Two dimensional porous 3*d*–4*f* heterometallic coordination polymers constructed from pyridine-2,3-dicarboxylic acid

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Supporting Information

Contents

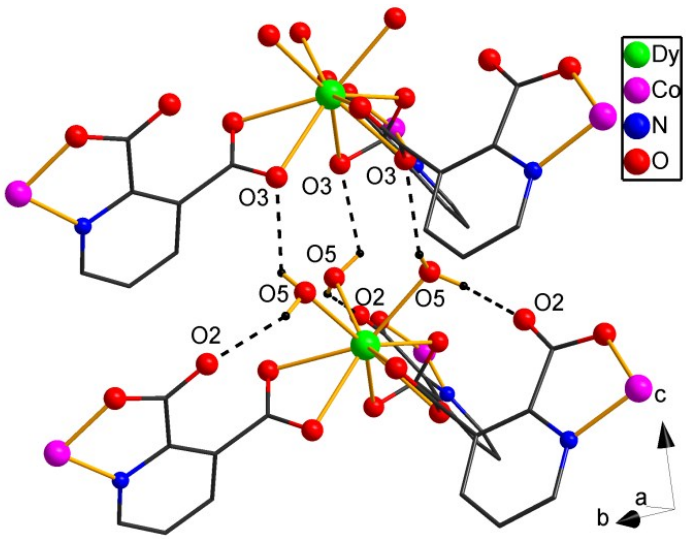

Fig. S1 The hydrogen bonding between neighbor layers in compound **1**

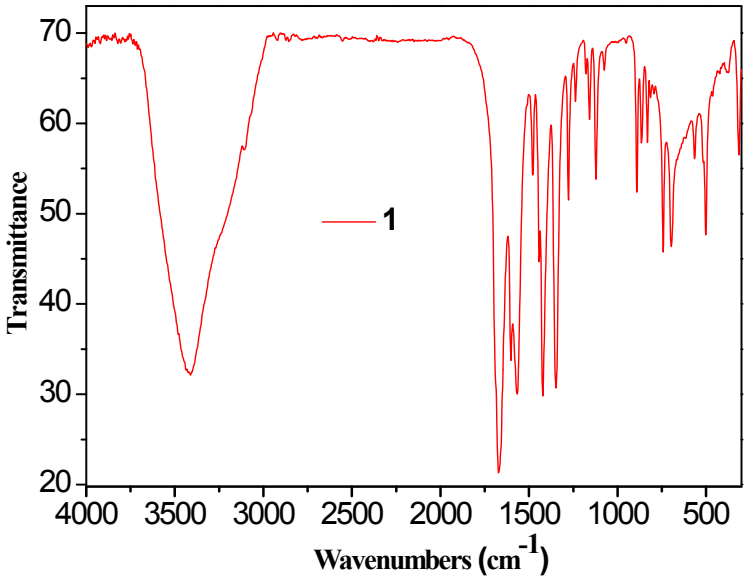

Fig. S2 IR of **1**

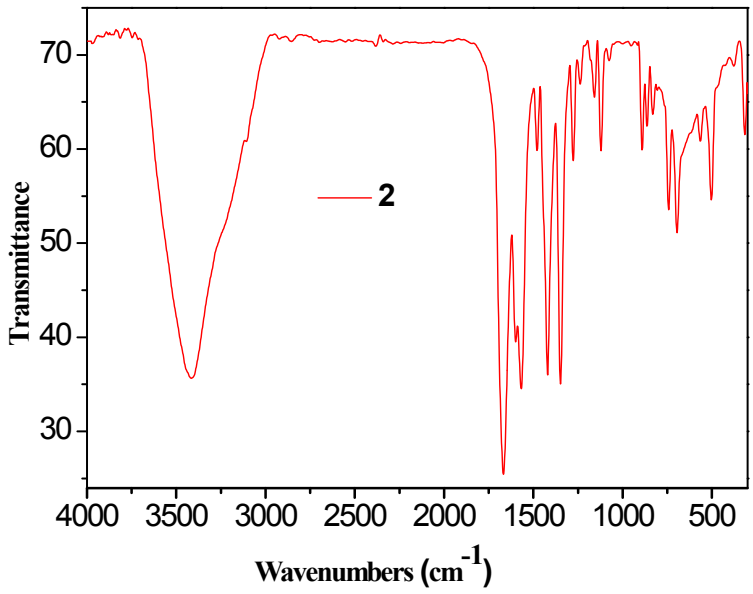

Fig. S3 IR of **2**

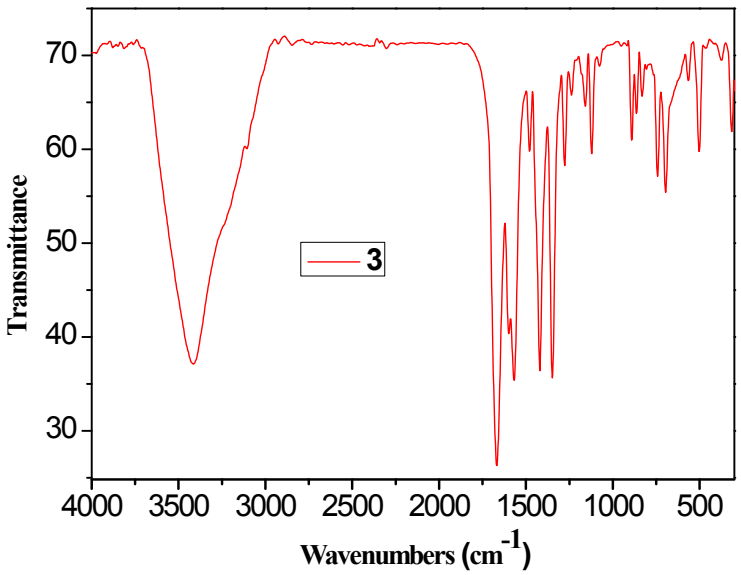

Fig. S4 IR of **3**

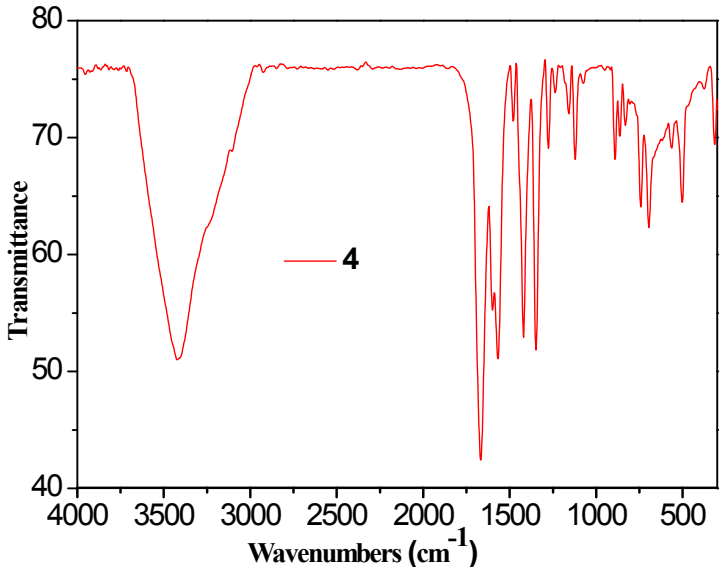

Fig. S5 IR of **4**

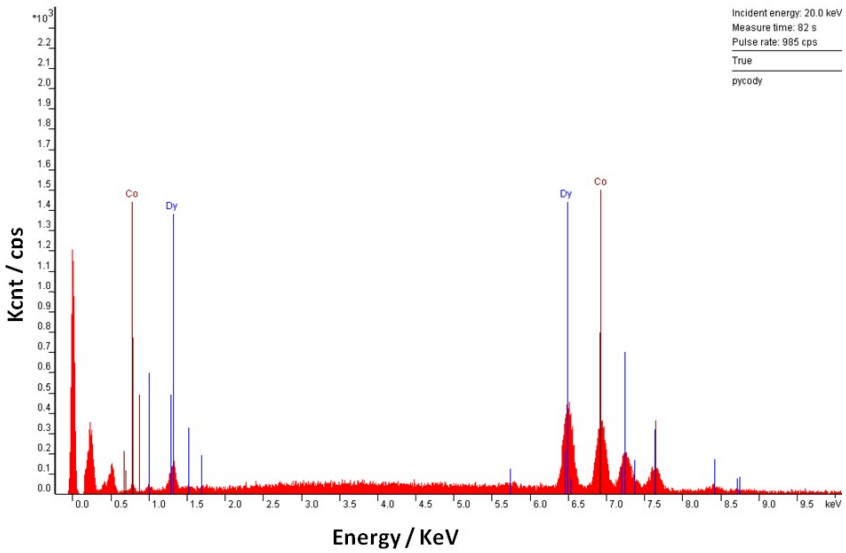

Fig. S6 EDS of **1**

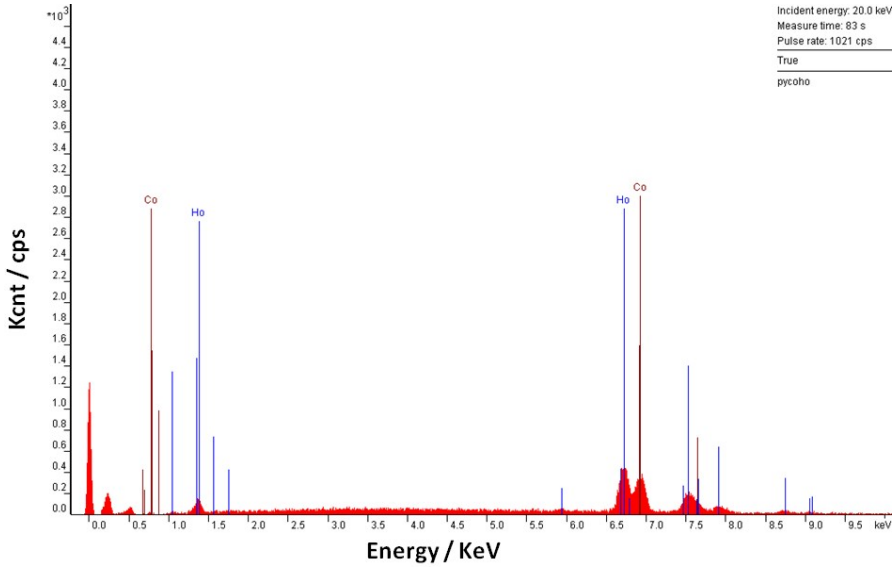

Fig. S7 EDS of **2**

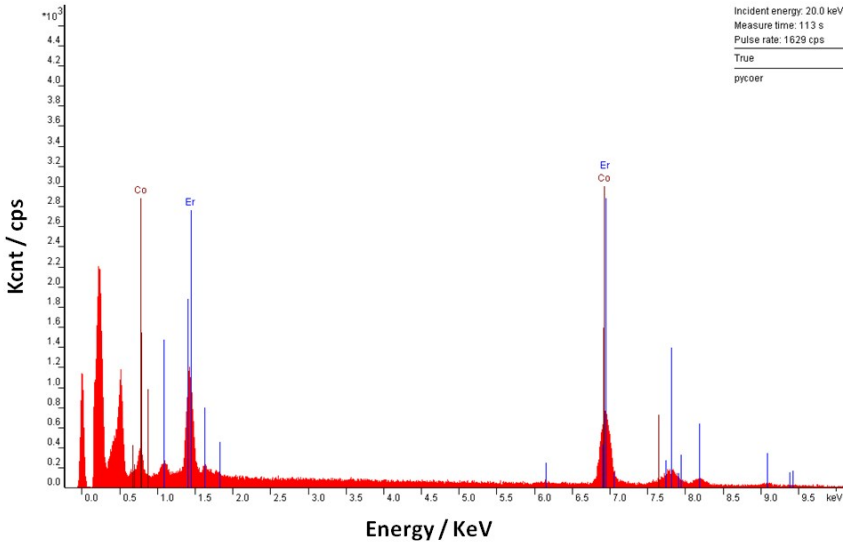

Fig. S8 EDS of **3**

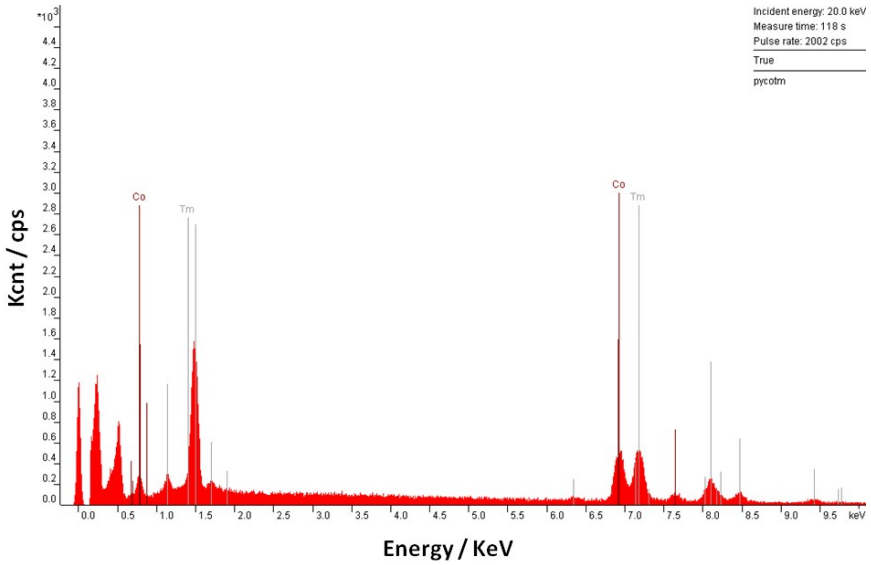

Fig. S9 EDS of **4**

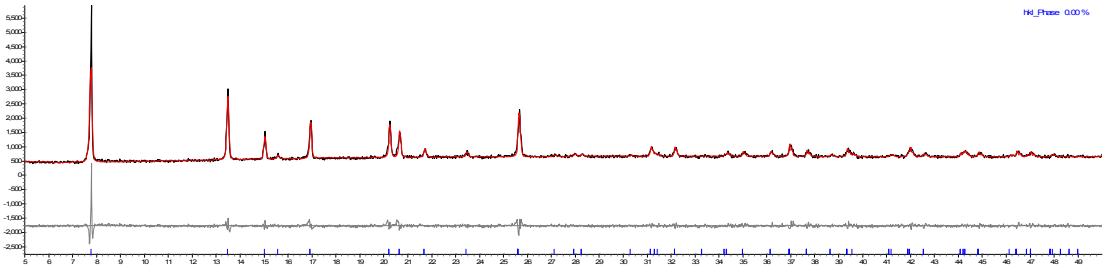

Fig. S10 Pawley fitting of powder sample of **1** using *Topas* 4.2 program.

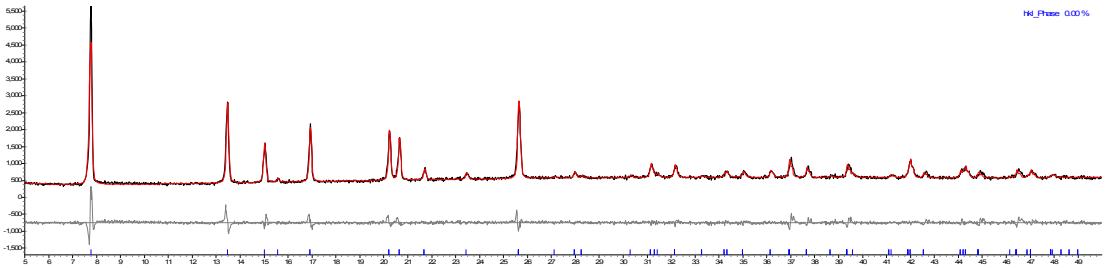

Fig. S11 Pawley fitting of powder sample of **2** using *Topas* 4.2 program.

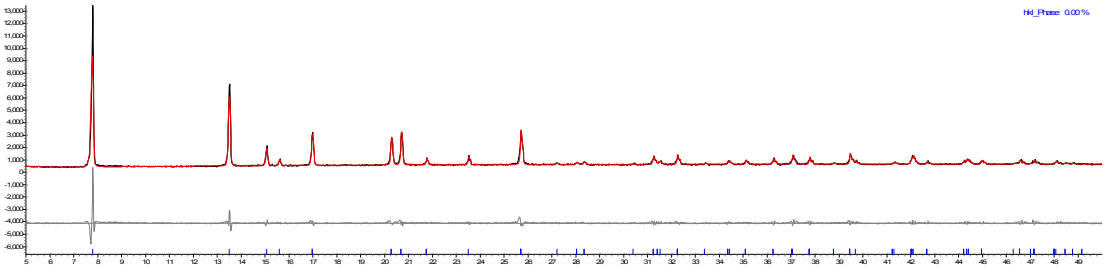

Fig. S12 Pawley fitting of powder sample of **3** using *Topas* 4.2 program.

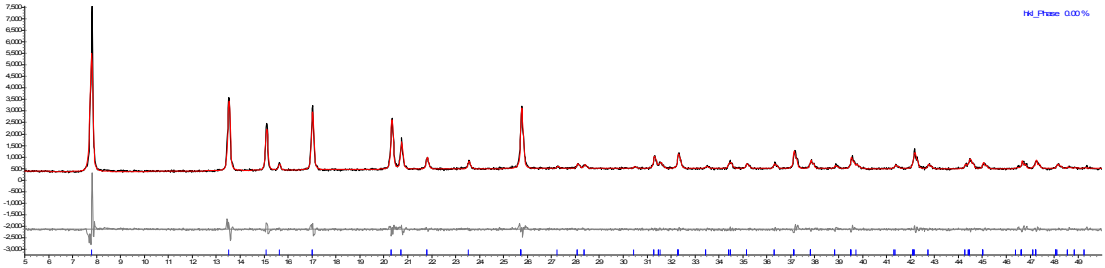

Fig. S13 Pawley fitting of powder sample of **4** using *Topas* 4.2 program.

Table S1. Hydrogen bonds for **1** [Å and °].

D-H...A	d(D-H)	d(H...A)	d(D...A)	<(DHA)
O(5)-H(5B)...O(2)#1	0.85	2.08	2.815(5)	143.9
O(5)-H(5A)...O(3)#5	0.85	2.20	2.709(5)	118.6

Symmetry transformations used to generate equivalent atoms:

#1 -x+y+1,-x+1,z #2 -y+1,x-y,z #3 -y+2,x-y+1,z #4 -x+y+1,-x+2,z #5 -x+y+1,-x+1,z+1

Table S2**.** Cell parameters of **1-4** were obtained by Pawley fitting on the powder X-ray diffraction pattern using *Topas* 4.2 program.

Compound	**Dy**	**Ho**	**Er**	**Tm**
Space group	P3	P3	P3	P3
$a = b$ (Å)	13.143	13.139	13.103	13.087
c (Å)	5.899	5.898	5.879	5.867
$\alpha = \beta$ (°)	90	90	90	90
γ (°)	120	120	120	120
V(Å^3)	882.380	881.806	874.111	870.191
Rwp	6.48%	7.18%	8.91%	7.73%