

Name of the organization

Karlsruher Institut für Technologie (KIT)
Institut für Werkstoffe der Elektrotechnik (IWE)

Name of the infrastructure / laboratory

SOFC Test Laboratory

Address and country of the infrastructure / laboratory

Adenauerring 20b - 76131 Karlsruhe - Germany

Person responsible of the access / Contact person

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Main field of activity of the infrastructure / laboratory

▶ Electrochemical characterization of solid oxide fuel cells

Short description of the infrastructure / laboratory

At KIT-IWE a number of SOFC testing facilities are available for SOFC- material, electrode and single cell tests. The facility enables a detailed electrochemical characterization under realistic operating conditions including. The results can provide information about the individual loss mechanisms in the cell and their dependencies on operating conditions (temperature, gas composition, gas utilization and current density). Based on the results electrochemical models for the cell can be developed.

Main research area(s) of the infrastructure / laboratory

Analysis of electrochemical properties of solid oxide fuel cells

Instruments and tools available for the above mentioned research

Test Benches for SOFC single cells



SOFC test benches



Setup and housing for single cell tests



Microprober for conductivity measurements