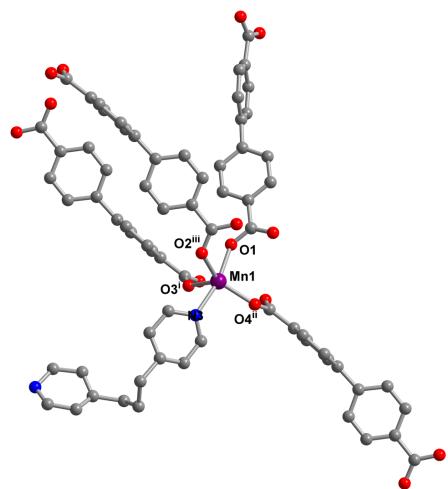


# **Electronic      Supplementary      Information (ESI) for:**

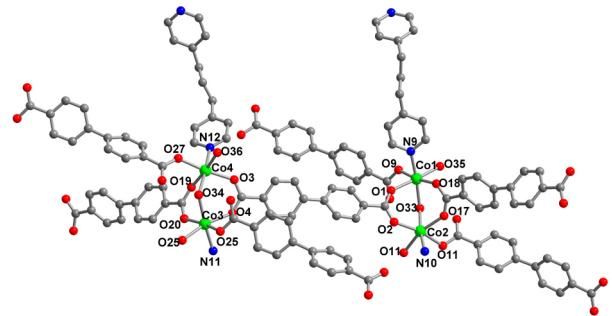
## **Coordination Polymers Constructed by 1, 3-Bi(4-pyridyl)propane with Four Different Configurations and 2,2'-Dinitro-4,4'-biphenyldicarboxylate Ligands: The Effects of Metal Ions**

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Shouhua Feng**

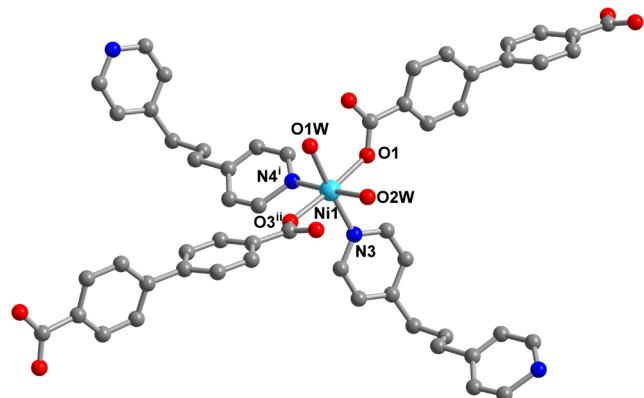
State Key Laboratory of Inorganic Synthesis and Preparative Chemistry, College of  
Chemistry, Jilin University, Changchun, 130012, People's Republic of China



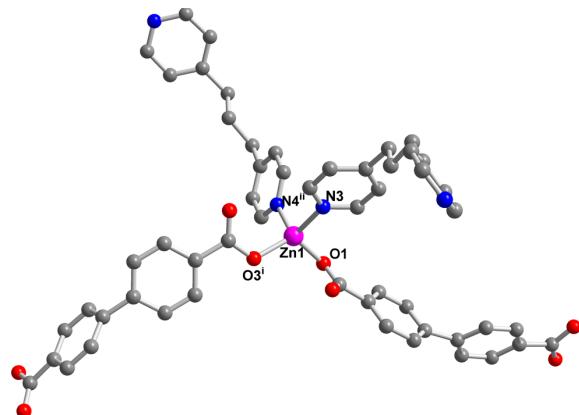
**Fig. S1** Coordination sphere of Mn atom in crystal **1** (Nitro groups of NBPDC, hydrogen atoms and disordered atoms have been omitted for clarity) Symmetry codes: (i)  $x+1/2, -y+1/2, z+1/2$ ; (ii)  $-x+3/2, y-1/2, -z+3/2$ ; (iii)  $-x+2, y, -z+3/2$ .



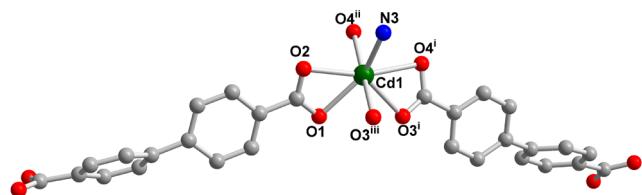
**Fig. S2** Coordination spheres of Co atoms in crystal **2** (Nitro groups of NBPDC and hydrogen atoms have been omitted for clarity).



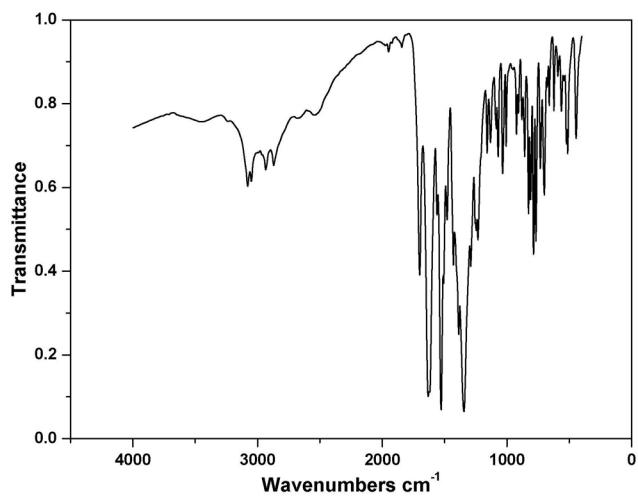
**Fig. S3** Coordination sphere of Ni atom in crystal **3** (Nitro groups of NBPDC, hydrogen atoms and disordered atoms have been omitted for clarity) Symmetry codes: (i)  $x, y+1, z$ ; (ii)  $x-1, y, z+1$ .



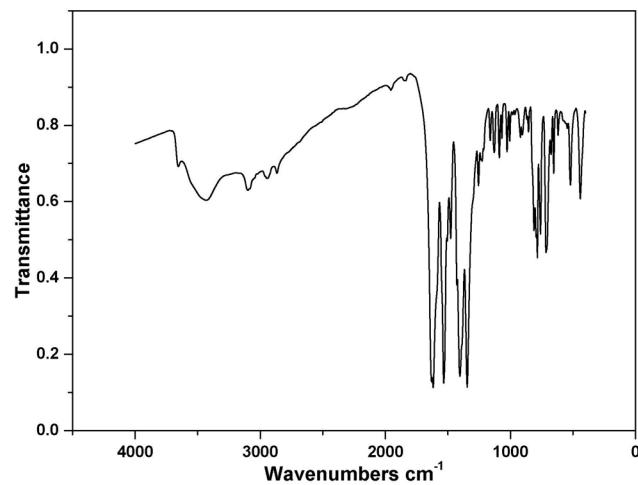
**Fig. S4** Coordination sphere of Zn atom in crystal 4 (Nitro groups of NBPDC and hydrogen atoms have been omitted for clarity)  
Symmetry codes: (i)  $x-3/2, -y+3/2, z-1/2$ ; (ii)  $x-1, -y+1, z+1/2$ .



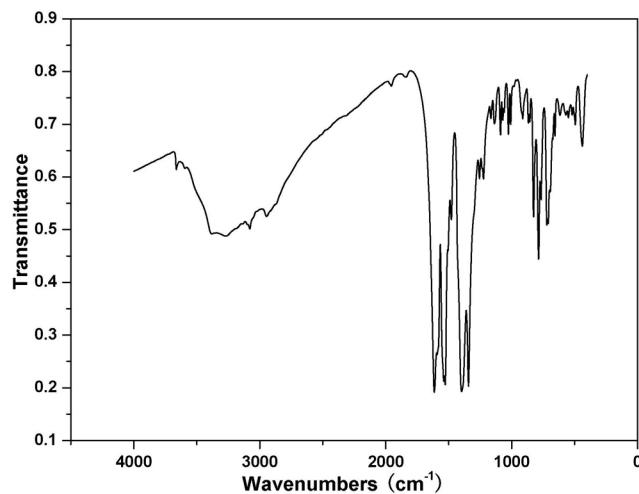
**Fig. S5** Coordination sphere of Ni atom in crystal 5 (Nitro groups of NBPDC and hydrogen atoms have been omitted for clarity)  
Symmetry codes: (i)  $x+1/2, -y+1/2, z+1/2$ ; (ii)  $-x+1/2, -y+1/2, -z+1$ ; (iii)  $-x+1/2, y-1/2, -z+1/2$ .



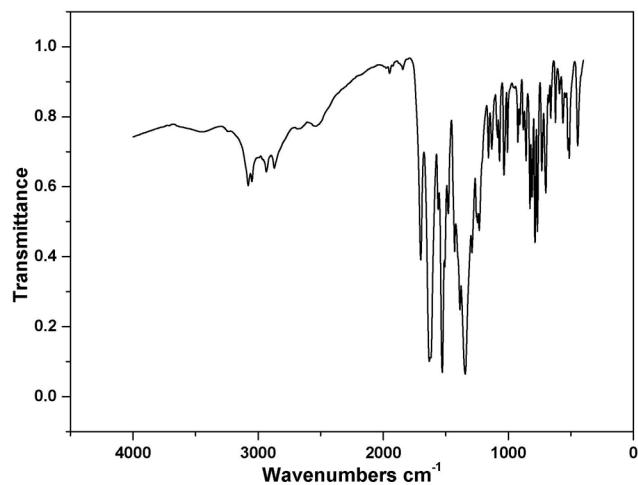
**Fig. S6** IR figure of compound 1.



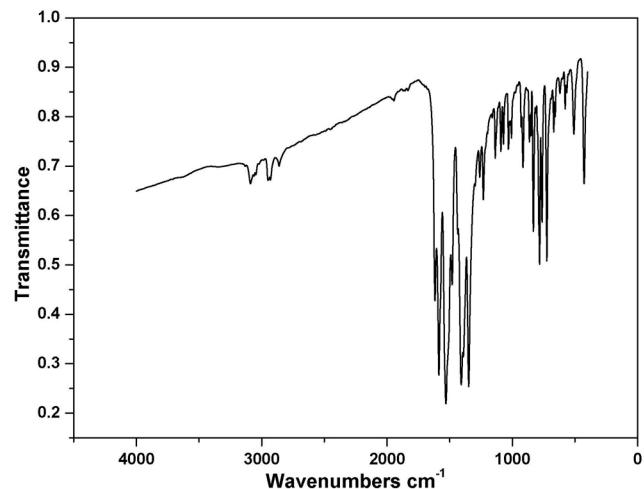
**Fig. S7** IR figure of compound 2.



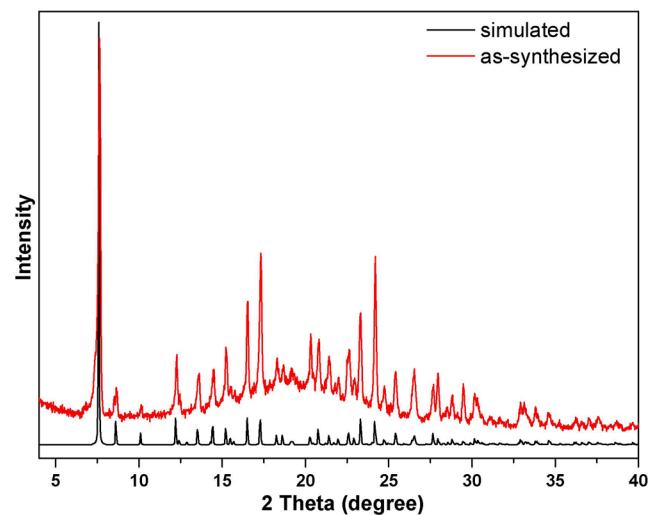
**Fig. S8** IR figure of compound 3.



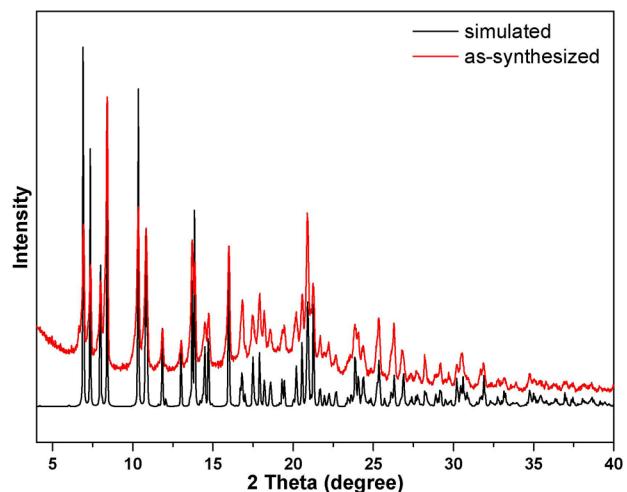
**Fig. S9** IR figure of compound 4.



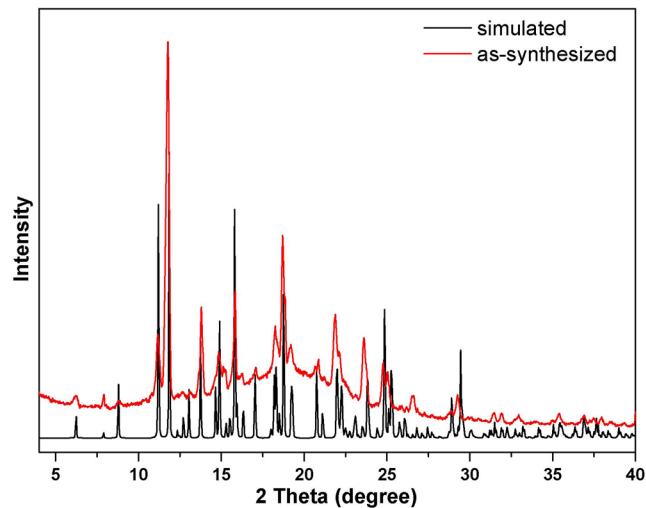
**Fig. S10** IR figure of compound 5



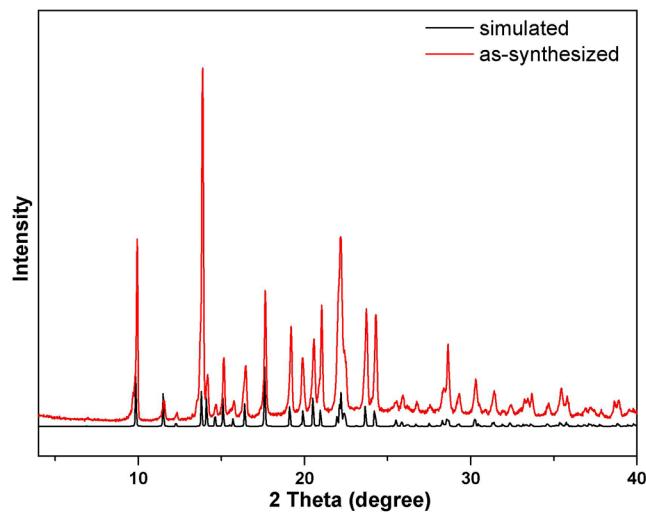
**Fig. S11** XRD figure of compound 1.



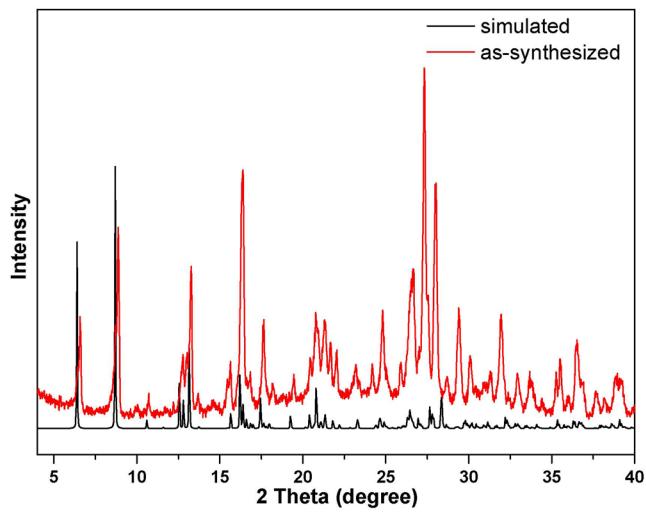
**Fig. S12** XRD figure of compound 2.



**Fig. S13** XRD figure of compound 3.



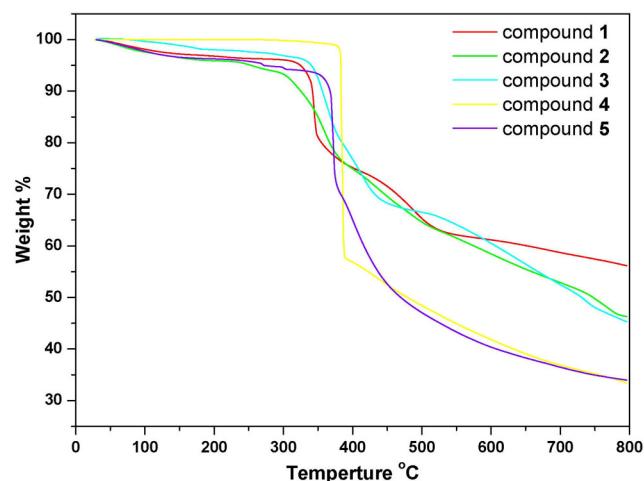
**Fig. S14** XRD figure of compound 4.



**Fig. S15** XRD figure of compound 5.

### Thermal stability

To investigate the thermal stability of compound 1-5, TG study were performed on TGA Q500 V20.10 Build 36 under N<sub>2</sub> condition with a heating rate of 10°C/min from room temperature to 800 °C. As shown in Figure S16, thermal decomposition temperatures of five compounds are approximately 320 °C for **1**, 290 °C for **2**, 330 °C for **3**, 370 °C for **4**, and 350 °C for **5**, respectively.



**Fig. S16** TG figure of compound 1-5.