

Empa - the place where innovation starts

Empa is the research institute for materials science and technology of the ETH Domain and conducts cutting-edge research for the benefit of industry and the well-being of society. The Laboratory for Air Pollution/Environmental Technology develops atmospheric modelling tools and measurement techniques as a contribution to a healthy and safe environment.

The Laboratory for Air Pollution/Environmental Technology offers a

36 month Postdoc position on Stable isotope analysis of N₂O and CH₄

Nitrous oxide (N₂O) and methane (CH₄) are both strong greenhouse gases, and N₂O is also the most important anthropogenic ozone depleting substance emitted in this century. High precision analysis of the N₂O and CH₄ isotopic composition in ambient air by a laser spectroscopic method developed at Empa provides a novel technique to disentangle their production pathways and verify emission inventories.

Within the European metrology research project "Stable Isotope Reference Standards (SIRS)", co-funded by Horizon 2020, you are collaborating with partner institutions in the development of new isotope reference materials for greenhouse gases and promoting their uptake by the scientific community. Our laboratory at Empa will focus on N₂O stable isotope reference materials and high precision analysis of greenhouse gas stable isotopes by laser spectroscopy in collaboration with European partner institutions. In addition, you will be involved in other research projects on N₂O and CH₄ stable isotope analysis in ambient air.

You are a highly motivated scientist with a PhD in chemistry, environmental sciences or a related discipline, and you have a strong interest in analytical chemistry, preferably with expertise in isotope analysis and/or trace gas analysis by laser spectroscopy. You have hands on laboratory experience and you are used to work with customized scientific instrumentation. Experience with MATLAB and/or LabVIEW is a strong plus. You are self-motivated, used to take responsibility for your project, which you will present in project meetings and at scientific conferences.

Candidates with demonstrated research skills and excellent publication records will be considered. Demonstrated written and oral presentation skills in English are required; basic comprehension and oral expression skills in German are desirable.

We are looking forward to your application including a cover letter, curriculum vitae, transcripts of diplomas, a list of publications, a short statement of research interests and names and addresses of three references. As the SIRS project will commence in June 2017 the Postdoc is expected to start in the coming months.

Please submit your application only online at www.empa.ch/jobs.

For further information please contact Dr. Joachim Mohn, +41 58 765 46 87, joachim.mohn@empa.ch, www.empa.ch/web/s503/emissions-and-isotopes.