

## SUPPORTING INFORMATION

### Catalytic allylic chlorination of natural terpenic olefins using supported and non-supported Lewis acid catalysts

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#### ✚ Spectral data of chlorinated compounds:

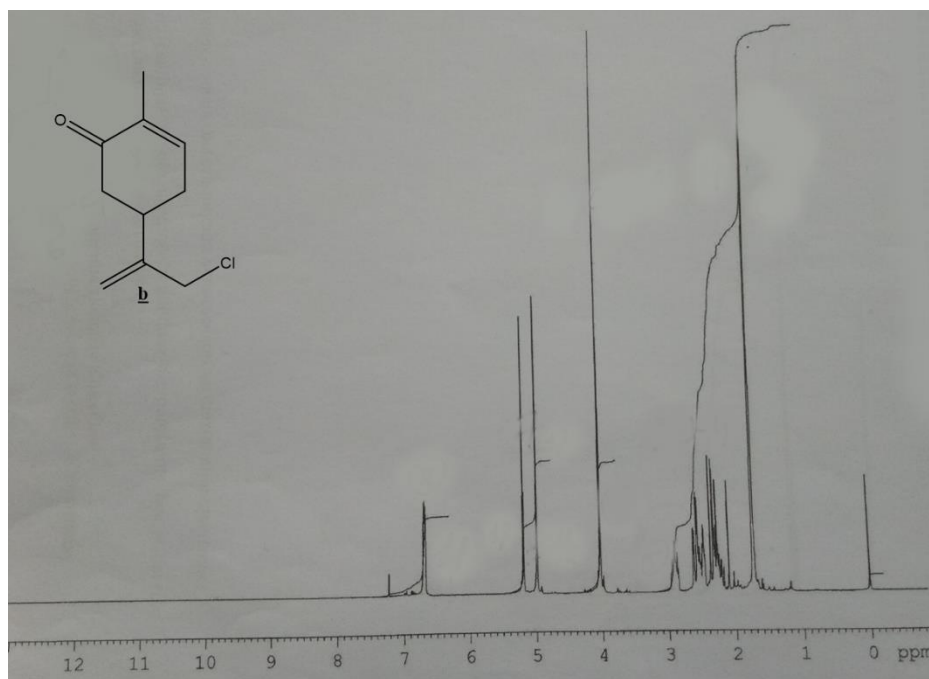


Figure S1: <sup>1</sup>H NMR spectrum of the product **b**.

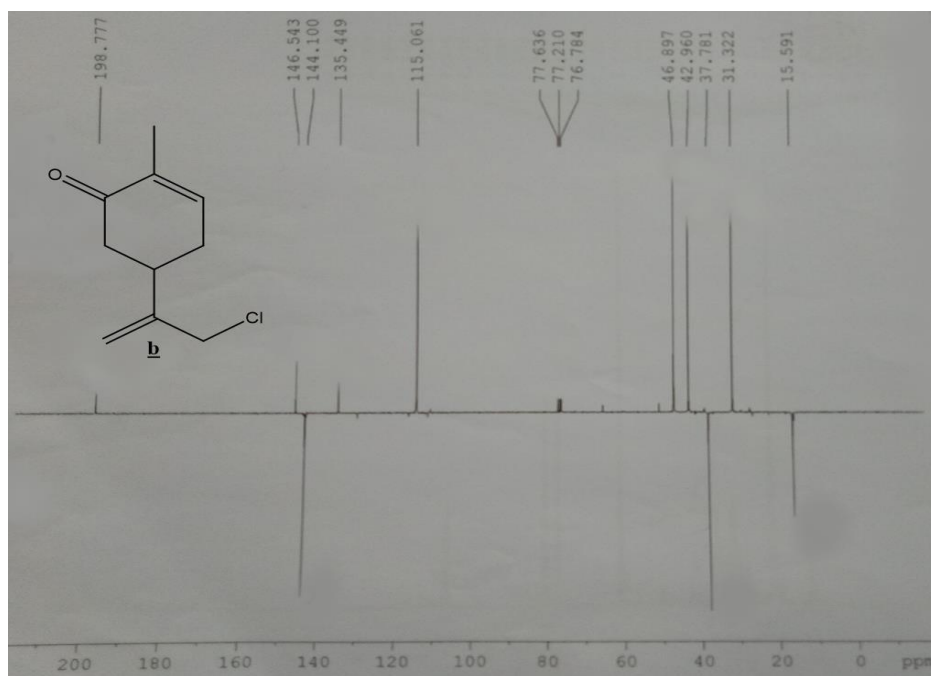


Figure S2: APT spectrum of the product **b**.

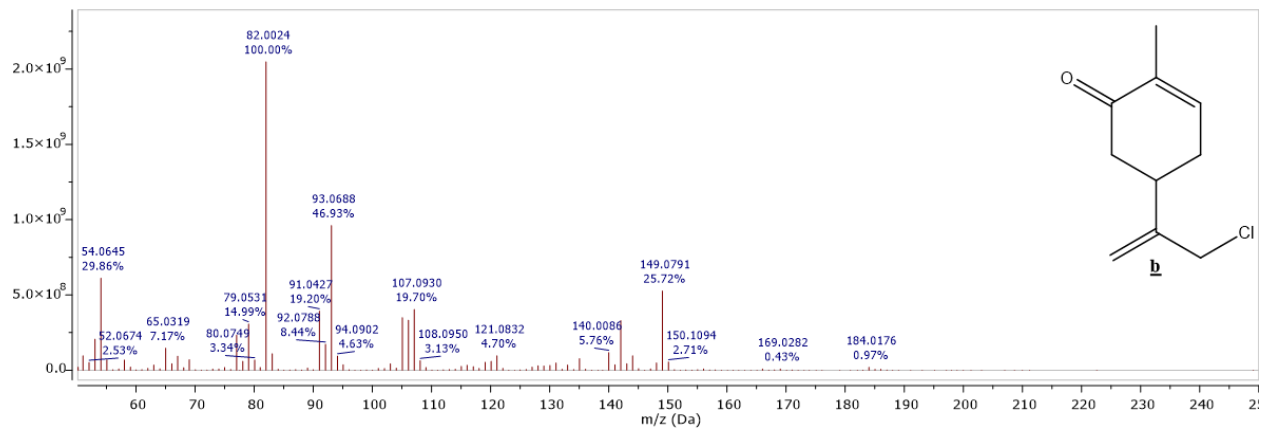


Figure S3: MS spectrum of the product **b**.

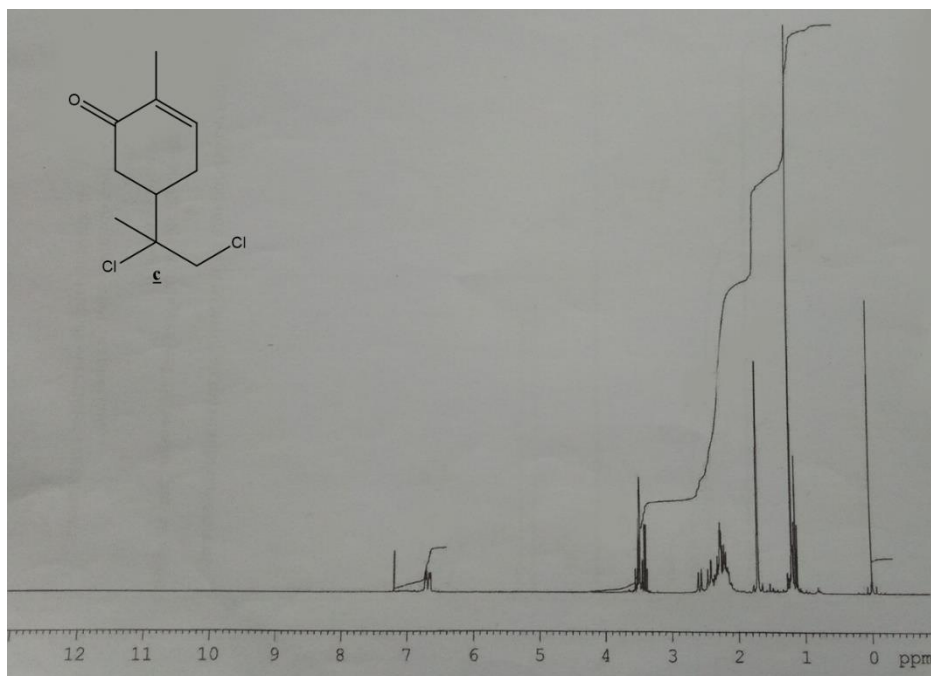


Figure S4: <sup>1</sup>H NMR spectrum of the product **c**.

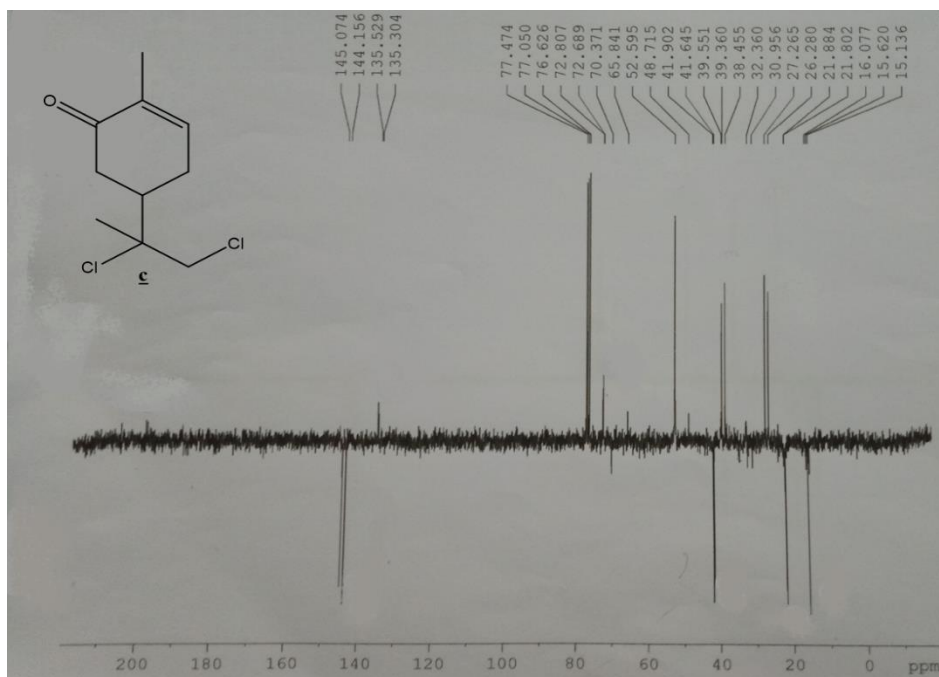


Figure S5: APT spectrum of the product **c**.

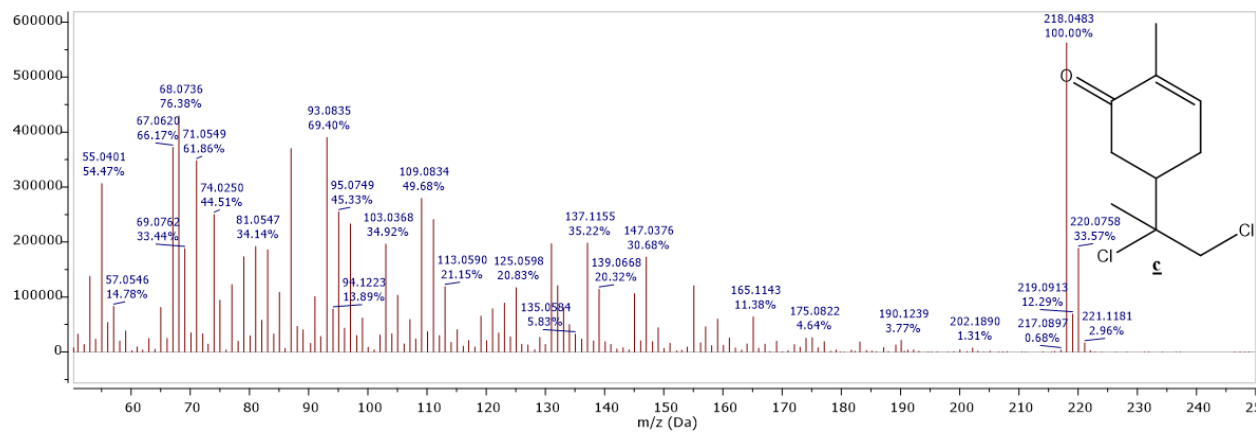


Figure S6: MS spectrum of the product **e**.

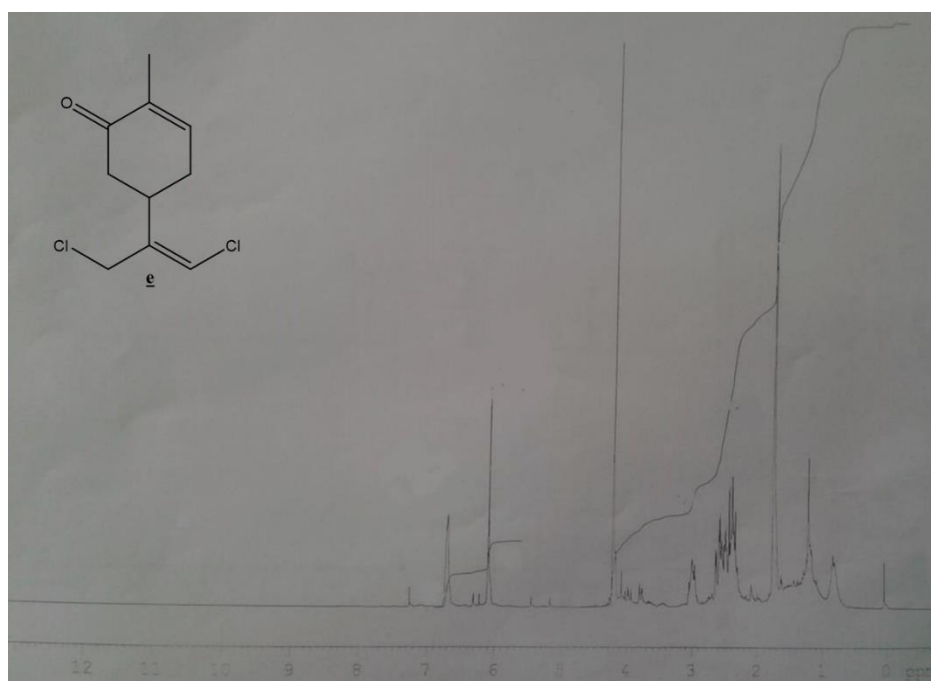


Figure S7: <sup>1</sup>H NMR spectrum of the product **e**.

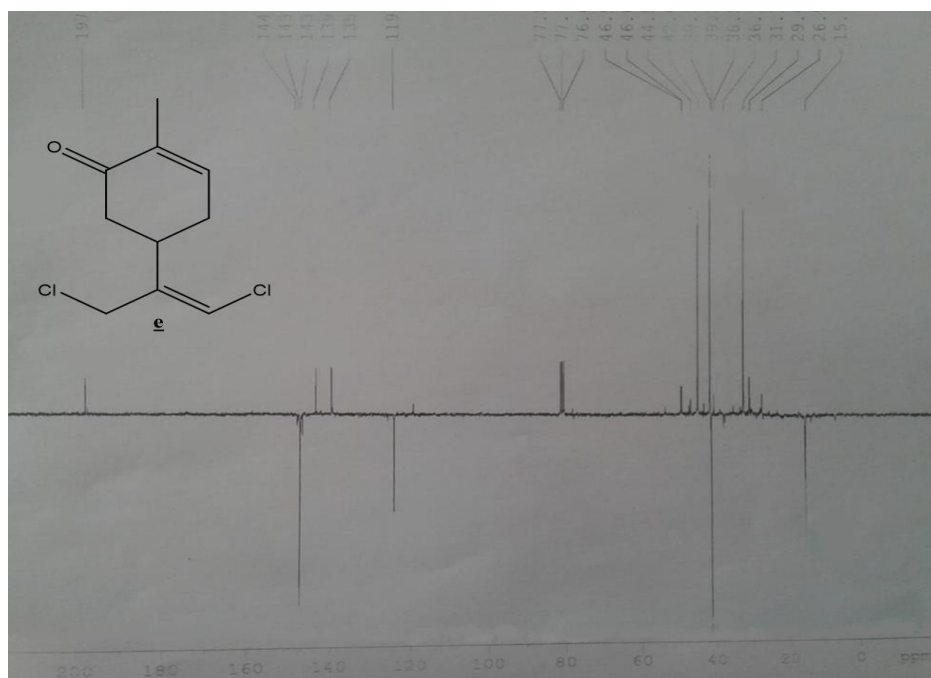


Figure S8: APT spectrum of the product **e**.

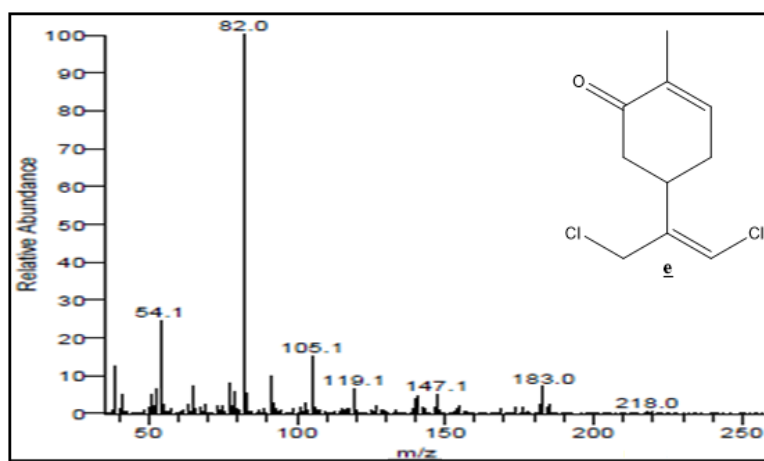


Figure S9: MS spectrum of the product **e**.

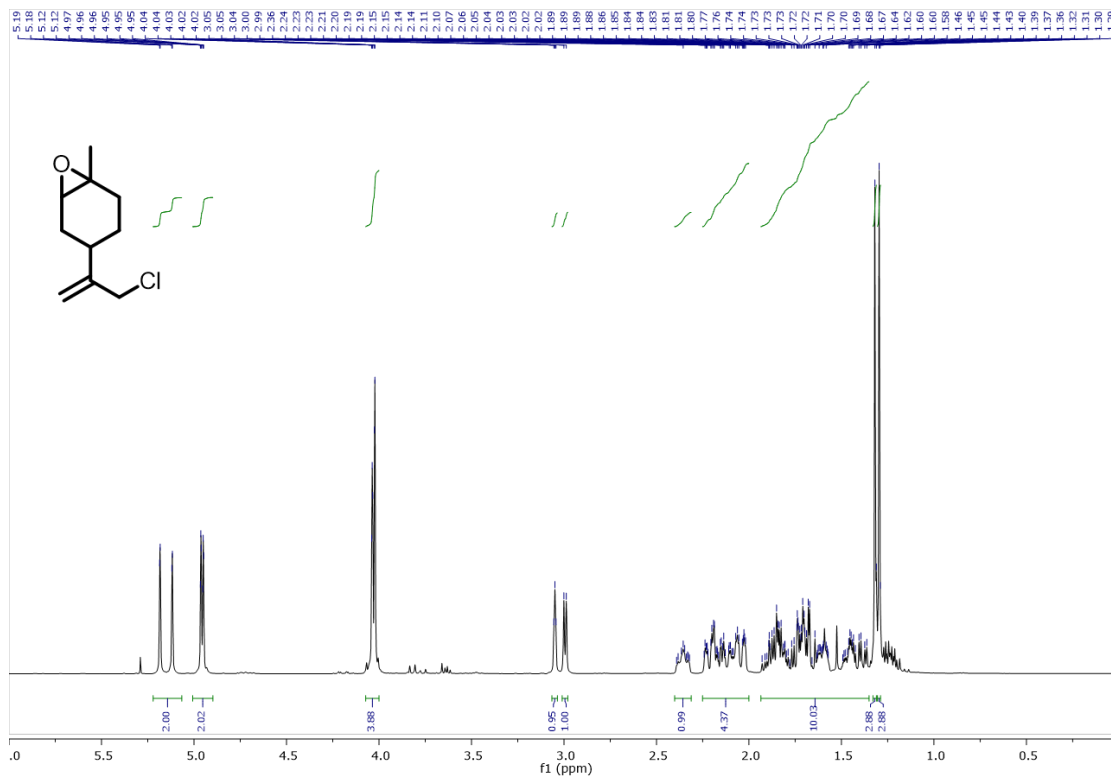


Figure S10:  $^1\text{H}$  NMR spectrum of the limonene oxide monochloride.

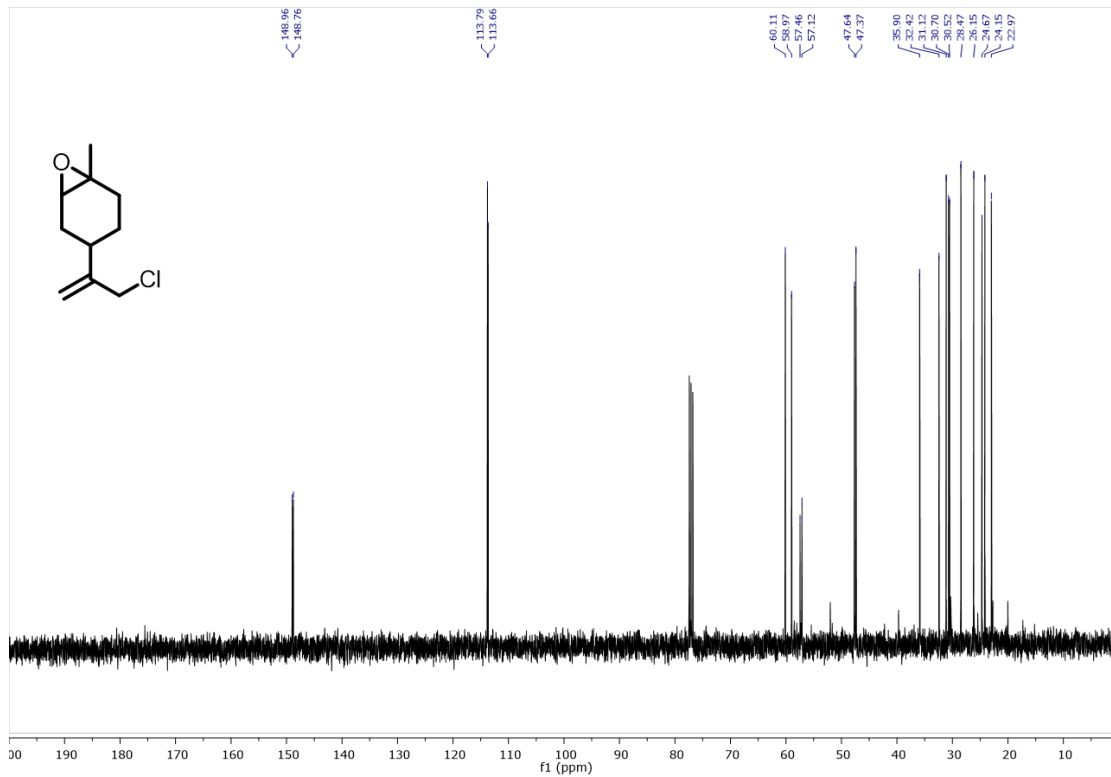


Figure S11:  $^{13}\text{C}$  spectrum of the limonene oxide monochloride.

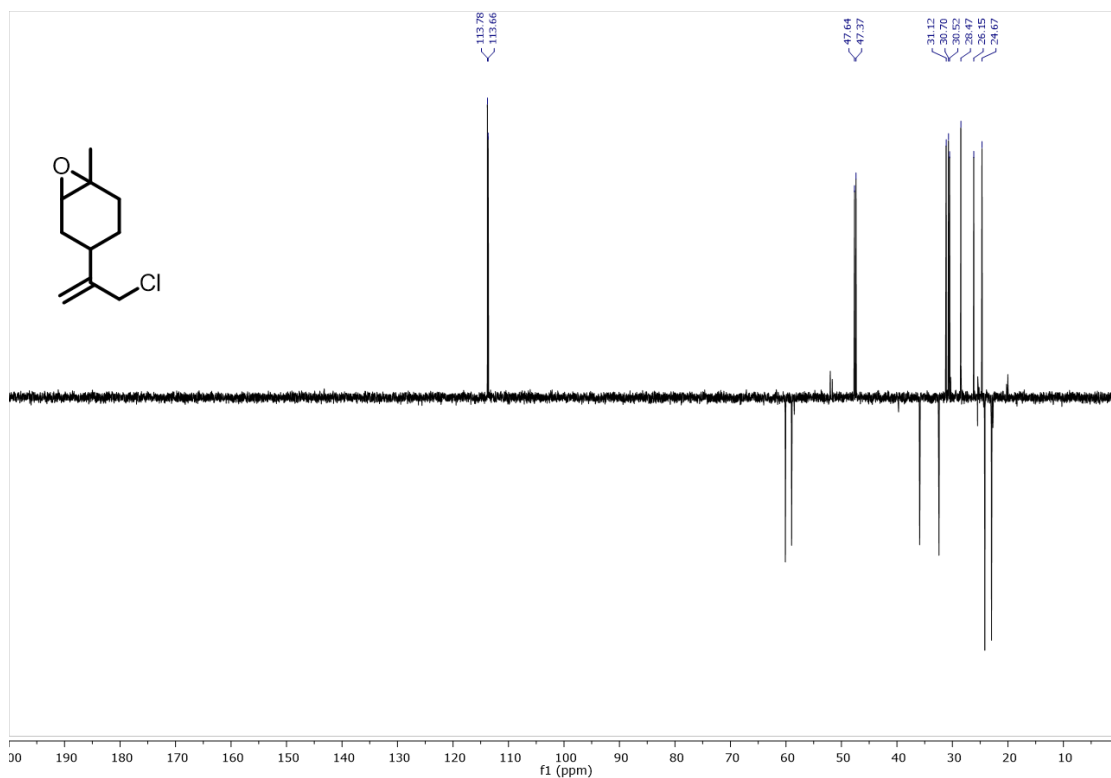


Figure S12: DET 135 spectrum of the limonene oxide monochloride.

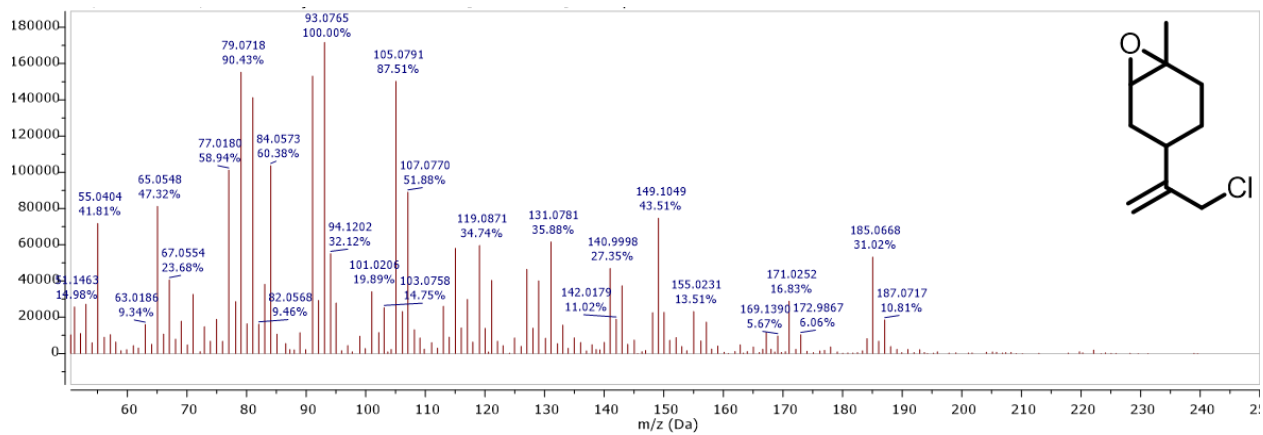


Figure S13: MS spectrum of the limonene oxide monochloride.

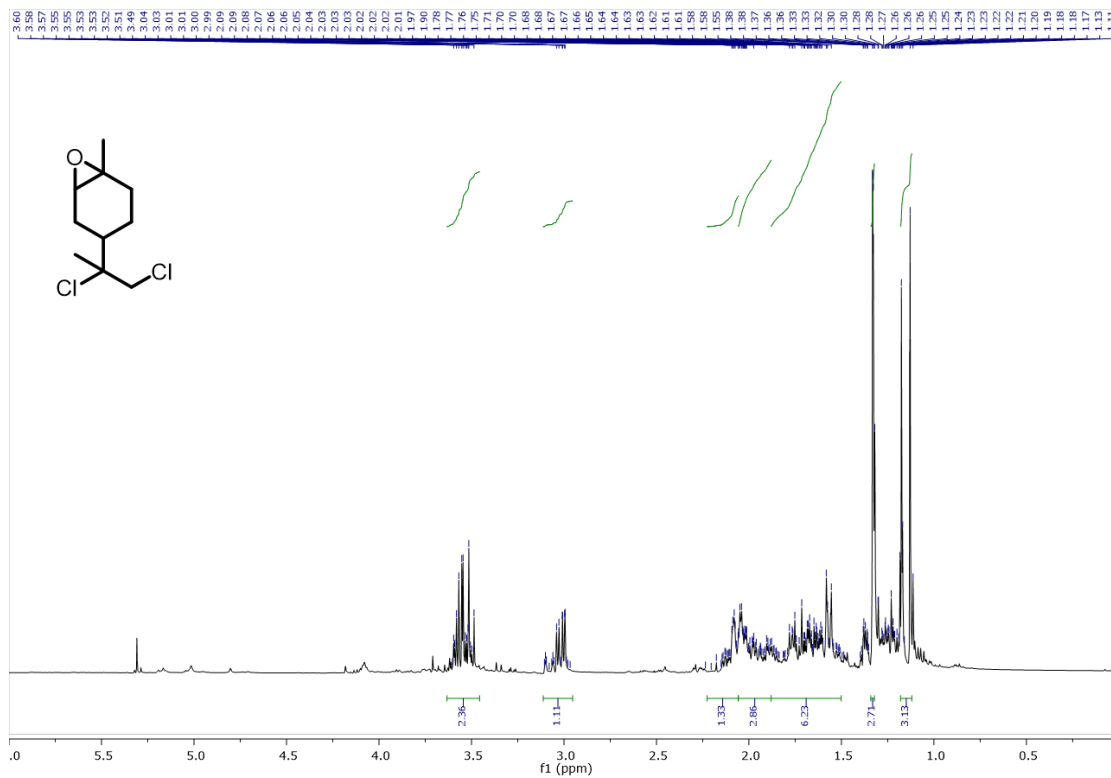


Figure S14:  $^1\text{H}$  NMR spectrum of the limonene oxide dichloride.

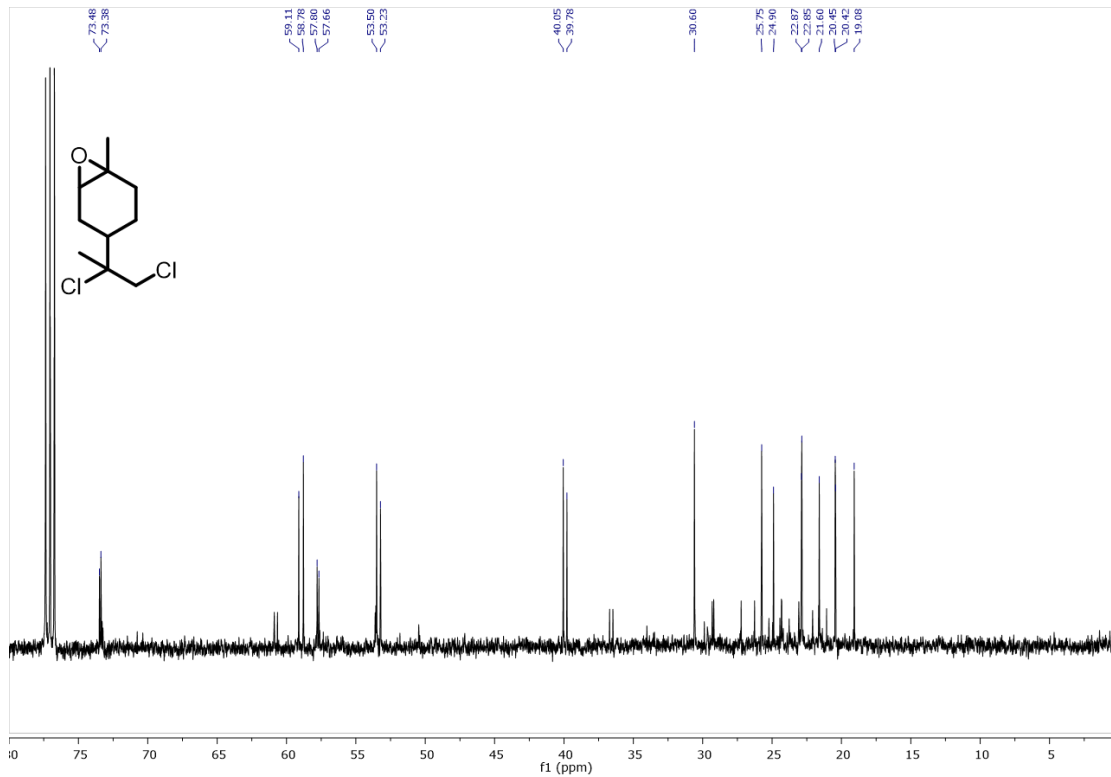


Figure S15:  $^{13}\text{C}$  spectrum of the limonene oxide dichloride.



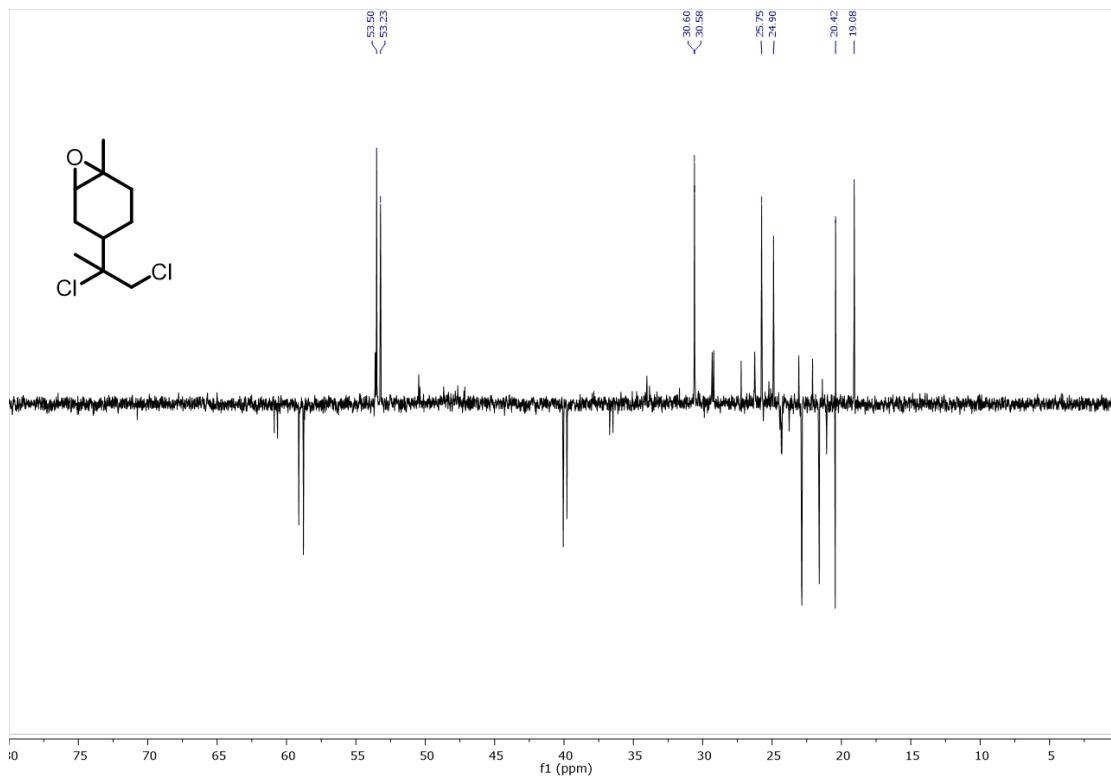


Figure S16: DET 135 spectrum of the limonene oxide dichloride.

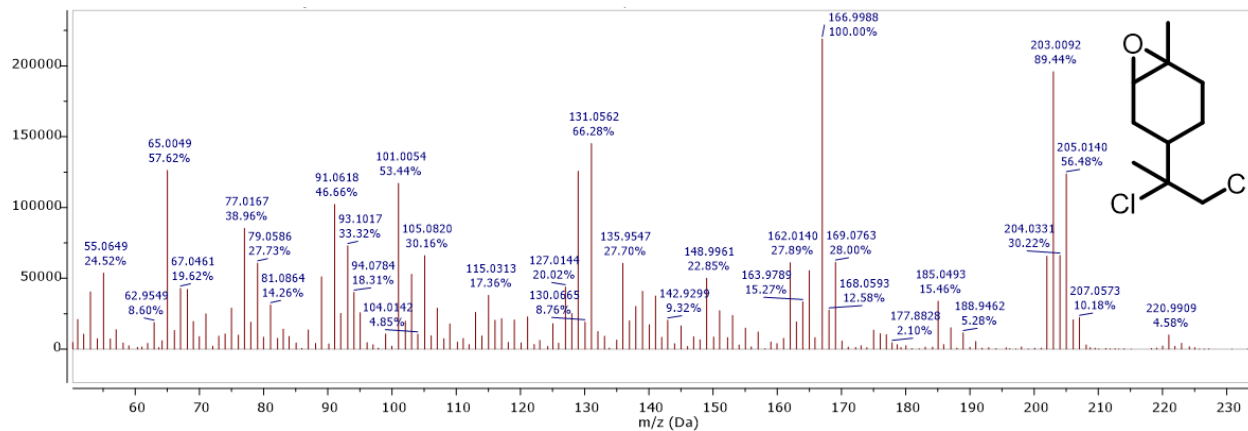


Figure S17: MS spectrum of the limonene oxide dichloride.

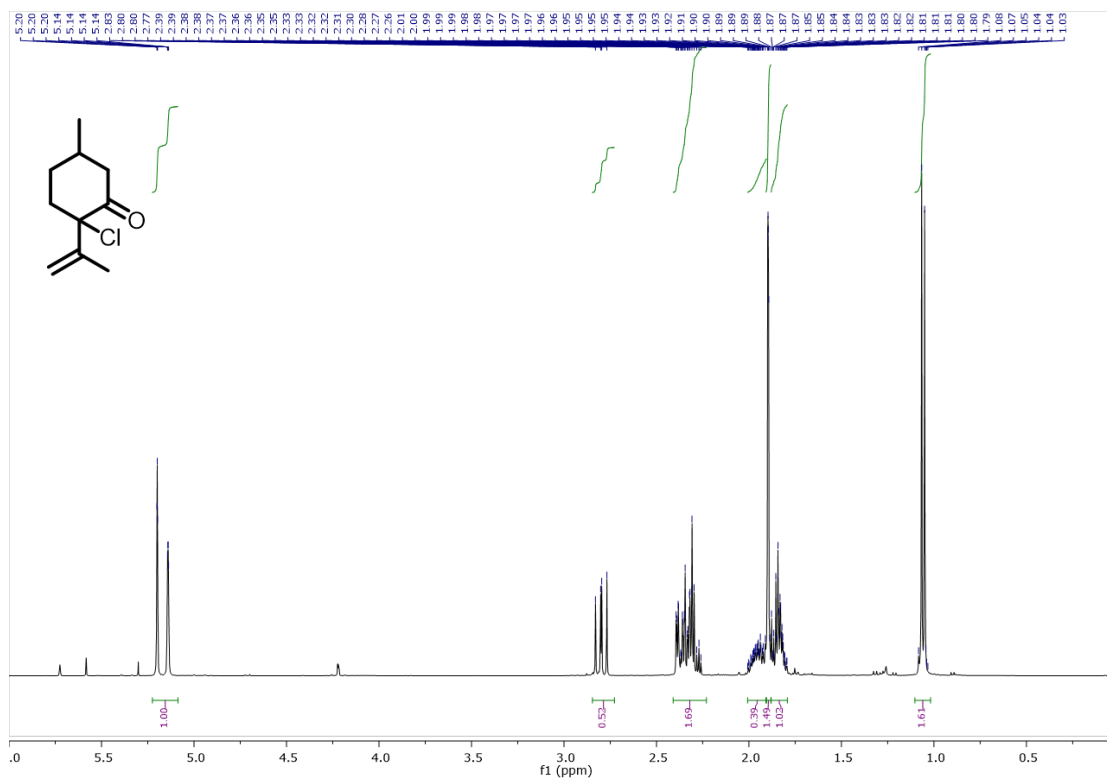


Figure S18:  $^1\text{H}$  NMR spectrum of the pulegone monochloride.

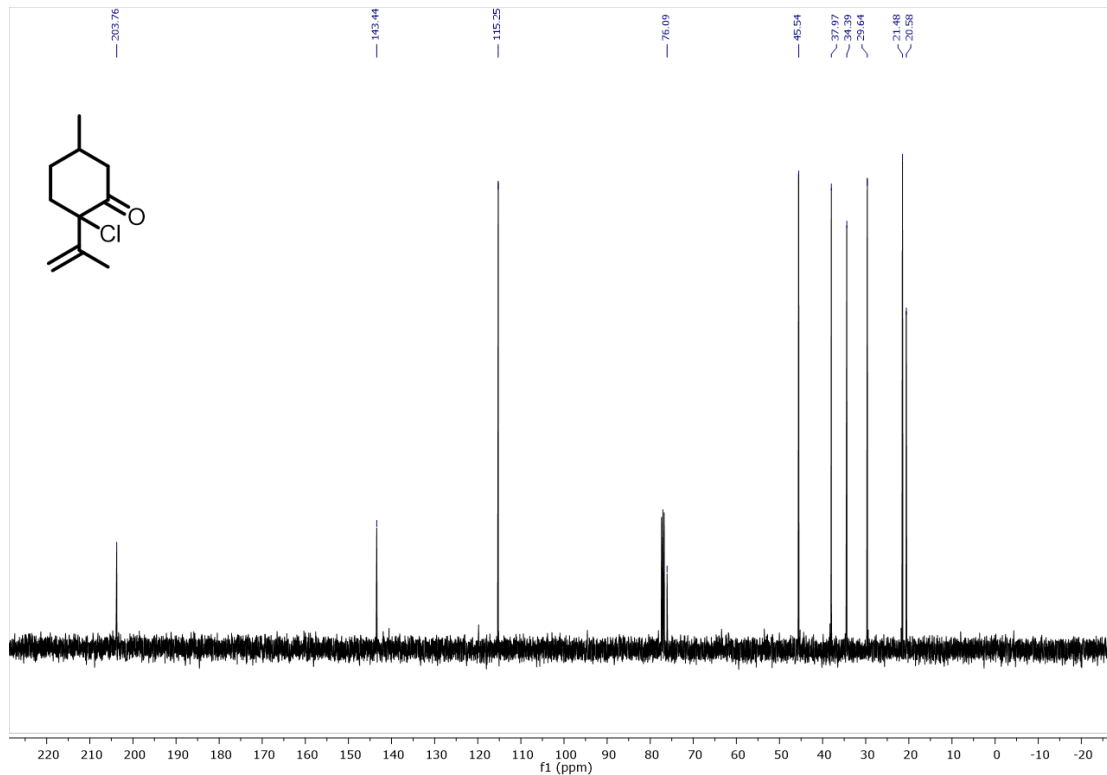


Figure S19:  $^{13}\text{C}$  spectrum of the pulegone monochloride.

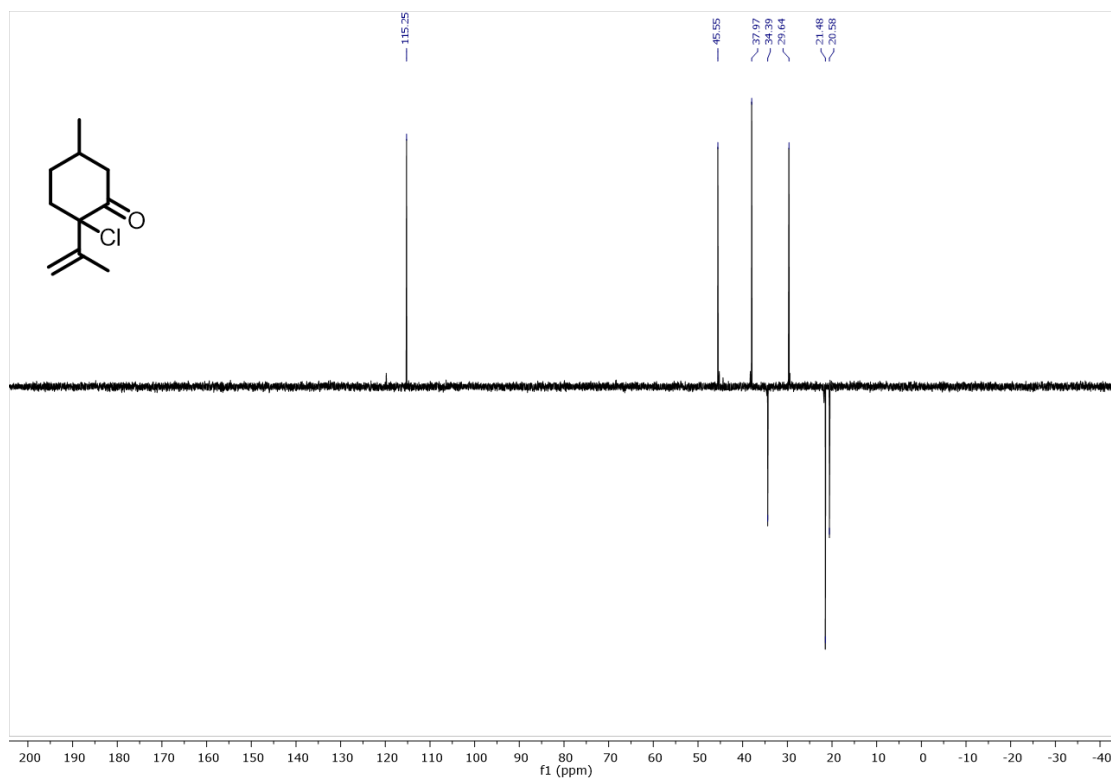


Figure S20: DET 135 spectrum of the pulegone monochloride.

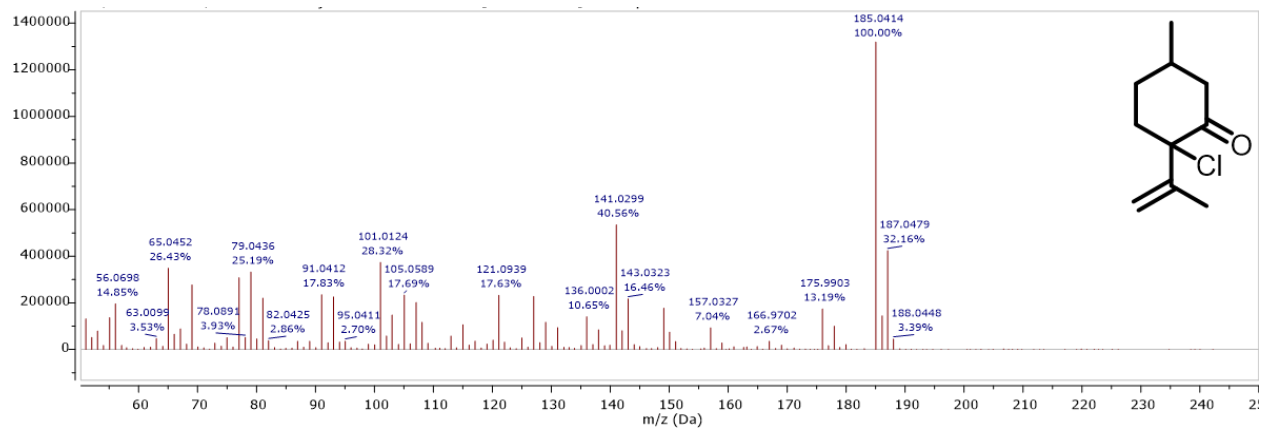


Figure S21: MS spectrum of the pulegone monochloride.

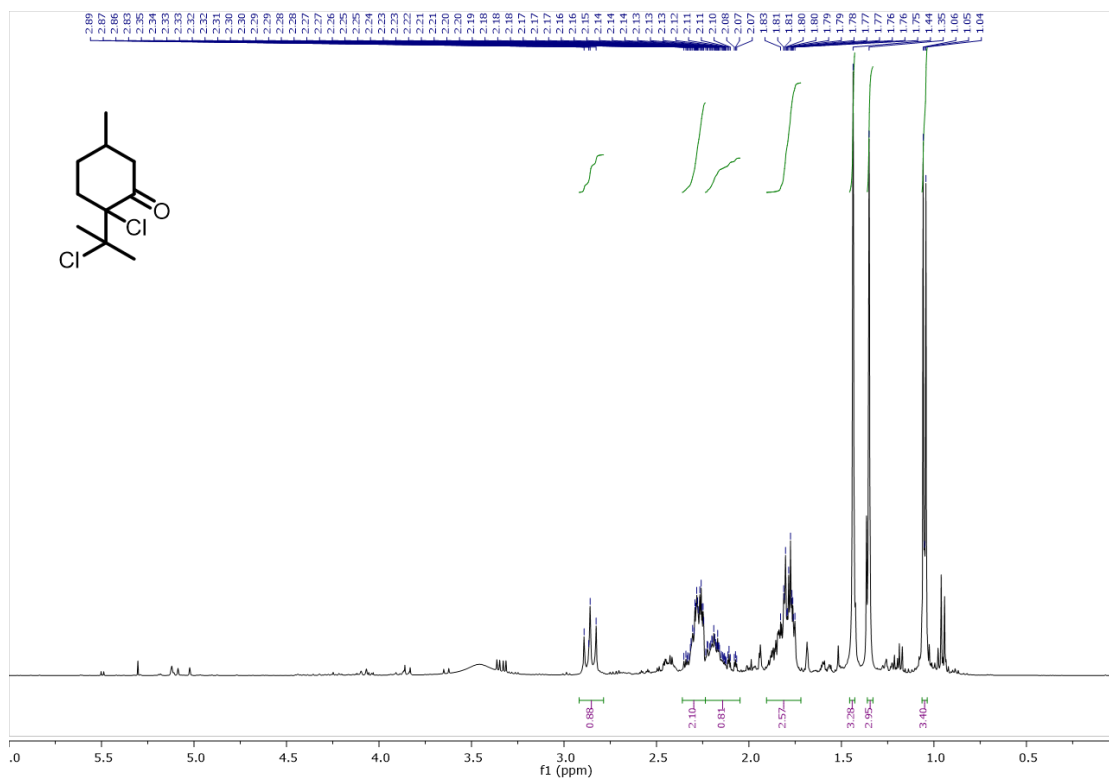


Figure S18:  $^1\text{H}$  NMR spectrum of the pulegone dichloride.

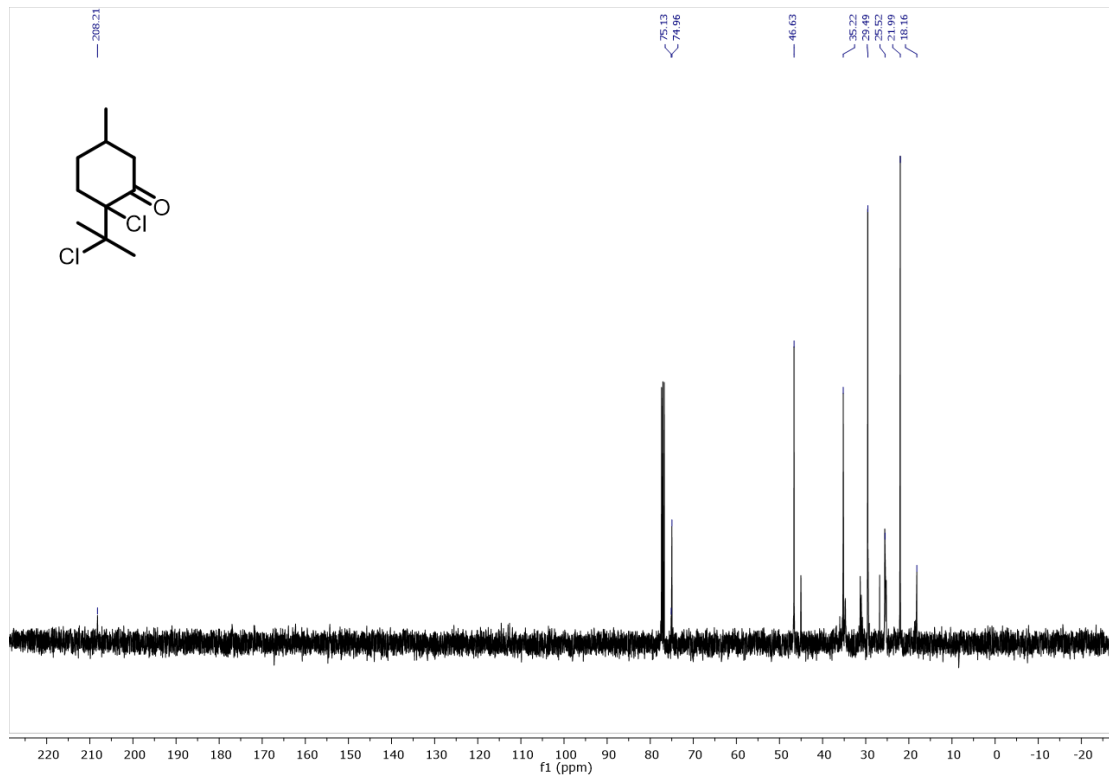


Figure S19:  $^{13}\text{C}$  spectrum of the pulegone dichloride.

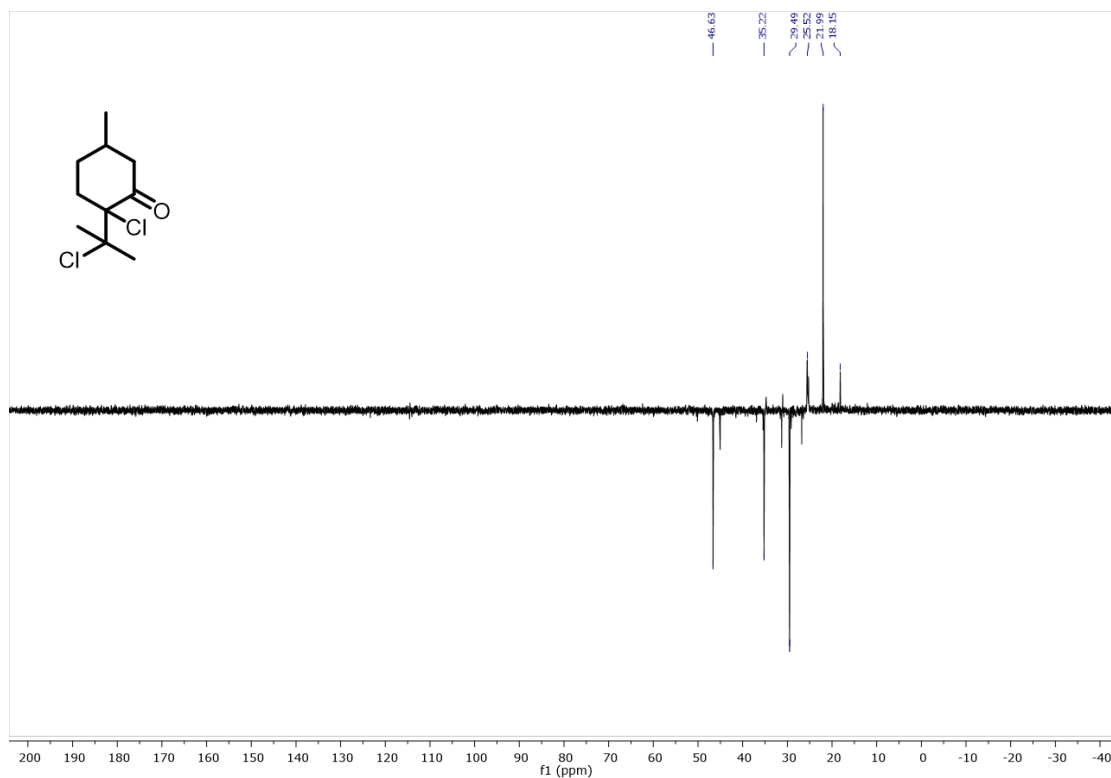


Figure S20: DET 135 spectrum of the pulegone dichloride.

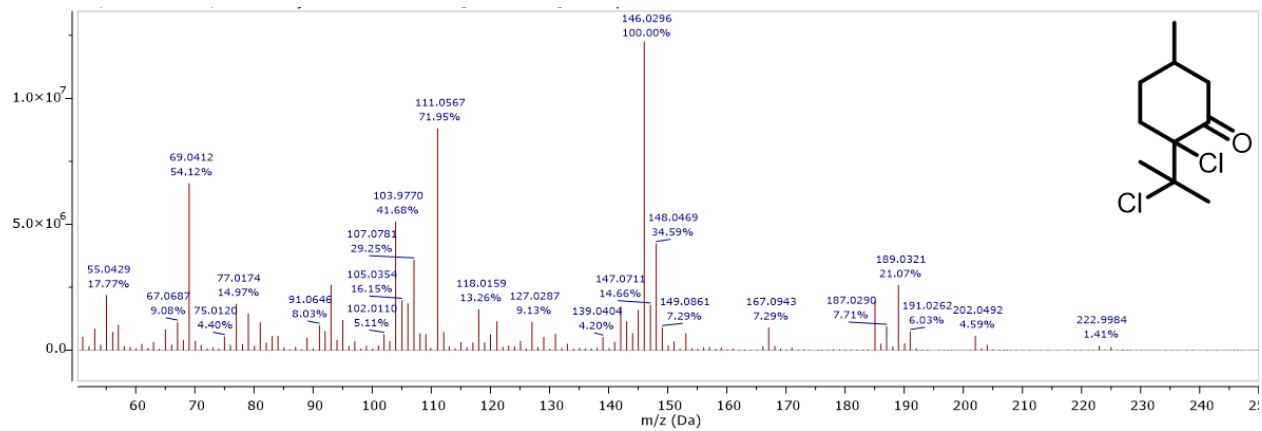


Figure S21: MS spectrum of the pulegone dichloride.

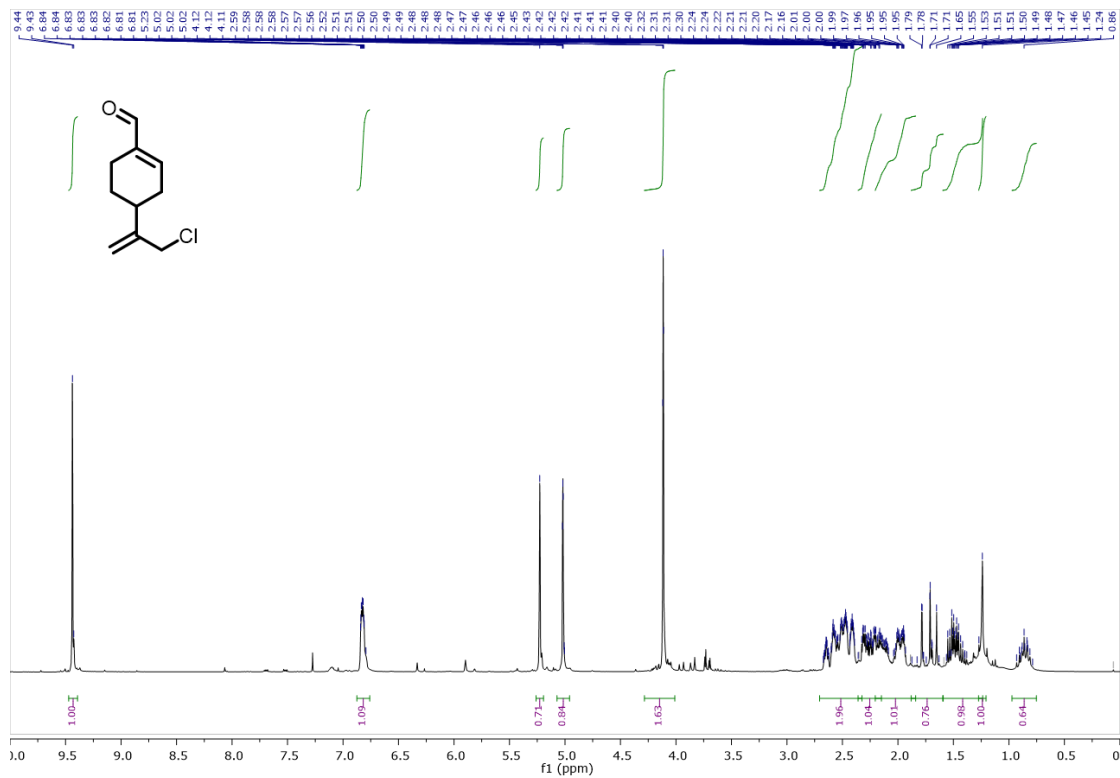


Figure S22:  $^1\text{H}$  NMR spectrum of the perillyl aldehyde monochloride.

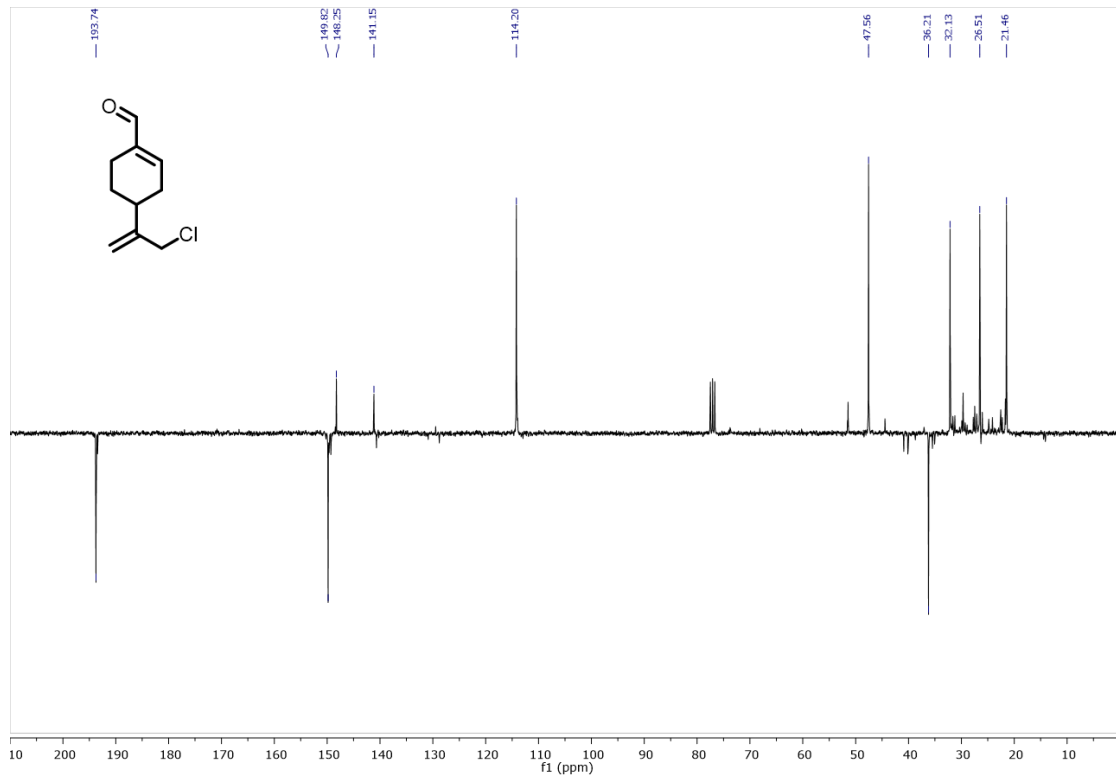


Figure S23: APT spectrum of the perillyl aldehyde monochloride.

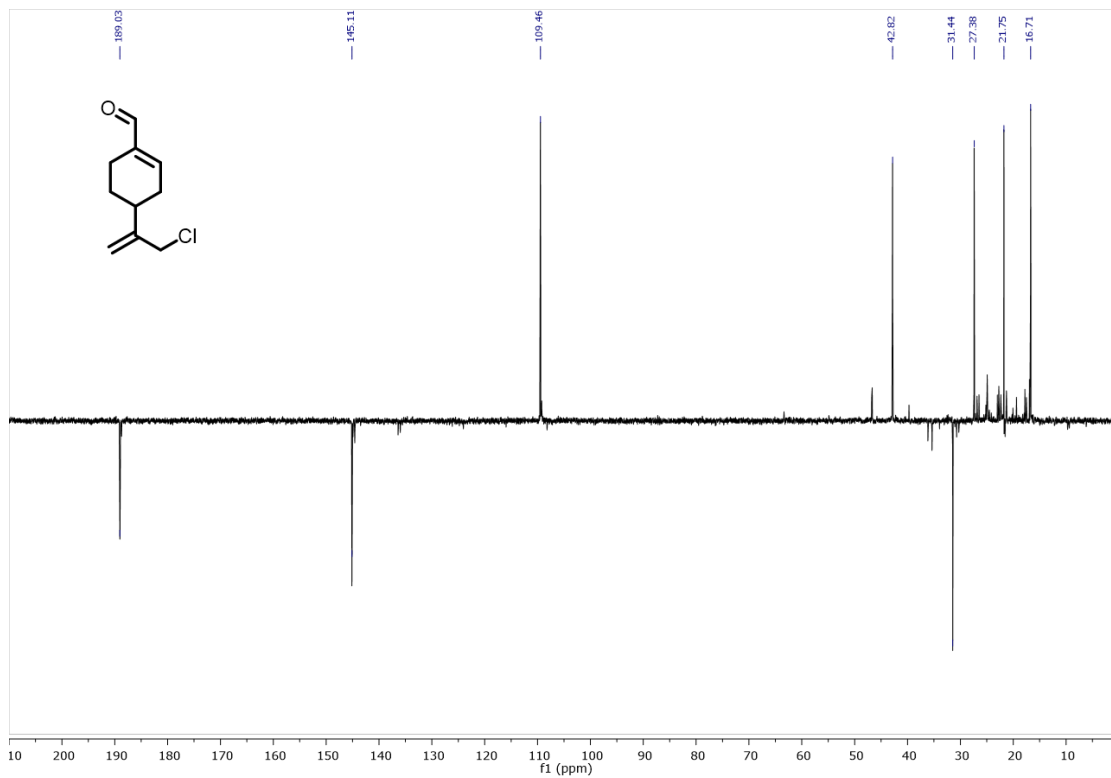


Figure S24: DET 135 spectrum of the perillyl aldehyde monochloride.

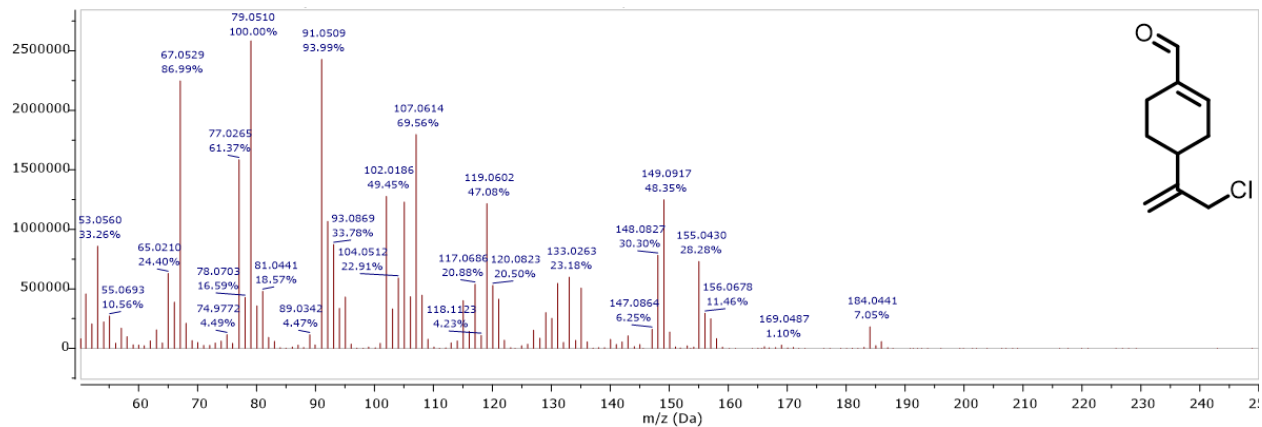


Figure S25: MS spectrum of the perillyl aldehyde monochloride.

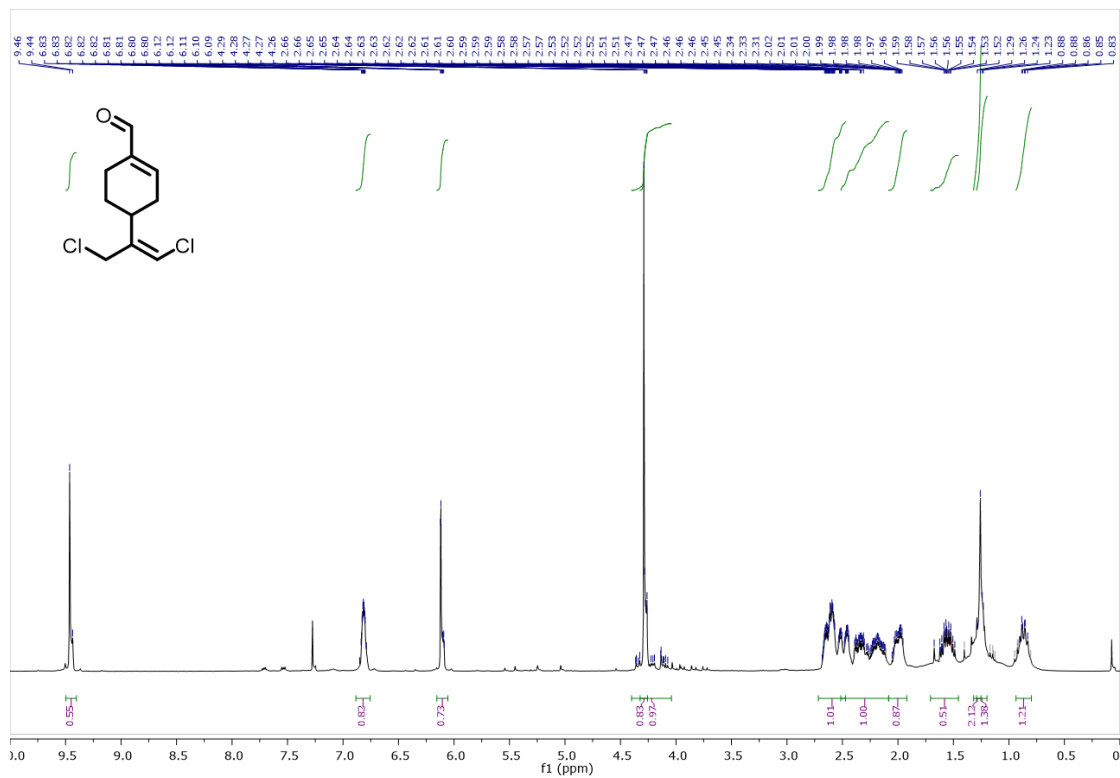


Figure S26: <sup>1</sup>H NMR spectrum of the perillyl aldehyde vinyl allyl chloride.

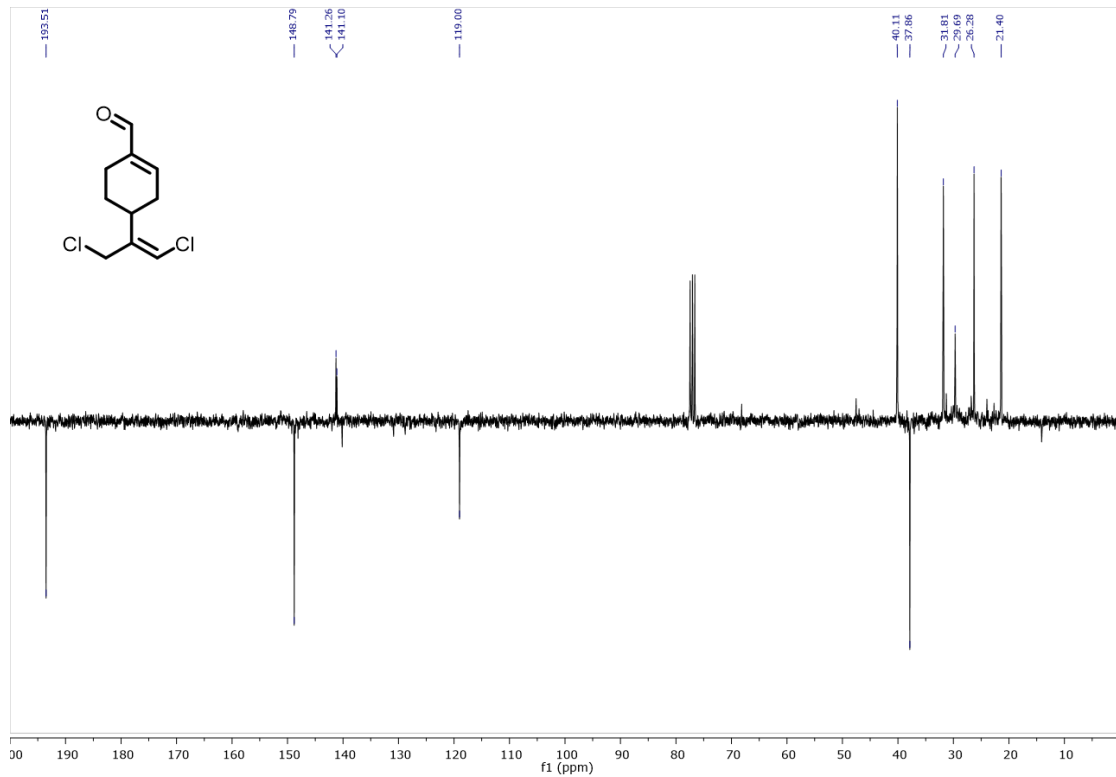


Figure S27: APT spectrum of the perillyl aldehyde vinyl allyl chloride.



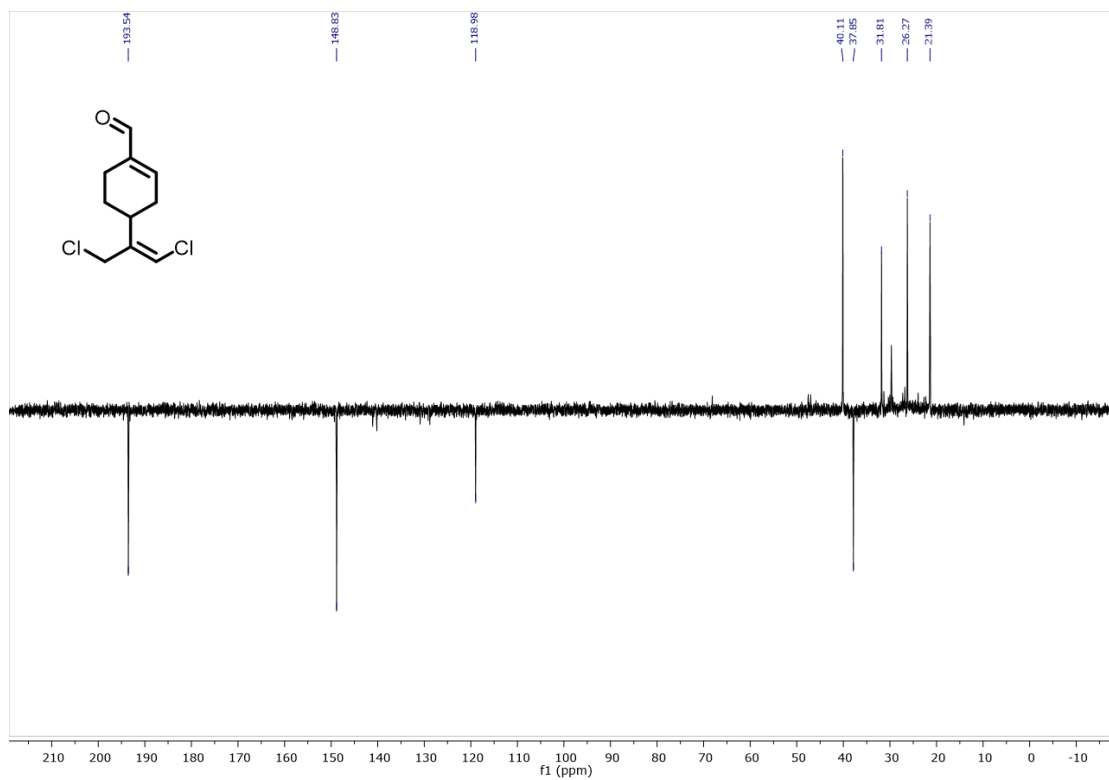


Figure S28: DET 135 spectrum of the perillyl aldehyde vinyl allyl chloride.

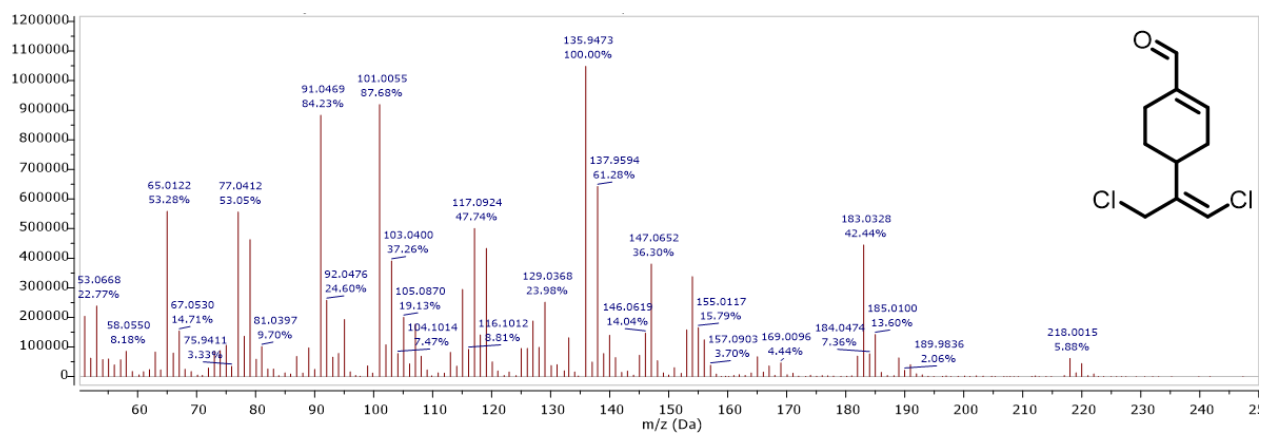


Figure S29: MS spectrum of the perillyl aldehyde vinyl allyl chloride.

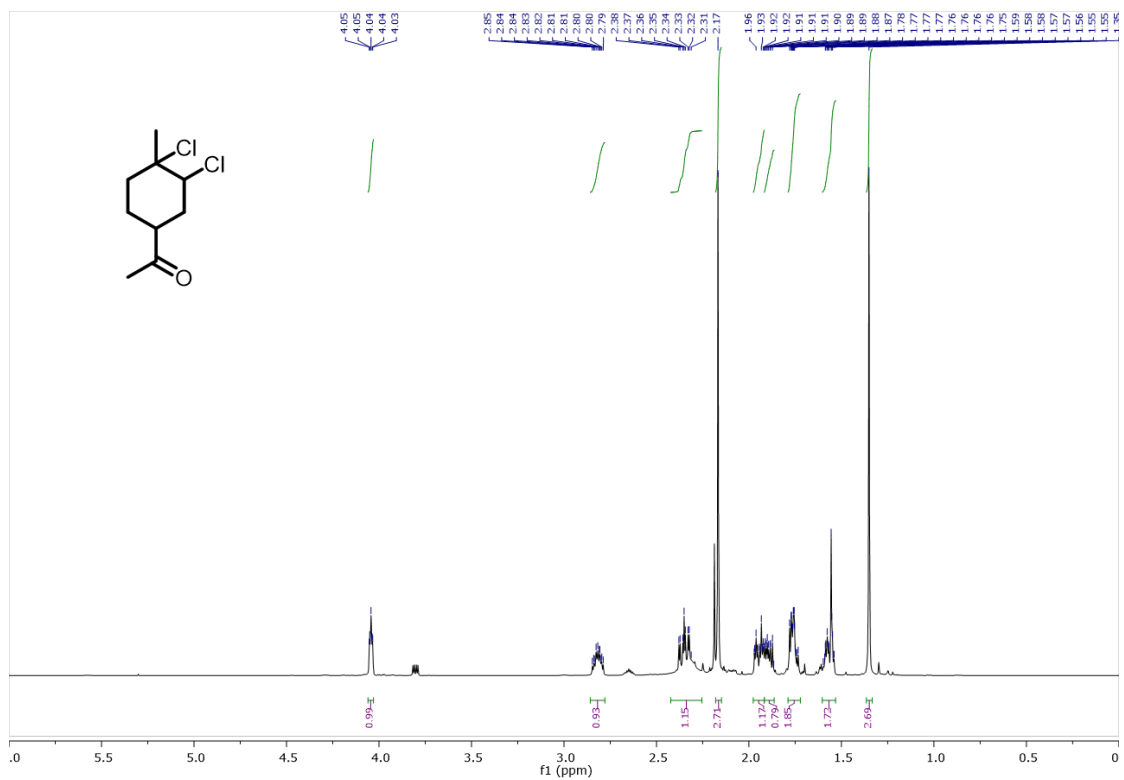


Figure S30:  $^1\text{H}$  NMR spectrum of the limonaketone dichloride.

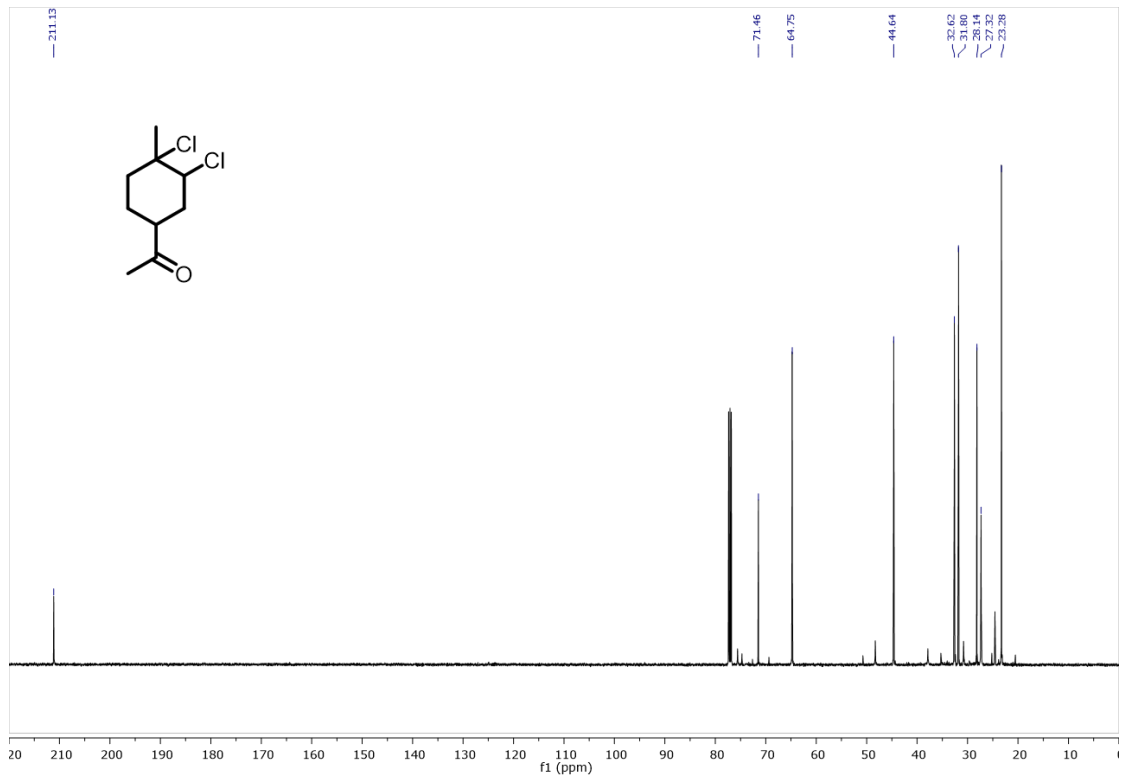


Figure S31:  $^{13}\text{C}$  spectrum of the limonaketone dichloride.

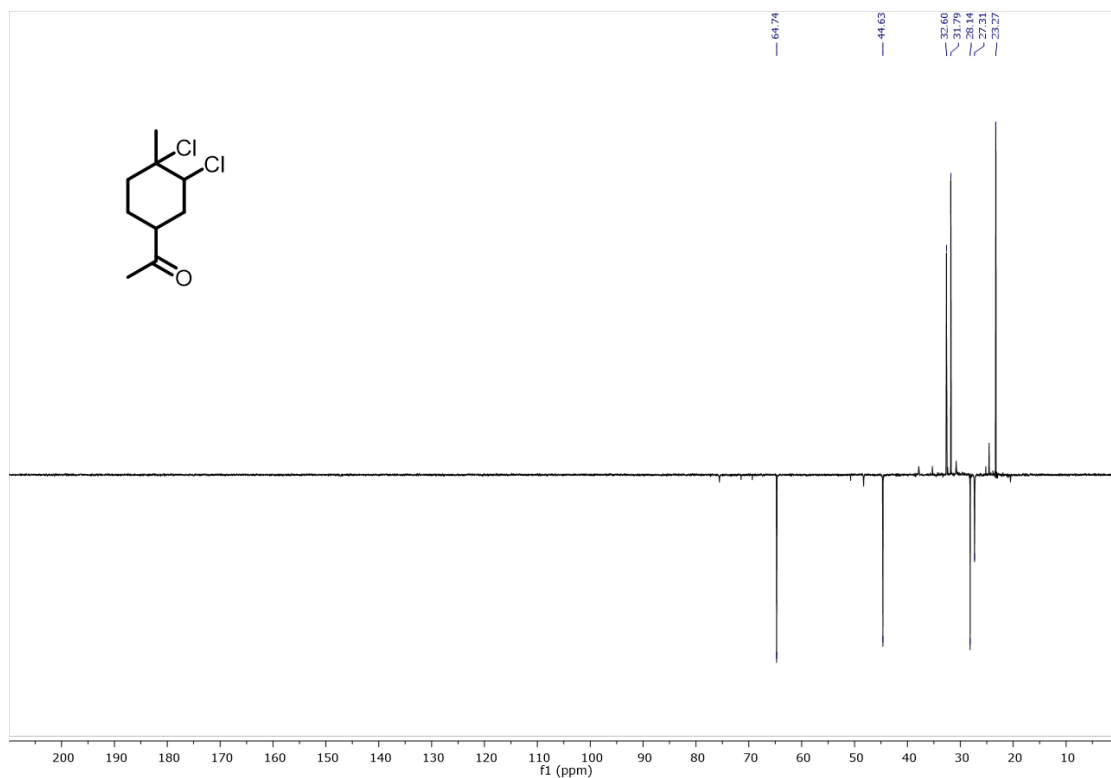


Figure S32: DET 135 spectrum of the limonaketone dichloride.

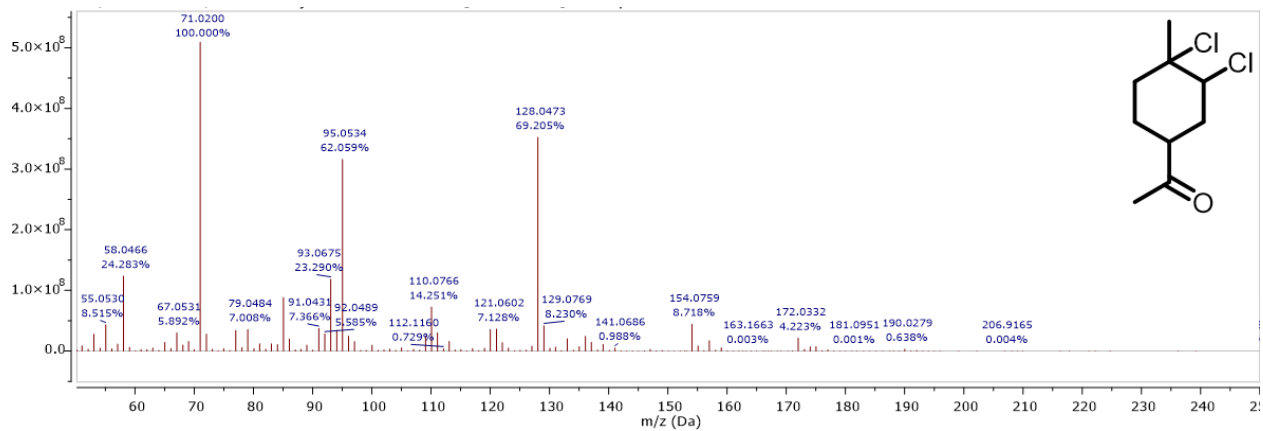


Figure S33: MS spectrum of the limonaketone dichloride.

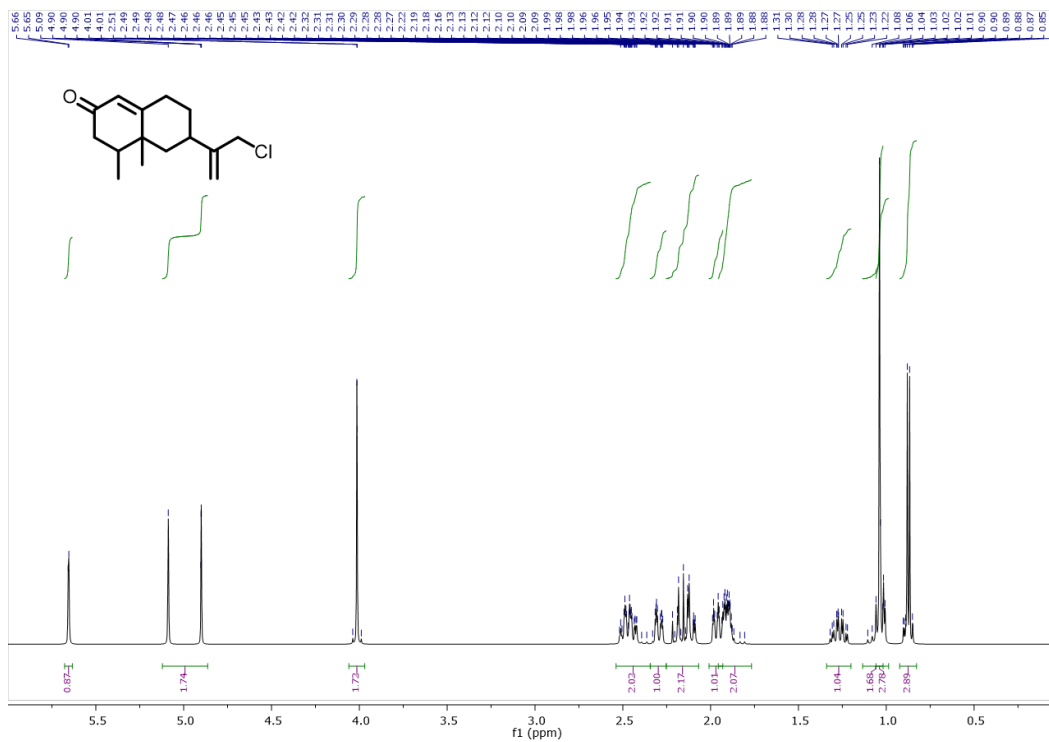


Figure S34: <sup>1</sup>H NMR spectrum of the nootkatone monochloride.

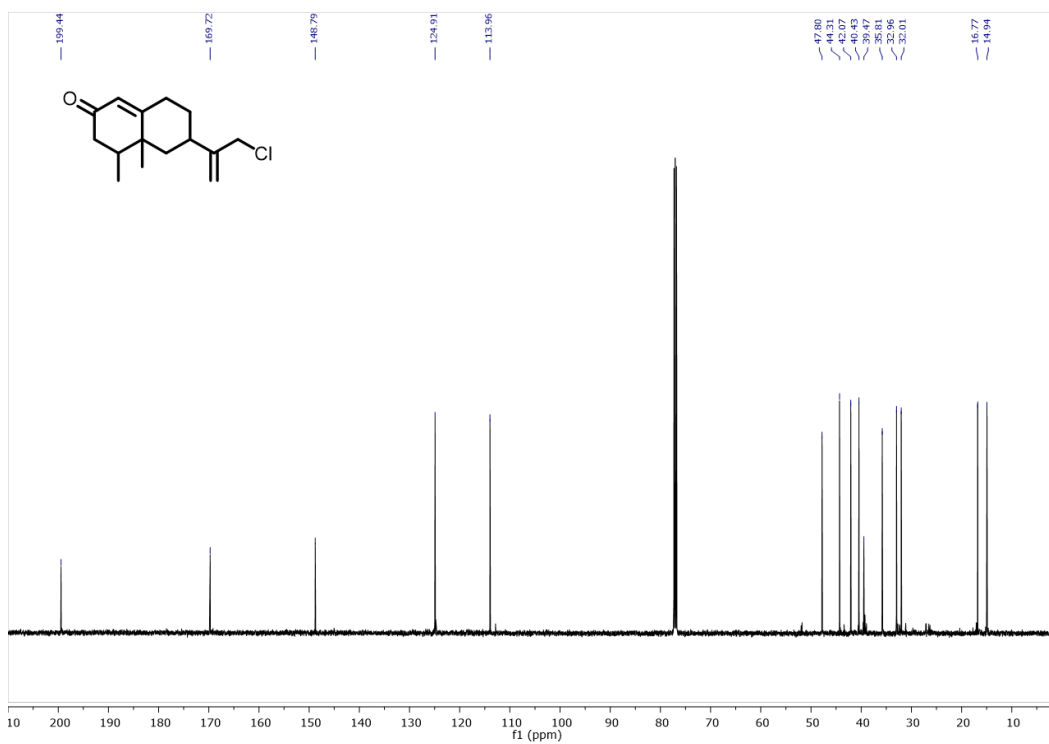


Figure S35: <sup>13</sup>C spectrum of the nootkatone monochloride.

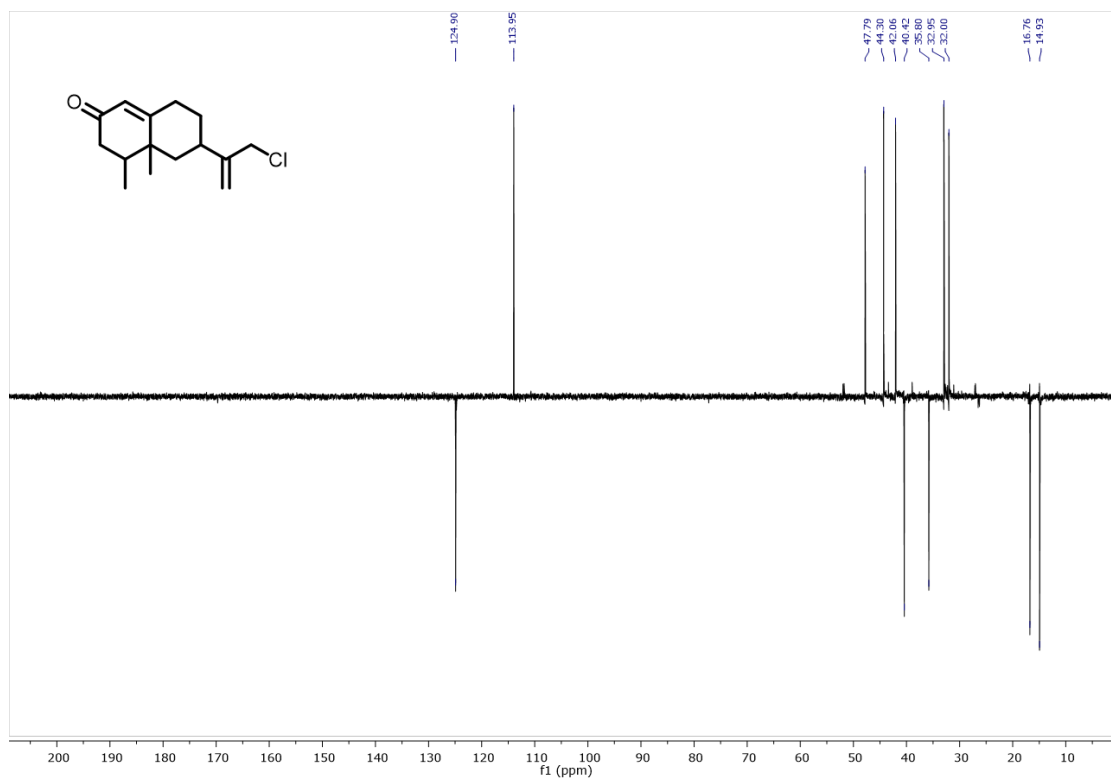


Figure S36: DET 135 spectrum of the nootkatone monochloride.

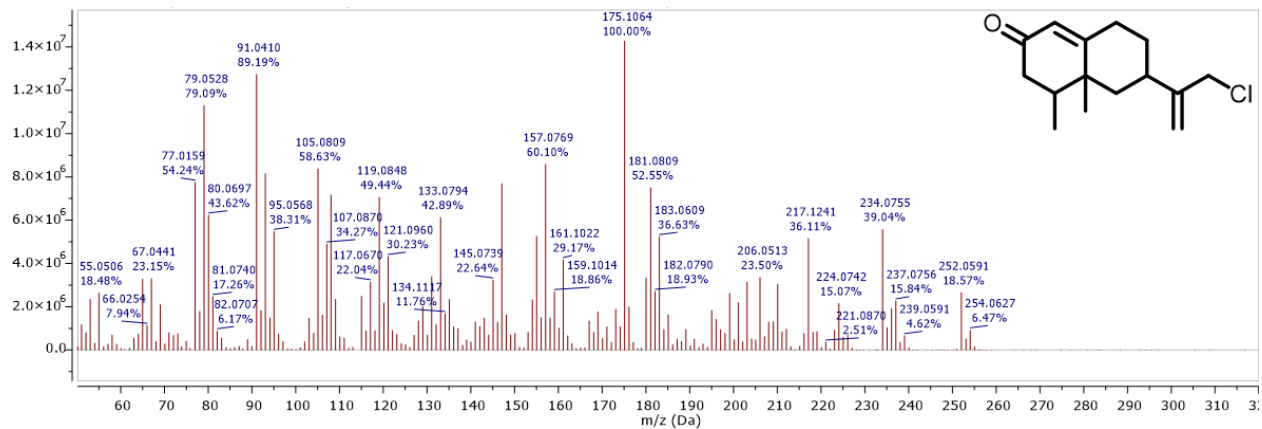


Figure S37: MS spectrum of the nootkatone monochloride.

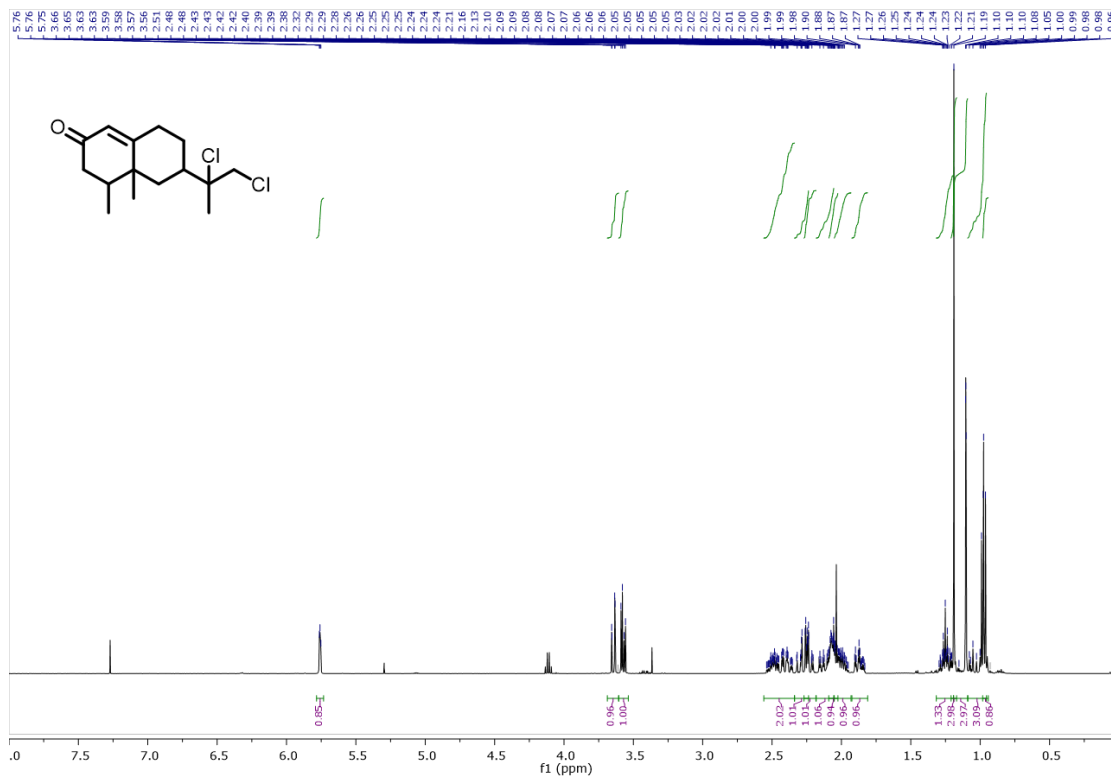


Figure S38:  $^1\text{H}$  NMR spectrum of the nootkatone dichloride.

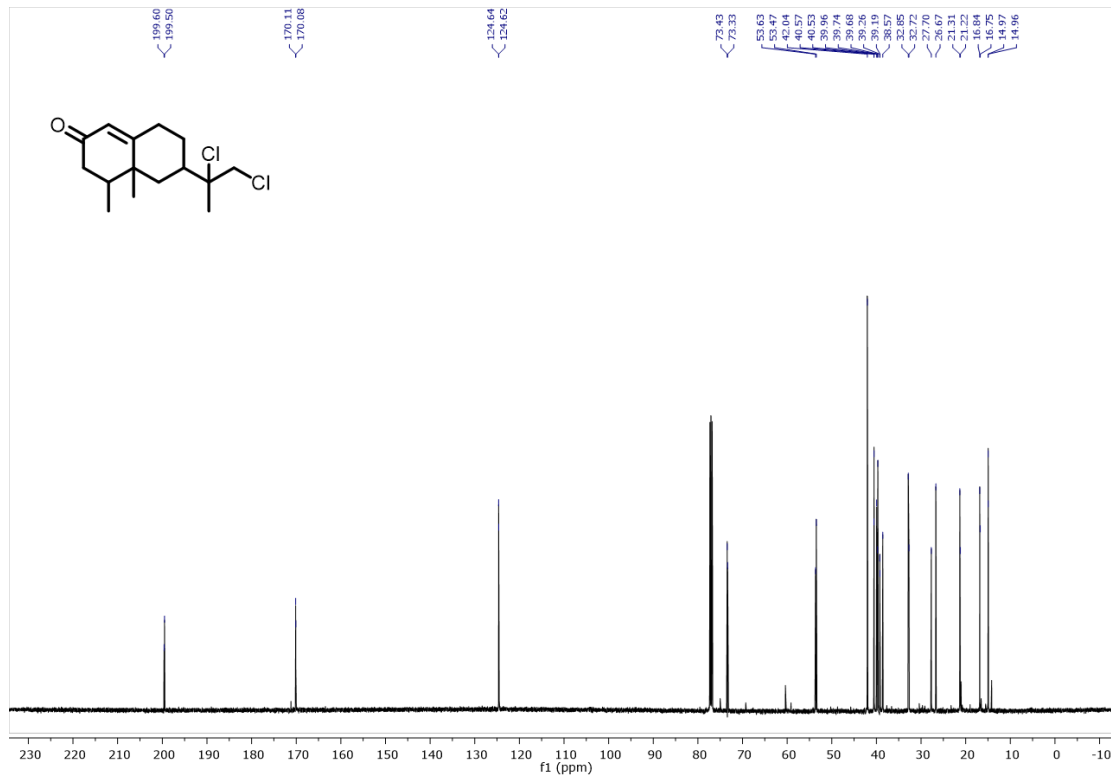


Figure S39:  $^{13}\text{C}$  spectrum of the nootkatone dichloride.

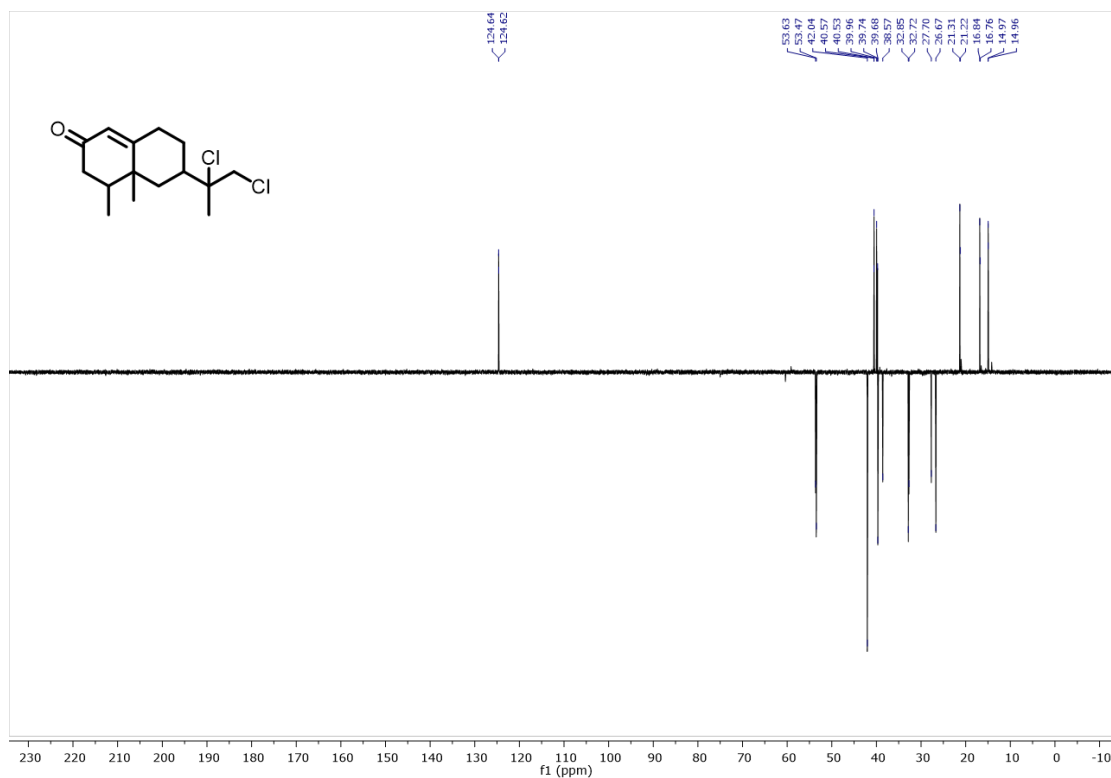


Figure S40: DET 135 spectrum of the nootkatone dichloride.

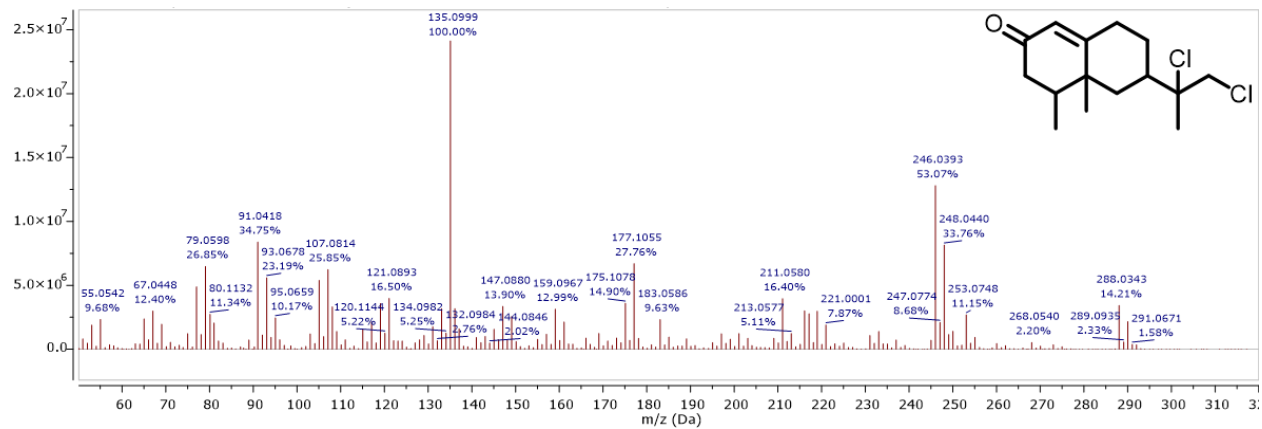


Figure S41: MS spectrum of the nootkatone dichloride.