

CELEST Member Short Profile



Roswitha Zeis

Dr. Roswitha Zeis is a tenured group leader at the Helmholtz Institute Ulm (KIT-HIU). In 2005, she received her Ph.D. degree in Physics from the University of Konstanz. Most of her Ph.D. research in organic electronics was conducted at Bell Laboratories in Murray Hill, New Jersey (USA). As a Postdoc, she studied hydrogen fuel cells at Johns Hopkins University, Massachusetts Institute of Technology, and Northeastern University.

In 2012, Dr. Zeis joined KIT as a principal investigator of Helmholtz Young Investigator Group "Investigation of Overpotentials in High-Temperature Proton Exchange Membrane (PEM) Fuel Cells," where she became a KIT Fellow in 2015. Her current research aims to develop and characterize fuel cells and redox flow batteries with improved performance and reliability using novel electrolytes, catalysts, and membranes.

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Research areas

Testing of high-temperature PEM fuel cell MEAs, visualization of electrochemical cells and their components using X-rays, Oxygen reduction in different electrolytes, analysis of impedance data using Distribution of Relaxation Times, characterization of carbon materials

Lab equipment

High-temperature PEM fuel cell test station, redox flow test station, rotating ring disk electrode setup, multichannel potentiostats

Roswitha Zeis @ HIU	Link HIU	Link Lab equipment
https://hiu-batteries.de/en/researches/research-groups/electrochemical-energy-conversion/	https://hiu-batteries.de/en/	https://hiu-batteries.de/en/researches/research-groups/electrochemical-energy-conversion/