

**Opportunity Title:** Long Wavelength Photonic Integrated Circuits

**Opportunity Reference Code:** 0220-NPP-NOV23-JPL-TechDev

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

**Reference Code** 0220-NPP-NOV23-JPL-TechDev

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

**Description** Photonics has become an enabling technology for a host of industrial and scientific applications which combine many optical components and functionalities into a miniaturized chip format. While the PICs developed at the last decade has enabled applications the visible and near-IR wavelength range, there is a range of scientific applications that greatly benefits from availability of such chips at longer wavelength. There are prominent astronomical applications at long wavelength that can benefit greatly from development of long-IR photonic integrated circuits. This effort will target development of state-of-the-art PICs and spectrometers on chip at long wavelength. The postdoctoral researcher will have a unique opportunity to work on different aspects of this new development including but not limited to: (1) Design; (2) Device microfabrication; (3) Test and characterization and (4) integration into a spectrometer instrument. Successful candidate should have a recent Ph.D. in electrical engineering, or a closely related field. Experiences with photonic modeling, fabrication and characterization of photonic components are highly desirable.

**Location:**

Jet Propulsion Laboratory  
Pasadena, California

**Field of Science:**Technology Development

**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



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**Eligibility Requirements** • **Degree:** Doctoral Degree.