Y. ZHOU, J. S. BANDAR, S. L. BUCHWALD\* (MASSACHUSETTS INSTITUTE OF TECHNOLOGY, CAMBRIDGE, USA)

Enantioselective CuH-Catalyzed Hydroacylation Employing Unsaturated Carboxylic Acids as Aldehyde Surrogates J. Am. Chem. Soc. 2017, 139, 8126-8129.

## **Asymmetric Copper Hydride Catalyzed Coupling Reaction to Access Chiral Ketones**

## Selected examples:

**Significance:** The preparation of chiral  $\alpha$ -aryl dialkyl ketones is an important challenge for the synthesis community. The authors have developed a Cu-catalyzed enantioselective hydroacylation of  $\alpha,\beta\text{-unsaturated}$  carboxylic acids with aryl alkenes.

erate yields and with high enantioselectivities.

 $\textbf{SYNFACTS Contributors:}\ Hisashi\ Yamamoto,\ Wataru\ Muramatsu$ Synfacts 2017, 13(09), 0937 Published online: 18.08.2017 DOI: 10.1055/s-0036-1590772; Reg-No.: H09217SF

Category

**Metal-Catalyzed** Asymmetric Synthesis and Stereoselective Reactions

## Key words

copper catalysis hydroarylation alkenoic acid aryl alkenes aralkyl ketones



**Comment:** This direct asymmetric copper hydride catalysis is highly effective in coupling  $\alpha,\beta$ -unsaturated carboxylic acids to aryl alkenes to afford the corresponding chiral α-aryl dialkyl ketones in mod-