Faculty of Mechanical Science and Engineering

At the Institute of Materials Science the Chair of Materials Science and Nanotechnology offers, subjected to resources being available, the position of a

Research Associate / PhD student

(Subject to personal qualification employees are remunerated according to salary group E 13 TV-L)

The position, which is embedded in the EU project “Mechanics with Molecules” (MEMO), will start at the earliest possible date and entails 75% of the fulltime weekly hours. It is limited for three years. The period of employment is governed by the Fixed Term Research Contracts Act (Wissenschaftszeitvertragsgesetz – WissZeitVG). The position offers the chance to obtain further academic qualification (e.g. PhD).

The scientific activities of the Chair of Materials Science and Nanotechnology (Prof. G. Cuniberti) are focused on developing non-conventional strategies for novel materials and devices with intrinsic nanoscale complexity.

The Molecular Manipulation and Nanomachines group (Dr. Francesca Moresco) investigates the mechanical and electronic properties of organic molecules on surfaces by scanning probe microscopy at low temperature (LT-STM). The group actively participates in several German and European networks for the development of molecular and organic electronics, like the Cluster of Excellence cfaed (http://tu-dresden.de/cfaed), the EU Project PAMS (http://pams.prod.lamp.cnrs.fr), and the International Helmholtz Research School NANO NET (http://www.ihrs-nanonet.de).

Tasks: The EU FET-Open project MEMO aims to study the transmission of motion from molecule to molecule towards the construction of an atomic scale mechanical calculator. The successful candidate will use LT-STM to experimentally investigate the mechanical and electronic properties of single molecules, controlling the rotation and the work delivered at the atomic scale.

Requirements: excellent university degree in Physics, Chemistry, Materials Science, or a closely related area, excellent communication and writing skills in English, personal initiative, independent work, as well as the ability to work in a team. Experience in scanning probe microscopy, experimental surface science, or ultra-high vacuum (UHV) is desirable. Applications from women are particularly welcome. The same applies to people with disabilities.

Applicants should send their application documents, including a letter of motivation, Curriculum Vitae, publication list, and two reference letters until 26.10.2017 (stamped arrival date of the university central mail service applies), by mail to TU Dresden, Fakultät Maschinenwesen, Institut für Werkstoffwissenschaft, Professur für Materialwissenschaft und Nanotechnik, Herrn Prof. Dr. Gianarelio Cuniberti, 01062 Dresden, Germany or via the TU Dresden SecureMail Portal https://securemail.tu-dresden.de by sending it as a single pdf-document to jobs@nano.tu-dresden.de, Subject: “Application MEMO, your_Surname”. Please submit copies only, as your application will not be returned to you. Expenses incurred in attending interviews cannot be reimbursed.