

Vacancy Notice No. 57E/2017

A member of the Helmholtz Association of German Research Centers, the HZDR employs about 1,100 people. The Center's focus is on interdisciplinary research in the areas energy, health, and matter. All research is conducted in close collaboration with other members of the Helmholtz Association as well as with universities, non-university affiliated research institutes, and industry.



For additional information please visit: <https://www.hzdr.de>.

The Institute of Ion Beam Physics and Materials Research invites applications as

PhD Student (m/f)

The position will be available from 01. January 2018. The employment contract is limited to three years. The regular weekly working time will be 19,5 hours. The salary is based on the collective agreement TVöD-Bund. The place of work is Dresden-Rossendorf.

Requirements:

- very good diploma or master's degree in physics, materials science or a related area
- willingness to travel to other research locations (Synchrotron facilities and the Technische Universität Chemnitz) and international conferences
- good written and oral skills in English
- personal commitment, team spirit and experimental skills
- preferably experience in magnetic micro- or nanostructures and/or magnetic dynamics
- preferably experience in programming for data analysis and visualization (e.g. Matlab, Origin)
- experience in preparation of micro- or nanostructures (lithography techniques) will be acknowledged

Tasks:

- This research project aims at the preparation and characterization of magnetic vortex structures which emit spin-waves. These spin-waves should then be coupled to spin-waves guides. The successful applicant (m/f) will prepare the magnetic layer structures by sputter deposition. One main focus will be on the design and technology of the structuring by e.g. electron beam lithography (EBL). The microstructures will then be characterized with different techniques to investigate the interplay between structural modifications and spin-wave emission and conduction. This knowledge will be applied to create novel magnetic infrastructures and systems relevant to future data storage and logic applications.

If you have any questions, please contact Prof. Dr. Olav Hellwig, Tel.: +49 351 260 - 2461 or Dr. Miriam Lenz, Tel.: +49 351 260 - 2461.

Kindly submit your completed application (including cover letter, CV, diplomas/transcripts, etc.) by 15 September 2017 **only** via **Online application** <https://www.hzdr.de/jobs>.

The HZDR is committed to equal opportunity employment and we strongly encourage applications from qualified female candidates. We also carefully consider all applications from job candidates with severe disabilities.

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