Supporting Information

for

Structures and properties of four coordination polymers constructed from 1,3-bis-(4-pyridyl)-propane and aromatic dicarboxylic acids†

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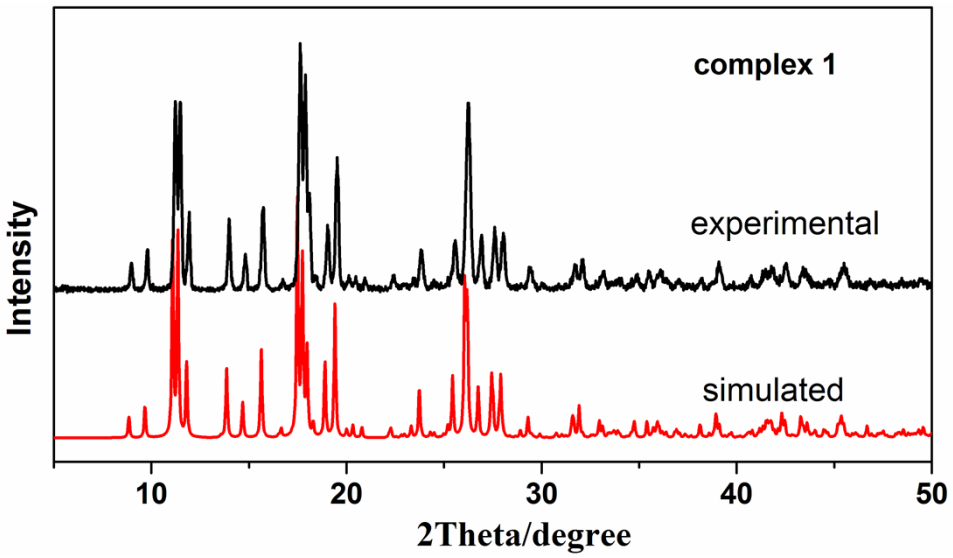
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experimental
simulated
Intensity
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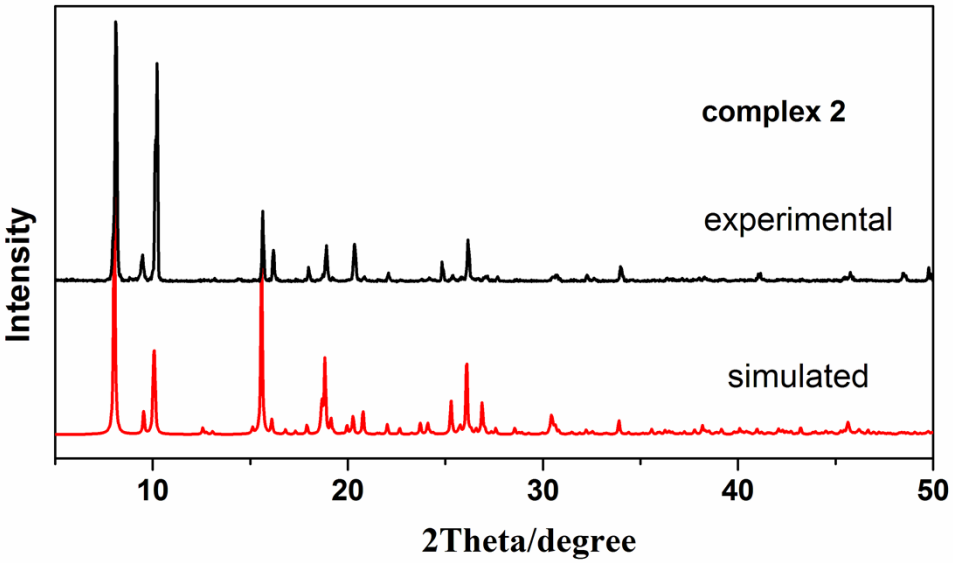
20
30
40
50
2Theta/degree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experimental
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Intensity
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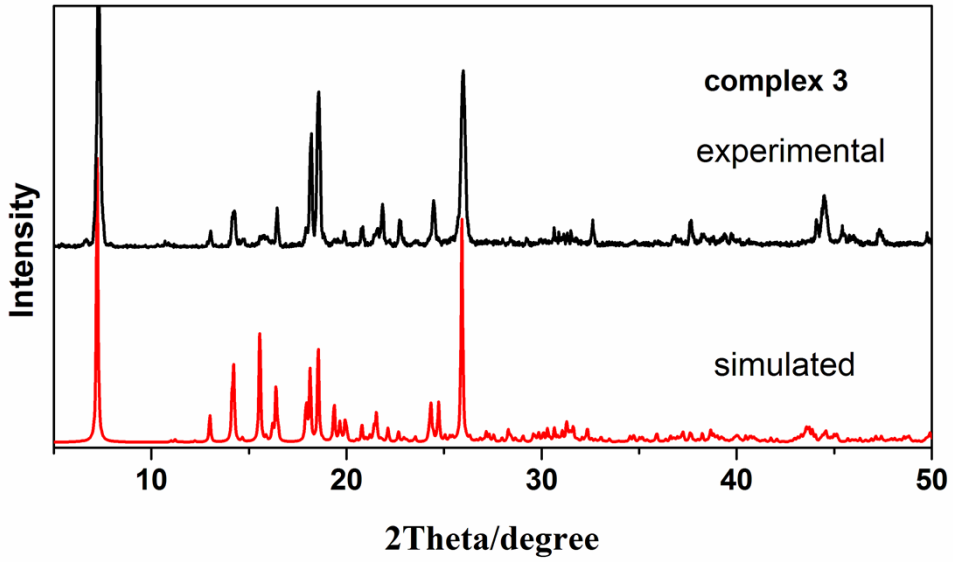
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Intensity
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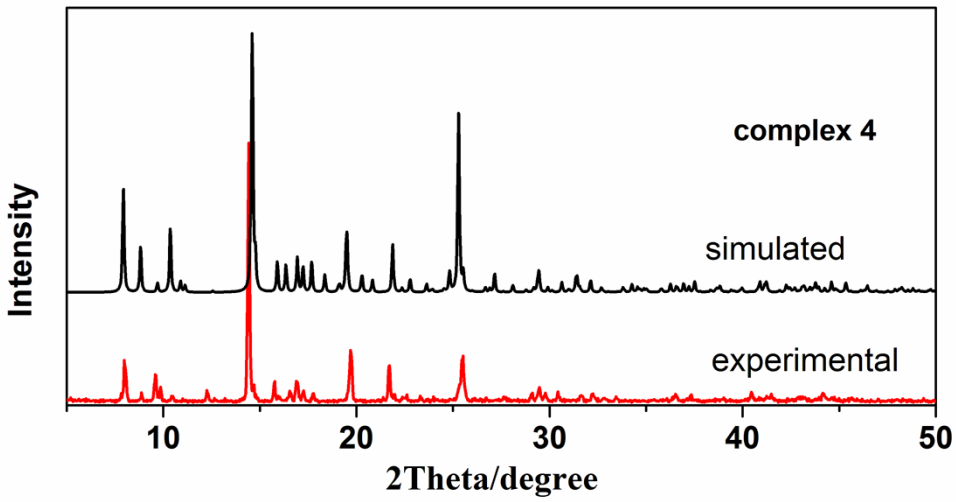

Figure S1 X-Ray powder diffraction patterns of **1- 4**.

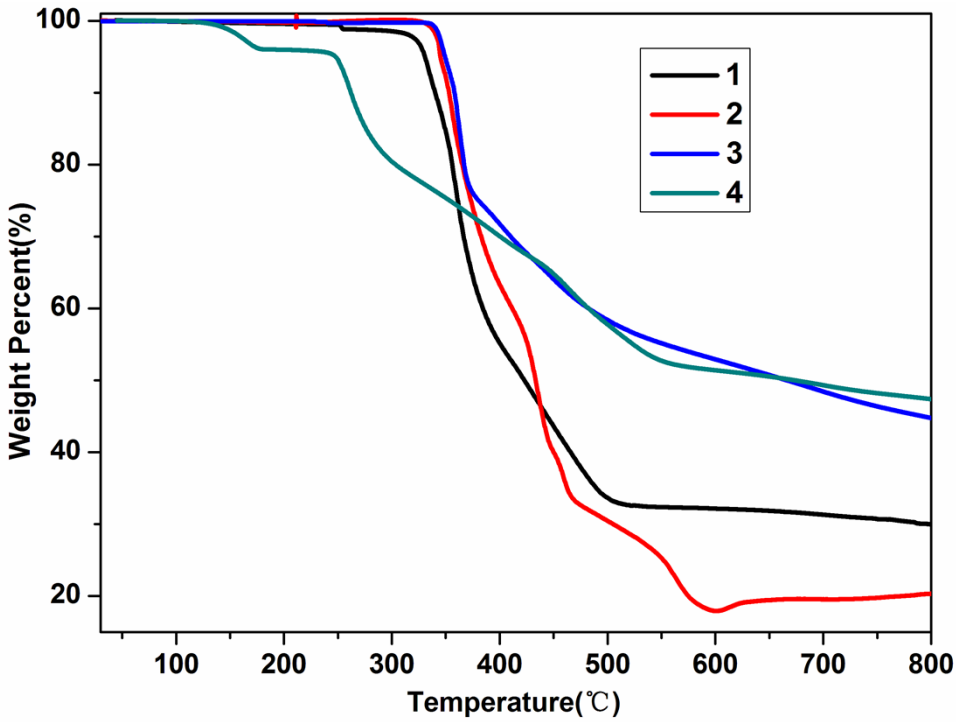

Figure S2 TG curves for **1- 4**

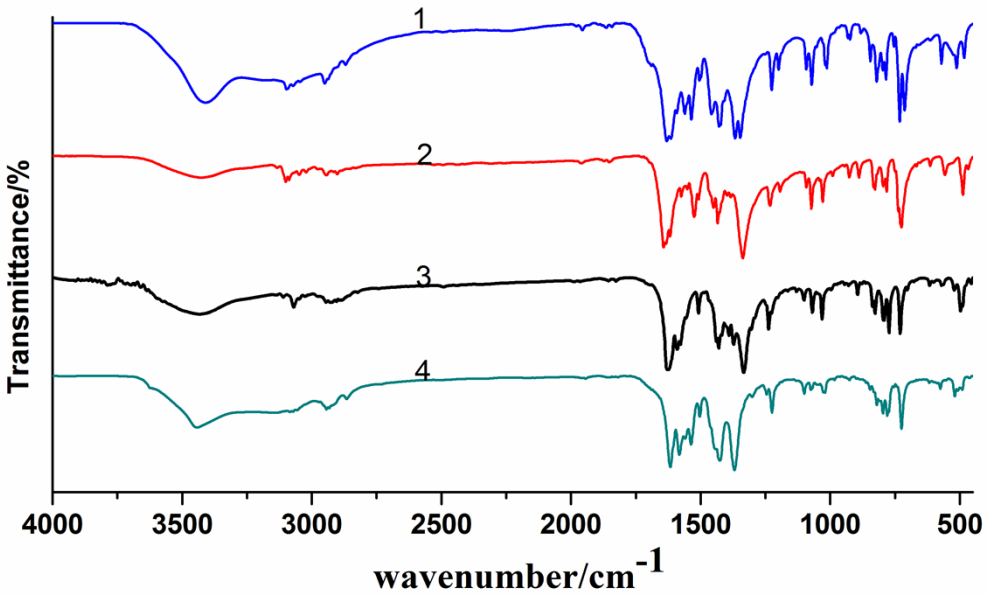

Figure S3 FT-IR curves for complexes **1- 4.**

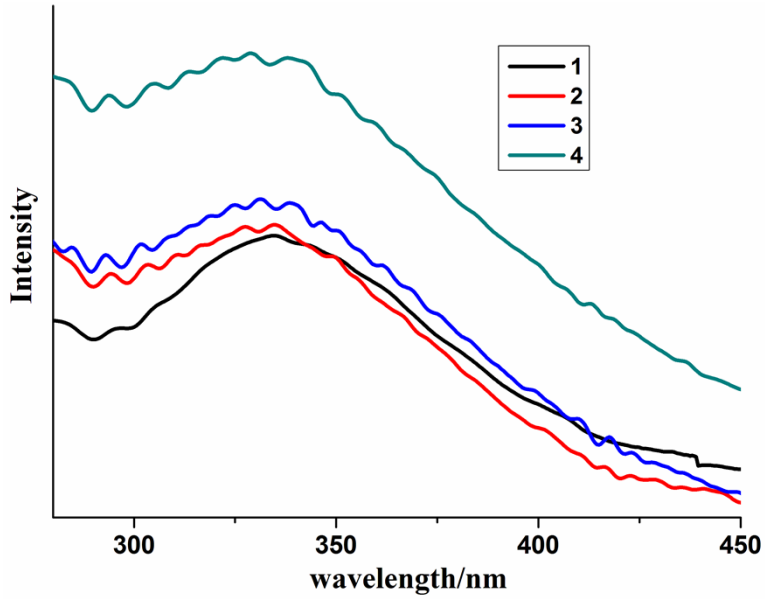

Figure S4 UV spectra for **1- 4** in solid state.

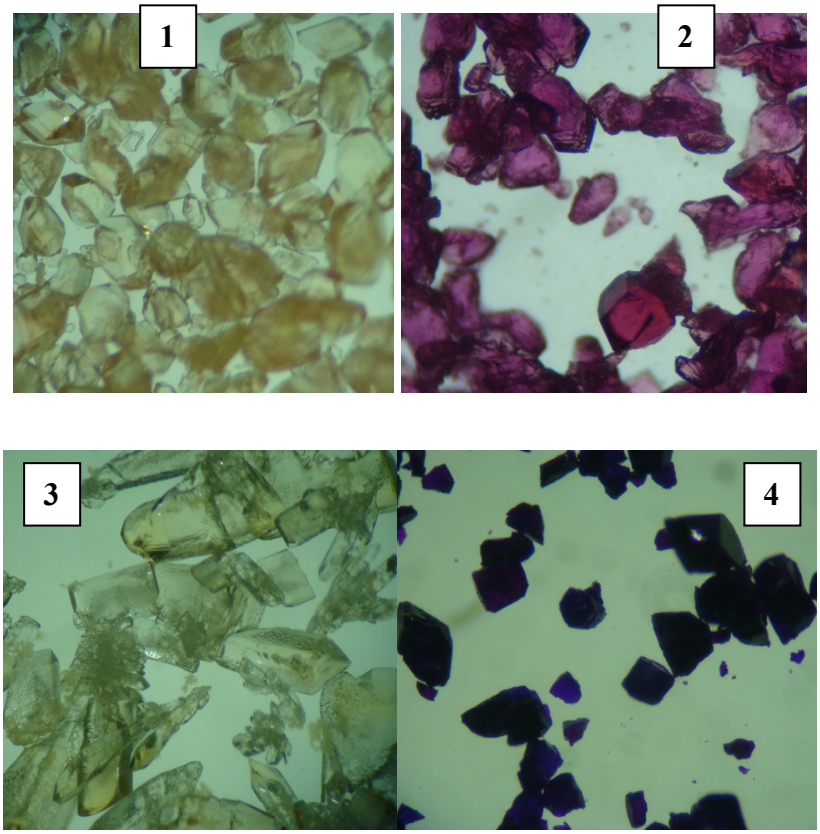

Figure S5 Photos of complexes 1-4. Suitable single crystal with approximate dimensions (0.33 mm × 0.28 mm × 0.22 mm for **1**, 0.28 mm × 0.26 mm × 0.23 mm for **2**, 0.38 mm × 0.30 mm × 0.20 mm for **3** and 0.22 mm × 0.22 mm × 0.20 mm for **4** were chosen for X-ray crystal structure data collection.

Table S1 Selected bond lengths (Å) and angles (°) for complexes

Complex **1**			
Zn1-O1	1.961(3)	Zn1-N1	2.051(4)
Zn1-O4^{1}	1.959(3)	Zn1-N2^{2}	2.046(4)
O1-Zn1-N1	107.56(14)	O4^{2}-Zn1-N1	99.75(15)
O1-Zn1-N2^{1}	113.68(15)	O4^{2}-Zn1-N2^{1}	121.28(14)
O4^{2}-Zn1-O1	102.63(13)	N2^{1}-Zn1-N1	110.40(15)
Complex **2**			
Co1-O1	2.2187(16)	Co1-O3^{2}	2.0366(17)
Co1-O2	2.1336(15)	Co1-N2^{3}	2.171(2)
Co1-O4^{1}	2.0306(15)	Co1-N1	2.153(2)
O2-Co1-O1	59.95(6)	O4^{2}-Co1-O1	95.12(6)
O2-Co1-N2^{1}	93.78(7)	O4^{2}-Co1-O2	155.03(7)
O2-Co1-N1	90.98(7)	O4^{2}-Co1-O3^{3}	115.58(6)
O3^{3}-Co1-O1	148.89(6)	O4^{2}-Co1-N2^{1}	87.01(7)
O3^{3}-Co1-O2	89.38(6)	O4^{2}-Co1-N1	89.37(7)
O3^{3}-Co1-N2^{1}	87.22(8)	N1-Co1-O1	94.18(7)
O3^{3}-Co1-N1	91.20(7)	N1-Co1-N2^{1}	174.97(7)
N2^{1}-Co1-O1	89.62(7)		
Complex **3**			
Zn1-N1	2.074(5)	Zn2-N2^{2}	2.056(5)
Zn1-N4	2.058(4)	Zn2-O10^{3}	1.955(4)
Zn1-O1	1.975(4)	Zn2-O7	1.980(4)
Zn1-O4^{1}	1.946(4)	Zn2-N3	2.075(5)
N4-Zn1-N1	105.02(18)	N2^{2}-Zn2-N3	106.20(18)
O1-Zn1-N1	108.37(18)	O10^{3}-Zn2-N2^{2}	124.97(19)
O1-Zn1-N4	98.67(18)	O10^{3}-Zn2-O7	119.38(19)
O4^{1}-Zn1-N1	99.02(18)	O10^{3}-Zn2-N3	98.96(18)
O4^{1}-Zn1-N4	125.72(18)	O7-Zn2-N2^{2}	97.75(18)
O4^{1}-Zn1-O1	118.71(18)	O7-Zn2-N3	108.55(18)
Complex **4**			
Co1-O2	2.247(4)	Co1-O1	2.180(4)
Co1-O1W	2.102(5)	Co1-O3^{2}	2.031(4)
Co1-N2^{1}	2.122(5)	Co1-N1	2.143(5)
O1W-Co1-O2	87.44(17)	O1-Co1-O2	59.49(15)
O1W-Co1-N2^{1}	91.01(19)	O3^{2}-Co1-O2	116.15(17)
O1W-Co1-O1	91.26(19)	O3^{2}-Co1-O1W	85.9(2)
O1W-Co1-N1	173.3(2)	O3^{2}-Co1-N2^{1}	93.48(19)
N2^{1}-Co1-O2	150.11(18)	O3^{2}-Co1-O1	174.97(18)

$N2^{1}$-Co1-O1	90.73(18)	$O3^{2}$-Co1-N1	91.90(18)
$N2^{1}$-Co1-N1	95.49(19)	N1-Co1-O2	87.80(16)
N1-Co1-O1	90.43(17)		

Symmetry transformations used to generate equivalent atoms:
for **1,** 1 -1/2+X,1/2-Y,-1/2+Z; 2 1/2+X,-1/2-Y,-1/2+Z
for **2,** 1 1-X,-Y,1-Z; 2 +X,-1+Y,+Z
for **3,** 1 -1+X,+Y,+Z; 2 +X,1+Y,1+Z; 3 1+X,+Y,+Z
for **4,** 1 1/2+X,1/2-Y,1/2+Z; 2 +X,1-Y,1/2+Z