PhD Position and Postdoctoral Fellow in Marine Trace Metal Geochemistry

The department of Physics and Earth Sciences from Jacobs University invites applications for two open positions (a postdoc and a PhD position) in marine trace metal geochemistry under the supervision of Prof. Andrea Koschinsky at Jacobs University Bremen. The respective laboratory offers a wide range of analytical instruments for the investigation of marine samples (sediments, porewaters, seawater, estuarine water) including a quadrupole inductively coupled plasma-mass spectrometer (ICP-MS) with SeaFAST preconcentration, ICP-optical emission spectrometer (OES), total organic carbon (TOC) analyzer, ion chromatography (IC), and several voltammetric devices for the analysis of trace metals and/or metal-binding ligands. We furthermore maintain a trace metal-clean laboratory for operation of the SeaFAST and voltammeters and other sensitive trace metal work. Our lab infrastructure enables the synergistic work of BSc students, PhD students and postdocs on marine samples. We offer work in an international team with an open minded and tolerant atmosphere and close collaboration with other marine research groups in Germany. For more information about the work environment, please check our homepage: https://andrea-koschinsky.org/

The selected applicants will work in multidisciplinary research projects embedded in the international GEOTRACES programme. The work will be part of ongoing projects based on past cruises in the Atlantic and Pacific Ocean, as well as several upcoming research cruises aboard the German research vessels RV Sonne and RV Meteor.

Jacobs University is a private, state-accredited, English-language research university in Bremen. We offer PreDegree, Bachelor's, Master's and PhD programs in the Focus Areas Health, Mobility and Diversity and are committed to the professional development of specialists and managers and to knowledge transfer. Guiding principles include the highest standards in research and teaching, interculturality, and cross-disciplinary collaboration. The aim is to optimally prepare talented individuals from all over the world for responsible

tasks in a globalized working world. Currently, approximately 1,500 young people from over 110 nations live and learn on campus.

PhD position

The main focus of this PhD project will be the analysis of selected trace metals in marine samples (seawater, sediment and/or porewater) collected from a variety of sources in different ocean regions, including the open ocean, hydrothermal plumes, and coastal regions to identify the sources, cycling, and sinks of these metals.

The successful candidate will be expected to:

- Have good knowledge of sample handling in a geochemistry laboratory
- Have experience working in a trace metal clean environment
- Preferentially have hands-on skills for the work with ICP-MS and the SeaFAST preconcentration system
- Assist in method development
- Be proficient in sample analysis (e.g., water and sediment samples), data evaluation, and reporting of results
- Be willing and able to participate in sea-going sampling campaigns
- Co-supervise BSc and/or MSc student theses in the marine geochemistry laboratory and support teaching

The position can be filled at the earliest possible time and funding is secured for at least 36 months.

Required education:

Master's degree in analytical chemistry/marine chemistry/geology/oceanography or a closely related discipline.

Postdoc position

The main focus of this position will be the work on trace speciation and metals-organics interaction. Furthermore, the candidate will support the team in project and lab management.

The successful candidate will be expected to:

- Preferentially have extensive knowledge of voltametric methods for trace metal speciation
- Ideally be familiar with trace metal-clean handling of water samples
- Have hands-on skills for routine maintenance of analytical instruments
- Assist in method development
- Be proficient in sample analysis (e.g., water and sediment samples), data evaluation, and publication of results in peer-reviewed journals
- Be responsible for project management tasks including reporting and organizing meetings with project partners
- Assist with proposal writing for future funding/projects
- Be willing and able to participate in sea-going sampling campaigns
- Assist with teaching undergraduate students (e.g., seminars, workshops)
- Co-supervise BSc and/or MSc student theses in the marine geochemistry laboratory samples

This position is a full-time position and is secured for 24 months, with the option for an extension, provided that third-party projects will take place as a presently scheduled. The position will be filled at the earliest possible time.

Required education:

PhD or equivalent in analytical chemistry/marine chemistry/geology/oceanography or a closely related discipline. Experience in an analytical/chemical laboratory and the corresponding instruments

Your application:

Please send your application including a letter of motivation and CV (contact of 3 referees?) in a single pdf file to a.koschinsky@jacobs-university.de

For further information on this post and the research department please contact Prof. Dr. Andrea Koschinsky (a.koschinsky@jacobs-university.de) or Dr. Sandra Pöhle (s.poehle@jacobs-university.de).

The review of applications will begin immediately and will continue until the position is filled.

Jacobs University offers full equality of opportunity to all qualified applications and is an equal opportunity employer.