

Job posting (Che 02/2025)

The Leibniz Institute for Baltic Sea Research Warnemünde (IOW) has a temporary vacancy starting **01/12/2025** for a

PhD position with the topic: "Methane production by microphytobenthos and its contribution to the benthic methane flux from the coastal zone of the Baltic Sea"

in the working group Trace Gas Biogeochemistry within the Department of Marine Chemistry. The position is set for a period of 3 years and a percentage of 75% (30 h/week). Remuneration is paid in accordance with the *Tarifvertrag für den öffentlichen Dienst der Länder* (TV-L, Federal States Public Sector Collective Agreement) salary scale at level 13.

Who are we?

The IOW is an independent research institute of the Leibniz Association for which equal opportunities, family friendliness and work-life balance are very important. Our research focus is on the coastal and marginal seas, especially the Baltic Sea. The staff of the five departments Physical Oceanography, Marine Chemistry, Biological Oceanography, Marine Geology and Marine Observation works interdisciplinary within a joint research programme.

What will be your tasks?

The position is part of the DFG-funded project "Methane production by microphytobenthos (MPB) and its contribution to benthic methane flux in the coastal zone of the Baltic Sea (MicroMeth)." In order to classify the significance of MPBassociated methane production, we will investigate the potential of this methane source in incubation experiments with selected diatom cultures. In order to better classify the methane production rates determined in our experiments in the benthic and atmospheric methane fluxes, we will determine the methane fluxes between the sediment, the water, and the atmosphere in selected study areas (Darß-Zings Bodden Chain and Greifswalder Bodden). To this end, you will conduct (seasonal) investigations using state-of-the-art methods (e.g., cavity-ring-down-spectroscopy). These methods include continuous measurements in surface waters and the overlying atmosphere, high-resolution profiling throughout the water column, and sampling of the sediment. The results of the work will be presented at conferences and published in scientific articles. The work in this project is closely linked to the working group of Prof. Ulf Karsten at the University of Rostock and the overarching program "STB - Shallow Water Processes and Transitions to the Baltic Scale" (STB – Processes in Shallow Waters and Transitions to the Baltic Sea) of the IOW (https://www.io-warnemuende.de/stbshallow-water-processes.html). In addition, the work within this doctoral position is closely linked to another doctoral position currently being advertised, which focuses on the dynamics of nitrous oxide.

What do we expect from you?

A good to very good MSc degree in chemical oceanography, marine biogeochemistry, environmental sciences, or a related field is required. Knowledge of the biogeochemistry of trace gases such as methane in shallow water areas would be advantageous. Existing skills in measuring trace gases in water and/or sediment (e.g., using chromatography or spectroscopic absorption analyzers) and a willingness to organize and participate in fieldwork and sea expeditions are required. Experience in data processing and visualization is an advantage. Experience in conducting incubation experiments and operating instruments for continuous measurement of gases dissolved in water would be advantageous. We expect very good English skills; good scientific presentation, writing, and communication skills are also an advantage. Due to the interdisciplinary nature of the project, the ability and willingness to work in a team in field, laboratory, and data analysis activities are required.

What does the IOW offer?

The IOW offers you a varied workplace in the immediate vicinity of the Baltic Sea (<u>Work</u> <u>at sea</u>) with flexible working arrangements, e.g. the possibility of working from home or remotely. A very good infrastructure with modern laboratory and office equipment, including on our own research vessel, form the framework for the best working conditions.

How do we promote equal opportunities?

Our job offers are aimed at all people regardless of their gender. Research benefits from a diverse working environment, which is why we have signed the Diversity Charter. IOW aims to specifically promote women in areas where they are underrepresented. For this purpose, the institute has given itself a plan to promote equality (<u>plan for the equal opportunities committee at the IOW</u>) and has repeatedly been awarded the Total E-Quality award for its commitment (<u>website TOTAL E-QUALITY e. V.</u>). You can find an overview of our measures for equal opportunities and for improving the compatibility of work and family on our <u>website</u>.

We give preference to applications from disabled persons with equal professional and personal suitability. Please mention the disability or equality in your letter of application and enclose a copy of the relevant certificate.

How to apply?

Please send us your application documents with cover letter, CV, copies of your certificates, description of relevant activities and experiences as well as two references.

We look forward to receiving your application, quoting the keyword: **Che 02/2025** by **08 August 2025**.

to: <u>bewerbung.chemie@io-warnemuende.de</u> or Leibniz Institute for Baltic Sea Research Warnemünde Human Resources Department Seestraße 15 18119 Rostock Germany The interviews are expected to take place on **14 October 2025**.

Unfortunately, we cannot cover your application and travel costs.

For further information, please contact: Oliver Schmale (<u>oliver.schmale@io-warnemuende.de</u>)