

Principal Process Engineer- Nanofabrication
Grade 58 \$ 68,700 -\$ 117,500
Code 395058 "Engineer"
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Business Title

Principal Process Engineer- Nanofabrication

Duties & Responsibilities

The Center for Nanoscale Systems (CNS) at Harvard University seeks a talented, enthusiastic individual to work within the nanofabrication facility as a principal process engineer, overseeing operations of a diverse range of state-of-the-art Reactive Ion Etching (RIE) systems in the cleanroom, and supporting the research applications of CNS users. Reporting to the Manager of the Nanofabrication Facility, this position's responsibilities include:

- 1) Oversight and lead all RIE related operation activities, including RIE process design, recipes development, process control, user training, authoring SOPs and related documents, tool performance improvement, etching database establishing and maintenance, trouble shooting and user project assistance, new RIE technology evaluation, and equipment acquisition;
- 2) Engage with other staff on other nanofabrication process development and integration, such as lithography, film deposition, wet etching, and back-end packaging;
- 3) Work with the CNS staff to maintain and improve CNS facilities. Develop and institute equipment maintenance and monitoring procedures consistent with high process quality and dependability;
- 4) Bring new fabrication and processing technologies to CNS; interface with vendors to specify, acquire and qualify state-of-the-art equipment to meet our current and future research needs;
- 5) Act as technical liaison to CNS/NNIN users; provide training, assistance, and technical solutions to users, and support broad and challenge research application;
- 6) Participate in conferences, workshops, summer projects, and research experiences offered internally or by other organizations to sharpen technical skills.
- 7) Train users on best safety practices, and helping monitor laboratory safety compliance.

CNS is an open, shared-use facility that serves Harvard as well as external academic and industrial users. Collaboration with other CNS personnel to achieve objectives and enhance service quality is highly expected.

Basic Qualifications

Master Degree in Science or Engineering with 4-5 years of Microscope-/nano- fabrication experience.

Extensive experience with dry etching technology is required.

All candidates must be authorized to work in the United States.

Additional Qualifications

Excellent communication skills are required. The candidate should be self-motivated with a strong desire to acquire on-the-job training, to succeed, and to develop intellectual, and practical professional skills. Demonstrated ability to work well in teams is essential.

Physical Requirements: Must be able to work in cleanroom, chemical, and measurement laboratory environments. Will work around compressed gases, acids, solvents, vacuum pump oils, and other chemicals. Must be very dexterous; will be required to work on large and small assemblies.

Additional Information

Additional information regarding the Center for Nanoscale Systems (CNS) can be found at: www.cns.fas.harvard.edu. CNS is a part of the Faculty of Arts and Sciences (FAS) at Harvard University, and is a node in the National Science Foundation's National Nanotechnology Infrastructure Network (NNIN). CNS provides centralized user facilities for imaging, material synthesis, and nanofabrication research support.

All formal offers will be made by FAS Human Resources