

The Institute of Solid State Physics at the Friedrich-Schiller-University Jena (Germany) seeks to fill the position of a

PhD student (m/f/d)

commencing on (date: 01 April, 2022)

We offer a part-time position (50%, 20 hours per week), initially limited until (Date: 31 March 2025).

The goal of the DFG-funded DACH project Hybrid Interfaces in Thermodynamic Equilibrium (HI-TEq) is to measure p-T phase diagrams for organic-inorganic interfaces. This requires the development of approaches to experimentally fabricate interfaces near thermodynamic equilibrium in a well-defined manner. Such interfaces will be prepared in a novel vacuum chamber housing a nearly closed LN₂-cooled cryoshield. This vacuum chamber will be constructed and commissioned in collaboration with members of our research group. The deposited structures will then be investigated using low-energy electron diffraction (LEED). Comparisons to theoretical predictions of such phase diagrams will be made in close exchange with our cooperation partners at TU Graz, who perform calculations using density functional theory.

Your responsibilities:

- You will coordinate the construction and commissioning of a new ultra-high vacuum apparatus together with scientific and technical staff of the working group.
- You will be responsible for carrying out and evaluating measurements on thin molecular layers on single-crystal substrates using low-energy electron diffraction.
- The scientific guidance and the coordination of the laboratory work of bachelor and master students are part of your tasks.
- You will be actively involved in the scientific exchange with our cooperation partners, participate in project meetings and their organization.
- Together with the members of the working group and our cooperation partners you will publish your research results in international journals in English.
- You present your results at scientific meetings and workshops.
- You will work on your own scientific qualification project (PhD).

Your profile

- Completed university studies in physics or materials science (M.Sc. or diploma) with an above-average degree
- Proficiency in solid state physics
- Experience with film preparation (PVD) and analysis in ultra-high vacuum
- Experience in structural characterization of thin films using STM/AFM and electron diffraction
- Confident command of the English language, both written and spoken
- Pedagogical aptitude
- Experience with organic thin films / adsorbates desirable

We offer:

- An exciting and varied job in a team working in the field of fundamental research on organic thin films with a strong international character
- Excellent equipment and infrastructure of the chair

- Graduate academy for PhD students
- A family-friendly working environment with a variety of offers for families: university family office (JUniFamilie) and flexible childcare (JUniKinder)
- Remuneration based on the provisions of the Collective Agreement for the Public Sector of the Federal States (TV-L) at salary scale E13 – depending on the candidate's personal qualifications—, including a special annual payment in accordance with the collective agreement.

This is a part-time position with 50% of the working hours of a full-time employee (20 hours per week). In our university, PhD students get a salary in accordance to 50% of the full E13 level, as it is expected that they work for 50% of their time on the project, using the other 50% to work on their personal qualification (PhD).

Candidates with severe disabilities will be given preference in the case of equal qualifications and suitability.

Are you eager to work for us? Then submit your detailed written application, preferably by email (one PDF file), to:

Friedrich-Schiller-Universität Jena
Institut für Festkörperphysik
Prof. Dr. Torsten Fritz
Helmholtzweg 5
07743 Jena

or by email to:

torsten.fritz@uni-jena.de

Since all application documents will be duly destroyed after the recruitment process, we ask you to submit only copies of your documents.