University of Stuttgart
Institute of Space Systems

Job Posting

In the field of 'Plasma Technology for Terrestrial and Space Applications,' we aim to advance plasma-based CO_2 conversion techniques to mitigate climate change and support In-Situ Resource Utilization (ISRU) on Mars. Over the next years, strategies for reaction product (CO, O, C) separation shall be developed and demonstrated focusing on solid carbon extraction and hydrogen quenching. This is achieved by combining experimental studies utilizing an inductive plasma generator with numerical simulations based on an extensive reaction-kinetic model.

A position is available as soon as possible for a

Research Associate (m/f/d)
(Salary scale E13 TV-L, PhD position)

initially limited to 3 years.

Your tasks include:

- Setup and operation of an experimental facility for plasma-based CO_2 splitting
- Characterization and reaction-kinetic simulation of the plasma flow
- Assisting with lectures and exercises at the Institute

We expect the following profile from you:

- Solid programming skills (Python/MATLAB)
- Strong interest in hands-on laboratory work
- Master's degree in an engineering-related field
- Interest in further academic qualification (PhD)
- Strong communication and teamwork skills

Desirable:

- Basic knowledge in physical chemistry/plasma physics
- Experience with FORTRAN programming
- Work experience in laboratory environments

We offer:

- A challenging and diverse workplace
- Exciting insights into innovative research projects
- A very good working atmosphere in an international team
- Contribution to the Job Ticket BW, JobBike BW
- Active company health management as well as various sports offers from the university sports program

If we have sparked your interest, we look forward to your application! Please submit your application, consisting of an application letter, a detailed CV, relevant certificates or recent transcript of records, and a list of publications (if applicable), to apl. Prof. Dr.-Ing. Georg Herdrich (**herdrich@irs.uni-stuttgart.de**) by **October 31, 2024**.

IRS

Additional notes:
At the University of Stuttgart, we actively promote diversity among our employees. We have set ourselves the goal of recruiting more female scientists and employing more people with an international background, as well as people with disabilities. We are therefore particularly pleased to receive applications from such people. Regardless, we welcome any good application.

Women who apply will be given preferential consideration in areas in which they are underrepresented, provided they have the same aptitude, qualifications, and professional performance. Severely disabled applicants with equal qualifications will be given priority.

As a certified family-friendly university, we support the compatibility of work and family, and of professional and private life in general, through various flexible modules. We have an employee health management system that has won several awards and offer our employees a wide range of continuing education programs. We are consistently improving our accessibility. Our Welcome Center helps international scientists get started in Stuttgart. We support partners of new professors and managers with a dual-career program.

Information in accordance with Article 13 DS-GVO on the processing of applicant data can be found at:
https://careers.uni-stuttgart.de/content/privacy-policy/?locale=en_US