Two PhD opportunities: Genesis of lithium-bearing pegmatites in the Superior Province, Québec

Geotop (Laboratoire de recherche sur la dynamique terrestre) is seeking two candidates for collaborative PhD projects between McGill University and the Université du Québec à Montréal. These projects aim to develop a comprehensive understanding of the genesis and emplacement of Archean Li pegmatites in the Superior Province (QC). Research is based on structural, geochronological, petrological and geochemical studies, supported by experiments and modelling on the Sirmac and Moblan examples in the Frotet-Evans greenstone belt.

Project objectives with regard to the characteristics of Li pegmatites

These projects will be carried out in close collaboration with the Quebec Ministry of Natural Resources, Sayona and Vision Lithium, and the Cree Mineral Exploration Board. The main themes of each project include: 1) emplacement processes, hydrothermal and geochemical fingerprinting, and magmatic-hydrothermal evolution; and 2) thermodynamic modelling of crystallization and partial melting leading to the formation of Li pegmatites, and the application of elemental and isotopic composition of noble gases to understand the genesis and detect Li deposits.

Depending on the project, candidates should demonstrate:
- An interest in petrology, geochemistry or structural geology as applied to metallogeny
- Aptitudes for field geology and laboratory work
- Ability to work in a team within a research group and in an industrial environment
- Fluency in English - oral and written
- Proven scientific writing skills

These projects will start in summer 2024. Interested candidates are asked to contact Stéphane De Souza and send him a resume. Postings will continue until recruitment is complete, but don't delay: de_souza.stephane@uqam.ca