

Opportunity Title: Development of PM Measurement Methods - EPA

Opportunity Reference Code: EPA-OTAQ-2015-19

Organization U.S. Environmental Protection Agency (EPA)

Reference Code EPA-OTAQ-2015-19

How to Apply A complete application consists of:

- An application
- Transcripts – [Click here for detailed information about acceptable transcripts](#)
- A current resume/CV, including academic history, employment history, relevant experiences, and publication list
- Two educational or professional references

All documents must be in English or include an official English translation.

If you have questions, send an email to EPArpp@orau.org. Please include the reference code for this opportunity in your email.

Description A postgraduate or postdoctoral research opportunity is currently available at the U. S. Environmental Protection Agency's (EPA) Office of Transportation and Air Quality (OTAQ). This appointment will be served with the National Vehicle & Fuel Emissions Laboratory (NVFEL), Assessment and Standards Division, in Ann Arbor Michigan.

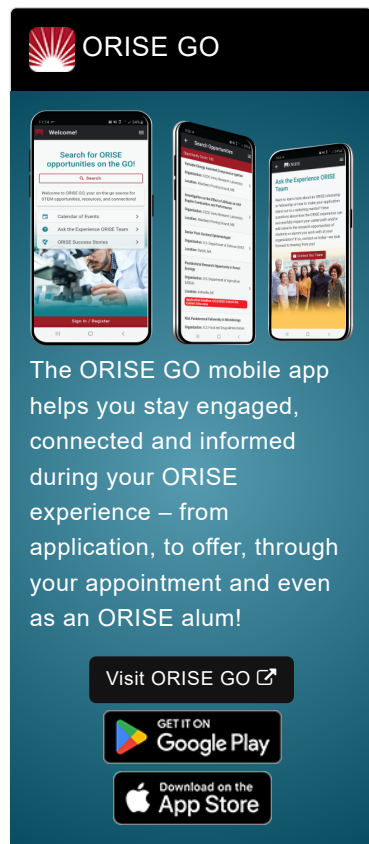
ASD identifies and develops future emission control strategies (such as new vehicle, engine, and fuel quality standards) and national policy on mobile source emission control. The division develops regulations and policies, determines the contribution of mobile sources to pollutant emission inventories, and assesses the feasibility, cost, and in-use effectiveness of emission control technologies.

The participant will gain experience in the following activities:

- the development of a reference method for measurement of particulate matter (PM) from combustion engine exhaust streams
- modeling of a particulate matter and gaseous emissions sampling system for a particulate matter reference system
- internal combustion engine emissions sampling system components
- in how national laws and policies are implemented and will become familiar how EPA informs and engages with stakeholders.

The National Vehicle Fuel Emissions Laboratory (NVFEL) provides EPA's Office of Transportation and Air Quality (OTAQ) with emissions testing services for motor vehicles and trucks, heavy-duty and non-road engines, and fuels used in the transportation market in support of rulemakings, certification, enforcement actions, and test procedures development. Since its founding, the Lab has been at the forefront of developing clean automotive technology and designing programs to reduce and prevent air pollution.

This project will give the participant a firsthand view of the scientific and



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engineering techniques OTAQ uses to develop rulemakings, certification, enforcement actions, and test procedures for reduction of air pollution and greenhouse gases emitted from mobile sources. These techniques are used to:

- Assess mobile source-related air quality problems and develop sophisticated emission inventory modeling tools.
- Establish national standards to reduce emissions from on-road and non-road mobile sources of pollution.
- Implement national mobile source standards through certification processes and in-use monitoring strategies.
- Develop fuel efficiency programs and technologies to reduce the emission of greenhouse gases from the transportation sector.
- Research, evaluate, and develop advanced technologies for controlling emissions, as well as develop new strategies for improving fuel efficiency.

The participant will have an opportunity to collaborate with engineers and scientists at the NFVEL, vehicle and diesel engine manufacturers, and the associated laboratories (such as ORNL, Argonne, and SwRI) that collaborate with NVFEL personnel.

There will also be opportunities to present and publish results at conferences and in professional journals.

This program, administered by ORAU through its contract with the U.S. Department of Energy to manage the Oak Ridge Institute for Science and Education, was established through an interagency agreement between DOE and EPA.

Qualifications Applicants must have received a masters or doctoral degree in physics, chemistry, chemical engineering or mechanical engineering within five (5) years of the desired start date, or completion of all requirements for the degree should be expected prior to the starting date.

The appointment is full time for one year and may be renewed upon recommendation of EPA and contingent on the availability of funds. The participant will receive a monthly stipend. The annual stipend will range from \$52,613/year to \$63,656/year, based on level of education. Funding may be made available to reimburse the participant's travel expenses to present the results of his/her research at scientific conferences. No funding will be made available to cover travel costs for pre-appointment visits, relocation costs, tuition and fees, or participant's health insurance. The participant must show proof of health and medical insurance. **The participant does not become an EPA employee.**

The mentor for this project is Bob Giannelli (giannelli.bob@epa.gov). The desired start date is December 1, 2015.

Eligibility • **Citizenship:** U.S. Citizen Only
Requirements • **Degree:** Master's Degree or Doctoral Degree received within the last 60

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month(s).

- **Discipline(s):**
 - **Chemistry and Materials Sciences** ([1](#) )
 - **Engineering** ([2](#) )
 - **Physics** ([1](#) )

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