Stereoselective Synthesis of syn-Homoallylic Alcohols

Significance: The authors established a new synthetic method for the synthesis of syn-homoallylic alcohols from terminal alkynes and aldehydes. As this transformation utilizes easily accessible starting materials, this practical method should find many applications.

Comment: A cationic rhodium(I) catalyst turns 2-silyl-1-alkenylboronates, which can be easily prepared from a terminal alkyne, into the corresponding allylboronate, that directly undergoes nucleophilic addition to an aldehyde to afford the corresponding syn-homoallylic alcohol in excellent stereoselectivity.