Electronic Supplementary Information (ESI)

A family of cationic oxime-based hexametallic manganese(III) single-molecule magnets

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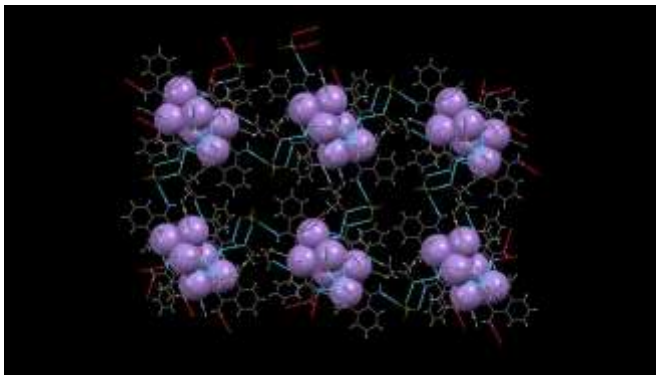
A)



B)

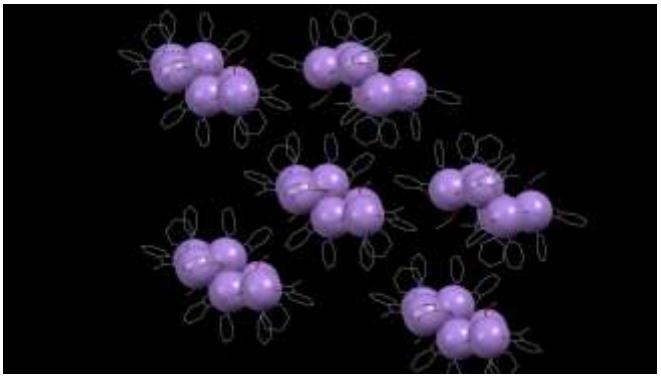


Figure S1. (**A**) View of the H-bonded square sheets of $[Mn_6(\mu_3\text{-}O)_2(H_2N\text{-}sao)_6(py)_6(EtOH)_2]^{2+}$ cations and ClO_4^- anions in **1** (dashed lines). (**B**) View of the interdigitated $[Mn_6]^{2+}$ cluster cations in the third dimension. Solvent molecules have been omitted for clarity. [Colour code: purple, Mn; red, O; blue, N; black, C; green, Cl].

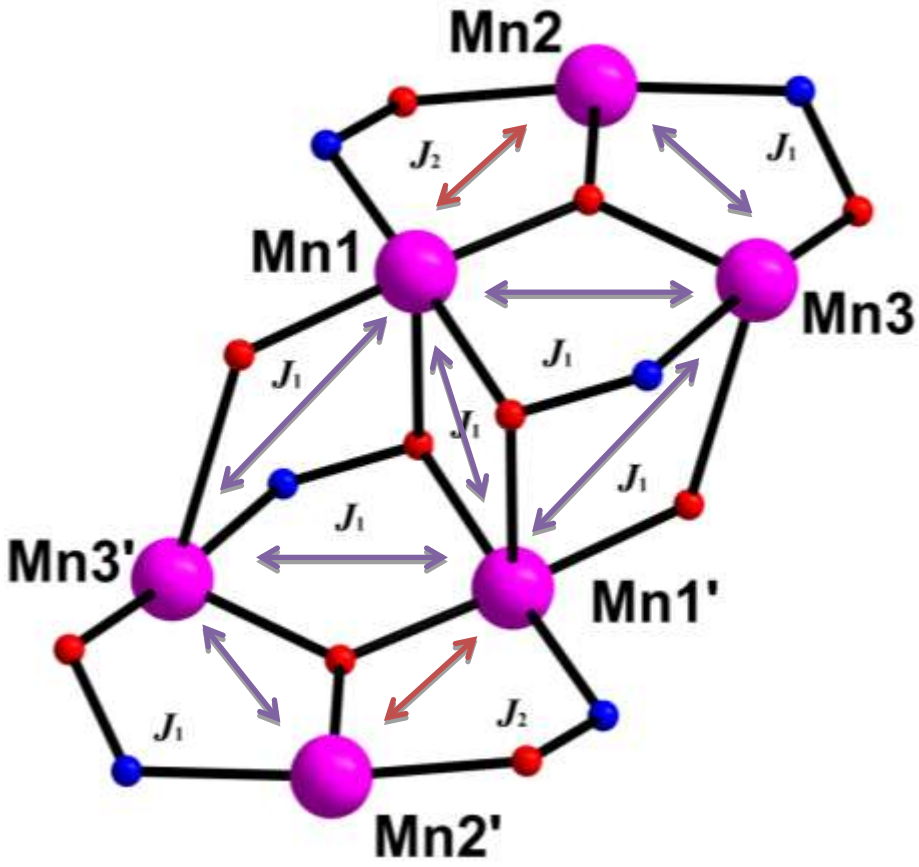


Figure S2. The two *J* coupling exchange model used for the fit of compounds **1-3**.

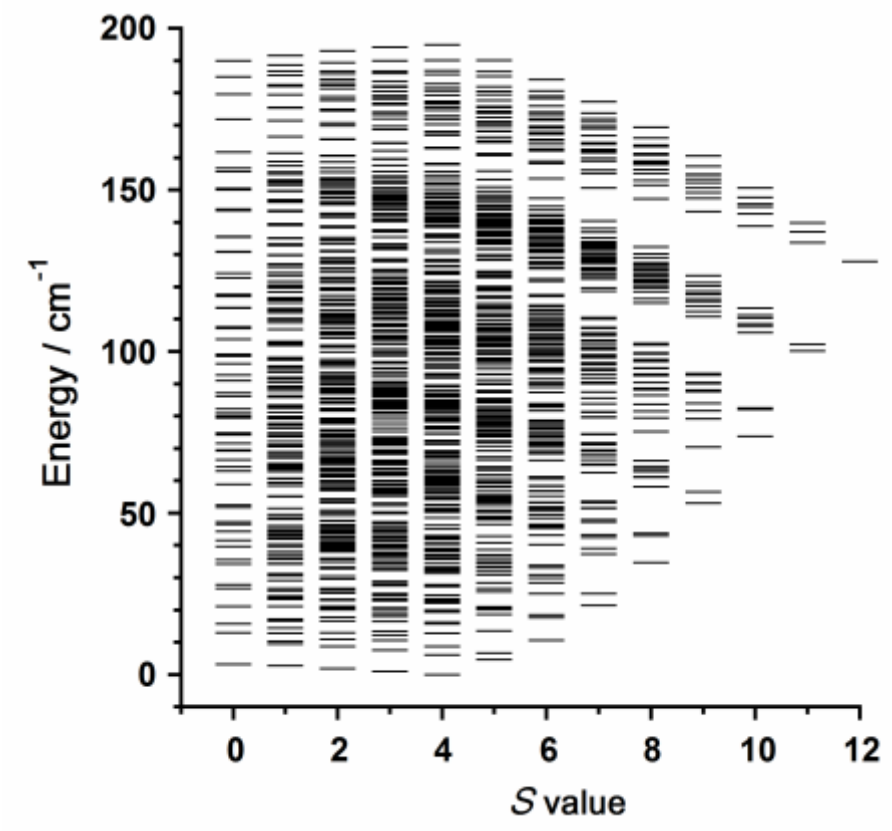


Figure S3. Plot of energy *versus* total spin (*S*) extracted from the isotropic fit of the susceptibility data for **3**.