

International Max Planck Research School
for Condensed Matter Science



International School Electrochemical Energy Conversion and Storage

October 24 – 26, 2016

Lecture Hall 2D5

Max Planck Institute for Solid State Research
Stuttgart, Germany

PROGRAM



International Max Planck Research School for Condensed Matter Science

Contact

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Scientific Organizers

MPI for Solid State Research

Prof. Dr. Joachim Maier

Dr. Rotraut Merkle



Location

MPI for Solid State Research
Heisenbergstraße 1
70569 Stuttgart
Germany

Monday • October 24, 2016

9.00 am	Registration & Welcome
9.45 am	J. Maier MPI for Solid State Research Stuttgart, Germany Electrochemical energy conversion and storage
10.45 am	Break
11.15 am	C. Muhich ETH-Zurich, Switzerland Solar-thermochemical H ₂ O and CO ₂ splitting
12.15 am	P. Knauth Univ. Marseille, France Alkali ion conductors (ceramics and polymers)
1.00 pm	Lunch
2.00 pm	M. Grätzel EPFL Lausanne, Switzerland Dye-sensitized and perovskite solar cells
3.00 pm	R. Usiskin MPI for Solid State Research Stuttgart, Germany Strategies for improving Lithium Battery Electrodes
3.45 pm	Break
4.15 pm	J. Fleig TU Vienna, Austria AC/DC meets solid state electrochemistry
5.00 pm	R. Merkle MPI for Solid State Research Stuttgart, Germany Proton-conducting oxides
6.00 pm	Poster Session

Tuesday • October 25, 2016

9.00 am	M. Gaberscek National Institute of Chemistry, Slovenia Operation and degradation of battery and PEMFC electrodes
10.00 am	W. Sitte Montan Univ. Leoben, Austria Oxide ion conductors (electrolytes and mixed conductors)
10.45 am	Break
11.15 am	P. V. Hendriksen DTU Roskilde, Denmark Solid Oxide Fuel and Electrolysis Cells
12.15 am	M. Kubicek TU Vienna, Austria Electrochemical reaction pathways on SOFC electrodes
1.00 pm	Lunch
2.00 pm	W. Münch EnBW Karlsruhe, Germany Storage requirements for future energy systems
3.00 pm	U. Kramm TU Darmstadt, Germany Electrocatalysis in PEM fuel cells
3.45 pm	Break
4.15 pm	J. Mannhart MPI for Solid State Research Stuttgart, Germany Novel insights from physics for highly efficient energy conversion
5.00 pm	E. Kotomin MPI for Solid State Research Stuttgart, Germany Ab initio calculations for oxide functional materials
6.00 pm	Conference Dinner
8.00 pm	Poster Session

Wednesday • October 26, 2016

9.00 am	B. Lotsch MPI for Solid State Research Stuttgart, Germany Photo(electro)chemical water splitting
10.00 am	K.-D. Kreuer MPI for Solid State Research Stuttgart, Germany Proton-conducting polymers
10.45 am	Break
11.15 am	S. Paddison UT Knoxville, United States Modelling of soft matter
12.15 am	L. Jörissen ZSW Ulm, Germany Aspects of PEM fuel cell operation
1.00 pm	Lunch
2.00 pm	H.-U. Habermeier MPI for Solid State Research Stuttgart, Germany Thermoelectrics
2.45 pm	W. Sigle MPI for Solid State Research Stuttgart, Germany TEM investigations related to energy research
3.30 pm	Break
4.00 pm	S. Ludwigs University of Stuttgart, Germany Nanostructured conducting polymer films for energy applications
4.45 pm	J. Popovic MPI for Solid State Research Stuttgart, Germany Ionic liquids and their applications