



The Institute of Physics at the University of Augsburg is looking for the Experimental Plasma Physics group for one:

**Post-doctoral researcher (m/f/div)  
in the field of experimental plasma physics**

The group's research (<https://www.uni-augsburg.de/en/fakultaet/mntf/physik/groups/epp/>) is focussed on molecular low-temperature plasmas, their diagnostics and the mutual influence of plasma-surface-interaction in close collaboration with the Max Planck Institute for Plasma Physics (IPP) in Garching. Several low-pressure discharges (ICP, ECR) and a microwave experiment in the medium pressure range are operated. The position is within the topic of plasma conversion of low energy molecules into value-added chemicals. The research contributes to the power-to-gas initiative in the field of energy storage, hydrogen technology, and chemical energy carriers. Lately, a DBD setup was commissioned to extend the accessible pressure range to atmosphere. The current research focusses on the fundamental understanding of the processes within hydrogen/nitrogen plasmas in view of nitrogen fixation and hydrogen storage via ammonia employing catalyst-assisted low-temperature plasmas.

**Your tasks:**

- Systematic characterisation of plasma sources (predominantly DBDs) with established diagnostics, expanded by insights into the plasma-catalyst interaction using ex-situ surface analysis techniques
- Optimization of the plasma sources in view of catalyst-enhanced ammonia formation and hydrogen storage
- Evaluation of the data and dissemination of the obtained results (conferences, journal publications)

**Your profile / Our requirements:**

- Completed doctoral thesis in plasma physics, catalysis, or related fields
- Experience with experimental techniques related to plasmas, gases and surfaces (e.g. OES, FTIR, MS) and a solid basic understanding of low-temperature plasmas
- Experience in the operation and characterisation of plasma sources, in particular in atmospheric plasmas and DBDs
- A strong scientific track record, including publications in peer-reviewed journals
- High motivation to contribute to the application of plasma conversion technology in the power-to-gas initiative
- Motivation to participate in teaching within the given university courses, supervision of students and in the group's initiatives for public relations

**Your abilities**

- Strong competences in conceptualization, performing and evaluating experiments
- Excellent ability for self-initiated working and structured organization of work
- Very good communication and interpersonal skills, in particular enjoyment to work in a team
- Strong ability to present complex scientific and technical matters fluently in German and English

**We offer:**

- Interesting and diversified work relevant for the energy transition activities in Germany, Europe, and worldwide
- Flexible working hours
- Training and further education opportunities
- Lively campus and surroundings incl. family service & childcare facilities on the campus

**Contract conditions:**

- Availability: as of now
- Limited for now to 31.12.2025
- The position is intended full-time, but can also be filled part-time, provided that job-sharing ensures that the duties can be performed full-time.
- Salary: up to pay group 13 according to the collective agreement for the public service (TV-L), dependent on the assignment of tasks and qualifications
- Applications should be transmitted by

**April, 15<sup>th</sup> 2023**

The University of Augsburg promotes the professional equality of women. Female candidates are explicitly invited to submit their application. The University of Augsburg stands up for compatibility of family and professional life. For more information, please contact the women's representative office. Severely disabled applicants (m/f/div) are given preferential consideration in the event of equal qualification.

Applications together with the usual documents should be sent to [ursel.fantz@physik.uni-augsburg.de](mailto:ursel.fantz@physik.uni-augsburg.de).