Cu (II) Salen complex@KCC-1: An effective and beneficial catalyst for the preparation of 1,4-dihydropyridine derivatives via Hantzsch reaction

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Figure 1. FT-IR spectrum of Diethyl 2,6-dimethyl-4-phenyl-1,4-dihydropyridine-3,5-dicarboxylate in KBr.



Figure 2. FT-IR spectrum of diethyl 2,6-dimethyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3,5dicarboxylate in KBr.



Figure 3. FT-IR spectrum of Diethyl4-(4-hydroxyphenyl)-2,6-dimethyl-1,4-dihydropyridine-3,5-dicarboxylate in KBr.



Figure 4. ¹H NMR spectrum of Diethyl 2,6-dimethyl-4-phenyl-1,4-dihydropyridine-3,5dicarboxylate in CDCl₃.



Figure 5. ¹³C NMR spectrum of Diethyl 2,6-dimethyl-4-phenyl-1,4-dihydropyridine-3,5-dicarboxylate in CDCl₃.



Figure 6. ¹H NMR spectrum of diethyl 2,6-dimethyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3,5dicarboxylate in CDCl₃.



Figure 7. ¹³C NMR spectrum of diethyl 2,6-dimethyl-4-(3-nitrophenyl)-1,4-dihydropyridine-3,5dicarboxylate in CDCl₃.



Figure 8. ¹H NMR spectrum of Diethyl4-(4-hydroxyphenyl)-2,6-dimethyl-1,4-dihydropyridine-3,5-dicarboxylate in CDCl₃.



Figure 9. ¹C NMR spectrum of Diethyl4-(4-hydroxyphenyl)-2,6-dimethyl-1,4-dihydropyridine-3,5-dicarboxylate in CDCl₃.