

Electronic Supplementary Information

**Three-dimensional coordination polymers constructed from C_2 -
symmetric linkers of pyridyl dicarboxylate ligands**

Synthesis of H₂L₂

4-(ethoxycarbonyl)phenylboronic acid (4.46 g, 23 mmol), 3,5-Dibromopyridine (2.36g, 10 mmol), and K₂CO₃ (2.10 g, 10.0 mmol) were added to 1,4-dioxane (30 mL). After stirring, Pd(PPh₃)₄ (0.05 g, 0.043 mmol) was added, then the mixture was heated to 80 °C for 3 days under N₂. The resultant was evaporated to dryness and taken up in CH₂Cl₂ which later had been dried over MgSO₄. This CH₂Cl₂ solution was evaporated to dryness and the residue was washed briefly with ethanol (20 mL). The crude product was hydrolyzed by refluxing in 2 M aqueous NaOH followed by acidification with 37% HCl to afford H₂L₂. Yield: 2.5 g, 78.3%. ¹H NMR (DMSO-*d*₆, 500 MHz), H₂L₂: 9.03 (d, 2H), 8.51 (s, 1H) 8.09 (s, 2H), 8.08 (s, 2H) 8.04 (s, 2H), 8.02 (s, 2H). Anal. Calcd (Found) for H₂L₃, C₁₉H₁₃O₄N: C, 71.47 (71.13); N, 4.39 (4.28); H, 4.10 (3.89) %.

Table S1 Crystallographic data and structural refinement summary for complexes **1** and **2**.

Complex	1	2
Formula	C ₁₆ H ₁₄ N ₂ O ₅ Zn	C ₂₂ H ₁₈ N ₂ O ₅ Zn
<i>Mr</i>	379.66	455.75
Crystal system	monoclinic	monoclinic
Space group	P2 ₁ /c	P2 ₁ /c
a, Å	11.877(2)	15.3645(11)
b, Å	13.855(3)	15.1275(11)
c, Å	13.921(3)	8.3110(6)
α, deg	90	90
β, deg	114.403(2)	91.8500(10)
γ, deg	90	90
V (Å ³)	2086.3(7)	1930.7(2)
Z	4	4
Dcalcd (g cm ⁻³)	1.209	1.568
Absorption coefficient (mm ⁻¹)	1.199	1.311
F(000)	766	936
Reflections collected / unique	10661 / 3805	10927 / 3524
Data / restraints / parameters	3805 / 0 / 219	3524 / 6 / 274
R _{int}	0.0396	0.1037
Final R indices [I > 2σ(I)]	0.0311	0.0519
Final wR(F ₂) values [I > 2σ(I)]	0.0843	0.1652
Final R ₁ values (all data)	0.0371	0.0578
Final wR(F ₂) values (all data)	0.0861	0.1719
Goodness of fit on F ₂	1.023	1.029

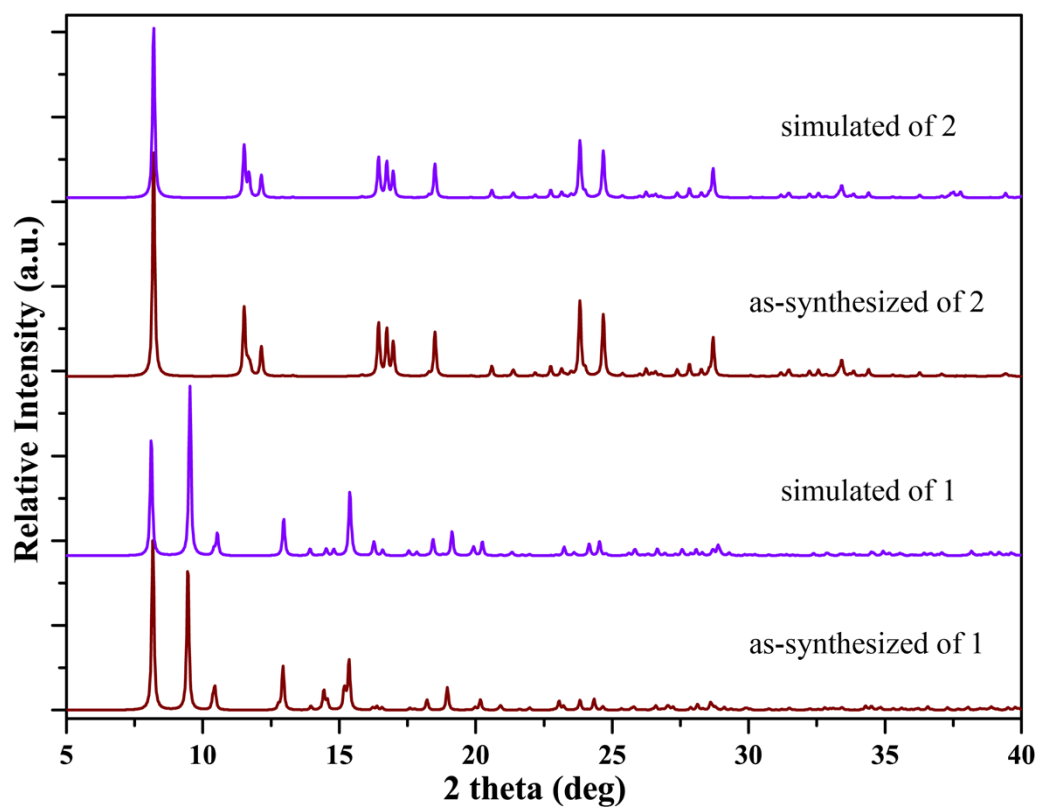


Fig. S1. The as-synthesized and simulated PXRD of 1 and 2.

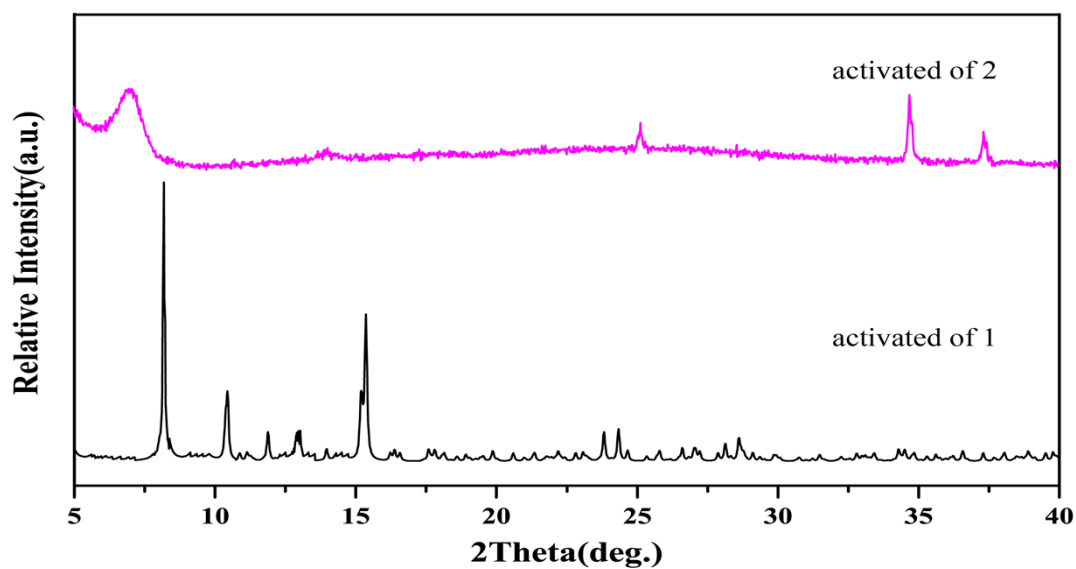


Fig. S2. The PXRD of activated sample of 1 and 2.

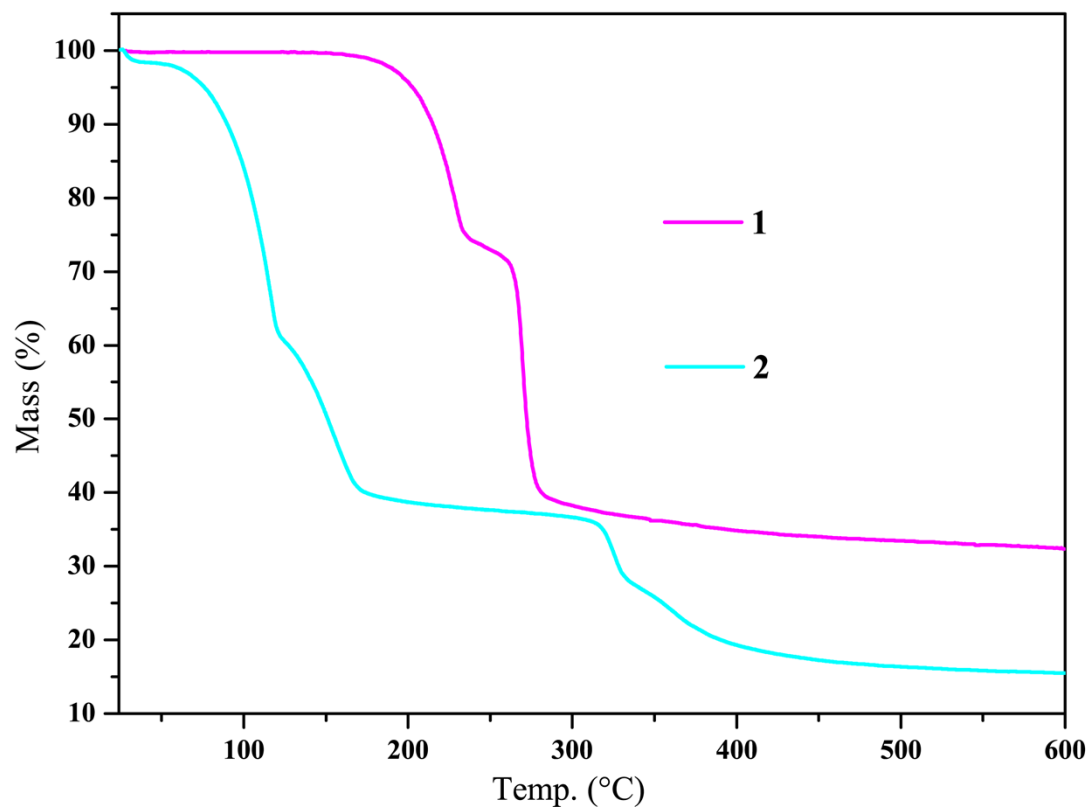


Fig. S3. The TGA curves of **1** and **2**.