Freie Universität Berlin - Fachbereich Physik - SFB 1772: Heterostrukturen aus Molekülen und zweidimensionalen Materialien

Research assistant (postdoc) (m/f/d)

with 50%part-time job limited to 31.01.2027 salary grade (Entgeltgruppe) 13 TV-L FU
reference code: MolPostdoc_Bolotin

City: Berlin; Starting date (earliest): At the earliest possible; Duration: befristet bis 31.01.2027; Remuneration: Entgeltgruppe 13 TV-L FU; Reference number: MolPostdoc_Bolotin_de; Closing date: 27/01/26

Working field

Are you passionate about cutting-edge fundamental research at the intersection of 2D materials and molecular nanoscience? Are you looking to pursue your PostDoc in an excellent, interdisciplinary research environment at a leading German university? If so, we invite you to apply! The newly established Collaborative Research Center CRC 1772 "mol2Dmat" investigates novel collective states and quantum phenomena in heterostructures of molecules and two-dimensional materials. Our interdisciplinary consortium brings together 20 research groups from Freie Universität Berlin, Humboldt-Universität zu Berlin, Technische Universität Berlin, and the Max Planck Institute in Hamburg. Our work combines physics, chemistry, and materials science – pushing the frontiers of quantum materials research.

We are looking for a highly motivated PostDoc to support our internationally networked research group led by K. Bolotin, which specializes in electronics and optoelectronics on the nanoscale. Our focus is on two-dimensional atomic crystals - a recently discovered class of materials that are only a few atomic layers thick. A large part of our research consists of the preparation of nanomaterials, which make a significant contribution to the service project (Z01) of the CRC 1772. In our clean room and other laboratories at state-of-the-art research building SupraFab in Berlin-Dahlem, we use a variety of mostly vacuum-based equipment to create, layer, structure, contact, cut and fold two-dimensional materials such as graphene
and boron nitride with atomic precision. You will work closely with scientists from the CRC 1772 and the Bolotin working group.

As a PostDoc, you will become part of an excellent scientific network and benefit from our structured, interdisciplinary program, which includes tailored training, workshops, retreats, and conference travel for PostDocs. You will have access to cutting-edge laboratories and a wide range of development opportunities to promote your own

research career. We are committed to making family and academic life compatible, promoting diversity and equal opportunity through a variety of support measures.

Job description:

- Development, growth, and characterization of new types of heterostructures consisting of molecules and 2D materials.
- Exploration of the physical and chemical properties of such structures
- Improving the quality and yield of 2D material/molecule heterostructures
- Production, characterization, and transfer of 2D materials for CRC 1772 projects. Production of exfoliated and CVD-grown samples as well as FeCl3/graphene via chemical vapor transport.

Requirements

Requirements:
At least Master and PhD in Physics or a closely related field

(Professional) Experience:
Experimental expertise in research on solid-state or molecular physics.

Desirable:

- Excellent PhD degree with courses in solid-state and molecular physics or closely related fields.
- Research experience in the fields of 2D materials, material growth, and/or nanofabrication
- Experience in nanoptics
- Experience in AFM-based nanomanipulation
- Experience in strain engineering
- Excellent command of written and oral English (C1).
- Experience in the presentation of scientific results in written and oral forms, e.g., during seminar presentations and as a written manuscript.

Application

We encourage members of underrepresented groups to apply. Applications should be sent by e-mail, together with significant documents, indicating the reference code, **no later than January 27th , 2026** in PDF format (preferably as one document) to Prof. Dr. Kirill Bolotin: applications@crc1772.de or postal to

Freie Universität Berlin
Fachbereich Physik
SFB 1772: Heterostrukturen aus Molekülen und zweidimensionalen Materialien
Herrn Prof. Dr. Kirill Bolotin
Arnimallee 14
14195 Berlin (Dahlem)

With an electronic application, you acknowledge that FU Berlin saves and processes your data. FU Berlin cannot guarantee the security of your personal data if you send your application over an unencrypted connection.
Freie Universität Berlin is an equal opportunity employer

More information at https://stellenticket.de/200655/BUA/
Offer visible until 27/01/26