

## *Electronic Supplementary Information (ESI)*

### **A new mitochondria-targeted ratiometric fluorescent probe based on diketopyrrolopyrrol for imaging endogenous HOCl in the living cells**

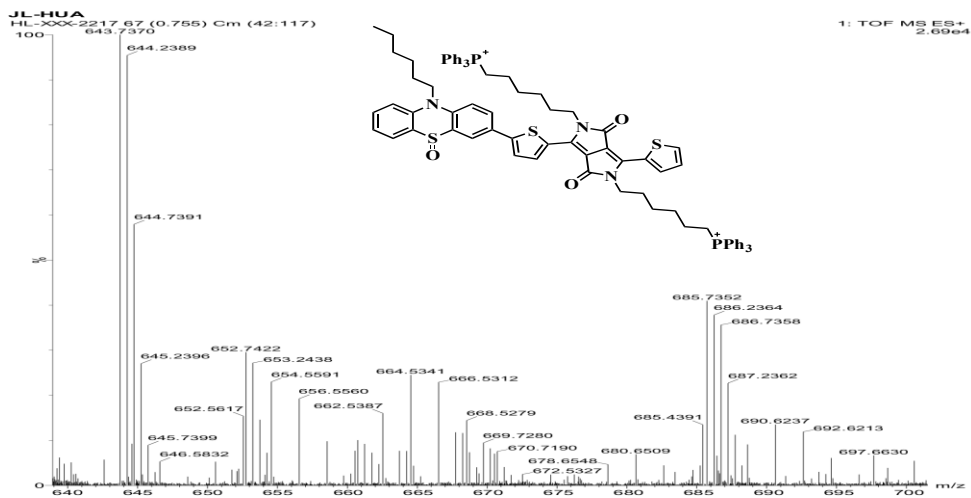
Xiaoxu Xie, Jian Wang, Yongchao Yan, Xiao Zhang, Chenchen Liu, Ji Yang and Jianli Hua\*

*Key Laboratory for Advanced Materials, Institute of Fine Chemicals, School of Chemistry and Molecular Engineering, East China University of Science and Technology, 130 Meilong Road, Shanghai, 200237, China.*

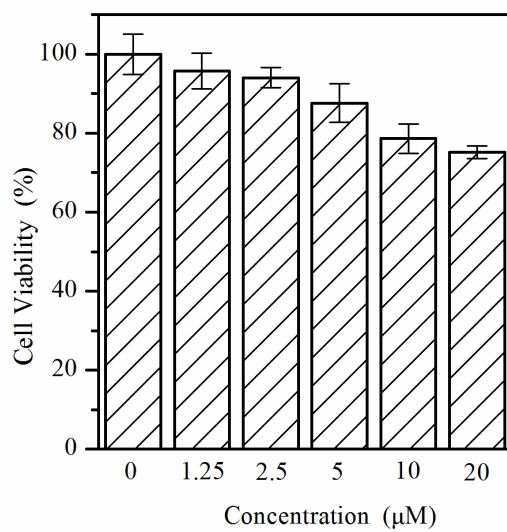
*E- mail: jlhua@ecust.edu.cn; Fax: +86-21-64250940; Tel: +86-21-64250940*

### **Table of contents**

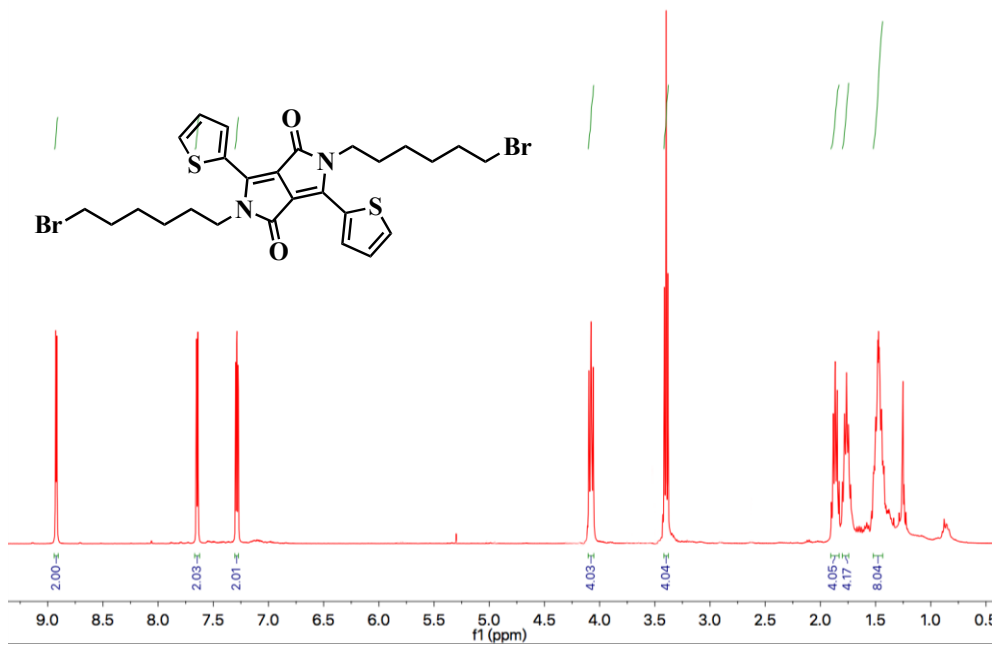
MTT experiment of HeLa cells incubated of <b>PTZ-TDPP</b> .....	S2
HRMS titration of <b>PTZ-TDPP</b> .....	S2
<sup>1</sup> H NMR spectrum of compound <b>2</b> .....	S3
<sup>13</sup> C NMR spectrum of compound <b>2</b> .....	S3
<sup>1</sup> H NMR spectrum of compound <b>3</b> .....	S4
<sup>13</sup> C NMR spectrum of compound <b>3</b> .....	S4
<sup>1</sup> H NMR spectrum of compound <b>4</b> .....	S5
<sup>13</sup> C NMR spectrum of compound <b>4</b> .....	S5
<sup>1</sup> H NMR spectrum of compound <b>PTZ-TDPP</b> .....	S6
<sup>13</sup> C NMR spectrum of compound <b>PTZ-TDPP</b> .....	S6
MS spectrum of <b>PTZ-TDPP</b> .....	S7



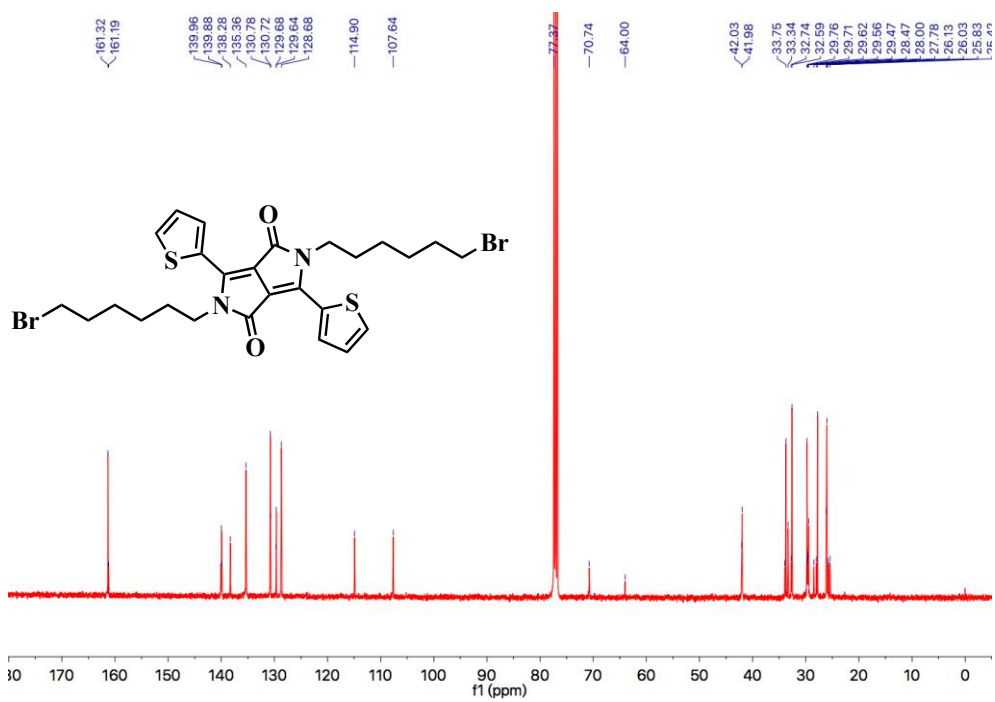
**Fig. S1** HRMS (ESI) spectrum of **PTZ-TDPP** after addition of HClO



**Fig. S2** MTT assay for estimating cell viability (%) of HeLa cells after incubation with different concentrations of PTZ-TDPP (0, 1.25, 2.5, 5, 10, 20 μM) for 24 h. Error bars.



**Fig. S3**  $^1\text{H-NMR}$  (CDCl<sub>3</sub>) spectrum of **compound 2**



**Fig. S4**  $^{13}\text{C-NMR}$  (CDCl<sub>3</sub>) spectrum of **compound 2**

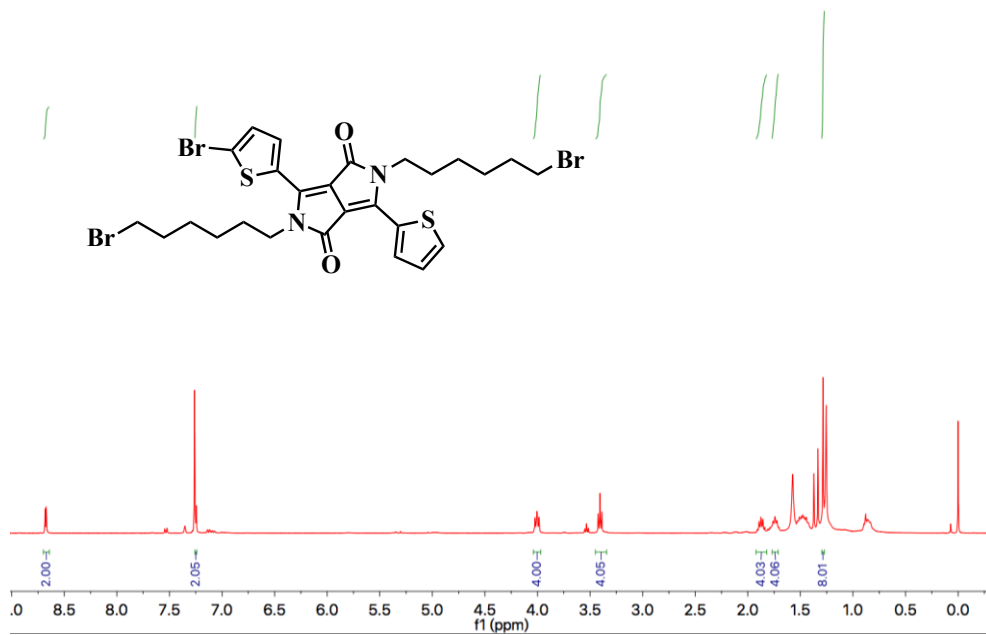


Fig. S5  $^1\text{H-NMR}$  (CDCl<sub>3</sub>) spectrum of compound 3

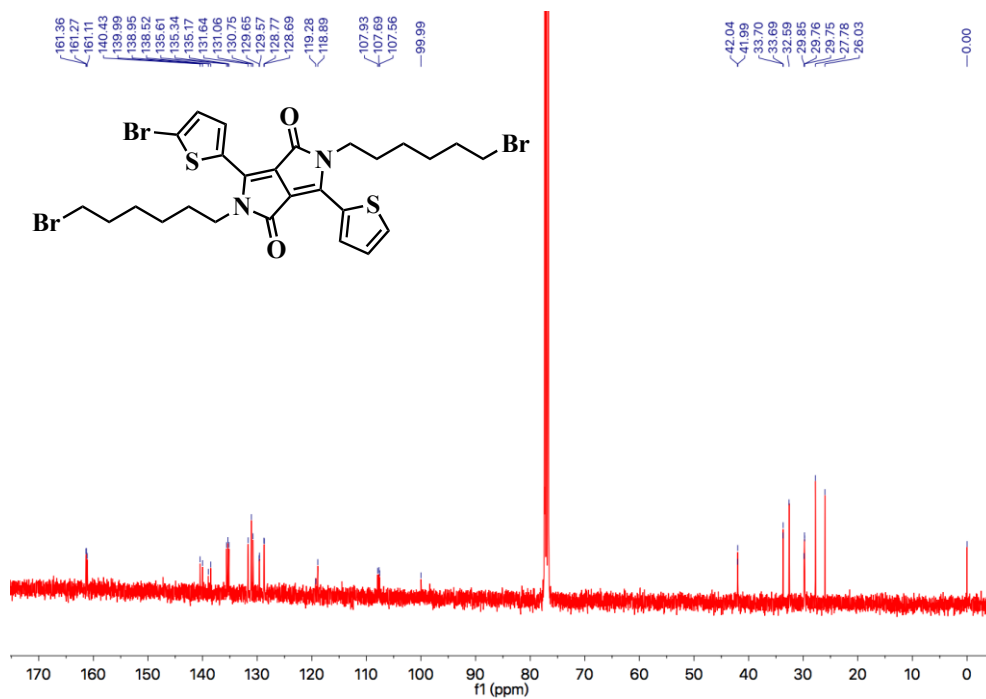


Fig. S6  $^{13}\text{C-NMR}$  (CDCl<sub>3</sub>) spectrum of compound 3

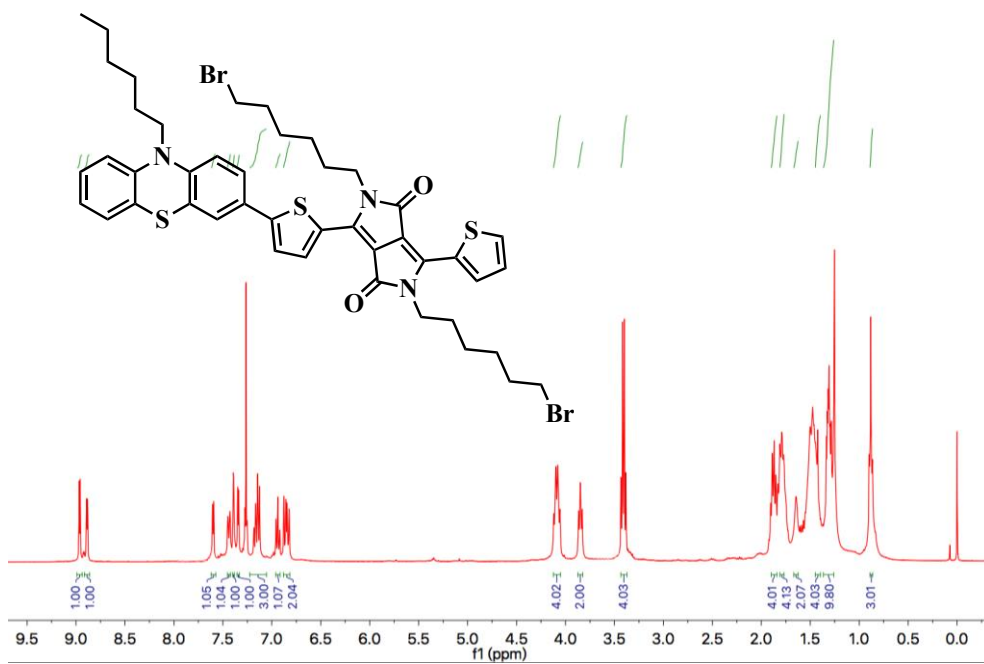


Fig. S7 <sup>1</sup>H-NMR (CDCl<sub>3</sub>) spectrum of **compound 4**

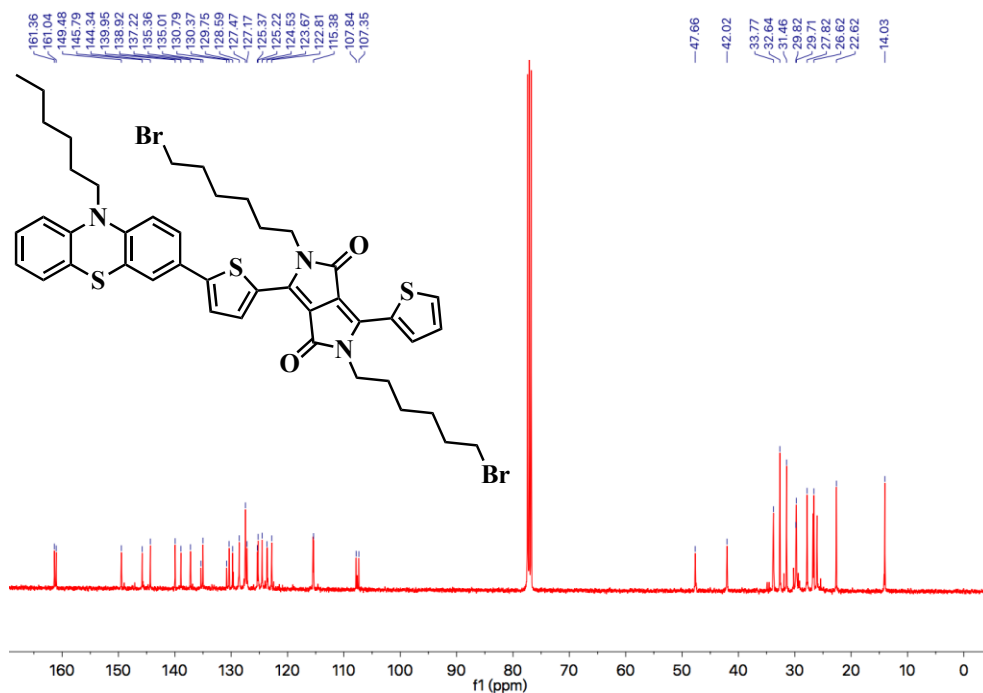
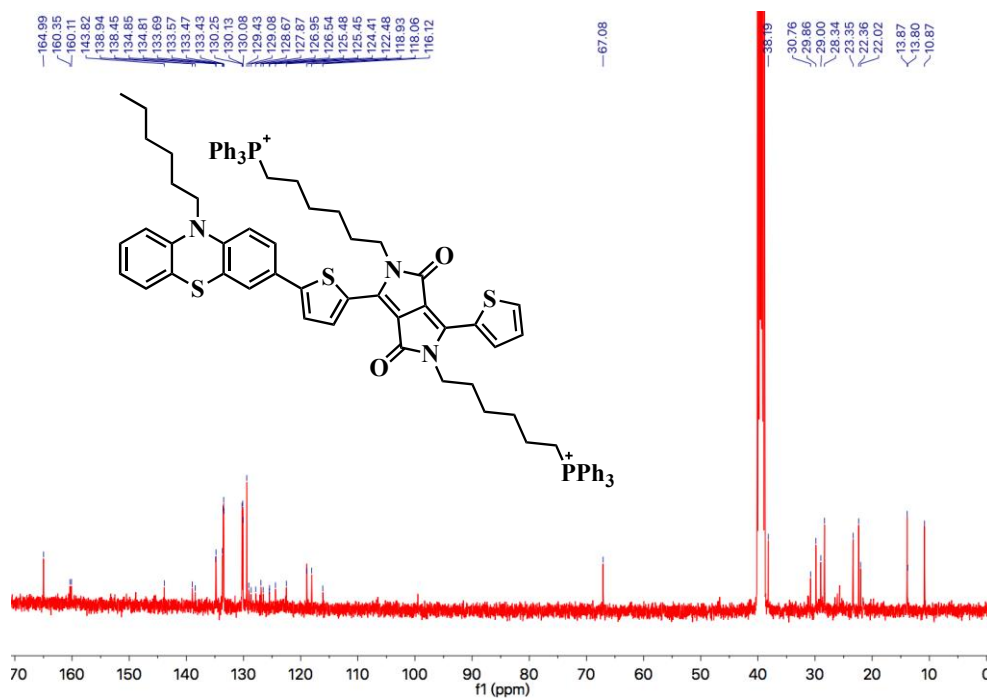
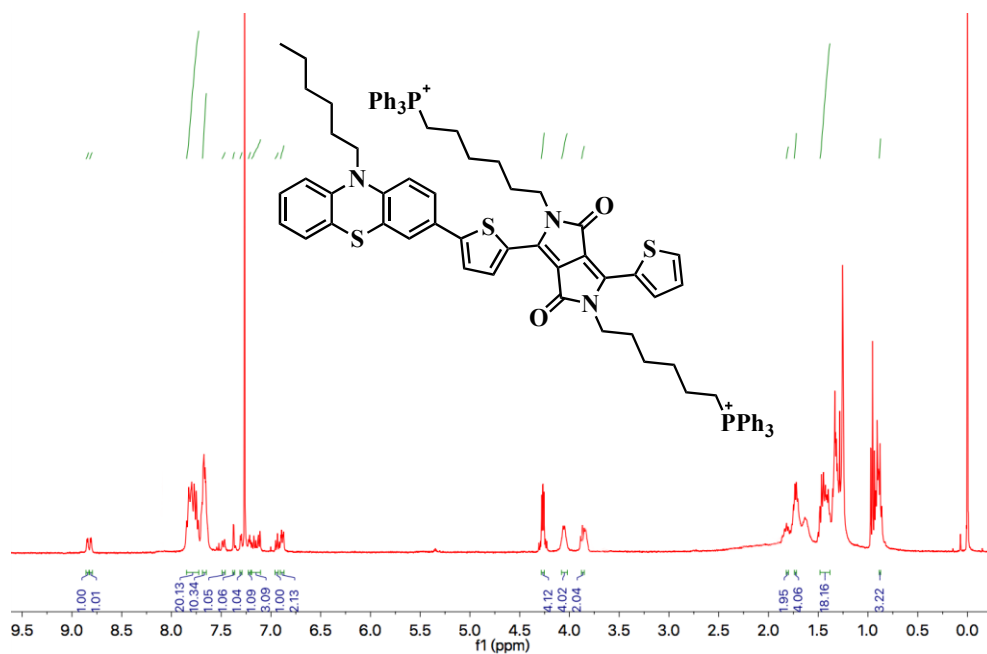
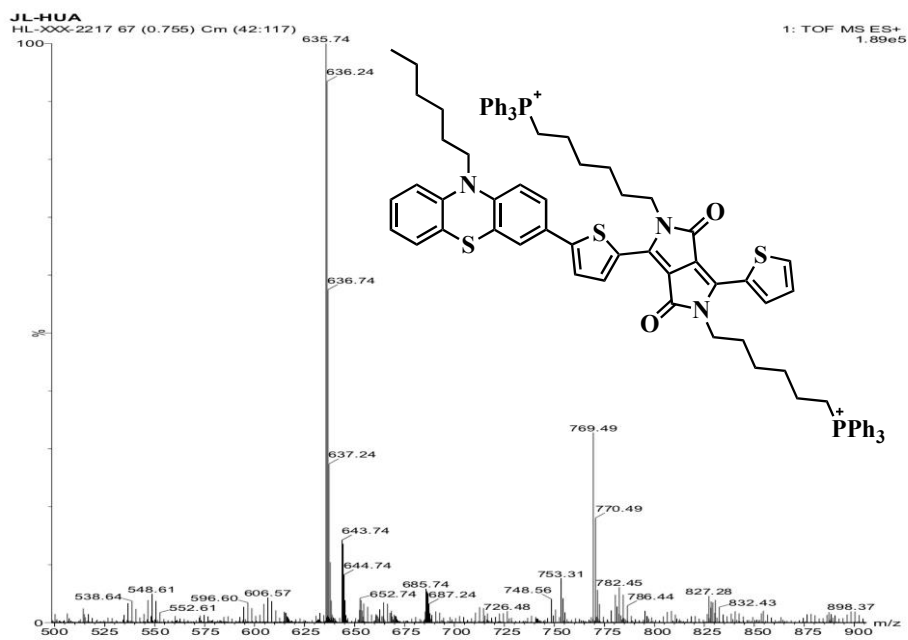


Fig. S8 <sup>13</sup>C-NMR (CDCl<sub>3</sub>) spectrum of **compound 4**



**Fig. S10**  $^{13}\text{C-NMR}$  ( $\text{DMSO-}d_6$ ) spectrum of **PTZ-TDPP**



**Fig. S11** MS (ESI) spectrum of **PTZ-TDPP**.