

Program - 14th Nordic Symposium on Catalysis

Sunday, 29.08.2010

Time	Marienlystsalen	Kronborgsalen
10.00	Registration open	
12.00 – 13.30	Welcome and lunch	
13.30 – 13.40	Opening of the conference – Marienlystsalen (Anker Degn Jensen)	
	Session 1, Marienlystsalen, Session chair: <u>Ib Chorkendorff</u>	
13.40 – 14.25	P1: <i>Catalytic strategies for the conversion of biomass-derived carbohydrates to liquid hydrocarbon fuels</i> <u>James A. Dumesic</u> Department of Chemical and Biological Engineering, University of Wisconsin – Madison	
	Session 2, Marienlystsalen, Session chair: <u>Anders Riisager</u>	Session 3, Kronborgsalen, Session chair: <u>Lars Pettersson</u>
14.25 – 14.50	O1: <i>Conversion of Sugars into Methyl Lactate using Lewis acidic Zeotype Catalysts</i> <u>Martin Spangsborg Holm</u> Centre for Catalysis and Sustainable Chemistry, Dept. Chemistry, Tech. Univ. Denmark	O8: <i>Microstructured reactors in compact conversion of natural gas and biomass to liquid fuels and hydrogen</i> <u>Hilde Venvik</u> Dept. Chemical Engineering, Norwegian University of Science and Technology (NTNU), Trondheim
14.50 – 15.15	O2: <i>Formic acid for vapour phase catalytic olefins hydrogenation</i> <u>Dmitri A. Bulushev</u> Chemical & Environmental Sciences Dept., University of Limerick	O9: <i>Application of microchannel reactors in the dehydrogenation of isobutane</i> <u>Reetta Karinen</u> Aalto University School of Science and Technology
15.15 – 15.40	O3: <i>Process considerations for the catalytic dehydration of sugars to 5-hydroxymethylfurfural</i> <u>Jacob S. Jensen</u> Dept. Chemical and Biochemical Engineering, Tech. Univ. Denmark	O10: <i>Photocatalytic measurements in μ-reactors</i> <u>Peter C. K. Vesborg</u> Center for Individual Nanoparticle Functionality, Tech. Univ. Denmark
15.40 – 16.10	Coffee break	
	Session 4, Marienlystsalen, Session chair: <u>Jan-Dierk Grunwaldt</u>	
16.10 – 16.45	N1: <i>Characterisation of Fischer-Tropsch catalysts at realistic reaction conditions</i> <u>Magnus Rønning</u> Dept. Chemical Engineering, Norwegian University of Science and Technology, Trondheim	
	Session 5, Marienlystsalen, Session chair: <u>Jan-Dierk Grunwaldt</u>	Session 6, Kronborgsalen, Session chair: <u>Søren Dahl</u>
16.45 – 17.10	O4: <i>Catalysts for sorbent enhanced reforming (SER) of methane in temperature swing reactors – Kinetic</i> <u>Christoph Sprung</u> Dept. Chemistry, University of Oslo	O11: <i>Direct Decomposition of NO on C-type Cubic Rare Earth Oxides</i> <u>Nobuhito Imanaka</u> Dept. of Applied Chemistry, Osaka University
17.10 – 17.35	O5: <i>Kinetics of steam reforming over ruthenium based catalysts</i> <u>Tommy L. Jørgensen</u> Haldor Topsøe A/S, Lyngby	O12: <i>H₂ activation of aromatic hydrocarbons over Ag/Al₂O₃ diesel-SCR catalysts</i> <u>Hannes Kannisto</u> Competence Centre for Catalysis, Chalmers University of Technology
17.35 – 18.00	O6: <i>Hydrogen generation from low-sulphur diesel over Rh-based metallic monolithic catalyst</i> <u>Xanthias Karatzas</u> Dept. Chemical Engineering and Technology, KTH, Stockholm	O13: <i>H₂-promoted NO_x adsorption/desorption over Ag/Al₂O₃: Transient experiments and TPD study</i> <u>N.A. Sadokhina</u> Zelinsky Institute of Organic Chemistry, Moscow
18.00 – 18.25	O7: <i>Direct evidence of strong interaction between PtO nanoparticles and carbon nanofibers</i>	O14: <i>Alkali resistant Fe-zeolite catalysts for SCR of NO with NH₃</i> <u>Siva Sankar Reddy Putluru</u>

	<u>Ingvar Kvande</u> Dept. Chemical Engineering, Norwegian University of Science and Technology, Trondheim, and SINTEF Materials and Chemistry, Trondheim	Dept. Chemical Engineering, Tech. Univ. Denmark
19.00 -	Poster Session 1 – with evening buffet	

Monday, 30.08.2010

Time	Marienlystsalen	Kronborgsalen
	Session 6, Marienlystsalen, Session chair: <u>Astrid Boisen</u>	
8.30 – 9.15	<p style="text-align: center;">P2: <i>Biocatalysis: a curiosity or a real synthetic option?</i> <u>Wolfgang Kroutil</u> Department of Chemistry, University of Graz</p>	
	Session 7A, Marienlystsalen, Session chair: <u>Magali Boutonnet</u>	Session 8A, Kronborgsalen, Session chair: <u>Jens Sehested</u>
9.15 – 9.40	<p>O15: <i>Novel catalyst on a basis of immobilized horseradish peroxidase for biology active substances synthesis</i> <u>Valentine Doluda</u> Dept. of biotechnology and chemistry, Tver state technical university</p>	<p>O26: <i>Kinetics of selective oxidation of sugars over gold catalysts</i> <u>Bright Kusema</u> Process Chemistry Center, Åbo Akademi University</p>
9.40 – 10.05	<p>O16: <i>High-Oleic Sunflower Oil as a One-Pot Reaction Feedstock for Dimethyl 1,19-Nonadecanedioate Synthesis</i> <u>Guido Walther</u> Leibniz Institute for Catalysis, Rostock</p>	<p>O27: <i>Selective gold-catalysed aerobic oxidations under ambient conditions</i> <u>Søren Kegnæs</u> Centre for Catalysis and Sustainable Chemistry, Dept. Chemistry, Tech. Univ. Denmark</p>
10.05 – 10.35	Coffee break	
	Session 9, Marienlystsalen, Session chair: <u>Søren Dahl</u>	
10.35 – 11.10	<p style="text-align: center;">N2: <i>Catalytic reduction of nitrogen oxides in lean exhausts from vehicles</i> <u>Louise Olsson</u> Dept. Chemical and Biological Engineering, Chalmers University of Technology</p>	
	Session 7B, Marienlystsalen, Session chair: <u>Magali Boutonnet</u>	Session 8B, Kronborgsalen, Session chair: <u>Jens Sehested</u>
11.10 – 11.35	<p>O17: <i>Effect of biomass derived synthesis gas impurities on TOF and hydrocarbon selectivity in cobalt Fischer-Tropsch synthesis</i> <u>Øyvind Borg</u> Statoil Research Center, Trondheim</p>	<p>O28: <i>Using TPD data in determination of ammonia sorption kinetics on HZSM-5</i> <u>Sonja K. Kouva</u> Aalto University School of Science and Technology</p>
11.35 – 12.00	<p>O18: <i>On the selectivity of cobalt-based Fischer-Tropsch catalysts</i> <u>Matteo Lualdi</u> Chemical Technology, Royal Institute of Technology (KTH), Stockholm</p>	<p>O29: <i>Structural environments for surface sites in boron- and phosphorous-modified alumina catalysts from single- and double-resonance ¹H, ¹¹B, ³¹P, and ²⁷Al MAS NMR experiments</i> <u>Jørgen Skibsted</u> Instrument Centre for Solid-State NMR Spectroscopy, and Interdisciplinary Nanoscience Center (iNANO), Dept. Chemistry, Aarhus University</p>
12.00 – 14.00	Lunch followed by Poster Session 2	
	Session 10, Marienlystsalen, Session chair: <u>Ingemar Oldenbrand</u>	Session 11, Kronborgsalen, Session chair: <u>Jeppe Vang Lauritsen</u>
14.00 – 14.25	<p>O19: <i>In-situ & Operando spectroscopic methods for studying industrial applications and deactivation phenomena of modified vanadium oxide catalysts for the NH₃-SCR reaction</i> <u>Søren Birk Rasmussen</u> Instituto de Catálisis y Petroleoquímica, Madrid</p>	<p>O30: <i>Advances in transmission electron microscopy for catalysis</i> <u>Alfons M. Molenbroek</u> Haldor Topsøe A/S, Lyngby</p>
14.25 – 14.50	<p>O20: <i>Catalytic conversion of syngas into mixed long-chain alcohols over cobalt-molybdenum sulfide</i> <u>Jakob Munkholt Christensen</u> Department of Chemical and Biochemical Engineering, Technical University of Denmark</p>	<p>O31: <i>Environmental TEM of the Dynamics of Catalyst Particles</i> <u>Thomas W. Hansen</u> Center for Electron Nanoscopy (CEN), Tech. Univ. Denmark</p>
14.50 – 15.15	O21: <i>Lean NO_x reduction with various bio-diesels as reducing agents</i>	O32: <i>Identical locations transmission electron microscopy study of Pt/C</i>

	<p><u>Sara Erkfeldt</u> Volvo Technology Corporation, and Competence Centre for Catalysis, Chalmers University of Technology</p>	<p><i>catalyst corrosion under oxygen reduction reaction conditions</i> <u>Francisco J. Pérez-Alonso</u> Center for Individual Nanoparticle Functionality, Dept. Physics, Tech. Univ. Denmark</p>
15.15 – 15.40	<p>O22: <i>Special characteristics of dimethyl ether as reducing agent in continuous lean NO_x catalysis</i> <u>Stefanie Tamm</u> Competence Centre for Catalysis, and Applied Surface Chemistry, Chalmers University of Technology</p>	<p>O33: <i>Structural characterization of materials relevant to catalysis</i> <u>Lars F Lundegaard</u> Haldor Topsøe A/S, Lyngby</p>
15.40 – 16.10	Coffee break	
	Session 12, Marienlystsalen, Session chair: <u>Gurli Mogensen</u>	
16.10 – 16.45	<p>N3: <i>Catalysis in VOC Abatement</i> <u>Satu Ojala</u> Department of Process & Environmental Engineering, University of Oulu</p>	
	Session 13, Marienlystsalen, Session chair: <u>Johannes Due-Hansen</u>	Session 14, Kronborgsalen, Session chair: <u>Jane Hvolbæk Nielsen</u>
16.45 – 17.10	<p>O23: <i>Epoxidation of Olefins Catalyzed by the Cobalt based Metal-Organic Framework STA-12(Co)</i> <u>Matthias J. Beier</u> Dept. Chemical Engineering, Tech. Univ. Denmark, and ETH Zurich</p>	<p>O34: <i>In situ studies of Pd and Rh model catalysts</i> <u>Edvin Lundgren</u> Division of Synchrotron Radiation Research, Lund University</p>
17.10 – 17.35	<p>O24: <i>Cobalt complexes with tripodal ligands in oxidation catalysis</i> <u>Susanne Mossin</u> Centre for Catalysis and Sustainable Chemistry, Dept. Chemistry, Tech. Univ. Denmark</p>	<p>O35: <i>Making EXAFS surface sensitive? Red-ox cycles on Rh/Al₂O₃</i> <u>Davide Ferri</u> EMPA, Lab. for Solid State Chemistry and Catalysis, Dübendorf</p>
17.35 – 18.00	<p>O25: <i>Oxidation of DCM and PCE – laboratory vs. industrial scale study</i> <u>Satu Pitkäaho</u> Dept. of Process and Environmental Engineering, Univ. of Oulu</p>	<p>O36: <i>High throughput experimentation as an efficient tool for the testing of hydroprocessing catalysts</i> <u>Philipp Hauck</u> hte Aktiengesellschaft, Heidelberg</p>
18.30 -	Conference dinner and Berzelius Award Ceremony	

Tuesday, 31.08.2010

Time	Marienlystsalen	Kronborgsalen
9.00 – 9.45	Session 15, Marienlystsalen, Session chair: <u>Thomas Bligaard</u> <i>P3: Surface-mediated oxygen-assisted reactions of amines and alcohols on single crystal surfaces of metallic silver and gold</i> <u>Robert J. Madix</u> School of Engineering and Applied Sciences, Harvard University	
9.45 – 10.10	Session 16A, Marienlystsalen, Session chair: <u>Thomas Bligaard</u> <i>O37: Probing the atomic-scale details of molecular adsorption on MoS₂ and CoMoS nanoclusters in hydrotreating catalysis</i> <u>Jeppe V. Lauritsen</u> Interdisciplinary Nanoscience Center (iNANO), Aarhus Univ.	Session 17A, Kronborgsalen, Session chair: <u>Magnus Rønning</u> <i>O43: Deactivation of ion exchange catalysts by acetonitrile and methylamine</i> <u>Carles Fité</u> Dept. Chemical Engineering, University of Barcelona
10.10 – 10.35	<i>O38: Reactivity of ruthenium steps</i> <u>Kenneth Nielsen</u> Center for Individual Nanoparticle Functionality, Tech. Univ. Denmark	<i>O44: Glycerol etherification to dimers using basic and acidic catalysts</i> <u>Andreas Martin</u> Leibniz Institute for Catalysis, Rostock
10.35 – 11.10	Coffee break	
11.10 – 11.35	Session 16B, Marienlystsalen, Session chair: <u>Thomas Bligaard</u> <i>O39: Catalytic reaction between O₂, CO and NO over Rh model catalysts</i> <u>Johan Gustafson</u> Div. of Synch. Radiation Research, Lund University	Session 17B, Kronborgsalen, Session chair: <u>Magnus Rønning</u> <i>O45: In-situ FT-IR mechanistic investigations of the zeolite catalyzed methylation of benzene with methanol: H-ZSM-5 vs H-beta.</i> <u>Stian Svelle</u> inGAP center of research based innovation/Dept. of Chemistry, University of Oslo, Norway
11.35 – 12.00	<i>O40: CO methanation over Ru-Al₂O₃ catalysts: effects of chloride doping on reaction activity and selectivity</i> <u>Galletti Camilla</u> Dept. Materials Science and Chemical Engineering, Politecnico di Torino	<i>O46: Mercury Oxidation in Flue Gases</i> <u>Karin Madsen</u> Haldor Topsøe A/S, Lyngby and Dept. Chemical Engineering, Tech. Univ. Denmark
12.00 – 13.30	Lunch	
13.30 – 13.55	Session 18, Marienlystsalen, Session chair: <u>Anders Holmen</u> <i>O41: Influence of phosphorous aging on diesel oxidation catalysts</i> <u>Alexander Winkler</u> Empa, Internal Combustion Engines Laboratory, Duebendorf, Switzerland	Session 19, Kronborgsalen, Session chair: <u>Anker Degn Jensen</u> <i>O47: Coupling of Methane with Li/MgO-Catalysts</i> <u>Sebastian Arndt</u> Inst. Chemie, Technische Universität Berlin
13.55 – 14.20	<i>O42: Alloys of platinum and early transition metals as oxygen reduction electrocatalysts</i> <u>Ifan E.L. Stephens</u> Center for Individual Nanoparticle Functionality, Tech. Univ. Denmark	<i>O48: Snapshots of the catalyst structure during the partial oxidation of methane</i> <u>Jan-Dierk Grunwaldt</u> Dept. Chemical Engineering, Tech. Univ. Denmark and Institute for Chemical Technology and Polymer Chemistry (ITCP), Karlsruhe
14.20 – 14.45	Session 20, Marienlystsalen, Session chair: <u>Anders Holmen</u> <i>N4: Catalysis Informatics</i> <u>Thomas Bligaard</u> Center for Atomic-scale Materials Design, Tech. Univ. Denmark	
14.45 – 15:00	Presentation of NSC-2012 (Kalle Arve) / Closing Session & Poster Award Ceremony (Anker Degn Jensen)	