

**SUPPORTING INFORMATION-MOLBANK-214876**

Solvent-mediated synthesis of M(II)-coordination polymer Part 1: Crystal structure of poly(1,2-di(4-pyridyl)ethylene-*k*<sup>2</sup>*N,N'*)-bis(1,4-benzenediacetato-*k*<sup>4</sup>*O,O',O'',O'''*)zinc(II)], C<sub>22</sub>H<sub>18</sub>ZnN<sub>2</sub>O<sub>4</sub>

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Figure S1: Asymmetric unit of 1

Figure S2: Infrared spectrum of 1

Figure S3: Simulated and experimental XRD powder patterns for compound 1

Table S1: Crystallographic data and structural refinement parameters for compound 1,

Table S2: Selected bond distances and bond angles in 1

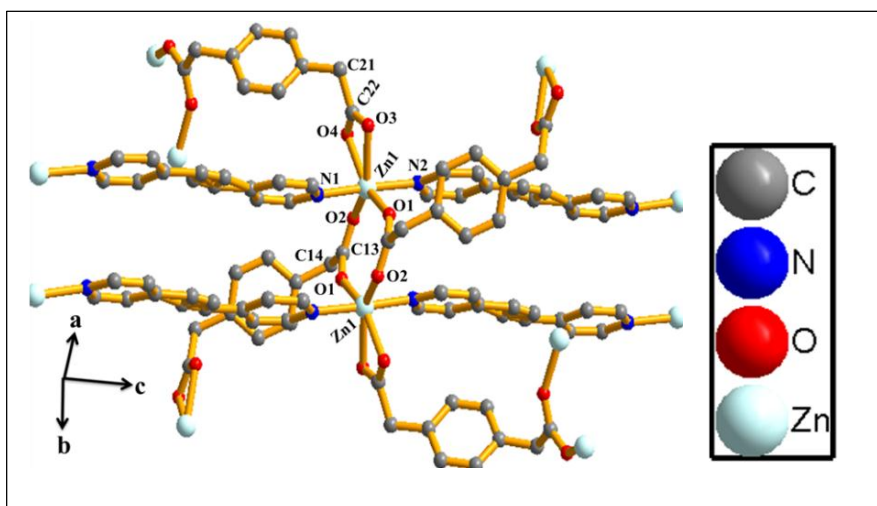


Figure S1: Asymmetric unit of 1.

TABLE S1

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**Crystallographic data and structural refinement parameters for compound 1**


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Parameters	<b>1</b>
Formula	C <sub>22</sub> H <sub>18</sub> ZnN <sub>2</sub> O <sub>4</sub>
Formula weight (mol/g)	439.77
T (K)	293
Crystal system	Monoclinic
Space group	<i>P21/n</i>
a (Å)	10.4566(2)
b (Å)	13.3085(2)
c (Å)	13.7189(2)
α (°)	90
β (°)	101.491(1)
γ (°)	90
V (Å <sup>3</sup> )	1870.88(5)
Z	4
D <sub>calcd</sub> (g cm <sup>-3</sup> )	1.561
λ(Mo K <sub>α</sub> ) (mm)	1.346
θ <sub>min</sub> / θ <sub>max</sub> (°)	2.2, 26.3
F(000)	904
Data [I > 2σ(I)]	3076
Δρ min/max [e Å <sup>-3</sup> ]	-1.04, 0.88
R <sub>int</sub>	0.060
R, wR2	0.0400, 0.1557
Total data	27316
Unique data	3791
GOF	1.18
Nref, Npar	3791, 280

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$$R = \frac{\sum ||F_o| - |F_c||}{\sum |F_o|}, R_w2 = \left[ \frac{\sum \{w(F_o^2 - F_c^2)^2\}}{\sum \{w(F_o^2)^2\}} \right]^{1/2}.$$

TABLE S2

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 Selected bond distances (Å) and angles (°) for Compound 1
 

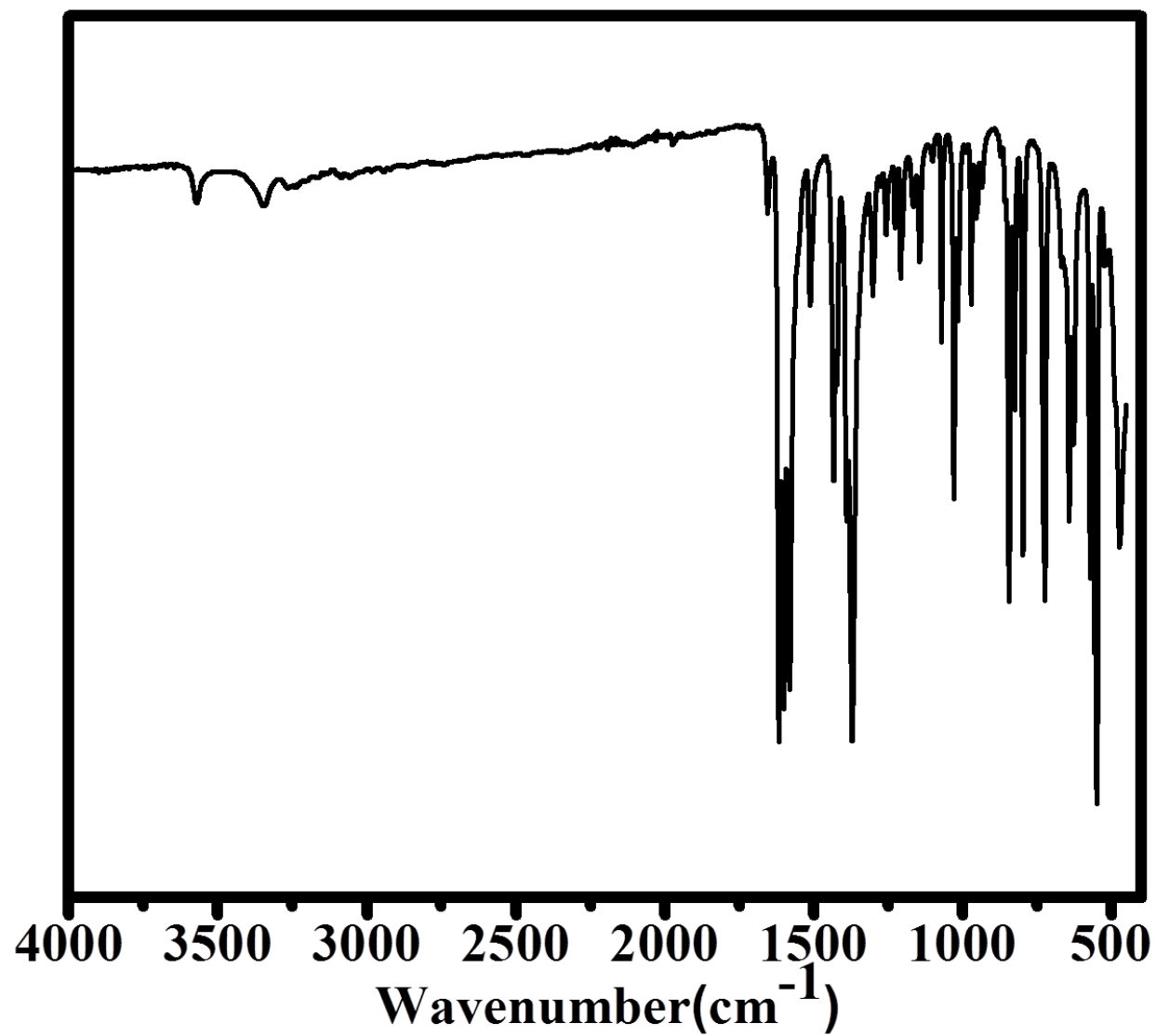
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<b>Bonds</b>	<b>Angle(°)</b>	<b>Bonds</b>	<b>Angle(°)</b>
O1-Zn1-N1	89.26(11)	O4_e-Zn1-N1	87.01(10)
O1-Zn1-N2_b	83.66(11)	O2_d-Zn1-N2_b	90.31(11)
O1-Zn1-O2_d	121.36(11)	O3_e-Zn1-N2_b	94.69(10)
O1-Zn1-O3_e	89.81(11)	O4_e-Zn1-N2_b	98.12(10)
O1-Zn1-O4_e	147.45(12)	O2_d-Zn1-O3_e	148.80(10)
N1-Zn1-N2_b	172.76(11)	O2_d-Zn1-O4_e	91.18(11)
O2_d-Zn1-N1	94.69(11)	O3_e-Zn1-O4_e	57.64(11)
O3_e-Zn1-N1	83.72(10)		

<b>Bonds</b>	<b>Distances (Å)</b>	<b>Bonds</b>	<b>Distance (Å)</b>
Zn1-O1	2.020(3)	Zn1-O2_d	2.021(2)
Zn1-N1	2.185(3)	Zn1-O3_e	2.384(3)
Zn1-N2_b	2.172(3)	Zn1-O4_e	2.135(3)

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**Symmetry code:**  $b = [1556.00] = [1 \ 556] = x, y, 1+z$ ;  $d = [3656.00] = [3 \ 656] = 1-x, -y, 1-z$ ;  
 $e = [4454.00] = [4 \ 565] = -1/2+x, 1/2-y, -1/2+z$



**Figure S2:** Infrared spectra of compound in the range of 4000  $\text{cm}^{-1}$  to 400  $\text{cm}^{-1}$ .

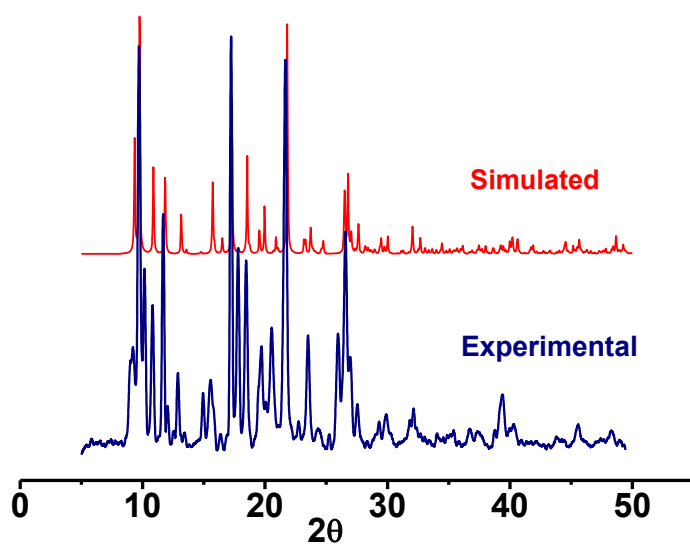


Figure S3. Powder x-ray diffraction pattern of compound 1