

عنوان مقاله:

Synthesis and characterization of a dioxomolybdenum(VI) aminohydrazone complex and its performance as an efficient homogeneous catalyst in the selective oxidation of benzylic alcohols

محل انتشار:

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خلاصه مقاله:

A dioxomolybdenum(VI) complex was successfully synthesized by the reaction between $[\text{MoO}_2(\text{acac})_2]$ and a tridentate ligand obtained from the condensation of 4-aminobenzohydrazide and 3-ethoxysalicylaldehyde. The structures of synthesized products were explored through elemental analysis (CHN) and various spectroscopic techniques such as FT-IR, ^1H NMR, and ^{13}C NMR. Moreover, the complex was utilized in the selective oxidizing of benzylic alcohols to the corresponding aryl aldehydes by the use of urea hydrogen peroxide (UHP) in acetonitrile under reflux conditions. The present protocol has several advantages, including short reaction times, high product yields, and simplicity in operation.

کلمات کلیدی:

Dioxomolybdenum(VI) complex, tridentate Schiff base, Selective oxidation, benzylic alcohols, Homogeneous catalyst

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