

Electronic supplementary information

RCS Med. Chem.

Novel triphenylphosphonium amphiphilic conjugates of glycerolipid type: Synthesis, cytotoxic and antibacterial activity, targeted cancer-cells delivery

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Figure S85. $^{31}\text{P}\{-^1\text{H}\}$ NMR (CDCl_3 , 162 MHz) spectrum of **14**.

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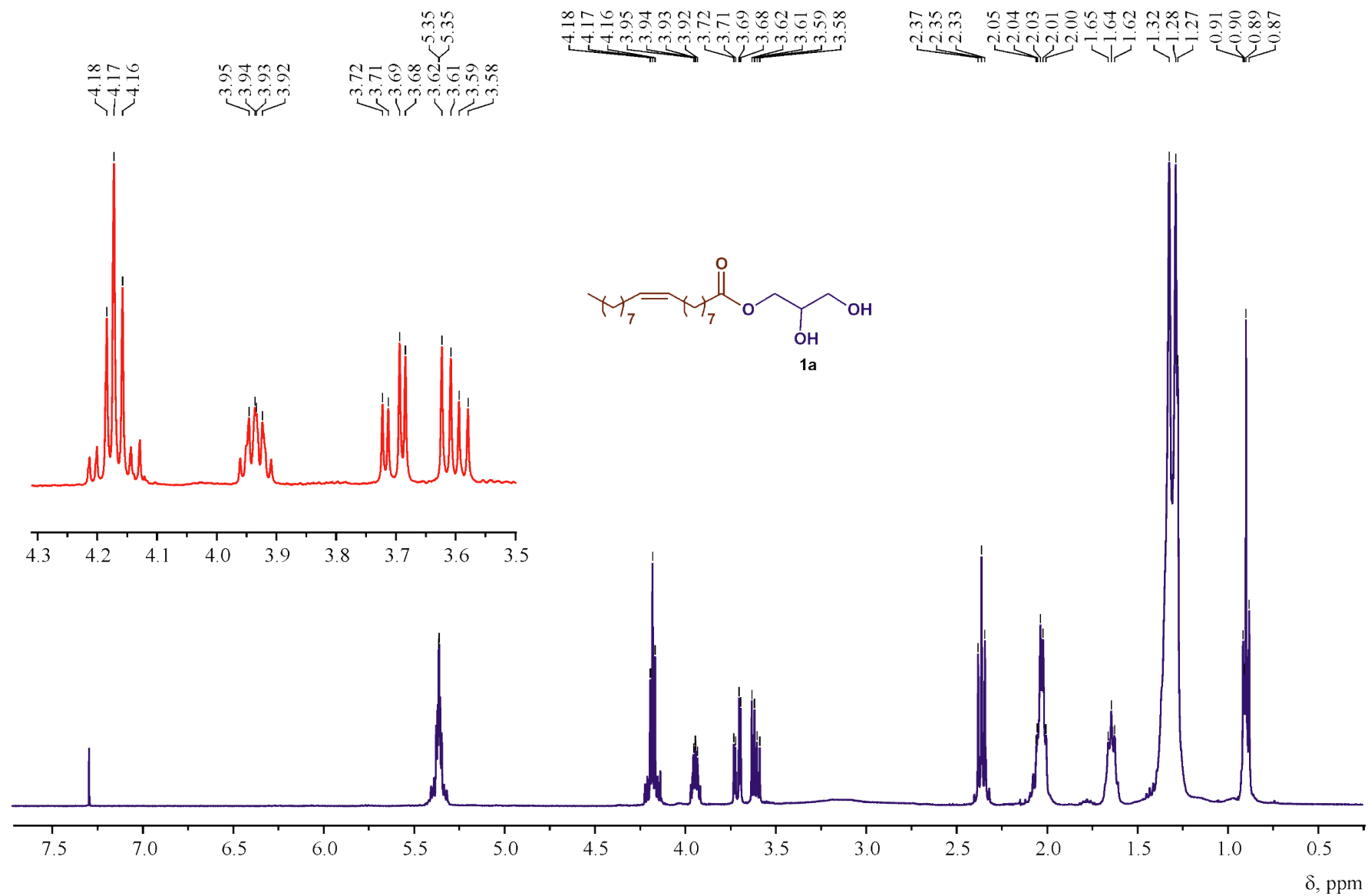


Figure S1. ^1H NMR spectrum (400 MHz, CDCl_3) of compound **1a**.

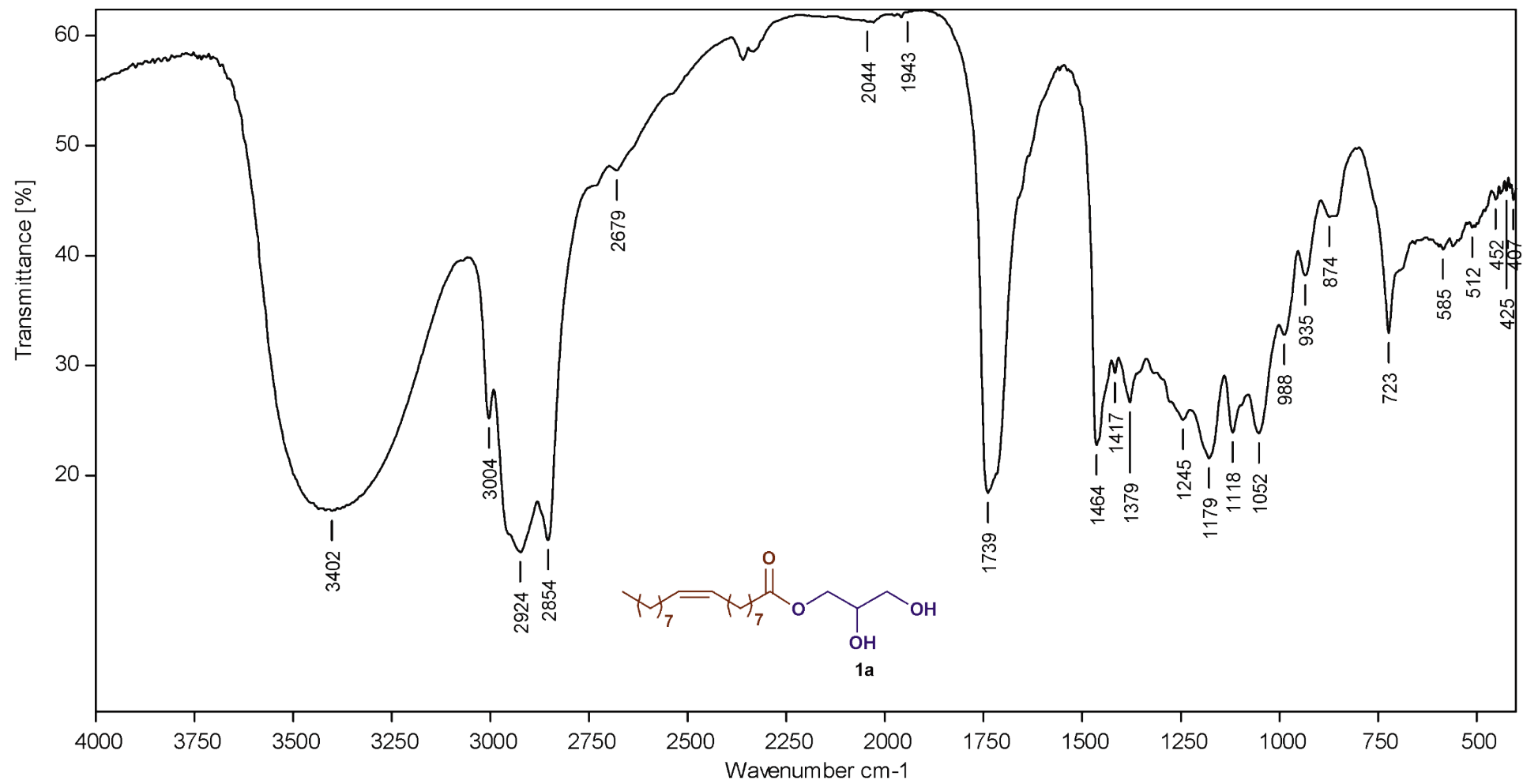


Figure S2. IR (KBr) spectrum of **1a**.

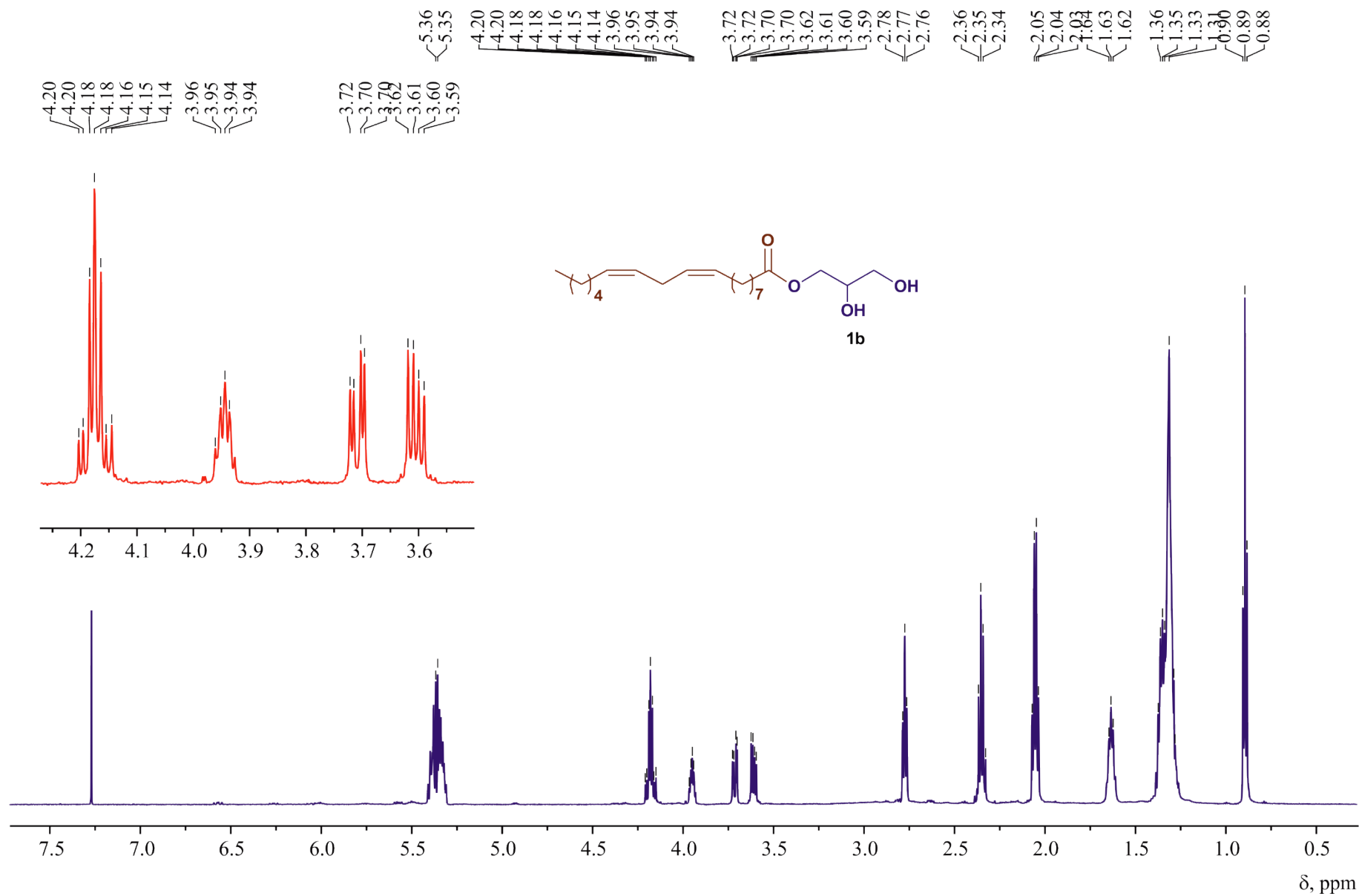


Figure S3. ¹H NMR spectrum (400 MHz, CDCl₃) of compound **1b**.

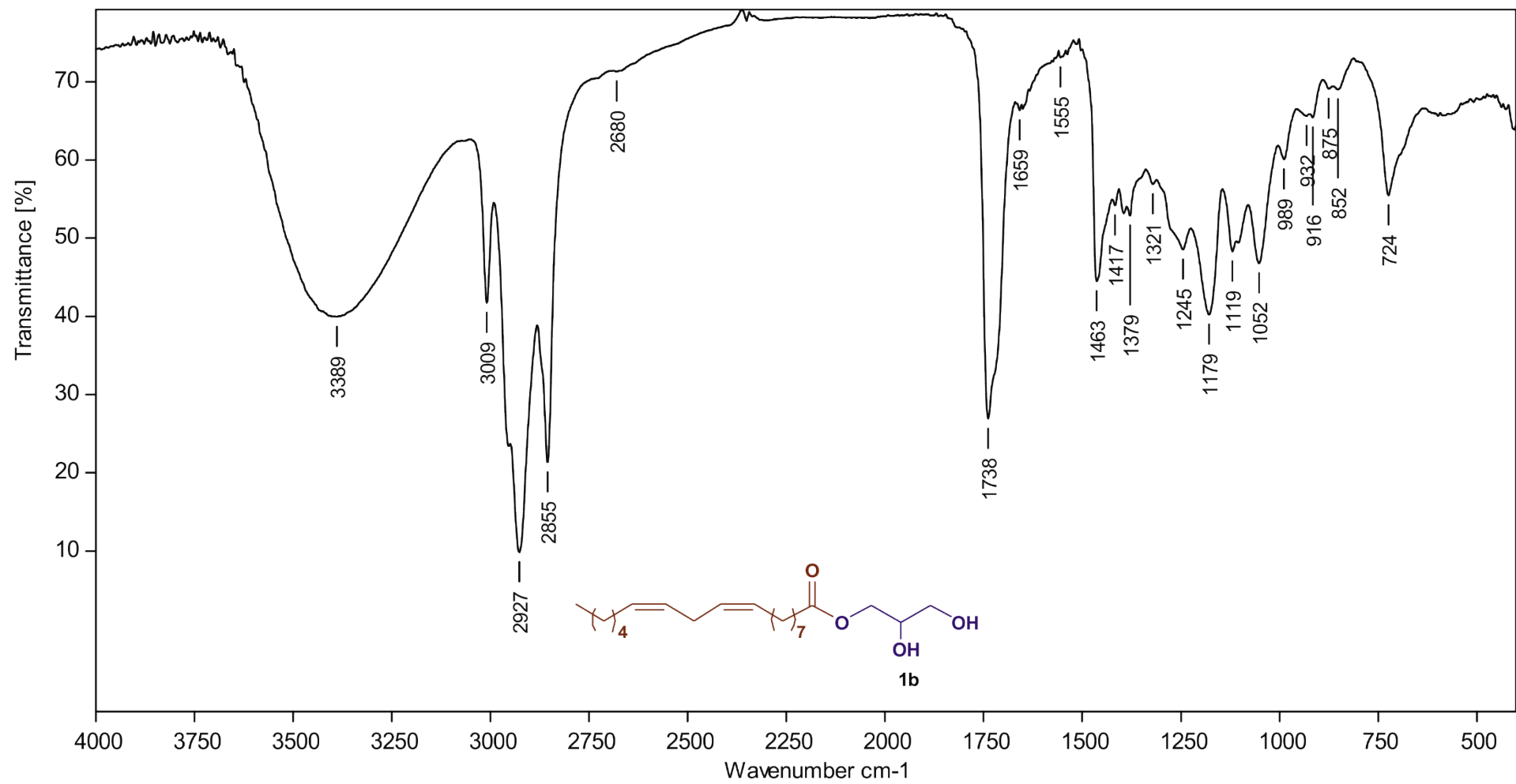


Figure S4. IR (KBr) spectrum of **1b**.

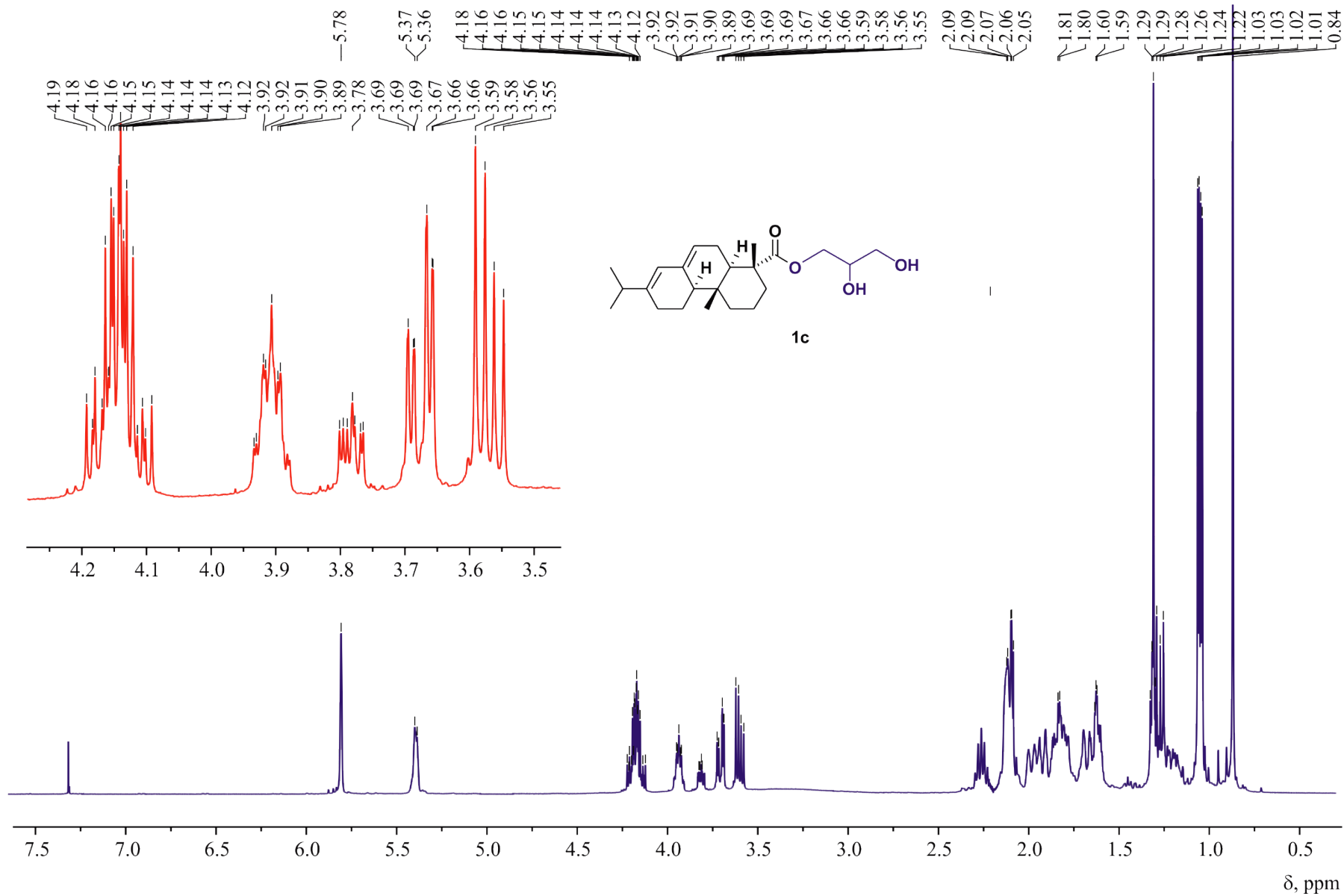


Figure S5. ¹H NMR spectrum (400 MHz, CDCl₃) of compound **1c**.

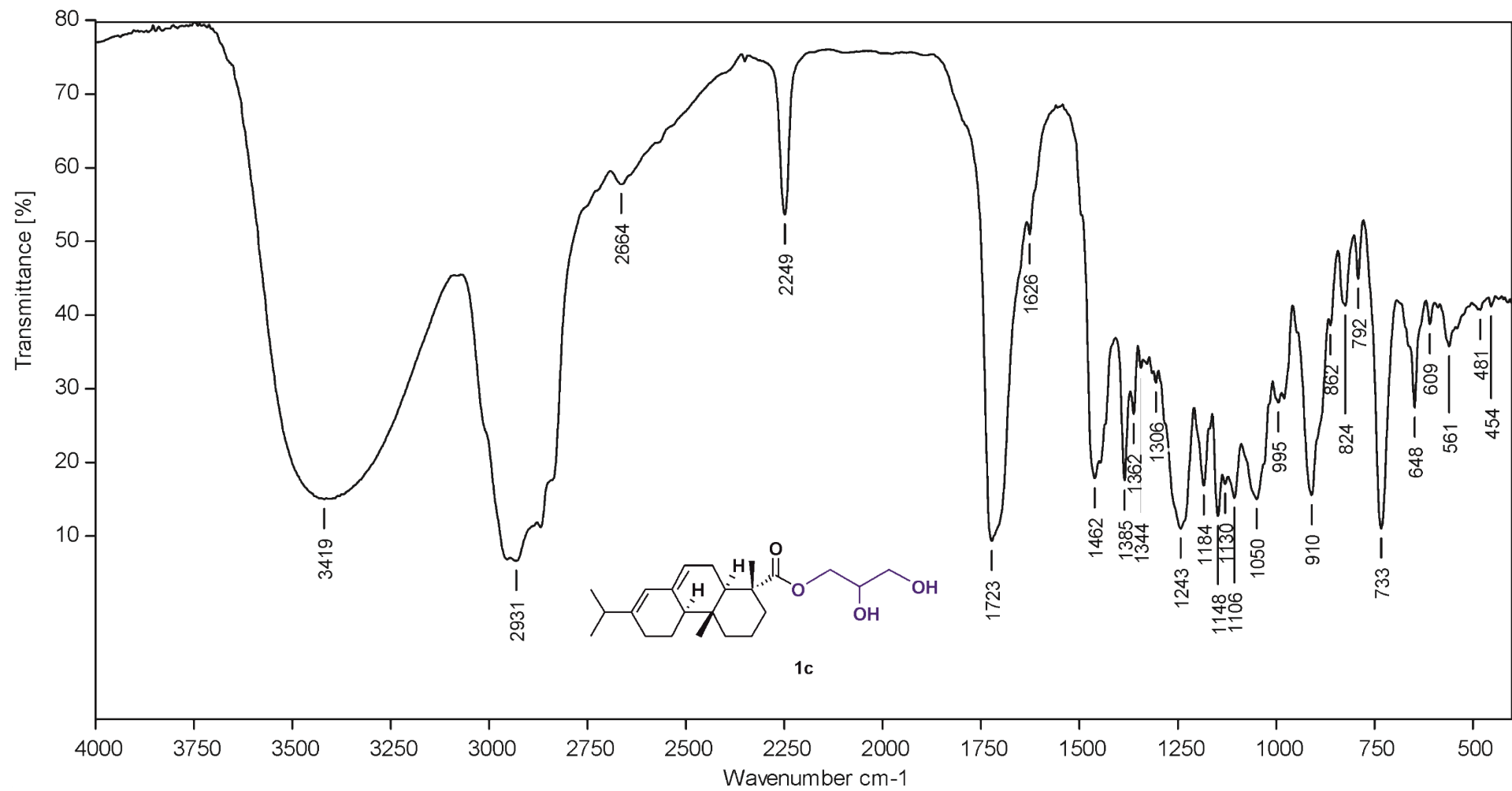


Figure S6. IR (KBr) spectrum of **1c**.

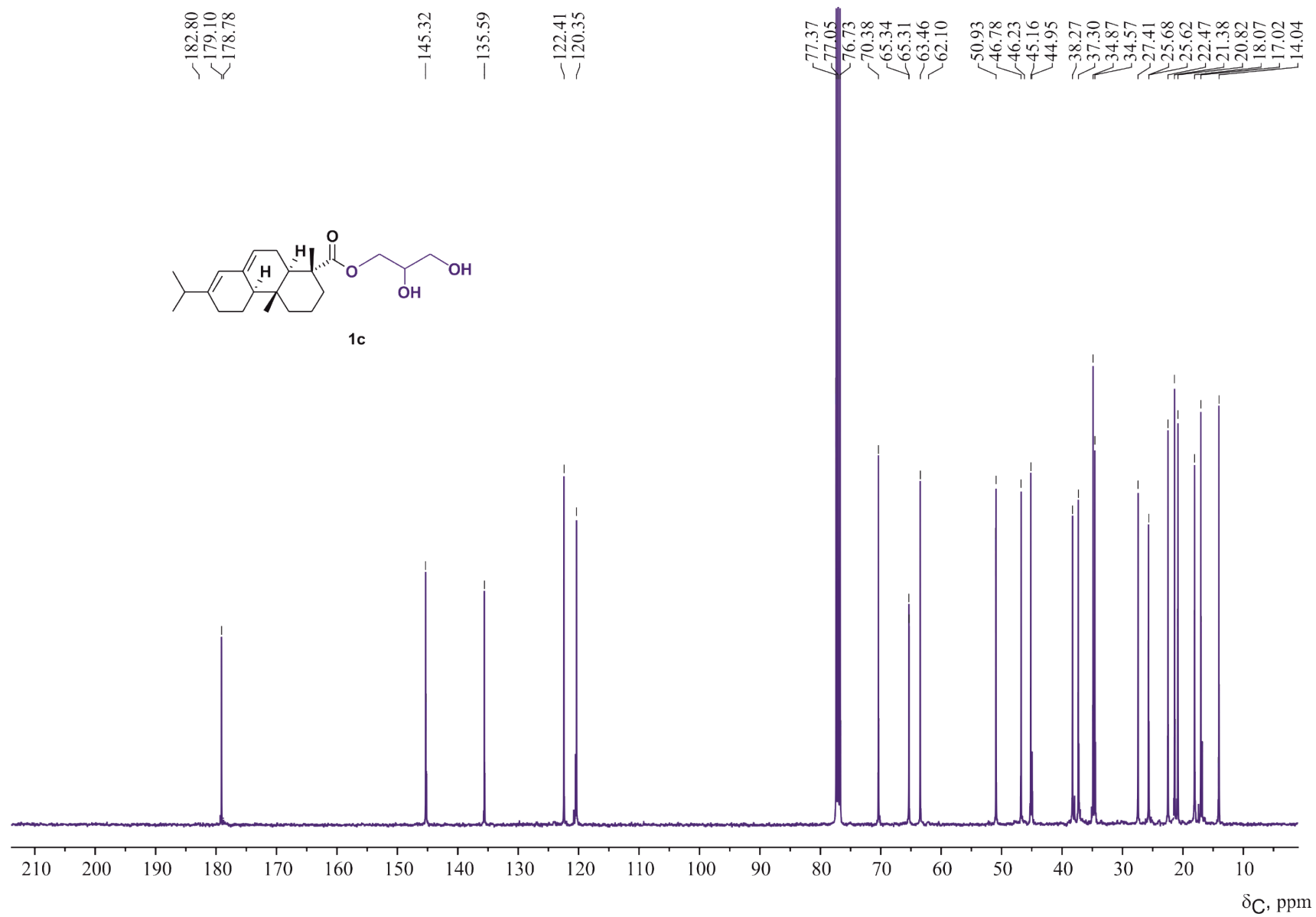


Figure S7. ^{13}C - $\{^1\text{H}\}$ NMR (CDCl₃, 100.6 MHz) spectrum of **1c**.

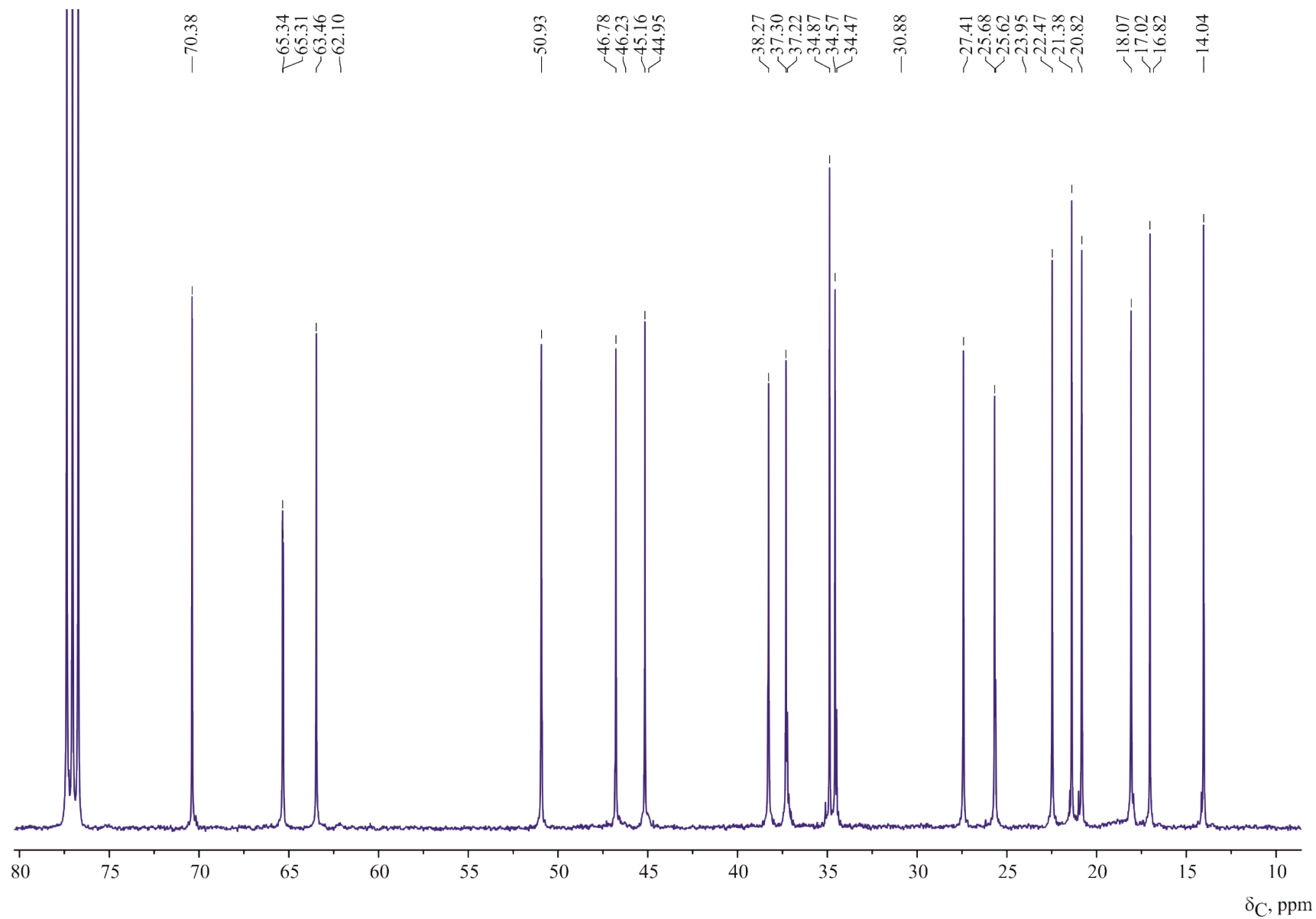


Figure S8. Fragment of ^{13}C - $\{^1\text{H}\}$ NMR (CDCl_3 , 100.6 MHz) spectrum of **1c**.

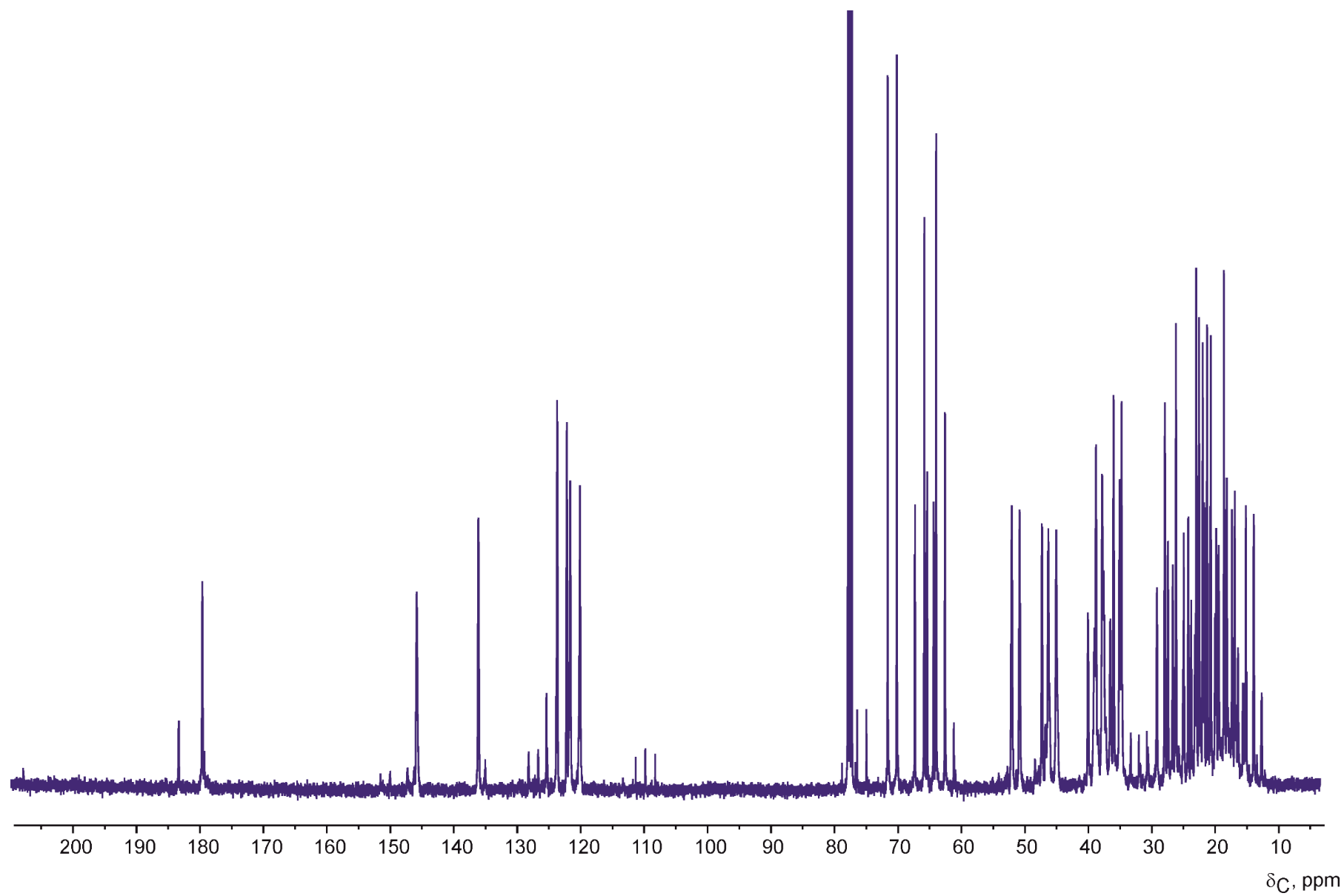


Figure S9. ^{13}C NMR (CDCl_3 , 100.6 MHz) spectrum of **1c**.

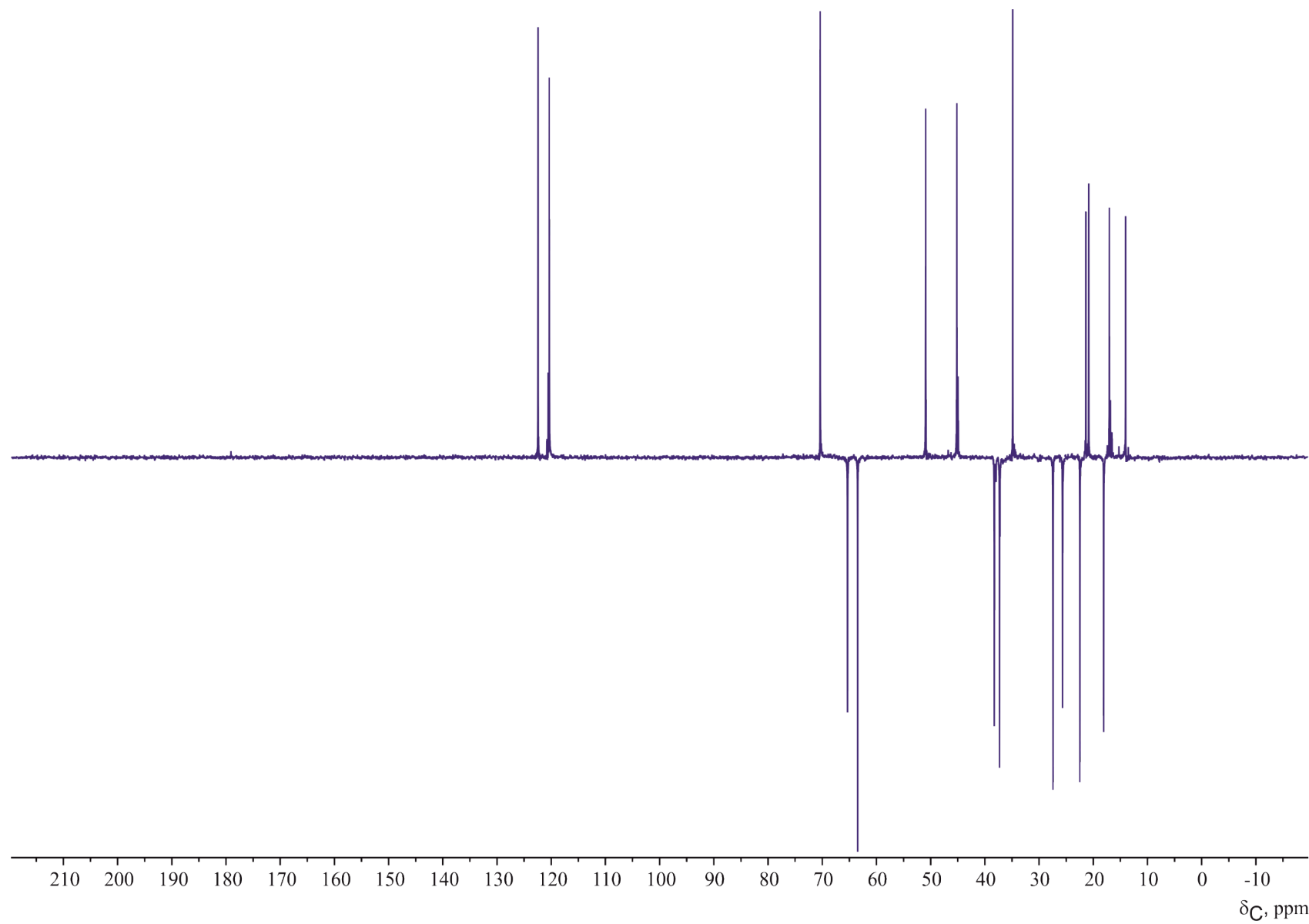


Figure S10. ^{13}C - $\{^1\text{H}\}$ apt NMR (CDCl_3 , 100.6 MHz) spectrum of **1c**.

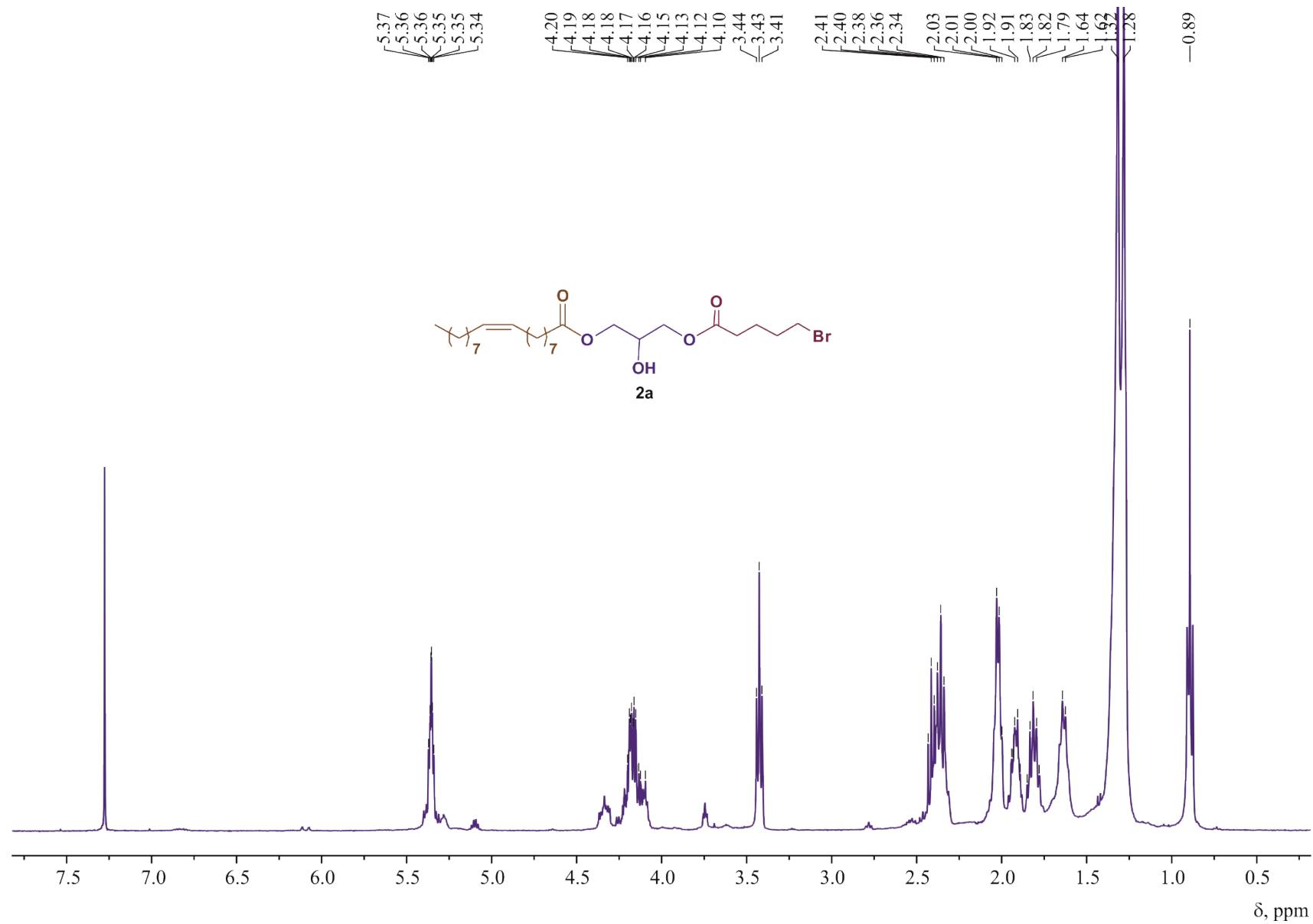


Figure S11. ¹H NMR spectrum (400 MHz, CDCl₃) of compound **2a**.

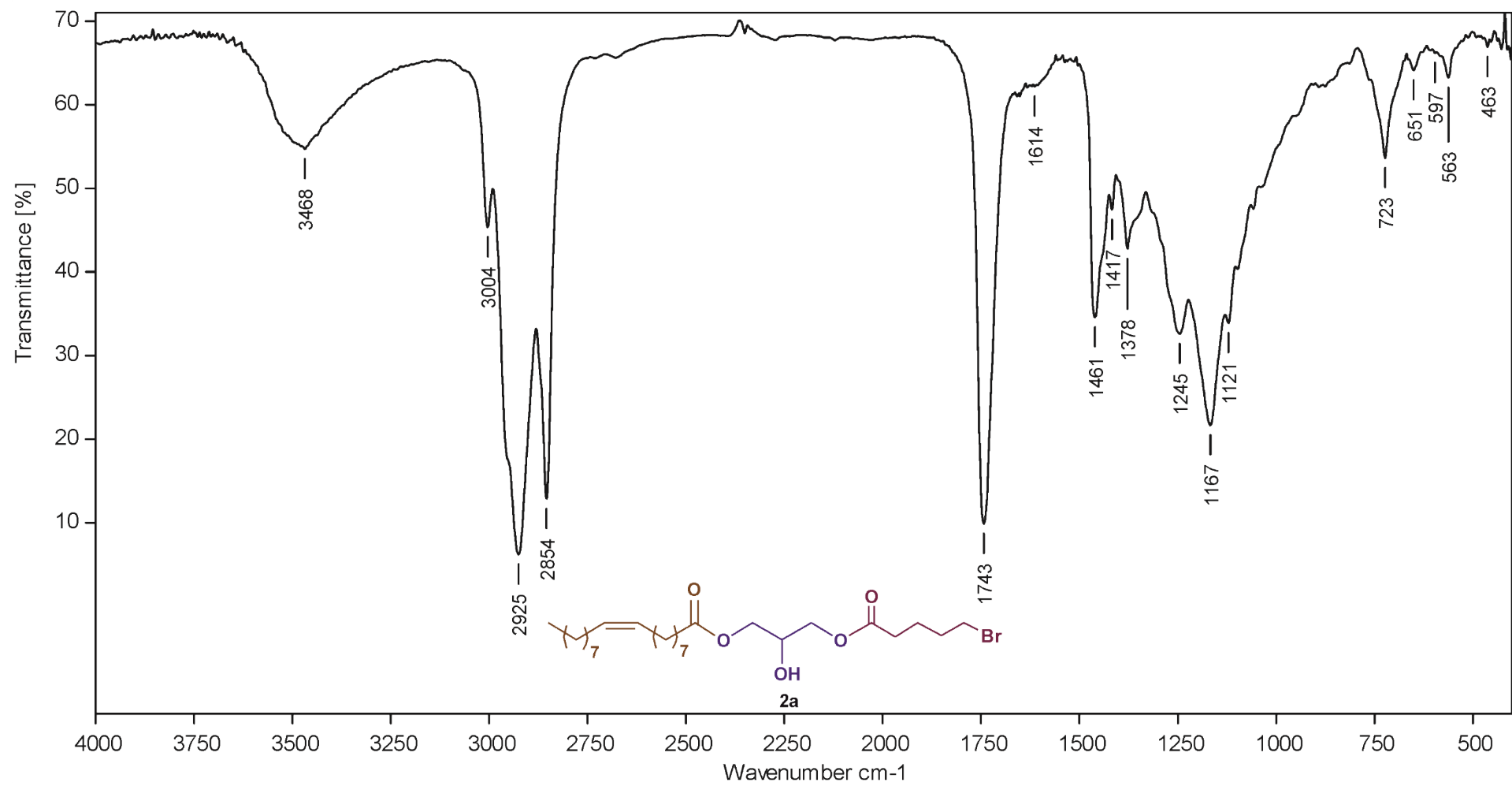


Figure S12. IR (KBr) spectrum of **2a**.

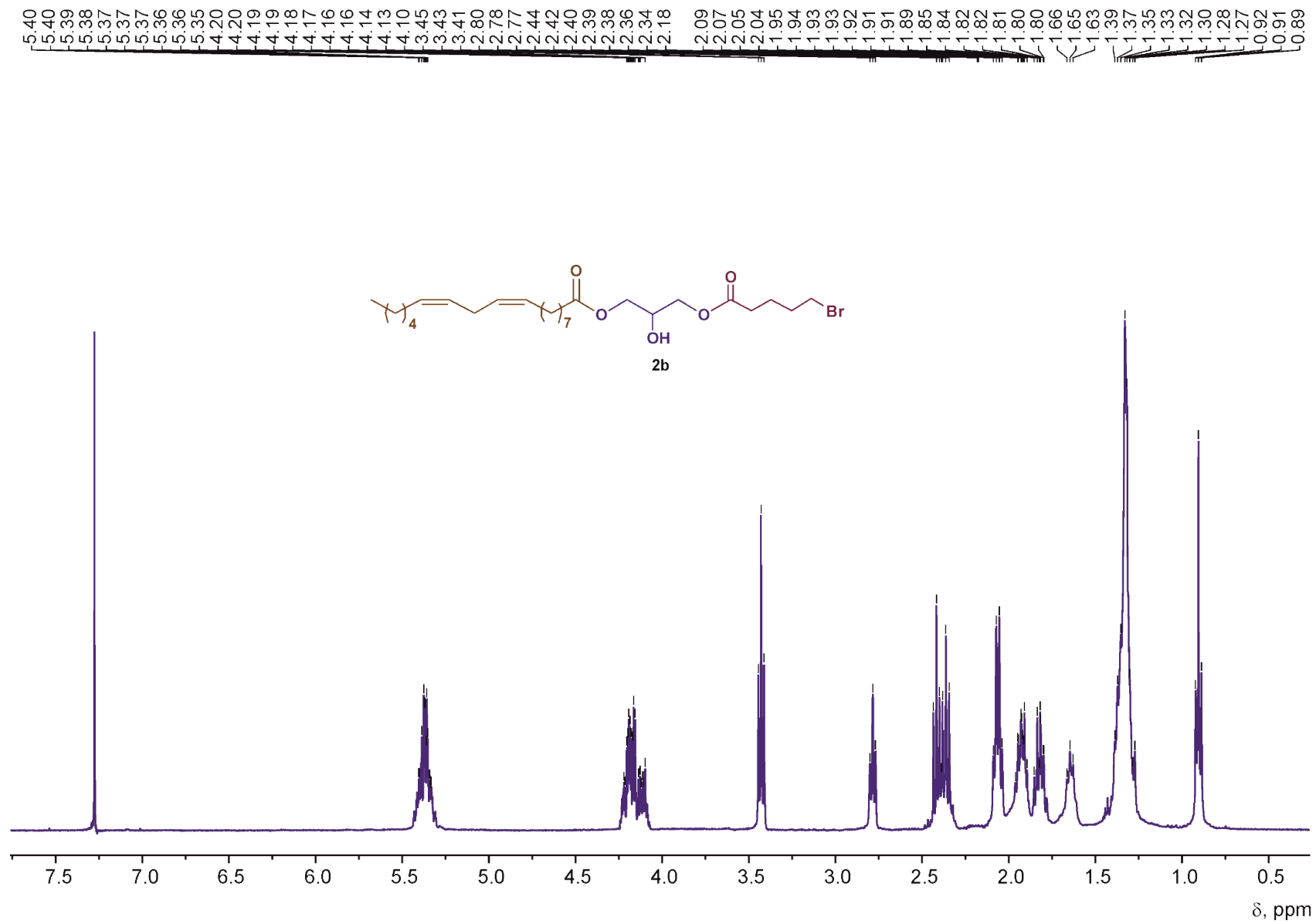


Figure S13. ¹H NMR spectrum (400 MHz, CDCl₃) of compound **2b**.

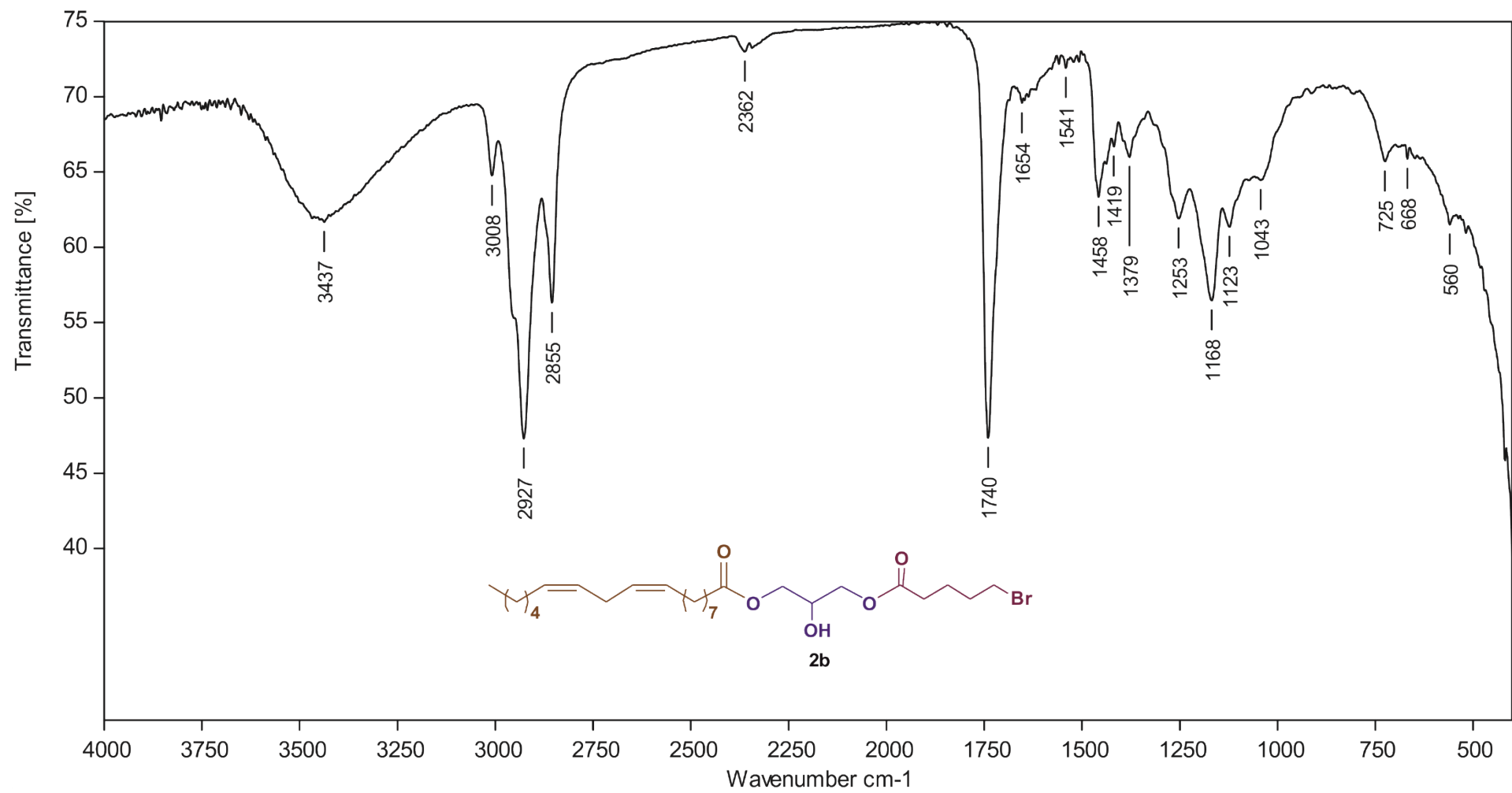


Figure S14. IR (KBr) spectrum of **2b**.

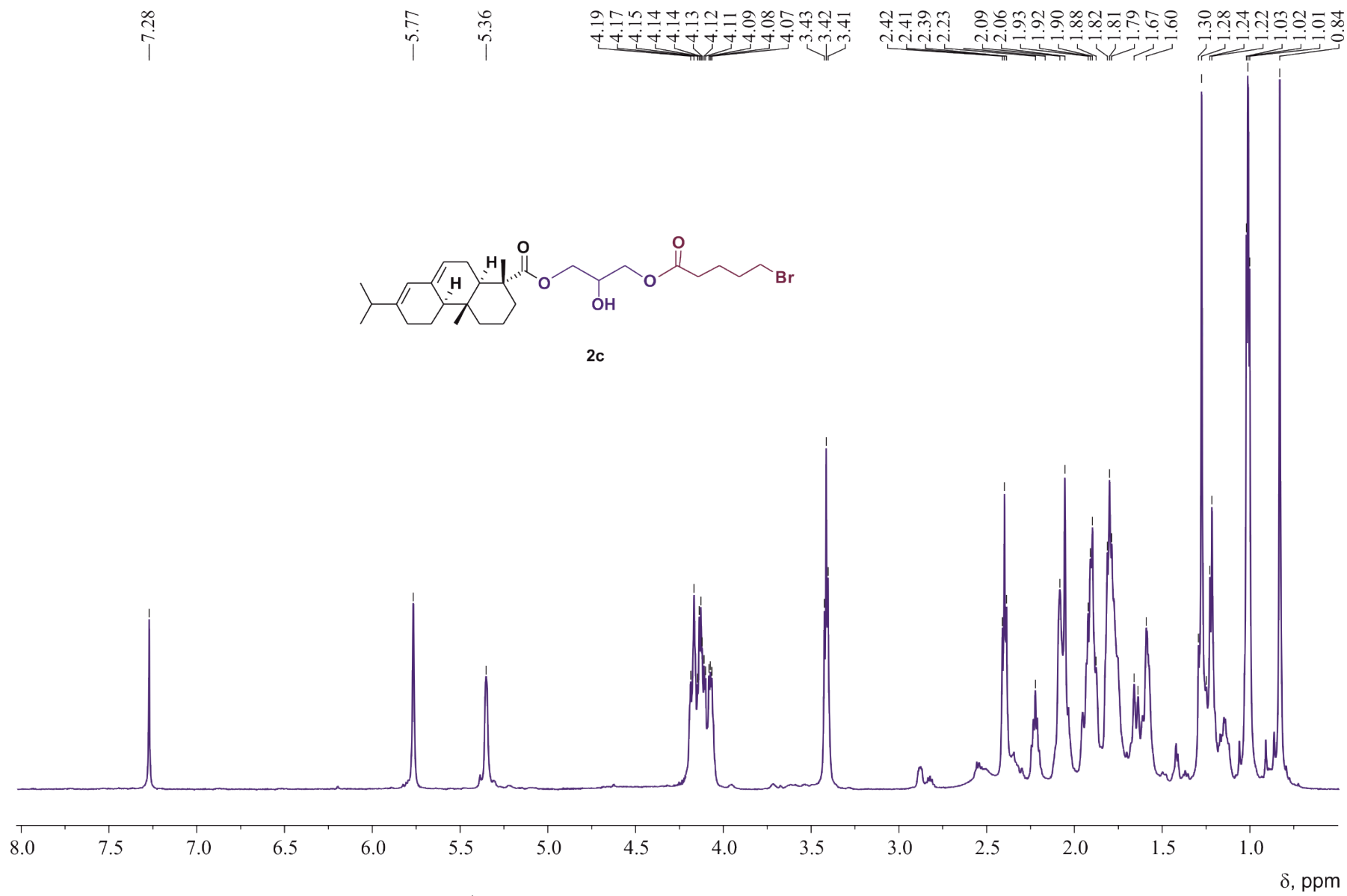


Figure S15. ¹H NMR spectrum (400 MHz, CDCl₃) of compound **2c**.

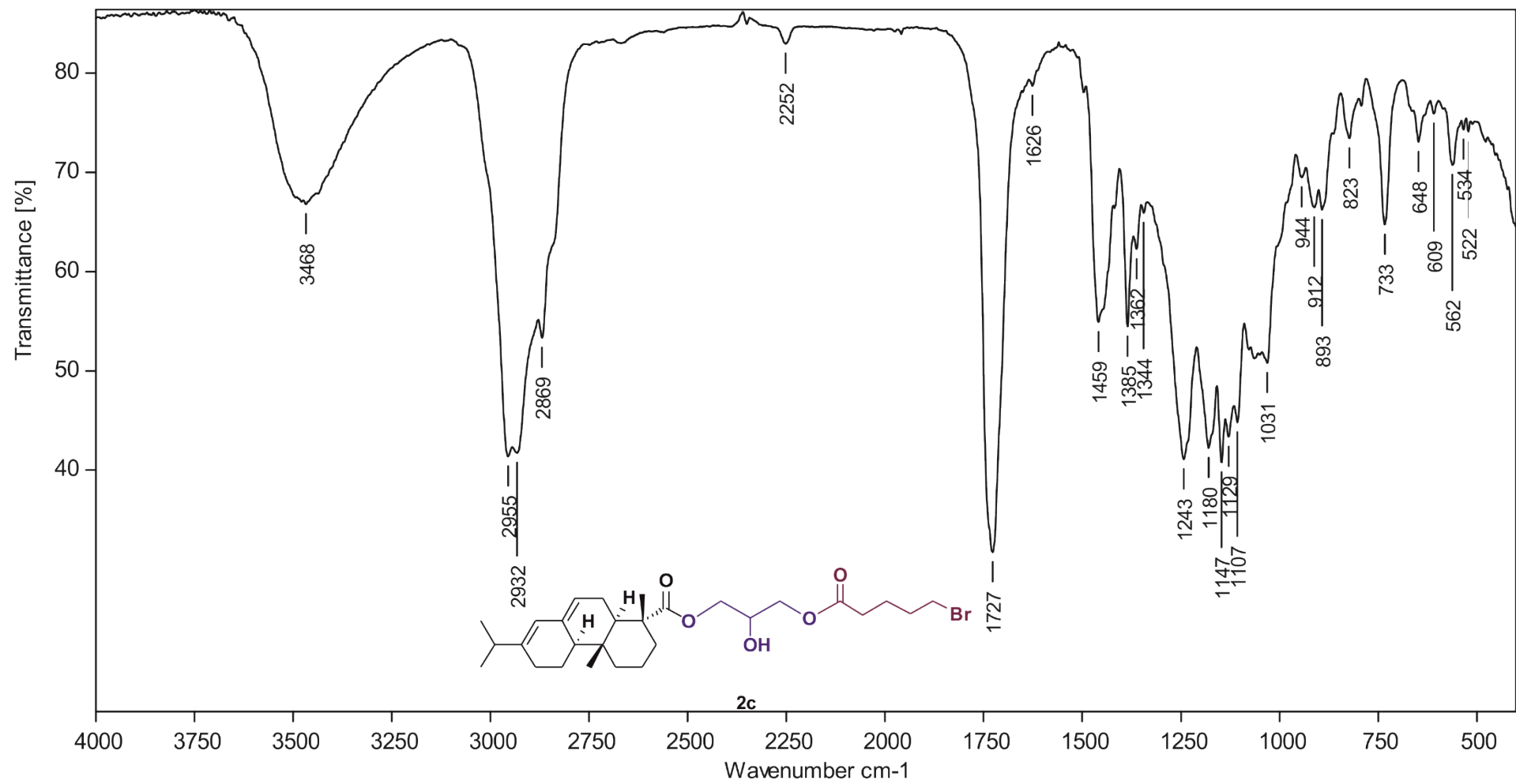


Figure S16. IR (KBr) spectrum of **2c**.

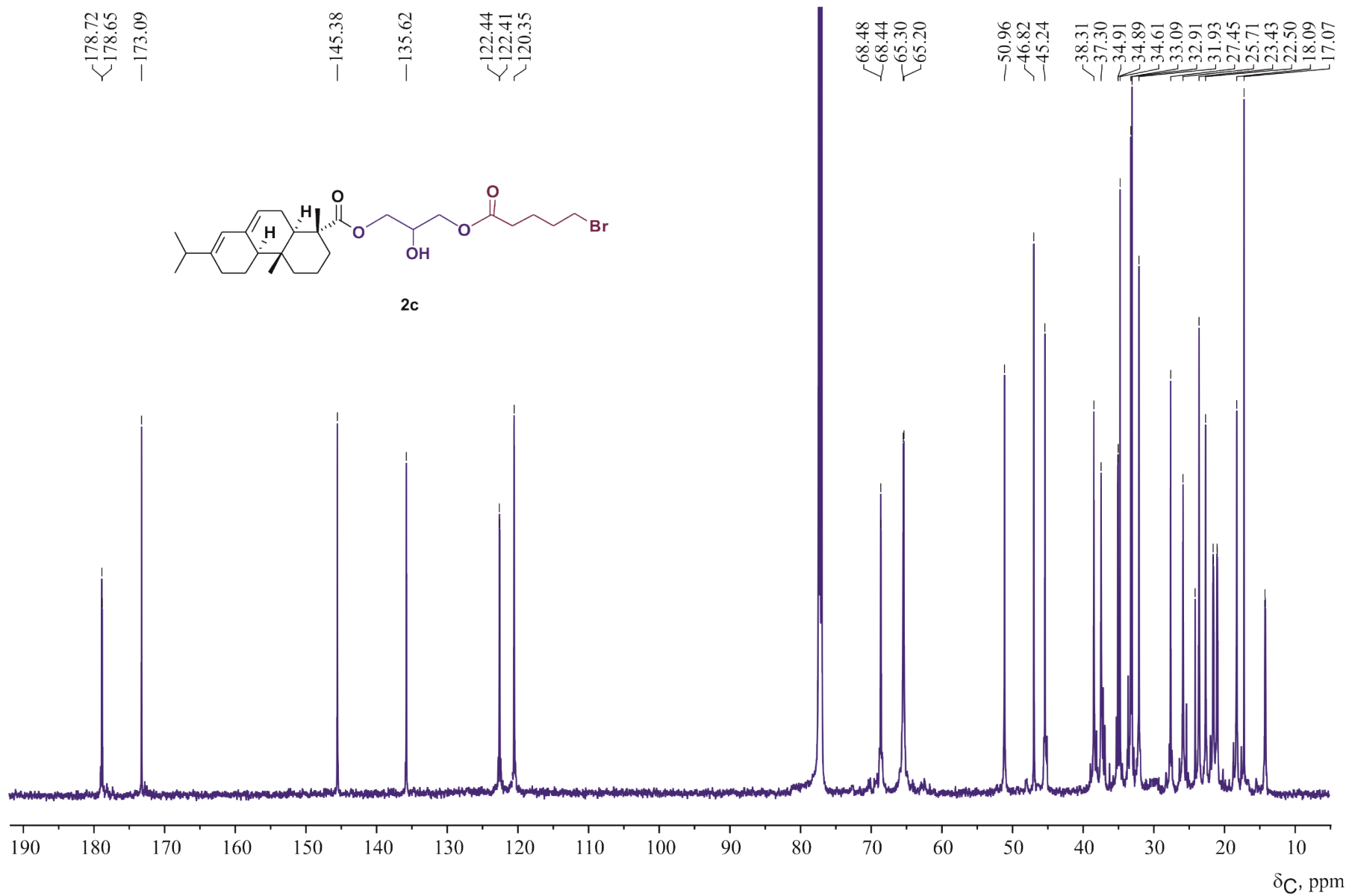


Figure S17. $^{13}\text{C}\{-^1\text{H}\}$ NMR (CDCl_3 , 100.6 MHz) spectrum of **2c**.

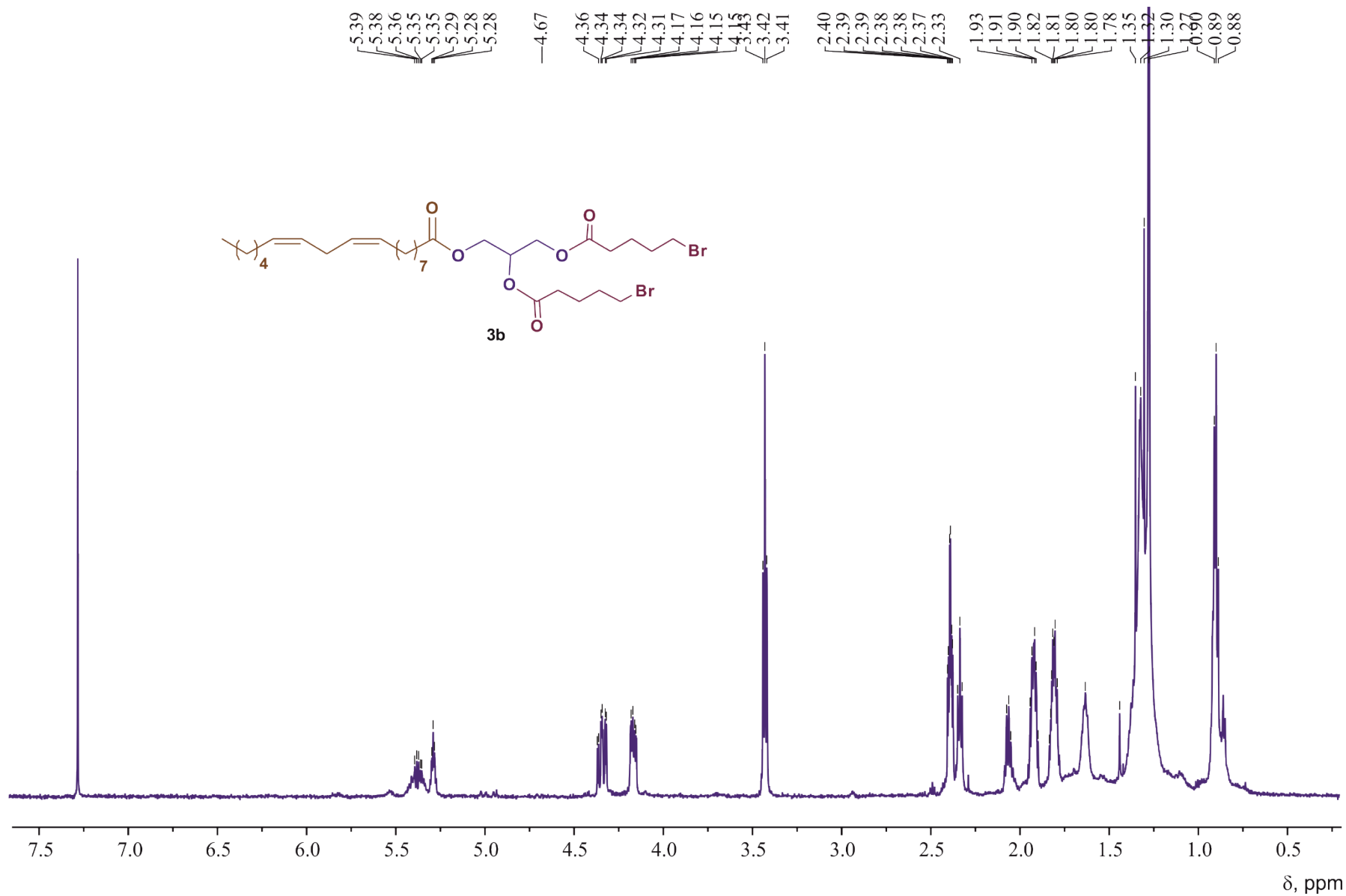


Figure S18. ¹H NMR spectrum (400 MHz, CDCl₃) of compound **3b**.

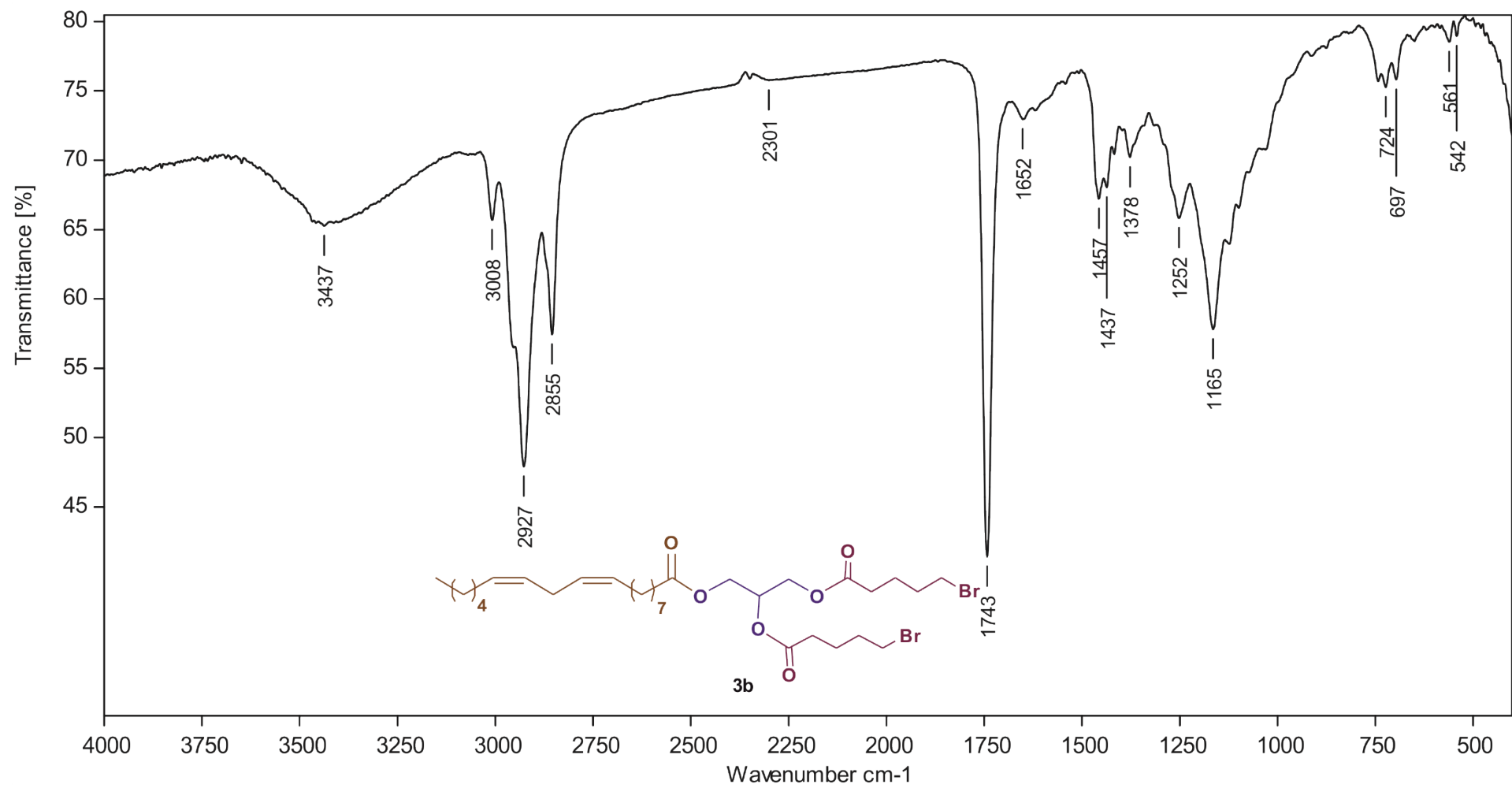


Figure S19. IR (KBr) spectrum of **3b**.

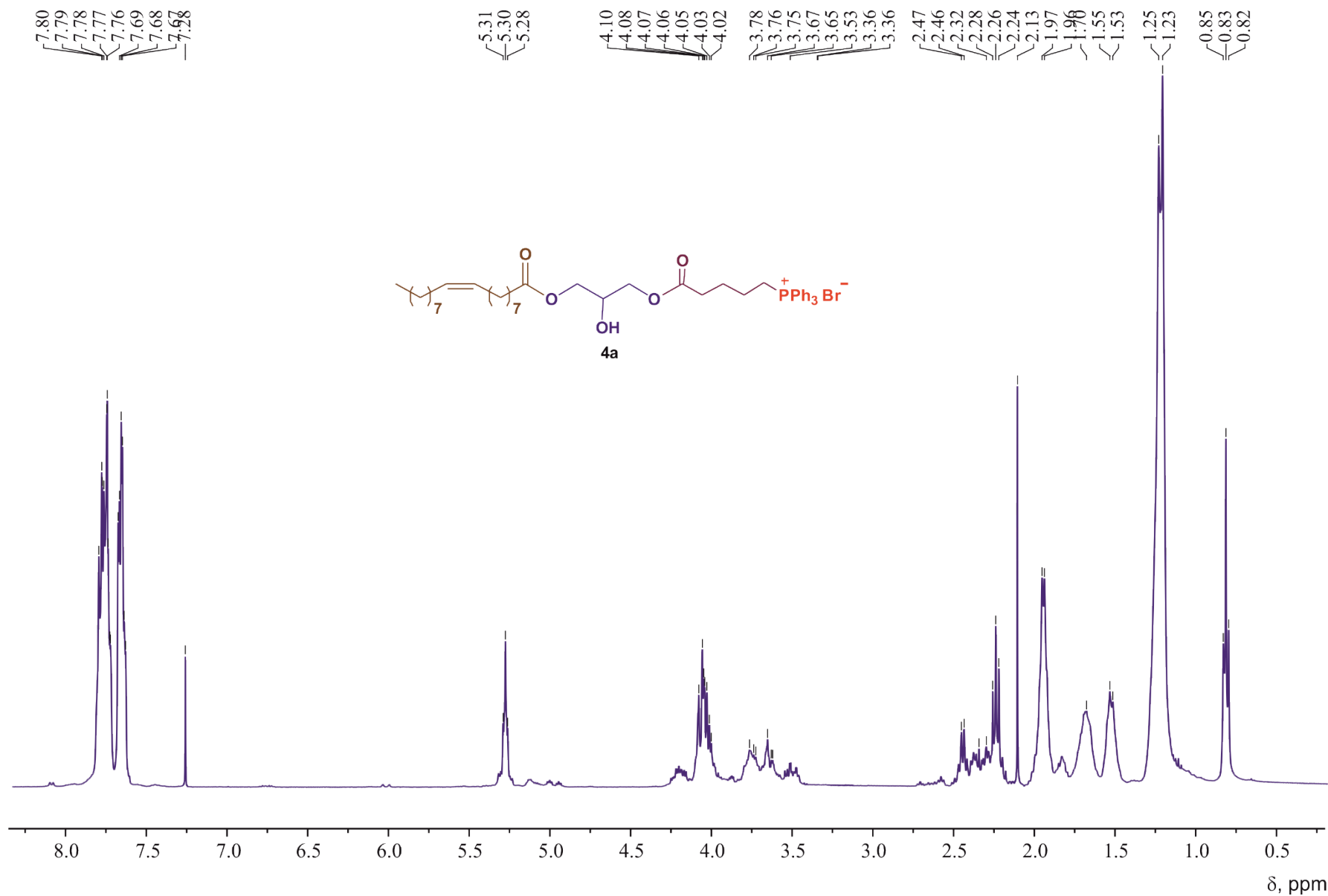


Figure S20. ^1H NMR spectrum (400 MHz, CDCl_3) of compound **4a**.

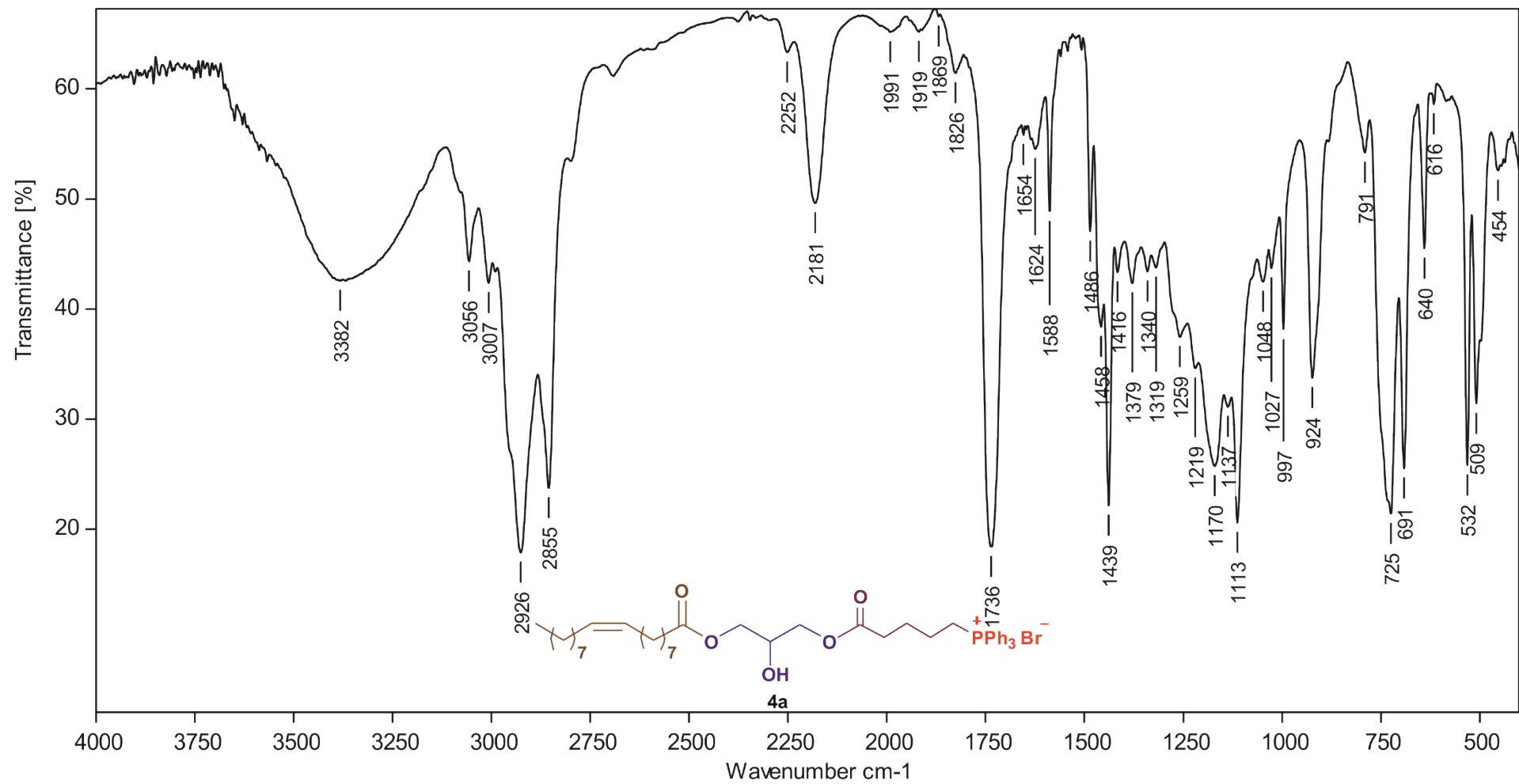


Figure S21. IR (KBr) spectrum of **4a**.

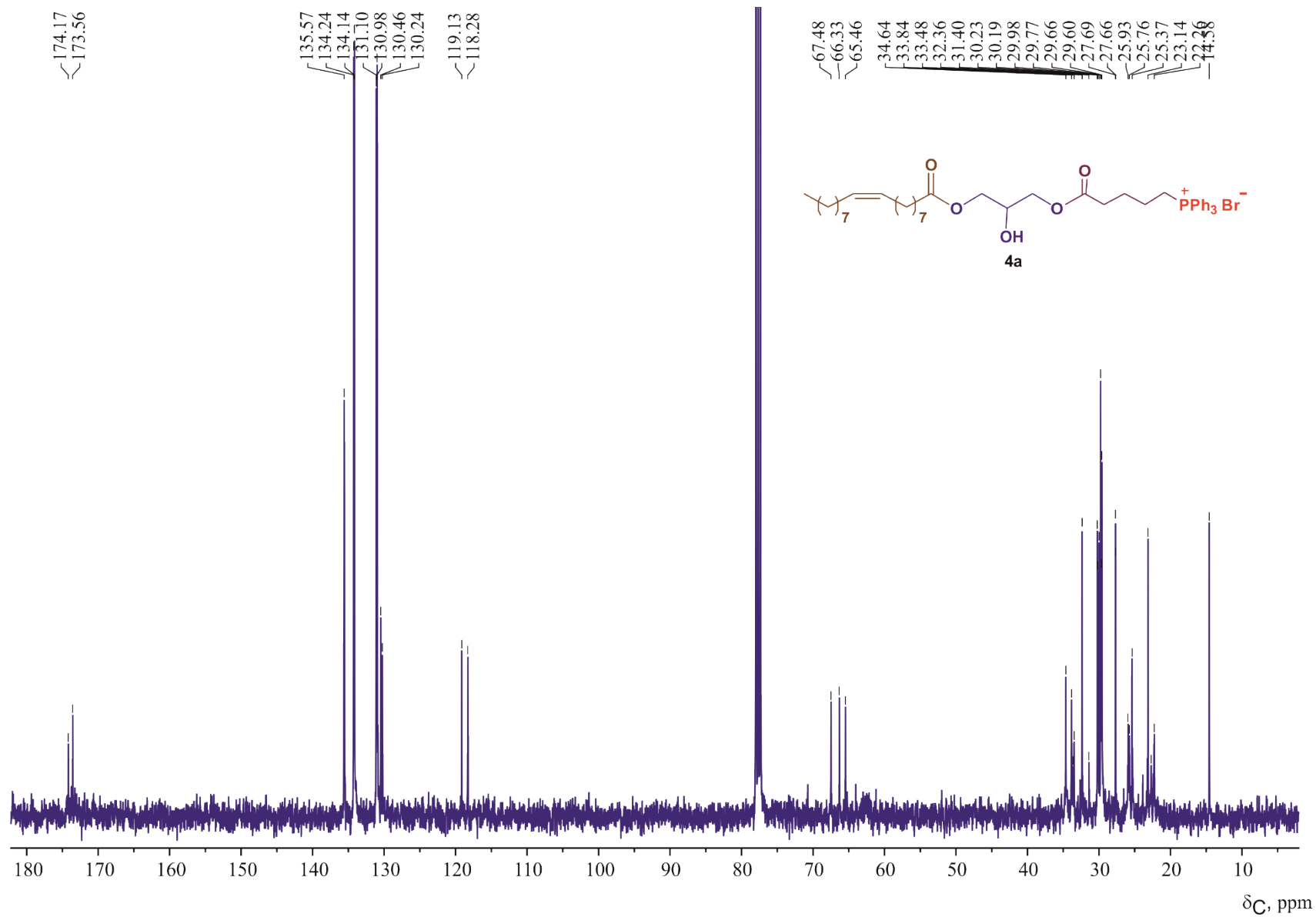


Figure S22. ¹³C-¹H NMR (CDCl₃, 100.6 MHz) spectrum of **4a**.

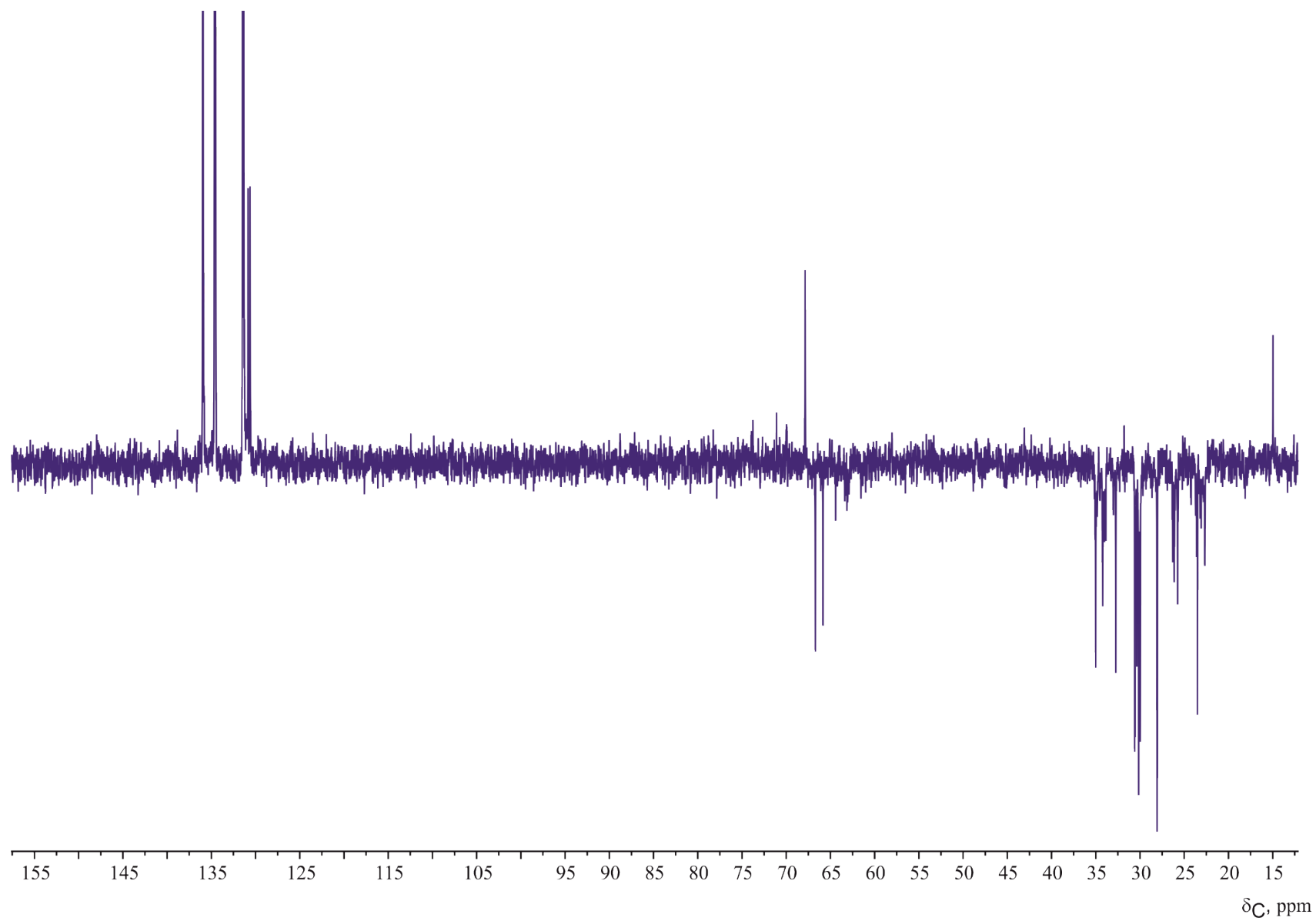


Figure S23. ^{13}C - $\{^1\text{H}\}$ apt NMR (CDCl_3 , 100.6 MHz) spectrum of **4a**.

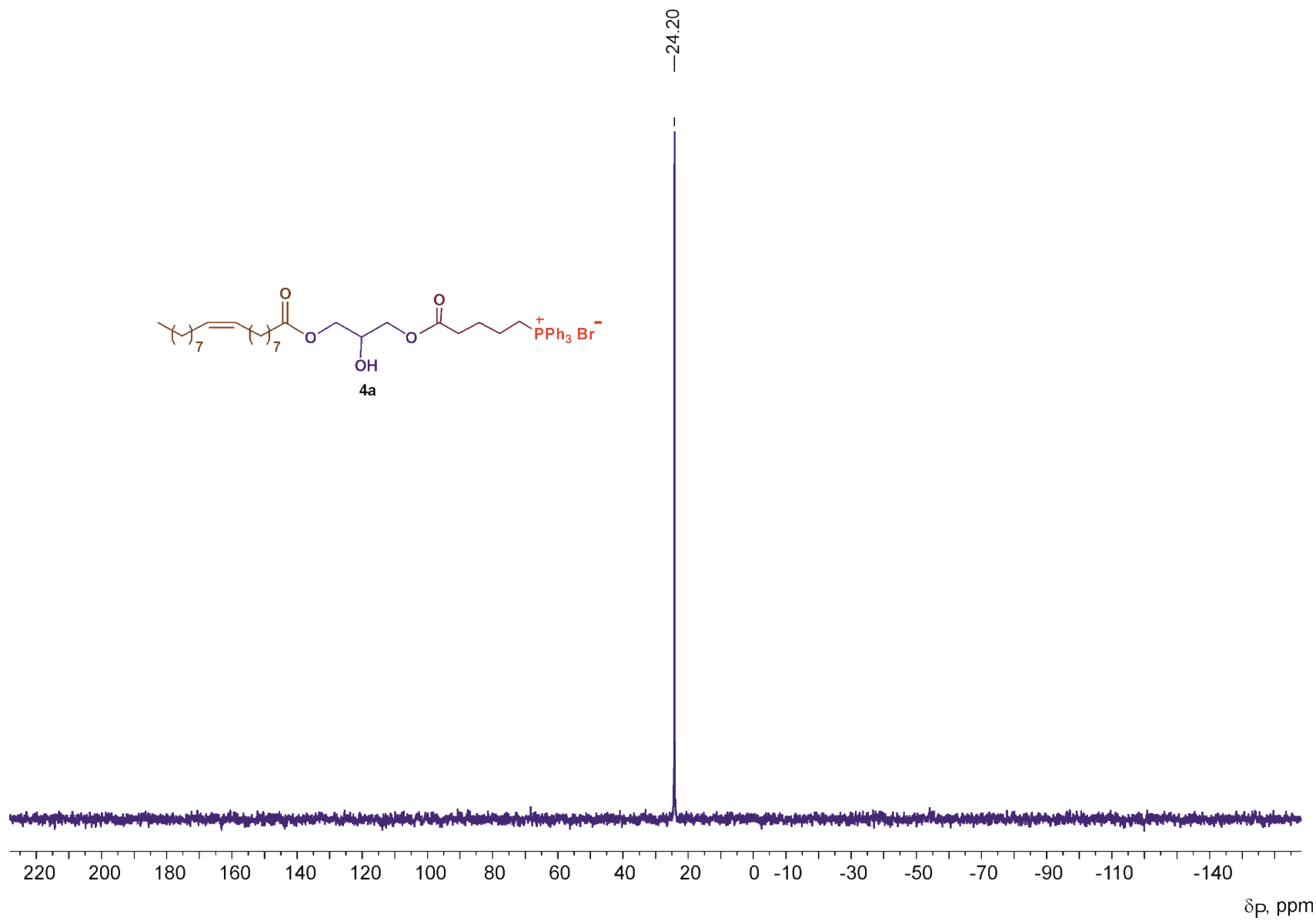


Figure S24. $^{31}\text{P}\{-^1\text{H}\}$ NMR (CDCl_3 , 162 MHz) spectrum of **4a**.

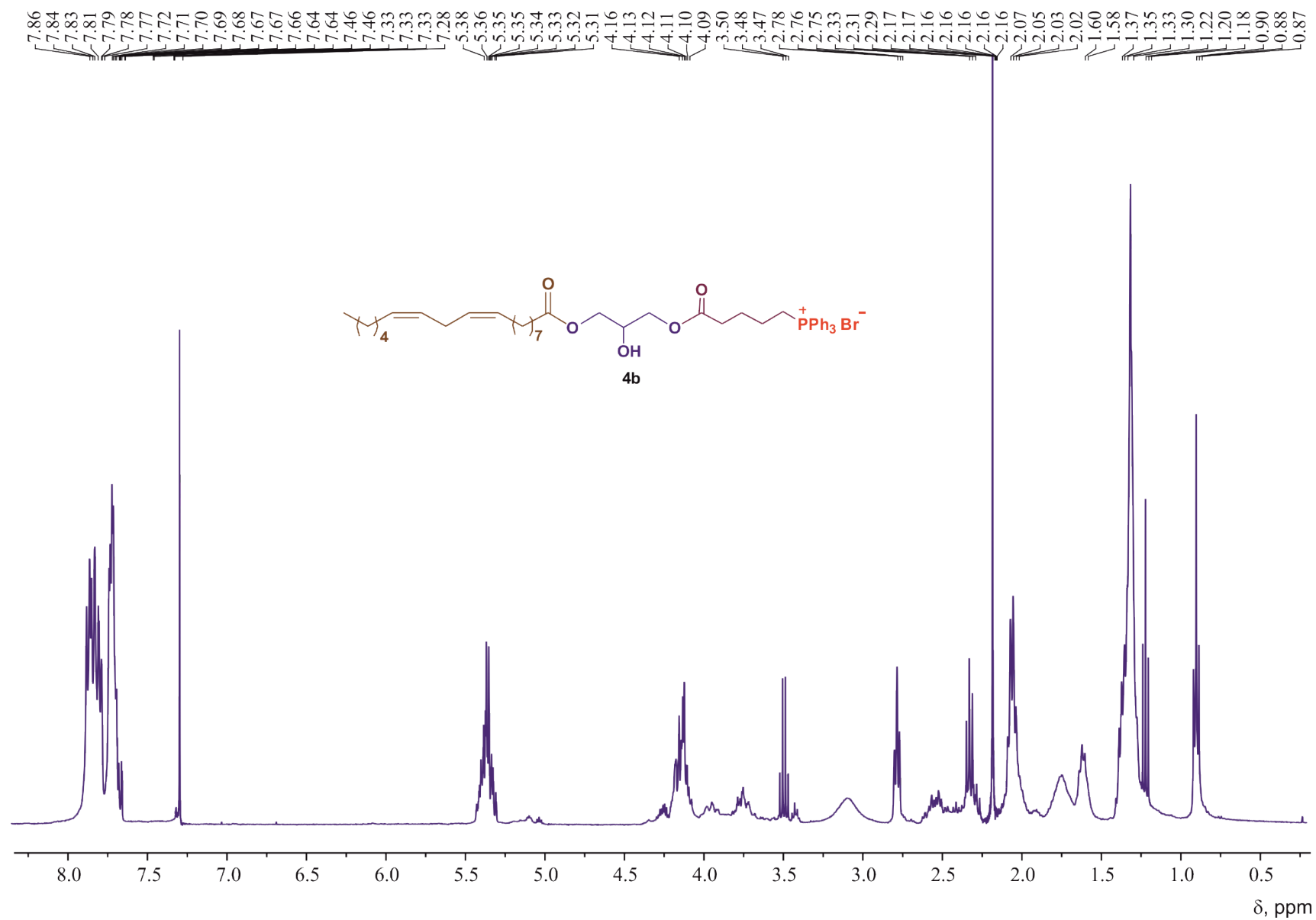


Figure S25. ^1H NMR spectrum (400 MHz, CDCl_3) of compound **4b**.

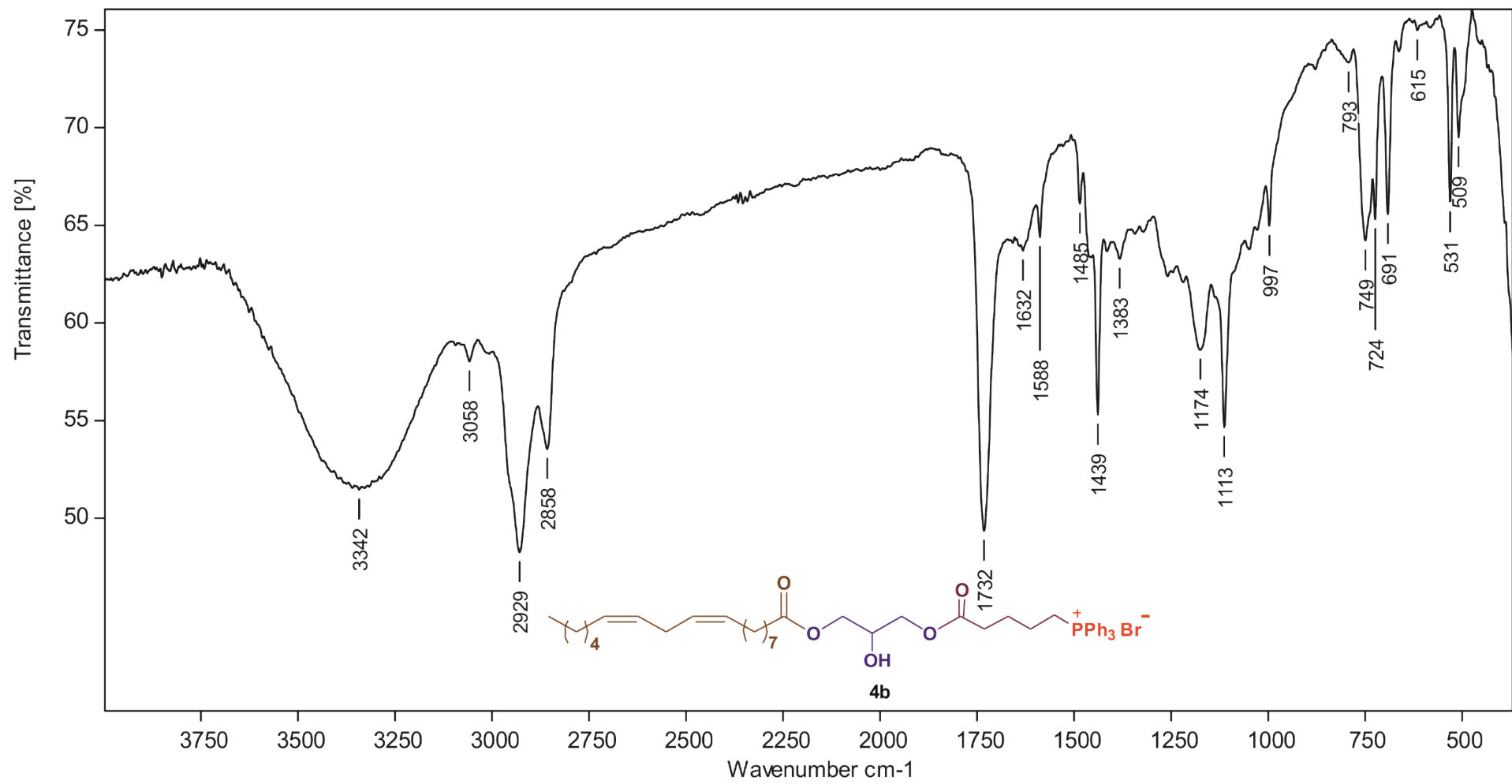


Figure S26. IR (KBr) spectrum of **4b**.

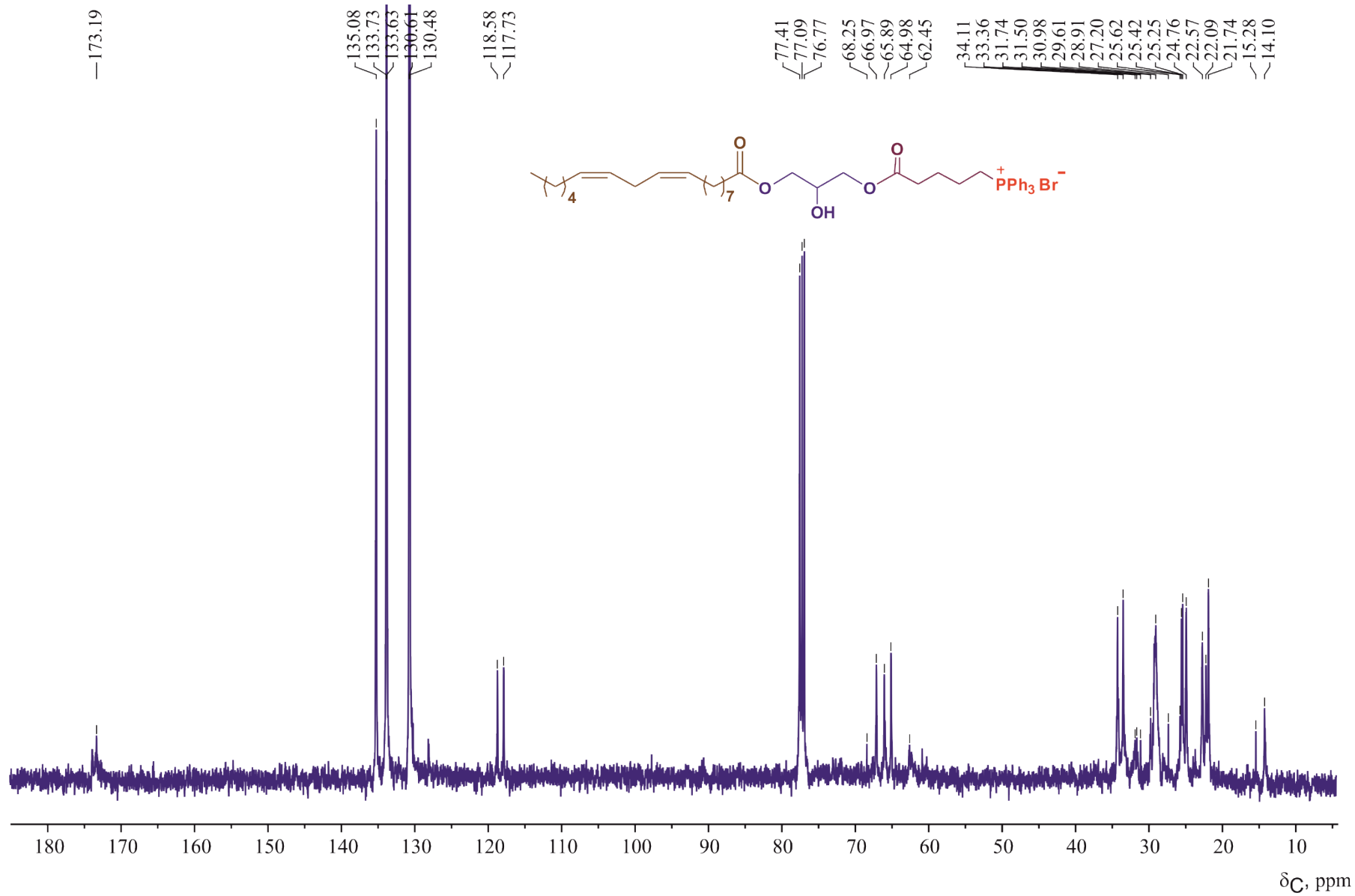


Figure S27. ^{13}C - $\{^1\text{H}\}$ NMR (CDCl_3 , 100.6 MHz) spectrum of **4b**.

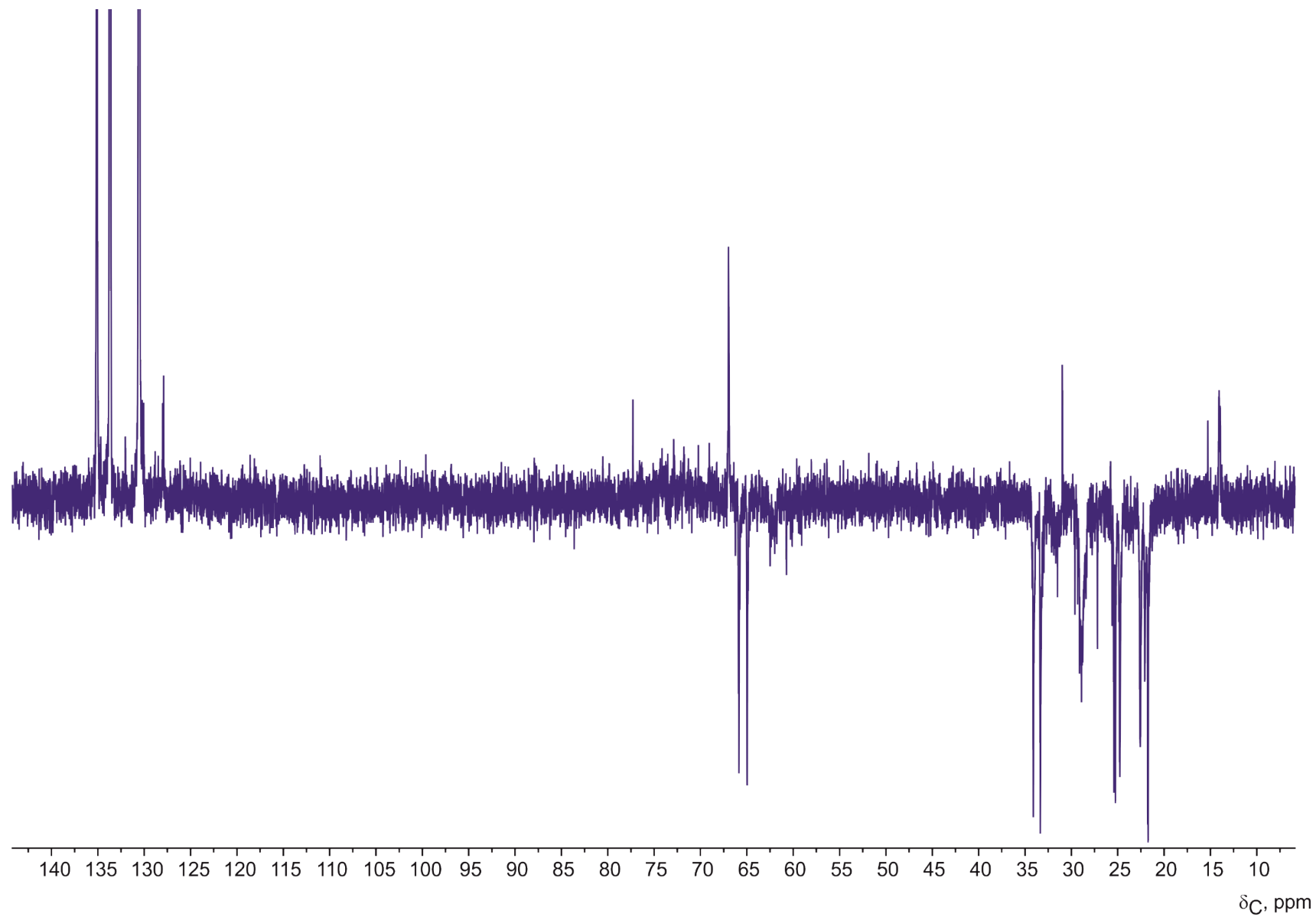


Figure S28. ^{13}C - $\{^1\text{H}\}$ apt NMR (CDCl_3 , 100.6 MHz) spectrum of **4b**.

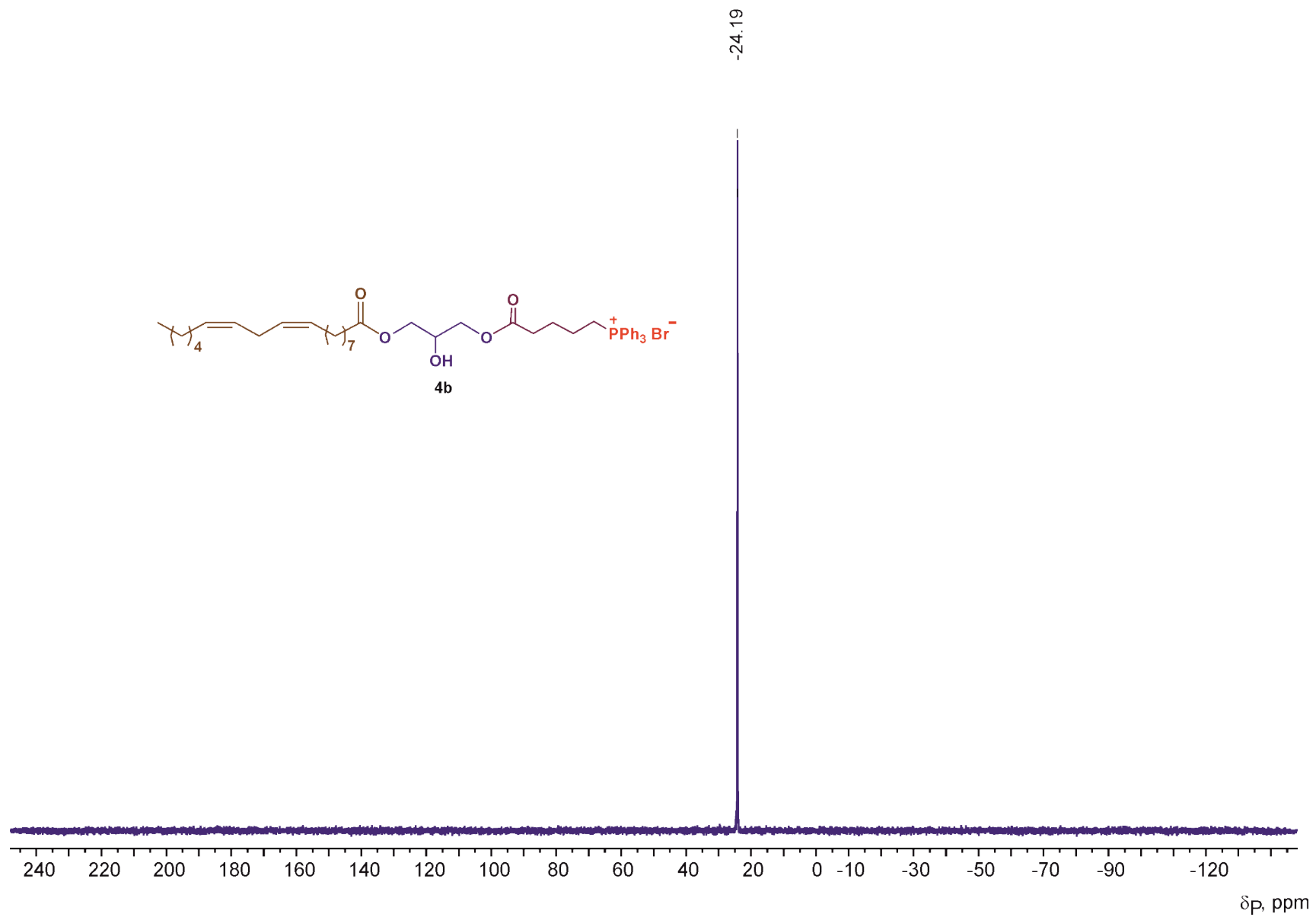


Figure S29. $^{31}\text{P}\{-^1\text{H}\}$ NMR (CDCl_3 , 162 MHz) spectrum of **4b**.

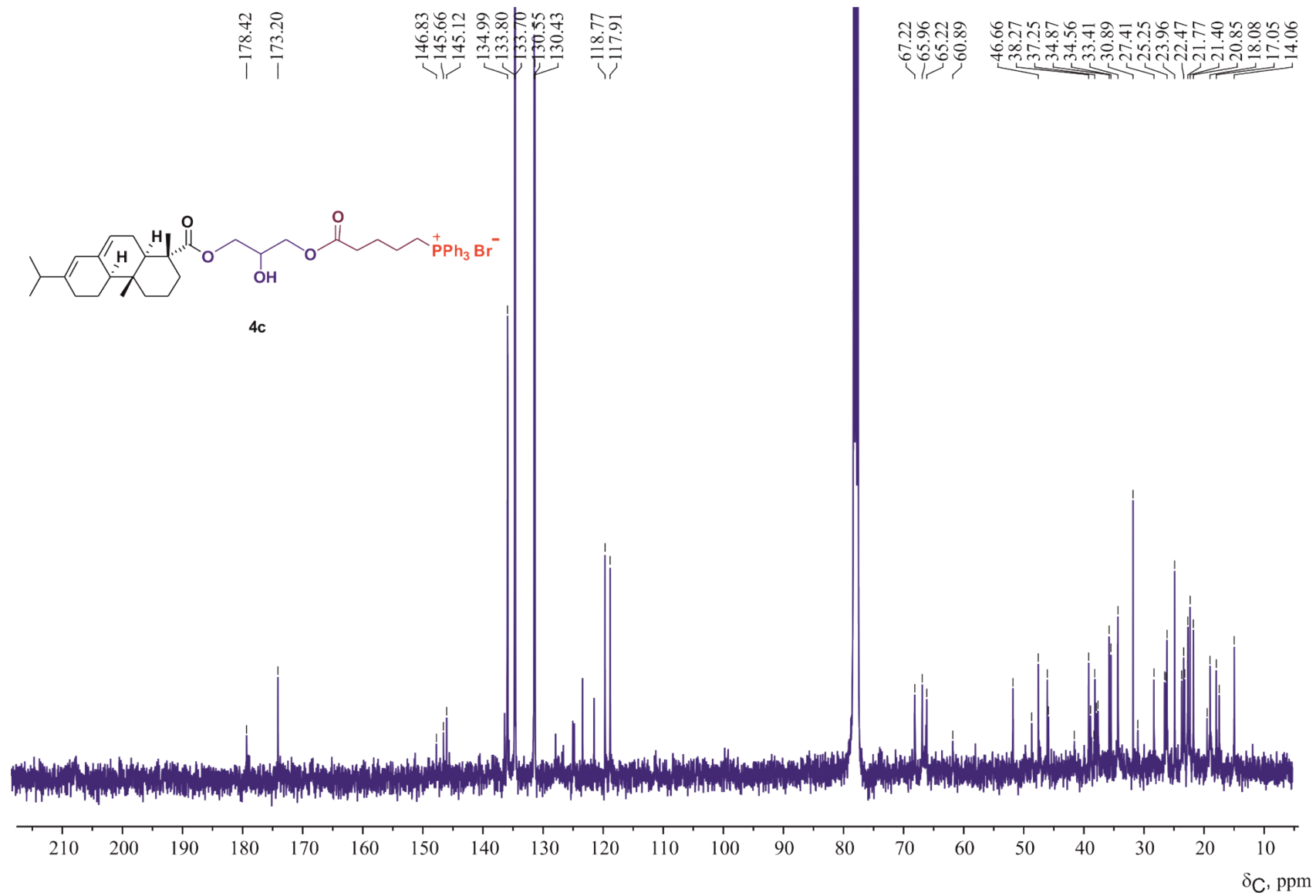


Figure S30. ^{13}C - $\{^1\text{H}\}$ NMR (CDCl₃, 100.6 MHz) spectrum of **4c**.

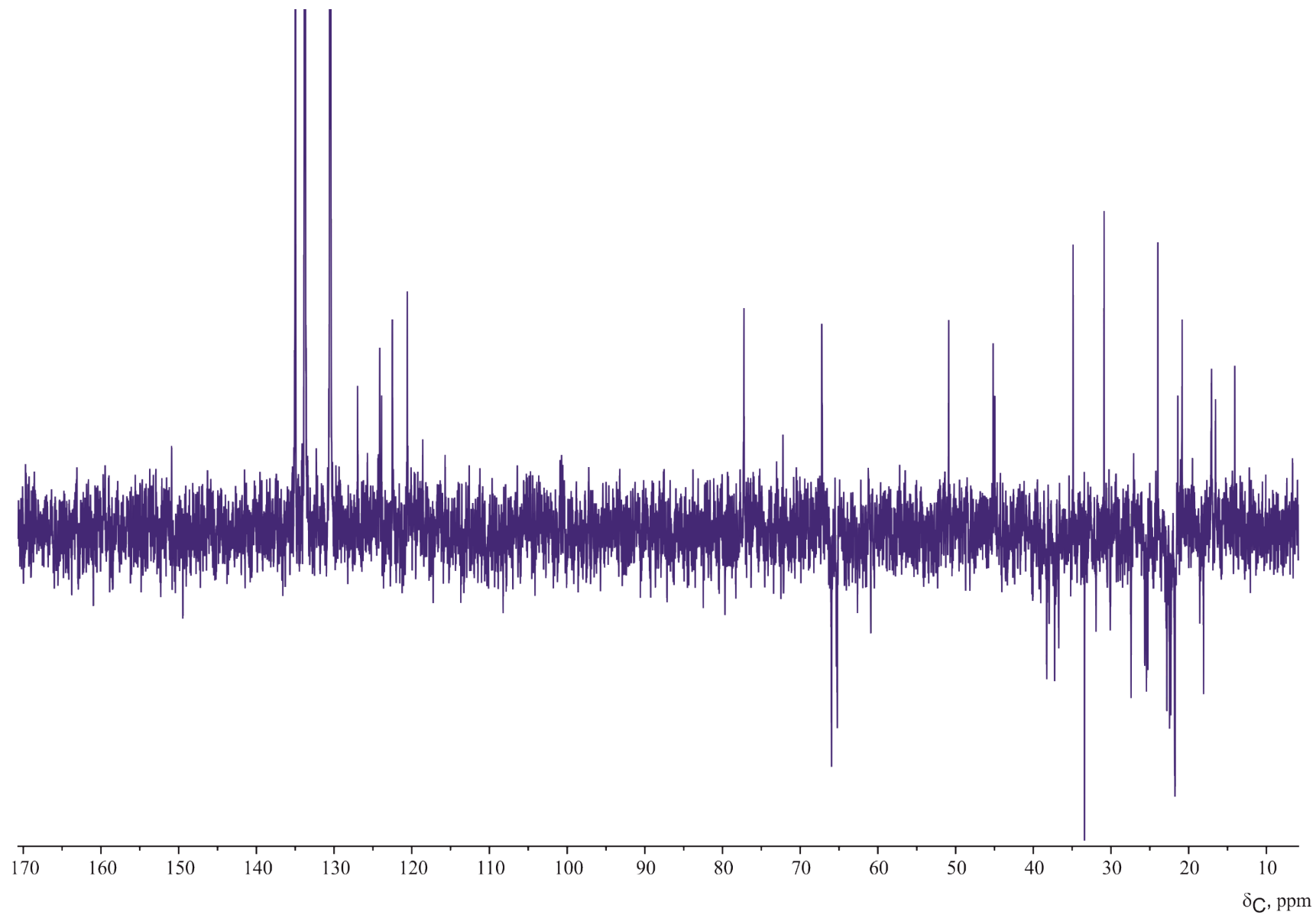


Figure S31. ^{13}C - $\{^1\text{H}\}$ apt NMR (CDCl_3 , 100.6 MHz) spectrum of **4c**.

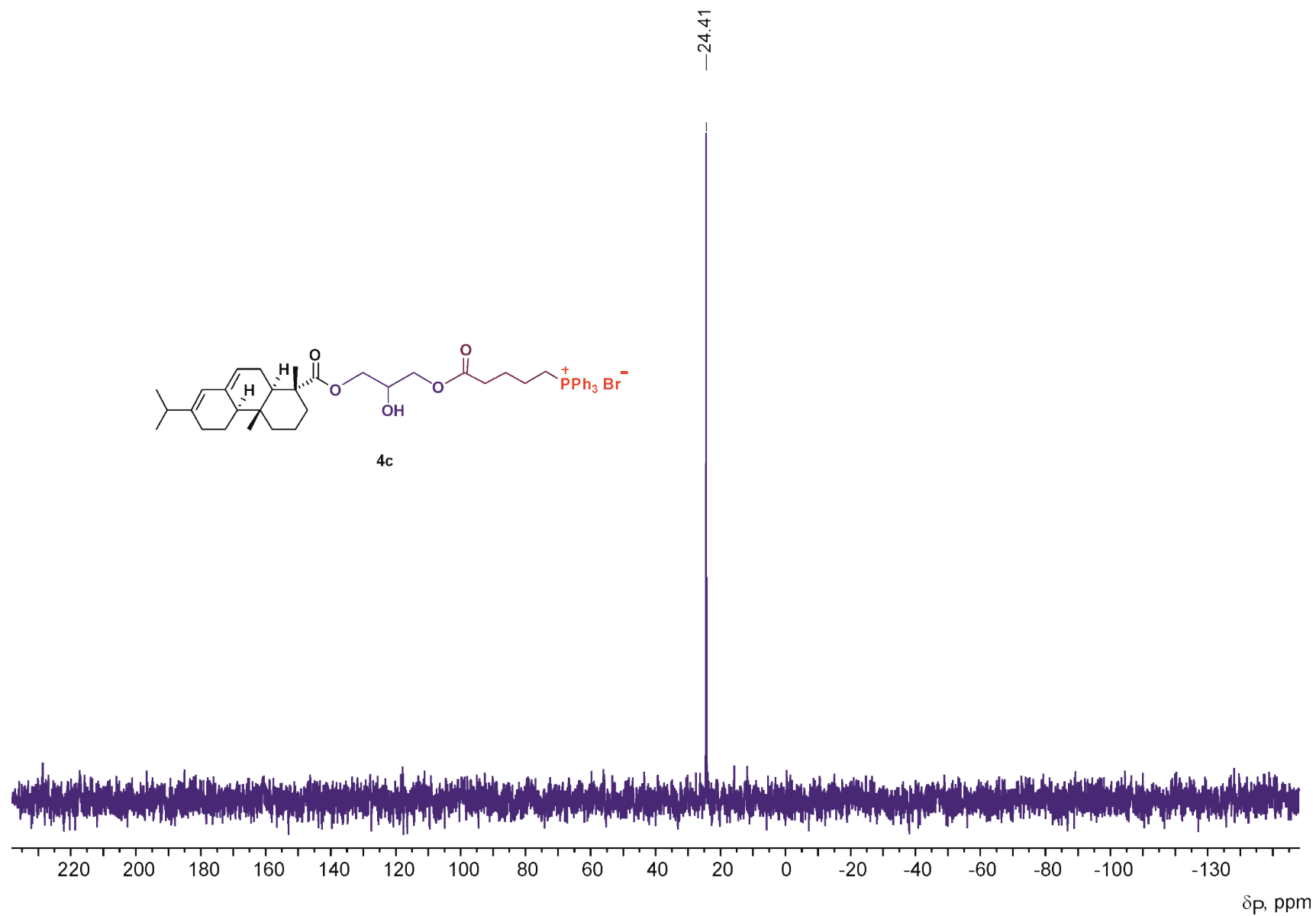


Figure S32. ^{31}P - $\{^1\text{H}\}$ NMR (CDCl_3 , 162 MHz) spectrum of **4c**.

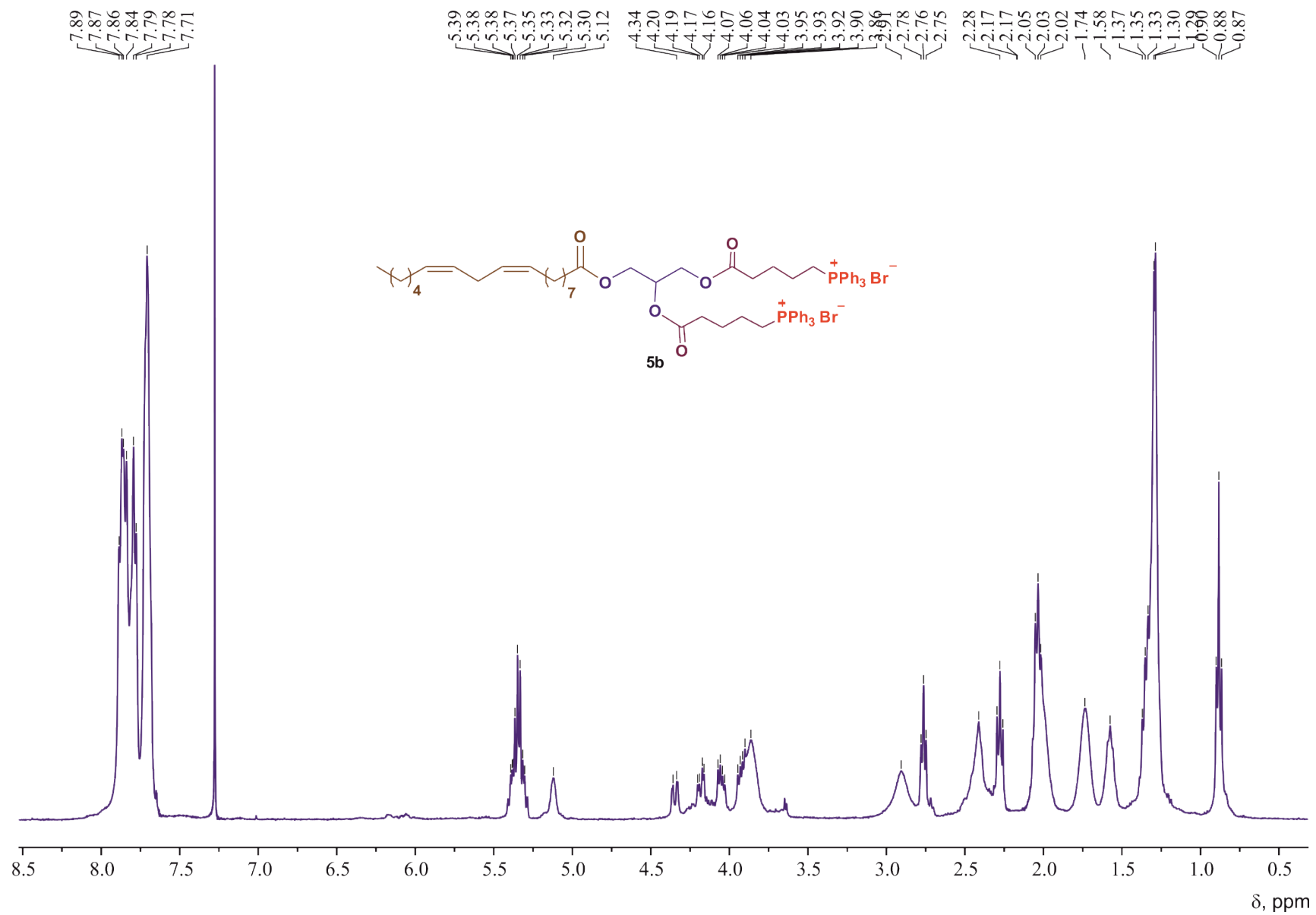


Figure S33. ¹H NMR spectrum (400 MHz, CDCl₃) of compound **5b**.

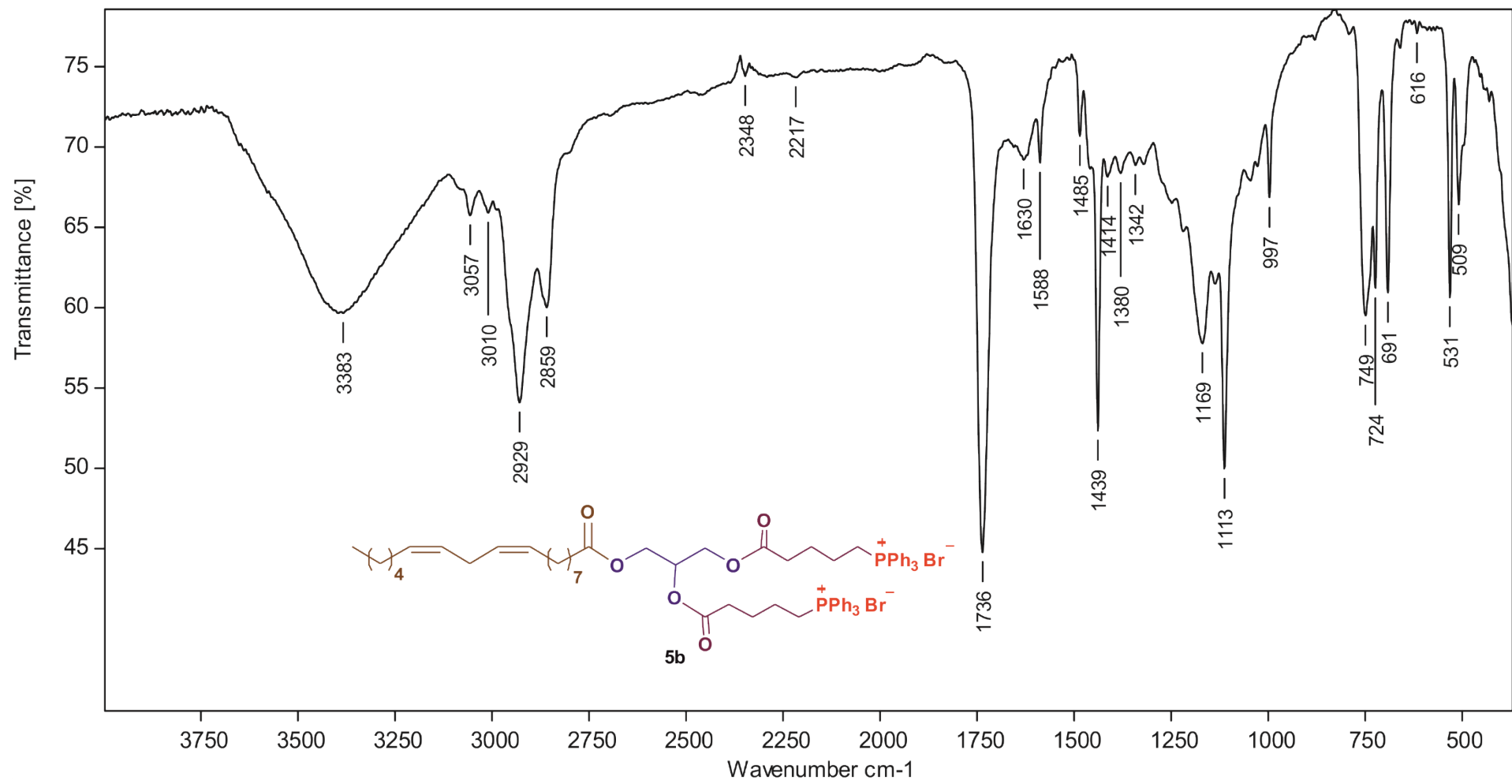


Figure S34. IR (KBr) spectrum of **5b**.

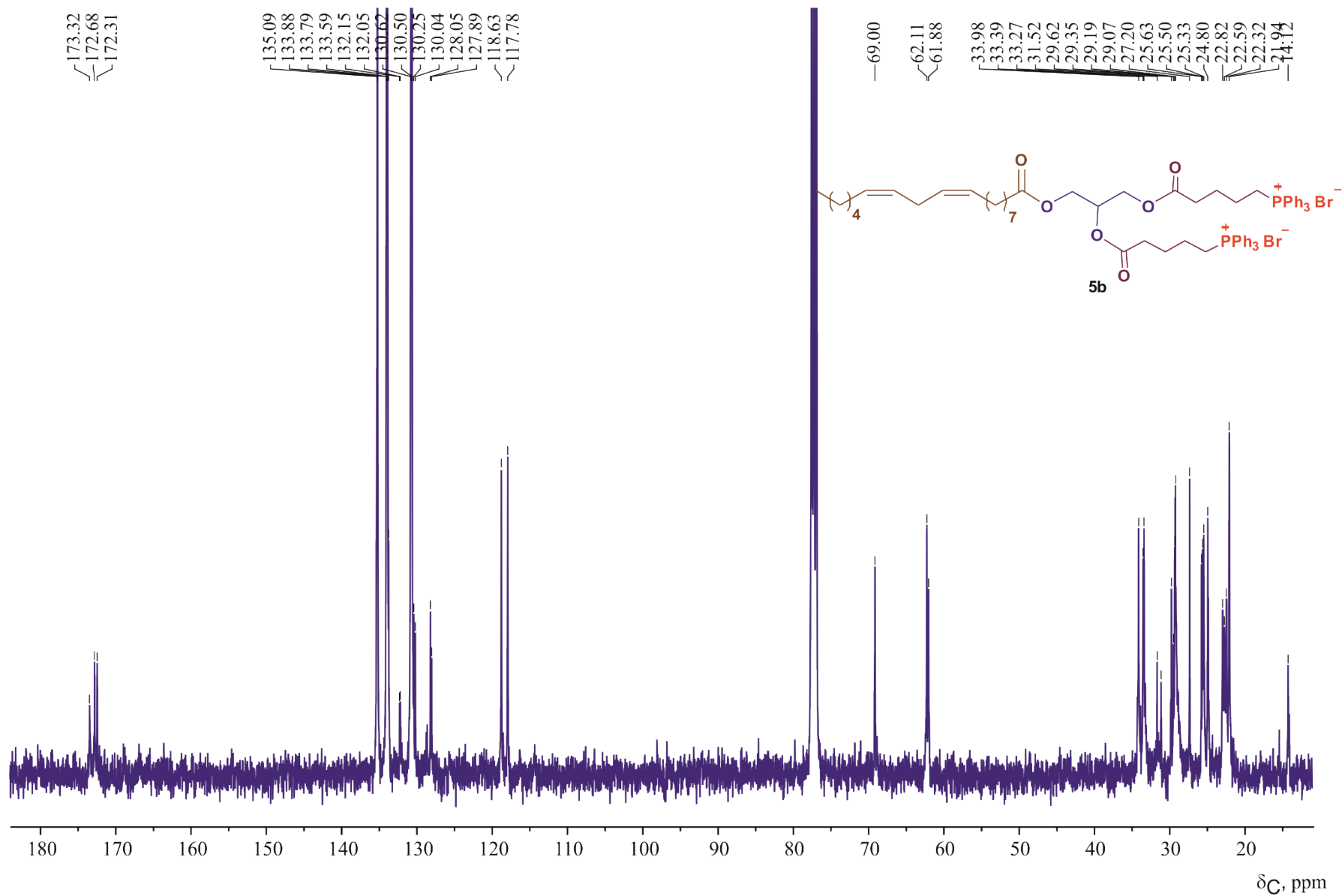


Figure S35. ^{13}C - $\{^1\text{H}\}$ NMR (CDCl_3 , 100.6 MHz) spectrum of **5b**.

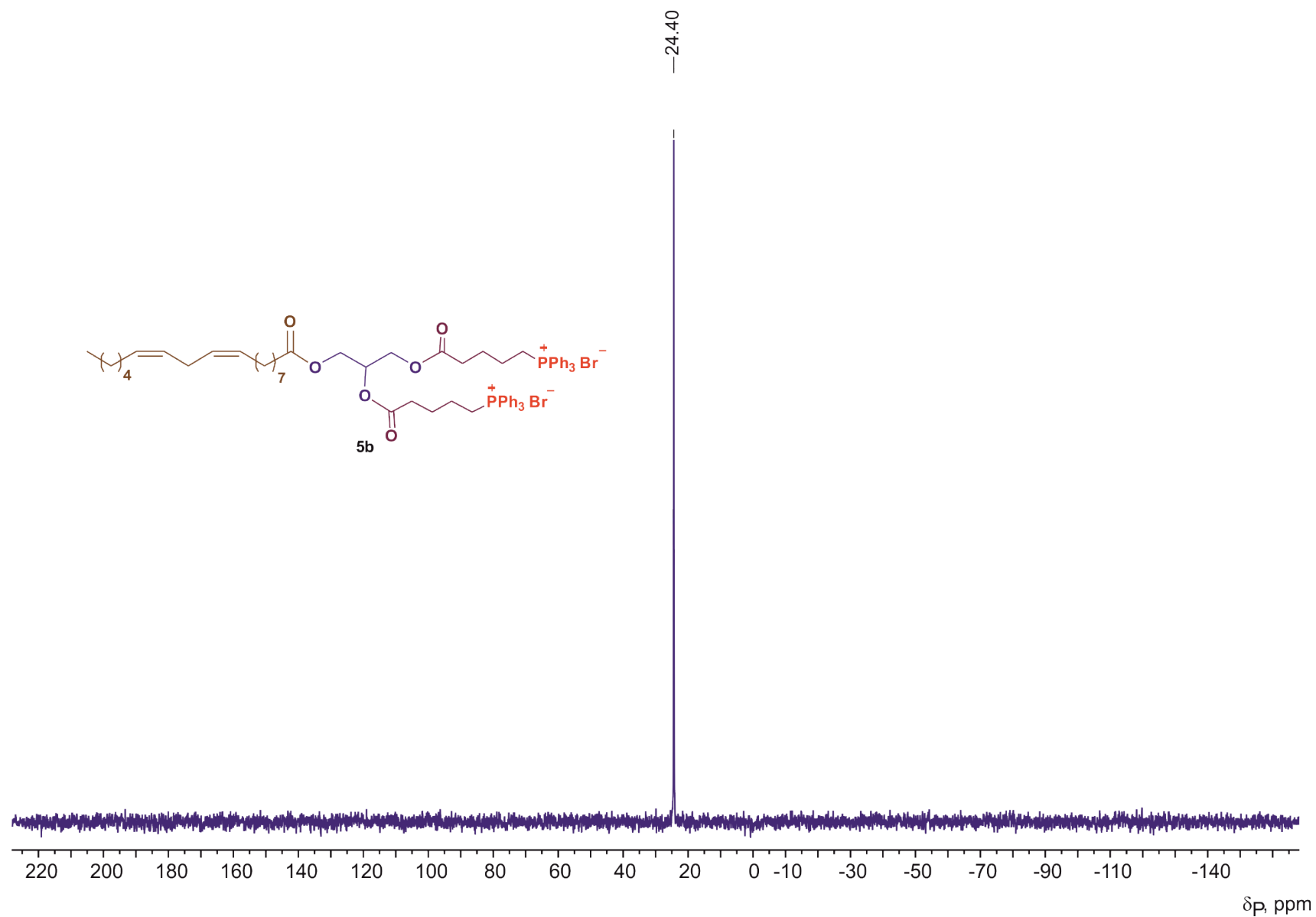


Figure S36. ^{31}P - $\{^1\text{H}\}$ NMR (CDCl_3 , 162 MHz) spectrum of **5b**.

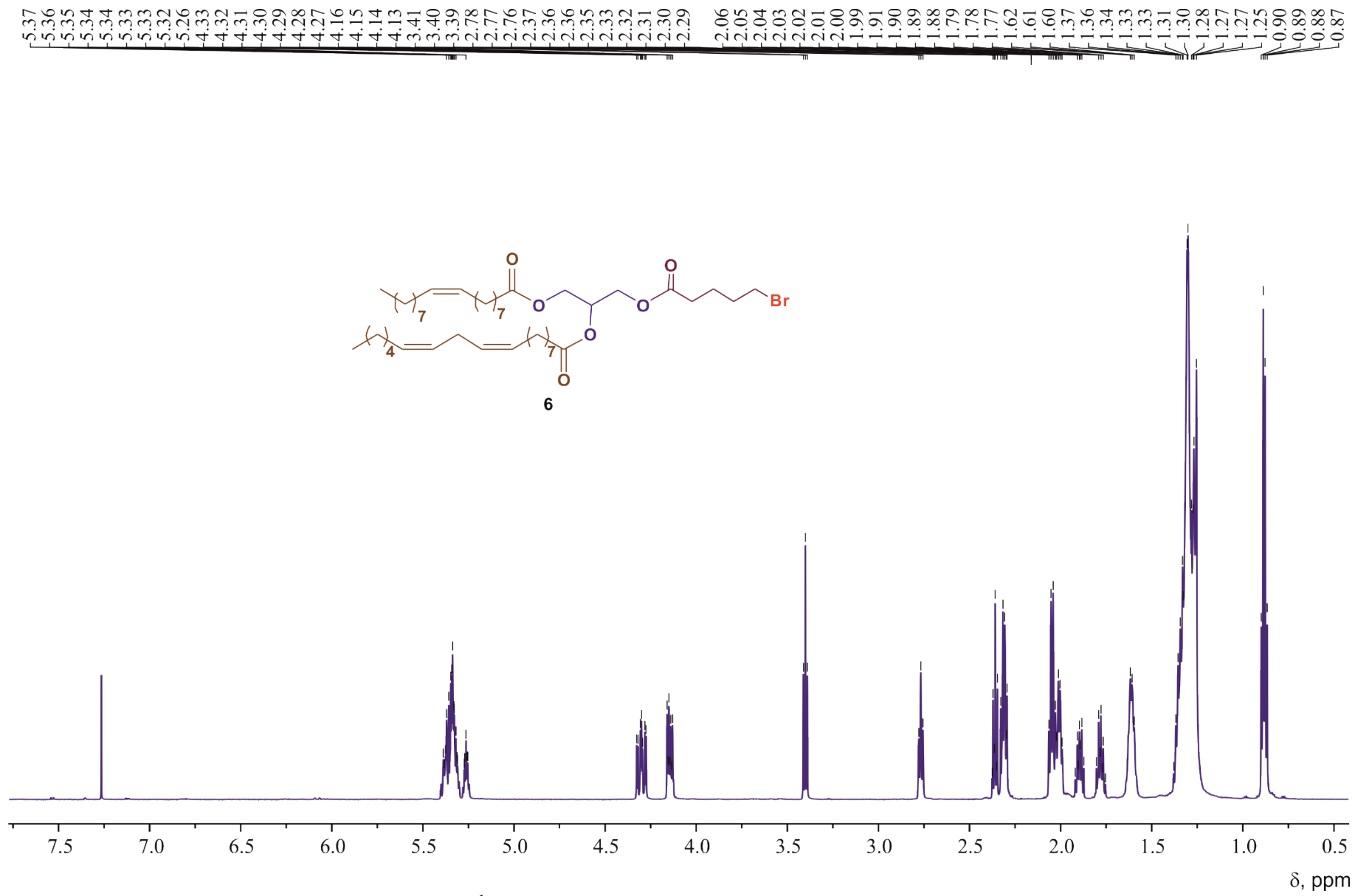


Figure S37. ^1H NMR spectrum (400 MHz, CDCl_3) of compound **6**.

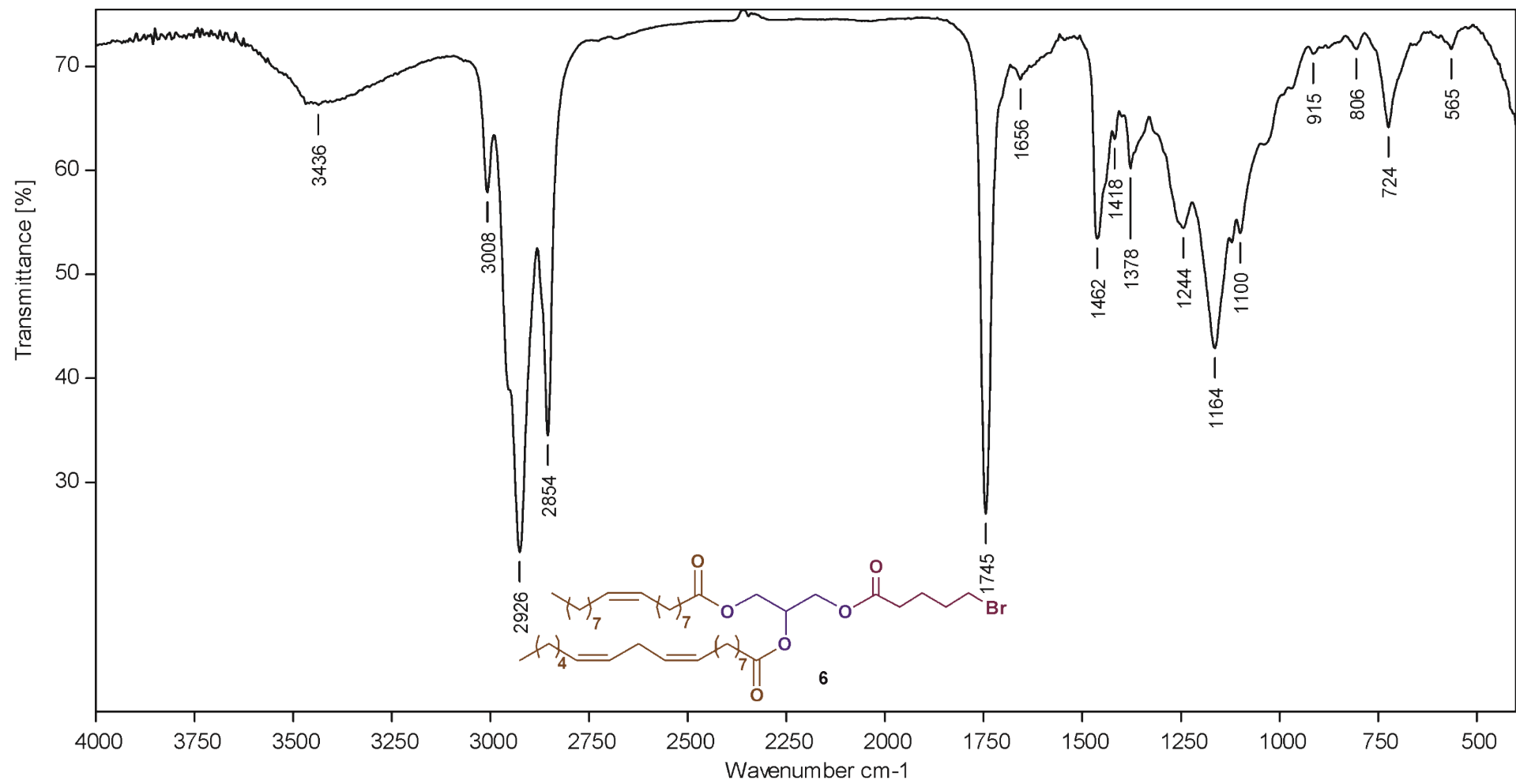


Figure S38. IR (KBr) spectrum of **6**.

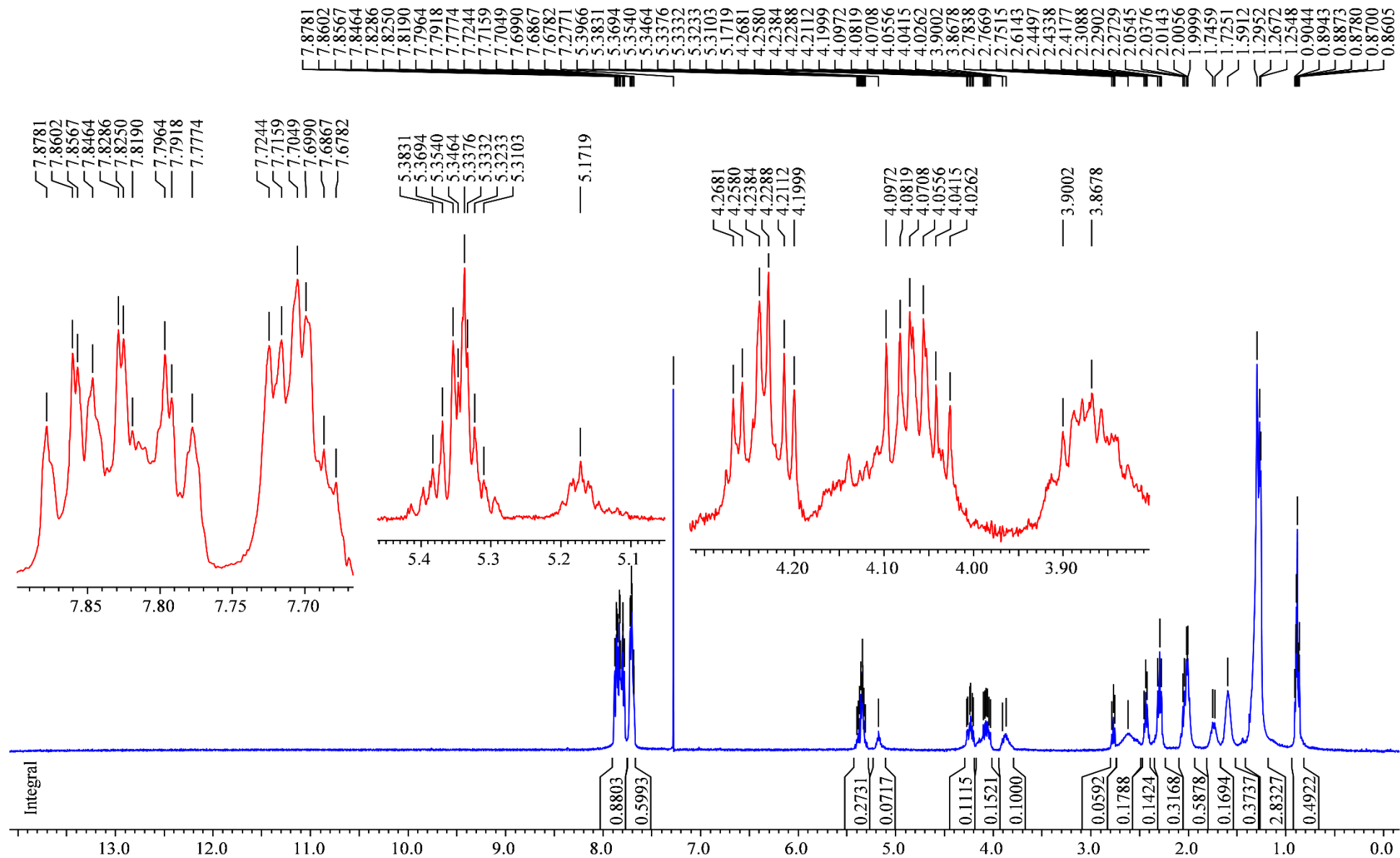


Figure S39. ^1H NMR spectrum (400 MHz, CDCl_3) of compound 7.

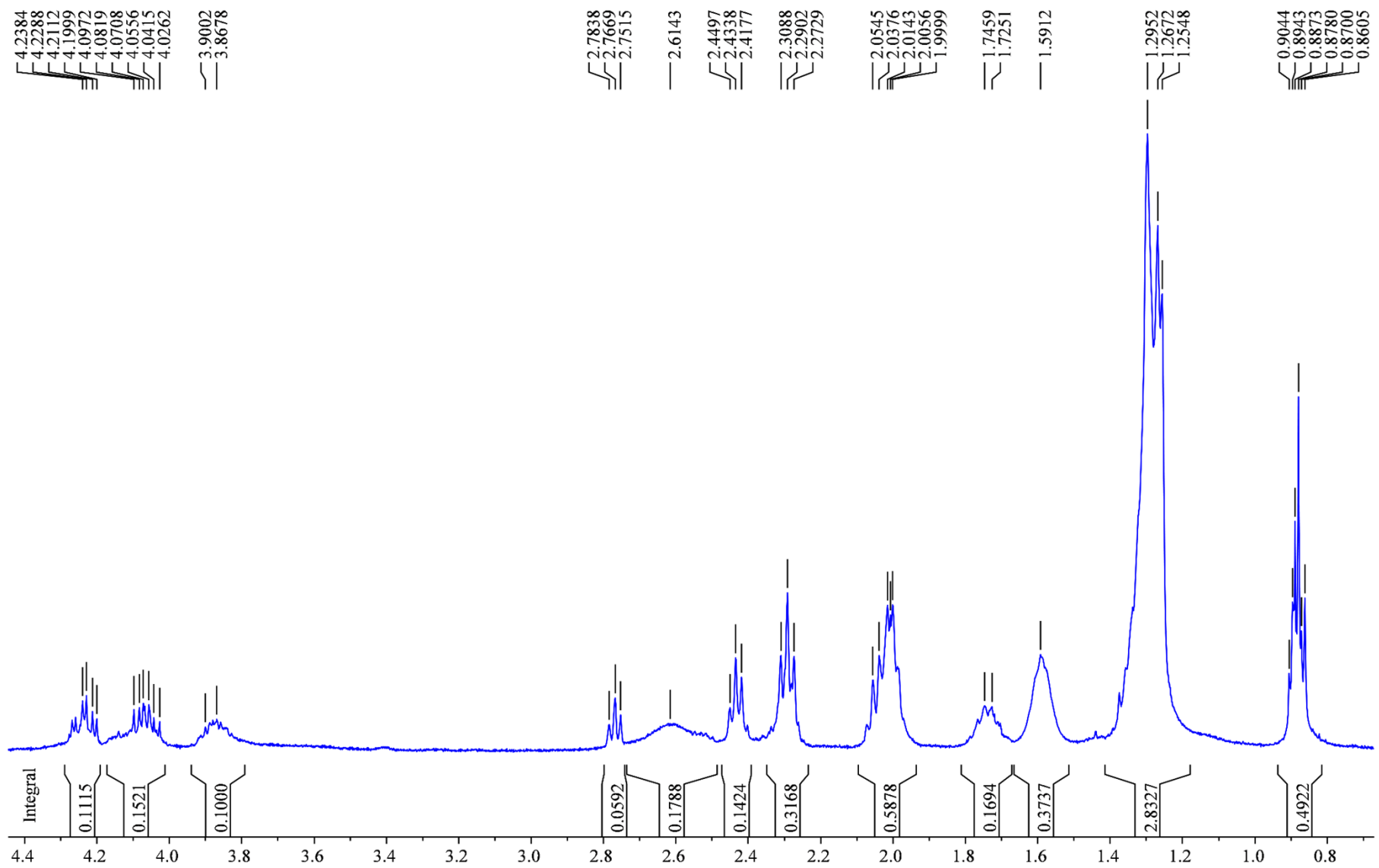


Figure S40. High-field region of ¹H NMR spectrum (400 MHz, CDCl₃) of compound 7.

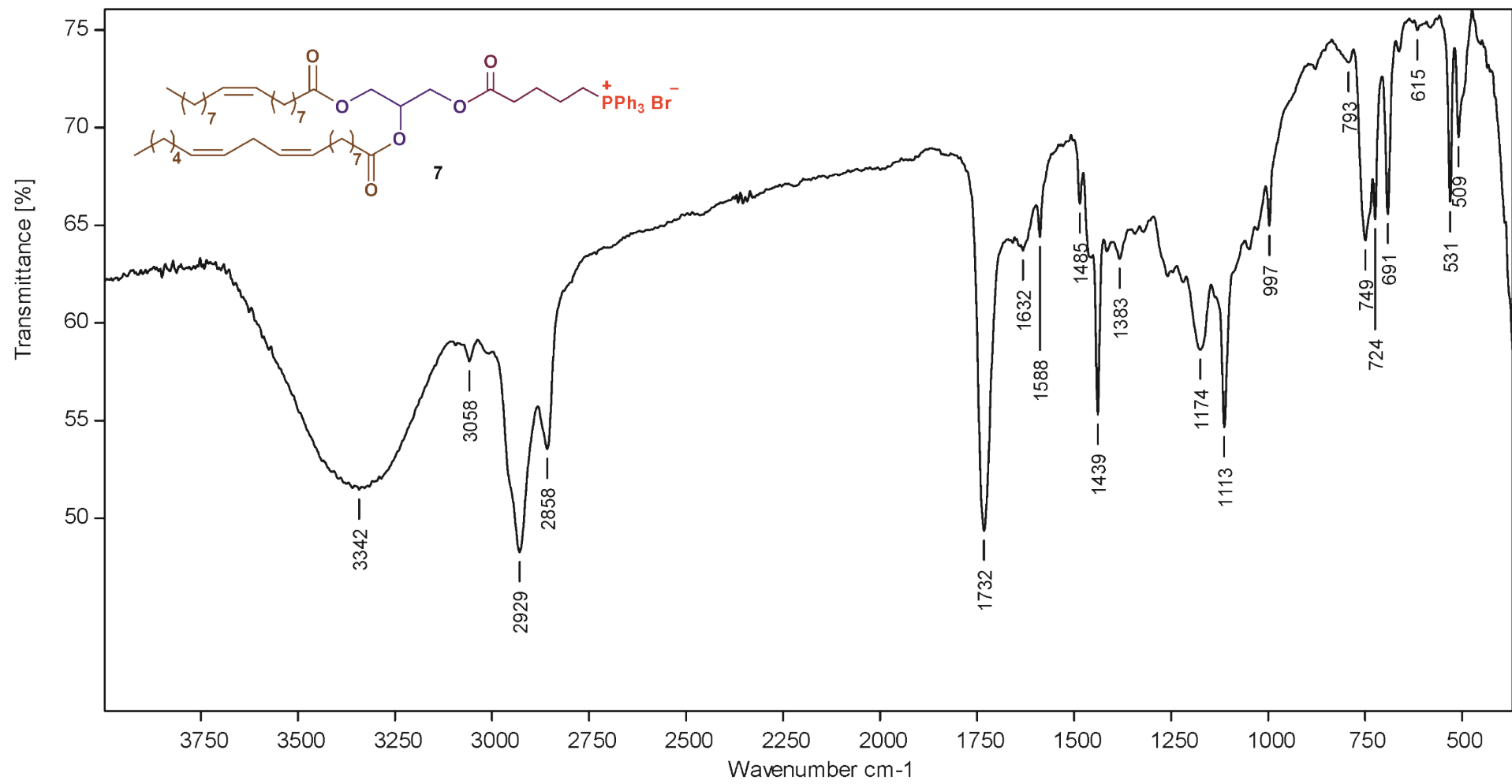


Figure S41. IR (KBr) spectrum of 7.

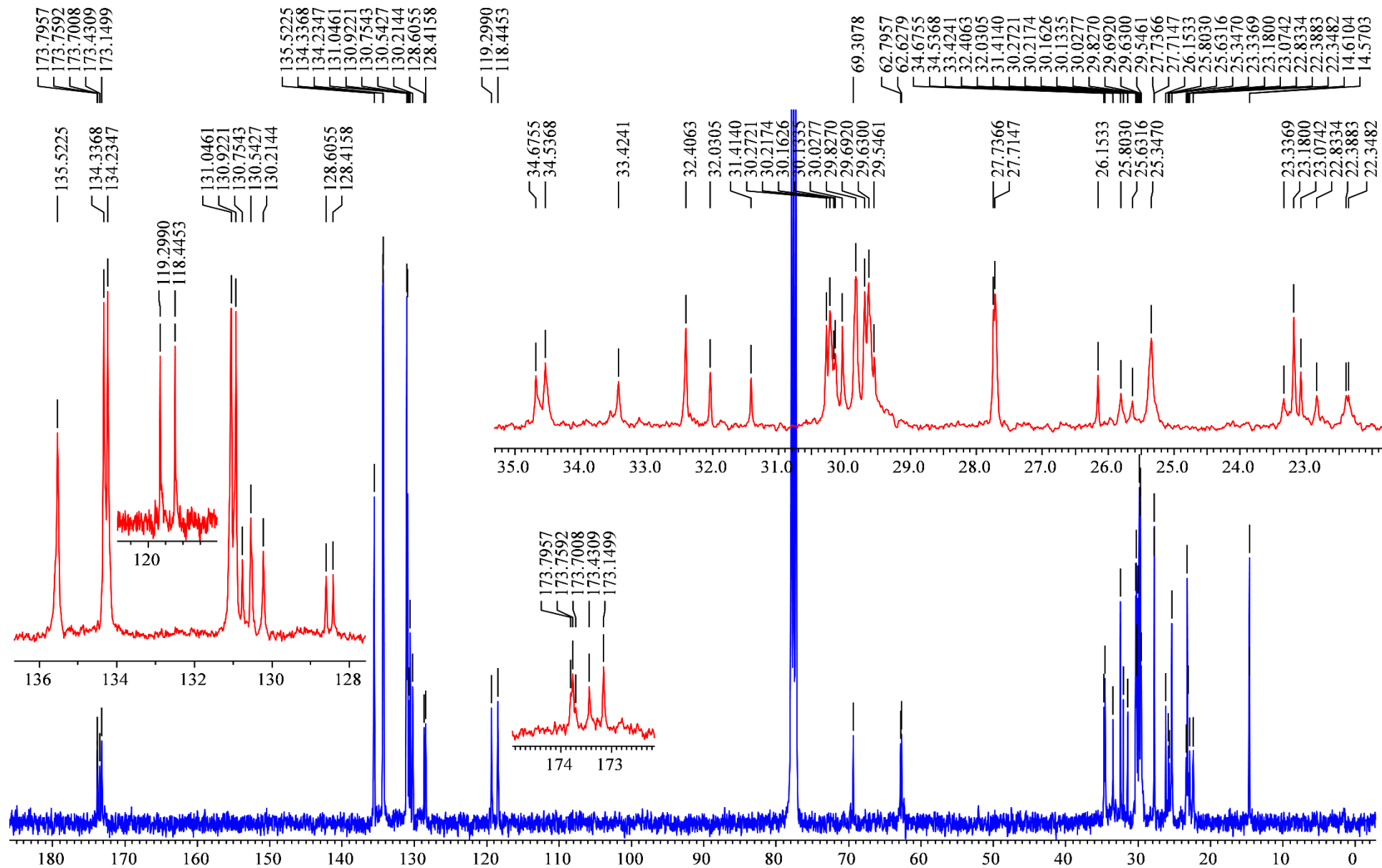


Figure S42. ^{13}C - $\{^1\text{H}\}$ NMR spectrum (100.6 MHz, CDCl_3) of compound 7.

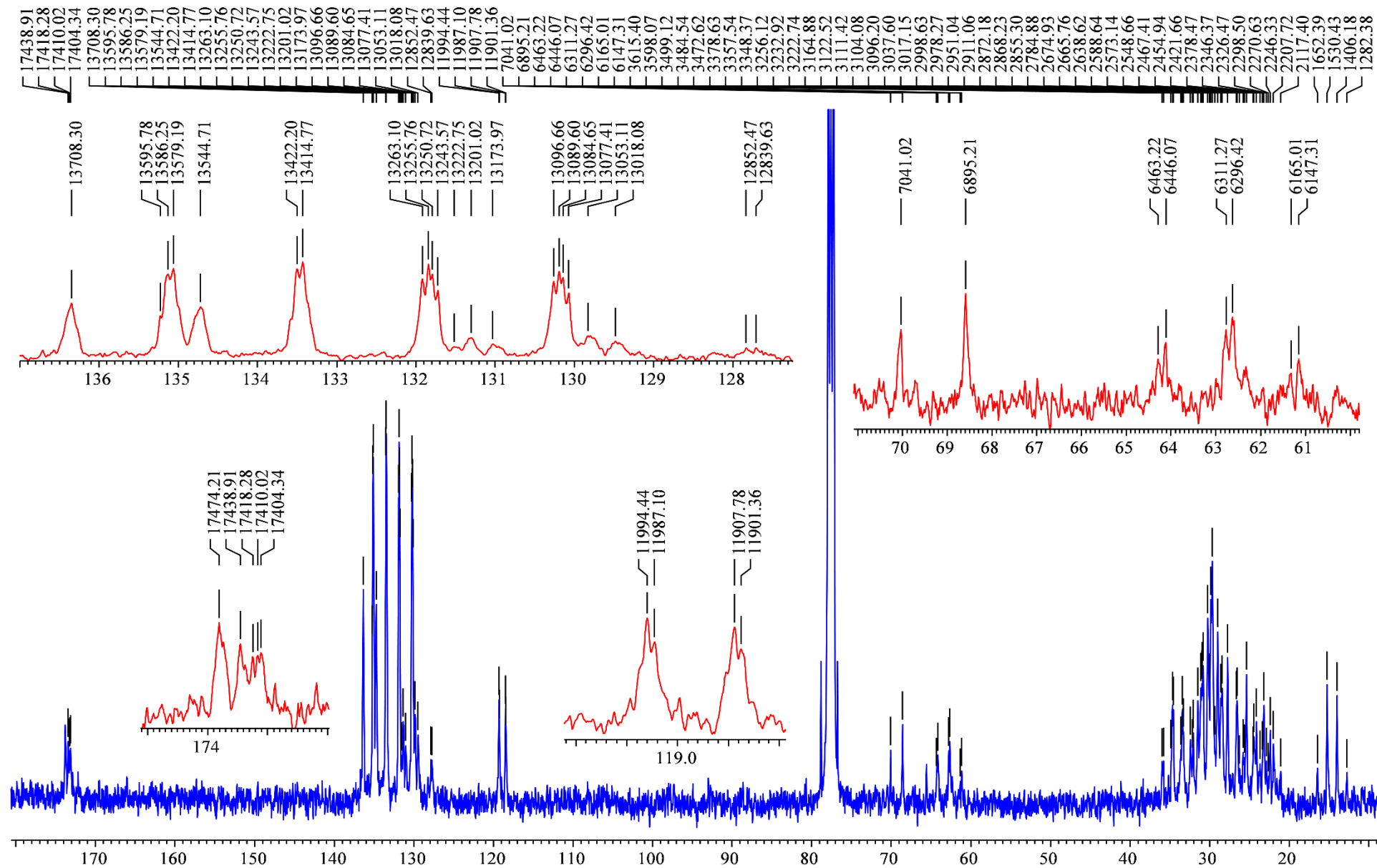


Figure S43. ^{13}C NMR spectrum (100.6 MHz, CDCl_3) of compound 7.

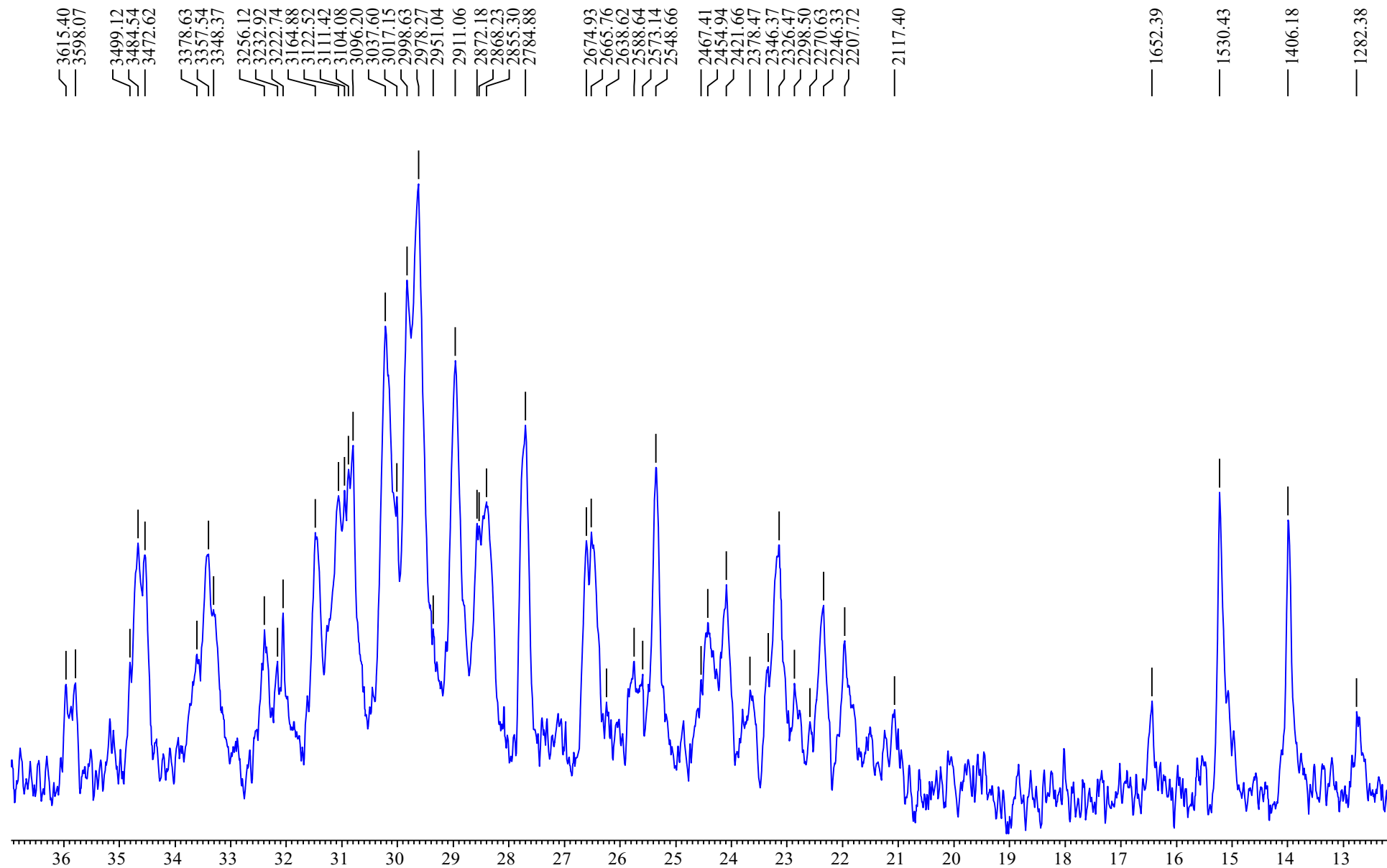


Figure S44. High-field region of ^{13}C NMR spectrum (100.6 MHz, CDCl_3) of compound 7.

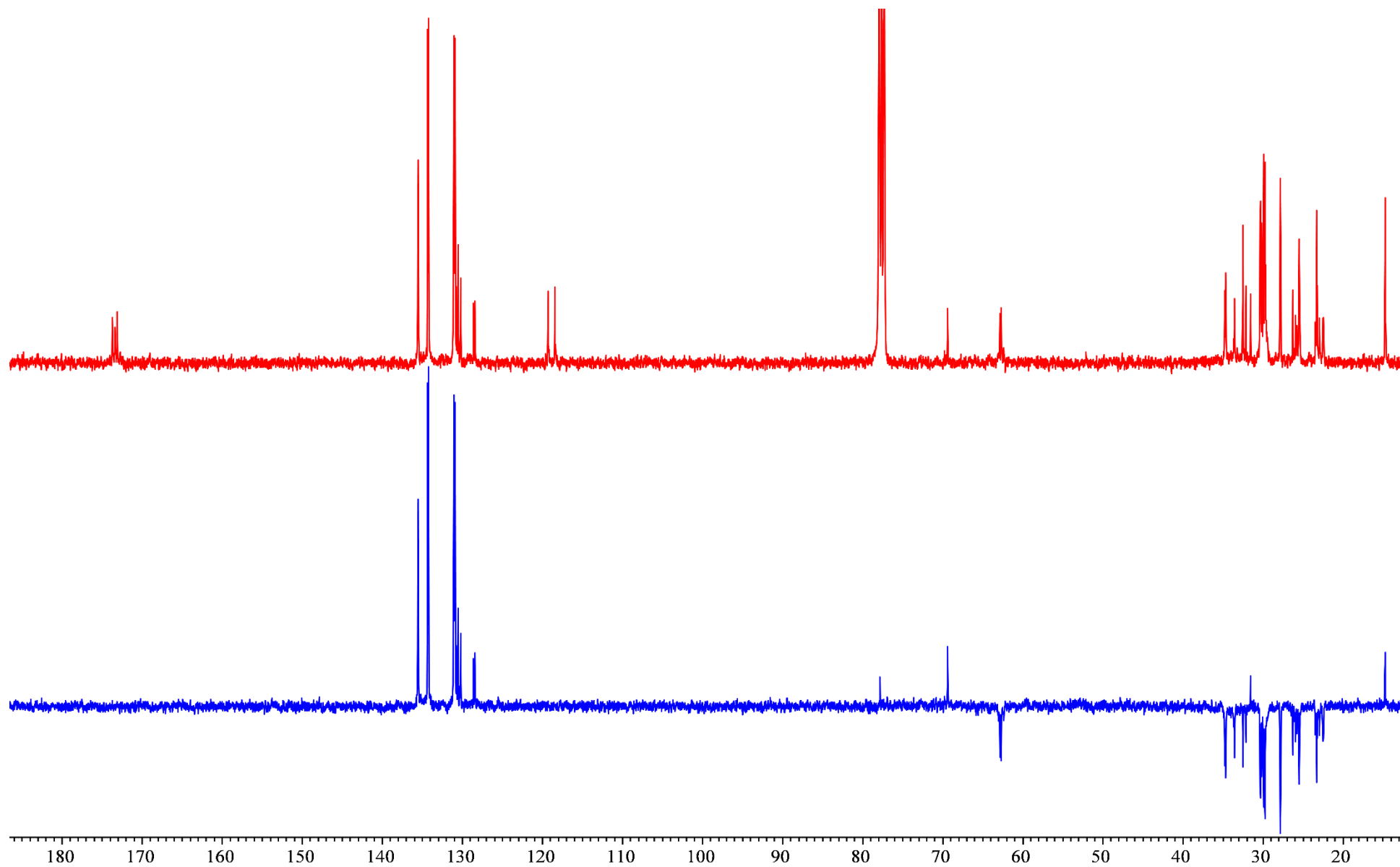


Figure S45. ^{13}C - $\{^1\text{H}\}$ and ^{13}C - $\{^1\text{H}\}$ -dept NMR spectra (100.6 MHz, CDCl_3) of compound 7.

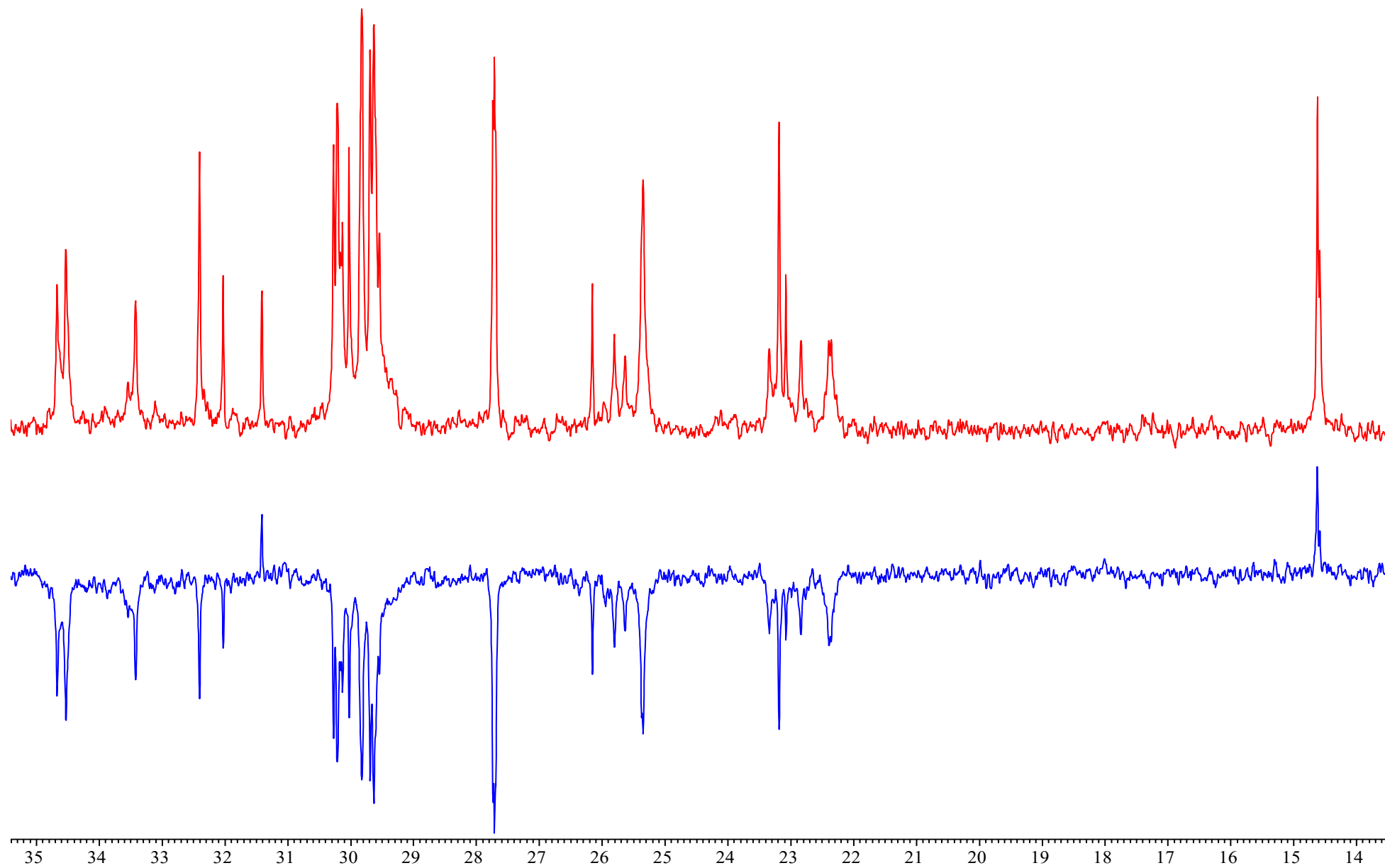


Figure S46. High-field region of $^{13}\text{C}\{-^1\text{H}\}$ and $^{13}\text{C}\{-^1\text{H}\}$ -dept NMR spectra (100.6 MHz, CDCl_3) of compound 7.

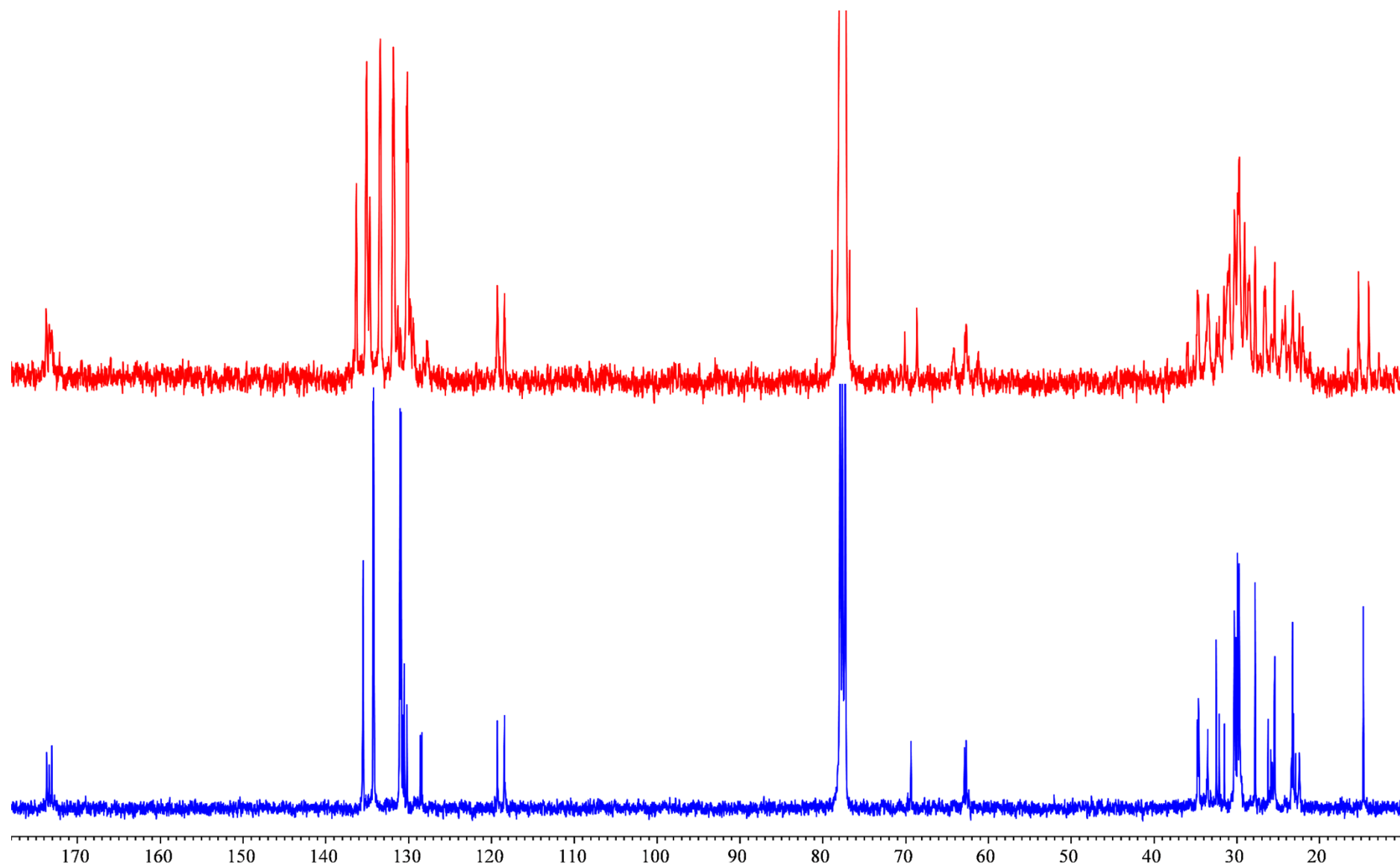


Figure S47. $^{13}\text{C}\{-^1\text{H}\}$ and ^{13}C NMR spectra (100.6 MHz, CDCl_3) of compound 7.

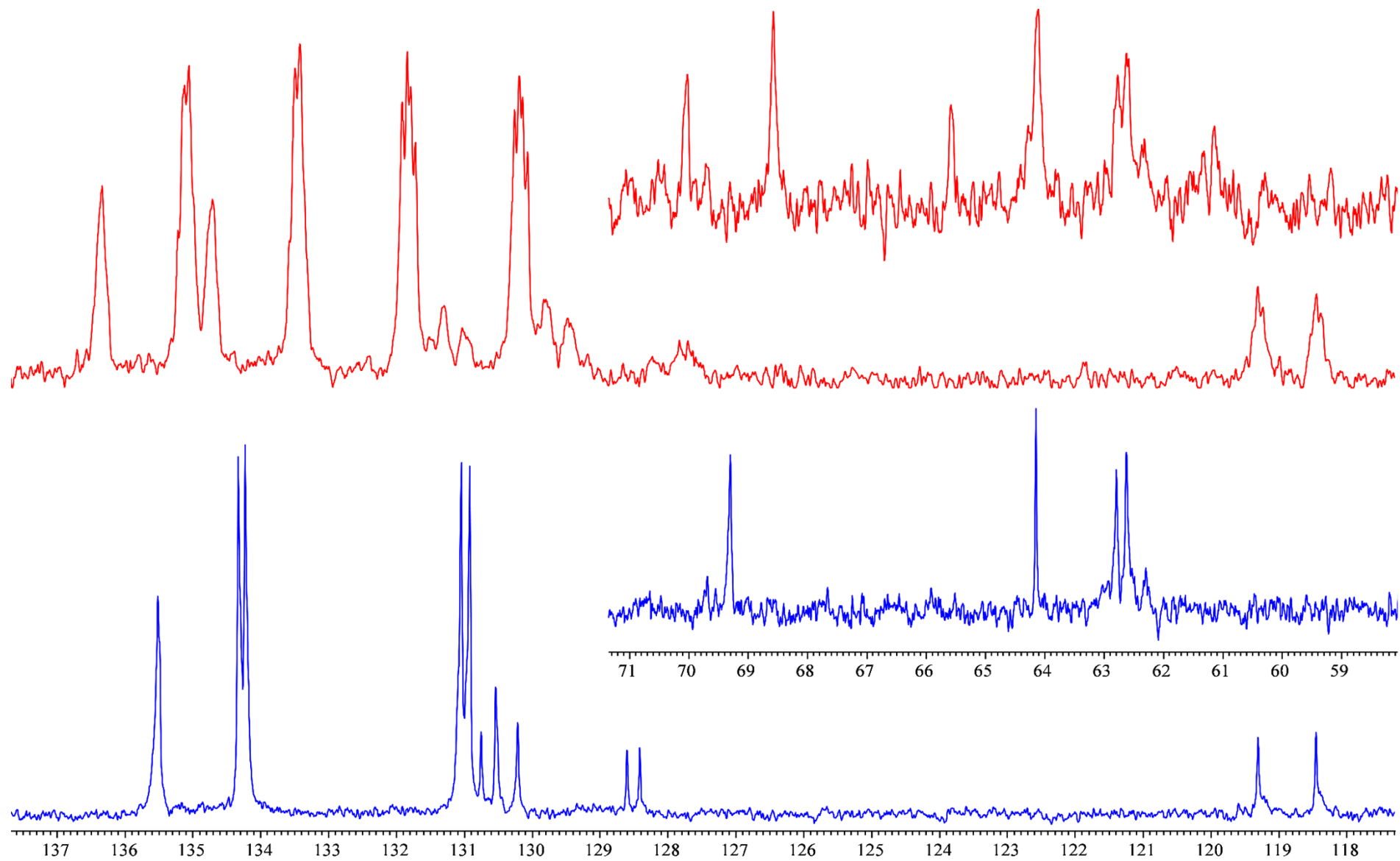


Figure S48. Aromatic carbons region of ^{13}C - $\{^1\text{H}\}$ and ^{13}C NMR spectra (100.6 MHz, CDCl_3) of compound 7.

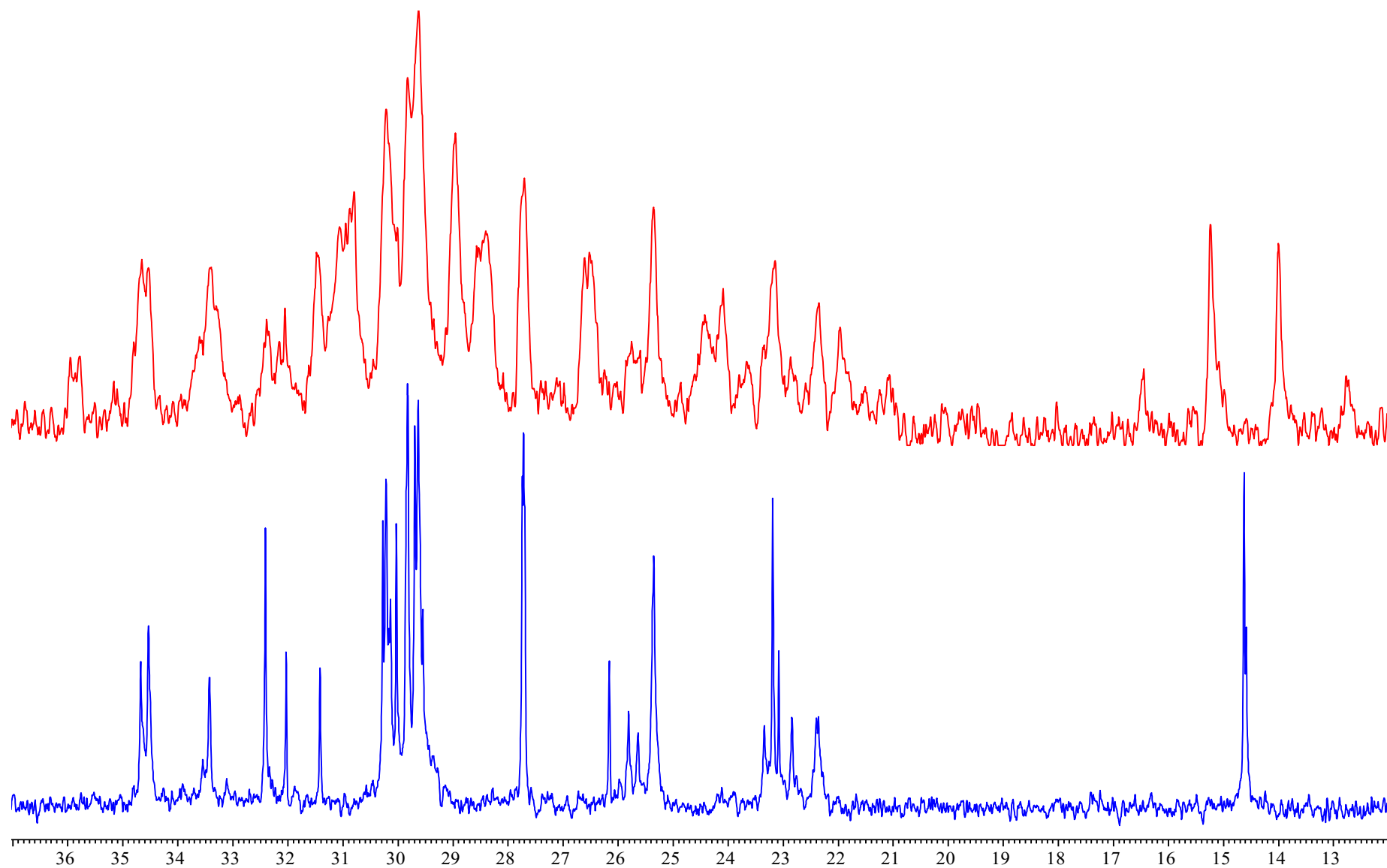


Figure S49. High-field region of $^{13}\text{C}\{-^1\text{H}\}$ and ^{13}C NMR spectra (100.6 MHz, CDCl_3) of compound 7.

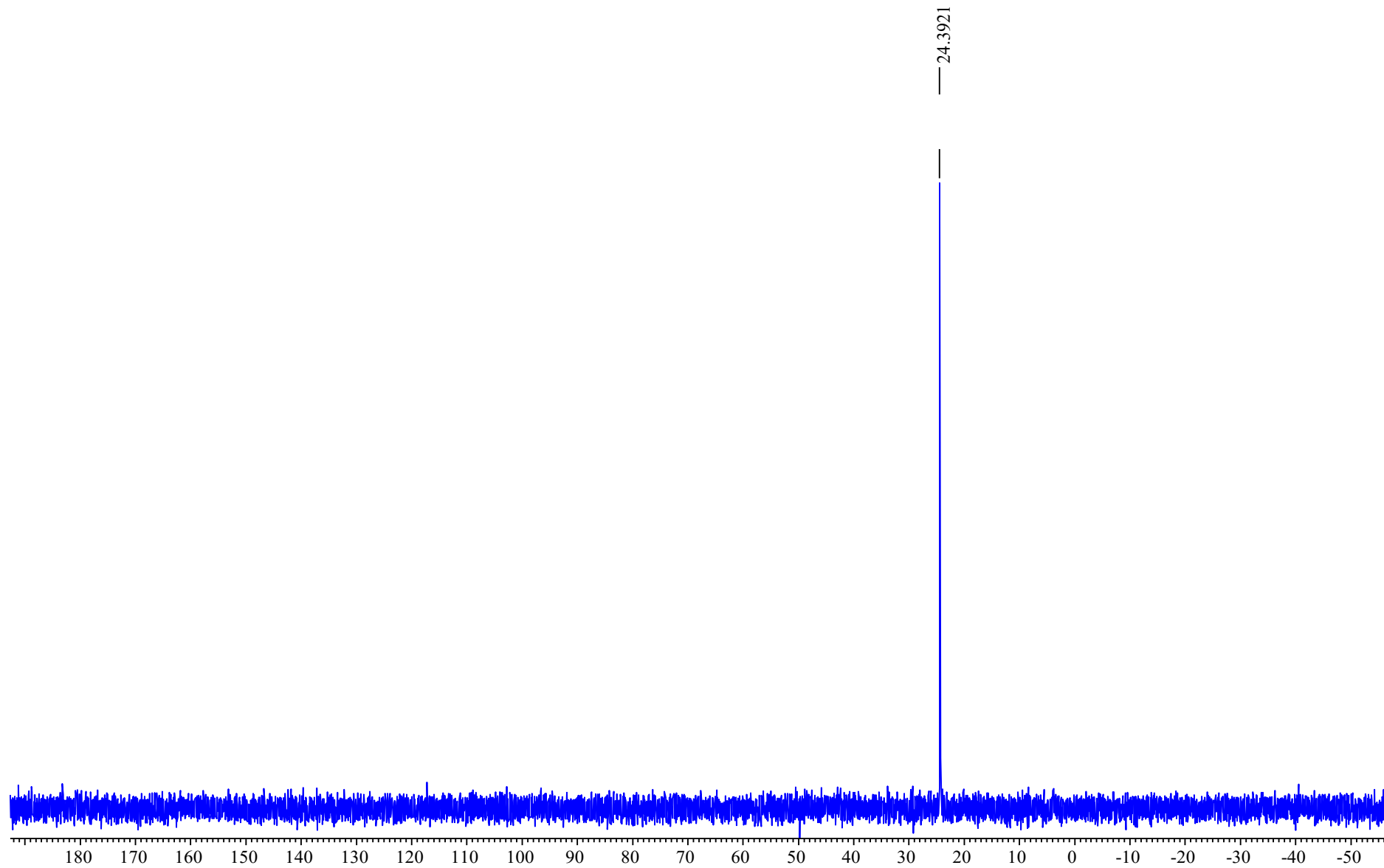
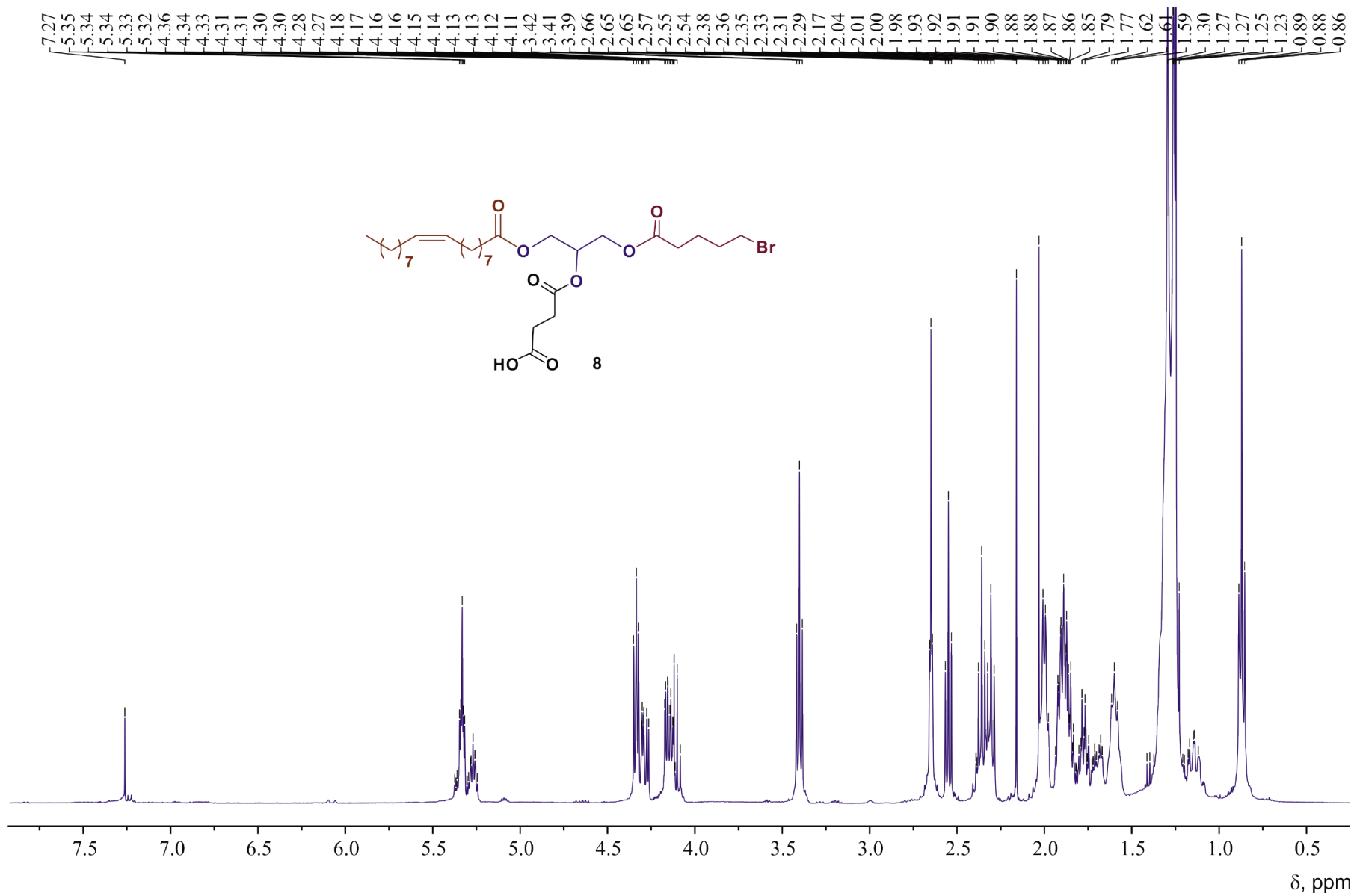


Figure S50. $^{31}\text{P}\{-^1\text{H}\}$ NMR spectrum (162 MHz, CDCl_3) of compound 7.



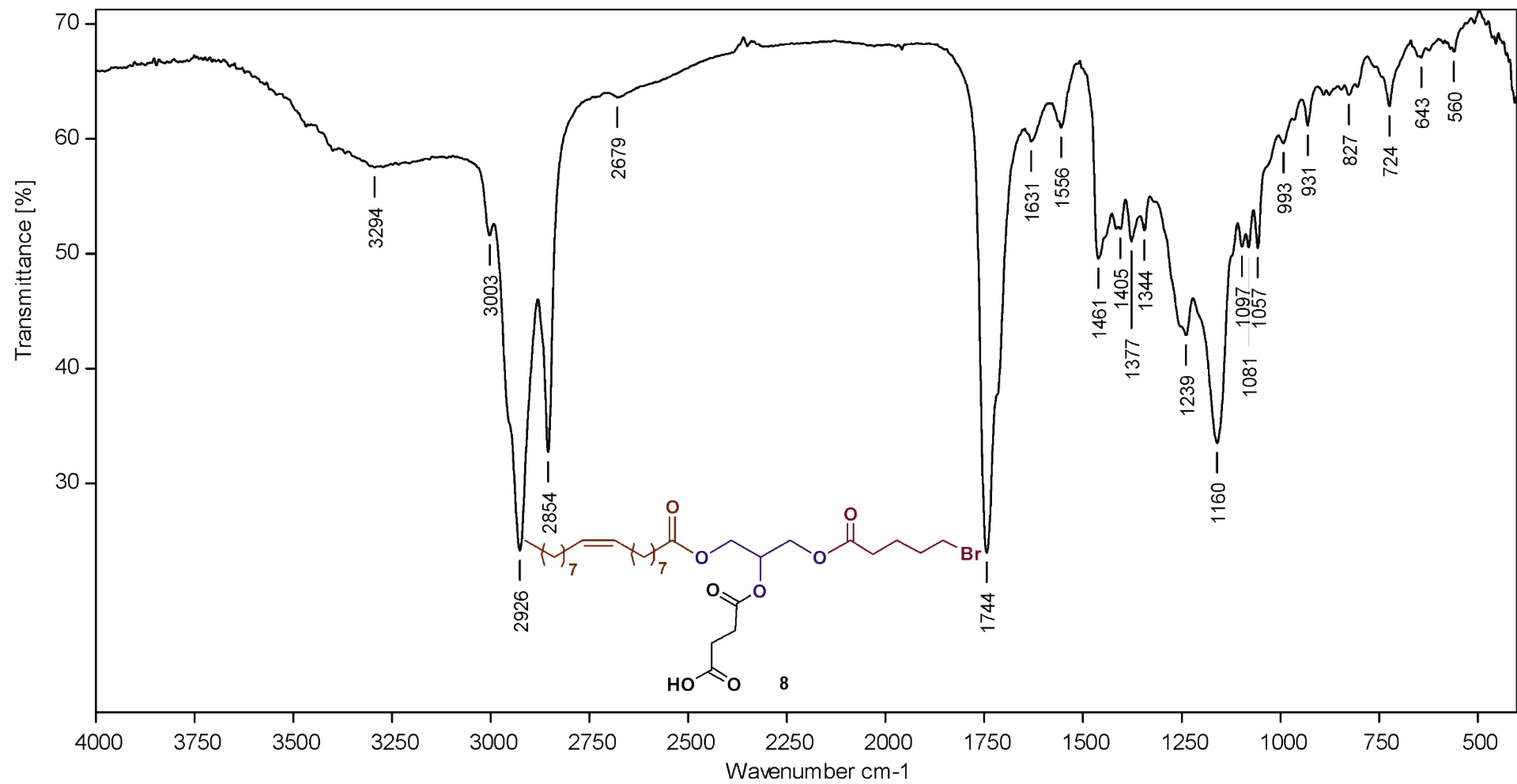
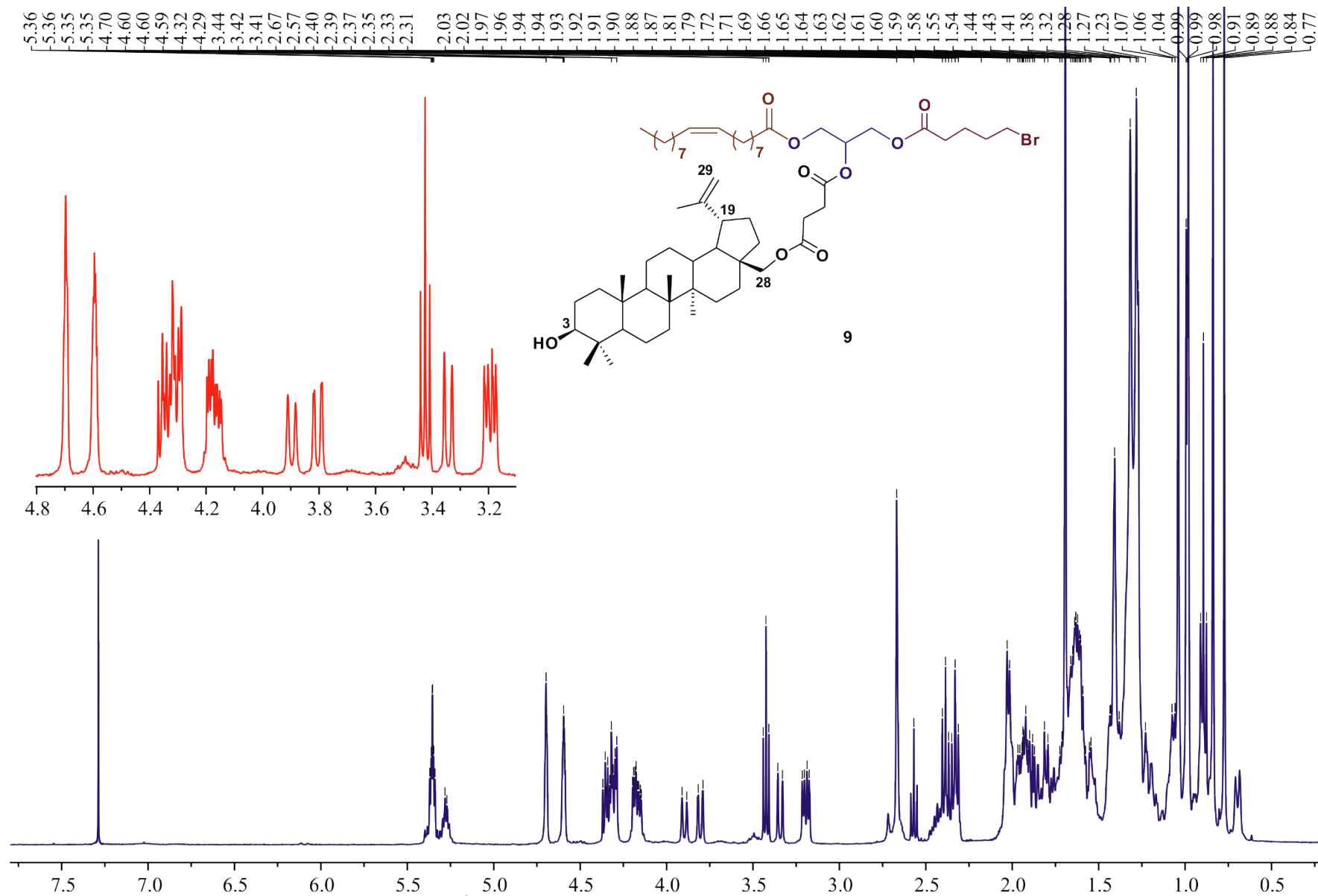


Figure S52. IR (KBr) spectrum of **8**.



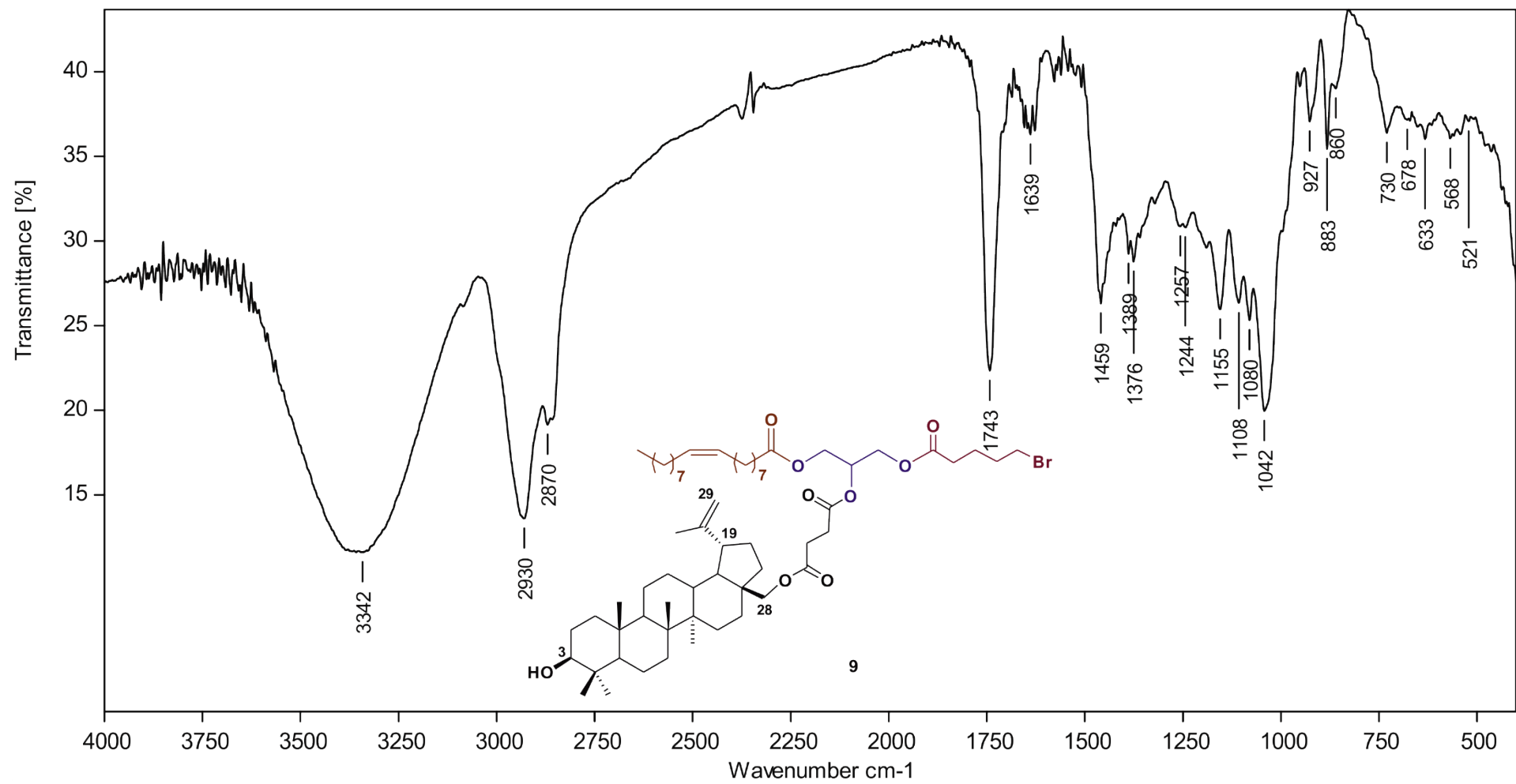


Figure S54. IR (KBr) spectrum of **9**.

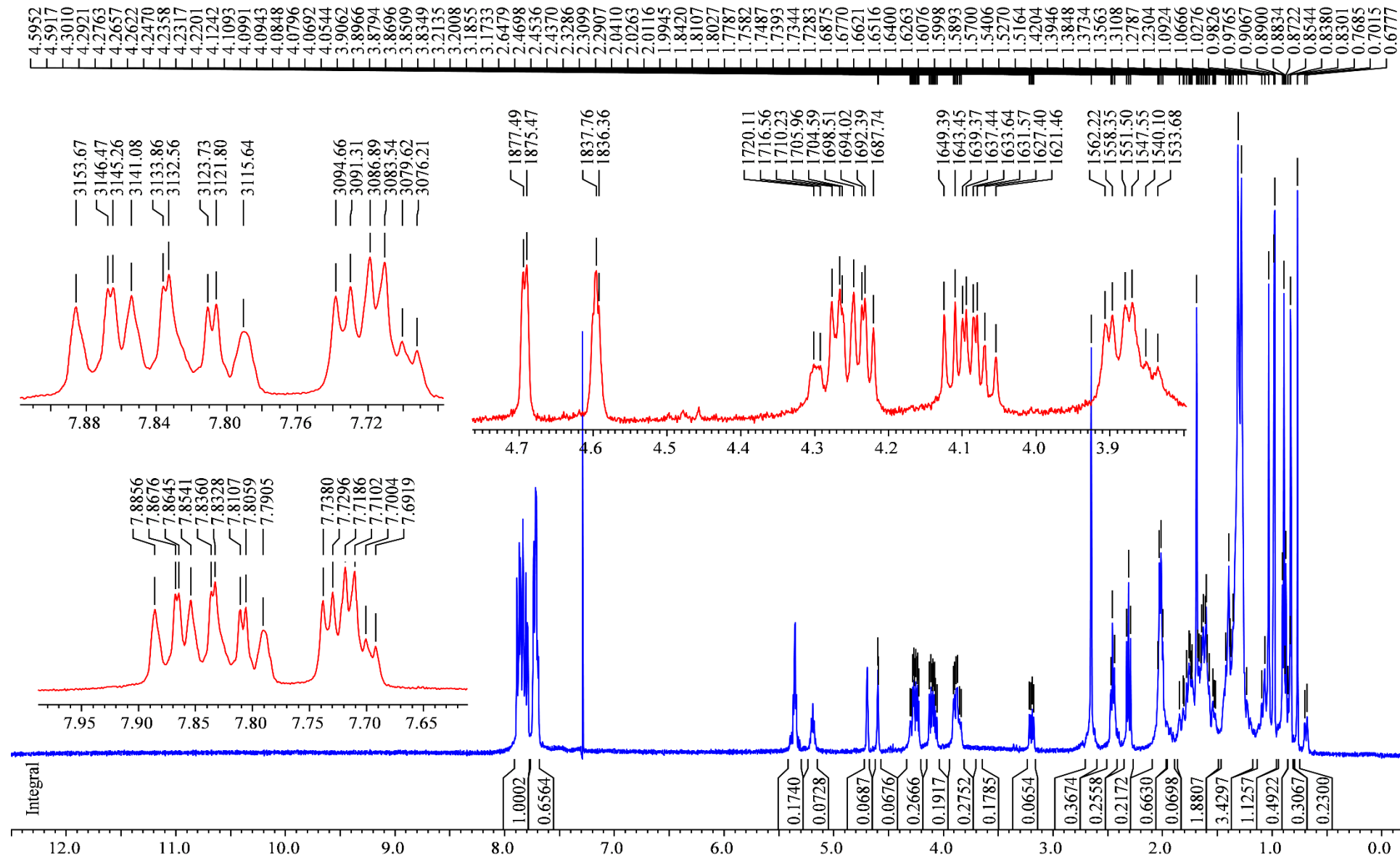


Figure S55. ¹H NMR spectrum (400 MHz, CDCl₃) of compound 10.

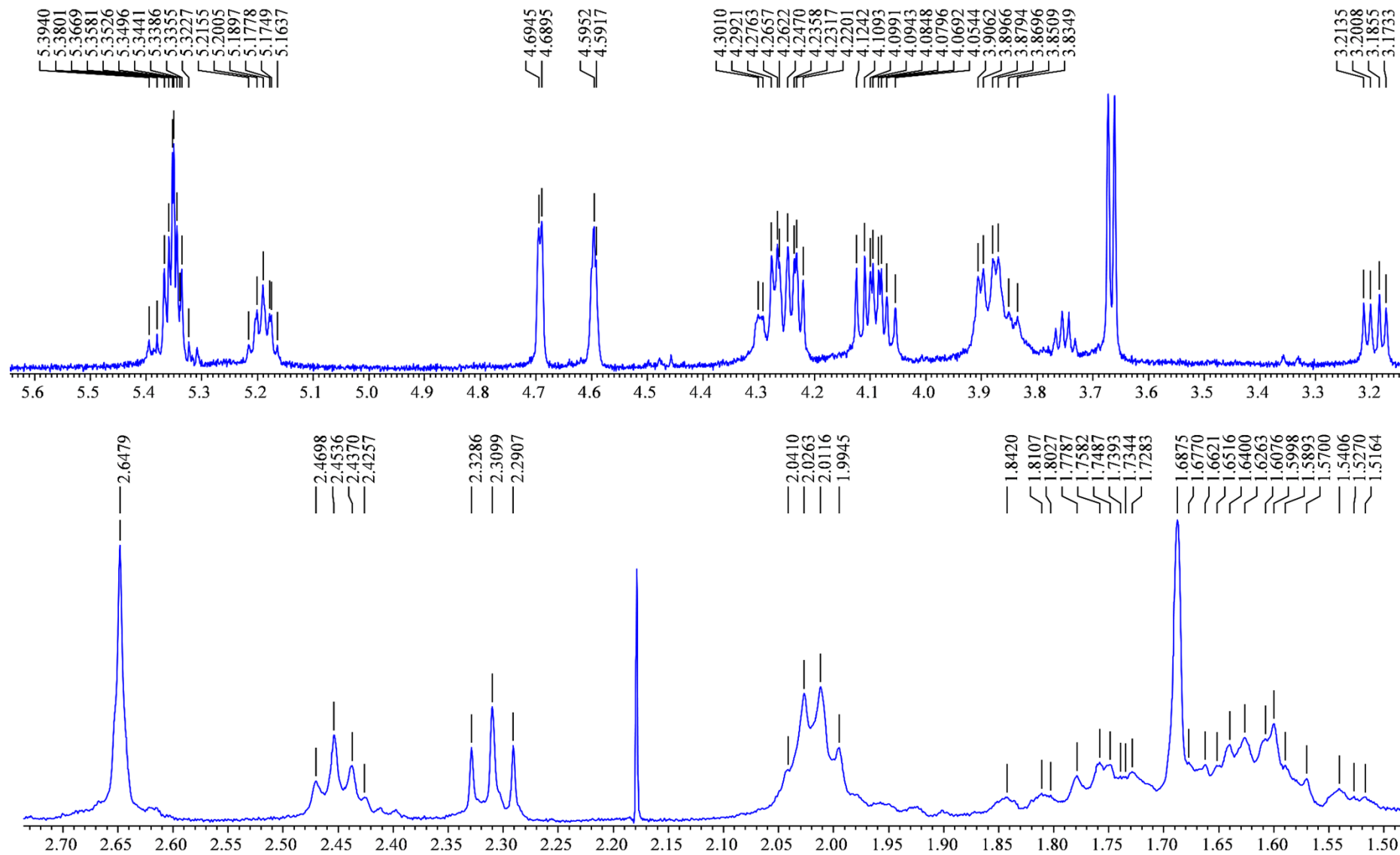


Figure S56. Fragments of ^1H NMR spectrum (400 MHz, CDCl_3) of compound **10**.

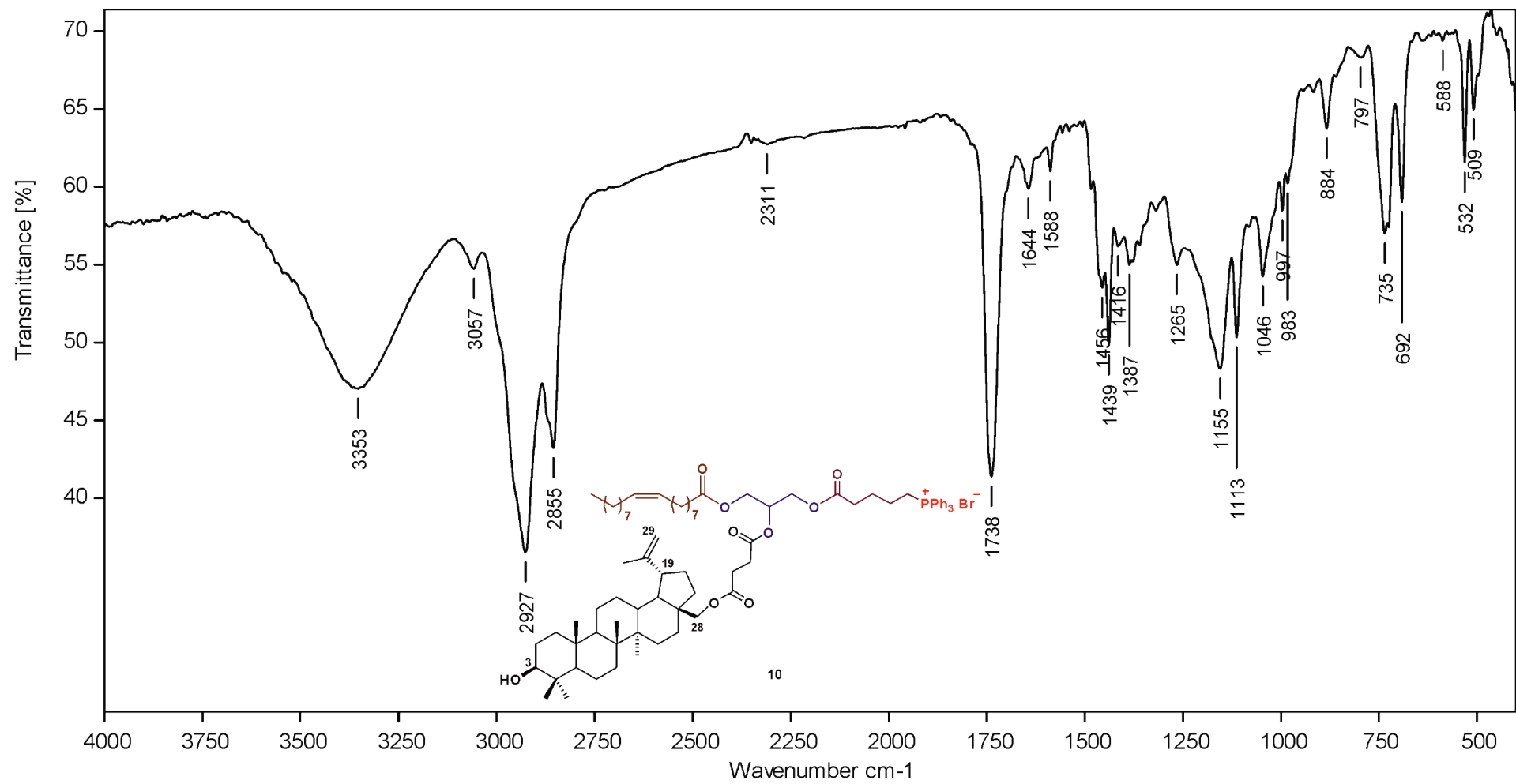


Figure S57. IR (KBr) spectrum of **10**.

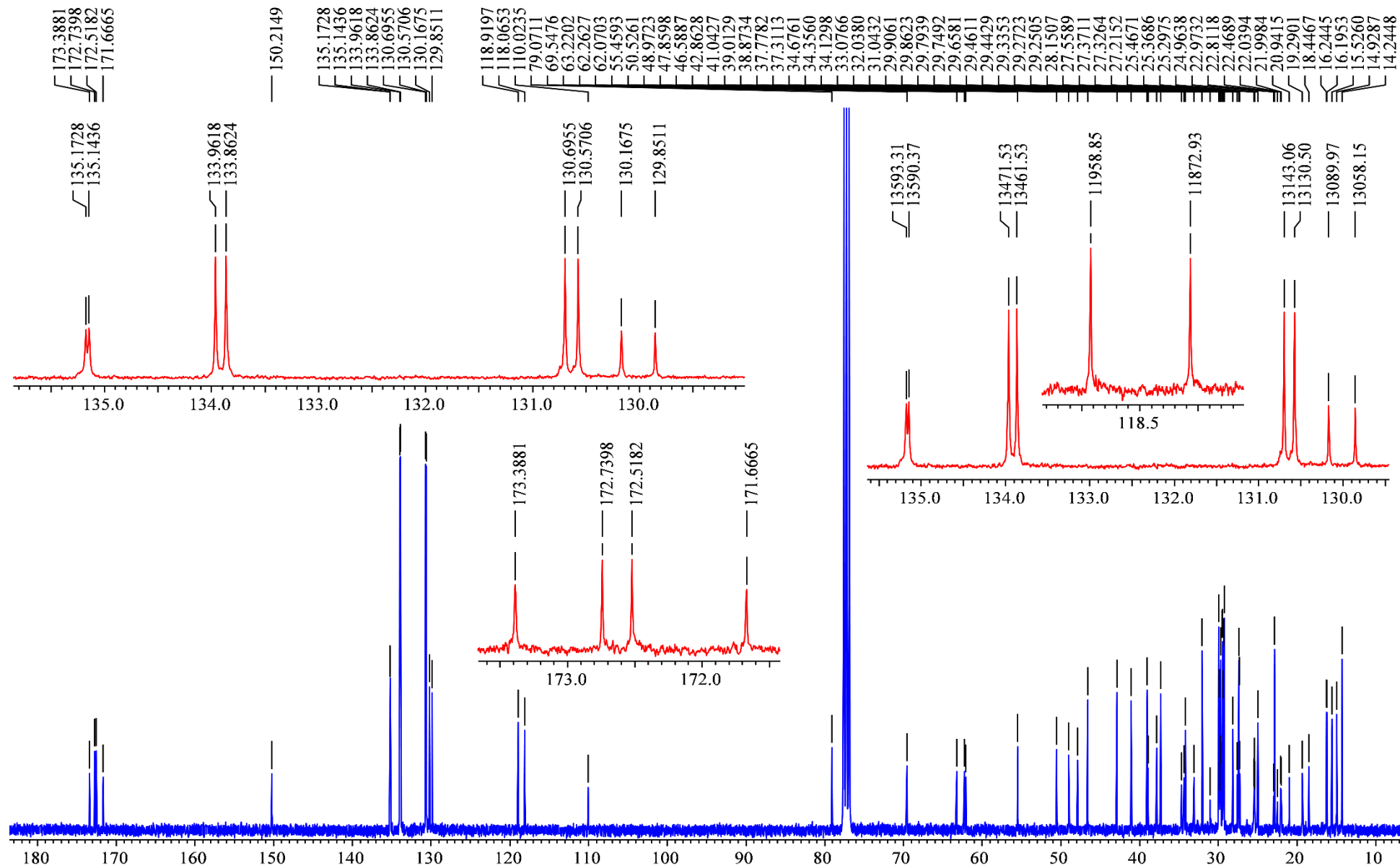


Figure S58. ^{13}C - $\{^1\text{H}\}$ NMR spectrum (100.6 MHz, CDCl_3) of compound **10**.

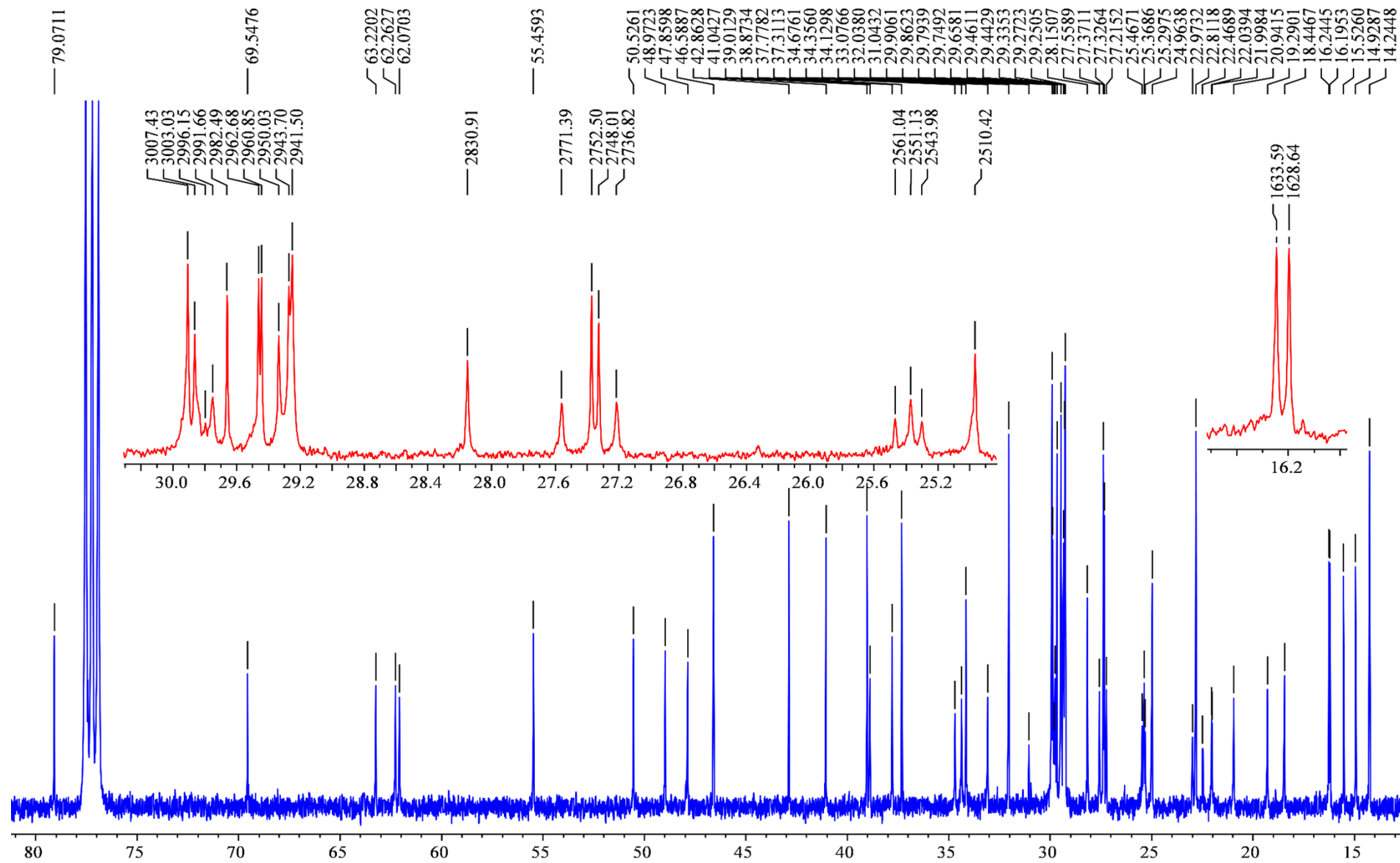


Figure S59. High-field region of $^{13}\text{C}\{-^1\text{H}\}$ NMR spectrum (100.6 MHz, CDCl_3) of compound **10**.

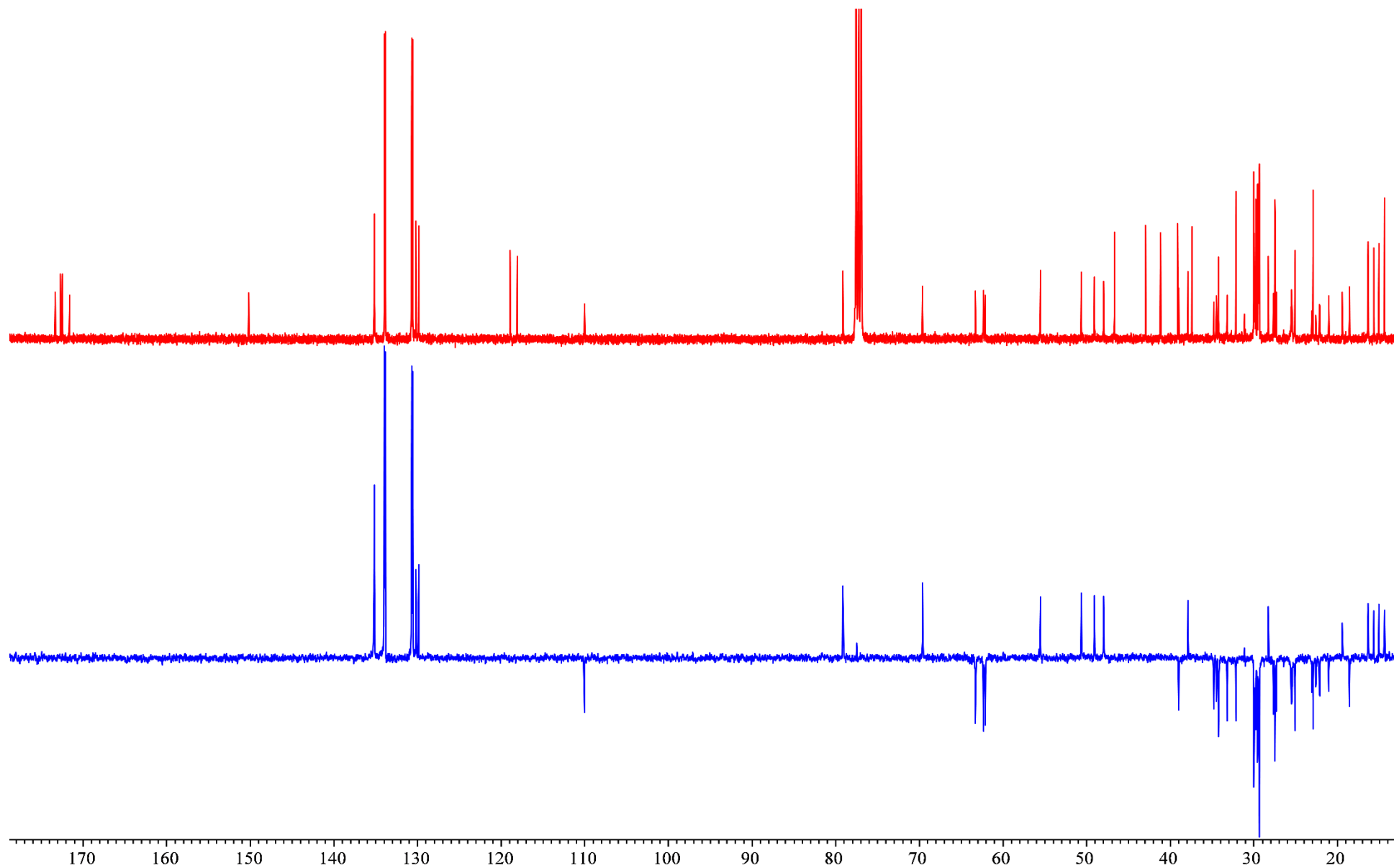


Figure S60. ^{13}C - $\{^1\text{H}\}$ and ^{13}C - $\{^1\text{H}\}$ -dept NMR spectra (100.6 MHz, CDCl_3) of compound **10**.

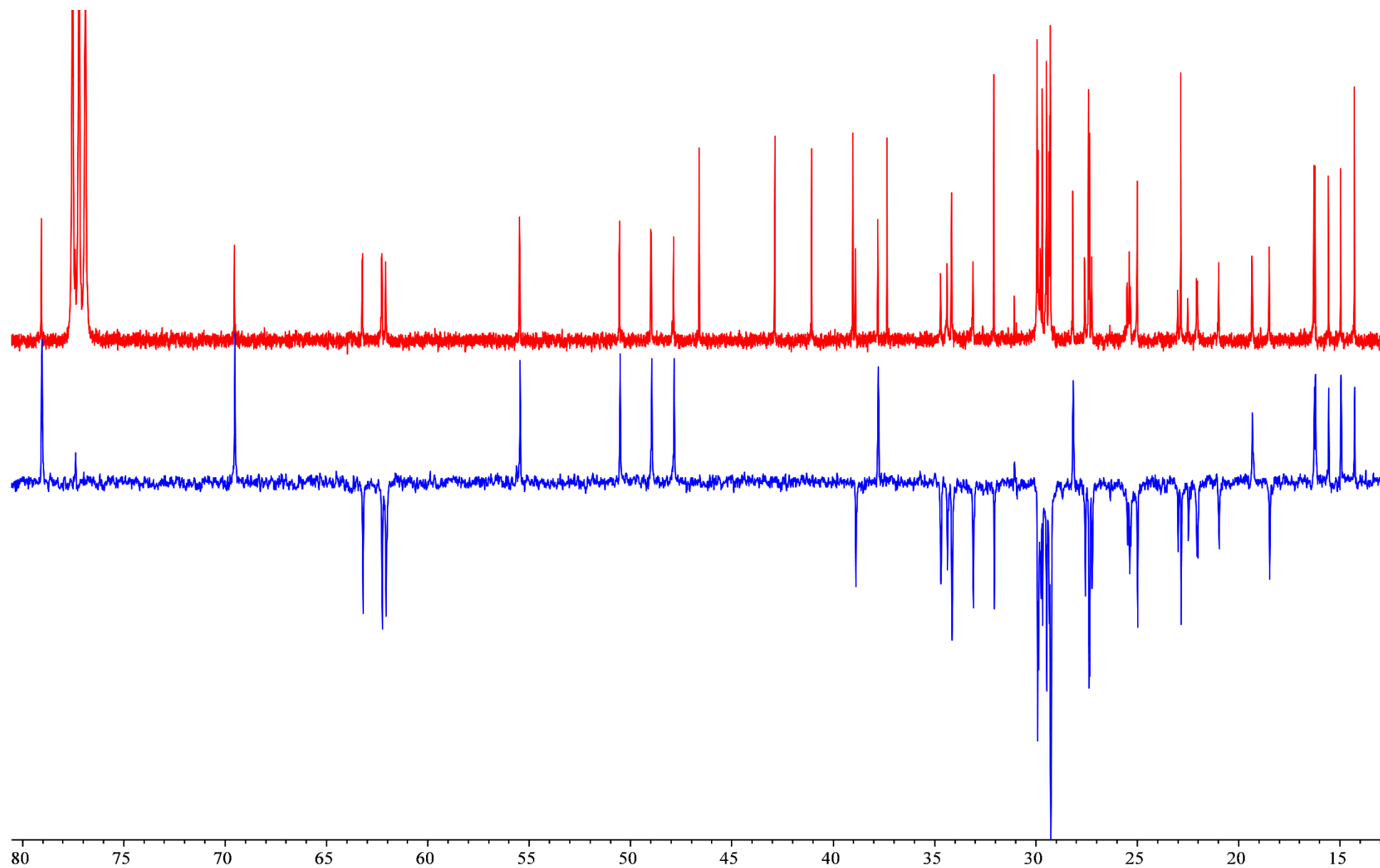


Figure S61. High-field region of $^{13}\text{C}\{-^1\text{H}\}$ and $^{13}\text{C}\{-^1\text{H}\}$ -dept NMR spectra (100.6 MHz, CDCl_3) of compound **10**.

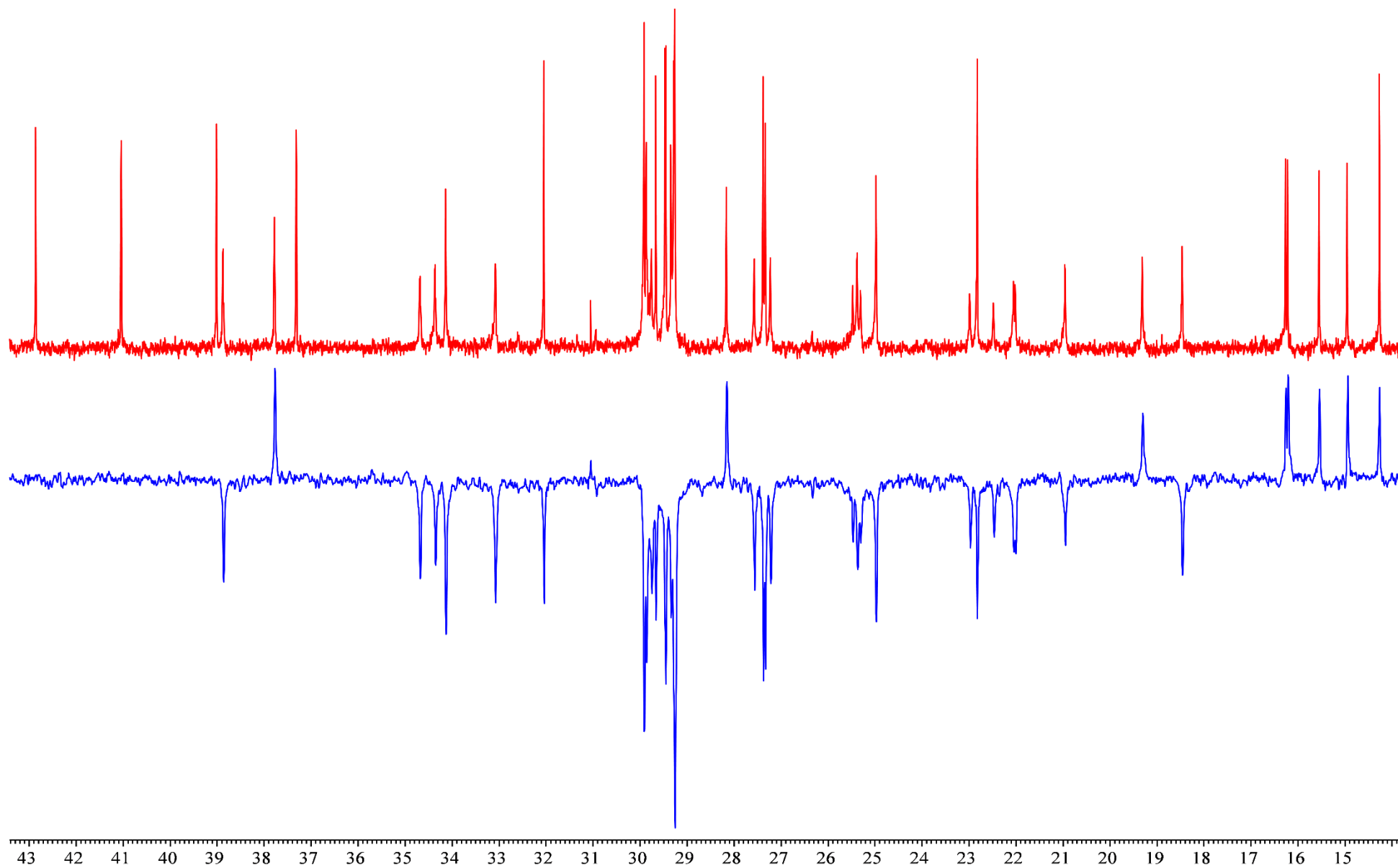


Figure S62. The 14-44 ppm region of ^{13}C - $\{^1\text{H}\}$ and ^{13}C - $\{^1\text{H}\}$ -dept NMR spectra (100.6 MHz, CDCl_3) of compound **10**.

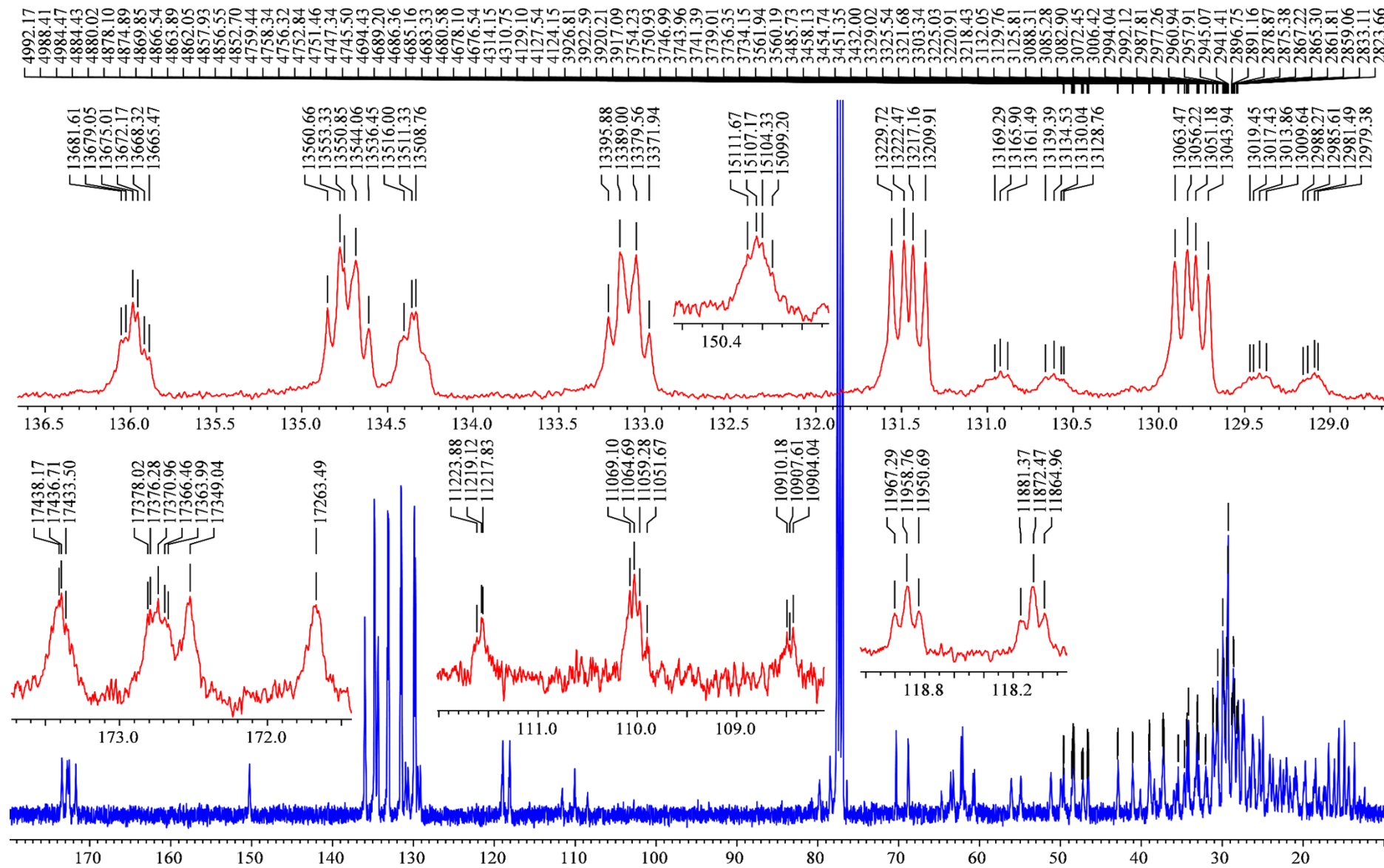


Figure S63. ¹³C NMR spectrum (100.6 MHz, CDCl₃) of compound 10.

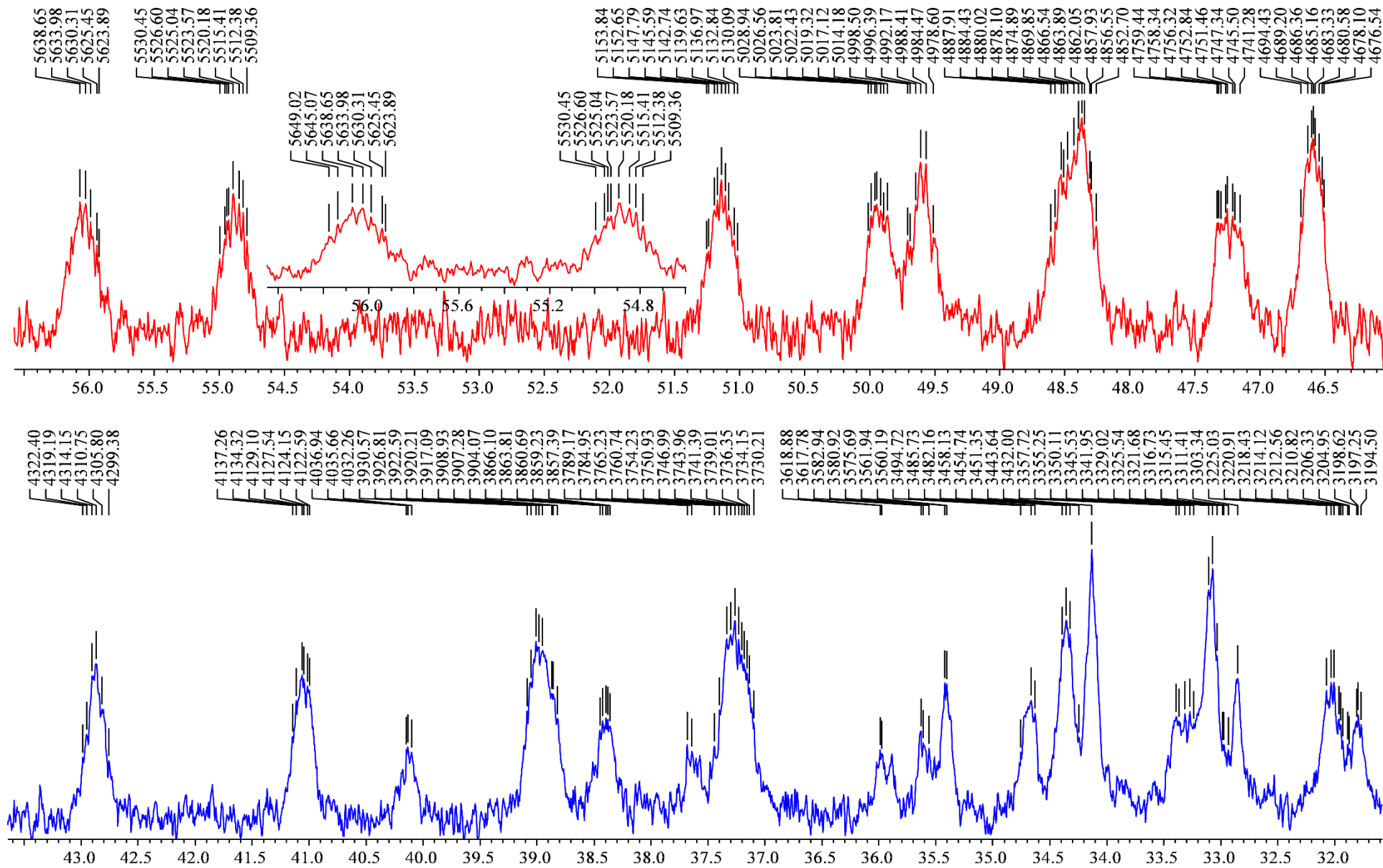


Figure S64. The 46-57 and 31-44 ppm regions of ^{13}C NMR spectrum (100.6 MHz, CDCl_3) of compound **10**.

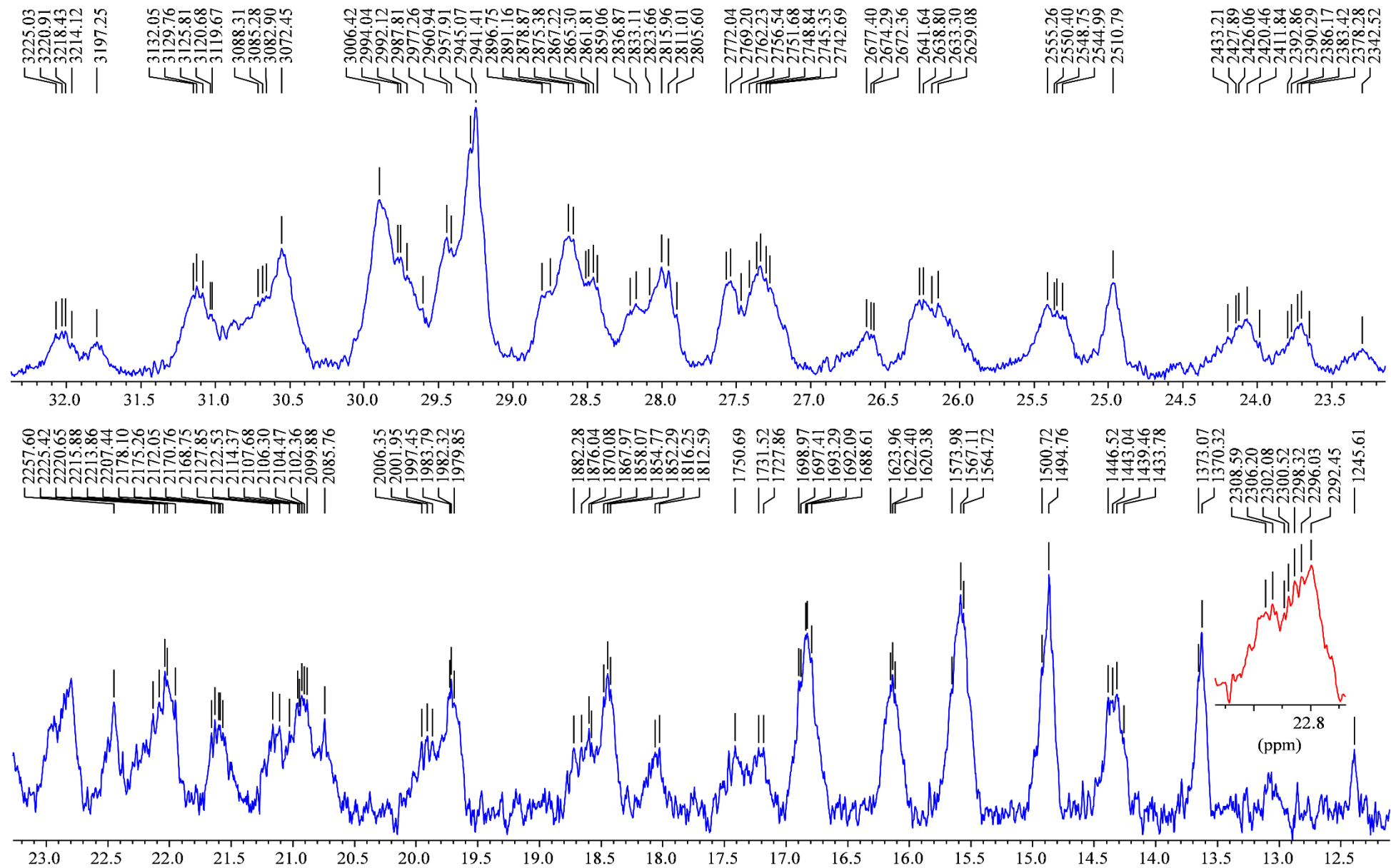


Figure S65. The 12-32 ppm region of ^{13}C NMR spectrum (100.6 MHz, CDCl_3) of compound **10**.

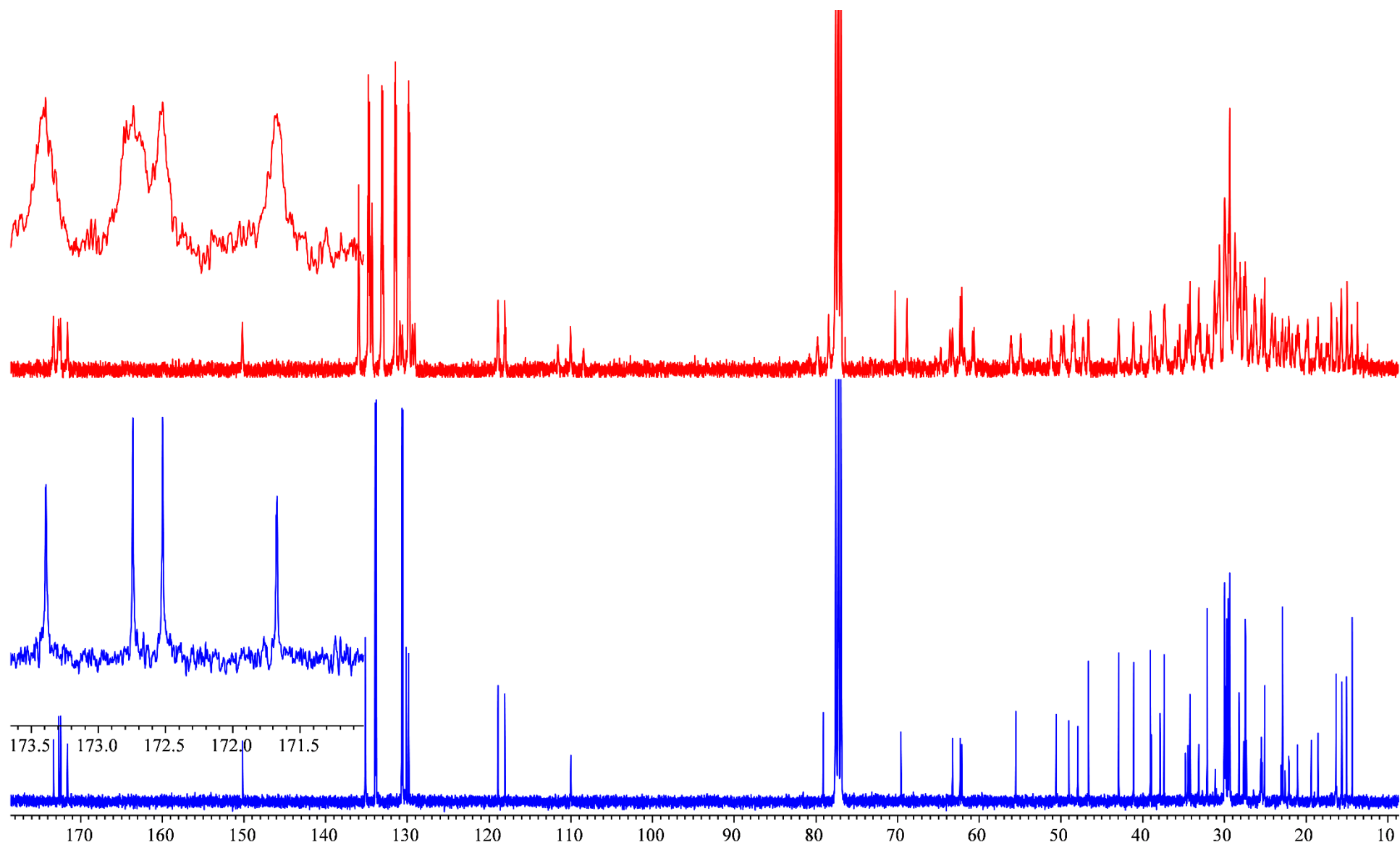


Figure S66. $^{13}\text{C}\{-^1\text{H}\}$ and ^{13}C NMR spectra (100.6 MHz, CDCl_3) of compound **10**.

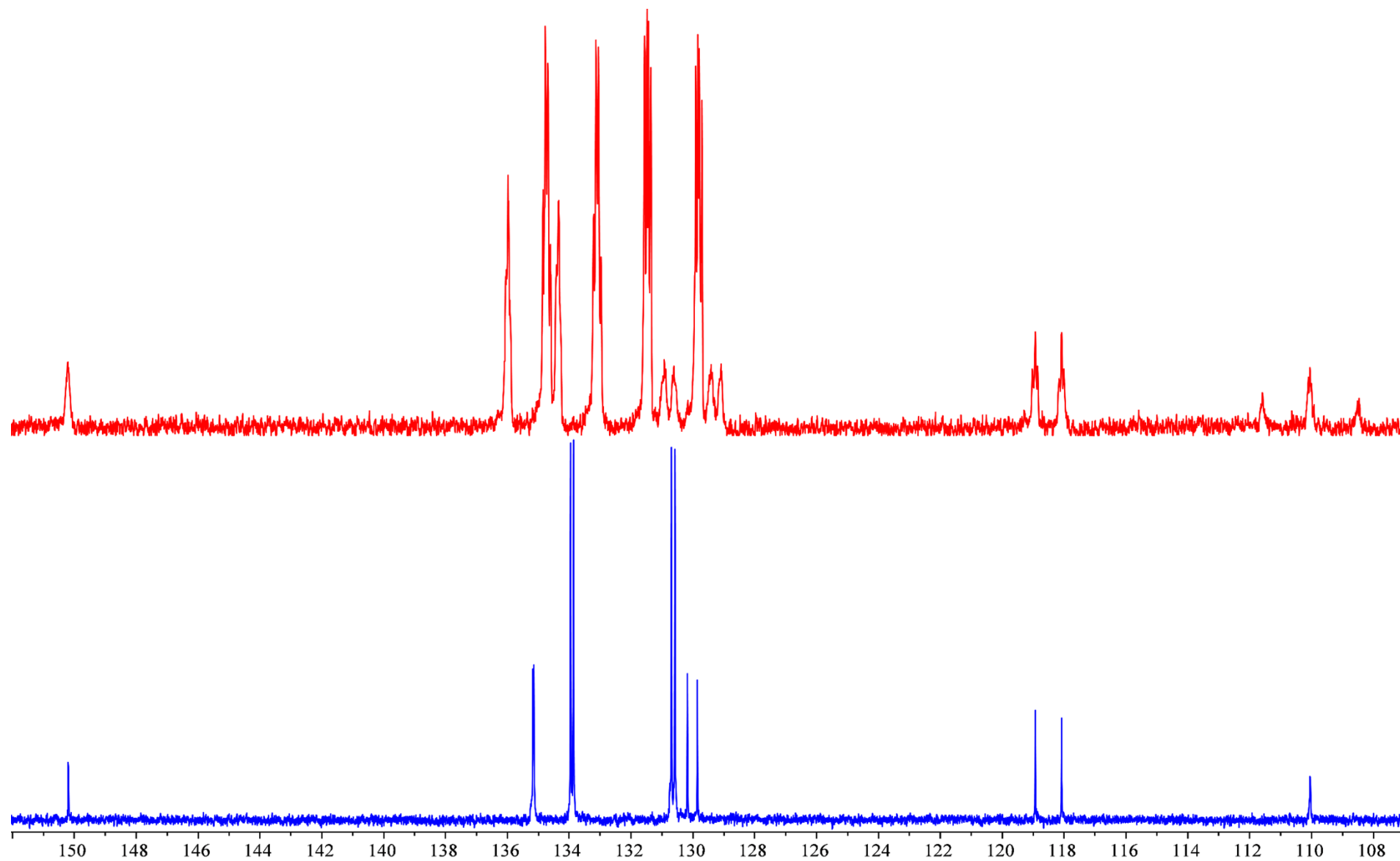


Figure S67. Down-field region of $^{13}\text{C}\{-^1\text{H}\}$ and ^{13}C NMR spectra (100.6 MHz, CDCl_3) of compound **10**.

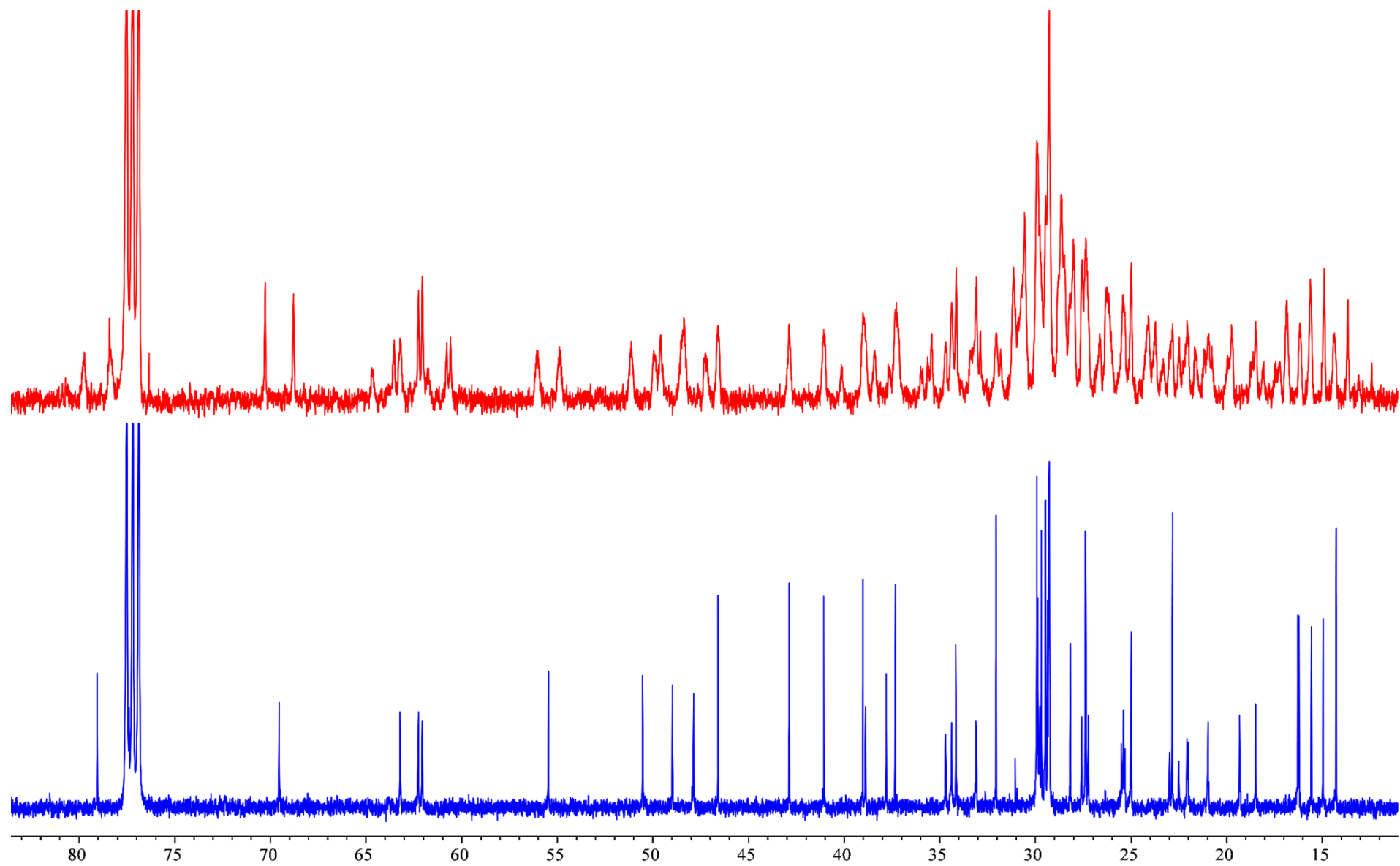


Figure S68. High-field region of $^{13}\text{C}\{-^1\text{H}\}$ and ^{13}C NMR spectra (100.6 MHz, CDCl_3) of compound **10**.

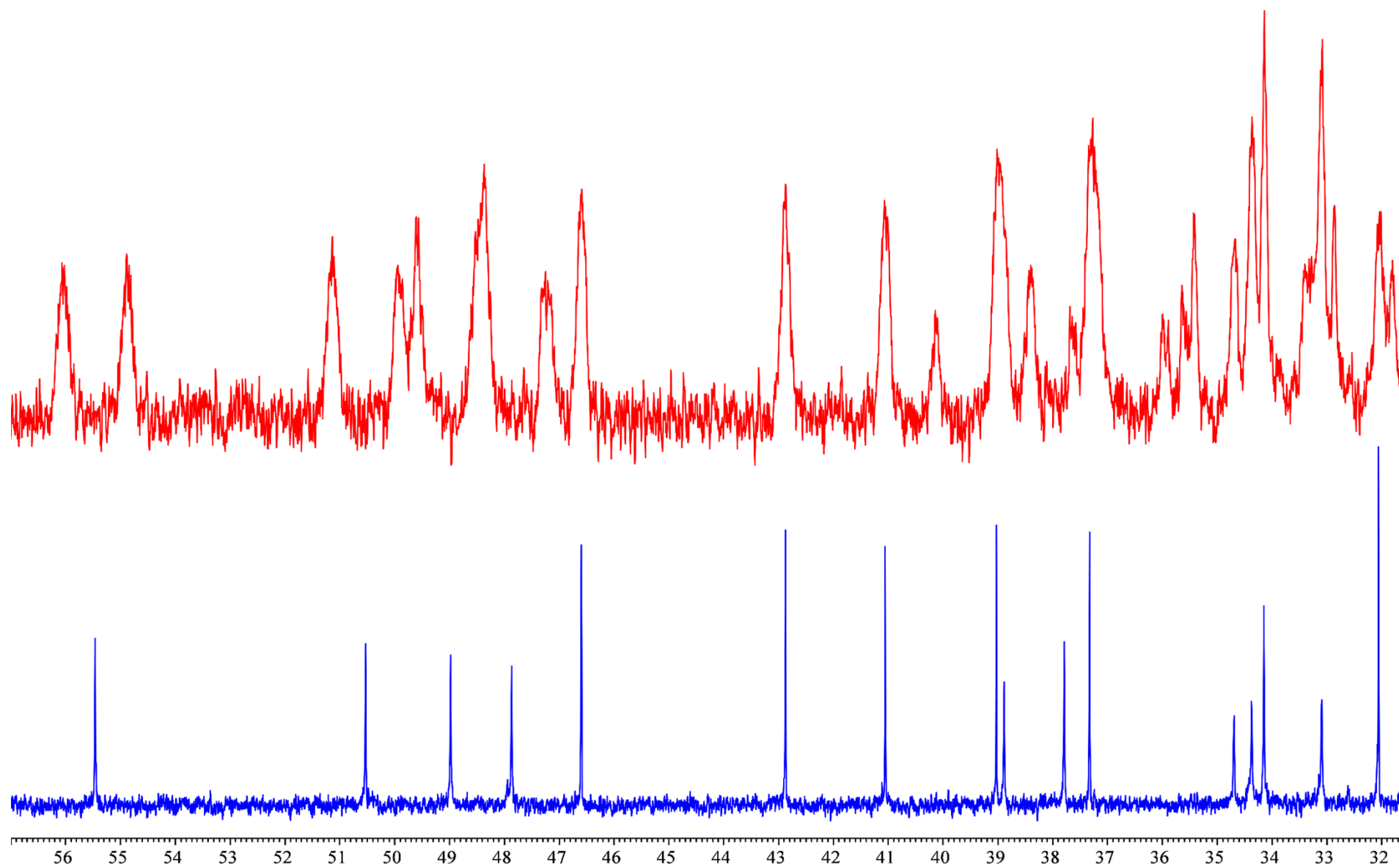


Figure S69. The 32-57 ppm region of $^{13}\text{C}\{-^1\text{H}\}$ and ^{13}C NMR spectra (100.6 MHz, CDCl_3) of compound **10**.

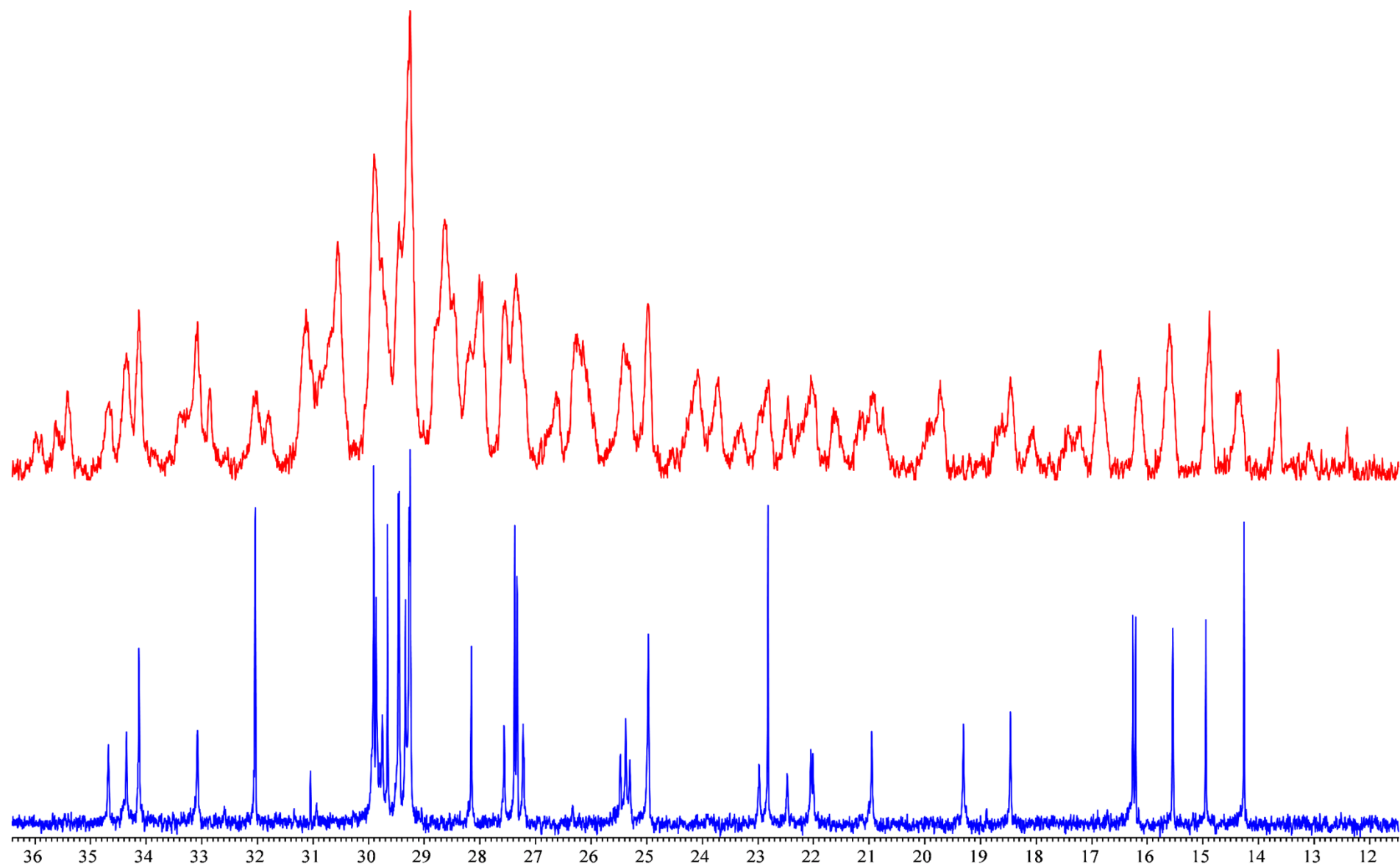


Figure S70. The 12-36 ppm region of $^{13}\text{C}\{-^1\text{H}\}$ and ^{13}C NMR spectra (100.6 MHz, CDCl_3) of compound **10**.

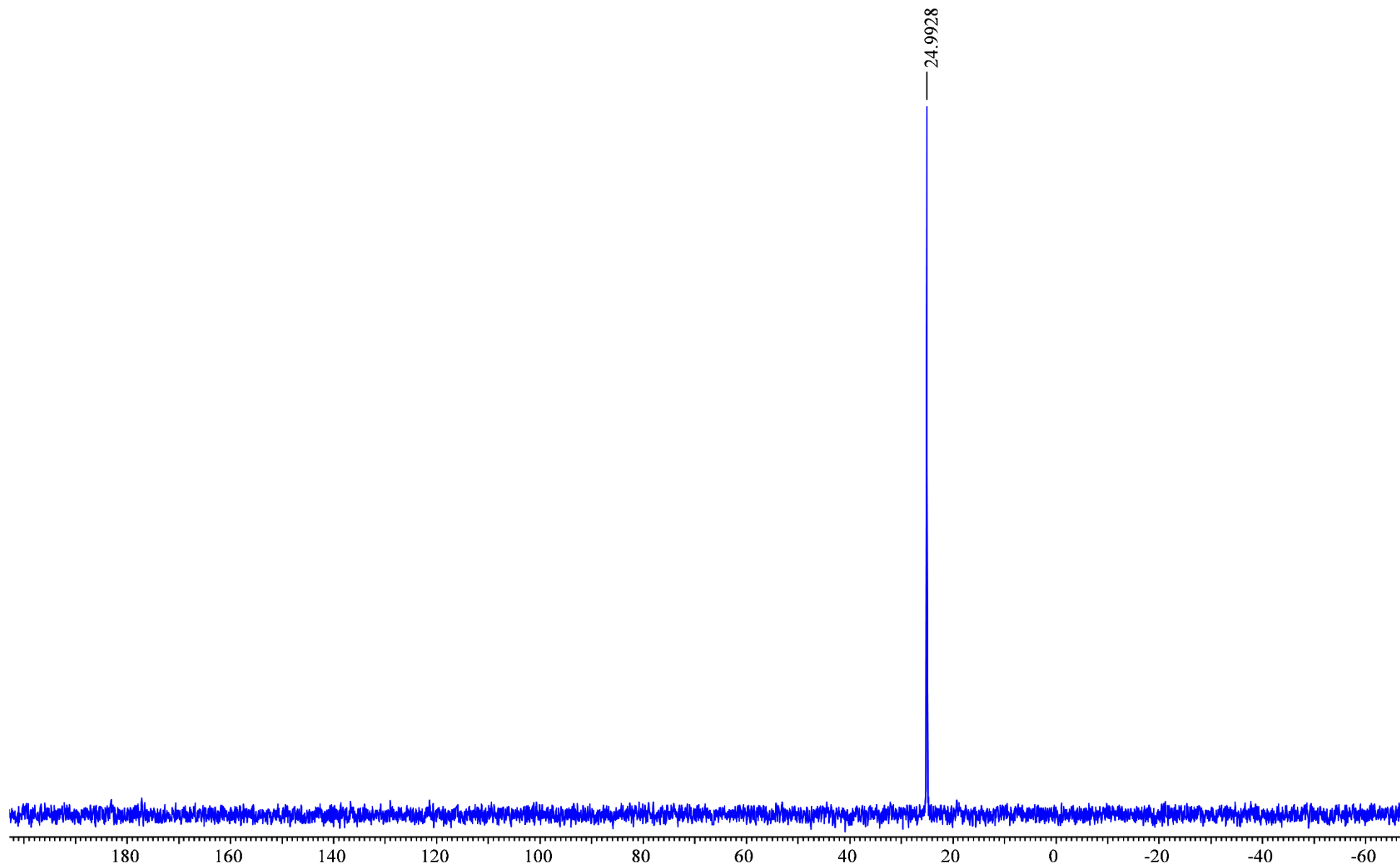


Figure S71. ^{31}P - $\{^1\text{H}\}$ NMR spectrum (162 MHz, CDCl_3) of compound **10**.

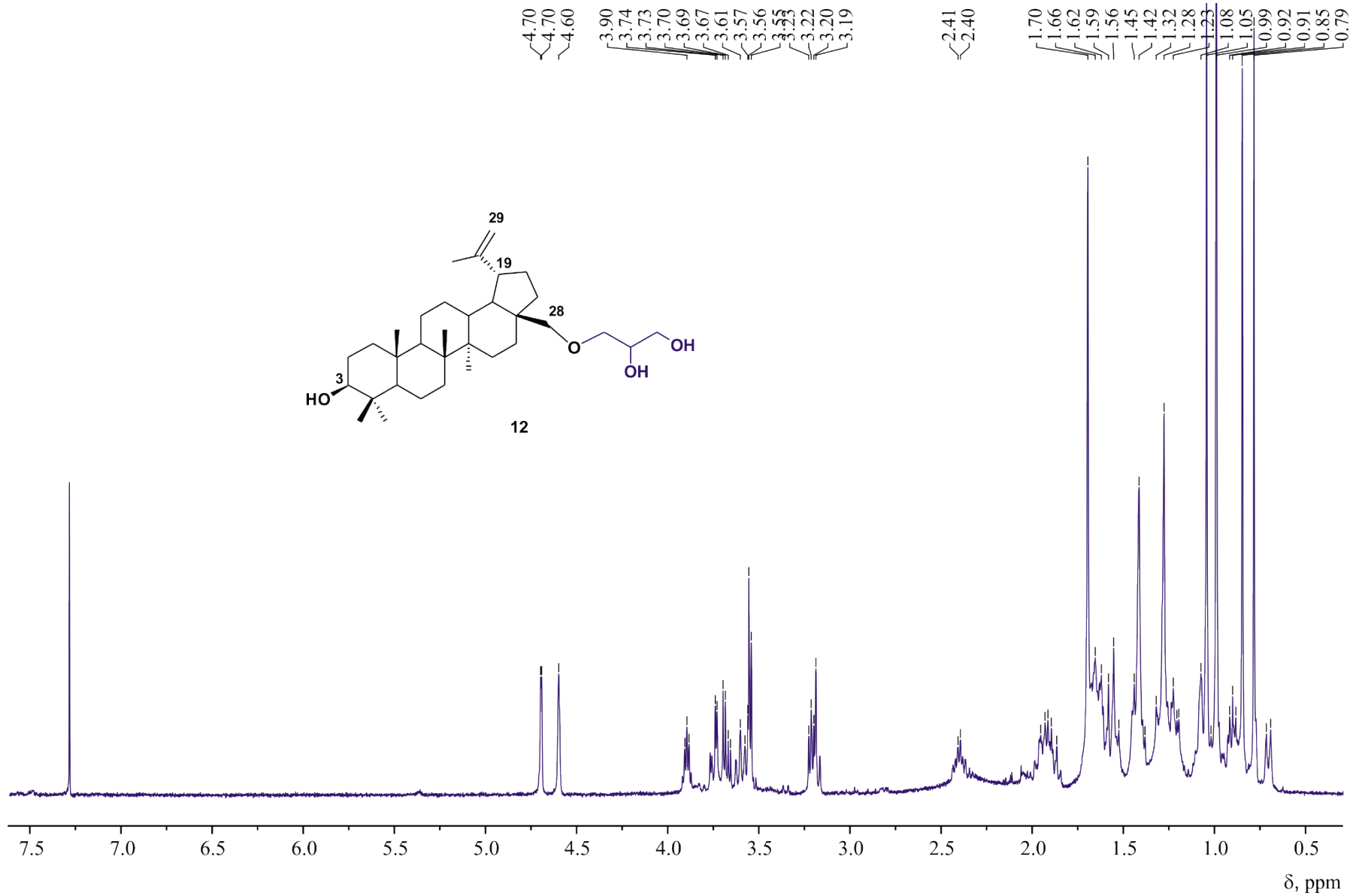


Figure S72. ^1H NMR spectrum (400 MHz, CDCl_3) of compound **12**.

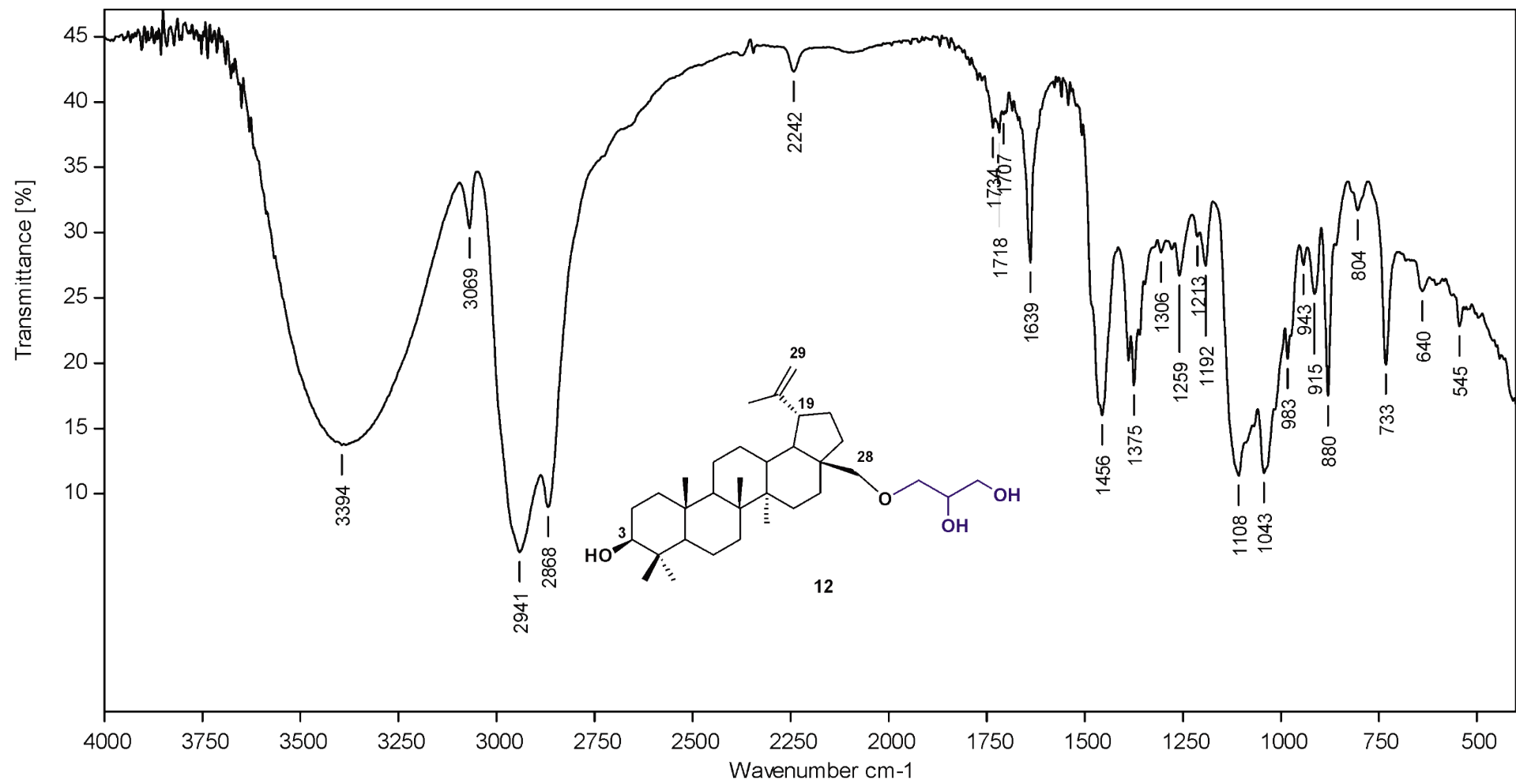


Figure S73. IR (KBr) spectrum of **12**.

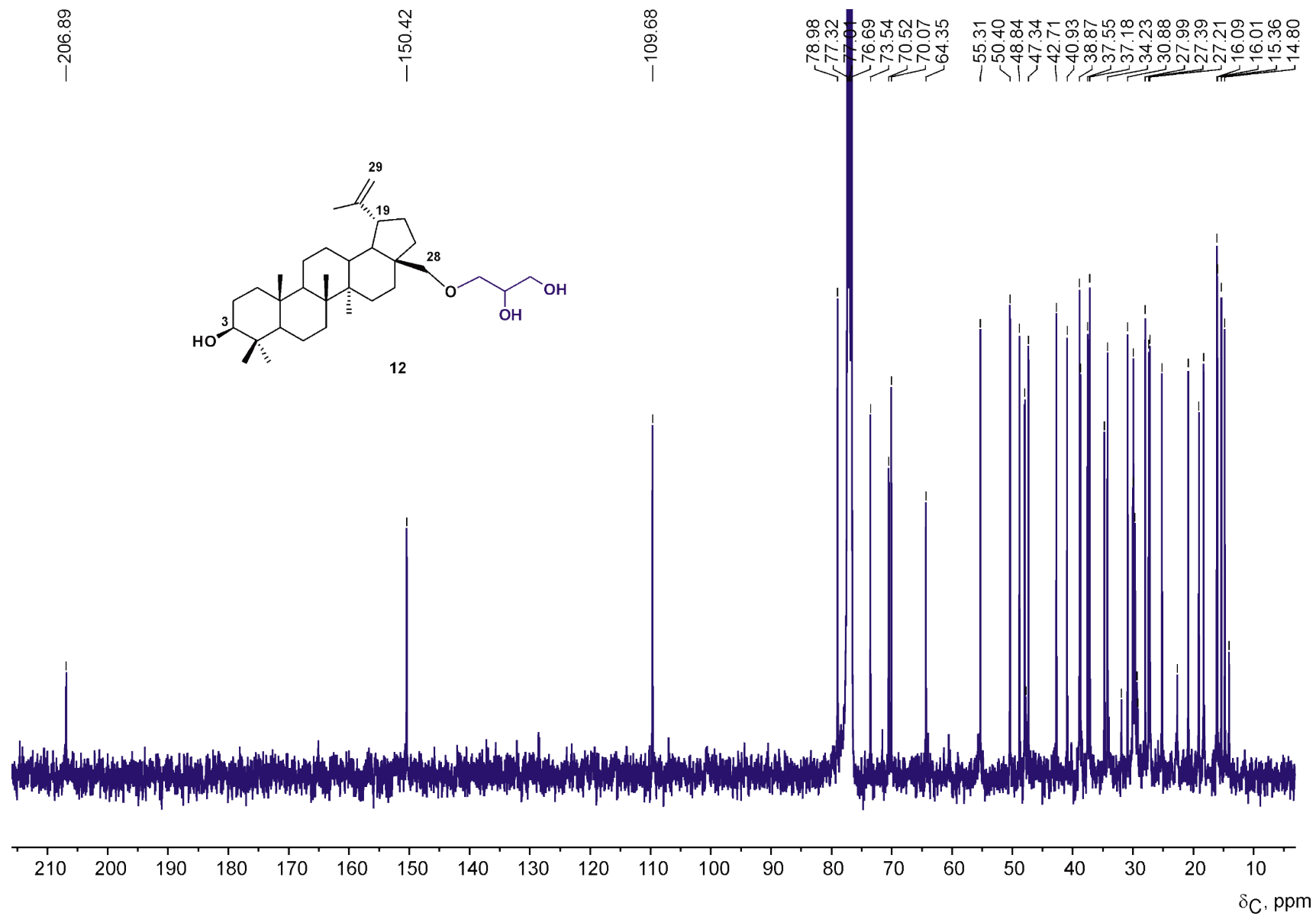


Figure S74. ^{13}C - $\{^1\text{H}\}$ NMR (CDCl₃, 100.6 MHz) spectrum of **12**.

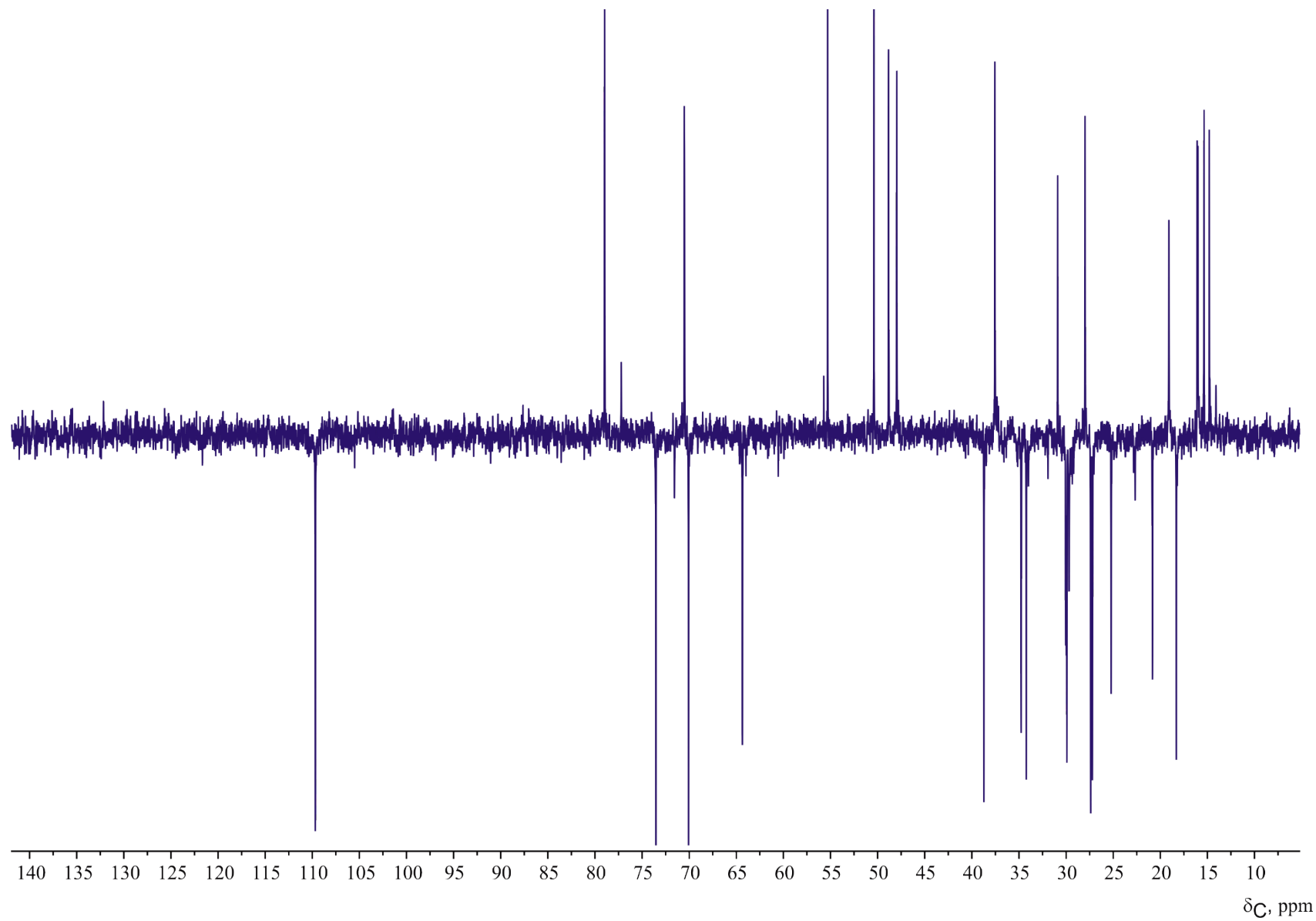


Figure S75. ^{13}C - $\{^1\text{H}\}$ apt NMR (CDCl_3 , 100.6 MHz) spectrum of **12**.

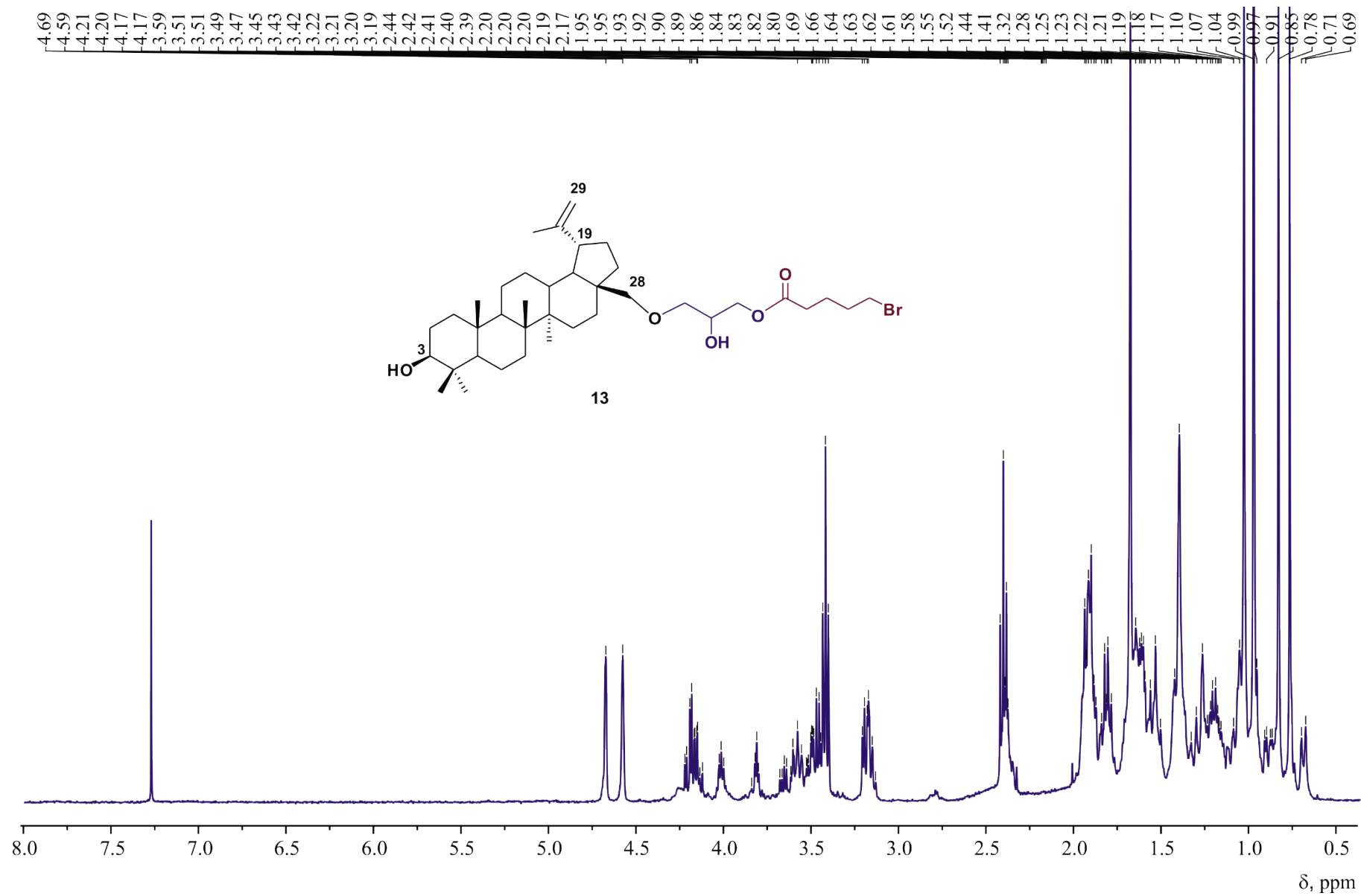


Figure S76. ¹H NMR spectrum (400 MHz, CDCl₃) of compound 13.

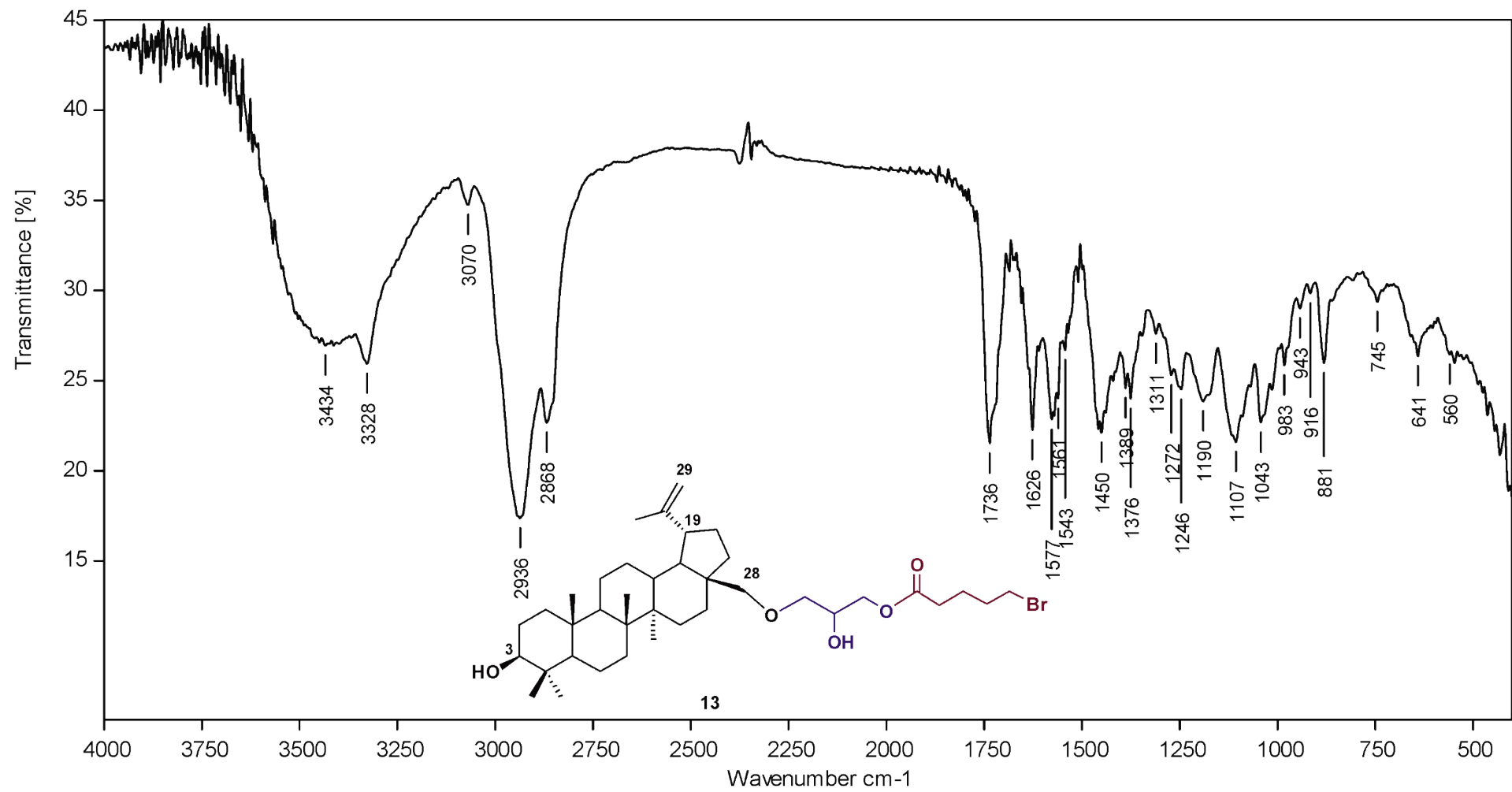


Figure S77. IR (KBr) spectrum of **13**.

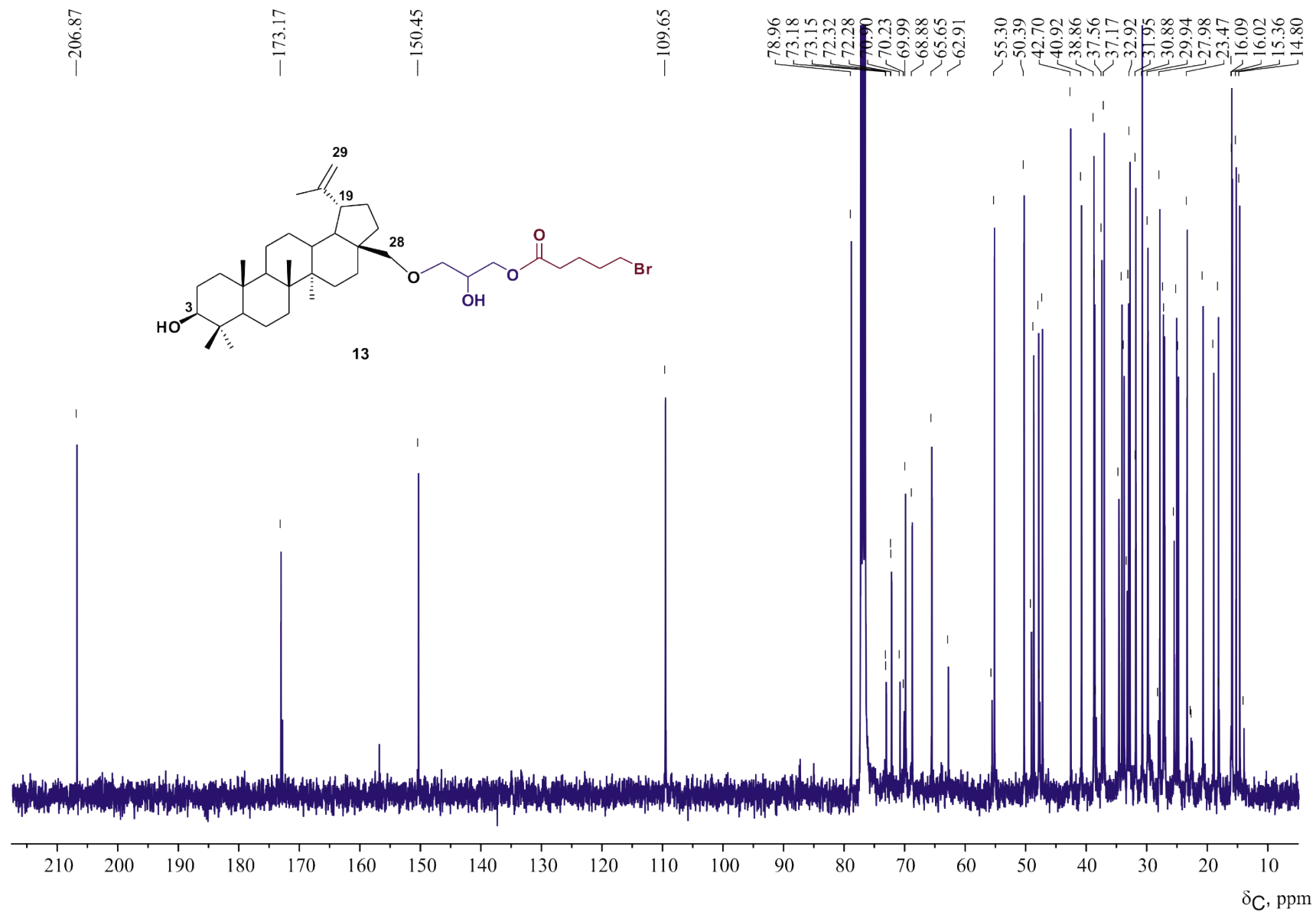


Figure S78. ^{13}C - $\{^1\text{H}\}$ NMR (CDCl₃, 100.6 MHz) spectrum of **13**.

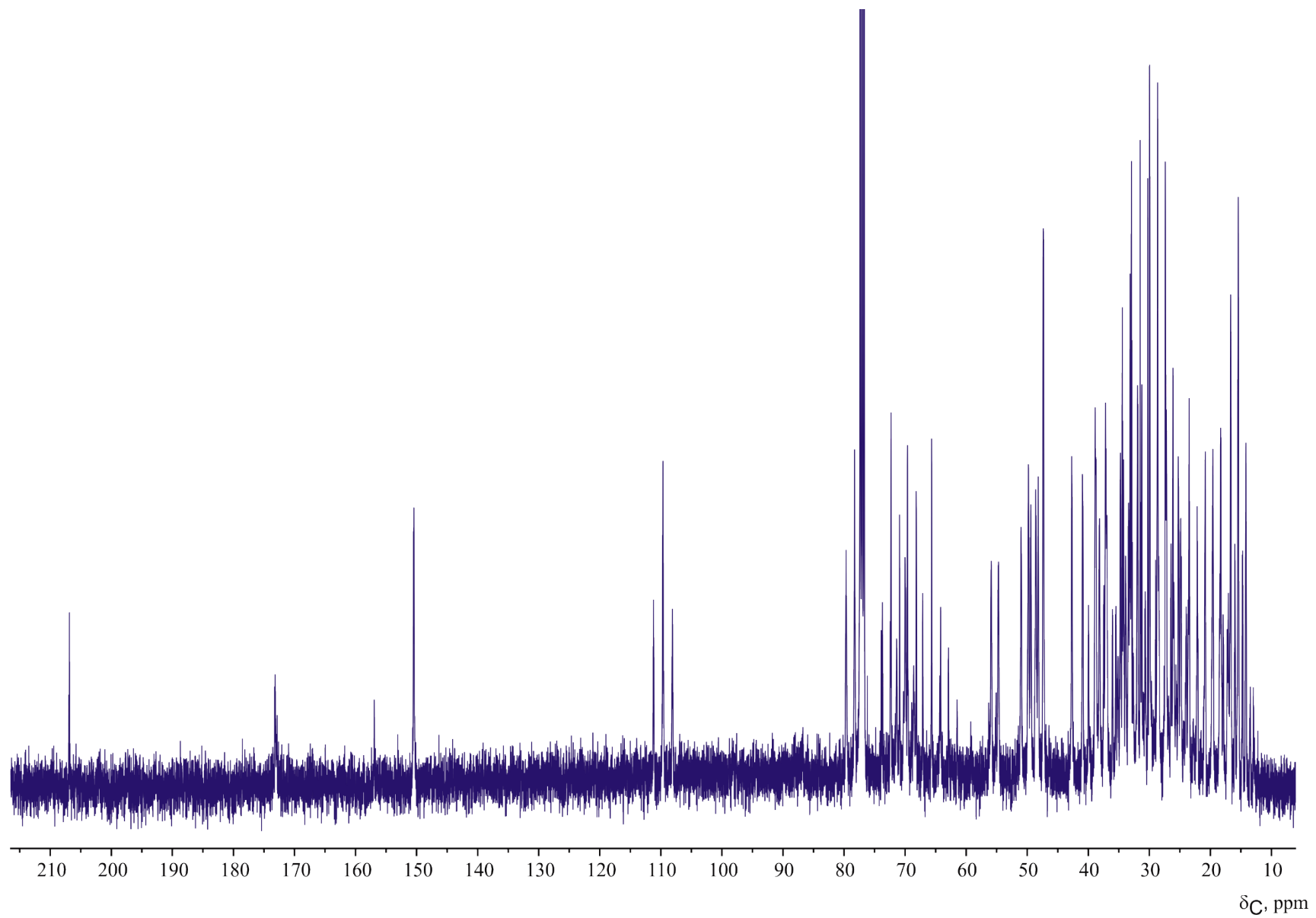


Figure S79. ^{13}C NMR (CDCl_3 , 100.6 MHz) spectrum of **13**.

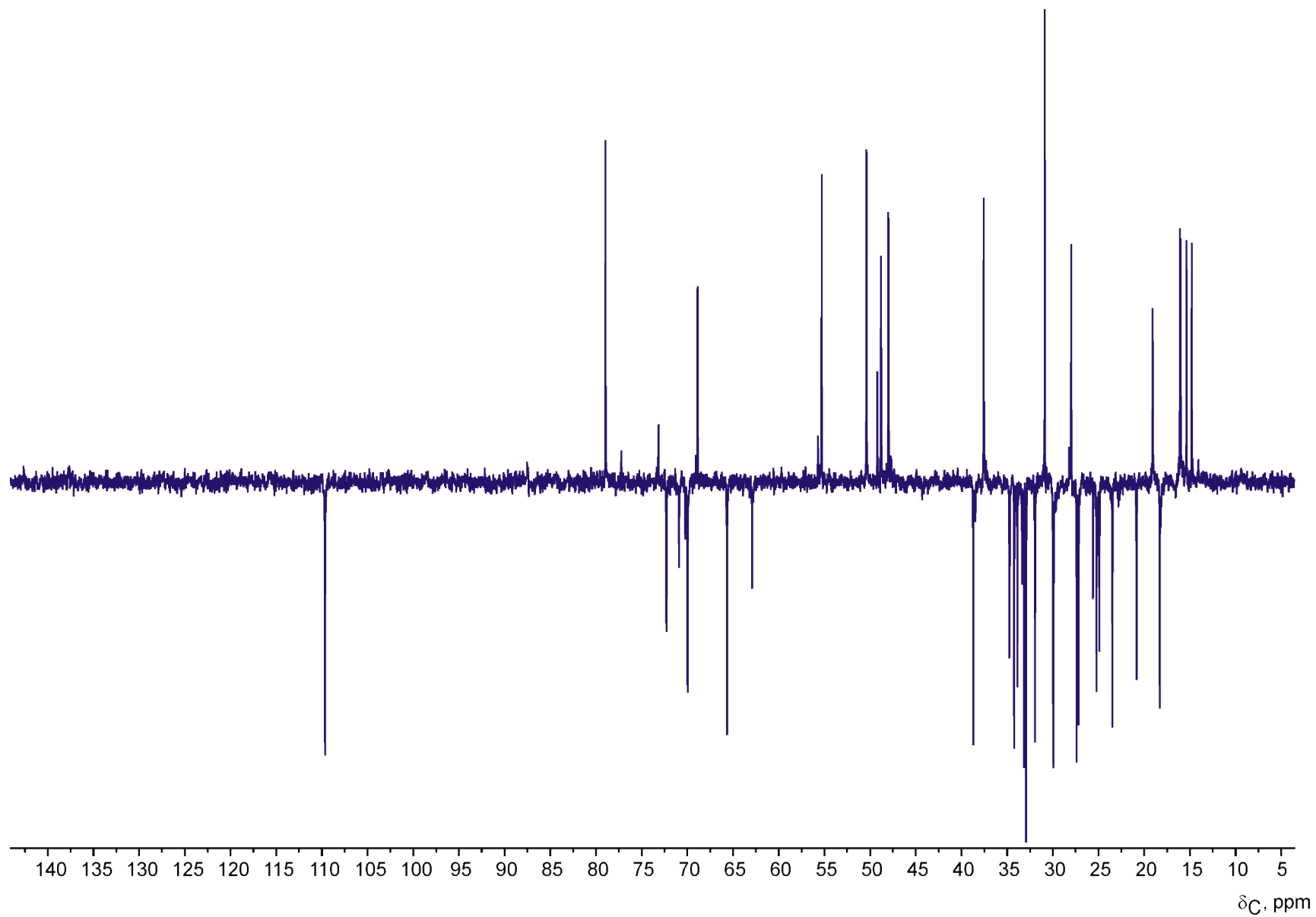


Figure S80. ^{13}C - $\{^1\text{H}\}$ apt NMR (CDCl_3 , 100.6 MHz) spectrum of **13**.

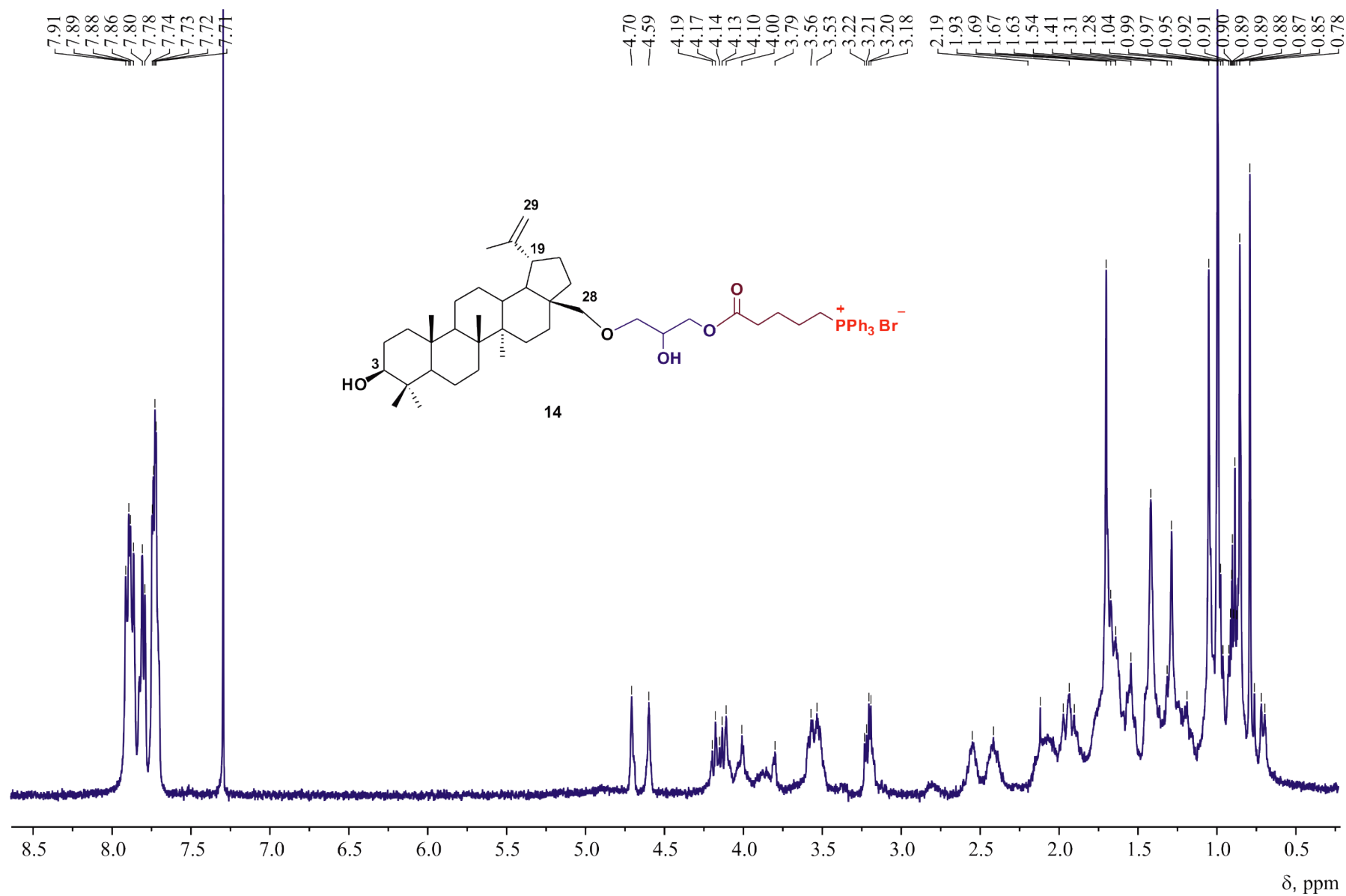


Figure S81. ¹H NMR spectrum (400 MHz, CDCl₃) of compound 14.

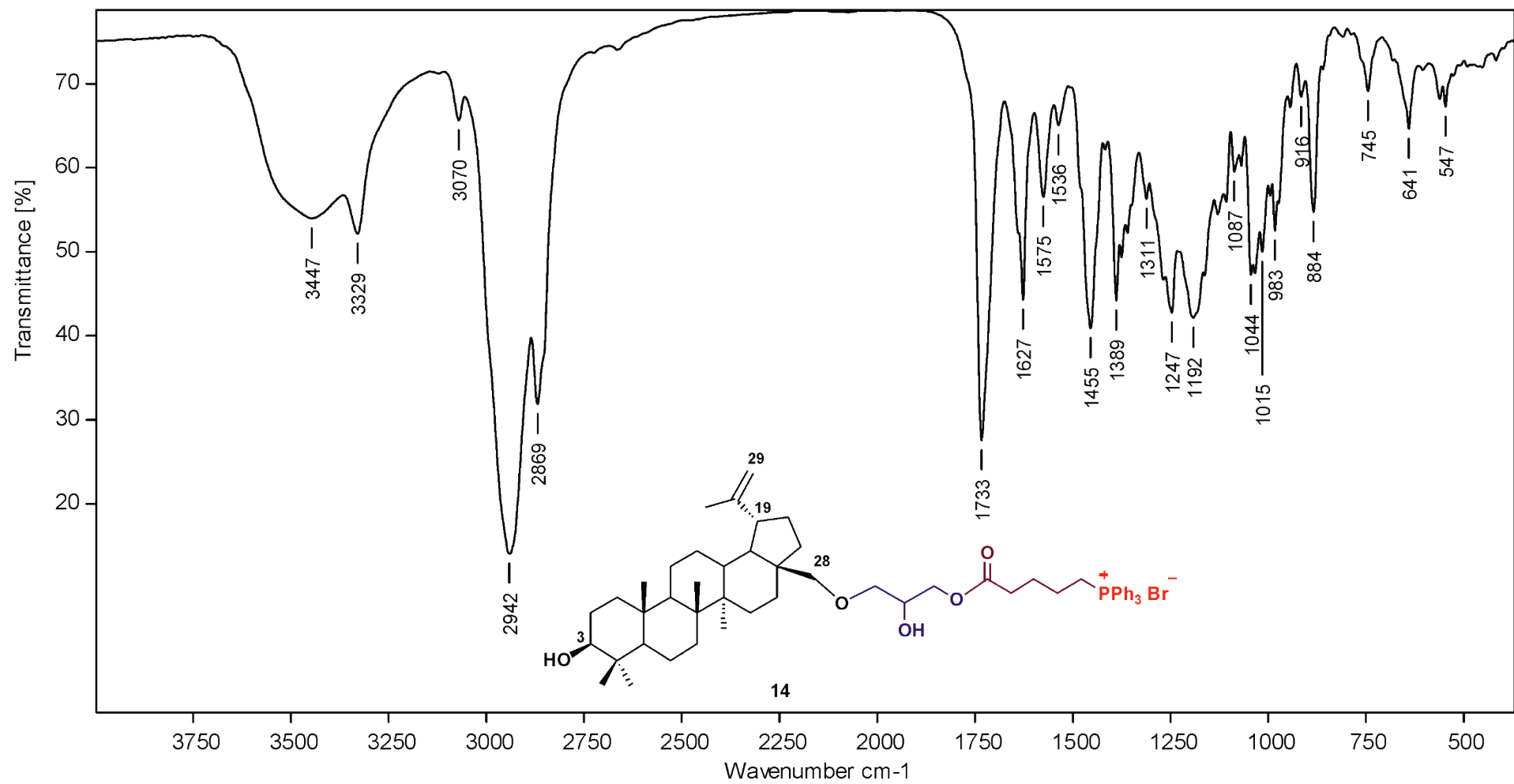


Figure S82. IR (KBr) spectrum of **14**.

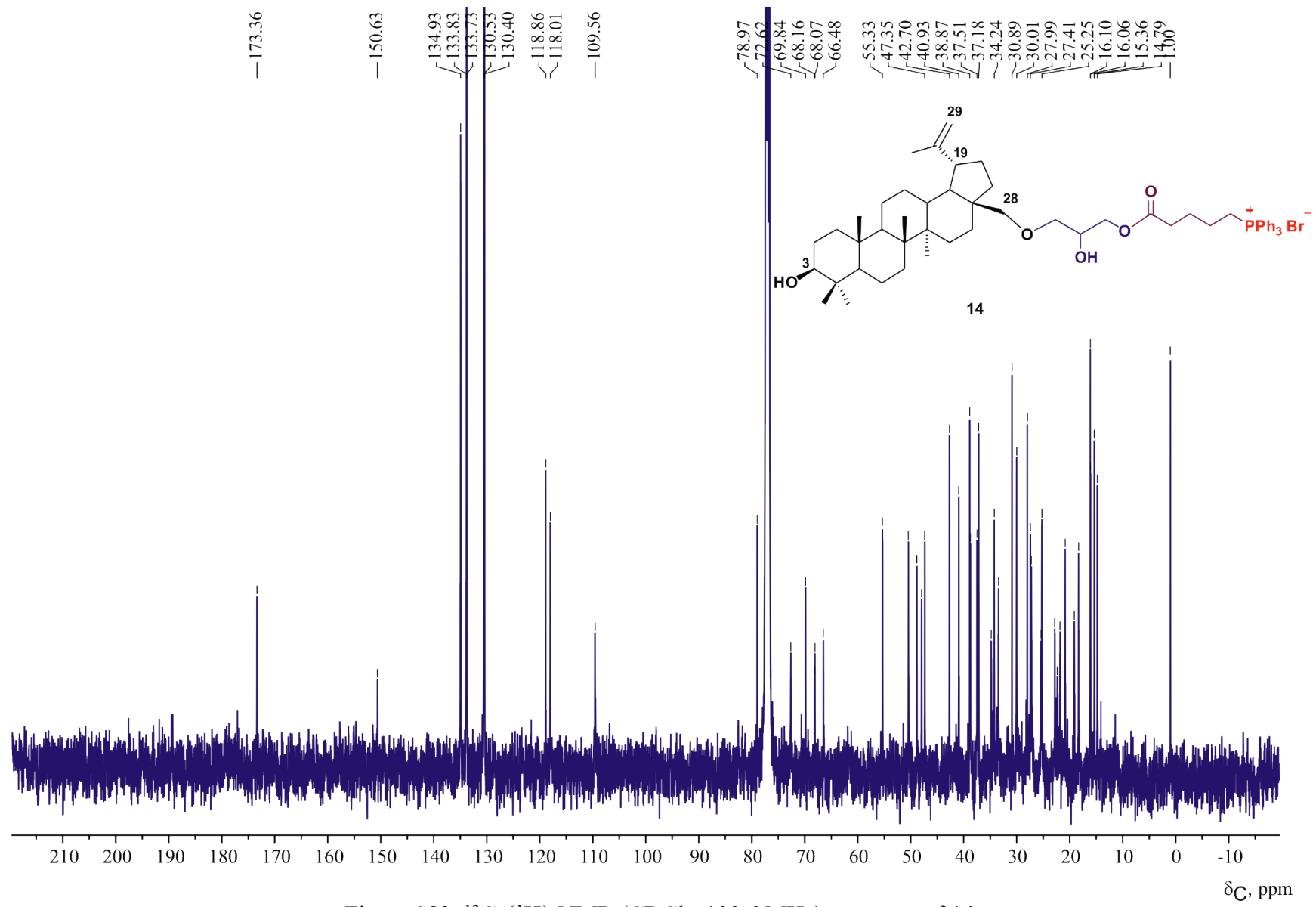


Figure S83. $^{13}\text{C}\{-^1\text{H}\}$ NMR (CDCl_3 , 100.6 MHz) spectrum of **14**.

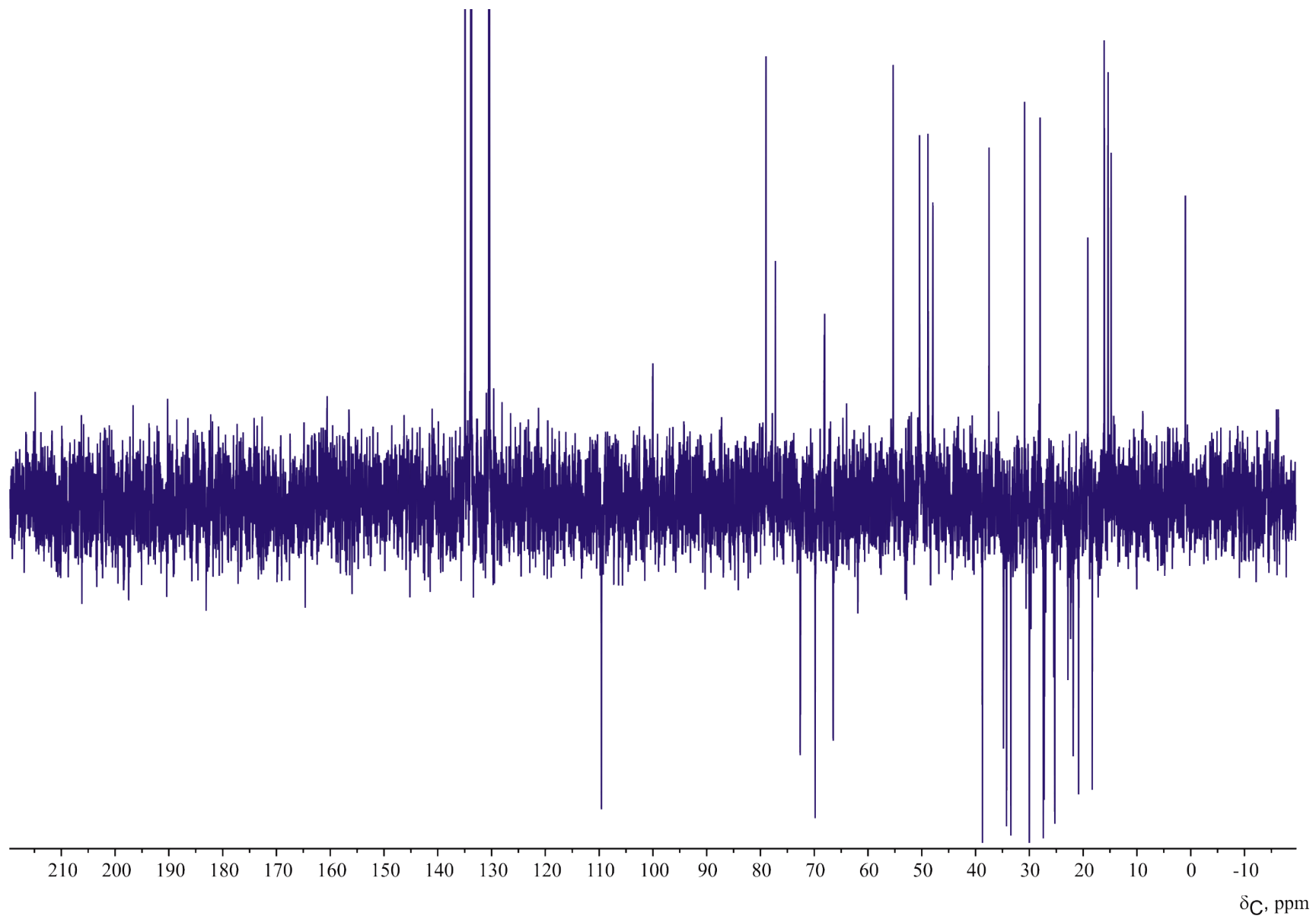


Figure S84. ^{13}C - $\{^1\text{H}\}$ apt NMR (CDCl_3 , 100.6 MHz) spectrum of **14**.

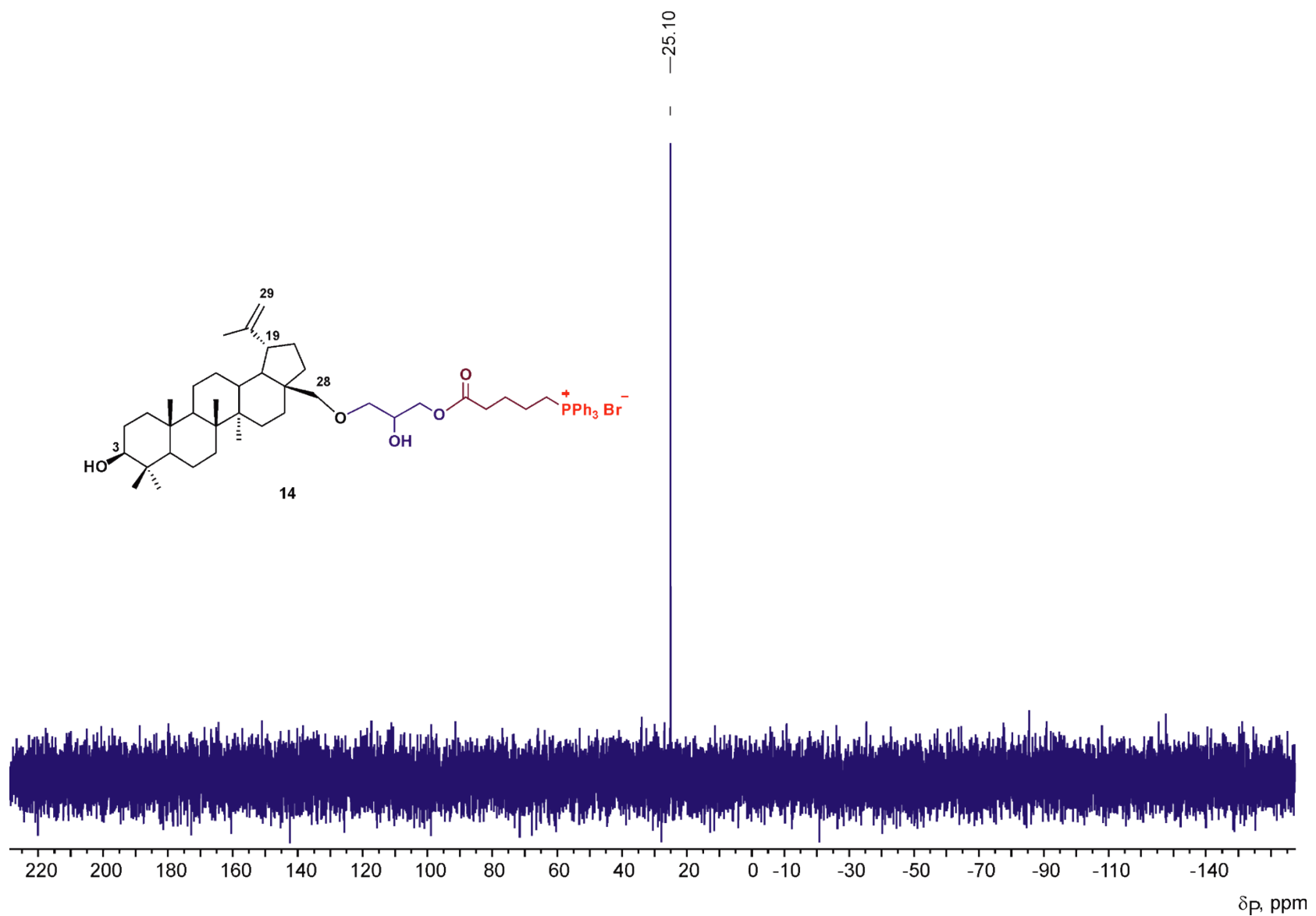


Figure S85. ^{31}P - $\{^1\text{H}\}$ NMR (CDCl_3 , 162 MHz) spectrum of **14**.