Post-doctoral researcher in processing, extraction, separation and valorization of critical and strategic elements

**Background and overview:** Critical and strategic elements (CSE) include elements such as rare earth elements (REEs), lithium, graphite, antimony, cobalt and copper. Given their growing importance, the development of advanced processes that allow their responsible exploitation, particularly in hydrometallurgy, is an important subject. Thus, the person sought will join the research teams of Professors Jean-François Boulanger and Lucie Coudert to address themes including:

- Upgrading REEs from primary and secondary sources by hydrometallurgical means
  - Pre-separation of REEs in preparation for solvent extraction steps.
  - Recovery of REEs from apatite by-products or mine effluents.
- The person will also be required to develop or collaborate in research projects related to the valorization of other CSEs, in particular through the supervision of highly qualified personnel (PhD, MSc and BSc interns).

**Location:** The successful candidate will ideally be based at the Institute for Research on Mines and the Environment (RIME), specifically at the Rouyn-Noranda campus of the Université du Québec en Abitibi-Témiscamingue (UQAT). The work will also be supported by a team of specialized professionals. The RIME focuses on finding environmentally sustainable solutions for the lifecycle of mines. This project will be funded by funds from NSERC and the FRQNT.

**Financial support:** A minimum salary of $60,000 per year is offered, plus benefits.

**Profile sought:** A completed or soon-to-be completed PhD in the field of hydrometallurgy, metallurgical or process engineering, chemical engineering or chemistry or other field deemed relevant. A good record of scientific publications is required. Must be independent and have good teamwork skills and an ability for student supervision. Fluency in programming process simulators or knowledge of spectrometry (ICP-AES) for REE analysis will be considered as assets.

**Duration:** 1-year contract, starting in August 2024 or later.

**To apply:** Send 1) cover letter, 2) CV (with publications), 3) university transcripts 4) names and contact details of two referees. The position will be open until it is filled and priority given to applications received before June 21, 2024. Send your complete application to jean-francois.boulanger@uqat.ca and lucie.coudert@uqat.ca.

Jean-François Boulanger, Eng., Ph.D., Professor, Phone: 418-262-5271
Lucie Coudert, Ph.D., Professor, Phone: 819-762-0971 ext. 2572
UQAT: HIGHER LEARNING ON A HUMAN SCALE

Study in the heart of Quebec’s great outdoors
Set in a region where wilderness, lakes, and forest stimulate creativity and foster talent, UQAT is different by nature.

With 22,000 lakes and endless miles of boreal forest, Abitibi-Témiscamingue is a dynamic place full of creative people, new ideas, and bold projects. See what our students have to say!

Denowned professors with time for you
The professors at UQAT are recognized experts in their fields who epitomize quality teaching. And with a ratio of one professor or lecturer to every twelve students, UQAT offers a personalized educational environment where you will fit right in. Knowing you can always count on your professors to be available—now that’s a real advantage.

A world of high-calibre research
Research activities at UQAT are producing remarkable results in a range of scientific fields. According to the 2023 independent firm RE$EARCH Infosource Inc., UQAT is ranked among the 3 canadian universities mainly active in Canada for per-faculty research intensity in the undergraduate category (full-service universities, excluding universities with medical schools).

With more than $24 million in research per year and state-of-the-art laboratories, UQAT is an exceptional environment for graduate students. Many of our students have achieved excellence in their chosen fields and many of our professors have been recognized for the quality of their research and their innovative spirit. Find out more

STUDENT FOR A DAY

One visit is enough to know that UQAT is a first-class institution. The Student for a Day program is the best way to learn more about UQAT, visit the campus that interests you, and meet professors and students.

We’ll tailor the visit to your needs and interests!

Find out more