

The Leibniz Institute for Solid State and Materials Research Dresden – in short IFW Dresden – is a non-university research institute and a member of the Leibniz Association. The IFW employs approximately 600 people and one focus is on the training of young scientists besides enhancing fundamental and applied research development. At the highest international level, the IFW operates modern materials science on a scientific basis and makes the obtained results useful for the economy. The complex and interdisciplinary research work is carried out within the IFW by five scientific institutes, which are supported by a highly developed technical infrastructure. The IFW supports its employees in reconciling work and family life and regularly submits to the berufundfamilie® audit. Further information at: <http://www.ifw-dresden.de>

Postdoctoral Researcher Position (m/f/d)

Shape Memory Alloys applied for Harvesting Low Temperature Waste Heat

The Institute of Metallic Materials at the Leibniz Institute for Solid State and Materials Research Dresden (IFW Dresden) offers a Researcher position in the field of “Shape Memory Alloys applied for Harvesting Low Temperature Waste Heat” starting from May 2019.

Project description:

We are looking for a Postdoctoral interested in developing a new approach for converting low temperature waste heat to electricity by using shape memory alloys. This work includes the design, construction, and evaluation of a novel demonstrator using shape memory materials as active component. This research is connected to our recent work, where we used magnetocaloric materials for this type of energy conversion (Nature Energy (2019), DOI: 10.1038/s41560-018-0306-x) and accordingly part of the knowledge and technology can be re-used for a fast progress.

This work is embedded in the research group “Functional magnetic films” which examines magnetocaloric, multicaloric, (magnetic) shape memory and hard magnetic films and materials for energy applications like magnetocaloric refrigeration and thermomagnetic generators. In addition, collaborations with various research teams working on energy materials and devices within the IMW are possible: e. g. thermoelectric materials and devices, ferroelectric and electrocaloric films, magneto-ionic materials.

For further information please contact: Dr. Sebastian Fähler (s.faeher@ifw-dresden.de)

See also: <https://www.ifw-dresden.de/ifw-institutes/imw/>

Your profile:

The ideal candidate for this position has completed a PhD in material science, engineering or physics. Experimental knowledge on shape memory alloys and their integration into devices is helpful. Experience or interest in modelling mechanical and thermal subsystems are beneficial.

The successful candidate is open-minded, curious and ready to work in a strongly interdisciplinary environment. Good communication skills in written and spoken English are required.

We offer:

The employment contract is primarily limited to 12 months and will be extended by another year upon a successful midterm evaluation. The salary is based upon the TV-L rules (E13; 100%).

The institute promotes the professional equality between all genders. In science, the IFW Dresden would like to increase the proportion of woman. Qualified women are therefore explicitly invited to apply. Equally qualified handicapped applicants will be given preference.

Your application:

Please send your application (in English or German) including a cover letter with motivational statement, CV, copies of certificates, list of publications and other relevant material (if applicable) quoting the reference number **DM2103-3-FEH/2019** in a single PDF file exclusively to: bewerbung@ifw-dresden.de
Deadline for applications: **28 February 2019**