

RESEARCH ENGINEER IN ADVANCED ANALYTICAL ELECTRON MICROSCOPY

Department of Materials Science and Engineering
Lehigh University, Bethlehem, PA

The Nanocharacterization Laboratory at Lehigh University houses an impressive array of electron-optical instruments including two state-of-the-art aberration-corrected analytical electron microscopes. It is also the home of the world-renowned Lehigh Microscopy School. The Research Engineer position entails managing all aspects of TEM/STEM operations within this user facility. Major responsibilities of the successful candidate include: training users in the operation of the laboratory's TEM/STEM microscopes and related specimen preparation equipment, including a dual-beam FIB; performing routine maintenance and overseeing essential repairs of the instrumentation; managing routine operation, including logs, bookkeeping, billing, maintenance records, and safety; making recommendations and assisting in the purchase, installation and commissioning of new equipment; liaison with external users from other universities, government laboratories, and local industry; providing outreach and tours for the general public; and participating in the annual Lehigh Microscopy School (<http://www.lehigh.edu/microscopy>). Further details of the Nanocharacterization Laboratory and position requirements can be found at <http://www.lehigh.edu/~inmicro/>.

Applicants should submit a complete CV and the names of three referees to Sharon Coe, Department of Materials Science and Engineering, Lehigh University, 5 East Packer Avenue, Bethlehem, PA 18015-3195, USA. We will start reviewing applications after March 15, 2010, and the search will continue until the position is filled. *Lehigh University is committed to recruiting and retaining women and members of minority groups.*

Job Description (for website)

Job Title: Research Engineer in Advanced Analytical Electron Microscopy

Location: Bethlehem, PA

Full/Part Time: Full-Time

Regular/Temporary: Regular

Application deadline: We will start reviewing applications after March 15th 2010 and the search will continue until the position is filled.

Department: Department of Materials Science and Engineering, Rossin College of Engineering and Applied Science, Lehigh University.

Salary Range: Negotiable depending on qualifications and experience.

Qualifications: Advanced University degree (Master's or higher) in a physical science or an engineering discipline and four years of demonstrated experience in electron microscopy.

Requirements: This position is very specialized and requires the applicant to have:

- * Proven knowledge and hands-on experience with transmission electron microscopes (- familiarity with aberration corrected scanning transmission electron microscopy would be a distinct advantage)
- * The ability to operate advanced laboratory equipment
- * The ability to maintain advanced laboratory equipment (-prior experience with vacuum technology and electronics would be advantageous)
- * The ability to train and convey technical information to technical and non-technical users
- * Good management skills relevant to a multi-user environment
- * The ability to perform log and book-keeping functions
- * Good communication and interpersonal skills
- * The ability to establish and maintain effective working relationships.

Contact for further information:

Dr. Christopher J. Kiely (chk5@lehigh.edu)

Dr. Masashi Watanabe (maw3@lehigh.edu)

For further information on the Nanocharacterization Laboratory at Lehigh University please visit <http://www.lehigh.edu/~inmicro/>

Responsibilities:

Some of the major responsibilities of this position are as listed below:-

- * Interacting, assisting and training users for routine and advanced operation of the TEM/STEM instruments and occasionally SEM's
- * Advising users on the use of related TEM sample preparation equipment, including dual beam FIB technology
- * Assisting users with image simulation and data analysis
- * Performing routine maintenance and essential repair of the microscopes and related

sample preparation equipment. (Some, but not all, of our microscopes are under service contract)

- * Liaison with instrument service engineers and external users from other universities, government laboratories and local industry
- * Making recommendations and assisting in the purchase, installation and commissioning of new equipment.
- * Managing routine day-to-day operation of the Nanocharacterization Laboratory (- including logs, book-keeping, billing, maintenance records, inventory, and consumables purchases)
- * Overseeing safety aspects of the Nanocharacterization Laboratory
- * Liaison with personnel from the Facilities Department with regard to environmental issues in the microscopy suite
- * Participating in the annual Lehigh Microscopy Schools
- * Providing outreach and tours for the general public.

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