



Postdoctoral position to study Southern Ocean trace metal - phytoplankton interaction in Southern Ocean:

The [Trace Metal Experimental and Biogeochemistry Group](#) within the [Department of Earth Sciences, Stellenbosch University, Western Cape, South Africa](#), invites applications for a postdoctoral position. The broader research project examines the biogeochemical cycling of marine trace metals in Southern Ocean and aims to better

understand how the marine chemistry constrains the organisms and vice versa. Subject to expertise, the postdoctoral fellow may conduct laboratory experiments on the adaptation and acclimation capacities of Southern Ocean phytoplankton to different environmental conditions, specifically changes in trace metal availability. Experiments may also be conducted on board R/V SA Agulhas II to study in-situ the relationship between phytoplankton community structure and environmental conditions, including during wintertime and along the ice shelf. Thus, sea-going is a requirement for this project and familiarity with work at sea is welcome, but prior experience is not a requirement. Other research project possibilities also exist within the research group.

Candidate must have experience in working and maintaining trace-clean laboratories. Preference will be given to applicants with expertise in trace metal analysis using SeaFast/ICP-MS and working with laboratory algal cultures and their interaction with bioactive trace metals. Knowledge of phytoplankton characterization, photophysiology and molecular biology (“omics”) is an advantage.

Applicants should have a doctoral degree in a related discipline such as Marine Biogeochemistry, Earth Sciences, Marine Chemistry, Biology, and a record of scientific research publications in scholarly journals relevant to this position. Postdoctoral activities will include experiment design and implementation, data collection, and modelling, as well as dissemination of results in publications and presentations. The applicant may assist with future proposal preparation and will have the opportunity to advise graduate students and, to some extent, support undergraduate teaching and outreach activities. Opportunities for interdisciplinary research exist through collaboration with the other groups in South Africa (e.g., oceanography, biotechnology) and internationally (e.g., GEOTRACES community).

The position is for 24 months, commencing from January 2023. Renewal of the position for the second year or possibly third year is subject to performance. For further information about the project and to apply please contact Prof A Roychoudhury (roy@sun.ac.za). Applications should include, as a single pdf document, a cover/motivation letter, a comprehensive CV and a research statement. Please also provide the names and contact information for three professional references. Visit tracexsite.wordpress.com for general information on the research group and facilities available.