

RESEARCH ASSOCIATE – MANAGER OF THE QUANTUM MATERIALS AND DEVICES FOUNDRY STEWART BLUSSON QUANTUM MATTER INSTITUTE UNIVERSITY OF BRITISH COLUMBIA

The Stewart Blusson Quantum Matter Institute (SBQMI) at UBC is seeking PhD-level Scientific Research staff to support activity in the development of new materials through the use of Molecular Beam Epitaxy. This multi-year position as a Research Associate will support not only SBQMI's interest in growth of films and heterostructures, it will also connect to a range of experimental techniques suited to the study of these structures, such as ARPES and STM. The successful candidate will work with the Principal Investigators and other researchers to maintain and exploit existing film growth infrastructure, as well as developing and constructing new systems for the growth of a wide range of transition metal and rare earth compounds.

The Research Associate will identify and conduct research projects that extend SBQMI's expertise in the study of thin films and heterostructures; contribute to writing and publishing articles in top-tier journals; train and mentor SBQMI students and postdoctoral fellows; and collaborate with other national and international academic institutions, government, and industry organizations.

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 strong and active partnerships with TRIUMF, the Canadian Light Source, the Max Planck Society, and many other world leading institutions.

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

- Ph.D. in Condensed Matter Physics or other area relevant to the research pursuits of SBQMI;
- Minimum of 5 years of postdoctoral experience in a research, or research and development environment;
- Experience in wide-range use of thin film epitaxial growth facilities;
- Experience in design, setup and management of thin film epitaxial growth facilities;
- Patents and/or publications in reputable scientific journals;
- Demonstrated capacity to pursue independent research;
- Experience mentoring students or staff.
- Extensive experience building, maintaining, and modifying infrastructure used for the growth of films by MBE;
- Extensive experience in the growth of thin films and heterostructures of transition metal and rare earth compounds;
- Experience with a variety of other characterization techniques such as in situ LEED and RHEED, transport and magnetic properties, X-ray diffraction and X-ray scattering;
- Knowledge of other film growth techniques such as Pulsed Laser deposition and Sputtering

• Knowledge of crystal and electronic structure, and physical properties of transition metal and rare earth compounds

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 <u>www.facultycareers.ubc.ca/27830</u>

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

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.