

PROFESSOR ULTRAFAST CHARACTERIZATION OF MATERIALS (AP 18-06) CENTRE ÉNERGIE MATÉRIAUX TÉLÉCOMMUNICATIONS (tenure-track position)

Context and summary

Institut national de la recherche scientifique (INRS) is the only institution in Québec (Canada) dedicated exclusively to graduate level university research and training. The influence of our faculty and students extends around the world. In partnership with the community and with industry, we are proud to contribute to the development of society through our discoveries and through the training we provide to a new generation of scientific, social, and technological innovators.

INRS would like to fill a new faculty position in the area of **Ultrafast Materials Characterization**. The successful candidate will collaborate with the multidisciplinary research program at the INRS Énergie Matériaux Télécommunications Research Centre. The areas of expertise aimed at, but not limited to, are: time-resolved electron microscopy, electron microscopy, ultrafast electron diffraction, ultrafast characterization of materials, microscopy of irreversible phenomena, ultra-fast lasers and photonics and their applications in materials and biological sciences for various areas such as, for example, biomedical and energy.

Main duties and responsibilities

- The candidate is expected to establish collaborations with research teams already in place, while developing or maintaining partnerships with groups outside the EMT research center. The ability to develop partnerships with the private sector is particularly valuable.
- This position is incorporated within an environment where about forty professors-researchers undertake leading-edge research and training in diverse fields of sustainable energy, advanced materials, ultrafast photonics, telecommunication systems and nanobiotechnology.
- The Centre hosts unique major research infrastructure including the Laboratory of Micro and Nanofabrication and the Advanced Laser Light Source composing the Infrastructure of Nanostructures and Femtoscience (<http://lmn.emt.inrs.ca/EN/inf.htm>).
- This new position is intended to build a critical mass of expertise around a major \$15M addition, the Infrastructure for Advanced Imaging (IAI), awarded by the Canada Foundation for Innovation (CFI) in the 2012 competition. This infrastructure houses two time-resolved electron microscopes (for irreversible and reversible dynamics) and several sample preparation equipment, including a focused ion beam. As a whole, with the range of dynamic phenomena it can access, the IAI is a unique infrastructure worldwide
- Secure external funding from a variety of funding agencies, both provincial and federal, also involving various partners from the public and private sectors whenever needed/pertinent. Potential sources of funding include the Natural Sciences and Engineering Research Council of Canada (NSERC) and the Fonds québécois de la recherche sur la nature et les technologies (FQRNT).
- Participate in teaching and training at the graduate level (both M.Sc. and Ph.D. students), as well as supervising post-doctoral fellows and research personnel.

Requirements

- Doctorate in a relevant discipline (physics, materials science, engineering, chemistry, biology);
- Strong scientific publishing record illustrating leadership and innovation;
- Academic and technical expertise that are complementary to the existing faculty at EMT (<http://www.emt.inrs.ca/les-professeurs/mosaique/6>)
- Ability to work in multidisciplinary teams and networks as well as in collaboration with industrial partners;
- Aptitude for basic and applied research, as well as multidisciplinary teaching and mentoring at the masters and doctorate levels;
- Entrepreneurial qualities and demonstrated ability to secure external research funding.

Working language

- French is the working language of the Institute. Fluency in English is required.

Candidates whose native language is not French are encouraged to apply. The Centre will provide them with all the resources necessary to facilitate their learning of the French language.

Workplace

Institut national de la recherche scientifique (INRS)
Centre Énergie Matériaux Télécommunications
1650, boulevard Lionel-Boulet
Varenes (Québec, CANADA) J3X 1S2

Varenes is located on the South Shore of Montreal.

Salary

In accordance with the collective agreement in effect at INRS.

How to apply

Interested applicants should send their application including a complete curriculum vitae, a copy of their three most significant publications, a two to three page summary of their research interests, a statement of teaching experience and philosophy, and the names and contact information of three referees, before **October 15th, 2018** indicating the position number AP 18-06 to:

Director
Centre Énergie Matériaux Télécommunications
Institut national de la recherche scientifique (INRS)
Centre Énergie Matériaux Télécommunications
1650, boulevard Lionel-Boulet



Institut national
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INRS is committed to employment equity and diversity.
INRS welcomes applications from women, visible minorities, ethnic minorities, indigenous people, and persons with disabilities.
Priority is given to Canadian citizens and residents.