Supporting information for

Solvent induced five cadmium coordination polymers (CPs) based on the same mixed ligands

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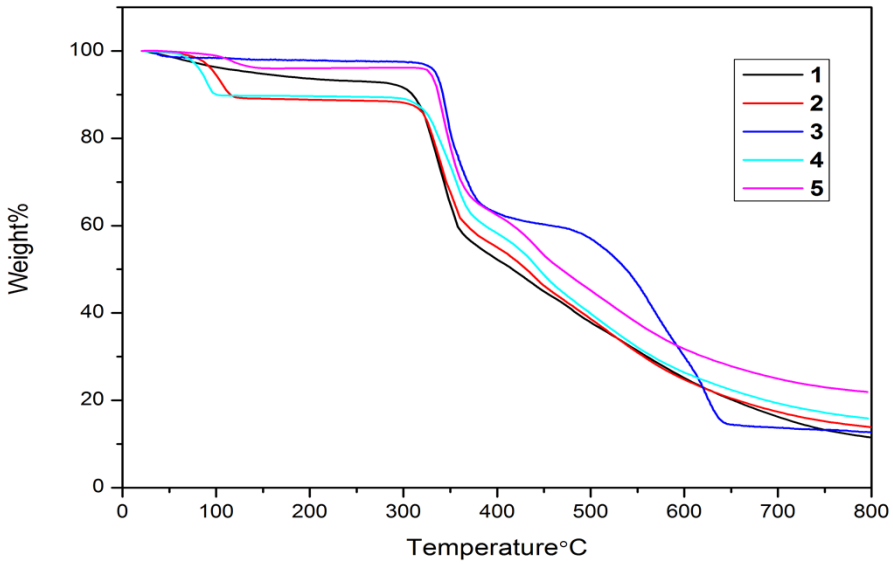
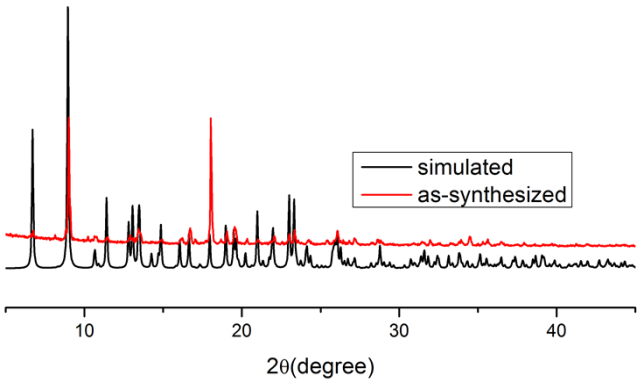
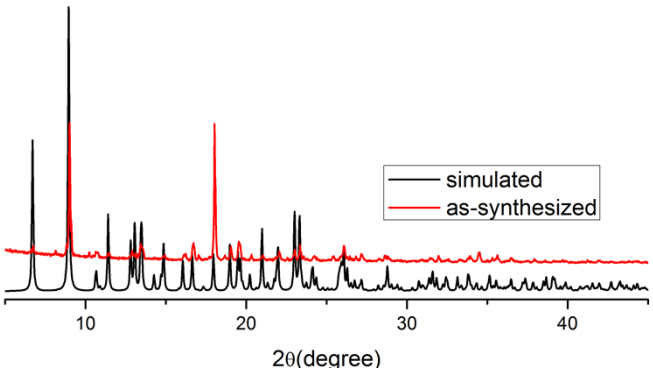


Fig. S1 TGA curves of **1-5** under N_2 atmosphere



1(a)



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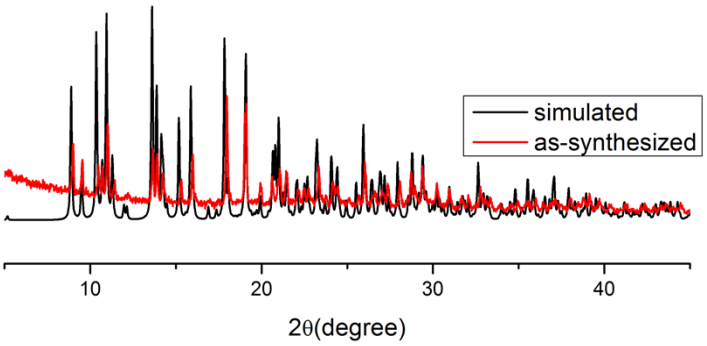
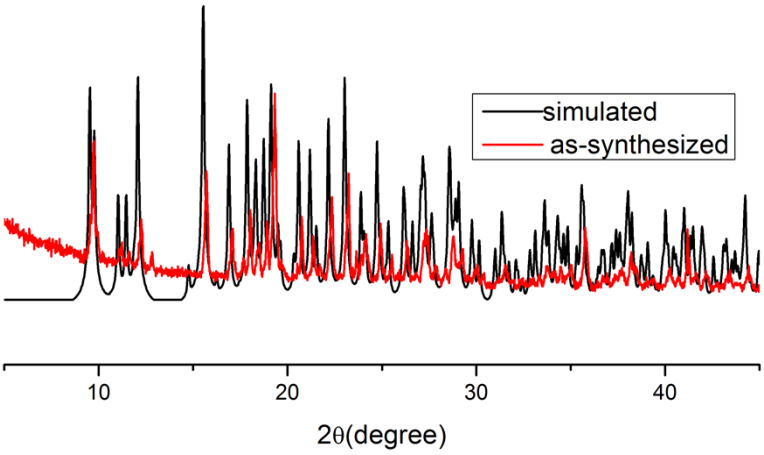
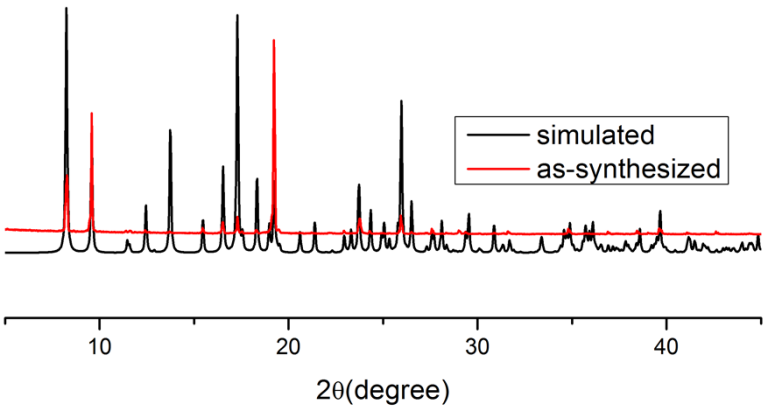


3(c)



4(d)



5(e)

Fig. S2 PXRD patterns for **1**(a), **2**(b), **3**(c), **4**(d) and **5**(e) recorded N_2 atmosphere.

Table S1. Selected bond distances (Å) and angles (°) for **1-5**

Complound **1**			
Cd(1)-N(1)#1	2.258(7)	O(4)-Cd(1)-O(3)#1	104.3(3)
Cd(1)-N(1)	2.258(7)	N(1)#1-Cd(1)-O(3)	140.2(2)
Cd(1)-O(4)#1	2.368(7)	N(1)-Cd(1)-O(3)	97.0(3)
Cd(1)-O(4)	2.368(7)	O(4)#1-Cd(1)-O(3)	104.3(3)
Cd(1)-O(3)#1	2.415(7)	O(4)-Cd(1)-O(3)	54.1(2)
Cd(1)-O(3)	2.415(7)	O(3)#1-Cd(1)-O(3)	86.3(4)
Cd(2)-N(4)#2	2.275(7)	N(4)#2-Cd(2)-N(4)#3	95.5(4)
Cd(2)-N(4)#3	2.275(7)	N(4)#2-Cd(2)-O(1)#4	104.6(3)
Cd(2)-O(1)#4	2.363(7)	N(4)#3-Cd(2)-O(1)#4	90.2(3)
Cd(2)-O(1)	2.363(7)	N(4)#2-Cd(2)-O(1)	90.2(3)
Cd(2)-O(2)#4	2.395(7)	N(4)#3-Cd(2)-O(1)	104.6(3)
N(1)#1-Cd(1)-N(1)	104.9(4)	O(1)#4-Cd(2)-O(1)	158.0(4)
N(1)#1-Cd(1)-O(4)#1	109.6(3)	N(4)#2-Cd(2)-O(2)#4	98.0(3)
N(1)-Cd(1)-O(4)#1	87.1(2)	N(4)#3-Cd(2)-O(2)#4	143.3(2)
N(1)#1-Cd(1)-O(4)	87.1(2)	O(1)#4-Cd(2)-O(2)#4	53.4(3)
N(1)-Cd(1)-O(4)	109.6(3)	O(1)-Cd(2)-O(2)#4	109.2(3)
O(4)#1-Cd(1)-O(4)	153.1(3)	O(4)#1-Cd(1)-O(3)#1	54.1(2)
N(1)#1-Cd(1)-O(3)#1	97.0(3)	N(1)-Cd(1)-O(3)#1	140.2(3)
Compound **2**			
Cd(1)-O(2)#1	2.148(3)	O(2)#1-Cd(1)-O(2)	119.4(2)
Cd(1)-O(2)	2.148(3)	O(2)#1-Cd(1)-N(1)#1	126.42(13)
Cd(1)-N(1)#1	2.234(3)	O(2)-Cd(1)-N(1)#1	93.65(13)
Cd(1)-N(1)	2.234(3)	O(2)#1-Cd(1)-N(1)	93.65(13)
N(1)#1-Cd(1)-N(1)	98.68(19)	O(2)-Cd(1)-N(1)	126.42(13)
Compound **3**			
Cd(1)-O(5)	2.219(8)	O(5)-Cd(1)-N(1)	91.7(3)
Cd(1)-N(1)	2.314(9)	O(5)-Cd(1)-O(7)#1	96.5(3)
Cd(1)-O(7)#1	2.325(8)	N(1)-Cd(1)-O(7)#1	98.3(3)
Cd(1)-O(1)	2.336(7)	O(5)-Cd(1)-O(1)	89.3(3)
Cd(1)-O(8)#1	2.364(7)	N(1)-Cd(1)-O(1)	163.5(3)
Cd(1)-O(3)#2	2.368(7)	O(7)#1-Cd(1)-O(1)	97.9(3)
Cd(2)-O(2)	2.213(7)	O(5)-Cd(1)-O(8)#1	149.9(3)
Cd(2)-N(3)	2.228(10)	N(1)-Cd(1)-O(8)#1	102.6(3)
Cd(2)-O(6)	2.264(8)	O(7)#1-Cd(1)-O(8)#1	55.7(3)
Cd(2)-O(3)#2	2.290(7)	O(1)-Cd(1)-O(8)#1	84.3(3)
Cd(2)-O(9)	2.358(8)	O(5)-Cd(1)-O(3)#2	111.3(3)
Cd(2)-O(4)#2	2.648(7)	N(1)-Cd(1)-O(3)#2	87.5(3)
O(7)#1-Cd(1)-O(3)#2	151.5(3)	O(1)-Cd(1)-O(3)#2	76.9(2)
O(8)#1-Cd(1)-O(3)#2	95.9(3)		
Compound **4**			
Cd(1)-N(1)	2.228(6)	N(1)-Cd(1)-O(1)	132.5(2)
Cd(1)-O(1)	2.264(5)	N(1)-Cd(1)-O(1W)	92.5(2)

Cd(1)-O(1W)	2.306(6)	O(1)-Cd(1)-O(1W)	87.48(19)
Cd(1)-O(2W)	2.356(6)	N(1)-Cd(1)-O(2W)	93.2(2)
Cd(1)-O(4)#1	2.402(5)	O(1)-Cd(1)-O(2W)	86.77(18)
Cd(1)-O(3)#1	2.469(5)	O(1W)-Cd(1)-O(2W)	173.75(18)
N(1)-Cd(1)-O(4)#1	90.8(2)	O(1)-Cd(1)-O(4)#1	136.72(18)
O(1W)-Cd(1)-O(4)#1	90.2(2)	O(2W)-Cd(1)-O(4)#1	92.35(19)
N(1)-Cd(1)-O(3)#1	143.6(2)	O(1)-Cd(1)-O(3)#1	83.67(17)
O(1W)-Cd(1)-O(3)#1	92.6(2)	O(2W)-Cd(1)-O(3)#1	84.29(19)
O(4)#1-Cd(1)-O(3)#1	53.27(17)		
Compound **5**			
O(2)-Cd(1)#1	2.370(3)	N(1)-Cd(1)-O(3)	136.26(13)
O(1)-Cd(1)#1	2.451(3)	N(1)-Cd(1)-O(4)#2	89.79(11)
Cd(1)-N(1)	2.265(3)	O(3)-Cd(1)-O(4)#2	102.83(12)
Cd(1)-O(3)	2.325(3)	N(1)-Cd(1)-O(2)#3	140.83(12)
Cd(1)-O(4)#2	2.365(3)	O(3)-Cd(1)-O(2)#3	81.03(12)
Cd(1)-O(2)#3	2.370(3)	O(4)#2-Cd(1)-O(2)#3	92.51(12)
Cd(1)-O(5)	2.370(3)	N(1)-Cd(1)-O(5)	86.90(11)
Cd(1)-O(1)#3	2.451(3)	O(3)-Cd(1)-O(5)	80.15(12)
O(4)#2-Cd(1)-O(5)	176.60(10)	O(2)#3-Cd(1)-O(5)	89.57(12)
N(1)-Cd(1)-O(1)#3	86.97(13)	O(3)-Cd(1)-O(1)#3	131.49(12)
O(4)#2-Cd(1)-O(1)#3	96.75(13)	O(2)#3-Cd(1)-O(1)#3	53.92(12)
O(5)-Cd(1)-O(1)#3	82.31(13)		

Symmetry transformations used to generate equivalent atoms: **For 1**, #1 x, -y+1/2, -z+1/2 #2 -x-1/2, -y+1, z #3 -x+1, -y+1, -z; **For 2**, #1 x, -y+3/2, -z+5/2 #2 x-1/2, y, -z+1 #3 -x, -y+2, -z+1 #4 -x-1/2, -y+2, z; **For 3**, #1 x, y+1, z #2 x+1, y, z #3 x-1, y, z #4 x, y-1, z #5 -x+3, -y+1, -z+1 #6 -x+1, -y, -z; **For 4**, #1 x+1/2, y+1/2, z #2 x-1/2, y-1/2, z #3 -x+2, y, -z+1/2; **For 5**, #1 -x+1, -y, -z+1 #2 x, y+1, z #3 x, y-1, z #4 -x+2, -y, -z.