

Opportunity Title: Study of Volatile Organic Compounds (VOCs) and Semi-VOCs in Indoor Environment

Opportunity Reference Code: EPA-ORD-NRMRL-AEMD-2019-04-A

Organization U.S. Environmental Protection Agency (EPA)

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How to Apply **This is a repost of a previous posting. If you previously submitted your application to this reference code without the “-A” at the end, then you do not need to reply. Example: If you applied to “EPA-ORD-NERL-IO-2020-13” you do not need to reapply to “EPA-ORD-NERL-IO-2020-13-A”.**

A complete application consists of:

- An application
- Transcript(s) – For this opportunity, an unofficial transcript or copy of the student academic records printed by the applicant or by academic advisors from internal institution systems may be submitted. All transcripts must be in English or include an official English translation. 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 recommendations

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.

Application Deadline 6/15/2020 3:00:00 PM Eastern Time Zone

Description ***Applications will be reviewed on a rolling-basis.**

Emerging contaminants, such as per- and polyfluoroalkyl substances (PFAS) with low volatilities, are released from a vast number of building materials and consumer products. Better understanding the transport mechanisms of these contaminants between sources, air, airborne particles, house dust, and interior surfaces in the indoor environment is essential to estimating indoor exposure and developing strategies that enlighten risk assessments and policy decisions to minimize exposures and protect human health. This research project is to develop methods and generated source emissions and fate and transport data for PFAS in articles including consumer products and building materials. The research will support exposure models by providing chemical concentrations, emission rates, and other parameters, such as mass transfer coefficient, diffusion coefficient, and partition coefficient, as part of the basic model inputs.

The research participant will collaborate with a team of EPA scientists in activities related to source and emission characterization with focus on PFAS. With guidance from the mentor, the participant may be involved in the following activities:

- Developing and evaluating sampling and analytical methods for PFAS, in gas phase, building materials, consumer products, and suspended and settled dust
- Designing and conducting experiments to characterize the sources and



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emissions of PFAS

- Designing and conducting experiments to study the fate and transport mechanisms of PFAS
- Developing models to simulate and predict the fate and transport mechanisms of PFAS
- Preparing reports and peer reviewed papers

Anticipated Appointment Start Date: Spring/Summer 2020

This program, administered by ORAU through its contract with the U.S. Department of Energy (DOE) to manage the Oak Ridge Institute for Science and Education (ORISE), was established through an interagency agreement between DOE and EPA. The initial appointment is for one year, but may be renewed upon recommendation of EPA and is contingent on the availability of funds. The participant will receive a monthly stipend commensurate with educational level and experience. Proof of health insurance is required for participation in this program. The appointment is full-time at EPA in the Research Triangle Park, North Carolina, area. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits.

Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA. OPM can complete a background investigation only for individuals, including non-US Citizens, who have resided in the US for the past three years.


Qualifications

The qualified candidate should have received a master's or doctoral degree in one of the relevant fields, or be currently pursuing one of the degrees and will reach completion by June 1, 2020. Degree must have been received within five years of the appointment start date.

Preferred skills:

- Basic knowledge of environmental science or engineering, environmental monitoring, analytical chemistry, and indoor air quality
- Hands-on experience in chamber testing, LC/MS/MS, GC/MS, GC/MS/MS, MatLab software and skill of environmental modeling and numerical computation

Eligibility Requirements

- **Citizenship:** U.S. Citizen Only
- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or anticipated to be received by 6/1/2020 11:59:00 PM.
- **Discipline(s):**
 - **Chemistry and Materials Sciences** (9 )
 - **Computer, Information, and Data Sciences** (2 )
 - **Earth and Geosciences** (3 )
 - **Engineering** (2 )
 - **Environmental and Marine Sciences** (2 )
 - **Mathematics and Statistics** (3 )
 - **Physics** (2 )
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).