

McGill Chemical Society Seminar Series



Tuesday, Feb. 21st, 2017, 1:00 PM

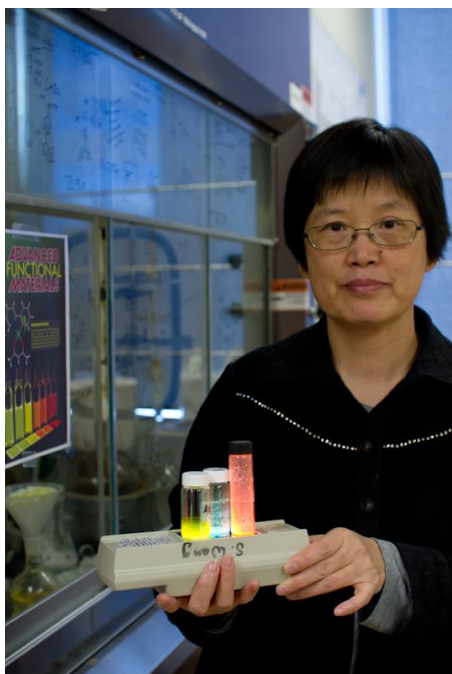
Otto Maass Chemistry Building, OM10



Prof. Suning Wang

Queen's University

Organoboron Enabled Transformation and Applications.



Abstract:

Organoboron compounds have attracted much recent research attention due to their unique electronic properties and versatile applications. During the course of our investigation on boron-based luminescent materials, we discovered unprecedented photochromism involving structural transformation of the boron core and reversible C-C bond formation/breaking mediated by the boron atom. We have established that both electronic and steric factors play an important role in this unusual structural transformation. Further investigation on photo-responsive behavior of boron compounds led to the discovery of previously unknown photoelimination reactions of organoboron molecules, which provides a convenient means for achieving B,N-doped arenes. As observed in photochromic boron systems, electronic and steric factors were found to dictate the reaction pathways and the quantum efficiencies of photoelimination reactions. These findings provide valuable insights on photoreactivity of boron compounds and design principles for new photo-responsive organoboron compounds.

EVERYONE IS WELCOME!

