



April 1<sup>st</sup>, 2024:

Environment and Climate Change Canada, Air Quality Research Division: **Post-Doctoral Position in Toronto, Ontario, Canada**

The Air Quality Research Division invites applications for **two** Post-Doctoral Fellowship positions, for a one-year term with the possibility of renewal for up to 2 additional years upon mutual agreement.

The focus of the research will be on the emissions of organic carbon from the oil and gas sector and the evolution of those emissions via the formation of oxidized products, including Secondary Organic Aerosol (SOA), and other semi- and intermediate volatility organics. Additional aspects of the research will include developing new methods for quantifying emission fluxes from waste streams, and a focus on the health and environmental impacts of transformed emissions via various chemical assays. The work will be predominantly based on focused laboratory studies and will involve the use of flux chambers, oxidation flow reactors and/or smog chambers, with advanced real-time gas and aerosol instrumentation (HR-ToF-AMS, HR-ToF-CIMS, HR-ToF-PTR-MS, EESI-CIMS, SMPS), as well as off-line gas chromatography (GC-MS) and thermal desorption methods coupled to gas chromatography (TD-GC-MS).

- A Ph.D. in chemistry, atmospheric sciences, environmental engineering, or a related discipline is required.
- Demonstrated skills in experimental atmospheric chemistry/physics are also required.
- Experience with technical aspects of gas-chromatography and chromatographic method development is highly desirable, as is experience in the operations of advanced real-time gas and aerosol instrumentation (Chemical ionization mass spectrometry (CIMS) including PTR-HR-ToF-MS, and Aerosol mass spectrometry (AMS), SMPS) are highly desirable.
- Demonstrated ability in computer programming, and/or complex data analysis is also highly desirable.

The successful candidate must have the ability to work in a team environment and with multiple collaborators within Environment and Climate Change Canada and in academia. A proven track record of publication in peer-reviewed journals is essential.

Qualified candidates are requested to send their curriculum vitae, including a full list of publications, their date of availability and contact information for 2 references to Dr. Samar Moussa and Dr. John Liggio by e-mail ([samar.moussa@ec.gc.ca](mailto:samar.moussa@ec.gc.ca); [john.liggio@ec.gc.ca](mailto:john.liggio@ec.gc.ca)).

To be eligible to be selected, the candidate must have obtained a PhD within the past 5 yrs. The successful candidate must also apply to be included in an inventory of candidates from which they will be selected. To be placed in the inventory, prospective candidates should follow the instructions at: [Postdoctoral Research Program \(canada.ca\)](#)

Review of complete applications will **begin immediately until the position is filled**.

Environment and Climate Change Canada's Air Quality Research Division studies the chemistry and physics of the atmosphere as it pertains to a variety of atmospheric pollution problems. Additional information on the department can be found at:

[About air quality science - Canada.ca](#)