Electronic Supplementary Information

Facile adaptation of 1D Mn(II) chain motifs to form 3D azo-pyridine-based coordination polymers

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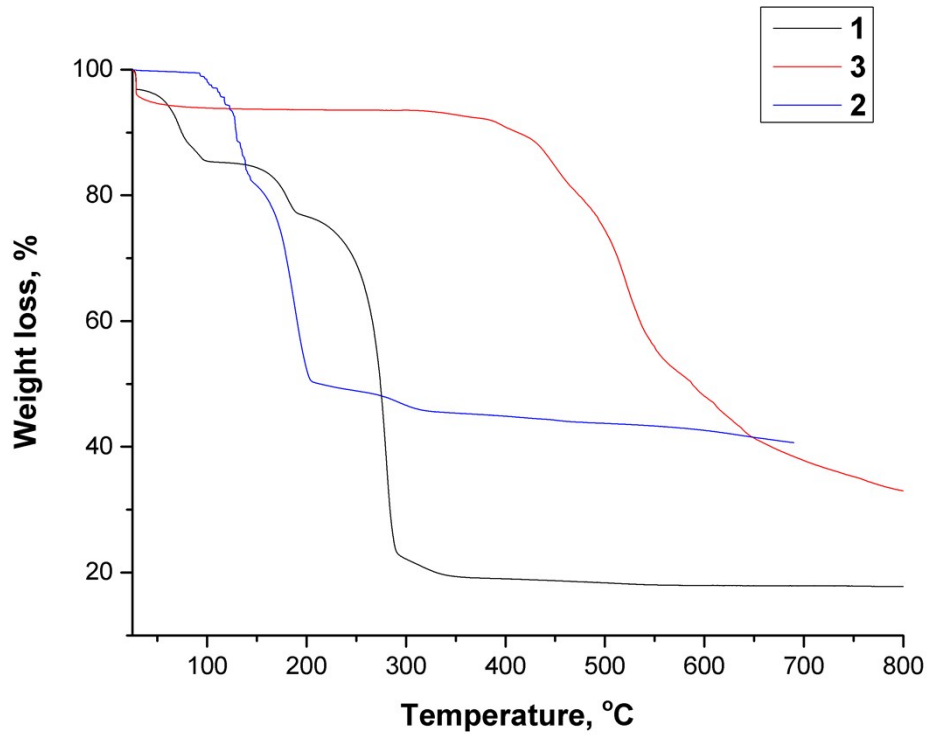

Fig. S1 TGA plot of compounds **1**-**3** measured under a nitrogen atmosphere (heating rate 2 °C min^{-1}); Comment: Compound **3** was dried and stored at room temperature and the constitutional CH_3CN molecules were lost prior to the measurement.

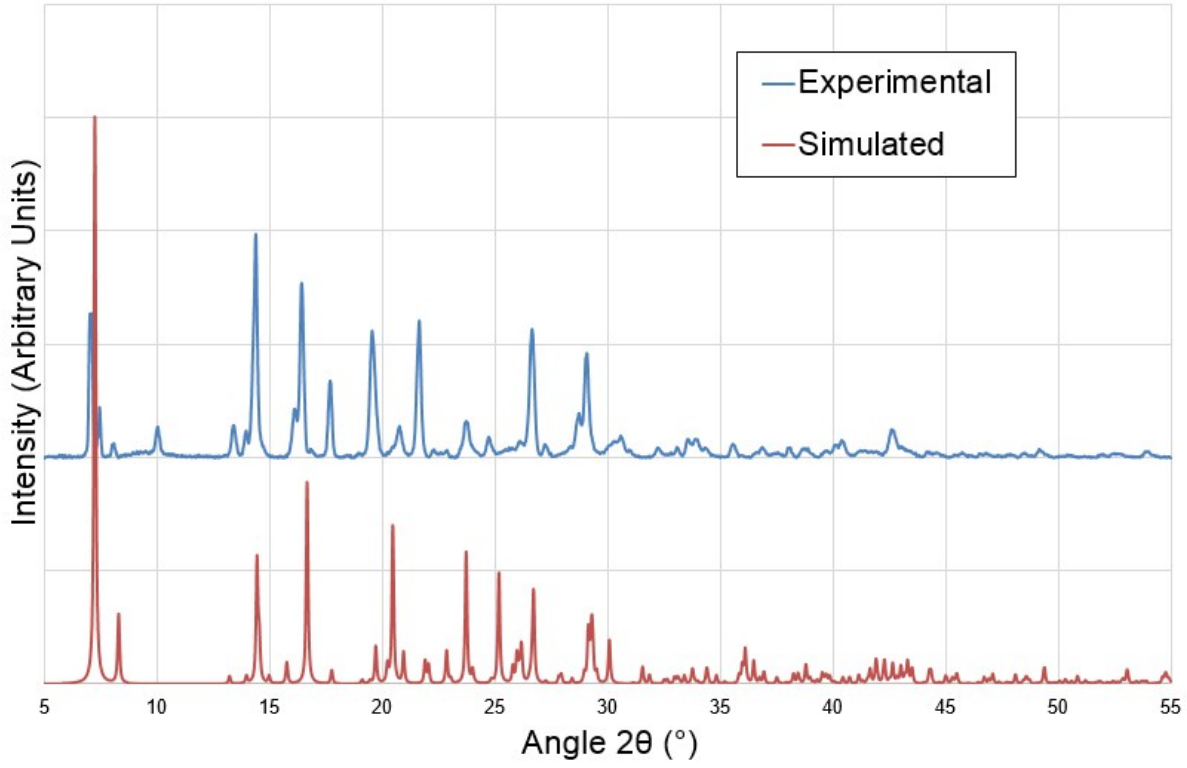

Fig. S2 X-ray powder diffraction pattern for complex **1**, measured at room temperature (blue) compared with the calculated pattern from the single crystal data at 100K (red). The signal at ca. 10° results most likely from a small quantity of an impurity that derive from the reactants.

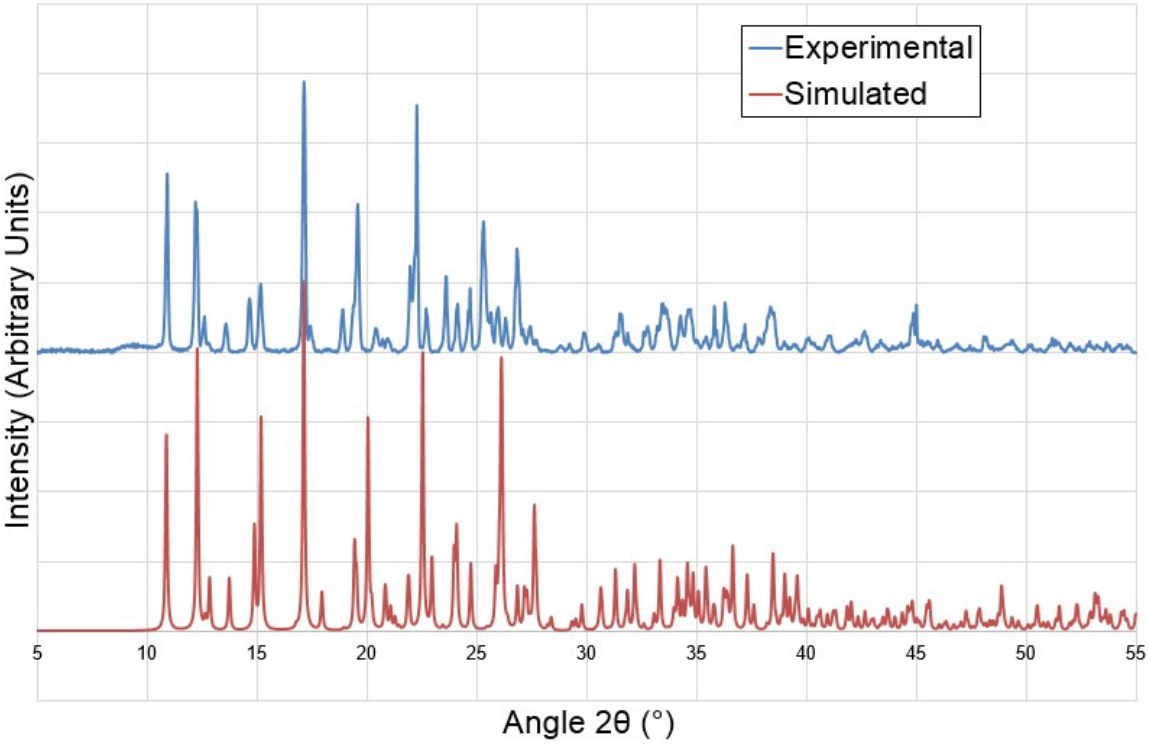

Fig.S3 X-ray powder diffraction pattern for complex **2**, measured at room temperature (blue) compared with the calculated pattern from the single crystal data at 100K (red).

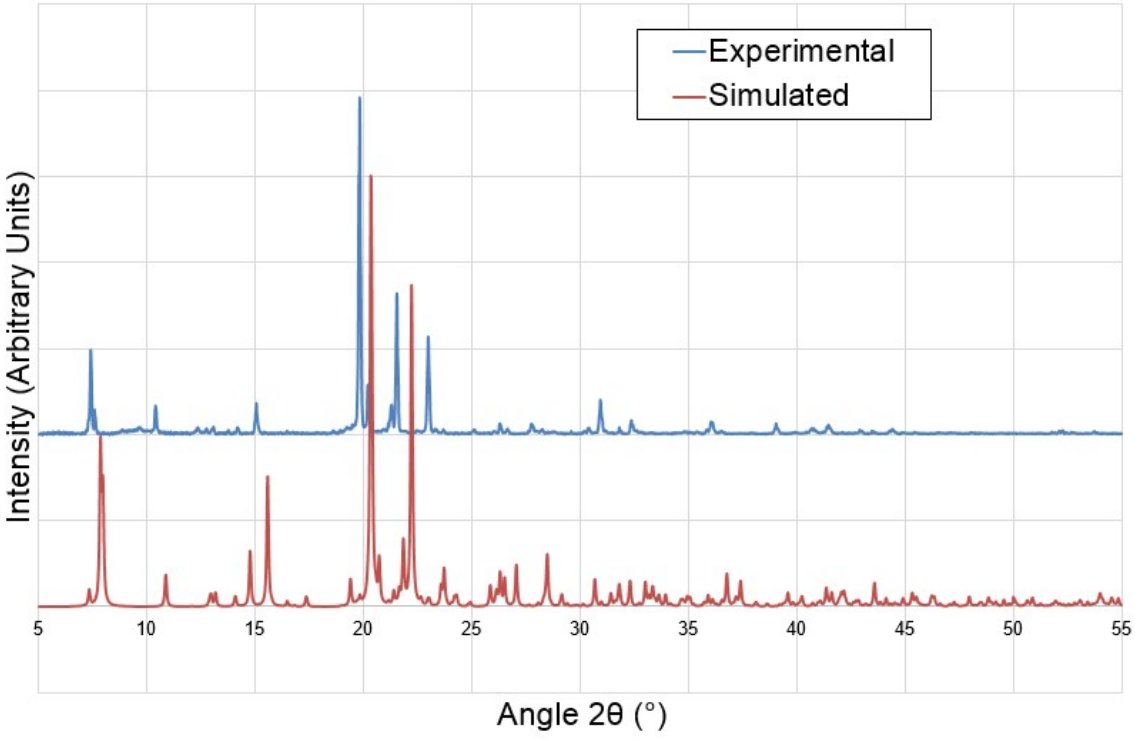

Fig. S4 X-ray powder diffraction pattern for complex **3**, measured at room temperature (blue) compared with the calculated pattern from the single crystal data at 100K (red).

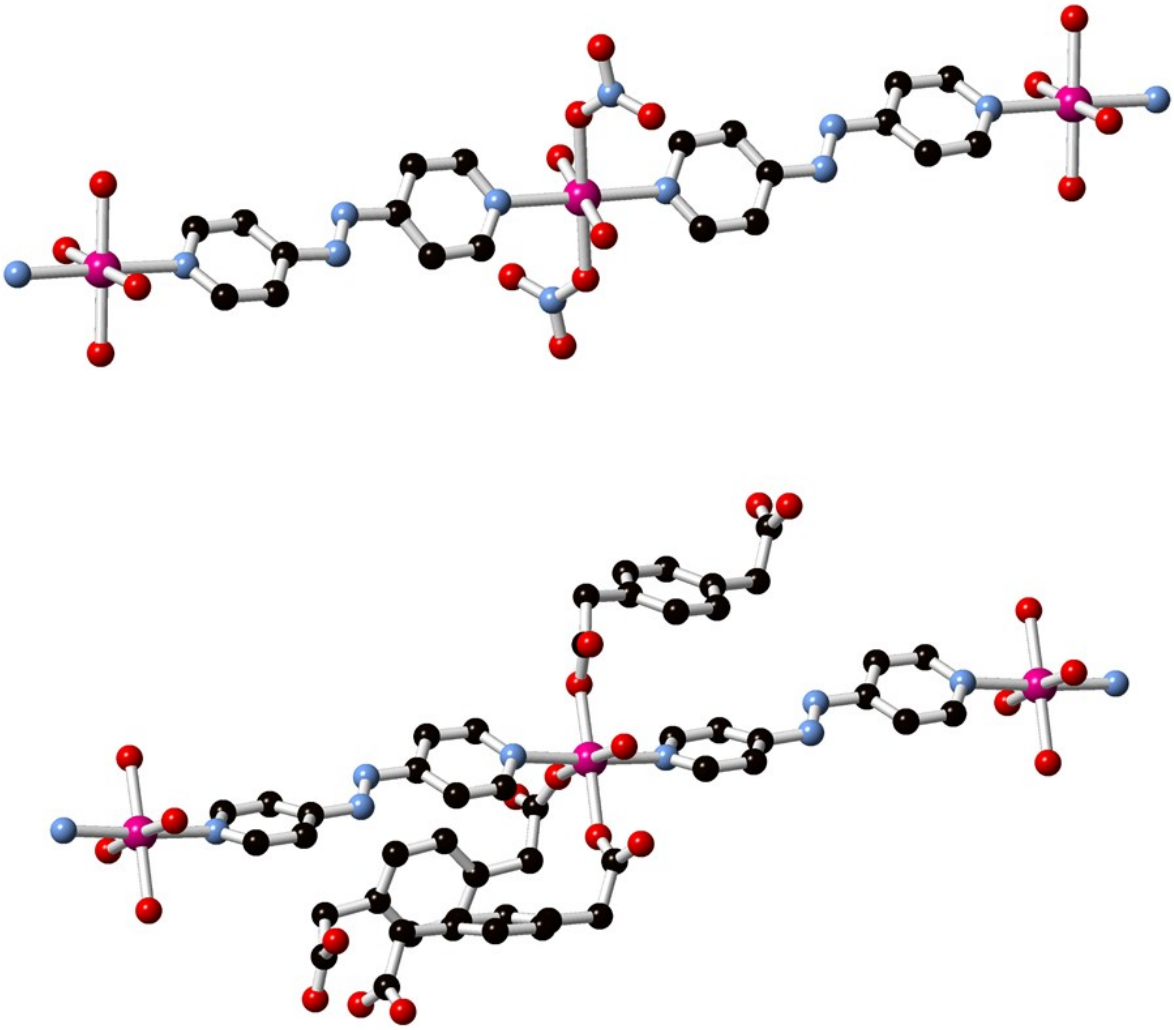

Fig. S5 Comparison of the *poly*-[Mn(azopy)] linear repeating unit in the structures of **1** (top) and **3** (bottom). Hydrogen atom are omitted for clarity.

Table S1 Hydrogen bonding parameters for complexes **1** and **3**.

D	H	A	d(D-H)/Å	d(H-A)/Å	d(D-A)/Å	D-H-A/°
Complex 1						
O1	H1A	O5[1]	0.897(14)	1.855(16)	2.749(4)	174(6)
O1	H1A	N2[1]	0.897(14)	2.61(2)	3.447(4)	155(4)
O1	H1B	O5[2]	0.896(14)	1.872(17)	2.763(4)	172(4)
O2	H2A	O8[3]	0.898(14)	1.88(2)	2.757(4)	165(4)
O2	H2B	O8[4]	0.895(14)	1.862(16)	2.749(4)	171(5)
O2	H2B	N3[4]	0.895(14)	2.63(3)	3.456(4)	155(4)
Complex 3						
O4	H4	O6[6]	0.863(9)	1.762(11)	2.5997(11)	163.0(19)
O7	H7A	O6	0.859(19)	1.906(19)	2.7077(10)	154.8(18)
O7	H7B	O1[5]	0.84(2)	1.88(2)	2.7125(9)	175.4(18)
O4B	H4B	O6[6]	1.09	1.75	2.542(8)	125

[1]1/2+X,5/2-Y,+Z; [2]1+X,+Y,+Z; [3]-1+X,+Y,+Z; [4]-1/2+X,3/2-Y,+Z; [5]3/2-X,-1/2+Y,1/2-Z; [6]1/2+X,1/2-Y,-1/2+Z