

RESEARCH ASSOCIATE – 2D VAN DER WAALS MATERIALS
STEWART BLUSSON QUANTUM MATTER INSTITUTE
UNIVERSITY OF BRITISH COLUMBIA

The Stewart Blusson Quantum Matter Institute (SBQMI) at UBC is seeking a PhD-level scientific researcher to support a new research thrust in the development of novel quantum materials – two-dimensional van der Waals (vdW) materials and their heterostructures – composed of graphene, hexagonal boron nitride, transition metal dichalcogenides, and various other atomically thin crystals. This multi-year position as a Research Associate will support the Institute’s Principal Investigators in preparing materials and heterostructures exhibiting emerging quantum phenomena, making advanced measurement on their extraordinary physical properties, and integrating them into nanoscale devices which display remarkable new paradigms of operation.

Under the direction of the Principal Investigator(s) working on this project, the successful candidate will: mentor a team of students and postdocs exploring these remarkable materials; support multiple research groups including transport, scanning probe microscopy, ARPES, and optical investigations; master transfer-stacking techniques and device fabrication strategies that are optimized for various sets of vdW materials; operate and administer the infrastructure for constructing high-quality vdW heterostructures; and coordinate and interpret measurements.

SBQMI is a world-leading venture into research of systems and phenomena involving quantum materials. We believe in the power of collaboration to fuel the search for creative solutions and, in addition to building a strong interdisciplinary team of experimentalists and theorists from physics, chemistry and applied science, have established active partnerships with TRIUMF, the Canadian Light Source, the Max Planck Society, University of Tokyo, and many other world leading institutions.

The successful candidate will thrive in our collegial culture and will bring the following qualifications to the role:

- A PhD in an area relevant to the research pursuits of SBQMI;
- Well-established expertise in 2D van der Waals (vdW) materials including but not limited to
 - Material preparation and characterization
 - Building high-quality vdW heterostructures
 - Nanoscale device fabrication related to 2D vdW materials
- Publications in reputable scientific journals;
- Demonstrated capacity to pursue independent research;
- Experience leading research projects;
- Experience supervising students or staff;

- Demonstrated ability to work in a multi-disciplinary, highly collaborative environment where resources and expertise are shared.

If you are interested in this exciting opportunity to push the boundaries of knowledge and create world changing devices, please apply with your CV, a statement of research interests, and a covering letter to www.facultycareers.ubc.ca/29551

Salary will be commensurate with qualifications and experience. UBC offers a competitive benefits package including extended medical, dental, life insurance, and pension.

For more information about SBQMI: gmi.ubc.ca

For more information about Vancouver: <http://www.tourismvancouver.com/>

Equity and diversity are essential to academic excellence. An open and diverse community fosters the inclusion of voices that have been underrepresented or discouraged. We 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. All qualified candidates are encouraged to apply; however, Canadians and permanent residents will be given priority.