

BF₃-Mediated Coupling of Organotrifluoroborates and Acetals

Category

Metal-Mediated Synthesis

Key words

Lewis acids

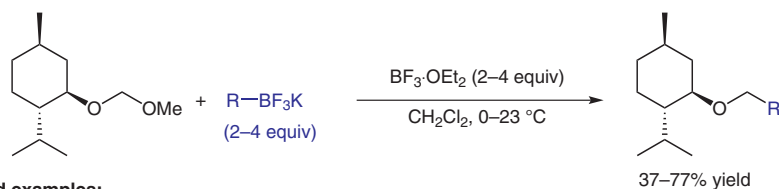
organotrifluoroborates

acetals

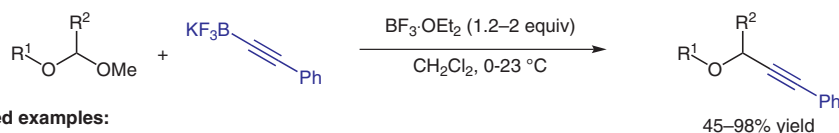
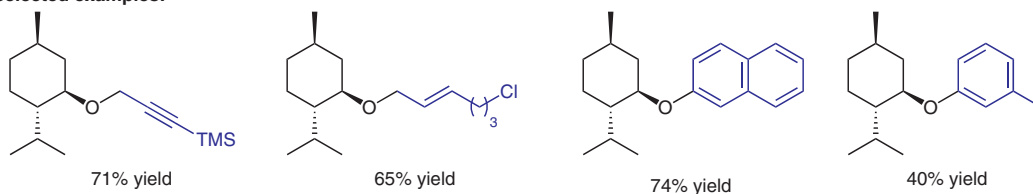
dialkyl ethers

C–C bond formation

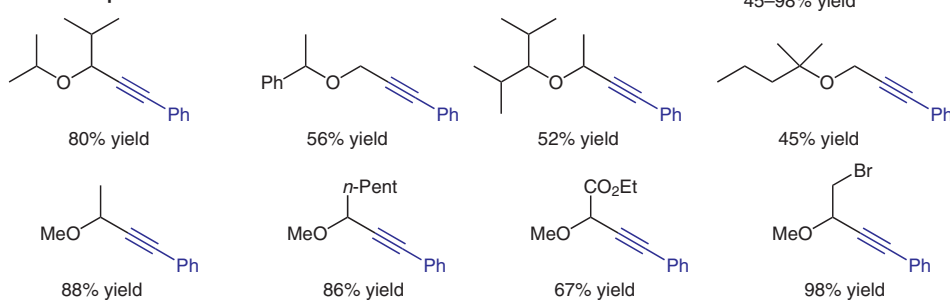
SYNFACT
of the month



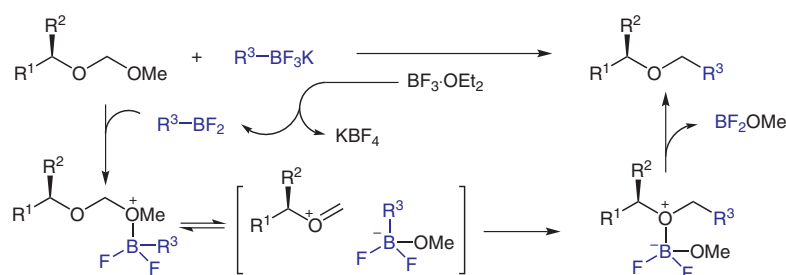
Selected examples:



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Mechanistic proposal:



Significance: A novel C–C bond formation approach using organotrifluoroborates for the synthesis of unsymmetrically substituted dialkyl ethers has been developed.

Comment: The reaction is general and well-tolerant of functional groups. Sterically demanding and sensitive dialkyl ethers which would be difficult to prepare via the common Williamson ether synthesis could be easily accessed.