

Research engineer with focus on molecular analytical techniques

at [the Department of Environmental Science](#).

Ref.no: SU FV-0097-21, Closing date: 1 March 2021.

The Department of Environmental Science is one of the largest departments in the Faculty of Science at Stockholm University. The department consists of four units with more than 170 researchers, teachers, doctoral students and technical/administrative staff from over 30 countries. Research and teaching focus on chemical contaminants, ecotoxicology, atmospheric science and biogeochemistry. The Biogeochemistry Unit has a strong, externally-funded research with focus on the composition and functioning of the biogeosphere-atmosphere system, how it is affected by anthropogenic perturbations such as climate warming, and the natural cycles of carbon and other important elements and substances. Two research areas that attract large interests are (i) how the thawing permafrost in the Arctic affects large-scale carbon and nitrogen cycling, including triggering release of greenhouse gases, and (ii) how air pollution in Asia and Africa affects the composition of the atmosphere and the climate.

High-quality analysis of natural organic molecules in environmental samples from air, soil, water and sediments is since long central to our research. This can range from simple molecules such as methane, halocarbons (other VOCs) to lipids, amino acids and complex fractions of structural components such as lignin and cutin, as well as organometallic compounds. A key common denominator is the use of various gas chromatography-mass spectrometry (GC-MS) techniques, incl. extraction and sample preparation stages and data analysis. This “molecular biogeochemistry” is a core component of contemporary biogeochemistry.

We are now seeking a full-time Research Engineer to function as support to ongoing research activities, and be responsible for the long-term coordination of the organic analytical laboratory activities.

Main responsibilities

- Analytical laboratory management, including
 - Maintenance and troubleshooting of the unit’s gas chromatography systems: several GC-MS, GC-FID/ECD, a preparative GC-FID coupled to a sample collector for compound-specific ¹⁴C analysis, and a GC-TQ-ICP-MS system.
 - Quality assurance and continuity of all organic-molecular methods, incl. hand-over between generations of PhD students and post docs, as well as inventories of samples and standards.

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- Management of the unit's GC instrumental and organic wet chemistry research laboratories incl. lab safety and chemical inventories.
- Development and adaptation of analytical methods to target a widening range of organic compound classes, and development of more efficient and environmentally-friendly techniques for existing target substances.
- Wet chemical training and analytical support for incoming master students, PhD students and post docs, and support with risk assessment.
- Preparation for and participation in field-based research
- Contribute actively to develop and maintain a good psycho-social work environment

Qualifications

We seek a well-organized and service-oriented person with a great aptitude for both learning and mentoring new techniques, and with:

- M.Sc. or Ph.D. degree with focus on organic analysis, or corresponding competence.
- Several years of laboratory work experience, after finishing degree/education, in the analysis of organic molecules in complex matrices
- Documented experience of laboratory QA and data management
- High ability to work efficiently both in groups and individually
- Fluency in English in speaking and in writing; basic knowledge of Swedish is an advantage (may otherwise be obtained in first two years).

Terms of employment

This is a full-time, indefinite-term position with a six-month trial period. Salaries at Stockholm University are determined individually; therefore, please indicate your requested salary. Start date immediately or per agreement.

Stockholm University strives to be a workplace free from discrimination and with equal opportunities for all.

Contact

Further information about the position can be obtained from Professor Örjan Gustafsson +46-70-3247317, orjan.gustafsson@aces.su.se or Marcus Sundbom, Unit Head, +46-(0)8-674 7242, marcus.sundbom@aces.su.se.

Union representatives

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Application

Apply for the position at Stockholm University's recruitment system:

<https://www.su.se/english/about-the-university/work-at-su/available-jobs?rmpage=job&rmjob=14033&rmlang=UK>

Only include the cover letter and CV in your application. Bring copies of grades and certificates if you are called to an interview.

The instructions for applicants are available at: [How to apply for a position](#).

You are welcome to apply!