

Electronic Supplementary Information (ESI) for New Journal of Chemistry

Ecofriendly aminochalcogenation of alkenes: a green alternative to obtain compounds with potential anti SARS-CoV-2 activity

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Figure S1. ^1H NMR spectrum of compound **4a** in CDCl_3 at 500MHz.

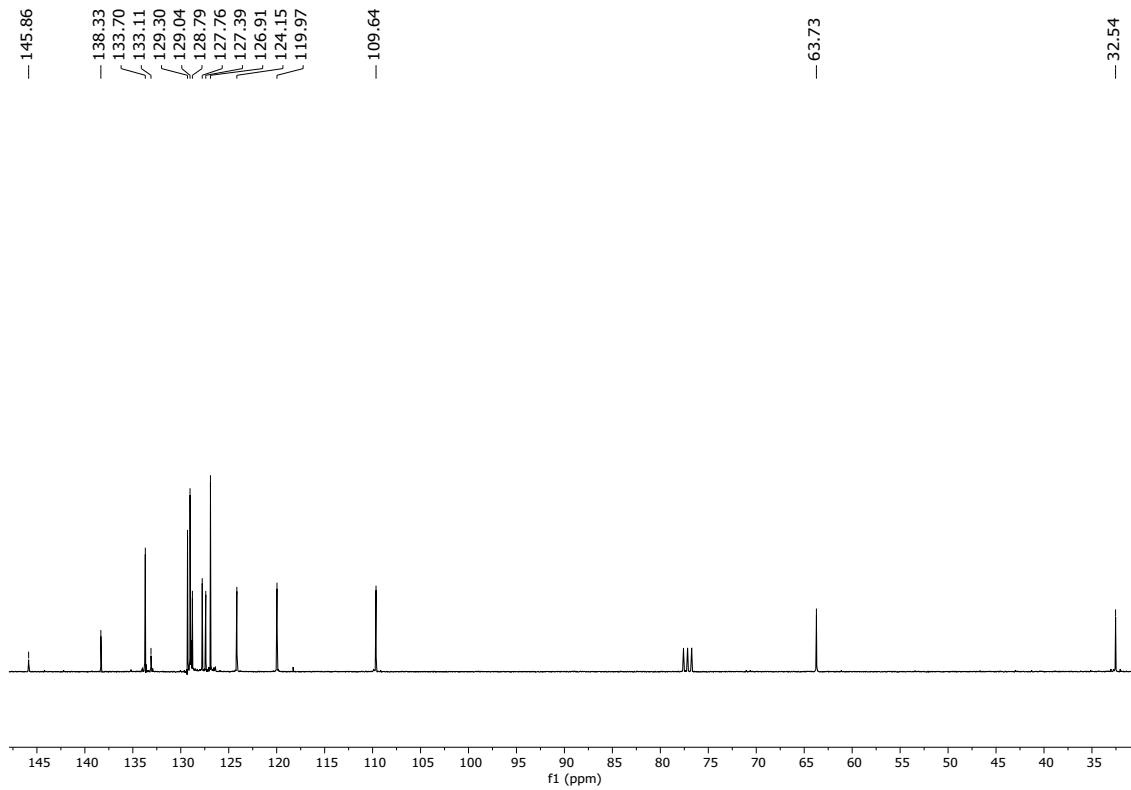


Figure S2. ^{13}C NMR spectrum of compound **4a** in CDCl_3 at 75MHz.

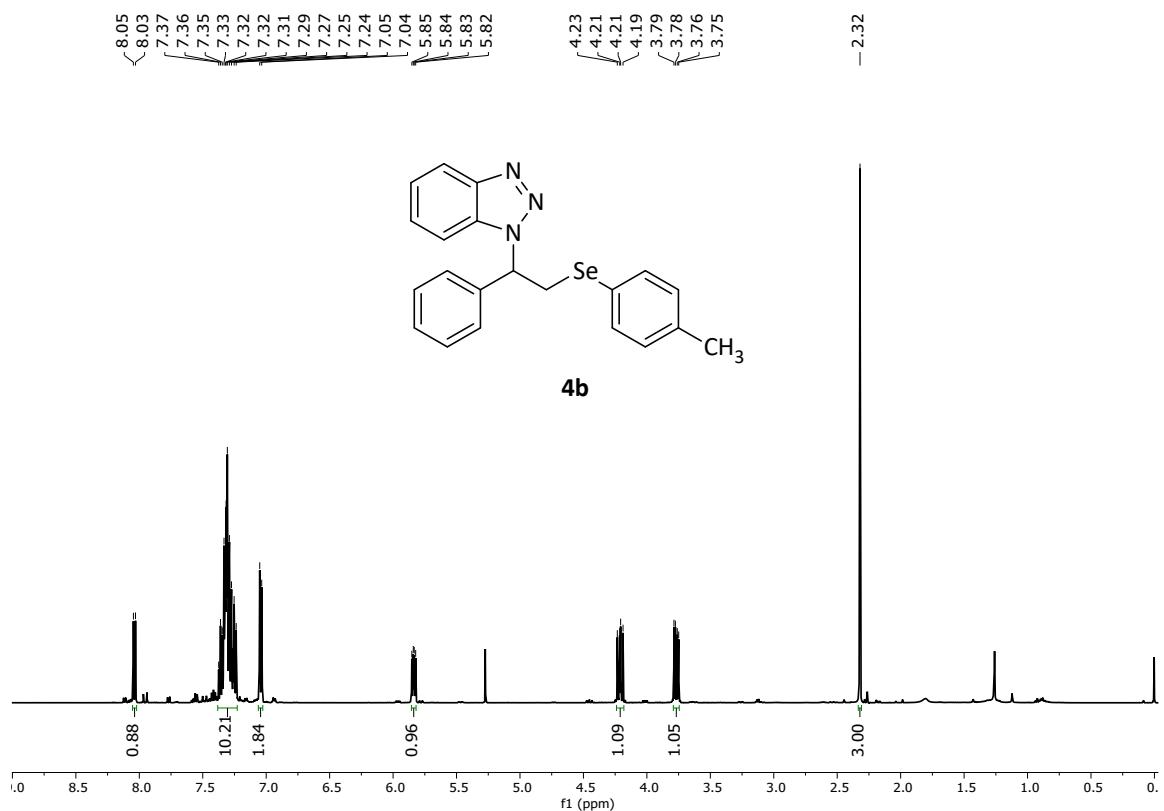


Figure S3. ^1H NMR spectrum of compound **4b** in CDCl_3 at 500MHz.

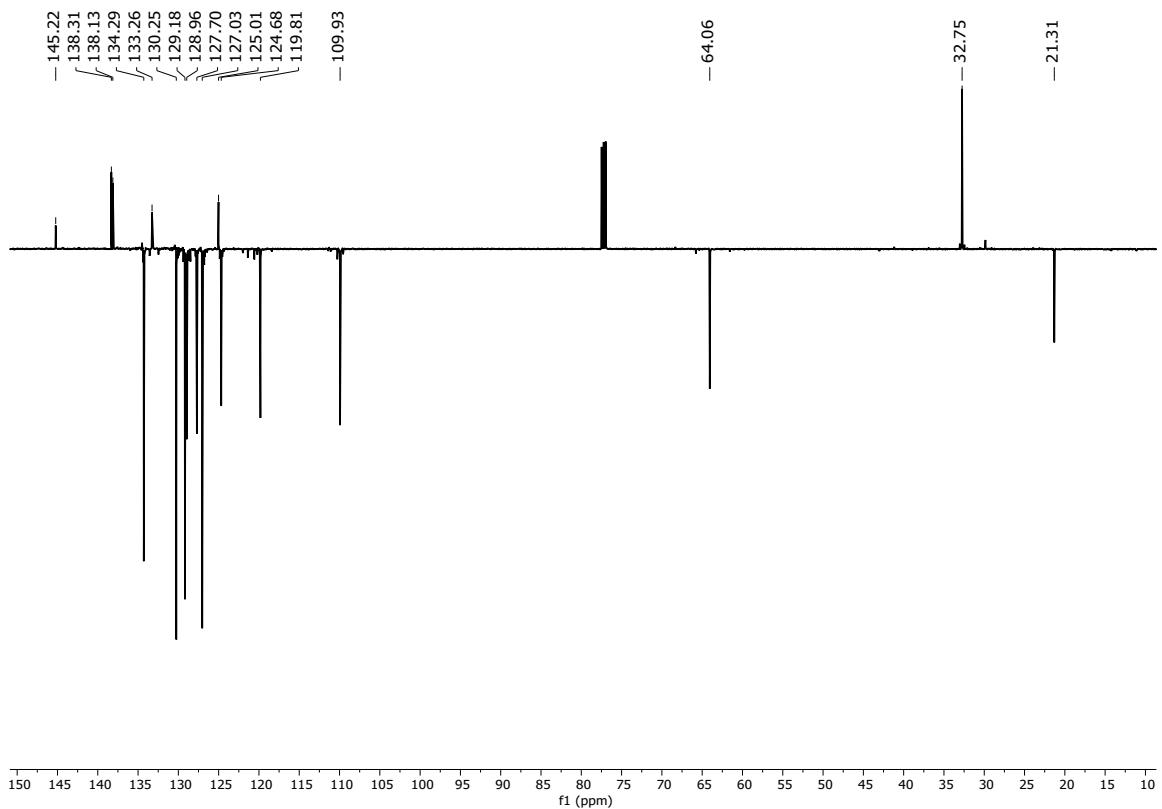


Figure S4. ¹³C-APT NMR spectrum of compound **4b** in CDCl_3 at 75MHz.

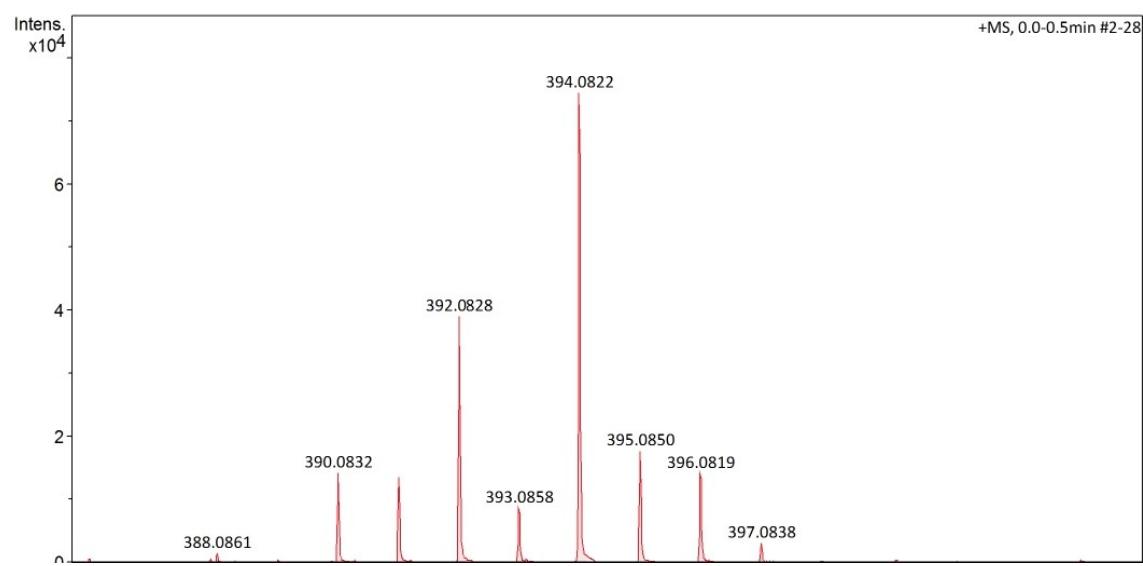


Figure S5. ESI MS spectrum of **4b**.

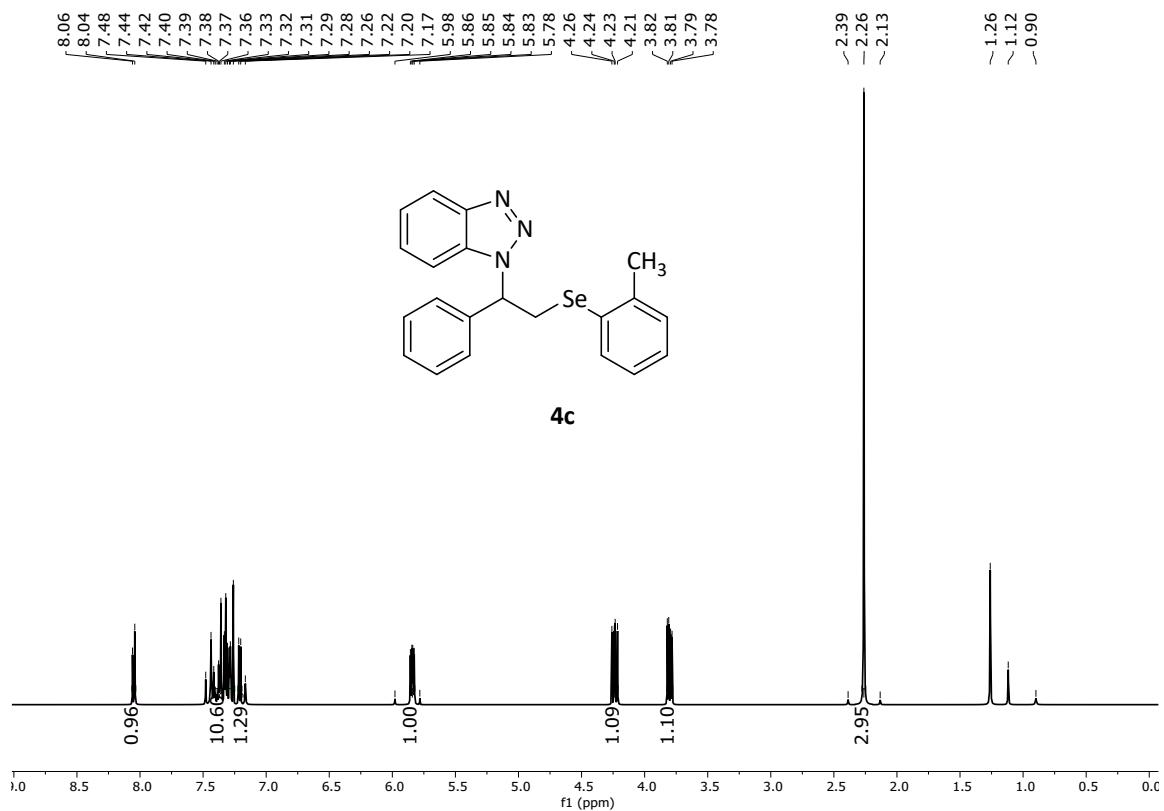


Figure S6. ^1H NMR spectrum of compound **4c** in CDCl_3 at 500MHz.

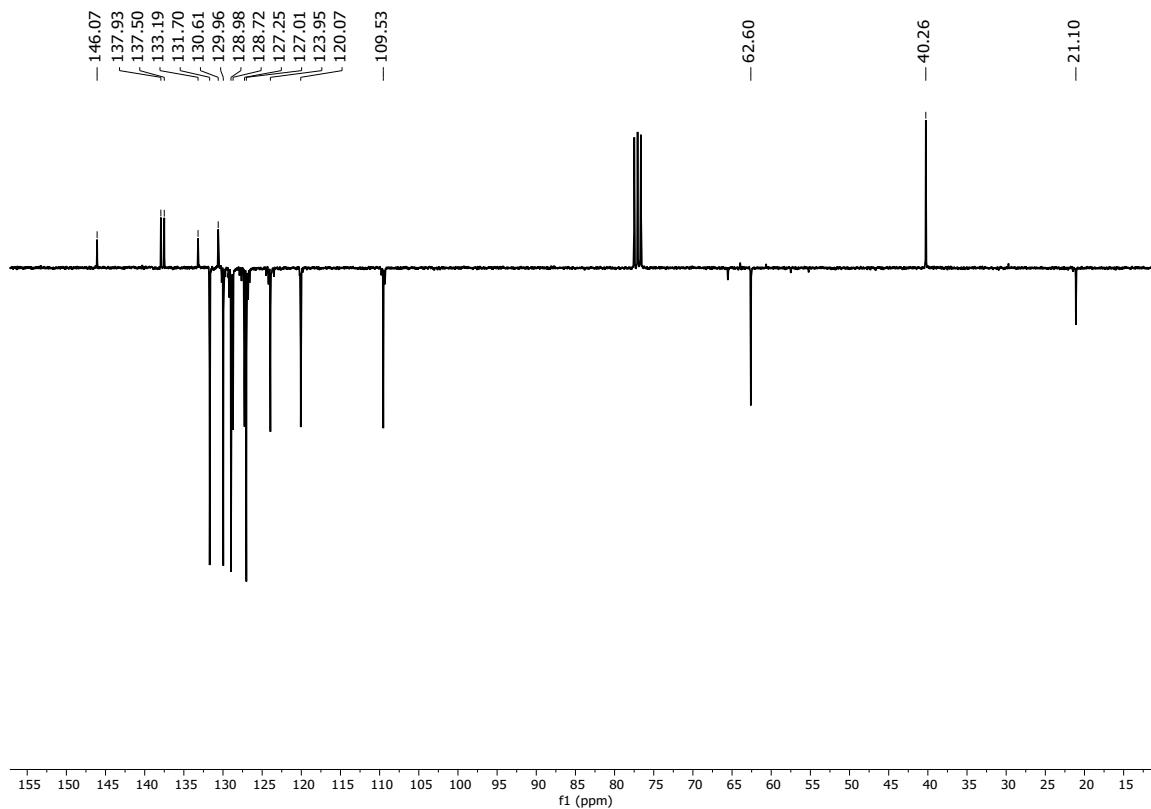


Figure S7. ¹³C-APT NMR spectrum of compound **4c** in CDCl₃ at 75MHz.

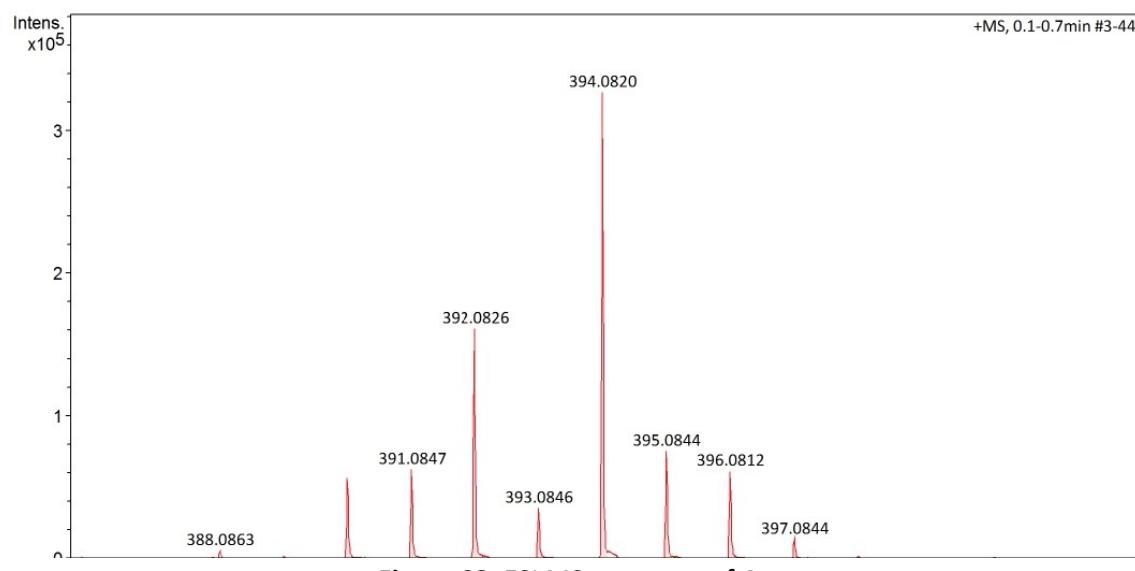


Figure S8. ESI MS spectrum of **4c**.

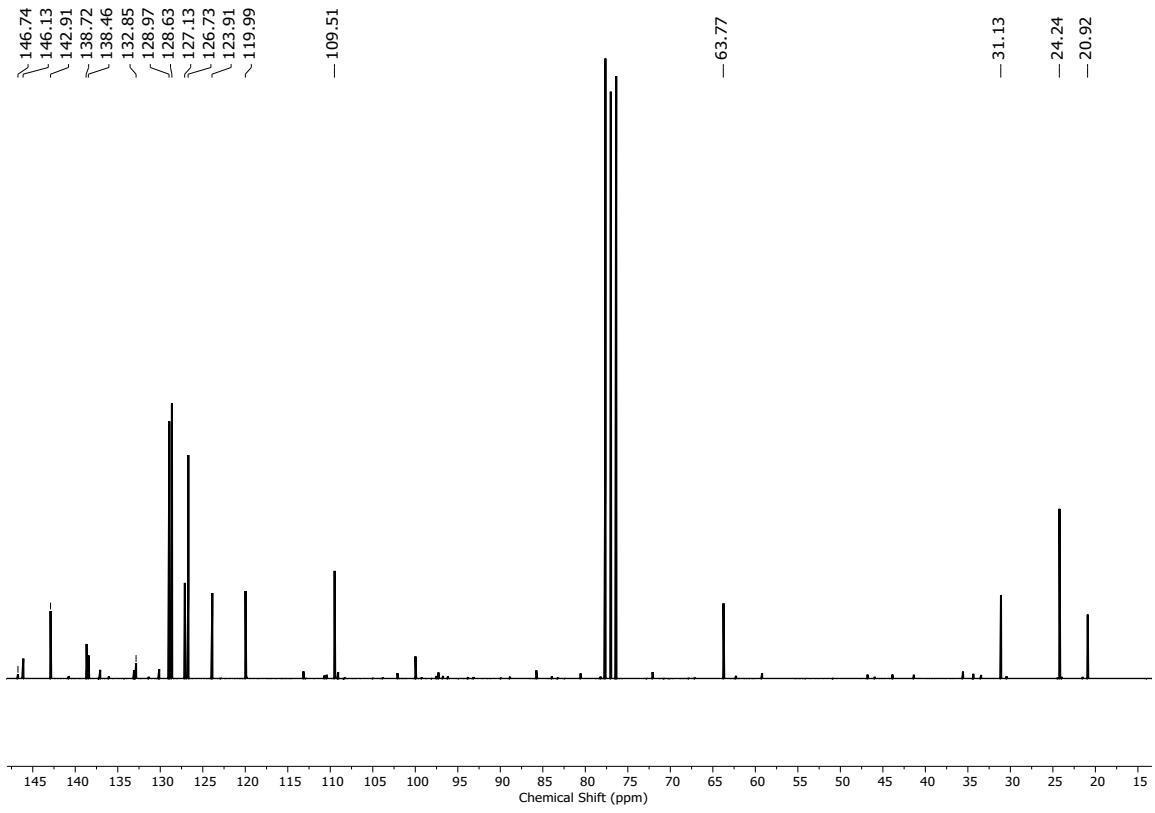
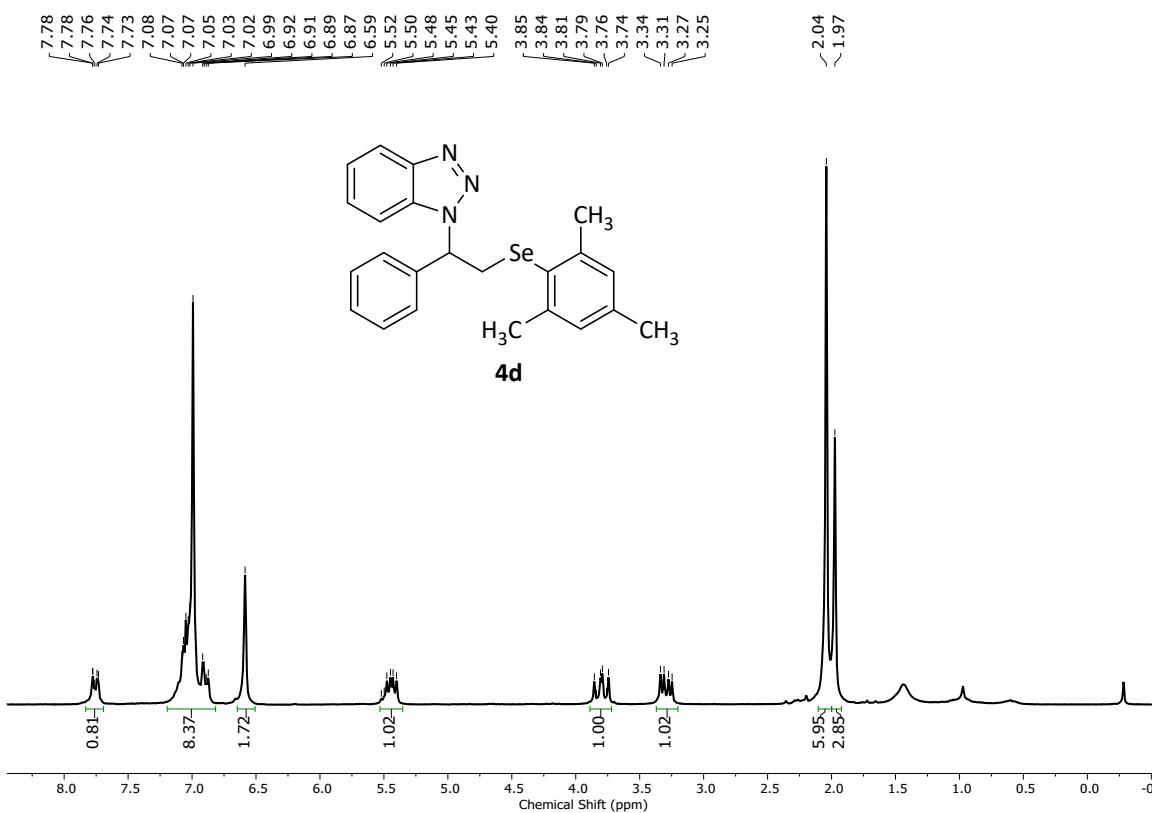


Figure S10. ^{13}C -APT NMR spectrum of compound **4d** in CDCl_3 at 50MHz.

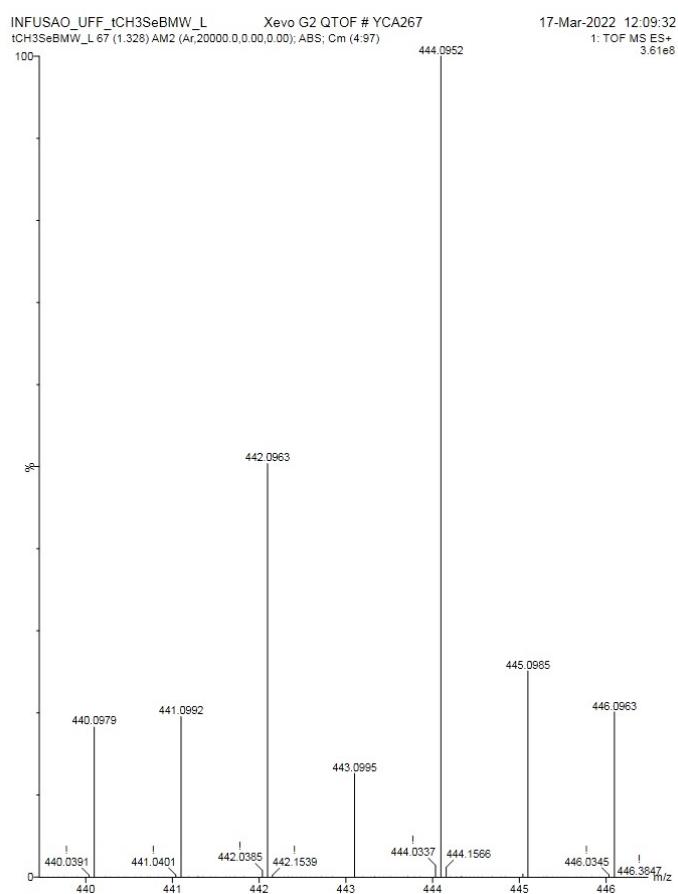


Figure S11. ESI MS spectrum of **4d**.

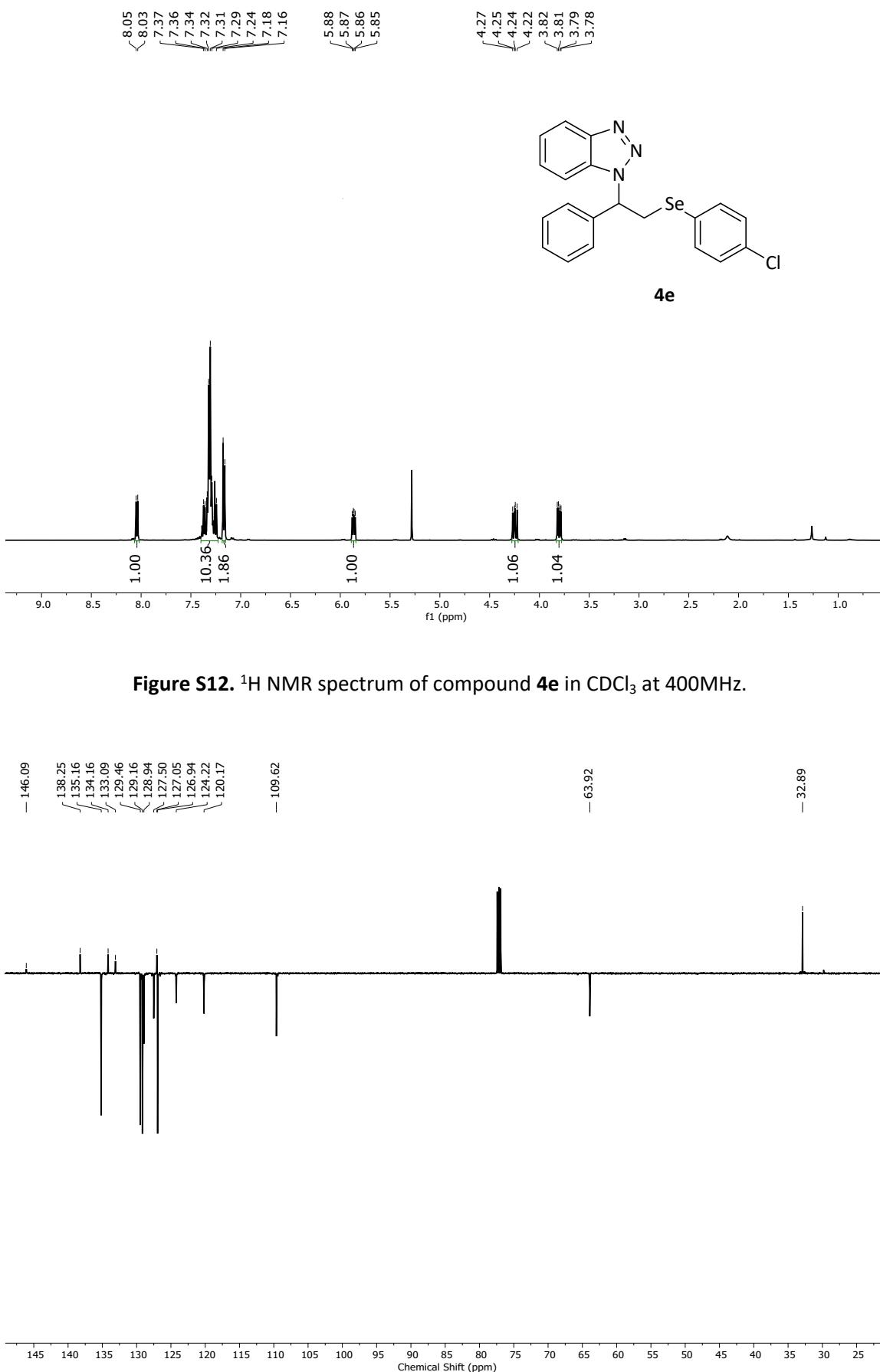


Figure S13. ^{13}C -APT NMR spectrum of compound **4e** in CDCl_3 at 75MHz.

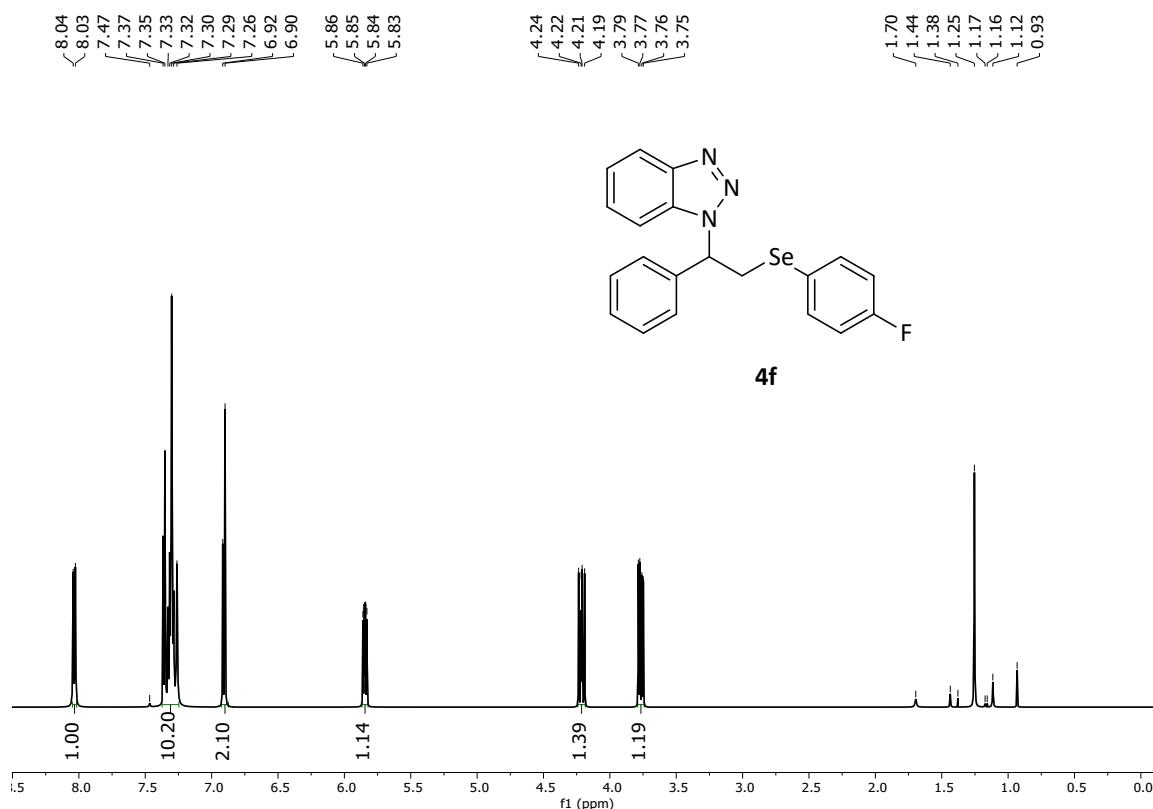


Figure S14. ^1H NMR spectrum of compound **4f** in CDCl_3 at 500MHz.

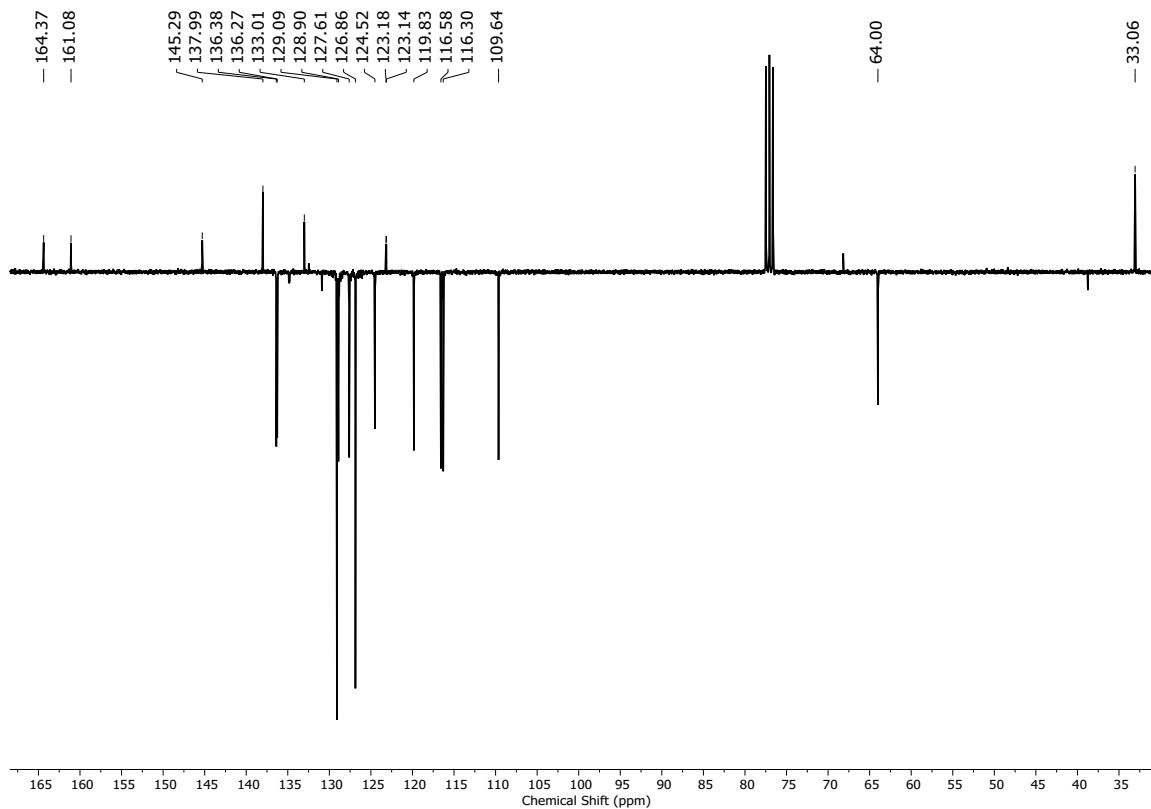


Figure S15. ¹³C-APT NMR spectrum of compound **4f** in CDCl_3 at 75MHz.

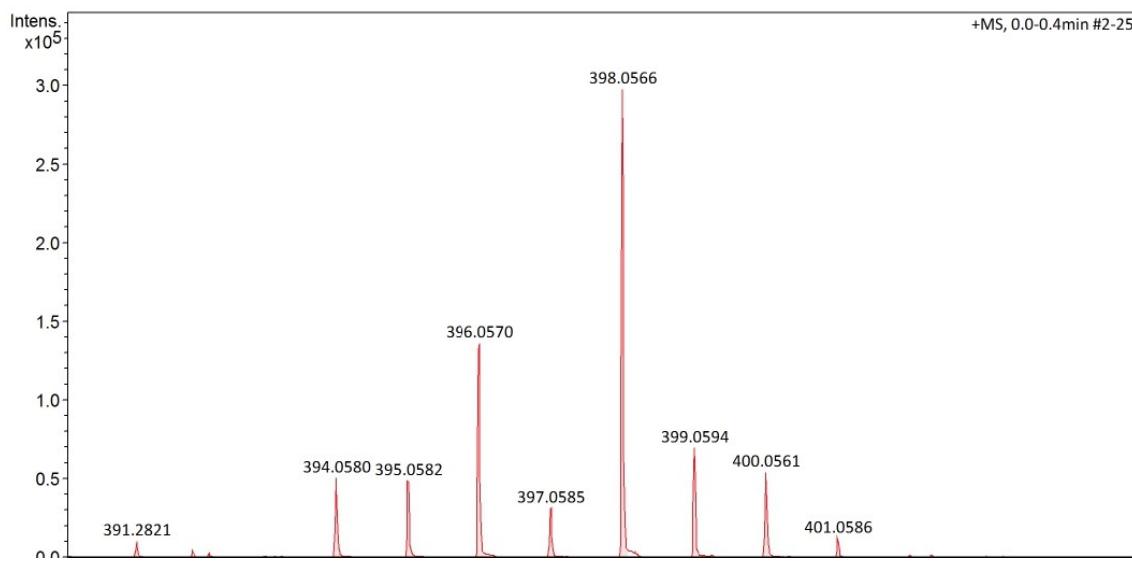


Figure S16. ESI MS spectrum of **4f**.

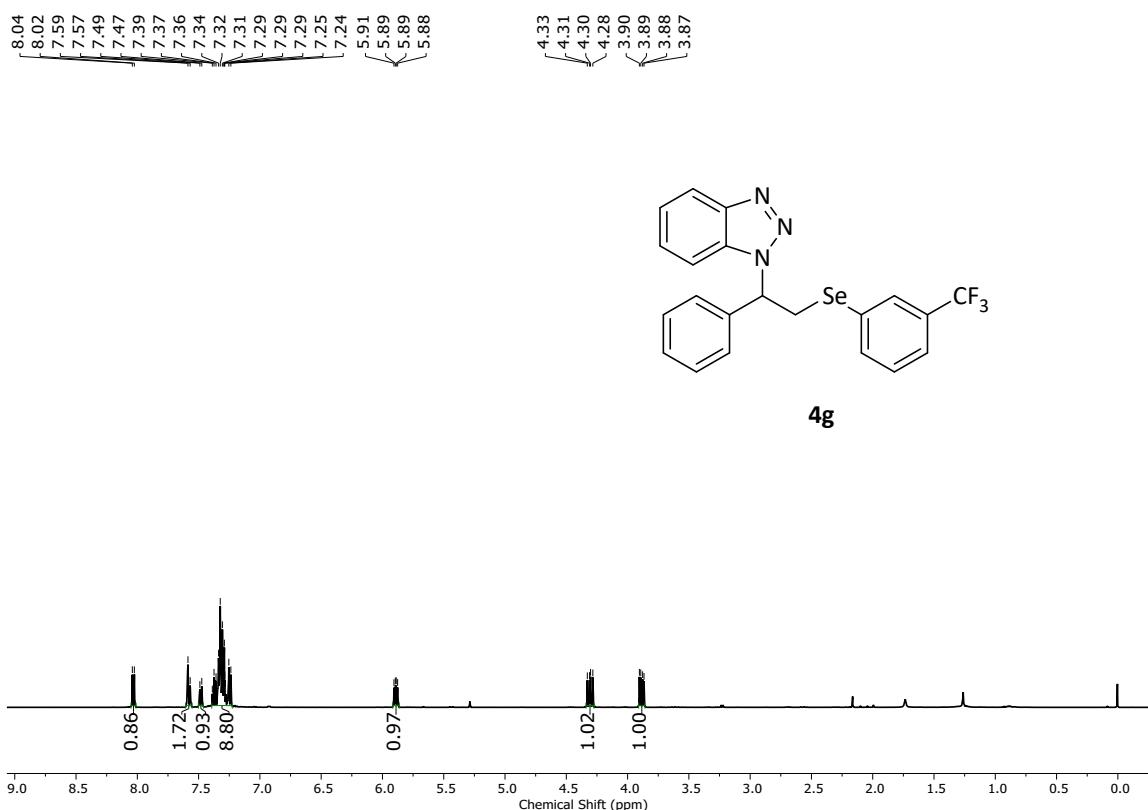


Figure S17. ¹H NMR spectrum of compound **4g** in CDCl₃ at 500MHz.

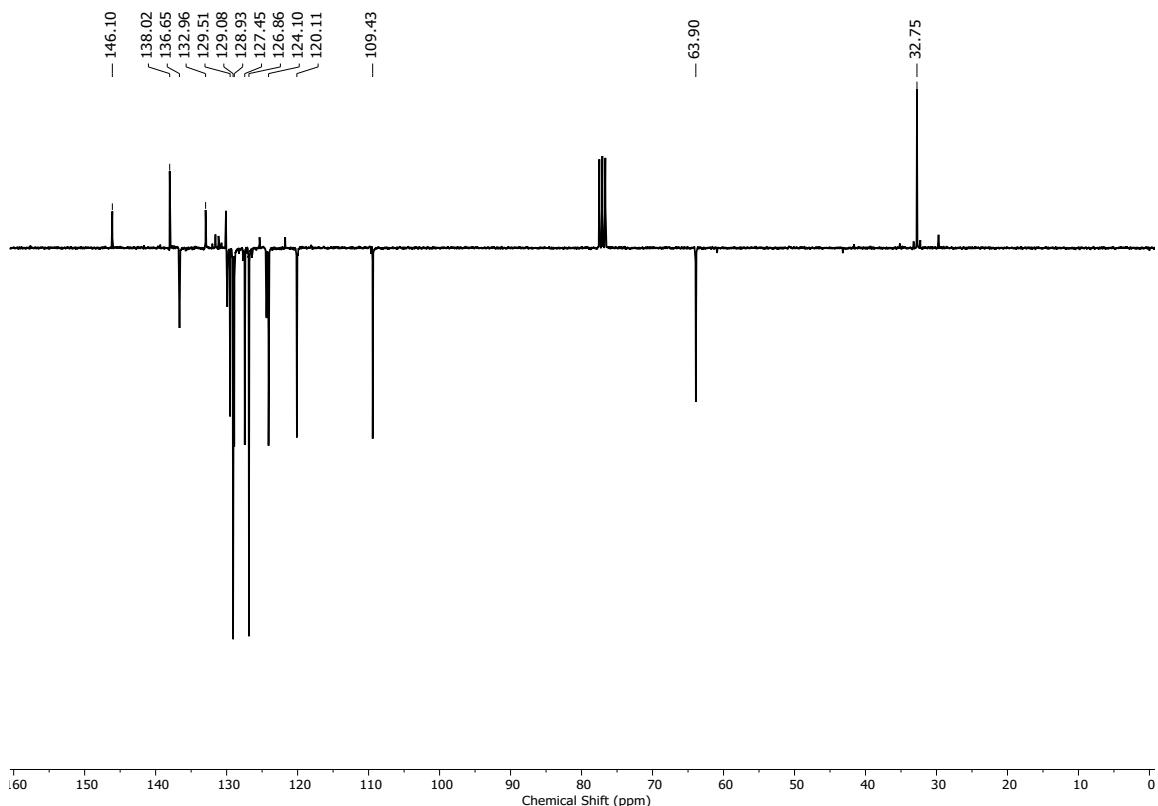


Figure S18. ^{13}C -APT NMR spectrum of compound **4g** in CDCl_3 at 75MHz.

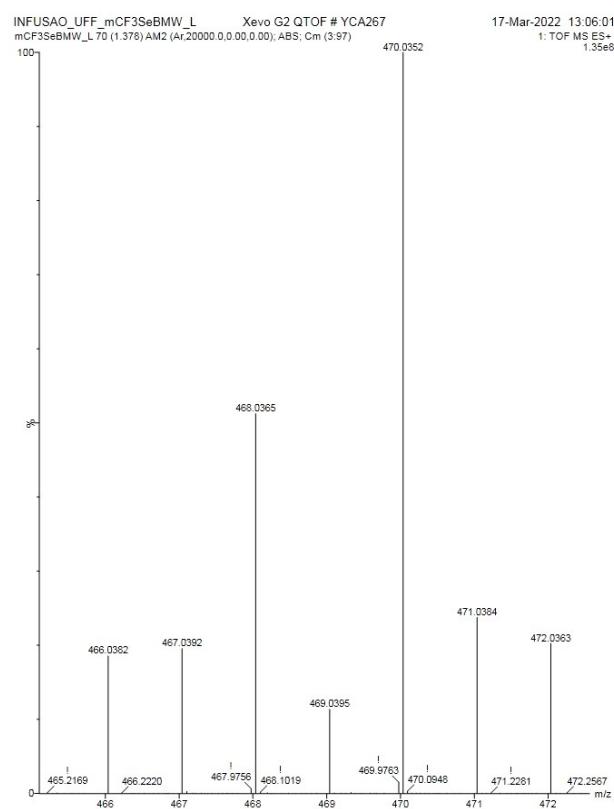


Figure S19. ESI MS spectrum of **4g**.

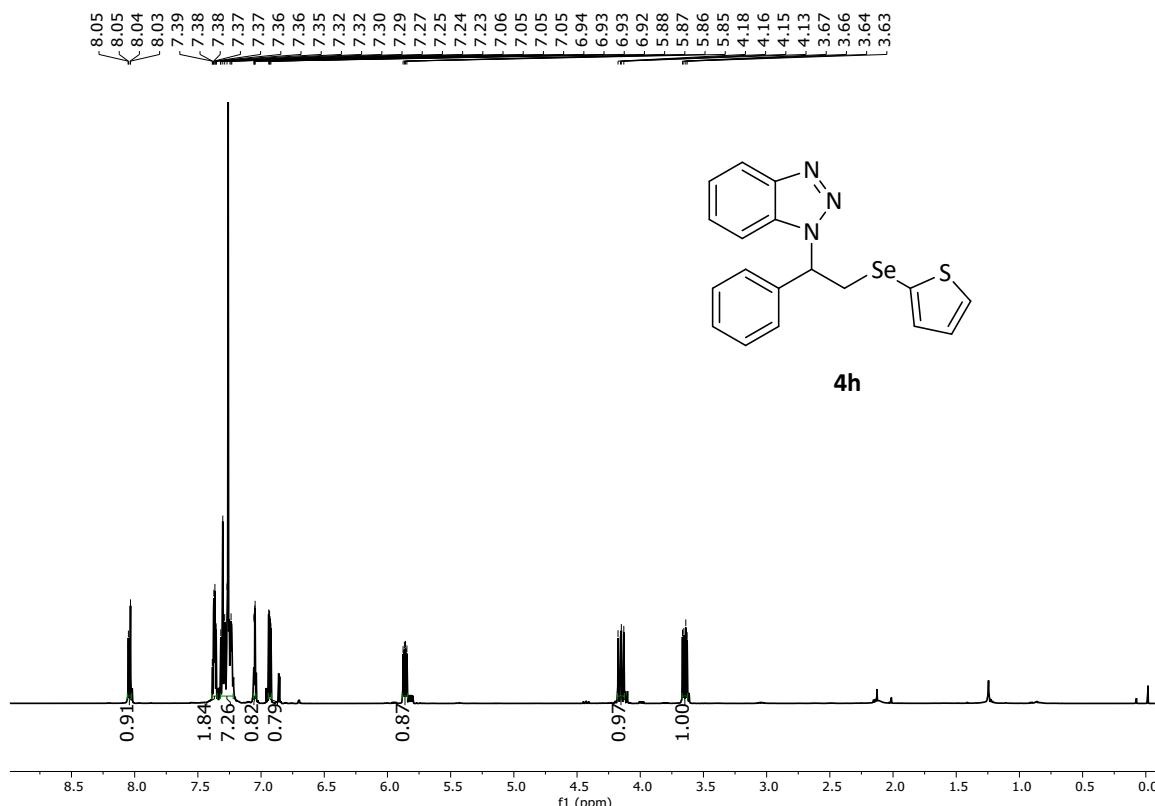


Figure S20. ^1H NMR spectrum of compound **4h** in CDCl_3 at 500MHz.

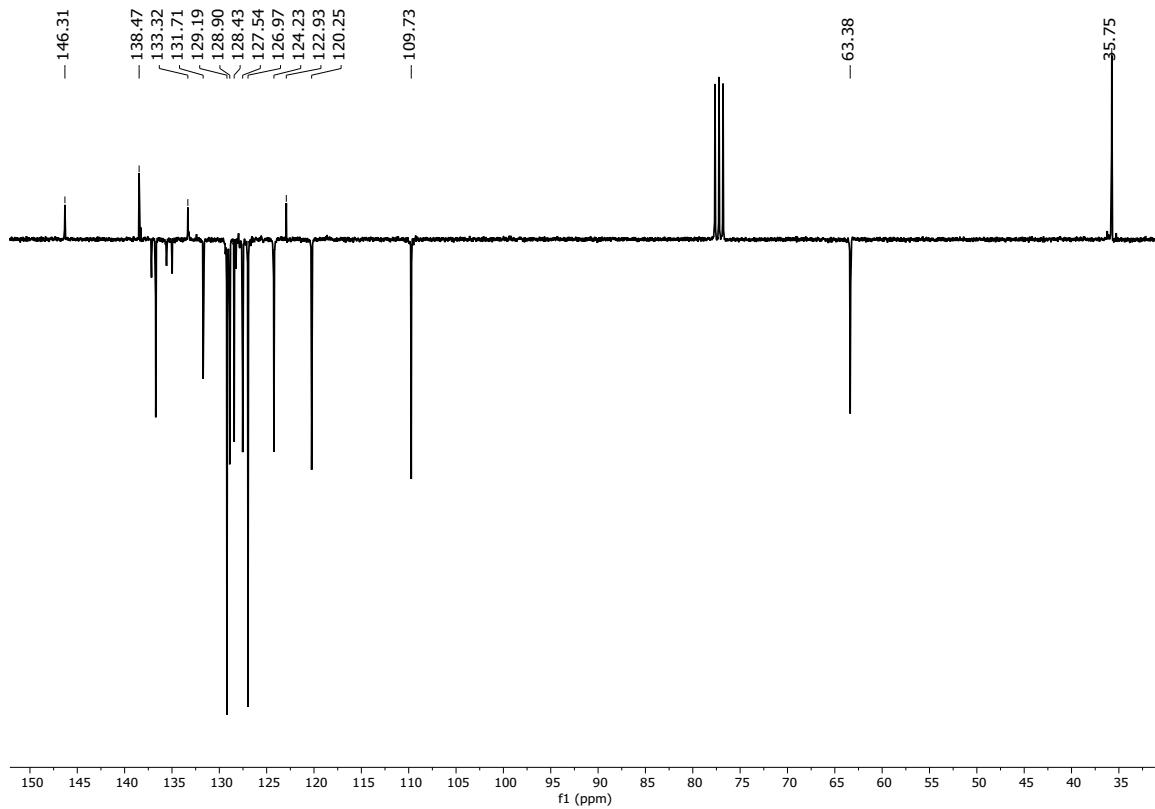


Figure S21. ^{13}C -APT NMR spectrum of compound **4h** in CDCl_3 at 75MHz.

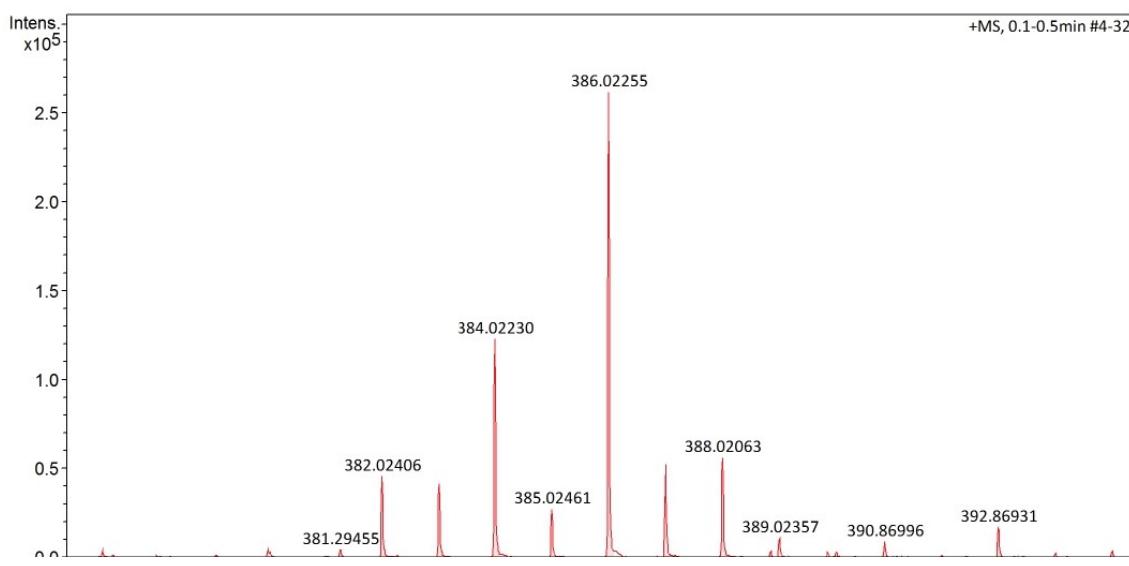


Figure S22. ESI MS spectrum of **4h**.

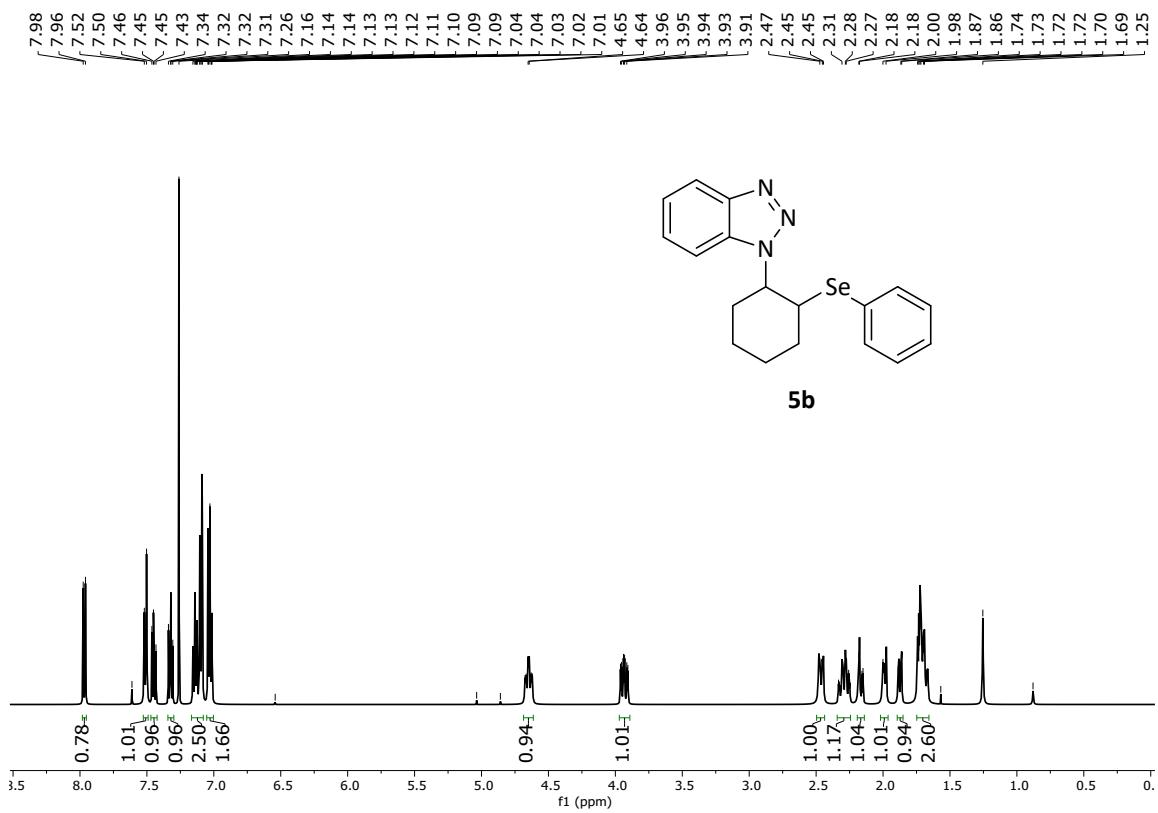


Figure S23. ^1H NMR spectrum of compound **5b** in CDCl_3 at 500MHz.

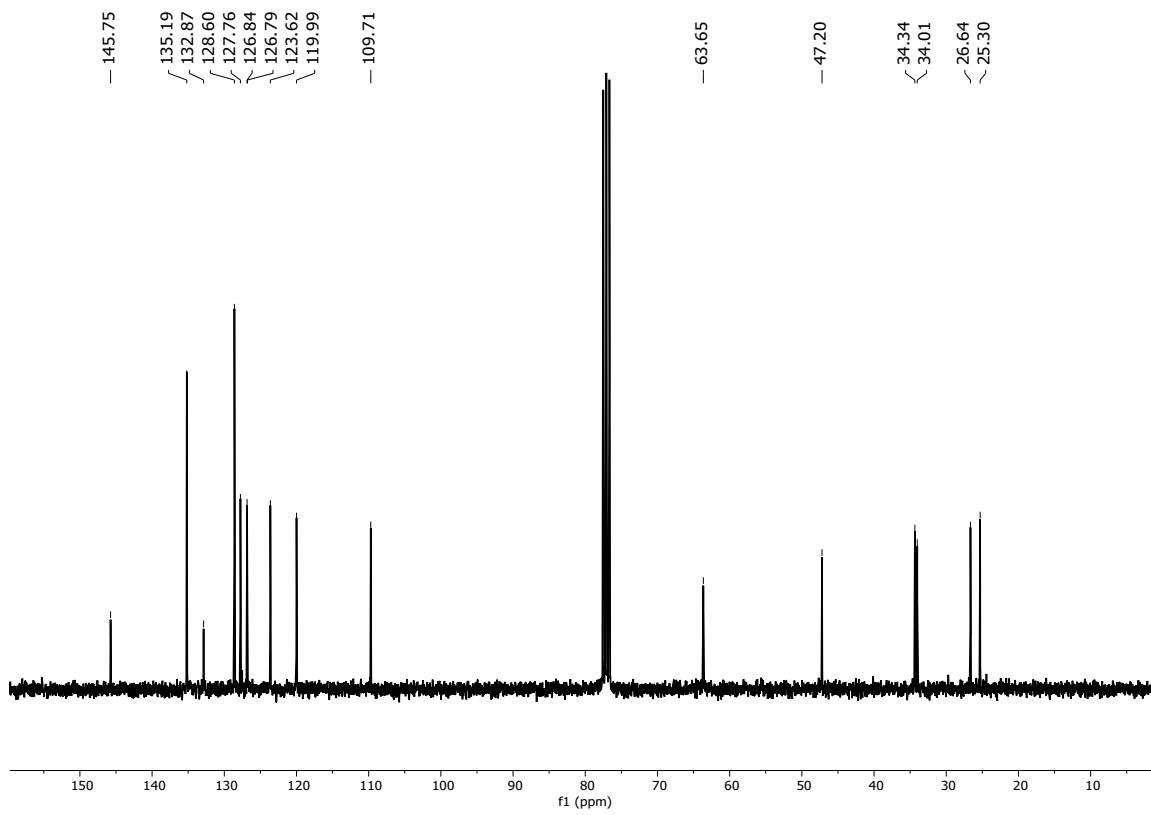


Figure S24. ¹³C NMR spectrum of compound **5b** in CDCl₃ at 75MHz.

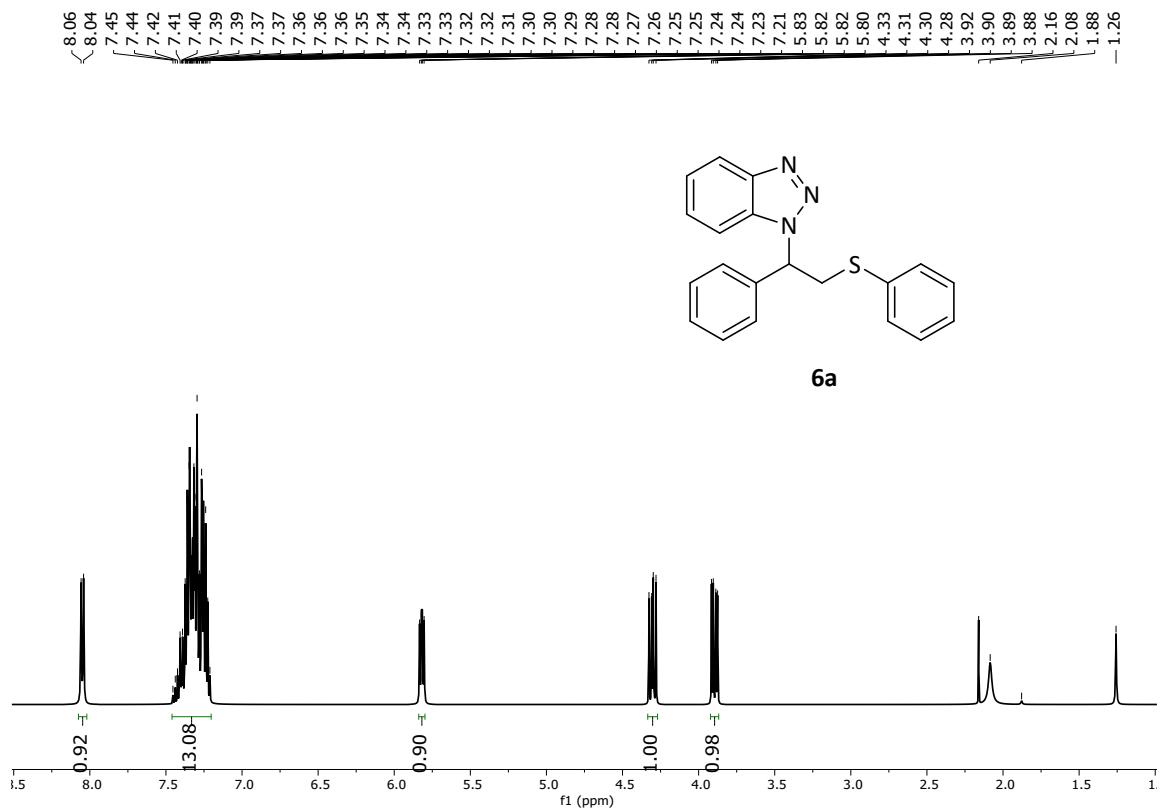


Figure S25. ^1H NMR spectrum of compound **6a** in CDCl_3 at 500MHz.

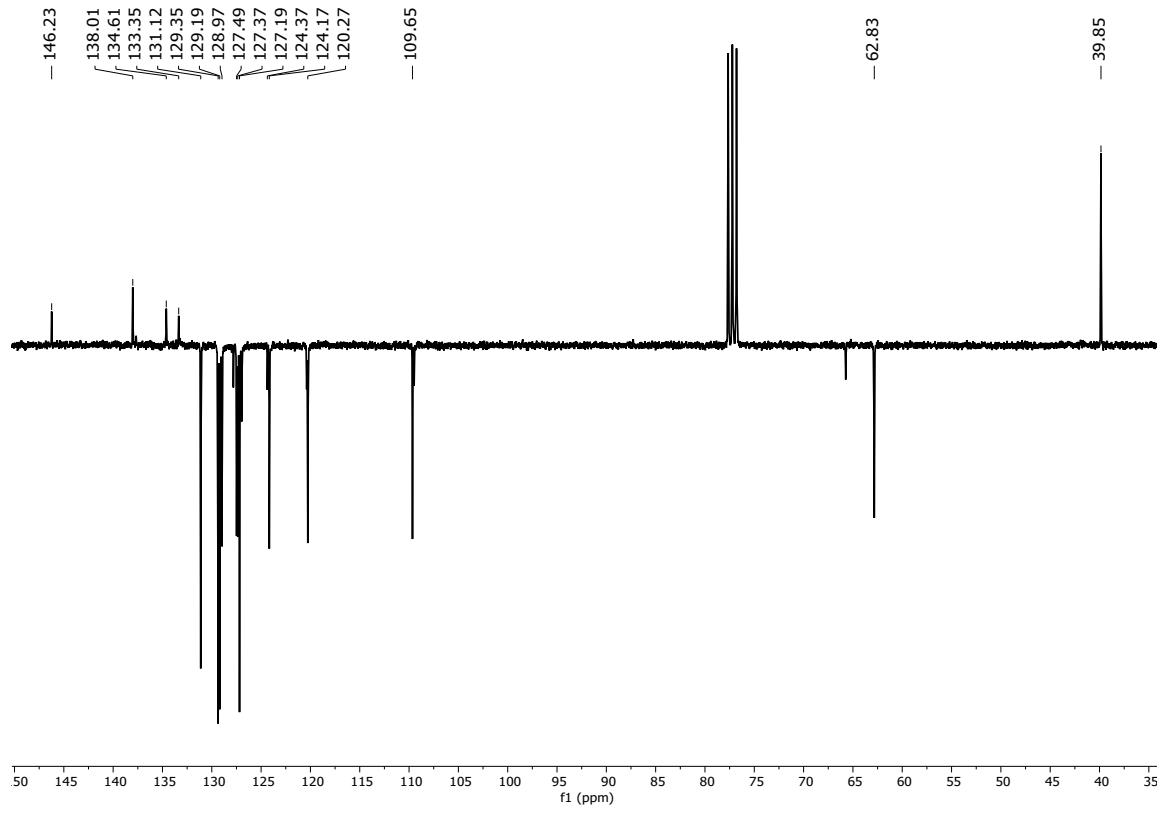


Figure S26. ^{13}C -APT NMR spectrum of compound **6a** in CDCl_3 at 75MHz.

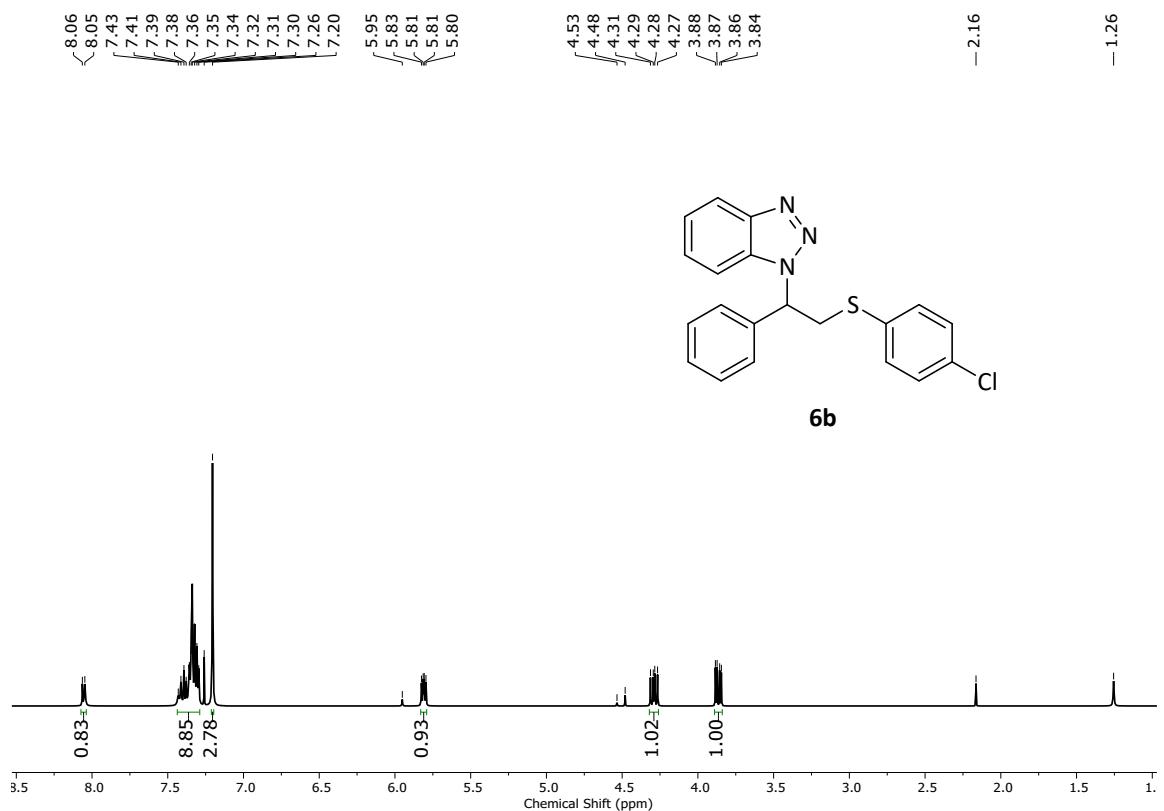


Figure S27. ^1H NMR spectrum of compound **6b** in CDCl_3 at 500MHz.

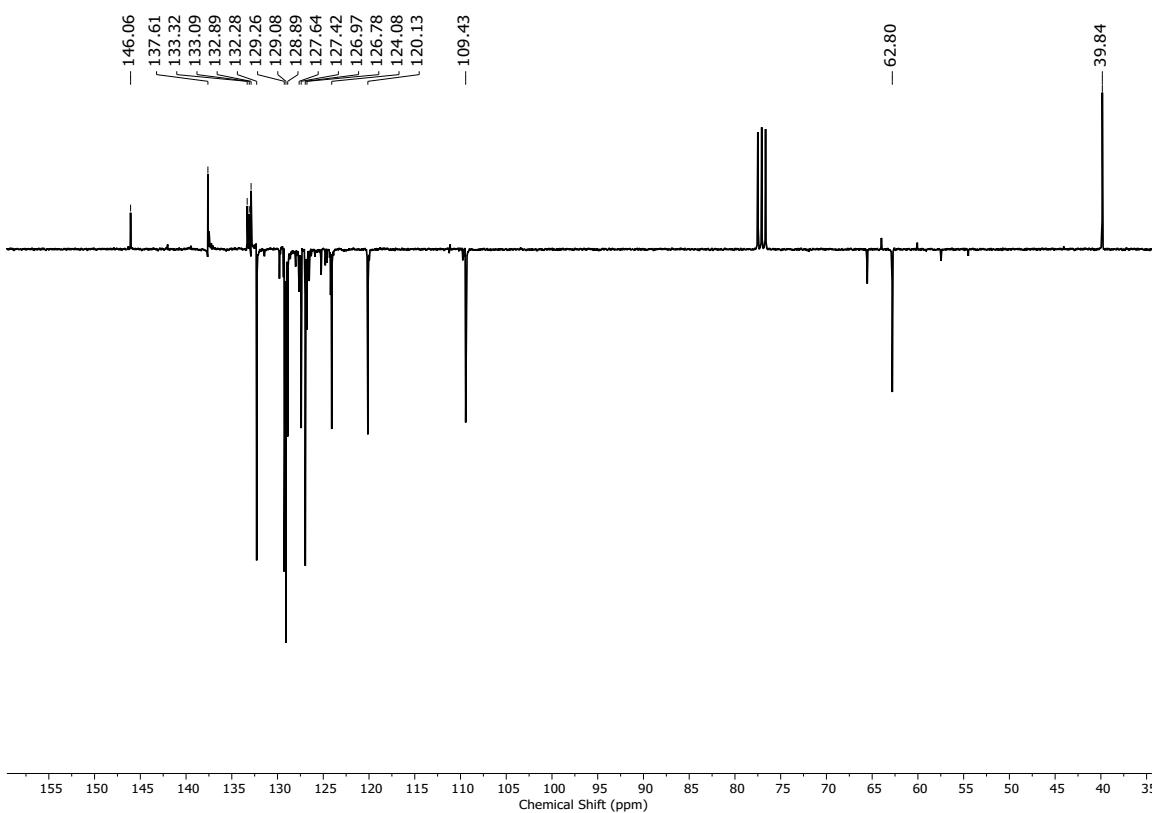


Figure S28. ^{13}C -APT NMR spectrum of compound **6b** in CDCl_3 at 75MHz.

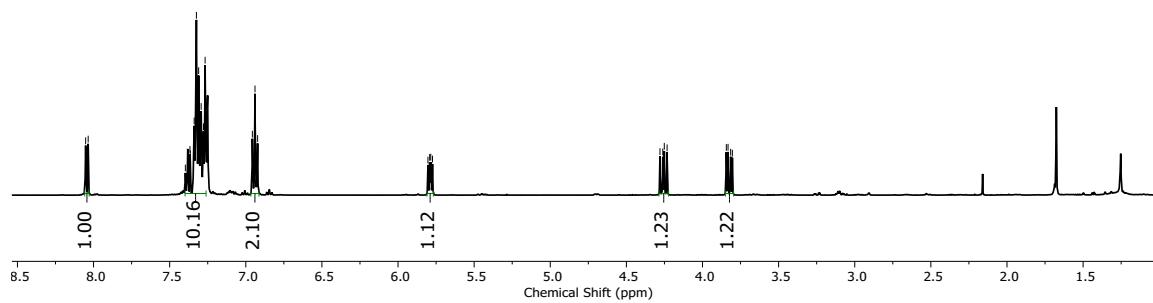
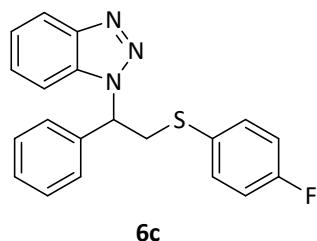
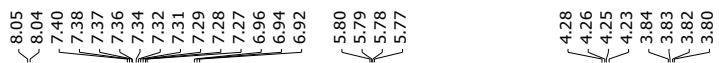


Figure S29. ^1H NMR spectrum of compound **6c** in CDCl_3 at 500MHz.

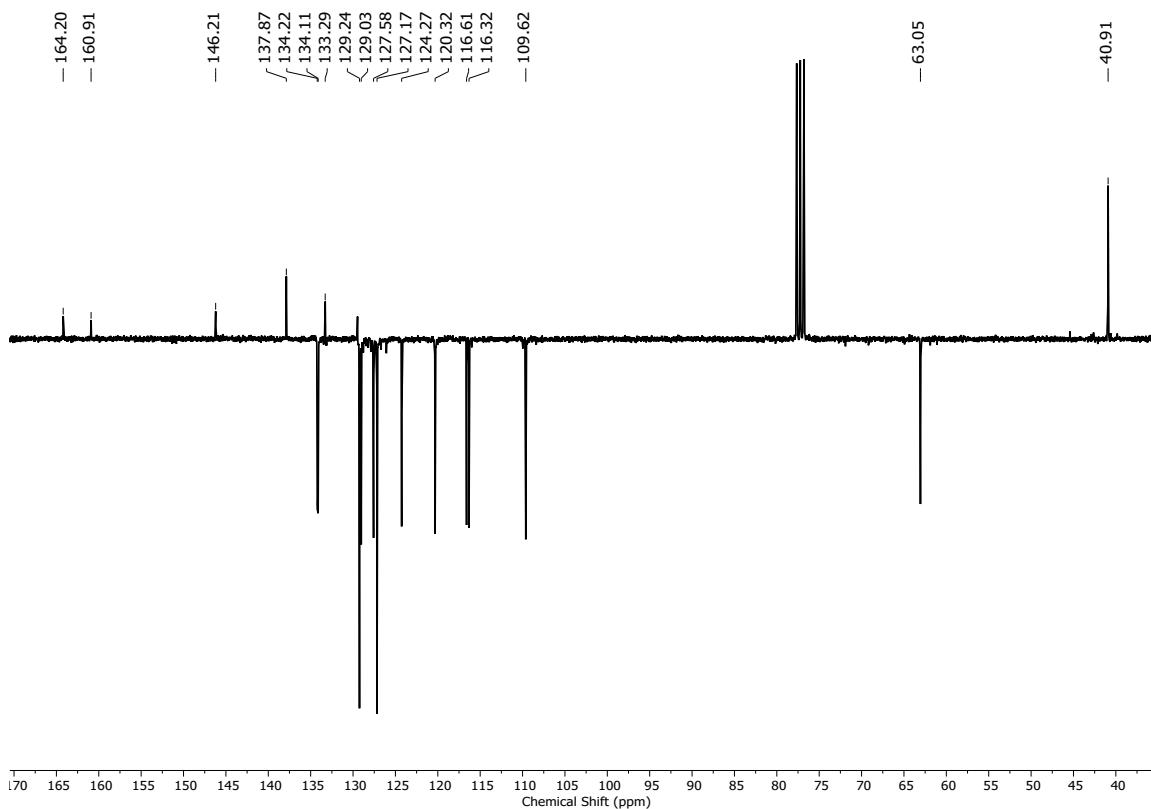


Figure S30. ^{13}C -APT NMR spectrum of compound **6c** in CDCl_3 at 75MHz.

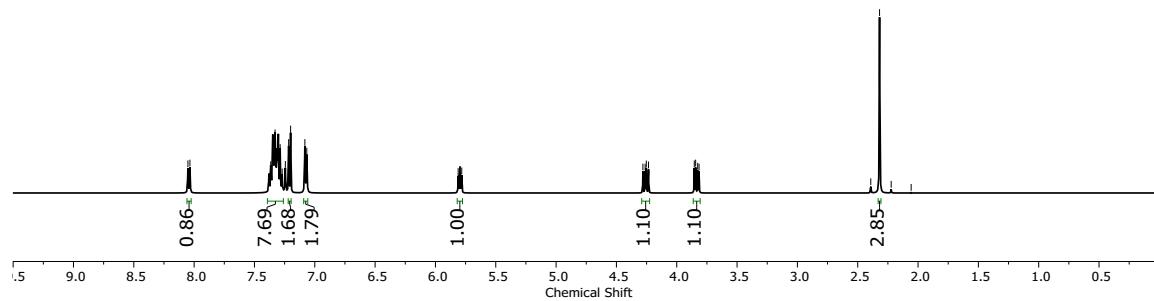
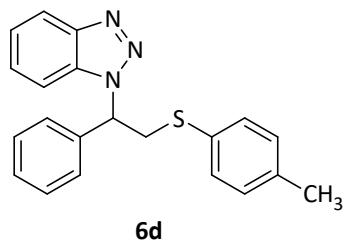


Figure S31. ¹H NMR spectrum of compound **6d** in CDCl_3 at 500MHz.

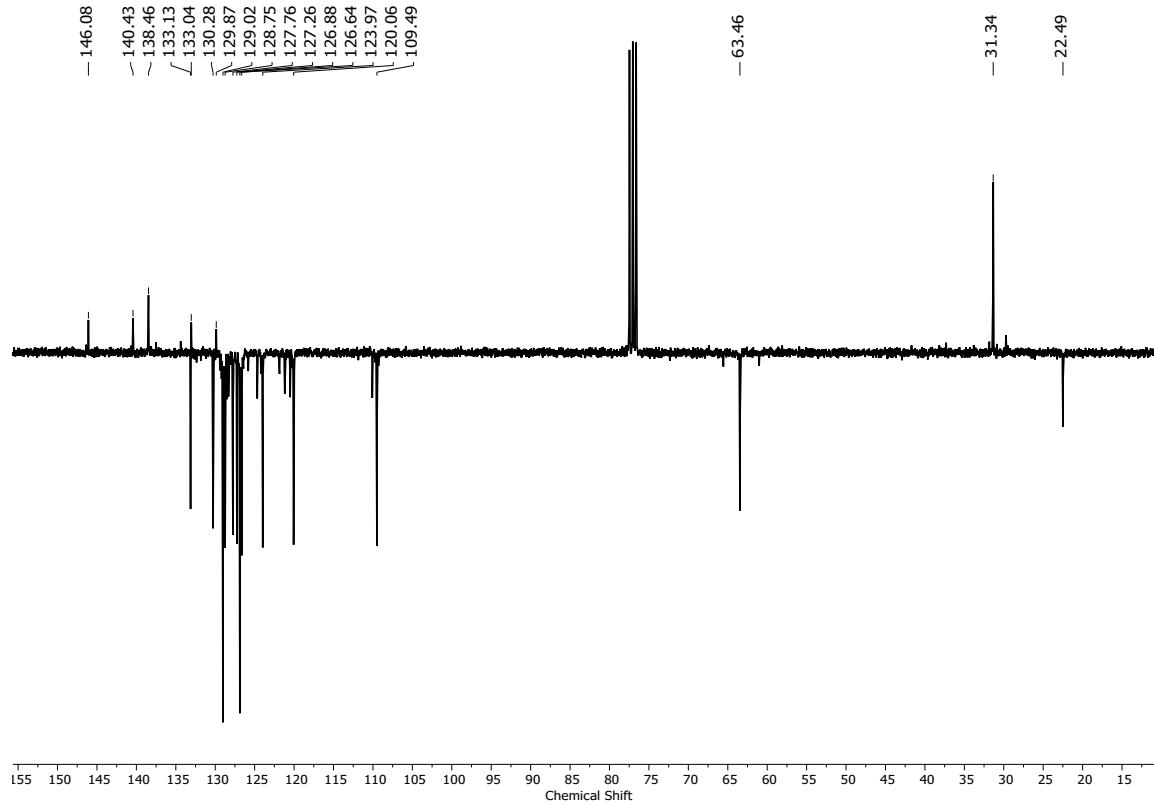


Figure S32. ^{13}C -APT NMR spectrum of compound **6d** in CDCl_3 at 75MHz.

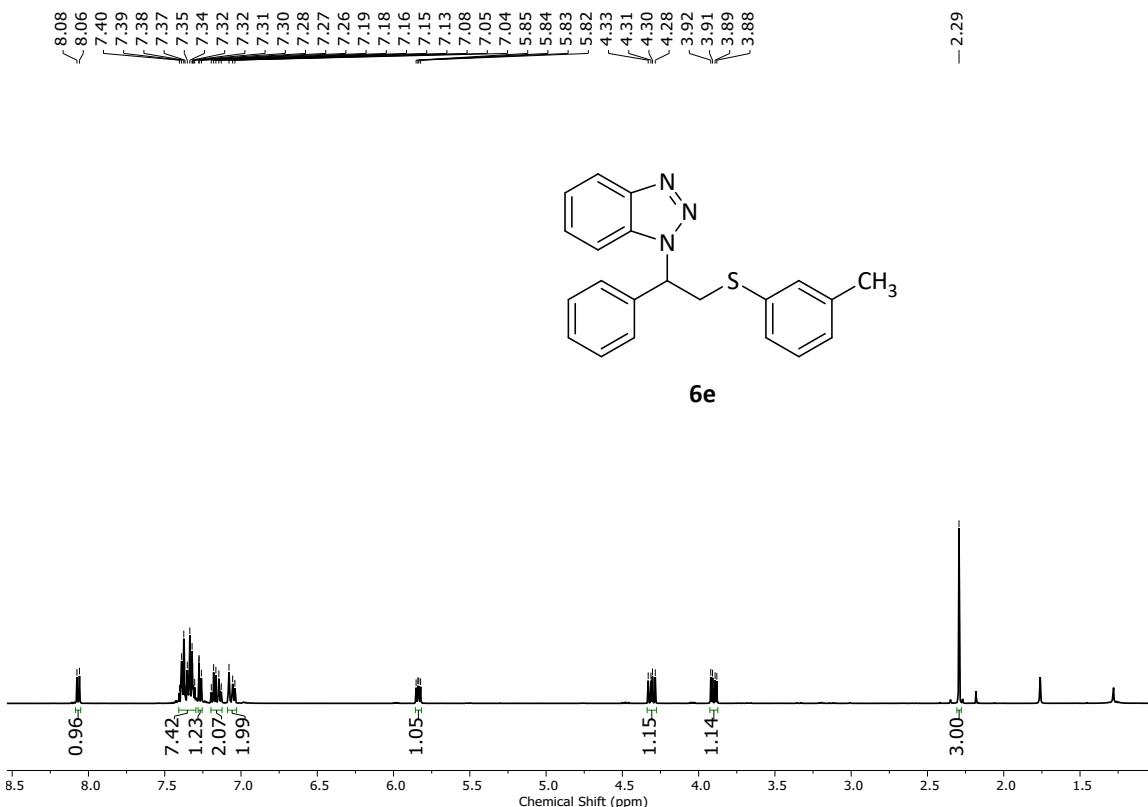


Figure S33. ^1H NMR spectrum of compound **6e** in CDCl_3 at 500MHz.

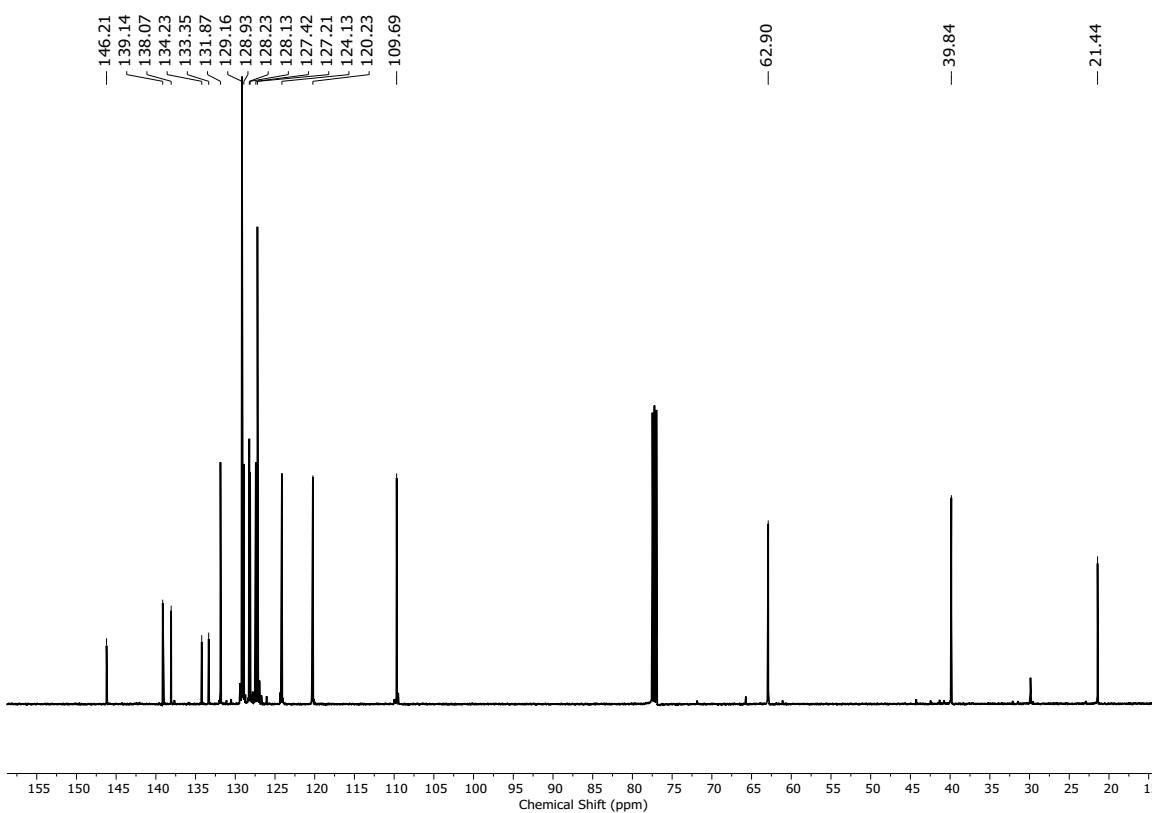


Figure S34. ^{13}C NMR spectrum of compound **6e** in CDCl_3 at 75MHz.

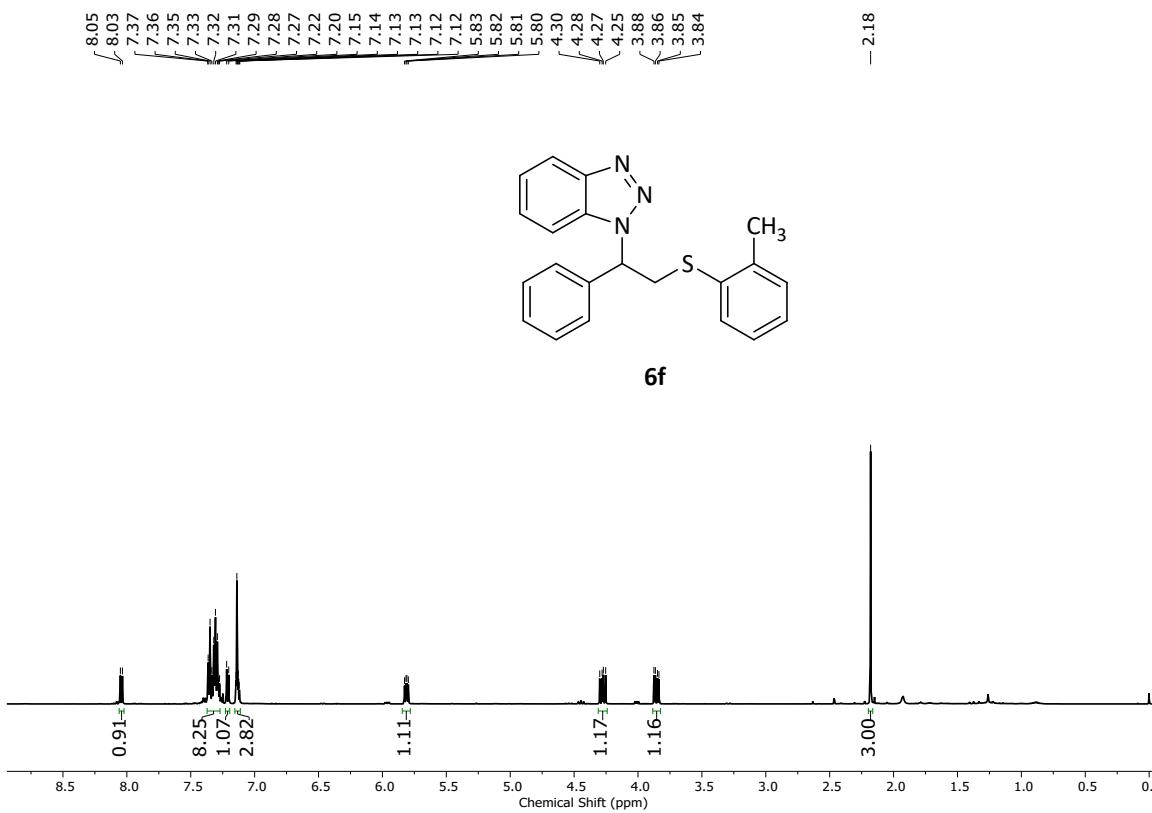


Figure S35. ^1H NMR spectrum of compound **6f** in CDCl_3 at 500MHz.

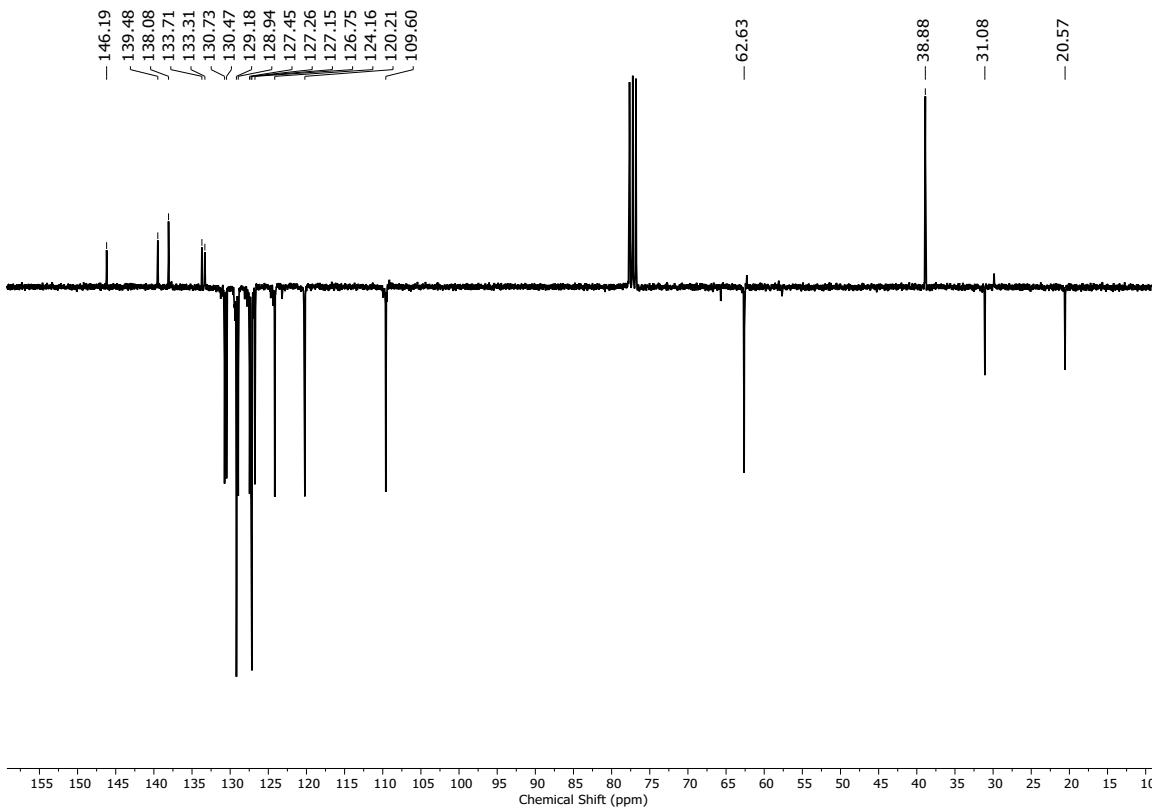


Figure S36. ^{13}C -APT NMR spectrum of compound **6f** in CDCl_3 at 75MHz.

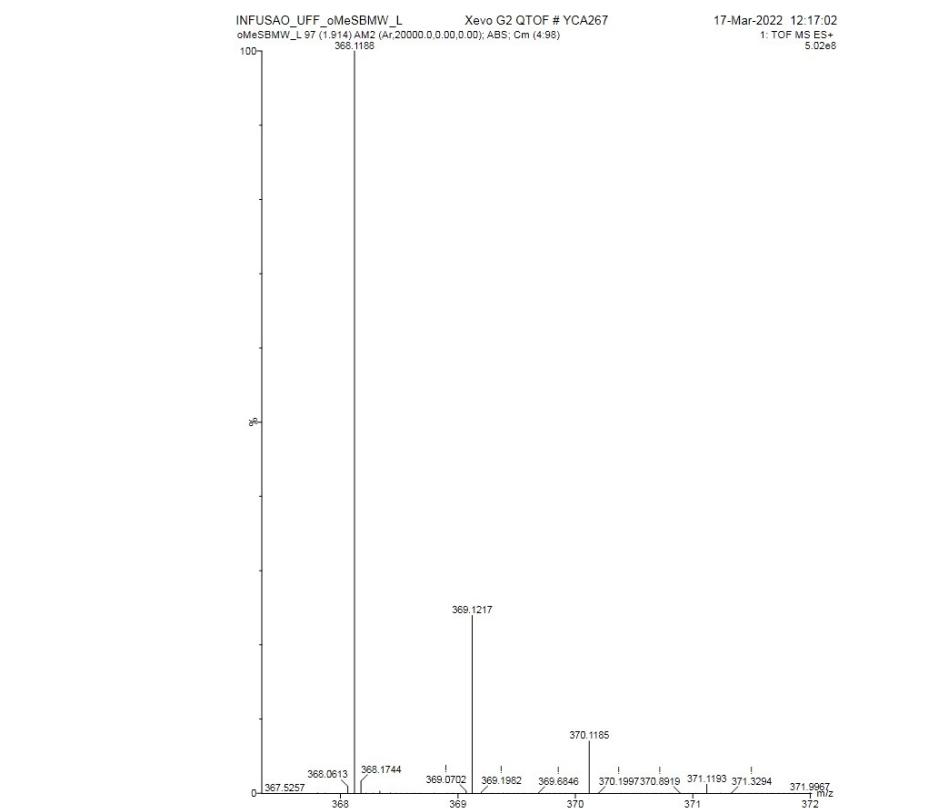


Figure S37. ESI MS spectrum of **6f**.

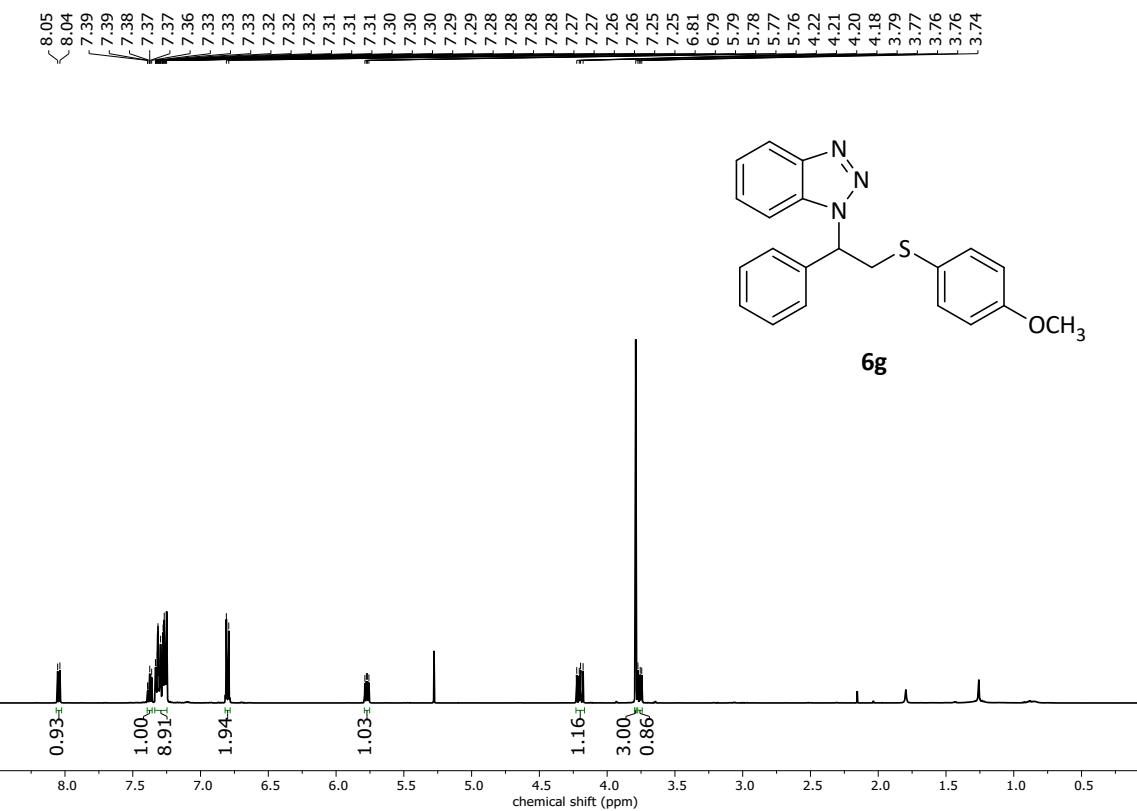


Figure S38. ^1H NMR spectrum of compound **6g** in CDCl_3 at 500MHz.

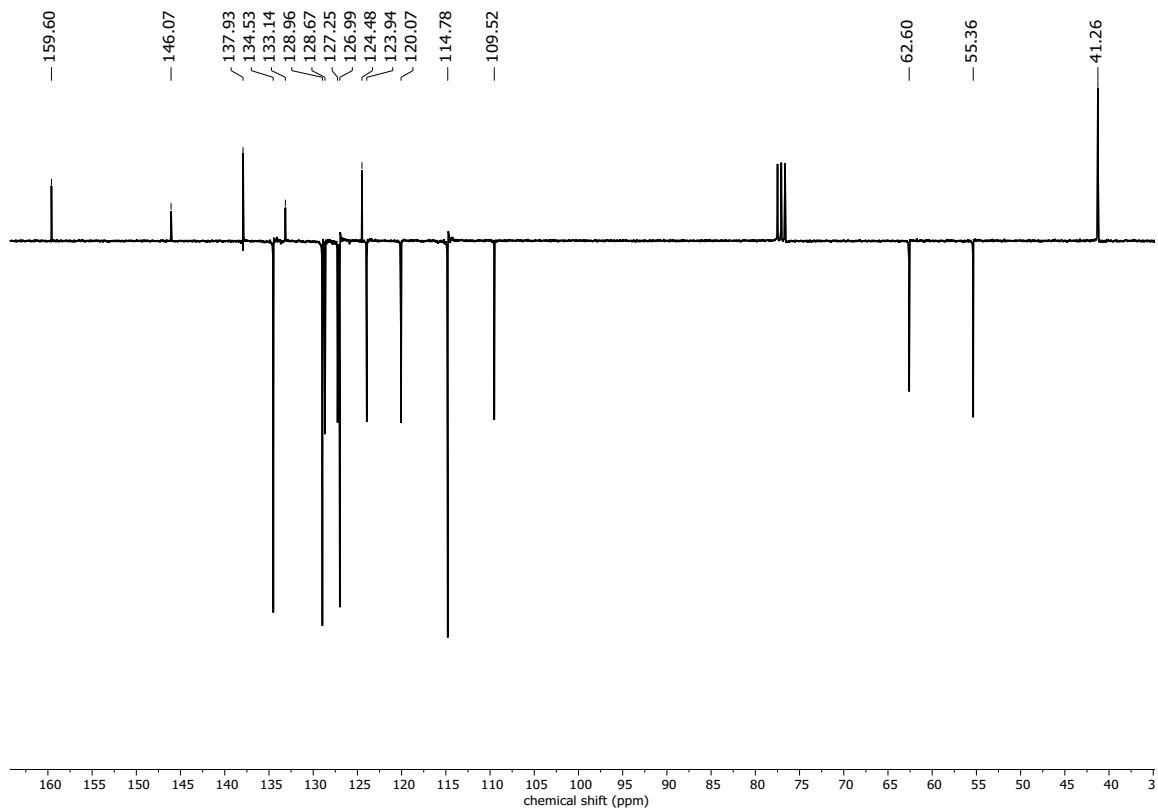


Figure S39. ^{13}C -APT NMR spectrum of compound **6g** in CDCl_3 at 75MHz.

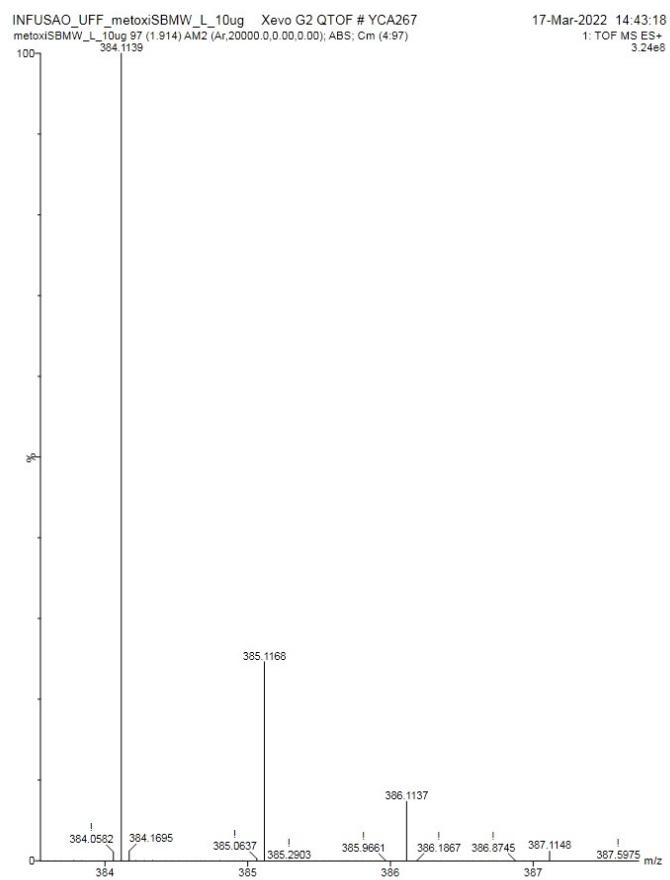


Figure S40. ESI MS spectrum of **6g**.

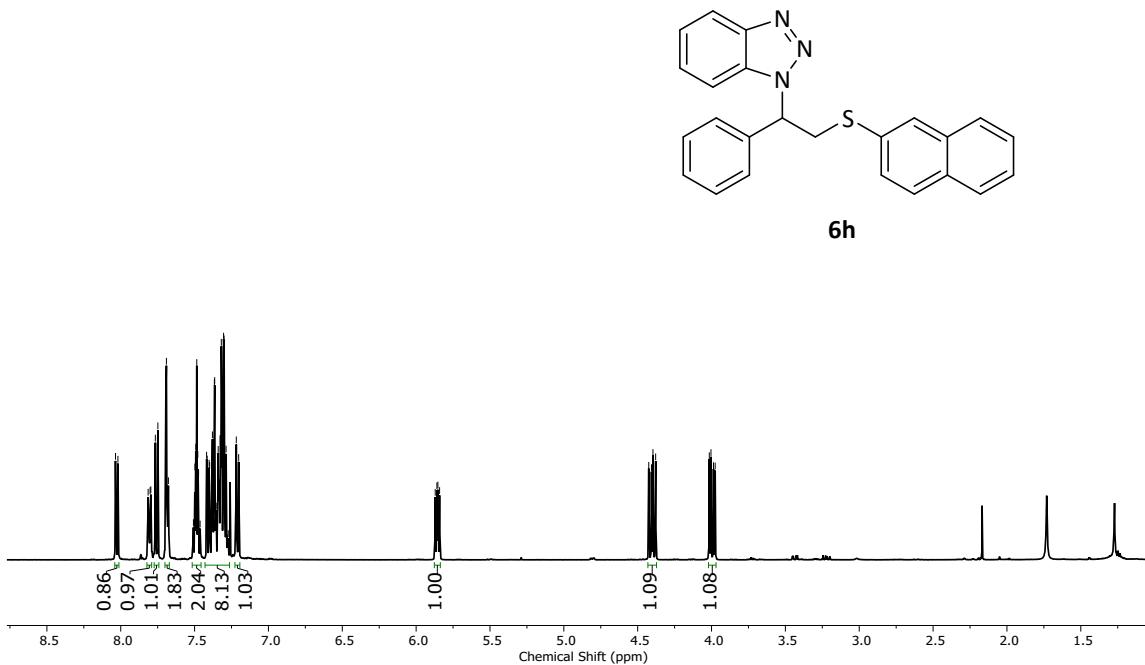


Figure S41. ¹H NMR spectrum of compound **6h** in CDCl₃ at 500MHz.

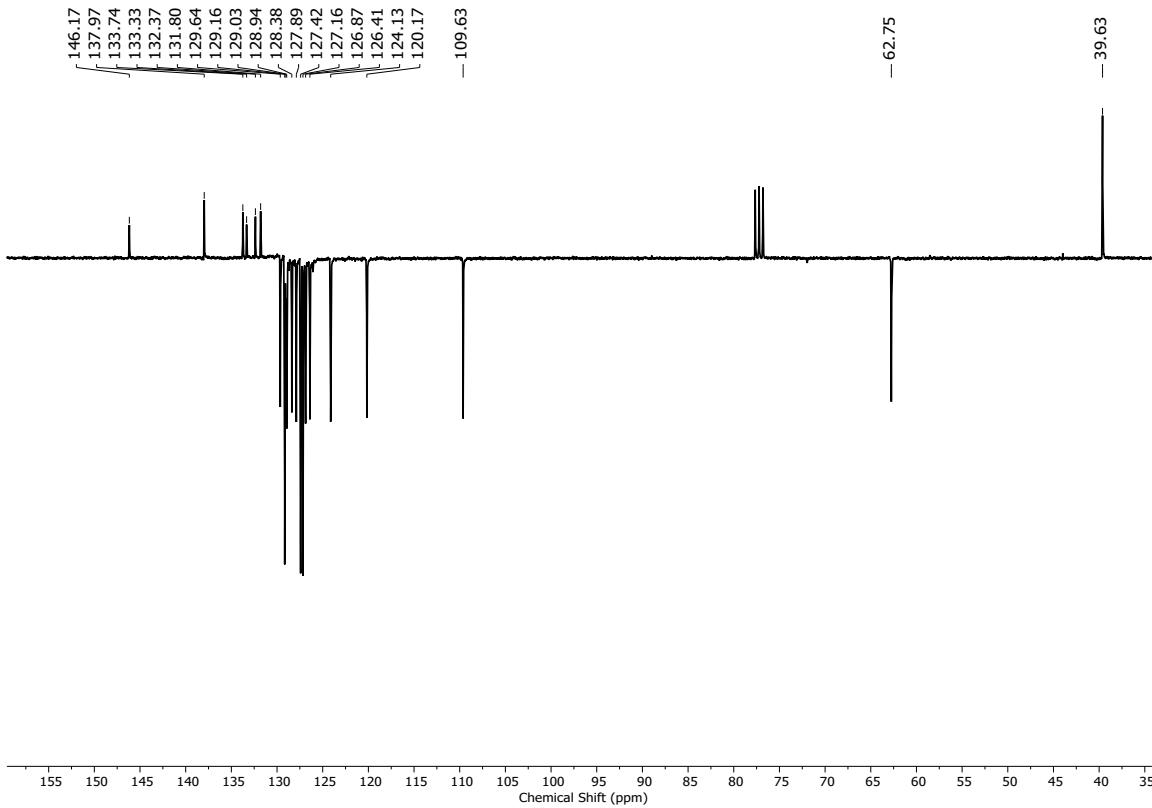


Figure S42. ^{13}C -APT NMR spectrum of compound **6h** in CDCl_3 at 75MHz.

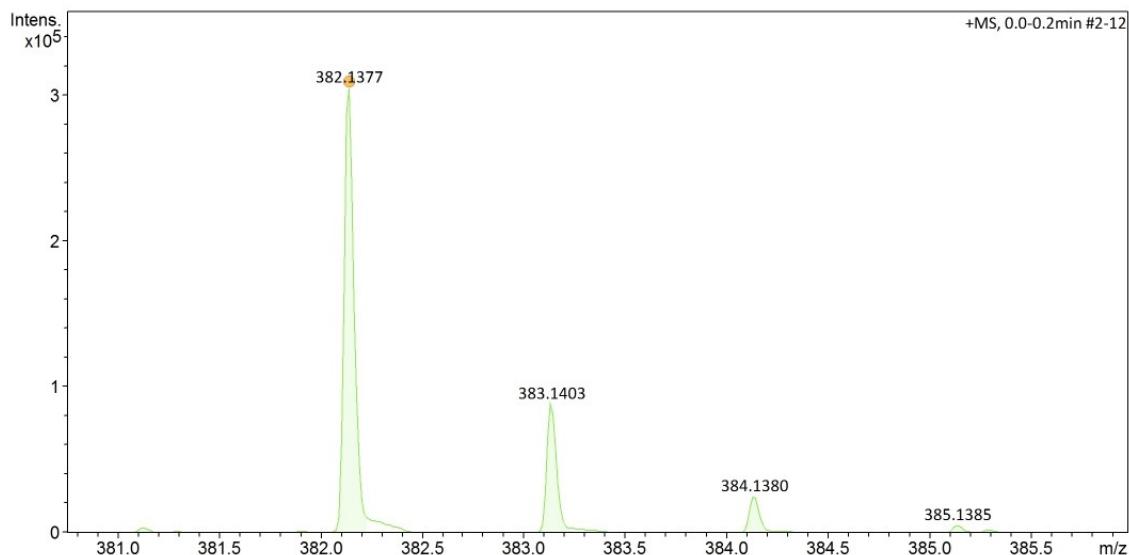
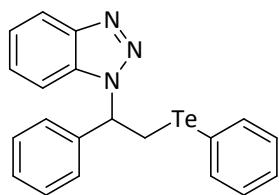
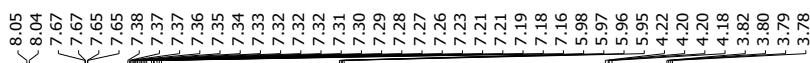


Figure S43. ESI MS spectrum of **6h**.



6i

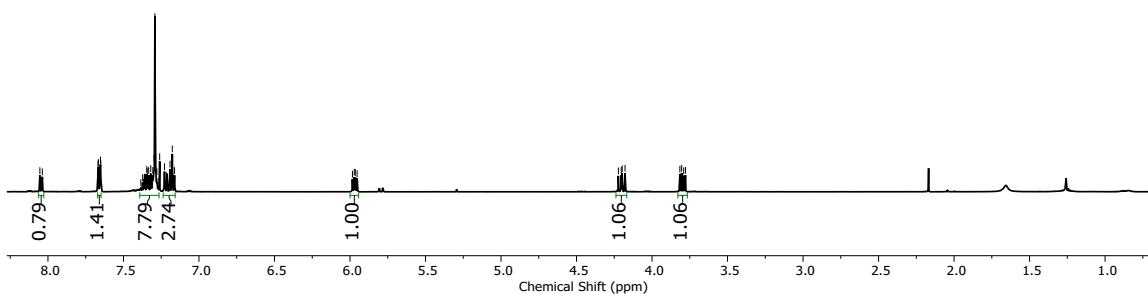


Figure S44. ^1H NMR spectrum of compound **6i** in CDCl_3 at 500MHz.

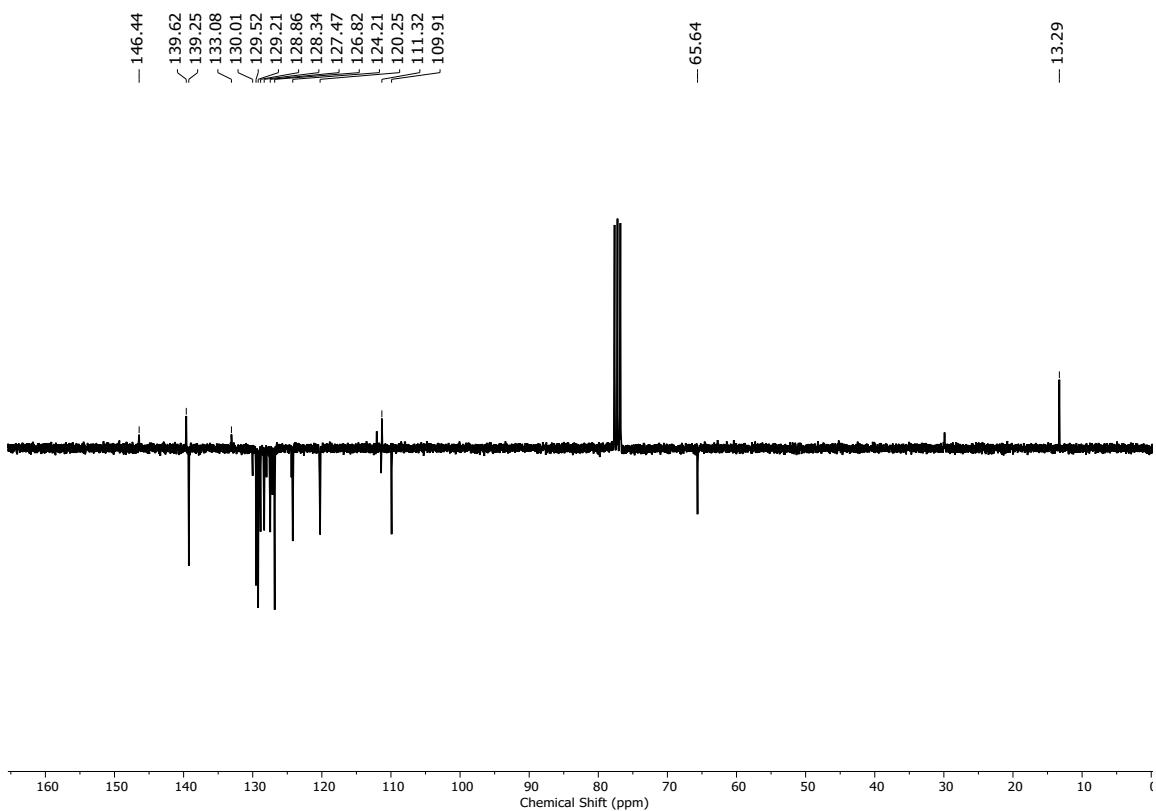


Figure S45. ^{13}C -APT NMR spectrum of compound **6i** in CDCl_3 at 75MHz.

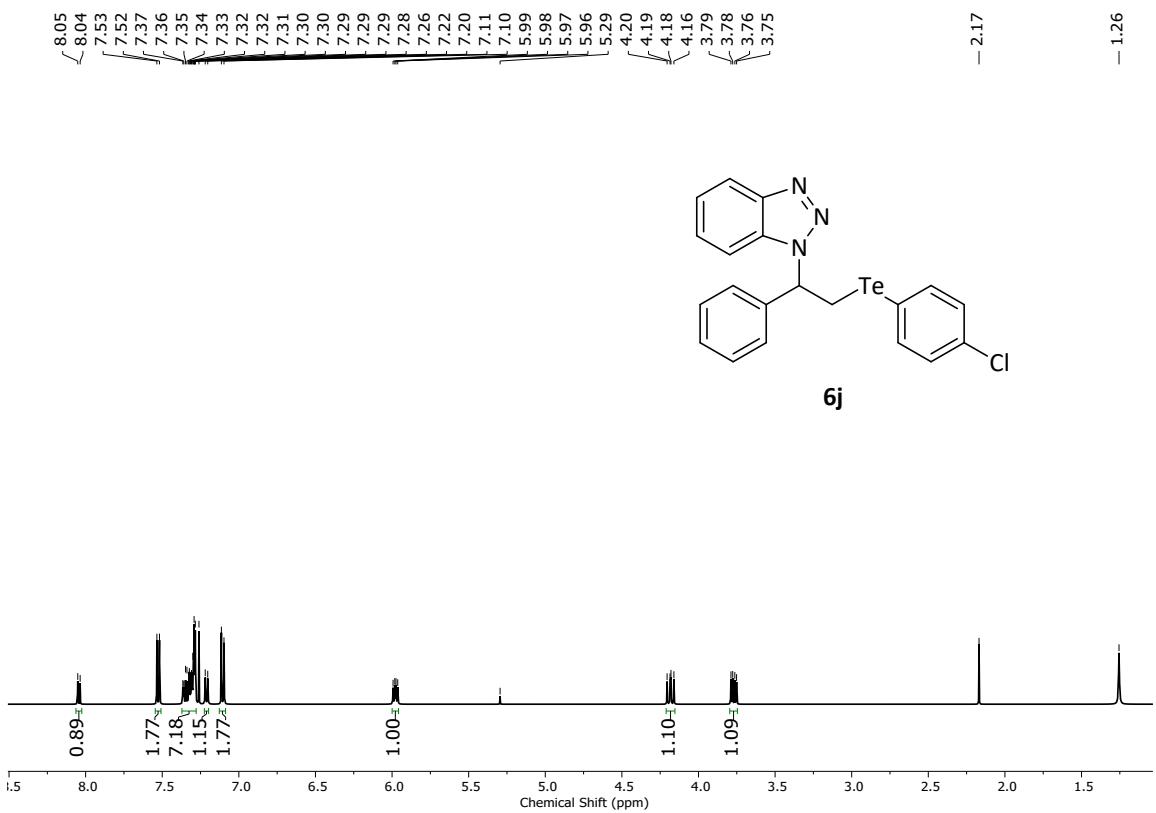


Figure S46. ^1H NMR spectrum of compound **6j** in CDCl_3 at 500MHz.

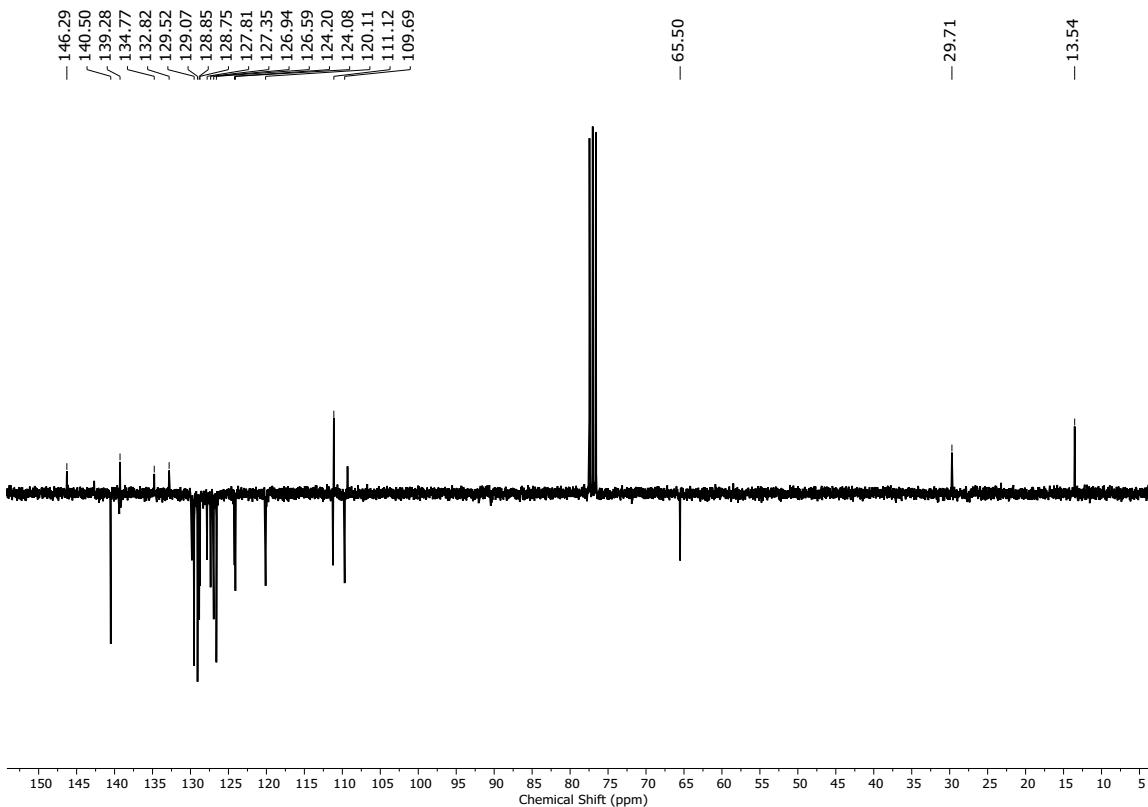


Figure S47. ^{13}C -APT NMR spectrum of compound **6j** in CDCl_3 at 75MHz.

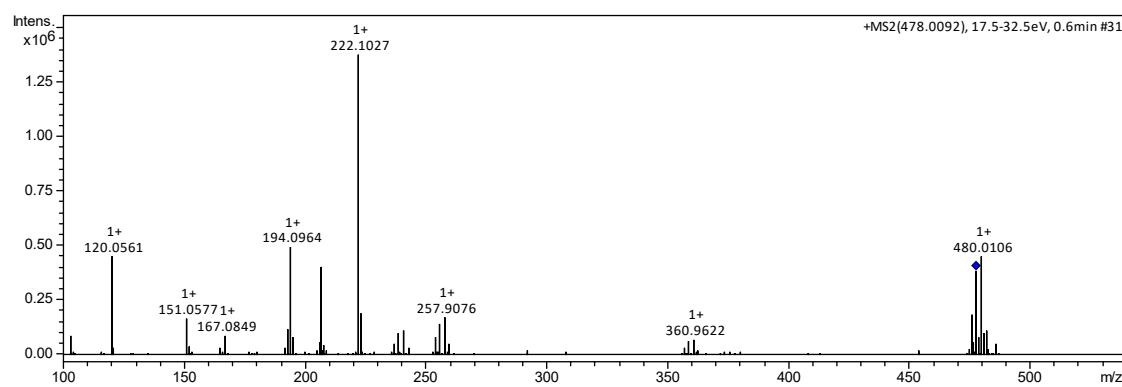


Figure S48. ESI MS spectrum of **6j**.

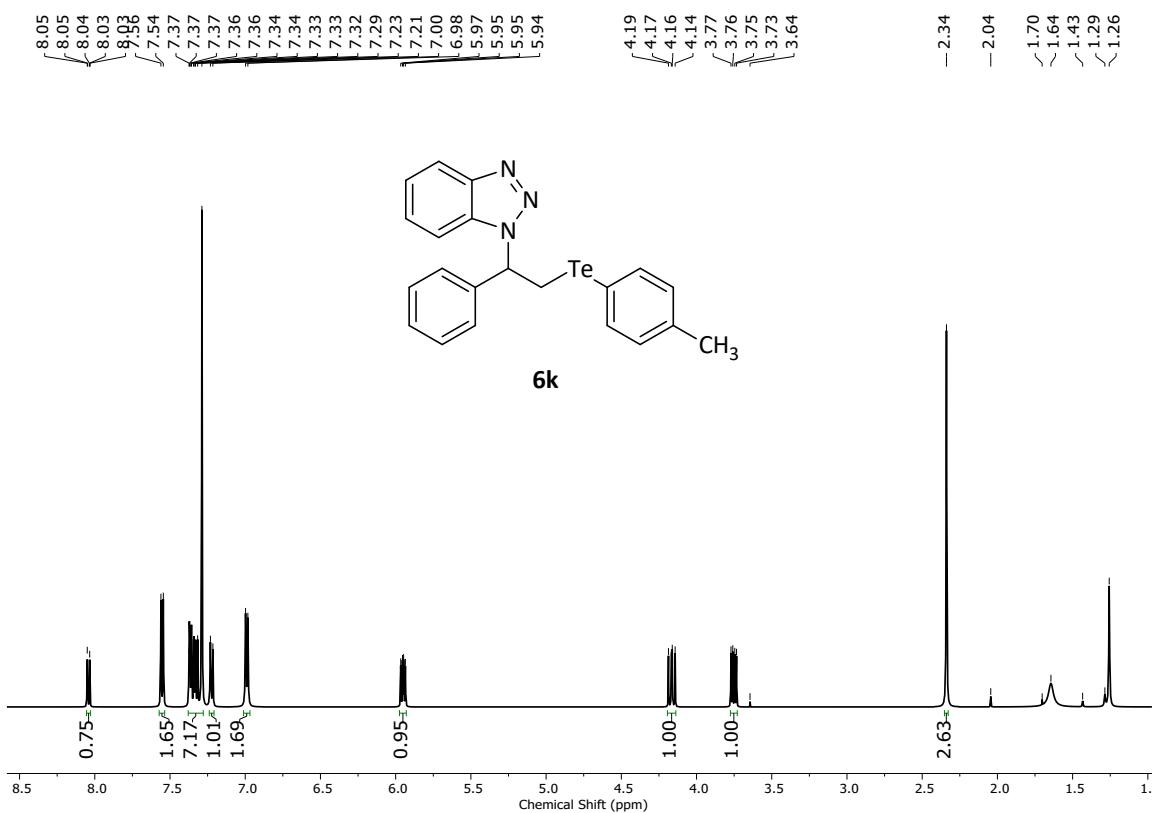


Figure S49. ^1H NMR spectrum of compound **6k** in CDCl_3 at 500MHz.

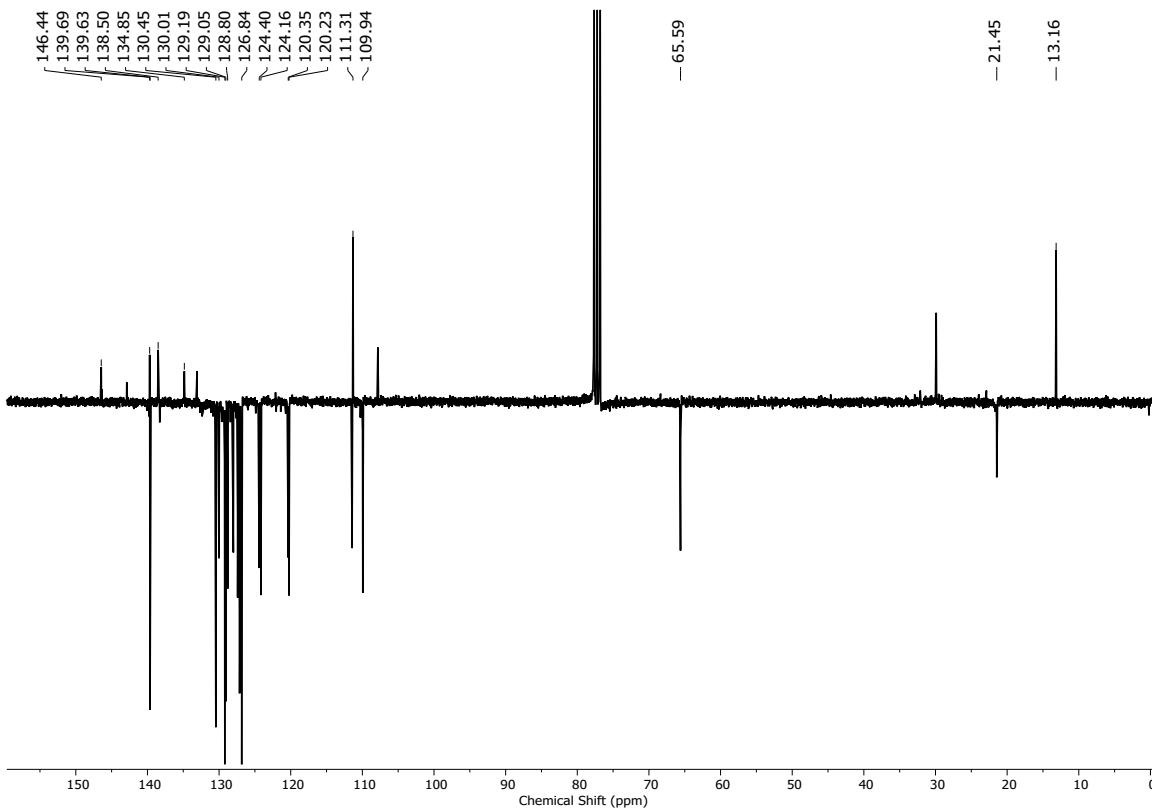


Figure S50. ^{13}C -APT NMR spectrum of compound **6k** in CDCl_3 at 75MHz.