

SUSTAINABLE ENERGY

Chalmers Conference Centre, Dec 6-8 2017

Program

Wednesday, Dec 6

Chalmers Initiative Seminar

Academic session with invited speakers

08.30 - 09.00 Registration

09.00 - 09.10 *Welcome address*

Chair: Bo Albinson

09.10 - 09.40 *The energy business in transition goes local, green and digital*

Peter Sigenstam, E.ON

09.40 - 10.10 *Challenges in Research and Application for Next Generation Automotive Batteries*

Frederik Morgenstern, BMW AG

10.10 - 10.30 Coffee break

Chair: Aleksandar Matic

10.30 - 11.00 *Next Generation Batteries - Why and How?*

Patrik Johansson, Chalmers University of Technology

11.00 - 11.30 *Post-Li-ion batteries: promises and challenges*

Rosa Palacin, Institut de Ciència de Materials de Barcelona

11.30 - 12.00 *Developing the world's greenest Lithium battery in Sweden*

Marie Strannegård, Northvolt

12.00 - 13.00 Lunch break

Chair: Maria Grahn

13.00 - 13.30 *Ionic Liquids - Smart Tools for Sustainable Energy Applications*

Anja-Verena Mudring, Stockholm University/University of Alabama

13.30 - 14.00 *Solar Fuels: Solar Energy Conversion by Artificial Photosynthesis*

Leif Hammarström, Uppsala University

14.00 - 14.30 *Energy and charge transfer in molecular materials for solar energy conversion*

Maria Abrahamsson, Chalmers University of Technology

14.30 - 14.50 Coffee break

Chair: Bo Albinsson

14.50 - 15.20 *Thin film solar cells with high efficiencies for new applications*
Marika Edoff, Uppsala University

15.20 - 15.50 *Polyethylene Blends, a Material Concept for HVDC Power Cable Insulation*
Christian Müller, Chalmers University of Technology (to be confirmed)

15.50 - 16.20 *Structure formation in thin films for efficient and stable polymer solar cells*
Ellen Moons, Karlstad University

16.20 - 16.50 *We Exist to Power Climate Smarter Living*
Andreas Regnell, Vattenfall AB

16.50 - 18.30 Poster session with refreshments

Thursday, Dec 7

Chalmers Initiative Seminar and Molecular Frontiers Symposium Plenary session

08.30 - 09.00 Registration

09.00 - 09.15 *Welcome address*

Stefan Bengtsson, President of Chalmers University of Technology
Bengt Nordén, Chair, Molecular Frontiers

09.15 - 09.30 *About Molecular Frontiers*

Per Thorén, COO, Molecular Frontiers

Chair: Bengt Nordén

09.30 - 10.00 *Climate Change and innovative paths to a sustainable future*

Steven Chu, Nobel laureate in Physics 1997, former United States Secretary of Energy.
Stanford University, United States

10.00 - 10.30 *How do we transition an entire country's energy system to renewables?*

Katherine Richardson, University of Copenhagen, Denmark

10.30 - 11.00 Coffee break

11.00 - 11.30 Q&A with Prof Chu and Prof Richardson

Chair: Patrik Johansson

11.30 - 12.00 *Materials science for electrochemical storage: Achievements and new directions.*

Jean-Marie Tarascon, Collège de France, France

12.00 - 13.15 Lunch break

13.15 - 13.45 *Electric vehicles in a sustainable energy system*

Dame Julia King, The Baroness Brown of Cambridge DBE

13.45 - 14.15 Q&A with Prof Tarascon and Dame King

Chair: Bo Albinsson

14.15 - 14.45 *How can molecules function as semiconductors?*

Sir Richard Friend, University of Cambridge, United Kingdom

14.45 - 15.15 Coffee break

15.15 - 15.45 *Quantum Dot Light Emitters: from displays to enabling a new generation of energy conversion systems*

Paul Alivisatos, University of California, Berkeley, United States

15.45 - 16.15 Q&A with Prof Friend and Prof Alivisatos

16.15 - Photo session

Friday, Dec 8

Chalmers Initiative Seminar and Molecular Frontiers Symposium

Plenary session

	Chair: Maria Abrahamsson
09.00 - 09.30	<i>Singlet Fission for Solar Cells</i> Josef Michl , University of Colorado Boulder, United States and Institute of Organic Chemistry and Biochemistry Academy of Sciences of the Czech Republic, Czech Republic
09.30 - 10.00	<i>Thin film solar cells – achievements and challenges</i> Susanne Siebentritt , University of Luxembourg, Luxembourg
10.00 - 10.30	Q&A with Prof Michl and Prof Siebentritt
10.30 - 11.00	Coffee break
	Chair: Anders Palmqvist
11.00 - 11.30	<i>Fuels and Food from Sunlight, Air and Water</i> Daniel G. Nocera , Harvard University, United States
11.30 - 12.00	<i>Fueling Human Progress with Sunlight</i> Harry Atwater , California Institute of Technology, United States
12.00 - 12.30	Q&A with Prof Nocera and Prof Atwater
12.30 - 13.30	Lunch break
13.30 - 15.30	Panel discussion Chair: Lorie Karnath
15.30 - 15.45	<i>Concluding remarks</i>