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Synthesis of Ferrocene Derivatives with Planar Chirality via Palladium-Catalyzed Enantioselective C–H Bond Activation

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Category

Metal-Catalyzed Asymmetric Synthesis and Stereoselective Reactions

Key words

enantioselective acylation

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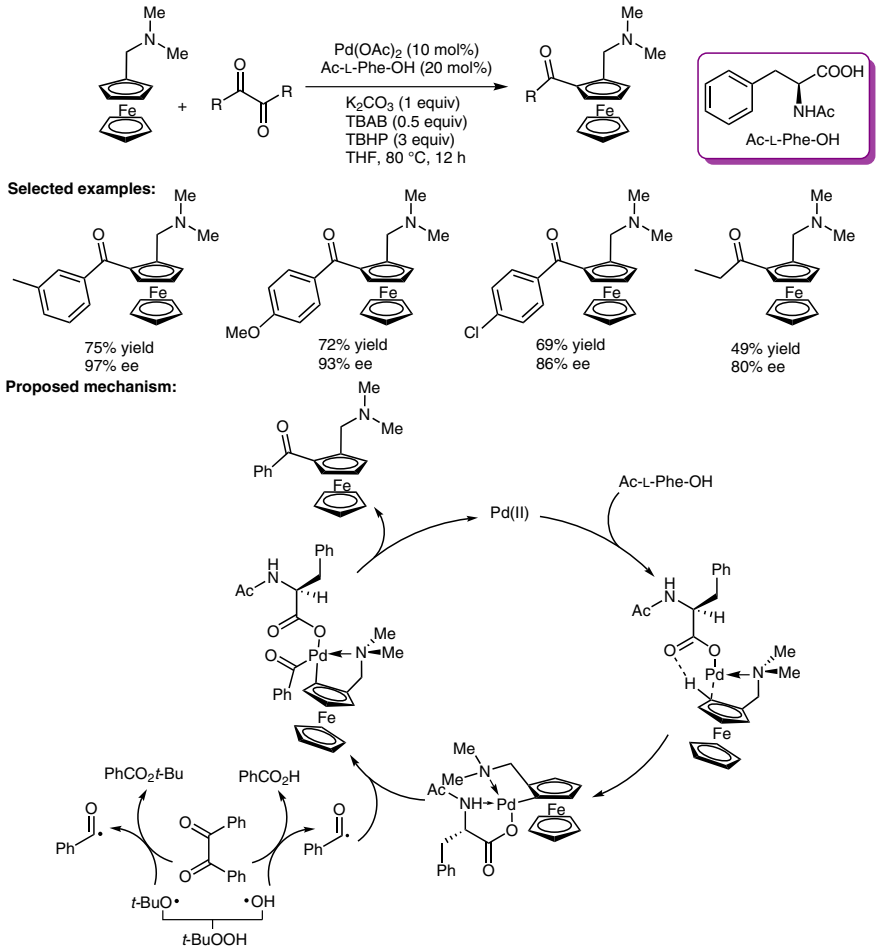
palladium

Asymmetric Synthesis of Ferrocenes via Palladium-Catalyzed C–H Bond Activation



Significance: The authors report a highly enantioselective route to the synthesis of 2-acyl-1-dimethylaminomethylferrocene derivatives with planar chirality via a palladium-catalyzed asymmetric C–H bond activation using monoprotected amino acids as chiral ligands.

Comment: Due to their important role in promoting various asymmetric catalyzed reactions, 2-acyl-1-dimethylaminomethylferrocene derivatives with planar chirality were provided under one-pot reaction conditions in moderate to good yields and with excellent enantioselectivities via a palladium-catalyzed direct acylation of ferrocene.

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