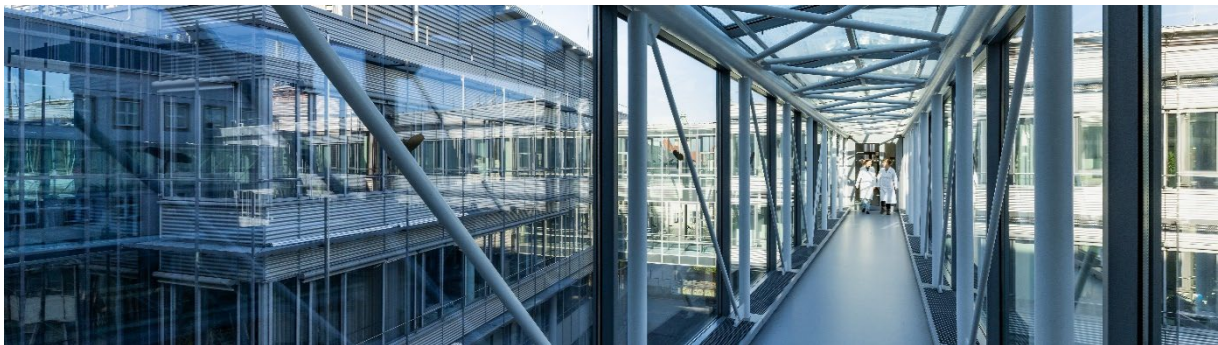


The Leibniz Institute for Solid State and Materials Research Dresden e. V. (IFW Dresden) conducts modern materials research on a scientific basis for the development of new and sustainable materials and technologies. The institute employs an average of 500 people from over 40 nations and, in addition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



The Group Microsystems Technology of the Institute for Metallic Materials the IFW Dresden offers a

### **Postdoctoral Researcher / PhD Candidate Position (m/f/div)**

on the following topic: **Development of Micro Thermoelectric Devices**

We are seeking a highly motivated Postdoctoral Researcher (m/f/div) or exceptionally qualified PhD candidate (m/f/div) to join our team in the development of high-performance micro thermoelectric devices based on advanced thermoelectric materials. The project focuses on the integration of novel thermoelectric materials with microfabrication technologies and device engineering to enhance the performance of microscale thermoelectric systems. Application areas include hot-spot cooling, energy harvesting for IoT devices, and sensorics.

#### **Main tasks:**

- Design, synthesis, and optimization of thermoelectric thin films (n- and p-type)
- Development of deposition processes using PVD and/or electrochemical deposition (ECD)
- Optimization of doping and annealing processes to maximize thermoelectric performance (ZT)
- Structural and electrical characterization (e.g., XRD, SEM/EDX, transport measurements)
- Modeling and simulation of thermoelectric devices (e.g., COMSOL, ANSYS)
- Microfabrication and evaluation of micro thermoelectric devices



### **Your profile:**

- Postdoc: Ph.D. in Materials Science, Physics, Chemistry, Mechanical/Electrical Engineering, or related field
- PhD candidate: Strong Master's/Diploma degree with very good grades
- Experience in materials synthesis ideally thin-film deposition (PVD and/or ECD)
- Knowledge of thermoelectric materials, microfabrication, or device development is an advantage
- Experience in structural, chemical and transport characterization of materials and, ideally, simulation
- Strong background in solid-state physics and/or chemistry
- Good communication skills in English (written and spoken)
- Interest in interdisciplinary, application-oriented research

### **What we offer:**

- a modern, well-equipped workplace on the campus of the Technische Universität Dresden,
- flexible, family-friendly working hours,
- 30 days vacation per year,
- Company pension scheme (VBL),
- Benefits for job ticket/Germany ticket,
- Special annual payment,
- Capital-forming benefits,
- Company health management (back training, health day with various offers),
- discounted sports offers from the Dresden University Sports Center,
- Job-related further training opportunities and language courses,
- Company restaurant with a variety of breakfast and lunch dishes.
- a future-oriented environment with a workplace with modern research infrastructure,
- working with international and interdisciplinary scientists from different fields,
- working on current research fields.

The employment relationship, including the salary is according to the German tariff TV-L and is task-related up to pay group 13 TV-L with 100% (part-time is also possible), available immediately, and funded until the end of 2027. For candidates pursuing a PhD, a 70% TV-L position is offered.

### **Notes on the application:**

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. Applications from severely disabled individuals and those with equal status according to § 2 paragraph 3 SGB IX are explicitly welcomed. A corresponding proof must be included with the application documents.

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 **032-26-2502** as a single pdf file (other formats will not be accepted) no later than **31 May 2026** to

[bewerbung@ifw-dresden.de](mailto:bewerbung@ifw-dresden.de).

Please contact Dr. Heiko Reith ([h.reith@ifw-dresden.de](mailto:h.reith@ifw-dresden.de)) for more information.