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ACCESSORY PUBLICATION

Transition Metal-Substituted Double-Dawson-Type

Polyoxotungstates and Their Supramolecular Structures

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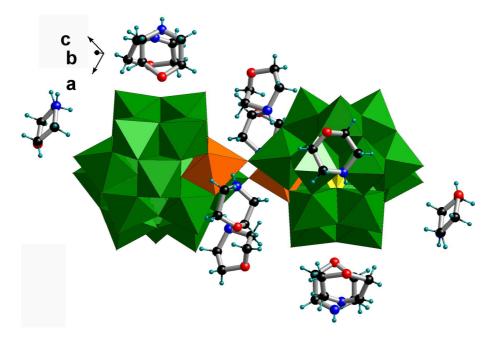


Fig. S1. Polyhedral and ball-and-stick representation of $(C_4H_{10}NO)_{12}[\alpha_1\text{-MnP}_2W_{17}O_{61}]_2^{2-} \text{ in compound 1. Color codes: H (laurel-green)}.$

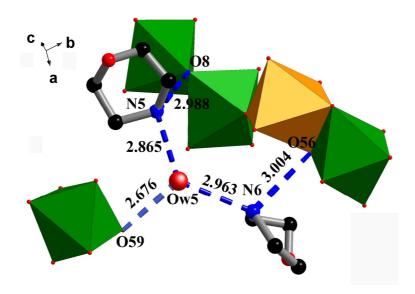


Fig. S2. View of coordination modes of hydrogen bonds between $[\alpha_1\text{-MnP}_2W_{17}O_{61}]_2^{14-}$, morpholine, and water molecules in **1**. Hydrogen atoms are omitted for clarity.

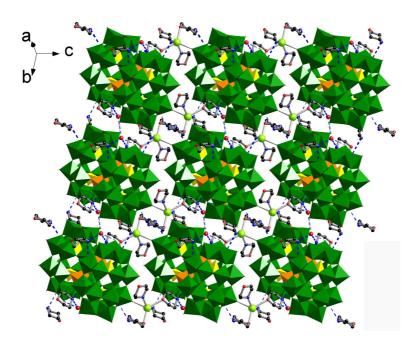


Fig. S3. Polyhedral and ball-and-stick representation of the 2-D network in **1**. Hydrogen atoms are omitted for clarity. Color codes: Na (Kelly).

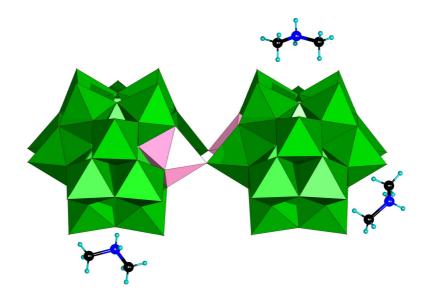


Fig. S4. Polyhedral and ball-and-stick representation of $[(CH_3)_2NH_2]_3[\alpha_1\text{-}CoP_2W_{17}O_{61}]_2^{-13-} \text{ in compound } \textbf{2}.$

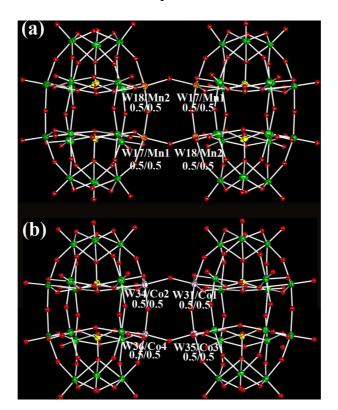


Fig. S5. *ORTEP* drawing of (a) polyoxoanion $[\alpha_1\text{-MnP}_2W_{17}O_{61}]_2^{14-}$ in **1**, (b) polyoxoanion $[\alpha_1\text{-MnP}_2W_{17}O_{61}]_2^{14-}$ in **2** with thermal ellipsoids at 50% probability.

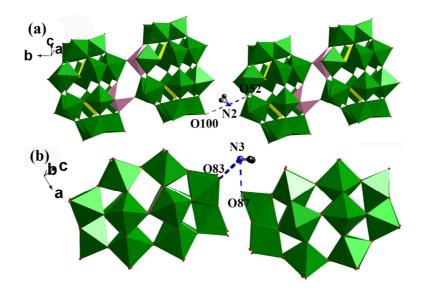


Fig. S6. View of coordination modes of hydrogen bonds between $[\alpha_1\text{-CoP}_2W_{17}O_{612}]^{16-}$ and dimethylamine in **2**. Hydrogen atoms are omitted for clarity.

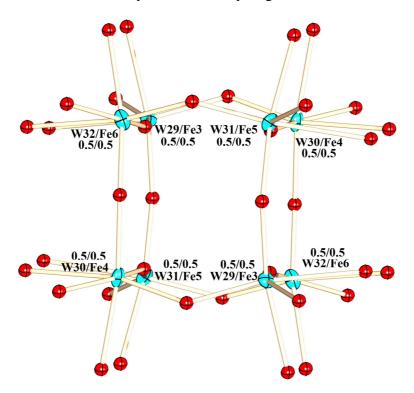


Fig. S7. *ORTEP* drawing of the eight-metal cluster in **3** with thermal ellipsoids at 50% probability.

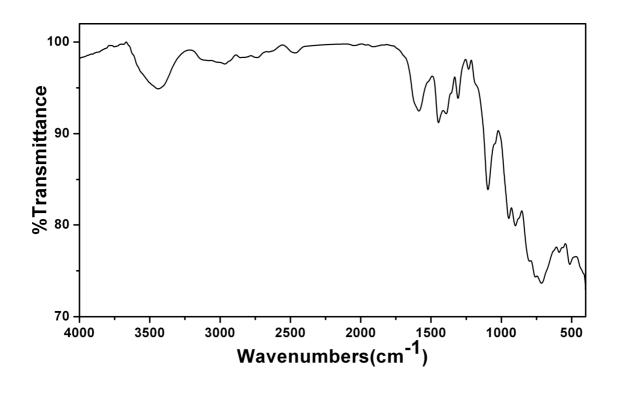


Fig. S8. The IR spectrum of 1.

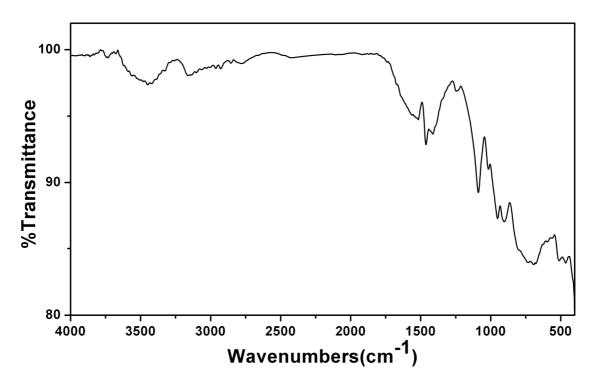


Fig. S9. The IR spectrum of 2.

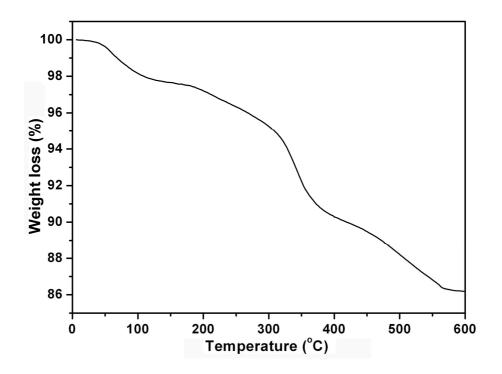


Fig. S10. TG curve of 1.

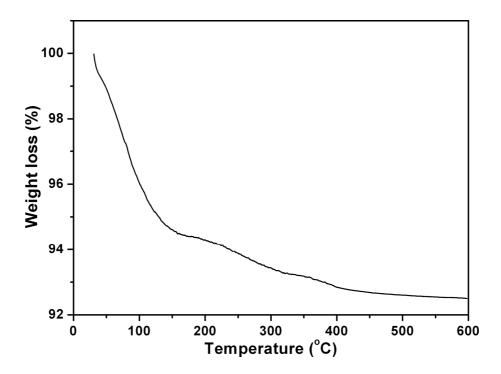


Fig. S11. TG curve of 2.

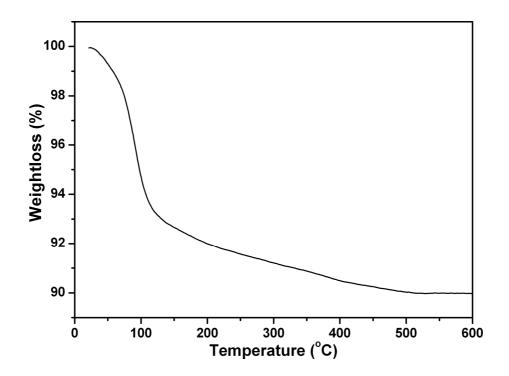


Fig. S12. TG curve of 3.