



a place of mind

Department of Materials Engineering

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THE UNIVERSITY OF BRITISH COLUMBIA

Department of Materials Engineering Microstructure Engineer

Job Summary

The job will involve contributing to the research program of the microstructure engineering group with experimental work in the thermo-mechanical processing laboratory including materials characterization for metals and alloys. This will require conducting Gleeble and torsion tests as well as metallographic analysis of test samples. Further, the position is designed to maintain equipment and supplies in both the thermo-mechanical processing and the metallography laboratories. The starting date of the position will be January 1, 2015, or as soon as possible thereafter.

Work Performed

Work performed will be to design and conduct a range of standard tests using the Gleeble and torsion machines primarily for calibration purposes and industry related research projects. Gleeble tests will involve heat treatment tests (e.g. continuous heating and cooling tests) and tests involving deformation (e.g. single and double hit tests) for steels and light metals. Torsion tests will primarily involve simulations of hot rolling and aluminum hot extrusion. The microstructure of samples subjected to Gleeble or torsion tests will be analyzed using metallographic techniques including optical and scanning electron microscopy. Further, an important aspect of the work will be to provide basic maintenance in both the thermo-mechanical processing and the metallography laboratories, e.g. basic maintenance of the Gleeble and torsion machines (diffusion pumps, fluid and oil changes etc.) and management of the metallography laboratory including supervision of graduate students and other research personnel with an emphasis on the safety measures in using chemicals. The research engineer will be responsible for sourcing experimental equipment components and supplies.

The Research Engineer will be responsible for providing training to graduate students and other research personnel for metallographic studies. The training to be given includes orientation in use of metallographic equipment for specimen preparation and the required safety training, in particular in proper use of chemicals required in the laboratory.

Minimum requirement is a Master degree in Materials Engineering with expertise in metallography and thermo-mechanical processing.

The successful applicant requires expertise in use of thermo-mechanical processing equipment, metallographic techniques as well as optical and scanning electron microscopy. Expert knowledge on steels and/or light metals will be an asset. Proven ability to communicate technical results and analysis in oral and written form in English is required.

Applications must be submitted online at <http://www.hr.ubc.ca/careers-postings/staff.php>. The initial closing date for applications is November 16, 2015 but applications will be accepted until a suitable candidate is found. All Canadian, permanent residents and international candidates are strongly encouraged to apply.

UBC hires on the basis of merit and is committed to employment equity. All qualified persons are encouraged to apply. UBC is strongly committed to diversity within its community and especially welcomes applications from visible minority group members, women, Aboriginal persons, persons with disabilities, persons of any sexual orientation or gender identity, and others who may contribute to the further diversification of ideas. Canadians and permanent residents of Canada will be given priority.