

The Leibniz Centre for Tropical Marine Research (www.leibniz-zmt.de) in Bremen is a member of the Leibniz Association, which is supported by the German Federal and State Governments. Through its research, ZMT contributes to developing science-based strategies for sustainable use of tropical coastal systems.

The Junior Research Group 'Coral Climatology' at the ZMT invites applications for

2 PhD Student Positions

(Reference number: 95 - OASIS)

in the DAAD/BMBF (German Academic Exchange Service; German Federal Ministry of Education and Research) funded project, [OASIS](#), as part of the '[Make Our Planet Great Again – German Research Initiative](#)'. We are seeking highly motivated students to pursue PhD degrees at the ZMT. The offered positions will have 36 months of full support (Dr. Henry C. Wu, Junior Research Group Leader of Coral Climatology Working Group and Professor Dr. Hildegard Westphal, Director of ZMT and Head of Biogeochemistry and Geology Department) to commence on **April 1, 2019**.

Project description

Our oceans absorb considerable amounts of the greenhouse gas carbon dioxide (CO₂) from the Earth's atmosphere. When excess CO₂ reacts with seawater, the pH of the seawater decreases in a process known as ocean acidification that has disastrous consequences for calcifying organisms such as corals. Project OASIS will investigate the development of ocean acidification over the past few hundred years in the tropical oceans by analyzing boron isotopes in long-lived tropical corals. The project aims to reconstruct the global development of ocean acidification, rates of pH change, carbonate chemistry, and sea surface temperature/salinity of our tropical oceans before and after the Industrial Revolution. These dynamic results will provide valuable data to understand the levels of CO₂ penetrating into the oceans and draw conclusions on the changes as it relates to tropical climate drivers and forcings.

Duties and responsibilities

- To study the historical changes in climate and the environment of the tropical oceans, in particular ocean acidification, ocean warming, and ocean chemistry.
- Sampling, analyzing, and generating time series climate proxy (biogeochemical) records from previously collected tropical coral samples.
- Project will involve longer analytical research stays at collaborating institutions in Germany, USA, and France.
- Presentation of research results at international conferences and scientific meetings.
- Publication of research results in peer-reviewed scientific journals.
- Outreach efforts to provide scientific results to the general public in fulfillment of the 'Make Our Planet Great Again' initiative will be a critical component of this research project.

Qualification requirements

- Applicants should hold a Master or Diplom degree in (marine) environmental sciences, marine geology, marine biology, ecology, biogeochemistry, oceanography, or comparable disciplines.
- Experience in stable isotope geochemistry, paleoclimatology, paleoceanography, or a background in climate science is desired.
- Demonstrated familiarity with statistical and numerical analytical methods.
- Laboratory working experience with very good analytical skills or quantitative background.
- Prior experiences in research cruises and research visits abroad are welcome.
- Very motivated with the ability to work independently and collaboratively.

- Highly proficient written and strong oral communication skills in English with good potential for scientific writing.

For additional information, please contact: Dr. Henry C. Wu (henry.wu@leibniz-zmt.de).

We offer:

- An exciting working environment in an interdisciplinary and internationally oriented institute and research project
- Possibilities to build and extend an international professional network and participate in a research field of high public and scientific interest
- A family-friendly work environment

The candidates will be on three years contracts. Salary will be paid according to the German TV-L EG 13 (if the personnel requirements are fulfilled). The posts will be filled as PhD Student positions (66,6%).

ZMT is an equal opportunity employer. Applicants with a migration background are welcome. Disabled persons with comparable qualification receive preferential status.

Application instructions

Please apply to this position by including:

- Letter of Motivation outlining your background, expertise, interest in the field/project, brief statement of research experiences/career goals.
- Curriculum vitae: work experience, list of degrees, projects/theses, completed courses.
- Degree certificates (Master's or German Diplom) and course records/grades (unofficial transcripts or records of coursework completed for Bachelor and Master) confirming that you meet the general and specific requirements.
- Complete contact information for 2 professional references.

Please send your complete application by **January 31, 2019** as a single PDF file with the reference number "95 - OASIS" to Ms. Lena Oehlmann, E-Mail: bewerbung@leibniz-zmt.de.

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