



*The Chinese University of Hong Kong
Department of Chemistry
Research Seminar Series*

Speaker: Professor Qilong Shen
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Shanghai Institute of Organic Chemistry
Chinese Academy of Sciences

Title: New of Fluoroalkylating Reagents: Design,
Preparation and Reactivity

Date: December 13, 2018 (Thursday)

Time: 2:30 p.m.

Venue: L3
Science Centre



New of Fluoroalkylating Reagents: Design, Preparation and Reactivity

Qilong Shen (沈其龙)

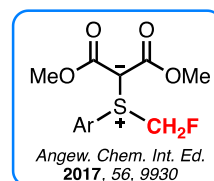
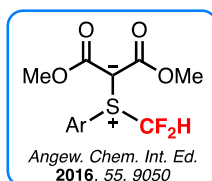
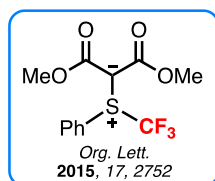
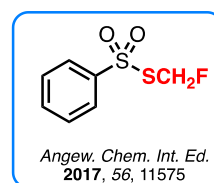
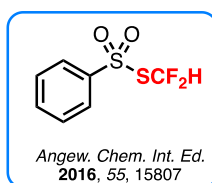
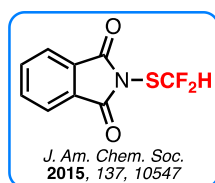
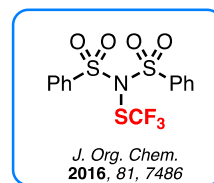
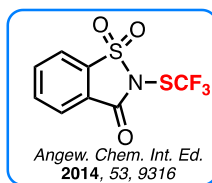
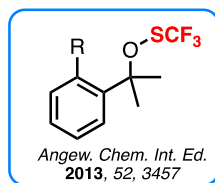
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Due to the well-known “fluorine effect” of the fluorine atom and the fluorinated groups on the chemical, physical and biological properties of a given molecule, incorporation of a fluorine atom or a fluoroalkyl group into has become a routine practise in the development of drugs or agrochemicals. Consequently, development of efficient methods that could late-stage introduction of fluorine or fluorinated groups of the drug molecules have been of intense current interests.

Among the rapidly increasing and powerful fluoroalkylating methods, direct fluoroalkylation of a nucleophile with an electrophilic fluoroalkylating reagent arguably represents one of the most versatile and actively studied methods for the preparation of fluoroalkylated compounds.

Even though some electrophilic fluoroalkylating reagents have been reported, development of novel, easily available and highly reactive electrophilic fluoroalkylating reagents represents an unmeted challenge. In the past eight years, we have discovered several electrophilic fluoroalkylating reagents that allow efficient fluoroalkylation of different nucleophiles under mild conditions. The low cost and structural flexibility of these reagents make them idea agents for late stage fluoroalkylation.



References

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