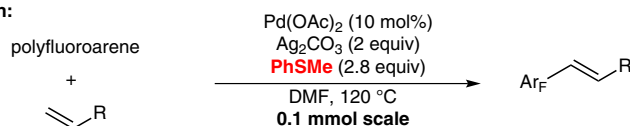


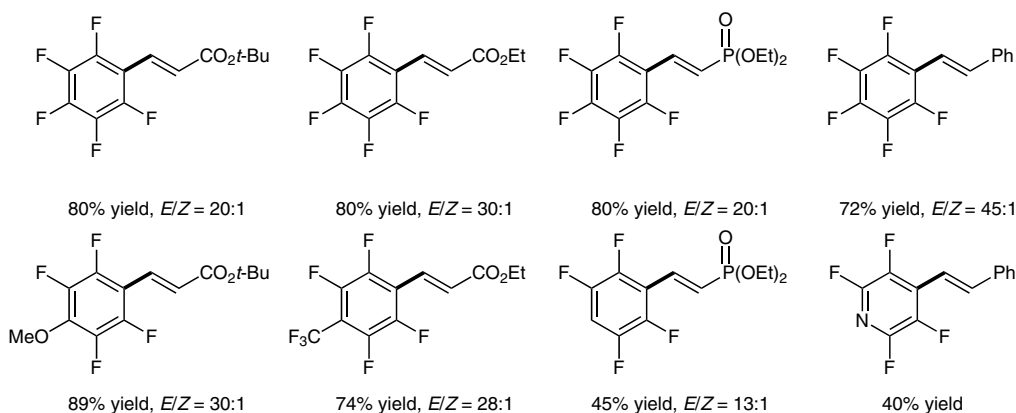
C.-Z. WU, C.-Y. HE, Y. HUANG, X. ZHANG* (DONGHUA UNIVERSITY, SHANGHAI AND SHANGHAI INSTITUTE OF ORGANIC CHEMISTRY, P. R. OF CHINA)
Thioether-Promoted Direct Olefination of Polyfluoroarenes Catalyzed by Palladium
Org. Lett. **2013**, *15*, 5266–5269.

Oxidative Olefination of Polyfluoroarenes Catalyzed by Palladium

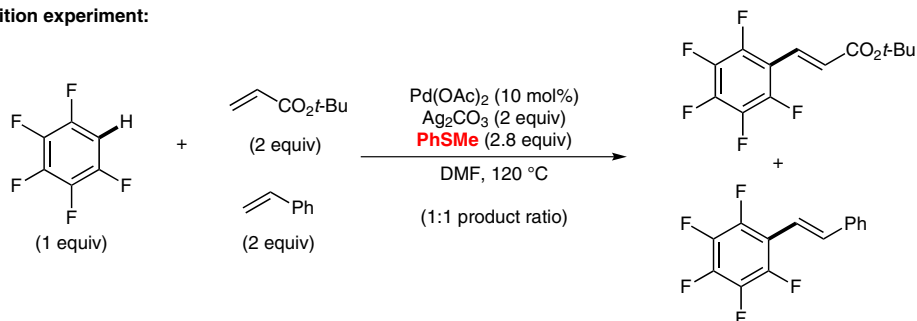
Overall transformation:



Selected examples:



Competition experiment:



Significance: The dehydrogenative Heck reaction represents a more environmentally friendly variant of the classic Nobel prize winning transformation, as it makes use of non-prefunctionalized substrates. Polyfluoroarenes are important structural motifs, and the development of new methods to incorporate them in an efficient manner is an important endeavor. The report represents a rare example of a thioether promoted C–H functionalization of electron-deficient arenes.

SYNFACTS Contributors: Mark Lautens, David A. Petrone
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DOI: 10.1055/s-0033-1340448; **Reg-No.:** L15813SF

Comment: The authors report a palladium-catalyzed methyl phenyl sulfide promoted direct olefination of polyfluoroarenes. These previously ‘un-reactive’ substrates undergo facile transformation with the specifically chosen sulfur-containing ligand. Products are obtained in good to excellent yields and with high E/Z selectivities. A competition reaction between pentafluorobenzene and both styrene and *tert*-butyl acrylate show that there is no bias between electron-rich and electron-deficient olefins under the reported conditions.