CELEST Member Short Profile

André Weber

André Weber is working as “Akademischer Oberrat” (senior scientist and academic councilor) at the Institute for Applied Materials – Electrochemical Technologies (IAM-ET, http://www.iam.kit.edu/et/), an institute in the faculty of electrical engineering and information technology at the Karlsruhe Institute of Technology (KIT, www.kit.edu). He is heading two groups at IAM-ET related to fuel cells and electrolyzers (FCE) and characterization and modeling of batteries (LIB) and is the scientific manager of the “FCTestLab”, a lab designated to fuel cell system testing. He is leading a number of national, European and international research projects at IAM-ET. His research is related to electrical testing and modeling of fuel cells and batteries, with a special emphasis on the detailed characterization by means of electrochemical impedance spectroscopy. The experimental and theoretical work in his groups range from fundamental studies on model systems to the analysis of commercial products, aiming at an understanding of the complex coupling of electrochemical reactions and transport mechanisms with material-, microstructural- and design-parameters of these electrochemical devices.

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Research areas
Fuel Cells and Electrolyzers: https://www.iam.kit.edu/et/FCE.php
Lithium Batteries: https://www.iam.kit.edu/et/LiB_Char_Mod.php

Lab equipment (at campus south of KIT)
Testing facilities for high (SOC) and low temperature (PEM) fuel cells and electrolyzers focusing on impedance analysis of single cells and repeat units, FCTestLab (joint lab with EIfER) for fuel cell system level testing,
Testing facilities for battery cells (Li-ion, ASSB) – experimental (E-CELL) to automotive cells with a focus on impedance analysis

André Weber @ IAM-ET
https://www.iam.kit.edu/et/mitarbeiter_andre_weber.php

Link IAM-ET
https://www.iam.kit.edu/et/index.php

Link lab equipment
https://www.iam.kit.edu/et/5981.php