



Chemical & Physical Sciences

UNIVERSITY OF TORONTO

MISSISSAUGA

COLLOQUIUM SEMINAR SERIES

INVESTIGATING PLANETARY EVOLUTION DOWN TO THE ATOMIC SCALE USING CORRELATIVE MICROSTRUCTURAL MINERALOGY



Kim Tait

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Mineralogy is a powerful tool that can enable the study of planetary evolution and environmental change over billions of years. The chemical and structural record of minerals, such as mineral lattice growth and deformation, chemical zoning and substitution of elements and textural relationships of minerals, can tell us a lot about the conditions that the minerals formed in. Using a broad range of cutting-edge correlative in-situ analytical techniques, such as Atom Probe Tomography (APT), Electron Backscatter Diffraction (EBSD), nanoSIMS and X-ray Computed Tomography (XCT), I will showcase how I have been pushing the limits of traditional mineralogy to the atomic scale and tackling a range of relevant terrestrial and extraterrestrial projects. There is nearly limitless potential in leveraging industry, government, and academic partners to study minerals all over the solar system, and I will talk about some of the partnerships that I have developed, and plan to develop in the near future and the opportunities these partnerships bring.

COLLOQUIUM SEMINAR SERIES

featuring

Kim Tait, Assistant Professor, University of Toronto

Wednesday, March 27th, 2024 | 3:30pm

Location: CC3150