

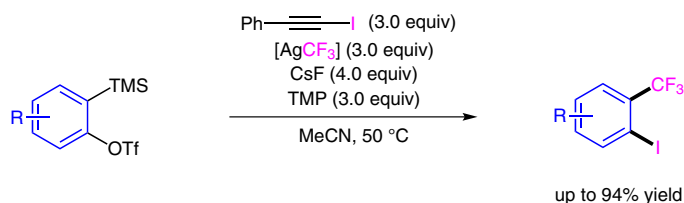
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Silver-Mediated Trifluoromethylation-Iodination of Arynes

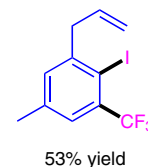
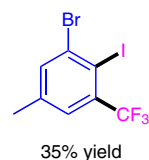
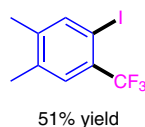
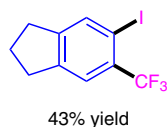
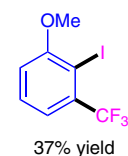
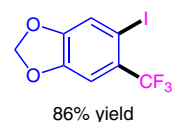
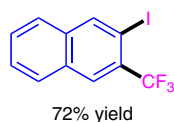
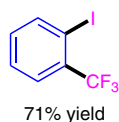
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Silver-Mediated Trifluoromethylation-Iodination of Arynes



R = H, Ph, 1,3-dioxolane, cyclopentyl, OMe, Me, Br, All
 TMP = 2,2,6,6-tetramethylpiperidine

Selected examples:



Significance: The authors report the silver-mediated trifluoromethylation-iodination of various arynes using iodophenylacetylene as the iodinating agent, TMP (2,2,6,6-tetramethylpiperidine) as the ligand and AgCF_3 as the trifluoromethyl source, leading to the difunctionalized aromatics in high yield.

Comment: Mechanistic studies reveal that TMP on the one hand shows a strong halogen-bonding interaction with iodophenylacetylene and on the other hand coordinates the silver-aryl- CF_3 intermediate, thus suppressing the formation of protonated species (e.g., PhCF_3).

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