

Limited Term, Postdoctoral Associate

Surface Engineering & Electrochemistry and Computational Materials Engineering labs

Faculty/Division: Faculty of Applied Science & Engineering

Department: Materials Science and Engineering

University: University of Toronto

Campus: St. George (downtown Toronto)

Description

Surface Engineering & Electrochemistry (SEE) and Computational Materials Engineering labs are jointly looking to immediately fill a Postdoctoral Associate term-position in the Department of Material Science & Engineering at the University of Toronto. Our department houses an internationally-unique, world-class cadre of leading-edge surface characterization, electrochemistry, electron microscopy, and scanning probe tools, supported by collaborative research staff.

The Postdoctoral Associate will work directly under the supervision of Professors Steven Thorpe, Chandra Veer Singh, and Donald Kirk to conduct high quality research involving experimental characterization and testing of a new class of bulk metallic glasses for various applications such as airborne mineral exploration and lightweight structures; interact with and prepare reports and presentations for industrial and academic partners, develop research proposals and funding applications, routinely supervise and train undergraduate/graduate students, author scientific publications and conference proceedings.

Minimum Qualifications

Education

- Doctoral (Ph.D., Sc.D.) degree in Materials Science or closely related fields, with a focus on materials characterization using electron microscopy, X ray diffraction, tensile and fracture testing, electrochemistry, and surface science methods.

Experience

- Minimum of three (3) years of experience in a world-class, multi-disciplinary scientific user facility, focusing on the applications and development of in situ transmission electron microscopy (TEM) techniques to understand the structural/chemical changes to nanomaterials upon external stimulus.
- Minimum of three (3) years of experience working with graduate and undergraduate students, post-docs, industrial/government researchers in academic setting.

- Evidence of impact in the above roles, as demonstrated by relevant high impact publications and patents related to materials characterization via electron microscopy and surface science techniques, is required.
- Some experience related to computational modeling such as finite element analysis, molecular modeling will also be desirable.

Skills

- Expert-level knowledge of and experience with transmission electron microscopy (TEM) and scanning electron microscopy (SEM) on nano-structured materials.
- Expert-level knowledge of and experience with research and development of sample preparation (ion milling, FIB) techniques and the instrumentation for in-situ TEM and SEM analyses.
- Ability to identify opportunities and initiate research and collaboration with Canadian and international researchers.
- Proficient in scientific visualization software (e.g. Digital Micrograph, ImageJ).

Other

- Ability to draft research grant proposals independently.
- Well-developed analytical skills.
- Detail-oriented. Ability to work independently, with minimal supervision.
- Excellent communication skills, both written and oral.

Employee Group: Postdoctoral Associates

Appointment Type: Grant-Term

FTE: 100%

Anticipated Start Date: Mar, 2015

Schedule: Full-Time

Salary: \$31,000 –\$40,000

Job Posting: February 14

Job Closing: March 01 or filled on a first come basis

To Apply

The interested applicants should submit their CV, up to three recent publications and contact information of three references to:

Fanny Strumas, Manager of Administration
Department of Materials Science and Engineering, University of Toronto
Wallberg Building, 184 College Street, Suite 140
Toronto, Ontario M5S 3E4 Canada

E-Mail: strumas@ecf.utoronto.ca

(T): 416-978-5638

All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.

The University of Toronto is strongly committed to diversity within its community and especially welcomes applications from visible minority group members, women, Aboriginal persons, and persons with disabilities, members of sexual minority groups, and others who may contribute to the further diversification of ideas.