

Electronic Supplementary Information

**A Highly Sensitive and Selective Fluorescent Probe for Hypochlorite in Pure Water with  
Aggregation Induced Emission Characteristics**

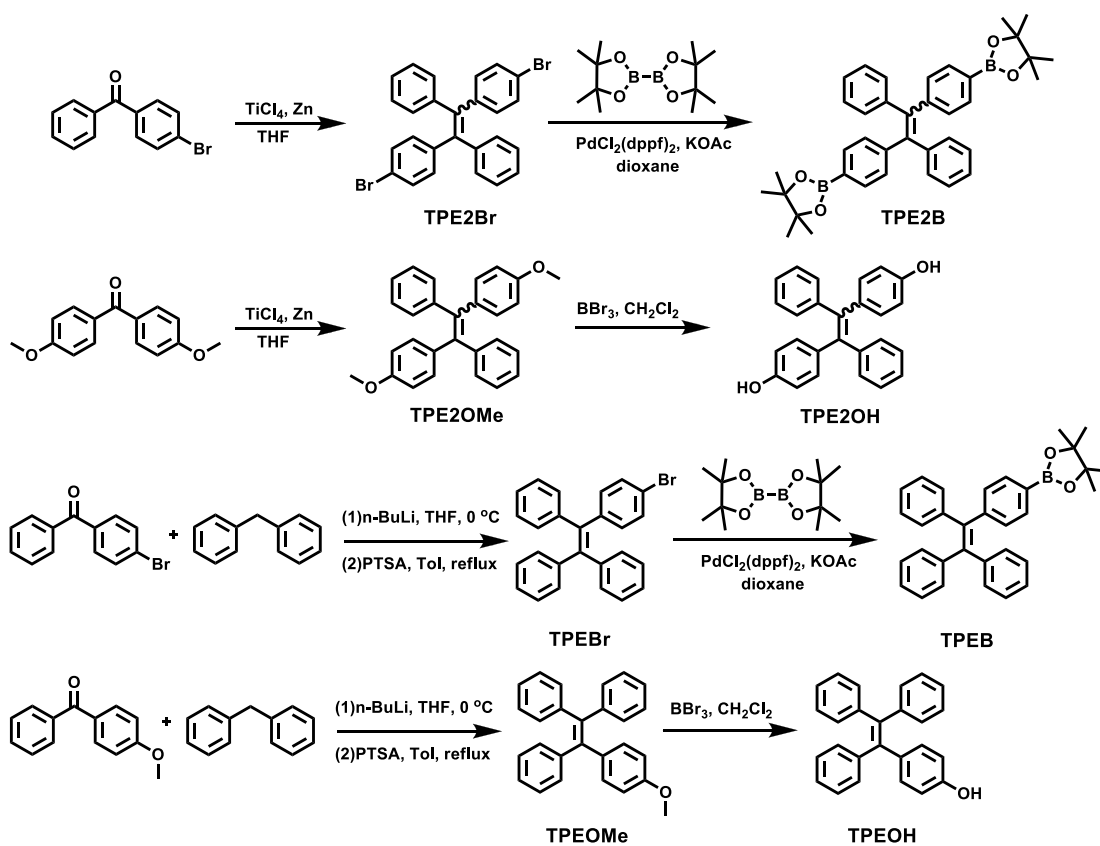
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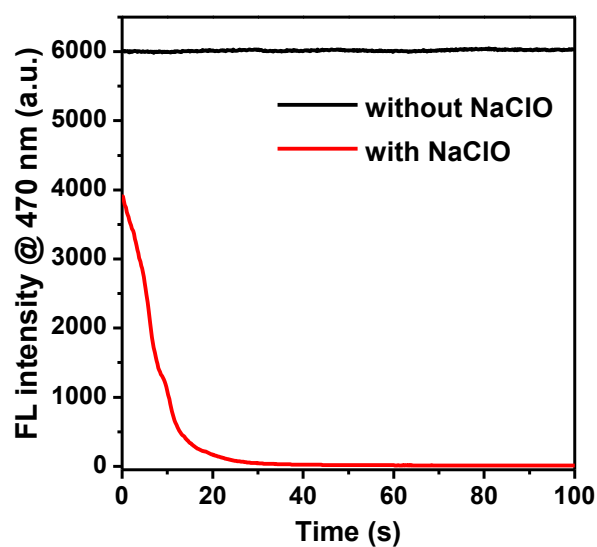
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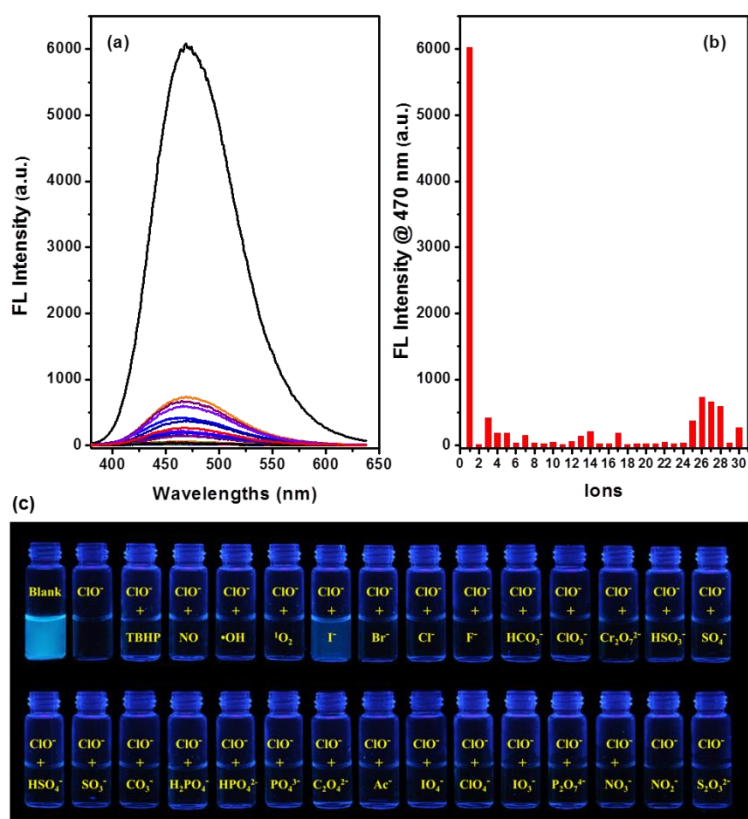
- 1 Scheme S1.** Synthetic route for TPE2B, TPE2OH, TPEB and TPEOH.
- 2 Figure S1.** Fluorescence stability of TPE2B (black) and the fluorescence kinetic response to OCl<sup>-</sup>.
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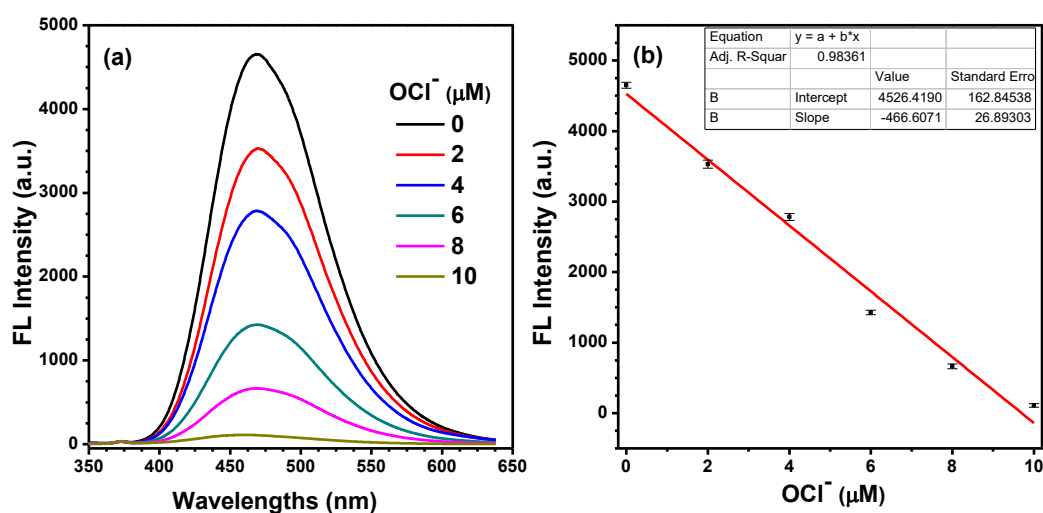
**Scheme S1.** Synthetic route for TPE2B, TPE2OH, TPEB and TPEOH.



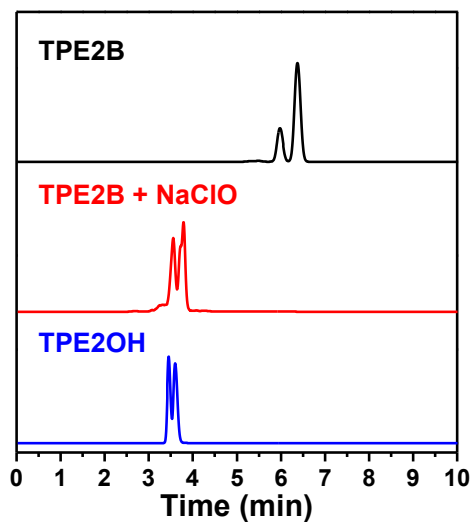
**Figure S1.** Fluorescence stability of TPE2B (black) and the fluorescence kinetic response to OCl<sup>-</sup> (red) after the addition of NaClO in 100s (ex 323 nm, em 470 nm).



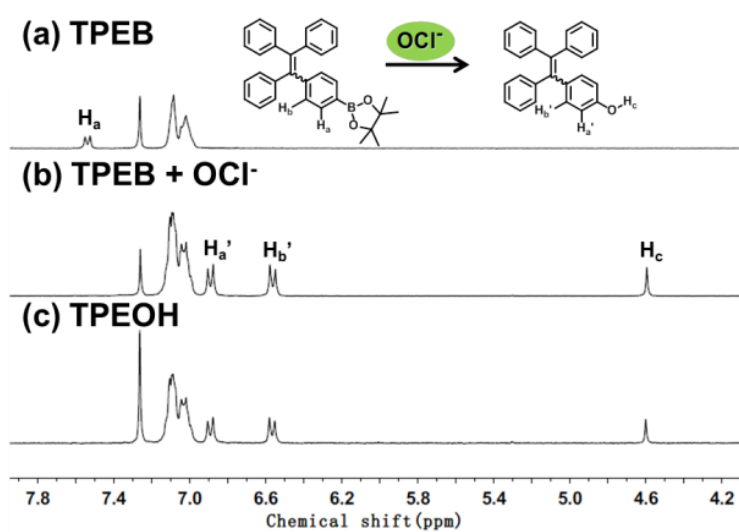
**Fig S2** (a) Fluorescence spectra of TPE2B with 50.0  $\mu\text{M}$  different species upon addition of 50.0  $\mu\text{M}$  hypochlorite in an aqueous solution (containing 1% THF). (b) Fluorescence intensity changes of TPE2B with 50.0  $\mu\text{M}$  different species upon addition of 50.0  $\mu\text{M}$  hypochlorite at 470nm. Concentration: 10  $\mu\text{M}$ . (c) The emission photos of TPE2B with 50.0  $\mu\text{M}$  different species under 365 nm UV illumination.



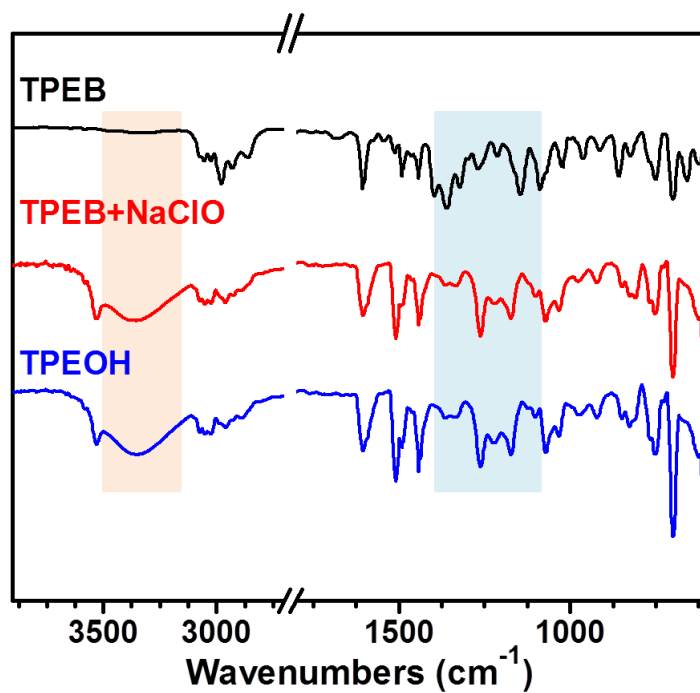
**Figure S3.** (a) Fluorescence changes of TPE2B by mixing TPE2B (0.1 mL, 1 mM) with 9.9 mL different concentrations of NaClO. The concentration of OCl<sup>-</sup> was 0, 2.0, 4.0, 6.0, 8.0, and 10.0  $\mu\text{M}$ . (b) Plot of fluorescence intensity versus OCl<sup>-</sup> concentration (0-10  $\mu\text{M}$ ).



**Figure S4** HPLC spectra of TPE2B, TPE2B incubated with NaClO and TPE2OH. The mobile phase is methanol.



**Figure S5** (a) <sup>1</sup>H NMR spectra of TPEB. (b) <sup>1</sup>H NMR spectra of the product after the reaction of TPEB with NaClO. (c) <sup>1</sup>H NMR spectra of TPEOH. Solvent: CDCl<sub>3</sub>.



**Figure S6.** IR spectra of TPEB (black line), the product separated from TPEB under addition of 5 equiv. NaClO (red line) and TPEOH prepared by synthesis (blue line).