



## Postdoctoral Fellowship in Scanning Probe Microscopy

A Postdoctoral Researcher position is available immediately within the newly formed Carbon to Metal Coatings Institute (C2MCI). The C2MCI includes a diverse team of Canadian and international scientists, clinicians, and engineers, working to develop fundamentally new approaches for the protection of metal surfaces. This will include developing and testing next generation coatings for bulk metal surfaces, the application of novel organic materials in atomic layer deposition and semiconductor manufacturing, and the development and testing of novel metallic nanomedicines for cancer treatment and enhanced chemotherapy.

The postdoctoral fellow will join the McLean (Physics) and Crudden (Chemistry) research groups at Queen's University in Kingston, where they will be responsible for performing studies of molecular self-assembly on metal surfaces with a CreaTec low temperature scanning probe in ultra-high vacuum.

**Anticipated Start Date and Duration of Appointment:** The appointment will begin as soon as possible and will be made initially for a period of one year. The appointment will be renewed for a second year upon agreement of all parties and the availability of funds.

**Remuneration:** Annual compensations will be commensurate with experience, with a minimum salary of \$45,000 per annum including benefits.

**Required Qualifications:** The minimum requirements for this position are a PhD in Physics or Chemistry, or a related discipline with experience with scanning probe microscopy and ultra-high vacuum techniques. Additionally, competence with some of the following is required: non-contact atomic force microscopy, scanning tunneling microscopy, low temperature techniques, data analysis with Python, data acquisition with LabVIEW, apparatus design using CAD, and *ab initio* calculations (Quantum Espresso, VASP etc.). Strong written and oral communication skills are also essential, as the candidate will: interact with an interdisciplinary team of researchers, make presentations at workshops and conferences, and contribute to the creation of reports and papers in the peer-reviewed literature.

**Application Instructions:** Applicants should submit (1) a cover letter, outlining their qualifications and motivations for this position, (2) a curriculum vitae, (3) one samples of research writing, and (4) the names and contact information of three references to [C2MCI@queensu.ca](mailto:C2MCI@queensu.ca). Please use 'PDF in Scanning Probe Microscopy (SPM)' in the subject line of your e-mail. Applications will be considered until the position is filled and only shortlisted candidates will be contacted. Inquiries about the project and position can be requested from Dr. Alastair McLean ([mcleana@queensu.ca](mailto:mcleana@queensu.ca)).

**Employment Equity:** Queen's University invites applications from all qualified individuals. We are committed to employment equity and diversity in the workplace and welcome applications from women, visible minorities, Aboriginal peoples, persons with disabilities, and LGBTQ2+ persons. We have a track record of supporting all our employees, including providing accommodation in the workplace place. We provide support in recruitment processes for applicants with accessibility needs. If you require accommodation during the application process, please contact C2MCI at [C2MCI@queensu.ca](mailto:C2MCI@queensu.ca).