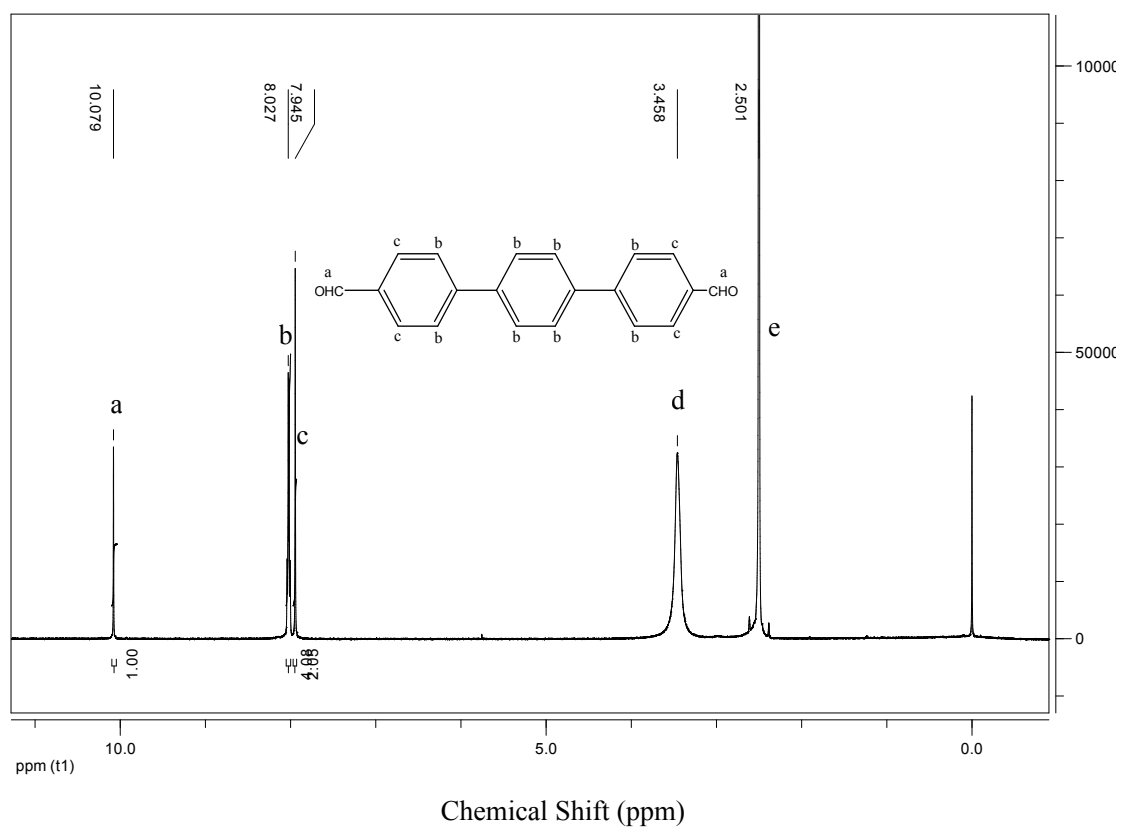


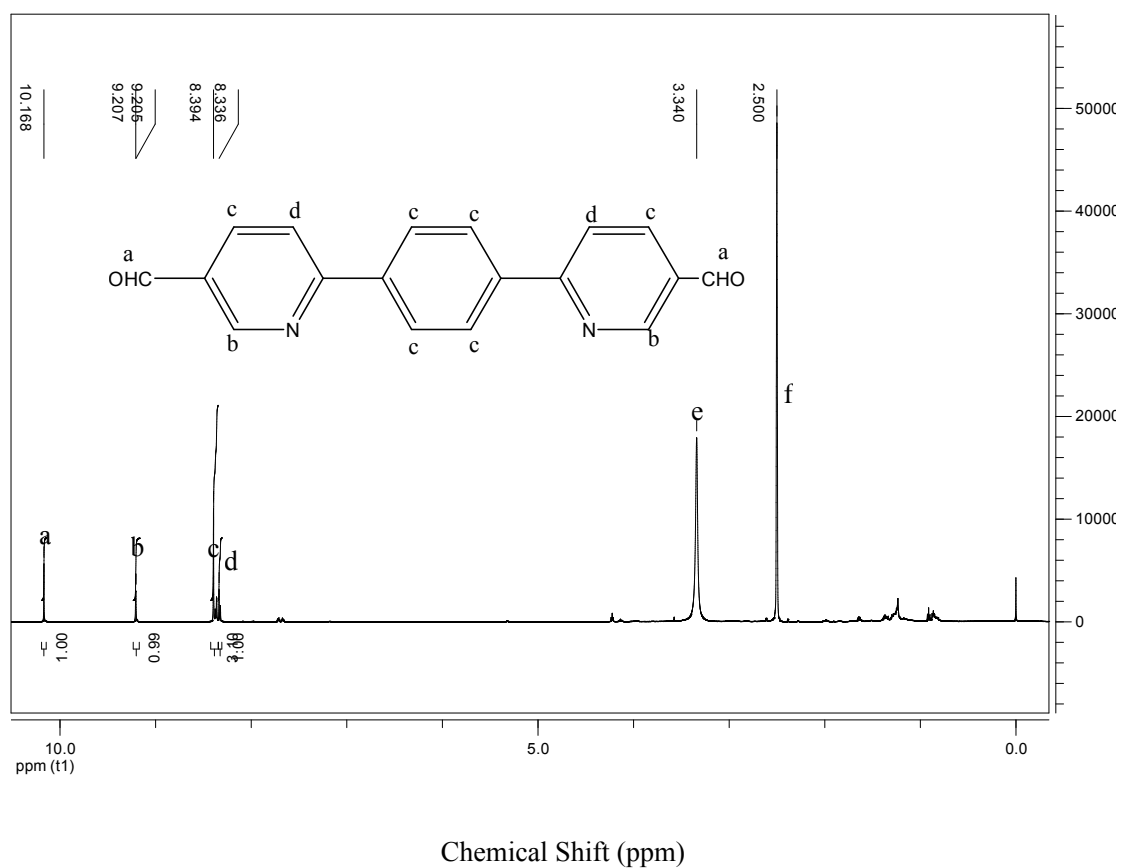
## Supplementary Information

### Facile Synthesis of Porous Organic Polymers for the Absorption of Pd(II) Ions and Organic Dyes

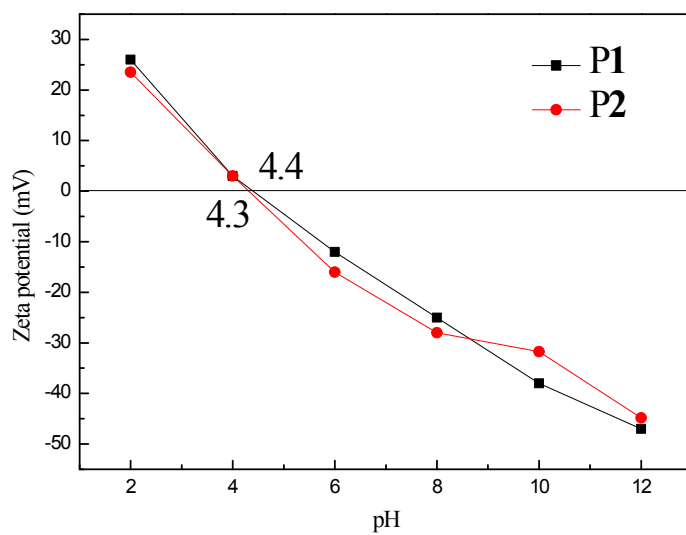
Yanmei Luo<sup>a</sup>, Junhui Ran<sup>a</sup>, Rong Chen<sup>b</sup>, and Xinjian Cheng<sup>a\*</sup>



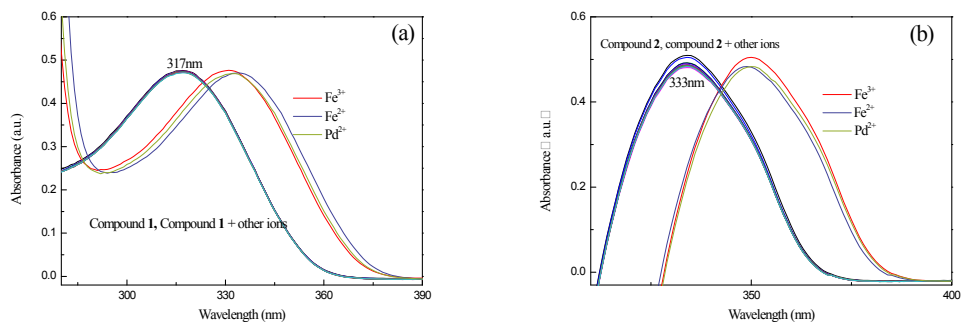
**Fig. S1.** <sup>1</sup>H NMR spectrum (DMSO-d<sub>6</sub>, 600 MHz) of compound **1**.



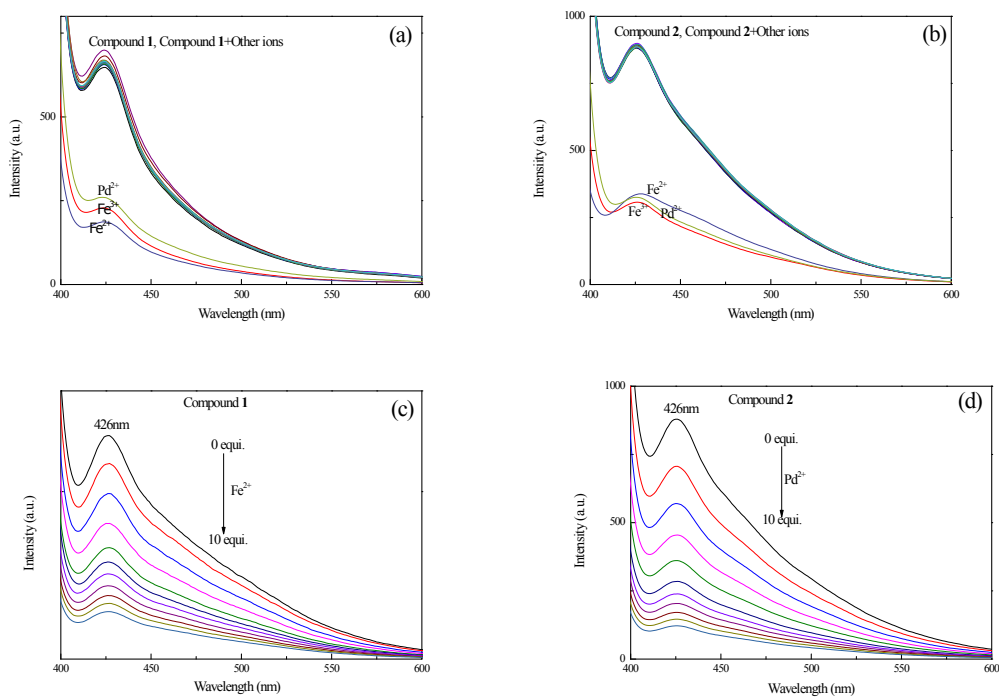
**Fig. S2**  $^1\text{H}$  NMR spectrum ( $\text{DMSO-d}_6$ , 600 MHz) of compound **2**.



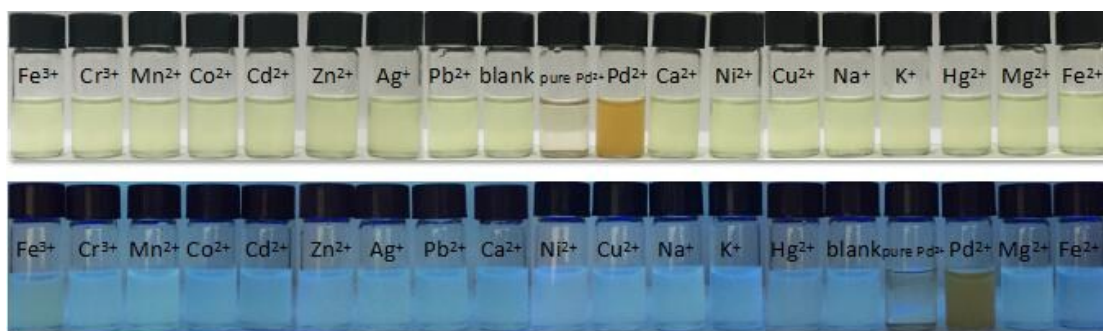
**Fig. S3** The zeta potential of P1 and P2 in a series of pH (2-12).



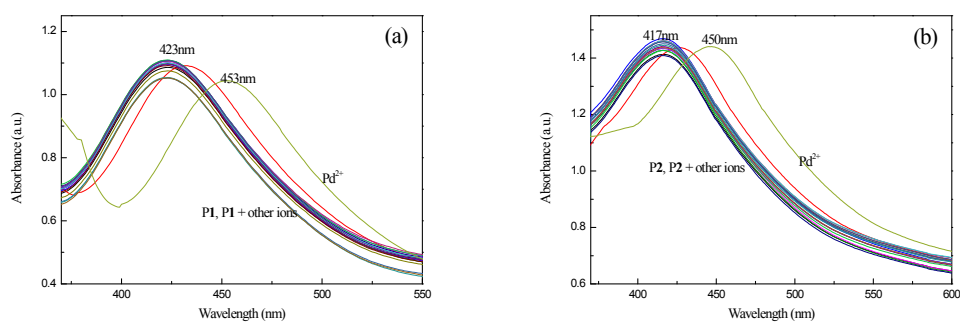
**Fig. S4** UV-Vis absorbance spectra of (a) Compound 1 (5 μM) and (b) Compound 2 (5 μM) with different heavy metals ions (Fe(III), Cr(III), Mn(II), Co(II), Cd(II), Zn(II), Ag(I), Pb(II), Ca(II), Ni(II), Cu(II), Na(I), K(I), Hg(II), Mg(II), Fe(II) and Pd(II)) in DMF/water.



**Fig. S5** Fluorescence spectra ( $\lambda_{ex} = 375$  nm, Slit 10/20 nm) of (a) compound 1(5 μM), (b) compound 2 (5 μM) with different heavy metals ions (Cr(III), Mn(II), Co(II), Cd(II), Zn(II), Ag(I), Pb(II), Ca(II), Ni(II), Cu(II), Na(I), K(I), Hg(II), Mg(II), Fe(III), Fe(II) and Pd(II)) in DMF/water, (c) compound 1 with different concentration of Fe(II) ions and (d) compound 2 with different concentration of Pd(II) ions.



**Fig. S6** Photographs of fluorescence and the color changes of pure Pd<sup>2+</sup> solution and P1 (25 μM in repeat units) with different heavy metals under natural light and under UV light (365 nm).



**Fig. S7** UV-Vis absorbance spectra of (a) P1 (2.5 μM in repeat units) and (b) P2 (2.5 μM in repeat units) with different heavy metals ions (Cr(III), Mn(II), Co(II), Cd(II), Zn(II), Ag(I), Pb(II), Ca(II), Ni(II), Cu(II), Na(I), K(I), Hg(II), Mg(II), Fe(III), Fe(II) and Pd(II)) in DMF/water.