The **Bavarian Research Institute of Experimental Geochemistry and Geophysics** at the **University of Bayreuth** invites applications for a fixed-term position as

Postdoctoral Research Assistant in Mineral Physics (m/f/d)

The position can be filled for up to three years starting on 1 April 2026 or soon after this date. This is a full-time position (100%) with pay grade E13 (TV-L). The place of work for this position is at the University of Bayreuth in Bayreuth, Germany, EU.

The Bavarian Research Institute of Experimental Geochemistry and Geophysics (Bayerisches Geoinstitut, BGI; see https://www.bgi.uni-bayreuth.de) is a leading research institution in earth and planetary sciences using advanced experimental, analytical, and computational techniques. The Postdoctoral Research Assistant will complement the team of the project HYDROSPHEAR, which is funded by the European Research Council. This project will explore how H_2O may be stored in hydrous minerals of the lower mantle by constraining their stability limits and physical properties. More detailed information on the project may be found here: https://geophormae.org/projects.

We are looking for an excellent, self-motivated, and independent scholar with an organised way of working and a proactive and creative approach to problem solving. We expect a respectful, collaborative, and supportive interaction with team members and staff and a strong commitment to pursuing an academic career. In return, the position offers access to an outstanding laboratory infrastructure for high-pressure experiments and material characterisation and ample opportunities for developing a career in academia.

Responsibilities of the Postdoctoral Research Assistant

Within the project HYDROSPHEAR, the Postdoctoral Research Assistant will have the following responsibilities and tasks:

- assist with the assembly and operate optical setup for Brillouin spectroscopy on samples in diamond anvil cells (DACs)
- synthesise, characterise, and prepare samples for high-pressure experiments with DACs
- plan, prepare, and perform high-pressure experiments with DACs such as Brillouin spectroscopy and X-ray diffraction at the BGI and at synchrotron radiation facilities
- collect, analyse, and prepare experimental data for publication, presentation, and archiving
- publish results of high-pressure experiments in peer-reviewed scientific journals
- present results of high-pressure experiments at international conferences
- train, supervise, and support students in performing high-pressure experiments

The responsibilities of the Postdoctoral Research Assistant will include the following activities with aspects related to health and safety:

- working with lasers of classes 3 and 4
- working with X-rays
- working in laboratory environments
- working on night shifts (occasionally)
- travelling within and outside of Europe

Qualification criteria for the position as Postdoctoral Research Assistant

At the time of employment, the applicant must fulfil the following requirements:

- hold a university degree (MSc or equivalent) in Earth Sciences, Geosciences, Chemistry, Physics, or in a related field

- hold a doctoral degree (Dr. rer. nat., DPhil, PhD, or equivalent) in Earth Sciences, Geosciences, Chemistry, Physics, or in a related field
- hold a valid work permit and visa for Germany/EU (if applicable)
- have demonstrated experience with relevant experimental techniques
- have demonstrated experience with analysing experimental data
- have demonstrated experience with publishing in peer-reviewed scientific journals
- have demonstrated experience with managing own academic research and related activities
- possess very good communication skills in written and spoken English

In addition to the essential qualifications listed above, the applicant should have experience with and/or knowledge of several of the following:

- high-pressure experiments with diamond anvil cells (DACs) and/or multi-anvil presses
- Brillouin spectroscopy and/or X-ray diffraction in combination with DACs
- assembly/operation of optical setups and instruments for spectroscopic measurements
- assembly/operation of optical setups for laser heating in combination with DACs
- chemical and structural characterisation of geomaterials (X-ray diffraction, spectroscopy, electron microscopy)
- composition, mineralogy, and geophysical structure of the Earth's deep interior
- solid-state physics/chemistry and thermodynamics (equations of state, elasticity, thermodynamics of solids, chemical thermodynamics)

Application

To apply for this position, please submit the following documents (in English, as PDF files):

- Cover letter (<1 page)
- Curriculum vitae (<4 pages; do not include photograph or date or place of birth)
- List of publications and presentations at conferences/meetings/institutions
- Contact details of at least two referees
- Supporting statement explaining how you meet the qualification criteria for this position and outlining your motivation to carry out research within the project (<1000 words)
- Copies/translations of university certificates (in English or German)
- English language certificate (if available)

All applications and related documents must be submitted through the online application form of the University of Bayreuth (code word '**HYDROSPHEAR-PostDoc**') by **28 February 2026**. Applications with documents that are incomplete, that are submitted by other means (e-mail, post, etc.), or that do otherwise not comply with the specifications outlined above will not be considered. Application documents will be deleted after the position has been filled in accordance with data protection requirements. Informal inquiries about the position and/or the application procedure may be directed to Johannes Buchen (johannes.buchen@uni-bayreuth.de).

About the University of Bayreuth

The University of Bayreuth values the diversity of its employees and is expressly committed to the goal of gender equality. Applicants with children are very welcome. The University of Bayreuth is a member of the Best Practice Club 'Familie in der Hochschule e.V.' (Family at the University) and has successfully participated in the HRK audit 'Internationalisation of Universities'. Applicants with severe disabilities will be given preferential consideration if equally qualified.

In addition to an attractive pay and contractual holiday leave, employees of the University of Bayreuth benefit from programmes for personal and professional development and training as well as from other benefits of public service such as the bicycle leasing programme JobRad, supplementary pension plans with the Federal and State Pension Institution, a range of health promotion offers, and the opportunity to participate in different sports activities as part of university sports programme.