SUPPORTING INFORMATION

Influence of the substituents on the opening of silylepoxy alcohols: 5-*exo* cyclization towards tetrahydrofurans *vs* unexpected side reaction leading to tetrahydropyrans

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3.1 X-Ray Crystallographic Data of compound 4e

The crystal structure has been deposited at the Cambridge Crystallographic Date Center and allocated the deposition number CCDC: 2118173. This data can be obtained free of charge from the Cambridge Crystallographic Date Center via www.ccdc.cam.ac.uk/data_request/ci

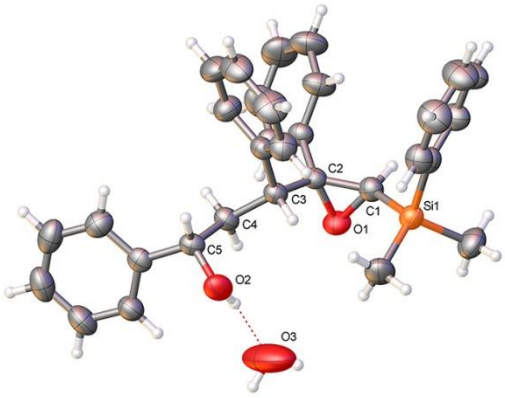


Figure 2. X-ray crystal structure of (1R*, 3S*, 4S*, 5S*)-4,5-epoxy-5-dimethyl(phenyl)silyl-1,3,4-triphenyl-pentan-1-ol **4e**

Experimental

Single crystals of $C_{31}H_{34}O_3Si$ (**4e**) were plates. A suitable crystal was selected and kept at 296.15 K during data collection. Using Olex2, the structure was solved with the ShelXT structure solution program using Direct Methods and refined with the ShelXL refinement package using Least Squares minimization.

X-Ray crystallographic data of **4e** (Figure 2). Crystal data and structure refinement for **4e**

Bond precision: C-C = 0.0029 A Wavelength=1.54184

Cell: a=9.31052(11) b=18.41150(17) c=16.27509(14)
alpha=90 beta=97.2884(9) gamma=90
Temperature: 296 K

	Calculated	Reported Volume
	2767.35(5)	2767.35(5)
Space group	P 21/n	P 1 21/n 1
Hall group	-P 2yn	-P 2yn
Moiety formula	C31 H32 O2 Si, H2 O	C31 H32 O2 Si, H2 O Sum
formula	C31 H34 O3 Si	C31 H34 O3 Si
Mr	482.67	482.67
Dx,g cm-3	1.158	1.159
Z	4	4
Mu (mm-1)	0.967	0.967
F000	1032.0	1032.0
F000'	1035.73	
h,k,lmax	11,23,20	11,23,20
Nref	5686	5634
Tmin,Tmax	0.612,0.722	0.818,0.888
Tmin'	0.541	

Correction method= # Reported T Limits: Tmin=0.818 Tmax=0.888
AbsCorr = GAUSSIAN

Data completeness= 0.991 Theta(max)= 74.811

R(reflections)= 0.0577(4945) wR2(reflections)= 0.1696(5634)

S = 1.040 Npar= 323

3.2 X-Ray Crystallographic Data of compound 9

The crystal structure has been deposited at the Cambridge Crystallographic Date Center and allocated the deposition number CCDC: 2118174. This data can be obtained free of charge from the Cambridge Crystallographic Date Center via www.ccdc.cam.ac.uk/data_request/ci

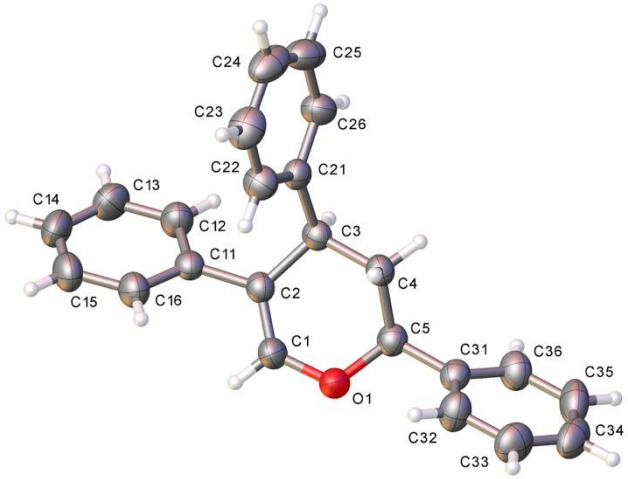


Figure 3. X-ray crystal structure of (2R*,4S*)-2,4,5-triphenyl-3,4-dihydro-2H-pyran **9**

Experimental

Single crystals of $C_{23}H_{20}O$ (**9**) were plates. A suitable crystal was selected and kept at 298.15 K during data collection. Using Olex2, the structure was solved with the ShelXT structure solution program using Direct Methods and refined with the ShelXL refinement package using Least Squares minimisation.

X-Ray crystallographic data of **9** (Figure 3). Crystal data and structure refinement for **9**

Bond precision: C-C = 0.0023 A Wavelength=0.71073

Cell: a=16.6186(11) b=6.2601(4) c=16.7987(12)
alpha=90 beta=100.025(7) gamma=90
Temperature: 298 K

	Calculated	Reported
Volume	1721.0(2)	1720.9(2)
Space group	P 21/c	P 1 21/c 1
Hall group	-P 2ybc	-P 2ybc
Moiety formula	C23 H20 O	C23 H20 O
Sum formula	C23 H20 O	C23 H20 O
Mr	312.39	312.39
Dx,g cm-3	1.206	1.206
Z	4	4
Mu (mm-1)	0.072	0.072
F000	664.0	664.0
F000'	664.27	
h,k,lmax	23,8,23	22,8,23
Nref	4876	4026
Tmin,Tmax	0.976,0.985	0.981,0.987
Tmin'	0.975	

Correction method= # Reported T Limits: Tmin=0.981 Tmax=0.987 AbsCorr = GAUSSIAN

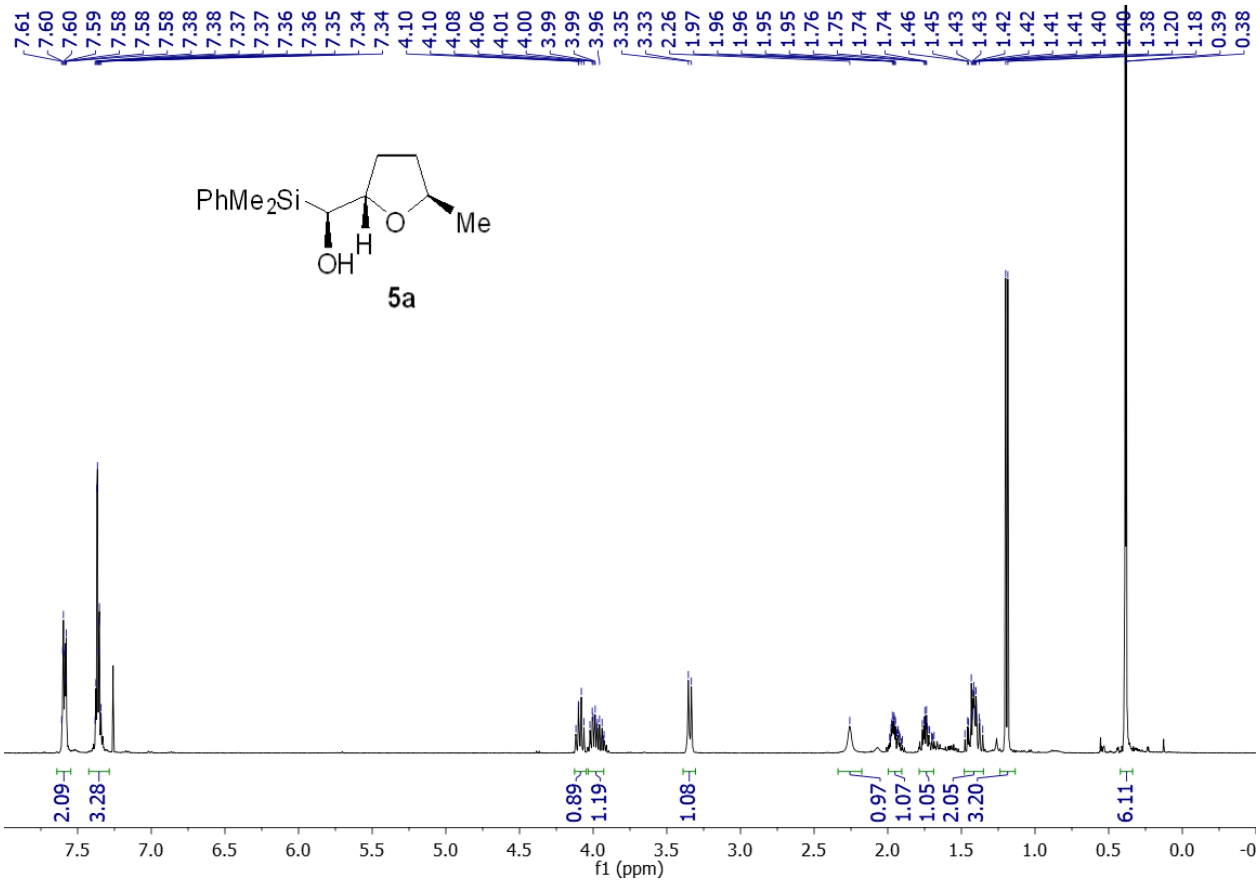
Data completeness= 0.826 Theta(max)= 29.698

R(reflections)= 0.0479(2752) wR2(reflections)= 0.1192(4026)

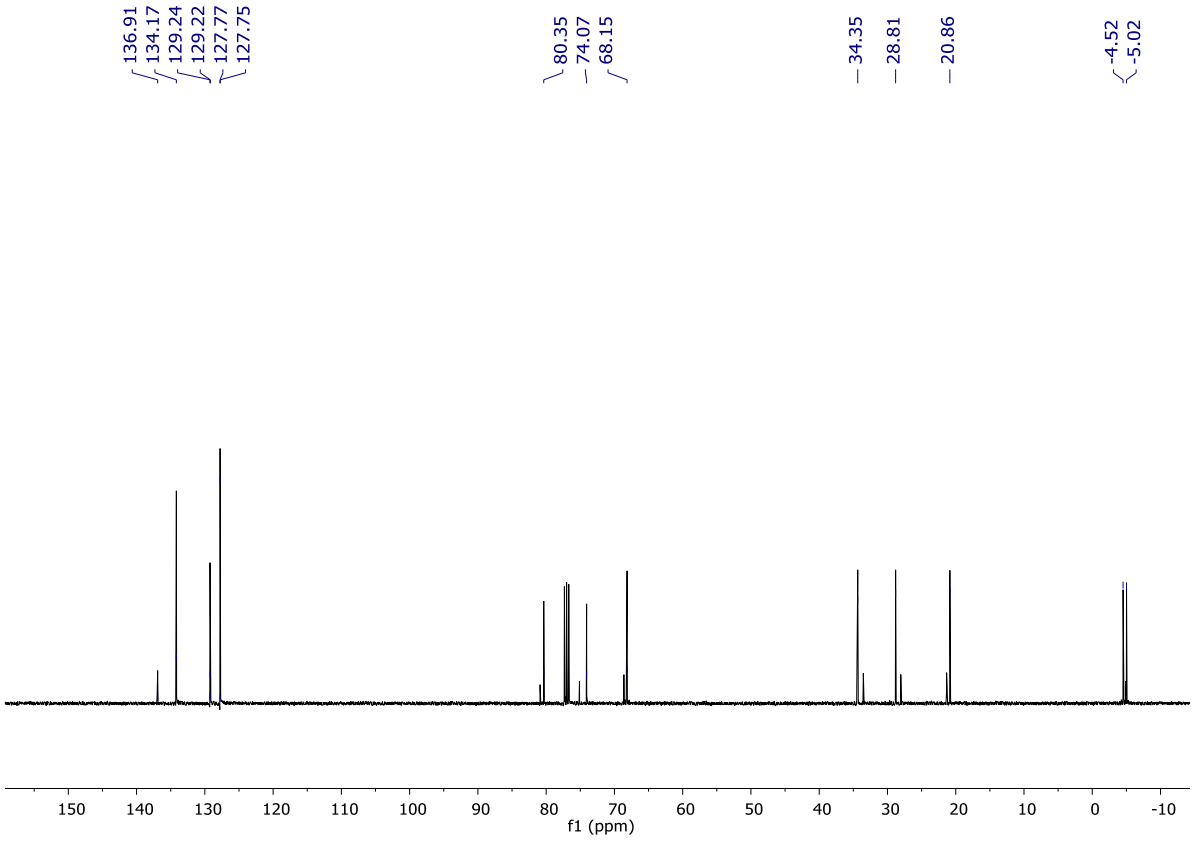
S = 1.023 Npar= 218

4. NMR spectra of compounds

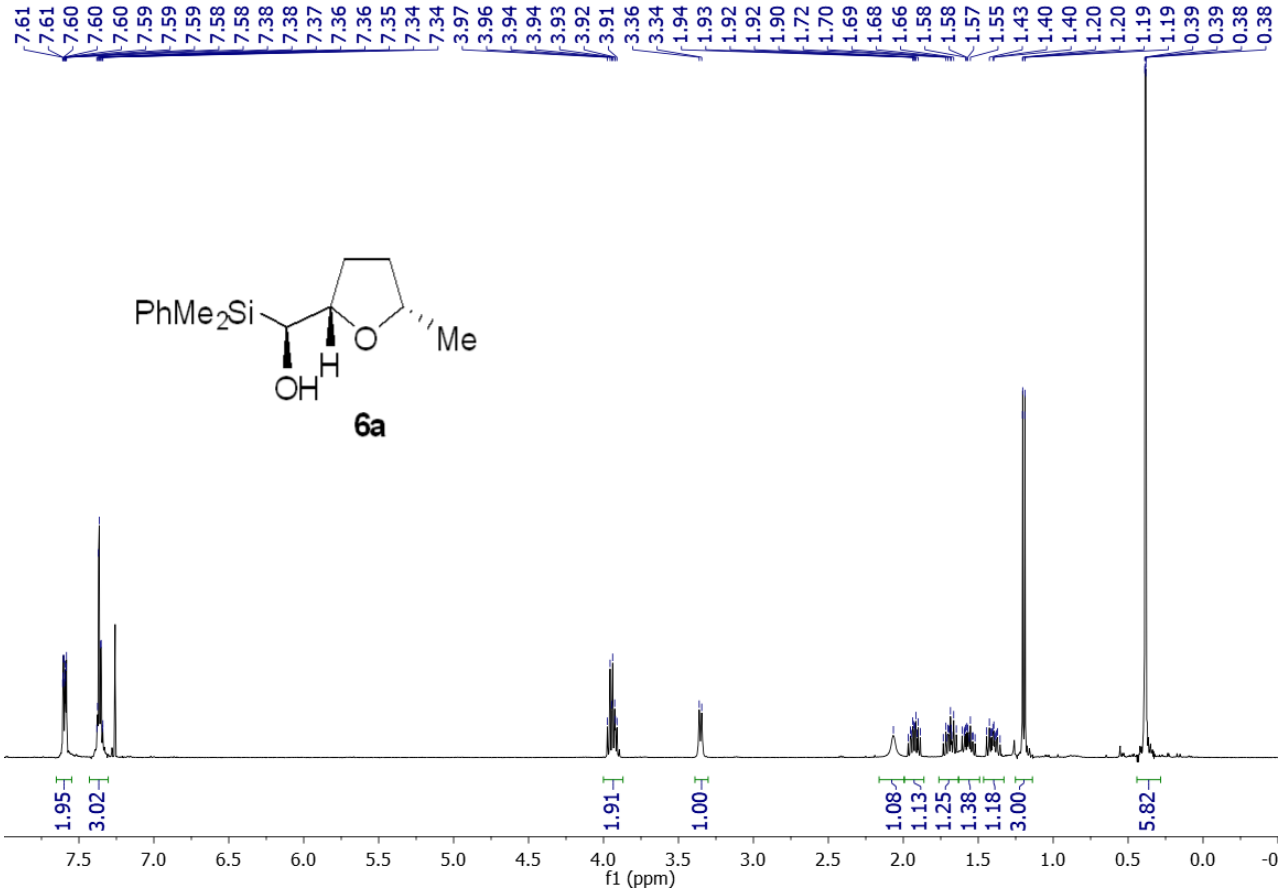
^{1}H NMR (400 MHz, $CDCl_3$)



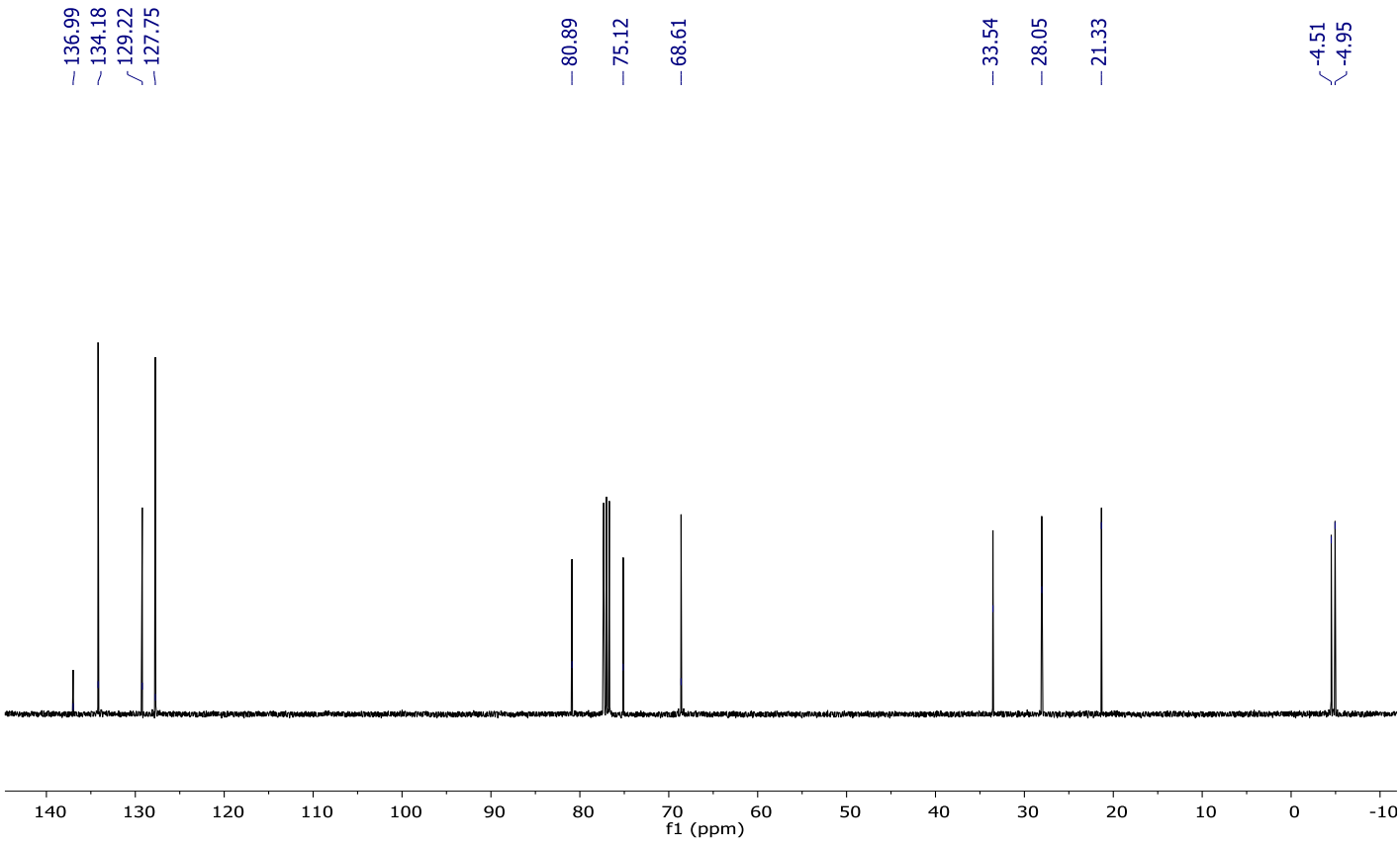
^{13}C NMR (101 MHz, $CDCl_3$)



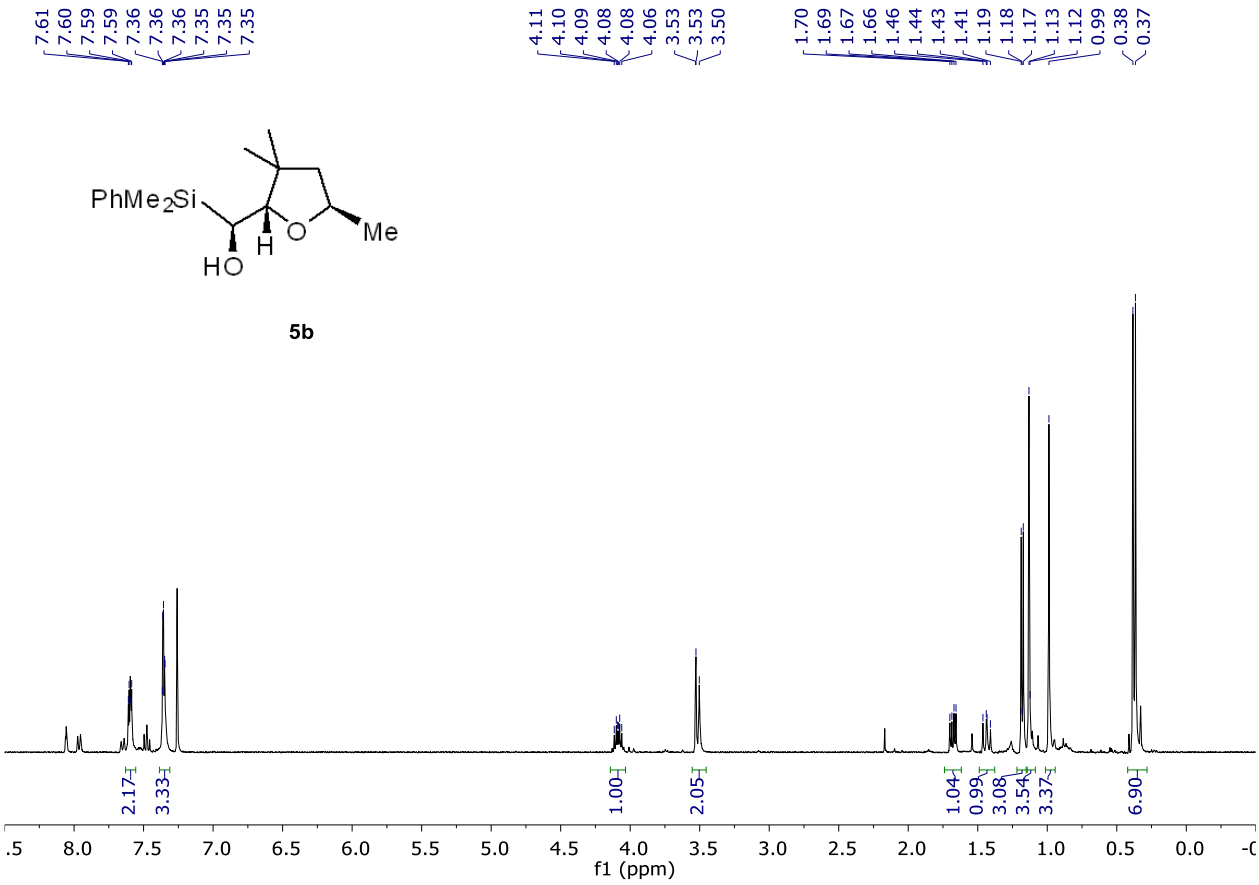
^{1}H NMR (400 MHz, $CDCl_3$)



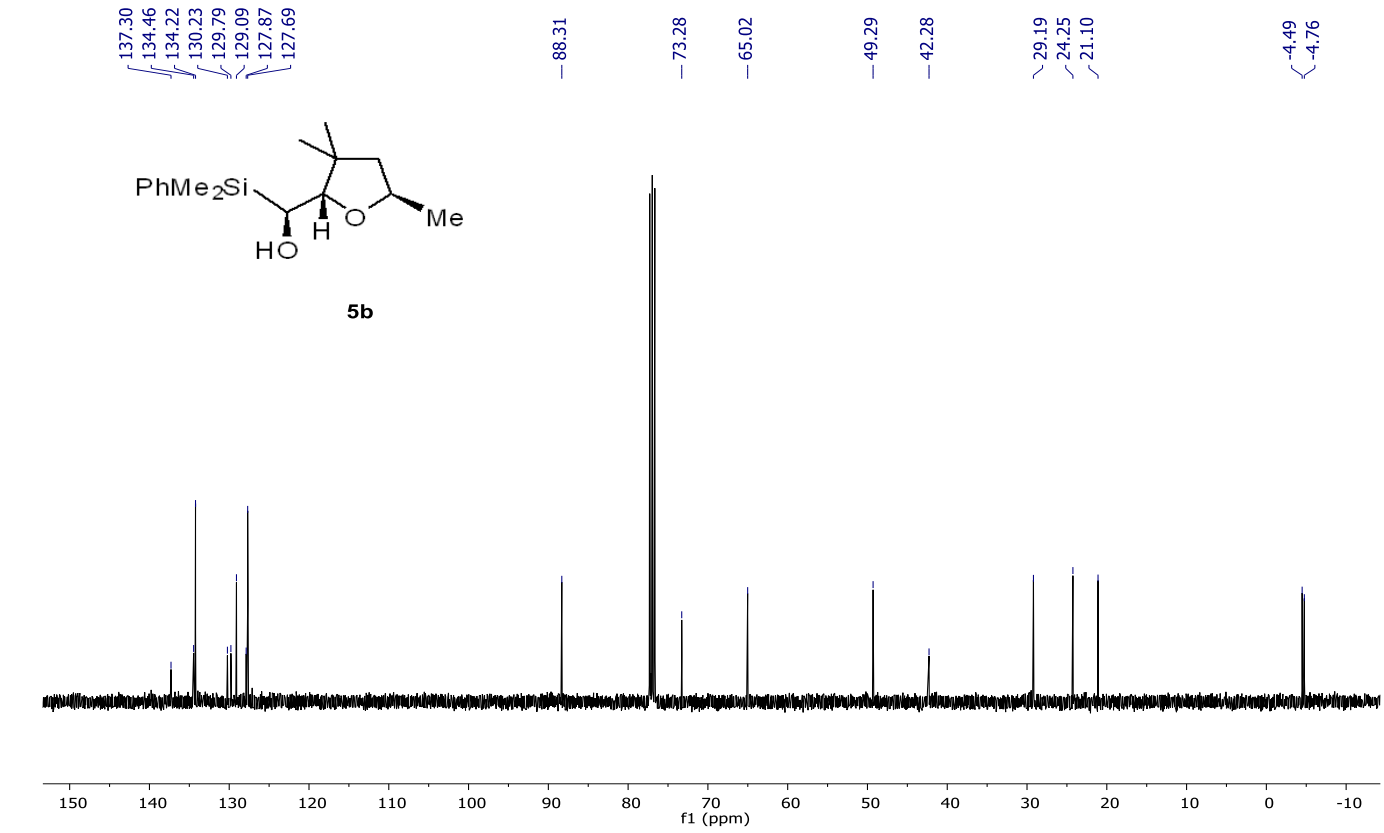
^{13}C NMR (101 MHz, $CDCl_3$)



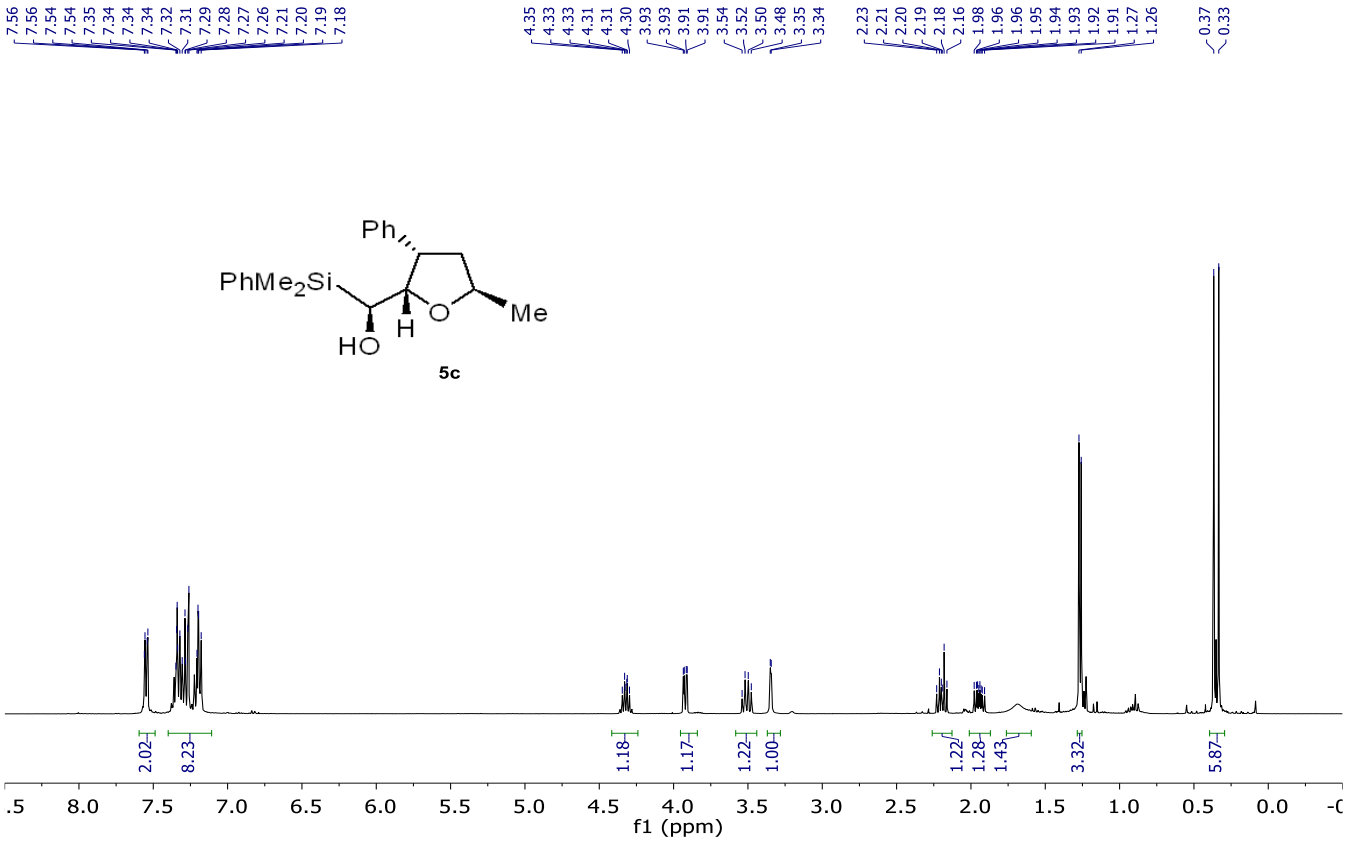
^{1}H NMR (400 MHz, $CDCl_3$)



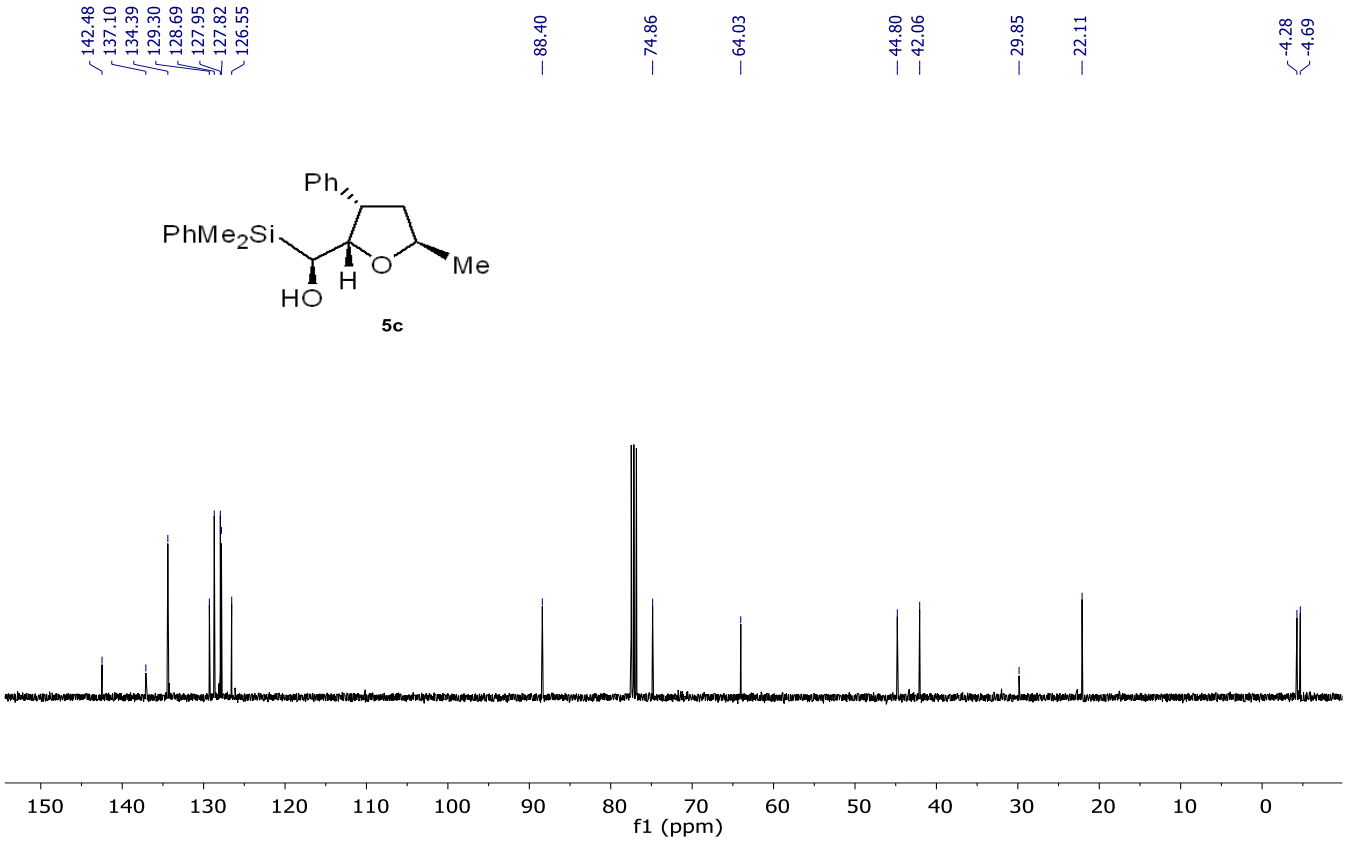
^{13}C NMR (101 MHz, $CDCl_3$)



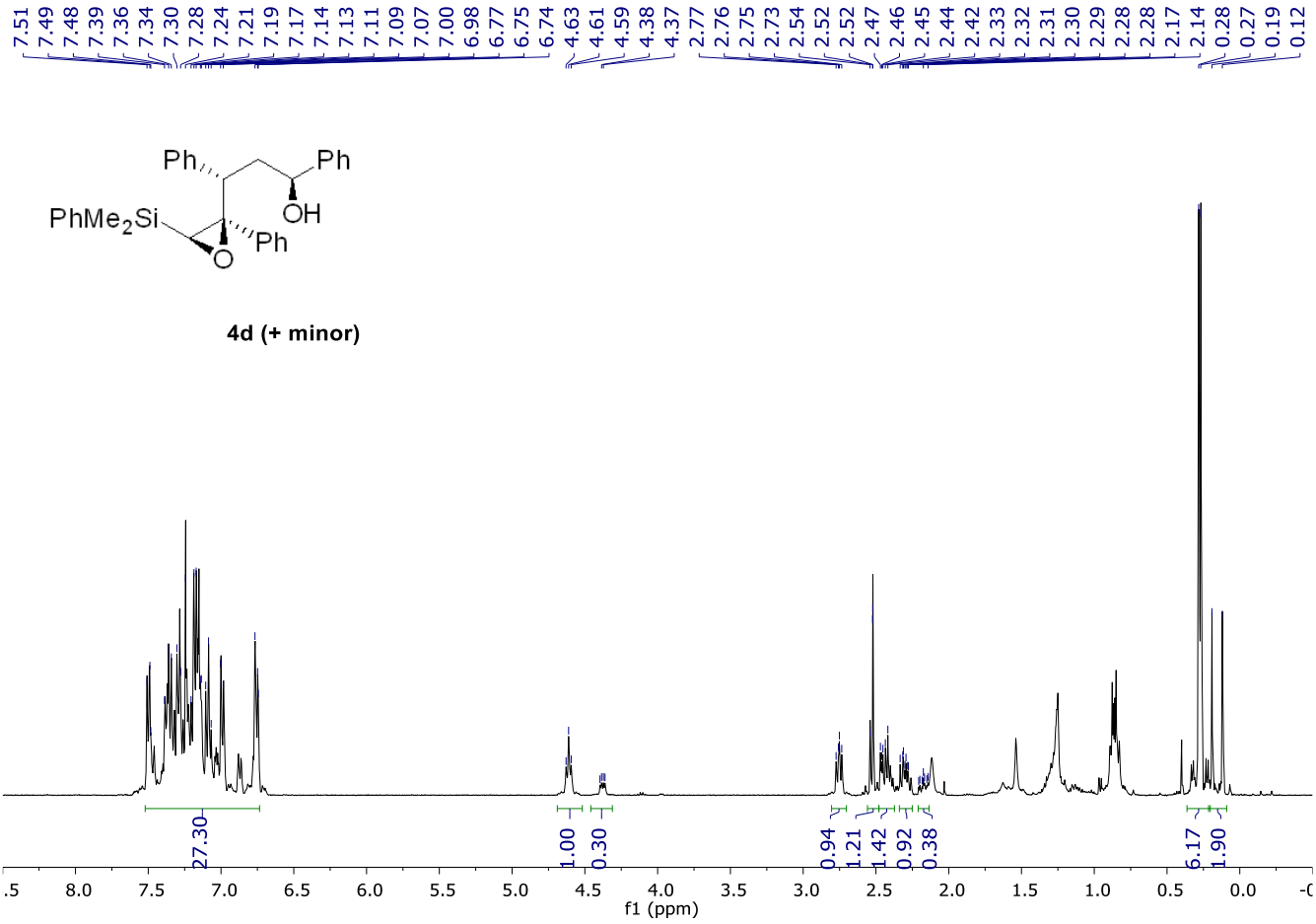
^{1}H NMR (400 MHz, $CDCl_3$)



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



^{1}H NMR (400 MHz, $CDCl_3$)



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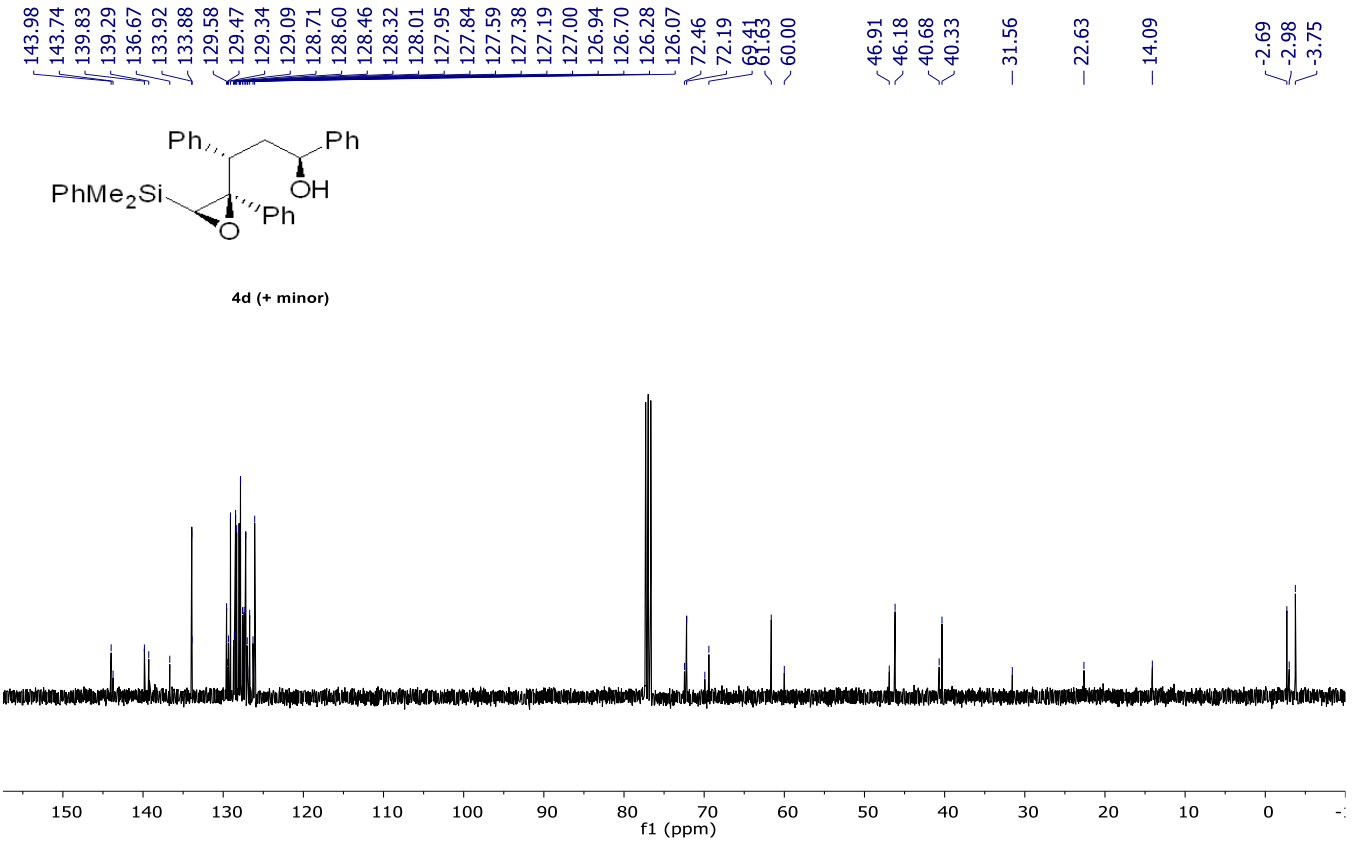
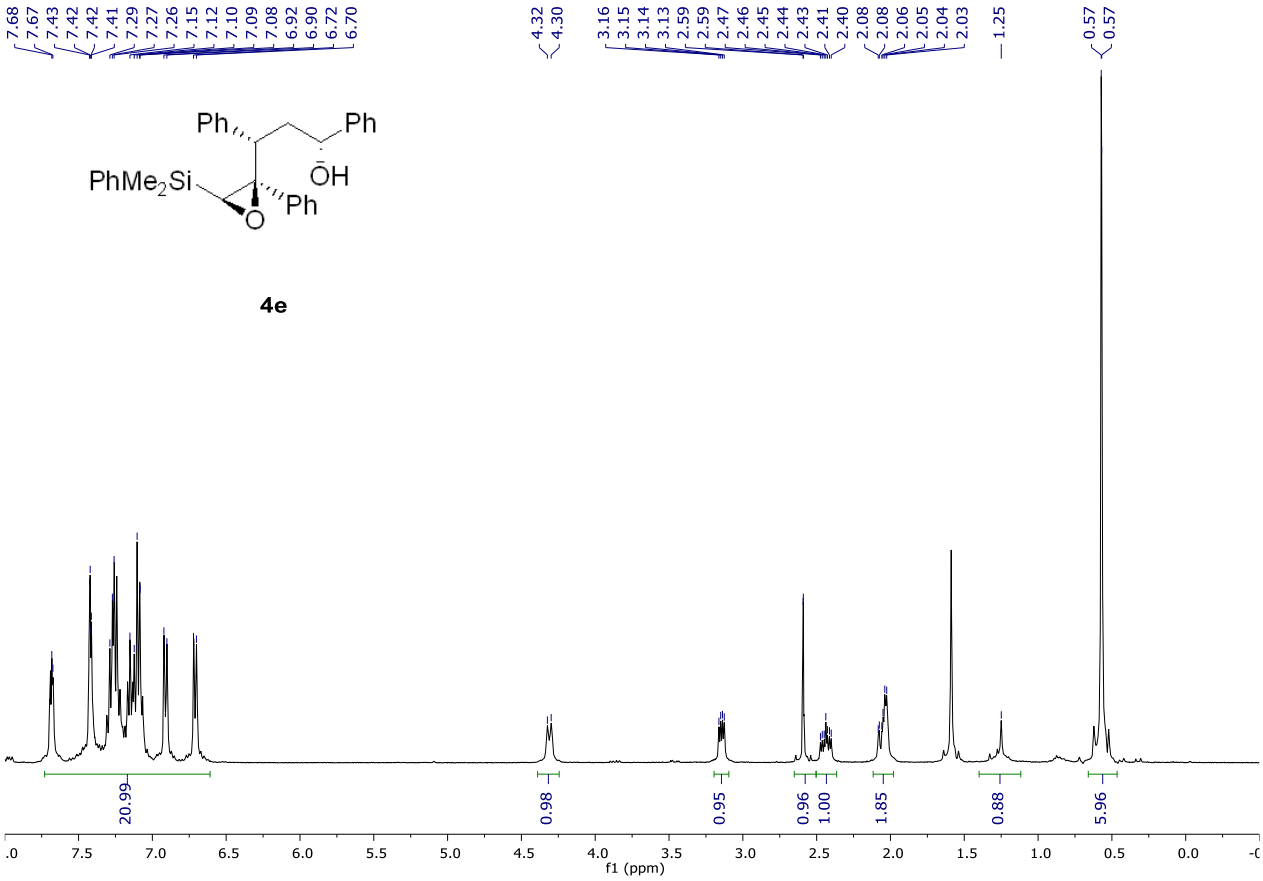
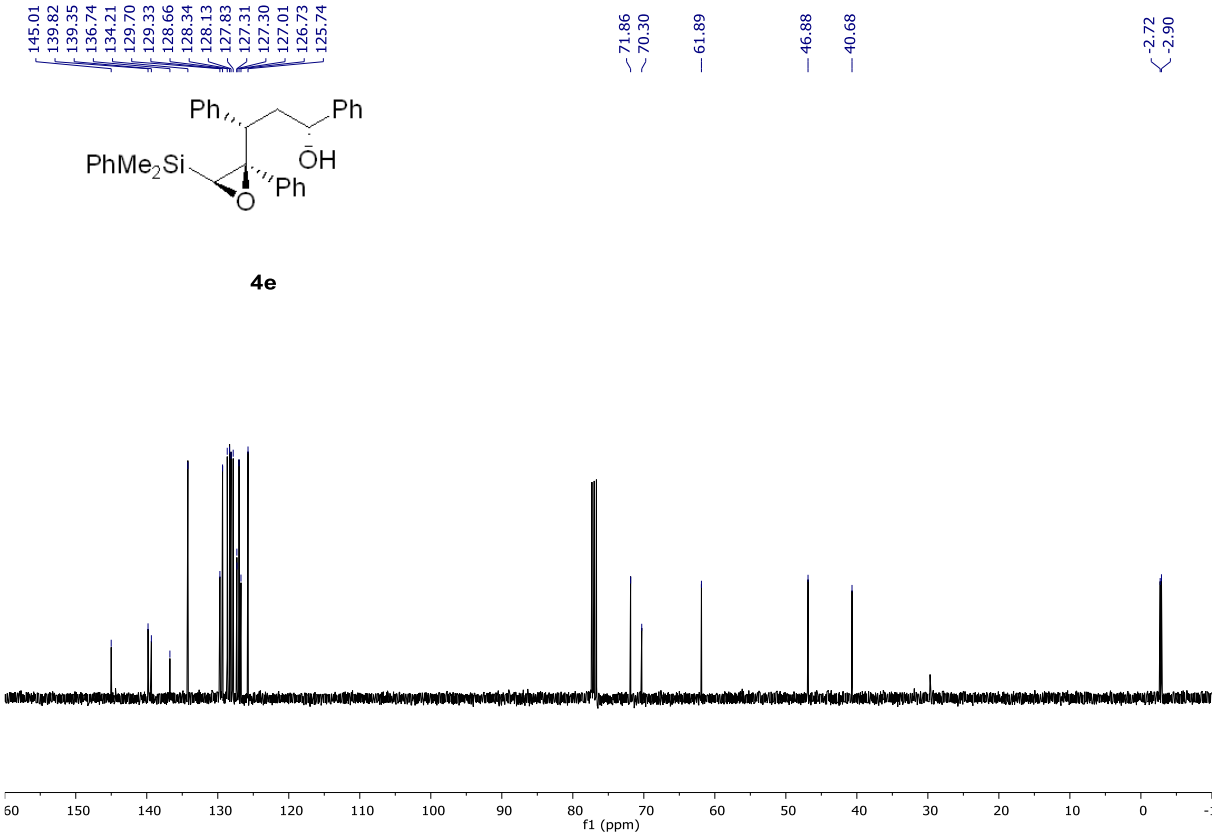


^{1}H NMR (400 MHz, $CDCl_3$)



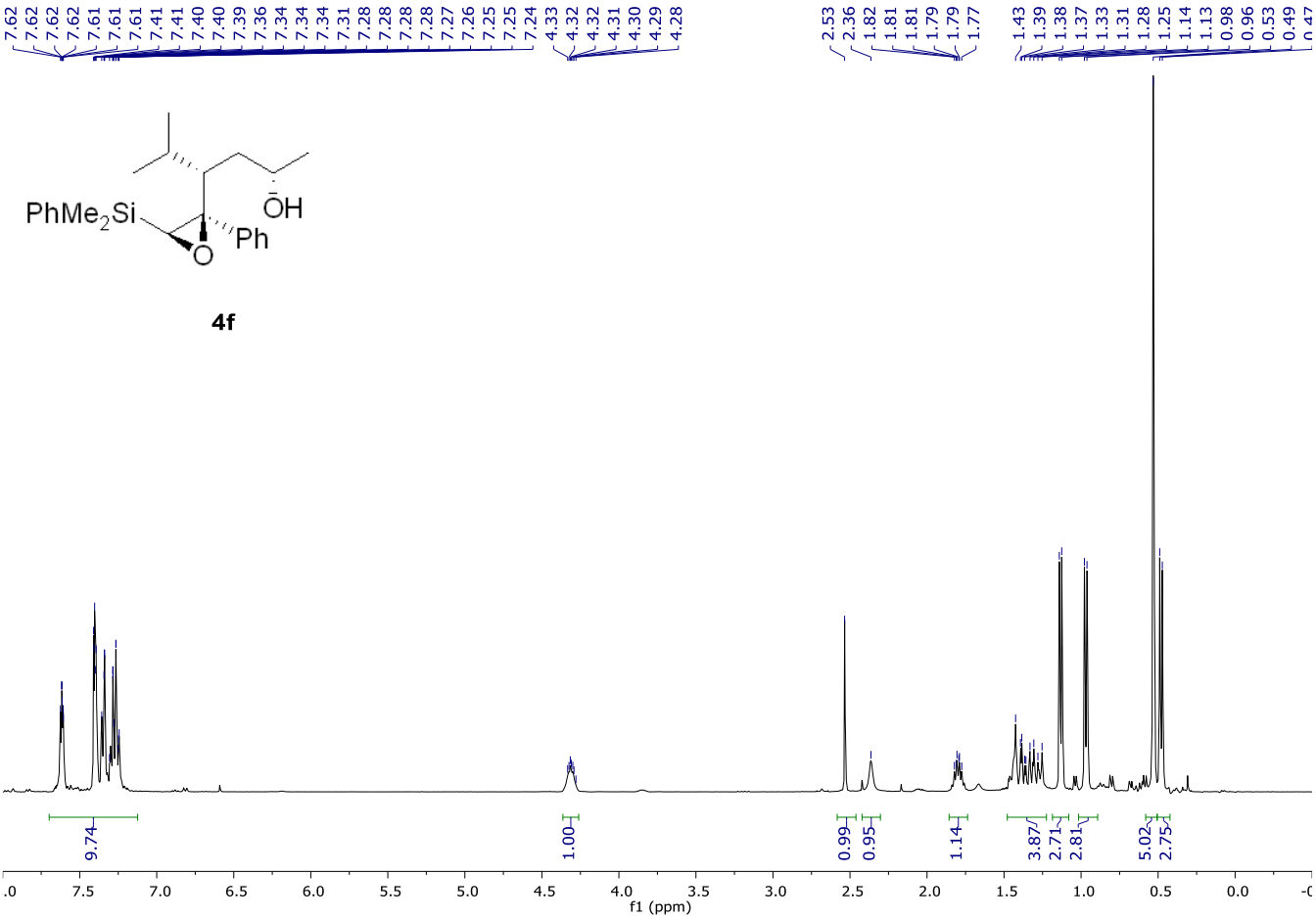
4e

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



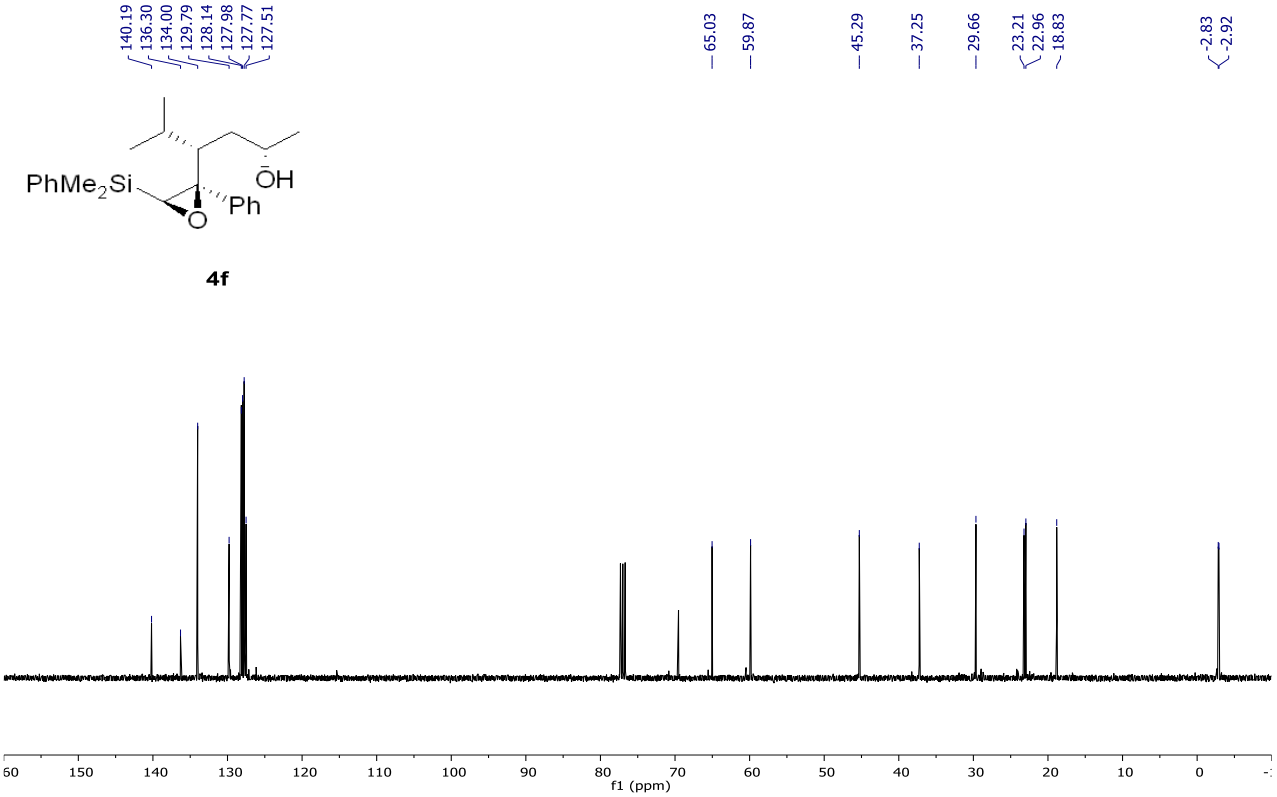
4e

^{1}H NMR (400 MHz, $CDCl_3$)



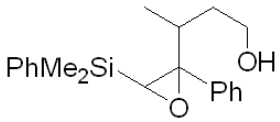
4f

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



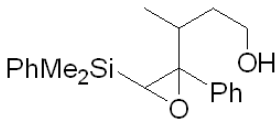
4f

^{1}H NMR (400 MHz, $CDCl_3$)

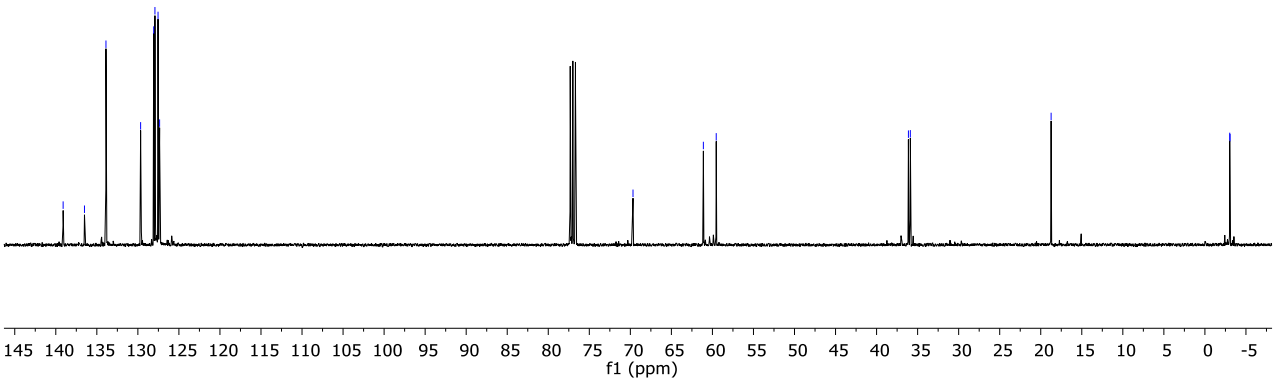


4g

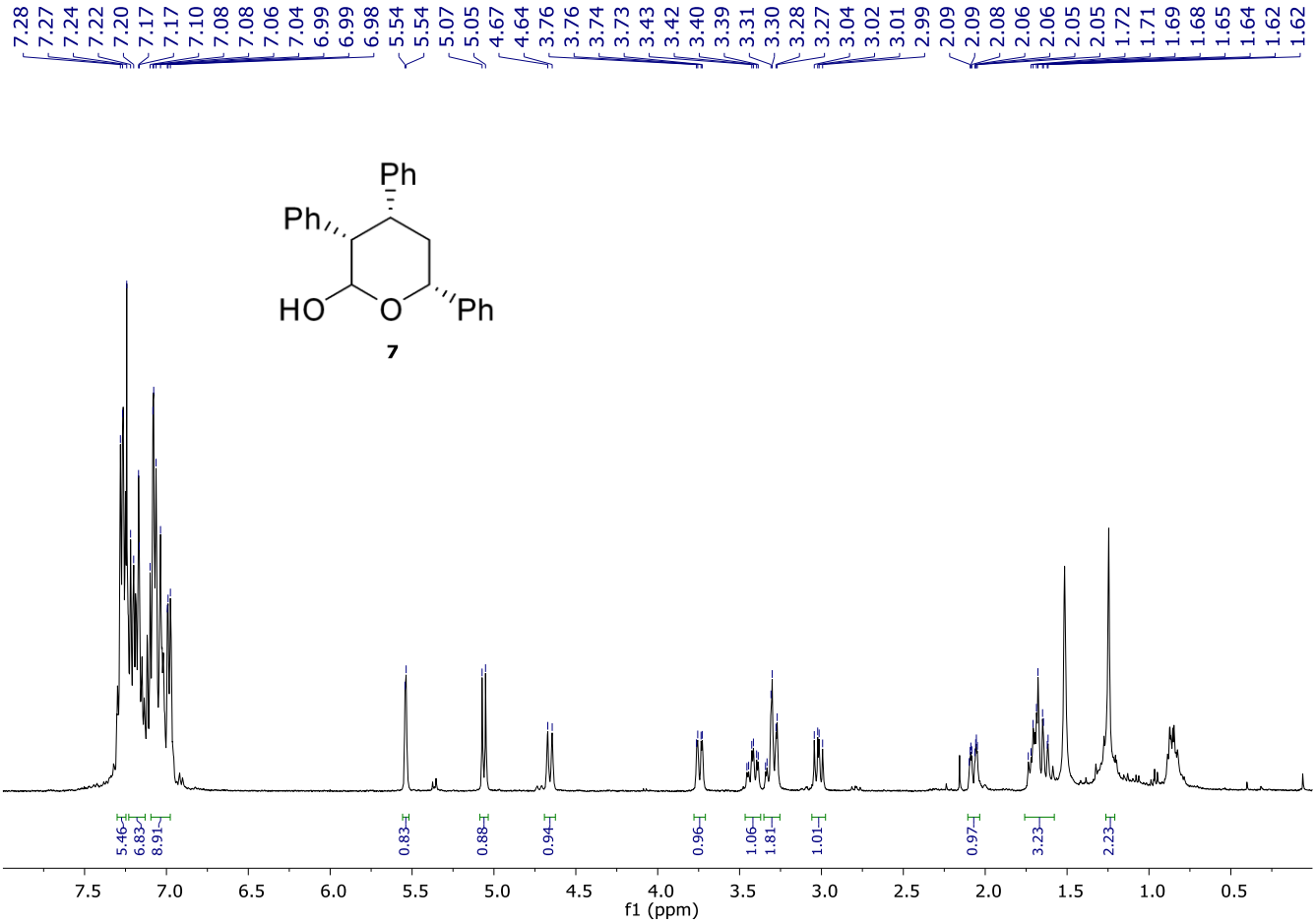
^{13}C NMR (101 MHz, $CDCl_3$)



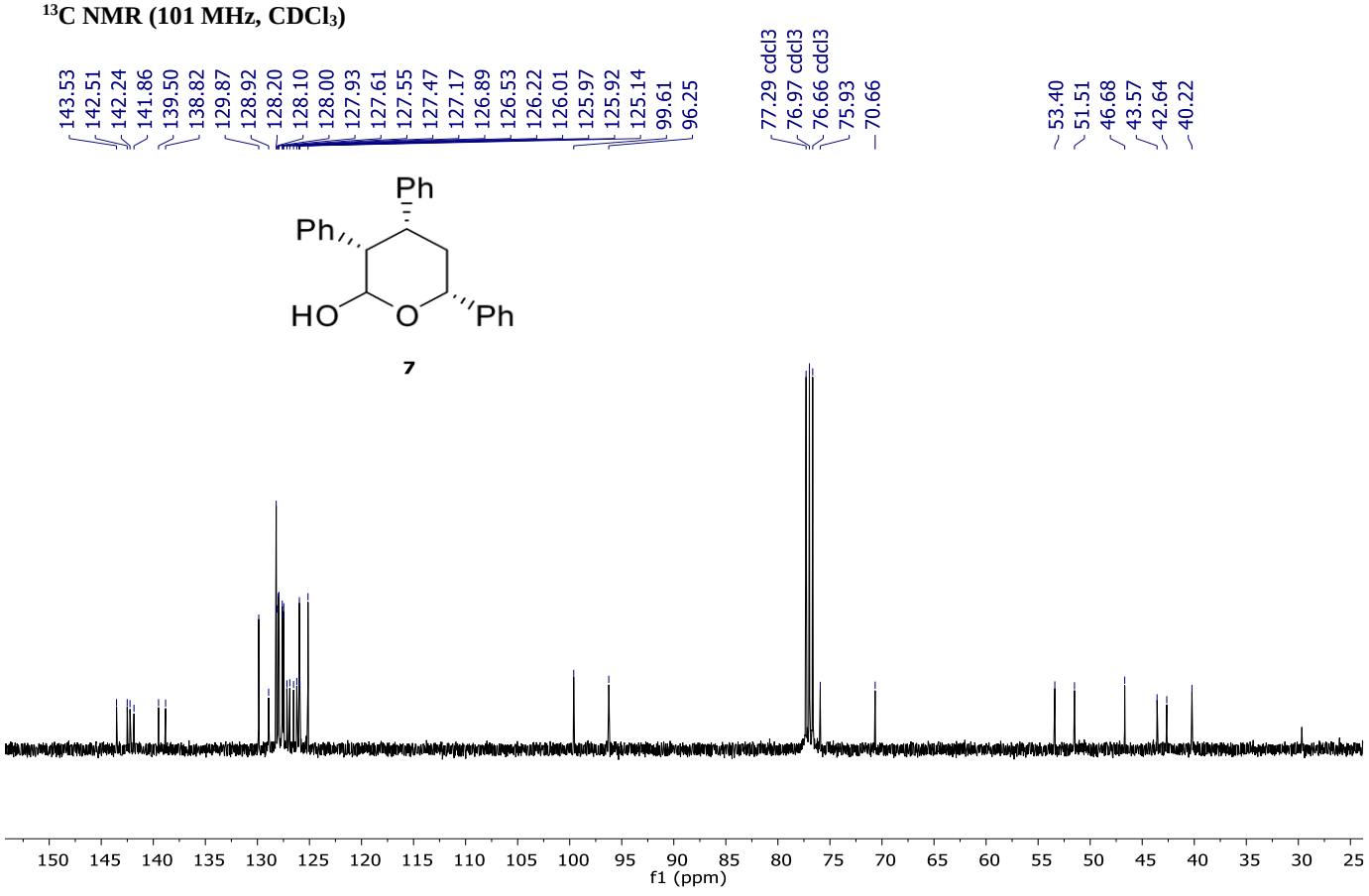
4g



^{1}H NMR (400 MHz, $CDCl_3$)



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



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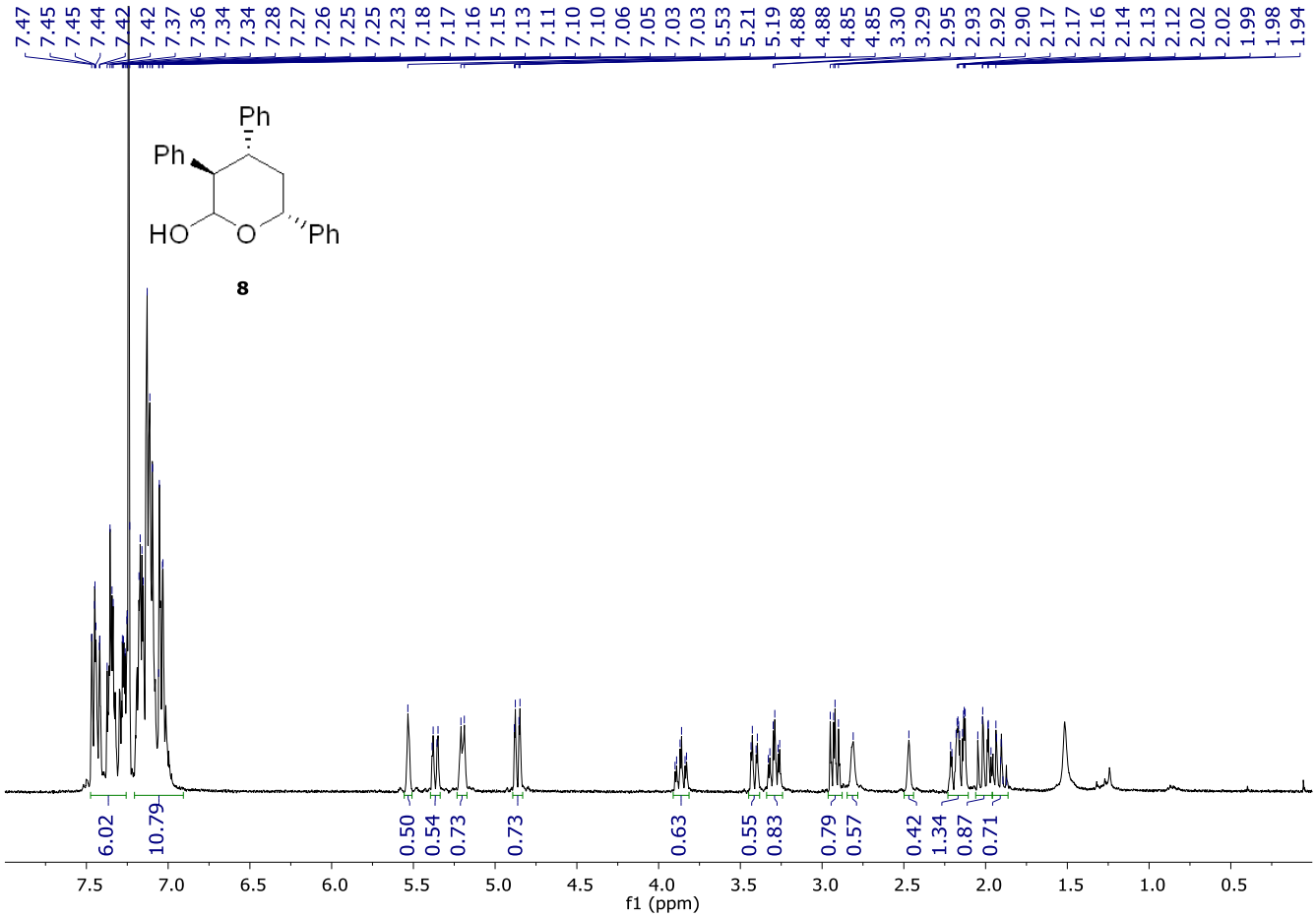
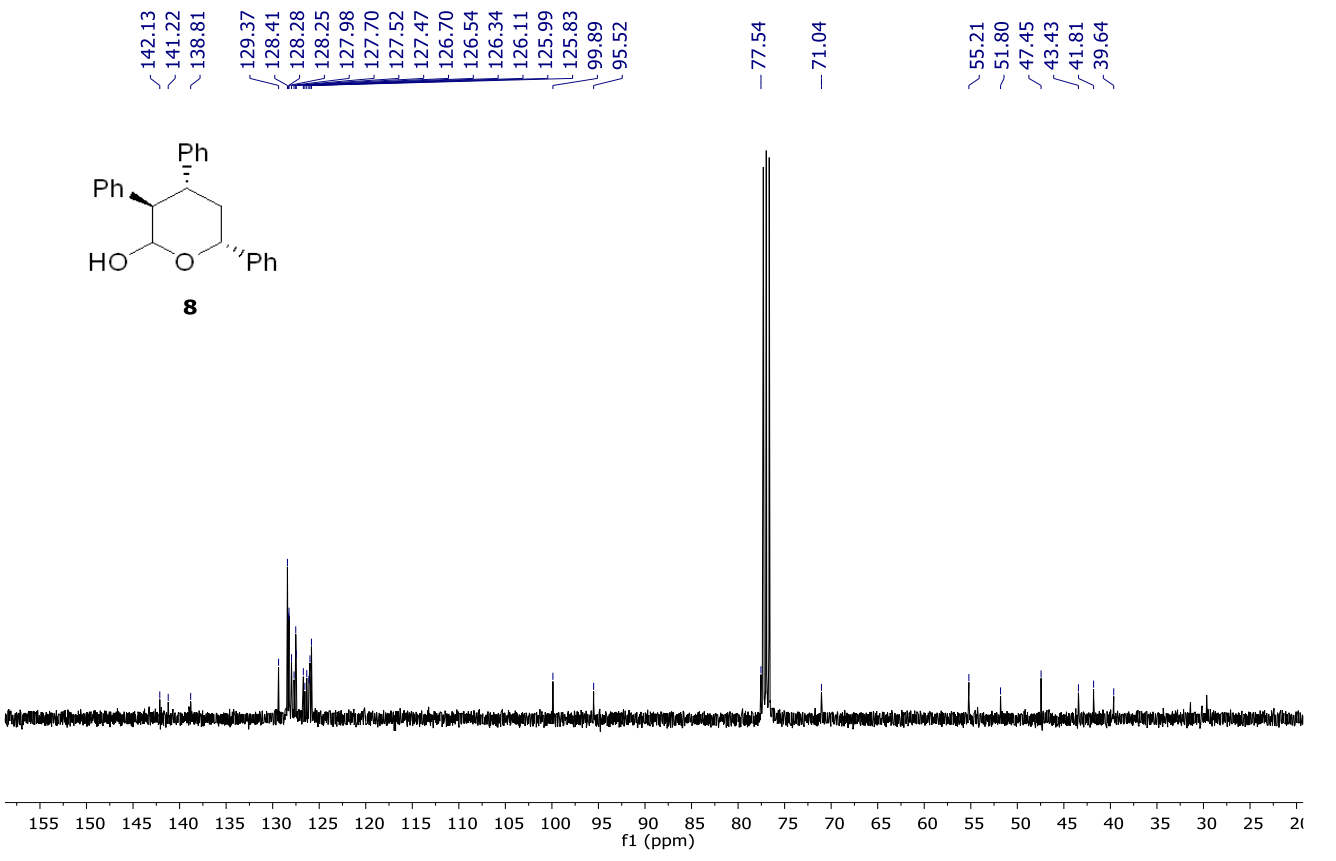


^{13}C NMR (101 MHz, $CDCl_3$)



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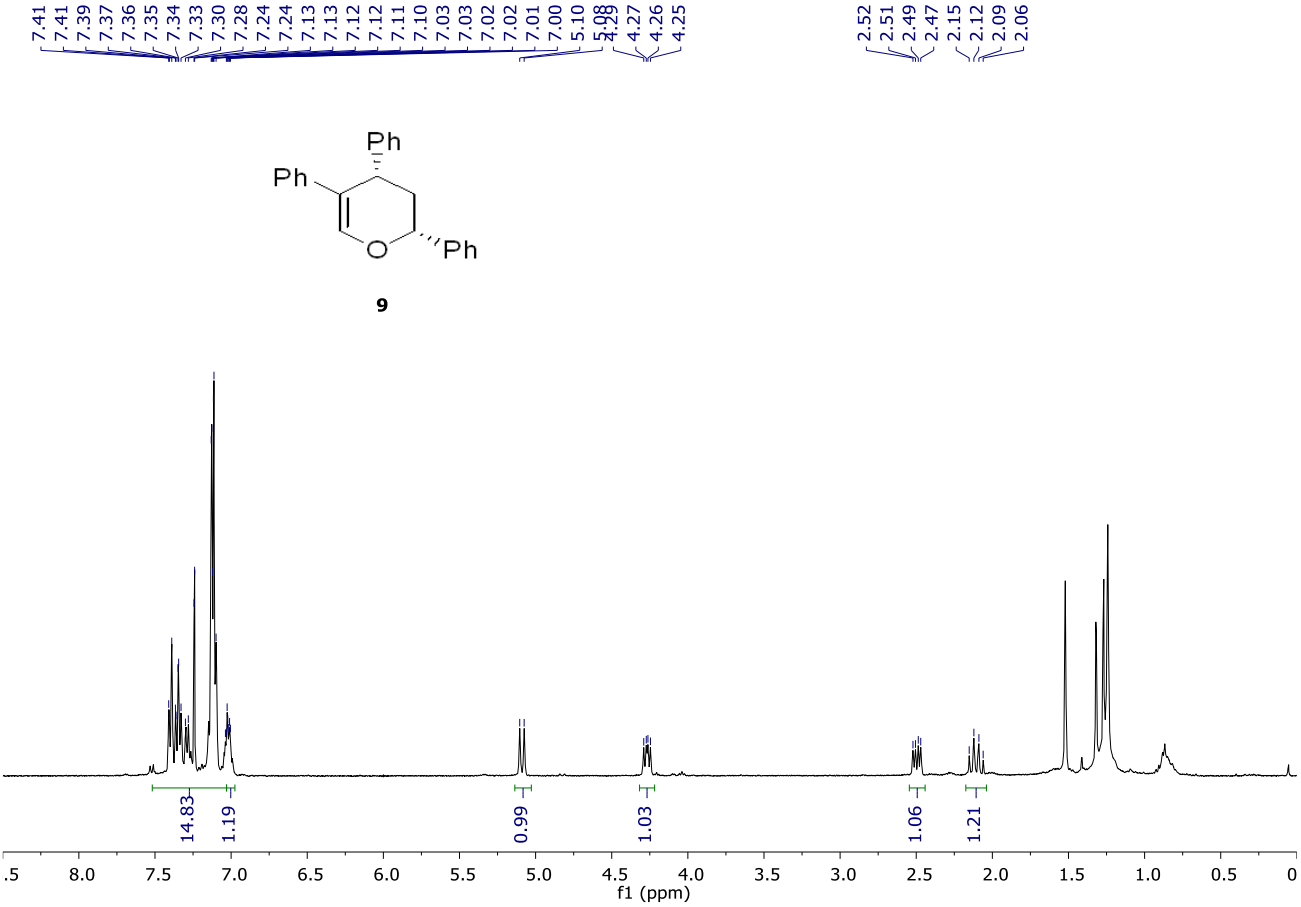

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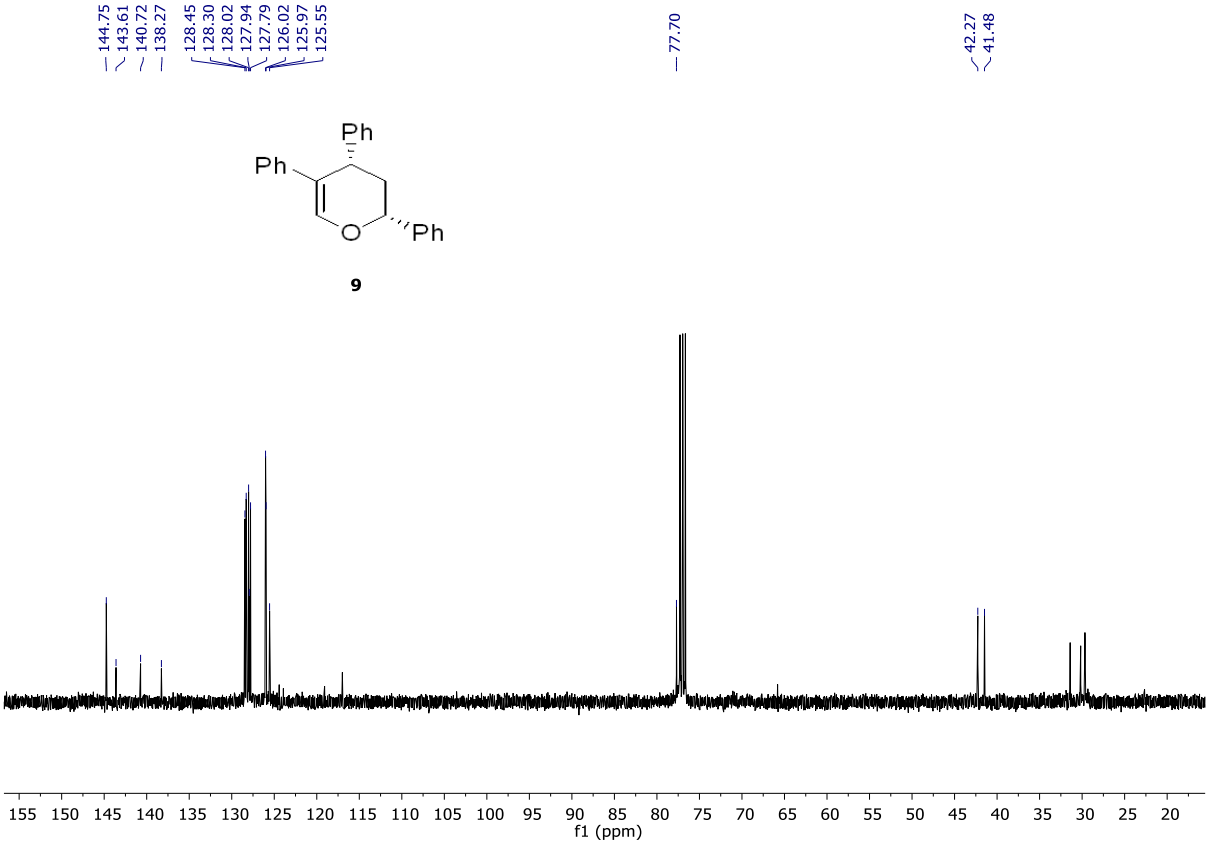
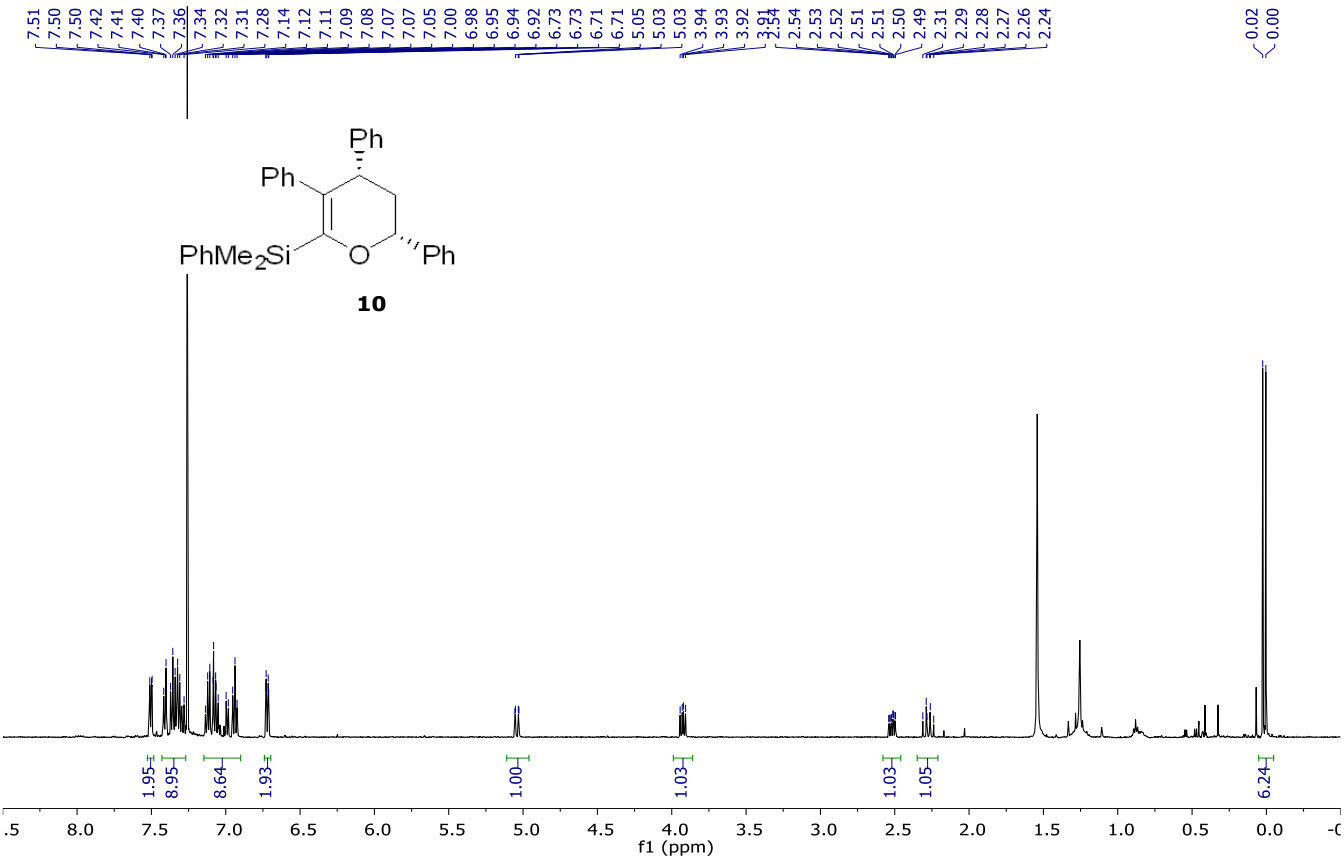


^{1}H NMR (400 MHz, $CDCl_3$)



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