

演題：**From Trifluoromethylation to Trifluoromethylthiolation: Development of New Trifluoromethylthiolated Hypervalent Iodine Reagent**



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場所：工学部材料化学系棟 MC208 室

要旨：

In 2011, we reported a copper-catalyzed protocol for trifluoromethylation of aryl and alkenylboronic acids with trifluoromethylated hypervalent iodine reagent (Togni's reagent). The reaction proceeded in good to excellent yields for a range of different substrates including heteroarylboronic acids and substrates with a variety of functional groups under mild reaction conditions. In addition, we further developed a sequential iridiumcatalyzed C-H activation borylation and copper-catalyzed trifluoromethylation of arenes with a variety of functional groups. The advantage of this tandem procedure was demonstrated by application in a number of biologically active molecules. Based on these results, we envisioned that a trifluoromethylthiolated hypervalent iodine reagent would be a powerful electrophilic reagent for the introduction of trifluoromethylthio group. Herein, we present the invention of such a reagent and its reactions with a variety of nucleophiles such as β -ketoesters, aldehydes, amides, aryl or vinyl boronic acids or alkynes under mild conditions.

本講演は、大学院総合化学院『化学研究先端講義／総合化学特別研究第二』の一部として認定されています。

連絡先：AGS 事務局（内線：6788）