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Nickel(II)-Catalyzed Asymmetric Propargyl and Allyl Claisen Rearrangements to Allenyl- and Allyl-Substituted β -Ketoesters

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Nickel-Catalyzed Asymmetric Claisen Rearrangement

Significance: The authors present an asymmetric propargyl and allyl Claisen rearrangement using a readily available chiral *N,N'*-dioxide–nickel(II) complex. Product allyl and allenyl compounds were obtained with good yield and excellent enantioand diastereoselectivities.

SYNFACTS Contributors: Hisashi Yamamoto, Ramesh C. Samanta Synfacts 2015, 11(1), 0055 Published online: 15.12.2014 **DOI:** 10.1055/s-0034-1379752; **Reg-No.:** H15814SF

Comment: This rearrangement works with relatively inexpensive metal (nickel) under mild reaction conditions. The produced β-keto esters with all-carbon quaternary stereogenic centers with allenyl and allyl substituents are highly useful chiral building blocks.

Category

Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions

Key words

Claisen rearrangement

allenyls

nickel

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