

Postdoctoral Research Fellow – Fiber optic sensors

Salary base

Can \$45,000 a year plus benefits

Department

Loock Laser Lab (<http://www.loocklaserlab.com/>)

University of Victoria, Victoria, BC

Dept. of Chemistry or Dept. of Physics and Astronomy

Posting End Date

March 31st, 2022 or until filled.

Research opportunity

Our research group builds spectrometers, fiber probes, refractometers, as well as micro-sensors for optical absorption, fluorescence, mechanical strain, vibration and sound. We take full advantage of the advances of the commercial developments in the telecom, imaging and sensing areas. When developing instruments we fabricate prototypes, write our own software and frequently design our own electronic circuitry.

We are looking for an ambitious research scientist to contribute to our development of fiber-optic sensors for mechanical and optical measurements. Here, we work on sensors for strain, vibration, (infra- and ultra-) sound, and develop fiber probes for optical absorption, refractive index, birefringence, fluorescence and Raman scattering.

We are seeking a highly motivated Postdoctoral Research Fellow to lead a research project to develop a new fiber optic strain and acoustic sensor for deployment in hostile environments, such as inside high-temperature reactors and on the ocean floor. This sensor is based on an in-fiber Fabry-Perot cavity which is interrogated with a frequency-locked laser diode as describe in previous publications by our group. Most of our work is motivated by monitoring requirements from collaborators in industry and government labs, and the successful candidate will work with international academic partners in Italy and Germany and with industrial partners in Canada and Germany. Research experience in our group will provide the successful candidate with highly-sought qualifications for careers in academia and in the private sector.

The UVic campus is situated in one of the most scenic regions in Canada, and Victoria has been ranked repeatedly among the most liveable cities worldwide. The University provides a very collegial research environment and exciting opportunities for interdisciplinary research both on campus and within co-located research institutes.

Candidate qualifications

You are qualified to apply if you have completed a PhD degree in physics, chemistry, or related engineering disciplines within the last 5 years, and have hands-on expertise in building and characterizing fiber optic devices. Your work will require occasional stays at collaborator labs in Canada and abroad, as well as reports and presentations at collaborator meetings, workshops, and conferences. Excellent written and oral communication skills are therefore required. The ability to work in a team, as well as independently lead a research project is expected.

How to Apply

Applicants should provide a letter of interest, curriculum vitae, including proof of doctoral degree (or anticipated graduation date), and contact information of three references to Peter Loock, hploock@uvic.ca.

The anticipated start date for this position is June 1, 2022, but earlier start-dates can be considered. The annual salary is Can\$45,000 plus benefits. This is one-year term position, with the possibility of extension.

All qualified candidates are encouraged to apply; however, Canadians and permanent residents of Canada will be given priority.

We particularly encourage applications from members of groups that have been marginalized on any grounds enumerated under the B.C. Human Rights Code, including sex, sexual orientation, gender identity or expression, racialization, disability, political belief, religion, marital or family status, age, and/or status as a First Nation, Metis, Inuit, or Indigenous person.