

Supporting Information

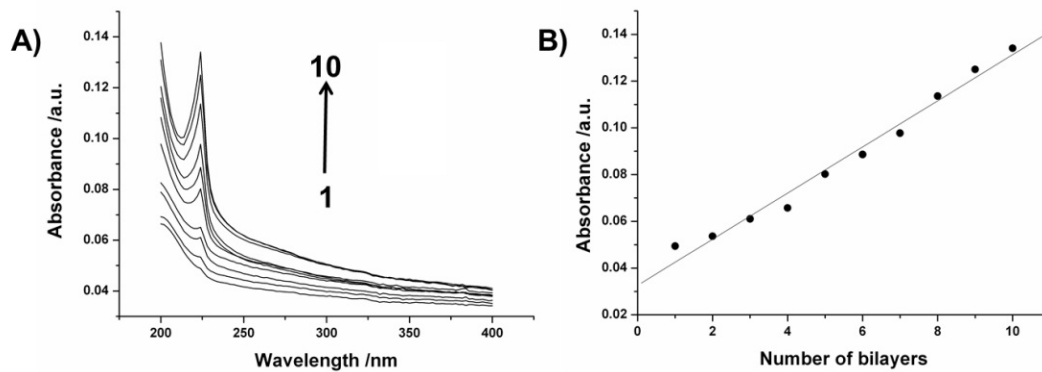


Figure S1. A) The Adsorption spectra of film with different layers of chitosan / CB[8]-naphthalene; (B) The relationship between the absorbance intensity (225 nm) with the number of layers.

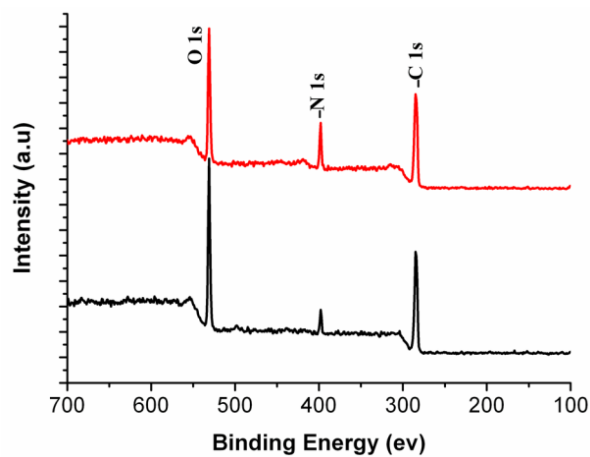


Figure S2. XPS spectra of chitosan film (black line) and chitosan-CB[8]-naphthalene film (red line).

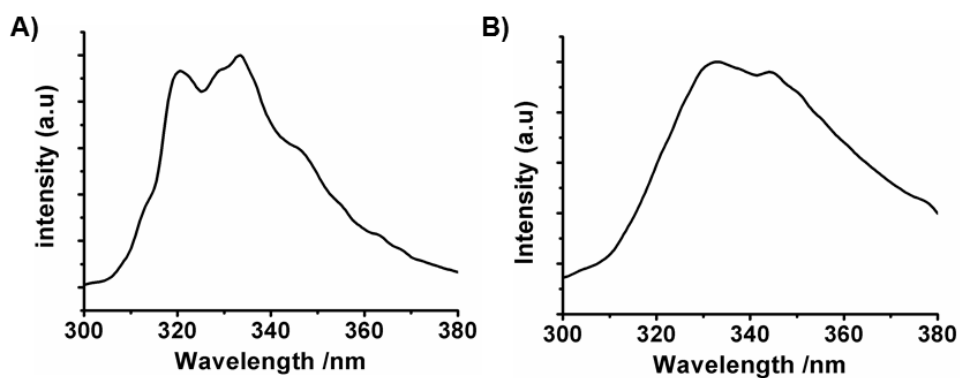


Figure S3. Fluorescence emissions of naphthalene in bulk solution (A) and in CB[8] cavity attached on substrate.

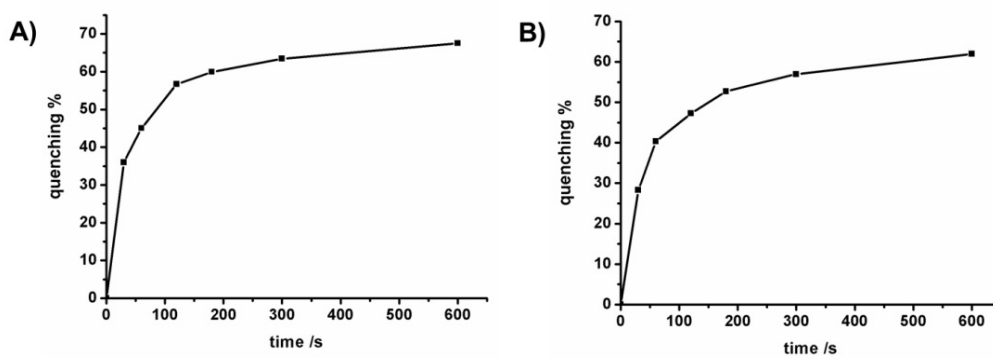


Figure S4. Time-dependent fluorescence quenching of chitosan-CB[8]-naphthalene based film upon exposure to TNT vapor (10ppb) (A) and DNT (180 ppb) (B).

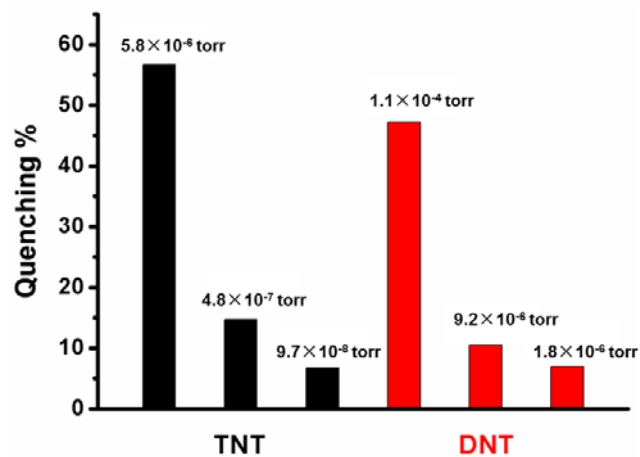


Figure S5. Comparison of fluorescence response of the fabricated sensors to TNT and DNT at different concentration for 2 min.

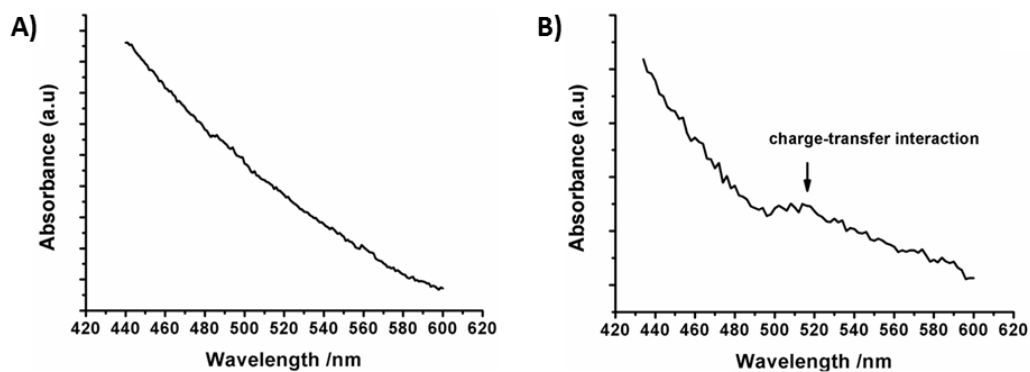


Figure S6. UV-Vis spectra of (A) the formed CB[8]• NA• TNT complex and (B) CB[8]• NA

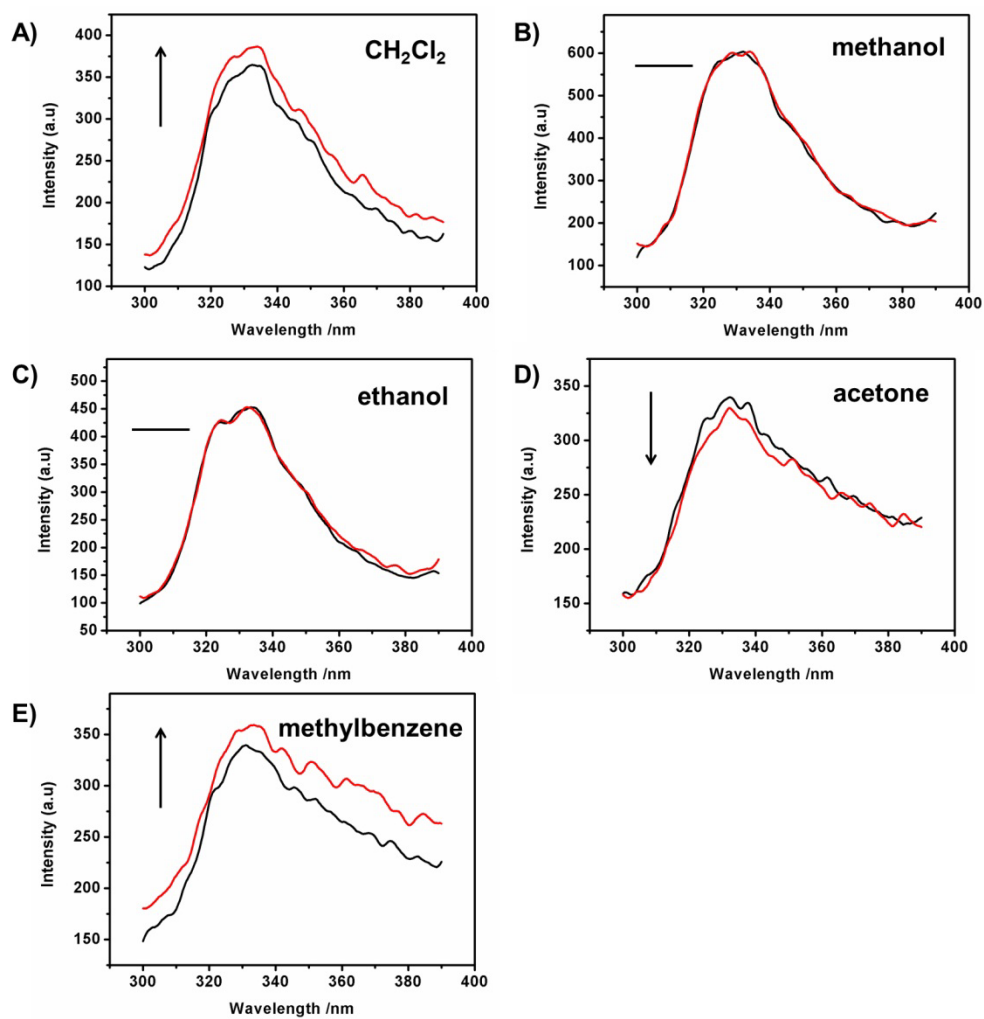


Figure S7. Time-dependent fluorescence intensity of the naphthalene-CB[8] film on solid substrate upon exposure to the vapor of toluene, acetone, CH₂Cl₂, ethanol and methanol at 0 min (black line), and 3 min (red line).