

Electronic Supplementary Material (ESI) for RSC Advances.
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Supporting Information

One-pot syntheses of *N*-(α -fluorovinyl)azole derivatives from *N*-(diphenylmethylene)-2,2,2-trifluoroethanamine

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^1H NMR, ^{19}F NMR and ^{13}C NMR Spectra of Products

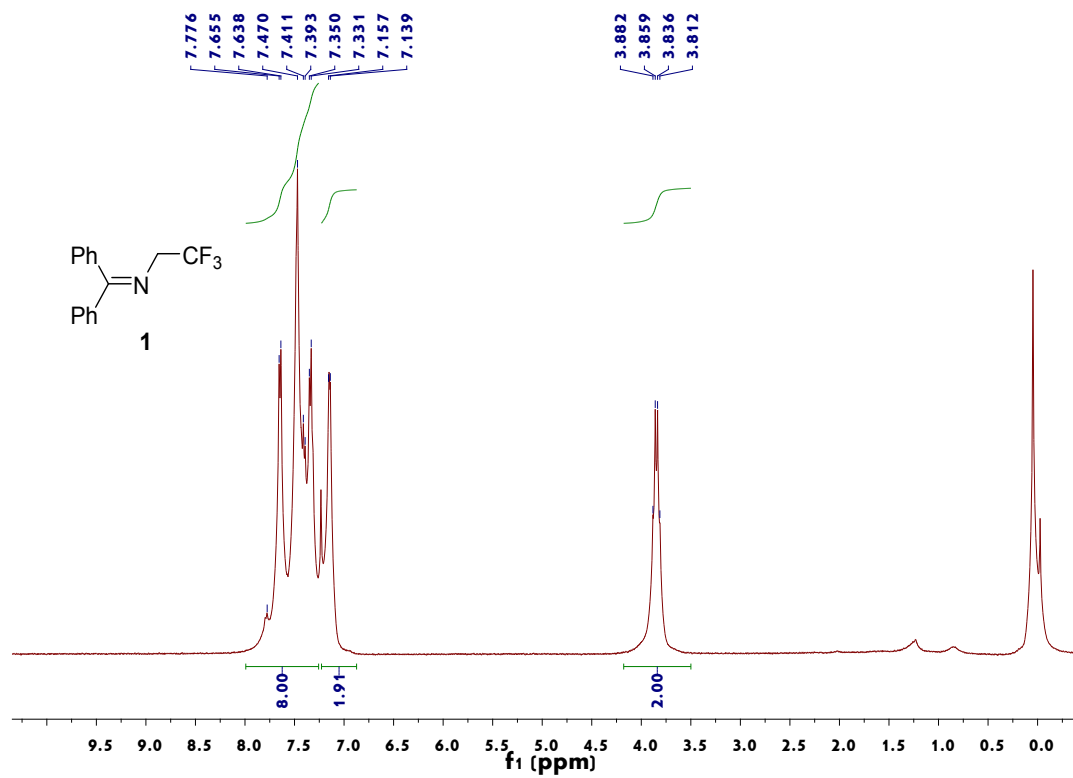


Figure 1. ^1H NMR spectrum of **1**

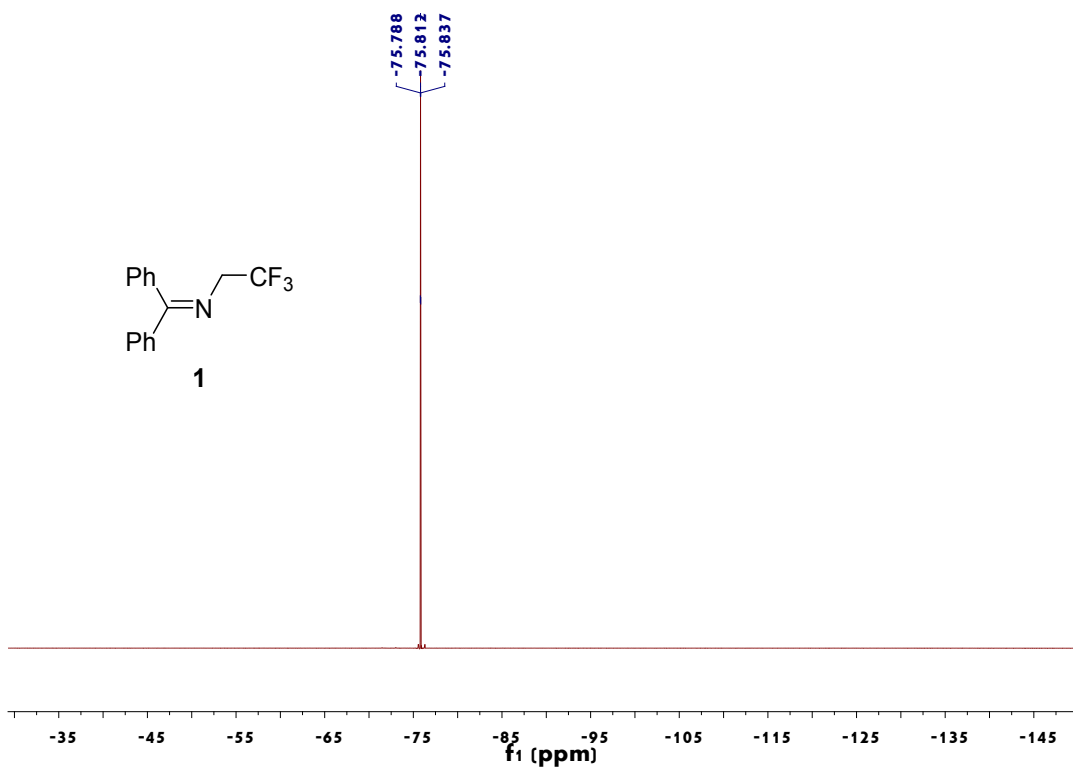


Figure 2. ^{19}F NMR spectrum of **1**

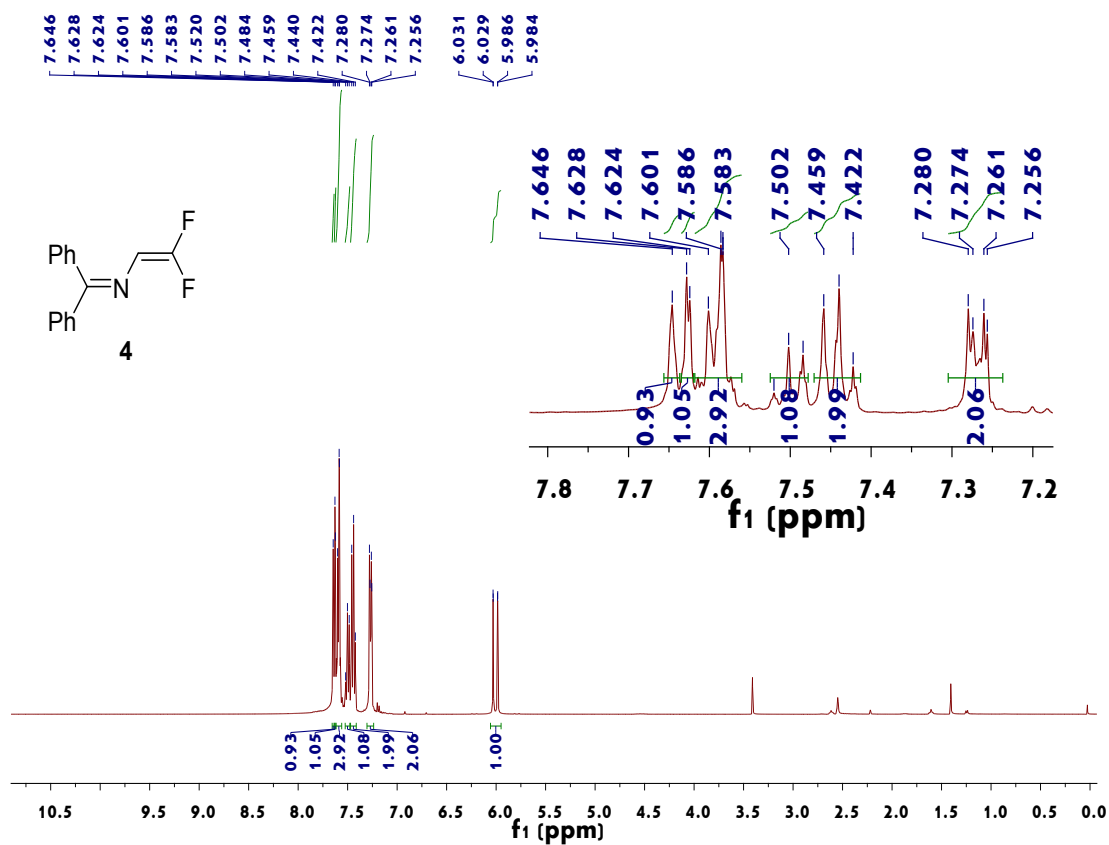


Figure 3. ¹H NMR spectrum of **4**

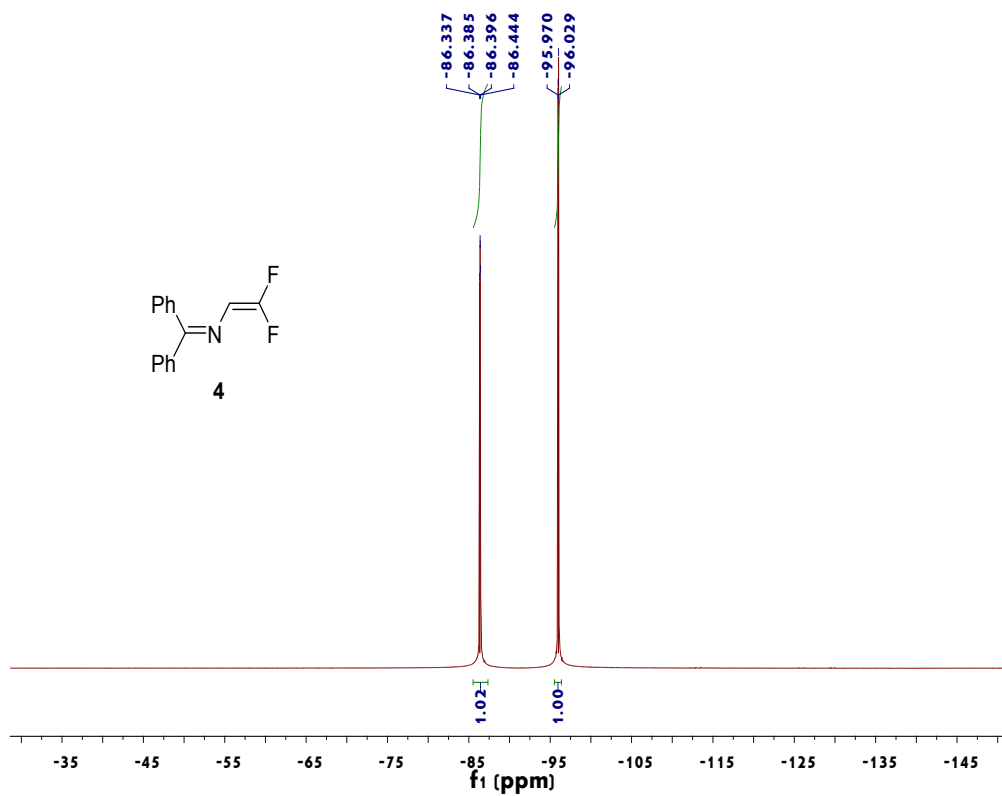


Figure 4. ¹⁹F NMR spectrum of **4**

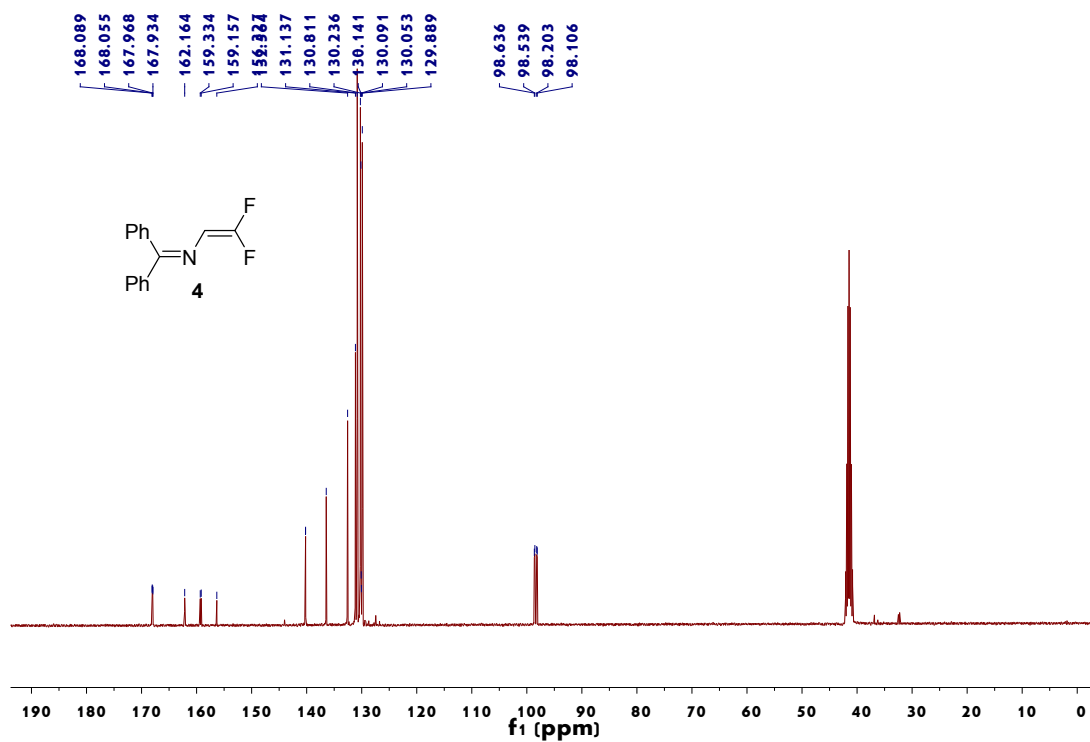


Figure 5. ¹³C NMR spectrum of **4**

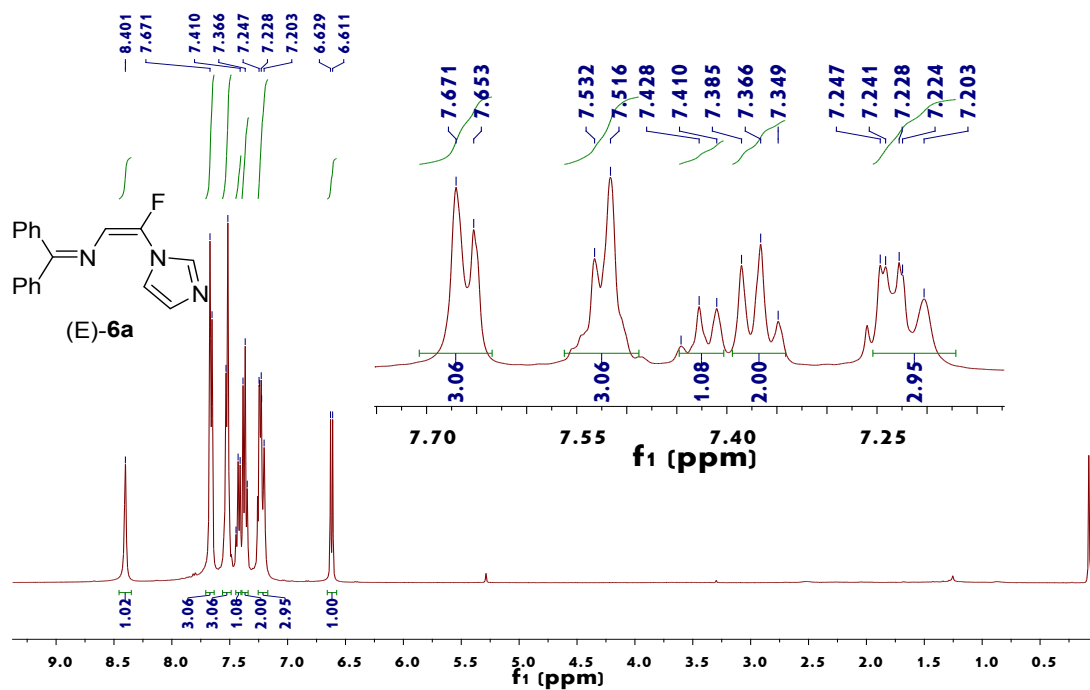


Figure 6. ¹H NMR spectrum of **(E)-6a**

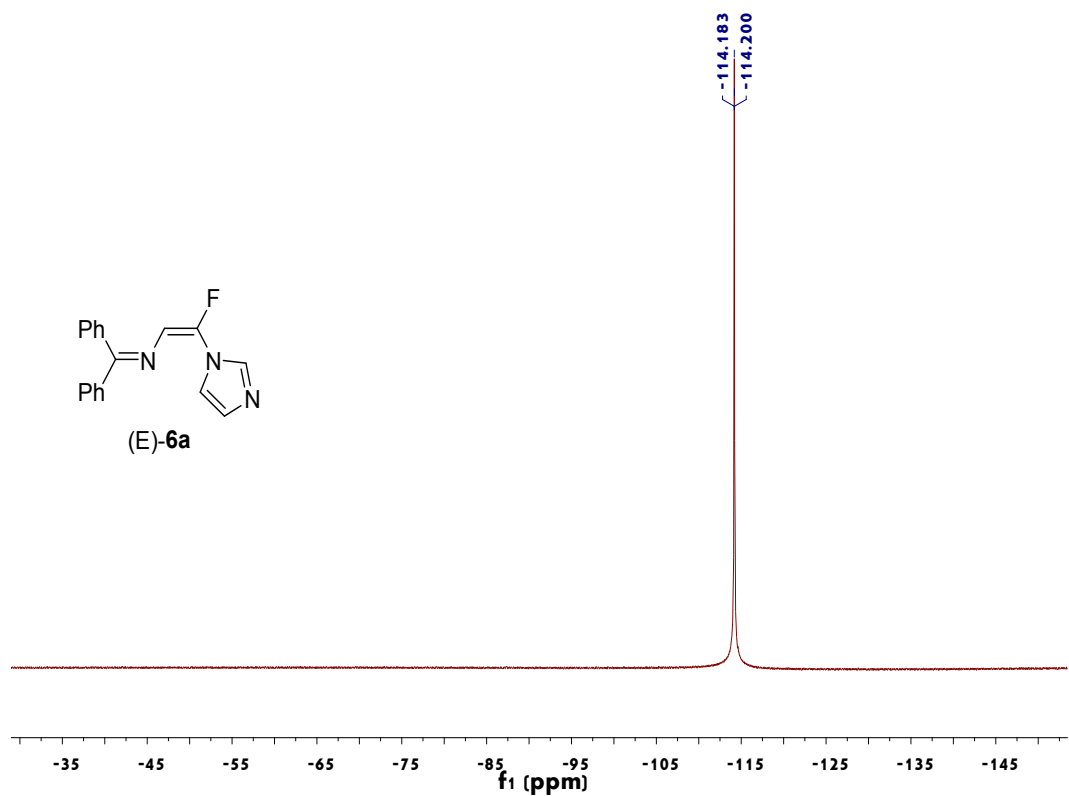


Figure 7. ¹⁹F NMR spectrum of (E)-6a

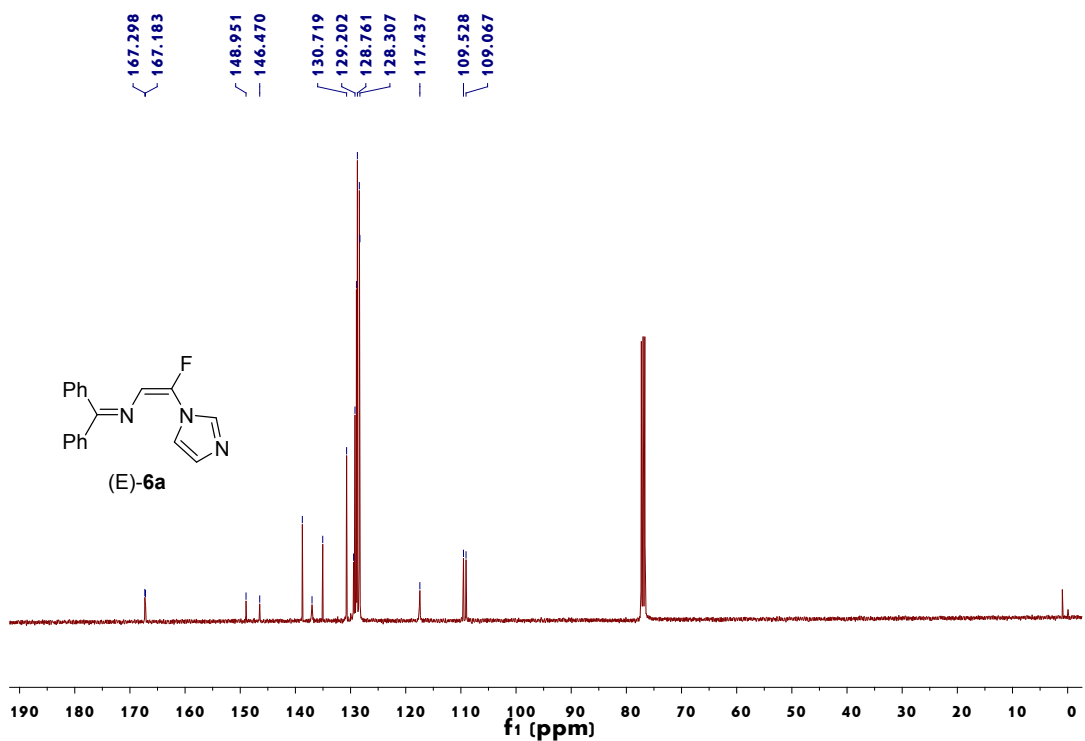


Figure 8. ¹³C NMR spectrum of (E)-6a

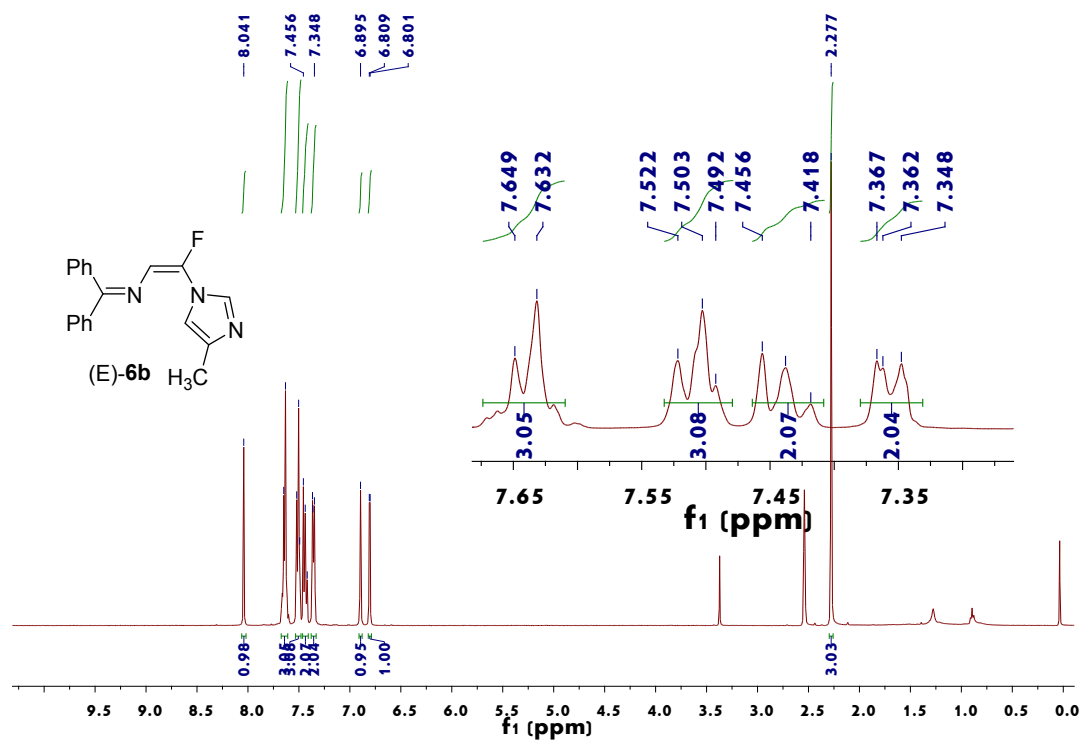


Figure 9. ¹H NMR spectrum of (E)-6b

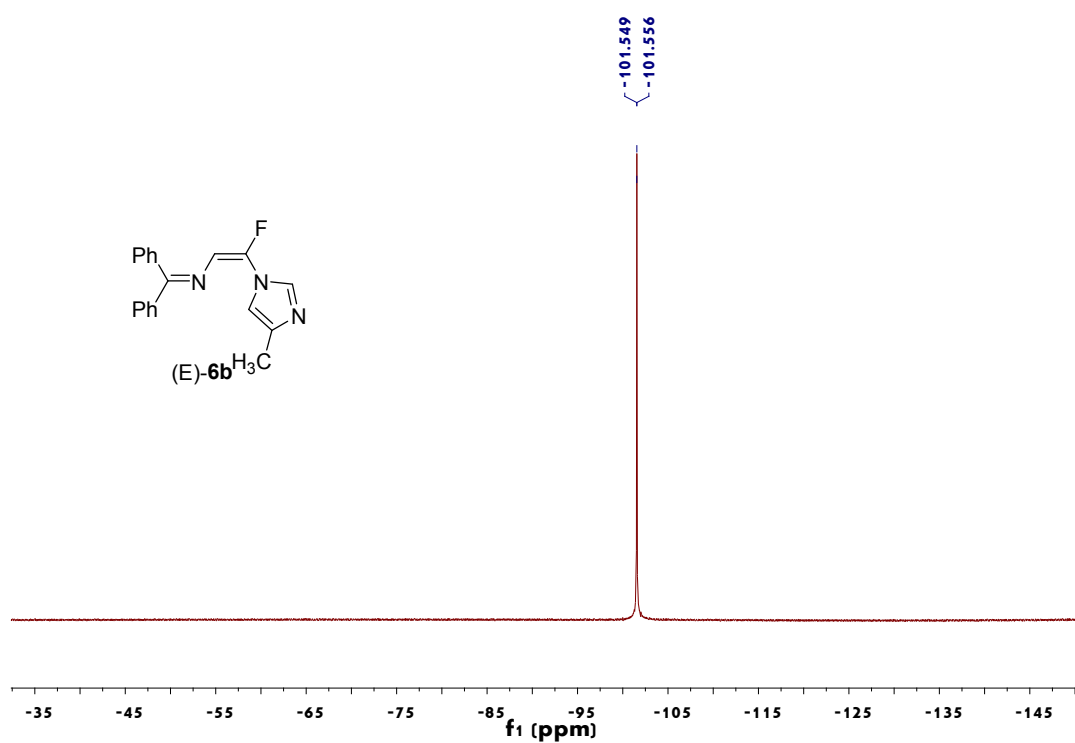


Figure 10. ¹⁹F NMR spectrum of (E)-6b

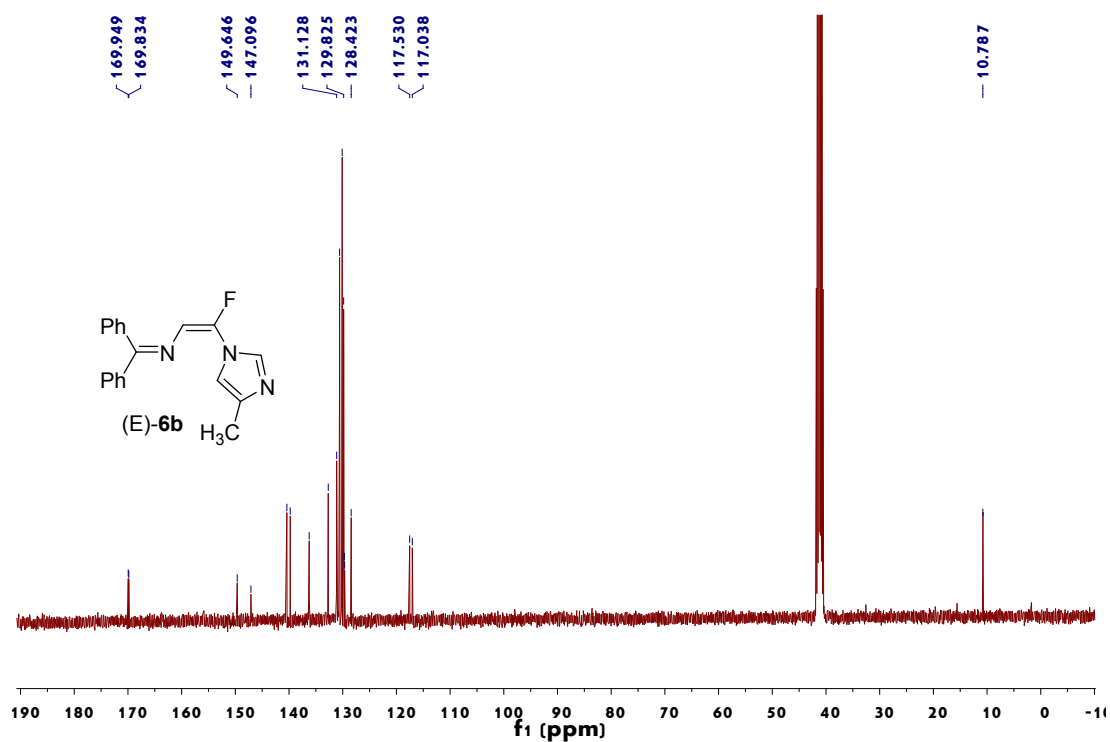


Figure 11. ¹³C NMR spectrum of (E)-6b

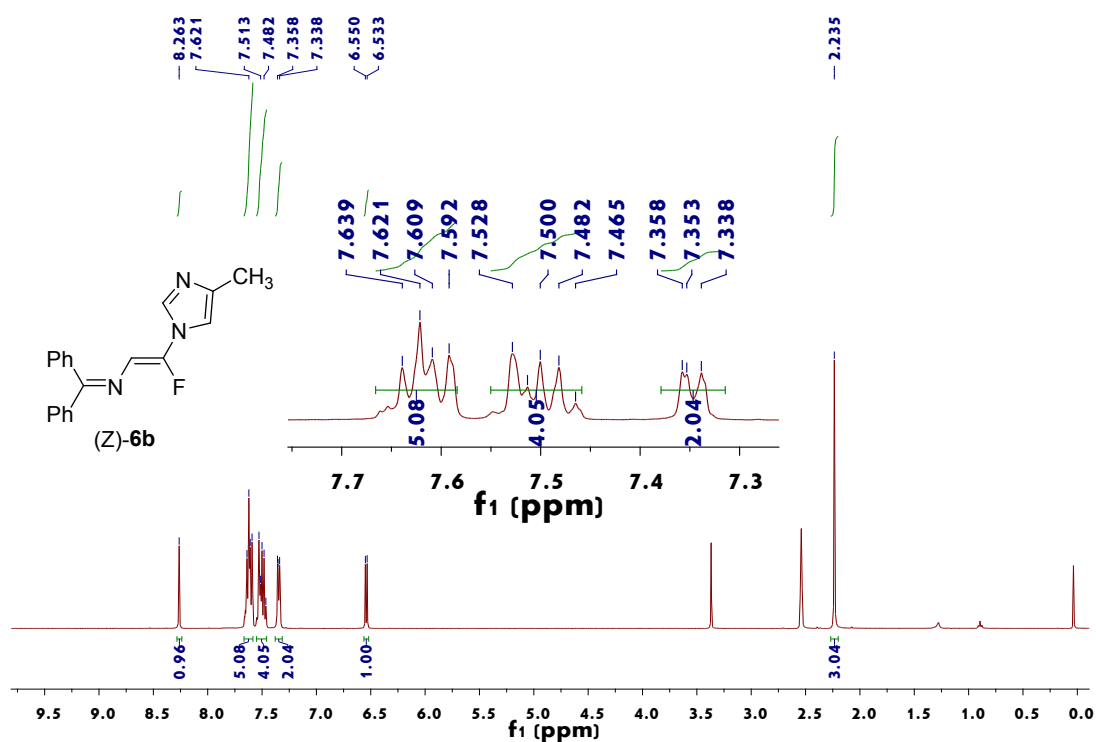


Figure 12. ¹H NMR spectrum of (Z)-6b

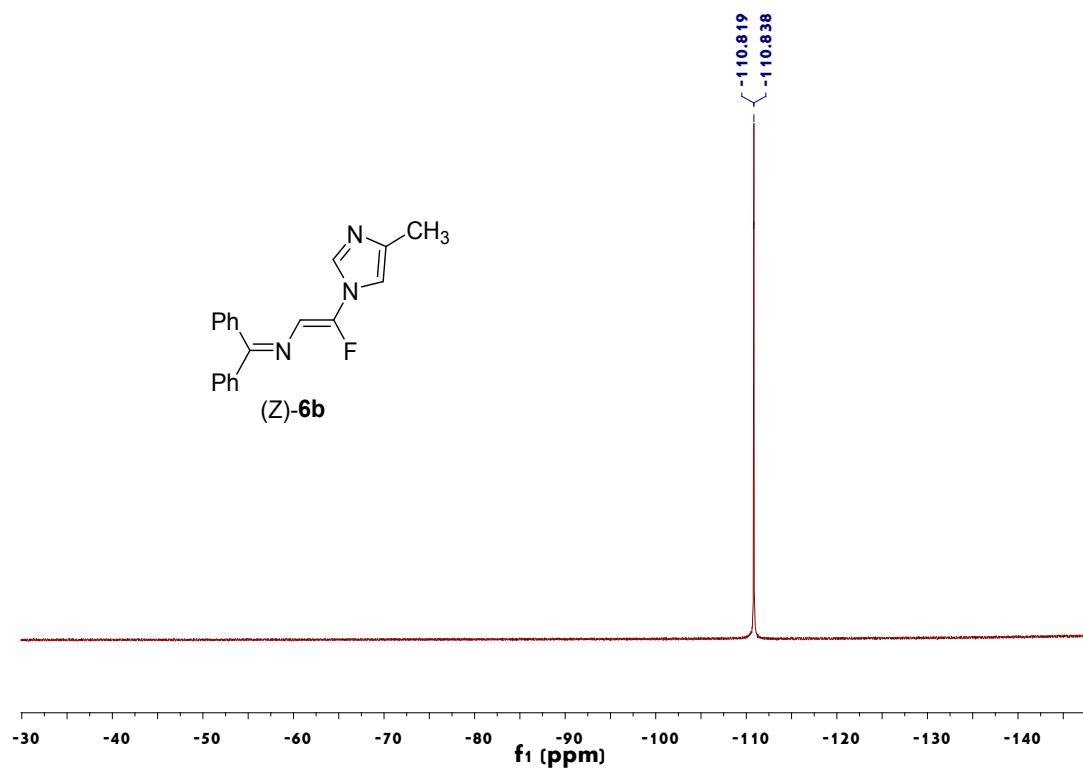


Figure 13. ¹⁹F NMR spectrum of (Z)-6b

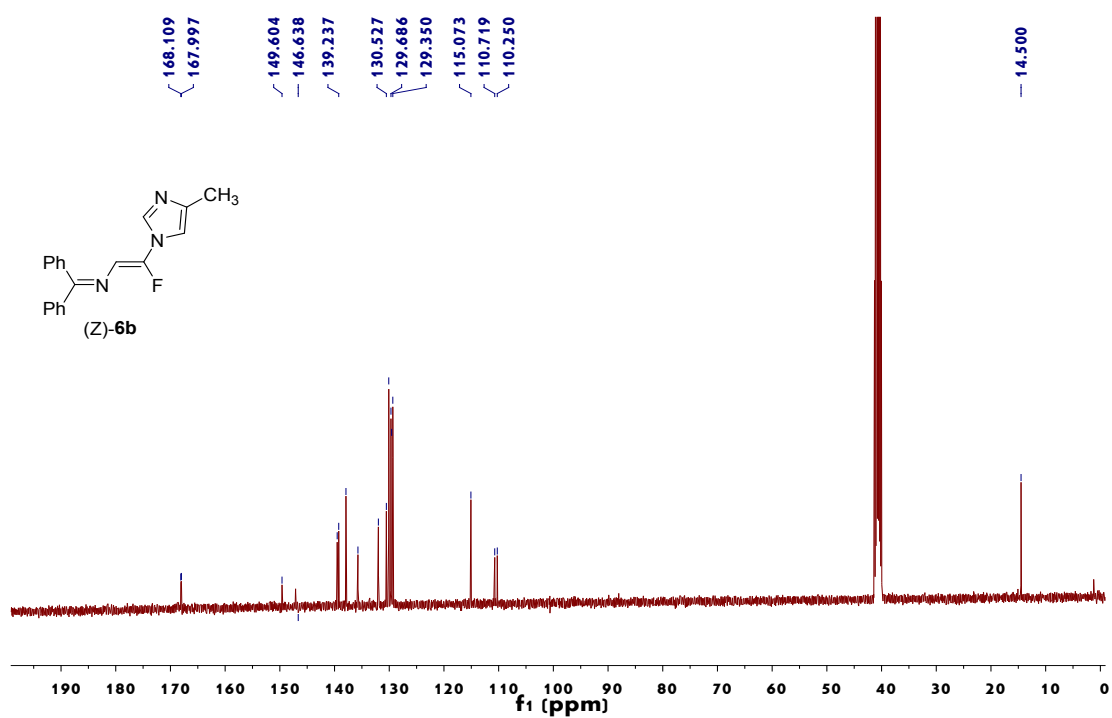


Figure 14. ¹³C NMR spectrum of (Z)-6b

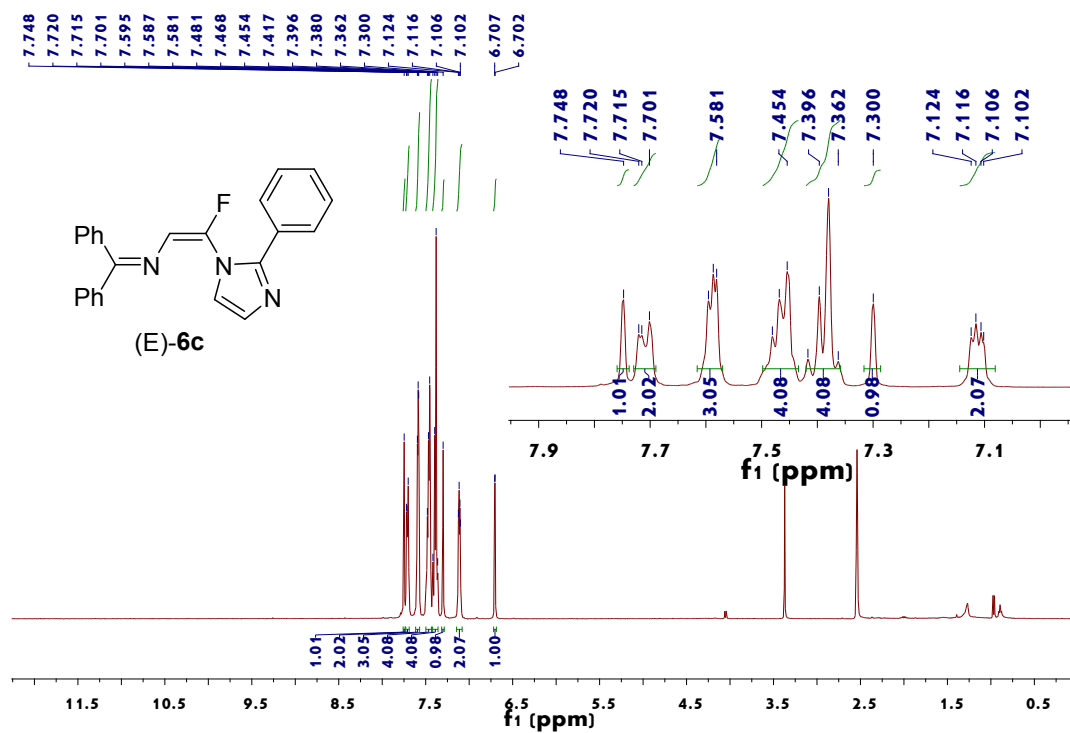


Figure 15. ¹H NMR spectrum of (*E*)-6c

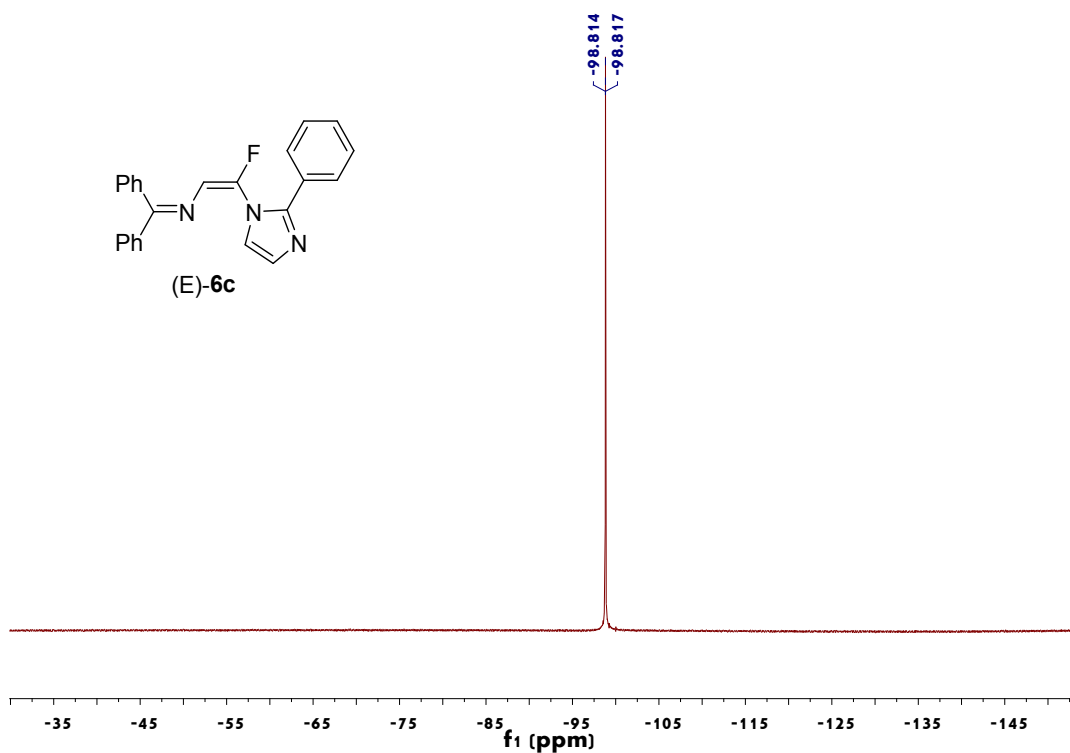


Figure 16. ¹⁹F NMR spectrum of (*E*)-6c

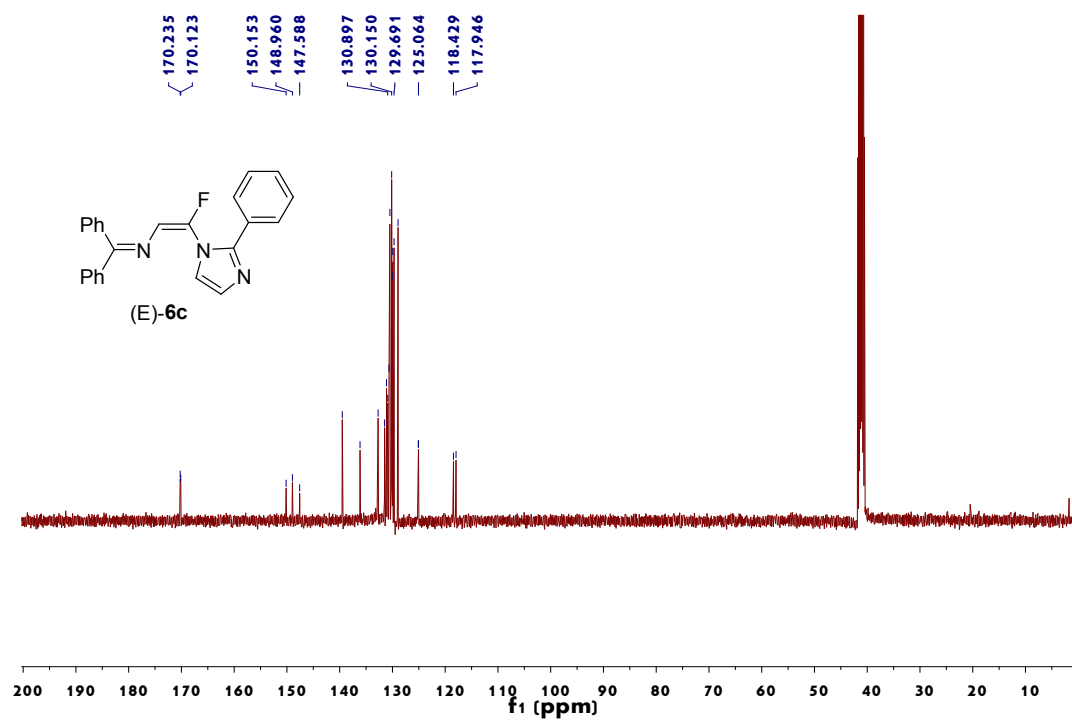


Figure 17. ^{13}C NMR spectrum of (E)-6c

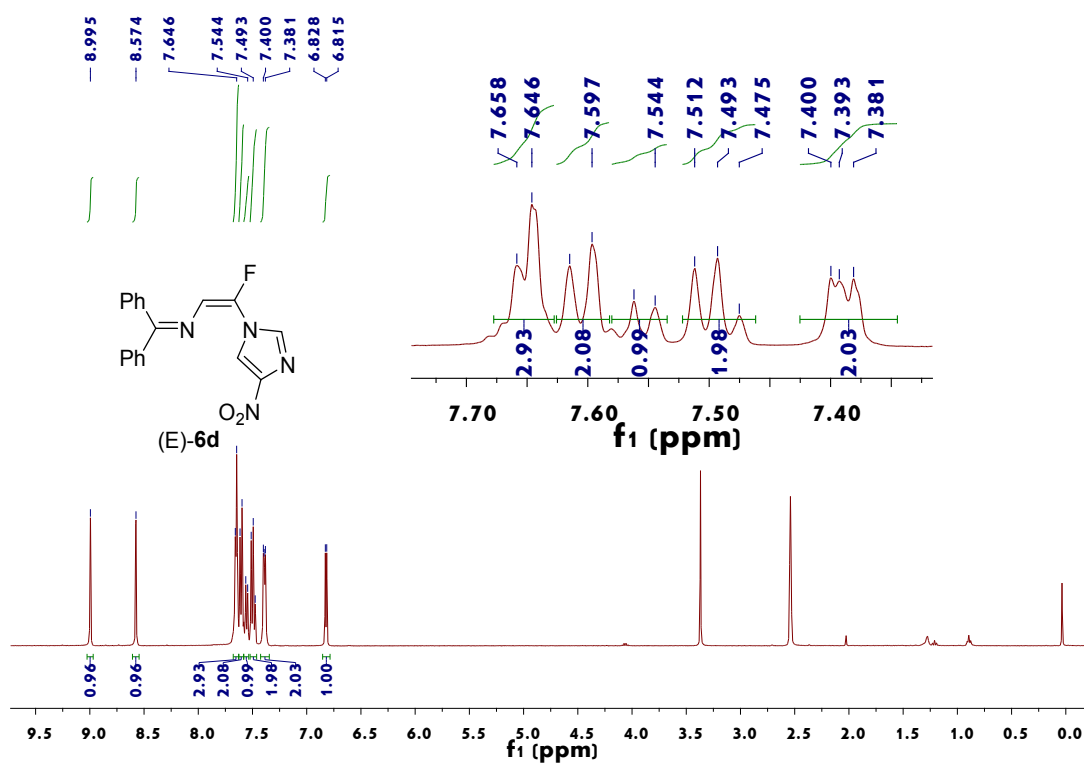


Figure 18. ^1H NMR spectrum of (E)-6d

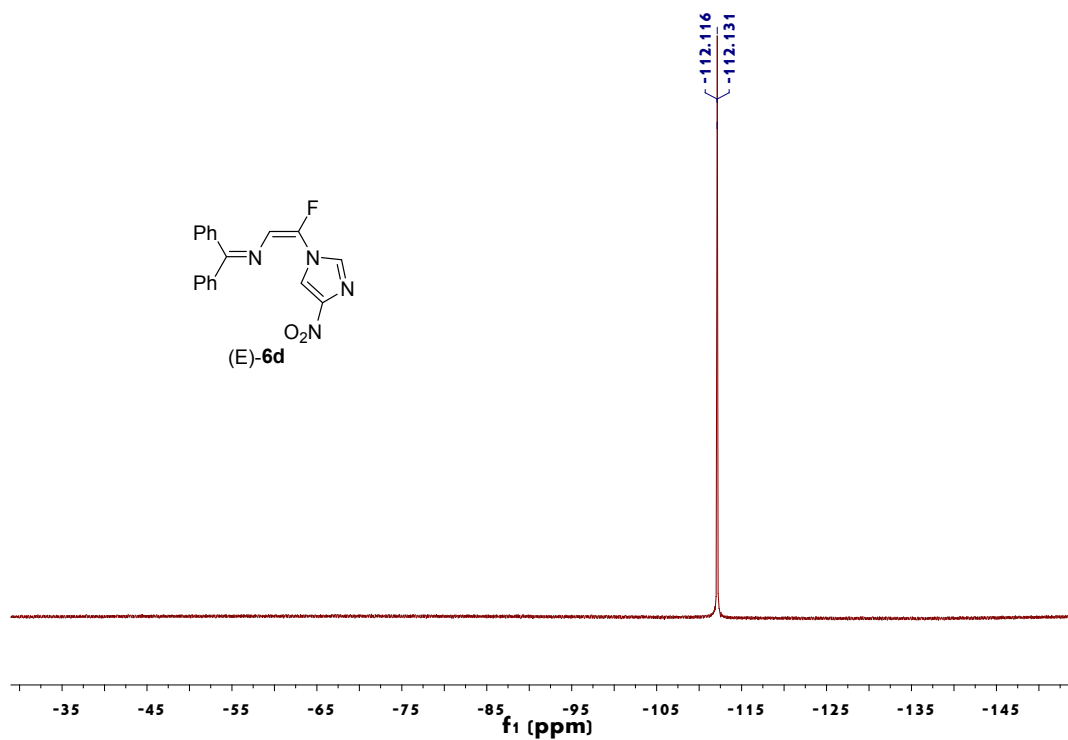


Figure 19. ^{19}F NMR spectrum of (E)-**6d**

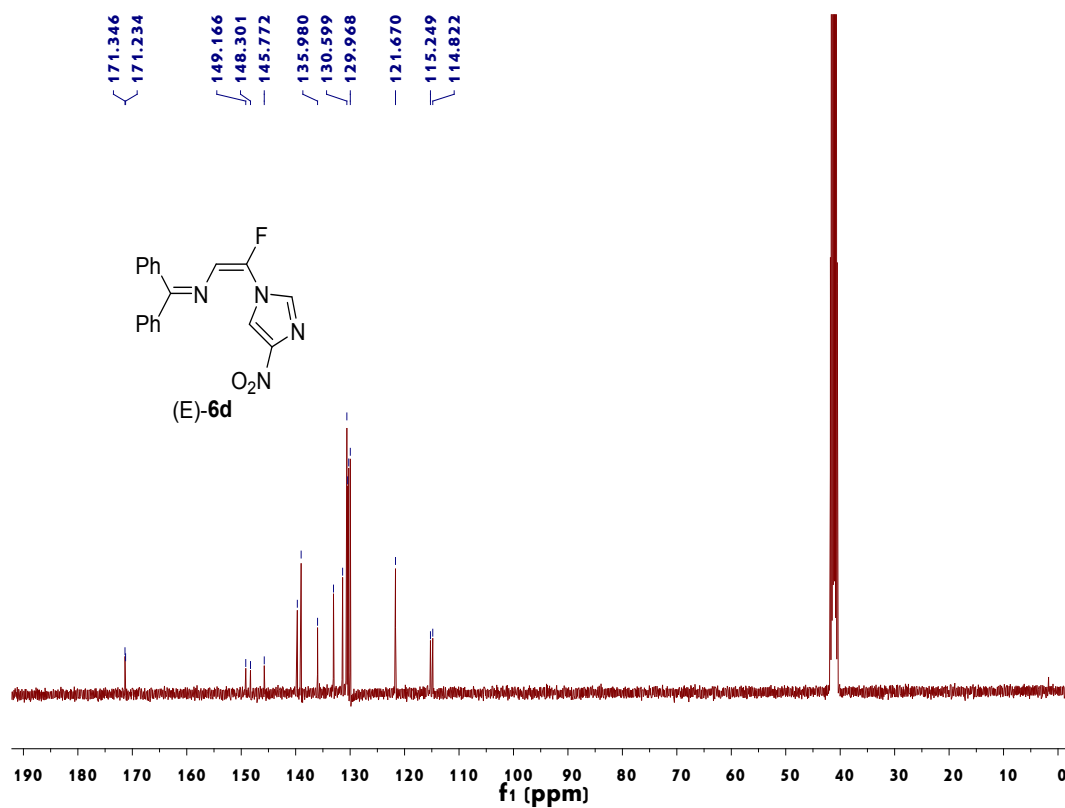


Figure 20. ^{13}C NMR spectrum of (E)-**6d**

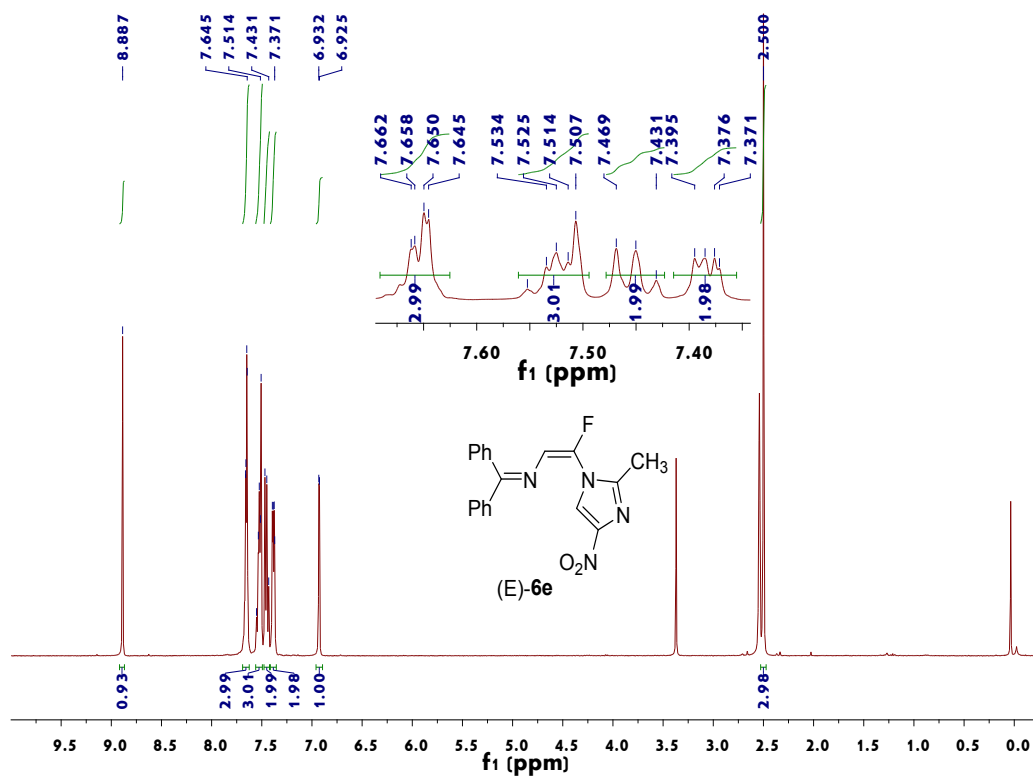


Figure 21. ¹H NMR spectrum of (E)-6e

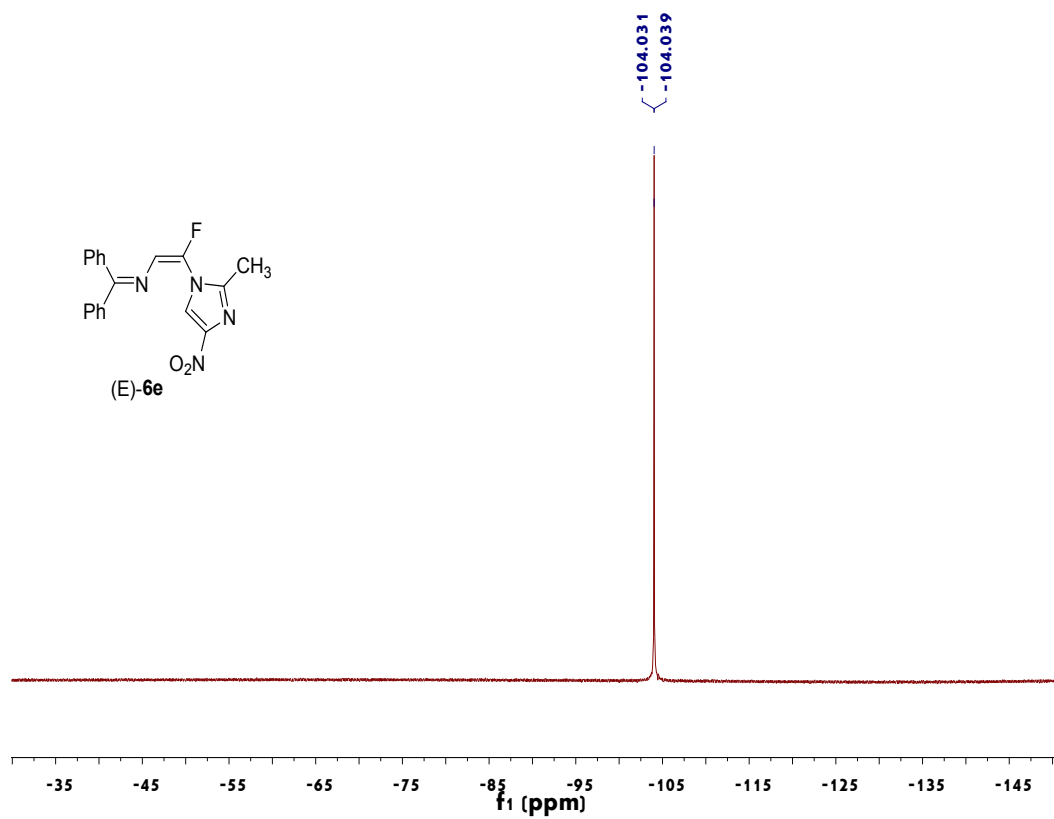


Figure 22. ¹⁹F NMR spectrum of (E)-6e

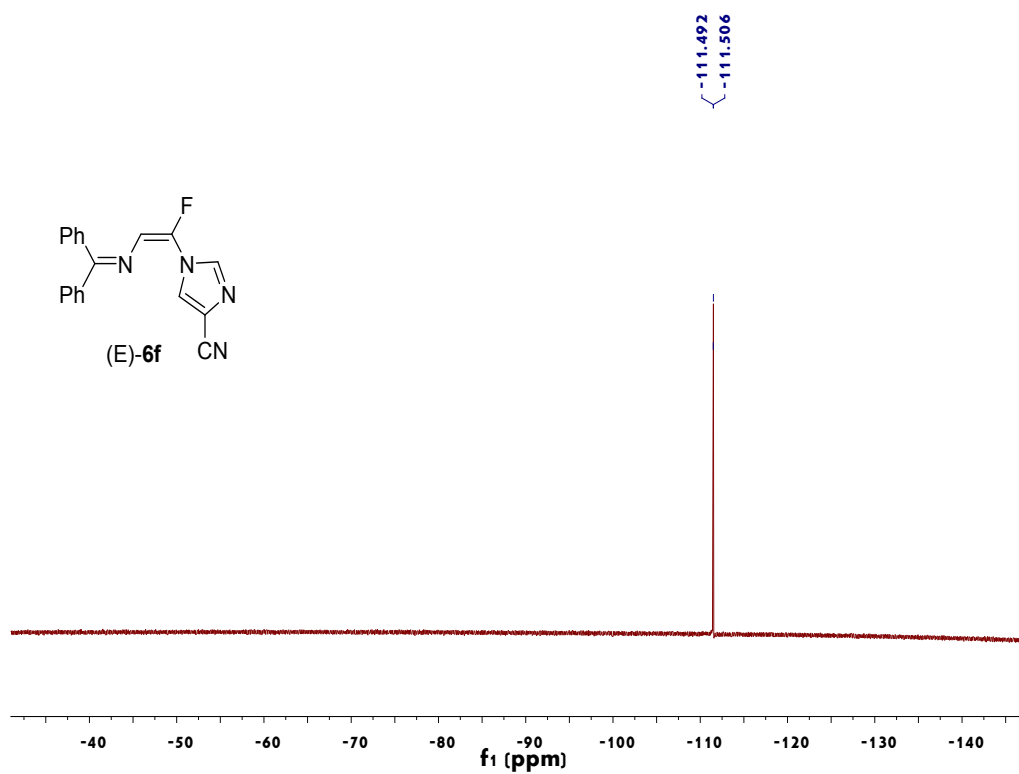


Figure 25. ¹⁹F NMR spectrum of (E)-6f

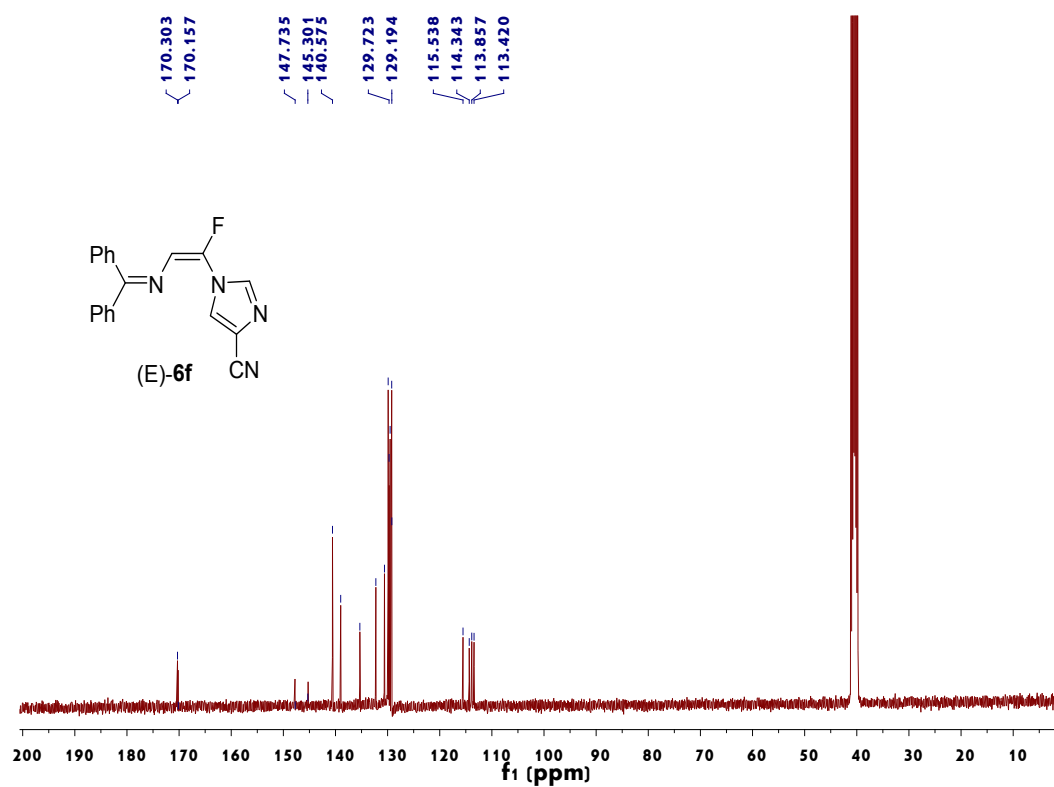


Figure 26. ¹³C NMR spectrum of (E)-6f

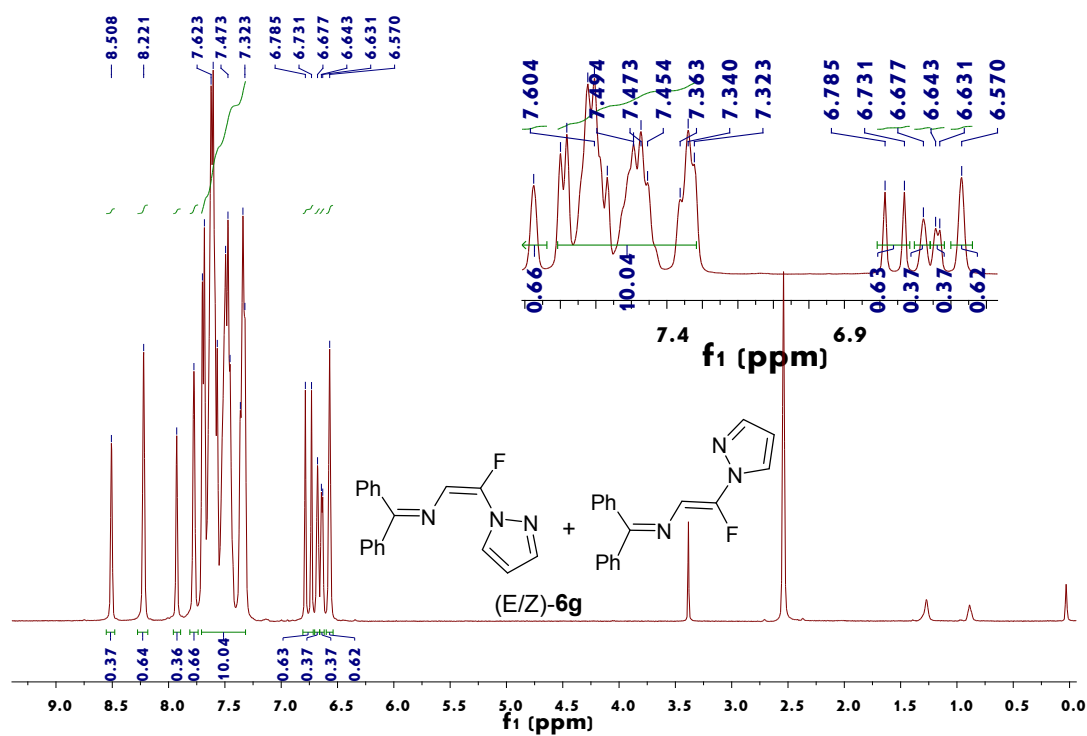


Figure 27. ¹H NMR spectrum of (E/Z)-6g

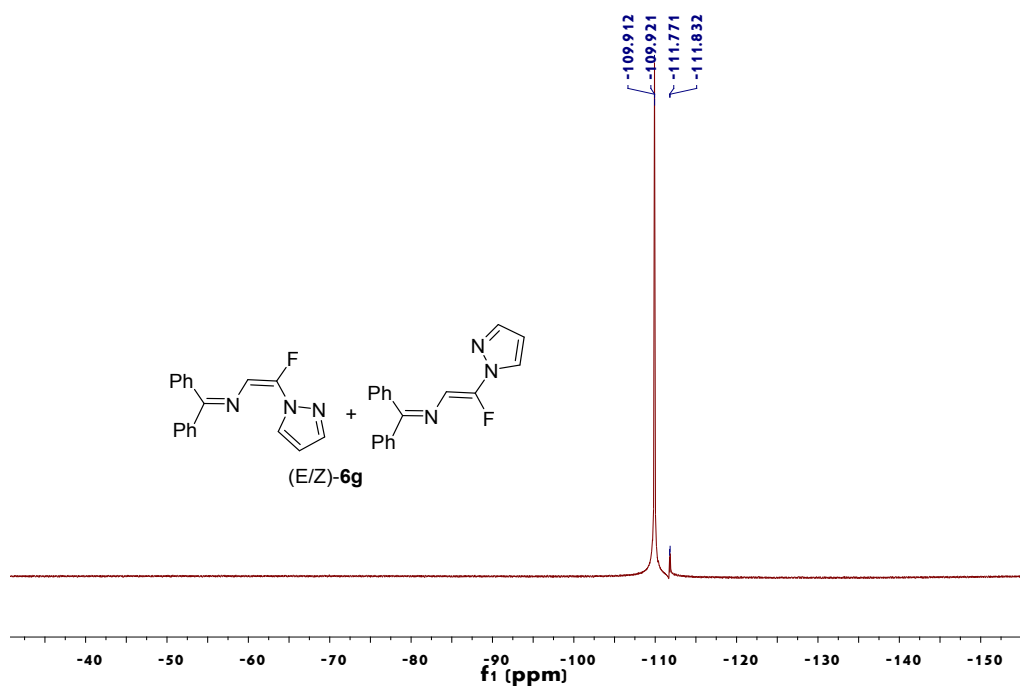


Figure 28. ¹⁹F NMR spectrum of (E/Z)-6g

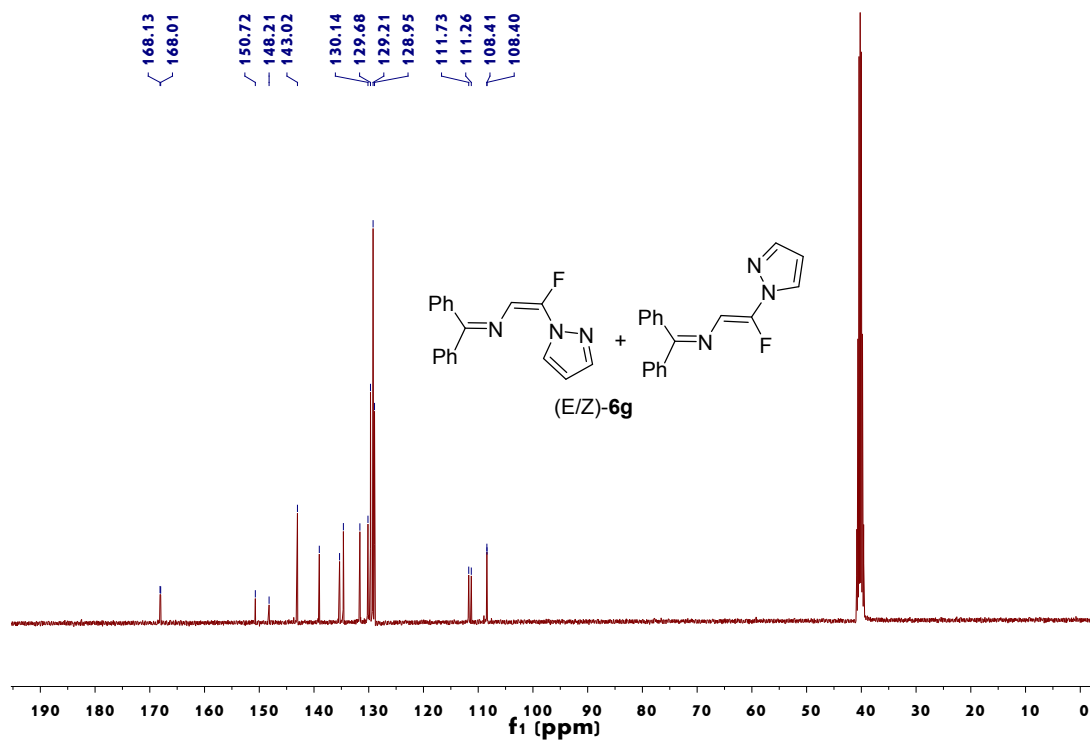


Figure 29. ¹³C NMR spectrum of (E/Z)-6g

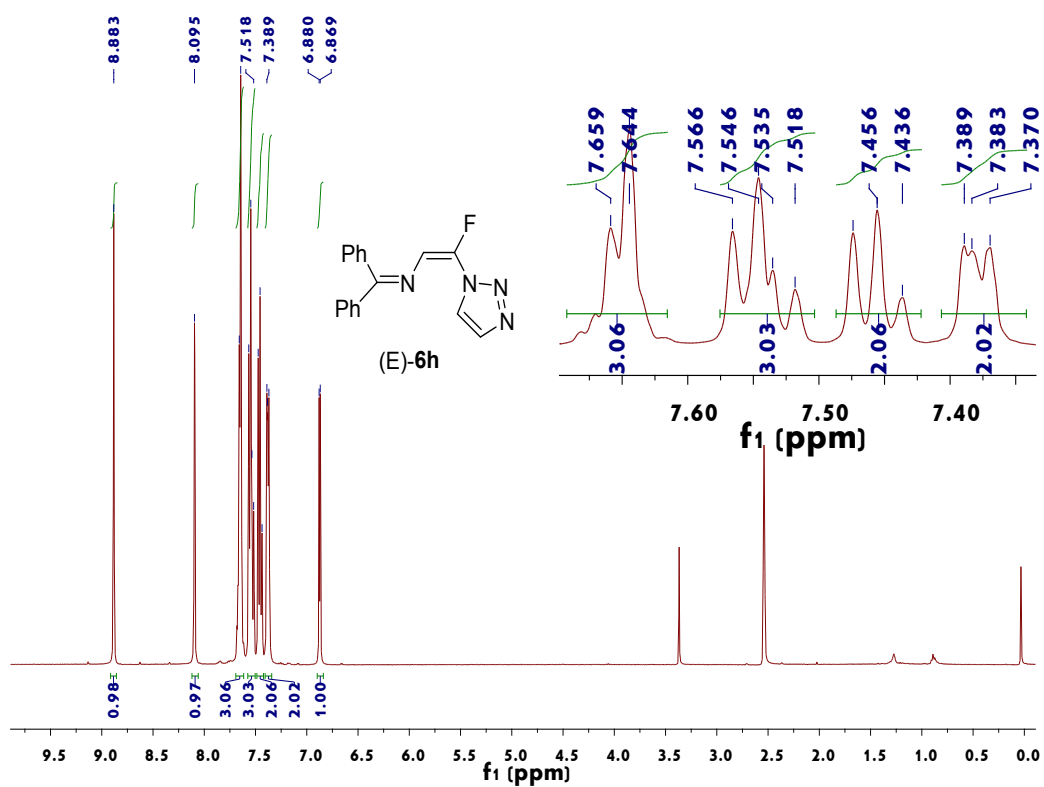


Figure 30. ¹H NMR spectrum of (E)-6h

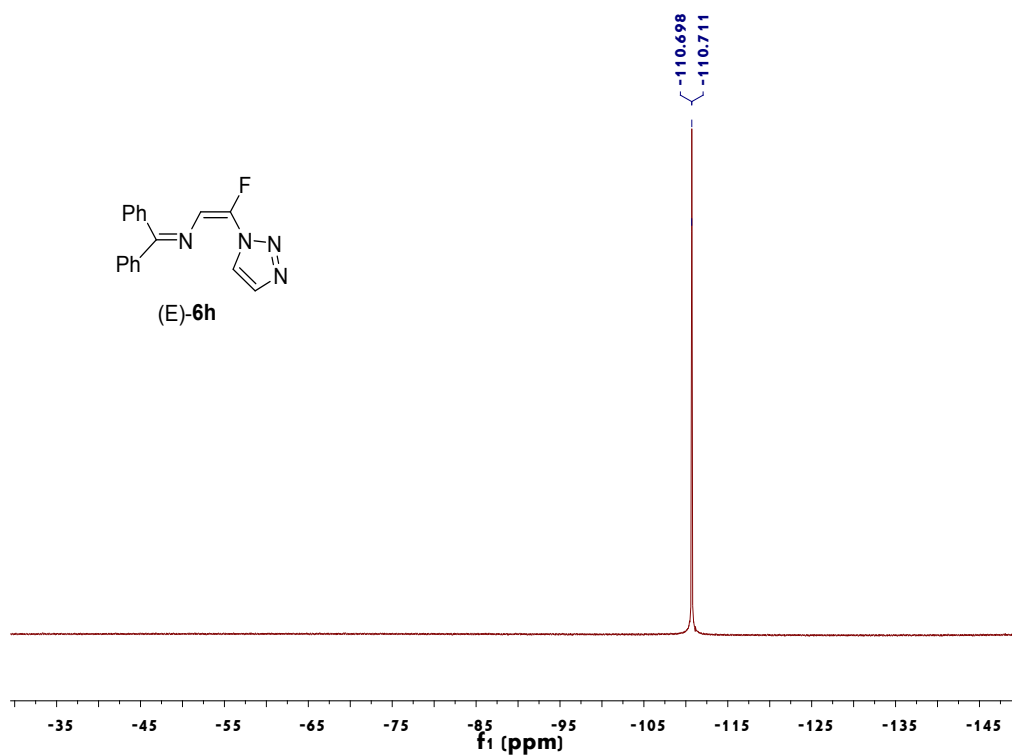


Figure 31. ^{19}F NMR spectrum of (E)-6h

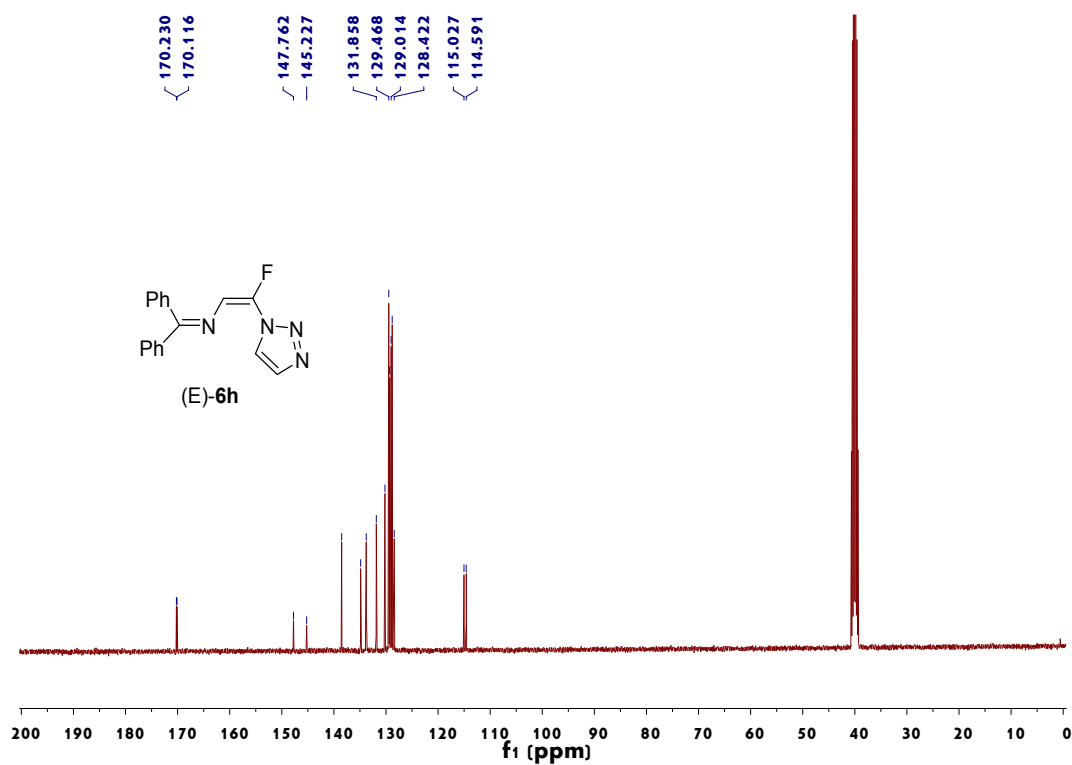


Figure 32. ^{13}C NMR spectrum of (E)-6h

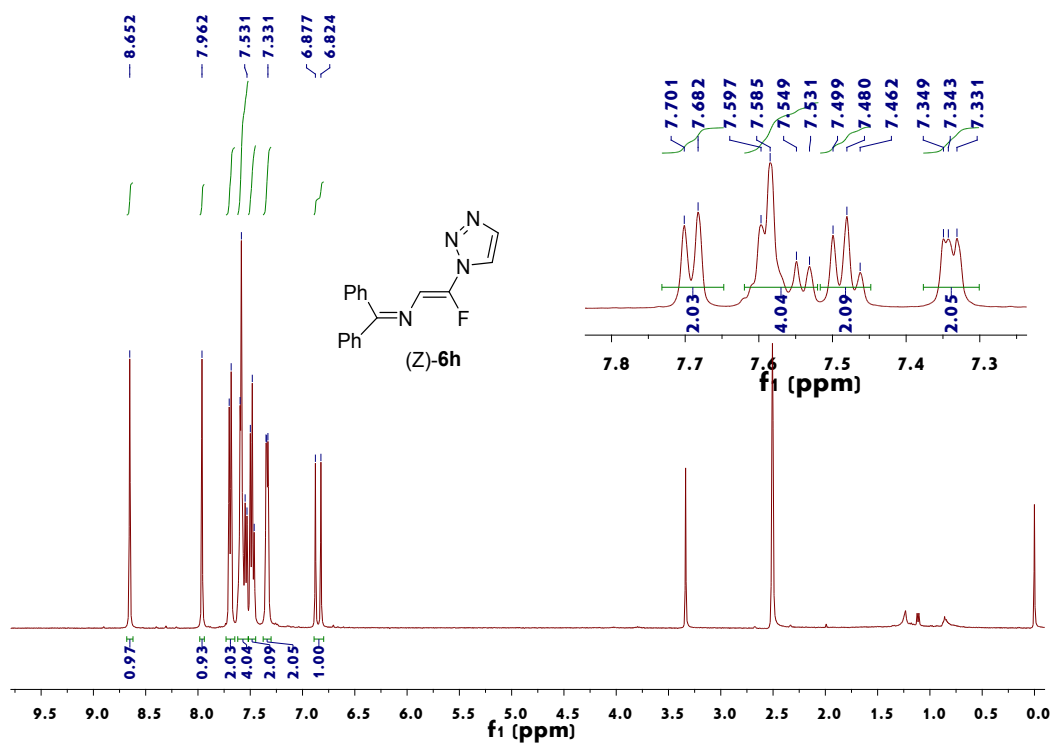


Figure 33. ¹H NMR spectrum of (Z)-6h

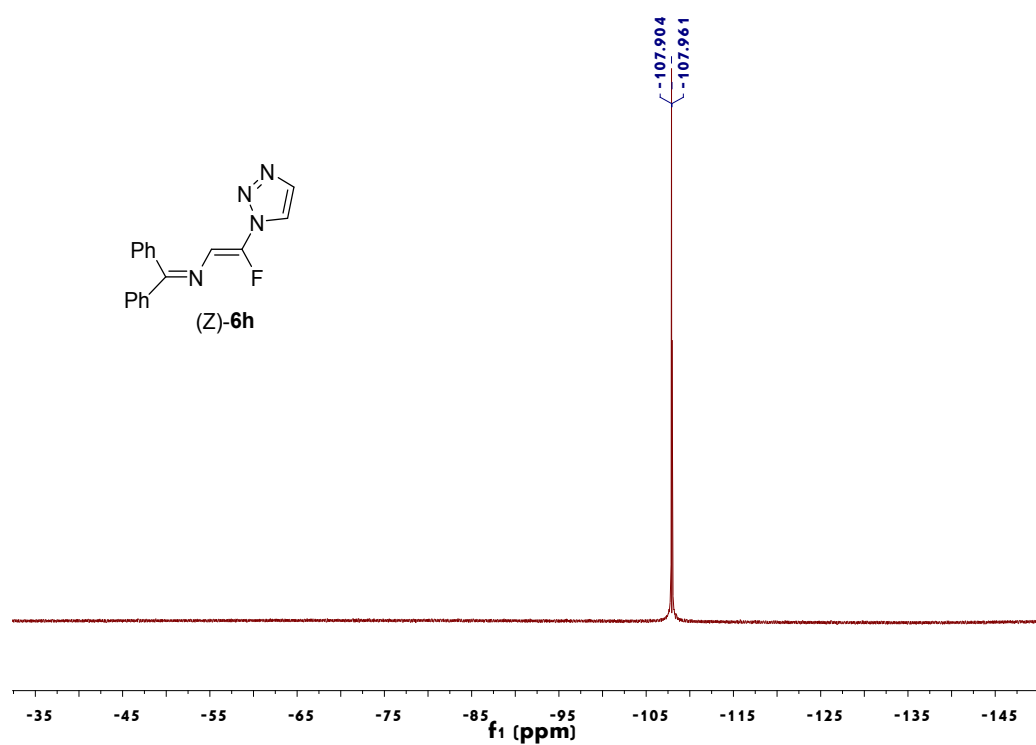


Figure 34. ¹⁹F NMR spectrum of (Z)-6h

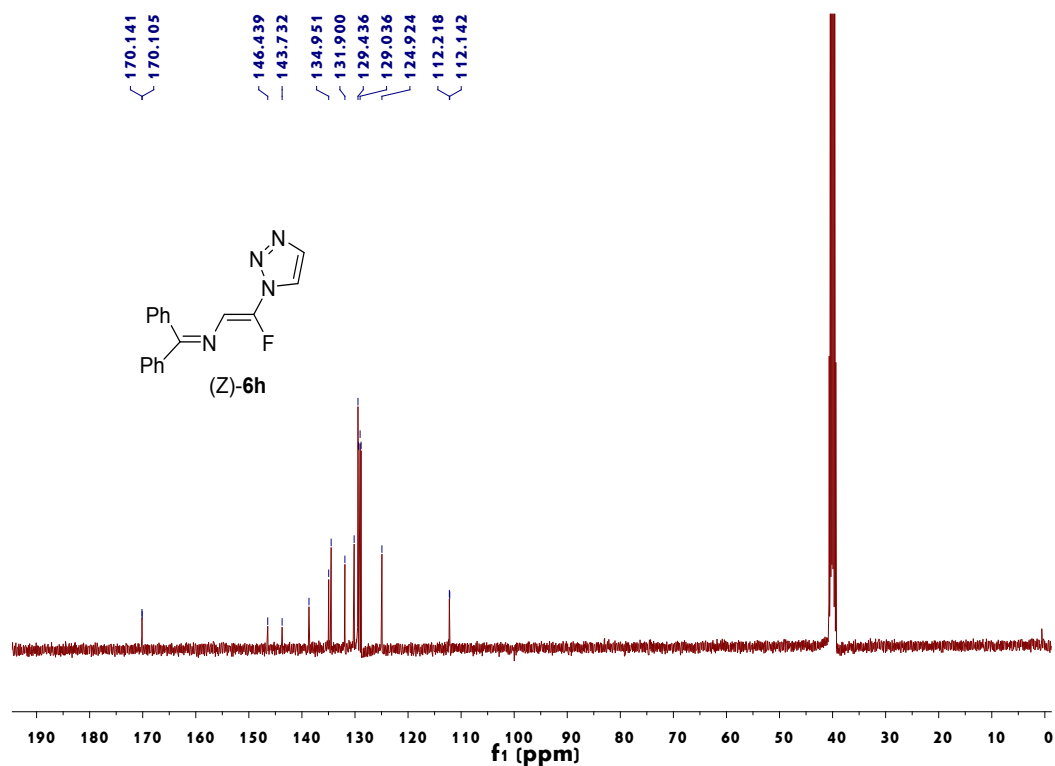


Figure 35. ¹³C NMR spectrum of (Z)-6h

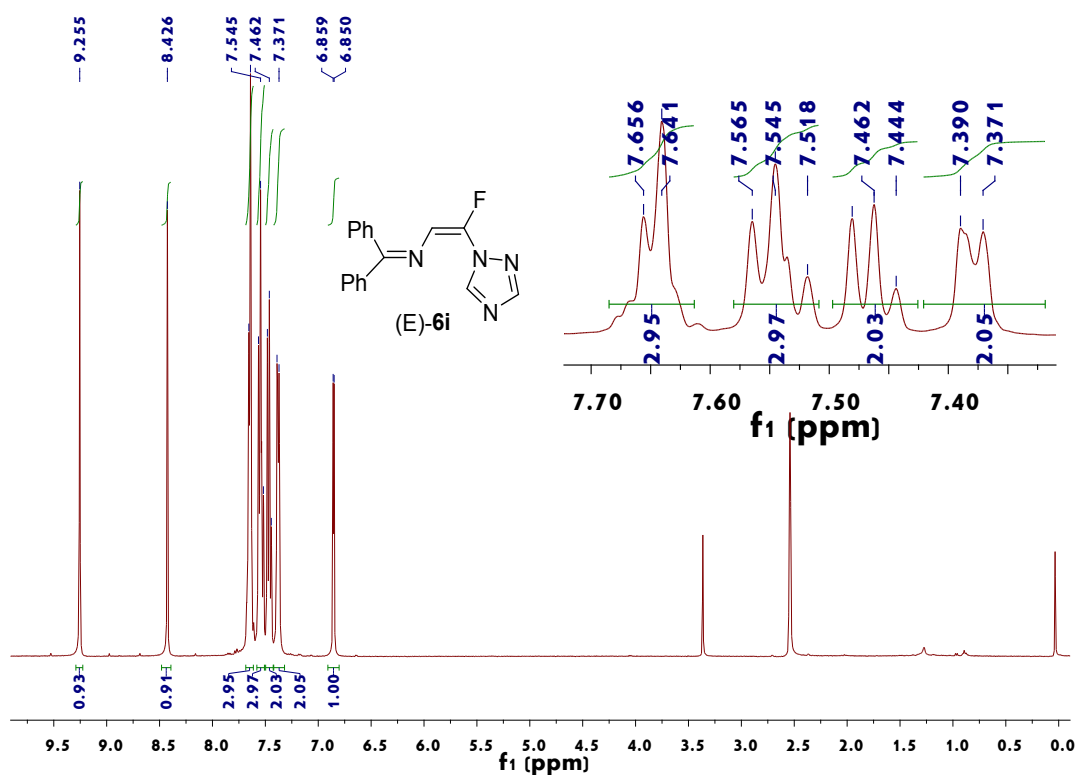


Figure 36. ¹H NMR spectrum of (E)-6i

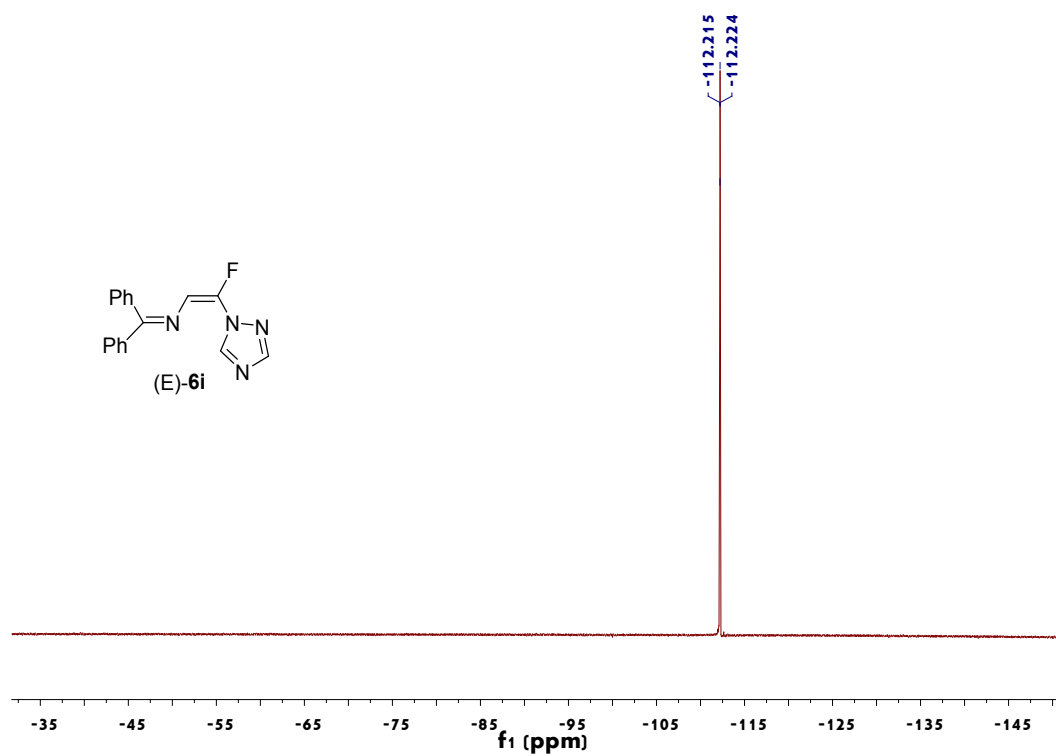


Figure 37. ¹⁹F NMR spectrum of (E)-6i

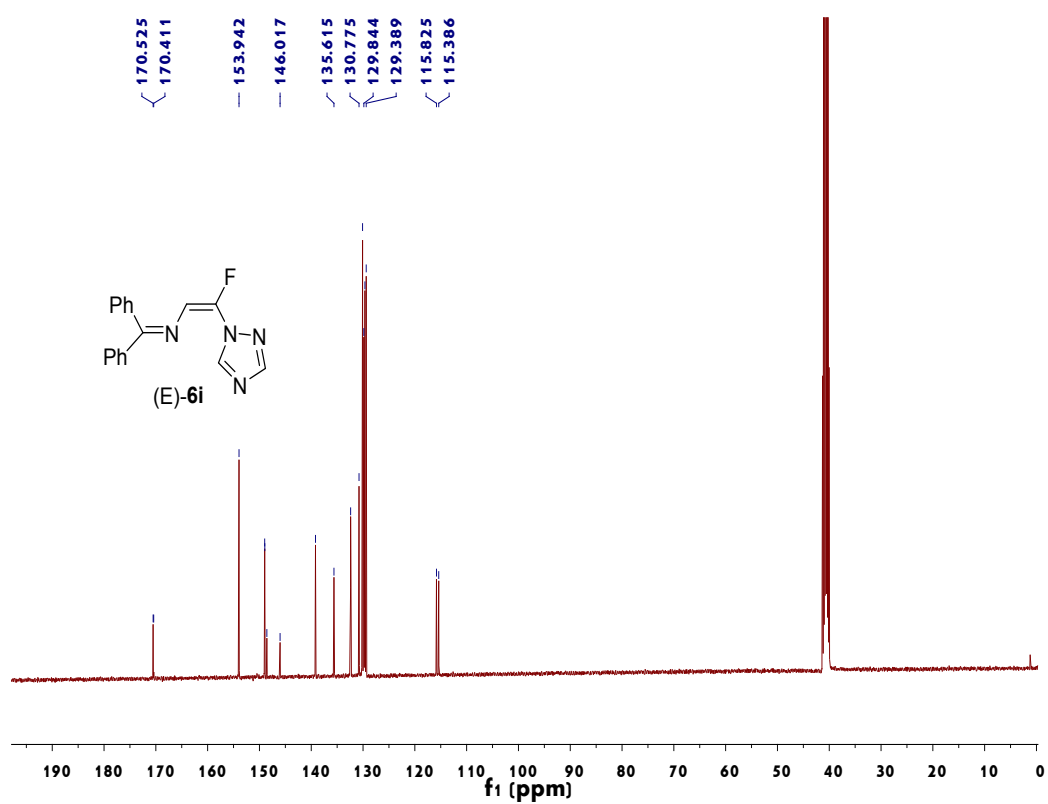


Figure 38. ¹³C NMR spectrum of (E)-6i

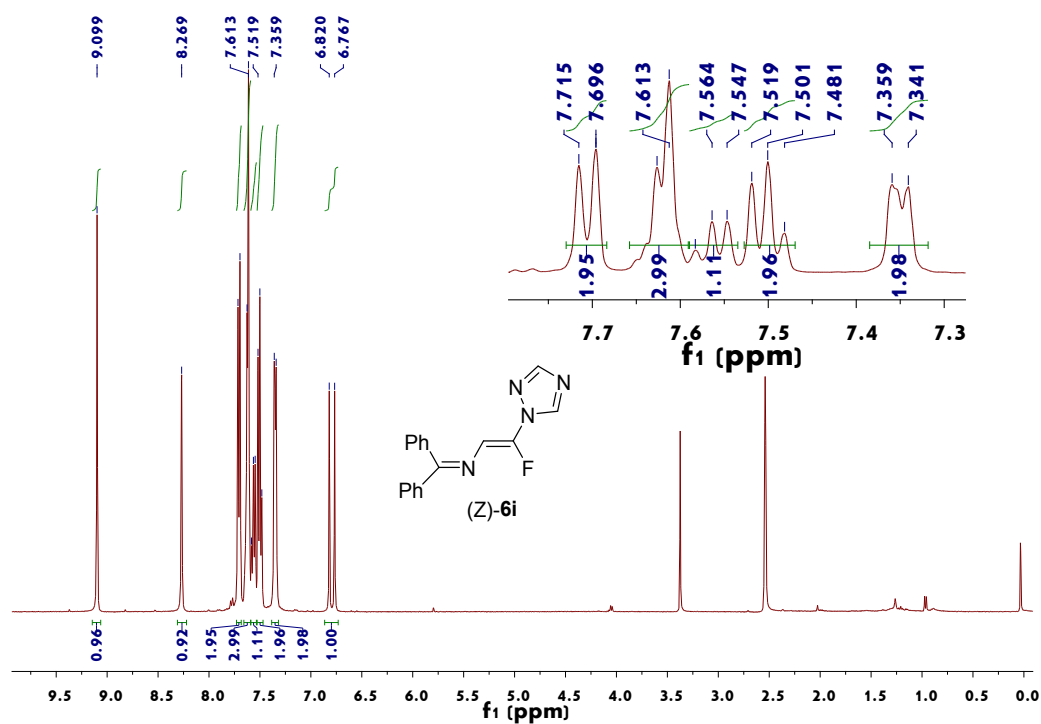


Figure 39. ¹H NMR spectrum of (Z)-6i

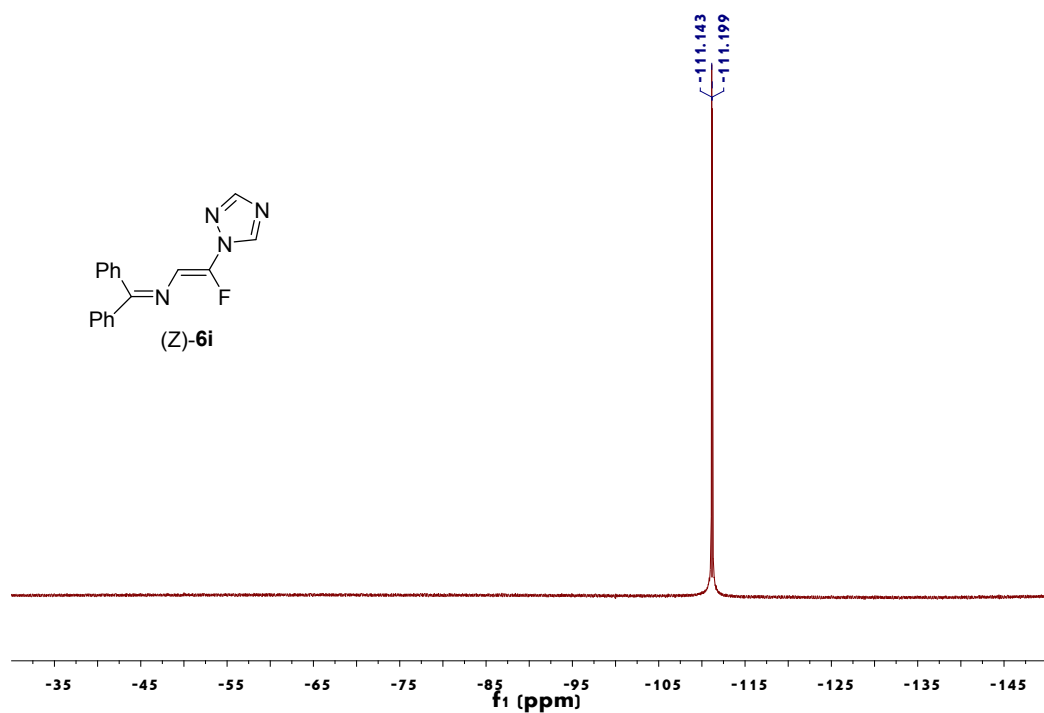


Figure 40. ¹⁹F NMR spectrum of (Z)-6i

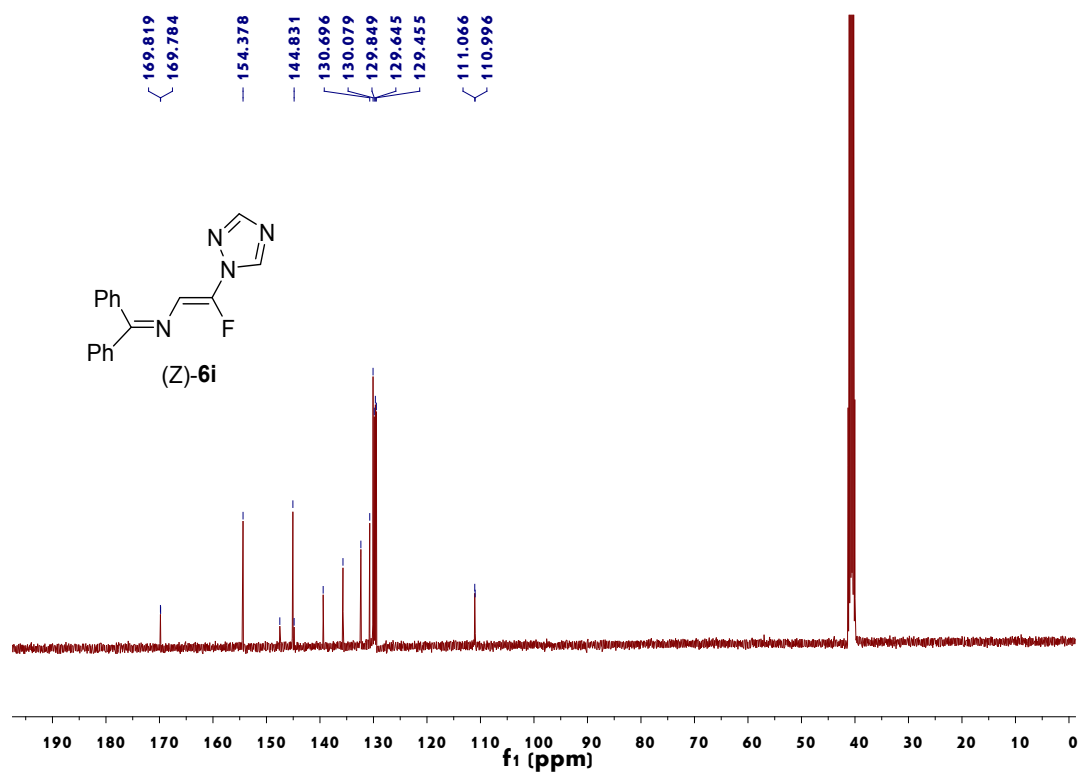


Figure 41. ¹³C NMR spectrum of (Z)-6i

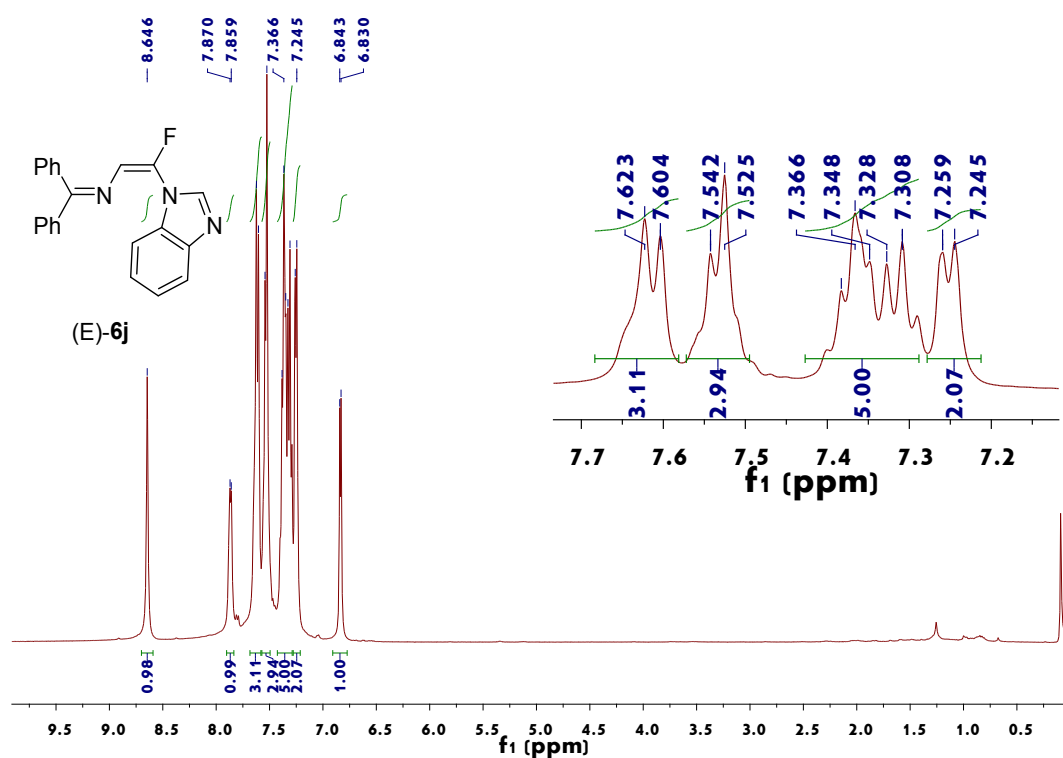


Figure 42. ¹H NMR spectrum of (E)-6j

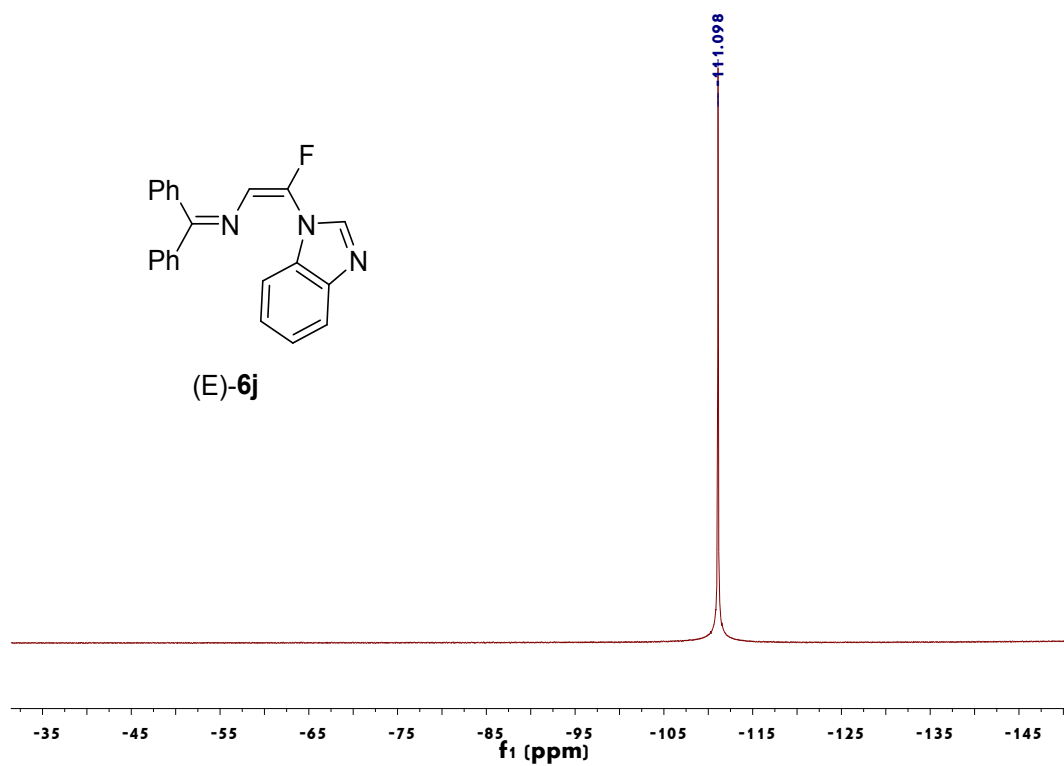


Figure 43. ^{19}F NMR spectrum of (E)-6j

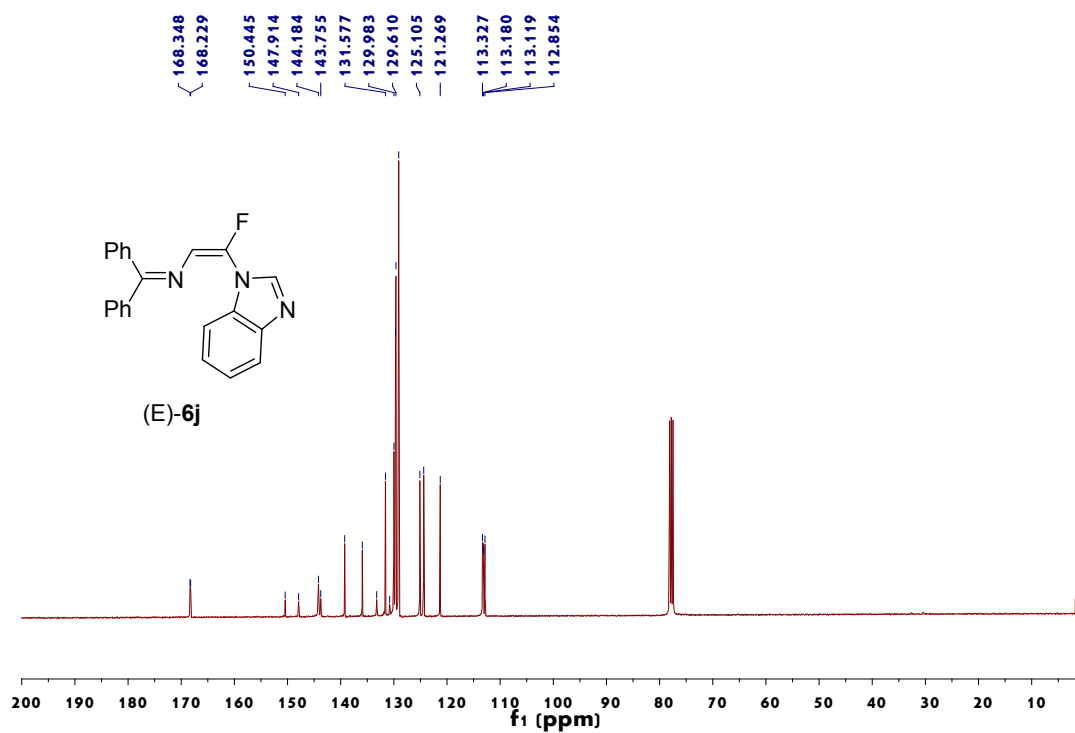


Figure 44. ^{13}C NMR spectrum of (E)-6j

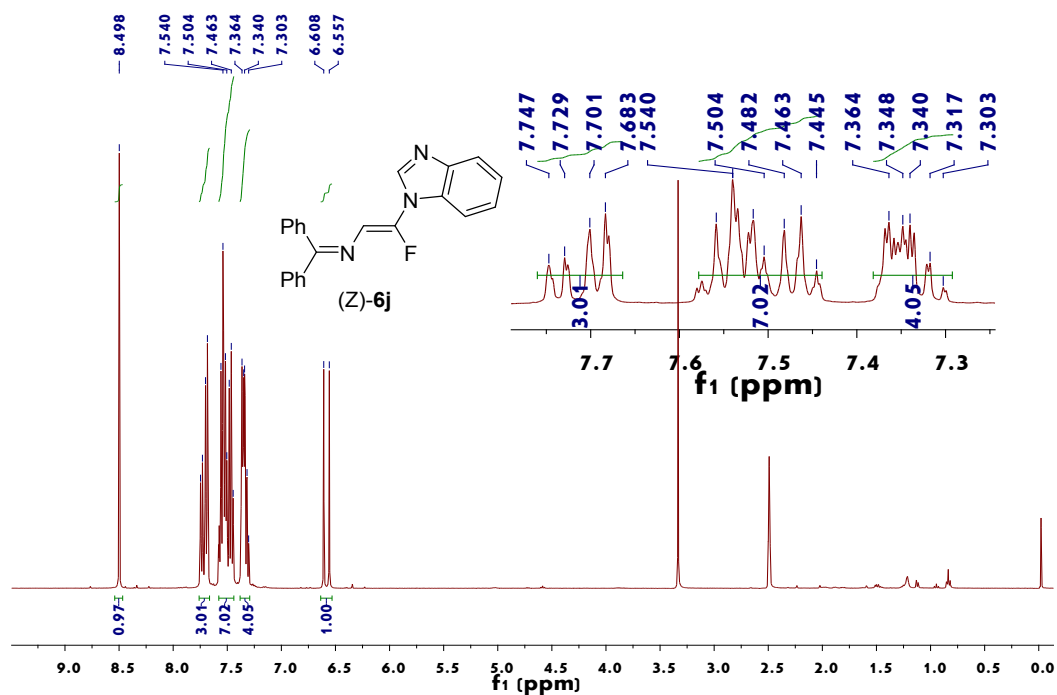


Figure 45. ¹H NMR spectrum of (Z)-6j

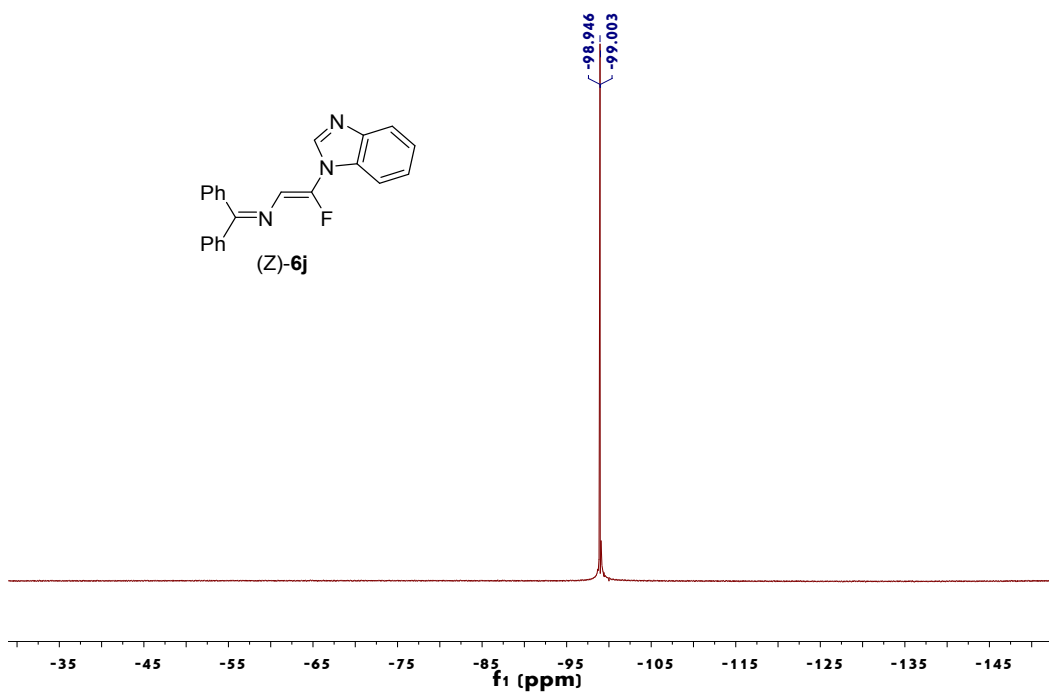


Figure 46. ¹⁹F NMR spectrum of (Z)-6j

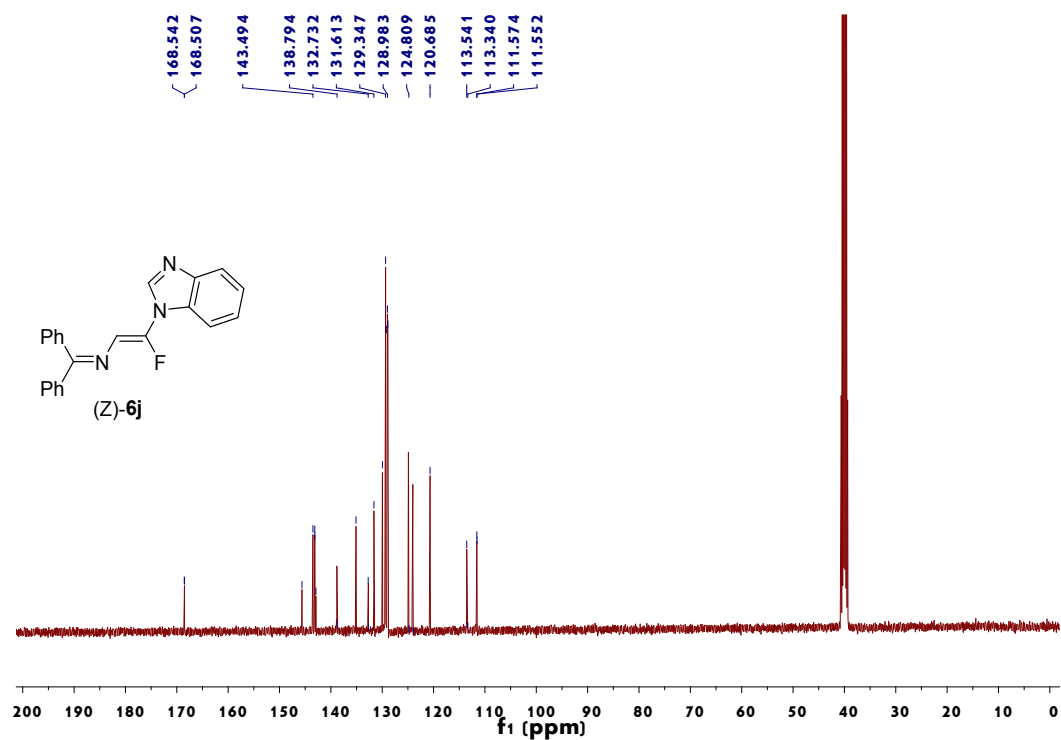


Figure 47. ¹³C NMR spectrum of (Z)-6j

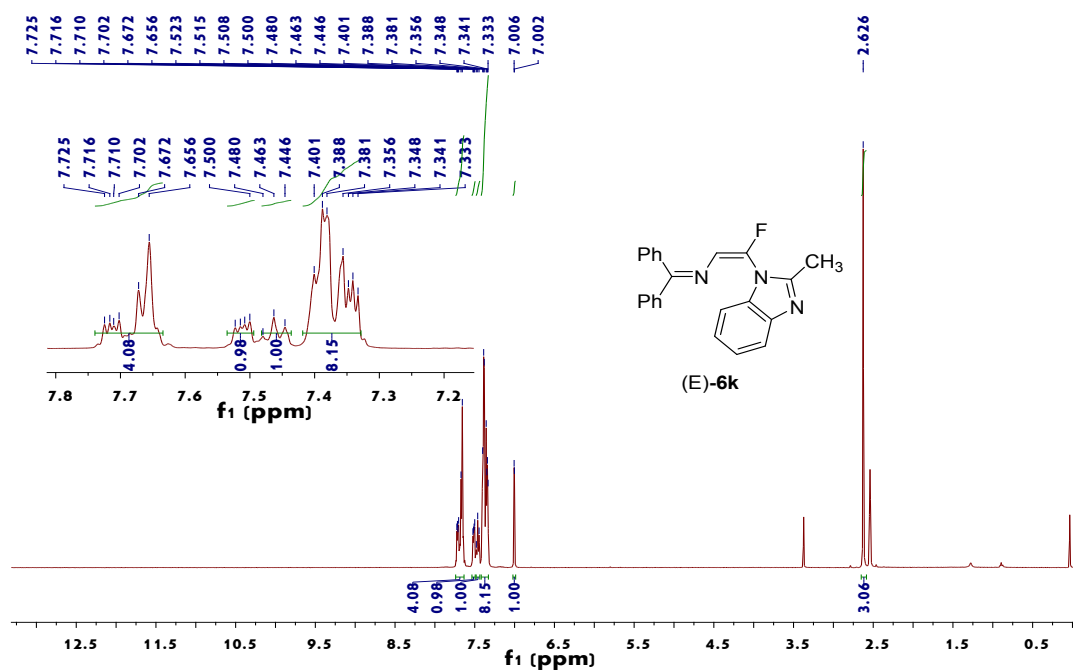


Figure 48. ¹H NMR spectrum of (E)-6k

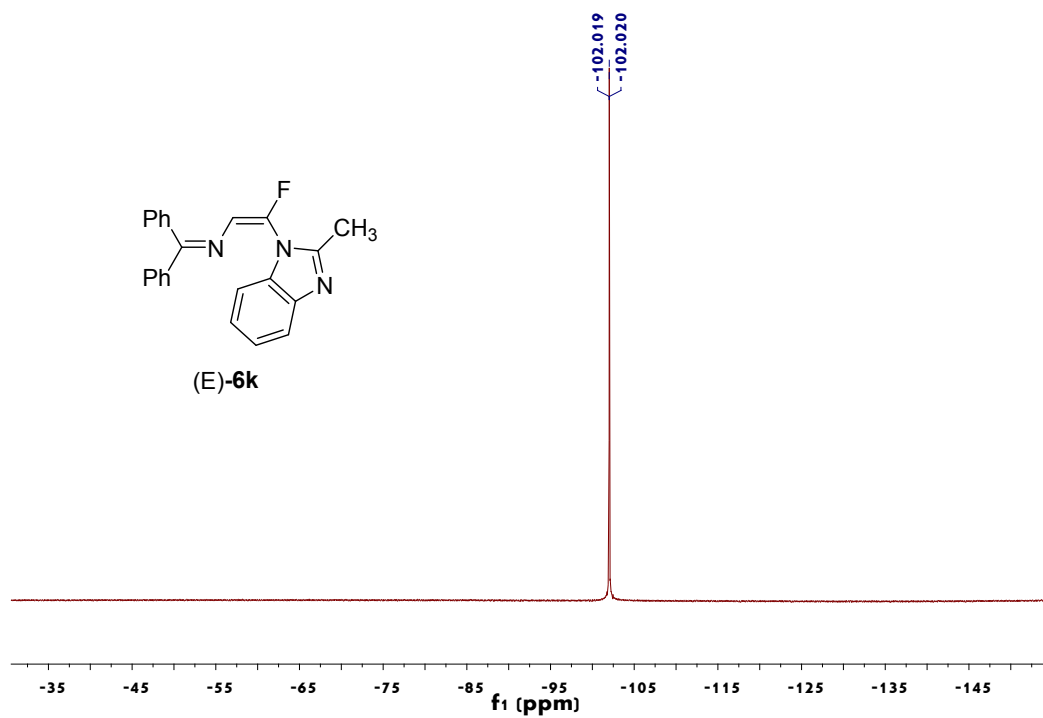


Figure 49. ¹⁹F NMR spectrum of (E)-6k

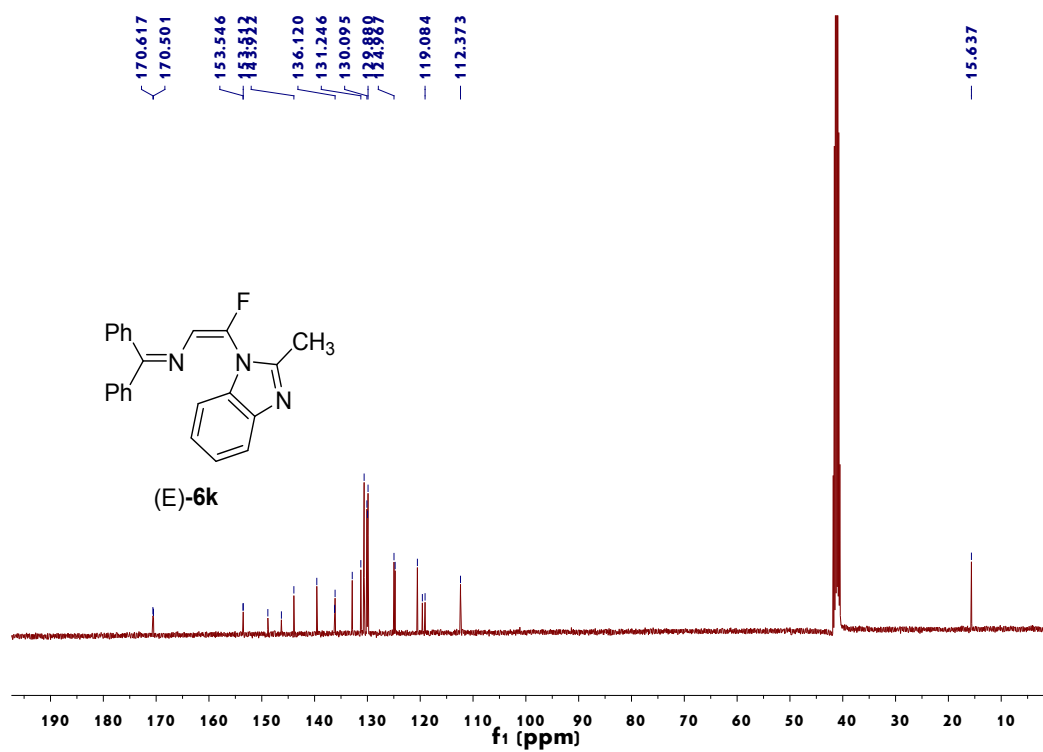


Figure 50. ¹³C NMR spectrum of (E)-6k

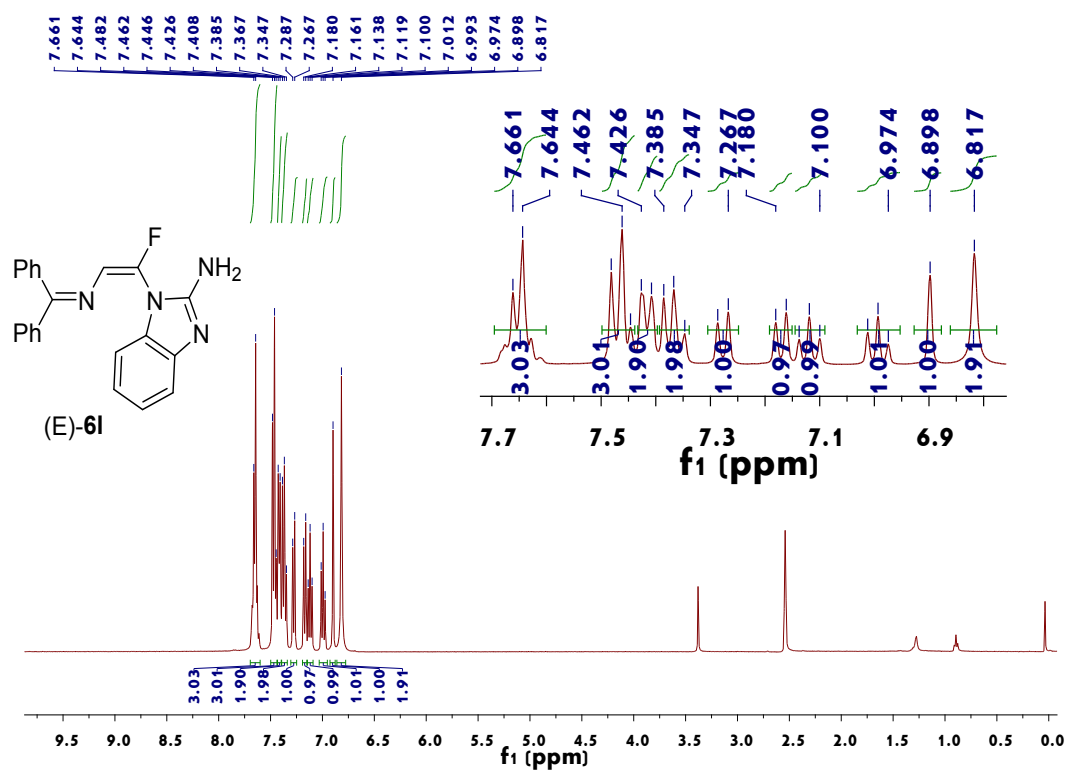


Figure 51. ¹H NMR spectrum of (E)-6I

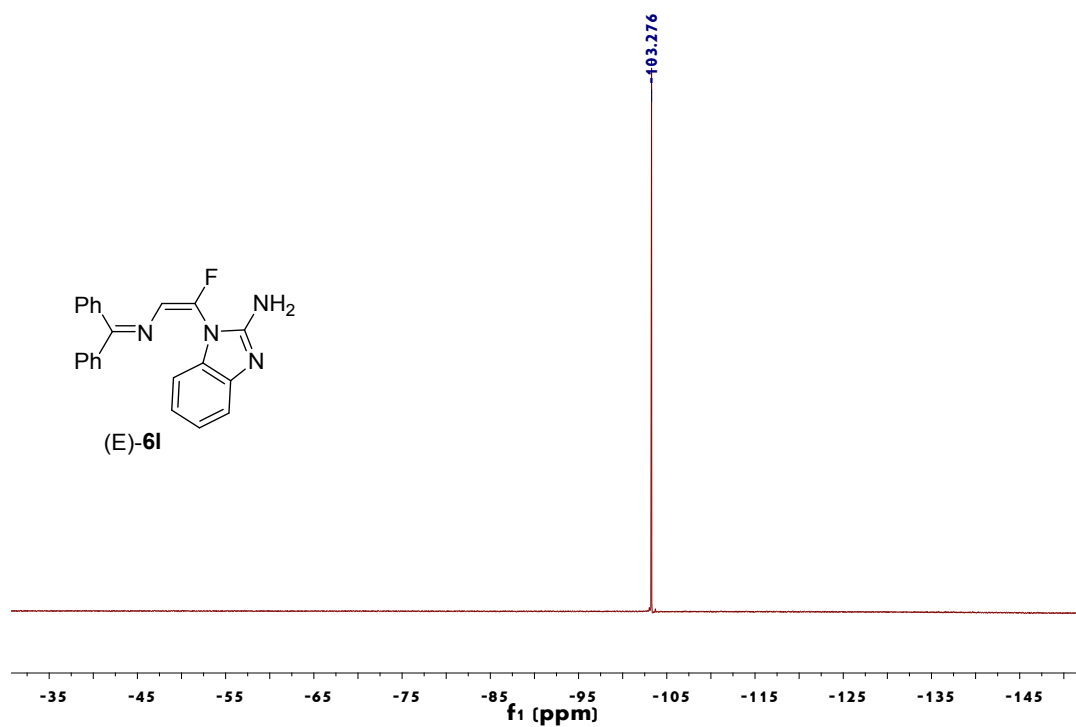


Figure 52. ¹⁹F NMR spectrum of (E)-6I

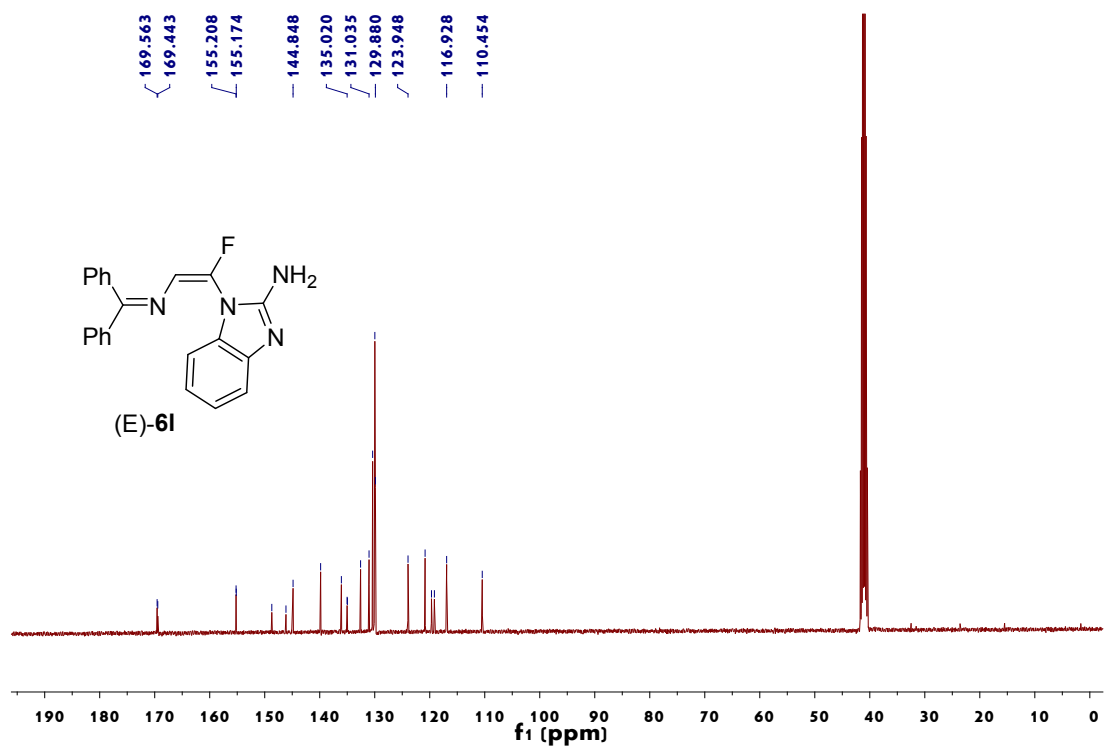


Figure 53. ^{13}C NMR spectrum of (E)-6l

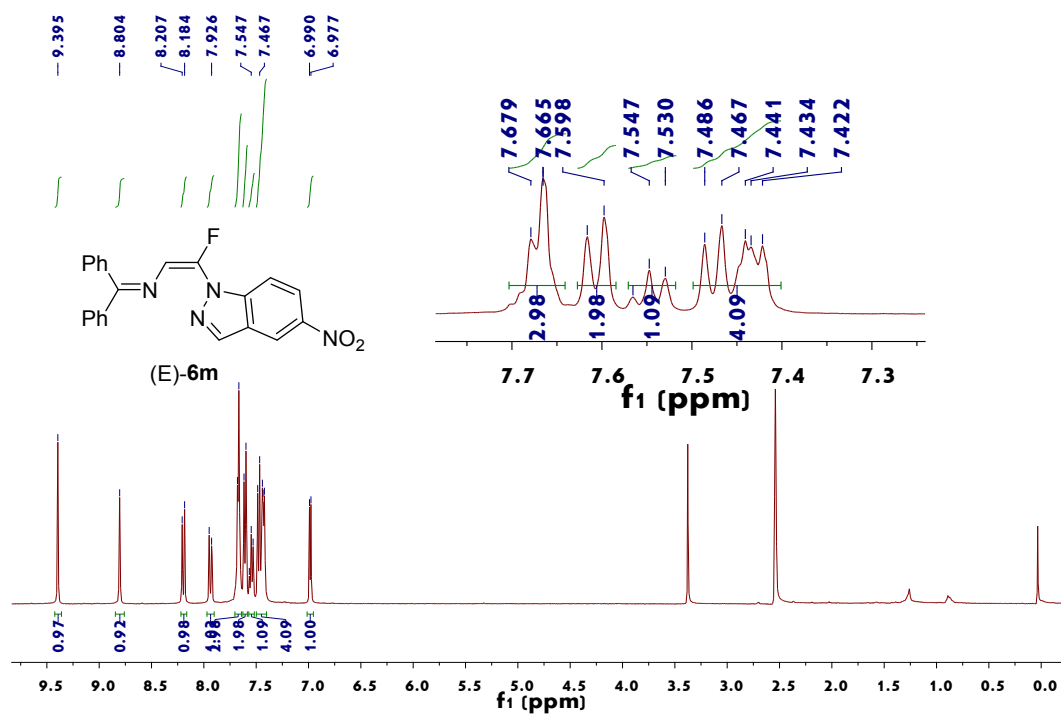


Figure 54. ^1H NMR spectrum of (E)-6m

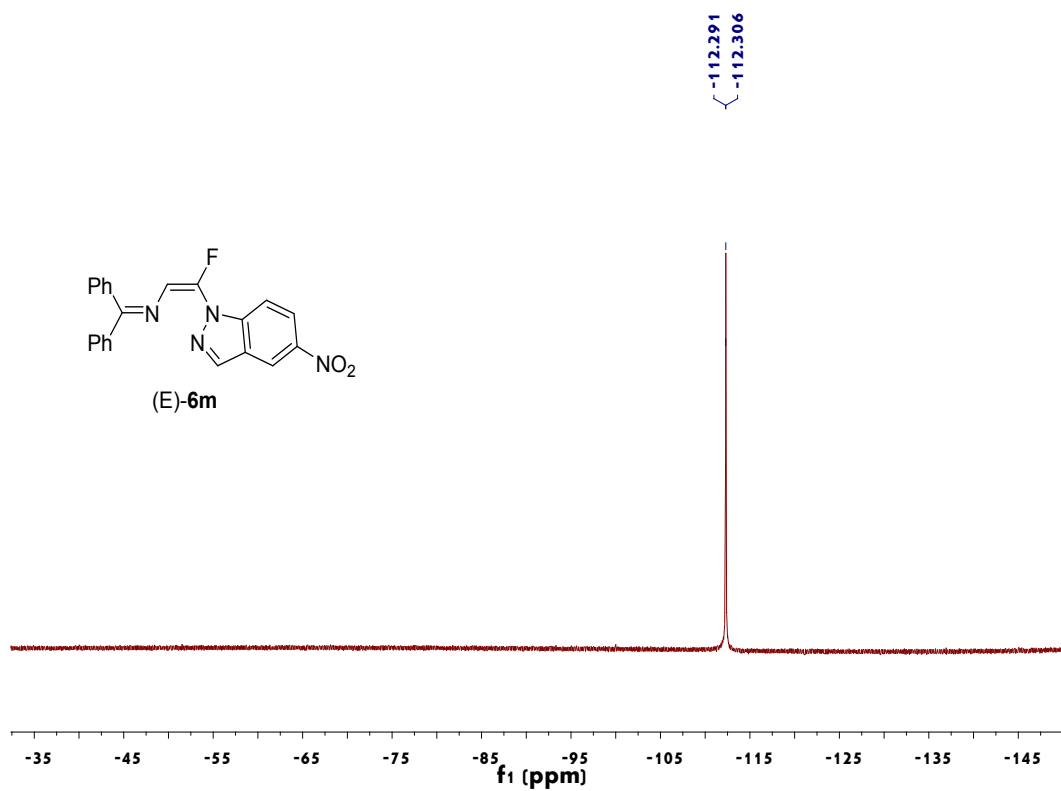


Figure 55. ¹⁹F NMR spectrum of (E)-6m

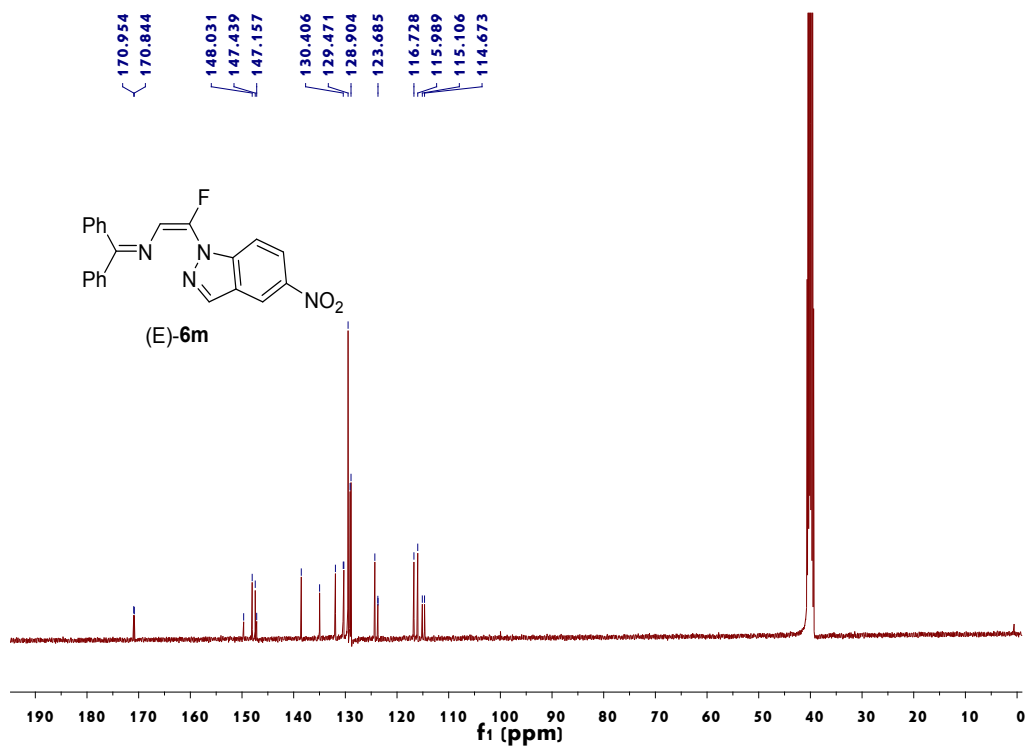


Figure 56. ¹³C NMR spectrum of (E)-6m

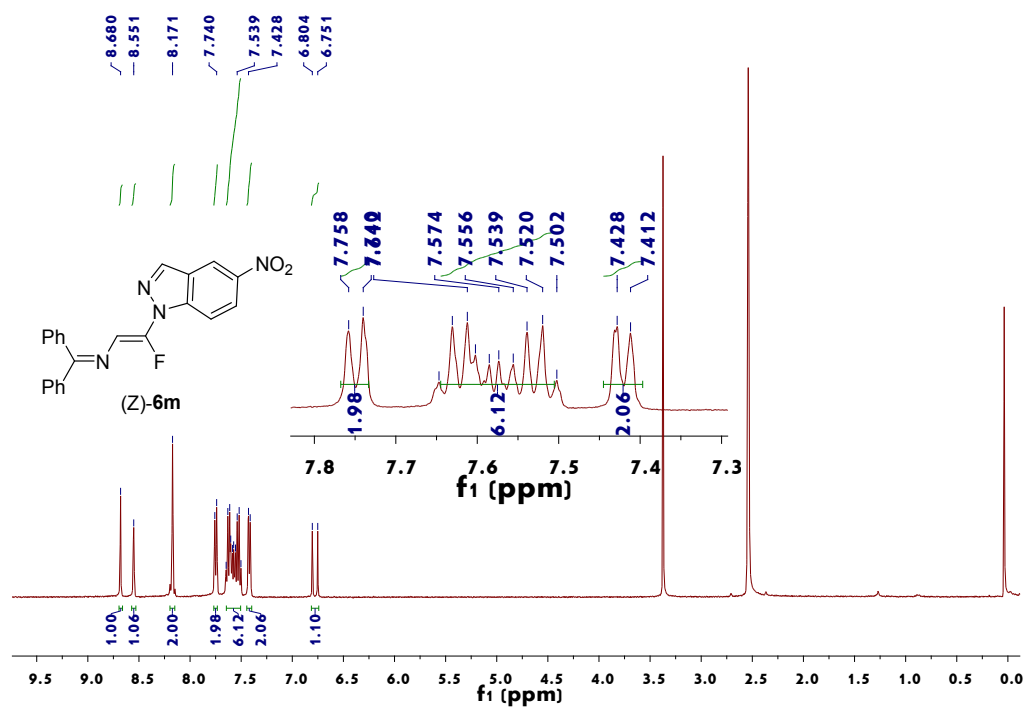


Figure 57. ¹H NMR spectrum of (Z)-6m

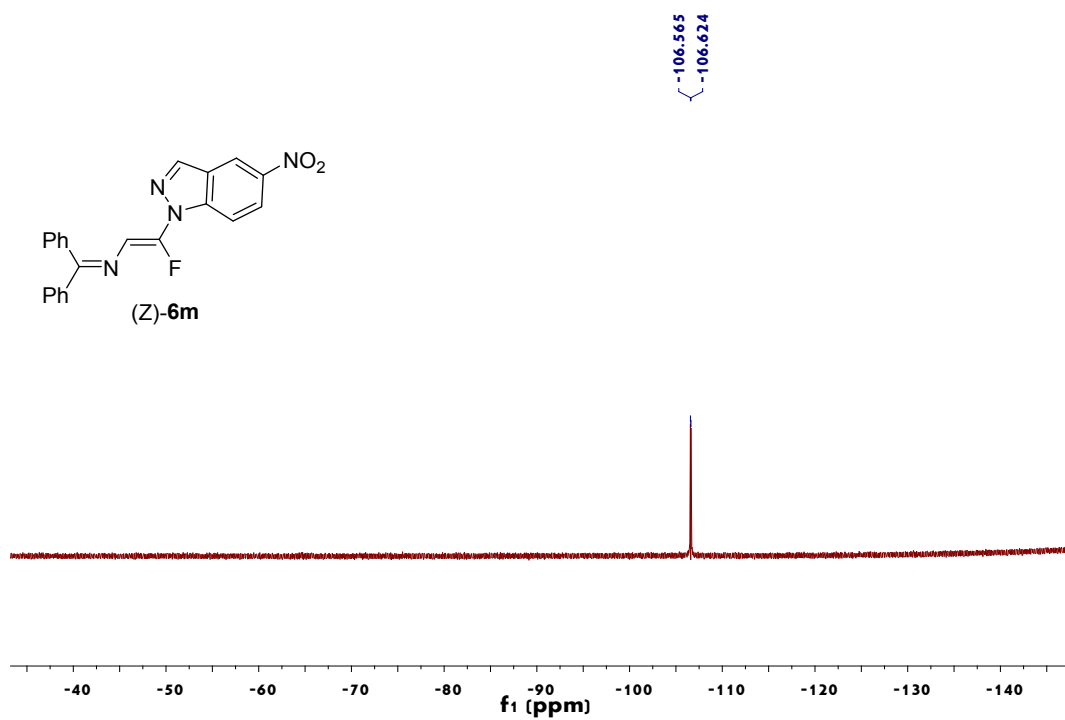


Figure 58. ¹⁹F NMR spectrum of (Z)-6m

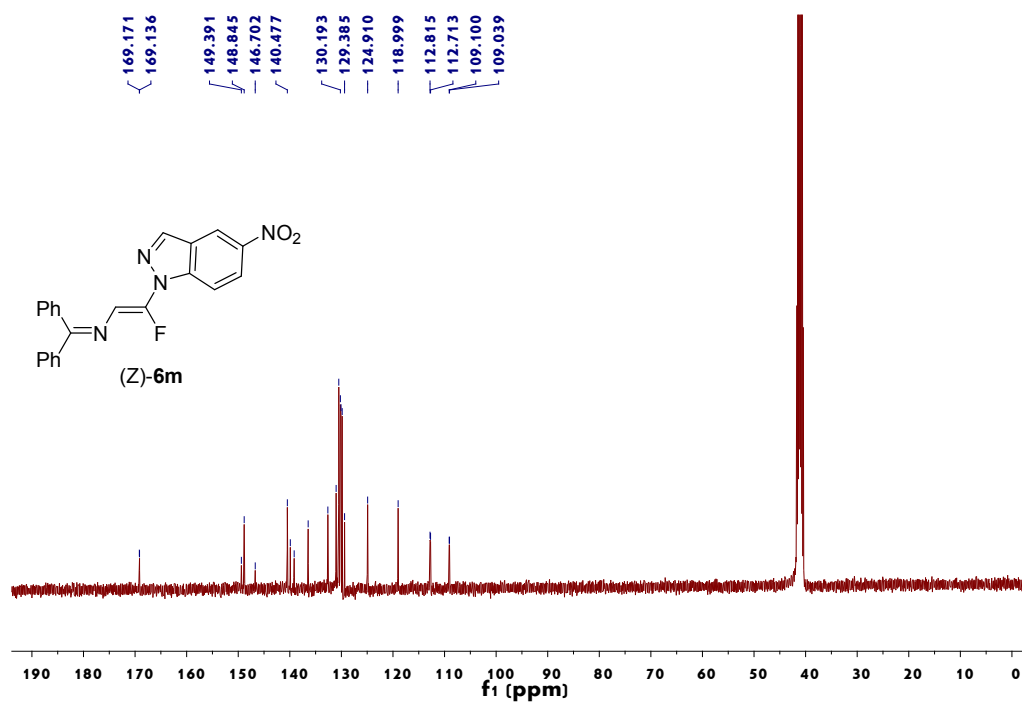


Figure 59. ¹³C NMR spectrum of (Z)-6m

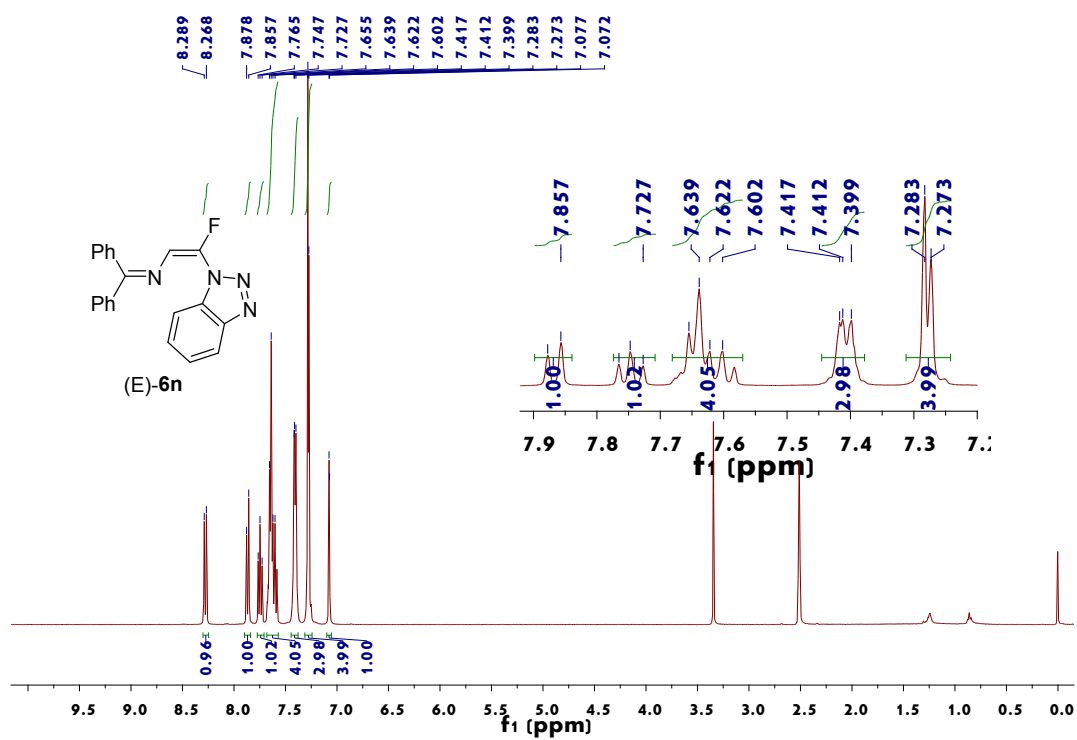


Figure 60. ¹H NMR spectrum of (E)-6n

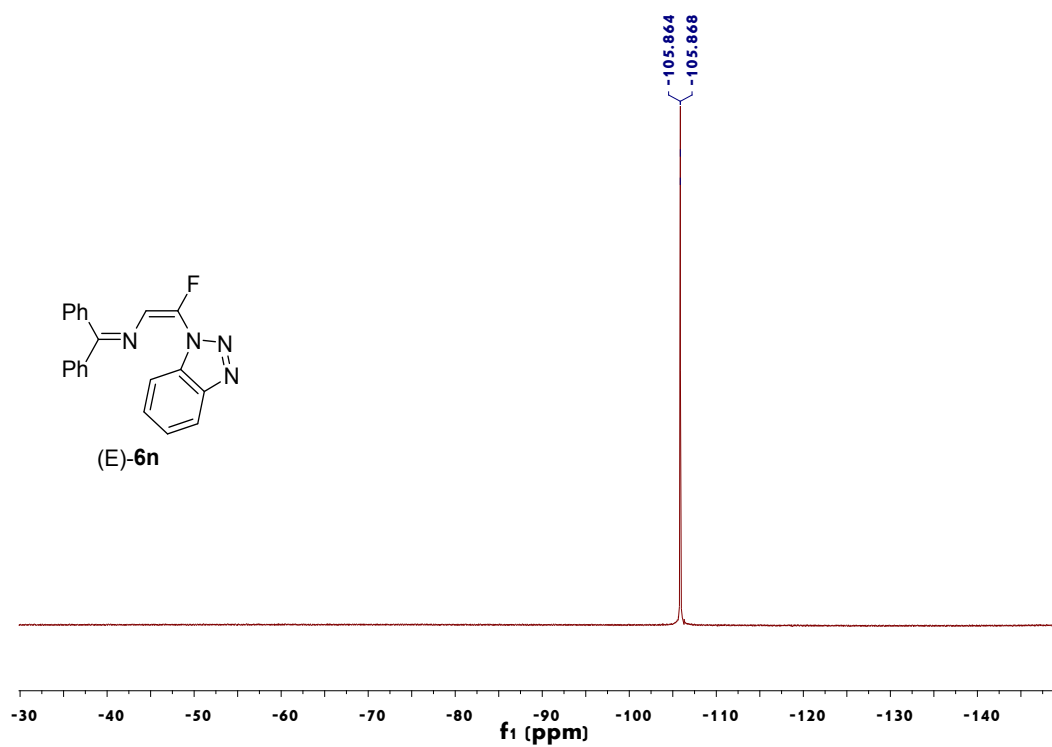


Figure 61. ^{19}F NMR spectrum of (E)-6n

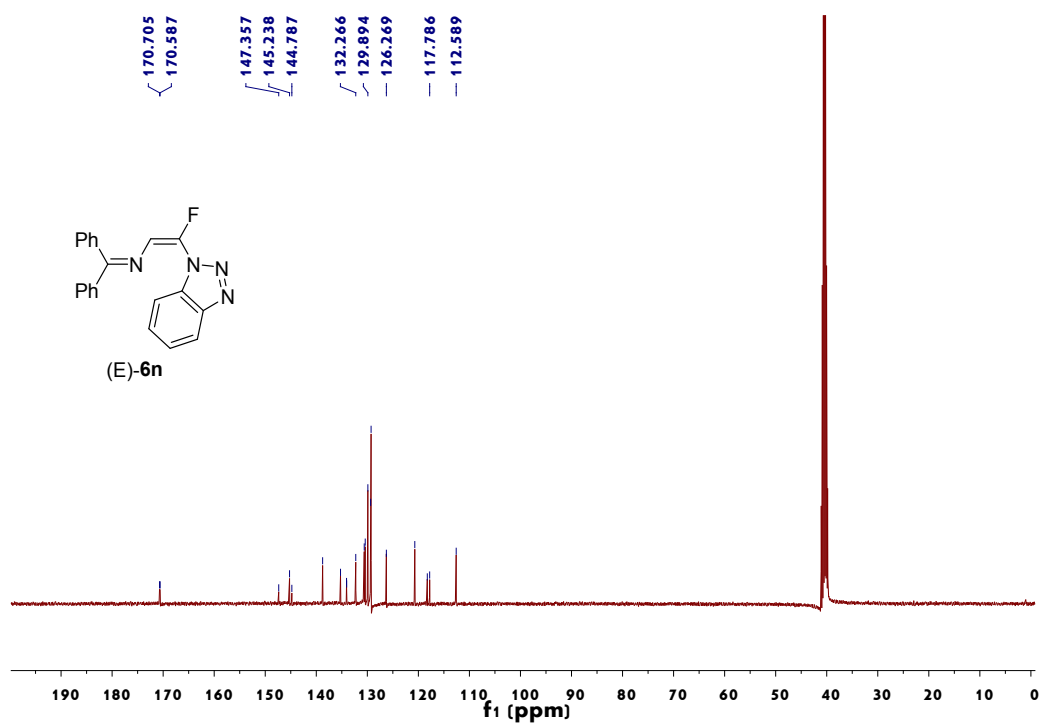


Figure 62. ^{13}C NMR spectrum of (E)-6n

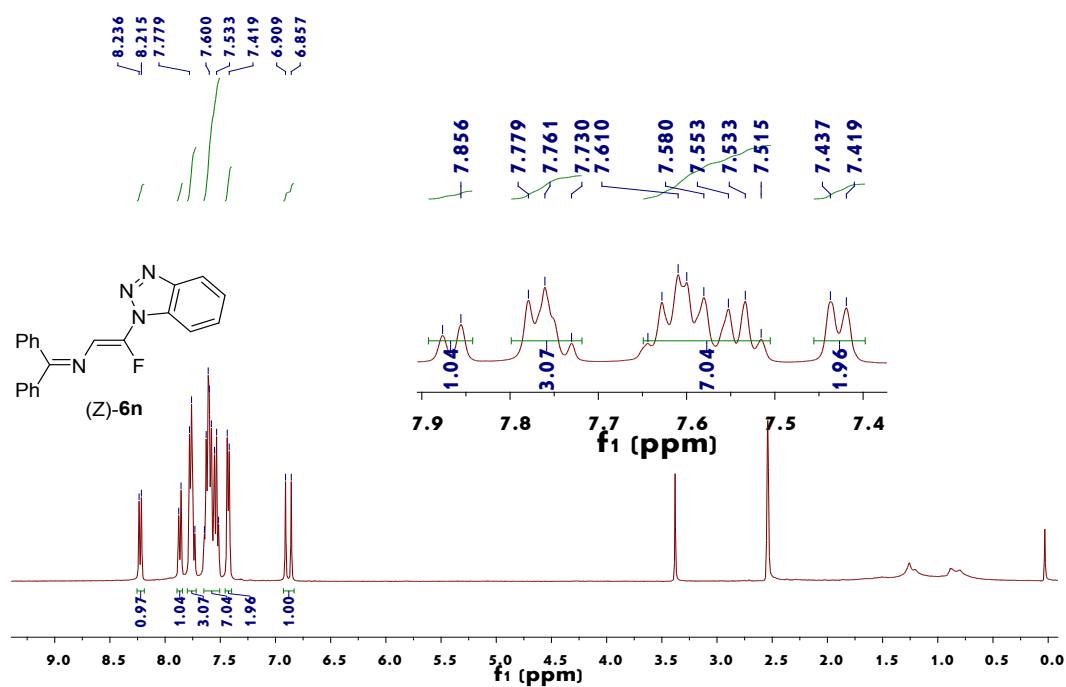


Figure 63. ¹H NMR spectrum of (Z)-6n

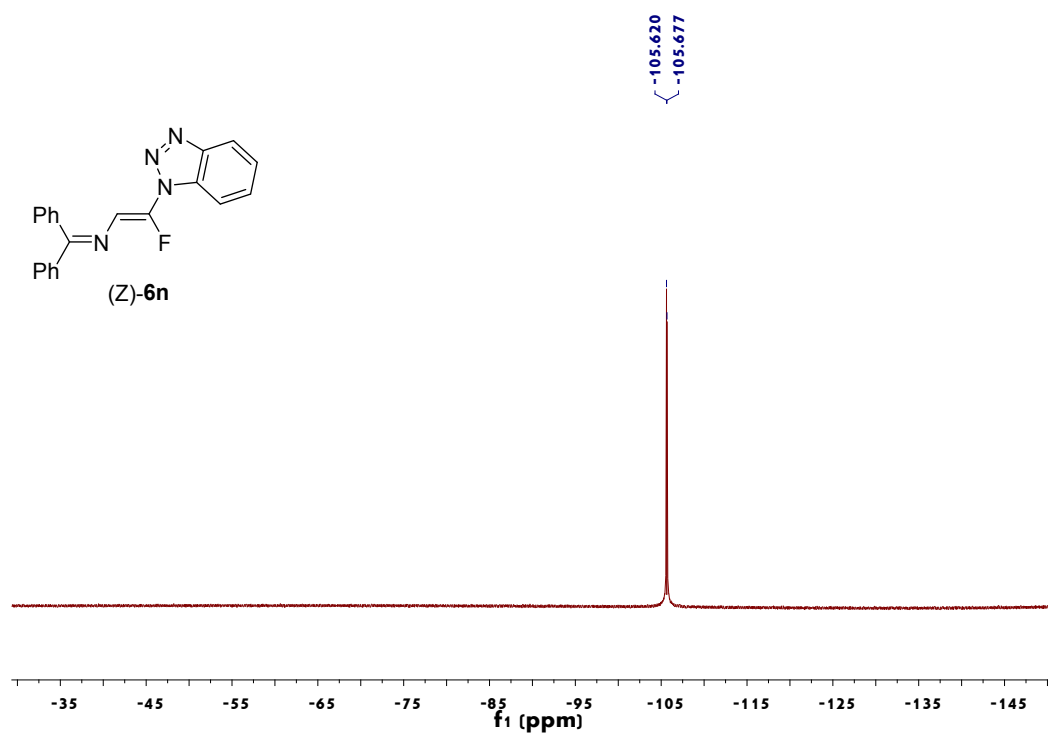


Figure 64. ¹⁹F NMR spectrum of (Z)-6n

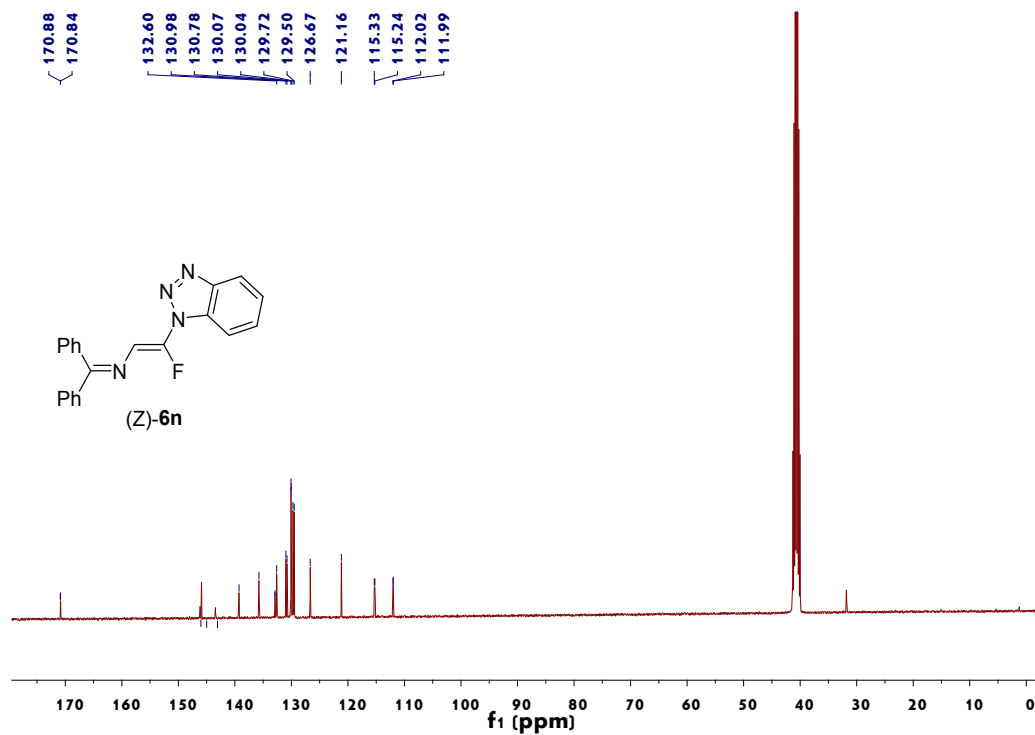


Figure 65. ¹³C NMR spectrum of (Z)-6n

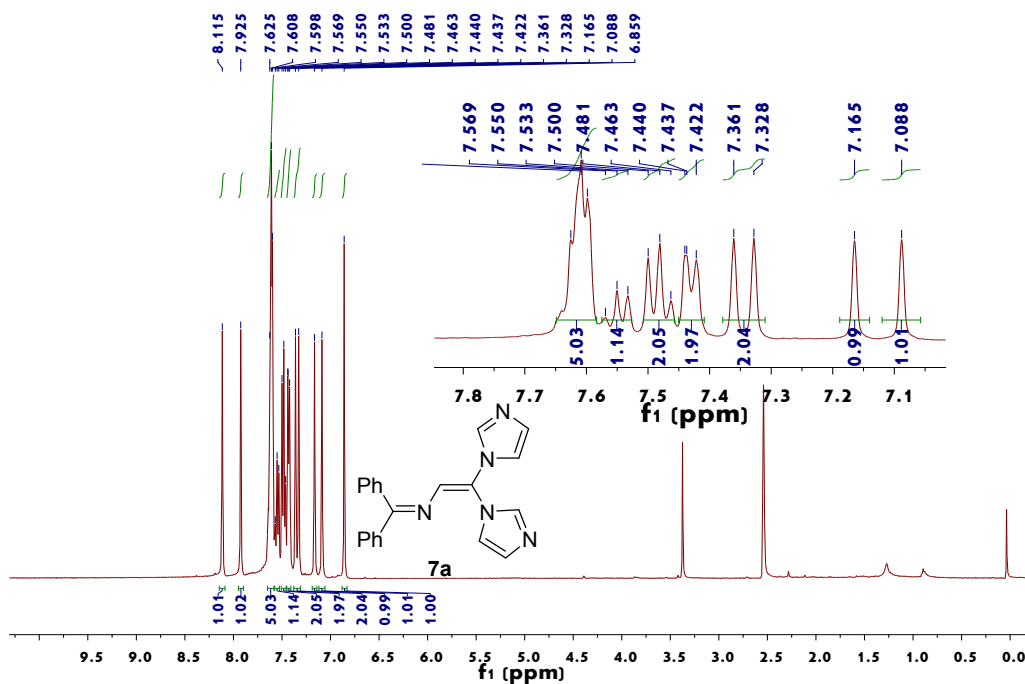


Figure 66. ¹H NMR spectrum of 7a

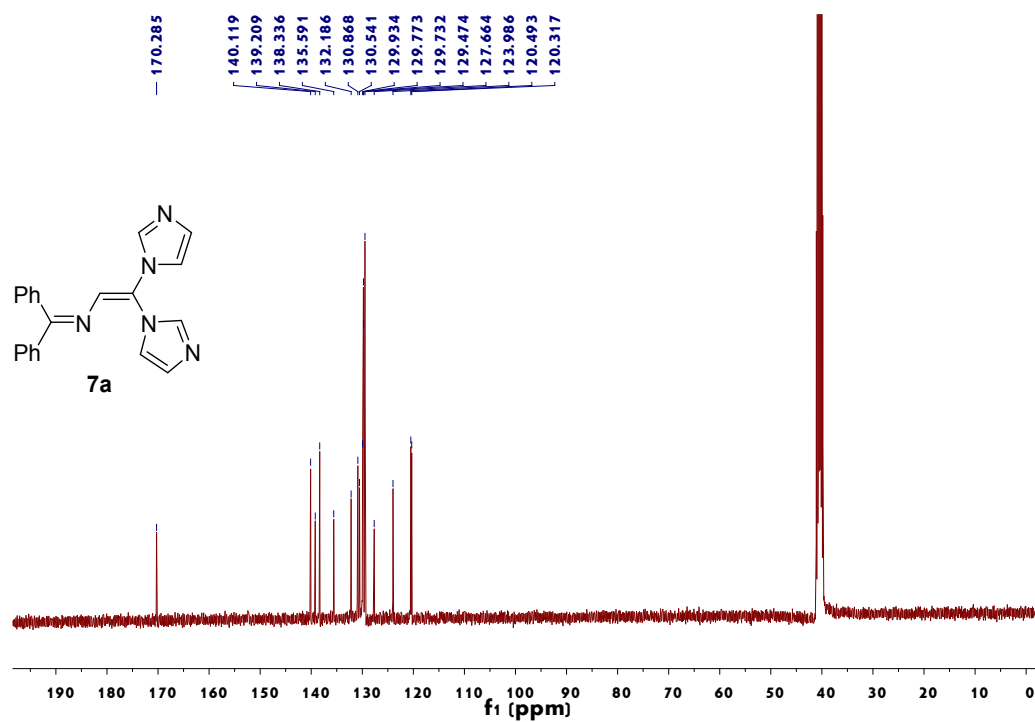


Figure 67. ¹³C NMR spectrum of **7a**

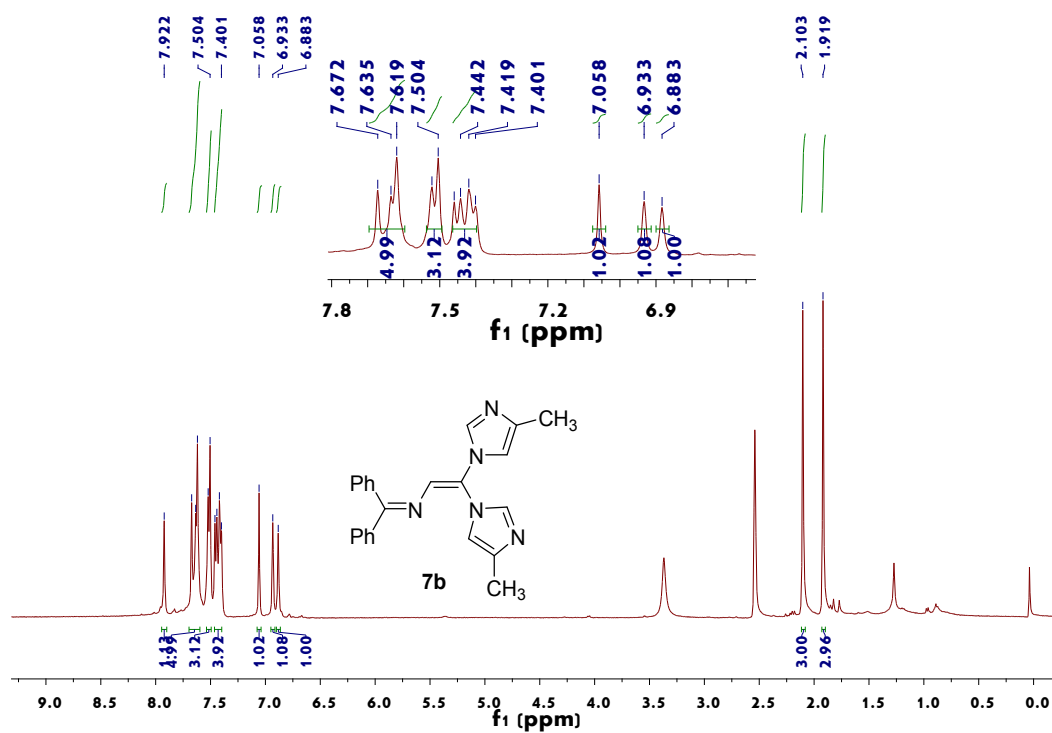


Figure 68. ¹H NMR spectrum of **7b**

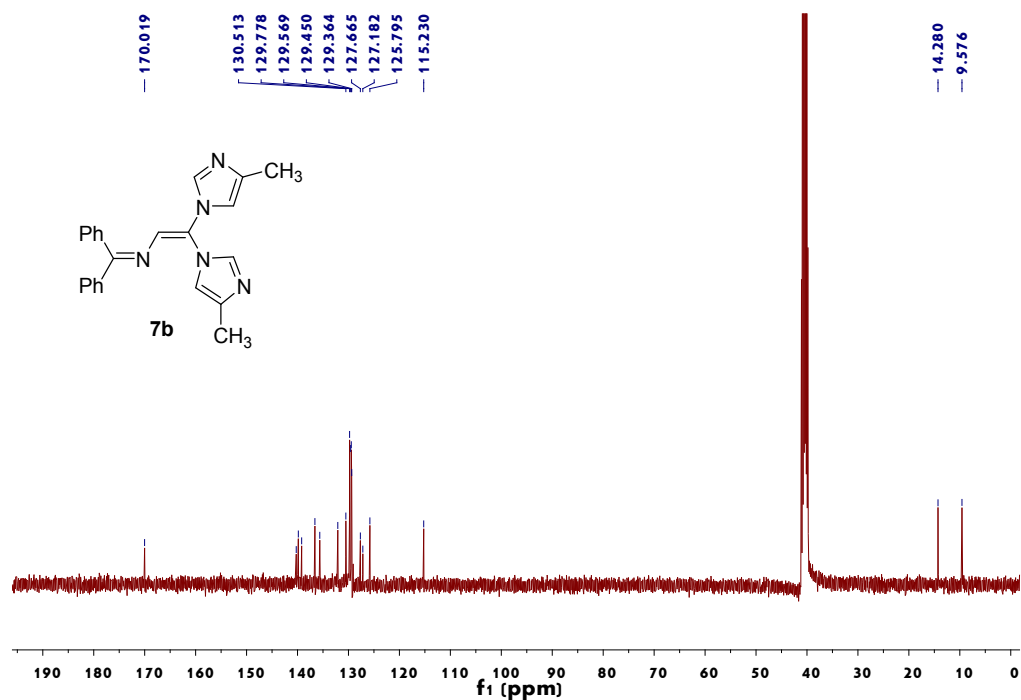


Figure 69. ¹³C NMR spectrum of **7b**

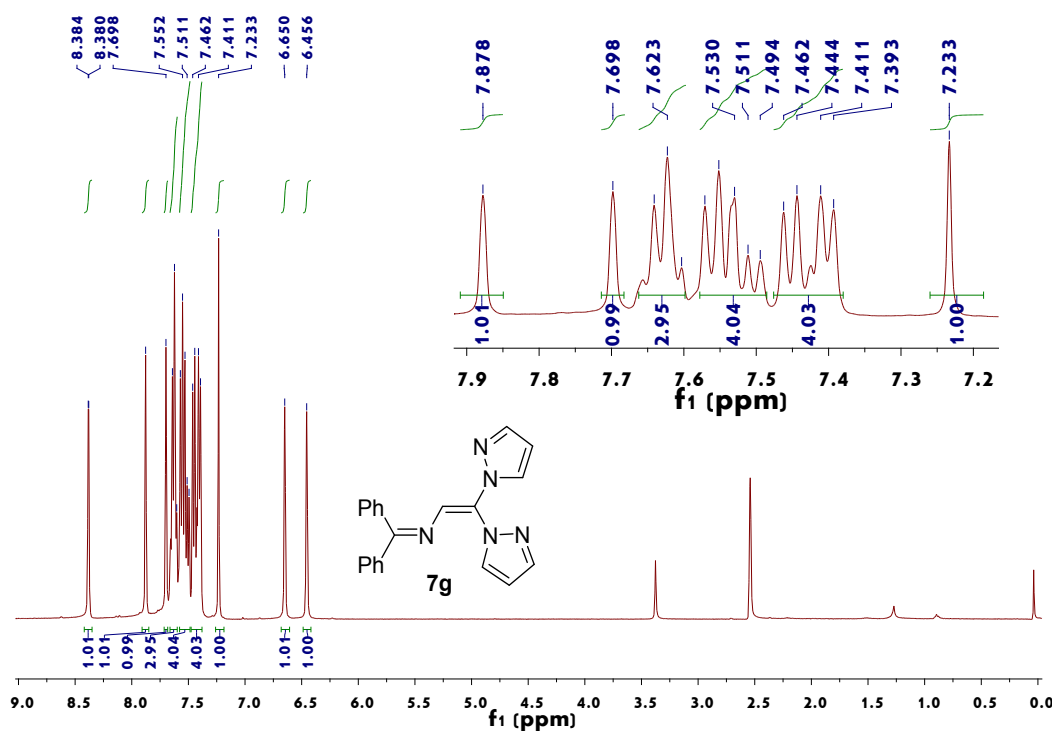


Figure 70. ¹H NMR spectrum of **7g**

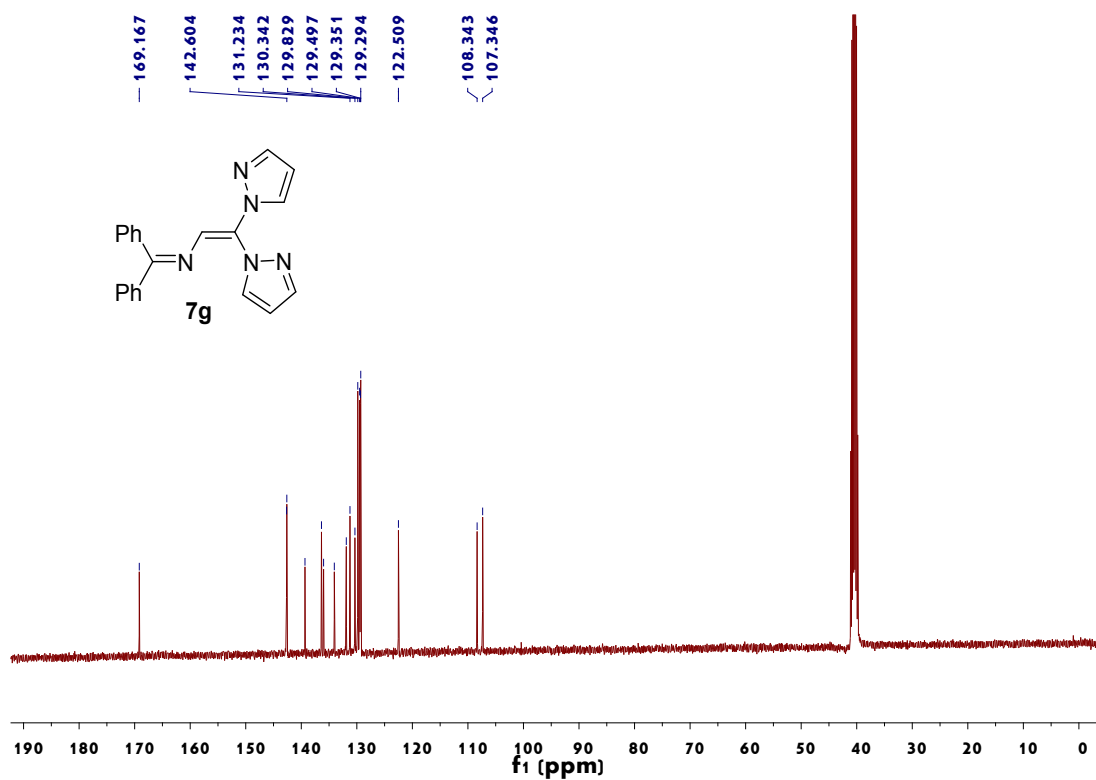


Figure 71. ¹³C NMR spectrum of **7g**

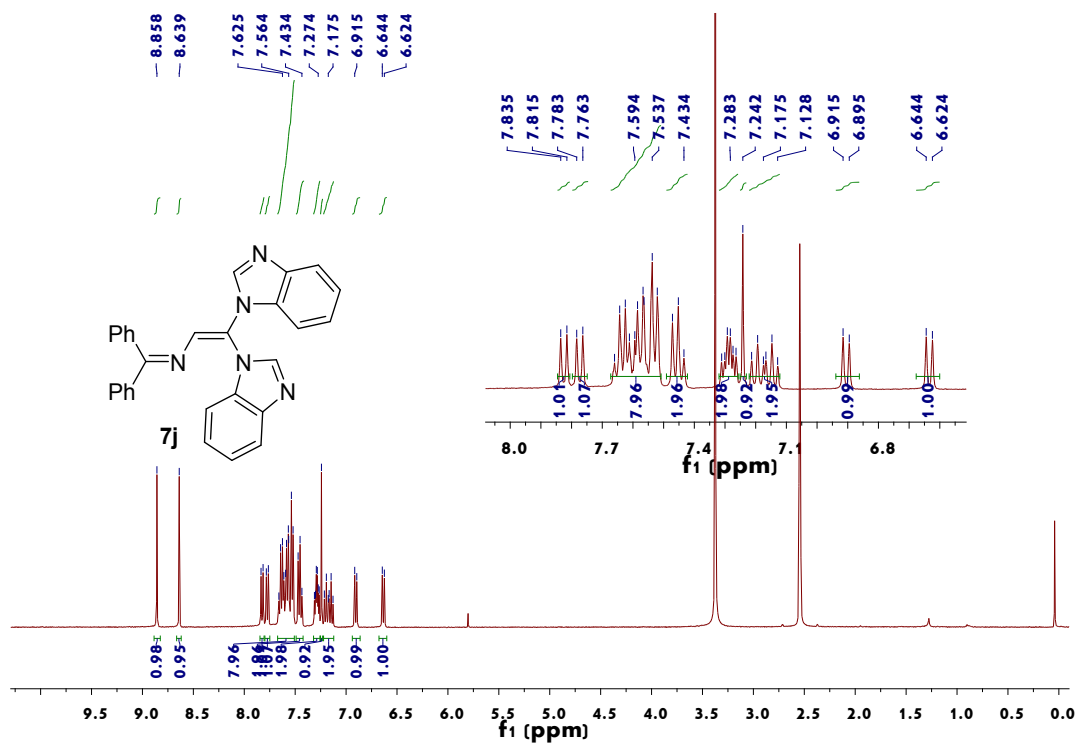


Figure 72. ¹H NMR spectrum of **7j**

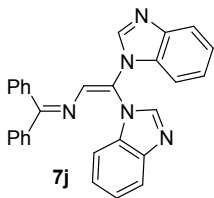


Figure 73. ^{13}C NMR spectrum of **7j**