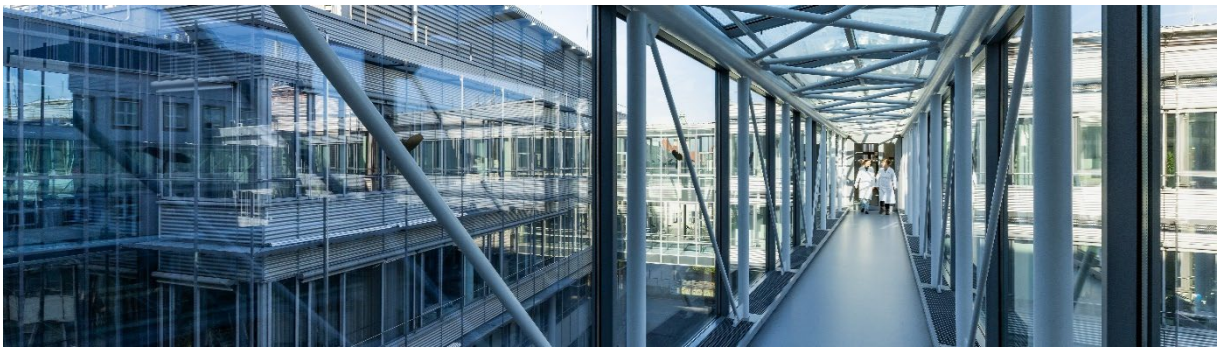
The Leibniz Institute for Solid State and Materials Research Dresden e. V. (IFW Dresden) conducts modern materials research on a scientific basis for the development of new and sustainable materials and technologies. The institute employs an average of 500 people from over 40 nations and, in addition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



The Institute for Materials Chemistry, Group “Chemistry of Functional Materials” offers a position as

PhD student position (m/f/div)

on the topic:

Chemical surface modifications of Ti-based bulk metallic glasses for improving their biocompatibility.

Project description:

Bulk metallic glasses (BMG) on Ti-base with high strength-to-stiffness ratio are promising new materials for bone implants in orthopedics, trauma and dental surgery. A main goal of present research efforts is the development of concepts for their surface modification at the nanoscale which meet the modern requirements on biocompatibility. Within a DFG-funded project the research tasks comprise the metallurgical synthesis of metallic glasses and their microstructural characterization, the implementation of strategies for electrochemical surface modifications and advanced chemical coating technologies with related surface analytical studies as well as the evaluation of their impact on corrosion and cell biological response. The project will be implemented in close cooperation with the Bone Lab at the Medical Faculty Carl Gustav Carus of the TU Dresden.

Your profile:
All candidates (m/f/div), with a strong background and successful Diploma or Master in the area of materials science or chemistry are encouraged to apply. An adequate knowledge of metallic materials, biomaterials, electrochemistry and electrochemical methods, chemical coating technologies and related surface analytical techniques is needed. Basic knowledge in biocompatibility evaluation is desirable. Great willingness to cooperate in an interdisciplinary and international team is expected.

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 contract, including remuneration, is based on the collective bargaining agreement for public service in the federal states (TV-L, EG 13 scale, 70%), with a working schedule of 28 hours per week. The appointment is for 3 years. The earliest starting date is **April 1st, 2026.**

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 disabled persons (m/f/div) are explicitly welcome.

Please send your application with informative documents (letter of motivation, CV, Master certificate, training certificates) exclusively in electronic format and in a single PDF file (other formats will not be considered), citing the reference number **015-26-3310** not later than **March 1st, 2026** to:

bewerbung@ifw-dresden.de.

Please contact Dr. Annett Gebert (a.gebert@ifw-dresden.de) for more information.