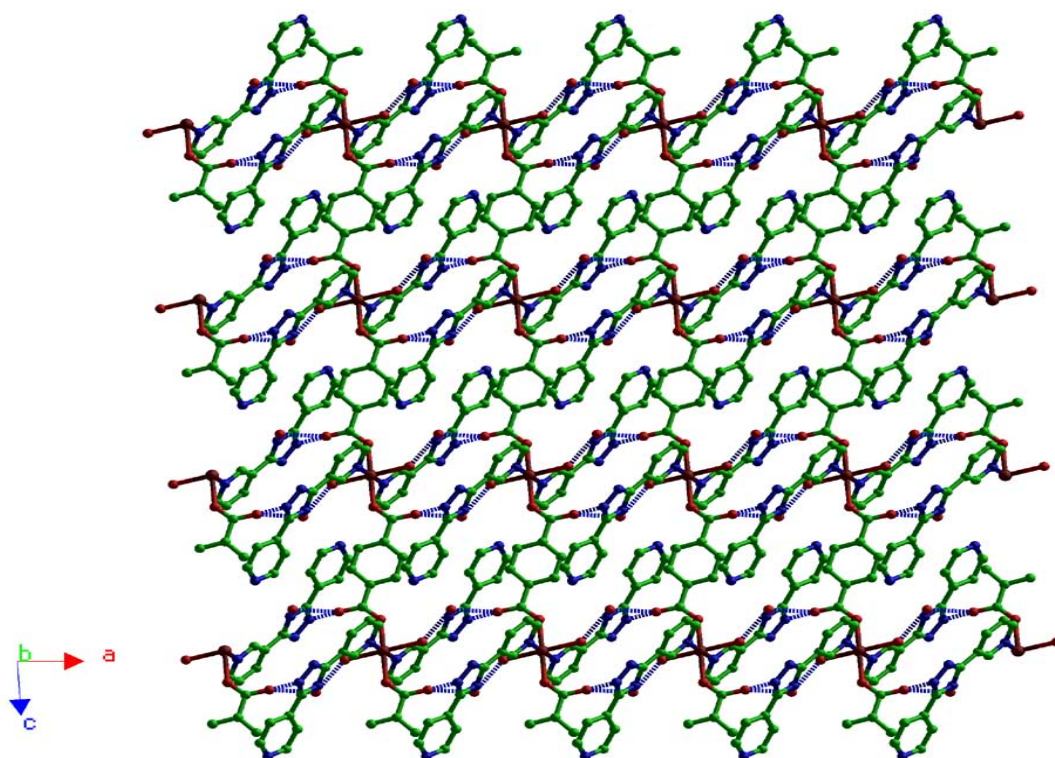


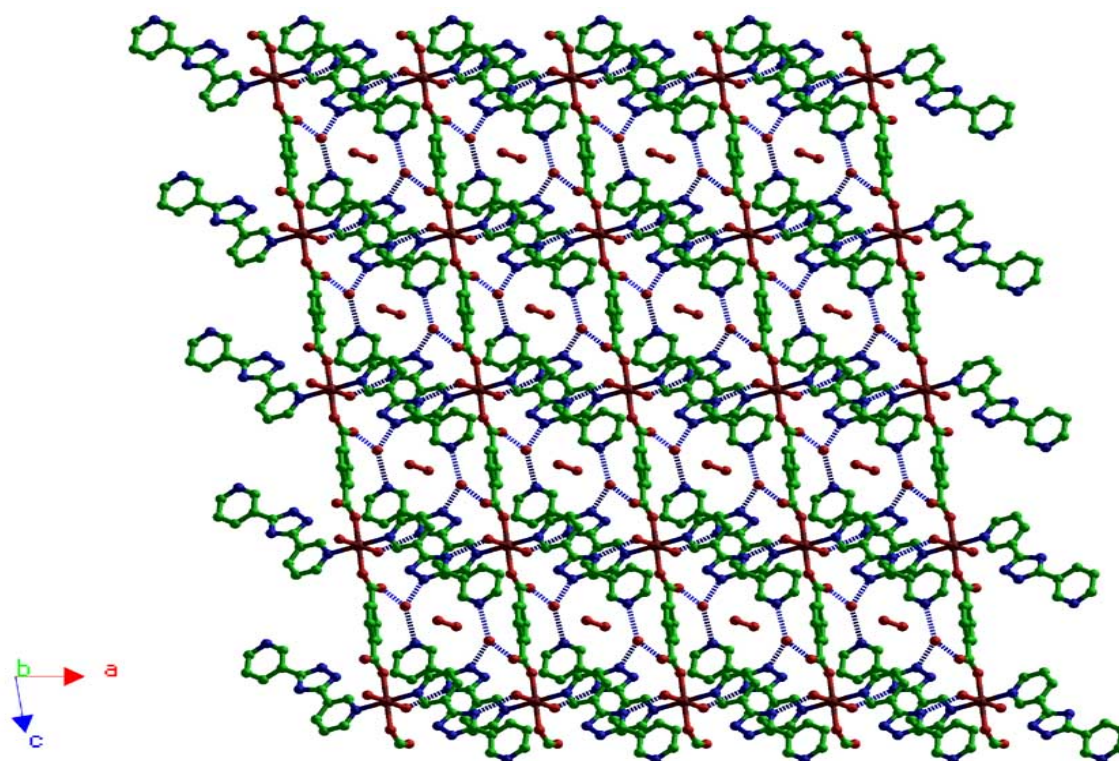
**A Case Study of the Zn<sup>II</sup>-BDC/bpt Mixed-Ligand System: Positional  
Isomeric Effect, Structural Diversification and Luminescent  
Properties**

**Fu-Ping Huang, Jin-Lei Tian, Gong-Jun Chen, Dong-Dong Li, Wen Gu, Xin Liu,  
Shi-Ping Yan, Dai-Zheng Liao, Peng Cheng**

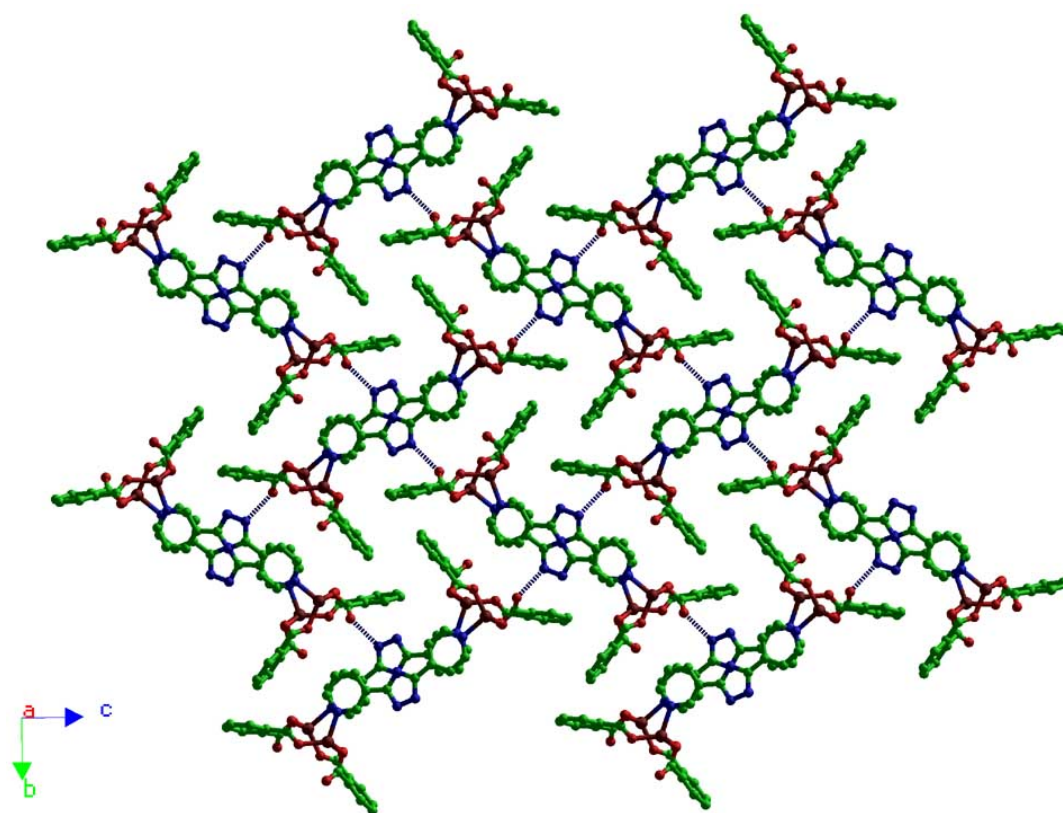
Department of Chemistry,  
Nankai University, Tianjin 300071,  
P R China. E-mail: [yansp@nankai.edu.cn](mailto:yansp@nankai.edu.cn)



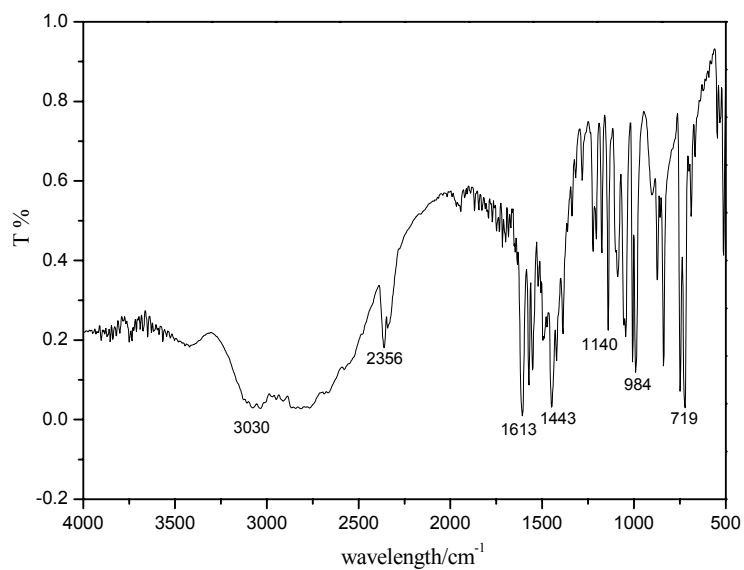
**Figure S1.** The 3-D network structure of complex 2



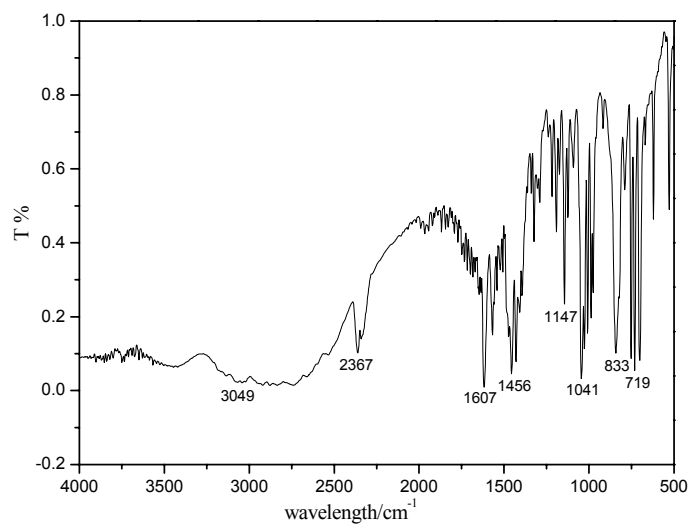
**Figure S2.** The 3-D network structure of complex **3**



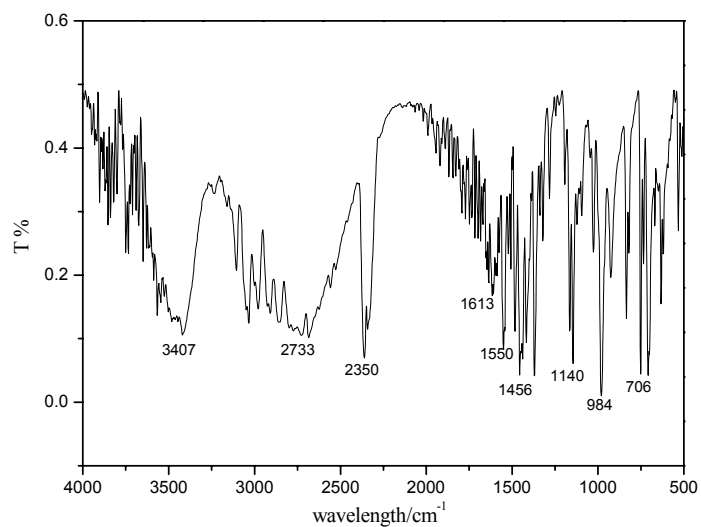
**Figure S3.** The 3-D network structure of complex **8**



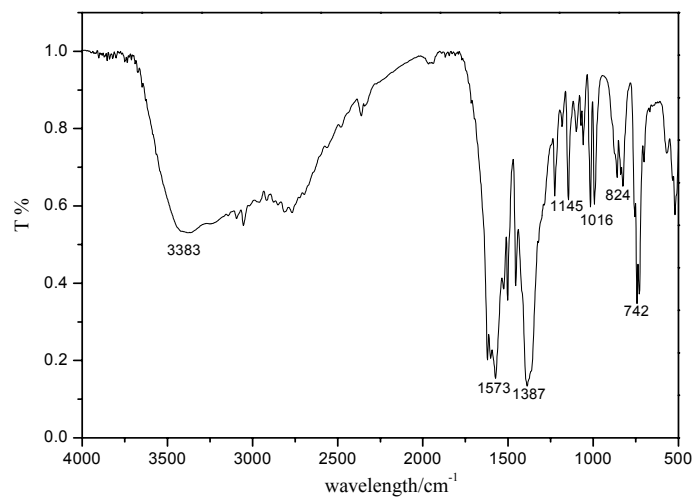
**Figure S4.** The IR spectra for the free ligand (4,4'-bpt)



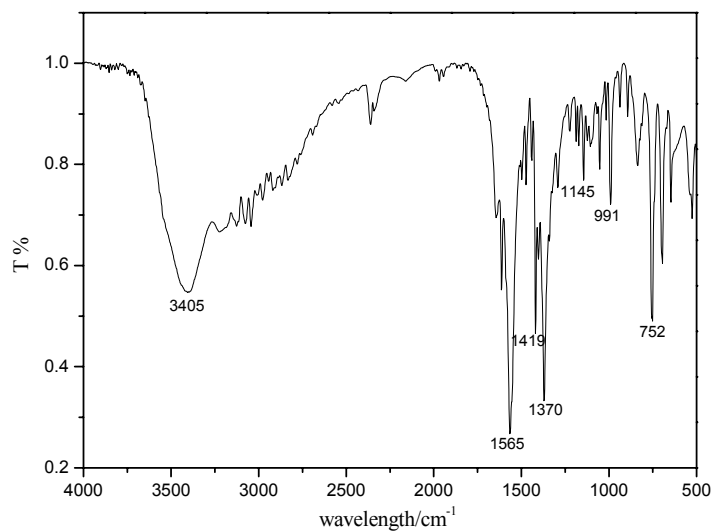
**Figure S5.** The IR spectra for the free ligand (3,4'-bpt)



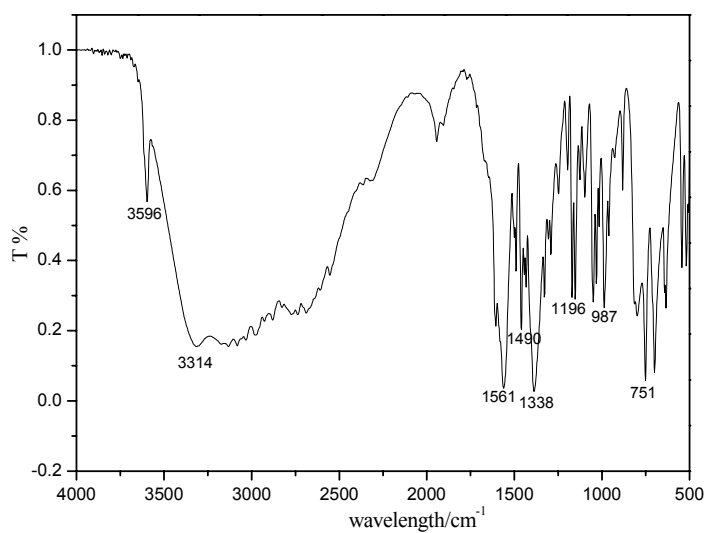
**Figure S6.** The IR spectra for the free ligand (3,3'-bpt)



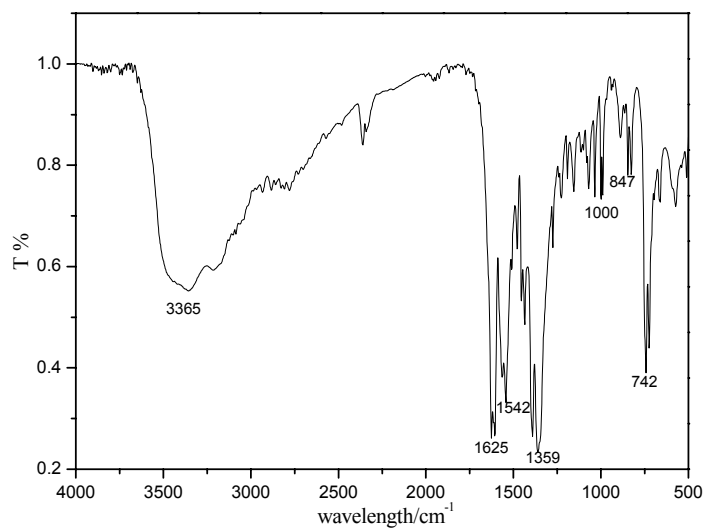
**Figure S7.** The IR spectra of complex 1



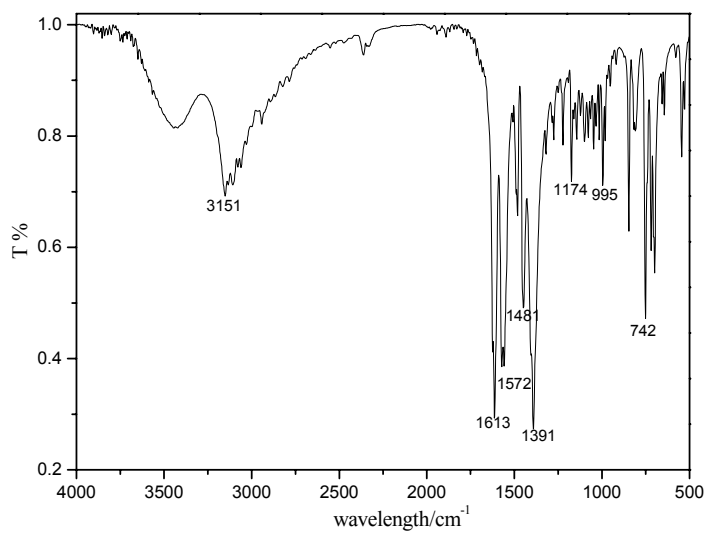
**Figure S8.** The IR spectra of complex 2



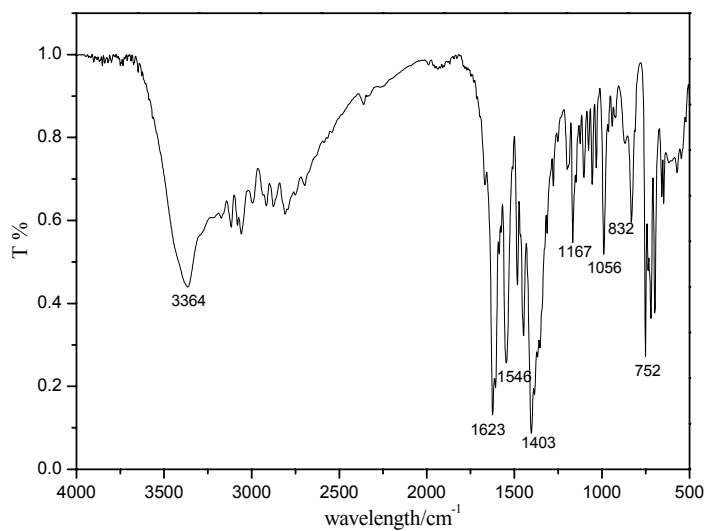
**Figure S9.** The IR spectra of complex 3



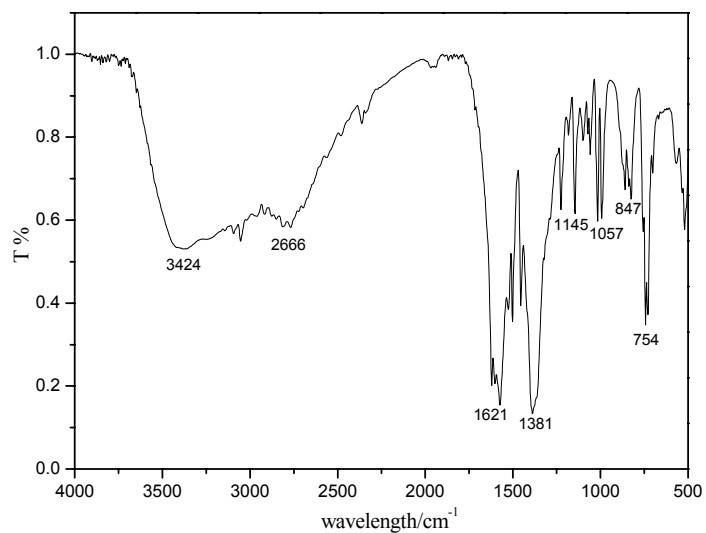
**Figure S10.** The IR spectra of complex 4



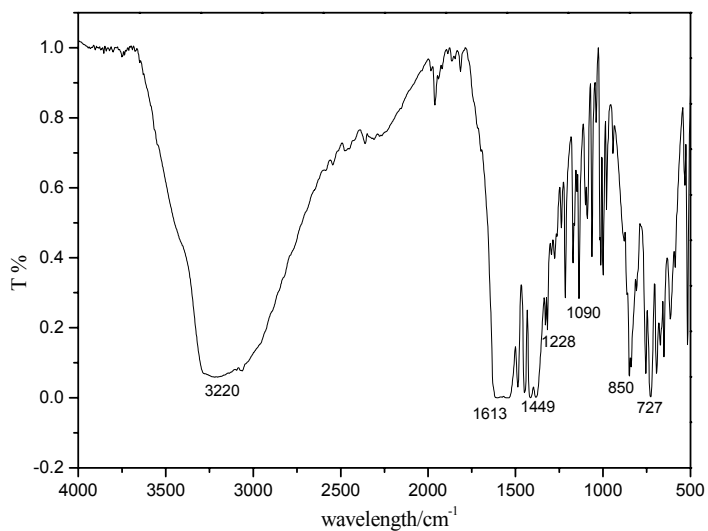
**Figure S11.** The IR spectra of complex 5



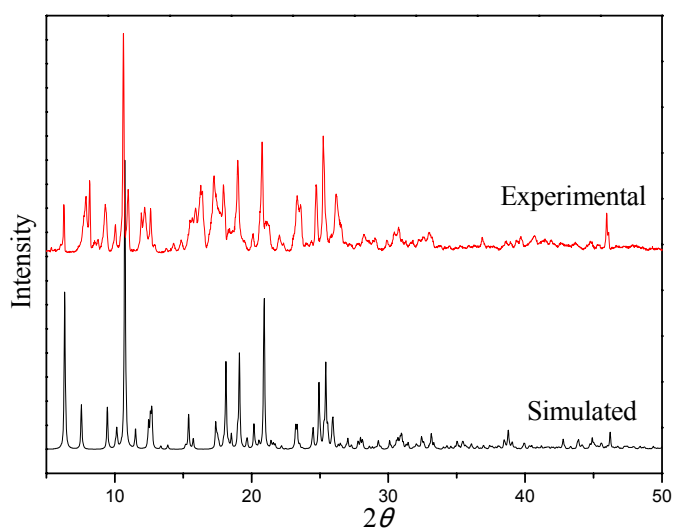
**Figure S12.** The IR spectra of complex 6



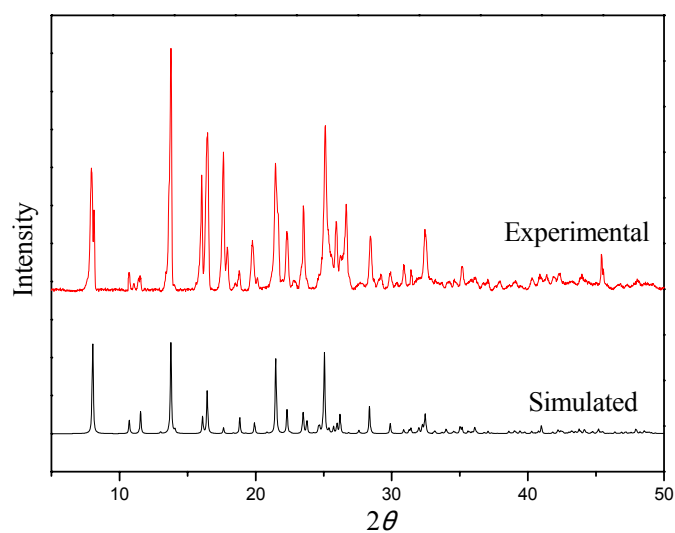
**Figure S13.** The IR spectra of complex 7



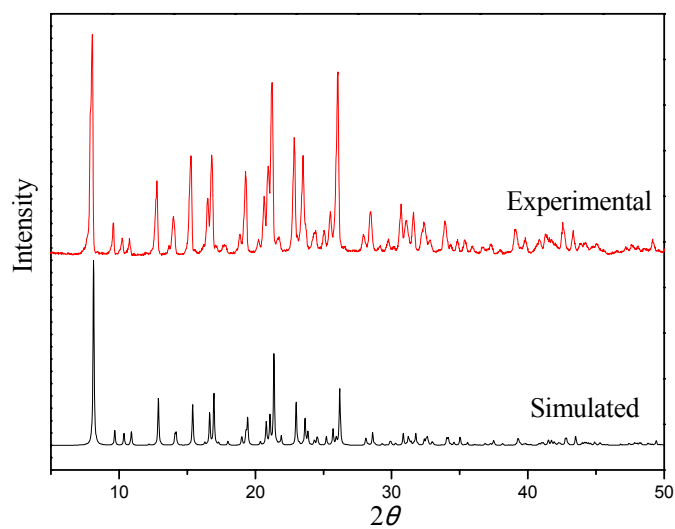
**Figure S14.** The IR spectra of complex 8



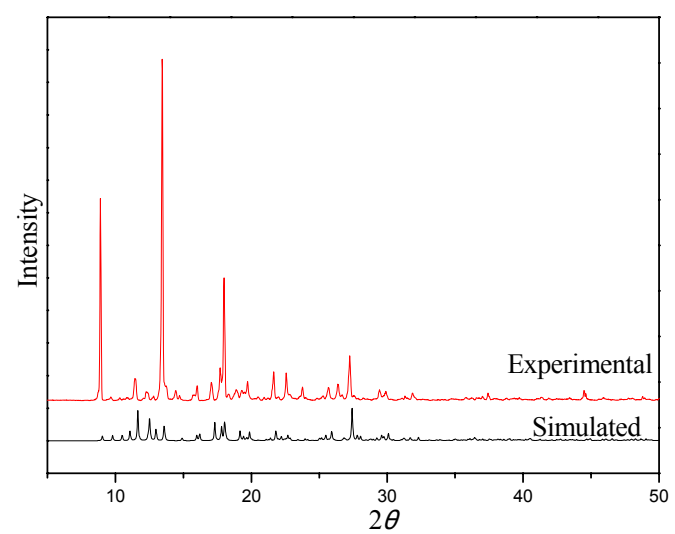
**Figure S15.** Measured and calculated X-ray powder diffraction (XRD) pattern of 1



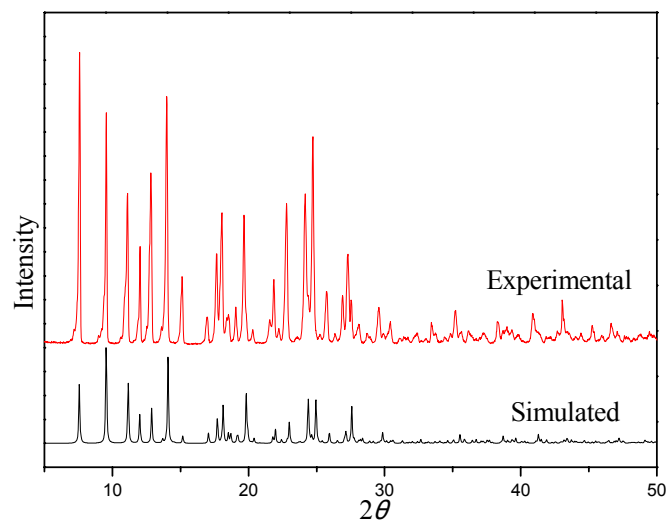
**Figure S16.** Measured and calculated X-ray powder diffraction (XRD) pattern of **2**



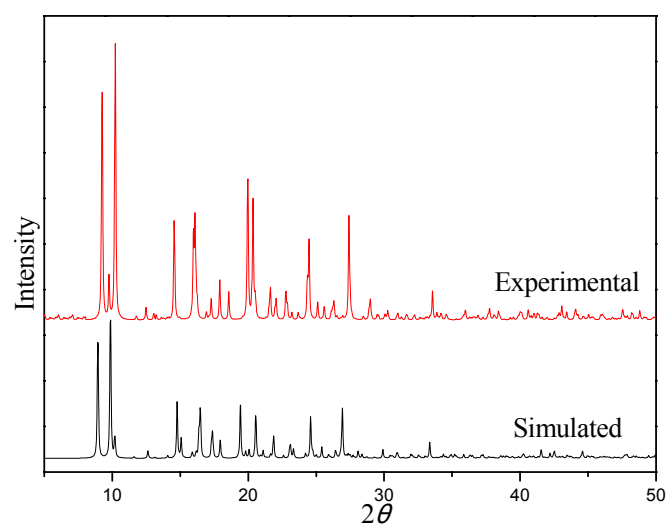
**Figure S17.** Measured and calculated X-ray powder diffraction (XRD) pattern of **3**



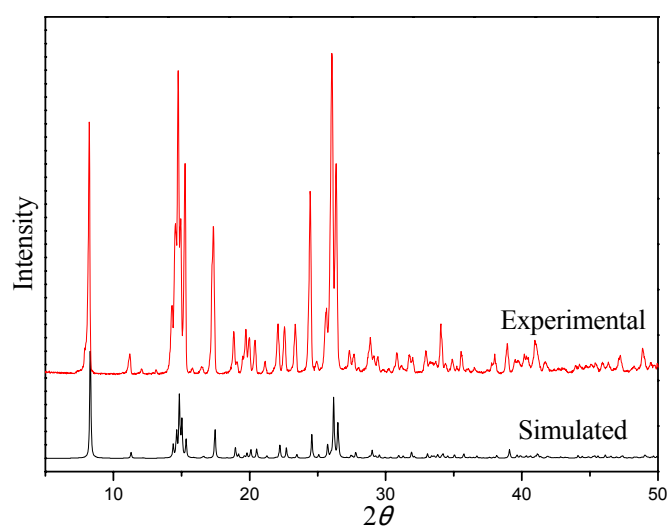
**Figure S18.** Measured and calculated X-ray powder diffraction (XRD) pattern of **4**



**Figure S19.** Measured and calculated X-ray powder diffraction (XRD) pattern of **5**

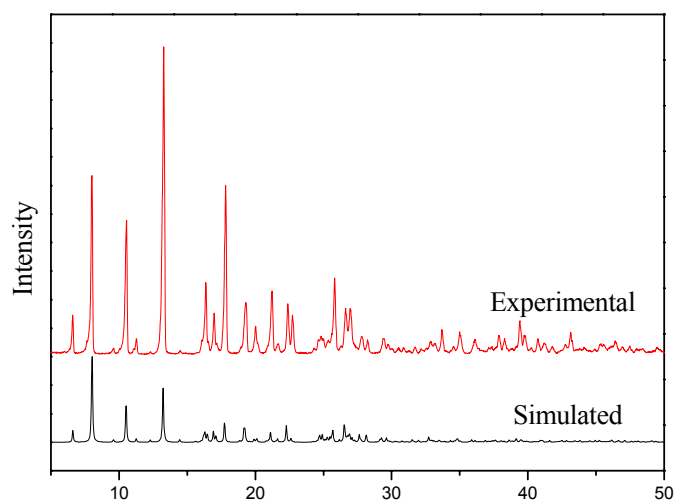


**Figure S20.** Measured and calculated X-ray powder diffraction (XRD) pattern of **6**

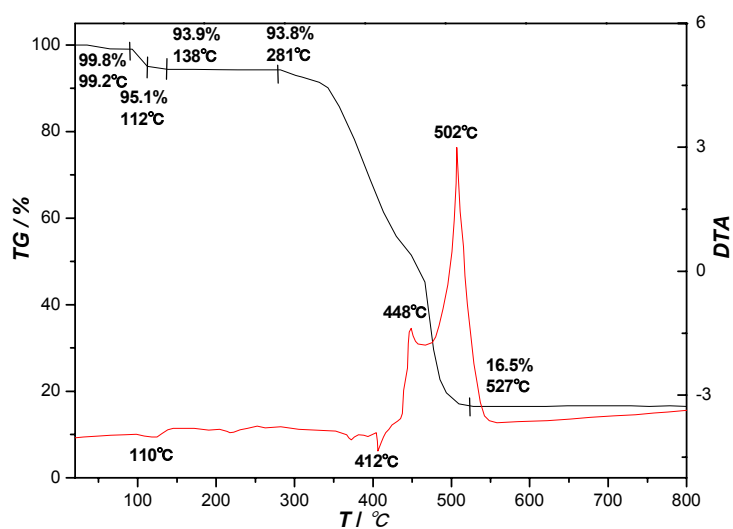


**Figure S21.** Measured and calculated X-ray powder diffraction (XRD) pattern of **7**

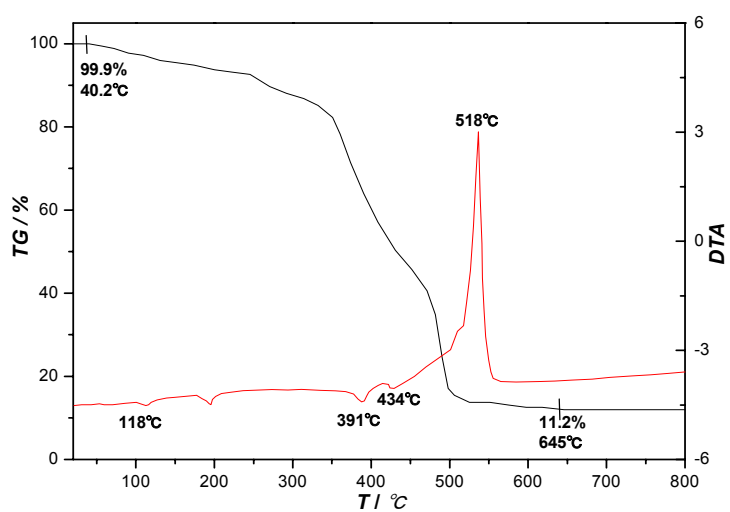




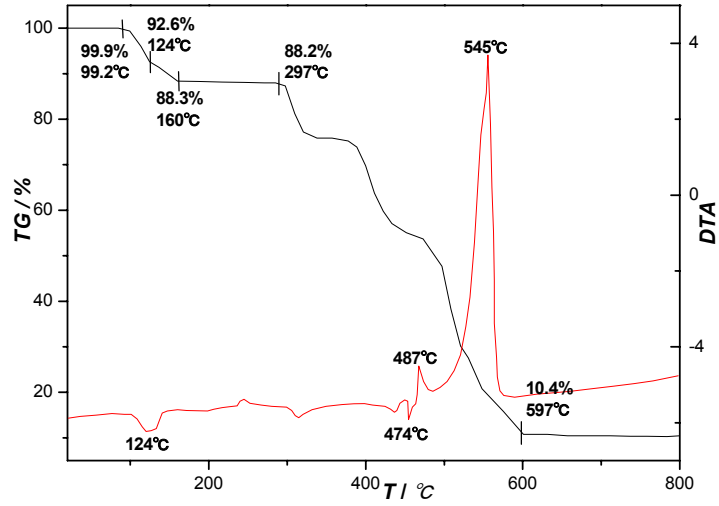
**Figure S22.** Measured and calculated X-ray powder diffraction (XRD) pattern of **8**



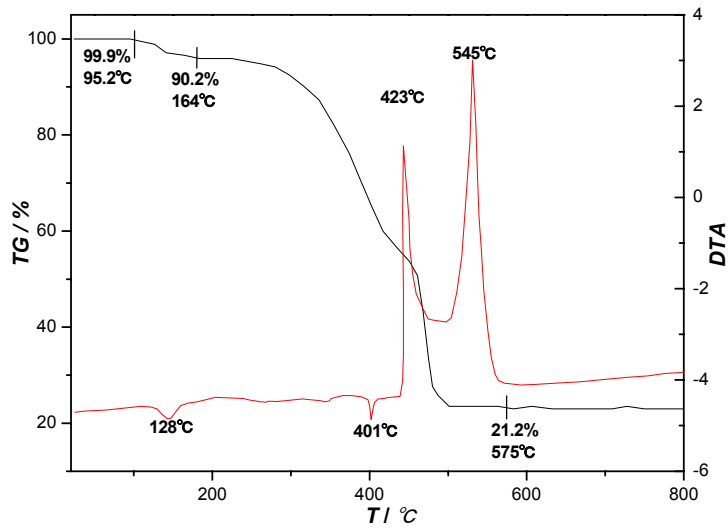
**Figure S23.** The TG (black)-DTA (red) curve of complex **1**



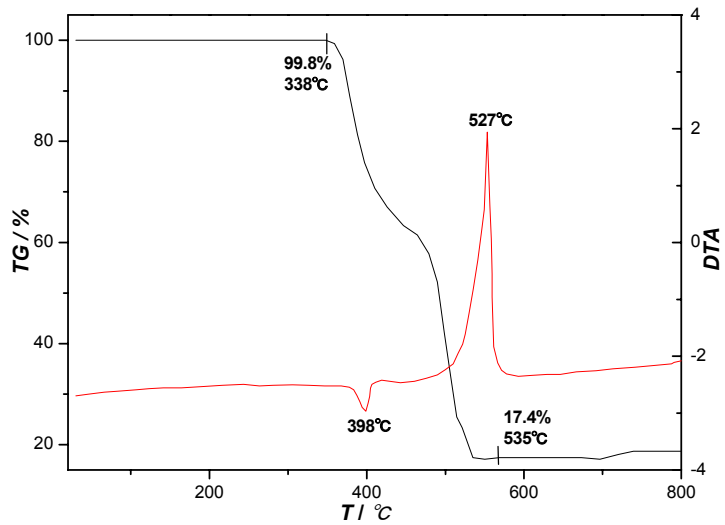
**Figure S24.** The TG (black)-DTA (red) curve of complex **2**



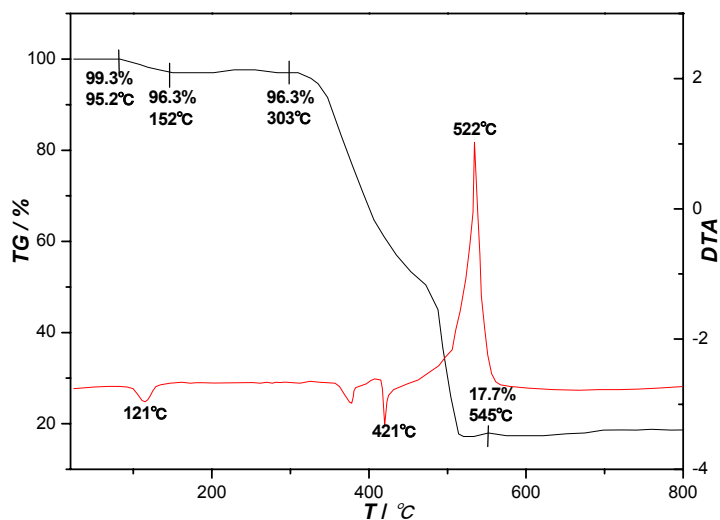
**Figure S25.** The TG (black)-DTA (red) curve of complex 3



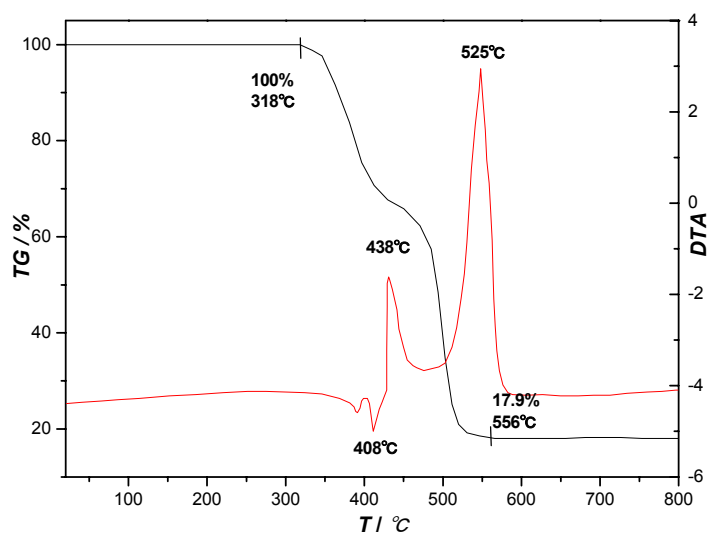
**Figure S26.** The TG (black)-DTA (red) curve of complex 4



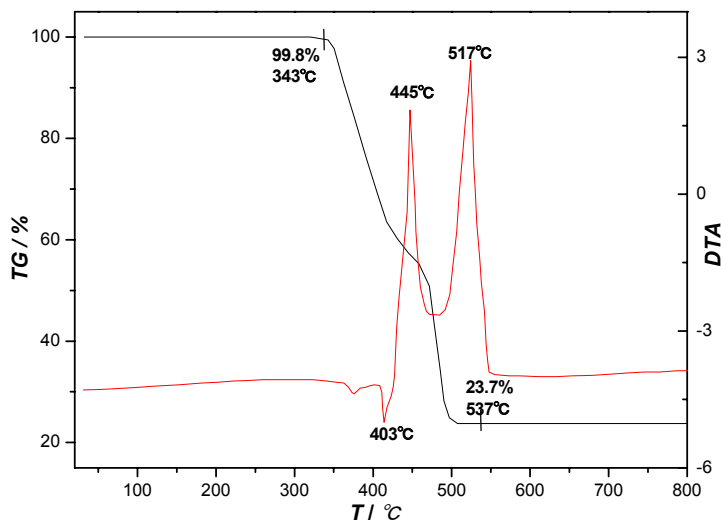
**Figure S27.** The TG (black)-DTA (red) curve of complex 5



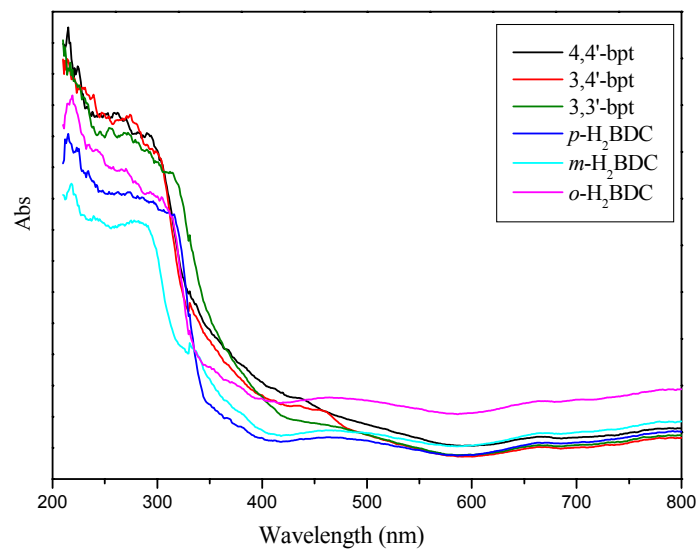
**Figure S28.** The TG (black)-DTA (red) curve of complex 6



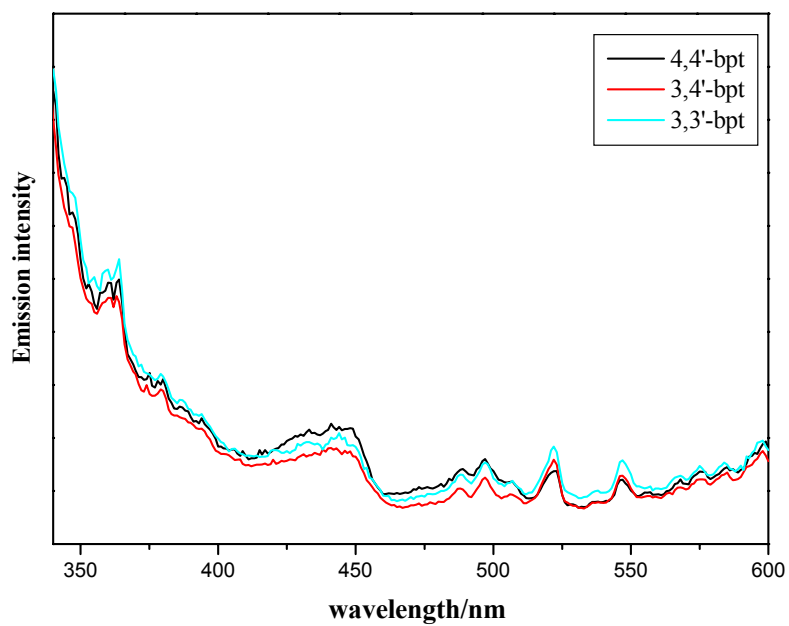
**Figure S29.** The TG (black)-DTA (red) curve of complex 7



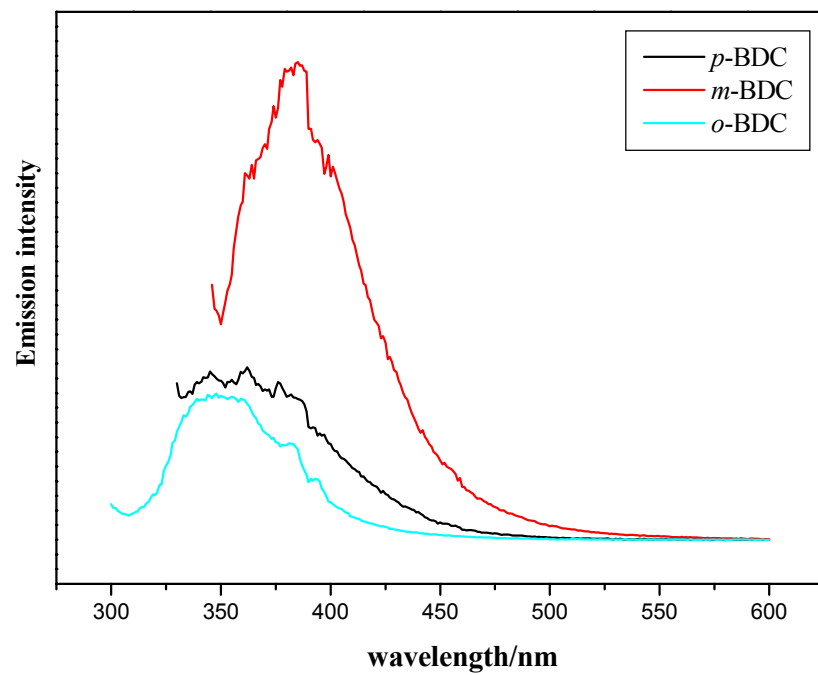
**Figure S30.** The TG (black)-DTA (red) curve of complex 8



**Figure S31.** Solid state UV-vis spectra for free ligands (*p*-H<sub>2</sub>BDC, *m*-H<sub>2</sub>BDC, *o*-H<sub>2</sub>BDC, 4,4'-bpt, 3,4'-bpt and 3,3'-bpt) at room temperature



**Figure S32.** Solid-state fluorescence emissions recorded for free ligands (4,4'-bpt, 3,4'-bpt and 3,3'-bpt) at room temperature



**Figure S33.** Solid-state fluorescence emissions recorded for free ligands (*p*-H<sub>2</sub>BDC, *m*-H<sub>2</sub>BDC and *o*-H<sub>2</sub>BDC,) at room temperature