Electronic Supplementary Information

Sr^{2+} and Cd^{2+} Coordination polymers: Effect of different coordinating behaviour of a newly designed tricarboxylic acid

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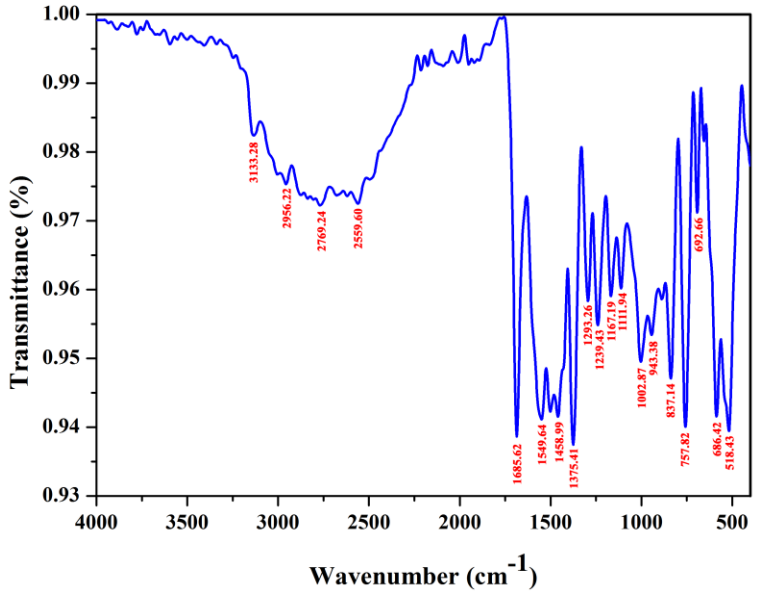

Fig. S1. FTIR spectra of the free ligand.

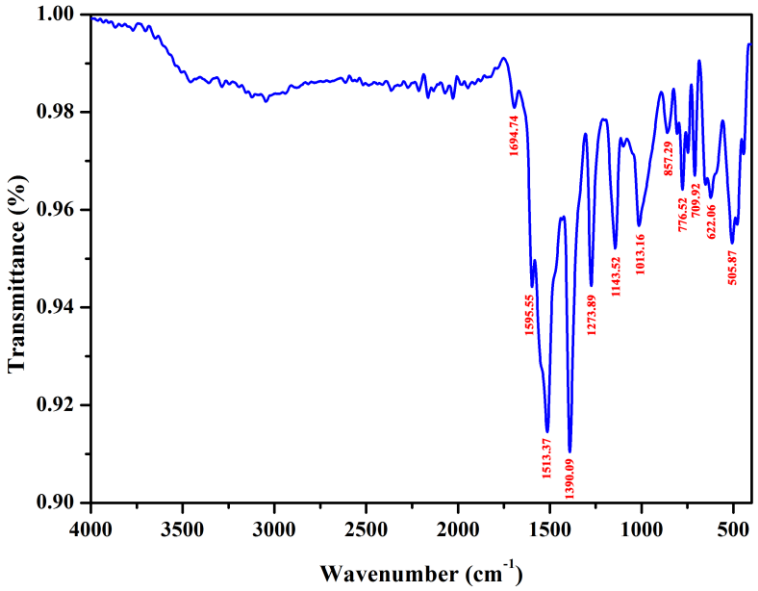

Fig. S2. FTIR spectra of **1**.

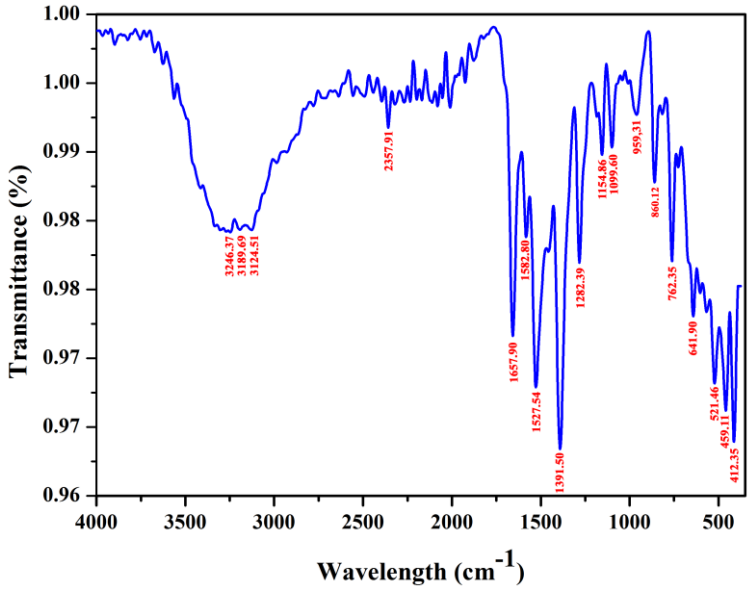

Fig. S3. FTIR spectra of **2**.

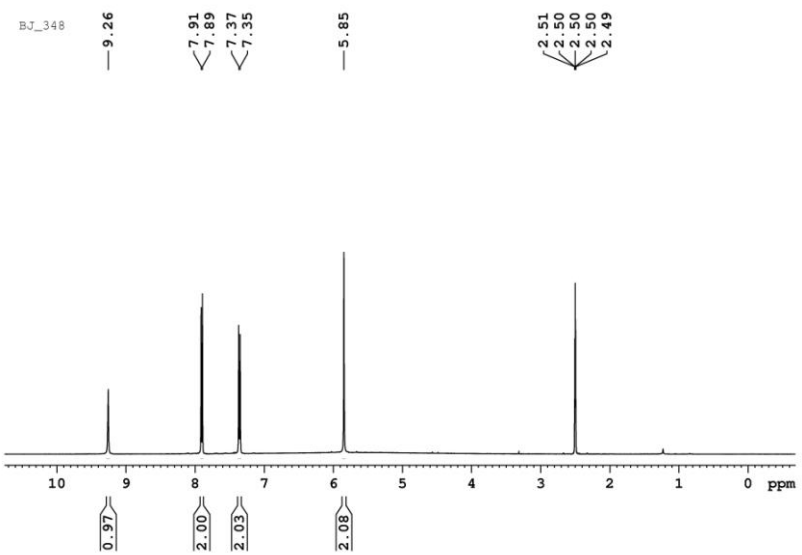

Fig S4. ^{1}H NMR spectra of the free ligand recorded in DMSO-d_6.

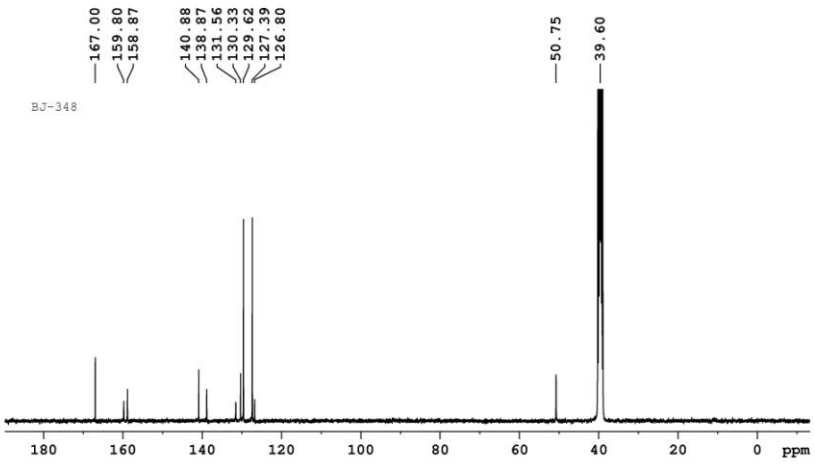

Fig S5. ^{13}C NMR spectra of the free ligand recorded in DMSO-d_6.

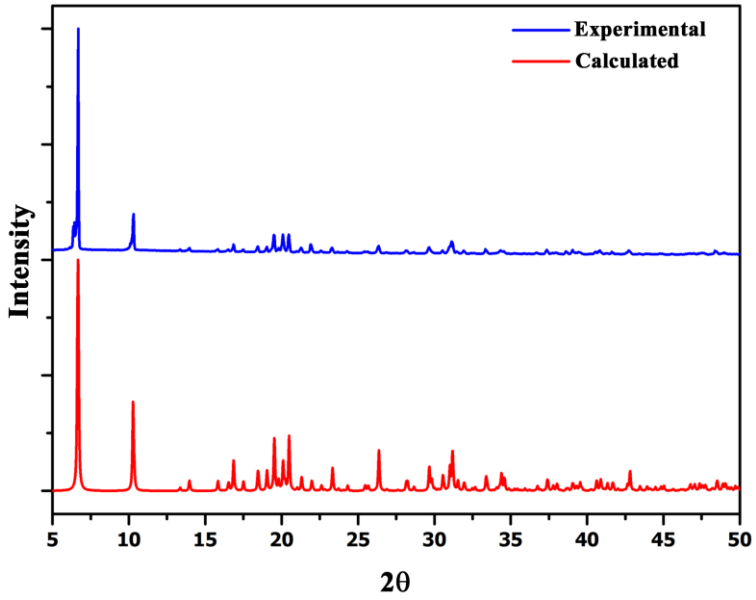

Fig. S6. Powder XRD of the complex **1**.

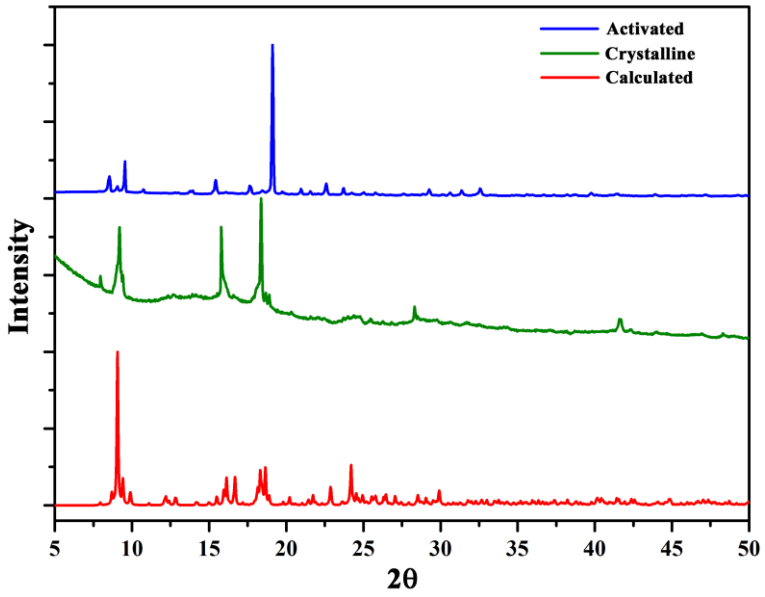

Fig. S7. Powder XRD of the as synthesized (crystalline) and activated (upon treatment with DCM and MeOH followed by removal of the free solvent molecules by vacuum drying at 100 ºC) forms of complex **2**.

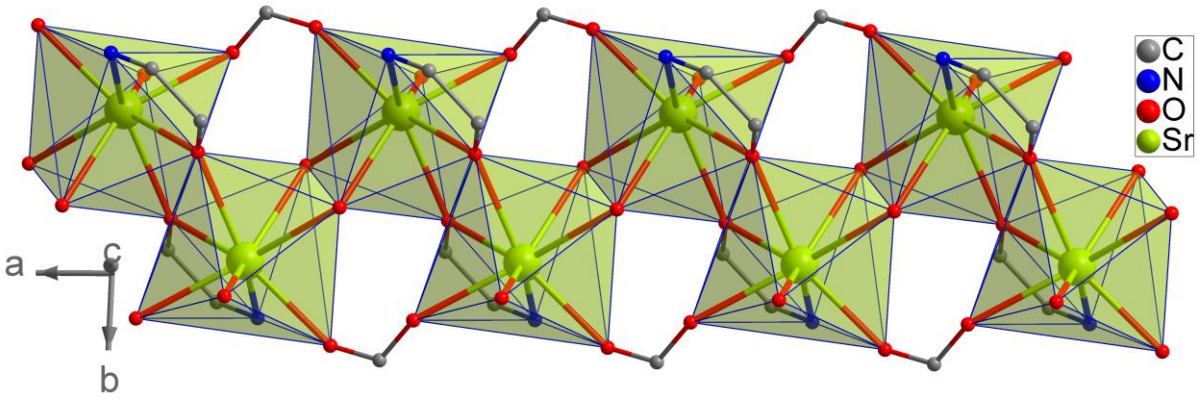

Fig. S8. Simplified 1D arrangement (with dodecahedral coordination geometry) of the metal atoms for **1**.

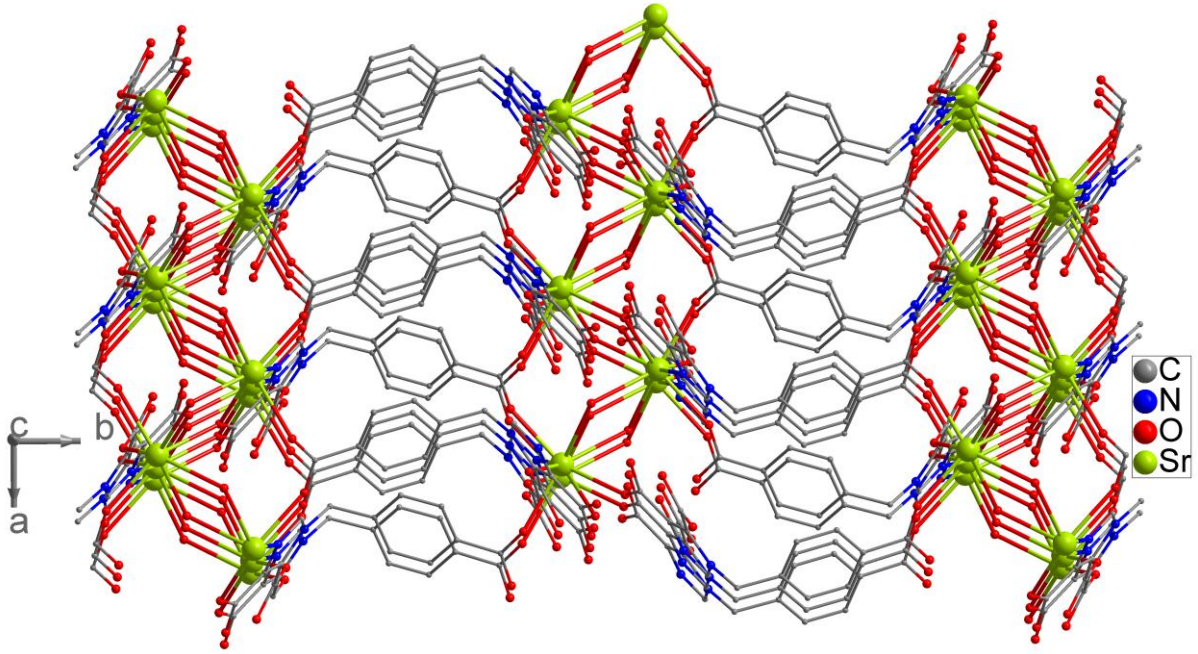

Fig. S9. Ball and stick representation, showing the 3D arrangement of complex **1**. Hydrogen atoms have been removed for clarity.

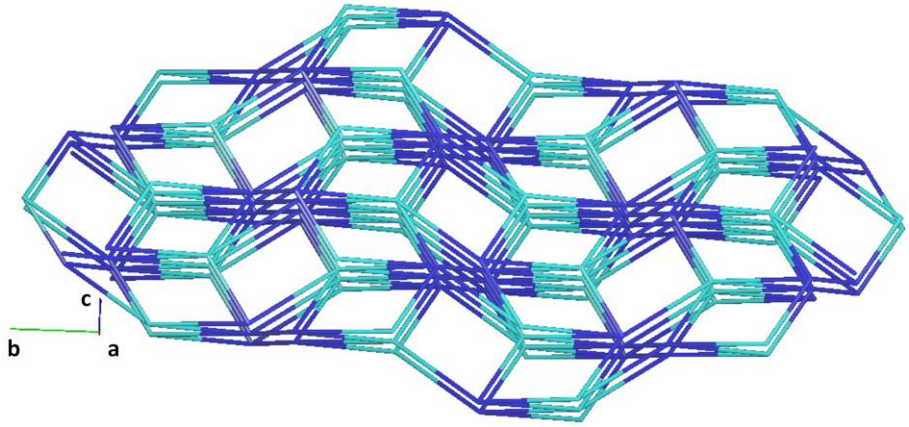

Fig. S10. Simplified topology of the 5,6-coordinated 3D net for **1**.

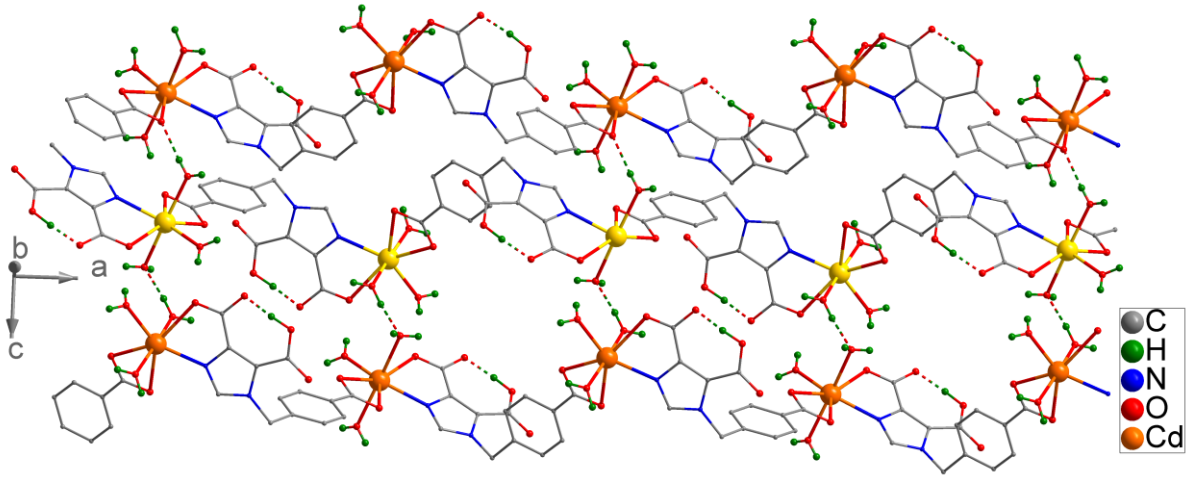

Fig. S11. Ball and stick representation, showing the partial hydrogen bonding arrangements in complex **2**. Hydrogen atoms linked to carbon atoms and free solvent molecules have been removed for clarity.

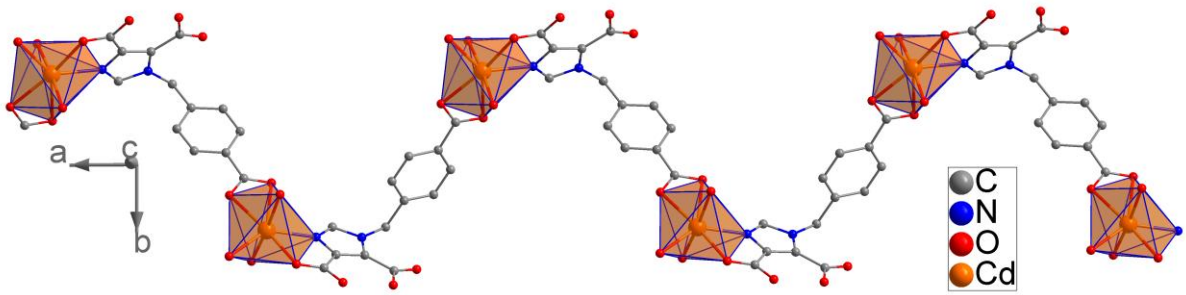

Fig. S12. Simplified 1D arrangement (with pentagonal bipyramidal coordination geometry) of the metal atoms for **2**.

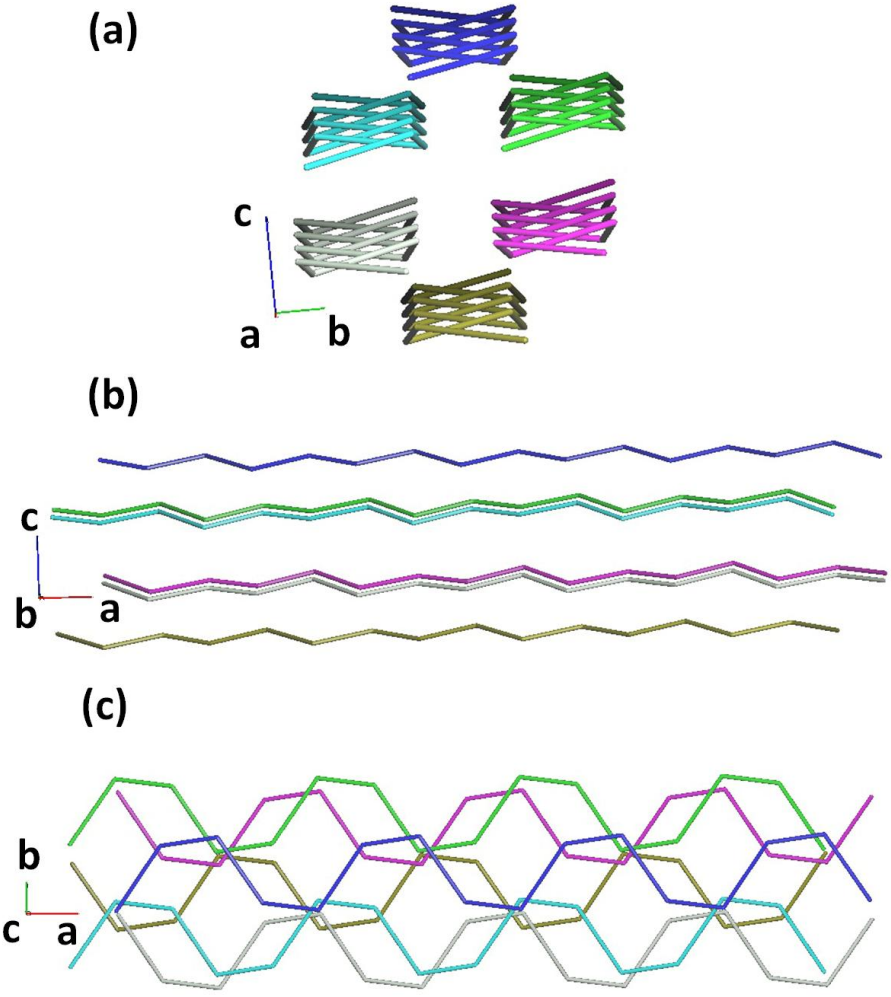

Fig. S13. Simplified 1D arrangement (for 2-coordinated metal atoms) for **2** shown for six adjacent chains along different axes.

Table S1. Hydrogen-bonding data for complex **2**.

D - H····A	d (D····A) [Å]	<(D - H····A) [°]
O(1W)-H(1W)····O(7)	2.680(5)	167
O(1W)-H(2W)····O(6)	2.735(4)	175
O(2W)-H(3W)····O(5)	2.797(5)	170
O(2W)-H(4W)····O(3)	2.866(6)	175
O(3W)-H(5W)····O(14)	2.697(4)	172
O(3W)-H(6W)····O(15)	2.633(4)	177
O(4W)-H(7W)····O(1)	2.689(5)	172
O(4W)-H(8W)····O(12)	2.727(4)	176
O(5W)-H(9W)····O(11)	2.837(4)	177
O(5W)-H(10W)····O(9)	2.784(6)	163
O(6W)-H(11W)····O(3W)	2.733(5)	175
O(6W)-H(12W)····O(8W)	2.660(5)	177
O(7W)-H(13W)····O(2)	2.827(6)	156
O(7W)-H(14W)····O(13)	2.766(6)	168
O(8W)-H(15W)····O(13)	2.854(6)	159
O(8W)-H(16W)····O(7W)	2.680(7)	172
O(5)-H(1C)····O(4)	2.435(4)	170
O(11)-H(2C)····O(10)	2.439(4)	169