M. CHEN, J. F. HARTWIG* (UNIVERSITY OF CALIFORNIA, BERKELEY, USA)
Iridium-Catalyzed Regio- and Enantioselective Allylic Substitution of Silyl Dienolates Derived from Dioxinones
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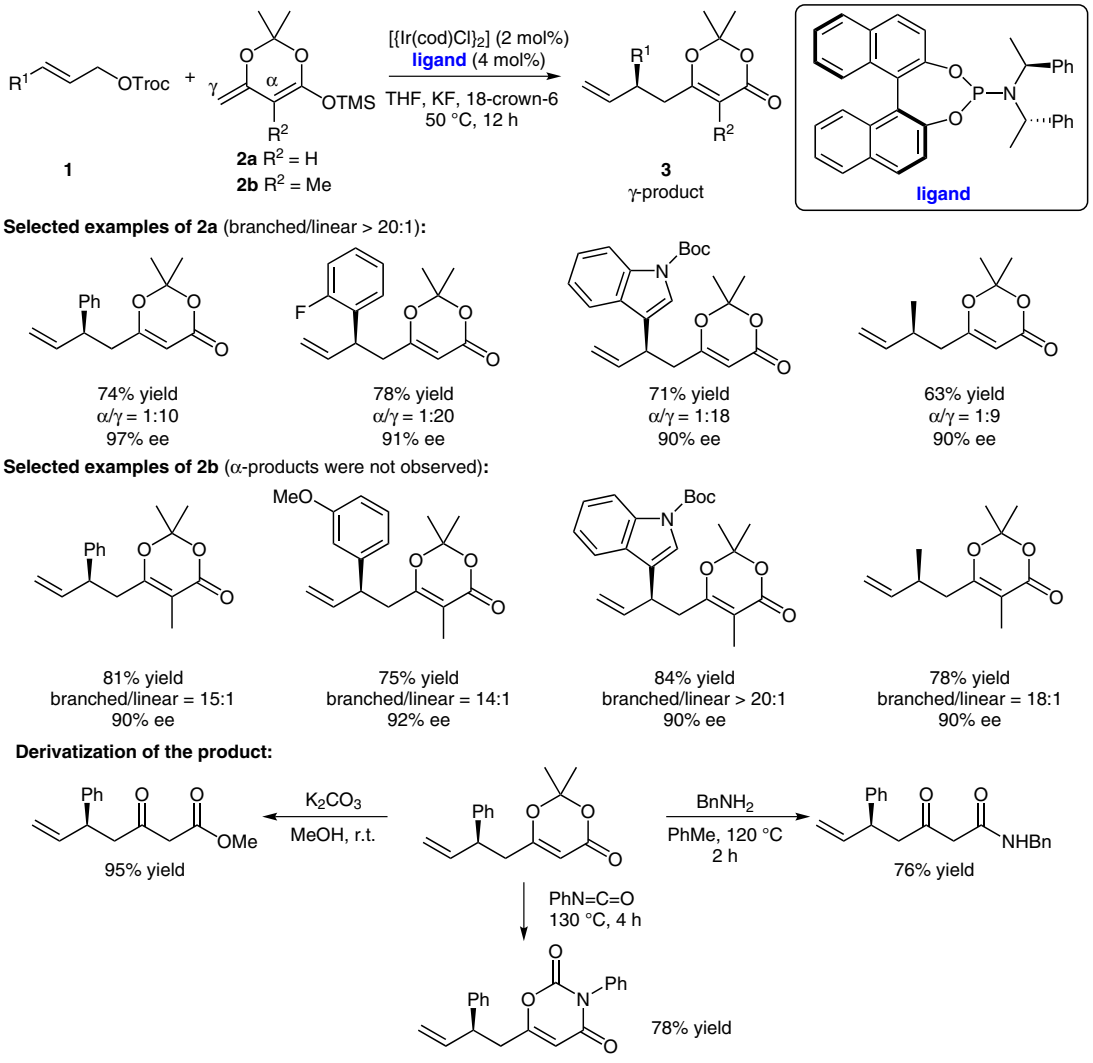
Iridium-Catalyzed Allylic Substitution of Silyl Dienolates



Significance: The allylic substitution at the γ-position of 1,3-dicarbonyl compounds has not been studied so far. Herein, the authors present the iridium phosphoramidite catalyzed allylic substitution reaction with high regio- and enantioselectivities. Silyl dienolates act as synthetic equivalents of β-keto ester dianions.

Comment: In this reaction, the combination of a leaving group on the allylic substrates and a chiral phosphoramidite ligand plays a crucial role to obtain high regioselectivities. The dioxinone moiety in the products can be converted easily into useful structures such as teramic acids.

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Category
Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions

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dienolates
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