

## PROGRAM

### Wednesday, May 22, 2024

**08.00: Registration**

**08.45: Welcome and Opening**

Prof. Bastian Etzold (FAU), Prof. Jörg Libuda (FAU)  
and Prof. Karl Mayrhofer (HI ERN/FAU)

**09.00: Electrolyte Effects in Electrocatalysis**

Prof. Marc Koper (Leiden University, Netherlands)

*09.45 – 10.15: Coffee Break*

### Session 1

Chair: Anna Freiberg (HI ERN)

**10.15: Alkaline oxygen evolution reaction on activated industrial Ni-Fe alloys**

Prof. Marian Chatenet (Grenoble INP, France)

**10.45: Cobalt based MXene composites for the Oxygen Evolution Reaction**

Dr. Michelle Browne (Helmholtz-Zentrum Berlin, Germany)

**11.15: Highly Active and Durable Composite-Type Self-Repairing Anode Catalysts for Alkaline Water Electrolysis**

Prof. Yoshiyuki Kuroda (Yokohama National University, Japan)

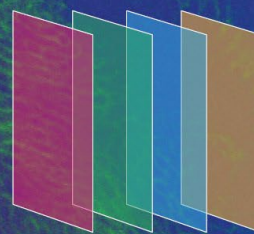
**11.35: Atomic insights into the competitive edge of nanosheets splitting water**

Dr. Lorenz Filling (Technical University Munich, Germany)

**11.55: End of Session 1**

*11.55 – 13.20: Lunch*

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### Session 2

Chair: Dr. Dominik Dworschak (HI ERN)

- 13.20: Influence of alkali metal cations on electrocatalytic activity and stability**  
Prof. Chang-Hyuck Choi (Pohang University of Science and Technology (POSTECH), Korea)
- 13.50: Routes towards molecular carbon materials for electrochemical conversion of small molecules**  
Prof. Martin Oschatz (FSU Jena, Germany)
- 14.10: Exploring metal exsolution to modify the electrochemical interface of perovskite-based catalysts for the oxygen evolution reaction in aqueous medium**  
Dr. Moritz Lukas Weber (Forschungszentrum Jülich, Germany)
- 14.30: Dewetted nanoparticles – A platform to study nanoscale effects in electrocatalysis**  
Prof. Marco Altomare (University of Twente, Niederlande)
- 14.50: End of Session 2**

*14.50 – 15.10: Coffee Break*

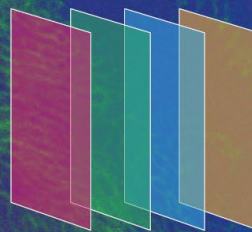
### Session 3

Chair: Dr. Olaf Brummel (FAU)

- 15.10: Water and CO<sub>2</sub> Electrolysis: Understanding Kinetic vs. Transport Limitations**  
Prof. Ulrike Krewer (Karlsruhe Institute of Technology, Germany)
- 15.40: Assessment of the Reproducibility in Interfacial Electrochemistry and Electrocatalysis Measurements Using Pt Electrodes in Aqueous Acidic and Alkaline Media**  
Niusha Mouchani (Queen's University, Canada)
- 16.00: Combining activity and durability in oxygen evolution electrocatalysis: the case of crystalline iridium oxide**  
Dr. Tobias Binninger (Forschungszentrum Jülich, Germany)

*16.20 – 16.40: Coffee Break*

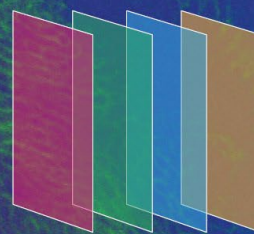
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## PROGRAM

- 16.40: Catalysis on High Entropy Materials**  
Prof. Jan Rossmeisl (University of Copenhagen, Denmark)
- 17.10: What Governs the Electrocatalytic Activity of Oxygen-Evolution Reaction Catalysts? Beyond Scaling Relations**  
Prof. Kai Exner (University of Duisburg-Essen, Germany)
- 17.30: Unravelling the “Iron Effect” in Oxygen Evolution on Nickel and Cobalt Oxides using Electronic structure calculations**  
Prof. Alexander Auer (MPI für Kohlenforschung, Germany)
- 17.50: End of Session 3**
- 19.00: Joint Dinner at "Alter Rathaussaal"**
- ca. 23.00: End of day 1**

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## PROGRAM

### Thursday, May 23rd, 2024

**09.00:** Trials and Tribulations in the Electro-reduction of N<sub>2</sub> to Ammonia  
Prof. Douglas MacFarlane (Monash University, Australia)

*09.45 – 10.05: Coffee Break*

#### Session 4

Chair: Dr. Pavlo Nikolaienko (HI ERN)

**10.05:** Syngas production via CO<sub>2</sub> electroreduction at industrially relevant conditions enabled by catalyst design and electrode optimization  
Prof. Corina Andronesco (University of Duisburg-Essen, Germany)

**10.35:** Long-term continuous ammonia electrosynthesis  
Dr. Shaofeng Li (Technical University of Denmark (DTU), Germany)

**10.55:** In-situ analysis of the dynamic interfacial electrolyte composition near electrodes during the electrochemical reduction of CO<sub>2</sub> or N<sub>2</sub>  
Prof. Georgios Katsoukis (University of Twente, Netherlands)

*11.15 – 11.35: Coffee Break*

**11.35:** System and Process Development for Industrial Carbon-dioxide Electroreduction  
Dr. Csaba Janáky (University of Szeged, Hungary)

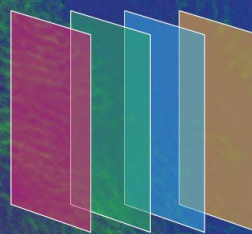
**12.05:** Influence of ionomer type on the performance of CO<sub>2</sub>-reducing gas diffusion electrodes  
Christina Martens (Forschungszentrum Jülich, Germany)

**12.25:** Beyond Cu catalysts: Synergistic effects of Cu with metal co-catalysts to enable CO(2) reduction to higher carbon products  
Dr. Nina Plankensteiner (University of Innsbruck, Austria)

**12.45:** End of Session 4

*12.45 – 14.00: Lunch*

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## PROGRAM

### Session 5

Chair: Dr. Andreas Hutzler (HI ERN)

- 14.00: From flow fields to catalyst layers: a multiscale approach to advancing electrochemical clean energy**  
Prof. Aimy Bazylak (University of Toronto, Canada)
- 14.30: The inconvenient truth of ORR catalyst stability: Operando high energy X-ray investigations of ORR catalysts from cradle to grave**  
Dr. Jakub Drnec (European Synchrotron Radiation Facility (ESRF), France)
- 15.00: Step engineering for model electrocatalysis using ion erosion**  
Dr. Josef Mysliveček (Charles University, Czech Republic)
- 15.30: End of Session 5**

**15.30 – 16.00 Coffee Break**

- 16.00: Poster Session**  
Poster presentations, networking with food and drinks at the conference venue

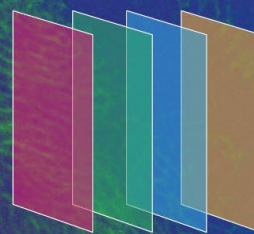
*To ensure that everyone has the opportunity to view all contributions, we divided the poster presentations into two groups:*

- 16.00 - 17.00: odd numbered posters
- 17.00 - 18.00: even numbered posters
- 18.00 - 19.00: flexible

**approx. 19.00: End of Day 2**

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## PROGRAM

### Friday, May 24, 2024

**09.00:** **Operando Spectroscopy in Electrocatalysis: Seeing the Catalyst in Action**  
Prof. Thomas Justus Schmidt (Paul Scherrer Institute, Switzerland)

*09.45 – 10.05: Coffee Break*

### Session 6

Chair: Dr. Matthew Brodt (HI ERN)

**10.05:** **Electrochemical diagnostic methods: model-based and data-driven analysis**  
Dr. Tanja Vidakovic-Koch (Max Planck Institute for Dynamics of Complex Technical Systems, Germany)

**10.35:** **How to find *and* understand new electrocatalysts**  
Prof. Matthias Arenz (University of Bern, Switzerland)

**11.05:** **Beyond CO<sub>2</sub> and CO - Electro catalytic functional group conversion on copper electrodes**  
Bernhard Schmid (Forschungszentrum Jülich, Germany)

*11.25 – 11.45: Coffee Break*

**11.45:** **Electron Microscopy for Understanding the Stability of Electrocatalysts**  
Prof. Nejc Hodnik (National Institute of Chemistry, Slovenia)

**12.15:** **On the Design of Structured Electrocatalysts for Enhancing Gas Evolution Processes During Water Electrolysis**  
Prof. Byron Gates (Simon Fraser University, Canada)

**12.35:** **End of Session 6**

**12.35:** **Closing and Posteraward**

*12.45 – 14.00: Lunch*

**14.00:** **Excursion and Guided Lab Tour to HI ERN's headquarters at Erlangen**  
via bus shuttles

**18.00:** **Conference closing at Erlanger Bergkirchweih**

**23.00:** **Bus Shuttle back to Nuremberg and End of the symposium**

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