



Faculty/Department: Mathematics, Informatics, Natural Sciences/Physics

Seminar/Institute: Nanolab

Universität Hamburg invites applications for a Research Associate for the project **“Verbundprojekt 05H2018 - R&D BESCHLEUNIGER (STenCiL): Optimierung der Hochfrequenzeigenschaften supraleitender Resonatoren durch Oberflächenbehandlung”** in accordance with Section 28 subsection 3 of the Hamburg higher education act (Hamburgisches Hochschulgesetz, HmbHG).

It is remunerated at the salary level TV-L 13 and calls for 66,6 % 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 (Wissenschaftszeitvertragsgesetz, WissZeitVG). The term is fixed for a period of 3 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:

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

Specific Duties:

The main focus of the superconducting radio-frequency (SRF) R&D program is to operate superconducting accelerators with a higher versatility, enabled by tailoring the properties of the inner cavity surface. The related investigations are additionally funded by a dedicated BMBF research project and would be carried out in close collaboration with the Helmholtz Centre DESY, one of the worlds leading research centers for accelerator physics.

The Position

To better understand a recent discovery of a cavity surface treatment, a thorough investigation of material and SRF parameters of samples will be pursued.

Your task will mainly include:

- Sample preparation and treatment, including clean-room work, sample chemistry and heat treatments
- SRF characterization of samples with a new developed test resonator at the Helmholtz Centre DESY
- Surface characterization of samples with advanced material analysis techniques (SEM/EDX, SIMS, EBSD, XPS, XRR)

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



Universität Hamburg

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Requirements:

A university degree in a relevant field.

- Knowledge of surface analysis techniques preferable
- Knowledge in superconductivity, metallurgy or accelerator technology is of advantage
- Good knowledge of English is required and knowledge of German is of advantage

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

For further information, please contact Andreas Stierle (andreas.stierle@desy.de).

Applications should include a cover letter, curriculum vitae, and copies of degree certificate(s).