



## **Department of Mechanical and Materials Engineering Tenure-Track Faculty Position in Irradiation of Materials**

The Department of Mechanical and Materials Engineering, Faculty of Engineering and Applied Science at Queen's University invites applications for a Tenure-track faculty position at the rank of Assistant Professor with specialization in Irradiation of Materials, with a preferred starting date of July 1, 2017. In exceptional cases, candidates above the level of Assistant Professor may be considered.

Candidates must hold a doctoral degree (or be near completion) in materials science and engineering, physics or a related area. The successful candidate will be an outstanding scientist who will establish an excellent research program and contribute to undergraduate and graduate teaching and supervision. The main criteria for selection are academic and teaching excellence. The successful candidate will provide evidence of high quality scholarly output that demonstrates potential for independent research leading to peer assessed publications and the securing of external research funding, as well as strong potential for outstanding teaching contributions at both the undergraduate and graduate levels, and an ongoing commitment to academic and pedagogical excellence in support of the department's programs. Candidates must provide evidence of an ability to work collaboratively in an interdisciplinary and student-centred environment. The successful candidate will be required to make substantive contributions through service to the department, the Faculty, the University, and/or the broader community. Salary will be commensurate with qualifications and experience. This position is subject to final budgetary approval by the University.

Queen's University is one of Canada's leading research-intensive universities. It is located in historic Kingston on the shores of Lake Ontario. Kingston's residents enjoy an outstanding quality of life with a wide range of cultural, recreational, and creative opportunities.

Queen's is playing a leading role in the establishment of the Canadian Particle Astrophysics Research Centre (CPARC), an ambitious new program funded by the Canada First Research Excellence Fund (CFREF). A major goal of CPARC includes building a powerful research team contributing to the many diverse requirements of a world-leading particle astrophysics research program. This includes the development of particle astrophysics experiments and theory, observational and theoretical astrophysics, detector design, and the development of tools and techniques for calibration, material screening and low level radio-purification. To achieve this, CPARC aims to benefit from and strengthen cross-disciplinary expertise at Queen's between Physics, Engineering Physics and Astronomy (particle astrophysics and detector development), Chemistry (radio-analytical chemistry), Geological Sciences (Facility for Isotopic Research) and Mechanical and Materials Engineering (Reactor Materials Testing Laboratory, RMTL).

The University anticipates hiring seven faculty members associated with CPARC in addition to a Tier 1 Canada Research Chair (CRC) particle astrophysics theorist, to complement its current team of research scientists, engineers, technicians, postdoctoral fellows and graduate students, all in support of the research centre. An additional seven faculty hires are being strategically targeted at collaborating institutions across Canada to significantly enhance this world-renowned particle astrophysics program. For further information and the complete set of goals for CPARC, please see [www.cparc.ca](http://www.cparc.ca).

The successful candidate for this position will have a research program that aligns with the research goals of CPARC, and the existing research activities of the Nuclear Materials research program at Queen's. The successful candidate will be able to take advantage of the irradiation facilities at the Reactor Materials Testing Laboratory (RMTL) at Queen's. Further information is available at [www.rmtl.ca](http://www.rmtl.ca). The successful candidate will take a leadership role in developing the synergies between nuclear materials research and the CPARC program using the infrastructure available at RMTL. This could include developing techniques to characterize the response of a variety of particle astrophysics detectors, enhancing their performance, and exploring options for their commercialization. Registration as a Professional Engineer in Ontario, or eligibility to acquire registration in Canada, is an essential requirement.

Preference will be given to candidates with an outstanding research background and industrial experience. *Areas of interest include, but are not limited to, modelling irradiation of materials, experimental testing and characterization of irradiated materials, and materials for nuclear power applications.* Demonstrated experience in creative teaching laboratories and/or innovative teaching methods would be considered an asset.

The Department of Mechanical and Materials Engineering (<http://me.queensu.ca>) at Queen's University has approximately 30 faculty members working in the areas of Materials Engineering, Design & Manufacturing, Biomechanical Engineering, and Energy & Fluid Systems. The Department currently has an enrolment of approximately 480 undergraduate students and over 120 graduate students in the MASc and PhD programs. The Department presently has a very active Nuclear Materials research program with 15 graduate students, led by an *NSERC Industrial Research Chair in Nuclear Materials and Tier 1 Canada Research Chair (CRC) in Mechanics of Materials*. Research in the Department is supported by two other research chairs, *a Tier 1 CRC in Computational Turbulence, and a Queen's Research Chair in Computational Fluid Dynamics*.

The University invites applications from all qualified individuals. Queen's is committed to employment equity and diversity in the workplace and welcomes applications from women, visible minorities, Aboriginal peoples, persons with disabilities and LGBTQ persons. All qualified candidates are encouraged to apply; however, in accordance with Canadian Immigration requirements, Canadian citizens and Permanent Residents of Canada will be given priority.

To comply with federal laws, the University is obliged to gather statistical information about how many applicants for each job vacancy are Canadian citizens/permanent

residents of Canada. Applicants need not identify their country of origin or citizenship, however, all applications must include one of the following statements: “I am a Canadian citizen/permanent resident of Canada”; OR, “I am not a Canadian citizen/permanent resident of Canada”. Applications that do not include this information will be deemed incomplete.

A complete application consists of:

- a cover letter (including one of the two statements regarding Canadian citizenship/permanent resident status specified in the previous paragraph);
- a current Curriculum Vitae (including a list of publications);
- a statement of research interests;
- a statement of teaching interests and experience (including teaching outlines and evaluations if available), and;
- the names and full contact information of three referees.

Please indicate clearly the position for which you are applying by quoting the following position number on your cover letter: 00503721. Electronic applications (in PDF format) can be emailed to the Head, Department of Mechanical and Materials Engineering, at [cparc\\_careers@cparc.ca](mailto:cparc_careers@cparc.ca).

Review of applications will begin on March 15, 2017, however applications will continue to be accepted until the position is filled. The University will provide support in its recruitment processes to applicants with disabilities, including accommodation that takes into account an applicant's accessibility needs. If you require accommodation during the interview process, please contact Julie McDonald at [cparc\\_careers@cparc.ca](mailto:cparc_careers@cparc.ca).

Additional information about Queen's University, which may be of interest to prospective faculty members, can be found at [www.queensu.ca/facultyrecruitment](http://www.queensu.ca/facultyrecruitment).

Academic staff at Queen's University are governed by a [Collective Agreement](#) between [Queen's University Faculty Association \(QUFA\)](#) and the University, which is posted at <http://queensu.ca/facultyrelations/faculty-librarians-and-archivists/>

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