KUNGL. VETENSKAPS-AKADEMIEN
THE ROYAL SWEDISH ACADEMY OF SCIENCES

Emerging Optoelectronics for a Sustainable Future

A Royal Swedish Academy of Sciences and Marcus Wallenberg Symposium.
The symposium is supported by the Tage Erlander Prize.

Date: 28-29 April 2026
Venue: The Beijer Hall, The Royal Swedish Academy of Sciences, Lilla Frescativägen 4A, Stockholm.

Programme

Tuesday 28 April

Morning Session
Chair: Olle Inganäs, member of the Royal Swedish Academy of Sciences

08:50
Welcome remarks

09:00
Spin Radical Molecular Semiconductors
Richard Friend, University of Cambridge, UK

09:40
Advanced Organic Optoelectronic Devices by Controlling Precise Charge Transfer Phenomena
Chihaya Adachi, Kyushu University, Japan

10:20
Efficient single-layer OLEDs by defect free charge transport
Paul W.M. Blom, Max Planck Institute for Polymer Research, Germany

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11:00
Coffee break

11:20
Sustainable Semiconductors for Emerging Optoelectronics
Thuc-Quyen Nguyen, University of California, Santa Barbara (UCSB), USA

12:00
Molecular Design and Applications of OPV Materials
Jianhui Hou, Chinese Academy of Sciences, China

12:40
Lunch

Afternoon Session
Chair: Ellen Moons, Secretary General of the Royal Swedish Academy of Sciences

13:40
Design Rules towards Sustainable and Resilient Organic Photovoltaics (lecture on Zoom)
Derya Baran, Materials King Abdullah University of Science and Technology (KAUST), Saudi Arabia

14:20
Modelling solar energy conversion in molecular electronic materials
Jenny Nelson, Imperial College London, UK

15:00
Disentangling exciton dissociation pathways in the non fullerene acceptor Y6
Anna Köhler, University of Bayreuth, Germany

15:40
Coffee break

16:00
Organic semiconductors: Opening new perspectives in sustainable (opto)electronics
Karl Leo, Dresden University of Technology, Germany

16:40
Discovering multifunctional materials for green energy applications
Christoph J. Brabec, FAU and Forschungszentrum Jülich Germany

17:20
End of Day 1

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Wednesday 29 April

Morning Session
Chair: Tönu Pullerits, member of the Royal Swedish Academy of Sciences

09:00
Tunable Hybrid Perovskites: Symmetry Breaking and Phase Transitions for Spin and Optoelectronic Response
David B. Mitzi, Duke University, Durham, NC, USA

09:40
About Halide Perovskite Fables, Facts and what's in-between
David Cahen, Weizmann Institute of Sciences, Israel

10:20
Defects Activity in Metal Halide Perovskites
Annamaria Petrozza, Istituto Italiano di Tecnologia Milan, Italy

11:00
Coffee break

11:20
Perovskite LEDs for Lighting and Displays
Jianpu Wang, Nantong University/Nanjing Tech University, China

12:00
Halide Perovskites as Next-Generation Light Emitters
Tae-Woo Lee, Seoul National University, Republic of Korea

12:40
Lunch

Afternoon Session
Chair: Feng Gao, Linköping University

13:40
Lead Halide Perovskites as Quantum Light Sources
Maksym Kovalenko, Swiss Federal Institute of Technology Zurich (ETH Zurich), Switzerland and Empa-Swiss Federal Laboratories for Materials Science and Technology, Switzerland

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14:20
Colloidal Nanocrystals of Halide Perovskite and III-V Semiconductors: Synthesis and Applications in Light Emitting Devices
Liberato Manna, Istituto Italiano di Tecnologia, Italy

15:00
Coffee break

15:20
Advancing interface molecular engineering for perovskite solar cells
Tsutomu Miyasaka, Toin University of Yokohama, Waseda University, Japan

16:00
Discovery of Practical Perovskite Solar Cells and Their Evolution
Nam-Gyu Park, Sungkyunkwan University, Republic of Korea

16:40
Molecular Photovoltaics and the Rise of Perovskite Solar Cells
Michael Graetzel, Ecole Polytechnique Fédérale de Lausanne (EPFL), Switzerland

17:20
End of Symposium