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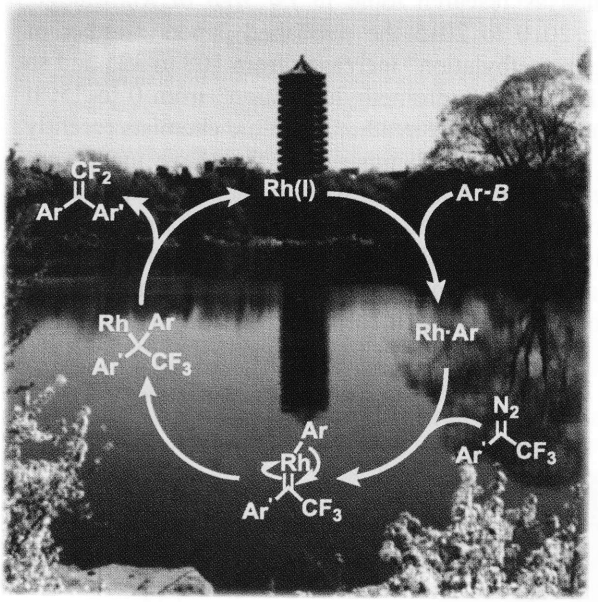
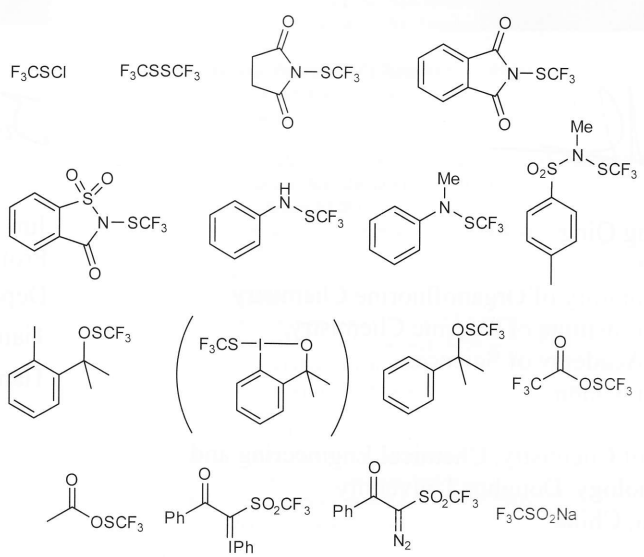
COVER PICTURE

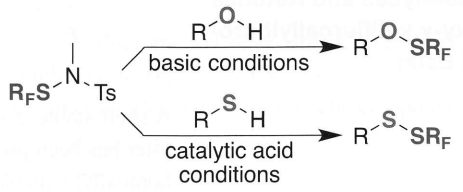


The cover picture shows a new method to access 1,1-difluoroolefins, which are important fluoro-containing organic compounds. The *N*-tosylhydrazones derived from trifluoromethyl ketones react with arylboronates in the presence of Rh(I) catalyst, affording 1,1-difluoroolefins in moderate yields. This Rh(I)-catalyzed cross-coupling reaction is based on migratory insertion of Rh(I) carbene followed by β-fluoride elimination. More details are discussed in the article by Wang *et al*. on page 473—476.

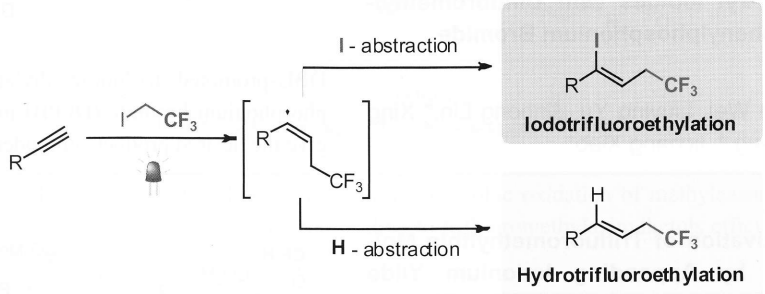
REVIEW



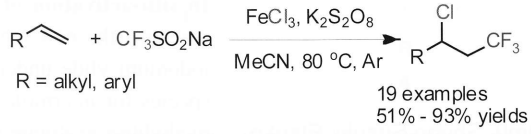
COMMUNICATIONS



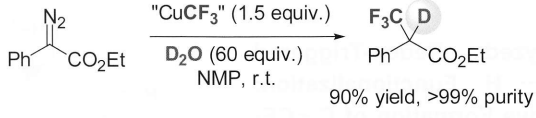
2nd generation of perfluoroalkanesulfenamides reagents can react with chalcogenols in basic or catalytic acid conditions to give the corresponding perfluoroalkylthiochalcogenides still little described this day.



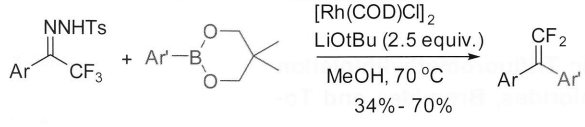
The iodo and hydrotrifluoroethylation of alkynes with CF_3CH_2I proceeded selectively by visible-light photocatalysis. Subtle differences in the combination of the photocatalyst, base, and solvent controlled the selectivity of the two transformations.



An iron-mediated chlorotrifluoromethylation of alkenes with CF_3SO_2Na was reported. This process works well for both styrenes and aliphatic alkenes giving the chlorotrifluoromethylated products in moderate to excellent yields.



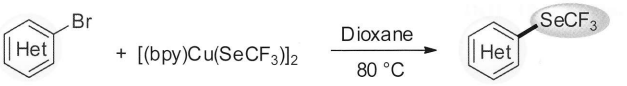
A copper-mediated deuterotrifluoromethylation of α-diazo esters under the promotion of deuterium oxide (D_2O) has been developed for the synthesis of deutero-labeled trifluoromethyl compounds. This deuterotrifluoromethylation reaction is of broad scope and can afford the deuterated products with higher than 99% isotopic purity.



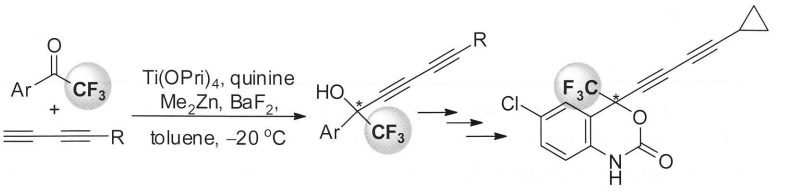
In this communication, a new synthetic method for 1,1-difluoro-2,2-diarylalkenes based on Rh(I)-catalyzed reaction of trifluoromethylketone *N*-tosylhydrazones and arylboronates is reported. The key step of the reaction is Rh(I)-carbene migratory insertion followed by β-fluoride elimination.

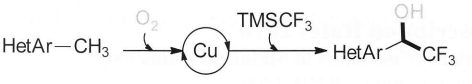
CONTENT

FULL PAPERS

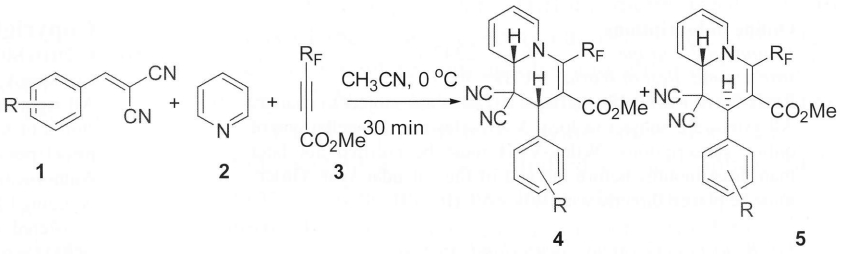


The synthesis of heteroaryl trifluoromethyl selenoethers by the trifluoromethylselenolation of heteroaryl bromides with $[(bpy)CuSeCF_3]_2$ was investigated. The reaction affords a variety of trifluoromethylselenolated heterocyclic compounds in good yields and tolerates a range of functional groups.





A ligand-free and additive-free copper-catalyzed aerobic oxidation of methylazaarenes was evolved by a trifluoromethylation leading to trifluoromethylazinylketols efficiently in one-pot.



A facile multi-component process for the synthesis of perfluoroalkylated quinolizine derivatives was achieved.

