

PhD/Postdoc position in high-resolution scanning probe microscopy on molecular architectures

The scanning probe microscopy group at the Physics Department of the Friedrich-Alexander-University Erlangen-Nürnberg is looking for a highly-motivated PhD candidate in experimental surface science in the field of self-assembly and on-surface synthesis of molecular structures on surfaces. The PhD project aims at understanding and controlling molecular nanostructures on surfaces at the single molecule level using scanning probe techniques – including non-contact atomic force microscopy, scanning tunneling microscopy, Kelvin-probe force microscopy – in ultra-high vacuum at low temperatures. The focus will be on high resolution measurements using functionalized tips to resolve individual atoms and bonds in the molecular structures to unambiguously identify their structures and reaction products. The molecular architectures are fabricated from specially designed molecular building blocks with tailored functionalities (provided by collaborators).

The project is part of the DFG Research training group GRK 1896 - "In situ Microscopy with Electrons, X-rays and Scanning Probes" - that provides collaboration on focused ion beam, electron microscopy and further techniques to prepare and characterize suitable probes. We offer outstanding infrastructure and broad interdisciplinary surroundings. The PhD student will be integrated in the PhD Program of the GRK 1896.

Required qualifications include a master's degree in Physics, Physical Chemistry, Materials Science or in a related field. A solid background in surface science and previous experience using ultrahigh vacuum surface analysis equipment would be a significant benefit. Very good communication skills in English are required.

The position is available immediately for 3 years. The salary will be according to the German TV-L. Applications must include a brief statement of interest, CV including an academic transcript with the obtained marks and contact information of 2 references. Please submit your application by e-mail to Prof. Dr. Sabine Maier: sabine.maier@fau.de. The review of applications will begin immediately.

For further details please visit <http://www.grk1896.uni-erlangen.de>. Please send your application electronically to sabine.maier@fau.de

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