Supporting Information for the Manuscript:

A series of five divalent zinc and cadmium coordination polymers based on a new bifunctional ligand: syntheses, crystal structures, and properties

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This PDF file includes Table S1– S2 and Fig. S1– S7.

Table1. Selected Hyrdogon-Bond Geometry (Å) for **1-3** (in Å and º)

D−H···A	*d*(D···H)	*d*(H···A)	*d*(D···A)	∠DHA
		Compound **1**[a]		
O(3W)-H(3WA)...O(1)	0.85	1.87	2.718(5)	170.6
O(2W)-H(2WA)...O(2)#4	0.84	1.87	2.687(4)	164.9
O(1W)-H(1WB)...O(2W)#5	0.84	1.92	2.713(5)	157.2
O(1W)-H(1WA)...O(3W)#6	0.84	1.88	2.691(5)	162.2
		Compound **2**[b]		
O(1W)-H(1WA)...O(2W)#4	0.77	1.97	2.738(2)	172.1
O(1W)-H(1WB)...O(3W)#5	0.79	1.91	2.685(4)	167.5
O(2W)-H(2WA)...O(2)#6	0.84	1.87	2.691(3)	163.2
O(3W)-H(3WB)...O(1)	0.85	1.87	2.719(3)	179.6
O(3W)-H(3WA)...O(1)#7	0.85	1.96	2.738(3)	151.8
		Compound **3**[c]		
O(1W)-H(1WA)...Cl(1)#6	0.85	2.54	3.352(5)	159.4
O(1W)-H(1WB)...O(2)#7	0.85	2.04	2.834(5)	154.7
O(2W)-H(2WB)...O(1W)#8	0.85	1.96	2.802(17)	170.2
O(2W)-H(2WA)...O(1W)#9	0.85	2.31	2. 757(17)	113.0

Symmetry codes: [a] #4 -*x*+1/2, -*y*+1/2, -*z*+1; #5 -*x*, -*y*+1, -*z*; #6 -*x*+1/2, -*y*+1/2, -*z*. [b] #4 *x*, *y*-1, *z*; #5 *x*-1/2, *y*-1/2, *z*; #6 *x*, -*y*+1, *z*+1/2; #7 -*x*+1/2, -*y*+1/2, -*z*. [c] #6 -*x*, -*y*+1, -*z*+1; #7 -*x*+1, -*y*+1, -*z*+1; #8 -*x*+1, *y*-1/2, -*z*+1/2; #9 *x*+1, -*y*+3/2, *z*+1/2.

Table S2. Emission and excitation maxima wavelengths (nm)

polymer	**HL**	**1**	**2**	**3**	**4**	**5**
λ_{em} (nm)	451	436	413	481	449	468
λ_{ex} (nm)	370	375	314	382	365	369

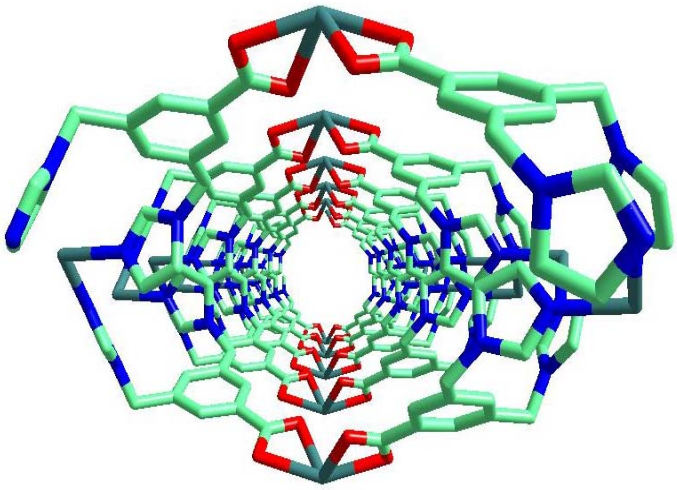

Fig. S1 Top view of the open-ended, hollow nanotube of **4**.

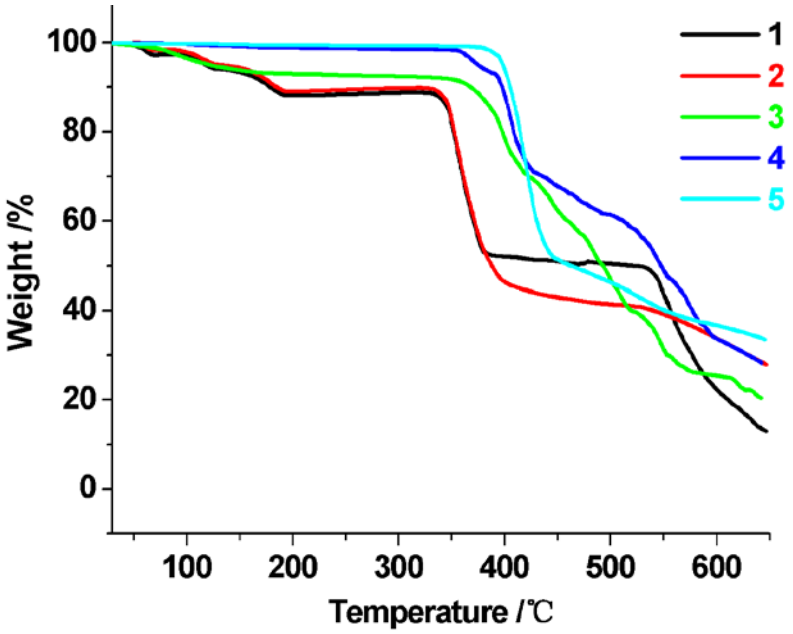

Fig. S2. The TG curves of complexes **1–5**.

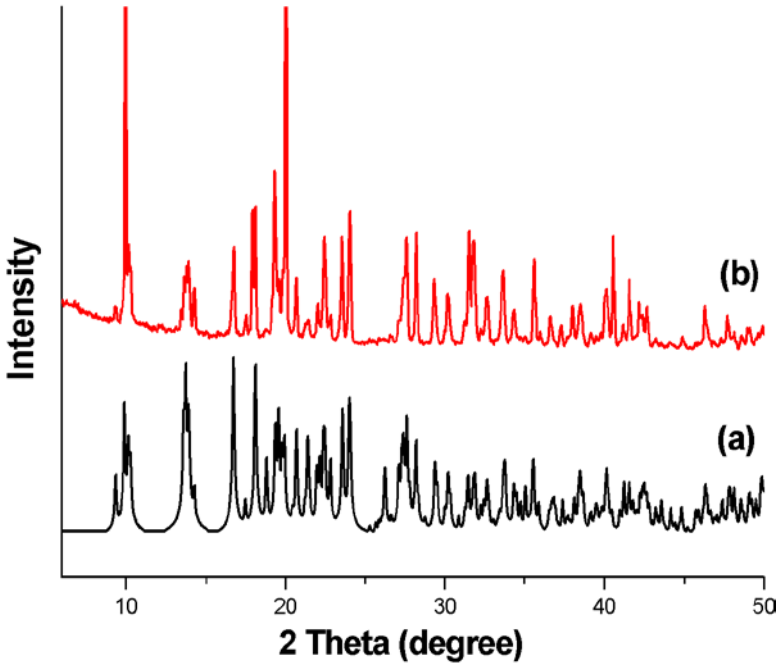

Fig. S3 X-ray powder diffraction of complex **1** (a) simulated from single crystal data, (b) observed for complex **1.**

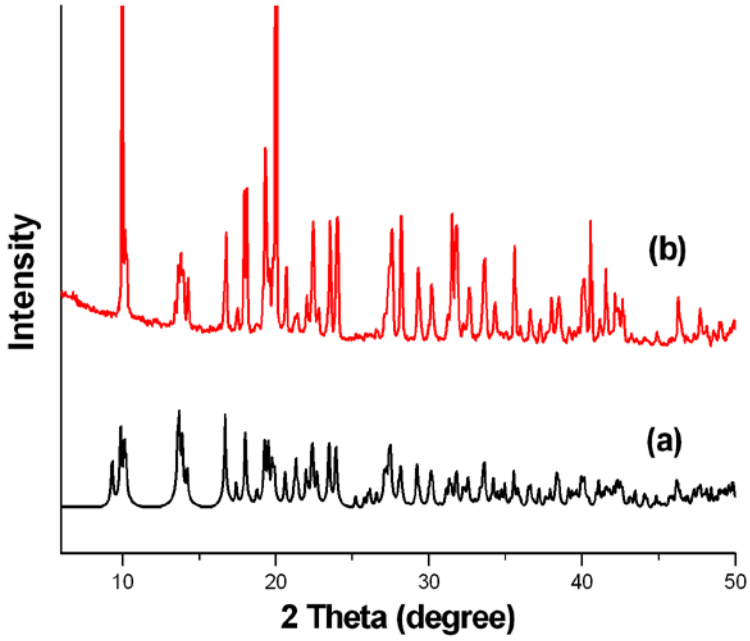

Fig. S4 X-ray powder diffraction of complex **2** (a) simulated from single crystal data, (b) observed for complex **2.**

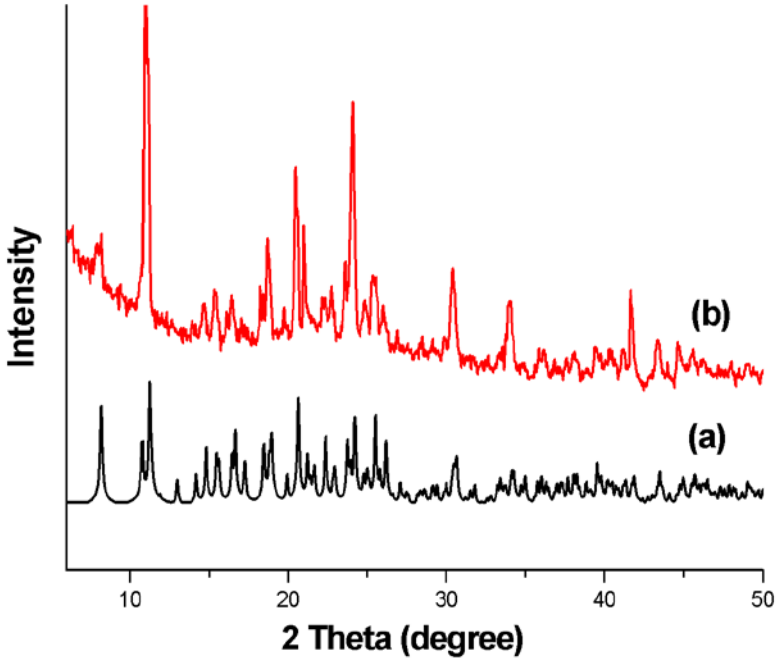

Fig. S5 X-ray powder diffraction of complex **3** (a) simulated from single crystal data, (b) observed for complex **3.**

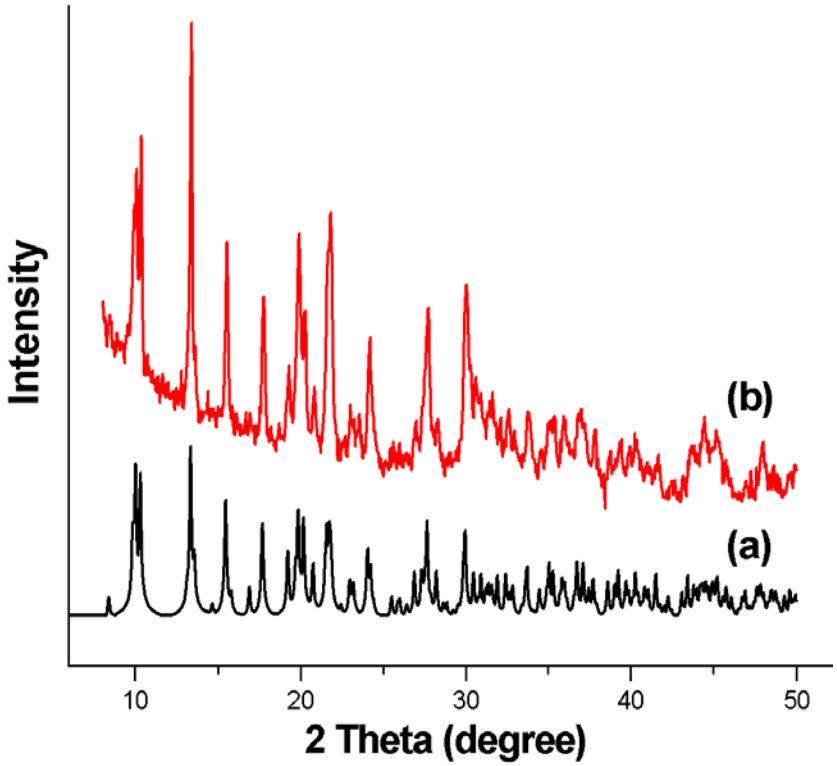

Fig. S6 X-ray powder diffraction of complex **4** (a) simulated from single crystal data, (b) observed for complex **4.**

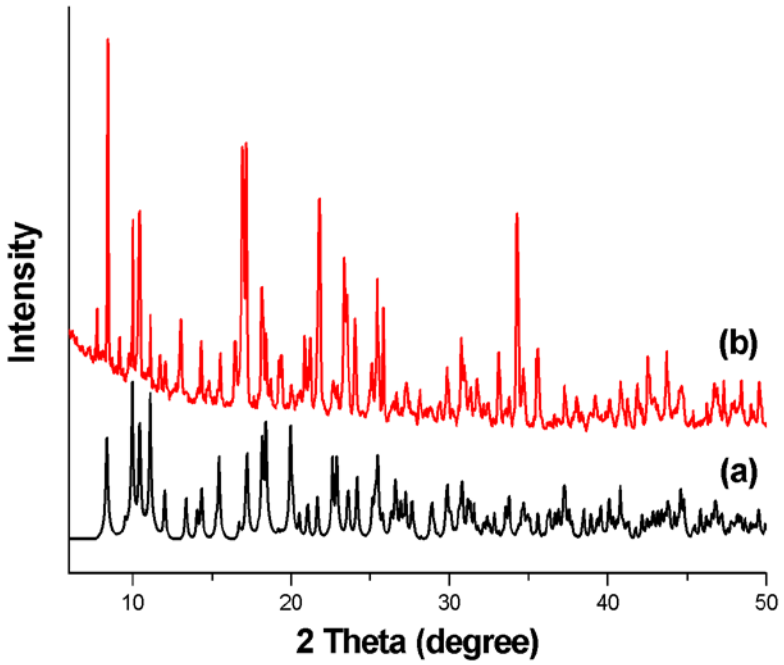

Fig. S7 X-ray powder diffraction of complex **5** (a) simulated from single crystal data, (b) observed for complex **5.**