

简历

个人信息

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教育背景

2015.09—2019.11 博士: 伦敦玛丽女王大学, 有机化学

2014.09—2015.09 硕士: 伯明翰大学, 药物研发与药物化学

2009.09—2013.07 本科: 安徽大学, 应用化学

个人简介

科研经历:

- ◆ 本科第二年申请到国家大学生科研训练项目;
- ◆ 研究生期间在伯明翰大学学习药物研发与药物化学;
- ◆ 博士期间指导组内每一年的本科生暑期科研计划;
- ◆ 博士期间指导研究生完成实验项目和论文;
- ◆ 博士期间长期担任 QMUL 本科生实验课程助教一职。

科研技能

- ◆ 丰富的有机化合物的合成经验
- ◆ 熟练掌握各种有机分析方法: 核磁、质谱 (LC-MS, GC-MS 和 HRMS) 和红外的解析
- ◆ 熟练的使用各种化学相关软件: Chemdraw, Reaxys, Scifinder 和 Mestrenova 等
- ◆ 精通各种有机提纯方法: 柱层析, 板层析, 重结晶; 使用机器进行柱层析 (Biotage)
- ◆ 熟练掌握英文的交流与书写;
- ◆ 完成数个横向科研

获奖情况:

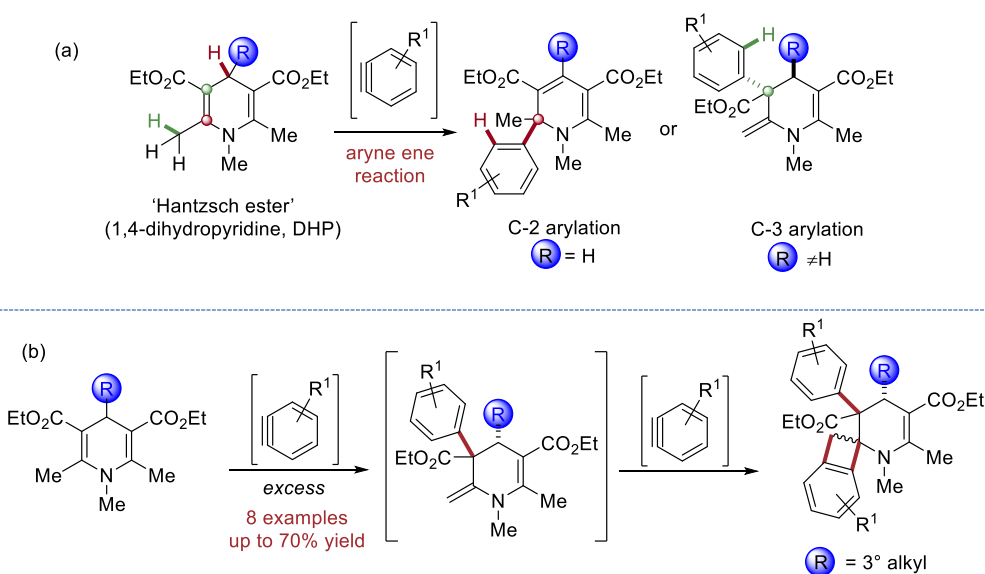
CSC (China Scholarship Council), Four-years Scholarship

Queen Mary University of London, PGRF (Postgraduate Research Funding)

RSC (Royal Society of Chemistry), Travel Grants

研究方向简介

Arynes are one of the most synthetically useful reactive intermediates, as they possess a unique diversity of reactivity (functioning as electrophiles, dieneophiles, ligands etc.) that enables rapid generation of complex benzenoid products which are ubiquitous in chemicals, pharmaceuticals, agrochemicals, materials and dyes. The advent of *o*-silylaryl triflates (Kobayashi aryne precursor), aryne precursors that act under mild conditions, has led to the emergence of new aryne reactivity motifs.



Scheme 1. Arylation of Hantzsch Esters

Dihydropyridines (DHPs) are an important class of *N*-heterocyclic compound. The first method to prepare DHPs was reported by Hantzsch, who isolated 1,4-DHPs as key intermediates in the generation of pyridines. Hantzsch esters (HEs) are easy to access and have found widespread applications as reducing agents in a range of synthetic transformation. We developed a method for the arylation of HEs with Kobayashi aryne precursor *via* an intermolecular aryne ene reaction. The arylation of 1,4-DHPs generated 2-aryl-1,2-dihydropyridines or 2-methylene-3-aryl-1,2,3,4-tetrahydropyridines via a regioselective C-2 or C-3 reaction (**Scheme 1a**).¹ Furthermore, when aryne was in excess, the C-3 arylation products reacted further to generate 3'-aryl-spiro[benzocyclobutene-1,1'-(3',4'-dihydropyridines)] (**Scheme 1b**).²

