



NSERC Tier 1 Canada Research Chair in in electrochemical technologies and functional materials for environmental energy transition

Université du Québec à Trois-Rivières

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👤 1 Position available

📅 Published externally on: July 6, 2026

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📅 Expires externally on: September 28, 2026

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JOB DESCRIPTION

Posting from July 6 to September 28, 2026

Candidates are invited to apply at:

http://www.uqtr.ca/CRC_Declaration_volontaire

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The Université du Québec à Trois-Rivières (UQTR) invites applications in the fields of energy, advanced materials, and/or related disciplines for a Natural Sciences and Engineering Research Council of Canada (NSERC) Tier 1 Canada Research Chair.

More specifically, the University is seeking an expert in electrochemical technologies (including electrochemical engineering) and functional eco-materials. These materials must be derived from critical and strategic minerals (CSMs) and/or renewable resources (e.g., biomass) and intended for applications

related to energy and environmental transition. Areas of interest include, but are not limited to: energy production, storage, distribution, and use (including batteries, fuel cells and other low-carbon hydrogen technologies), liquid effluent treatment (including the recovery of CSMs), and the valorization of solid waste. The proposed research program must align with UQTR's Strategic Research Plan, with particular emphasis on its strategic priorities in Energy and Technological Innovation.

The following research areas are of particular interest to the institution:

- Optimization of the use of critical and strategic minerals in energy systems (batteries, fuel cells, electrolyzers, etc.) to reduce dependence on critical and strategic minerals while considering the integration of bio-based materials;
- Study of material aging (particularly in operando) and consideration of the environmental impacts of emerging energy technologies (life cycle analysis, carbon footprint assessment, etc.);
- Development of technologies with enhanced performance and reliability under extreme climatic conditions, including both cold and hot environments;
- Integration of advanced computational methods and artificial intelligence (AI) for the development of micro-nano systems (e.g., accelerated materials discovery) and complex dynamic systems for energy-related applications.

The successful candidate will be expected to lead an independent, innovative research program and contribute to teaching and training activities of both undergraduate and graduate students. They will also be expected to foster and strengthen intersectoral research within the Joint Research Unit (UMR-UQTR-INRS), in close collaboration with members of the Hydrogen Research Institute (IRH), the Innovation Institute in Ecomaterials, Ecoproducts, and Ecoenergies Biomass-based (I2E3), and the National Integrated Centre for Intelligent Manufacturing (CNIMI). The UQTR-INRS Joint Research Unit employs a coordinator, a technician, two research associates (professionals), and postdoctoral fellows, all responsible for providing support to the unit's faculty researchers in projects related to critical minerals, batteries, transportation electrification, and the energy transition. As part of the Chair's activities, the successful candidate will be able to leverage the local ecosystem and collaborate with local stakeholders — building strategic industrial partnerships and ties with Centres collégiaux de transfert de technologie (CCTTs) — and benefit from existing connections among the various strategic clusters of the Fonds de recherche du Québec (FRQNT), particularly the Réseau Québécois pour l'Énergie Intelligente (RQEI).

The institutional research units (UMR-INRS, I2E3, IRH, CNIMI) own state-of-the-art scientific infrastructure aligned with the Chair's themes, available to the Chairholder. More specifically, the Chairholder will have access to the energy transition technology platform in collaboration with UMR-INRS-UQTR. They may also submit a funding application to the Canada Foundation for Innovation (CFI) to acquire additional equipment. The existing infrastructure includes:

- Platforms and test benches for electrochemical and energy technologies, including hydrogen electrolyzer and fuel cell systems (PEMFC, PEMWE, and AEM), battery cycling stations across various scales (1 μ A to 100 A), and test benches for GDL and corrosion analysis;
- Electrochemical equipment, including potentiostats and rotating electrode systems;
- Materials characterization systems, including PXRD, SEM/TEM microscopes with EDS/XEDS/EBSD detectors, a 3D optical microscope with LIBS, X-ray diffractometers, XRF instruments, ICP-OES systems, proton conductivity and contact angle measurement equipment, and a nano-sclerometer;
- Manufacturing, processing, and deposition equipment, including gloveboxes and laboratory-scale battery production lines, high-temperature furnaces (up to 2,500°C), hydrometallurgical reactors, and systems for electrospinning, ultrasonic spraying, and cathodic sputtering;
- Complementary analytical instruments, including a gas chromatography system and a fluoride release measurement system;
- High-performance computing infrastructure.

The Canada Research Chairs Program:

The Canada Research Chairs Program is designed to strengthen research excellence and advanced training at Canadian post-secondary institutions. Tier 1 Canada Research Chairs, which provide an annual funding of \$200,000 for seven years, are awarded through a highly competitive and rigorous evaluation process to outstanding researchers who are internationally recognized by their peers as leaders in their respective fields. Candidates nominated for a Tier 1 Canada Research Chair must hold the rank of full professor, or associate professor who are expected to be promoted to the rank of full professor within one or two years of their nomination.

Commitment to Equity, Diversity, and Inclusion:

UQTR is committed to fostering an equitable, diverse, and inclusive environment, which is fundamental to the development of innovative knowledge and technologies. This is why it is committed to complying federal and provincial policies on non-discrimination and employment equity and participates in the Employment Equity Access Program (PAÉE).

In accordance with the [Canada Research Chairs Program's target-setting plan](#), UQTR particularly encourages applications from women and gender equity-seeking groups, members of Indigenous communities, racialized individuals and individuals with disabilities. Upon request, the selection process can be adapted to meet the needs of individuals with disabilities; please contact Geneviève Côté, EDI Advisor (Research), at genevieve.cote3@uqtr.ca.

Selection process:

Eligible applications will be evaluated by an expert committee responsible for identifying candidates who satisfy both the University's selection criteria and the excellence standards of the Canada Research Chairs Program. As the appointment is contingent upon approval by the relevant academic department, successful candidates will also be evaluated by a departmental committee and will be required to complete the University's faculty hiring process. The selected candidate will be invited to submit a full application to the Canada Research Chairs Program in April 2027 and, if the chair is awarded, will be offered a tenure-track faculty position.

The University recognizes that various life circumstances such as, illness, disability, and family or community responsibilities (maternity, parental, or medical leave; caregiving responsibilities; reduced research productivity resulting from chronic illness or disability; long-term effects of COVID-19; and other comparable circumstances) — may have affected candidates' research outcomes. Such circumstances will be given careful and appropriate consideration throughout the evaluation process.

Useful links:

- For more information on the Canada Research Chairs Program, consult: <http://www.chairs-chaire.gc.ca/home-accueil-fra.aspx>
- For more information on the Canada Research Chairs allocation process at UQTR, consult: http://www.uqtr.ca/CRC_balises
- For more information about UQTR, consult: <http://www.uqtr.ca>
- For more information on research at UQTR, consult: <https://www.uqtr.ca/recherche/index.shtml>
- For more information on the Joint Research Unit (UMR) – UQTR – INRS, consult: <https://inrs.ca/umr-inrs-uqtr>
- For more information on the Hydrogen Research Institute, consult: <http://www.uqtr.ca/IRH>
- For more information on the Innovation Institute in Ecomaterials, Ecoproducts, and Ecoenergies Biomass-based (I2E3), consult: <http://www.uqtr.ca/i2e3>

UNIVERSITY REQUIREMENTS:

The successful candidate will be appointed to a regular tenure-track faculty position at the Université du Québec à Trois-Rivières (UQTR), if awarded a Canada Research Chair. Candidates must hold a doctoral degree (PhD) in a relevant discipline.

As UQTR is a French-language institution, the successful candidate must demonstrate sufficient proficiency in French

to fulfill the responsibilities of the position or commit to acquiring the necessary level of proficiency following appointment. UQTR provides support for French-language learning and integration.

Previous teaching experience will be considered an asset.

Other:

Candidates wishing to apply are invited to submit their application file by 5:00 p.m. on **September 28, 2026**. The application must include:

- a cover letter;
- a curriculum vitae including a list of research contributions;
- a brief description of the research program associated with the chair (maximum 3 pages);
- a description of the infrastructure required to carry out the work planned for the chair (maximum 1 page);
- three examples of significant contributions in a field relevant to the chair’s theme;
- the names of three experts willing to provide a letter of support;
- candidates may also include details in their application — without providing personal information—regarding circumstances and/or barriers that may have affected their research (e.g., a slowdown or interruption of research activities, missed opportunities). UQTR will take these circumstances into account when reviewing applications.

All required documents must be submitted as a single PDF file using the online voluntary declaration form available at: http://www.uqtr.ca/CRC_Declaration_volontaire. Please do not use the “Postuler” button on this webpage to submit your application for this competition.

Salary: The salary is determined in accordance with the collective agreement for UQTR professors. Chairholders may get an annual bonus of up to 20% of their salary.

All applications will be kept confidential.

Please submit your application no later than **September 28, 2026, at 23:59 p.m.**

The Université du Québec à Trois-Rivières is committed to an approach towards a fully equitable, diverse, and inclusive university (EDI). In this regard, it reviews its practices and aims to be an active participant in its community and society. The university values diversity within its staff and recognizes the plural nature of identities. It particularly encourages women, Indigenous peoples, members of visible or ethnic minorities, individuals with disabilities, and members of LGBTQ+ communities to apply. In accordance with the law, the university adheres to the employment equity program. Upon request, the recruitment process can be adapted to meet the needs of individuals with disabilities. Confidentiality of information is taken seriously.

BENEFITS



Assurances collectives et
régime de retraite



Campus vert proche de tous
les services



Salaire compétitif



Job type

Application Bank / Full-time

Required documents



CV