Asymmetric Fukuyama Cross-Coupling of Racemic Benzylic Zinc Reagents

Significance: Maulide and co-workers report an enantioconvergent palladium-catalyzed Fukuyama cross-coupling of racemic benzylic zinc reagents with thioesters. A wide range of acyclic α-disubstituted carbonyl compounds are afforded in high yields under mild reaction conditions.

Comment: The addition of ZnCl₂ significantly improved both the yield and enantioselectivity of the reaction by influencing the Schlenk equilibrium, as well as by accelerating the racemization rate of the secondary organozinc reagents.

SYNFACTS Contributors: Paul Knochel, Diana Haas

Synfacts 2016, 12(5), 0511 Published online: 18.04.2016
DOI: 10.1055/s-0035-1561992; Reg-No.: P03516SF