

## Open PhD position



### Department of Environmental Geosciences

The Department of Environmental Geosciences of the University of Vienna is a highly experienced and internationally visible team carrying out research on **environmental contaminants, hydrogeology and nanogeosciences**. We currently have an opening for an exciting opportunity to complete a PhD degree over a 3 years programme on the topic of:

### Geochemical transformations of engineered nanoparticles in sediments

Metal and metal oxide engineered nanoparticles (ENPs) are expected to undergo geochemical transformations in redox-sensitive environments. Sediments act as a sink for ENPs released to the aquatic environment. However, the behaviour of ENPs in sediments and sediment pore waters is only poorly understood. In this project, we aim at improving our mechanistic understanding of ENP transformation and transport processes in function of specific hydrochemical characteristics of the sediment using specially designed laboratory microcosms experiments under anoxic conditions. The final goal is to identify the factors driving transformation and transport in sediments and provide novel insights into ENP fate and risk assessment.

#### We offer:

- The **support** from internationally recognised senior researchers to develop all the skills necessary to complete a PhD project + excellent **laboratory** facilities
- An **international** working environment (working language is English) with many opportunities for career development (networking, conferences, project meetings etc...)
- Annual salary of approx. 27000 € gross, including health/pension scheme
- Vienna, a city second to none in **quality of life worldwide** (Mercer, 2016)

The researchers of the department lead the field of ENP analysis, behavior and fate in the natural environment and develop methods for ENP analysis in products (cosmetics, food). The department operates a unique infrastructure to investigate ENP processes and has access to specialized instrumentation in-house or through intensive collaborations on all levels. The advertised position has a strong link to the European Union Horizon 2020 project NanoFASE with plenty of networking opportunities (<http://nanofase.eu>).

#### Requirements:

- **Diploma/Master in Geochemistry, Biogeochemistry, Environmental Sciences or Environmental Analytics (or related fields)**
- **Lab experience, good knowledge of analytical chemistry and if possible experience in working with nanoparticles and/or natural sediments**
- **Fluent spoken and written English**
- **Good written and oral communication skills, as well as social skills**
- **Motivated, independent and reliable**

Please send a single pdf file including a letter of motivation, a CV with university grades, the contact details of two referees, a research vision (1-2 pages about the research you would like to carry out within the topic you are applying for), and if available, copies of research papers or the Master thesis. Applications should be addressed to [environment@univie.ac.at](mailto:environment@univie.ac.at).

For questions related to the project, contact [antonia.praetorius@univie.ac.at](mailto:antonia.praetorius@univie.ac.at) or [frank.kammer@univie.ac.at](mailto:frank.kammer@univie.ac.at) (no applications).

*The University of Vienna is an equal opportunity employer and intends to increase the number of women on its faculty, particularly in high-level positions, and therefore specifically invites applications by women. Among equally qualified applicants women will receive preferential consideration.*

Further information at <http://umweltgeologie.univie.ac.at/home/>