Open Postdoc position Nano-Geochemistry

Department of Environmental Geosciences – EDGE
Center for Microbiology and Environmental System Science

The University of Vienna (20 faculties and centres, about 178 fields of study, approx. 9.800 members of staff, more than 90.000 students) seeks to fill the position as soon as possible of a

Postdoc position at the Department of Environmental Geosciences

The Department of Environmental Geosciences at the University of Vienna is a highly experienced and internationally visible team carrying out research on environmental contaminants, hydrogeology and nanogeosciences. A full post-doc position is available for up to 2 years from February 2020.

Transformation of nanomaterials in the environment – Quantifying the dissolution behaviour of nanomaterials

The dissolution of nanomaterials is one of the three most relevant transformation processes: (i) physicochemical transformation, (ii) (hetero-) agglomeration and (iii) dissolution. During the dissolution process, nanomaterials can potentially dissolve completely or only partially, resulting in a different composition, particle shape and size, agglomeration state and crystallinity. Electrolytes, dissolved elements and (inorganic and organic) complexes are able to interact with nanoparticles in the (aquatic) environment changing the nanomaterials’ physicochemical properties. Those interactions have an important influence on solubility and dissolution rates. The applicant is expected to improve current static and dynamic methods to determine the solubility and dissolution rates of nanomaterials and to evaluate relevant (environmental) media compositions. In a final step, those improved methods will be validated and submitted as a proposed directive to the Organization for Economic Co-operation and Development (OECD).

The researchers of the department are at the forefront of nanoparticle analysis, behaviour and fate in the natural environment and develop methodologies for nanoparticle analysis. The department operates a unique, well-equipped infrastructure to investigate nanoparticulate processes and analyse nanoparticles in complex aquatic systems and have access to specialized instrumentation in-house or through intensive collaborations on all levels.

Preferred period of employment is 17.02.2020 - 16.02.2022.

Duration of employment: 2 year/s

Extent of Employment: 40.0 hours/week

Job grading in accordance with collective bargaining agreement: §48 VwGr. B1 lit. b (postdoc) with relevant work experience determining the assignment to a particular salary grade.
We offer:

- The support from internationally recognised senior researchers to develop all the skills necessary to complete this project and excellent laboratory facilities
- An international working environment (working language is English) with many opportunities for career development (networking, conferences, project meetings etc…)
- Vienna, the city with the highest quality of life worldwide (elected for the 10th consecutive time, Mercer, 2019)

Requirements:

- Completed PhD degree in a relevant field of science
- Background in Environmental Geochemistry and/or nanoparticles
- Experiences in trace metal analysis, especially ICP-MS and ICP-OES
- Knowledge in MS Office
- High ability to express yourself both orally and in writing
- Excellent command of written and spoken English
- Ability to work in a team
- Willingness to travel

Desirable qualifications are:

- Knowledge in experimental and method development
- Experiences in project and time management
- Knowledge in geochemical modelling (PHREEQC, The Geochemist’s Workbench, …)

Application documents:

- A cover letter that describes the motivation for the application
- A scientific CV (including a full list of publications and projects)
- Degree certificates
- Contact information for at least two academic references

Applications should be submitted as a single pdf file including a letter of motivation, a scientific CV with university grades, the contact details of two referees no later than January 21st, 2020. Applications should be addressed to environment@univie.ac.at, max. 5 MB.

For questions related to the project, contact Dr. Frank von der Kammer (frank.kammer@univie.ac.at) or Nathalie Tepe, PhD (nathalie.tepe@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://edge.univie.ac.at/