

Open Position | Post-Doctoral Research Associate Northwestern University – NUFAB Facility

A Postdoctoral Research Associate position is immediately available in Northwestern's *NUANCE* Center in the area of design and fabrication of novel micro/nanofluidic devices for TEM/SEM experimentation.

Duties: The post-doctoral researcher will conduct the independent research work and involve in proposal writing for designing and fabrication of lab-on-a-chip micro/nano fluidic devices for in-situ electron microscopy experiments. The candidate will be responsible for designing free standing liquid cell nanofluidic devices which will be used in TEM and/or SEM experiments for studying fundamental concepts such as nanoparticle self-assembly dynamics, fluid flow and mixing. The ideal candidate will have opportunities to collaborate with many excellent research groups in the department of Material Science and Engineering, Chemistry and other fields.

The ideal candidate will also participate in user training and hands-on technical assistance of micro/nano fabrication instruments to enhance scholarly activities.

The work will be conducted in Northwestern University Micro/Nano Fabrication Facility ([NUFAB](#)) - a new multimillion dollar, state-of-the-art 7000 ft² cleanroom facility - and Electron Probe Instrumentation Center (EPIC). As a member of the Soft and Hybrid Nanoscale Experimental ([SHyNE](#)) Resource, a node of the [NSF](#)'s National Nanotechnology Coordinated Infrastructure ([NNCI](#)) and Northwestern's recent recruitment of world-renowned microfabrication faculty, NUFAB is going through a phenomenal growth phase. Under direction of Northwestern's Atomic and Nanoscale Characterization and Experimental ([NUANCE](#)) Center and in close association with the Simpson Querrey Institute ([SQI](#)) and The International Institute of Nanotechnology ([IIN](#)), NUFAB expects to continue to lead the Midwest region in micro- and nanofabrication discoveries and development.

This position is for one year with the possibility of extension.

Skills: The preferred candidate will have demonstrated expertise in hands on micro/nano fabrication and microfluidic design. The microfluidic experience should include fundamental understanding of the principles of fluid dynamics, experiment design and basic chemistry knowledge. The microfabrication experience should include photomask design, intermediate photolithography expertise, CVD dielectric deposition as well as basic understanding of mechanical engineering concepts. Experience working in cleanroom environment is preferred. The candidate will have demonstrated the ability to provide hands-on training for microfabrication and characterization equipment. The candidate will have demonstrated experience in chemical and cleanroom equipment safety. The successful candidate will be customer-oriented and will contribute towards improving the operation of the facility.

Qualifications: PhD degree in Engineering or Science with background in Microfluidics or semiconductor micro/nano fabrication and hands-on equipment experience. SEM/TEM experience is also a plus.

Please email resume to: nufab@northwestern.edu