

Supplementary Material

Synthesis of Amino Acid derived 2-Methylene Morpholines and 3,4-dihydro-2H-1,4-Oxazines via Ag (I) promoted Intra-molecular Cyclization of Alkynols

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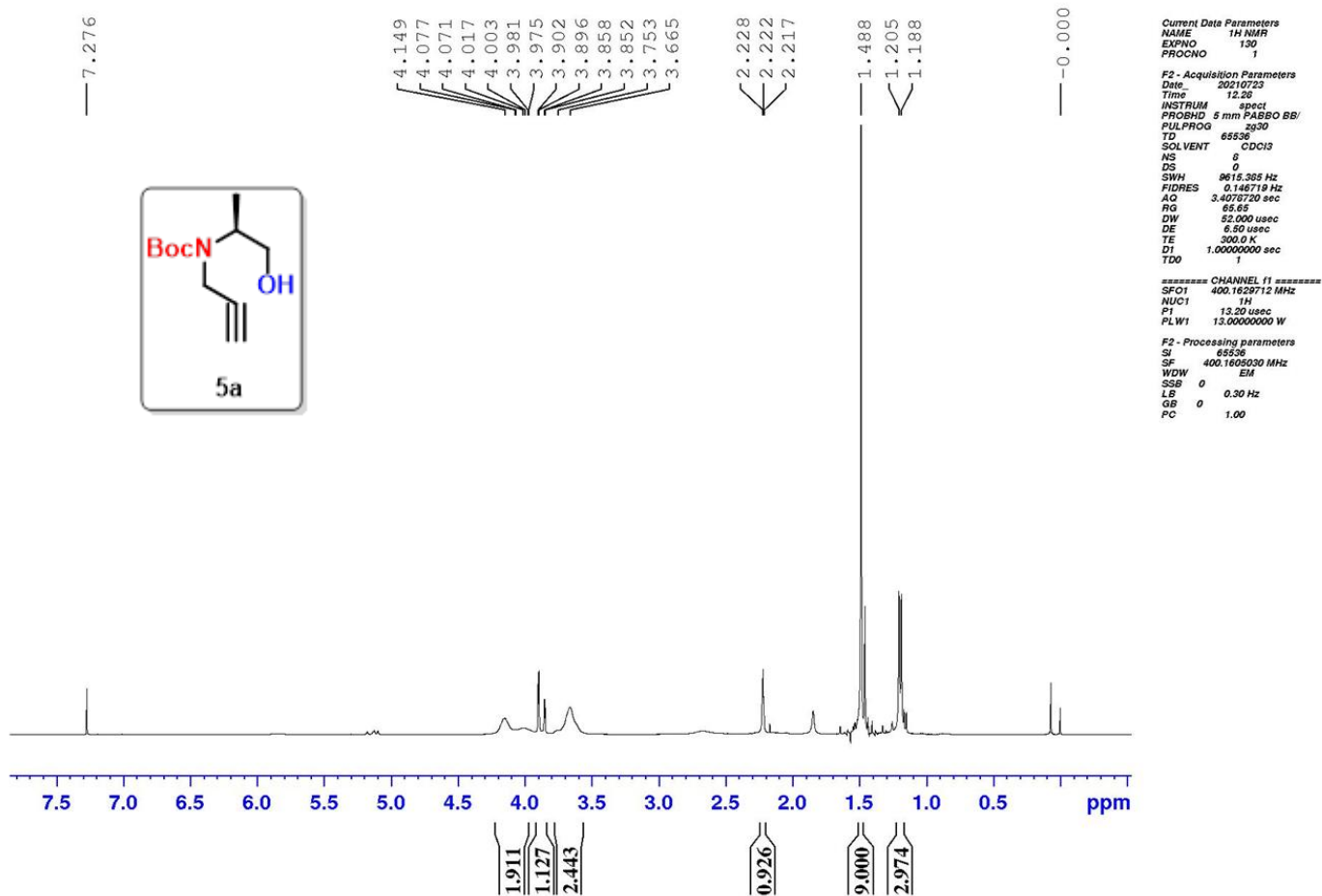
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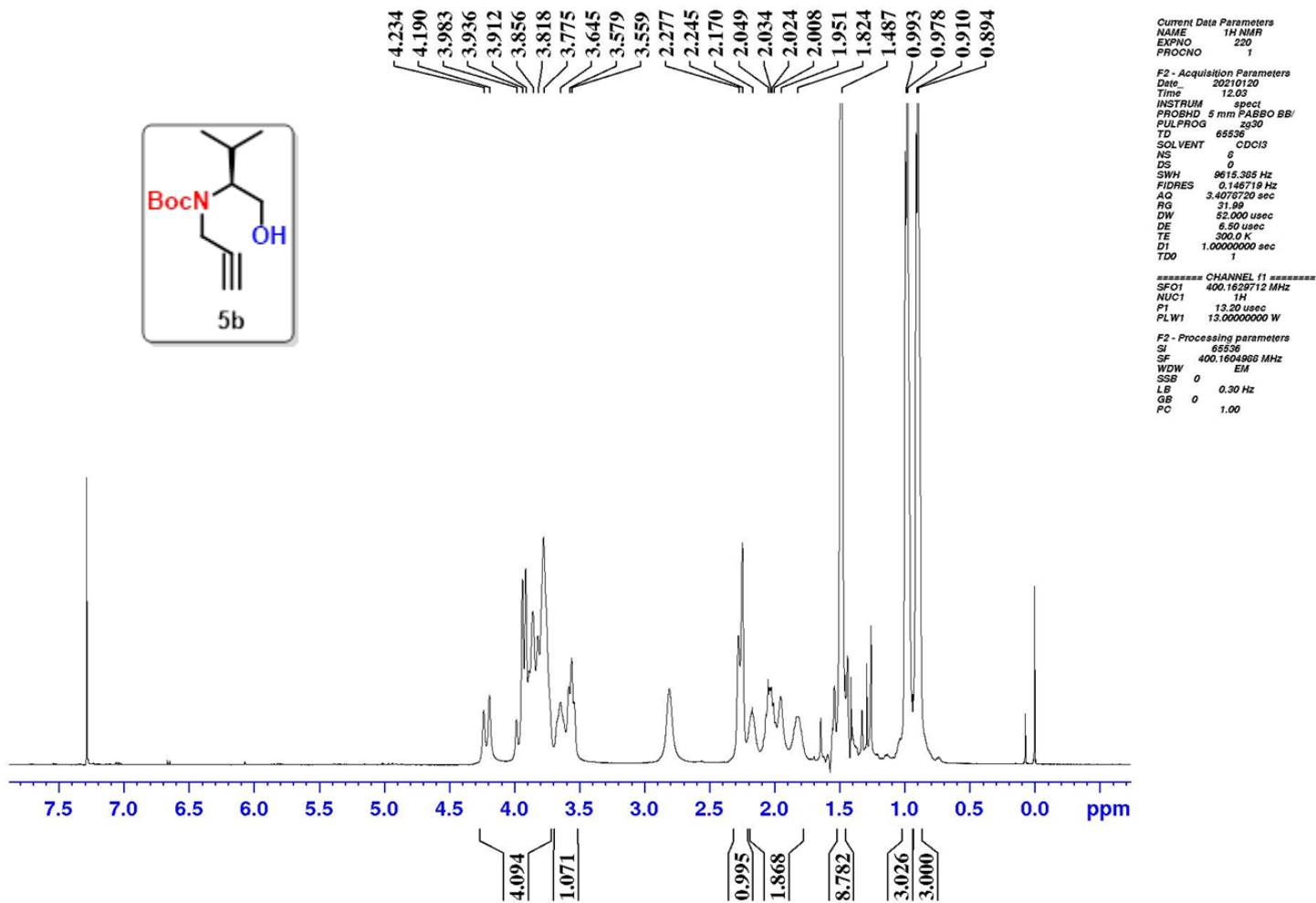


Figure S2. ^1H NMR of compound **5b**

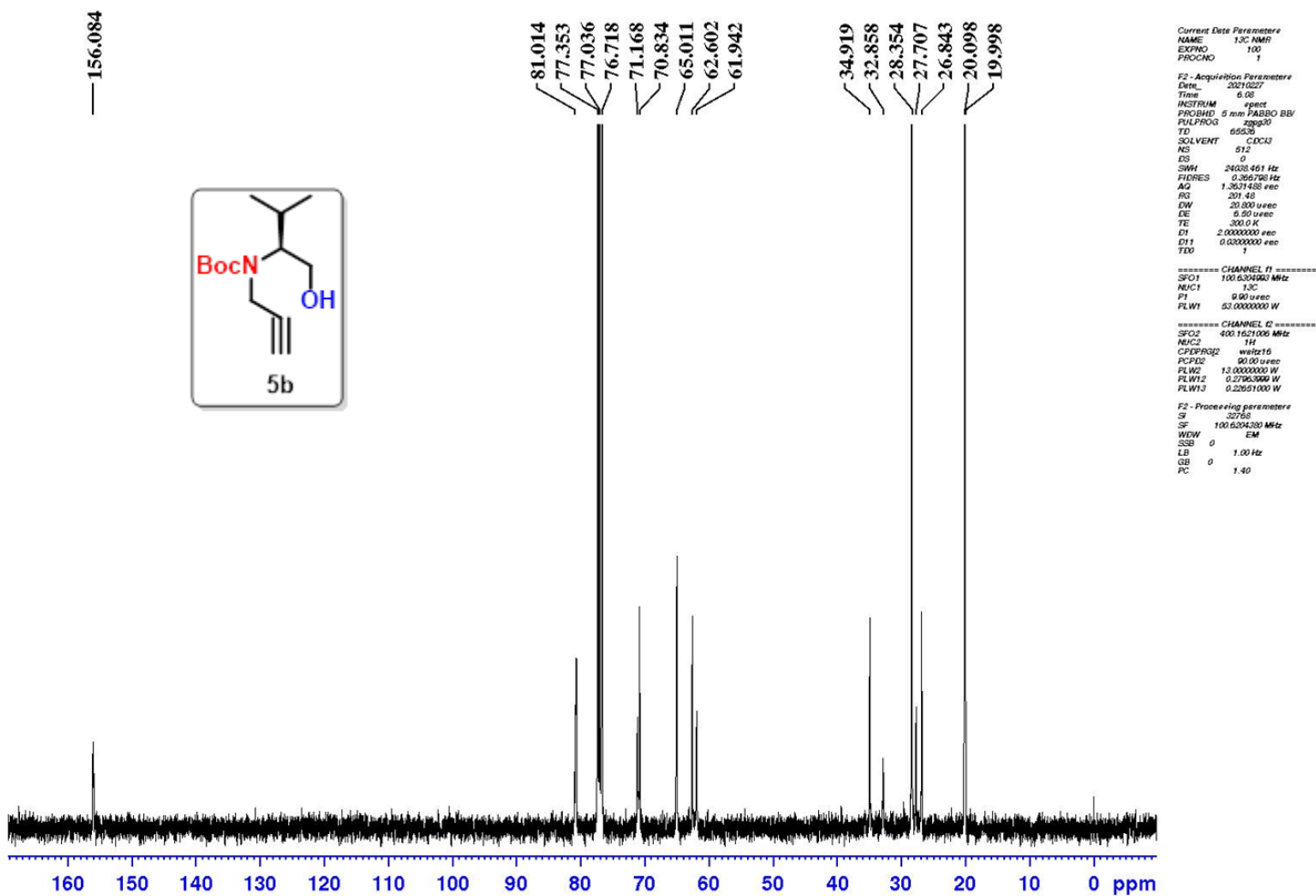
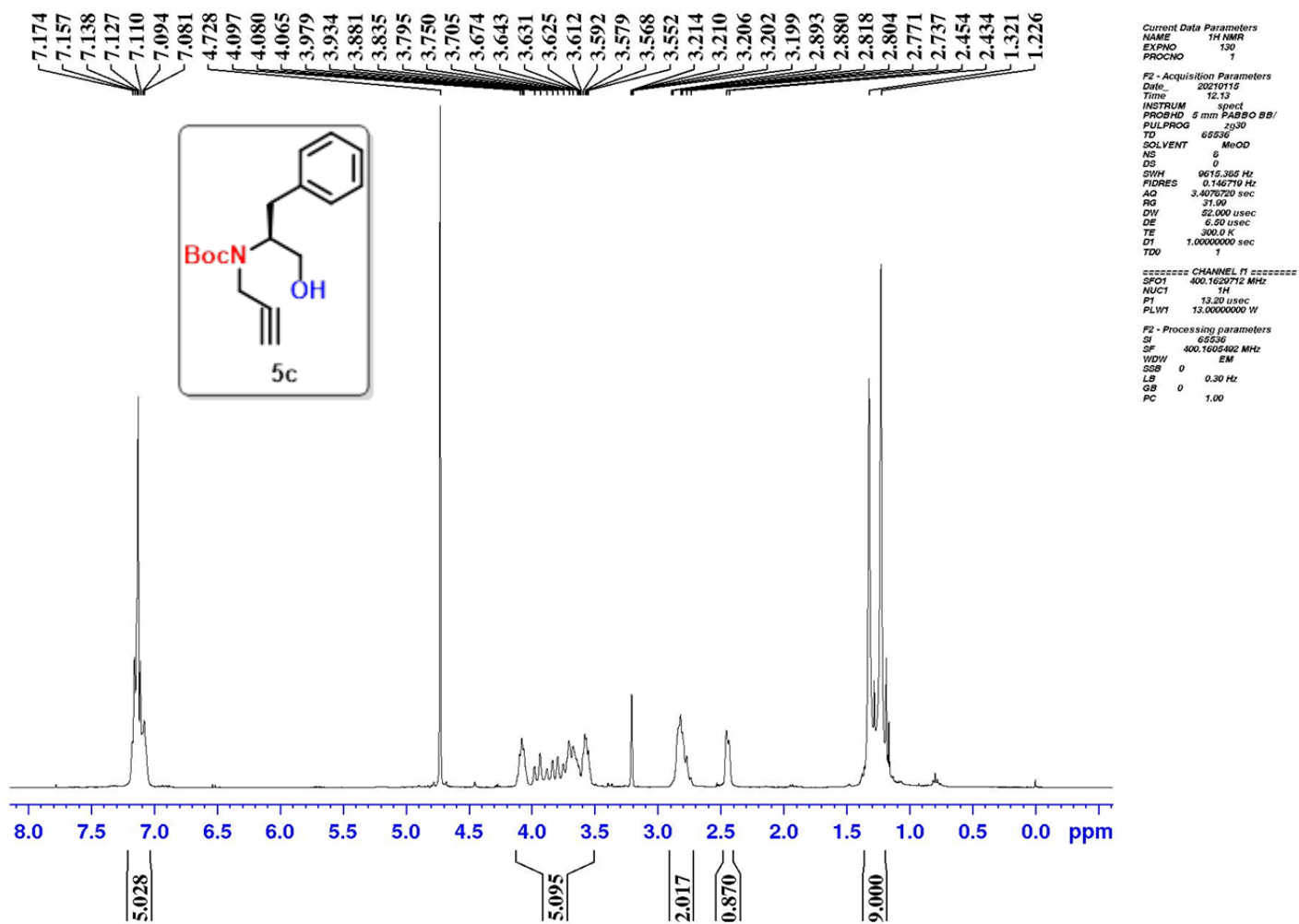


Figure S3. $^{13}\text{C} \{^1\text{H}\}$ NMR of compound **5b**

Figure S4. ¹H NMR of compound 5c

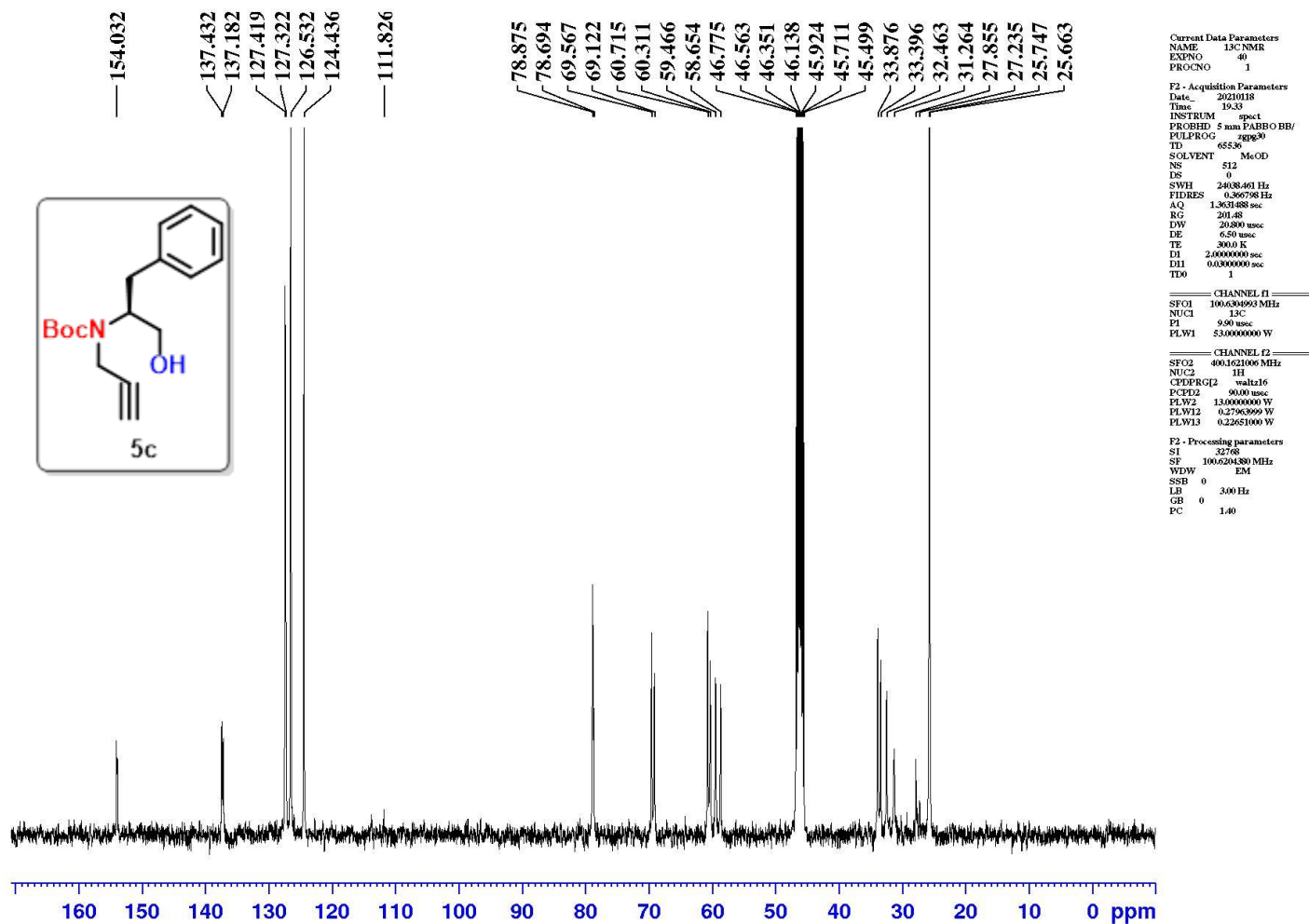


Figure S5. ¹³C {¹H} NMR of compound 5c

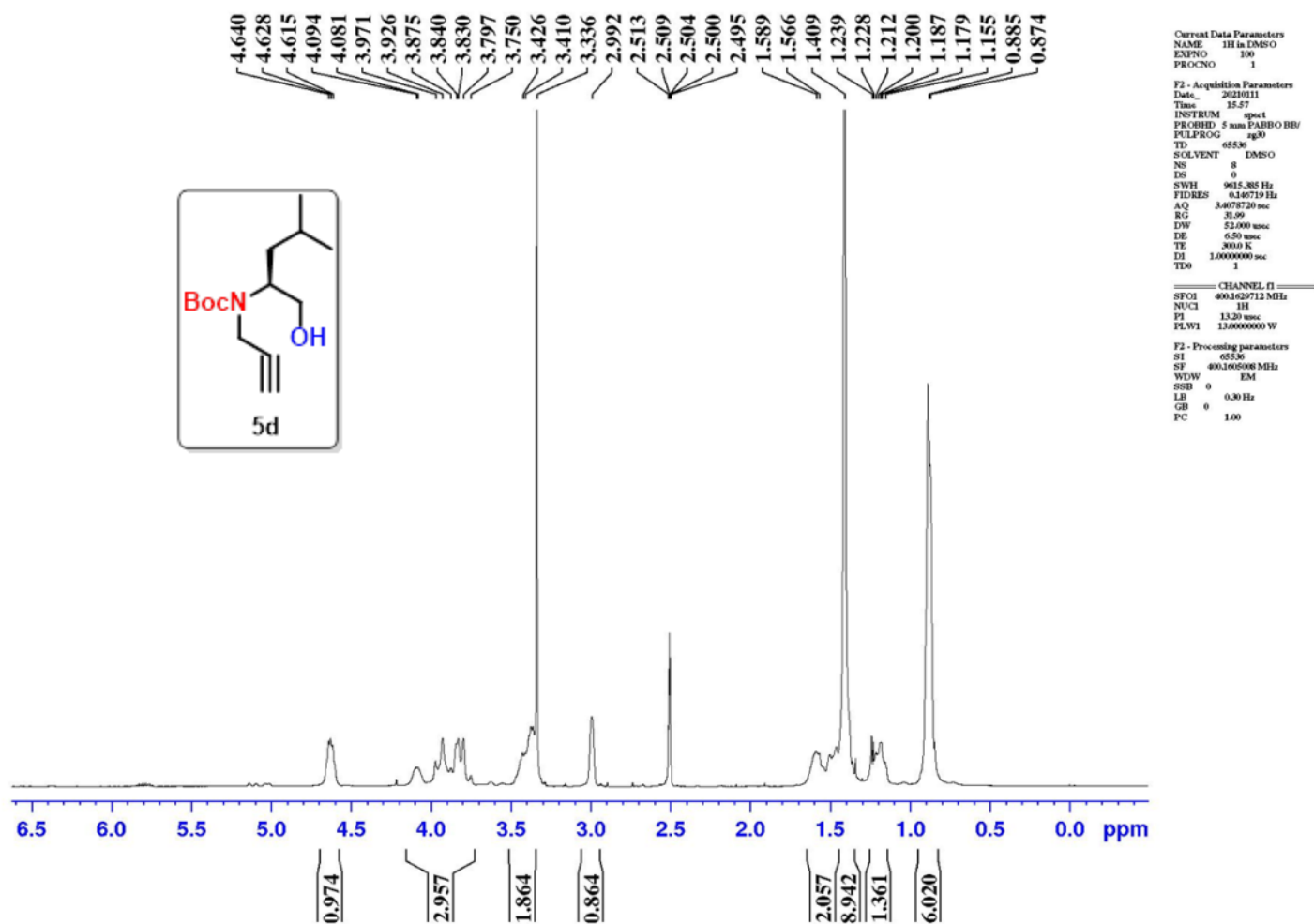


Figure S6. ^1H NMR of compound 5d

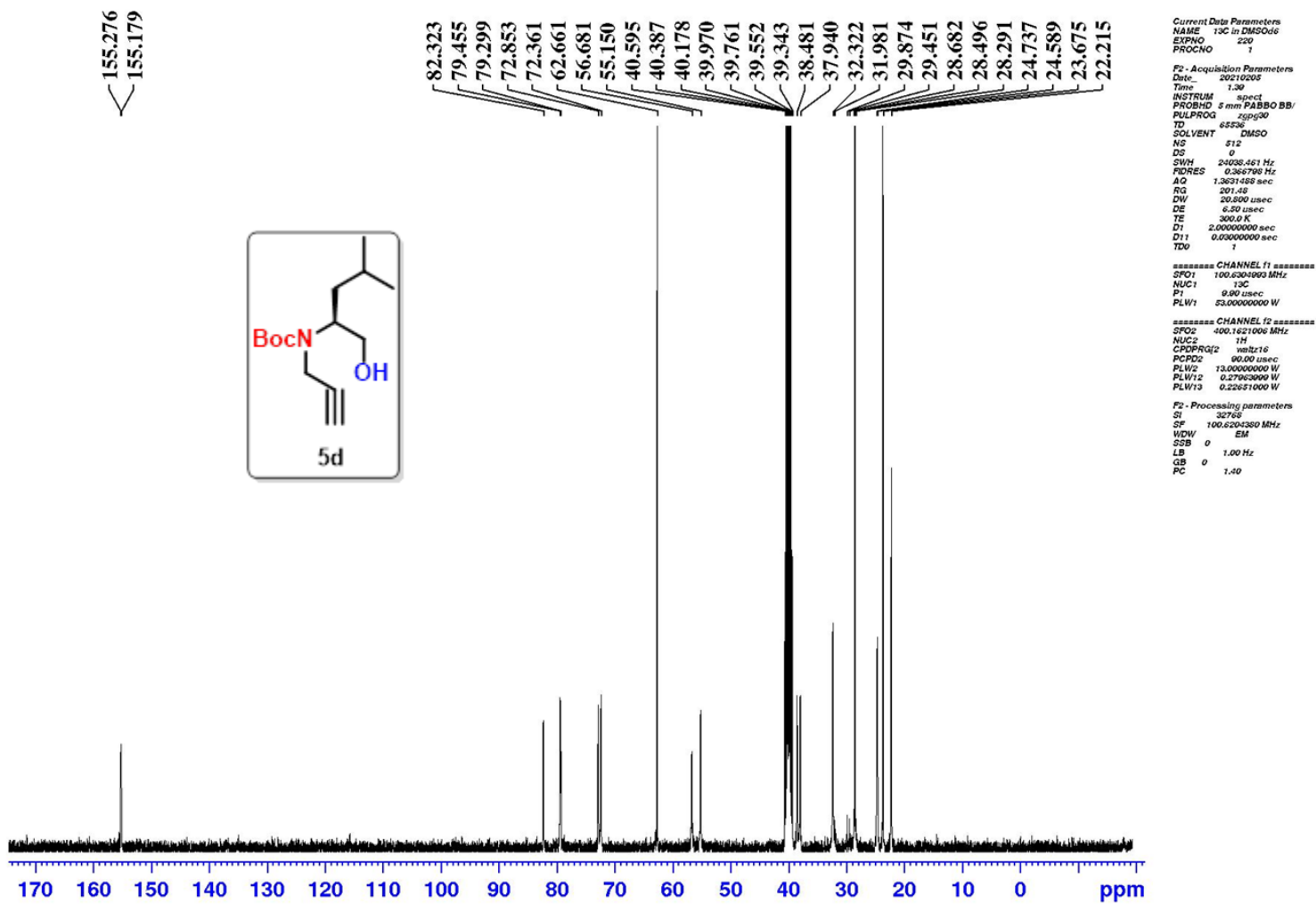


Figure S7. ¹³C {¹H} NMR of compound 5d

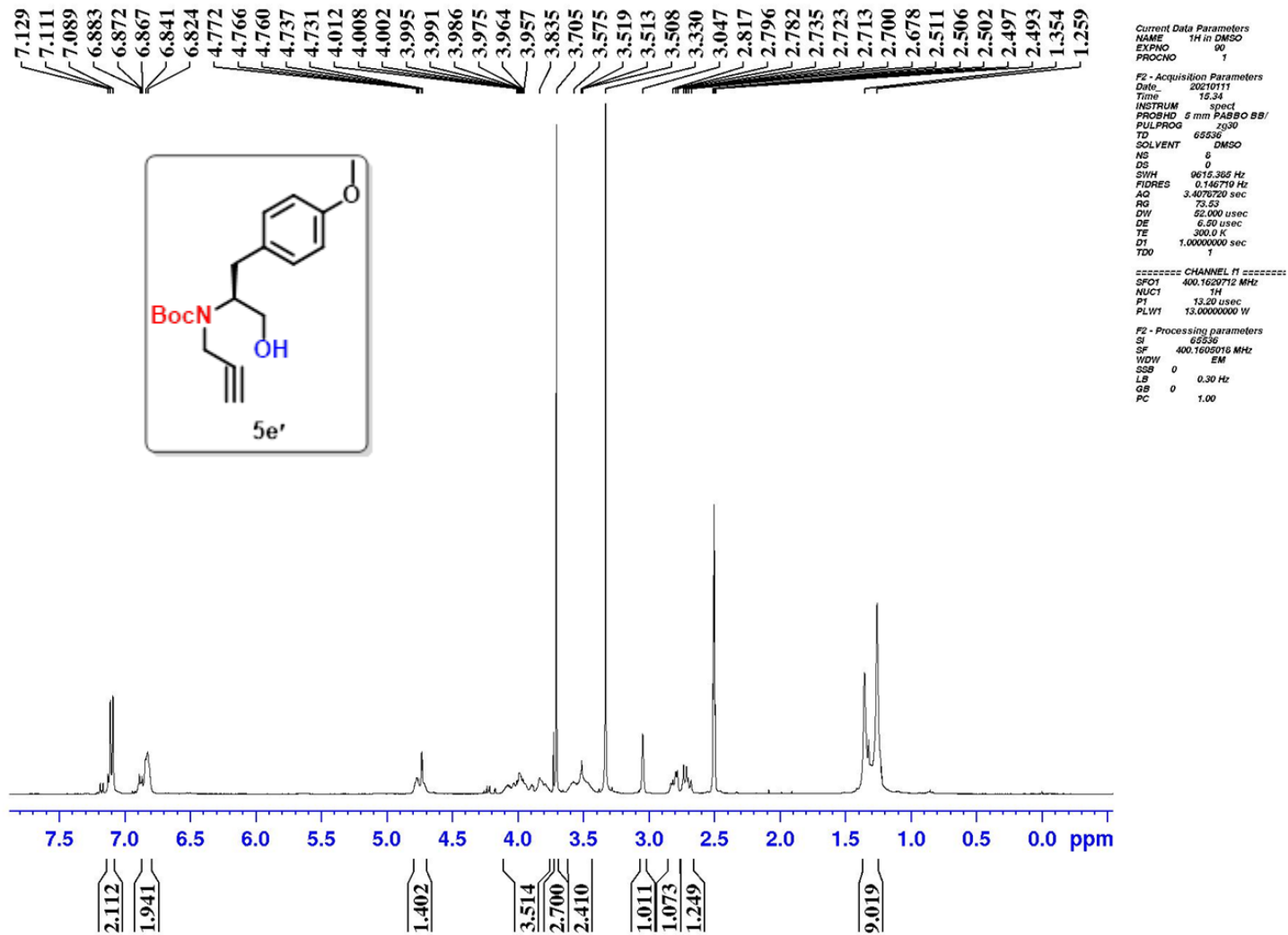


Figure S8. ¹H NMR of compound 5e'

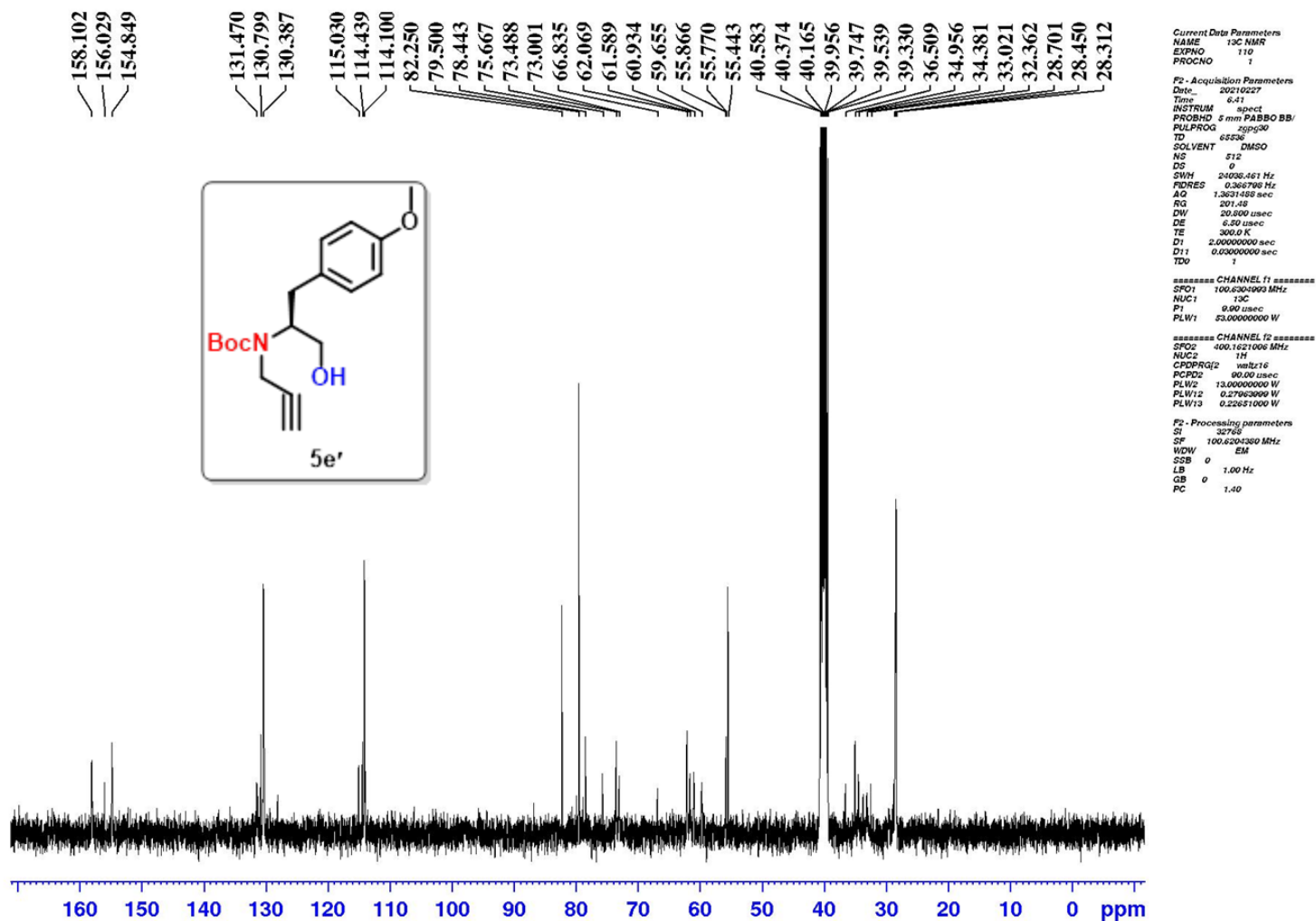
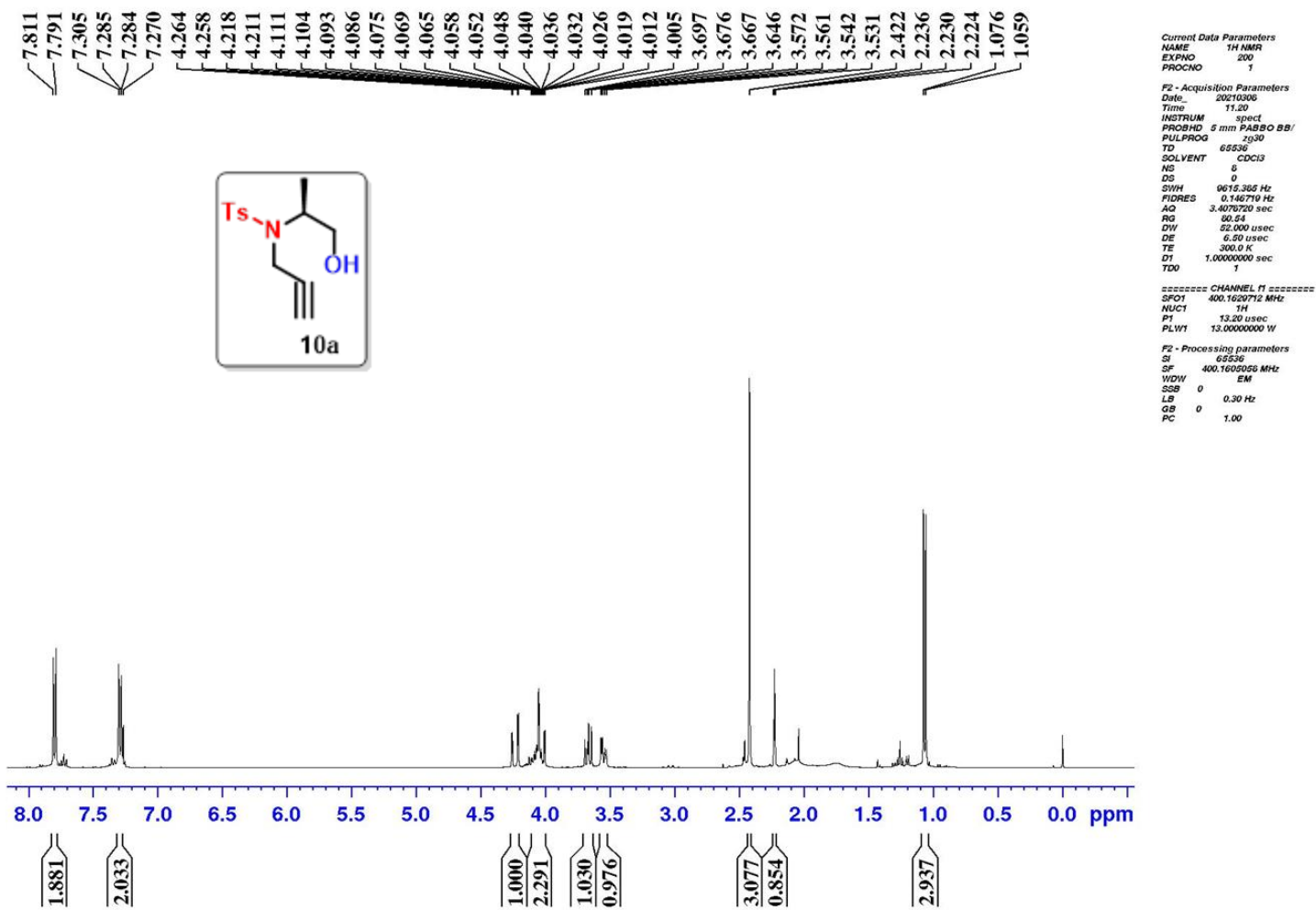


Figure S9. ^{13}C $\{^1\text{H}\}$ NMR of compound **5e'**

Figure S10. ¹H NMR of compound 10a

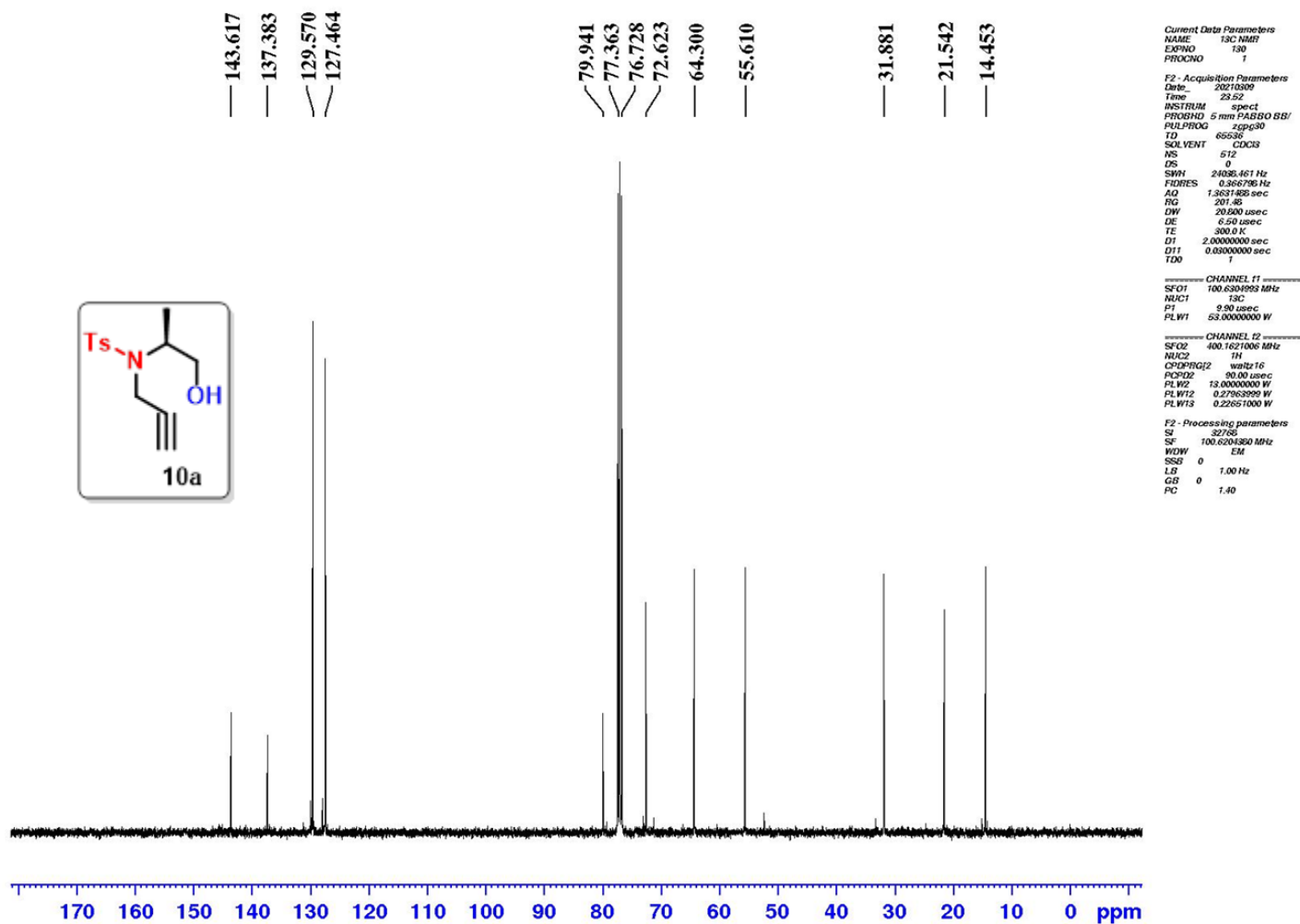


Figure S11. ^{13}C $\{^1\text{H}\}$ NMR of compound 10a

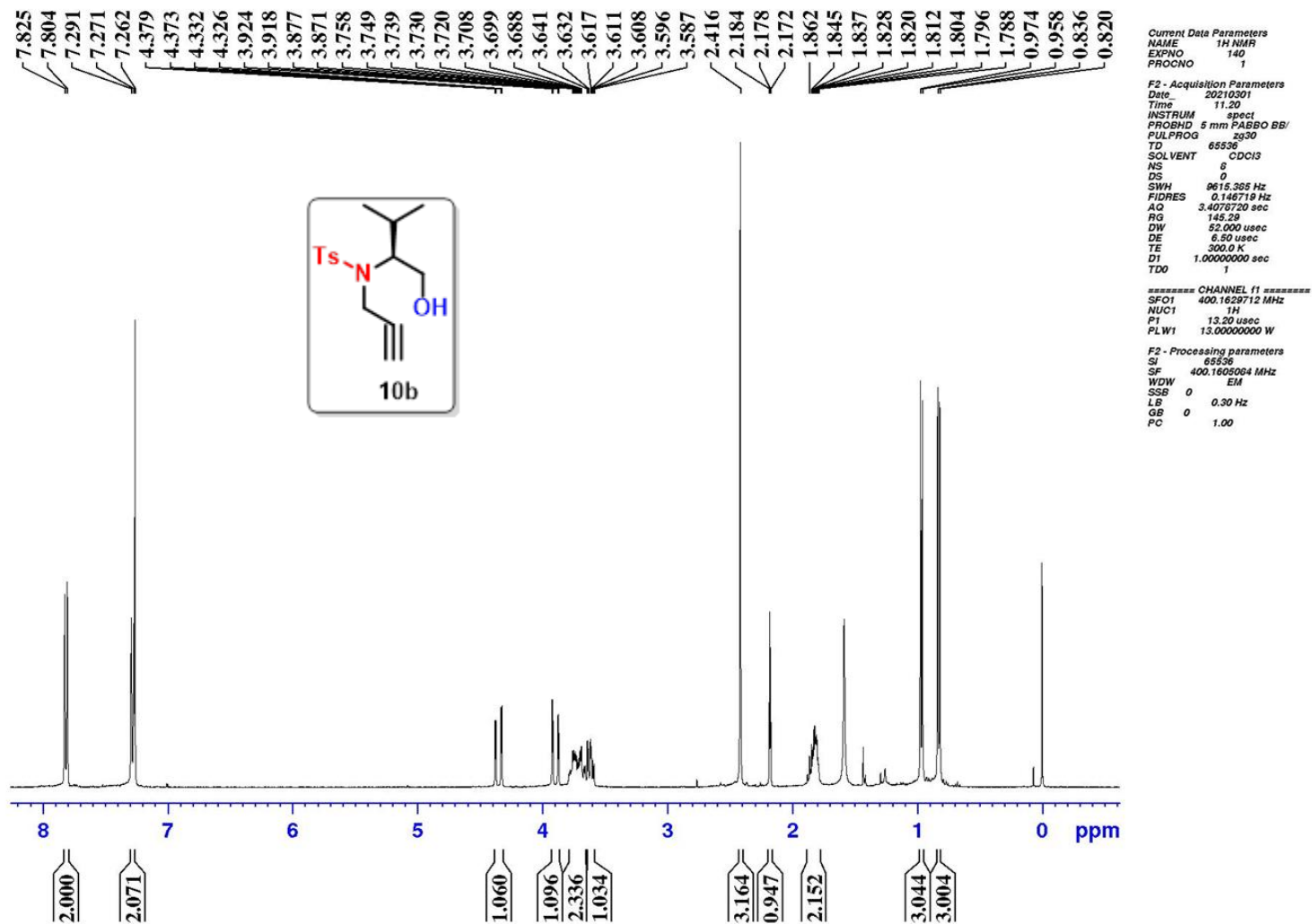


Figure S12. ¹H NMR of compound 10b

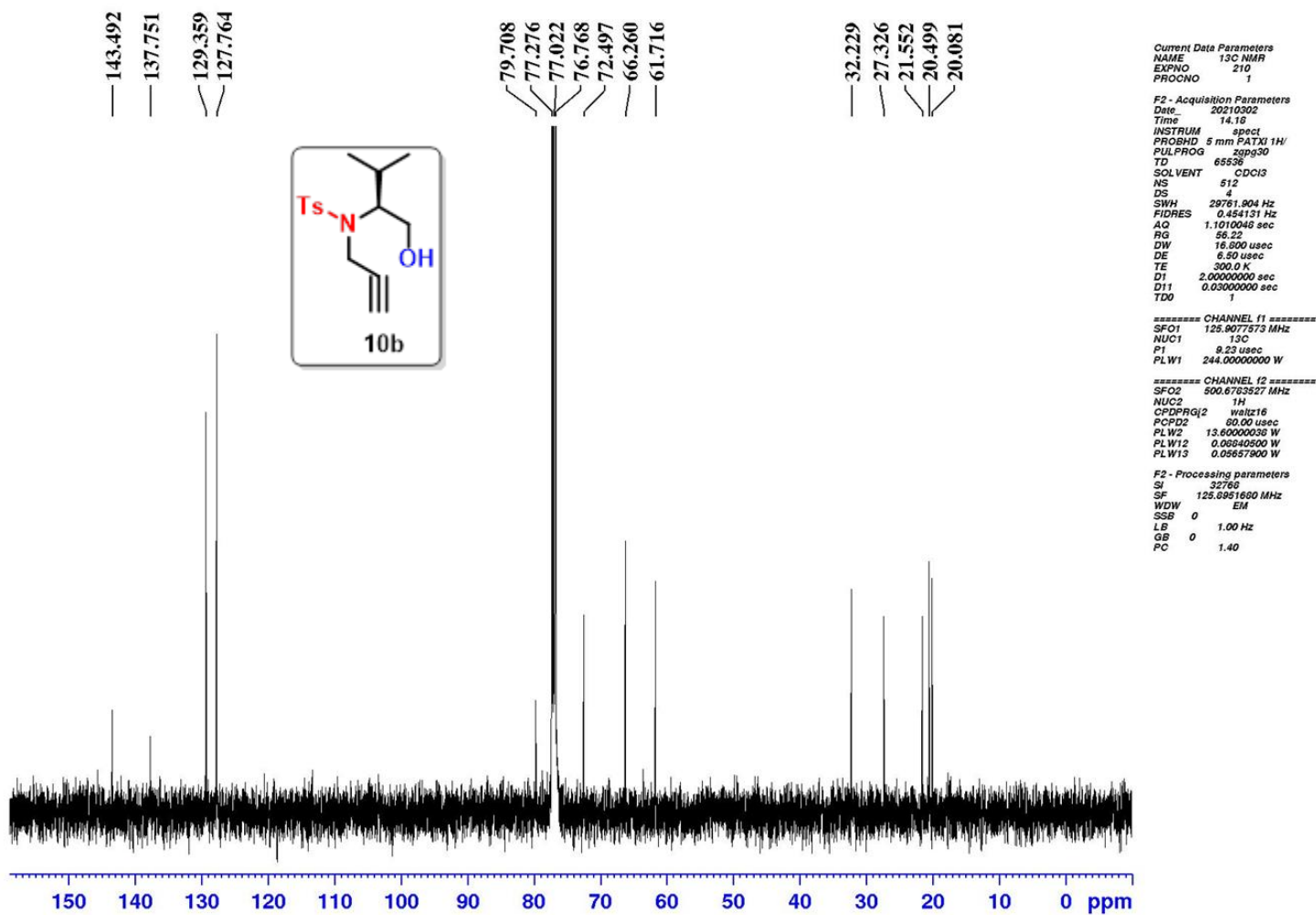


Figure S13. ^{13}C $\{^1\text{H}\}$ NMR of compound 10b

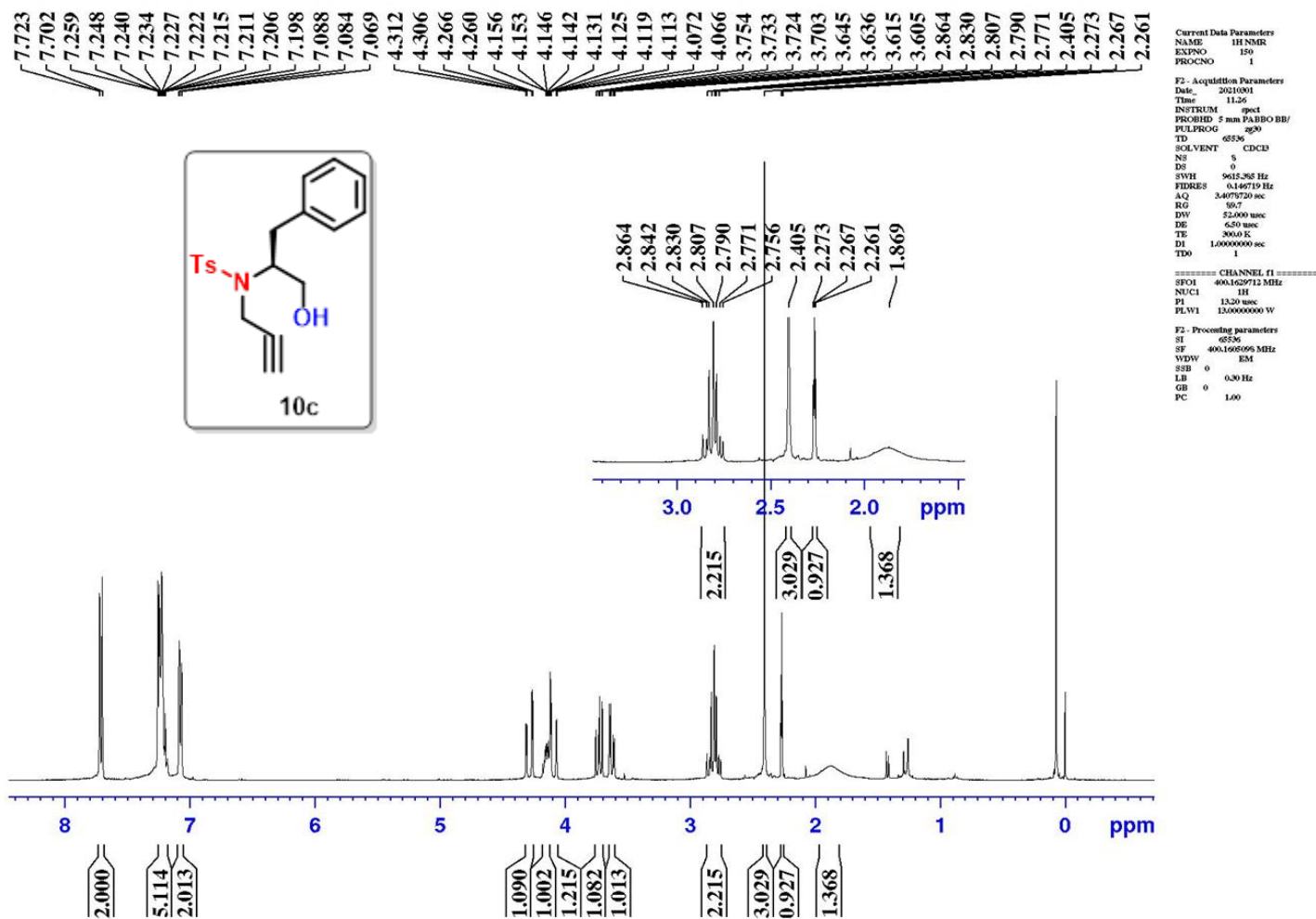


Figure S14. ¹H NMR of compound 10c

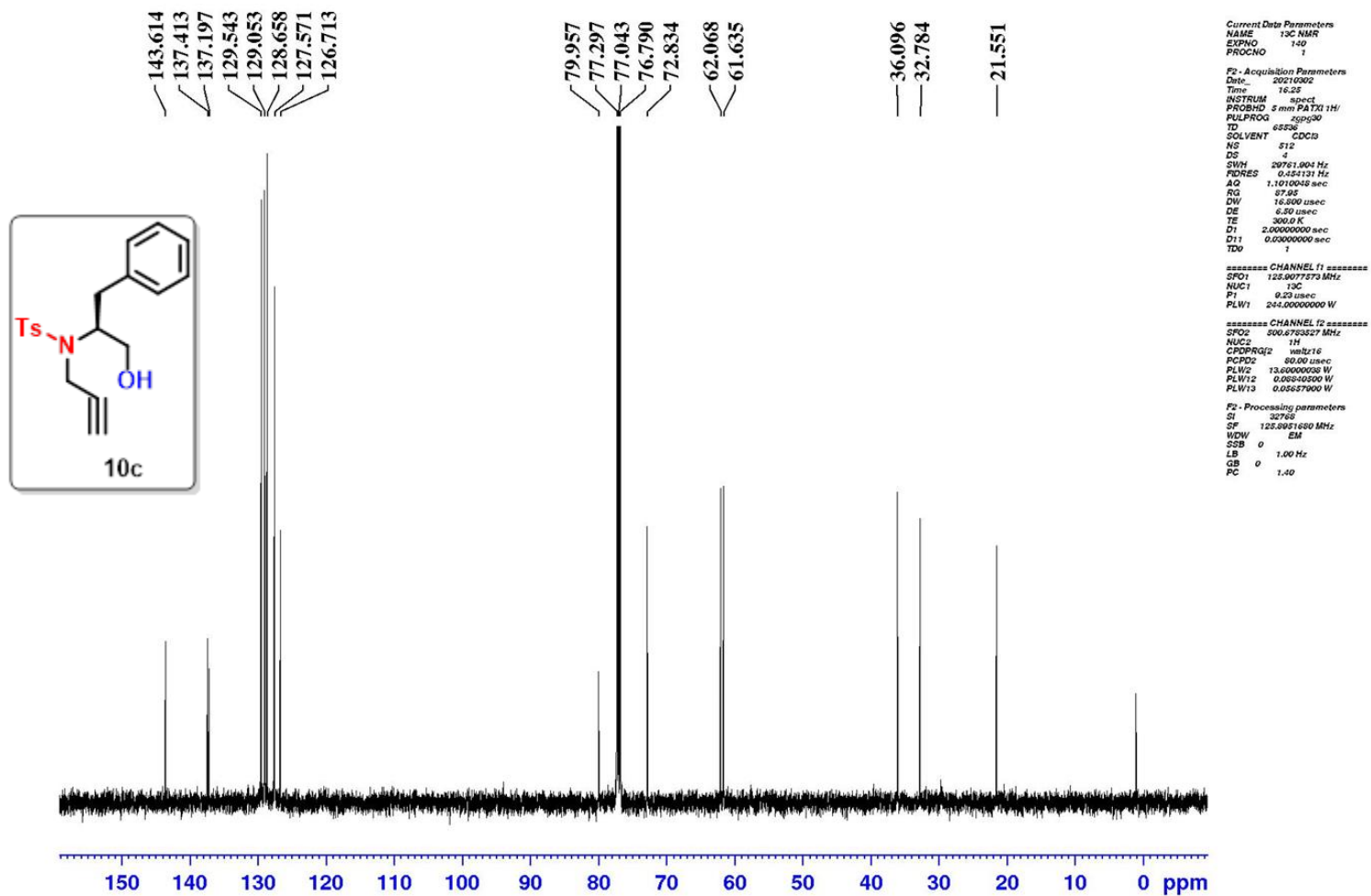


Figure S15. ^{13}C $\{^1\text{H}\}$ NMR of compound 10c

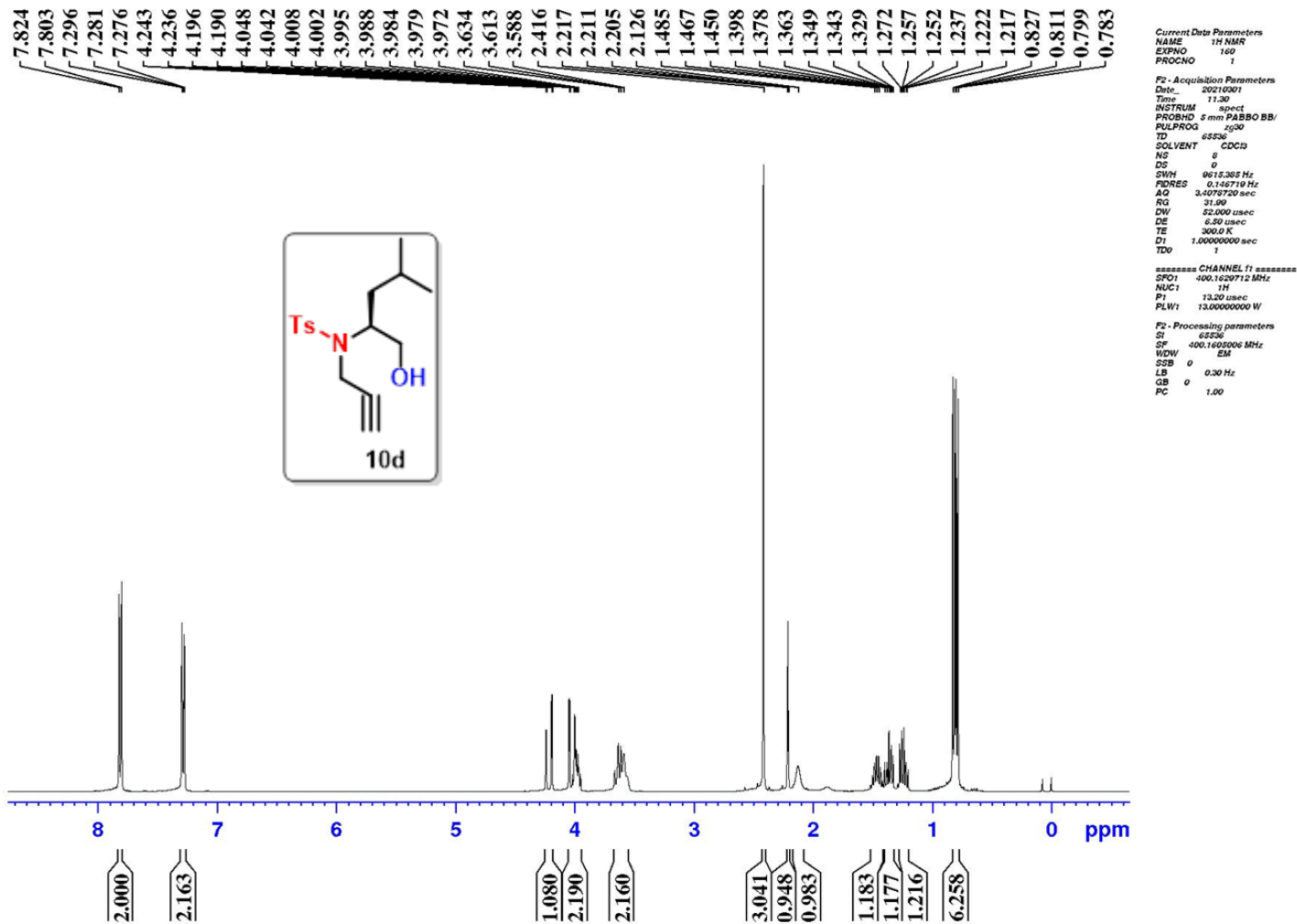


Figure S16. ^1H NMR of compound 10d

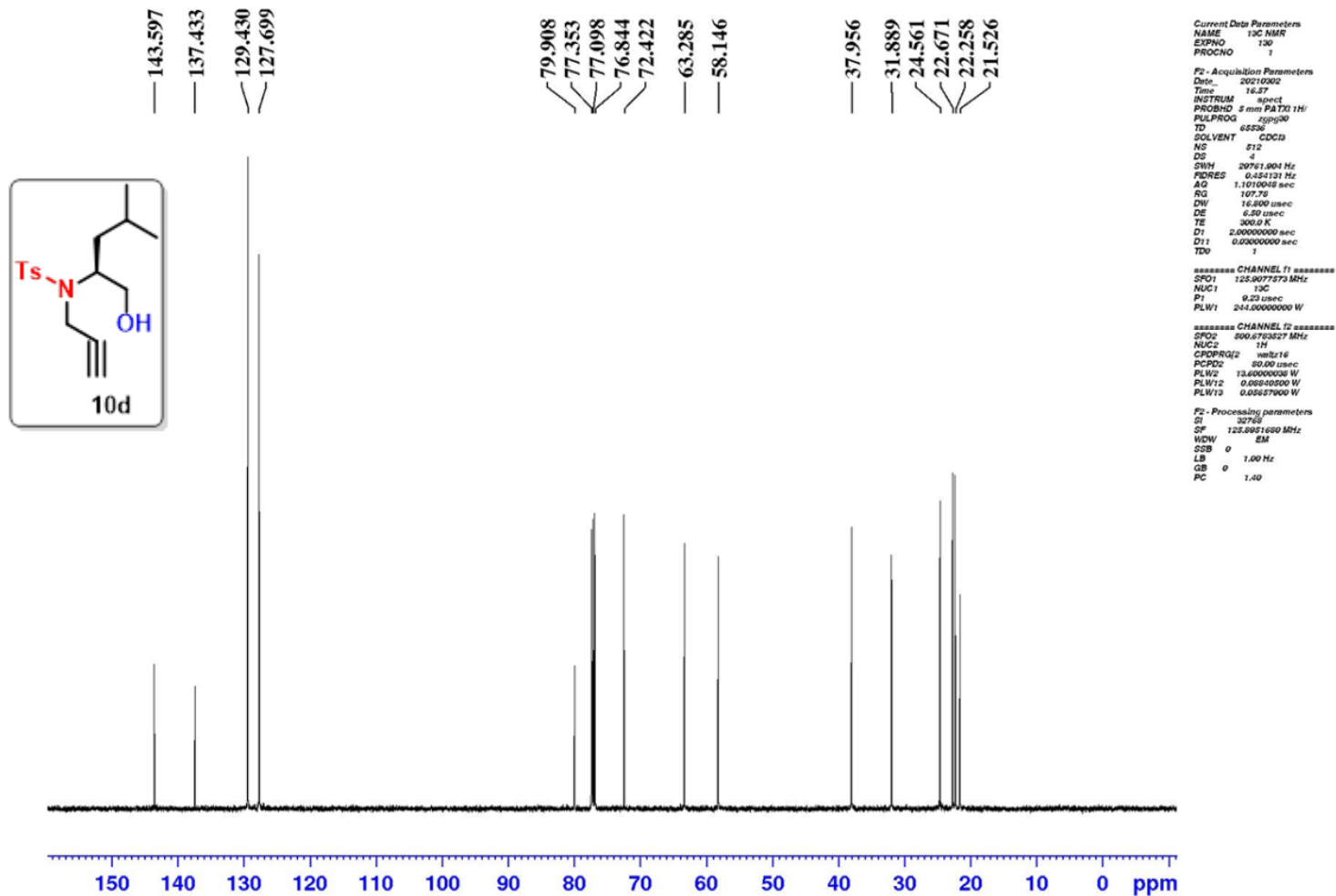
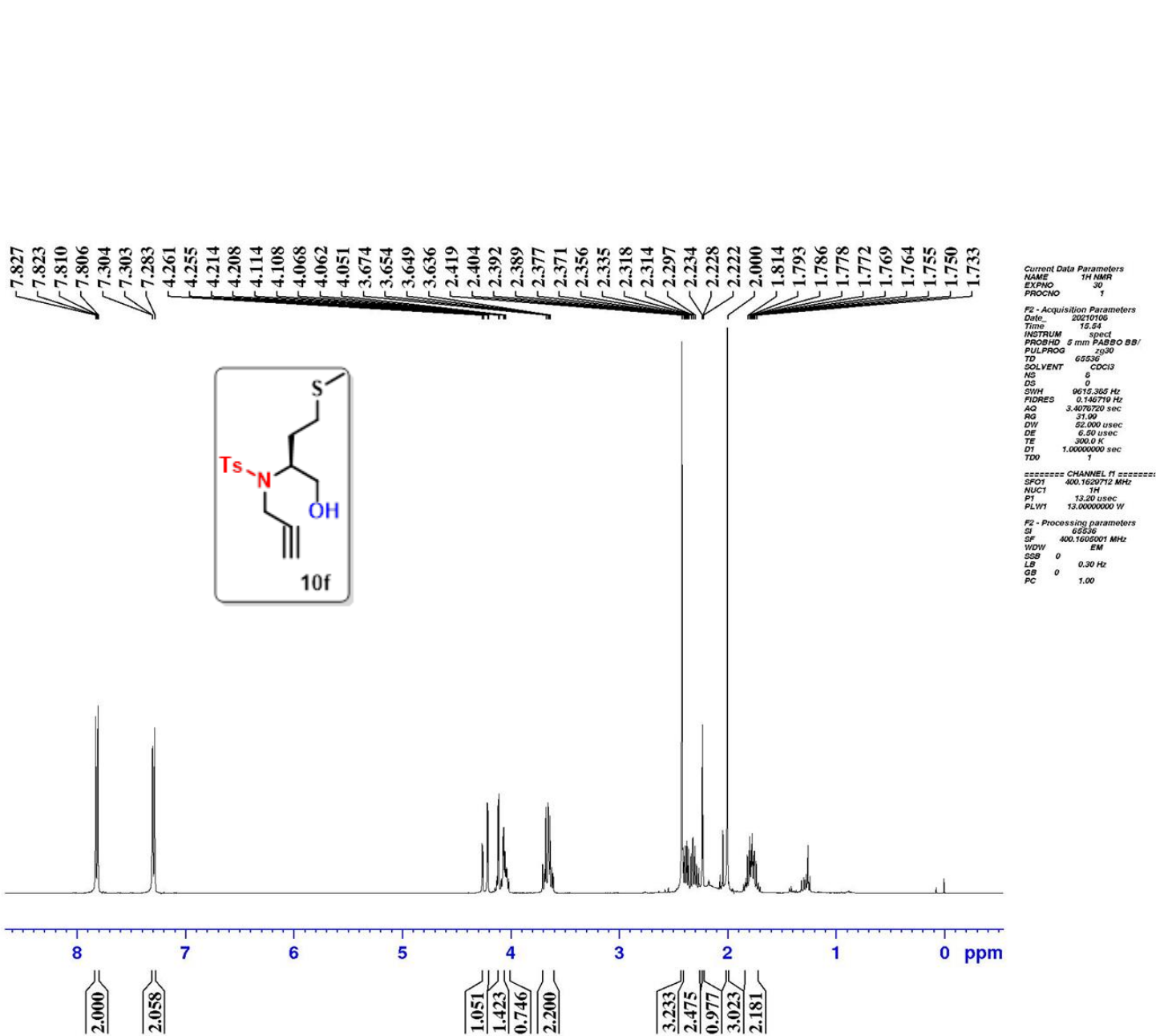


Figure S17. ^{13}C $\{^1\text{H}\}$ NMR of compound 10d

Figure S18. ¹H NMR of compound 10f

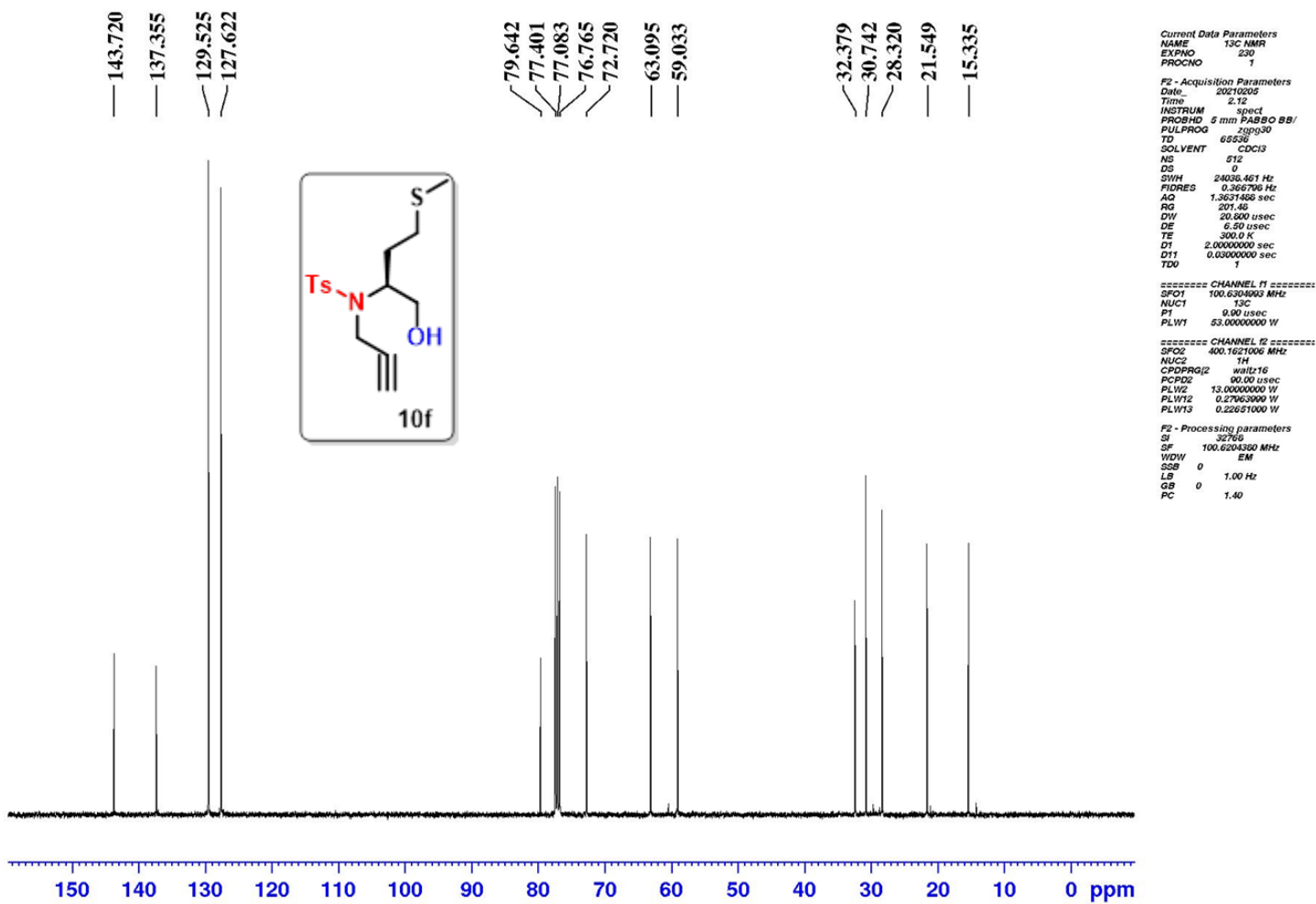
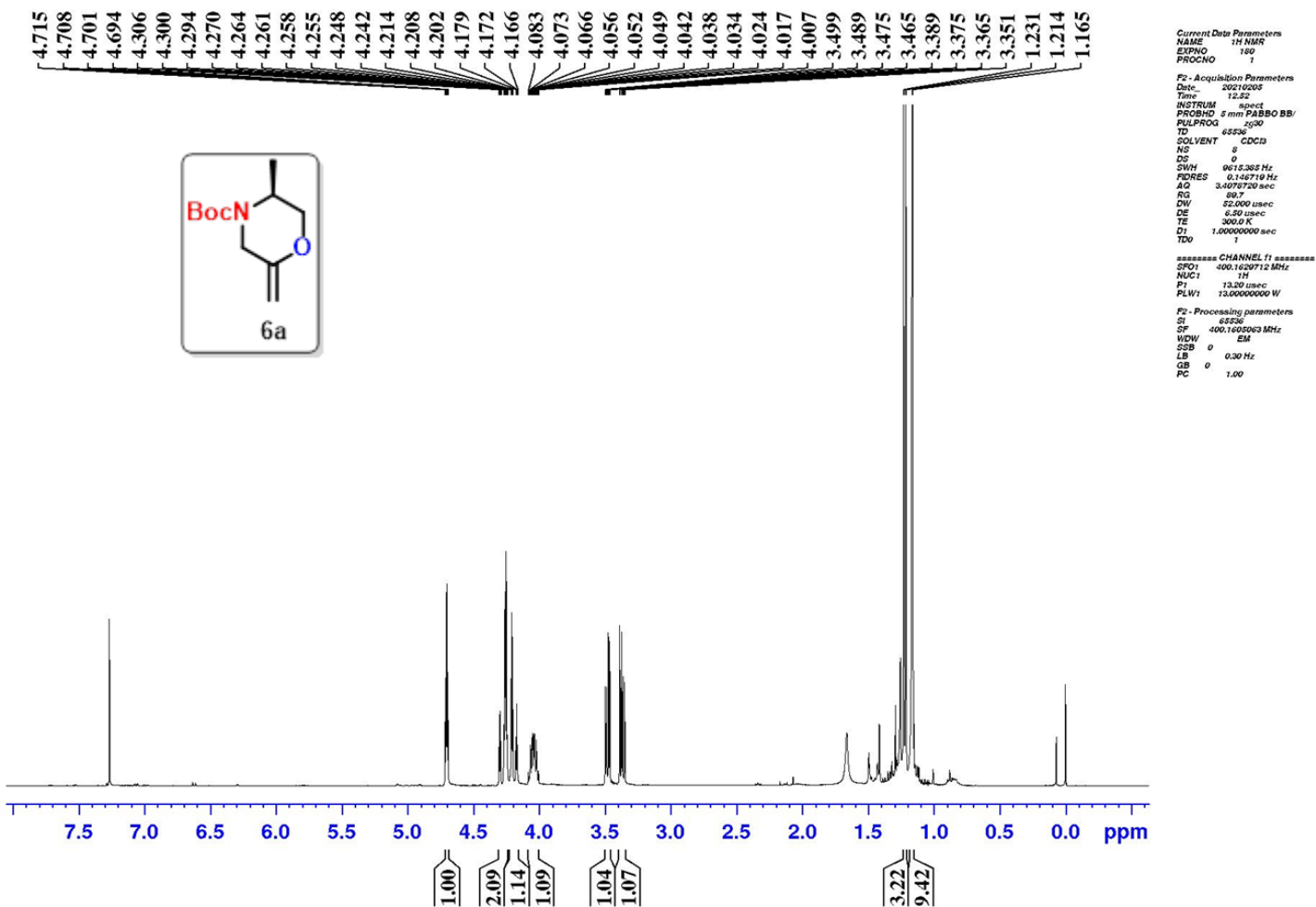


Figure S19. $^{13}\text{C} \{^1\text{H}\}$ NMR of compound **10f**

Figure S20. ¹H NMR of compound 6a

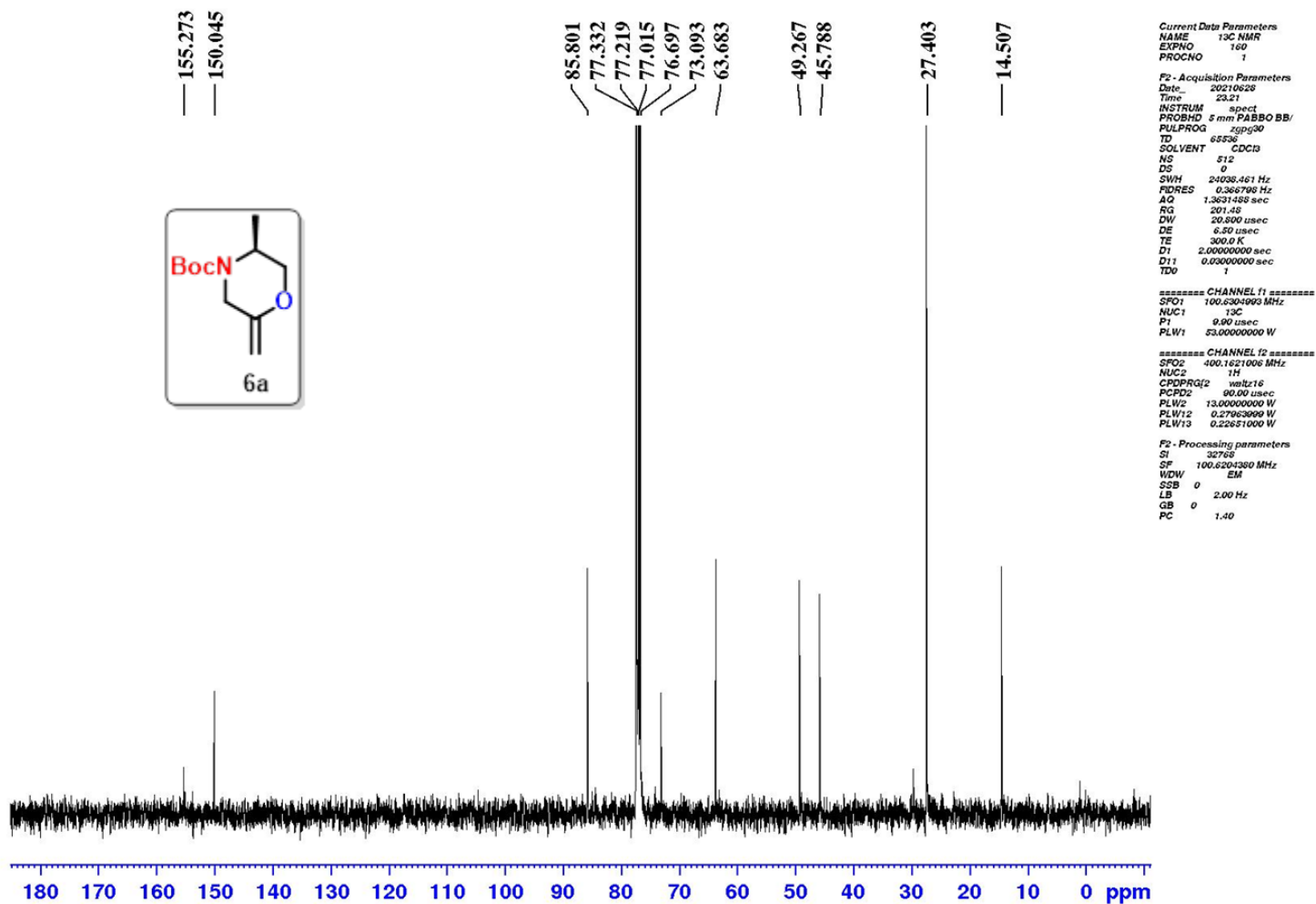


Figure S21. $^{13}\text{C} \{^1\text{H}\}$ NMR of compound 6a

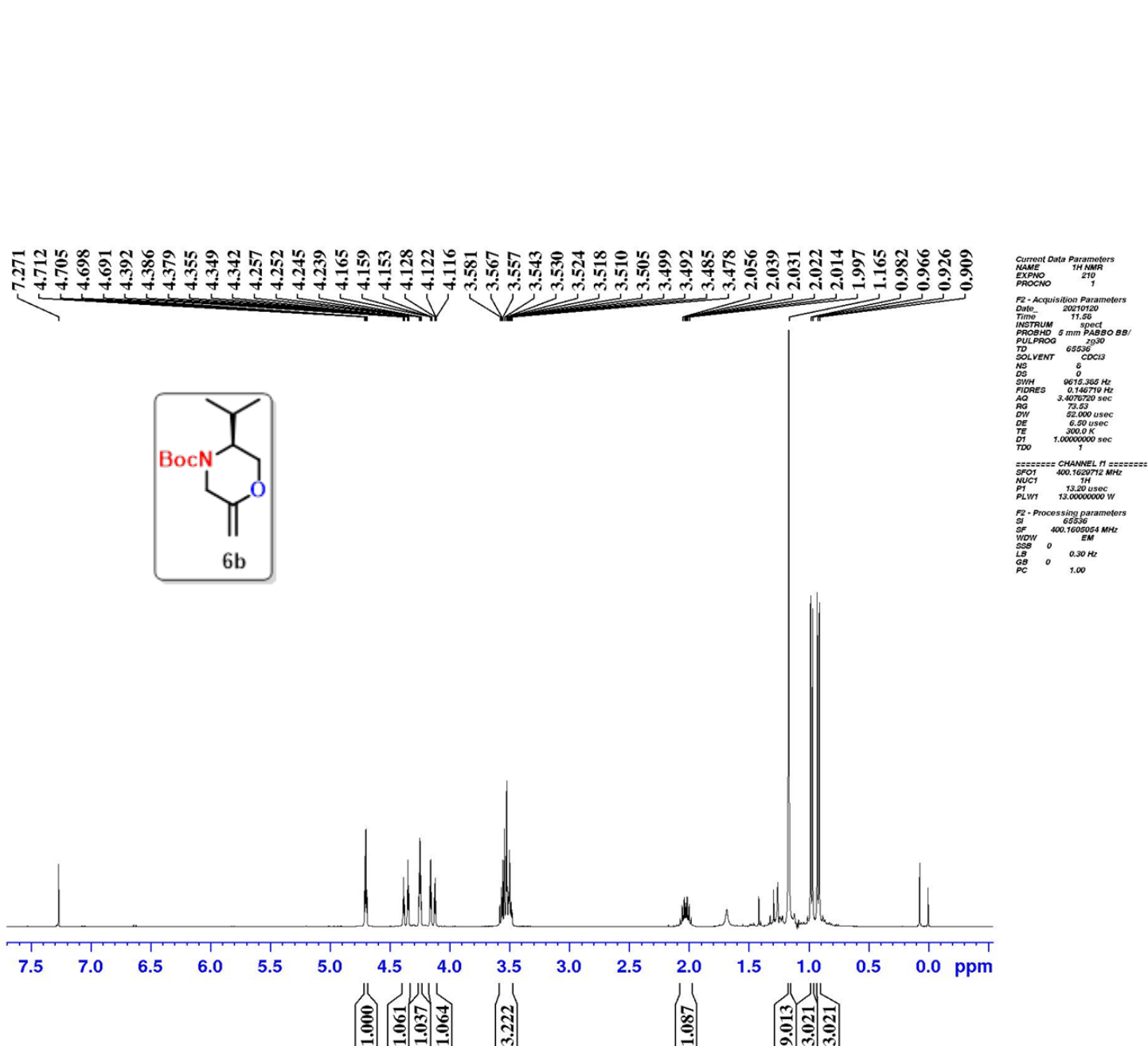


Figure S22. ^1H NMR of compound **6b**

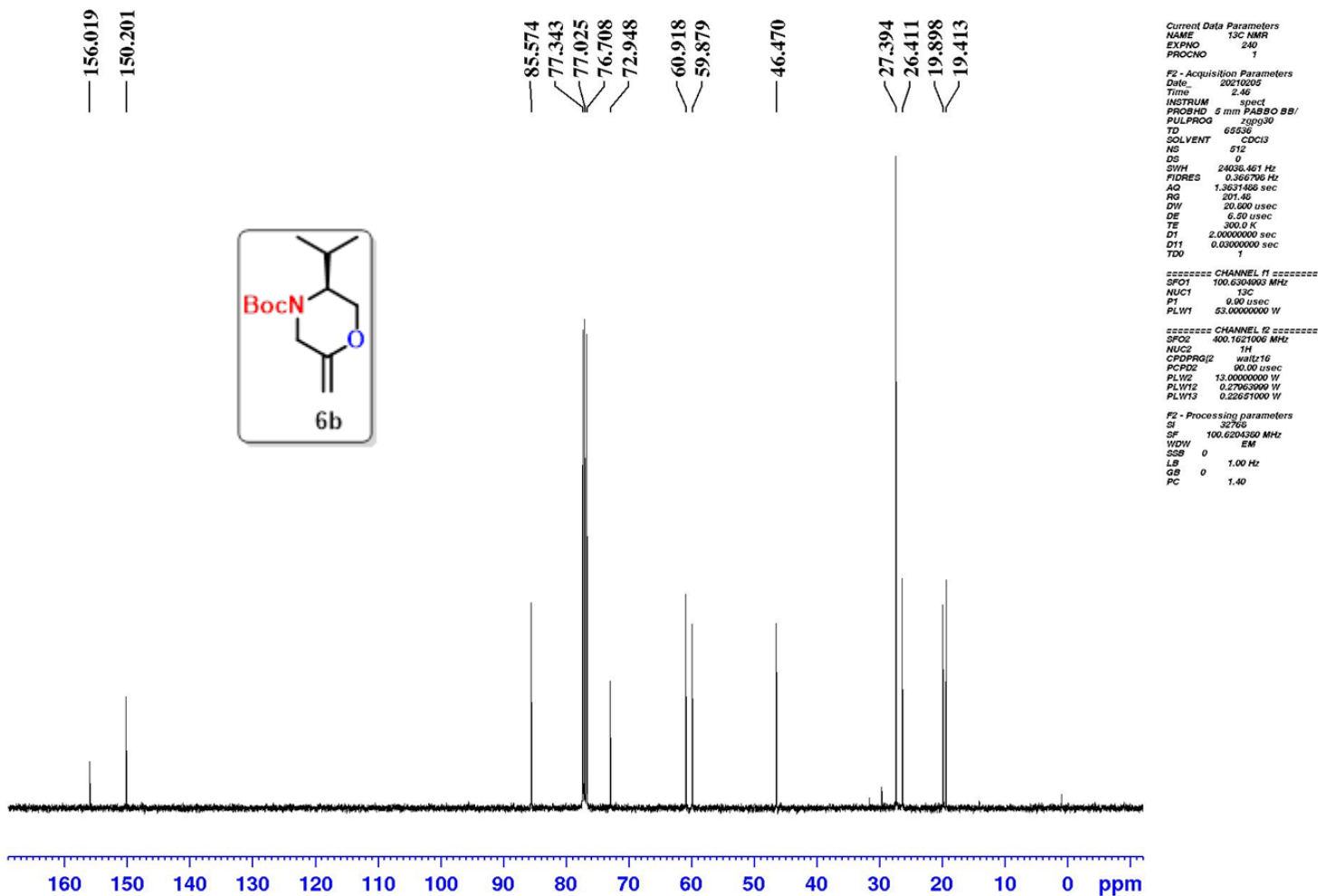
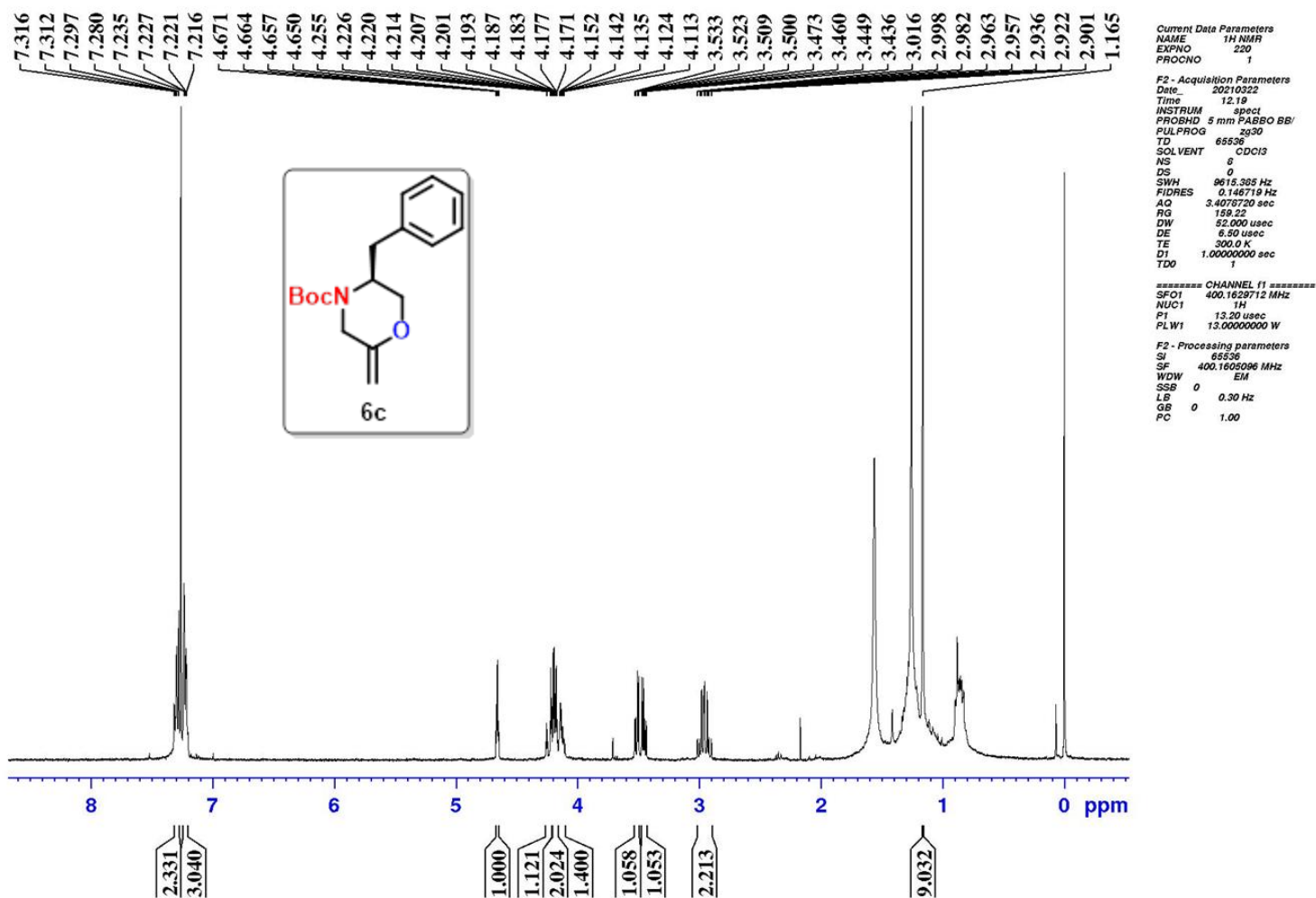


Figure S23. $^{13}\text{C} \{^1\text{H}\}$ NMR of compound 6b



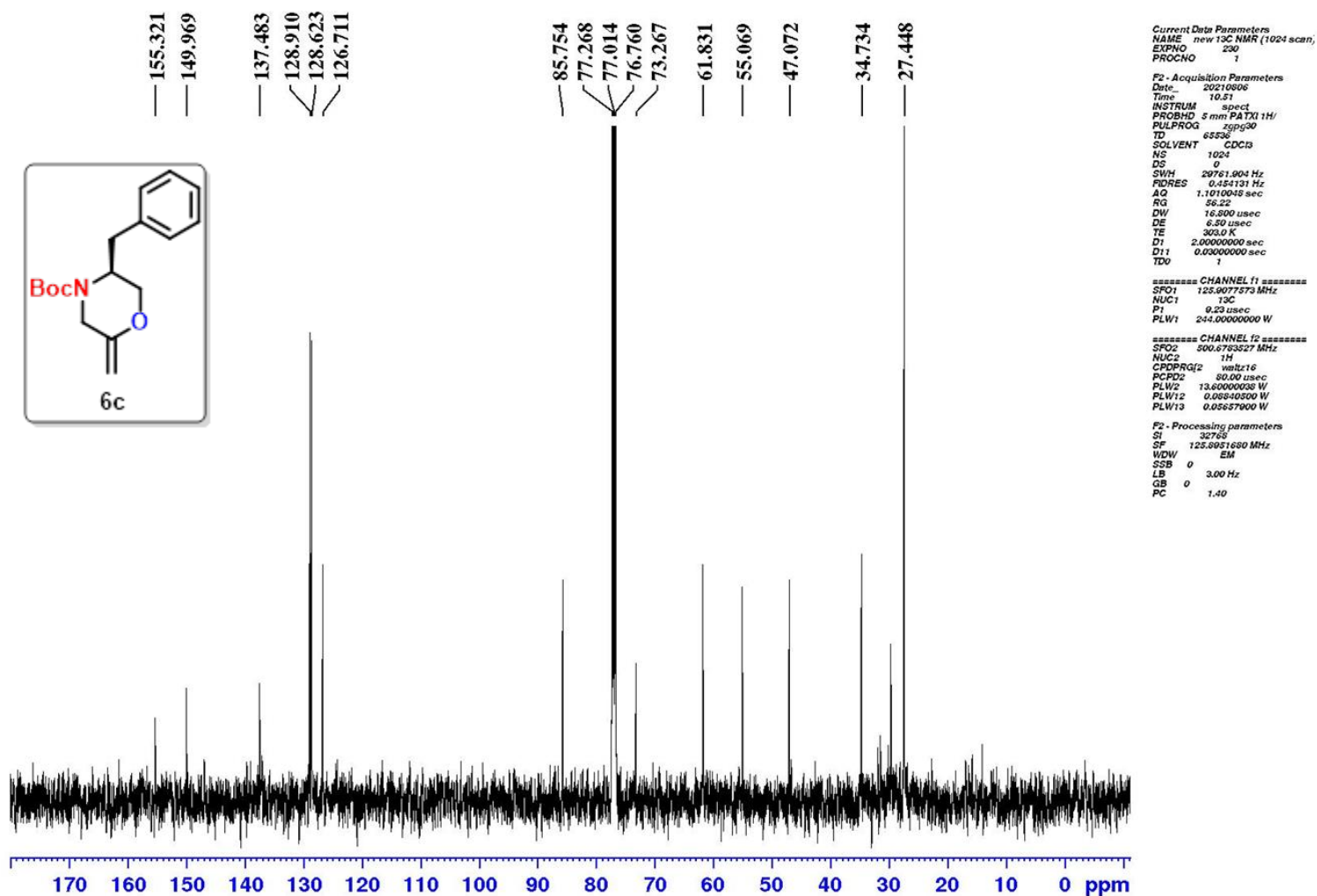
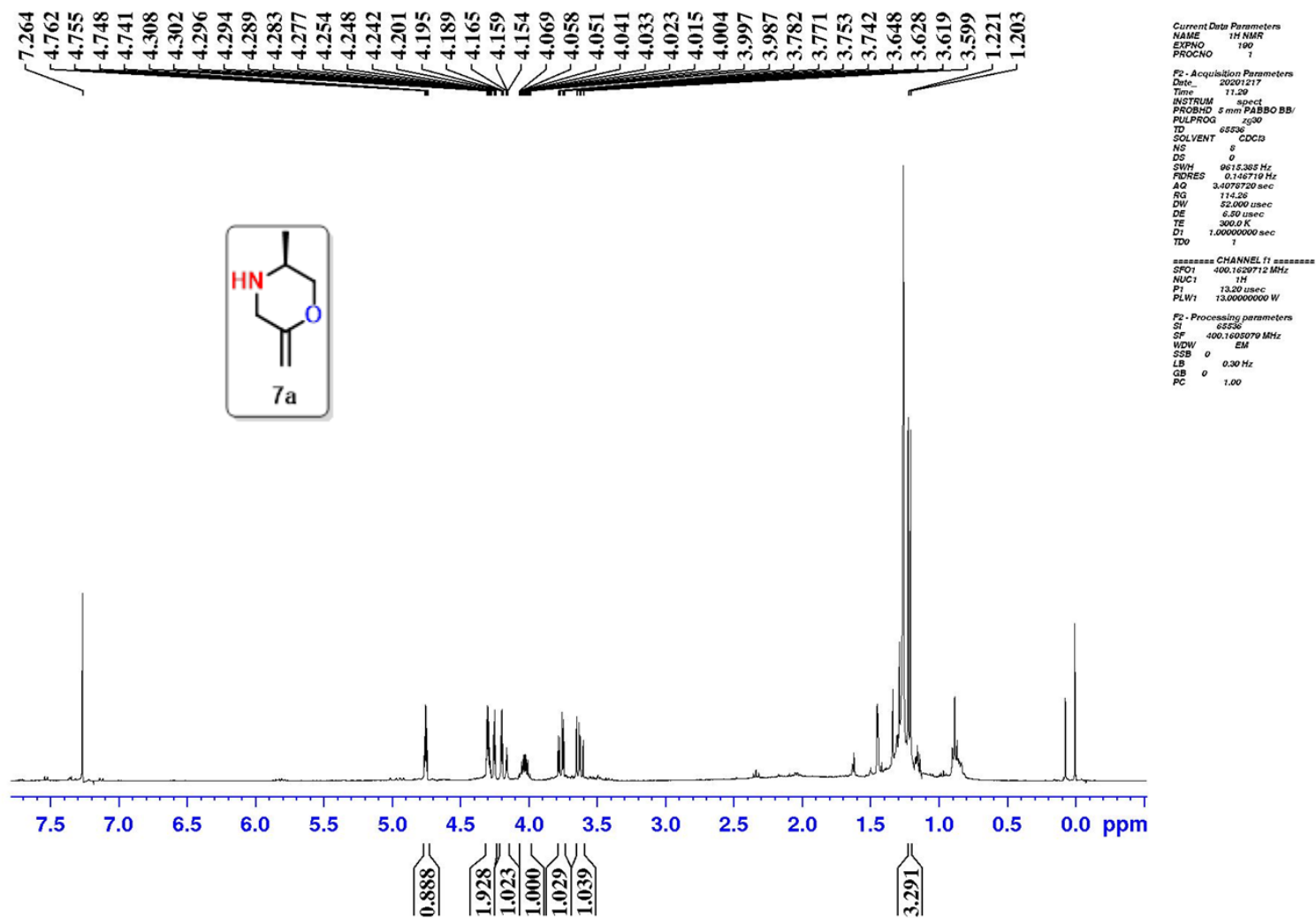


Figure S25. $^{13}\text{C} \{^1\text{H}\}$ NMR of compound 6c

Figure S26. ¹H NMR of compound 7a

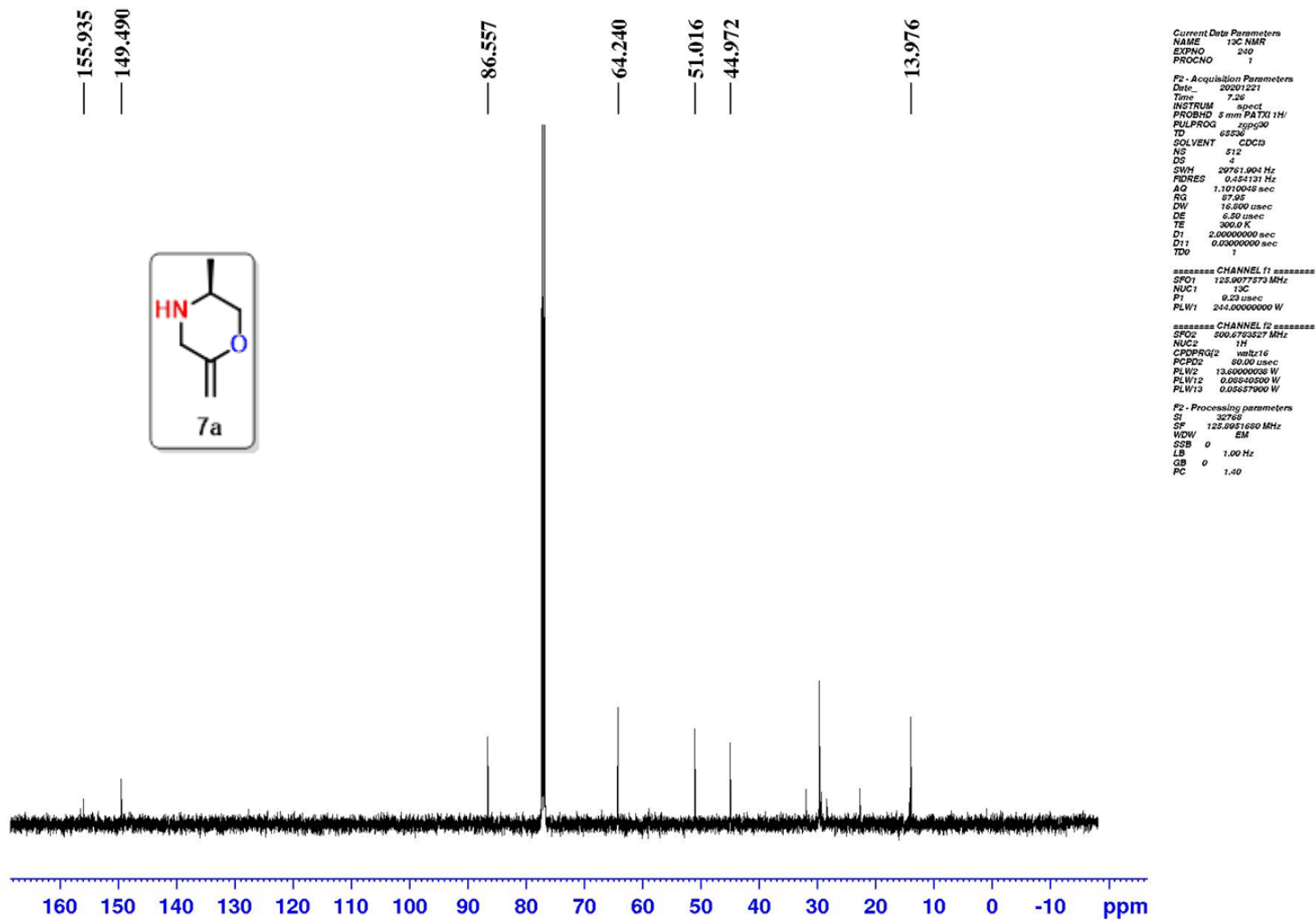


Figure S27. ^{13}C $\{^1\text{H}\}$ NMR of compound 7a

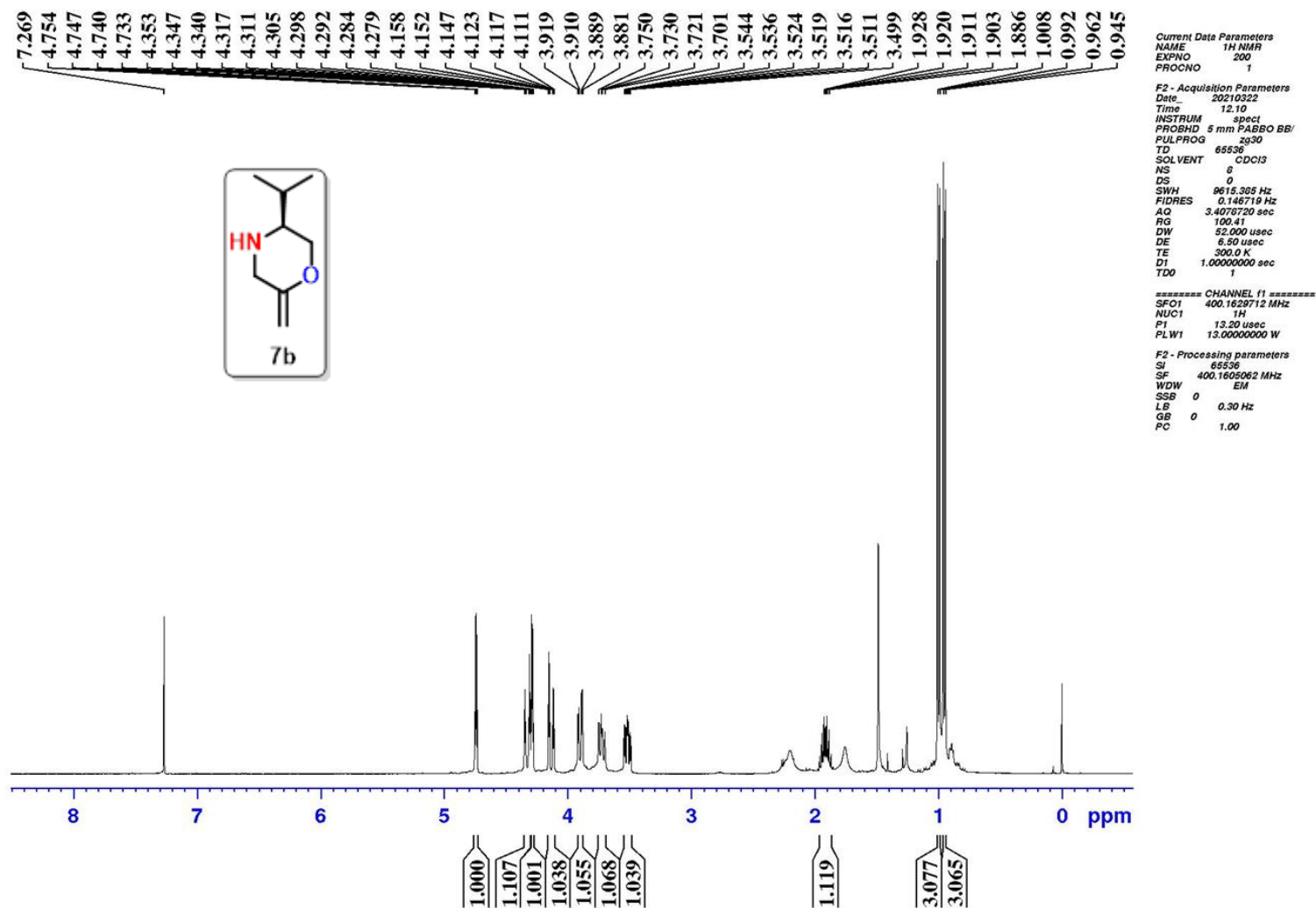


Figure S28. ¹H NMR of compound 7b

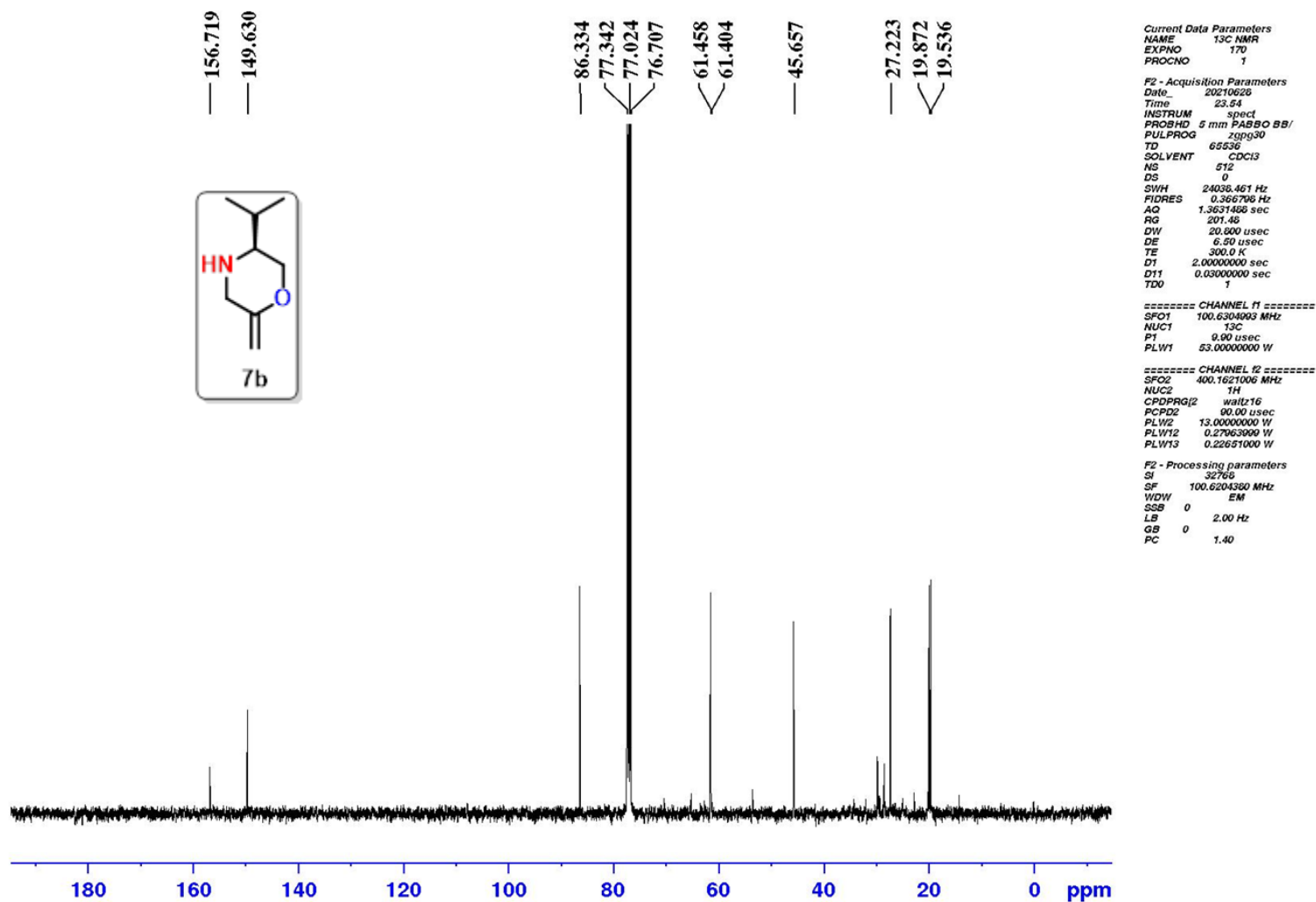
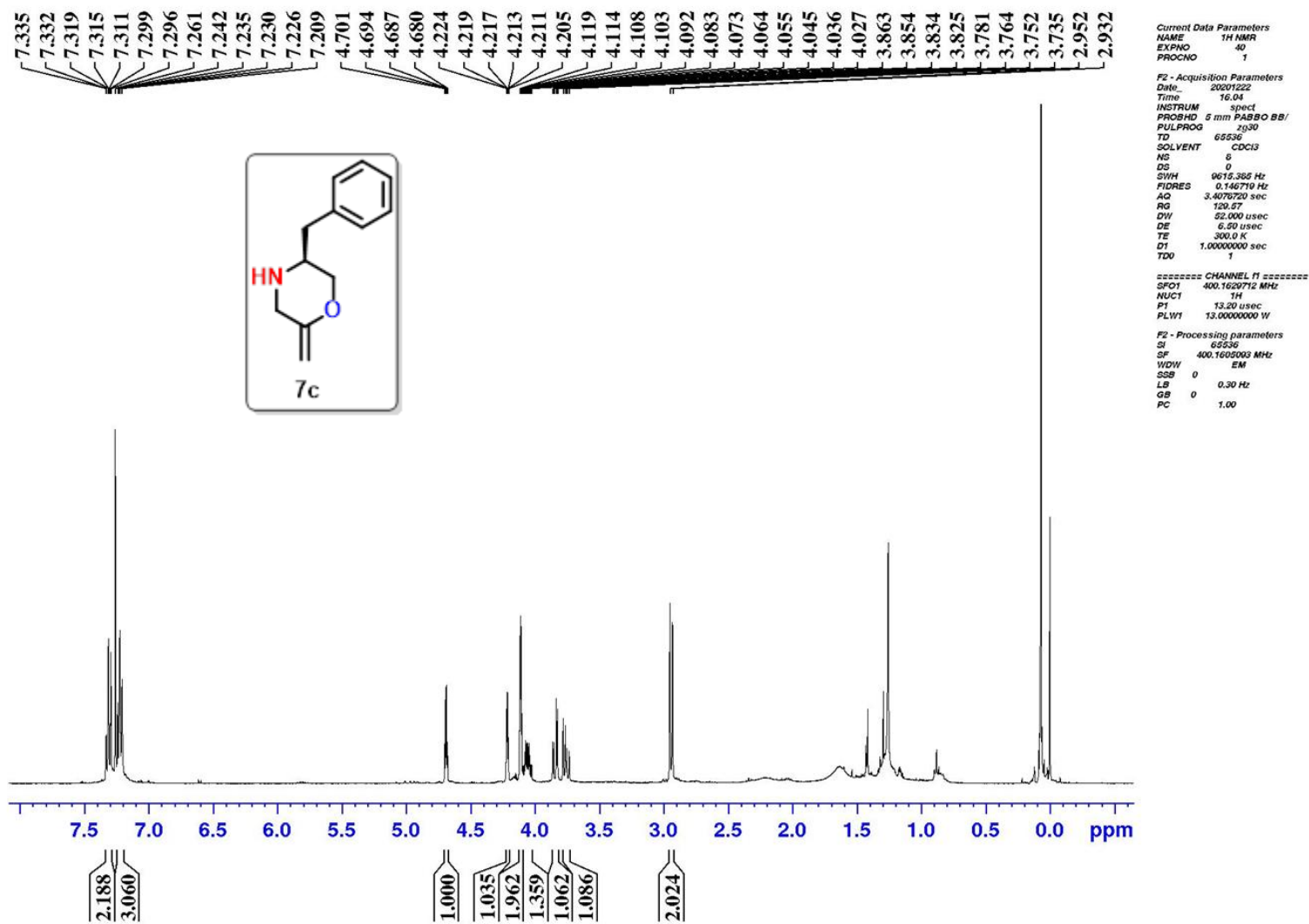


Figure S29. ^{13}C $\{^1\text{H}\}$ NMR of compound 7b

Figure S30. ¹H NMR of compound 7c

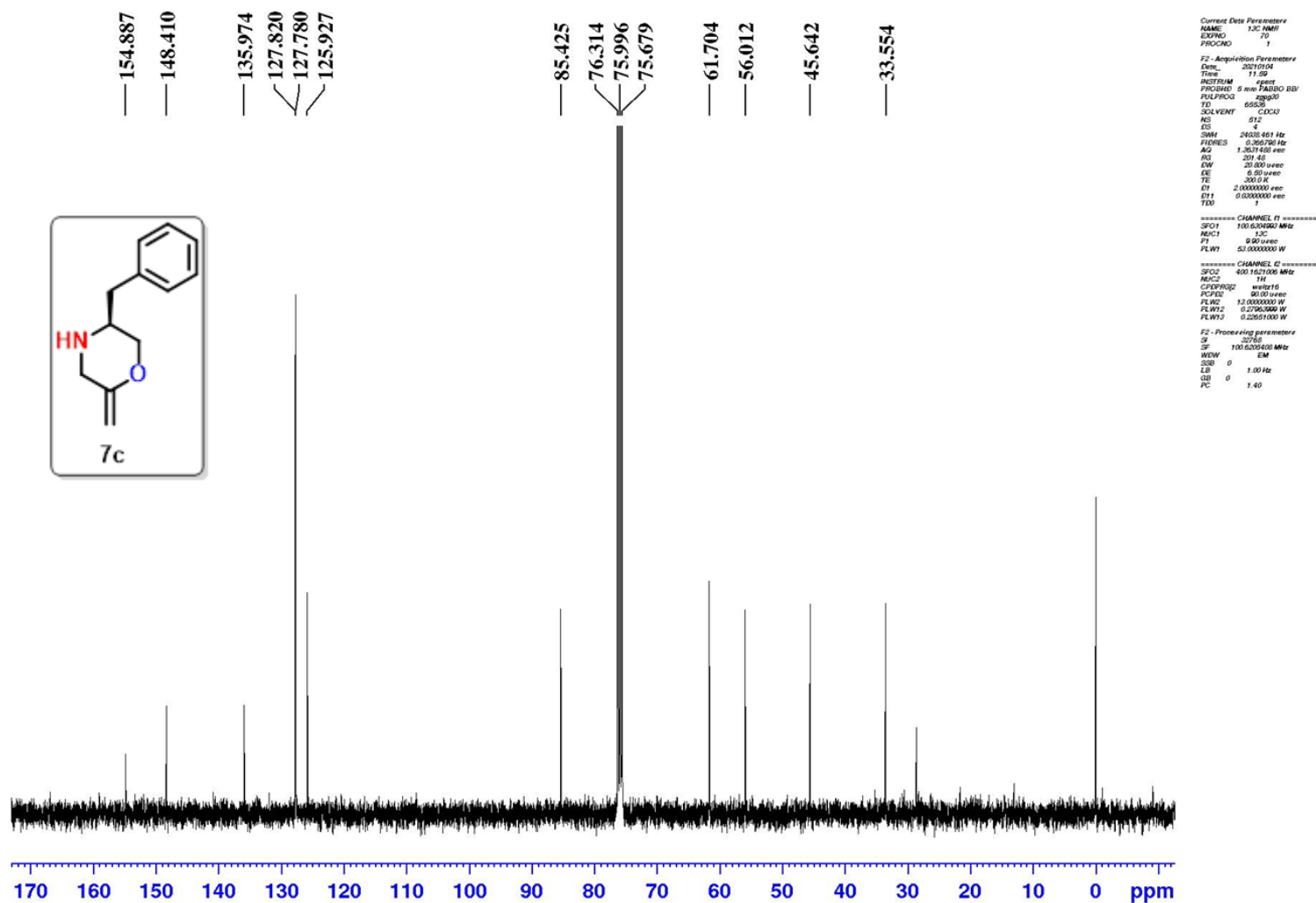


Figure S31. ^{13}C $\{^1\text{H}\}$ NMR of compound **7c**

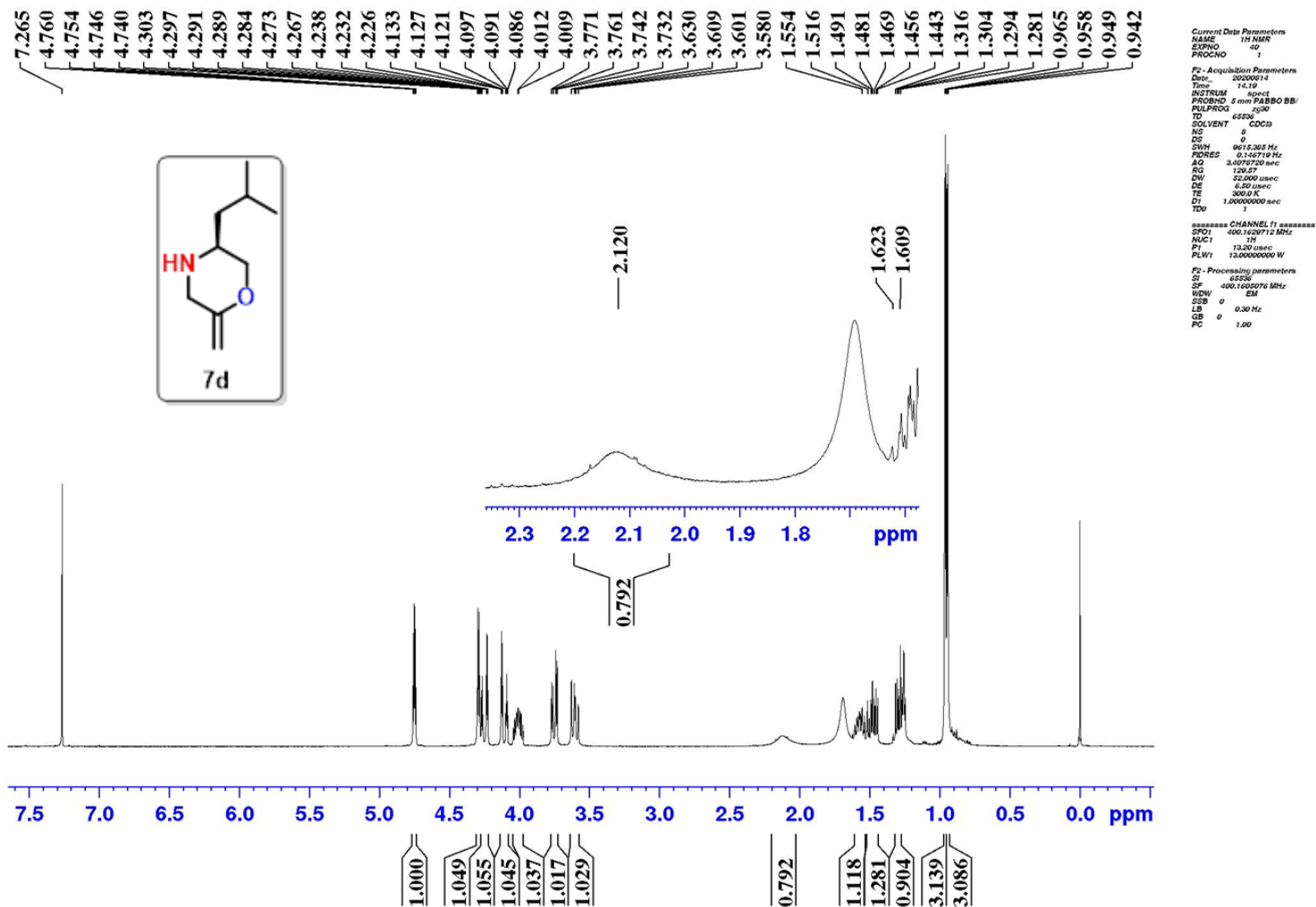


Figure S32. ¹H NMR of compound 7d

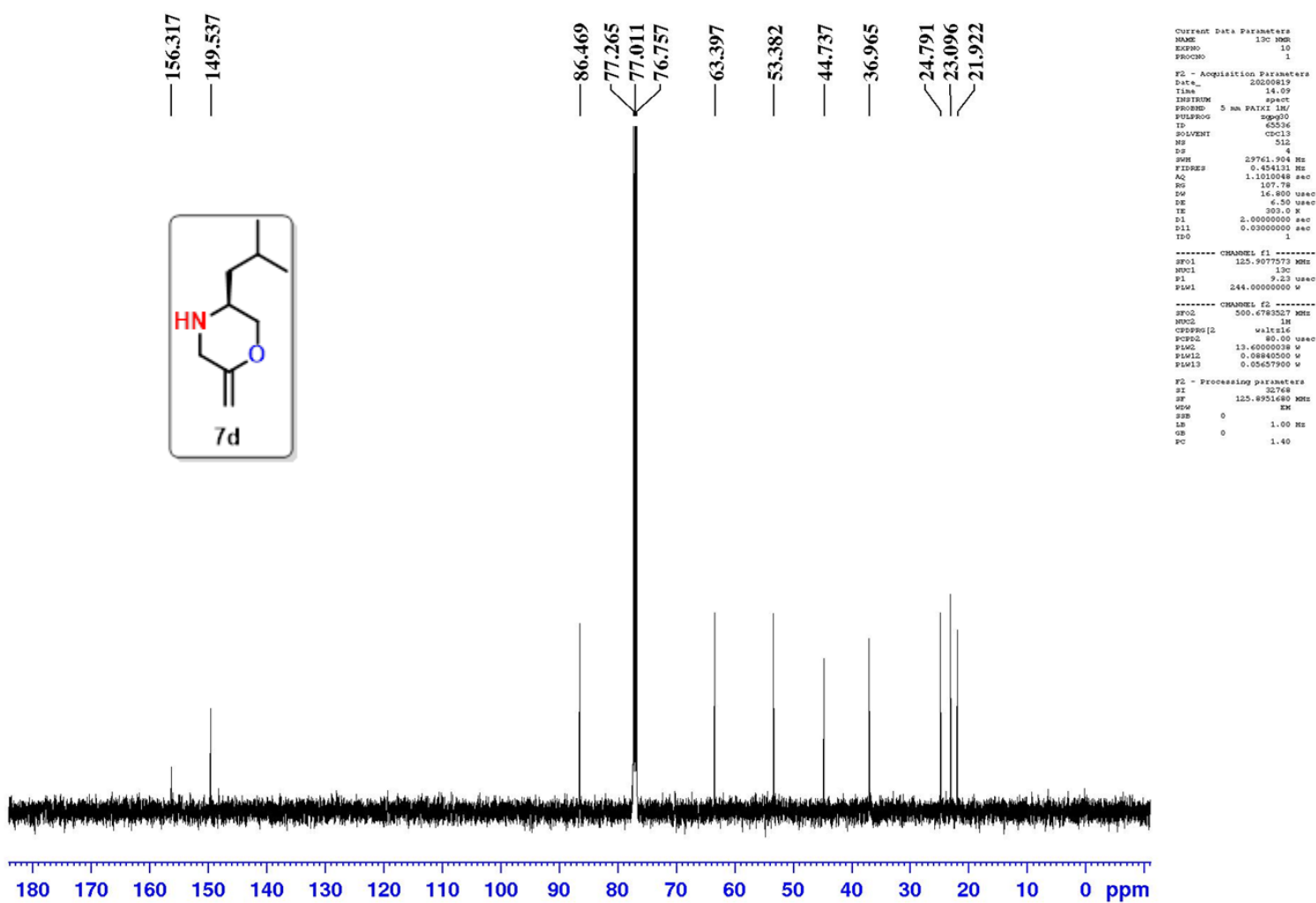
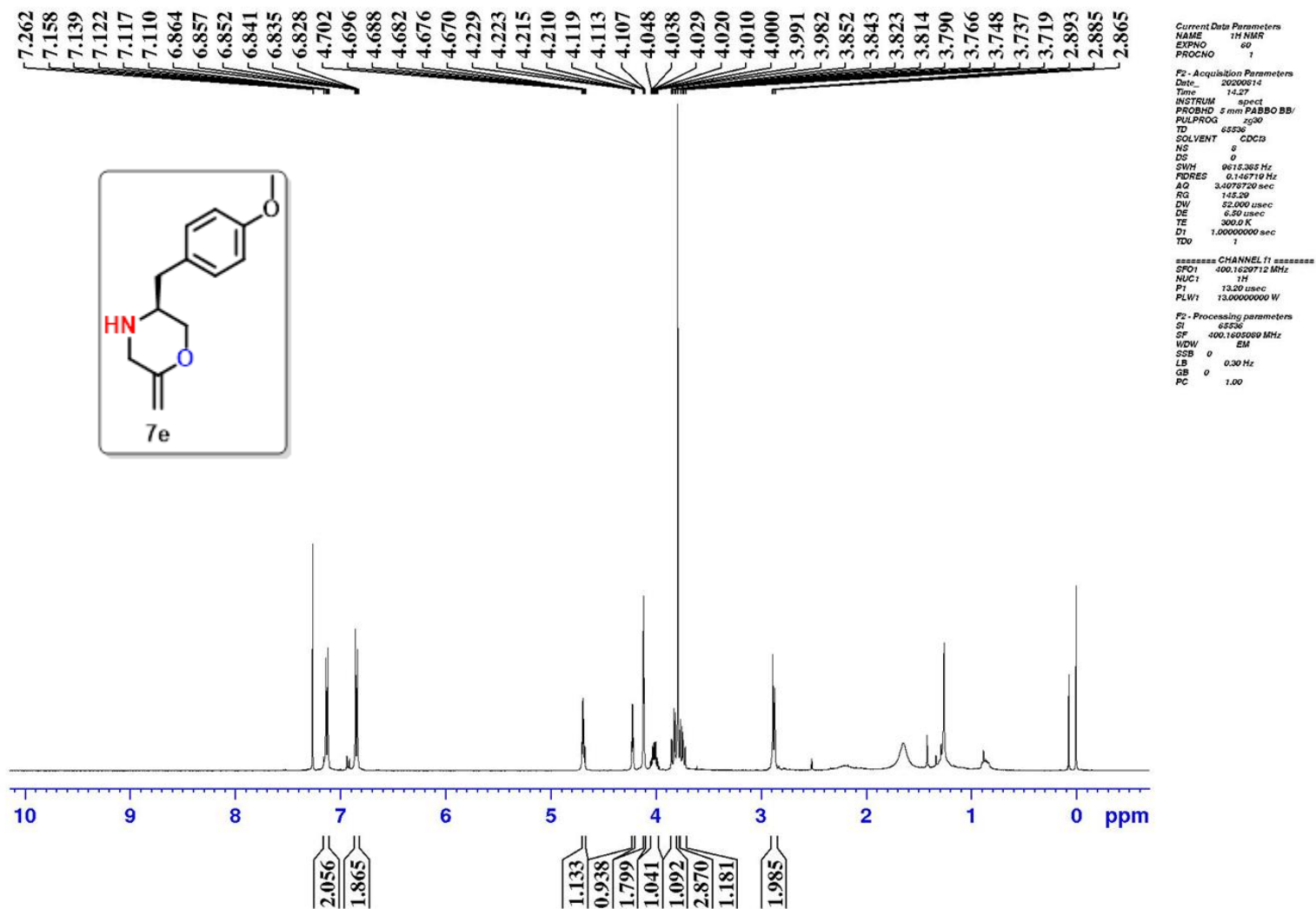


Figure S33. ^{13}C $\{^1\text{H}\}$ NMR of compound 7d

Figure S34. ¹H NMR of compound 7e

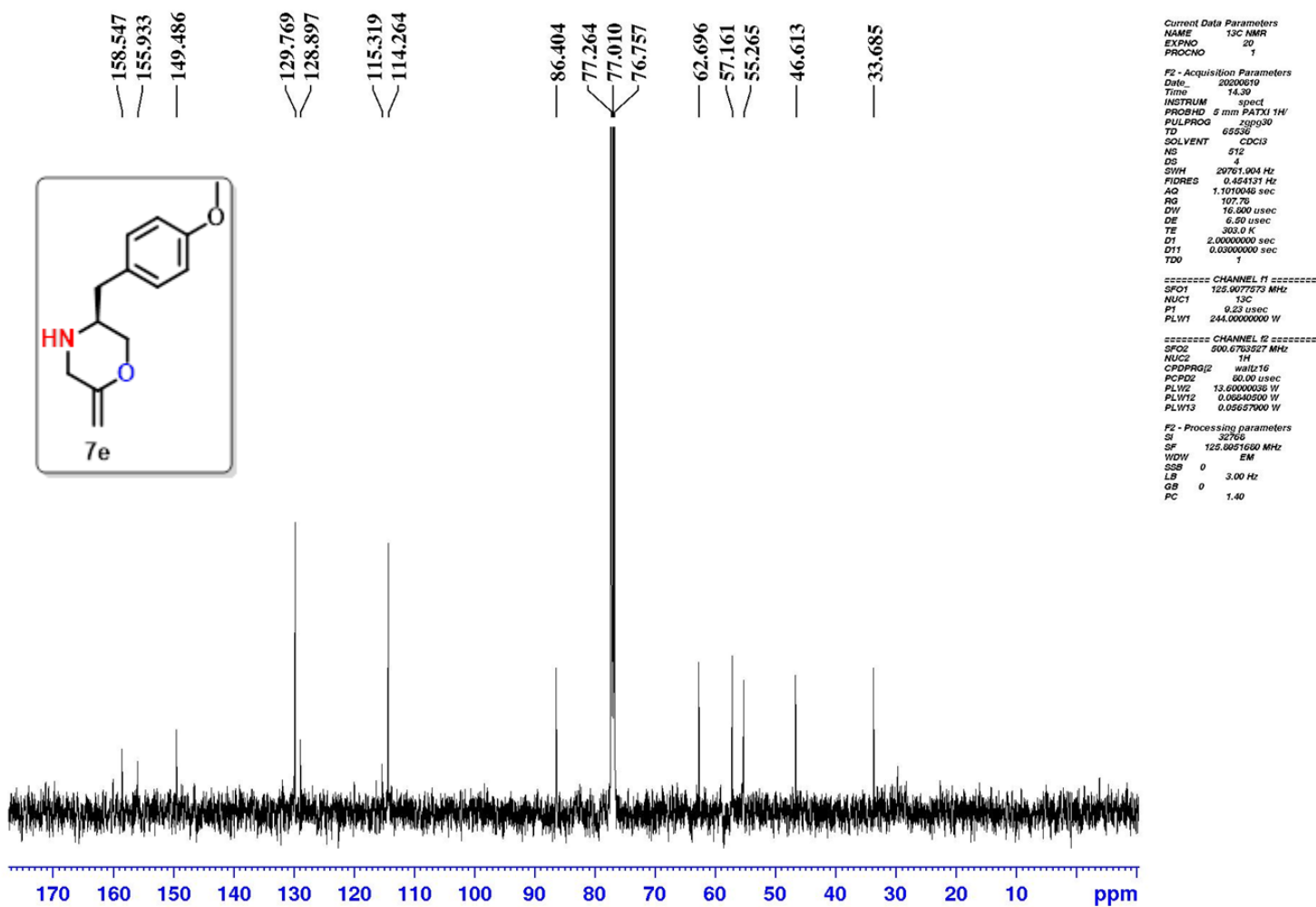


Figure S35. ^{13}C $\{^1\text{H}\}$ NMR of compound 7e

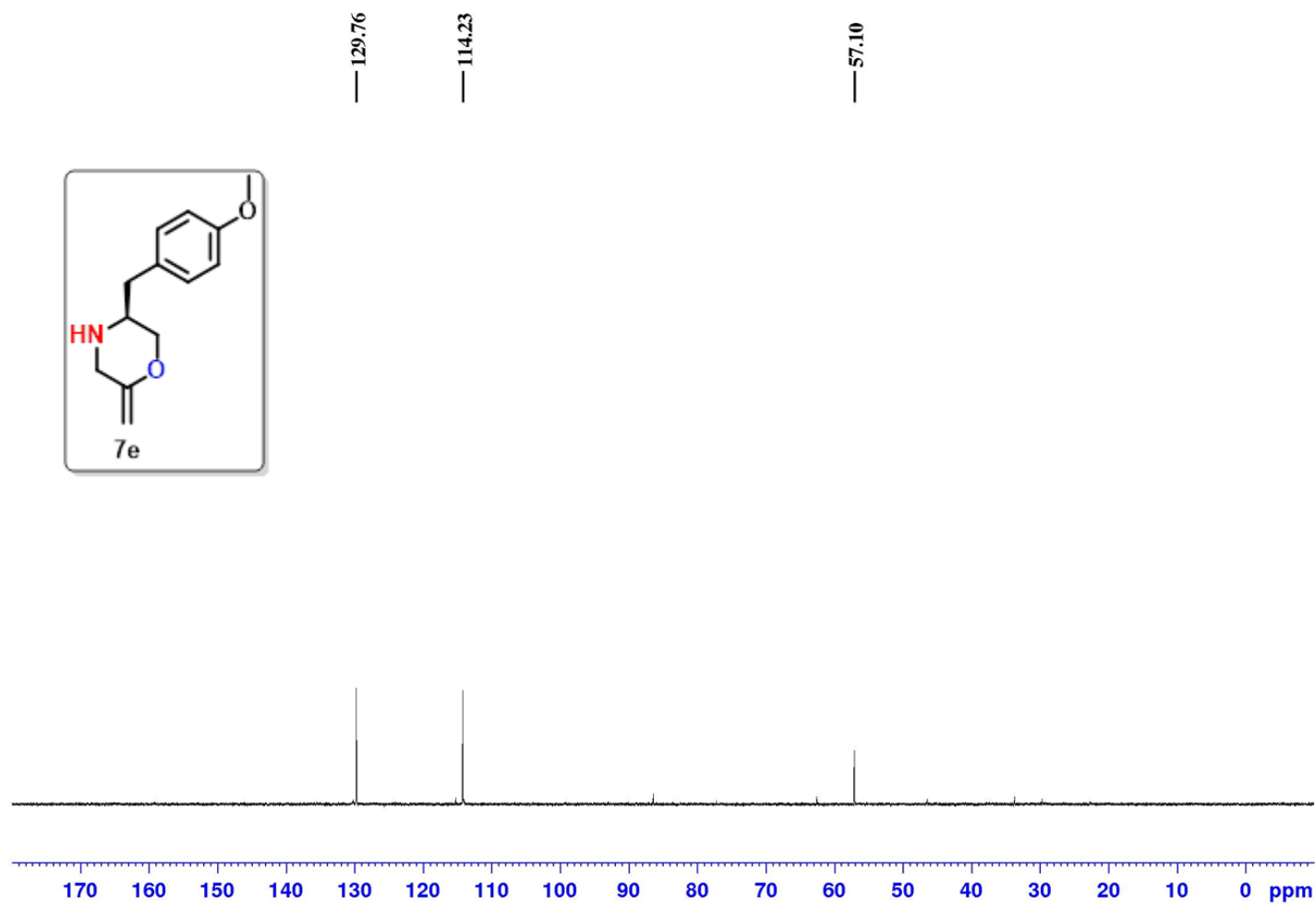


Figure S36. DEPT-90 NMR of compound **7e**

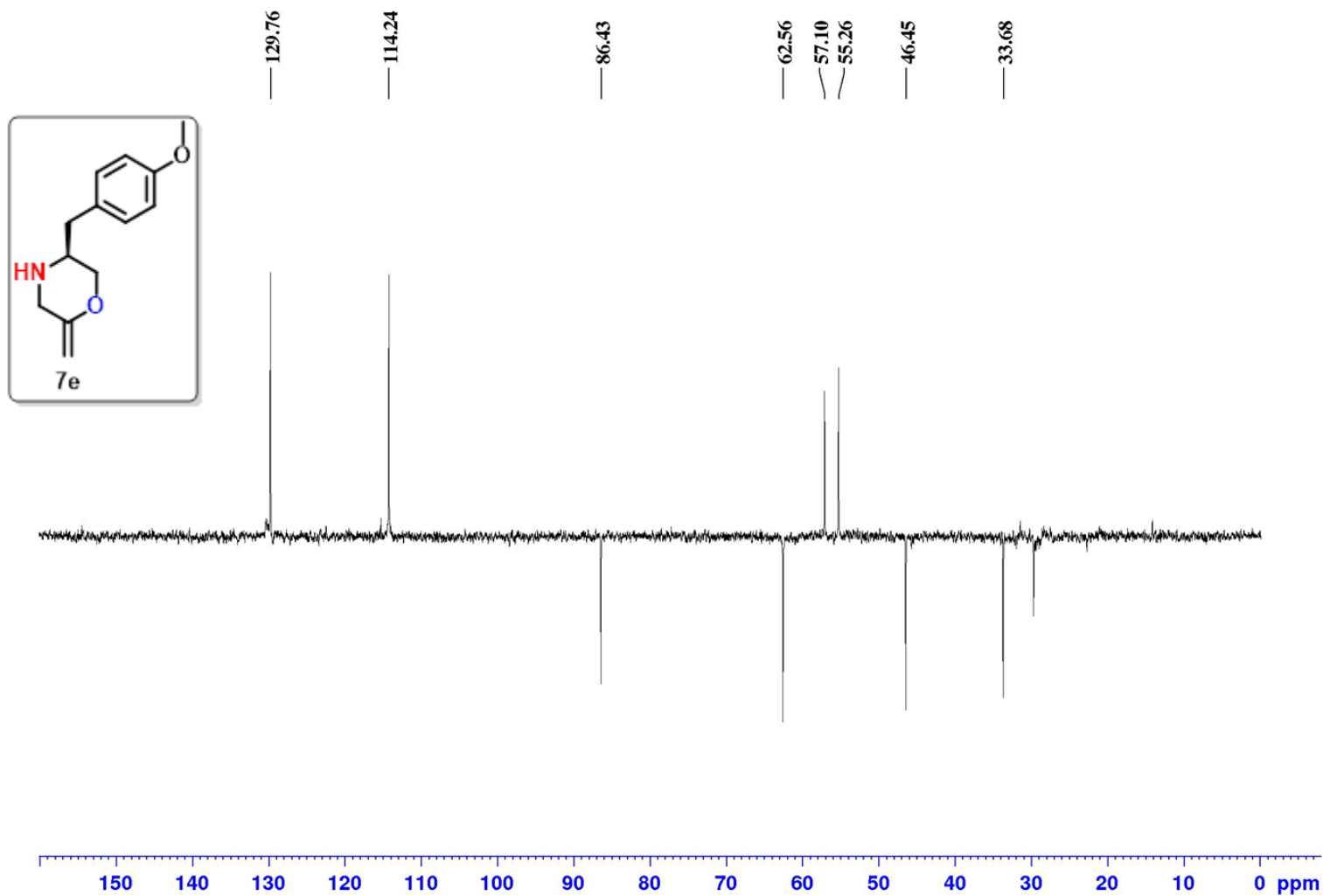


Figure S37. DEPT-135 NMR of compound **7e**

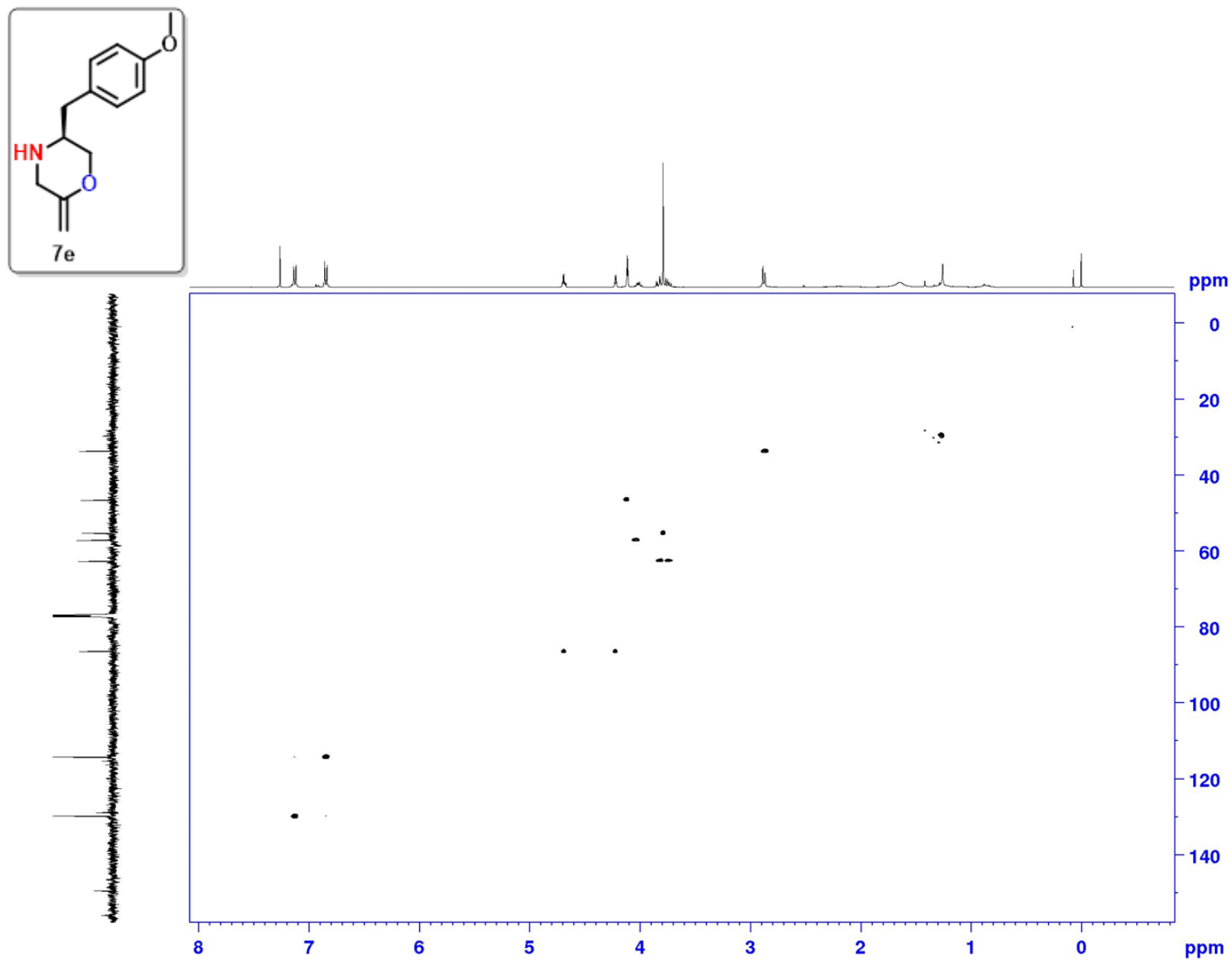


Figure S38. HSQC NMR of compound 7e

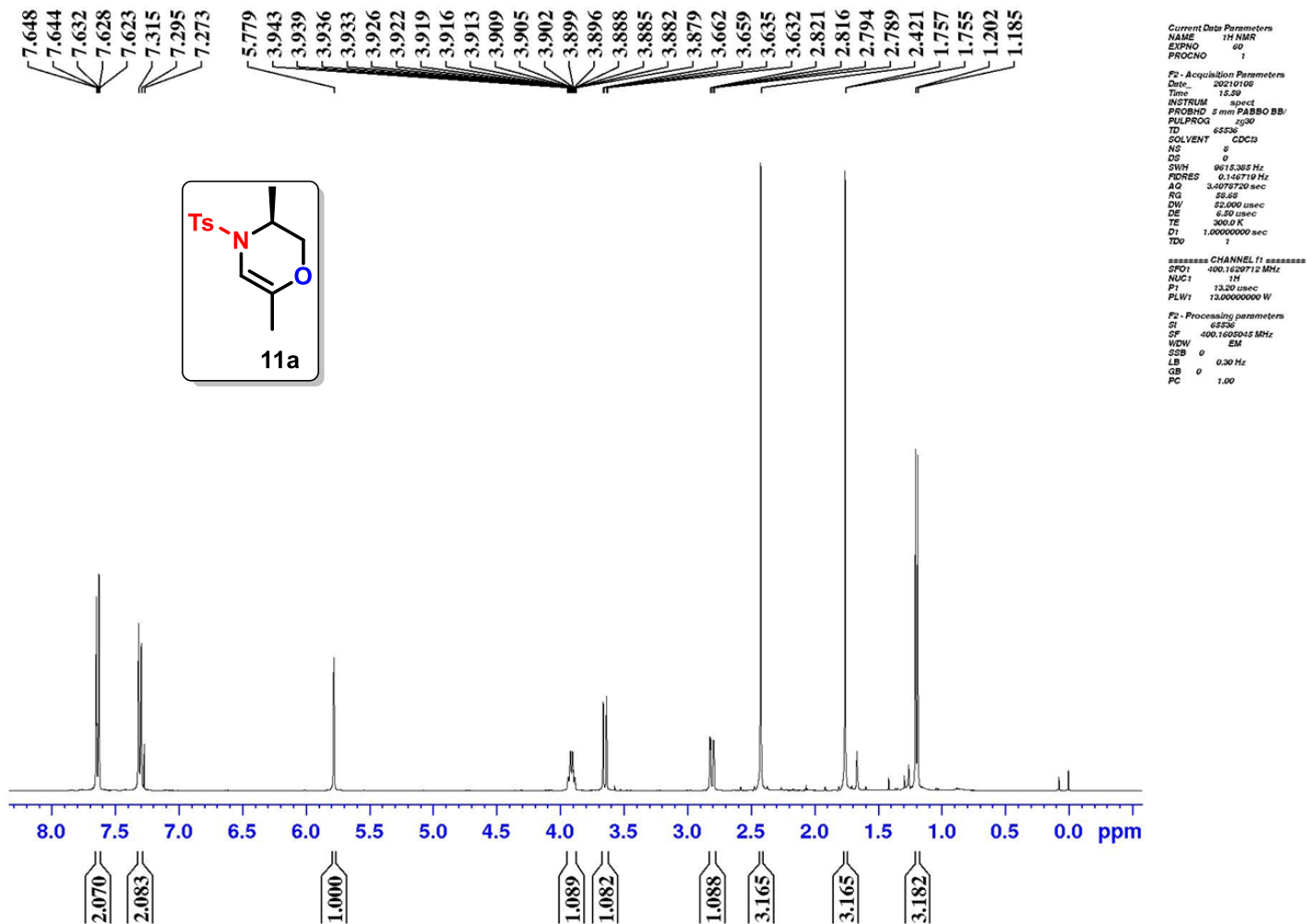


Figure S39. ^1H NMR of compound 11a

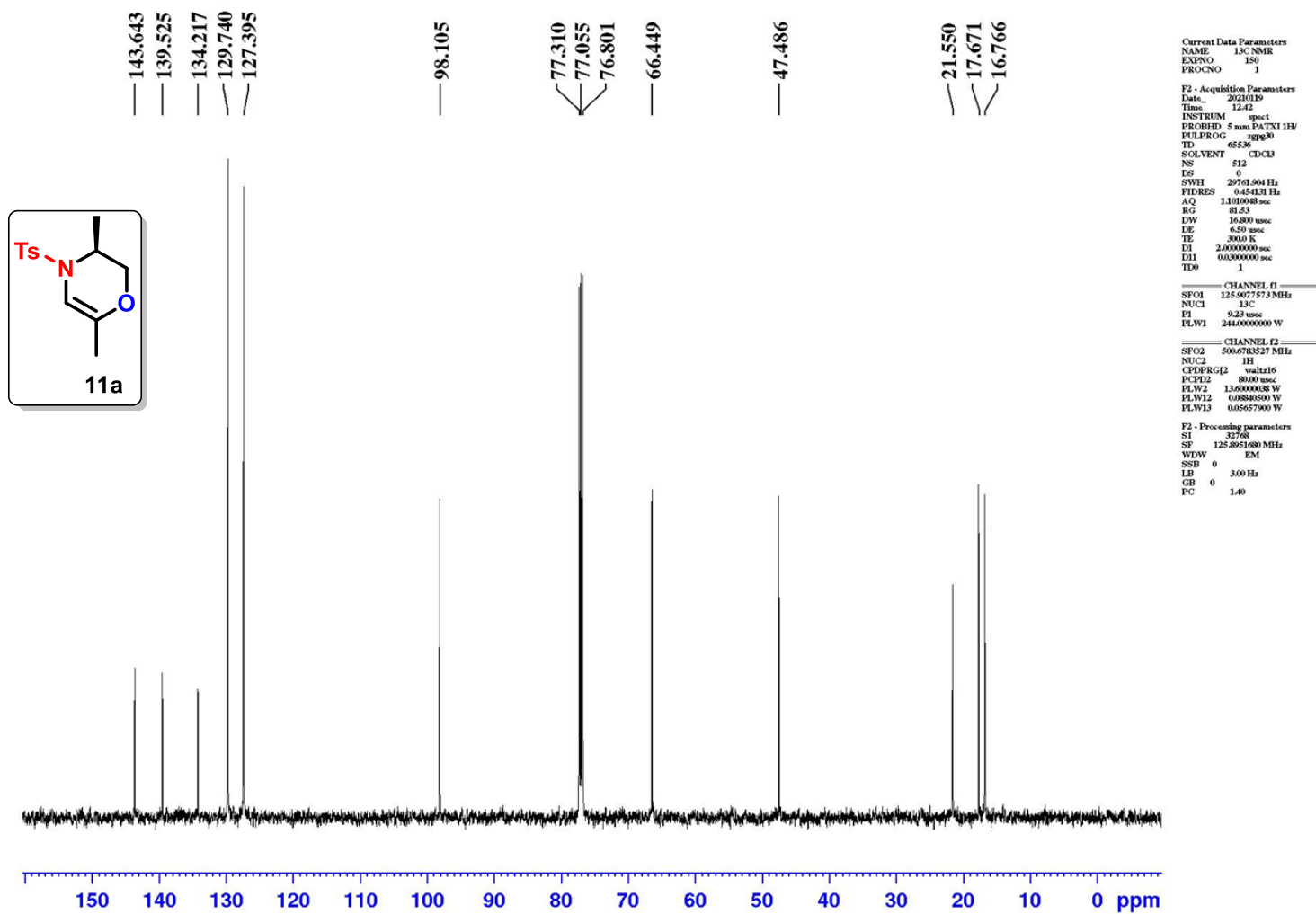
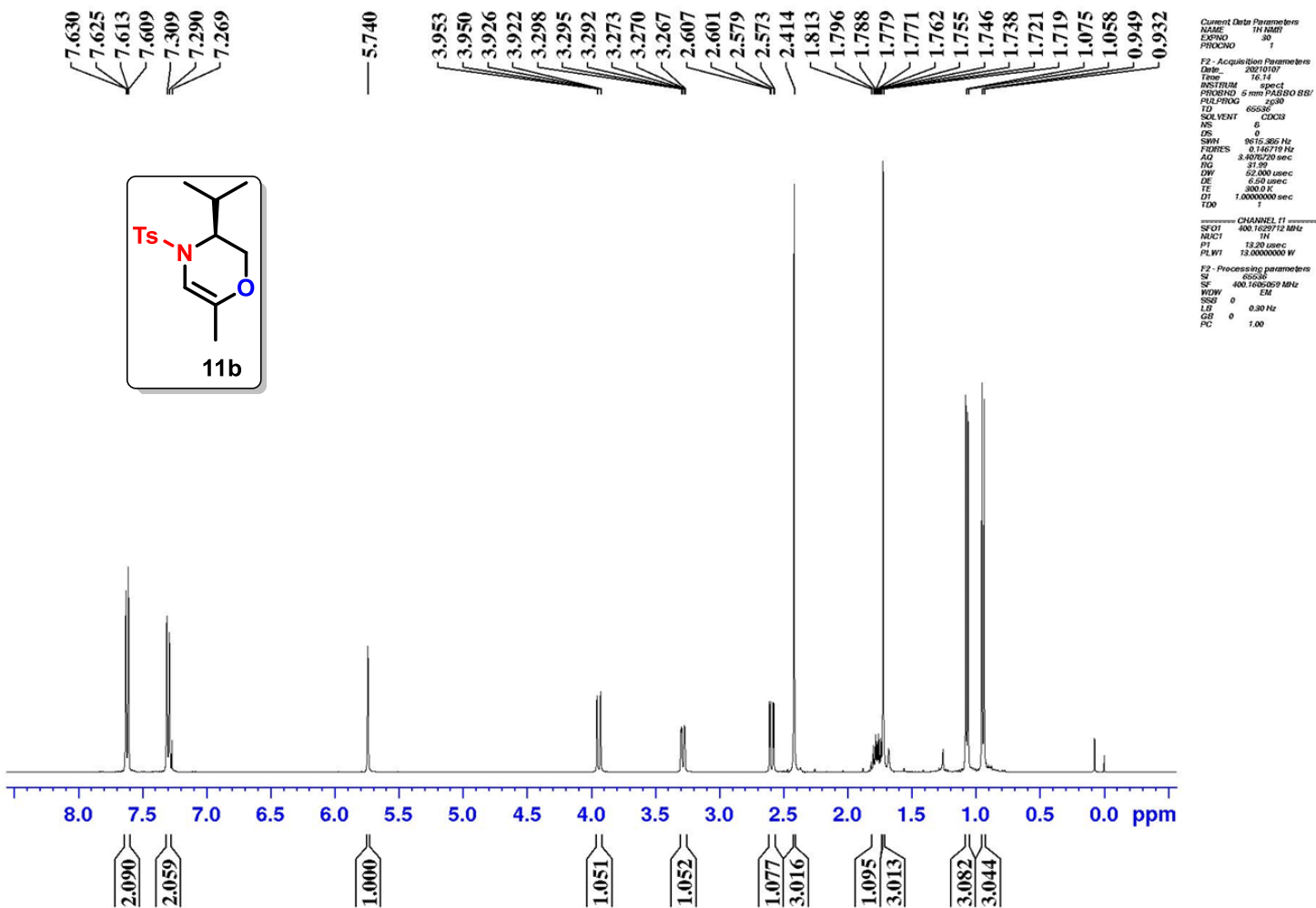


Figure S40. ^{13}C $\{^1\text{H}\}$ NMR of compound 11a

Figure S41. ¹H NMR of compound 11b

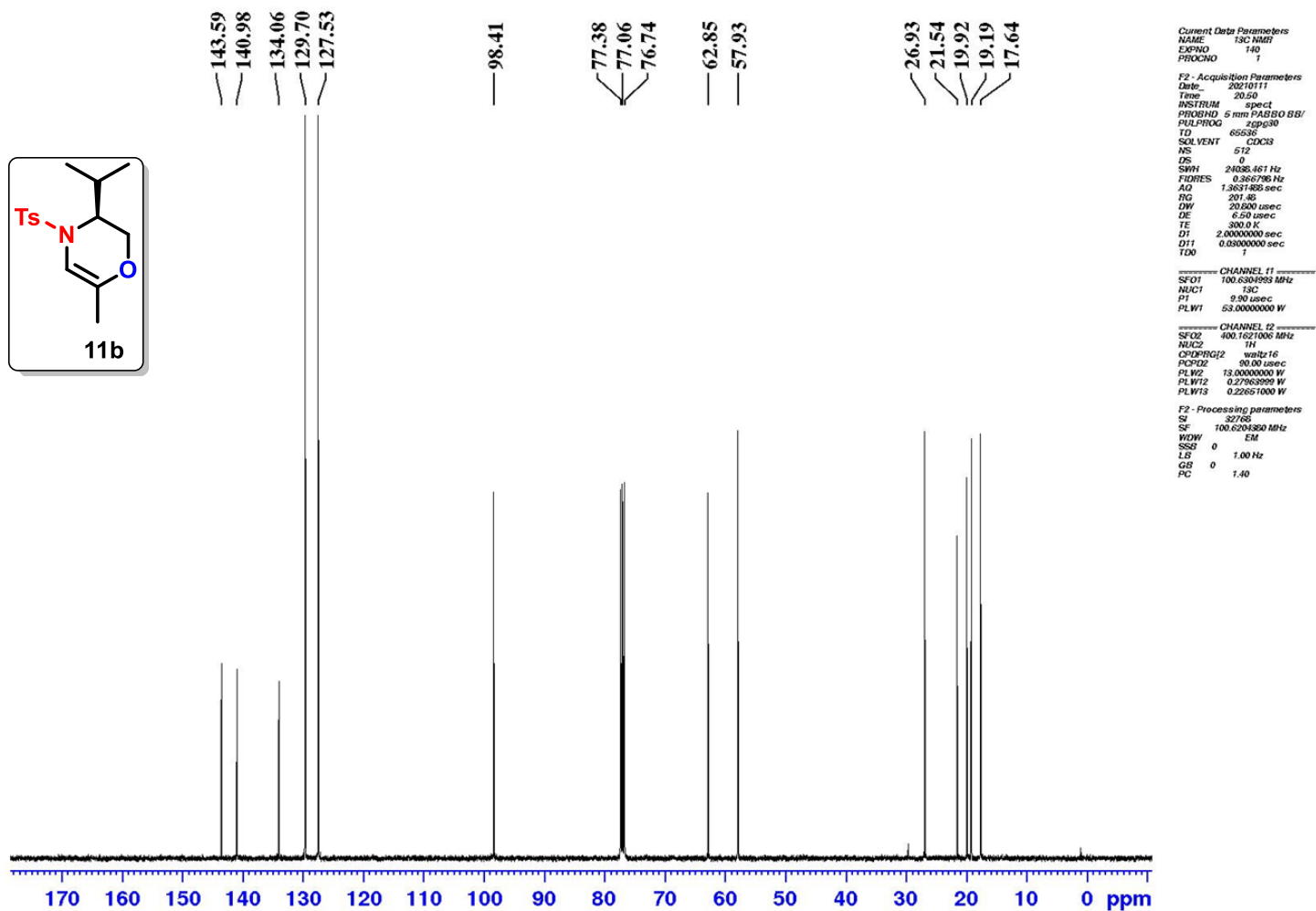
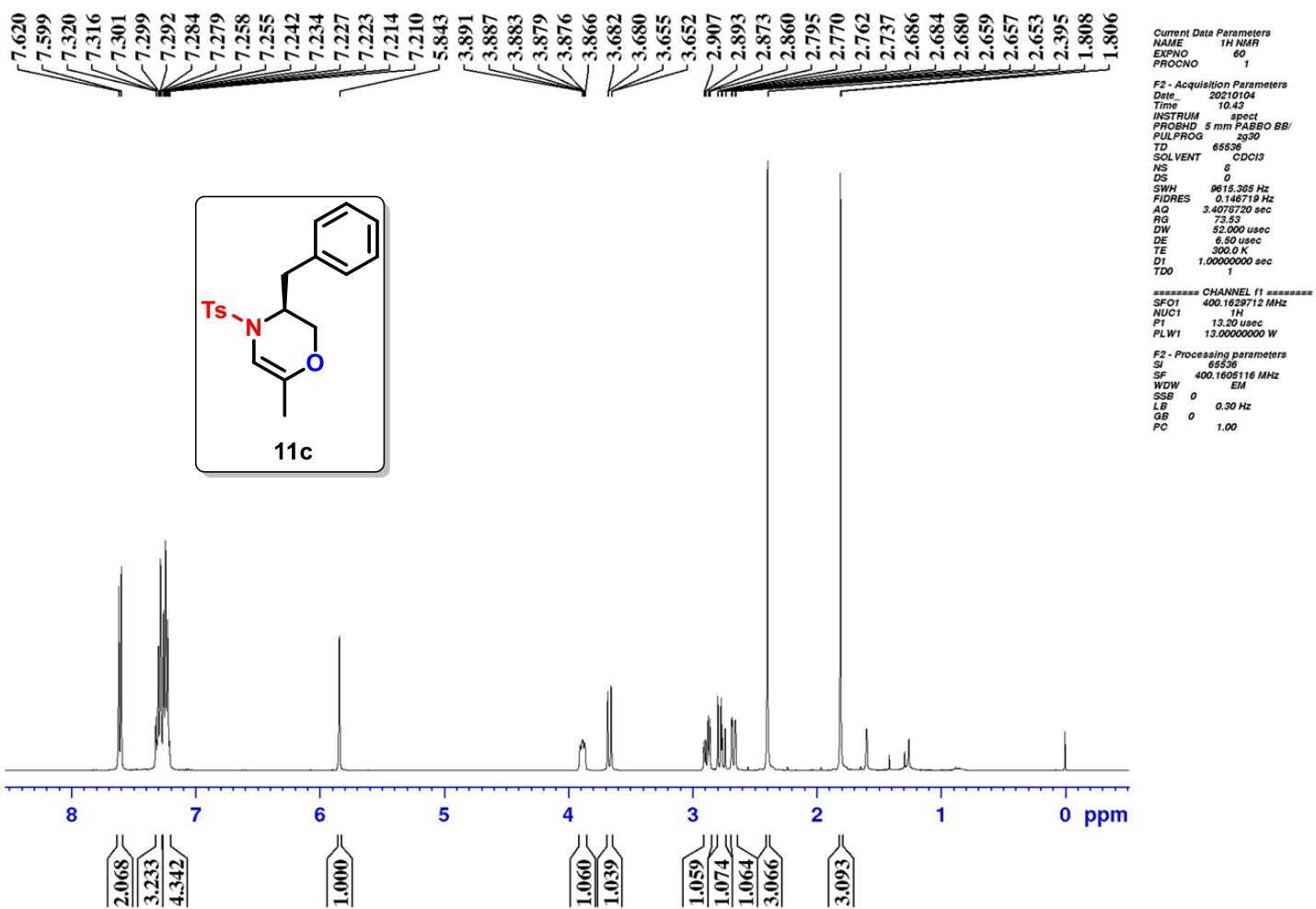


Figure S42. ^{13}C $\{^1\text{H}\}$ NMR of compound **11b**

Figure S43. ¹H NMR of compound 11c

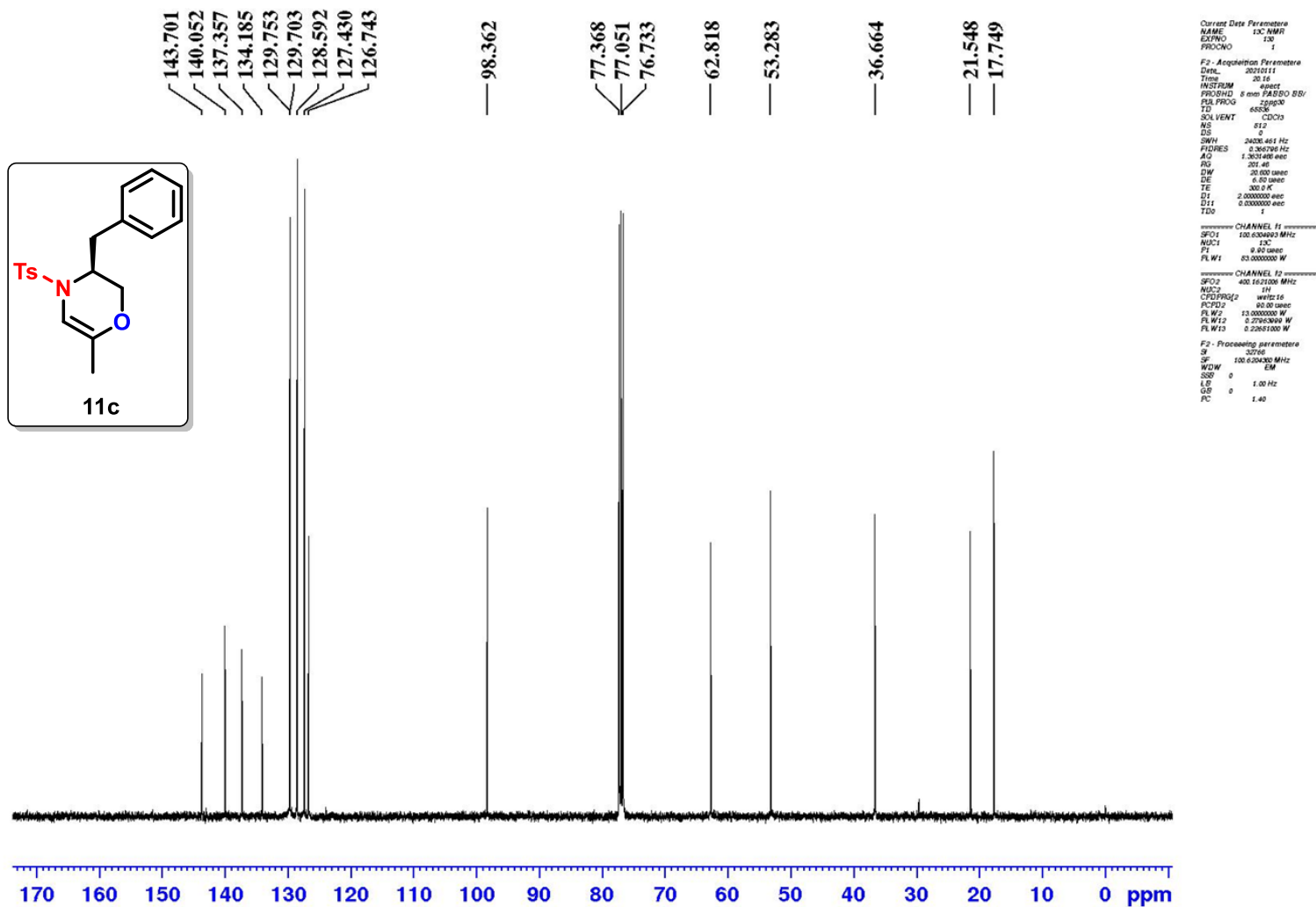
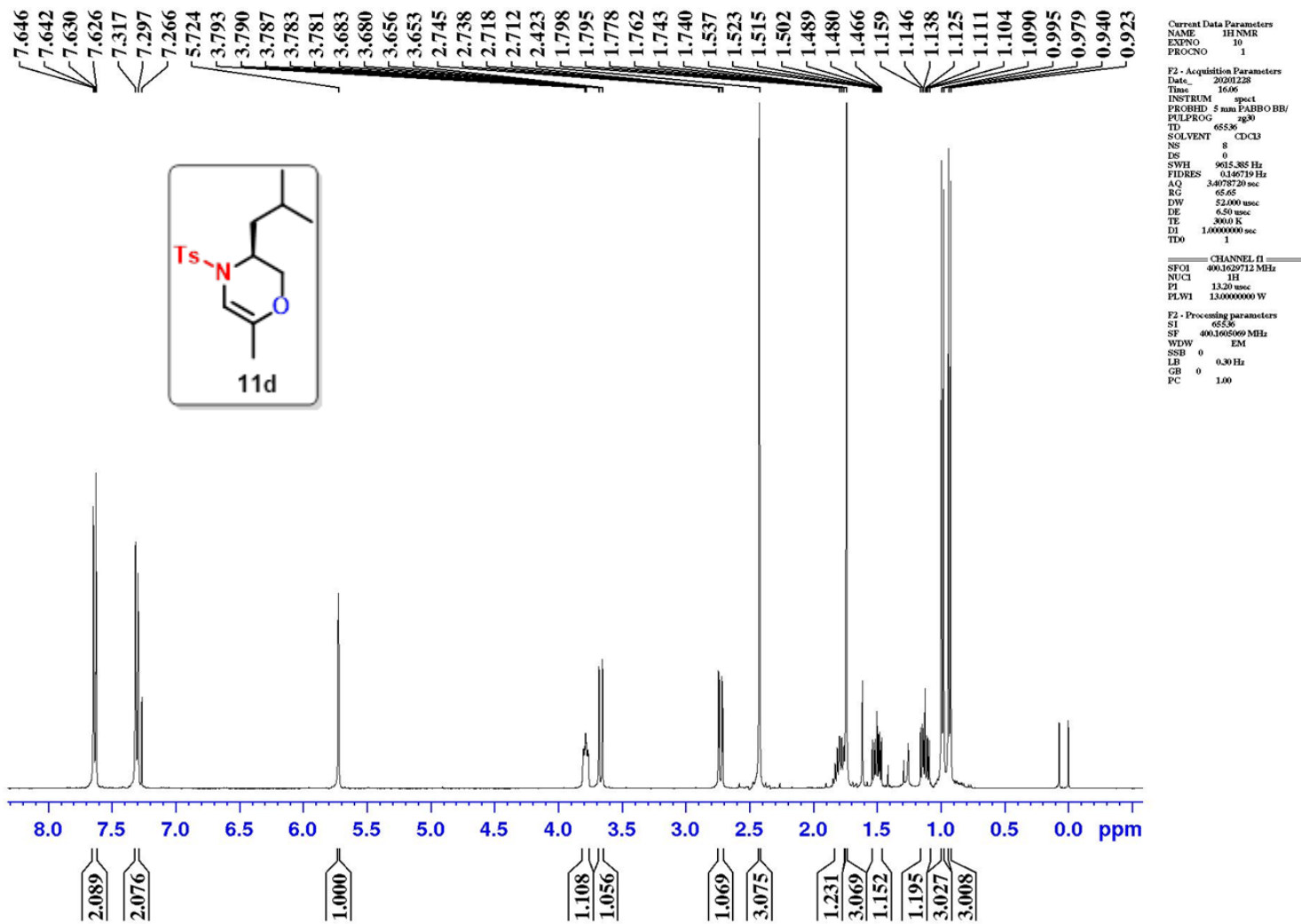


Figure S44. ^{13}C $\{^1\text{H}\}$ NMR of compound 11c

Figure S45. ¹H NMR of compound 11d

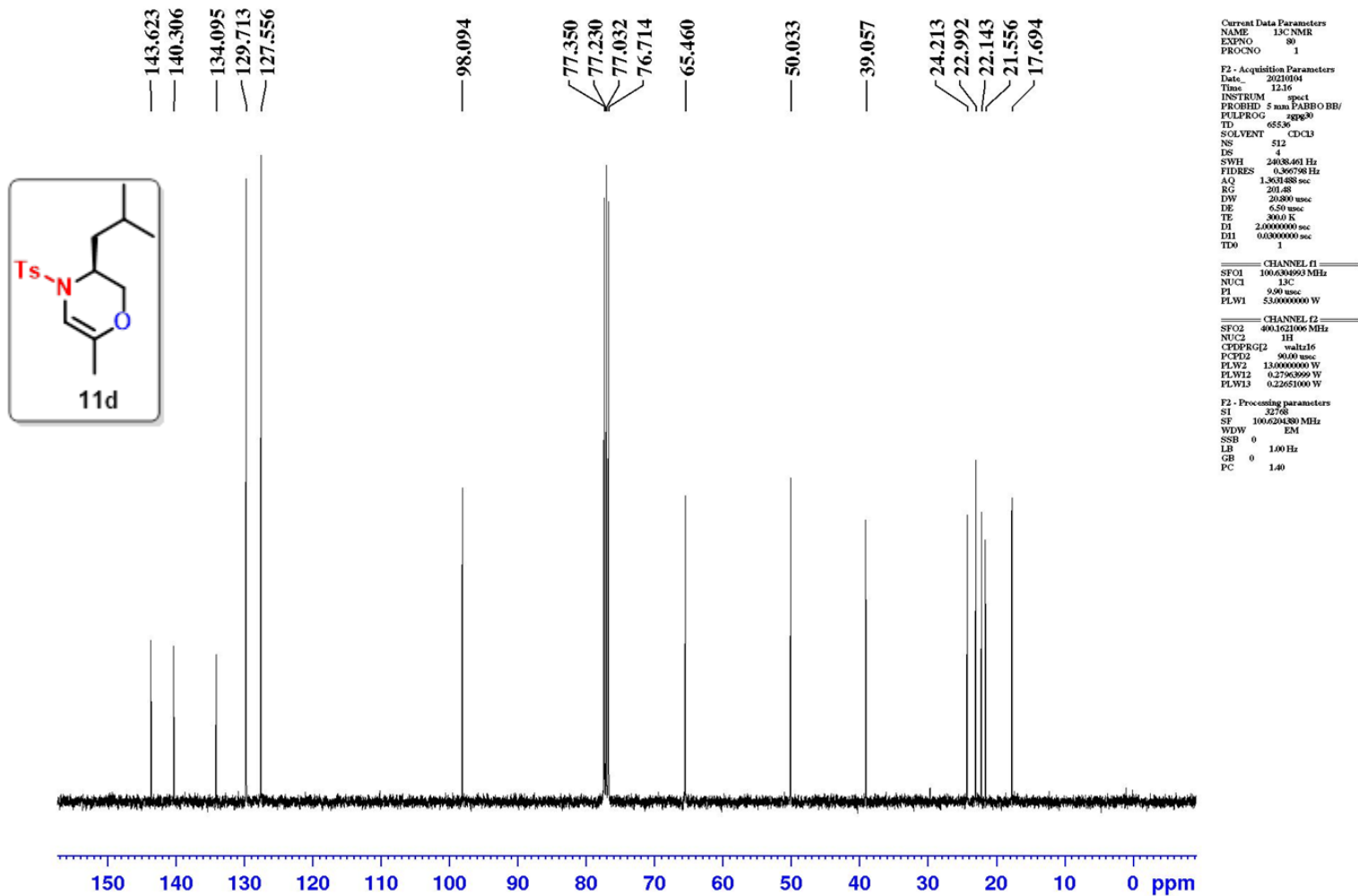
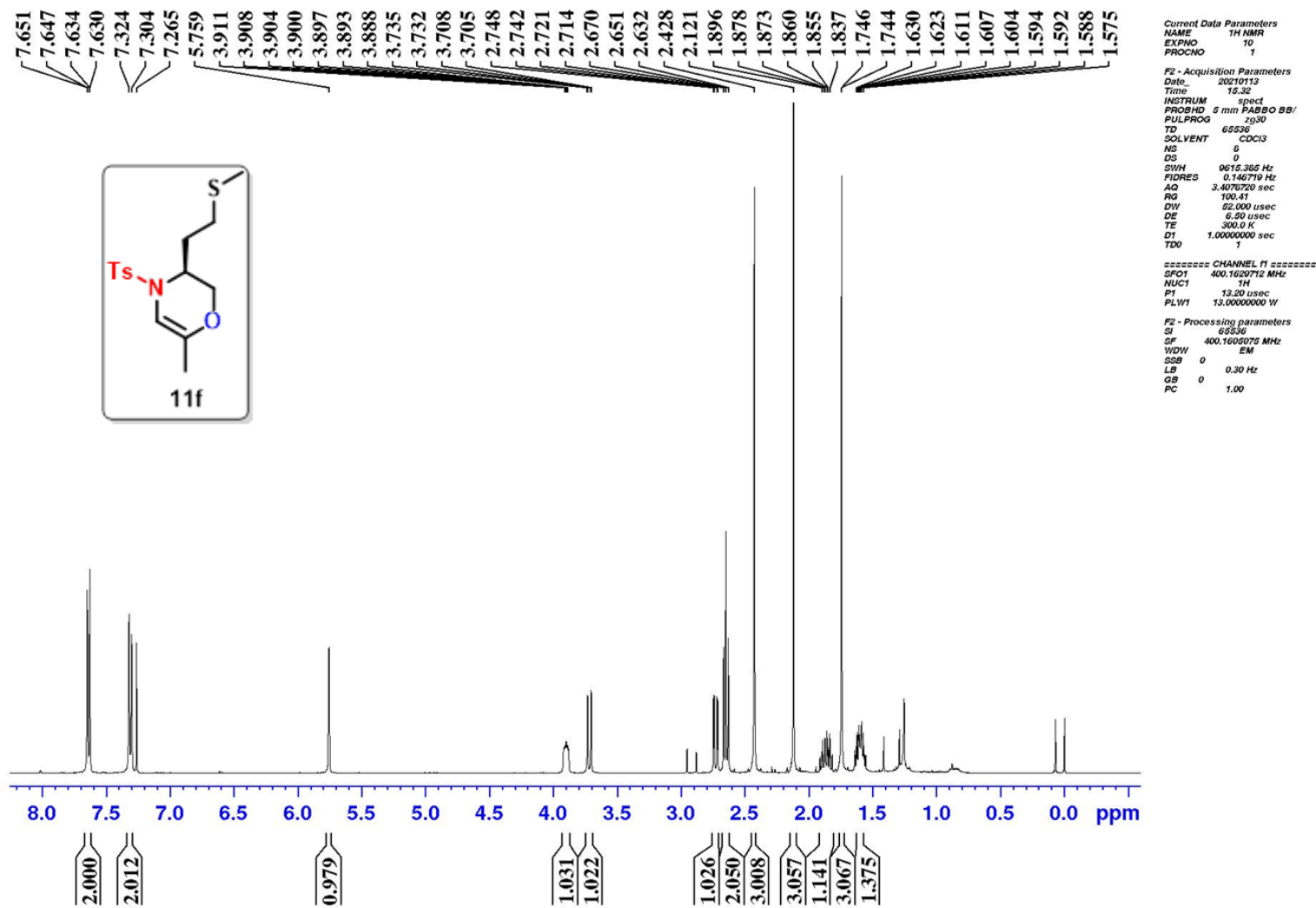
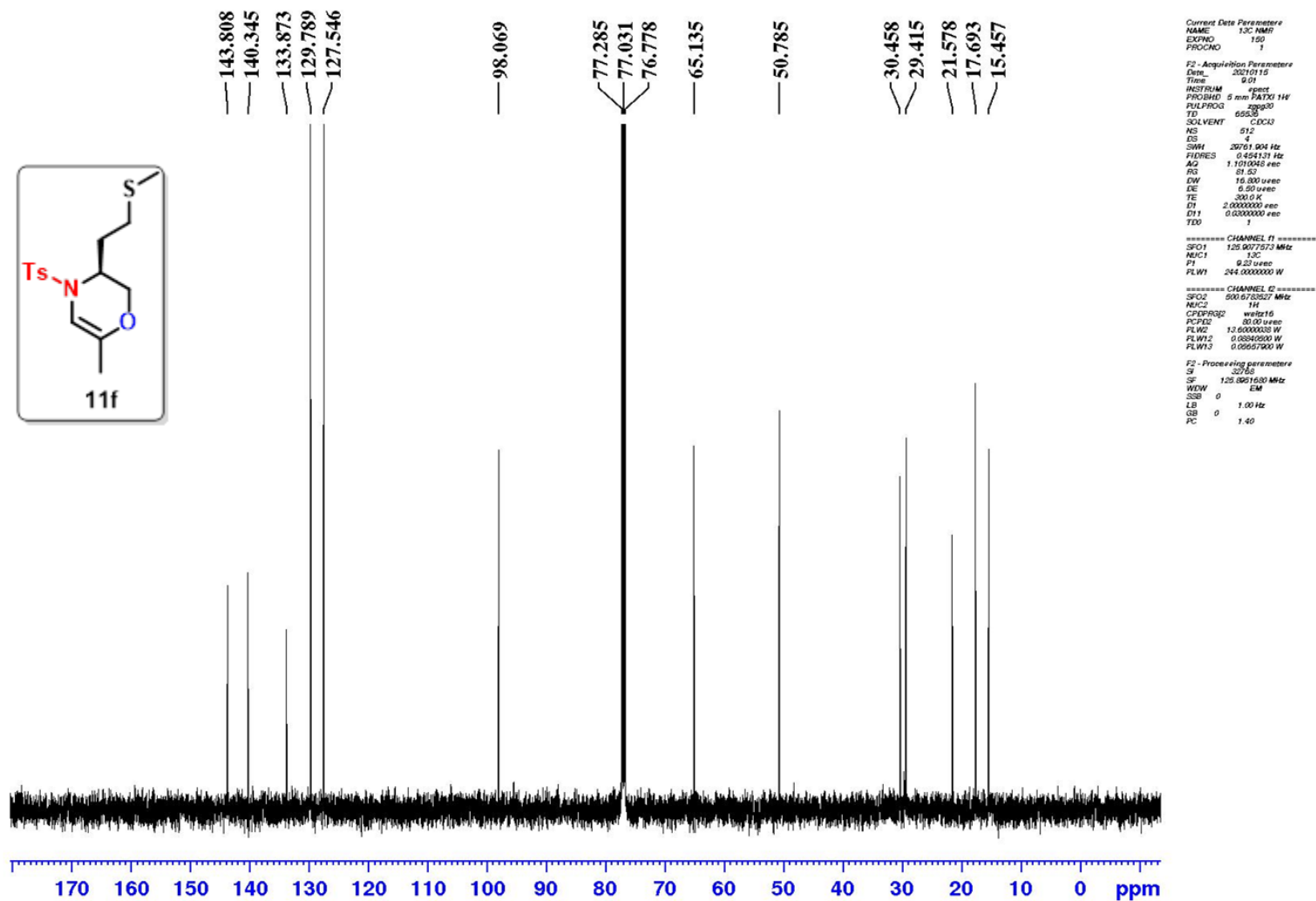


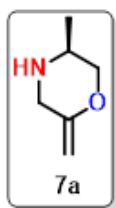
Figure S46. ^{13}C $\{^1\text{H}\}$ NMR of compound 11d

Figure S47. ¹H NMR of compound 11f

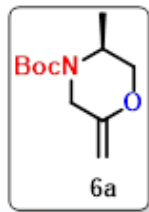
Figure S48. ^{13}C $\{^1\text{H}\}$ NMR of compound 11f

Reaction of **5a** in NMR tube
Showed only the mixture of **7a** & **6a** and
no endo methylene product

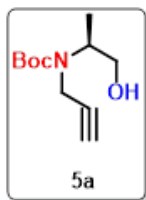
¹H NMR of isolated **7a**



¹H NMR of isolated **6a**



¹H NMR of isolated **5a**



7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5 0.0 ppm

Scale: 0.3236 ppm/cm, 129.5 Hz/cm

Figure S49. Comparison of ¹H NMR of reaction mixture of **5a** with isolated products

Reaction of **10a** in NMR tube
Showed only the mixture of **11a** and
no exo methylene product

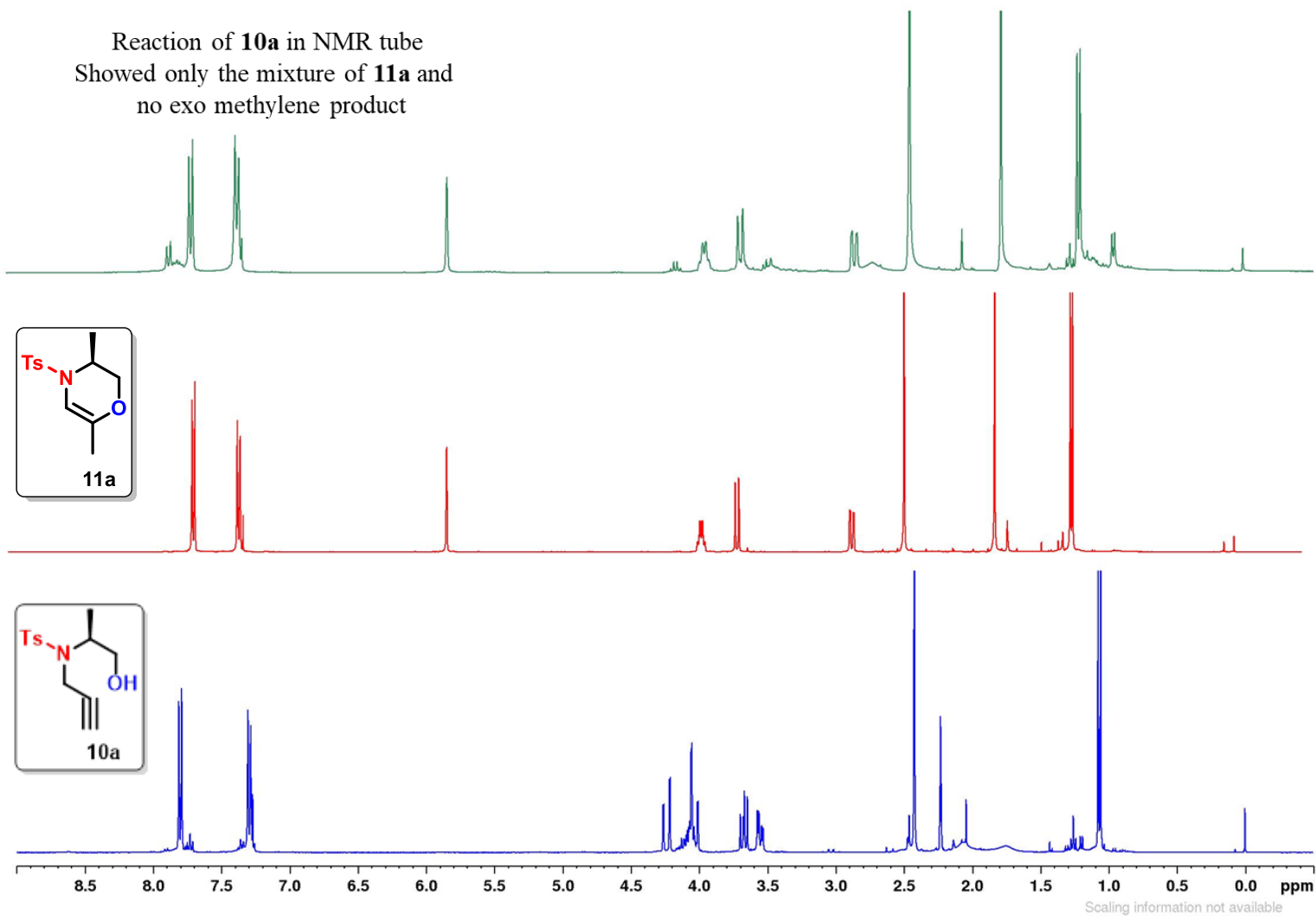


Figure S50. Comparison of ¹H NMR of reaction mixture of **10a** with isolated products