Supporting Information

Iridium Corroles Exhibit Weak Near-Infrared Phosphorescence but Efficiently Sensitize Singlet Oxygen Formation

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A. UV-vis spectra

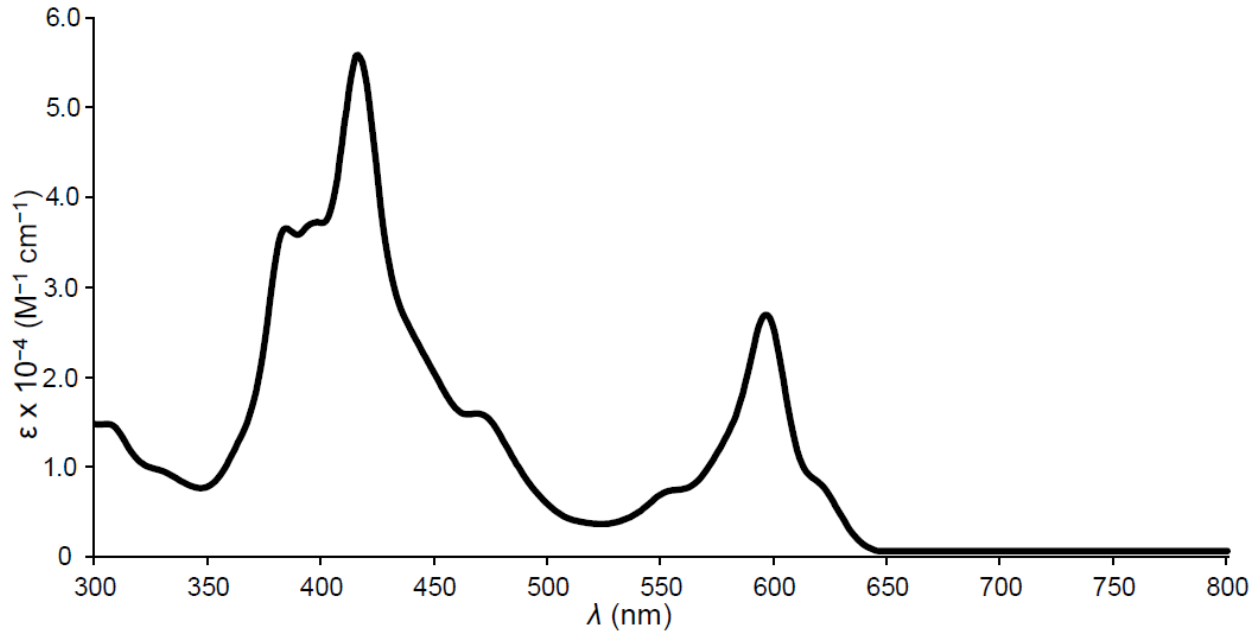


Figure 1. UV-vis spectrum of Ir[TPC]tma$_2$.

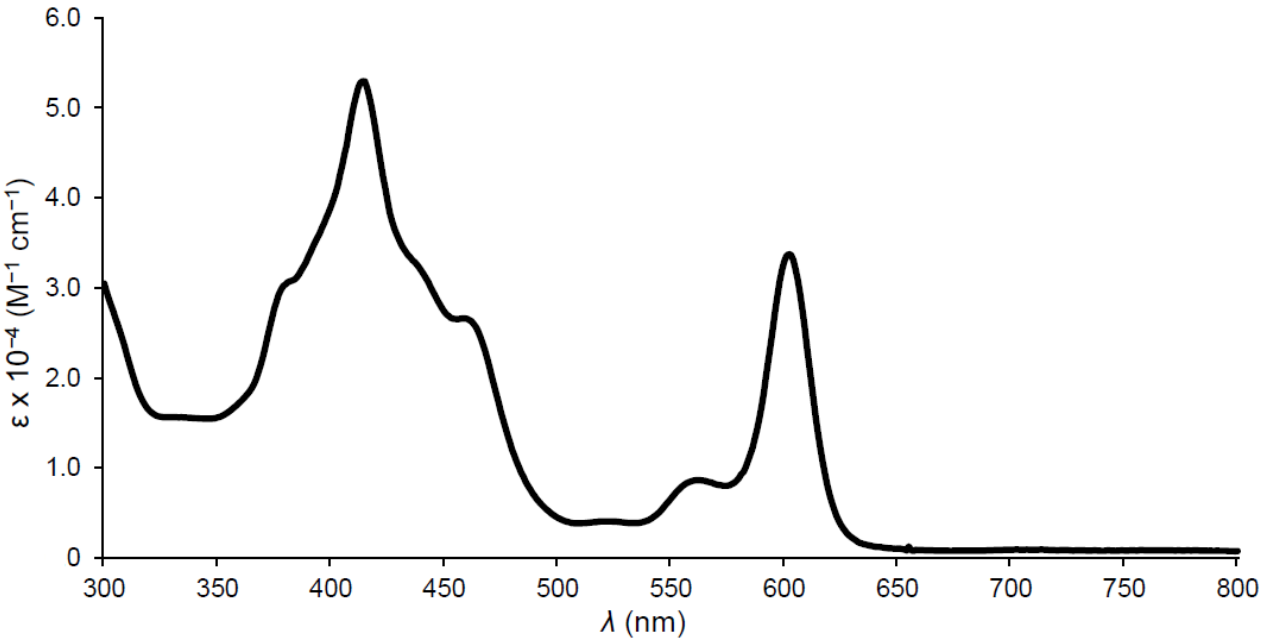


Figure 2. UV-vis spectrum of Ir[TPC]py$_2$.

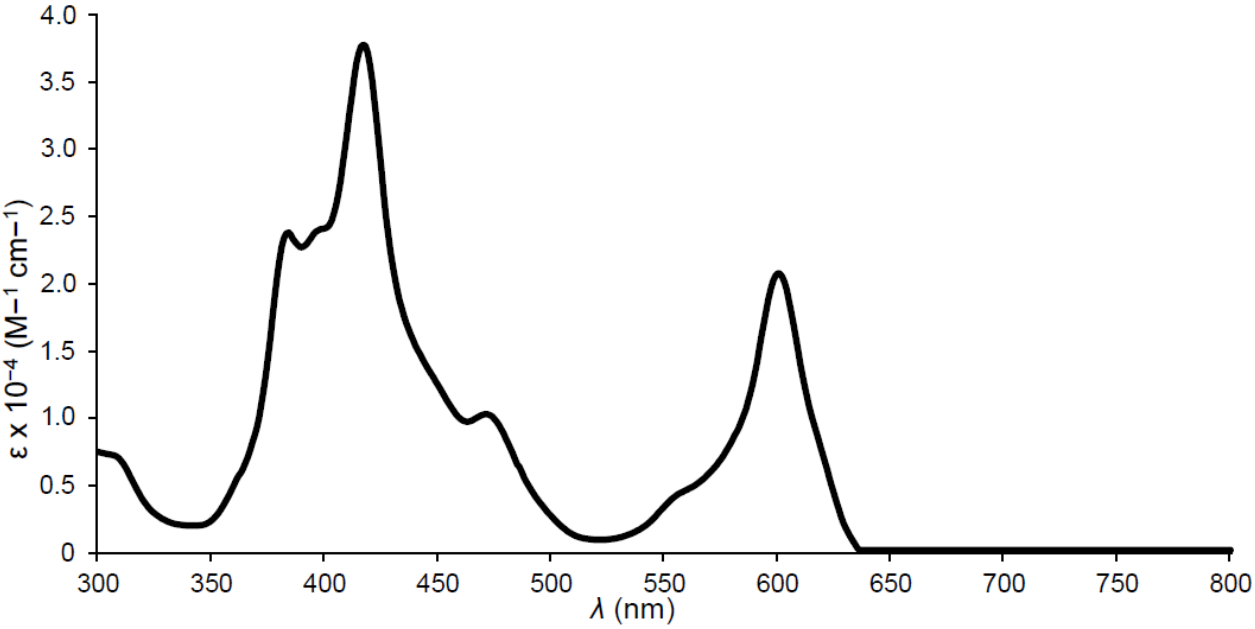


Figure 3. UV-vis spectrum of Ir[T*p*OMePC]tma$_2$.

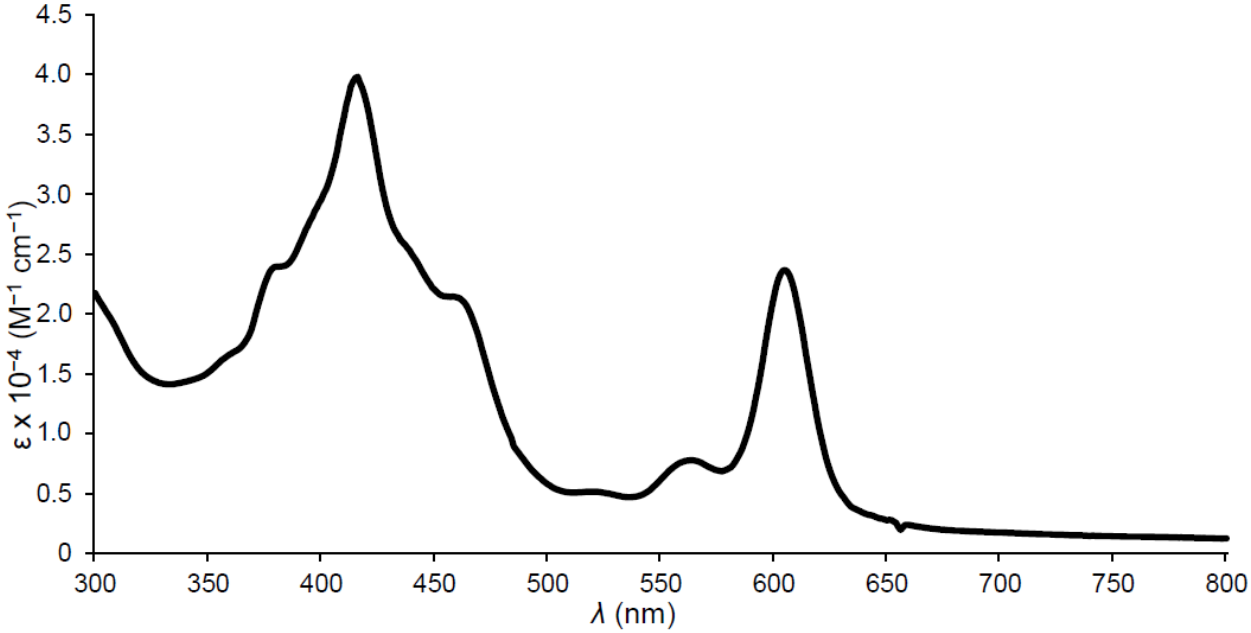


Figure 4. UV-vis spectrum of Ir[T*p*OMePC]py$_2$.

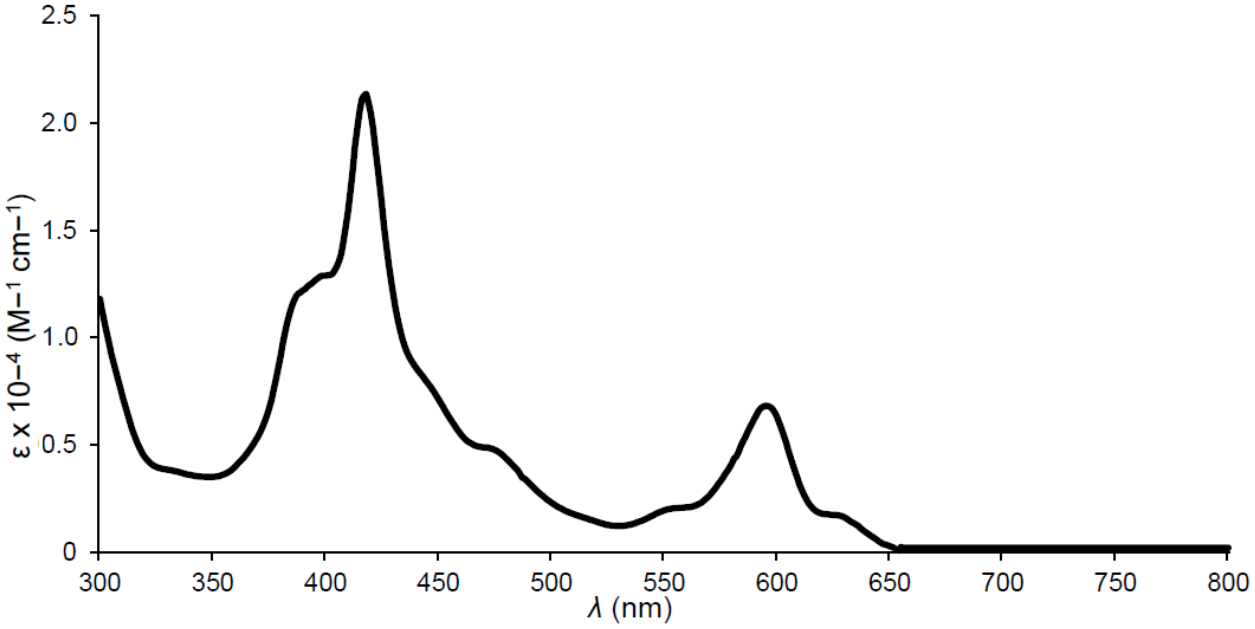


Figure 5. UV-vis spectrum of Ir[T*p*CF$_3$PC]tma$_2$.

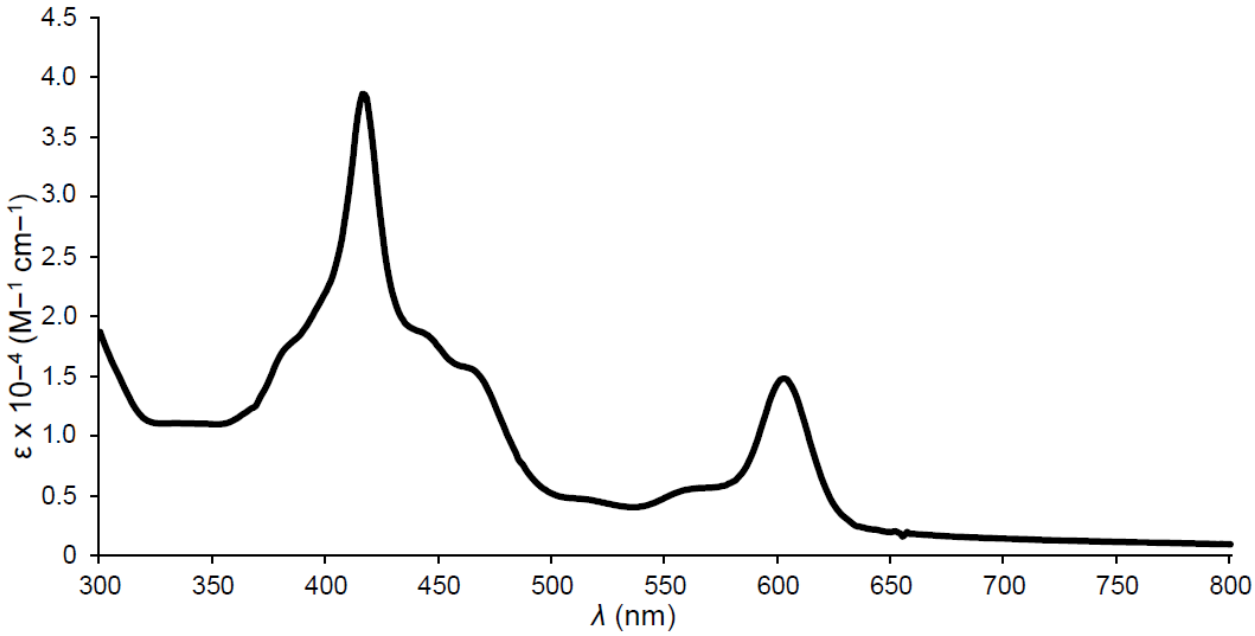


Figure 6. UV-vis spectrum of Ir[T*p*CF$_3$PC]py$_2$.

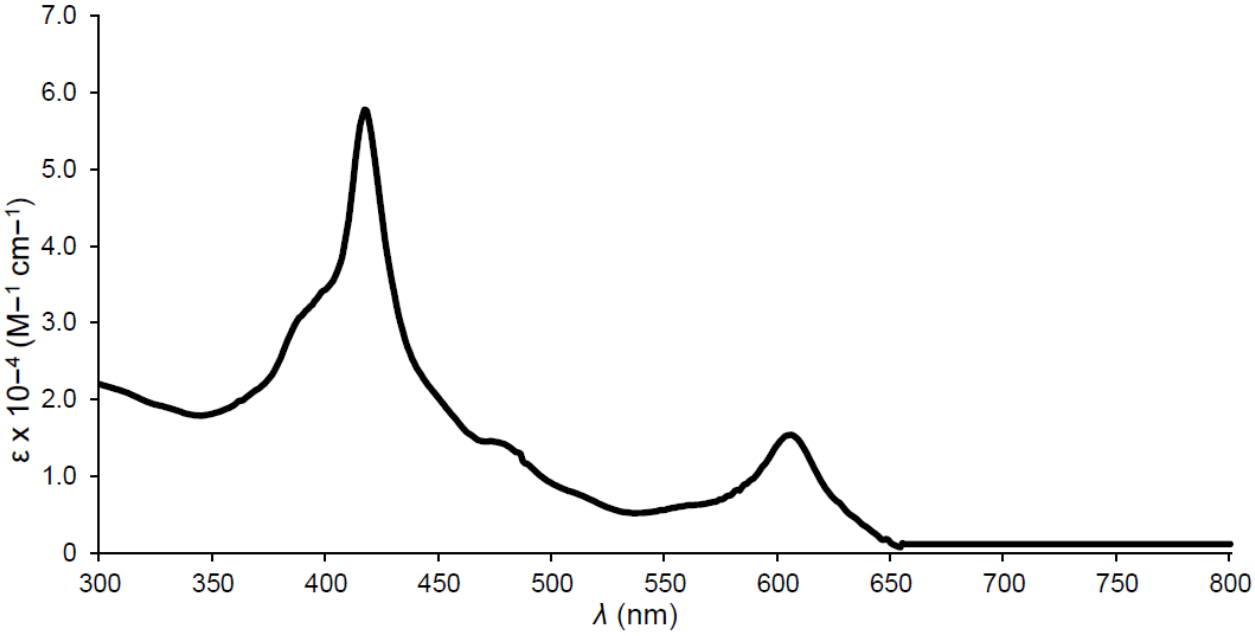


Figure 7. UV-vis spectrum of Ir[T*p*CF$_3$PC]dmap$_2$.

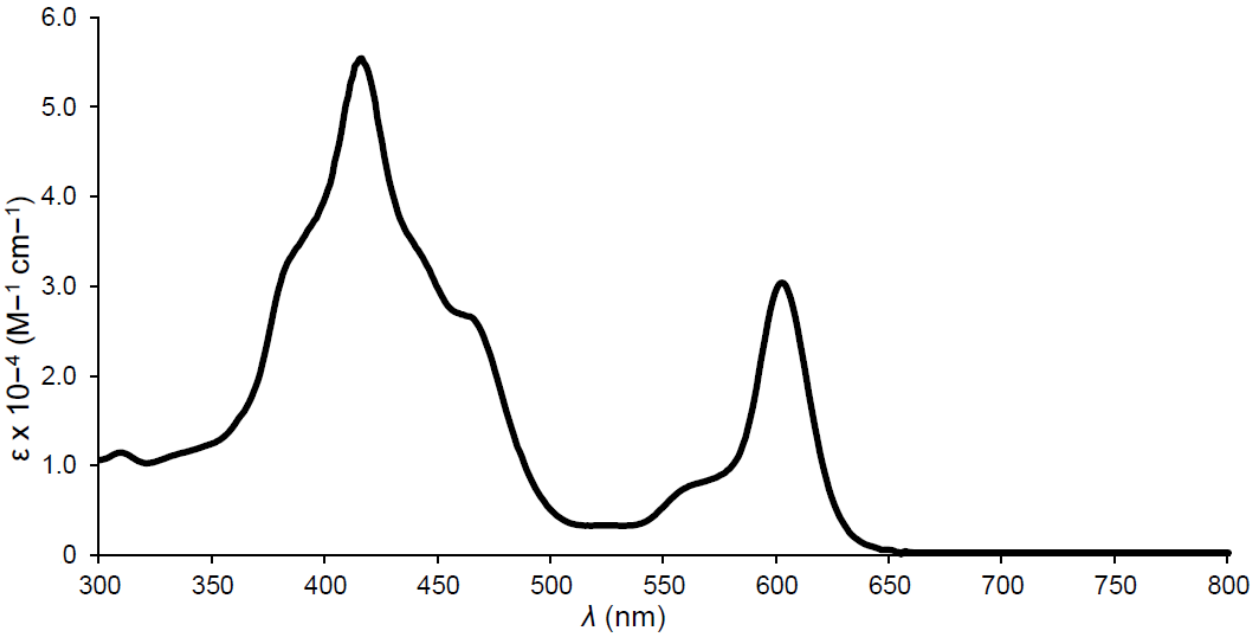


Figure 8. UV-vis spectrum of Ir[T*p*CF$_3$PC]4pa$_2$.

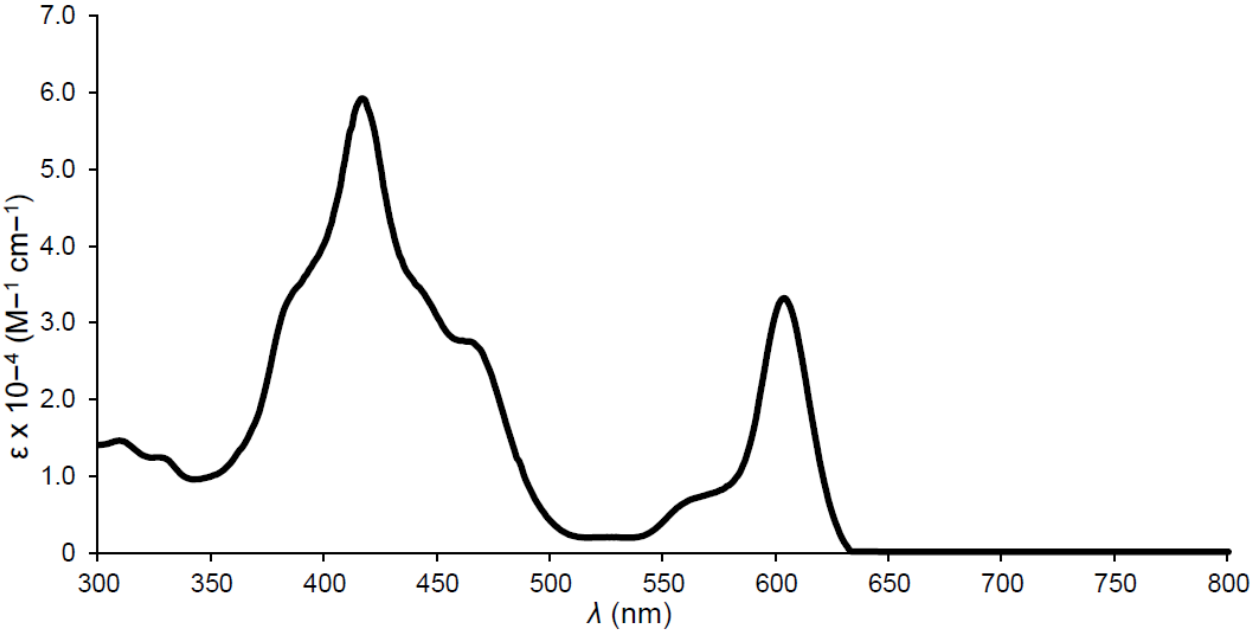


Figure 9. UV-vis spectrum of Ir[T*p*CF_3PC]$isoq_2$.

B. Mass spectra

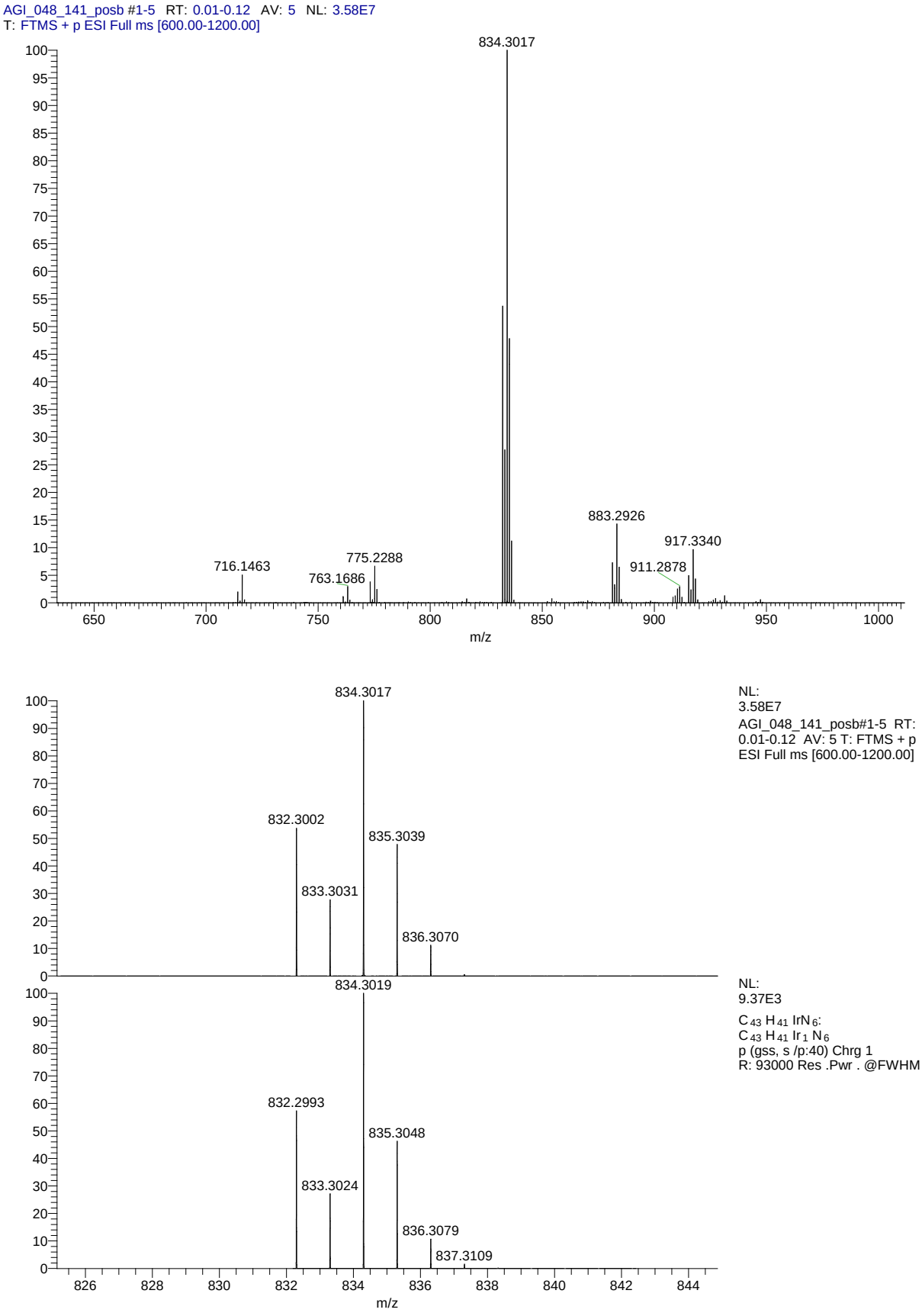


Figure 10. Electrospray ionization mass spectrum of Ir[TPC]tma$_2$.

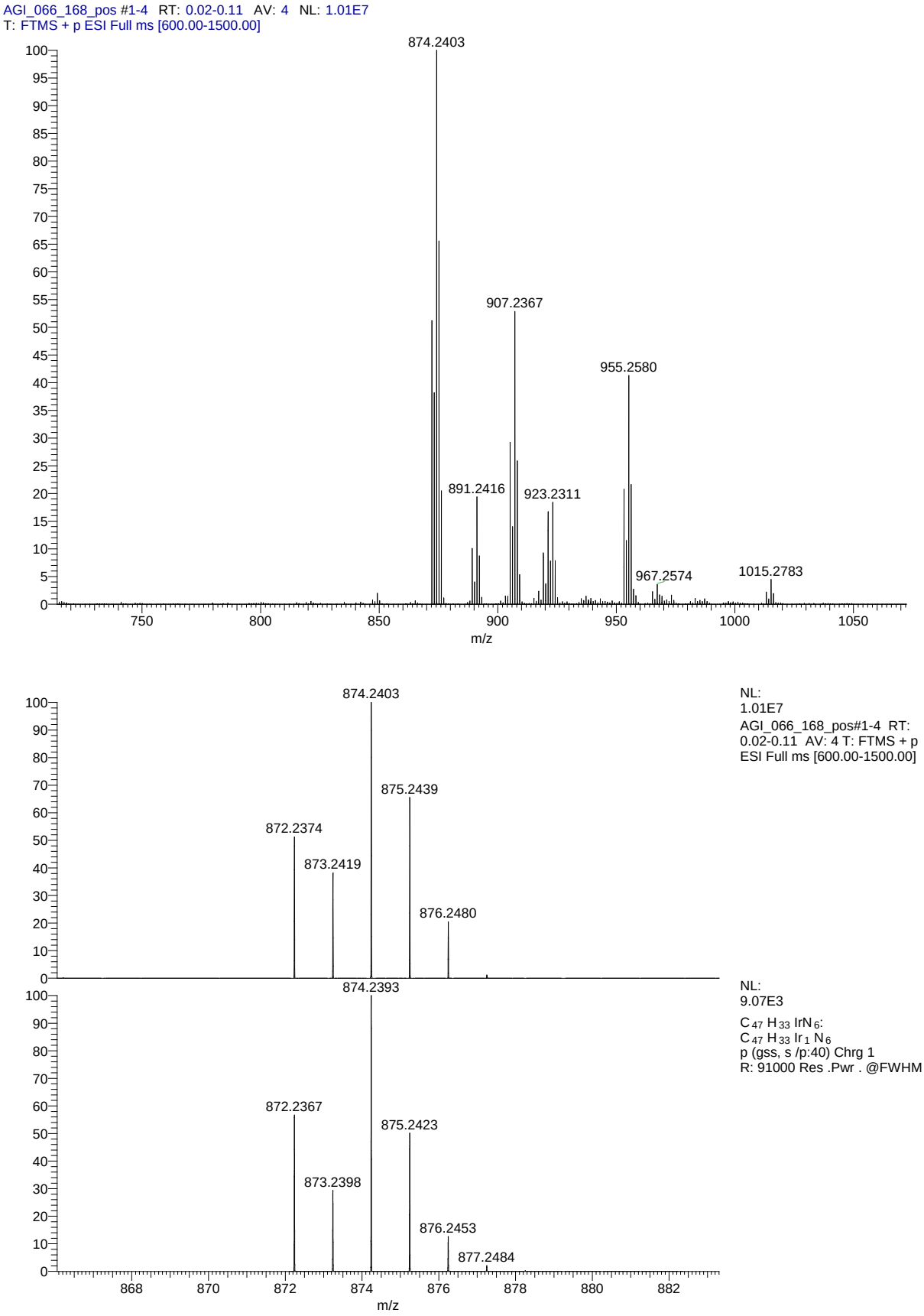


Figure 11. Electrospray ionization mass spectrum of Ir[TPC]py$_2$.

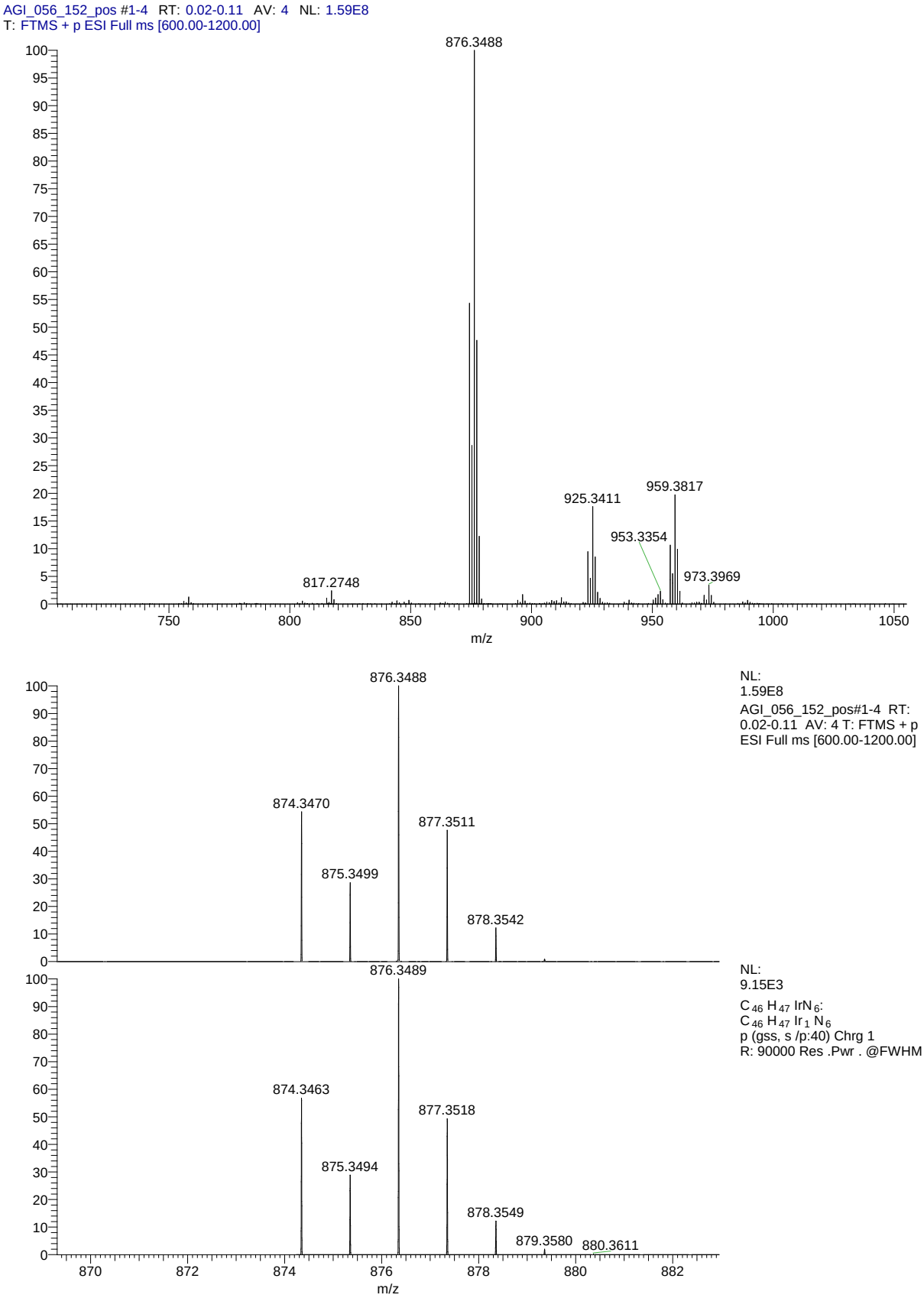


Figure 12. Electrospray ionization mass spectrum of Ir[T*p*MePC]tma$_2$.

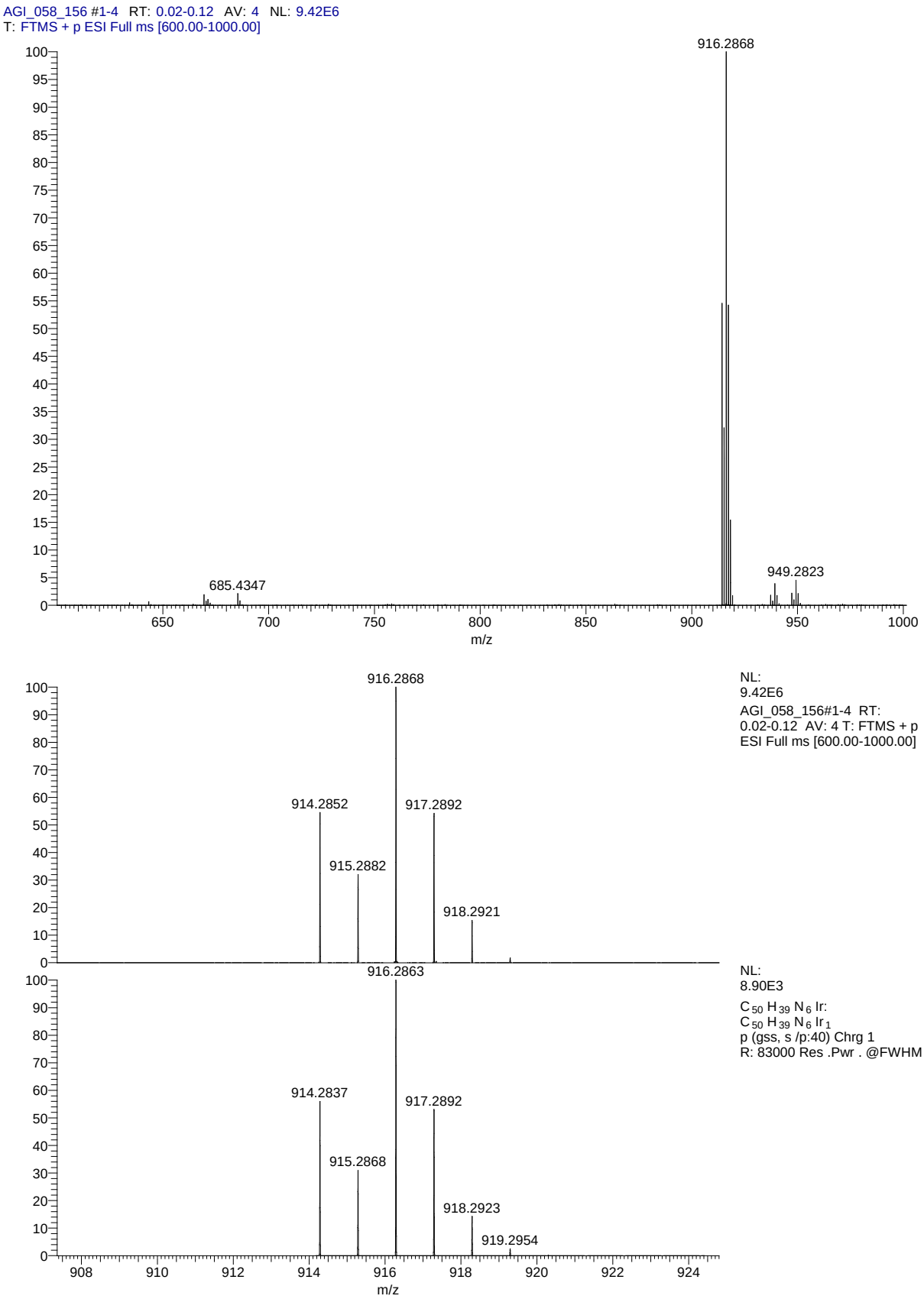


Figure 13. Electrospray ionization mass spectrum of Ir[T*p*MePC]py$_2$.

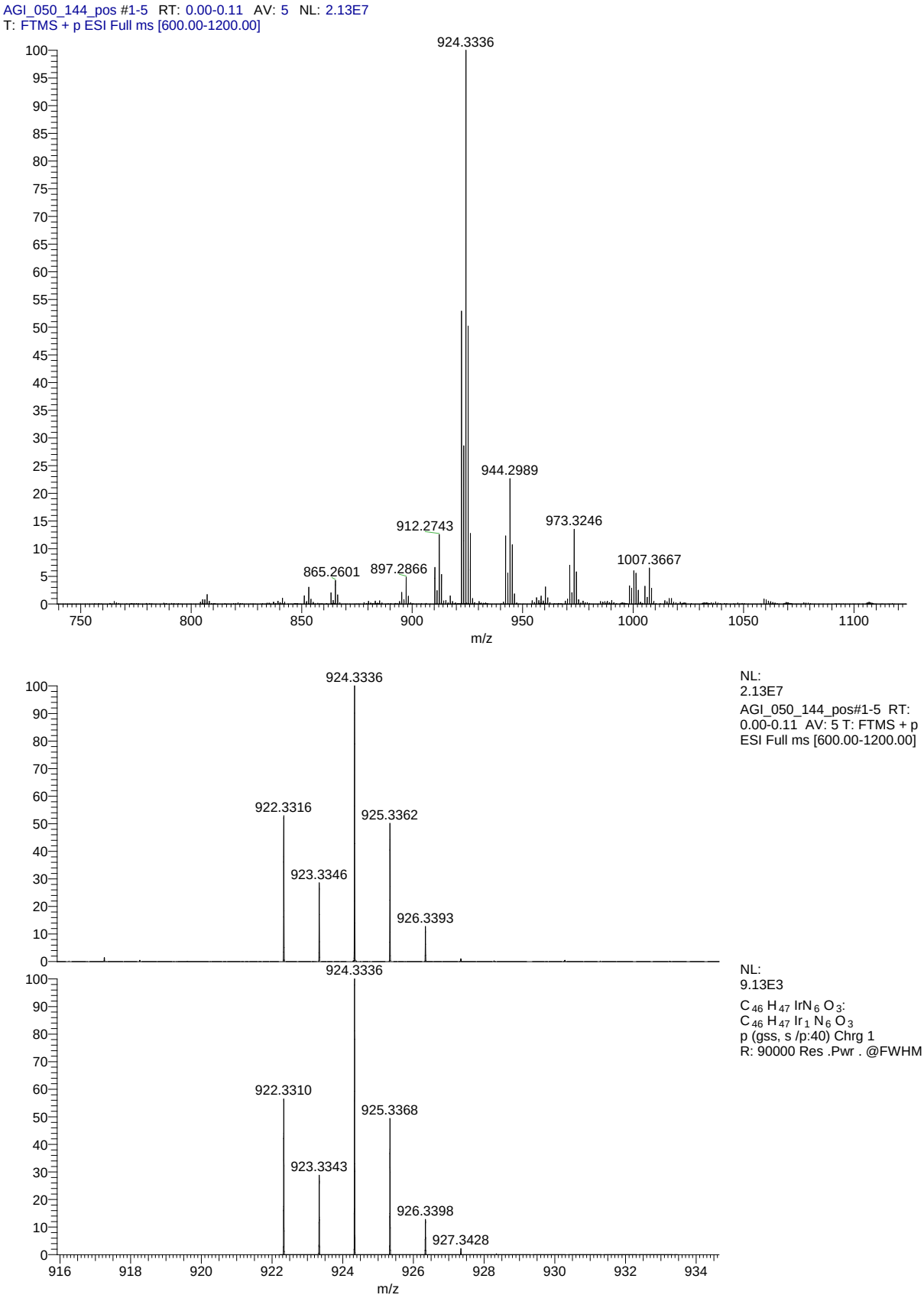


Figure 14. Electrospray ionization mass spectrum of Ir[T*p*OMePC]tma$_2$.

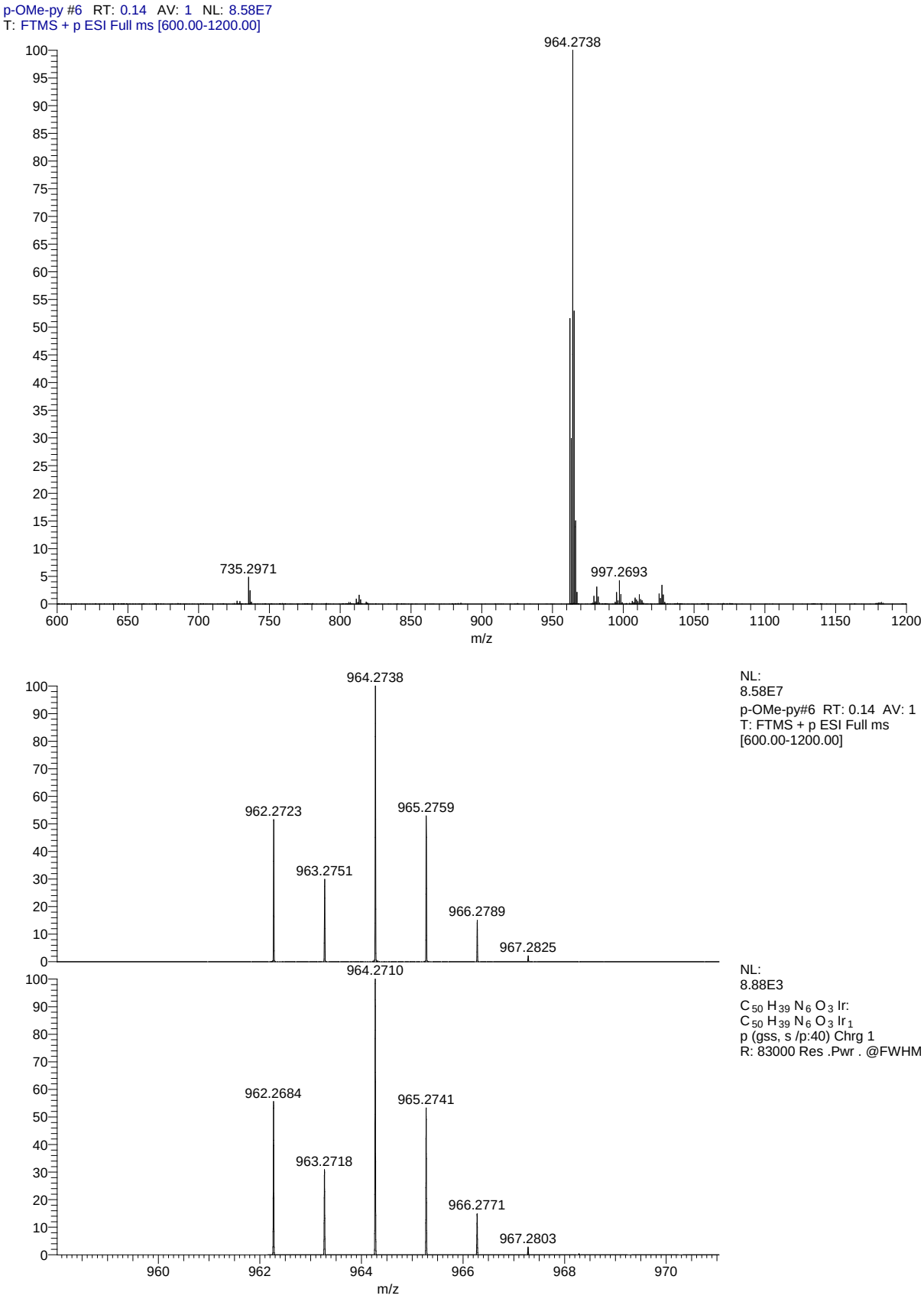


Figure 15. Electrospray ionization mass spectrum of Ir[T*p*OMePC]py$_2$.

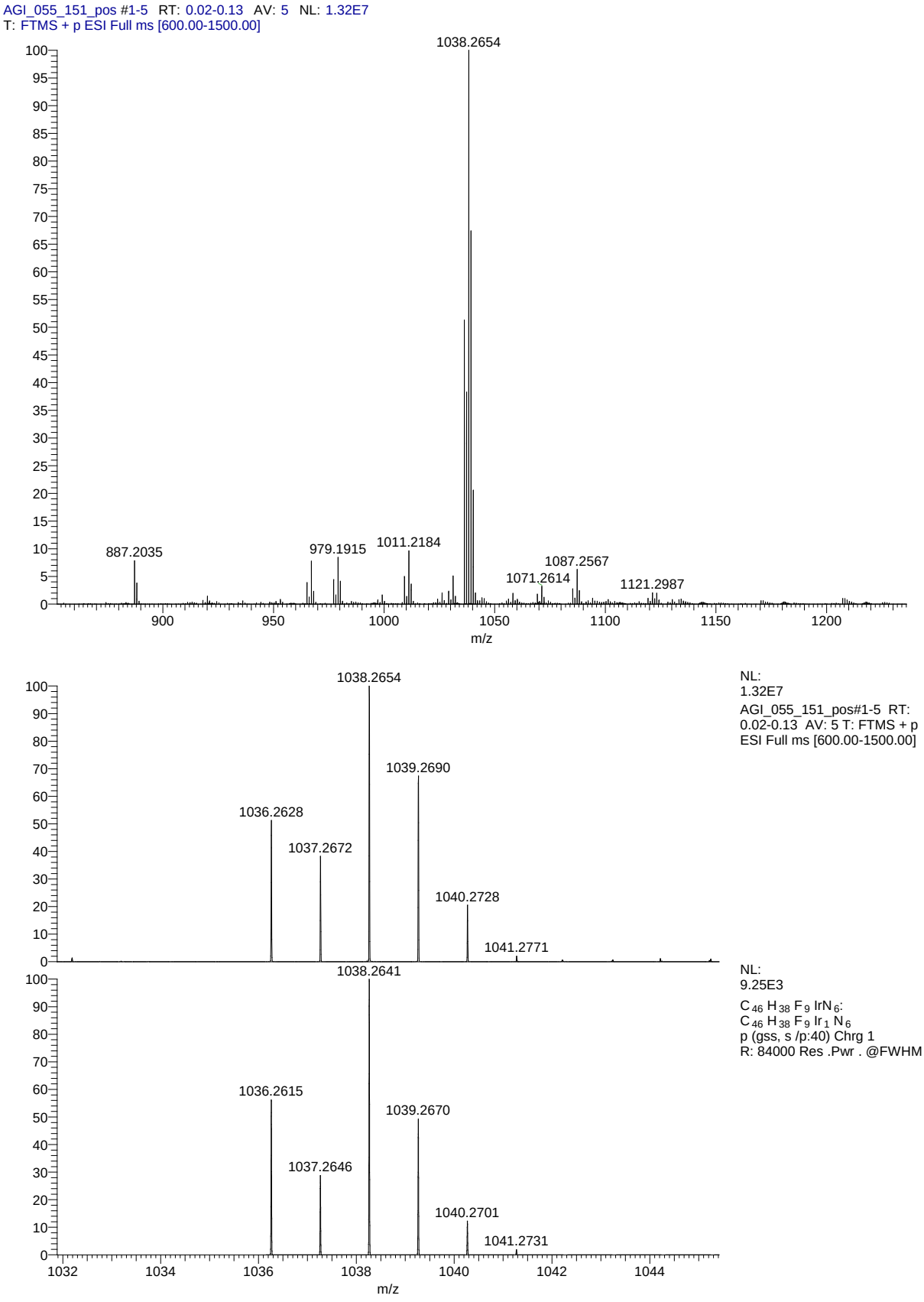


Figure 16. Electrospray ionization mass spectrum of Ir[T*p*CF_3PC]tma_2.

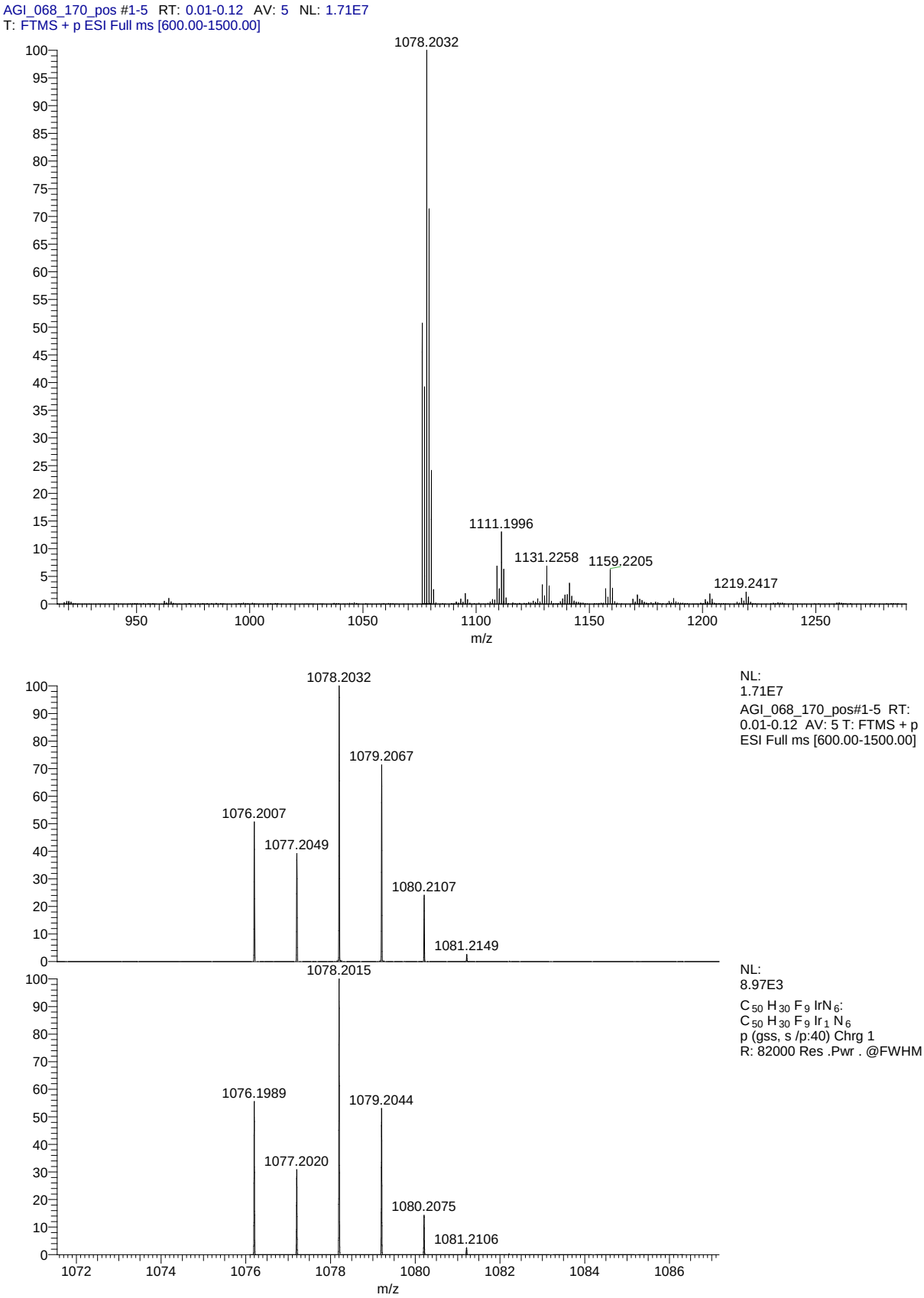


Figure 17. Electrospray ionization mass spectrum of Ir[T*p*CF$_3$PC]py$_2$.

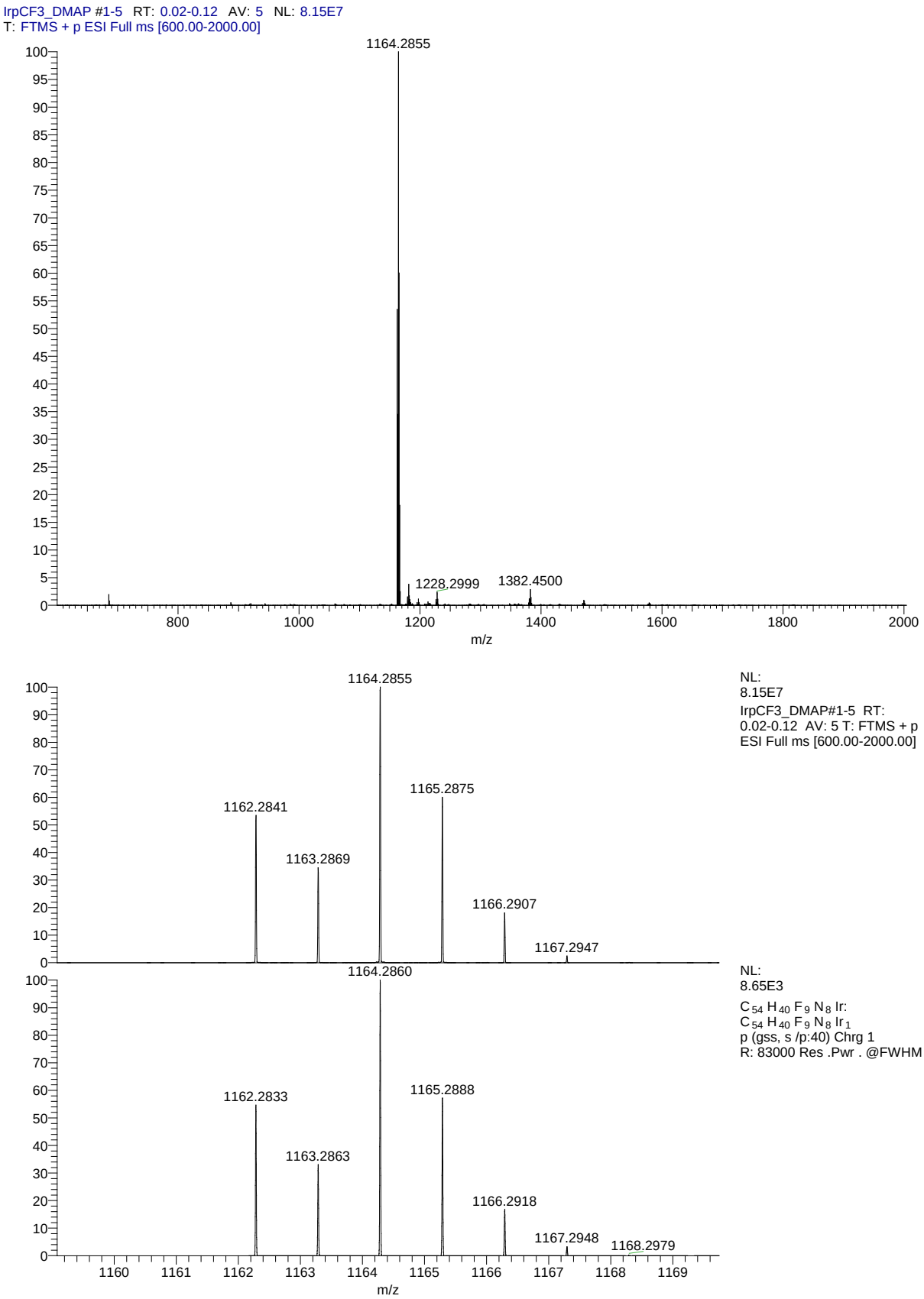


Figure 18. Electrospray ionization mass spectrum of Ir[T*p*CF_3PC]dmap$_2$.

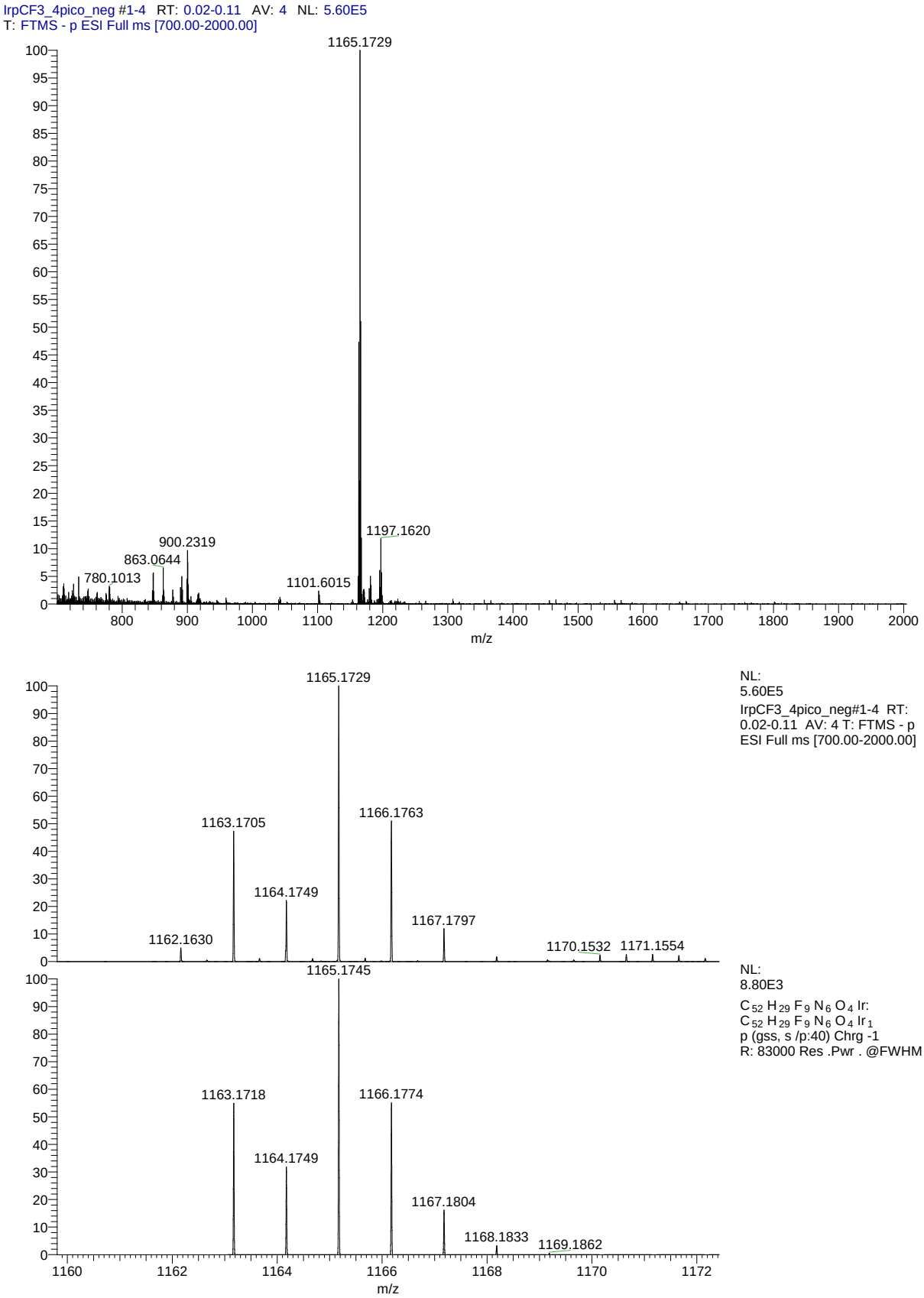


Figure 19. Electrospray ionization mass spectrum of Ir[T*p*CF_3PC]4pa_2.

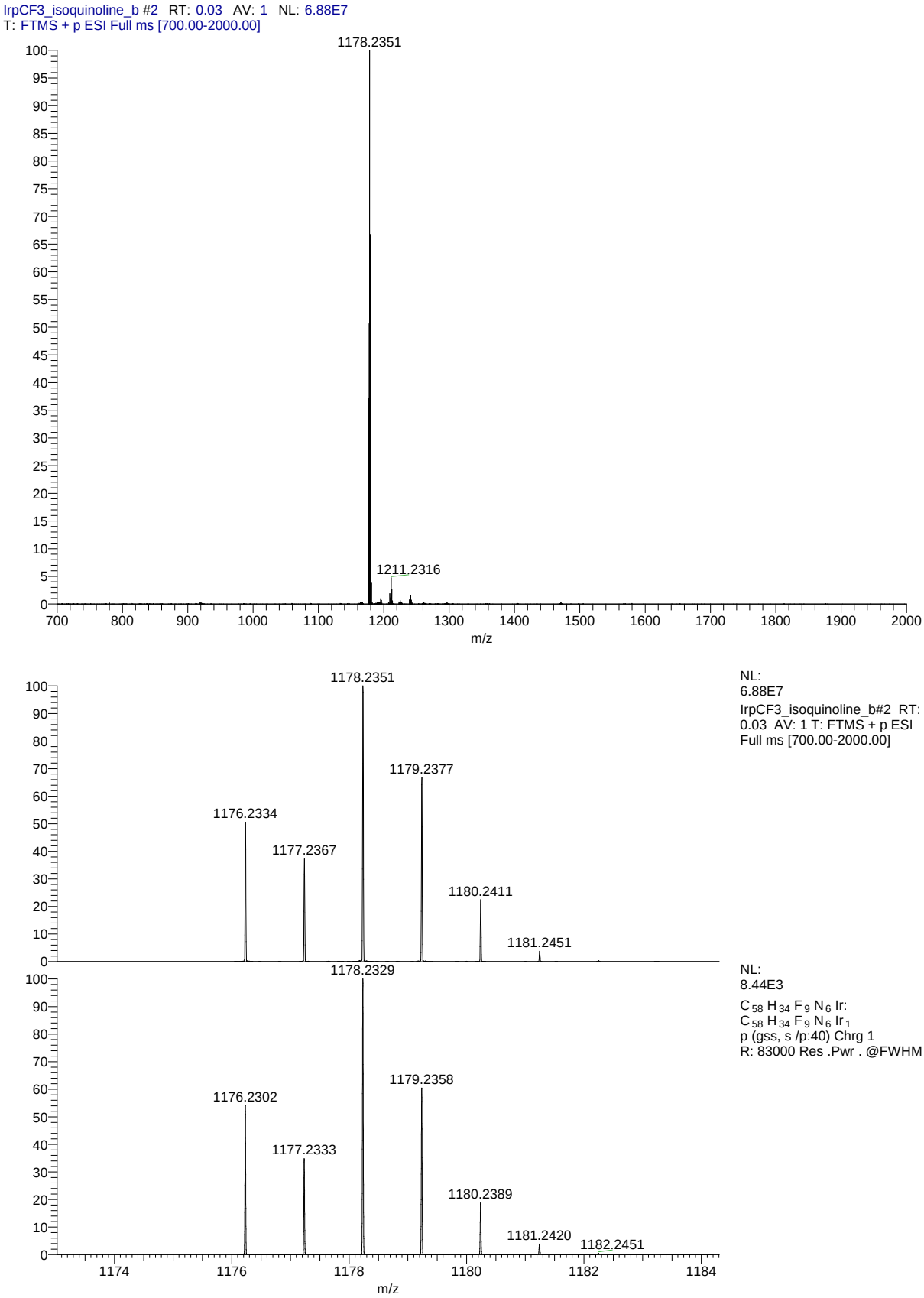


Figure 20. Electrospray ionization mass spectrum of Ir[T*p*CF_3PC]$isoq_2$.

C. ^{1}H NMR spectra

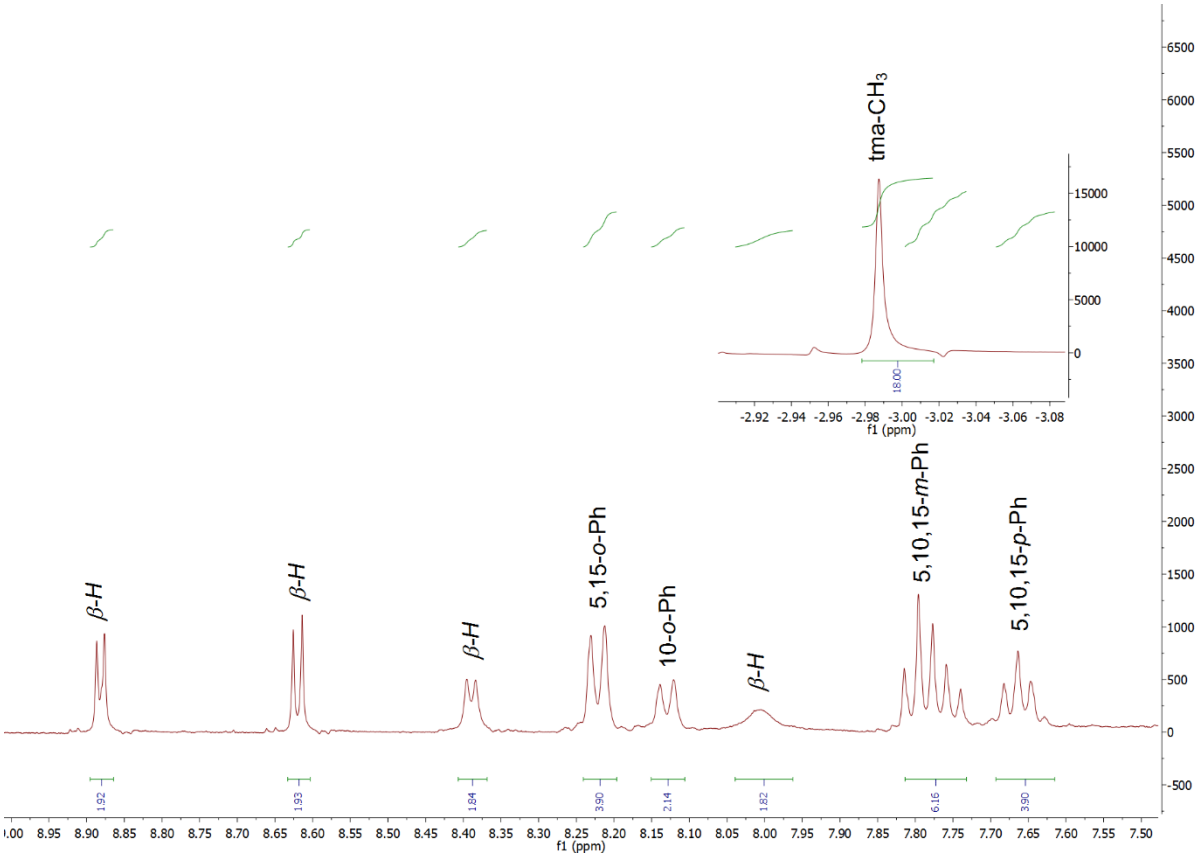
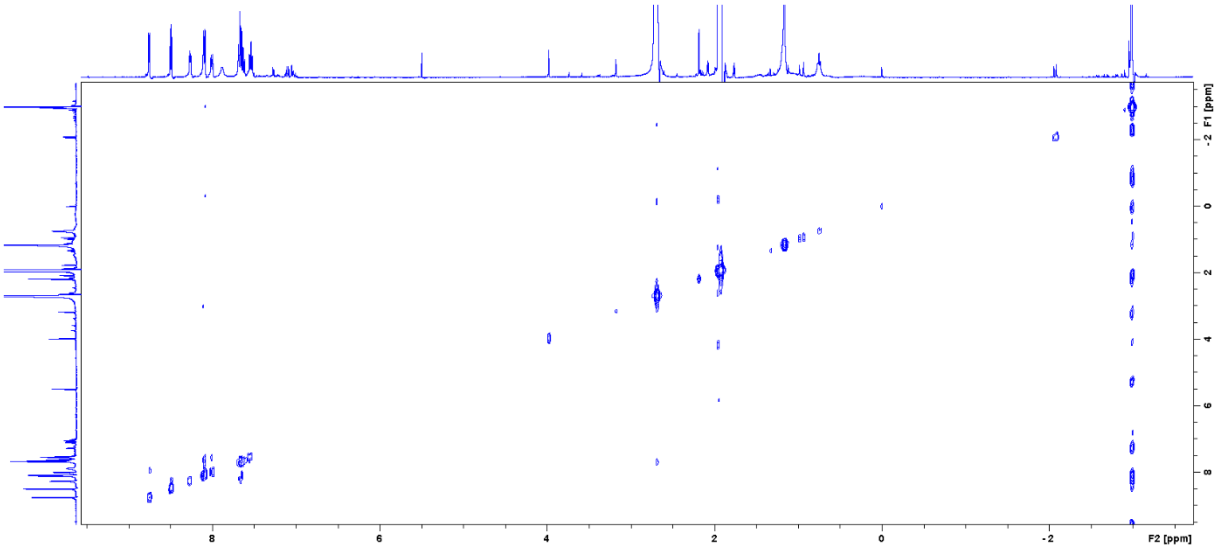


Figure 21. ^{1}H NMR spectrum of Ir[TPC]tma$_2$ in acetone-d_6.

(a)



(b)

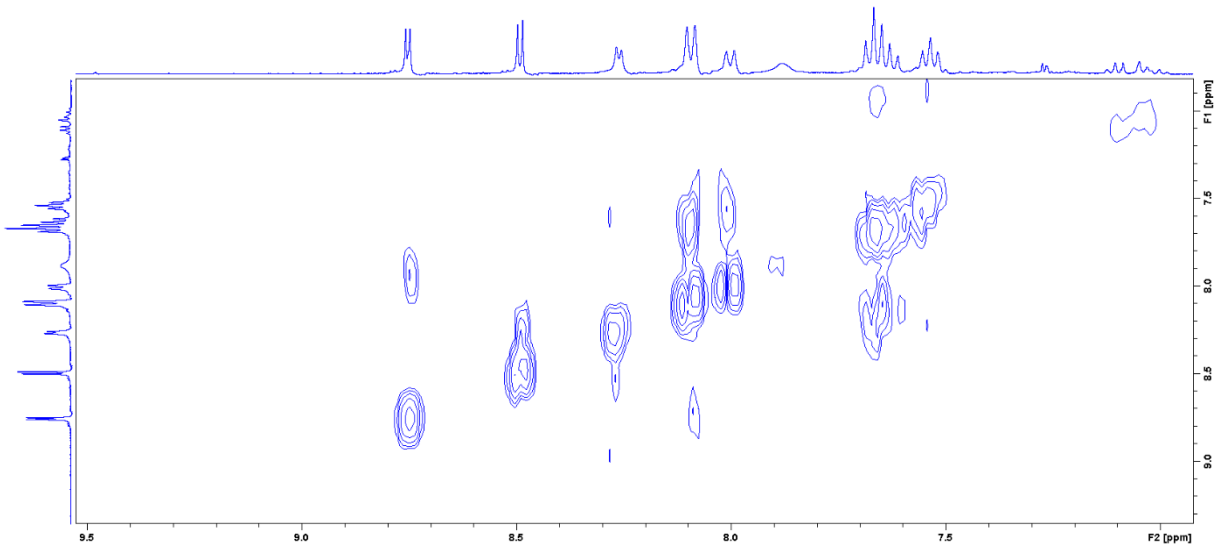


Figure 22. (a) COSY of Ir[TPC]tma$_2$ in acetone-d_6. **(b)** Close-up of aromatic area.

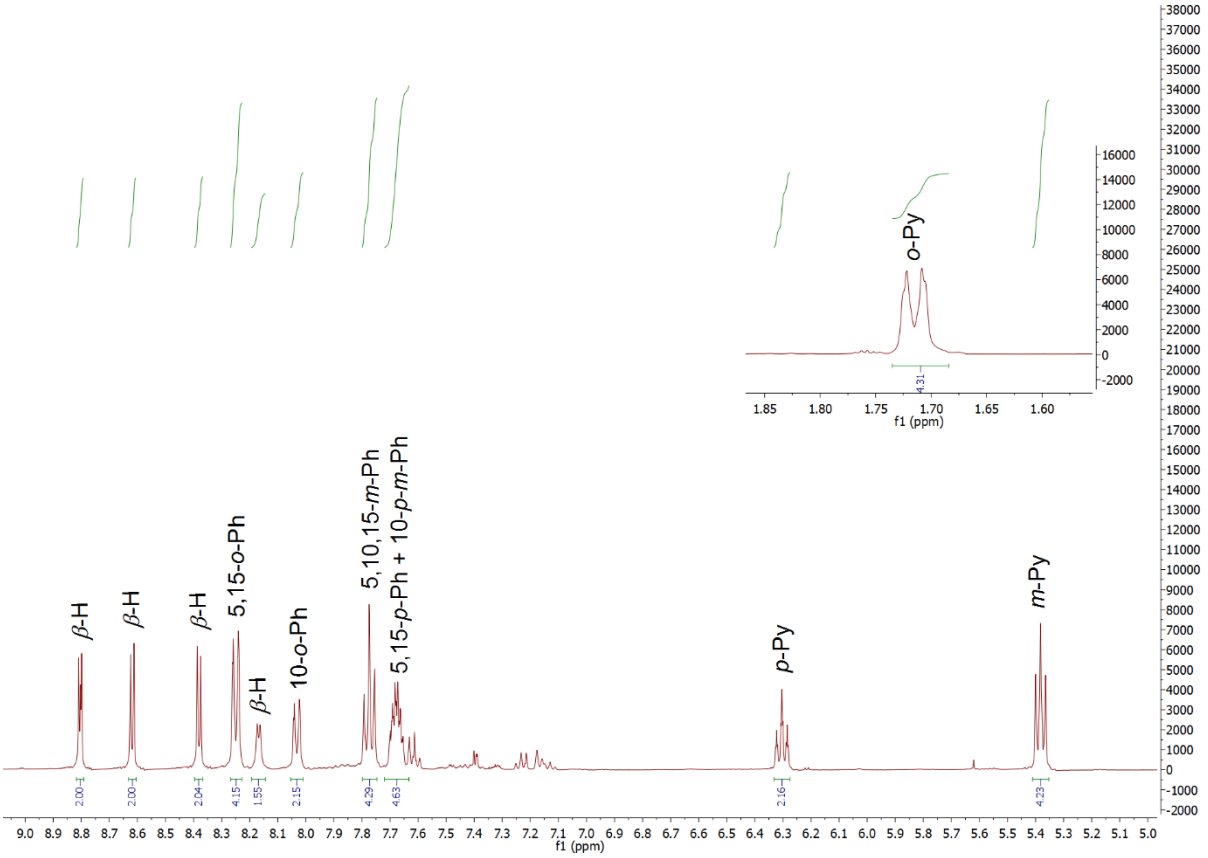
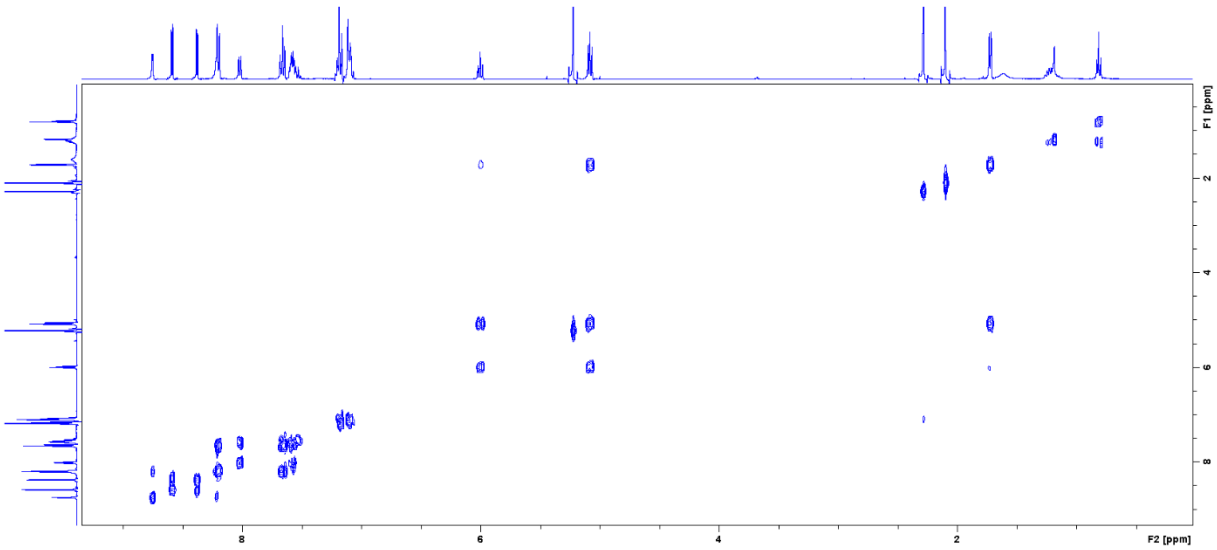


Figure 23. ^{1}H NMR spectrum of Ir[TPC]py$_2$ in acetone-d_6.

(a)



(b)

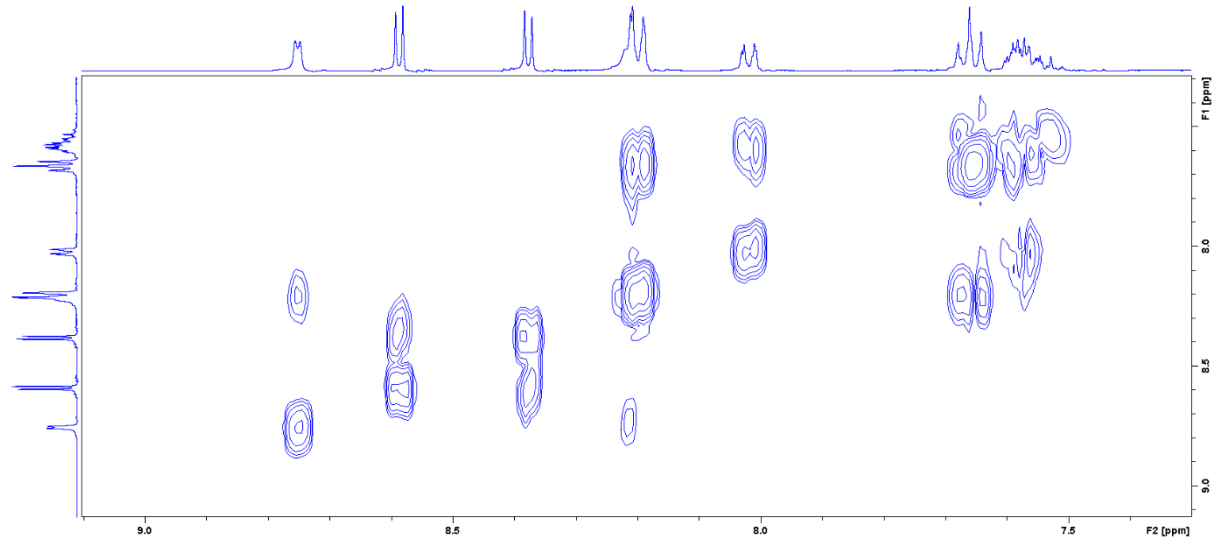


Figure 24. (a) COSY of Ir[TPC]py$_2$ in acetone-d_6. **(b)** Close-up of aromatic area.

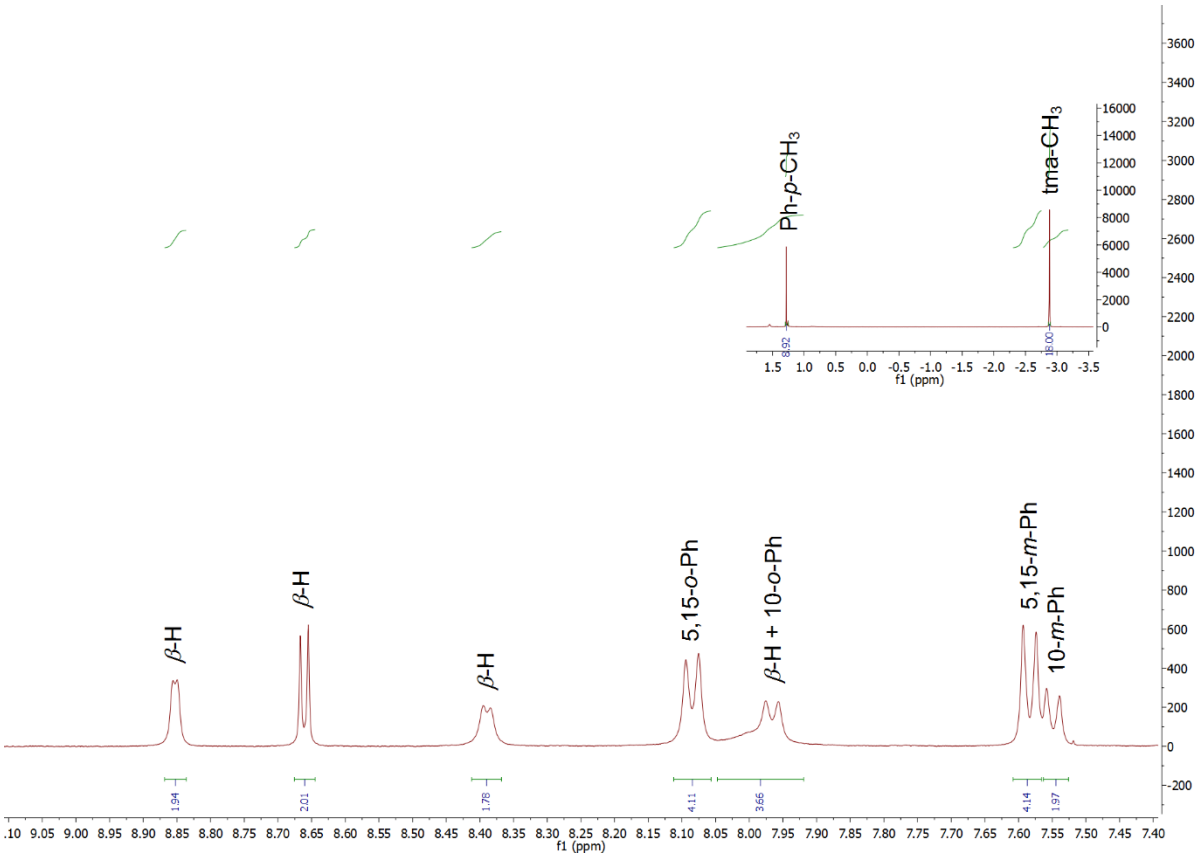
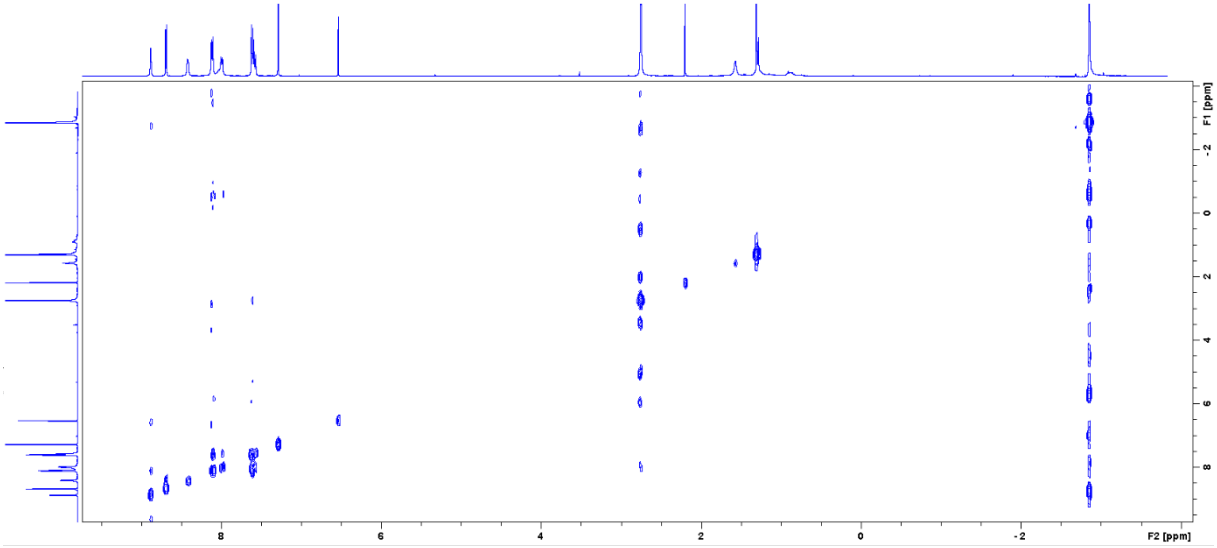


Figure 25. ^{1}H NMR spectrum of Ir[T*p*MePC]tma$_2$ in chloroform-*d*.

(a)



(b)

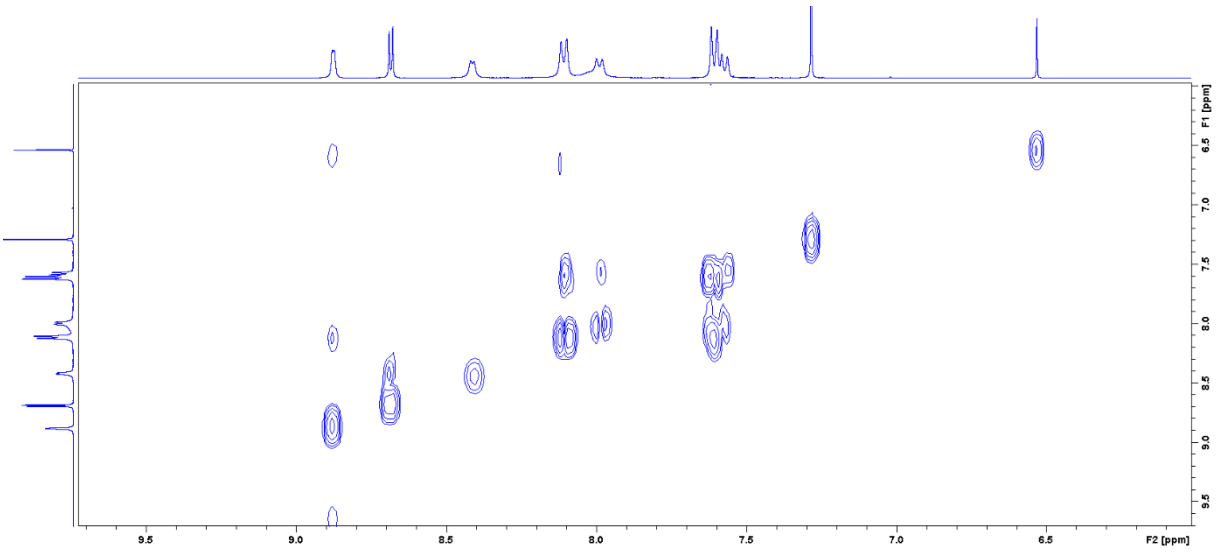


Figure 26. (a) COSY of Ir[T*p*MePC]tma$_2$ in chloroform-*d*. **(b)** Close-up of aromatic area.

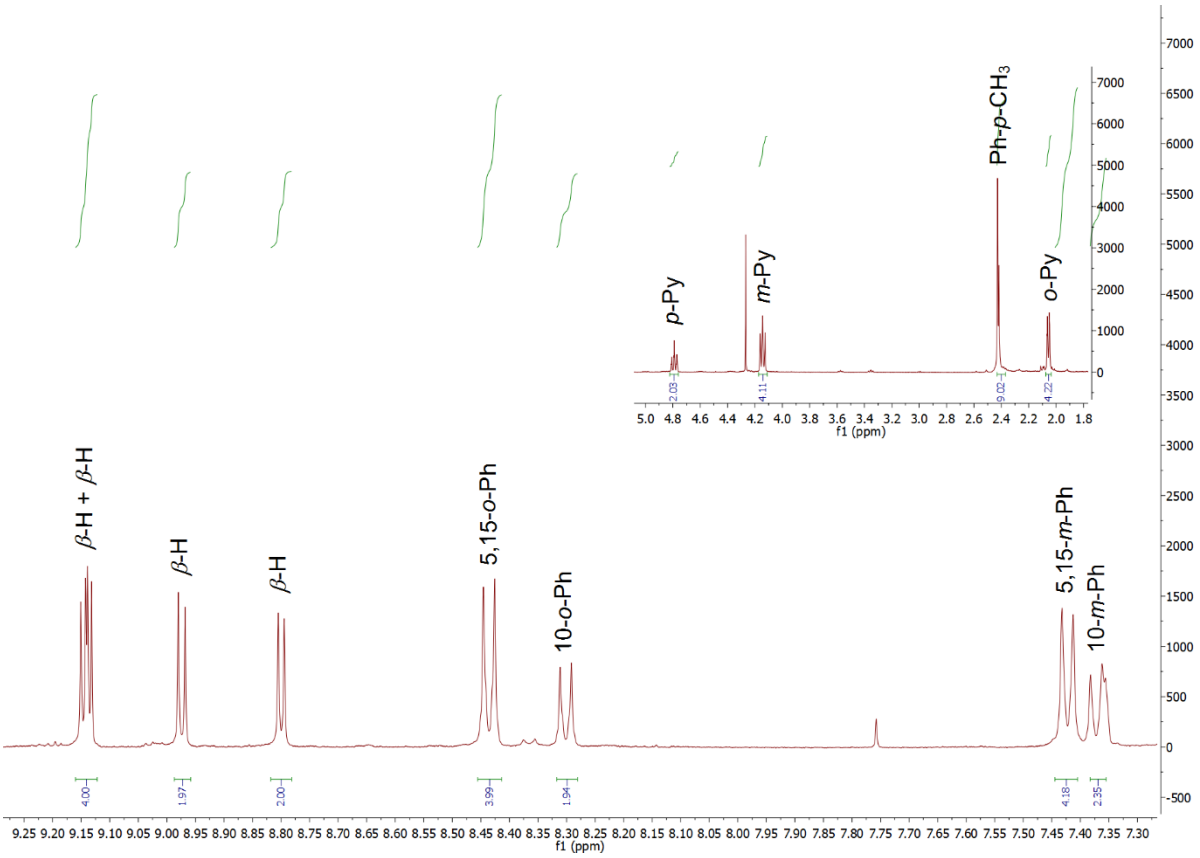
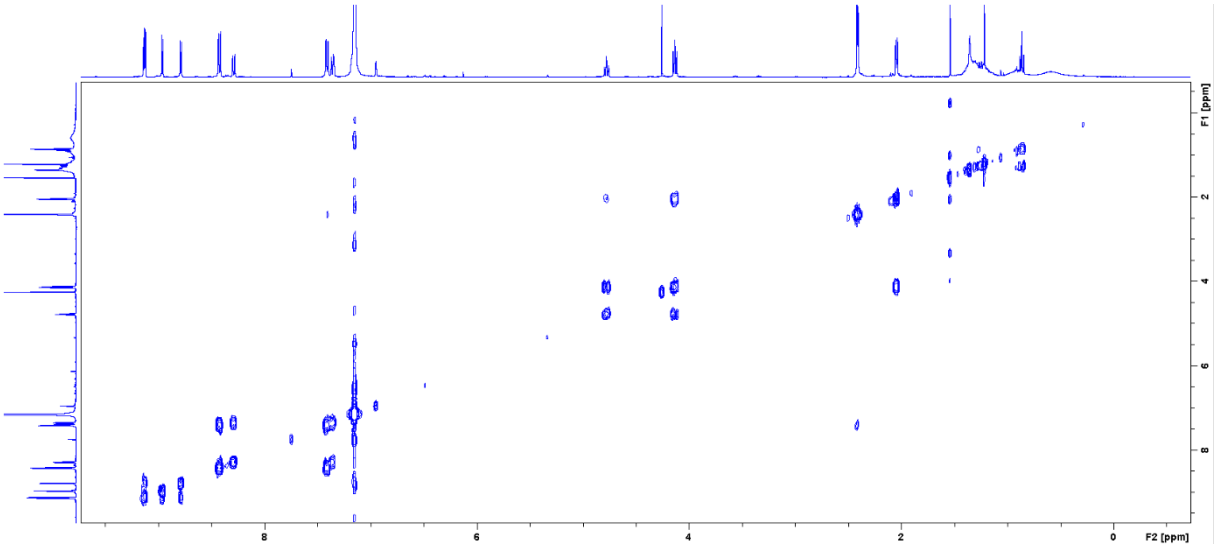


Figure 27. ^{1}H NMR spectrum of Ir[T*p*MePC]py$_2$ in benzene-d_6.

(a)



(b)

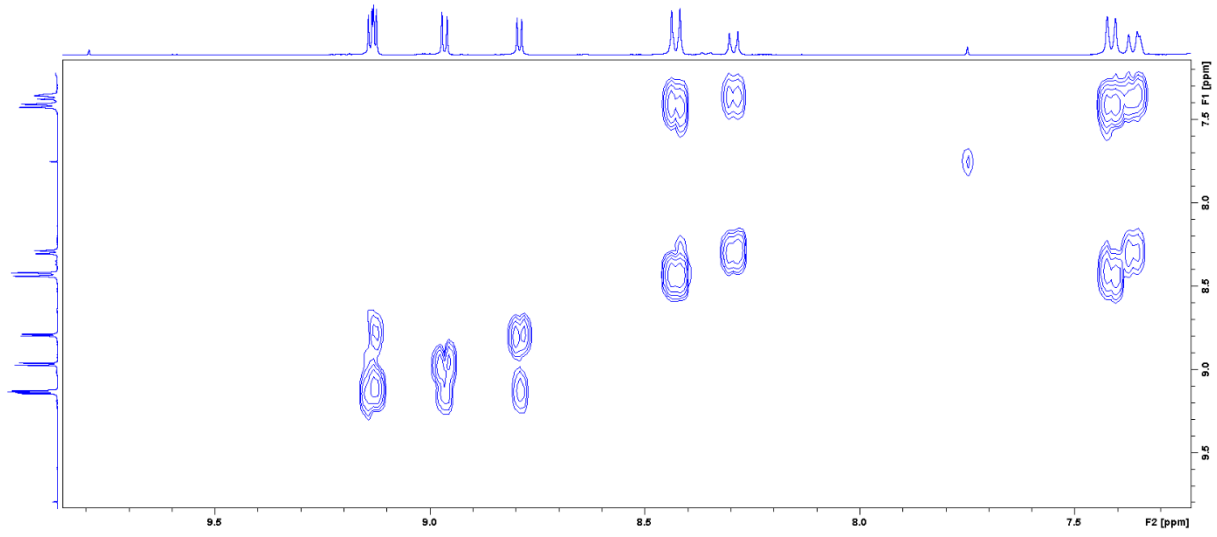


Figure 28. (a) COSY of Ir[T*p*MePC]py$_2$ in benzene-d_6. **(b)** Close-up of aromatic area.

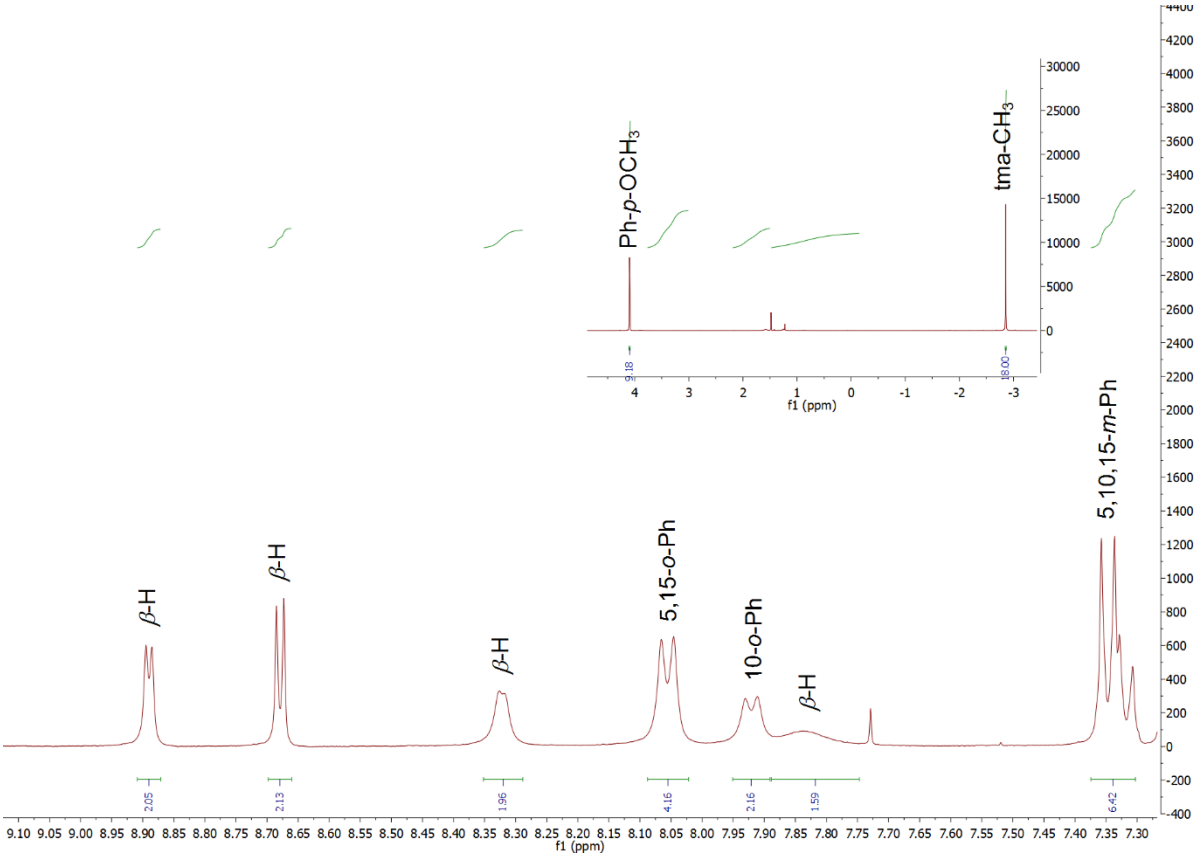
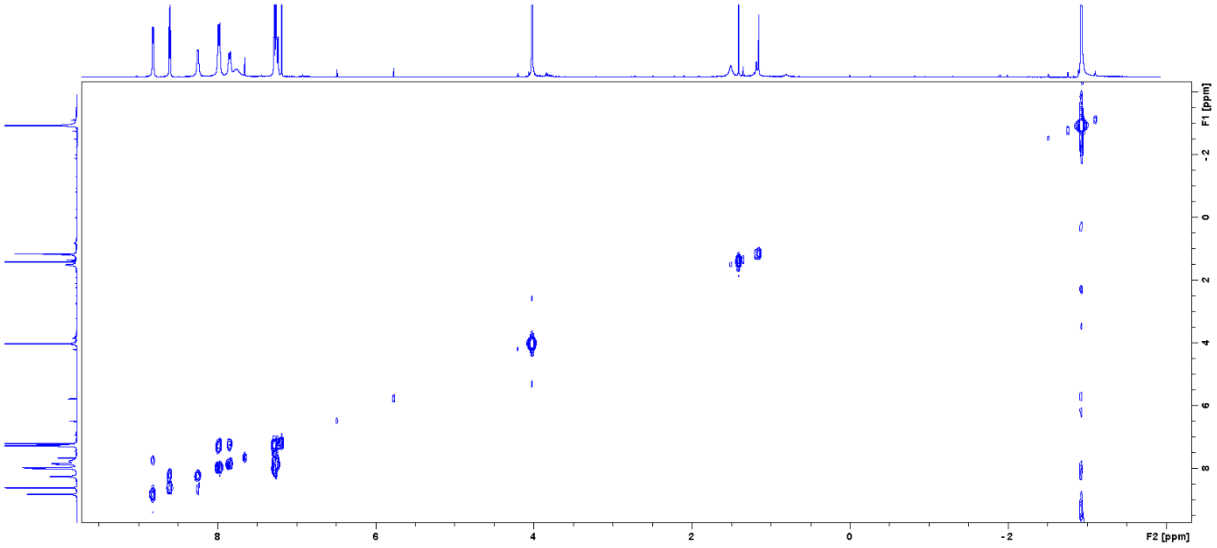


Figure 29. ^{1}H NMR spectrum of Ir[T*p*OMePC]tma$_2$ in chloroform-*d*.

(a)



(b)

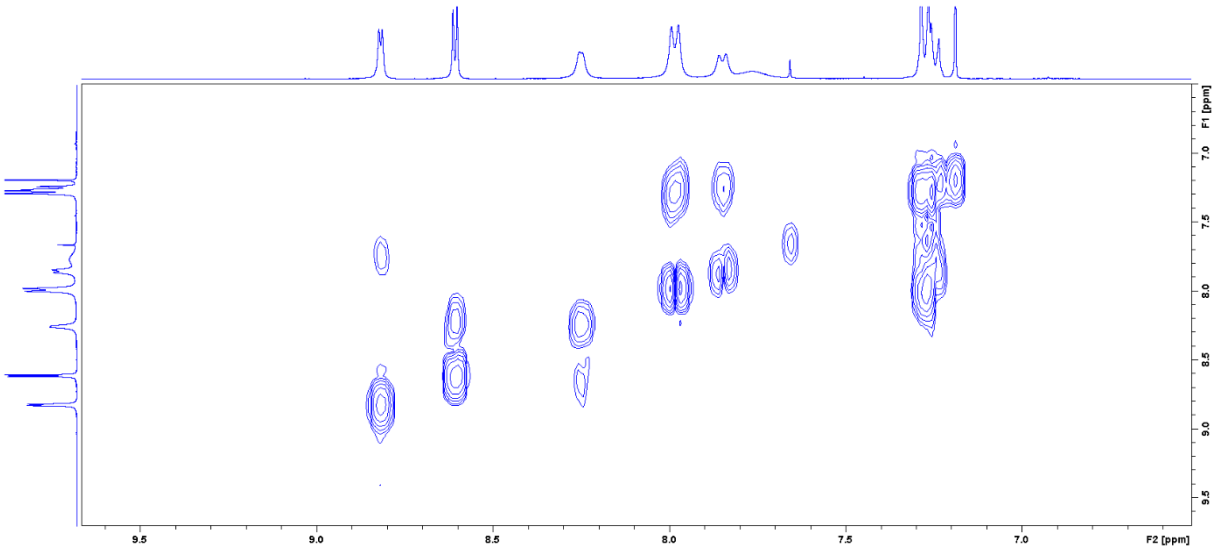


Figure 30. (a) COSY of Ir[T*p*OMePC]tma$_2$ in chloroform-*d*. **(b)** Close-up of aromatic area.

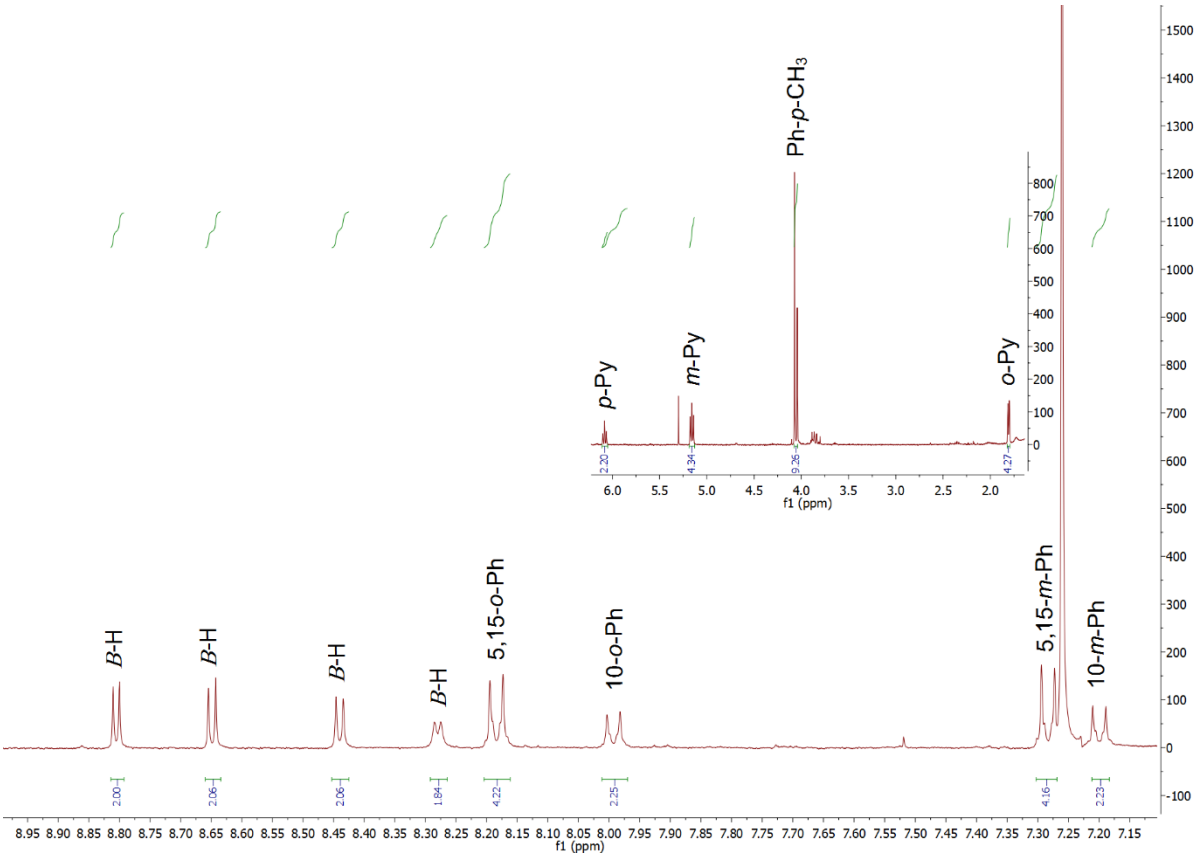
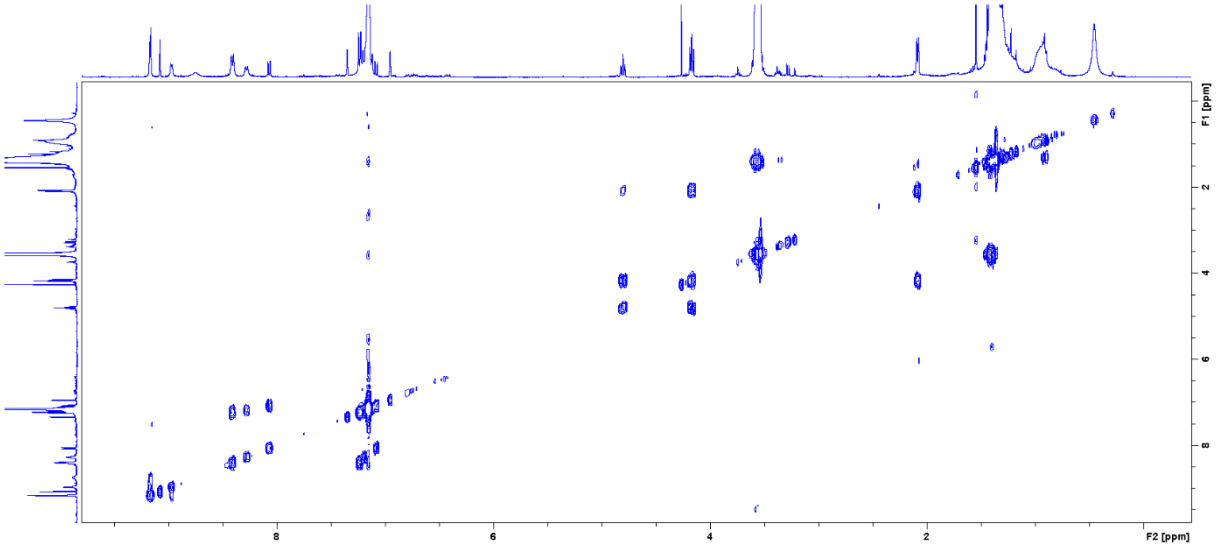


Figure 31. ^{1}H NMR spectrum of Ir[T*p*OMePC]py$_2$ in benzene-d_6.

(a)



(b)

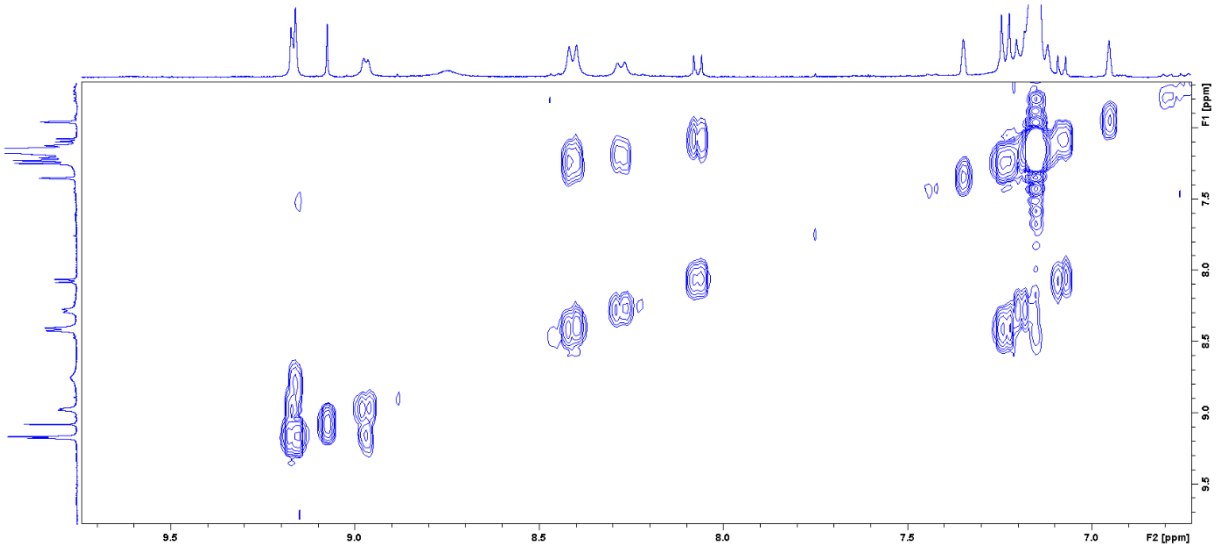


Figure 32. (a) COSY of Ir[T*p*OMePC]py$_2$ in benzene-d_6. **(b)** Close-up of aromatic area.

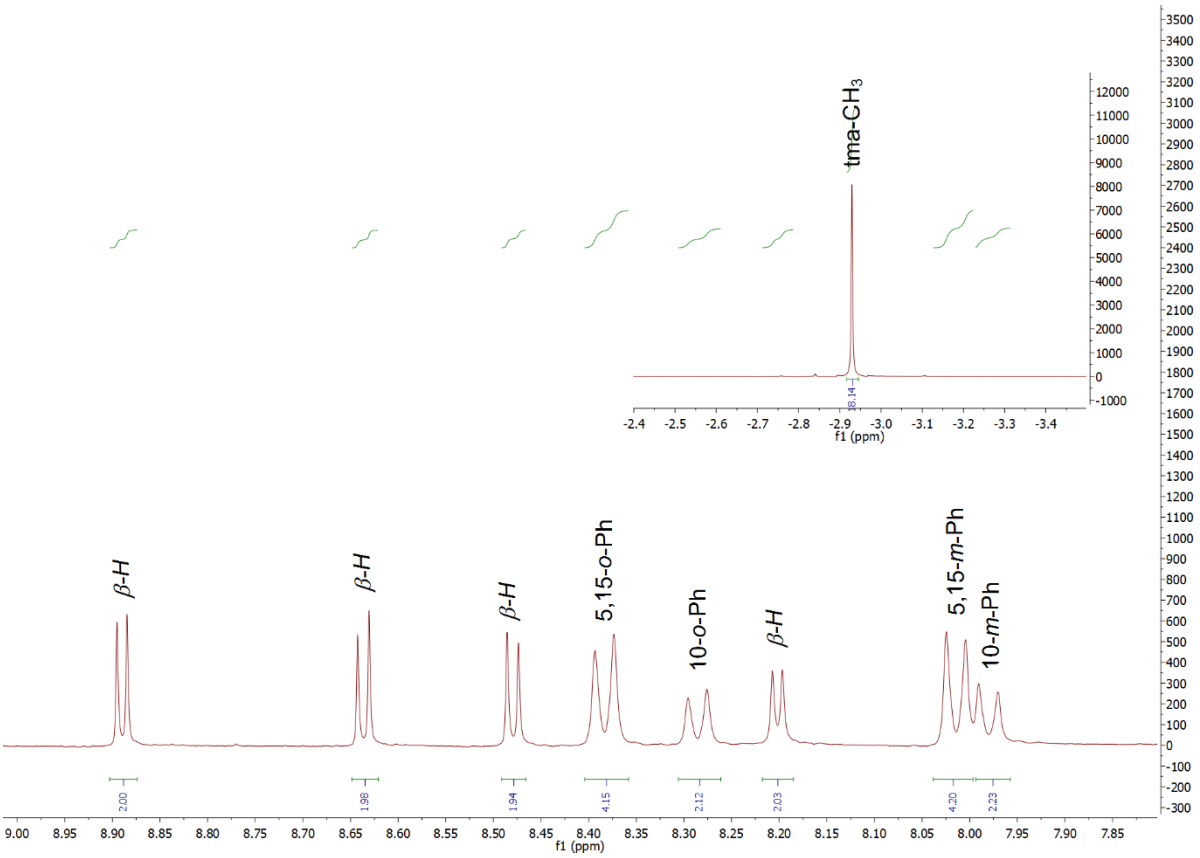
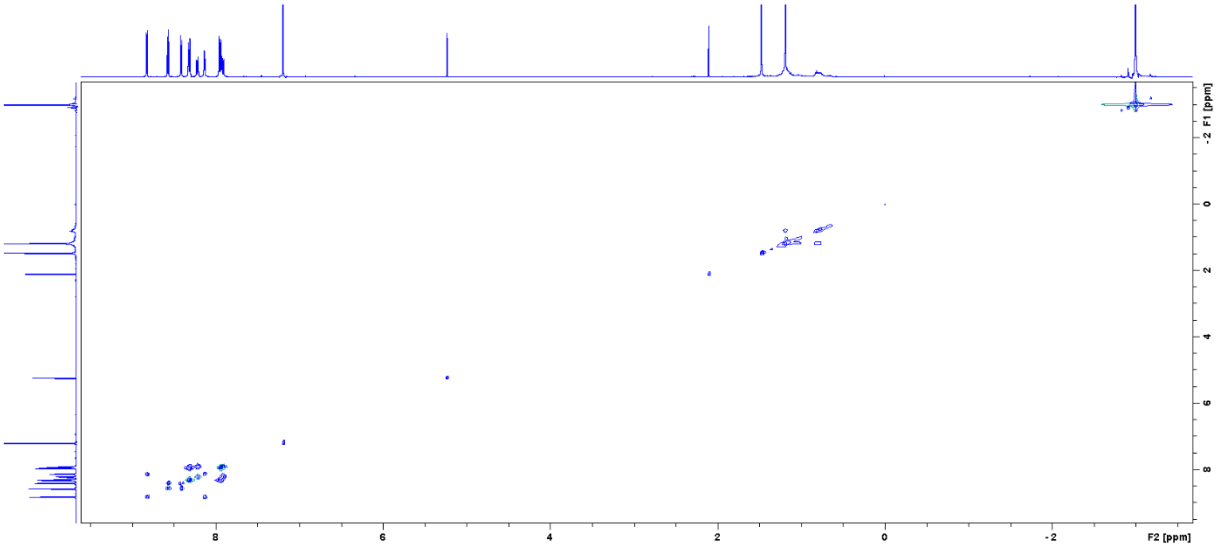


Figure 33. ^{1}H NMR spectrum of Ir[T*p*CF$_3$PC]tma$_2$ in chloroform-*d*.

(a)



(b)

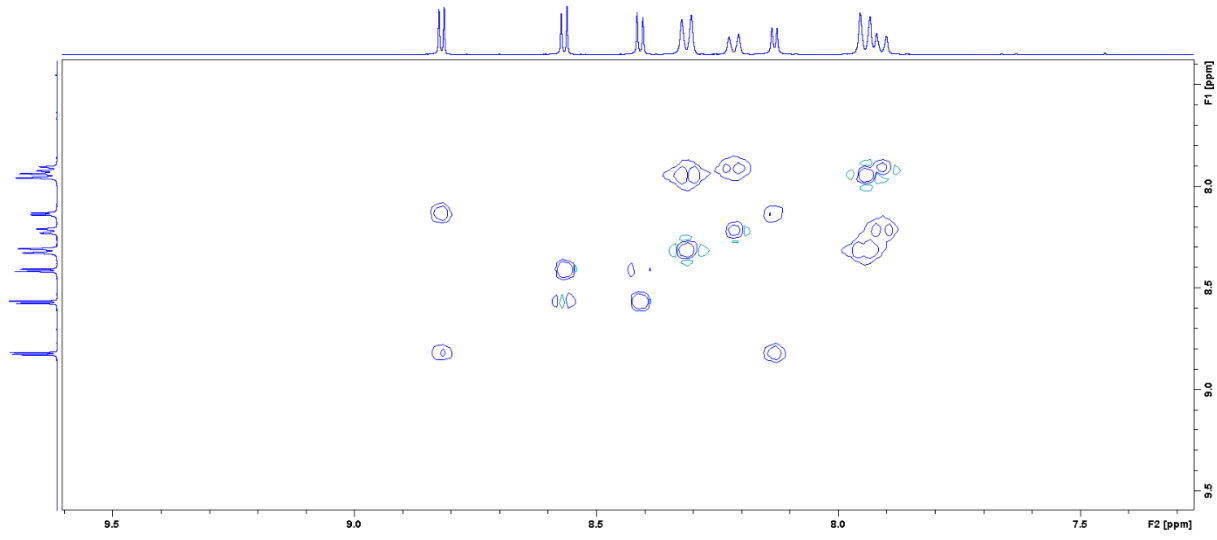


Figure 34. (a) COSY of Ir[T*p*CF$_3$PC]tma$_2$ in chloroform-*d*. **(b)** Close-up of aromatic area.

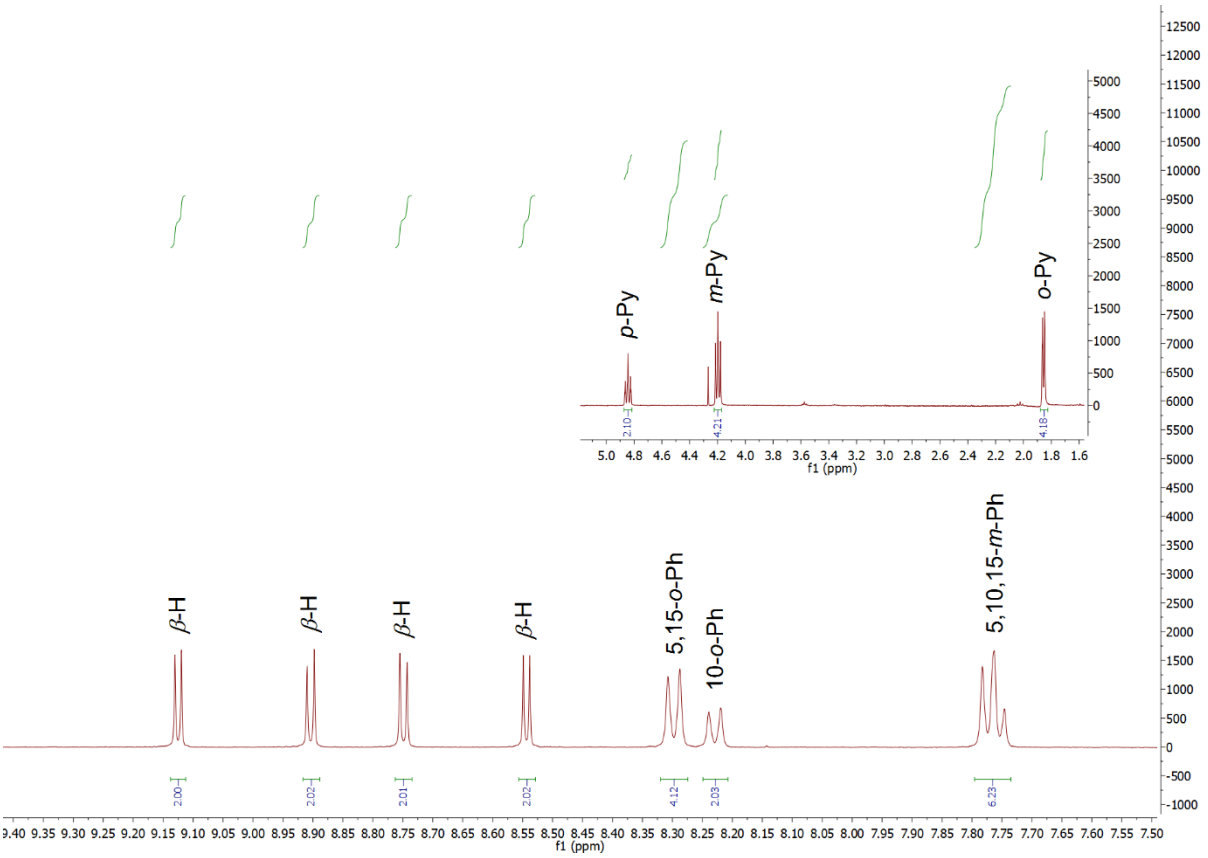
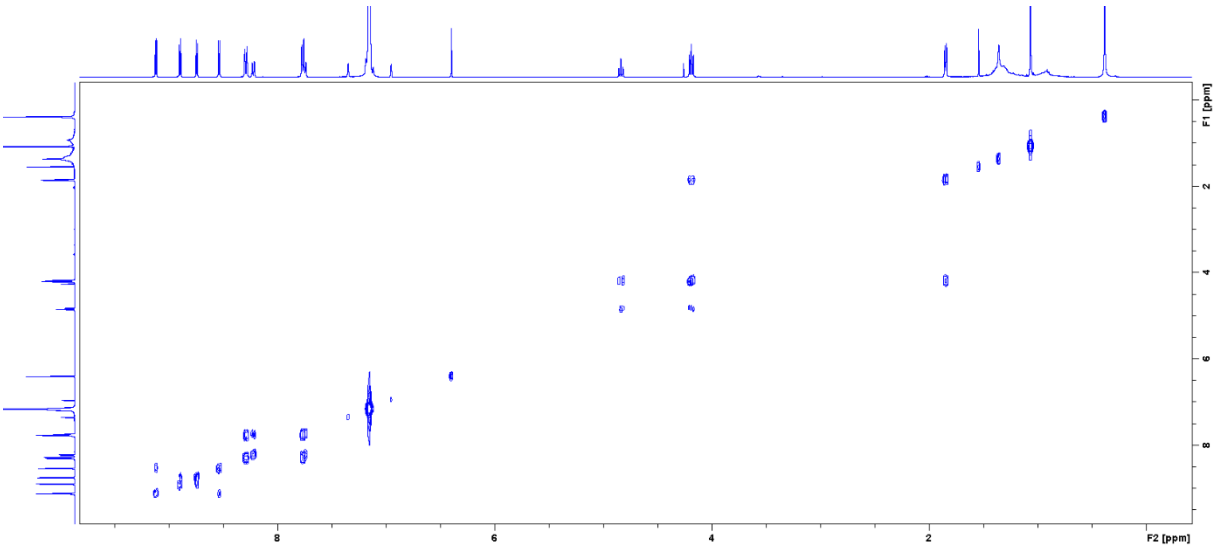


Figure 35. ^{1}H NMR spectrum of Ir[T*p*CF$_3$PC]py$_2$ in benzene-d_6.

(a)



(b)

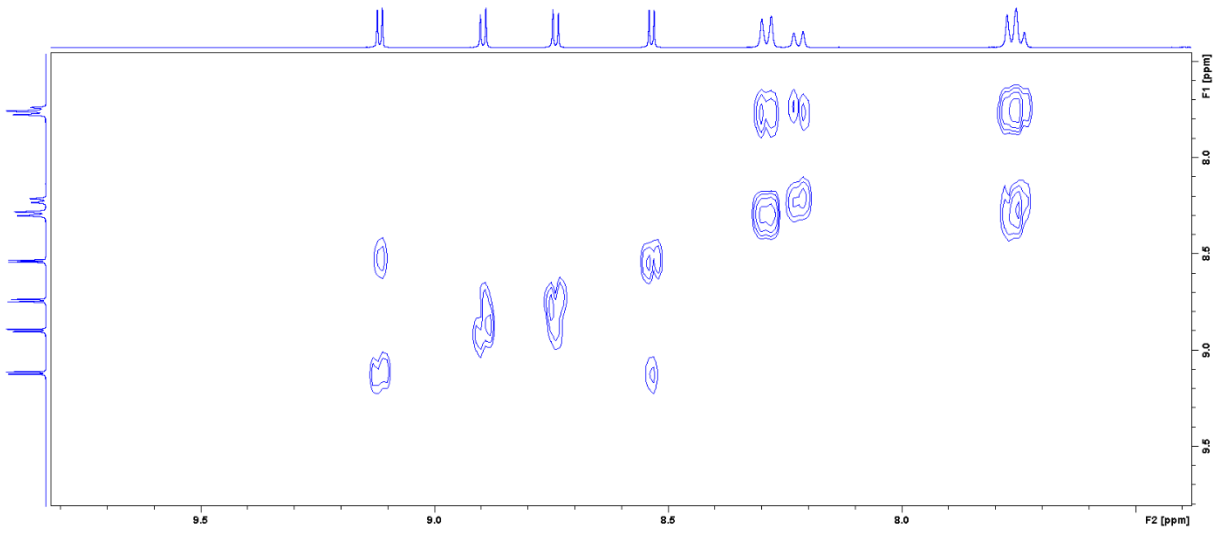


Figure 36. (a) COSY of Ir[T*p*CF$_3$PC]py$_2$ in benzene-d_6. **(b)** Close-up of aromatic area.

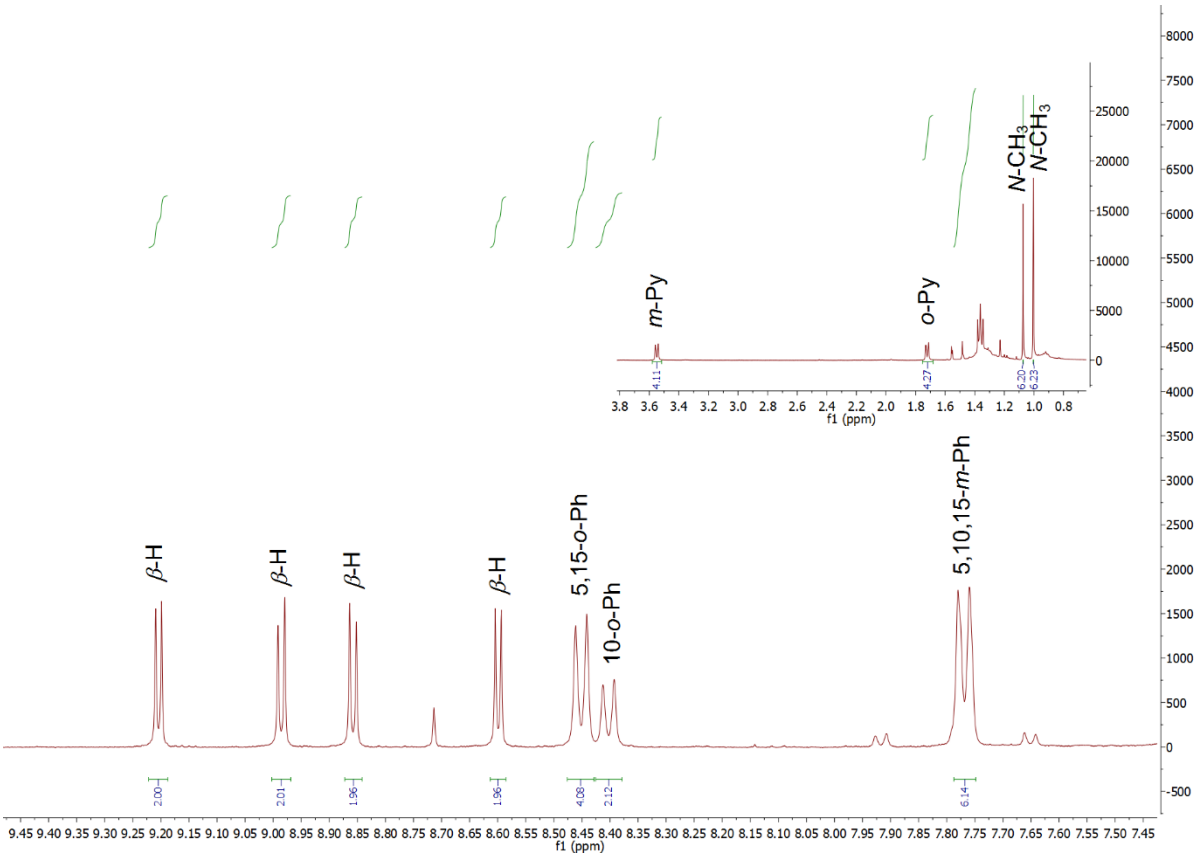
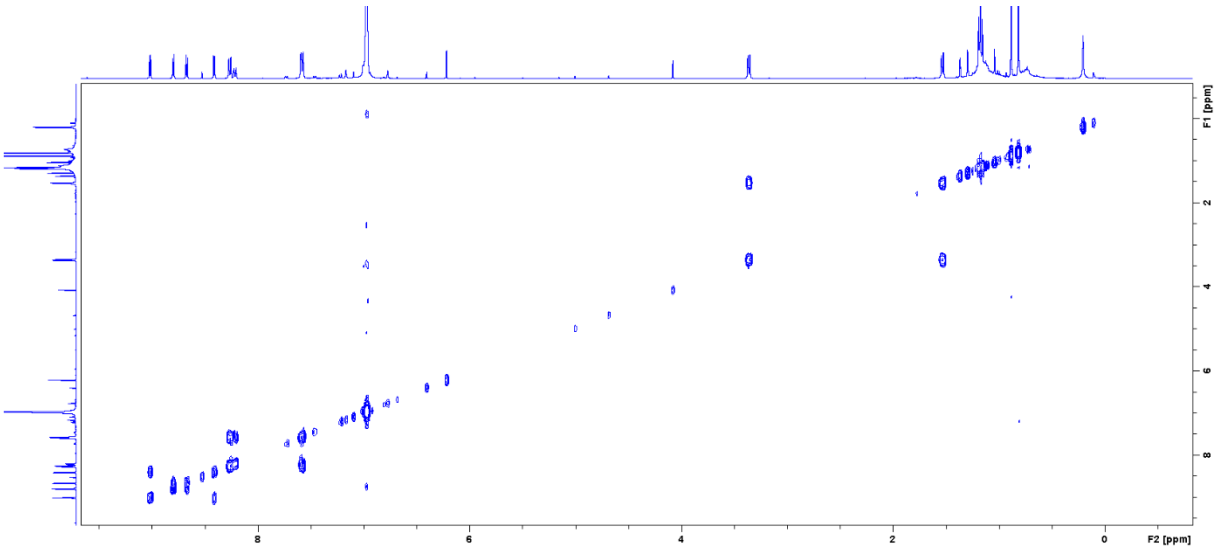


Figure 37. ^{1}H NMR spectrum of Ir[T*p*CF$_3$PC]dmap$_2$ in benzene-d_6.

(a)



(b)

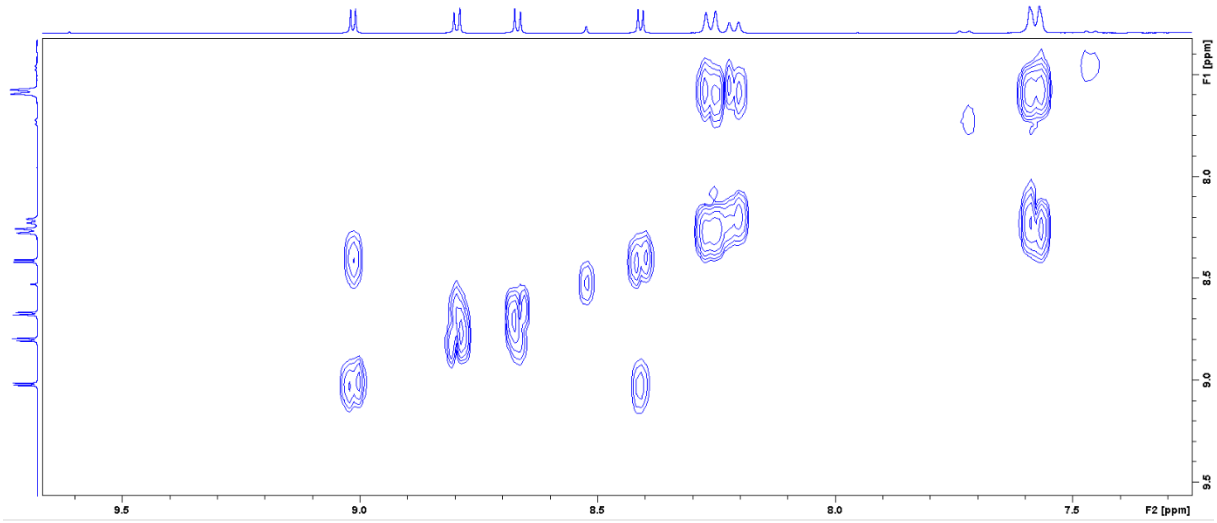


Figure 38. (a) COSY of Ir[T*p*CF$_3$PC]dmap$_2$ in benzene-d_6. **(b)** Close-up of aromatic area.

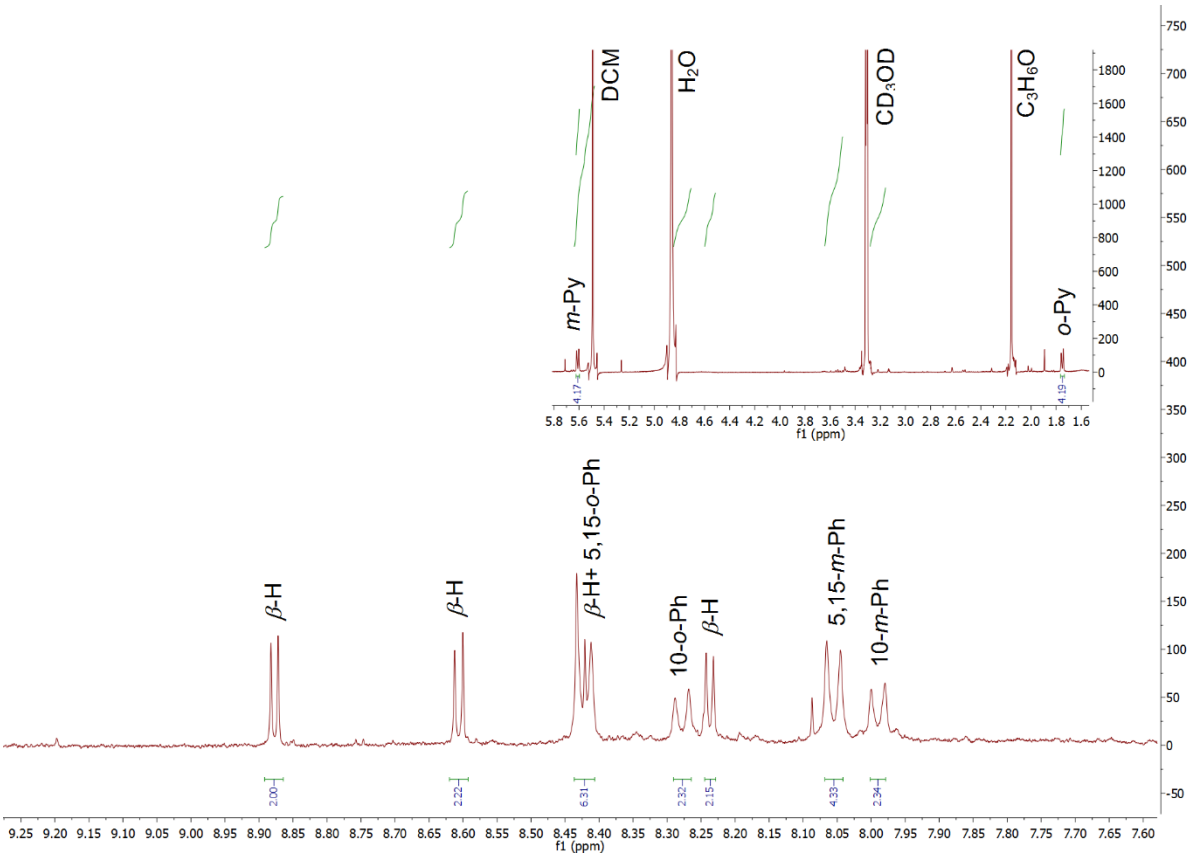
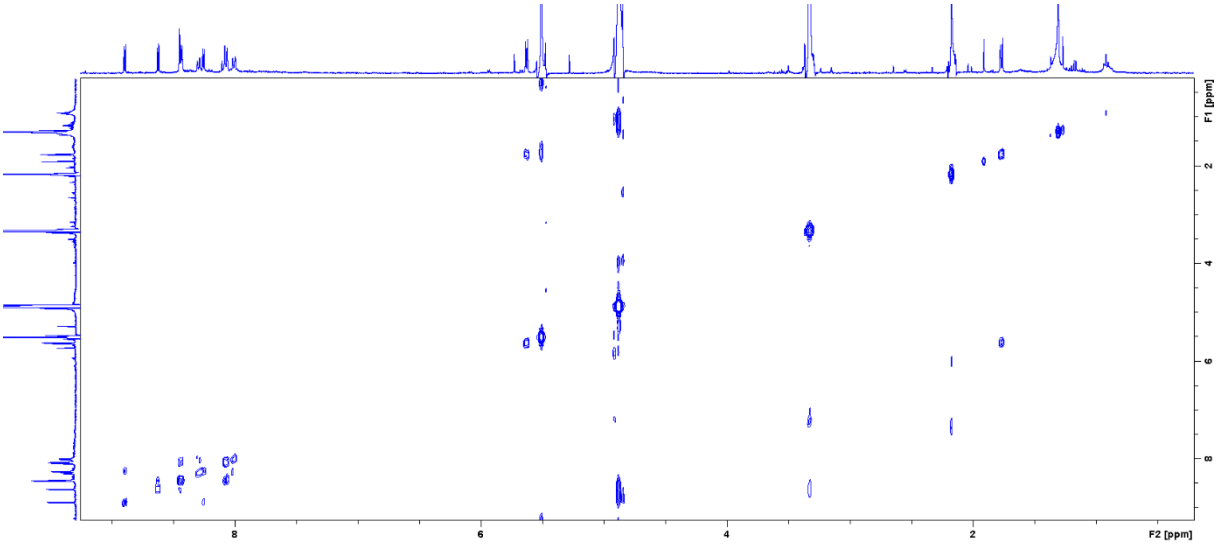


Figure 39. ^{1}H NMR spectrum of Ir[T*p*CF$_3$PC]4pa$_2$ in methanol-d_4.

(a)



(b)

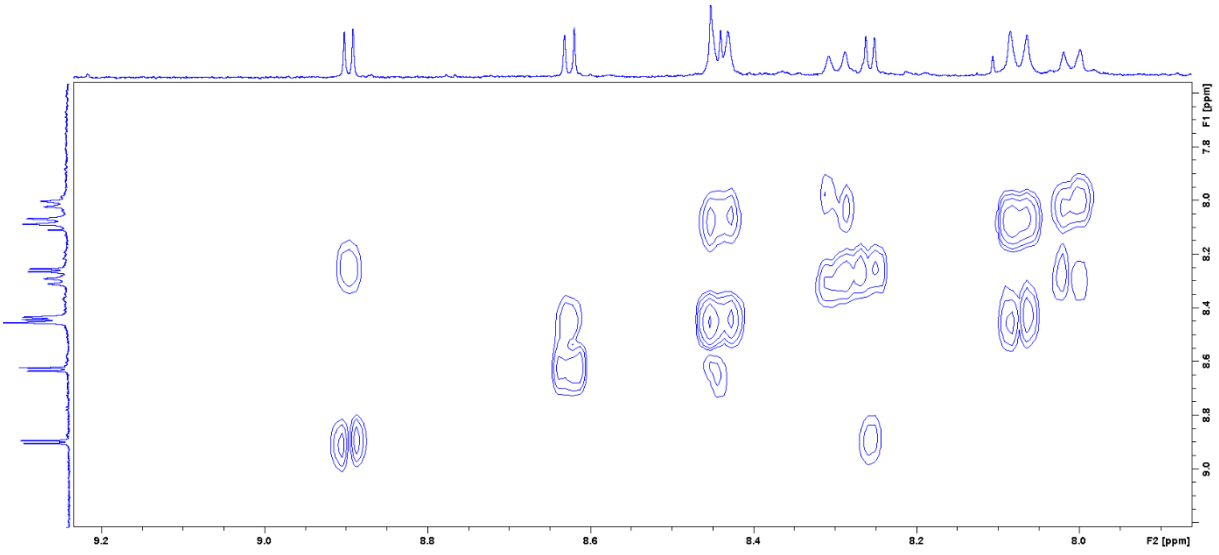


Figure 40. (a) COSY of Ir[T*p*CF$_3$PC]4pa$_2$ in methanol-d_4. **(b)** Close-up of aromatic area.

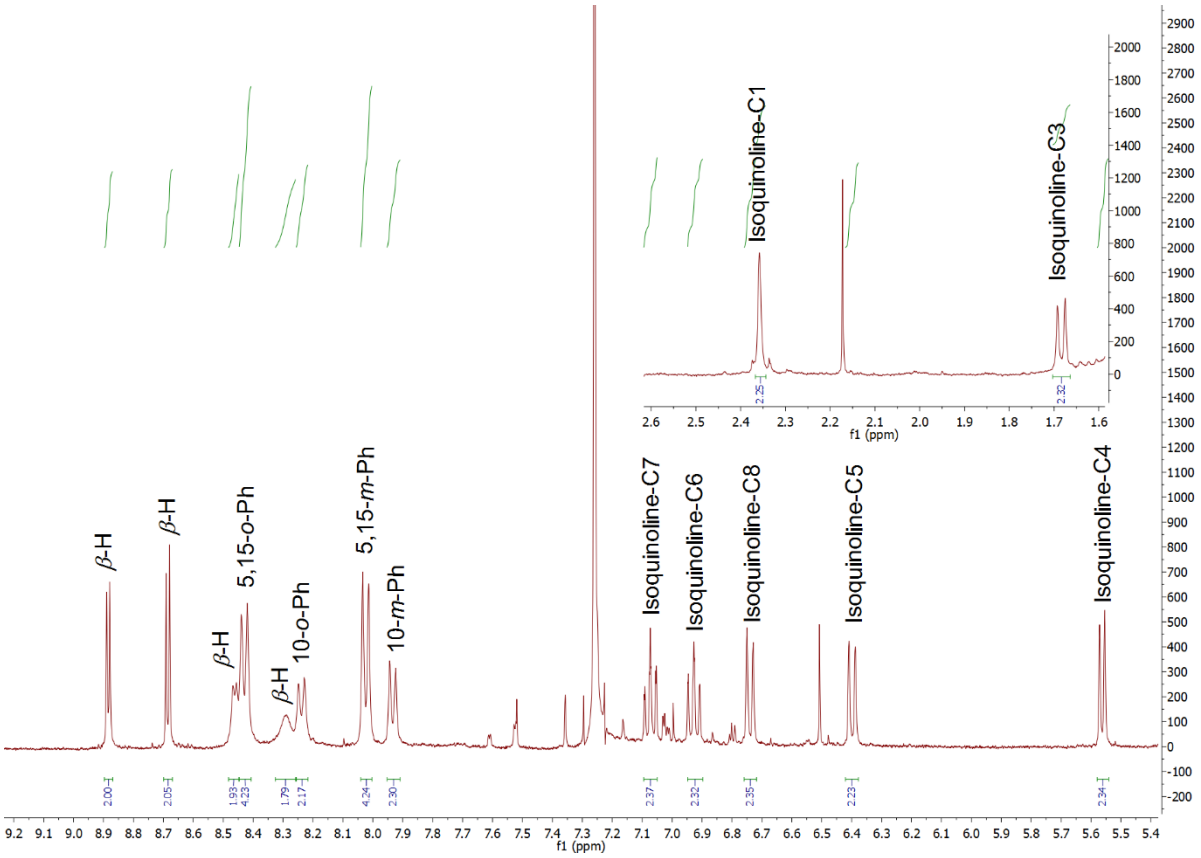
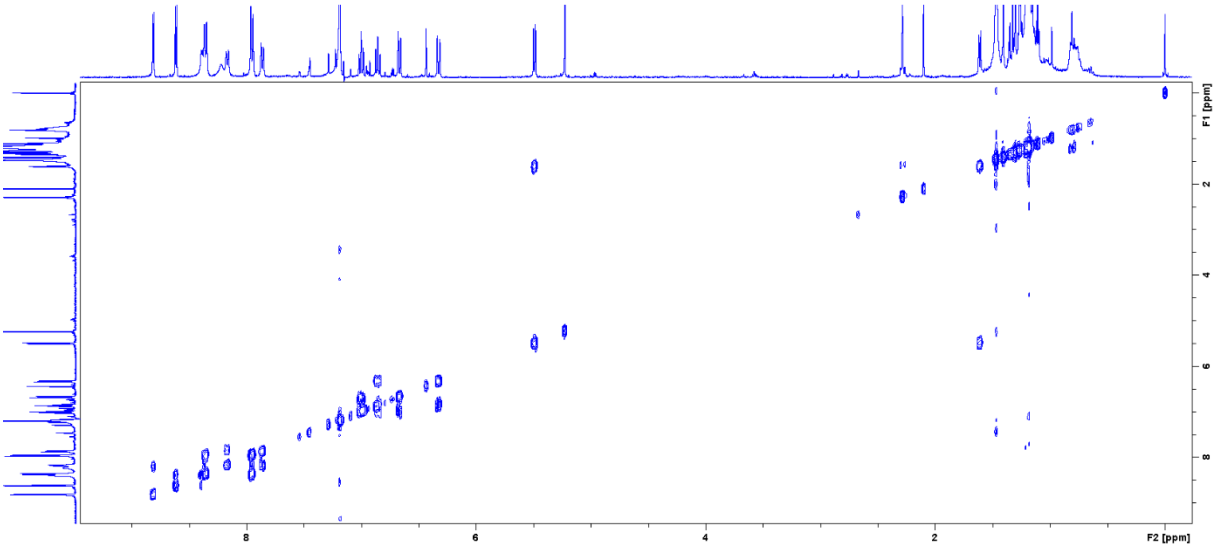


Figure 41. ^{1}H NMR spectrum of Ir[T*p*CF$_3$PC]isoq$_2$ in chloroform-*d*.

(a)



(b)

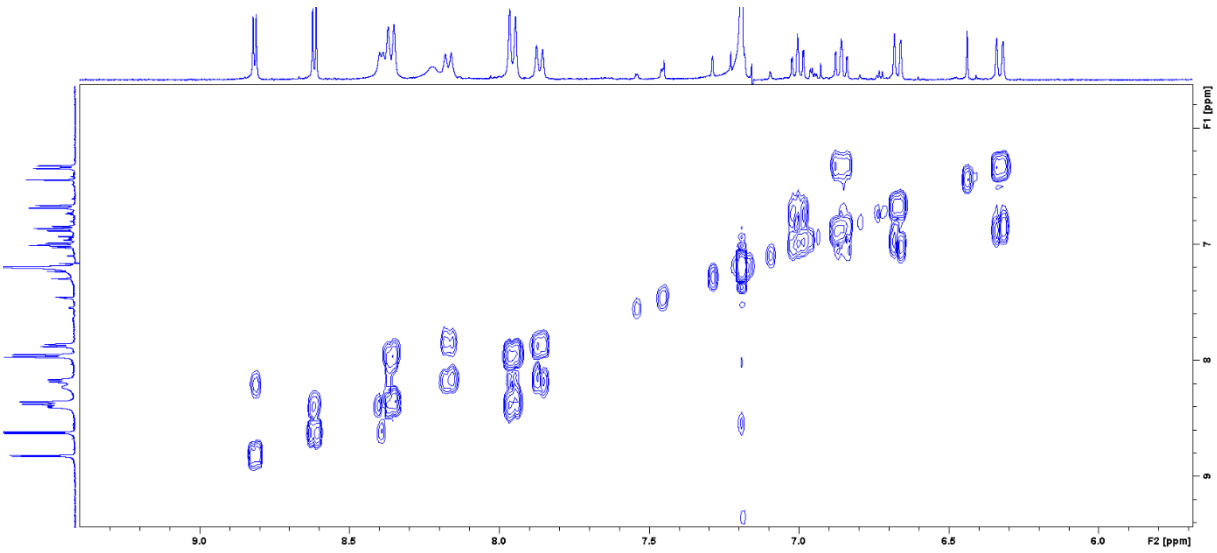


Figure 42. (a) COSY of Ir[T*p*CF$_3$PC]isoq$_2$ in chloroform-*d*. **(b)** Close-up of aromatic area.