Y. LIU, H. HU, H. ZHENG, Y. XIA, X. LIU, L. LIN, X. FENG* (SICHUAN UNIVERSITY, CHENGDU AND LANZHOU UNIVERSITY, P. R. OF CHINA)
 Nickel(II)-Catalyzed Asymmetric Propargyl and Allyl Claisen Rearrangements to Allenyl- and Allyl-Substituted β -Ketoesters
Angew. Chem. Int. Ed. **2014**, *53*, 11579–11582.

Nickel-Catalyzed Asymmetric Claisen Rearrangement

Stereochemical model:

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 enantio- and 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