



Technische Universität Berlin



Technische Universität Berlin offers an open position:

Research Assistant - salary grade E 13 TV-L Berliner Hochschulen

Part-time employment may be possible

Faculty III - Institute of Materials Sciences and Technologies / Materials Engineering

Reference number: III-126/25 (starting at the earliest possible / limited until 31/03/2027 / closing date for applications 11/04/25)

Working field:

Our research group at the Chair of Metallic Materials at TU Berlin is looking for a new research assistant for the project "Thermodynamic Analysis and Modelling of the Glass-Forming Pd-Ni-P system". We offer a full-time position, funded by the German Research Foundation (DFG). This project is a continuation of an already established DFG-funded project and involves collaboration with the Chair of Metallic Materials at Saarland University.

In this research, we combine experimental studies with CALPHAD (CALculation of PHase Diagrams) to model the ternary Pd-Ni-P system, that forms metallic glass. The goal is to clarify open questions regarding the thermodynamic and chemical complexity, kinetic and electronic factors that contributing to the stability of the complex alloys.

The project includes systematic experimental work on alloy production using arc melting, induction melting, melt spinning and splat quenching, as well as advanced skills in chip calorimetry, XRD, high-resolution TEM, TMA, synchrotron XRD, XPS and XAS.

Main responsibilities:

- Management of the alloy processing and alloy preparation for thermal, structural and microstructural characterisation in collaboration with Saarland University , including supervision of a student assistant.
- Hands-on experimental work and data analysis, in particular calorimetry, X-ray spectroscopy and XRD including laboratory and synchrotron radiation sources
- Leading synchrotron experimental investigations, such as preparation and submission of experimental proposals for synchrotron facilities, designing and conducting the experiment and analysing the data
- Leading and/or assisting in the preparation of research articles and project reports in close collaboration with researchers at Saarland University
- Presentation of research results at consortium meetings and international conferences

Requirements:

- Successfully completed scientific university degree (Master, Diploma or equivalent) in physics, chemistry or materials science, with a strong background in physical metallurgy
- Sound knowledge in the field of thermodynamics of compositionally complex metallic systems
- Solid and demonstrated experience in synchrotron-based characterisation techniques such as XPS and XAS (NEXAFS, XANES and EXAFS)
- Experience in the field of classical calorimetric analyses
- Good knowledge of German and/or English required; willingness to acquire the respective missing language skills

Desirable:

- Experience with SEM/TEM/TMA investigations
- Experience in the field of production and characterisation of compositionally complex alloys, including metallic glasses

Please send your application exclusively by e-mail **stating the reference number** with the usual documents (pdf document max. 5 MB) **to Prof. Dr Isabella Gallino (gallino@tu-berlin.de).**

By submitting your application via email you consent to having your data electronically processed and saved. Please note that we do not provide a guarantee for the protection of your personal data when submitted as unprotected file. Please find our data protection notice acc. DSGVO (General Data Protection Regulation) at the TU staff department homepage: https://www.abt2-t.tu-berlin.de/menue/themen_a_z/datenschutzerklaerung/ .

To ensure equal opportunities between women and men, applications by women with the required qualifications are explicitly desired. Qualified individuals with disabilities will be favored. The TU Berlin values the diversity of its members and is committed to the goals of equal opportunities. Applications from people of all nationalities and with a migration background are very welcome.

Technische Universität Berlin - Die Präsidentin - Fakultät III, Institut für Werkstoffwissenschaften und –technologien, FG Metallische Werkstoffe, Prof. Dr. Isabella Gallino, Sekr. TIB 4/1-2, Ernst-Reuter-Platz 1, 10587 Berlin

The vacancy is also available on the internet at <https://www.personalabteilung.tu-berlin.de/menue/jobs/>

