

Opportunity Title: Advanced Materials and Processing Research
Opportunity Reference Code: 0050-NPP-NOV26-LRC-Aeronautics

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0050-NPP-NOV26-LRC-Aeronautics

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 11/1/2026 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:

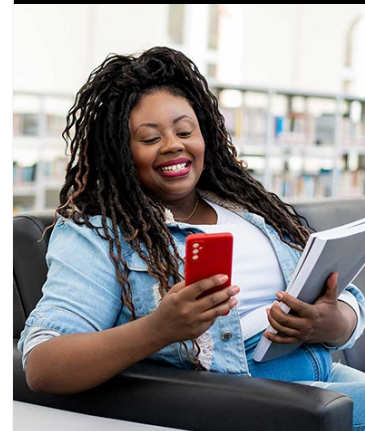
This position is located at NASA Langley Research Center in the Advanced Materials and Processing Branch. It involves fundamental and applied research into the structure/property/durability relationships of such aerospace materials as metals, intermetallics, ceramics, polymers, nano-structural, materials, bio-materials, composites and coatings. Examples of the work will vary depending on each specific proposal and supporting project.

Duties/Scope:

Conducts fundamental or applied research into the structure/property/durability relationships of such aerospace materials as metals, intermetallics, ceramics, polymers, nano-structural materials, bio-materials, composites and coatings.

Conducts research and testing directed toward the scientific understanding of, and the engineering application of materials for aerospace applications.

Research includes experimental and theoretical investigations of structures/materials related to their mechanical and physical behavior, and



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synthesis of advanced materials with tailored structures/microstructures and nanostructures to meet specific material property requirements for specific applications.

The research purposes include the advancement of the scientific knowledge of all classes of materials and composites and the establishment or modification of new principles and theories of the behavior of materials.

Research includes the engineering application of materials processing, fabrication technology, performance evaluation, and material selection.

The development of new experimental techniques, special diagnostic equipment, and novel analytical procedures.

Proposals may emphasize one or more of the following research objectives:

- Fundamental understanding of metals, intermetallics, ceramics, polymers, nanostructured materials, bio-materials, composites and coatings.
- Evolution of concepts for synthesis of new or improved materials and composites having potential for use in high-performance aerospace applications.
- Computational and theoretical materials modeling to develop advanced materials, explain or characterize unique features of behavior of materials, and/or to predict performance, as well as time and temperature trade-offs.
- Research and technology development in the engineering applications of such materials to advanced aerospace systems.
- Materials, properties, processes, and fabrication technology evaluation for aerospace applications.

Field of Science: Aeronautics

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