

CBC SEMINAR ANNOUNCEMENT



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Frustrated Lewis Pairs Catalyzed Metal-Free Hydrogenations and Hydrosilylations

The recently emerging chemistry of frustrated Lewis pairs (FLPs) provides a powerful approach for metal-free hydrogenation and hydrosilylation. Great progress has been achieved in this field. However, highly effective FLP catalysts and highly enantioselective reactions are still very limited. One of the most important point is how to access the sensible borane Lewis acids efficiently. We developed a novel strategy for the development of borane catalysts by the in situ hydroboration of alkenes or alkynes with Piers' borane $\text{HB}(\text{C}_6\text{F}_5)_2$. Highly stereoselective and/or enantioselective hydrogenations and hydrosilylations have been achieved. Moreover, a novel FLP mimic of chiral tert-butylsulfonamide and $\text{HB}(\text{C}_6\text{F}_5)_2$ have been developed for the transfer-hydrogenation.

Date:	2nd March 2017 (Thursday)
Time:	2:00pm – 3:00pm
Venue:	SPMS MAS Executive Classroom 1
Host:	Asst Professor Steve Zhou