

Job Offer: Postdoctoral Researcher in Development and Fabrication of Active Optical Fibers

Université Laval – Centre d'Optique Photonique et Laser (COPL)

The Center for Optics, Photonics and Lasers of Université Laval (COPL) is a recognized interdisciplinary research center, bringing together 22 research teams and more than 150 graduate students. For over thirty years, our researchers have been advancing knowledge and contributing to innovation in this field. Considered a leader in optics and photonics research in Canada, COPL also hosts a strategic cluster that brings together eight Québec universities, with over 50 researchers and 450 students.

The candidate's work will be carried out within the research themes of Professor Younes Messaddeq. The project will take place within the silica optical fiber development and fabrication team, focusing on *active fibers* for applications in fiber lasers and amplifiers.

Main Responsibilities

The postdoctoral researcher will be responsible for:

- Conducting original research within projects involving glasses and fibers doped with rare-earth elements and transition metals.
- Developing and testing recipes and methods related to vapor deposition processes for the fabrication of optical preforms.
- Establishing procedures for preform transformation toward the design and realization of optical fibers.
- Characterizing the produced samples and fibers using various physico-chemical techniques (refractive index profile, elemental composition, attenuation profiles, etc.).
- Supervising and collaborating with graduate students (MSc, PhD).
- Participating in scientific dissemination activities (conferences, seminars).

Required Qualifications

- Recent PhD (or near completion) in materials science, photonic materials, inorganic chemistry, or physics.
- Experience in glass chemistry, development of materials for optics, and materials physics.
- Ability to work independently as well as integrate into the existing team.
- Proficiency in French and/or English (spoken and written).

Working Conditions

- Location: Université Laval, Quebec City, Canada.
- Supervision: Professor Younes Messaddeq
- Contract duration: 24 months, with possibility of extension.
- Start date: Fall 2026
- Salary: CAD 60,000

Application Package

Applications must include:

- A motivation letter.
- A complete CV, including a list of publications.
- Contact information for [2–3] scientific references.
- Any other relevant documents (e.g., thesis abstract, research portfolio).