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Oxygen mediated highly efficient cobalt(II) porphyrin-catalyzed reduction of functional chromones: Experimental and Computational studies

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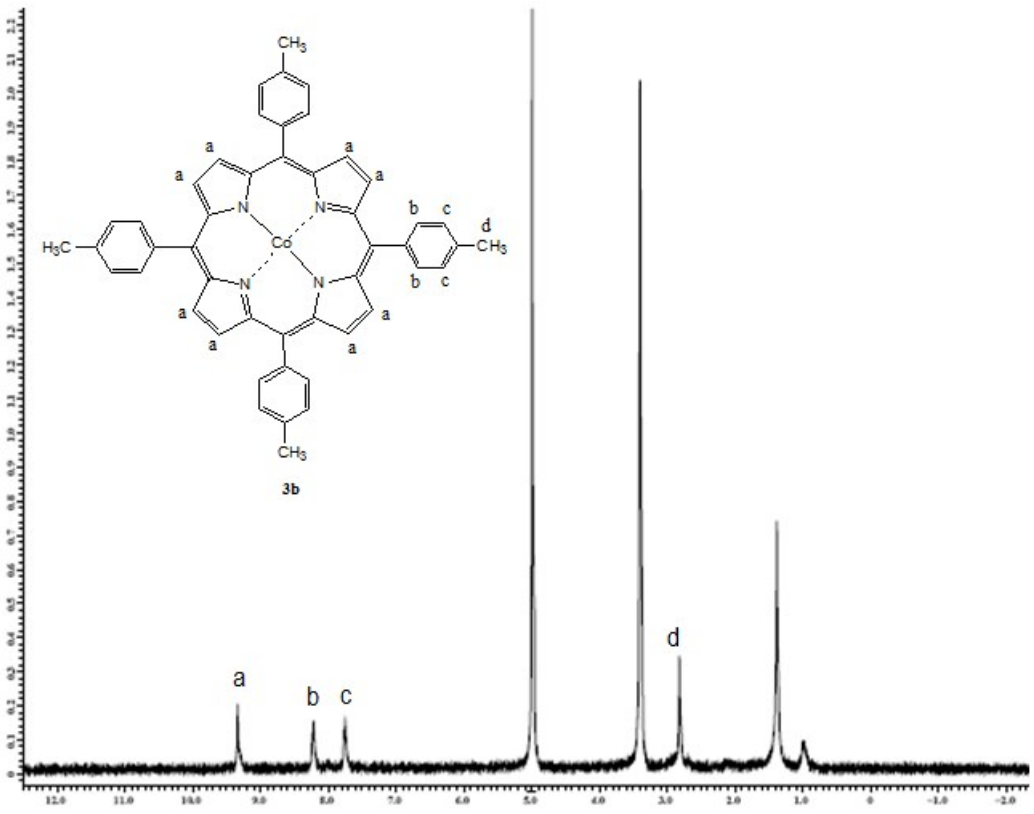


Fig. 1. NMR spectrum of Co^{II}TPP **3b** in MeOD under oxygen atmosphere

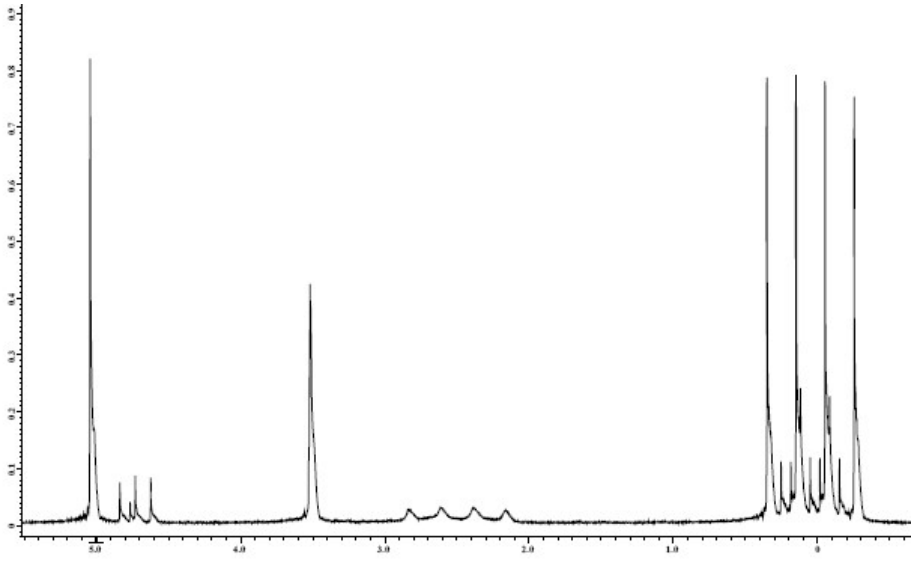


Fig. 2. NMR spectrum of $NaBH_4$ in MeOD

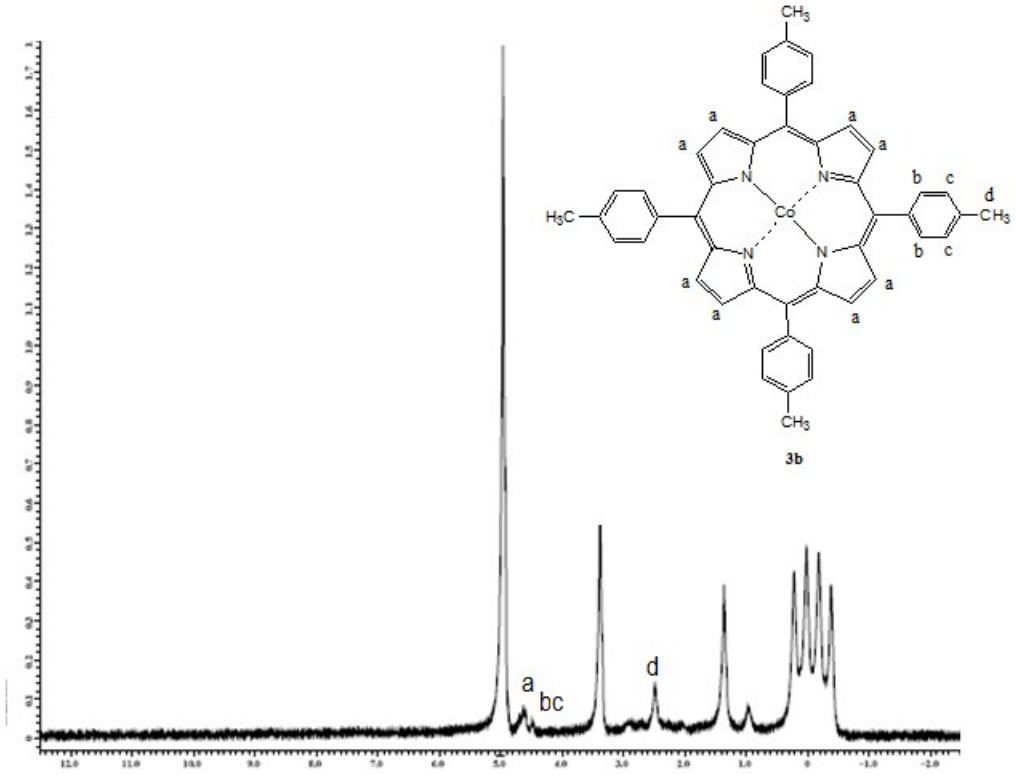


Fig. 3. ^1H NMR spectra of $Co^{II}TPP$ **3b** on addition of $NaBH_4$ in MeOD

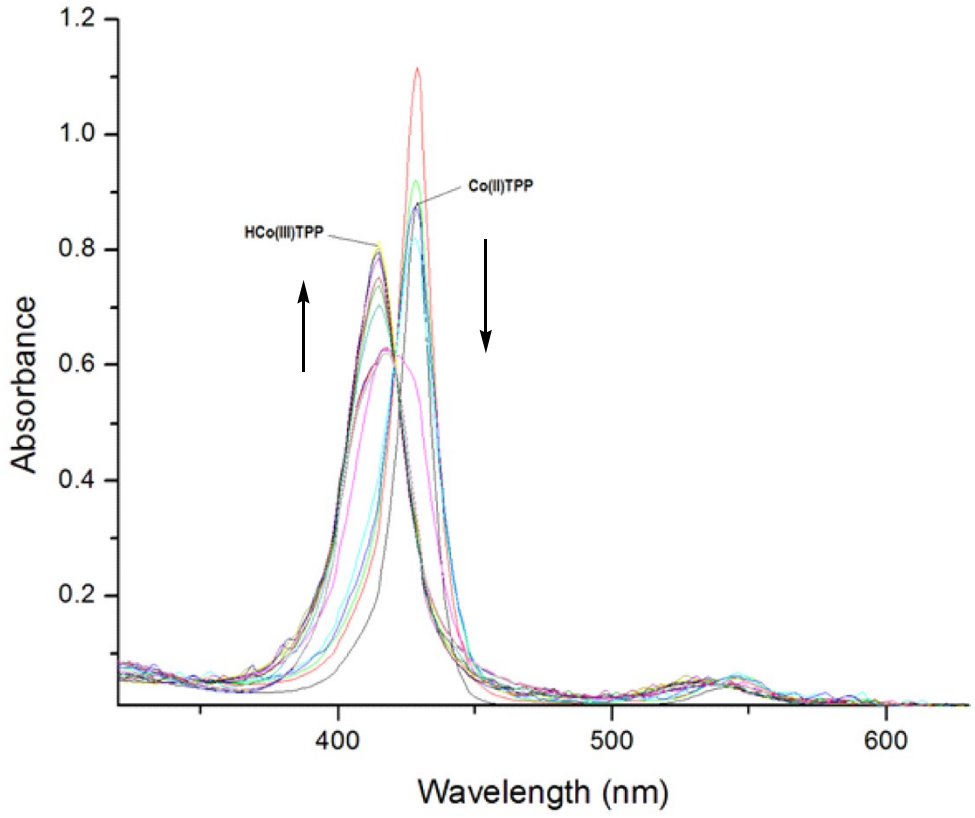
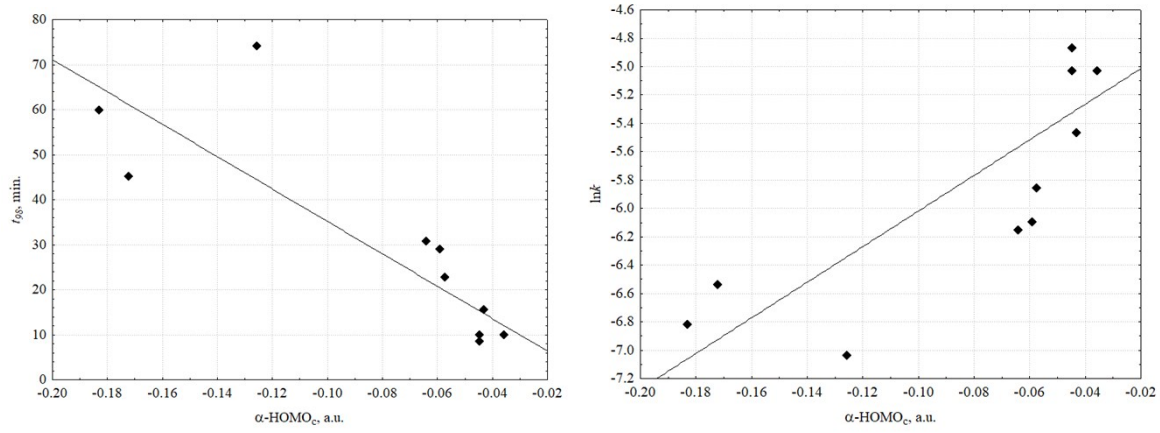
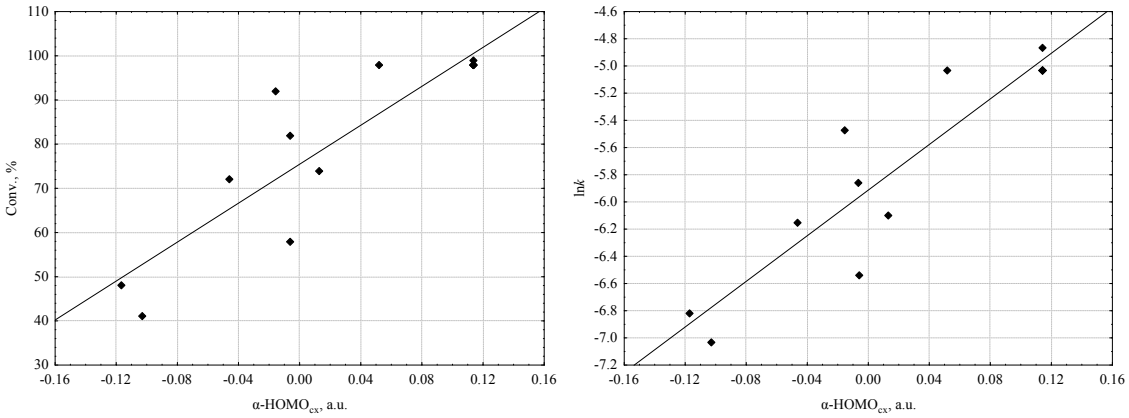


Fig 4. UV-vis spectra of **3b** in methanol on addition of $NaBH_4$ in methanol at an interval of 1 min. catalysis.



a) b)

Fig. 5. Relationships: a) 98% conversion times with α-$HOMO_c$; b) logarithms of the rate constant



a) b)

Fig. 6. Relationships: a) conversions; b) logarithms of the rate constant with α-$HOMO_{cx}$