# Supporting Information

# Fluorescence probes based on AIE luminogen: application to sensing $Hg^{2+}$ in aqueous media and cellular imaging

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aqueous solution ($f_w$ = 99 vol %).

**Fig. S17.** TEM image of (a) **S1** and (b) **S2** particles.

**Fig. S18.** Percentage of A-549 cell viability remaining after cell treatment with (a) **S1** and (b) **S2**.

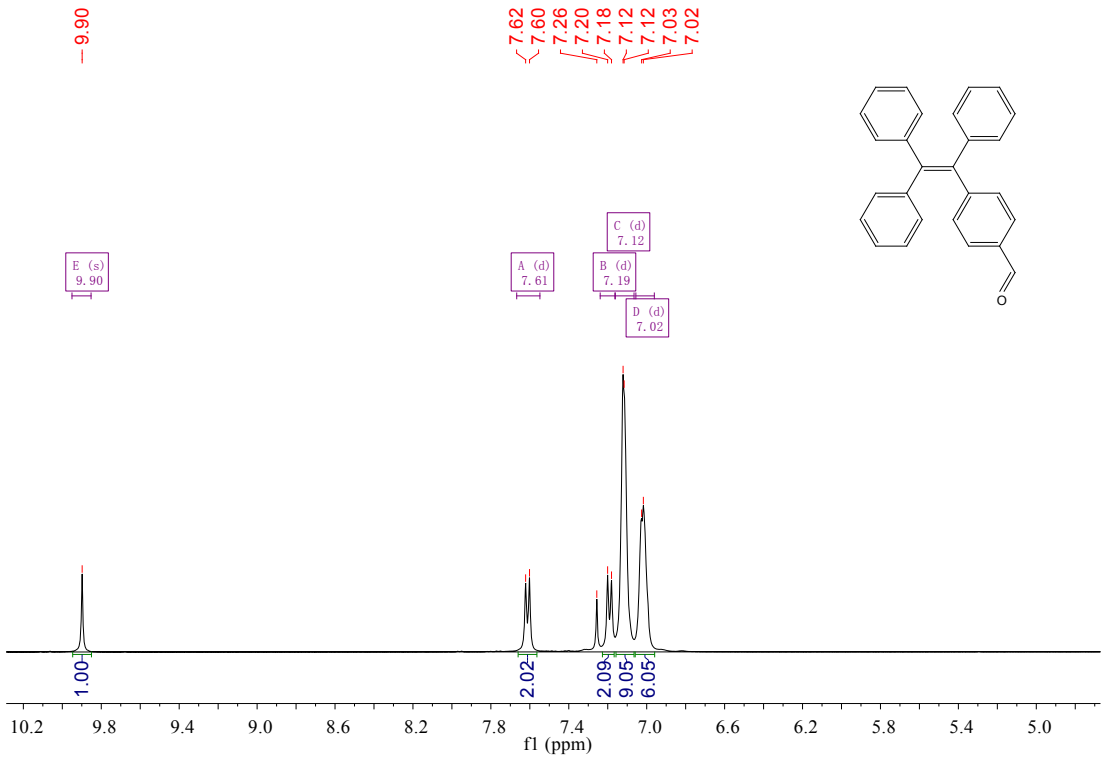


**Fig. S1.** [1]H-NMR spectrum of **TPE1**

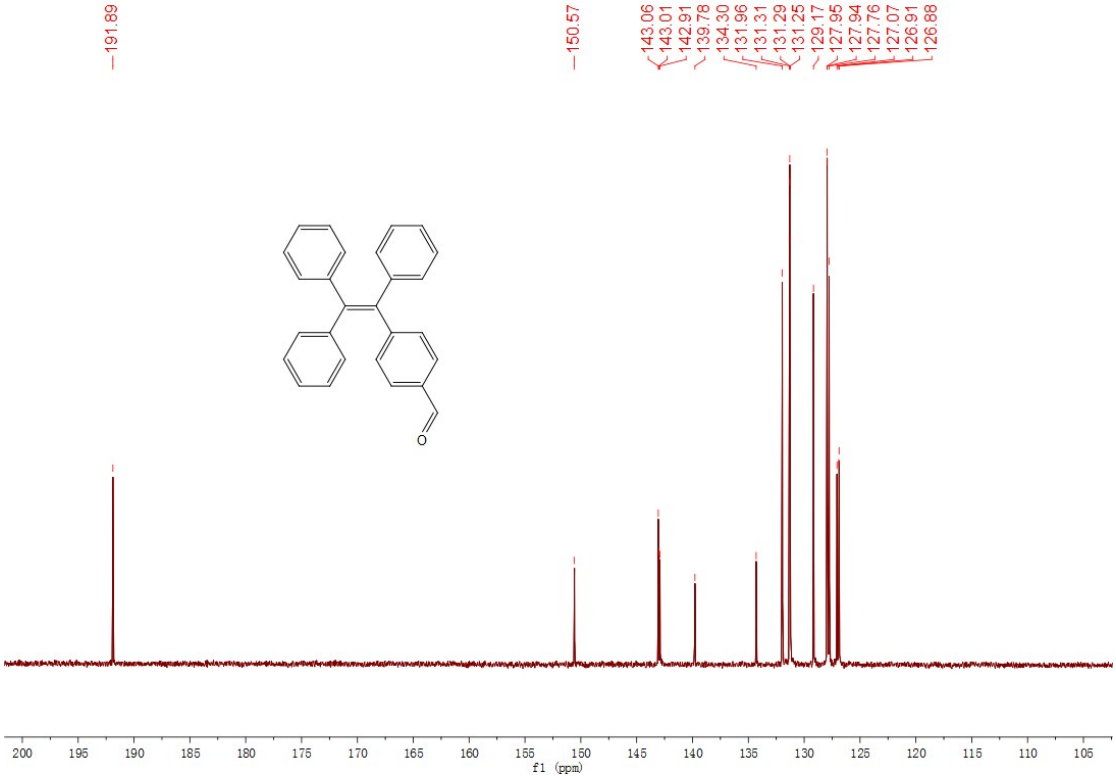


**Fig. S2.** [1]C-NMR spectrum of **TPE1**

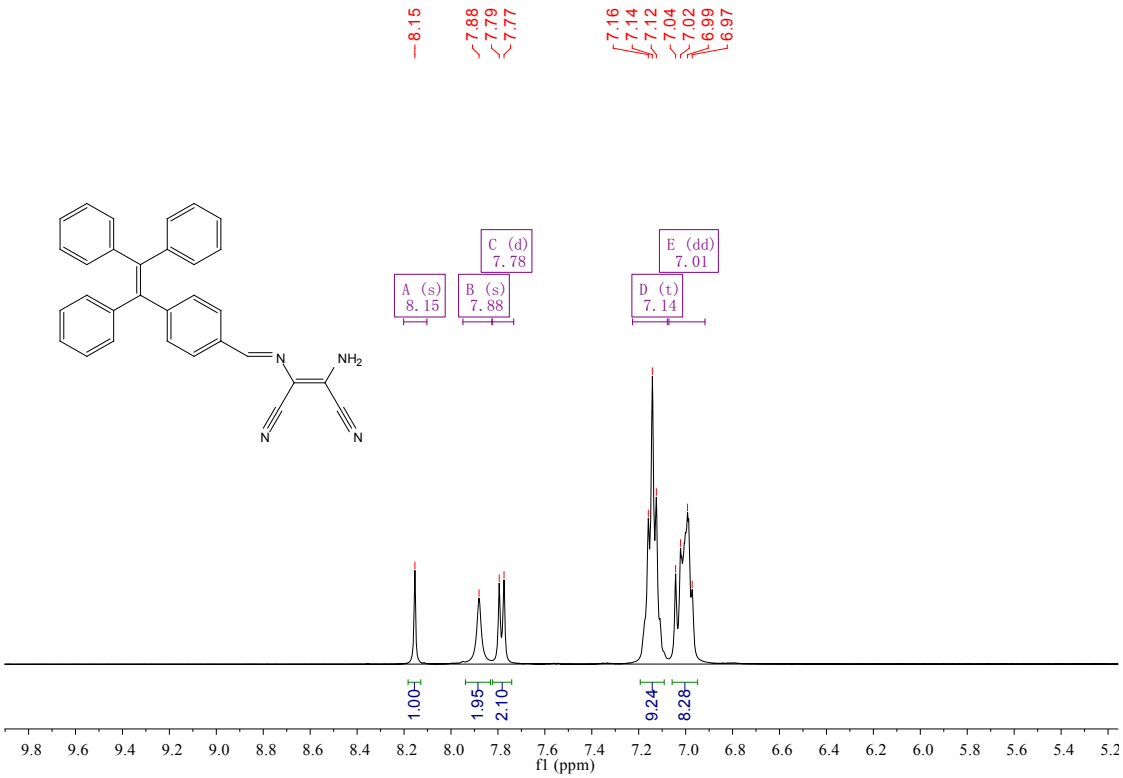


**Fig. S3.** $^{1}$H-NMR spectrum of **S1**

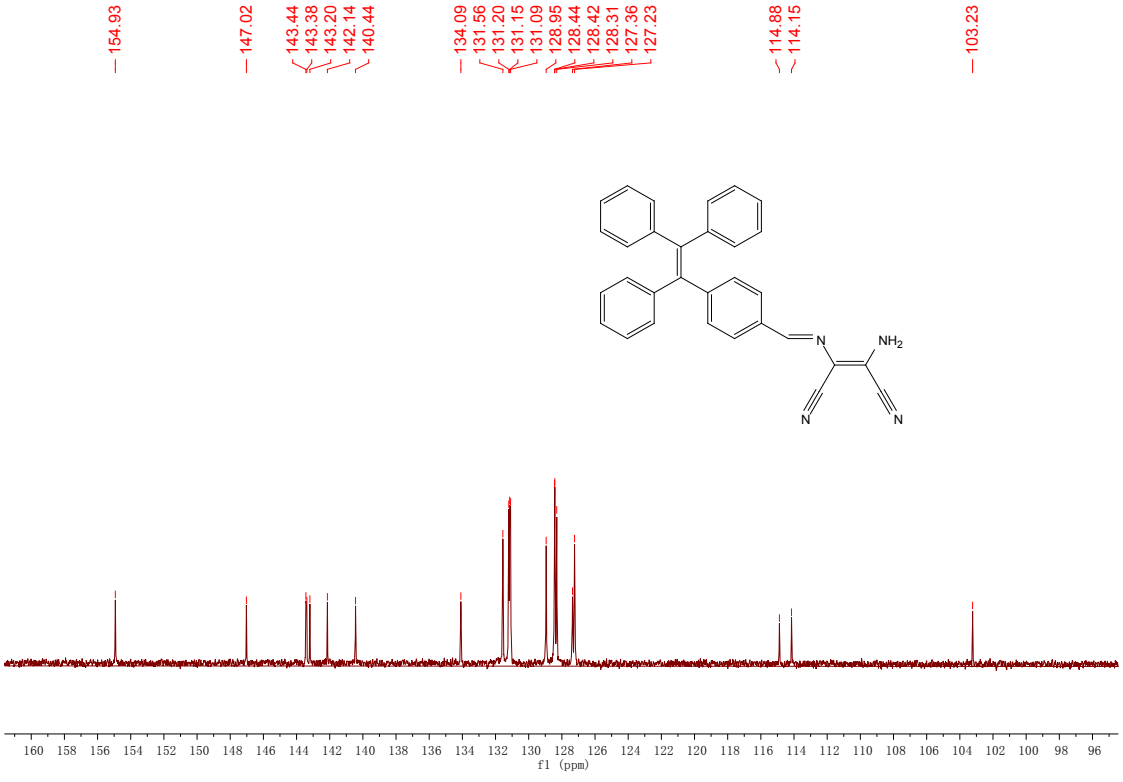

**Fig. S4.** [1]C-NMR spectrum of **S1**.

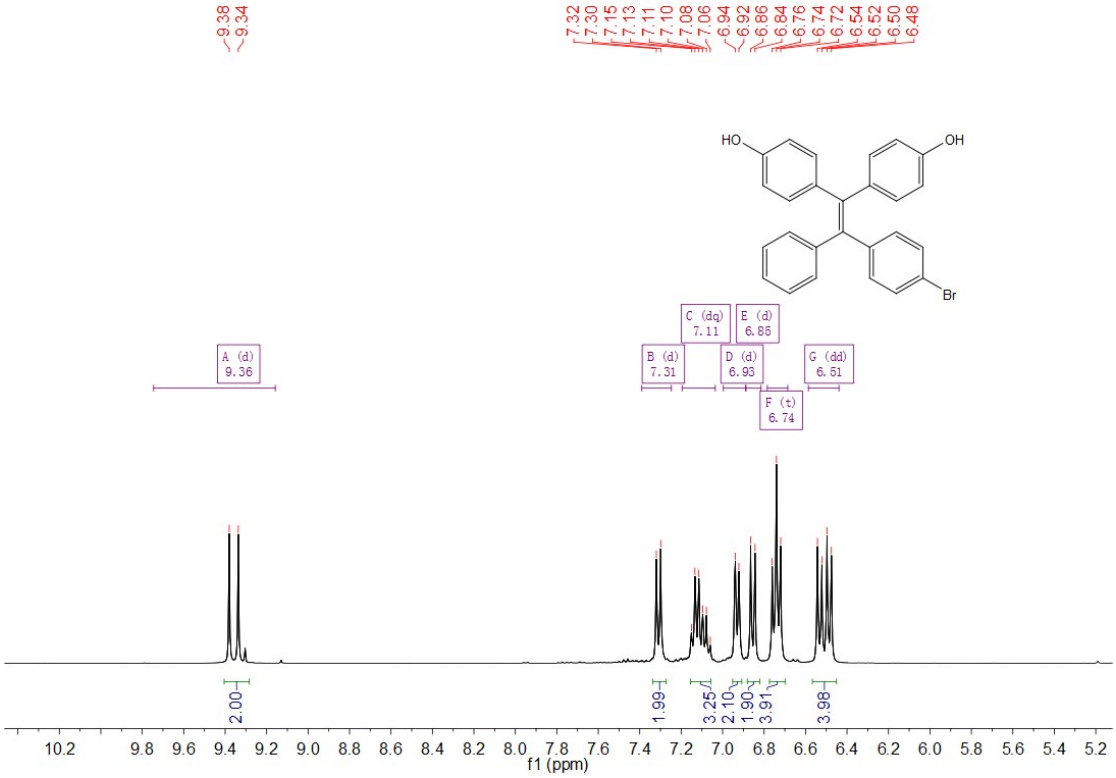


**Fig. S5.** [1]H-NMR spectrum of **a**

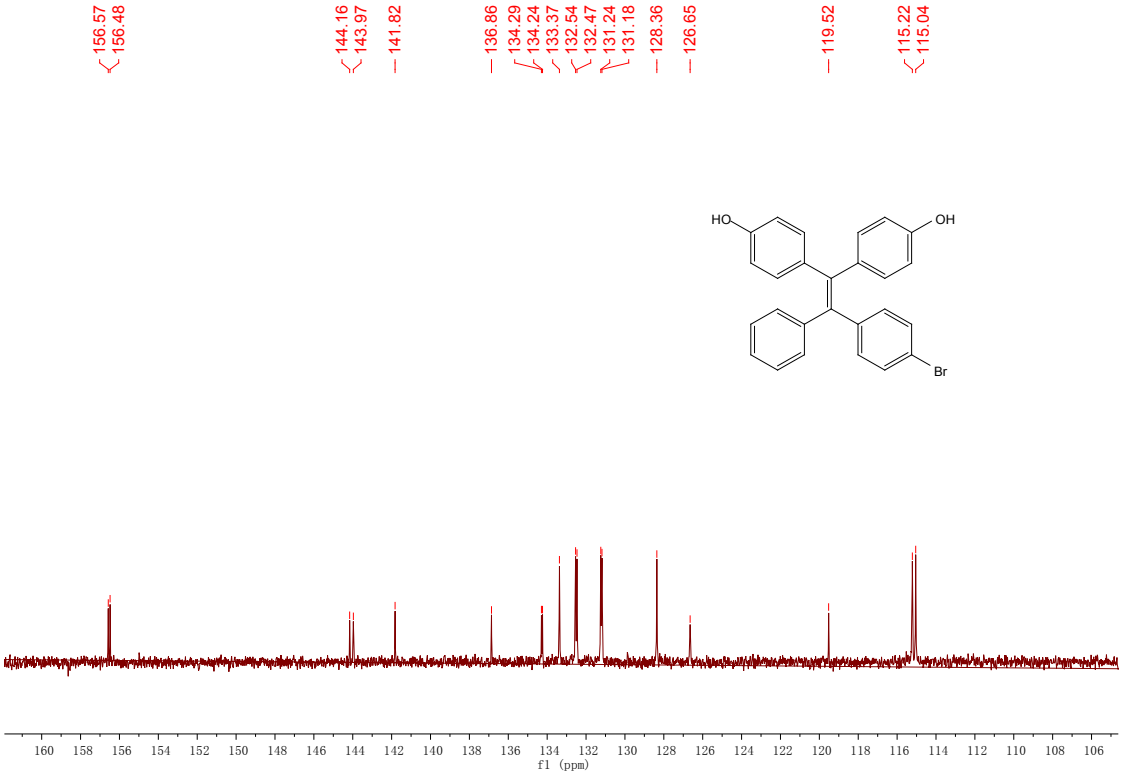

**Fig. S6.** [1]C-NMR spectrum of **a**

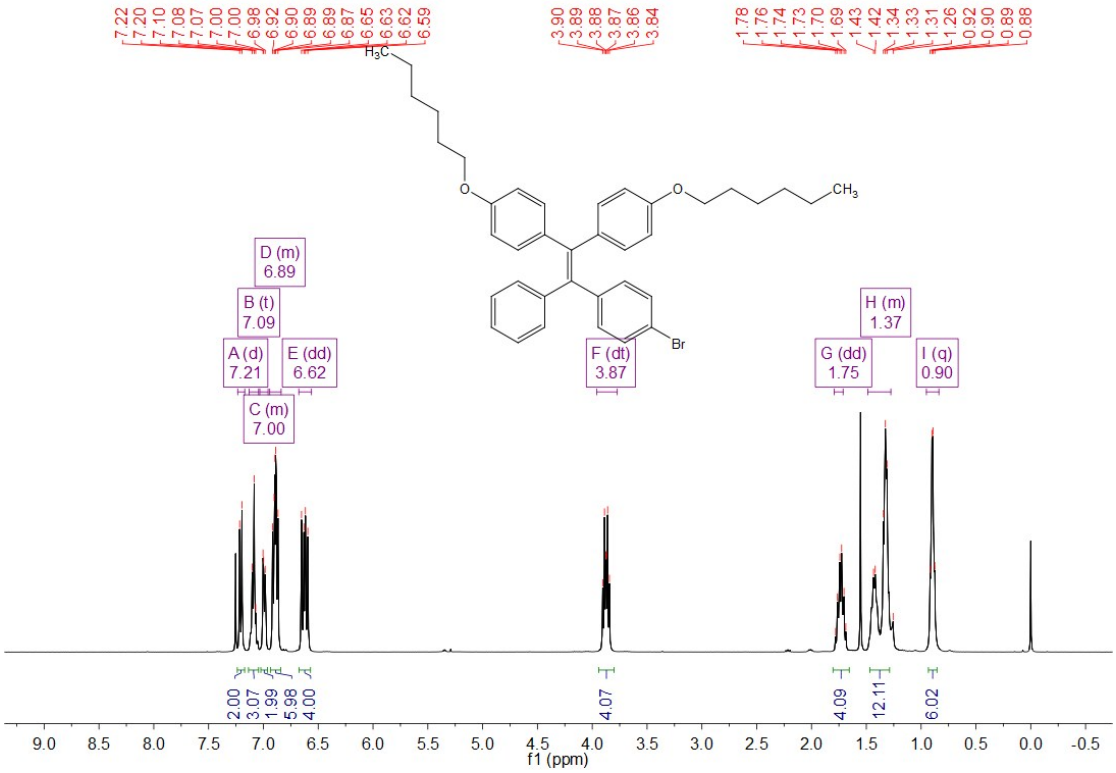


**Fig. S7.** [1]H-NMR spectrum of **b**

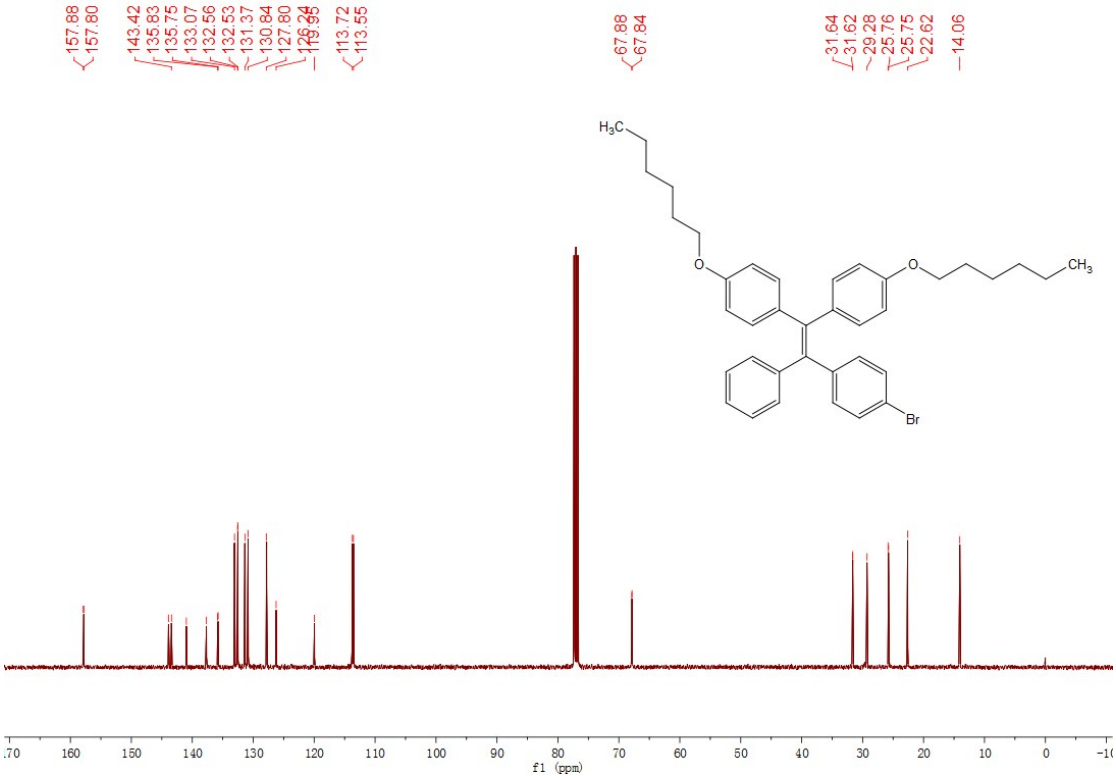


**Fig. S8.** [1]C-NMR spectrum of **b**

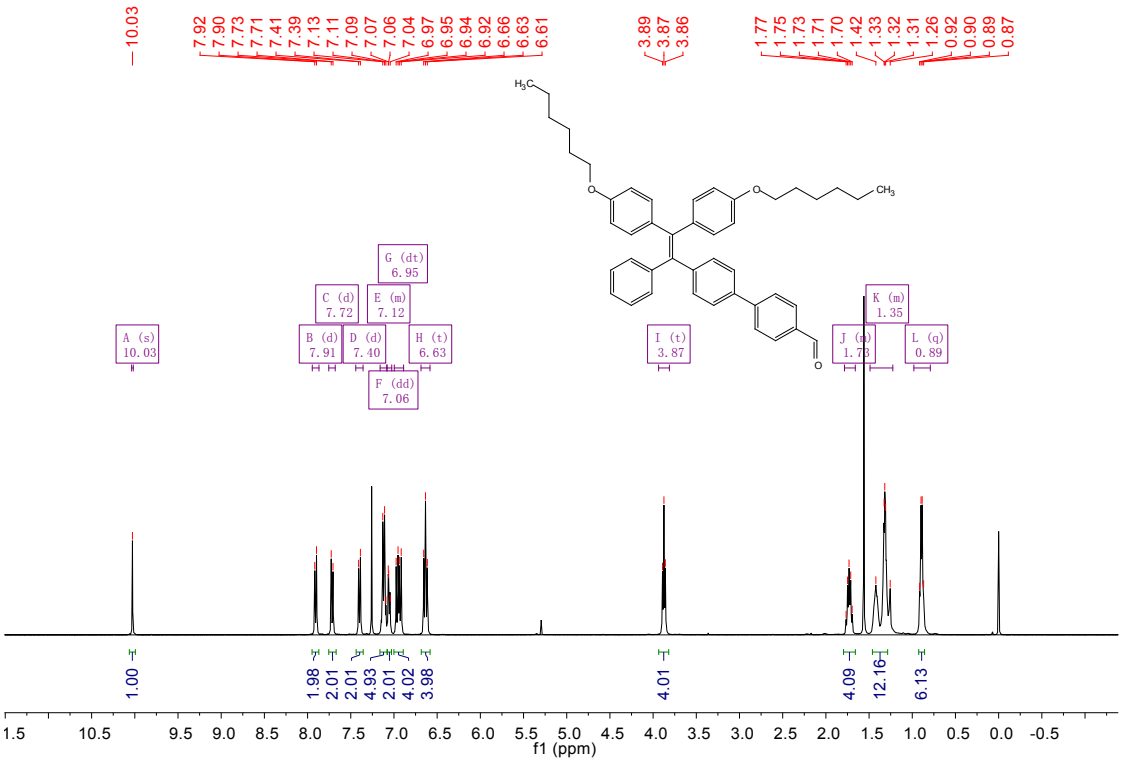


**Fig. S9.** $^{1}$H-NMR spectrum of **TPE2**

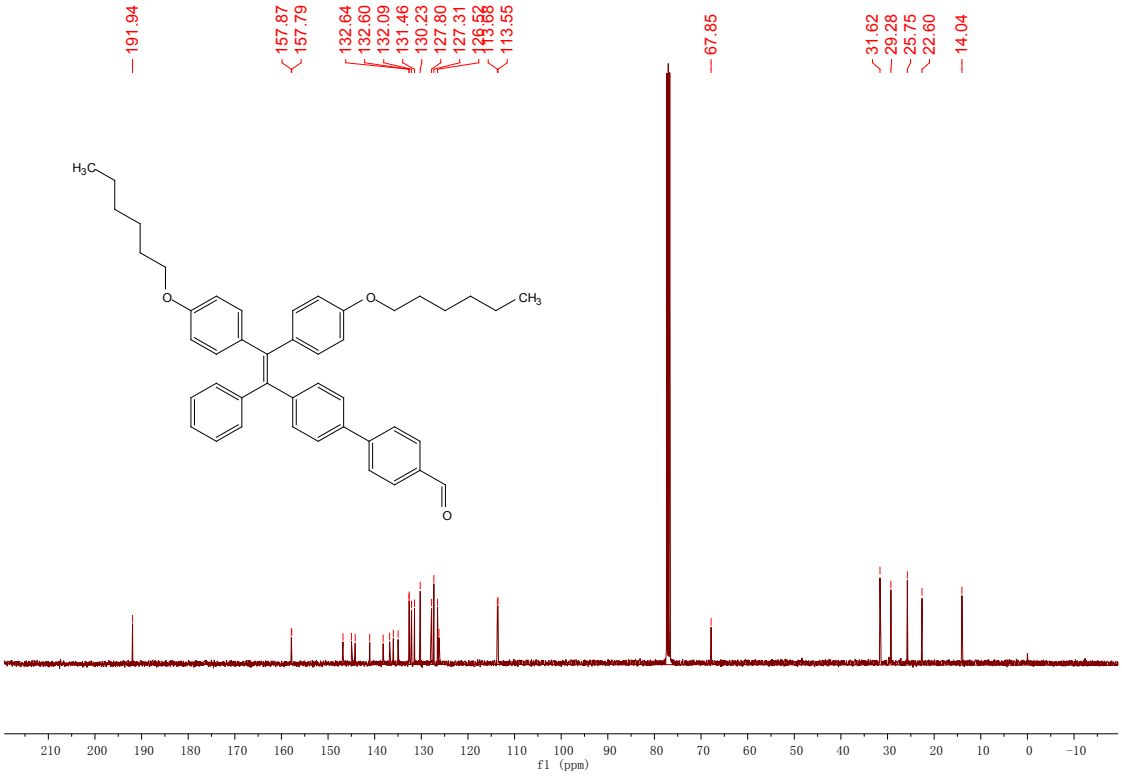


**Fig. S10.** $^{1}$C-NMR spectrum of **TPE2**

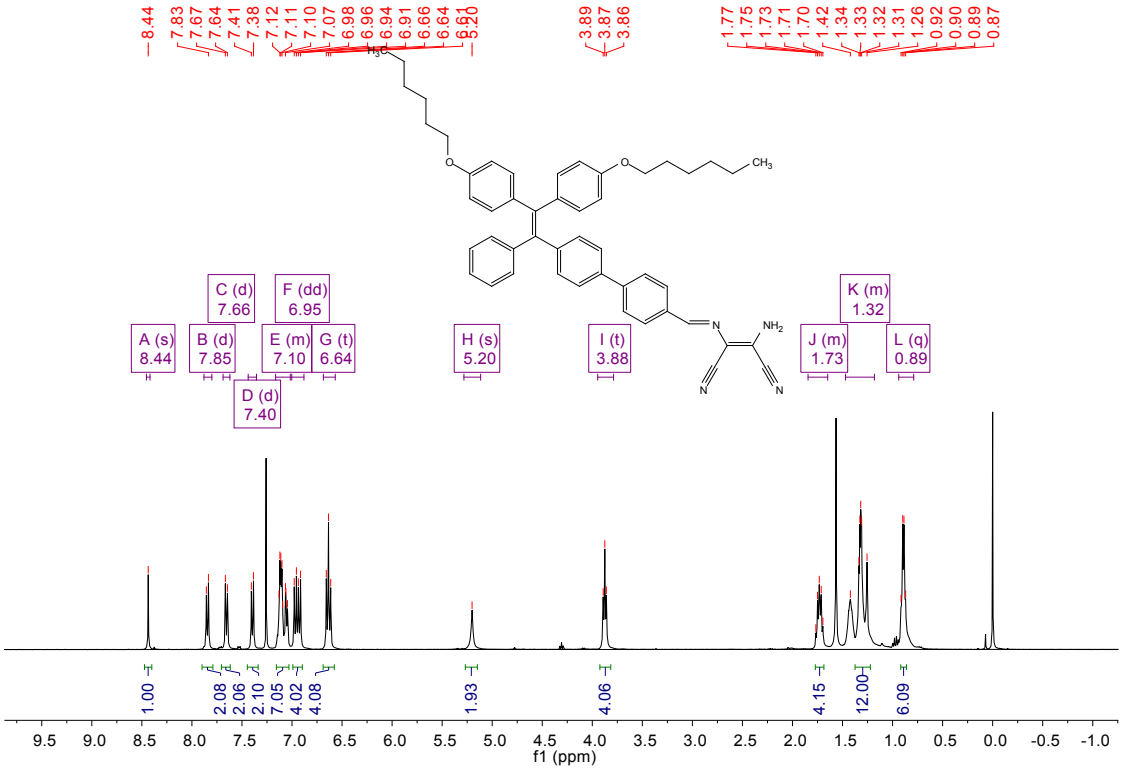


**Fig. S11.** [1]H-NMR spectrum of **S2**

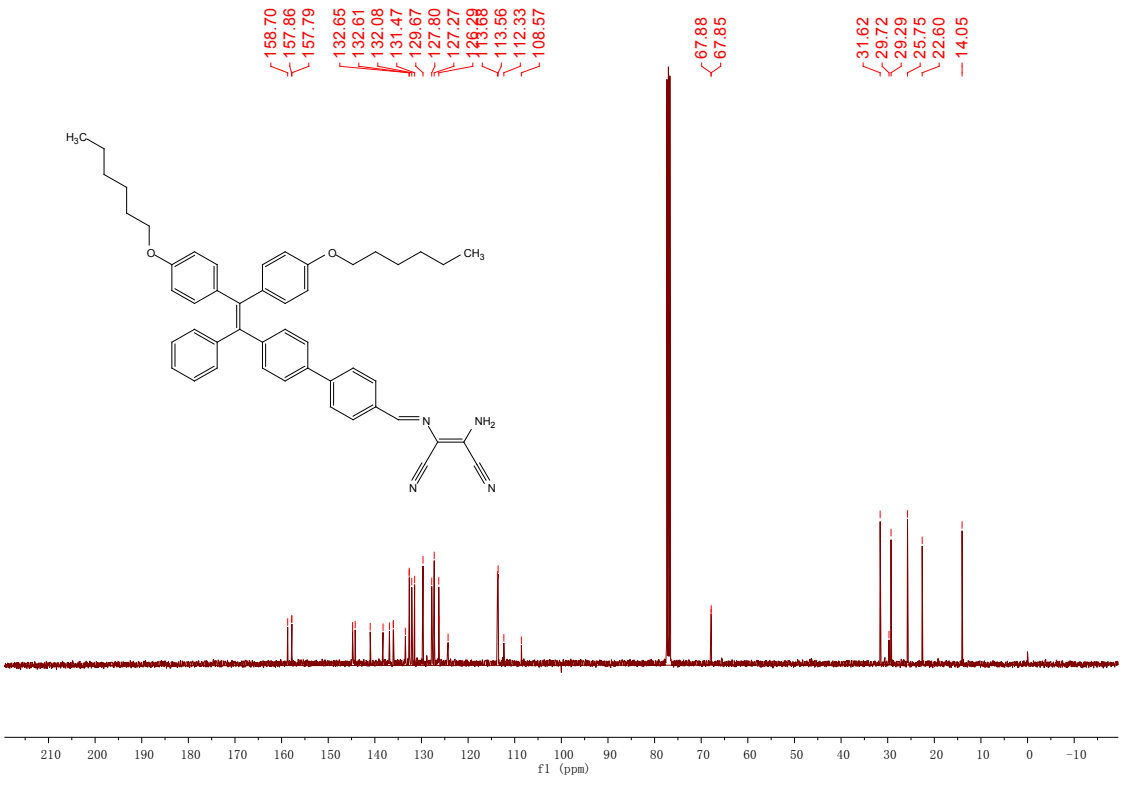


**Fig. S12.** [1]C-NMR spectrum of **S2**

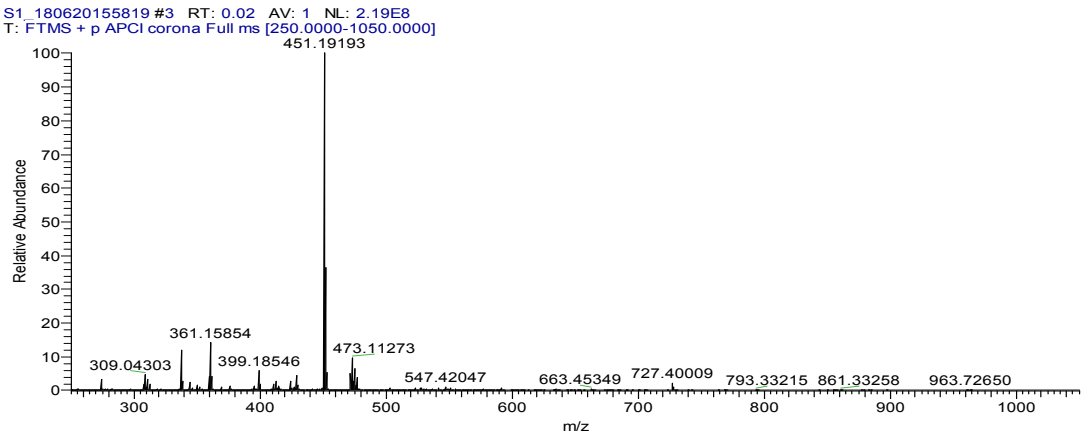


**Fig. S13.** HR-MS spectrum of **S1**

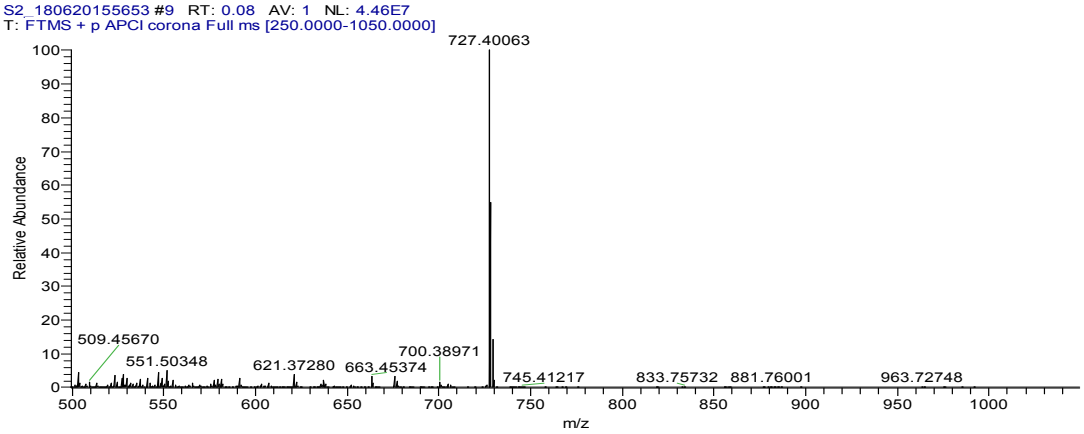


**Fig. S14.** HR- MS spectrum of **S2**

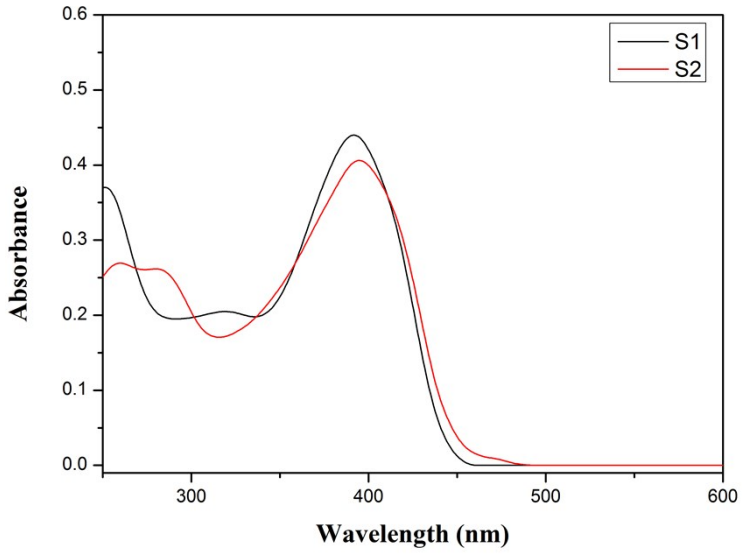


**Fig. S15.** UV–vis absorption of probe **S1** and **S2** in THF solution

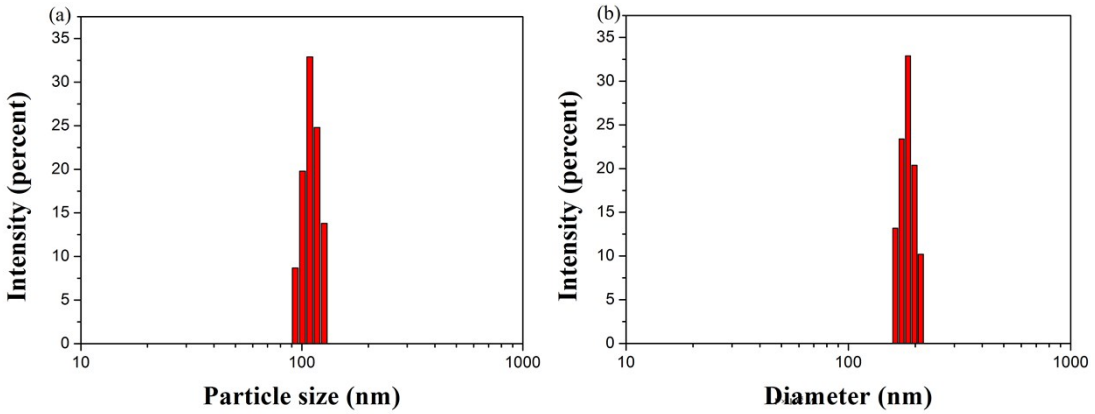


**Fig. S16.** Particle size of aggregates of (a) **S1** ($1 \times 10^{-5}$ M) and (b) **S2** ($1 \times 10^{-5}$ M) formed in THF aqueous solution ($f_w$ = 99 vol %).

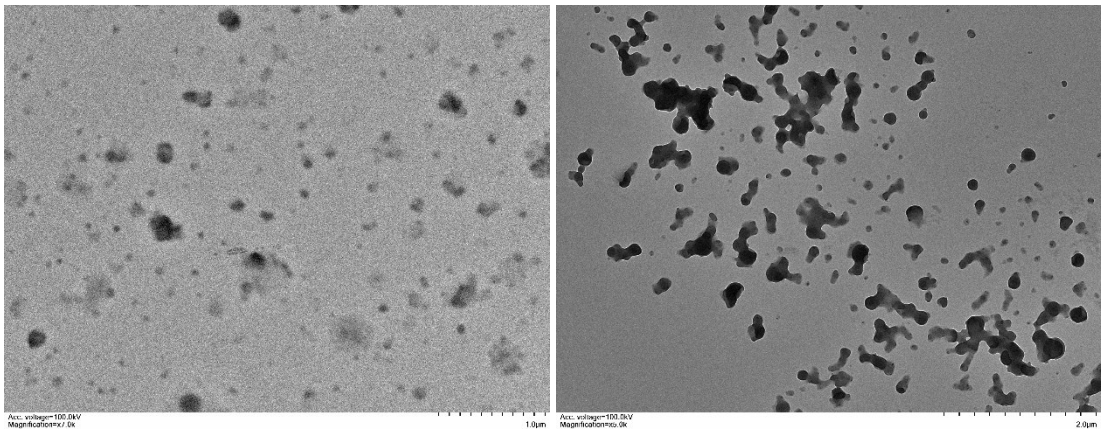

**Fig. S17**. TEM image of (a) **S1** and (b) **S2** particles.

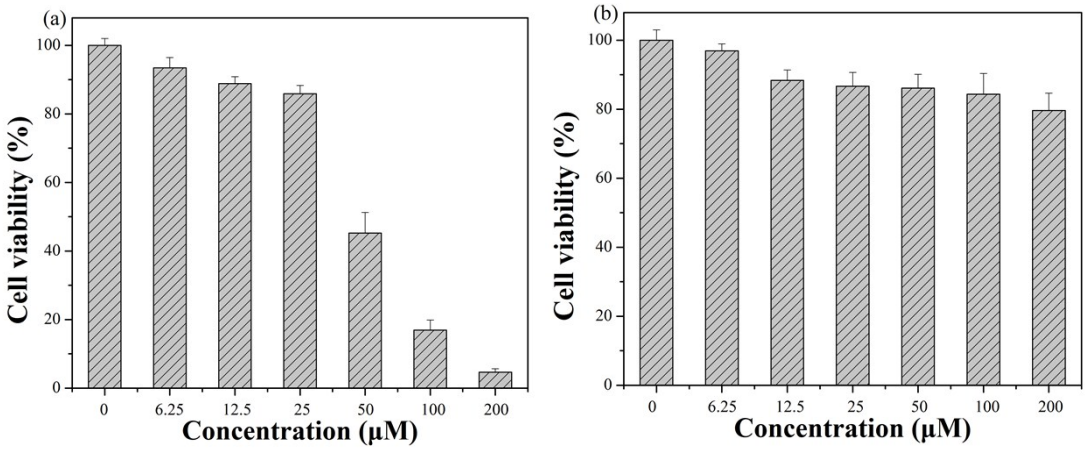


**Fig. S18.** Percentage of A-549 cell viability remaining after cell treatment with (a) **S1** and (b) **S2** (untreated cells were considered to have 100% survival). Cell viability was assayed by the MTT method (values: mean ±standard deviation).