

**Trent University
Chemistry/Physics Seminar Series**

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**Wednesday, November 9, 2016
11:00 a.m. to 11:50 a.m.
Science Complex Room 115**

Cryo-reactions and Cryospheric Chemistry

Most chemical reactions in aqueous solution slow down as temperature decreases. In frozen media, however, certain reactions are known to proceed very differently from their aqueous counterparts, some being accelerated in rate while others yielding unexpected products. Although the mechanisms of most of these “cryo-reactions” remain poorly known, their importance in many stratospheric and tropospheric processes has been long recognized. Evidence is mounting that the Earth’s cryosphere (snow, sea ice, lake and river ice, glaciers, and permafrost) is also a much more chemically and biogeochemically active environment than previously thought. This presentation will provide a synopsis of the current understanding of cryo-reactions, with a special emphasis on their role in the cycling of CO₂ and contaminants on regional and global scales under a changing climate.

All Welcome!