

Postdoctoral Research Associate
Carnegie Mellon University
Department of Mechanical Engineering
Center for Atmospheric Particle Studies

The Department of Mechanical Engineering and the Center for Atmospheric Particle Studies (CAPS) at Carnegie Mellon University (CMU) seeks to fill an opening for a postdoctoral research associate. The primary duties (75%) are to quantify emissions of methane using ground-based tracer flux measurements in three basins, Marcellus, Barnett, and Uintah-Julesburg. The remaining 25% effort will be filled with other projects in CAPS.

The methane emissions project requires substantial travel and fieldwork (25-50%). We expect to conduct measurements during parts of 12-24 months. Sampling at many locations will require extended travel over multiple weeks, as well as driving the mobile lab across the country to project sites as needed.

Required qualifications/skills include:

- A PhD in Mechanical, Chemical, or Civil Engineering; Chemistry; Atmospheric or Environmental Science; or a related discipline
- A valid driver's license

Desired qualifications/skills include:

- Experience with ambient atmospheric measurements and/or mobile measurements
- Experience with cavity ringdown or quantum cascade laser measurements for trace gas detection
- Knowledge of analytical software tools such as Matlab and Igor

The project duration, as well as the length of the postdoctoral appointment, is 3 years. The project team will consist of two postdocs (including one filled by this position), one research technician, one research scientist (already employed at CMU), one research professor in Mechanical Engineering (Dr. Albert Presto), and one Professor in Mechanical Engineering (Dr. Allen Robinson). Prof. Robinson will serve as the primary advisor to the successful candidate.

In addition to the project presented here, the successful candidate will have the opportunity to participate in other ongoing projects in CAPS. Members of CAPS are recognized internationally as leaders in the study of air quality and atmospheric chemistry. Our unifying theme is the behavior of particulate matter in the atmosphere, including emissions, formation, transformation and deposition of particles as well as their climatological and health effects. We currently consist of seven interwoven research groups directed by faculty members associated with five academic departments (Chemistry, Chemical Engineering, Civil and Environmental Engineering, Engineering and Public Policy, Mechanical Engineering).

The position will remain open until it is filled. Candidates should email a cover letter, CV, and the names and contact information for three references to **Albert Presto** (albert.presto@gmail.com) and **R Subramanian** (subu@cmu.edu).

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