

## CELEST Member Short Profile



### Hans Jürgen Seifert



Hans Jürgen Seifert is head at Institute for Applied Materials (IAM-AWP) at the Karlsruhe Institute of Technology (KIT) and Professor in Materials Science and Engineering. He received his PhD in Materials Science from University of Stuttgart, Germany, in 1993. He then served as a research group leader for Materials Thermodynamics at the Max Planck Institute for Metals Research, Stuttgart. From 2001 to 2003 he worked as a Senior Coating Expert and Quality Manager for Alstom Power (Birr, Switzerland) and from 2003 to 2006 as an Associate Professor at the Department of Materials Science and Engineering, University of Florida (Gainesville, USA). In July 2006 he was appointed Full Professor by the Technical University of Freiberg, Germany. Since January 2011 he is working for Karlsruhe Institute of Technology. He is a member of the Advisory Board of "Batterieforschung Deutschland" serving the German Federal Ministry of Education and Research (BMBF). He also serves in both DFG Senate Committee and Grants Committee on Collaborative Research Centers.

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#### Research areas

The main research areas of Hans Jürgen Seifert involve engineering materials for the energy transition (Energiewende) with focus on lithium-ion batteries and beyond lithium batteries, advanced gas turbines and power plant technologies. He combines experimental materials physics and (electro)chemistry with advanced computational thermodynamics. The energetics and the electrochemical properties of active materials and the thermal, ageing and safety behavior of batteries are comprehensively studied.

#### Lab equipment (at campus north of KIT)

For investigation of batteries and their materials, IAM-AWP is equipped with a multitude of analytical devices in materials science and engineering and electrochemistry, respectively. A large battery calorimeter lab with numerous ARC, DSC and Tian-Calvet calorimeters is available for studies of electrochemical-thermodynamics as well as thermal, ageing and safety behavior. Various LASER technologies for battery electrode structuring are available.

#### Hans Jürgen Seifert @ IAM-AWP

[https://www.iam.kit.edu/awp/21\\_117.php](https://www.iam.kit.edu/awp/21_117.php)

#### Link IAM-AWP

<https://www.iam.kit.edu/awp/index.php>

#### Link lab equipment

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