Supporting Information

Visible and Near-Infrared Chemosensor for Colorimetric and Ratiometric Detection of Cyanide

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Figure S1. Color changes of **2** (20 μM in DMF/H_2O = 99/1 v/v) in the presence of 5.0 molequiv. of anions after 1 hour at 60 °C. From left: no anion, CN^-, F^-, AcO^-, $H_2PO_4^-$, Cl^-, Br^-, I^-, NO_3^- and HSO_4^-.

(a)

(b)

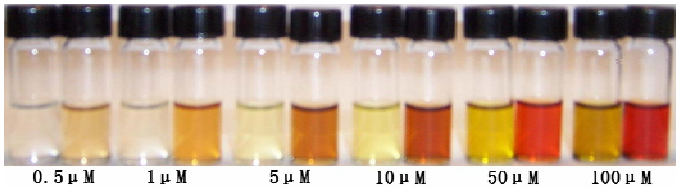

Figure S2. (a) Color changes of **3** (10 μM) in DMF/H_2O solution (99:1 v/v) in the presence of 2 equivalents of anions. From left: CN^-, F^-, Cl^-, Br^-, I^-, $H_2PO_4^-$, HSO_4^-, NO_3^-, and no anion. (b) Color contrast of **3** in DMF/H_2O solution (99:1 v/v) in the presence of 2 equivalents of CN^- (0.5 μM, 1 μM, 5 μM, 10 μM, 50 μM and 100 μM). Left is the blank solution of **3**.

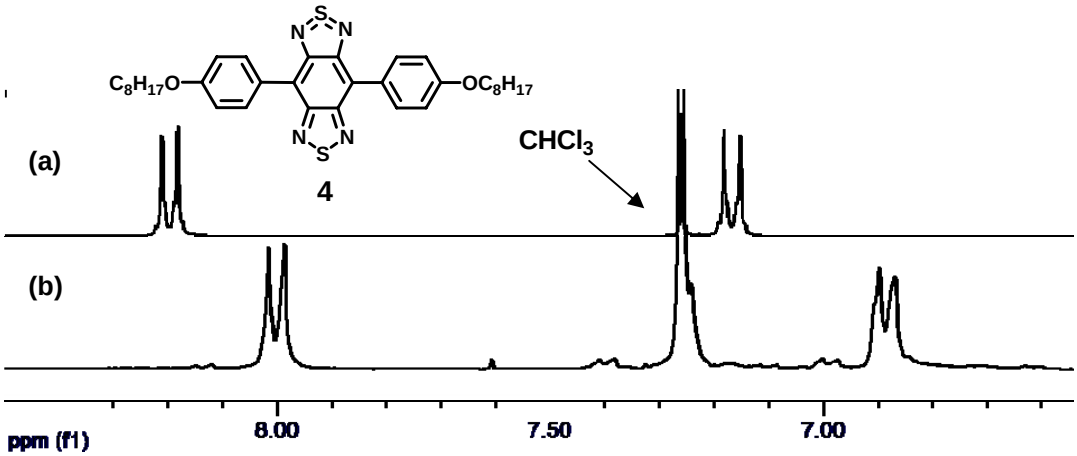

Figure S3. Partial ^{1}H NMR spectral change (300 MHz, 10 mM, $CDCl_3$, 25 ^{o}C) of model compound **4**: (a) before and (b) after addition of 4 molequiv. of tetrabutylammonium cyanide.

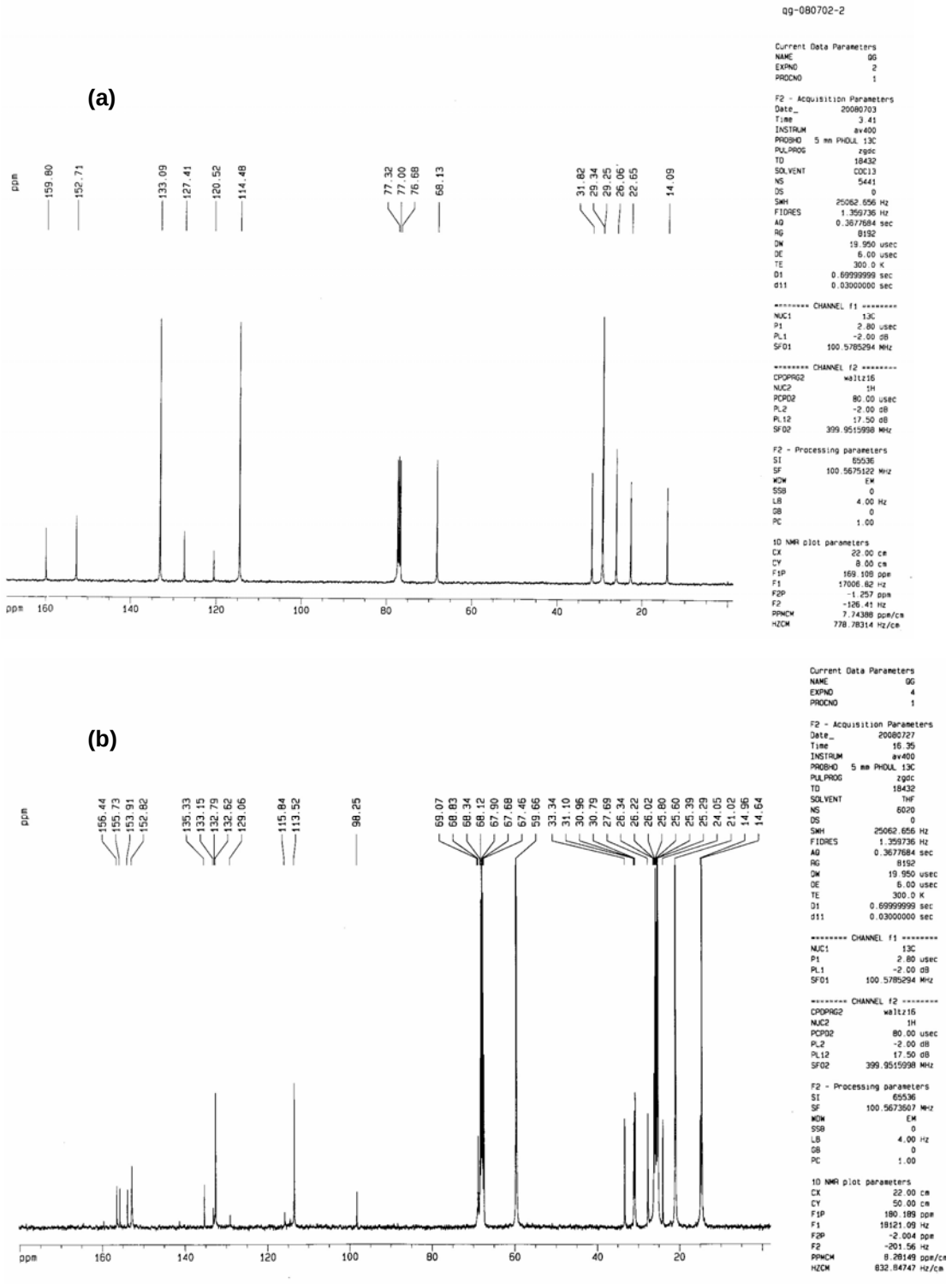

Figure S4. ^{13}C NMR spectral change (100 MHz, a: $CDCl_3$, b: d_8-THF, 25 ^oC) of model compound **4** (a) before and (b) after addition of 4 molequiv. of tetrabutylammonium cyanide.

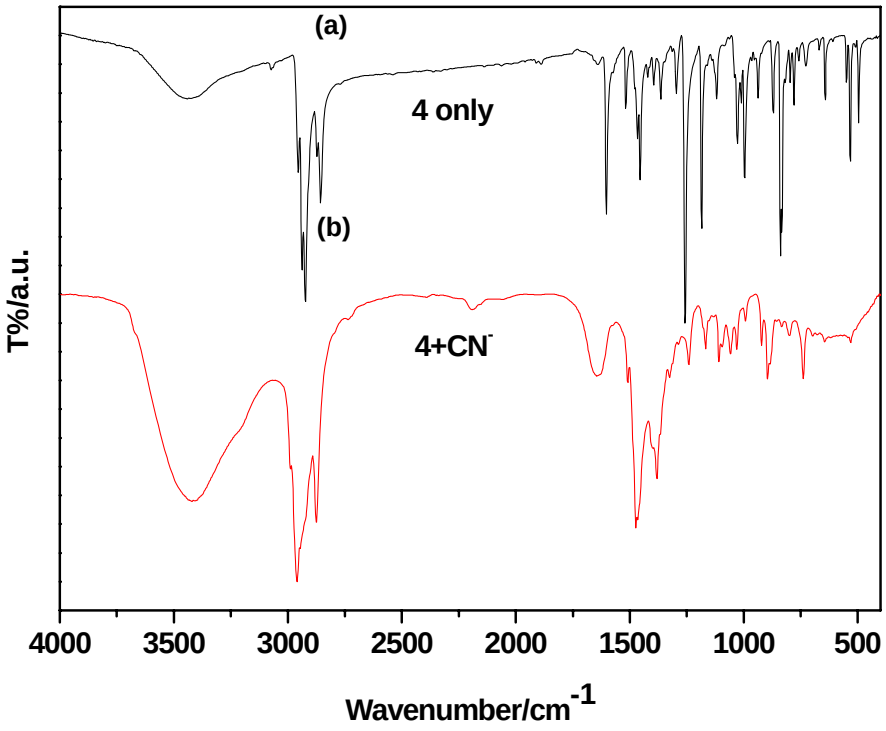

Figure S5. FTIR spectral change of model compound **4** (a) before and (b) after addition of 4 molequiv. of tetrabutylammonium cyanide.