Electronic Supplementary Material (ESI) for RSC Advances

Supporting Information

Mixed azide and carboxylate bridged trinuclear Mn(II) and Co(II) motifs in coordination ladders: structures and magnetism

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Table S1. Hydrogen bond lengths [Å] and bond angles [º] for **1**

D-H···A	D-H	H···A	D-H···A	D···A
O5-H5W1··· O4[a]	0.815	2.000	155.43	2.763
O5-H5W2··· N7[b]	0.778	2.143	175.69	2.919
O6-H6W1··· O4[c]	0.854	1.913	172.32	2.762
O6-H6W2··· N6[d]	0.879	1.963	174.50	2.838

Symmetry codes: a: x, y-1, z+1; b: -x+1, -y, -z+1; c: -x+1, -y+1, -z; d: -x, -y, -z+1

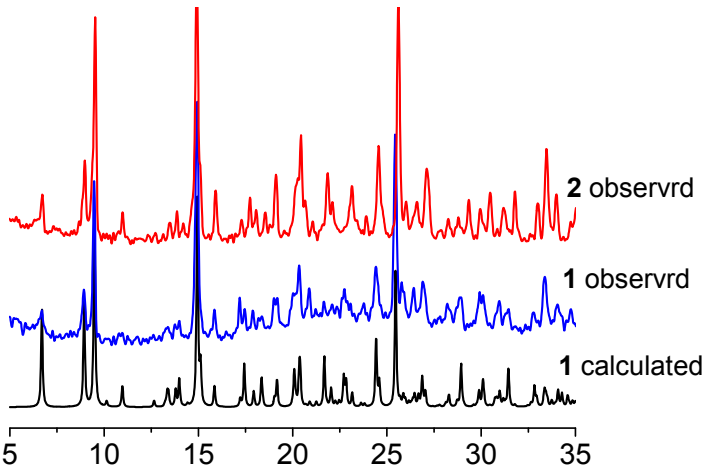

Figure S1. The XRD patterns calculated from the single crystal data of **1** and observed for **1** and **2**.

Table S2. Relevant data for the unit cell refinement of **1**

H	K	L	$2\theta_{obsd}$/°	$2\theta_{Calcd}$ /°	difference/°
0	0	1	6.7294	6.7025	0.0269
0	-1	0	8.9723	8.9771	-0.0048
0	-1	1	9.5303	9.5355	-0.0052
-1	0	1	10.9944	10.9671	0.0273
0	1	1	12.7243	12.6699	0.0544
1	-1	0	13.1171	13.0494	0.0677
0	0	2	13.4879	13.4281	0.0598
0	-1	2	13.8653	13.8451	0.0202
-1	1	1	14.9247	14.9394	-0.0147
-1	-1	2	15.9257	15.9163	0.0094
0	-2	1	17.2984	17.3113	-0.0129
0	-2	0	18.0776	18.0098	0.0678
0	-2	2	19.1271	19.1379	-0.0108
0	0	3	20.1716	20.2005	-0.0289
-1	-1	3	20.4494	20.4656	-0.0162
-1	0	3	20.7184	20.7217	-0.0033
-1	-2	2	21.0773	21.0175	0.0598
-2	-1	1	21.8609	21.8344	0.0265
-1	2	1	22.1419	22.1555	-0.0136
2	-1	1	23.1466	23.1210	0.0256
-1	-2	3	23.9265	23.9420	-0.0155
-1	1	3	24.5681	24.5996	-0.0315
2	1	1	25.6201	25.6795	-0.0594
-1	-1	4	26.0317	26.0473	-0.0156
0	-3	2	26.5949	26.6172	-0.0223
0	3	0	27.1480	27.1571	-0.0091
-1	-3	2	28.2585	28.2633	-0.0048
1	-3	2	28.7905	28.8184	-0.0279
-2	-1	4	29.9577	29.9695	-0.0118
-1	3	1	30.4883	30.4999	-0.0116
2	2	1	31.2089	31.2113	-0.0024
-3	-1	2	31.8024	31.8124	-0.0100
-1	-3	4	33.0165	33.0058	0.0107
-1	0	5	33.4725	33.4666	0.0059
0	0	5	34.0058	33.9896	0.0162

Mean square deviation: $(\Sigma\ (2\theta_{obsd}-2\theta_{calcd})^2)^{1/2}/N_{ref} = 0.0301$

(N_{ref} is the number of the peaks used in the refinement)