Supporting information for

Bifunctional TPE based Fluorescent Sensor for Liquid Viscosity and Amyloid β

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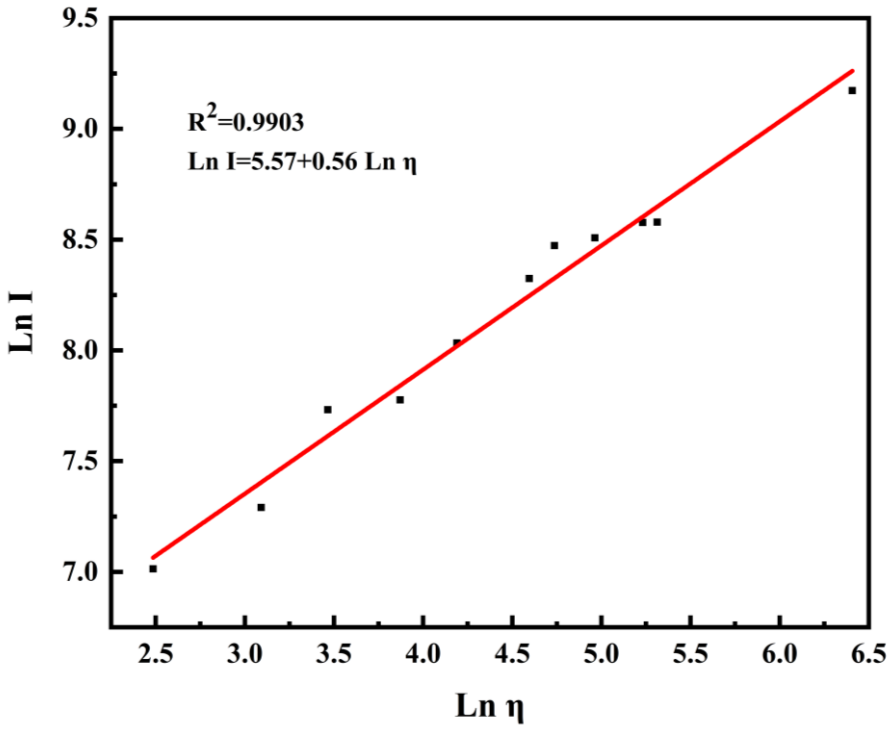

Figure S1. Repeated Plots of natural logarithmic fluorescent intensity of **TPE-Q** *vs*. natural logarithmic mixture viscosity. [**TPE-Q**] = 10 μM, excitation wavelength was 340 nm.

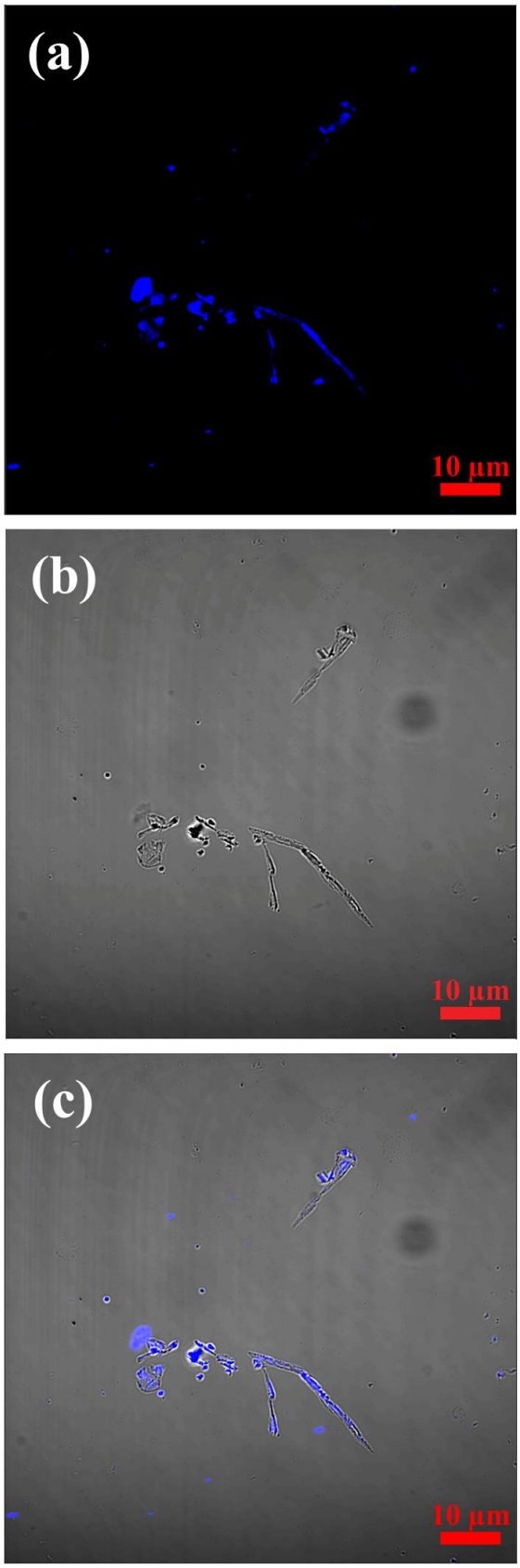

Figure S2. Fluorescent images of $A\beta_{1-42}$ stained with **TPE-Q**. Excitation wavelength was 405 nm. [**TPE-Q**] = 1 μM, [$A\beta_{1-42}$] = 10 μM. (a) Fluorescent field, (b) Bright field, (c) Merge

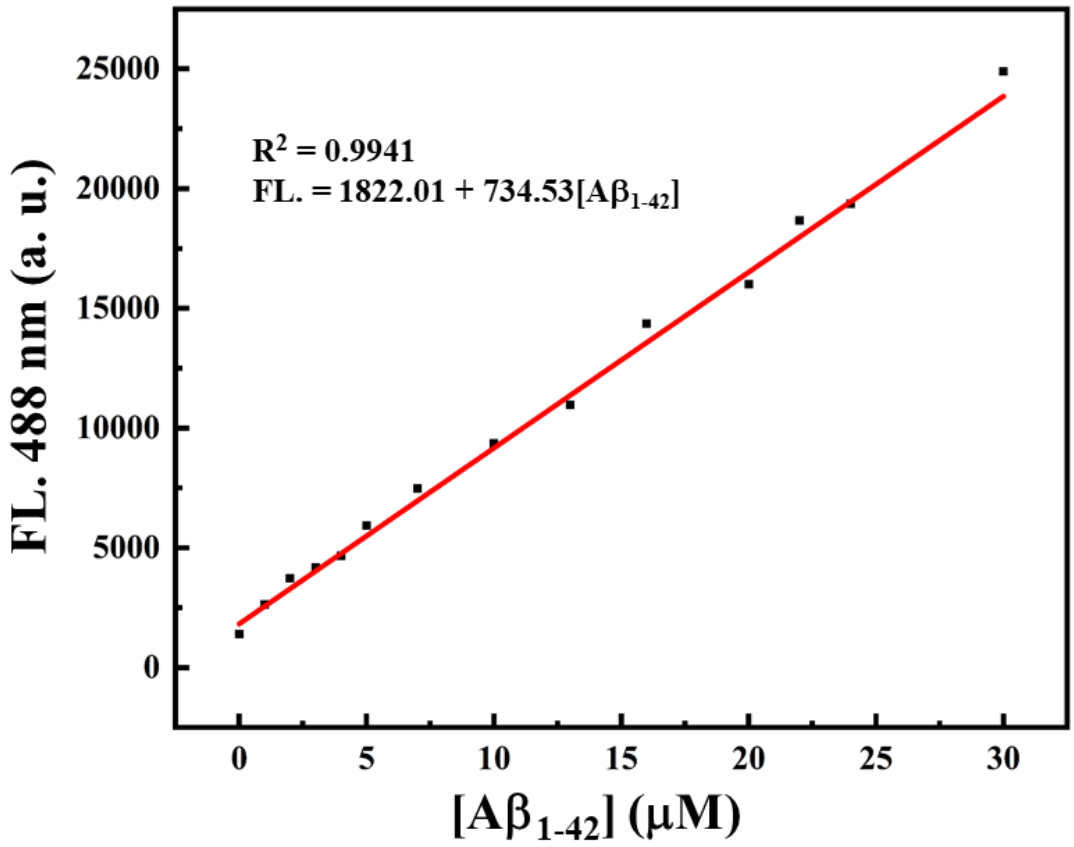

Figure S3. Repeated linear relationship of fluorescent emission intensity of **TPE-Q** and concentration of $A\beta_{1-42}$.

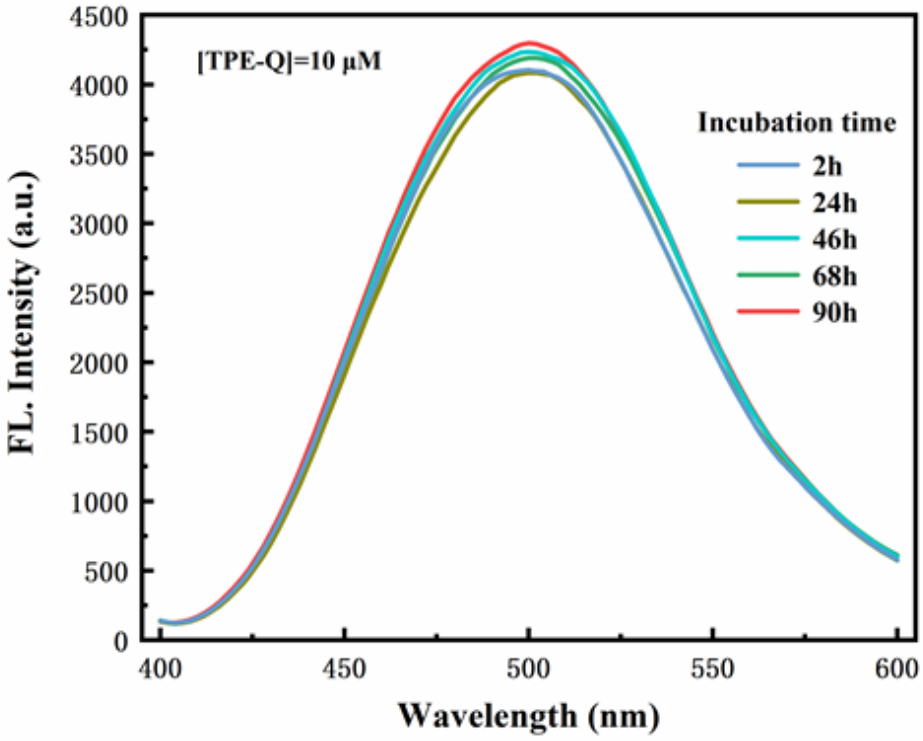

Figure S4. Repeated fluorescent spectra of **TPE-Q** in the absence of $A\beta_{1-42}$ with different incubation time, [**TPE-Q**] = 10 μM.

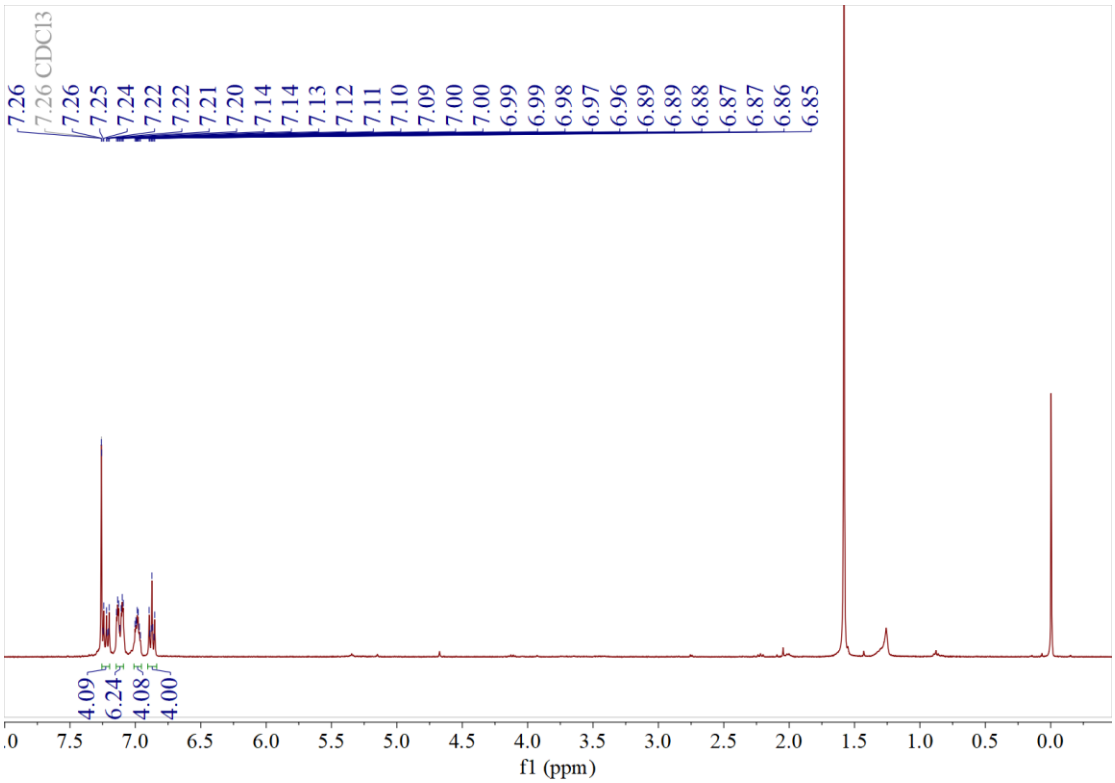

Figure S5. ^{1}H NMR of compound **1**. ($CDCl_3$, 300 MHz)

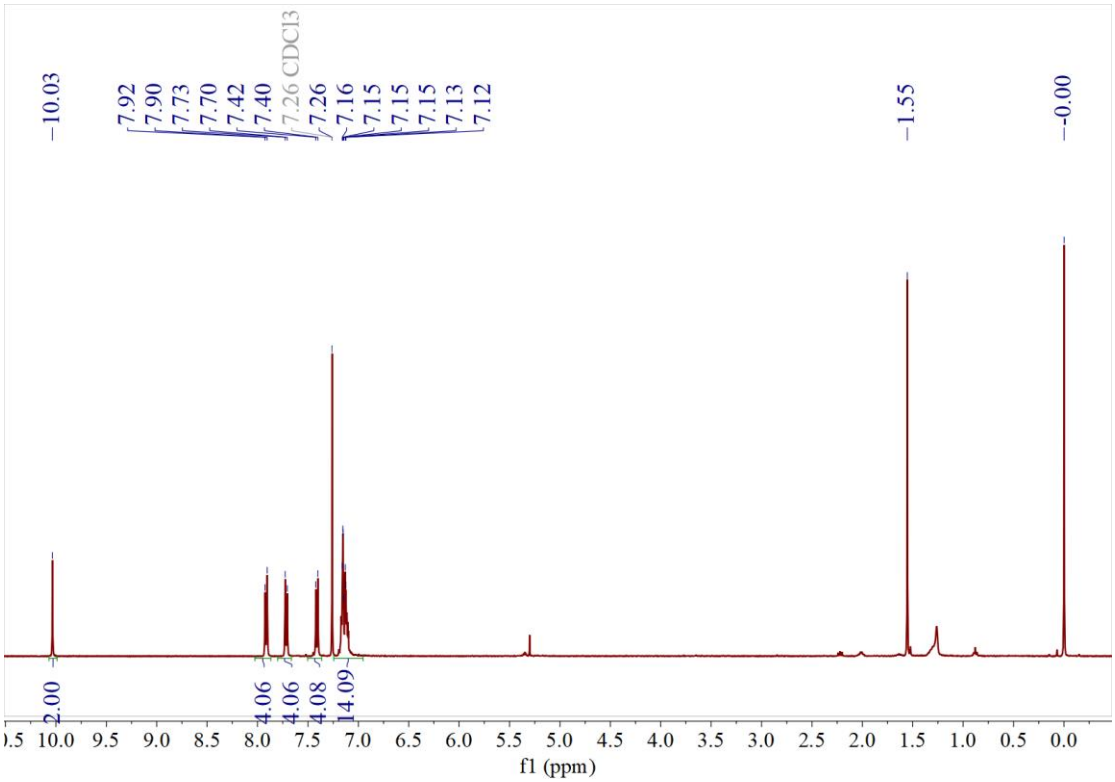

Figure S6. ^{1}H NMR of compound **2**. ($CDCl_3$, 300 MHz)

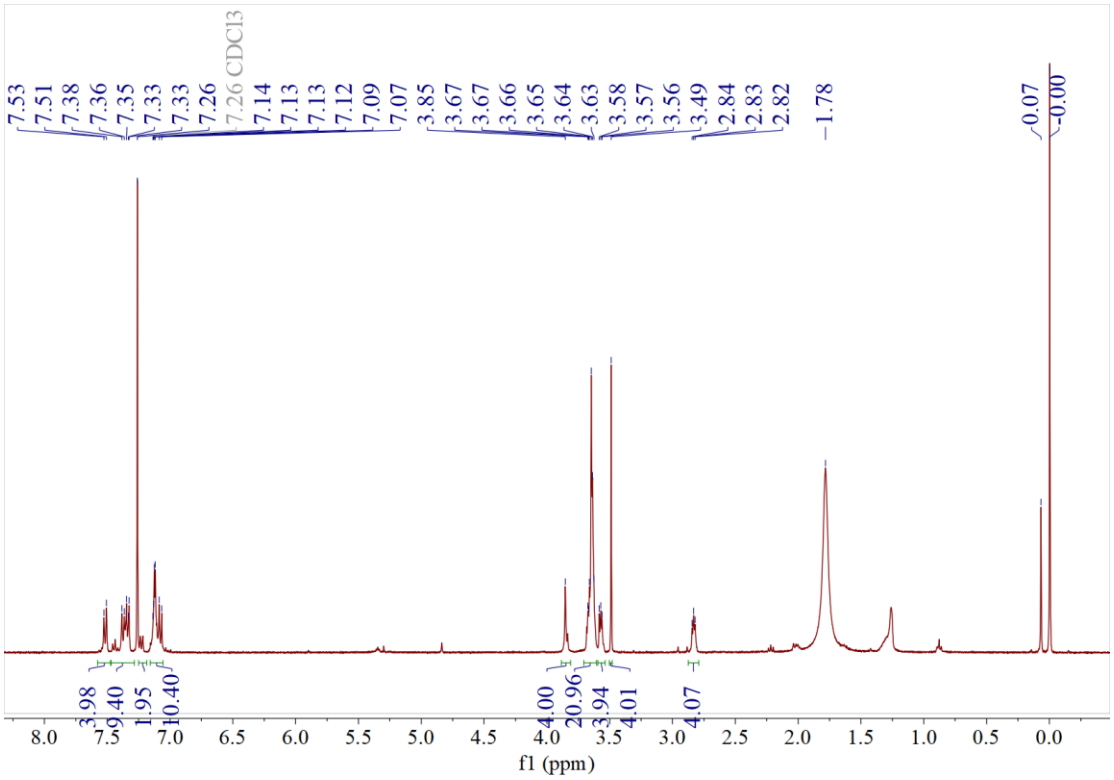

Figure S7. ^{1}H NMR of compound **3**. ($CDCl_3$, 300 MHz)

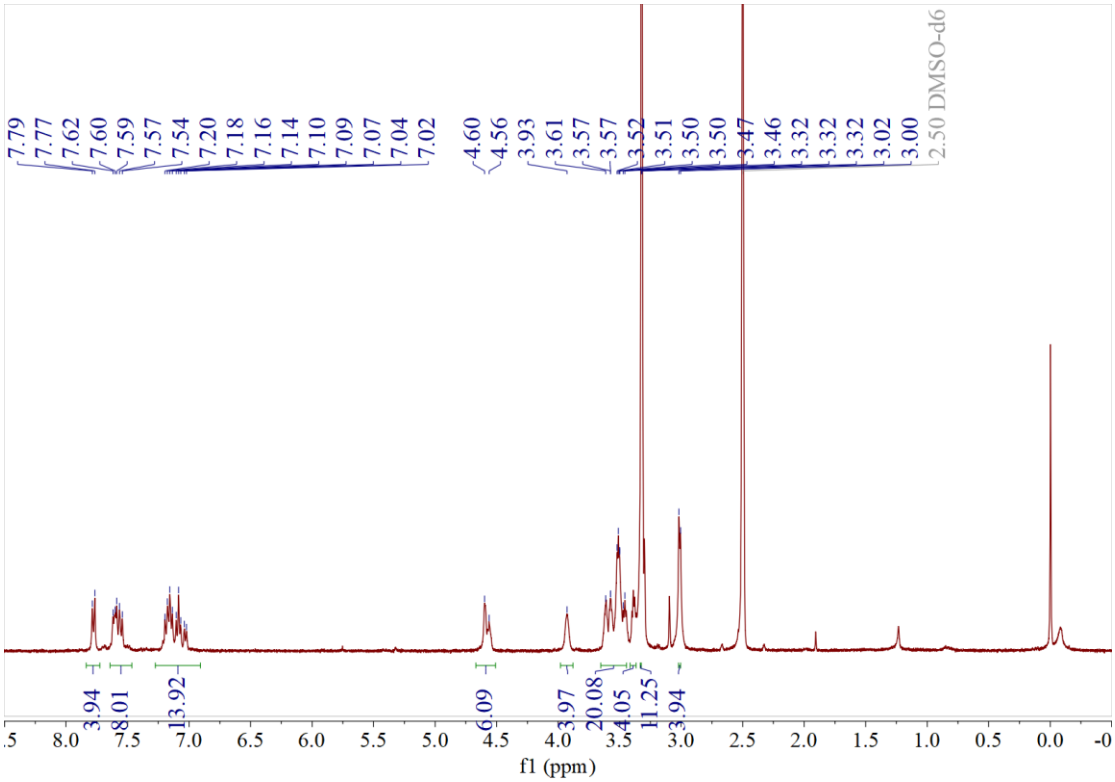

Figure S8. ^{1}H NMR of compound **TPE-Q**. (DMSO-*d6*, 300 MHz)

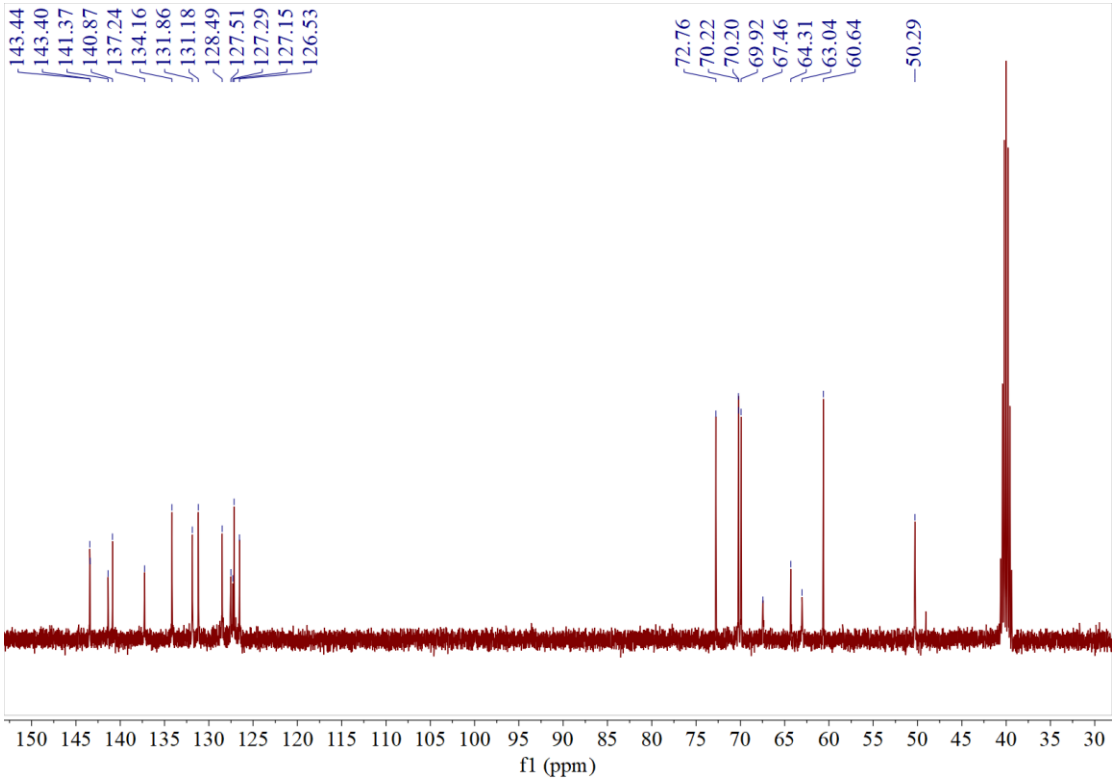

Figure S9. ^{13}C NMR of compound **TPE-Q**. (DMSO-*d6*, 150 MHz)

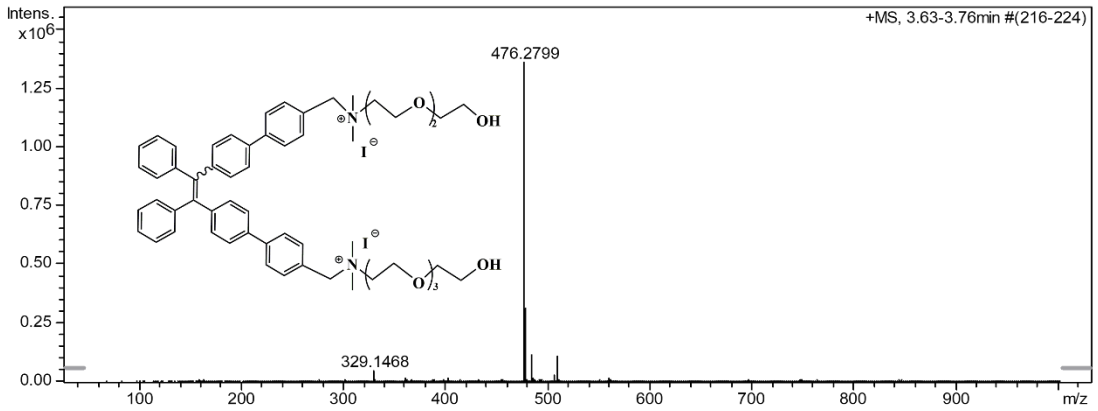

Figure S10. HRMS spectrum for **TPE-Q**.