

## Postdoctoral Fellow

Nanode Battery Technologies and  
the University of Alberta  
Edmonton, Alberta, Canada



### Job Description:

We are seeking an enthusiastic, self-motivated postdoctoral research fellow with a strong experimental background and willingness to work on an industry-focused research project in the area of electrochemical energy storage. The successful candidate will work in the laboratory of Dr. Jillian Buriak (<http://buriak.chem.ualberta.ca/>) at the Department of Chemistry and the University of Alberta, and Nanode Battery Technologies Ltd. (<http://www.nanodetech.com/>) for a term of 1 year with possibility of renewal. The post-doc will be supervised by Drs. Peter Kalisvaart and Bing Cao, in the Buriak group. The ideal candidate will have considerable knowledge and hands-on experience in battery development. Key responsibilities of this position include the development of electrolytes for main group metal-based anodes, and optimizing the performance of rechargeable lithium-ion batteries that integrate these electrodes. The position will provide opportunities to collaborate with a highly talented team of battery scientists, materials scientists, engineers, and product managers, while also working collaboratively with external partners and clients.

**Salary:** \$CAD 45000-55000/year

### Qualifications:

- Ph.D. in chemistry, chemical engineering, materials science and engineering, or other relevant fields.
- Experience in Li-ion or Na-ion batteries.
- Experience with the electrochemical characterization, such as, cyclic voltammetry, AC impedance spectroscopy, and galvanostatic cycling.
- Experience with material characterization techniques, such as SEM/EDS, TEM, and XRD.
- Demonstrated ability to conduct and perform collaborative research and effectively interact with a broad range of colleagues.
- Experience with Design of Experiments (DOE) methodology and machine learning will be considered a plus.

**Roles and Responsibilities:**

The postdoctoral fellow will be a member of the Nanode's Lithium Systems R&D team, contributing to the development of anode materials and anode processing optimization.

**Responsibilities:**

- A major responsibility of this position is the optimization of lithium-ion battery performance.
- Design and conduct experiments to achieve program goals in a fast-paced environment.
- Characterize battery components to understand mechanistic details of anode- and cathode-electrolyte interactions and interfaces.
- Prepare reports and document results, provide conclusions and next steps.
- Participate in short- and long-term planning processes.
- Contribute to the development of intellectual property.

**The application should contain:**

- A resume including educational background, research experience, list of publications, and any related experience.
- A proposal of research interest and future plans, limited to 1 page.
- The names of two potential references.

**Contact information:**

Interested candidates should please email the required documents to [info@nanodetech.com](mailto:info@nanodetech.com).