GEORG-AUGUST-UNIVERSITÄT GÖTTINGEN IN PUBLICA COMMODA SEIT 1737

Fakultät für Chemie
Institut für Physikalische Chemie

The Faculty of Chemistry at the Georg-August-Universität Göttingen welcomes applications for one

Ph.D. position (f/m/d)

at the Theoretical Chemistry group (Group of Prof. Reinhard Maurer). The position is remunerated with 65% E 13 TV-L (corresponding to 25.87 hours per week) with a limited contract of 3 years with the option of extension to 4 years. The position should be filled by 01.03.2027 or later.

Your duties

- You will conduct individual and collaborative research projects in theoretical chemistry and computational simulation,
- continually update your own knowledge and understanding in the field and translate knowledge of advances in the subject area into research activity,
- write up research work for publication,
- present information on research progress and outcomes to team members and collaboration partners,
- contribute positively to a collegiate research environment by supporting students and engaging in group activities such as meetings and seminars,
- contribute to teaching of courses as defined in Section 31 of the Higher Education Act of Lower Saxony (NHG) and administering of examinations.

Your profile

- You hold (or are in the process of concluding) a Master's degree in Chemistry, Physics or a related discipline,
- ability to work collaboratively and effectively within an interdisciplinary and diverse team,
- You have experience in academic writing.
- You have an interest and background in surface chemistry, quantum chemistry, or computational simulation.
- You have an excellent command of written and spoken English.
- Experience with programming (e.g. Python, Julia) and simulation methods (e.g. molecular or quantum dynamics) is advantageous.

This post is designed to serve in fostering young researchers and scientists and give the successful applicant the opportunity to pursue a doctoral degree. Another requirement for employment is a commitment from the doctoral supervisors to supervise the successful applicant in the doctoral program within the framework of the GAUSS doctoral program.

We are looking for a Ph.D. student working in the following area:

Development of simulation methods to study electron-transfer-induced chemical dynamics at electrified interfaces. This project will involve state-of-the-art electronic structure theory and mixed quantum-classical dynamics to study (photo-)electrochemical processes in the context of controlled electrodeposition and photosensitised electrocatalysis, specifically how excess charges at the interface affect chemical reactivity. Upon building a mechanistic understanding of how electrode doping, vacancy formation, and functionalisation affect chemical reactivity, machine-learning surrogate models capable of describing electron transfer will be built to study dynamical effects in electrodeposition and electrode restructuring.

Who we are: In the Maurer group, we aim to develop computational simulation methodology to study quantum phenomena at surfaces with applications ranging from photocatalysis, to nanotechnology and electrochemistry. Our goal is to combine electronic structure theory, molecular and quantum dynamics methodology, and machine learning methods to achieve an accurate yet computationally feasible description of complex phenomena in materials and at solid/gas and solid/liquid interfaces. You will join a large, international and interdisciplinary research group that provides a collaborative and supportive environment.

The University of Göttingen is an equal opportunities employer and places particular emphasis on fostering career opportunities for women. Qualified women are therefore strongly encouraged to apply in fields in which they are underrepresented. The university has committed itself to being a family-friendly institution and supports their employees in balancing work and family life. The mission of the University is to employ a greater number of severely disabled persons. Applications from severely disabled persons with equivalent qualifications will be given preference.

FAMILIE IN DER HOCHSCHULE
Mitglied des Best Practice-Clubs

Application documents should include a motivation letter, a CV, and degree certificates. The documents are to be submitted in electronic form (single PDF file) to the e-mail maurergroup@chemie.uni-goettingen.de . The deadline for submission is 20:00 (CET) on 04.12.2026.

Please note:

With submission of your application, you accept the processing of your applicant data in terms of data-protection law. Further information on the legal basis and data usage is provided in the Hinweisblatt zur Datenschutzgrundverordnung (DSGVO) https://www.uni-goettingen.de/hinweisdsgvo

Link to Georg-August-Uni website with the official job posting:
https://www.uni-goettingen.de/de/644546.html?details=3424