Registration

Deadline for registration: Jan 31st, 2020
mirijam.zobel@uni-bayreuth.de, bajlechner@tum.de
Participation is free of charge, but registration required.
www.e-conversion.de/
workshop-on-chemical-and-energy-conversion-at-interfaces/

Organization

Barbara Lechner is a Junior Fellow at the Technical University of Munich and member of the Young Scholars' Program of the Bavarian Academy of Sciences and Humanities since 2017.
Mirijam Zobel is assistant professor at the University Bayreuth and member of the Young Scholars' Program of the Bavarian Academy of Sciences and Humanities since 2017.
badw.de/en/young-academy

Supported by

e-conversion

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BAVARIAN ACADEMY OF SCIENCES AND HUMANITIES
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Chemical and energy conversion at interfaces

Interfaces play an important role in many technological applications, ranging from heterogeneous catalysis in combustion control and fine chemical synthesis over photovoltaics to battery technologies. Solid/vacuum and solid/gas interfaces have been in the focus of surface science research for many years, whereas research on interfaces involving for example liquids only took off recently since these are more difficult to access experimentally. Much of the recent insight was enabled by strong pushes in novel instrumentation and techniques involving spectroscopic, imaging and scattering techniques. The aim of the workshop is to discuss fundamental research on chemical processes at technologically relevant solid/solid, solid/liquid and solid/gas interfaces. Specific topics will include, but are not limited to, solvation effects, dynamic processes, structural tuning and light harvesting in materials for battery, catalysis and photovoltaics research.

BAdW

Chemical and energy conversion at interfaces

WORKSHOP

17/2/20–18/2/20

Junges Kolleg | BAYERISCHE AKADEMIE DER WISSENSCHAFTEN

Program

MONDAY, 17 FEBRUARY 2020

10.00 **Coffee & Welcome**
BARBARA LECHNER,
MIRIJAM ZOBEL

Solid-liquid interfaces

10.20 **Probing the solid-liquid interface with soft X-ray absorption spectroscopy**
TRISTAN PETIT
(Helmholtz-Zentrum Berlin)

11.00 **Implicit modeling of dielectric interfaces**
HARALD OBERHOFER
(TU Munich)

11.40 **Investigation of the solid-electrolyte interaction**
SASKIA HEUMANN
(MPI, Mühlheim a.d. Ruhr)

12.20 **Lunch**

Catalytic Conversion

13.20 **Investigating gas-solid interactions inside the electron microscope**
THOMAS LUNKENBEIN
(Fritz-Haber-Institut, Berlin)

14.00 **Vibrational spectroscopy at the solid-gas and solid-liquid interfaces**
BAREN EREN
(Weizman Institute of Science, IL)

14.40 **Theoretical investigations of electrochemical CO_2 reduction**
KAREN CHAN
(Technical University of Denmark, DK)

15.20 **In situ microscopy of chemical reactions at metal-oxide interfaces using slow electrons**
JAN-INGO FLEGE
(Brandenburg University of Technology, Cottbus)

16.00 **Coffee break**

Lightning Session

16.20 **Short presentations by Master and Ph.D. students**

19.00 **Workshop dinner**

TUESDAY, 18 FEBRUARY 2020

Conversion by Light

9.00 **Plasmonic chemistry**
EMILIANO CORTÉS (LMU Munich)

9.40 **Properties of excitons in 2D materials – spin, mass and dielectric effects**
ANDREAS STIER (TU Munich)

10.20 **Coffee break**

10.40 **Engineered interfaces for efficient and robust artificial photosynthesis**
IAN SHARP (TU Munich)

11.20 **Ultrafast light harvesting dynamics of membrane-bound antenna complexes**
JÜRGEN HAUER (TU Munich)

12.00 **Lunch**

Nanostructured interfaces

13.00 **An atomic-scale view on the on-surface synthesis of low-dimensional carbon materials**
SABINE MAIER
(FAU Erlangen-Nürnberg)

13.40 **Measuring and modelling dynamic processes of aromatic hydrocarbons at surfaces**
HOLLY HEDGELAND (Open University, UK)

14.20 **Catalysis with nanocluster arrays**
CHRISTIAN PAPP (FAU Erlangen-Nürnberg)

15.00 **Concluding remarks**