An expedient biocatalytic procedure for abasic site precursors useful in oligonucleotide synthesis

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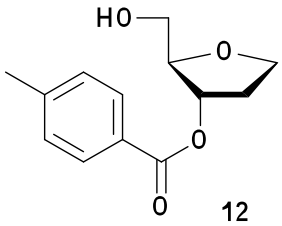
ELECTRONIC SUPPLEMENTARY INFORMATION (page 1 of 51 pages).

Contents:

Copies of ^{1}H, ^{13}C, DEPT of compounds **12, 13, 14a-e, 15a-e, 16b-e, 16, 17, 18a-b and 19**.

3-*O*-Toluoyl-1,2-dideoxy-D-ribose (12)

^{1}H NMR ($CDCl_3$, 300.13 MHz)



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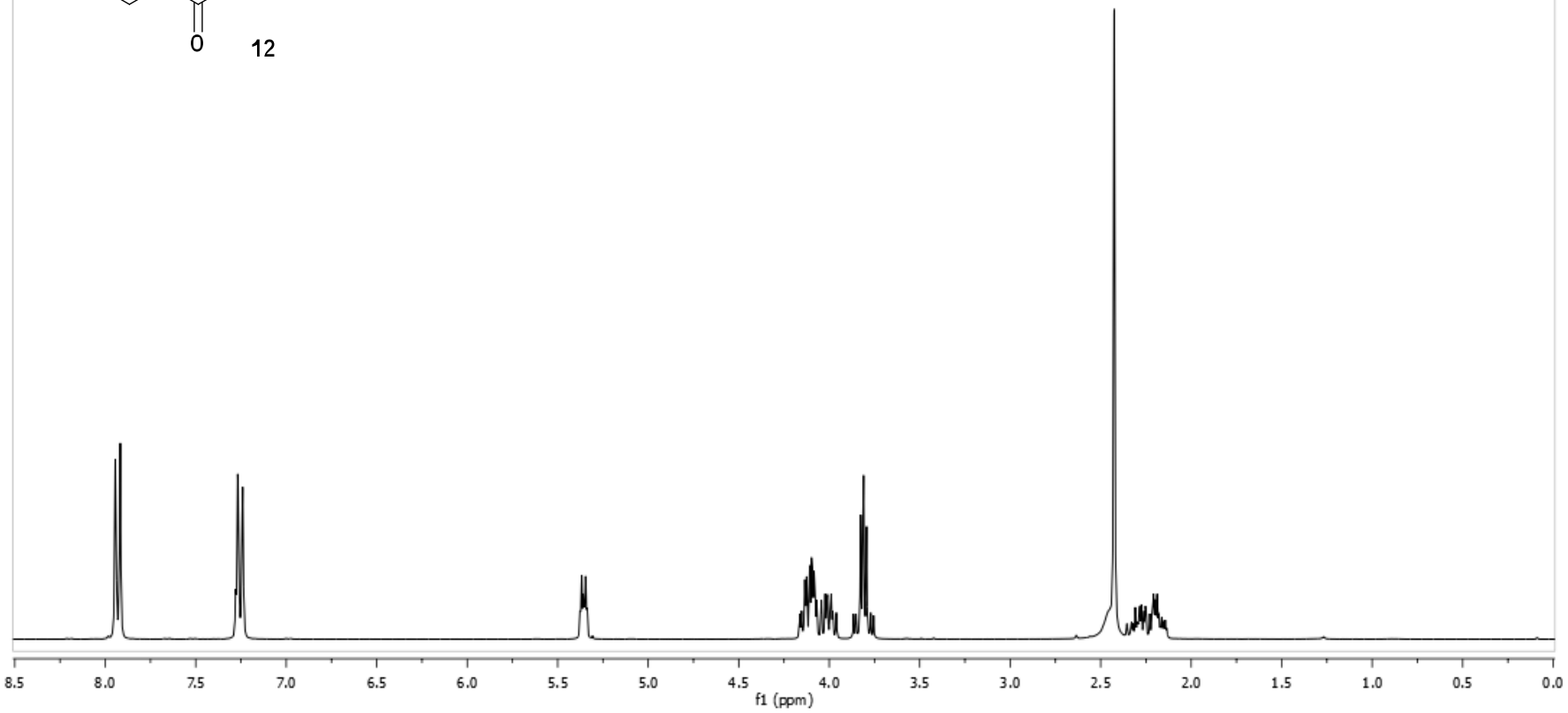
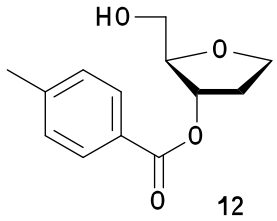


3-*O*-Toluoyl-1,2-dideoxy-D-ribose (12)

^{13}C NMR ($CDCl_3$, 75.5 MHz)



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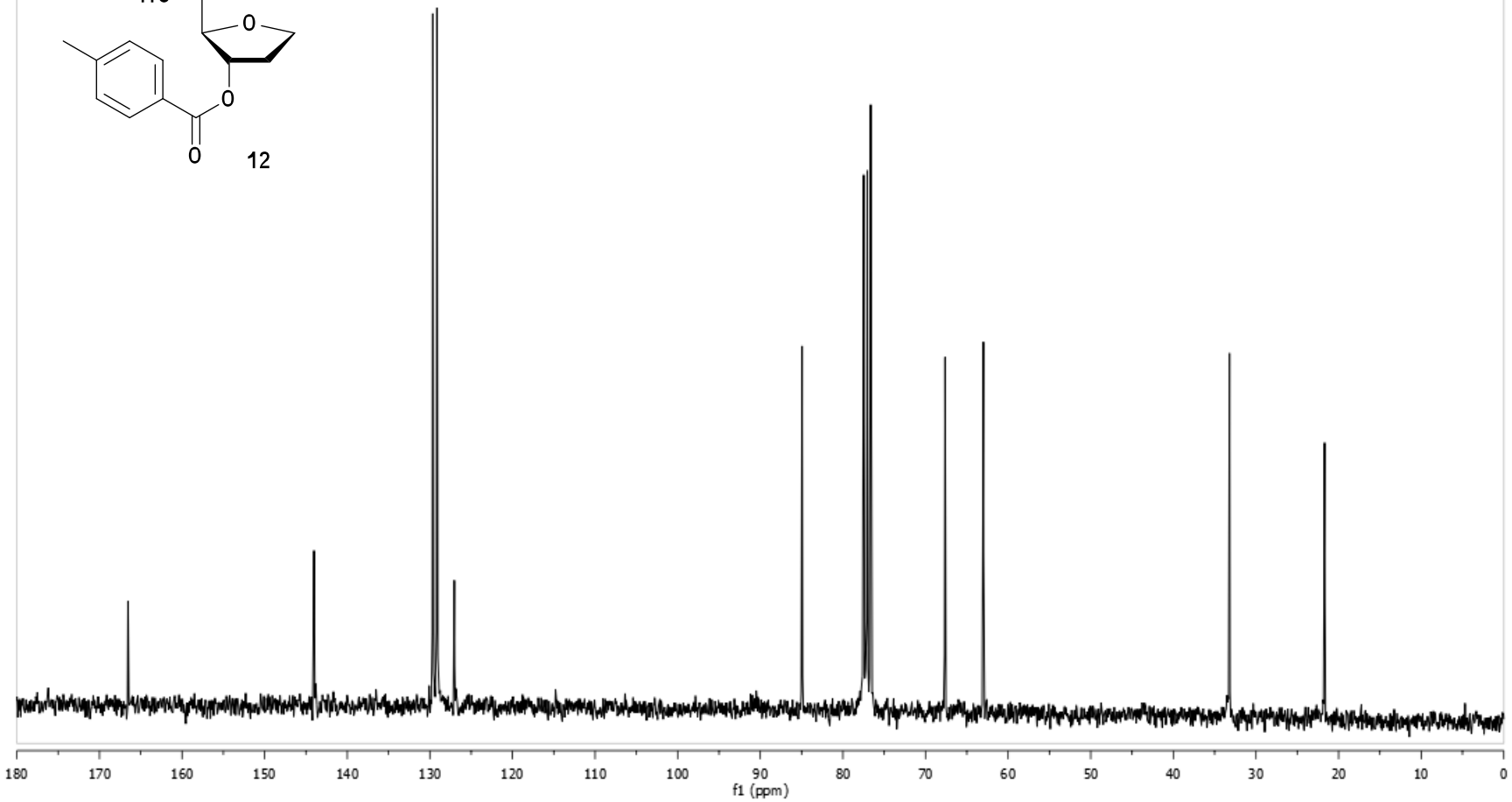
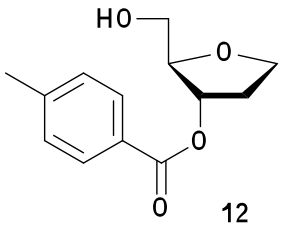


3-*O*-Toluoyl-1,2-dideoxy-D-ribose (12)

DEPT NMR ($CDCl_3$, 75.5 MHz)



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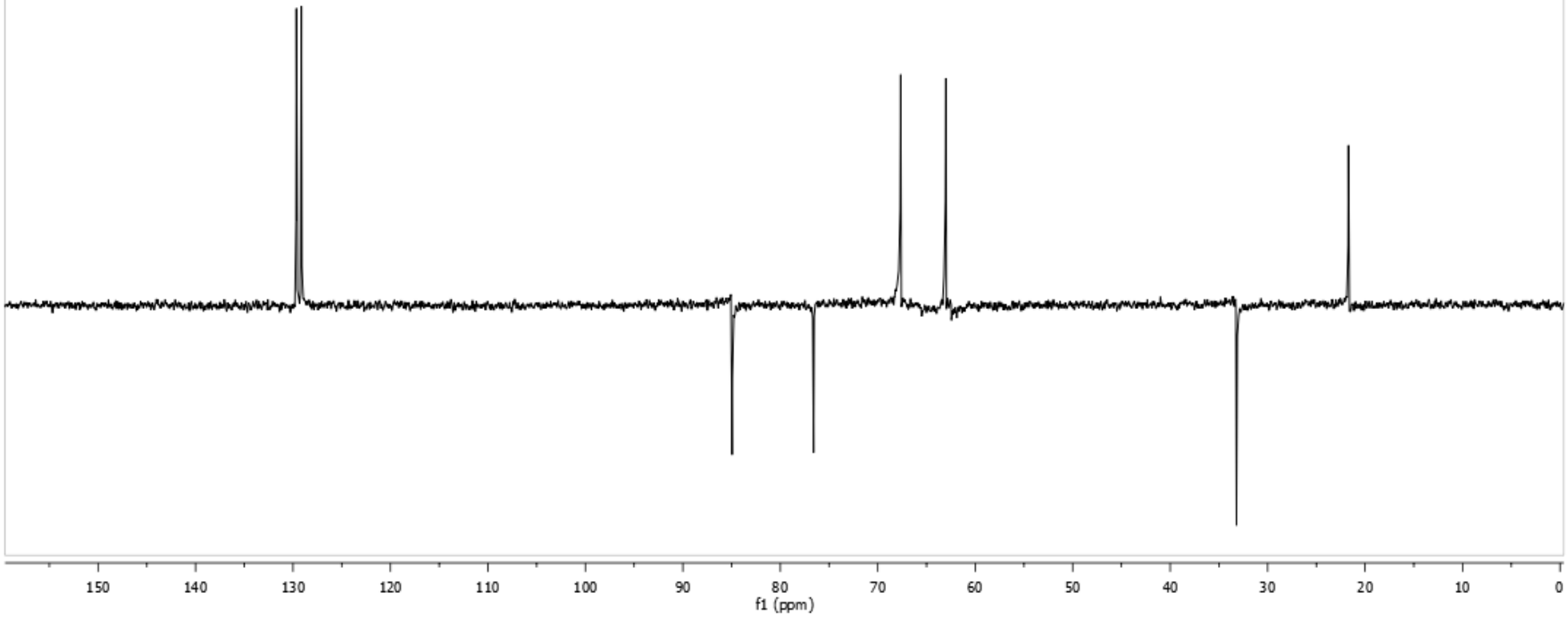
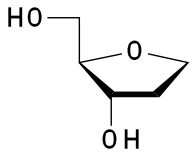


1,2-Dideoxy-D-ribose (13)

^{1}H NMR (MeOH-d_4, 300.13 MHz)



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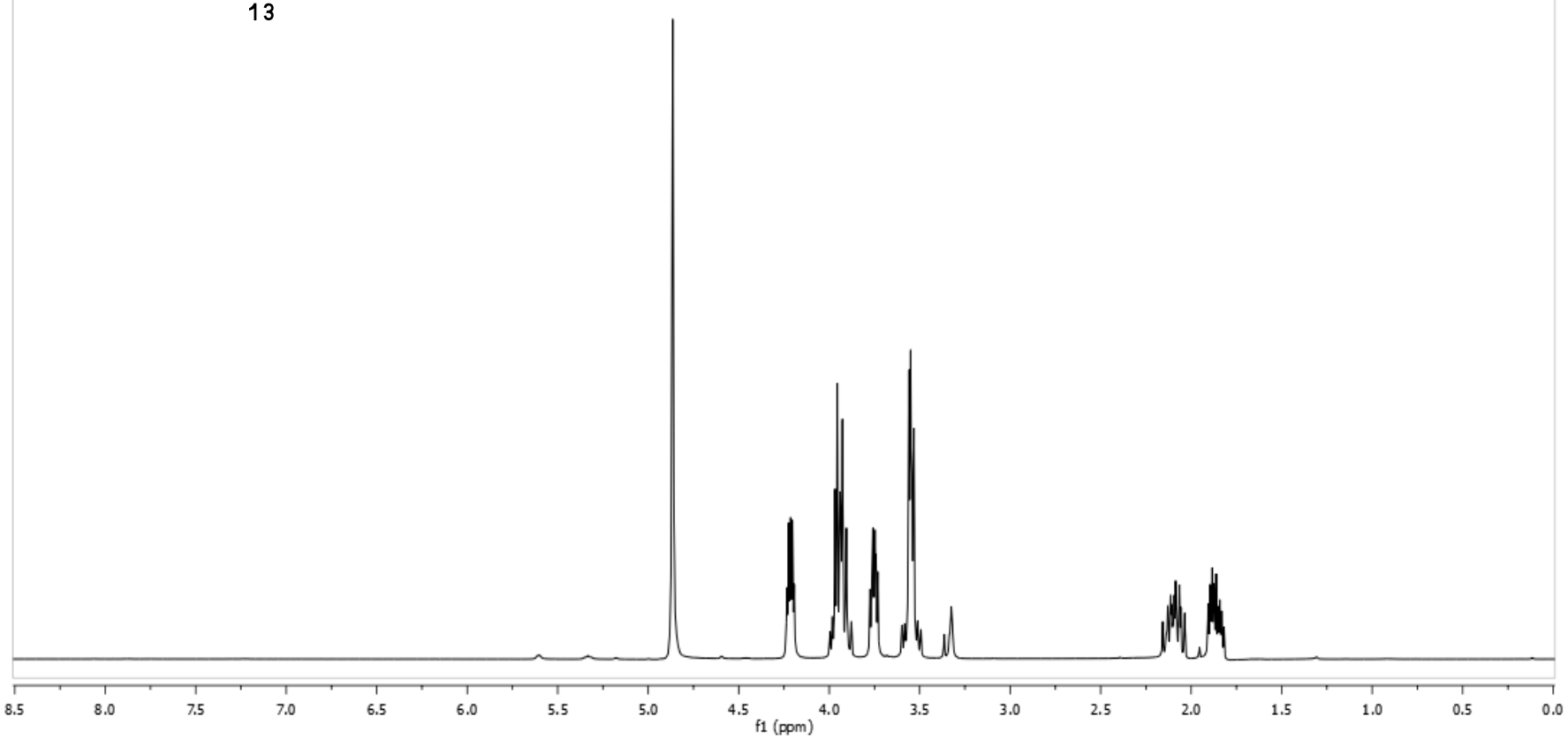
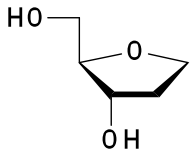


1,2-Dideoxy-D-ribose (13)

^{13}C NMR (MeOH-d_4, 75.5 MHz)



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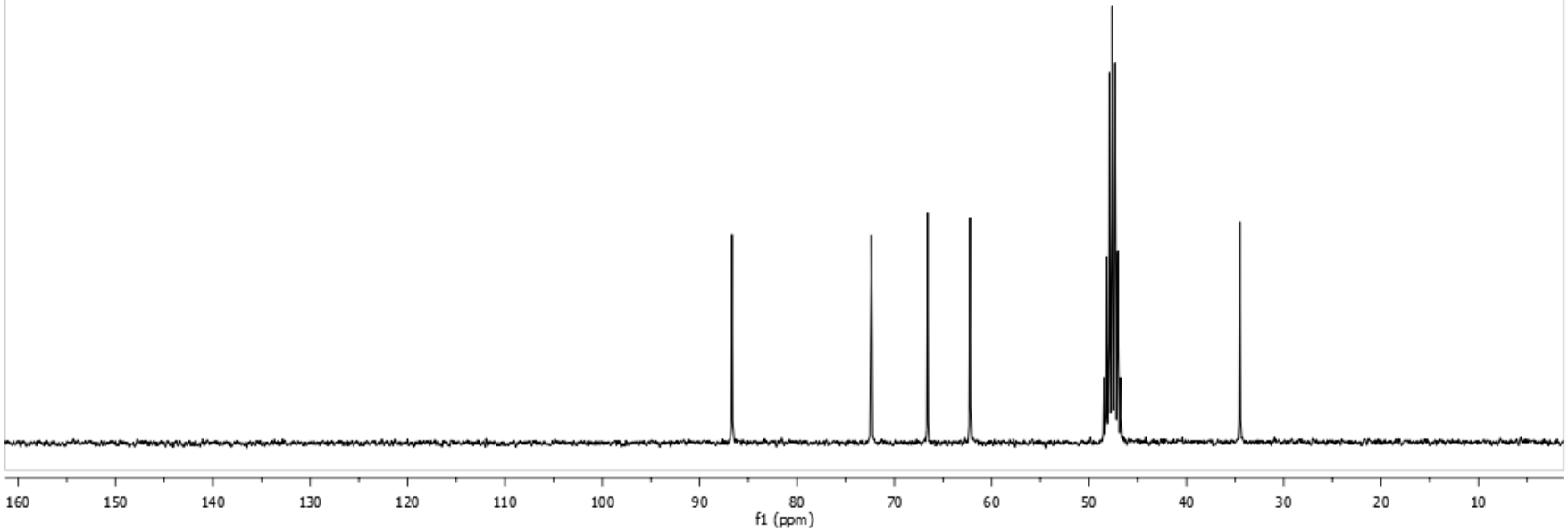
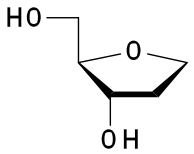


1,2-Dideoxy-D-ribose (13)

DEPT NMR (MeOH-d_4, 75.5 MHz)



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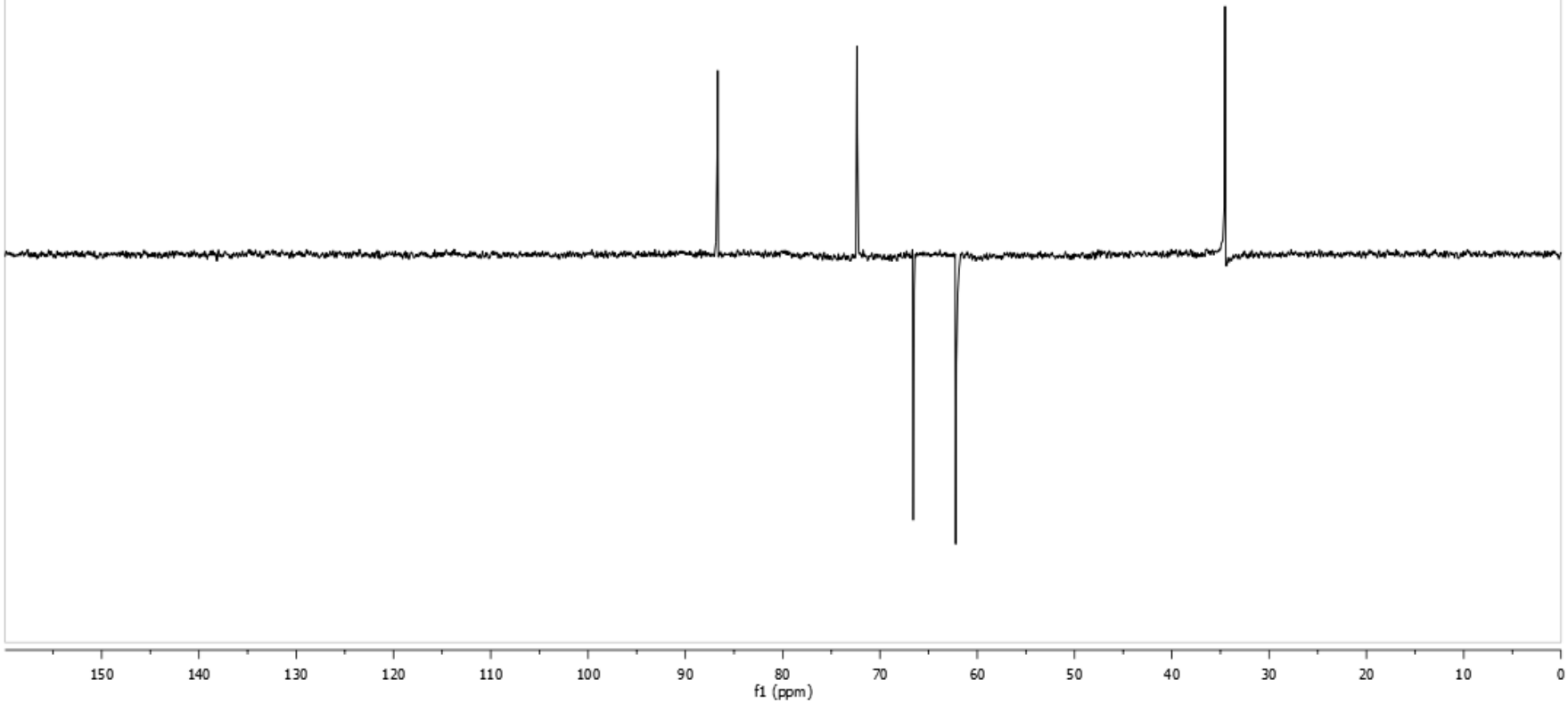
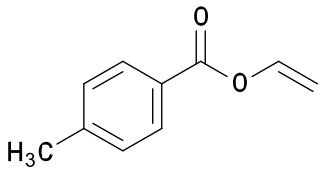


Vinyl 4-methylbenzoate (14b)

^{1}H NMR ($CDCl_3$, 300.13 MHz)



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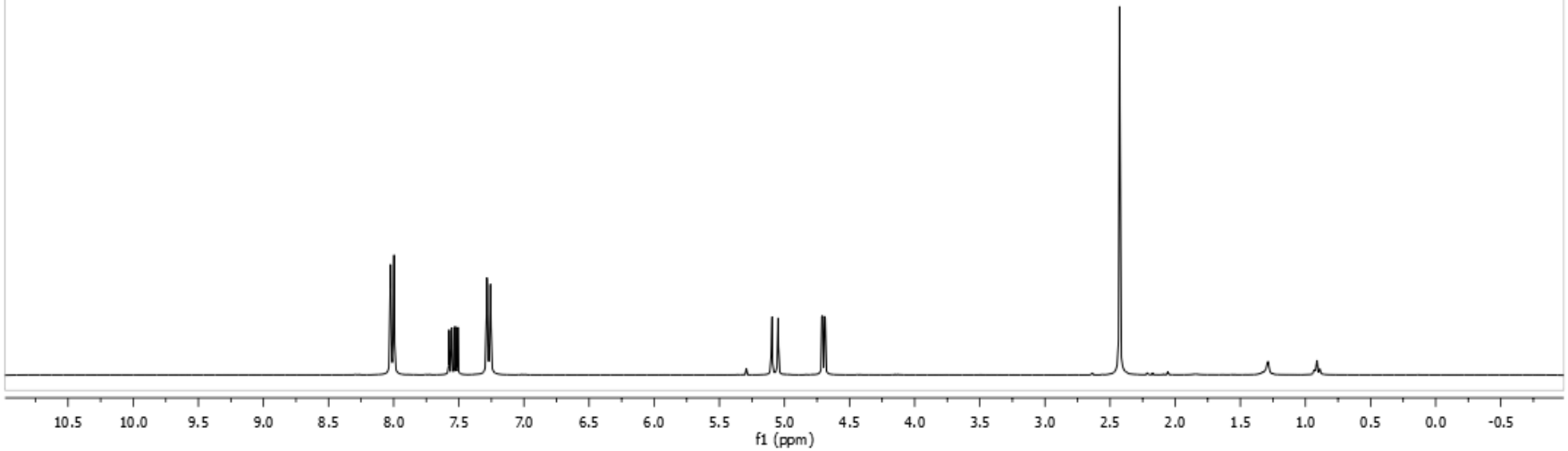
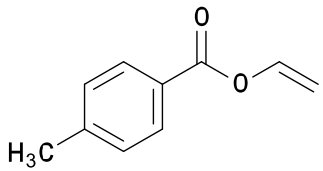


Vinyl 4-methylbenzoate (14b)

^{13}C NMR ($CDCl_3$, 75.5 MHz)



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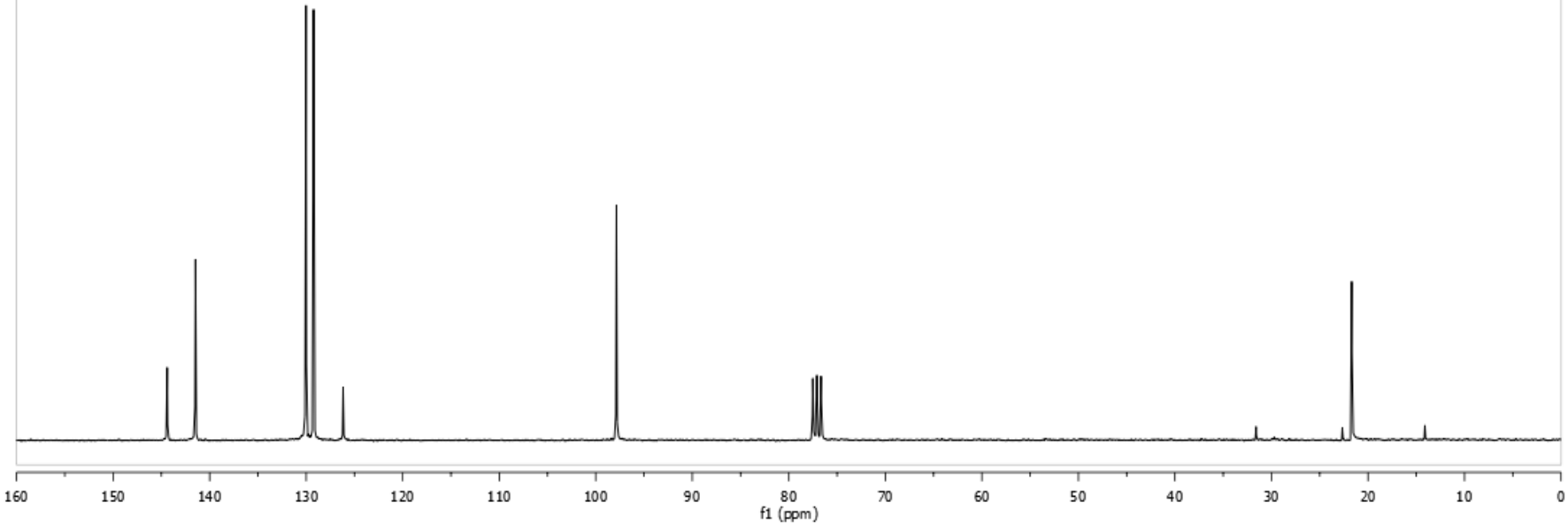
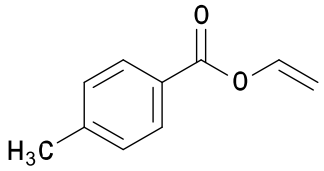


Vinyl 4-methylbenzoate (14b)

DEPT NMR ($CDCl_3$, 75.5 MHz)



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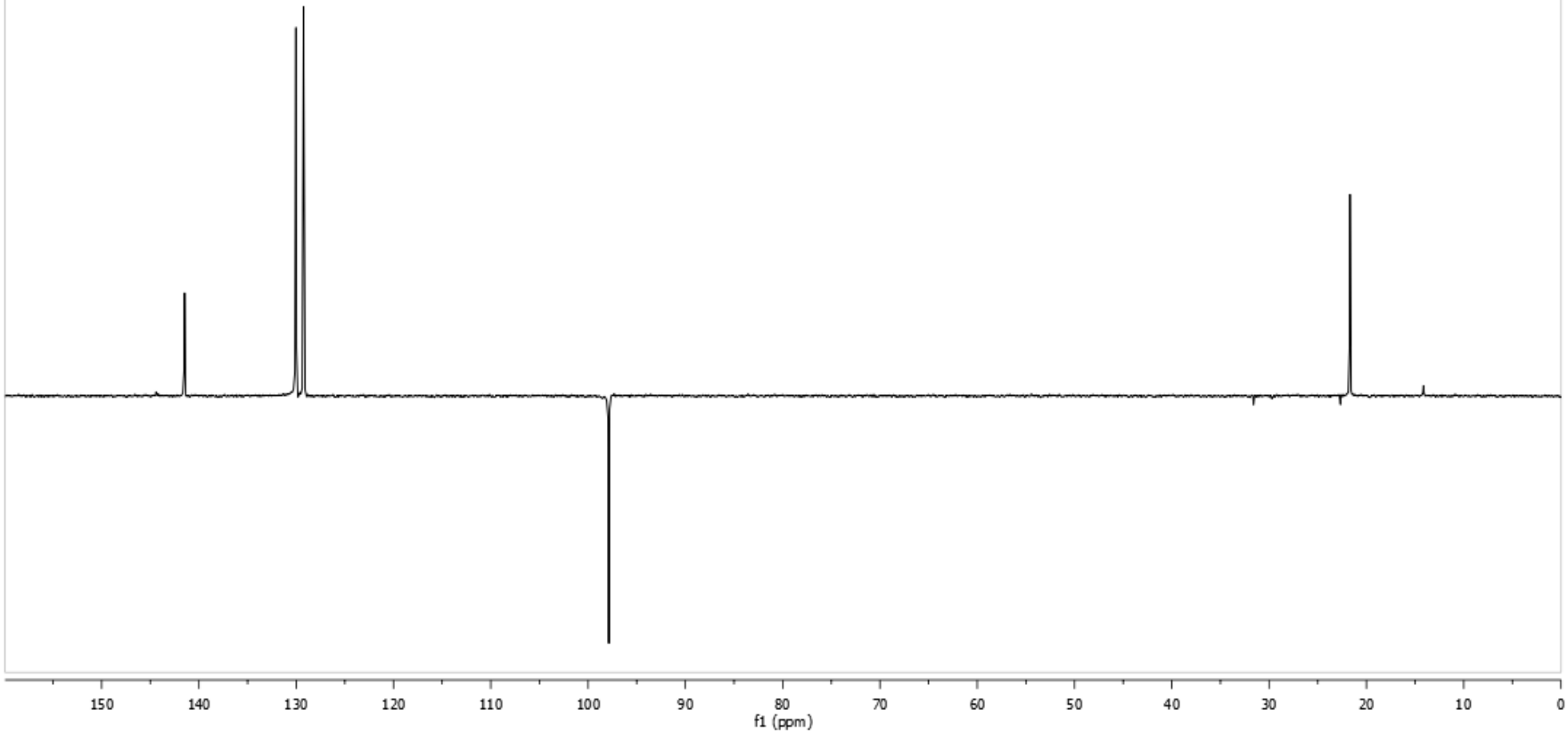
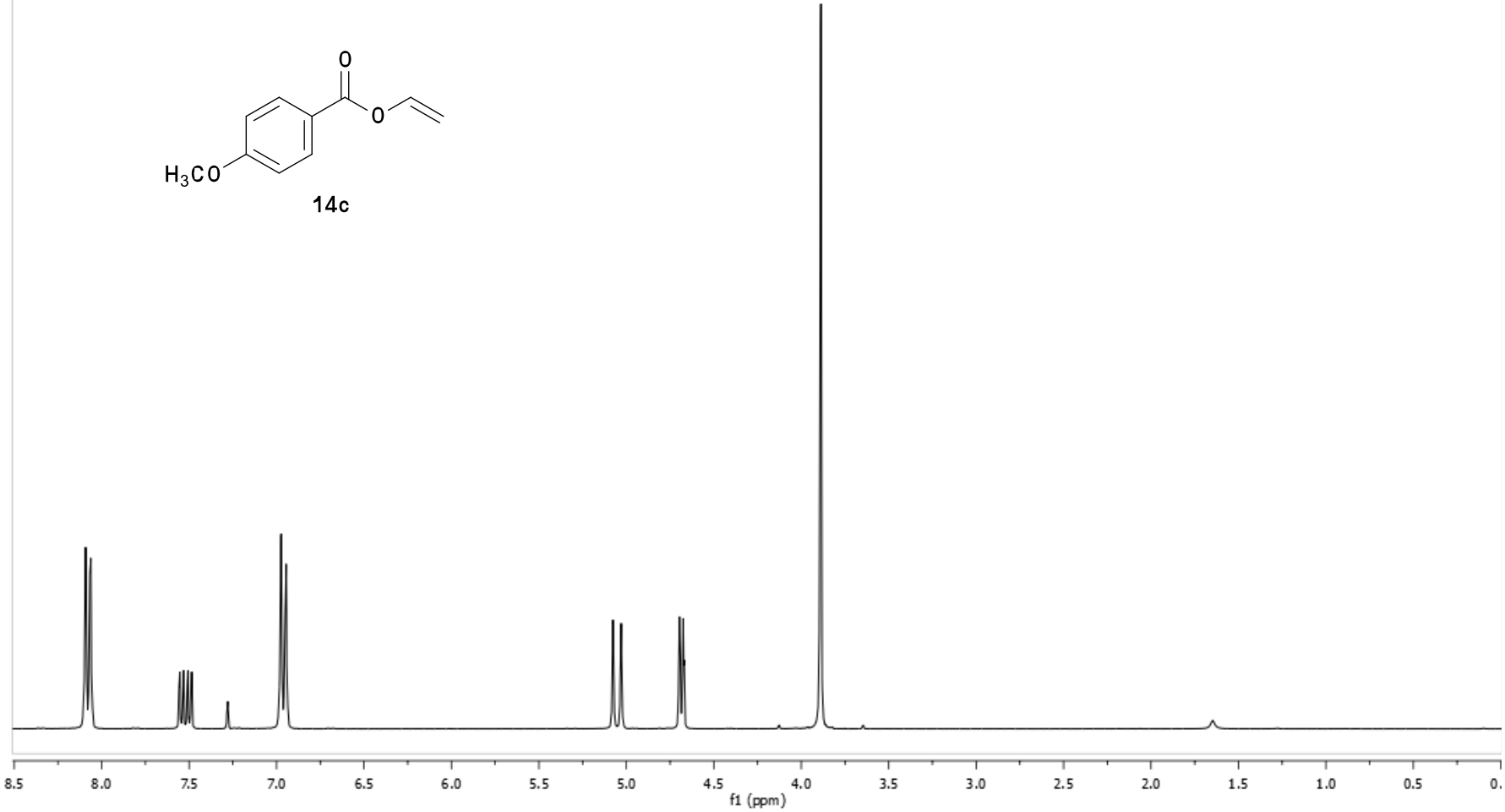


Vinyl 4-methoxybenzoate (14c)

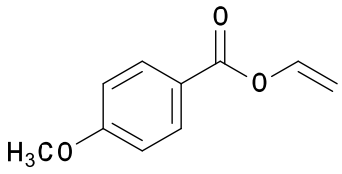
^{1}H NMR ($CDCl_3$, 300.13 MHz)

14c

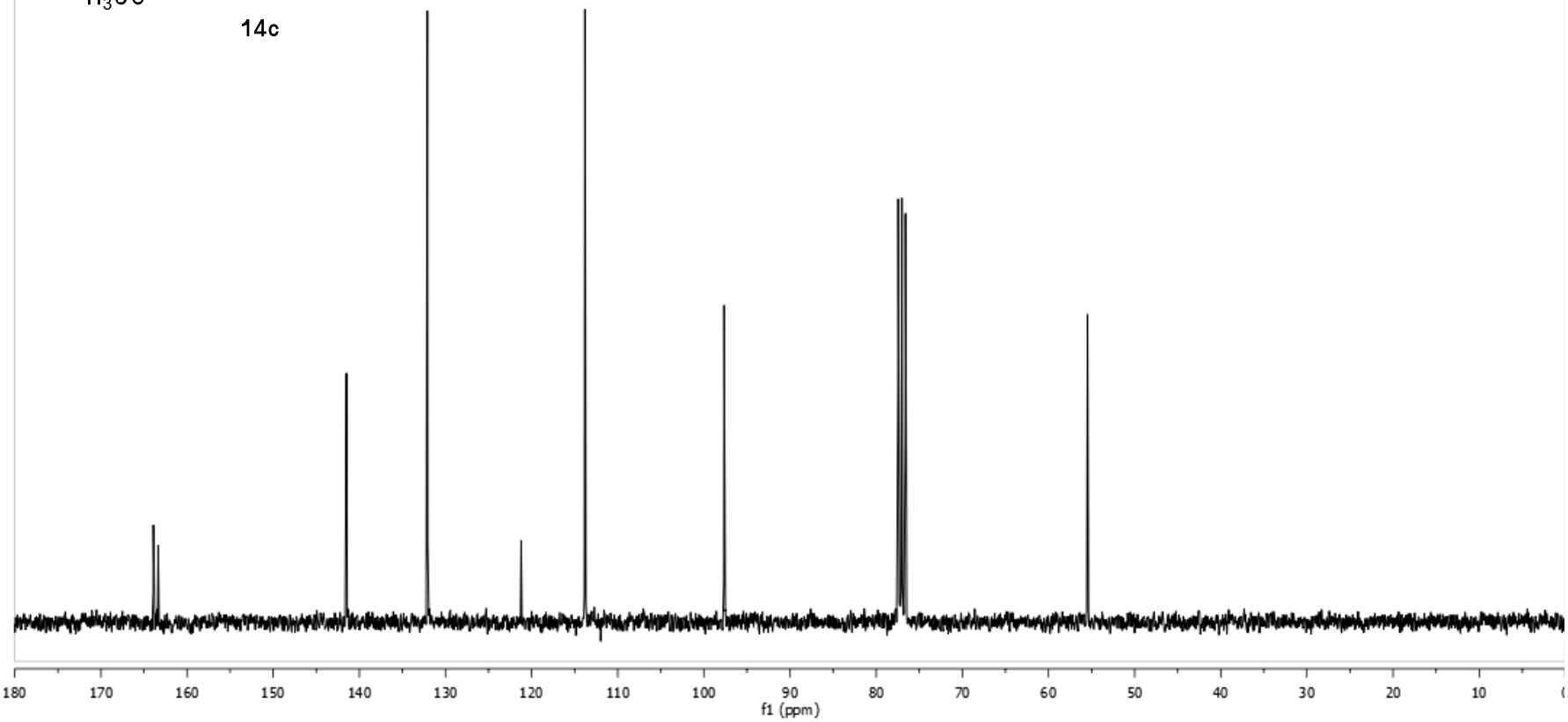


Vinyl 4-methoxybenzoate (14c)

^{13}C NMR ($CDCl_3$, 75.5 MHz)

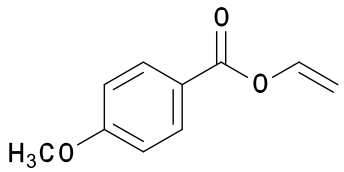


14c



Vinyl 4-methoxybenzoate (14c)

DEPT NMR ($CDCl_3$, 75.5 MHz)



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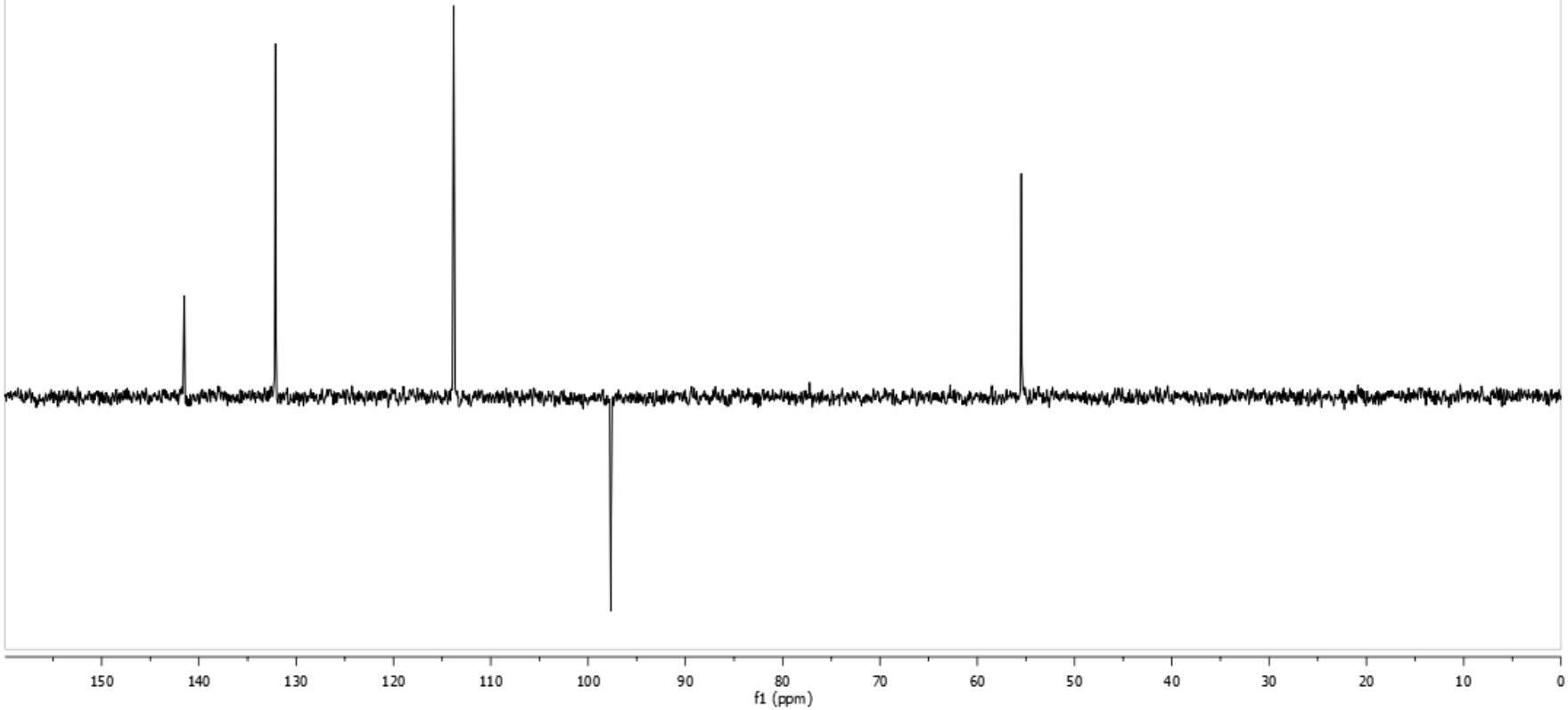
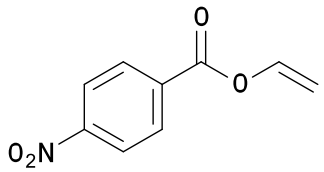


Vinyl 4-nitrobenzoate (14d)

^{1}H NMR ($CDCl_3$, 300.13 MHz)



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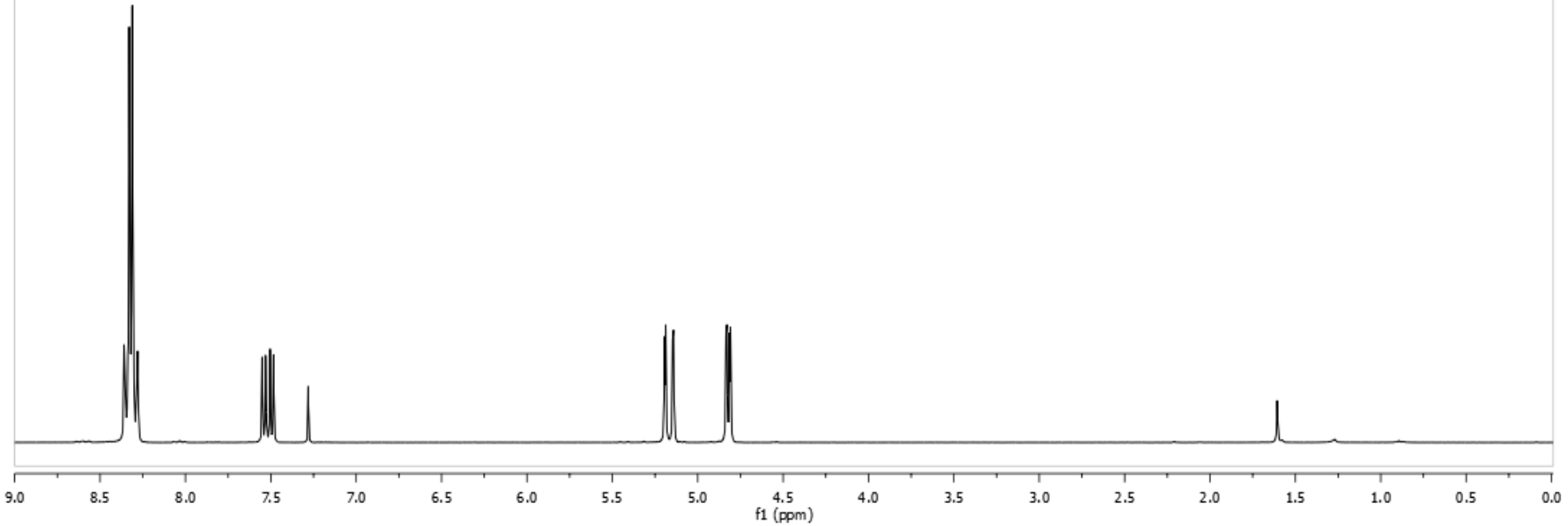
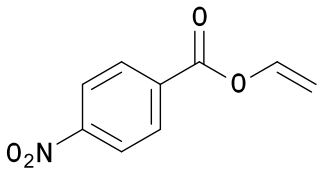
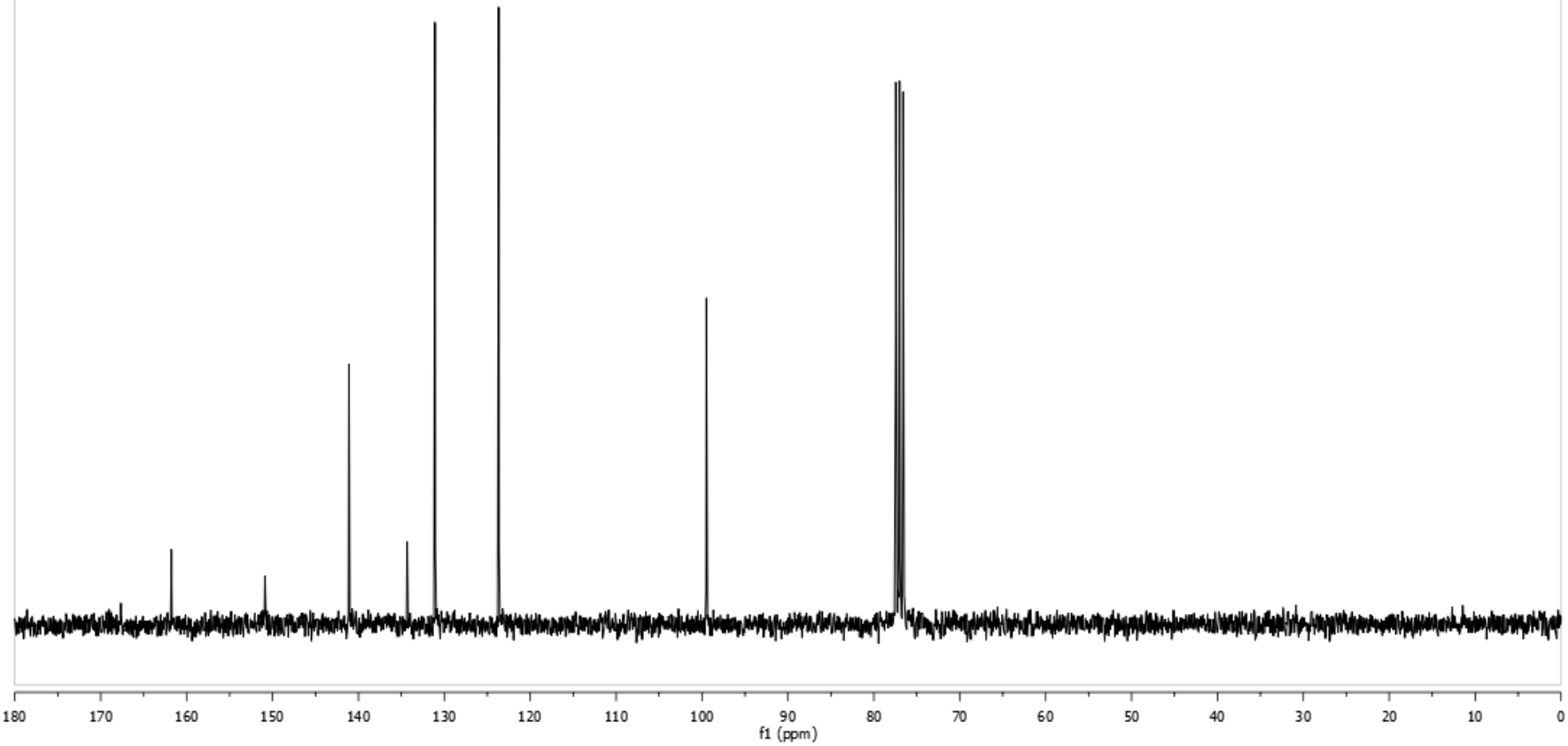


Vinyl 4-nitrobenzoate (14d)

^{13}C NMR ($CDCl_3$, 75.5 MHz)



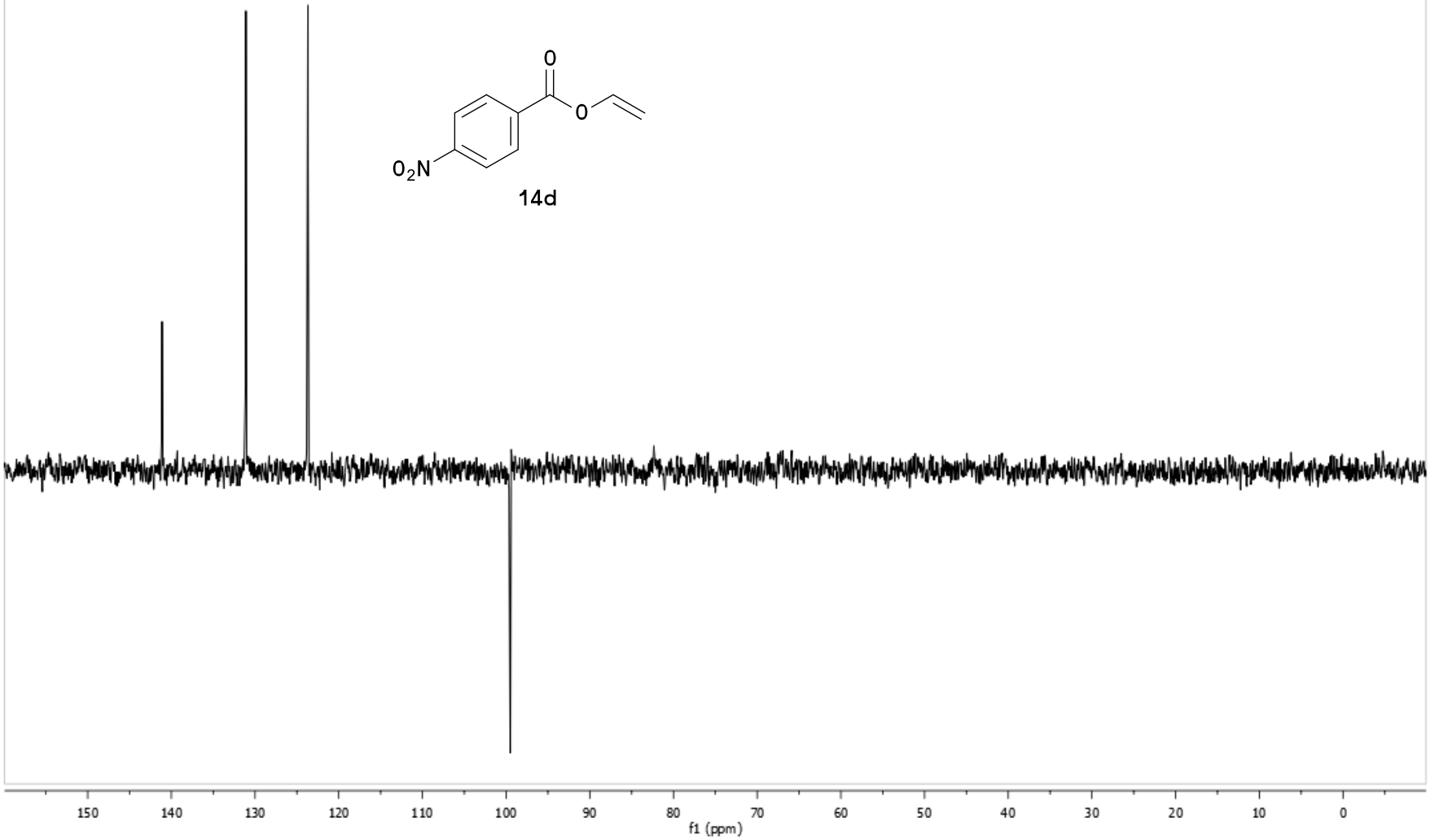
14d



Vinyl 4-nitrobenzoate (14d)

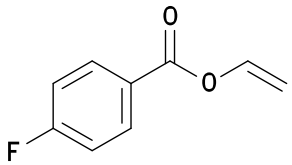
DEPT NMR ($CDCl_3$, 75.5 MHz)

14d

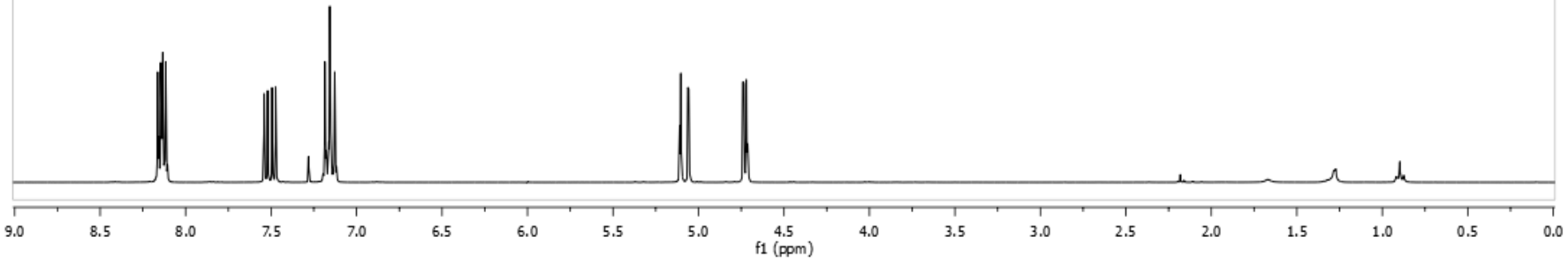


Vinyl 4-fluorobenzoate (14d)

^{1}H NMR ($CDCl_3$, 300.13 MHz)

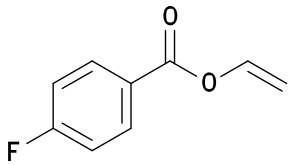


14e

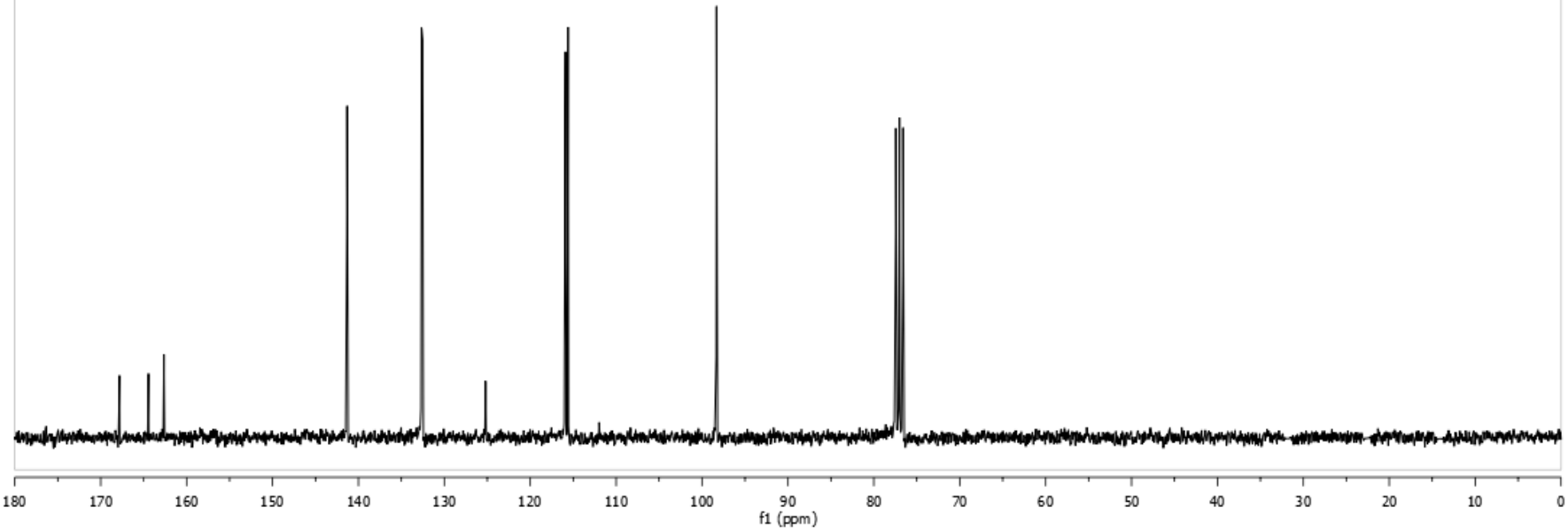


Vinyl 4-fluorobenzoate (14e)

^{13}C NMR ($CDCl_3$, 75.5 MHz)

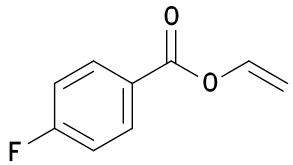


14e

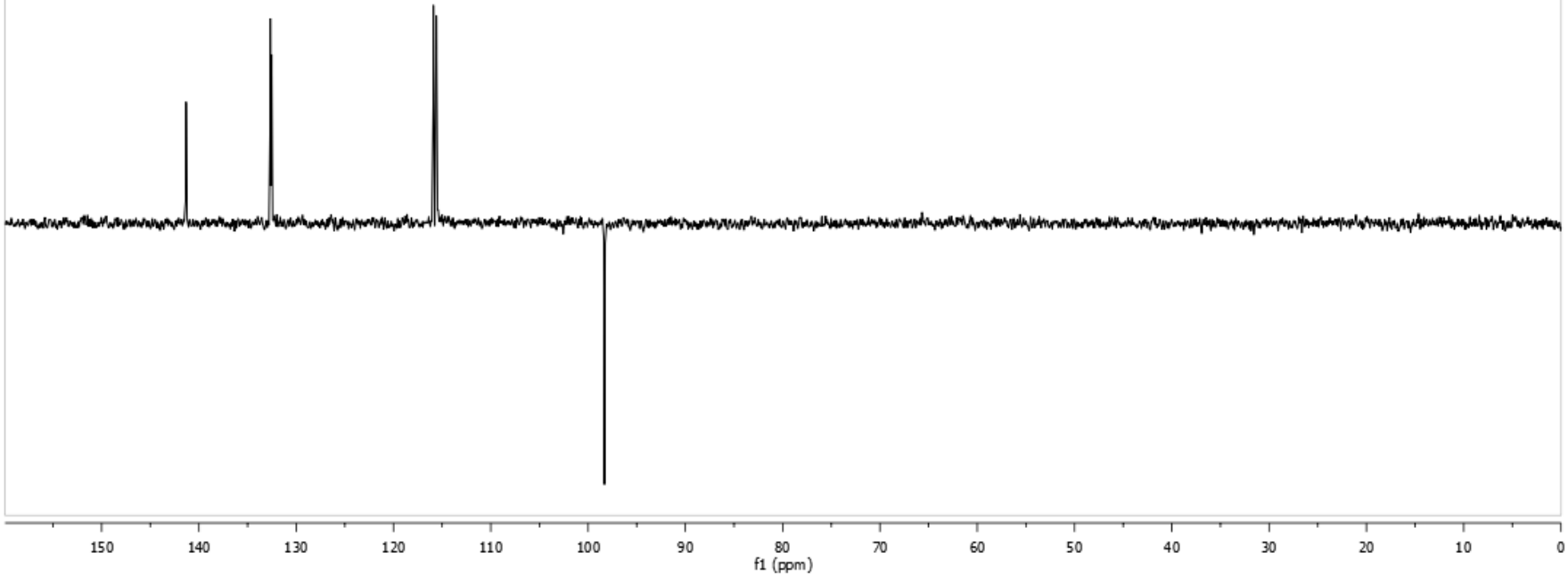


Vinyl 4-fluorobenzoate (14e)

DEPT NMR ($CDCl_3$, 75.5 MHz)

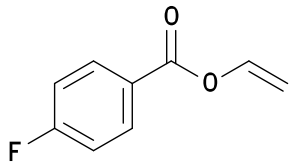


14e

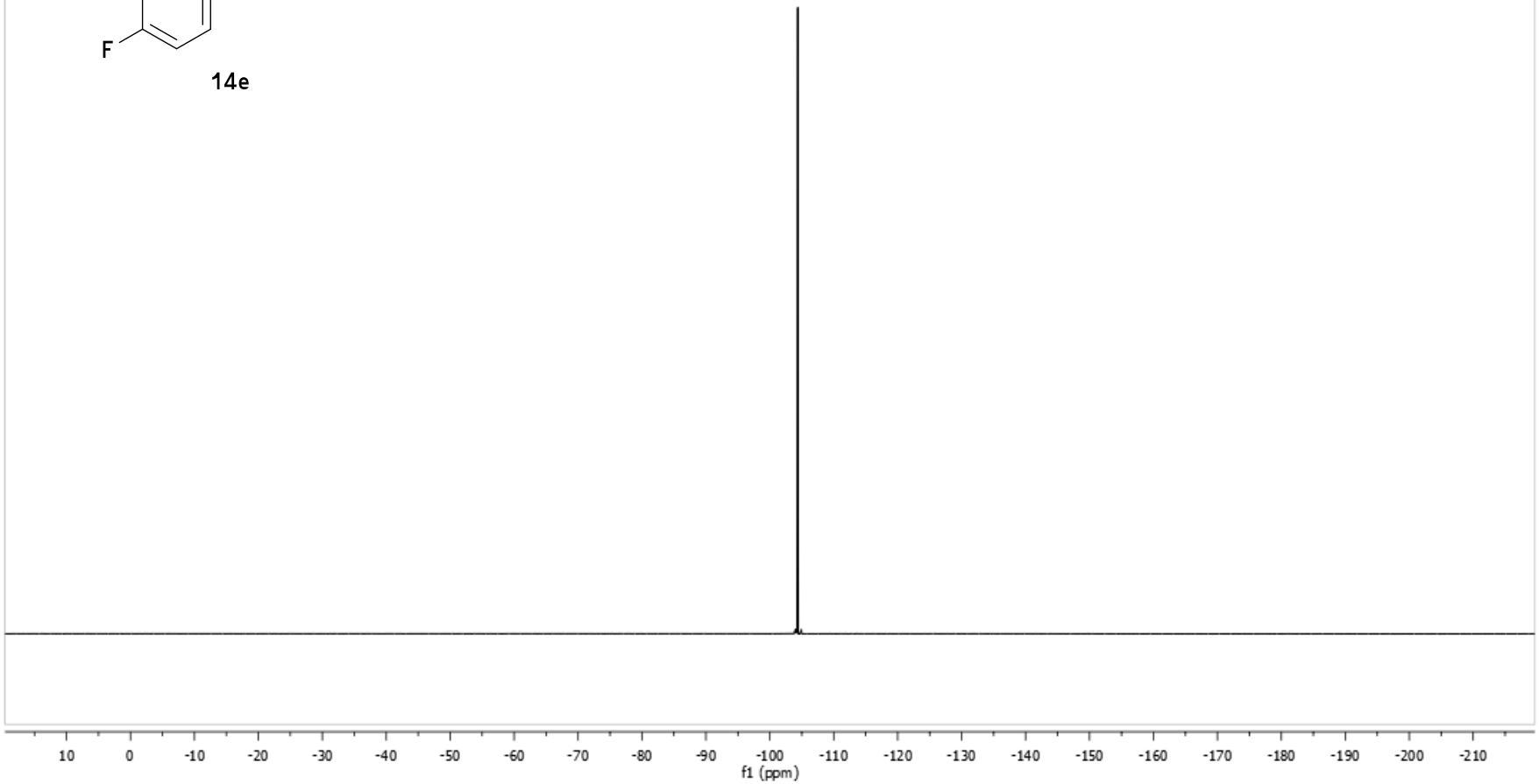


Vinyl 4-fluorobenzoate (14e)

^{19}F NMR ($CDCl_3$, 282.38 MHz)

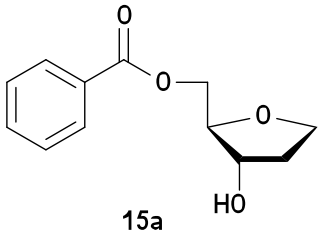


14e

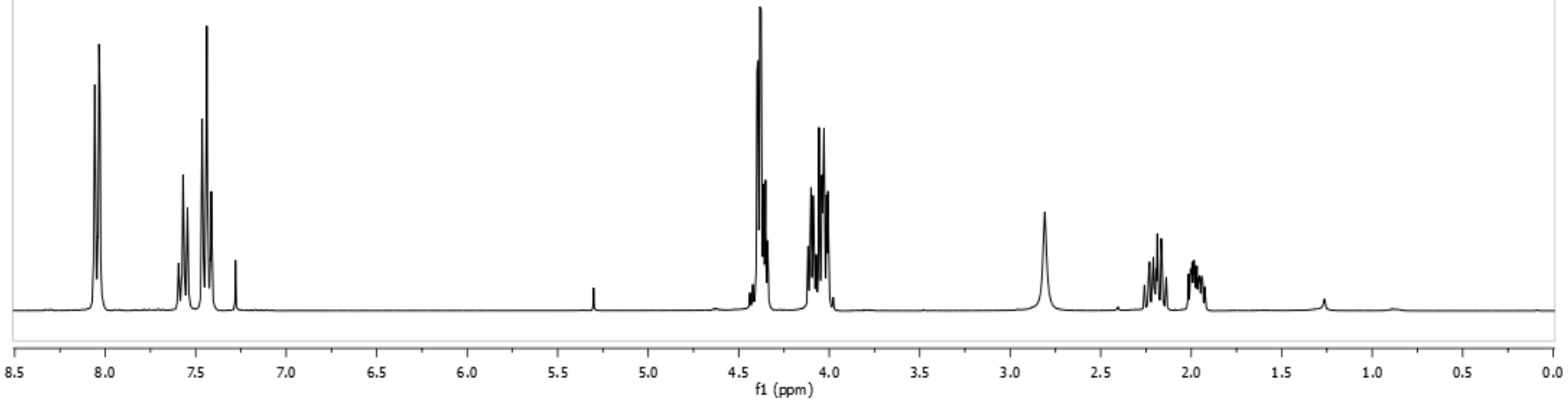


5-*O*-Benzoyl-1,2-dideoxy-D-ribose (15a)

^{1}H NMR ($CDCl_3$, 300.13 MHz)

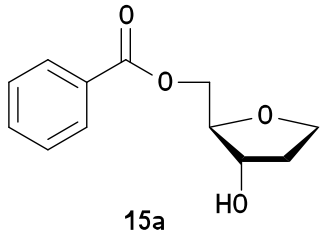


15a

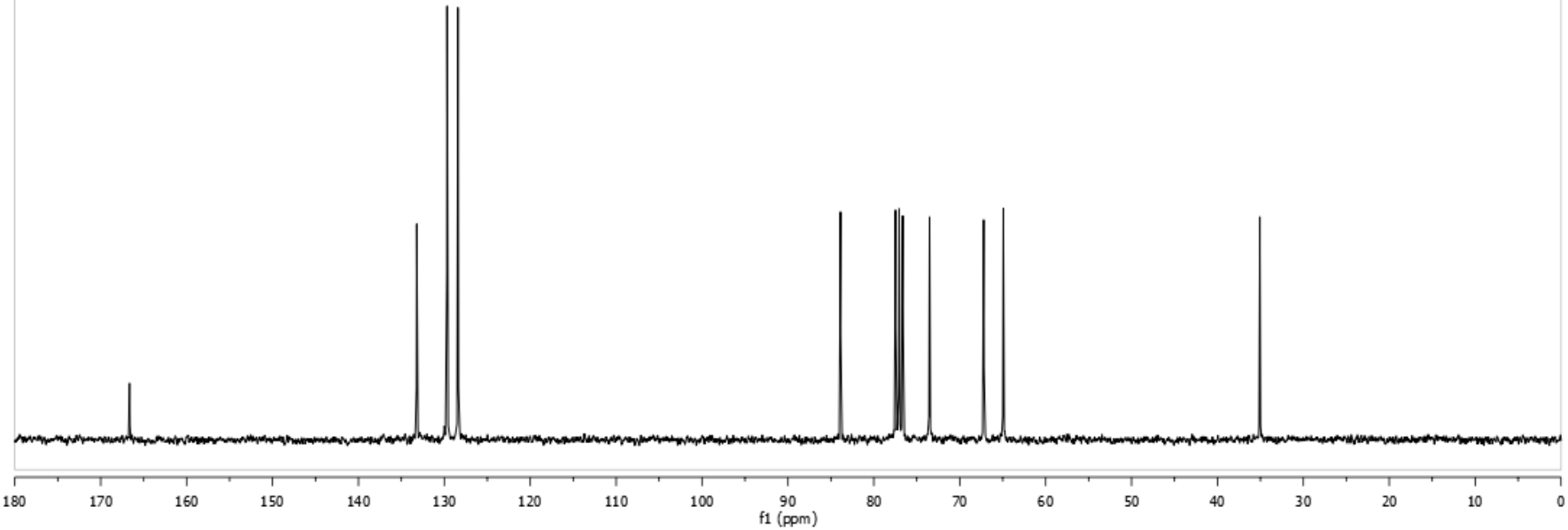


5-*O*-Benzoyl-1,2-dideoxy-D-ribose (15a)

^{13}C NMR ($CDCl_3$, 75.5 MHz)

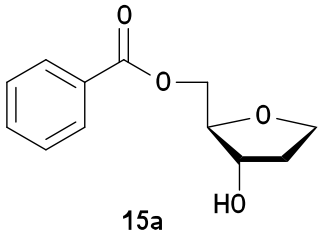


15a



5-*O*-Benzoyl-1,2-dideoxy-D-ribose (15a)

DEPT NMR ($CDCl_3$, 75.5 MHz)



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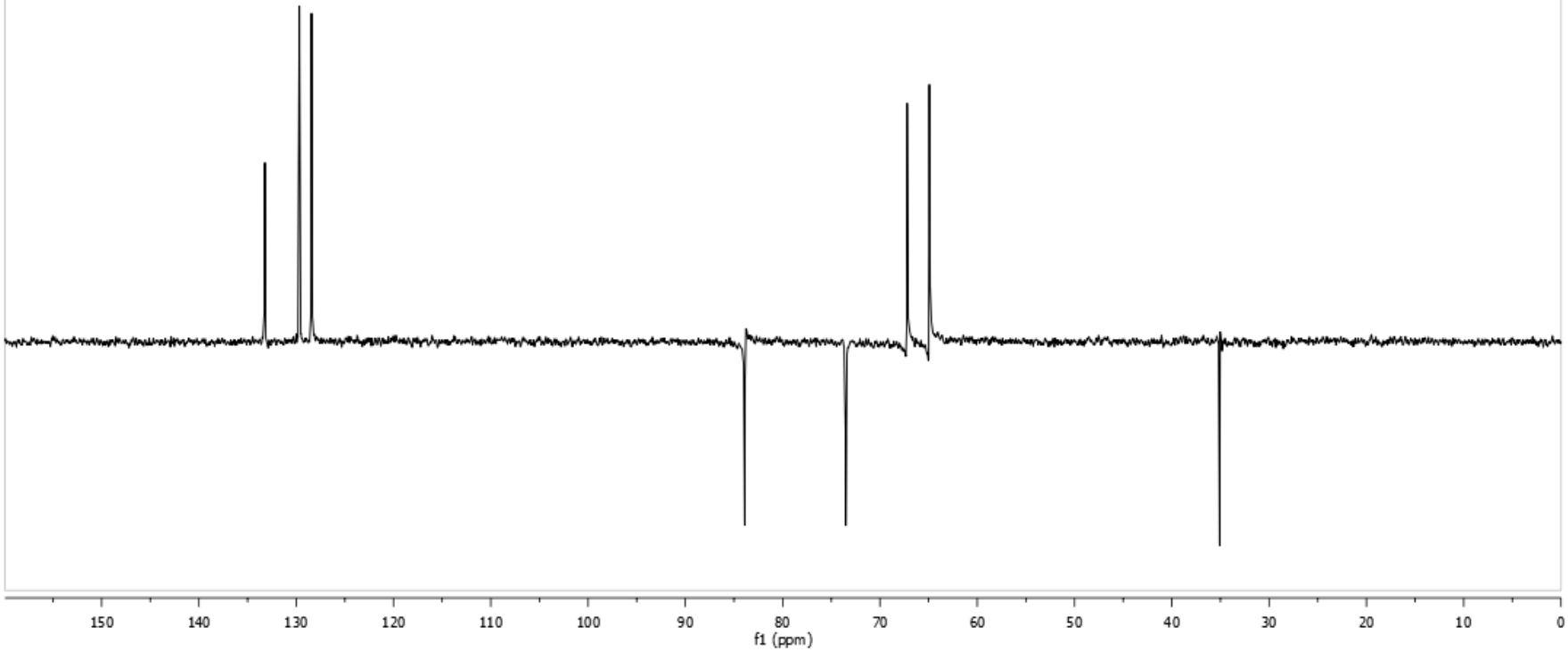
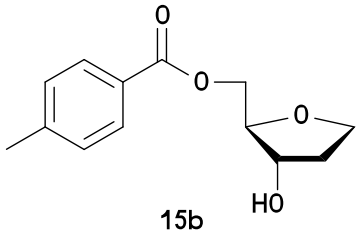


5-*O*-Toluoyl-1,2-dideoxy-D-ribose (15b)

^{1}H NMR ($CDCl_3$, 300.13 MHz)



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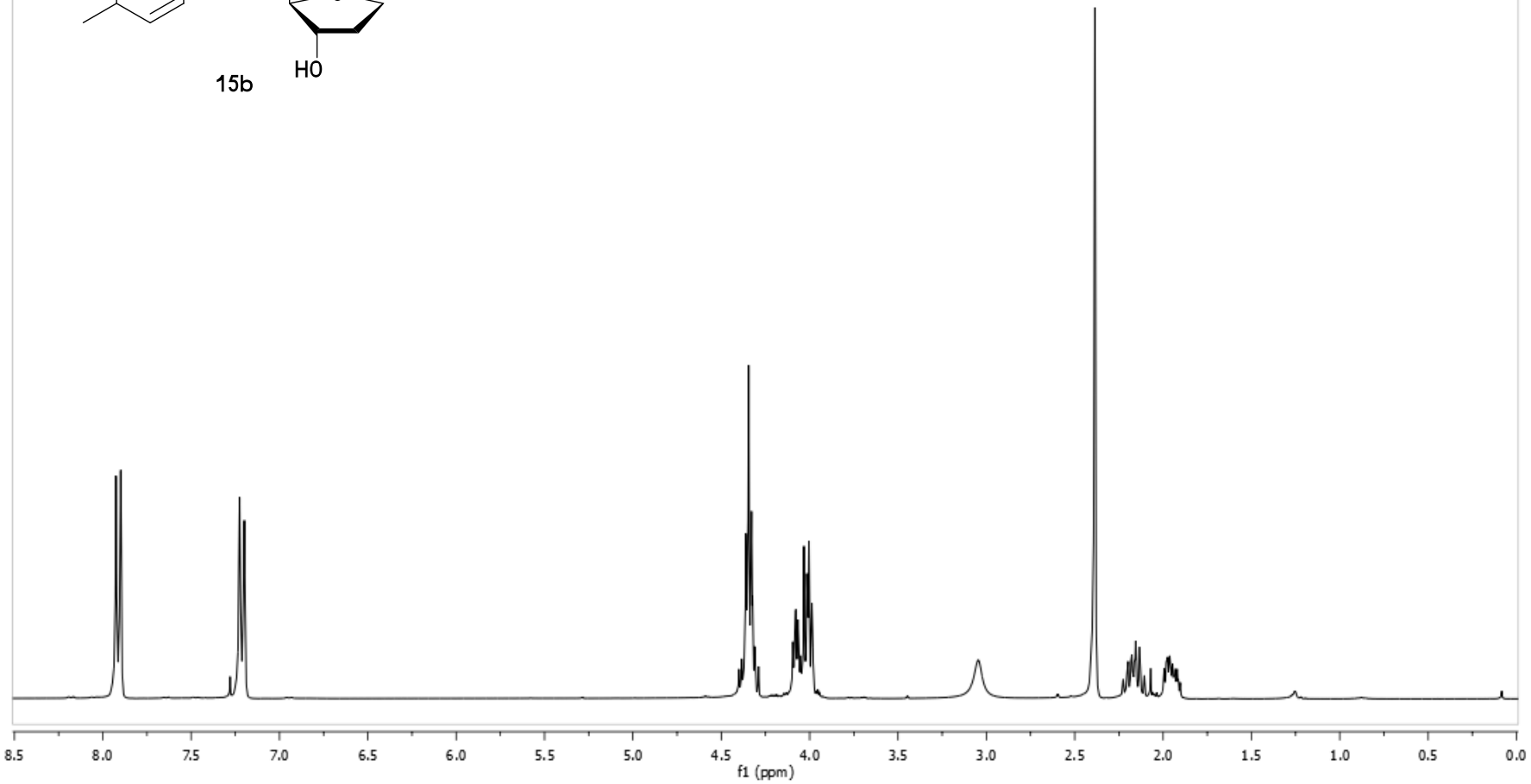
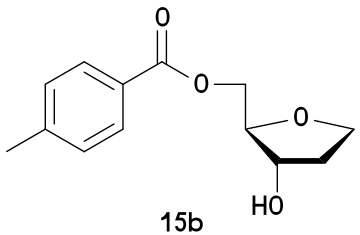
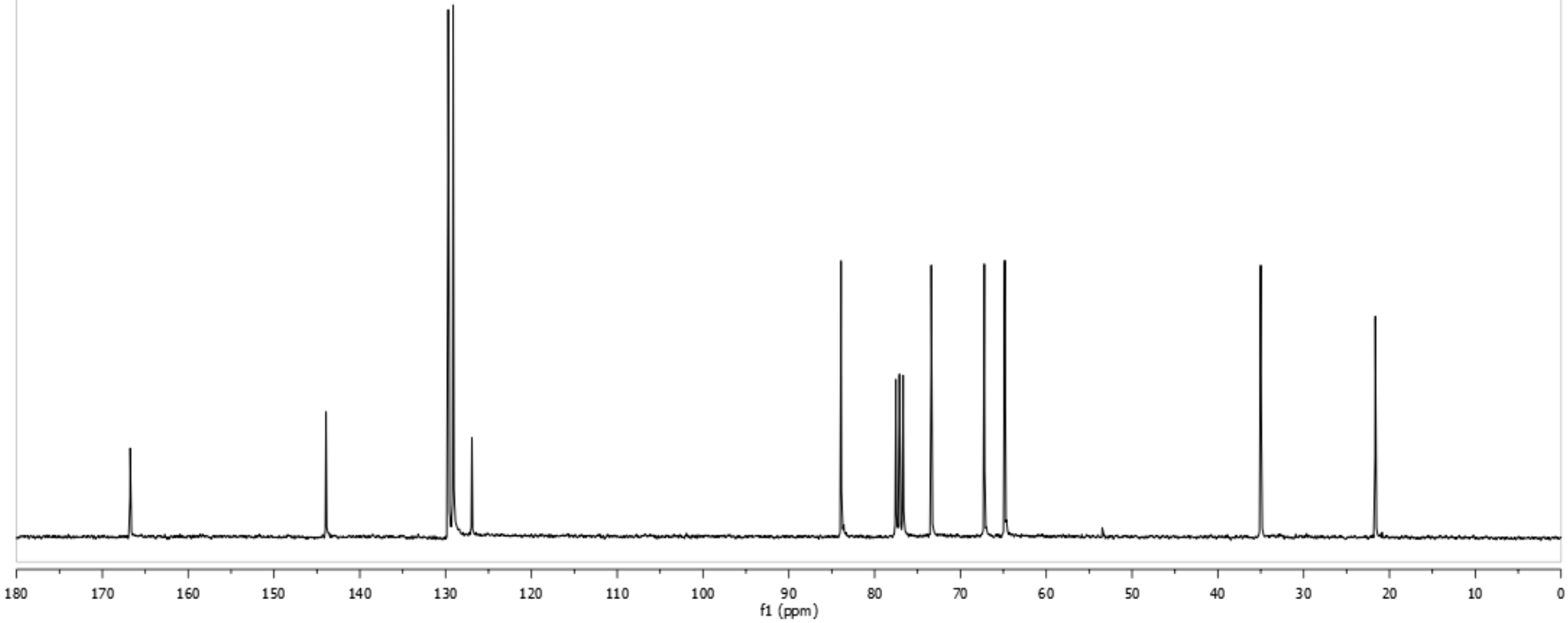


5-*O*-Toluoyl-1,2-dideoxy-D-ribose (15b)

^{13}C NMR ($CDCl_3$, 75.5 MHz)

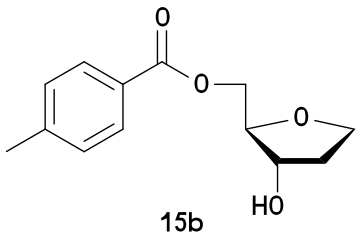


15b

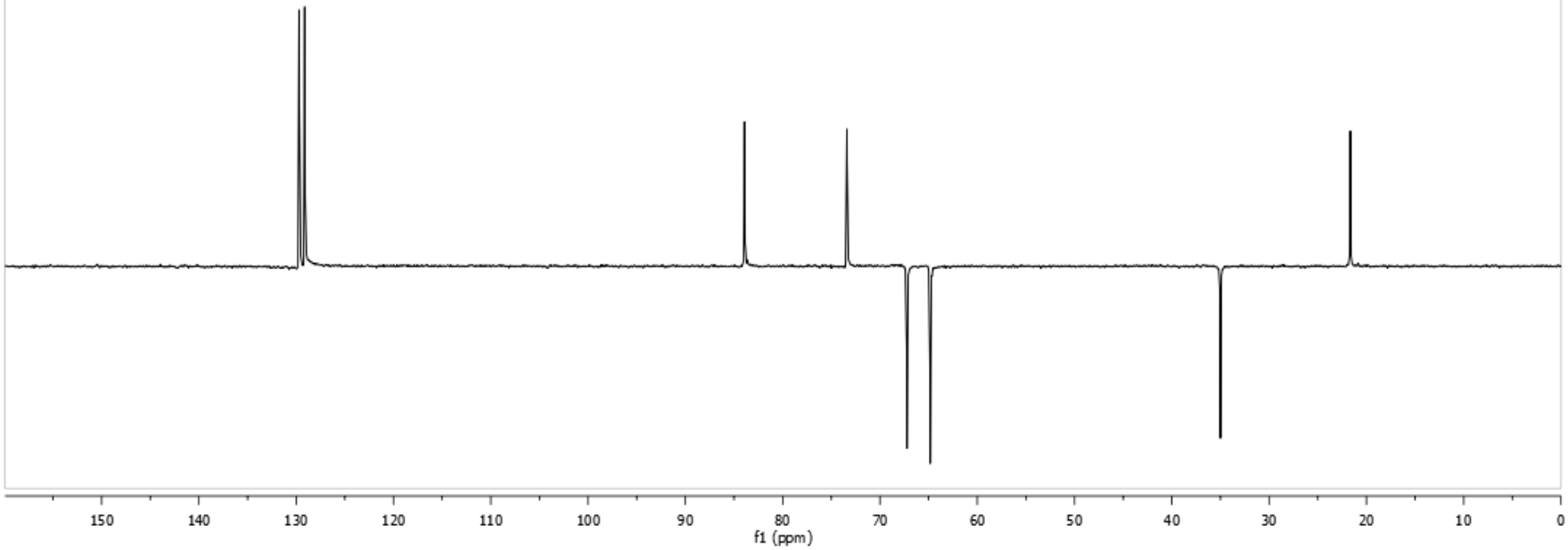


5-*O*-Toluoyl-1,2-dideoxy-D-ribose (15b)

DEPT NMR ($CDCl_3$, 75.5 MHz)

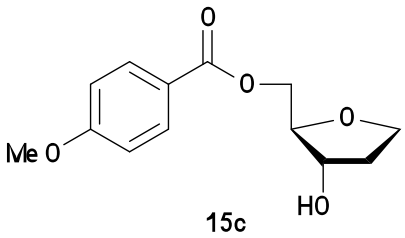


15b

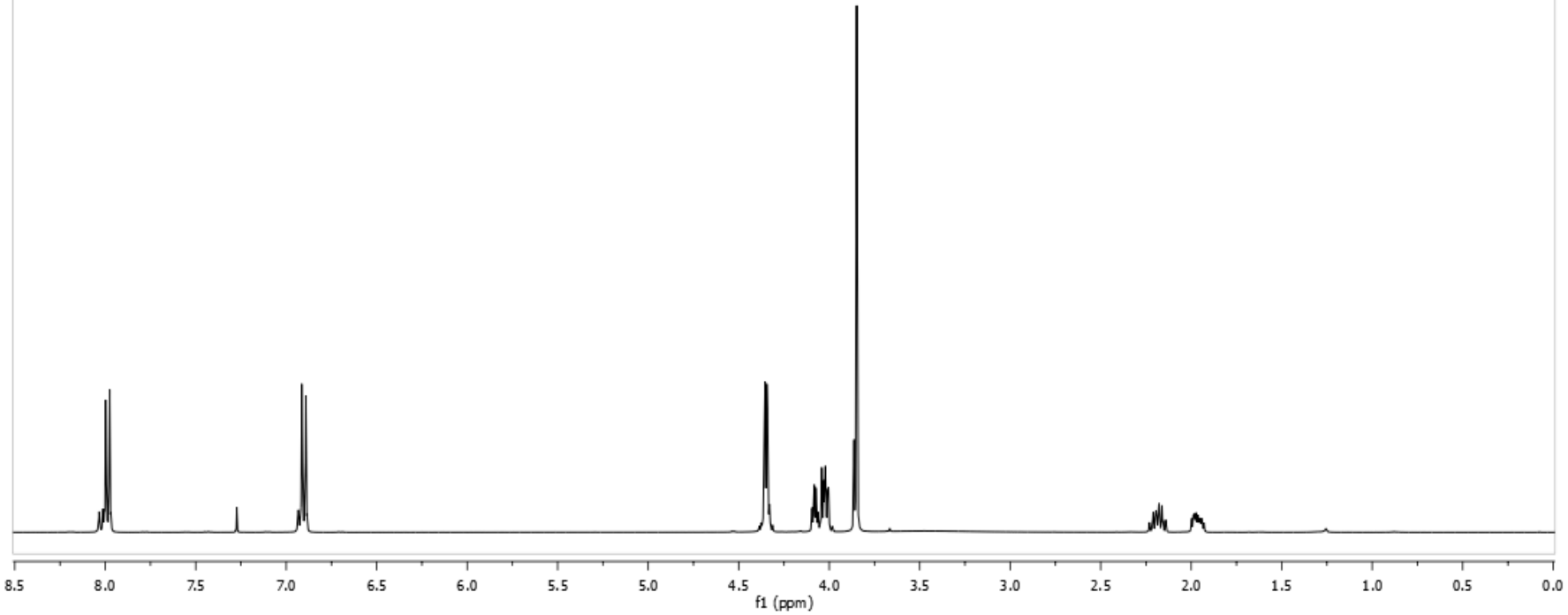


5-*O*-*p*-Methoxybenzoyl-1,2-dideoxy-D-ribose (15c)

^{1}H NMR ($CDCl_3$, 400.13 MHz)

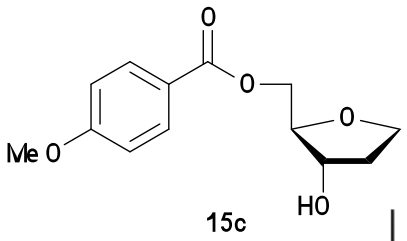


15c

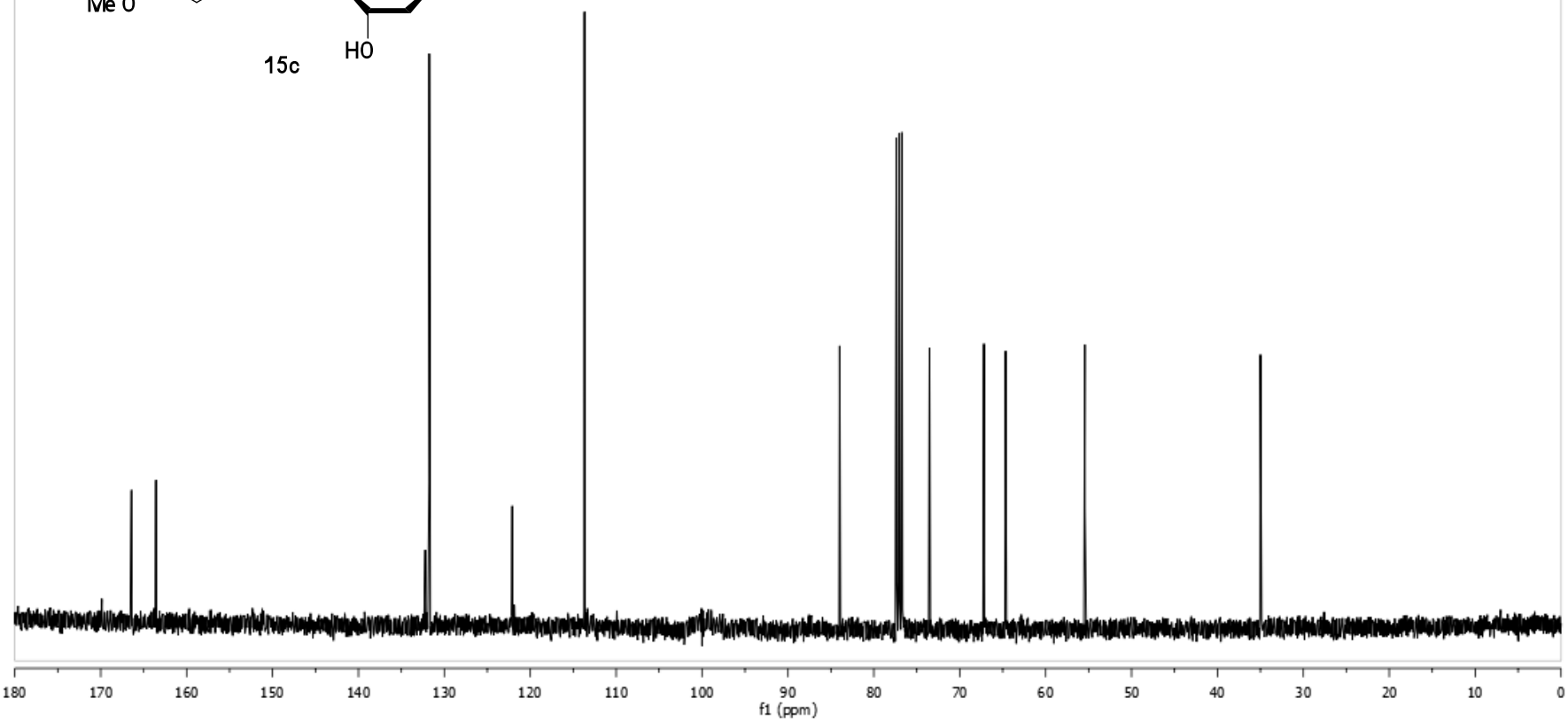


5-*O*-*p*-Methoxybenzoyl-1,2-dideoxy-D-ribose (15c)

^{13}C NMR ($CDCl_3$, 100.61 MHz)

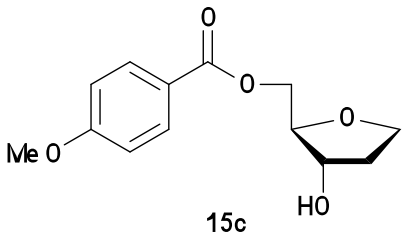


15c



5-*O*-*p*-Methoxybenzoyl-1,2-dideoxy-D-ribose (15c)

^{13}DEPT NMR ($CDCl_3$, 100.61 MHz)



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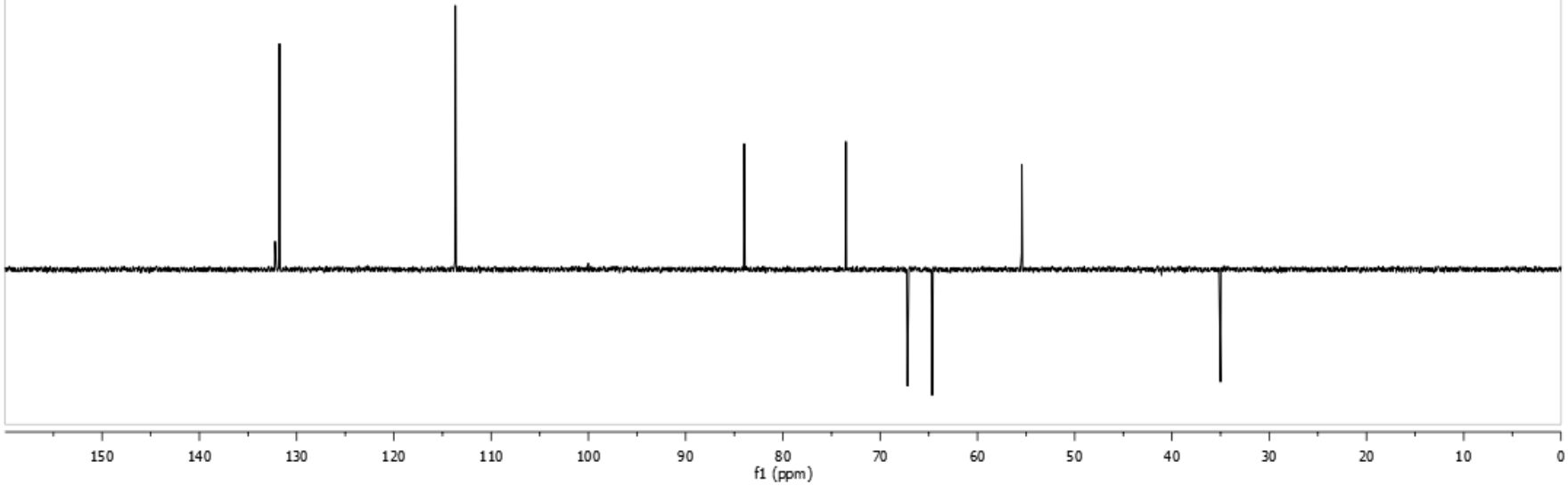
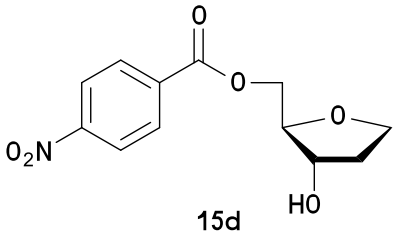
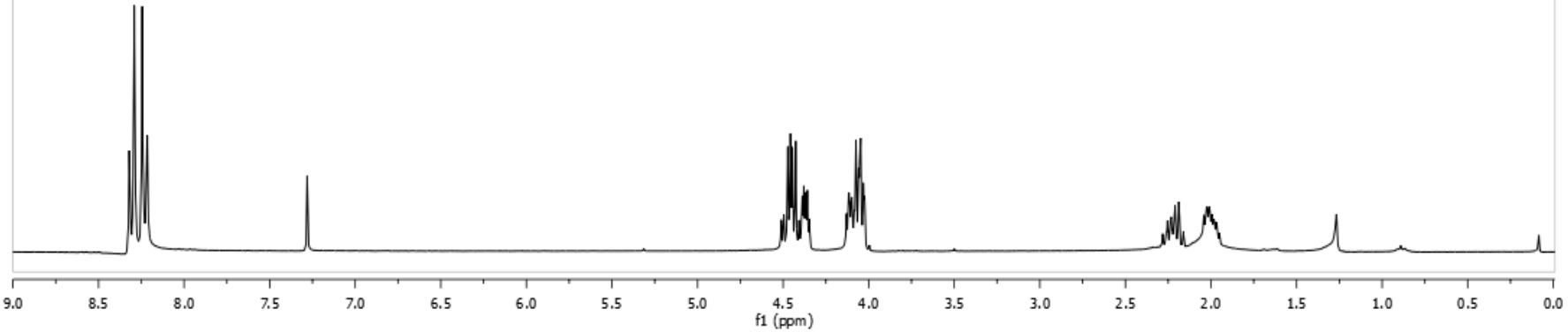


5-*O*-*p*-Nitrobenzoyl-1,2-dideoxy-D-ribose (15d)

^{1}H NMR ($CDCl_3$, 300.13 MHz)

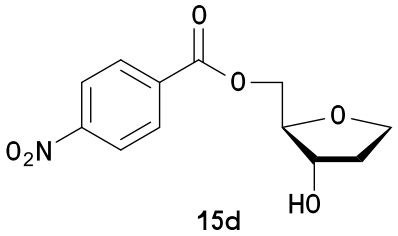


15d

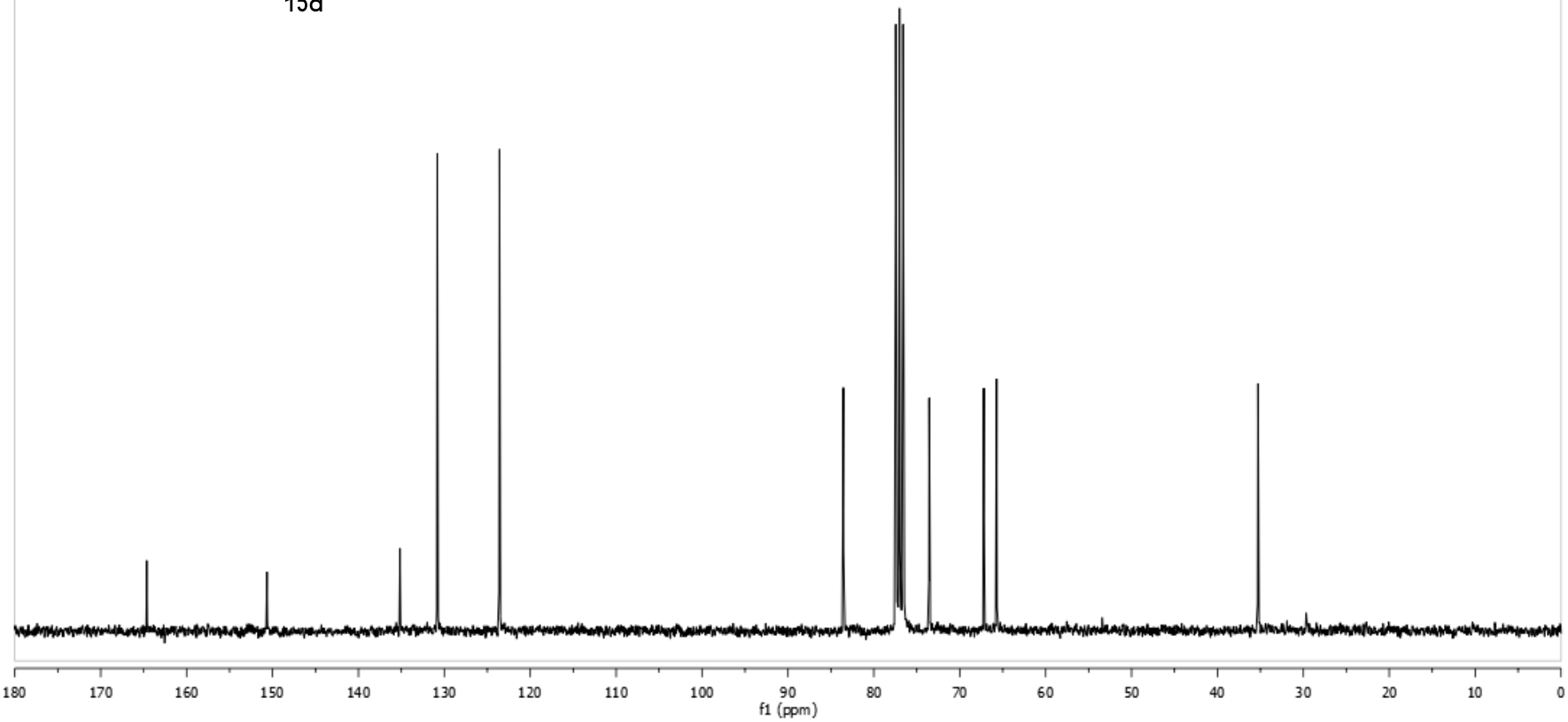


5-*O*-*p*-Nitrobenzoyl-1,2-dideoxy-D-ribose (15d)

^{13}C NMR ($CDCl_3$, 75.5 MHz)

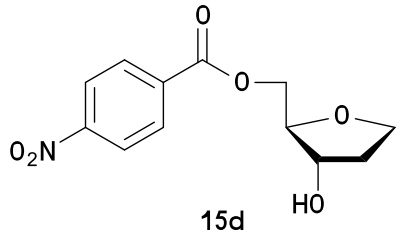


15d

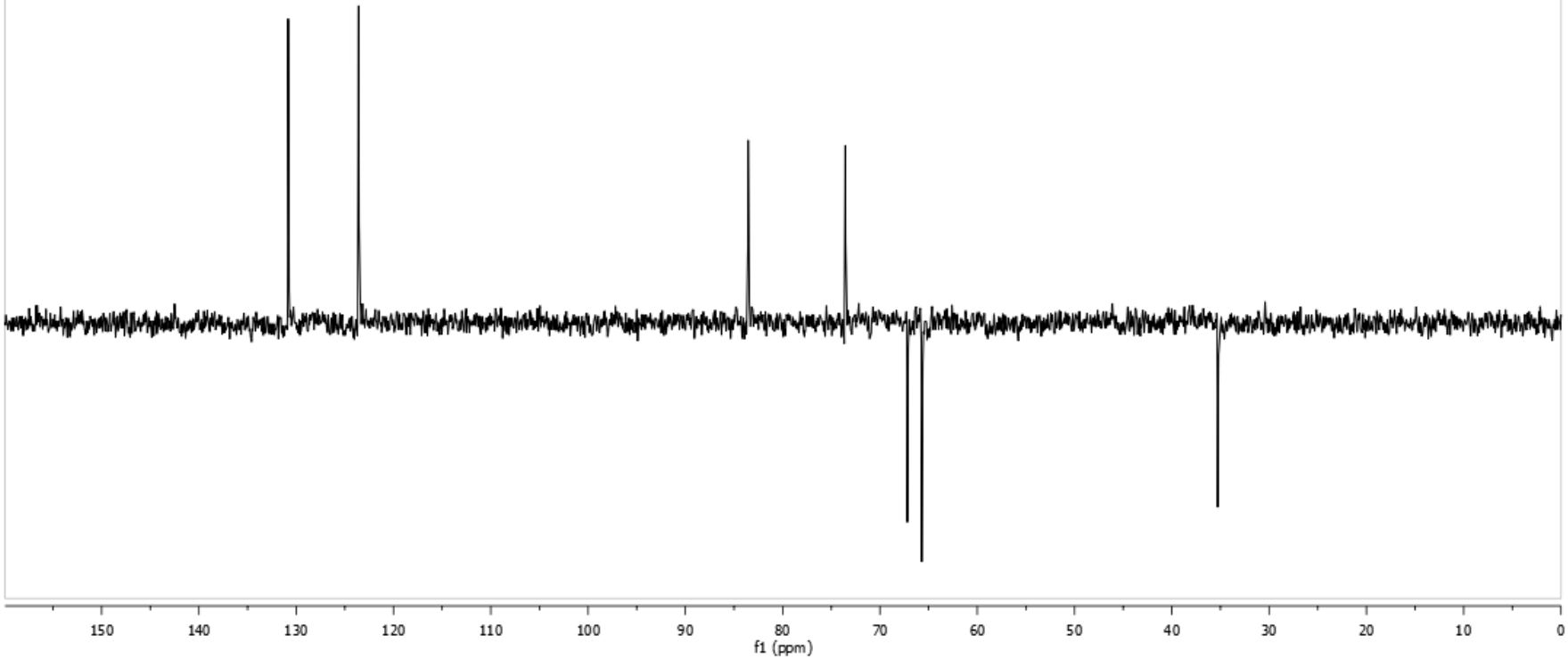


5-*O*-*p*-Nitrobenzoyl-1,2-dideoxy-D-ribose (15d)

^{13}DEPT NMR ($CDCl_3$, 75.5 MHz)

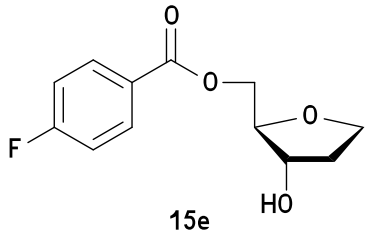


15d

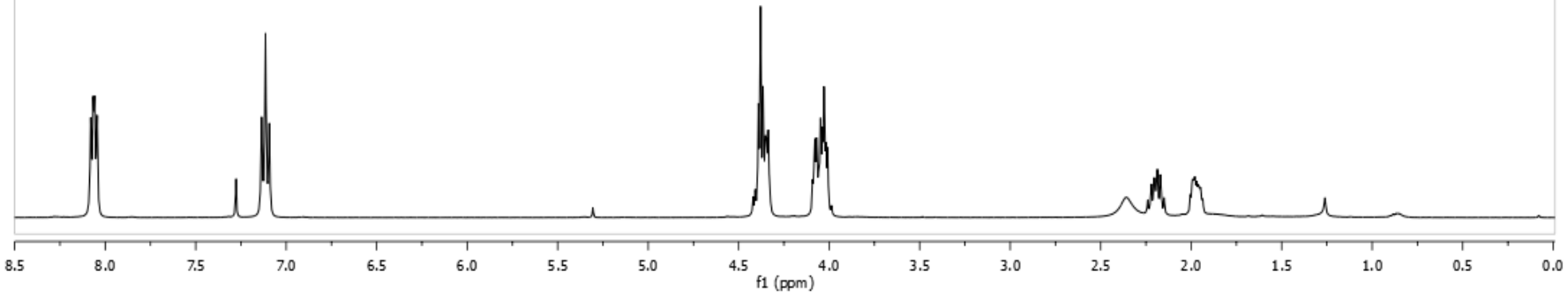


5-*O*-*p*-Fluorobenzoyl-1,2-dideoxy-D-ribose (15e)

^{1}H NMR ($CDCl_3$, 400.13)

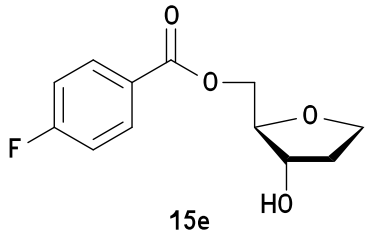


15e

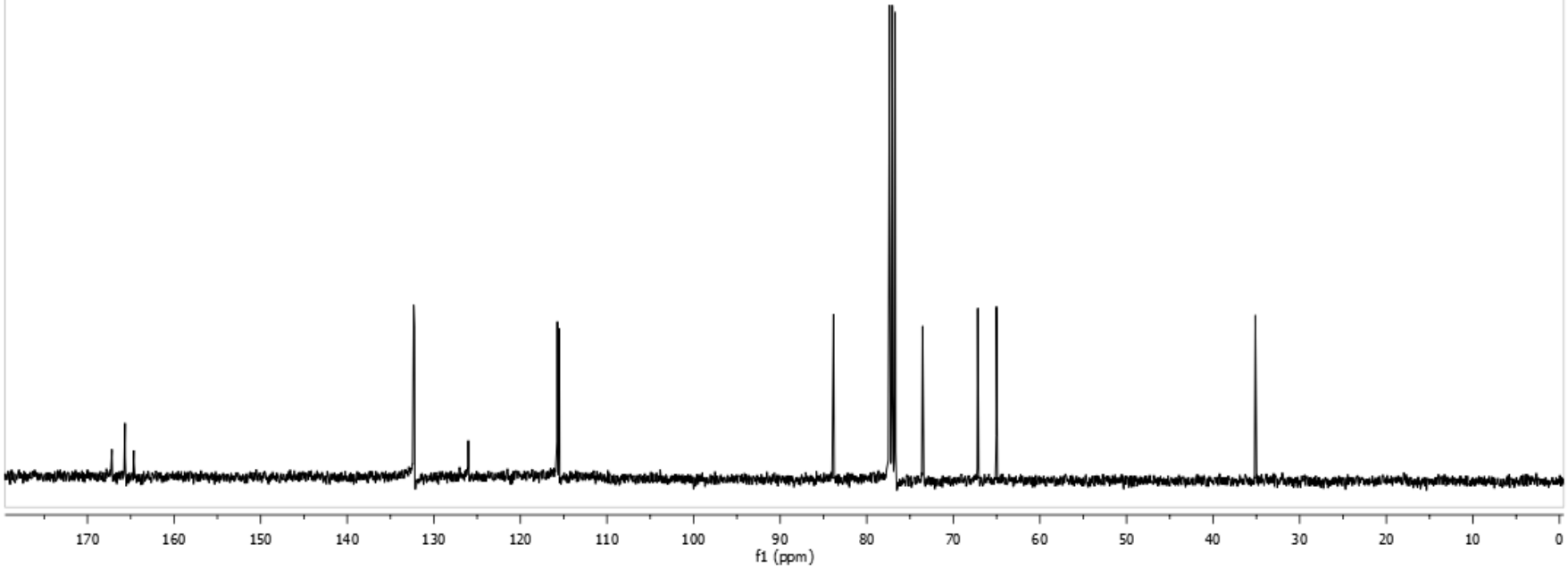


5-*O*-*p*-Fluorobenzoyl-1,2-dideoxy-D-ribose (15e)

^{13}C NMR ($CDCl_3$, 100.61 MHz)

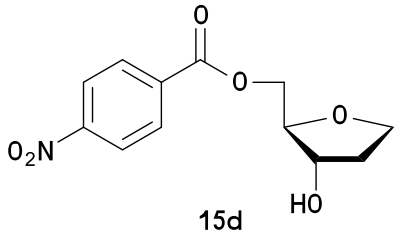


15e

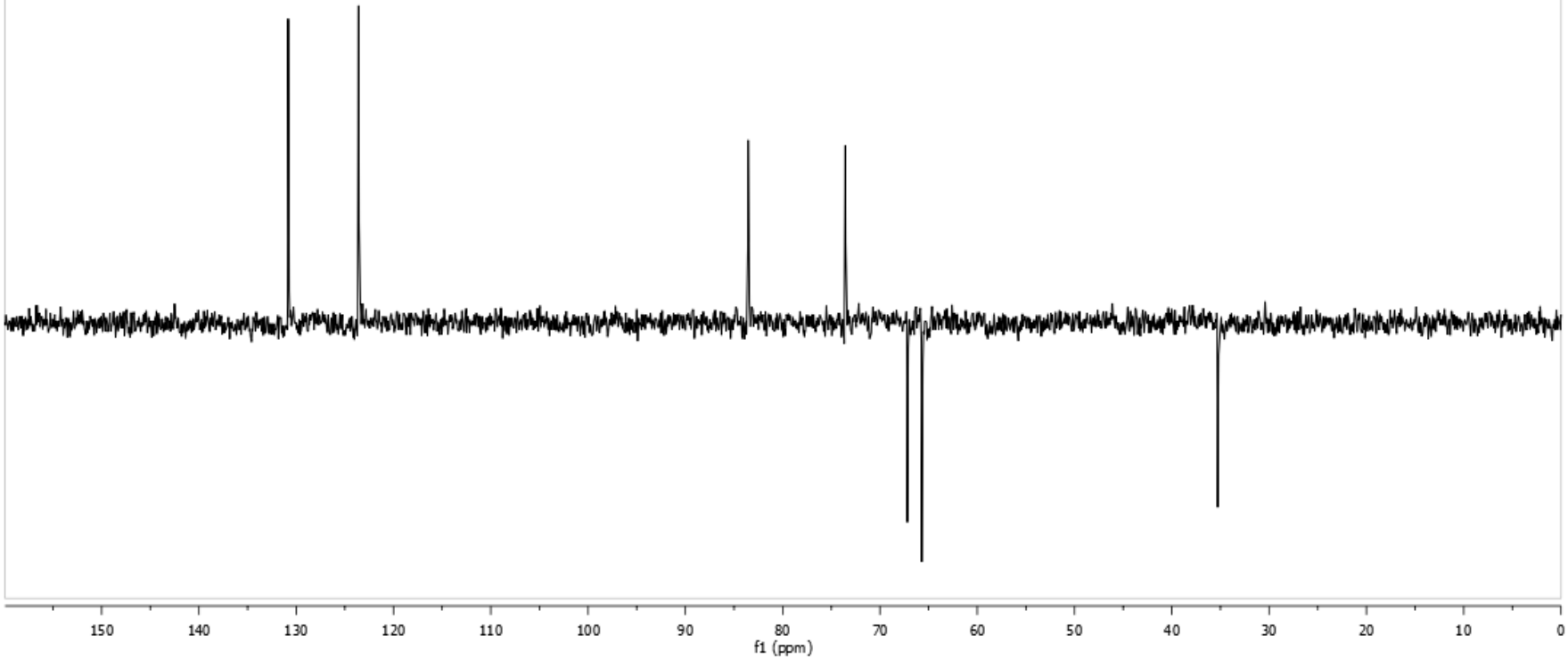


5-*O*-*p*-Nitrobenzoyl-1,2-dideoxy-D-ribose (15d)

DEPT NMR ($CDCl_3$, 75.5 MHz)

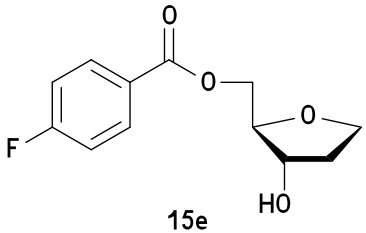


15d

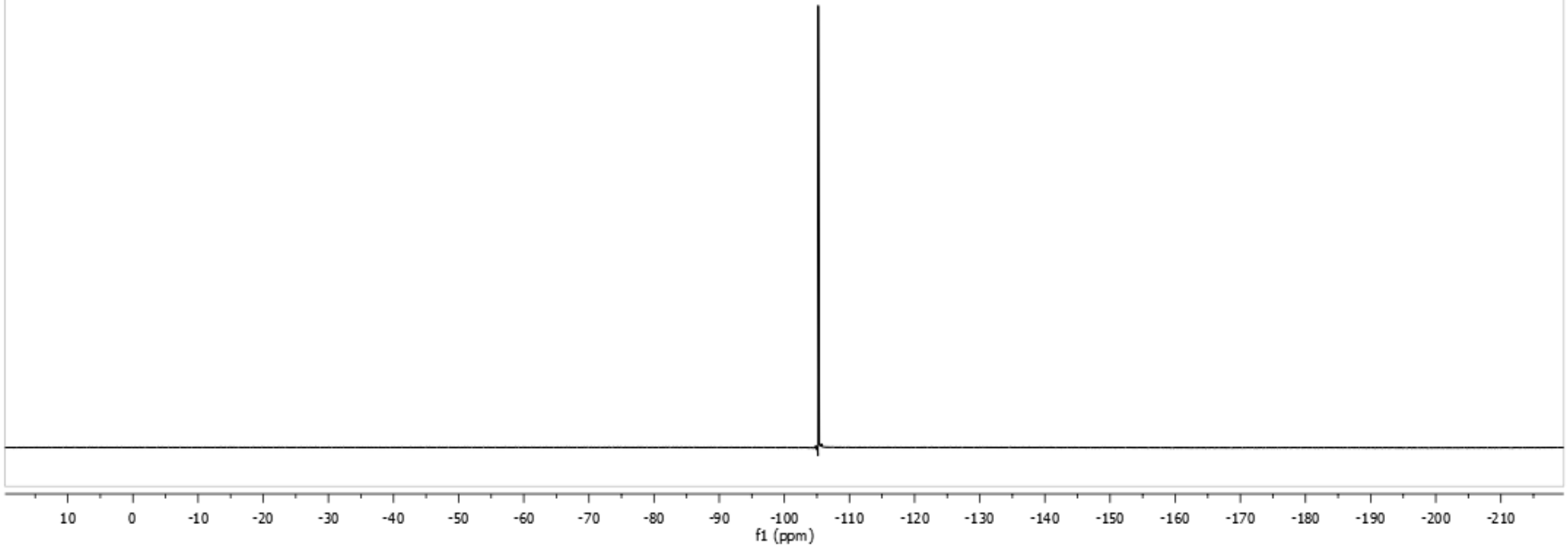


5-*O*-*p*-Fluorobenzoyl-1,2-dideoxy-D-ribose (15e)

^{19}F NMR ($CDCl_3$, 282 MHz)

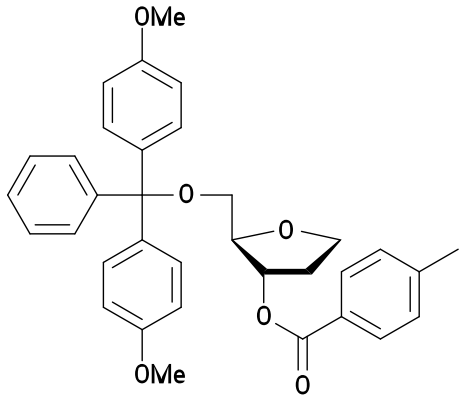


15e



5-*O*-Dimethoxytrityl-3-*O*-toluoyl-1,2-dideoxy-D-ribose (16)

^{1}H NMR (MeOH-d_4, 300.13 MHz)



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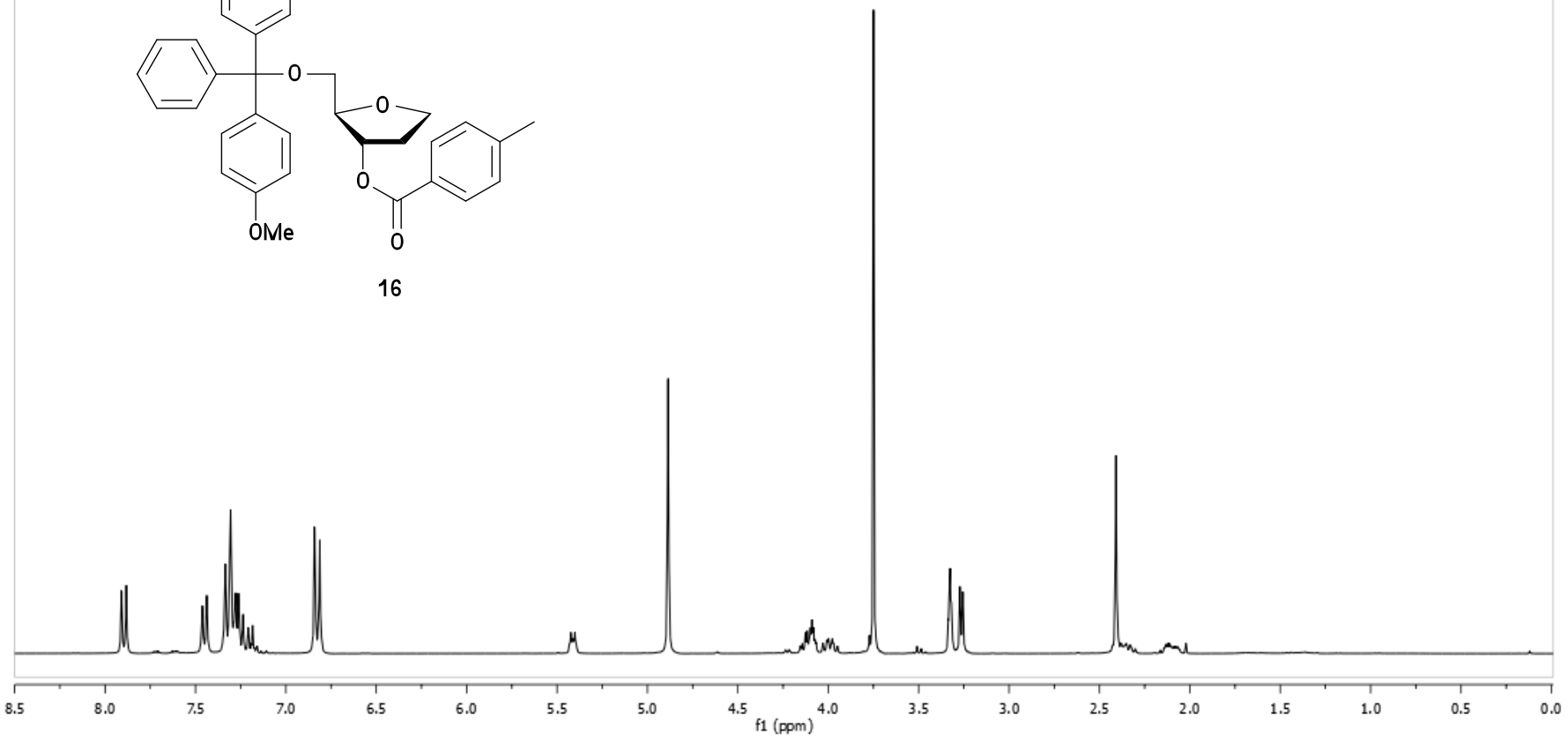
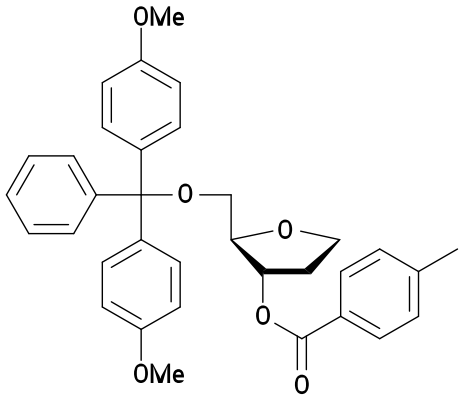


5-*O*-Dimethoxytrityl-3-*O*-toluoyl-1,2-dideoxy-D-ribose (16)

^{13}C NMR (MeOH-d_4, 75.5 MHz)



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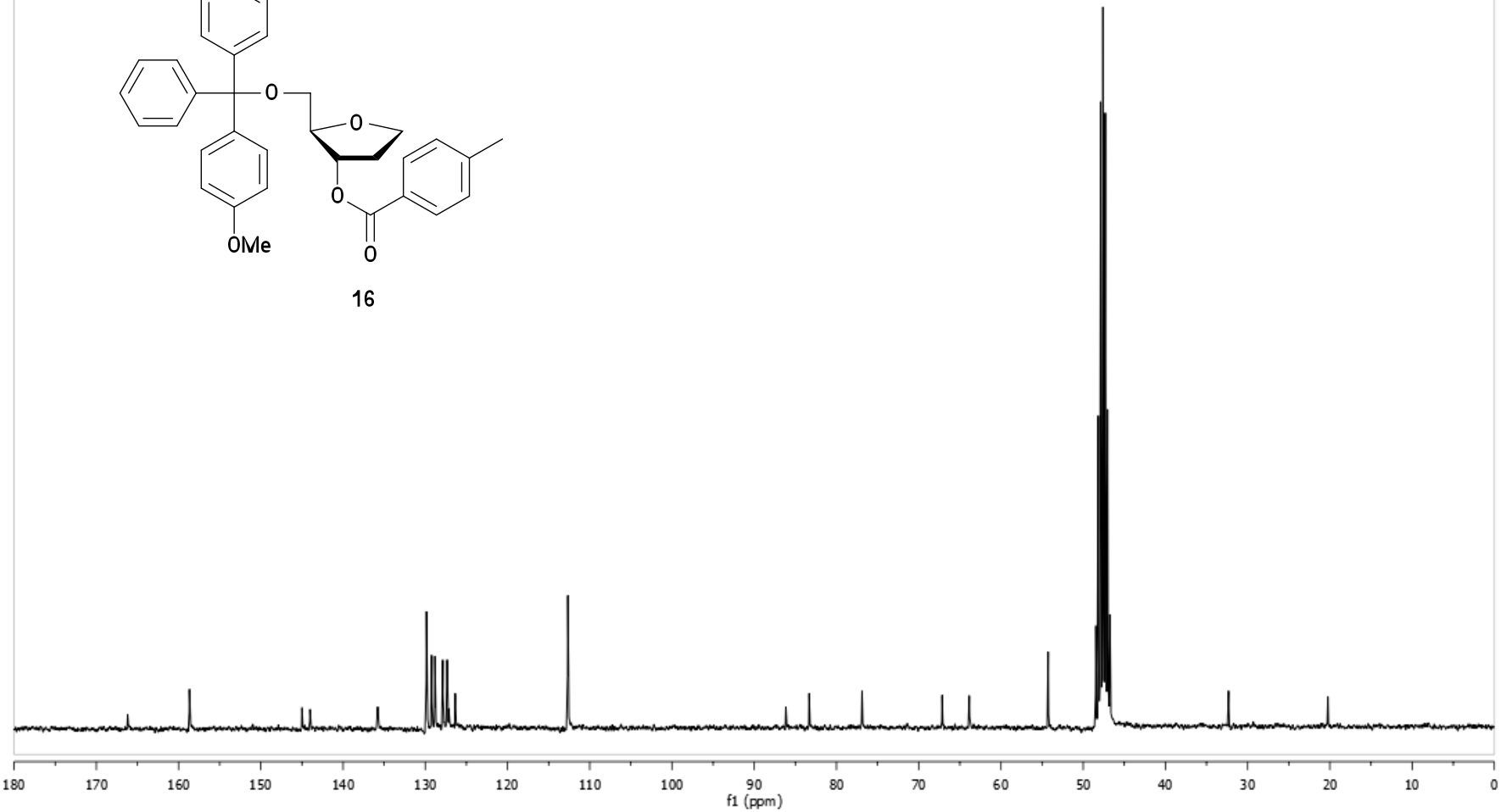
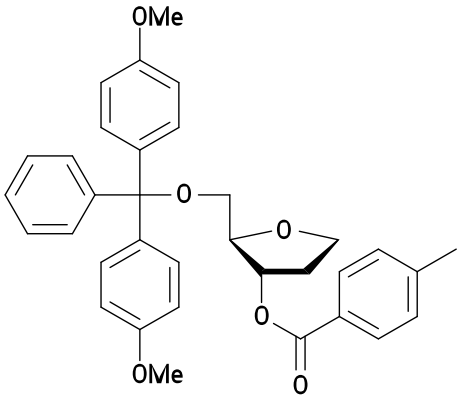


5-*O*-Dimethoxytrityl-3-*O*-toluoyl-1,2-dideoxy-D-ribose (16)

DEPT NMR (MeOH-d_4, 75.5 MHz)



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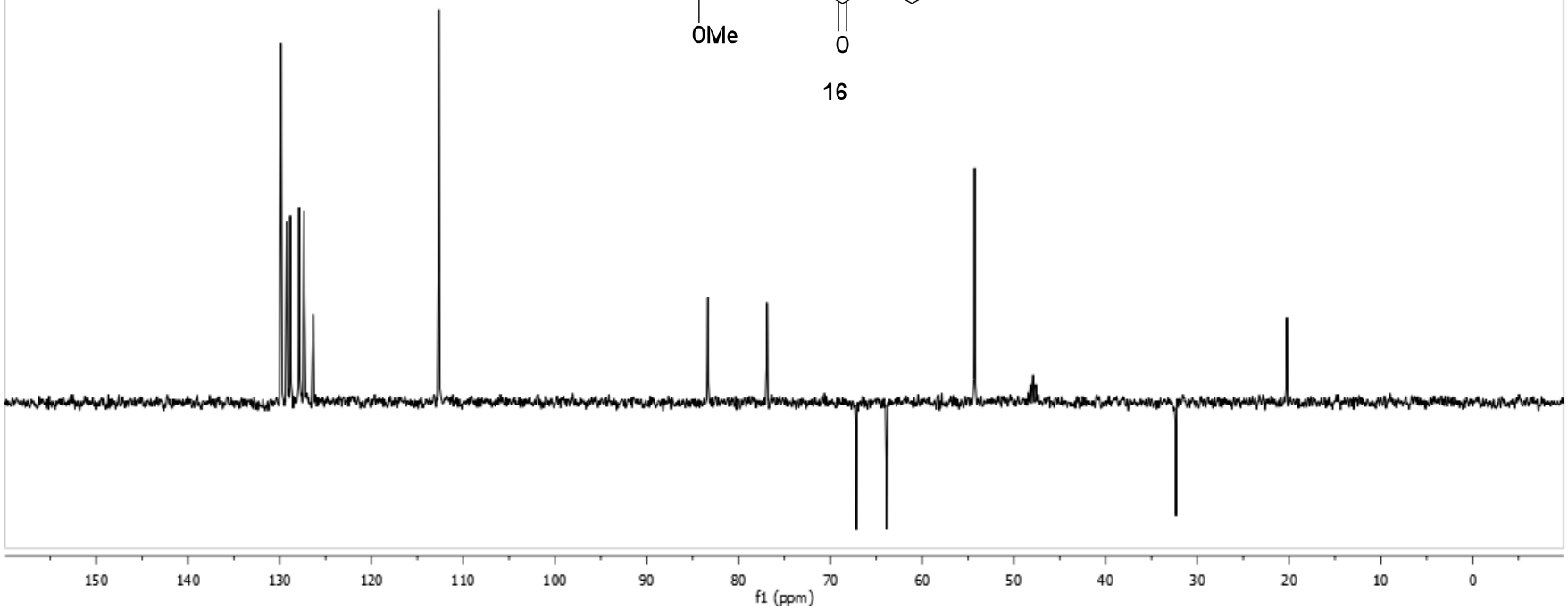
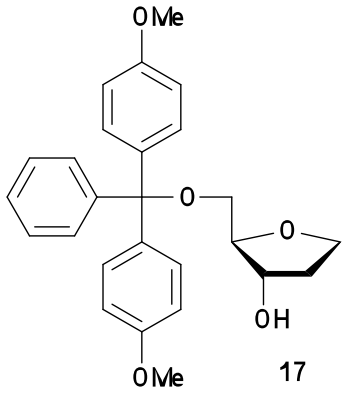


5-*O*-Dimethoxytrityl-1,2-dideoxy-D-ribose (17)

^{1}H NMR (MeOH-d_4, 300.13 MHz)



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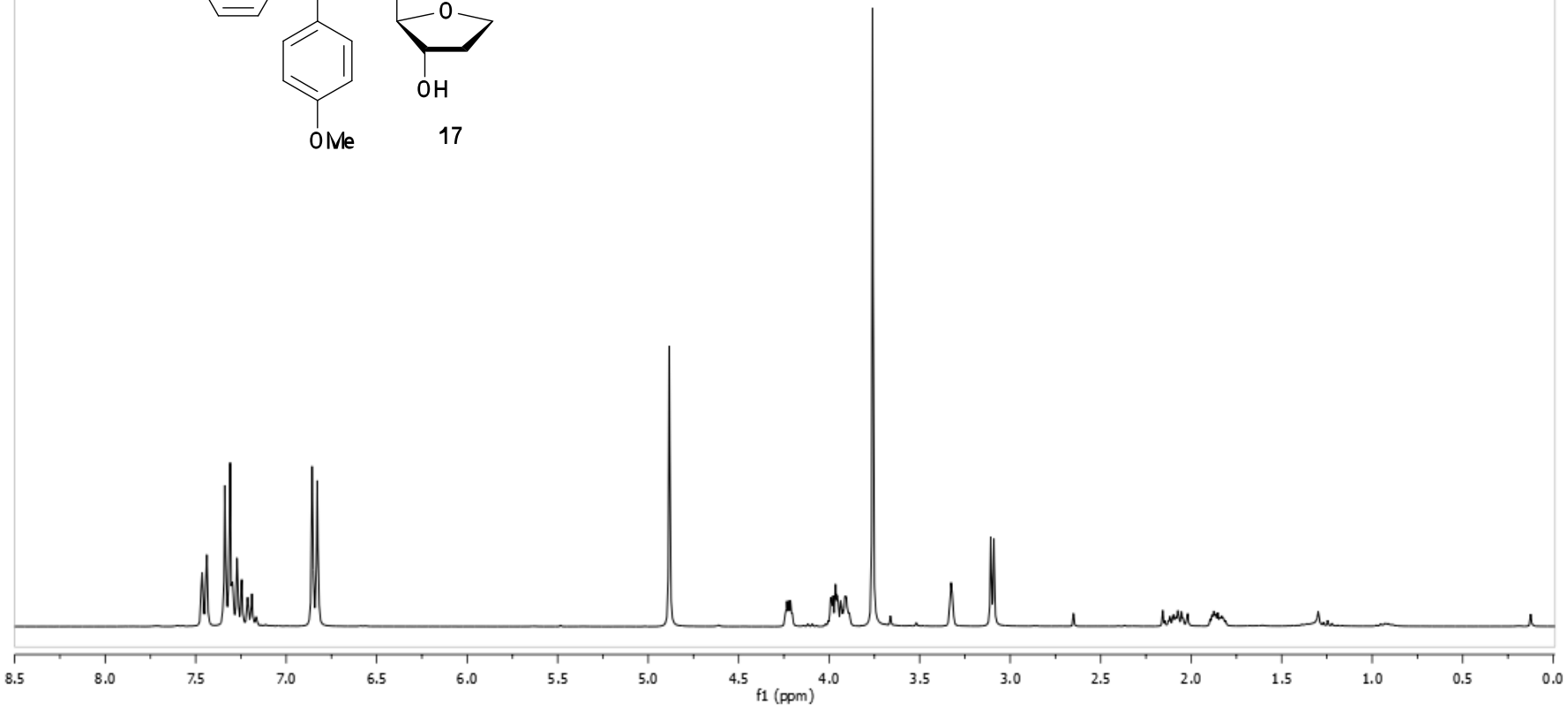
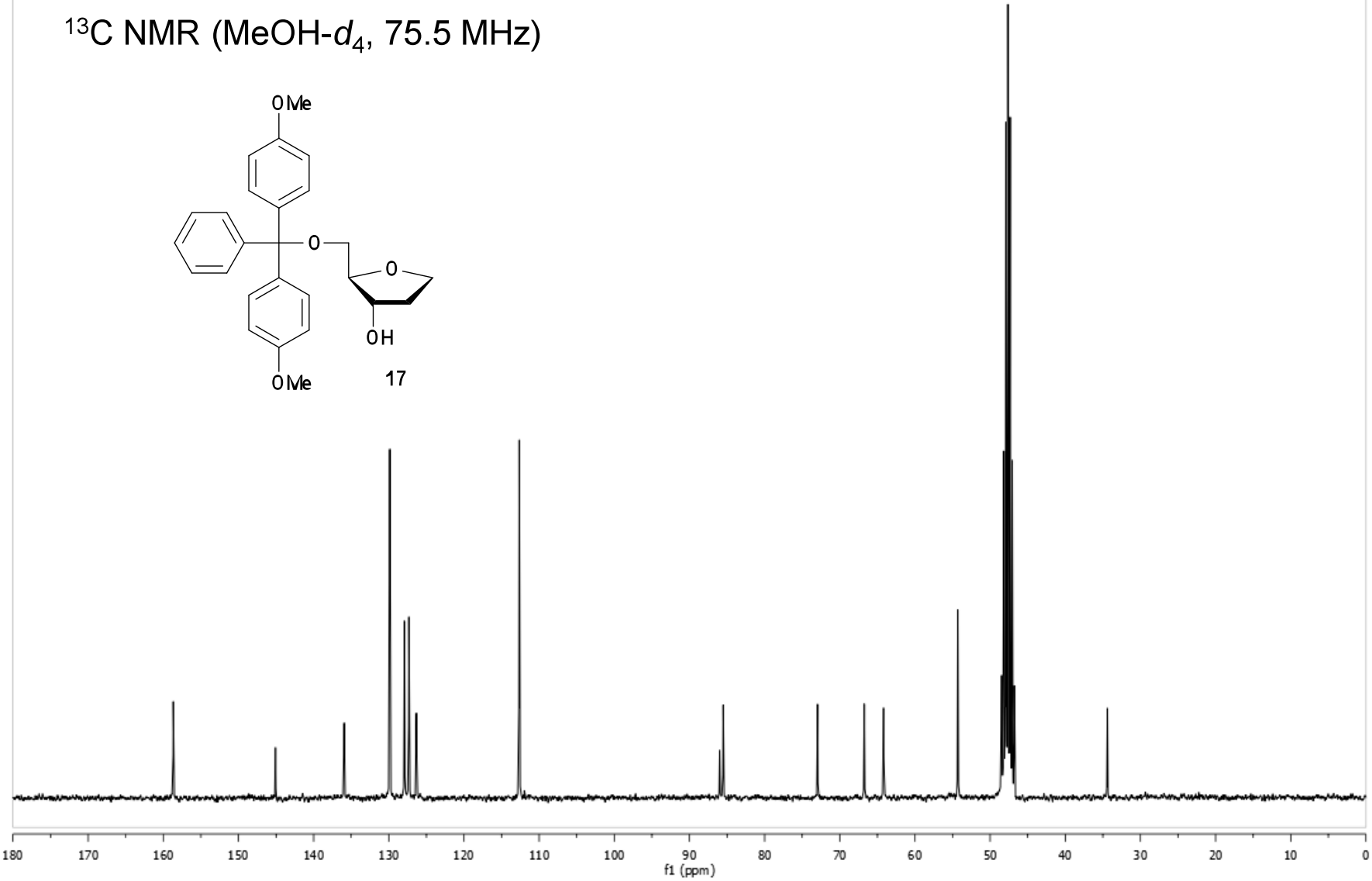


5-*O*-Dimethoxytrityl-1,2-dideoxy-D-ribose (17)

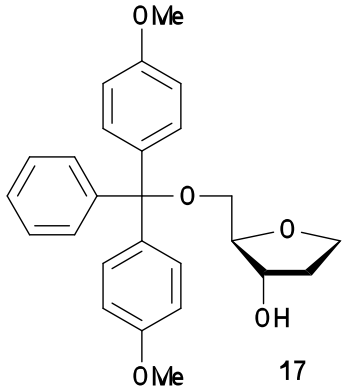
^{13}C NMR (MeOH-d_4, 75.5 MHz)

17



5-*O*-Dimethoxytrityl-1,2-dideoxy-D-ribose (17)

DEPT NMR (MeOH-d_4, 75.5 MHz)



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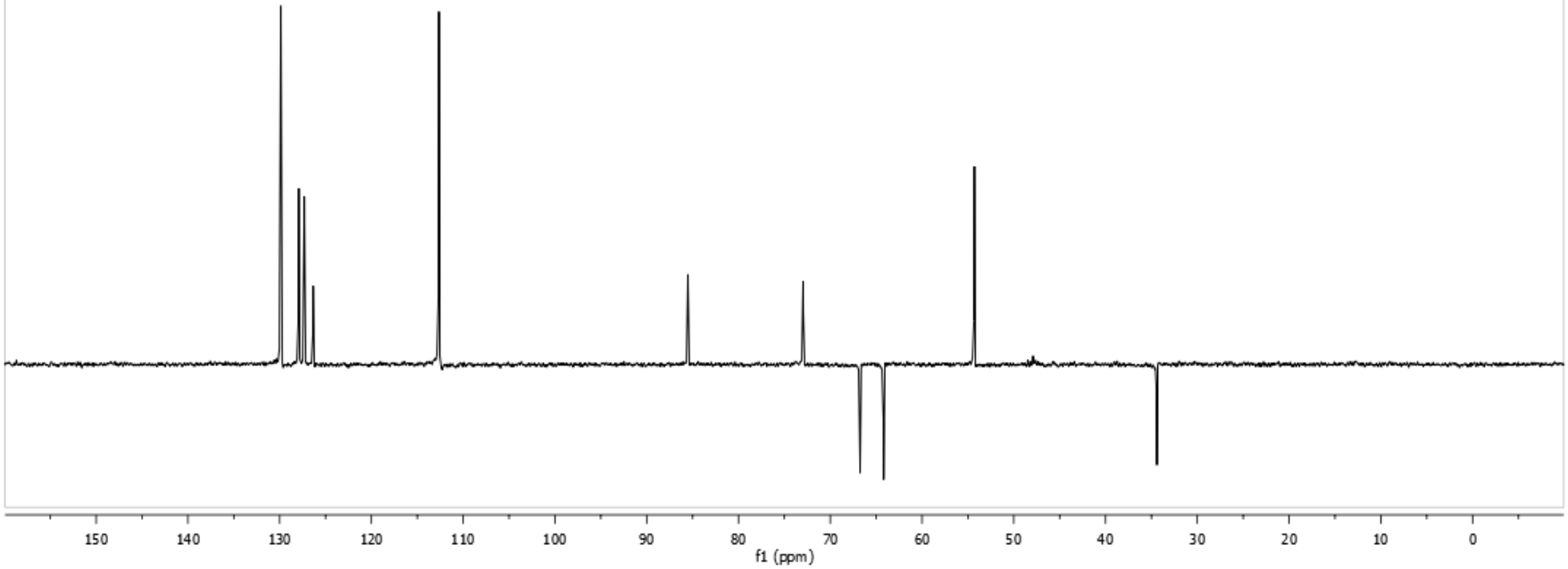
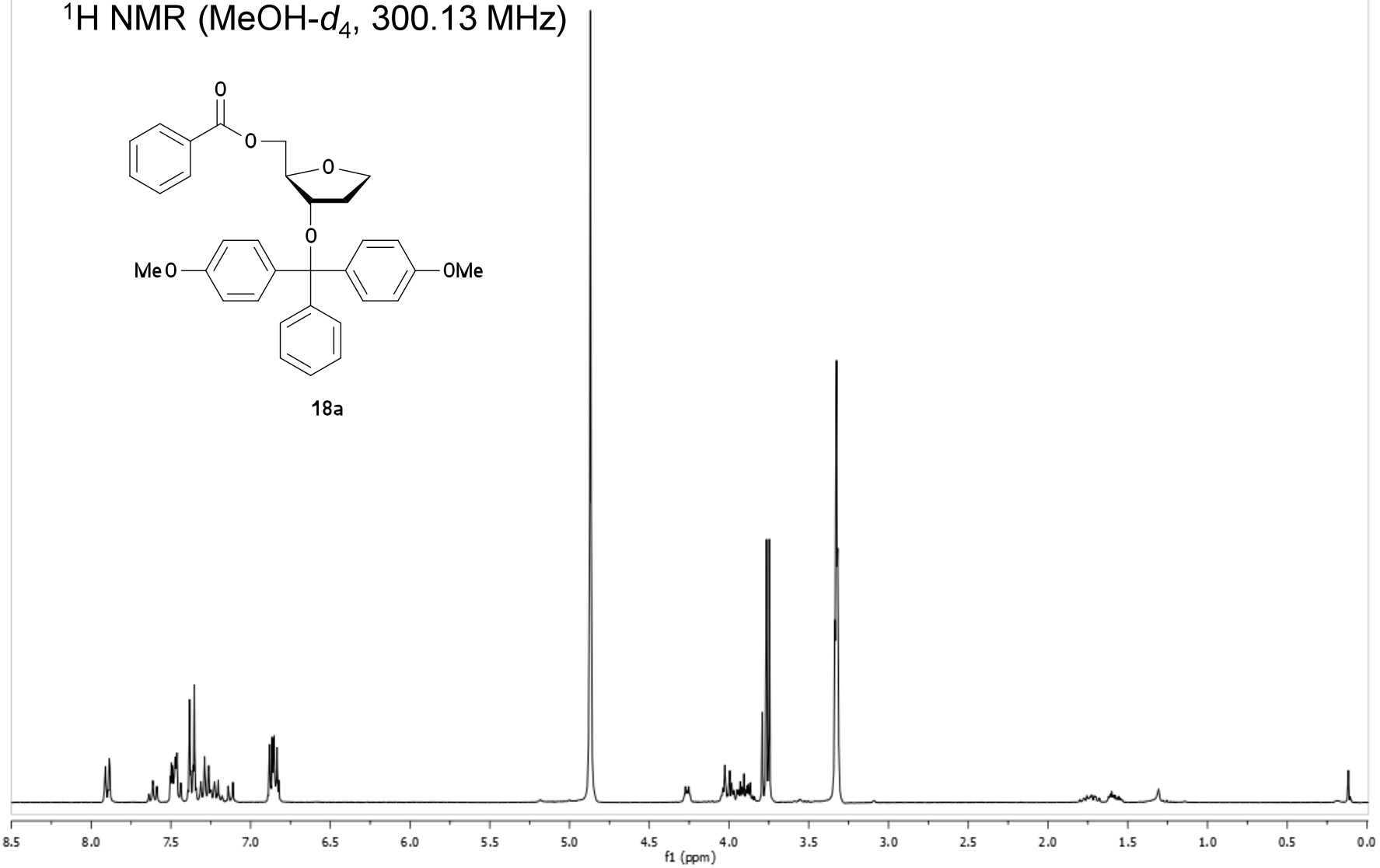


5-*O*-Benzoyl-3-*O*-dimethoxytrityl-1,2-dideoxy-D-ribose (18a)

^{1}H NMR (MeOH-d_4, 300.13 MHz)

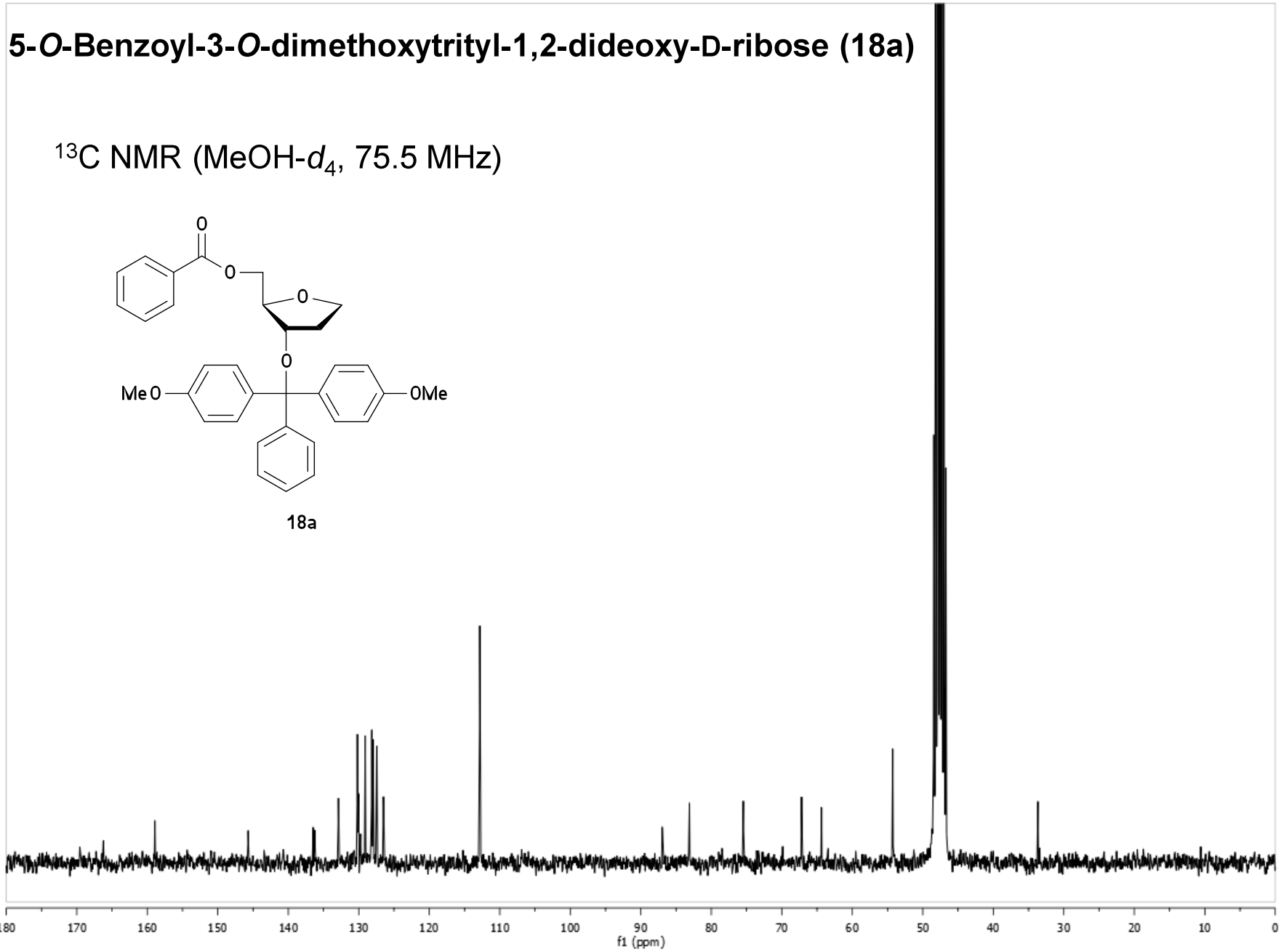
18a



5-*O*-Benzoyl-3-*O*-dimethoxytrityl-1,2-dideoxy-D-ribose (18a)

^{13}C NMR (MeOH-d_4, 75.5 MHz)

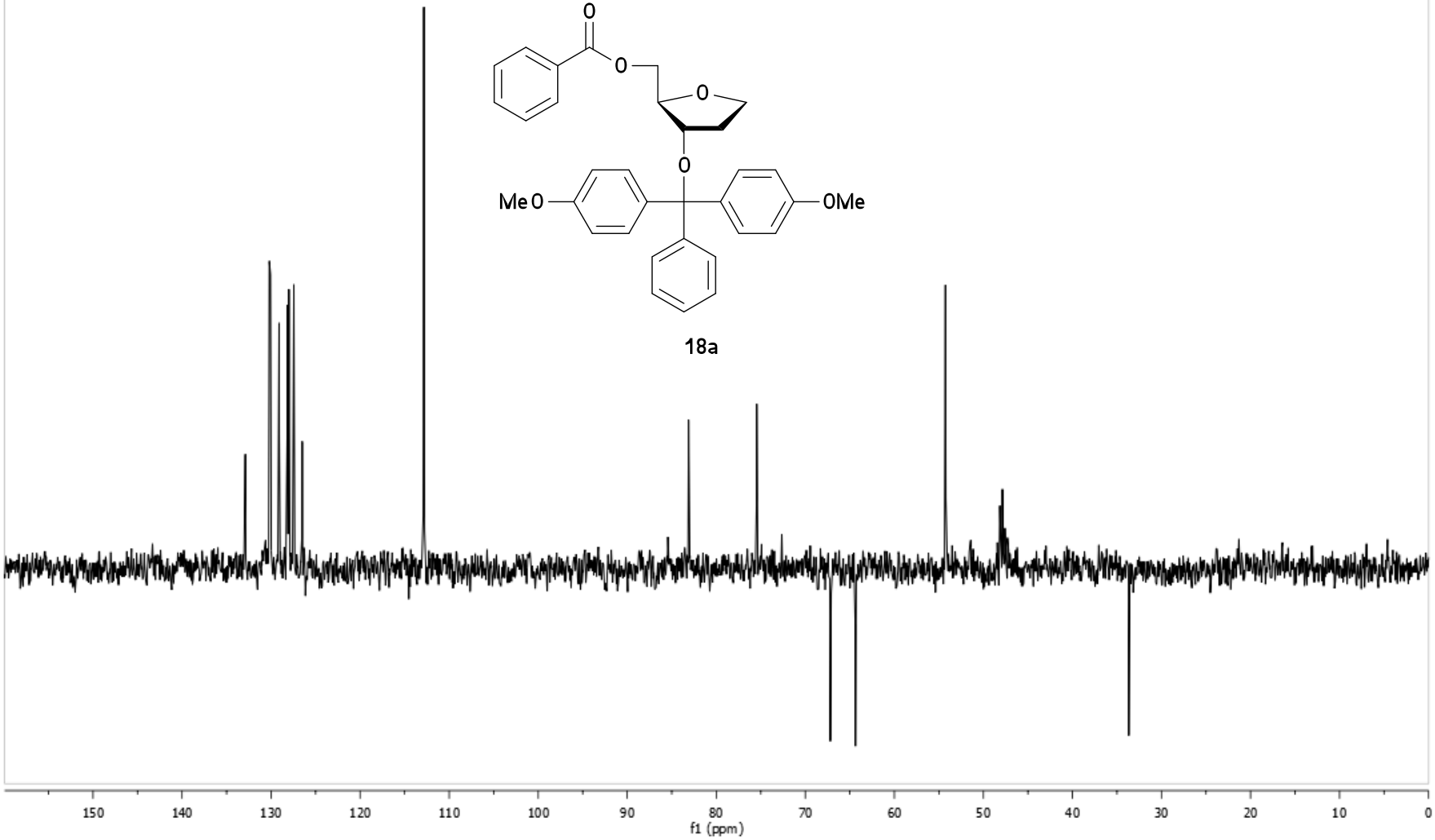
18a



5-*O*-Benzoyl-3-*O*-dimethoxytrityl-1,2-dideoxy-D-ribose (18a)

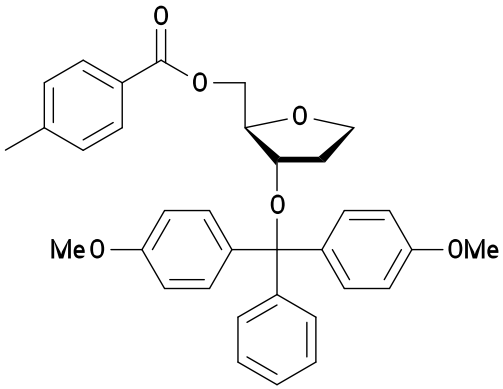
DEPT NMR (MeOH-d_4, 75.5 MHz)

18a

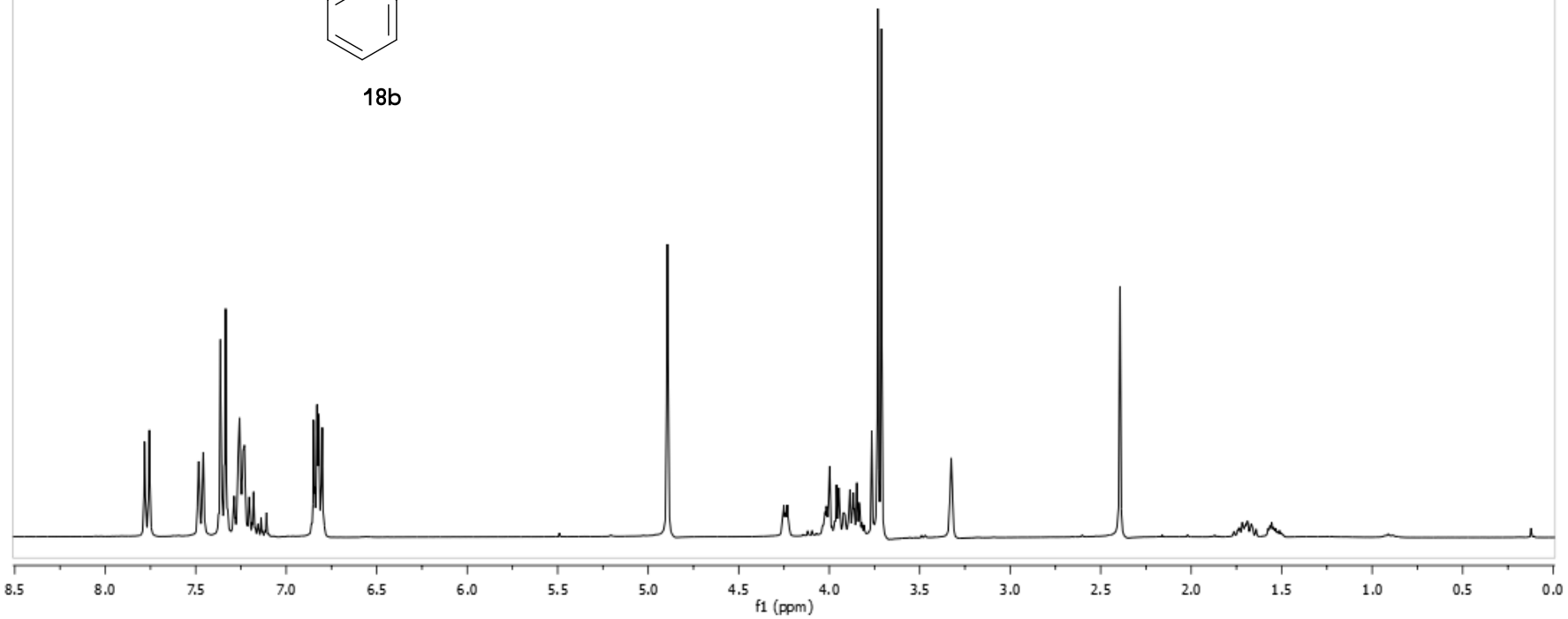


3-*O*-Dimethoxytrityl-5-*O*-toluoyl-1,2-dideoxy-D-ribose (18b)

^{1}H NMR (MeOH-d_4, 300.13 MHz)



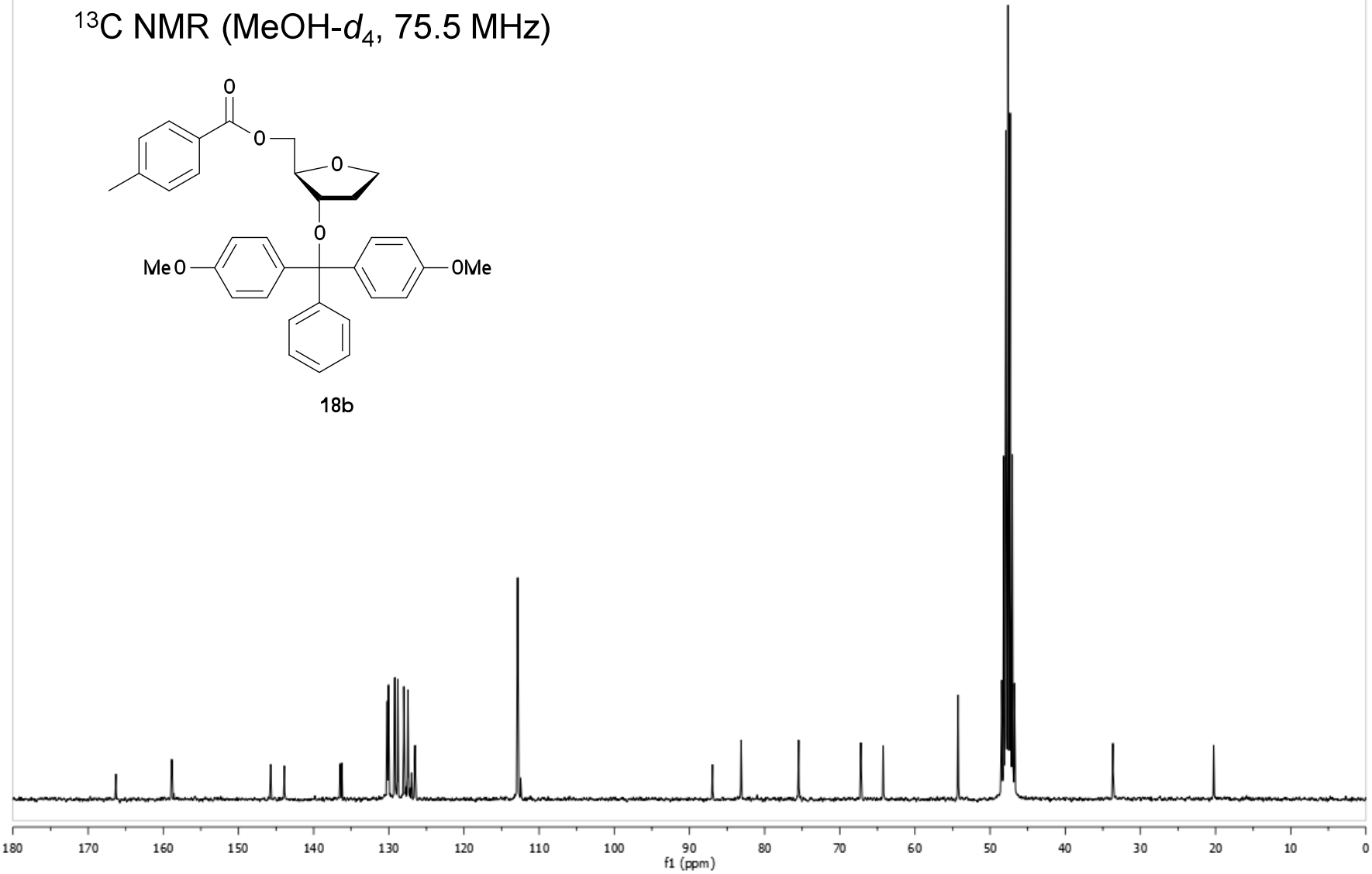
18b



3-*O*-Dimethoxytrityl-5-*O*-toluoyl-1,2-dideoxy-D-ribose (18b)

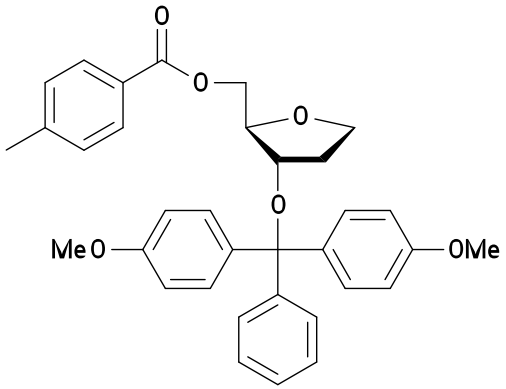
^{13}C NMR (MeOH-d_4, 75.5 MHz)

18b

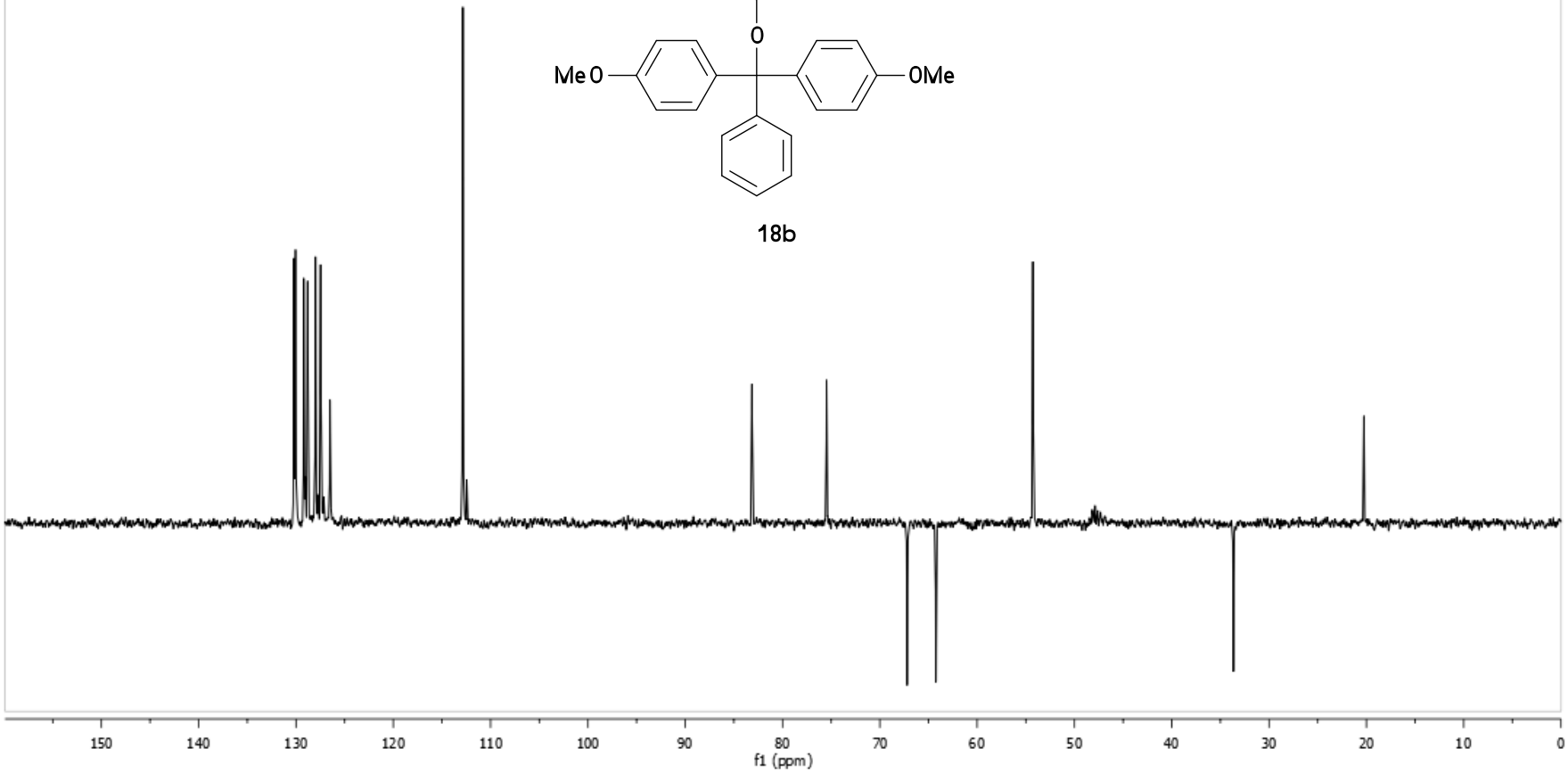


3-*O*-Dimethoxytrityl-5-*O*-toluoyl-1,2-dideoxy-D-ribose (18b)

DEPT NMR (MeOH-d_4, 75.5 MHz)

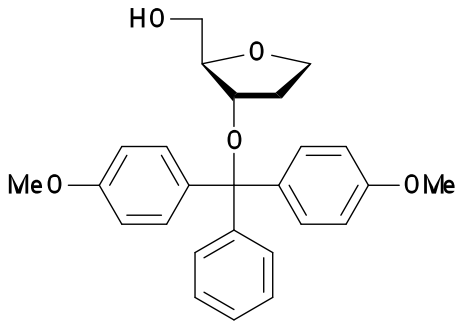


18b



3-*O*-Dimethoxytrityl-1,2-dideoxy-D-ribose (19)

^{1}H NMR (MeOH-d_4, 300.13 MHz)



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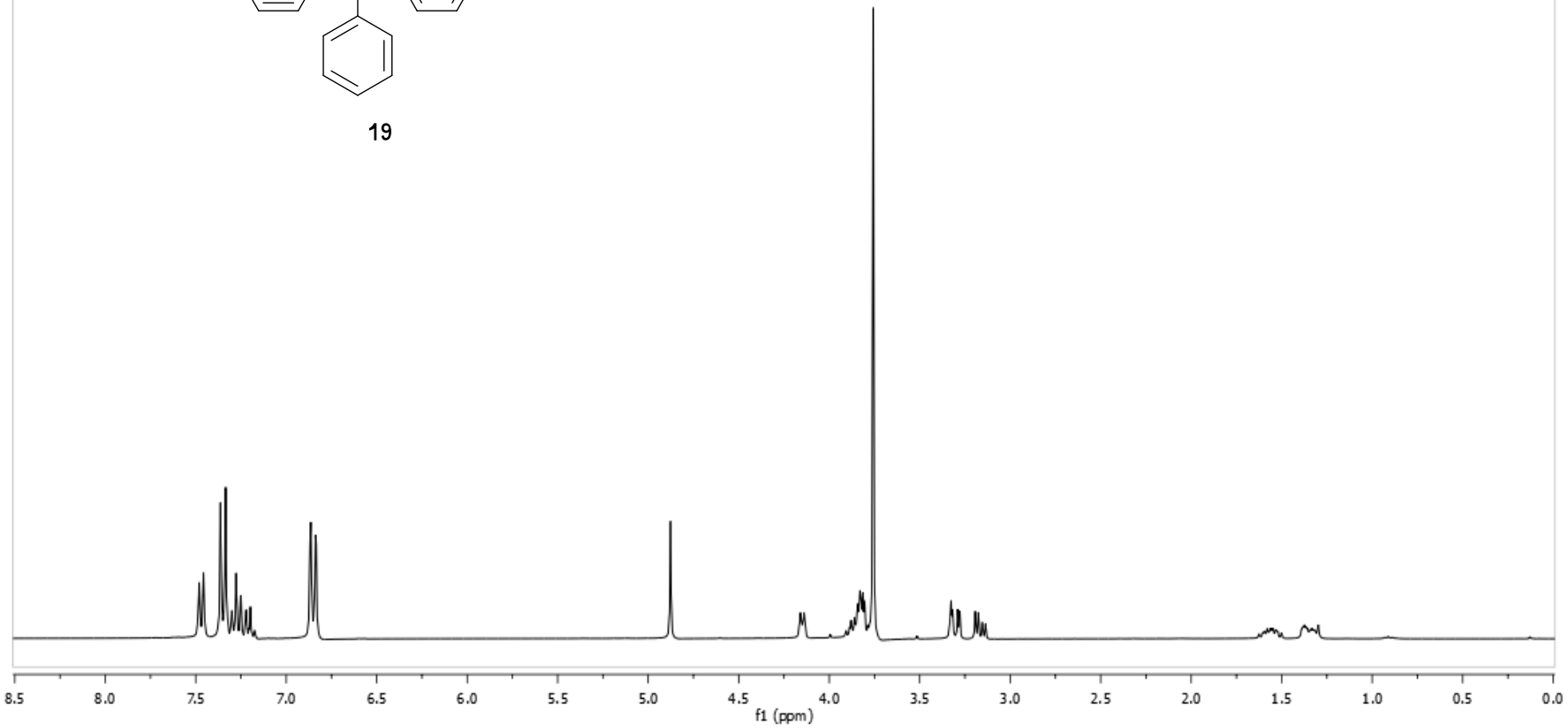
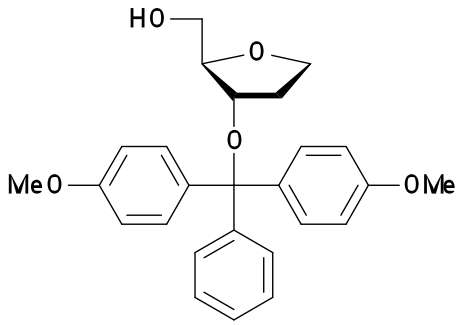


3-*O*-Dimethoxytrityl-1,2-dideoxy-D-ribose (19)

^{13}C NMR (MeOH-d_4, 75.5 MHz)



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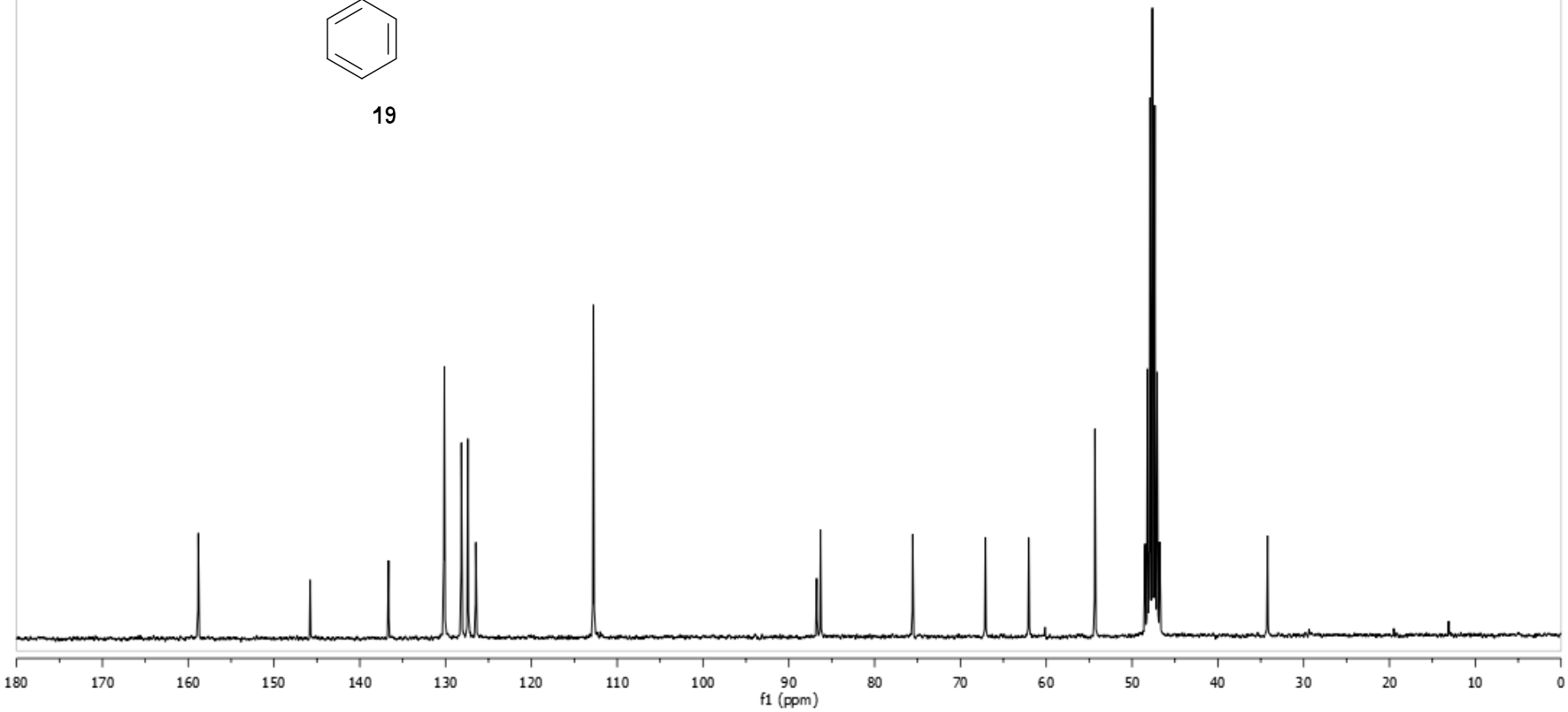
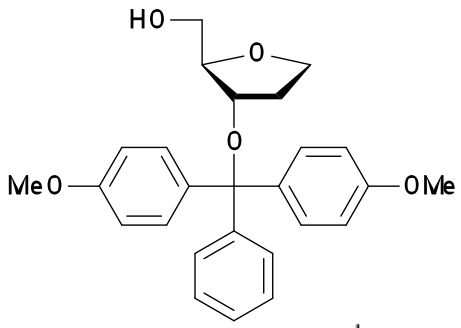


3-*O*-Dimethoxytrityl-1,2-dideoxy-D-ribose (19)

DEPT NMR (MeOH-d_4, 75.5 MHz)



19