

Supplementary Information for
**A Highly Specific Ferrocene-based Fluorescent Probe for
Hypochlorous Acid and Its Application to Cell Imaging**

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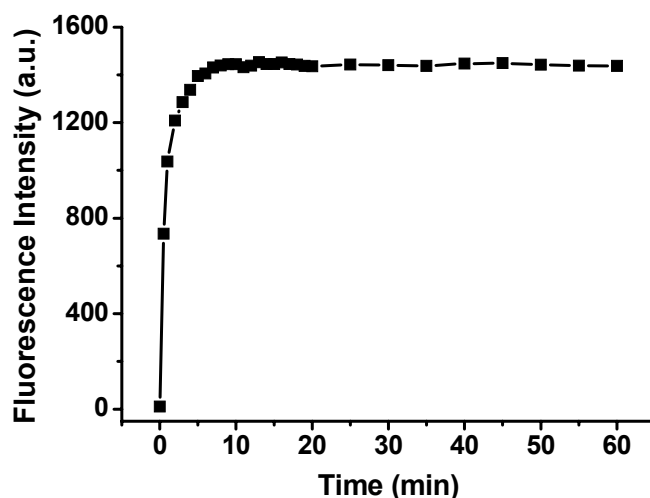


Fig. S1 The change of fluorescence intensity ($\lambda_{\text{ex/em}} = 360/441$ nm) of 9-AEF (100 μM) with time in the presence of 100 μM hypochlorite in 30 mM phosphate buffer (pH 7.4) at room temperature.

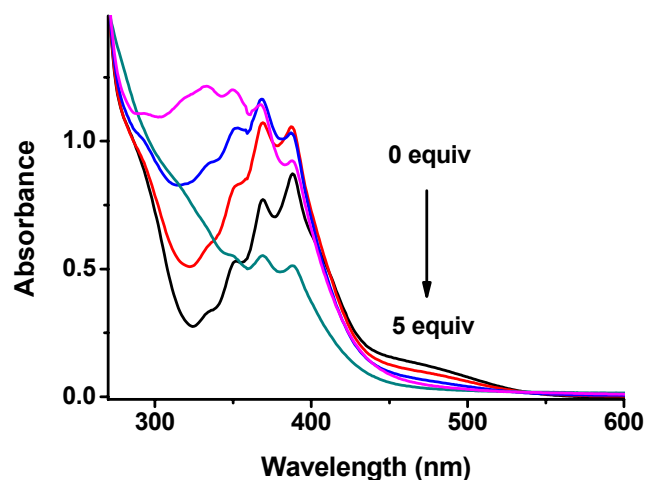


Fig. S2 Absorption spectra in the phosphate buffer of 9-AEF (100 μM) reacting with hypochlorite at varied concentrations: 0, 25, 50, 75, 100 and 500 μM . The corresponding reagent blank without 9-AEF was used as a reference.

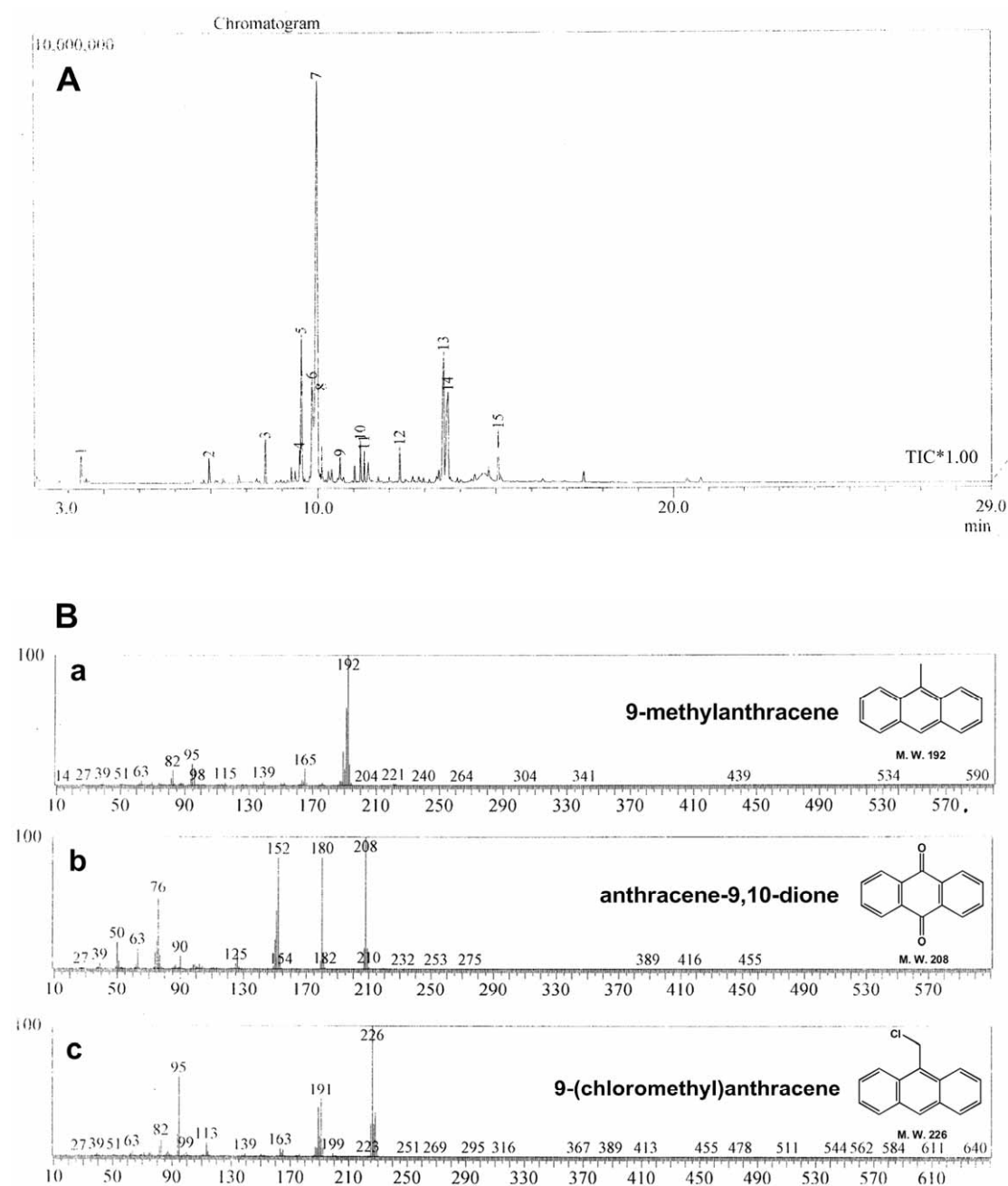


Fig. S3 (A) Total ion chromatogram of the reaction mixture of 9-AEF with hypochlorite. (B) Mass spectra of the products marked as peaks 13 (a), 14 (b) and 15 (c) in the above total ion chromatogram. The three products were identified, whose corresponding structures are also shown in this figure. Analysis of the mixture was carried out by GC/MS using a fused silica capillary column (HP-5ms, 30 m $\times$ 0.32 mm), splitting ratio 4:1, injector temperature 250 $^{\circ}$ C, ionization source temperature 250 $^{\circ}$ C, electronic energy 70 eV, scan range 20-650 m/z .

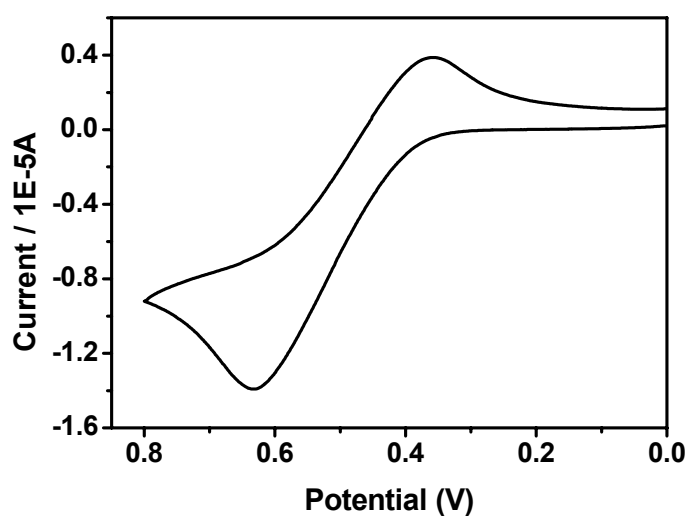


Fig. S4 Cyclic voltammogram of 9-AEF (5 mM) measured at room temperature in redistilled THF at a scanning rate of 0.05 V/s with 0.1 M tetrabutylammonium perchlorate as supporting electrolyte, platinum disk electrode as working electrode, platinum wire as counter electrode and an Ag/AgCl electrode as reference electrode.