Supporting Information

Cationic Polythiophene for Specific Detection of Cyanide Ions in Water Using Fluorometric Technique

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Fig. S1 (a) $^1$H NMR spectrum and (b) $^{13}$C NMR of TI in CDCl$_3$. 
Fig. S2 MASS spectrum of TI.
Fig. S3 $^1$H NMR spectrum of PTI in CDCl$_3$. 
Fig. S4 GPC traces of PTI and PTDMA.
Fig. S5 FTIR spectra of CPT-I before and after addition of CN$^-$ ion.
Fig. S6 XPS spectra of N 1s of CPT-I before and after addition of CN⁻ ion.
Fig. S7 (a) Time dependent PL intensity vs wavelength plot of CPT-I after addition of 19.6 µM CN⁻ ion in HPLC water without other anions and (b) in presence of mixed ions.
Fig. S8 PL intensity vs wavelength plot of CPT-I before and after addition of 19.6 μM CN⁻ ion in pH 7.4 PBS buffer.
Fig. S9 PL intensity vs wavelength plot of CPT-I in HPLC water and underground tap water.