

Opportunity Title: EPA Indoor Environment Emerging Contaminants Fellowship

Opportunity Reference Code: EPA-ORD-CEMM-AMCD-2024-01

Organization U.S. Environmental Protection Agency (EPA)

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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. Click [here](#) for detailed information about recommendations.

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

Application Deadline 11/8/2024 3:00:00 PM Eastern Time Zone

Description ***Applications may be reviewed on a rolling-basis and this posting could close before the deadline.** Click [here](#) for information about the selection process.

EPA Office/Lab and Location: A research opportunity is available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), Center for Environmental Measurement & Modeling (CEMM), Air Methods and Characterization Division (AMCD), Source & Fine Scale Branch (SFSB), located in Research Triangle Park, North Carolina.

Research Project: 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 and their exposure routes 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 test protocols and generated source emissions and fate and transport data for PFAS and other chemicals in articles including consumer products and building materials. This research project will support exposure models by providing model inputs.

The research participant will collaborate with a team of EPA scientists in tasks related to source and emission characterization with focus on emerging contaminants.

Learning Objectives: With guidance from the mentor, the participant may be involved in the following activities:

1. Developing ASTM standards for sampling and analytical methods for



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- emerging contaminants such as PFAS in the indoor environment.
2. Designing and conducting experiments to characterize the sources and emissions of emerging contaminants.
 3. Designing and conducting experiments to study the fate and transport mechanisms and exposure routes of emerging contaminants.
 4. Preparing reports and peer reviewed papers.

Mentor(s): The mentor(s) for this opportunity are Xiaoyu Liu (liu.xiaoyu@epa.gov). If you have questions about the nature of the research, please contact the mentor(s).

Anticipated Appointment Start Date: **October 1, 2024.** All start dates are flexible and vary depending on numerous factors. Click [here](#) for detailed information about start dates.

Appointment Length: The appointment will initially be for one year and may be renewed up to four additional years upon EPA recommendation and subject to availability of funding.

Level of Participation: Is open to both part-time and full-time participation.

Participant Stipend: The participant will receive a monthly stipend commensurate with educational level and experience. Click [here](#) for detailed information about full-time stipends.

EPA Security Clearance: Completion of a successful background investigation by the Office of Personnel Management (OPM) is required for an applicant to be on-boarded at EPA.

ORISE Information: 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. Participants do not become employees of EPA, DOE or the program administrator, and there are no employment-related benefits. Proof of health insurance is required for participation in this program. Health insurance can be obtained through ORISE.

ORISE offers all ORISE EPA graduate students and Postdocs a free 5 year membership to the National Postdoctoral Association (NPA).

The successful applicant(s) will be required to comply with Environmental, Safety and Health (ES&H) requirements of the hosting facility, including but not limited to, COVID-19 requirements (e.g. facial covering, physical distancing, testing, vaccination).

Questions: Please see the [FAQ section](#) of our website. After reading, if you have additional questions about the application process please email ORISE.EPA.ORD@orau.org and include the reference code for this opportunity.

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 with completion before the appointment start

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date. Most recent 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, HPLC, MatLab software and skill of environmental modeling and numerical computation

Eligibility Requirements

- **Degree:** Master's Degree or Doctoral Degree received within the last 60 months or currently pursuing.
- **Discipline(s):**
 - **Chemistry and Materials Sciences** ([9](#))
 - **Computer, Information, and Data Sciences** ([1](#))
 - **Earth and Geosciences** ([3](#))
 - **Engineering** ([2](#))
 - **Environmental and Marine Sciences** ([2](#))
 - **Physics** ([2](#))

Affirmation I have lived in the United States for at least 36 out of the past 60 months. (36 months do not have to be consecutive.)