
PhD student or PostDoc (m, f, d, n.a.) for the department Experimental Aerosol and Cloud Microphysics

The Leibniz Institute for Tropospheric Research (TROPOS) in Leipzig, Germany is a research institute of the Leibniz Association and internationally renowned for excellent research on aerosol and clouds. In the Department of Experimental Aerosol and Cloud Microphysics we offer a position on the topic "Formation and Transformation of Aerosol Particles in the Arctic Boundary Layer" for a PhD candidate or PostDoc.

In the framework of a DFG project in cooperation with the TU Berlin, several aerosol measurement instruments will be installed on the research vessel "Polarstern" and operated for the duration of the expedition ATWAICE (<https://www.awi.de/en/about-us/logistics/schedules/polarstern-longterm-cruise-planning.html>). One goal of the measurements is to investigate exchange processes of particles, especially soot particles. Furthermore, ice nuclei are to be analyzed, which play an important role in the freezing of cloud droplets and the formation of precipitation. The goal is to better constrain whether and in what quantities ice nuclei are emitted from the Arctic Ocean and what role the chemical composition plays in this process.

For the following tasks in this project TROPOS is looking for a **PhD student or PostDoc** (m, f, d, no answer):

- Preparation of a measurement campaign on the research vessel Polarstern
- Carrying out the measurements during a cruise in summer 2022
- Calibration of different aerosol measuring instruments before and after the campaign
- Evaluation of the measurements as well as interpretation and publication of the results

We are looking for a **PhD student or PostDoc with a university degree in physics, meteorology or a comparable subject** and the willingness to participate in an international expedition on the research vessel Polarstern. Very good knowledge of written and spoken English is required as well as the ability to work in an interdisciplinary team. Furthermore, interest in experimental work and programming skills in Python, C++ or similar languages are desirable.

After a familiarization period at TROPOS, you will be able to perform measurements in a container converted to a laboratory during the expedition. You will be guided and supported by experienced scientists during the training period and the setup of the equipment. The measurements will be used for a continuous determination of aerosol parameters, with a focus on soot and particle concentrations. The results should provide information about origin, mixing state and exchange processes between atmosphere and ocean. The online measurements are automated to a large extent, but have to be checked and monitored on a daily basis. To determine exchange processes at the interface to the ocean, water samples are also taken for later analysis of soot concentrations in the laboratory. Furthermore, samples are taken regularly to subsequently determine the chemical composition of the particulate matter as well as the fog water. You will work aboard the ship in a small team of atmospheric scientists, providing support for ice nuclei sampling and chemical investigations, as well as special measurements of particle fluxes. The scientific analysis of the data with respect to origin and transformation will be done after the expedition in collaboration with other working groups.

The tasks require a high degree of independence but also the ability to solve problems in a team.

Subject to project approval by the DFG, the ideal starting date would be 01.04.2022. The employment is limited to 3 years and includes a part-time position with 30 hours/week (PhD student) or 40 hours/week (PostDoc). Remuneration is provided at TV-L pay group 13, including the attractive social benefits of the public sector.

We offer you an exciting job with a varied activity in an interdisciplinary work environment as well as a variety of offers for the compatibility of work and caring responsibilities, such as flexible working hours and daycare facilities.

TROPOS values the diversity of its employees and pursues Equal Opportunity goals. We aim to increase the proportion of women in research and therefore encourage qualified women to apply. People with severe disabilities have priority in hiring if they have equal aptitude, ability and professional qualifications.

If you are interested, please send your complete and informative application documents (including references) by exclusively by e-mail in one coherent PDF document to: **bewerbung@tropos.de**

Please contact us if you have any questions regarding this job offer:

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By submitting the application documents by e-mail, the applicant agrees to the storage/processing of personal data in accordance with Art. 13 DSGVO for the purpose of selection for this job advertisement. The risks of sending documents electronically are hereby pointed out.

You can find more information about TROPOS on the homepage: www.tropos.de