

Direct Asymmetric Catalytic Oxidation of Ketones to α -Hydroxy Ketones Using a Chiral Bimetallic Pd(II) Complex

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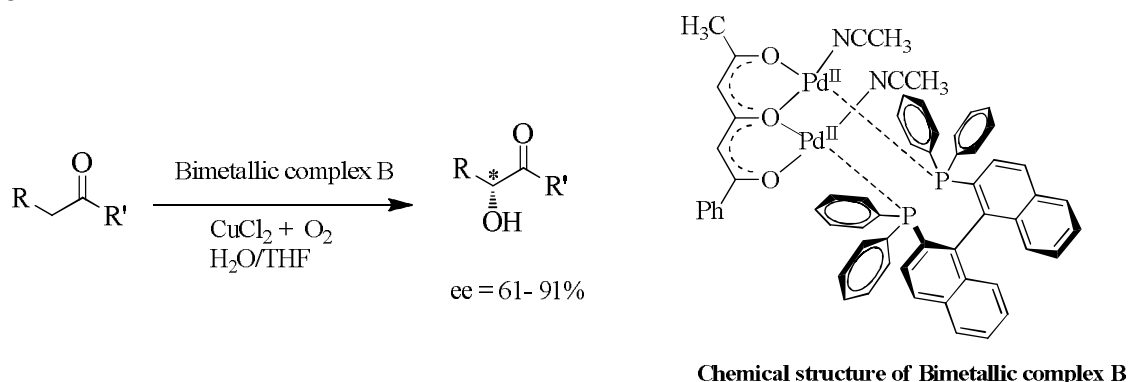
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Abstract:



Chiral bimetallic palladium (II) complex **B** was used in a catalytic air oxidation process to convert ketones directly into optically active α -hydroxyketones. The reaction was carried out in an aqueous solution of THF or dioxane, and in the presence of a catalytic amount of an acid. The enantiomeric excess (e.e.) of produced α -hydroxyl ketones ranged from 61% to 91%.

Keywords: asymmetric hydroxylation, palladium catalysis, bimetallic palladium complex, optically active, chiral α -hydroxyketone