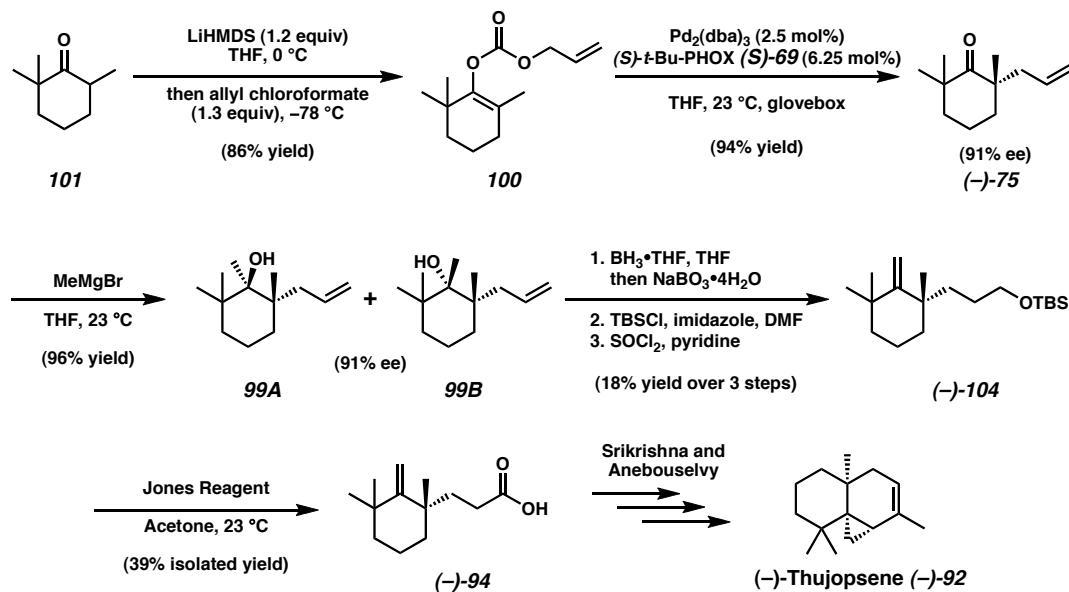


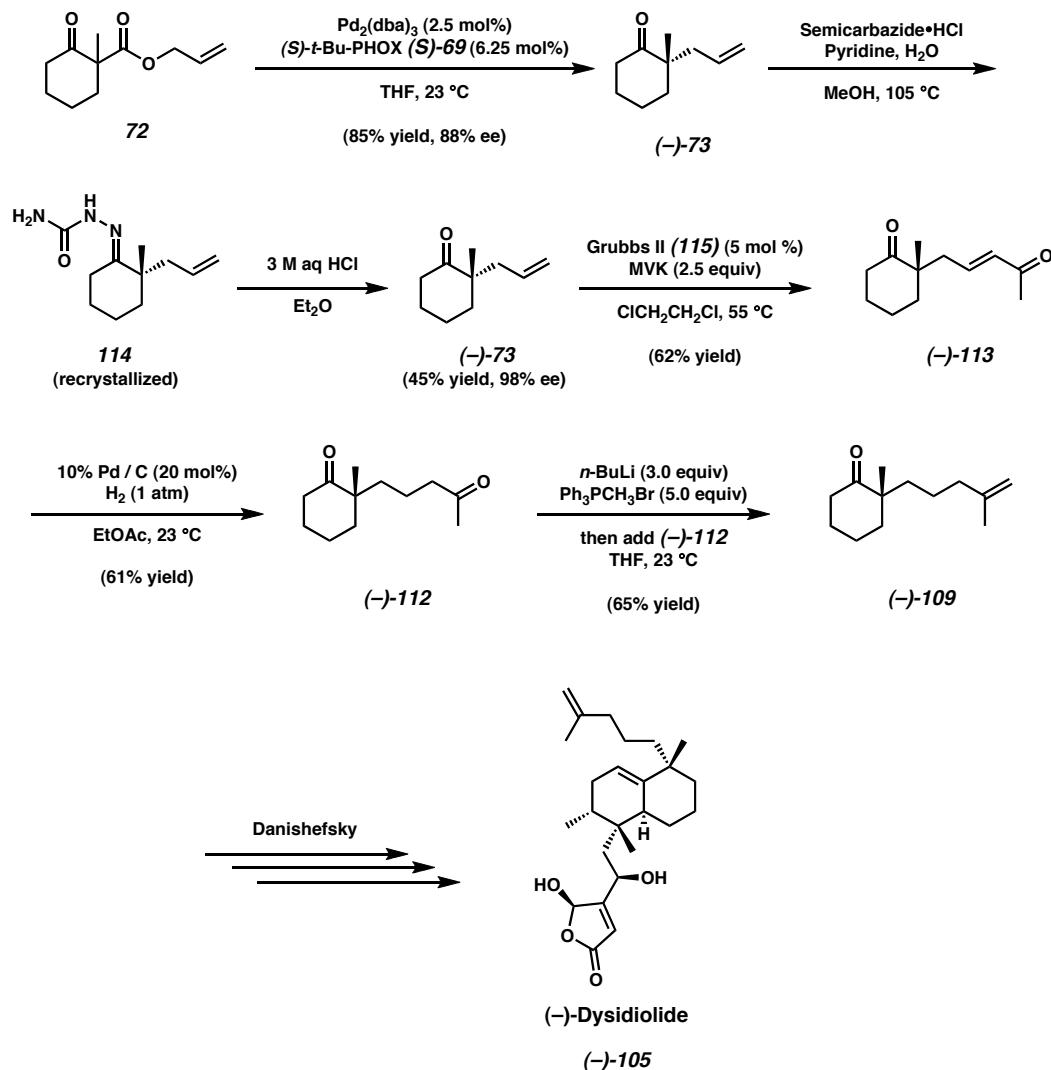
Appendix ONE

**Synthetic Summaries of the Formal Total Syntheses of
(-)-Thujopsene, (-)-Dysidiolide, and (-)-Aspidospermine**

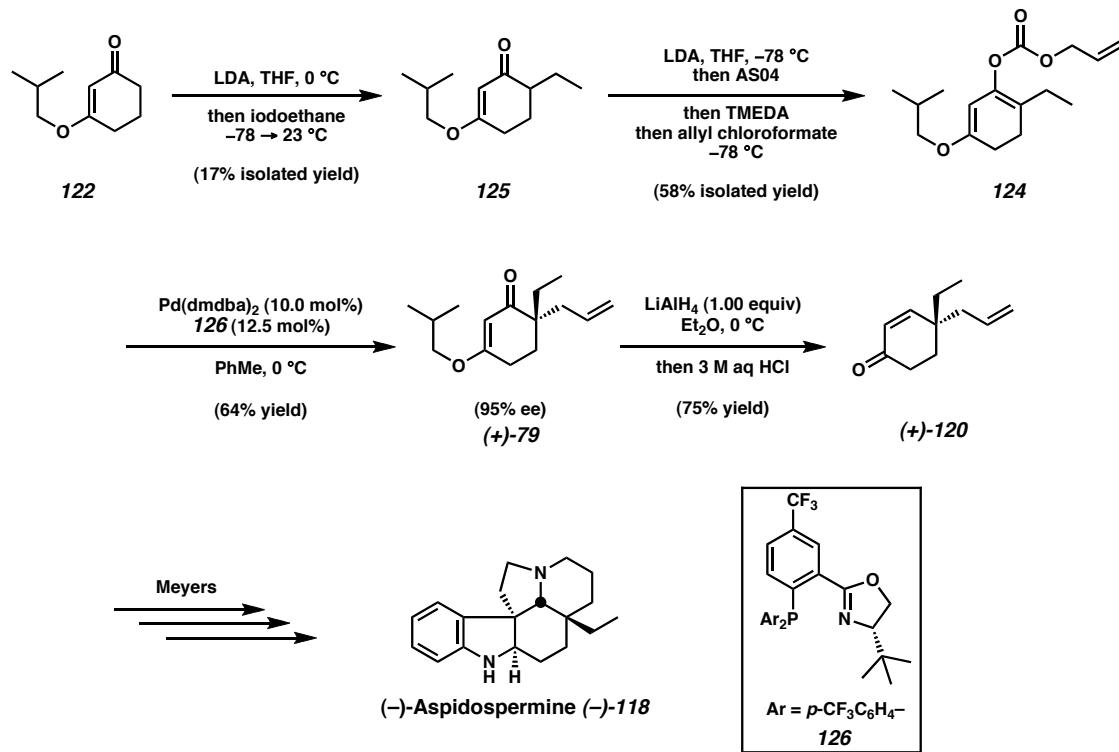
Scheme A1.1 Formal Total Synthesis of Thujopsene



Scheme A1.2 Formal Total Synthesis of Dysidiolide



Scheme A1.3 Formal Total Synthesis of Aspidospermine



Appendix TWO

Spectra of Compounds Relevant to Chapter 2

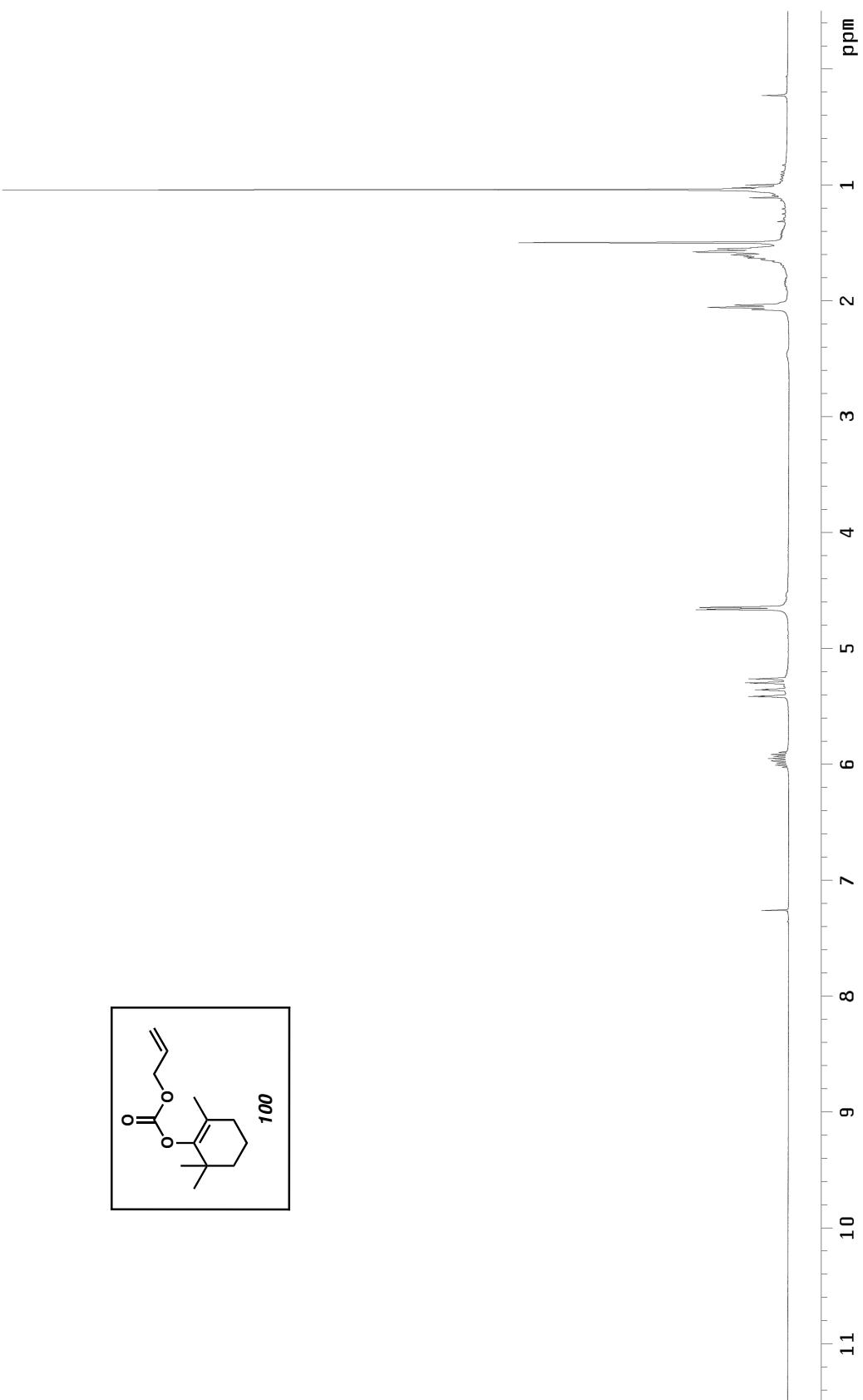


Figure A2.1 ^1H NMR (300 MHz, CDCl_3) of compound **100**.

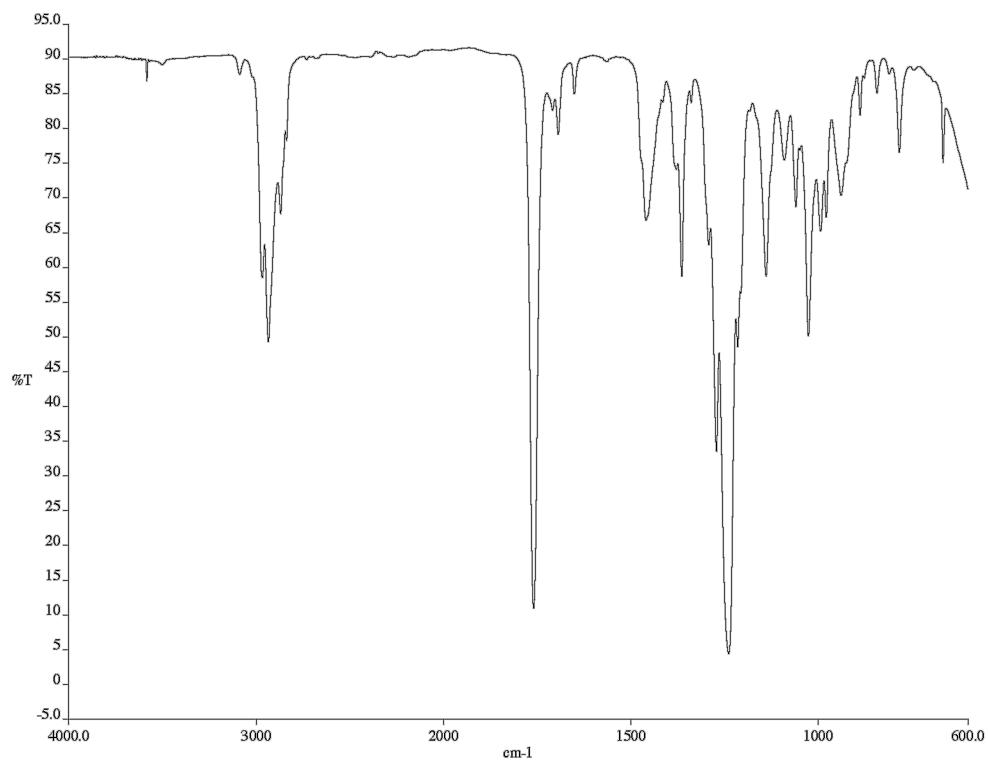


Figure A2.2 Infrared spectrum ($\text{NaCl}/\text{CDCl}_3$) of compound **100**.

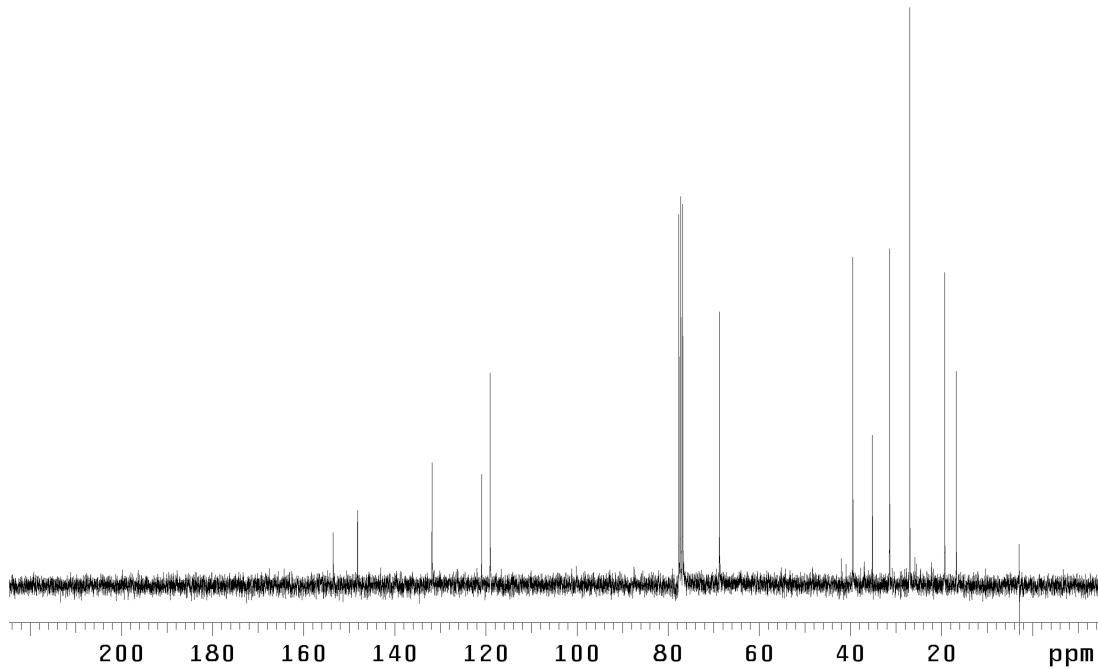


Figure A2.3 ^{13}C NMR (75 MHz, CDCl_3) of compound **100**.

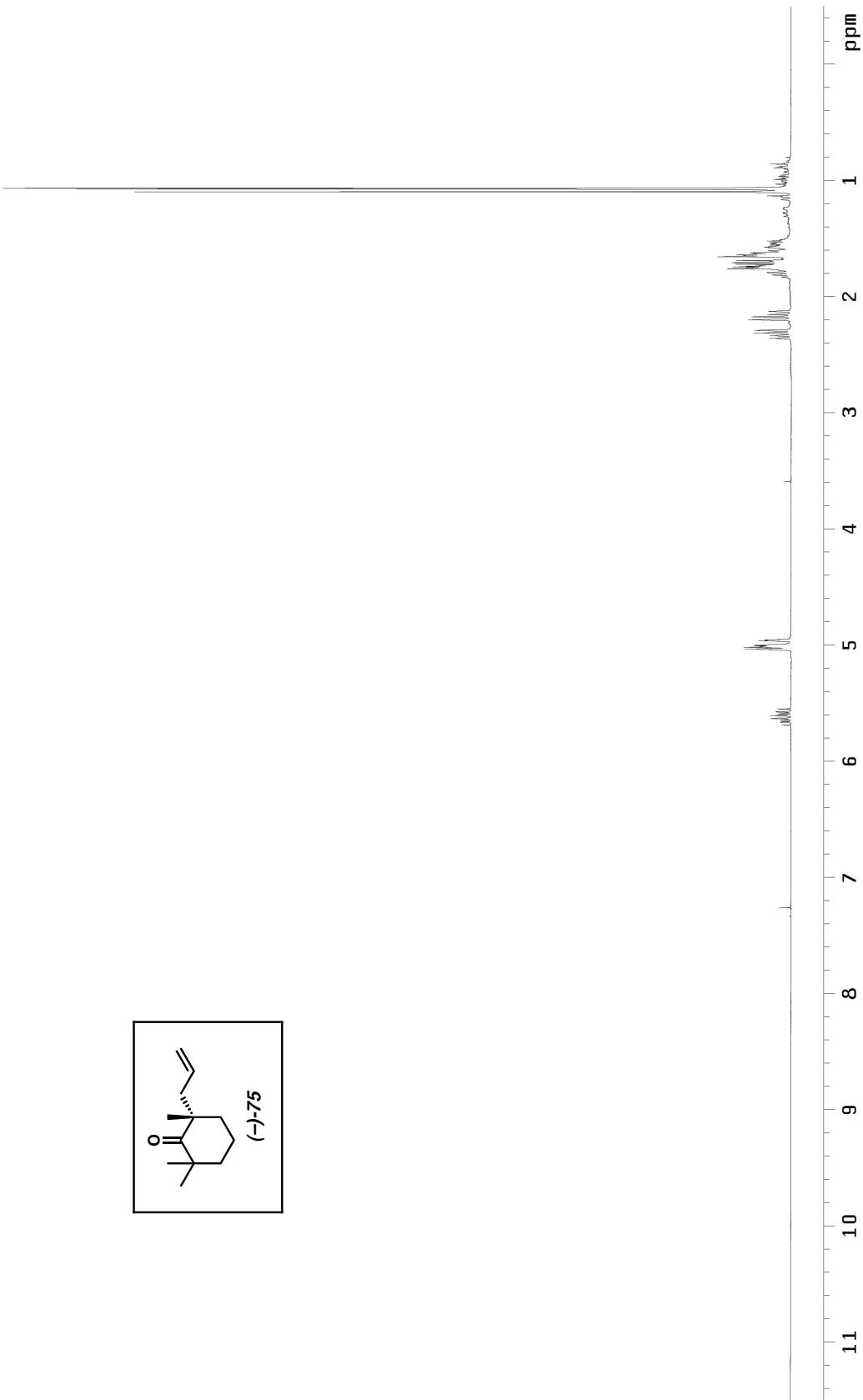


Figure A2.4 ^1H NMR (300 MHz, CDCl_3) of compound 75 .

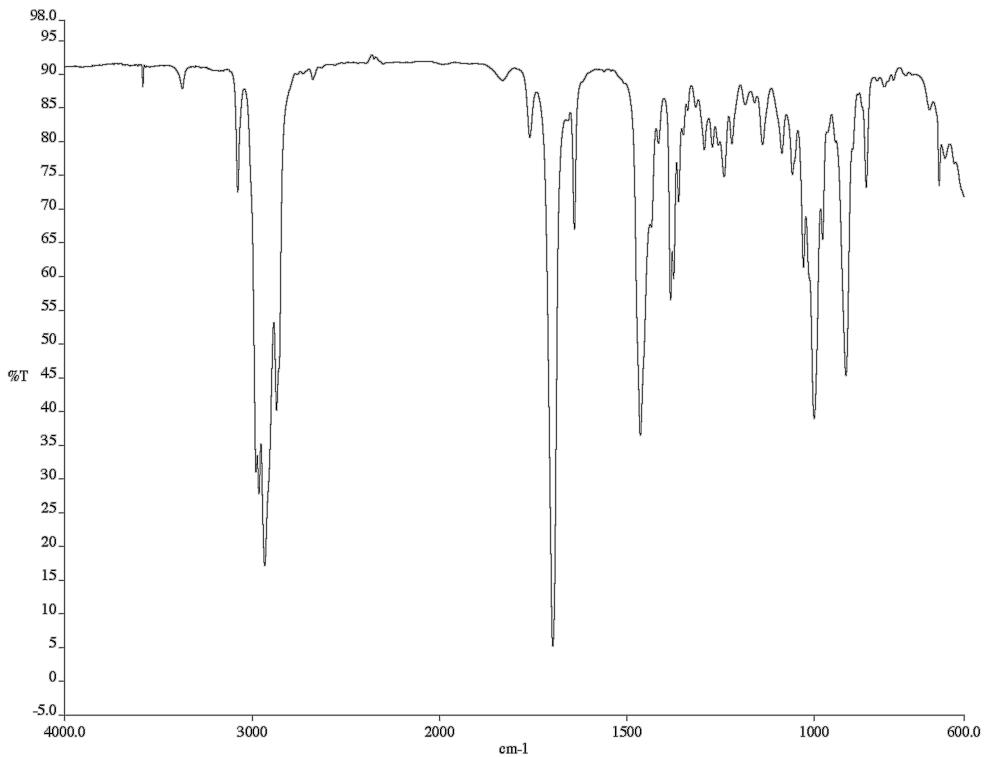


Figure A2.5 Infrared spectrum (NaCl/CDCl₃) of compound 75.

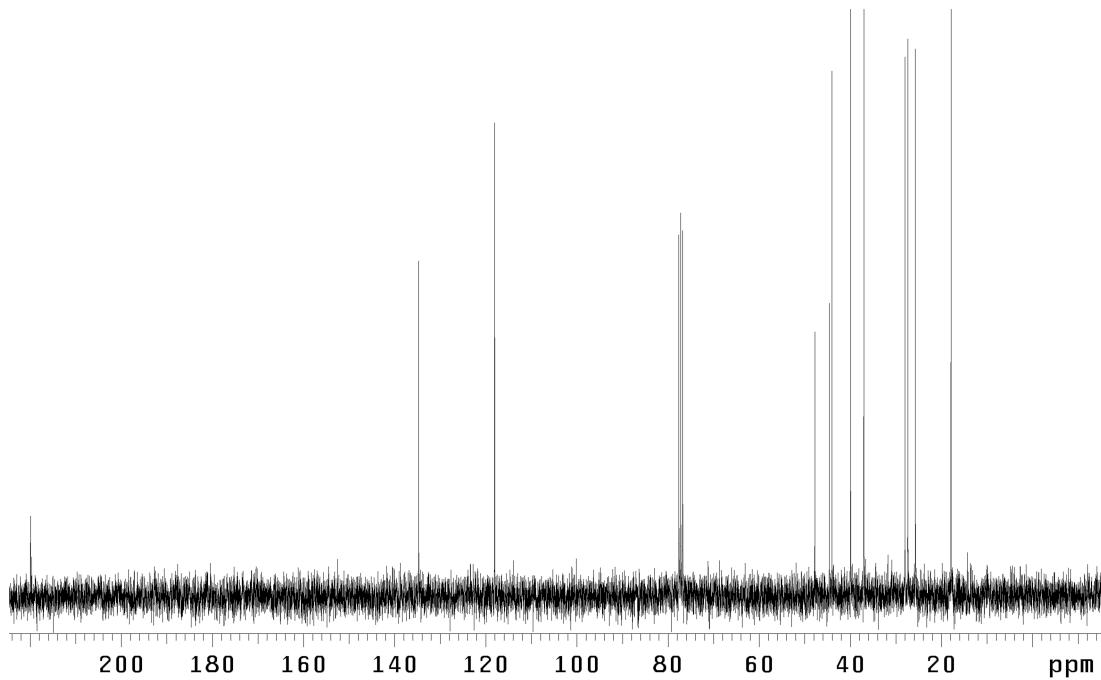


Figure A2.6 ¹³C NMR (75 MHz, CDCl₃) of compound 75.

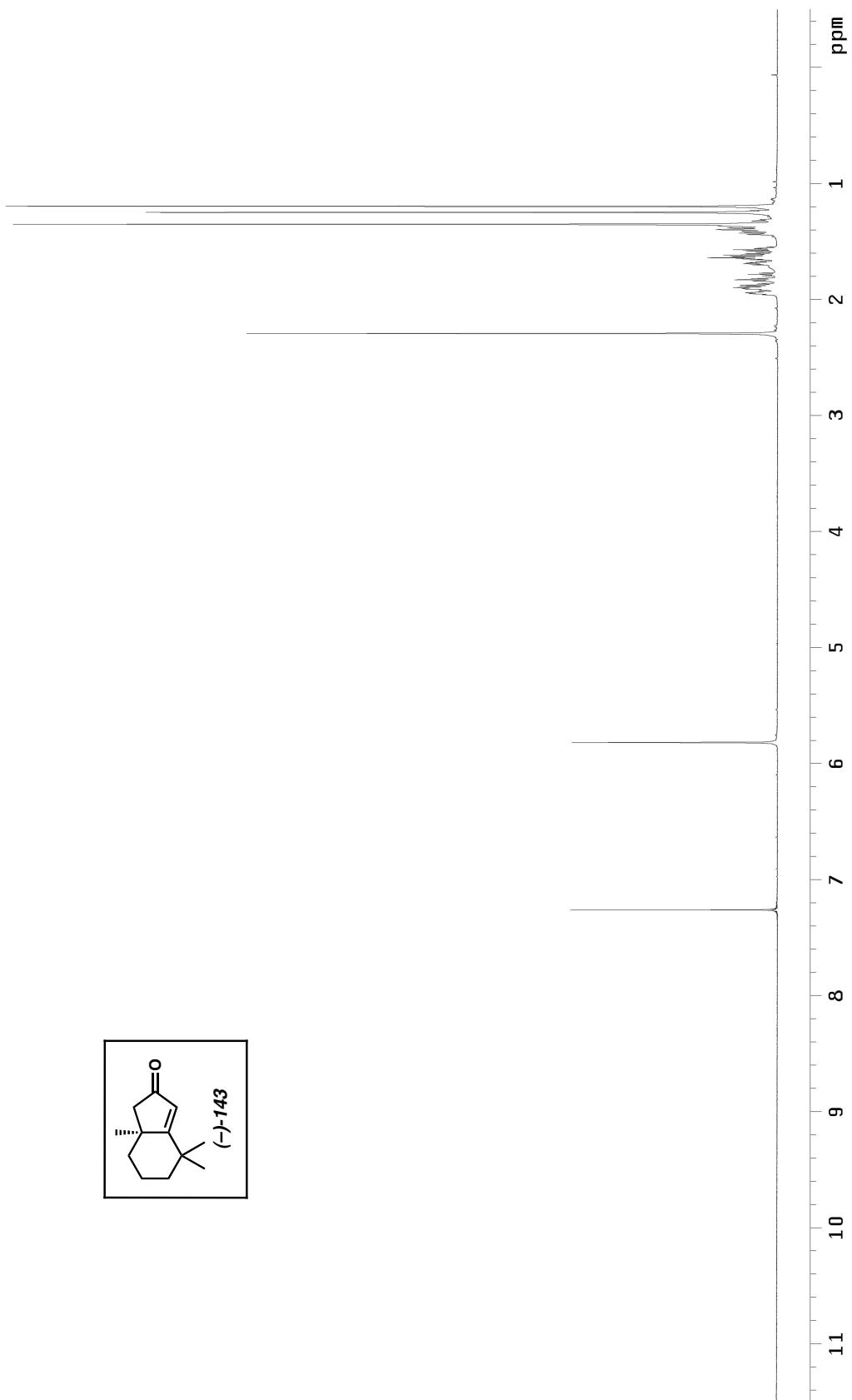


Figure A2.7 ^1H NMR (300 MHz, CDCl_3) of compound 143.

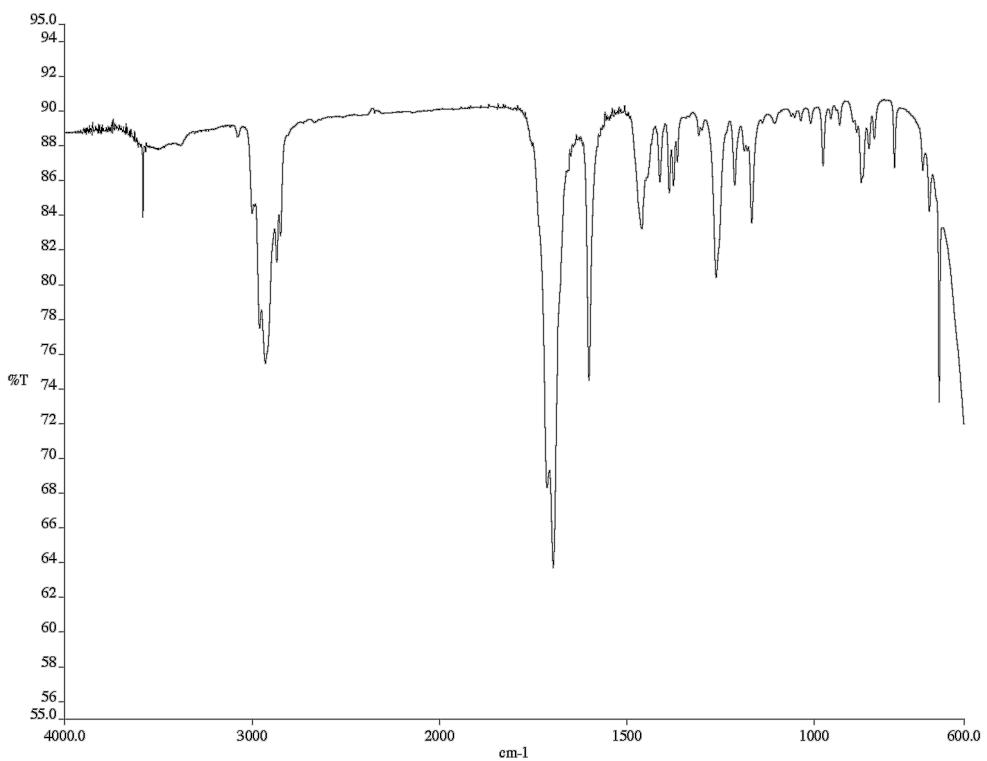


Figure A2.8 Infrared spectrum ($\text{NaCl}/\text{CDCl}_3$) of compound **143**.

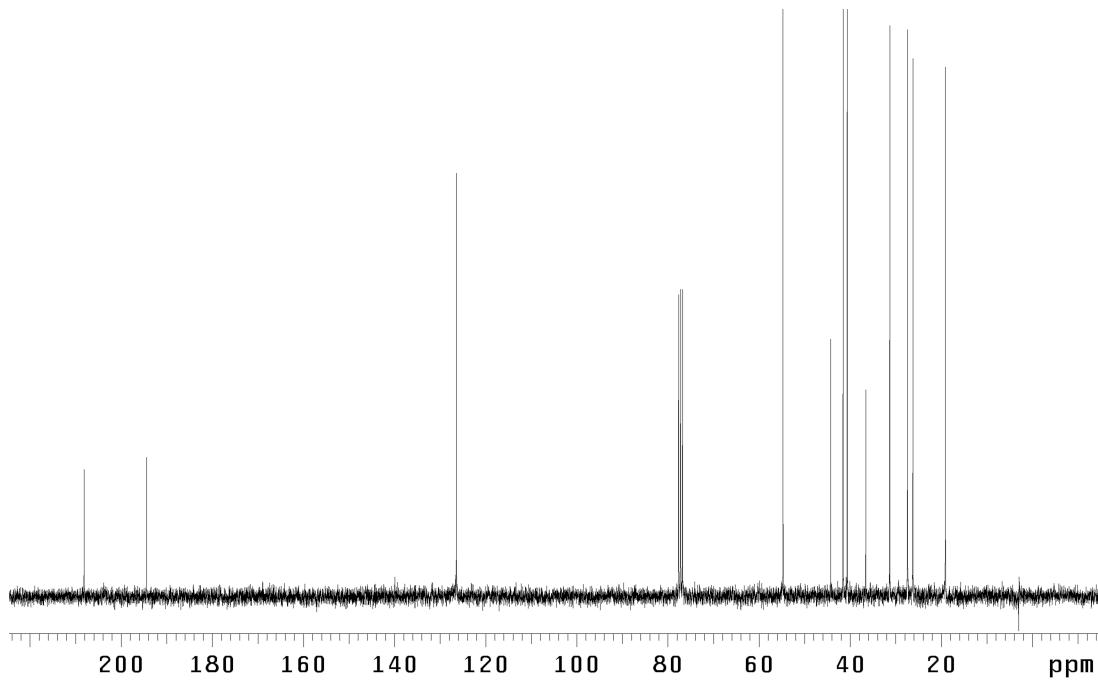


Figure A2.9 ^{13}C NMR (75 MHz, CDCl_3) of compound **143**.

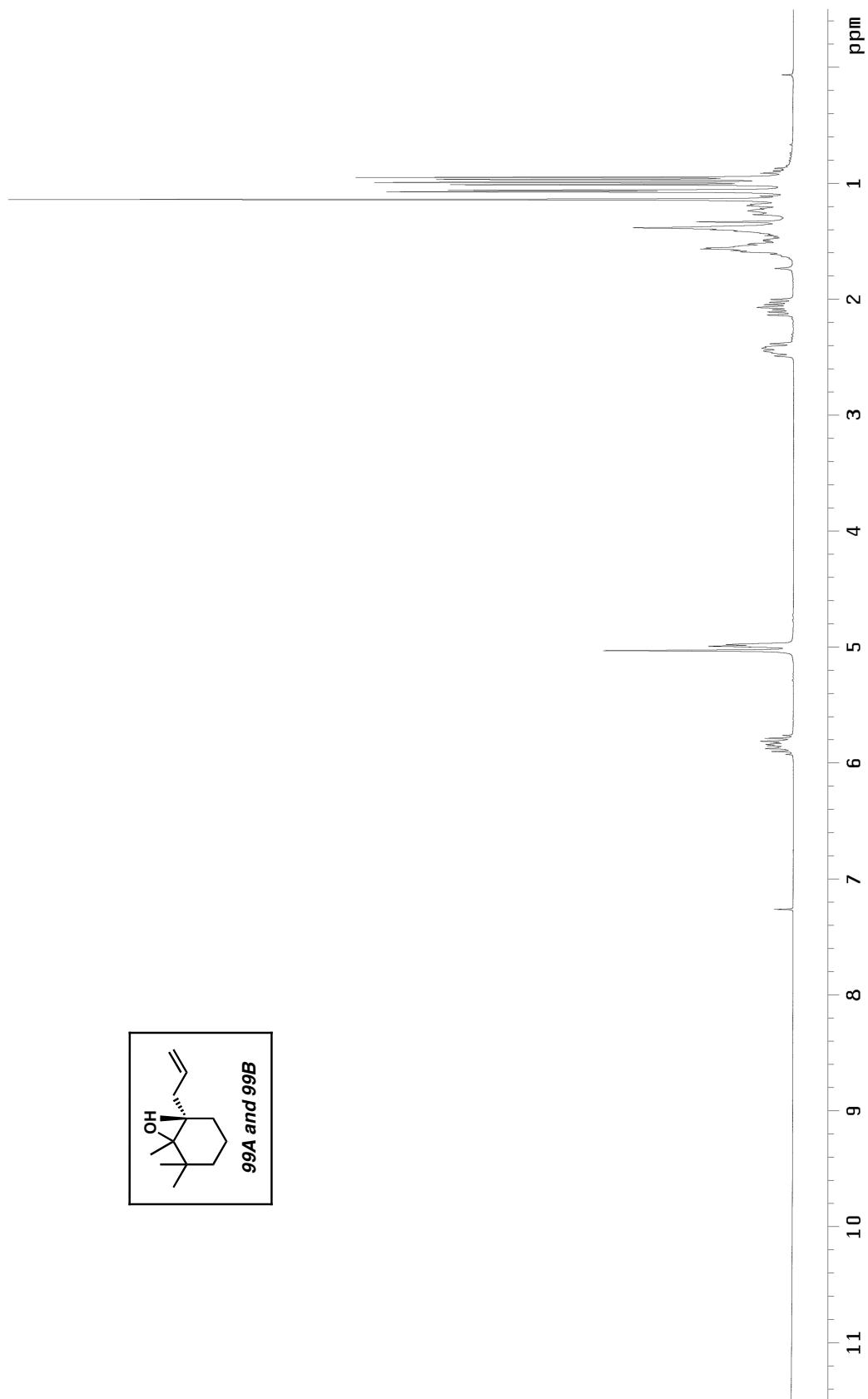
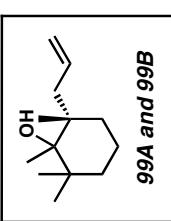


Figure A2.10 ¹H NMR (300 MHz, CDCl₃) of compounds 99A and 99B.

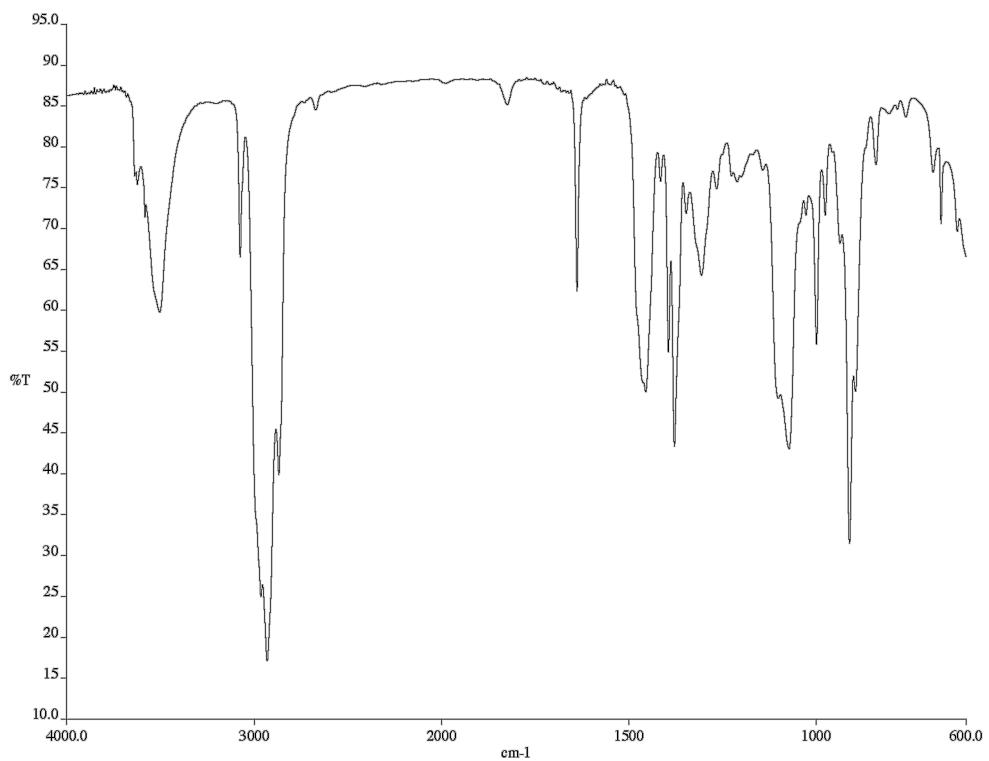


Figure A2.11 Infrared spectrum (NaCl/CDCl₃) of compounds **99A** and **99B**.

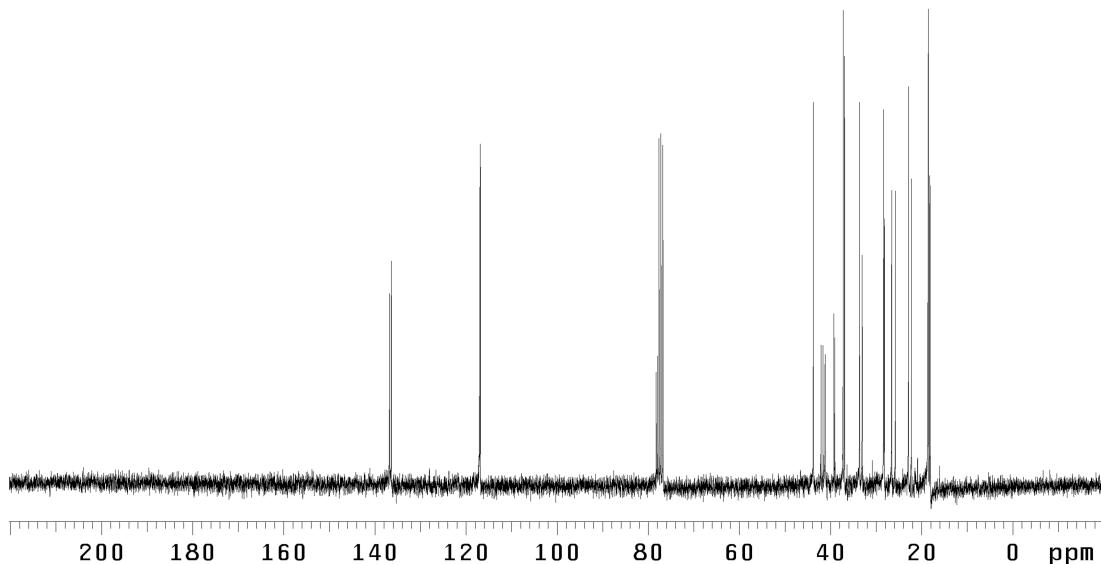


Figure A2.12 ¹³C NMR (75 MHz, CDCl₃) of compounds **99A** and **99B**.

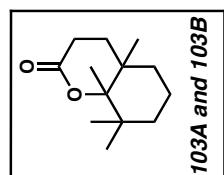
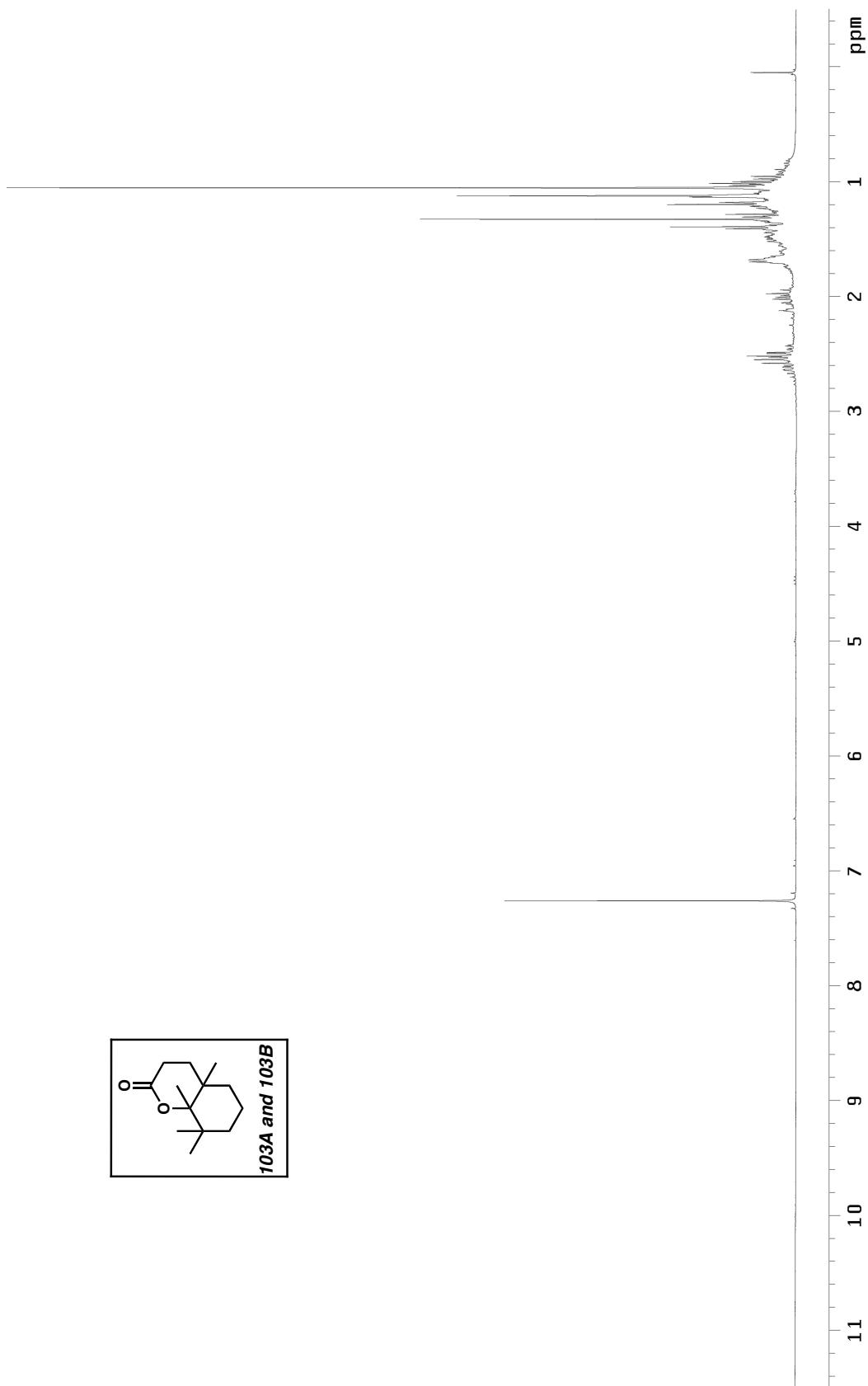


Figure A2.13 ¹H NMR (300 MHz, CDCl₃) of compounds 103A and 103B.

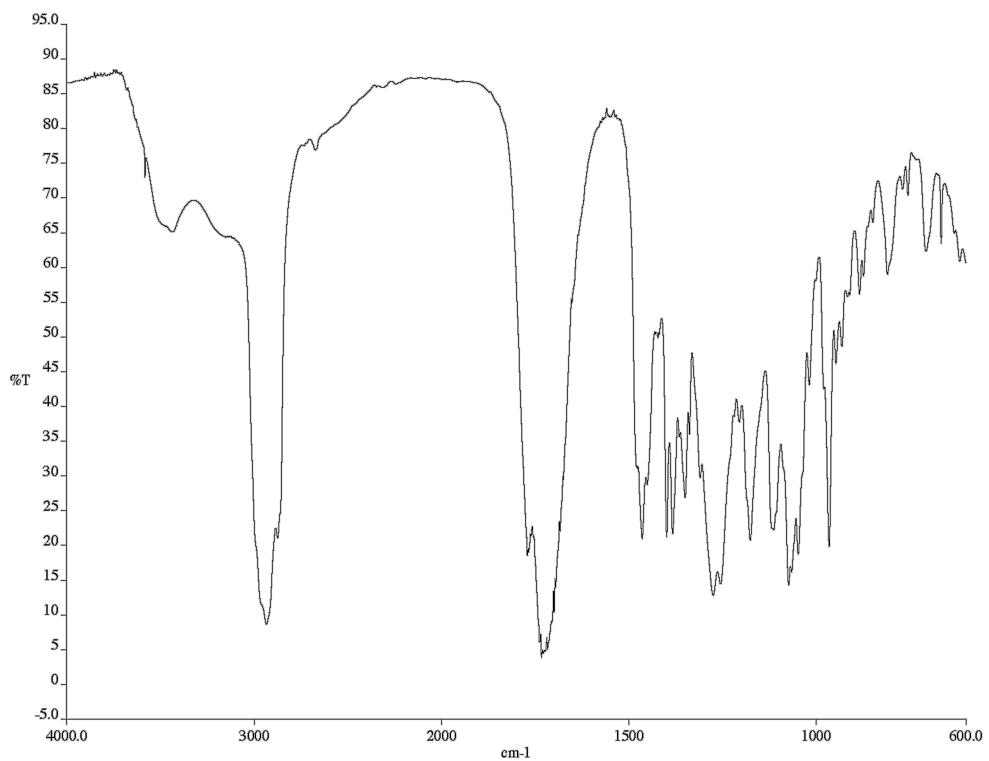


Figure A2.14 Infrared spectrum (NaCl/CDCl₃) of compounds **103A** and **103B**.

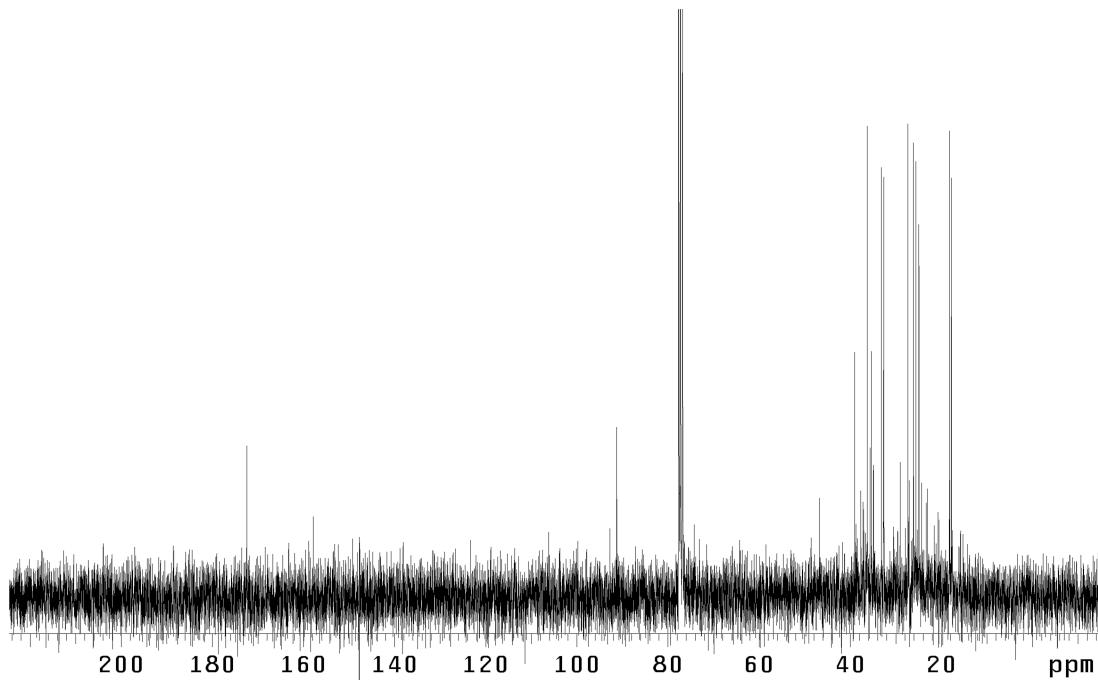


Figure A2.15 ¹³C NMR (75 MHz, CDCl₃) of compounds **103A** and **103B**.

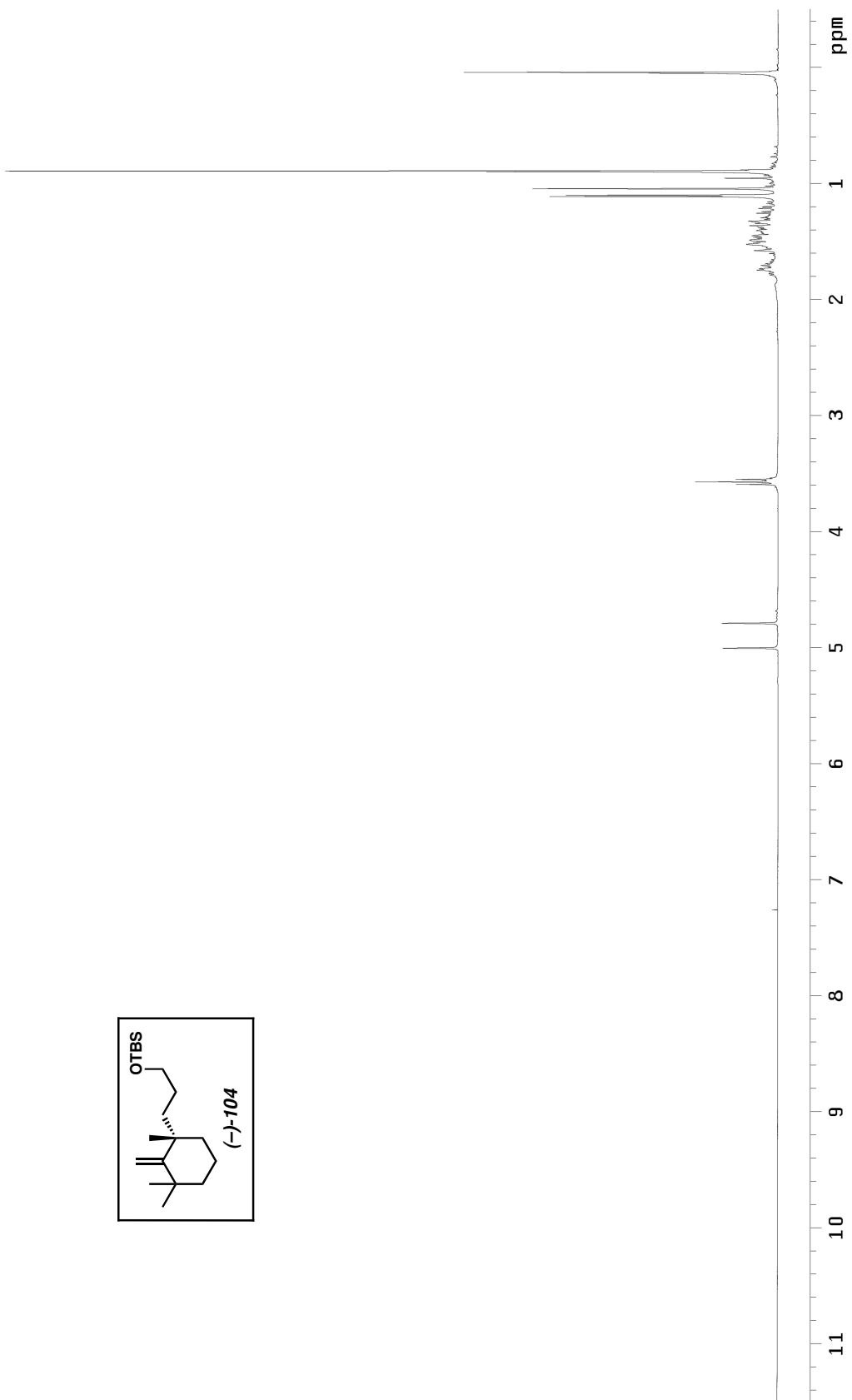


Figure A2.16 ^1H NMR (300 MHz, CDCl_3) of compound 104.

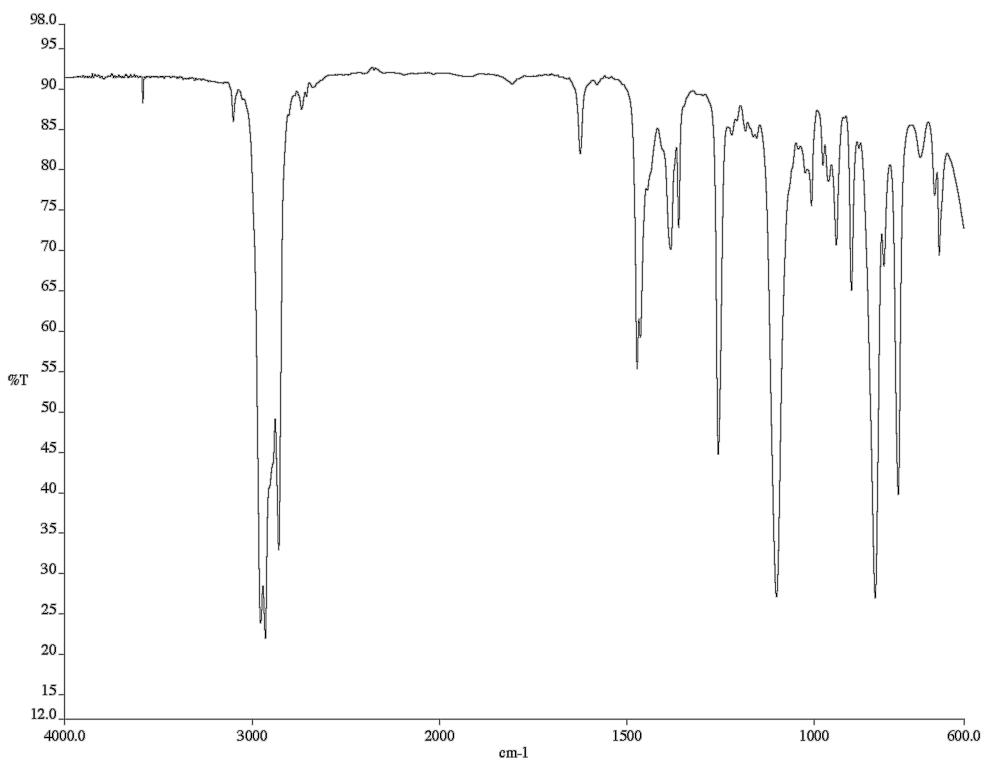


Figure A2.17 Infrared spectrum (NaCl/CDCl₃) of compound **104**.

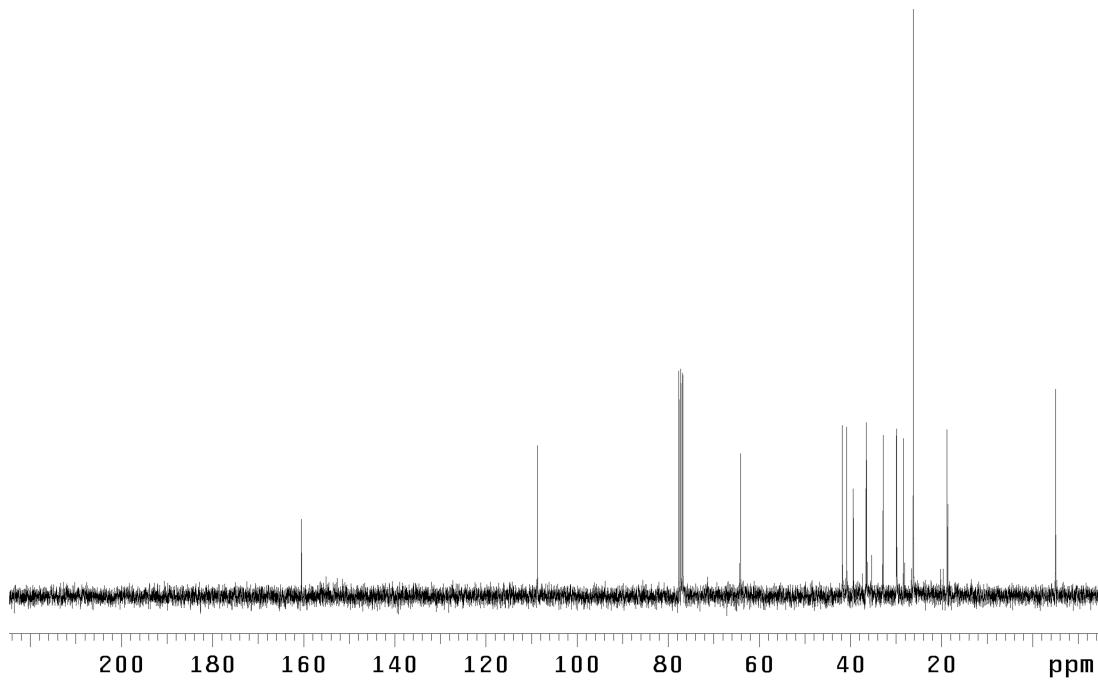


Figure A2.18 ¹³C NMR (75 MHz, CDCl₃) of compound **104**.

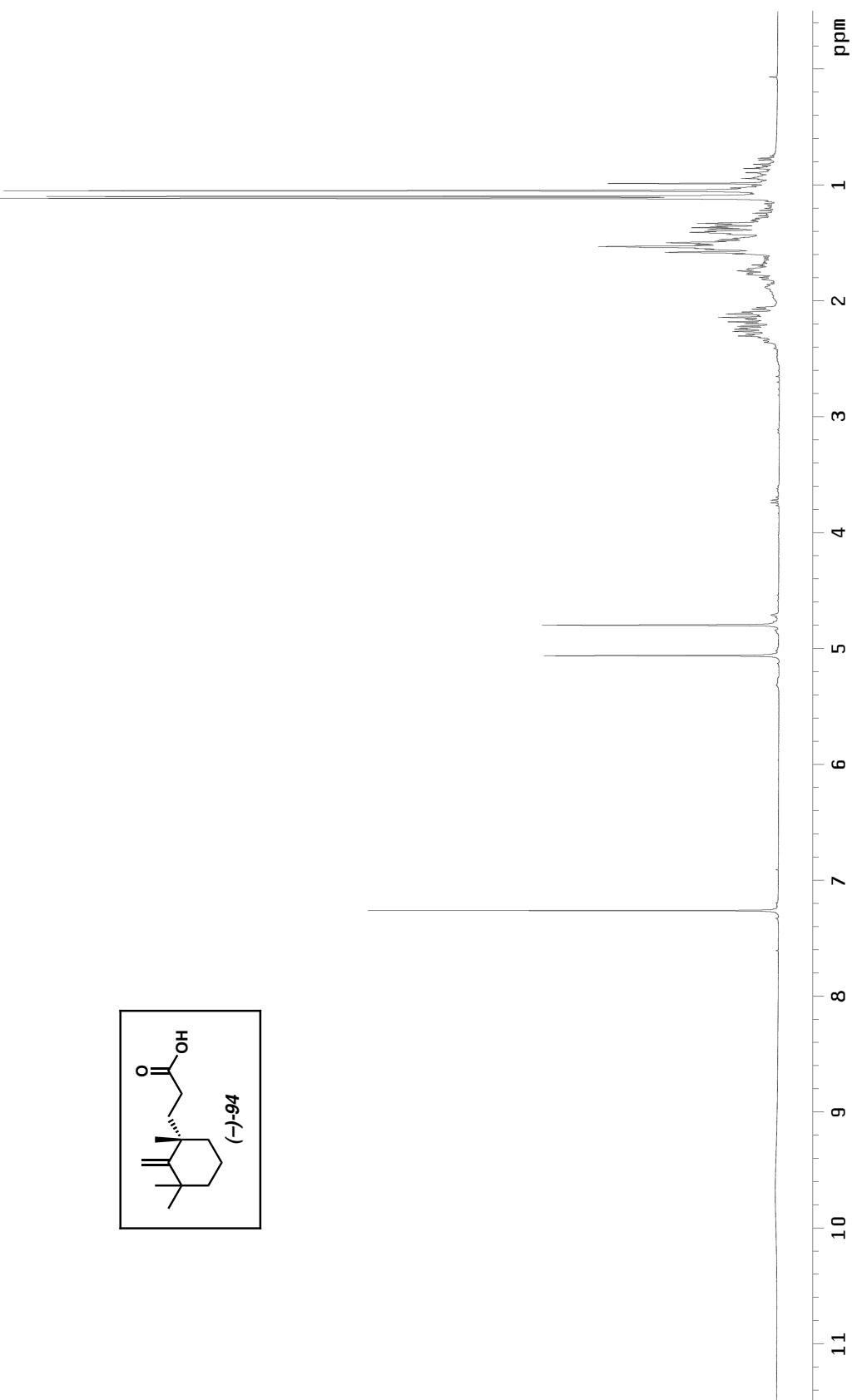


Figure A2.19 ^1H NMR (300 MHz, CDCl_3) of compound 94.

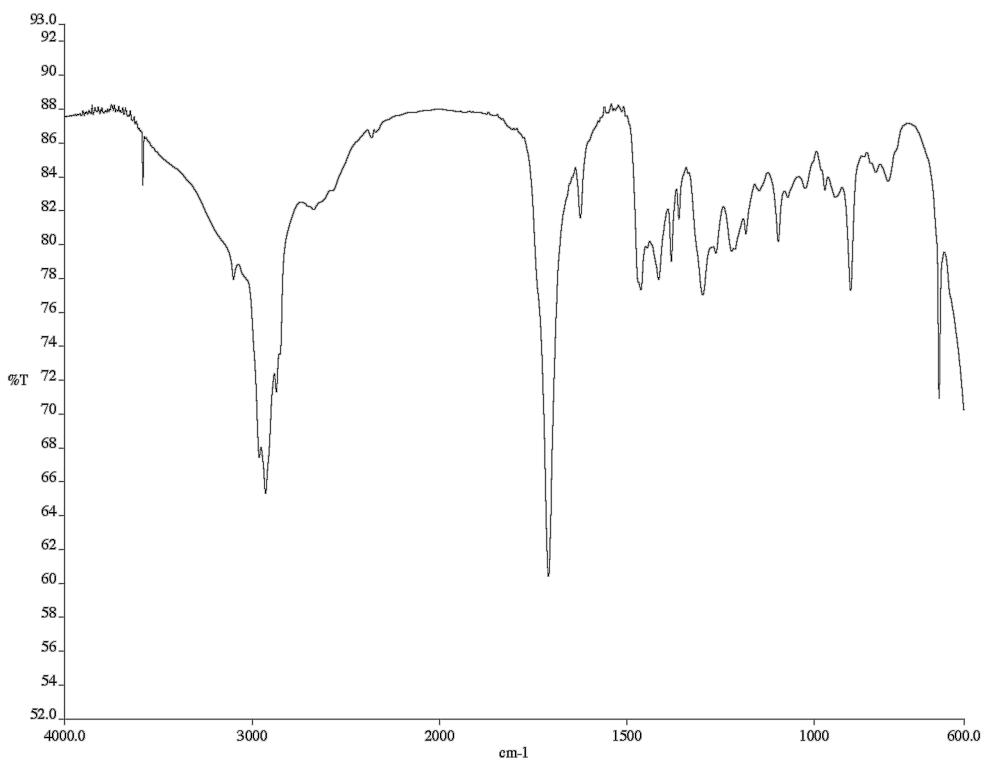


Figure A2.20 Infrared spectrum (NaCl/CDCl₃) of compound **94**.

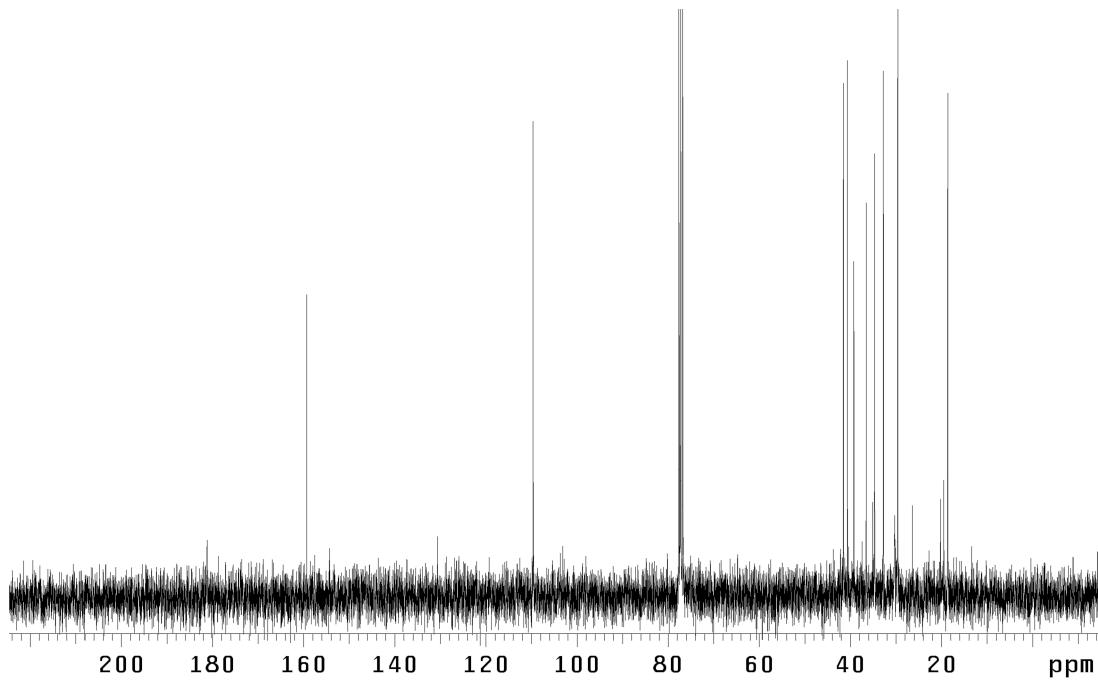


Figure A2.21 ¹³C NMR (75 MHz, CDCl₃) of compound **94**.

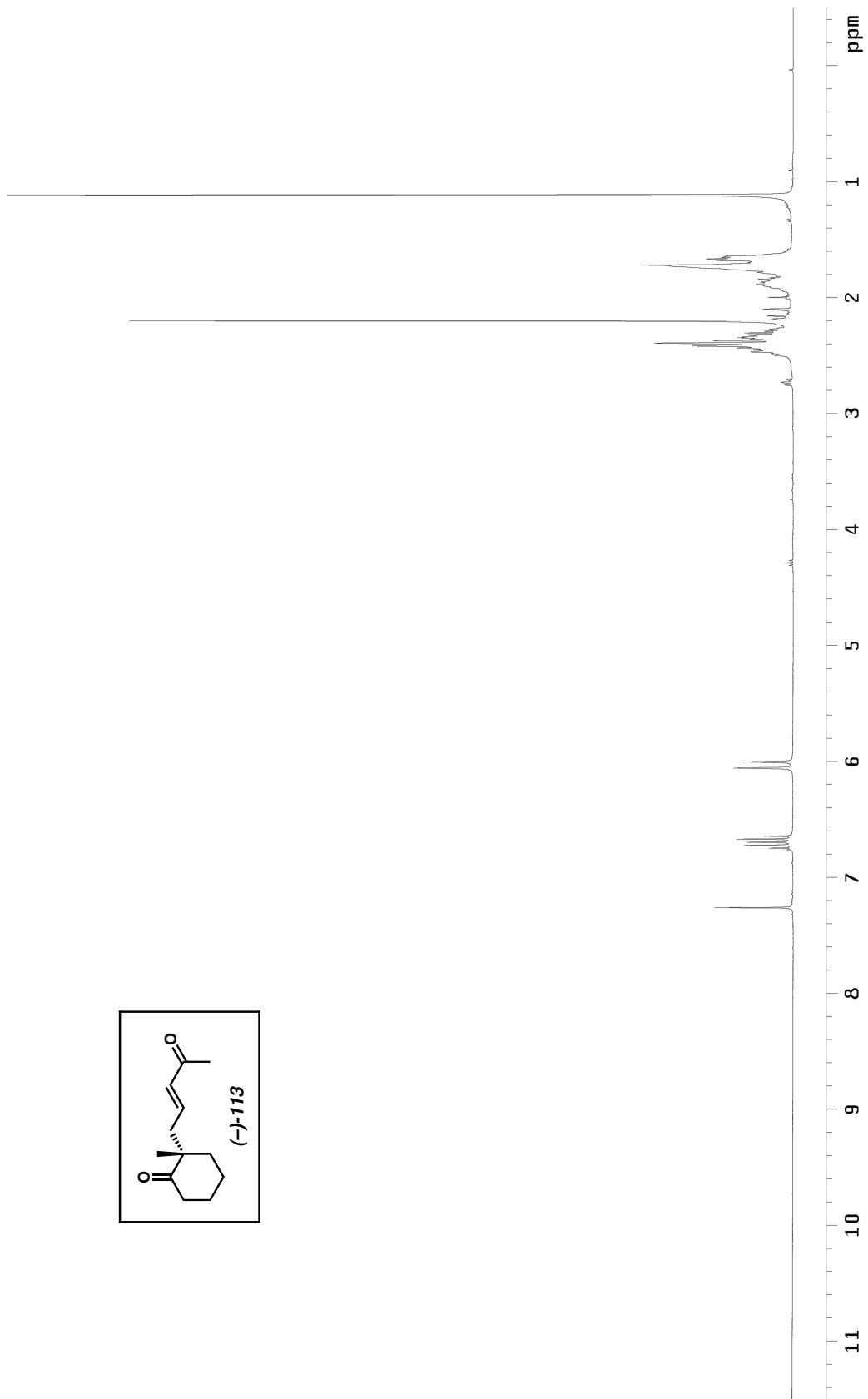
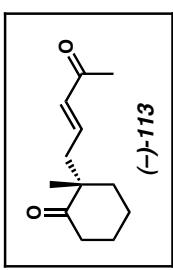


Figure A2.22 ^1H NMR (300 MHz, CDCl_3) of compound 113.

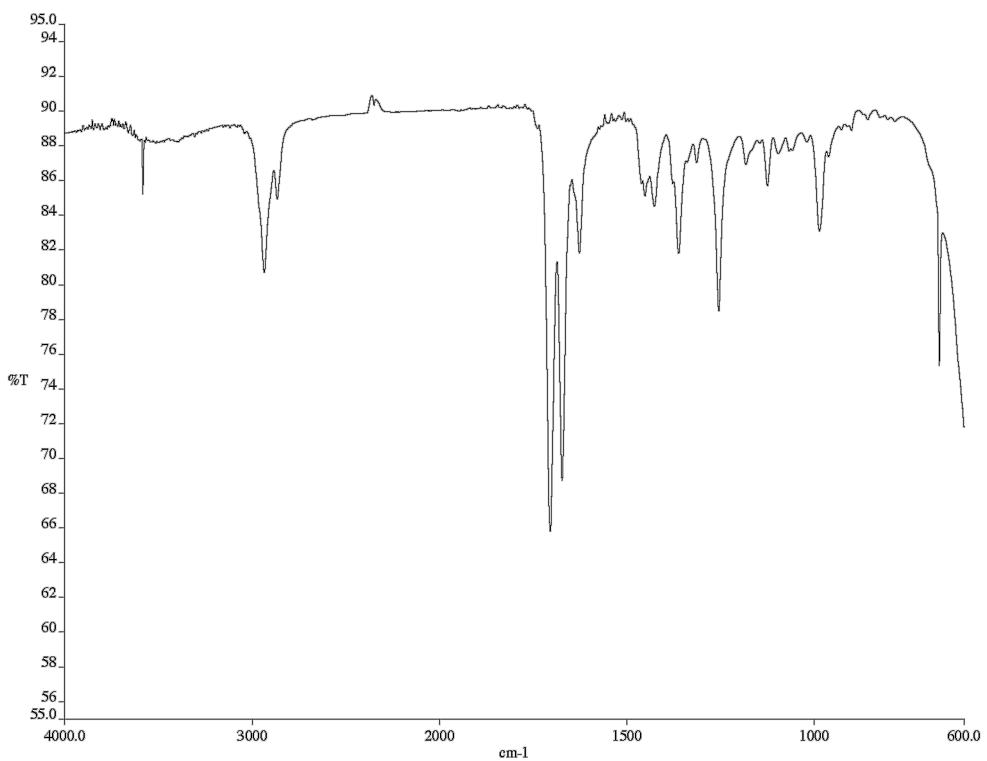


Figure A2.23 Infrared spectrum (NaCl/CDCl₃) of compound **113**.

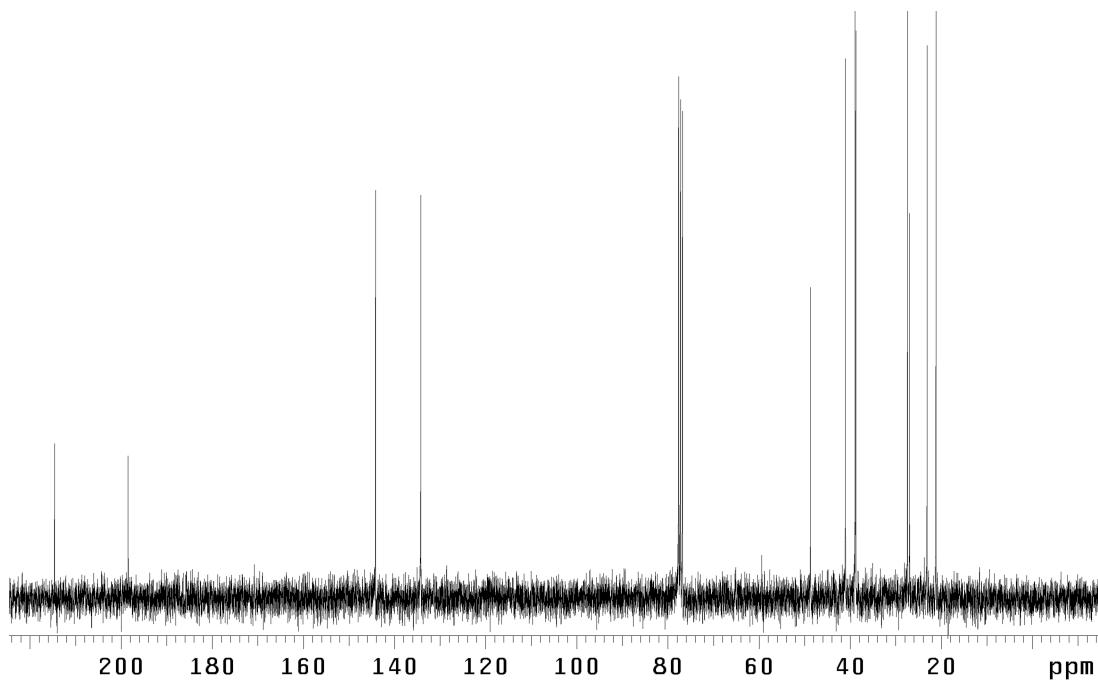


Figure A2.24 ¹³C NMR (75 MHz, CDCl₃) of compound **113**.

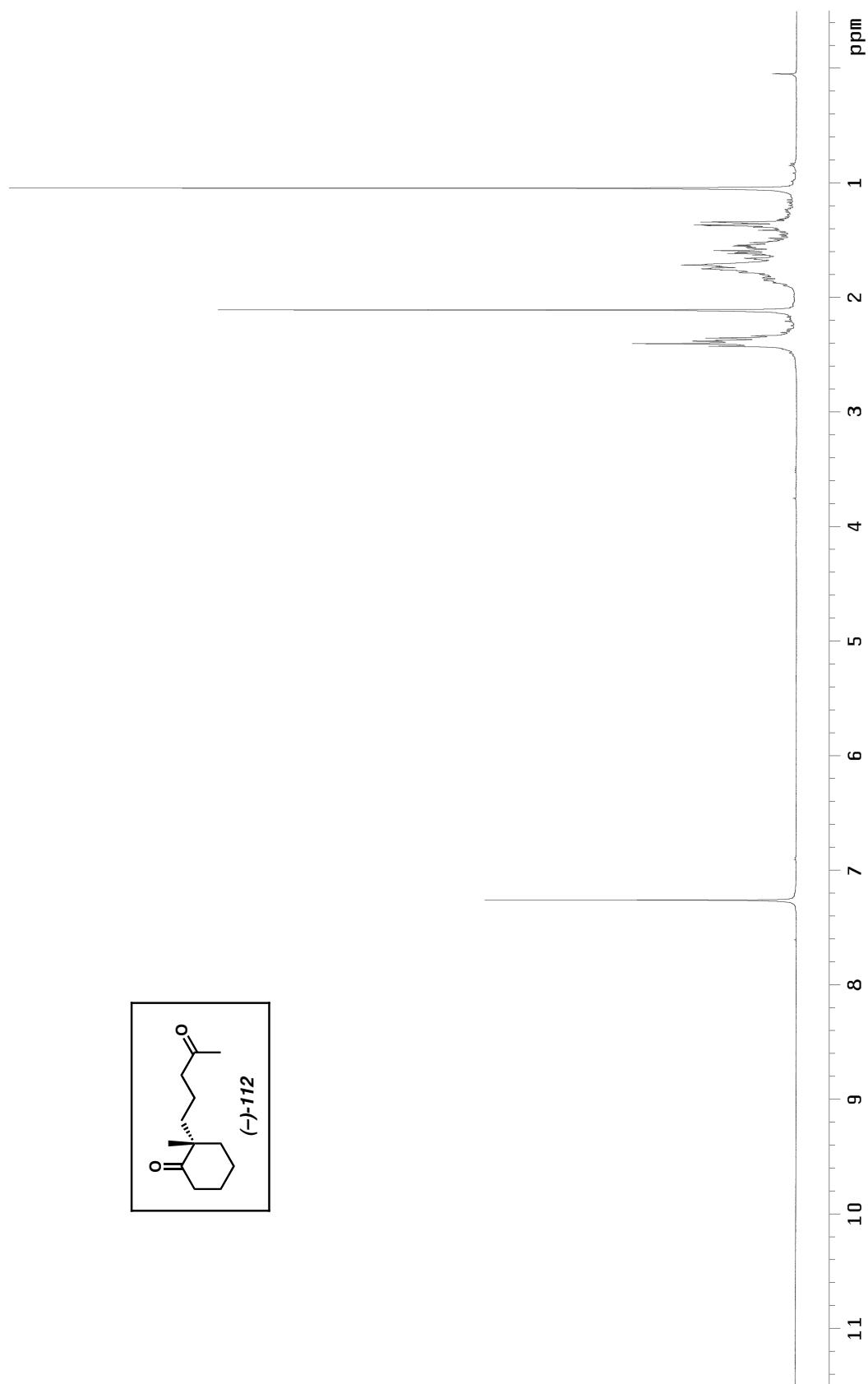


Figure A2.25 ^1H NMR (300 MHz, CDCl_3) of compound **112**.

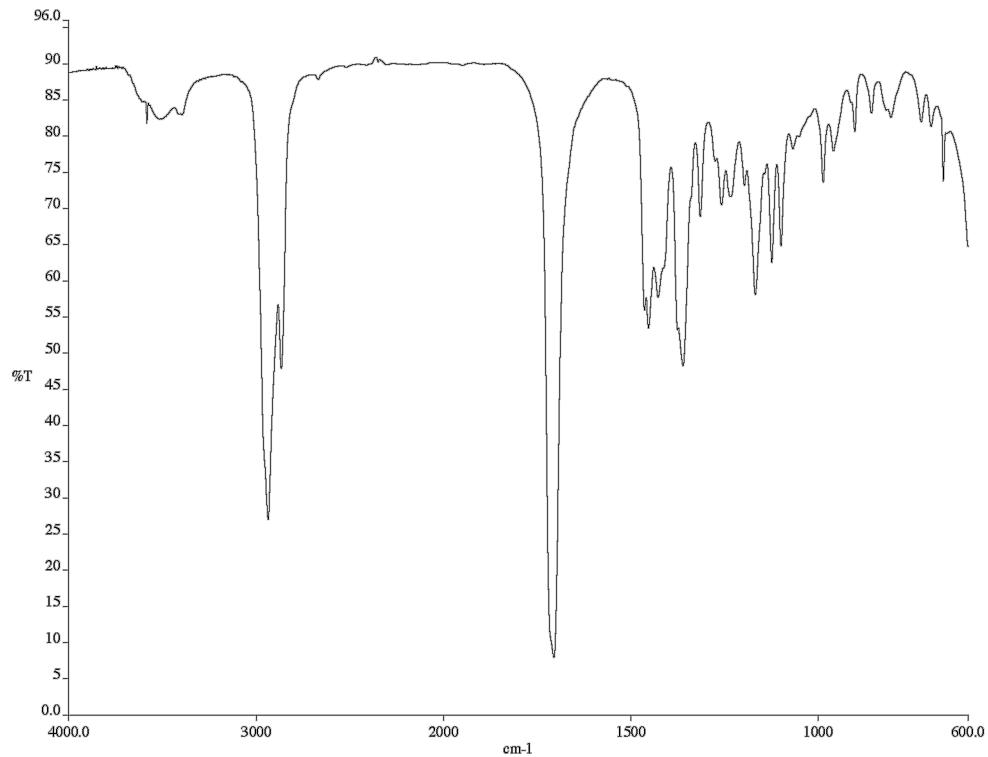


Figure A2.26 Infrared spectrum (NaCl/CDCl₃) of compound **112**.

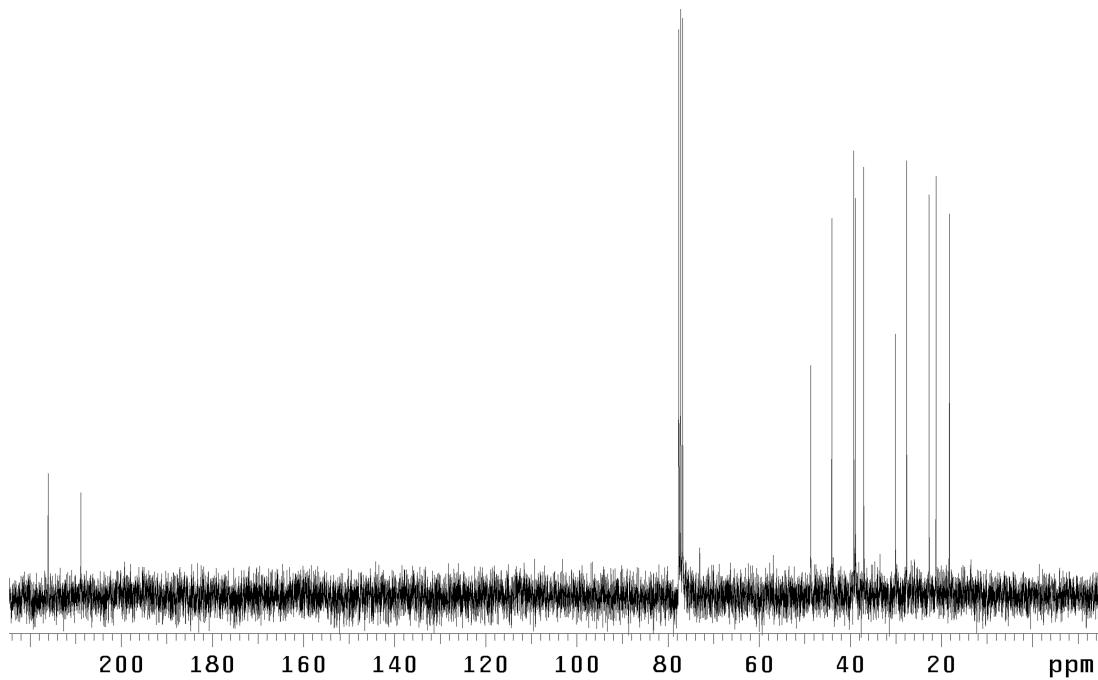


Figure A2.27 ¹³C NMR (75 MHz, CDCl₃) of compound **112**.

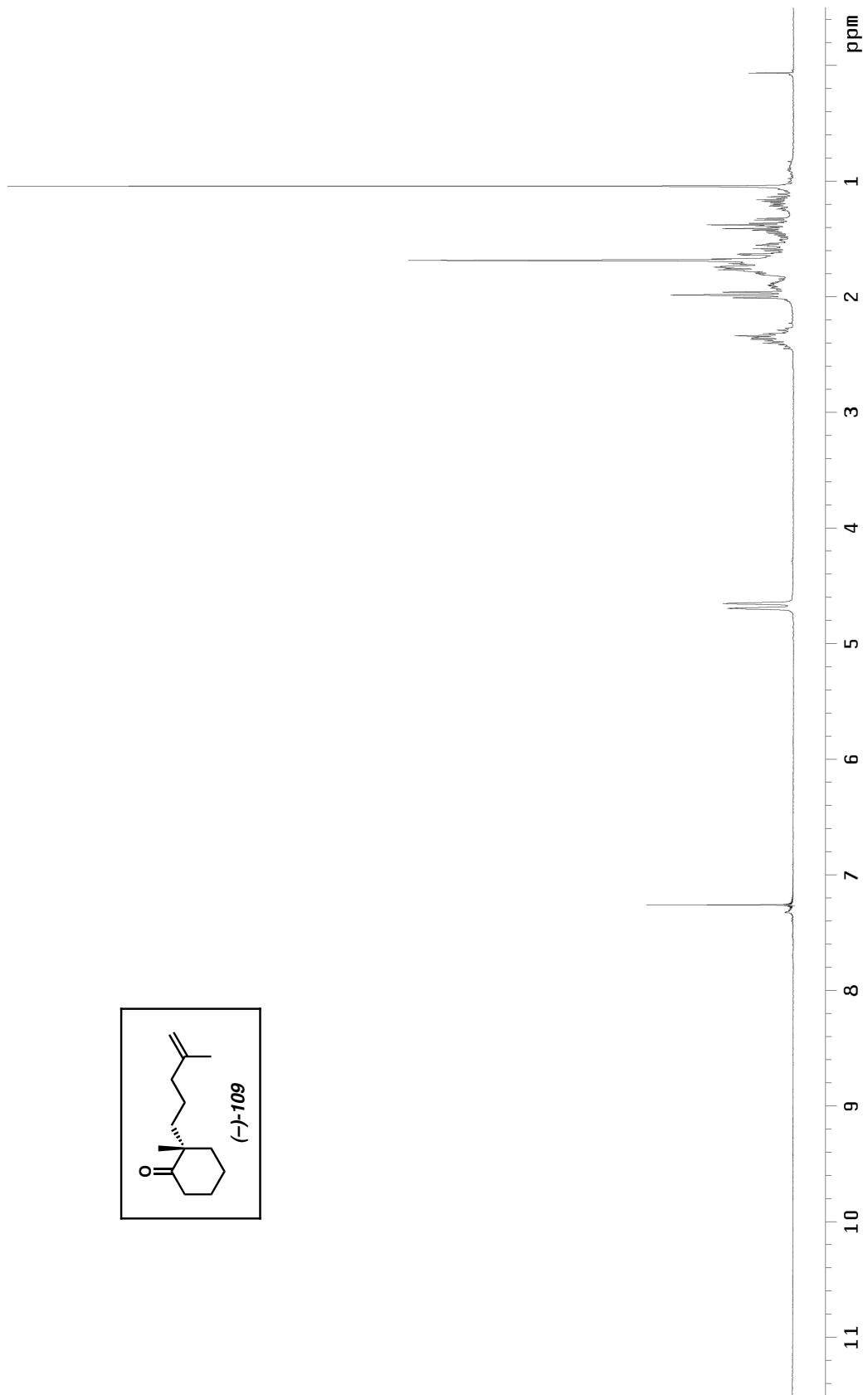
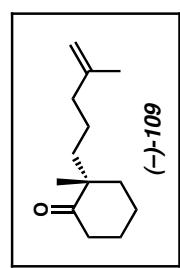


Figure A2.28 ^1H NMR (300 MHz, CDCl_3) of compound **109**.

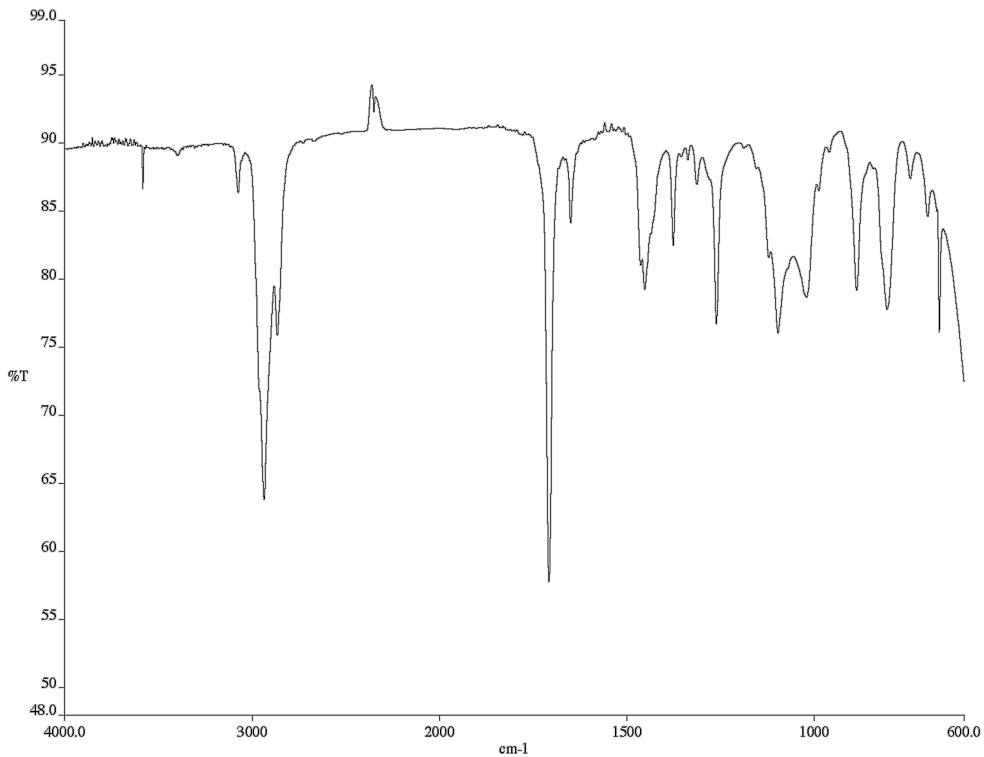


Figure A2.29 Infrared spectrum (NaCl/CDCl₃) of compound **109**.

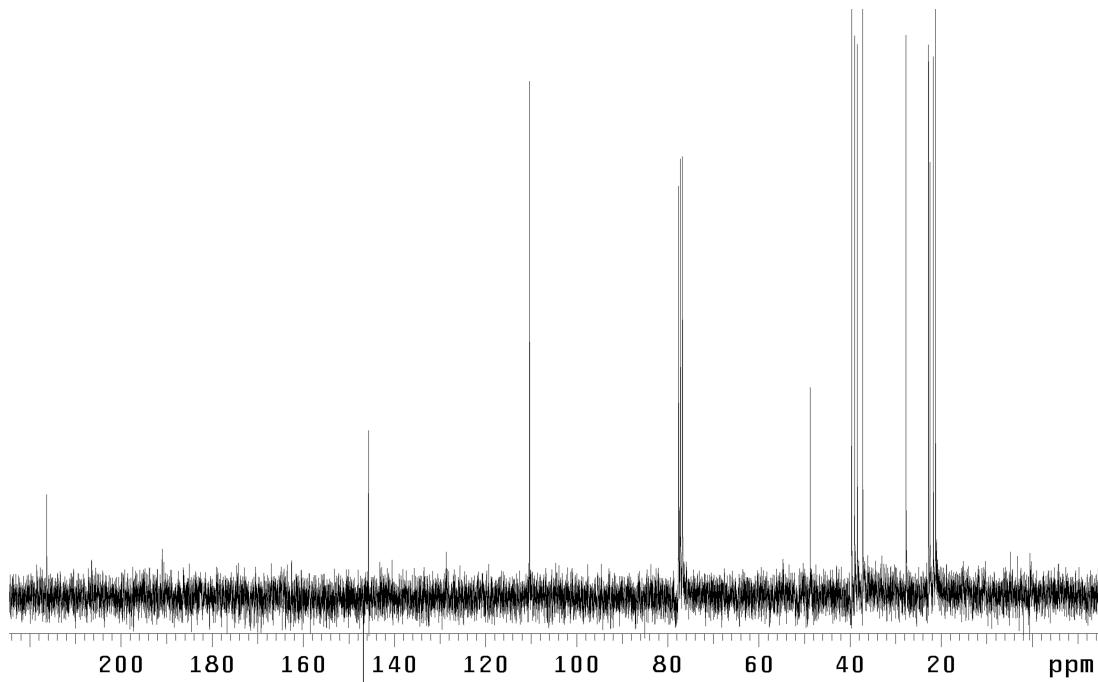


Figure A2.30 ¹³C NMR (75 MHz, CDCl₃) of compound **109**.

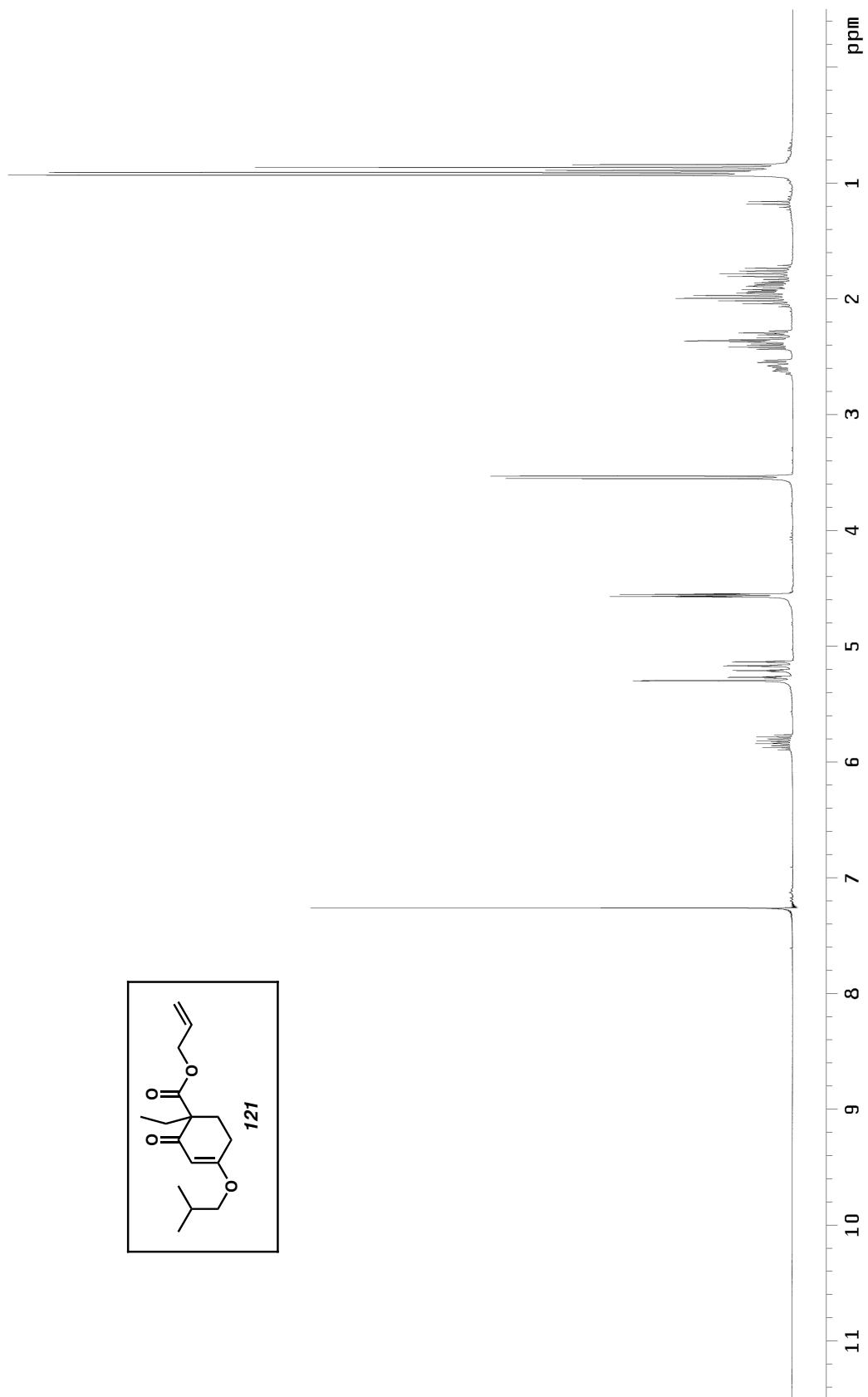
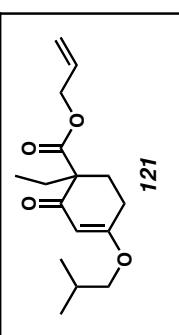


Figure A2.31 ¹H NMR (300 MHz, CDCl₃) of compound 121.

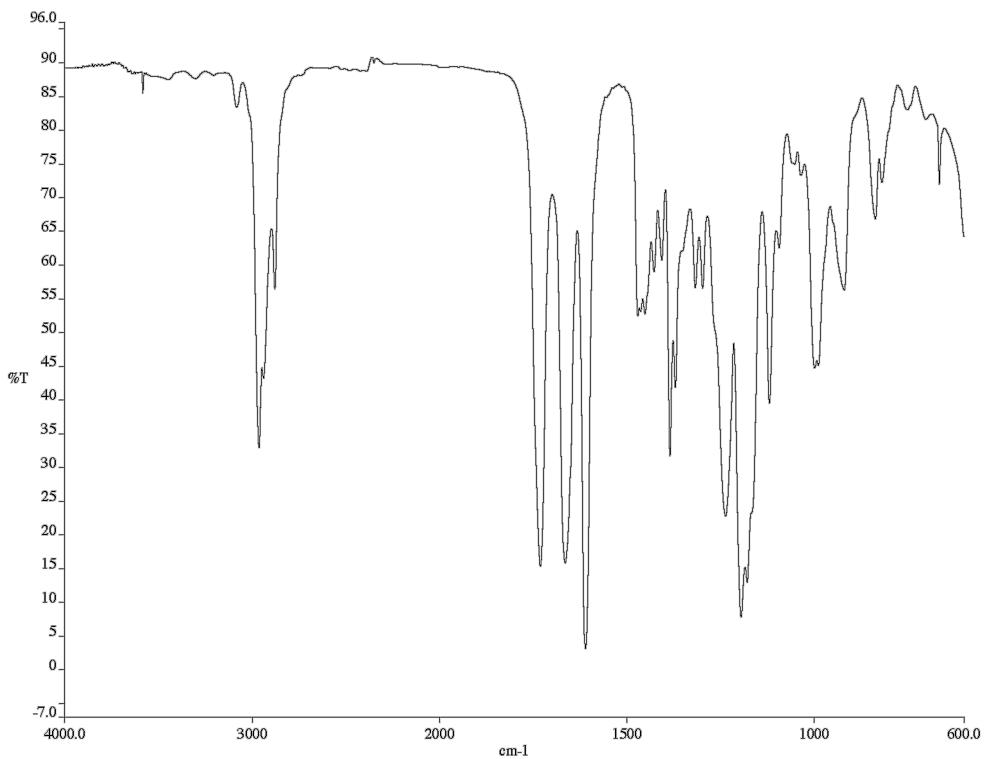


Figure A2.32 Infrared spectrum (NaCl/CDCl₃) of compound **121**.

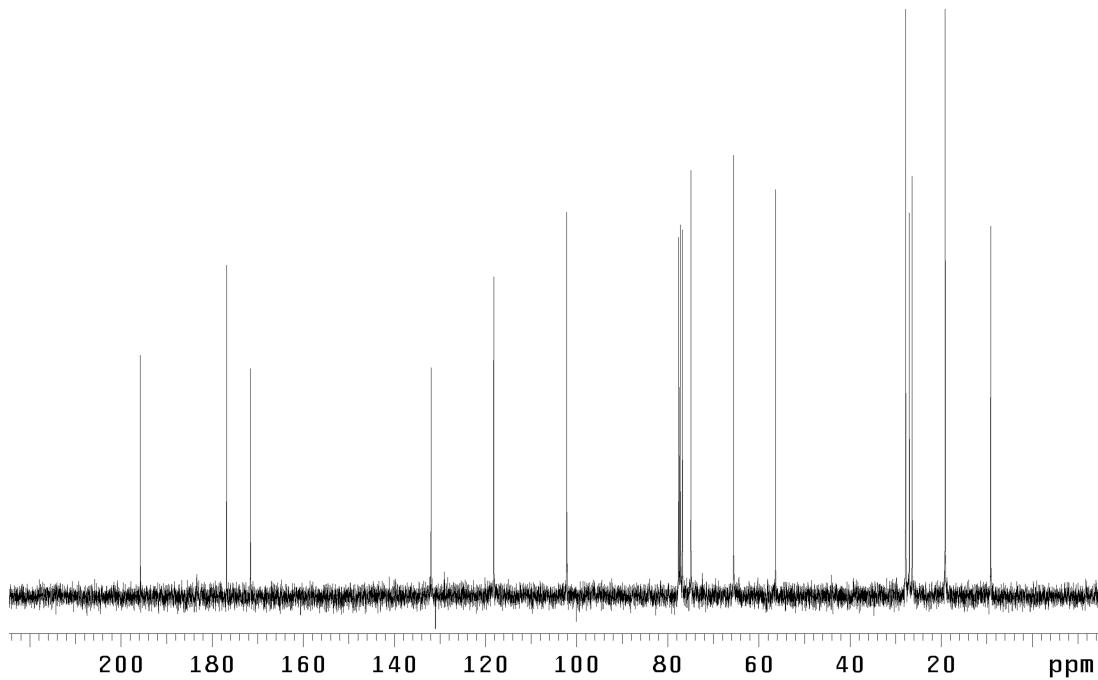


Figure A2.33 ¹³C NMR (75 MHz, CDCl₃) of compound **121**.

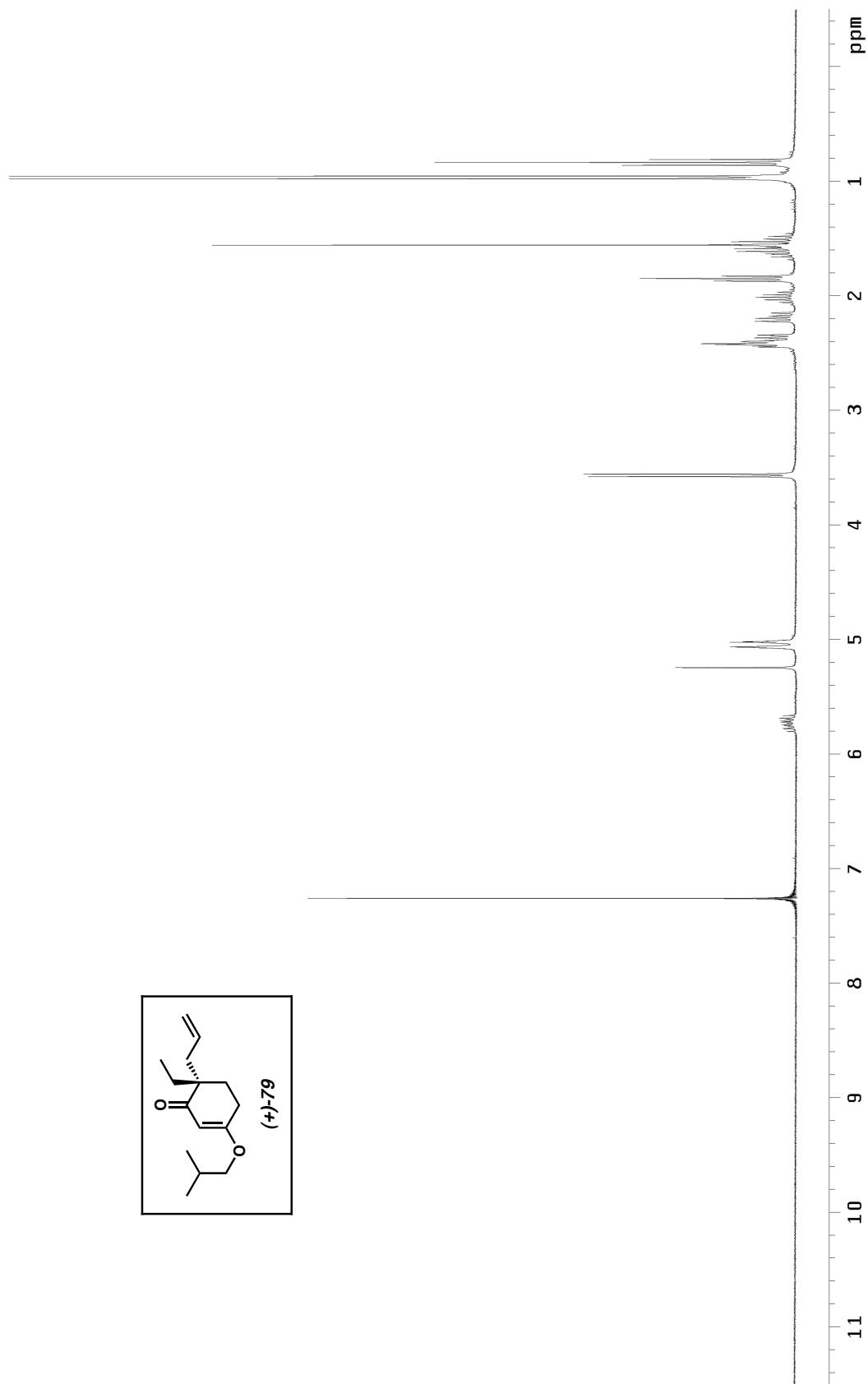


Figure A2.34 ^1H NMR (300 MHz, CDCl_3) of compound 79.

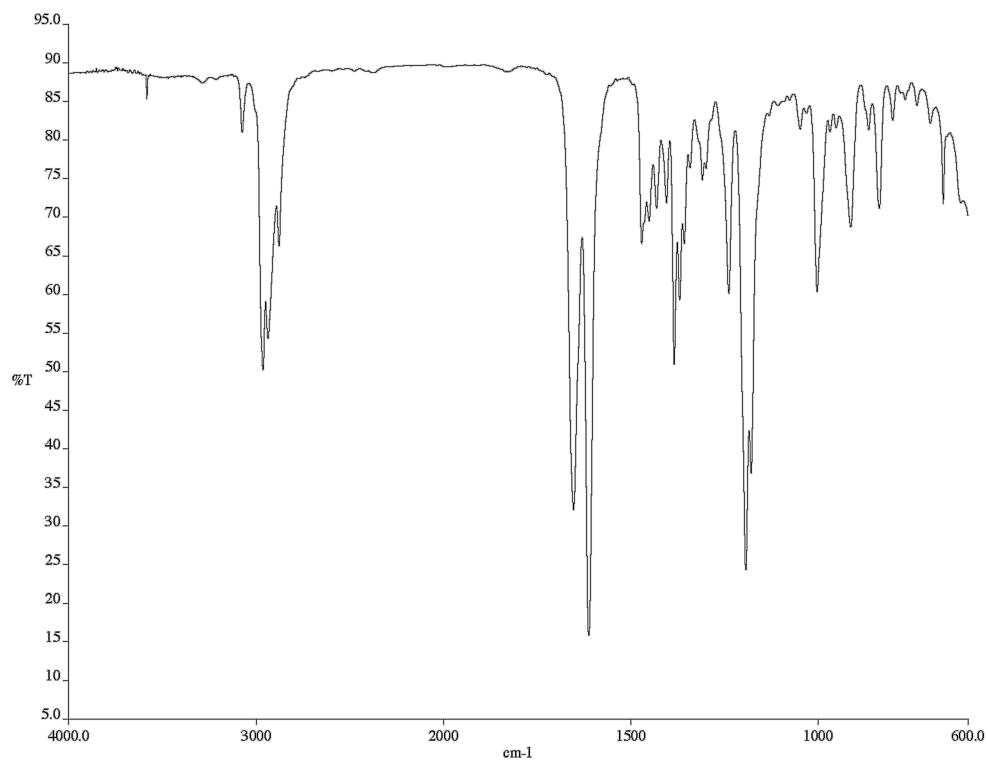


Figure A2.35 Infrared spectrum (NaCl/CDCl₃) of compound **79**.

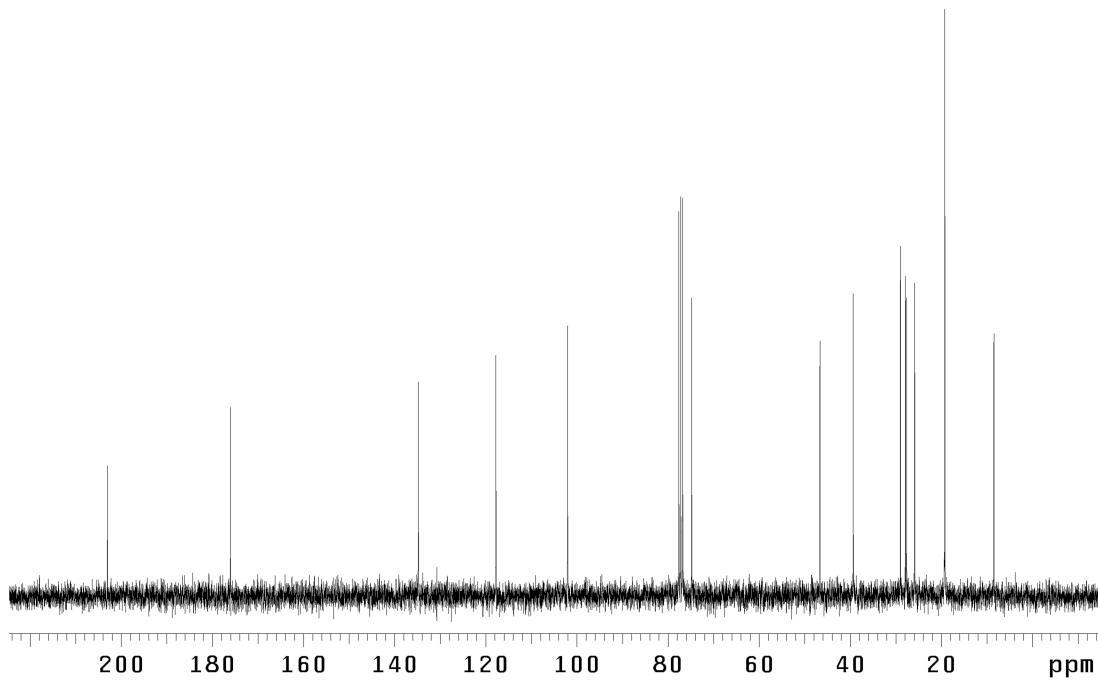
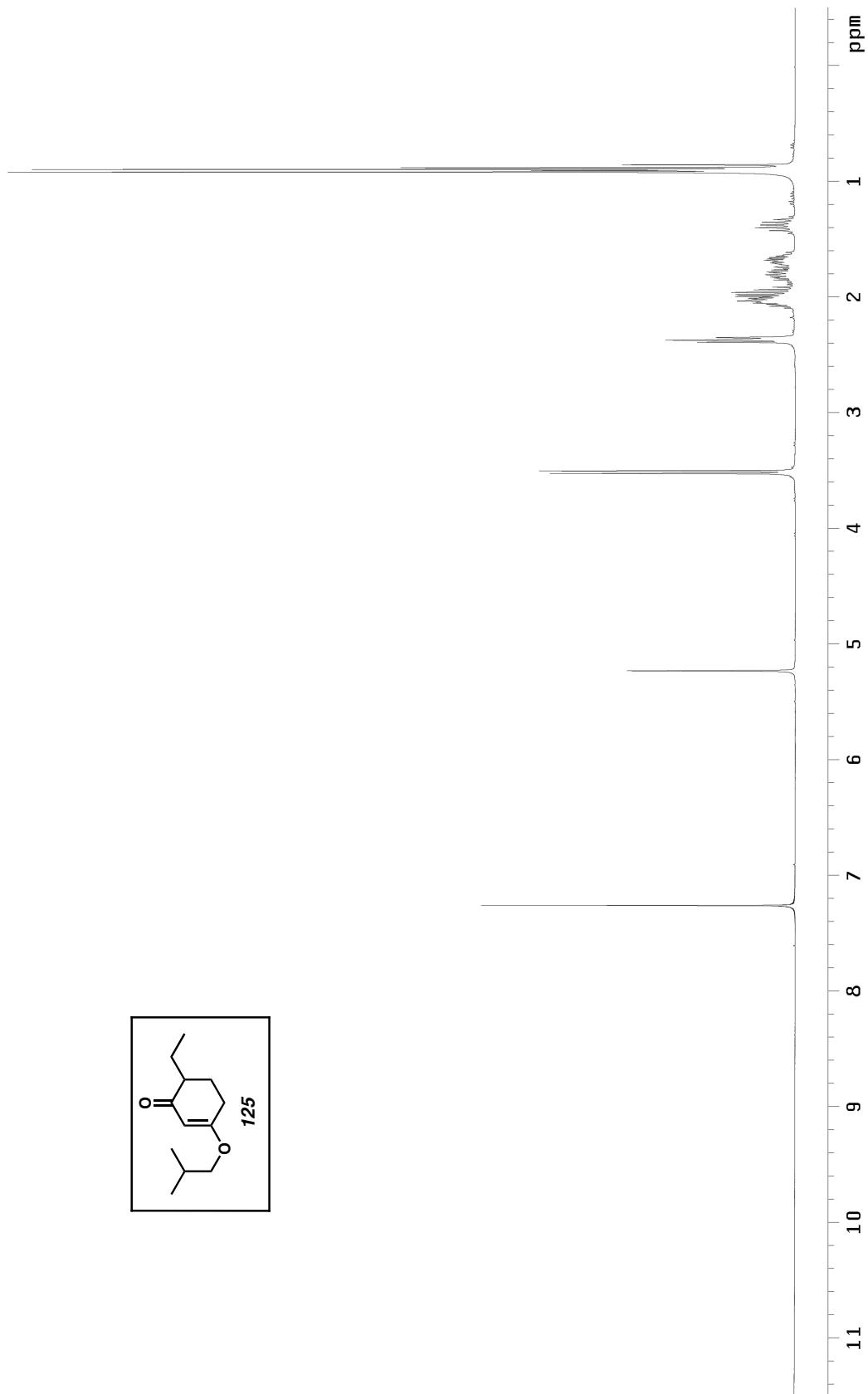
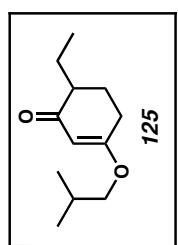


Figure A2.36 ¹³C NMR (300 MHz, CDCl₃) of compound **79**.

Figure A2.37 ^1H NMR (300 MHz, CDCl_3) of compound 125.



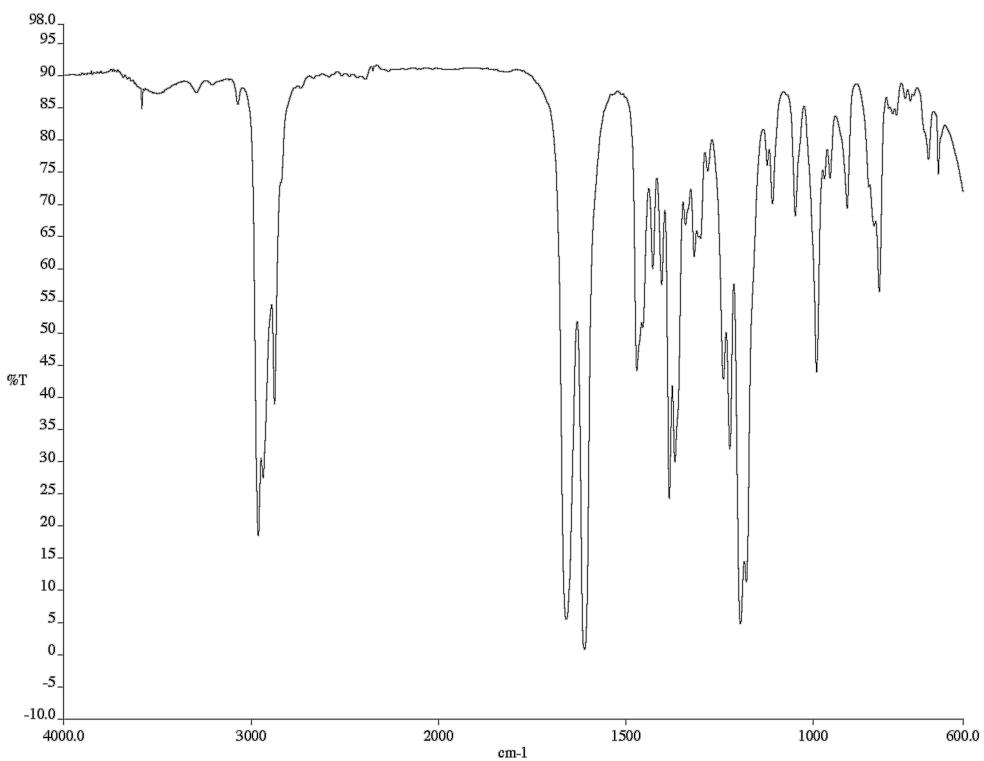


Figure A2.38 Infrared spectrum (NaCl/CDCl₃) of compound **125**.

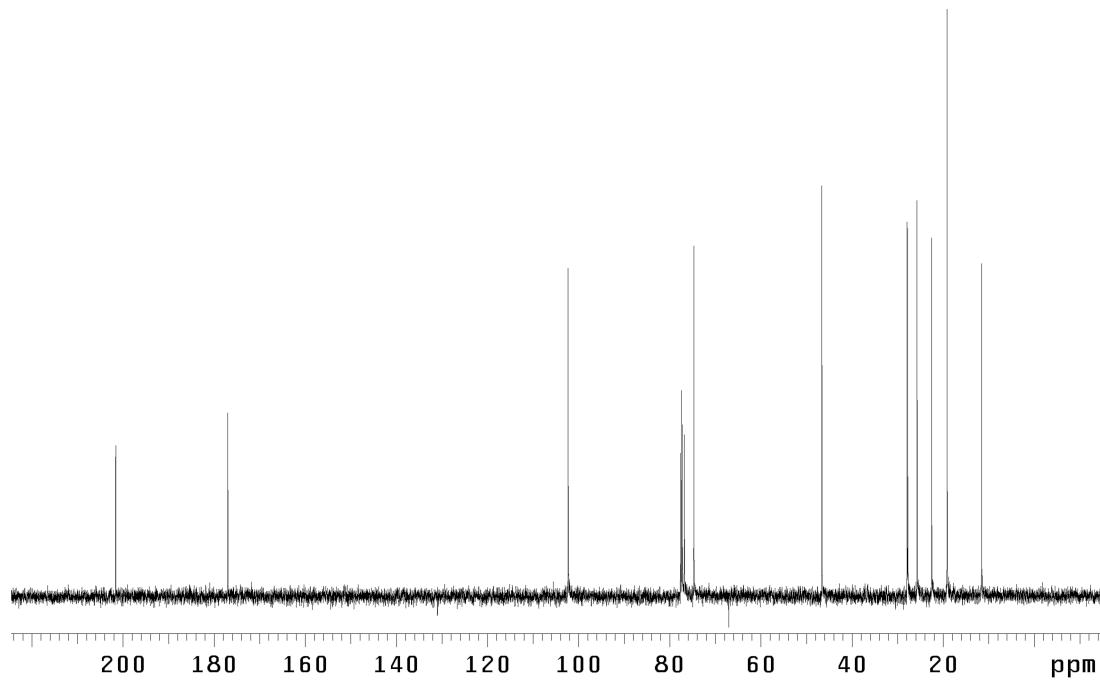


Figure A2.39 ¹³C NMR (75 MHz, CDCl₃) of compound **125**.

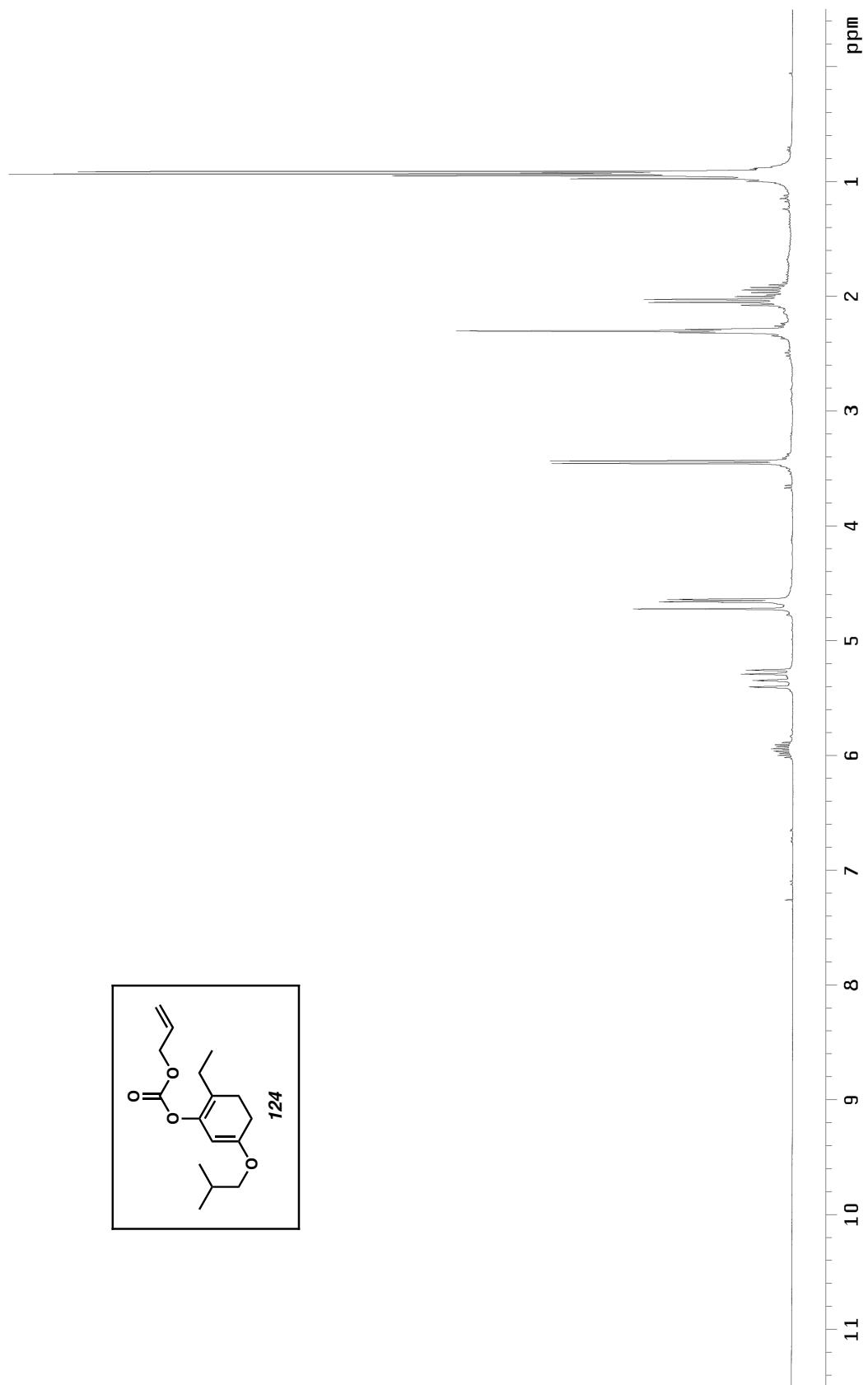


Figure A2.40 ^1H NMR (300 MHz, CDCl_3) of compound 124.

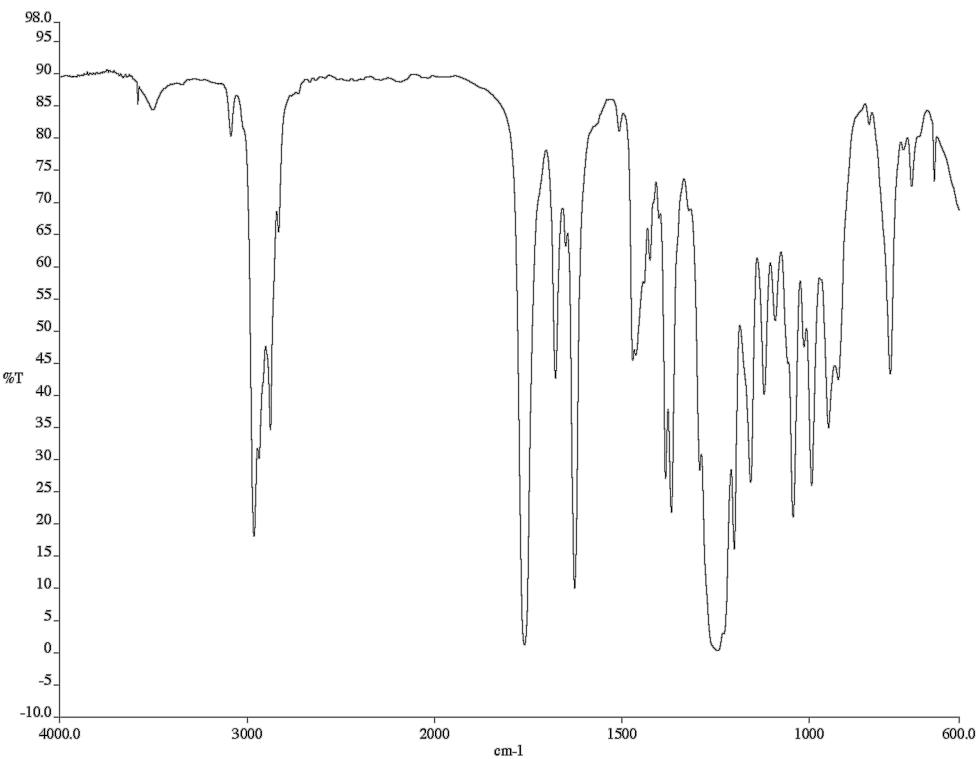


Figure A2.41 Infrared spectrum (NaCl/CDCl₃) of compound **124**.

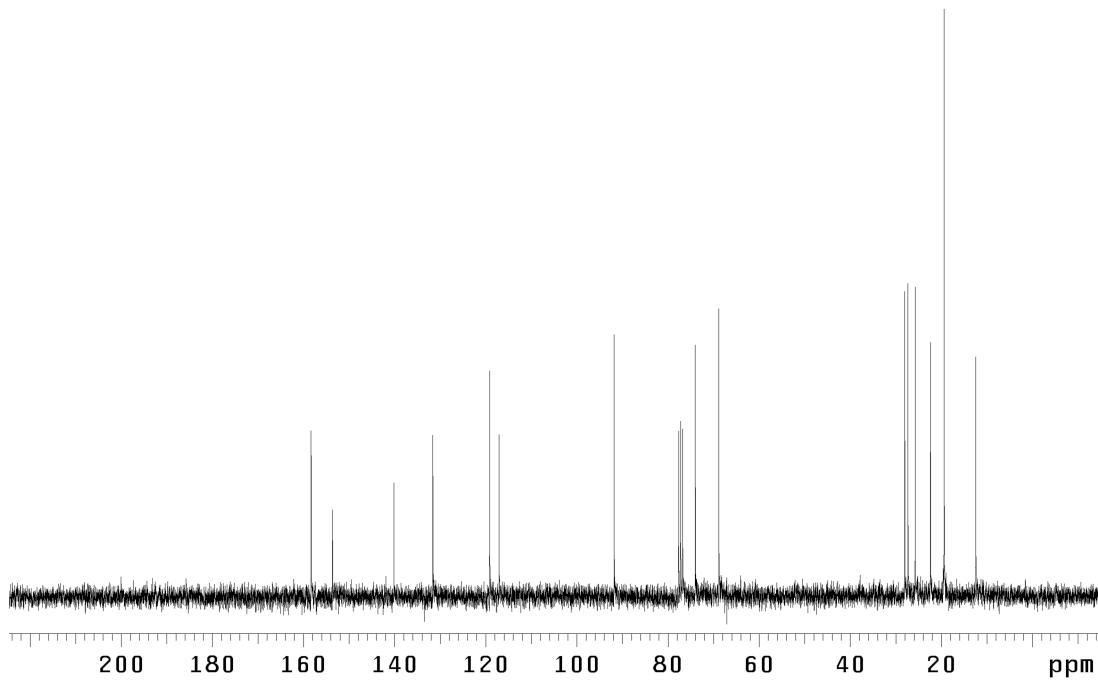


Figure A2.42 ¹³C NMR (75 MHz, CDCl₃) of compound **124**.

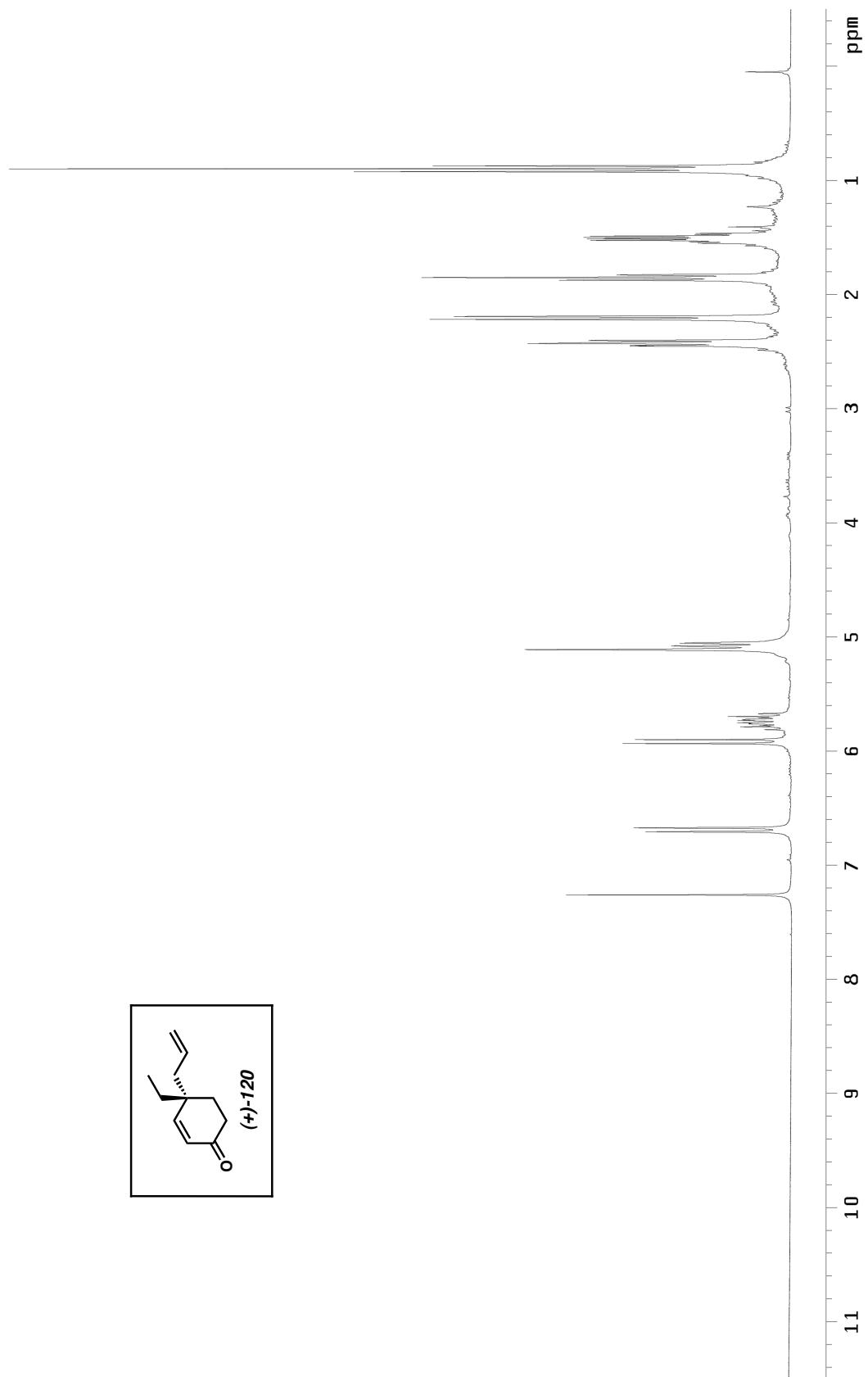


Figure A2.43 ^1H NMR (300 MHz, CDCl_3) of compound **120**.

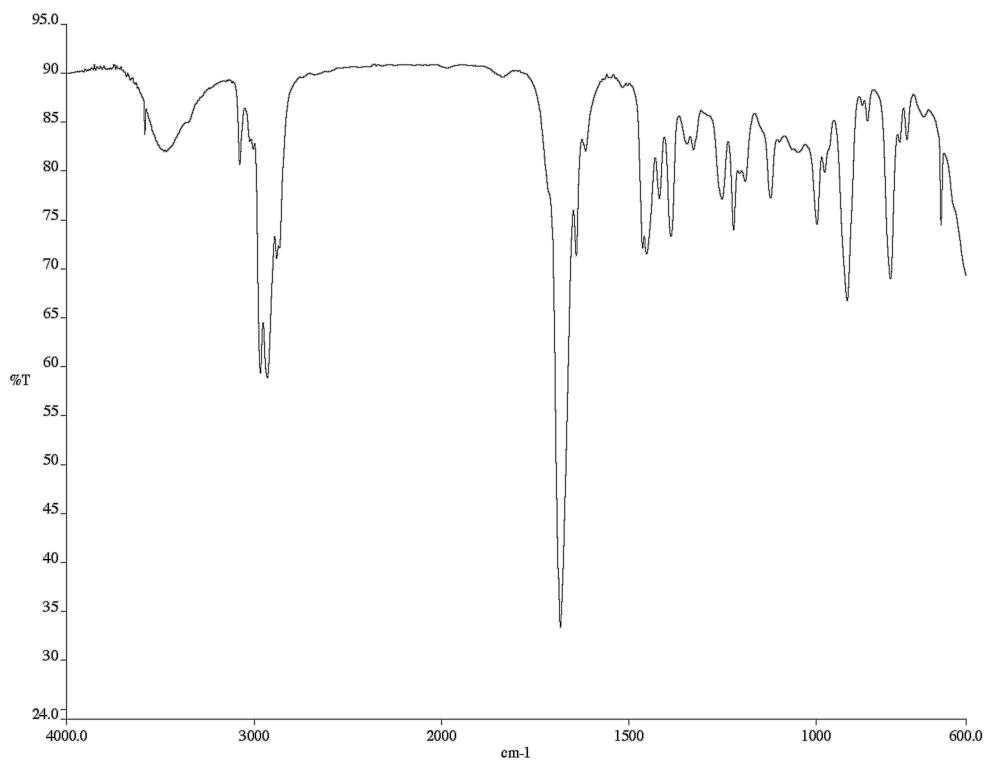


Figure A2.44 Infrared spectrum (NaCl/CDCl₃) of compound **120**.

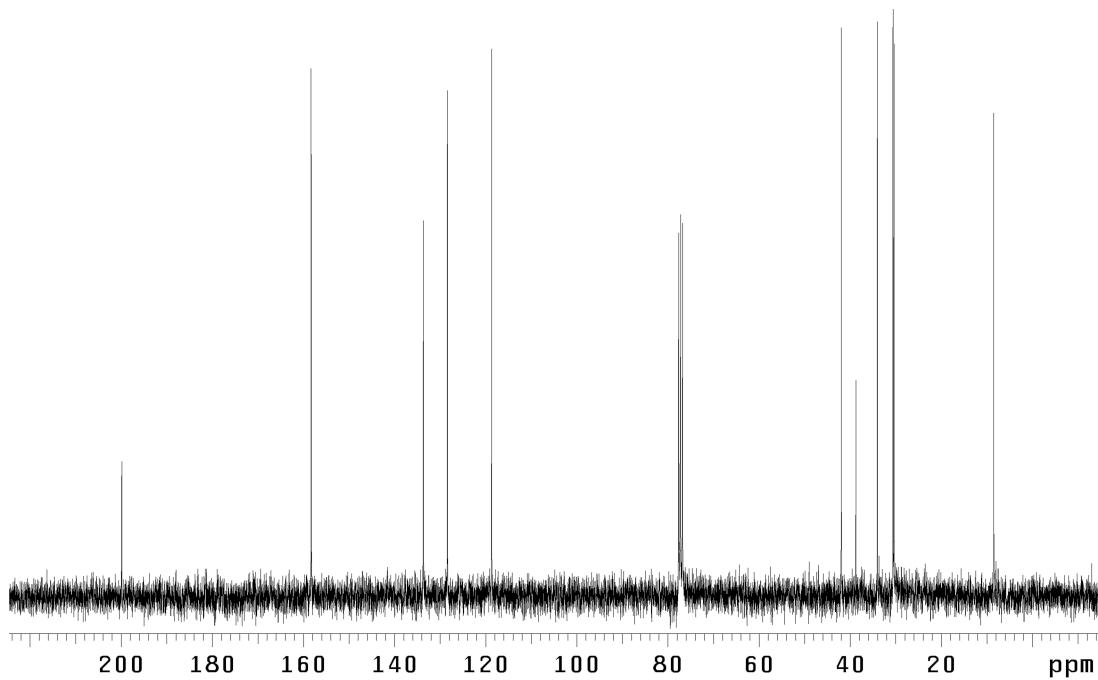


Figure A2.45 ¹³C NMR (75 MHz, CDCl₃) of compound **120**.