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DLR – DAAD Fellowships

Fellowship No. 628

Research Area : Energy

Research Topic: **Electrochemical analysis for molten salt storage systems**

DLR Institute: Institute of Engineering Thermodynamics, DLR Stuttgart, Germany

Position: Doctoral Fellow

Openings: 1

Job Specification: The work relates to a deeper material understanding of molten nitrate storage systems in commercial concentrated solar power (CSP) plants. In future, these storage systems can also be used for green industrial processes and large-scale electricity storage systems (Carnot batteries). The planned work of the research fellowship focuses on material and electrochemical aspects and builds on previous work and existing experimental setups of the research group. The main tasks of the doctorate include carrying out electrochemical experiments on molten salts and evaluating the results with regard to the use of molten salt storage systems for end user applications. The results are presented within the team, at international conferences and in scientific publications. You will also be responsible for supervising students working on their Bachelor's and Master's theses. The work is integrated into a team with experienced staff for support.

Required Qualification: Completed Master degree in the field of materials, chemistry, chemical engineering, process engineering or related

Advantageous Skills: Knowledge of electrochemistry, thermochemistry, wet chemical analysis methods, inorganic chemistry, physical chemistry, thermal process engineering, heat and mass transfer or a related field

Experience in the materials laboratory or with thermal engineering setups in the temperature range 200 - 600 °C
Experience in modelling, simulation and evaluation routines in a programming language, e.g. MATLAB or similar

Team player, creative, and able to work independent and self-motivated

English competence: See requirements on www.daad.de/dlr

Earliest Start Date: As soon as possible

Application Deadline: Until position filled

Duration: 36 months

Further Information: http://www.dlr.de
http://www.daad.de/dlr

More information may be obtained by contacting:
Dr. Thomas Bauer (Thomas.Bauer@dlr.de)

Thank you for your attention!
We look forward to receiving your application!