

Supporting Information

Asymmetric Total Synthesis of the Indole Diterpene Alkaloid Paspaline

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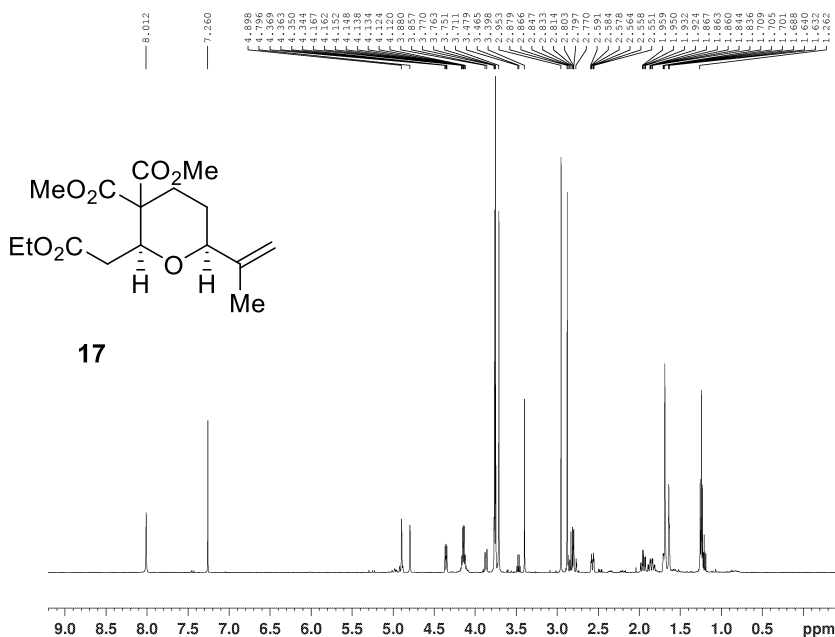
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Table of Contents

Relevant crude ¹ H NMR Spectra	S2-S12
Comparison of Synthetic Sample with Literature Data	S13
Computation Analysis	S14-S18
X-Ray Crystallographic Data	S19-S21
¹ H, ¹⁹ F, and ¹³ C NMR Spectra	S22-S102

Crude ¹H NMR spectrum of 17



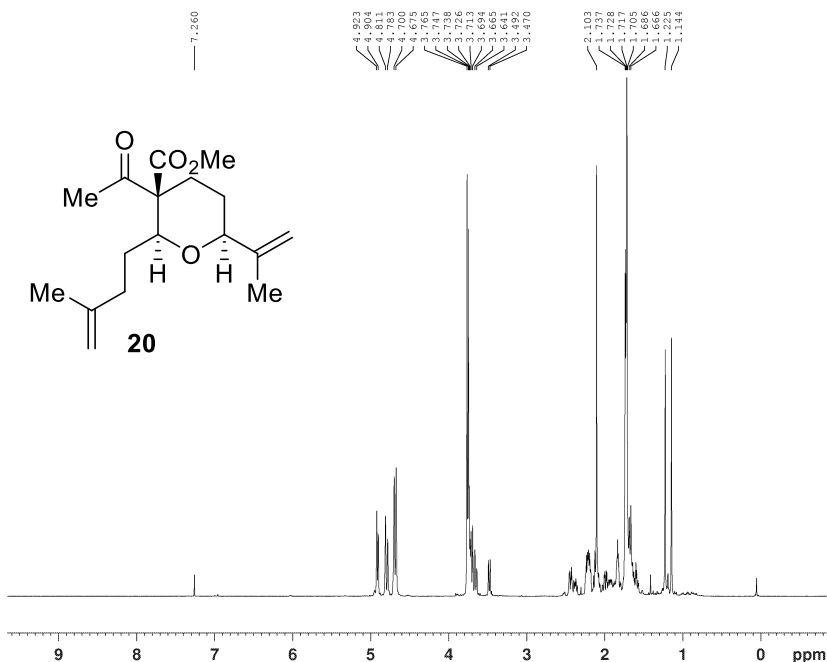
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 PROCNO 1

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 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 20
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152388 Hz
 AQ 3.2767999 se
 RG 201.39
 DW 50.000 us
 DE 6.50 us
 TE 294.4 K
 D1 1.0000000 se
 TDO

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 NUC1 1H
 P1 8.10 us
 PLW1 38.99399948 W

F2 - Processing parameters
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Crude ¹H NMR spectrum of 20



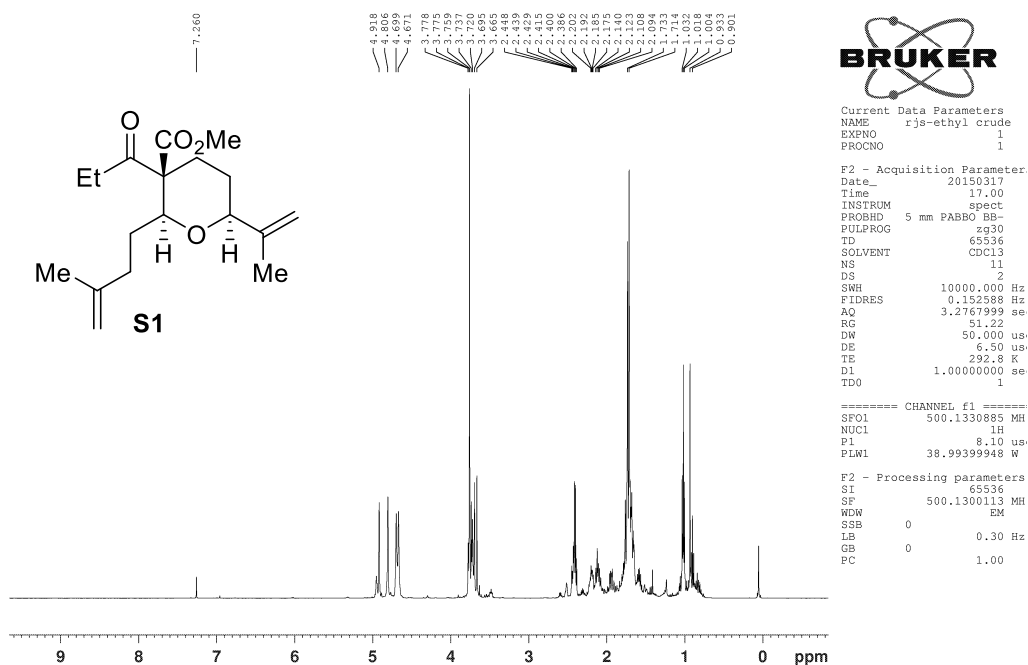
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 PROCNO 1

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 PULPROG zg30
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 SOLVENT CDCl3
 NS 12
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152568 Hz
 AQ 3.2767999 se
 RG 79.57
 DW 50.000 us
 DE 6.50 us
 TE 293.0 K
 D1 1.0000000 se
 TDO 1

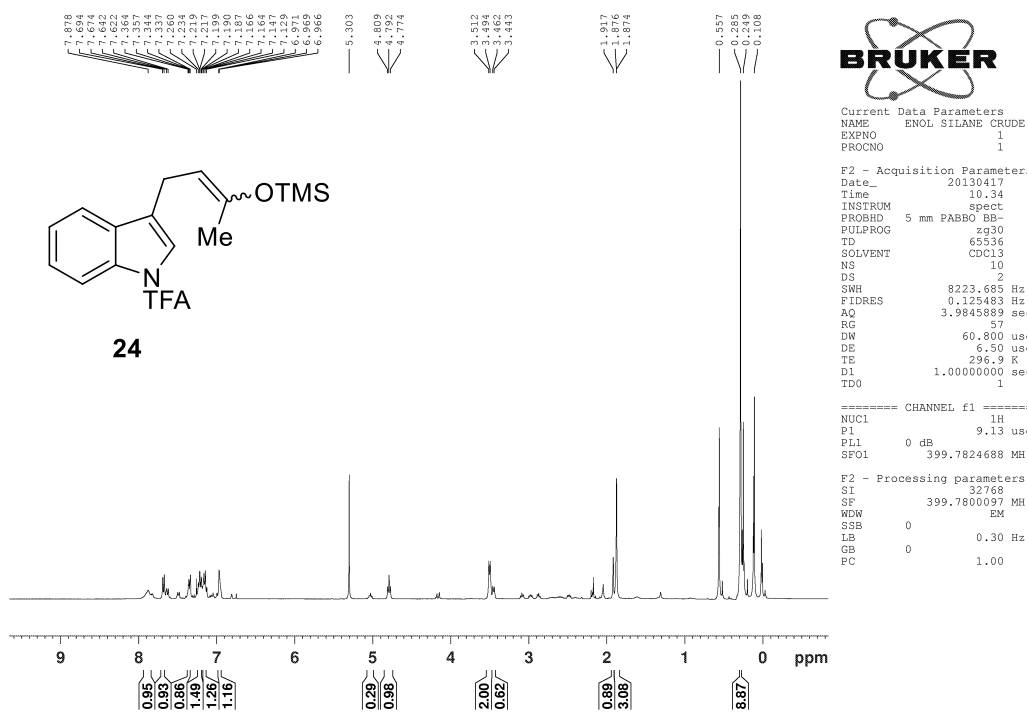
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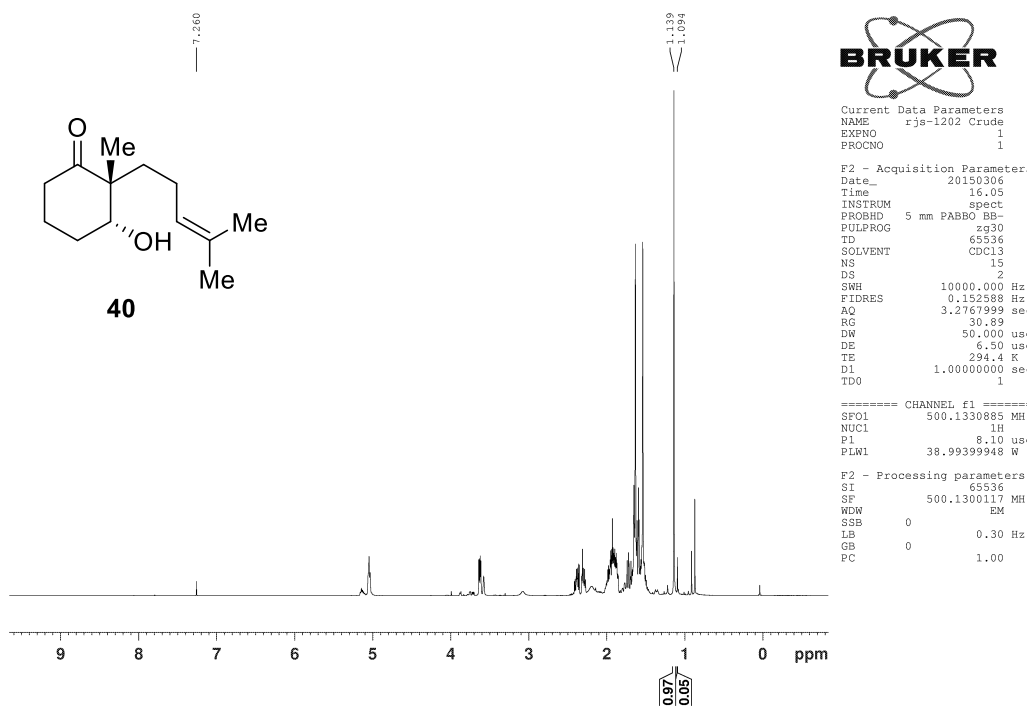
Crude ¹H NMR spectrum of S1



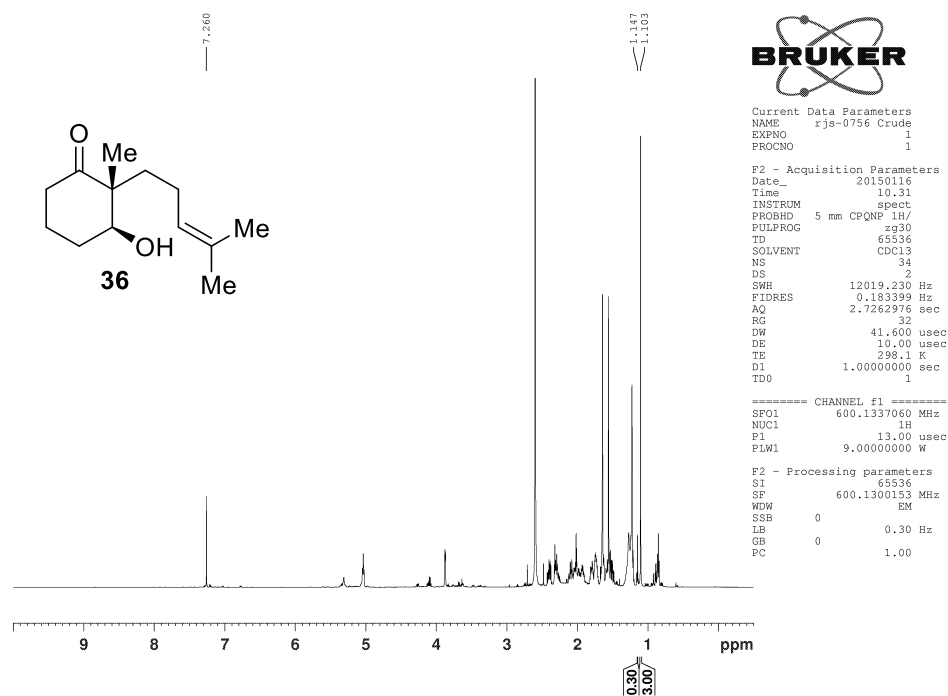
Crude ¹H NMR spectrum of 24



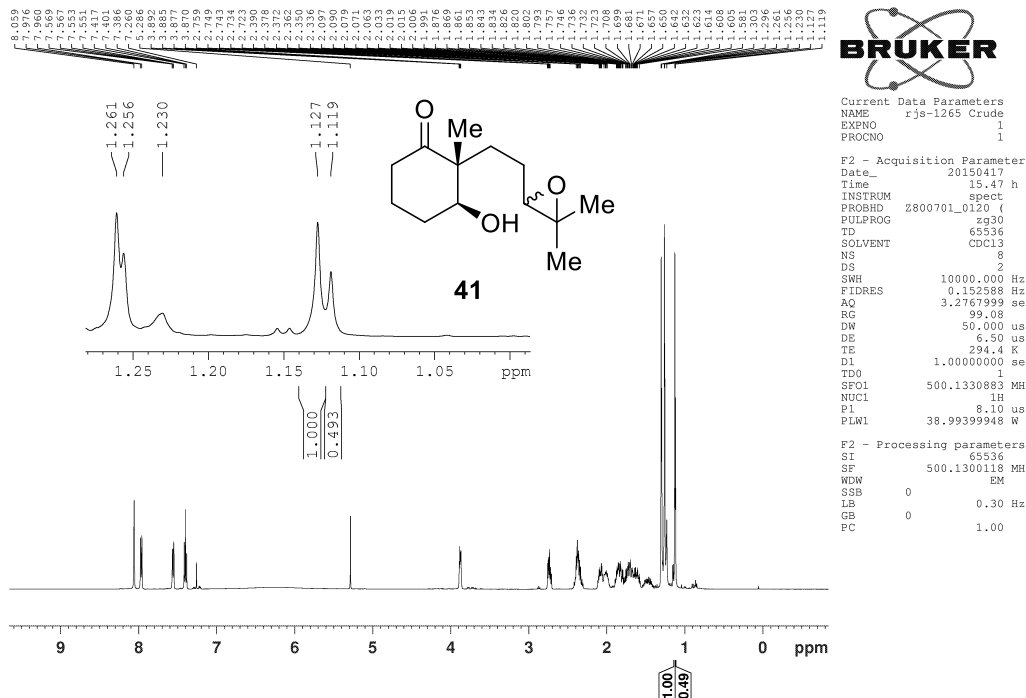
Crude ¹H NMR Spectrum of 40



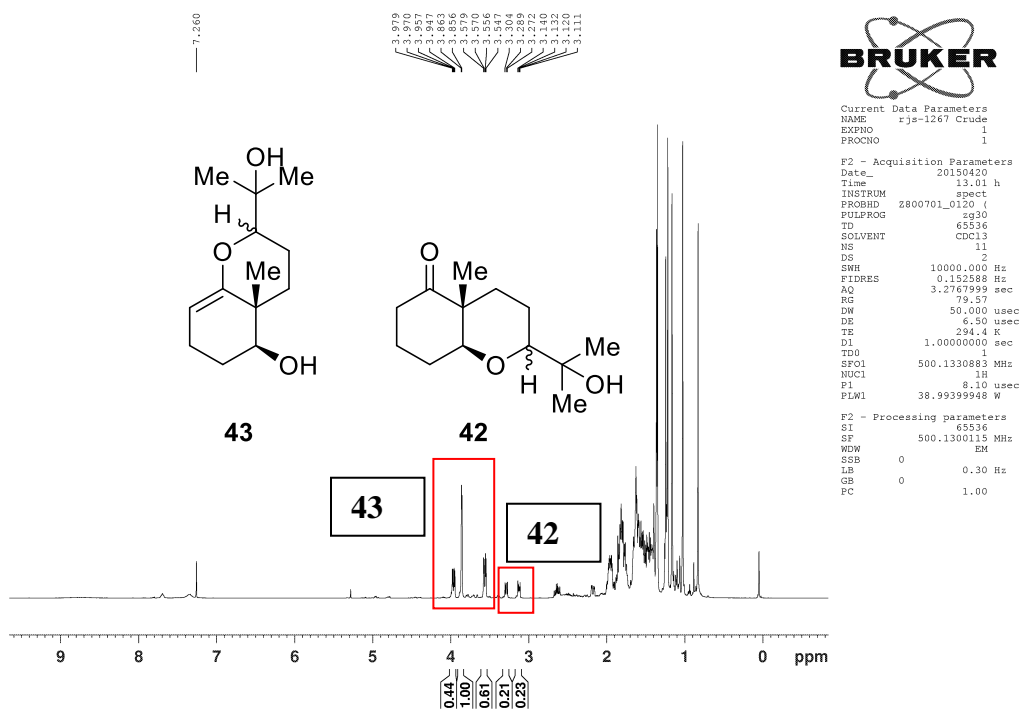
Crude ¹H NMR spectrum of 36.



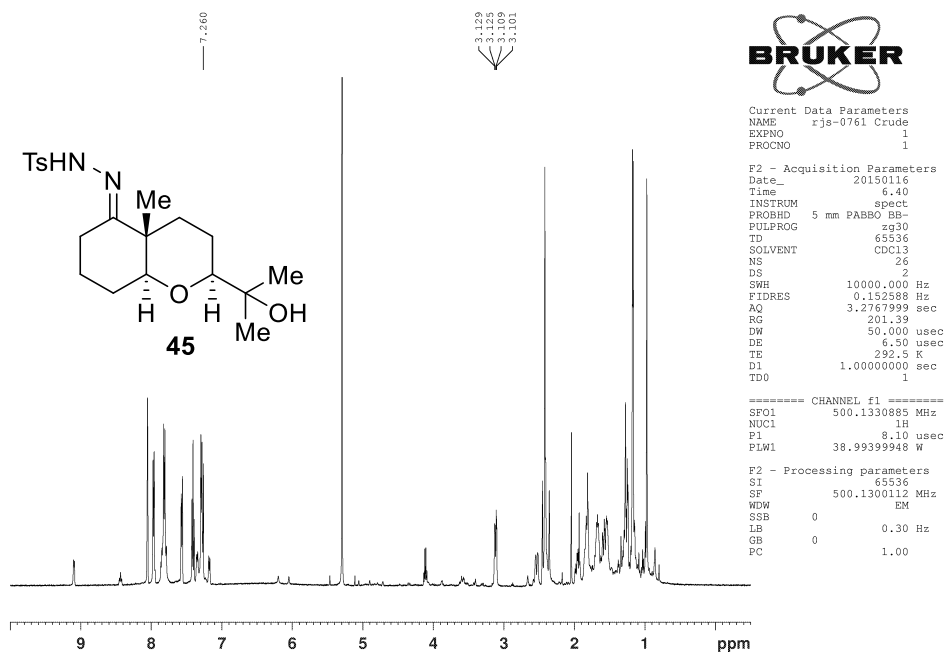
Crude ¹H NMR spectrum of 41



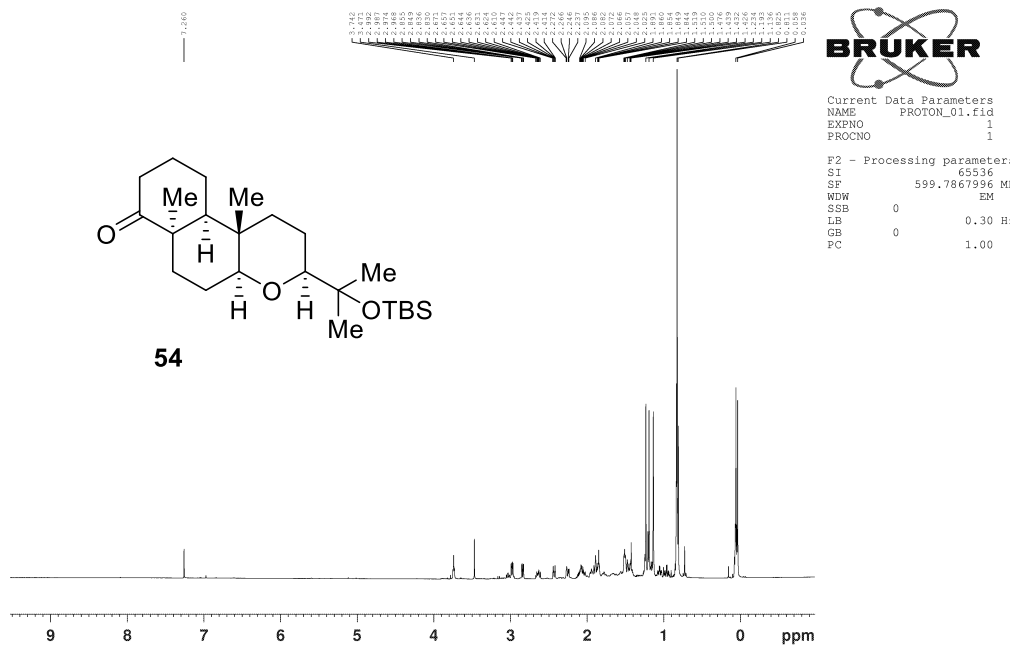
Crude ¹H NMR spectrum of 42 and 43



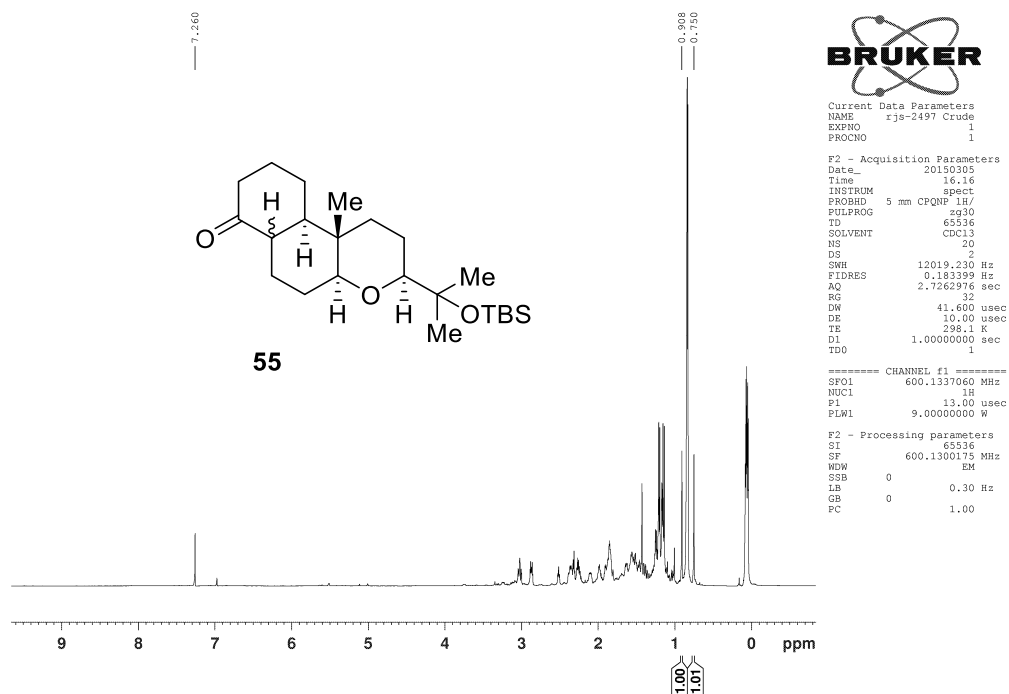
Crude ¹H NMR spectrum of 45.



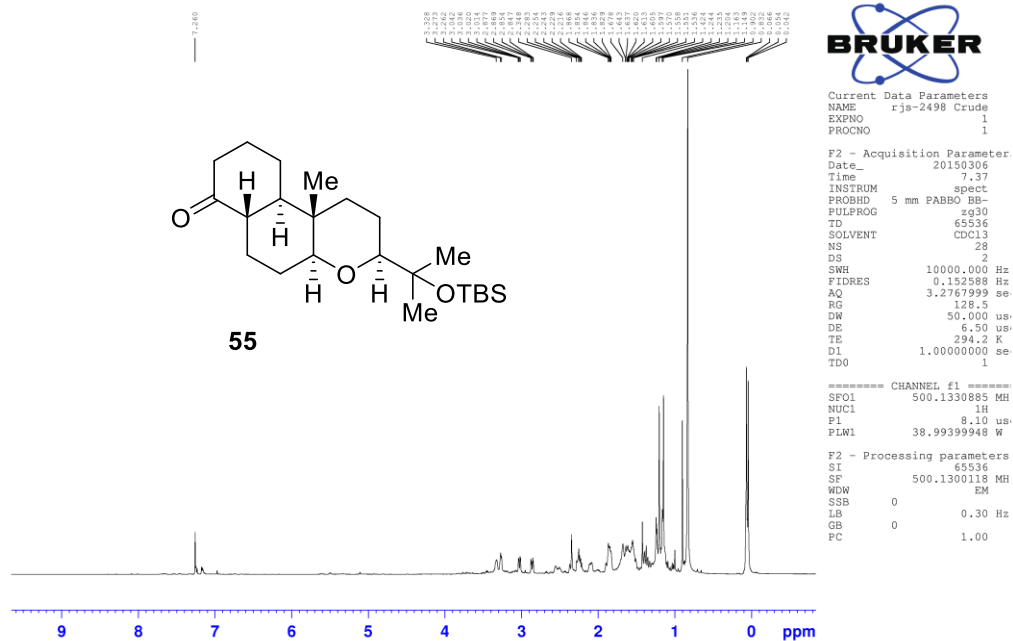
Crude ¹H NMR spectrum of 54



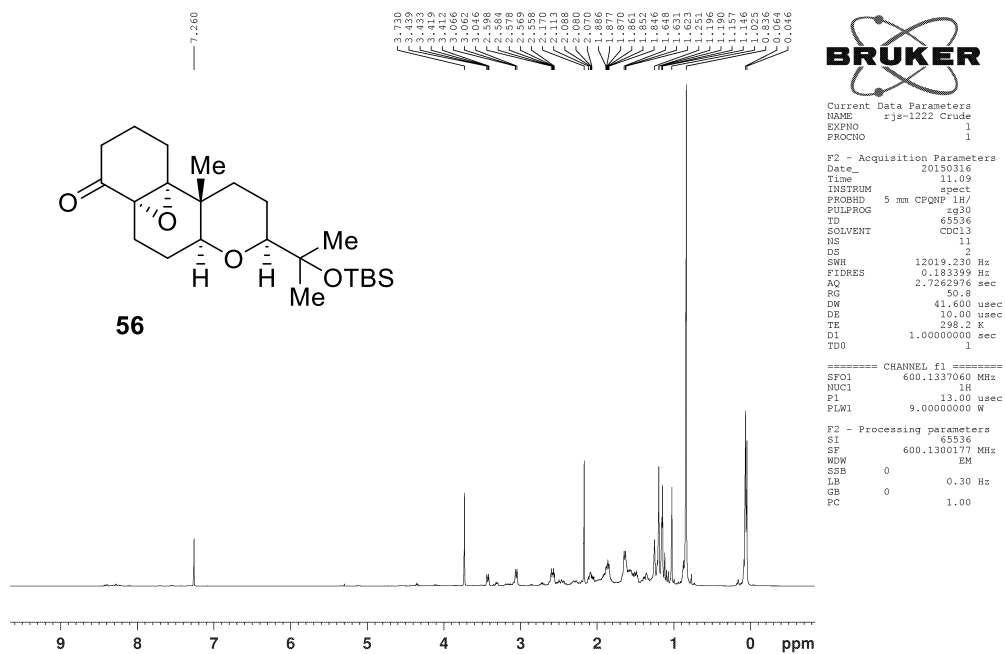
Crude ¹H NMR spectrum of initial Birch reduction product 55 prior to epimerization



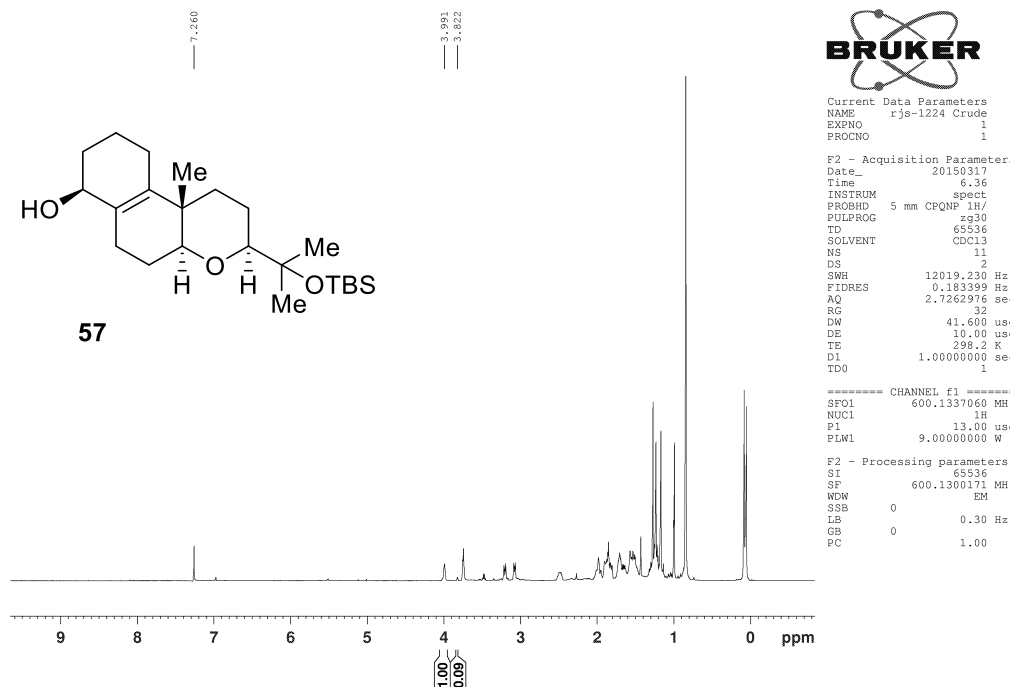
Crude ¹H NMR spectrum of 55 after epimerization



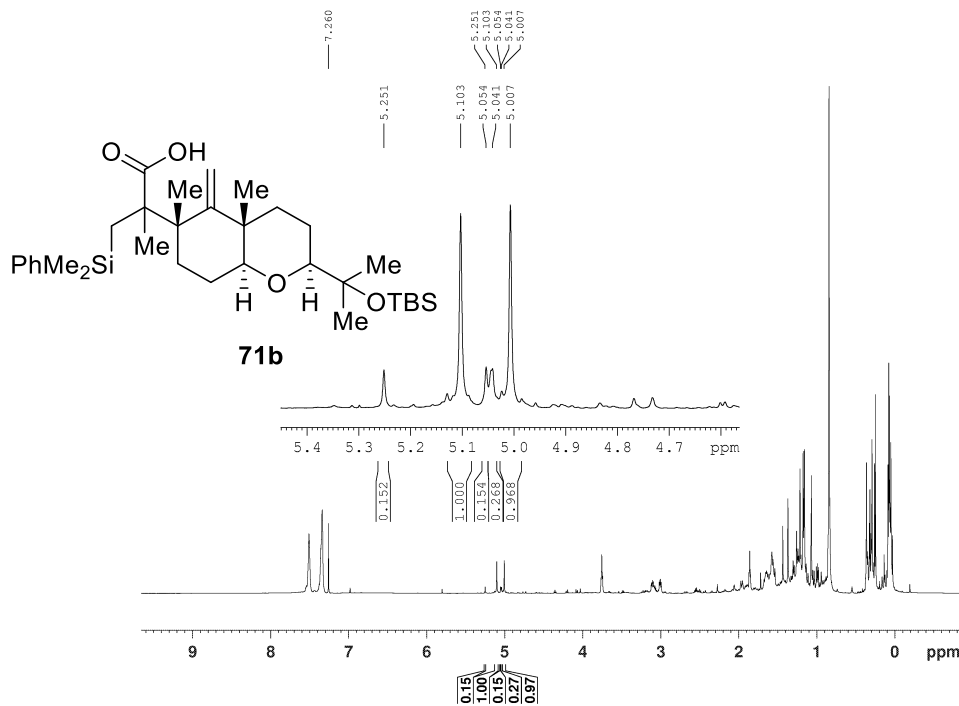
Crude ¹H NMR spectrum of 56



Crude ¹H NMR spectrum of 57



Crude ¹H NMR spectrum of 71b



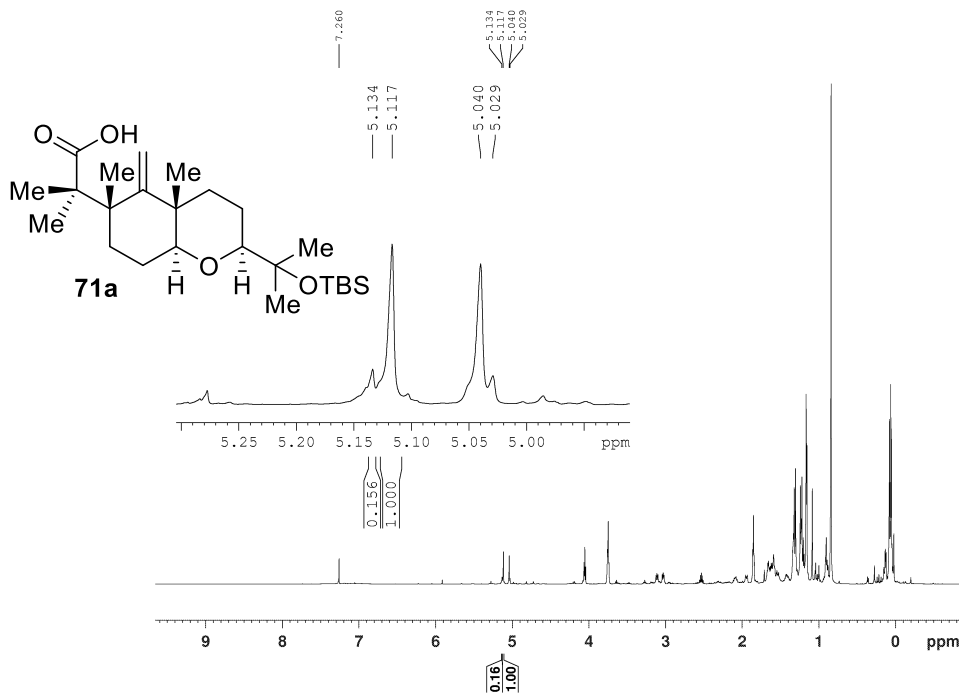
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 PROCNO 1

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 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 15
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 298.2 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
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 SF 600.1300171 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

Crude ¹H NMR spectrum of 71a



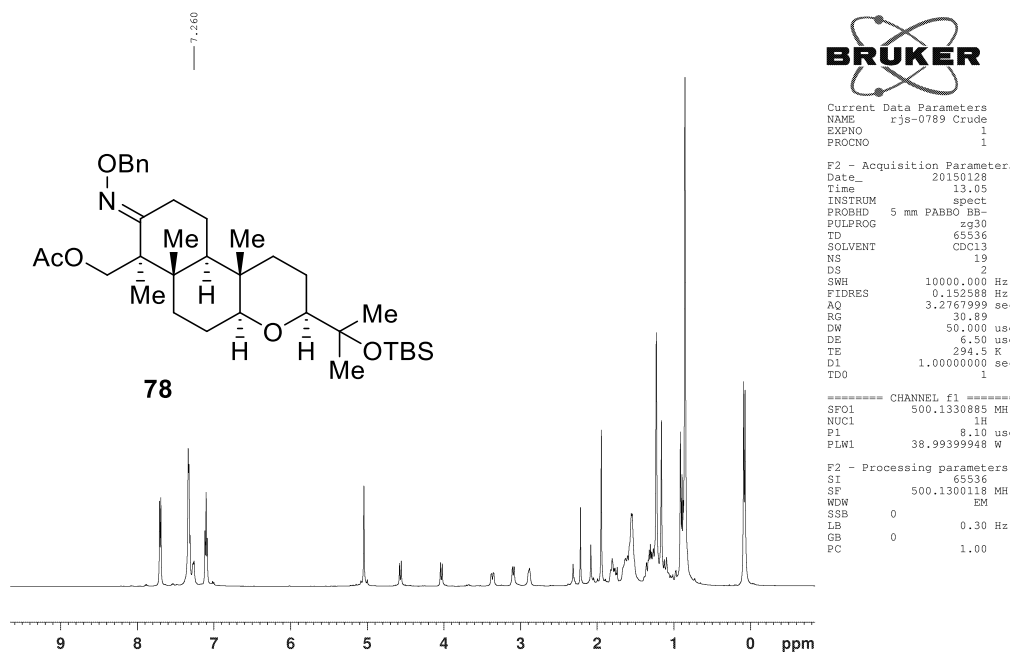
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 EXPNO 1
 PROCNO 1

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 Time 7.00
 INSTRUM spect
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 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 37
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 22.6
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

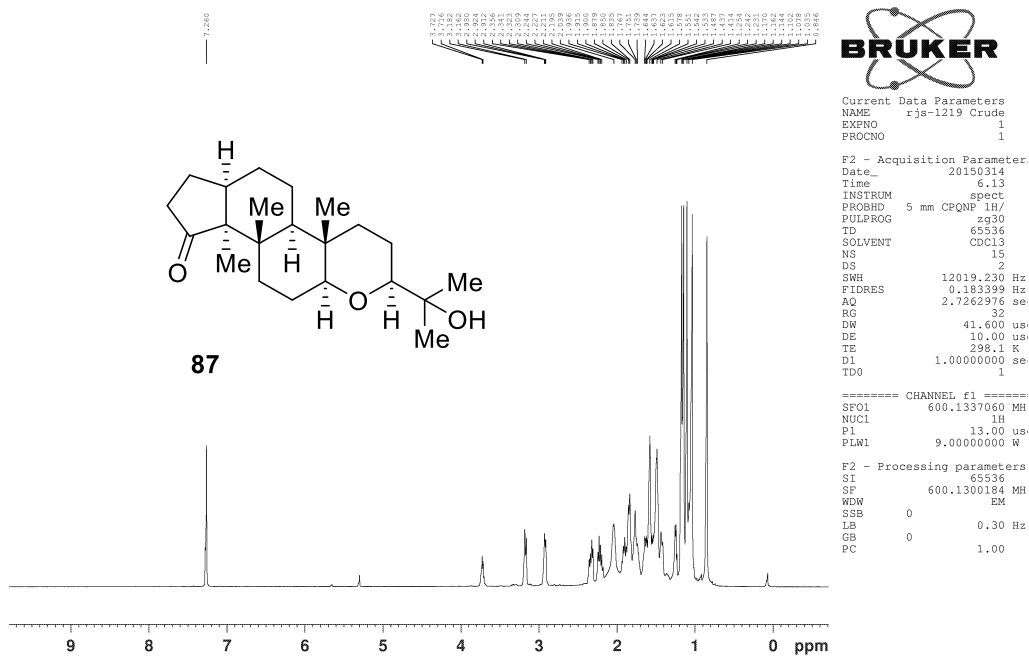
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 PLW1 9.00000000 W

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 LB 0.30 Hz
 GB 0
 PC 1.00

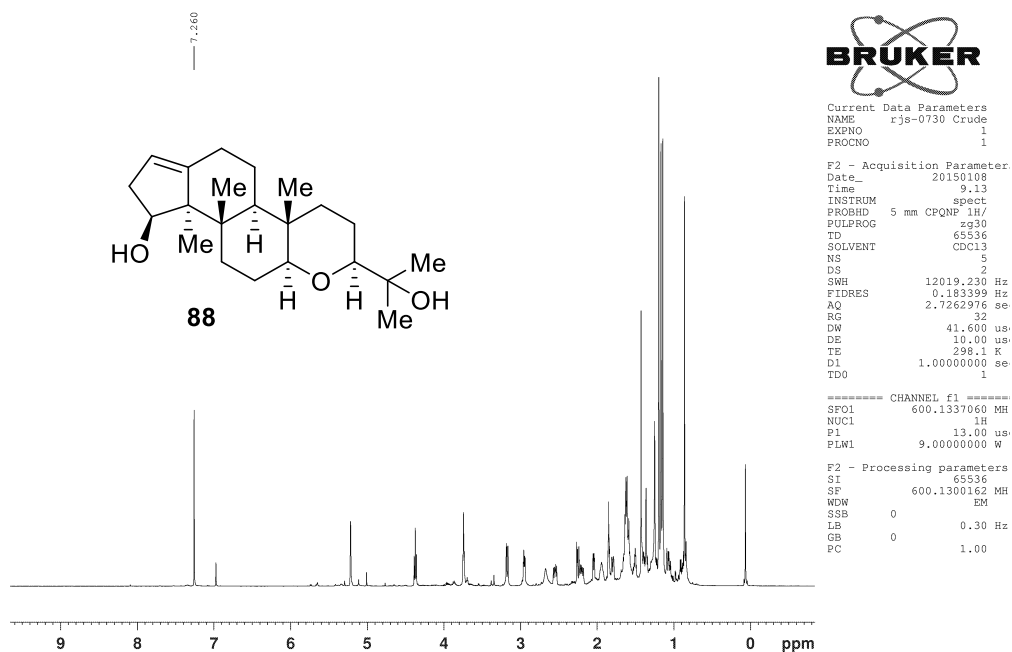
Crude ¹H NMR spectrum of 78.



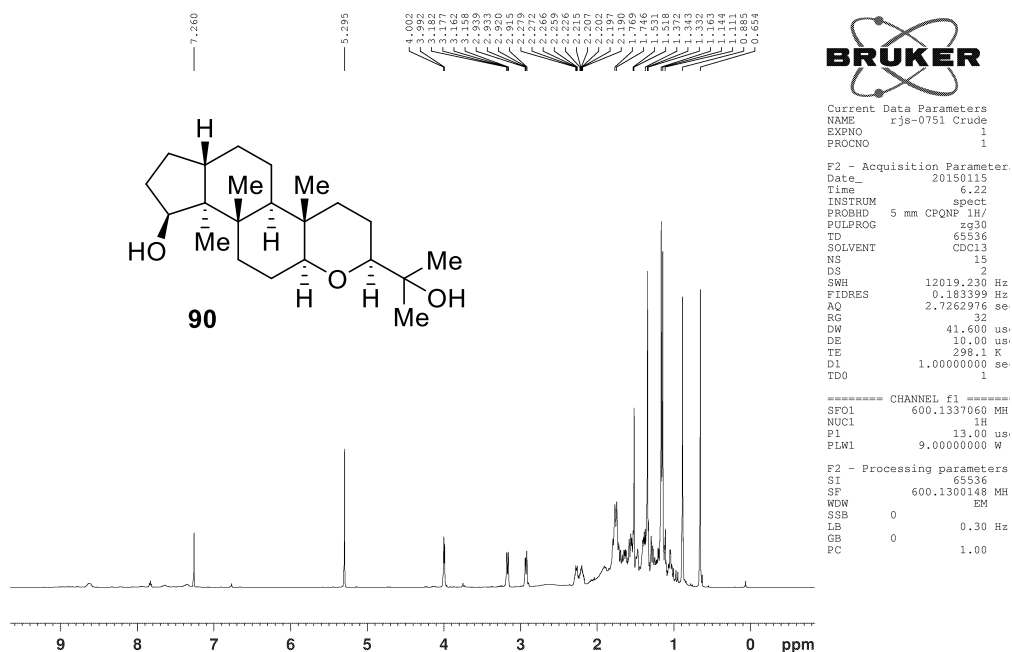
Crude ¹H NMR Spectrum of 87



Crude ¹H NMR spectrum of 88



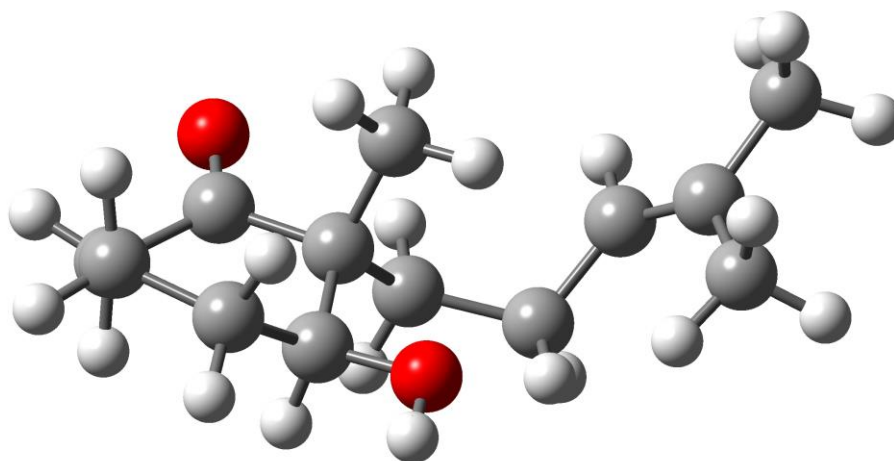
Crude ¹H NMR spectrum of 90



Comparison of Reported Analytical Data for Paspaline			
Data Type	Data Reported in Isolation Paper ⁴	Data Reported by Smith and Coworkers ^{12d}	Synthetic Paspaline
¹ H NMR (CDCl ₃)	¹ H NMR (100 MHz, CDCl ₃) 7.82 (s, 1H) 7.0-7.5 (m, 4H) 3.68 (q, <i>J</i> = 2.5 Hz, 1H) 3.3-1.4 (m, 18H) 1.18 (s, 6H) 1.13 (s, 3H) 1.02 (s, 3H) 0.88 (s, 3H)	¹ H NMR (250 MHz, CDCl ₃) 7.74 (br s, 1H) 7.44-7.40 (m, 1H) 7.31-7.26 (m, 1H) 7.09-7.06 (m, 2H) 3.21 (dd, <i>J</i> = 11.8, 3.0 Hz, 1H) 3.03 (dd, <i>J</i> = 11.3, 4.2 Hz, 1H) 2.85-2.62 (m, 3H) 2.32 (dd, <i>J</i> = 12.7, 10.4 Hz, 1H) 2.04-1.25 (m, 13H) 1.19 (s, 3H) 1.17 (s, 3H) 1.13 (s, 3H) 1.02 (s, 3H) 0.88 (s, 3H)	¹ H NMR (600 MHz, CDCl ₃) 7.72 (br s, 1H) 7.42 (m, 1H) 7.30 (m, 1H) 7.07 (m, 2H) 3.21 (dd, <i>J</i> = 9.6, 2.4 Hz, 1H) 3.03 (dd, <i>J</i> = 8.4, 3.6 Hz, 1H) 2.77-2.65 (m, 3H) 2.32 (dd, <i>J</i> = 10.8, 2.4 Hz, 1H) 1.96 (m, 1H) 1.84-1.77 (m, 3H) 1.70-1.56 (m, 6H) 1.49-1.37 (m, 3H) 1.19 (s, 3H) 1.17 (s, 3H) 1.13 (s, 3H) 1.03 (s, 3H) 0.88 (s, 3H)
¹³ C NMR (CDCl ₃)	NA	NA	¹³ C NMR (150 MHz, CDCl ₃) 150.8, 139.3, 125.1, 120.4, 119.5, 118.4, 118.2, 111.4, 85.7, 84.7, 71.9, 53.0, 48.7, 46.4, 40.0, 37.6, 36.5, 33.9, 27.5, 26.1, 25.2, 24.6, 23.7, 22.0, 21.9, 20.0, 14.6, 12.6
Rotation	-23.0 (<i>c</i> = 0.36, CHCl ₃)	-42.2 (<i>c</i> = 0.64, C ₆ H ₆)	-16.4 (<i>c</i> = 0.30, CHCl ₃)
IR	3500, 3450, 2950, 2850, 1440, 1380, 1360, 1320, 1280, 1150, 1090, 1030, 1010, 970, 940, 895, 875	3550, 3470, 3320, 2980, 2950, 2850, 1450, 1385, 1375, 1330, 1300, 1260, 1240, 1160, 1090, 1035	3565, 3467, 3053, 2982, 2930, 2855, 1455, 1386, 1375, 1331, 1265, 1158, 1087, 1037
MS	NA	<i>m/z</i> 421.2997 (M ⁺ , calcd for C ₂₈ H ₃₉ NO ₂ , 421.3013)	422.3056 (Calcd. For C ₂₈ H ₃₉ NO ₂ +H, 422.3059)

Computational Details:

Hydroxyketone **36**:

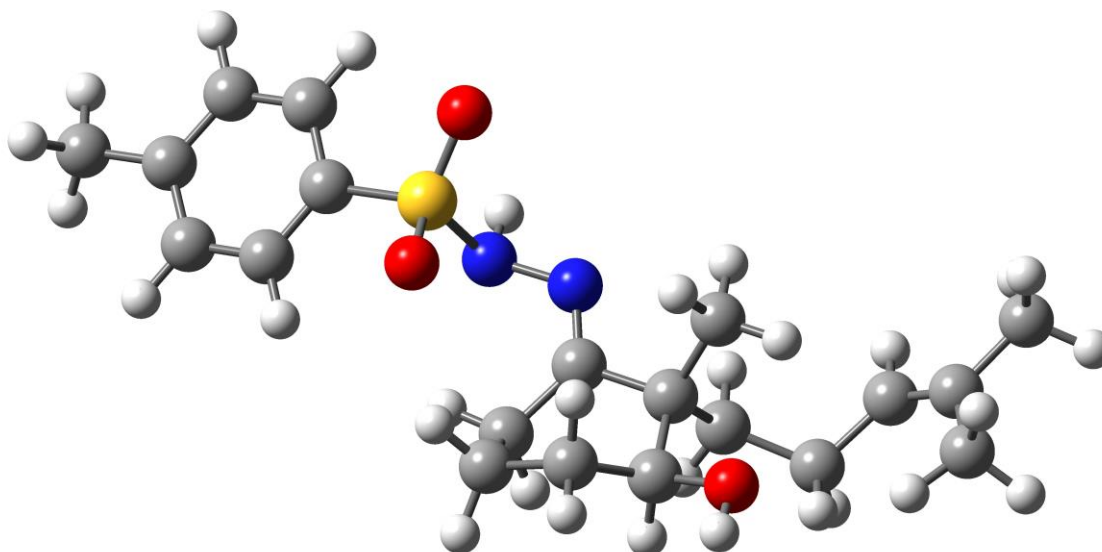


Cartesian Coordinates:

C	0.38546	0.90879	-0.16849
C	1.73413	1.58994	-0.51067
C	2.09875	2.70065	0.48898
C	0.95795	3.68809	0.66408
C	-0.46509	3.10881	0.89226
C	-0.37068	1.56788	0.99805
H	-0.27802	0.90915	-1.03680
H	2.54204	0.85495	-0.54461
H	2.32003	2.26173	1.47108
H	0.15664	1.33392	1.93552
H	0.54620	-0.14523	0.08789
H	1.68471	2.02809	-1.51165
H	2.98467	3.25643	0.17773
O	-1.69458	1.02910	1.07655
H	-1.62408	0.06885	1.12912
C	-1.31718	3.53868	-0.32139
H	-2.32521	3.13649	-0.25078
H	-1.37610	4.62651	-0.36428
H	-0.87890	3.19469	-1.26323
C	-0.96615	3.74892	2.22176
H	-0.31676	3.37774	3.02538
H	-0.76610	4.82177	2.15141
C	-2.43226	3.53603	2.66052
H	-2.69977	2.48553	2.57142
H	-2.46197	3.76933	3.73511
C	-3.43397	4.43288	1.98289
H	-3.15545	5.48818	1.97574

C	-4.61612	4.11033	1.44553
C	-5.16718	2.70863	1.36389
H	-4.43947	1.94478	1.63475
H	-6.04066	2.59306	2.01783
H	-5.51464	2.49005	0.34719
C	-5.51843	5.17125	0.86394
H	-5.09080	6.17157	0.95968
H	-5.71319	4.98733	-0.19991
H	-6.49723	5.17512	1.35944
O	1.13979	4.88331	0.61255

Hydrazone **44**:

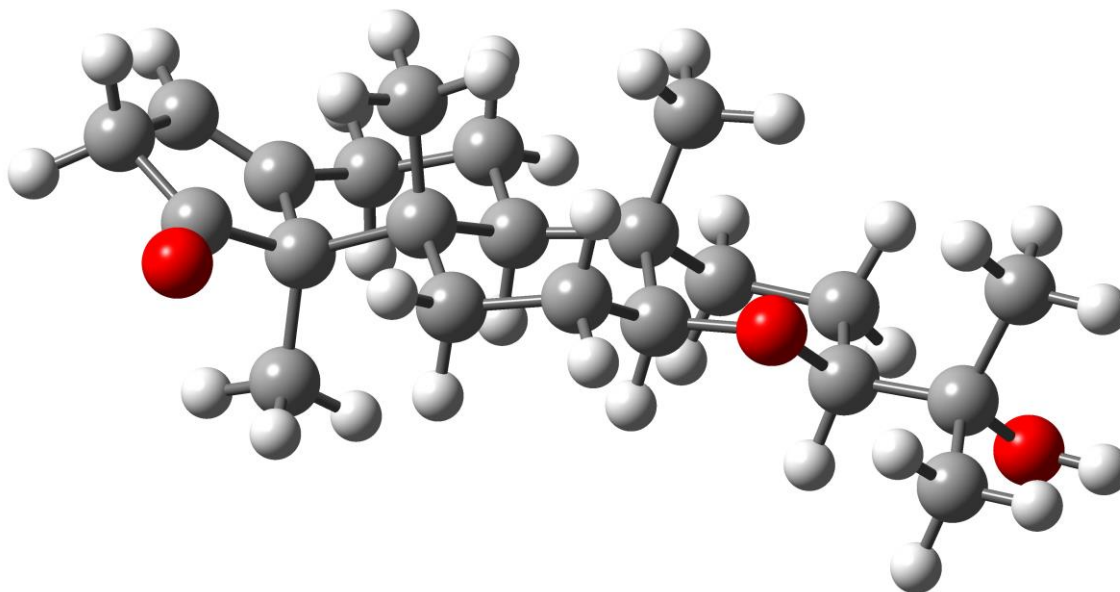


Cartesian Coordinates:

C	-1.58706	2.68188	0.87646
C	-0.26743	2.85482	0.09964
C	-0.04916	1.69871	-0.90540
C	-0.67128	0.41977	-0.41063
C	-2.20054	0.44181	-0.20137
C	-2.62780	1.92617	0.04540
H	-1.41458	2.13073	1.80567
H	-0.26724	3.80193	-0.44877
H	-0.55088	1.94371	-1.84972
N	-0.08880	-0.69814	-0.19218
H	-2.72316	2.42606	-0.93155
H	-1.98677	3.66081	1.16687
H	0.56884	2.88083	0.79751
H	1.00408	1.55438	-1.13081
O	-3.90730	1.92929	0.68252
H	-4.13426	2.84425	0.88421
C	-2.58511	-0.44670	0.99533
H	-3.65727	-0.42029	1.16701

H	-2.27775	-1.47461	0.80986
H	-2.08240	-0.11640	1.90739
C	-2.80907	-0.09244	-1.53598
H	-2.41954	0.52858	-2.35224
H	-2.40338	-1.09527	-1.70547
C	-4.35010	-0.13512	-1.66636
H	-4.78697	0.77535	-1.25720
H	-4.57100	-0.12038	-2.74339
C	-4.99829	-1.36812	-1.09466
H	-4.55510	-2.30310	-1.44195
C	-6.05066	-1.46034	-0.27384
C	-6.78810	-0.28226	0.31161
H	-6.26749	0.66279	0.16612
H	-7.79241	-0.19426	-0.12177
H	-6.92899	-0.41666	1.39031
C	-6.59302	-2.80687	0.13876
H	-6.04798	-3.62999	-0.32832
H	-6.53780	-2.93926	1.22616
H	-7.65164	-2.90790	-0.13090
N	1.33908	-0.70447	-0.44238
H	1.54340	-1.66076	-0.72908
S	2.24863	-0.47532	1.02527
O	2.16207	-1.63675	1.90726
O	1.88407	0.85262	1.51069
C	3.90198	-0.42842	0.33162
C	4.36514	0.74097	-0.27035
C	4.70968	-1.55737	0.42501
C	5.65236	0.76723	-0.78926
H	3.73039	1.61762	-0.31480
C	5.99748	-1.51255	-0.10374
H	4.33972	-2.44706	0.92043
C	6.48829	-0.35626	-0.71654
H	6.01827	1.67703	-1.25591
H	6.63084	-2.39116	-0.03010
C	7.89322	-0.29966	-1.26135
H	7.92711	0.20612	-2.22970
H	8.55218	0.25497	-0.58500
H	8.31797	-1.29730	-1.38716

Non-conjugated enone **86**:



Cartesian Coordinates

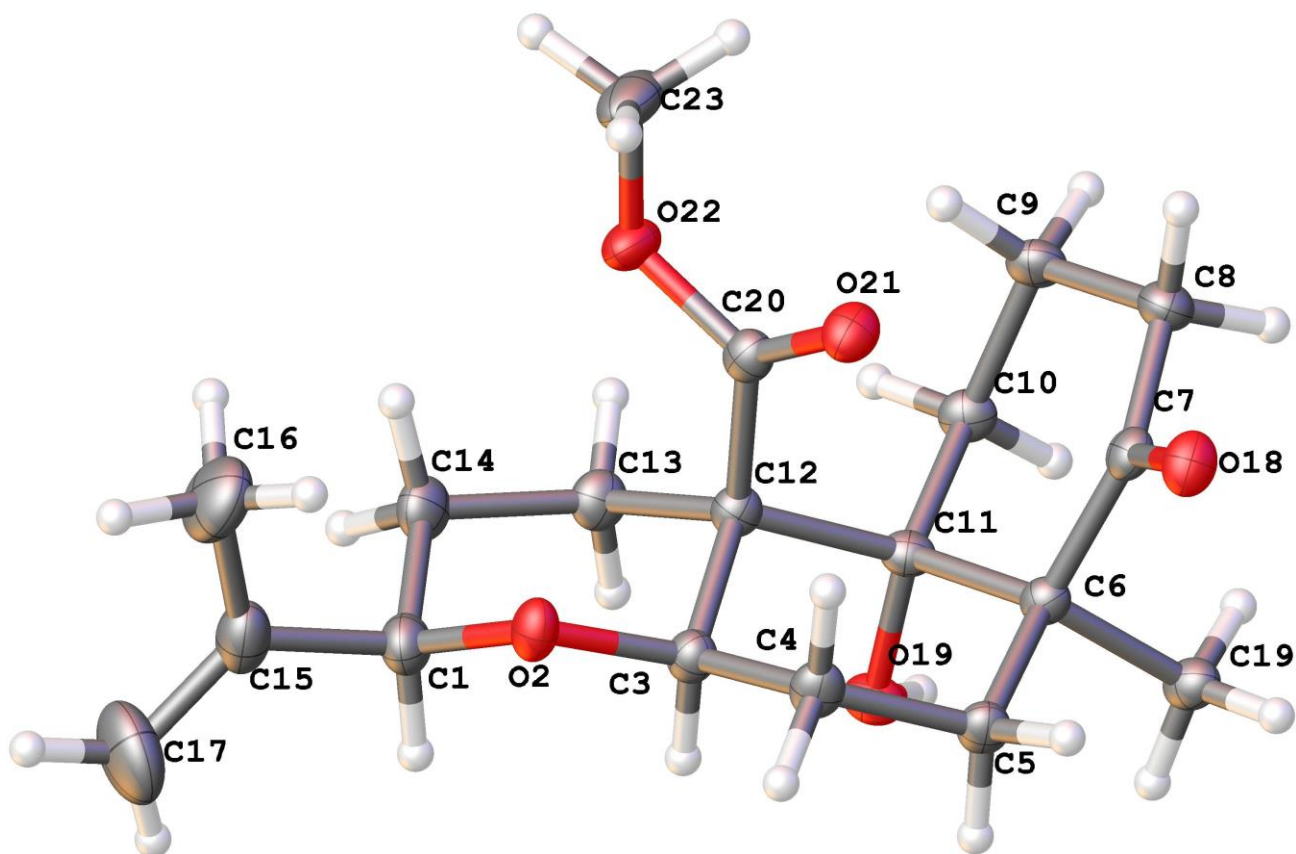
C	3.07284	0.27646	-0.57012
C	3.67799	-1.09995	-0.33412
C	2.82409	-2.30537	-0.56760
C	1.47793	-2.15739	0.16950
C	0.80618	-0.80269	-0.13254
C	1.72693	0.41724	0.27484
C	4.21018	1.21207	-0.08036
C	5.41555	0.36053	0.33604
C	4.92366	-1.04576	0.14466
H	2.62477	-2.41512	-1.64246
H	0.82104	-2.97698	-0.13199
H	0.73412	-0.74313	-1.22617
H	5.70226	0.59584	1.36860
H	5.52141	-1.91755	0.39349
O	4.17409	2.41729	-0.07150
C	2.91393	0.56961	-2.08321
H	2.75595	1.63443	-2.25701
H	3.82477	0.28111	-2.61522
H	2.08759	0.01976	-2.53660
H	6.28146	0.62548	-0.28390
H	3.34239	-3.21635	-0.25215
H	1.64100	-2.27515	1.24426
C	1.00547	1.74995	-0.04230
H	0.93855	1.88386	-1.12596
H	1.60610	2.58474	0.32521
C	-0.42441	1.81937	0.51441
H	-0.44392	1.79995	1.60776
H	-0.89268	2.76195	0.21509
C	-1.23133	0.66890	-0.06110

H	-1.15200	0.74081	-1.16054
C	-0.69253	-0.73173	0.33044
C	2.11980	0.42486	1.77160
H	2.60874	-0.49707	2.08817
H	2.80969	1.24781	1.97288
H	1.26545	0.58321	2.42481
C	-0.90465	-1.03070	1.82758
H	-1.95909	-0.95628	2.09040
H	-0.57522	-2.04465	2.06940
H	-0.37254	-0.35049	2.48794
C	-1.55277	-1.73700	-0.48978
H	-1.31115	-2.76954	-0.22074
H	-1.30244	-1.62837	-1.55333
C	-3.43755	-0.04404	-0.51492
H	-3.27105	0.19837	-1.57742
C	-3.06526	-1.51414	-0.30503
H	-3.62686	-2.12459	-1.01516
H	-3.36993	-1.84061	0.69223
O	-2.60900	0.81362	0.27362
C	-4.90694	0.32004	-0.21075
C	-5.27818	0.11287	1.26157
H	-4.64112	0.70998	1.91633
H	-6.31667	0.41625	1.43321
H	-5.19000	-0.93663	1.54651
C	-5.18335	1.76711	-0.63434
H	-4.96940	1.89756	-1.69806
H	-6.23639	2.02016	-0.46755
H	-4.57178	2.46974	-0.06681
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H	-6.59468	-0.37199	-0.93630

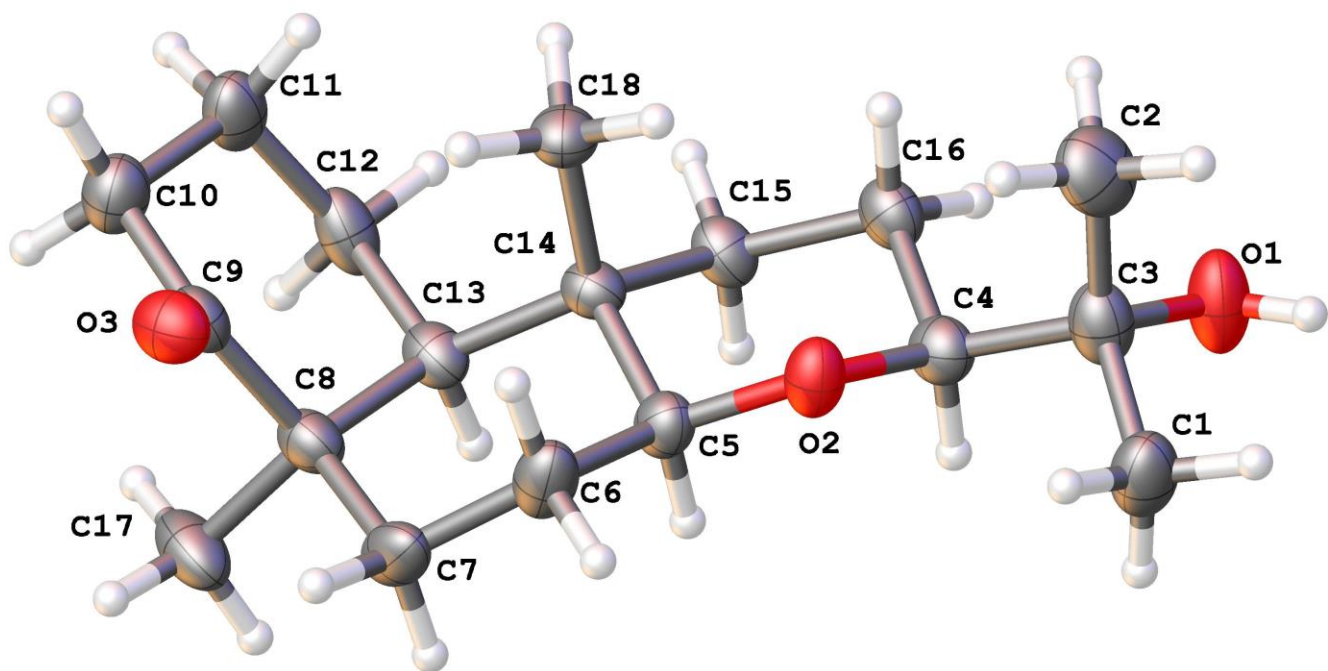
X-ray Crystallographic Data: Suitable single crystals of compounds **1**, **32**, **54**, and **91** were selected and analyzed on a Bruker APEX-II CCD¹ diffractometer. Crystals were kept at 100 K during data collection. Using Olex2,¹ structures were solved with the olex2.solve² structure solution program using Charge Flipping and refined with the XL³ refinement package using Least Squares minimization. Thermal ellipsoid plots of these structures are included below.

1. Dolomanov, O. V.; Bourhis, L. J.; Gildea, R. J.; Howard, J. A. K.; Puschmann, H. *J. Appl. Cryst.* **2009**, *42*, 339.
2. Bourhis, L. J.; Dolomanov, O. V.; Gildea, R. J.; Howard, J. A. K.; Puschmann, H. *Acta Cryst.* **2015**, *A71*, 59.
3. Sheldrick, G. M. *Acta Cryst.* **2008**, *A64*, 112.

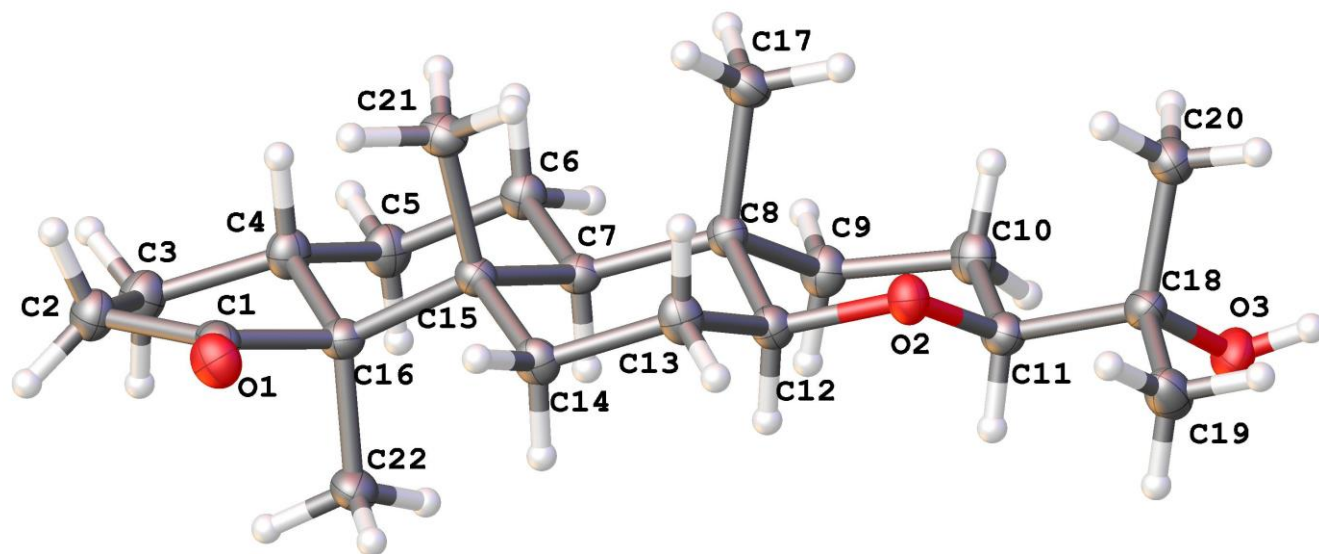
Compound 32 (x1504008) (plotted at 50% ellipsoid contour percent probability)



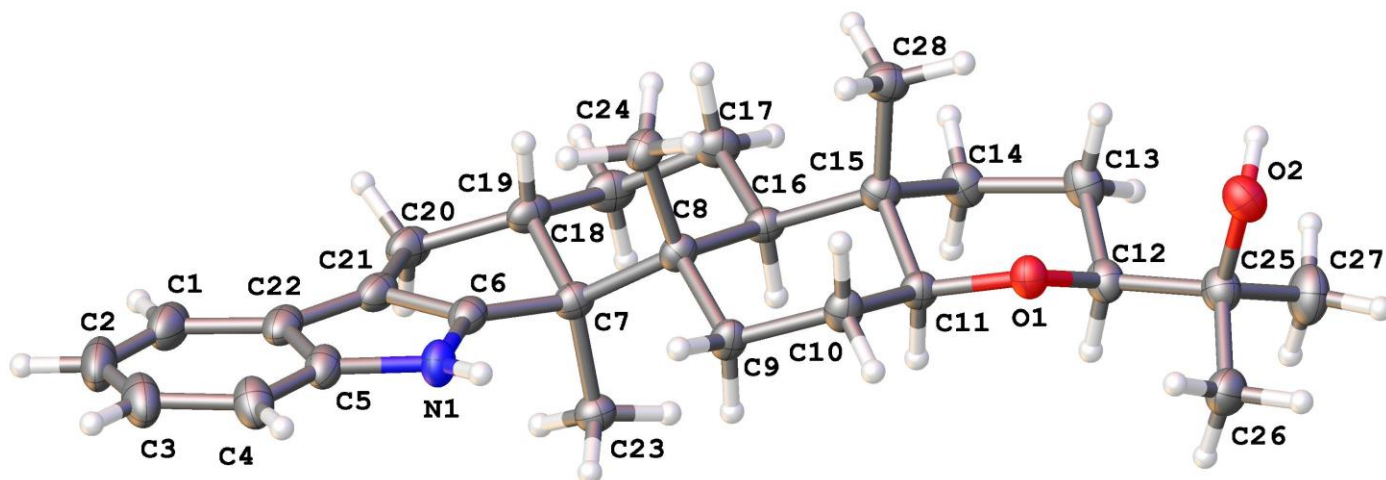
Compound 54 (x1405008) (plotted at 50% ellipsoid contour percent probability)

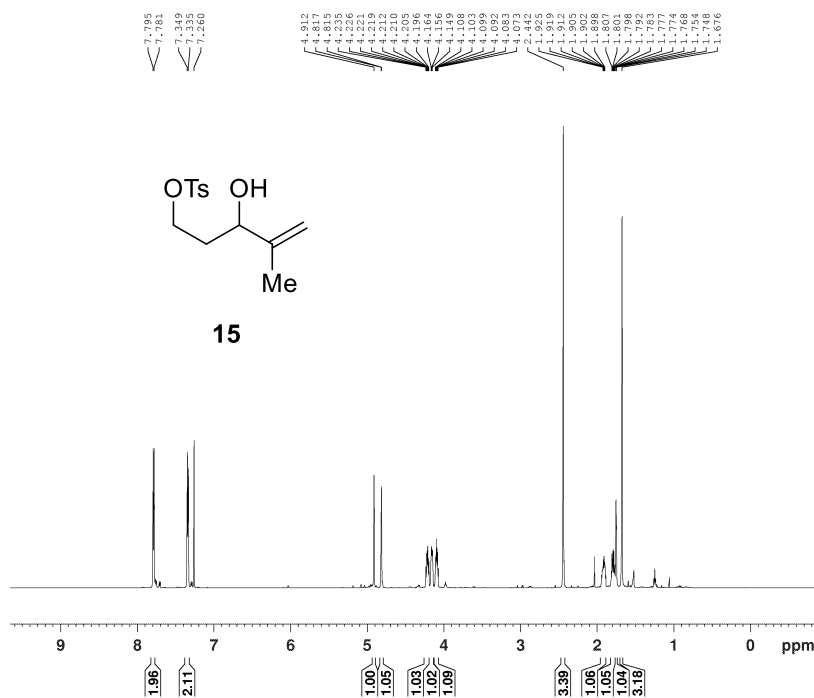


Compound 91 (x1501005) (plotted at 50% ellipsoid contour percent probability)



Compound 1 (x1502014) (paspaline) (plotted at 50% ellipsoid contour percent probability)

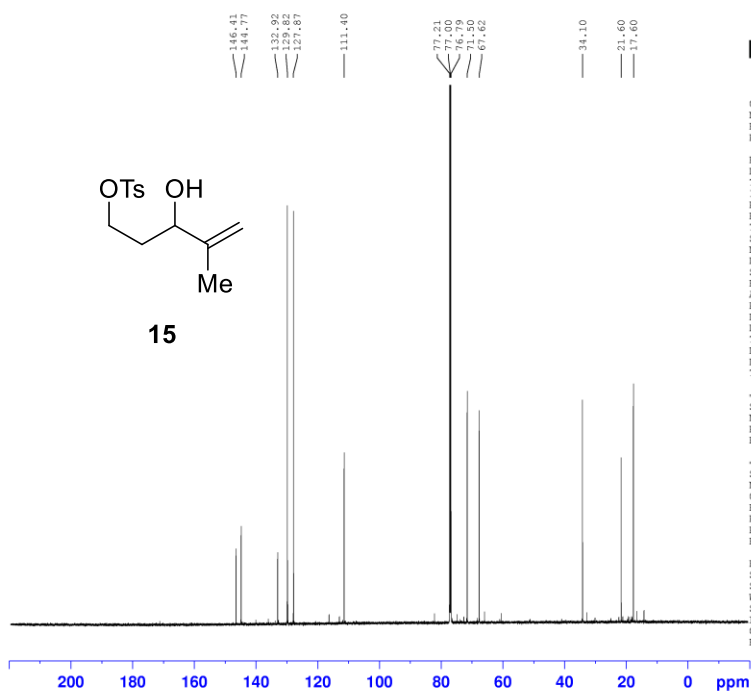




Current Data Parameters
NAME rjs-2474 Pure Prot
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150228
Time 9.14
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 13
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 sec
RG 32
DW 41.600 usec
DE 10.00 usec
TE 298.1 K
D1 1.00000000 sec
TDO 1

----- CHANNEL f1 -----
SF01 600.1337060 MHz
NUC1 1H
P1 13.00 usec
PLW1 9.00000000 w
F2 - Processing parameters
SI 65536
SF 600.1300168 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

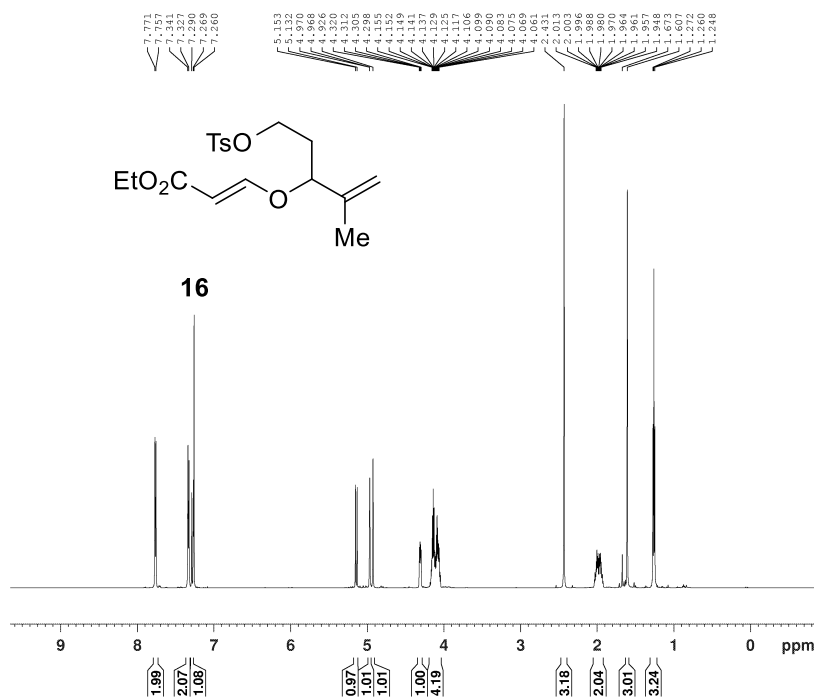


Current Data Parameters
NAME rjs-2474 Pure Carbon
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150228
Time 9.19
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 49
DS 4
SWH 36057.691 Hz
FIDRES 0.550197 Hz
AQ 0.9087659 sec
RG 203
DW 13.867 usec
DE 18.00 usec
TE 298.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TDO 1

----- CHANNEL f1 -----
SF01 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 w
----- CHANNEL f2 -----
SF02 600.1324005 MHz
NUC2 1H
PCPDPRG2 waltz16
PCPD2 80.00 usec
PLW2 9.00000000 w
PLW12 0.26387000 w
PLW13 0.17016000 w

F2 - Processing parameters
SI 32768
SF 150.9028184 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

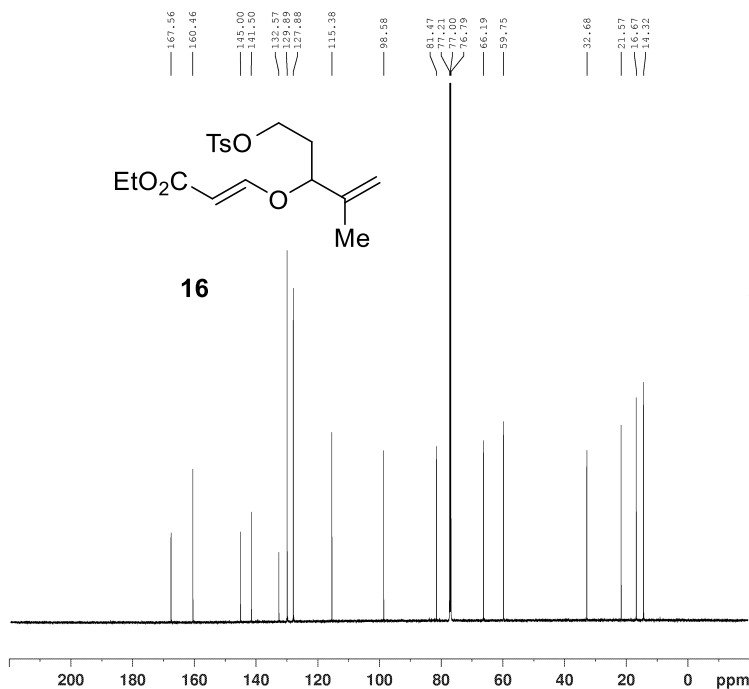


Current Data Parameters
NAME rjs-2477 Pure
EXNO 1
PROCNO 1

F2 - Acquisition Parameter
Date_ 20150302
Time 13.04
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 14
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 se
RG 32
DW 41.600 us
DE 10.00 us
TE 298.1 K
D1 1.00000000 se
TDO 1

===== CHANNEL f1 =====
SF01 600.1337060 MH
NUC1 1H
P1 13.00 us
PLW1 9.00000000 W

F2 - Processing parameters
SI 65536
SF 600.1300171 MH
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



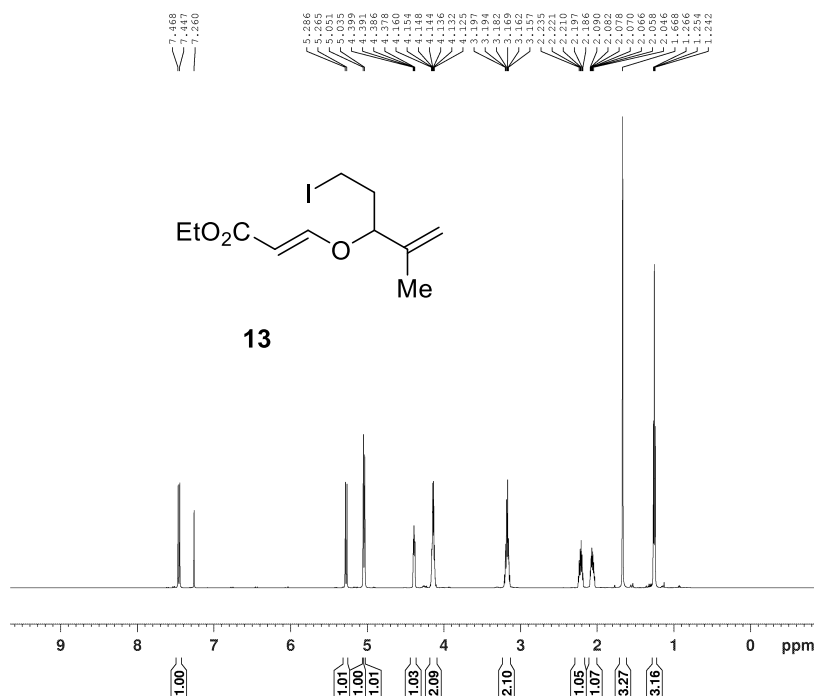
Current Data Parameters
NAME rjs-2477 Pure Carbon
EXNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150302
Time 13.07
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 34
DS 4
SWH 36057.691 Hz
FIDRES 0.550197 Hz
AQ 0.9087659 sec
RG 203
DW 13.867 usec
DE 18.00 usec
TE 298.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TDO 1

===== CHANNEL f1 =====
SF01 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 W

===== CHANNEL f2 =====
SF02 600.1324005 MHz
NUC2 1H
CDPRG2 waltz16
PCPD2 80.00 usec
PLW2 9.00000000 W
PLW12 0.26587000 W
PLW13 0.17016000 W

F2 - Processing parameters
SI 32768
SF 150.9028184 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

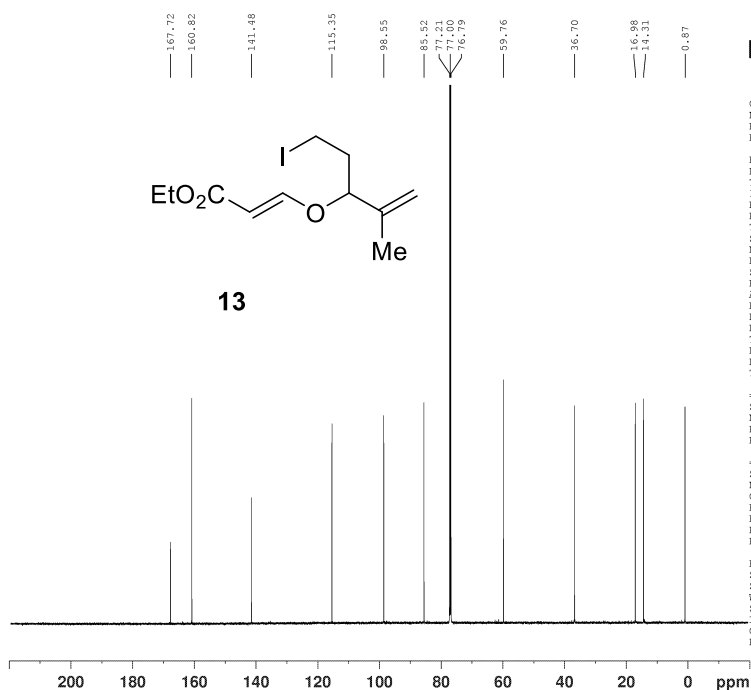


Current Data Parameters
 NAME rjs-2480 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150303
 Time 9.34
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 17
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300177 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



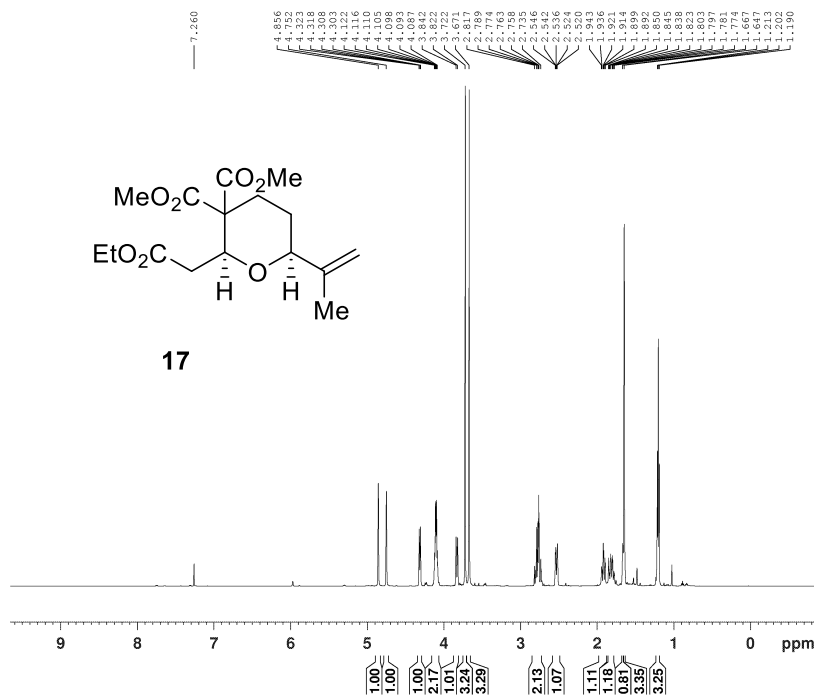
Current Data Parameters
 NAME rjs-2480 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150303
 Time 9.37
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 34
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG12 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028184 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

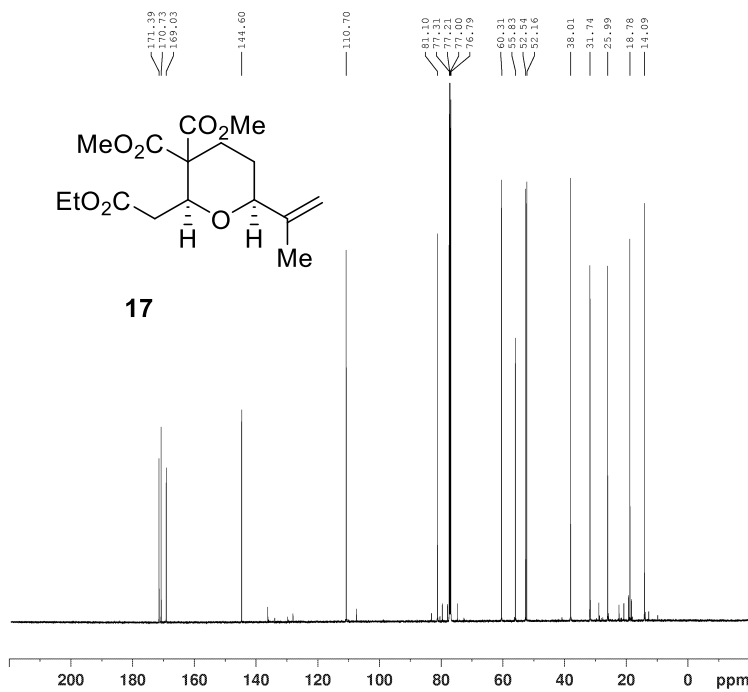


Current Data Parameters
 NAME rjs-2484 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150304
 Time 9.12
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 ID 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 14.2
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300176 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



Current Data Parameters
 NAME rjs-2484 Pure Carbon
 EXPNO 1
 PROCNO 1

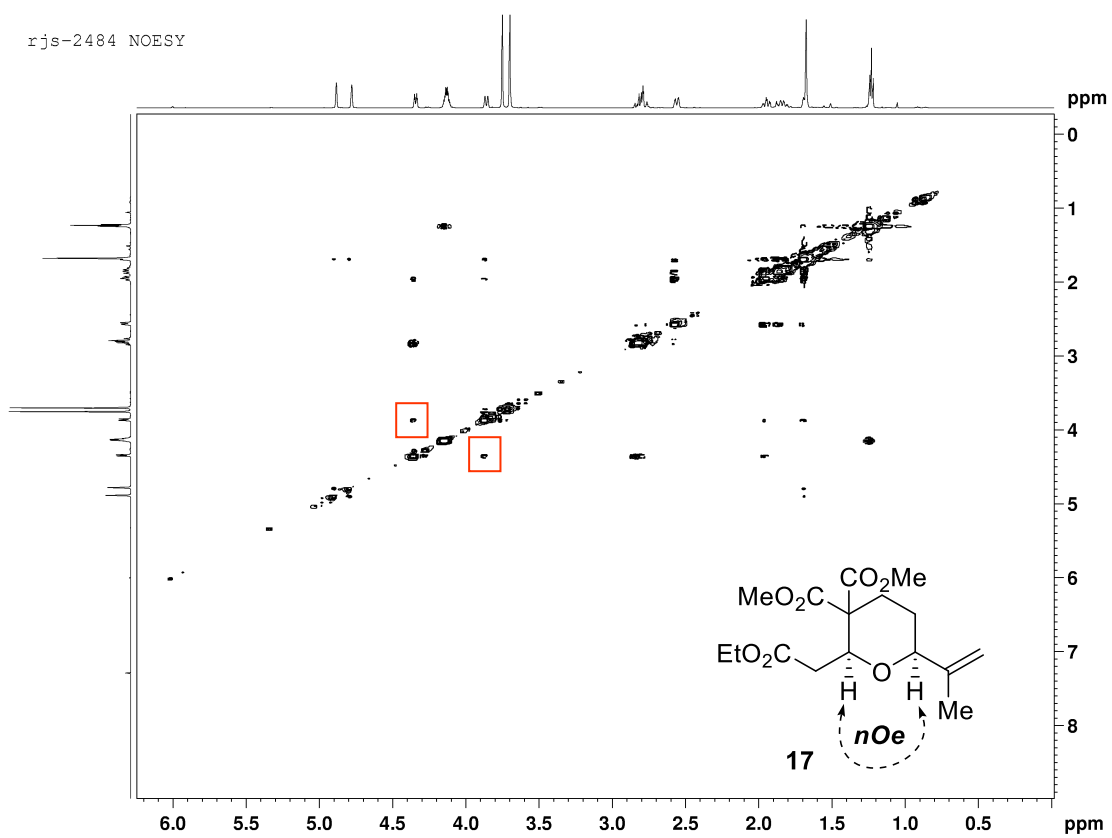
F2 - Acquisition Parameters
 Date_ 20150304
 Time 9.16
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 ID 65536
 SOLVENT CDCl3
 NS 40
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

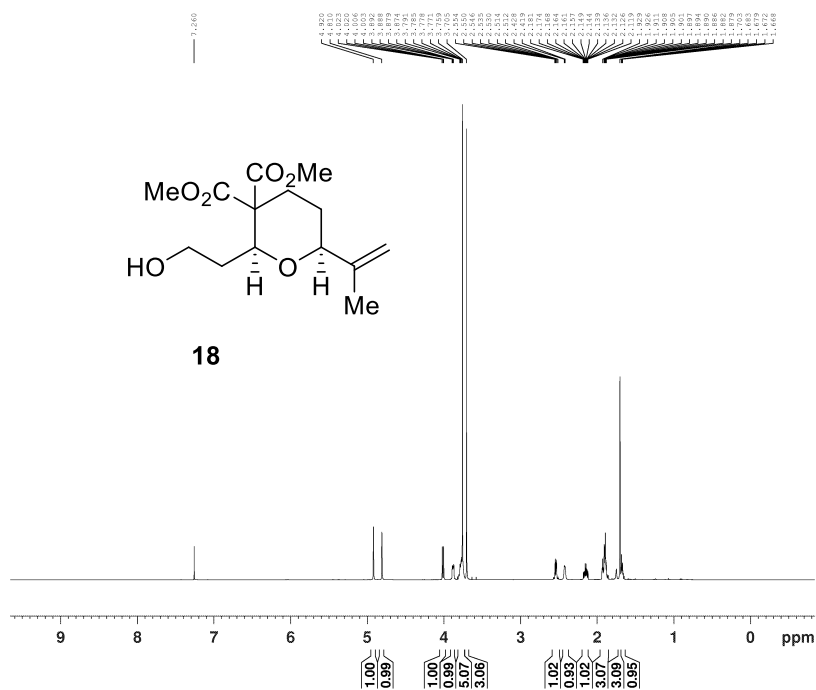
==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028248 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

rjs-2484 NOESY



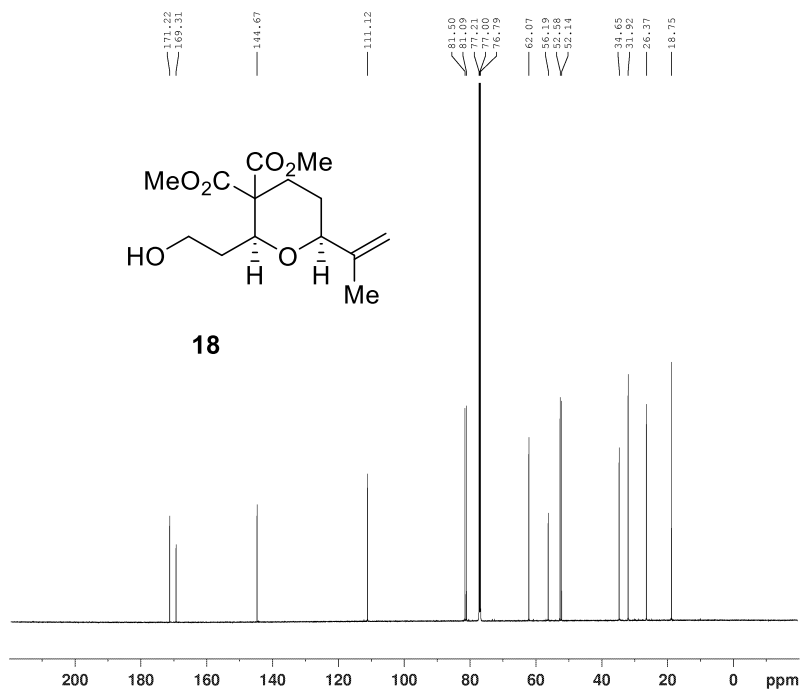


Current Data Parameters
NAME rjs-2490
EXNO 1
PROCNO 1

F2 - Acquisition Parameter
Date_ 20150305
Time 18.51
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 se
RG 32
DW 41.600 us
DE 10.00 us
TE 298.1 K
D1 1.00000000 se
TD0 1

===== CHANNEL f1 =====
SFO1 600.1337060 MH
NUC1 1H
P1 13.00 us
PLW1 9.00000000 W

F2 - Processing parameters
SI 65536
SF 600.1300185 MH
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



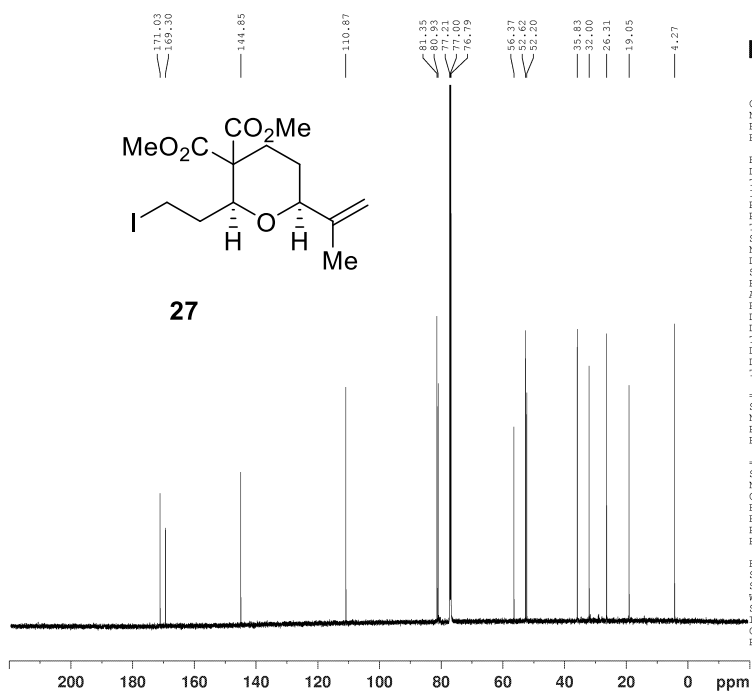
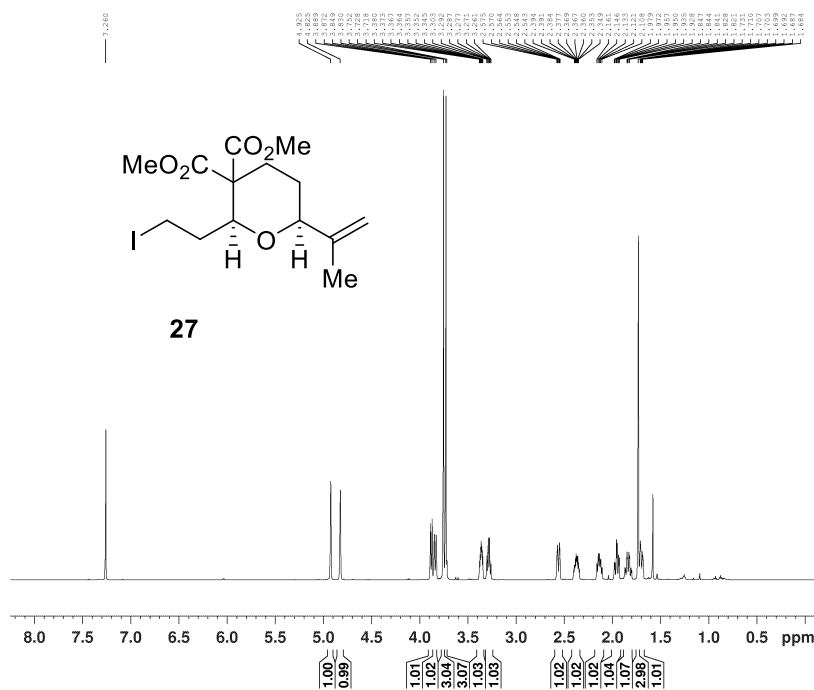
Current Data Parameters
NAME rjs-2490
EXNO 2
PROCNO 1

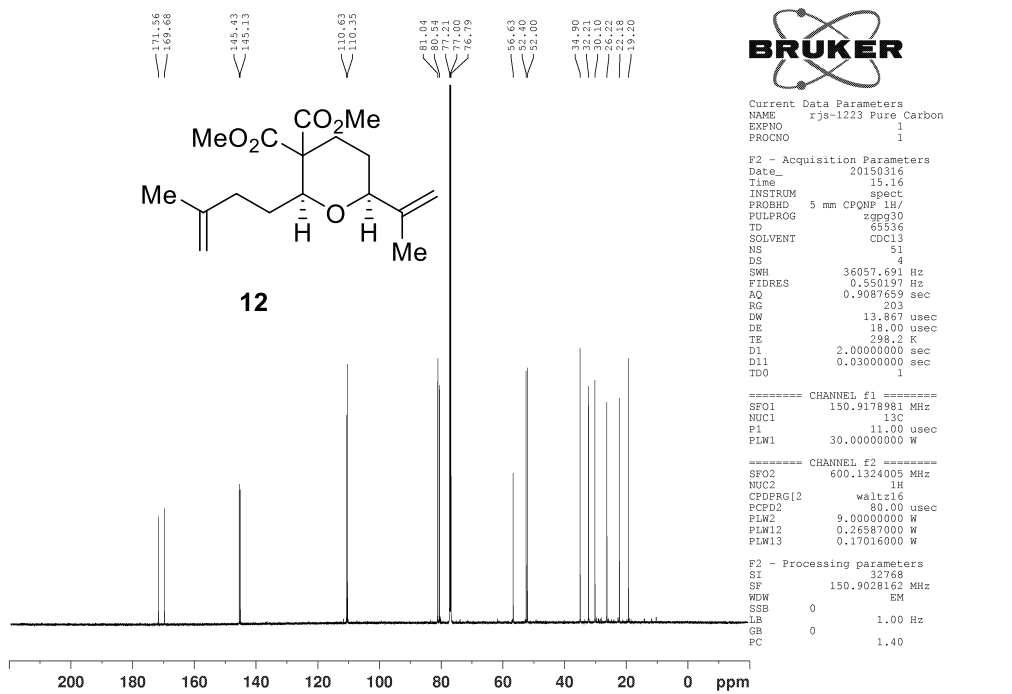
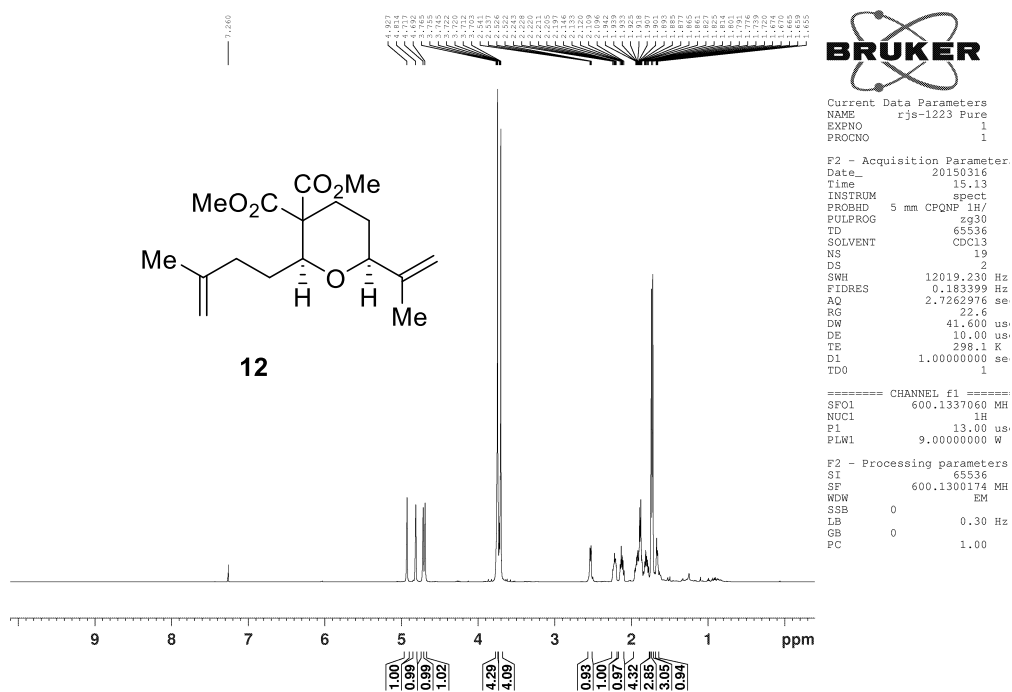
F2 - Acquisition Parameters
Date_ 20150305
Time 19.05
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 256
DS 4
SWH 36057.691 Hz
FIDRES 0.350197 Hz
AQ 0.9087659 sec
RG 203
DW 13.867 usec
DE 18.00 usec
TE 298.2 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

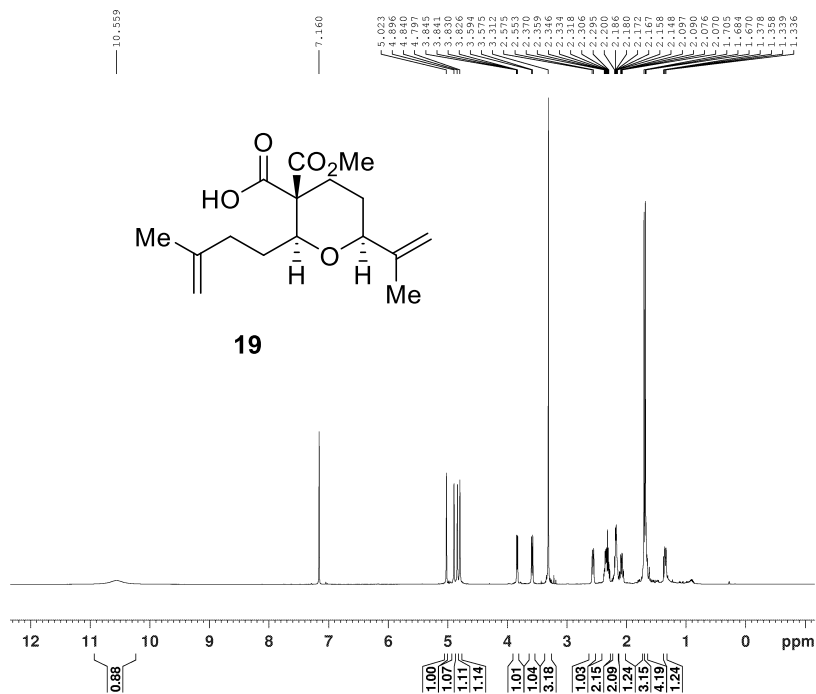
===== CHANNEL f1 =====
SFO1 150.9178981 MHZ
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 W

===== CHANNEL f2 =====
SFO2 600.1324005 MHZ
NUC2 1H
CPDPRG[2] waltz16
PCPD2 80.00 usec
PLW2 9.00000000 W
PLW12 0.26587000 W
PLW13 0.17016000 W

F2 - Processing parameters
SI 32768
SF 150.9028168 MHZ
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40





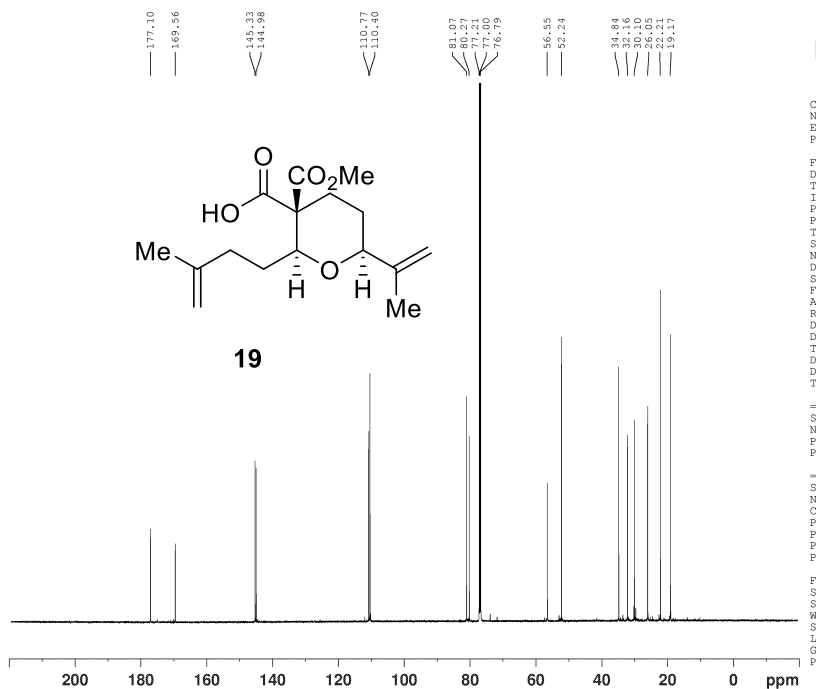


Current Data Parameters
NAME rjs-1226 Pure Benze
EXPRD 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150420
Time 17.31
INSTRUM spect
PROBHD 5 mm CPQCI 1H/
PULPROG zg30
TD 65536
SOLVENT C6D6
NS 8
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 sec
RG 11.3
DW 41.600 usec
DE 10.00 usec
TE 293.0 K
D1 1.0000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 600.1337060 MHz
NUC1 13
P1 10.15 usec
PLW1 13.00000000 W

F2 - Processing parameters
SI 65536
SF 600.1299948 MHz
WDW EM
SSB 0 0.30 Hz
LB 0
GB 0
PC 1.60



Current Data Parameters
NAME rjs-1225
EXPRD 2
PROCNO 1

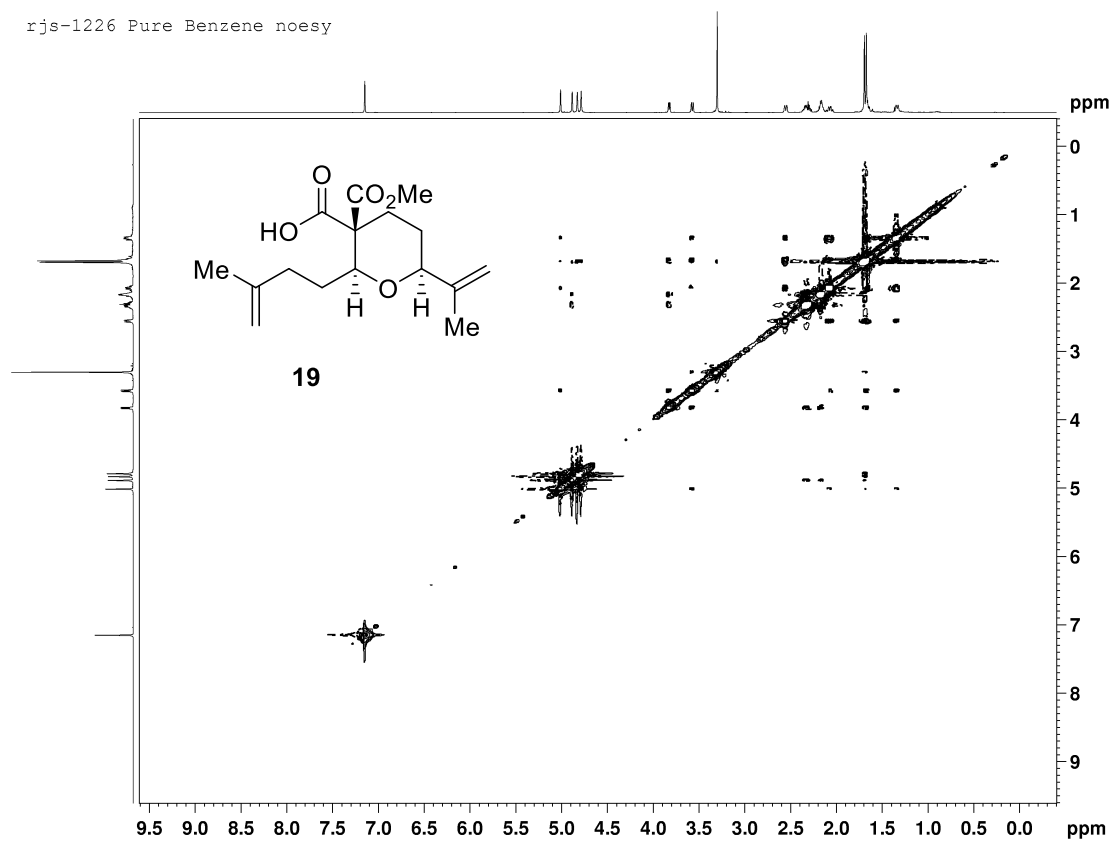
F2 - Acquisition Parameters
Date_ 20150324
Time 13.32
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 128
DS 4
SWH 36057.691 Hz
FIDRES 0.350197 Hz
AQ 0.9087659 sec
RG 203
DW 13.867 usec
DE 18.00 usec
TE 298.1 K
D1 2.0000000 sec
D11 0.03000000 sec
TD0 1

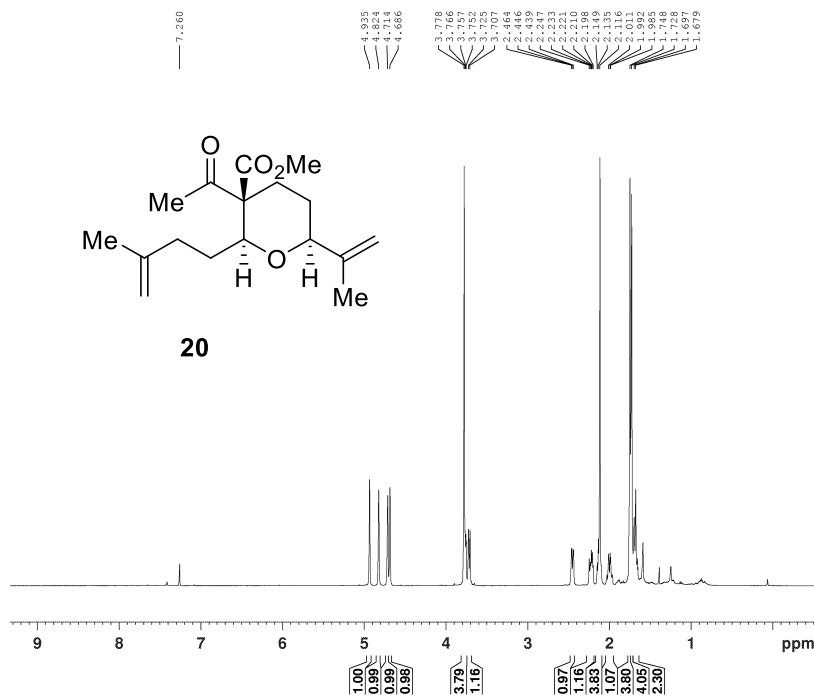
===== CHANNEL f1 =====
SFO1 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 W

===== CHANNEL f2 =====
SFO2 600.1324005 MHz
NUC2 1H
CPDPRG[2] waltz16
PCPD2 80.00 usec
PLW2 9.00000000 W
PLW12 0.26587000 W
PLW13 0.17016000 W

F2 - Processing parameters
SI 32768
SF 150.9028151 MHz
WDW EM
SSB 0 1.00 Hz
LB 0
GB 0
PC 1.40

nOesy spectrum of 19 (in C₆D₆)





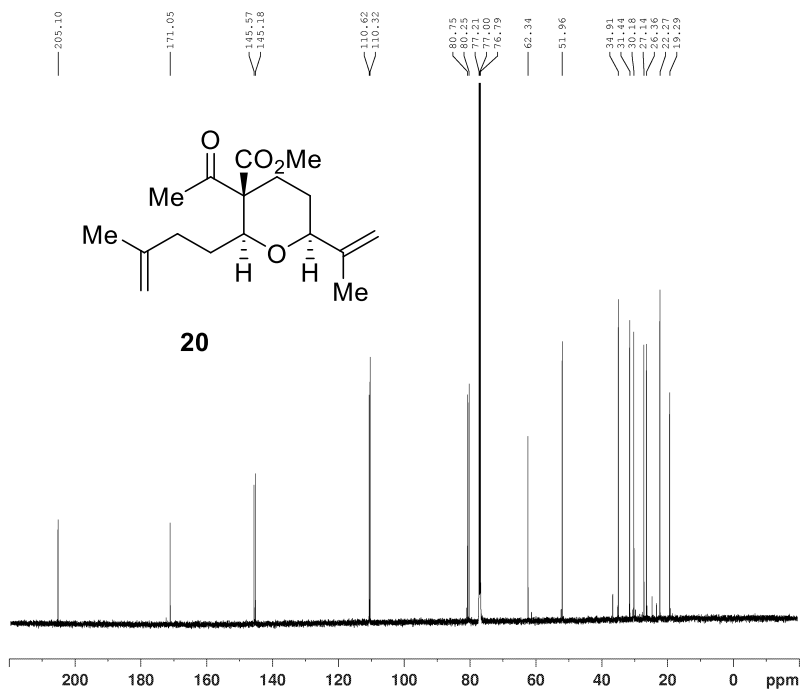
Current Data Parameters
 NAME rjs-1228 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150318
 Time 6.32
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 52
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 FCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028129 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 FC 1.40



Current Data Parameters
 NAME rjs-1228 Pure Carbon
 EXPNO 1
 PROCNO 1

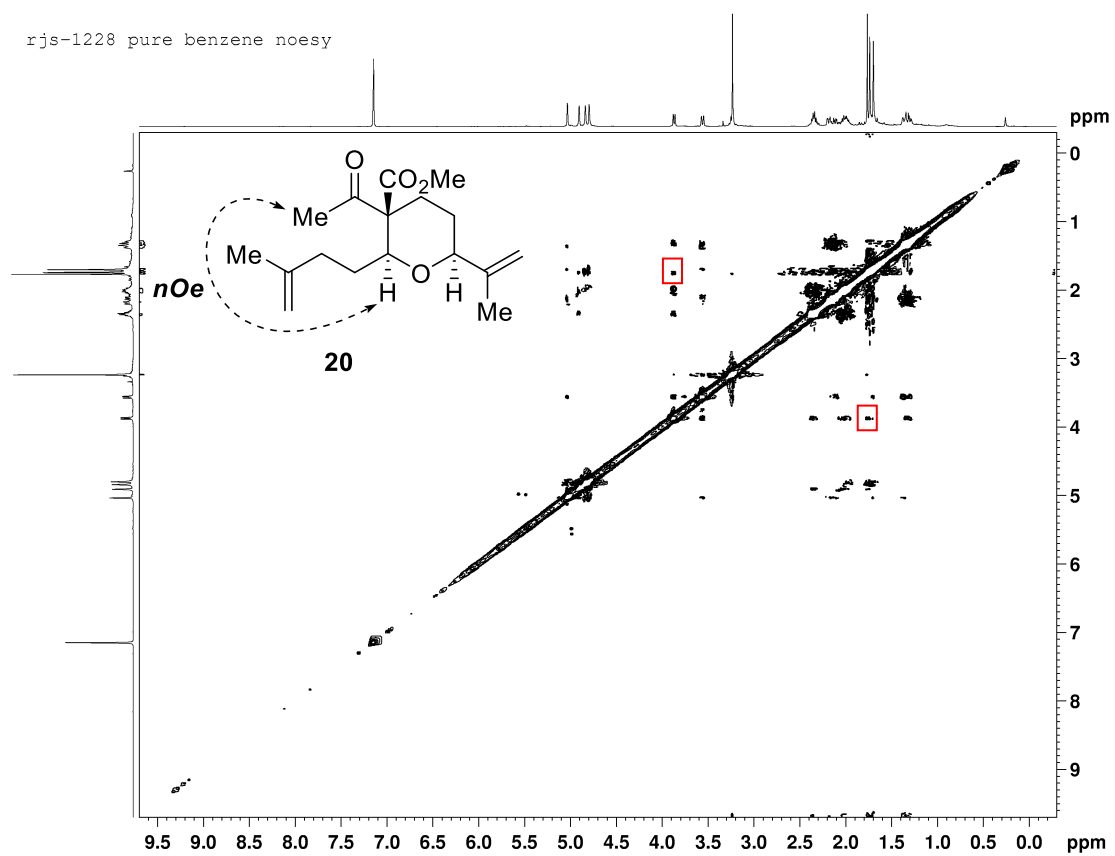
F2 - Acquisition Parameter
 Date_ 20150318
 Time 6.32
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 52
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

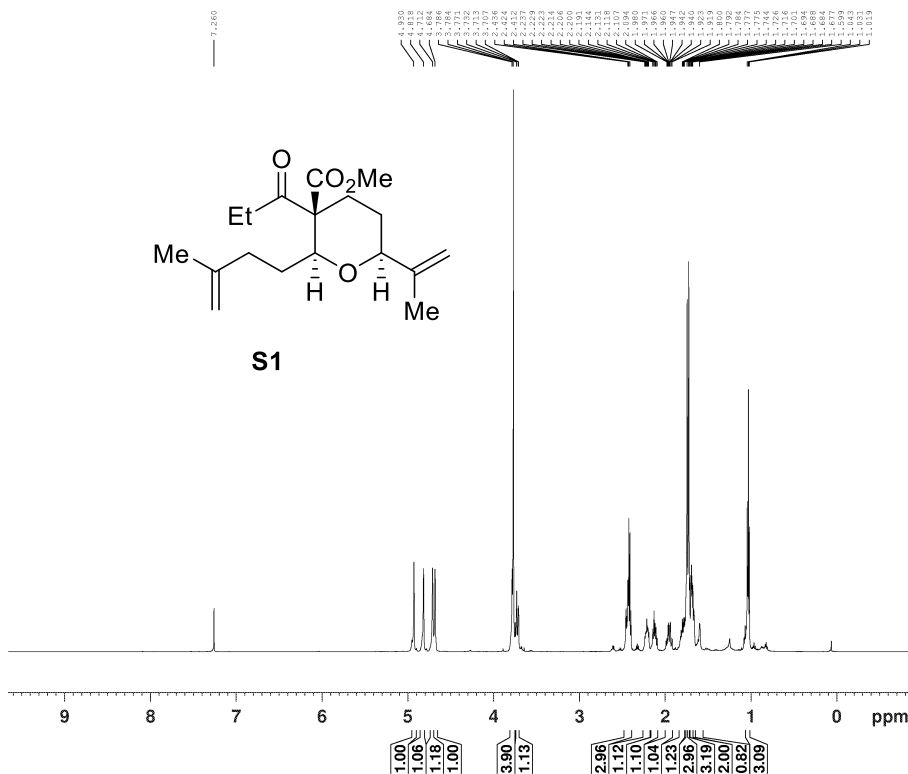
==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 FCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028129 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 FC 1.40

nOesy spectrum of 20 (in C₆D₆)





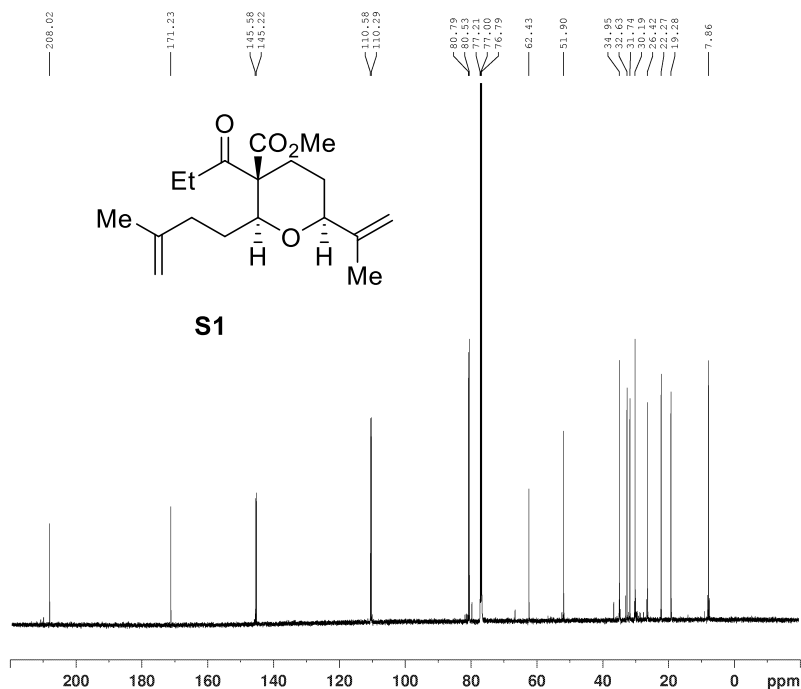
BRUKER

Current Data Parameters
 NAME rjs-1229 Pure prot
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150323
 Time 6.10
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 15
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 32
 DW 41.600 usec
 DE 10.00 usec
 TE 298.1 K
 D1 1.0000000 sec
 TD0 1

----- CHANNEL f1 -----
 SFO1 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.0000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300164 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



BRUKER

Current Data Parameters
 NAME rjs-1229 Pure Carbon
 EXPNO 1
 PROCNO 1

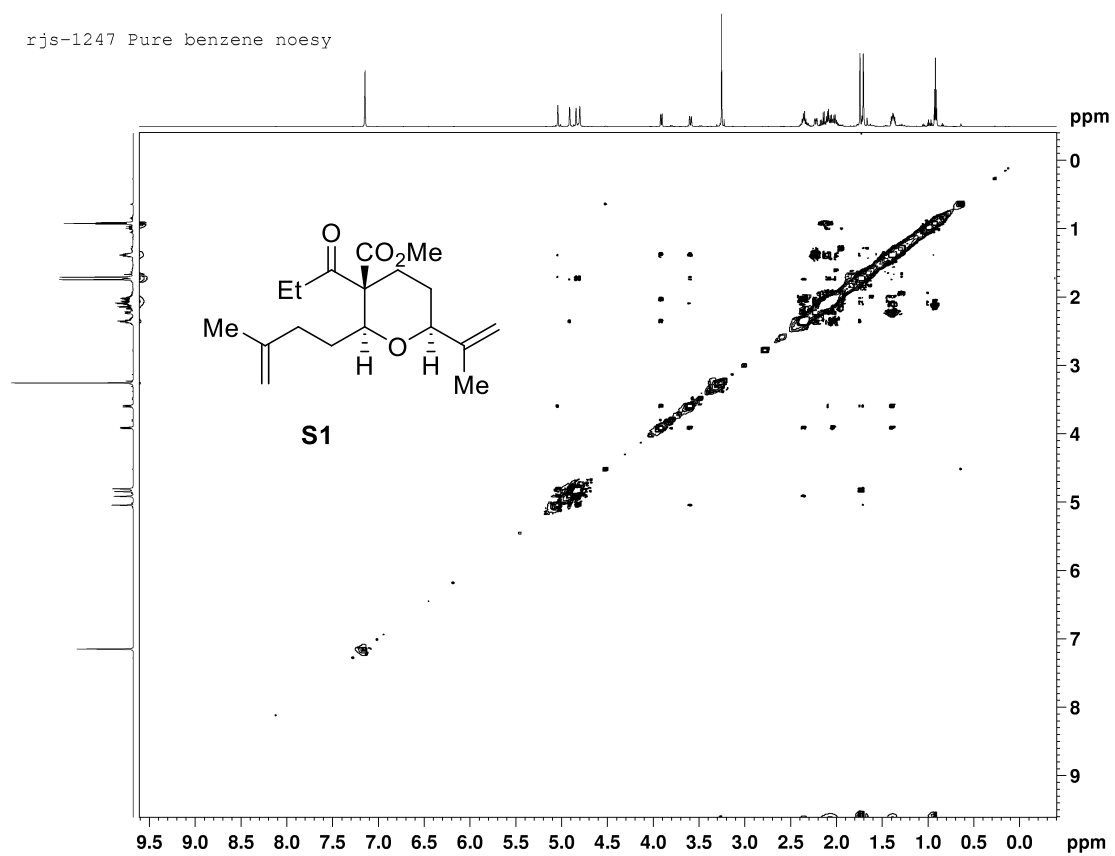
F2 - Acquisition Parameters
 Date_ 20150323
 Time 6.13
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 57
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 1

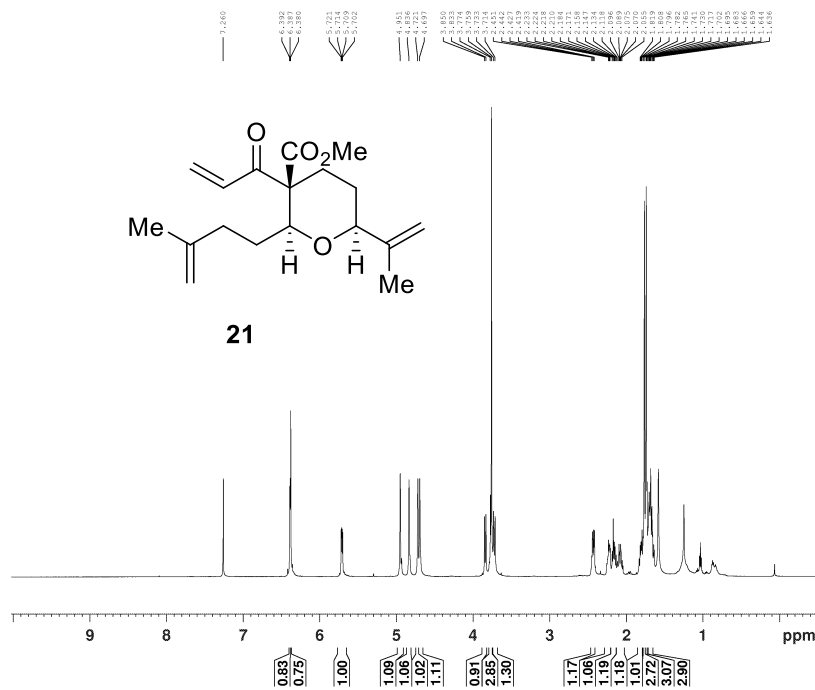
----- CHANNEL f1 -----
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.0000000 W

----- CHANNEL f2 -----
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG12 waltz16
 PCPD2 80.00 usec
 PLW2 9.0000000 W
 PLM12 0.2458700 W
 PLM13 0.1701600 W

F2 - Processing parameters
 SI 32768
 SF 150.9028140 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

nOesy spectrum of S1 (in C₆D₆)



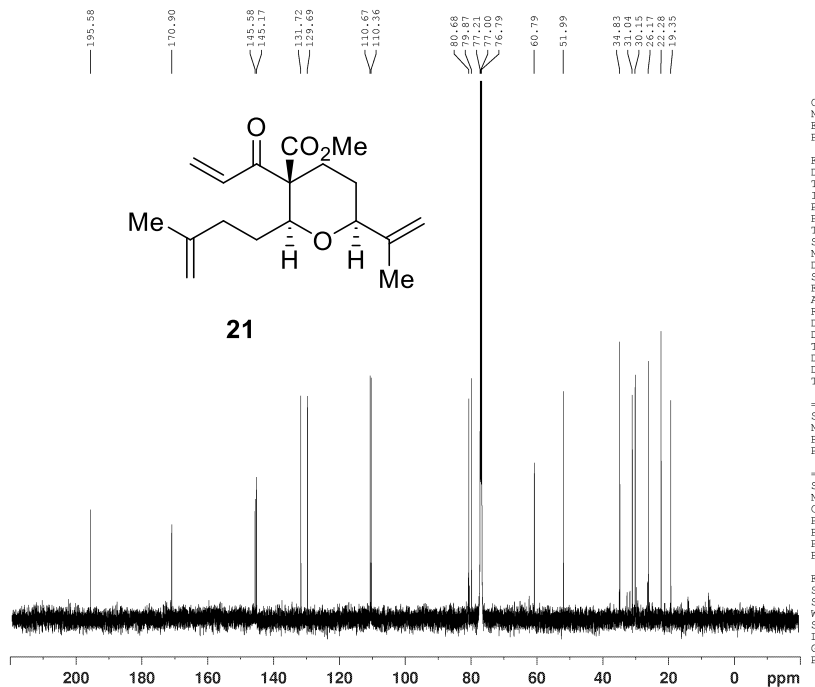


Current Data Parameters
 NAME rjs-1254
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150414
 Time 14.44
 INSTRUM spect
 PROBRD 5 mm CPQCI 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 18
 DW 41.600 us
 DE 10.00 us
 TE 293.0 K
 D1 1.00000000 se
 TD0 1

===== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 10.15 us
 PLW1 13.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300146 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



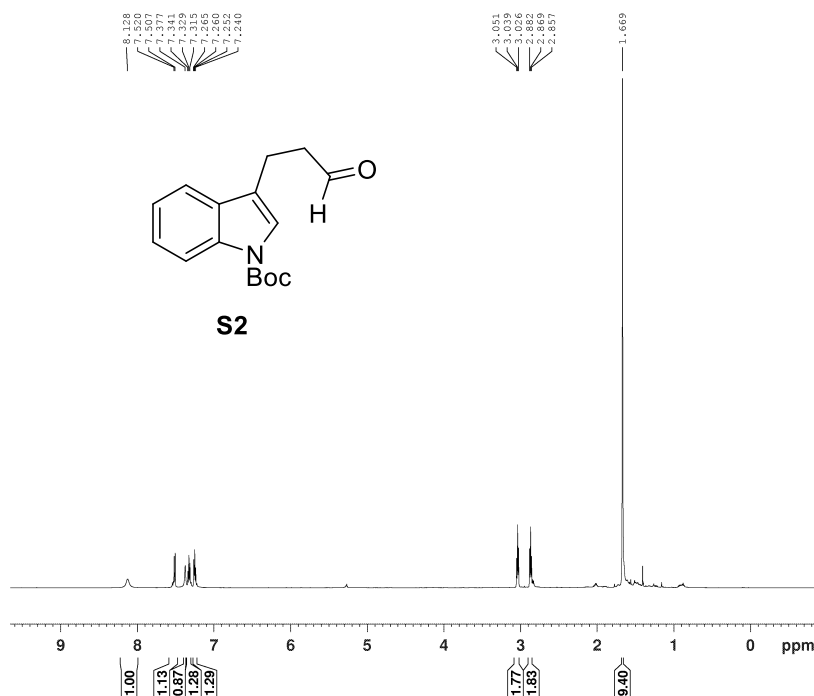
Current Data Parameters
 NAME rjs-1254
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150414
 Time 14.51
 INSTRUM spect
 PROBRD 5 mm CPQCI 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 128
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.350197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 293.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.50 usec
 PLW1 230.00000000 W

===== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG[2] waltz16
 PCPD2 90.00 usec
 PLW2 13.00000000 W
 PLW12 0.16534001 W
 PLW13 0.13393000 W

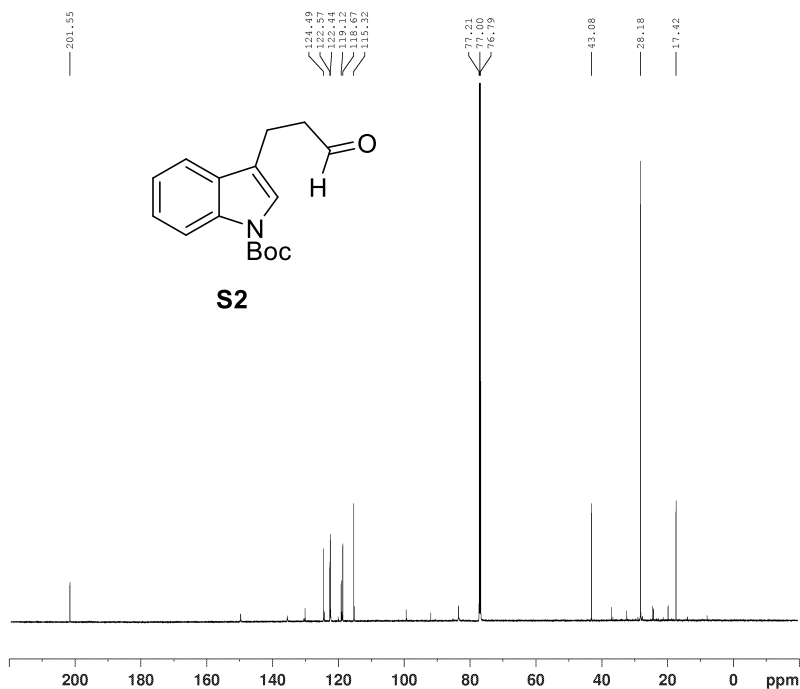
F2 - Processing parameters
 SI 32768
 SF 150.9028150 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



Current Data Parameters
 NAME rjs-1232 Pure Prot
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150323
 Time 6.25
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 19
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 32
 DW 41.600 usec
 DE 10.00 usec
 TE 298.1 K
 D1 1.00000000 sec
 TD0 1

----- CHANNEL f1 -----
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 W
 F2 - Processing parameters
 SI 65536
 SF 600.1300163 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



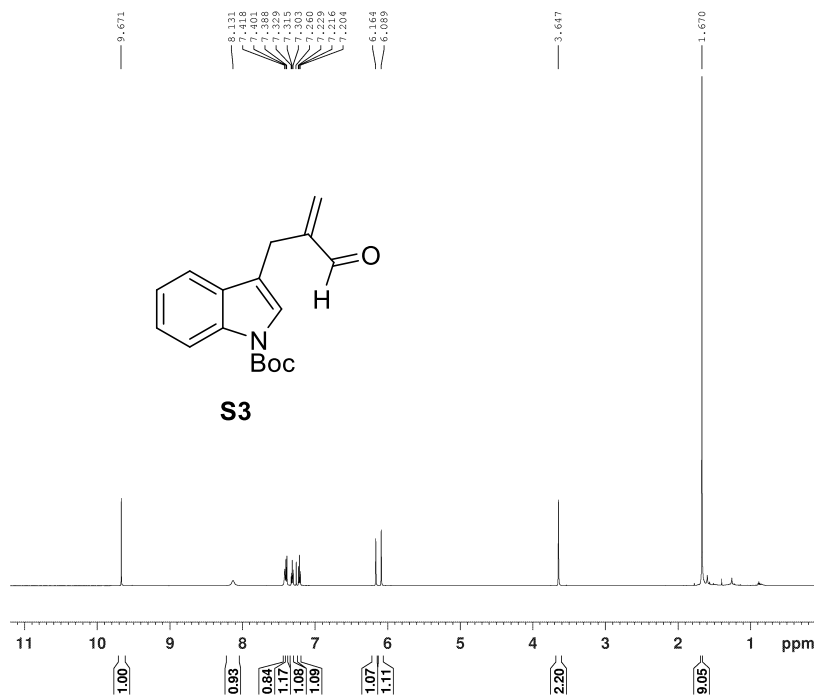
Current Data Parameters
 NAME rjs-1232 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150323
 Time 6.29
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 62
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.250197 Hz
 AQ 0.9087639 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

----- CHANNEL f1 -----
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

----- CHANNEL f2 -----
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG12 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26387000 W
 PLW13 0.17096000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028173 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

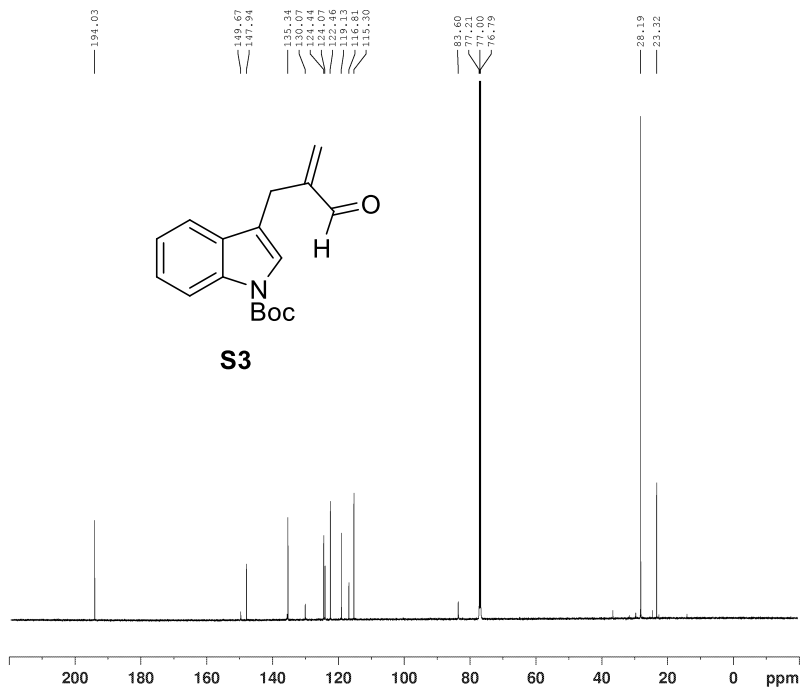


Current Data Parameters
 NAME rjs-1243
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150324
 Time 13.55
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300166 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



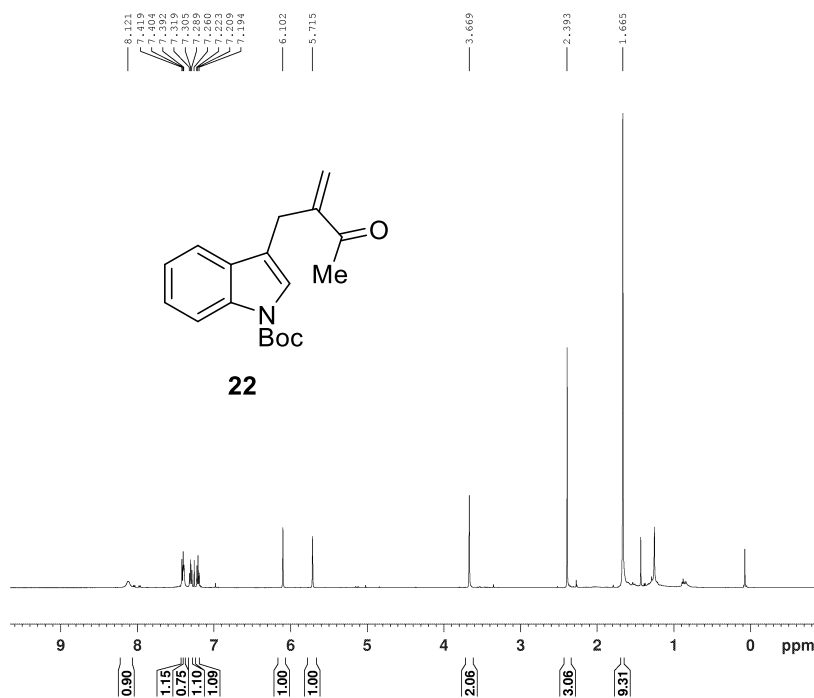
Current Data Parameters
 NAME rjs-1243
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150324
 Time 14.02
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 128
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.350197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLM2 0.26587000 W
 PLM3 0.17016000 W

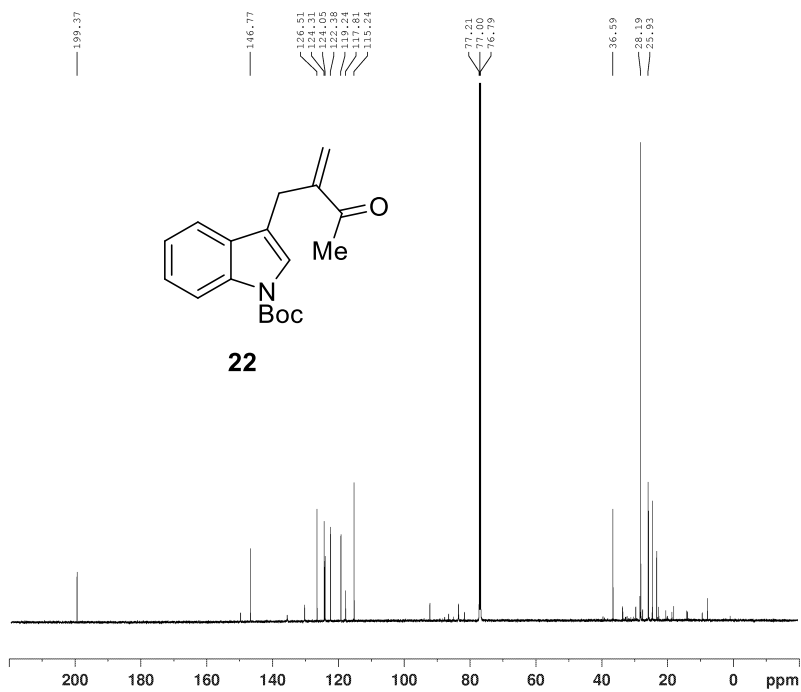
F2 - Processing parameters
 SI 32768
 SF 150.9028140 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



Current Data Parameters
 NAME rjs-1246
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150327
 Time 14.19 h
 INSTRUM spect
 FROBHD z810701_0092 f
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 5
 DS 2
 SWH 10000.000 Hz
 FIDRES 0.152588 Hz
 AQ 3.2767999 se
 RG 79.57
 DW 50.000 us
 DE 6.50 us
 TE 292.9 K
 D1 1.00000000 se
 TDO 1
 SFO1 500.1330883 MH
 NUC1 1H
 P1 6.55 us
 PLW1 19.01099968 W

F2 - Processing parameters
 SI 65536
 SF 500.1300123 MH
 NDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 FC 1.00



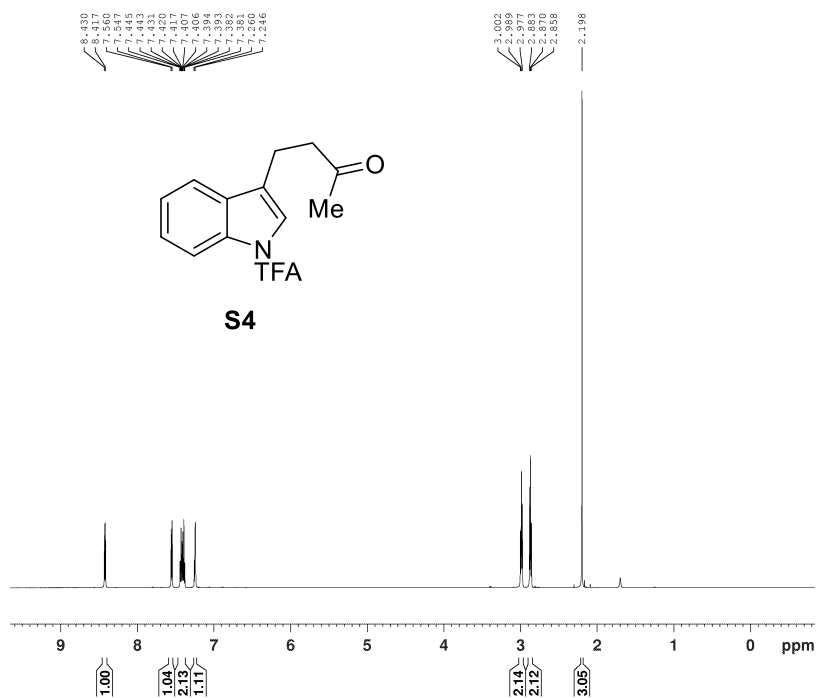
Current Data Parameters
 NAME rjs-1246 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150406
 Time 11.23
 INSTRUM spect
 FROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 54
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1

===== CHANNEL f1 =====
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

===== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028152 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 FC 1.40

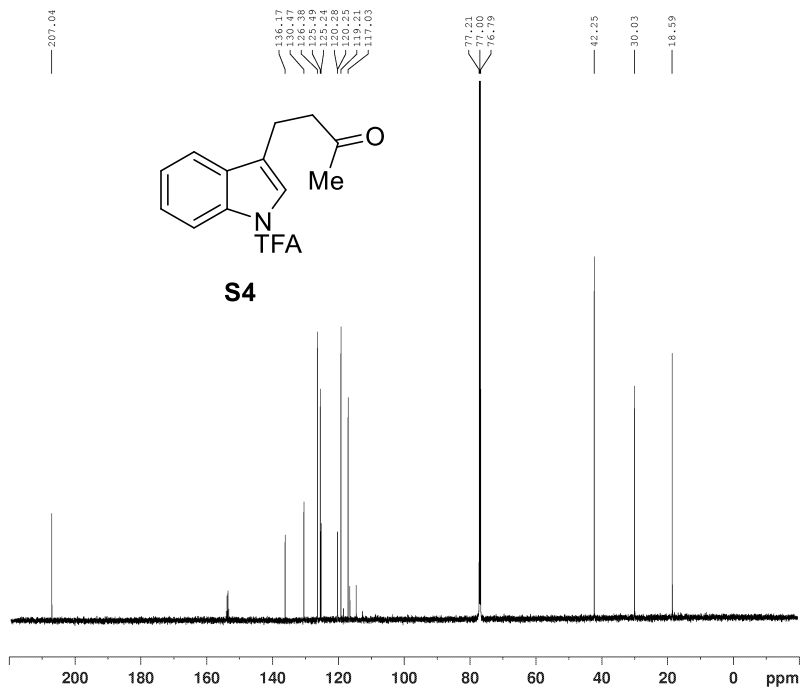


Current Data Parameters
 NAME rjs-1261 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150418
 Time 6.34
 INSTRUM spect
 PROBHD 5 mm CPQCI 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 293.0 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 10.15 us
 PLW1 13.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300147 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 FC 1.00



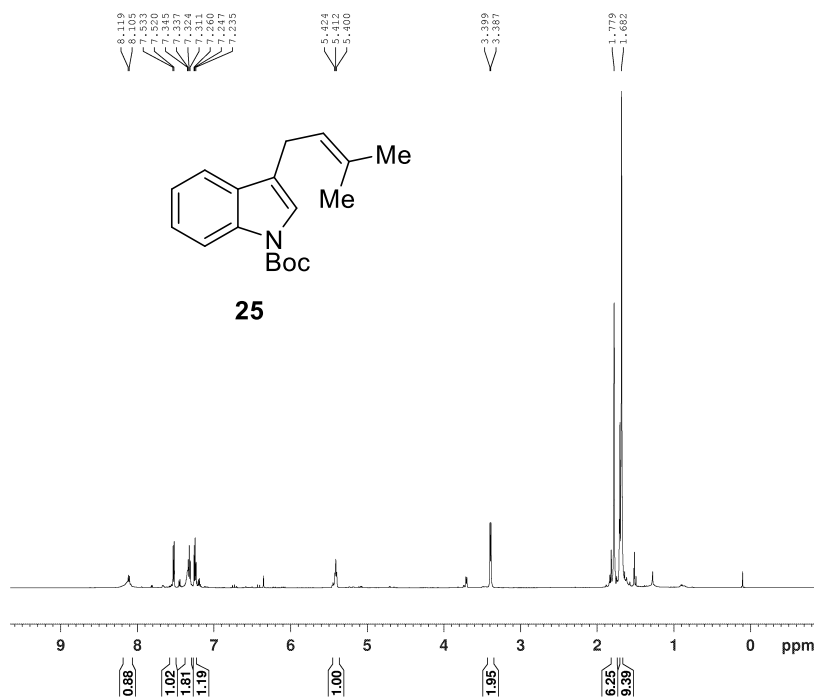
Current Data Parameters
 NAME rjs-1261 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150418
 Time 6.38
 INSTRUM spect
 PROBHD 5 mm CPQCI 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 46
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 293.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.50 usec
 PLW1 230.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 90.00 usec
 PLW2 13.00000000 W
 PLW12 0.16534001 W
 PLW13 0.13393000 W

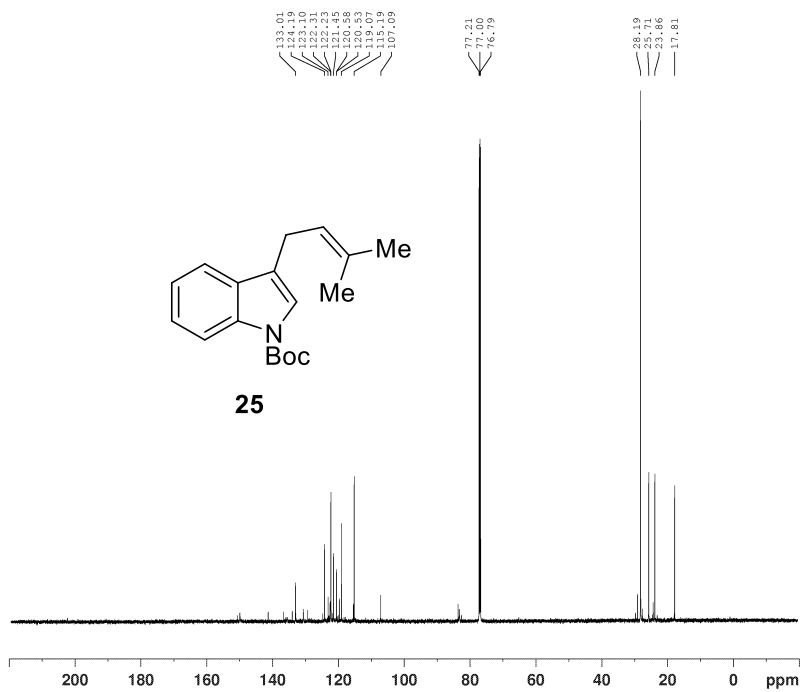
F2 - Processing parameters
 SI 32768
 SF 150.9028184 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 FC 1.40



Current Data Parameters
 NAME rjs-1270 Pure Prot
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150422
 Time 6.41
 INSTRUM spect
 PROBHD 5 mm CPQCI 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 12.7
 DW 41.600 usec
 DE 10.00 usec
 TE 293.0 K
 D1 1.00000000 sec
 TDO 1

===== CHANNEL f1 =====
 SF01 600.1337060 MHz
 NUC1 1H
 P1 10.15 usec
 PLW1 13.00000000 w
 F2 - Processing parameters
 SI 65536
 SF 600.1300139 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

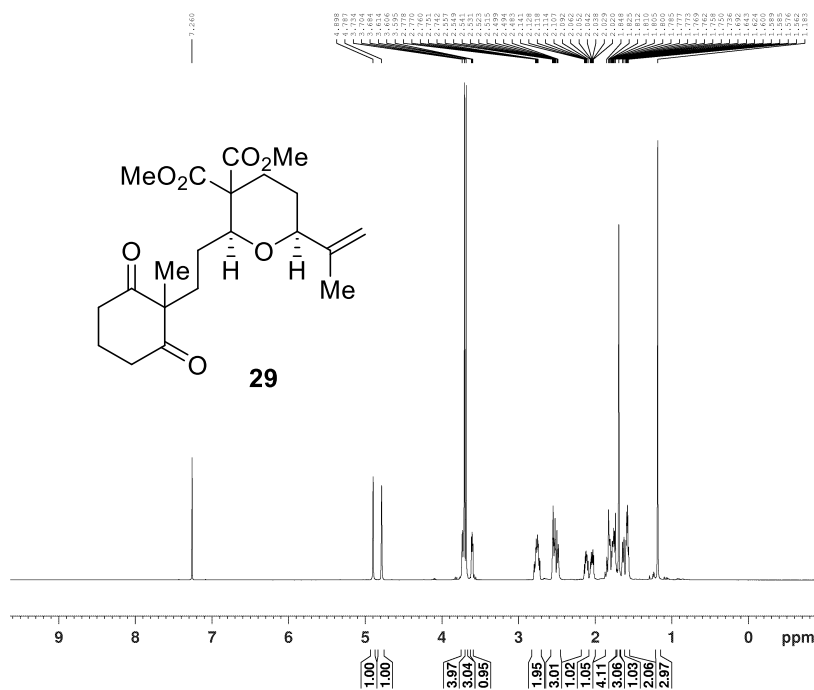


Current Data Parameters
 NAME rjs-1270 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150422
 Time 6.44
 INSTRUM spect
 PROBHD 5 mm CPQCI 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 47
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 293.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1

===== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.50 usec
 PLW1 230.00000000 w
 ===== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 90.00 usec
 PLW2 13.00000000 w
 PLW12 0.16534001 w
 PLW13 0.13393000 w

F2 - Processing parameters
 SI 32768
 SF 150.9028195 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

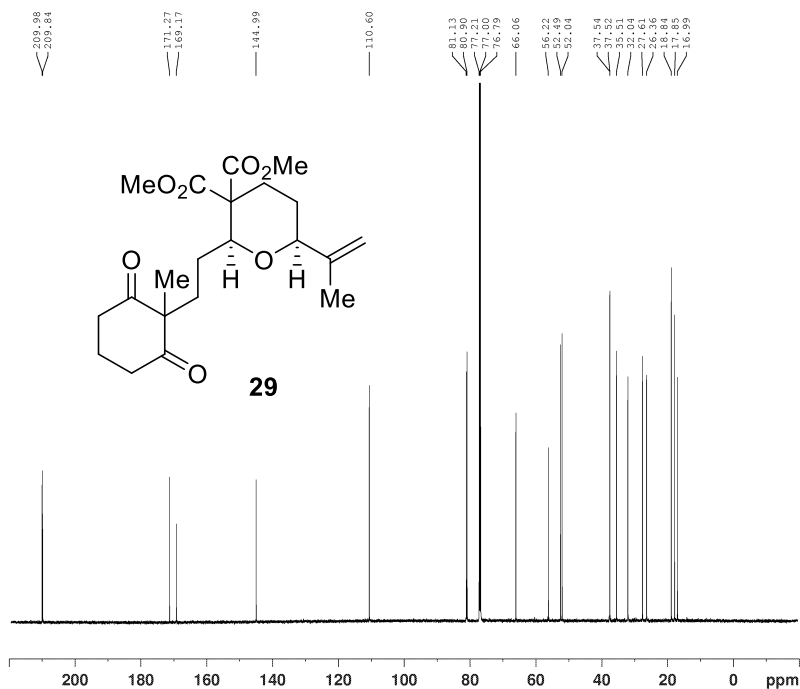


Current Data Parameters
 NAME rjs-2495 Spot 1
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150307
 Time 6.37
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 14
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 25.4
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SFO1 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300173 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



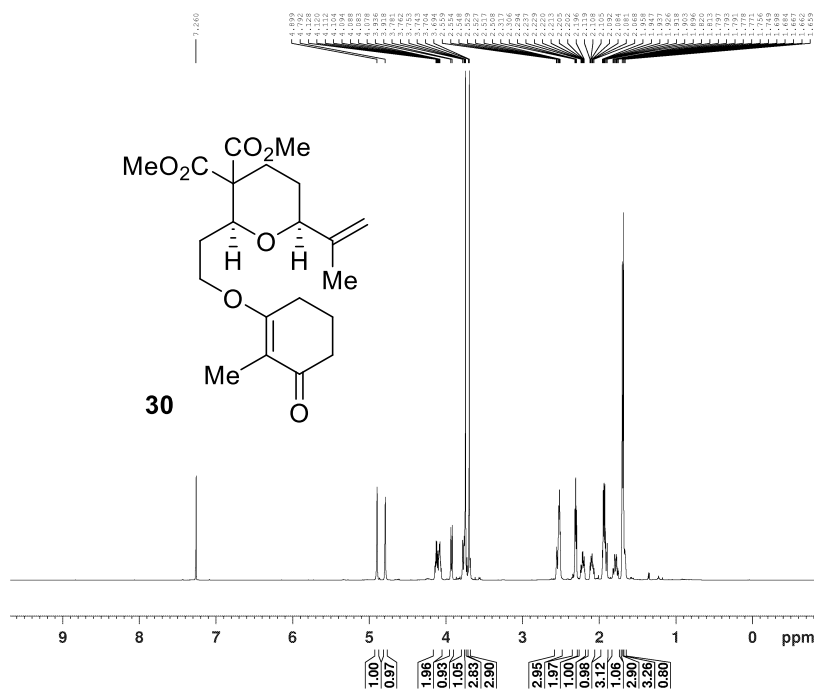
Current Data Parameters
 NAME rjs-2495 Spot 1 Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150307
 Time 6.42
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 49
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLM2 9.00000000 W
 PLM12 0.26587000 W
 PLM13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028184 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

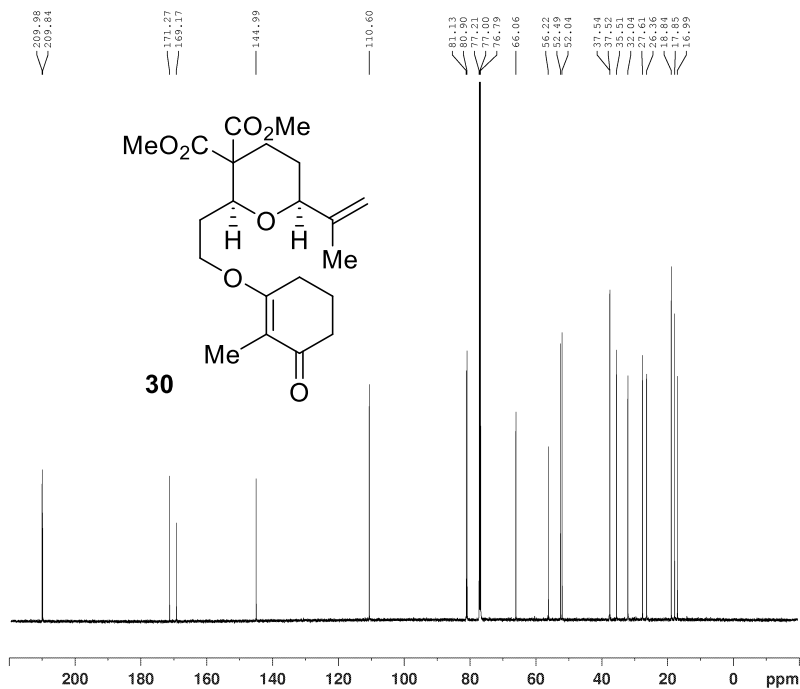


Current Data Parameters
 NAME rjs-2495 Spot 2
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150307
 Time 6.46
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 17
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 22.6
 DW 41.600 us
 DE 10.00 us
 TE 298.2 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SFO1 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300171 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



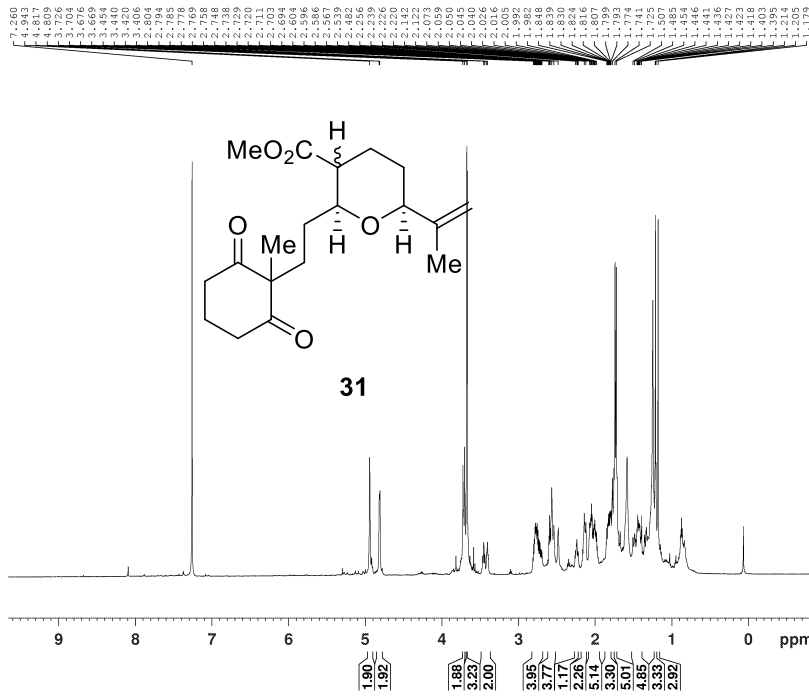
Current Data Parameters
 NAME rjs-2495 Spot 1 Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150307
 Time 6.42
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 49
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SFO1 150.9178981 MHZ
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SFO2 600.1324005 MHZ
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028184 MHZ
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

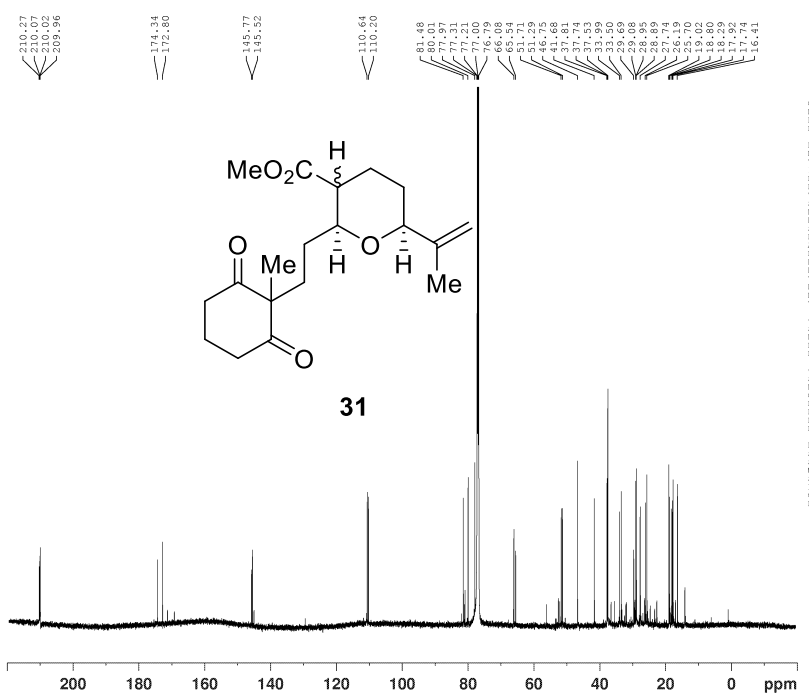


Current Data Parameters
 NAME r3e-1238 Pure Upper Spc
 EXENO
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150418
 Time 6.06
 INSTRUM spect
 PROBUS 5 mm CPQCI 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 30
 DS 4
 SWH 12019.230 Hz
 FIDRES 0.185393 Hz
 AQ 2.7262976 sec
 RG 18
 DW 41.600 usec
 DE 10.00 usec
 TE 293.0 K
 D1 1.00000000 sec
 TDO 1

----- CHANNEL f1 -----
 SF01 600.1324000 MHz
 NUC1 1H
 P1 10.15 usec
 PLW1 13.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300148 MHz
 WDM IN
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



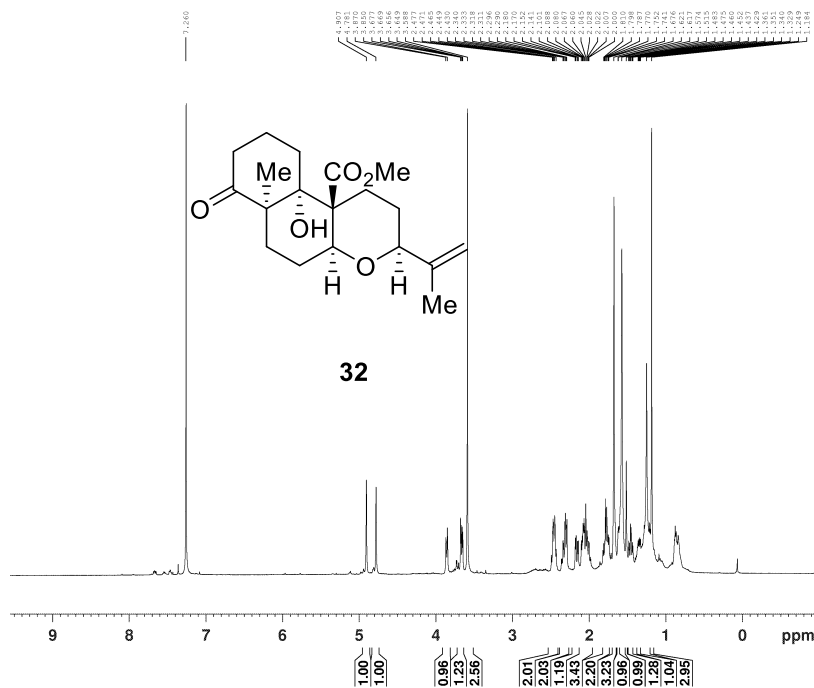
Current Data Parameters
 NAME r3e-1238 Pure Carbon overnight
 EXENO
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150417
 Time 17.37
 INSTRUM spect
 PROBUS 5 mm CPQCI 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 15109
 DS 4
 SWH 36057.491 Hz
 FIDRES 0.850197 Hz
 AQ 0.3097659 sec
 RG 203
 DW 13.567 usec
 DE 10.00 usec
 TE 293.0 K
 D1 2.00000000 sec
 TDO 0.03000000 sec

----- CHANNEL f1 -----
 SF01 150.9179981 MHz
 NUC1 13C
 P1 11.50 usec
 PLW1 230.00000000 W

----- CHANNEL f2 -----
 SF02 600.1324000 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCD02 90.00 usec
 PLW2 13.00000000 W
 PLW12 0.14530001 W
 PLW13 0.13393000 W

F2 - Processing parameters
 SI 32768
 SF 150.9026139 MHz
 WDM IN
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

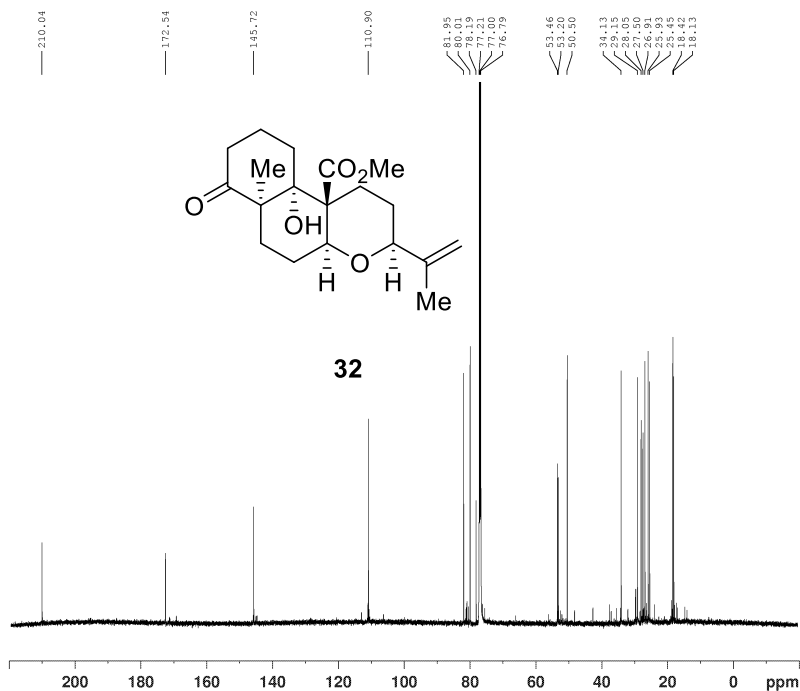


Current Data Parameters
 NAME rjs-1216 Pure Lower Sp
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150416
 Time 6:25
 INSTRUM spect
 PROBHD 5 mm CPQCI 1H/
 PULPROG zg30
 TD 65536
 SOLVENT cnc13
 NS 31
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.726276 sec
 RG 50.8
 DW 41.600 usec
 DE 10.00 usec
 TE 293.0 K
 D1 1.0000000 sec
 TDO 1

***** CHANNEL f1 *****
 SF01 600.137060 MHz
 NUCL1 1H
 P1 10.15 usec
 PLW1 13.0000000 W

F2 - Processing parameters
 SI 65536
 SF 600.130148 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



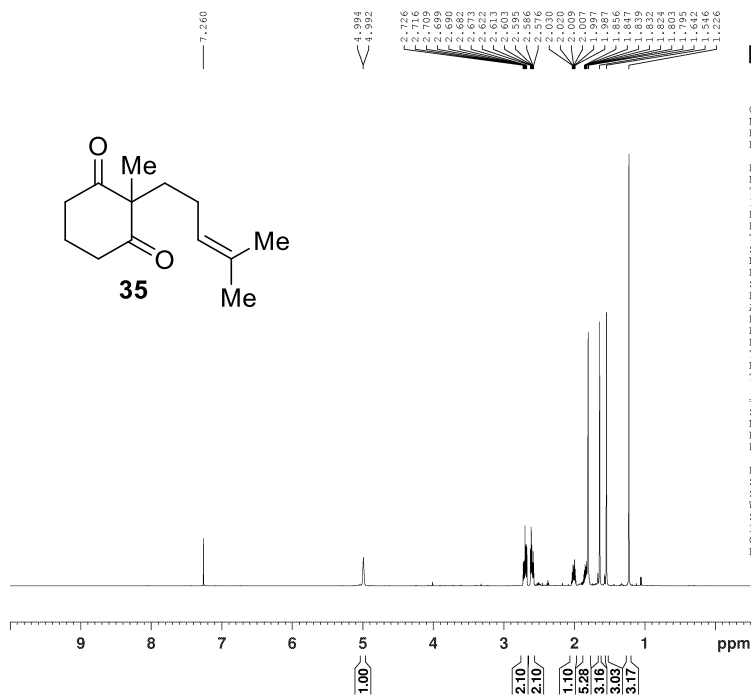
Current Data Parameters
 NAME rjs-12-138-7-8 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130710
 Time 6:46
 INSTRUM spect
 PROBHD 5 mm CPQNP 13/
 PULPROG zgpg30
 TD 65536
 SOLVENT cnc13
 NS 1538
 DS 4
 SWH 36097.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TDO 1

***** CHANNEL f1 *****
 SF01 150.9178981 MHz
 NUCL1 13C
 P1 10.75 usec
 PLW1 30.0000000 W

***** CHANNEL f2 *****
 SF02 600.1324005 MHz
 NUCL2 1H
 CPDPRG2 waltz16
 PCPDZ 80.00 usec
 PLW2 9.0000000 W
 PLW3 0.27562001 W
 PLW4 0.17640001 W

F2 - Processing parameters
 SI 32768
 SF 150.9028140 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

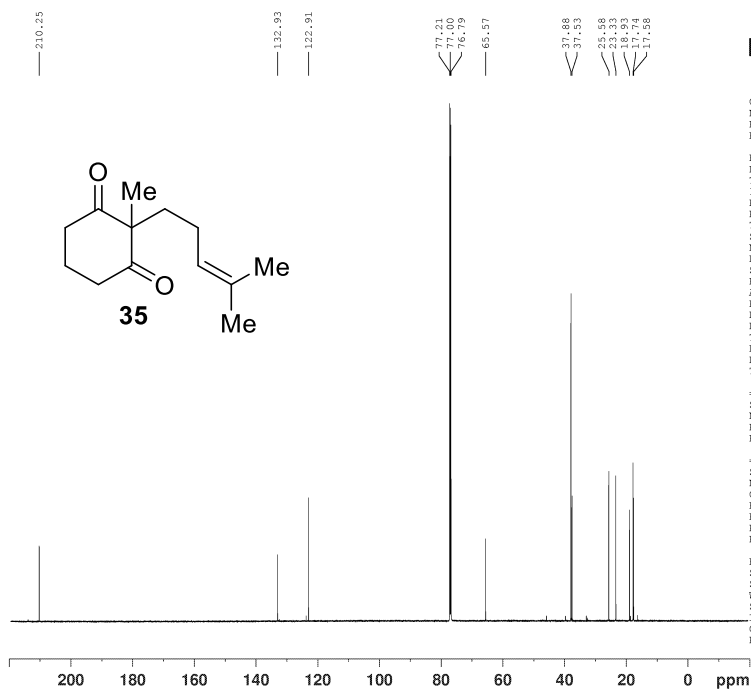


Current Data Parameters
 NAME rjs-0752 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150114
 Time 14.51
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 20
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 32
 DW 41.600 usec
 DE 10.00 usec
 TE 298.1 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300150 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



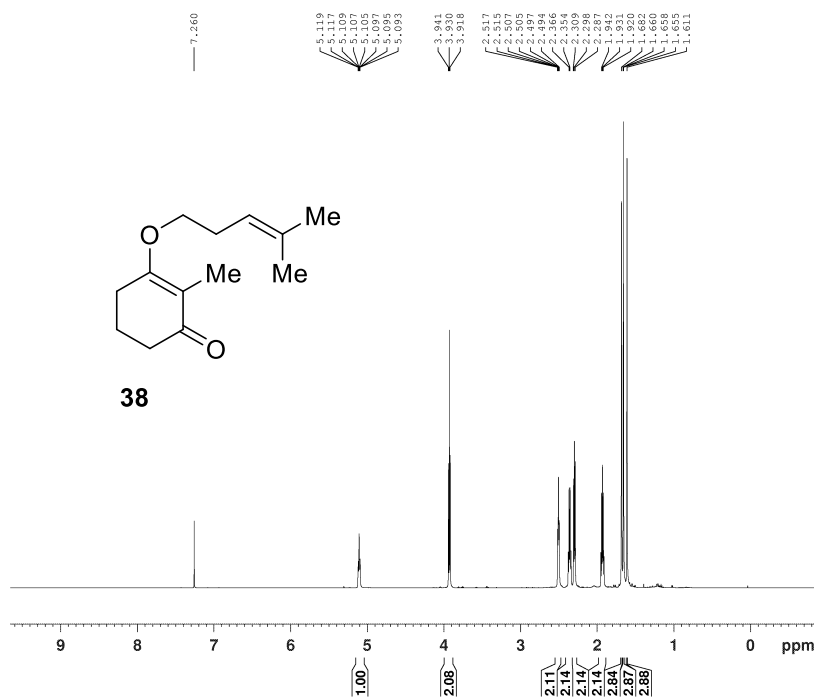
Current Data Parameters
 NAME rjs-0752 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150114
 Time 14.56
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 49
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

===== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.36587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028147 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

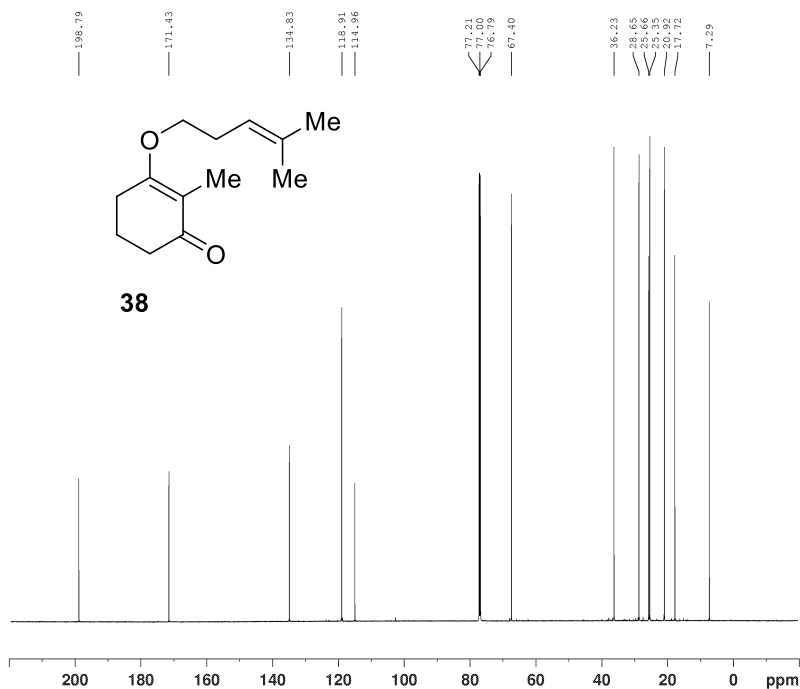


Current Data Parameters
 NAME rjs-1212
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150313
 Time 12.47
 INSTRUM spect
 PROBRD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 18
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300196 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



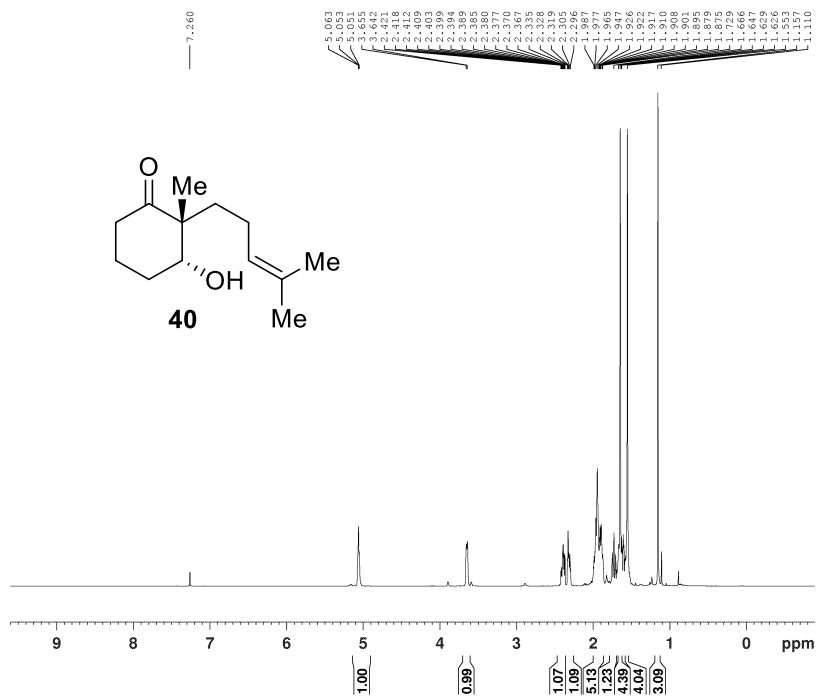
Current Data Parameters
 NAME rjs-1212
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150313
 Time 13.00
 INSTRUM spect
 PROBRD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 256
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.350197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SF01 150.9178961 MHZ
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHZ
 NUC2 1H
 CPDPRG[2] waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLM12 0.26587000 W
 PLM13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028239 MHZ
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

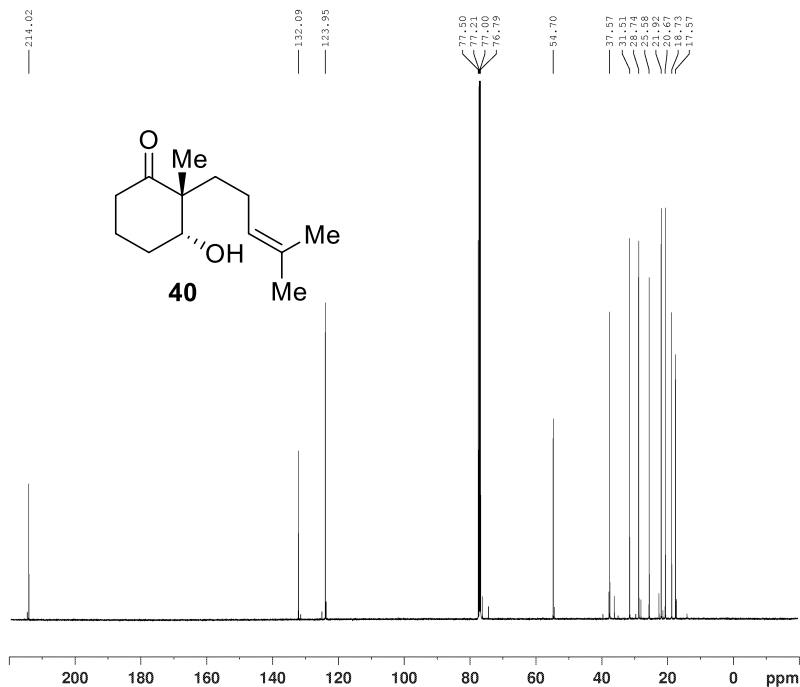


Current Data Parameters
 NAME rjs-1202 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150307
 Time 7.48
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 22.6
 DW 41.600 us
 DE 10.00 us
 TE 298.2 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300174 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 FC 1.00



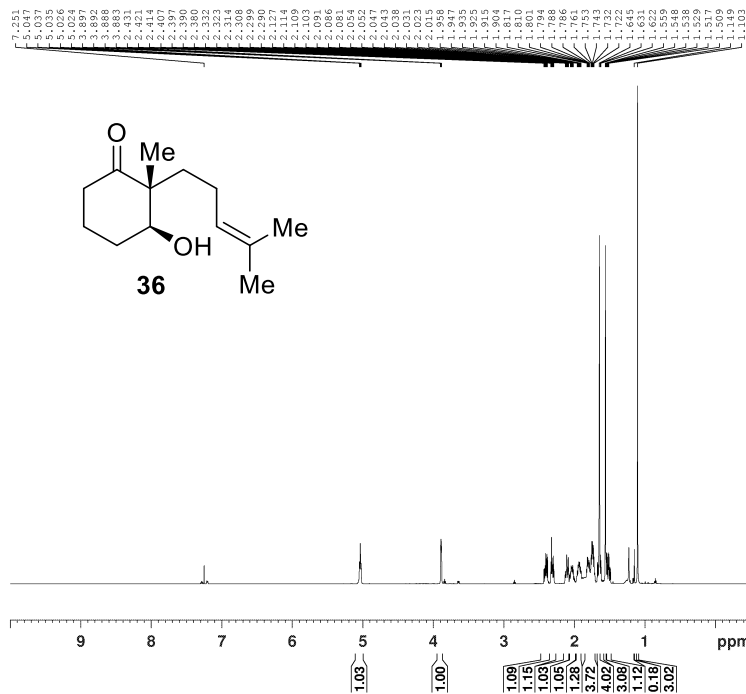
Current Data Parameters
 NAME rjs-1202 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150307
 Time 7.50
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 66
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

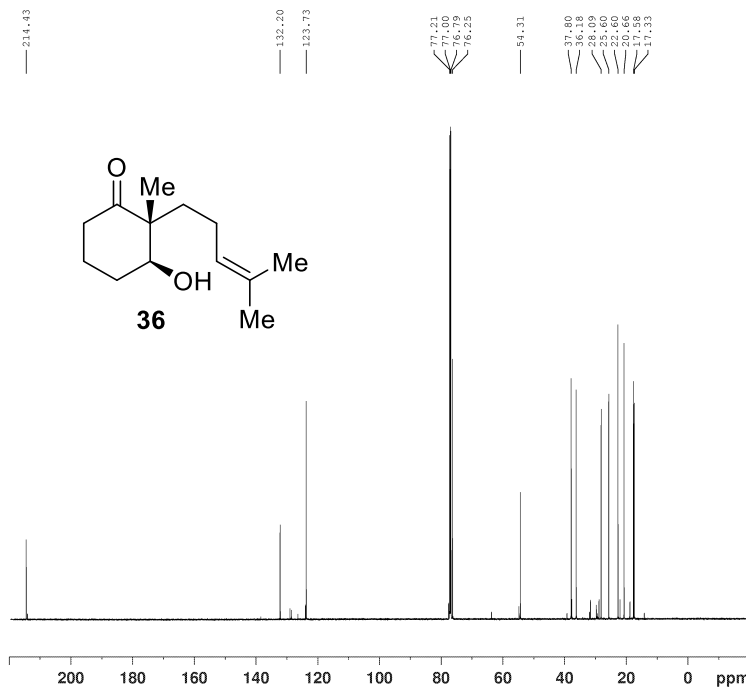
==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 FPCD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

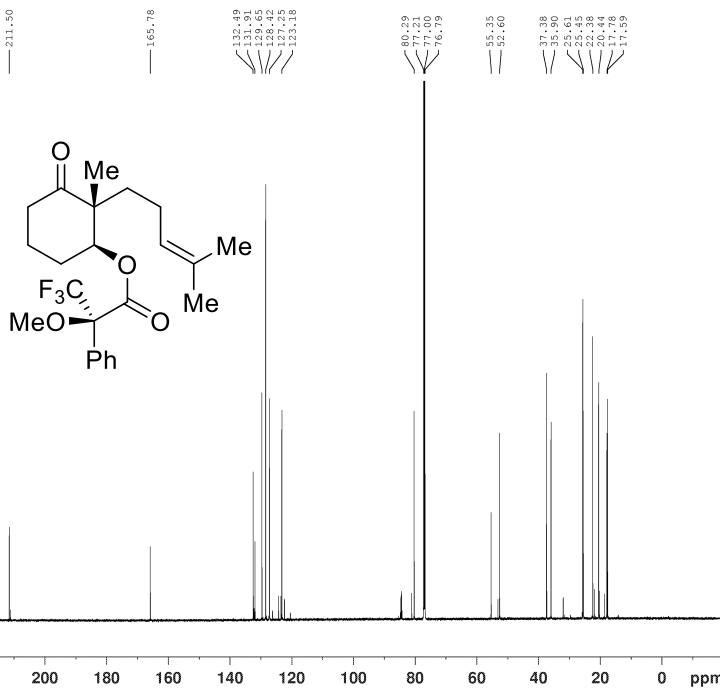
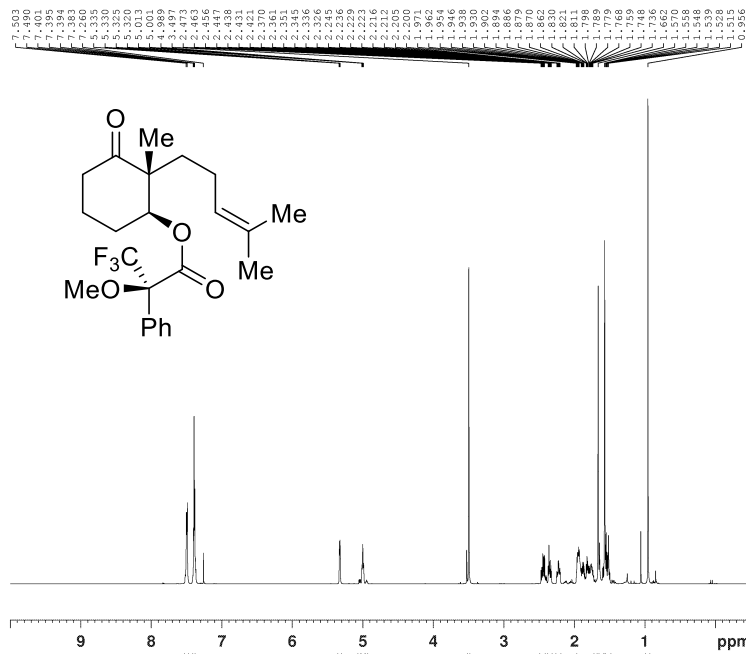
F2 - Processing parameters
 SI 32768
 SF 150.9028185 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 FC 1.40



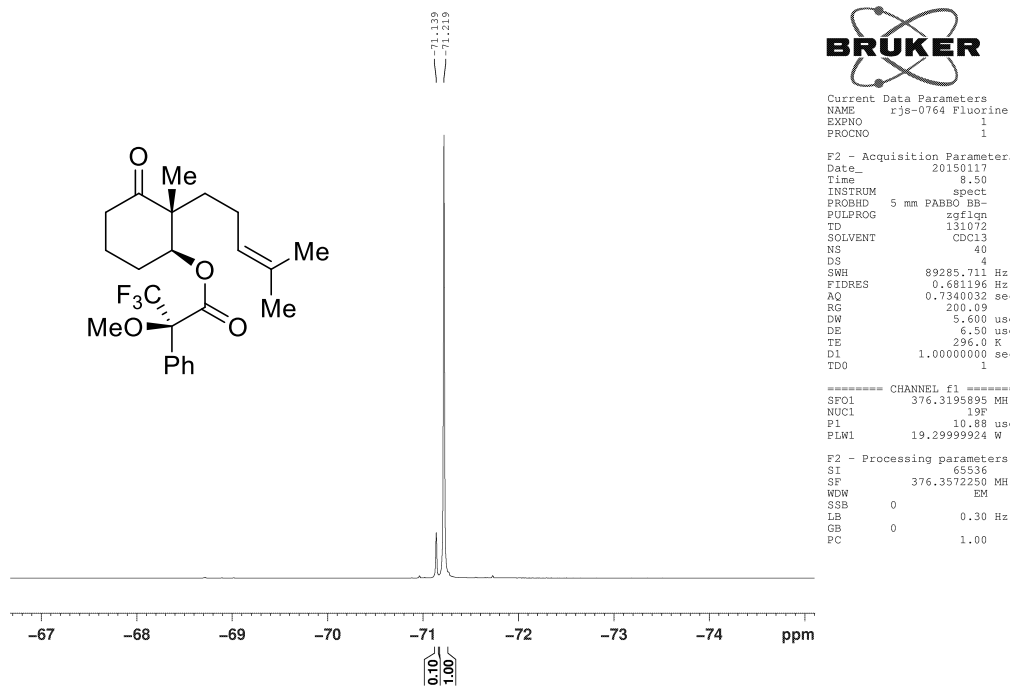
Current Data Parameters
 NAME rjs-0756 Pure proton
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20150117
 Time 6.19
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 21
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 22.6
 DW 41.600 usec
 DE 10.00 usec
 TE 298.0 K
 DI 1.0000000 sec
 TDO 1
 ===== CHANNEL f1 =====
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.0000000 W
 F2 - Processing parameters
 SI 65536
 SF 600.1300212 MHz
 WDW EM
 SSB 0 0.30 Hz
 LB 0
 GB 0
 PC 1.00

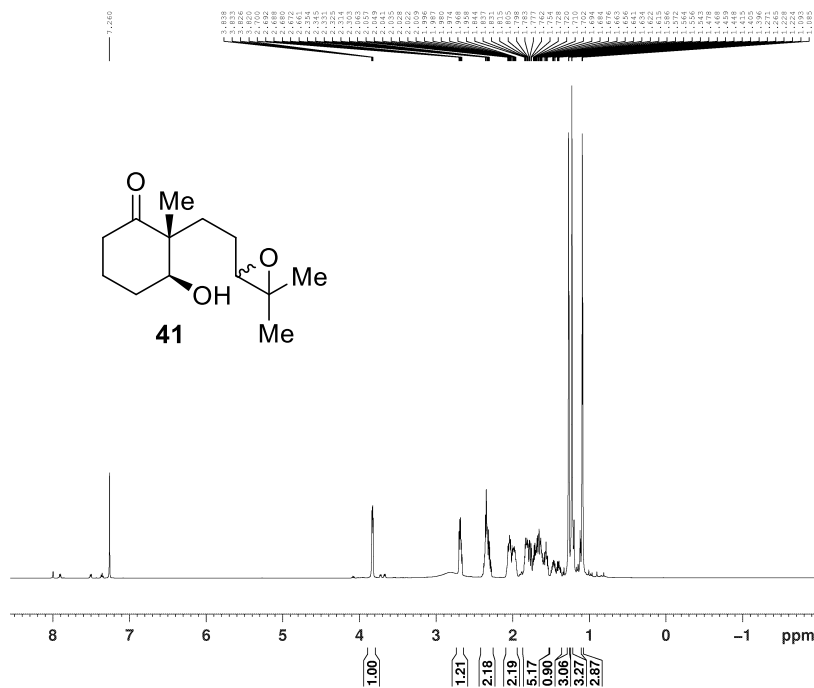


Current Data Parameters
 NAME rjs-0756 Pure Carbon
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20150117
 Time 6.27
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 76
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TDO 1
 ===== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.0000000 W
 ===== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.0000000 W
 PLW12 0.36587000 W
 PLW13 0.17016000 W
 F2 - Processing parameters
 SI 32768
 SF 150.9028173 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



¹⁹F NMR spectrum of Mosher Ester of 36.



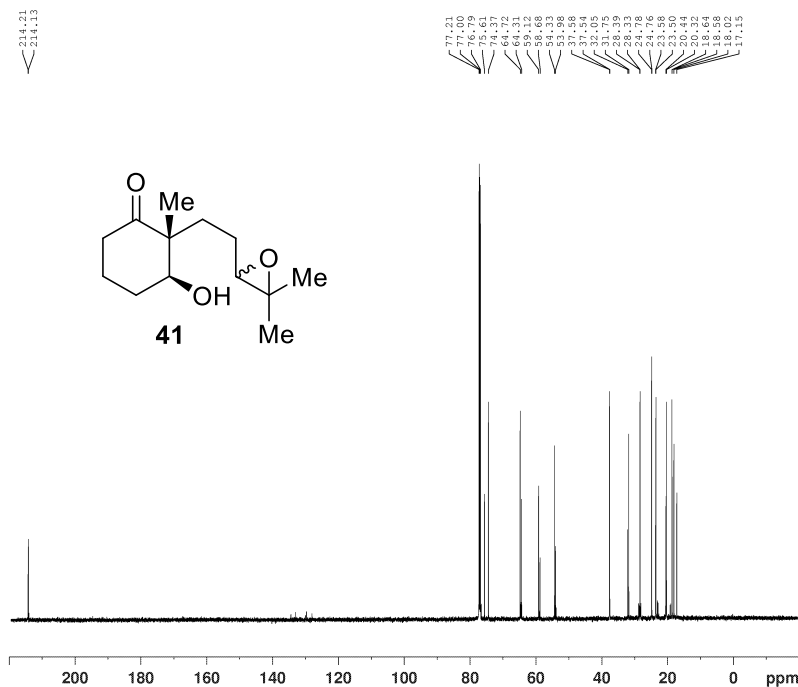


Current Data Parameters
 NAME rjs-1265 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150418
 Time 6.27
 INSTRUM spect
 PROBHD 5 mm CPQCI 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 11
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 14.2
 DW 41.600 us
 DE 10.00 us
 TE 293.0 K
 D1 1.00000000 se
 TD0 1

===== CHANNEL f1 =====
 SFO1 600.1337060 MH
 NUC1 1H
 P1 10.15 us
 PLW1 13.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300141 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 FC 1.00



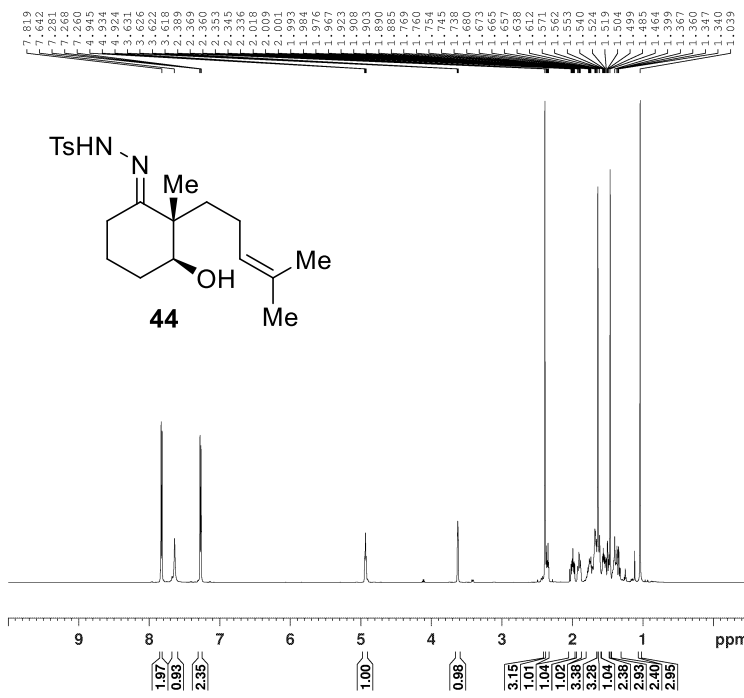
Current Data Parameters
 NAME rjs-1265 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150418
 Time 6.30
 INSTRUM spect
 PROBHD 5 mm CPQCI 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 55
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 293.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.50 usec
 PLW1 230.00000000 W

===== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CFPDPRG2 waltz16
 FCPD2 90.00 usec
 PLW2 13.00000000 W
 PLW12 0.16534001 W
 PLW13 0.13393000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028228 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 FC 1.40

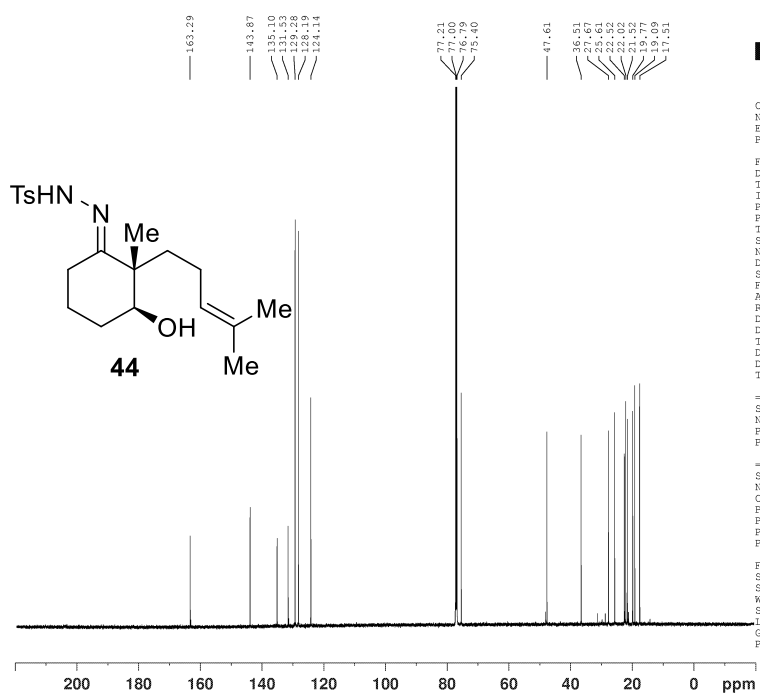


Current Data Parameters
 NAME rjs-0755 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150115
 Time 6.14
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 20
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 32
 DW 41.600 usec
 DE 10.00 usec
 TE 298.0 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300149 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



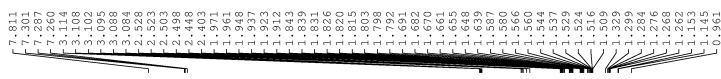
Current Data Parameters
 NAME rjs-0755 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150115
 Time 6.18
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 54
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

===== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.36587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028173 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

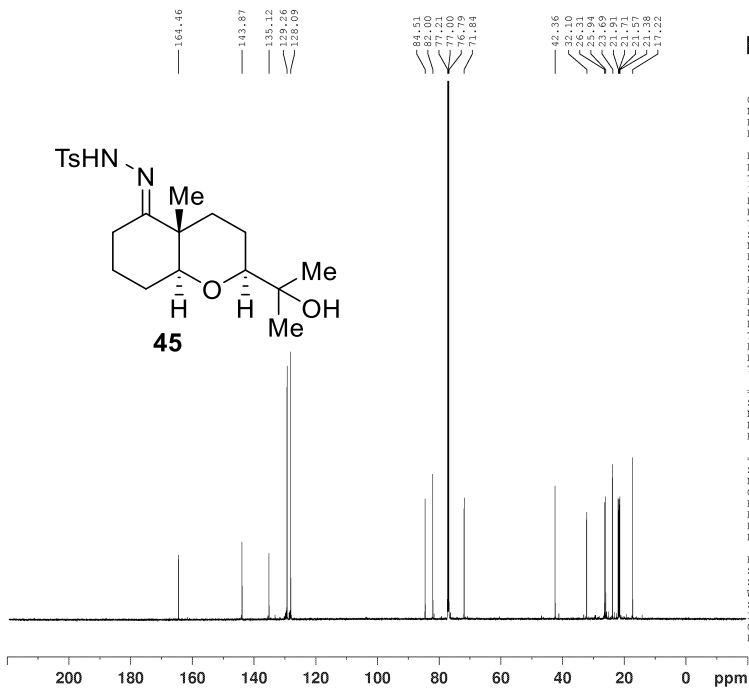
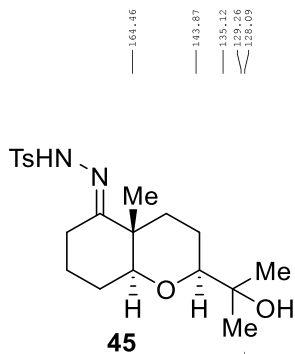
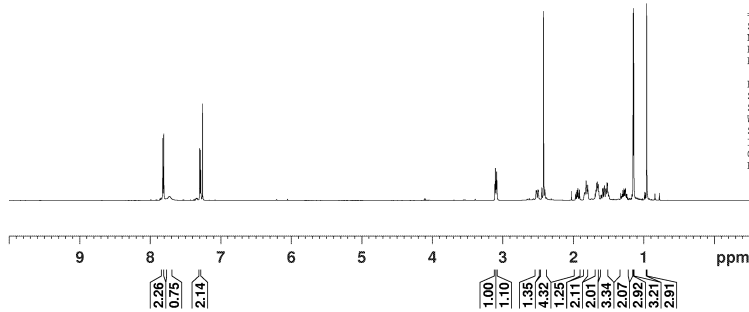
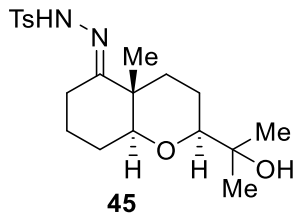


Current Data Parameters
 NAME rjs-0761 pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150116
 Time 10.24
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 29
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 22.6
 DW 41.600 usec
 DE 10.00 usec
 TE 298.0 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300154 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



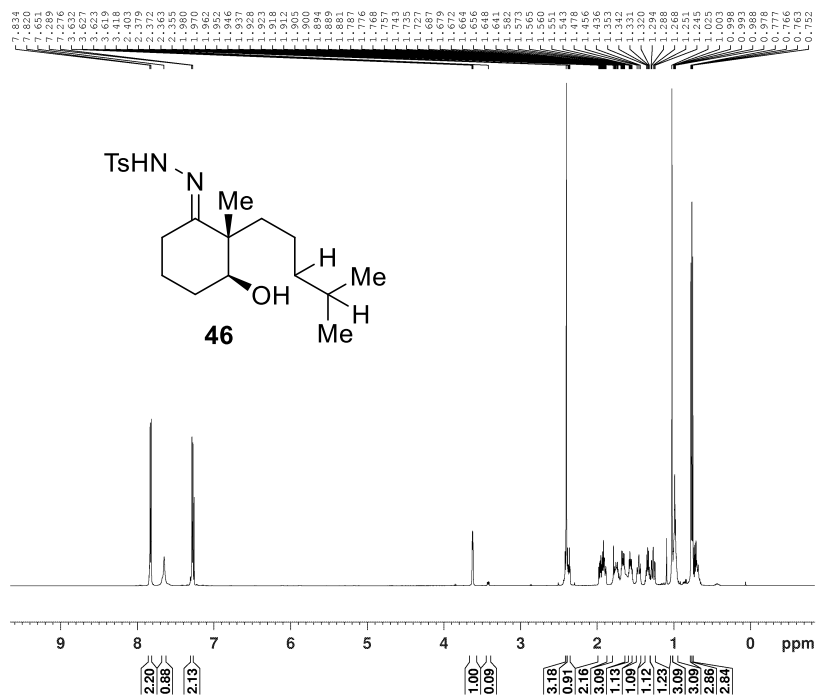
Current Data Parameters
 NAME rjs-0761 pure carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150116
 Time 10.28
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 49
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

===== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.36387000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028195 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

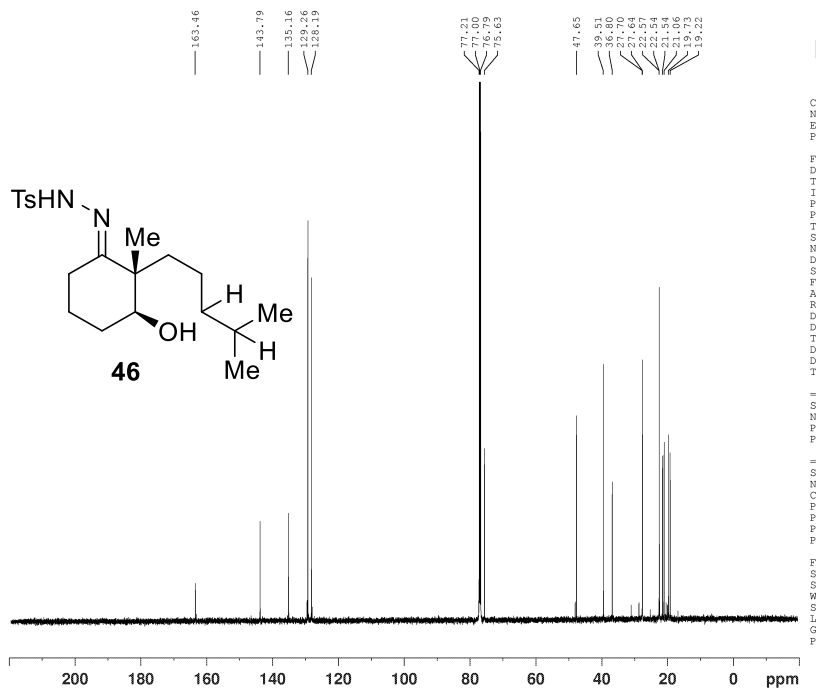


Current Data Parameters
 NAME rjs-1274 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150427
 Time 8.28
 INSTRUM spect
 PROBHD 5 mm CPQCI 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 26
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 16
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

===== CHANNEL f1 =====
 SFO1 600.1337060 MH
 NUC1 1H
 P1 10.15 us
 PLW1 13.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300142 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



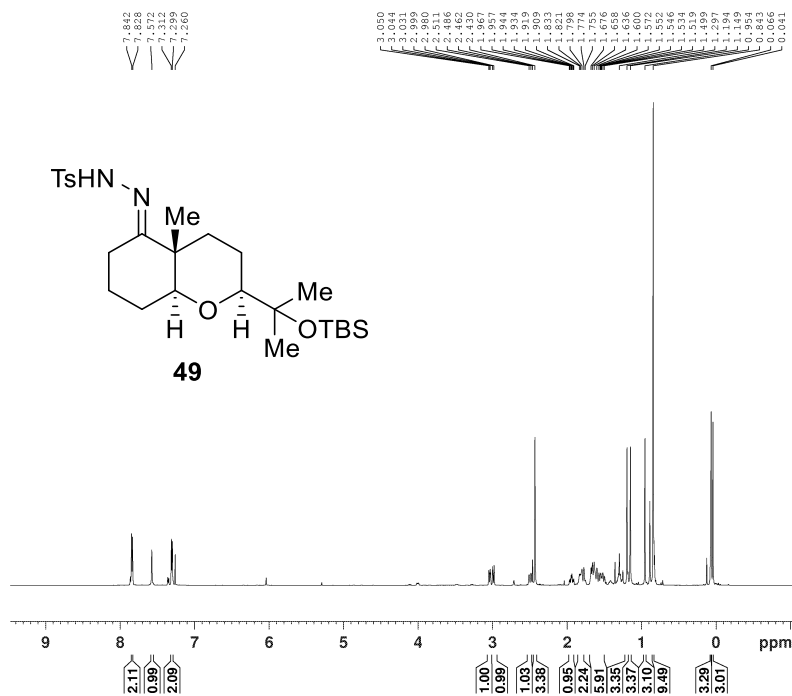
Current Data Parameters
 NAME rjs-1274 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150427
 Time 8.32
 INSTRUM spect
 PROBHD 5 mm CPQCI 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 62
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.50 usec
 PLW1 230.00000000 W

===== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG[2] waltz16
 PCPD2 90.00 usec
 PLW2 13.00000000 W
 PLW12 0.16534001 W
 PLW13 0.13393000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028163 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

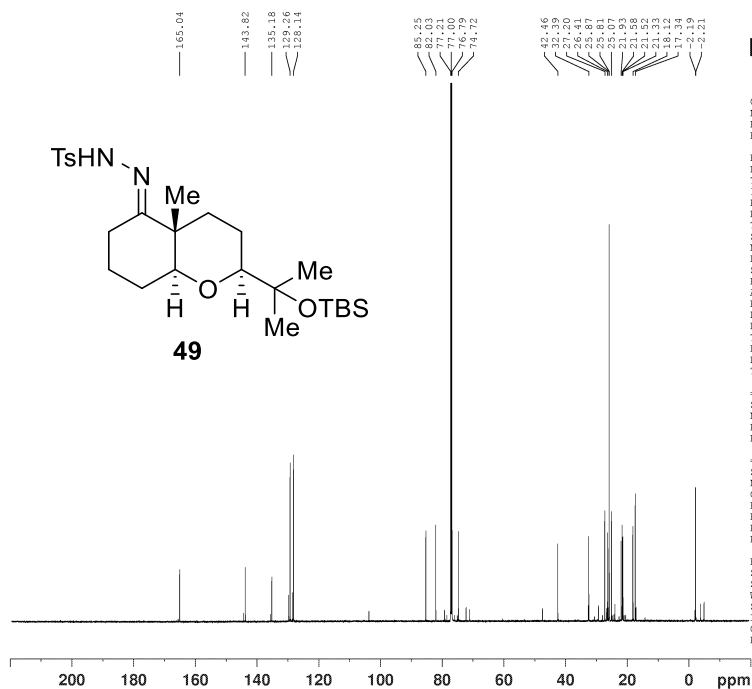


Current Data Parameters
NAME rjs-0763 Pure
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150119
Time 6.56
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 27
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 sec
RG 22.6
DW 41.600 usec
DE 10.00 usec
TE 298.0 K
D1 1.00000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 600.1337060 MHz
NUC1 1H
P1 13.00 usec
PLW1 9.00000000 W

F2 - Processing parameters
SI 65536
SF 600.1300161 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



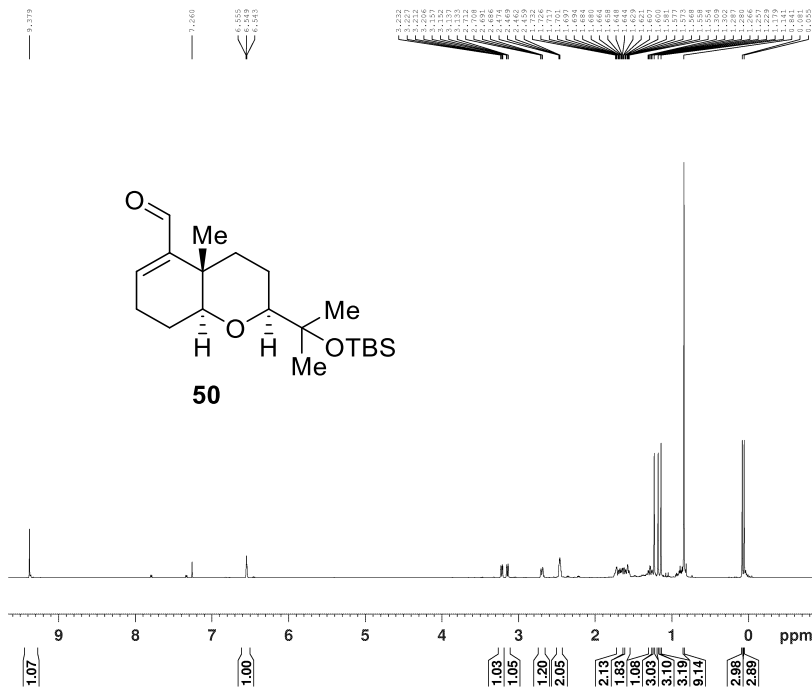
Current Data Parameters
NAME rjs-0763 Pure Carbon
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150119
Time 7.00
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 69
DS 4
SWH 36057.691 Hz
FIDRES 0.550197 Hz
AQ 0.9087659 sec
RG 203
DW 13.867 usec
DE 18.00 usec
TE 298.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 W

===== CHANNEL f2 =====
SFO2 600.1324005 MHz
NUC2 1H
CPDPRG2 waltz16
PCPD2 80.00 usec
PLW2 9.00000000 W
PLW12 0.36587000 W
PLW13 0.17016000 W

F2 - Processing parameters
SI 32768
SF 150.9028173 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

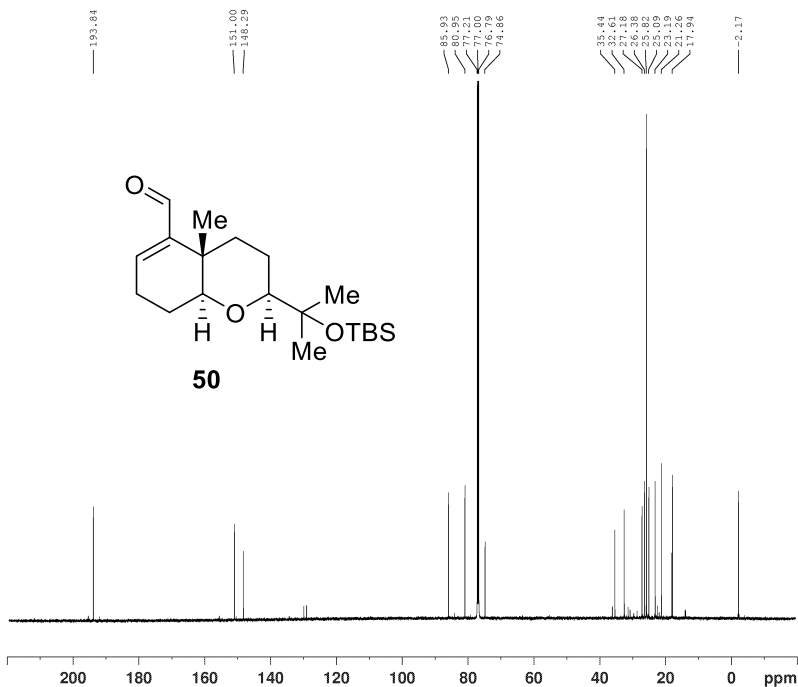


Current Data Parameters
 NAME rjs-2479 Pure proton
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150303
 Time 6.18
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 14
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 32
 DW 41.600 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TDO 1

===== CHANNEL f1 =====
 SFO1 600.137060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300175 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



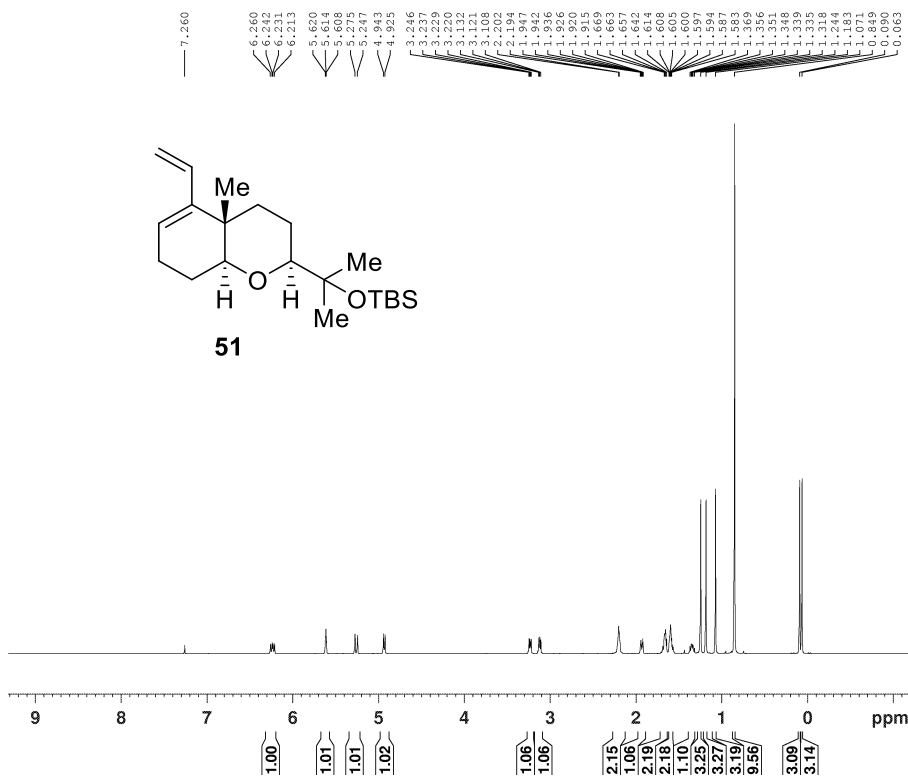
Current Data Parameters
 NAME rjs-2479 Pure Carbon 1
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150303
 Time 6.22
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 32
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1

===== CHANNEL f1 =====
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

===== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLM2 9.00000000 W
 PLM12 0.26587000 W
 PLM13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028140 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

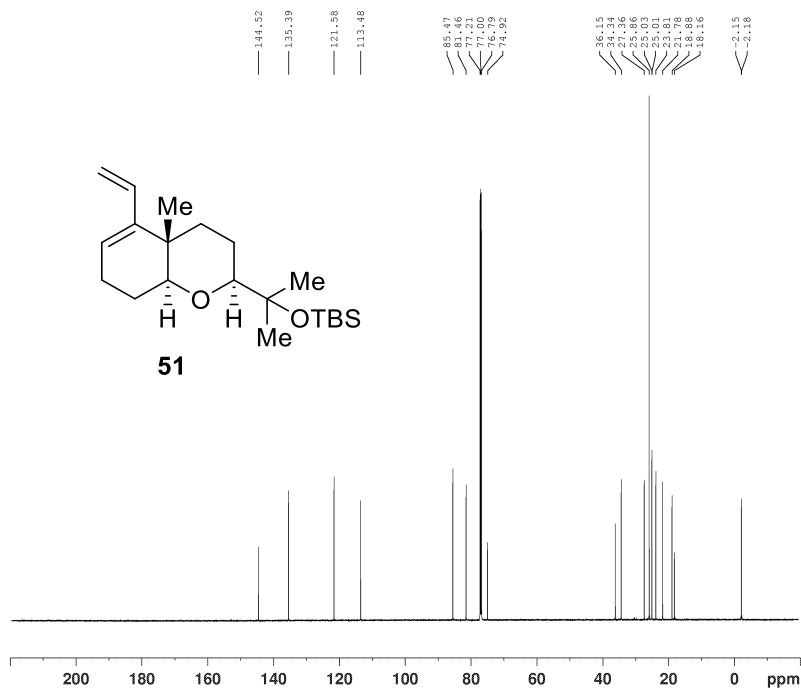


Current Data Parameters
 Name rjs-2481 Pure
 Expno 1
 Procno 1

F2 - Acquisition Parameters
 Date_ 20150303
 Time 6.26
 Instrum spect
 Probhd 5 mm CPQNP 1H/
 Pulprog zgpg30
 ID 65536
 Solvent CDCl3
 NS 20
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 22.6
 DW 41.600 usec
 DE 10.00 usec
 TE 298.2 K
 D1 1.00000000 sec
 TDO 1

==== CHANNEL f1 =====
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300171 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



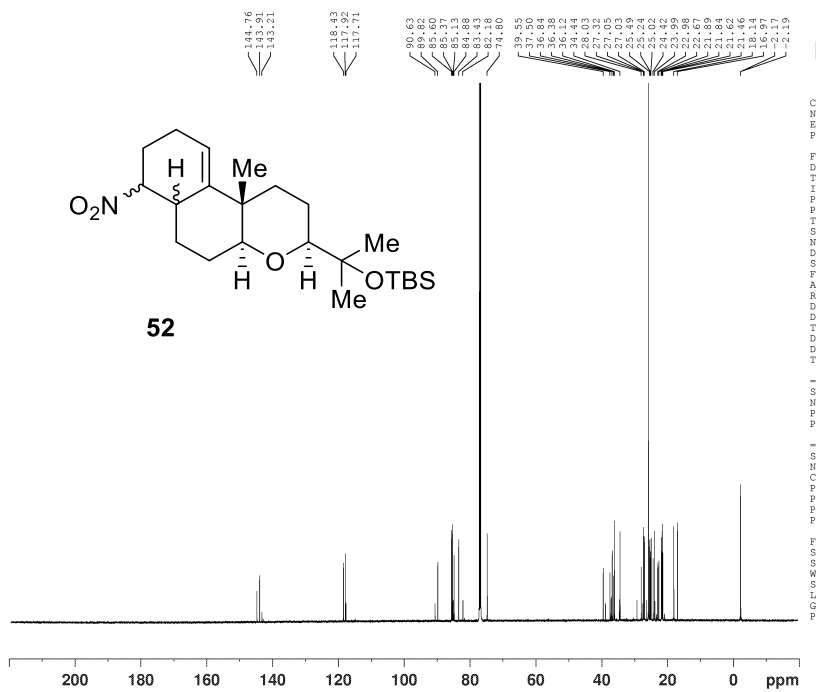
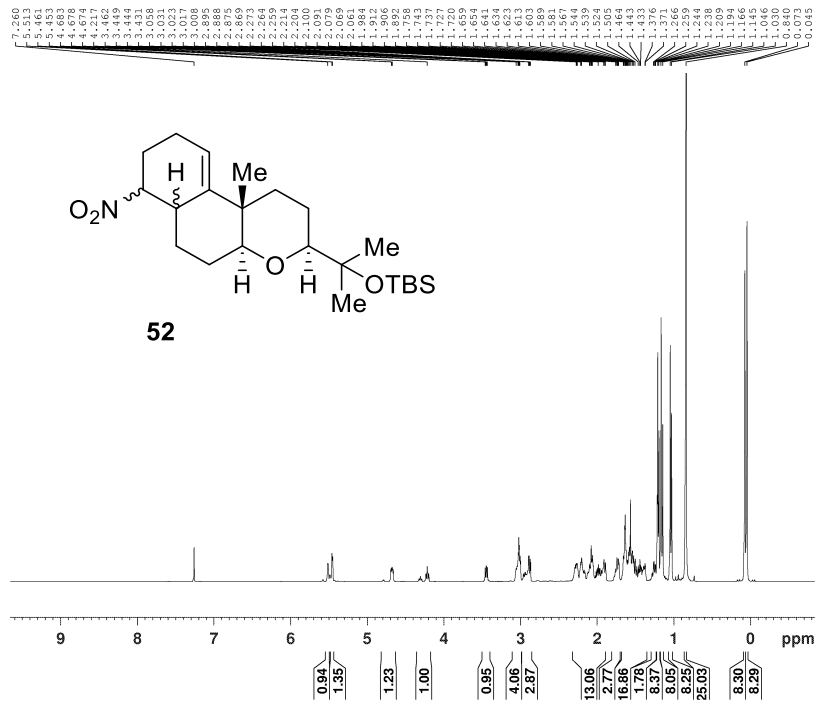
Current Data Parameters
 Name rjs-2481 Pure Carbon
 Expno 1
 Procno 1

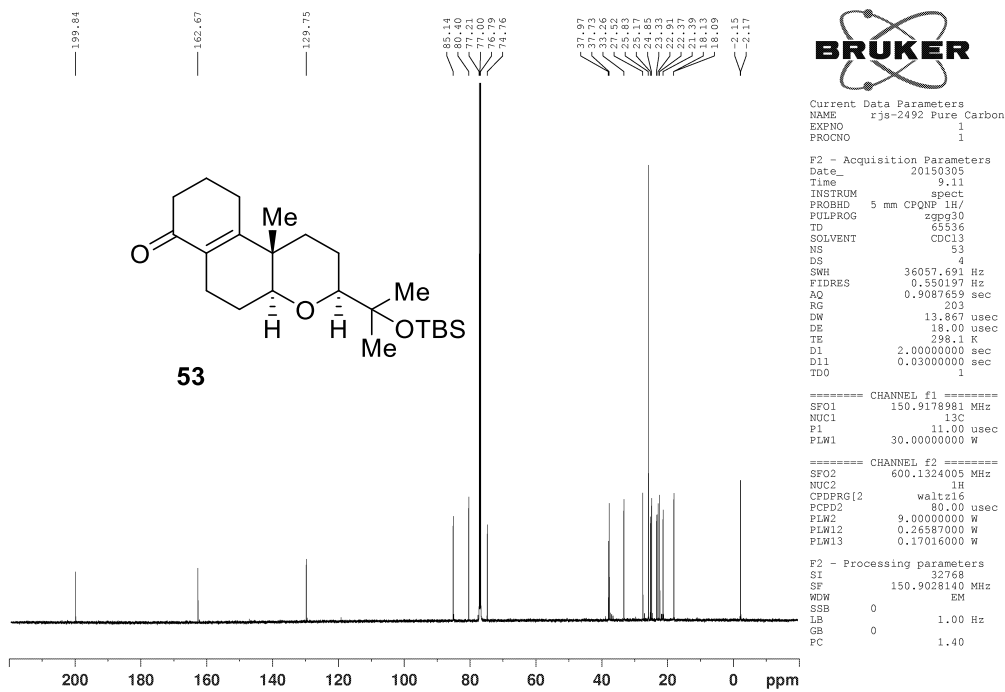
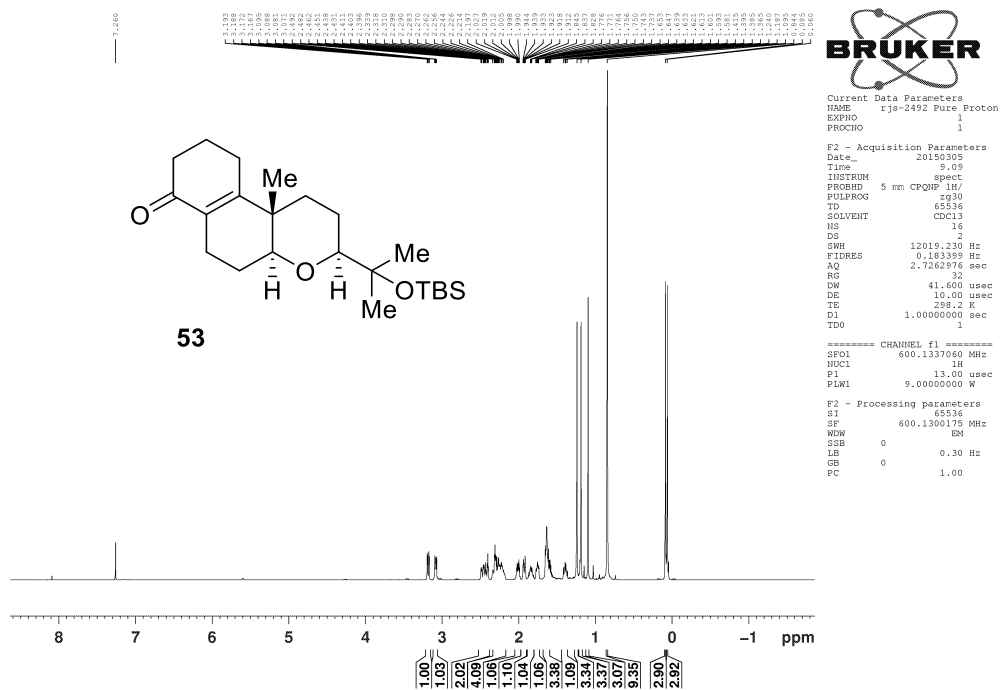
F2 - Acquisition Parameters
 Date_ 20150303
 Time 6.28
 Instrum spect
 Probhd 5 mm CPQNP 1H/
 Pulprog zgpg30
 ID 65536
 Solvent CDCl3
 NS 48
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1

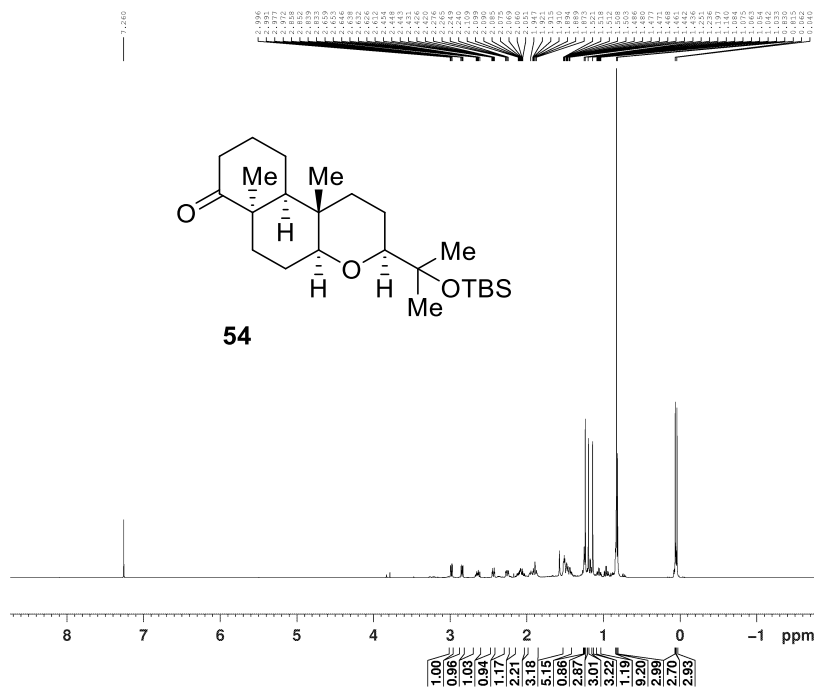
==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028118 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40





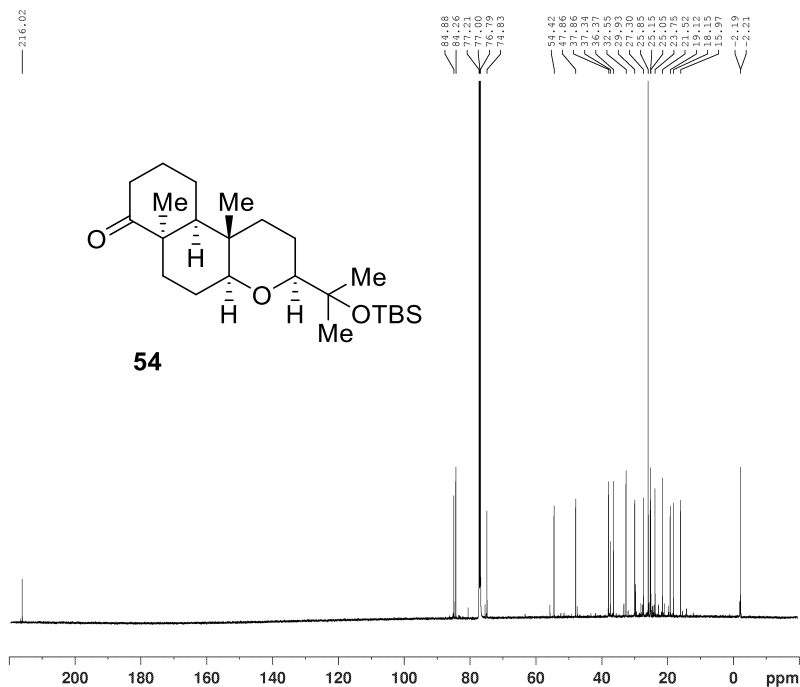


Current Data Parameters
 NAME RJS-1208
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150312
 Time 19.56
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 298.2 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SFO1 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300191 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



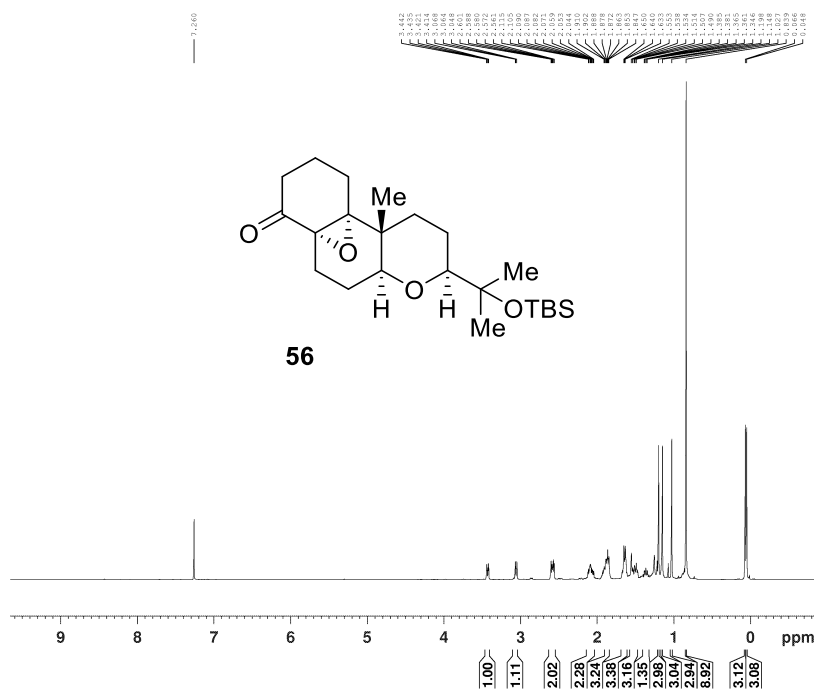
Current Data Parameters
 NAME RJS-1208
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150312
 Time 20.22
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 512
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.350197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SFO1 150.9178991 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG[2] waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028129 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

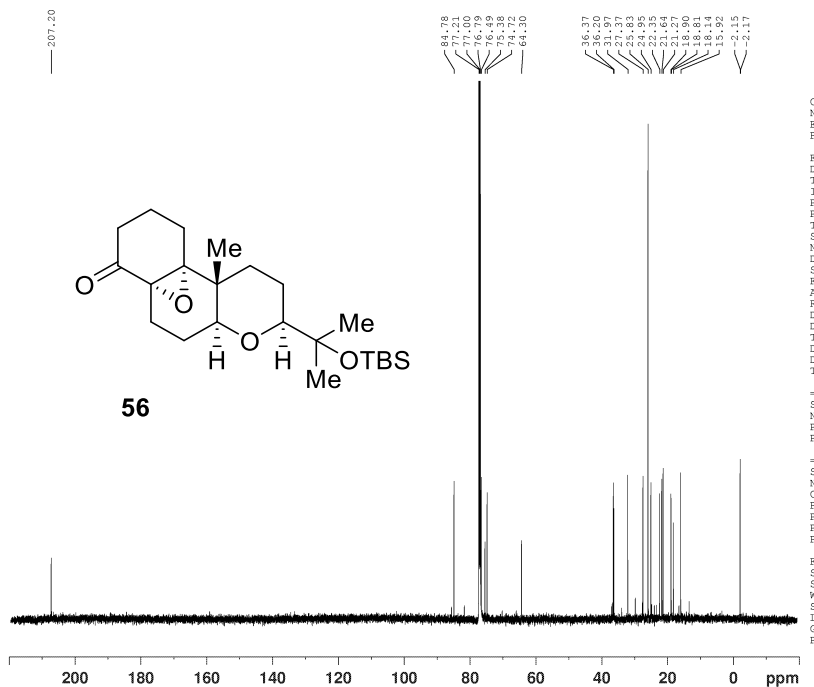


Current Data Parameters
NAME rjs-1222 Pure
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150317
Time 6.21
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 20
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 se
RG 32
DW 41.600 us
DE 10.00 us
TE 298.1 K
D1 1.00000000 se
TD0 1

===== CHANNEL f1 =====
SFO1 600.1337060 MH
NUC1 1H
P1 13.00 us
PLW1 9.00000000 W

F2 - Processing parameters
SI 65536
SF 600.1300173 MH
WDW EM
SSB 0
LB 0.30 Hz
GB 0
FC 1.00



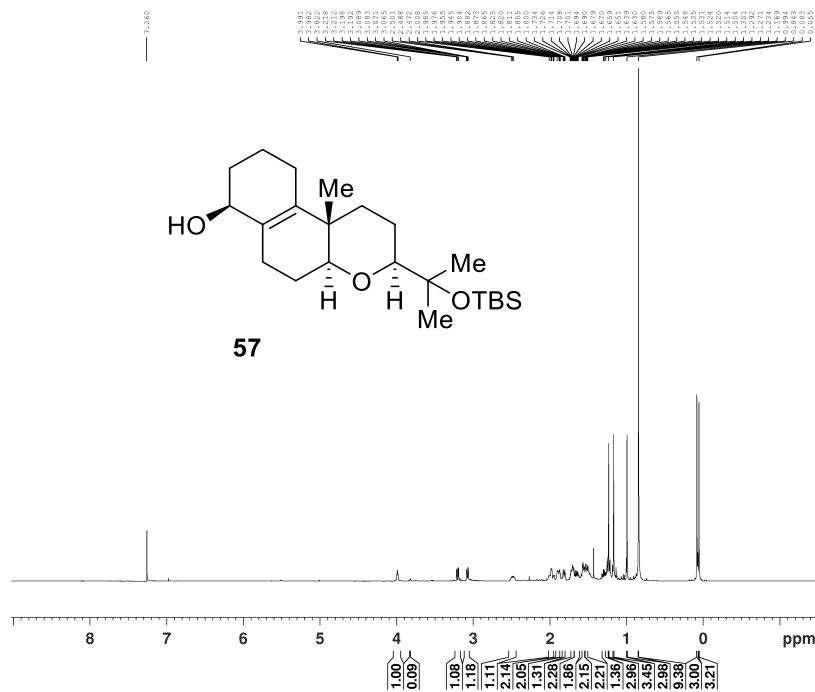
Current Data Parameters
NAME rjs-1222 Pure Carbon
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150317
Time 6.24
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 88
DS 4
SWH 36057.691 Hz
FIDRES 0.550197 Hz
AQ 0.9087659 sec
RG 203
DW 13.867 usec
DE 18.00 usec
TE 298.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 W

===== CHANNEL f2 =====
SFO2 600.1324005 MHz
NUC2 1H
CFPRG[2] waltz16
PCPD2 80.00 usec
PLW2 9.00000000 W
PLW12 0.24587000 W
PLW13 0.17016000 W

F2 - Processing parameters
SI 32768
SF 150.9028120 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
FC 1.40

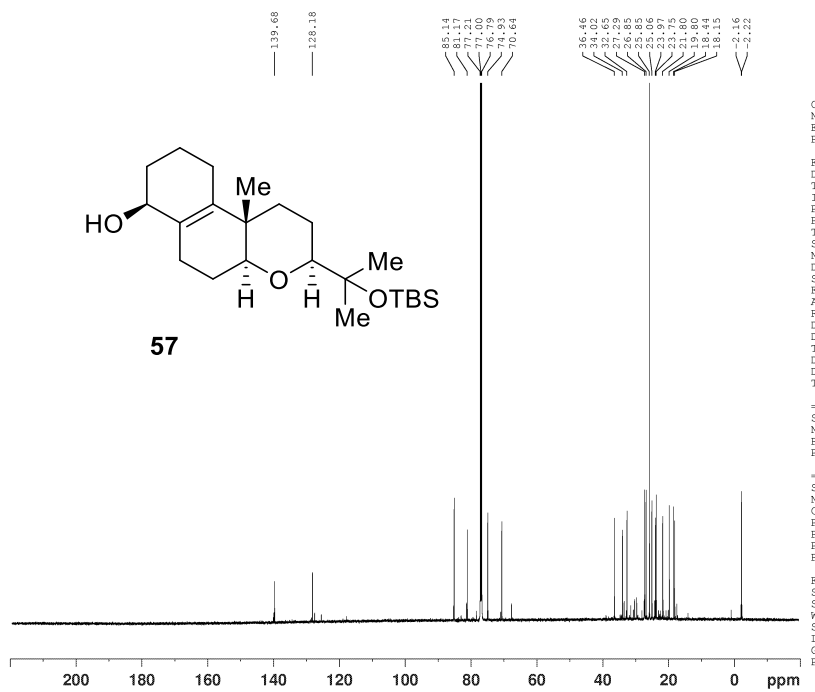


Current Data Parameters
 NAME rjs-1224
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150317
 Time 14.17
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 298.2 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SFO1 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300188 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



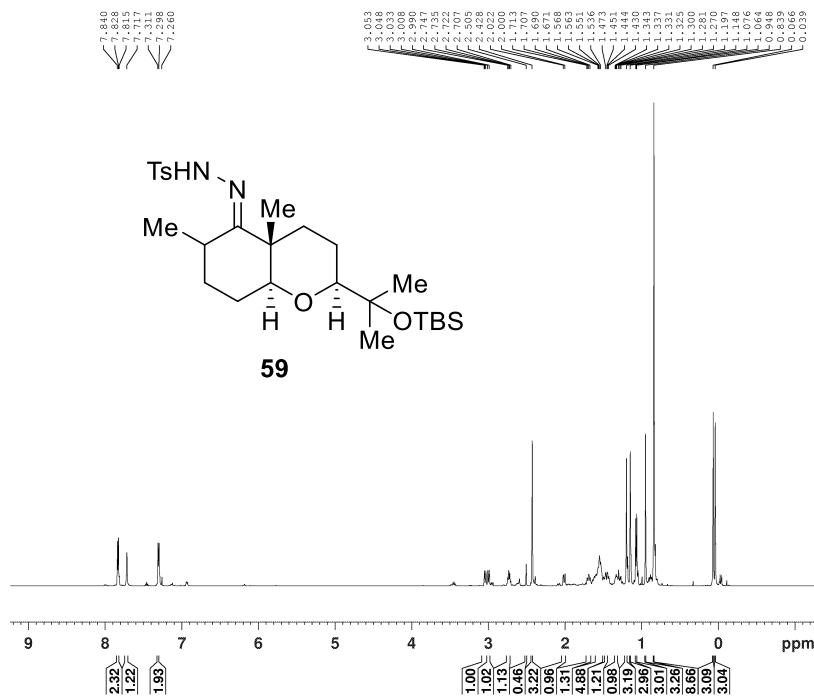
Current Data Parameters
 NAME rjs-1224
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150317
 Time 14.24
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 128
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.350197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG[2] waltz16
 PCFD2 80.00 usec
 PLW2 9.00000000 W
 PLM12 0.26587000 W
 PLM13 0.17016000 W

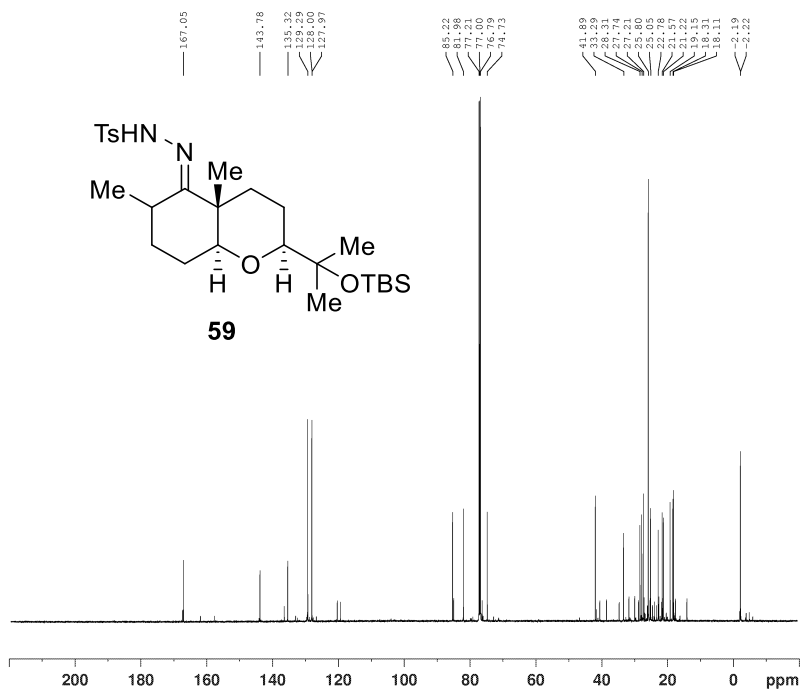
F2 - Processing parameters
 SI 32768
 SF 150.9028140 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



Current Data Parameters
NAME rjs-2483 Pure Prot
EXNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150303
Time 16.47
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 20
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 sec
RG 16
DW 41.600 usec
DE 10.00 usec
TE 298.1 K
D1 1.00000000 sec
TD0 1

===== CHANNEL f1 =====
SF01 600.1337060 MHz
NUC1 1H
P1 13.00 usec
PLW1 9.00000000 W
F2 - Processing parameters
SI 65536
SF 600.1300179 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

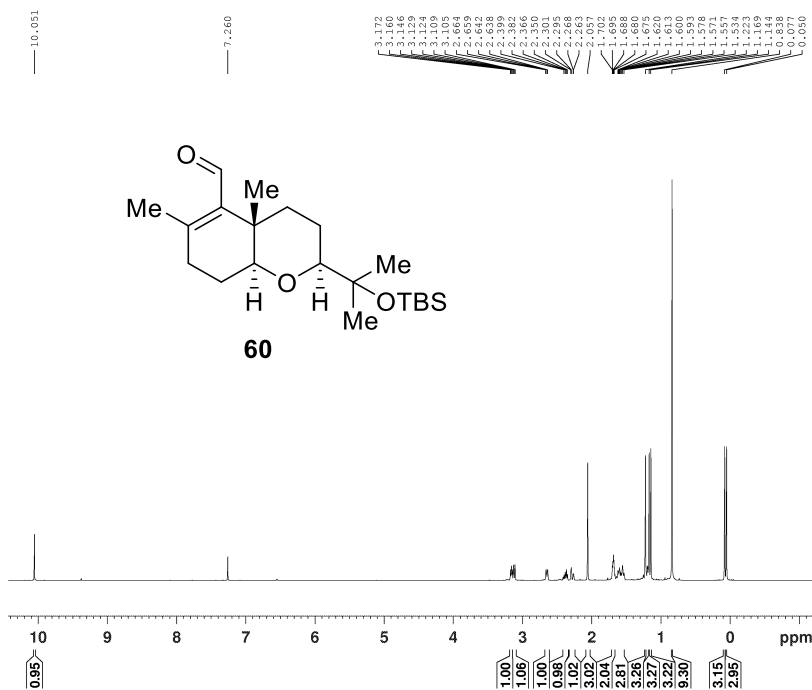


Current Data Parameters
NAME rjs-2483 Pure Carbon
EXNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150303
Time 16.50
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 61
DS 4
SWH 36057.691 Hz
FIDRES 0.550197 Hz
AQ 0.9087659 sec
RG 203
DW 13.867 usec
DE 18.00 usec
TE 298.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
SF01 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 W
===== CHANNEL f2 =====
SF02 600.1324005 MHz
NUC2 1H
CFPRG[2] waltz16
PCPD2 80.00 usec
PLW2 9.00000000 W
PLW12 0.24587000 W
PLW13 0.17016000 W

F2 - Processing parameters
SI 32768
SF 150.9028188 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

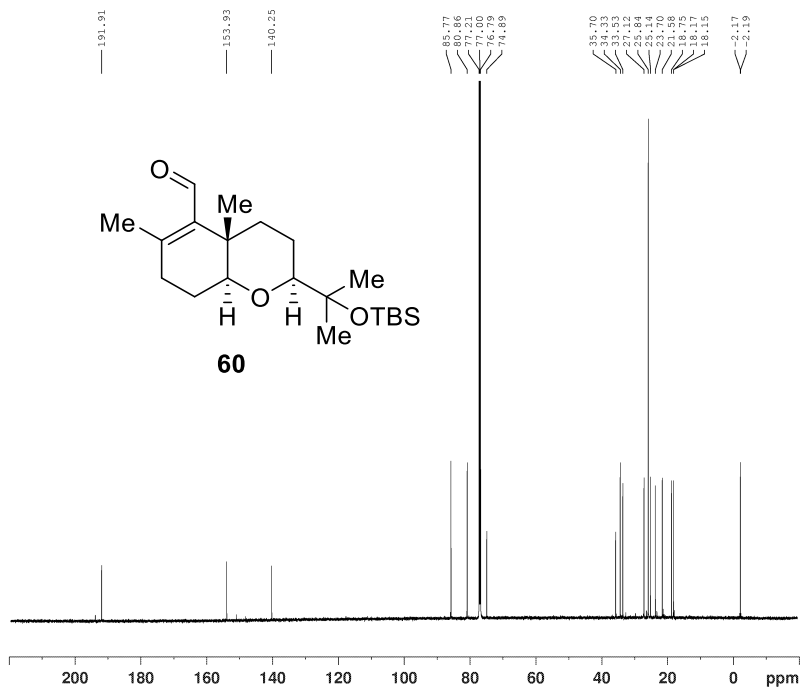


Current Data Parameters
 NAME rjs-2486 Pure Prot
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150305
 Time 9.02
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 15
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 32
 DW 41.600 usec
 DE 10.00 usec
 TE 298.1 K
 D1 1.00000000 sec
 TDO 1

===== CHANNEL f1 =====
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300176 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 FC 1.00



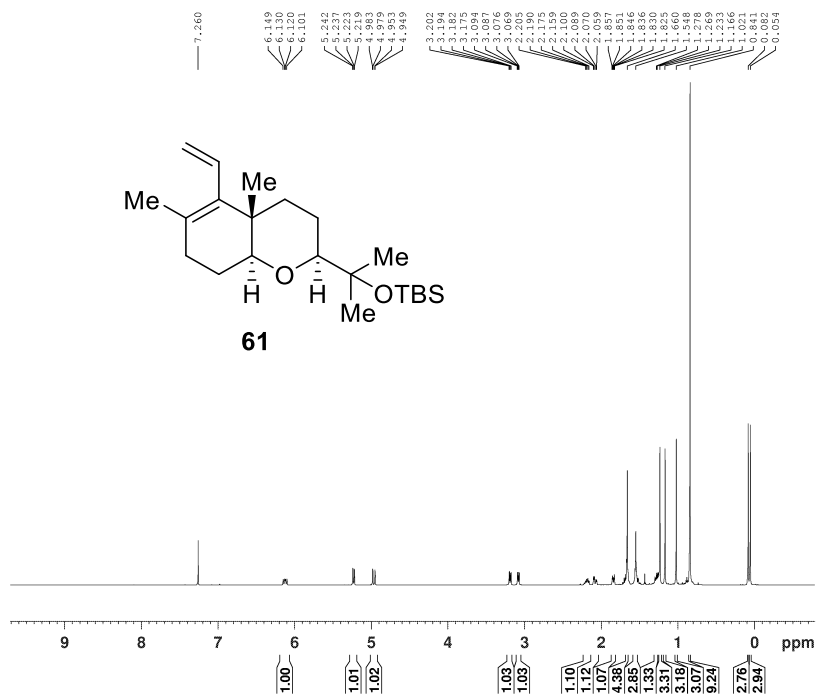
Current Data Parameters
 NAME rjs-2486 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150305
 Time 9.05
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 54
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1

===== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

===== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028132 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 FC 1.40

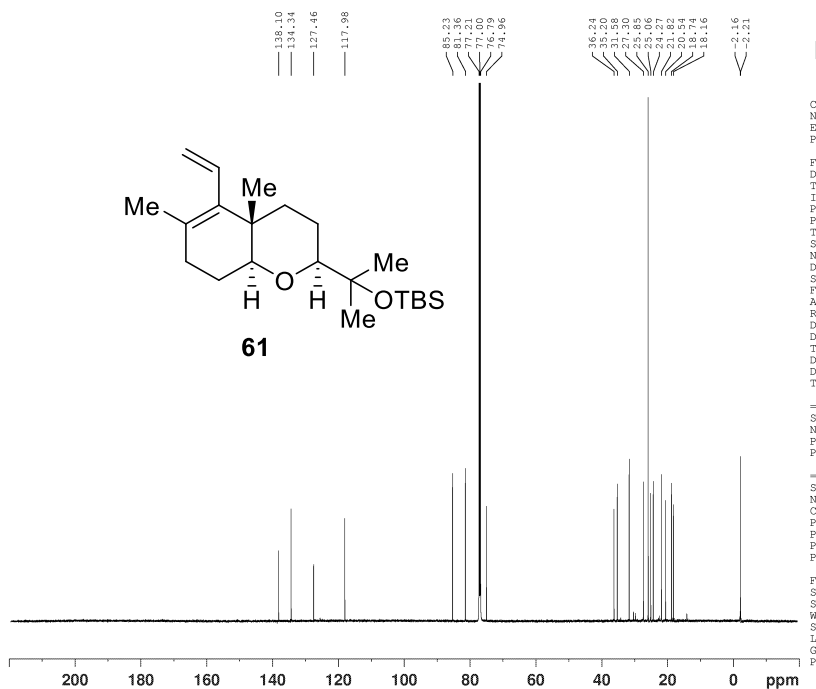


Current Data Parameters
NAME rjs-2493 Pure Proton
EXNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150305
Time 15:20
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
FULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 27
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 sec
RG 32
EW 41.600 usec
DE 10.00 usec
TE 298.1 K
D1 1.00000000 sec
TD0 1

----- CHANNEL f1 -----
SFO1 600.137060 MHz
NUC1 1H
P1 13.00 usec
PLW1 9.00000000 W

F2 - Processing parameters
SI 65536
SF 600.1300160 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



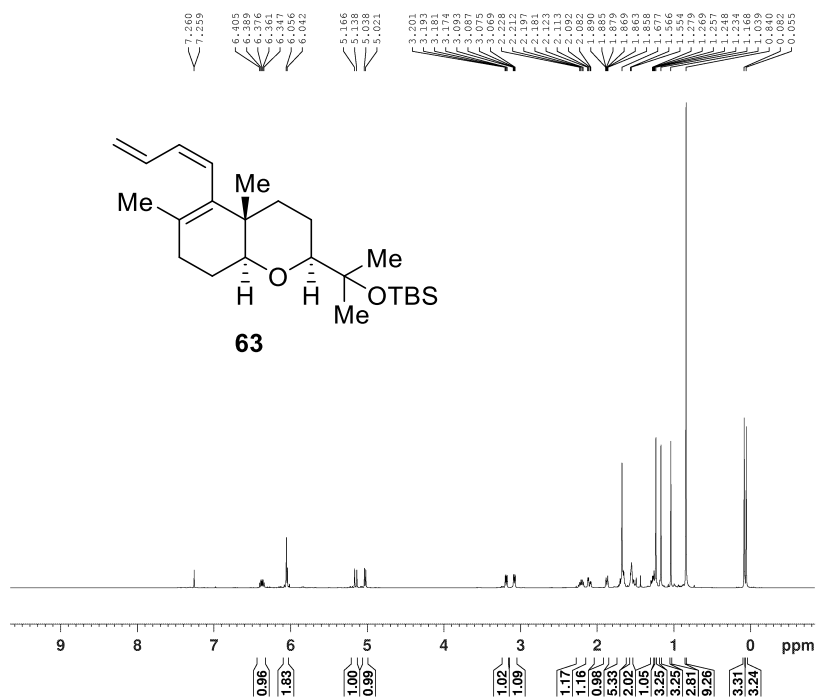
Current Data Parameters
NAME rjs-2493
EXNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150305
Time 19:32
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
FULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 512
DS 4
SWH 36057.691 Hz
FIDRES 0.350197 Hz
AQ 0.9087659 sec
RG 203
EW 13.867 usec
DE 18.00 usec
TE 298.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

----- CHANNEL f1 -----
SFO1 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 W

----- CHANNEL f2 -----
SFO2 600.1324005 MHz
NUC2 1H
CPDPRG[2] waltz16
PCPD2 80.00 usec
PLW2 9.00000000 W
PLM2 0.26587000 W
PLW3 0.17016000 W

F2 - Processing parameters
SI 32768
SF 150.9028129 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

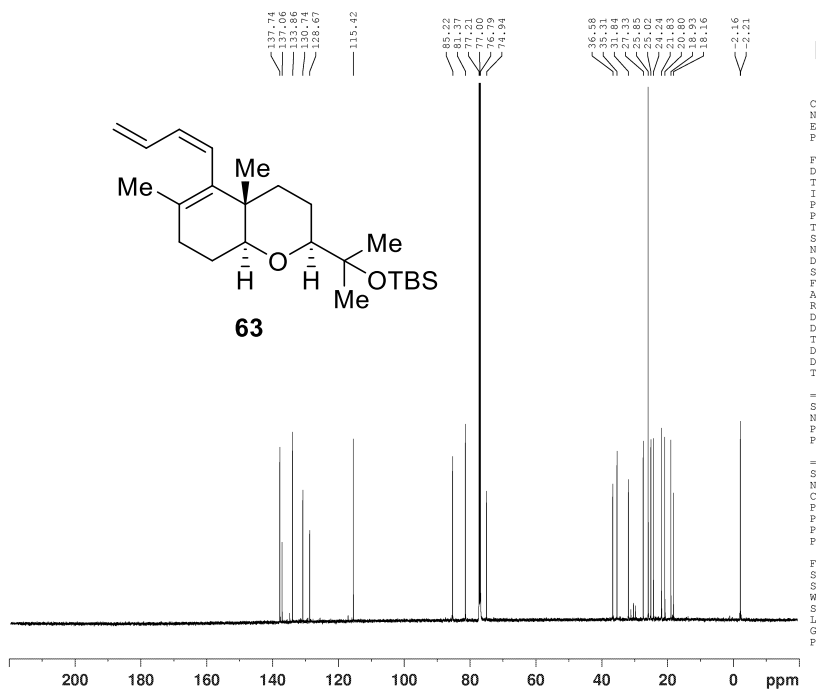


Current Data Parameters
 NAME rjs-1207 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150313
 Time 8.03
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 15
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

===== CHANNEL f1 =====
 SFO1 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300182 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 FC 1.00



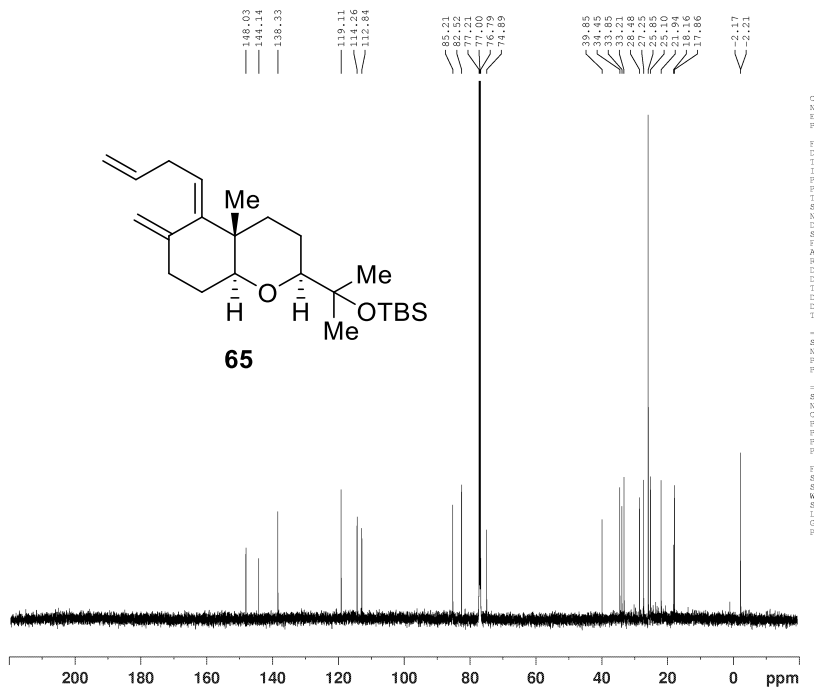
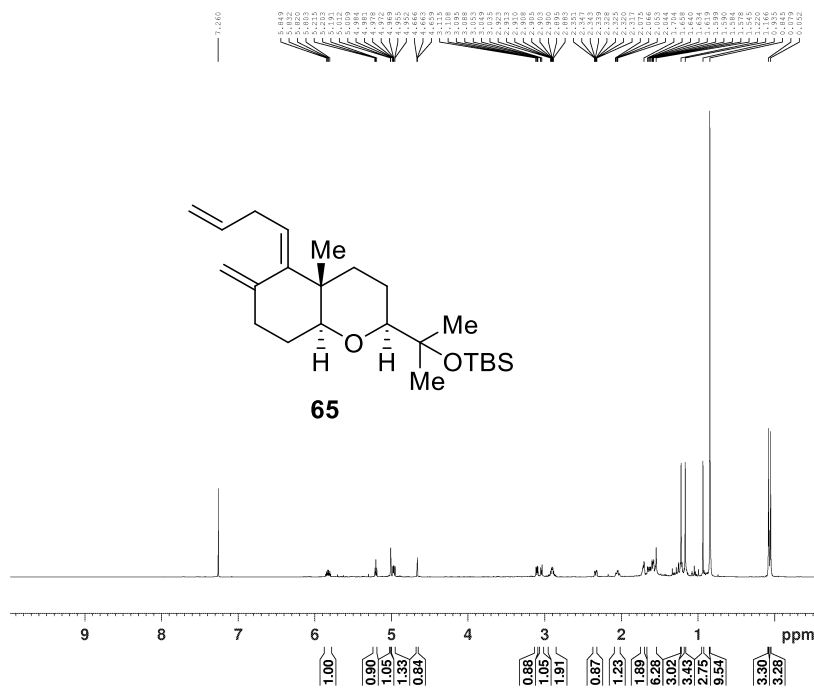
Current Data Parameters
 NAME rjs-1207 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150313
 Time 8.07
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 83
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

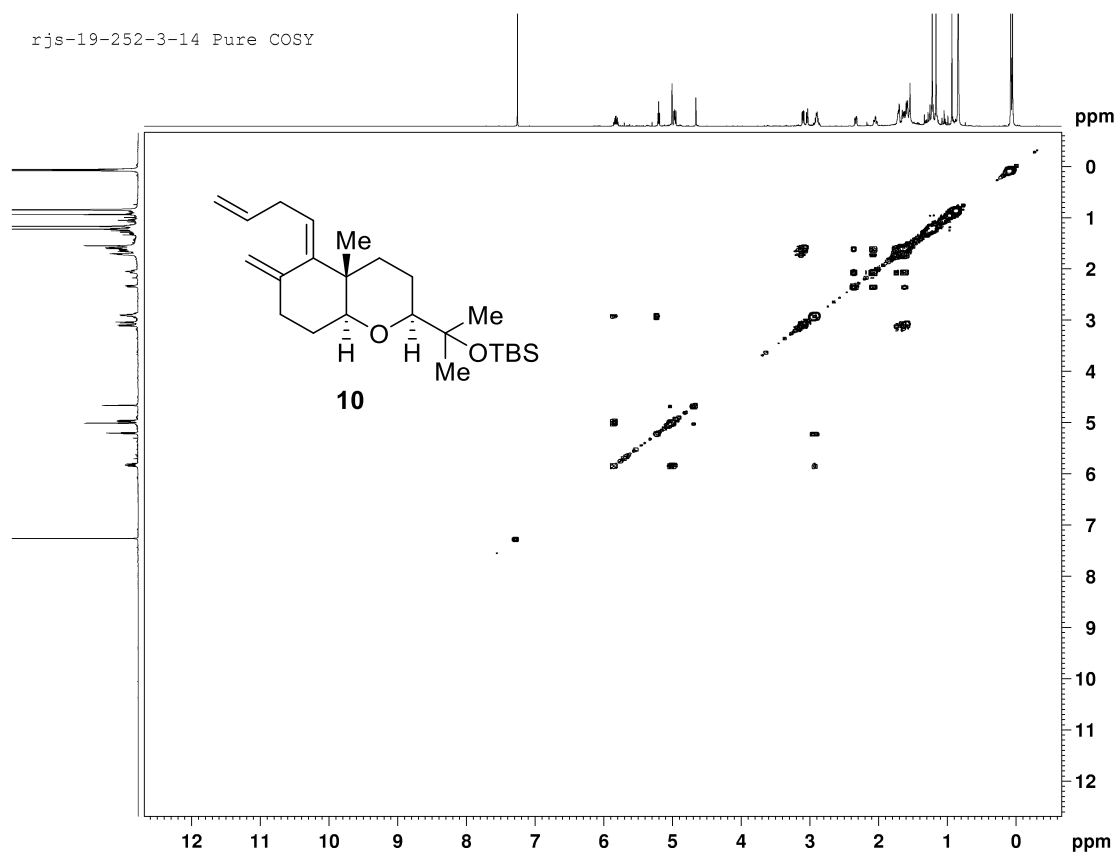
===== CHANNEL f1 =====
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

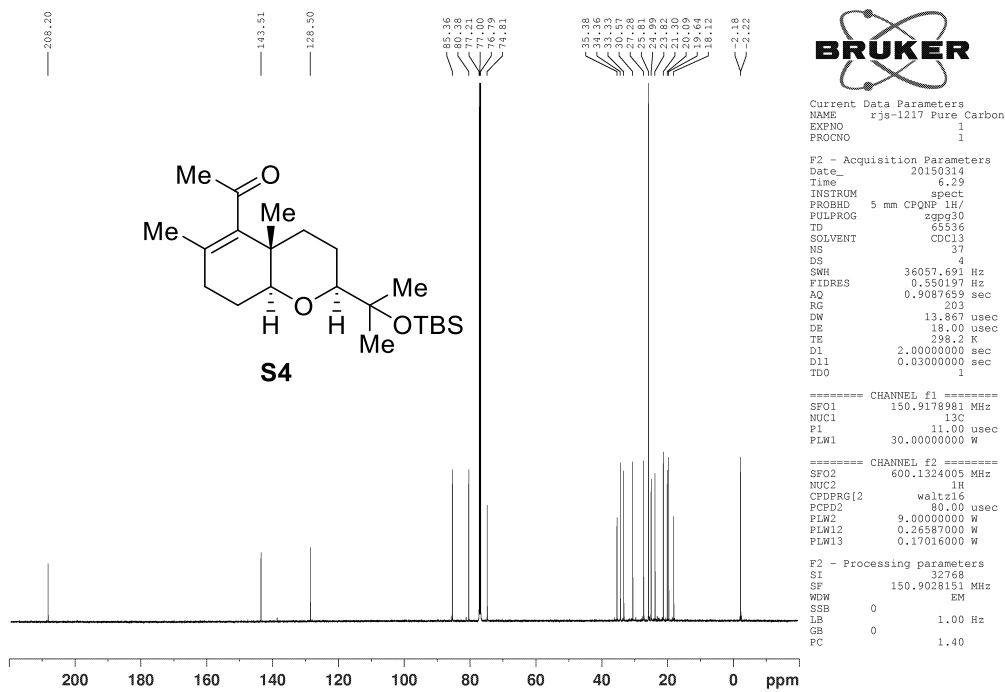
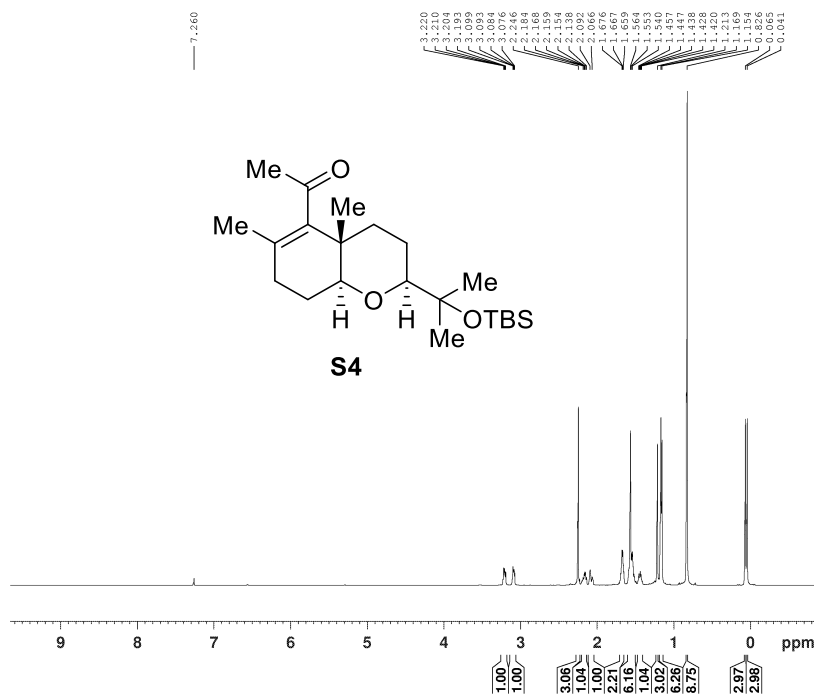
===== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 FCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

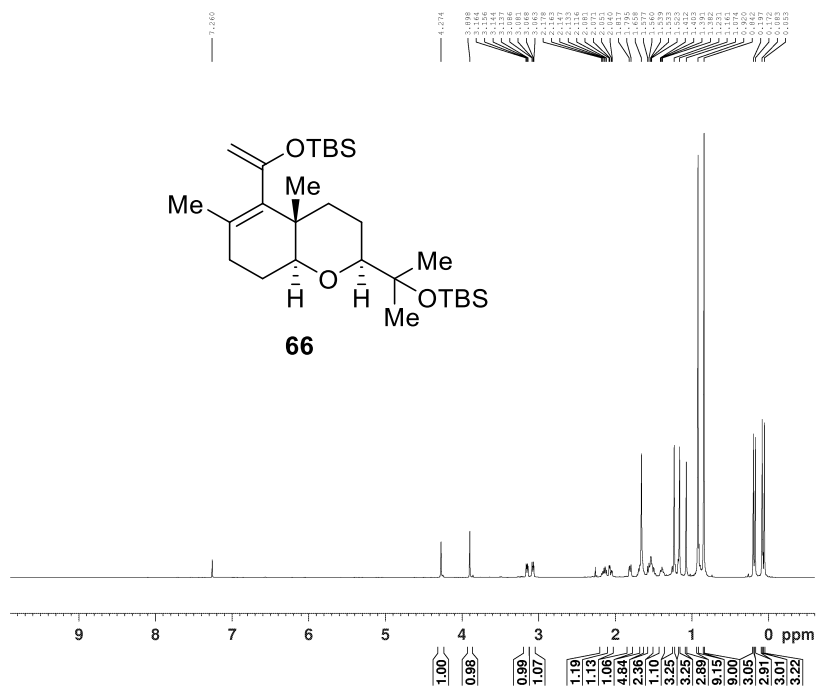
F2 - Processing parameters
 SI 32768
 SF 150.9028129 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 FC 1.40



COSY spectrum of 65 (in CDCl₃)





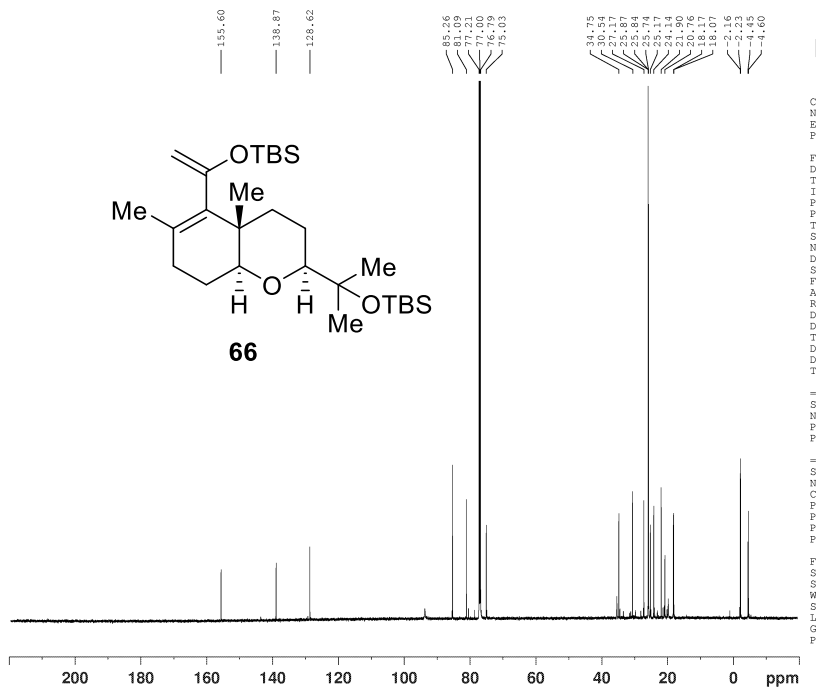


Current Data Parameters
 NAME rjs-1221 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150317
 Time 6.30
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 25.4
 DW 41.600 us
 DE 10.00 us
 TE 298.2 K
 D1 1.00000000 se
 TD0 1

===== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300174 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 FC 1.00



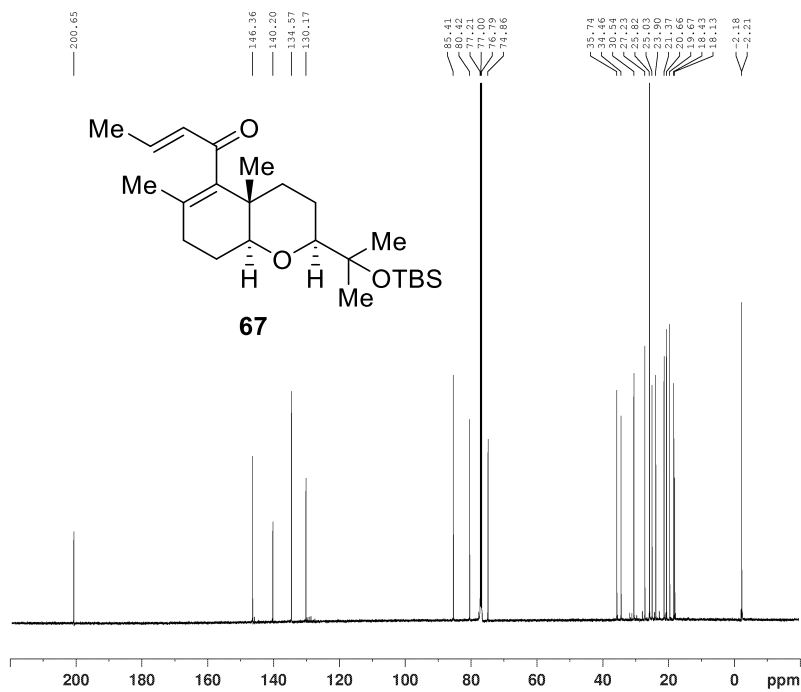
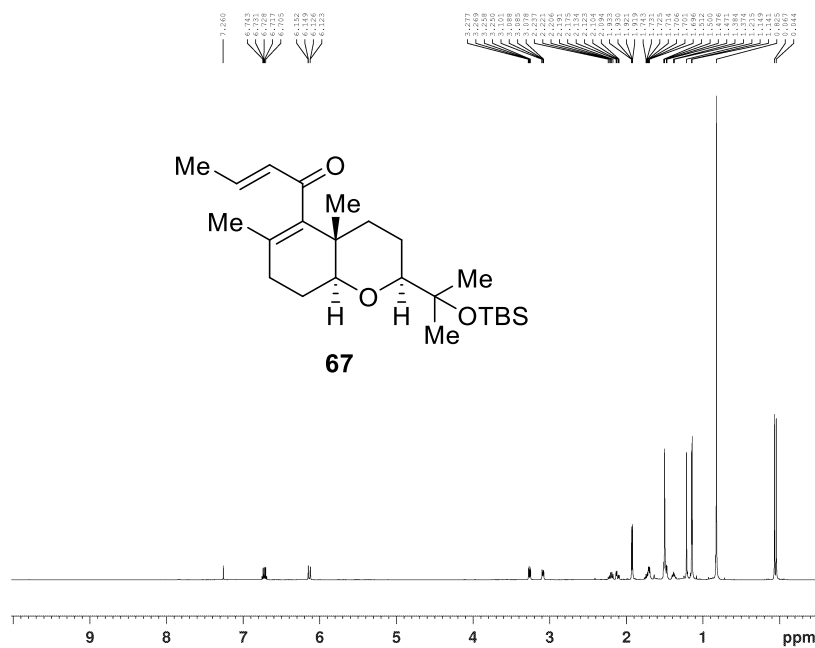
Current Data Parameters
 NAME rjs-1221 Pure Carbon
 EXPNO 1
 PROCNO 1

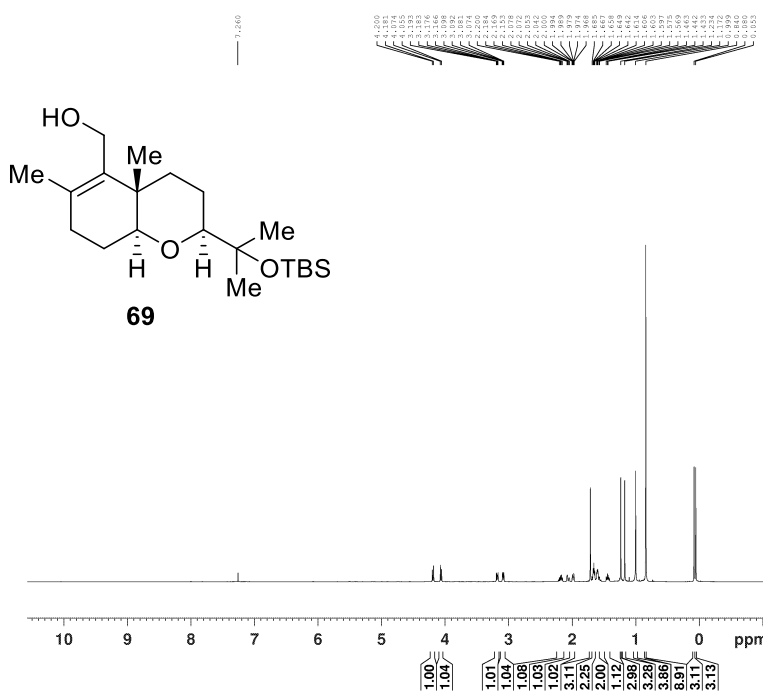
F2 - Acquisition Parameters
 Date_ 20150317
 Time 6.33
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 67
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

===== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 FPCD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028118 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 FC 1.40





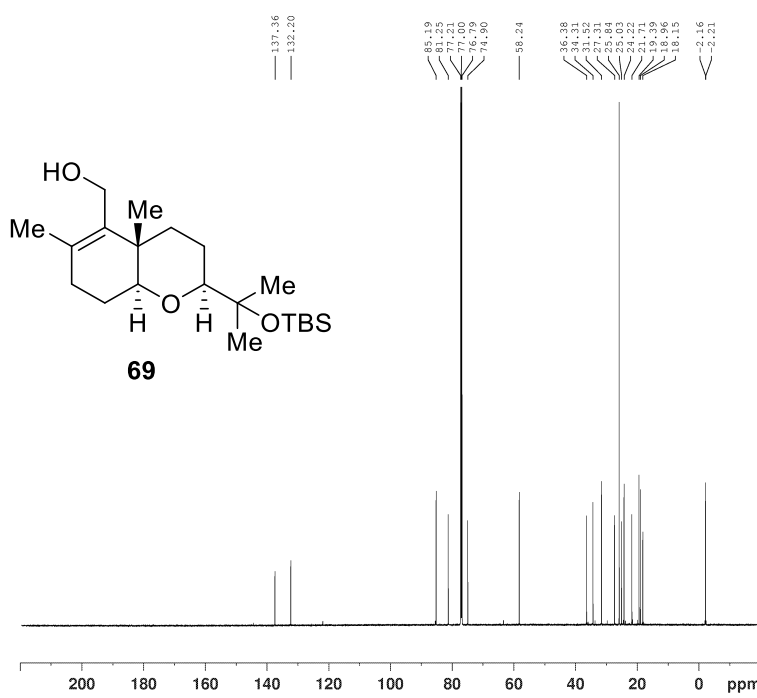
BRUKER

Current Data Parameters
 NAME rjs-0769 Pure Proton
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150120
 Time 11.11
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 20
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 25.4
 DW 41.600 usec
 DE 10.00 usec
 TE 298.0 K
 DI 1.0000000 sec
 TDO 1

==== CHANNEL f1 =====
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.0000000 W

F2 - Processing parameters
 SI 65536
 SF 600.130166 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



BRUKER

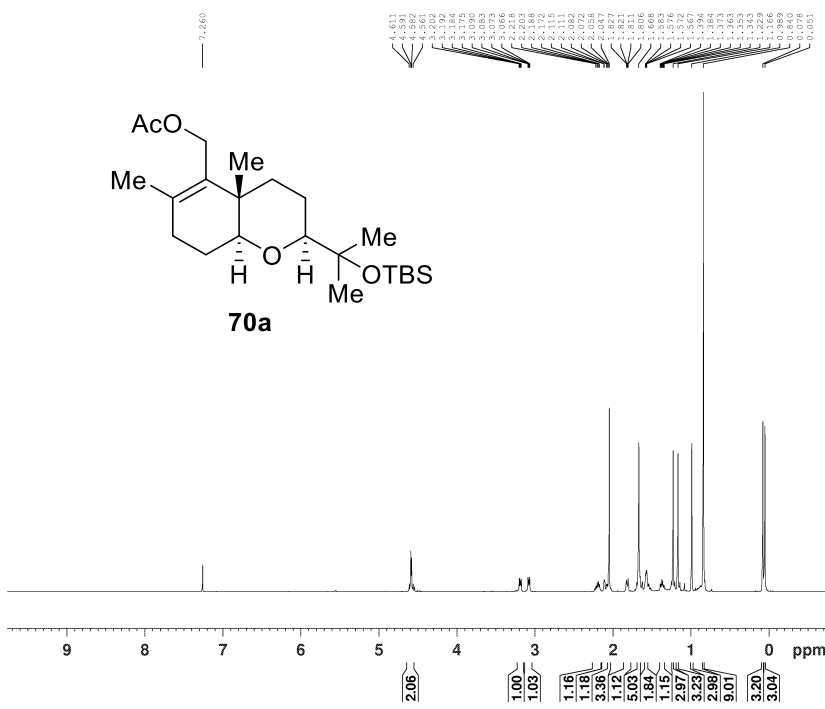
Current Data Parameters
 NAME rjs-0769 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150120
 Time 11.15
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 51
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TDO 1

==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.0000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.0000000 W
 PLW12 0.36587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028140 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



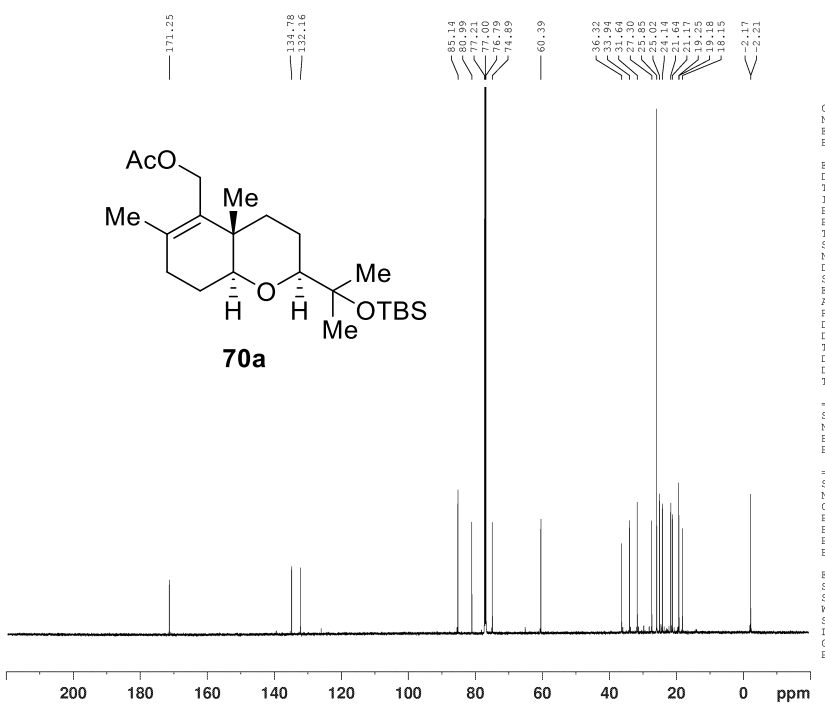
BRUKER

Current Data Parameters
 NAME rjs-1245 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150406
 Time 11.15
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 25.4
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TDO 1

==== CHANNEL f1 =====
 SFO1 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300149 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



BRUKER

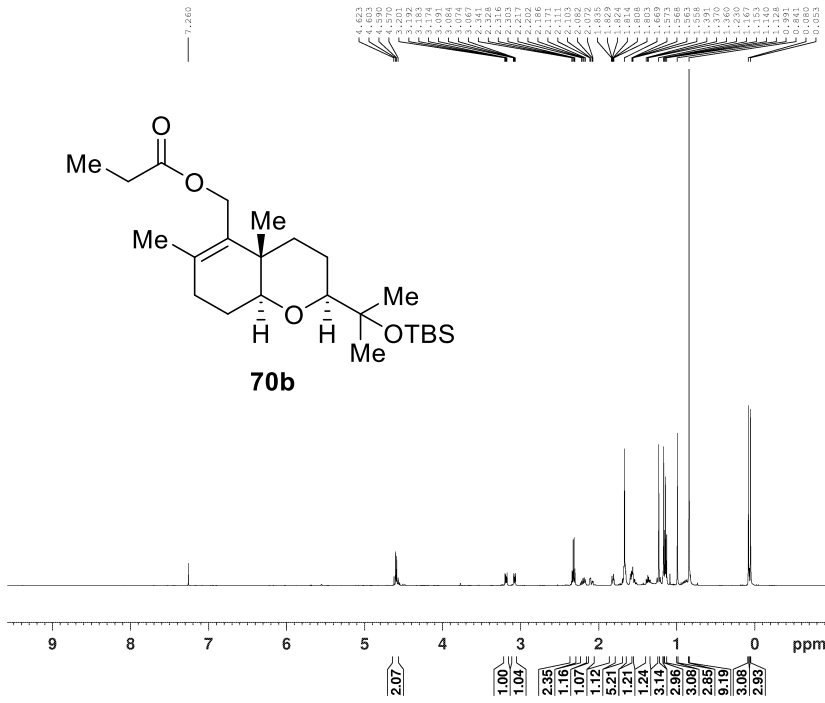
Current Data Parameters
 NAME rjs-1245 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150406
 Time 11.17
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 4
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1

==== CHANNEL f1 =====
 SFO1 150.9178981 MH
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SFO2 600.1324005 MH
 NUC2 1H
 CPOPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.25570000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028129 MH
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

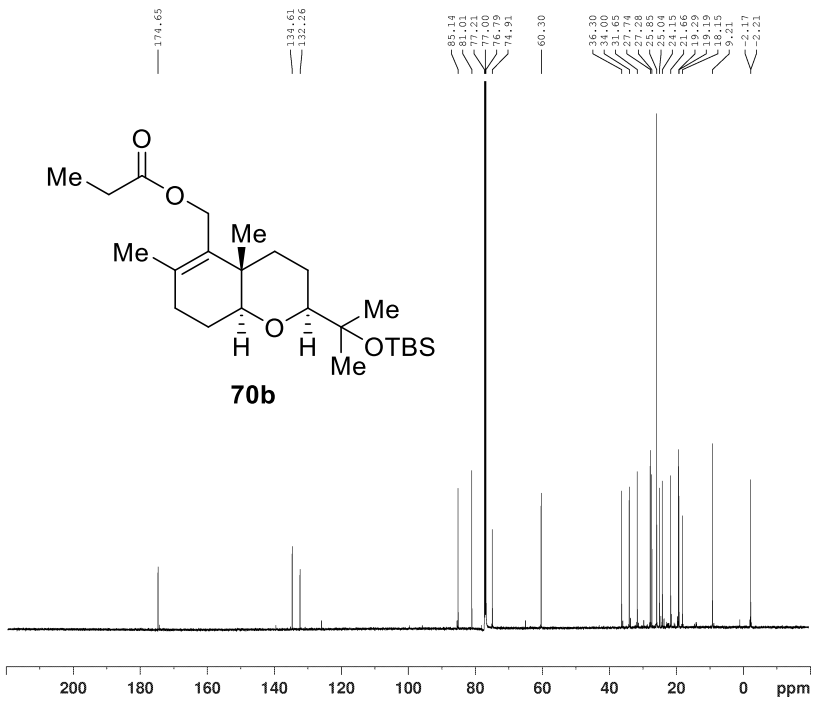


Current Data Parameters
 NAME rjs-1238
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150324
 Time 13.45
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.0000000 se
 TDO 1

===== CHANNEL f1 =====
 SFO1 600.1337060 MHz
 NUC1 1H
 P1 13.00 us
 PLW1 9.0000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300166 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



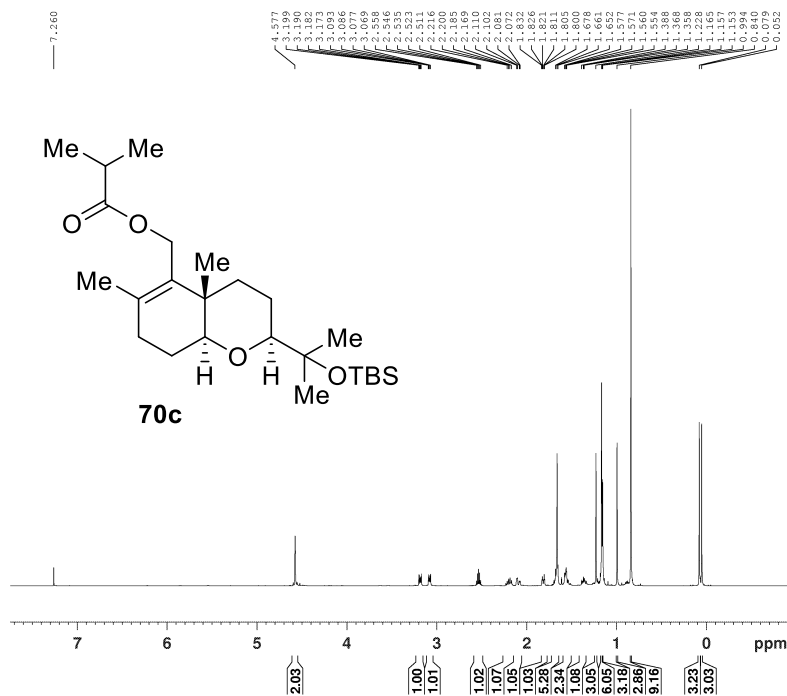
Current Data Parameters
 NAME rjs-1238
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150324
 Time 13.52
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 128
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TDO 1

===== CHANNEL f1 =====
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.0000000 W

===== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.0000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028129 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



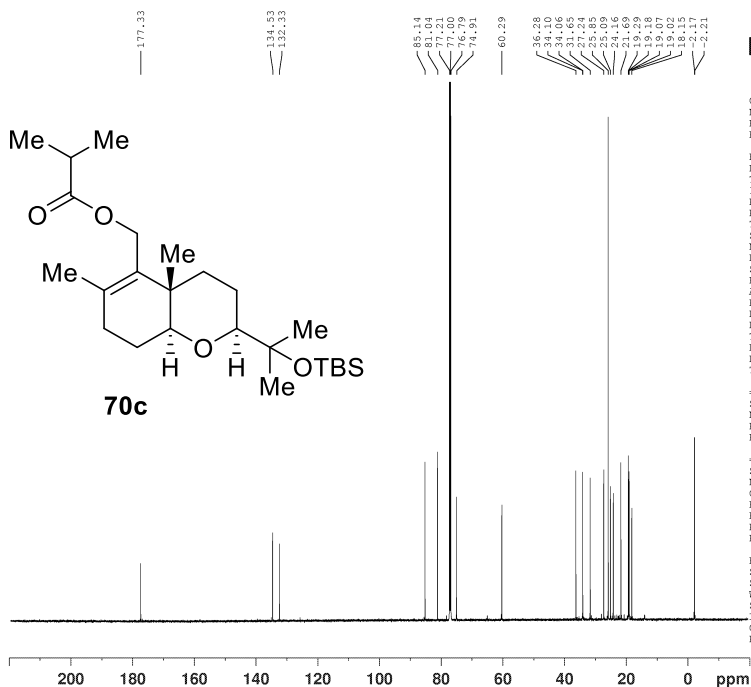
BRUKER

Current Data Parameters
 NAME rjs-0771 Pure proton
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150121
 Time 8.13
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 9
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.732976 sec
 RG 25.4
 DW 41.600 usec
 DE 10.00 usec
 TE 298.0 K
 D1 1.0000000 sec
 TDO 1

==== CHANNEL f1 =====
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300173 MHz
 WDN EM
 SSB 0
 LB 0 0.30 Hz
 GB 0
 PC 1.00



BRUKER

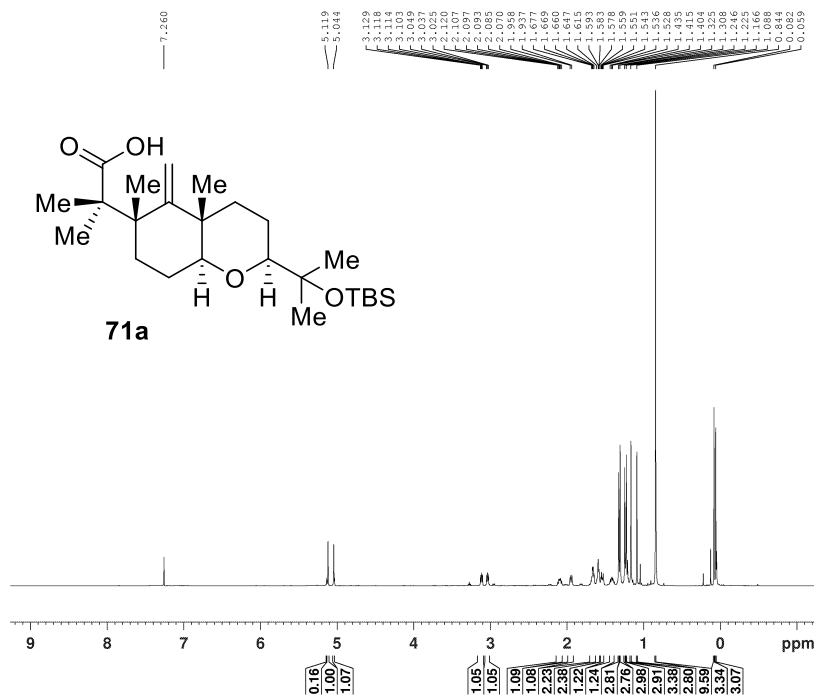
Current Data Parameters
 NAME rjs-0771 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150121
 Time 8.17
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 49
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TDO 1

==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG12 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028129 MHz
 WDN EM
 SSB 0
 LB 0 1.00 Hz
 GB 0
 PC 1.40

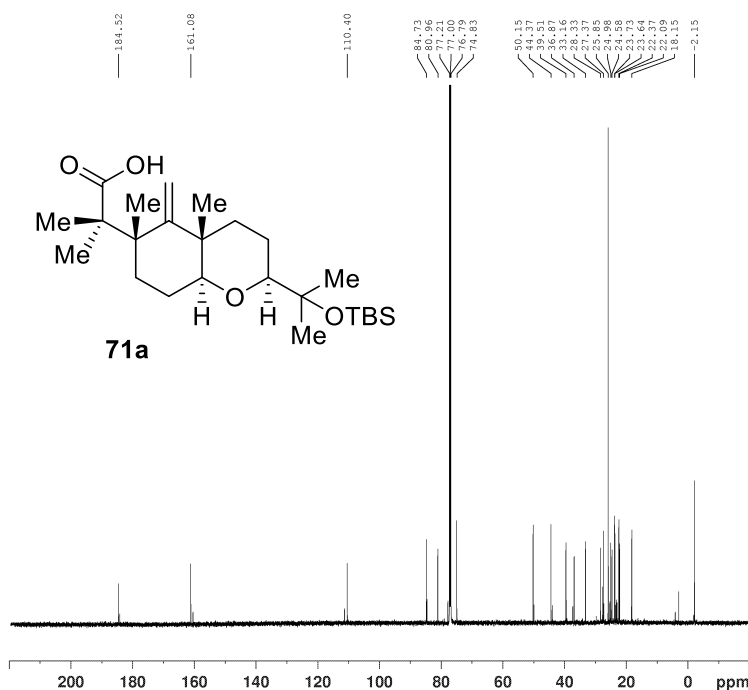


Current Data Parameters
 NAME rjs-2417 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150210
 Time 10.36
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 22
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 16
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300157 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



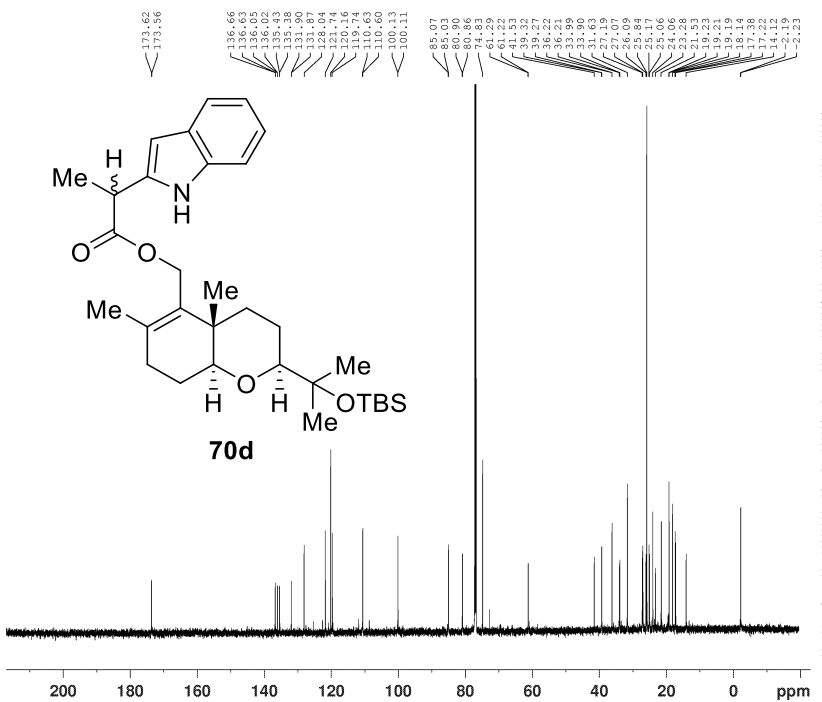
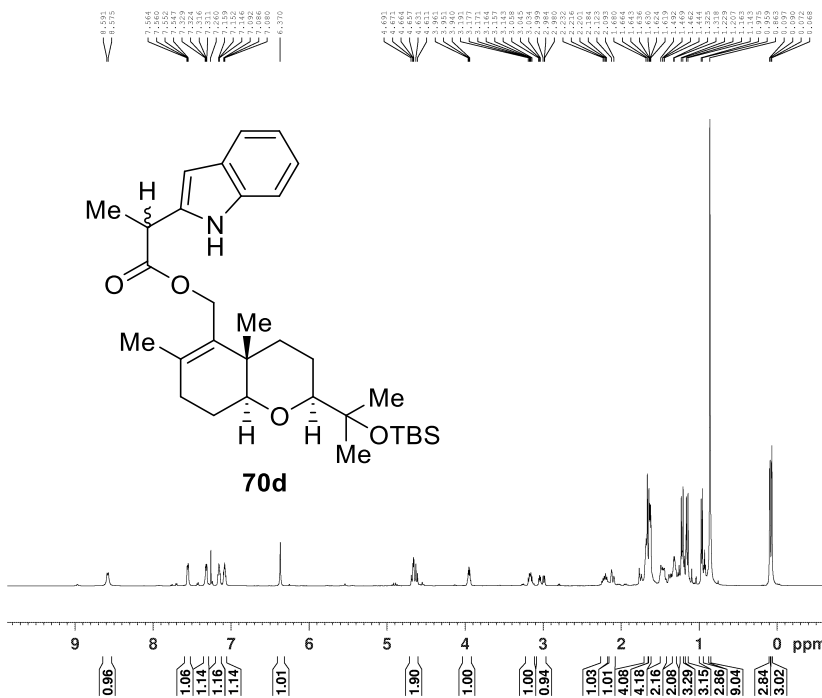
Current Data Parameters
 NAME rjs-0773 Pure Carbon
 EXPNO 1
 PROCNO 1

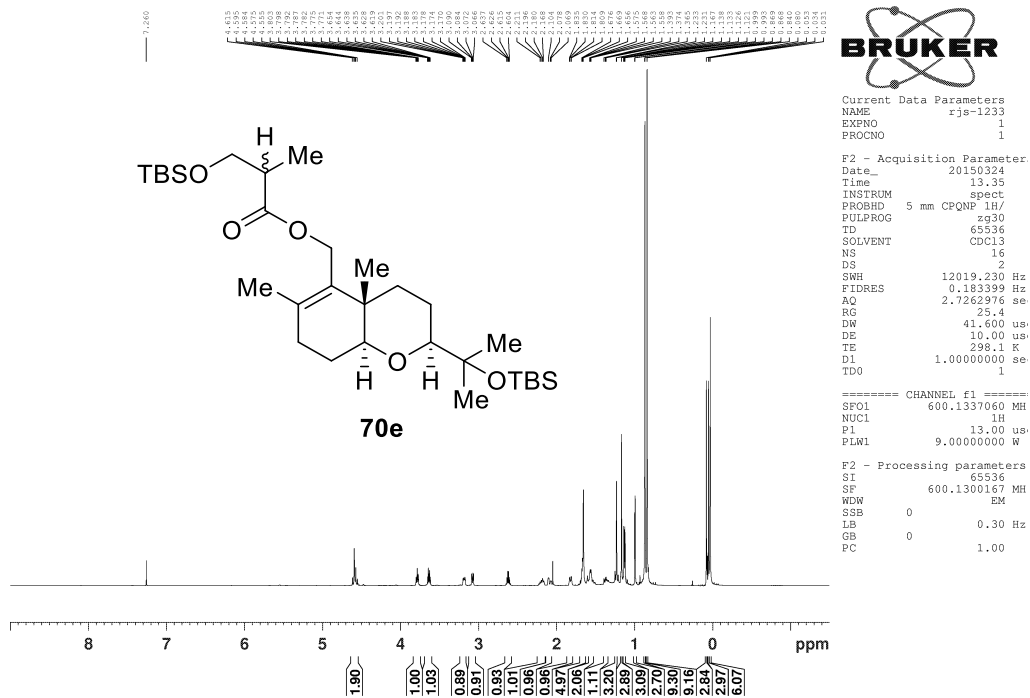
F2 - Acquisition Parameters
 Date_ 20150122
 Time 9.07
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 49
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

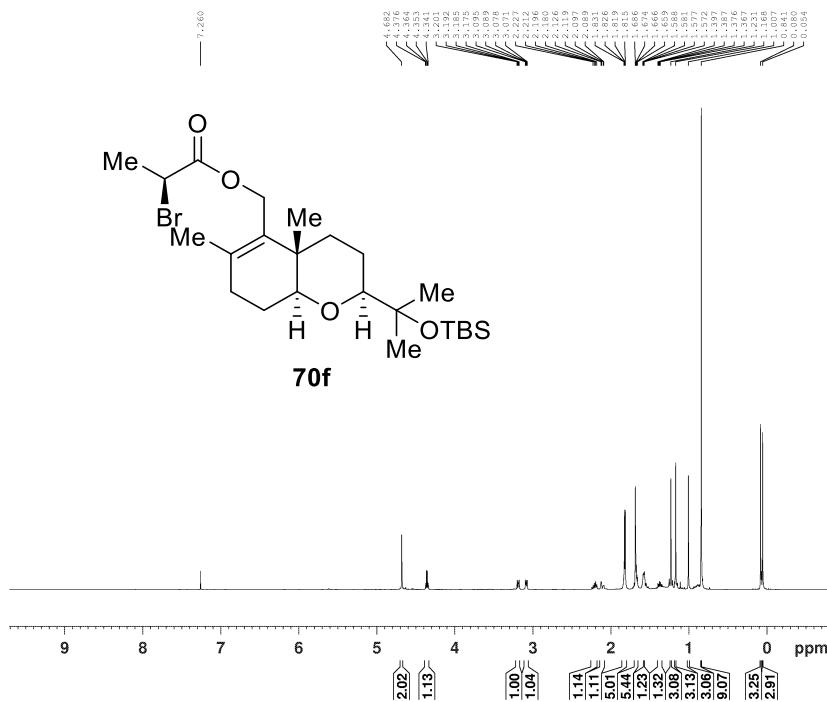
==== CHANNEL f1 =====
 SF01 150.9178981 MH
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MH
 NUC2 1H
 CPDPRG12 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028129 MH
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40





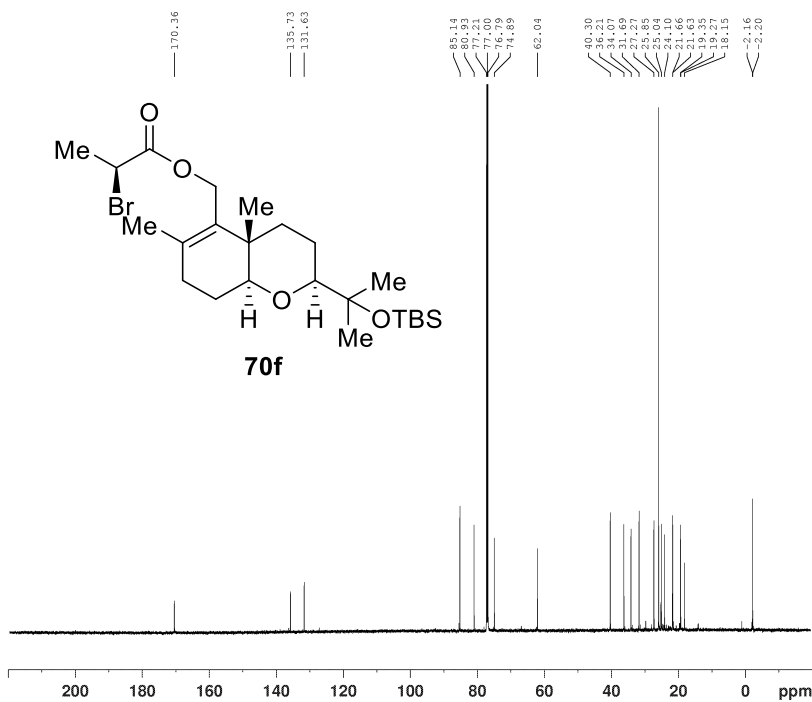


Current Data Parameters
 NAME rjs-1244 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150406
 Time 11.08
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 20
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 298.2 K
 D1 1.00000000 se
 TDO 1

===== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300151 MH
 SE EM
 WDW 0
 SSB 0 0.30 Hz
 GB 0
 PC 1.00



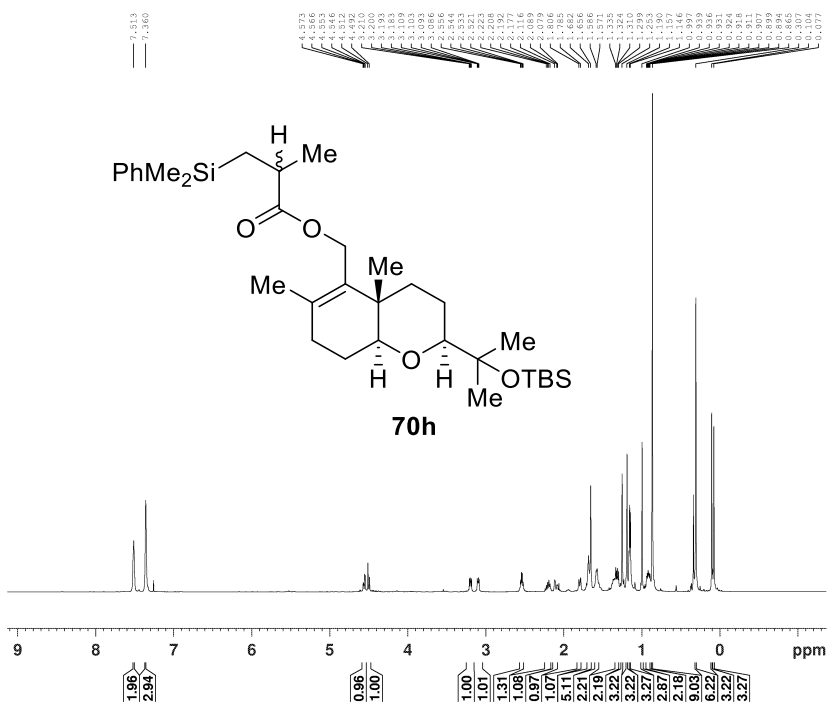
Current Data Parameters
 NAME rjs-1244 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150406
 Time 11.11
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 52
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.661 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1

===== CHANNEL f1 =====
 SF01 150.9178981 MHZ
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

===== CHANNEL f2 =====
 SF02 600.1324005 MHZ
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028129 MHZ
 SE EM
 WDW 0
 SSB 0 1.00 Hz
 GB 0
 PC 1.40

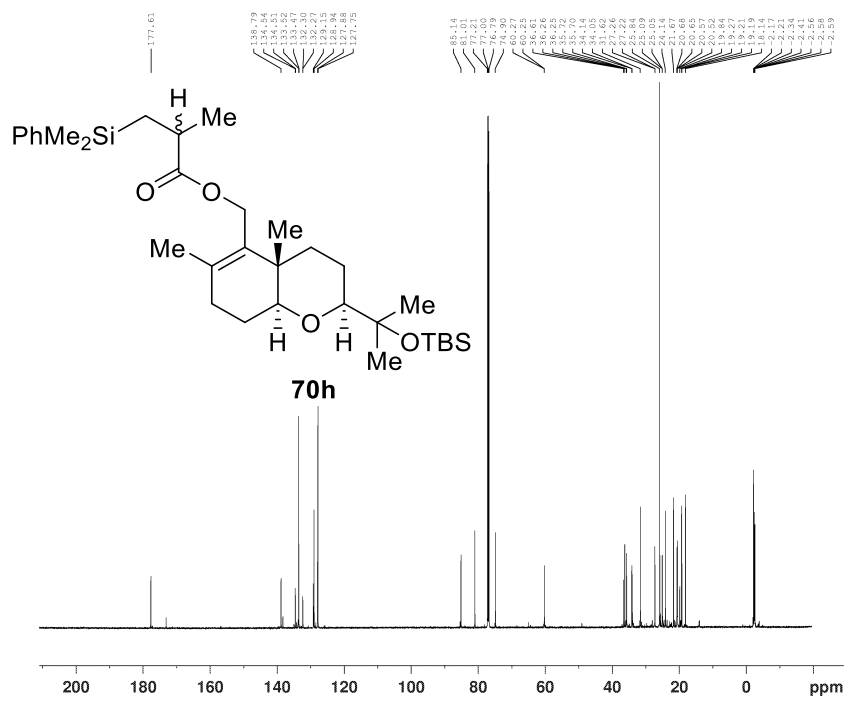


Current Data Parameters
 NAME rjs-1232 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150323
 Time 6.18
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 12.7
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TDO 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300169 MH
 SE EM
 WDW 0
 LB 0.30 Hz
 GB 0
 PC 1.00



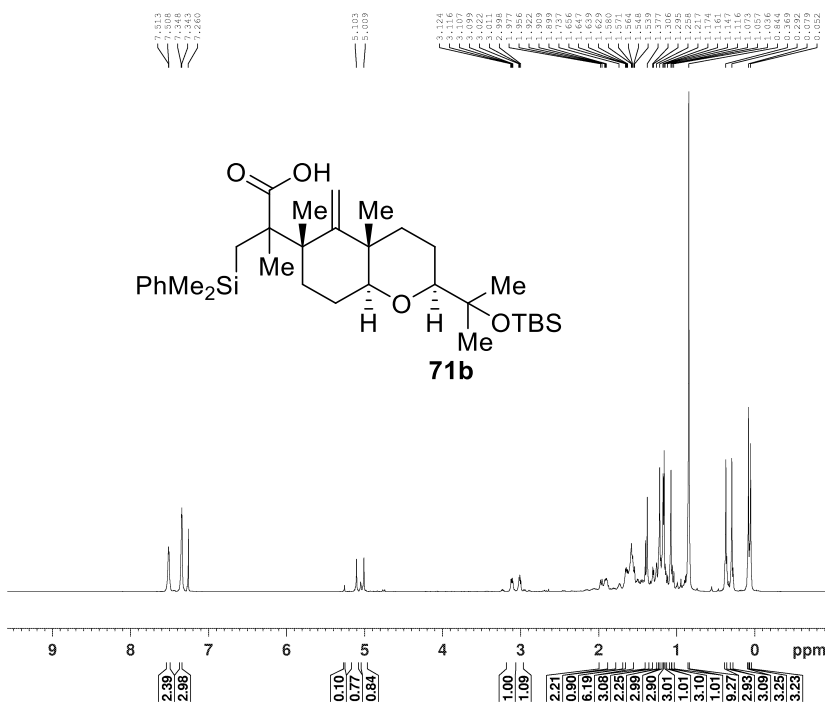
Current Data Parameters
 NAME rjs-1234 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150323
 Time 6.21
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 56
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1

==== CHANNEL f1 =====
 SF01 150.9178981 MHZ
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHZ
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028184 MHZ
 SE EM
 WDW 0
 LB 1.00 Hz
 GB 0
 PC 1.40



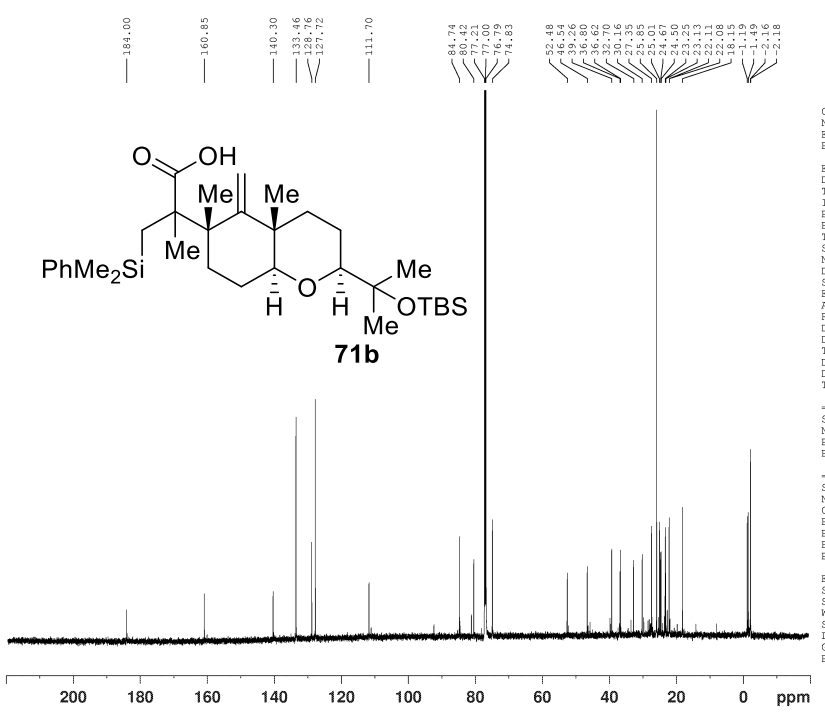
BRUKER

Current Data Parameters
 NAME rjs-1242 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150406
 Time 11.01
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 19
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.786396 sec
 RG 32
 DW 41.600 usec
 DE 18.00 usec
 TE 298.1 K
 D1 1.00000000 sec
 TD0 1

===== CHANNEL f1 =====
 SFO1 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300151 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



BRUKER

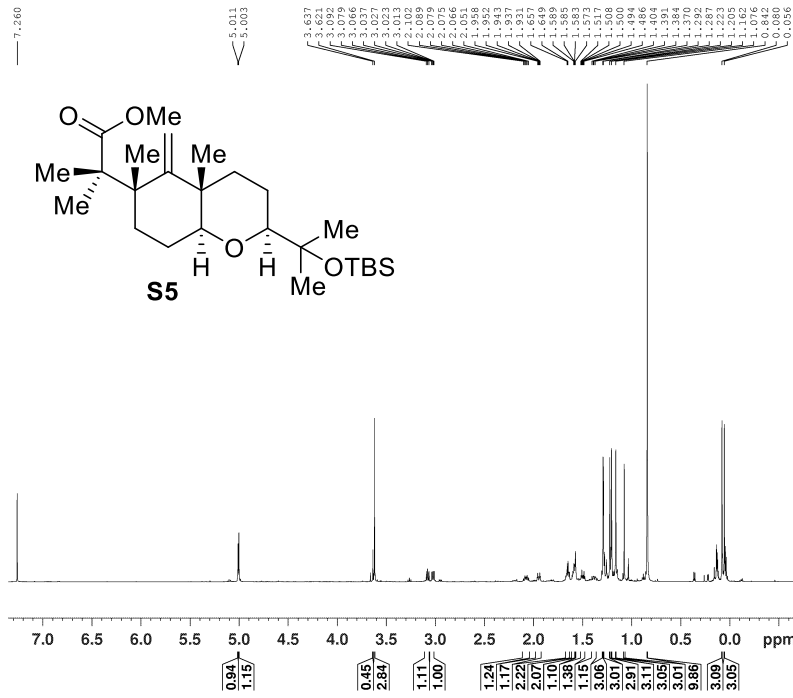
Current Data Parameters
 NAME rjs-1242 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150406
 Time 11.05
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 61
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

===== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028129 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

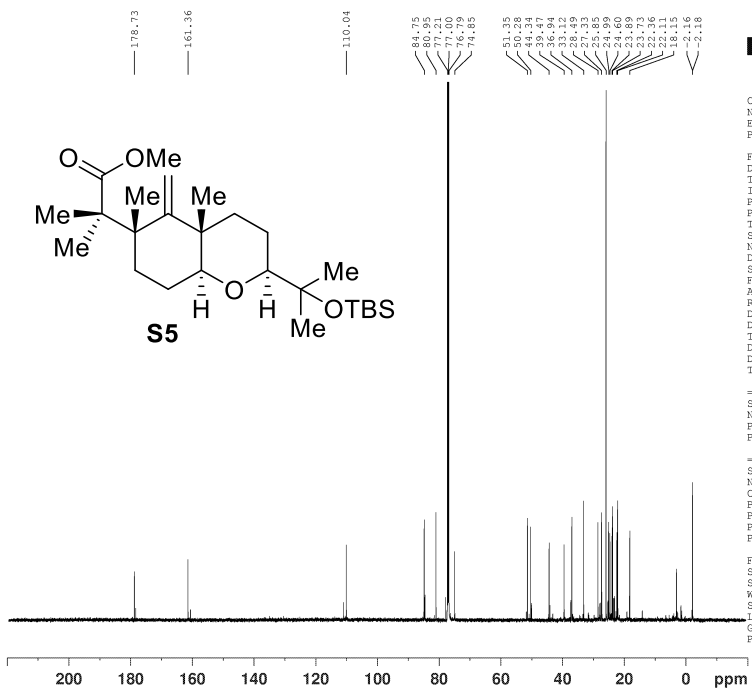


Current Data Parameters
 NAME rjs-0775 Proton
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150123
 Time 9.37
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 25
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 32
 DW 41.600 usec
 DE 10.00 usec
 TE 298.1 K
 D1 1.00000000 sec
 TDO 1

==== CHANNEL f1 =====
 SFO1 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300171 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



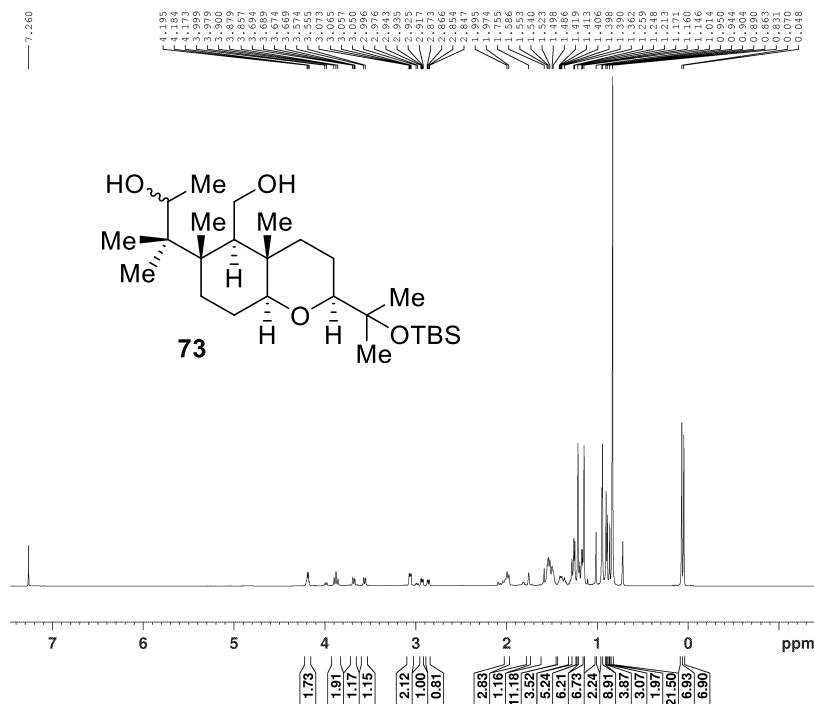
Current Data Parameters
 NAME rjs-0775 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150123
 Time 9.41
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 84
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TDO 1

==== CHANNEL f1 =====
 SFO1 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SFO2 600.1324005 MHz
 NUC2 1H
 CPDPRG12 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028129 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

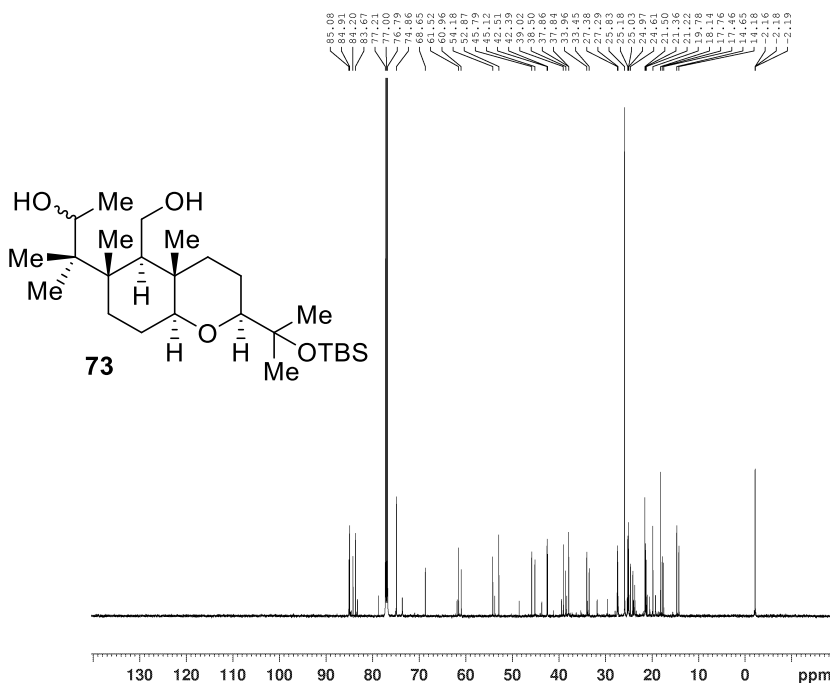


Current Data Parameters
NAME rjs-0780 proton
EXPNO 1
PROCNO 1

F2 - Acquisition Parameter
Date_ 20150126
Time 8.54
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 25
DS 2
SWH 12019.230 Hz
FIDRES 0.183299 Hz
AQ 2.7262976 se
RG 25.4
DW 41.600 us
DE 10.00 us
TE 298.0 K
D1 1.00000000 se
TD0 1

===== CHANNEL f1 =====
SF01 600.1337060 MH
NUC1 1H
P1 13.00 us
PLW1 9.00000000 W

F2 - Processing parameters
SI 65536
SF 600.1300169 MH
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



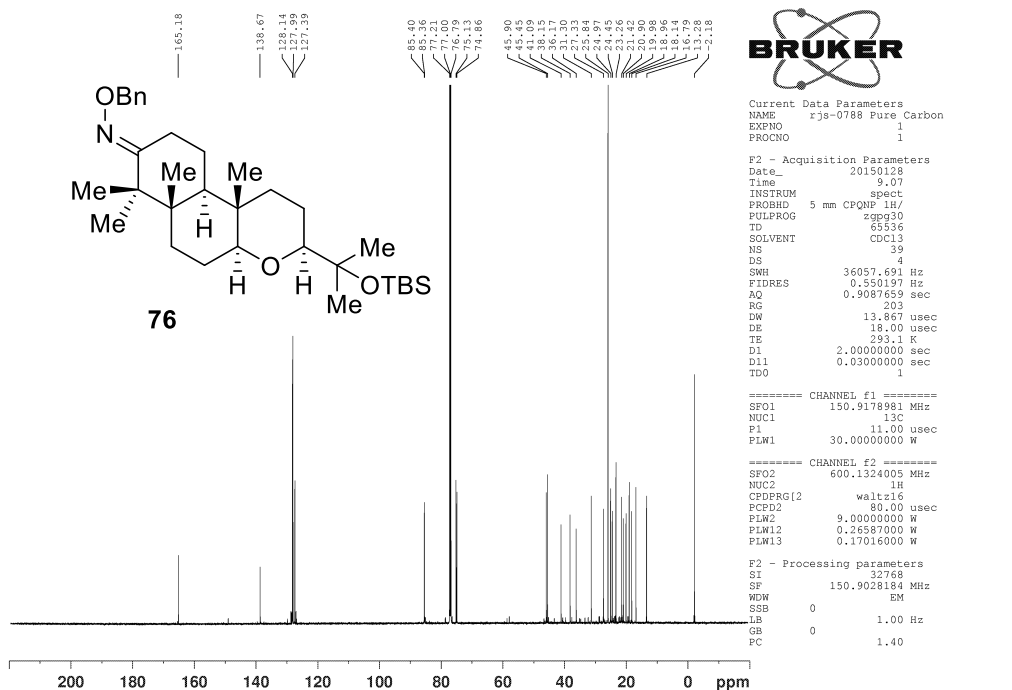
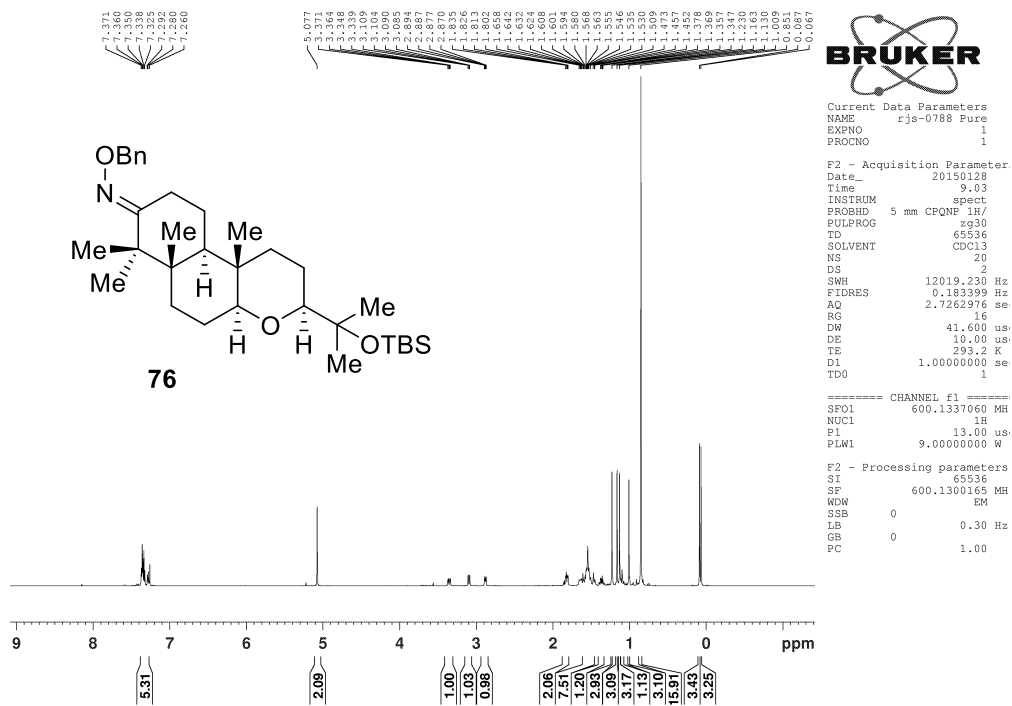
Current Data Parameters
NAME rjs-0780 pure carbon
EXPNO 1
PROCNO 1

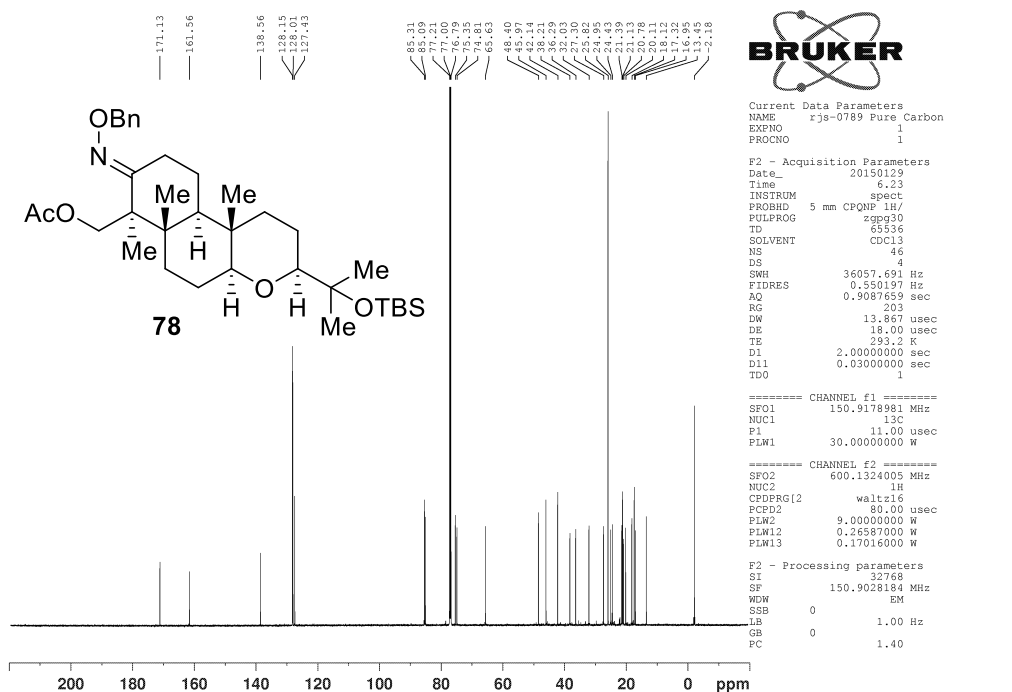
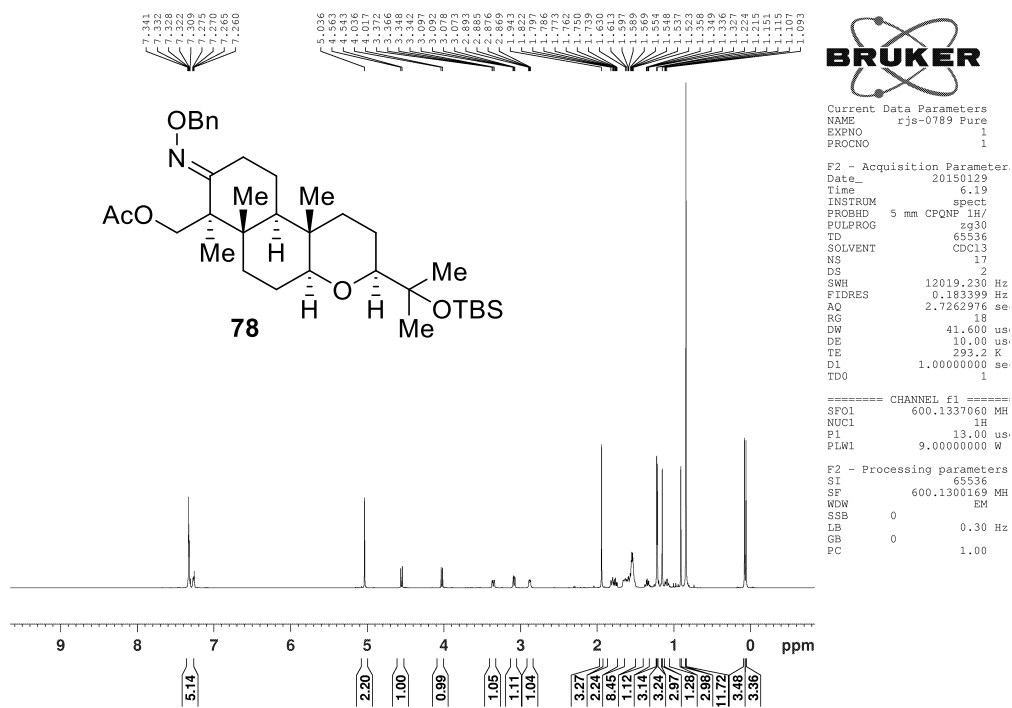
F2 - Acquisition Parameters
Date_ 20150126
Time 8.50
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 63
DS 4
SWH 36057.691 Hz
FIDRES 0.550197 Hz
AQ 0.9087659 sec
RG 203
DW 13.867 usec
DE 18.00 usec
TE 298.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

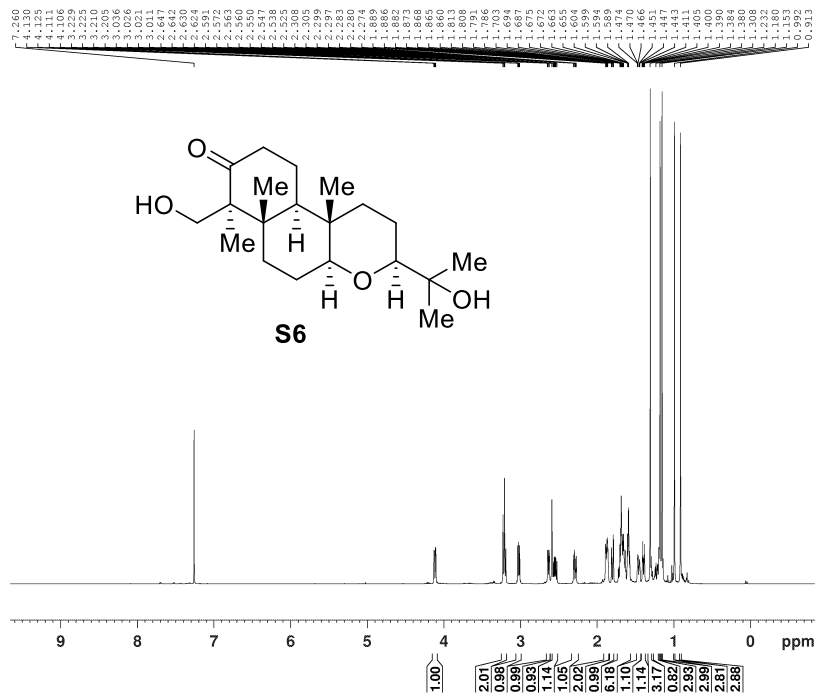
===== CHANNEL f1 =====
SF01 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 W

===== CHANNEL f2 =====
SF02 600.1324005 MHz
NUC2 1H
CPDPRG12 waltz16
PCPD2 80.00 usec
PLW2 9.00000000 W
PLW12 0.26587000 W
PLW13 0.17016000 W

F2 - Processing parameters
SI 32768
SF 150.9028140 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40





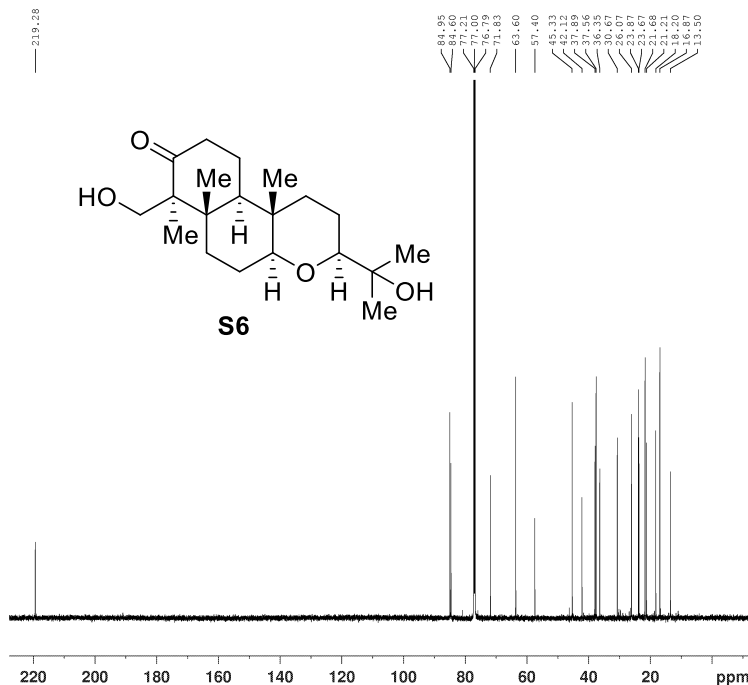


Current Data Parameters
 NAME rjs-0791 PURE
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150130
 Time 9.06
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 20
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 293.2 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300164 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



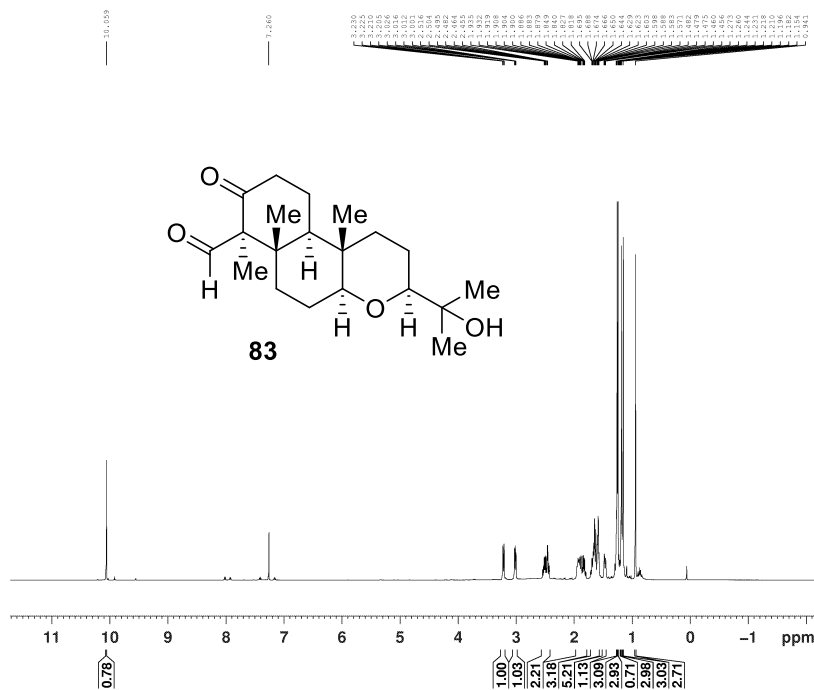
Current Data Parameters
 NAME rjs-0791 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150130
 Time 9.10
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 62
 DS 4
 SWH 42613.637 Hz
 FIDRES 0.650232 Hz
 AQ 0.7689557 sec
 RG 203
 DW 11.733 usec
 DE 18.00 usec
 TE 293.2 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SF01 150.9178981 MH
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MH
 NUC2 1H
 CPDPRG12 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028167 MH
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

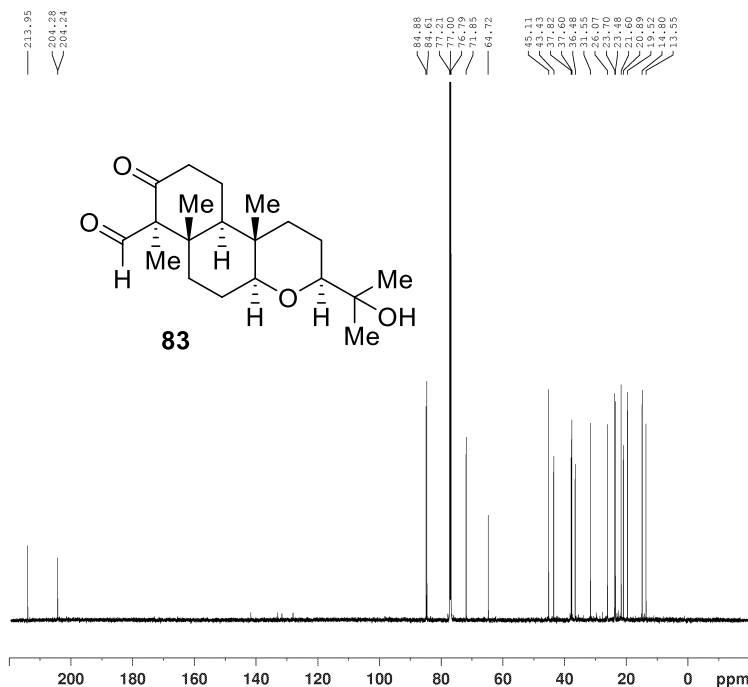


Current Data Parameters
 NAME rjs-aldehyde prot.
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150114
 Time 6.24
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 27
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 32
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

===== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300148 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



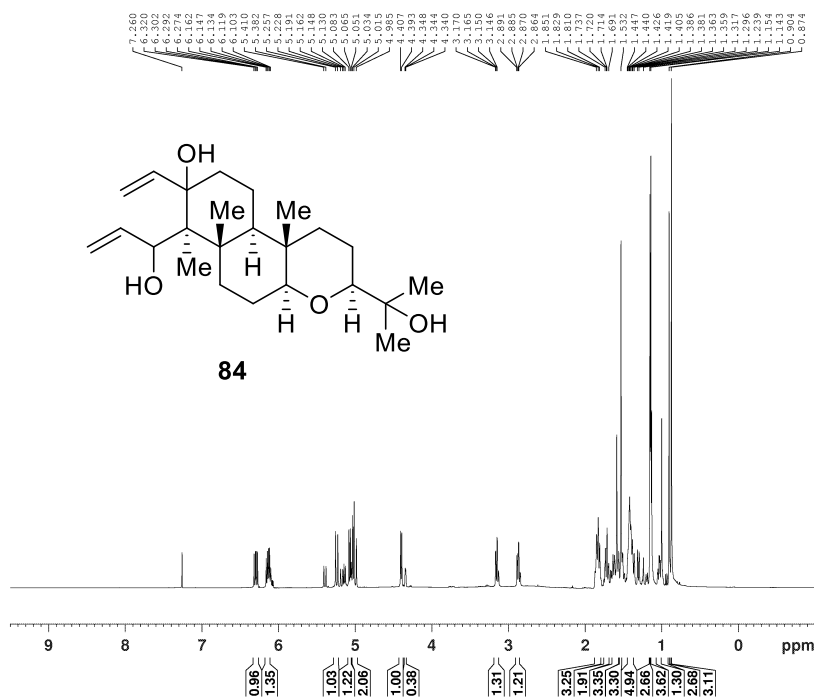
Current Data Parameters
 NAME rjs-aldehyde Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150114
 Time 6.27
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 60
 DS 4
 SWH 36057.691 Hz
 FIDRES 0.550197 Hz
 AQ 0.9087659 sec
 RG 203
 DW 13.867 usec
 DE 18.00 usec
 TE 298.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

===== CHANNEL f1 =====
 SF01 150.9178981 MHZ
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

===== CHANNEL f2 =====
 SF02 600.1324005 MHZ
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028151 MHZ
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

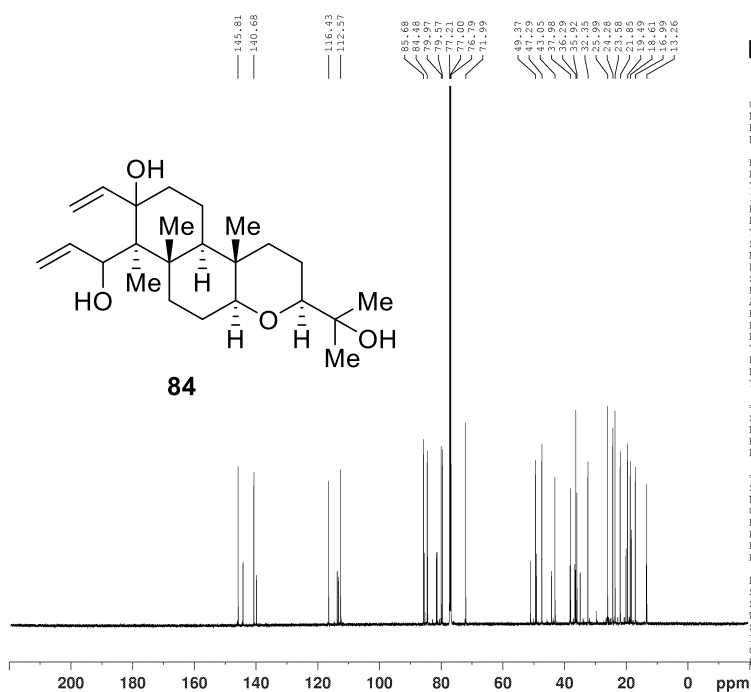


Current Data Parameters
NAME rjs-0747 proton
EXPNO 1
PROCNO 1

F2 - Acquisition Parameter
Date_ 20150115
Time 8.22
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 se
RG 20.2
DW 41.600 us
DE 10.00 us
TE 298.0 K
D1 1.00000000 se
TD0 1

===== CHANNEL f1 =====
SFO1 600.1337060 MH
NUC1 1H
P1 13.00 us
PLW1 9.00000000 W

F2 - Processing parameters
SI 65536
SF 600.1300151 MH
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



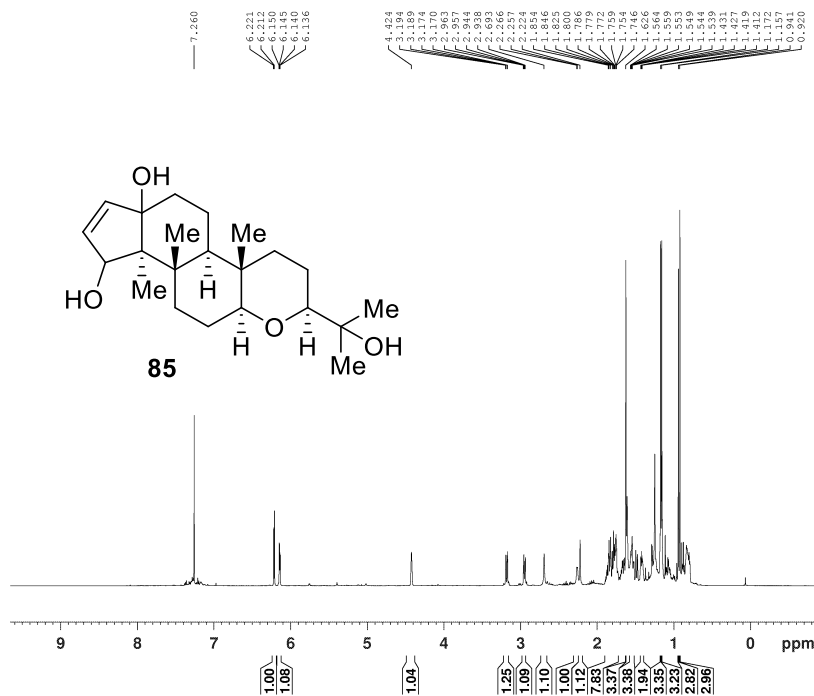
Current Data Parameters
NAME rjs-0747 Carbon
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150115
Time 8.25
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 51
DS 4
SWH 36057.691 Hz
FIDRES 0.550197 Hz
AQ 0.9087659 sec
RG 203
DW 13.867 usec
DE 18.00 usec
TE 298.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
SFO1 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 W

===== CHANNEL f2 =====
SFO2 600.1324005 MHz
NUC2 1H
CPDPRG2 waltz16
PCPD2 80.00 usec
PLW2 9.00000000 W
PLW12 0.26587000 W
PLW13 0.17016000 W

F2 - Processing parameters
SI 32768
SF 150.9028173 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

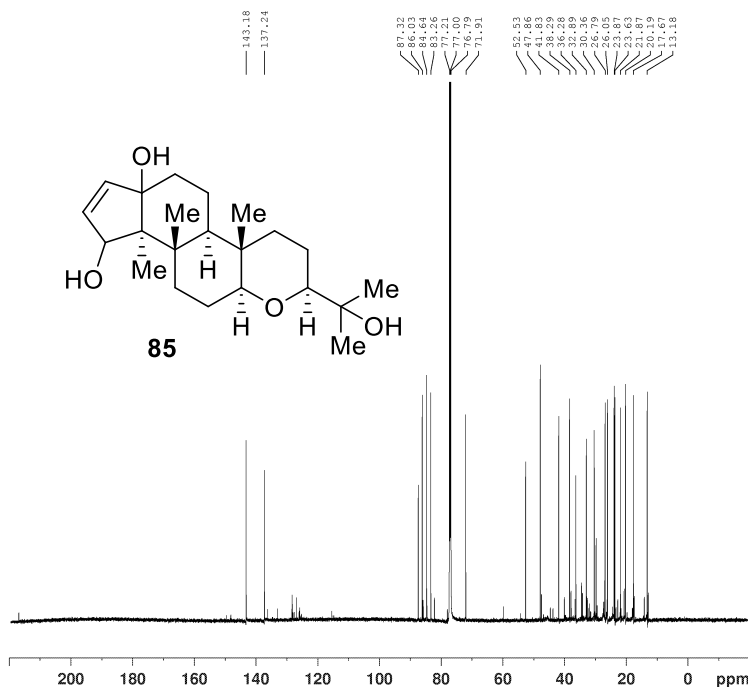


Current Data Parameters
NAME rjs-0759 proton
EXPNO 1
PROCNO 1

F2 - Acquisition Parameter
Date_ 20150130
Time 9.14
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 33
DS 2
SWH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 se
RG 64
DW 41.600 us
DE 10.00 us
TE 293.2 K
D1 1.00000000 se
TD0 1

==== CHANNEL f1 =====
SF01 600.1337060 MH
NUC1 1H
P1 13.00 us
PLW1 9.00000000 W

F2 - Processing parameters
SI 65536
SF 600.1300166 MH
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



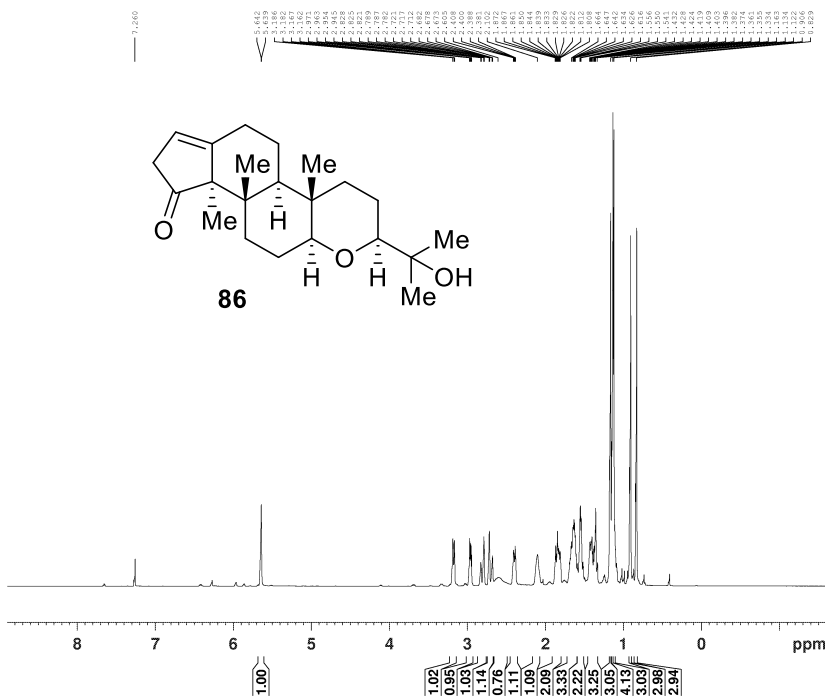
Current Data Parameters
NAME rjs-0759 Carbon
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150131
Time 6.27
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 1774
DS 4
SWH 36057.691 Hz
FIDRES 0.550197 Hz
AQ 0.9087659 sec
RG 203
DW 13.867 usec
DE 18.00 usec
TE 298.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

==== CHANNEL f1 =====
SF01 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 W

==== CHANNEL f2 =====
SF02 600.1324005 MHz
NUC2 1H
CPDPRG2 waltz16
PCPD2 80.00 usec
PLW2 9.00000000 W
PLW12 0.26587000 W
PLW13 0.17016000 W

F2 - Processing parameters
SI 32768
SF 150.9028129 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

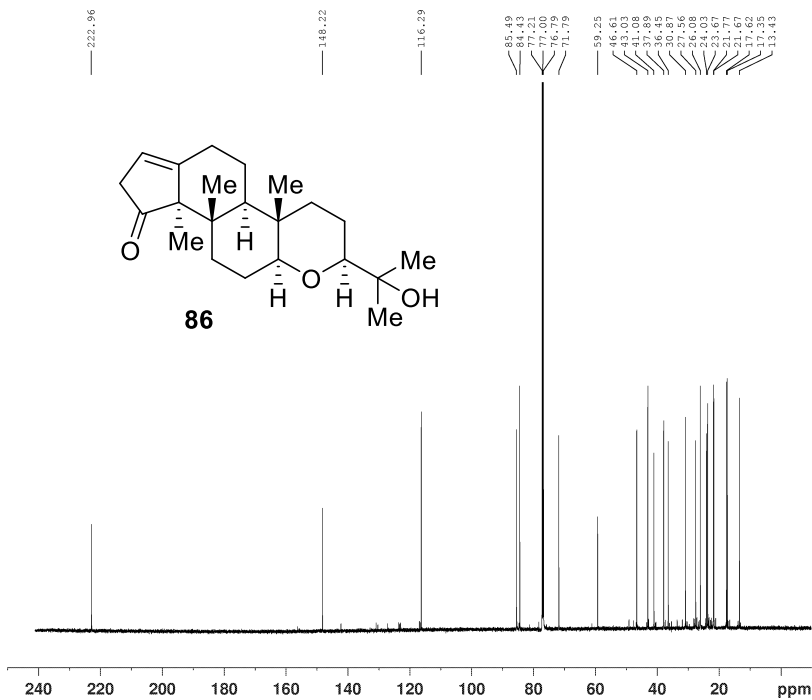


Current Data Parameters
 NAME rjs-1215 Pure
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150314
 Time 6.15
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 20
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 25.4
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MH
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300172 MH
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



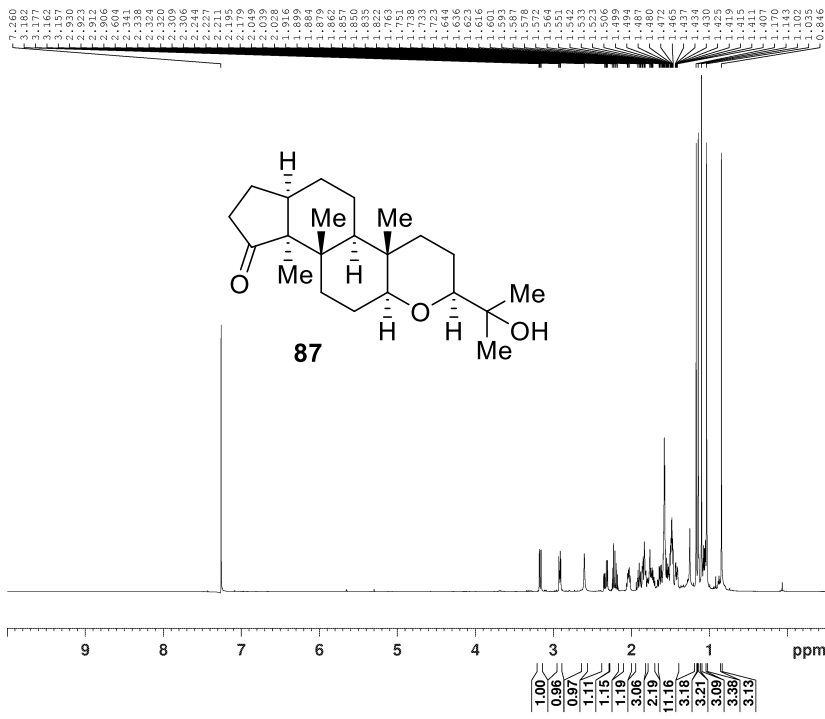
Current Data Parameters
 NAME rjs-1215 Pure Carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150314
 Time 6.20
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 59
 DS 4
 SWH 42613.637 Hz
 FIDRES 0.650232 Hz
 AQ 0.7689557 sec
 RG 203
 DW 11.733 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

==== CHANNEL f1 =====
 SF01 150.9178981 MHZ
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHZ
 NUC2 1H
 CPDPRG[2] waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028167 MHZ
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40



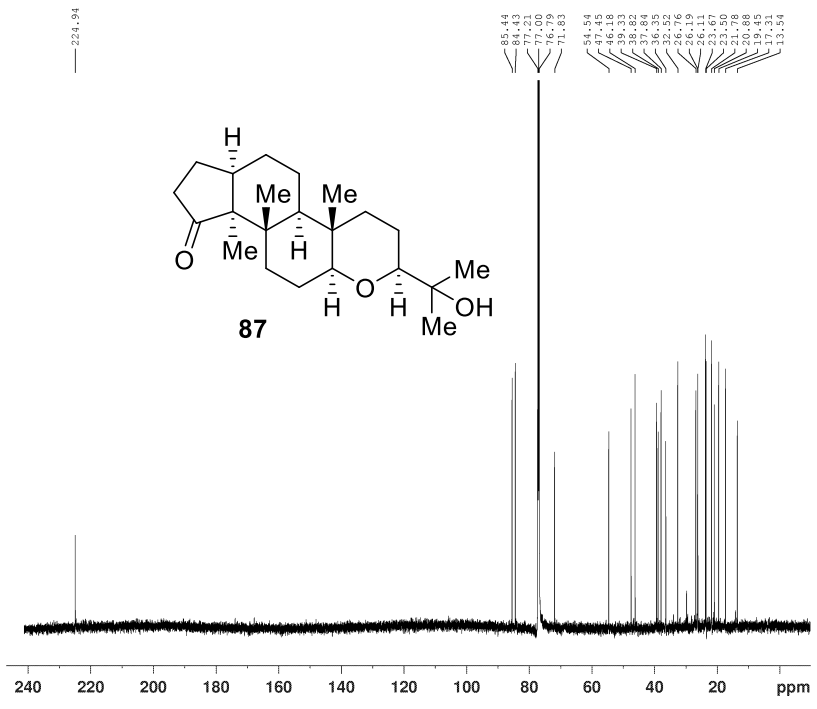
BRUKER

Current Data Parameters
 NAME rjs-1219
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameter
 Date_ 20150317
 Time 12.46
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 se
 RG 71.8
 DW 41.600 us
 DE 10.00 us
 TE 298.1 K
 D1 1.00000000 se
 TD0 1

==== CHANNEL f1 =====
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 us
 PLW1 9.00000000 W

F2 - Processing parameters
 SI 65536
 SF 600.1300181 MHz
 SE EM
 WDW 0
 LB 0.30 Hz
 GB 0
 PC 1.00



BRUKER

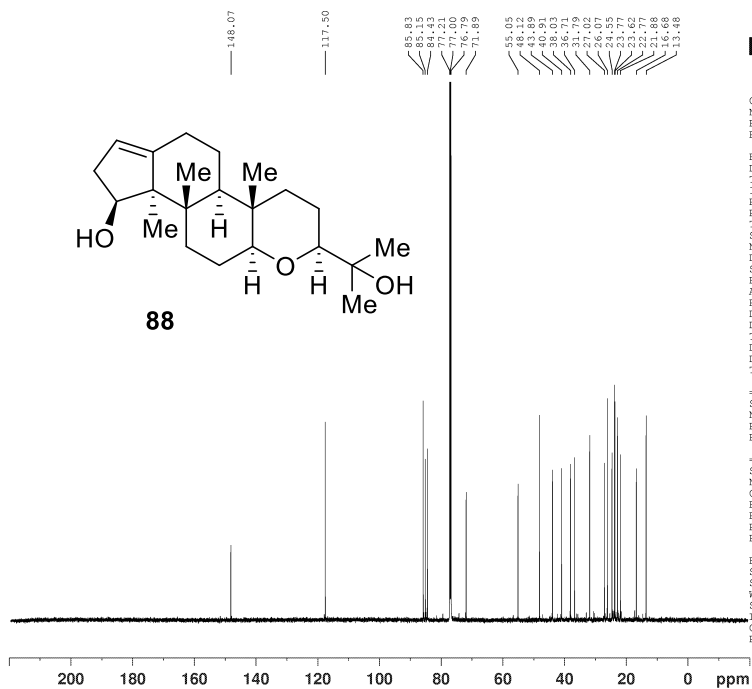
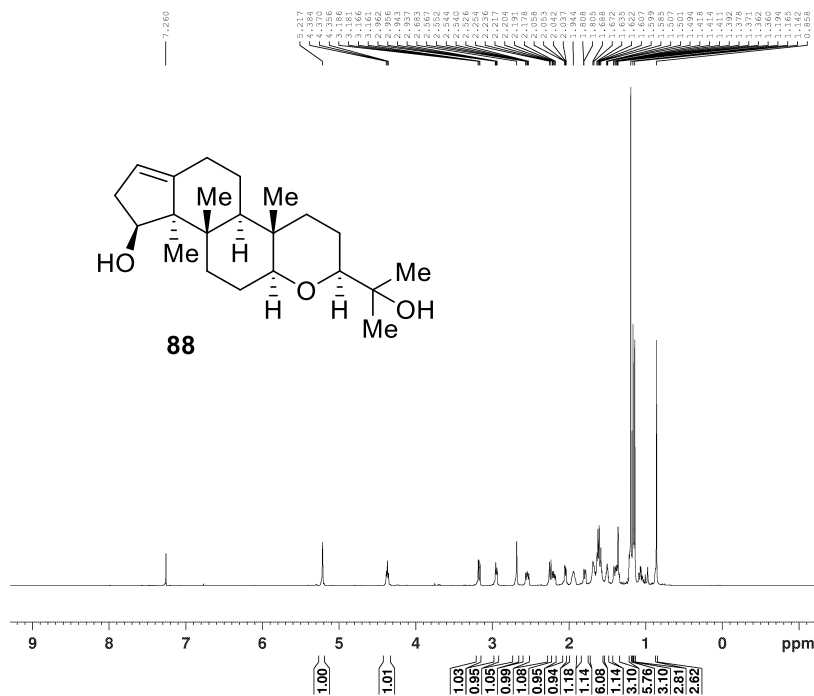
Current Data Parameters
 NAME rjs-1219 Pure Carbon
 EXPNO 1
 PROCNO 1

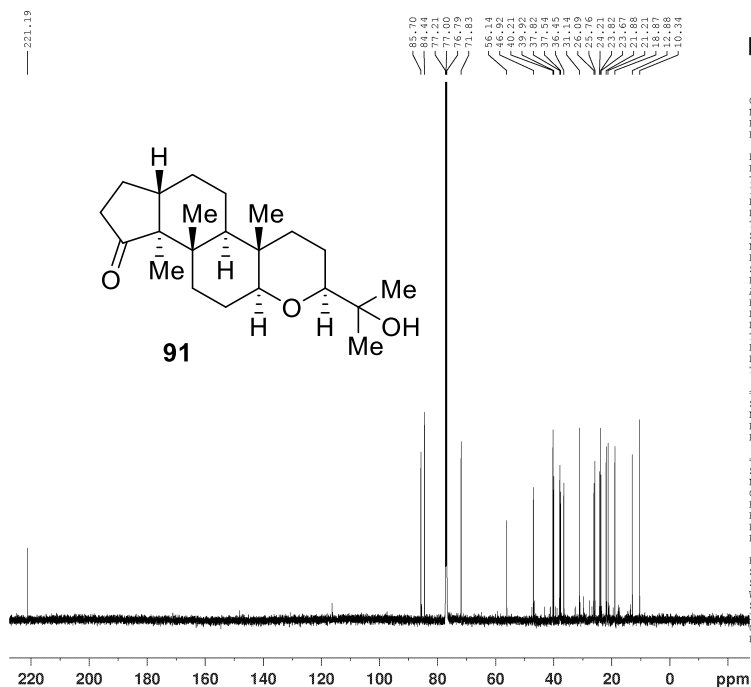
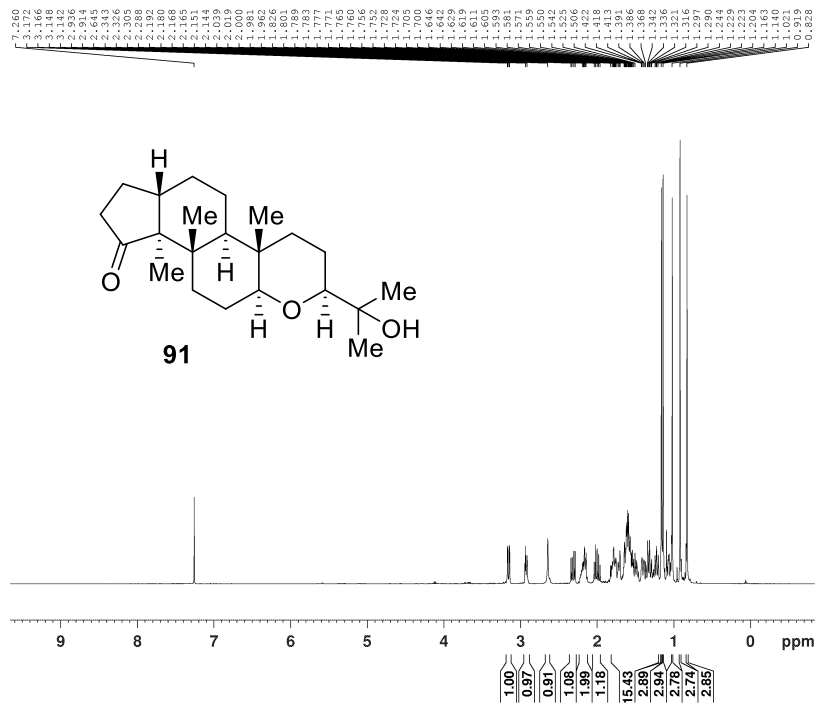
F2 - Acquisition Parameters
 Date_ 20150318
 Time 6.36
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 447
 DS 4
 SWH 42613.637 Hz
 FIDRES 0.650232 Hz
 AQ 0.7689557 sec
 RG 203
 DW 11.733 usec
 DE 18.00 usec
 TE 298.1 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 TD0 1

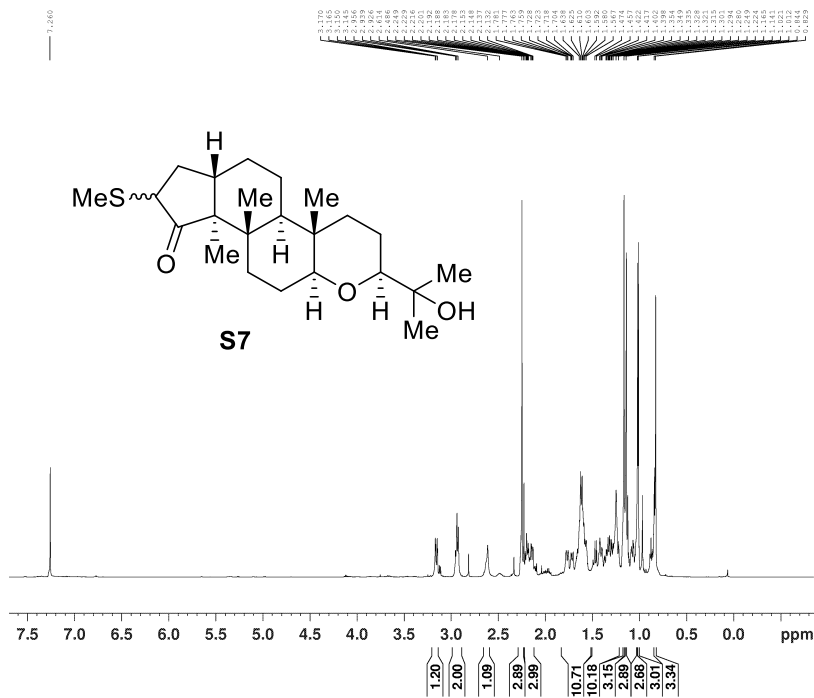
==== CHANNEL f1 =====
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 W

==== CHANNEL f2 =====
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG[2] waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 W
 PLW12 0.26587000 W
 PLW13 0.17016000 W

F2 - Processing parameters
 SI 32768
 SF 150.9028135 MHz
 SE EM
 WDW 0
 LB 1.00 Hz
 GB 0
 PC 1.40



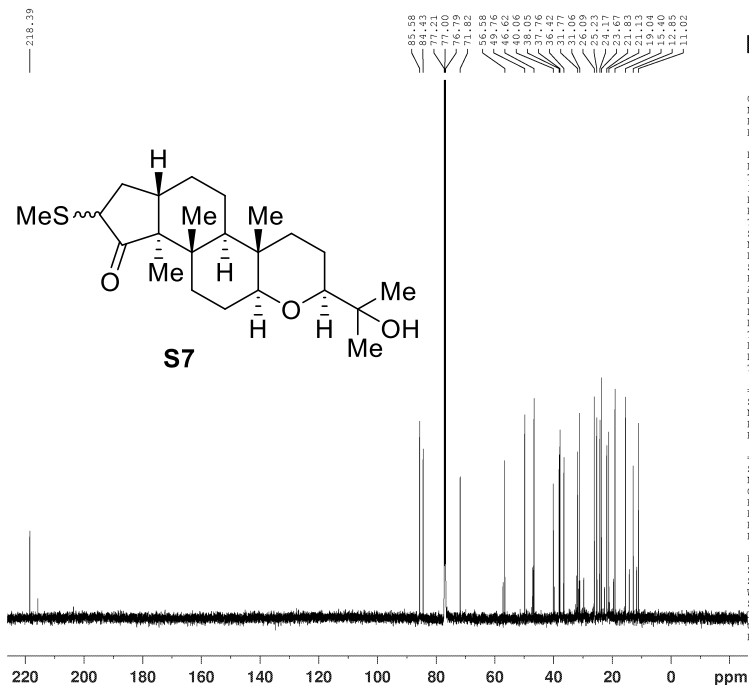




Current Data Parameters
NAME rjs-2458 Pure prot
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150219
Time 17.14
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 20
DS 2
SMH 12019.230 Hz
FIDRES 0.183399 Hz
AQ 2.7262976 sec
RG 32
DW 41.600 usec
DE 10.00 usec
TE 298.1 K
D1 1.00000000 sec
TD0 1

===== CHANNEL f1 =====
SF01 600.1337060 MHz
NUC1 1H
P1 13.00 usec
PLW1 9.00000000 w
F2 - Processing parameters
SI 65536
SF 600.1300149 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

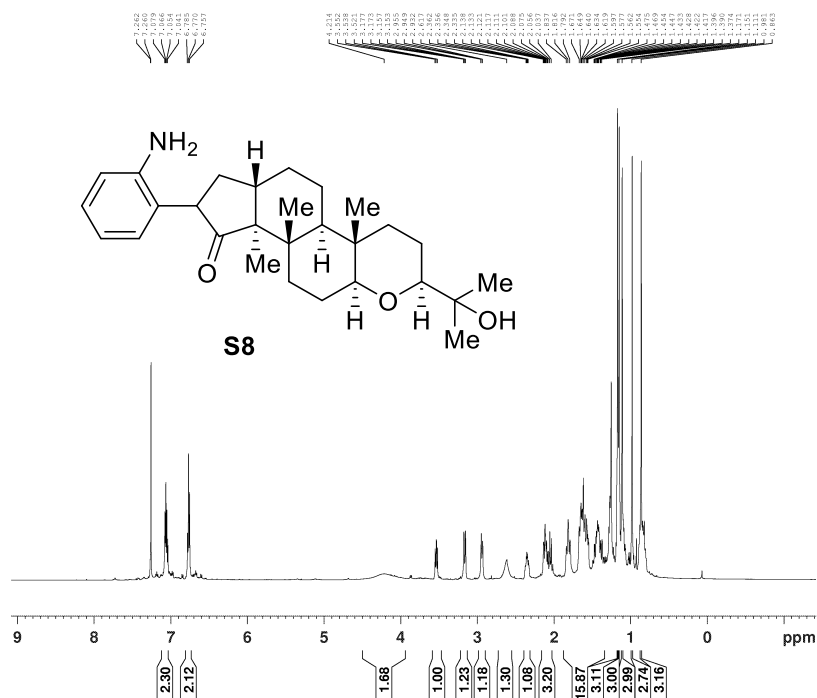


Current Data Parameters
NAME rjs-2458 Pure Carbon
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150219
Time 17.18
INSTRUM spect
PROBHD 5 mm CPQNP 1H/
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 73
DS 4
SMH 42613.637 Hz
FIDRES 0.650232 Hz
AQ 0.768957 sec
RG 203
DW 11.733 usec
DE 18.00 usec
TE 298.2 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
SF01 150.9178981 MHz
NUC1 13C
P1 11.00 usec
PLW1 30.00000000 w
===== CHANNEL f2 =====
SF02 600.1324005 MHz
NUC2 1H
CPDPRG12 waltz16
PCPD2 80.00 usec
PLW2 9.00000000 w
PLW12 0.26587000 w
PLW13 0.17016000 w

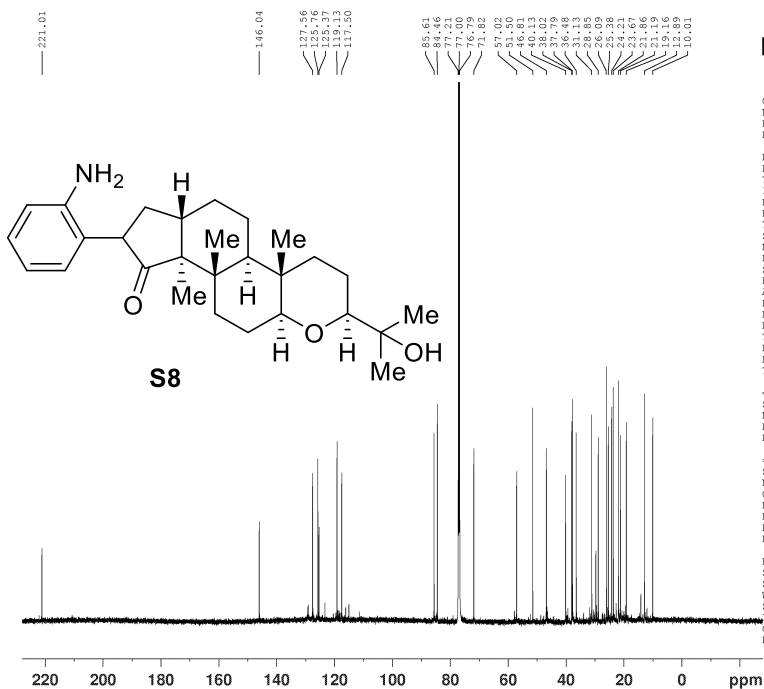
F2 - Processing parameters
SI 32768
SF 150.9028155 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40



Current Data Parameters
 NAME rjs-2463 Pure Prot
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150221
 Time 11.30
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 36
 DS 2
 SWH 12019.230 Hz
 FIDRES 0.183399 Hz
 AQ 2.7262976 sec
 RG 57
 DW 41.600 usec
 DE 10.00 usec
 TE 298.1 K
 D1 1.0000000 sec
 TDO 1

----- CHANNEL f1 -----
 SF01 600.1337060 MHz
 NUC1 1H
 P1 13.00 usec
 PLW1 9.00000000 w
 F2 - Processing parameters
 SI 65536
 SF 600.1300148 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



Current Data Parameters
 NAME rjs-2463 Pure carbon
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20150221
 Time 11.34
 INSTRUM spect
 PROBHD 5 mm CPQNP 1H/
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 760
 DS 4
 SWH 42613.637 Hz
 FIDRES 0.650232 Hz
 AQ 0.7689557 sec
 RG 203
 DW 11.733 usec
 DE 18.00 usec
 TE 298.2 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 TDO 1

----- CHANNEL f1 -----
 SF01 150.9178981 MHz
 NUC1 13C
 P1 11.00 usec
 PLW1 30.00000000 w
 ----- CHANNEL f2 -----
 SF02 600.1324005 MHz
 NUC2 1H
 CPDPRG2 waltz16
 PCPD2 80.00 usec
 PLW2 9.00000000 w
 PLW12 0.26587000 w
 PLW13 0.17016000 w

F2 - Processing parameters
 SI 32768
 SF 150.9028135 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

