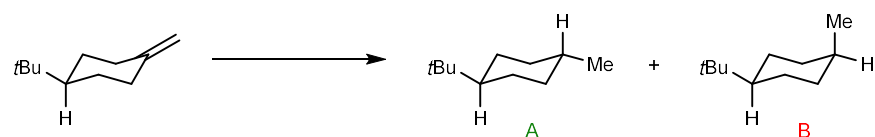


Shenvi's Conditions:



Conditions:

PtO₂ (9 mol%), H₂ (2 atm), AcOH

RhCl(PPh₃)₃ (5 mol%), H₂ (1 atm), PhH, 18 °C

Mn(dpm)₃ (10 mol%), PhSiH₃ (1.0 eq.), TBHP (1.5 eq.), *i*PrOH (0.5 M), 22 °C, 1 h

Co(dpm)₂ (10 mol%), PhSiH₃ (1.0 eq.), TBHP (1.5 eq.), *i*PrOH (0.5 M), 22 °C, 1 h

Yield (A:B):

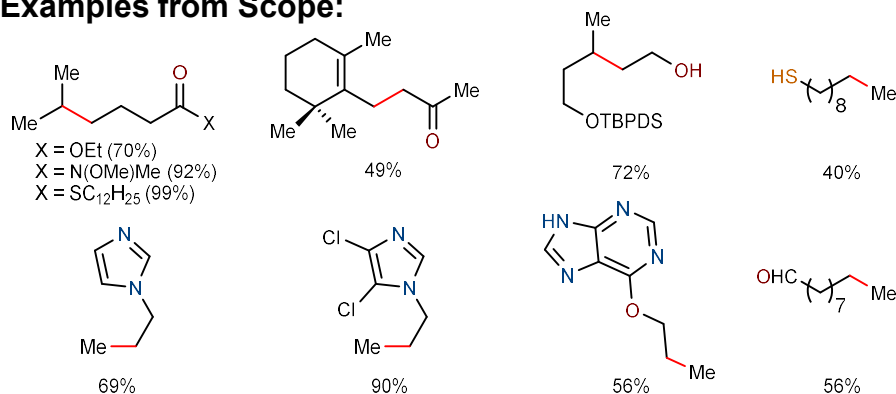
100% (21:79)

100% (32:68)

86% (84:16)

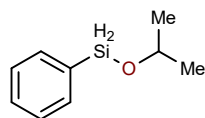
69% (86:14)

Examples from Scope:



J. Am. Chem. Soc. **2014**, *136*, 1300. <https://doi.org/10.1021/ja412342g>

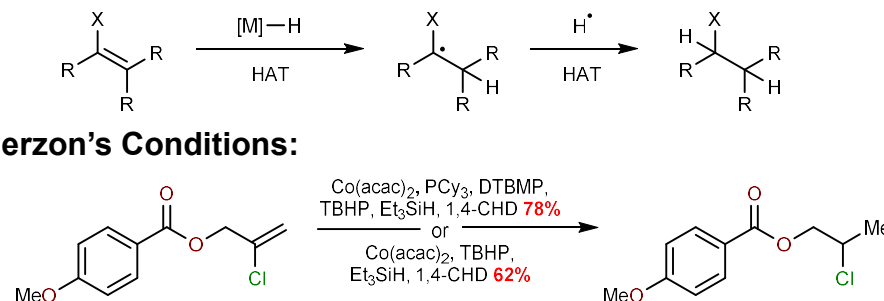
Modification:



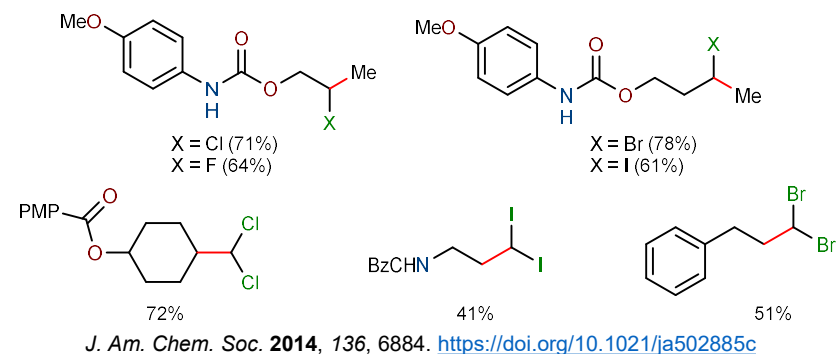
- Showed alcohol solvent serves as an accelerating substituent on the silane reductant
- Direct use of Ph(*i*PrO)SiH₂ allows for: decreased catalyst loadings (0.05 mol%) and reaction temperatures, use of aprotic solvents, and broader FG tolerance

J. Am. Chem. Soc. **2016**, *138*, 4962. <https://doi.org/10.1021/jacs.6b02032>

Herzon's Conditions:

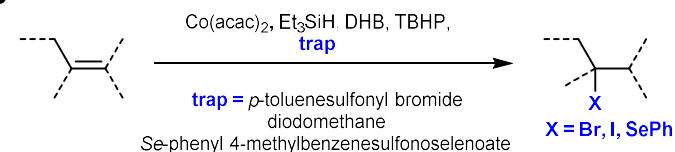


Examples from Scope:

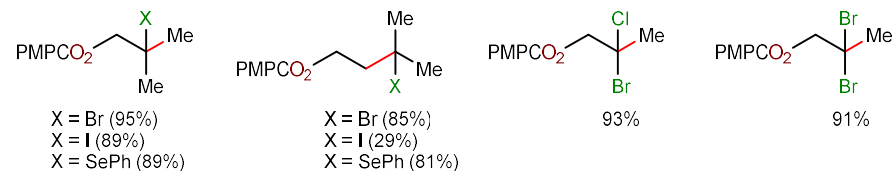


J. Am. Chem. Soc. **2014**, *136*, 6884. <https://doi.org/10.1021/ja502885c>

Trapping the Intermediate Radical:



Examples from Scope:



Chem. Sci. **2015**, *6*, 6250. DOI: 10.1039/c5sc02476e

Selected Examples:

