Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Electronic supplementary information

A smartphone-based device for simultaneous measurement of ratiometric fluorescence and absorbance demonstrated by the determination of hypochlorous acid

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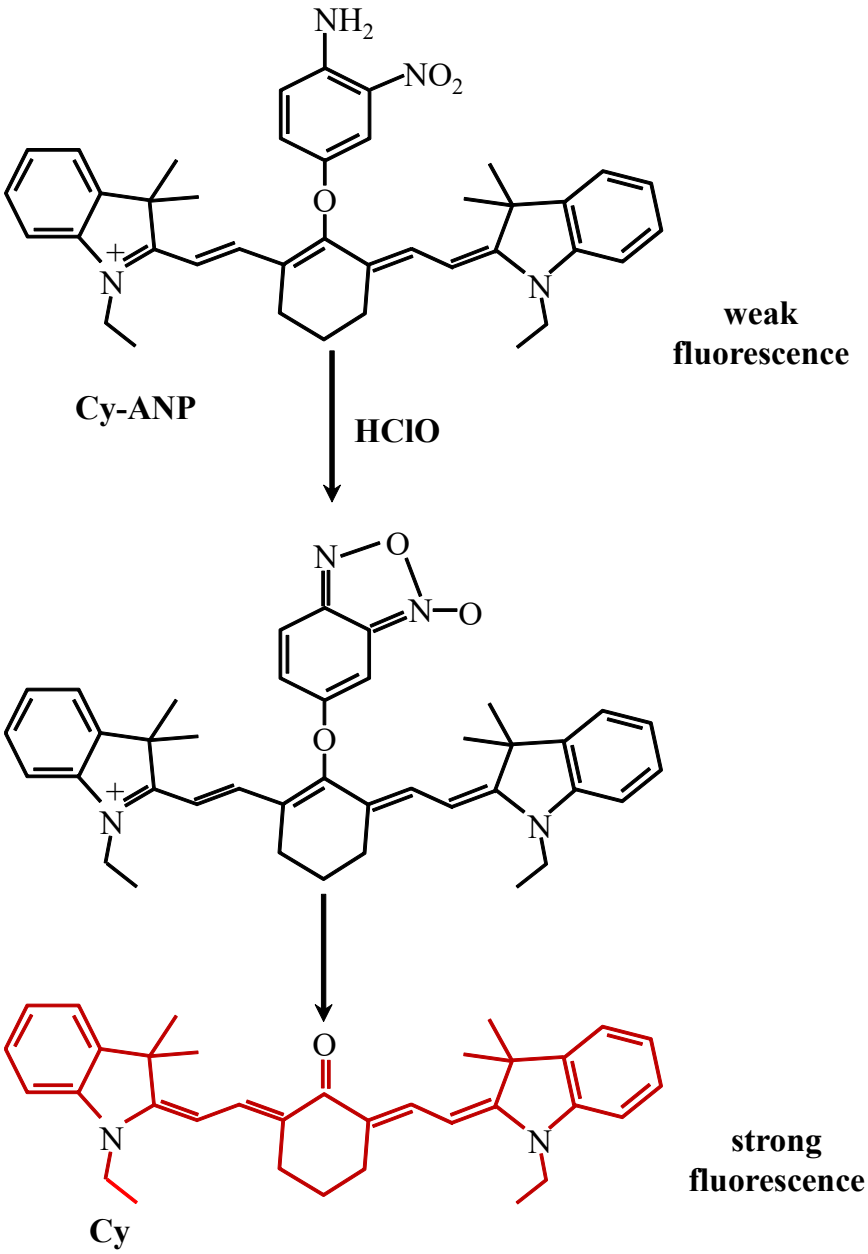


Scheme S1. Structural formula of Cy-ANP probe and detection mechanism to HClO.

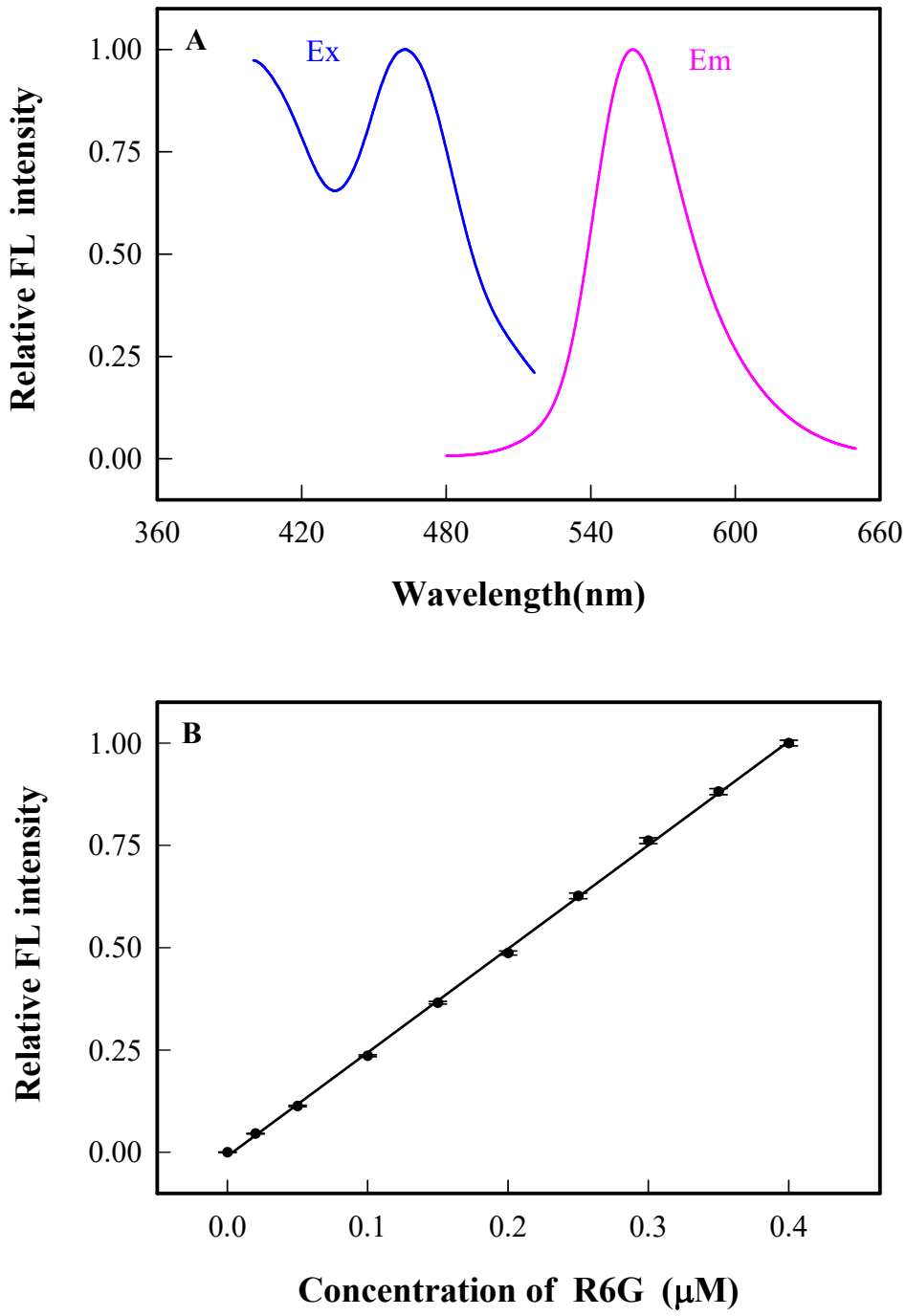
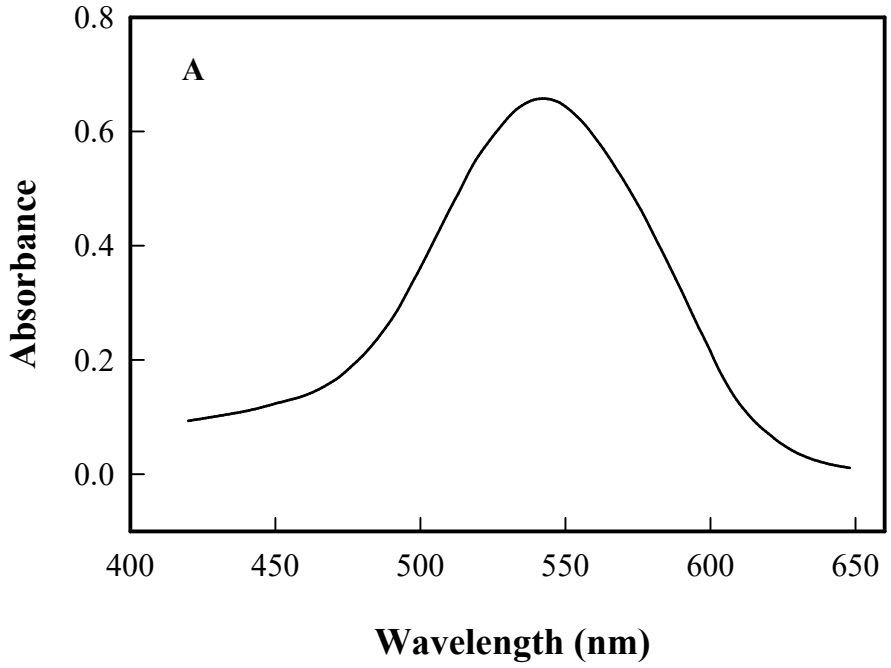


Fig. S1 Excitation (blue line) and emission (pink line) fluorescence spectra of R6G (A), dependence of the fluorescent intensity on the concentration of R6G (B). The fluorescence intensity was measured by F-7100 spectrofluorophotometer. The error bars represent the standard deviation of three parallel determinations.



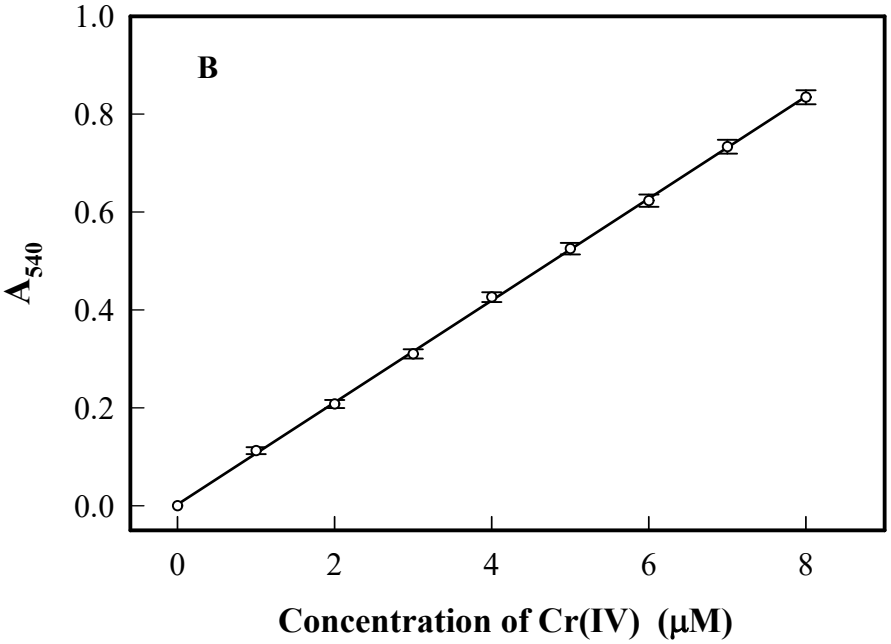


Fig. S2 Absorption spectrum of DPC–Cr(VI) reaction mixture (A) and the calibration curve for Cr(VI) determination (B) measured by UV-1700 spectrophotometer (b=10 mm cuvette).

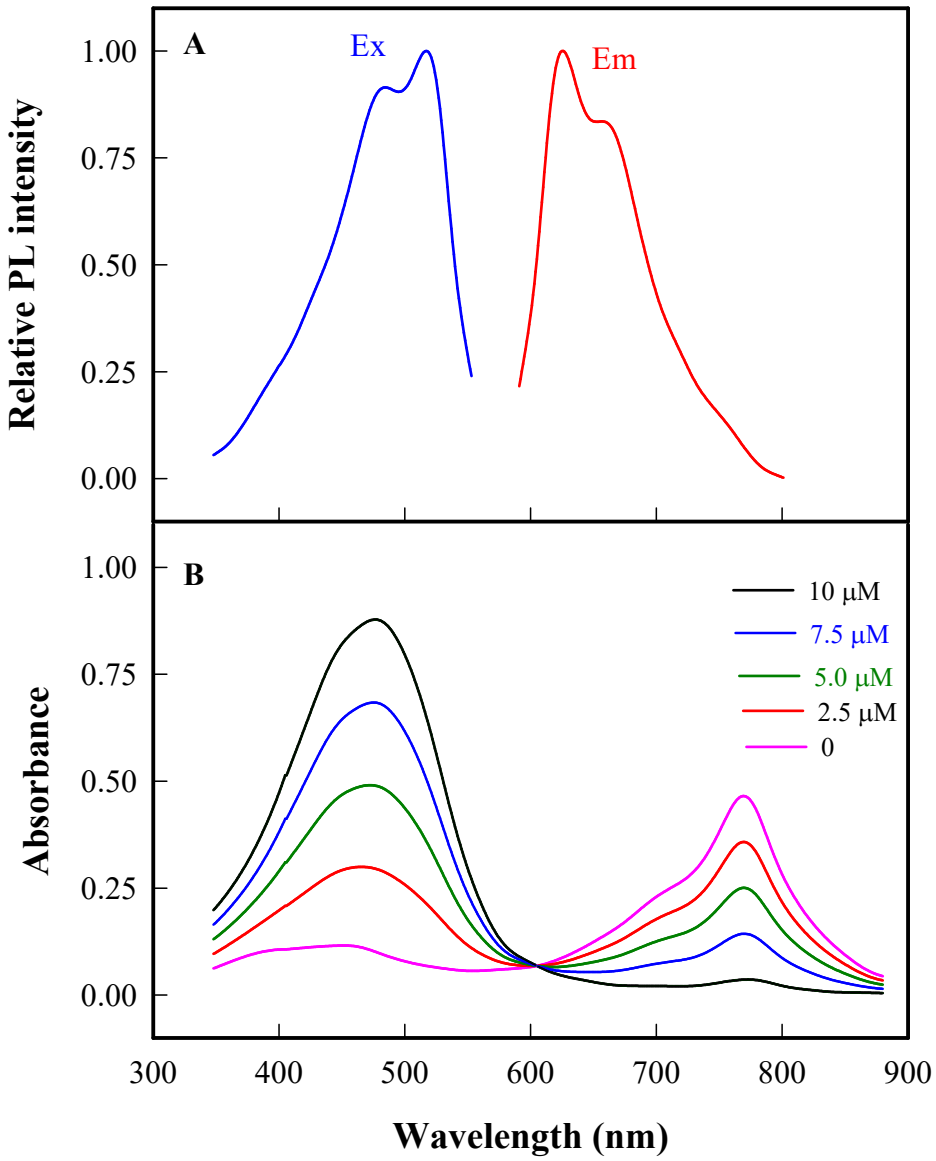


Fig. S3 Excitation (blue line) and emission (pink line) fluorescence spectra of Cy (A) , absorbance spectra of the mixture of Cy-ANP and HClO at different concentration (B). The fluorescence and absorption spectra were measured respectively by F-7100 spectrofluorophotometer and UV-1700 spectrophotometer.

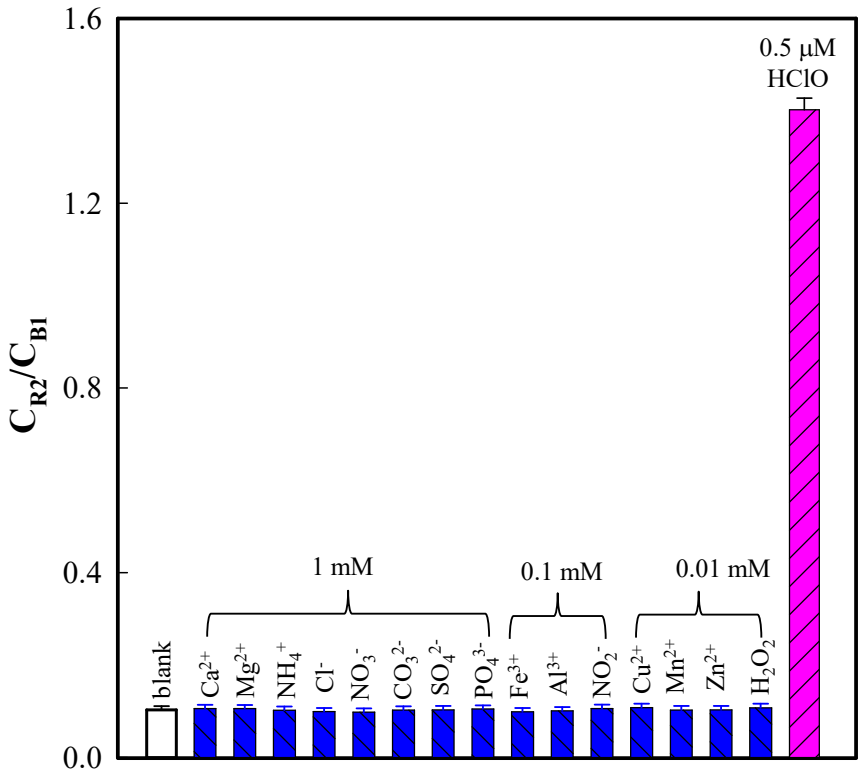


Fig. S4. The selectivity of the Cy-ANP fluorescent probe.