

The Norwegian Catalysis Symposium 2019

Grand Hotel Terminus, Bergen

Scientific program

Thursday, December 5, 2019

09:30 **Registration, Coffee & snacks**

10:00 **Welcome**

10:05 – 11:45 Session 1; Chair: Vidar Remi Jensen

10:05 **IL1 Johannes de Vries**, Leibniz Institute for Catalysis
Catalytic conversion of renewable resources into bulk and fine chemicals

10:45 **O1 Christian S. Gjermestad**, University of Bergen (UoB)
Selective reduction of phenol to benzene via loss of substrate aromaticity

11:05 **O2 Sondre Eliasson** (UoB)
The benefit of a hemilabile ligand in deoxygenation of fatty acids to 1-alkene

11:25 **O3 Erwan Le Roux** (UoB)
*O-functionalized N-heterocyclic Carbene Complexes of Group 4:
Synthesis and Reactivity in Copolymerization of Epoxides with CO₂*

11:50 **Lunch** (Hotel Zander K, neighboring to the Grand Hotel Terminus)

13:00 – 14:40 Session 2; Chair: Stian Svelle

13:00 **IL2 De Chen**, Norwegian University of Science and Technology (NTNU)
Kinetic Analysis and Design of Catalytic Redox Cycles

13:40 **O4 Mario Ernesto Casalegno** (NTNU)
Aspen Plus simulations of Steam Ethanol Reforming and promoted Co-Ni/Hydrotalcite structures: Process and catalyst optimization

14:00 **O5 Muhammad Zubair** (NTNU)
*Core-shell nanostructures of graphene wrapped CdS nanoparticles and TiO₂ (CdS@G@TiO₂):
The role of graphene in achieving enhanced photocatalytic H₂ generation*

14:20 **O6 Huong Huynh**, University of Stavanger (UoS)
CO₂ methanation over Ni-Fe alloy catalysts: an in-situ study

14:40 **Coffee Break**

15:00 – 16:40 Session 3; Chair: Mats Tilset

- 15:00 **IL3 Unni Olsbye**, University of Oslo (UoO)
Small molecule conversion in zeotype- and MOF-based catalysts. Two case studies
- 15:40 **O1 Karoline Kvande** (UoO)
Direct methane to methanol conversion: comparing the activity of Cu-SAPO-34 and Cu-SSZ-13
- 16:00 **O2 Carlo Buono** (UoO)
Density functional theory study of the reaction mechanism and energetics of the oxidation of methane to methanol over Cu-exchanged zeolite.
- 16:20 **O3 Chiara Negri** (UoO)
Evidence of mixed-ligand complexes in Cu-CHA by reaction of Cu nitrates with NO/NH₃ at low temperature

16:40 Coffee Break with snacks

17:00 – 18:10 Session 4; Chair: Erwan Le Roux

- 17:00 **IL4 Deryn E. Fogg**, University of Ottawa *Houm Lecture*
Olefin Metathesis: Toward Fulfilling a Nobel Promise
- 17:40 **O8 Immanuel Reim** (UoB)
Toward E-Selective Olefin Metathesis Catalysts
- 18:00 **FP1 Jonas Ekeli** (UoB)
Z-Selective Ru-Indenylidene Olefin Metathesis Catalysts with remarkable structural features

For members of the Norwegian Chemical Society, NKS:

18:10 – 18:40 *General Assembly NKS' faggruppe for Katalyse*

19.30 Conference dinner at Grand Hotel Terminus

Friday, December 6, 2019

08:30 – 09:40 Session 5; Chair: Knut Børve

- 08:30 **IL5 Per-Ola Norrby**, AstraZeneca – Sweden *Matriks Lecture*
Predicting selectivity in homogeneous catalysis
- 09:10 **O9 Lluís Artús Suárez** (UoO)
Amide hydrogenation to amines and alcohols by a Mo-PNP catalysts. A computational study
- 09:30 **FP2 Vladimir Levchenko** (UoO)
Catalytic activity of cyclometalated gold(III) complexes and their related MOF

09:40 Coffee Break with snacks, Check-out

10:00 – 11:00 Session 6; Chair: Ainara Nova

- 10:00 **IL6 Carine Michel**, Ecole Normale Supérieure de Lyon
Rational design of heterogeneous catalysts for biomass conversion - Inputs from computational chemistry
- 10:40 **O10 Marco Foscato** (UoB)
Automated Computational Design of Catalysts

11:00 Coffee Break with snacks, Check-out

11:20 – 12:20 Session 7; Chair: Giovanni Occhipinti

- 11:20 **IL7 Stephen G. Newman**, University of Ottawa *Matriks Lecture*
Engaging esters, aldehydes, and alcohols in cross-coupling reactions
- 12:00 **O11 Ljubisa Gavrilovic** (NTNU)
Fischer-Tropsch synthesis over an alumina-supported cobalt catalyst in a fixed bed reactor – effect of process parameters

12:25 Lunch (Grand Hotel Terminus)

13:40 – 15:00 Session 8; Chair: Deryn Fogg

- 13:40 **IL8 Jason Hein**, University of British Columbia *Matriks Lecture*
Solving catalytic reaction mechanisms for liquid-liquid and solid-liquid heterogeneous systems
- 14:20 **O12 Christian Ahoba-Sam** (UoO)
On conversion of CO₂ to value added products over a composite PdZn-ZSM-5 catalyst; a compromise or a penalty
- 14:40 **O13 Kristian Stangeland** (UoS)
Indium promotion of Cu-Zn-Al catalysts derived from hydrotalcite for CO₂ hydrogenation to methanol

15:00 Closing address