



As a University of Excellence, Universität Hamburg is one of the strongest research universities in Germany. As a flagship university in the greater Hamburg region, it nurtures innovative, cooperative contacts to partners within and outside academia. It also provides and promotes sustainable education, knowledge, and knowledge exchange locally, nationally, and internationally.

The Faculty of Mathematics, Informatics and Natural Sciences, Department of Physics, Center for Hybrid Nanostructures invites applications for a

## RESEARCH ASSOCIATE FOR THE PROJECT

### “SIS MULTILAYER STRUCTURES FOR APPLICATIONS IN SUPERCONDUCTING RADIO-FREQUENCY TECHNOLOGY (SMART)”

- SALARY LEVEL 13 TV-L -

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The position in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG) commences on as soon as possible.

This is a fixed-term contract in accordance with Section 2 of the academic fixed-term labor contract act (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed for a period of 3 years. The position calls for 50 % of standard work hours per week\*\*.

#### RESPONSIBILITIES:

Duties include academic services in the project named above. Research associates may also pursue independent research and further academic qualifications.

#### SPECIFIC DUTIES:

The aim of the project is to develop and to optimize high-quality superconductor-insulator-superconductor multilayer systems using atomic layer deposition (ALD). The work is carried out in close cooperation with the Helmholtz Center DESY, the Institute for Experimental Physics at Universität Hamburg (project management) and external project partners.

ALD and post-deposition processes of single and multilayer superconducting thin film structures shall be developed, characterized, and optimized. The characterization of thin films consists of structural investigations (AFM, spectrometric ellipsometry, XRD, SEM / EDX) as well as studies on the low-temperature, magnetic field-dependent transport properties of the superconducting thin films.

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

The job includes participation in project communication and documentation, the presentation of the results at (inter)national workshops and conferences as well as their publication in peer-reviewed scientific journals.

#### **REQUIREMENTS:**

A university degree in a relevant field. Expertise in vapor-phase deposition of thin films (preferably ALD or CVD) and characterization of these thin films as well as initial experience in clean room work or central laboratory facilities is expected. Basic knowledge of the electrical characterization of samples (at low temperatures and high magnetic fields) is desirable.

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

Qualified disabled candidates or applicants with equivalent status receive preference in the application process.

For further information, please contact [rzierold@chyn.uni-hamburg.de](mailto:rzierold@chyn.uni-hamburg.de), +49 (0)40 42838-1594 or consult our website at <https://nanoscience-hamburg.de>.

Applications should include a cover letter, a tabular curriculum vitae, and copies of degree certificate(s). Please send applications by 15.09.2019 to: [rzierold@chyn.uni-hamburg.de](mailto:rzierold@chyn.uni-hamburg.de).

Please do not submit original documents as we are **not** able to return them. Any documents submitted will be destroyed after the application process has concluded.