

The Leibniz Institute for Solid State and Materials Research Dresden e. V. (IFW Dresden) conducts modern materials research on a scientific basis for the development of new and sustainable materials and technologies. The institute employs an average of 500 people from over 40 nations and, in addition to its scientific tasks, is dedicated to promoting young scientists and engineers. Further information at: <http://www.ifw-dresden.de>

PhD position (m/f/d)

on the following topic:

Static and dynamic magnetism of topologically non-trivial magnetic materials

The Research Team "Magnetic Properties" at the Leibniz Institute for Solid State and Materials Research, IFW Dresden, is currently looking for an excellent student (m/f/d) to fill a Doctoral Researcher Position in static and dynamic magnetism of topologically non-trivial magnetic materials probed by electron spin resonance spectroscopy and torque magnetometry.

Since the discovery of topological insulators featuring symmetry protected metallic states at the surface, there is an ever-growing interest in exploring the interplay between magnetism and electronic topological surface states, which can give rise to exotic topological states of matter, such as the quantum anomalous Hall state, the axion insulator state, magnetic Weyl semimetals, etc..

The aim of the doctoral research is an experimental study of magnetic properties of a new emerging class of materials, in particular the layered magnetic van der Waals (vdW) compounds that feature both a non-trivial electronic topology and intrinsic magnetism. The main focus will be on ESR spectroscopy at sub-THz frequencies and strong magnetic fields and its combination with magnetic torque measurements. Additionally, this research implies a potential involvement in the further development of the existing measurement equipment.

We expect from the successful candidate (m/f/d) a Master's degree in Physics (a background in Solid State Physics and in ESR is beneficial) as well as high motivation, creativity, and an enthusiastic interest in experimental research. Very good communication skills in English are of a further expectation. The experience in data analysis software, such as Originlab, Matlab, etc., as well as knowledge of the LabVIEW programming language are advantageous.

The employment contract is limited to 36 months. The salary will be based upon the TV-L rules (TV-L E13, Part-time: 1st year 50% and from the 2nd year 65%).

IFW Dresden strives for a balanced gender ratio in all areas. In science, IFW Dresden would like to increase the proportion of women and therefore explicitly invites suitably qualified female scientists to apply. The application of severely disabled persons is explicitly welcome.

If you are interested in the position, please send your application including a CV, a motivation letter describing the research career goals, skills and experience, copies of certificates and the names and contact details of two references citing the reference number **041-22-1009** as a single pdf file (other formats will not be accepted) to:

bewerbung@ifw-dresden.de.

The position will remain open until filled.

For further information please contact Dr. Alexey Alfonsov at a.alfonsov@ifw-dresden.de

