NANYANG TECHNOLOGICAL UNIVERSITY SINGAPORE

School of Physical and Mathematical Sciences
College of Science

ORAL DEFENCE ANNOUNCEMENT

DAS MRINMOY

Visible Light Photoredox Mediated C-C Bond Formation under Metal-Free Condition

The ability to tune the redox potential of other molecule, photoredox catalysts enables several challenging transformations easier. As a consequence, photoredox catalysts can facilitate many unfavourable electrons transfer process by diminishing the conventional report and proceed the reaction through different pathways. We have developed carbyne equivalents utilising phosphonium ylides under the irradiation of blue light and performed olefin hydrocarbonation reaction features a facile approach for constructing carbon-carbon bond through a metal-free and benign reaction condition. In the last part we have successfully introduced photocatalytic metal free method for the intermolecular radical-radical cross coupling involving ketyl radical to produce complex tertiary alcohols.

Date: 2 January 2020
Time: 10:00AM
Venue: Conference Room, Research & Graduate Studies Office, Level 2, SPMS
Supervisor: Assoc Prof Liu Xuewei