



Technische Universität Berlin



Technische Universität Berlin offers an open position:

Research Assistant - 0.67 working time - salary grade 13 TV-L Berliner Hochschulen - 1st qualification period (PhD candidate)

Faculty II - Institute of Chemistry - Department of Bioenergetics

Reference number: II-165/25 (starting at 01/07/25 / limited for 5 years / closing date for applications 07/05/25)

Working field:

Carrying out a research project on the development of cellular coupled catalytic systems for the biotechnological production of sustainable resources. The position involves teaching duties in the area of seminars and practical courses in physical chemistry.

- Molecular biological generation of suitable plasmid cDNA constructs for the introduction of catalytic systems and molecular probes in oxyhydrogen bacteria (*Cupriavidus necator*)
- Heterologous production of biomolecular fluorescence probes (ATP sensors) in *E. coli*, chromatographic purification and analysis
- In-vitro characterisation of fluorescence probes using UV-Vis and fluorescence spectroscopy
- Molecular biological introduction of light-driven proton pumps into *C. necator* cell systems
- Establishment of the production of carotenoids in *C. necator* cell systems
- Investigation of proton transport and ATP concentration changes in genetically modified *C. necator* cell systems
- Writing of laboratory and conference reports and scientific publications
- Teaching duties in practical courses and seminars in physical chemistry

Requirements:

- Successfully completed scientific university degree (Master, Diploma or equivalent) in Biophysics, Biochemistry, Biotechnology, Biological Chemistry, Chemistry
- Experience in molecular biological, protein biochemical and chromatographic techniques (e.g. FPLC, HPLC, SEC, HIC)
- Experience with spectroscopic examination methods (UVNis absorption spectroscopy, fluorescence spectroscopy)
- The ability to teach in German and/or English is required; willingness to acquire the missing language skills

Desirable:

- Knowledge of the analysis of proteins and bioorganic molecules (ESI-MS, LC-MS)
- Knowledge of biophysical chemistry
- Teamwork and cooperation skills

Please send your application by e-mail to friedrich@chem.tu-berlin.de, quoting the reference number**, together with the usual documents (covering letter with CV, list of publications if applicable).

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 II, Institut für Chemie, Fachgebiet Bioenergetik, Prof. Dr. Thomas Friedrich, Straße des 17. Juni 135, 10623 Berlin

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

