

### **Postdoctoral fellow position in III-V epitaxy (MOCVD/MOVPE)**

Prof. Ryan Lewis' research group in the Department of Engineering Physics at McMaster University is seeking to hire a postdoctoral fellow (PDF) to investigate the metalorganic chemical vapor deposition (MOCVD) of III-V materials and nanostructures for optoelectronic applications.

The PDF will be responsible for the operation of a Structured Materials Industries (SMI) MOCVD/MOVPE reactor (installed in 2016). Current III-V growth activities being pursued in Dr. Lewis' research lab include surfactant-enhanced (Sb/Bi) growth of quantum dots, orientation-patterned III-V structures for nonlinear lasers, strain engineering in III-V nanowires and surfactant-enhanced III-V growth on Si. The PDF will be expected to carry out MOCVD research relating to one or more of these topics, and will collaborate with and support PhD students working with the MOCVD.

Ryan Lewis has been an Assistant Professor in the Department of Engineering Physics at McMaster University for the past four years. His research program makes use of the MOCVD and molecular beam epitaxy (MBE) facilities located in the Centre for Emerging Device Technologies (CEDT), as well as the Canadian Centre for Electron Microscopy (CCEM), the McMaster Analytical X-ray Diffraction Facility (MAX) and the Brockhouse Institute for Materials Research. These world-class research facilities are housed on the McMaster Campus. McMaster University is Canada's most research-intensive university and is located in the vibrant city of Hamilton. The city is located on the shores of Lake Ontario and is part of the Greater Toronto and Hamilton Area, a multicultural metropolitan area with a combined population of over seven million—the largest in Canada.

The applicant is expected to have earned (or to soon defend) a PhD in Engineering, Physics, Materials Science or a related discipline, and to have experience in epitaxial growth—preferably MOCVD growth of III-V semiconductors. Additional experience in optical/structural characterization would be valued.

The appointment will initially be for one year, with the possibility of renewal. The preferred start date is January 2023. Applicants should submit a cover letter, CV, list of publications and the names and contact information of three references. Applications will be reviewed as they are received. Salary will be commensurate with qualifications and experience.

To apply for this position, please visit <https://hr.mcmaster.ca/careers/current-opportunities/> Click on /External Applicants/Staff and search for the job title.