Job Opportunity:	Research Scientist – Aqueous Crystallization and Hydrometallurgy
Interested Applicants submit their CVs to PRP website	https://nrcan-rncan.hiringplatform.ca/6355-postdoctoral-research-program-prp/20673-application-form/en

PREAMBLE:

NRCan seeks a post-doctoral fellow for immediate hire in the space of materials acceleration platforms. Project focuses on developing autonomous materials platforms for the extraction of Li metal from brines and/or battery waste. Ideal candidate has demonstrated competencies in the application of machine learning to materials science. This is a full-time position with two years of funding and the position will be located at the University of British Columbia.

ESSENTIAL QUALIFICATIONS

Official Language Proficiency:
English Essential

Education:
Graduation with an acceptable doctoral degree from a recognized university in a field of the natural sciences or engineering related to the duties of the position such as Chemistry, Chemical Engineering, Engineering or Solid State Physics, or Materials Science.

Productivity or Recognition:
Recognized achievement in the form of authorship and editorship of published or unpublished reports, books, papers, patents, or other communications resulting from research, computational research & development, and/or associated operation of computational equipment

Experience:
E1 - Experience in interdisciplinary research with universities, industries, governments or science based non-government organizations;

E2 - Experience in writing research reports;

E3 – Experience in scientific research involving modeling of aqueous salt crystallization or experimental studies of aqueous salt crystallization;

E4 – Experience in effectively applying machine learning/artificial intelligence to materials, and data systems and curation.

Knowledge:
K1 - Knowledge of the fundamental principles of chemistry and chemical processing and their application;

K2 - Knowledge of the state of the art in hydrometallurgical processing of materials;

K3 - Knowledge of high throughput/combinatorial experimental methods;

K4 – General knowledge of the state of the art machine learning algorithms and statistical learning techniques and applications.

Abilities:
A1 - Ability to develop and execute innovative research projects to address scientific challenges or opportunities;

A2 - Ability to interpret complex scientific observations and develop models that account for a wide range of results and model performance;

A3 - Ability to communicate complex scientific subject matter both verbally and in writing in English;

A4 - Ability to contribute within multi-disciplinary teams.

Personal Suitability:
PS1 - Effective interpersonal skills;

PS2 – Judgment;

PS3 – Initiative;

PS4 – Willingness to be located at the University of British Columbia.

ASSET QUALIFICATIONS

Experience:
AQ1 - Experience conducting scientific research in the of areas such as critical materials, materials for zero emission vehicles, oil and gas pipelines, nuclear energy materials, defense applications, energy efficiency and clean energy technologies, etc.

AQ2 - Experience in effective delegation of day-to-day scientific tasks to, including monitoring progress of junior scientists or students.

(For AQ1 and AQ2: Experience is defined as being over the past three years)

AQ3 – Experience in coding with either Python, R, or Julia.

AQ4 – Experience in publishing open-source code and data via Github or similar

(For AQ3 to AQ4: Experience is defined as being substantive, i.e. resulting in reports, theses, patents, and/or industrial implementation.)

Knowledge:
AQK1 – Knowledge of setting up GPU and/or high-performance computing studies.

AQK2 – Knowledge of the state of the art in pyrometallurgical processing of materials

CONDITIONS OF EMPLOYMENT

Security clearance: minimum reliability level

Travel may be required

Overtime may be required