

The Department of Material Sciences and Process Engineering, Institute of Physics and Material Science is currently seeking a

## **Postgraduate Research Associate Project employment**

(Reference code: 89)

**Extent of employment:** 30 hours per week  
**Duration of employment:** 1<sup>st</sup> of September 2023, limited to 28<sup>th</sup> of February 2024  
(first contract is issued for 6 months, then upon satisfactory performance the contract is extended on a yearly basis to a total duration of 3,5 years – funding is available)

Gross monthly salary and pay grade in terms of collective agreement for university staff (payable 14 times per year): B1, € 2.458,00

### **Responsibilities**

- Background: Increasing concern about pollution in the environment demands tools to determine metal accumulation in plants. Mosses are widely used for metal biomonitoring on a phenomenological level, but there is no fundamental understanding of the metal dynamics and factors governing adsorption and toxicity.
- Research in the framework of the FWF Project, “Toxic or just a nuisance – how mosses cope with heavy metal stress” in cooperation with Uni Wien
- Using physics-based methods to study metal accumulating mosses and moss ultrastructure by x-ray fluorescence, x-ray scattering, x-ray absorption spectroscopy and electron microscopy
- Sample preparation, scientific experiments
- Development of sample environment (e.g. humidity cell)
- Working with complex scientific instruments, handling fragile samples
- Data evaluation using scientific software and writing own evaluation scripts in Python
- Co-operation with our research partners in the project and outside
- Publication in scientific journals and presentations at conferences
- It is desired that the candidate is willing to perform a PhD study to obtain a doctorate degree

### **Required skills and qualifications**

- Diploma degree in material science, physics, (bio-)chemistry, biotechnology, (bio-)engineering or other equivalent university degree
- Interest in (bio-)physics related topics and methods
- Very good physics background
- Laboratory skills (skilled with hands for handling delicate samples and equipment, engineering skills to design sample environment)
- Mathematical skills and some programming skills (preferably Python)
- Excellent skills in spoken and written English
- Highly dedicated to scientific work
- Team player
- Ability to work independently
- Willingness to travel abroad for research purposes is required (synchrotron experiments 2-4 times a year, a few days each)

### **Desirable skills and qualifications**

- Experience with materials characterization, preferably x-ray scattering
- Experience with biological materials
- Experience with programming for scientific data evaluation
- German language skills are not required, willingness to learn German would be of advantage

Applications can be submitted until: 11<sup>th</sup> of June 2023

University of Natural Resources and Life Sciences Vienna seeks to increase the number of its female faculty and staff members. Therefore qualified women are strongly encouraged to apply. In case of equal qualification, female candidates will be given preference unless reasons specific to an individual male candidate tilt the balance in his favour.

People with disabilities and appropriate qualifications are specifically encouraged to apply.

Please send your job application incl.

- motivation letter
- CV
- Diploma for highest finished degree (expected date of graduation if not yet finished)
- Full transcript of grades for your university studies (with grade key in English)
- List of minimum 2 reference persons with contact information (optional: 2 reference letters)

to Personnel Management, University of Natural Resources and Life Sciences, Peter-Jordan-Straße 70, 1190 Vienna; E-Mail: [kerstin.buchmueller@boku.ac.at](mailto:kerstin.buchmueller@boku.ac.at). **(Reference code: 89)**

We regret that we cannot reimburse applicants travel and lodging expenses incurred as part of the selection and hiring process.

**[www.boku.ac.at](http://www.boku.ac.at)**