

Opportunity Title: Planetary Volcanism

Opportunity Reference Code: 0018-NPP-JUL24-MSFC-PlanetSci

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0018-NPP-JUL24-MSFC-PlanetSci

How to Apply All applications must be submitted in [Zintellect](#)

Application Deadline 7/1/2024 6:00:59 PM Eastern Time Zone

Description Description:

We are seeking an independent and highly motivated Research Scientist to lead groundbreaking investigations into magmatic volcanism across the inner solar system. By leveraging ground-truth observations from Earth, Mars, and the Moon, alongside advanced remote sensing spectral data and elemental analyses, the successful candidate will pioneer the development of predictive models that shed light on the early conditions of terrestrial planets.

Key Responsibilities:

Comparative Analysis of Magmatic Systems: Undertake a comprehensive assessment of magmatic activities across terrestrial bodies to uncover the intricacies of source regions, their characteristics, and the processes of magmatic differentiation. Your analysis will be pivotal in drawing parallels and distinctions in these processes and form the basis to assess implications relevant to reconstructing the compositions of ancient atmospheres, offering insights into the environmental conditions that shaped the early stages of planetary development.

Eruption Chronologies: Utilize a blend of geochronologic techniques and remote sensing methodologies to establish precise timelines focusing on major volcanic events with characterized by distinct likely outgassing styles.

Seismo-Volcanic Correlation: Explore the potential interplay between various styles of early planetary volcanism and expected seismicity.

Human Exploration: Identify and recommend targets within the Artemis landing sites for empirical testing. Your insights will directly inform mission planning, ensuring that selected sites offer the greatest potential to validate and refine our predictive models of planetary environments.

Field of Science: Planetary Science

Advisors:

Alexis Rodriguez
a.rodriguez@nasa.gov
(650) 450-7352

Eligibility is currently open to:

- U.S. Citizens;



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- 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

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| Eligibility | • Citizenship: U.S. Citizen Only |
| Requirements | • Degree: Doctoral Degree. |