

MONDAY JUNE 15TH

11.00 Registration starts @ Wisby Strand Congress & Event

11.30 Buffet lunch @ Wisby Strand Congress & Event

Served until 13.00, at the upper floor of congress centre.

13.00 Welcome (room Wisby)

Cecilia Schelin Seidegård, County Governor of Gotland
Annika Pohl, Conference chair, Uppsala university

13:20 inorganic chemistry – bridging materials and molecules (room Wisby)

13.20 *Multifunctional Layer-Engineered Inorganic-Organic Thin Films* [invited]

Maarit Karppinen, Aalto University, Finland

13.50 *Chirality of the SiO₄ building block in materials* [invited]

David Avnir, The Hebrew University of Jerusalem, Israel

14.20 *Self-Assembly of Large Metallosupramolecular Complexes* [invited]

Kari Rissanen, University of Jyväskylä, Finland

14.50 Coffee break

Served in exhibition and poster area, upper floor of congress centre.

15:10 Materials synthesis –tailoring composition and structure
(room Wisby)

15:10 *A combined ALD-CVD route for group 13 nitride based high frequency devices*

Henrik Pedersen, Linköping University

15:30 *New route to zirconium nitride nano powder*

Sarmad N. Katea, Uppsala University

15:50 *Tailoring multi-scale microstructural architectures of inorganic materials by spark plasma sintering* [invited]

Zhijian Shen, Stockholm University

16:20 *Nanostructured iron oxide: a comparative look at its interface and electrochemical properties in Li- and Na-ion batteries*

Mario Valvo, Uppsala University

15:10 Bio-inorganic chemistry and catalysis (room Lojst)

15:10 *High valent iron oxo complexes as catalysts for the oxidation of alkanes and alkenes* [invited]

Ebbe Nordlander, Lund University

15:40 *Tuning steric and electronic aspects of CO₂ reduction electrocatalysts*

Hemlata Agarwala, Uppsala University

16:00 *Voltammetric characterization of molecular catalysts for H₂ formation*

Edgar Mijangos, Uppsala University

16:20 *Water oxidation catalyzed by a dinuclear cobalt-polypyridine complex*

Anders Thapper, Uppsala University

16.40 Poster mingle with refreshments

Visit our exhibitors and talk to poster presenters. Complementary beverages sponsored by Bruker

17:00-17:30 Odd numbers

17:30-18:00 Even numbers

18:00-18:20 Odd numbers

18:20-18:40 Even numbers



19.00 Get-together-barbeque @ Wisby Strand Congress & Event

On seaside terrace.

21.00 Yearly assembly of the Inorganic section of the Swedish chemical society

Room "Erlandska rummet" at Clarion Hotel (Strandgatan 6, ca 250 m from Wisby Strand)

Only for members, who are expected to attend

TUESDAY JUNE 16TH

08:00 Aspects of structure and bonding (room Wisby)

- 08:00 *Very interesting oral presentation title*
Matti Haukka, University of Jyväskylä, Finland
- 08:20 *Toward Experimental Quantum Chemistry in Atoms, Molecules and Extended Condensed Matter*
Martin Rahm, Cornell University, USA
- 08:40 *New Insight into the polymorphism of Calcium Carbide CaC₂*
Sumit Konar, Stockholm University
- 09:00 *Short break*

09:05 Inorganic chemistry in medical applications (room Wisby)

- 09:05 *Selective tumour-targeting with biomolecule-chemotherapeutics conjugates [invited]*
Evamarie Hey-Hawkins, Universität Leipzig, Germany
- 09:35 *Ga(III)-hydrazone complexes as anti-biofilm compounds*
Shoghik Hakobyan, Umeå University
- 09:55 *Titanium dioxide based bio-nanocomposites for drug delivery*
O.L. Galkina, Swedish University of Agricultural Sciences

08:00 Energy storage – battery chemistry and materials (room Lojst)

- 08:00 *Binder-free oxide nanotube array electrodes for high energy density and power density Li-ion batteries*
Wei Wei, Uppsala University
- 08:20 *Improved Performance of Silicon Anode for Li-Ion Batteries: Understanding the Surface Modification Mechanism of Fluoroethylene Carbonate as an Effective Electrolyte Additive*
Chao Xu, Uppsala University
- 08:40 *Electrochemical behavior of tin(IV) oxide electrodes in lithium-ion batteries at high potentials*
Solveig Böhme, Uppsala University
- 09:00 *Short break*

09:05 Energy storage – battery chemistry and materials (room Lojst)

- 09:05 *Method to measure quality of positive electrode material for Nickel metal hydride batteries*
Erika Widenkvist Zetterström, Nilar AB
- 09:25 *Synthesis and structural properties of copper hexacyanoferrate*
Gunnar Svensson, Stockholm University
- 09:45 *Na_xCo_{2/3}Mn_{2/3}N_{1/9}O₂ as a good performance cathode material for Na-ion batteries: Understanding the sodium de-intercalation/intercalation process mechanism*
Siham Doubaj, Uppsala University

10.15 Coffee break

Served in exhibition and poster area, upper floor of congress centre.

10:35 Aspects of catalysis and catalysts (room Wisby)

- 10:35 *Synthesis and Catalytic Applications of Transition Metal-Functionalized Metal-Organic Frameworks* [invited]
Belén Martín-Matute, Stockholm University
- 11:05 *Green chemistry through transition metal catalysis C–H bond activation and functionalization*
Ola F. Wendt, Lund University
- 11:25 *Sulfur poisoning and sulfur recovery mechanisms at the ceria surface*
Jolla Kullgren, Uppsala University
- 11:45 *How to follow organometallic proton reduction catalysis in metalorganic frameworks*
Sascha Ott, Uppsala University

10.05 Coffee break

Served in exhibition and poster area, upper floor of congress centre.

10:35 Energy storage – battery chemistry and materials (room Lojst)

- 10:35 *Three-Dimensional binder-free graphene foam as electrode for lithium-oxygen batteries*
Chenjuan Liu, Uppsala University

10:55 Thin films (room Lojst)

- 10:55 *Compositional driven phase evolution in Mo–Cr–N and Mo–Al–N hard coatings*
Fedor Klimashin, Vienna University of Technology
- 11:15 *TiAlN Alloys at Elevated Temperature* [invited]
Magnus Odén, Linköping University
- 11:45 *Low-temperature synthesis of thermo-chromic vanadium dioxide thin films using reactive magnetron sputtering*
Asim Aijaz, Uppsala University

12.05 Lunch @ Wisby Strand Congress & Event

Served at the upper floor of congress centre.

13:00 Environment and sustainability (room Wisby)

- 13:00 *Metallurgical challenges* [invited]
Caisa Samuelsson, Luleå University of Technology
- 13:30 *What to do with CO₂?*
Per-Olov Käll, Linköping University
- 13:50 *Application of techniques for clinker reactivity optimization – measures for CO₂ reduction*
Patricia Sandström, Cementa AB
- 14:10 *Thin water films at mineral surfaces*
Jean-François Boily, Umeå University
- 14:30 *Computational studies of ice clathrate structures*
Lars Ojamäe, Linköping University

13:00 Thin films (room Lojst)

- 13:00 *Transformation mechanism of the layered cobaltate Ca₃Co₄O₉ by annealing of CaO-CoO thin films*
Biplab Paul, Linköping University
- 13:20 *Deposition of AgFeO₂ thin films with the Delafossite Structure by Combinatorial Sputtering*
Fang Mao, Uppsala University
- 13:40 *Quantum mechanically guided materials design approaches for industrial coating applications* [invited]
Jochen M. Schneider, RWTH Aachen, Germany
- 14:10 *Latest developments of CVD coatings for cutting tools*
Jeanette Persson, AB Sandvik Coromant
- 14:40 *Thin- and ultra-thin films by solution synthesis*
Gunnar Westin, Uppsala University

15.00 Coffee break

Served in exhibition and poster area, upper floor of congress centre.

15:20 Historical chemistry and inorganic chemistry and history (room Wisby)

This session is open to the general public

15:20 *Inorganic nanomaterials for the conservation of Cultural Heritage* [invited]
Piero Baglioni, University of Florence, Italy

15:50 *The Last Alchemist in Paris - and other curious tales from chemistry* [invited]
Lars Öhrström, Chalmers University of Technology

16:10 *Forgotten Knowledge? Uncovering the Chemistry in Alchemy* [invited]
Lawrence M. Principe, Johns Hopkins University, USA

16:40 *To be announced*
Kristin Balksten, The Swedish National Heritage Board

17.00 Excursion / guided city tour, starts @ Wisby Strand Congress & Event

Comfortable shoes, no high heels recommended!

19.00 Mingle and refreshment @ Wisby Strand Congress & Event**19.30 Conference dinner @ Wisby Strand Congress & Event****WEDNESDAY JUNE 17TH****08:00 Chemistry education and didactics (room Wisby)**

08.00 *Panel debate on higher chemistry education*

09.20 *New Teaching Experiments for Inorganic Chemistry*
George Lisensky, Beloit College, Wisconsin, USA

09.40 Coffee break

Served in exhibition and poster area, upper floor of congress centre.

10:00 Solar energy and fuel cells (room Wisby)

10.00 *Solar Cells –Some Aspects of Materials Dimensionality* [invited]
Lars Kloo, KTH Royal Institute of Technology

10.30 *Coordination compounds for molecular solar-thermal energy storage*
Anders Lennartson, Chalmers University of Technology

10.50 *Structure and proton conductivity of Scandium and Indium substituted Barium Titanate*
Seikh M. H. Rahman, Chalmers University of Technology

11.10 *Mössbauer and XRD studies on the Li-ion battery material $\text{Li}_2\text{FeP}_2\text{O}_7$ after electrochemical cycling*
Andreas Blidberg, Uppsala University

11.30 Anna Sundström award and concluding remarks (room Wisby)

11.30 *Announcement of Anna Sundström Award*

11.50 *Concluding remarks*

12.00 Lunch - take away boxes available from 11.00, may also be eaten at Wisby Strand Congress & Event