

Synthesis and characterisation of dimanganese(III) complexes of 1,5-bis(X-salicylidenamino)pentan-3-ol (X = 3- and 5-methoxy) and their catalytic activity toward hydrogen peroxide disproportionation

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Supporting Information

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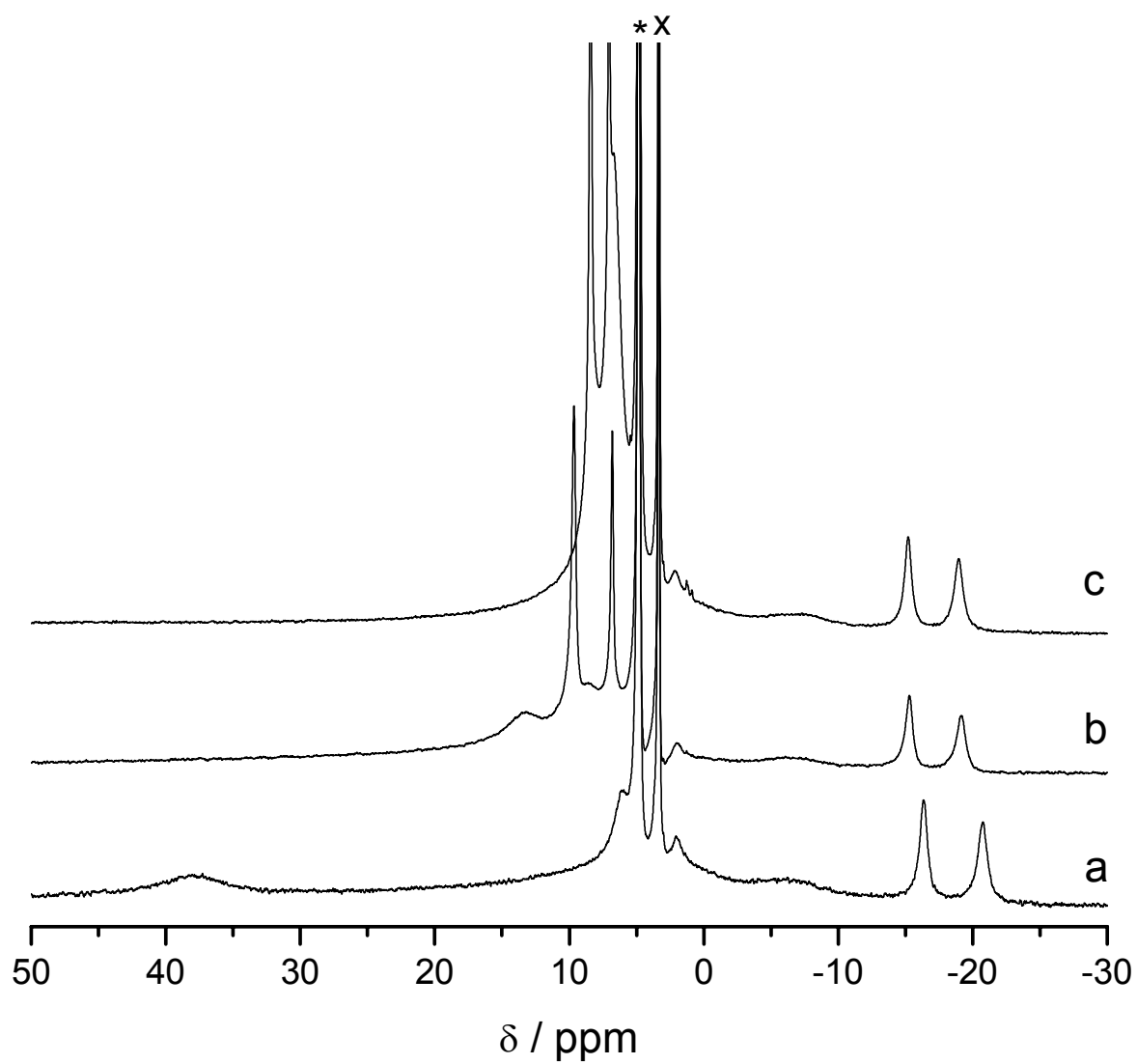


Figure S1. ¹H NMR spectra of (a) **3** (17 mM); (b) after addition of 3 equiv of sodium benzoate; (c) after addition of excess NaOAc to the solution (b), in d₄-methanol. *water, ^xsolvent.

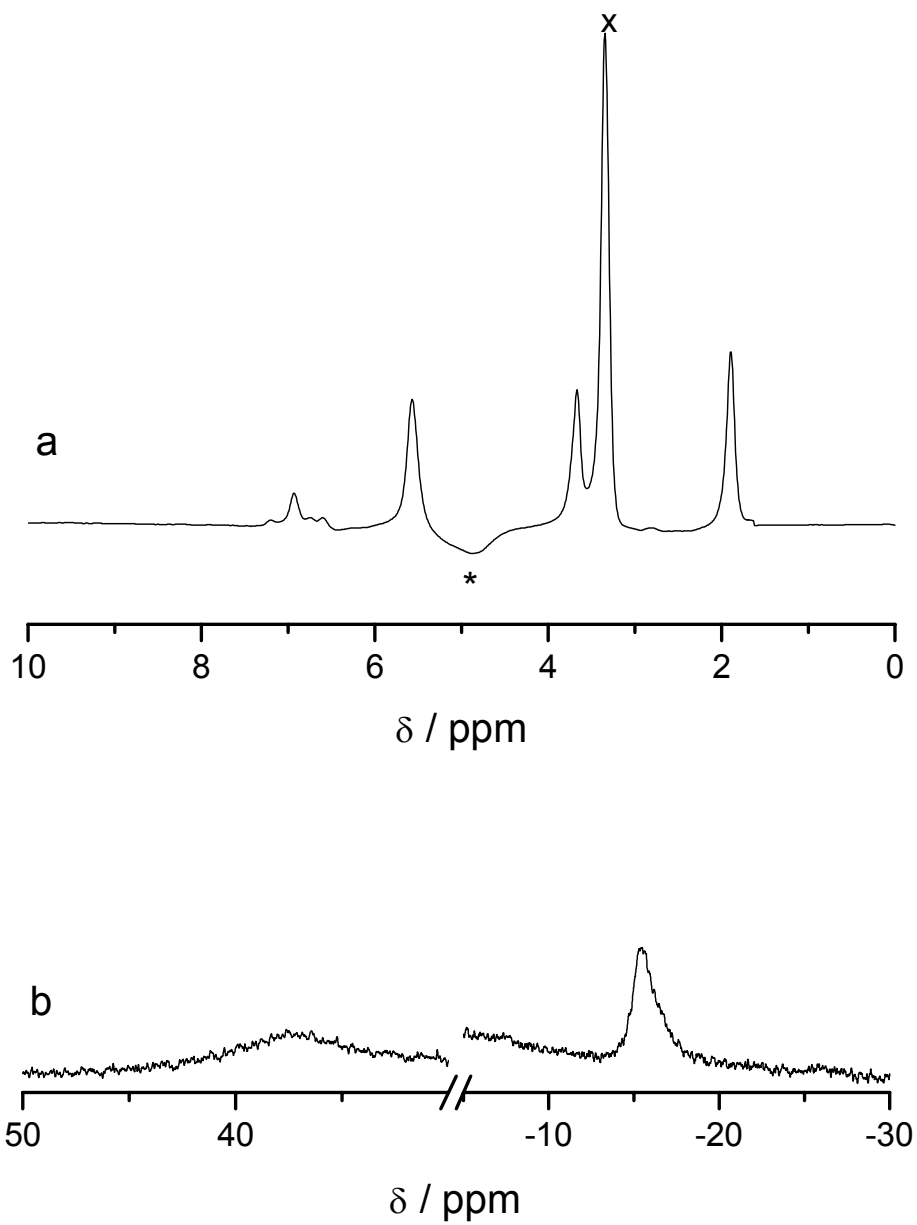


Figure S2. ^1H NMR spectra of **1** (15 mM) in (a) 0.15 M NaOMe; (b) $\text{d}_7\text{-dmf}$. *water suppressed, x solvent.

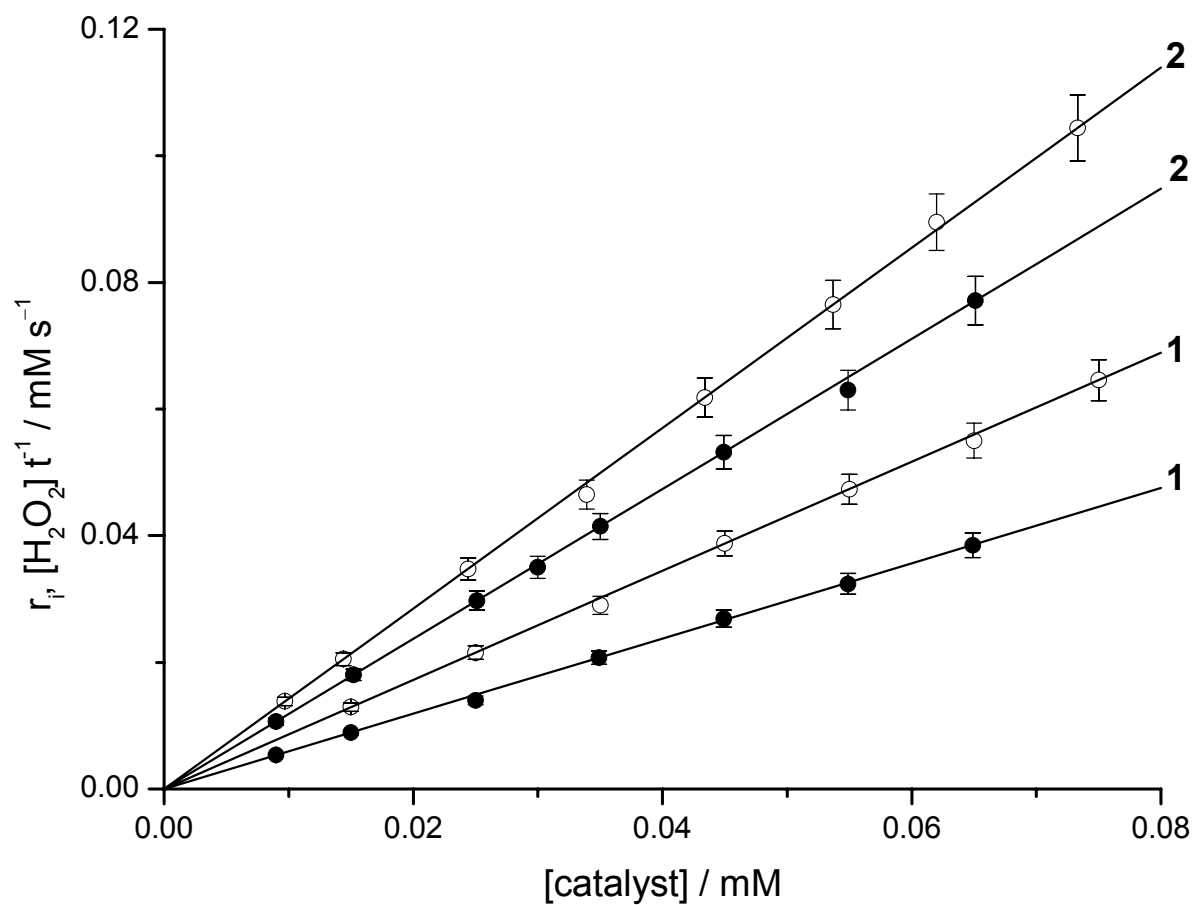


Figure S3. Effect of the [catalyst] on the initial rate of H₂O₂ disproportionation at 25°C.

(●) methanol, [H₂O₂] = 30 mM; (○) dmf; [H₂O₂] = 55 mM.

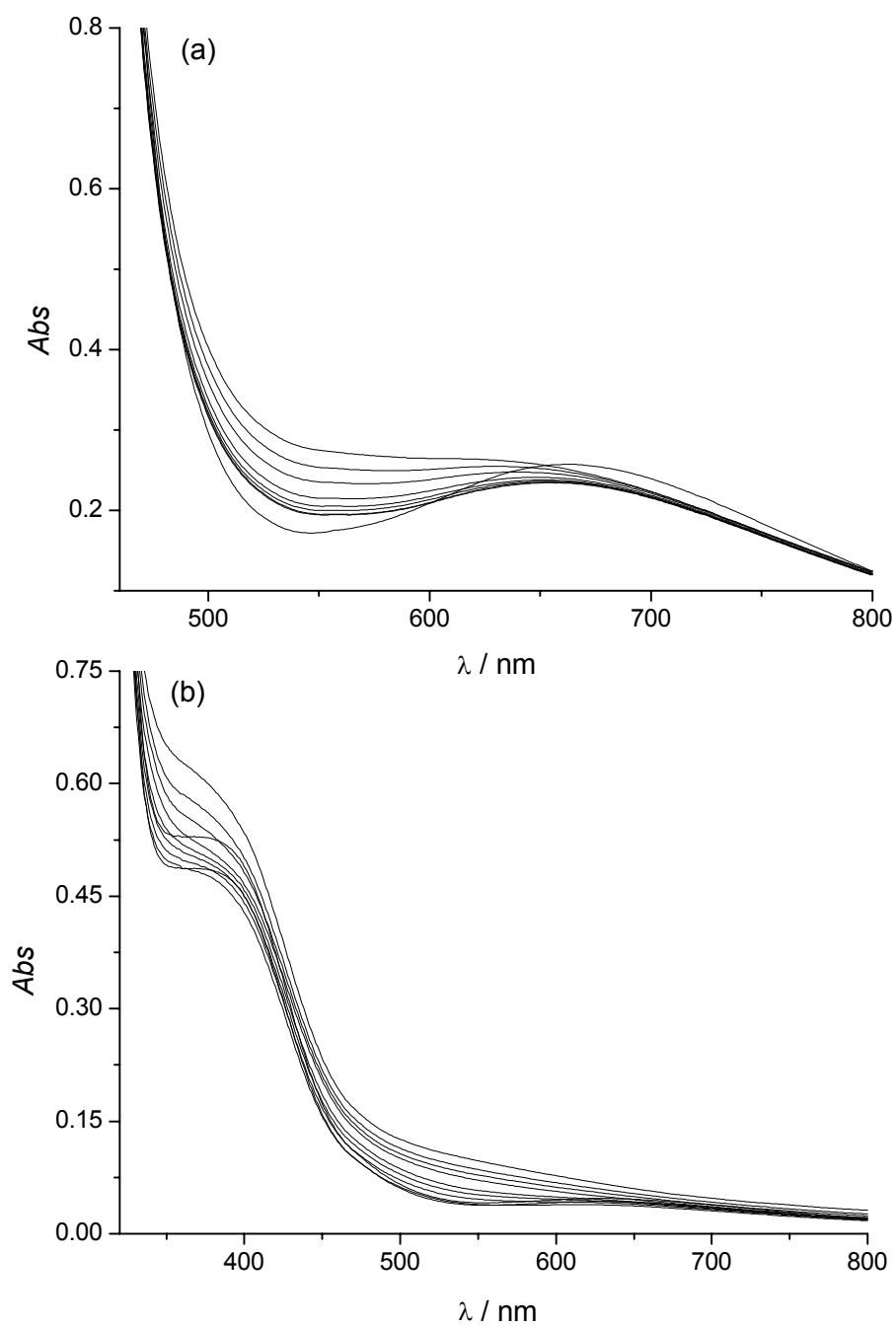


Figure S4. Time evolution of the uv-vis spectrum of a mixture of (a) **1** and (b) **2** with H_2O_2 in methanol. Conditions: $[\mathbf{1}] = 0.6 \text{ mM}$, $[\mathbf{2}] = 0.1 \text{ mM}$, $[\text{H}_2\text{O}_2]:[\text{catalyst}] = 50:1$, $T = 25^\circ\text{C}$, over a period of ca. 1 h.

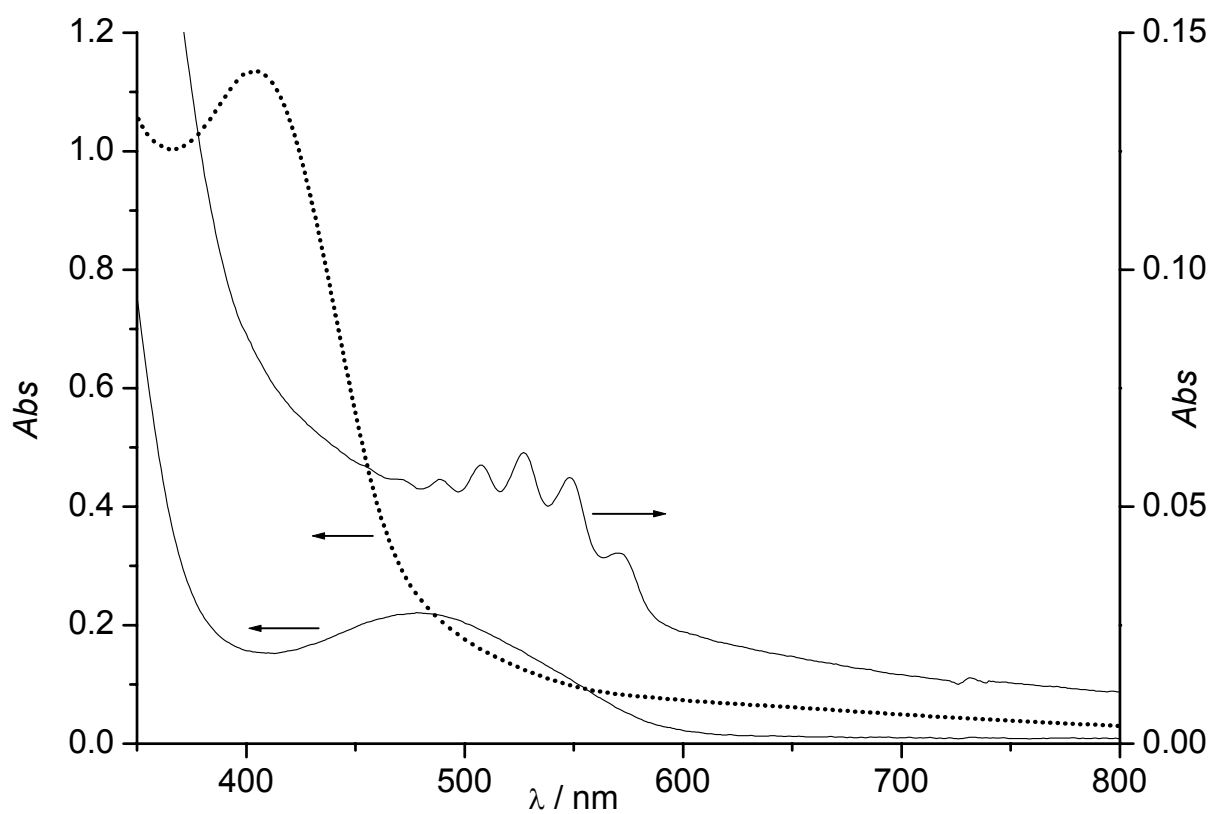


Figure S5. Electronic spectra of the starting catalyst (\cdots) and species observed (---) during the oxygen evolution in dmf. Conditions: $[\mathbf{1}] = 190 \mu\text{M}$, $[\text{H}_2\text{O}_2] = 364 \text{ mM}$, $T = 25^\circ\text{C}$.