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DLR – DAAD – Fellowships

Fellowship no. 312

Research Area : Energy

Research Topic: **Electrochemical processes and Degradation in Solid Oxide Cells**

DLR Institute: **TT – Engineering Thermodynamics, Stuttgart**

Position: Postdoctoral Fellow

Openings: 1

Job Specification: In the context of the energetic transition, high temperature solid oxide cell based technologies are key promising technology for efficient energy conversion. In the department of the electrochemical energy technology from the institute of engineering thermodynamics, the group of high temperature Cell and Stack with ca. 12 staff members focuses its activity on the understanding of the processes, advanced materials, cells and stacks development and electrochemical characterization of cells and stacks, in cooperation with both academia and industrial partners.

As electrochemist, you will be immersed in the group and work on R&D project aiming at the investigation of fundamental processes and degradation mechanisms in Fuel Cell, Electrolysis & co-electrolysis, on Solid Oxide Cells. This includes efficient reporting and communication to colleagues and project partners. In addition to the project work, it is expected you to support and contribute by bringing your expertise in electrochemistry to the R&D activities within the group, aiming at the development of Solid Oxide Cells and assist students, Ph.D. students in their thesis work with electrochemical measurement and data interpretation.

1. Experimental planning, project work including efficient reporting and documentation.
2. Writing scientific publication.
3. Develop the electrochemical characterization tool in our group, supervise and ensure the good working of test Rig. It is expected at

mid-term you to take over the supervision of the test facility for single cells, and ensure scientific excellence in the field.

4. Acquire and supervise students.
5. Contribute to project acquisition.

Required Qualification: Ph.D. in Fuel Cells, Electrolysis or High Temperature Electrochemistry; An additional qualification in chemical engineering, heterogeneous catalysis is valuable.

Advantageous Skills: You have good practical knowledge of characterization technics such as EIS, DRT analysis, Cyclic Voltammetry or Linear Sweep Voltammetry.

An additional experience in the design and conception of experimental setup for high temperature.

You have a team spirit and are willing to exchange with your colleagues.

Eager to work in an international and multicultural environment, you should ideally demonstrate a B1 level qualification in German or justify from a practical experience in German speaking country.

English competence: English fluent (written and oral)

Earliest Start Date: January 2018

Application Deadline: Until filled

Further Information: <http://www.dlr.de>
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