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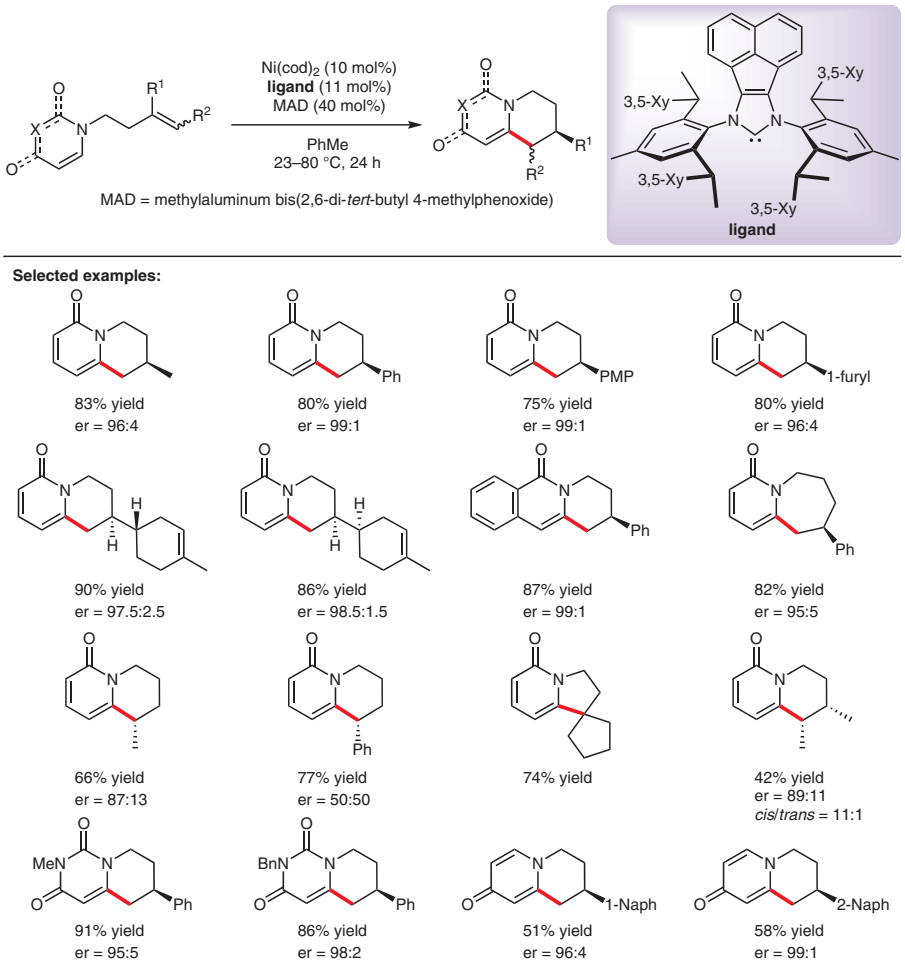
Nickel-Catalyzed Enantioselective Pyridone C–H Functionalizations Enabled by a Bulky N-Heterocyclic Carbene Ligand

J. Am. Chem. Soc. **2018**, *140*, 4489–4493.

Nickel-Catalyzed Asymmetric C–H Functionalization of Pyridones



Significance: Chiral pyridone backbones can be found in many bioactive compounds. The authors have developed a nickel-catalyzed enantioselective C–H functionalization of 2- and 4-pyridones by using a bulky N-heterocyclic ligand.

Comment: This nickel-catalyzed reaction permits the enantioselective intramolecular C–H functionalization of 2- and 4-pyridones. The nickel complex, based on a chiral bulky N-heterocyclic ligand, is effective in terms of selectivity, giving chiral 2- and 4-pyridones in good yields and with high enantioselectivities.

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Synfacts 2018, 14(06), 0595 Published online: 17.05.2018
DOI: 10.1055/s-0037-1609748; **Reg-No.:** H05818SF

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Category

Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions

Key words

nickel catalysis

C–H functionalization

pyridones

N-heterocyclic carbenes

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