

**Opportunity Title:** Lunar Volatiles Analysis

**Opportunity Reference Code:** 0001-NPP-NOV23-KSC-PlanetSci

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

**Reference Code** 0001-NPP-NOV23-KSC-PlanetSci

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

**Description** Researchers at NASA Kennedy Space Center are currently developing a modified commercial off the shelf mass spectrometer. The Mass Spectrometer observing lunar operations (MSolo) is designed to analyze lunar volatiles on several upcoming missions. The first MSolo instruments will analyze the environment surrounding the Commercial Lunar Payload Services (CLPS) landers. MSolo will also work with a drill on PRIME-1 and VIPER to analyze volatiles from subsurface samples. MSolo will analyze for water and other volatiles that are released from the lunar regolith.

The position supporting MSolo will entail supporting validation and verification testing, data analysis, report generation, and procedure generation for instrument operation in the lab, integration, and lunar environments. Data analysis and support of instrument data to the Planetary Data System is also planned for the MSolo data set. Key skill sets include data analysis, statistical analysis, mass spectrometer operation and optimization, report writing, and operation of vacuum systems.

**Location:**

Kennedy Space Center  
Kennedy Space Center, Florida

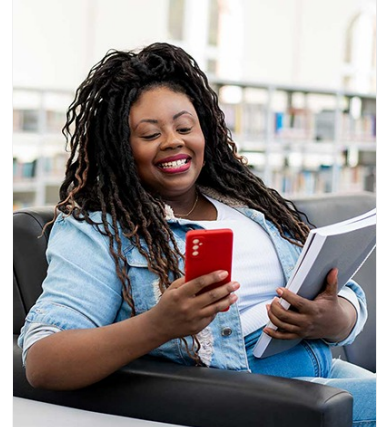
**Field of Science:** Planetary Science

**Advisors:**

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**Eligibility Requirements**

- **Citizenship:** U.S. Citizen Only
- **Degree:** Doctoral Degree.



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