Supporting Information

Synthesis of a 3D Photochromic Coordination Polymer with Interpenetrating Arrangement: Crystal Engineering for Electron Transfer between Donor and Acceptor Units
Yi Tan, Hengjun Chen, Jie Zhang, Shijun Liao, Jingcao Dai, Zhiyong Fu*

Experimental Section

All the reagents were purchased from commercial channels and used without further purification; N-(3-carboxyphenyl)-4,4′-bipyridinium chloride was synthesized as reported. UV-Visible spectral measurements were carried out using a HITACHI U-3010 spectrometer. The ESR spectra were recorded at room temperature with a Bruker EMX-10/12 Electron Spin Resonance Spectrometer. IR spectra were characterized by a Bruker Tensor 27 FTIR spectrometer in the range of 4000-400 cm⁻¹ using a KBr disk.

Synthesis of 1: Zn(NO₃)₂·6H₂O (29.7mg, 0.1mmol) was added to a mixture of p-H₂BDC (16.6mg, 0.1mmol), N-(3-carboxyphenyl)-4,4′-bipyridinium chloride (31mg, 0.1mmol) in H₂O (2ml), C₂H₅OH (4ml) and DMF (4ml). The mixture was sealed in a 25ml Teflon-lined steel bomb and heated at 85°C for 48h. Yellow block-like crystals were collected by filtration, washed by water and ethanol, and dried at room temperature (0.018mmol, 23mg, 54% yield based on Zn(NO₃)₂·6H₂O).
**Figure S1** PXRD patterns for compound 1: (a) simulated; (b) of a sample at room temperature.
Figure S2. Thermal gravimetric curve of 1
Figure S3. IR spectrum of 1