Electronic Supplementary Material (ESI) for Journal of Materials Chemistry C.

Twisted dendrons for highly luminescent green emissive phosphorescent dendrimers

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Gel Permeation Chromatography (GPC)

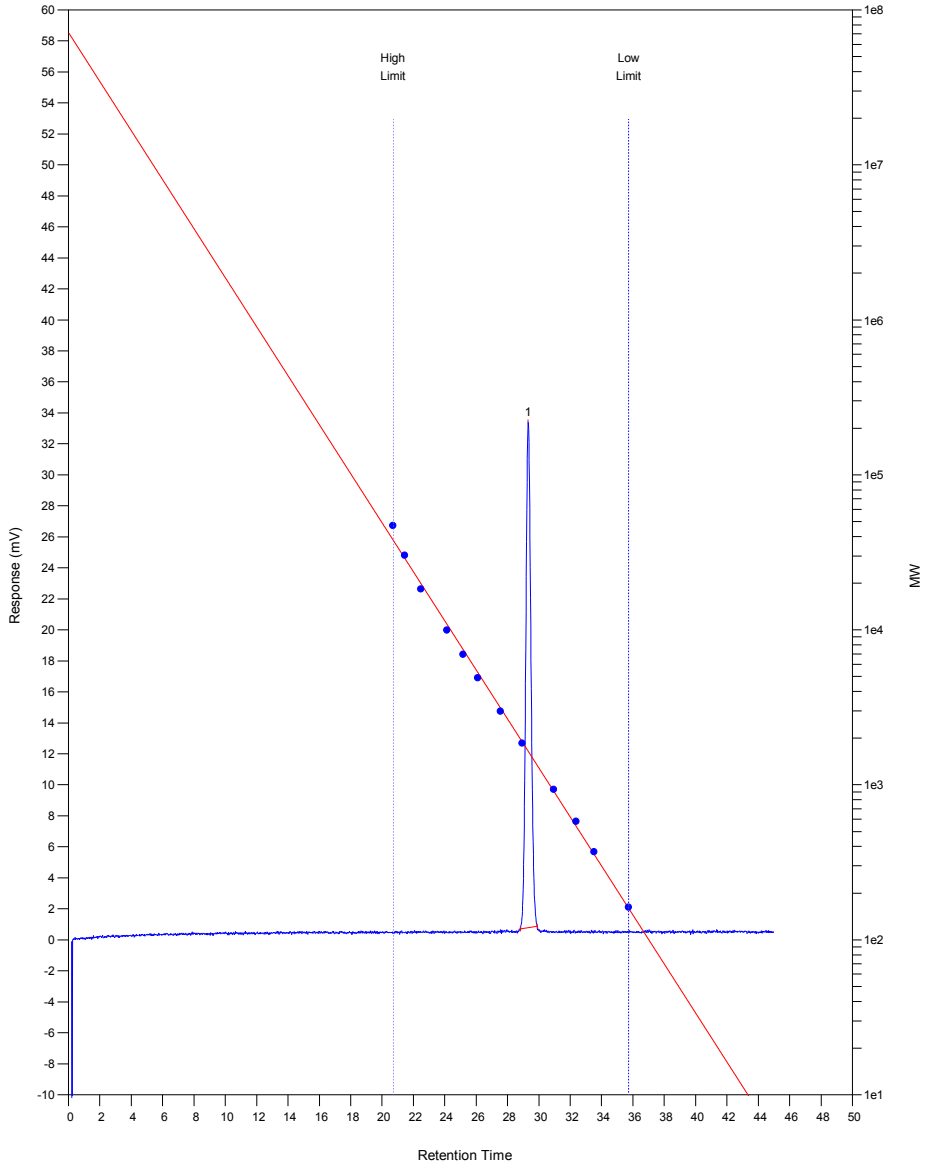


Figure S1. GPC of **1**.

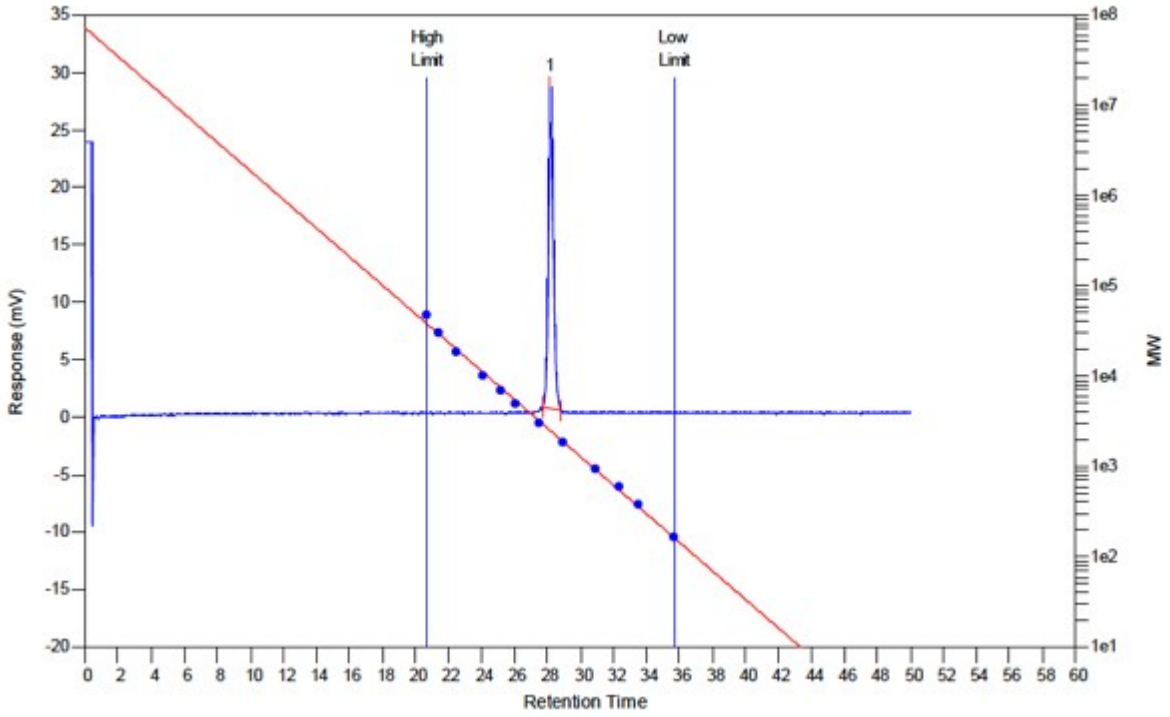


Figure S2. GPC trace of **2**.

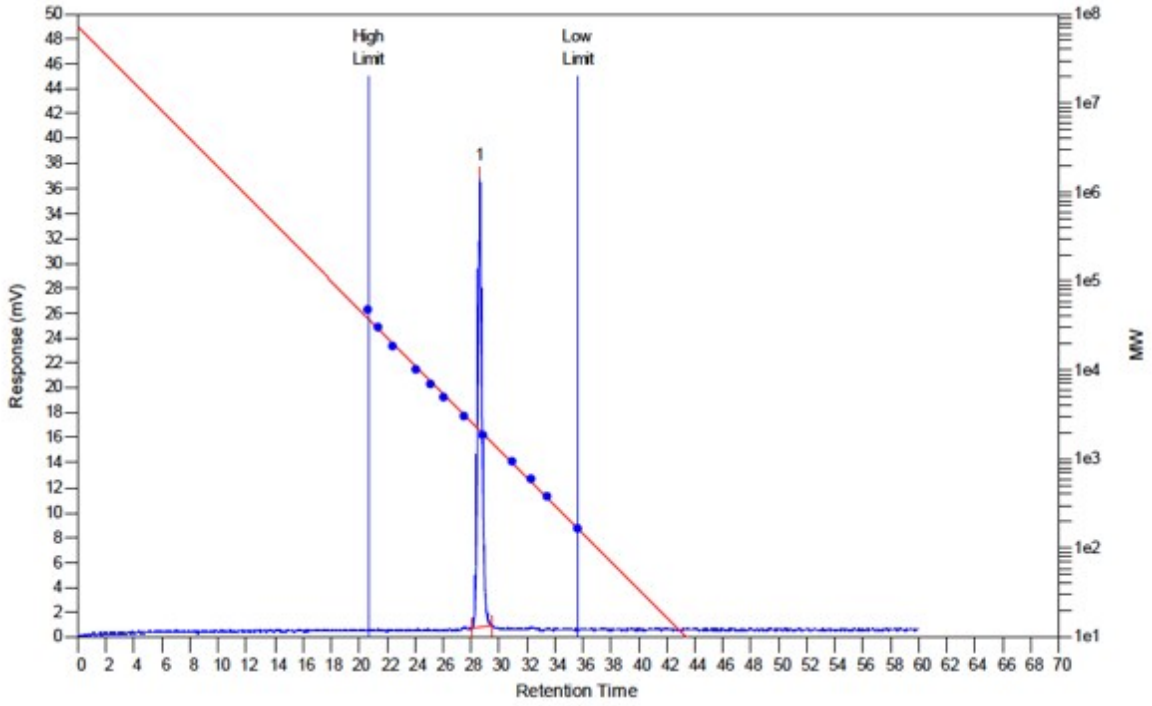


Figure S3. GPC trace of **3**.

Thermal Gravimetric Analysis

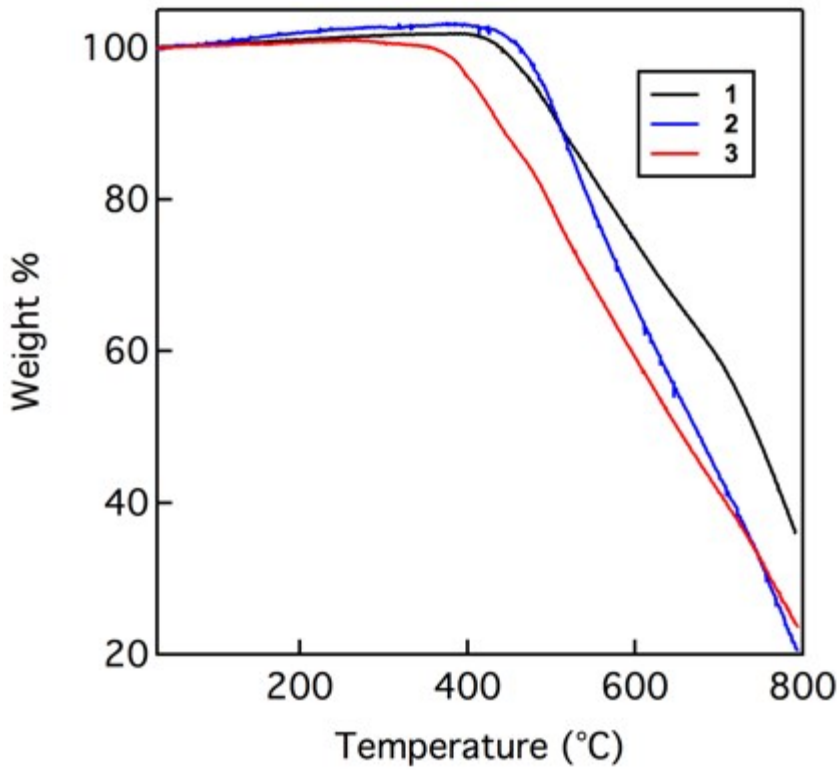


Figure S4. Thermal gravimetric analysis of compounds **1** (black), **2** (blue), and **3** (red).

Cyclic Voltammetry

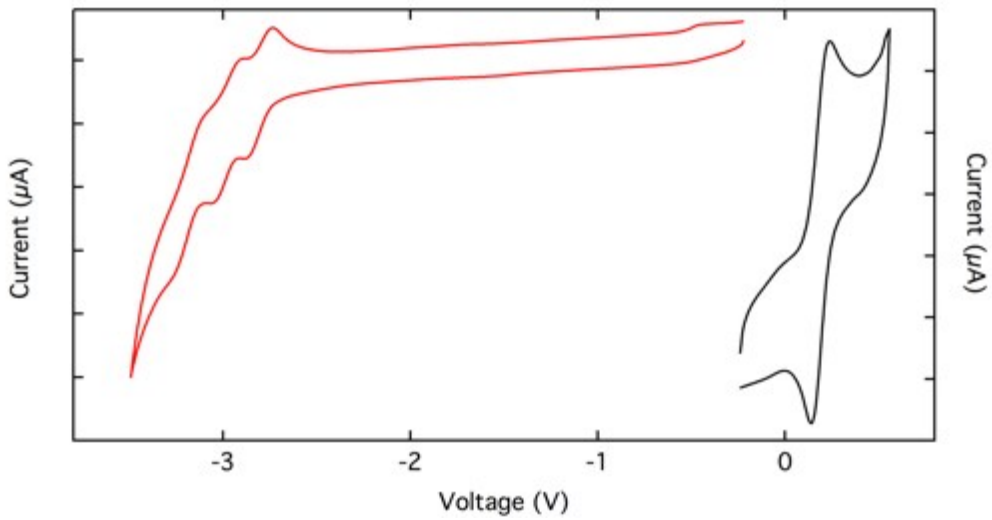


Figure S5. Cyclic voltammograms (first oxidation and reduction) for **1**.

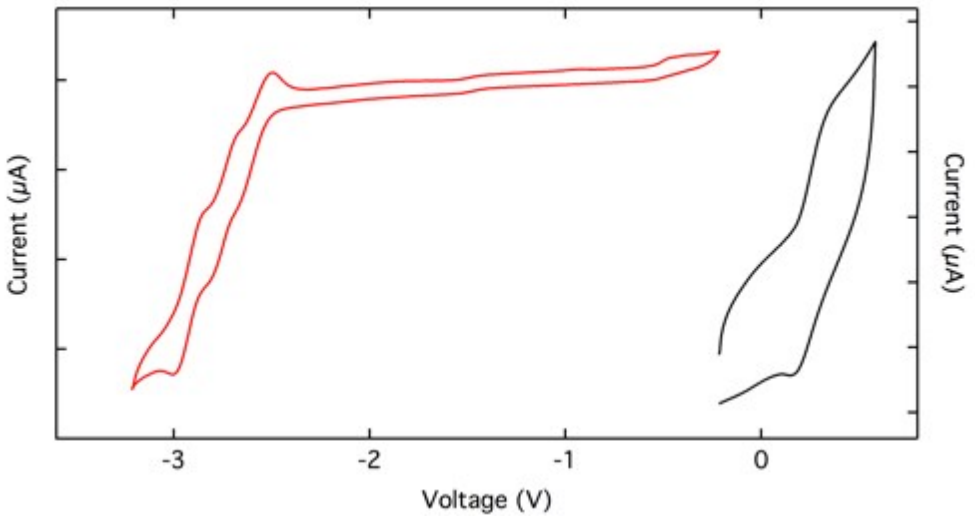


Figure S6. Cyclic voltammograms (first oxidation and reduction) for **2**.

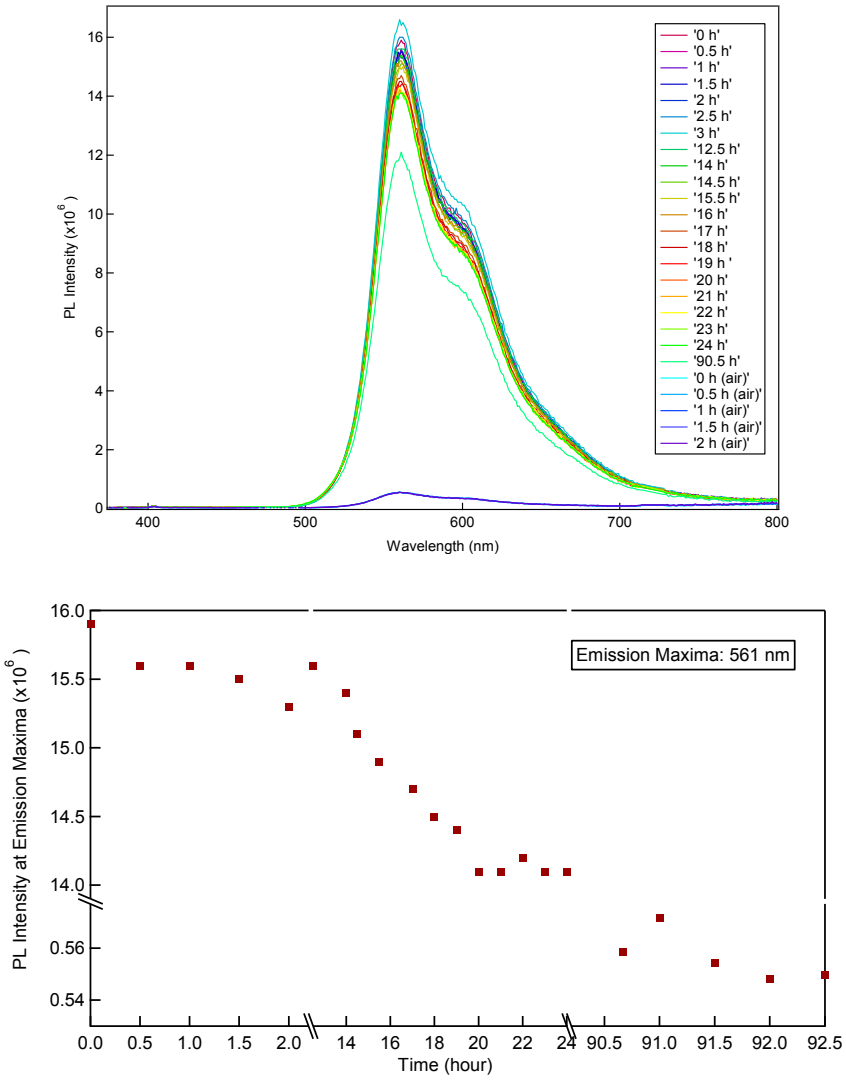


Figure S7. Change in PL intensity of dendrimer **3** over time in deoxygenated and oxygenated toluene. The sample was stored in the light between measurements. a) PL spectra. b) Change in peak maximum over time with each point corresponding to a spectrum in a).

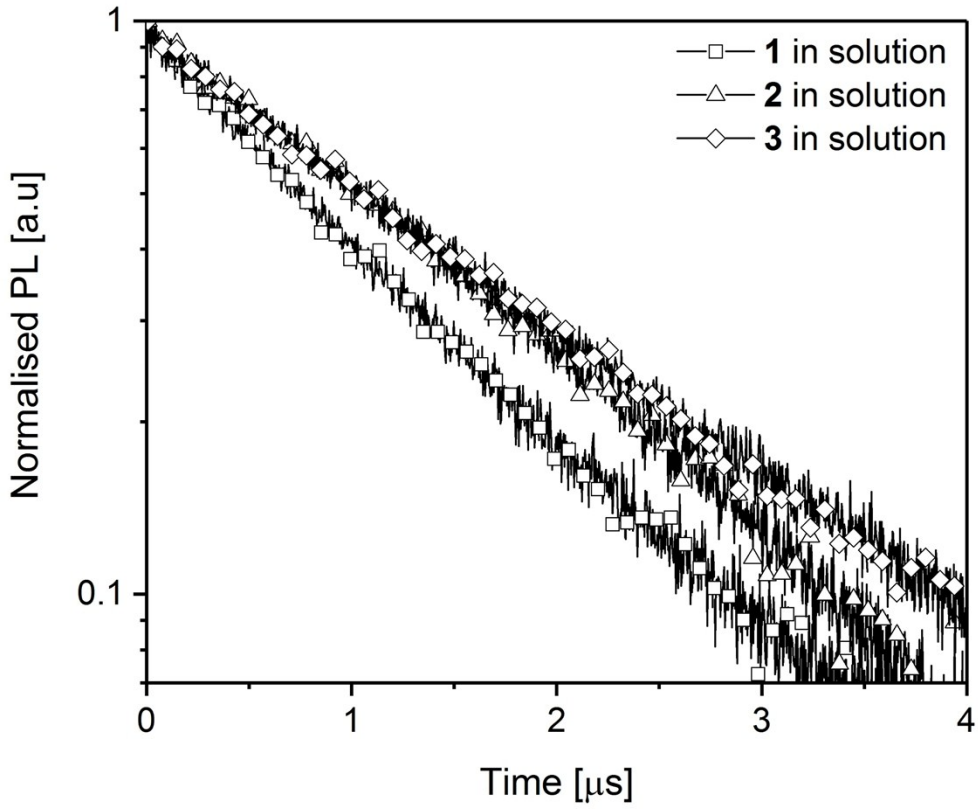


Figure S8. Time resolved photoluminescence data of dendrimers **1**, **2** and **3** in solution. Excitation: 372 nm.

NMR and mass spectra of the compounds

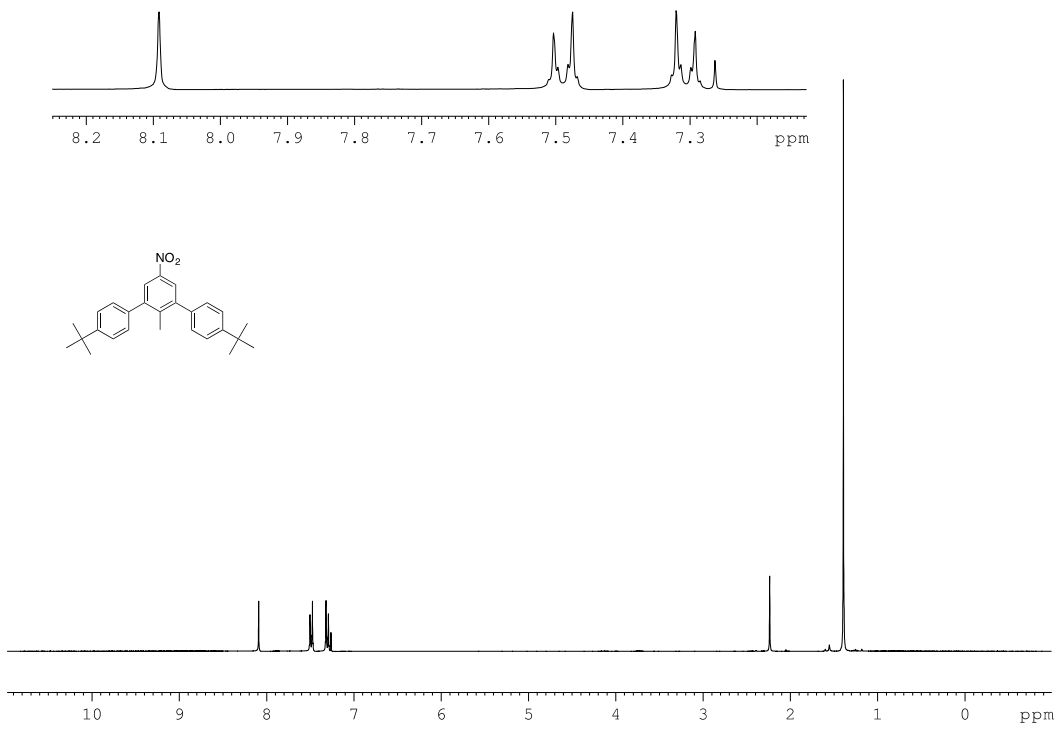


Figure S9. ^{1}H NMR spectrum of **5**.

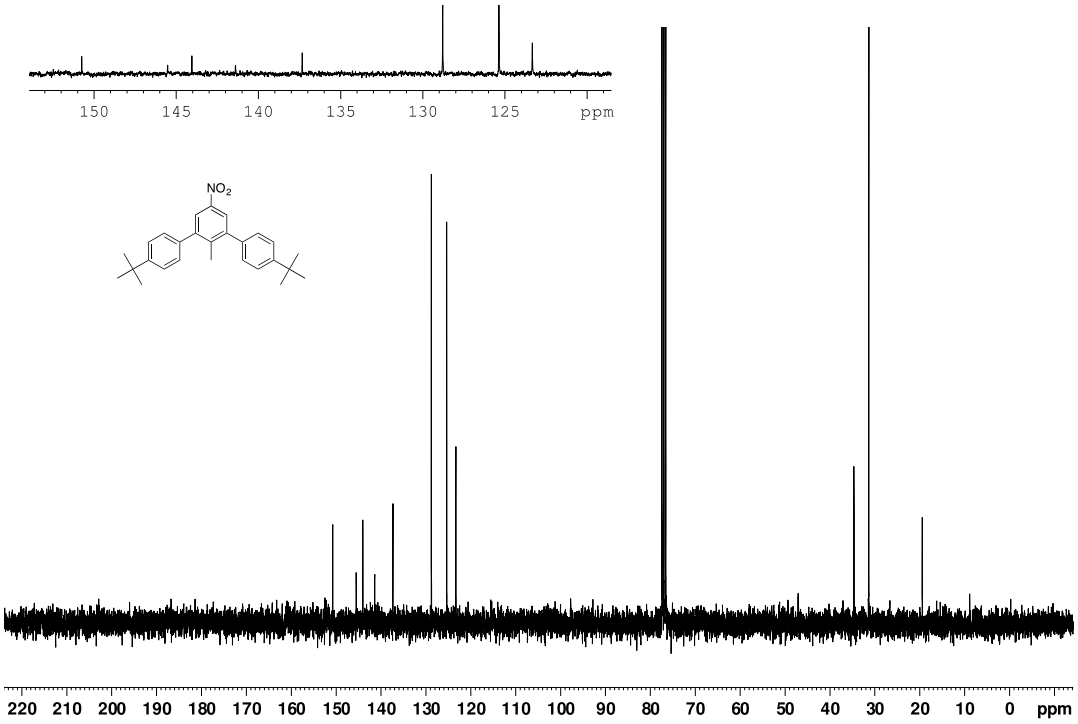


Figure S10. ^{13}C NMR spectrum of **5**.

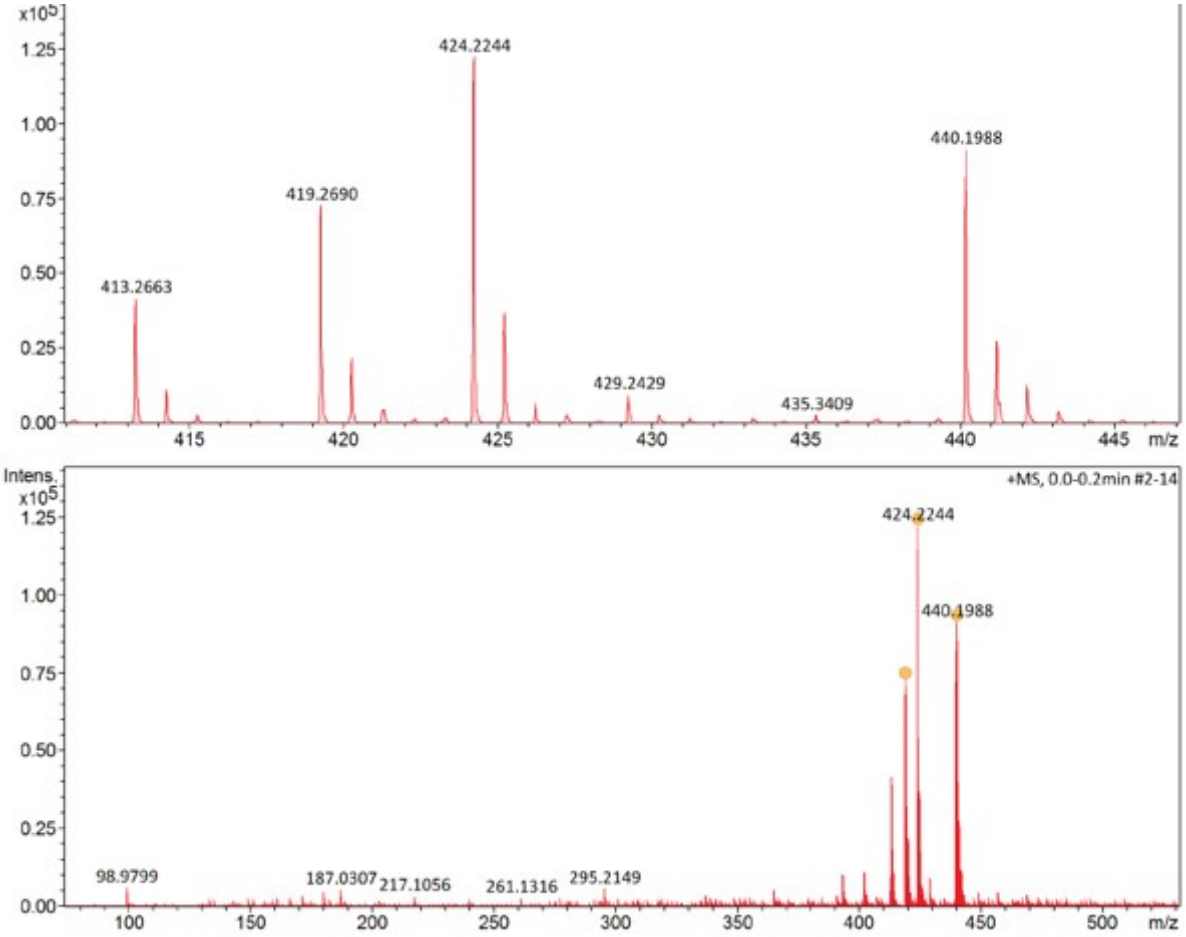


Figure S11. Mass spectrum of **5**.

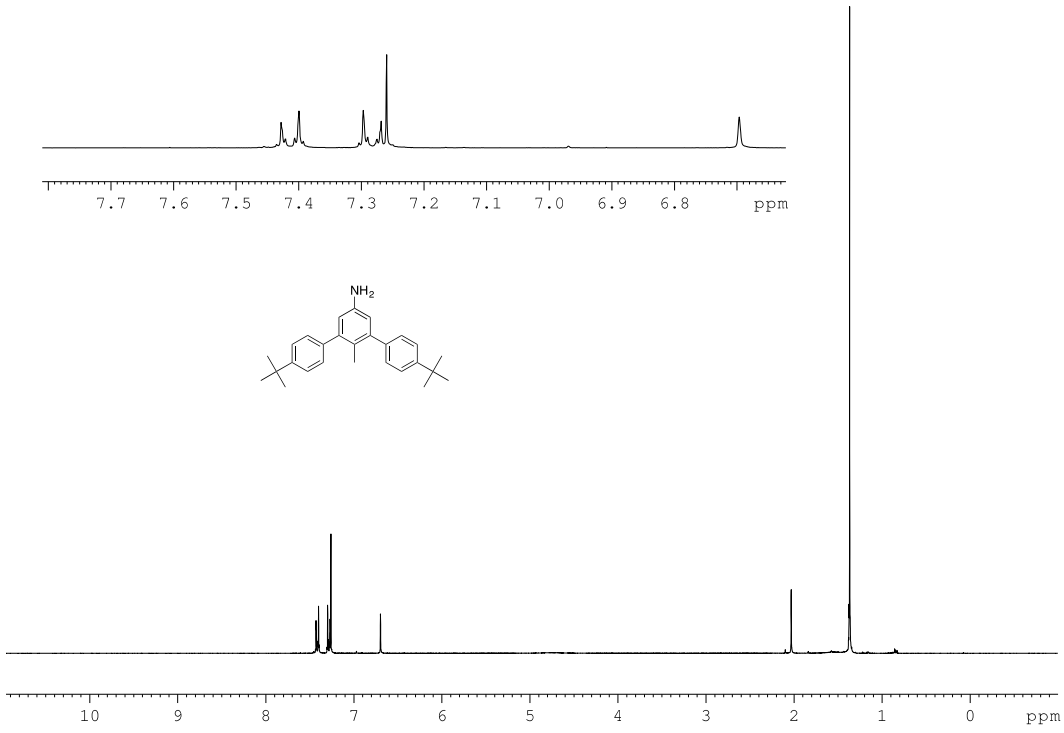


Figure S12. ^{1}H NMR spectrum of **6**.

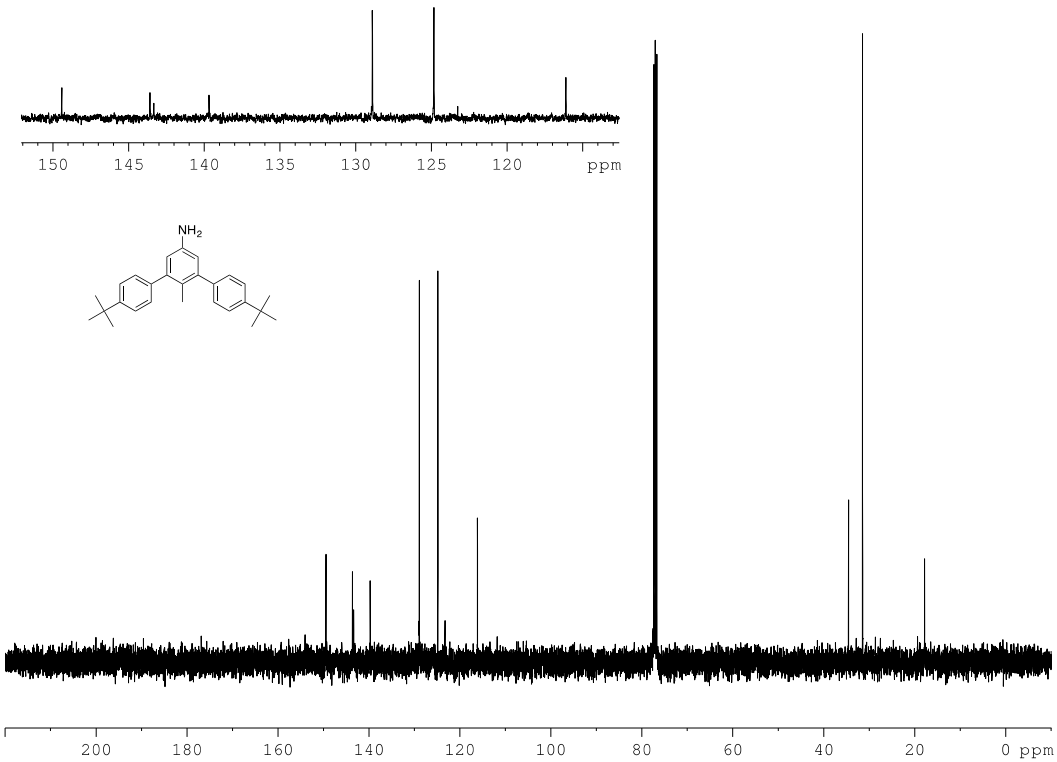


Figure S13. ^{13}C NMR spectrum of **6**.

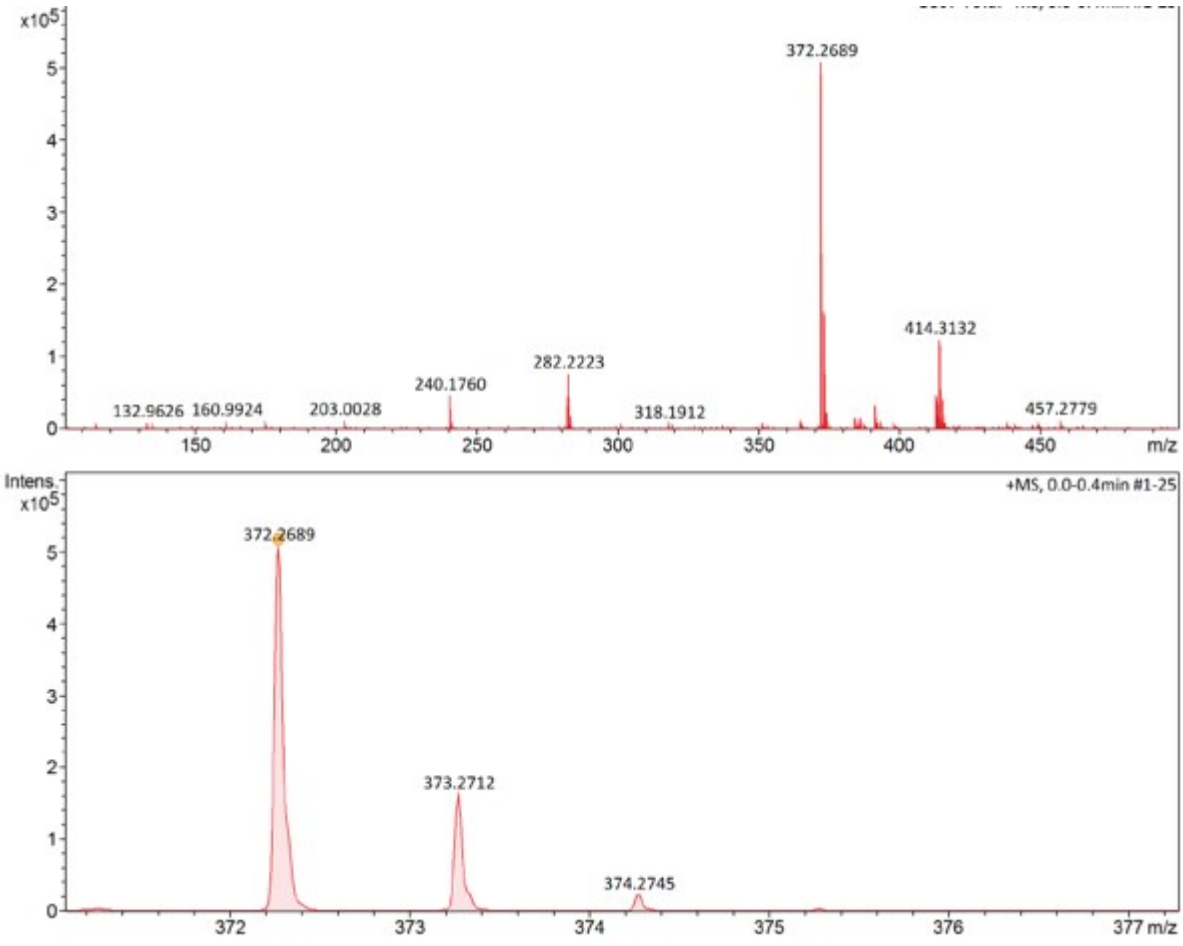


Figure S14. Mass spectrum of **6**.

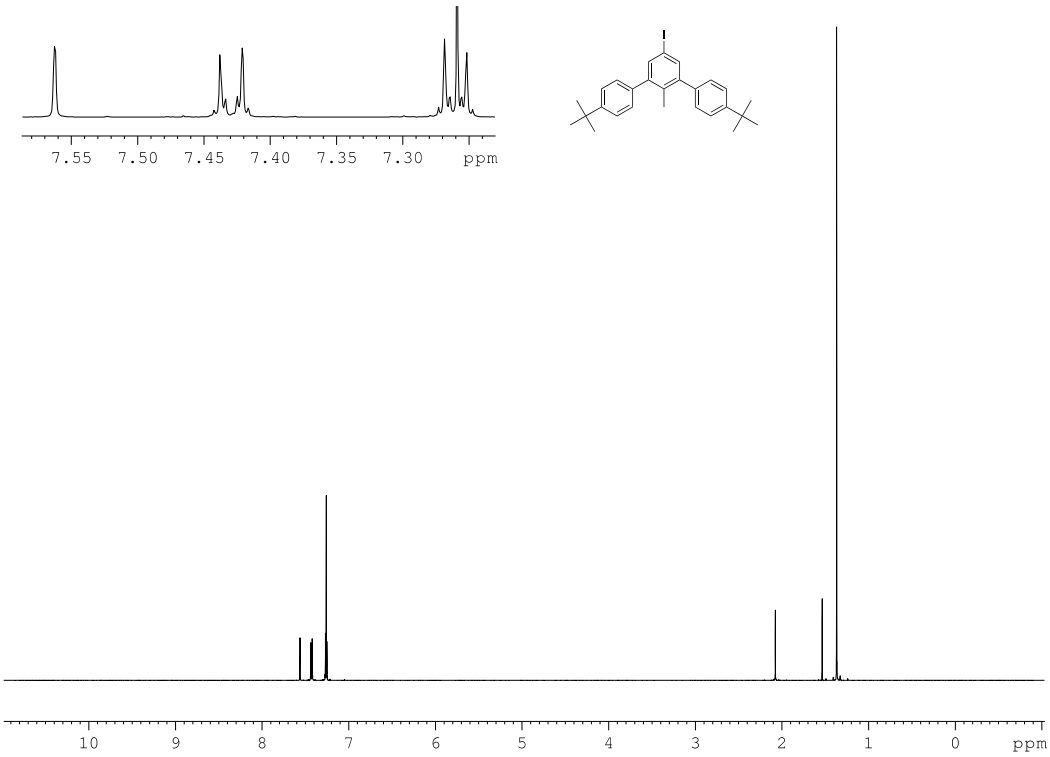


Figure 15. ^{1}H NMR spectrum of **7**.

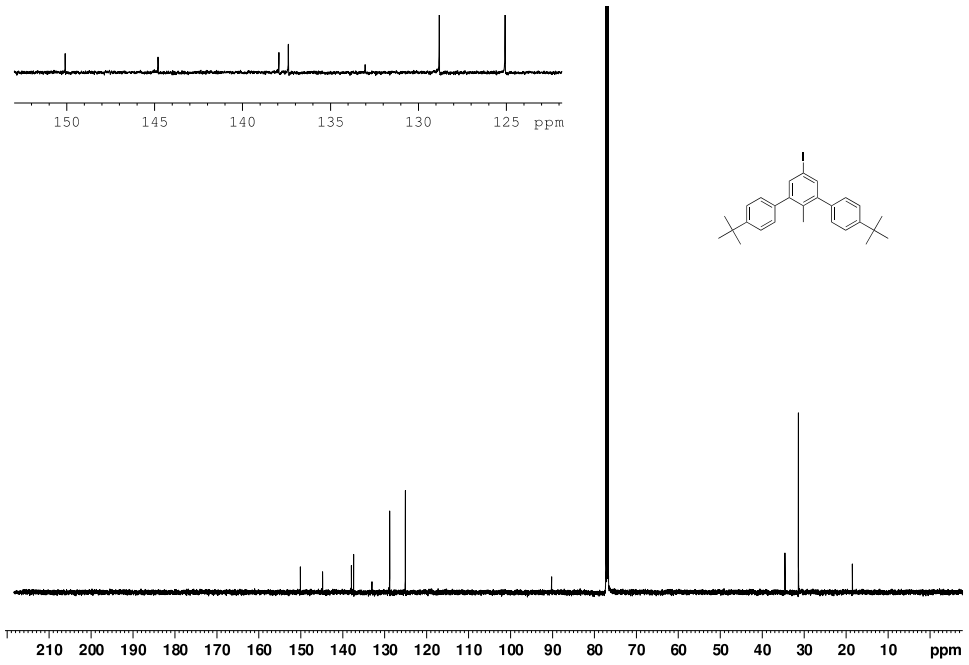


Figure 16. ^{13}C NMR spectrum of **7**.

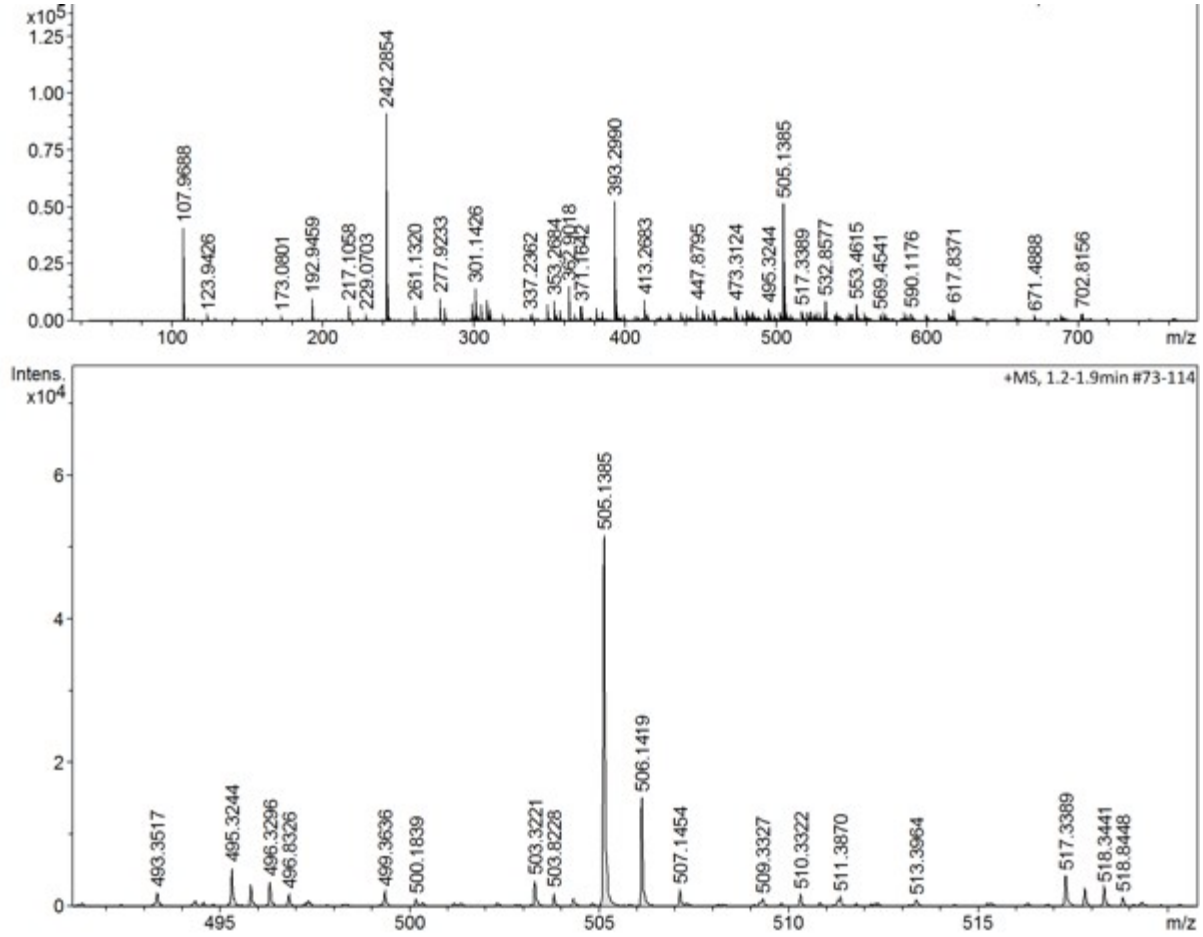


Figure S17. Mass spectrum of **7**.

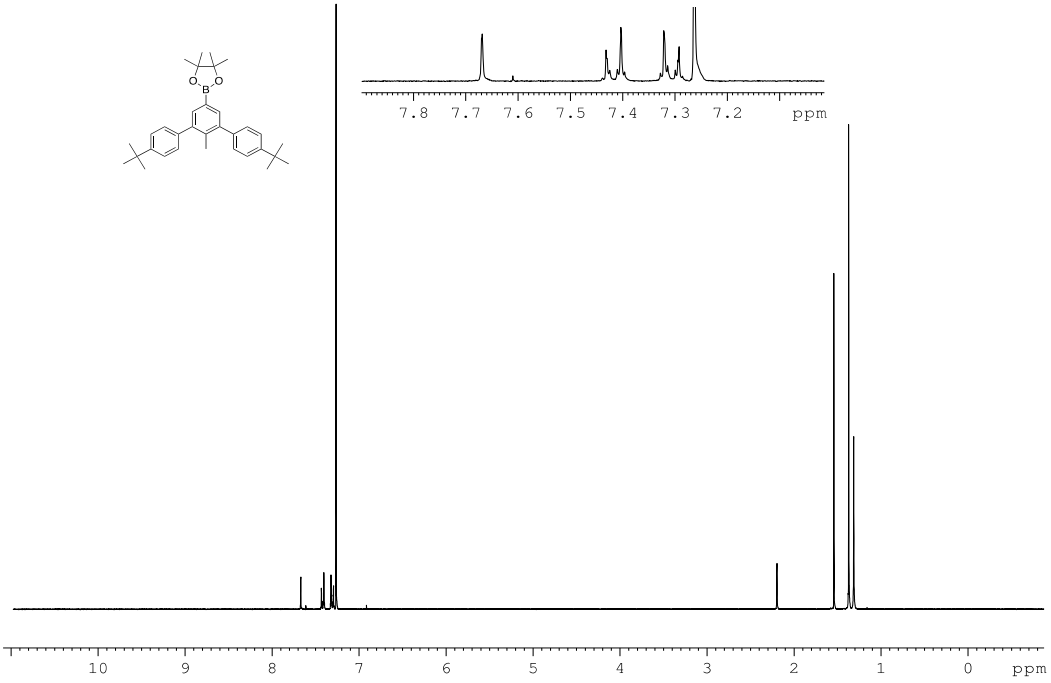


Figure S18. ^{1}H NMR spectrum of **8**.

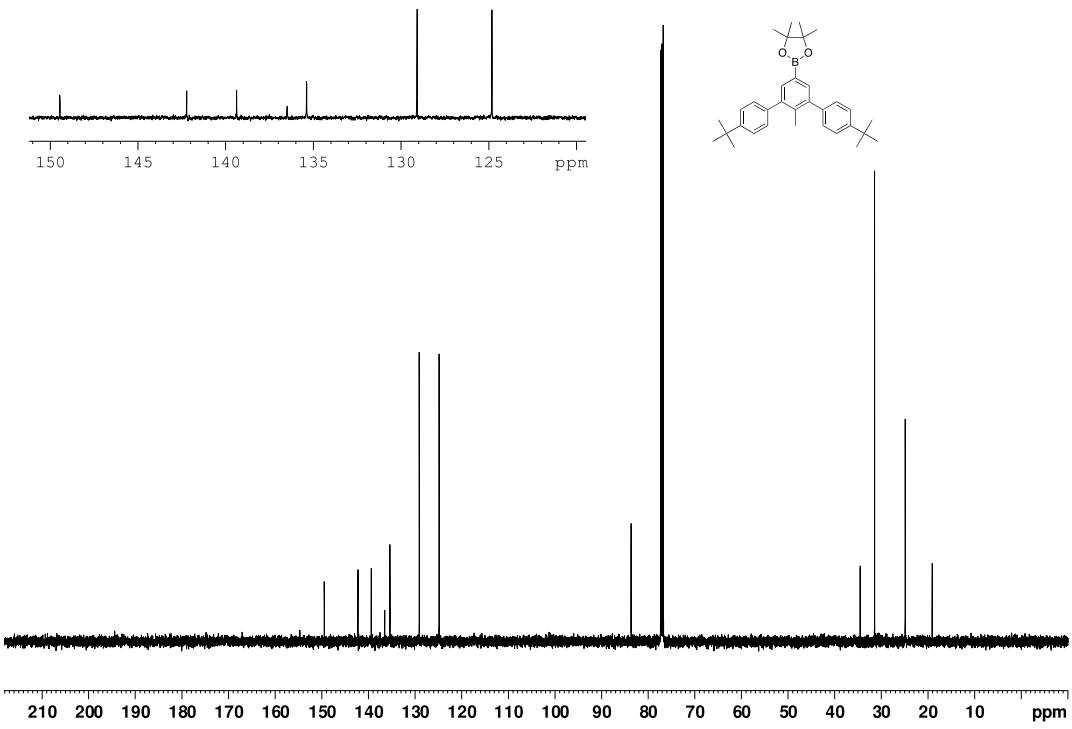


Figure S19. ^{13}C NMR spectrum of **8**.

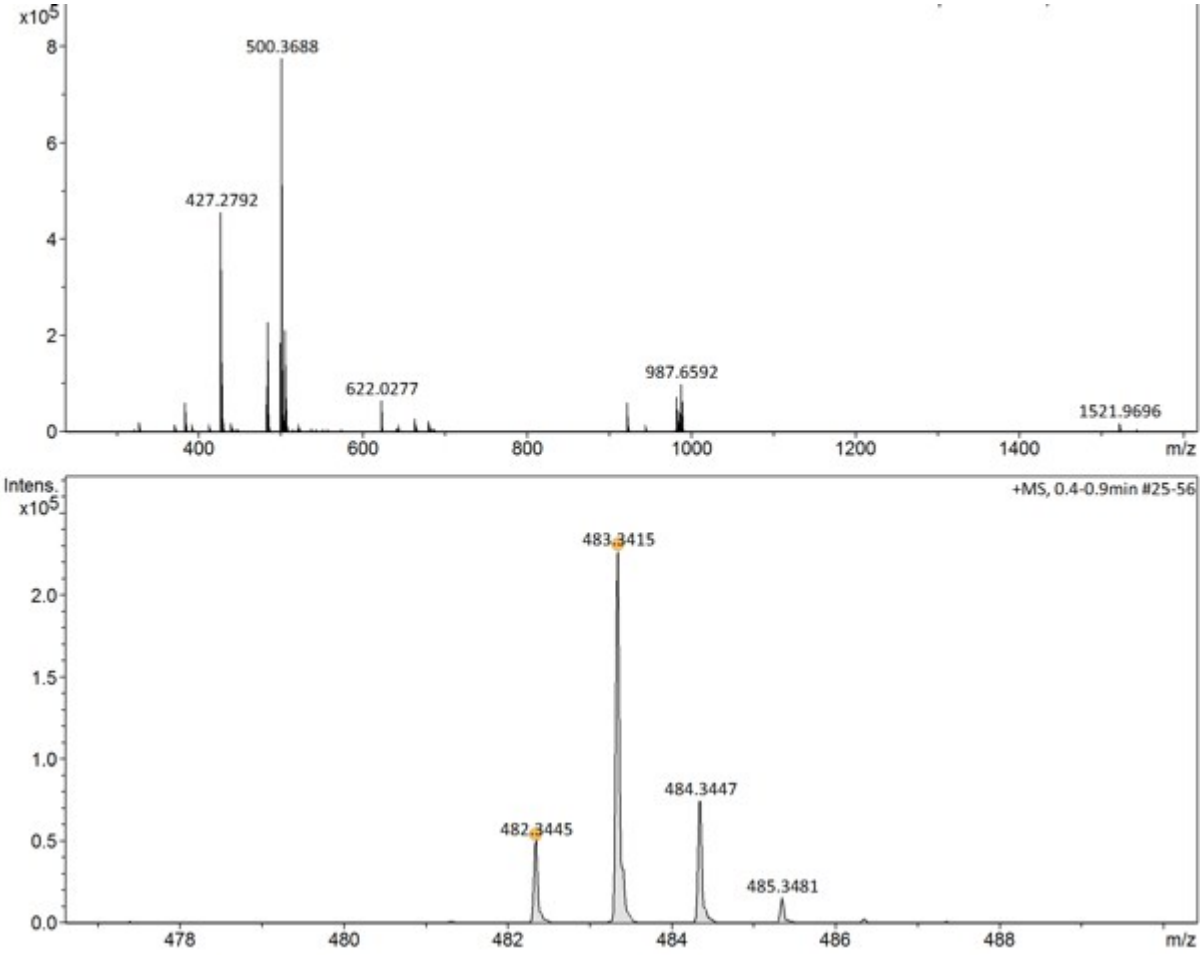


Figure S20. Mass spectrum of **8**.

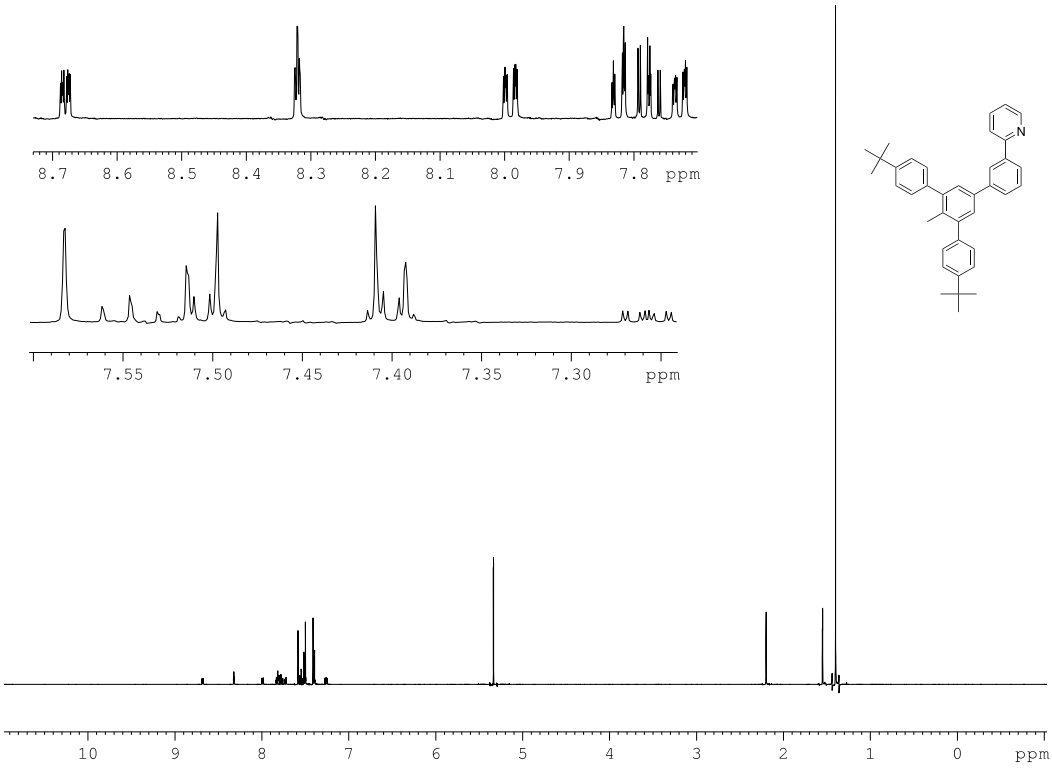


Figure S21. ^{1}H NMR spectrum of **9**.

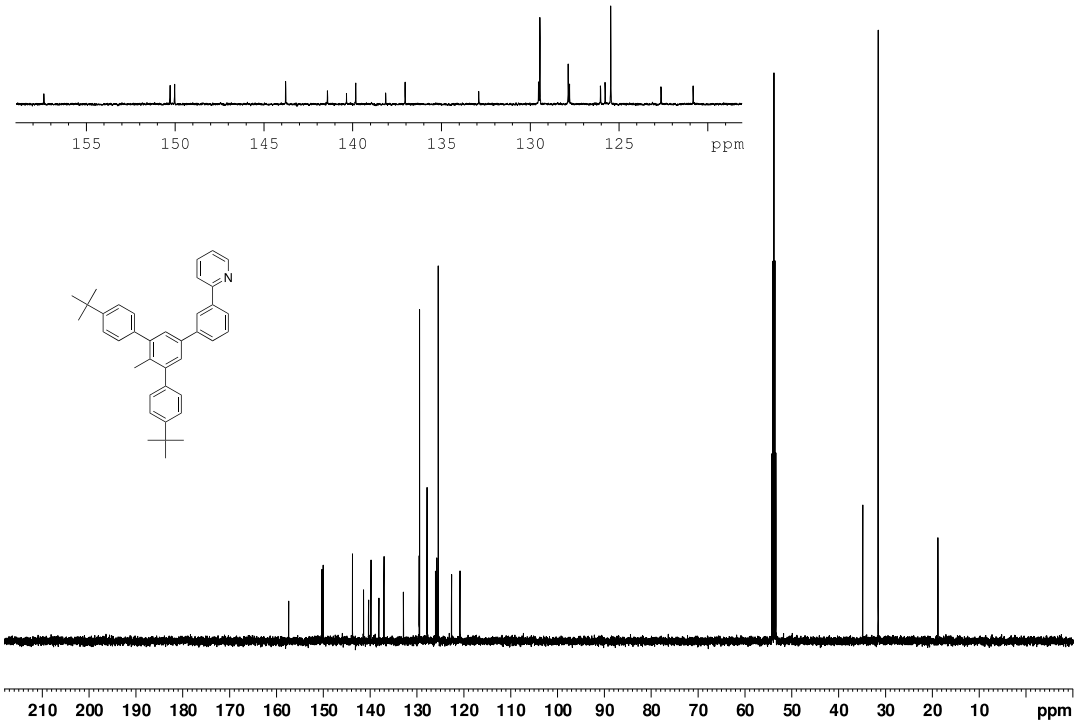


Figure S22. ^{13}C NMR spectrum of **9**.

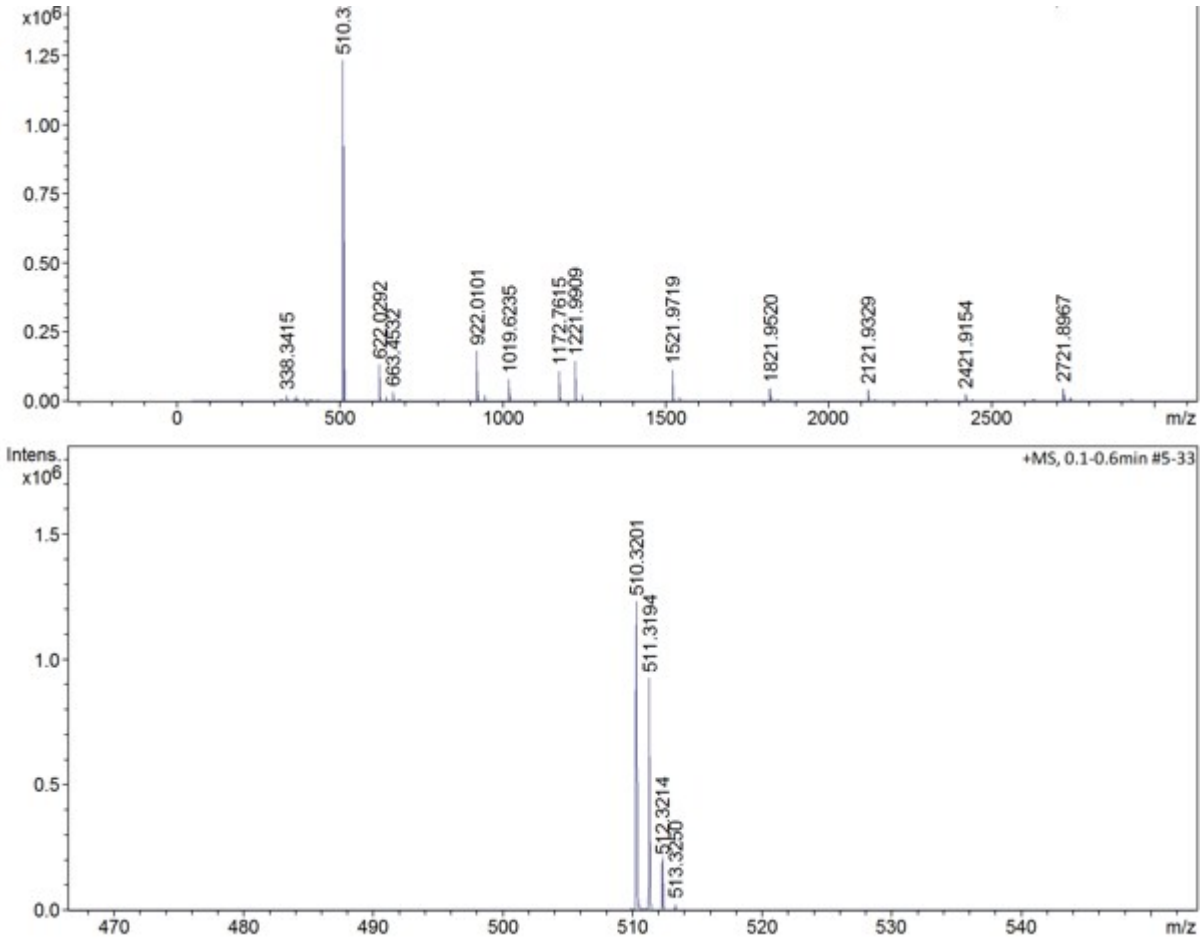


Figure S23. Mass spectrum of **9**.

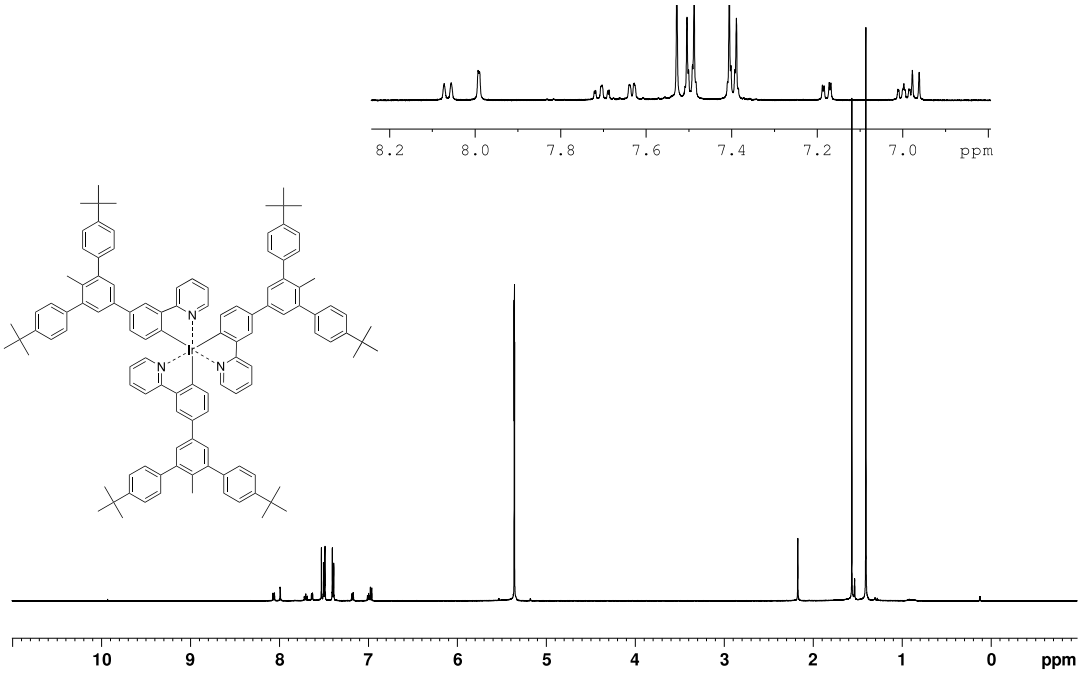


Figure S24. ^{1}H NMR spectrum of **1**.

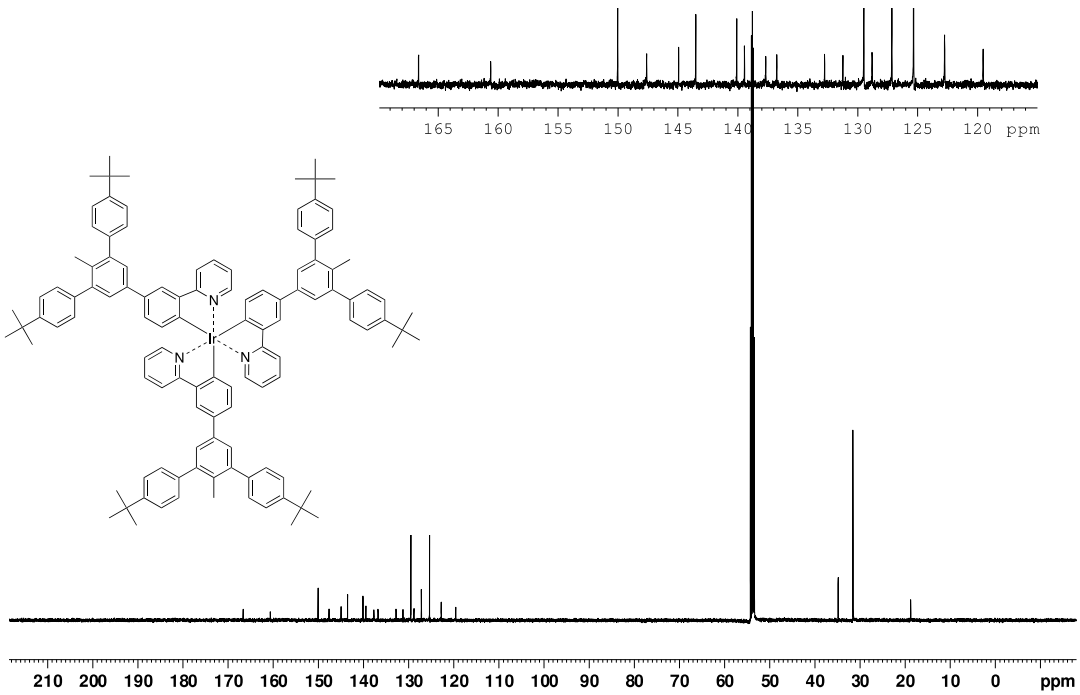
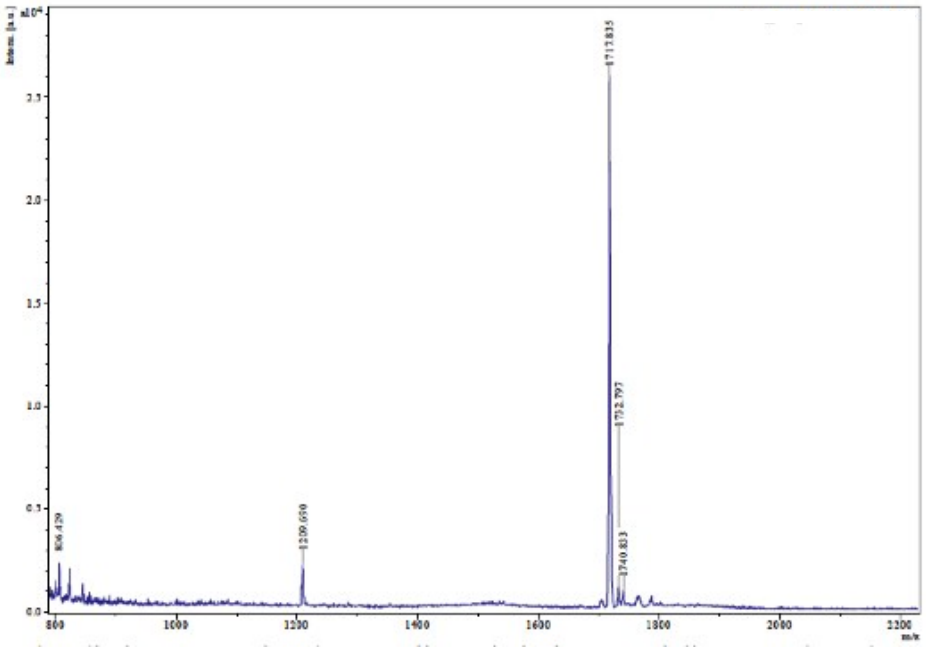


Figure S25. ^{13}C NMR spectrum of **1**.



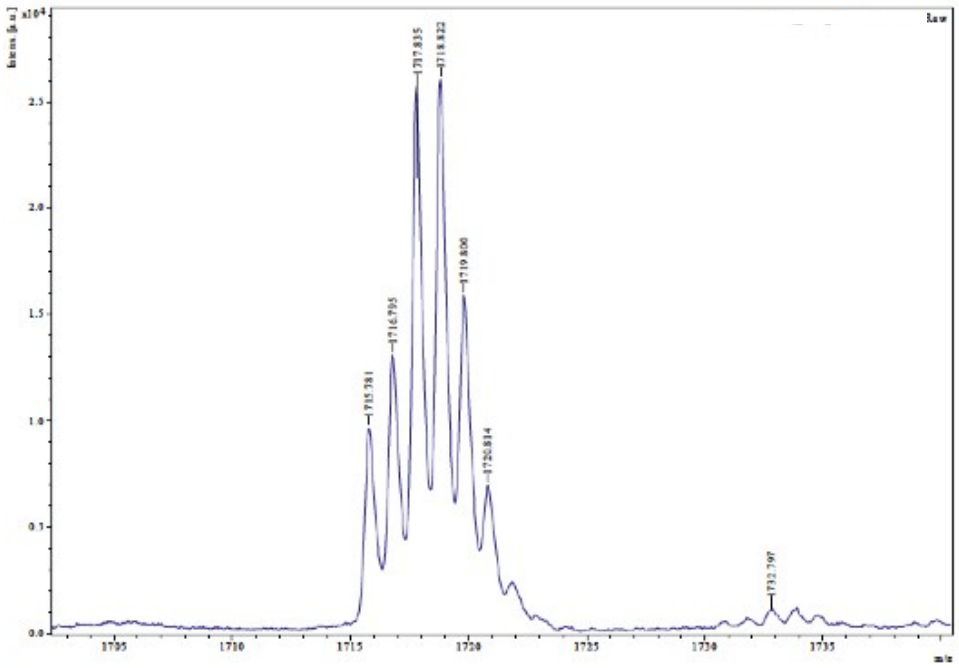


Figure S26. Mass spectrum of **1**.

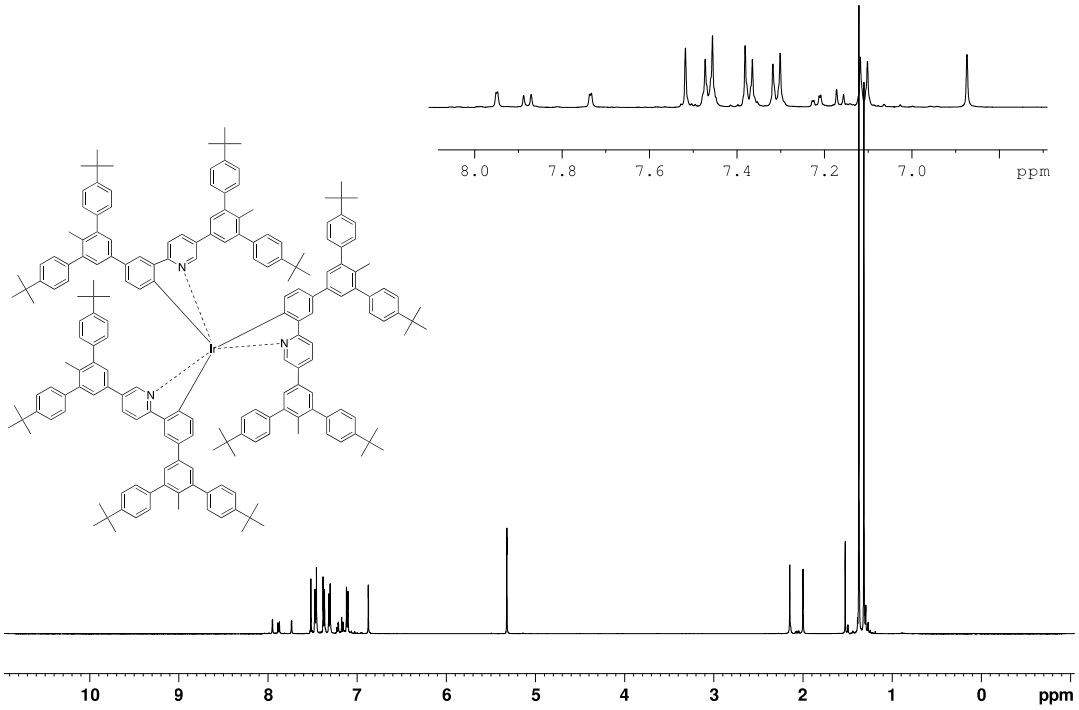


Figure S27. ^{1}H NMR of **2**.

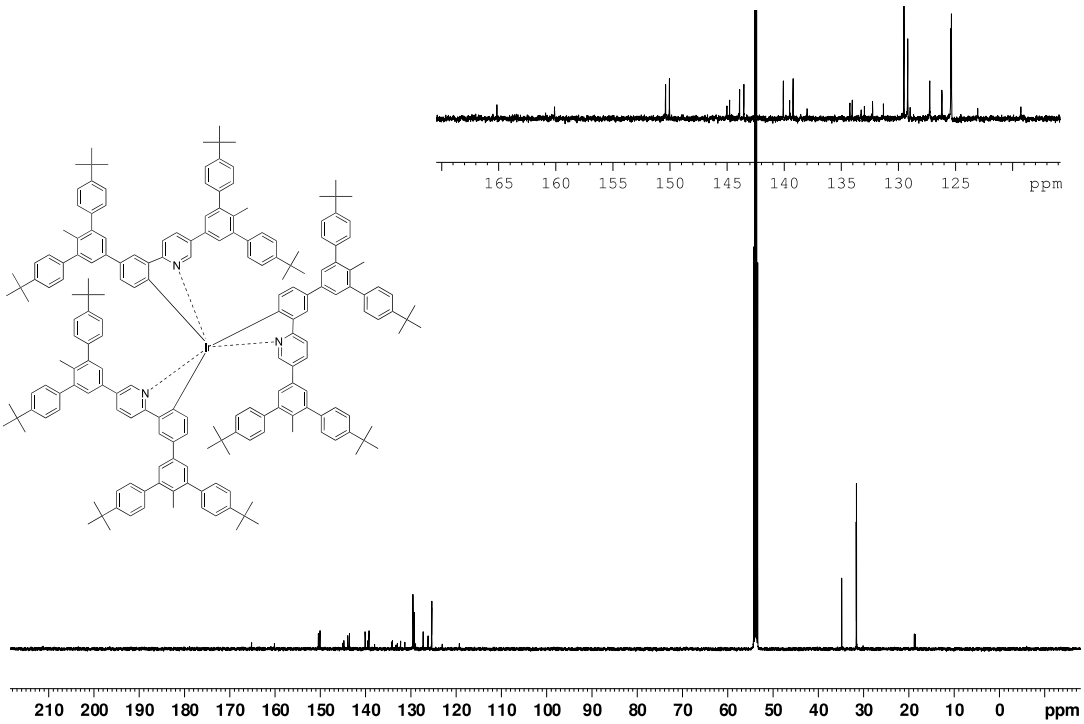
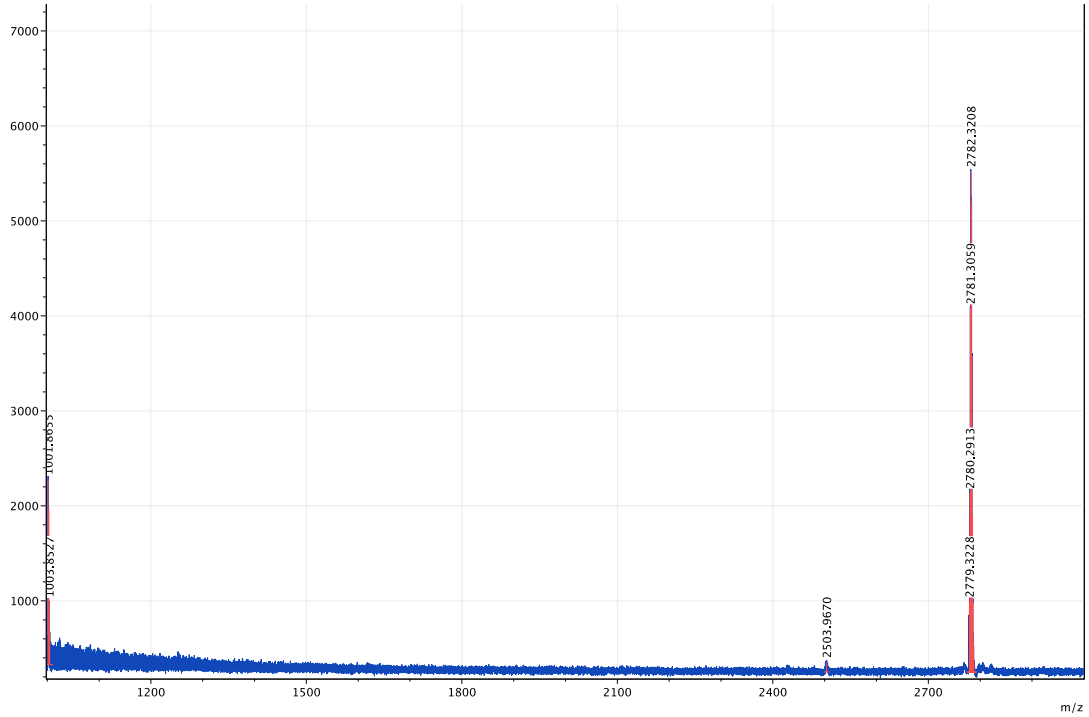


Figure S28. ^{13}C NMR spectrum of **2**.



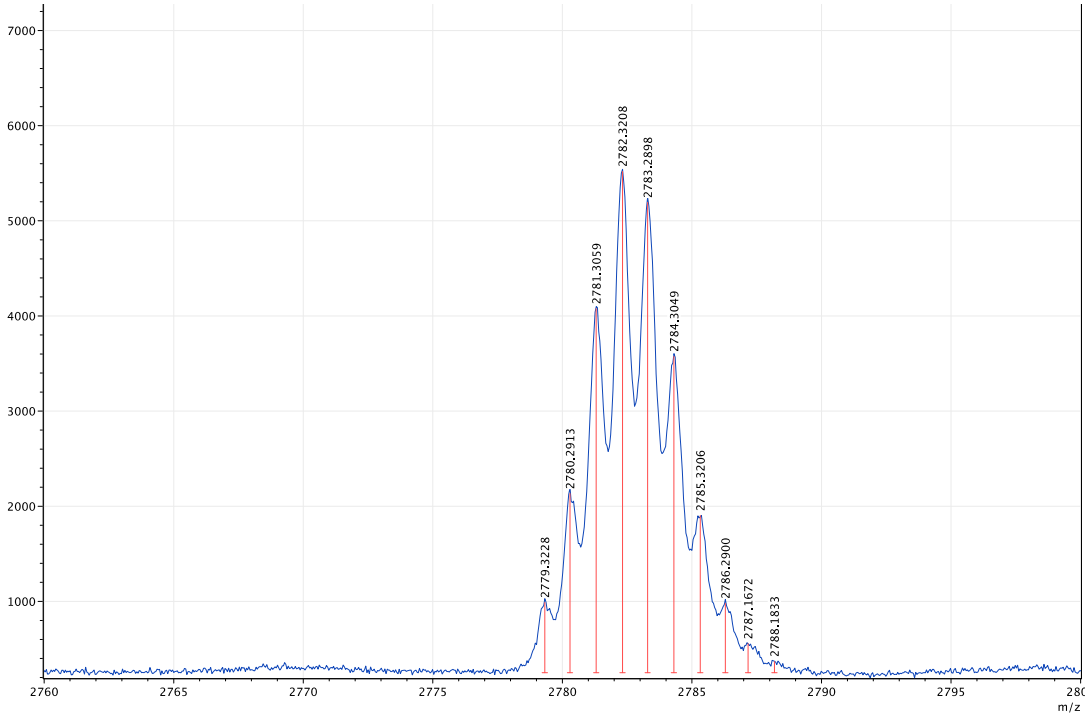


Figure S29. Mass spectrum of **2**.

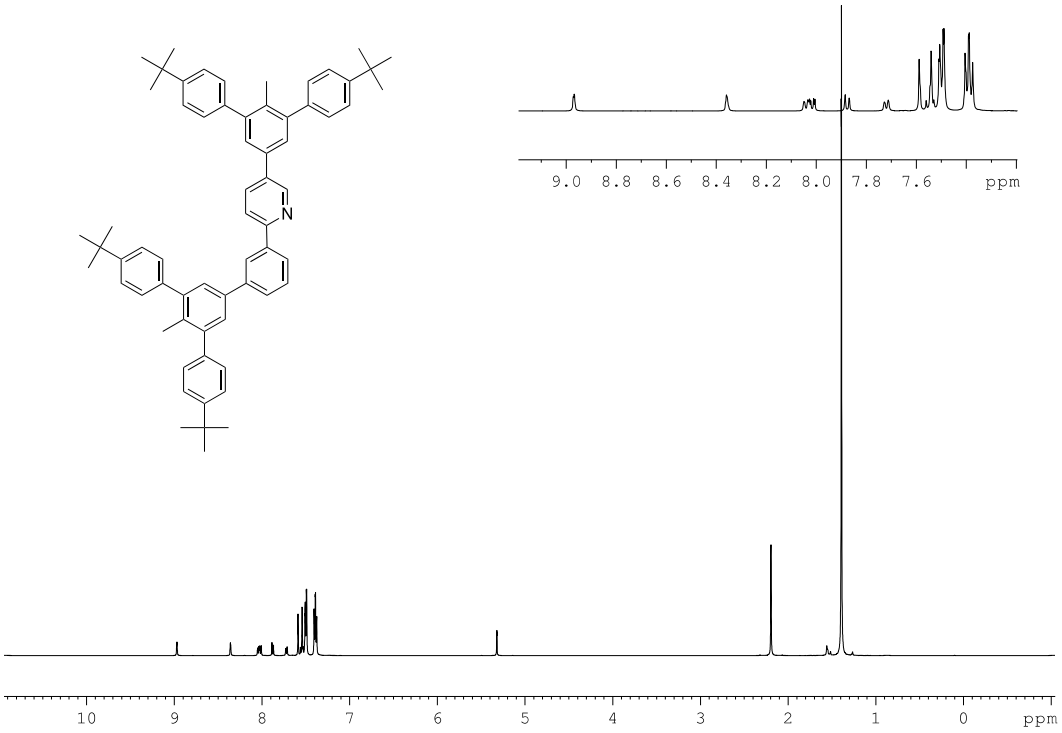


Figure S30. ^{1}H NMR spectrum of **12**.

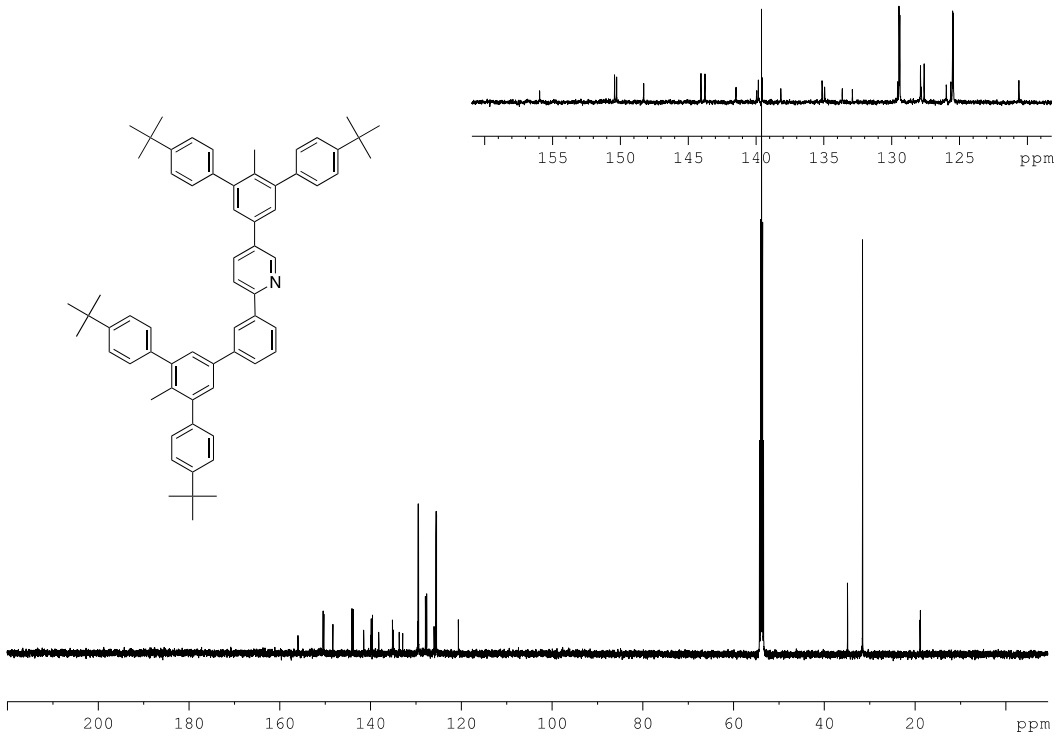
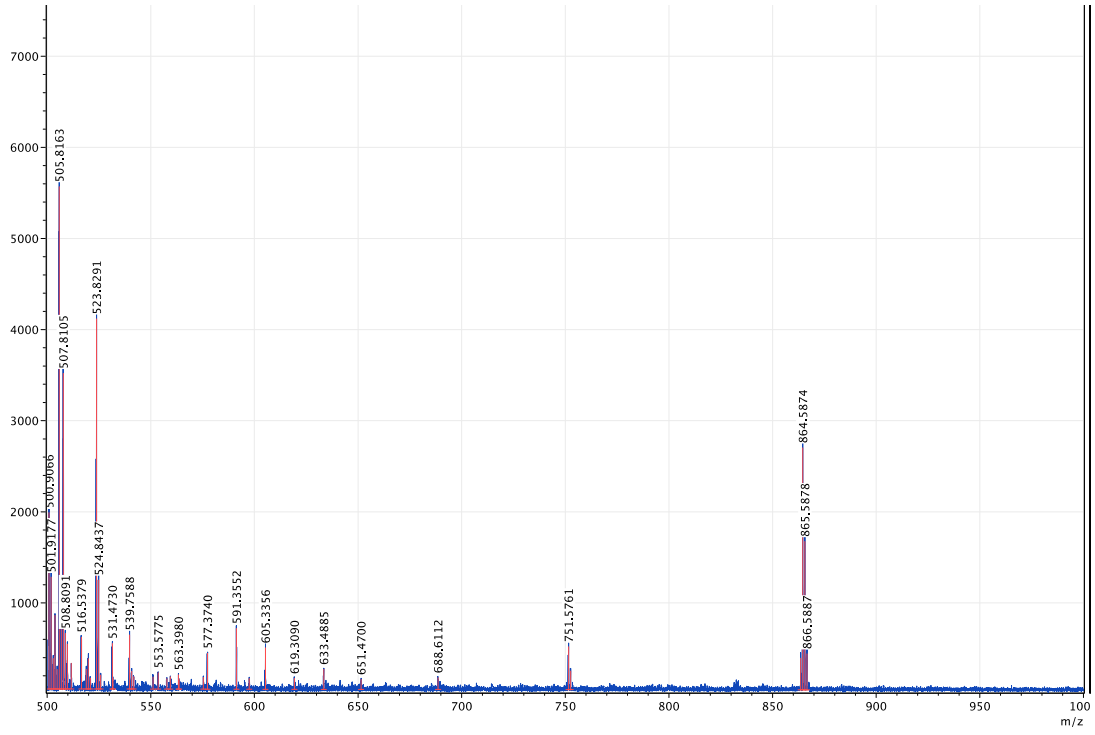


Figure S31. ^{13}C NMR spectrum of **12**.



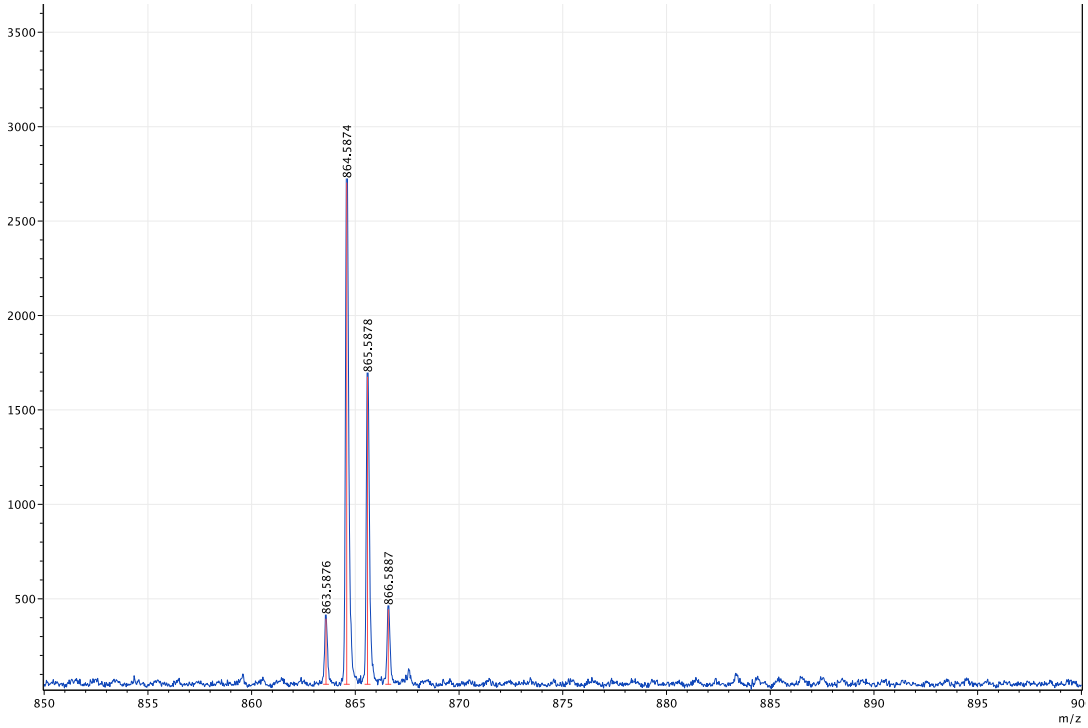


Figure S32. Mass spectrum of **12**.

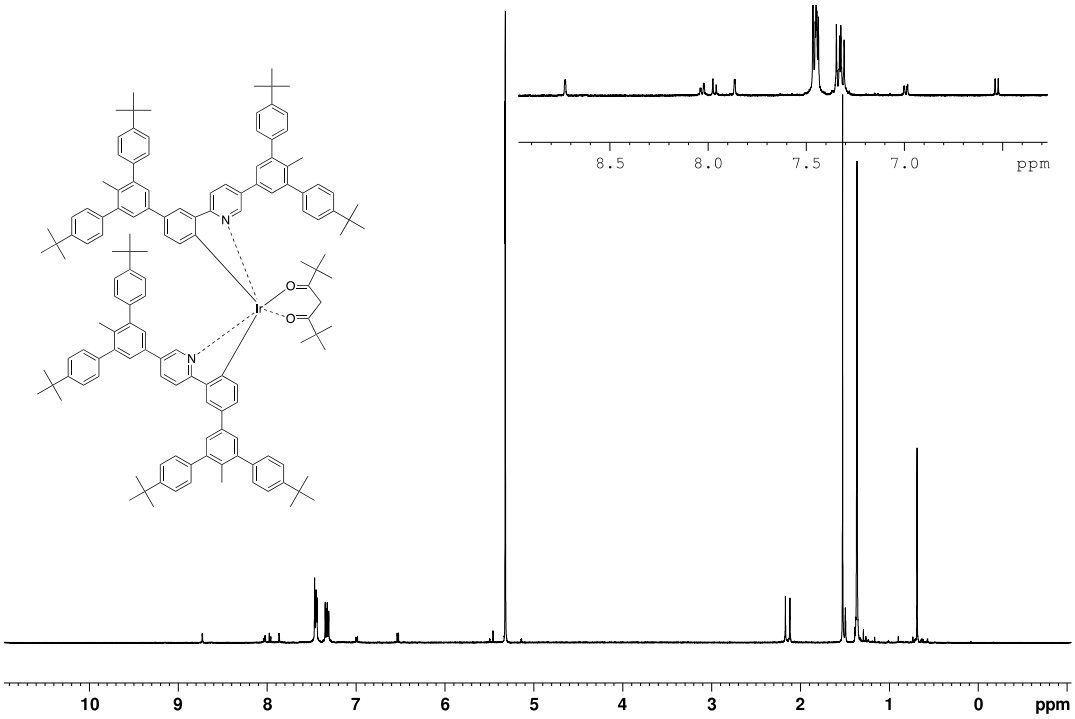


Figure S33. ^{1}H NMR spectrum of **3**.

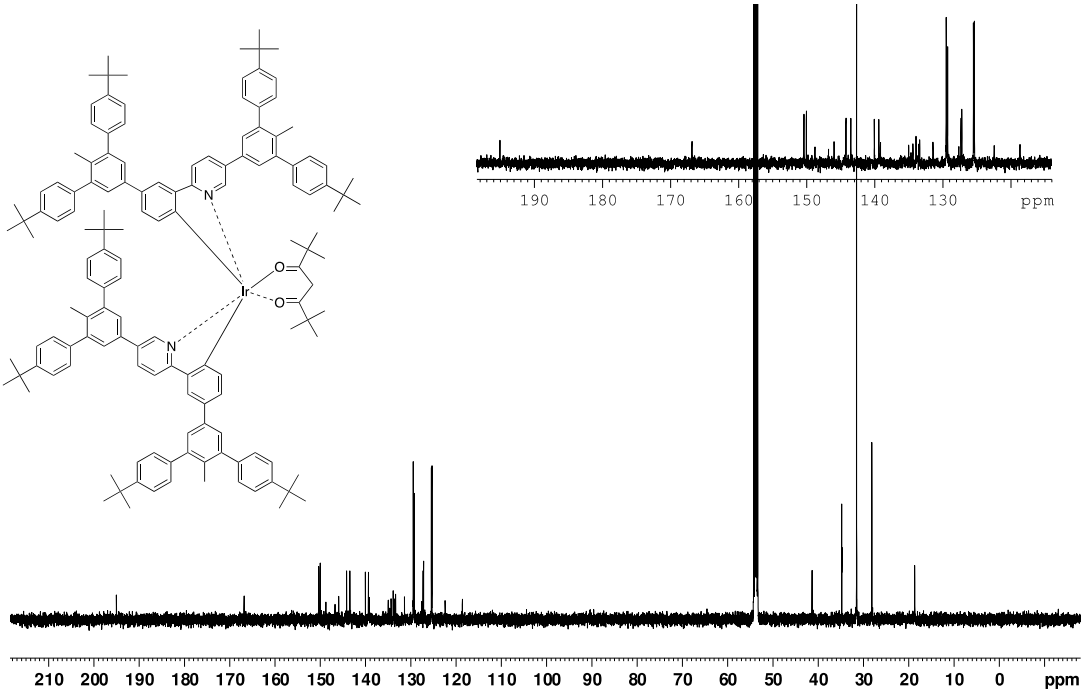
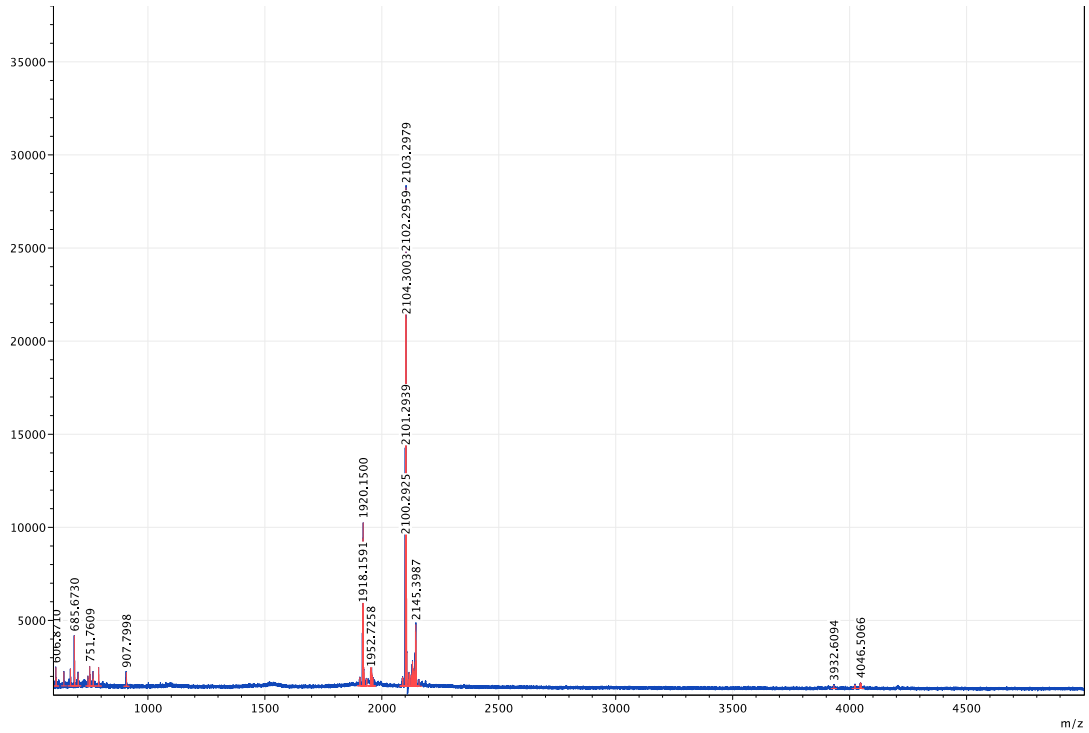


Figure S34. ^{13}C NMR spectrum of **3**.



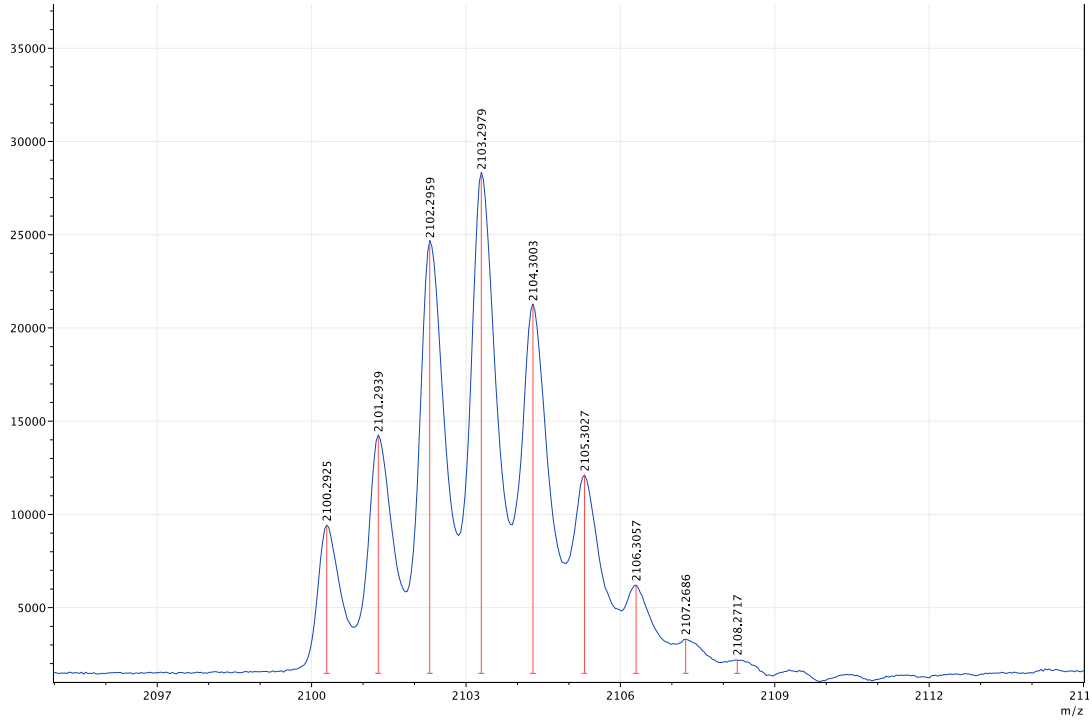


Figure S35. Mass spectrum of **3**.