

**Post-Doctoral Researcher in Surface or Materials Science – Bioproducts
(Temporary – One-year contract)
Vancouver, BC**

About FPInnovations

FPInnovations is among the world's largest private, non-profit research centres working in forest research. The organization helps the Canadian forest industry to develop path-breaking solutions based on the unique attributes of Canada's forest resources, favouring a sustainable development approach and taking full advantage of the industry's considerable scientific, technological and commercial capital.

Description

The Transformations and Interface Group within the Bioproducts Innovation Centre of Excellence at FPInnovations is seeking for a post-doctoral researcher in surface or materials science at its' laboratory in Vancouver, BC.

The Transformation and Interfaces Group has advanced leading research and development into the area of nanomaterials with emphasis on cellulose nanocrystals and filaments, emulsions, foams, photonic and electronic materials.

Reporting to the Transformations and Interface Group Manager, this position will give the successful candidate the opportunity to independently conduct high-level research in line with the vision and overall objectives set out by the Manager.

The successful candidate will have fundamental knowledge and begun to develop expertise in surface physics and chemistry with particular emphasis on interfacial micromechanics of solid-liquid, solid-gas, and liquid-gas interfaces; interface and colloids science; or catalytic properties of surfaces.

The incumbent's R&D responsibilities will focus on using tools and fundamentals of surface science to develop concepts for engineering self-assembled monolayers utilizing bio-sourced nanomaterials—primarily, but not solely, cellulose nanocrystals and filaments—for a multitude of different systems, for instance, reversible emulsions, semiconductor devices, and adhesives. He will be expected to:

- Carry out polymerization and other reactions;
- Assiduously follow FPInnovations' safety protocols;

- Conduct necessary, elaborate characterization using various analytical tools (e.g., Atomic force microscopy, X-ray diffraction, solid-state NMR, IR, XPS, contact angle, surface energy determinations);
- Learn new techniques for handling nanomaterials and advance critical insights;
- Develop novel patentable technologies and author publications in high-impact scientific journals.

Qualifications

- PhD in surface science, materials science, materials chemistry, chemical engineering, or a related field;
- Strong research background, preferably substantiated by a record of publications in high-impact scientific journals, in at least two of the following fields:
 - ✓ Colloidal chemistry and surface sciences,
 - ✓ Nanomaterials synthesis, surface functionalization and characterization,
 - ✓ Electronic materials development, analysis and characterization,
 - ✓ Emulsions, hydrogels and sol-gel reactions, analysis and characterization,
 - ✓ Energy storage materials analysis, characterization and development.
- Demonstrated success working in a team environment;
- Excellent communications skills in English and/or French. Ability to write clear and concise scientific papers and patent disclosures in English, and make presentations to the staff and management.

Interested in this position?

Please send the following to Recruitment_recrutement@fpinnovations.ca:

1. Cover letter explaining how you may be able to contribute to research and development at FPInnovations' Transformation and Interfaces Group;
2. A detailed CV including publications list;
3. Two (2) sample publications.

IMPORTANT NOTE: Please indicate reference 562 on the subject line.