

**Opportunity Title:** Solar System Exploration: Laboratory Infrared Molecular Spectroscopy

**Opportunity Reference Code:** 0042-NPP-NOV23-GSFC-PlanetSci

**Organization** National Aeronautics and Space Administration (NASA)

**Reference Code** 0042-NPP-NOV23-GSFC-PlanetSci

**Application Deadline** 11/1/2023 6:00:59 PM Eastern Time Zone

**Description** This laboratory carries out experimental and theoretical studies on the spectroscopy of molecules of astrophysical and planetary atmospheric interest. Emphasis is given to laboratory measurements of molecular absorption line spectra at resolving powers approaching  $10^7$ . Cryogenic long-path cells are available to reproduce as well as possible planetary atmospheric conditions. This involves the use of tunable semiconductor lasers and Fourier-transform spectrometers covering the wavelength range from 5-30 m, although far infrared (up to 100 m) instruments are also available. This laboratory also provides a direct support role for field-measurement programs. A prime motivator for the laboratory measurements is scientific support for the Composite Infrared Spectrometer on the Cassini orbiter.

**Location:**

Goddard Space Flight Center  
Greenbelt, Maryland

**Field of Science:** Planetary Science

**Advisors:**

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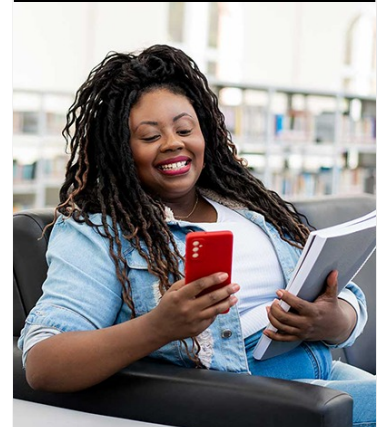
**Applications with citizens from Designated Countries will not be accepted at this time, unless they are Legal Permanent Residents of the United States.** A complete list of Designated Countries can be found at: <https://www.nasa.gov/oiiir/export-control>.

Eligibility is currently open to:

- U.S. Citizens;
- U.S. Lawful Permanent Residents (LPR);
- Foreign Nationals eligible for an Exchange Visitor J-1 visa status; and,
- Applicants for LPR, asylees, or refugees in the U.S. at the time of application with 1) a valid EAD card and 2) I-485 or I-589 forms in pending status

**Eligibility Requirements**

- **Degree:** Doctoral Degree.



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