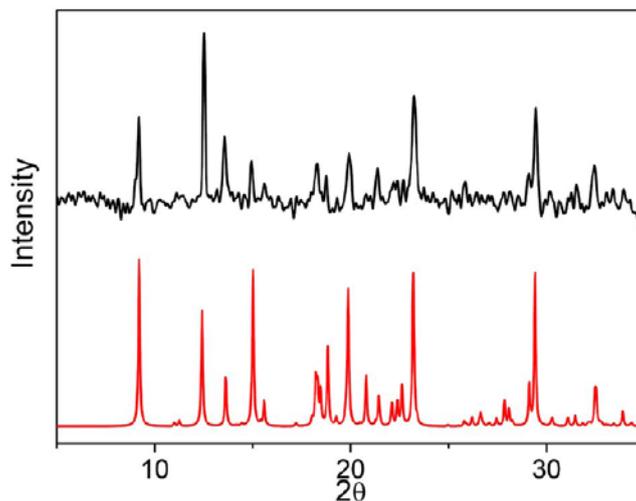


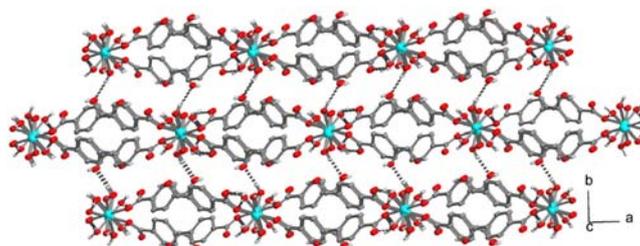
## Electronic Supplementary Information

### Ferromagnetic interactions through triple hydrogen bonds in the coordination polymers of $\alpha,\alpha'$ - dihydroxy-bibenzyl-4,4'-dicarboxylate

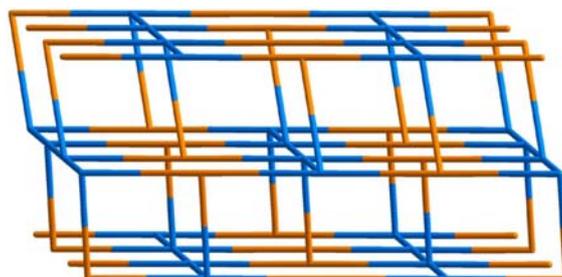
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**Fig. S1** Comparison of the PXRD patterns measured for **3** (black) and that calculated from the single-crystal data of **1** (red)



**Fig. S2** the 3D packing of the layers through hydrogen bonds in compound **1**



**Fig. S3.** The 3,5-connected  $(4.6^2)(4.6^6.8^3)$  net in compound **1**

**Table S2.** Selected hydrogen-bond lengths [ $\text{\AA}$ ] and angles [ $^\circ$ ] for **2**

D	A [Transformation]	d(D-H)	d(H $\cdots$ A)	d(D $\cdots$ A)	<(DHA)
OW1	O2	0.77(2)	1.99(2)	2.7376(16)	165(2)
OW1	O4 [-x+1, -y+1, -z+2]	0.74(3)	2.35(3)	3.0548(16)	160(3)
OW2	O6 [x-1, -y+1/2, z-3/2]	0.86(2)	1.91(2)	2.7552(16)	168(2)
OW2	O3 [x-1, -y+1/2, z-1/2]	0.76(3)	2.24(3)	2.9752(15)	163(2)
O3	OW2 [-x+1, y+1/2, -z+5/2]	0.81(2)	2.11(2)	2.8831(14)	159.5(19)
O4	OW1 [x, y, z+1]	0.747(19)	2.033(19)	2.7621(15)	165(2)
O7	O2	0.87(2)	1.88(2)	2.6851(14)	153.0(18)
O7	O9 [x, -y+1/2, z-1/2]	0.78(2)	1.94(2)	2.7118(14)	174(2)
O8	O1 [x, -y+1/2, z-1/2]	0.81(3)	2.20(3)	3.0031(16)	178(2)
O8	OW1 [-x+1, y-1/2, -z+3/2]	0.82(2)	2.04(2)	2.8522(17)	166.6(19)
O9	O4 [-x+1, y-1/2, -z+5/2]	0.82(2)	1.96(2)	2.7750(14)	175.5(18)
O9	O6 [x-1, -y+1/2, z-3/2]	0.85(2)	1.81(2)	2.6376(13)	164.6(18)
O9	O5 [x-1, -y+1/2, z-3/2]	0.85(2)	2.635(19)	3.0127(13)	108.3(14)
O10	O5 [x-1, y, z-1]	0.79(2)	2.07(2)	2.8490(15)	172.5(19)
O10	OW2 [-x, y+1/2, -z+3/2]	0.80(2)	2.05(2)	2.8477(17)	173(2)

D = donor, A = acceptor.