

The Leibniz Institute for Solid State and Materials Research Dresden (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>.

The Institute for Metallic Materials offers within the working group Magnetic Materials a

Doctoral Position (m/f/d)

starting at 01.01.2021 in part-time with 26 hours per week limited to 12 months.

Your main tasks:

As part of an international research network, rare-earth-free permanent magnets based on a chemically ordered form of FeNi are being developed, which could play a vital role in the next generation of electric vehicles and wind turbines. The ordered phase is only found naturally in some meteorites and it is highly challenging to produce it in the lab. Working with international partners from research institutions and industry, various novel routes to produce these materials will be investigated. In addition to contributing to materials synthesis using hot compaction and heat treatments, the main task at IFW is to characterise the materials on multiple length scales using a variety of techniques in the scanning and transmission electron microscopes (SEM and TEM). Structural and chemical order, especially in the vicinity of interfaces, are of prime importance here. The development of novel computer-based techniques to analyse large experimental data sets and extract relevant data is a key part of this work.

Your profile:

- The ideal candidate (m/f/d) for this position has completed a Masters/Diplom in Materials Science, Physics or a similar discipline.
- Experience of electron backscatter diffraction (EBSD) and/or transmission electron microscopy (TEM), and scientific programming and/or machine learning.
- Knowledge of materials processing using hot compaction and heat treatments, experience with magnetic measurements and x-ray diffraction with Rietveld refinement is also desirable.
- We expect a high degree of motivation and the ability to produce scientific publications and project reports with high quality.
- You should have a friendly and professional personal style.
- You must be fluent in written and spoken English and/or German.

We offer:

The salary is according to the German tariff TV-L (EG 13, planned with part-time work with 26 hours per week). The employment is starting 01.01.2021.

The IFW would like to increase the proportion of women in science. Qualified women are therefore explicitly invited to apply. Severely disabled applicants (m/f/d) are given preferential treatment if they have the same qualifications.

If you are interested in the position, please send your application including a CV and the list of publications, a motivation letter describing the research career goals, skills and experience, copies of certificates citing the **reference number 014-21-2104** as a single pdf file (other formats will not be accepted) to the following email-address:

bewerbung@ifw-dresden.de.

The position is open till 06.12.2020.

Please contact Dr. Thomas Woodcock (t.woodcock@ifw-dresden.de) for more information.