



## 2 Postdoc Positions in low temperature scanning probe microscopy (m/f/d)

The Department SMFD at the Max Planck Institute of Microstructure Physics in Halle (Saale), Germany, is seeking two motivated post-docs to join our SPM lab.

Graphene nanoribbons (GNRs) and carbon nanostructures are considered to be the next-generation carbon materials for the fabrication of nanoscale electronic and spintronic devices.

### Your tasks

We are particularly interested in synthesizing structurally well-defined GNRs with different topologies and related carbon nanostructures through on-surface mediated reactions. An exciting facet is the  $\pi$ -magnetism of nanographene. The unique abilities of SPM allow to tailor the  $\pi$ -electrons and hence the magnetic properties. These interesting physics questions will be addressed via a recently purchased low-temperature scanning probe microscope and other state-of-the-art facilities in Max Planck Institute.

### Your profile

- A PhD degree in experimental physics, materials science, or a related discipline.
- Strong background in ultrahigh vacuum, surface science and cryogenic systems (4K).
- Expertise in atomic force (AFM) and scanning tunneling microscopy (STM).
- Possess strong programming skills for data analysis and experimental control.
- Communicate effectively and thrive in a collaborative research environment.
- Proficiency in English scientific writing, including but not limited to the preparation of scientific journal articles and research proposals.

### We offer

- Access to leading research groups in the emergent field of quantum materials and devices.
- Competitive salary package aligned with your qualifications and experience.
- Access to cutting-edge research facilities and resources at the Max Planck Institute of Microstructure Physics.
- Opportunities for professional growth, networking, and international collaboration.

The positions are available immediately, although the start date can be negotiated. The initial contract duration is 24 months for the Postdoc position. The contract can be extended based on your performance.

The Max Planck Society is Germany's premier research organization dedicated to basic research and to supporting and developing early career scientists. It offers an excellent infrastructure and a very international environment that enables research at the highest level. The Max Planck Society seeks to increase the number of women in those areas where they are underrepresented and therefore explicitly encourages women to apply.

### Your application

Please send your application to PD Dr. Frank Schumann ([schumann@mpi-halle.mpg.de](mailto:schumann@mpi-halle.mpg.de)) or Prof. Dr. Xinliang Feng ([xinliang.feng@mpi-halle.mpg.de](mailto:xinliang.feng@mpi-halle.mpg.de)) including the following documents:

- A cover letter
- Your CV, including a publication list
- Contact details of two scientists who can provide references