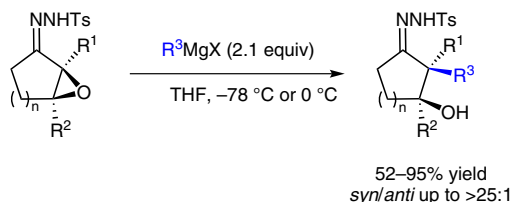
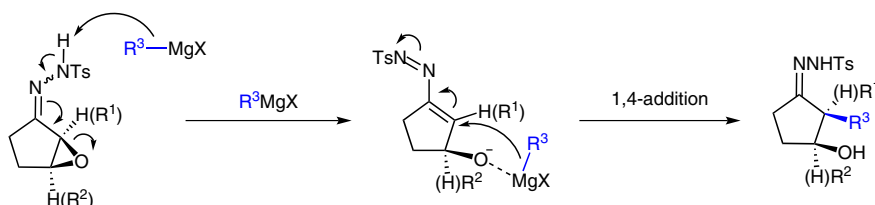


Diastereoselective α -Alkylation of α -Epoxy *N*-Sulfonyl Hydrazones

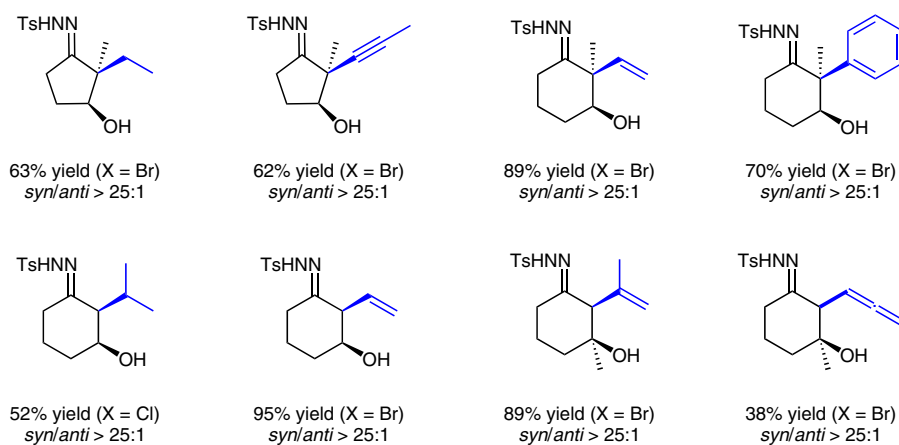


$n = 1, 2$
 $R^1, R^2 = H, Me$
 $R^3 = \text{Alk, Ph, vinyl, alkynyl}$
 $X = \text{Cl, Br}$

Proposed mechanism:



Selected examples:



Significance: Coltart and co-workers report the diastereoselective addition of Grignard reagents to α -epoxy *N*-sulfonyl hydrazones to give various β -hydroxy *N*-sulfonyl hydrazones with quaternary α -stereocenters in very high yields.

Comment: The alkoxide, which is generated in situ through base-induced ring-opening of the epoxide, selectively directs the addition *syn* in a 1,4-manner.