Supporting Information

Torsionally Responsive Tropone-fused Conjugated Polymers

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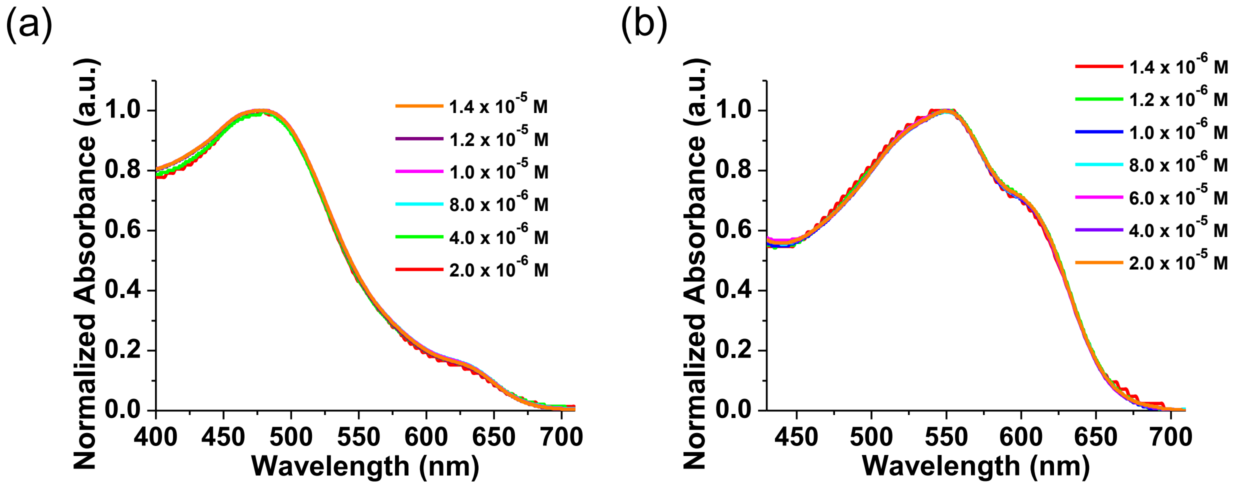

Figure S1. UV-vis spectra of (a) **PBTr-T** and (b) **PBTr-Tz** in $CHCl_3$ with different concentrations.

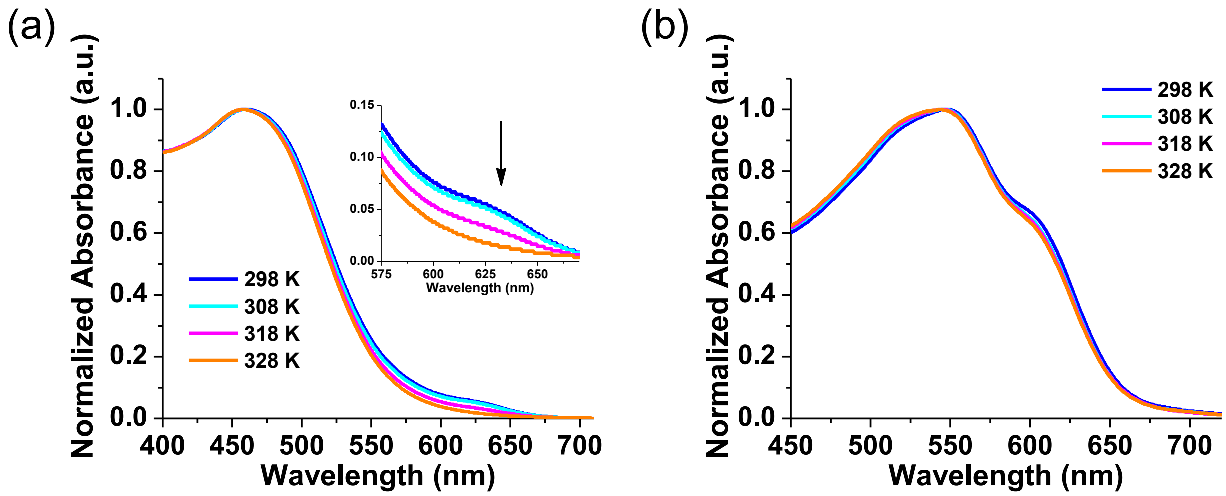

Figure S2. UV-vis spectra of (a) **PBTr-T** and (b) **PBTr-Tz** in $CHCl_3$ with different temperatures.

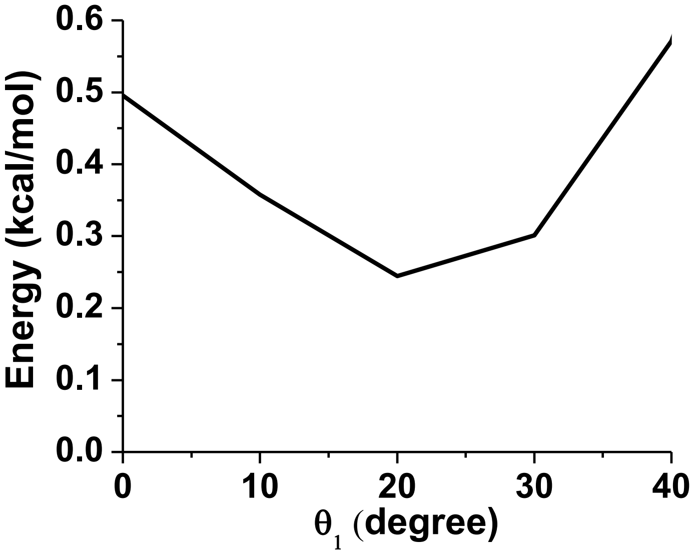

Figure S3. Calculation about different dihedral angle θ_1 of thiazole-bridged-thienotropone by DFT Method.

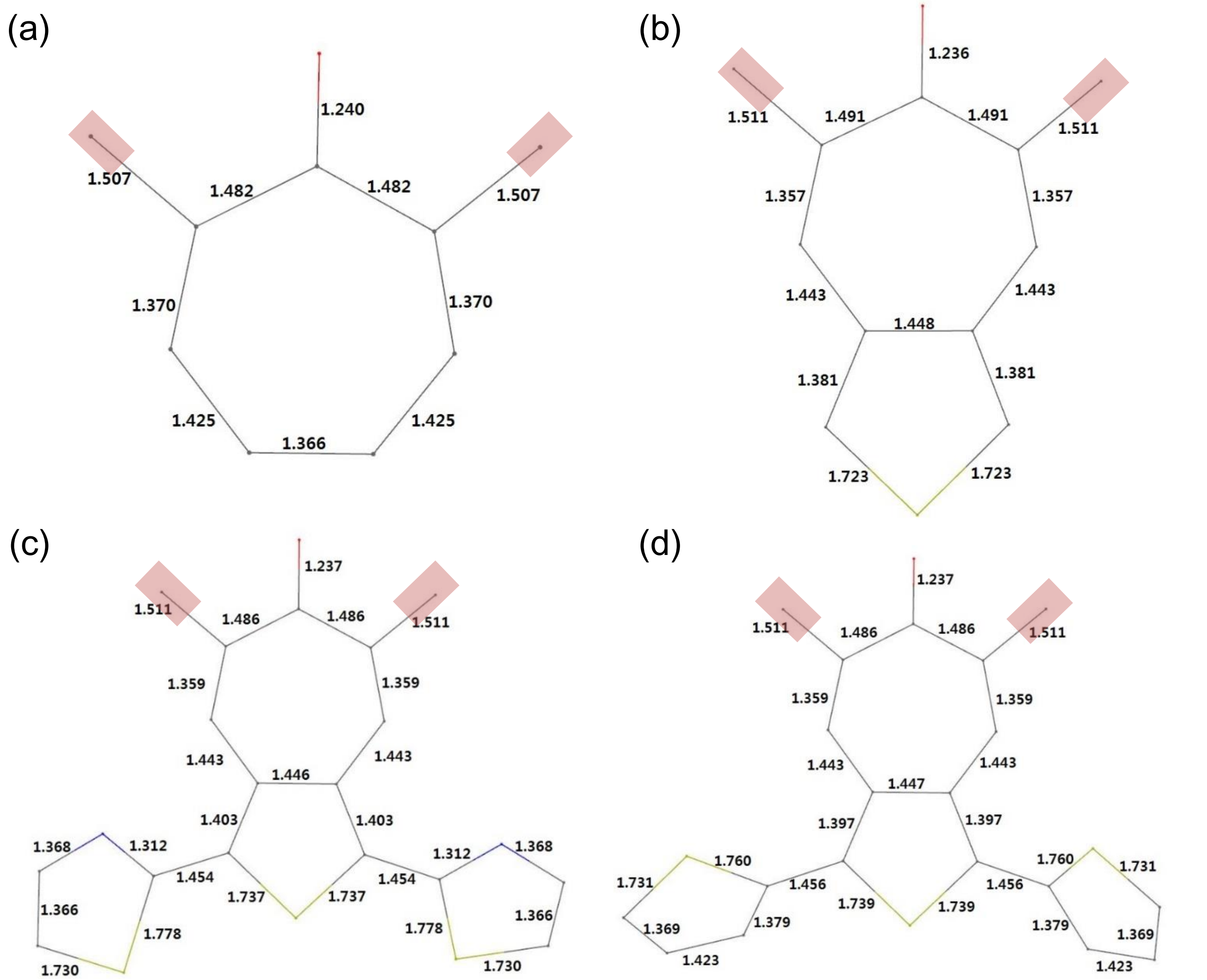

Figure S4. Calculated structure and bond length of (a) tropone, (b) **2**, (c) **4**, (d) **6** instead of octyl to methyl at color-labeled position (2 position of tropone).

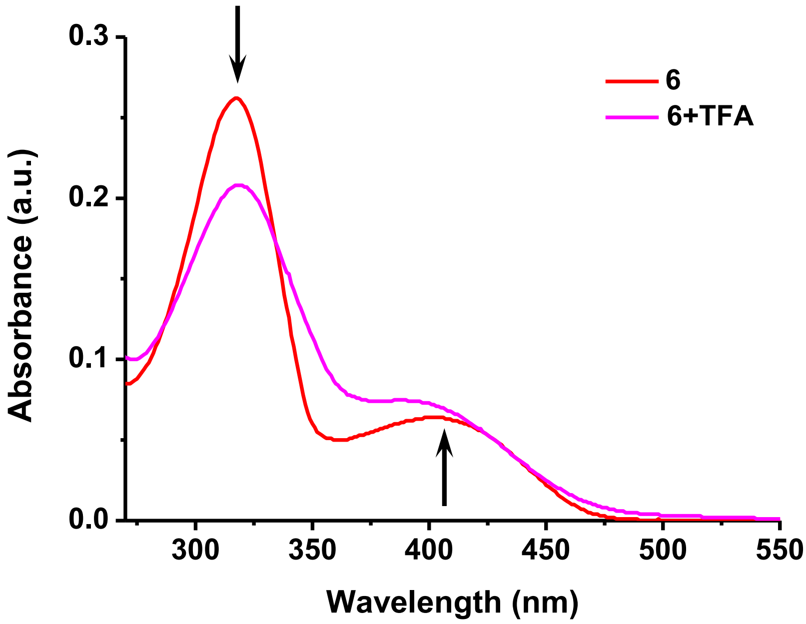

Figure S5.Change of UV-vis spectra of **6** by adding trifluoroacetic acid (TFA). (2.0 × 10^{-5} M)

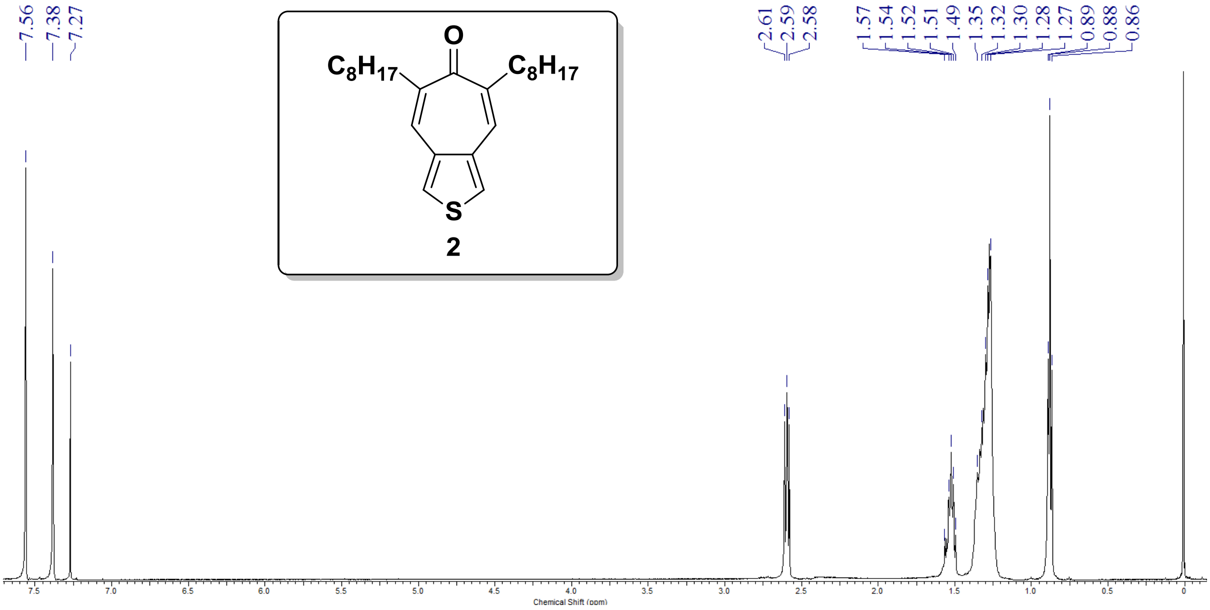

Figure S6. [1]H-NMR spectrum of compound **2** (500 MHz, $CDCl_3$)

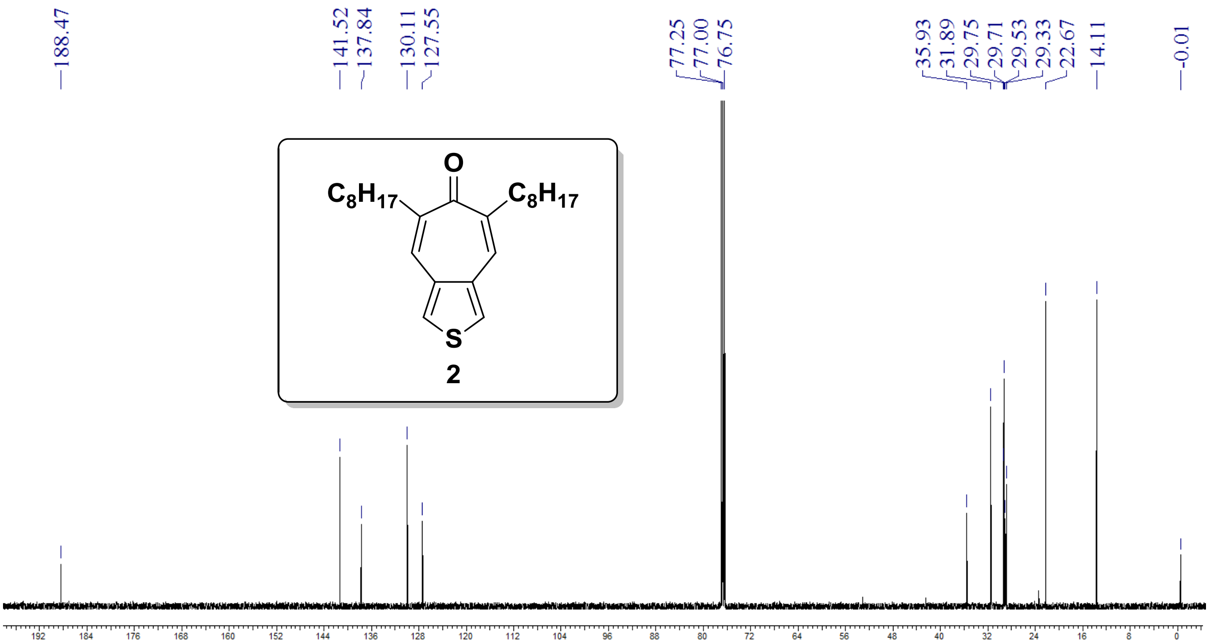

Figure S6. [13]C-NMR spectrum of compound **2** (125 MHz, $CDCl_3$)

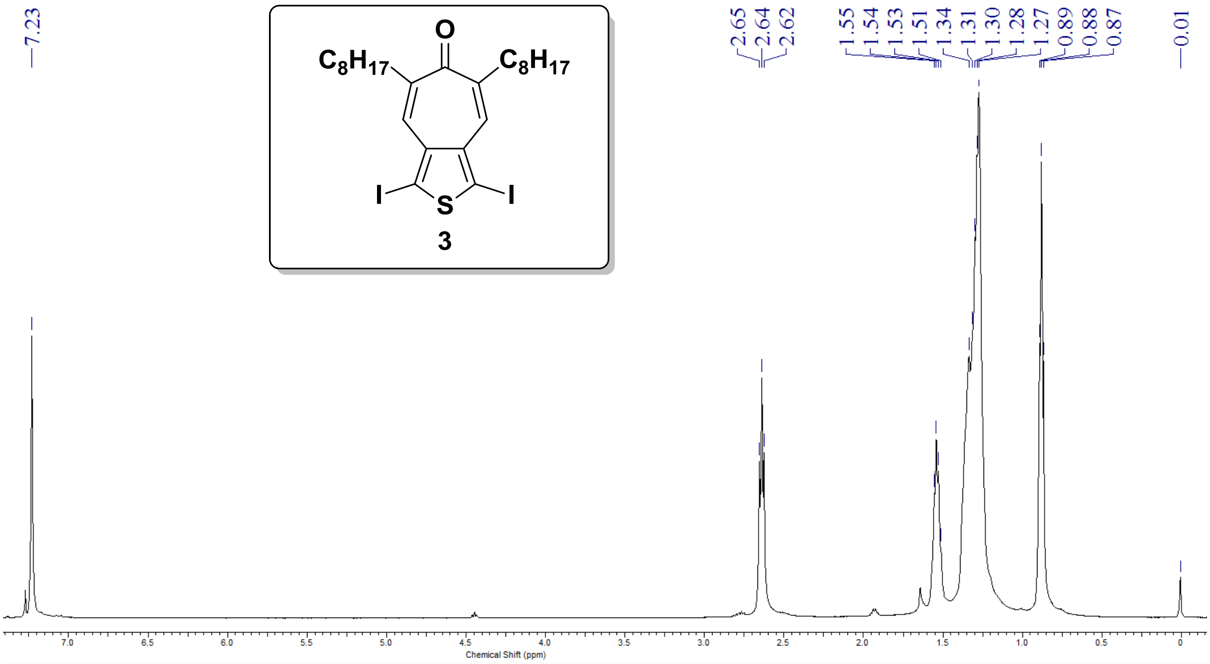

Figure S7. [1]H-NMR spectrum of compound **3** (500 MHz, $CDCl_3$)

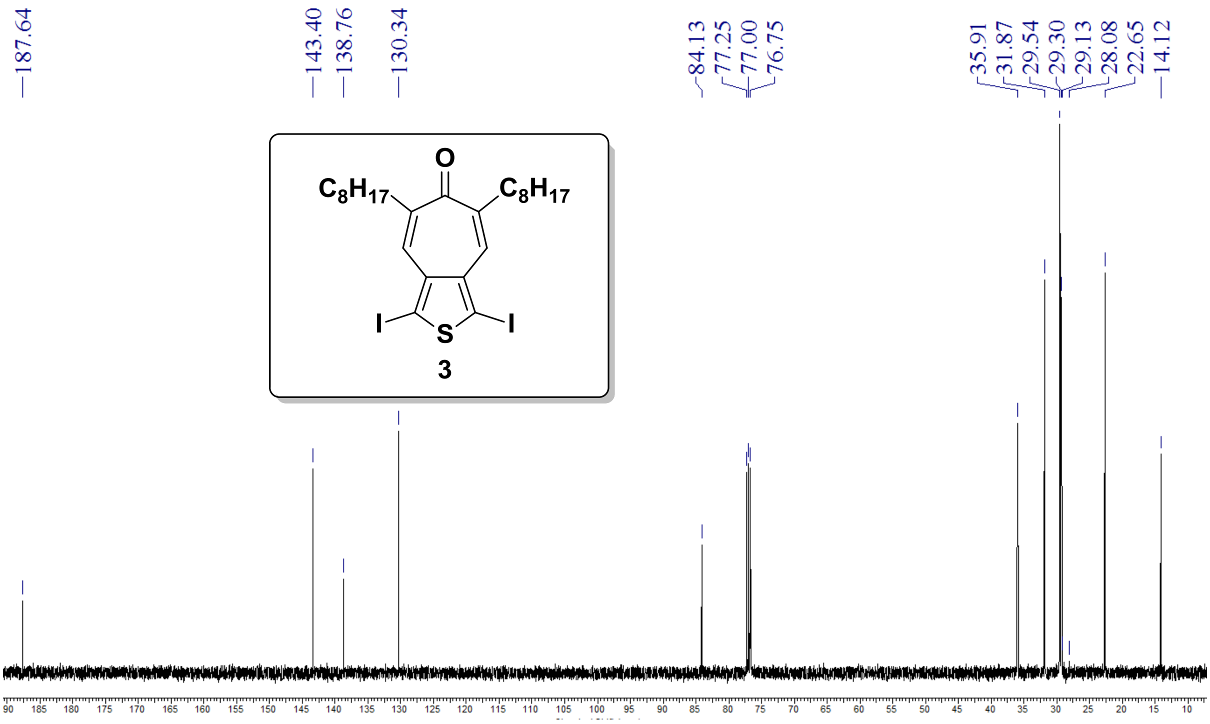

Figure S7. [13]C-NMR spectrum of compound **3** (125 MHz, $CDCl_3$)

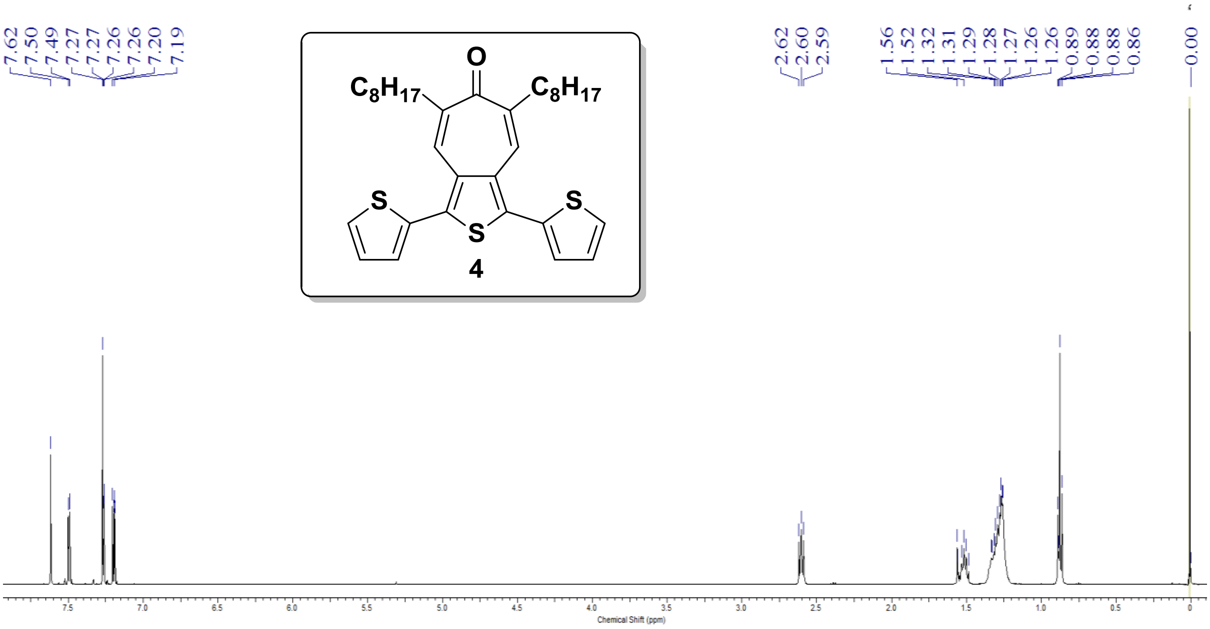

Figure S8. [1]H-NMR spectrum of compound **4** (500 MHz, $CDCl_3$)

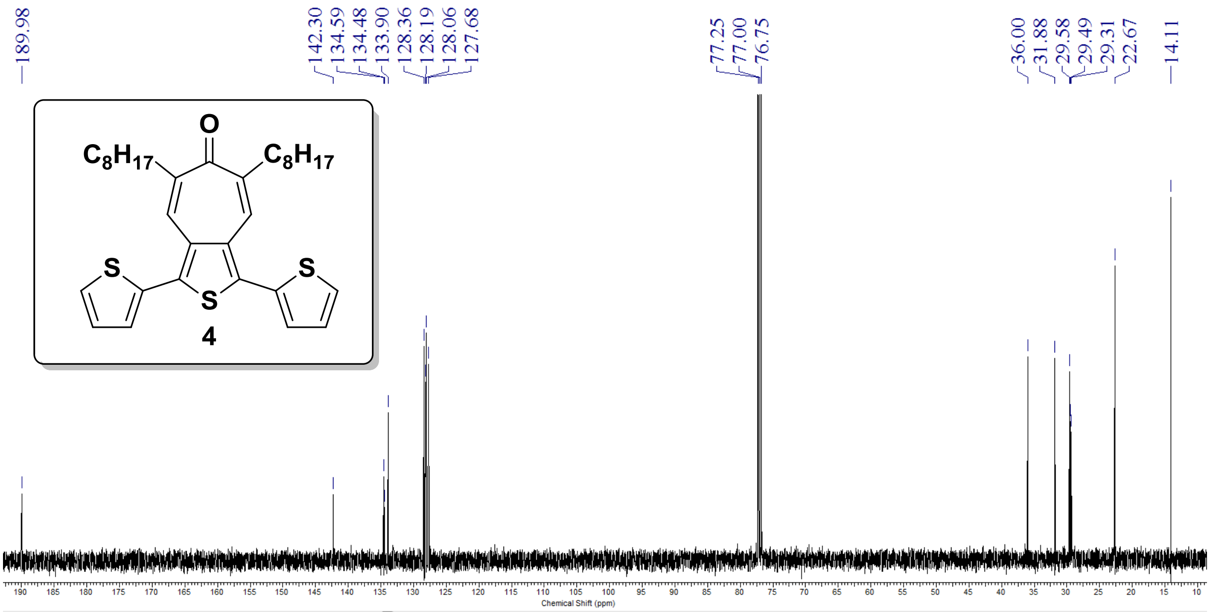

Figure S8. [13]C-NMR spectrum of compound **4** (125 MHz, $CDCl_3$)

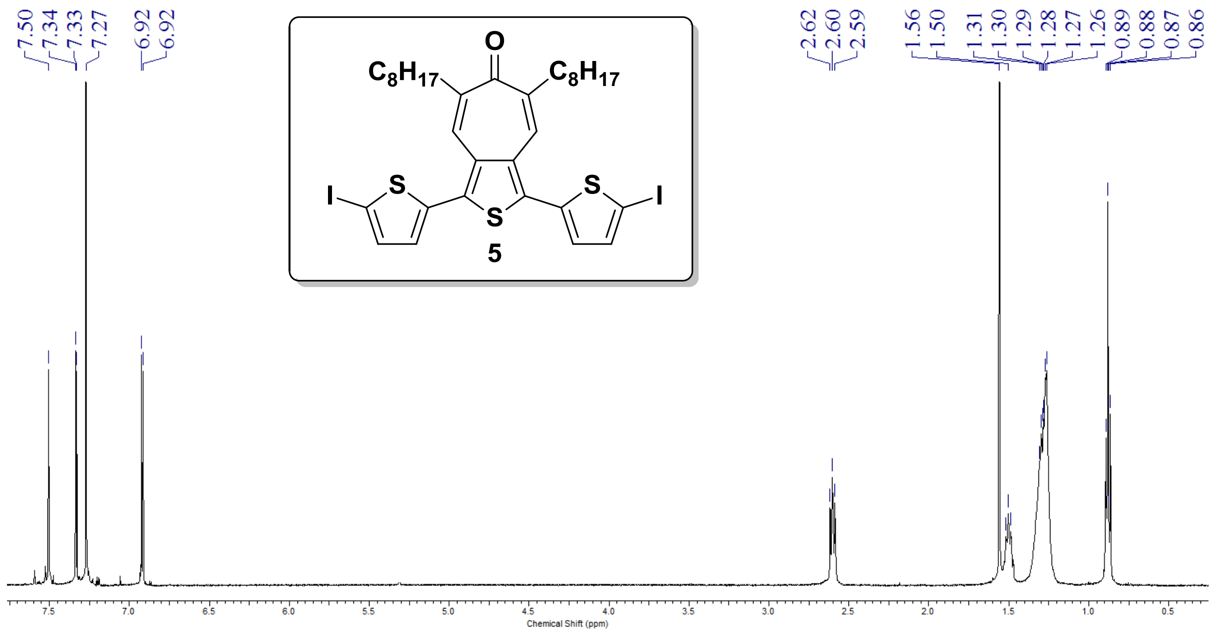

Figure S9. ^{1}H-NMR spectrum of compound **5** (500 MHz, $CDCl_3$)

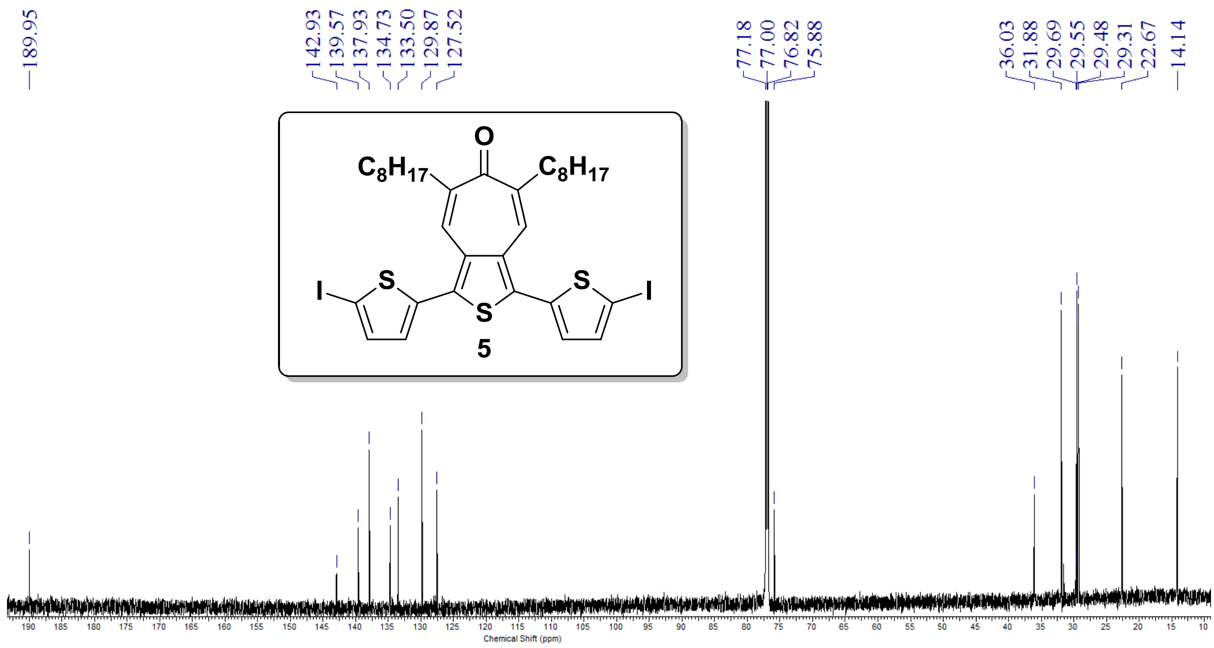

Figure S9. ^{13}C-NMR spectrum of compound **5** (125 MHz, $CDCl_3$)

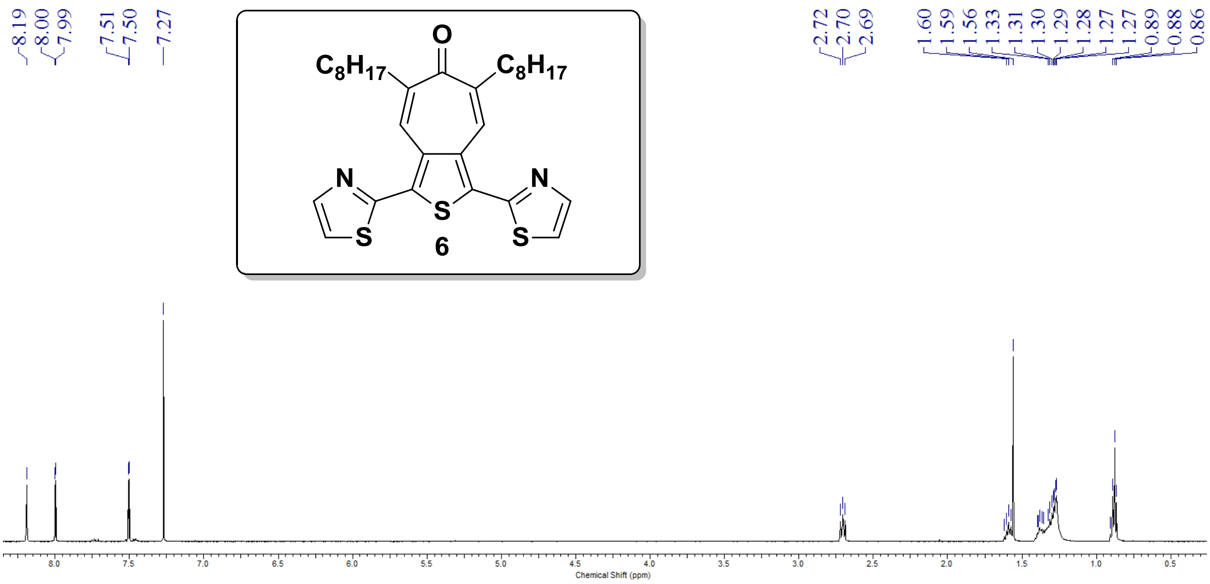

Figure S10. [1]H-NMR spectrum of compound **6** (500 MHz, $CDCl_3$)

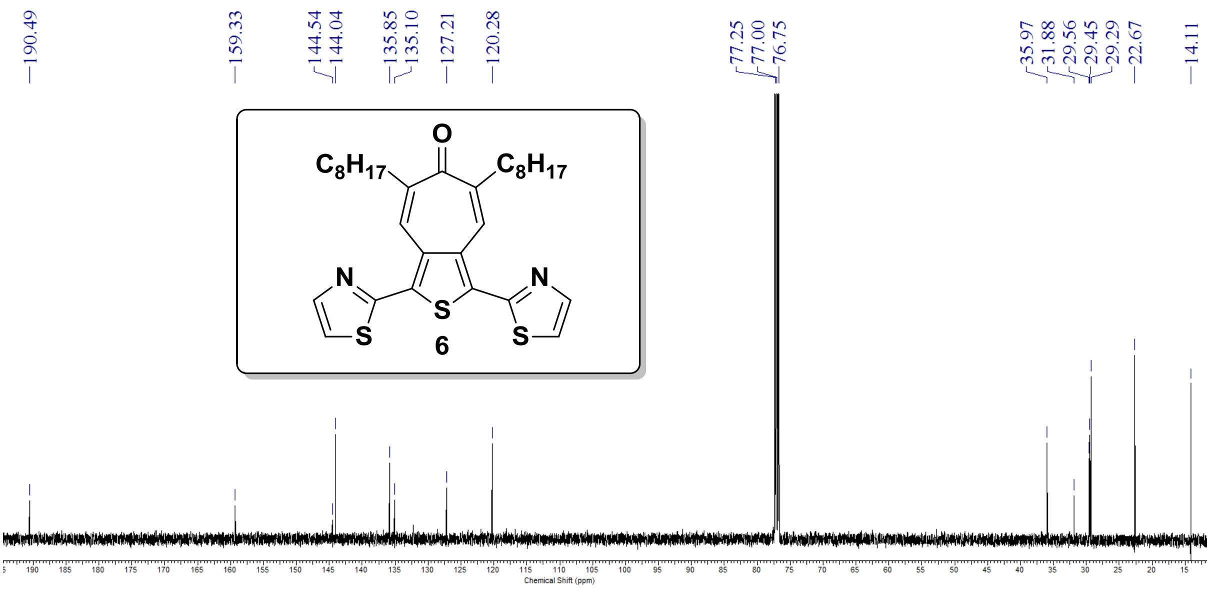

Figure S10. [13]C-NMR spectrum of compound **6** (125 MHz, $CDCl_3$)

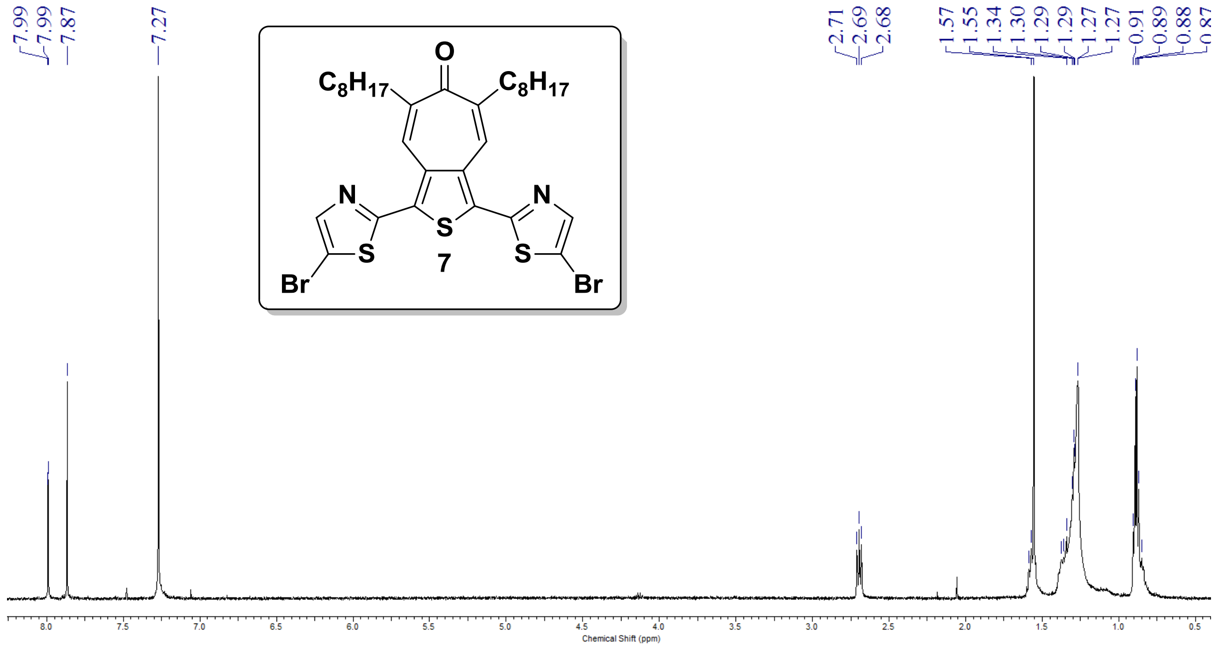

Figure S11. [1]H-NMR spectrum of compound **7** (500 MHz, $CDCl_3$)

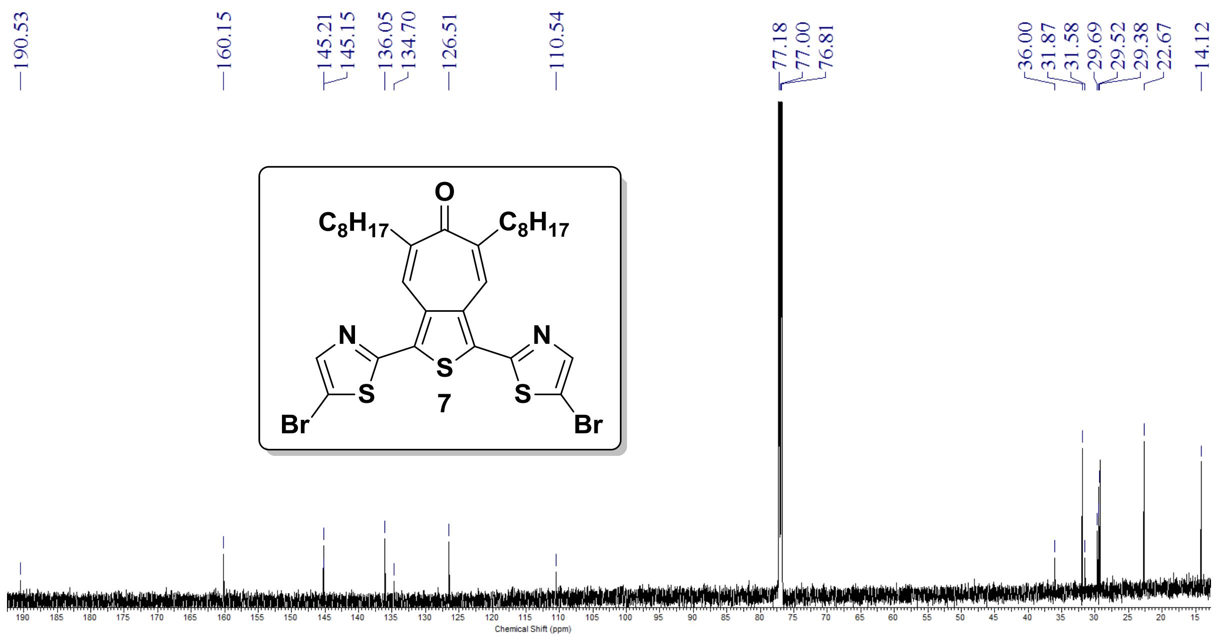

Figure S11. [13]C-NMR spectrum of compound **7** (125 MHz, $CDCl_3$)

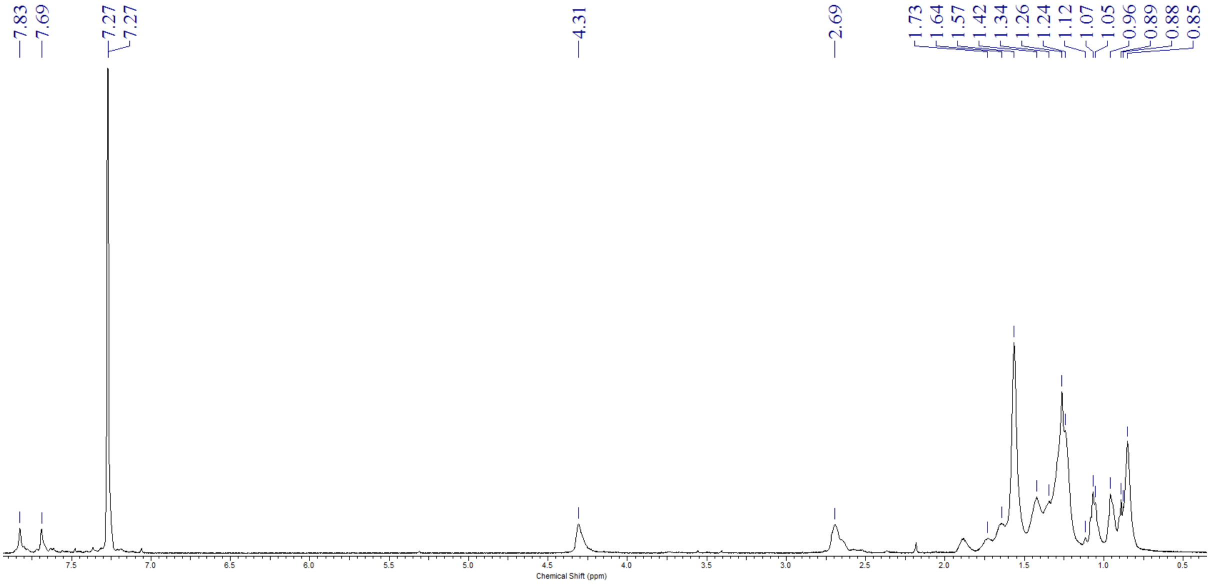

Figure S12. [1]H-NMR spectrum of **PTrB** (500 MHz, $CDCl_3$)

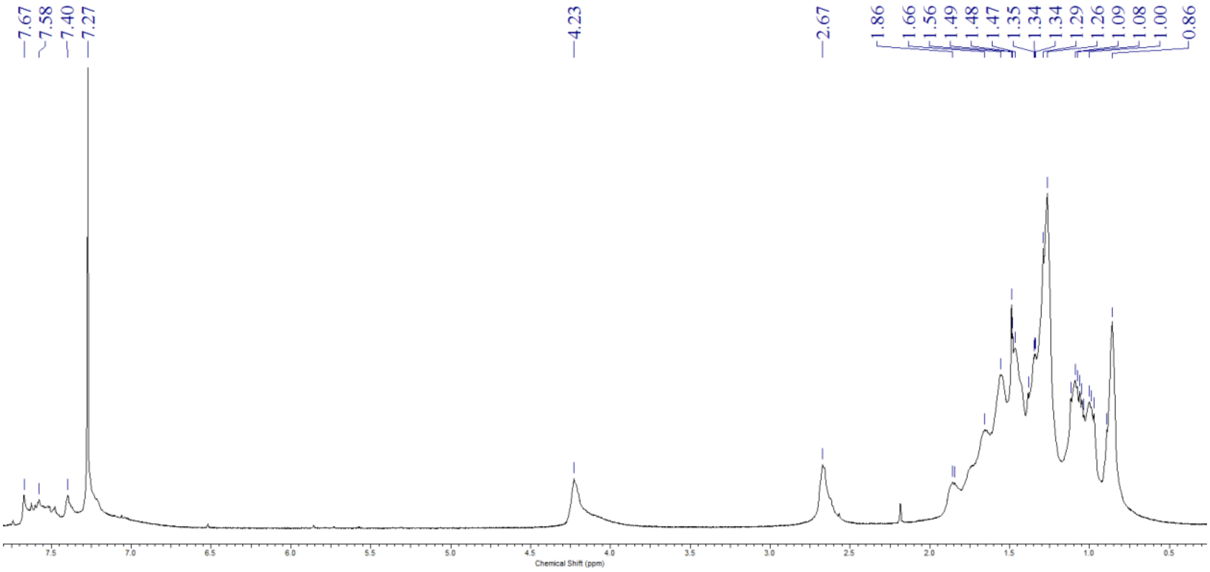

Figure S13. [1]H-NMR spectrum of **PTrTB** (500 MHz, $CDCl_3$)

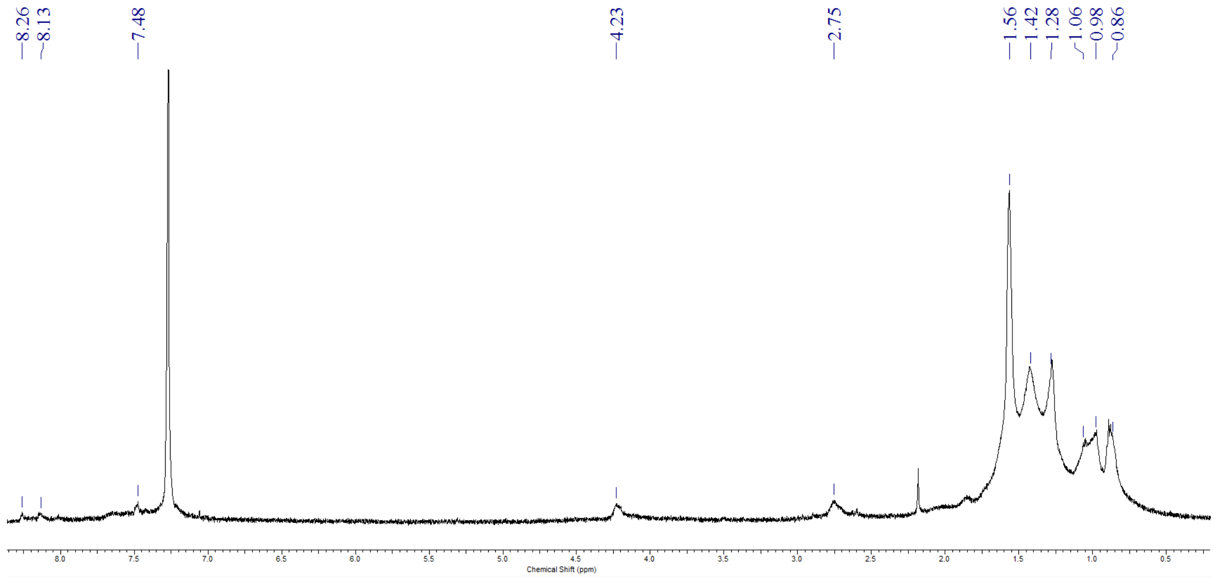

Figure S14. ^{1}H-NMR spectrum of **PTrTzB** (500 MHz, $CDCl_3$)