

CBC SEMINAR ANNOUNCEMENT



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Chiral Counterion Pair Catalysis: From Concepts to Applications

The development and application of metal-free catalysts has become an important topic in organic synthesis and catalysis. Recently, chiral Brønsted acids and Lewis bases have been shown to be vital alternatives to metal catalysts and examples of highly enantioselective transformations have been reported. These reactions, similar to several enzymatic processes, proceed through ion-pair and hydrogen-bond activation or through intermediary formed covalent bonds. In this presentation our introduction to enantioselective Brønsted acid and Lewis base catalysis will be shown and new and valuable transformations based on chiral ion pair concept and activation will be highlighted; including the development of enantioselective reductions, new cascade and domino reactions, asymmetric carbonyl activations as well as the concept of co-operative metal and Brønsted acid catalysis. Additionally, efforts to delineate the general requirements for performing asymmetric Brønsted acid and Lewis base catalysis as well as the applicability of these catalytic processes to the synthesis of heterocycles and natural products will be outlined.

Date:	2nd August 2012 (Thursday)
Time:	4:00pm – 5:30pm
Venue:	NTU SPMS CBC Building Level 2, Conference Room
Host:	Asst Professor Steve Zhou