



Faculty/Department: Mathematics, Informatics, Natural Sciences/Physics
Seminar/Institute: Institute of Nanostructure and Solid-State Physics (INF) and the Center for Hybrid Nanostructures (CHyN)

Universität Hamburg invites applications for a Research Associate in accordance with Section 28 subsection 1 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG). The position commences on April 1st, 2019.

It is remunerated at the salary level TV-L 13 and calls for 50% of standard work hours per week.*

The fixed-term nature of this contract is based upon Section 2 of the academic fixed-term labor contract act (Gesetz über befristete Arbeitsverträge in der Wissenschaft, WissZeitVG). The initial fixed term is three years.

The University aims to increase the number of women in research and teaching and explicitly encourages women to apply. Equally qualified female applicants will receive preference in accordance with the Hamburg act on gender equality (Hamburgisches Gleichstellungsgesetz, HmbGleiG).

Responsibilities:

Associates will be expected primarily to teach and conduct research. The associate will also have the opportunity to pursue further academic qualifications, in particular a doctoral dissertation. At least one-third of set working hours will be made available for the associate's own academic work.

Specific Duties:

The newly established Hybrid Nanostructure Group in the Center for Hybrid Nanostructures (CHyN), at Campus Bahrenfeld, is currently searching for potential candidates for a doctoral position on in situ X-ray synchrotron studies of nanostructures.

The PhD candidate will help developing tools for synchrotron studies. This will involve synthesis and assembly of colloidal structures, their incorporation into multifunctional devices.

The candidate will particularly develop new protocols, experimental cells to in situ study of photo-electro-chemically active films.

The candidates will perform - either independently or in the collaboration with the group members or international collaborators - X-ray synchrotron-based experiments and analyse the data.

In accordance with the mandatory teaching assignment the teaching load will be 2 hours per week.

* Full-time positions currently comprise 39 hours per week.



Requirements:

A university degree in a relevant field. Master's degree in Nanoscience, Materials Science, Chemistry, Physics or other closely related areas. This is a highly interdisciplinary project and students with an interdisciplinary, international background are highly encouraged.

Proofed experience with at least two of the following fields is required, three or more are a clear asset:

- (a) hands on experience with synchrotron-based methods (X-ray spectroscopy or X-ray scattering)
 - (b) hands on experience with crystal structure analysis (f.e. Rietveld refinement)
 - (c) hands on experience with colloidal synthesis of nanomaterials and their characterisation (SEM, TEM)
 - (d) hands on experience with nanoparticles assembly into multifunctional devices
 - (e) proficiency in Python or other programming language
 - (f) solid foundation of solid-state and nanostructure physics)
- colloidal synthesis of 2D nanomaterials

Excellent communication skills in English (spoken and written), knowledge of Matlab, AutoCAD (or similar software) are further assets for this position.

Severely disabled applicants will receive preference over equally qualified non-disabled applicants.

For further information, please contact Prof. Dr. Dorota Koziej, or consult our website at www.theKoziejLab.com.

Applications should include a cover letter, curriculum vitae, and copies of degree certificate(s). The application deadline is October 30th, 2018. Please send applications to: Prof. Dr. Dorota Koziej, (dorota.koziej@uni-hamburg.de). Application should be accompanied by two letters of references send directly from the reference persons to dorota.koziej@uni-hamburg.de .