Ref. nr SU FV-0073-18

2018-01-23

The Department of Environmental Science and Analytical Chemistry

Post-doc fellow position

focusing on Asian Aerosols: Molecular, Isotopic, and Optical Properties

Ref.nr: SU FV-0073-18.
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.

This position offers the possibility to acquire a broad range of analytical and conceptual skills within atmospheric science, isotope geochemistry and climate science. The post-doc would join an international research group and have full access to state-of-the-art field observation/sampling and analytical facilities. Our research-oriented department hosts a large and active body of postdocs and PhD students, recruited from all over the World. The successful candidate would also be immersed in the interdepartmental Bolin Centre for Climate Research (www.bolin.su.se), a national Centre of Excellence at Stockholm University.

Project description

Atmospheric particles such as combustion-derived black carbon (BC, soot) play a central role in climate change and air pollution, yet are poorly characterized. To reduce overall uncertainties, there is need for observation-based constraints on both the sources and composition-related optical properties of both such carbonaceous and other aerosol components.

The post-doc would build on ongoing field-based work in both South Asia (India, Bangladesh and especially at the Maldives Climate Observatory – Hanimaadhoo, MCOH) and East Asia (China and the Korea Climate Observatory – Jeju Island). The project may leverage off our previous and ongoing work on chemical, isotopic and optical characterization of BC, OC, Brown C and other components to improve on both source apportionment and processing during long-range transport. This may be supplemented by novel investigations using a combination of isotopic and molecular markers of sources and ageing as well as a broader suite of aerosol optical and physical parameters.

The post-doc will be centrally engaged in international cooperation including field-based campaigns. Our research in this area is financed by the Swedish Research Councils VR and FORMAS.

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 atmospheric, environmental and earth sciences, chemistry or engineering. Hands-on experience with operation and data processing of field-based aerosol instrumentation is an asset as is experience in laboratory analysis using GCMS and isotope techniques. Collaborative skills as well as 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.

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 (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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