

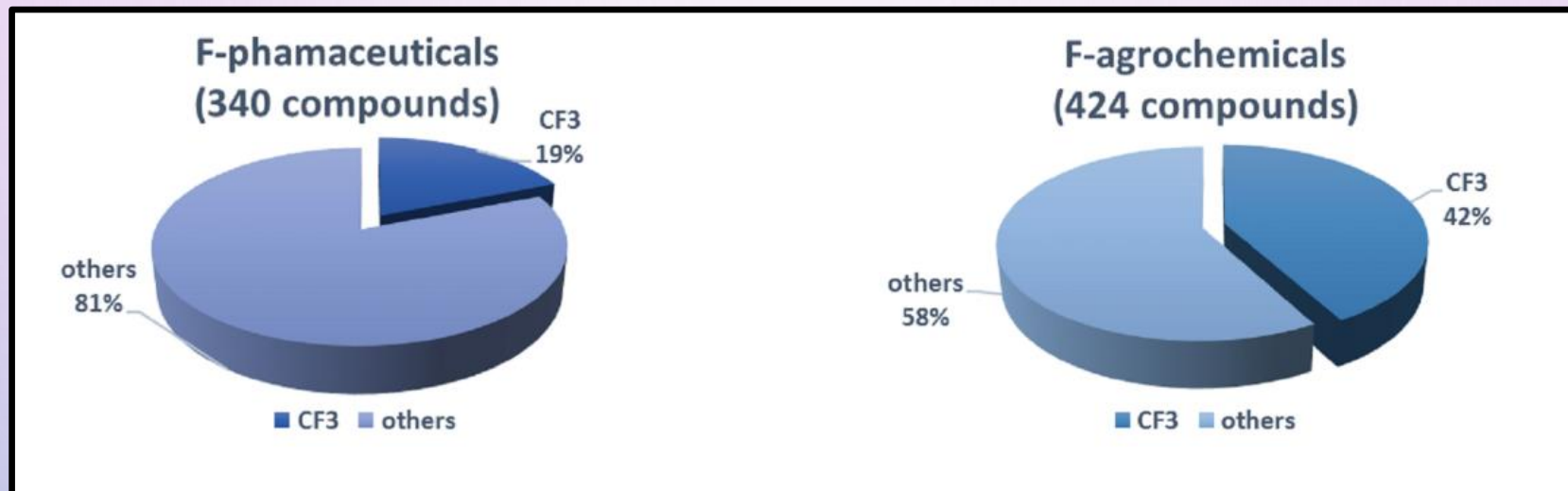
STEREOSPECIFIC CROSS- COUPLING REACTIONS OF A- CF₃ BENZYLIC ELECTROPHILES

ERIKA CHAMBERS, IV KRAJA

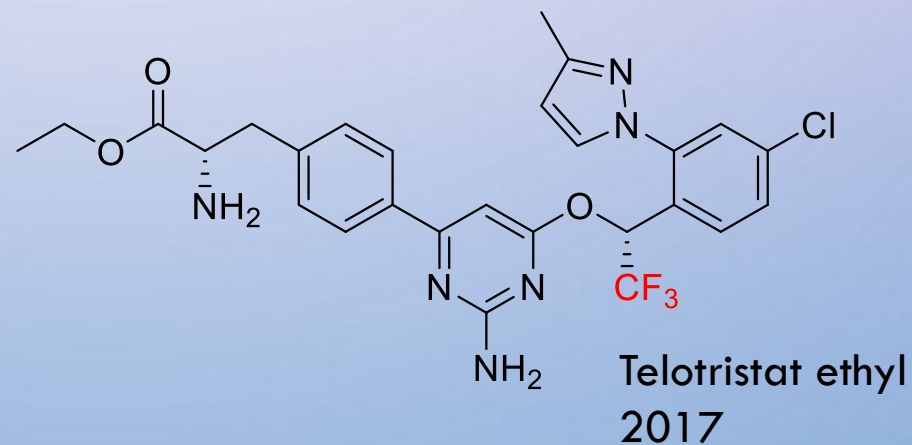
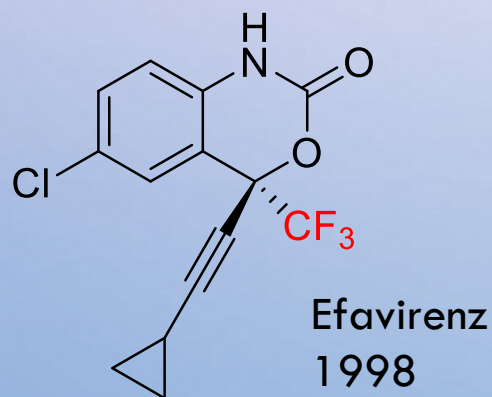
PROFESSOR MARK BISCOE

NSF-SCRIP 2023

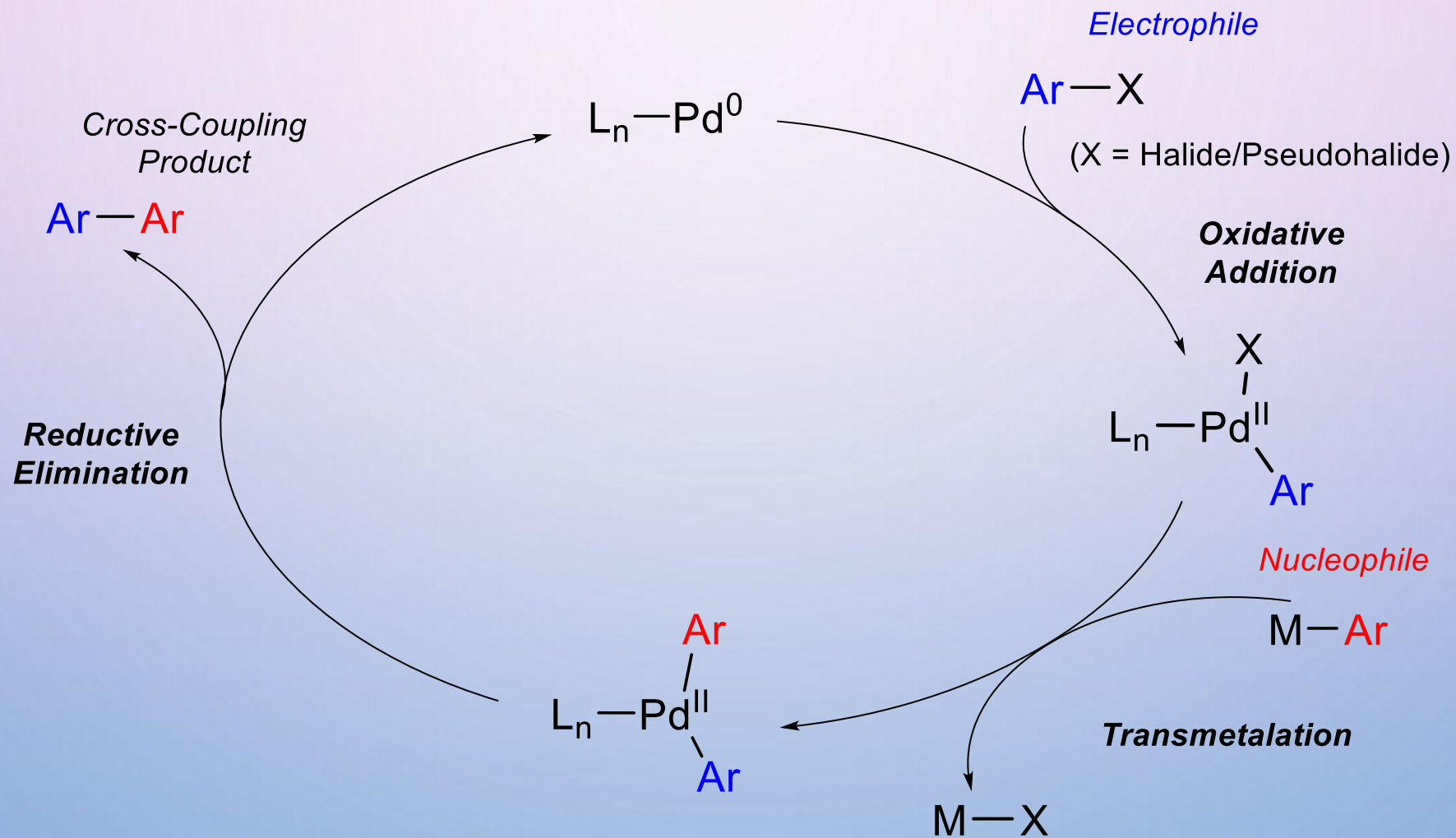
CF₃ GROUPS IN PHARMACEUTICALS AND AGROCHEMICALS



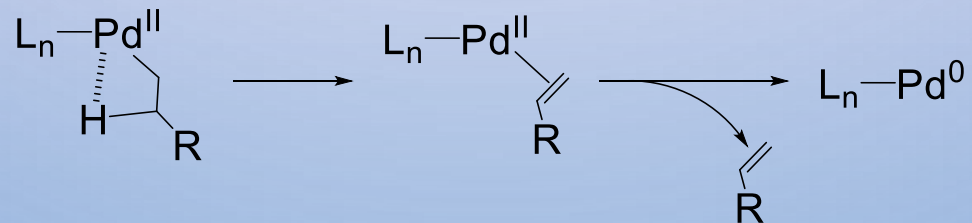
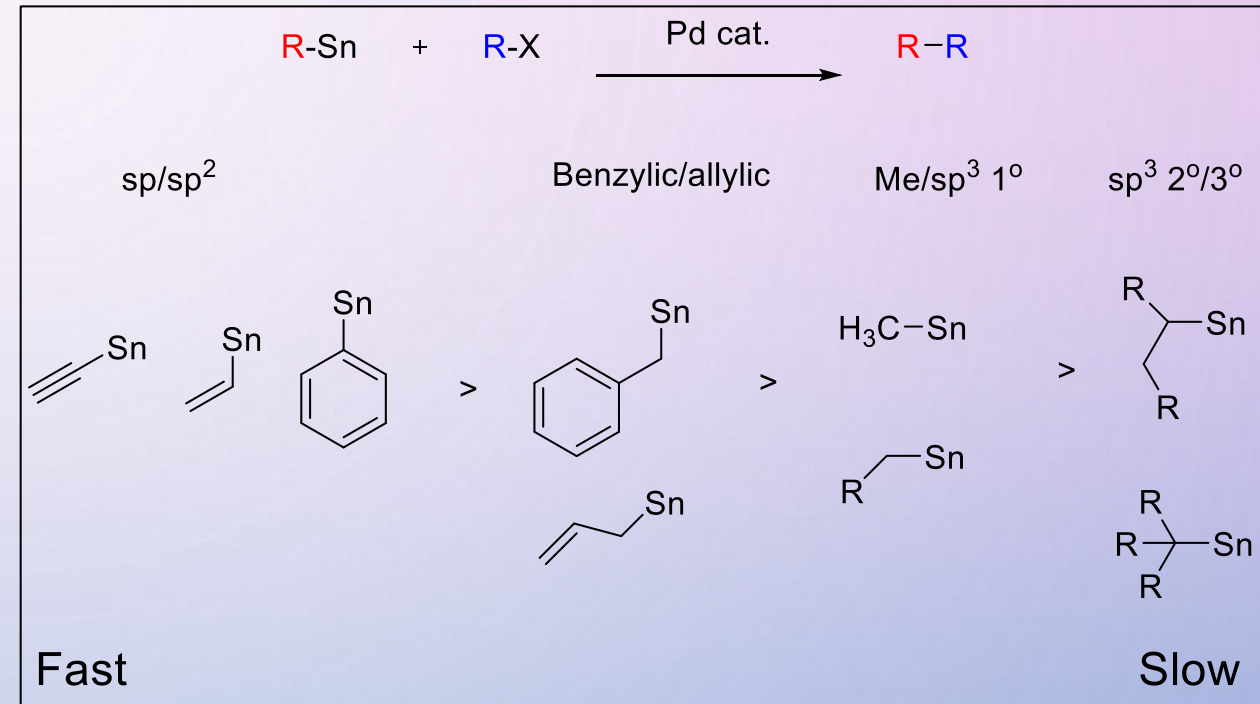
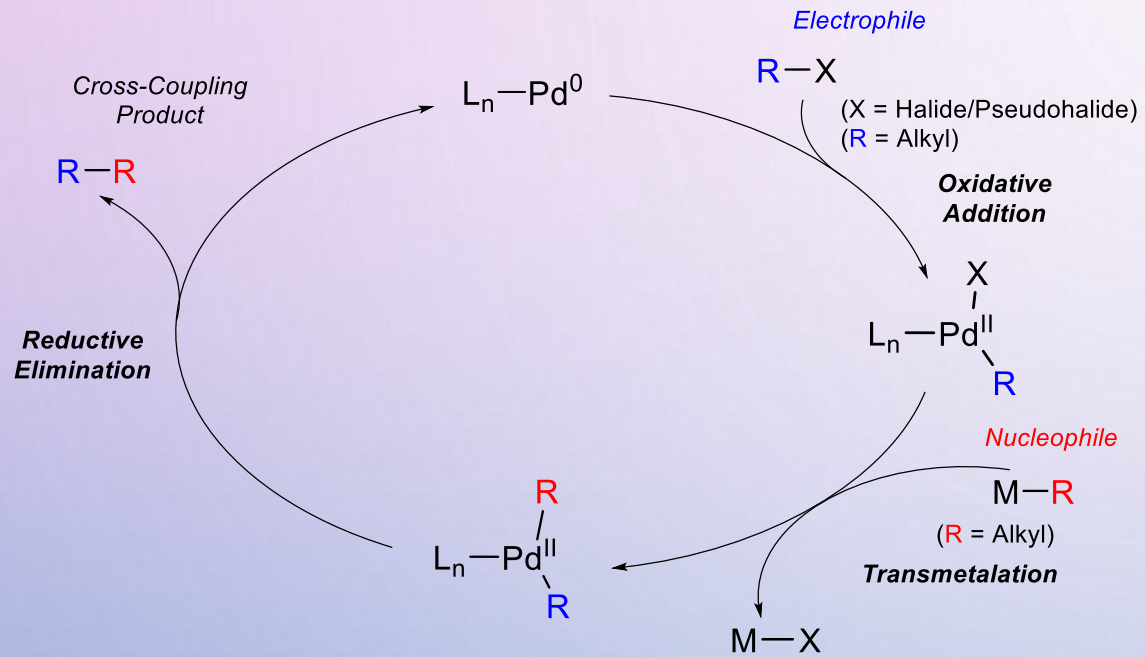
Liang, Y.; Taya, A.; Zhao, Z.; Saito, N.; Shibata, N. *Beilstein J. Org. Chem.* **2020**, *16*, 3052–3058.



CROSS-COUPLING REACTIONS

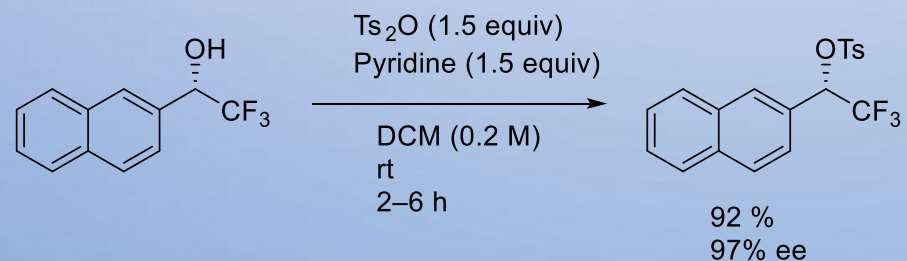
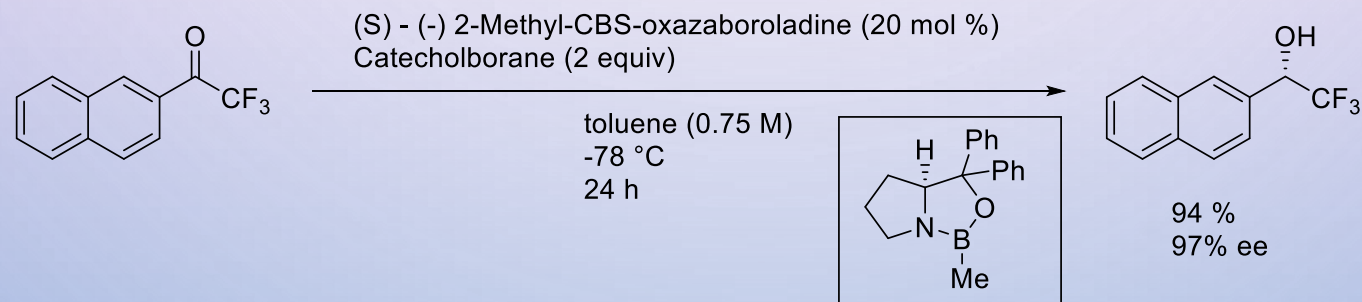
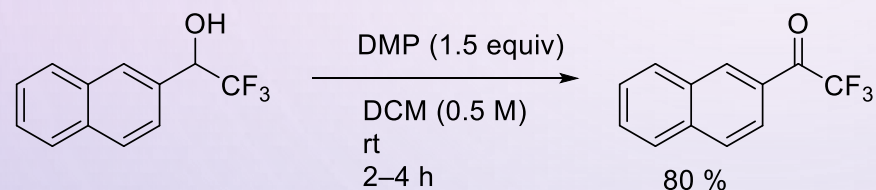
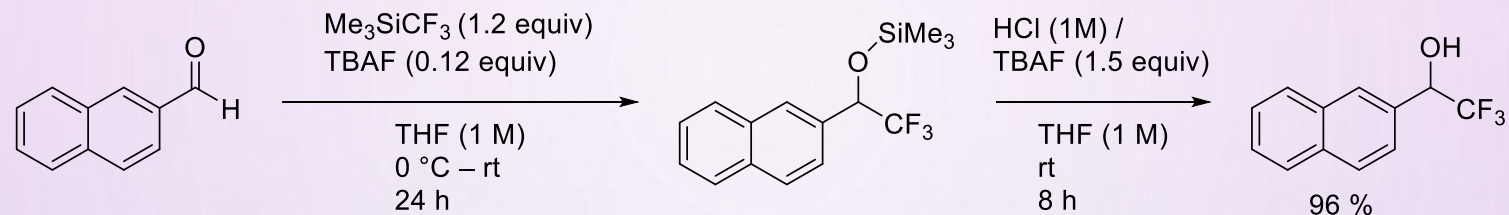


ALKYL-ALKYL CROSS-COUPLING REACTIONS

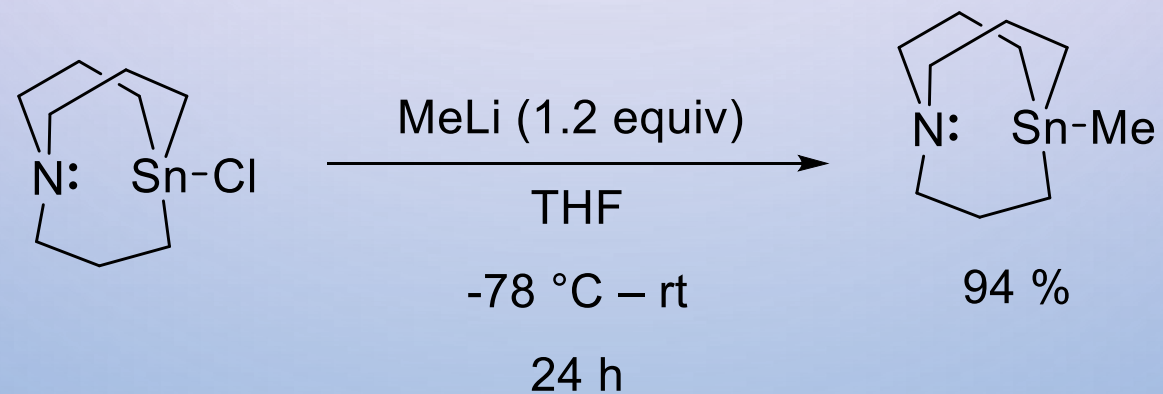
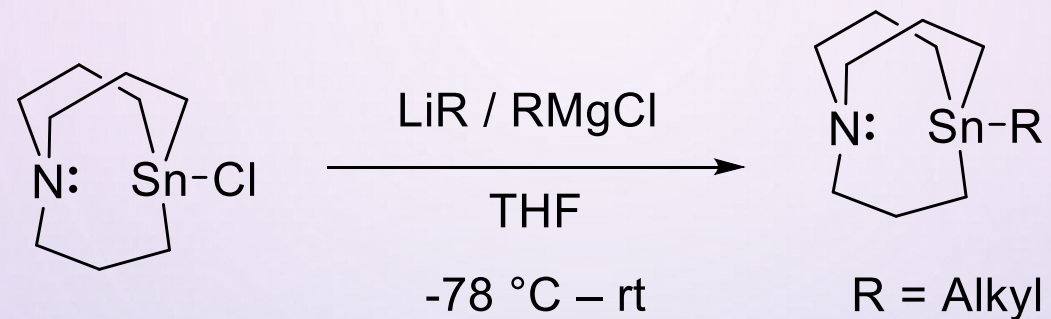


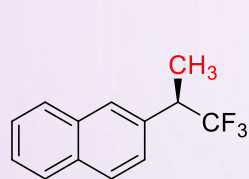
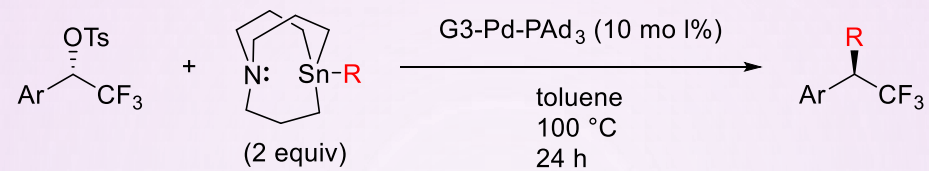
β -Hydride Elimination

SYNTHESIS OF α -(TRIFLUOROMETHYL)BENZYL TOSYLATES

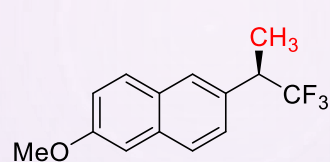


SYNTHESIS OF STANNATRANE NUCLEOPHILES

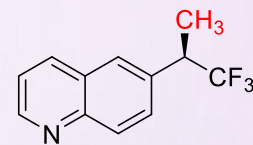




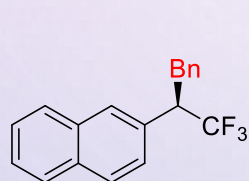
1a, 92%
99% es



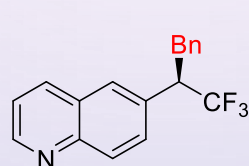
1b, 90%
98% es



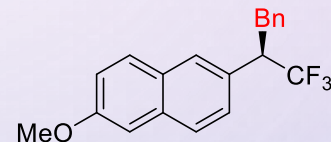
1c, 72%
95% es



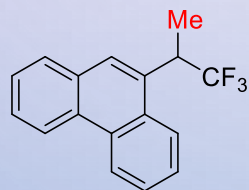
1d, 87%
93% es



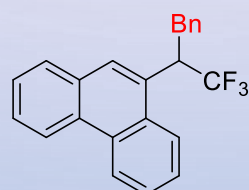
1e, 75%
92% es



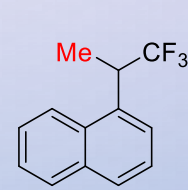
1f, 85%
94% es



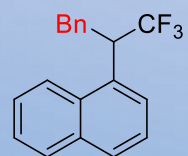
1g, 85%



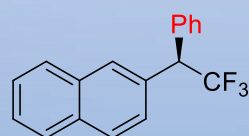
1h, 81%



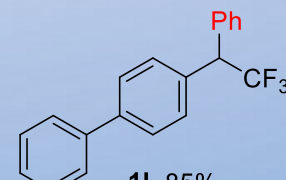
1i, 72%
34% es



1j, 68%

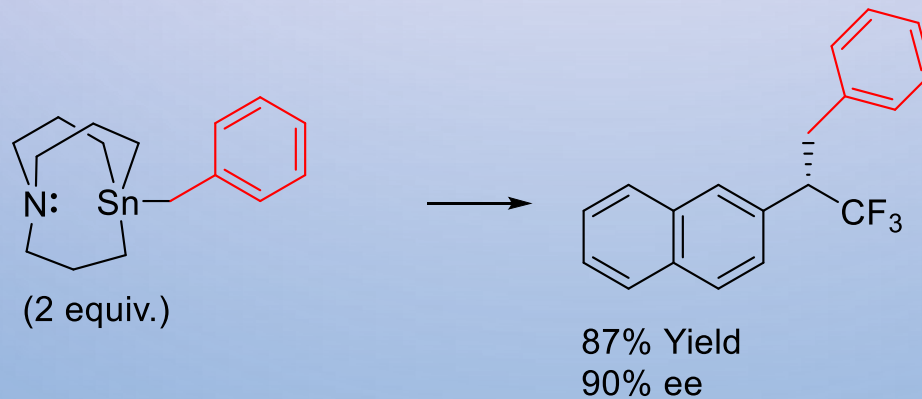
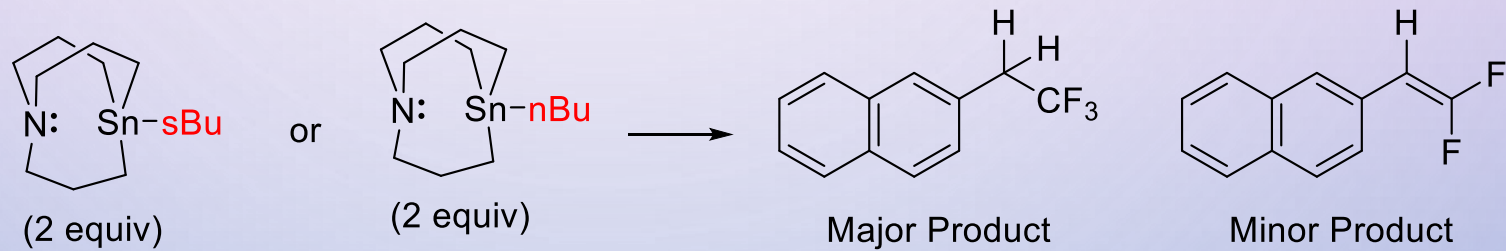
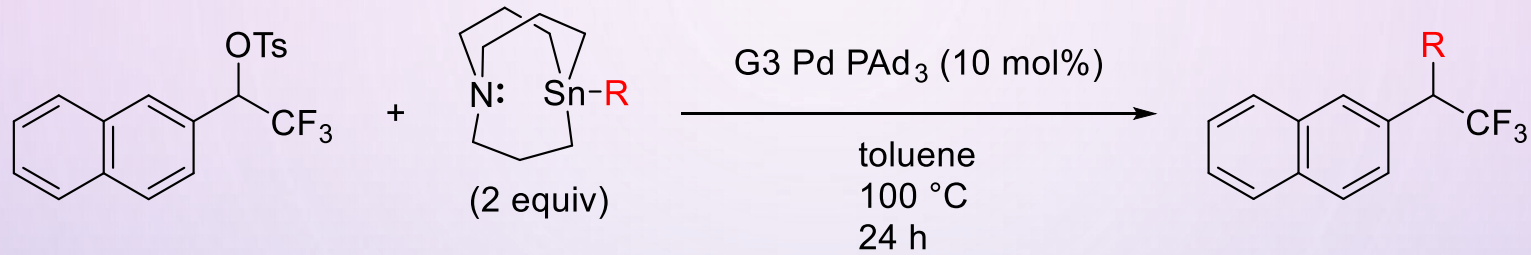


1k, 93%
72% es



1l, 85%
(using XPhos)

LIMITATIONS OF NUCLEOPHILES



LIMITATIONS OF ELECTROPHILES

