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Open PhD positions and open Postdoc position

At the Chair of Theoretical Chemistry (Prof. Dr. Andreas Görling) at the Friedrich-Alexander-University Erlangen-Nuremberg **two PhD positions** (13 TV-L/2) and **one Postdoc position** (13 TV-L) are to be filled. The positions are associated with the Collaborative Research Center CLINT (Catalysis at Liquid Interfaces, SFB 1452).

CLINT is a consortium of 21 research groups at the University of Erlangen-Nuremberg funded by the German Science Foundation that explores the highly dynamic, anisotropic environment of liquid interfaces to create, tailor, and stabilise catalytically active sites with unique reactivity and performance. Interfaces comprise amongst others the surfaces of ionic liquids with desolved catalyst complexes and of Supported Catalytically Active Metal Solutions (SCALMS) that represent a new novel catalyst concept developed in recent years at the University of Erlangen-Nuremberg. Catalytic processes are, e.g., developed for the hydrogenation and dehydrogenation of organic compounds. For more information see: <https://www.sfb1452.research.fau.eu/>

Responsibilities of the positions comprise the use of electronic structure methods, in particular density-functional methods, to contribute to the research program of CLINT in close collaboration with the experimentally working groups as well as in cooperation with the other theory groups. Typically, slab models for surfaces including catalytic sites will be studied to unravel reaction mechanisms and materials properties. Ab-initio molecular dynamics simulations will be employed to get insight into the behavior of surface diffusion and properties of liquid metals. Within the collaborative research center a broad range of spectroscopic methods are employed, comprising, amongst others, neutron scattering, various infrared and Raman techniques, or X-ray photoelectron spectroscopy. Simulation of spectroscopic data in order to help analysing experimental results is part of the responsibilities.

Candidates for the PhD positions should have a Masters degree in chemistry, materials science, or a related field. Candidates for the Postdoc position should have a degree in chemistry, materials science, or a related field and a solid knowledge in quantum chemistry as well as an affinity to computer related work. The initial employment period for the Postdoc position is one year.

PhD students and Postdocs are associated with the Research Training Group CLINT that offers various possibilities for professional training as well as a variety of soft skill courses and represents a platform for the professional and social interaction with other postdocs and graduate students.

Please send your application with the usual documents to Prof. Dr. Andreas Görling by email (andreas.goerling@fau.de).