Chemistry & Biological Chemistry Presentation Announcement

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Date: 15th July 2010 (Thursday)
Time: 3.30 – 4.00pm
Venue: NTU SPMS CBC Building Level 2, Conference Room

Organocatalytic α-Aminoxylation: Challenges and Opportunities

The asymmetric installation of a hydroxyl group at the position a to a carbonyl function is an important C-O bond-forming process in organic synthesis, and asymmetric α-aminoxylation proved to be one of the most convenient and efficient methods to achieve this goal. During past decades, research in this area moves at breathtaking speed, however, there are still fundamental challenges yet to overcome:

1) Utilization of the oxyamine moiety generated in situ, thus circumventing the annoying oligomeric mixture of initially formed aminoxo aldehydes.

2) Introduction of additional substrate scope besides existing linear aldehydes and cyclic ketones.

3) Further experiment proves to unravel the selectivity origin and activation mode, which ultimately leading to the identification of a more efficient catalyst.