

Registration

Deadline for registration: April 6th, 2022

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Participation is free of charge, but registration is required.

The workshop will be in person and the number of participants is limited to 36. According to the current requirements, all participants need proof of full vaccination, or recovery.

Organization

Johanna Eichhorn is a junior group leader at the Walter Schottky Institute of the Technical University of Munich and member of the Young Academy of the Bavarian Academy of Sciences and Humanities since 2020.

jungeskolleg.badw.de

Workshop in cooperation with:



BAVARIAN ACADEMY OF SCIENCES AND HUMANITIES

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BAdW

Energy materials at work

WORKSHOP

7/4/22

**Junges
Kolleg**

BAYERISCHE
AKADEMIE
DER
WISSENSCHAFTEN

Energy materials at work

In the field of solar energy conversion, the properties of semi-conductors are exploited, for example, to convert solar light into electronic energy with photovoltaic devices for immediate use, or to generate storable solar fuels through photoelectrochemical conversion and artificial photosynthesis.

For the development of new semiconductor materials and novel design concepts, fundamental understanding of the device properties under operation conditions through advanced operando and in-situ characterization is decisive. In this workshop, researchers will present recent advances in the development of emerging characterization techniques in the broader field of solar energy conversion to resolve nanoscale heterogeneities in energy materials, time-dependence of charge transport/transfer processes, catalytic reaction and product generation mechanisms.

Program

10.00 Uhr	Registration and Coffee
10.30 Uhr	Welcome
10.35 Uhr	Scanning Probe Microscopy for Nanoscale Characterization of Energy Materials JOHANNA EICHHORN (TU München)
11.00 Uhr	Optical Imaging and Spectroscopy of Energy Materials on the Nanometer Scale ACHIM HARTSCHUH (LMU München)
11.35 Uhr	Understanding Catalytic Processes at Interfaces using Time-Resolved In-Situ Spectroscopy in the IR and Visible Spectral Range FELIX ECKMANN (TU München)

12.10 Uhr	Lunch Break
13.10 Uhr	Sniffer: Highly Sensitive Characterization of Low Density Surface Catalysts SEBASTIAN KAISER (TU München)
13.45 Uhr	A μ-Reactor for Investigating Low Surface Area Photocatalysts at Ambient Condition CLARA ALETSEE (TU München)
14.20 Uhr	Characterization of CO₂ Reduction on Gold Using a Spectroelectrochemical Operando Approach MALO DUPORTAL (TU München)
14.55 Uhr	Coffee Break
15.30Uhr	Plasmonics and Photonics for Energy Conversion CHRISTOPH GRUBER (LMU München)
16.05 Uhr	Quantum Sensors as Novel Tool for Surface Science FABIAN FREIRE (TU München)
16.40 Uhr	End