

PhD position available in Osnabrück (Germany)



REACTIVITY is a cooperative research project, in which we develop a new, untouched and challenging experimental strategy in heterogeneous model catalysis for describing reactivity related phenomena. We demonstrate that the combination of non-contact atomic force microscopy (NC-AFM) and Kelvin probe force microscopy (KPFM) can be used to quantify the adsorption/desorption characteristics of fundamental gases in heterogeneous catalysis at the single nanoparticle level as a function of nanoparticle size, shape, composition and temperature, and how properties are affected by the oxide support. Furthermore, we explicitly demonstrate that KPFM is capable of quantifying phenomena of contamination and dissolution at single NPs being most important for many catalytic processes (http://clemens-barth.root-1.de/ANR_Reactivity).

For this project, the Department of Physics of Osnabrück University invites applications for the position of a

PhD student (f/m) with employment (salary group E 13 TV-L, 50 %)

for a duration of 3 years to start as soon as possible.

Research will be focused on the investigation of metallic clusters with NC-AFM to reveal the structure, size, shape and distribution of the clusters. KPFM will be utilised to determine the work function of individual clusters that is a quantitative measure for the adsorption or dissolution of gases on or in the cluster.

Required qualifications are a master degree in physics and proficiency in the German language as well as the determination to become fluent in German within a short time. Desirable qualifications are experience in force microscopy and ultra-high vacuum technology.

We offer an excellent research infrastructure, an interesting research field and a cooperative working environment and a well-funded project embedded into a strong international cooperation.

Osnabrück University has been certified as a family-friendly university committed to helping working/studying parents and carers balance their family and work life. The university aspires to ensure equal opportunities for men and women and strives to work towards a gender balance in schools or departments where new appointments are made.

If equally qualified candidates apply, preference will be given to those with special needs.

Applications should be submitted electronically to arrive no later than 06/30/2018 to Ms. Lana Stork-Bohmann (lane.stork-bohmann@uos.de). For further information, please contact Prof. Dr. Michael Reichling via reichling@uos.de.

We look forward to receiving your application!