Electronic Supplementary Material (ESI) for New Journal of Chemistry.

Supporting Information

Synthesis and Photophysical Properties of Triphenylamine-Based Multiply Conjugated Star Like Molecules

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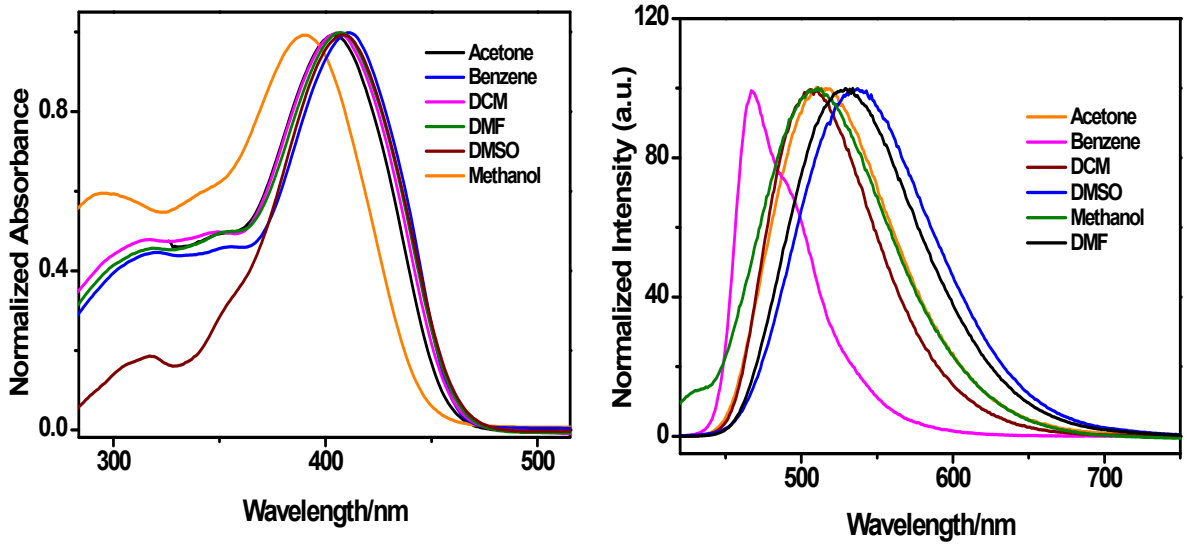


Figure S1. Normalized absorption and fluorescence spectra of DTPA in different solvents.

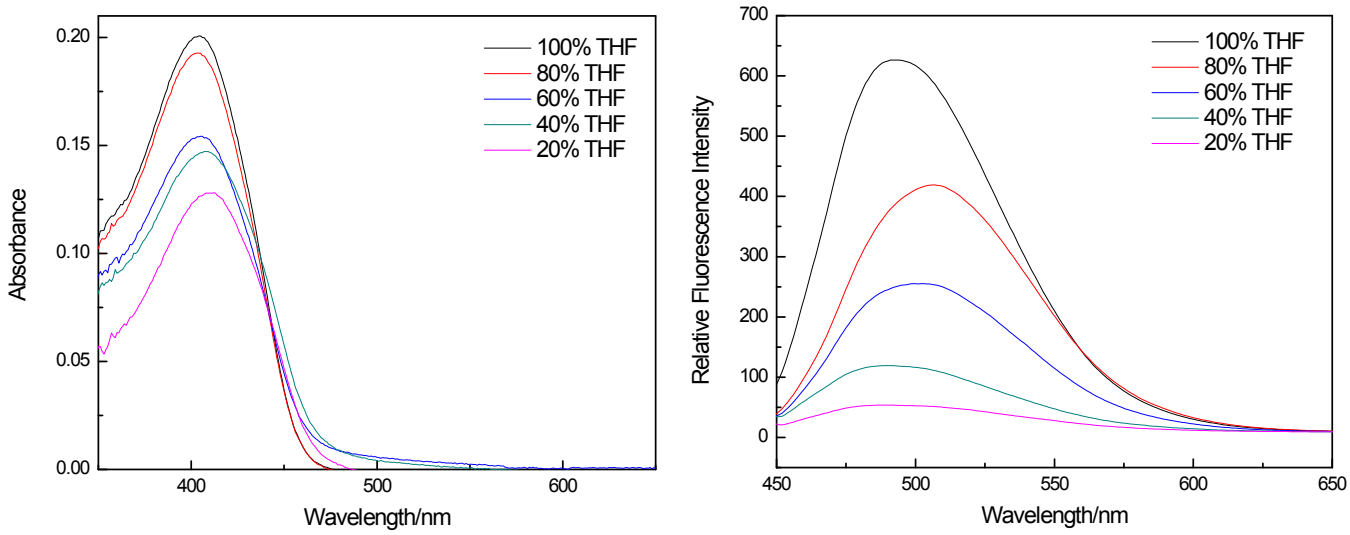


Figure S2. Aggregation quenching absorption (a) and emission (b) spectra of TTPA in THF/water system.

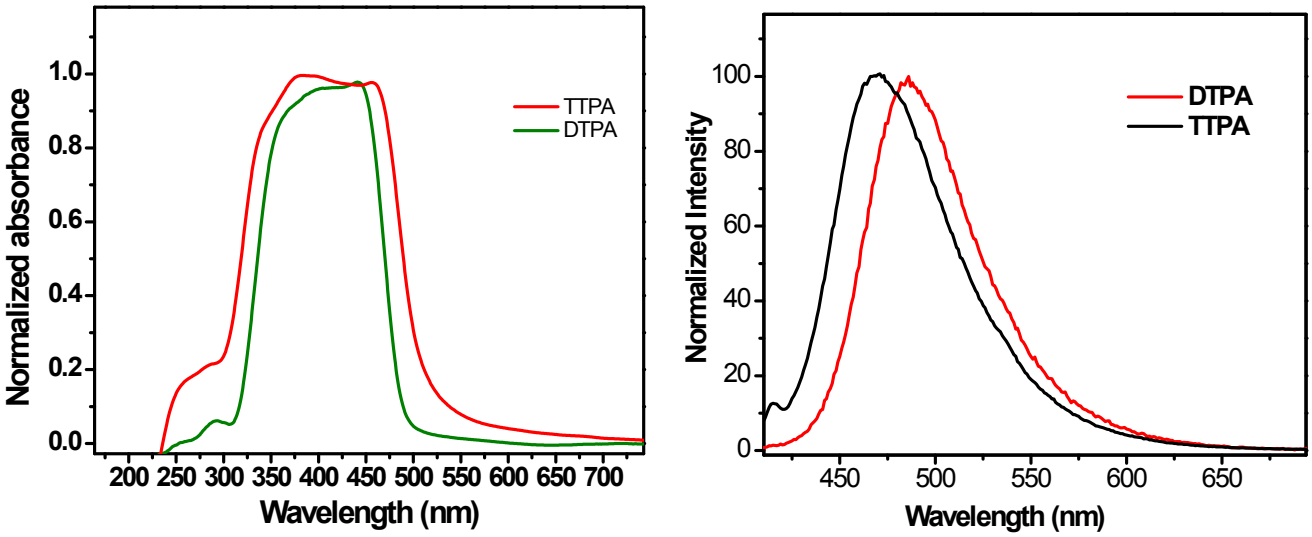
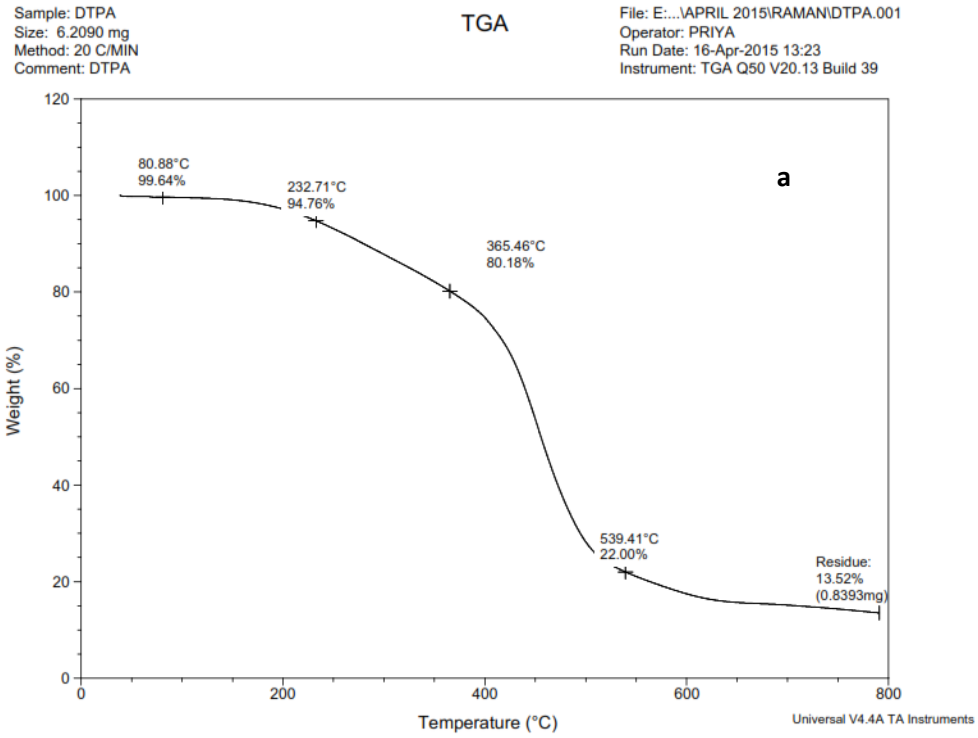


Figure S3.Absorption and emission spectra of DTPA and TTPA in thinfilms.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Size: 6.2090 mg
Method: 20 C/MIN
Comment: DTPA
TGA
File: E:...\APRIL 2015\RAMAN\DTPA.001
Operator: PRIYA
Run Date: 16-Apr-2015 13:23
Instrument: TGA Q50 V20.13 Build 39
80.88°C
99.64%
232.71°C
94.76%
365.46°C
80.18%
539.41°C
22.00%
Residue:
13.52%
(0.8393mg)
a
Weight (%)
Temperature (°C)
Universal V4.4A TA Instruments

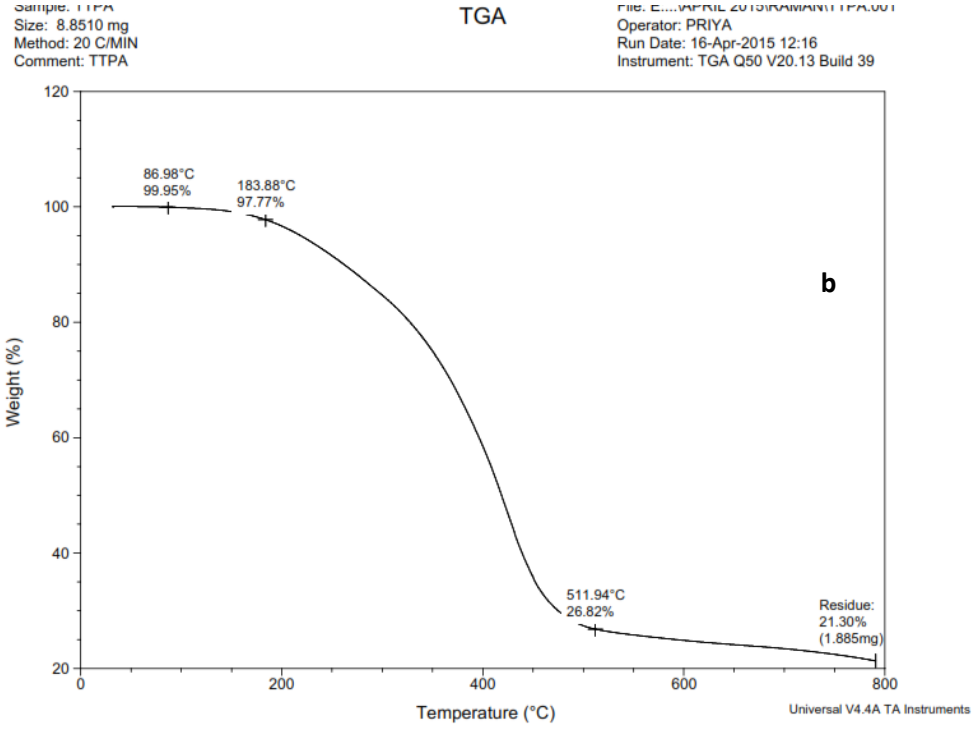
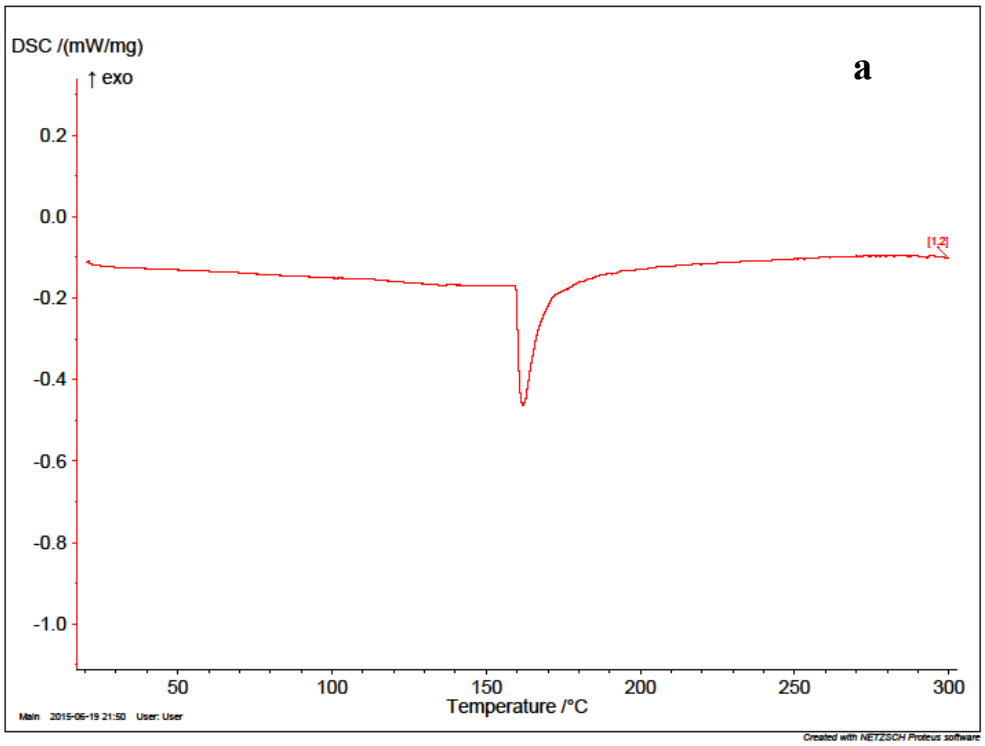

Size: 8.8510 mg
Method: 20 C/MIN
Comment: TTPA
TGA
Operator: PRIYA
Run Date: 16-Apr-2015 12:16
Instrument: TGA Q50 V20.13 Build 39
86.98°C
99.95%
183.88°C
97.77%
511.94°C
26.82%
Residue:
21.30%
(1.885mg)
b
Weight (%)
Temperature (°C)
Universal V4.4A TA Instruments

Figure S4. TGA curve of synthesized triphenylamine based star like compounds of (a) DTPA (b) TTPA measured at 20 ºC min^{-1}



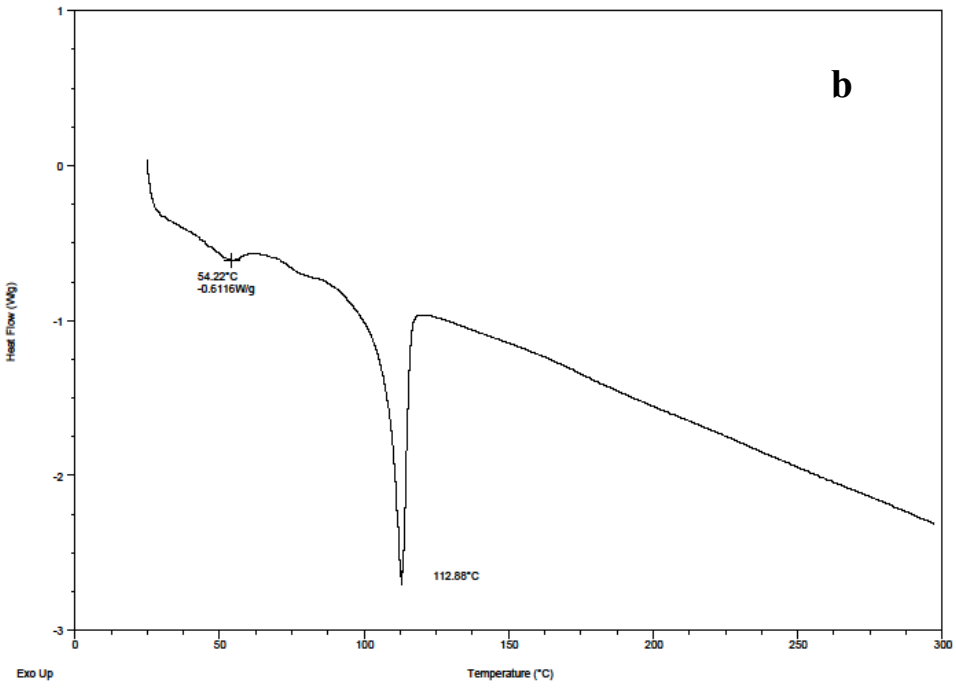


Figure S5. DSC spectra of synthesized triphenylamine based star like compounds of (a) DTPA (b) TTPA measured heating at 10 ºC min^{-1}

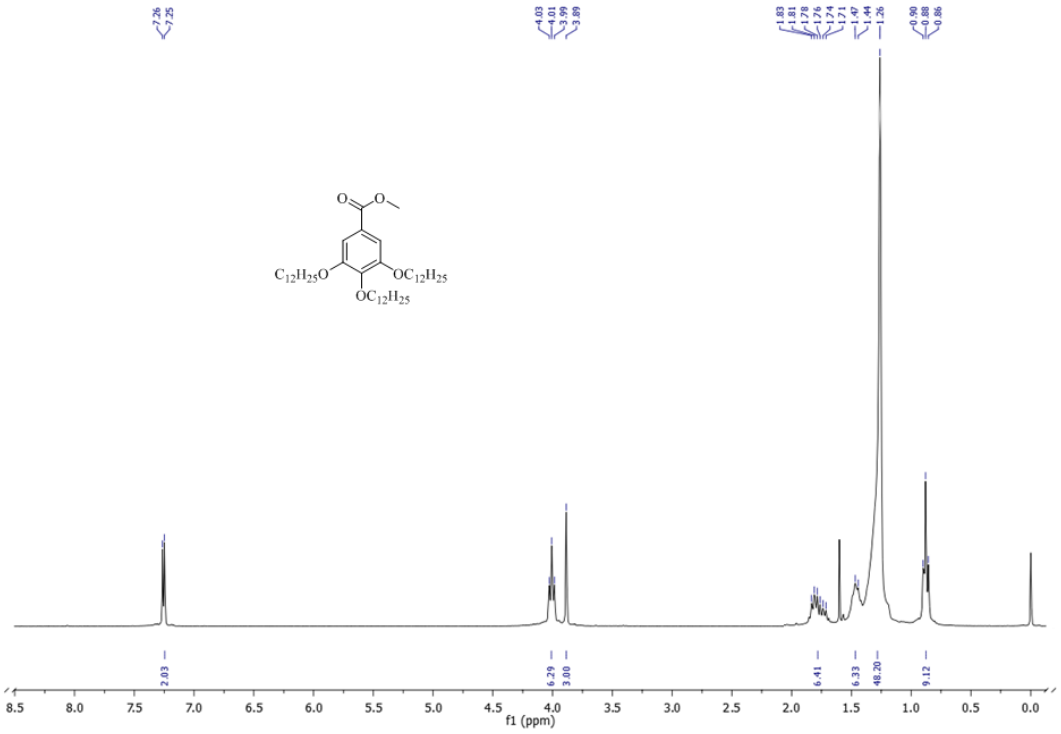


Figure S6. ^{1}H NMR Spectrum of 2a.

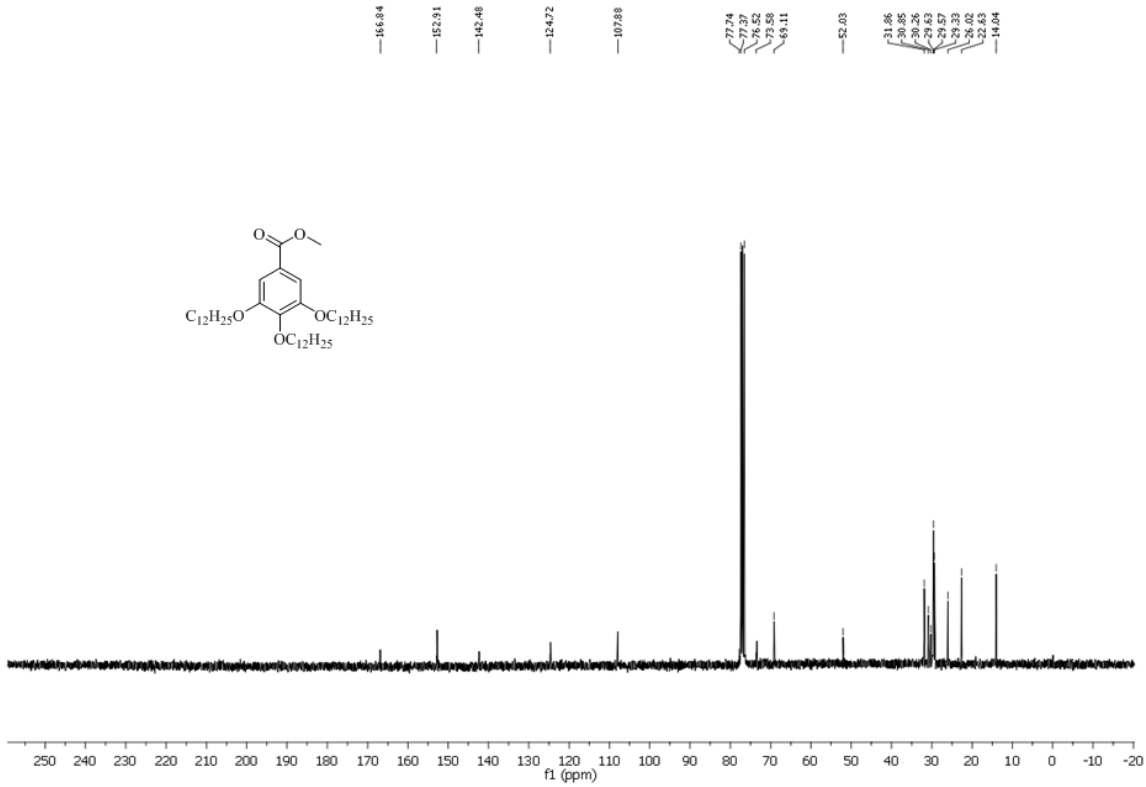


Figure S7. ^{13}C NMR Spectrum of 2a.

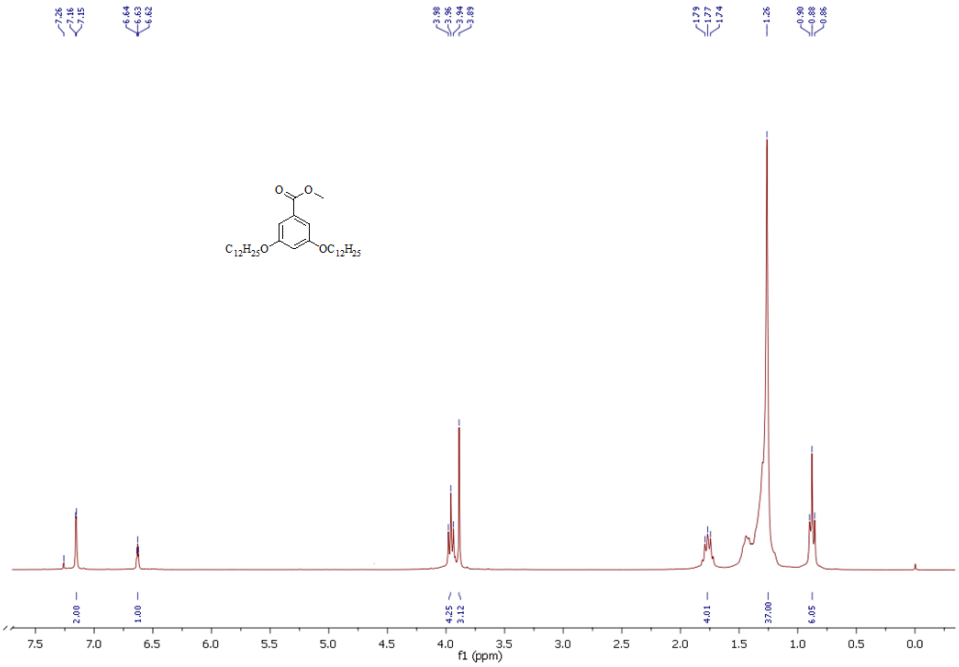


Figure S8. ^{1}H NMR Spectrum of 2b.

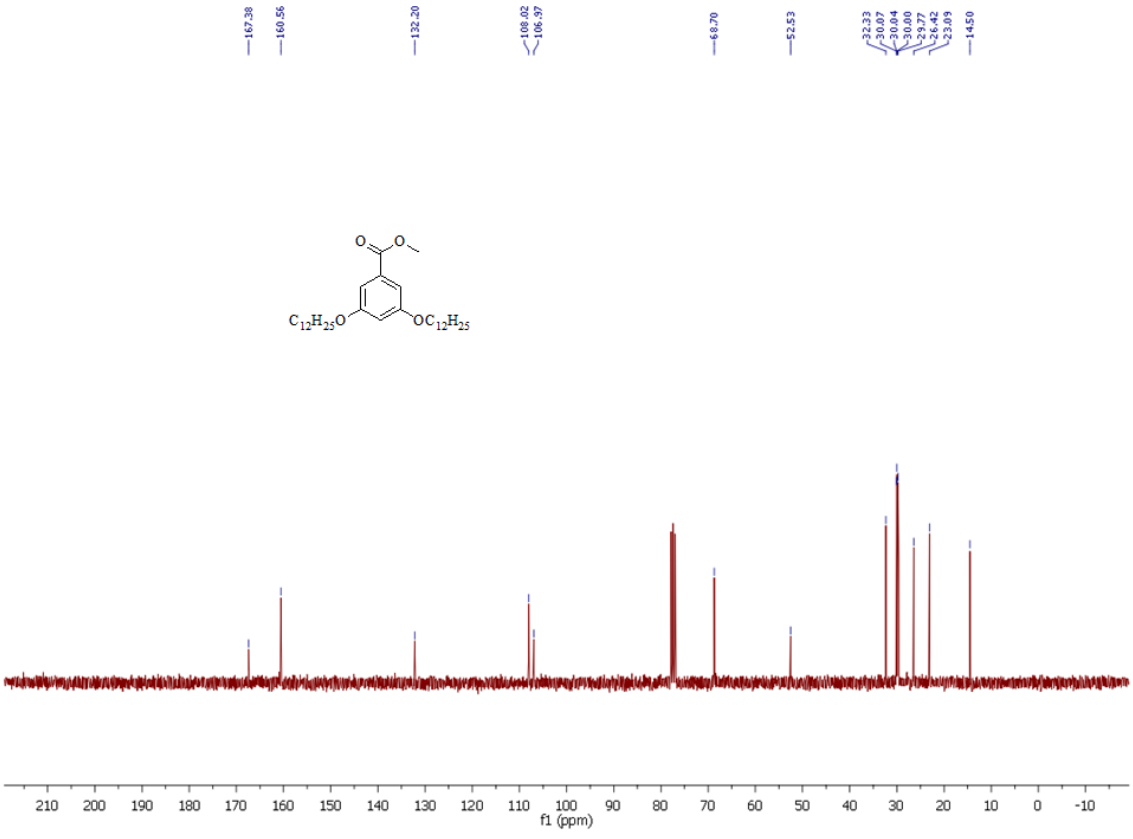


Figure S9. ^{13}C NMR Spectrum of 2b.

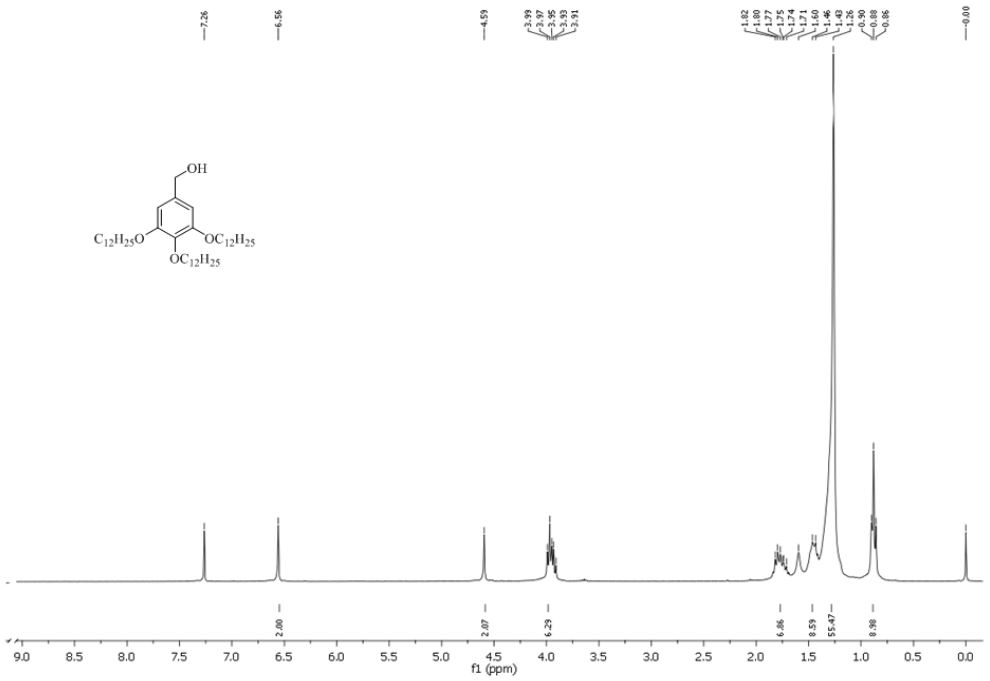


Figure S10. ^{1}H NMR Spectrum of 3a.

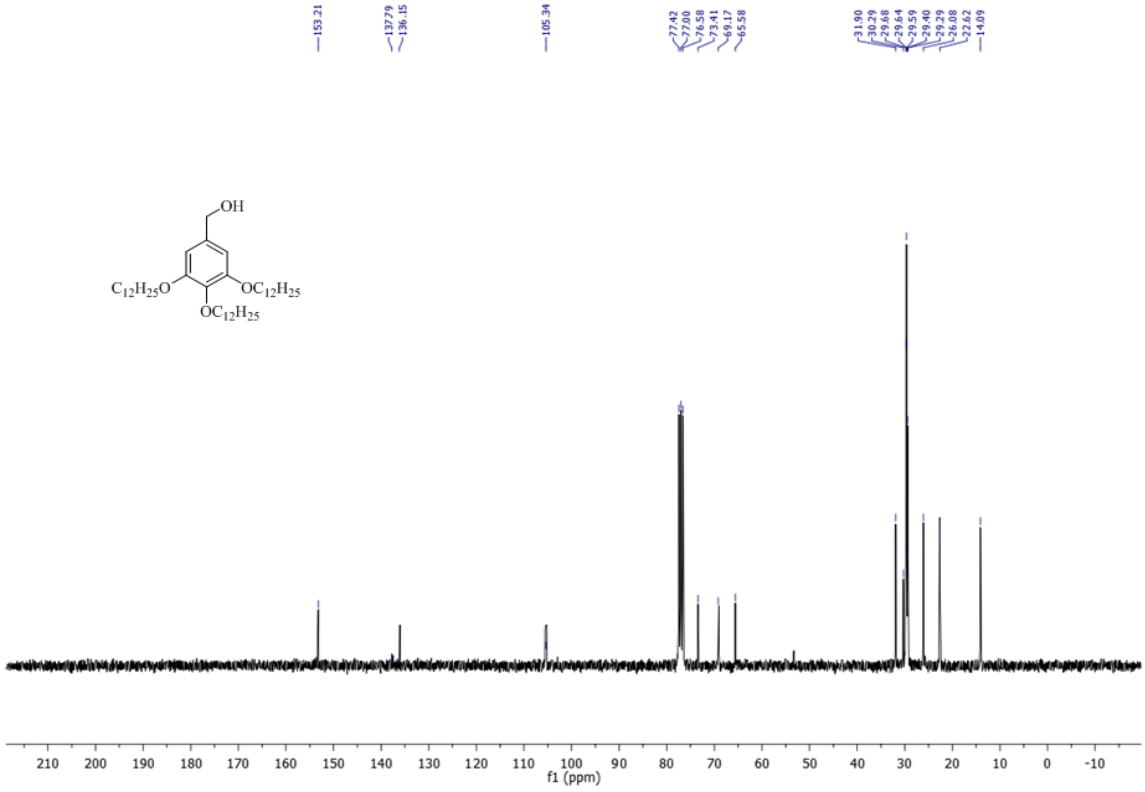


Figure S11. ^{13}C NMR Spectrum of 3a.

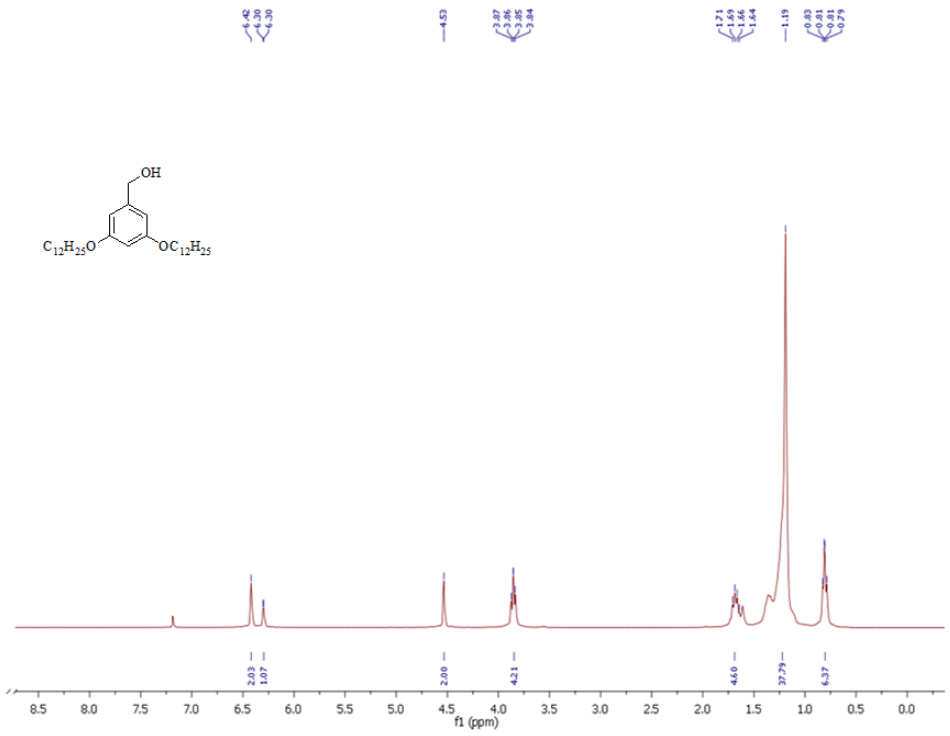


Figure S12. ^{1}H NMR Spectrum of 3b.

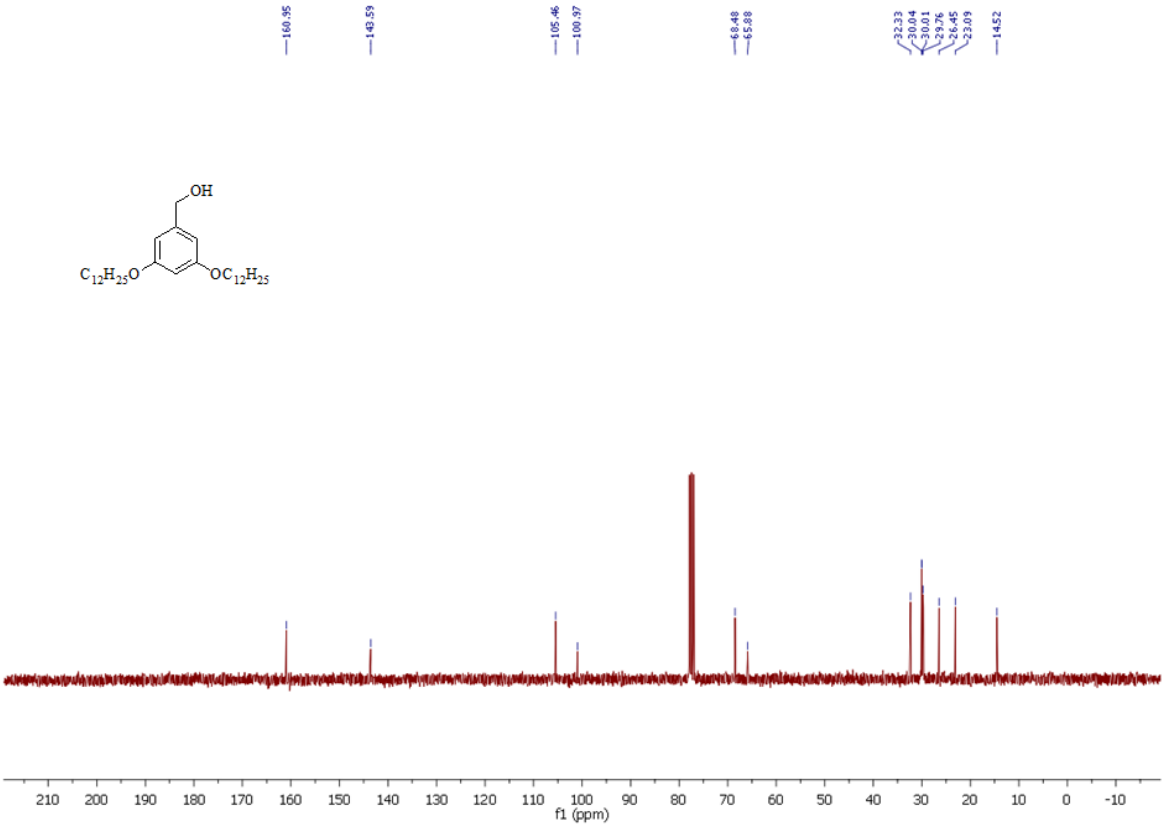


Figure S13. ^{13}C NMR Spectrum of 3b.

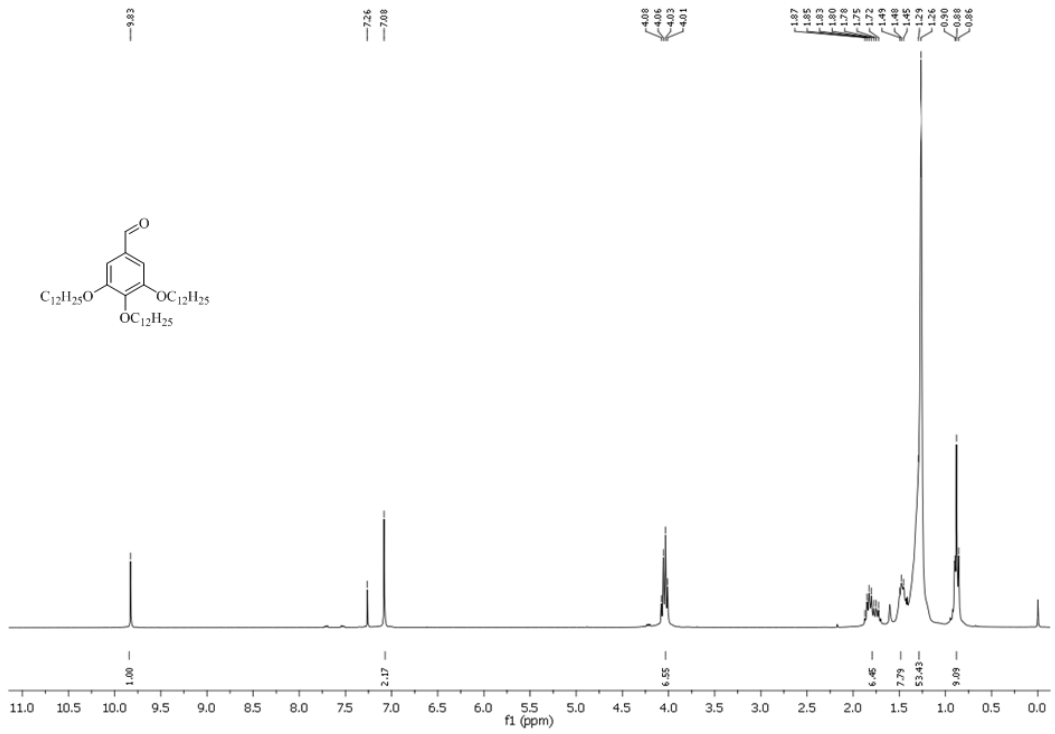


Figure S14. ^{1}H NMR Spectrum of 4a.

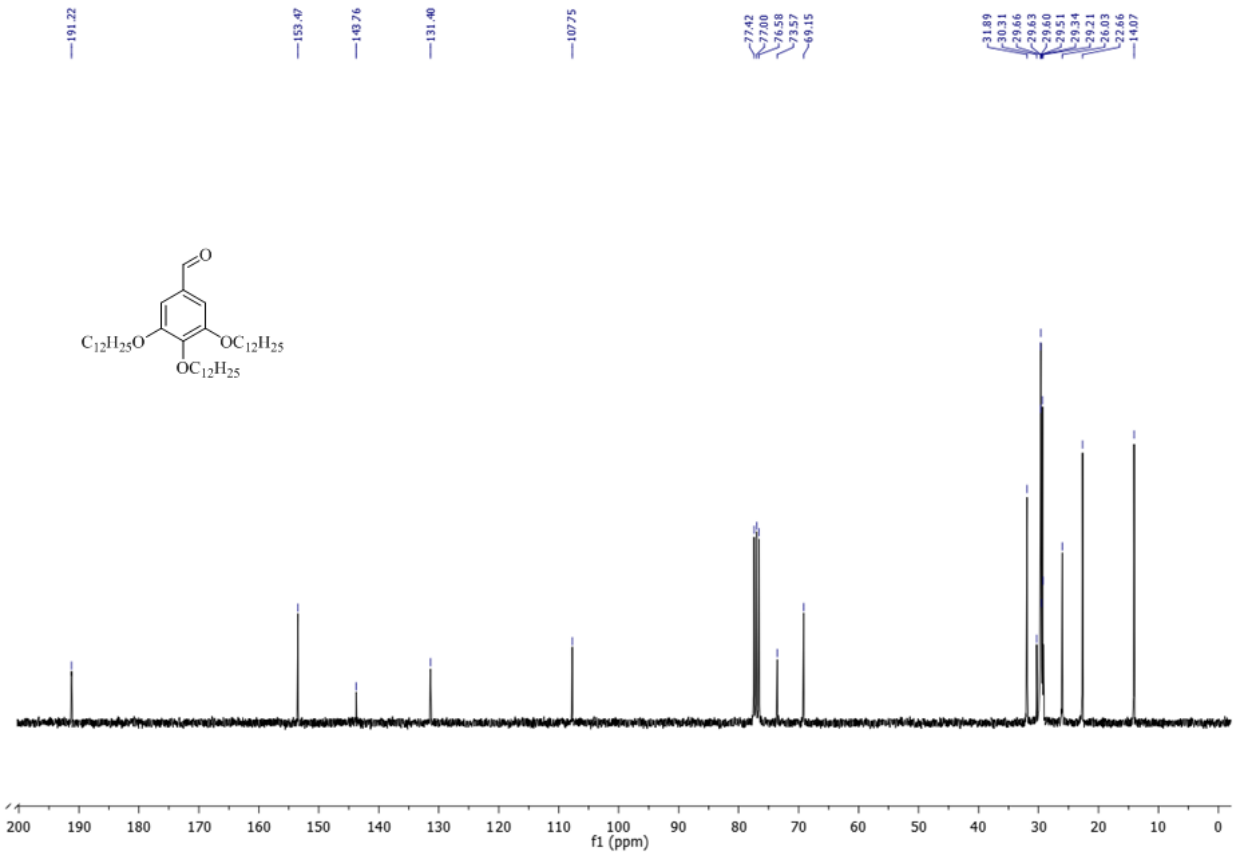


Figure S15. ^{13}C NMR Spectrum of 4a.

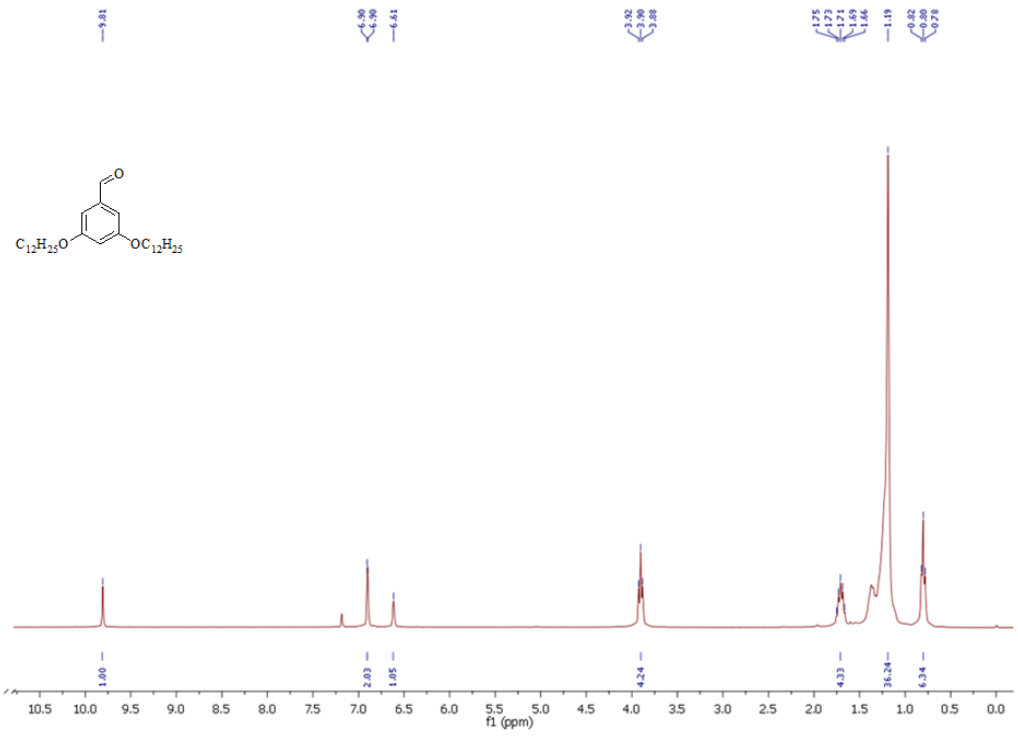


Figure S16.: ^{1}H NMR Spectrum of 4b.

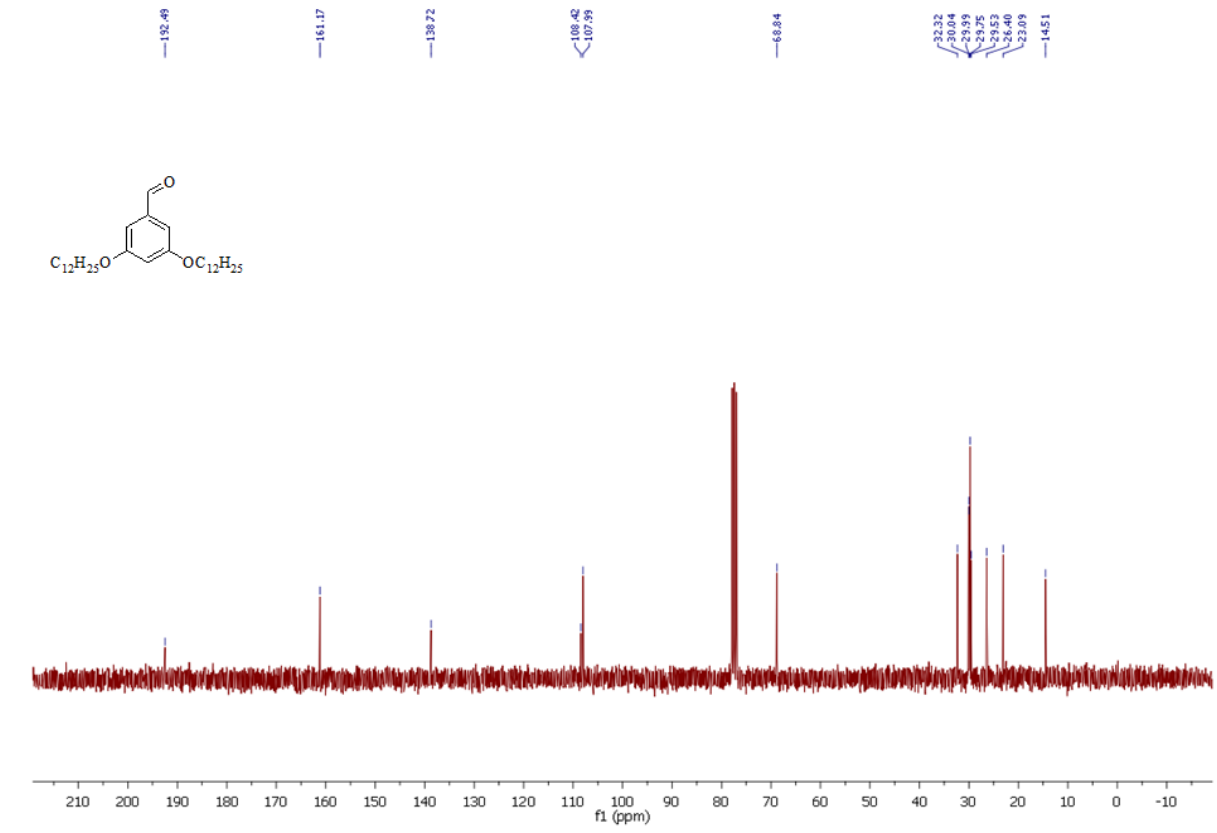


Figure 17. ^{13}C NMR Spectrum of 4b.

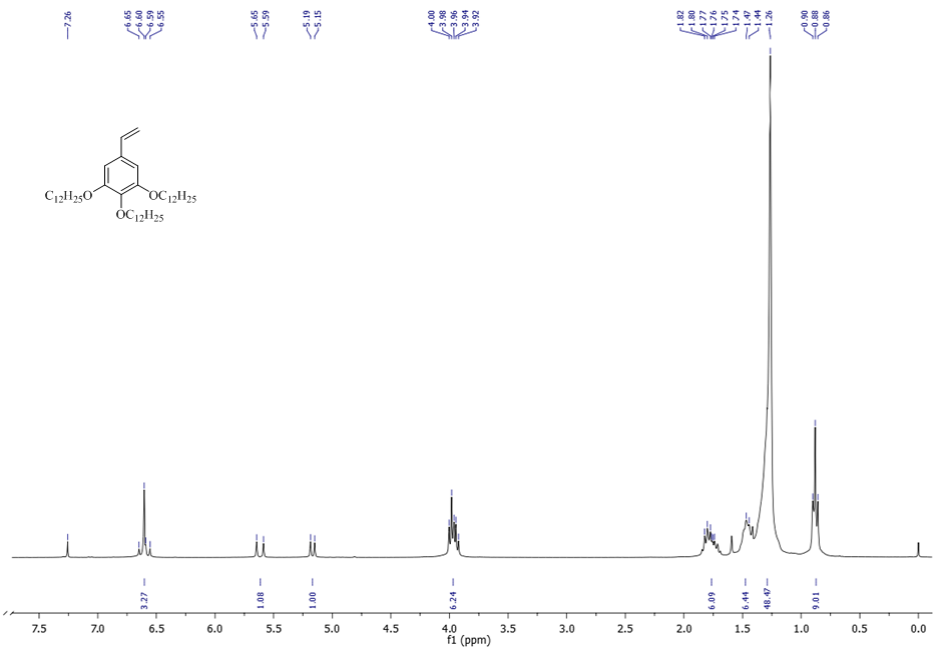


Figure S18. ^{1}H NMR Spectrum of 5a.

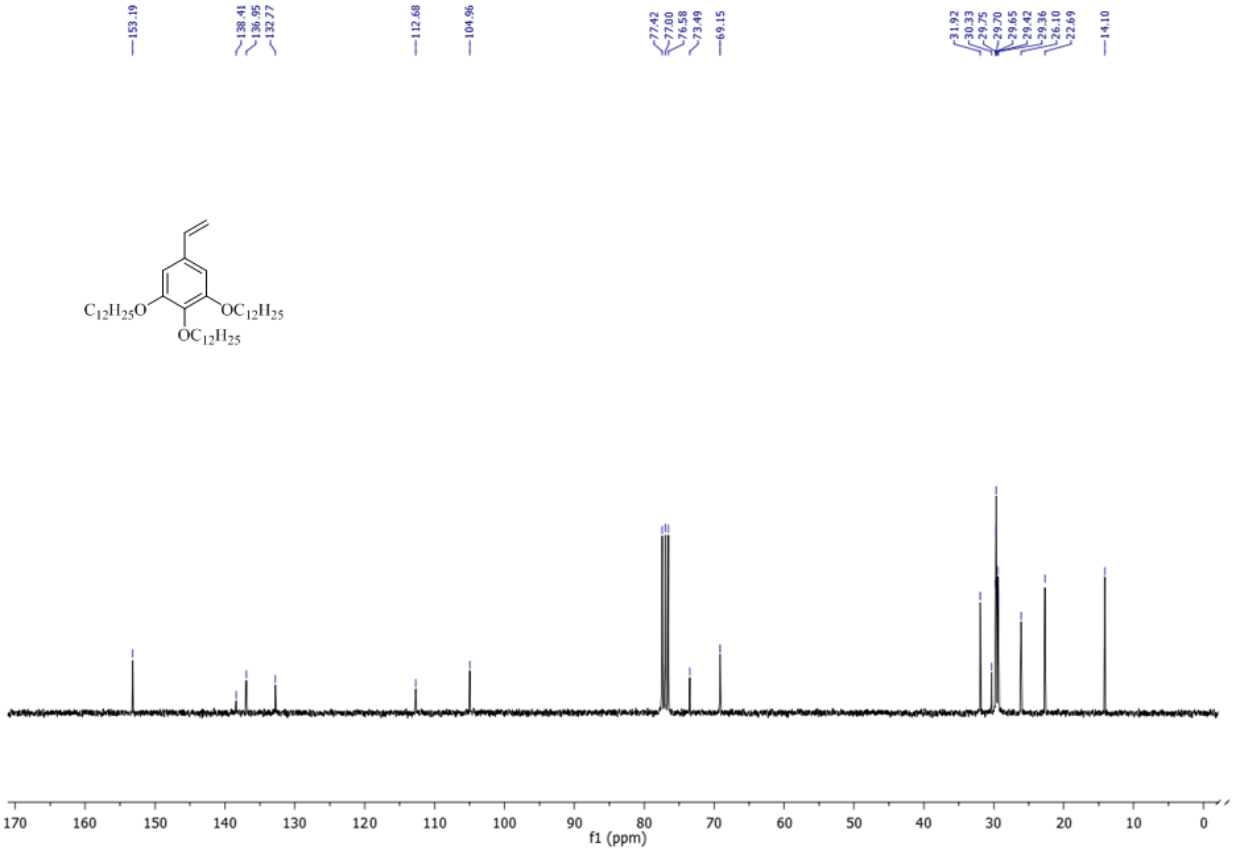


Figure S19. ^{13}C NMR Spectrum of 5a.

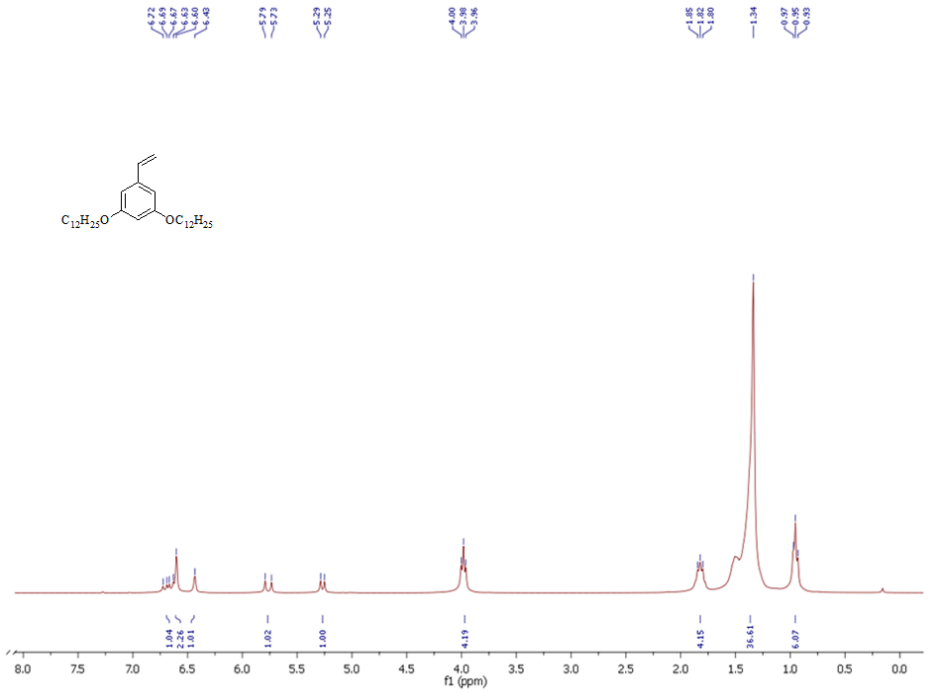


Figure S20. ^{1}H NMR Spectrum of 5b.

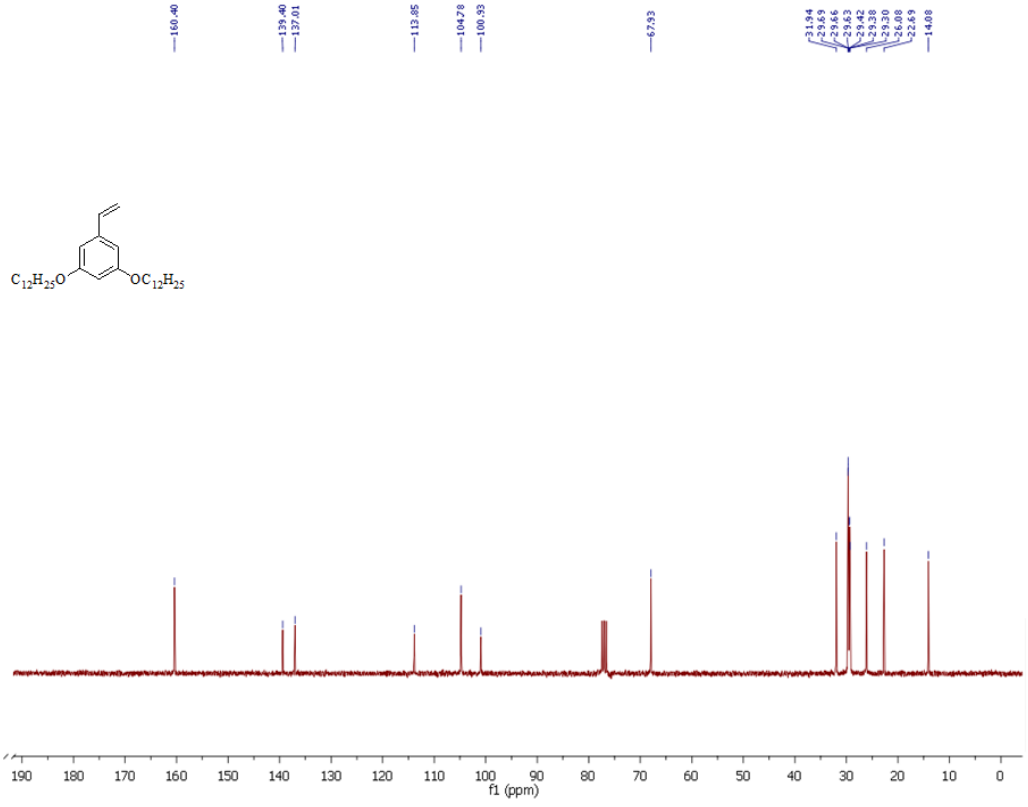


Figure S21. ^{13}C NMR Spectrum of 5b.

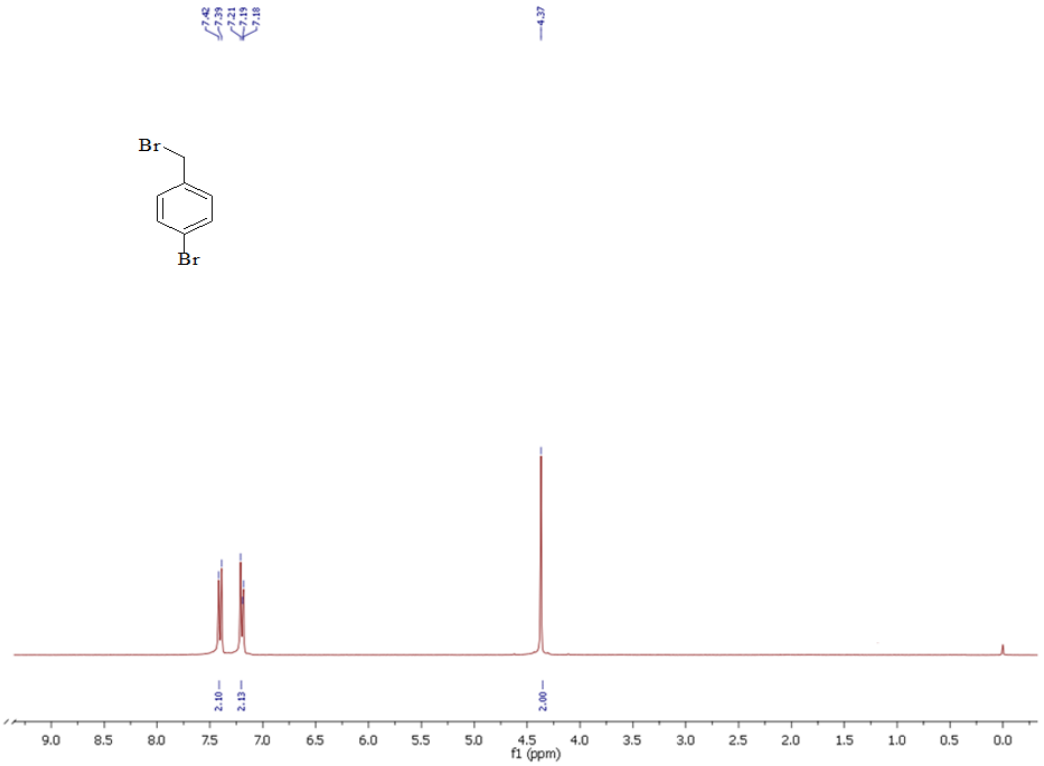


Figure S22. ^{1}H NMR Spectrum of 6.

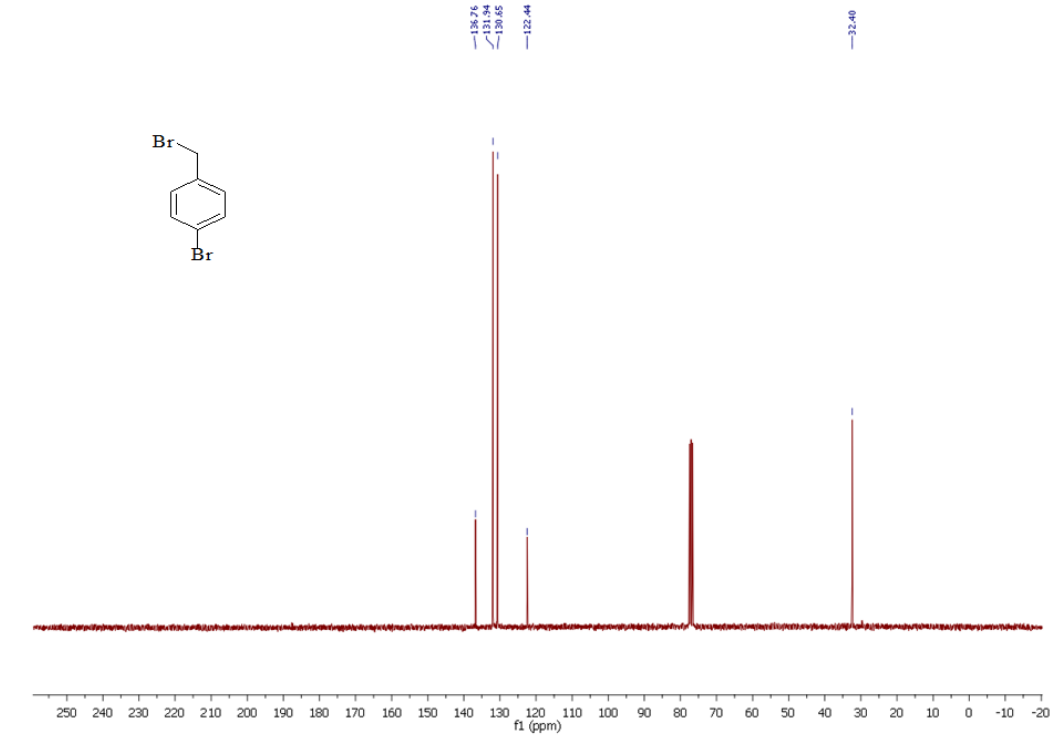


Figure S23. ^{13}C NMR Spectrum of 6.

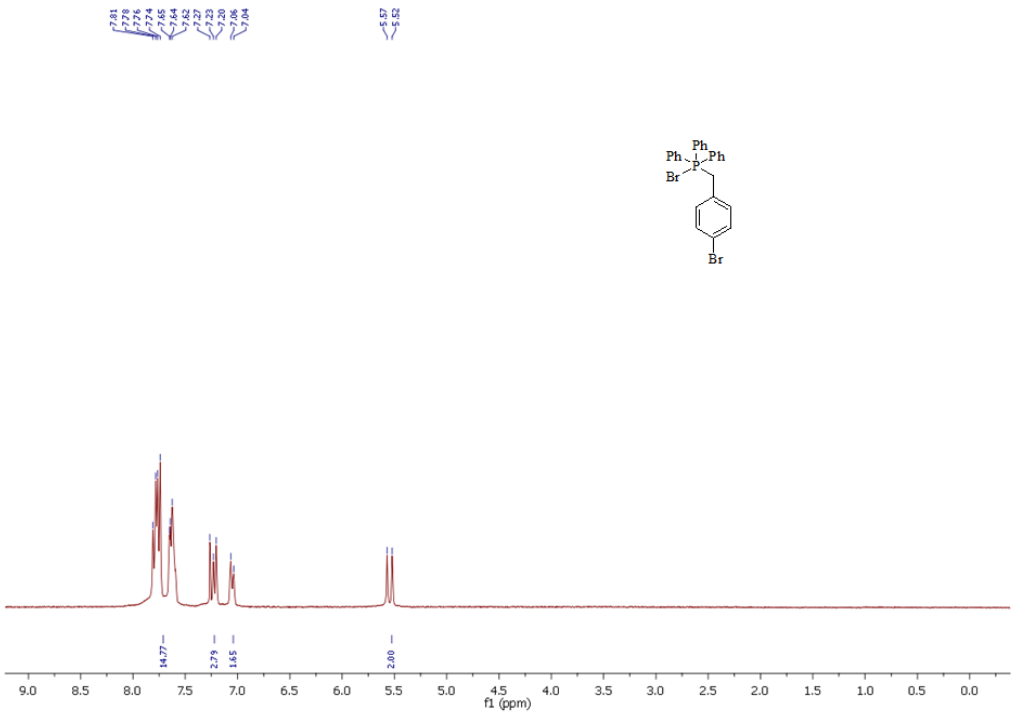


Figure S24. ^{1}H NMR Spectrum of 7.

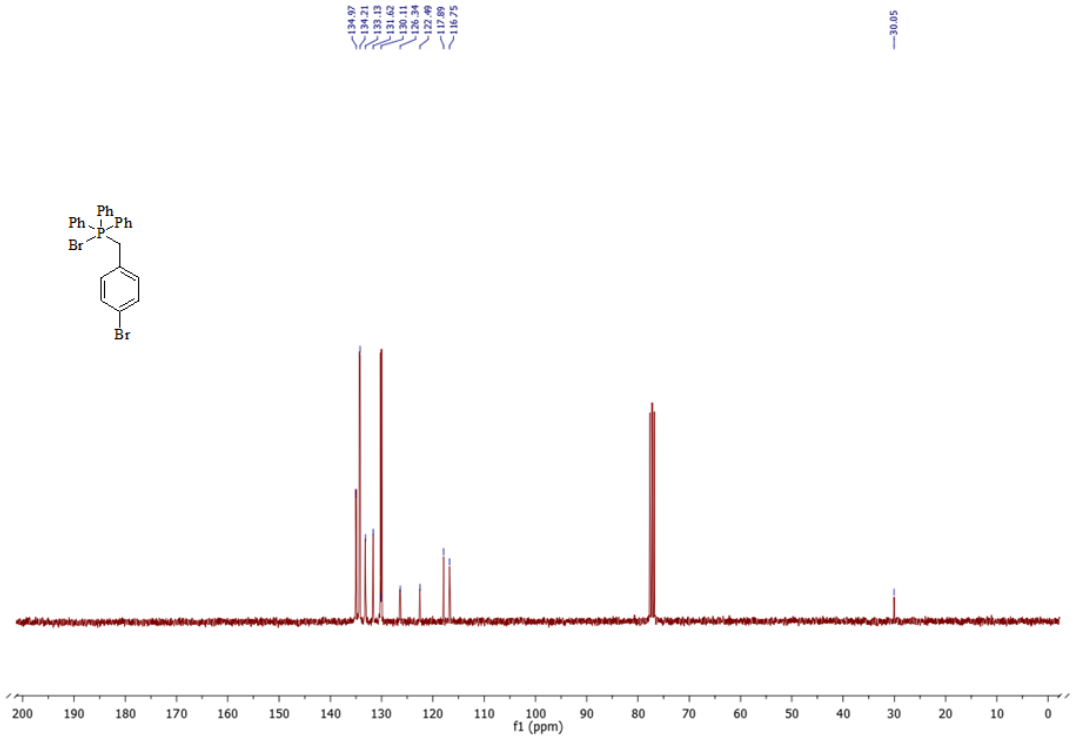


Figure S25. ^{13}C NMR Spectrum of 7.

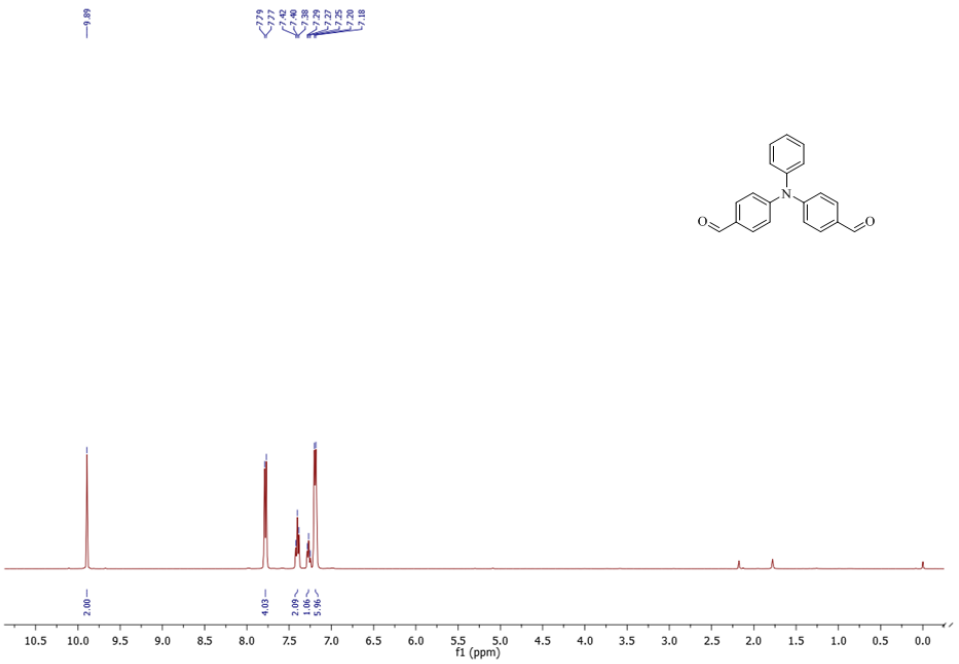


Figure S26. ^{1}H NMR Spectrum of 8.

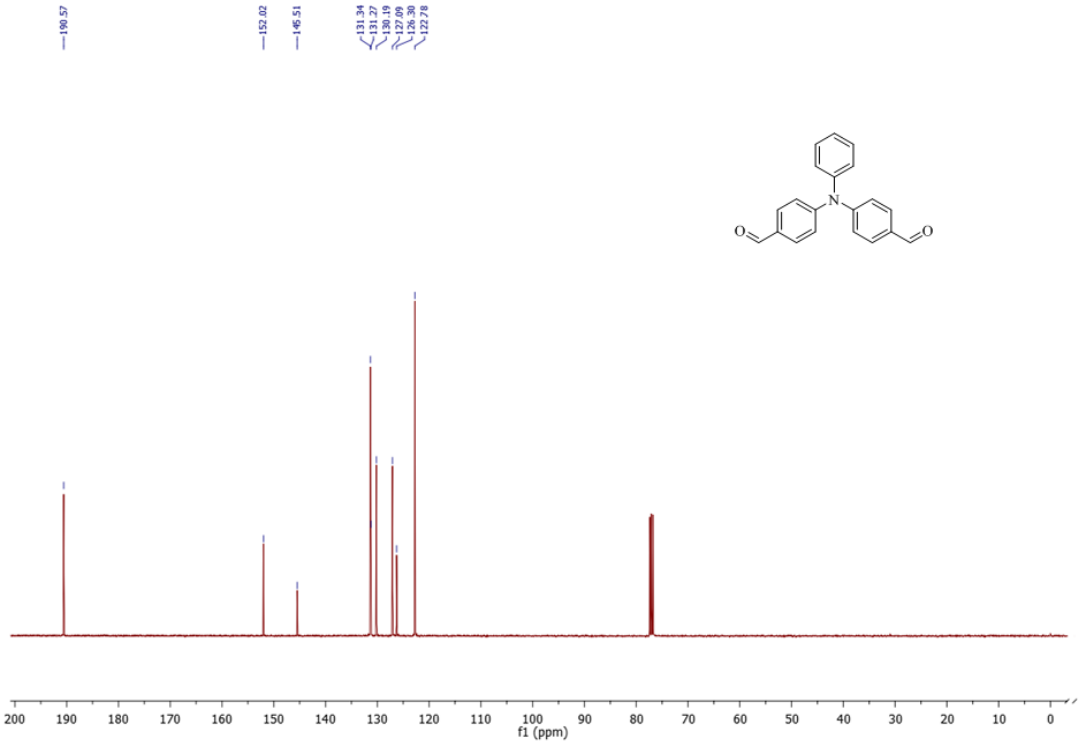


Figure S27. ^{13}C NMR Spectrum of 8.

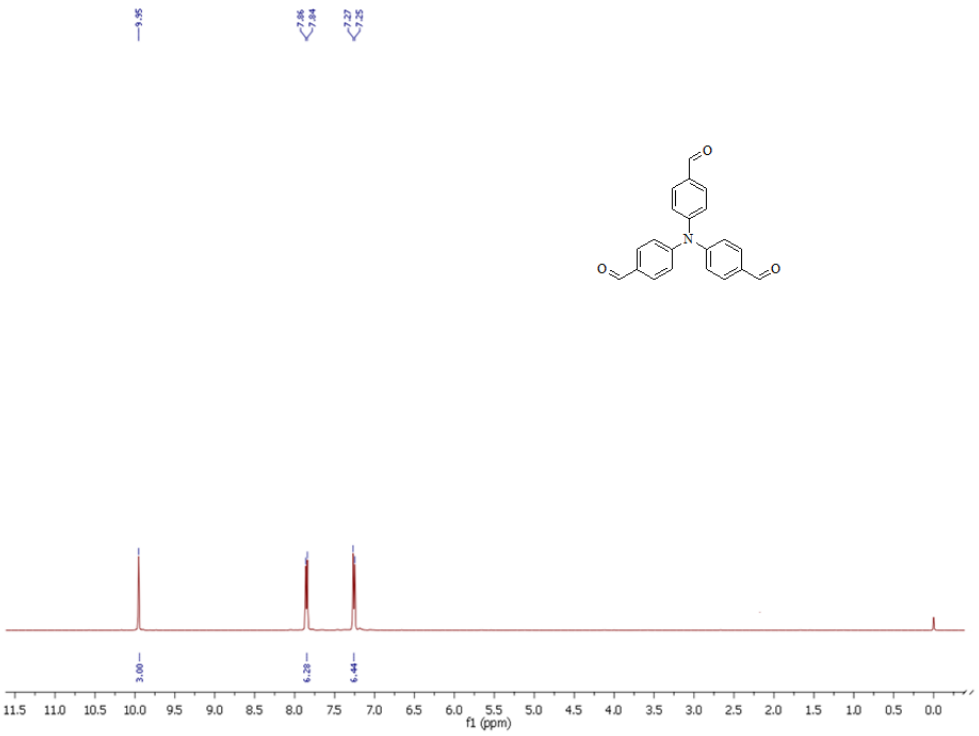


Figure S28. ^{1}H NMR Spectrum of 9.

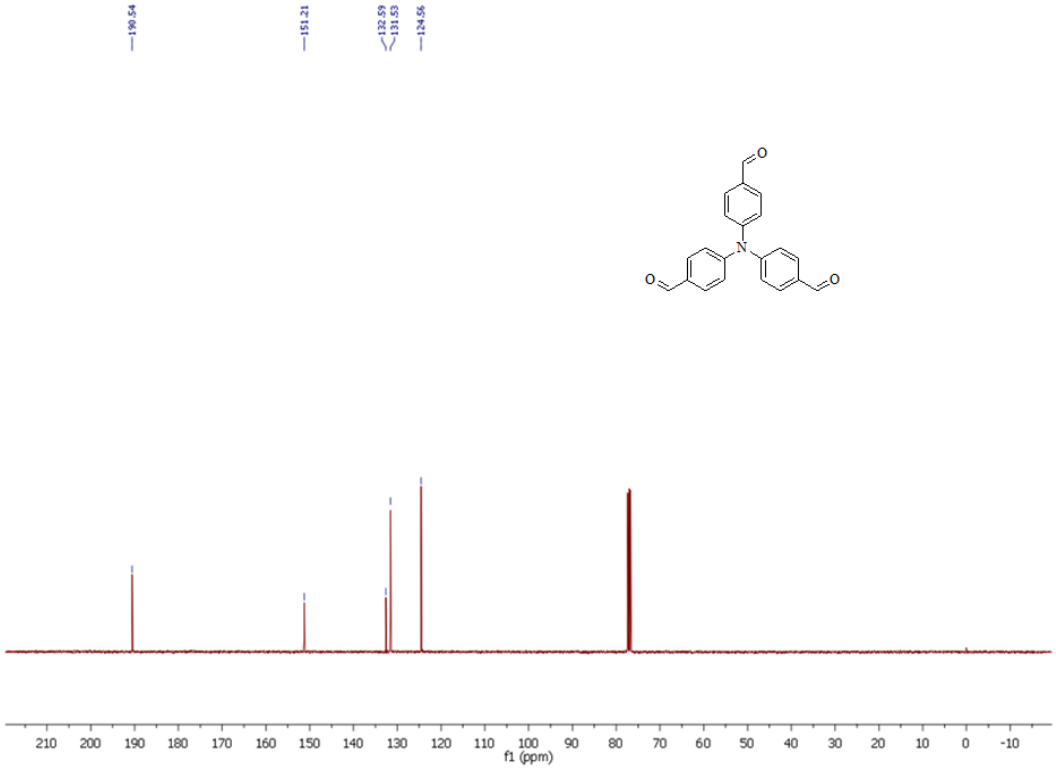


Figure S29. ^{13}C NMR Spectrum of 9.

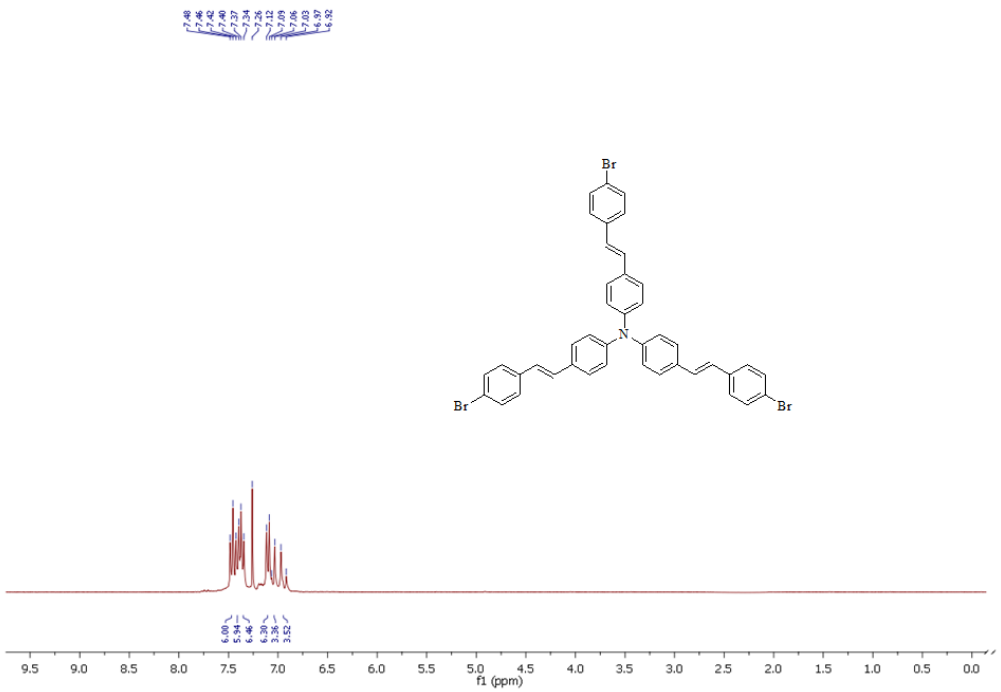


Figure S30. ^{1}H NMR Spectrum of 10.

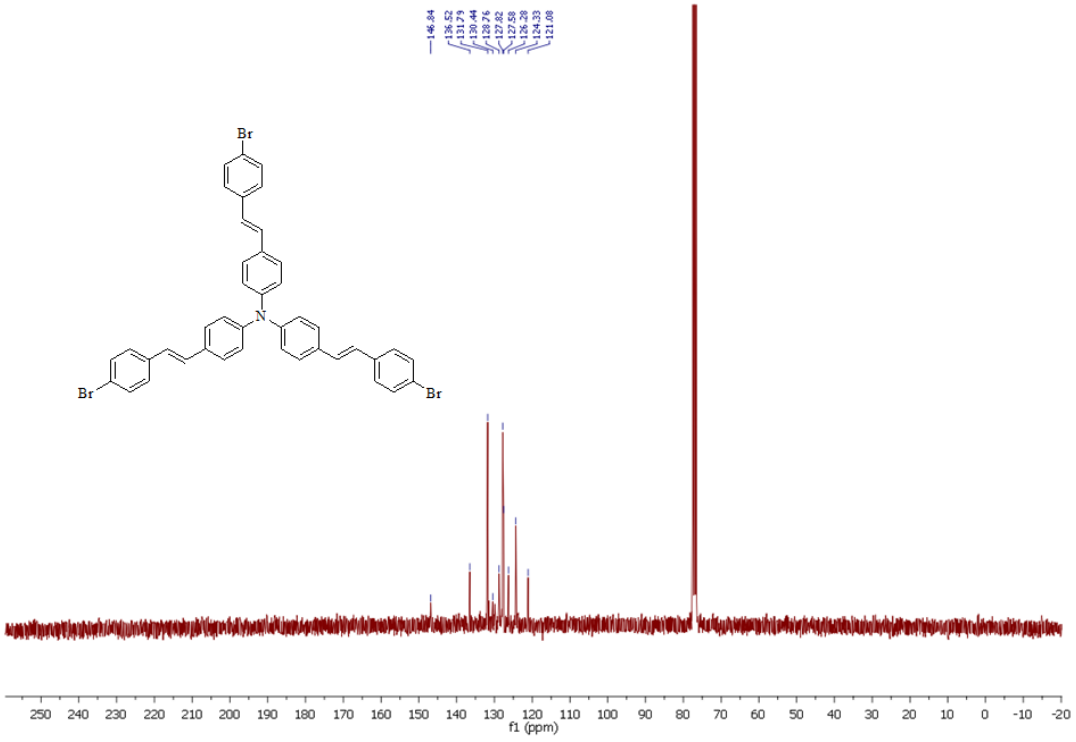


Figure S31. ^{13}C NMR Spectrum of 10

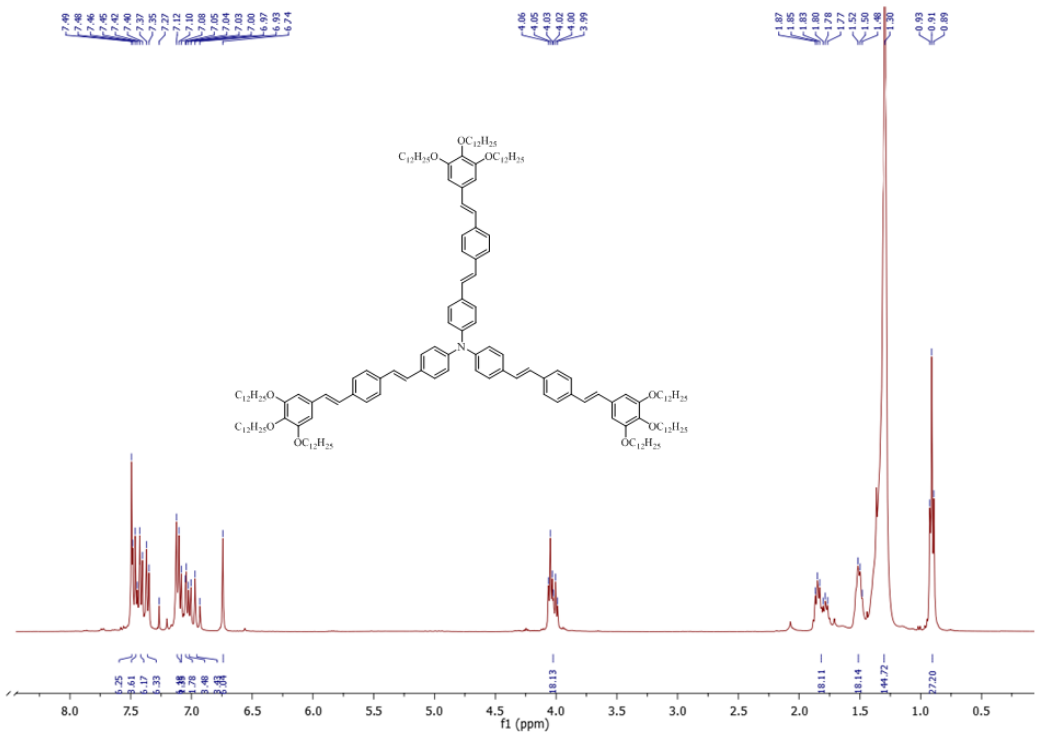


Figure S32. ^{1}H NMR Spectrum of 11a.

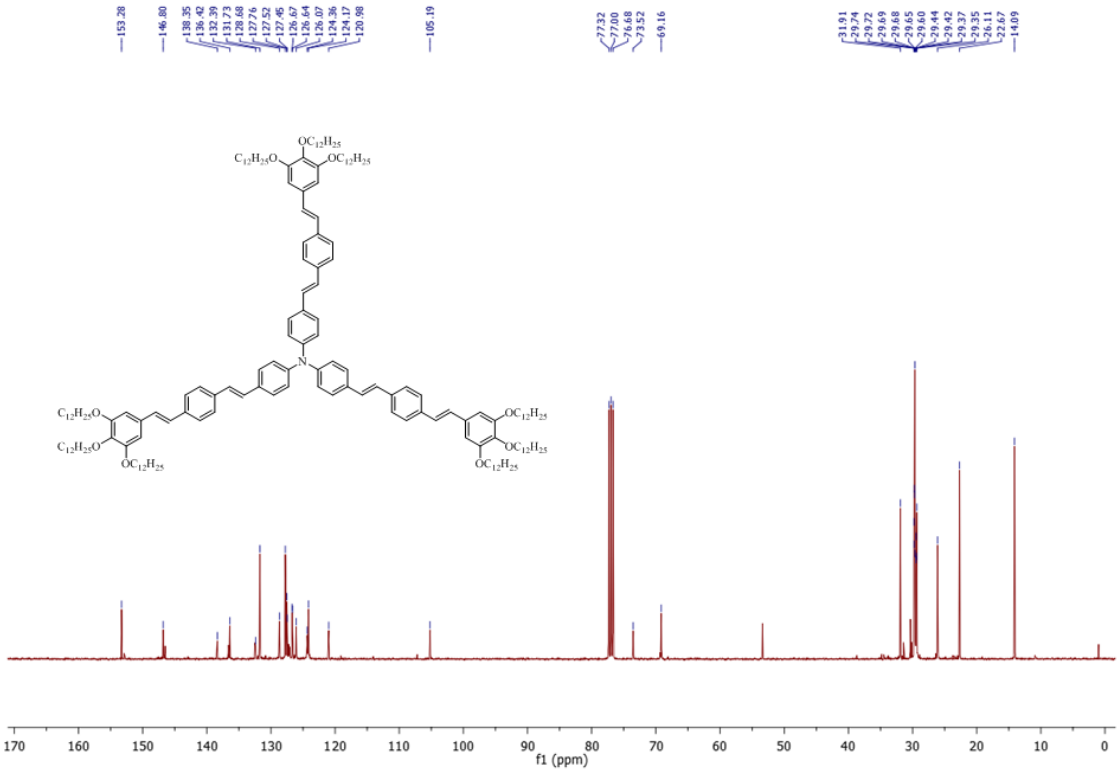


Figure S33.: ^{13}C NMR Spectrum of 11a.

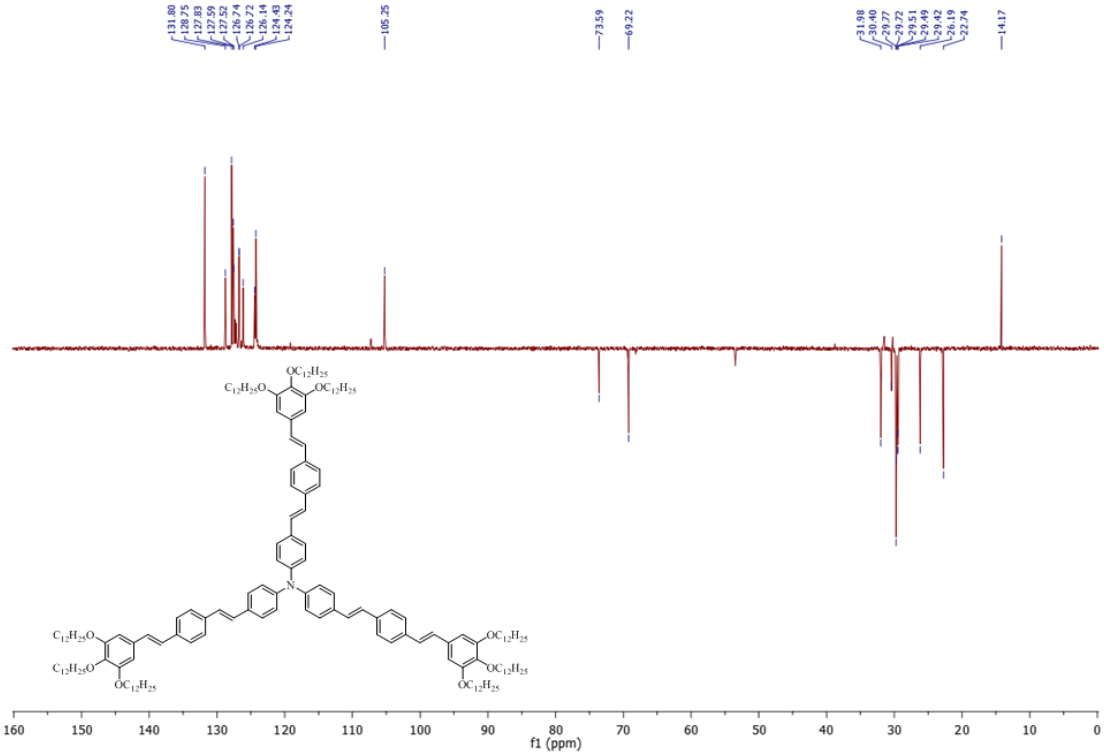


Figure S34. DEPT-135 NMR Spectrum of 11a.

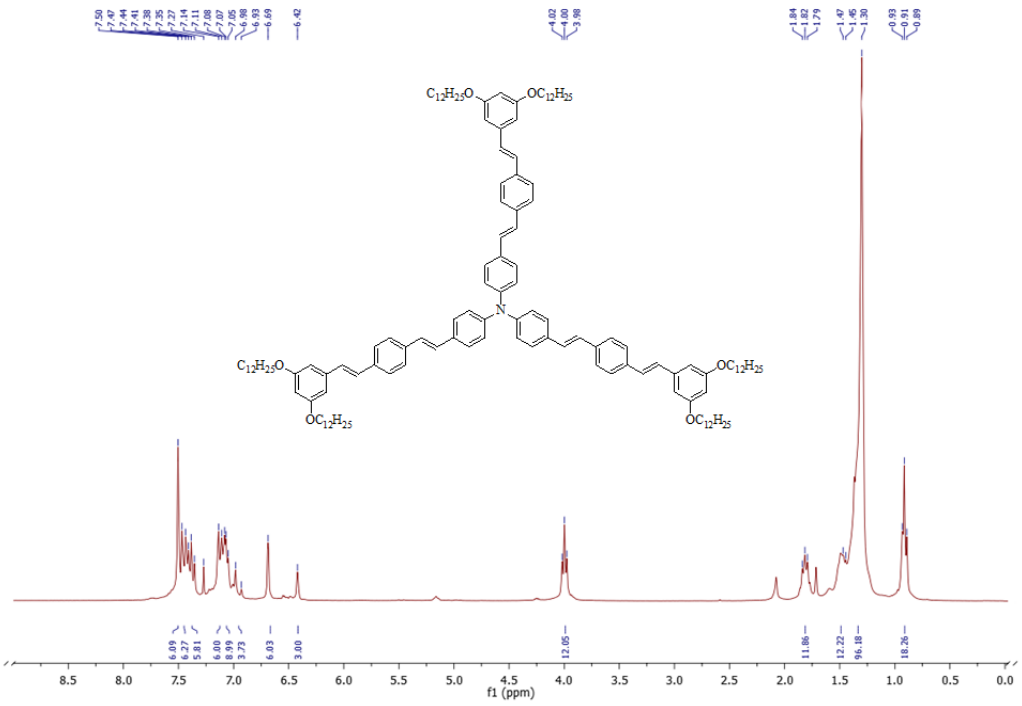


Figure S35. ^{1}H NMR Spectrum of 11b.

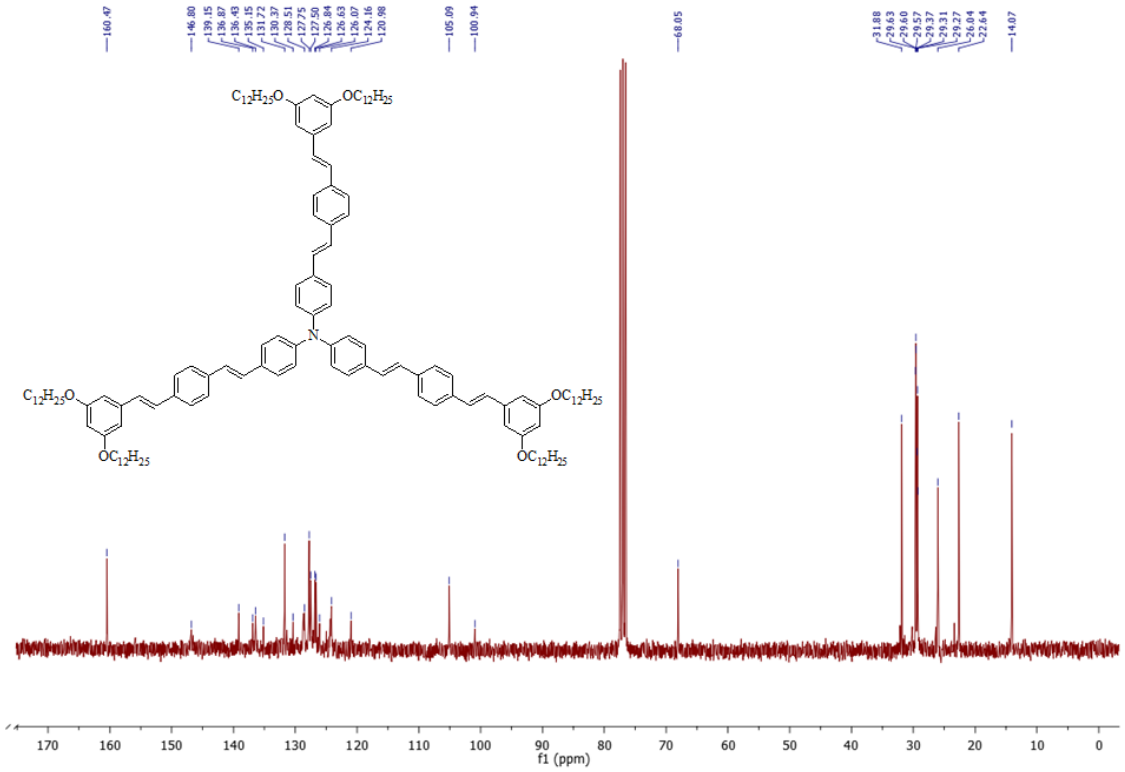


Figure S36. ^{13}C NMR Spectrum of 11b.

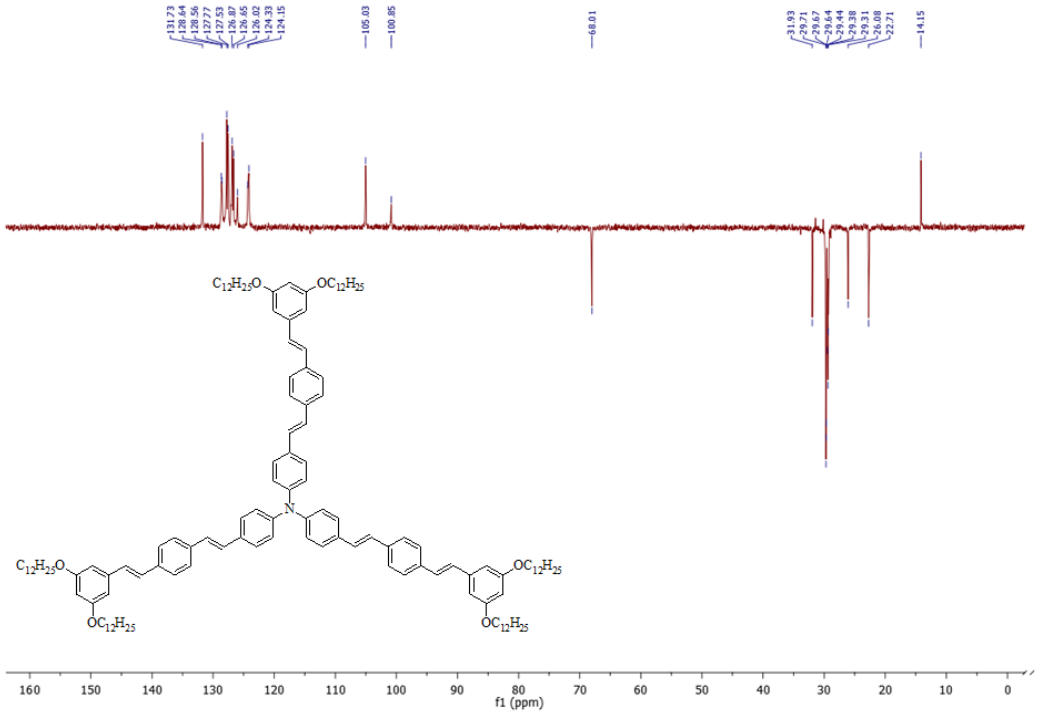


Figure S37. DEPT-135 NMR Spectrum of 11b.

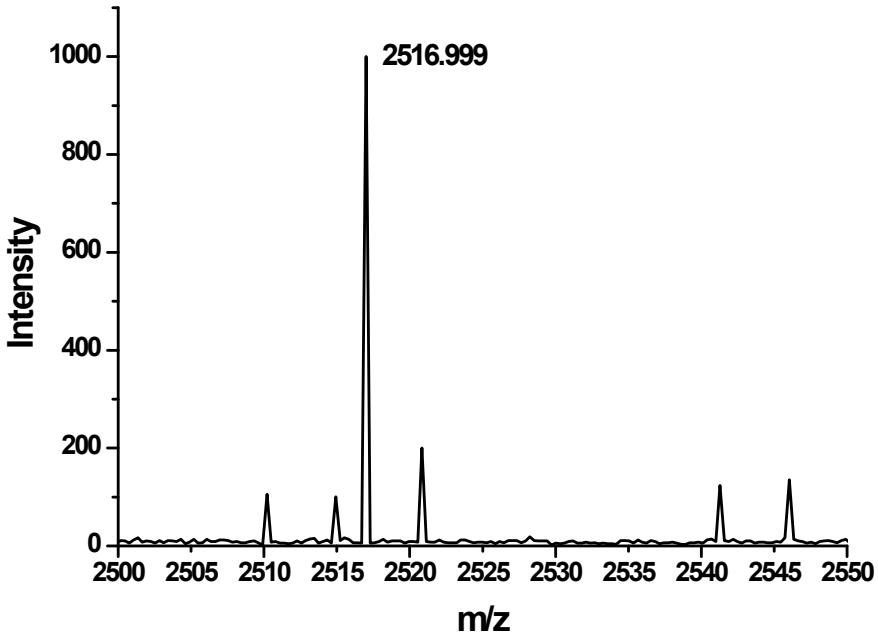


Figure S38. MALDI- TOF Mass Spectrum of 11a.

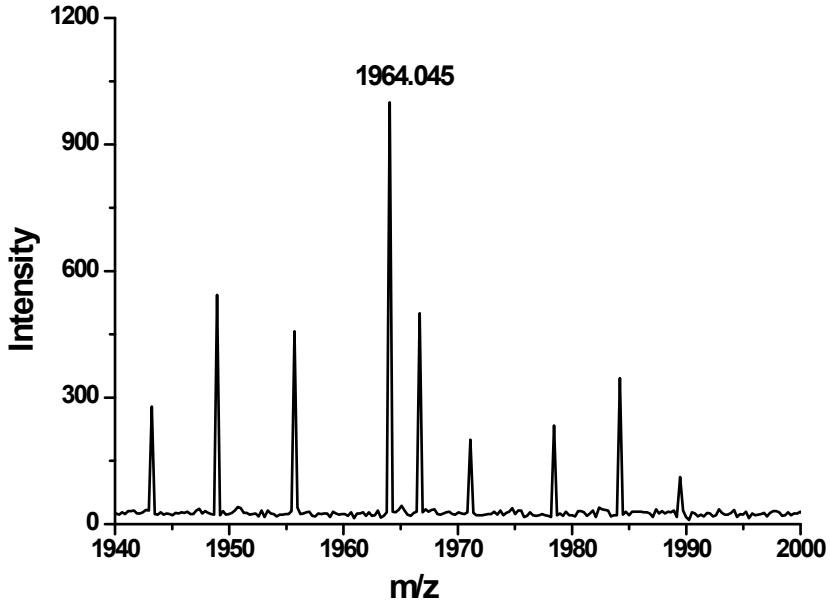


Figure S39. MALDI- TOF Mass Spectrum of 11b.