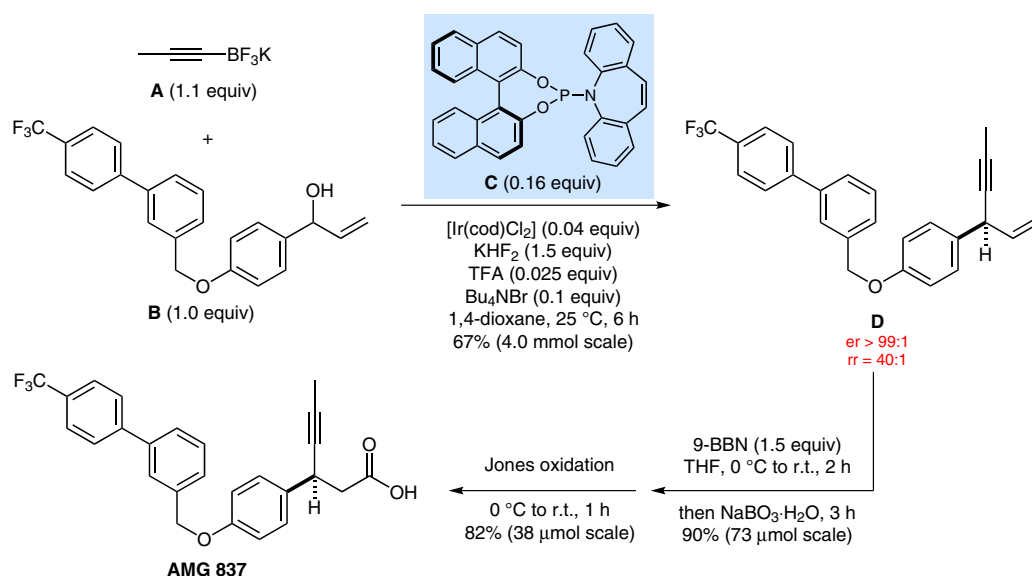
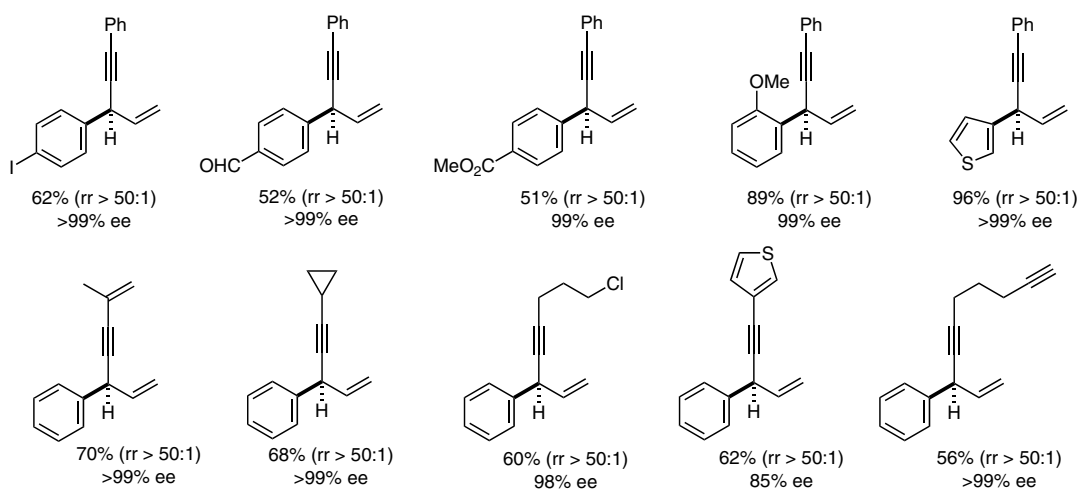


Synthesis of AMG 837



Scope of the enantioselective allylic alkylation of aromatic allylic alcohols:



Significance: A new versatile method for the iridium-catalyzed asymmetric substitution of racemic allylic alcohols is exemplified by the depicted synthesis of AMG 837, a GPR40 receptor agonist that is of interest for the treatment of type 2 diabetes.

Comment: The allylic alkylation (27 examples) typically provides excellent branched-to-linear regioselectivity (rr > 50:1) and high enantioselectivity (≥99%). The scope of the allylic alkylation was explored using 12 allylic alcohols and 15 potassium alkynyltrifluoroborates.