

Supplementary Materials: The Presence of a Cyclohexyldiamine Moiety Confers Cytotoxicity to Pentacyclic Triterpenoids

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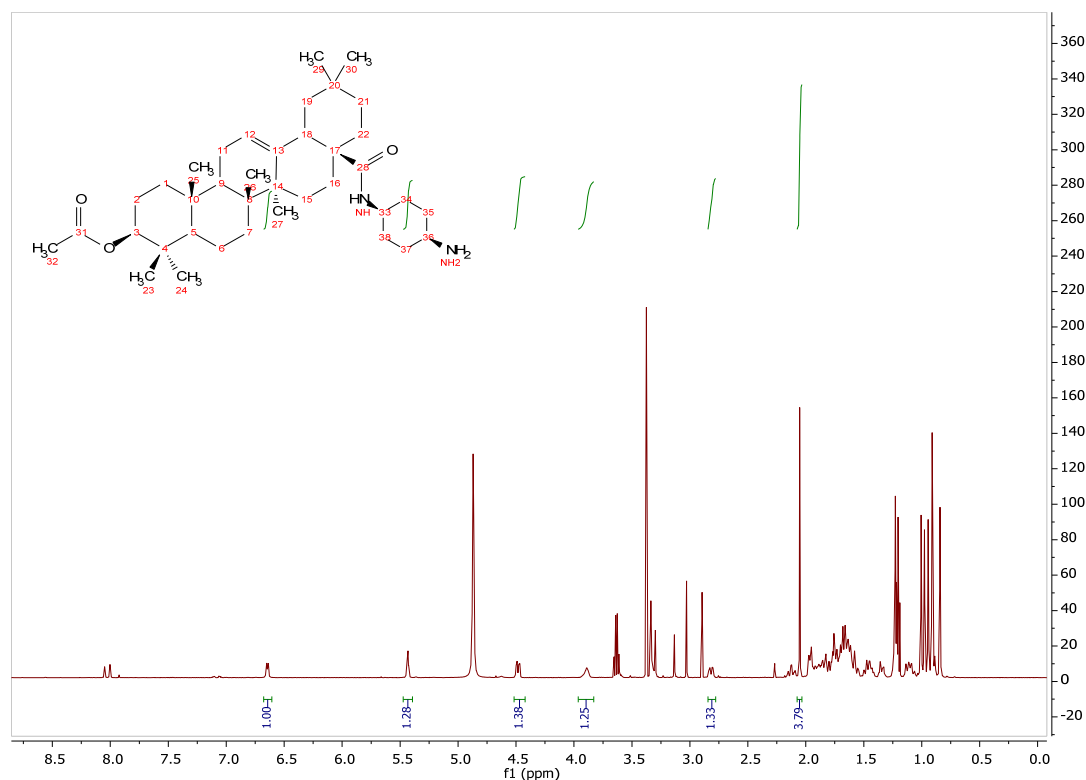
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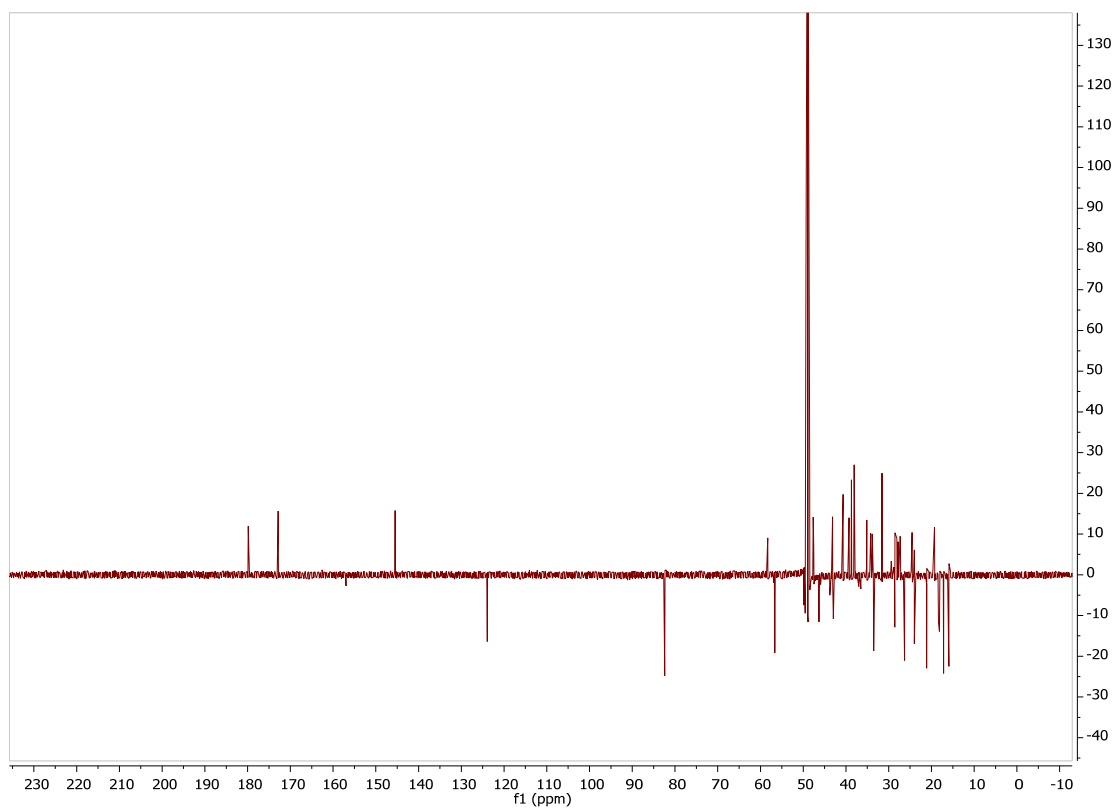
* Correspondence: rene.csuk@chemie.uni-halle.de; Tel.: +49-345-5525660

NMR spectra (including numbering scheme) of selected compounds Spectra of 9

¹H NMR (500 MHz, CDCl₃)

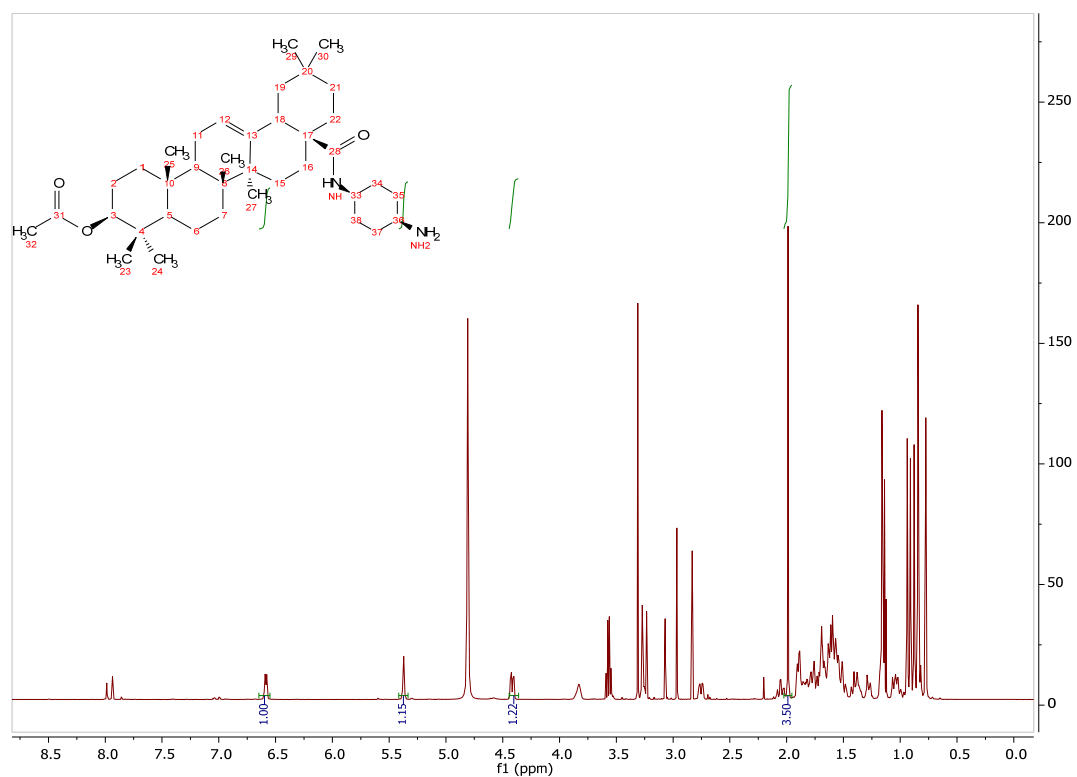


¹³C APT-NMR (126 MHz, CDCl₃)

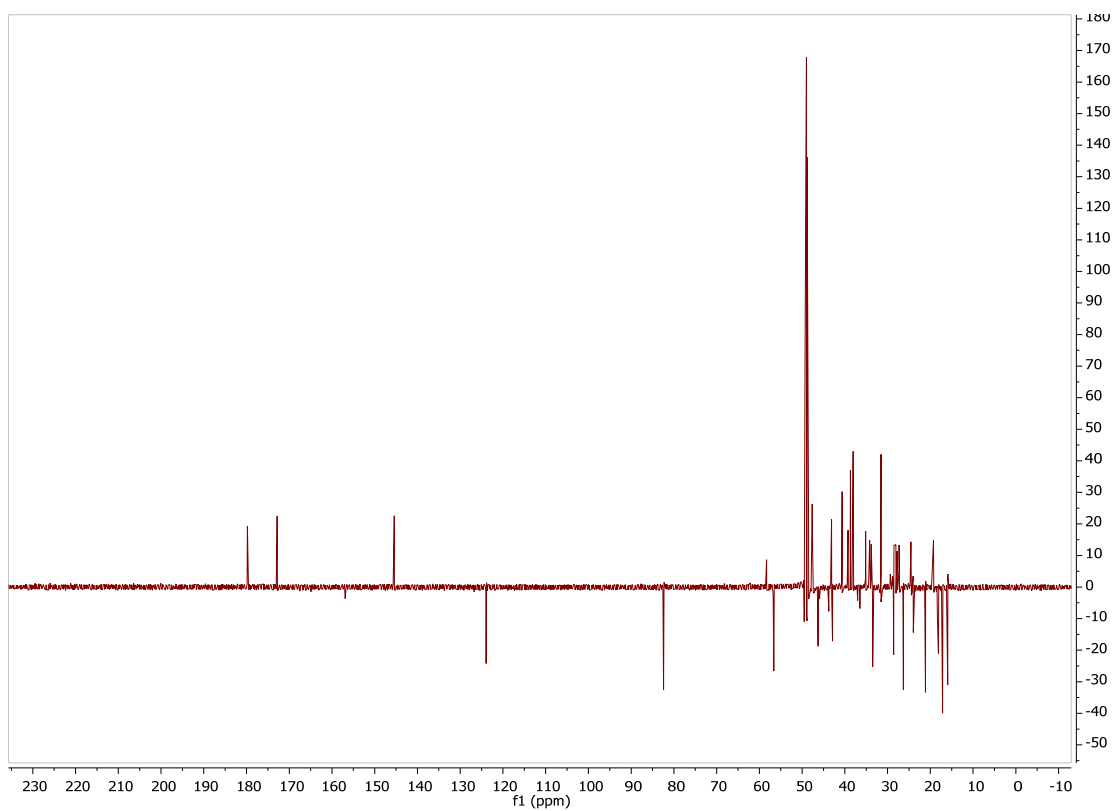


Spectra of 10

^1H NMR (400 MHz, CDCl_3)

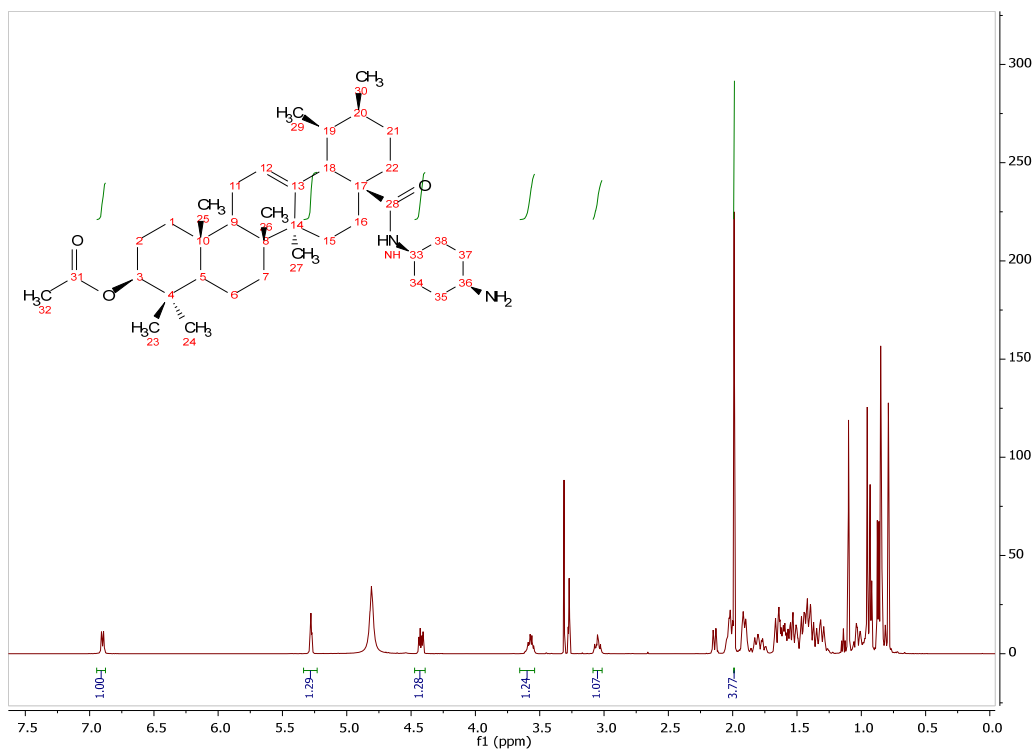


^{13}C APT-NMR (101 MHz, CDCl_3)

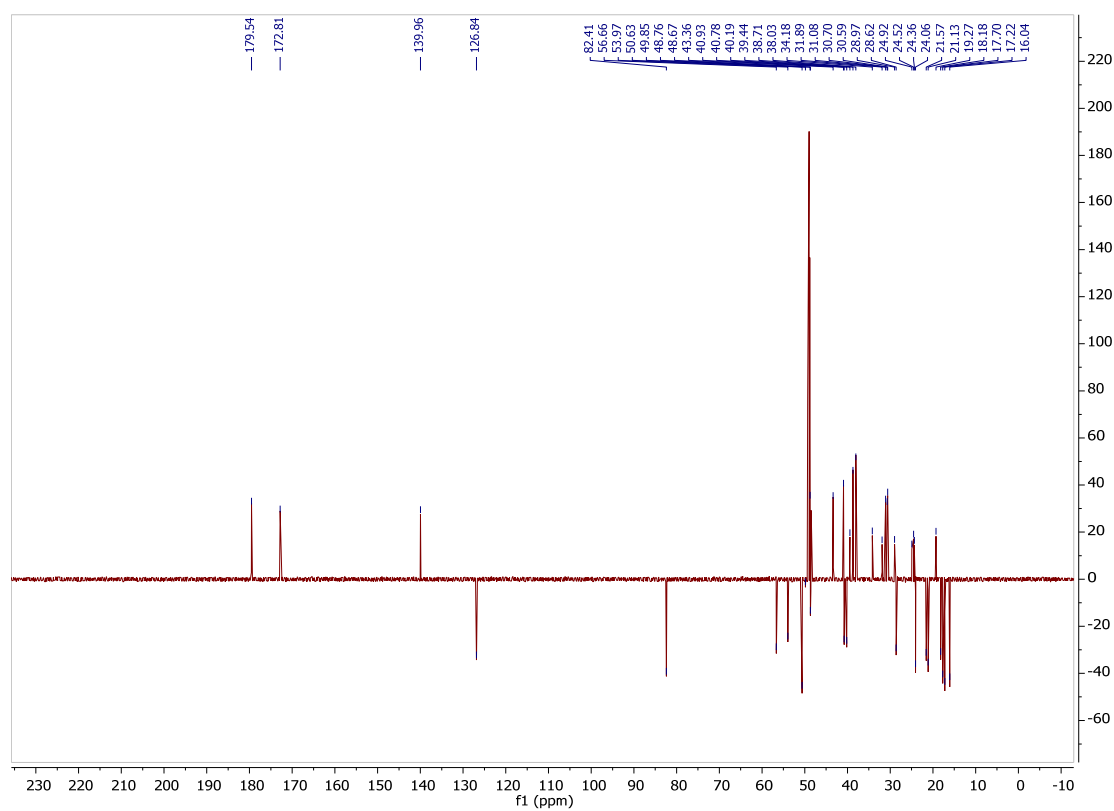


Spectra of 11

^1H NMR (500 MHz, CDCl_3)

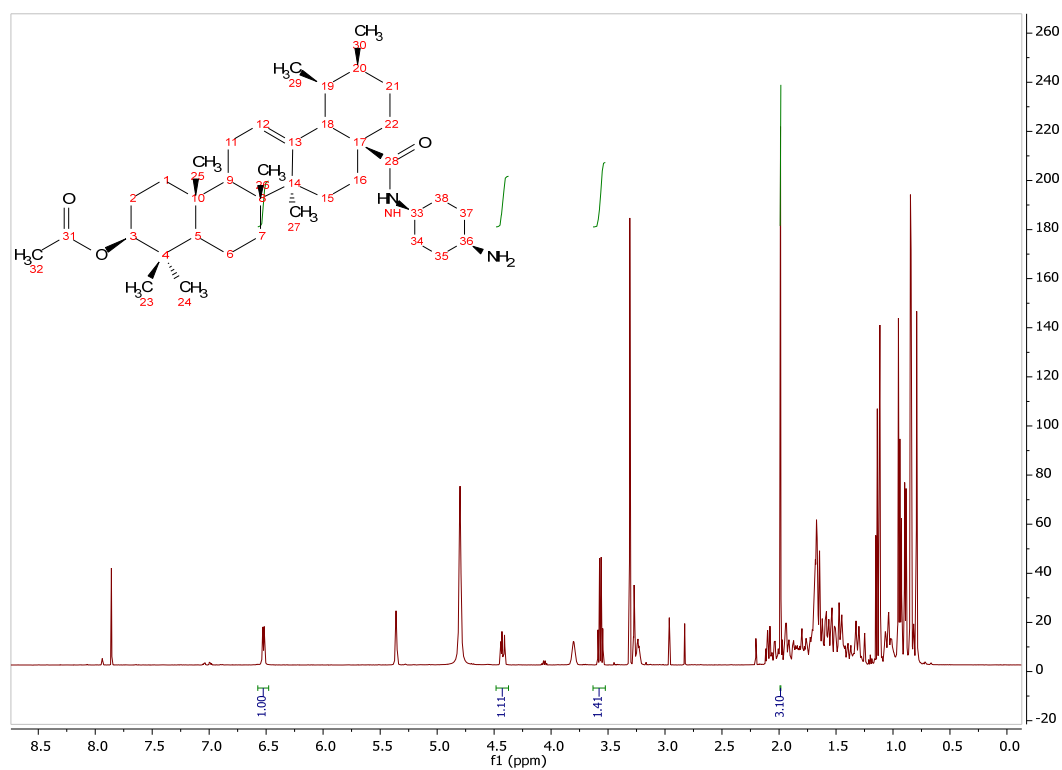


^{13}C APT-NMR (126 MHz, CDCl_3)

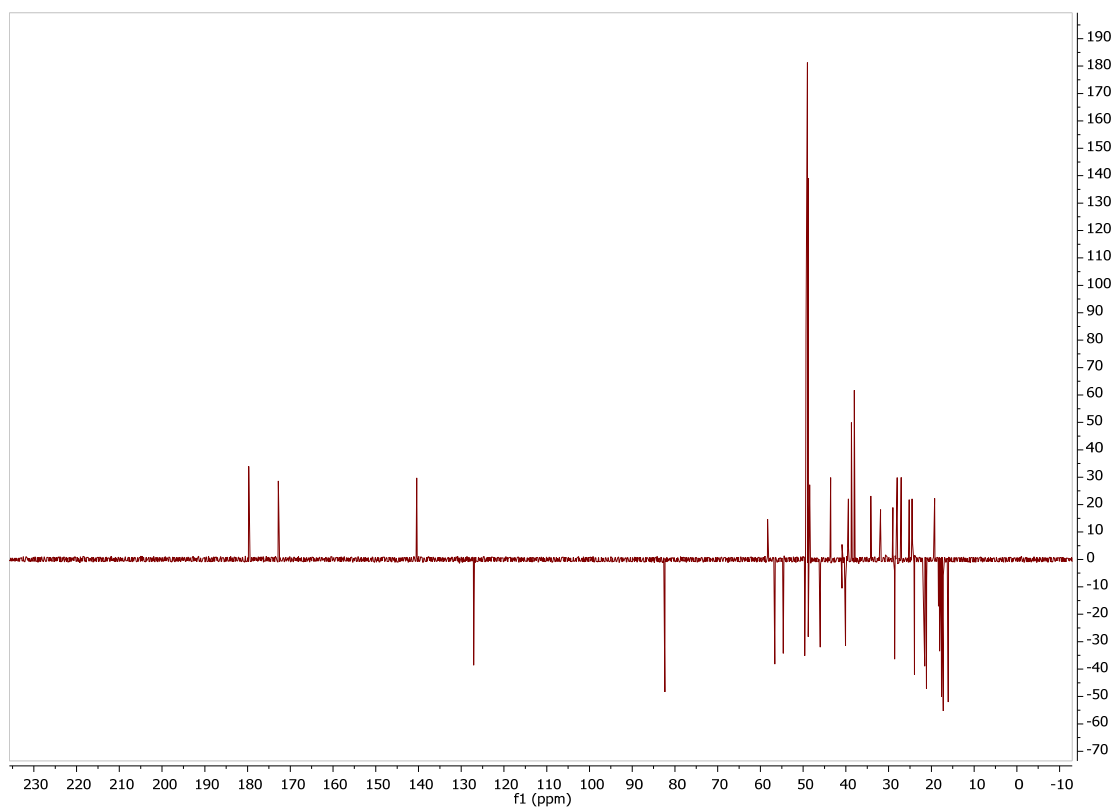


Spectra of 12

^1H NMR (500 MHz, CDCl_3)

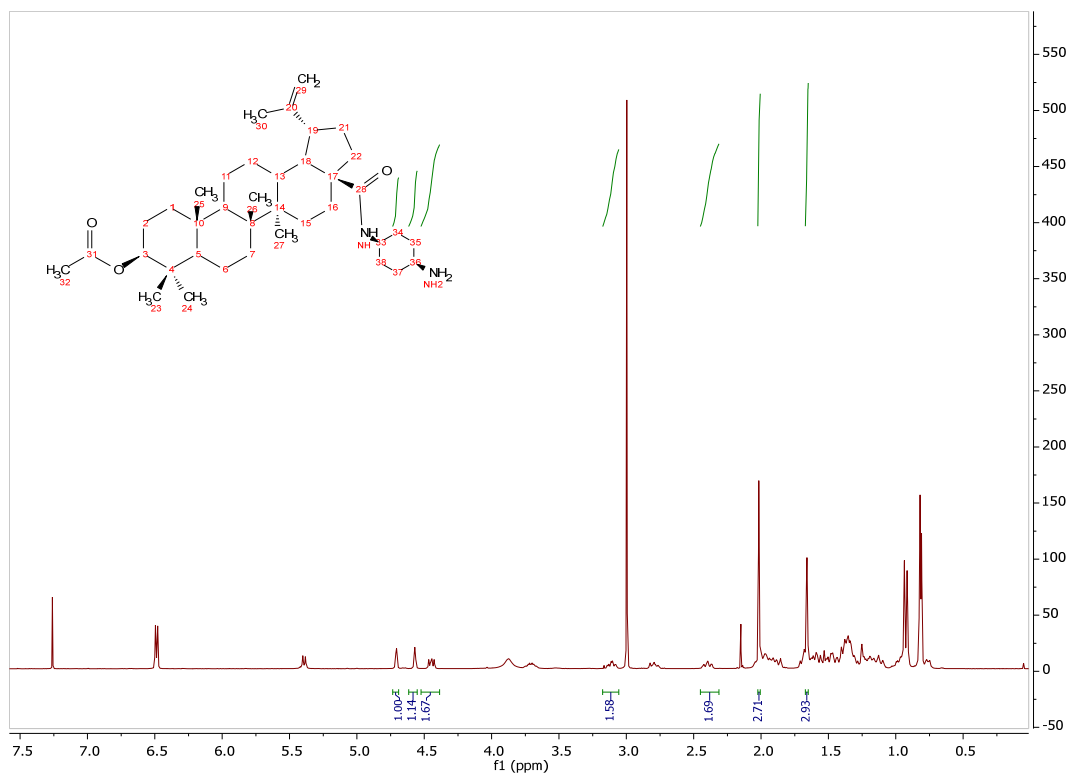


^{13}C APT-NMR (126 MHz, CDCl_3)

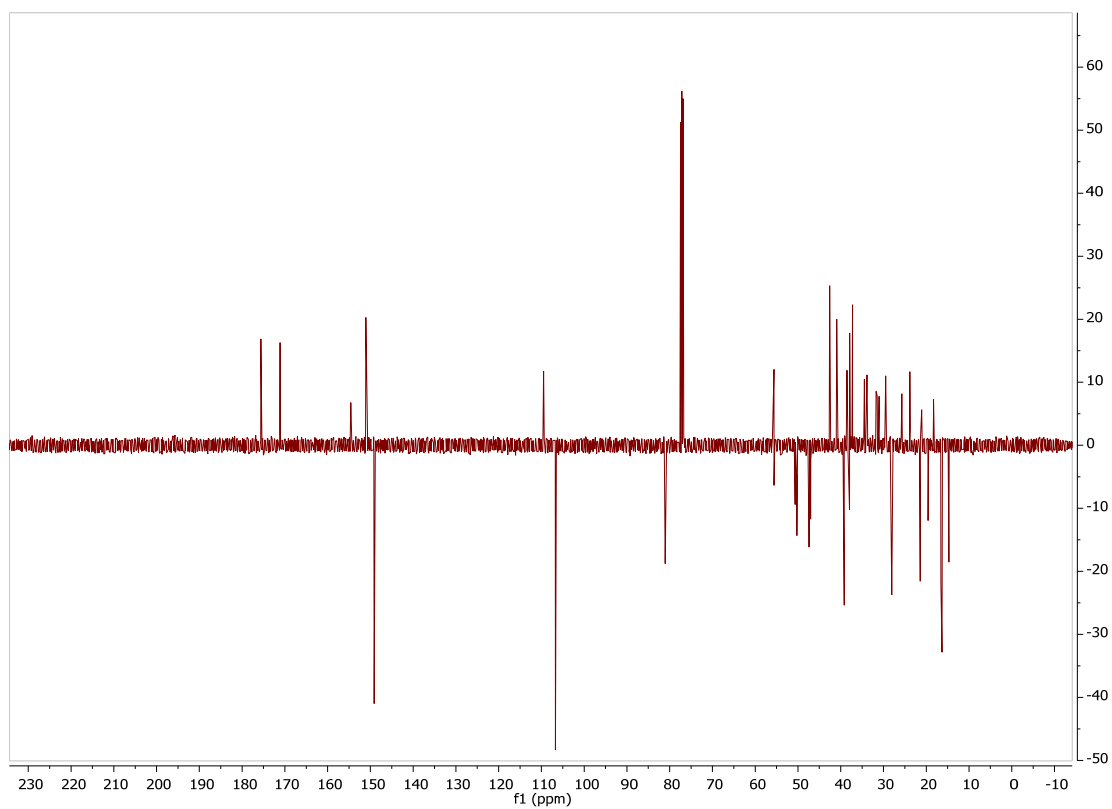


Spectra of 13

^1H NMR (400 MHz, CDCl_3)

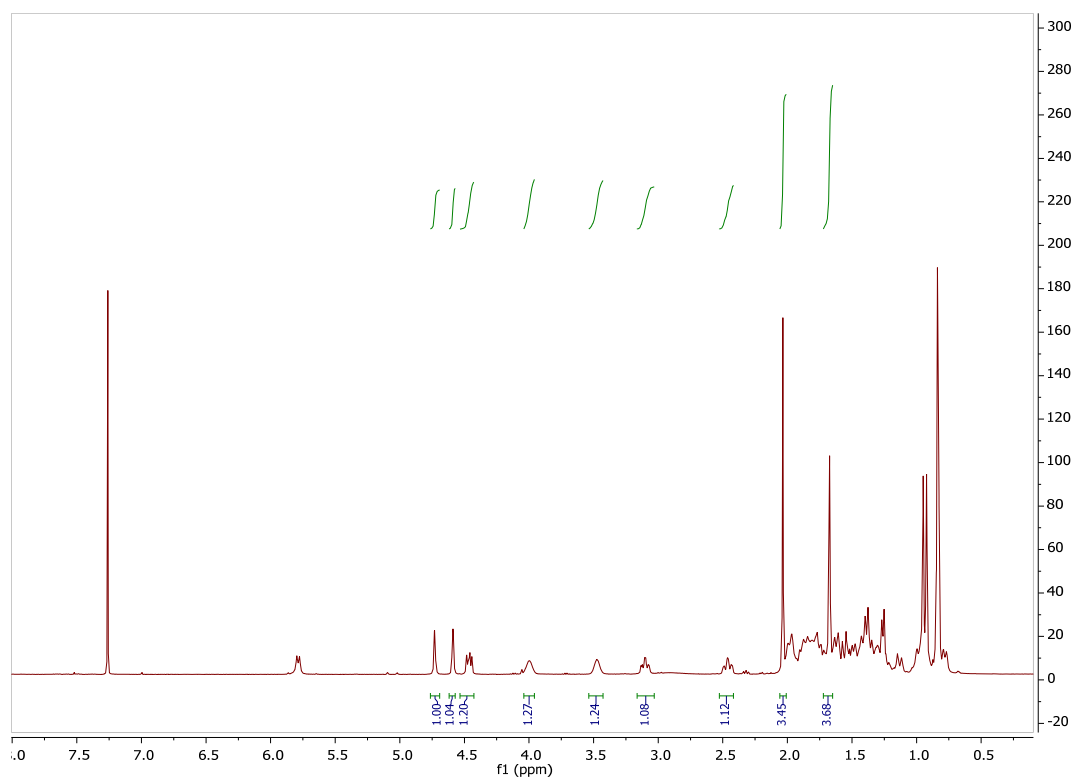


^{13}C APT-NMR (101 MHz, CDCl_3)

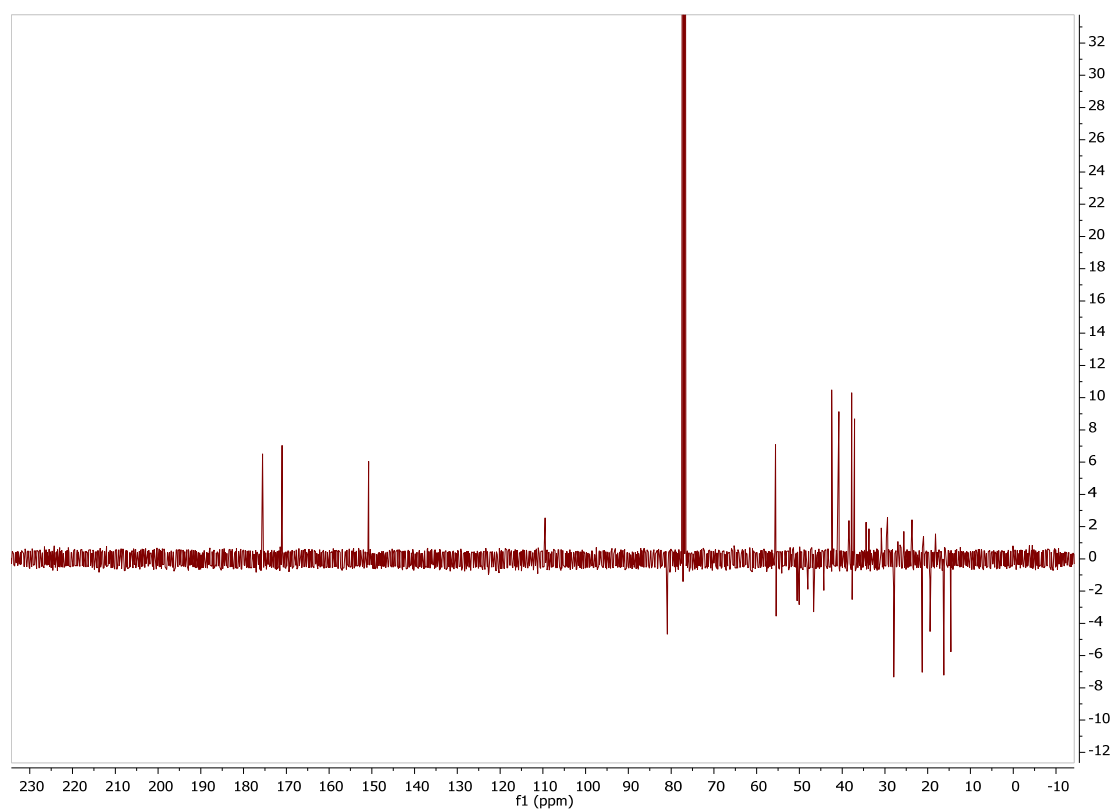


Spectra of 14

^1H NMR (400 MHz, CDCl_3)

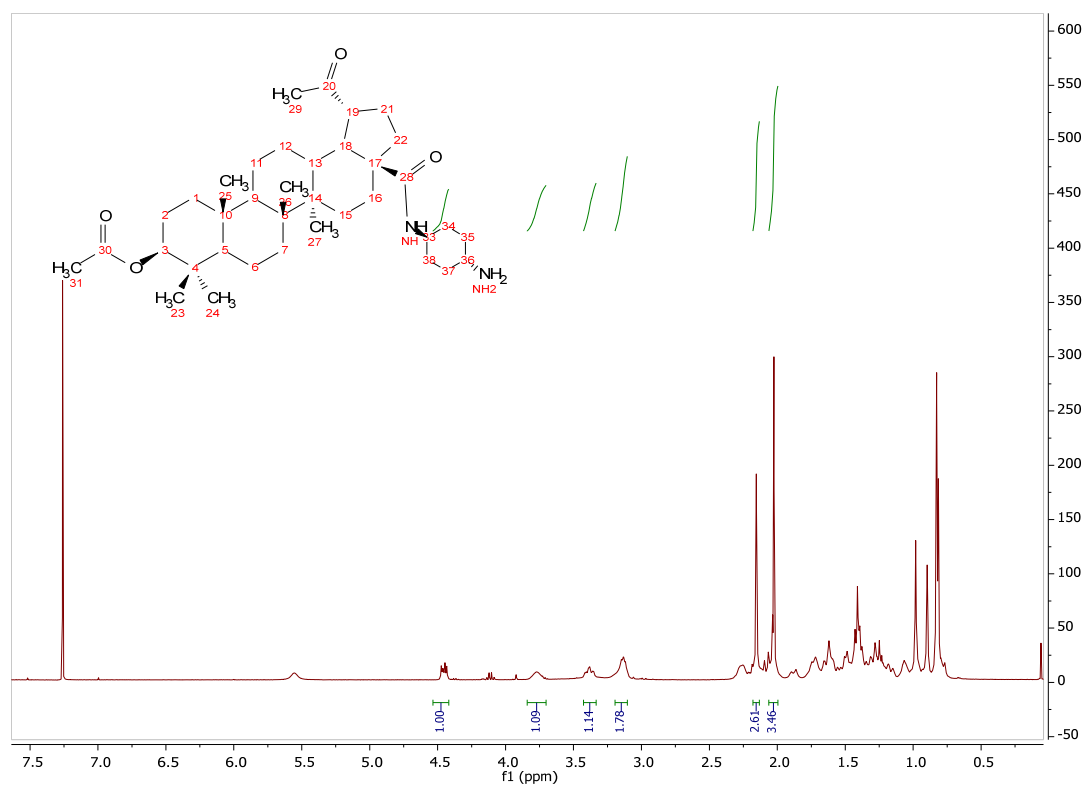


^{13}C APT-NMR (101 MHz, CDCl_3)

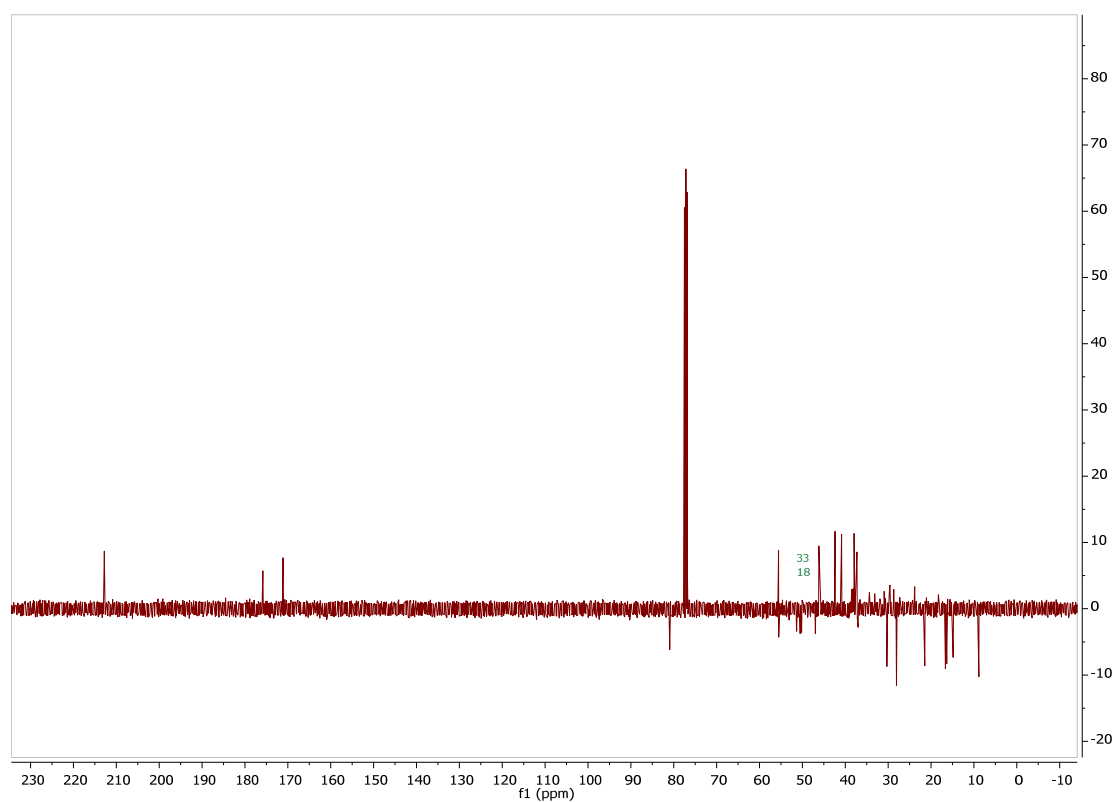


Spectra of 15

^1H NMR (400 MHz, CDCl_3)

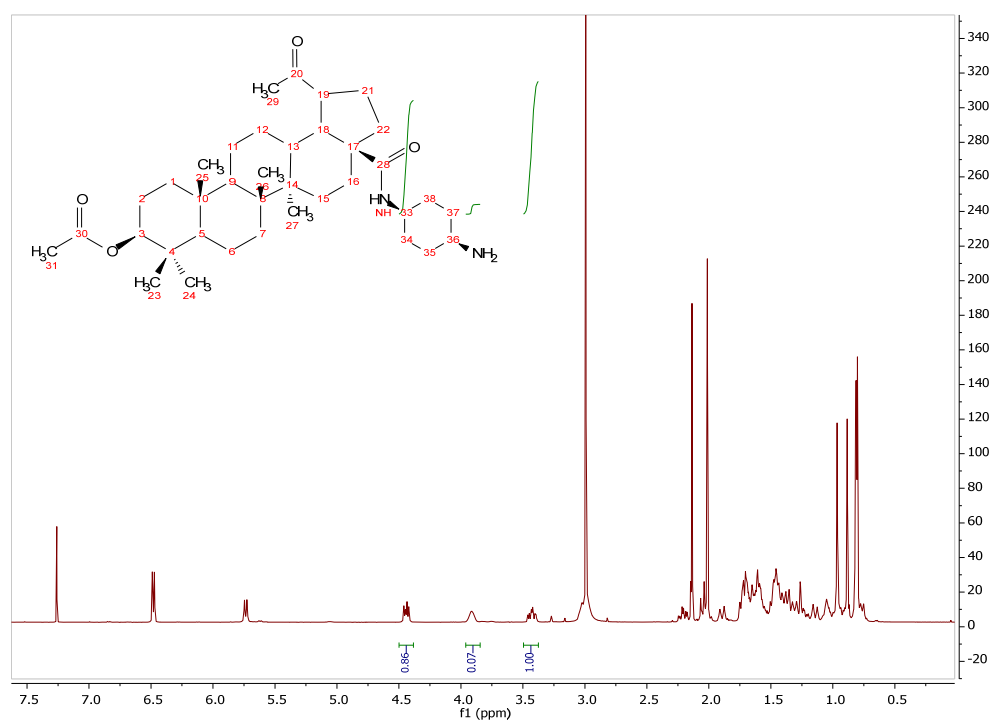


^{13}C APT-NMR (101 MHz, CDCl_3)

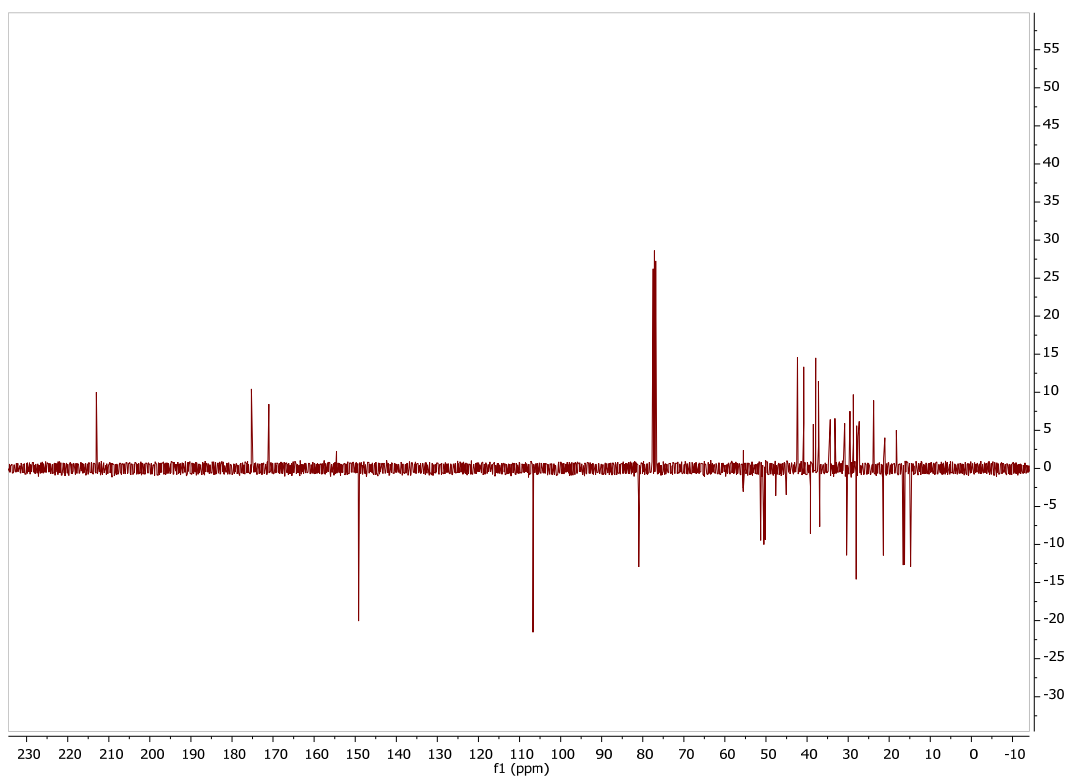


Spectra of 16

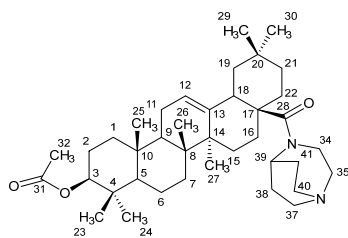
^1H NMR (500 MHz, CDCl_3)



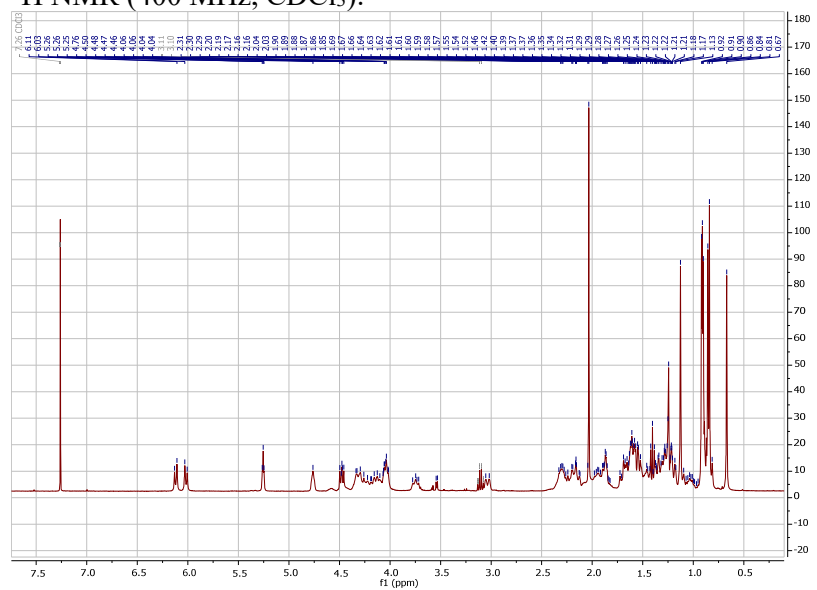
^{13}C APT-NMR (126 MHz, CDCl_3)



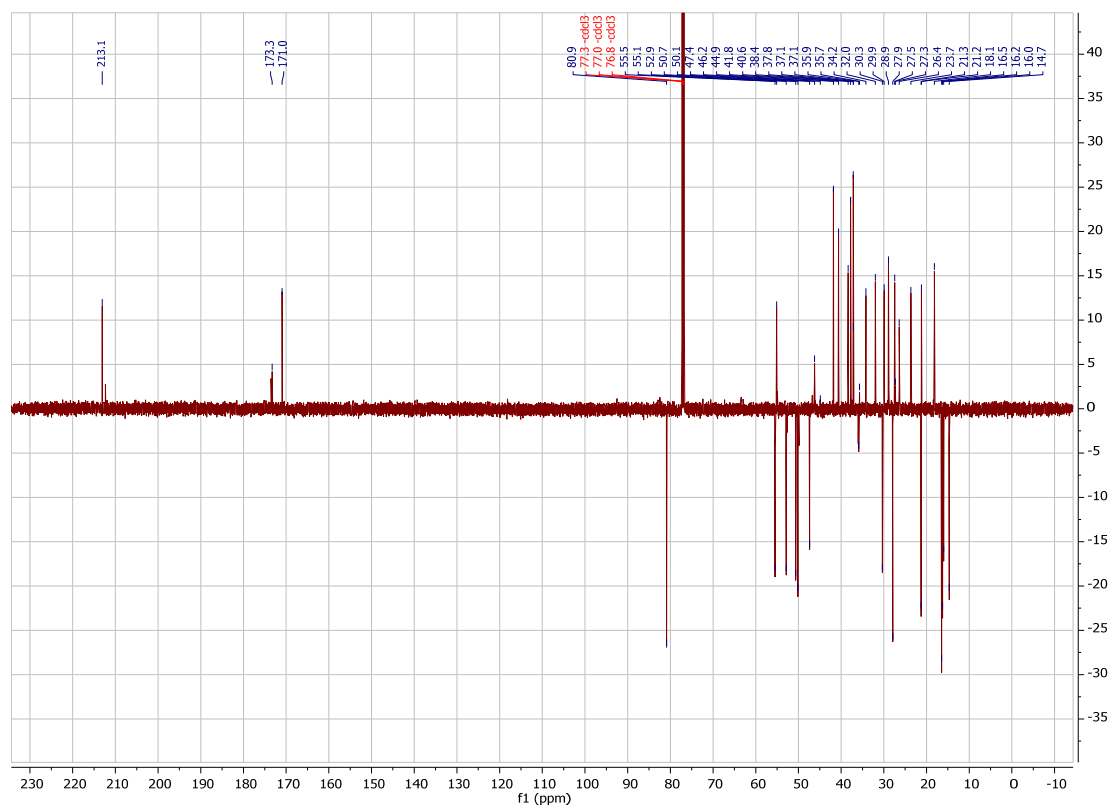
(3 β)-28-(1,4-Diazabicyclo[3.2.2]nonyl-4-yl)-28-oxoolean-12-en-3-yl acetate (25)



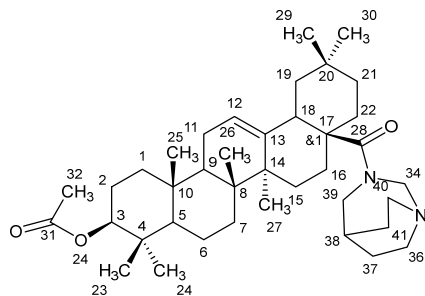
^1H NMR (400 MHz, CDCl_3):



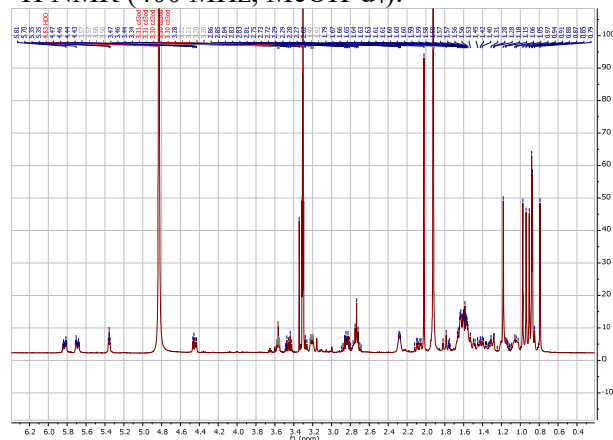
^{13}C APT-NMR (101 MHz, CDCl_3):



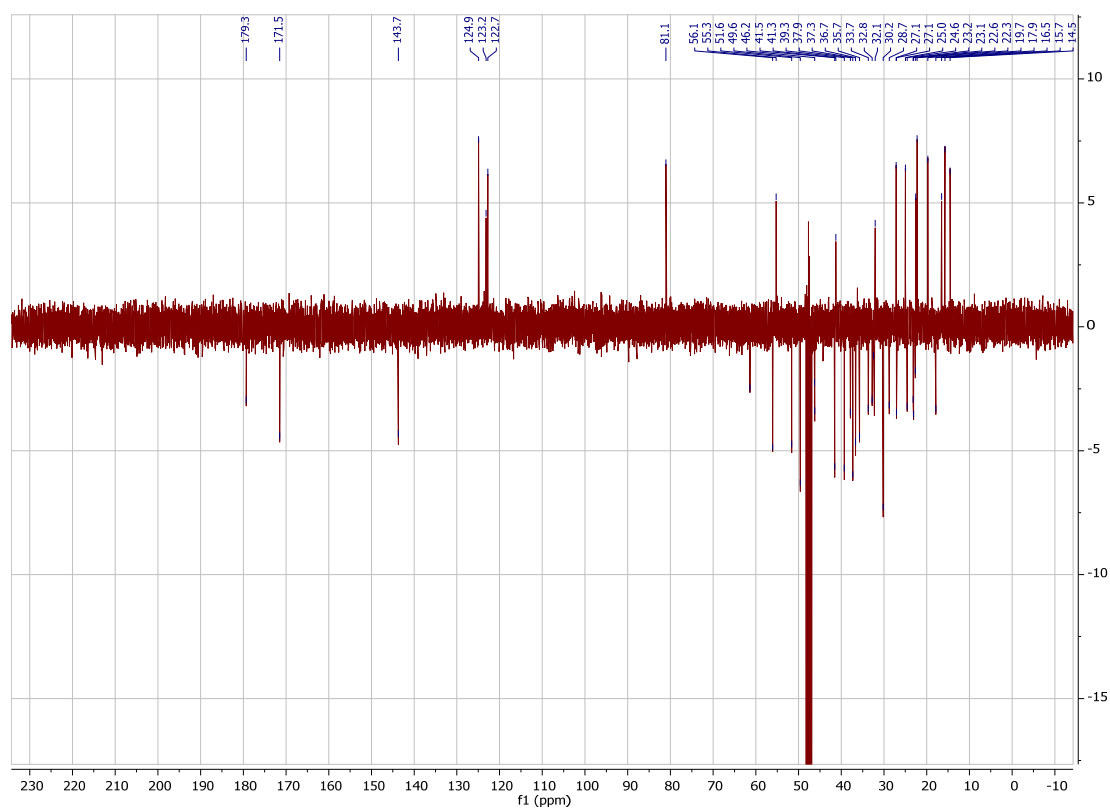
(3 β)-28-(1,3-Diazabicyclo[3.2.2]nonyl-3-yl)-28-oxoolean-12-en-3-yl acetate (28)



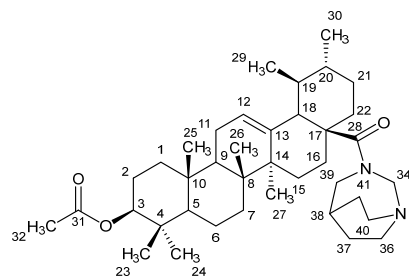
^1H NMR (400 MHz, MeOH- d_4):



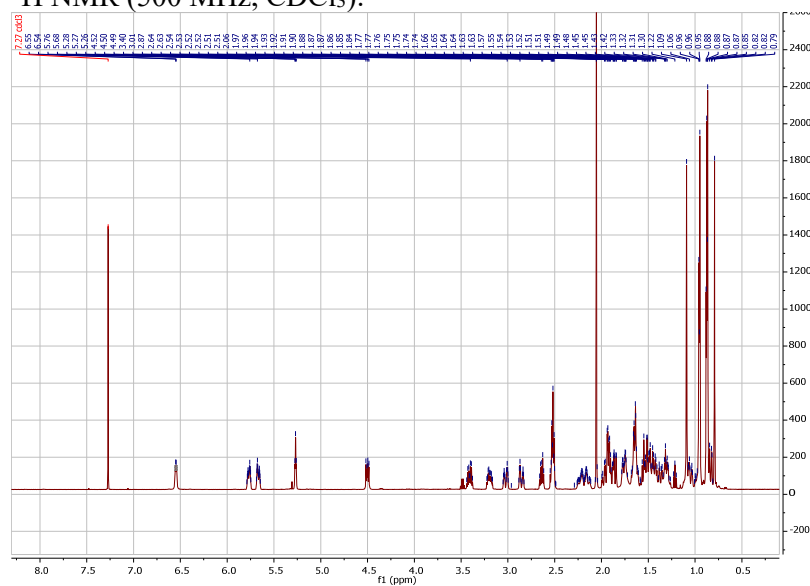
^{13}C APT-NMR (101 MHz, MeOH- d_4):



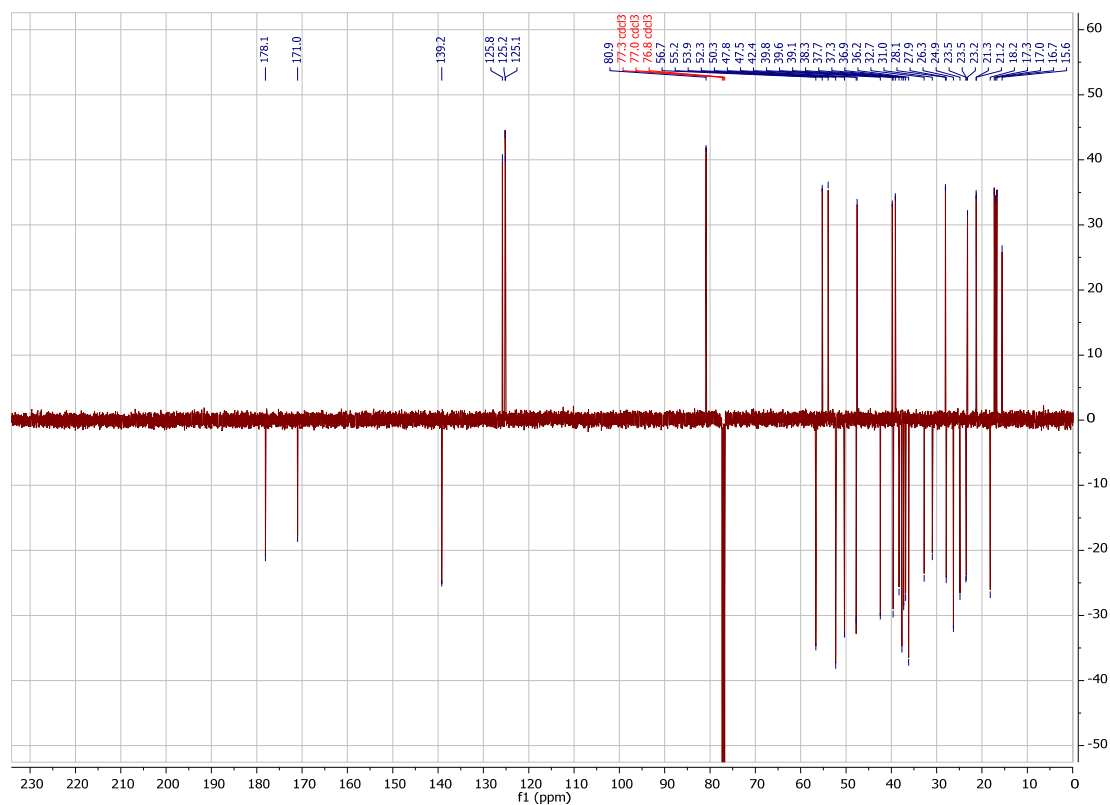
(3 β)-28-(1,3-Diazabicyclo[3.2.2]nonyl)-3-yl)-28-oxours-12-en-3-yl acetate (29)



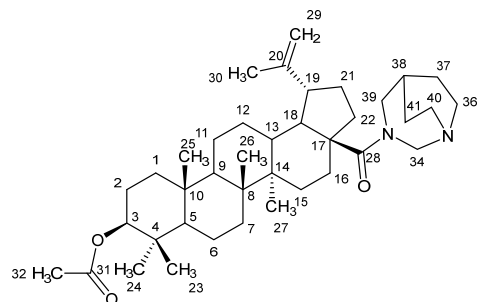
^1H NMR (500 MHz, CDCl_3):



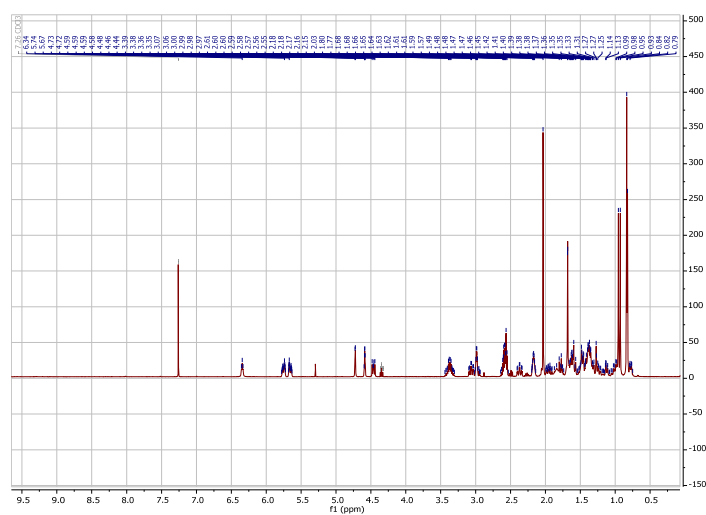
^{13}C APT-NMR (126 MHz, CDCl_3):



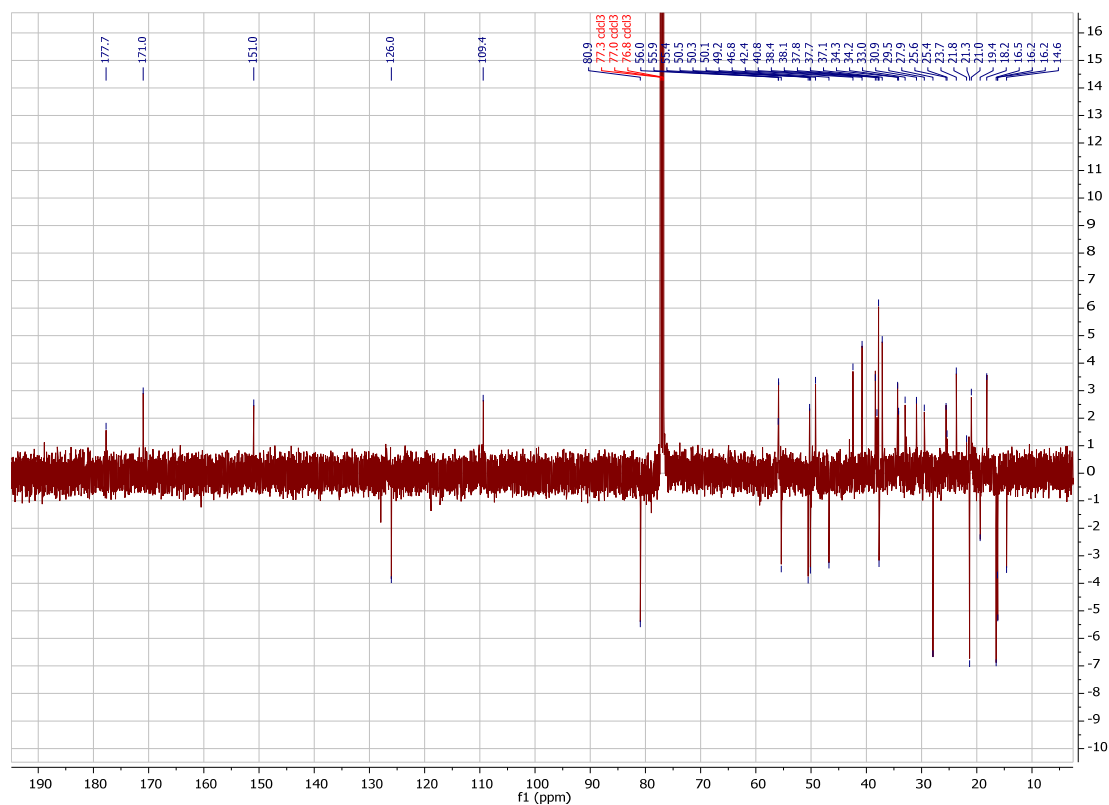
(3 β)-28-(1,3-Diazabicyclo[3.2.2]non-3-yl)-28-oxolup-20(29)-en-3-yl acetate (30)



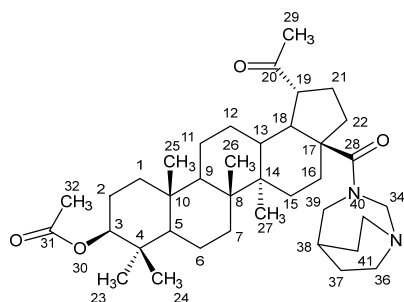
^1H NMR (400 MHz, CDCl_3):



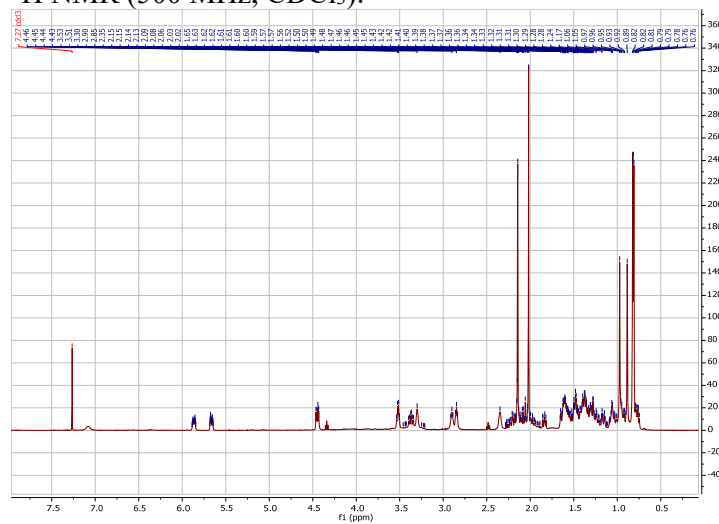
^{13}C APT-NMR (126 MHz, CDCl_3):



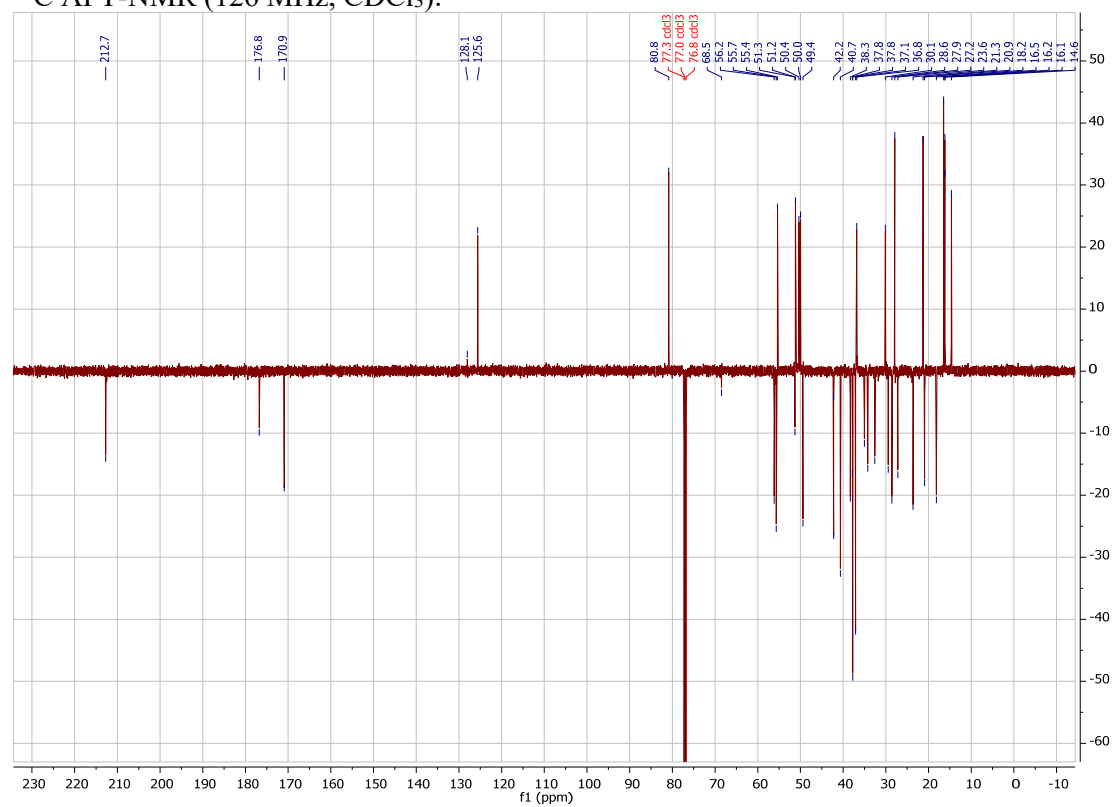
(3 β)-28-(1,3-Diazabicyclo[3.2.2]non-4-yl)-20,28-dioxo-30-norlupan-3-yl-acetate (31)



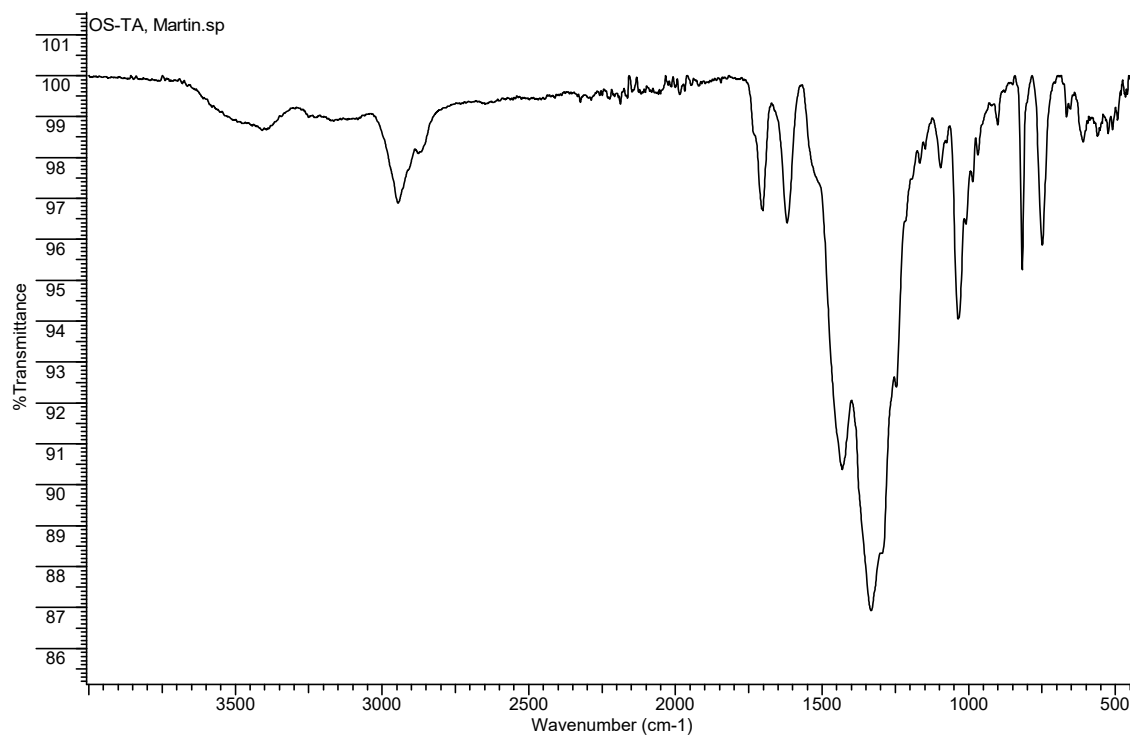
^1H NMR (500 MHz, CDCl_3):



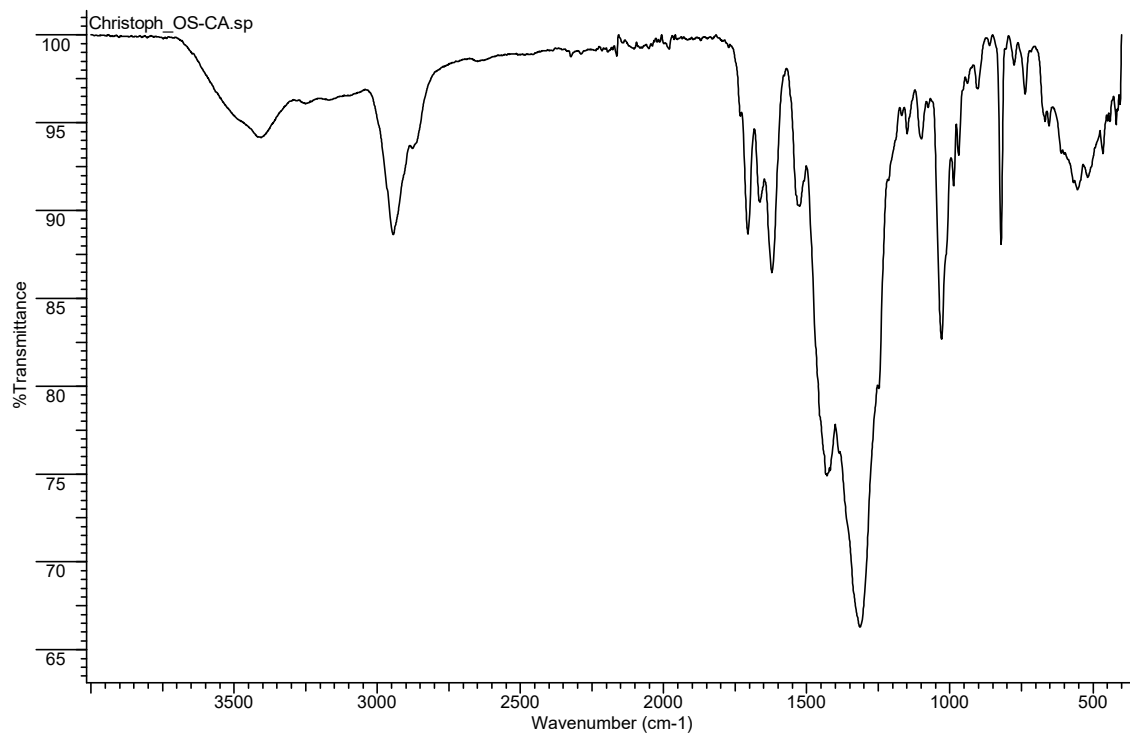
^{13}C APT-NMR (126 MHz, CDCl_3):



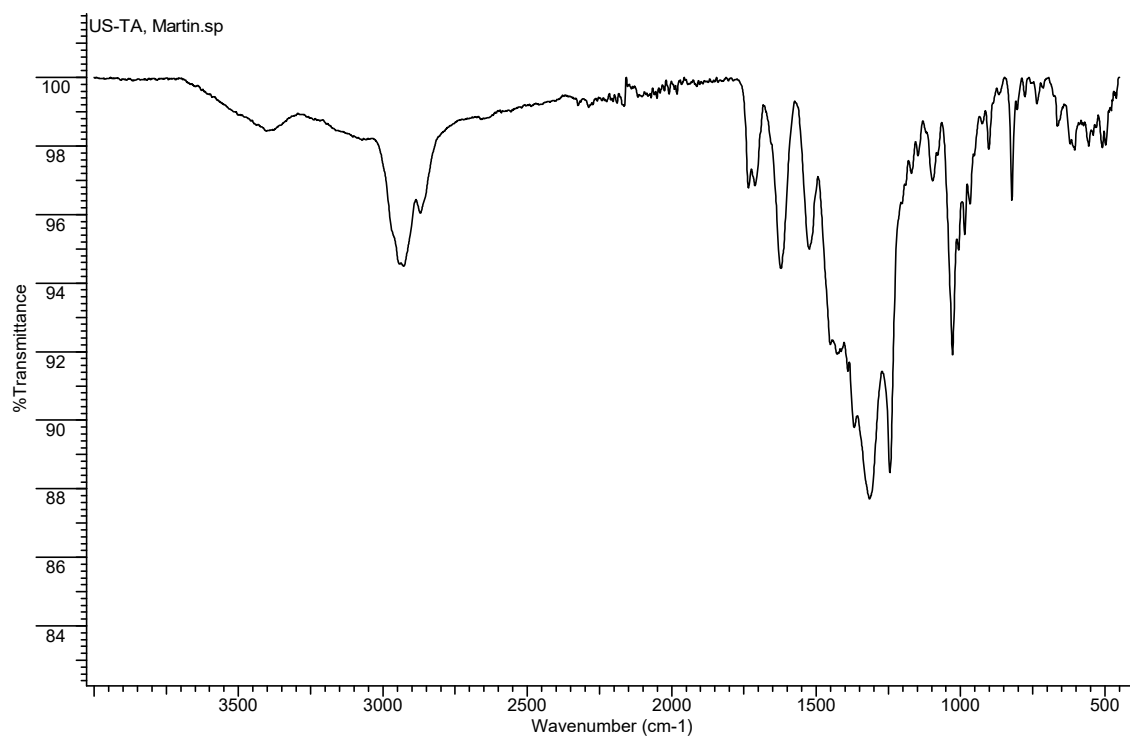
Selected IR (ATR) Spectra
ATR-IR spectrum of **9**



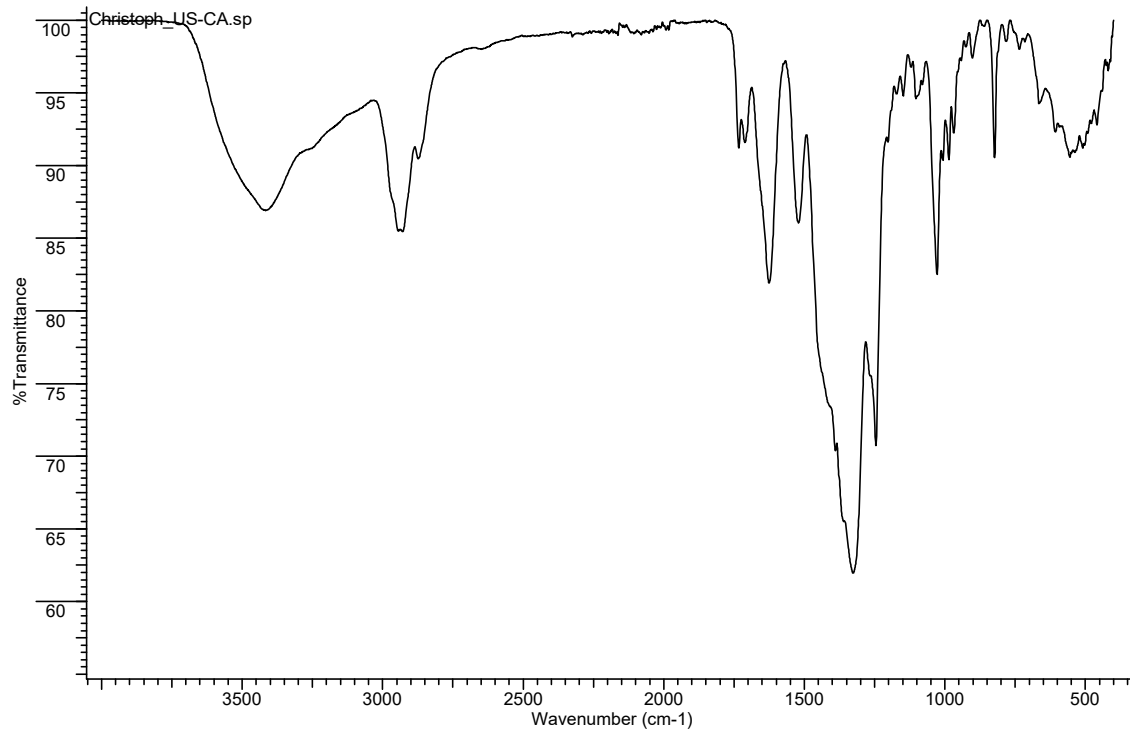
ATR-IR spectrum of **10**



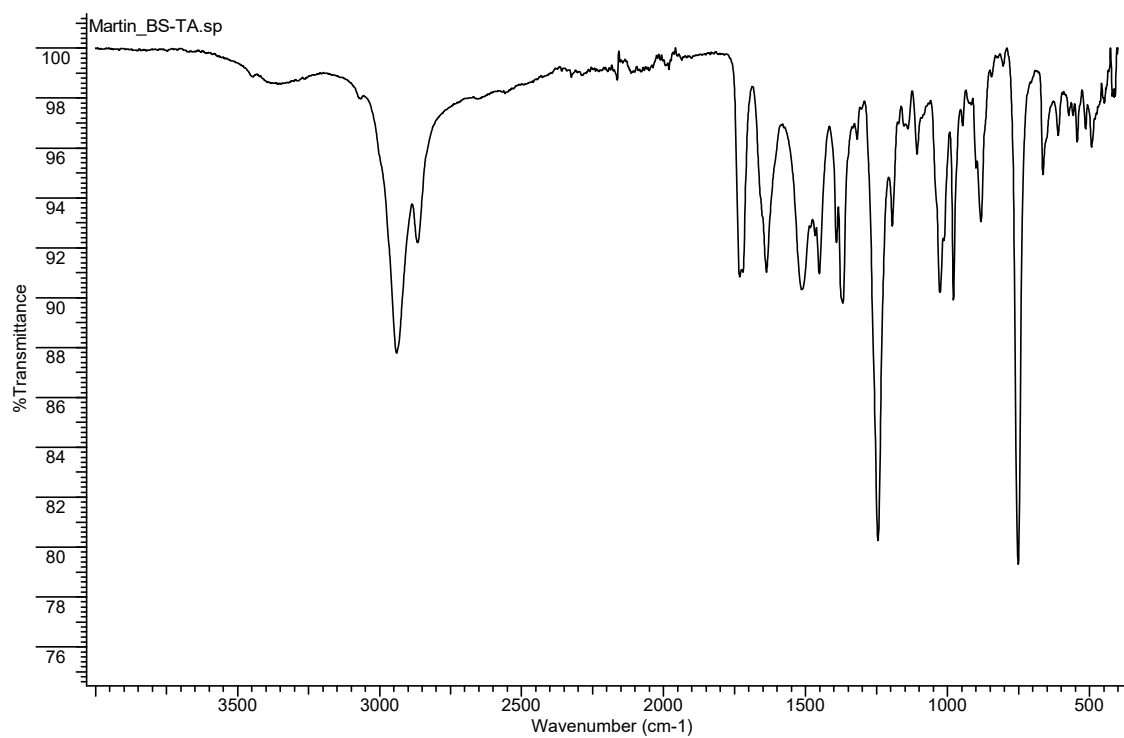
ATR-IR spectrum of **11**



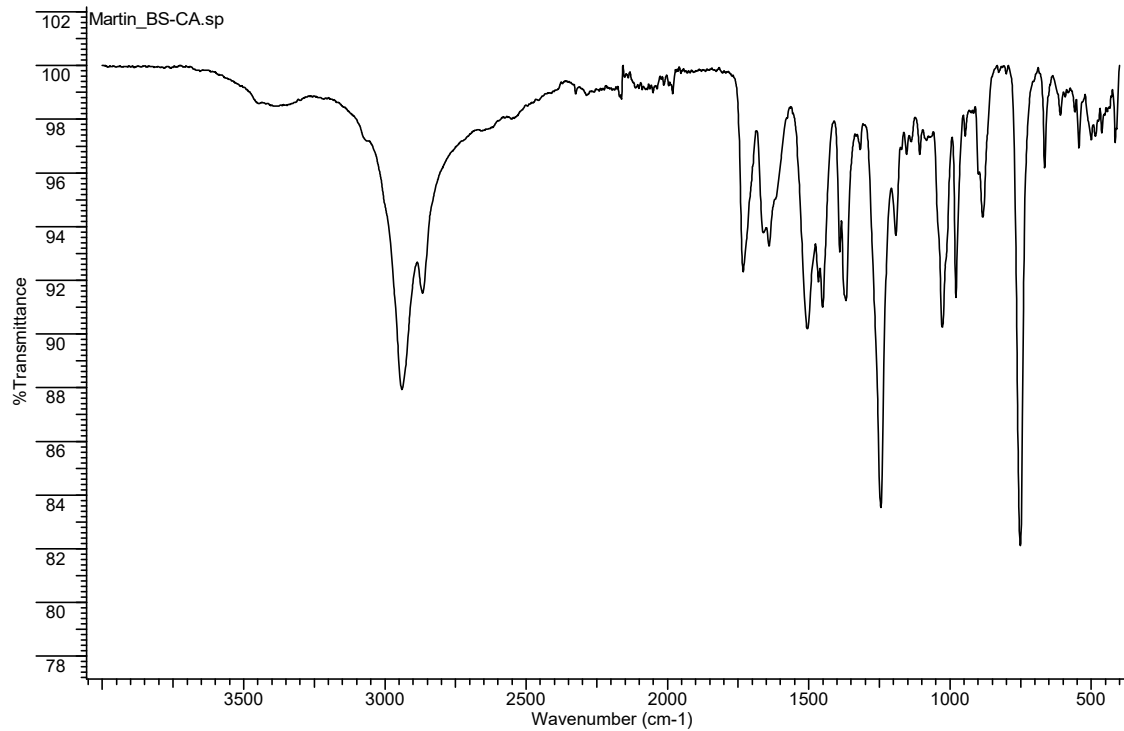
ATR-IR spectrum of **12**



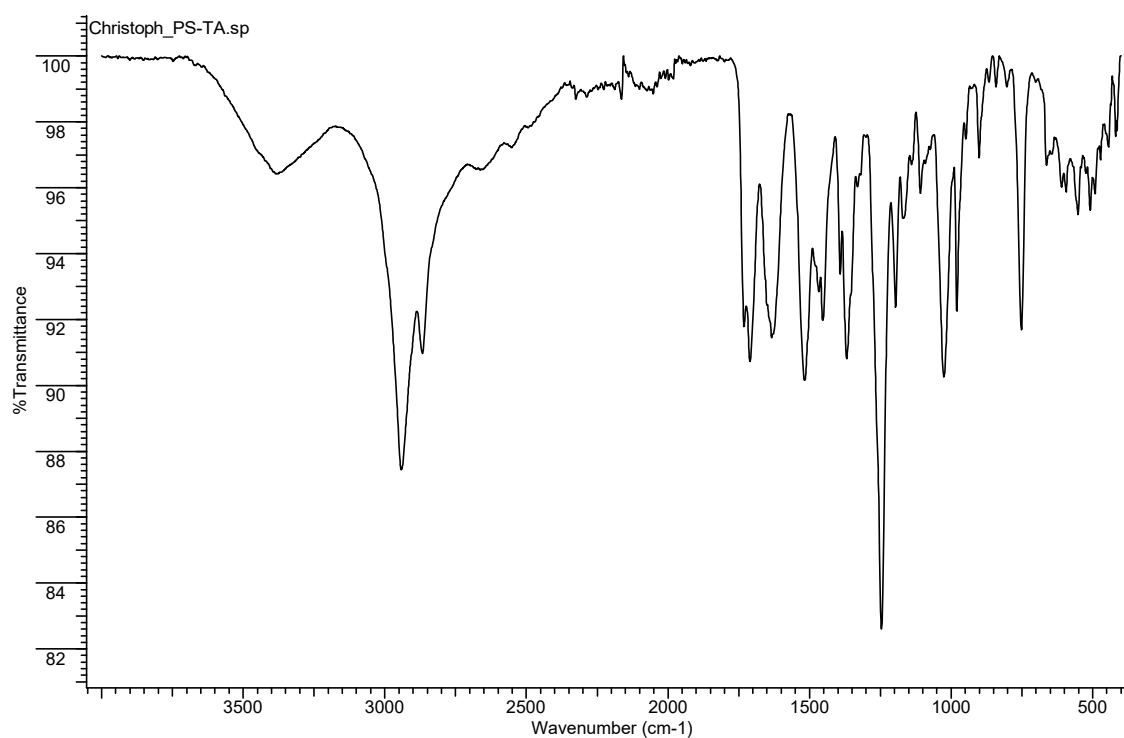
ATR-IR spectrum of **13**



ATR-IR spectrum of **14**



ATR-IR spectrum of **15**



ATR-IR spectrum of **16**

