. Weckhuysen, A.V. Kulikov, V.A. Kirillov, R.Z. Sagdeev, V.N. Parmon, International Tomography Center SB RAS, *Nuclear Magnetic Resonance Imaging As A Method To Study Catalyst Preparation And Reaction Processes*

11.50-12.30. **K4-1**

**Dr P. A. Midgley, E. Ward, A. Hungria, J. M. Thomas, University of Cambridge, Electron Tomography of Catalysts and Nanoparticles**

12.30-12.50. **O4-5**

D. Teschner, E. M. Vass, M. Hävecker, S. Zafeiratos, P. Schnörch, A. Knop-Gericke, J. Borsodi, M. Chamam, A. Wootsch, R. Schlögl, Fritz-Haber-Institut der MPG, *Pd-C Surface Phase As An Essential Parameter Of Selective Alkyne Hydrogenation: A High-Pressure XPS Study*

12.50-13.10. **O4-6**

A. Damin, F. Bonino, E. Groppo, S. Bordiga, C. Lamberti, A. Zecchina, Dipartimento Chimica IFM Università di Torino and NIS Centre of Excellence Torino, *The Cr/SiO<sub>2</sub> Phillips Catalyst: A Raman Study*

*Lunch*

14.40-15.00. **O4-7**

A. Brückner, U. Bentrup, H. Zanthoff, D. Maschmeyer, Leibniz Institute for Catalysis, Branch Berlin, *Immediate Access To Active Sites In Nickel Butene Isomerization Catalysts Under Industry-Like Conditions By High-Pressure Liquid-Phase EPR*

15.00-15.20. **O4-8**

A. Puig-Molina, A.M. Molenbroek, T.V.W. Janssens, E. Törnqvist, B.S. Clausen, Haldor Topsøe A/S, *In Situ XAFS Study Of Cu-Promoted Cr-Stabilized Iron-Based Water-Gas Shift Catalysts Under Industrial Conditions (380°C, 25bar, 37.5% H<sub>2</sub>O)*

15.20-15.40. **O4-9**

M. Tada, R. Bal, Y. Uemura, Y. Iwasawa, The University of Tokyo, *Catalytic Performances and Structural Transformation of Re-Cluster/HZSM-5 Catalysts Selective for Direct Phenol Synthesis from C<sub>6</sub>H<sub>6</sub> and O<sub>2</sub>*

15.40-16.00. **O4-10**

András Tompos, József L. Margitfalvi, Mihály Hegedûs, Ágnes Szegedi, Jose Luis G. Fierro, Sergio Rojas, Chemical Research Center, Budapest, *Characterization of trimetallic Pt-Pd-Au/CeO<sub>2</sub> catalysts combinatorially designed for methane total oxidation*

*Coffee break*

16.30-17.10. **K4-2**

**Prof. J. A. van Bokhoven, ETH, Zurich, Using X-rays to study catalysts**

*Poster presentations*

27.8. 07, Monday, 17.10-19.00

## Session 5. Catalysis for pharma and fine chemistry (homo- and heterogeneous catalysis)

27.8. 07, Monday, 10.00-17.10. Hall C.

28.8.07, Tuesday, 14.40-16.00. Hall C.

*Key-note lectures & Oral presentations*

27.8. 07, Monday, 10.00-17.10

10.00-10.20. **O5-1**

J. M. Richardson, C. W. Jones, Georgia Institute of Technology, *Methods to Assess Leaching of Active Palladium from Immobilized Molecular Catalysts in Heck and Suzuki Couplings*

10.20-10.40. **O5-2**

Guillaume Berthon-Gelloz, Itsvan Marko, Guy Bertrand, Celine Lyon-Saunier, Antoine Baceiredo, Gérard Mignani, Rhodia, *Very Efficient And Selective Coupling Reactions Catalyzed By Novel Metal-Carbene Complexes*

*Coffee break*

11.10-11.50. **K5-1**

**Prof. M. Beller**, Leibniz Institute for Catalysis, Rostock, *Molecular defined Catalysis -A Key Technology for a Sustainable Development in Chemistry*

11.50-12.10. **O5-3**

Paolo P. Pescarmona, Kris P.F. Janssen, Pierre A. Jacobs, Centre for Surface Chemistry and Catalysis, University of Leuven, *Novel Transition-Metal-Free Heterogeneous Catalysts For The Sustainable Epoxidation Of Alkenes*

12.10-12.30. **O5-4**

Tomoko Shibata, Sayaka Suzuki, Kenichi Komura, Yoshihiro Kubota, Yoshihiro Sugi, Gifu University, *Shape-Selective Isopropylation of Biphenyl over MCM-68 Zeolite*

12.30-12.50. **O5-5**

Jens Christoffers, Universität Oldenburg, *Cerium-Catalyzed Oxidative C=C Bond Forming Reactions For The Synthesis Of 1,4-Diketones And Heterocyclic Compounds*

12.50-13.10. **O5-6**

C. González-Arellano, A. Corma, M. Iglesias, F. Sánchez, Instituto de Ciencia de Materiales de Madrid, *Gold Vs Pd Complexes Soluble And Heterogenized On MCM-41 As Effective And Versatile Catalysts*

*Lunch*

14.40-15.00. **O5-7**

S. M. Coman, M. Florea, V. I. Parvulescu, D. De Vos, P. A. Jacobs, G. Poncelet, P. Grange, University of Bucharest, *Metal-Triflate Ionic Liquid Systems Immobilized Onto Mesoporous MS41 Materials As New And Efficient Catalyst For N-Acylation*

15.00-15.20. **O5-8**

J. H. Clark, M. J. Gronnow, R. Luque, D. J. Macquarrie, R. J. White, The University of York, *Palladium Supported Materials For C-C Coupling Reactions: Conventional Heating Versus Microwave Irradiation*

15.20-16.00. **K5-2**



**Dr. D. Tichit, Ecole Nationale Supérieure de Chimie de Montpellier, *Base and redox catalysis with Layered Double Hydroxides***

*Coffee break*

16.30-16.50. **O5-9**

A.G. Van Der Neut, J.J.W. Bakker, F. Kapteijn, J.A. Moulijn, M.T. Kreutzer, Delft University of Technology, *Hydrogenation Of Aromatic Nitriles To Amines -Catalyst Selection, Support Effects, Kinetics And Deactivation*

16.50-17.10. **O5-10**

Bruno F Machado, Helder T Gomes, Philippe Serp, Philippe Kalck, José L Figueiredo, Joaquim L Faria, Universidade do Porto, *High Temperature Activation Of Noble Metal Catalysts Supported On Carbon Multi-Walled Nanotubes For Selective Hydrogenation Of Unsaturated Aldehydes*

28.8.07, Tuesday, 14.40-16.00

14.40-15.00. **O5-11**

Pavel Kukula, Václav Matoucek, Tamas Mallat, Alfons Baiker, ETH Zürich, *New Insights Into The Palladium Induced Enantioselective Decarboxylation*

15.00-15.20. **O5-12**

Yuntong Nie, Stephan Jaenicke, Herman Van Bekkum, Gaik-Khuan Chuah, National University of Singapore, *Bifunctional Zr-Zeolite Beta-Supported Rhodium Catalysts For The Stereoselective Cascade Hydrogenation Of 4-Tert-Butylphenol*

15.20-15.40. **O5-13**

György Szöllösi, Kornél Szöri, Beáta Hermán, Szabolcs Cserényi, Károly Felföldi, Ferenc Fülöp, Mihály Bartók, Stereochemistry Research Group of HAS, *Scope Of The Cinchona Alkaloids-Modified Palladium Catalysts In Enantioselective Hydrogenations Of Unsaturated Carboxylic Acids*

15.40-16.00. **O5-14**

Can Li, Dalian Institute of Chemical Physics, *Chiral Synthesis on Catalysts Confined in Nanopores of Mesoporous Materials*

*Poster presentations*

27.8. 07, Monday, 17.10-19.00

**Session 6. Catalysis by enzymes**

28.8.07, Tuesday, 11.10-13.10. Hall C.

29.8.07, Wednesday, 10.00-13.10. Hall C.

*Key-note lectures & Oral presentations*

28.8.07, Tuesday

11.10-11.30. **O6-1**

Werner Besenmatter, ETH Zurich, *Enzyme Active Site Engineering With Combinatorial Libraries*

11.30-11.50. **O6-2**

G. Meurer, J. Eck, BRAIN AG, *Screening For Industrial Biocatalysts In Natural Biodiversity*

11.50-12.10. **O6-3**

Allan Svendsen, Michael Skjøt, Jesper Brask, Novozymes A/S, *Protein Engineering Of Industrial Relevant Enzymes For Biocatalysis*

12.10-12.30. **O6-4**

Anne Galarneau, Lai Truong Phuoc, Gilbert Renard, François Fajula, Institut Charles Gerhardt Montpellier, *Design Of Novel Biocatalysts By Immobilization In Mesoporous Silica Hosts*

12.30-13.10. **K6-1**

**Prof. U. Bornscheuer**, Institute of Biochemistry, Greifswald, *Enzymes in Organic Synthesis: From Commercial Enzymes to Tailor-Designed Biocatalysts*

29.8.07, Wednesday

10.00-10.40. **K6-2**

**Prof. K. Hult**, Biochemistry, KTH, Stockholm, *The Protein Scaffold Of Candida Antarctica Lipase B As A Template For New Enzyme Activities*

*Coffee break*

11.10-11.30. **O6-5**

Sreedevi Narayanaswamy, Duncan J Macquarrie, James H Clark, University of York, *Supported Enzyme Catalysis: Understanding The Interaction Between Support And Enzyme*

11.30-11.50. **O6-6**

L. Costa, V. Brissos, F. Lemos, F. Ramôa Ribeiro, J. Cabral, Instituto Superior Técnico, Lisboa, *Kinetic Modeling Of Ester Hydrolysis Catalyzed By Free And Immobilized Lipases And Monitored By In Situ Diode Array Spectrophotometry*

11.50-12.10. **O6-7**

K.M. De Lathouder, F. Kapteijn, J.A. Moulijn, Delft University of Technology, *Development Of A Monolithic Bioreactor: Design And Application*

12.10-12.30. **O6-8**

Ulf Hanefeld, Technische Universiteit Delft, *Enzymatic Preparation Of Sterically Congested Enantiopure Cyanohydrins*

12.30-12.50. **O6-9**

Aleksandra J. Kotlewska, Isabel W.C.E Arends, Roger A Sheldon, Delft University of Technology, *A Biocatalytic Cascade For Safe And Selective Alkene Epoxidation With Percarboxylic Acid In Novel Media.*


12.50-13.10. **O6-10**

Andrei N. Parvulescu, Pierre A. Jacobs, Dirk E. De Vos, K.U. Leuven, *Raney Ni And Co As Heterogeneous Racemization Catalysts And Their Application In The Dynamic Kinetic Resolution Of Chiral Amines*

*Poster presentations*

28.8. 07, Tuesday, 17.10-19.00

## Session 7. Polymerization

Partially sponsored by  **BOREALIS**  
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28.8.07. Tuesday, 16.30-17.10. Hall C

29.8.07, Wednesday, 10.00-13.10. Auditorium 1

### *Key-note lectures & Oral presentations*

28.8.07. Tuesday

16.30-17.10. **K7-1**

**Prof. T. Ziegler, University of Calgary, *Towards the Computational Design of Industrial Polymerization Catalysts***

29.8.07, Wednesday

10.00-10.20. **O7-1**

Peter Denifl, Borealis Polymers Oy, *Self-supported Olefin Polymerization Catalysts Based On Emulsion Technology*

10.20-10.40. **O7-2**

C. Schmidt, D. Wang, S. Kumar, O. Nuyken, M. R. Buchmeiser, Leibniz-Institute of Surface Modification, *Cyclopolymerization-Derived Conjugated Polymers*

### *Coffee break*

11.10-11.50. **K7-2**

**Prof. R.F. Mülhaupt, University of Freiburg, *Site Transfer And Site Transformation – New Routes To Advanced Polyolefin Materials***

11.50-12.10. **O7-3**

K. P. Bryliakov, E. P. Talsi, N. V. Semikolenova, V. A. Zakharov, H. H. Brintzinger, M. Bochmann, Boreskov Institute of Catalysis, *Activation Of Titanocene And Post-Titanocene Olefin Polymerization Catalysts With MAO: The Intermediates*

12.10-12.30. **O7-4**

Virve Karttunen, Mikko Linnolahti, Tapani Pakkanen, Janne Maaranen, John Severn Päivi Pitkänen, University of Joensuu, *Theoretical Studies On Hafnocene-Catalyzed Ethene Polymerization: The Influence Of The Ligand Structure*

12.30-12.50. **O7-5**

Ana I. Vicente, João Campos, João M. Bordado, M. Rosário Ribeiro, Instituto Superior Técnico, Lisboa, *Synthesis And Properties Of Maleated Ethylene-Diene Copolymers*

12.50-13.10. **O7-6**

B. Enk, H. Kopacka, K. Wurst, B. Bildstein, J. Maaranen, University of Innsbruck, *Design And Development Of Fulvene-Gamma-(Di)Ketonato/Ketiminato Zirconium Olefin Polymerization Catalysts*

### *Poster presentations*

28.8. 07, Tuesday, 17.10-19.00

## Session 8. Electro-catalysis and catalysis related to fuel cells

29.8.07, Wednesday, 10.00-13.10. Meeting room 3.

30.8.07, Thursday, 11.10-11.50. Meeting room 3.

*Key-note lectures & Oral presentations*

29.8.07, Wednesday,

10.00-10.20. **O8-1**

Antonio de Lucas-Consuegra, Fernando Dorado, José Luis Valverde, Reda Karoum, Philippe Vernoux, Universidad de Castilla-La Mancha, *Electrochemical Promotion By Potassium Of Pt Impregnated Catalyst For Low Temperature Propene Deep Oxidation*

10.20-10.40. **O8-2**

Min Ku Jeon, Jung Yeon Won, Ki Rak Lee, Seong Ihl Woo, Korea Advanced Institute of Science and Technology, *Development of Novel Pt/WC Catalyst For Methanol Electro-Oxidation*

*Coffee break*

11.10-11.30. **O8-3**

N. Tsiouvaras, M.V. Martínez-Huerta, M. A. Peña, E. Pastor, J.L.G. Fierro, Universidad de La Laguna, *Highly CO Tolerant PtRuMo/C Electrocatalysts for PEM and DMFC Applications*

11.30-11.50. **O8-4**

F.M.Sapountzi, M.N.Tsampas, C.G.Vayenas, University of Patras *Methanol Reformate Treatment In A PEM Fuel Cell-Reactor*

11.50-12.10. **O8-5**

Stanko Hocevar, Henrik Kusar, Janez Levec, National Institute of Chemistry, *Water-Gas Shift Reaction Kinetics Over Nanostructured Copper-Ceria Catalysts*

12.10-12.30. **O8-6**

M. Tada, S. Murata, T. Asaoka, K. Hiroshima, K. Okumura, H. Taniad, T. Uruga, H. Nakanishi, S. Matsumoto, Y. Inada, M. Nomura, Y. Iwasawa, The University of Tokyo, *Reaction Dynamics of Fuel-Cell Pt/C Cathode Studied by In-Situ Time-Resolved XAFS Under Operating Conditions*

12.30-13.10. **K8-1**

**Prof. U. Stimming**, Technische Universität Muenchen, *Challenges and Directions in Electrocatalyst Research for PEMFCs*

30.8.07, Thursday,

11.10-11.40. **K8-2**

**Dr. P. Zelenay**, Los Alamos National Laboratory, *Alternative Catalysts for Polymer Electrolyte Fuel Cells*

*Poster presentations*

28.8. 07, Tuesday, 17.10-19.00

### **Session 9. Catalysis in oil refining**

27.8.07, Monday, 10.00-17.10. Hall A

28.8.07. Tuesday, 10.00-10.40. Hall C.

*Key-note lectures & Oral presentations*

27.8.07, Monday

10.00-10.40. **K9-1**

**Prof. J. Weitkamp, University of Stuttgart, Zeolite Catalysts in Oil Refining and Petrochemistry**

*Coffee break*

11.10-11.30. **O9-1**

Rhona Van Borm, Marie-Françoise Reyniers, Guy B. Marin, Ghent University, *Single Event Microkinetics Of Alkane Cracking On FAU And MFI Zeolites*

11.30-11.50. **O9-2**

X. Dupain, D. Costal, C.J. Schaverien, M. Makkee, J.A. Moulijn, TU Delft, *Cracking Of A Rapeseed Vegetable Oil Under Realistic FCC Conditions*

11.50-12.10. **O9-3**

Xuebin Liu, Kevin J. Smith, The University of British Columbia, *Selective Ring Opening of Naphthalene over Mo<sub>2</sub>C/HY Zeolite*

12.10.-12.30. **O9-4**

J. Jakkula, P. Aalto, N. Kumar, M. Lindblad, V. Niemi, M. Tiitta, H. Österholm, Neste Oil, *Upgrading of Middle Distillates with Platinum Catalysts*

12.30-12.50. **O9-5**

Carl MAM Mesters, Arnab Chatterjee, Cor de Graaf, Ronald Schoonebeek, Innovation and Research Shell Global Solutions, *The Selective Catalytic Oxidation of Hydrogen Sulphide in the presence of Methane*

12.50-13.10. **O9-6**

Wenbin Chen, Francoise Mauge, Jacob van Gestel, Jean-Pierre Gilson, Jacques Quillard, Carole Dupuy, Eric Lacroix, Hong Nie, Dadong Li, Laboratoire de Catalyse et Spectrochimie, Caen, *Effect Of Acidity Of Support On The Properties Of Sulfided Mo Phase Of Hydrotreating Catalysts*

*Lunch*

14.40-15.20. **K9-2**

**Prof. F. Besenbacher, University of Aarhus, Denmark, New Atomic-Scale Insights into Cluster-size, Promoter and Support Effects of MoS<sub>2</sub>-Based Hydrotreating Model Catalysts**

15.20-15.40. **O9-7**

Naïma Frizi, Pascal Blanchard, Pascale Baranek, Edmond Payen, Jean Pierre Dath, Unité de Catalyse et de Chimie du Solide, *Genesis Of New HDS Catalysts Through A Careful Control Of The Sulfidation Of Both Co And Mo Atoms*

15.40-16.00. **O9-8**

Roel Prins, Anjie Wang, Xiang Li, Marina Egorova, ETH Zurich, *Kinetics of the HDS of 4,6-Dimethyldibenzothiophene and Its Hydrogenated Intermediates Over Mo/Al<sub>2</sub>O<sub>3</sub> And NiMo/ Al<sub>2</sub>O<sub>3</sub>*

*Coffee break*

16.30-16.50. **O9-9**

Benjamin A. Fonfé, Maria F. Williams, Dechao Wang, Andreas Jentys, Rob van Veen, Johannes A. Lercher, Technische Universität München, *Hydrogenation Of Tetralin By ASA Supported Noble Metal Catalysts In The Presence Of Sulfur And Nitrogen Compounds*

16.50-17.10. **O9-10**

M.V.Landau, M.Cohen, M.Herskowitz, R.Agnihotri, J.E.Kegerreis, Ben-Gurion University of the Negev, *Ultradeep Adsorption-Desulfurization Of Gasoline With Ni/Al-SiO<sub>2</sub> Material In Presence Of Ethanol*

28.8.07. Tuesday,

10.00-10.40. **K9-3**

**Dr. A. Sapre, J. Santiesteban, ExxonMobil Research and Engineering Company, *Advanced Catalyst Technologies to Meet Future Refining Challenges***

*Poster presentations*

27.8. 07, Monday, 17.10-19.00

### **Session 10. Natural gas conversion (GTL, MTO, methanol, etc.)**

27.8.07, Monday, 16.30-17.10. Auditorium 3.

28.8.07. Tuesday, 10.00-17.10. Auditorium 1.

*Key-note lectures & Oral presentations*

27.8.07, Monday,

16.30-17.10. **K10-1.**

**Prof. K. P. de Jong, Utrecht University, *Nanostructured Cobalt Fischer-Tropsch Catalysts for GTL***

28.8.07. Tuesday

10.00-10.20. **O10-1**

J. Van De Loosdrecht, A. Borgna, I.M. Ciobîcã, A.M. Saib, P.J. Van Berge, R.A. Van Santen, J.W. Niemantsverdriet, Sasol Technology (Pty) Ltd, *Oxidation/Reduction Of Cobalt Catalysts During Fischer-Tropsch Synthesis: Theory, Model Systems, And Supported Catalysts*

10.20-10.40. **O10-2**

G. Lozano-Blanco, J.W. Thybaut, K. Surla, P. Galtier, G.B. Marin, Ghent University, *Microkinetic Analysis of Fischer-Tropsch Synthesis On Fe And Co Catalysts*

*Coffee break*

11.10-11.50. **K10-2**

**Prof. A. Holmen, Norwegian University of Science and Technology, Trondheim, *Recent Developments in Direct Routes for Natural Gas Conversion***

11.50-12.10. **O10-3**

Morten Bjørgen, Finn Joensen, Karl-Petter Lillerud, Unni Olsbye, Stian Svelle, Haldor Topsøe A/S, *Conversion Of Methanol To Hydrocarbons Over Medium And Large Pore Acidic Zeolites: Steric Control Of The Reaction Intermediates Determines The Ethene/Propene Selectivity*

12.10-12.30. **O10-4**

Martínez, J. Rollán, C. López, H.S. Cerqueira, A.F. Costa, E. Falabella S.-Aguiar, Instituto de Tecnologia Química, *A Zeolite Deactivation Study In Hybrid Co/SiO<sub>2</sub>-Zeolite Catalysts During The One-Stage Conversion Of Syngas To Gasoline*

12.30-12.50. **O10-5**

Francesca Bonino, Luisa Palumbo, Chiara Bertolino, Morten Bjørgen, Pablo Beato, Stian Svelle, Silvia Bordiga, Adriano Zecchina, Università di Torino, *Conversion of Methanol to Hydrocarbons: spectroscopic characterization of carbonaceous species formed over H-ZSM-5.*

12.50-13.10. **O10-6**

S. Soignier, M. Taoufik, S. Norsic, F. Lefebvre, A. de Mallmann, J. Thivolle-Cazat, J.M. Basset, B. Maunders, G.J. Sunley, Laboratoire de Chimie Organométallique de Surface, *Tantalum Hydride Complexes Supported on MCM-41 Mesoporous Silica: Stoichiometric and Catalytic Properties towards Activation of Methane*

*Lunch*

14.40-15.00. **O10-7**

Volkan Degirmenci, Aysen Yilmaz, Deniz Uner, Middle East Technical University, *Selective Methane Bromination over Sulfated Zirconia in SBA-15 Structures*

15.00-15.20. **O10-8**

K. Pelzer, M. Geske, R. Horn, A. Taha, F.C. Jentoft, R. Schlögl, Fritz Haber Institute of Max Planck Society, *Investigation Of Mechanistic Details Of Partial Oxidation Of Methane By In Situ Molecular Beam Mass Spectrometry*

15.20-15.40. **O10-9**

Svetlana Ivanova, Estelle Vanhaecke, Suzanne Libs, Benoit Louis, Marc-Jacques Ledoux, Cuong Pham-Huu, LMSPC Strasbourg, *ZSM-5/beta-SiC Foam As An Active And Stable Catalyst For Dimethylether (DME) Synthesis*

15.40-16.00. **O10-10**

M. Taralunga, A. Kaddouri, E. Garbowski, P. Gelin, Institut de recherches sur la catalyse et environnement de Lyon, *Catalytic combustion of methane over Pd based catalysts: role of the support on PdO stability and resistance to sulphur poisoning*

*Coffee break*

16.30-17.10. **K10-3**

**Dr. C. Perego, Eni SpA, San Donato Milanese, Gas To Liquids technologies for natural gas reserves valorization**

*Poster presentations*

28.8. 07, Tuesday, 17.10-19.00

### **Session 11. Hydrogen society**

30.8.07, Thursday, 14.40-17.10. Hall A.

31.8.07. Friday, 10.00-13.10. Hall A.

*Key-note lectures & Oral presentations*

30.8.07, Thursday,

14.40-15.20. **K11-1.**

**Prof. V. Hessel, Eindhoven University of Technology & IMM-Mainz, *Microstructured Reactors for Hydrogen Production***

15.20-15.40. **O11-1**

E.V. Rebrov S.A. Kuznetsov, A.R. Dubrovskiy, M.H.J.M. De Croon, J.C. Schouten, Eindhoven University of Technology, *Molybdenum Carbide Coatings Prepared By Electrochemical Synthesis In Molten Salts For Application In Microstructured Fuel Processors*

15.40-16.00. **O11-2**

Jacob Bonde, Thomas F. Jaramillo, Jeff Greeley, Kristina P. Jørgensen, Jane H. Nielsen, Sebastian Horch, Jens K. Nørskov, Ib Chorkendorff, CINP, Technical University of Denmark, *New Electrocatalysts For The Hydrogen Evolution Reaction, Surface Alloys And Metal Sulfides.*

*Coffee break*

16.30-16.50. **O11-3**

Anthony Le Valant, Anthony Garron, Nicolas Bion, Florence Epron, Daniel Duprez, Laboratoire de Catalyse en Chimie Organique, *Effect Of Impurities Present In Raw Bioethanol On The Performances Of A Rh/MgAl<sub>2</sub>O<sub>4</sub> Catalyst For Hydrogen Production*

16.50-17.10. **O11-4**

Weijie Cai, Baocai Zhang, Qiying Liu, Yide Xu, Wenjie Shen, Dalian Institute of Chemical Physics, *Hydrogen Production From Ethanol Over Ir/CeO<sub>2</sub> Catalysts: Reaction Pathway And Stability*

31.8.07. Friday

10.00-10.40. **K11-2**

**Prof. L. Schmidt, University of Minnesota, Minneapolis, *Catalytic Autothermal Reforming of Renewable Fuels at Millisecond Times***

*Coffee break*

11.10-11.30. **O11-5**

F. C. Meunier, S. Shekhtman, A. Goguet, C. Hardacre, R. Burch, Queen's University Belfast, *H<sub>2</sub> Production Over A Pt/CeO<sub>2</sub> Water-Gas Shift Catalyst: Evidence That The Formates Seen By DRIFT Are Not Key Reaction Intermediates.*

11.30-11.50. **O11-6**

C.M. Kalamaras, G.G. Olympiou, C.D. Zeinalipour-Yazdi, A.M. Efstathiou, University of Cyprus, *Operando DRIFTS-Mass Spectroscopy Studies Of The Water-Gas Shift Reaction Over Alumina-Supported Noble Metal Catalysts*

11.50-12.10. **O11-7**

Louise Jalowiecki-Duhamel, Hanan Zarrou, Alain D'Huysser, Unité de Catalyse et de Chimie du Solide, *Low Temperature Hydrogen Production From Methane On Cerium And Nickel Based Oxyhydrides.*

12.10-12.30. **O11-8**

R.K. Kaila, A. Gutierrez, A.O.I. Krause, Helsinki University of Technology, *RhPt Catalyst Performance In Autothermal Reforming Of Hydrocarbon Mixtures And Commercial Diesel In The Presence Of Sulfur Compounds*



12.30-12.50. **O11-9**

P. Yaseneva, S. Pavlova, V. Sadykov, V. Rogov, S. Badmaev, S. Belochapkin, J.R.H. Ross, Boreskov Institute of Catalysis, *Hydrogen Production Via Steam Reforming Of Methanol Over Novel CuCeZrY -Based Catalysts*

12.50-13.10. **O11-10**

Claus H. Christensen, Rasmus Z. Sørensen, Asbjørn Klerke, Ulrich Quaade, Jens K. Nørskov, Technical University of Denmark, *State-Of-The-Art Indirect Hydrogen Storage In Metal Ammines*

*Poster presentations*

30.8. 07, Thursday, 17.10-19.00

### **Session 12. Catalysis in the conversion of renewable resources (biofuels, catalysis for sustainable developments)**

30.8.07, Thursday, 10.00-13.10. Auditorium 2.

30.8.07, Thursday, 16.30-17.10. Auditorium 3.

31.8.07. Friday, 10.00-13.10. Auditorium 3.

*Key-note lectures & Oral presentations*

30.8.07, Thursday

10.00-10.20. **O12-1**

Kazuhiya Murata, Megumu Inaba, Isao Takahara, AIST, *Glycerol Conversion into Lower Hydrocarbons over Modified H-ZSM-5 Catalysts*

10.20-10.40. **O12-2**

Jong-Wook Bae, Suk-Hwan Kang, H. S. Potdar, Ki-Won Jun, Korea Research Institute of Chemical Technology, *Conversion Of H<sub>2</sub>-Deficient Syngas To Methanol And Dimethyl Ether On Cu-ZnO-Al<sub>2</sub>O<sub>3</sub> : Effects Of Aging Time In Catalyst Preparation*

*Coffee break*

11.10-11.30. **O12-3**

David Kubicka, J. Chudoba, Pavel Simacek, VUAnCH, *Catalytic Conversion Of Vegetable Oils Into Transportation Fuels*

11.30-11.50. **O12-4**

Lourdes Rodríguez, Ángel Pérez, Rubí Romero, María Jesús Ramos, Abraham Casas, Carmen María Fernández, University of Castilla-La Mancha, *Production Of Biodiesel From Sunflower Oil Using Heterogeneous Catalysts*

11.50-12.10. **O12-5**

J. Link Shumaker, Czarena Crofcheck, S. Adam Tackett, Eduardo Santillan-Jimenez, Mark Crocker, University of Kentucky, *Biodiesel Synthesis from Soybean Oil using Calcined Li-Al Layered Double Hydroxide Catalysts*

12.10-12.30. **O12-6**

Natalia V. Kramareva, Alexei V. Kucherov, Olga P. Tkachenko, Leonid M. Kustov, Zelinsky Institute of Organic Chemistry, *Novel Chitosan-Based Lewis Acid Catalysts For Transesterification Of Triglycerides*

12.30-13.10. **K12-1**

**Dr. M. Harmer, DuPont Central Research, *Biobased Materials, Biorefinery and Superacid Catalysts***

16.30-17.10. **K12-2**

**Prof. R. Rogers, The University of Alabama, *Utilizing Ionic Liquids for Access to and Modification of Bio-renewable Polymers***

31.8.07. *Friday*

10.00-10.20. **O12-7**

S. Pariente, N. Tanchoux, S.Perathoner, G. Centi, F. Fajula, Messina University and Institut Charles Gerhart Montpellier, *Oxygenates From Bioethanol And Glycerol As Diesel Fuel Additives*

10.20-10.40. **O12-8**

Kouji Kasai, Teruki Haishi, Masakazu Iwamoto, Tokyo Institute of Technology, *Highly Selective Conversion of Ethanol into Lower Olefins over Nickel Ion-Loaded Mesoporous Silica MCM-41*

*Coffee break*

11.10-11.30. **O12-9**

S. Albertazzi, F. Basile, J. Brandin, J. Einvall, G. Fornasari, C. Hultberg, M. Sanati, F. Trifirò, A. Vaccari, University of Bologna, *Study Of The Deactivation Of A Ni Based Catalyst For The Reforming Of A Product Gas From Biomass Gasification*

11.30-11.50. **O12-10**

A. Solla, P. Simell, I. Hiltunen, M. Reinikainen, H. Rönkkönen, O. Krause, H. Bradshaw, H. Stephenson, G. Monks, Helsinki University of Technology, *Development Of Zirconia Catalysts For Hot Gas Cleanup*

11.50-12.10. **O12-11**

Ekaterini Ch. Vagia, Angeliki A. Lemonidou, Aristotle University of Thessaloniki, *Steam Reforming Of Acetic Acid In The Presence Of Highly Active Rh Catalysts Supported On CeO<sub>2</sub>-ZrO<sub>2</sub>*

12.10-12.30. **O12-12**

Megumu Inaba, Kazuhisa Murata, Masahiro Saito, Isao Takahara, National Institute of Advanced Industrial Science and Technology, *Production of Olefins from Ethanol by Iron-Supported Zeolite Catalysts*

12.30-13.10. **K12-3**

**Dr. J.-P. Lange, Shell Global Solutions, *Converting Lignocellulose To Fuels And Chemicals***

*Poster presentations*

30.8. 07, *Thursday, 17.10-19.00*

### **Session 13. Catalysis for pollution control (stationary)**

28.8.07, *Tuesday, 11.10-17.10 Hall A.*

29.8.07. *Wednesday, 11.10-13.10. Hall A*

*Key-note lectures & Oral presentations*

28.8.07, Tuesday

11.10-11.30. **O13-1**

A.E.Palomares, A. Uzcategui, A. Corma, Instituto de Tecnologia Quimica, Valencia, *Catalysts Based On Ce-Al For The NO<sub>x</sub> Reduction In A FCC Unit*

11.30-11.50. **O13-2**

P.G. Savva, C.N. Costa, A.M. Efstathiou, University of Cyprus, *Low-Temperature H<sub>2</sub>-SCR Of NO On A Novel Pt/MgO-CeO<sub>2</sub> Catalyst: A Comprehensive Elucidation Of Bifunctional Catalysis*

11.50-12.10. **O13-3**

Manfred Nacken, Steffen Heidenreich, David Sanz, Jose Luis Dorronsoro, Jesus Rodriguez-Maroto, Alberto Bahillo, Raquel Ramos, Lourdes Armesto, Pall Filtersystems GmbH and CIEMAT, *First Pilot Test Results Of A DeNO<sub>x</sub> Catalytic Filter*

12.10-12.30. **O13-4**

Rui Marques, Sandra Capela, Stéphanie Da Costa, Franck Delacroix, Gérald Djéga-Mariadassou, Patrick Da Costa, Université Pierre et Marie Curie, *Methane Oxidation By NO And Atomic Oxygen From Reverse Spillover On Alumina Supported Palladium Catalysts*

12.30-12.50. **O13-5**

V.G. Komvokis, I.A. Vasalos, K.S. Triantafyllidis, Aristotle University of Thessaloniki, *Cu-ZSM-5 Based Additives For The Simultaneous Decrease Of NO And CO Formed During Regeneration Of Spent Fluid Catalytic Cracking Catalysts*

12.50-13.10. **O13-6**

J.A.Z. Pieterse, G. D. Pirngruber, J.A Van Bokhoven, G.D. Elzinga, R.W. Van Den Brink, S. Booneveld, Energy Research Centre of the Netherlands, *Iron-Based Zeolite Catalysts With Improved Activity And Hydrothermal Stability In N<sub>2</sub>O Decomposition : From Lab-Scale To Pilot-Plant*

*Lunch*

14.40-15.20. **K13-1**

**Prof. A. Renken, Ch. Subrahmanyam, L. Kiwi-Minsker Ecole Polytechnique Fédérale de Lausanne, Catalytic processes for air pollution abatement -trends and perspectives.**

15.20-15.40. **O13-7**

A. Baylet, S. Royer, P. Marecot, J.-M. Tatibouet, D. Duprez, Laboratory of Catalysis in Organic Chemistry CNRS, *High Catalytic Activity And Stability Of Pd Doped Hexaaluminate Catalysts For The CH<sub>4</sub> Catalytic Combustion.*

15.40-16.00. **O13-8**

A. Bueno-López, K. Krishna, J. A. Moulijn, M. Makkee, TU Delft, *Rare-Earth Modified CeO<sub>2</sub> Catalysts For Soot Oxidation*

*Coffee break*

16.30-16.50. **O13-9**

Jason McPherson, Diandree Padayachee, David Thompson, Elma Van Der Lingen, ProjectAuTEK and Wold Gold Council, *Factors Affecting Activity Of Gold On Hopcalite And Other Supports*

16.50-17.10. **O13-10**

Hisahiro Einaga, Atsushi Ogata, Yasutake Teraoka, Kyushu University, *Catalytic Ozonation Of Benzene Over Alumina-Supported Silver Catalysts*

29.8.07. Wednesday

11.10-11.30. **O13-11**

S. Perathoner, S. Caudo, C. Genovese, G. Centi, M. Besson, P. Gallezot, D. Pham Minh, S. Sayadi, S. Azabou, University of Messina, *A Comparison Between Wet Catalytic Oxidation With O<sub>2</sub> From Air And H<sub>2</sub>O<sub>2</sub> In The Conversion Of Model Compounds And Real Wastewater From Agro-Food Production*

11.30-11.50. **O13-12**

J. Faye, S. Valange, S. Royer, F. Dumeignil, J.M. Tatibouët, LACCO-ESIP, *Iron-Based Perovskites As New And Performant Catalysts For The Wet Peroxide Oxidation Of Organic Pollutants In Ambient Conditions*

11.50-12.10. **O13-13**

J. Poltowicz, K. Pamin, P. Staszyński, J. Haber, J. Noworól, W. Bukowski, Institute of Catalysis and Surface Chemistry, *Oxidative Degradation Of Aromatic Pollutant In Presence Of Manganese Salen Complexes*

12.10-12.30. **O13-14**

A.V. Kucherov, I.M. Sinev, S. Ojala, R. Keiski, L.M. Kustov, Zelinsky Institute of Organic Chemistry, *Adsorption-Catalytic VOC Removal: Traditional Vs. Microwave-Assisted Processes*

12.30-13.10. **K13-2**

**Dr. M. Besson**, Institut de Recherches sur la Catalyse, Lyon, *Catalytic oxidative and reductive technologies for treatment and recycling of wastewater from industry*

*Poster presentations*

28.8.07, Tuesday 17.10-19.00

#### **Session 14. Catalysis for pollution control (mobile)**

27.8.07, Monday, 10.00-17.10. Auditorium 2.

28.8.07, Tuesday, 10.00-10.40. Hall A.

*Key-note lectures & Oral presentations*

27.8.07, Monday

10.00-10.20. **O14-1**

János Szanyi, Ja Hun Kwak, Do Heui Kim, Jonathan Hanson, Charles H.F. Peden, Pacific Northwest National Laboratory, *The Effect Of Water On The Adsorbed NO<sub>x</sub> Species Over BaO/Al<sub>2</sub>O<sub>3</sub> NO<sub>x</sub> Storage Materials: A Combined FTIR And In Situ Time-Resolved XRD Study*

10.20-10.40. **O14-2**

E.C. Corbos, X. Courtois, N. Bion, P. Marecot, D. Duprez, Université de Poitiers, *Impact Of The Support On The NO<sub>x</sub> Trap Properties Of Pt/Ba/Support Catalysts: H<sub>2</sub>O And CO<sub>2</sub> Effect, Sulfur Resistance And Regeneration.*

*Coffee break*

11.10-11.30. **O14-3**

Toshitaka Tanabe, Yasutaka Nagai, Kazuhiko Dohmae, Nobuyuki Takagi, Yasuo Ikeda, Sakura Pascarelli, Gemma Guilera, Mark Newton, Oji Kuno, Hongying Jiang, Hirofumi Shinjoh, Shin'ichi Matsumoto, Toyota Central R&D Labs., Inc., *Real-Time Observation Of Platinum Redispersion On Ceria-Based Oxide By In-Situ Turbo-XAS*

11.30-11.50. **O14-4**

Henrik Grönbeck, Chalmers University of Technology, *NO<sub>x</sub> Storage On BaO And BaO/Pt: Insights From Ab Initio Calculations*

11.50-12.10. **O14-5**

G.L. Chiarello, J.D. Grunwaldt, D. Ferri, A. Baiker, L. Forni, Università Degli Studi di Milano, *One-Step Flame Made 0.5 Wt% Pd/LaCoO<sub>3</sub> Catalyst For The Reduction Of NO By H<sub>2</sub> Under Lean Conditions*

12.10-12.30. **O14-6**

Eleonora Aneggi, Alessandro Trovarelli, Jordi Llorca, Carla De Leitenburg, Giuliano Dolcetti, Università di Udine, *Characterization Of Ag-Based Materials In Diesel Soot Combustion*

12.30-13.10. **K14-1**

**Prof. D. Kittelson, University of Minnesota, *On-Road and Laboratory Measurements of Nucleation Mode Particles Downstream of Catalyzed Diesel Particulate Filtration Systems***

*Lunch*

14.40-15.20. **K14-2**

**Dr T. Johnson, Corning Incorporated, Diesel Emissions in Review**

15.20-15.40. **O14-7**

O. Kröcher, G. Piazzesi, I. Czekaj, M. Devadas, M. Elsener, A. Wokaun, Paul Scherrer Institute, *Investigation Of The Isocyanic Acid Hydrolysis In The Urea-SCR Process*

15.40-16.00. **O14-8**

Hanna Härelind Ingelsten, Anders Palmqvist, Magnus Skoglundh, Chalmers University of Technology, *Mechanistic Considerations Of Propane Activation For HC-SCR Using Isotope Labelled Oxygen*

*Coffee break*

16.30-16.50. **O14-9**

J.P. Breen, R. Burch, S. Chansai, C. Hardacre, C. Hill, F.C. Meunier, C. Rioche, CenTACat Queens University Belfast, *A Combined In Situ Drifts And Fast Transient Kinetic Study Of The Effect Of H<sub>2</sub> On The Selective Catalytic Reduction Of NO<sub>x</sub> With Octane Using Isotopically Labelled 15NO*

16.50-17.10. **O14-10**

M. Richter, U. Bentrup, E.V. Kondratenko, V. A. Kondratenko, M.J.G. Fait, D. Heidemann, Leibniz Institute for Catalysis, *Interactions Between Silver And Hydrogen On Ag/Mordenite And Ag/Al<sub>2</sub>O<sub>3</sub>*

28.8.07. Tuesday

10.00-10.40. **K14-3**

**Prof. R. Burch, Queen's University Belfast, *Reaction Mechanisms and Active Sites in Automotive Emission Control: Chemistry or Alchemy?***

*Poster presentations*  
27.8. 07, Monday, 17.10-19.00

### **Session 15. Catalysis for bulk and specialty chemicals**

27.8.07, Monday, 10.00-15.20. Auditorium 3.

*Key-note lectures & Oral presentations*

27.8.07, Monday

10.00-10.20. **O15-1**

N. Rane, R.A. Van Santen, E.J.M. Hensen, Eindhoven University of Technology, *Nature And Chemical Reactivity Of Ga Species In ZSM-5 Zeolite For Alkane Activation*

10.20-10.40. **O15-2**

P. Botella, A. Corma, S. Iborra, R. Montón, V. Costa, Instituto de Tecnología Química, *Liquid-Phase Beckmann Rearrangement Of Cyclododecanone Oxime On Delaminated Material ITQ-2: A Sulfuric Acid-Free Process For Production Of -Lauractam*

*Coffee break*

11.10-11.30. **O15-3**

Jiang Xu, Barbara L. Mojet, Leon Lefferts, University of Twente, *Selective Oxidation Of Propane Over Cation Exchanged Zeolites: Active Sites And Reaction Mechanism*

11.30-11.50. **O15-4**

W.K. O'Keefe, F.T.T. Ng, G.L. Rempel, The University of Waterloo, *Application Of Niobia Compounds Towards The One-Step Synthesis Of Methyl Isobutyl Ketone: Kinetics And Catalyst Development*

11.50-12.30. **K15-1**

**Prof. D. de Vos, KU Leuven, *Liquid phase oxidation and reduction reactions on colloidal and heterogeneous catalysts***

12.30-12.50. **O15-5**

P. Schäringer, T. E. Müller, J. A. Lercher, Technische Universität München, *Mechanistic And Reaction Engineering Aspects Of Nitrile Hydrogenation*

12.50-13.10. **O15-6**

Naoki Mimura, Zhaoxia Song, Xiaoming Zhang, Miki Yoshimune, Juan J. Bravo-Suárez, Susumu Tsubota, S. Ted Oyama, Tadahiro Fujitani, National Institute of Advanced Industrial Science and Technology, *Direct Epoxidation Of Propylene To Propylene Oxide By Using Hydrogen/Oxygen Mixed Gas And Molecular Oxygen As Oxidants*

*Lunch*

14.40-15.00. **O15-7**

Domenico Sanfilippo, Guido Capone, Richard Pierce, Howard Clark, Snamprogetti, *SNOW: A New Styrene Technology*

15.00-15.20. **O15-8**

Ralf Jackstell, Anne Grotevendt, Maribel Bartolomé, David Nielsen, Matthias Beller, Leibniz-Institut für Katalyse e.V., *Telomerization Of 1,3-Butadiene With Amines*

*Poster presentations*

27.8. 07, Monday, 17.10-19.00

**Session 16. Catalytic reaction engineering (novel reactor systems and novel reaction media included)**

30.8. 07, Thursday, 10.00-13.10. Hall A.

30.8. 07, Thursday, 14.40-15.20. Auditorium 3

*Key-note lectures & Oral presentations*

10.00-10.40. **K16-1**

**Prof. C. Hardacre, Queen's University Belfast, Engineering Aspects of Catalytic Reactions in Ionic Liquids**

*Coffee break*

11.10-11.30. **O16-1**

A. Riisager, R. Fehrmann, M. Haumann, P. Wasserscheid, Universität Erlangen-Nürnberg, *Supported Ionic Liquid Phase (SILP) Technology - From Immobilized Catalysts To Advanced Materials*

11.30-11.50. **O16-2**

Albin Pintar, Matevž Vospornik, Gorazd Berčič, Janez Levec, National Institute of Chemistry, *Mathematical Modeling Of Formic Acid Oxidation In A Catalytic Three-Phase Membrane Contactor*

11.50-12.10. **O16-3**

Aneta Pashkova, Karel Svajda, Roland Dittmeyer, Karl-Winnacker-Institute, *Direct Synthesis Of Hydrogen Peroxide In A Catalytic Membrane Contactor*

12.10-12.30. **O16-4**

F. Klose, T. Wolff, C. Hamel, A. Tota, D. Ahchieva, S. Heinrich, A. Seidel-Morgenstern, Liisa Rihko-Struckmann, Otto-von-Guericke-University Magdeburg, *Pilot-Plant Study On Membrane Reactors For Catalytic Oxidation Of Hydrocarbons*

12.30-12.50. **O16-5**

J. R. Hernández Carucci, J. Sosa Pieroni, S. Bartova, K. Eränen, M. Marek, T. Salmi, D. Yu. Murzin, Åbo Akademi University, *Microreaction Engineering In The Reduction Of Biofuel Emissions*

12.50-13.10. **O16-6**

Nakul Thakar, Michiel T. Kreutzer, Brahim Daouairi, Freek Kapteijn, Jacob A. Moulijn, Guido Mul, Delft University of Technology, *On The Use Of A Priming Washcoat To Improve Diffusion-Reaction Characteristics In Structured Catalysts*

*Lunch*

14.40-15.20. **K16-2.**

**Prof. J. Pérez-Ramírez, Catalan Institution for Research and Advanced Studies, Hierarchically Architected Zeolites: The Engineering Starts in the Pore**

Poster presentations

30.8. 07, Thursday, 17.10-19.00

### Session 17. Photocatalysis

30.8. 07, Thursday, 14.40-17.10. Auditorium 2.

31.8.07. Friday, 10.00-12.30. Auditorium 2.

Key-note lectures & Oral presentations

30.8. 07, Thursday

14.40-15.00. **O17-1**

S. Usseglio, A. Damin, D. Scarano, S. Bordiga, C. Lamberti, A. Zecchina, University of Turin, *(I<sub>2</sub>)<sub>n</sub> Encapsulation Inside Nanovoid-Structured TiO<sub>2</sub>: A Way To Tune The Photoactivity In The Visible Region*

15.00-15.20. **O17-2**

Akihiko Kudo, Hideki Kato, Yasuyoshi Sasaki, Nana Shirakura, Tokyo University of Science, *Development Of Photocatalysts For Water Splitting Under Visible Light Irradiation*

15.20-15.40. **O17-3**

Hanjie Huang, Danzhen Li, Xu Chen, Xianzhi Fu, Fuzhou University, *New Synthesis Of Excellent Visible-Light TiO<sub>2</sub>-xNx Photocatalyst By A Simple Method*

15.40-16.00. **O17-4**

Masakazu Anpo, Masaaki Kitano, Masaya Matsuoka, Masato Takeuchi, Michio Ueshima, Osaka Prefecture University, *Separate Evolution Of H<sub>2</sub> And O<sub>2</sub> From H<sub>2</sub>O Using A Visible Light-Responsive TiO<sub>2</sub> Thin Film Photocatalyst Under Sunlight Irradiation*

Coffee break

16.30-16.50. **O17-5**

María J. Sabater, Avelino Corma, Teresa Navarro, Fernando Rey, Violeta Rodríguez, Universidad Politécnica de Valencia, *New Photoactive Mesostructured Inorganic-Organic Hybrids Based On Siliceous Materials And Trytil Cations*

16.50-17.10. **O17-6**

H.K. Shon, J.B. Kim, G.J. Kim, G.-S. Lee, D.L. Cho, J.-H. Kim, Chonnam National University, *Preparation Of Titanium Oxide From Sludge Produced By Flocculation Of Wastewater*

31.8.07. Friday

10.00-10.20. **O17-7**

J.M Herrmann, E. Puzenat, C.Guillard, IRCELYON - Université de Lyon, *Present Challenges for Photocatalysis in Green and Environmental Chemistry*

10.20-10.40. **O17-8**

Sébastien Josset, Jérôme Taranto, Marie-Claire Lett, Nicolas Keller, Valérie Keller, Louis Pasteur University Strasbourg, *UV-A Photocatalytic Oxidation As A Global Process For Air Decontamination. Bactericidal, Sporicidal And Virucidal Properties*



*Coffee break*

11.10-11.30. **O17-9**

A. Patsoura, D.I. Kondarides, X.E. Verykios, University of Patras, *Production Of Hydrogen By Photo-Induced Reforming Of Organic Pollutants At Room Temperature*

11.30-11.50. **O17-10**

Silvia Suárez, Juan M. Coronado, Raquel Portela, Juan C. Martín, Pedro Avila, Benigno Sánchez, CIEMAT, Madrid, *New Strategies For The Preparation Of Supported Photocatalysts For Air Purification*

11.50-12.30. **K17-1**

**Prof. D. Bahnemann**, University of Hannover, *Photocatalytic Surface Coatings: Mechanistic Aspects and Activity Measurements*

12.30-13.10. **K17-2**

**Dr. D. Kozlov**, Boreskov Institute of Catalysis, *Photocatalytic Reactors for Air Purification: Development and Application*

*Poster presentations*

30.8. 07, Thursday, 17.10-19.00

### **Session 18. Catalyst deactivation, regeneration and recycling**

29.8. 07, Wednesday, 10.00-13.10. Auditorium 2

30.8. 07, Thursday, 10.00-10.40. Auditorium 3

*Key-note lectures & Oral presentations*

29.8. 07, Wednesday

10.00-10.20. **O18-1**

S. David Jackson, Sreekala Rugmini, University of Glasgow, *Catalyst Deactivation And Regeneration In Alkane Dehydrogenation: Can't See The Wood For The Trees?*

10.20-10.40. **O18-2**

P. Konova, A. Naydenov, T. Tabakova, D. Mehandjiev, D. Andreeva, Institute of General and Inorganic Chemistry, Bulgarian Academy of Sciences, *Mechanism of Deactivation in CO Oxidation over Gold Supported Catalysts*

*Coffee break*

11.10-11.30. **O18-3**

B.S. Hammershøi, Haldor Topsøe A/S, *Deactivation of High-Temperature Shift Catalysts by Silicon Species*

11.30-11.50. **O18-4**

Joana L. Fernandes, Carla I. C. Pinheiro, Nuno M.C. Oliveira, Ana I. Neto, Fernando Ramôa Ribeiro, Instituto Superior Técnico, *Modeling Catalyst Deactivation in a Fluid Catalytic Cracking Process*

11.50-12.30. **K18-1**

**Prof. M. Guisnet**, Université de Poitiers, *Guidelines For Preventing The Deactivation By Coking Of Zeolite Catalysts And For Optimising Their Regeneration*

12.30-12.50. **O18-5**

P. Kern, M. Klimczak, M. Lucas, P. Claus, Darmstadt University of Technology, *Chemical Deactivation of Commercial SCR Catalysts for NO<sub>x</sub> Abatement in Mobile Sources*

12.50-13.10. **O18-6**

T. Djekic, S.J. Bos, A. G. J. van der Ham, A. B. de Haan, Eindhoven University of Technology, *Activity of Palladium Catalysts in the Heck Reaction during its Recovery by Reverse Flow Adsorption Technology*

30.8. 07, Thursday

10.00-10.40. **K18-2**

**J. McGregor, Z. Huang, C.P. Dunckley, M.D. Mantle, A.J. Sederman, Prof. L.F. Gladden** University of Cambridge *New Approaches to Studying Coke Formation*

*Poster presentations*

28.8.07, Tuesday 17.10-19.00

### **Session 19. VIII European Workshop on Selective Oxidation ISO 2007**

28.8. 07, Tuesday, 10.00-17.10. Auditorium 3

10.00-10.40. **K19-1**

**Dr. V. Narayana Kalevaru, A. Benhmid, J. Radnik, M.-M. Pohl, B. Lücke, A. Martin,** Leibniz Institute for Catalysis, *Palladium Catalysed Vapour Phase Acetoxylation Of Toluene To Benzyl Acetate*

*Coffee break*

11.10-11.30. **O19-1**

Sang-Eon Park, Sujandi, Abishek Burri, David Raju Burri, Inha University, *Mesoporous Silica Supported ZrO<sub>2</sub> Based Mixed Oxides For Oxidative Dehydrogenation Of Ethylbenzene To Styrene With CO<sub>2</sub>*

11.30-11.50. **O19-2**

K. Samson, B. Grzybowska, M. A. Bañares, E. Lozano Diz, J. Sloczyński, A. Kotarba, M. Hermanowska, Institute of Catalysis and Surface Chemistry, *Effect Of Potassium Addition To CrO<sub>x</sub>/Oxide Support Catalysts On Their Physicochemical And Catalytic Properties In Oxidative Dehydrogenation Of Isobutane*

11.50-12.10. **O19-3**

Patrick Nguyen, Jean-Mario Nhut, David Edouard, Charlotte Pham, Marc-Jacques Ledoux, Cuong Pham-Huu, LMSPC Strasbourg, *Fe<sub>2</sub>O<sub>3</sub>/Beta-SiC: A New High Efficiency Catalyst For The Selective Oxidation Of H<sub>2</sub>S Into Elemental Sulfur. Catalytic And Modeling Investigations*

12.10-12.30. **O19-4**

Ive Hermans, Eric Breynaert, André Maes, Jozef Peeters, Pierre A. Jacobs, KU Leuven, *Autoxidation Chemistry: Radical Changes, Rational Catalyst Design*

12.30-13.10. **K19-2**

**Oxana Kholdeeva, Irina Ivanchikova, Matteo Guidotti, Nicoletta Ravasio, Maila Sgobba, Marina Barmatova, Boreskov** Institute of Catalysis, *How To Reach 100% Selectivity In H<sub>2</sub>O<sub>2</sub>-Based Oxidation Of 2,3,6-Trimethylphenol To Trimethyl-P-Benzoquinone Over Ti,Si-Catalysts*

*Lunch*

14.40-15.00. **O19-5**

Q. Huynh, J.M.M. Millet, S. Loridant, Y. Shuurman, CNRS, *Study Of Heteropolycompound Based Catalysts For Isobutane Oxidation To Methacrylic Acid And Methacrolein: Effect Of Counter-Cations And Reaction Mechanism.*

15.00-15.20. **O19-6**

F. Ivars, B. Solsona, P. Botella, P. Concepción, J.M. López Nieto, Instituto de Tecnologia Quimica, *Selective Oxidation Of Propane Over Mo-V-Sb-O Based Catalysts. Influence Of The Addition Of Alkali Metals*

15.20-15.40. **O19-7**

M. Roussel, S. Barama, A. Löfberg, S. Al-Sayari, K. Karim, E. Bordes-Richard, ENSCL-USTL Lille, *MoV-Based Catalysts In Ethane Oxidation To Acetic Acid: Influence Of Additives On Surface Chemistry*

15.40-16.00. **O19-8**

M.L. Kaliya, N. Froumin, A. Erenburg, N. Frage, M. Landau, M. Herskowitz, Ben-Gurion University of the Negev, *Specific role of SiC in the generation of catalytic active species in supported vanadia catalysts*

*Coffee break*

16.30-16.50. **O19-9**

Peter Haider, Jan-Dierk Grunwaldt, Alfons Baiker, ETH Zürich, *Gold Supported On Mg, Al And Cu Containing Mixed Oxides: Structural Properties And Behavior In Catalytic Aerobic Alcohol Oxidation*

16.50-17.10. **O19-10**

S.A. Karakoulia, K.S. Triantafyllidis, G.Tsilomelekis, S. Boghosian, A.A. Lemonidou, Aristotle University Thessaloniki, *Oxidative Dehydrogenation Of Propane Over Vanadia Catalysts Supported On Non-Porous, Microporous And Mesoporous Silicate Supports*

*Poster presentations*

28.8.07, Tuesday 17.10-19.00

***Special contribution***

29.8. 07, Wednesday, 10.00-10.40. Hall A.

**EU-1. Dr. Søren Bøwadt, European Commission, Opportunities for Catalysis Research within the 7th Framework Programme of the European Commission**