

Supplementary Information

Colorimetric detection of ozone in aqueous solution and imaging in living cells using a novel hemicyanine dye

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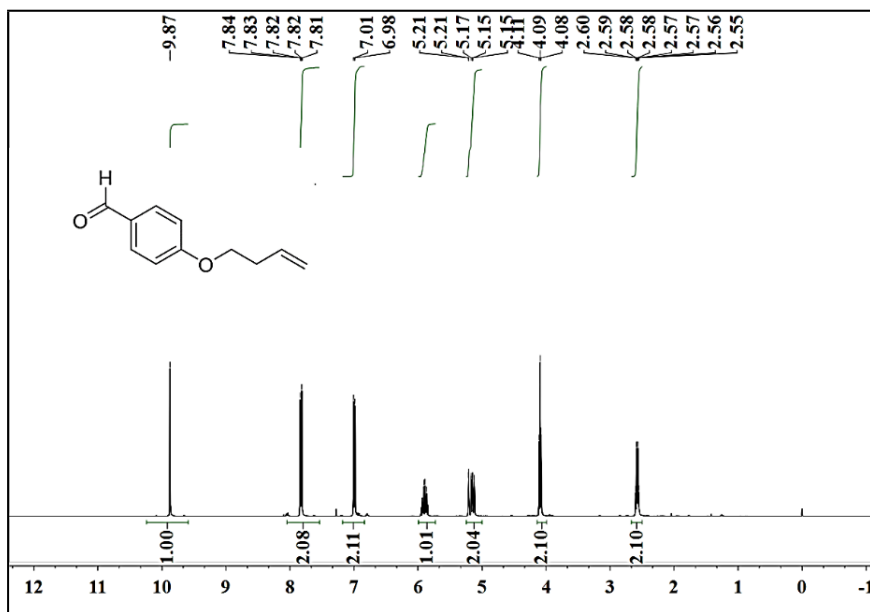


Fig.S₁ ¹H NMR spectroscopy of compound 1(CDCl₃).

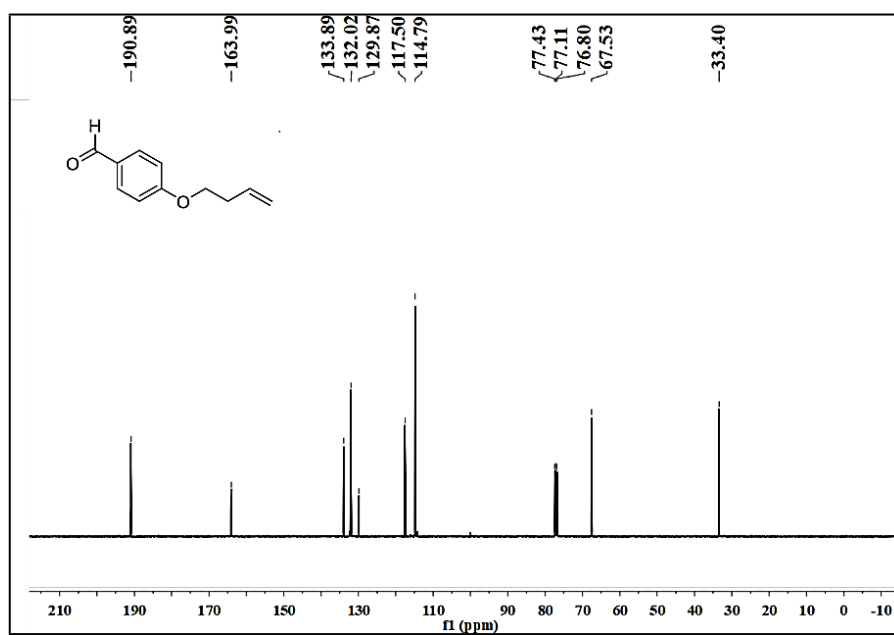


Fig.S₂ ¹³C NMR spectroscopy of compound 1(CDCl₃).

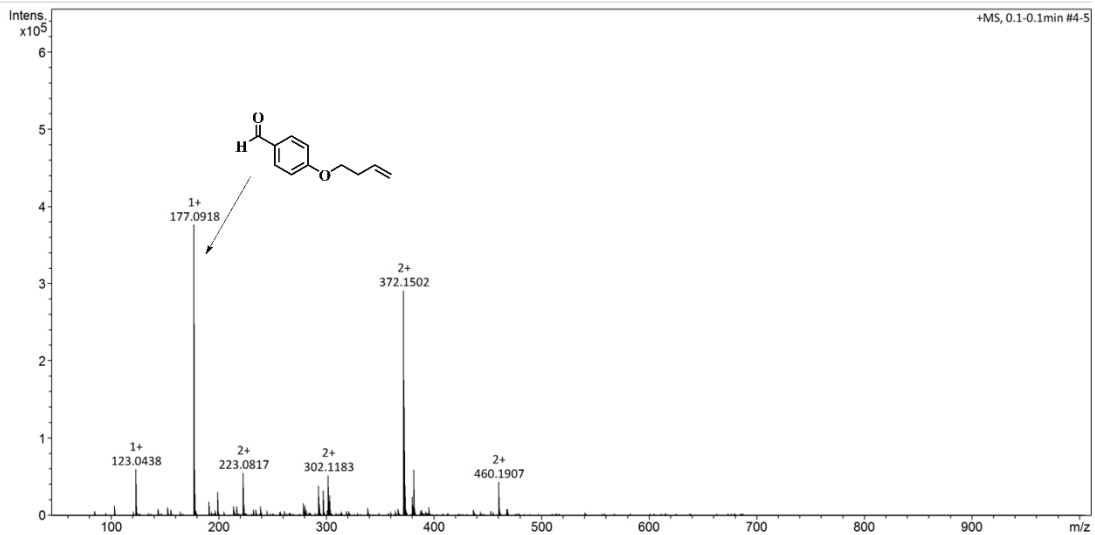


Fig.S₃ MS spectroscopy of compound 1 in shem1.

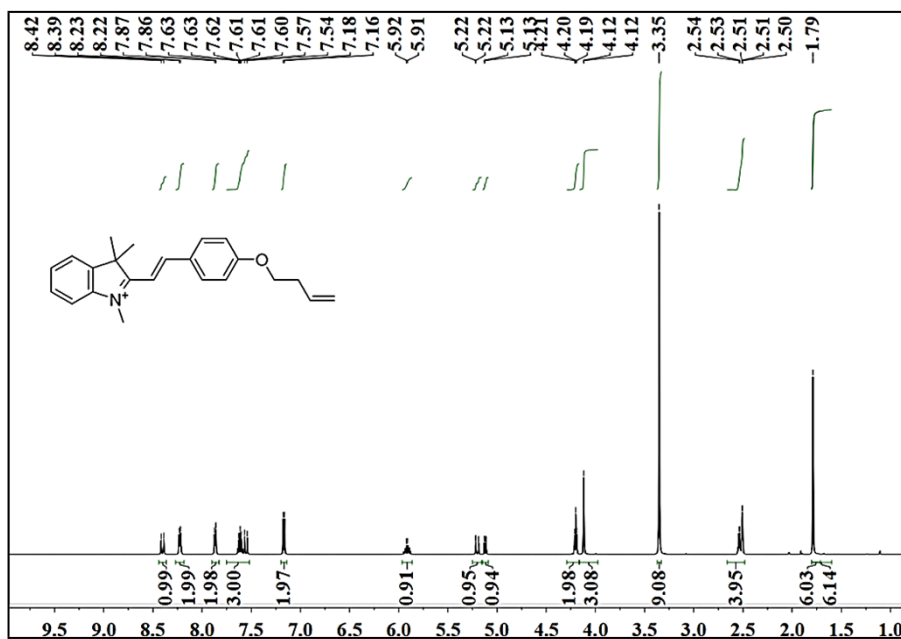


Fig.S₄ ¹H NMR spectroscopy of the probe HCB (DMSO) .

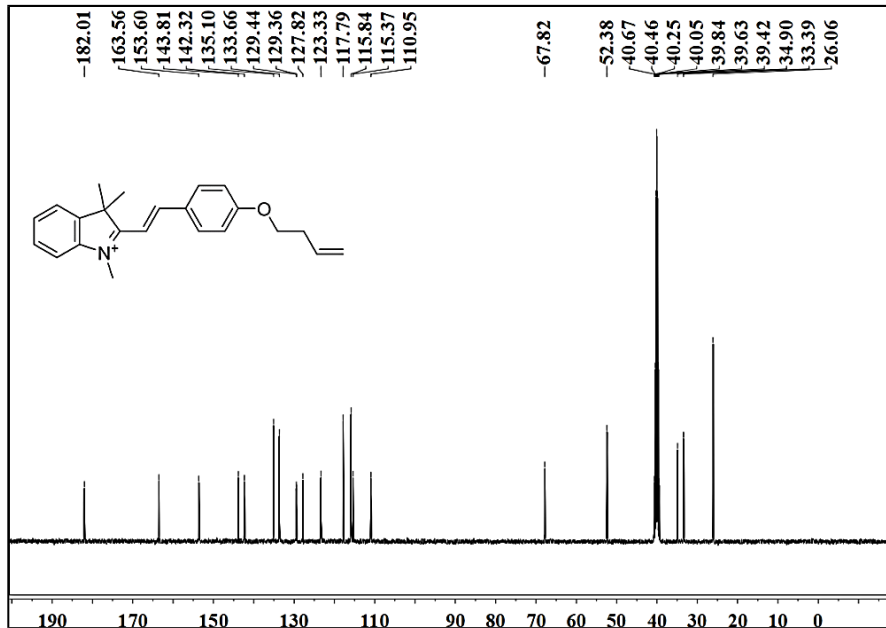


Fig.S₅ ¹³C NMR spectroscopy of the probe HCB (DMSO) .

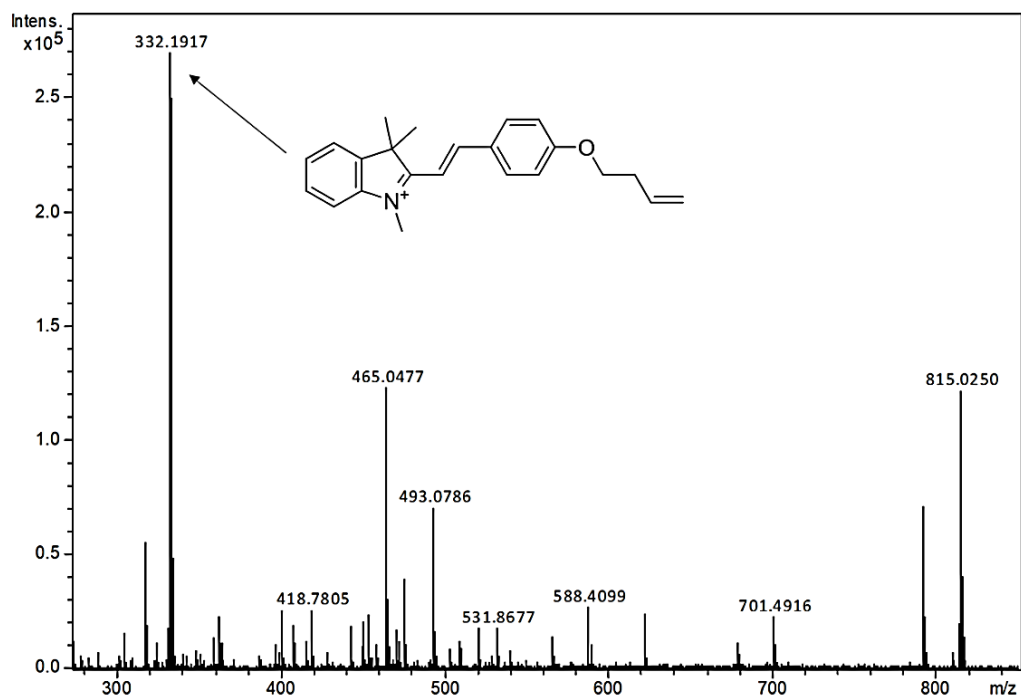


Fig.S₆ MS spectroscopy of the probe HCB.

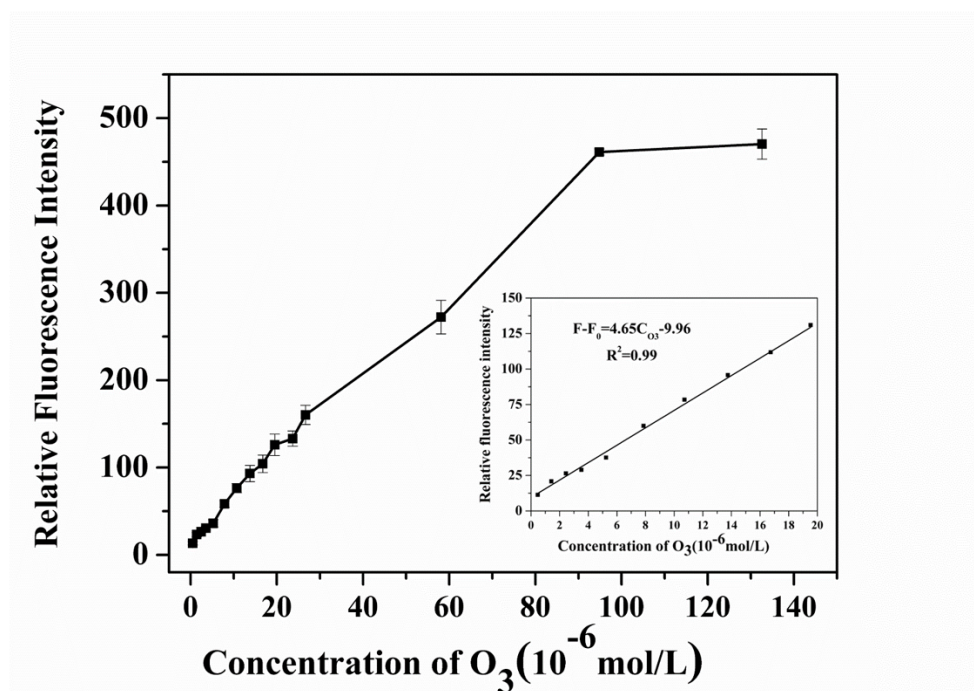


Fig.S7 The fluorescence titration curves and calibration graphs for spectrophotometric determination of O_3 in the simulated physiological media. ($[HCB] = 5.00 \times 10^{-5}$ mol/L, $[HCO_3^-] = 1.00 \times 10^{-3}$ mol/L, $[HPO_4^{2-}] = 2.00 \times 10^{-1}$ mol/L, $[H_2PO_4^-] = 2.00 \times 10^{-1}$ mol/L, $[Na^+] = 1.00 \times 10^{-3}$ mol/L, $[K^+] = 1.00 \times 10^{-3}$ mol/L, $[Ca^{2+}] = 5.00 \times 10^{-4}$ mol/L, $[Mg^{2+}] = 5.00 \times 10^{-4}$ mol/L, $[Cl^-] = 2.00 \times 10^{-3}$ mol/L, pH=7.40 PBS buffer, response at $37^\circ C$ for 40 min) .

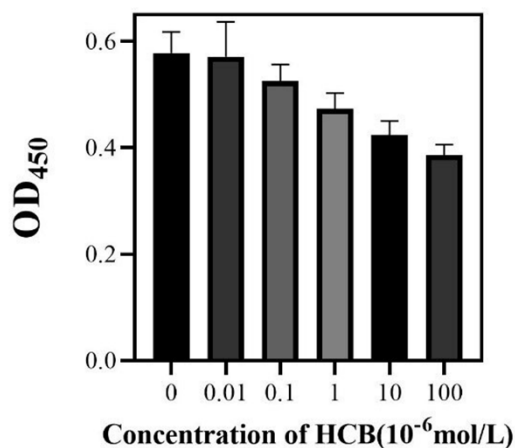


Fig.S8 Results of the toxicity of HCB to RAW264.7 cells determined by CCK-8 method.

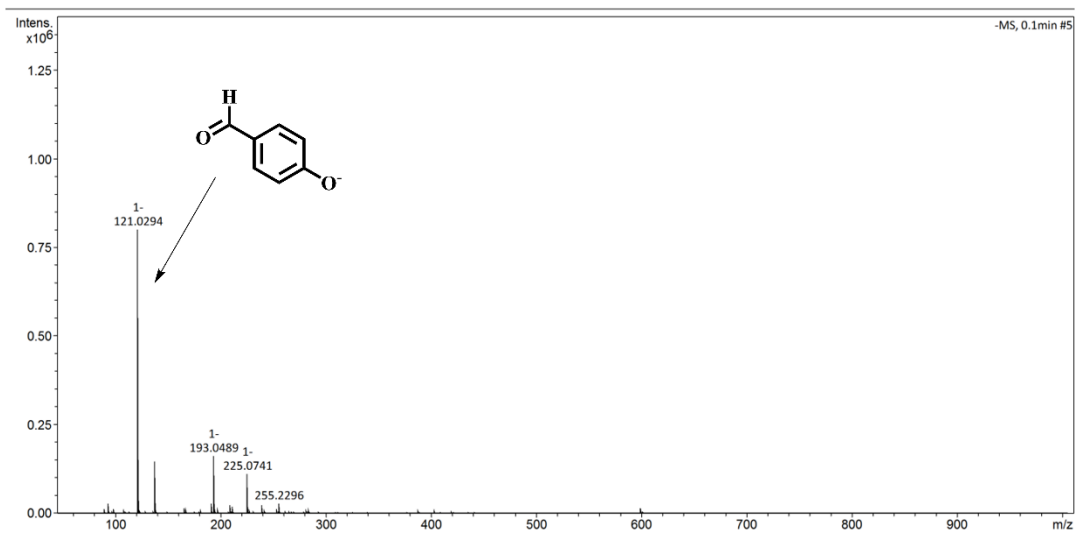


Fig.S₉ MS spectroscopy of compound 1(sheme1)-O₃.

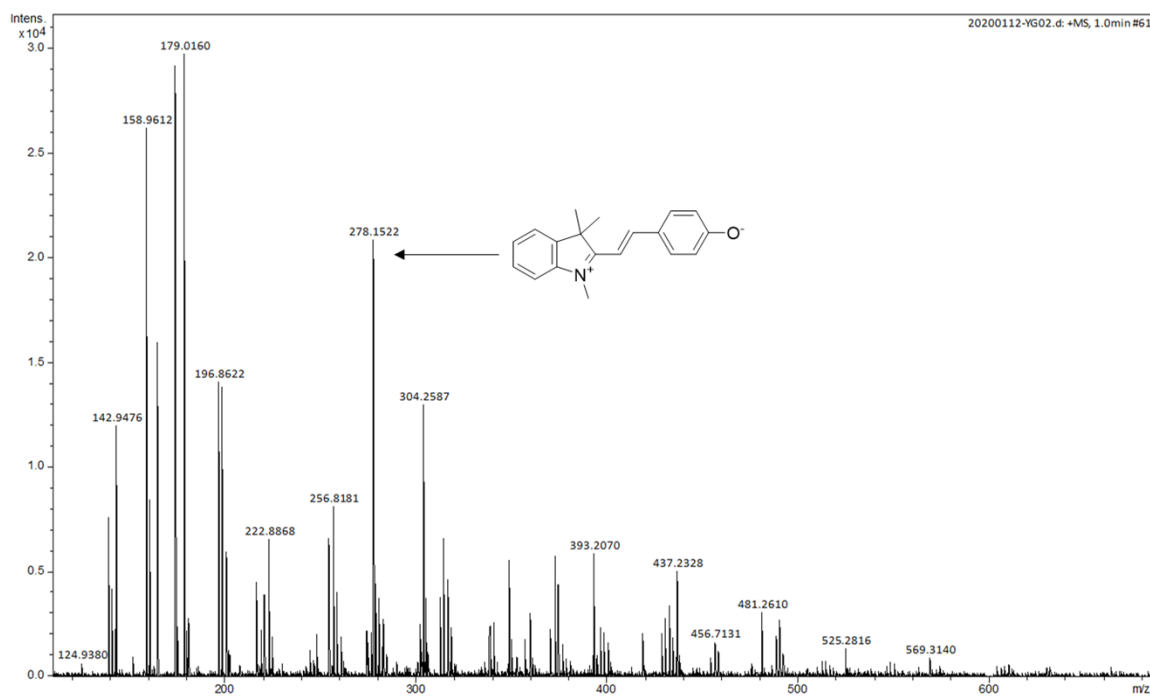


Fig.S₁₀ MS spectroscopy of HCB-O₃.

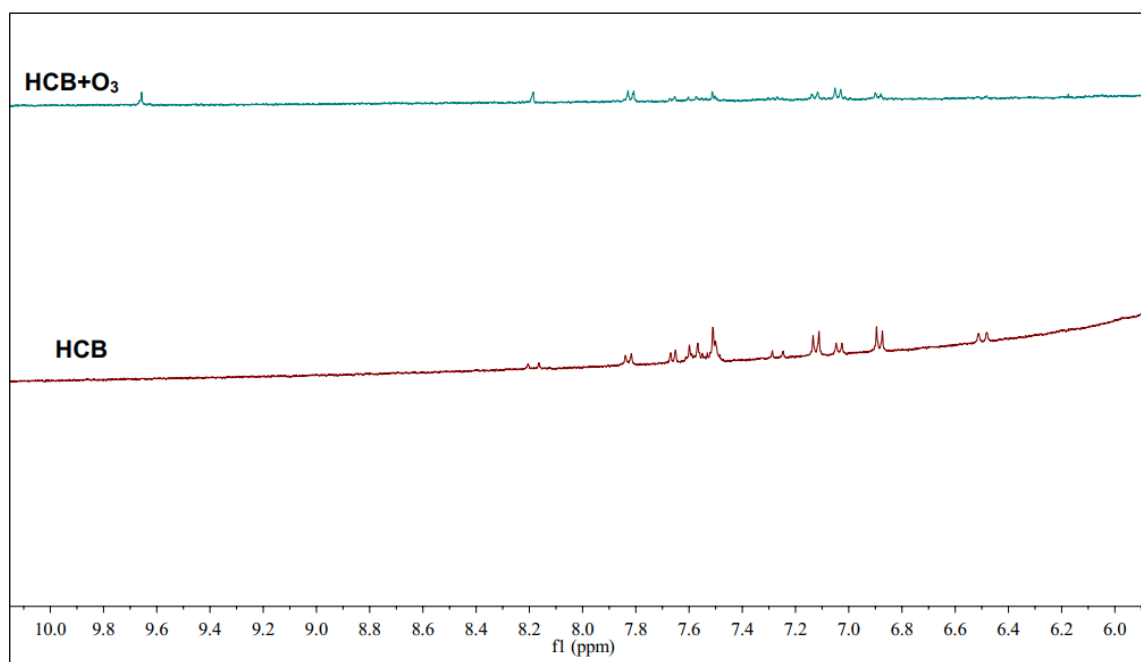


Fig.S₁₁ ^1H NMR spectra of probes HCB in DMSO-d₆ and D₂O before and after the addition of O₃.