A. T. MEZA, T. WURM, L. SMITH, S. W. KIM, J. R. ZBIEG*, C. E. STIVALA*, M. J. KRISCHE*
(GENENTECH, INC., SOUTH SAN FRANCISCO AND UNIVERSITY OF TEXAS, AUSTIN, USA)
Amphiphilic π -Allyliridium C,O-Benzoates Enable Regio- and Enantioselective Amination of Branched Allylic Acetates Bearing Linear Alkyl Groups
J. Am. Chem. Soc. **2018**, *140*, 1275–1279.

Iridium-Catalyzed Regio- and Enantioselective Amination

Significance: Several π -allyliridium C,O-benzoates are known to act as catalysts for nucleophilic carbonyl allylation. In contrast, the authors report that a π -allyliridium C,O-benzoate modified by SEGPHOS catalyzes the chemo-, regio-, and enantioselective electrophilic aminations of branched allylic acetates bearing linear alkyl groups.

SYNFACTS Contributors: Hisashi Yamamoto, Takahiro Sawano
Synfacts 2018, 14(04), 0373 Published online: 16.03.2018
DOI: 10.1055/s-0037-1609359; **Reg-No.:** H02718SF

Comment: The π -allyliridium C,O-benzoate is commercially available and stable to air, water, and silica-gel chromatography. The authors demonstrated that both nucleophilic and electrophilic allylations proceed with the same iridium catalyst under similar conditions.

Category

Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions

Key words

iridium catalysis
amination
allylic acetates
amphiphilic reactivity

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