



Project assistant (Prae-Doc, PhD student position)

30 hours/week; initially limited to 1 year with an option to extend to a total of 3 years

TU Wien is Austria's largest institution of research and higher education in the fields of technology and natural sciences. With over 26,000 students and more than 4000 scientists, research, teaching and learning dedicated to the advancement of science and technology have been conducted here for more than 200 years, guided by the motto "Technology for People". As a driver of innovation, TU Wien fosters close collaboration with business and industry and contributes to the prosperity of society.

At the Institute of Materials Chemistry in the research group Molecular Materials Chemistry (E165-02-1) at the TU Wien, we invite applications for a position from 2nd October 2023 to 30th September 2024 for a project assistant, salary group B1, Prae-Doc (PhD student), with a workload of 30 hours per week. The position is initially limited to 1 year, with an option to extend to a total of 3 years.

The position is part of the FFG-funded research project "Phosphate2D". The position involves development of sensor materials for pollutant detection in water based on functionalized two-dimensional (2D) materials such as graphene and 2D MoS₂ in 2D field effect transistors (FET) and 2D electrochemical electrodes.

The highly interdisciplinary position at the interface of materials chemistry and electrical engineering is located at the Institute for Materials Chemistry/Faculty of Technical Chemistry (Dr. Bernhard C. Bayer, www.nanobayer.com), together with a cooperation with the Institute for Photonics/Faculty of Electrical Engineering and Information Technology (Prof. Thomas Müller, www.graphenelabs.at). The project also includes cooperation with a renowned Austrian industrial partner.

If you have any questions about the position, please contact: Dr. Bernhard C. Bayer, bernhard.bayer-skoff@tuwien.ac.at, www.nanobayer.com

Tasks:

- Research and project work
- Development of probe molecules and corresponding functionalization of the 2D materials with them

- Integration of these functionalized 2D materials into 2D FETs and 2D electrochemical electrodes
- Device testing of the 2D FETs and 2D electrodes as sensors
- Writing of a dissertation and publications
- Participation in scientific events
- A high degree of willingness to cooperate with both internal and external partners

Profile:

- Completed Master degree in chemistry, electrical engineering, physics, materials science or comparable fields
- Previous knowledge in synthesis and wet-chemical functionalization of low-dimensional and/or 2D materials is an advantage
- Previous knowledge in the production of 2D FETs or similar devices using microfabrication techniques such as evaporation, lithography and etching is an advantage
- Prior knowledge of electrotechnical testing of 2D FETs or similar devices and/or electrochemical measurements is an advantage

Offer:

- A wide variety and exciting range of tasks in a collegial team
- Hybrid working style with up to 60% home office option
- A range of attractive social benefits (see Fringe-Benefit Catalogue of TU Wien)
- Wide range of internal and external training opportunities, various career options
- Central location of workplace as well as good accessibility (U1/U4 Karlsplatz)

Remuneration is based on the minimum wage for salary group B1 in accordance with the collective agreement for university employees and currently amounts to EUR 2,458.00 gross/month (14 times a year) for a weekly workload of 30 hours. The salary may increase due to previous work-related experience.

Please send your application including CV and letter of motivation to Ms. Elisabeth Karner by **September 14, 2023** with the reference "**Phosphate2D**" in the subject line: elisabeth.karner@tuwien.ac.at

TU Wien is committed to increasing the proportion of women in particular in leadership positions. Female applicants are explicitly encouraged to apply. Preference will be given to women when equally qualified, unless reasons specific to a male applicant tilt the balance in his favour.

People with special needs are equally encouraged to apply. In case of any questions, please contact the confidant for disabled persons at the university, Mr. Gerhard Neustätter.