

2018-01-23

## **The Department of Environmental Science and Analytical Chemistry**

### **Post-doc fellow position**

**focusing on Isotopic Characterization of Trace Gases in the Arctic**

**Ref.nr: SU FV-0002-18.**

**Closing date for applications: 1 March 2018**

The Department of Environmental Science and Analytical Chemistry (ACES) hosts approximately 200 researchers, doctoral students and technical/administrative staff. The department focuses on research and teaching across five major areas: chemical contaminants, atmospheric aerosols, biogeochemical cycles of carbon and nutrients, ecotoxicology, and analytical chemistry. Our research-oriented department hosts about 30 post-doc fellows and 60 Ph.D. students, recruited from all over the World. We are also well immersed in the interdepartmental Bolin Centre for Climate Research, a national center of excellence.

#### **Project description**

Thawing subsea permafrost, disintegrating methane hydrates and deep petroleum reservoirs are releasing methane to overlying water and atmosphere on the shallow yet extensive East Siberian Arctic Ocean, the World's largest shelf sea system. There is a large uncertainty of the relative contributions of these sources, and how this system operates. The project offers the possibility to source apportion the methane currently being vented from the subsea system by applying triple-isotope fingerprinting of methane from Arctic samples, some already collected others to be collected in the near future on international field campaigns. Targeted samples are from both subsea permafrost drillcores from ship-based collection of seawater, and from both shipboard and ground-based observatory collections of air. In addition to possible field work, the position involves active work on vacuum and gas handling systems, laser and mass spectrometry.

The post-doc will be centrally engaged in international cooperation including field-based campaigns. Our research in this area is financed by the European Research Council (ERC - Advanced Grant), an EU H2020 project, and by the Swedish Research Council (VR).

#### **Qualification requirements**

Postdoctoral positions are appointed primarily for purposes of research. Applicants are expected to hold a Swedish doctoral degree or an equivalent degree from another country.

We are seeking a highly motivated person with a completed Ph.D. within the Earth, Atmospheric or Environmental Sciences, Chemistry or Engineering. You may have prior PhD or post-doc experience in isotope geochemistry, deep earth gas geochemistry, or upper stratospheric or tropospheric trace gas/isotope measurements. Practical experiences with gas chromatography, laser spectrometry and/or isotope mass spectrometry, handling of gases,



instrumental development and tinkering, and field sampling are all beneficial. Collaborative skills as well as well-developed proficiency in scientific writing are highly desirable.

### **Assessment criteria**

The degree should have been completed no more than three years before the deadline for applications. An older degree may be acceptable under special circumstances, which may involve sick leave, parental leave, clinical attachment, elected positions in trade unions, or similar.

The selection is based on the applicant's ability to successfully pursue the post-doc research project. Special emphasis is put on the applicant's knowledge and skills within the subject area, ability to express her/himself verbally and in writing, analytical aptitude, creativity, initiative and independence, and a capacity for working together with others. The evaluation will be made based on the relevance of past research, education and experience, the quality and ambition of earlier research work, references, a cover letter motivating the candidate's interest, and interviews.

### **Terms of employment**

The position involves full-time employment for a maximum of two years, with the possibility of extension under special circumstances. Start date as 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, [orjan.gustafsson@aces.su.se](mailto:orjan.gustafsson@aces.su.se).

### **Union representatives**

Ingrid Lander (Saco-S) and Lisbeth Häggberg (Fackförbundet ST and Lärarförbundet), telephone: +46 8 16 20 00 (operator), and [seko@seko.su.se](mailto:seko@seko.su.se) (SEKO).

### **Application**

Apply for the position at Stockholm University's recruitment system by clicking the "Apply" button. It is the responsibility of the applicant to ensure that the application is complete in accordance with the instructions in the job advertisement, and that it is submitted before the deadline.

Please include the following information with your application:

- Your contact details and personal data
- Your highest degree
- Your language skills
- Contact details for 2–3 references

and, in addition, please include the following documents

- Cover letter
- CV – degrees and other completed courses, work experience and a list of publications
- Research proposal (no more than 3 pages) describing:
  - why you are interested in the field/project described in the advertisement



- why and how you wish to complete the project
- what makes you suitable for the project in question
- Copy of PhD diploma
- Letters of recommendation (no more than 3 files)
- Publications in support of your application (no more than 3 files).

**The instructions for applicants are available at: [Instructions – Applicants](#).**

**You are welcome to apply!**

*Stockholm University – our education and research produce results.*

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