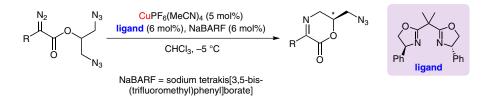
X.-P. WU, Y. SU, P. GU* (NINGXIA UNIVERSITY, YINCHUAN AND LANZHOU UNIVERSITY, P. R. OF CHINA)

Catalytic Enantioselective Desymmetrization of 1,3-Diazido-2-propanol via Intramolecular Interception of Alkyl Azides with Diazo(aryl)acetates

Org. Lett. 2014, 16, 5339-5341.

Intramolecular Asymmetric Desymmetrization via Copper Catalysis



Selected examples:

Significance: Hydroxy- and amino-functionalized C3-fragments play a pivotal role as synthetic intermediates. Whereas enantioselective desymmetrization of diols and glycerol were developed to provide hydroxyl-containing C3-fragments, the corresponding preparation of amino-containing C3-fragments has been rarely documented. Herein, Gu and co-workers present the asymmetric desymmetrization of 1,3-diazido-2-propanols catalyzed by copper-PhBox.

Comment: The title transformation is enabled in an enantioselective fashion by CuPF₆(MeCN)₄ in the presence of (S,S)-PhBox and NaBARF with the larger and non-coordinating BARF anion. The new method provides reliable access to enantioenriched azido-substituted 5,6-dihydro-1,4-oxazin-2-ones, which can be further converted into useful N-containing scaffolds.

 $\textbf{SYNFACTS Contributors:} \ Hisashi\ Yamamoto,\ Sukalyan\ Bhadra$ Synfacts 2015, 11(1), 0063 Published online: 15.12.2014

Category

Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions

Key words

asymmetric desymmetrization

alkyl azides

bisoxazolines

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