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SYNFACTS Highlights in Current Synthetic Organic Chemistry

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Category

Metal-Mediated Synthesis

Key words

iridium catalysis carboxylic acids enantioselectivity S. E. SHOCKLEY, C. HETHCOX, B. M. STOLTZ* (CALIFORNIA INSTITUTE OF TECHNOLOGY, PASADENA, USA) Enantioselective Synthesis of Acyclic α-Quarternary Carboxylic Acid Derivatives through Iridium-Catalyzed Allylic Alkylation

Angew. Chem. Int. Ed. 2017, 56, 11545–11548.

Synthesis of α-Quarternary Carboxylic Acid Derivatives



Significance: The authors report the first highly enantioselective iridium-catalyzed allylic alkylation using a masked acyl cyanide. In this one-pot procedure, carboxylic acids, esters, and amides containing allylic all-carbon quaternary stereogenic centers can be obtained enantioselectively. **Comment:** The products can be transformed in various ways leading to important chiral building blocks, demonstrating the utility of the presented method.

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