



7th ELECTRA Symposium

Hybrid conference | Aachen | October 01 and 02, 2026

October 01

09:00	Welcome coffee
09:15	Welcome and introduction
09:30	Electrochemistry in the path towards net-zero Dr. Thijs Meijssen (SeaO ₂) <i>Keynote</i>
10:10	Coffee break
10:40	<u>CO₂ capture and electrochemical CO₂ reduction</u> <i>Chair: Georg Gert</i>
10:45	Closing the Carbon Loop: Electrochemical CO₂ Conversion for Fuels and Chemicals Dr. Kevinjeorjios Pellumbi (Frauenhofer Umsicht)
11:05	Toward flue gas-compatible CO₂ electrolyzers via oxygen-tolerant gas diffusion electrodes Dr. Sam Van Daele (UAntwerp)
11:25	Applicability of capillary-fed architectures for CO₂ conversion: opportunities and obstacles. Sten de Roon (TU Delft)
11:45	A modular electrolyzer for direct air capture (DAC) and simultaneous green hydrogen production Lennart Wilms (AVT.CVT, RWTH)
12:05	Evaluating materials for CO₂ harvesting from different feedstocks Dr. Ansgar Kretschmar (IET-1, FZJ)
12:25	Lunch break
13:25	Tailoring membrane electrode assemblies for PEM water electrolysis for effective and cost competitive production of green hydrogen Sebastian Kopp (Fraunhofer ISE) <i>Keynote</i>
14:05	<u>PEM water electrolysis</u> <i>Chair: Niklas Vollmert</i>
14:10	Metal poisoning of proton exchange membrane: A molecular dynamics study Dr. Souvik Mitra (IET-1, FZJ)
14:30	Benchmarking of membranes under low relative humidity conditions for efficient electrochemical hydrogen compression Nick Semrau (AVT.CVT, RWTH)
14:50	Scattering methods for low temperature electrolysis Christina Oeß (IET-1, FZJ)
15:10	Coffee break
15:25	<u>Industrial electrochemical systems, modeling & process engineering</u> <i>Chair: Wenzel Plischka</i>
15:30	Investigating the stability of the oxygen-depolarized cathode for industrial use in chlor-alkali electrolysis Yasheng Nijjati (TU Clausthal)
15:50	From thermo- to dynamics: physics-based property prediction meets pH propagation in multi-ionic electrolytes Benjamin Janotta (IET-1, FZJ)
16:10	Automated data pipelines for megawatt electrolyzer and real-time visualization Dr. Raman Ashoke Kuppa (IET-1, FZJ)
16:30	Poster session, lab tours, networking

October 02

09:00	Welcome coffee
09:15	From hype to reality: What must R&D deliver to make green hydrogen competitive? Prof. Marcelo Carmo (IET-1) <i>Keynote</i>
09:55	Coffee break
10:10	<u>Alkaline water electrolysis</u> <i>Chair: Stefanie Khan</i>
10:15	From the dynamics of H₂ and O₂ bubbles at μ-electrodes to bubbly flows in alkaline electrolyzers Prof. Kerstin Eckert (TU Dresden)
10:35	Ion-solvating membranes for alkaline water electrolysis Prof. David Aili (DTU)
10:55	Role of hydroxyl ion transport in alkaline water electrolysis cell construction Prof. Karel Bouzek (UCT Prague)
11:15	Advancing AEMWE from powder to power towards stack operation Dr. Irina Galkina (IET-4, FZJ)
11:35	Lunch break
12:35	Fe/Cr flow batteries: From mine to MW Dr. Jan Vehrenberg (Redox One) <i>Keynote</i>
13:15	Coffee break
13:30	<u>Electrochemical process development</u> <i>Chair: Malte Wehner</i>
13:35	Glycerol partial electroreforming towards syngas Dr. Etienne Boutin (EPFL)
13:55	Scaling up electrochemical formaldehyde synthesis Dr. Florian Schwarz (AVT.ERT, RWTH)
14:15	Engineering 3D copper catalyst layers via MOD inks for methanol-to-formate electrosynthesis Julian Neumann (AVT.CVT, RWTH)
14:35	Progress on power-to-X value chains based on SOC-technology in PHOENIX project Dr. Steffen Dirkes (IET-1, FZJ)
14:55	Closing remarks
15:10	



Registration:
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