

**Opportunity Title:** Fate and Transformation of Organic Materials in Polymer Consumer Products and Environmental Media

**Opportunity Reference Code:** EPA-ORD-NRMRL-LMMD-2019-08-A

**Organization** U.S. Environmental Protection Agency (EPA)

**Reference Code** EPA-ORD-NRMRL-LMMD-2019-08-A

**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.

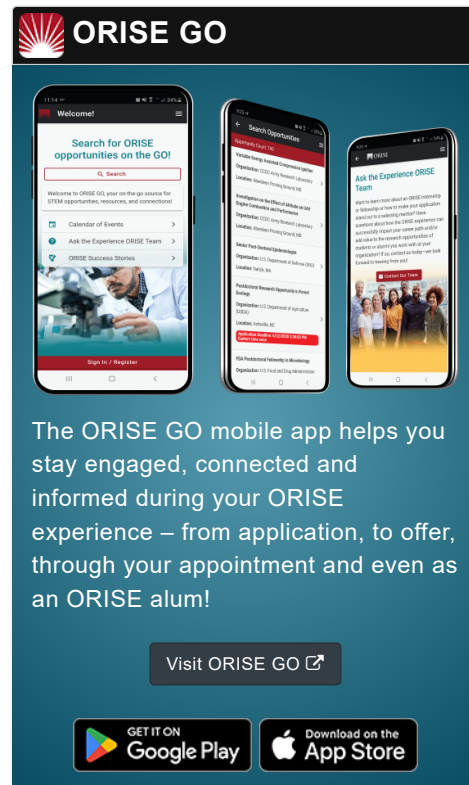
If you have questions, send an email to [EPArpp@oraui.org](mailto:EPArpp@oraui.org). Please include the reference code for this opportunity in your email.

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

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

A research opportunity is currently available at the Environmental Protection Agency (EPA), Office of Research and Development (ORD), National Risk Management Research Laboratory (NRMRL), Land Materials Management Division (LMMD) located in Cincinnati, Ohio.

The research participant will learn how to conduct research on the characterization and quantification of anthropogenic organic materials to understand their chemical behavior, fate, transport, transformation, and adverse effects on environmental and human health. The research participant will be conducting research experiments, analyzing data, and writing peer-reviewed journal articles. This research project will be to study the transformations of nano- and microplastics, pesticides, and persistent organic pollutants. The primary focus of this research project will be on nano- and microplastic environmental contamination. Secondary focus will be on organic pesticide interactions with nano-fertilizers and nano-pesticides. There may be future learning opportunities involving halogenated persistent organic pollutants (POPs). The research participant will have access to a large array of analytical/physical technologies in their research activities, including, but not limited to Gas Chromatography – Tandem Mass Spectrometry (GC-MS-MS), Liquid Chromatography – Tandem Mass Spectrometry (LC-MS-MS), Transmission Electron Microscopy (TEM), Dynamic Light Scattering (DLS), Fourier Transform Infrared

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Spectroscopy (FTIR), microwave technology, X-Ray Absorption Spectroscopy (XAS), X-Ray Diffraction (XRD), and single particle - Inductively Coupled Plasma with Mass Spectrometry (splCP/MS).

**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 Cincinnati, Ohio, 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:

- Strong verbal and writing skills
- Ability to learn in both as a part of a team and independently
- Basic knowledge of analytical instrumentation related to analysis of organic compounds in environmental media including, but not limited to: gas chromatography - tandem mass spectrometry (GC-MS-MS), liquid chromatography - tandem mass spectrometry (LC-MS-MS), Fourier transform infrared spectroscopy (FTIR), and Raman spectroscopy

## 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** (3 )
  - **Communications and Graphics Design** (2 )
  - **Engineering** (2 )
  - **Environmental and Marine Sciences** (2 )
  - **Science & Engineering-related** (1 )
- **Veteran Status:** Veterans Preference, degree received within the last 120 month(s).