

Ph.D. Position

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Investigating Adsorption and Electronic Properties of Functional Molecules with Means of Scanning Probe Microscopy



Understanding the optoelectronic properties of interfaces between inorganic (metal) surfaces and π-conjugated organic molecules is fundamental, since these interfaces play a key role in molecule-based devices such as solar cells, transistors and diodes and in their performance. The adsorption configuration which is governed by the strength of adsorbate/substrate and adsorbate/adsorbate interactions determines the electronic structure of the molecule/substrate system. Thus, gaining insights into the adsorption as well as the electronic properties of the organic compounds is an important prerequisite and the aim of the project. The work is done utilizing a state-of-the-art scanning probe microscope including scanning tunneling (STM) and atomic force microscopy (AFM).

