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DLR – DAAD Fellowships

Fellowship no. 345

Research Area :	Energy
Research Topic:	Model based development of electrodes structures of anion exchange membrane water electrolyser
DLR Institute:	Institute of Engineering Thermodynamics, DLR Stuttgart
Position:	Postdoctoral Fellow
Openings:	1
Job Specification:	<p>The energy storage solutions to enable the energy transition in Germany and the need to curb CO₂ emissions in mobility, power generation and industry require green-hydrogen production. Alkaline water electrolyser (AWE) is one of the most mature and attractive technologies but has challenges of low achievable current densities and part load capabilities. DLR is seeking a strategic positioning towards next generation of AWE namely anion exchange membrane water electrolyser (AEMWE) for hydrogen production. The technology has potential to operate without noble metals yet reaching performance levels of competing technologies. Our aim is to develop components and validate them in a stack. There is an opening for a post-doctoral fellow in the Department of Electrochemical Energy Technology to work in the area of the model based design and optimization of electrodes for AEMWE. The fellow will conduct research on the design and processing of electrodes, characterization and electrochemical testing. Furthermore, the candidate will assist a senior scientist to develop structural models and diffusion simulations for the optimization of the electrode structure.</p>

Required Qualification: Doctorate degree from an accredited university in the area of materials science and engineering, surface engineering, chemistry, chemical engineering, catalysis or relevant fields. Must have earlier experience in electrochemical devices development and testing.

Advantageous Skills: Knowledge in processing and characterization of catalysts and electrodes; Knowledge in plasma processes is beneficial; Experience of alkaline water electrolyser or anion exchange membrane water electrolyser is a plus; Track record of scientific publication

English competence: Fluent spoken and written (see requirements on www.daad.de/dlr)

Earliest Start Date: As soon as possible

Application Deadline: Until position filled

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