Iridium-Catalyzed Alkylation of Allenylic Electrophiles

Significance: Carreira and co-workers have reported an iridium-catalyzed enantioselective alkylation using allenic carbonates as electrophiles. Chiral allenes are isolated in good yields, with excellent regio- and stereoselectivity.

Comment: The products are further derivatized, providing examples of useful chiral building blocks. Mechanistic studies suggest that the catalyst has no kinetic preference for a specific substrate enantiomer and that the enantioselectivity is strictly under catalyst control.