

09:00	Welcome and introduction
09:15	Status report ELECTRA Prof. Rüdiger-A. Eichel (IET-1), Prof. Matthias Wessling (AVT.CVT)
09:30	Green Hydrogen PEM Chair: Dr. André Karl
09:35	Keynote Scaling and Production Ramp-up, the Major Challenges for the Hydrogen Economy Dr. Günter Schmid (Siemens-Energy AG)
10:05	Coffee break
10:20	Electrochemical studies on PEM MEAs – A bridge between cell performance and electrode structure Dr. Kristina Fröhlich (IET-1, FZJ)
10:35	A Data-driven framework with integrated SHAP explainable AI for modeling PEM water electrolyzers Dr. Raman Ashoke Kuppa (IET-1, FZJ)
10:50	Understanding and mitigating degradation in PEM electrolyzers for scalable hydrogen production Christine Heume (IET-1, FZJ)
11:05	Nanomechanical and Nanoelectrical Analysis of Membrane Electrode Assemblies Prof. Florian Hausen, Julian Borowec (IET-1, FZJ)
11:20	Keynote High-pressure electrolysis with controlled GDL compression Dr. Andreas Müller (hte GmbH)
11:50	Lunch Break
13:30	Keynote Virtual Testing for Real Impact: PEM-EL Degradation Models and Automotive Innovation in the Hydrogen Sector Jannik Kexel (FEV Europe GmbH)
14:00	High-Temperature Conversion Chair: Dr. Remzi Can Samsun
14:05	Scale-up of solid oxide cell integrated modules: a numerical study Dr. Shidong Zhang (IET-1, FZJ)
14:20	Prediction of Area Specific Resistance of Solid Oxide Cell Stacks from Electrochemical Impedance Spectra Christian Mänken (IET-1, FZJ)
14:35	Ammonia as hydrogen vector Dr. Till Frömling (IET-1, FZJ)
14:50	Coffee break
15:10	Special and Neighbouring Topics Chair: Dr. Ansgar Kretzschmar
15:15	Stack Smarter, Not Harder: Process Optimization of Sodium Sulfate Electro-Redox Malte Wehner (AVT.CVT, RWTH)
15:30	Methanol from Air – the DryHy Project Victor Selmert (IET-1, FZJ)
15:45	A colorful analysis of electrode mass transfer - Visual mapping based on thin-film interference Jonas Bässler (AVT.CVT, RWTH)
16:00	Transfer to Building 01.3z
16:15	Poster Session (Building 01.3z)
16:45	Dinner (Building 01.3z)

09:00	Green Hydrogen AEM / AEL Chair: Dr. Sven Jovanovic
09:05	Keynote Platinum-Group-Metal-Free Electrocatalysts for Alkaline Oxygen Evolution: Spinell High-Entropy Oxides and Core-Shell Carbon Nitride Materials Prof. Vito Di Noto (University of Padova)
09:35	Cell concepts and operational strategies for AEM water electrolysis Dr. Kiran Kiran (IET-1, FZJ)
09:50	Transient operation of an AEM electrolysis system August Gladik (Robert Bosch GmbH)
10:05	Advancing alkaline water electrolysis towards economical feasible use cases Dr. Maximilian Schalenbach (IET-1, FZJ)
10:20	Coffee break
10:30	Lab Tour (Walking)
11:30	Lunch Break
13:00	Nitrogen Electrocatalysis Chair: Dr. Hermann Tempel
13:05	From Nitrogen Pollutants to Green Ammonia: Pushing Boundaries Towards Sustainability. Dr. Ana Laura Luna Barron (IET-1, FZJ)
13:20	What are limits for the electrochemical nitrate reduction to ammonia? Yannick Mürtz (AVT.CVT, RWTH)
13:35	Carbon Electrocatalysis Chair: Dr. Alexander Bauer
13:40	Power2ValueChemicals: An example of a value chain from CO ₂ to specialty chemicals Dr. Alexander Bauer (IET-1, FZJ)
13:55	Keynote Continuous processes for the electroreduction of CO ₂ to formic acid and formate Prof. Manuel Alvarez Guerra (Universidad de Cantabria)
14:25	Coffee break
14:40	Optimizing Formate Concentration Using a Zero-Gap Electrolyzer Andreyana Gamba (IET-1, FZJ)
14:55	Spatially selective investigations of electrochemical cells - the in operando NMR toolbox Johannes Kochs (IET-1, FZJ)
15:10	Paired electrosynthesis of hydrocarbons via decarboxylation of organic acids and CO ₂ reduction Vera Ubbenjans (AVT.CVT, RWTH)
15:25	Accelerating electrochemical research in CO ₂ reduction using high throughput approach Dr. Burkhard Hecker (IET-1, FZJ)
15:40	Modeling Different Wetting States in Gas Diffusion Electrodes for CO ₂ Electrolysis Wenzel Plischka (AVT.CVT, RWTH)
15:55	Closing Remarks

Registration and Further Information:

<https://iffindico.fz-juelich.de/event/23/overview>



Overview: ELECTRA Symposiums:

Electrolysis:

1 st , 2020 AVT	2 nd , 2021 IET-1	3 rd , 2022 AVT	4 th , 2023 IET-1	5 th , 2024 AVT	6 th , 2025 IET-1
Battery:				1 st , 2024 IET-1	2 nd , 2025 IET-1



Site plan and link for online participation can be found as files following the registration link.