NANYANG TECHNOLOGICAL UNIVERSITY

CBC SEMINAR ANNOUNCEMENT

Professor Eric Rivard
University of Alberta

Donor-acceptor Stabilization of Main Group Species: From New Bonding Environments to Nanomaterials

In this presentation, a general-donor-acceptor protocol will be introduced to intercept reactive main group species, such as the parent hydrides EH_2 and H_2EEH_2 (E = Si, Ge and/or Sn),[1] the iminoborane HBNH[2] and oxoboranes (e.g. ClB=O and HOB=O).[3] The reported EH_2 complexes are viable precursors to luminescent nanomaterials[4] while the latter oxoborane adducts can instigate mild C-F activation processes. Moreover our recent efforts[5] to develop highly bulky carbon-based donors will be described.

[1] For a review article, see: E. Rivard, Chem. Soc. Rev. 2016, 45, 989-1003.
[2] a) A. K. Swarnakar, C. Hering-Junghans, K. Nagata, M. J. Ferguson, R. McDonald, N. Tokitoh, E. Rivard, Angew. Chem., Int. Ed. 2015, 54, 10666-10669; b) A. K. Swarnakar, C. Hering-Junghans, M. J. Ferguson, R. McDonald, E. Rivard, Chem. Sci. 2017, 8, 2337-2343.
[3] A. K. Swarnakar, C. Hering-Junghans, M. J. Ferguson, R. McDonald, E. Rivard, Chem. Eur. J. 2017, DOI: 10.1002/chem.201702154.
[4] T. K. Purkait, A. K. Swarnakar, G. B. De Los Reyes, F. A. Hegmann, E. Rivard, J. G. C. Veinot, Nanoscale 2015, 7, 2241-2244.
[5] C. Hering-Junghans, P. Andreiuk, M. J. Ferguson, R. McDonald, E. Rivard, Angew. Chem., Int. Ed. 2017, 56, 6272-6275.

Date:	**22nd June 2017 (Thursday)**
Time:	**11:00am – 12:30pm**
Venue:	**SPMS Research & Graduate Studies Office Conference Room**
Host:	**Assoc Professor Naohiko Yoshikai**