



The Johann Wolfgang Goethe University Frankfurt am Main is one of the largest universities in Germany with around 48,000 students and with about 5,000 employees. Founded in 1914 by Frankfurt citizens and since 2008 once again proud of its foundation status Goethe University possesses a high degree of autonomy, modernity and professional diversity. As a comprehensive university, the Goethe University offers a total of 16 departments on five campuses and more than 100 degree programs along with an outstanding research reputation.

At the Institute for Atmospheric and Environmental Sciences of the Department of Geosciences / Geography at the Goethe-University in Frankfurt am Main, Germany, we seek, as a member of the **working group Atmospheric Environmental Analytics**, a

**PhD student (m/f/d)
(E13 TV-G-U, 75% part-time)**

for a period of three years, starting **on 01.10.2022**. The salary grade is based on the job characteristics of the collective agreement applicable to Goethe University (TV-G-U).

What do we expect from you?

Creative involvement in the research of the Emmy Noether-group on "Aerosol Loadings in the Future Atmosphere". Enthusiasm for the chemical characterization of atmospheric aerosols. Curiosity for understanding chemical processes in the atmosphere. Reliability and team spirit, mutual coaching in the work group. Pro-active participation in measurement campaigns in Germany and abroad. Presenting research results at national and international conferences as well as publishing in peer-reviewed scientific journals.

Your task is the characterization and application of an online-mass spectrometry technique (<https://doi.org/10.1021/acs.analchem.8b00671>) for highly time-resolved measurements of secondary organic aerosol (SOA) composition. You will perform laboratory experiments to investigate chemical transformation reactions in the (aerosol) particle phase. We aim at molecular-resolved comparison between lab and field studies in order to identify characteristic composition pattern, enabling a better understanding of SOA formation in the atmosphere. A central question of your research is how organic aerosol interacts with inorganic pollutants, and how this chemistry will change under future emission scenarios.

Your profile

You have a university degree (MSc) in chemistry, physics or environmental sciences with basic knowledge in atmospheric chemistry. You made your first experience with high-resolution (Orbitrap) mass spectrometry. You are able to handle, evaluate and interpret large datasets with adequate software (e.g. Matlab or Python). Strong communication skills in English (oral and written) are crucial.

What we can offer

Being part of a dynamic team, you have the opportunity to graduate as a Ph.D. (Dr. rer. nat.) in a future-oriented research area. You will gain experience in organic trace analysis using state-of-the-art mass spectrometry and establish international contacts in the field of atmospheric and environmental research. As a member of the Graduate Academy of the Goethe-University Frankfurt ([GRADE](#)), you have access to a variety of individual training programs (e.g. language courses) and thus the opportunity for further personal education.

The Goethe University is committed to a policy of providing equal employment opportunities for both men and women alike, and therefore encourages particularly women to apply for the position/s offered. Individuals with severe disability will be prioritized in case of equal qualification.

Please send your application with the usual documents (letter of motivation, certificates, CV, references) by **31.08.2022** as one PDF by e-mail to Prof. Dr. Alexander Vogel: vogel@iau.uni-frankfurt.de.