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](http://www.ifw-dresden.de).

### PhD Position (m/f/d) in Molecular Magnetism

The research teams “Fullerenes” and “Magnetic Microstructure” at the Leibniz Institute for Solid State and Materials Research Dresden – in short IFW Dresden – are looking for a prospective candidate to fill a Doctoral Research Position to study magnetic properties of endohedral metallofullerenes by magnetometry, magneto-optical, and spectroscopic methods.

Endohedral metallofullerenes (EMFs) are the molecules comprising one to four metal atoms encapsulated inside the carbon cage. When lanthanide metals with unfilled f-shell are encapsulated, EMF molecules inherit magnetic properties from the lanthanide ions. Besides, fullerene cage protects the internal species from the environment. Altogether it results in fascinating magnetic properties of such EMFs. Each single EMF molecule can act as a small magnet (hence the term single molecule magnetism). The IFW Dresden is active in the synthesis of these molecule, their chemical derivatives, and the studies of their magnetic properties by various physical techniques. The aim of the doctoral research will be the study of EMFs produced in IFW Dresden by in-house SQUID magnetometry and magneto-optical methods (in particular magneto-optic Kerr effect microscopy) as well as by various techniques available with synchrotron radiation (such as X-ray magnetic circular dichroism). Occasional trips to synchrotron facilities in Europe are expected.

The successful candidate (m/f/d) should have a Master's degree or Diploma in physics, material science, or chemistry. Background in magnetism and optics are especially welcome. Good English skills is helpful as the work is expected in an international team.

The contract in part-time with 20 hours per week is limited for 12 months with the possibility of extension for 2 more years. The salary is according to the German tariff TV-L (EG 13). The position will remain open until filled.

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.

Application (in English) including a CV, a motivation letter describing the research career goals, skills and experience, copies of all certificates as well names and contact details of two references should be sent citing the reference number 030-21-1006 as a single pdf file to:

bewerbung@ifw-dresden.de

For further information please contact Dr. Alexey A. Popov: a.popov@ifw-dresden.de
Prof. Dr. Rudolf Schäfer: r.schaefer@ifw-dresden.de

Further information on the Fullerene group: [https://www.ifw-dresden.de/ifw-institutes/iff/nanoscale-chemistry#c10944](https://www.ifw-dresden.de/ifw-institutes/iff/nanoscale-chemistry#c10944). Further information on the Magnetic Microstructure group: [https://www.ifw-dresden.de/magnetics#c9377](https://www.ifw-dresden.de/magnetics#c9377).