Monday, June 8th

12:30 – Registration

13:50 – Welcome

14:00 – **Plenary**

Location: Main Hall, Chair: Magnus Skoglundh

Optical spectroscopy as a “Swiss army knife” in understanding catalysts
Silvia Bordiga

15:00 – Coffee

15:30 – **Nordic Keynote**

Location: Main Hall, Chair: Magnus Skoglundh

Dynamic electrochemical interfaces: From understanding to controlling reactivity
Antonia Herzog

16:10

Electrocatalysis *Pascal, Chair: B. Wickman*	**Emission Control** *Tesla, Chair: T. Maunula*	**New methods and concepts** *Main Hall, Chair: P-A. Carlsson*
16:20 Reza Khaleghi Abasabadi *In-situ studies revealing the synthesis mechanism of platinum-yttrium nanoalloy catalysts*	Susanne Mossin *In-situ EPR applied for speciation of active metal sites in zeolites*	Jessi van der Hoeven *Nanoscale strain-engineering controls the reactivity of nanoparticle catalysts*
16:40 Mailde S. Ozório *Coupled effects governing stability and ORR activity in AuPd and AuCu binary alloy catalysts*	Patrick Lott *Catalyst design through pathway synergy: NH_3-SCR-driven enhancement of H_2-SCR activity and selectivity*	Florian Maurer *From single atoms to clusters and back: Evolution of noble metals on CeO_2 for oxidation catalysis*
17:00 Nils Rieger *In-situ investigation of PEMFC catalyst-ionomer interactions with electrochemical quartz crystal microbalance* 17:20	William Epling *Impact of NO_2 on sulfur poisoning and impact of S on NO_2 reactions on Cu-SSZ-13 catalysts*	Jan Knudsen *Capabilities and analysis methodologies for dynamic operando spectroscopy vision of catalyst surfaces at the MAX IV laboratory*

17:30 – **Berzelius lecture**

Location: Main Hall, Chair: Hanna Härelind

TBA

18:10

18:20 – **Poster session**

21:00

Tuesday, June 9th

9:00 — **Plenary**
Location: Main Hall, Chair: Anders Hellman
Spin-mediated promotion of magnetic metal catalysts
Jens K. Nørskov

10:00 — Coffee

10:30 — **Nordic Keynote**
Location: Main Hall, Chair: Anders Hellman
Transient (spectro-)kinetics as a generous source of knowledge about reaction-diffusion systems in catalysis
Evgeniy Redekop
11:10

	CO_2 hydrogenation and C-C coupling *Pascal, Chair: U. Olsbye*	**Biomass, plastic and rubber valorization** *Tesla, Chair: L. Olsson*	**New methods and concepts** *Main Hall, Chair: O. Deutschmann*
11:20	Aqsa Batool *Gallium promotes Ni/Al_2O_3 from methanation to methanol synthesis catalysts in CO_2 hydrogenation*	Anker Jensen *Effect of sulfur on noble metal catalysts for stabilization of biomass pyrolysis oil model compounds*	Hjalte Ambjørner *Advances in operando electron microscopy in heterogeneous catalysis*
11:40	Leonardo Sousa *Identification of transient intermediates and active species in $CuZnZrO_2$ catalysts for CO_2 hydrogenation to methanol*	Karina Valihura *Design of hydrotalcite-derived Mg-Al oxide catalysts for the selective valorisation of bioethanol into higher alcohols*	Luca Carnevale *Multi-stimulus in situ TEM for catalysis using a mems-based environmental nano-reactor*
12:00	Nasir Shezad *Hierarchical zeolite 13X-supported Ni catalysts for carbon dioxide conversion into methane*	Duangamol Tungasmita *Integrated valorization of agricultural residues to ethyl levulinate and sustainable bio-based applications*	Christian Reece *Determining the state of a $Pd/\gamma\text{-}Al_2O_3$ catalyst using pulsed flow and transient spectroscopy*
12:20	Raffaele Cheula *Graph models and fine-tuned machine learning potentials for microkinetic analyses in heterogeneous catalysis*	Jiaqi Wang *Intrinsic metal effects govern methoxy retention versus demethoxylation in the electrochemical upgrading of guaiacol*	Silvia Mauri *CO oxidation on $NiFe_2O_4$ under an applied magnetic field: Elucidating the relation between catalytic mechanism and magnetic properties*

12:40 — Lunch

	CO_2 hydrogenation and C-C coupling *Pascal, Chair: L. Castoldi*	**Biomass, plastic and rubber valorization** *Tesla, Chair: A. Jensen*	**New methods and concepts** *Main Hall, Chair: J. Halldin Stenlid*
13:40	Sahra Ahmed *Structural and catalytic insights into Pd@UiO-66 for C-C coupling reactions*	Päivi Mäki-Arvela *Solventless hydrodeoxygenation of dihydroeugenol in a continuous reactor over Ni catalysts modified with Fe and Ce*	Aksel Violle *AI-driven automated synthesis for zeolite-based catalyst discovery*
14:00	George Marnellos *K-doped $LaFeO_3$ perovskites for CO_2 hydrogenation to light olefins*	David Serrano *Coupling low-temperature lignocellulose pyrolysis with vegetable oil catalytic co-processing over ZSM-5 zeolite: Enhanced aromatic hydrocarbon production and extended catalyst lifetime*	Luis Antonio Cipriano Marcos *Computational robustness of the spin effects in chemisorption and catalysis*
14:20	Adeem Ghaffar Rana *Impact of hydrothermal treatment on the physicochemical properties and MTO activity of H-ZSM-5 catalysts*	Meline Parent *Influence of hexagonal MoO_3 tunnel structure on HDO performance*	Marius Juul Nielsen *Adsorption energy calculation on inverse catalysts with machine learning interatomic potentials*
14:40	Felix Herold *On the anchoring mechanism of metal nanoparticles on carbon supports*	Muhammad Abdus Salam *Catalytic valorization of sugarcane bagasse: effect of cu loading to Ni in Y-Zeolite*	Alvaro Posada-Borbón *Reaction kinetics of liquid organic hydrogen carriers from first-principles: Conversion of methylcyclohexane/ toluene on Pt(111)*

15:00

Tuesday, June 9th

15:00 — Coffee

15:30 — **Nordic Keynote**

Location: Main Hall, Chair: Henrik Grönbeck

On DFT-based multiscale modelling in heterogeneous catalysis
Minttu M. Smith

16:10

	H_2 production and storage *Pascal, Chair: M. Rønning*	**Biomass, plastic and rubber valorization** *Tesla, Chair: D. Creaser*	**Ammonia synthesis and utilization** *Main Hall, Chair: S. Mossin*
16:20	Lidia Castoldi *Impact of Fe-Fe_3C-C phase evolution on methane pyrolysis kinetics: From catalyst structure to reactor scale*	Filippo Ravasio *Selective reduction of α-pinene by transfer hydrogenation with noble metals on carbon*	Olaf Deutschmann *Electro-catalytic ammonia synthesis in proton-conducting ceramic cells*
16:40	Auden Ti *Electro-oxidation of Au(111) studied by operando EC-qXRR*	Jean-Baptiste Sortais *Hydrogenative depolymerization of post-consumer polyesters, polycarbonates, and polyurethanes catalyzed by phosphine-free manganese complex*	Vasyl Marchuk *Highly dispersed pt for low-temperature ammonia oxidation: Insight into ligand environment with HERFD XAS*
17:00	Jakob Munkholt Christensen *Insights into methane reforming from oscillations in the reaction*	Jonas Elmroth Nordlander *Active phase of a Cu-Mo catalyst supported on alumina for HDO of biomass*	Alexander Gunnarson *Water tolerance as a key challenge for ammonia decomposition catalysts*
17:20	Zouhair El Assal *Improvement of the performance of Fe-based catalysts by Ni in CO_2-free H_2 production by thermocatalytic decomposition of CH_4*	TBA	Clemens Wöllhaf *Inductively heatable catalysts for ammonia synthesis*

17:40 — Free time

18:30 — Conference Dinner

21.00

Wednesday, June 10th

9:00 — **Plenary**
Location: Main Hall, Chair: Edvin Lundgren
Electrolyte effects on electrocatalytic hydrogen and oxygen evolution
Marc T.M. Koper

10:00 — Coffee

10:30 — **Nordic Keynote**
Location: Main Hall, Chair: Edvin Lundgren
Shedding synchrotron light on catalyst surfaces at work
Uta Hejral

11:10

Selectivity in complex synthesis *Pascal, Chair: H. Grönbeck*	New catalytic materials *Tesla, Chair: A. Holm*	Ammonia synthesis and utilization *Main Hall, Chair: M. Luneau*
11:20 Tapio Salmi *Synthesis of hydrogen peroxide and epoxides: catalysts, kinetics, mechanism and reactor modelling*	Paula Sebastián Pascual *Pulse-mediated electrodeposition of shaped structures for HMF electrocatalysis*	Sašo Gyergyek *Electrified hydrogen storage and on-demand release via ammonia using magnetically heatable Ru–CoNi nanocomposite catalysts*
11:40 Ananya Mohanty *Size-dependent bulk hydride diffusion in Pd nanoparticles and its impact on H_2O_2 synthesis*	Yang Hu *In operando studies of the synthesis and structural evolution of supported electrocatalysts*	Alicia San Martin Rueda *Structural and chemical stability of $LaSrCoFeO_3$ perovskite thin films for ammonia oxidation*
12:00 Martin Høj *Methanol-to-jet fuel (MTJ) pathway and catalysts*	Martina Zava *Ni-Cu alloy-decorated TiO_2 nanotubes for photocatalytic degradation of pharmaceuticals*	Leif Hertwig *N-heterocyclic silylene supported molybdenum catalysts for the catalytic reduction of dinitrogen to ammonia*
12:20 Matej Hus *Size and shape effect of silver nanoparticles on ethylene epoxidation: A multiscale simulation*	Henrik Eliasson *Automated 3D characterization of small nanoparticles for high-throughput screening with transmission electron microscopy*	Marcin Makosa-Szczygie *Ammonia oxidation on perovskites for ammonia SOFCs*

12:40 — Lunch

Electrocatalysis *Pascal, Chair: S. Sunde*	Emission Control *Tesla, Chair: R. Villamaina*	Ammonia synthesis and utilization *Main Hall, Chair: S. Blomberg*
13:40 Elias Diesen *Entropy-enthalpy compensation in electrocatalytic rates*	Tim Delrieux *Scale-bridging characterization of Pd/Al_2O_3 methane oxidation catalysts during sulfur poisoning*	Sam Taylor *Operando AP-XPS on plasma catalysis for ammonia production: A temperature study*
14:00 María Paula Salinas-Quezada *Lab-scale operando X-ray diffraction reveals temperature-accelerated coalescence-dominated growth of Pt nanoparticles*	Ulrike Küst *Carbon subsurface traffic jam as driver for methane oxidation activity and selectivity on palladium surfaces*	David Degerman *Effect of potassium promotion of the Haber-Bosch process, investigated by in-situ X-ray photoelectron spectroscopy*
14.20 Anna Panagiota Souri *Exploiting the tunability of dilute alloys for sustainable electrocatalytic reactions*	Willow Dew *Influence of support on alloying and segregation behavior in palladium-silver alloy catalysts during methane oxidation*	Christian Marinelli Johansen *Photodriven reduction of N_2-to-NH_3 and mechanistic lessons learned along the way*

14.40 — Conclusion

15.00 — Coffee