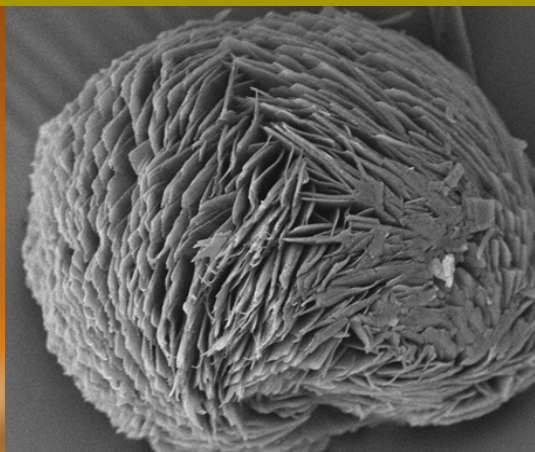
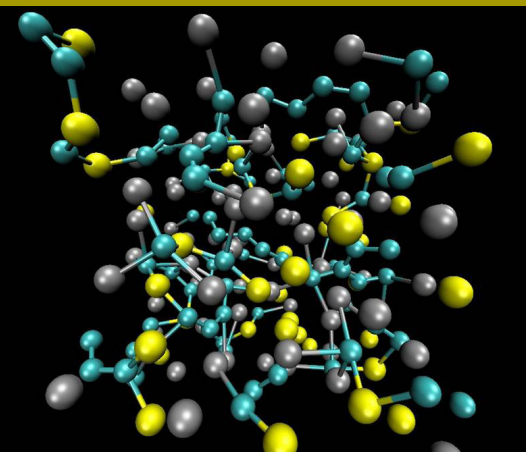


Functional Layers and Surfaces & Light Materials



Programme

Functional Layers and Surfaces & Light Materials

The Swedish Foundation for Strategic Research (SSF) was established in 1994 with the objective to support research in natural science, engineering and medicine that will increase Sweden's competitiveness. Materials Science is one of the areas identified as high-priority by the Foundation and is supported by framework grants. Framework grants are granted to either a number of researchers within a large research group or to a few independent research groups, co-located or at different universities or institutes, collaborating to solve an important research problem.

Location: van der Nootska Palatset, Swedenborgssalen

Language: English

Participation: Free of charge. Number of participants is limited to 150.

Registration: Register before March 15 on web page:

<http://survey.stratresearch.se/TakeSurvey.aspx?SurveyID=I8KL6n8>

Conference dinner: 7 pm at van der Nootska Palatset

Accommodation: Hotels in Stockholm can be found on hotels.com

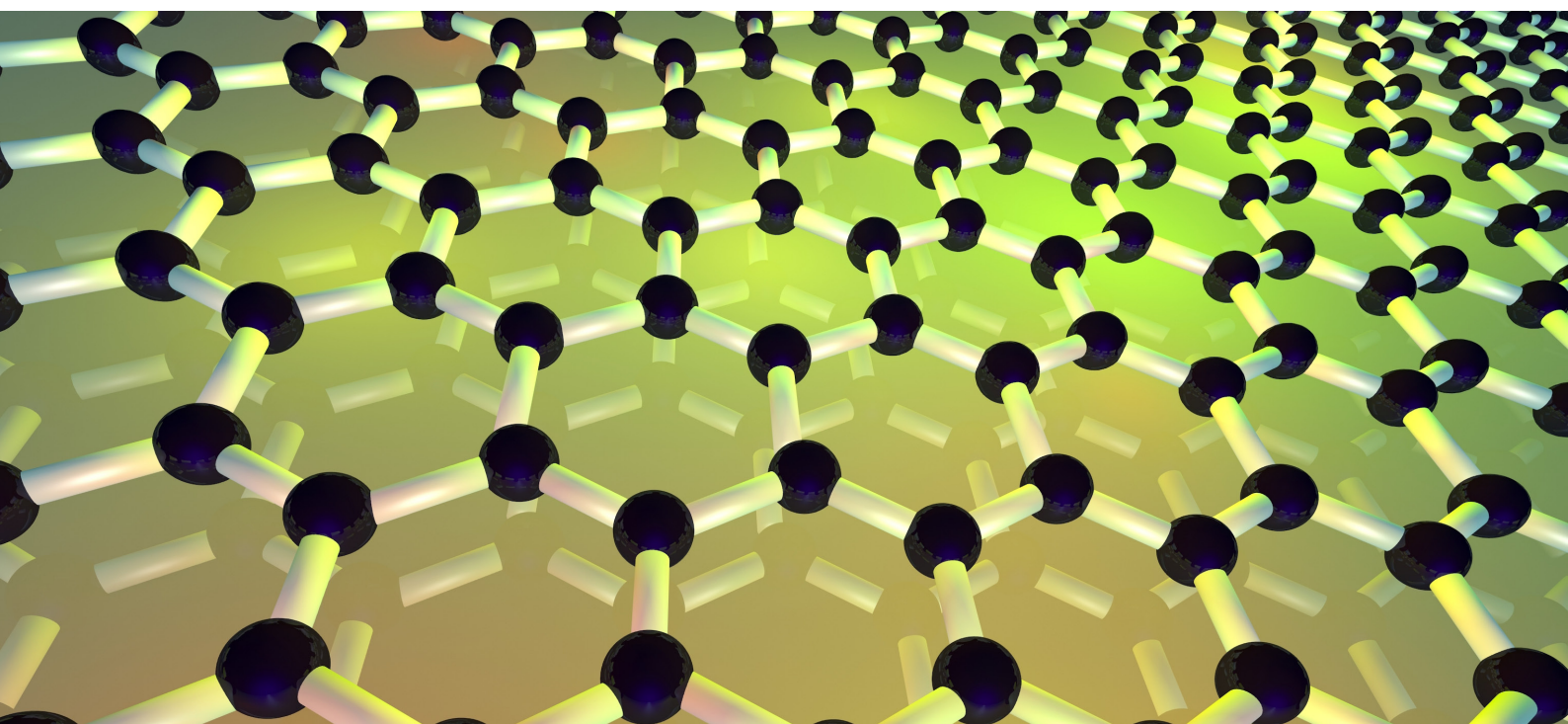
Organizing committee:

Dr. Mattias Blomberg, Swedish Foundation for Strategic Research (SSF),

mattias.blomberg@stratresearch.se

Dr. Anna Hultin Stigenberg, Chairman of the SSF Programme Committee,

anna.hultin_stigenberg@sandvik.com



Programme

APRIL 19

- 09.00–09.20 **Introduction**
The Swedish Foundation for Strategic Research 2012 and onwards,
 Prof. Lars Rask, Executive Director SSF
- Overview of the Materials Science Programme – Functional surfaces and layers & Light Materials,*
 Dr Anna Hultin Stigenberg, Sandvik, Chairman of SSF's programme committee in materials science
- 09.20–10.00 **Industrial perspective on research in materials science**
Progress through research or research through progress - a perspective based on experience from Sandvik,
 Prof. Jan-Olof Nilsson, Sandvik
- From lab to fab,*
 Giovanni Fili, CEO NLAB Solar AB
- 10.00–10.30 **Coffee**
- 10.30–12.00 **International Research in Materials Science**
- Chair: Prof. Jan-Olof Nilsson, Sandvik
- Corrosion, electrochemistry and surface chemistry of metals,* Prof. Dieter Landolt, EPFL (École polytechnique fédérale de Lausanne), Switzerland
- Ink-jet printing for surface manufacturing,*
 Prof. Ian Hutchings, University of Cambridge, UK
- Functional coatings by thermal spraying,*
 Prof. Erja Turunen, VTT (Technical Research Centre of Finland)
- Tailoring (Bio)Interfaces by Polymer Grafting: From Responsive Function to (Nano)Mechanical Properties,*
 Prof. Holger Schönherr, University of Siegen, Germany
- 12.00–13.00 **Lunch**
- 13.00–14.20 **Session 1**
 Chair Prof. Holger Schönherr, University of Siegen, Germany
- Structural batteries for future electrical vehicles,*
 Prof. Leif Asp, Swerea SICOMP
- Functional electromagnetic metamaterials for optical sensing,* Prof. Mikael Käll, Chalmers
- Paper-based composites for energy storage and bioanalysis,* Prof. Leif Nyholm, Uppsala University
- Catalysts designed for demanding environments,*
 Prof. Magnus Skoglundh, Chalmers
- 14.20–14.50 **Coffee**
- 14:50–17:00 **Session 2**
 Chair Prof. Erja Turunen, VTT (Technical Research Centre of Finland)

Light metals for the car industry,
 Prof. Lars-Gunnar Johansson, Chalmers

Microstructure, Corrosion and Friction Control,
 Prof. Per Claesson, KTH

New insights in and coatings for formation of protective tribofilms with low-friction properties,
 Prof. Staffan Jacobsson, Uppsala University

Favorable decomposition gives tomorrow's hard coatings,
 Prof. Magnus Odén, Linköping University

17:00–18.30 **Poster session**

19.00 **Conference dinner**

APRIL 20

- 8.30–10.00 **Session 3**
 Chair: Prof. Dieter Landolt, EPFL (École polytechnique fédérale de Lausanne), Switzerland
- Zeolite membranes for effective production of biofuels,*
 Prof. Jonas Hedlund, Luleå University of Technology
- Multi-functional pore arrays in silicon,*
 Prof. Jan Linnros, KTH
- Electroactive components from polymer nanocomposites and polymers for smart applications,*
 Prof. Mikael Rigdahl, Chalmers
- 10.00–10.30 **Coffee**
- 10.30–11.45 **Session 4**
 Chair: Prof. Ian Hutchings, University of Cambridge, UK
- Superhydrophobic surfaces produced by sustainable technology,* Prof. Charlotta Turner, Lund University
- Functional nano-structured surfaces by controlled particle deposition,* Prof. Håkan Wennerström, Lund University
- 11.45 – 12.45 **Lunch**
- 12.45 – 14.30 **Can applications be the driving force for research of excellence?**
 Moderator:
 Prof. Anders Flodström
- Panel:**
 Prof. Helene Andersson Svahn,
 KTH, Chair of the Young Academy of Sweden
 Prof. Börje Johansson, Uppsala University
 Ulf Holmgren, Chief Strategy Officer, Industrial Technologies, VINNOVA (Swedish Governmental Agency for Innovation Systems)
 Ulf Wahlberg, VP Industry and Research Relations, Ericsson
- 14.30–14.45 **Summary**
 Dr. Anna Hultin Stigenberg

THE SWEDISH FOUNDATION FOR STRATEGIC RESEARCH

- Supports research and graduate training in natural science, engineering and medicine for the purpose of strengthening Sweden's future competitiveness
- Finances a large number of research projects at universities and university colleges, many in collaboration with industry
- Awards individual grants to particularly prominent researchers
- Supports important areas such as biotechnology, materials development, microelectronics, information technology and product realisation
- Has an annual payment volume of about SEK 600 million
- Has a capital base of just over SEK 9 billion



SWEDISH FOUNDATION *for*
STRATEGIC RESEARCH