

**Opportunity Title:** Development of MKID Detectors and Readouts

**Opportunity Reference Code:** 0073-NPP-NOV23-JPL-TechDev

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

**Reference Code** 0073-NPP-NOV23-JPL-TechDev

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

**Description** Microwave Kinetic Inductance Detectors (MKIDs) are being developed for a broad range of applications in space science. These detectors use superconducting micro-resonators and therefore can be frequency-multiplexed to produce large arrays. A major recent emphasis in our work is the development of titanium nitride and other materials for achieving highly sensitive MKIDs operating at far-infrared wavelengths. We are seeking a postdoctoral fellow who is broadly interested in the development of MKID technology, including materials evaluation, device design, fabrication, characterization, and especially device physics. In addition, experience or interest in readout electronics and system applications will be considered.

**Location:**

Jet Propulsion Laboratory  
Pasadena, California

**Field of Science:**Technology Development

**Advisors:**

Henry LeDuc  
Henry.G.LeDuc@jpl.nasa.gov  
818-354-2209

**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/oiiir/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

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



Whether you are just starting your career or already at a senior level, ORAU offers internships, fellowships, research opportunities, and contract positions that can provide you with invaluable experience. Download the ORAU Pathfinder mobile app and find the right opportunity to propel you along your career path!

Visit ORAU Pathfinder [↗](#)

