SUPPORTING INFORMATION

Fluorescent Probe for the Detection of Hypochlorous Acid in Water Samples and Cell Models

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1- **Table S1**. Summary of HClO fluorescent probe

2- **Figure S1**: Mass spectrum of compound 1

3- **Figure S2**: 1HNMR of compound 1

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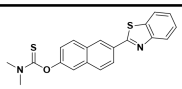
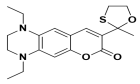
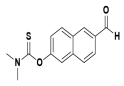
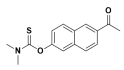
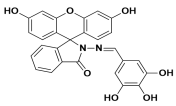
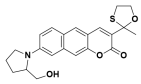
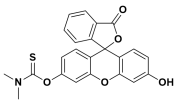
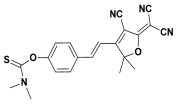
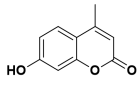
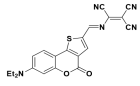
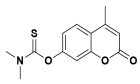
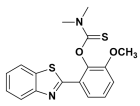
Table S1 Summary of HClO fluorescent probe

Probe	Response time	Real water sample testing	test paper	Detection limit	Reference
	Within 30 s	Yes	Yes	37.56 nM	This work
	/	No	No	2.7 nM	Anal.Chem., 2020, 16, 11029-11034
 	25 s；45 s	No	No	2.37 nM；8.2 nM	Chem.Commun, 2018, 57, 7967-7970
	/	Yes	No	/	Sensors and Actuators B: Chemical, 2016, 232:300-305.
	/	No	No	34.8 nM	Chem.Commun, 2017,53,10800-10803
	3 s	No	No	0.65 nM	RSC Adv, 2019, **9**, 4659-4664.
	Within 1 min	No	No	0.9 nM	Sensor and Actuators B: Chemical, 297, 15 2019, 126731.
	Within 1 min	Yes	No	67 nM	*RSC Adv.*, 2016,**6**, 105795-105800.
	1 min	Yes	No	94 nM	New Journal of Chemistry, 2020,44, 6232-6237.
	1 min	Yes	Yes	34.75 nM	Spectrochim Acta A Mol Biomol Spectrosc. 2018, 5; 203: 415-420.
	Within 10 s	Yes	Yes	0.16 nM	Chem Commun, 2018, **54**, 8522-8525.

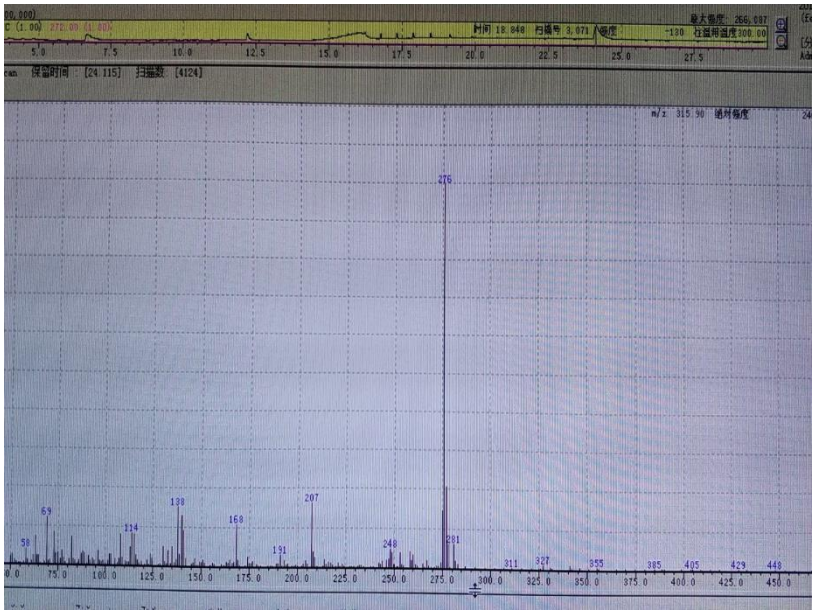


Figure. S1 Mass spectrum of compound 1

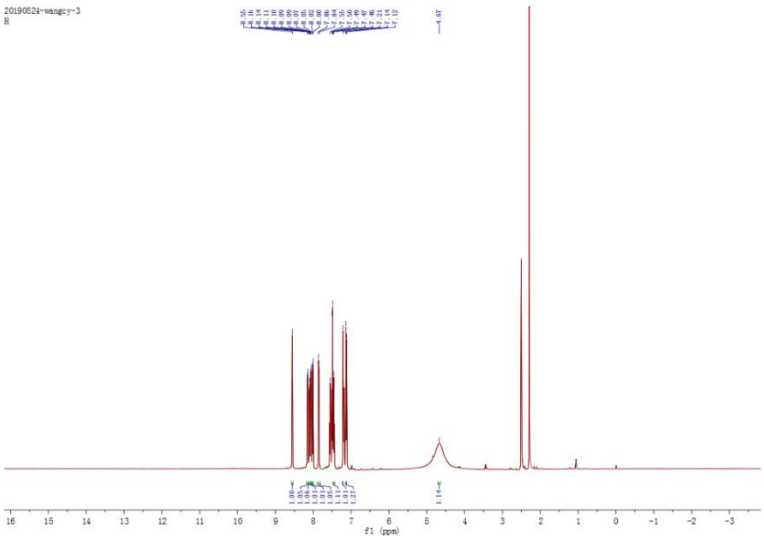


Figure. S2 ^{1}HNMR of compound 1

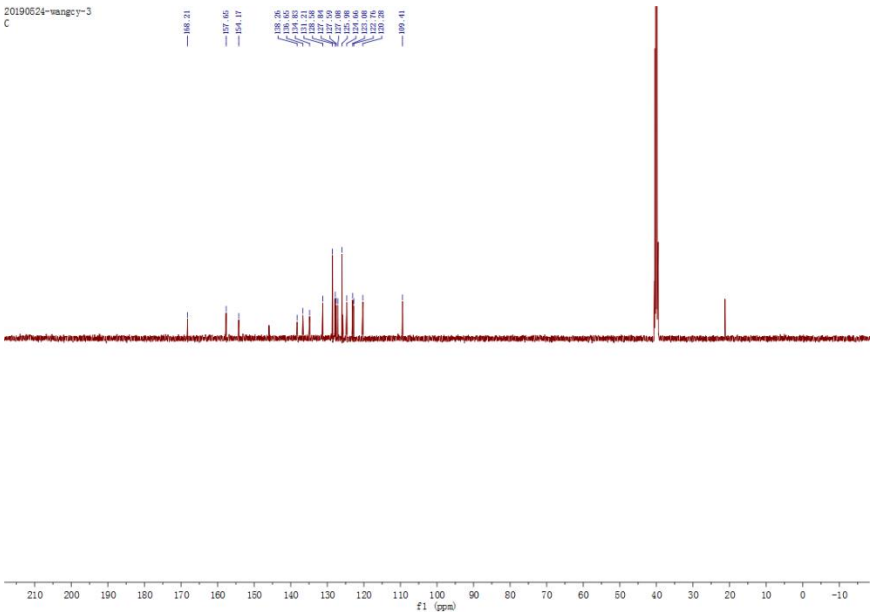
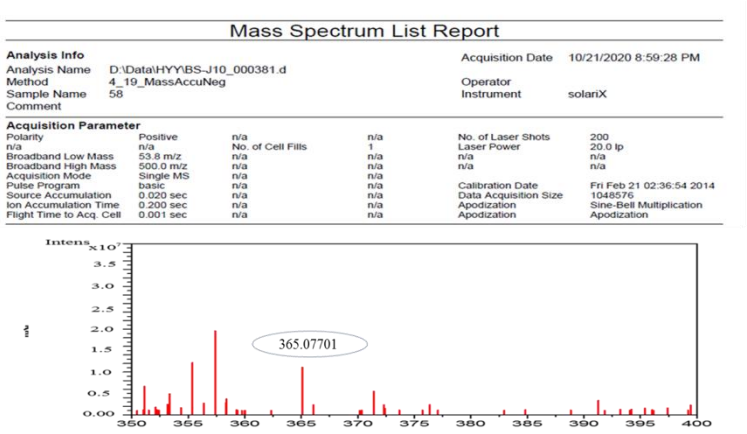


Figure. S3 ^{13}CNMR of compound 1



Mass Spectrum List Report

Analysis Info

Analysis Name	D:\Data\HYY\BS-J10_000381.d	Acquisition Date	10/21/2020 8:59:28 PM
Method	4_19_MassAccuNeg	Operator	
Sample Name	58	Instrument	solariX
Comment			

Acquisition Parameter

Polarity	Positive	n/a	n/a	No. of Laser Shots	200
n/a	n/a	No. of Cell Fills	1	Laser Power	20.0 lp
Broadband Low Mass	53.8 m/z	n/a	n/a	n/a	n/a
Broadband High Mass	500.0 m/z	n/a	n/a	n/a	n/a
Acquisition Mode	Single MS	n/a	n/a		
Pulse Program	basic	n/a	n/a	Calibration Date	Fri Feb 21 02:36:54 2014
Source Accumulation	0.020 sec	n/a	n/a	Data Acquisition Size	1048576
Ion Accumulation Time	0.200 sec	n/a	n/a	Apodization	Sine-Bell Multiplication
Flight Time to Acq. Cell	0.001 sec	n/a	n/a	Apodization	Apodization

Figure S4 The probe BNA-HClO high resolution mass spectrometry

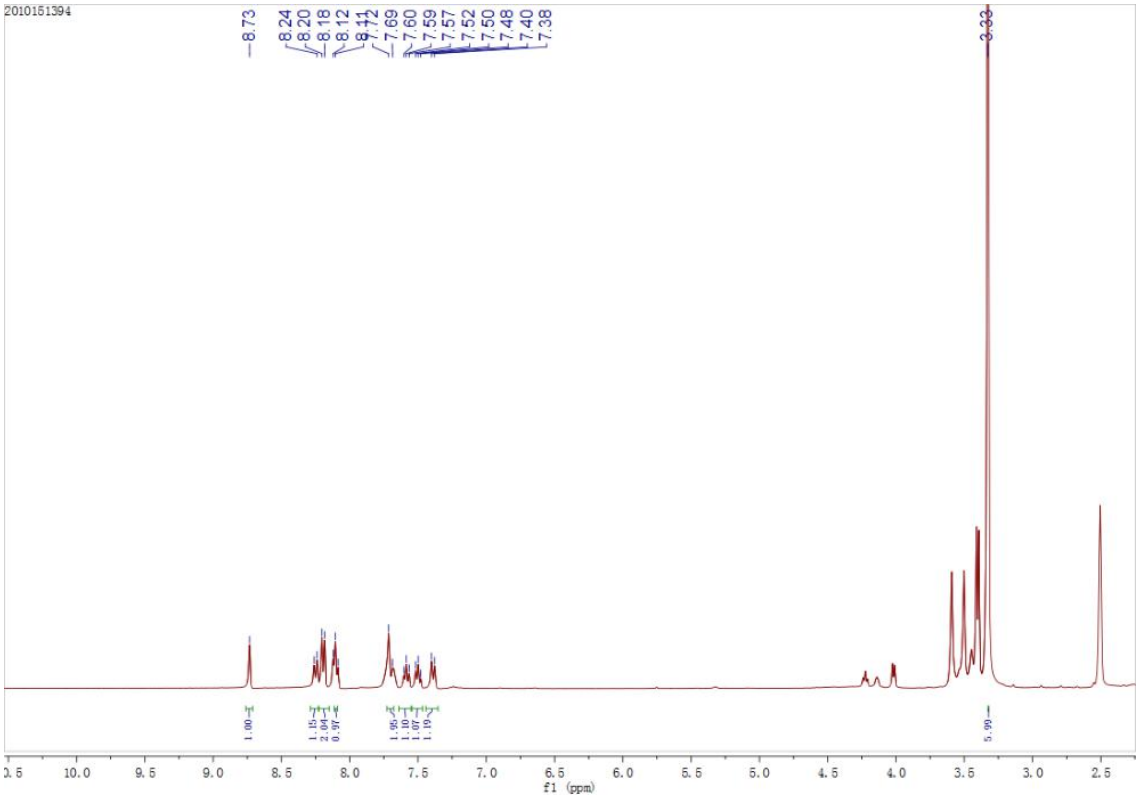


Figure. S5 [1]HNMR of probe BNA-HClO

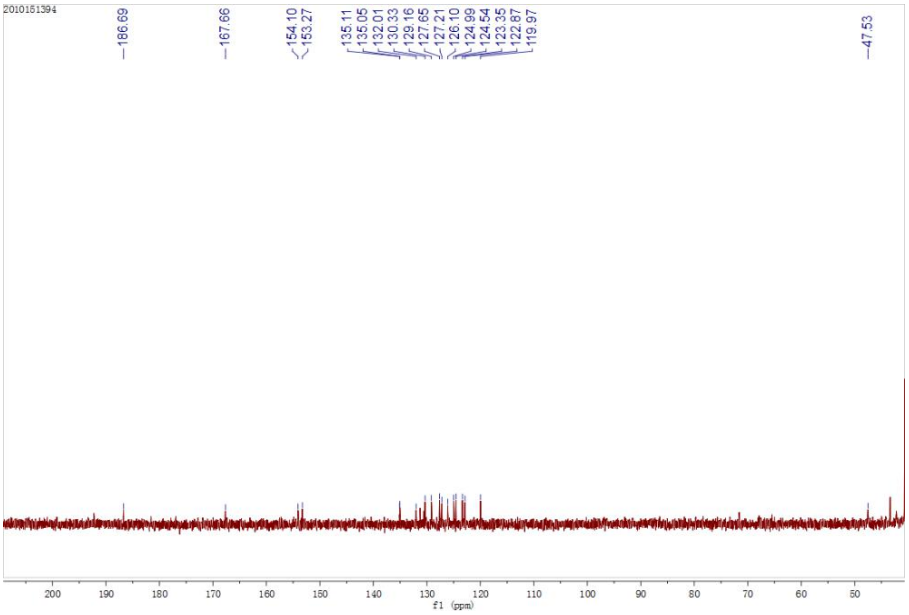


Figure. S6 [13]CNMR of probe BNA-HClO

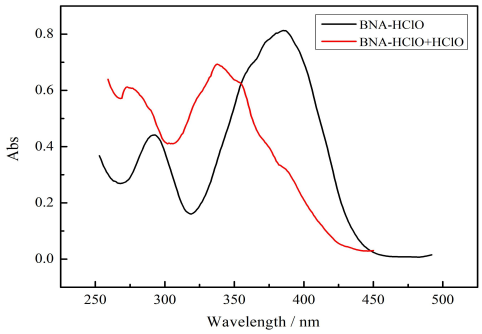
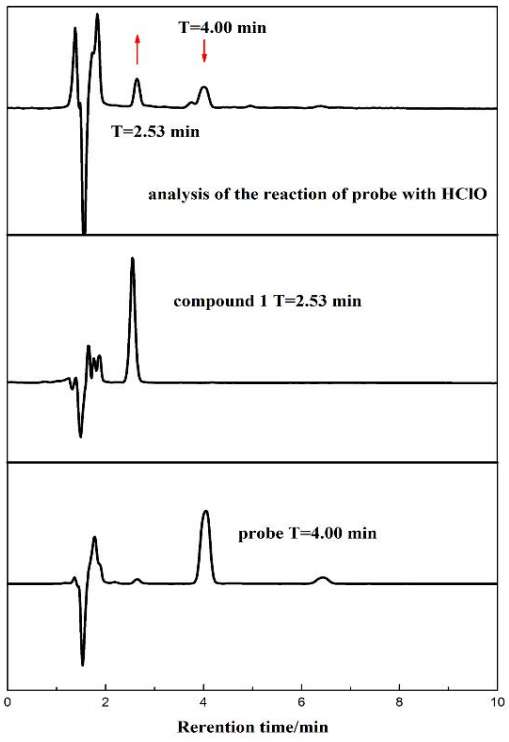


Figure. S7 Absorption spectra of probe BNA-HClO and HClO before and after response.

(a)



(b)

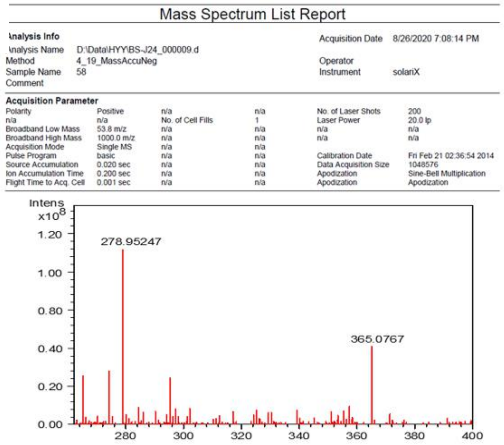


Figure. S8 (a) Reverse high performance liquid chromatography with absorption as detection signal. From top to bottom, the probe (10 μmol·L^{-1}) reacts with HClO (100 μmol·L^{-1}) for 1 min; compound 1 (1 mmol·L^{-1}); probe BNA-HClO (1 mmol·L^{-1}). (b) High-resolution mass spectrum of the system after the probe responds to HClO.

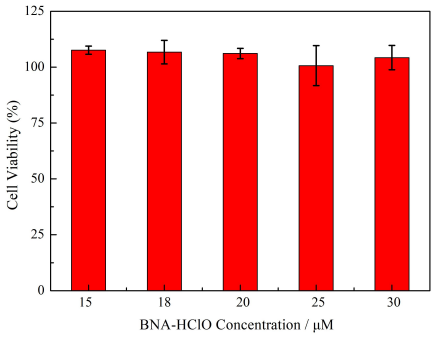


Figure. S9 Cytotoxicity of higher concentration probe BNA-HClO.