

Program for the 18th Nordic Symposium on Catalysis (NSC), 2018 Copenhagen

Time	Sunday 26/8		
12.00-14.00	Registration open		
14.00-14.10	Opening session - room 101/102		
14.10-15.00	Plenary 1 - room 101/102 Emiel Hensen, Eindhoven University of Technology Valorization of lignocellulosic biomass: from catalytic chemistry to novel processes Chairman: Anker Degn Jensen, <i>Technical University of Denmark</i>		
15.00-15.30	Coffee		
	Automotive and flue gas cleaning Room 101/102 Chairman: Brian Brun Hansen, <i>Technical University of Denmark</i>	Biomass and biomolecules Room 104 Chairman: Anders Riisager, <i>Technical University of Denmark</i>	Synthesis and characterization Room 105 Chairman: Christian Danvad Damsgaard, <i>Technical University of Denmark</i>
15.30-15.50	O1.1 Hanna Härelind <i>Chemistry and Chemical Engineering, Chalmers University of Technology</i> Detailed characterization of solid-state ion-exchanged Cu-CHA for ammonia SCR	O1.2 Magnus Zingler Stummann <i>DTU Chemical Engineering, Technical University of Denmark</i> Hydrogen assisted catalytic biomass pyrolysis for green fuels. Effect of catalyst in the fluid bed	O1.3 Ekaterina Kholkina <i>Process Chemistry Centre, Åbo Akademi University</i> Application of industrial wastes from iron and steel production in creation of zeolite type materials: Synthesis, characterization and evaluation of catalytic properties
15.50-16.10	O2.1 Peter S. Hammershøi <i>Umicore Denmark and DTU Chemical Engineering, Technical University of Denmark</i> Lifetime impact of SO ₂ -poisoning of a Cu-CHA catalyst for NH ₃ -SCR	O2.2 José Luis González Escobedo <i>Department of Chemical and Metallurgical Engineering, Aalto University</i> Hydrodeoxygenation of Levulinic Acid Dimers on a 3 % Ru/ZrO ₂ Catalyst	O2.3 Toni Varila <i>University of Jyväskylä</i> Catalytic effects of nickel in activated sugar based carbon foams
16.10-16.30	O3.1 Anja Olafsen Sjøstad <i>Department of Chemistry, University of Oslo</i> Bimetallic Pt(Rh) catalysts for intermediate temperature ammonia oxidation – combining traditional catalysis with surface science	O3.2 Efthymios Kantarelis <i>Department of Chemical Engineering, KTH-Royal Institute of Technology</i> Upgrading biomass pyrolysis vapors over hierarchical Co/HZSM5: Activity and coking characteristics	O3.3 Stig Helveg <i>Haldor Topsøe A/S</i> Sulfuric Acid Catalysts studied in situ by Transmission Electron Microscopy and Raman Spectroscopy
16.30-16.50	O4.1 Rui Wang <i>School of Environmental Science & Engineering, Shandong University</i> Germanium-based polyoxometalates: preparation and application in adsorption-decomposition of NO _x	O4.2 Andreas Eschenbacher <i>DTU Chemical Engineering, Technical University of Denmark</i> Performance of mesoporous ZSM-5 for the upgrading of straw derived pyrolysis vapors	O4.3 Stian Svelle <i>Department of Chemistry, University of Oslo</i> Coking of zeolite ZSM-5 during the conversion of methanol to hydrocarbons monitored by X-ray diffraction tomography
17.00-18.00	Poster session with refreshments (All posters)		
18.00-	Welcome reception with standing dinner and poster session continued		

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Time	Monday 27/8 Morning		
9.00-9.50	Plenary 2 - Berzelius award lecture - room 101/102 Riikka Puurunen, Aalto University Supported heterogeneous catalysts by atomic layer deposition Chairman: Christian Hulteberg, <i>Lund University/Berzelius award committee</i>		
	Automotive and flue gas cleaning Room 101/102 Chairman: Anker Degn Jensen, <i>Technical University of Denmark (DTU)</i>	Biomass and biomolecules Room 104 Chairman: Martin Høj, <i>Technical University of Denmark (DTU)</i>	Reduction/hydrotreating Room 105 Chairman: Søren Kegnæs, <i>Technical University of Denmark (DTU)</i>
9.55-10.15	O5.1 Kirsten Leistner <i>Chalmers University of Tehcnology</i> Volatilisation and Resulting Deposition of Platinum Oxides from Model DOC Catalysts	O5.2 Irene Tosi <i>DTU Chemistry, Technical University of Denmark</i> Kinetic insight into the production of methyl lactate from sugars with Sn-Beta catalyst	O5.3 M. Grazia Francesconi <i>University of Hull</i> Pd-based Catalysts for the Semi-Hydrogenation of 2-Methyl-3-Butyne-2-ol (MBY)
10.15-10.35	O6.1 Liqun Kang <i>University College London</i> Catalytic behaviors of Cu single site and clusters over ceria surface	O6.2 Aitor Arandia <i>Department of Chemical and Metallurgical Engineering, Aalto University</i> Aqueous phase reforming (APR) of bio-oil model compounds over different Ni-based catalysts	O6.3 Trine Marie Hartmann Dabros <i>Haldor Topsøe A/S</i> Influence of active phase loading in hydrodeoxygenation (HDO) of ethylene glycol over promoted MoS ₂ /MgAl ₂ O ₄ catalysts
10.35-11.00	Coffee		
11.00-11.30	Nordic Keynote 1 – Sweden – room 101/102 Christian Hulteberg, Lund University Heterogeneous catalysis-from research to industrial implementation Chairman: Anker Degn Jensen, <i>Technical University of Denmark</i>		
	Automotive and flue gas cleaning Room 101/102 Chairman: Anker Degn Jensen, <i>Technical University of Denmark</i>	Biomass and biomolecules Room 104 Chairman: Martin Høj, <i>Technical University of Denmark</i>	Reduction/hydrotreating Room 105 Chairman: Søren Kegnæs, <i>Technical University of Denmark</i>
11.35-11.55	O7.1 Piotr Legutko <i>Faculty of Chemistry, Jagiellonian University in Krakow</i> Doping with cobalt as a potential method of boosting of catalytic activity of birnessite and cryptomelane in soot combustion	O7.2 Sebastian Meier <i>DTU Chemistry, Technical University of Denmark</i> Liquid State NMR Approaches to Catalyzed Reactions: Ultrahigh Resolution and Molecular Probes	O7.3 Abdulaziz Bagabas <i>Materials Science Research Institute (MSRI), King Abdulaziz City for Science and Technology (KACST)</i> Acetone Reaction with Hydrogen over Mesoporous Magnesium Oxide-Supported Rhodium Nanoparticles
11.55-12.15	O8.1 Debasish Chakraborty <i>DTU Physics, Technical University of Denmark</i> Generation of trace ammonia free hydrogen from ammonia for power generation via Proton Exchange Membrane Fuel Cell	O8.2 Samuel Elliot <i>DTU Chemistry, Technical University of Denmark</i> NMR Spectroscopic Isotope Tracking Reveals Cascade Steps in Carbohydrate Conversion by Tin-Beta	O8.3 Kristoffer Rasmussen <i>DTU Chemistry, Technical University of Denmark</i> Shell protected mesoporous zeolites for selective catalysis
12.15-13.30	Lunch		

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Time	Monday 27/8 Afternoon		
13.30-14.00	Nordic Keynote 2 – Norway – room 101/102 Jia Yang, Norwegian University of Science and Technology Isotopic labeling for kinetic and mechanistic investigation in Fischer-Tropsch synthesis Chairman: Stian Svelle, <i>University of Oslo</i>		
	Syngas conversion Room 101/102 Chairman: Stian Svelle, <i>University of Oslo</i>	Automotive and flue gas cleaning Room 104 Chairman: Susanne Mossin, <i>Technical University of Denmark</i>	Synthesis and characterization Room 105 Chairman: Martin Nielsen, <i>Technical University of Denmark</i>
14.05-14.25	O09.1 Jens Sehested <i>Haldor Topsøe A/S</i> Science and industrial practice in methanol synthesis	O09.2 Steen M. Christensen <i>DTU Chemical Engineering, Technical University of Denmark</i> High Pressure Pre-turbine SCR reactor for NO _x Reduction on Ships	O09.3 Simone Louise Zacho <i>DTU Chemistry, Technical University of Denmark</i> Zeolitic Imidazolate Frameworks as templates and self-sacrificing catalyst precursors
14.25-14.45	O10.1 Karla Herrera Delgado <i>Karlsruhe Institute of Technology (KIT)</i> Kinetic study of methanol and direct dimethyl ether synthesis from CO ₂ -rich syngas	O10.2 Rasmus Fehrmann <i>DTU Chemistry, Technical University of Denmark</i> DeNO _x of flue gases by end-of-pipe technologies	O10.3 Istvan Halasz <i>PQ Corporation</i> About the absence of stable hydroxyl nests in acid leached Y zeolites
14.45-15.05	O11.1 Larisa Arkatova <i>SKTB Katalizator</i> New Type of Catalysts on the Base of Intermetallides for carbon Dioxide Reforming of Methane	O11.2 Shirley Liland <i>Norwegian University of Science and Technology</i> Operando study: Oxidation of Ni-Co/HT Catalyst for Catalytic Combustion of Methane	O11.3 Jerrik Mielby <i>DTU Chemistry, Technical University of Denmark</i> Advanced Nanorattle Catalysts Derived from Metal-Organic Frameworks
15.05-15.35	Coffee		
15.35-16.05	Nordic Keynote 3 – Finland – room 101/102 Ulla Lassi, University of Oulu Biomass-based carbon catalysts in catalytic conversion reactions Chairman: Sebastian Meier, <i>Technical University of Denmark</i>		
	Biomass and biomolecules Room 101/102 Chairman: Sebastian Meier, <i>Technical University of Denmark</i>	Automotive and flue gas cleaning Room 104 Chairman: Susanne Mossin, <i>Technical University of Denmark</i>	Theory and modelling Room 105 Chairman: Jan Rossmeisl, <i>University of Copenhagen</i>
16.10-16.30	O12.1 Omar Abdelaziz <i>Department of Chemical Engineering, Lund University</i> Oxidative Depolymerisation of Lignosulphonate Lignin into Low-Molecular-Weight Products: A Catalyst Screening Study	O12.2 Jonas Granstrand <i>Chemical Engineering, KTH Royal Institute of Technology</i> Effects of soot, sulphur, sodium, calcium and phosphorus on diesel oxidation catalyst after operation in a FAME biodiesel-fueled heavy-duty vehicle	O12.3 Mikkel Jørgensen <i>Department of Physics and Competence Centre for Catalysis, Chalmers University of Technology</i> The Site-Assembly determines the Catalytic Activity of Nanoparticles
16.30-16.50	O13.1 Rosa Maria Padilla <i>DTU Chemistry, Technical University of Denmark</i> Catalytic Upgrading of Ethanol using Pincer type Complexes	O13.2 Johanna Englund <i>Competence Centre for Catalysis, Chalmers University of Technology</i> Deactivation study of DeNO _x Catalysts from heavy-duty vehicles powered with biofuels	O13.3 Minttu Kauppinen <i>University of Jyväskylä</i> Water-gas shift reaction over Rh/ZrO ₂ : A DFT based multiscale study
17.00-18.00	Poster session (All posters)		
19.00	Dinner		

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Time	Tuesday 28/8		
9.00-9.50	Plenary 3 - room 101/102 Jan-Dierk Grunwaldt, Karlsruhe Institute of Technology (KIT) Catalysts and reactors under dynamic reaction conditions in environmental catalysis and for energy storage and conversion Chairman: Christian Danvad Damsgaard, <i>Technical University of Denmark</i>		
	Photo and electro catalysis Room 101/102 Chairman: Peter Vesborg, <i>Technical University of Denmark</i>	Syngas conversion Room 104 Chairman: Jakob Munkholt Christensen, <i>Technical University of Denmark</i>	Oxidation Room 105 Chairman: Rasmus Fehrmann, <i>Technical University of Denmark</i>
9.55-10.15	O14.1 Rainer Küngas <i>Haldor Topsøe A/S</i> High temperature electrolysis activities at Haldor Topsoe: status and perspectives on electrification of the chemical industry	O14.2 Andrea Lazzarini <i>Department of Chemistry, University of Oslo</i> Operando FT-IR spectroscopy for the study of Pd-functionalized UiO-67 for CO ₂ hydrogenation reaction	O14.3 Endre Fenes <i>Dept. of Chemical Engineering, Norwegian University of Science and Technology (NTNU)</i> Calcined Al-Mg Hydrotalcite as Support in CuCl ₂ Based Oxychlorination Catalysts
10.15-10.35	O15.1 Manuel Saric <i>Department of Chemistry, University of Copenhagen</i> Towards electrification of chemical syntheses by electrocatalytic synthesis of dimethyl carbonate	O15.2 Farnoosh Goodarzi <i>DTU Chemistry, Technical University of Denmark</i> Direct CO ₂ hydrogenation to methane over zeolite encapsulated nickel nanoparticles	O15.3 Ata Ul Rauf Salman <i>Dept. of Chemical Engineering, Norwegian University of Science and Technology (NTNU)</i> Catalytic oxidation of NO to NO ₂ for nitric acid production over a supported Pt catalyst
10.35-11.00	Coffee		
	Photo and electro catalysis Room 101/102 Chairman: Jan Rossmeisl, <i>University of Copenhagen</i>	Syngas conversion Room 104 Chairman: Jakob Munkholt Christensen, <i>Technical University of Denmark</i>	Oxidation Room 105 Chairman: Rasmus Fehrmann, <i>Technical University of Denmark</i>
11.00-11.20	O16.1 Sungeun Yang <i>DTU Physics, Technical University of Denmark</i> Decentralized production of H ₂ O ₂ using electrocatalysis	O16.2 Carlos Hernandez Mejia <i>Utrecht University</i> Impact of Reduction-Oxidation-Reduction Treatments on Supported Cobalt Catalysts	O16.3 Dimitrios Pappas <i>University of Oslo</i> Methane to Methanol over Cu-Zeolites: Establishing Structure-Activity Relationships
11.20-11.40	O17.1 Ahmad Alshammari <i>Materials Science Research Institute, King Abdulaziz City for Science and Technology</i> Effect of the Nature of Metal Nanoparticles on the Photocatalytic Degradation of Rhodamine B	O17.2 Edd A. Blekkan <i>Dept. of Chemical Engineering, Norwegian University of Science and Technology (NTNU)</i> Mn-promotion of alumina-supported cobalt Fischer-Tropsch catalysts	O17.3 Kristian Raun <i>DTU Chemical Engineering, Technical University of Denmark</i> Modeling of the Molybdenum Loss in Iron Molybdate Catalyst Pellets used for Selective Oxidation of Methanol to Formaldehyde
11.45-12.15	Nordic Keynote 4 – Denmark – room 101/102 Peter Christian Kjærgaard Vesborg, Technical University of Denmark (DTU) Ultrasensitive measurements of transient electrocatalytic phenomena Chairman: Jan Rossmeisl, <i>University of Copenhagen</i>		
12.15-12.25	Closing session - room 101/102 Poster Award and presentation of the 19 th Nordic Symposium on Catalysis, 2020, Finland		
12.25-14.00	Lunch		