

## Limited Term Research Associate, Ontario Centre for the Characterization of Advanced Materials (OCCAM)

**Faculty/Division:** Faculty of Applied Science & Engineering

**Department:** Materials Science and Engineering

**Campus:** St. George (downtown Toronto)

### Description

Ontario Centre for the Characterization of Advanced Materials (OCCAM) is looking to immediately fill a Research Associate term-position. The OCCAM is a \$23 million, multi-disciplinary material characterization facility housed and co-managed by the Departments of Chemical Engineering & Applied Chemistry and Material Science & Engineering at the U of T. It is an internationally-unique, world-class cadre of leading-edge surface characterization, electron microscopy, and scanning probe tools, supported by collaborative research staff.

The Research Associate will work directly under the supervision of Professor Doug Perovic to coordinate all research, training, and outreach activities in the OCCAM facility, 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, and provide general technical and scientific guidance to OCCAM personnel. In addition, the Research Associate will coordinate activities in support of the lab's mission, including the management of OCCAM's scientific equipment and supplies.

### 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 and surface science methods.

#### Experience

- Minimum of eight (8) 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 eight (8) years of experience working with students, post-docs, industrial/government researchers, and faculty in academic setting, directing research projects as a Principle Investigator, working directly in the supervision of undergraduate/graduate students, and postdocs.

- Due to the broad research vision and ongoing projects related to OCCAM, it is indispensable that the applicant has demonstrated research experience in the areas of carbon materials, lithium batteries, solar cells, thermos-electrics, catalysts, and engine and turbine systems. In addition, experience with materials growth and processing is required.
- 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.
- Previous experience of working with U of T / OCCAM is highly desirable.
- Minimum of four (4) years of experience working in related industry.

### **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 the instrumentation for in-situ TEM and SEM analyses.
- Strong Working knowledge of surface science techniques (Auger, XPS, SIMS)
- Ability to identify opportunities and initiate research and collaboration with Canadian and international researchers.
- Proficient in LaTeX, and scientific visualization software (e.g. Digital Micrograph, ImageJ).

### **Other**

- Ability to draft and review research grant proposals independently.
- Demonstrated teaching ability of materials science courses at undergrad and graduate levels.
- Well-developed analytical skills.
- Detail-oriented. Ability to work independently, with minimal supervision.
- Excellent communication skills, both written and oral.

**Employee Group:** Research Associates

**Appointment Type:** Grant-Term

**FTE:** 100%

**Anticipated Start Date:** May 2015

**Schedule:** Full-Time

**Salary:** \$41,329–\$77,492

**Job Posting:** April 30, 2015

**Job Closing:** May 7, 2015

**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](mailto: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.