



MAX PLANCK INSTITUTE
FOR DYNAMICS OF COMPLEX
TECHNICAL SYSTEMS
MAGDEBURG

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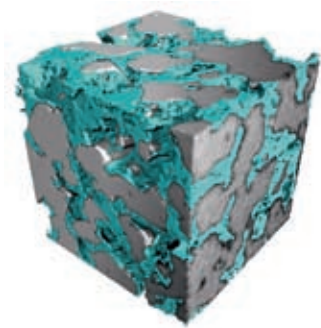


TU Clausthal

3rd Symposium on Insights into Gas Diffusion Electrodes

From Fundamentals to Industrial
Applications & Beyond the OER

Berlin, Germany, September 02 – 04, 2025



<https://www.mpi-magdeburg.mpg.de/gde2025>

Scientific Scope

The 3rd Symposium on “Insights into Gas Diffusion Electrodes: From Fundamentals to Industrial Applications & Beyond the OER” is a joint initiative of the Research Units FOR 2397 “Multiscale Analysis of Complex Three-Phase Systems – Oxygen and CO₂ reduction” and FOR 2982 “Unusual anode reactions in electrochemical energy conversion: Value creation rather than oxygen evolution in hydrogen production”, both funded by the German Research Foundation (DFG). Porous gas-diffusion electrodes (GDE) play a key role in both projects.

GDEs have broad applications in different electrochemical devices such as (bio)-fuel cells, (bio)-electrolyzers, and batteries for energy conversion as well as inorganic and organic synthesis applications. Although very different chemistries and materials are involved, all of these examples share similarities related to so-called “three phase boundaries” as well as pronounced mass transfer challenges related to slow diffusivity and/or low solubility of gases.

Main Topics

- Advanced methods for GDE preparation (devoted to control of local arrangement of GDE materials and porosity) and simulation driven methods for GDE structure optimization.
- Study of reaction kinetics and reaction mechanisms involving gaseous products or reactants.
- Advanced characterization methods for GDEs (dynamic, in-situ, and operando studies).
- Multiscale modeling of GDE operation including reaction and transport resistances.
- Alternative anode reactions to replace the complex oxygen evolution reaction such as alcohol oxidation, lignin oxidation, ammonia oxidation, nitrogen oxidation.



Plenary Speakers

Magda Titirici

Imperial College London, United Kingdom

Ferdi Schüth

Max-Planck-Institut für Kohlenforschung, Germany

Deepak Pant

VITO, Belgium

Keynote Speakers

Christina Roth

University of Bayreuth, Germany

Dulce Morales

University of Groningen, The Netherlands

Csaba Janáky

University of Szeged, Hungary

Abstracts

The abstracts should be written in English and limited to a single page. Please download and use the abstract template in Microsoft Word on our website for abstract preparation. Abstracts can be uploaded at the website:

<https://www.mpi-magdeburg.mpg.de/gde2025>



Important Dates (Deadlines)

Abstract submission opening: December 1st, 2024

Abstract submission deadline: April 4th, 2025

Notification of acceptance for oral and poster contributions: May 15th, 2025

Early bird registration: June 15th, 2025

Registration deadline for oral presentations: July 15th, 2025

Registration & Fees

Symposium Fee *	Before June 15 th / €	After June 15 th / €
Regular	375	425
Student	225	275

* The symposium fee includes lunches, coffee breaks and conference dinner.

Scientific Committee

Ulrike Krewer (KIT Karlsruhe)

Ingo Manke (Helmholtz Zentrum Berlin)

Karl Mayrhofer (HZE, FZ Jülich)

Ulrich Nieken (University of Stuttgart)

Christina Roth (University of Bayreuth)

Wolfgang Schuhmann (RUB Bochum)

Thomas Turek (TU Clausthal)

Tanja Vidaković-Koch (MPI Magdeburg)



Conference Venue

Berlin, the capital and largest city of Germany, embodies an unparalleled energy and a rich history of change, making it more than just a location – it is an active participant. Harnack House, the conference venue of the Max Planck Society and our conference venue, was built in the early 20th century. It was conceived as a hub for scholars, scientists and intellectuals from around the world. Its walls have witnessed discussions that have shaped the course of history, scientific breakthroughs and the exchange of ideas that have pushed the boundaries of human knowledge and creativity. The essence of the Harnack House is curiosity, collaboration and progressive thinking. It was a forge of innovation, where the foundations for revolutionary ideas were laid during informal gatherings, lectures and meetings. Its ambience encourages open dialogue and inspires the next wave of thinkers and leaders through the legacy of those who have gone before. Join us in Berlin at the Harnack House to shape the e-future together.

Travel

Berlin is easily accessible by **plane** (BER airport), **train** or **car** (e.g. via the A115 motorway). Harnack House and its guest-house are located on **lhnestrasse 16-20 - 14195 Berlin**, near Clayallee, in the Berlin district of Dahlem. The two buildings are only 50 metres apart and offer parking places for visitors arriving by car. For further details please see:

<https://www.harnackhaus-berlin.mpg.de/contact/directions>

Organizing Committee

Tanja Vidaković-Koch (MPI Magdeburg)

Wolfgang Schuhmann (RUB Bochum)

Thomas Turek (TU Clausthal)

Contact Details

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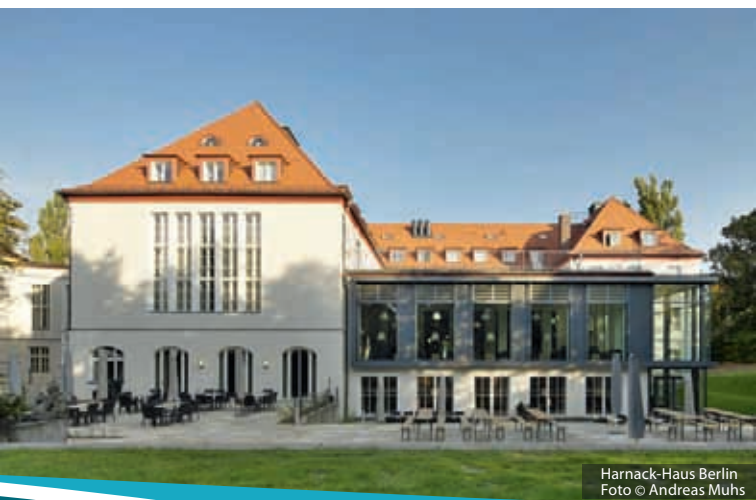
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<https://www.ruhr-uni-bochum.de/for2982>

<https://www.for2397.tu-clausthal.de/>



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DFG

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