

G E O W

**INSTITUTE OF
EARTH SCIENCES**



**UNIVERSITÄT
HEIDELBERG**
ZUKUNFT
SEIT 1386

The *Sedimentology and Marine Paleoenvironmental Dynamics Group* within the Institute of Earth Sciences, University of Heidelberg, Germany, invites applications for a

PostDoc position in Chemical Oceanography
(2 years)

During a 65-day expedition from November 2023 until February 2024 *RV Polarstern* visited the Indian sector of the Southern Ocean and East Antarctica, sampling the water column for its lead concentration and isotopic composition (cruise EASI-2 / PS140). A total of 300 seawater samples of all major water masses in this part of the Southern Ocean could be sampled.

The scientific goal of this two-year postdoctoral project is the quantification of anthropogenic lead input into the remote Southern Ocean from these unique samples. We aim to explore how lead of anthropogenic origin enters Antarctic waters, because anthropogenic lead can be easily distinguished from naturally introduced lead by higher concentrations and a clearly distinguishable isotopic composition. Since the classic physical-oceanographic water parameters have also been measured during the cruise, we can make clear statements as to where the dissolved lead in each examined body of water is derived from. As an overall goal we not only expect to resolve the input behaviour of anthropogenic Pb into Antarctic waters but also to obtain key information on regional scale water mass mixing processes in the Indian Ocean.

The project is funded by the DFG Priority Program Antarctic Research (SPP1158) and is a cooperation between the University of Heidelberg (Dr. Jörg Lippold), the GEOMAR Helmholtz Centre for Ocean Research Kiel (Dr. Marcus Gutjahr) and the Royal Netherlands Institute for Sea Research (NIOZ) (Prof. Rob Middag). The position will be based in Heidelberg, but significant parts of the work will be performed in the laboratories at GEOMAR Kiel and NIOZ (Texel) during this postdoctoral project. Results of this project are expected to be published in peer-reviewed international journals and presented at national and international meetings and conferences.

Requirements for applicants are completion of a PhD degree in geochemistry, oceanography or neighbouring natural sciences prior to appointment, and written and spoken fluency in English. Ideally, the successful candidate should further have a strong background in chemical oceanography and/or paleoceanography and a strong interest in isotope geochemistry. The appointment is for two years with salary and social security benefits according to a German civil service position (E 13, 100 %).

The University of Heidelberg is committed to increasing the proportion of female scientific staff, and applications from women are especially welcome. Disabled persons will be given preference if equally qualified.

Applications (including a CV, a 1-2 page cover letter with a statement of research interests, previous publications and the contact information of two referees) should be sent as a single pdf file to Dr. Jörg Lippold (E-mail: joerg.lippold@geow.uni-heidelberg.de). The closing date for applications is May 15, 2024. Potential starting date is July 1, 2024 or later.

For additional information please contact Dr. Marcus Gutjahr, GEOMAR Helmholtz Centre for Ocean Research Kiel, Wischhofstraße 1-3, D-24148 Kiel, Germany, E-mail: mgutjahr@geomar.de or Dr. Jörg Lippold, Institute of Earth Sciences, University of Heidelberg, Im Neuenheimer Feld 234, D-69120 Heidelberg, Germany; E-mail: joerg.lippold@geow.uni-heidelberg.de.