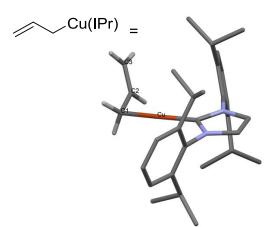
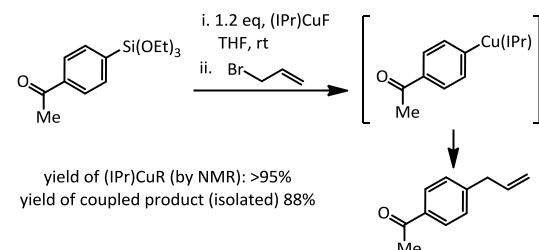


Copper(I) fluoride catalysts for organosilane activation

Zachary T. Ball, Dept. of Chemistry, Rice University

The direct synthesis of functionalized copper organometallics is made possible by the use of stable copper(I) fluoride complexes stabilized by Nheterocyclic carbene (NHC) ligands. In the many cases, copper organometallics can be isolated and characterized. This capability first resulted in the structural characterization of an allylcopper complex.





Catalytic applications of these ideas include cascade reactions forming several new C–C bonds, in processes triggered by C–Si bond activation with copper(I) fluoride catalysts.

SiMe₂(OR)

i.
$$E^1$$
, cat (L)CuF

THF, rt

ii. aq. workup

$$E^1$$
 = enone, enoate, etc.