

Supporting Information

Rational Design of Ratiometric Fluorescent Probe for Zn²⁺ Imaging under Oxidative Stress in Cells

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lyh-113 #12 RT: 0.11 AV: 1 NL: 3.41E7
T: FTMS + p ESI Full ms [200.0000-750.0000]

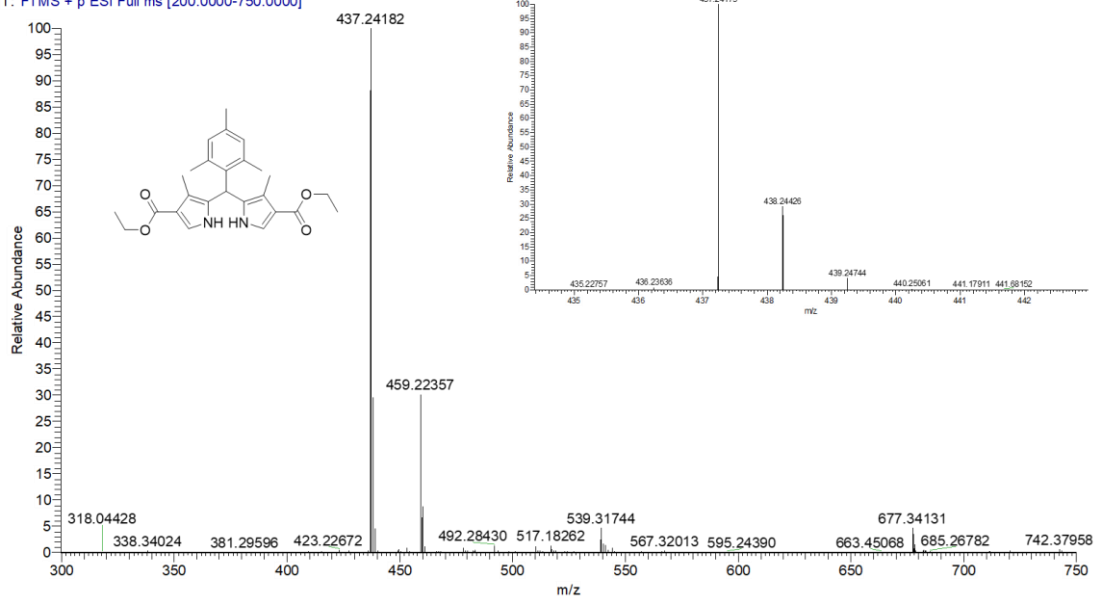


Figure S1. ESI-MS spectra of 1

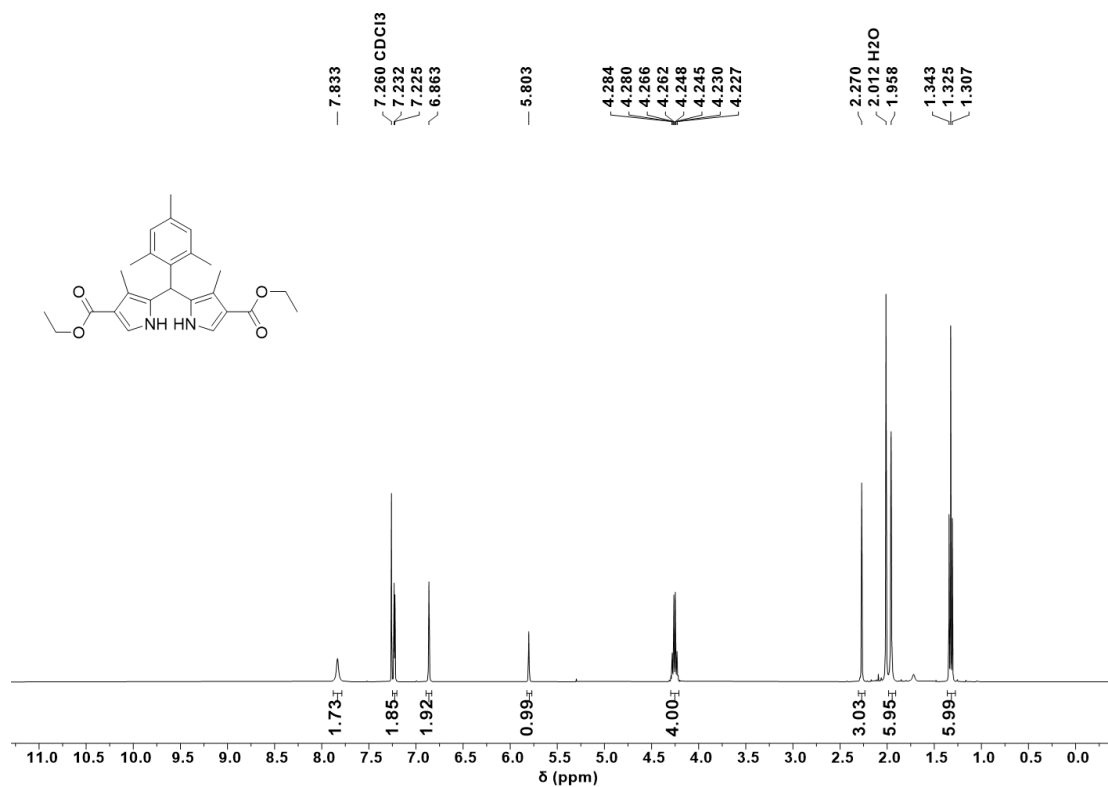


Figure S2. ¹H NMR spectra of 1

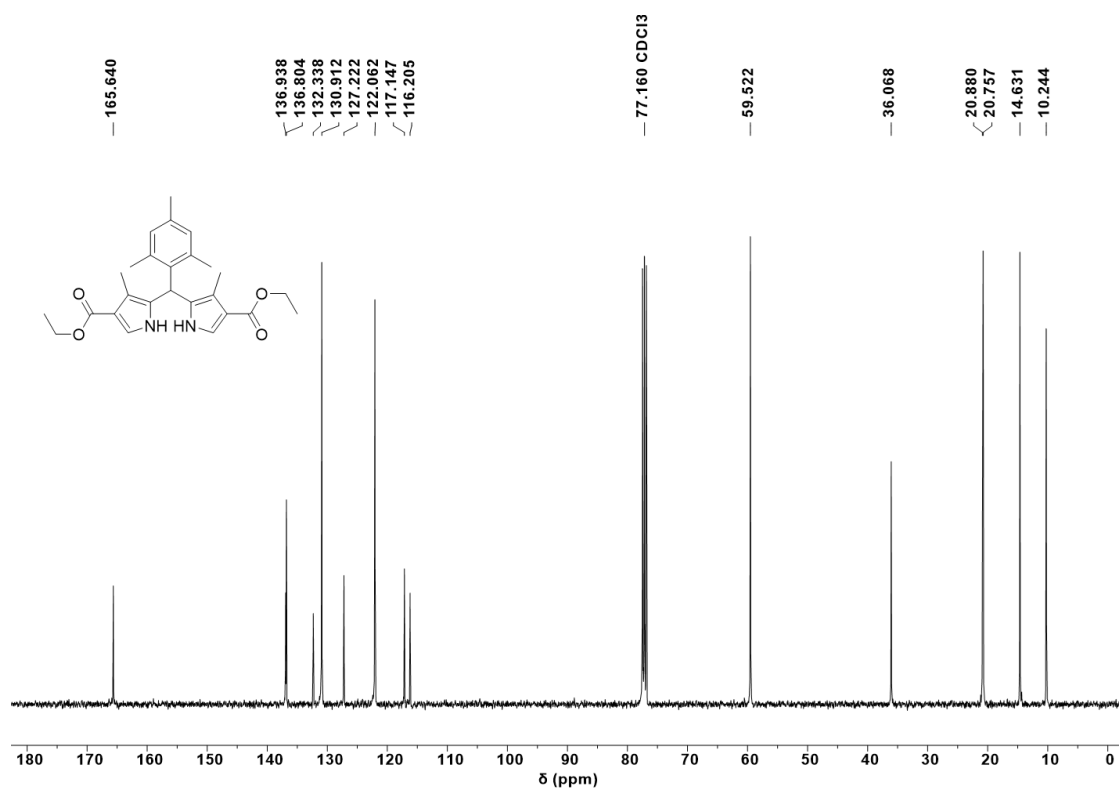


Figure S3. ¹³C NMR spectra of 1

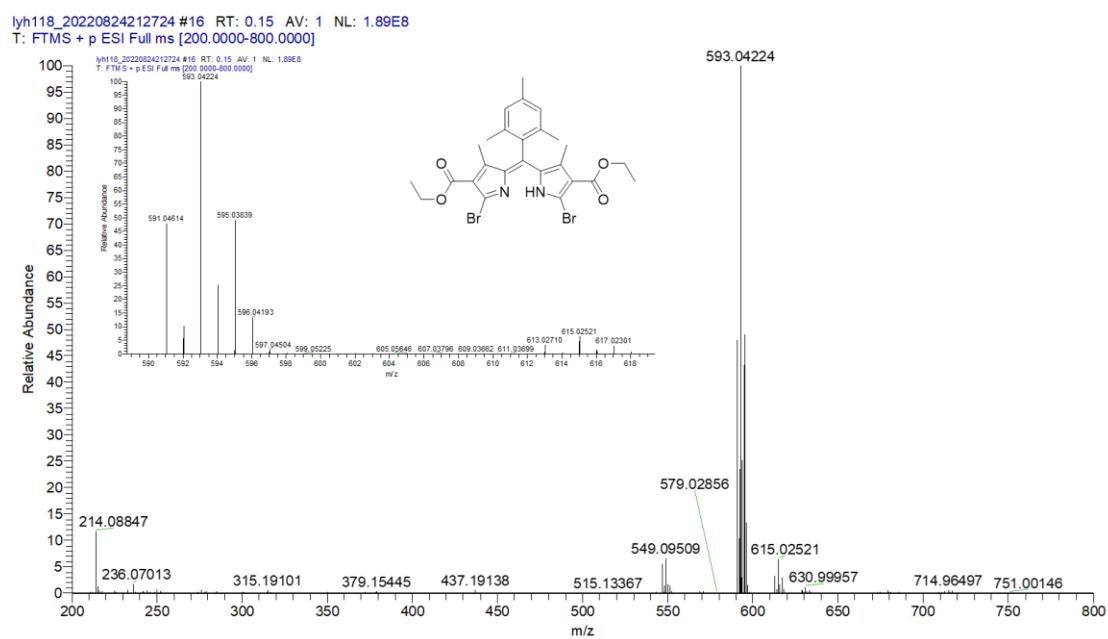


Figure S4. ESI-MS spectra of 2

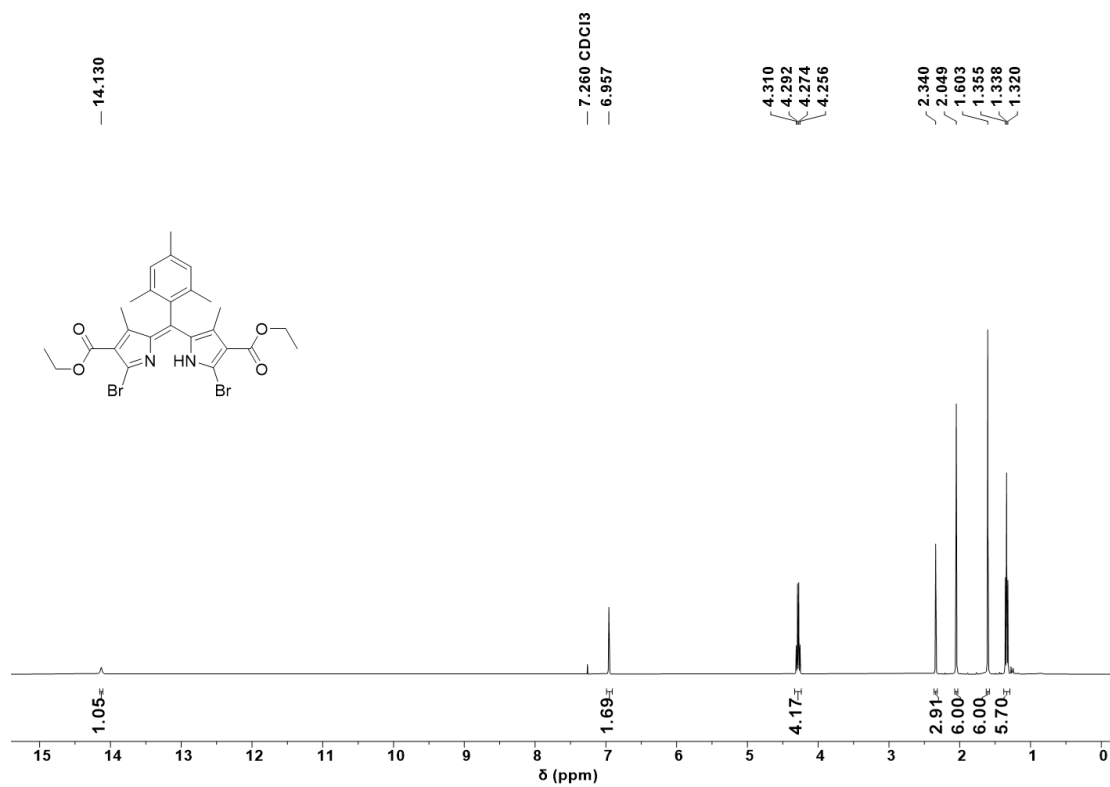


Figure S5. ¹H NMR spectra of **2**

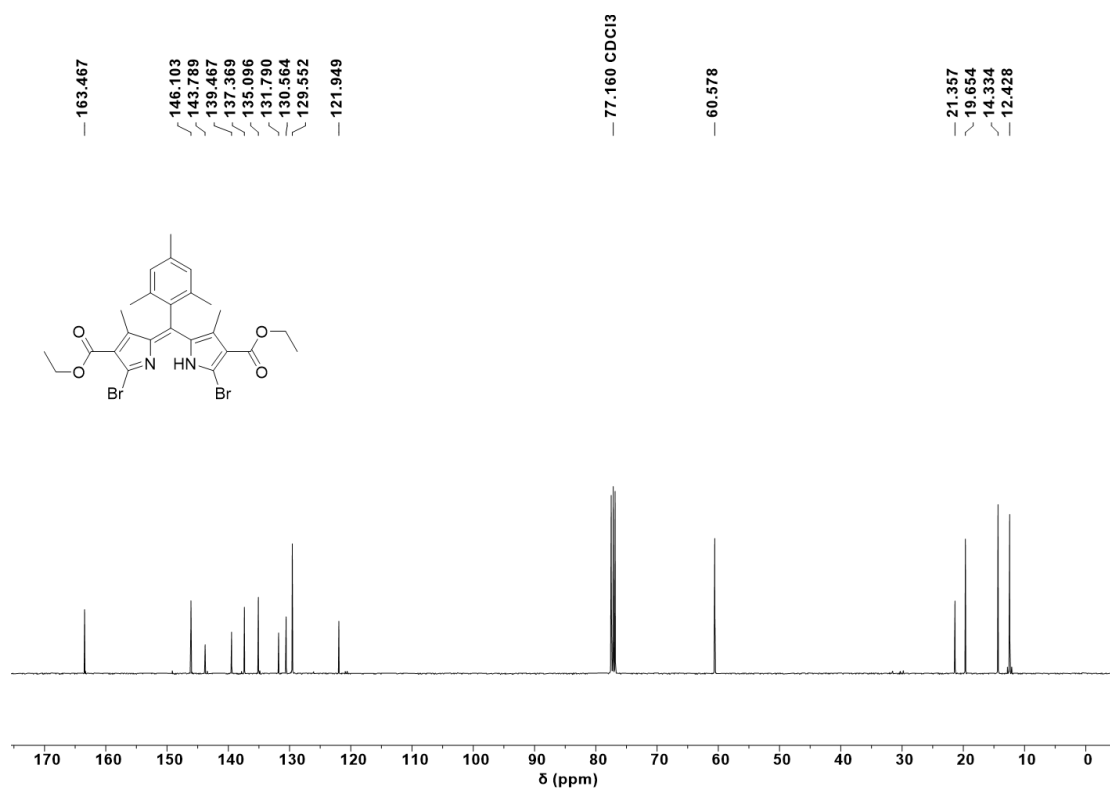


Figure S6. ¹³C NMR spectra of **2**

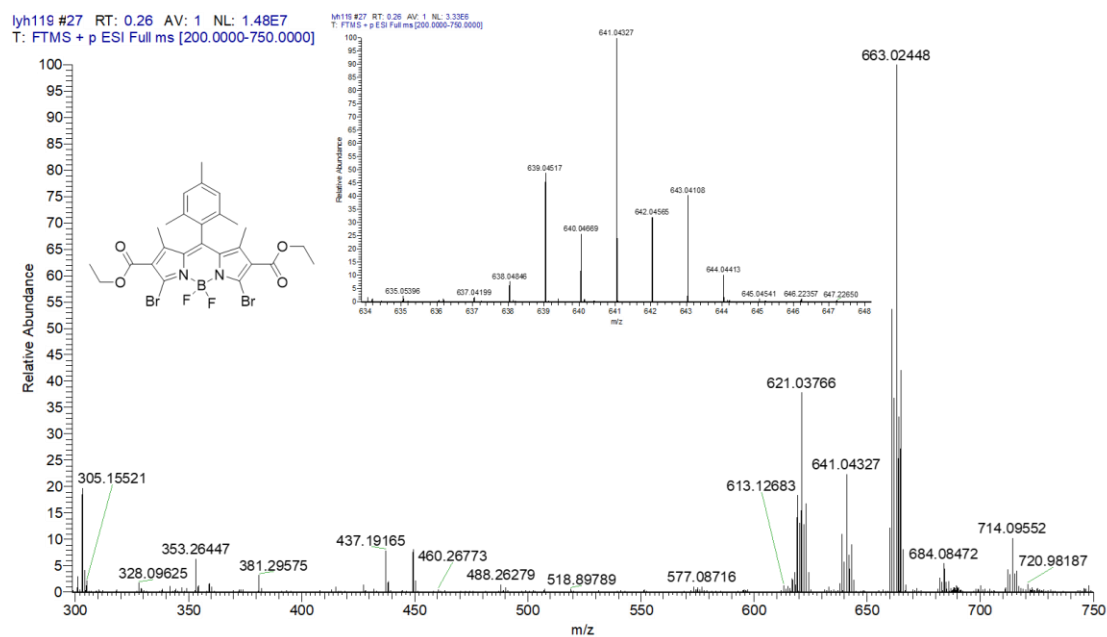


Figure S7. ESI-MS spectra of **3**

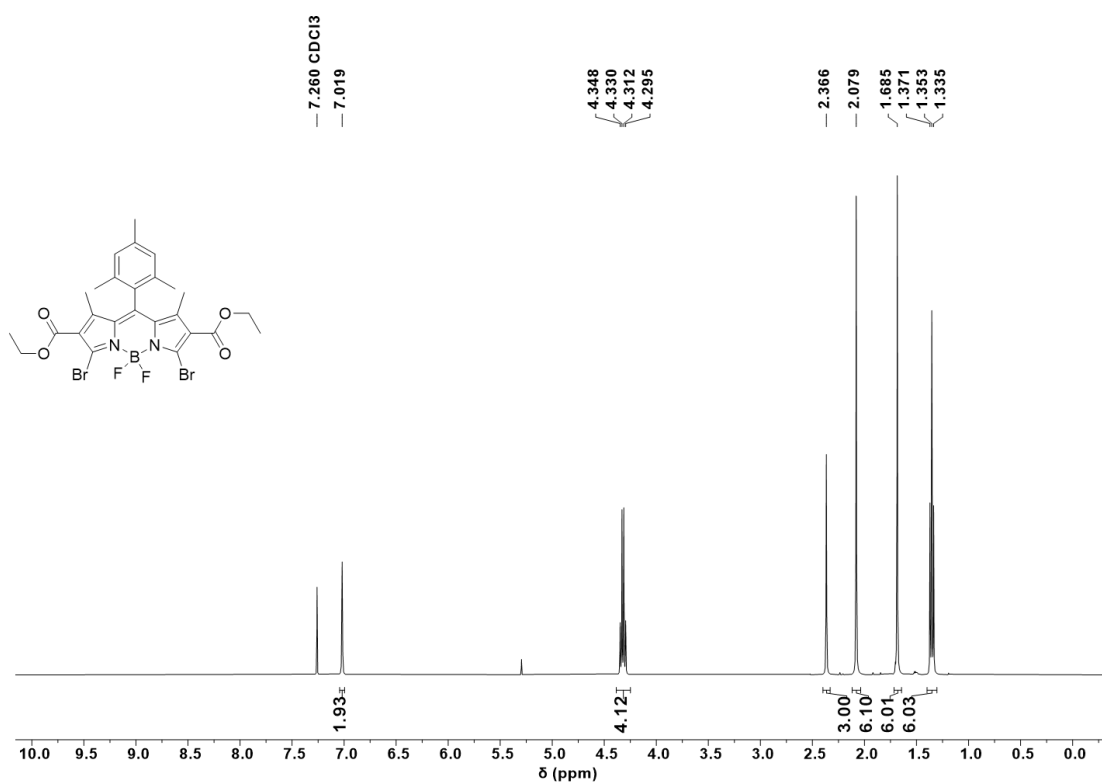


Figure S8. ¹H NMR spectra of **3**

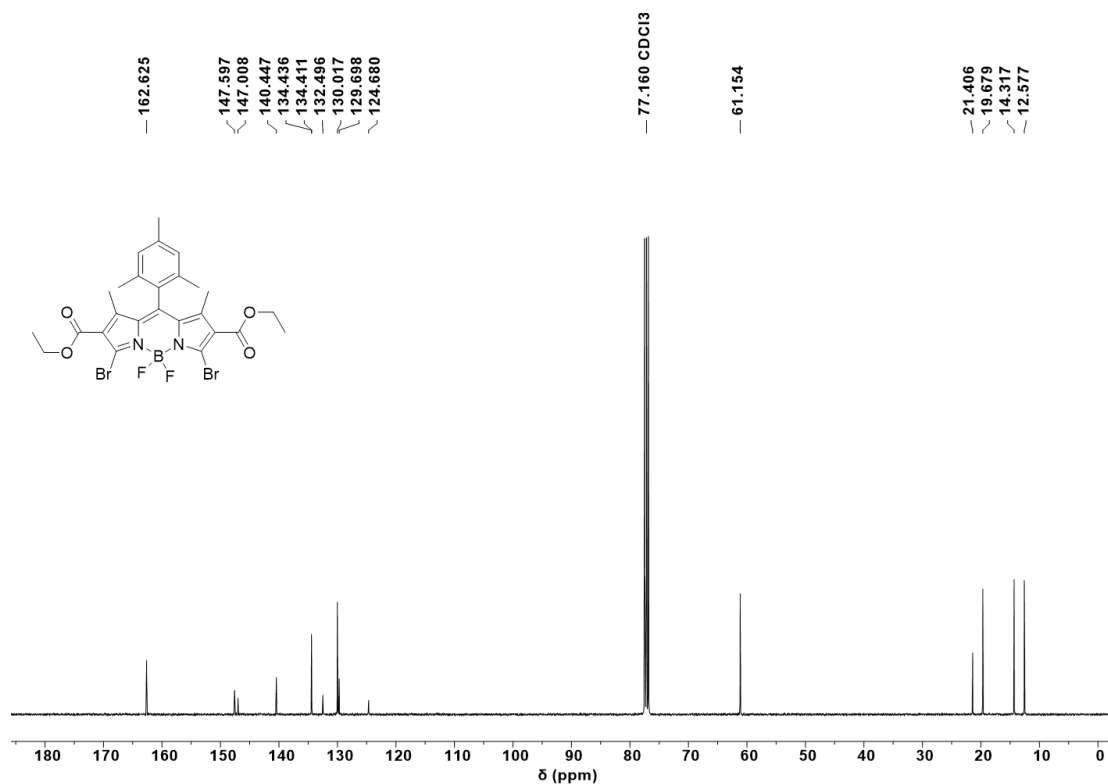


Figure S9. ¹³C NMR spectra of 3

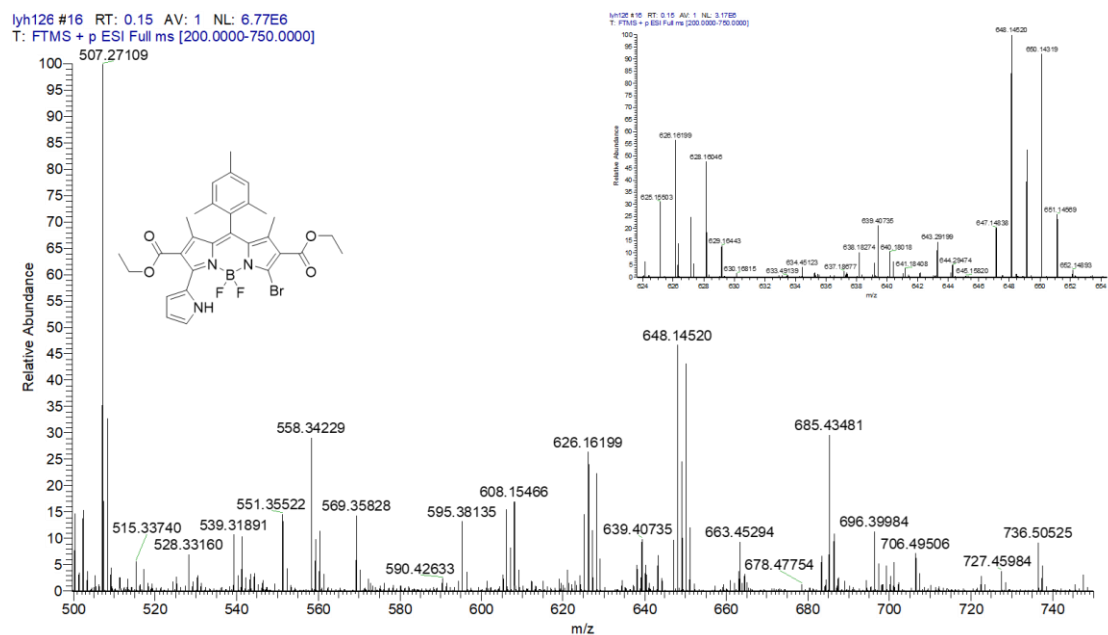


Figure S10. ESI-MS spectra of 4

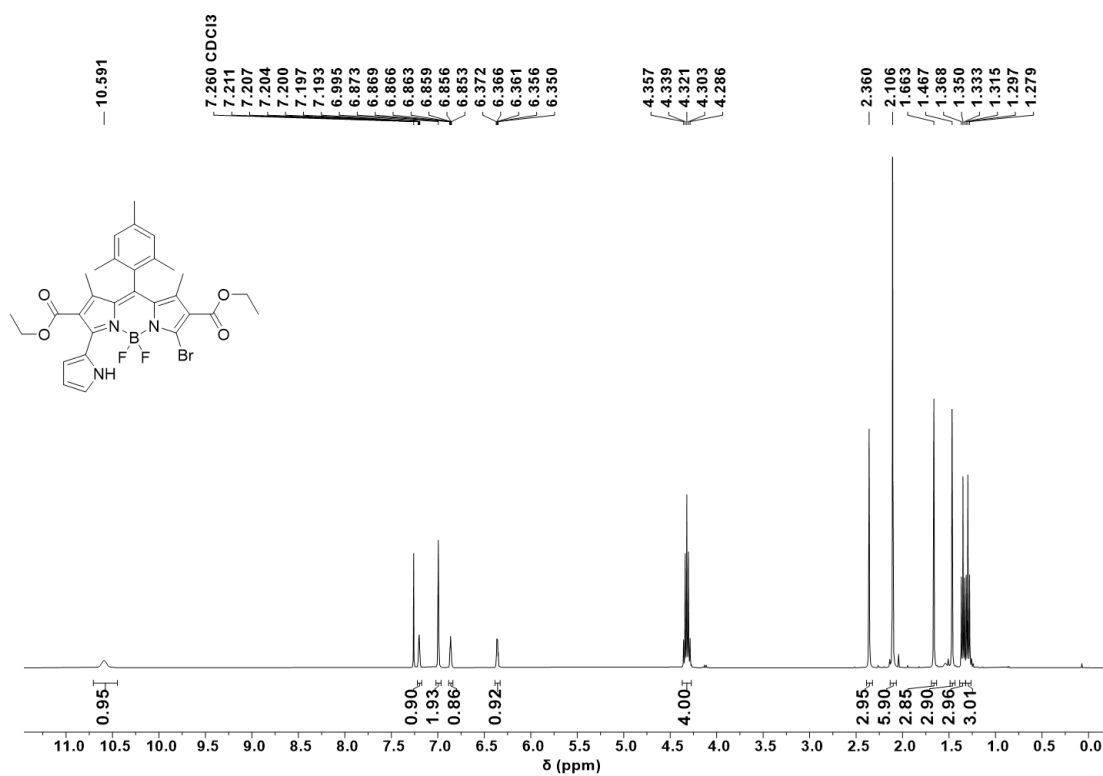


Figure S11. ¹H NMR spectra of 4

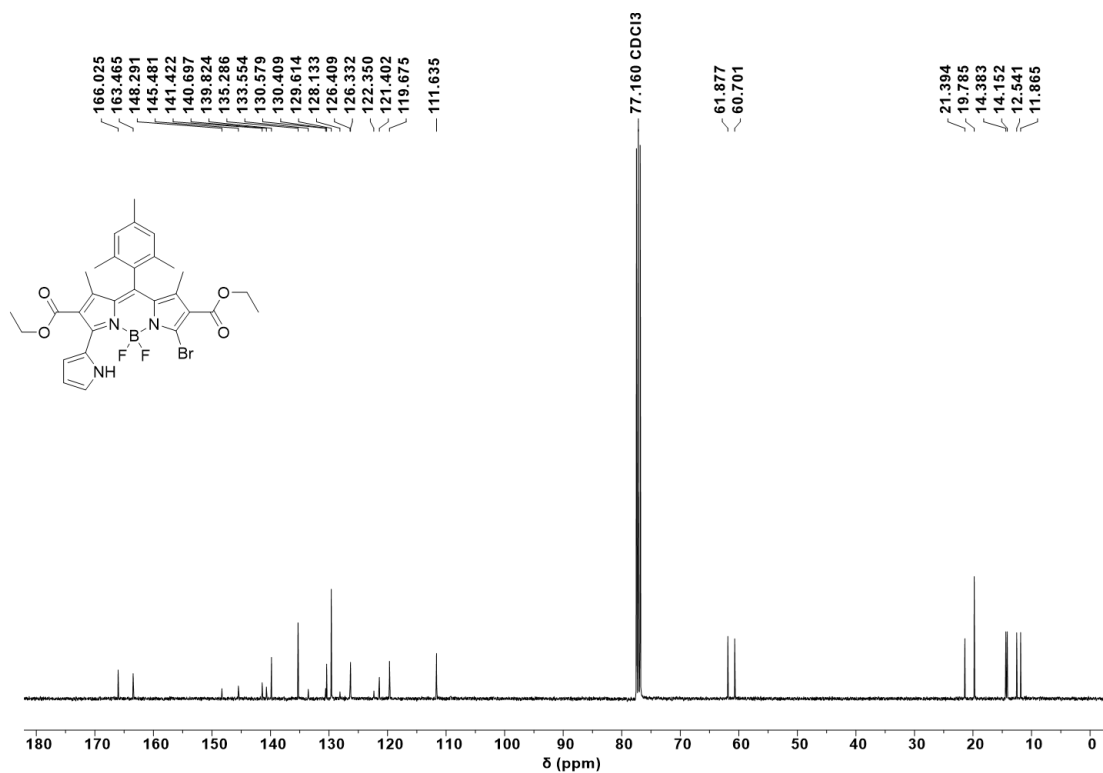


Figure S12. ¹³C NMR spectra of 4

lyh130 #17 RT: 0.18 AV: 1 NL: 3.79E7
T: FTMS + p ESI Full ms [200.0000-1600.0000]

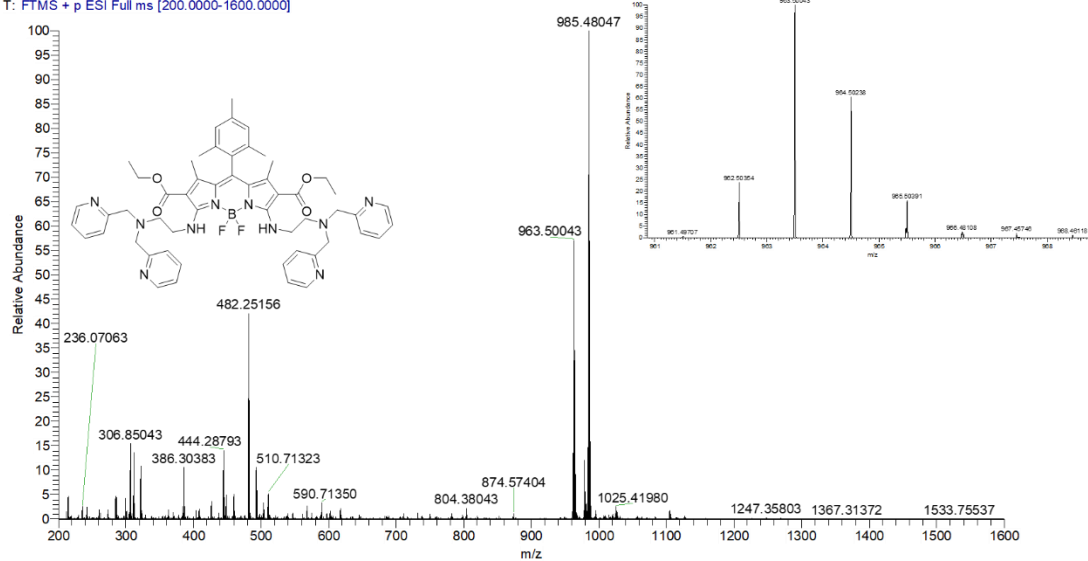


Figure S13. ESI-MS spectra of BDP-2BPEA

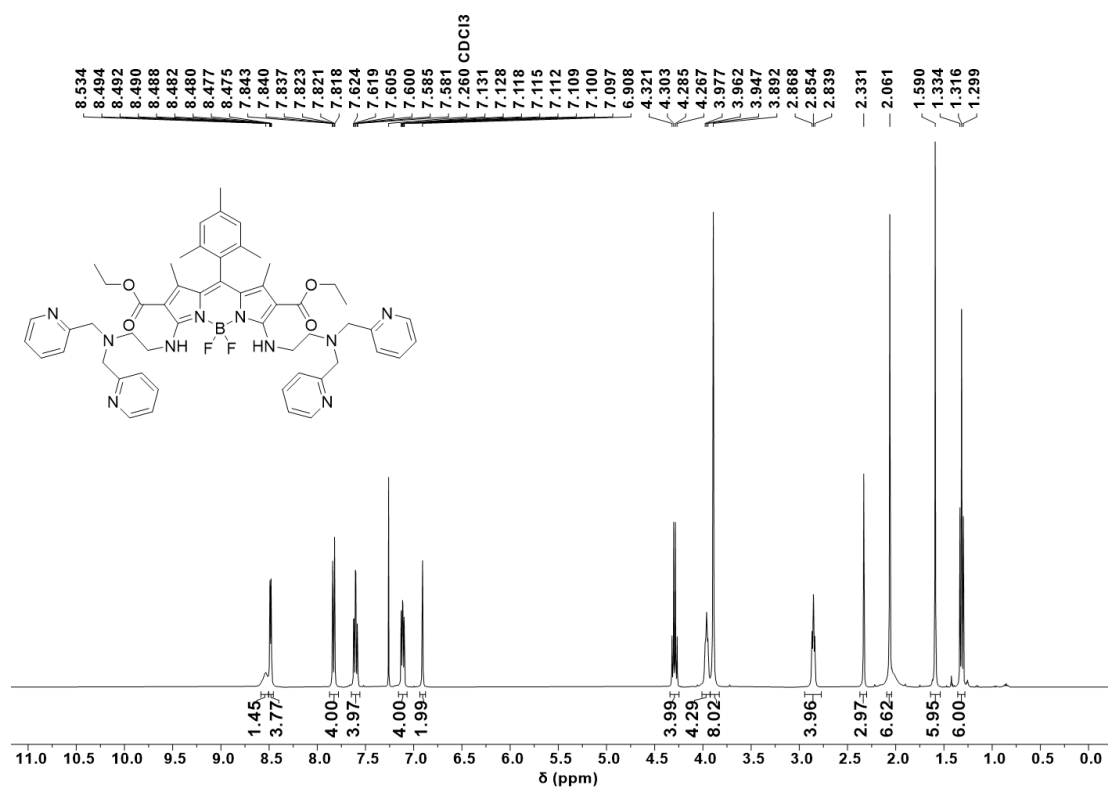


Figure S14. ^1H NMR spectra of BDP-2BPEA

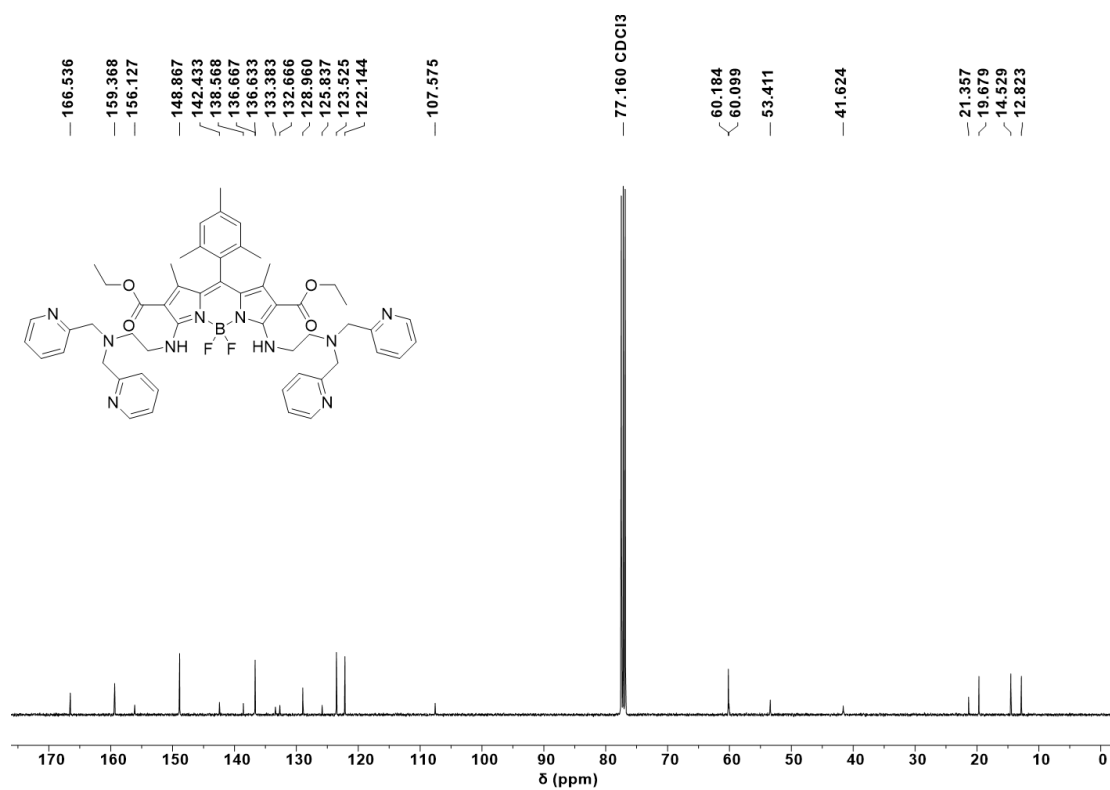


Figure S15. ¹³C NMR spectra of BDP-2BPEA

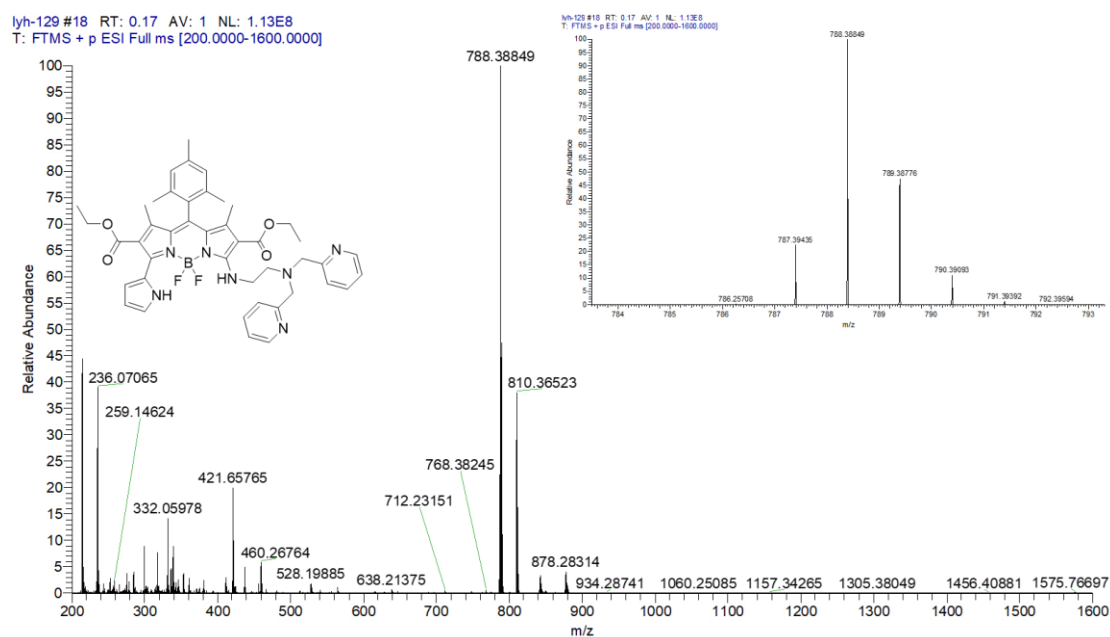
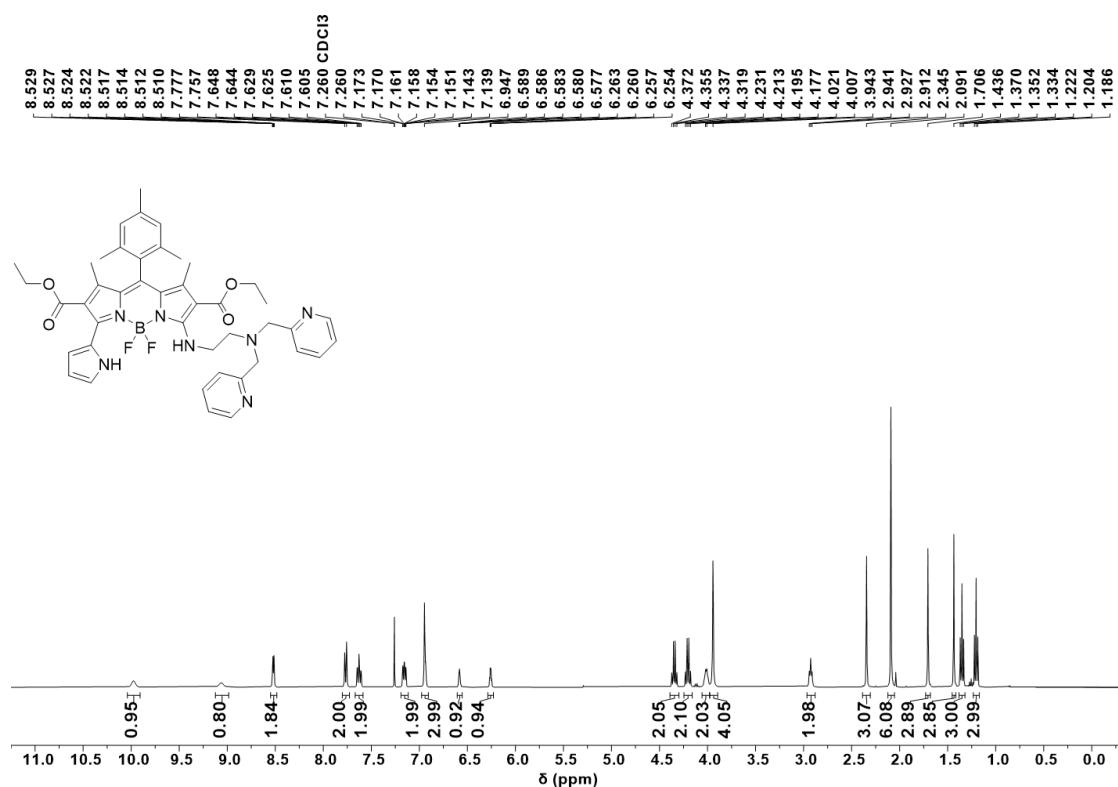


Figure S16. ESI-MS spectra of BDP-p-BPEA



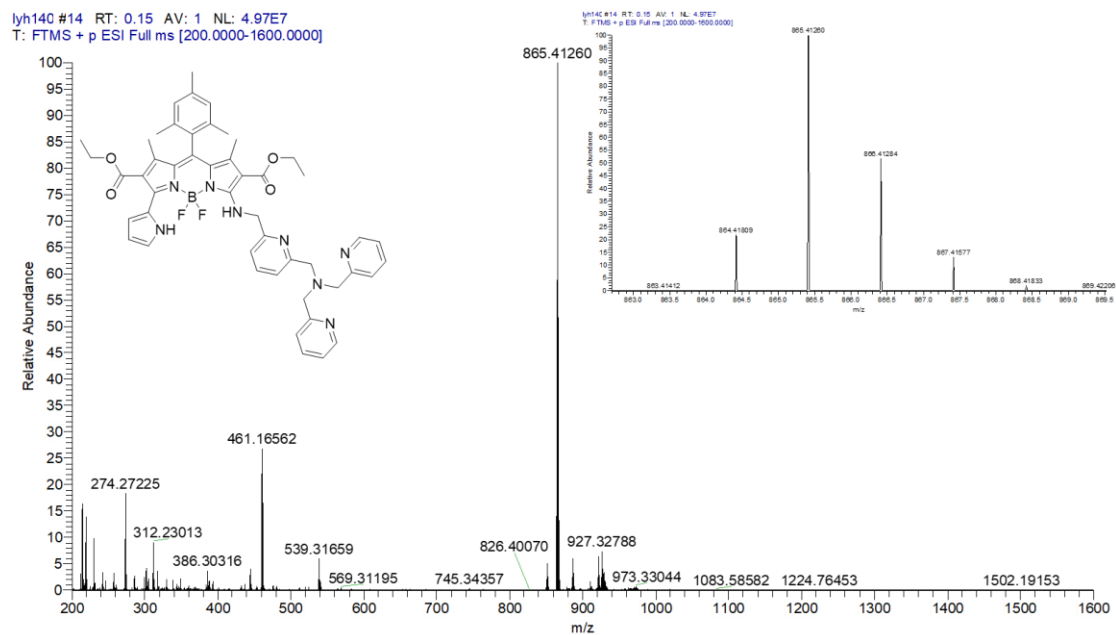


Figure S19. ESI-MS spectra of BDP-p-TMPA

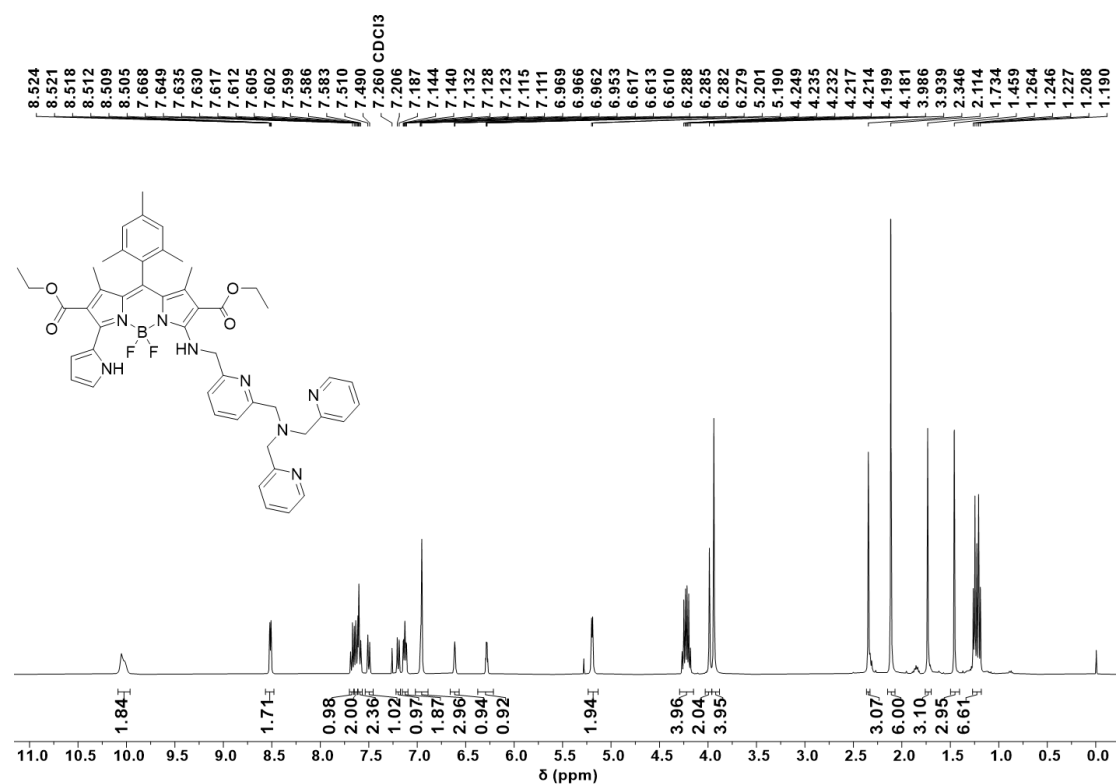


Figure S20. ¹H NMR spectra of BDP-p-TMPA

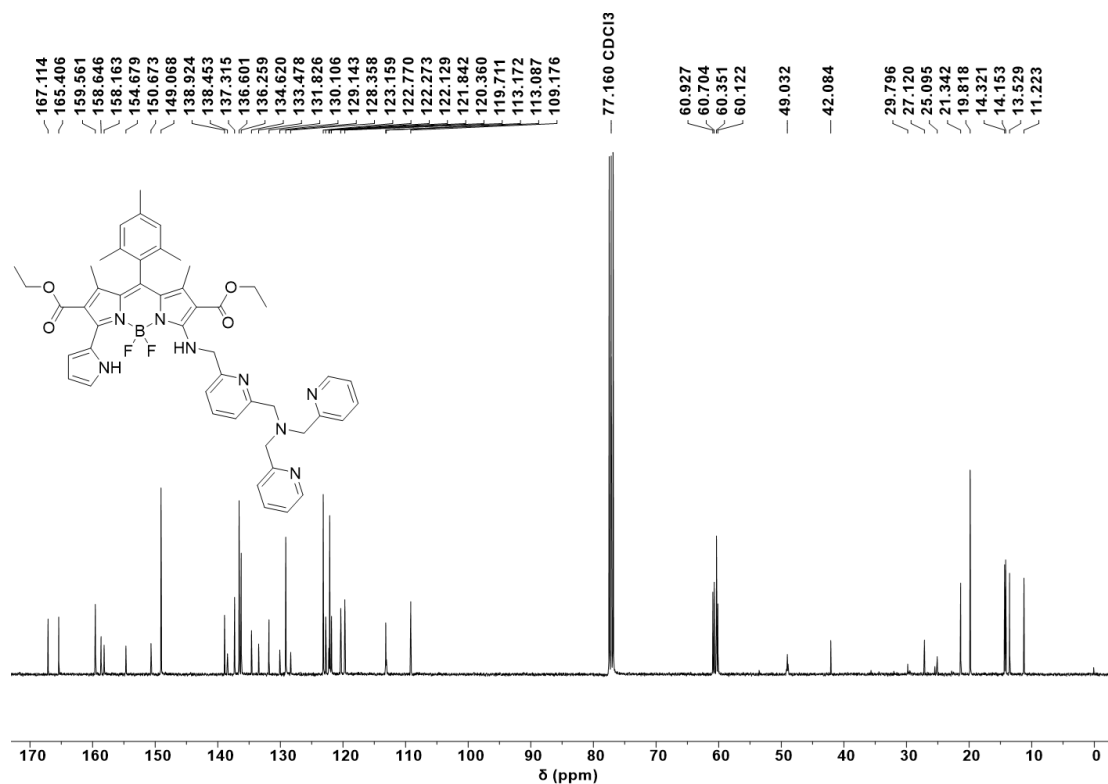


Figure S21. ¹³C NMR spectra of BDP-p-TMPA

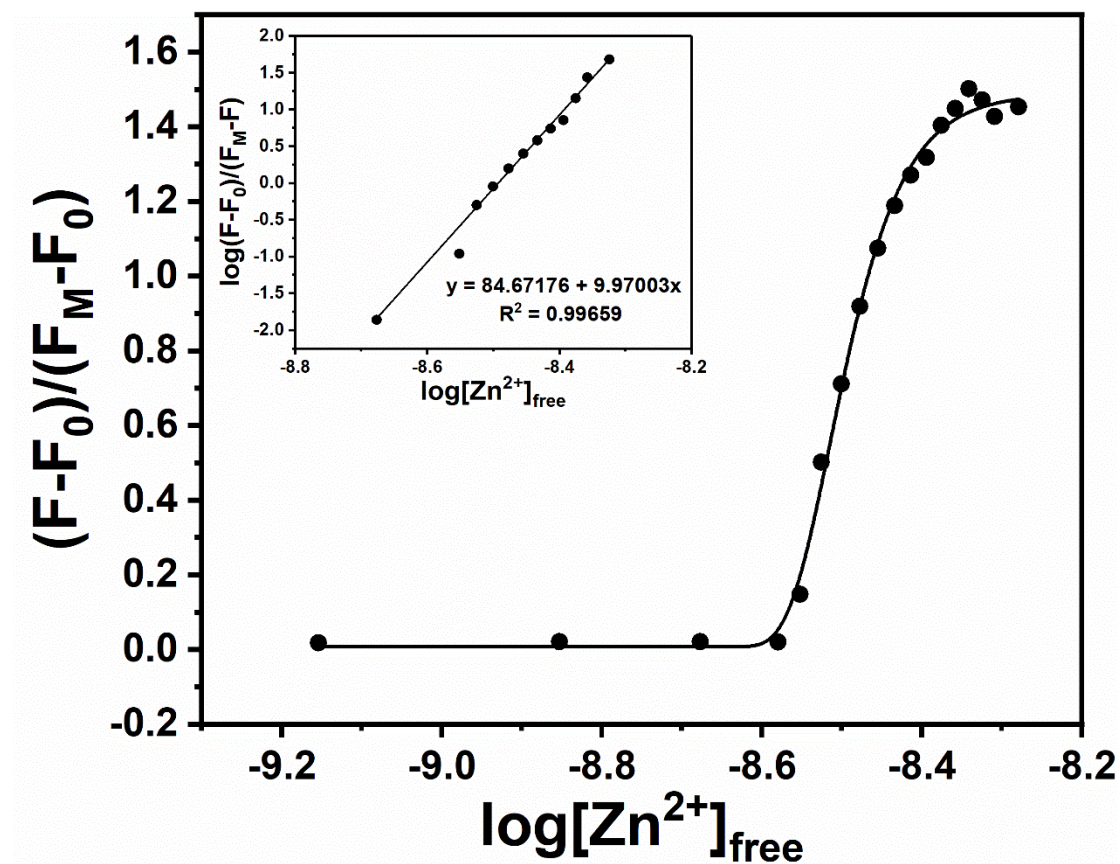


Figure S22. The Hill plot of BDP-p-BPEA complexation with Zn²⁺

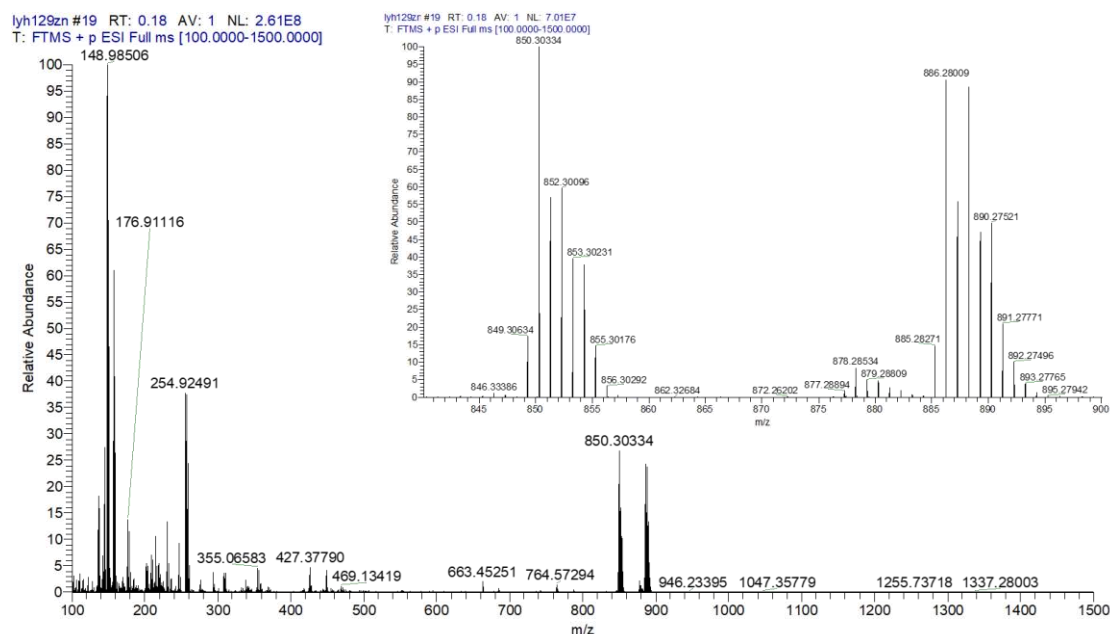


Figure S23. ESI-MS spectra of **BDP-p-BPEA** + Zn^{2+}

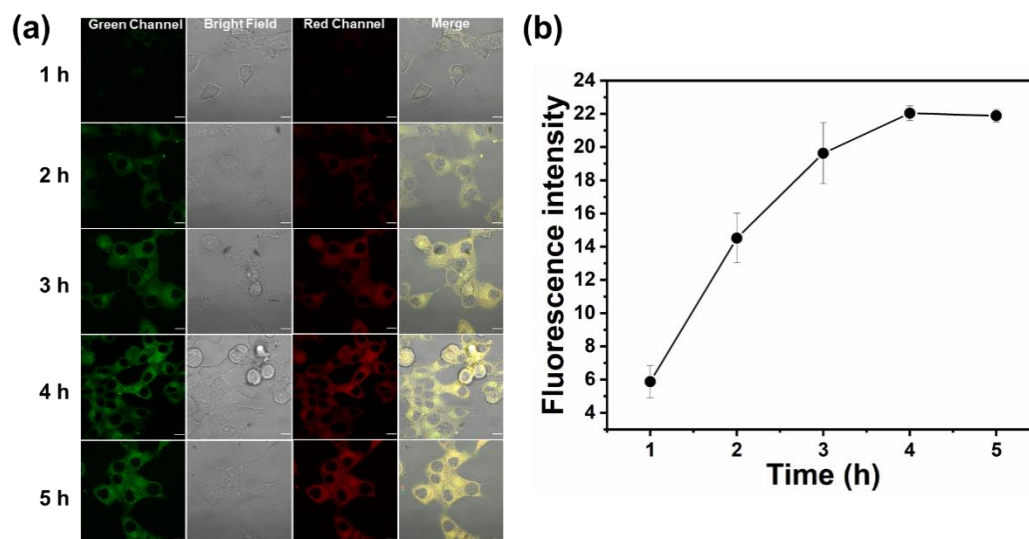


Figure S24. (a) Confocal imaging of HeLa cells treated by **BDP-p-BPEA** for 1-4 hours; (b) Average fluorescence intensity of cells in green channel of each graph. Green channel = 570-615 nm, red channel = 650-720 nm, scale bar: 10 μm .

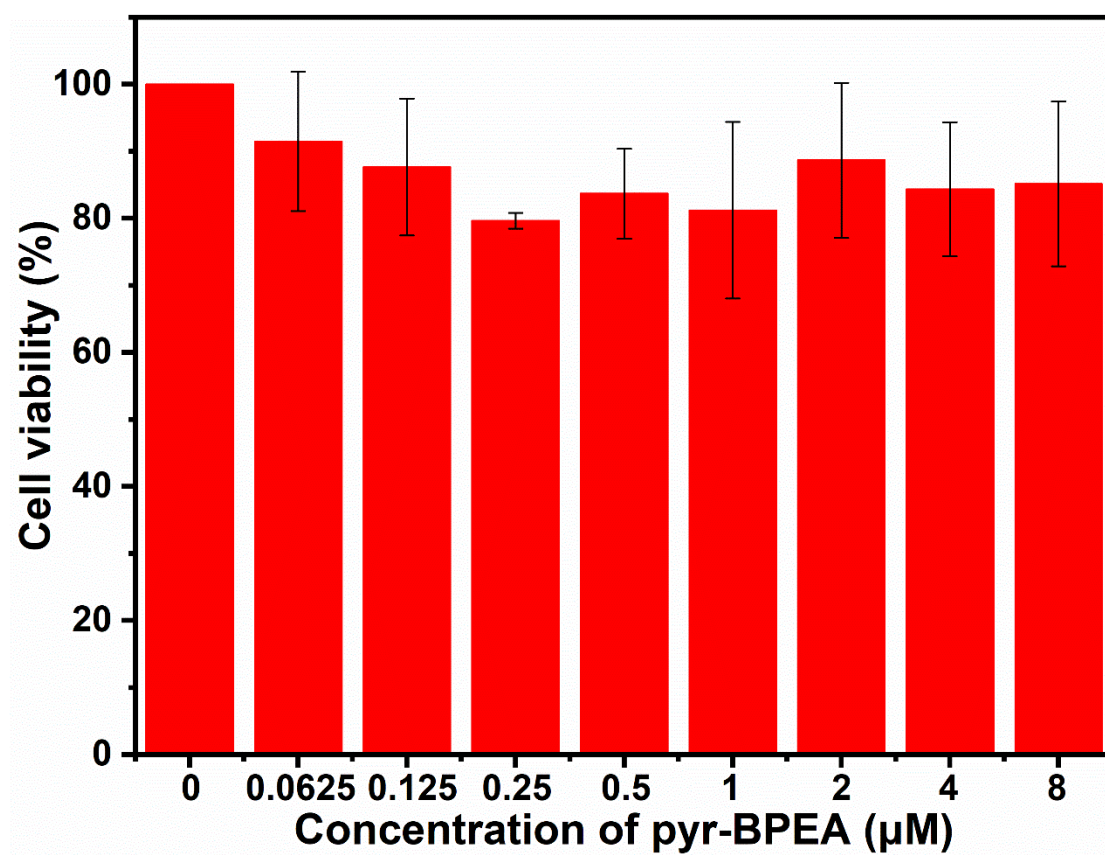


Figure S25. Viability of HeLa cells versus the concentration of **BDP-p-BPEA**