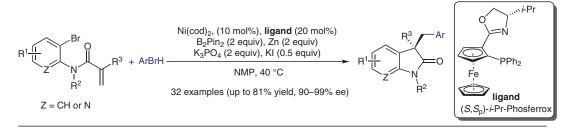
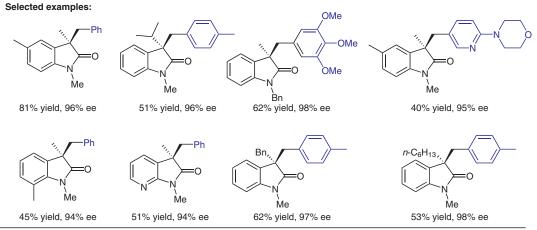
K. WANG, Z. DING, Z. ZHOU, W. KONG* (WUHAN UNIVERSITY, P. R. OF CHINA) Ni-Catalyzed Enantioselective Reductive Diarylation of Activated Alkenes by Domino Cyclization/Cross-Coupling J. Am. Chem. Soc. 2018, 140, 12364-12368.

Nickel-Catalyzed Enantioselective Reductive Diarylation





Proposed mechanisms (key intermediates):

Significance: The authors report a reductive diarylation of alkenes by using a nickel-catalyzed domino process employing two aryl electrophiles. This represents the first report of metal-catalyzed reductive coupling for the synthesis of oxindole scaffolds.

Comment: Following optimization of the reaction aryl bromides and alkenes was observed. An exfeatures two oxidative addition steps. The key step of the second pathway is a transmetalation between two nickel(II) species.

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Category

Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions

Key words

nickel catalysis domino reaction diarylation



conditions, a broad substrate scope that included ample of an azaoxindole was also demonstrated. The authors consider two possible pathways: One