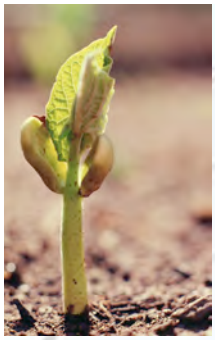


山口大学応用分子生命科学常盤台コロキアム

Tokiwadai Colloquium in Yamaguchi University

山口大学工学部（宇部市常盤台二丁目）

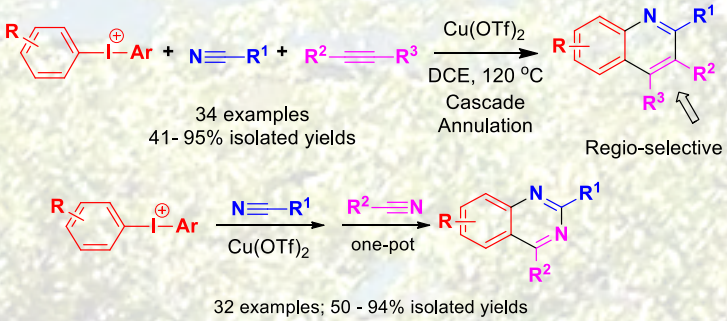
第 48 回　2014 年 9 月 19 日（金）午後 4 時 00 分より
E12 講義室

Professor Chao Chen
Department of Chemistry, Tsinghua University, Beijing, China

Efficient Ring Synthesis with Diaryliodonium Salts through Electrophilic Activation of Small molecules

During the last decade, there is an explosive increase of interest in electrophilic cyclization to synthesize carbocycles or heterocycles. However, the substrates suitable for electrophilic cyclization are limited to the electron-rich molecules like functionalized alkenes, alkynes or poly-olefins. It's highly desired to extend the electrophilic cyclization to a larger scope of substrates or more challenging, to more new modes of multi-components. Nevertheless, the efficient cyclization of this mode is narrowly initiated by a few electrophiles like H^+, Lewis acid, halogen, ICl, or organochalcogen derivatives. The employment of C-electrophiles promoting cyclization is undoubtedly important, but the progress in this area is still minute.

Diaryliodonium salts, $Ar_2I^+X^-$ are an important and appealing class of aromatic iodine(III) derivatives due to their powerful electrophilic arylation for a wide range of substrates. To extend their application in organic synthesis, we realized several electrophilic cyclization types with diaryliodonium salts, mainly in cascade reactions to synthesize heterocycles, carbocycles and multisubstituted benzenes. These successful efforts disclose novel and efficient pathway of synthesizing complex cyclic molecules with diaryliodonium salts.



この講義は医学系研究科博士後期課程の「最先端ライフサイエンス研究科目」認定の講演会です。

問い合わせ先：応用分子生命科学系専攻　上村明男（９２３１）