

Supporting Information

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¹H-NMR, ¹³C-NMR and MS Spectrum of all compounds.

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The Spectrum of Compounds.

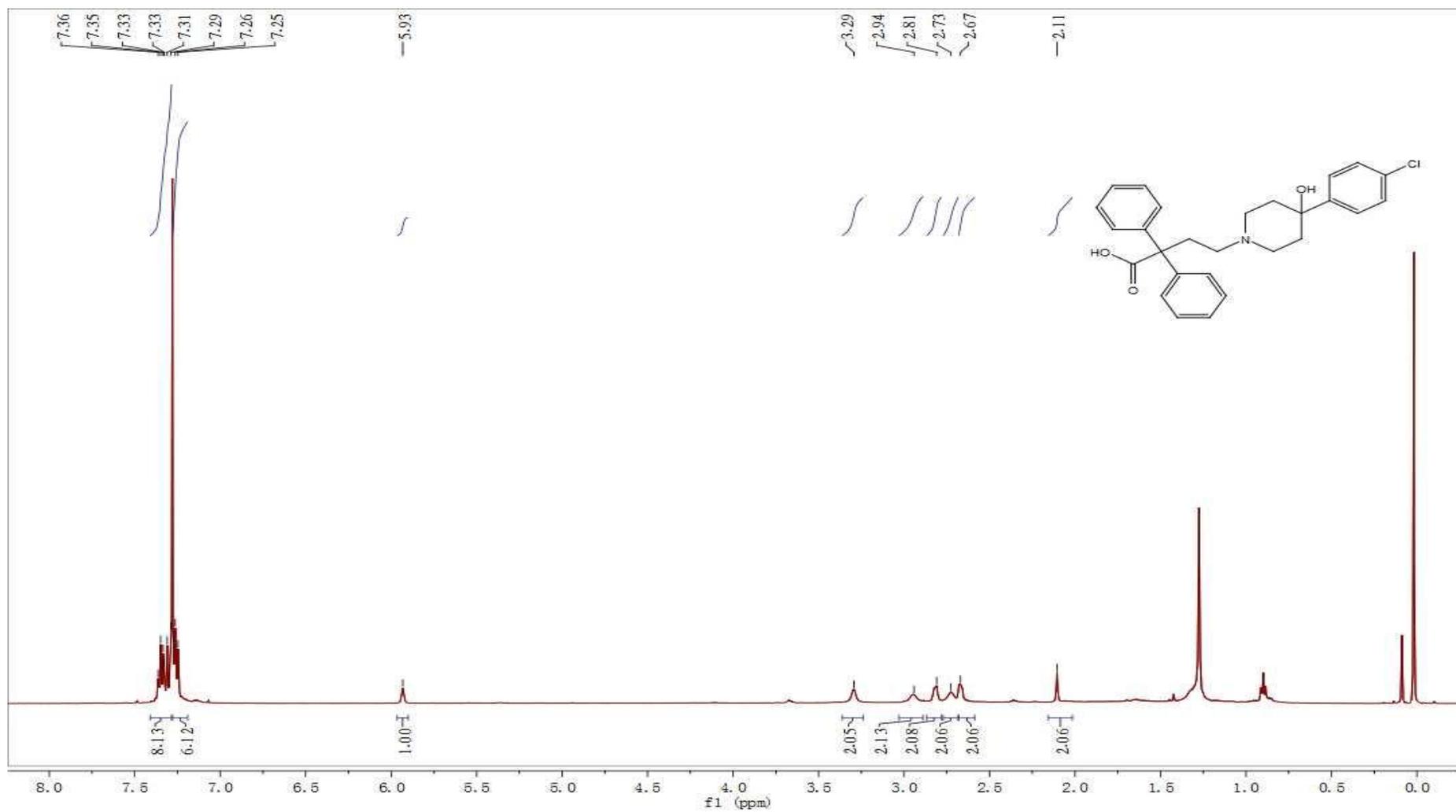
Figure S1. 500 MHz ^1H -NMR spectrum of Compound **10b**.

Figure S2. MS spectrum of Compound 10b.

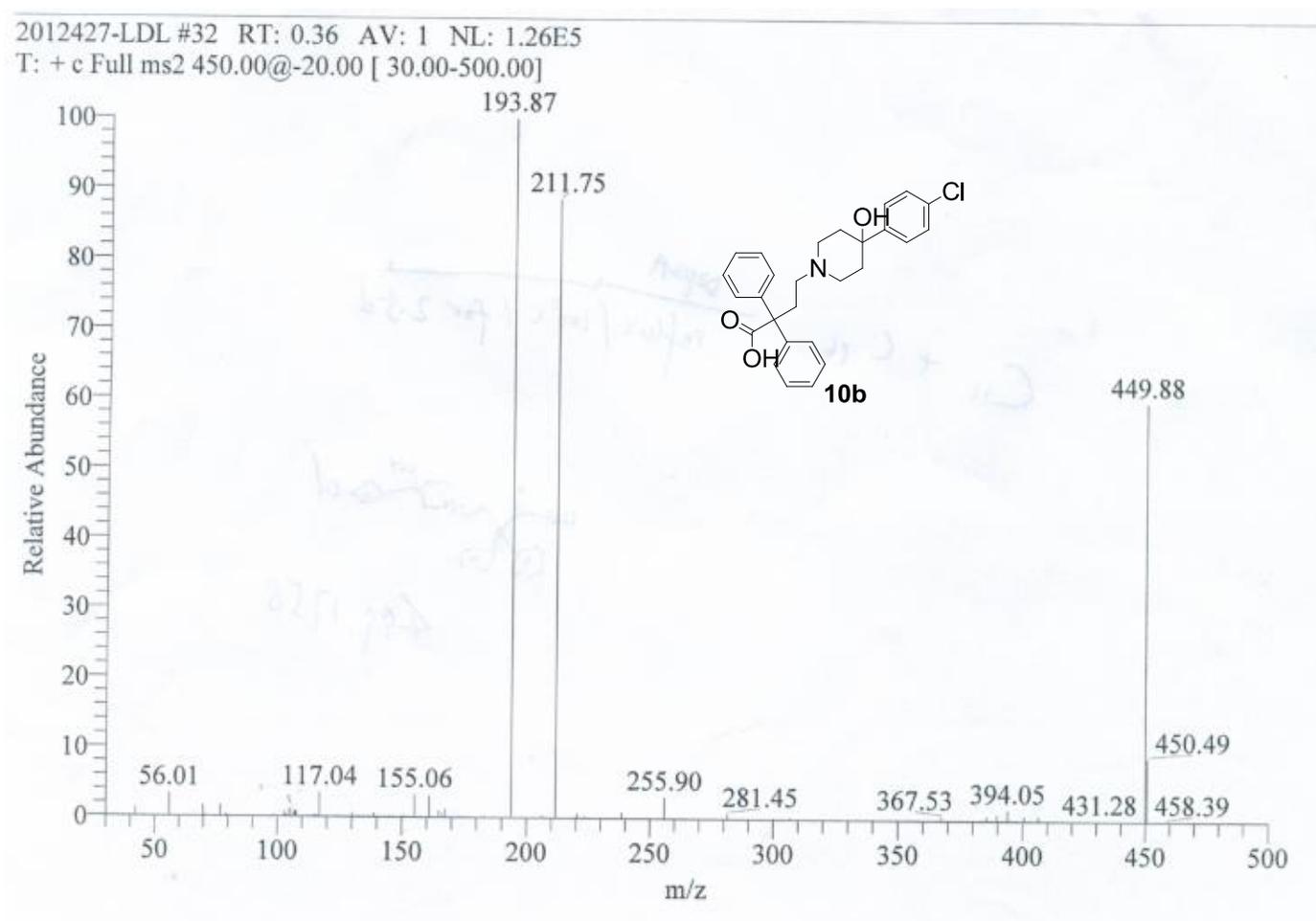


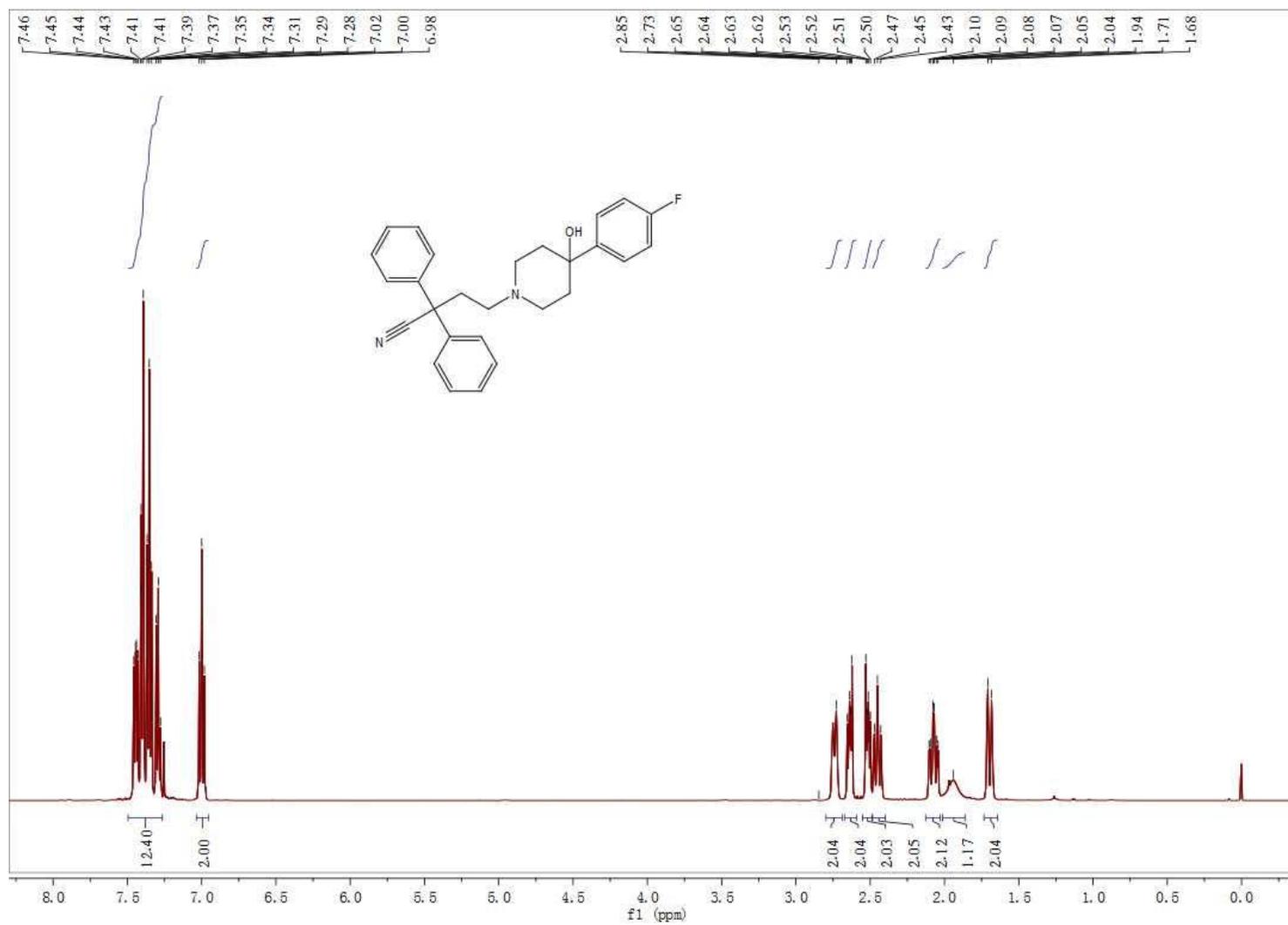
Figure S3. 500 MHz ^1H -NMR spectrum of Compound 12a.

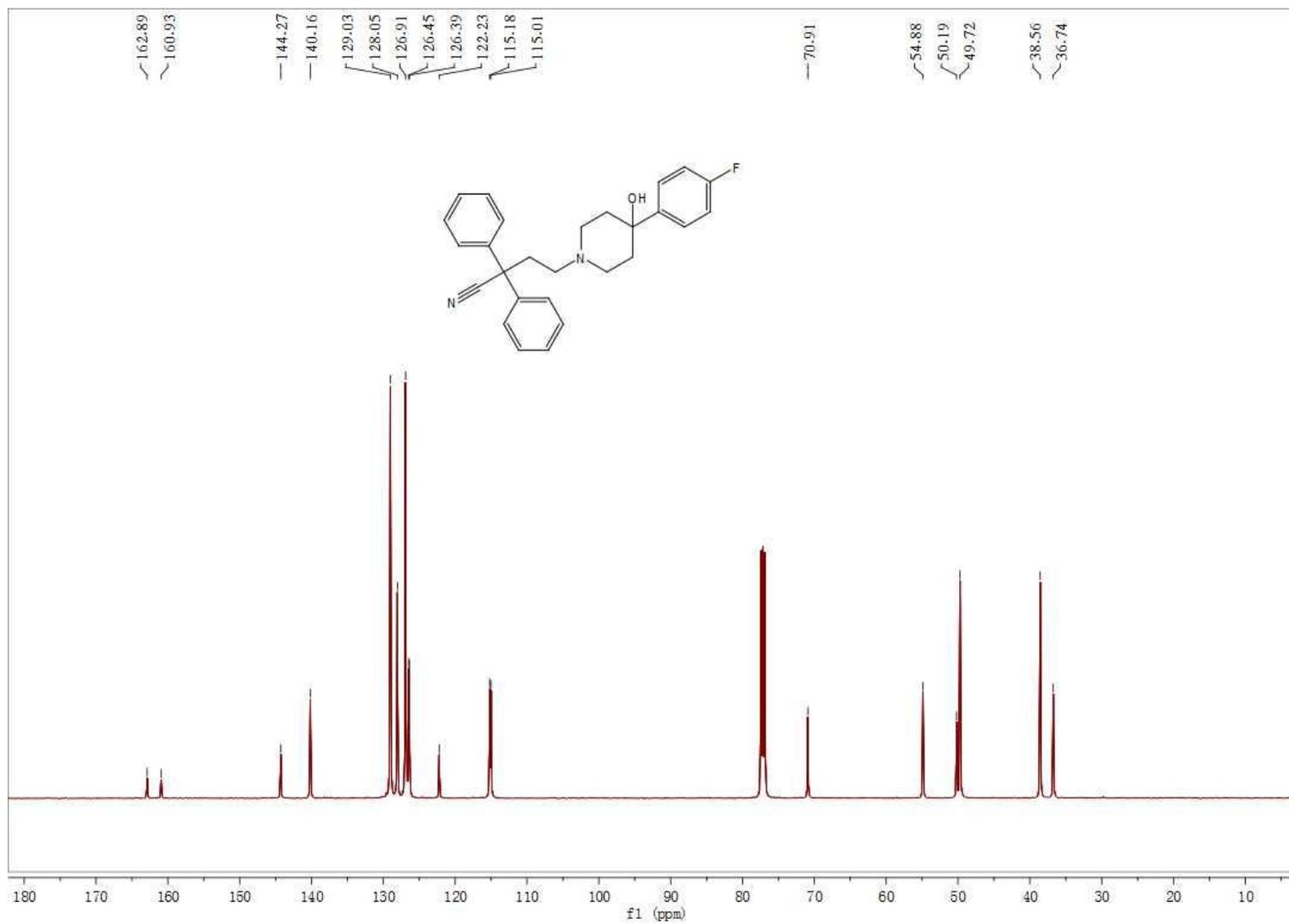
Figure S4. 125 MHz ^{13}C -NMR spectrum of Compound **12a**.

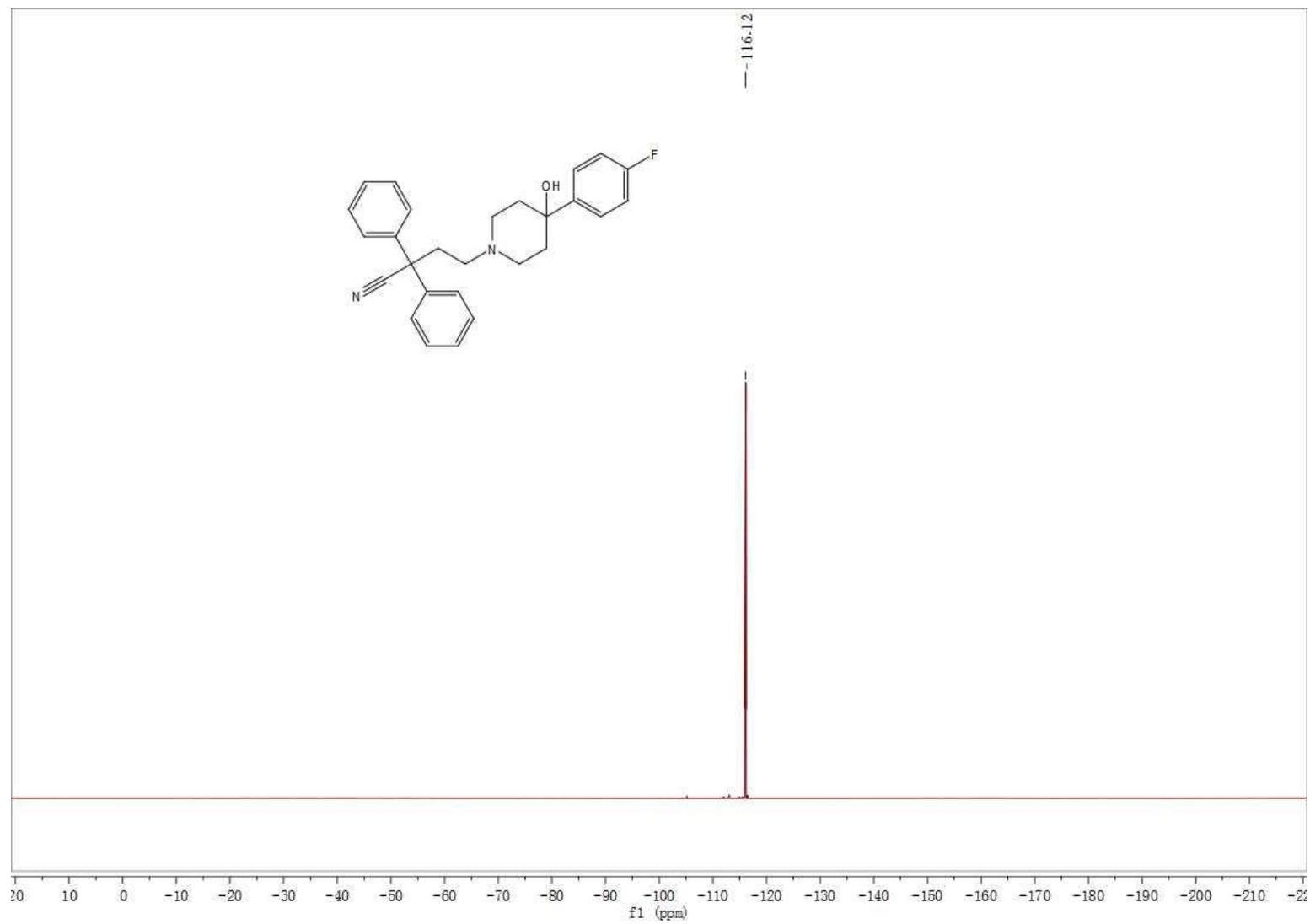
Figure S5. 470 MHz ^{19}F -NMR spectrum of Compound **12a**.

Figure S6. MS spectrum of Compound 12a.

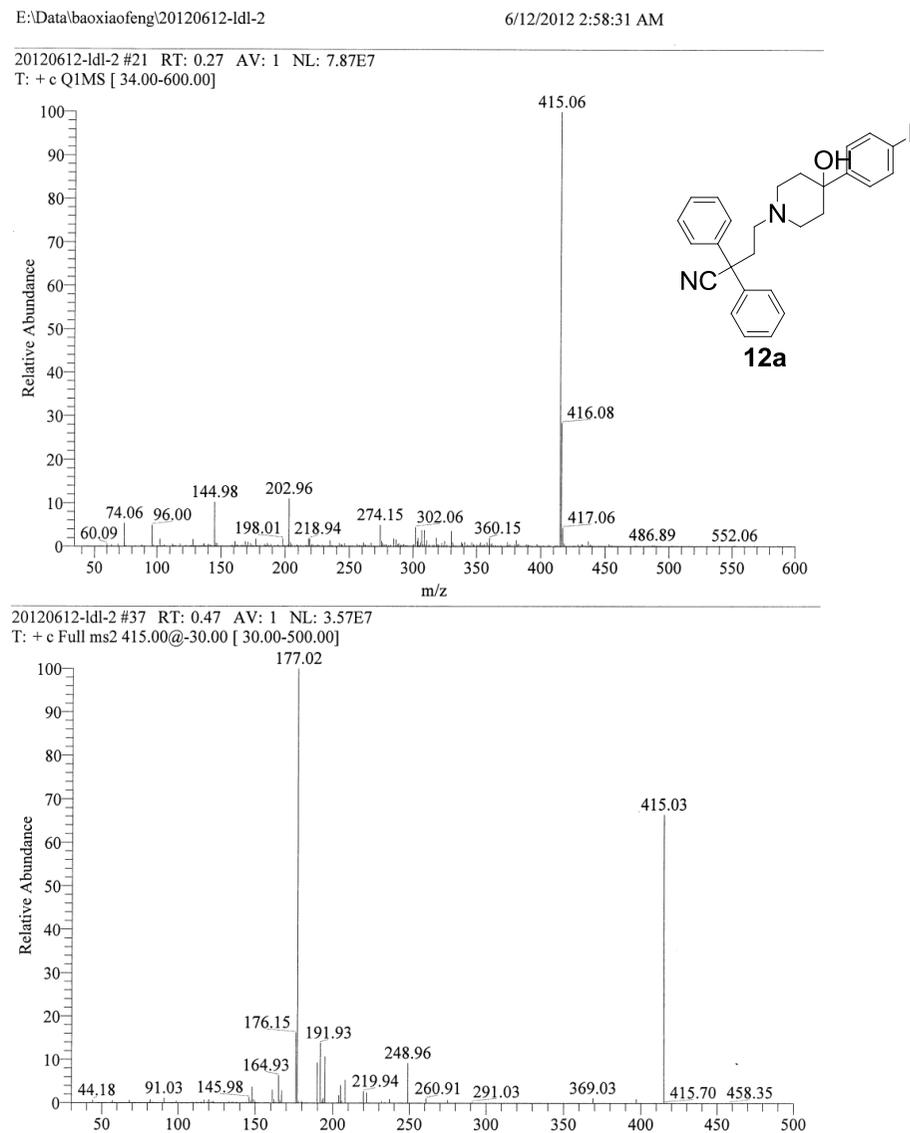


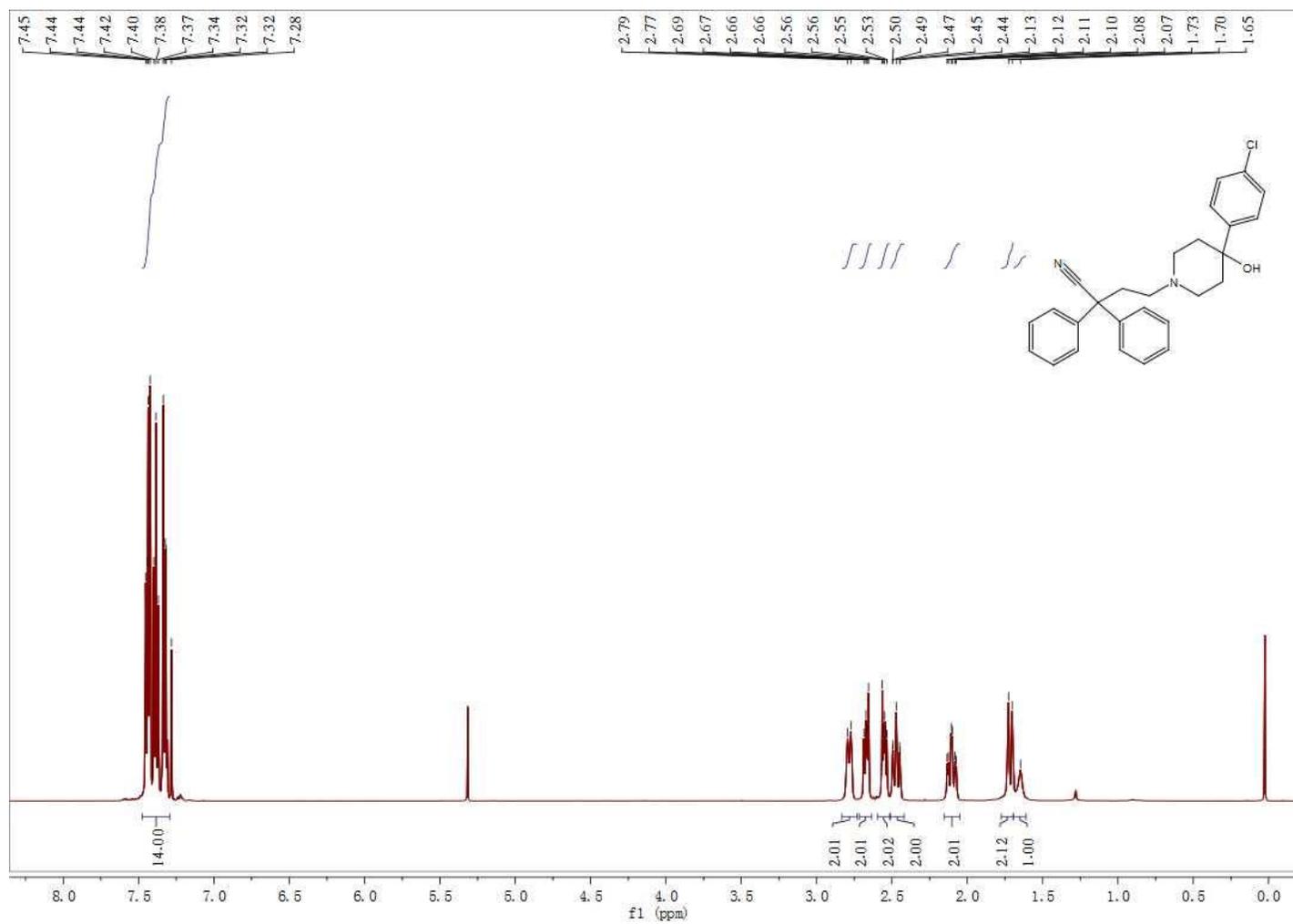
Figure S7. 500 MHz ^1H -NMR spectrum of Compound **12b**.

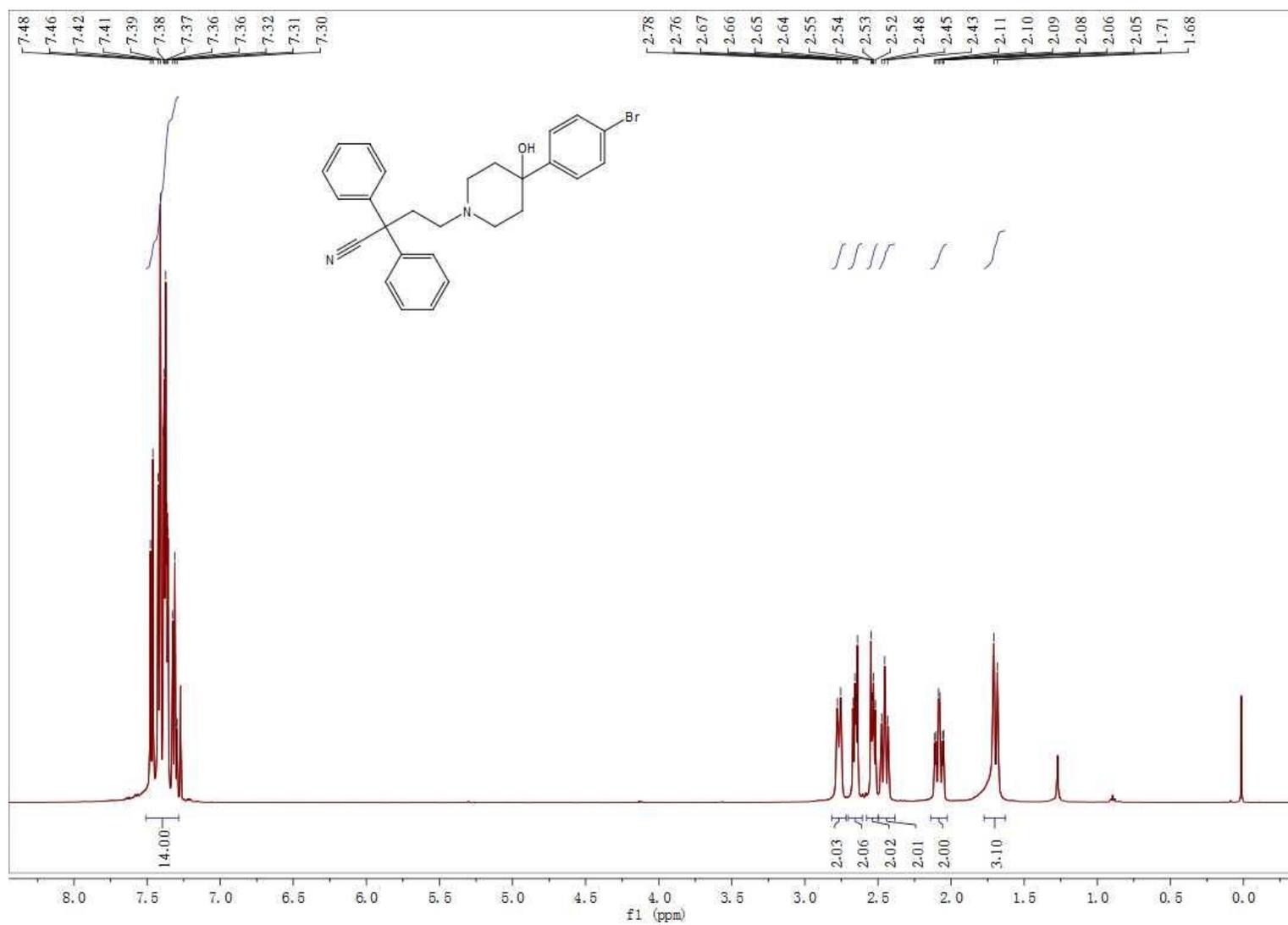
Figure S8. 500 MHz ^1H -NMR spectrum of Compound **12c**.

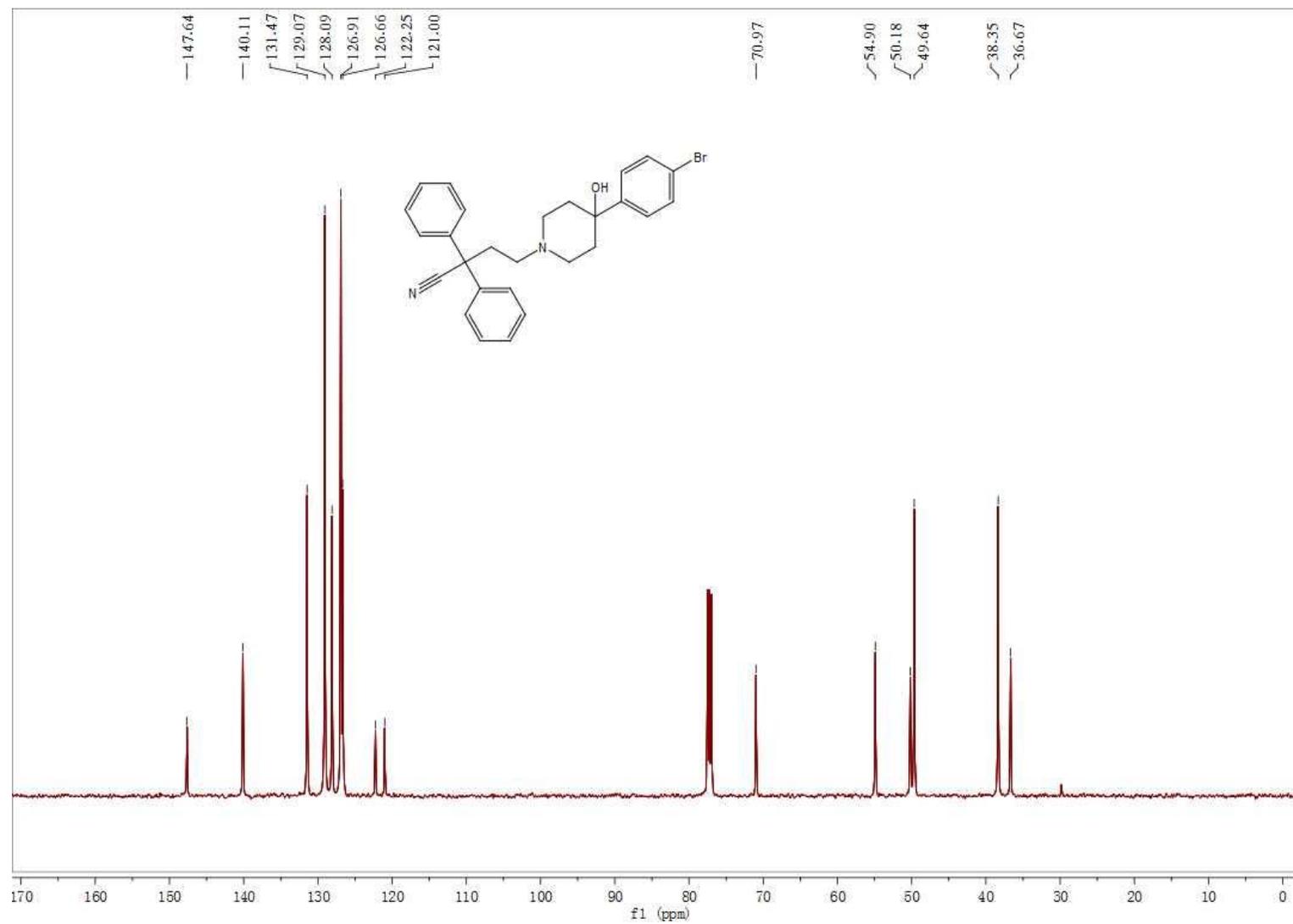
Figure S9. 125 MHz ^{13}C -NMR spectrum of Compound **12c**.

Figure S10. MS spectrum of Compound 12c.

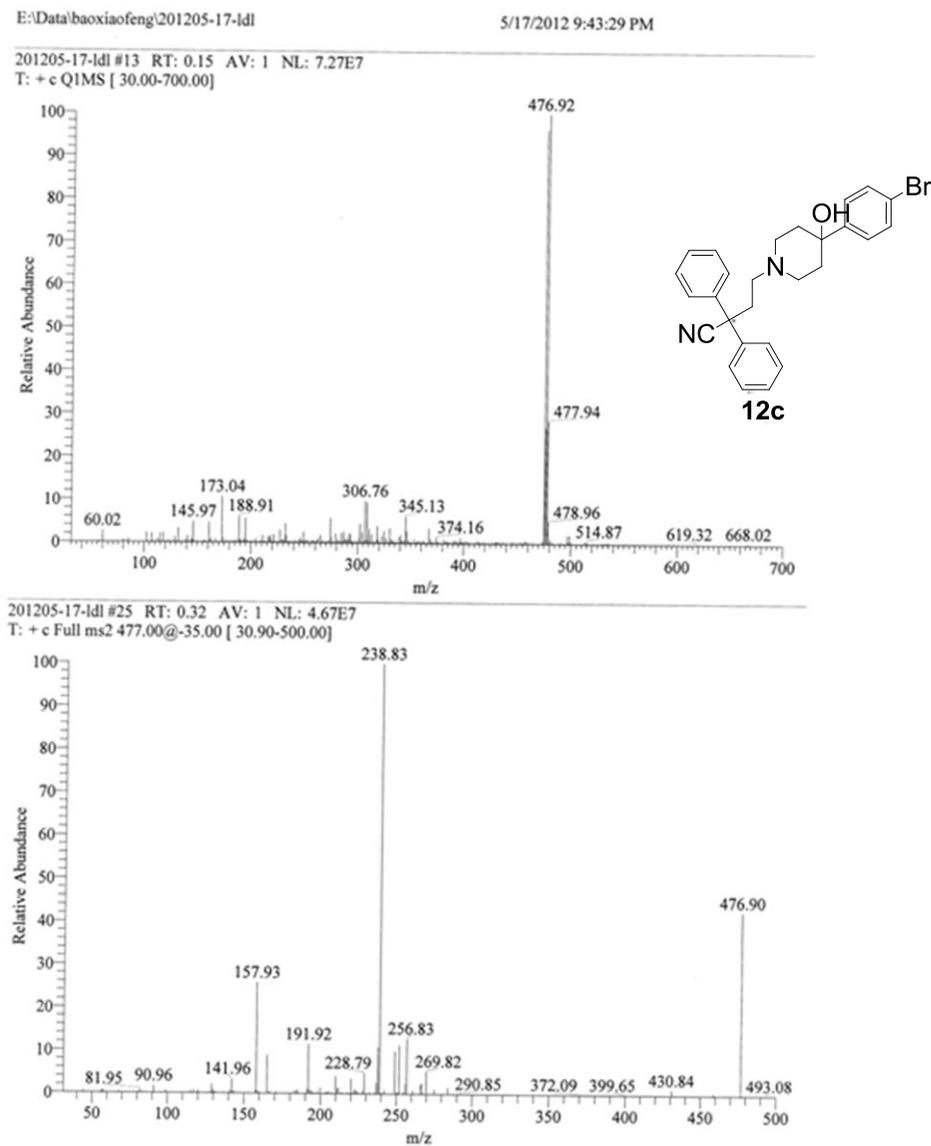


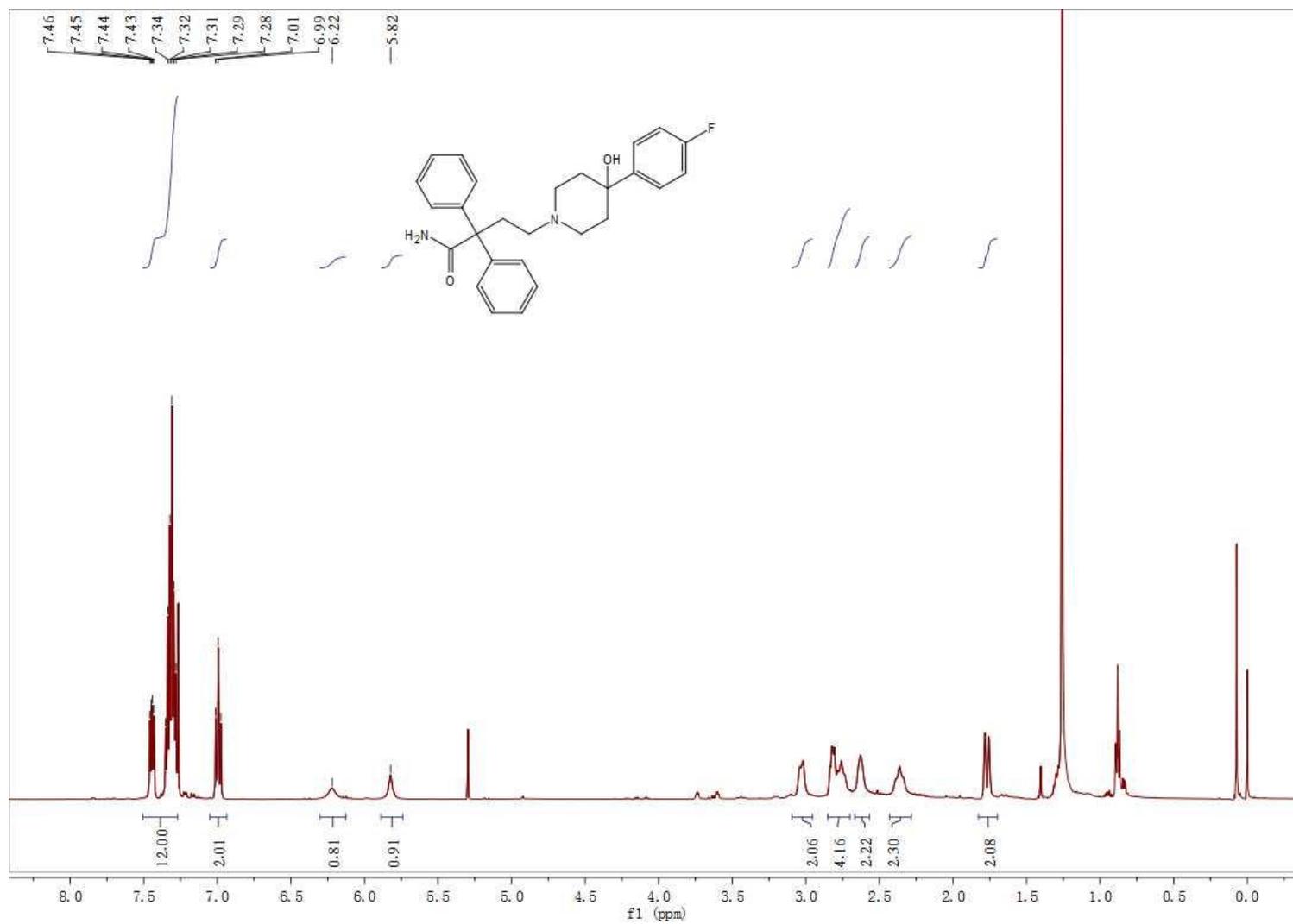
Figure S11. 500MHz ^1H -NMR spectrum of Compound 6.

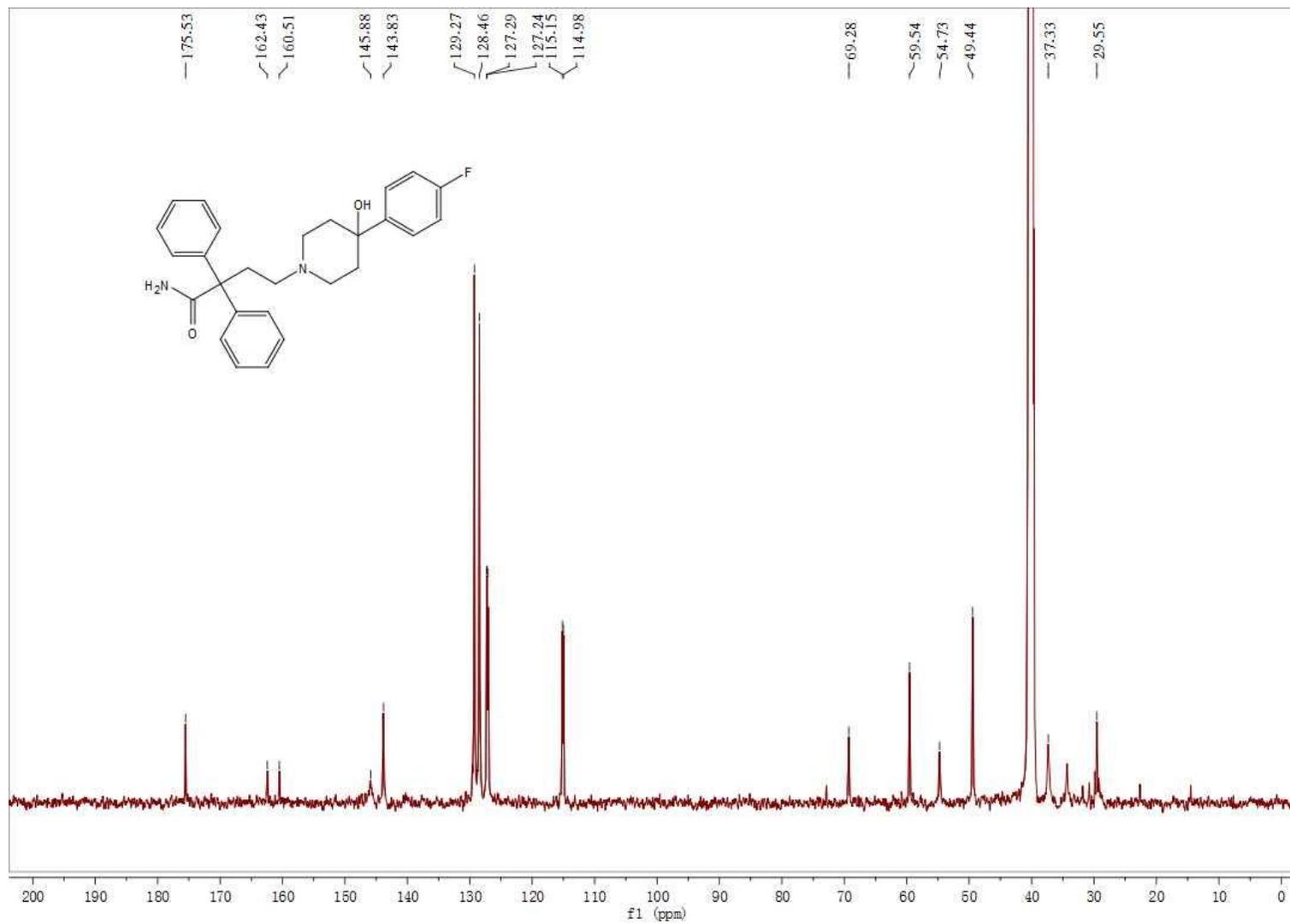
Figure S12. 125 MHz ^{13}C -NMR spectrum of Compound **6**.

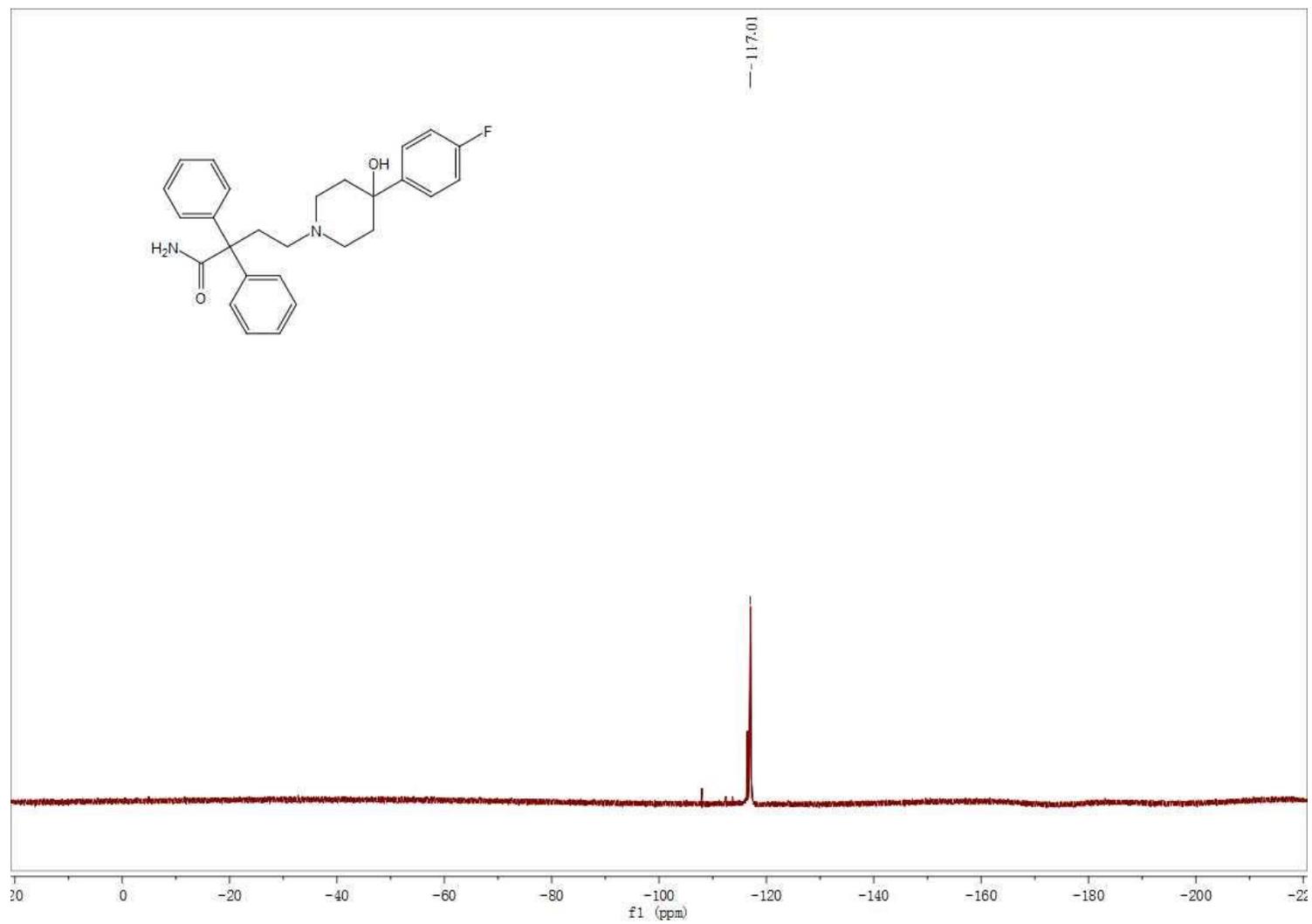
Figure S13. 470 MHz ^{19}F -NMR spectrum of Compound 6.

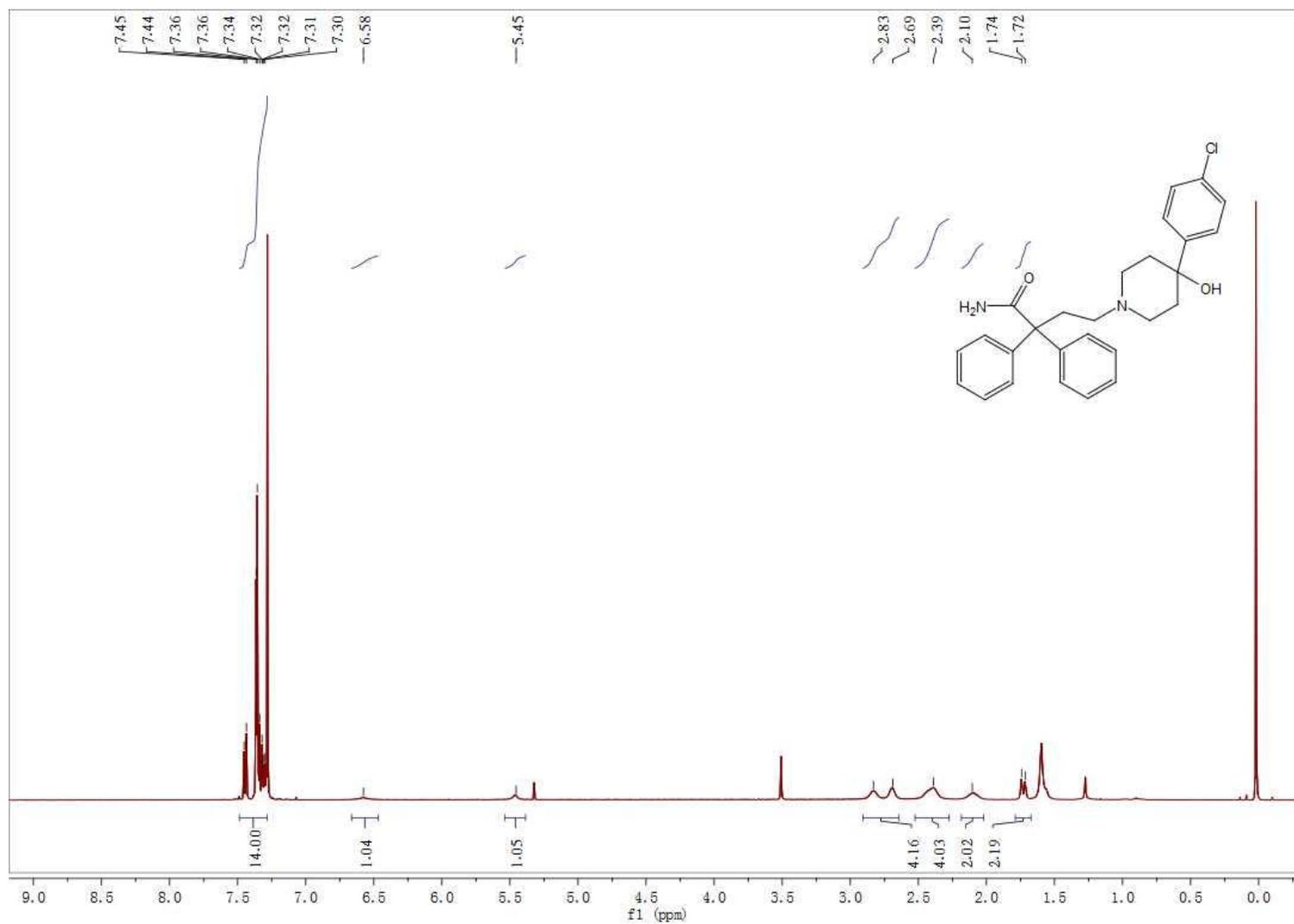
Figure S14. 500MHz ^1H -NMR spectrum of Compound **13b**.

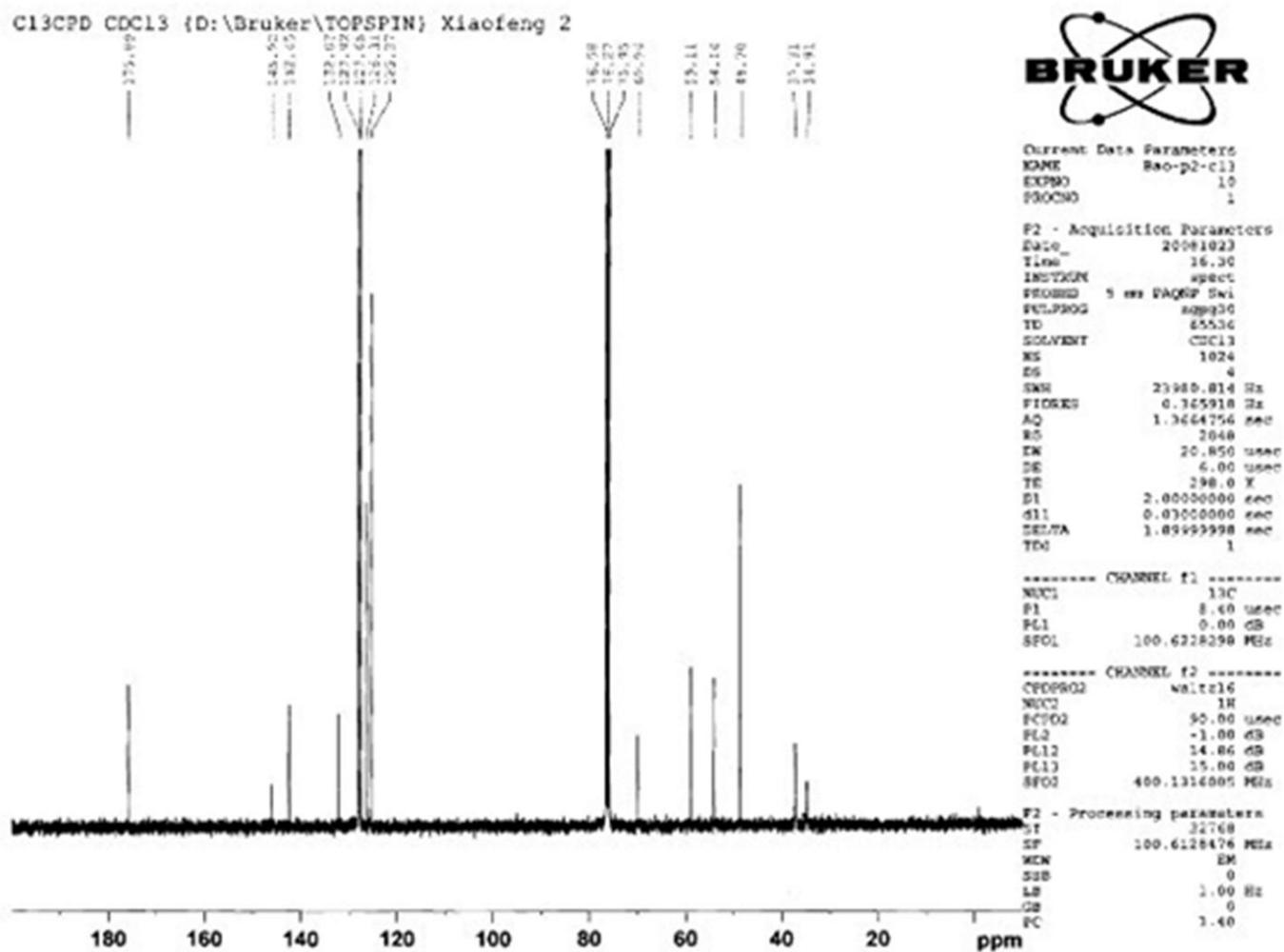
Figure S15. 100 MHz ^{13}C -NMR spectrum of Compound 13b.

Figure S16. LC-MS spectrum of Compound 13b.

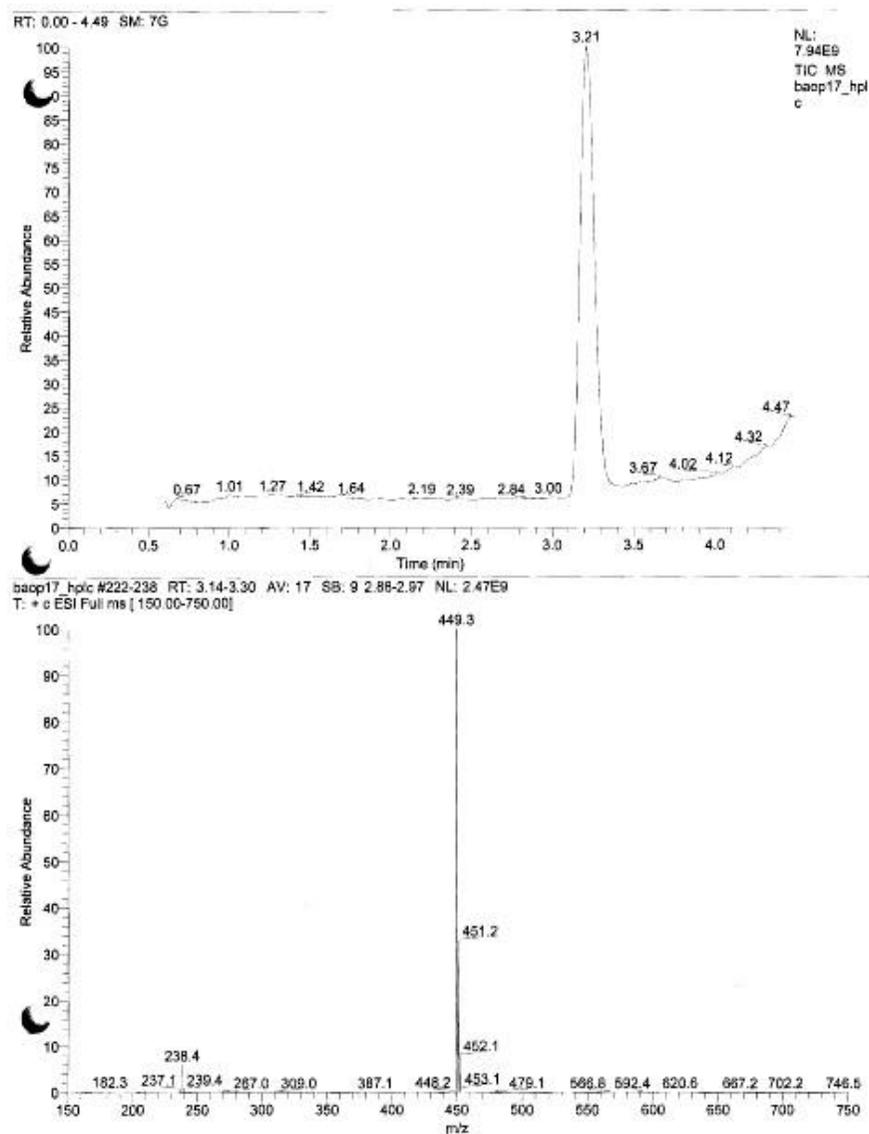


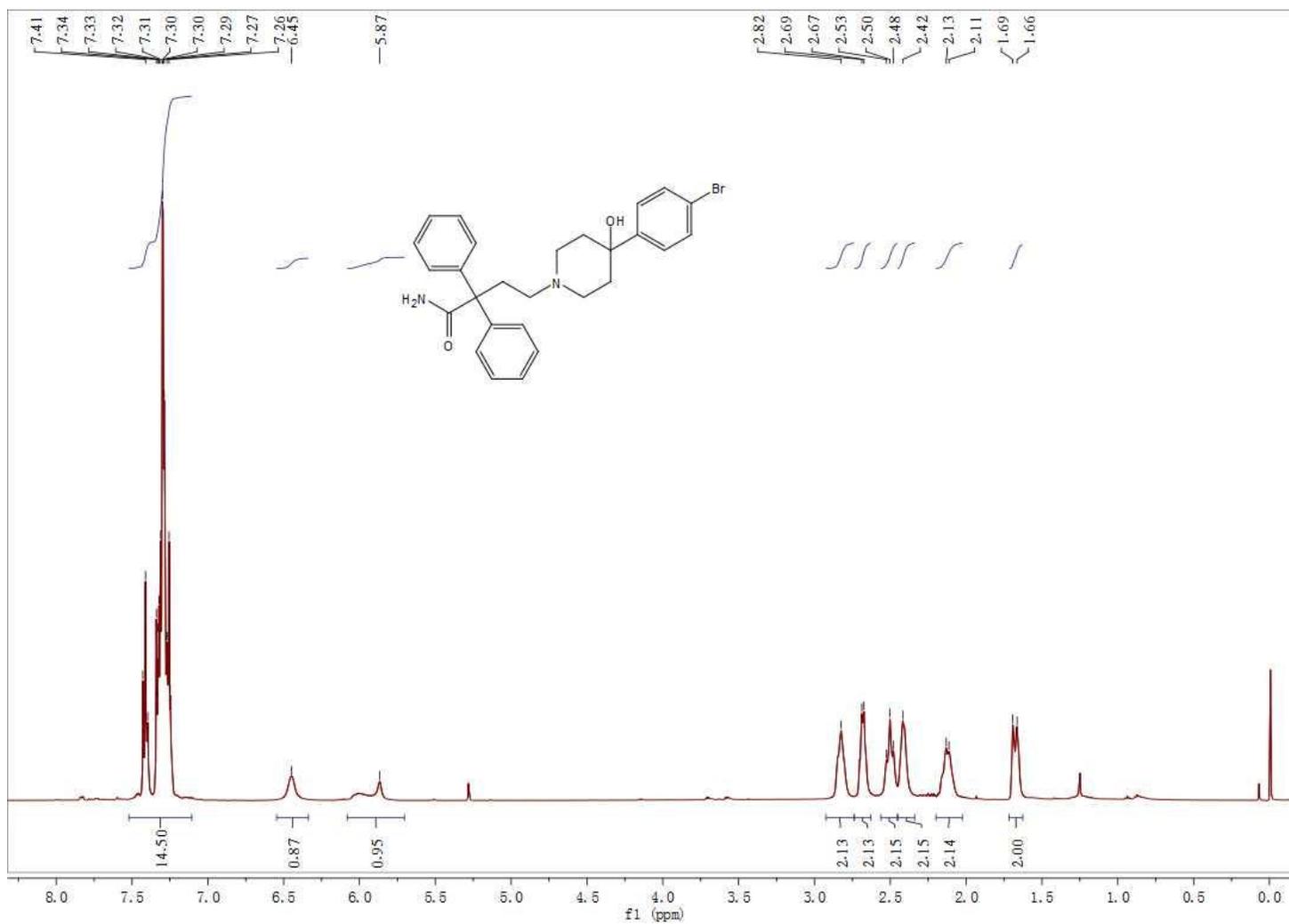
Figure S17. 500 MHz $^1\text{H-NMR}$ spectrum of Compound 7.

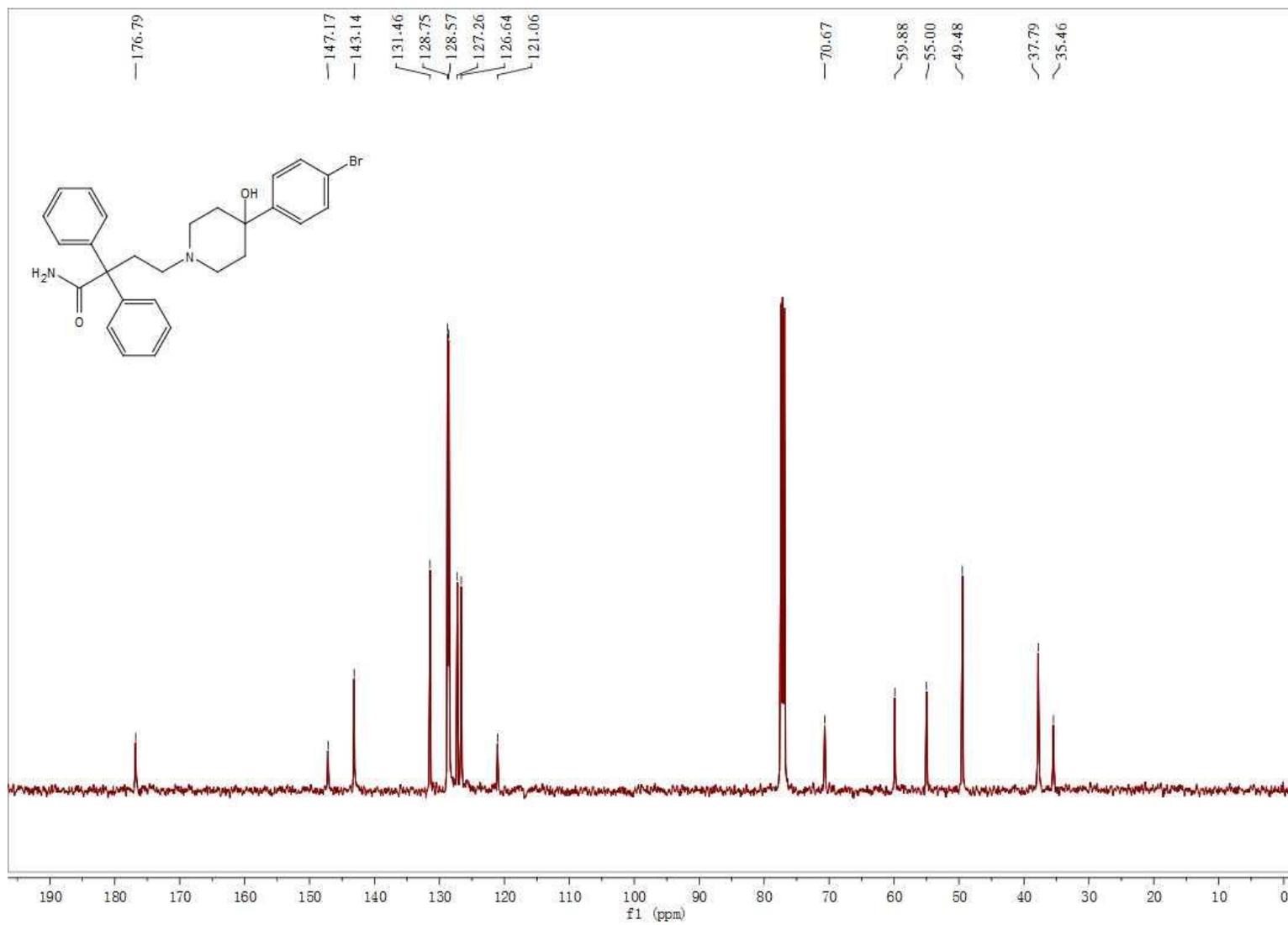
Figure S18. 125 MHz ^{13}C -NMR spectrum of Compound 7.

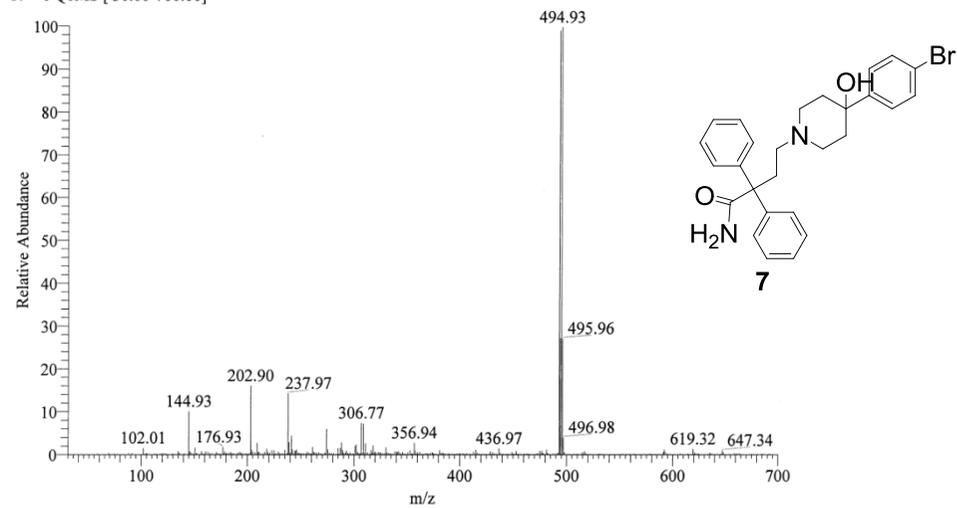
Figure S19. MS spectrum of Compound 7.

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6/19/2012 4:50:10 AM

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T: + c Q1MS [30.00-700.10]



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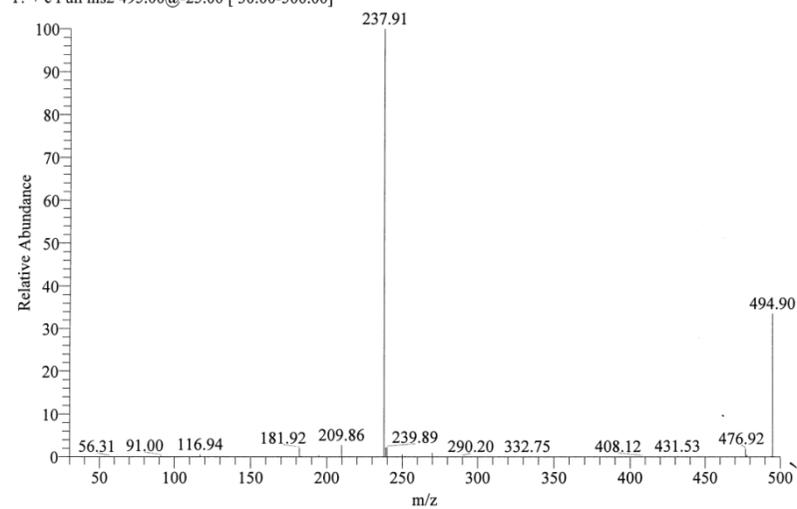


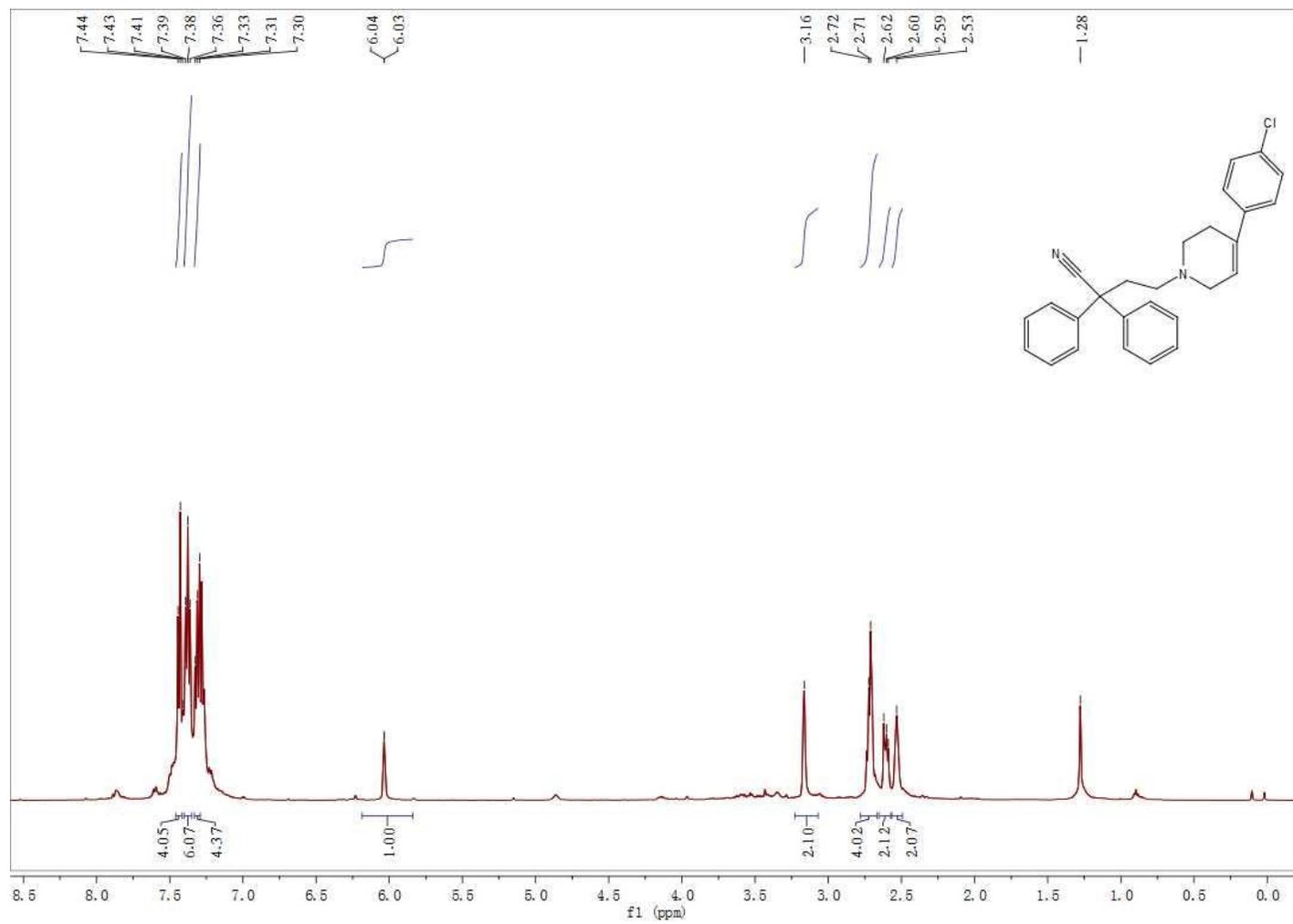
Figure S20. 500 MHz ^1H -NMR spectrum of Compound **14b**.

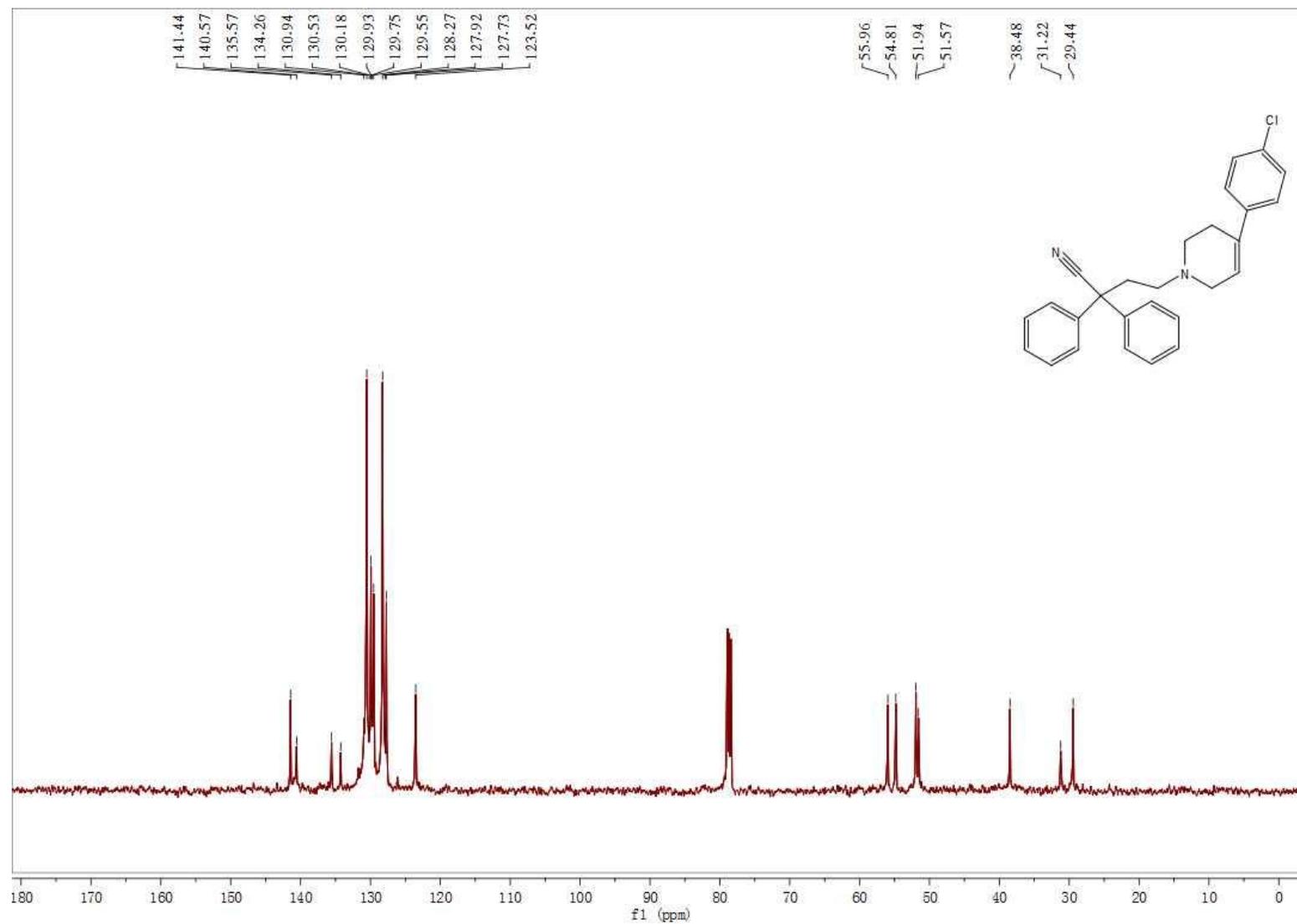
Figure S21. 125 MHz ^{13}C -NMR spectrum of Compound **14b**.

Figure S22. MS spectrum of Compound 14b.

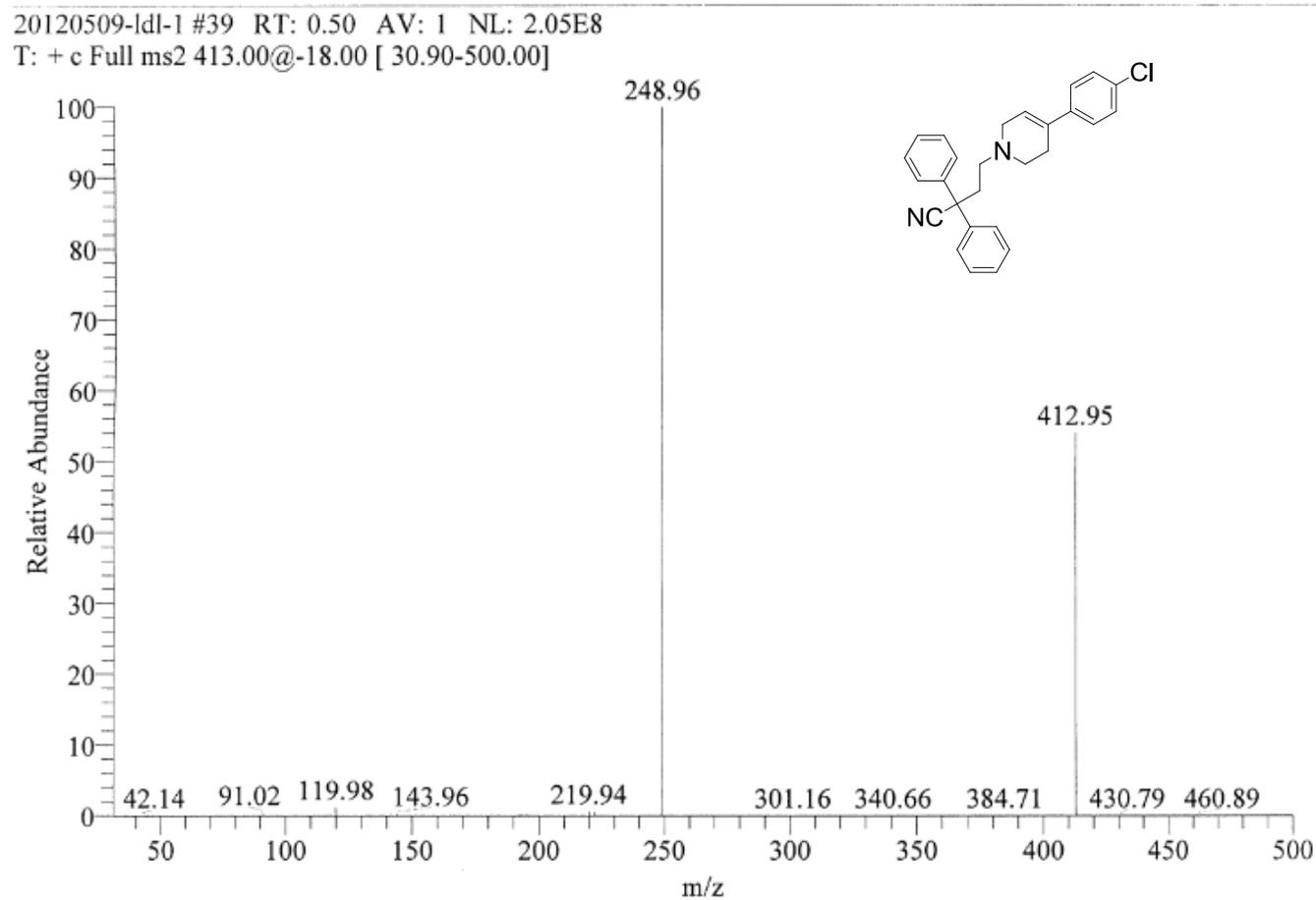


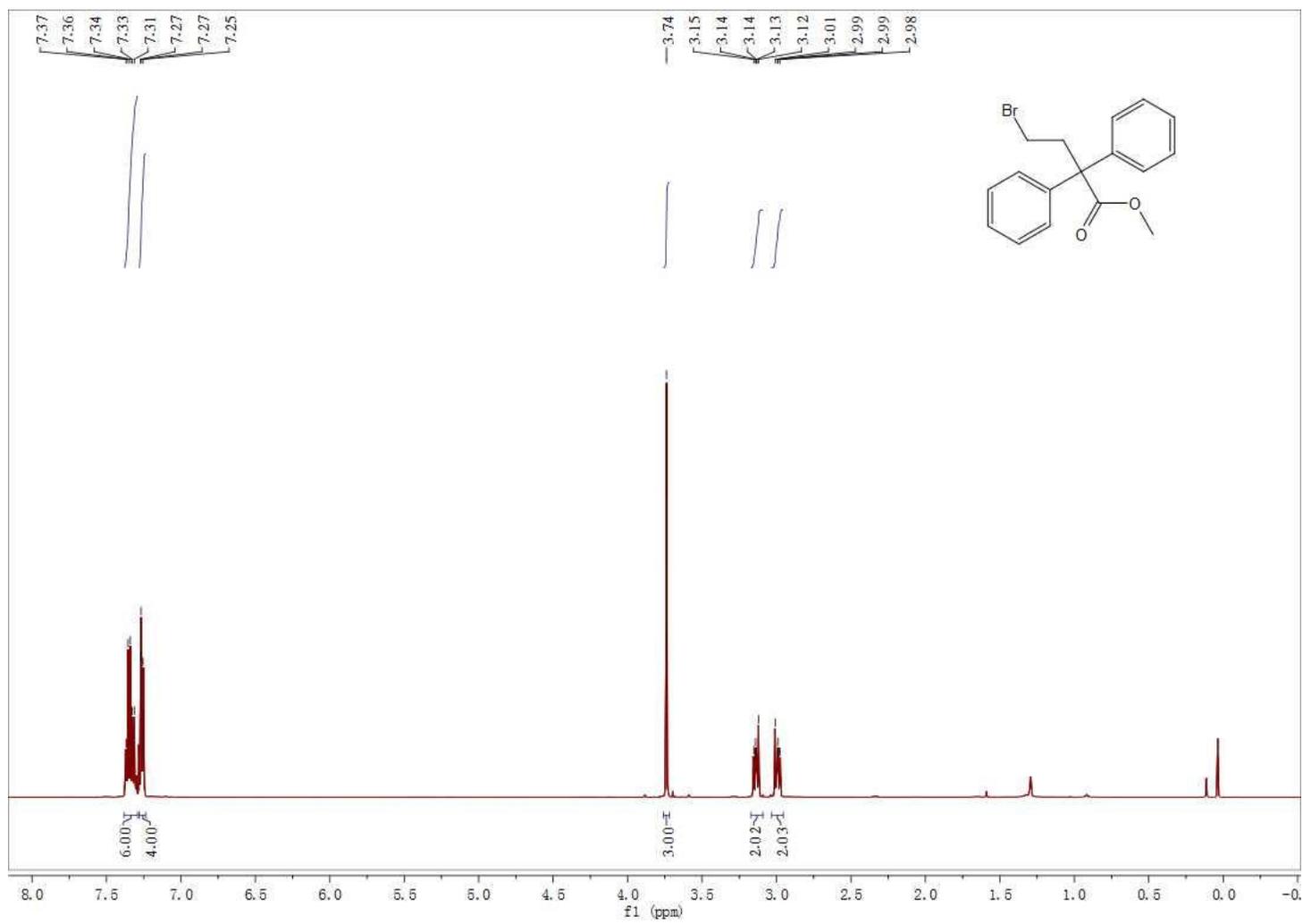
Figure S23. 500 MHz ^1H -NMR spectrum of Compound 18.

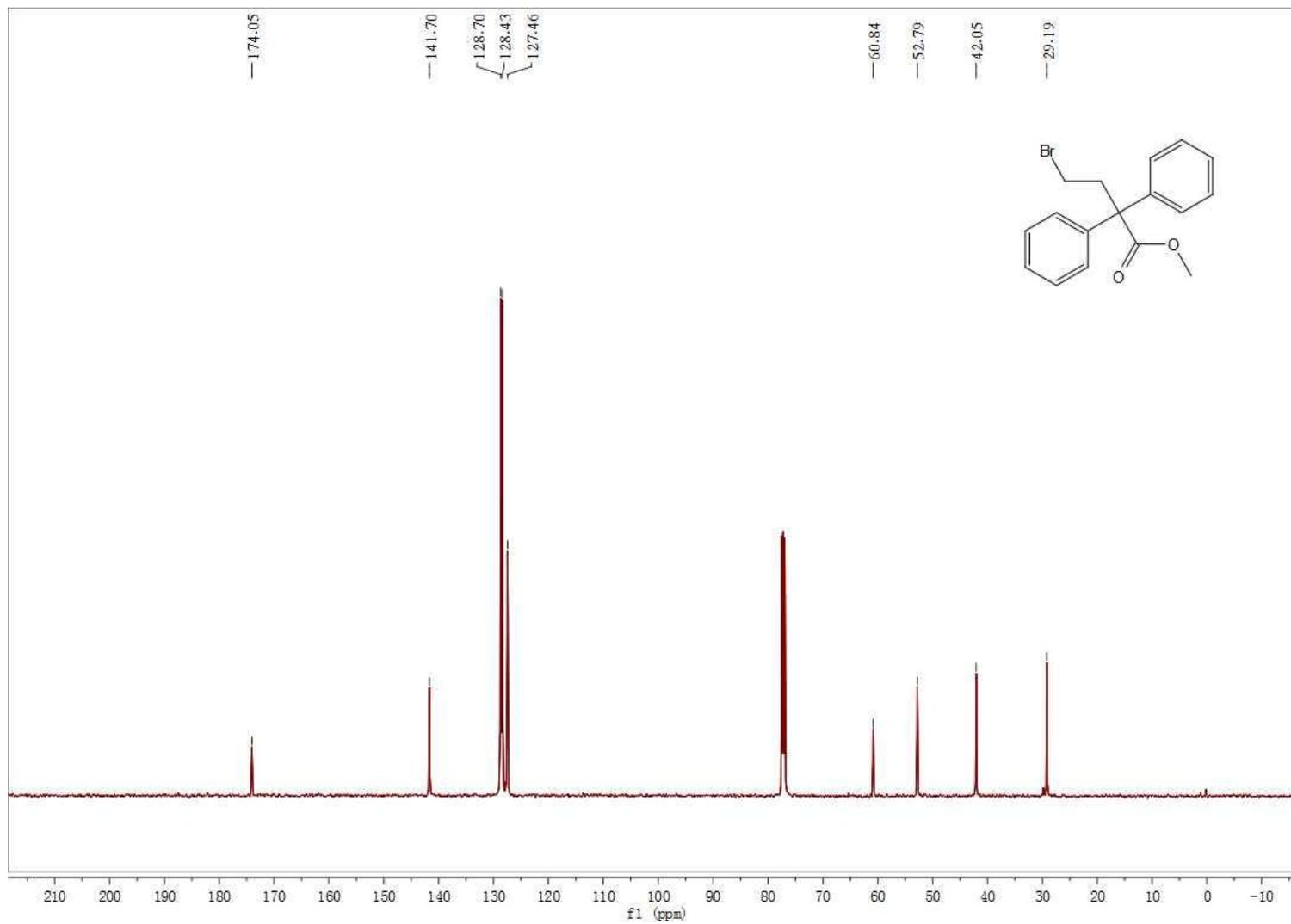
Figure S24. 125 MHz ^{13}C -NMR spectrum of Compound **18**.

Figure S25. MS spectrum of Compound 18.

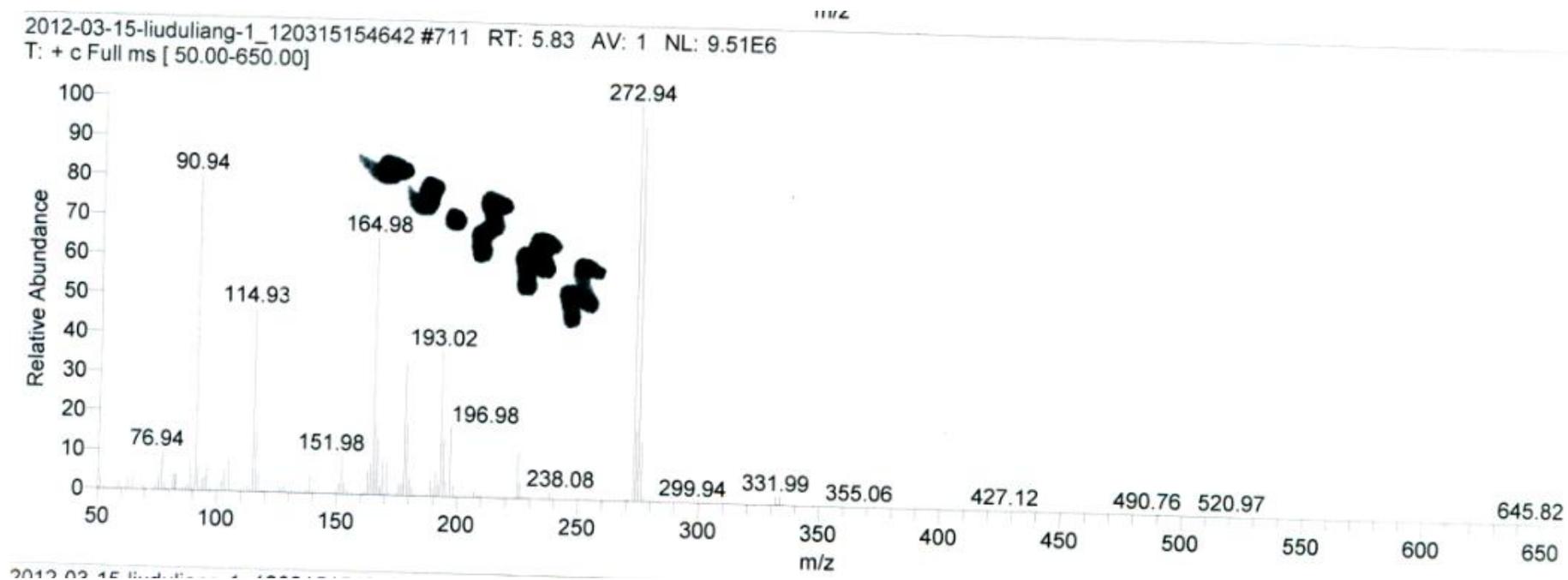


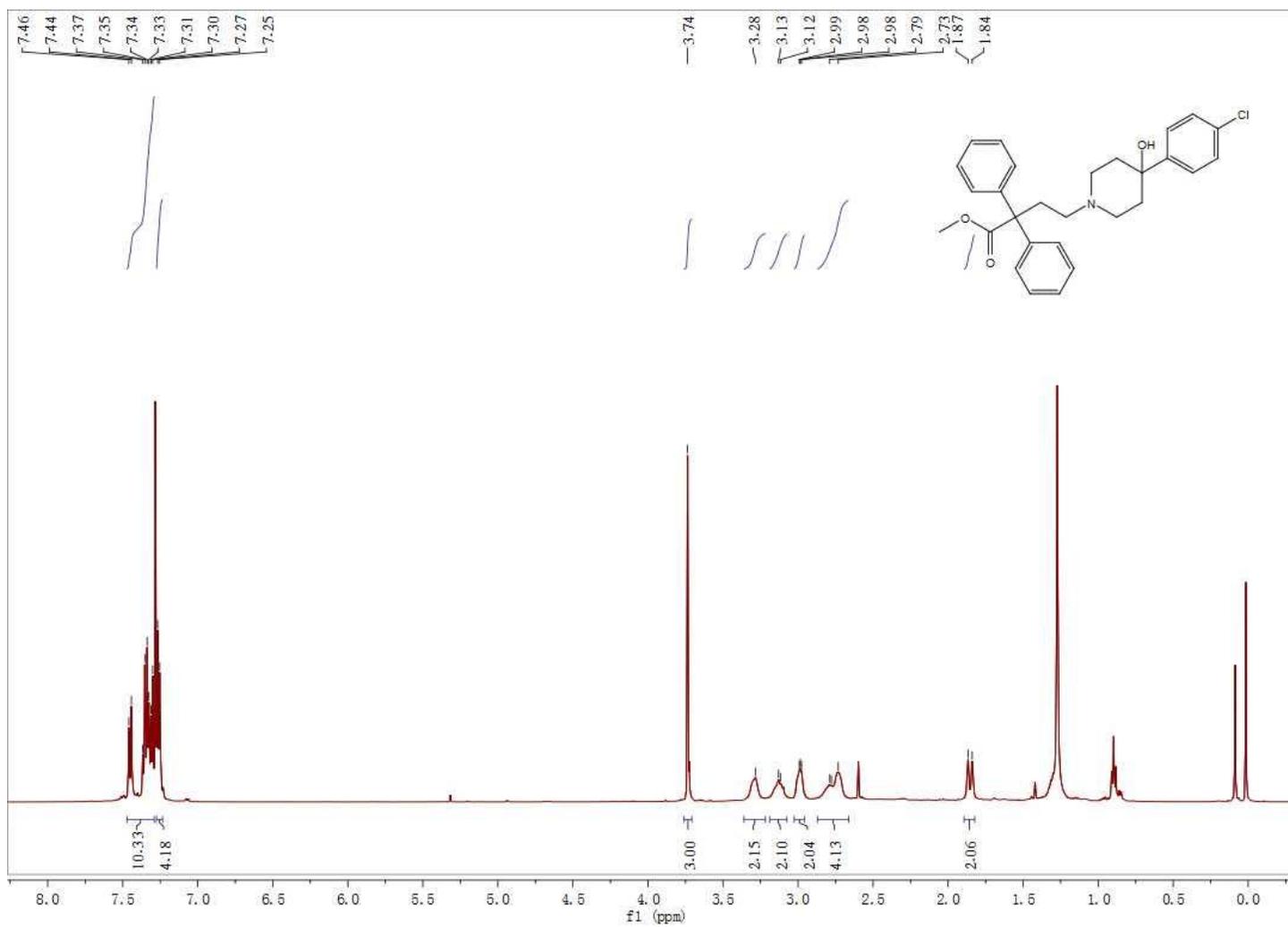
Figure S26. 500 MHz ^1H -NMR spectrum of Compound 19.

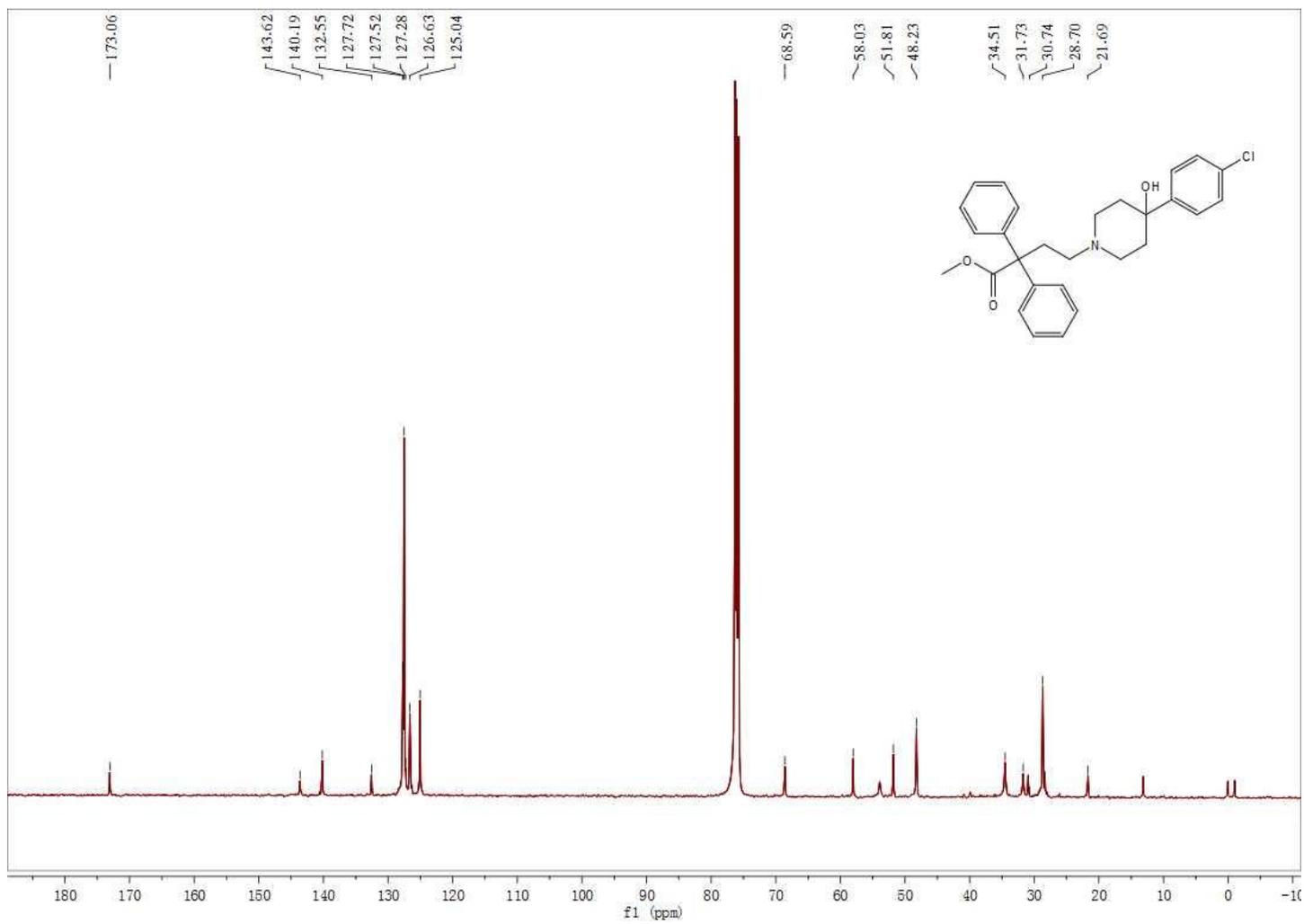
Figure S27. 125 MHz ^{13}C -NMR spectrum of Compound **19**.

Figure S28. MS spectrum of Compound 19.

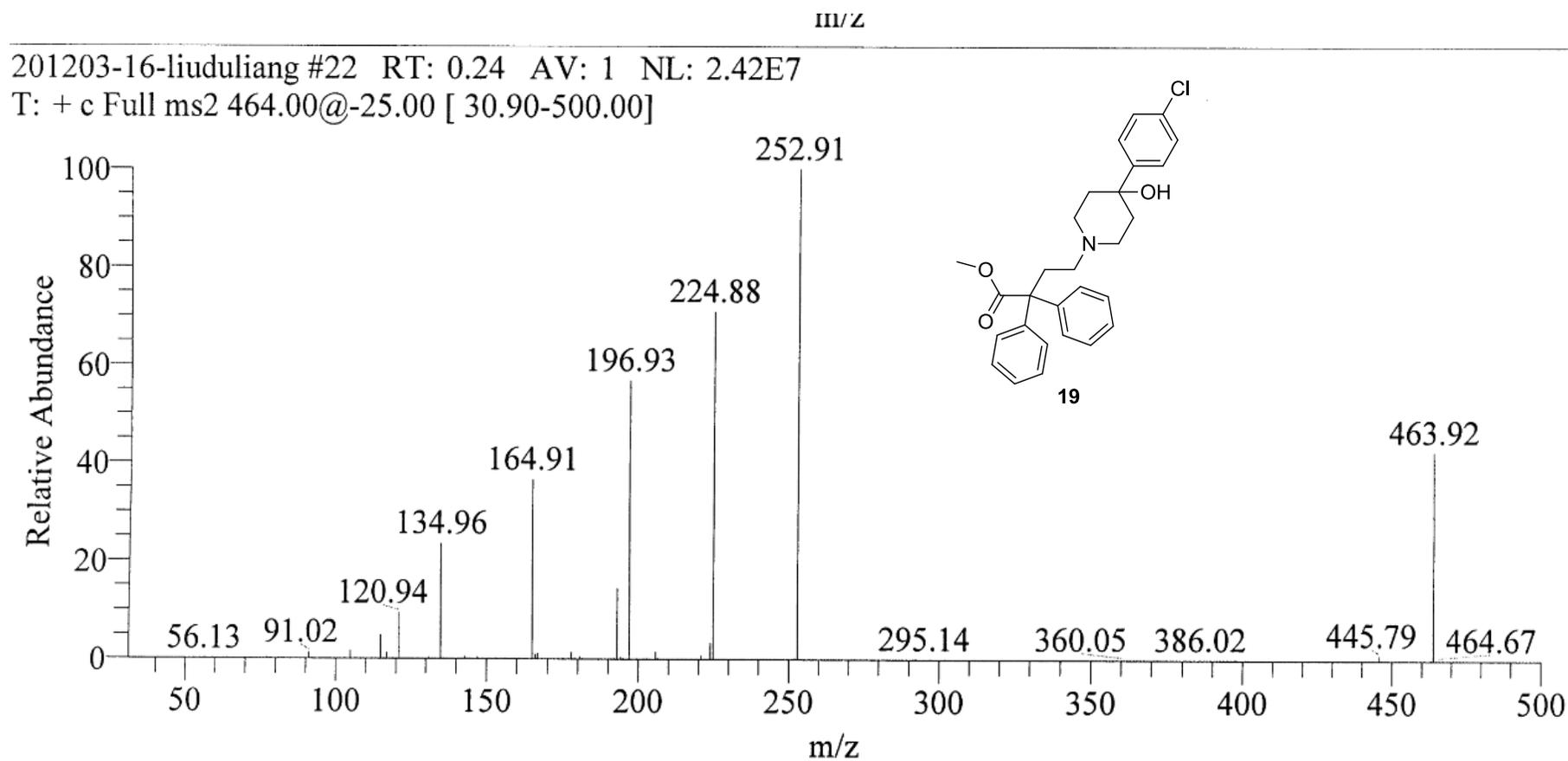


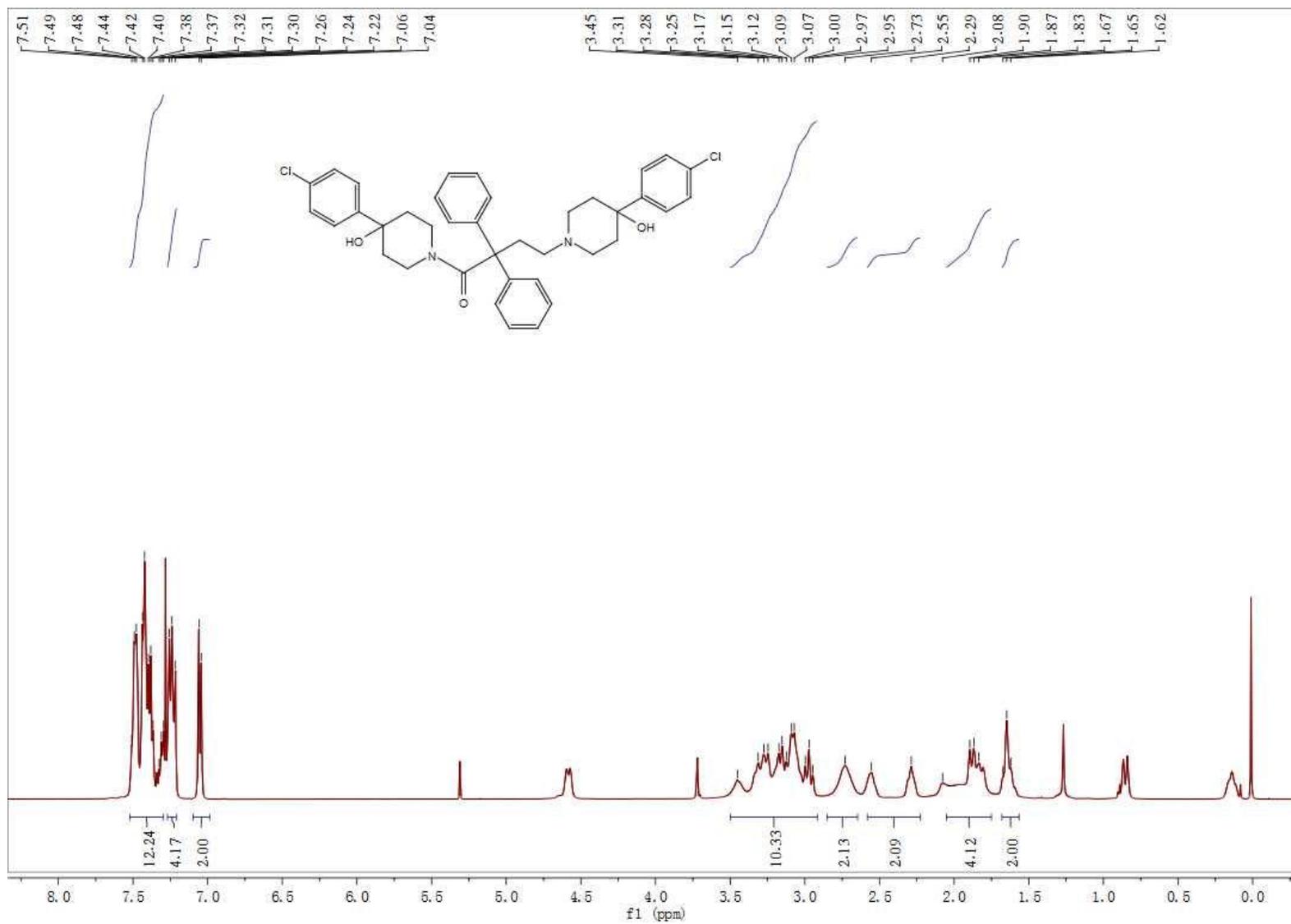
Figure S29. 500 MHz ^1H -NMR spectrum of Compound 5.

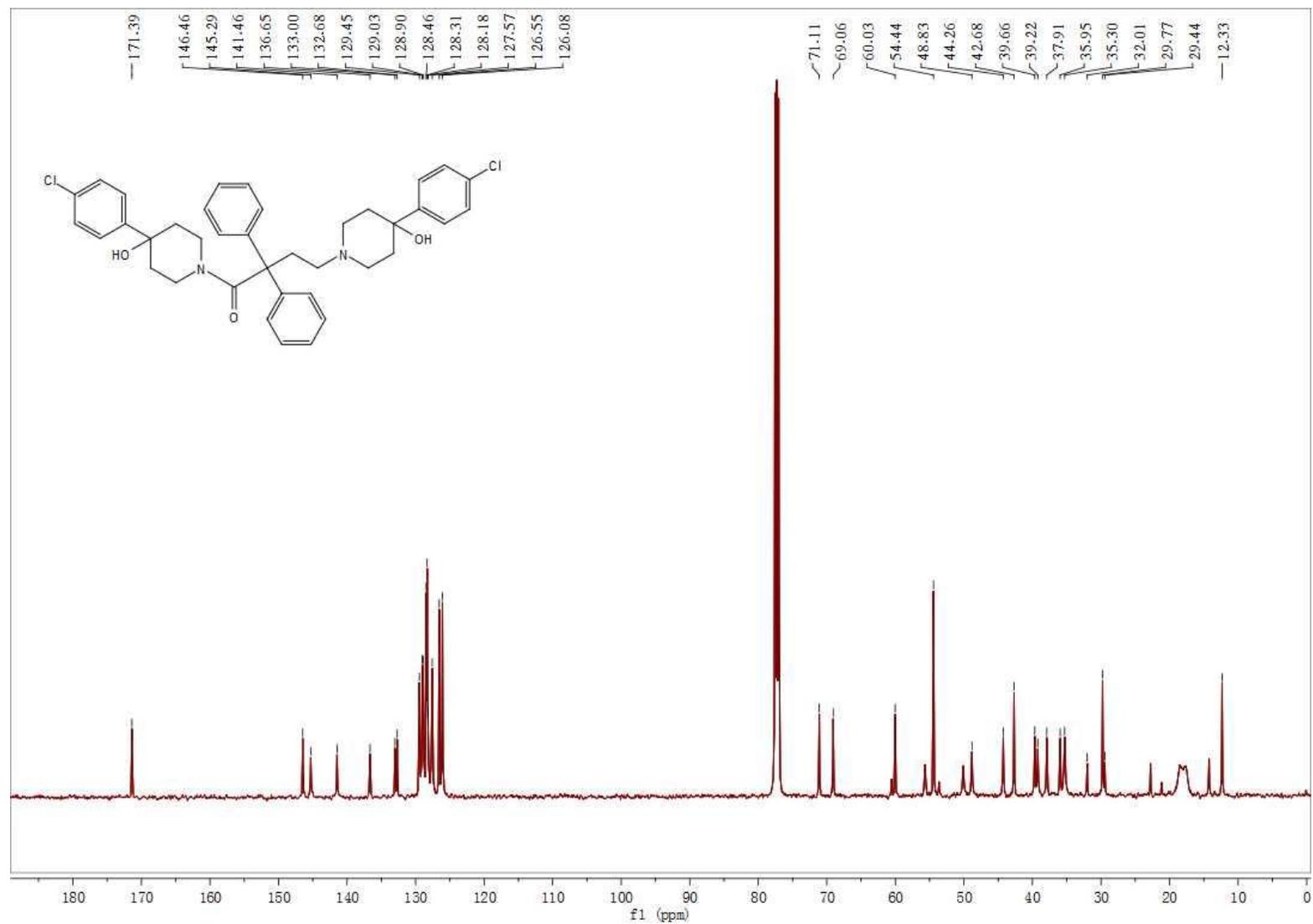
Figure S30. 125 MHz ^{13}C -NMR spectrum of Compound 5.

Figure S31. MS spectrum of Compound 5.

201203-16-liuduliang #45 RT: 0.51 AV: 1 NL: 1.77E8
T: + c Full ms2 645.00@-25.00 [30.90-700.00]

