

Summer School on Interfaces and Energy

September 04-09, 2016, Göttingen, Germany

Lecture Program

Monday, 05.09.2016

- 9.00-10.00 **Pedagogic Talk: *Desorption measurements as a probe of kinetics and dynamics of surface chemical reactions*, Daniel Auerbach, University of Göttingen, Germany**
- 10:30-11:30 **Pedagogic Talk: *World in a Mirror: chirality and the emergence of molecular structure*, Karl-Heinz Ernst, EMPA Dübendorf, Switzerland**
- 11:30-12:30 **Pedagogic Talk: *Electron Transfer Reactions at the Liquid/Solid Interface*, Kurt Kolasinski, West Chester University, USA**
- 16:00-17:00 **Scientific Talk: *Quantum state specific inelastic scattering of molecules from surfaces: probing the foundations of our understanding of dynamics at surfaces*, Daniel Auerbach, University of Göttingen, Germany**
- 17:00-18:00 **Scientific Talk: *Stereochemical recognition among non-planar aromatic hydrocarbons at surfaces*, Karl-Heinz Ernst, EMPA Dübendorf, Switzerland**

Tuesday 06.09.16

- 9.00-10.00 **Pedagogic Talk: *The Nanoporous Materials Genome: predicting the properties of a hypothetical material*, Berend Smit, EPFL Lausanne, Switzerland**
- 10:30-11:30 **Pedagogic Talk: *Non-adiabatic dynamics at surfaces: Foundations*, Peter Saalfrank, University of Potsdam, Germany**
- 16:00-17:00 **Scientific Talk: *Formation of nanostructured films by etching and growth*, Kurt Kolasinski, West Chester University, USA**
- 17:00-18:00 **Scientific Talk: *Non-adiabatic dynamics at surfaces: From vibrations to femtosecond chemistry*, Peter Saalfrank, University of Potsdam, Germany**
- 20:00-21:00 **Scientific Talk: *The Nanoporous Materials Genome: predicting the best materials for energy related applications*, Berend Smit, EPFL Lausanne, Switzerland**

Wednesday 07.09.16

- 9.00-10.00 **Pedagogic Talk: *Surface Science in the 21st century: dense and wet*, Miquel Salméron, Lawrence Berkeley Lab, USA**
- 10:30-11:30 **Pedagogic Talk: *Surface structure and its relation to heterogeneous catalysts*, Ludo Juurlink, Leiden University, Netherlands**

- 11:30-12:30** **Pedagogic Talk: *Electrocatalytic Reaction Mechanisms*, [Yogesh Surendranath](#), Massachusetts Institute of Technology, USA**
- 16:00-17:00** **Scientific Talk: *Charge transport in nanoparticle arrays for photovoltaic and photoconductive applications*, [Miquel Salméron](#), Lawrence Berkeley Lab, USA**
- 17:00-18:00** **Scientific Talk: *Influences of steps and other defects on (dissociative) adsorption*, [Ludo Juurlink](#), Leiden University, Netherlands**
- 20:00-21:00** **Scientific Talk: *Designer Interfaces for Fuel Formation*, [Yogesh Surendranath](#), Massachusetts Institute of Technology, USA**

Thursday 08.09.16

- 9.00-10.00** **Pedagogic Talk: *The Chemistry of Oxide Surfaces: Breaking the C-H Bond in Alkanes*, [Henrik Kristoffersen](#), Technical University of Denmark**
- 10:30-11:30** **Pedagogic Talk: *Photoelectrocatalysis for solar fuels*, [Bruce Koel](#), Princeton University, USA**
- 11:30-12.30** **Pedagogic Talk: *First-principles methods in materials science, high-throughput calculations*, [Matthias Scheffler](#), Fritz-Haber-Institute Berlin, Germany**
- 16:00-17:00** **Scientific Talk: *The Liquid-Solid Interface*, [Henrik Kristoffersen](#), Technical University of Denmark**
- 17:00-18:00** **Scientific Talk: *GaP surface chemistry for pyridine-catalyzed CO₂ reduction*, [Bruce Koel](#), Princeton University, USA**
- 20:00-21:00** **Scientific Talk: *Electron-phonon coupling — Fundamental concepts and heat-transport calculations*, [Matthias Scheffler](#), Fritz-Haber-Institute Berlin, Germany**