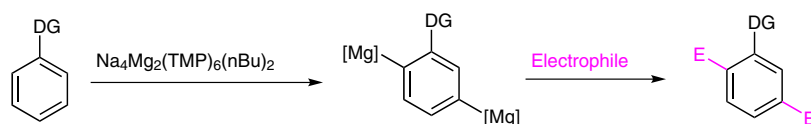
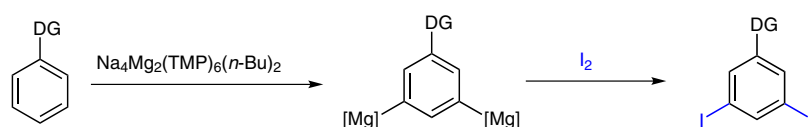


Directed Regioselective 2,5- and 3,5-Dimagnesiations of Substituted Arenes

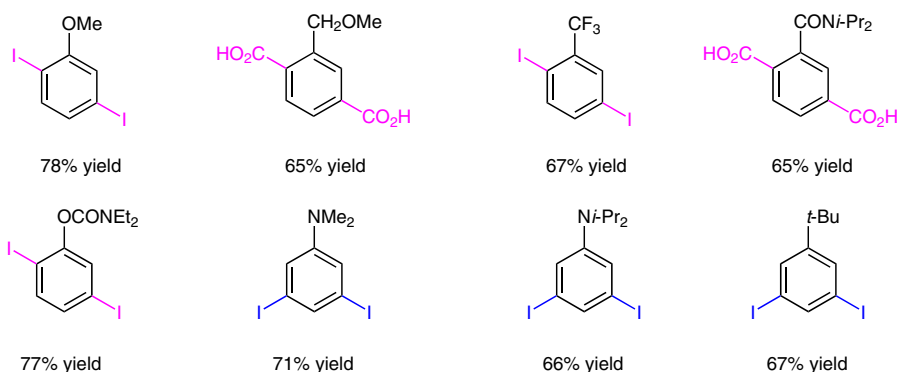


DG = OAlk, CH₂OMe, CF₃, CON*i*-Pr₂, oxazoline, carbamate



DG = NMe₂, N*i*-Pr₂, *t*-Bu

Selected examples:



Significance: The regioselective deprotonation of a directing group substituted arene substrate generally takes place in the *ortho* position, adjacent to the substituent. The authors developed a protocol by which the metalating agent deprotonates the arene at the more distant arene sites. Depending on the nature of the directing group, 2,5- or 3,5-dimetalation is observed. The dimagnesiated species were quenched with electrophiles.

Comment: Interestingly, the used disodium monomagnesium alkylamide forms a template that is responsible for the metalation at the more distant arene sites. The next challenge is the rational design of a range of template bases.