Opportunity Title: Chemistry in Star-Forming Regions
Opportunity Reference Code: 0040-NPP-MAR26-JPL-Cosmochem

Organization National Aeronautics and Space Administration (NASA)

Reference Code 0040-NPP-MAR26-JPL-Cosmochem

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 3/1/2026 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:

Molecules are important tracers, not only of chemical composition but also physical conditions. In addition, they regulate the heating and cooling of gas, and control its ionization balance. They therefore play a crucial role in the star formation process, and in the evolution of protostellar disks.

Theoretical astrochemistry at JPL uses sophisticated chemical networks to model the chemistry of gas and ices in protostellar disks and molecular cloud cores. The emphasis is on the observational signatures of the different stages of evolution, and on the development of complex organic or pre-biotic chemistry. There are close interactions with both the hydrodynamical modeling group and with observers at the lab.

Refs: Woods, P. & Willacy, K. (2007) Benzene formation in the inner regions of protostellar disks, ApJ, 655 L49 Willacy, K. (2007) Chemistry of multiply deuterated molecules in protoplanetary disks I. The outer disk, ApJ, 660, 441

Location:
Jet Propulsion Laboratory
Pasadena, California

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Field of Science: Cosmochemistry

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/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.