Vacancy Name: IRC68122

**What You Will Do**

The Center for Integrated Nanotechnologies (MPA-CINT) invites outstanding candidates to apply for a postdoctoral position. The successful candidate will perform nanofabrications and electrical characterizations of low-dimensional semiconducting and emerging materials. The main materials of interest are semiconductor nanowire heterostructures, two-dimensional transition metal dichalcogenides, and topological materials. The experimental capabilities available for the research projects are a cleanroom, two electron beam lithography systems attached to scanning electron microscopes, a probe station, a temperature-dependent probe station, electron beam induced current microscopy system, and other capabilities at MPA-CINT including microRaman, Near-field optical microscopy, ultrafast pump-probe microscopy, etc. We will expect the successful candidate to make original research contributions to the program, publish journal articles, and have technical presentations at conferences.

**What You Need**

**Minimum Job Requirements:**

Expertise in one or more of the following areas:

- Nanoelectronics
- Nanofabrication
- Quantum transport measurement

**Desired Skills:**
At least two of the following:

- E-beam lithography (Raith ELPHY Quantum and NPGS)
- Capacitance measurements including DLTS
- Electron beam induced current microscopy
- Dry etching
- High vacuum system
- Labview software and programming
- Field effect transistor fabrication and analysis
- A strong background in physics of low-dimensional materials

**Education:**

- A Ph.D. in a relevant field completed within the past 5 years or soon to be completed.

**Notes to Applicants:**

- Contact: Jinkyoung Yoo (jyoo@lanl.gov)

**Additional Details:**

**No Clearance:** Position does not require a security clearance. Selected candidates will be subject to drug testing and other pre-employment background checks.

**New-Employment Drug Test:** The Laboratory requires successful applicants to complete a new-employment drug test and maintains a substance abuse policy that includes random drug testing.

Candidates may be considered for a Director's Postdoc Fellowship and outstanding candidates may be considered for the prestigious Richard P. Feynman, Darleane Christian Hoffman, J. Robert Oppenheimer, or Frederick Reines Distinguished Postdoc Fellowships.

For general information go to Postdoc Program.

**Equal Opportunity:**

Los Alamos National Laboratory is an equal opportunity employer and supports a diverse and inclusive workforce. All employment practices are based on qualification and merit, without regards to race, color, national origin, ancestry, religion, age, sex, gender identity, sexual orientation or preference, marital status or spousal affiliation, physical or mental disability, medical conditions, pregnancy, status as a protected veteran, genetic information, or citizenship within the limits imposed by federal laws and regulations. The Laboratory is also committed to making our workplace accessible to individuals with disabilities and will provide reasonable accommodations, upon request, for individuals to participate in the application and hiring process. To request such an accommodation, please send an
email to applyhelp@lanl.gov or call 1-505-665-4444 option 1.

Where You Will Work

Located in northern New Mexico, Los Alamos National Laboratory (LANL) is a multidisciplinary research institution engaged in strategic science on behalf of national security. LANL enhances national security by ensuring the safety and reliability of the U.S. nuclear stockpile, developing technologies to reduce threats from weapons of mass destruction, and solving problems related to energy, environment, infrastructure, health, and global security concerns.