Electronic Supplementary Information

Synthesis, Structure, Magnetic Properties and DFT Calculations of Two Hydroxo-Bridged Complexes Based on Mn^{III} (Shiff-Bases)

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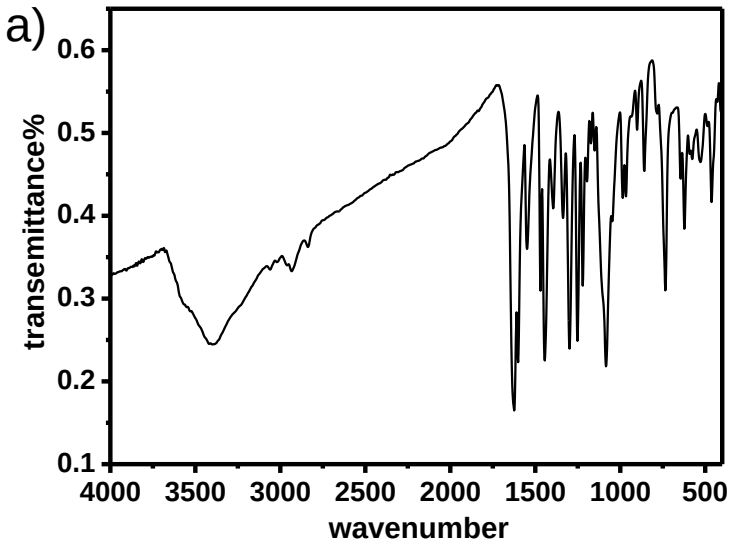
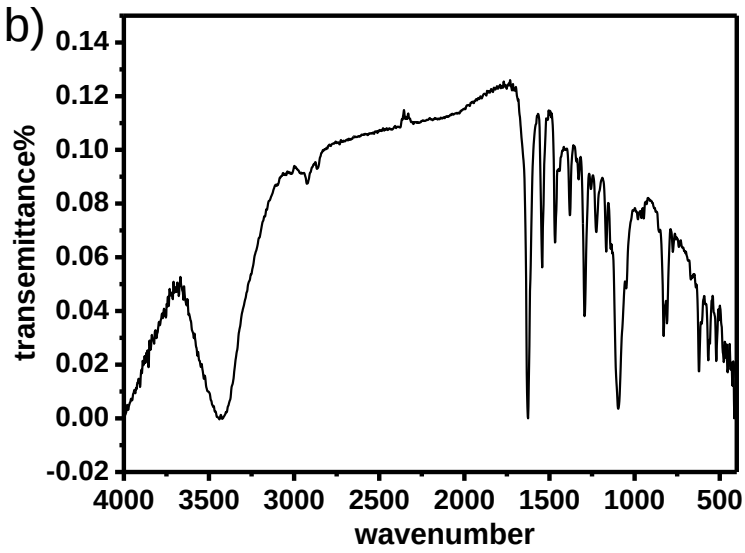




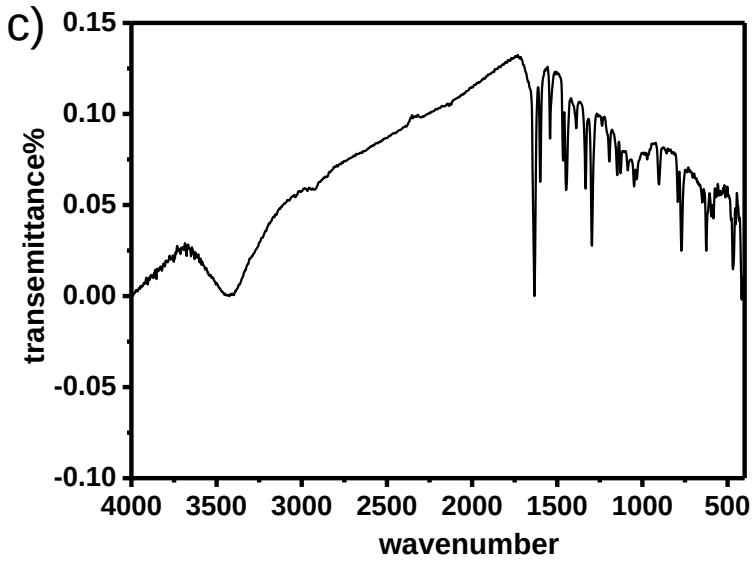
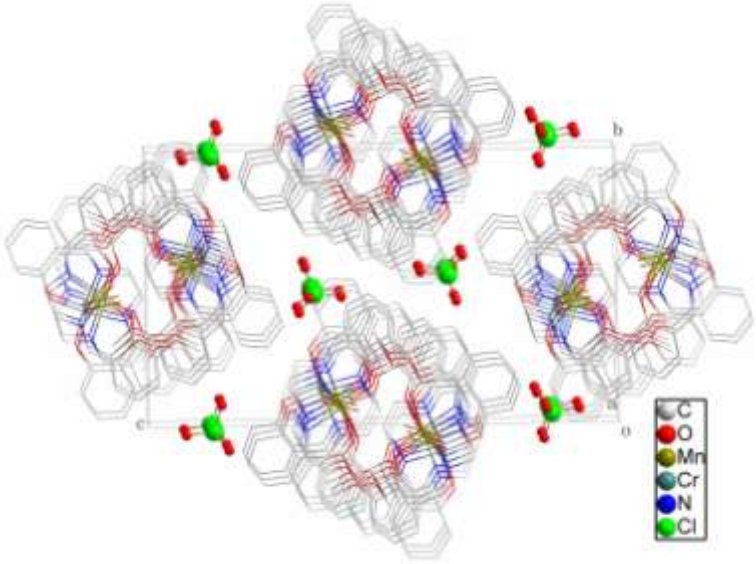
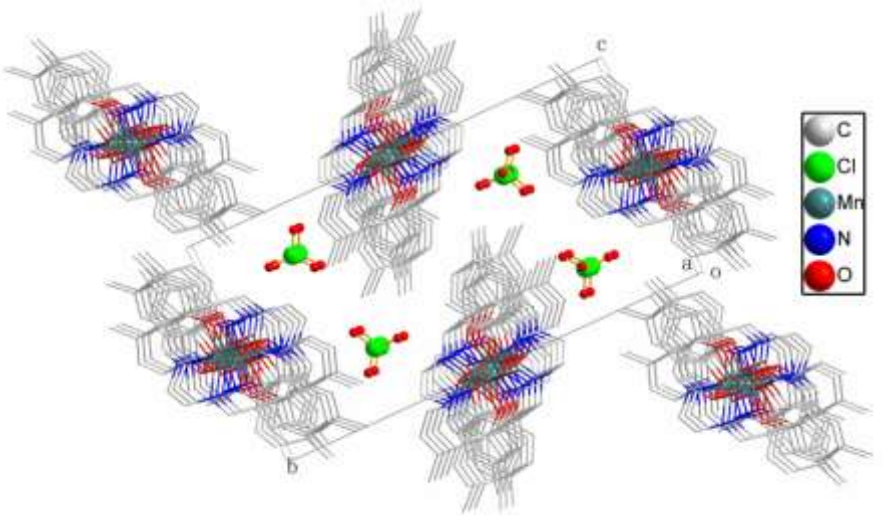


Fig. S1 The IR spectrum of the complex **1**(a), complex **2**(b) and the precipitate(c)

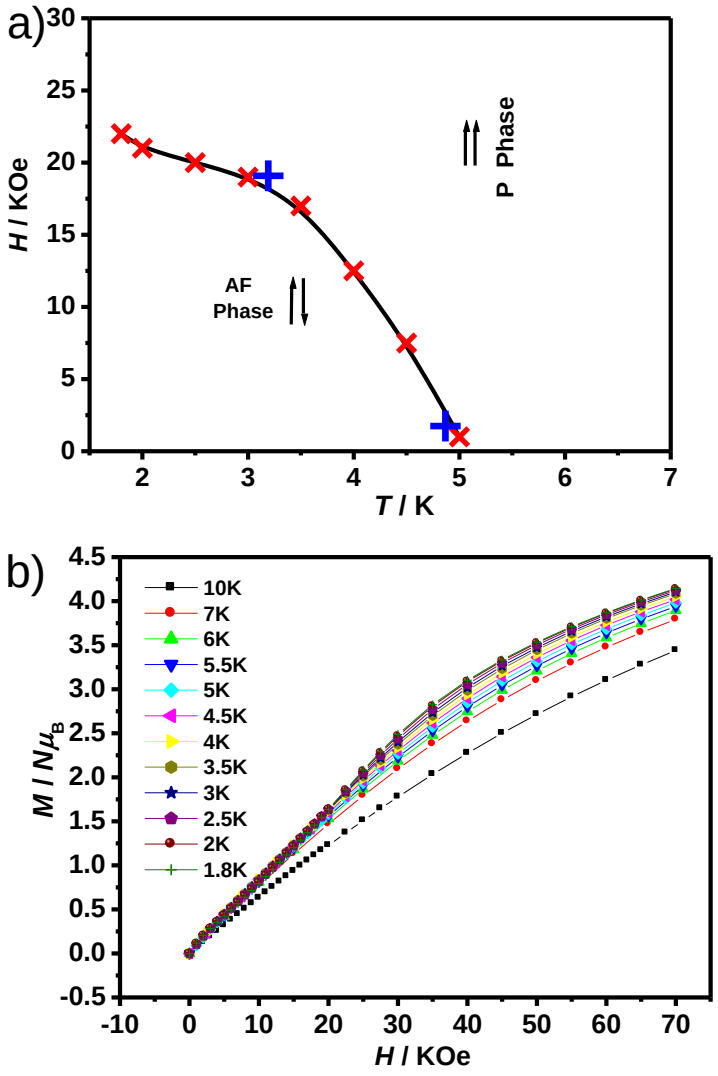


(a)



(b)

Fig. S2 The crystal packing diagram of complex **1** (a) and **2** (b) along the *a* axis direction. The solvent molecules have been omitted for clarity.



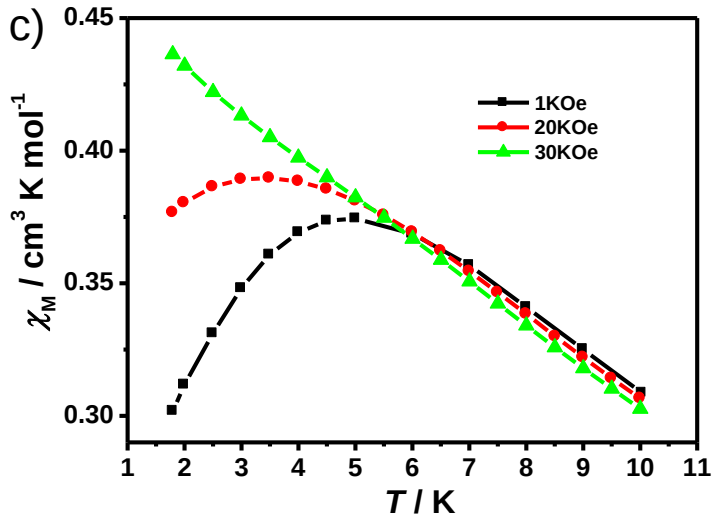
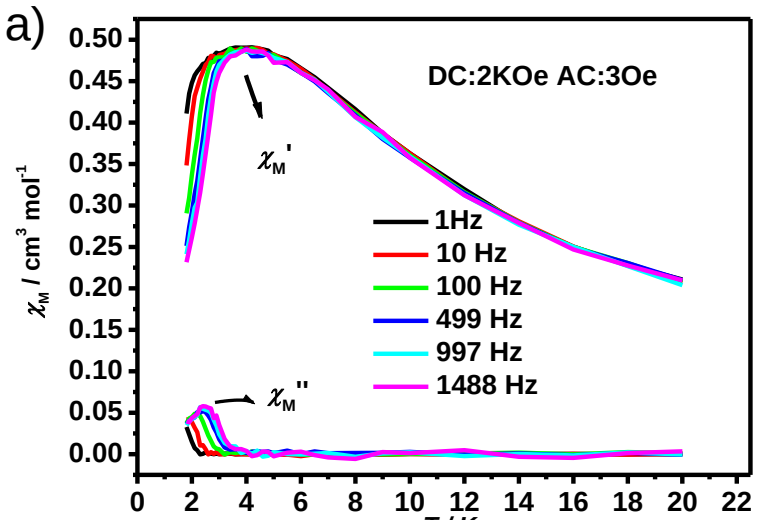


Fig. S3 (a) Magnetic phase (*T, H*) diagrams for **1**. (+: Location of the maximum of susceptibility from χ_M vs *T* data; ×: Location of the maximum of susceptibility from d*M*/d*H* vs *H* data). (b) field-dependent magnetization measured up to 70 kOe at different temperature from 1.8 - 10 K for **1**. (c) Field-cooled magnetization for complex **1** in different applied fields from 1 - 30 kOe. (All the solid lines are a guide).



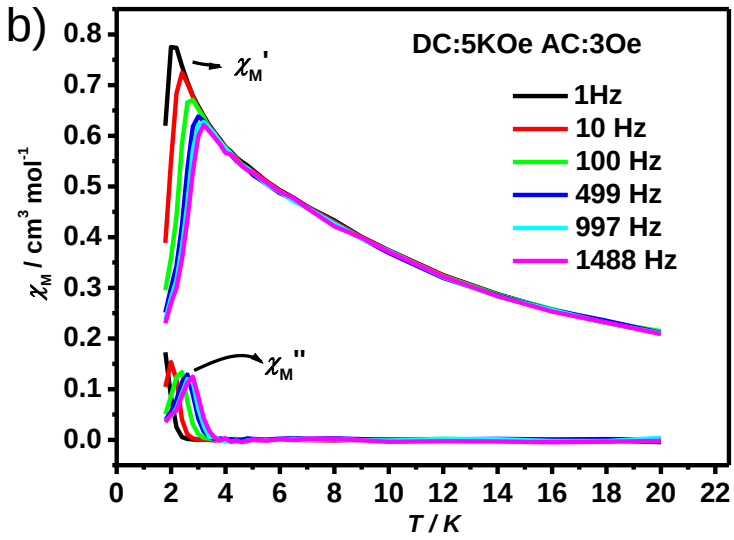


Fig. S4 (a) AC susceptibility measurements under dc field of 2KOe. (b) AC susceptibility measurements under dc field of 5KOe.

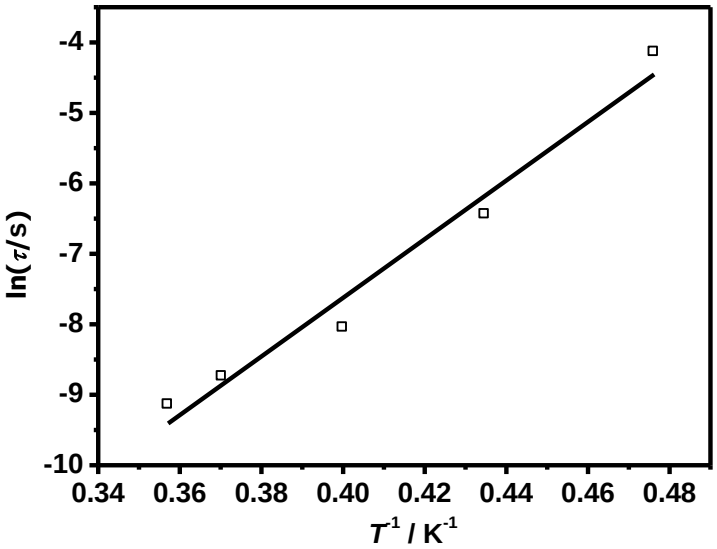


Fig. S5 Arrhenius plots for **1** obtained from the AC data under 5 kOe DC field.