

Electronic Supplementary Information for

Covalently Linked thieno[2,3-*b*]thiophene-fullerene Dimers: Synthesis and Physical Characterization

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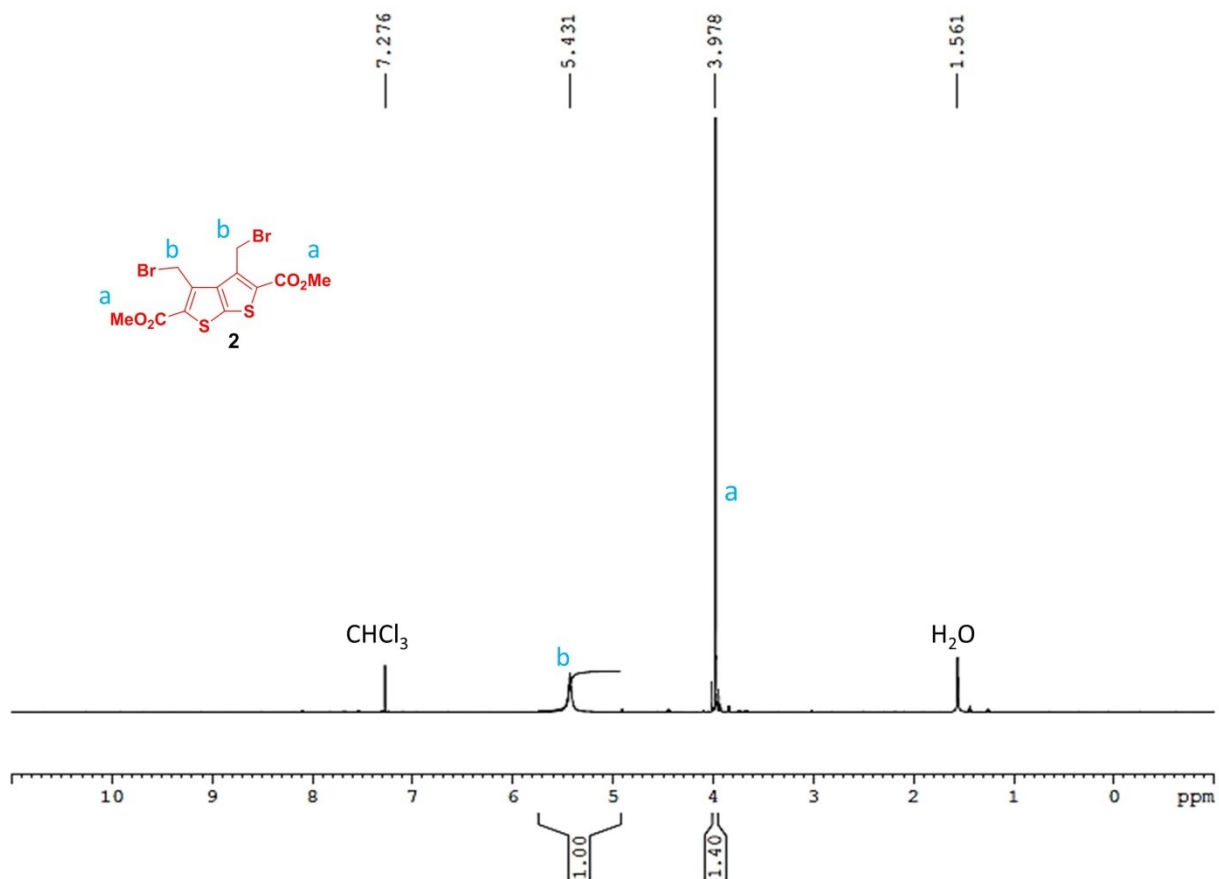


Figure S1. The ¹H NMR spectrum of compound **2** (600.13 MHz, solvent CDCl₃)

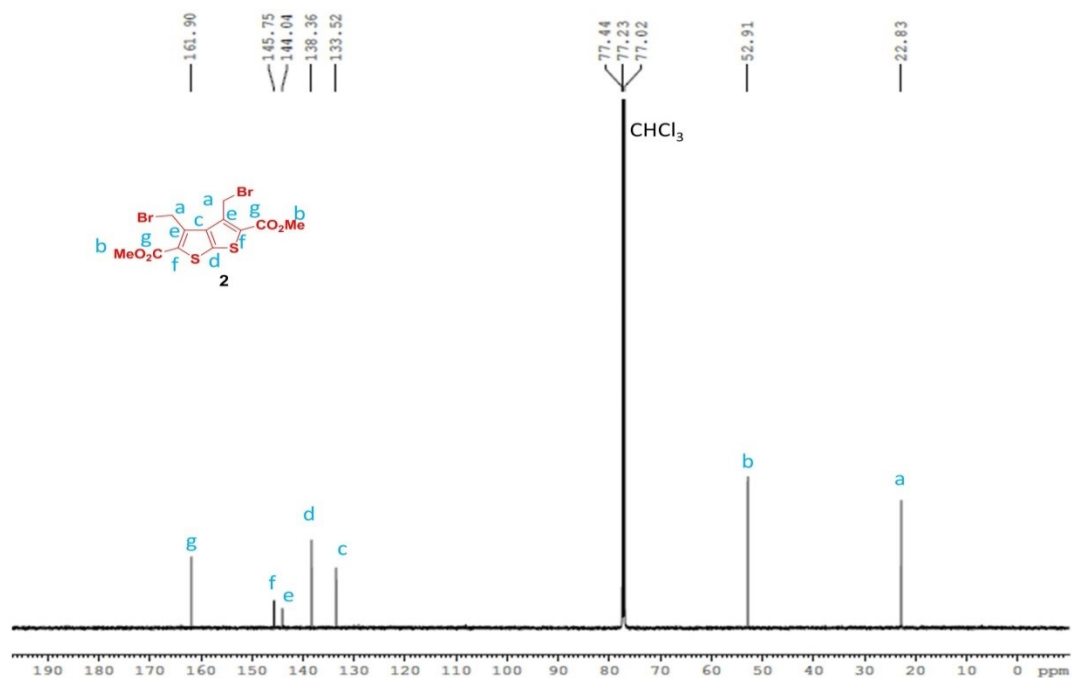


Figure S2. The ^{13}C NMR spectrum of compound **2** (150 MHz, solvent CDCl_3)

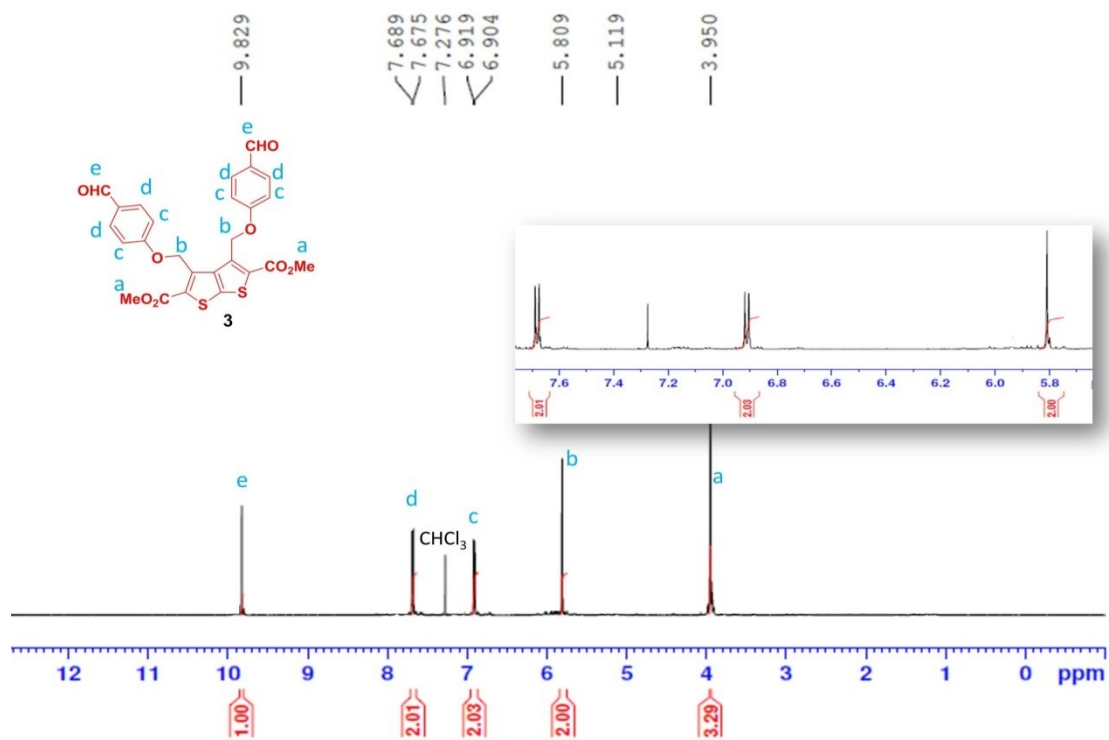


Figure S3. The ^1H NMR spectrum of compound **3** (600.13 MHz, solvent CDCl_3)

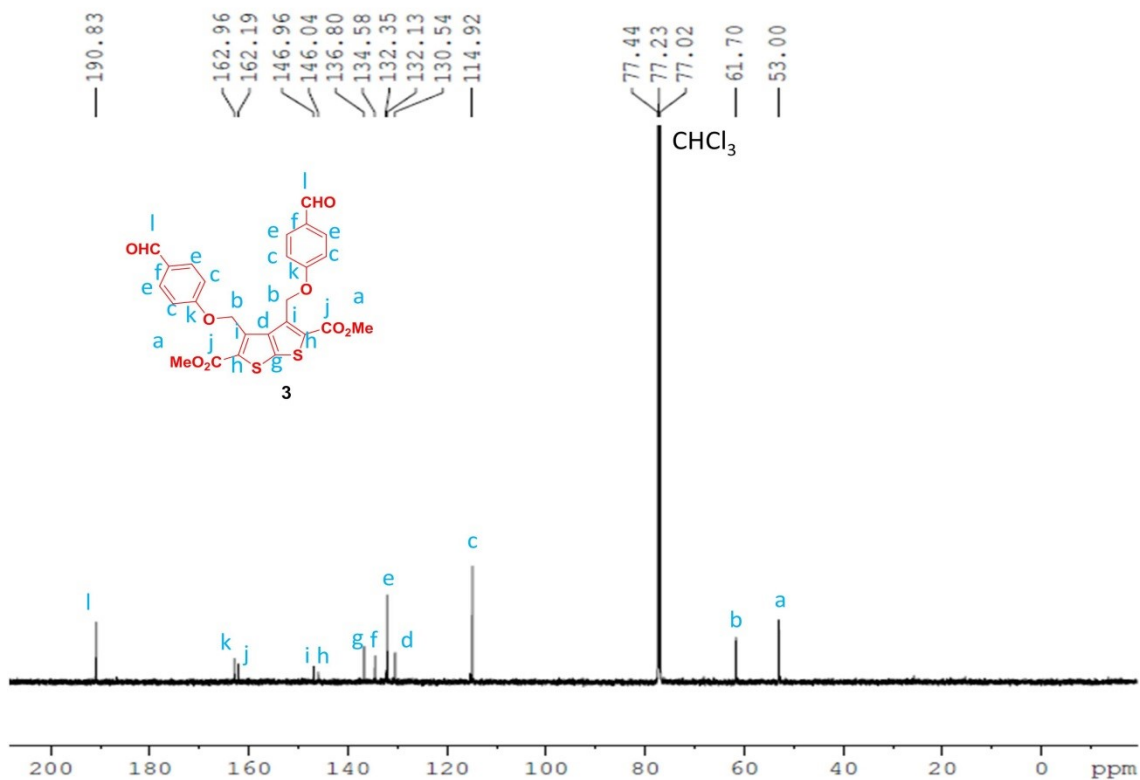


Figure S4. The ¹³C NMR spectrum of compound **3** (150 MHz, solvent CDCl₃)

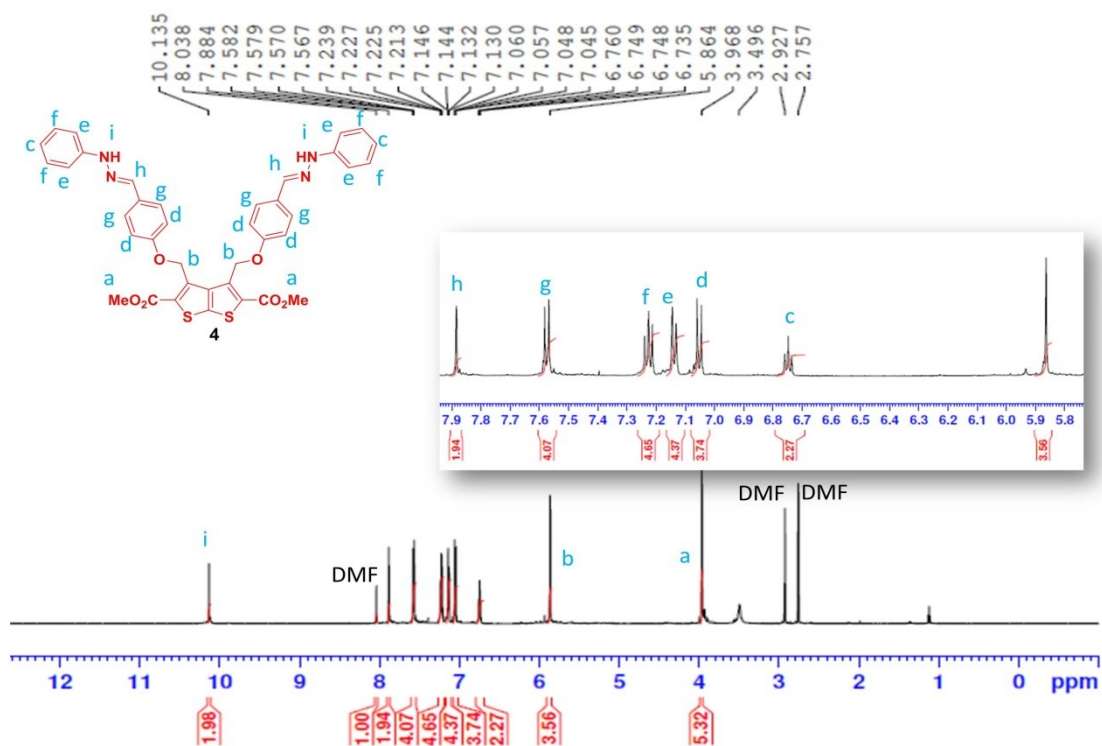


Figure S5. The ¹H NMR spectrum of compound **4** (600.13 MHz, solvent DMF-*d*₇)

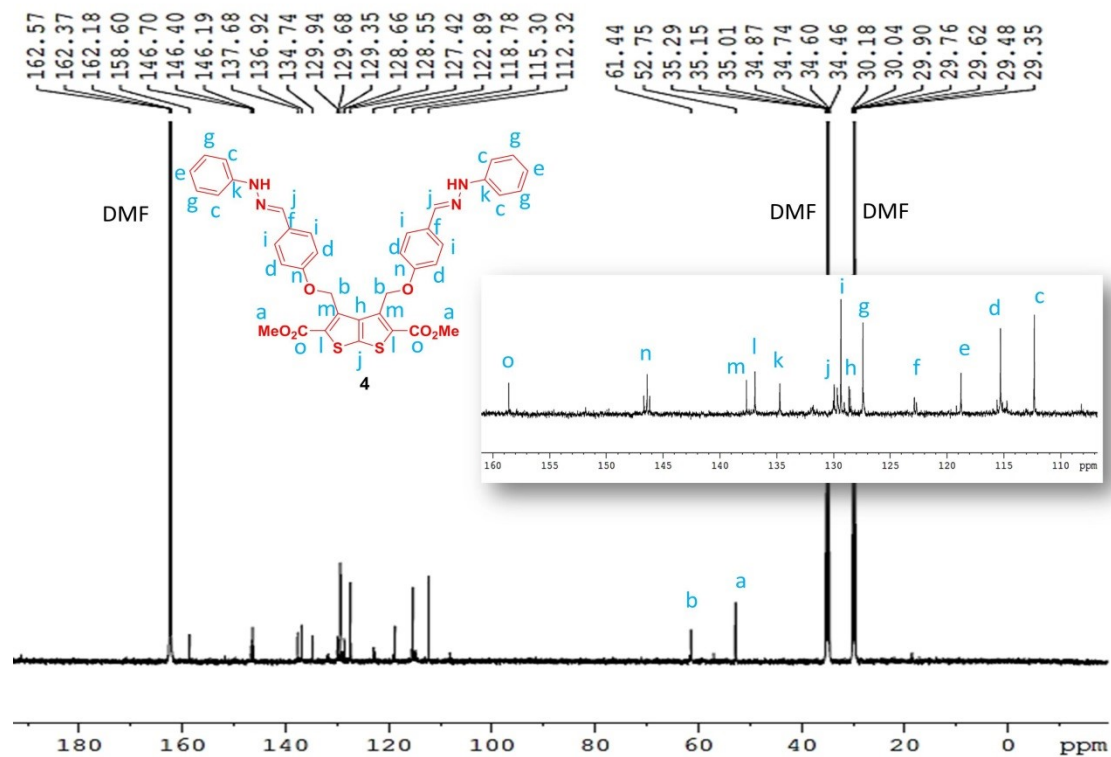


Figure S6. The ¹³C NMR spectrum of compound **4** (150 MHz, solvent DMF-*d*₇)

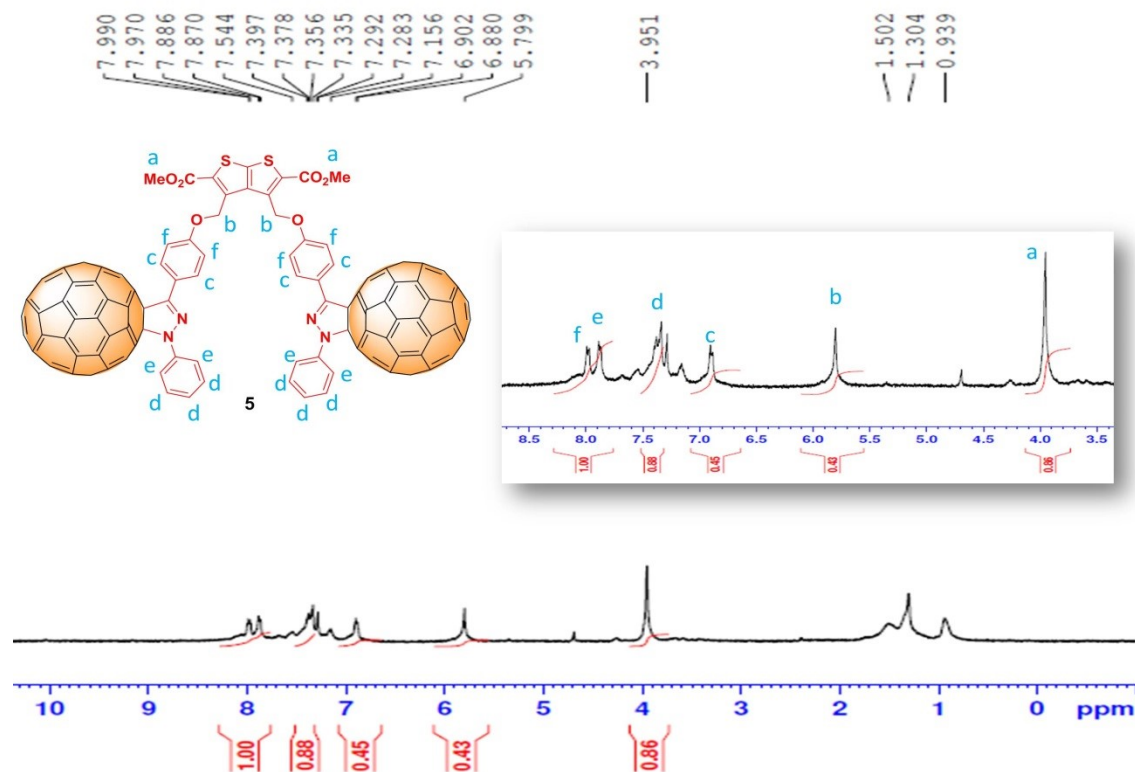


Figure S7. The ¹H NMR spectrum of compound **5** (600.13 MHz, solvent CS₂ : CDCl₃ = 3:1)

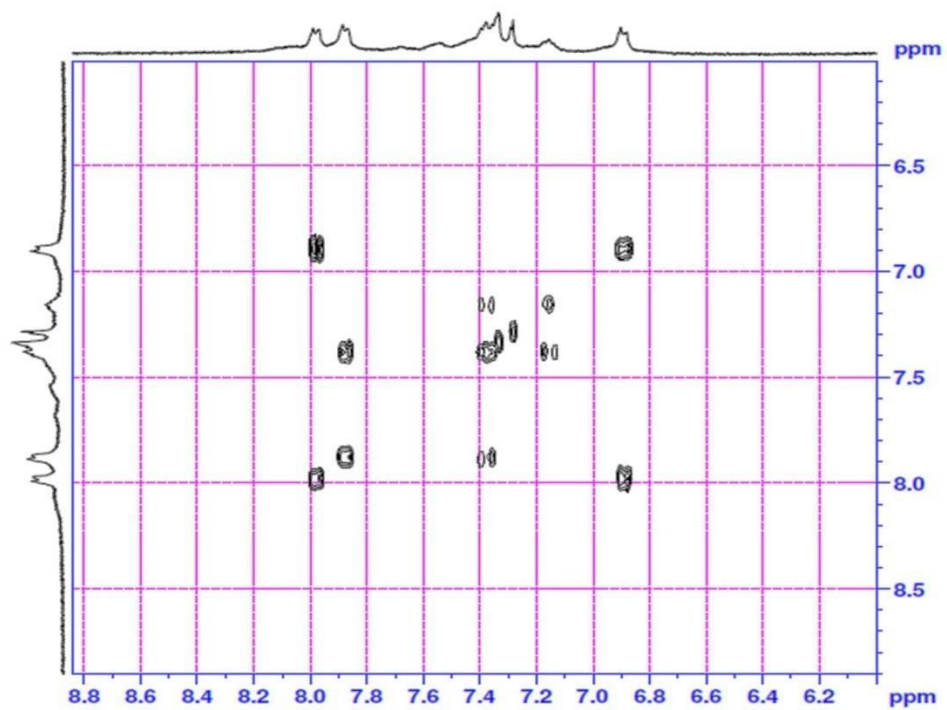
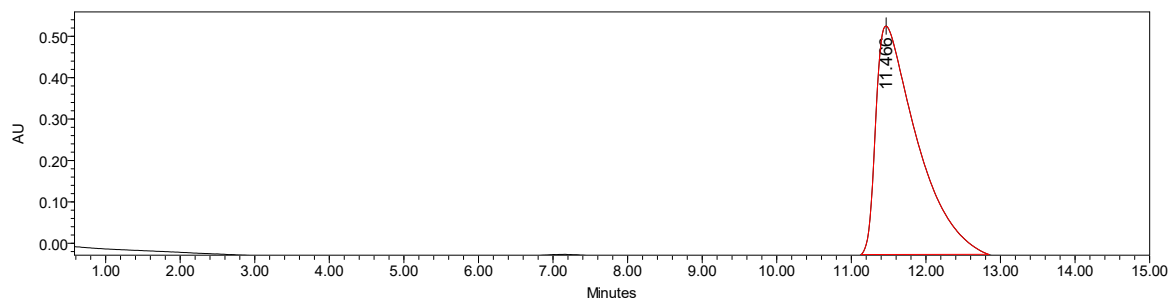


Figure S8. H-H COSY NMR spectrum of compound **5** (600.13 MHz, solvent CS₂ : CDCl₃ = 3:1)



	Retention Time	Area	% Area	Height	% Height
1	11.466	21044895	100.00	551797	100.00

Figure S9. HPLC chromatogram of compound **5**

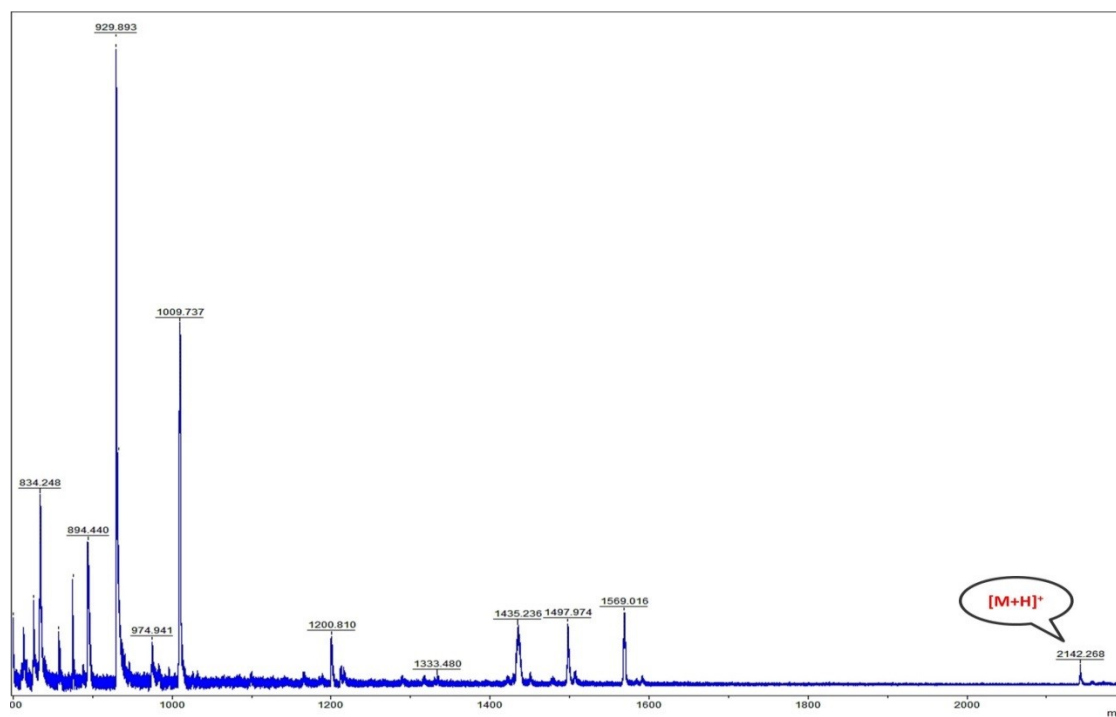


Figure S10. MALDI-TOF spectrum of compound **5**

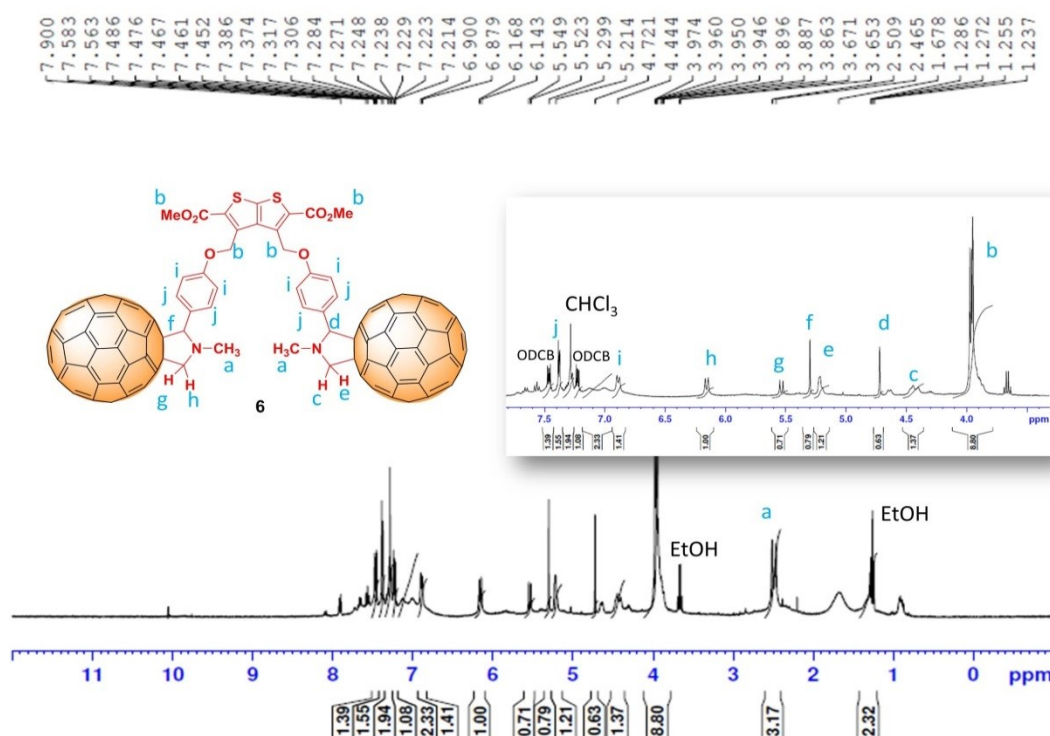


Figure S11. The ^1H NMR spectrum of compound **6** (600.13 MHz, solvent $\text{CS}_2 : \text{CDCl}_3 = 1:3$)

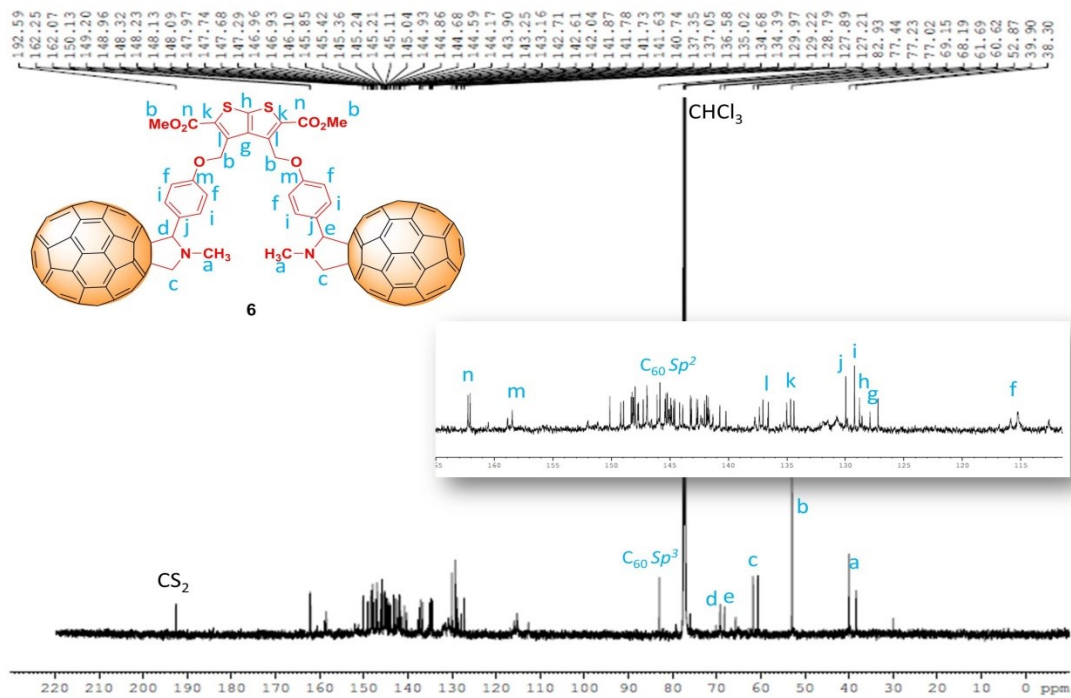


Figure S12. The ^{13}C NMR spectrum of compound **6** (150 MHz, solvent CS₂ : CDCl₃ = 1:3)

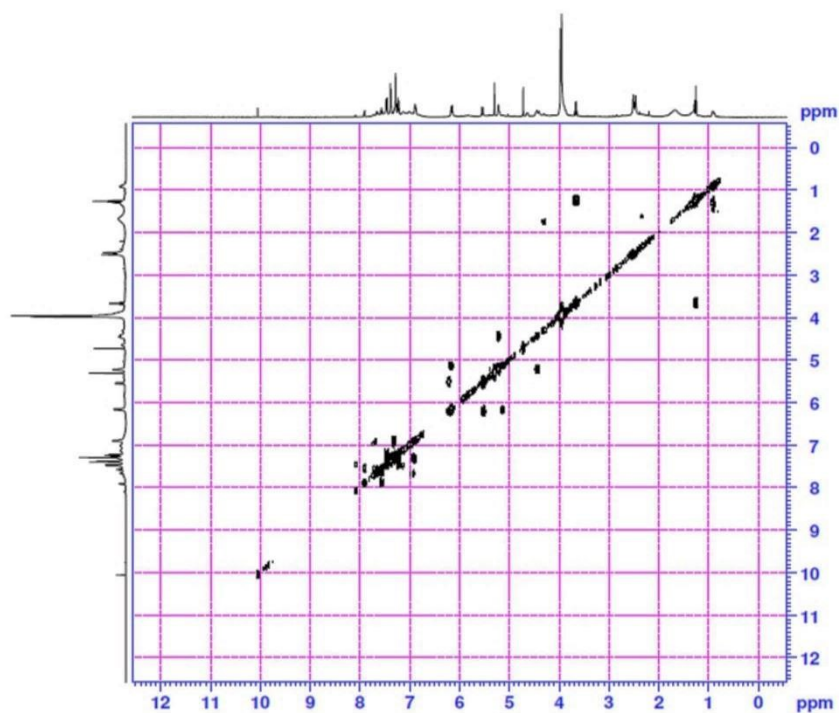


Figure S13. H-H COSY NMR spectrum of compound **6** (600.13 MHz, solvent CS₂ : CDCl₃ = 1:3)

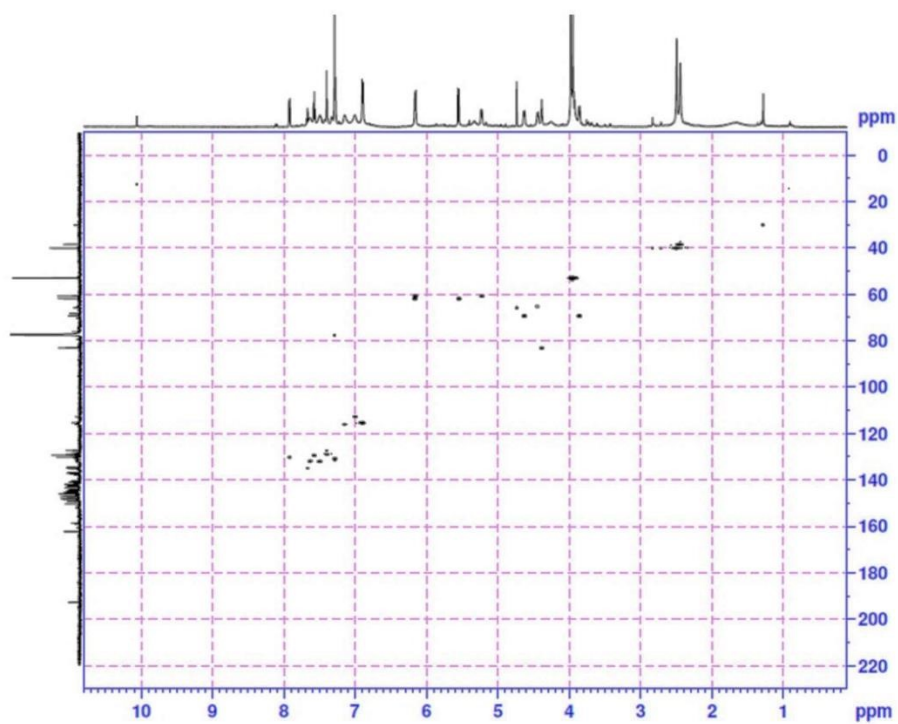


Figure S14. The HSQC spectrum of compound **6** (600.13 MHz for ^1H and ^{13}C , solvent CS_2 : $\text{CDCl}_3 = 1:3$)

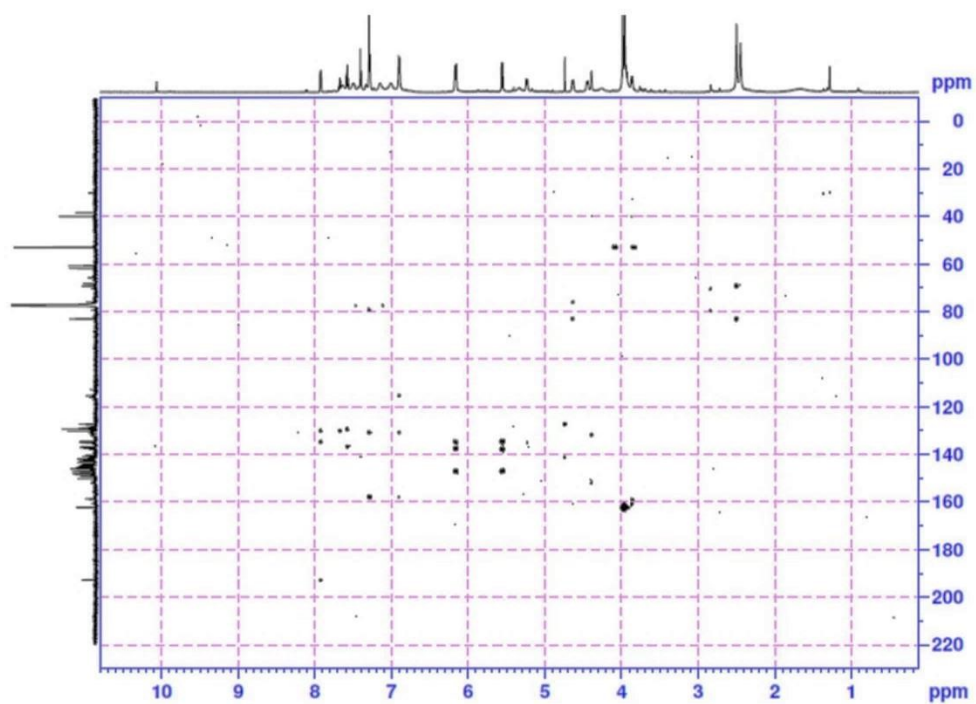
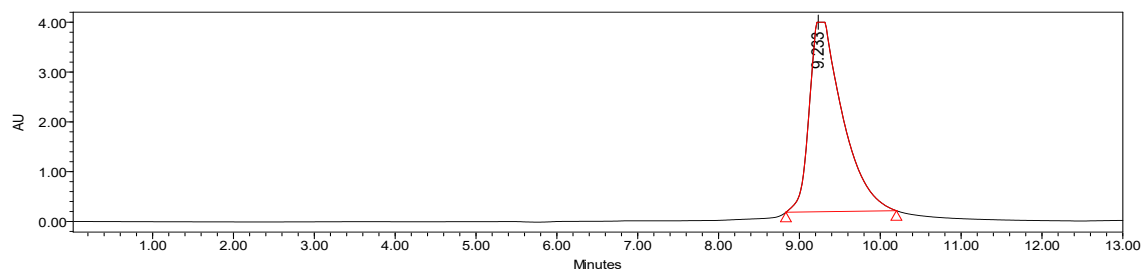


Figure S15. The HMBC spectrum of compound **6** (600.13 MHz for ^1H and ^{13}C , solvent CS_2 : $\text{CDCl}_3 = 3:1$)



	Retention Time	Area	% Area	Height	% Height
1	9.233	109688391	100.00	3845632	100.00

Figure S16. HPLC chromatogram of compound **6**

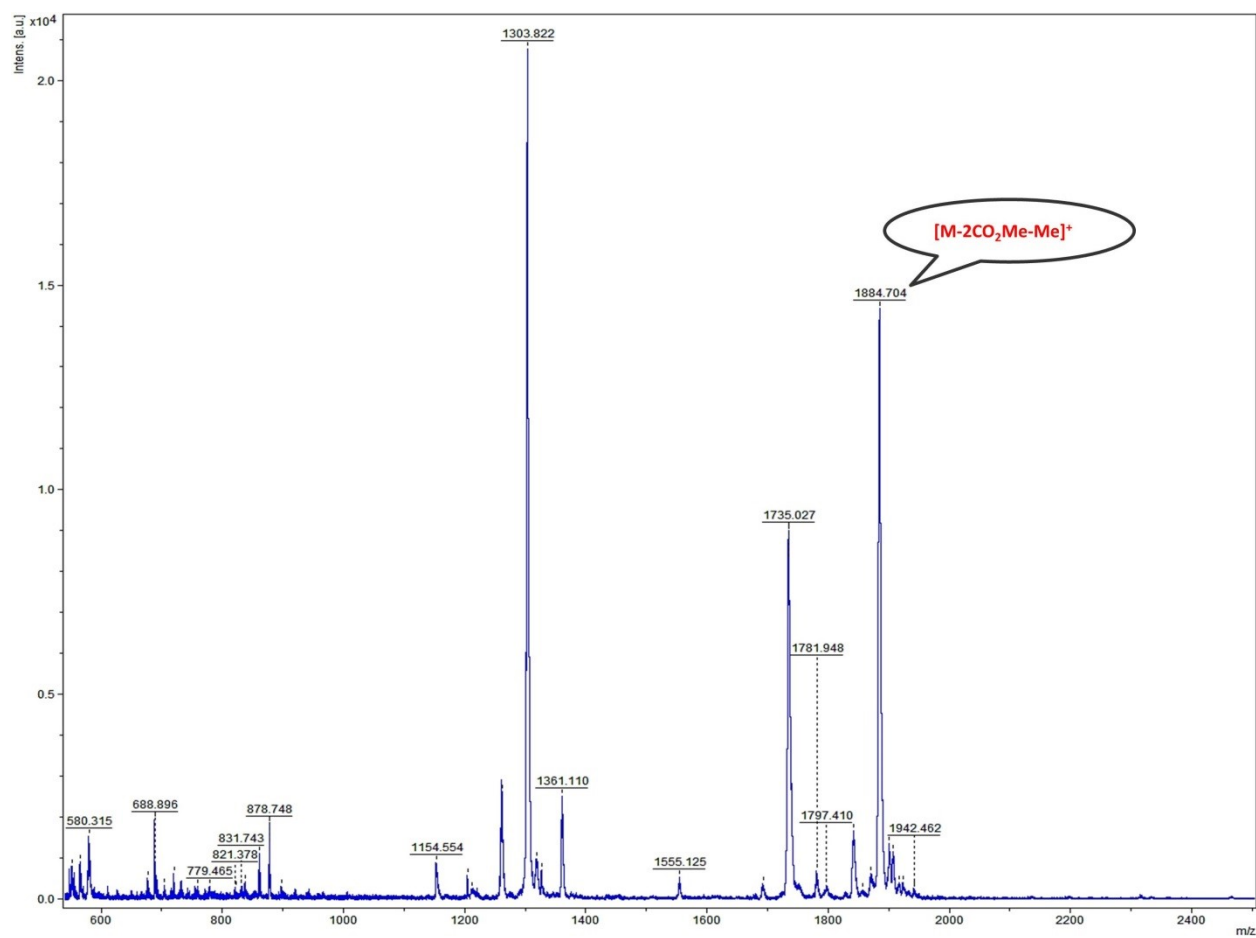


Figure S17. MALDI-TOF spectrum of compound **6**

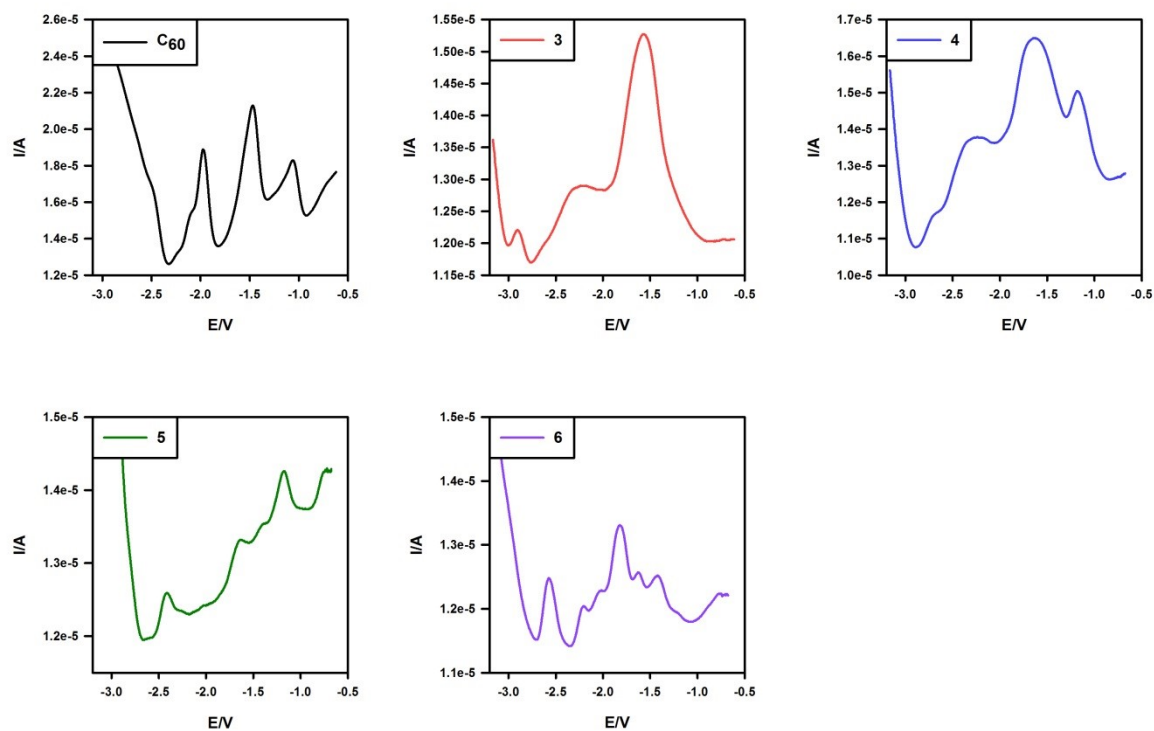


Figure S18. Square wave voltammograms of **C₆₀**, **3**, **4**, **FTTPz 5** and **FTTPy 6** in toluene/CH₃CN (4:1) solutions with 0.1 M TBAP; V vs. Fc/Fc⁺; scan rate was 100 mVs⁻¹.