Opportunity Title: Miniaturized instruments enabled by nanomaterials for future space missions
Opportunity Reference Code: 0207-NPP-MAR26-GSFC-TechDev

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0207-NPP-MAR26-GSFC-TechDev

How to Apply All applications must be submitted in Zintellect

Please visit the NASA Postdoctoral Program website for application instructions and requirements: How to Apply | NASA Postdoctoral Program (orau.org)

A complete application to the NASA Postdoctoral Program includes:

1. Research proposal
2. Three letters of recommendation
3. Official doctoral transcript documents

Application Deadline 4/2/2026 6:00:59 PM Eastern Time Zone

Description **About the NASA Postdoctoral Program**

The NASA Postdoctoral Program (NPP) offers unique research opportunities to highly-talented scientists to engage in ongoing NASA research projects at a NASA Center, NASA Headquarters, or at a NASA-affiliated research institute. These one- to three-year fellowships are competitive and are designed to advance NASA's missions in space science, Earth science, aeronautics, space operations, exploration systems, and astrobiology.

Description:

Nanomaterials offer a unique set of characteristics that can be leveraged to make miniaturized, low power, radiation hard, lightweight instruments for the next generation space missions. This work focuses on the development of nanomaterial-based instruments. Current efforts include the development of a multifunctional sensor platform by printing nanomaterials such as graphene, carbon nanotube, molybdenum disulfide and other transition metal dichalcogenides using additive manufacturing techniques. The effort involves device design, fabrication, characterization, integration and packaging of devices. We are also developing a miniaturized multispectral imager with quantum dot pixels used as a filter array. The effort includes the optimization of the printing process of the quantum dots to fabricate the spectrometer, building an optical test setup for the spectrometer, integration of the overall instrument and characterization of the instrument. These instruments have a wide range of applications in planetary science, earth science and heliophysics.

Location:
Goddard Space Flight Center
Greenbelt, Maryland

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Field of Science: Technology Development

Advisors:
Mahmooda Sultana
mahmooda.sultana@nasa.gov
301-286-2158

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/oiir/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

Questions about this opportunity? Please email npp@orau.org

Point of Contact Mikeala

Eligibility Requirements

- **Degree:** Doctoral Degree.