Supporting Information for:

Synergistic Contribution of Tiglate and Cinnamate to Cytotoxicity of Ipomoeassin F

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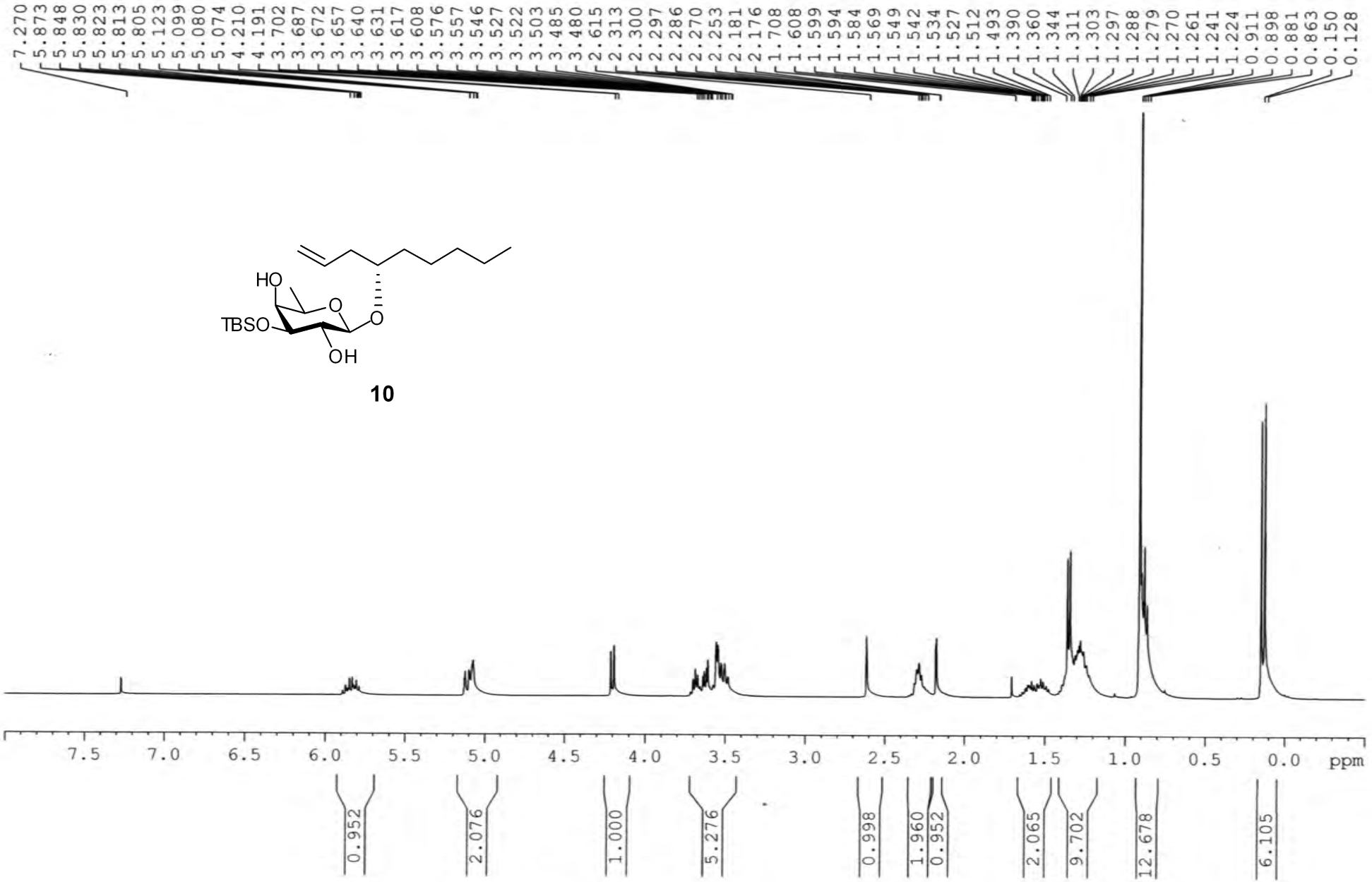
ZGH-Ipom-3-22-150910-1H in CDCL3



10

ZGH-Ipom-3-22-150910-A 13C in CDCl3

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117.360
102.230
78.859
77.317
76.681
74.854
72.133
72.053
69.984
38.523
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24.712
22.542
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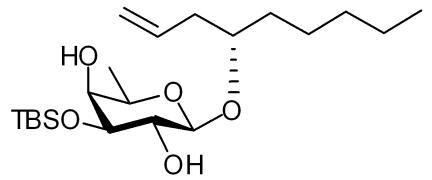
-4.440
-4.991



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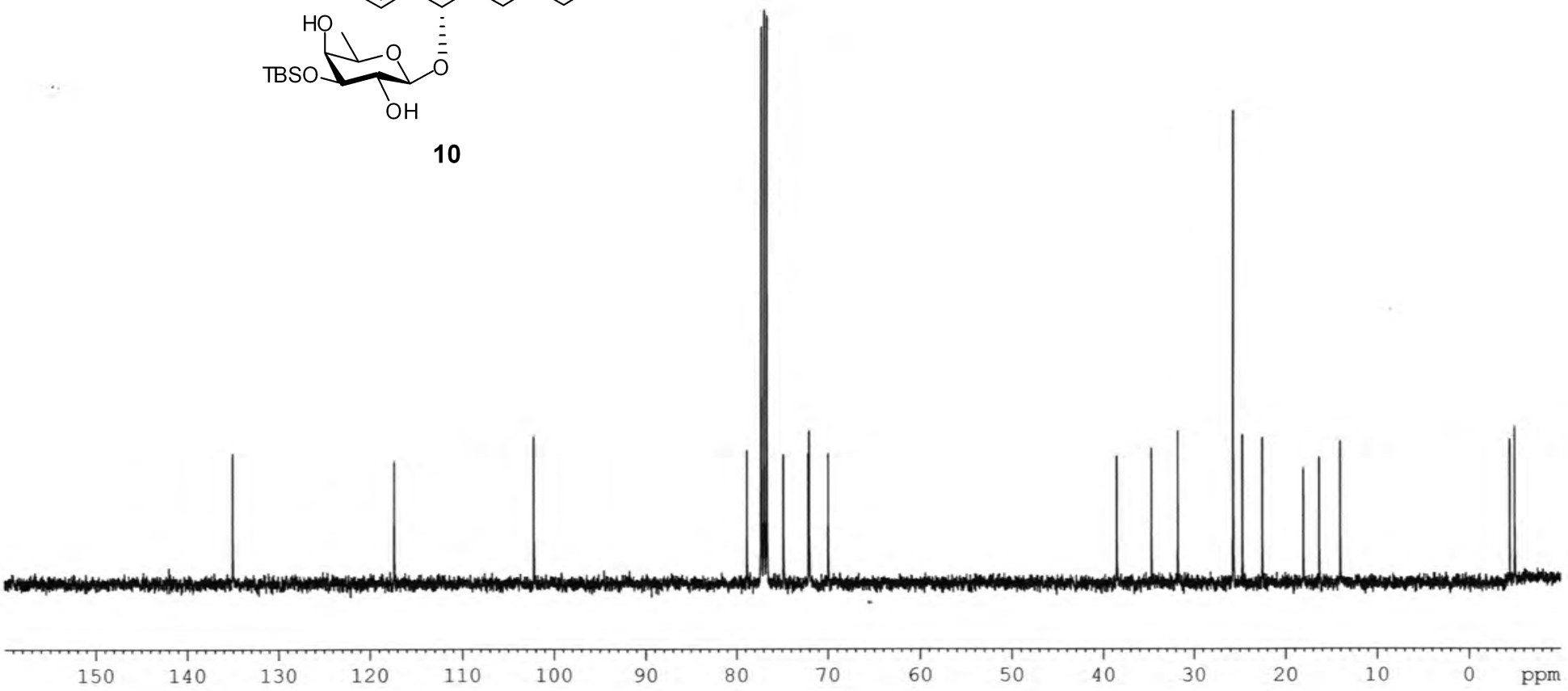

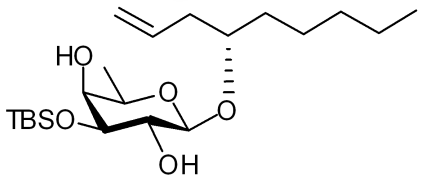

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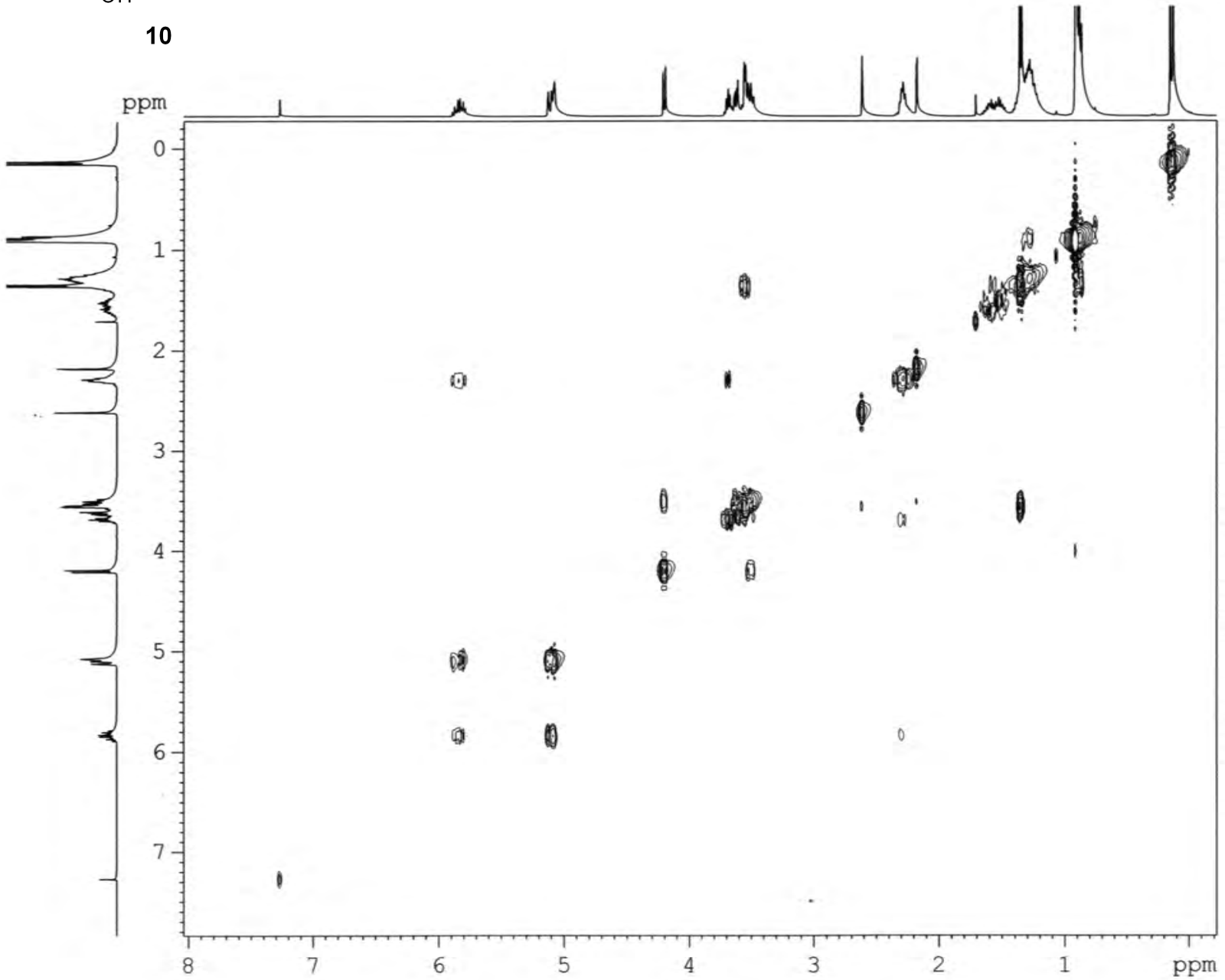
ZGH-Ipom-3-22-150910-A COSY



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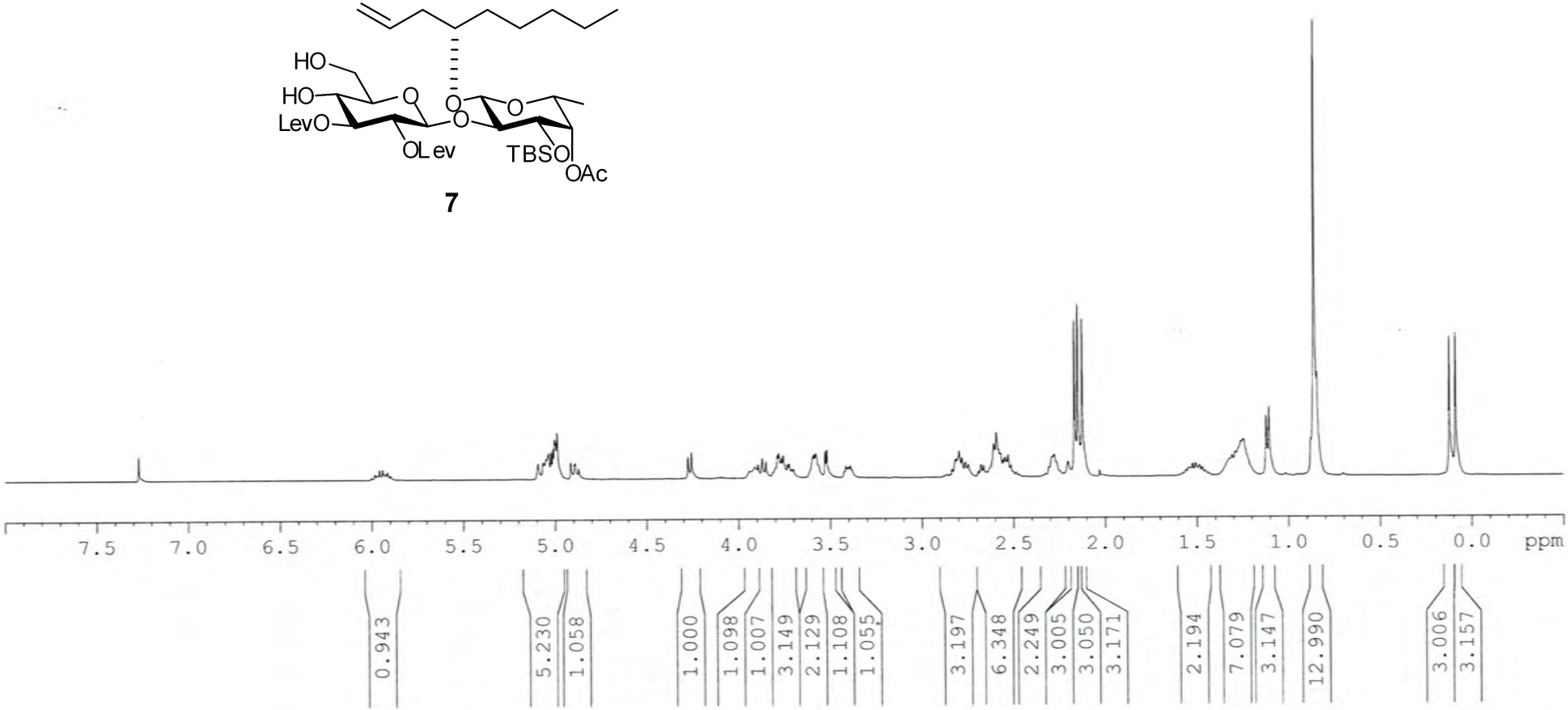
PULPROG	cosygpqf
TD	2048
SOLVENT	CDCl3
NS	4
DS	8
SWH	5341.880 Hz
FIDRES	2.608340 Hz
AQ	0.1917428 sec
RG	71.8
DW	93.600 usec
DE	6.50 usec
TE	292.6 K
D0	0.00000300 sec
D1	1.48689198 sec
D13	0.00000400 sec
D16	0.00020000 sec
IN0	0.00018720 sec
======== CHANNEL f1 ========	
NUC1	1H
P0	10.00 usec
P1	10.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPZ1	10.00 %
P16	1000.00 usec
ND0	1
TD	76
SFO1	400.1324 MHz
FIDRES	70.287903 Hz
SW	13.350 ppm
FnMODE	QF
SI	1024
SF	400.1300040 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	QF
SF	400.1300033 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0

ZGH-Ipom-2-67-A-140629 1H in CDCL3

7



ZGH-Ipom-2-67-A-140629 13C in CDCl3

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206.144
173.022
171.365
170.796
135.073
116.686
101.322
98.733
80.577
77.326
77.209
77.008
76.690
76.172
74.942
74.752
73.545
73.269
72.082
69.601
68.813
61.936
38.316
38.287
37.621
34.250
31.719
29.741
28.037
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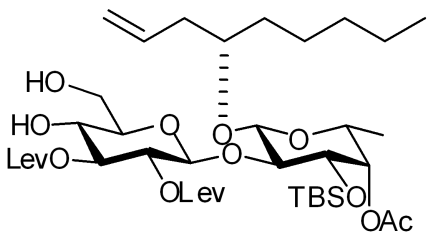
24.653
22.541
20.939
17.653
16.461
14.002
-4.358
-4.611



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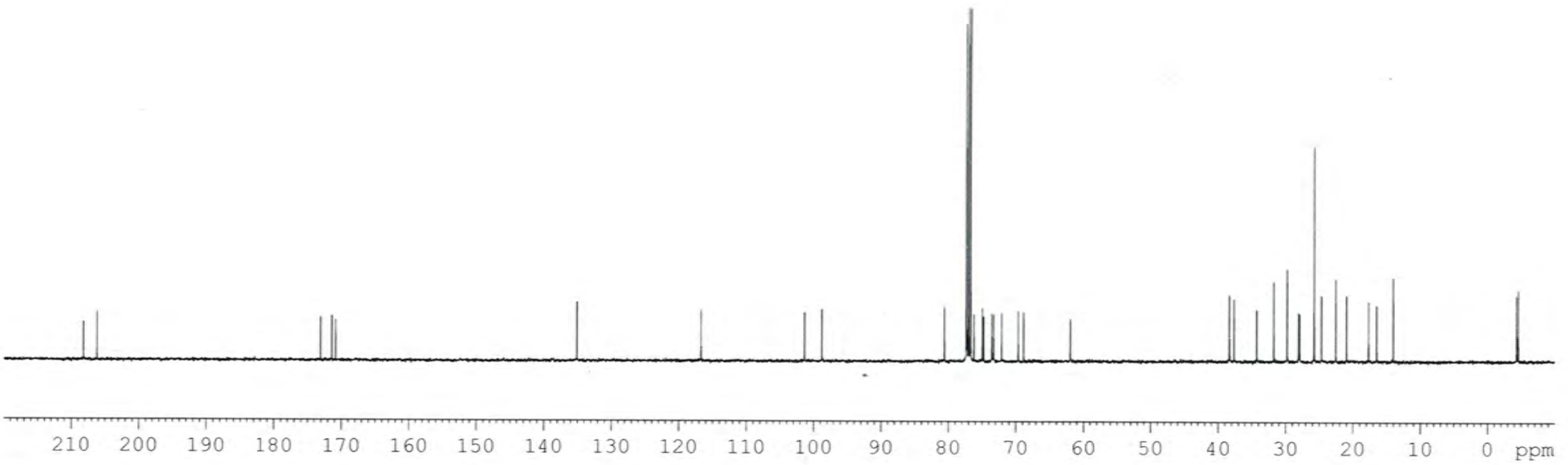

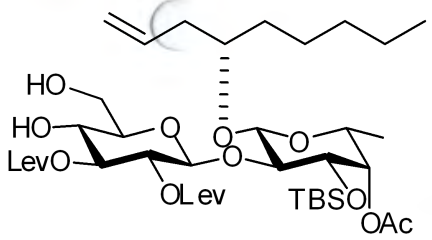

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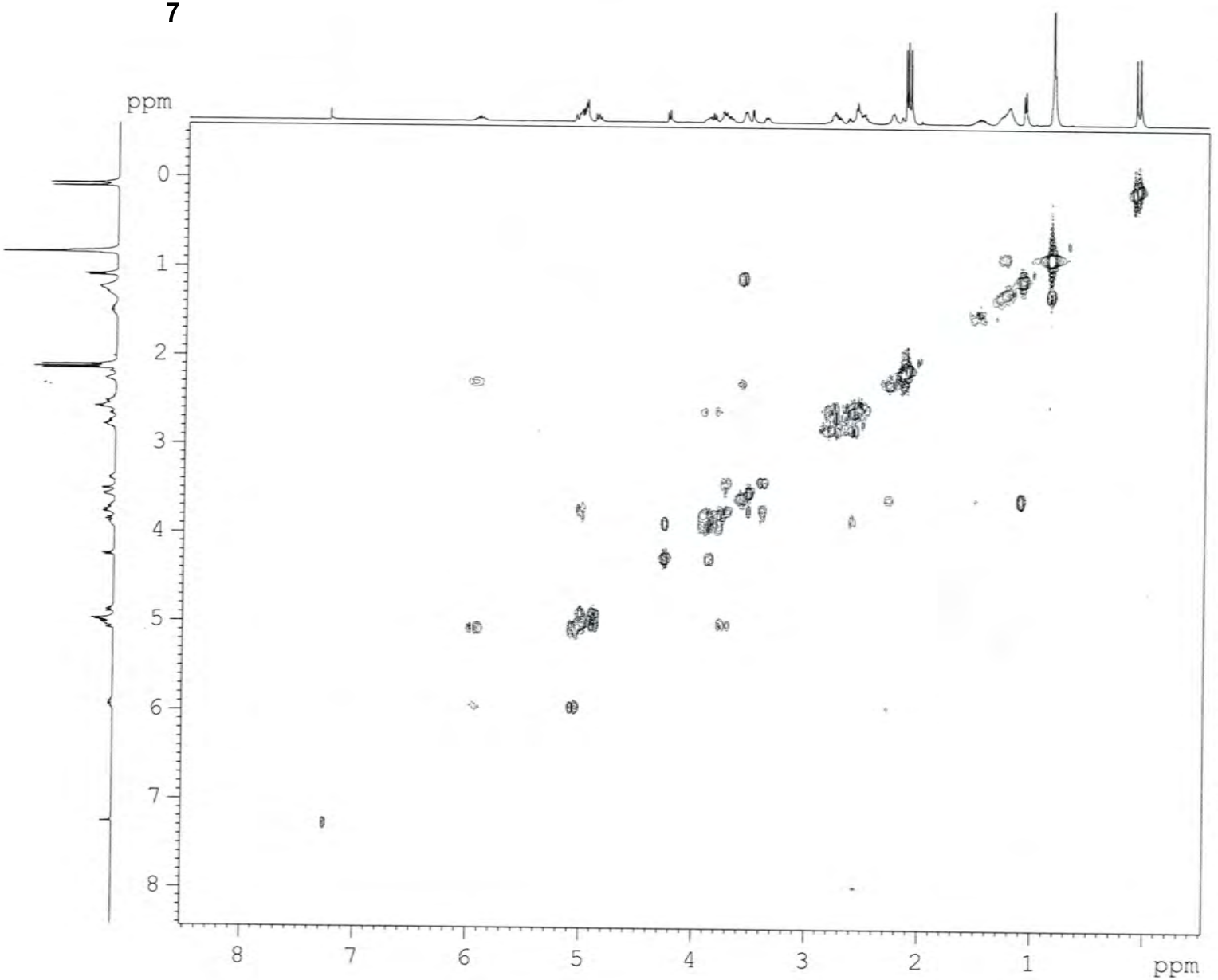
ZGH-Ipom-2-67-A-140629 COSY



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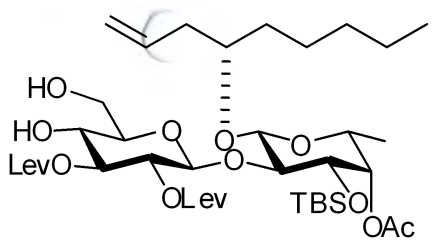
PROBHD	5 mm PABBO BB-
PULPROG	cosygpqf
TD	2048
SOLVENT	CDCl3
NS	4
DS	8
SWH	5341.880 Hz
FIDRES	2.608340 Hz
AQ	0.1917428 sec
RG	50.8
DW	93.600 usec
DE	6.50 usec
TE	292.2 K
D0	0.00000300 sec
D1	1.48689198 sec
D13	0.00000400 sec
D16	0.00020000 sec
IN0	0.00018720 sec
======== CHANNEL f1 ========	
NUC1	1H
P0	10.00 usec
P1	10.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPZ1	10.00 %
P16	1000.00 usec
ND0	1
TD	128
SFO1	400.1324 MHz
FIDRES	41.733440 Hz
SW	13.350 ppm
FnMODE	QF
SI	1024
SF	400.1300040 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	QF
SF	400.1300033 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0



7

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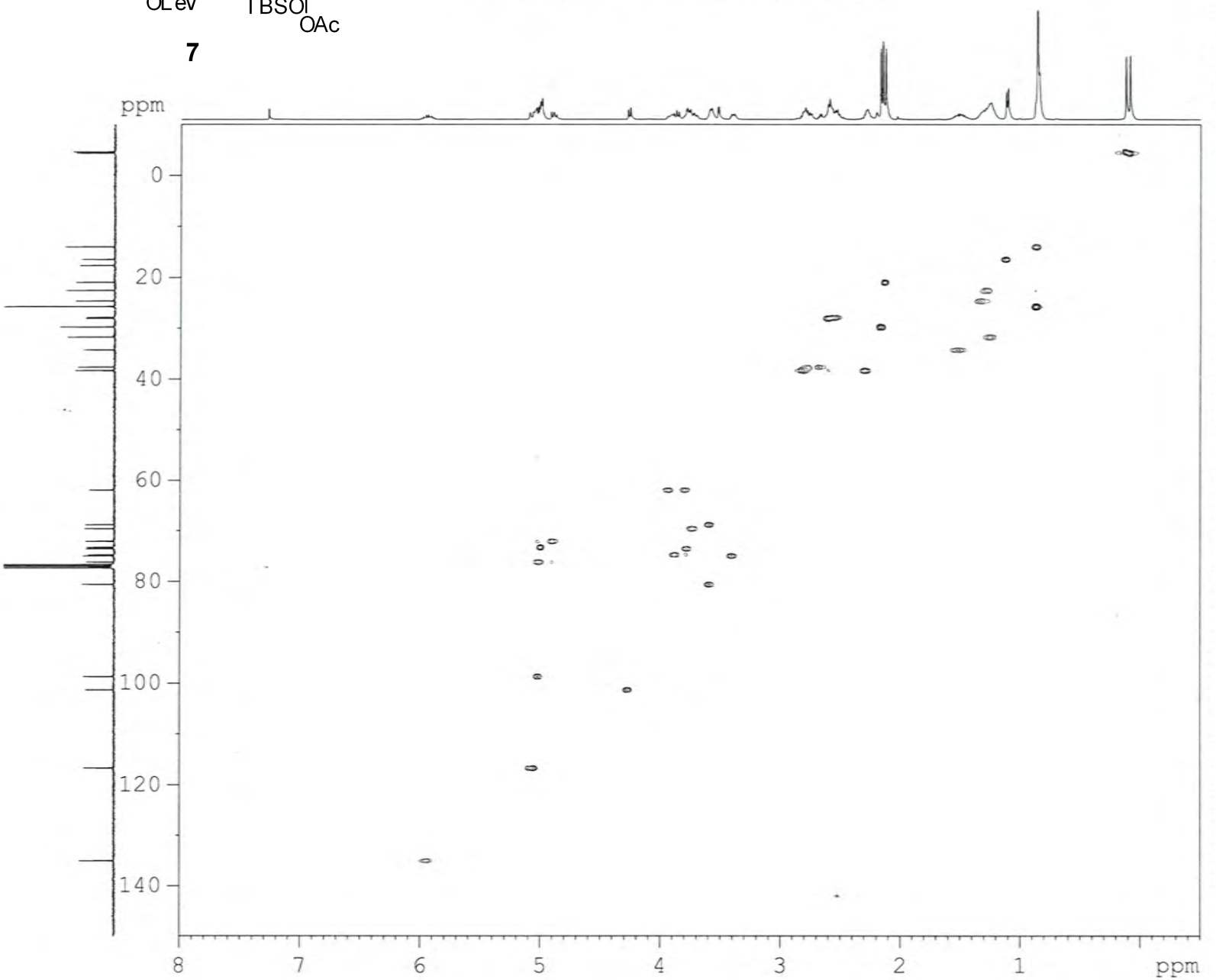

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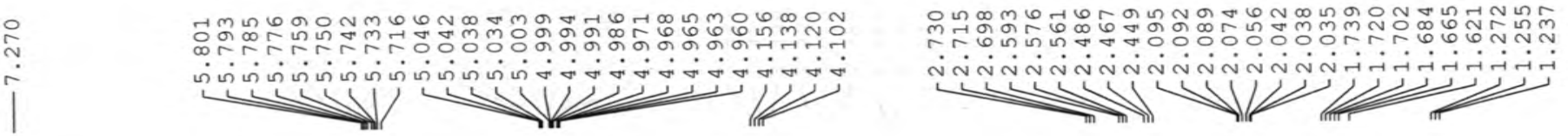
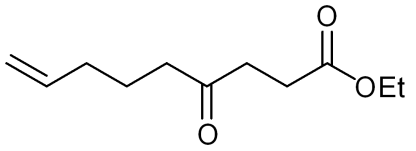
PROCNO	1
Date_	20140630
Time	20.15
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hsqcetgpsi
TD	1024
SOLVENT	CDCl3
NS	4
DS	16
SWH	5341.880 Hz
FIDRES	5.216680 Hz
AQ	0.0958964 sec
RG	2050
DW	93.600 usec
DE	6.50 usec
TE	293.0 K
CNST2	145.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D4	0.00172414 sec
D11	0.03000000 sec
D13	0.00000400 sec
D16	0.00020000 sec
D24	0.00110000 sec
IN0	0.00003000 sec
ZGOPTNS	
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
P28	1000.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
======== CHANNEL f2 ========	
CPDPRG2	garp
NUC2	13C
P3	10.00 usec
P4	20.00 usec
PCPD2	75.00 usec
PL2	-2.10 dB
PL12	15.40 dB
PL2W	58.37759399 W
PL12W	1.03811681 W
SFO2	100.6202727 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPZ1	80.00 %
GPZ2	20.10 %
P16	1000.00 usec
ND0	2
TD	256
SFO1	100.6203 MHz
FIDRES	65.104164 Hz
SW	165.639 ppm
FnMODE	Echo-Antiecho
SI	1024
SF	400.1300000 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	echo-antiecho
SF	100.6127690 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0

ZGH-Ipom-2-121-A-150310 1H in CDCl3





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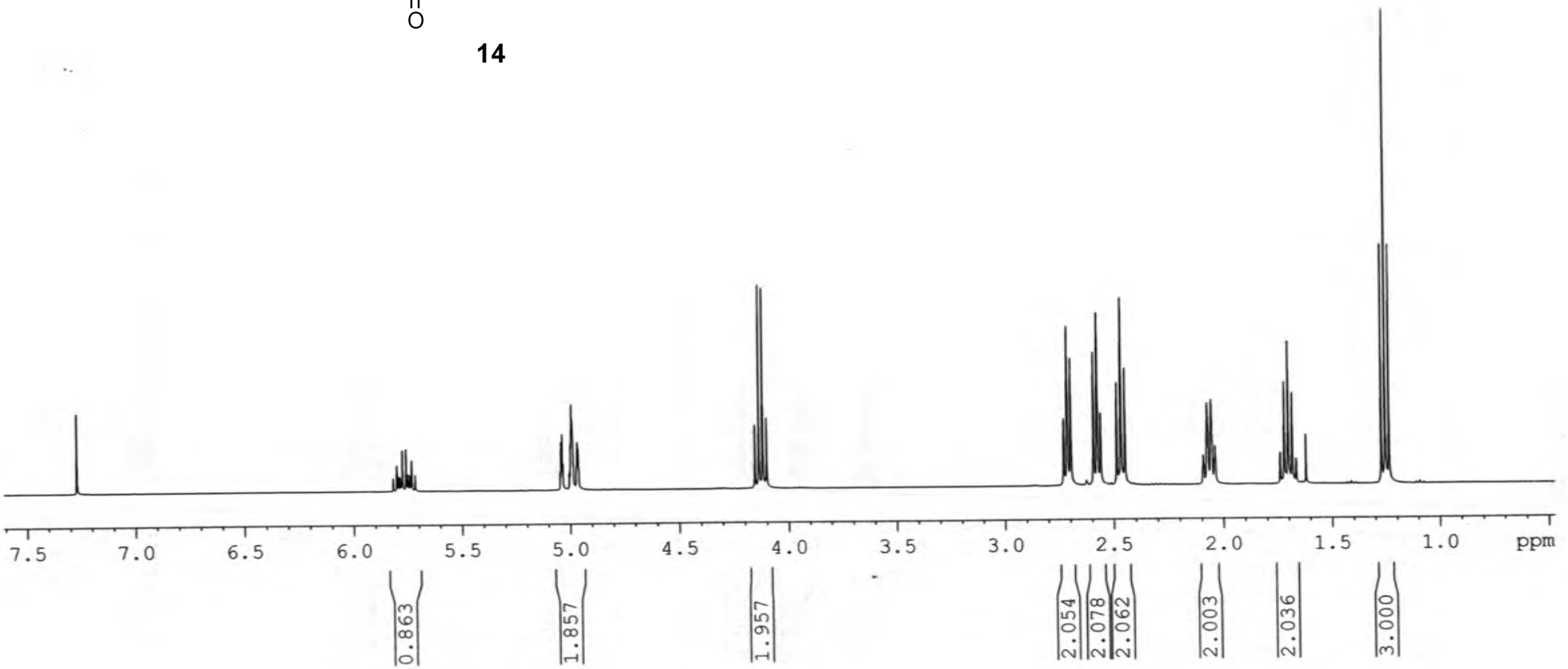
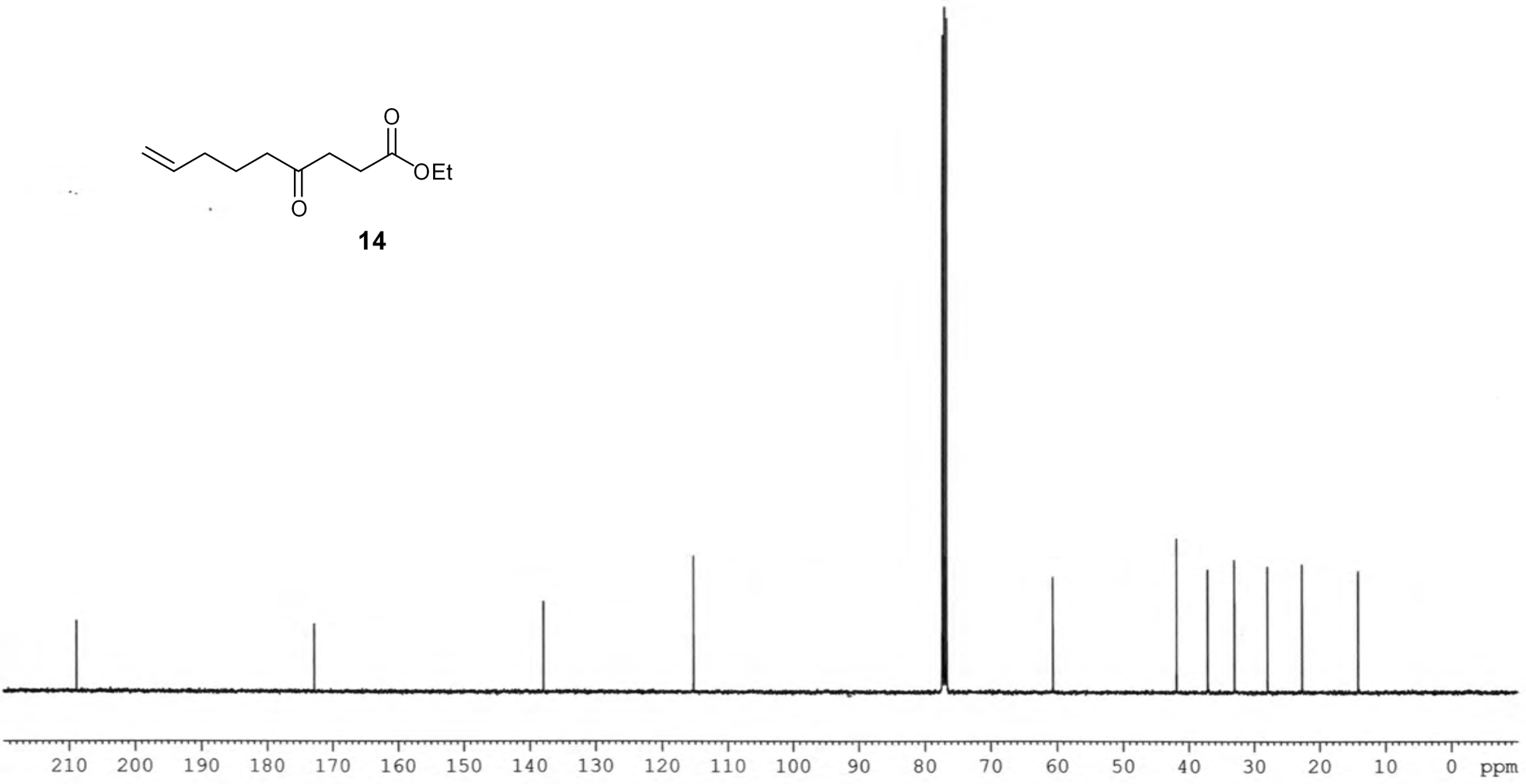


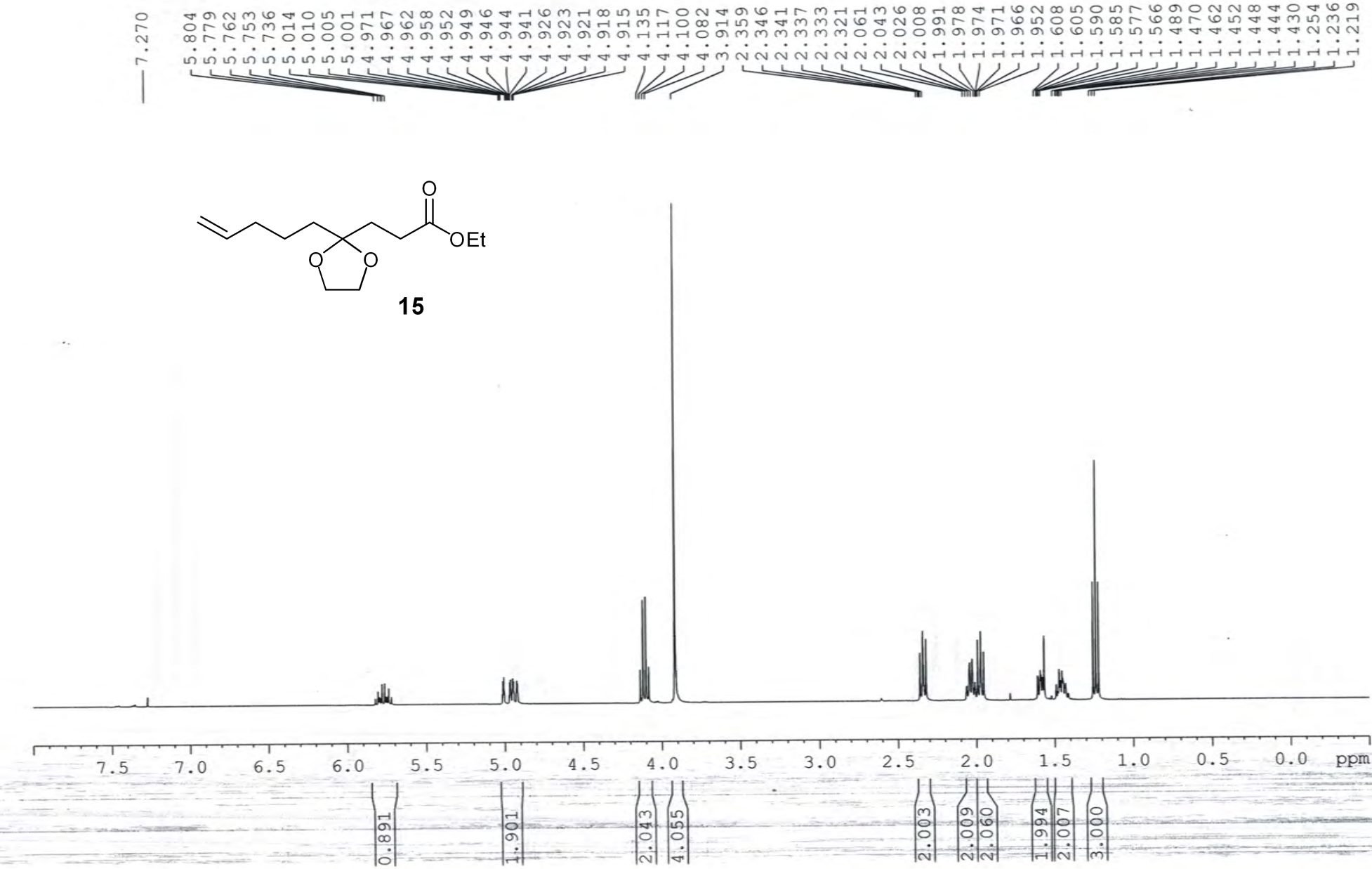
ZGH-Ipom-2-121-A-150310 13C in CDCl3

208.857
172.804
137.908
115.233
77.317
77.201
76.999
76.681
60.584
41.852
37.088
33.017
27.959
22.720
14.149

14



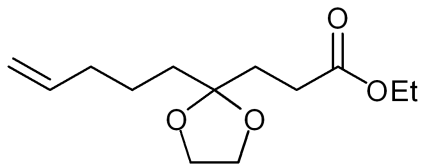
ZGH-Ipom-2-131-A-150331 1H in CDCL3



15

ZGH-Ipom-2-131-A-150331 13C in CDCl3

173.538
138.436
114.650
110.744
77.319
77.001
76.683
64.981
60.229
36.721
33.734
32.004
28.873
22.963
14.155



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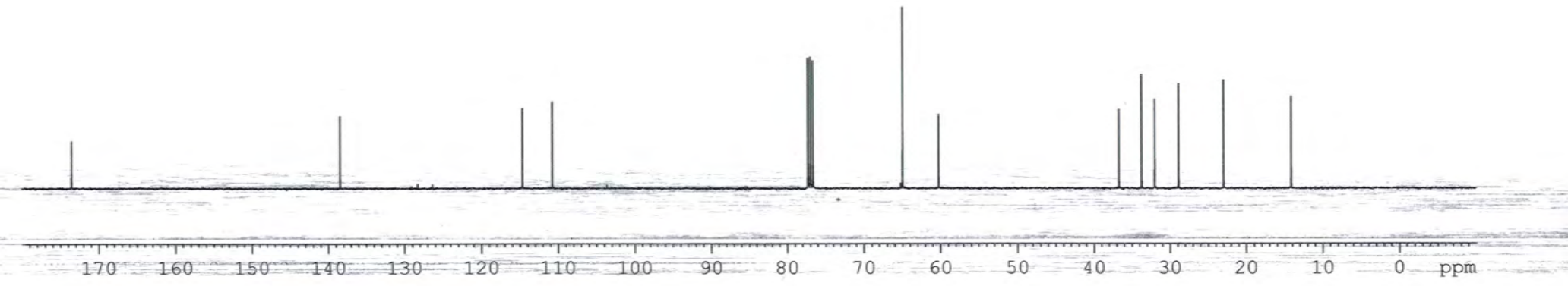
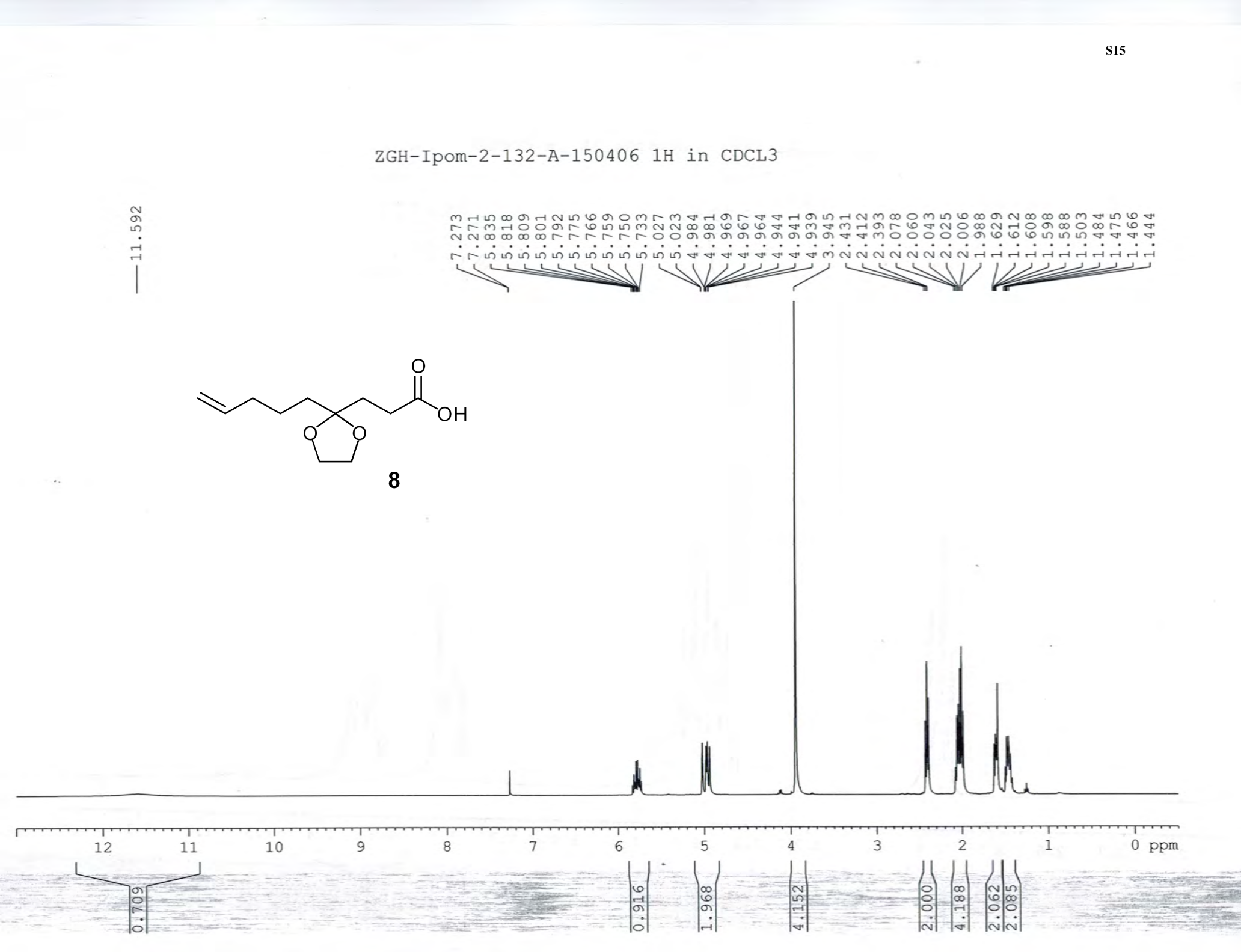


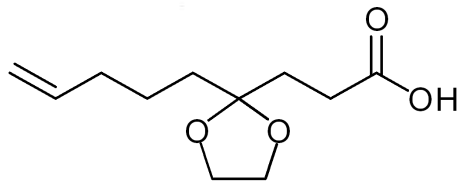
ZGH-Ipom-2-132-A-150406 1H in CDCL3



8

ZGH-Ipom-2-132-A-150406 13C in CDCl3

179.791
138.413
114.760
110.708
77.316
76.999
76.681
65.054
36.766
33.734
31.769
28.645
23.014



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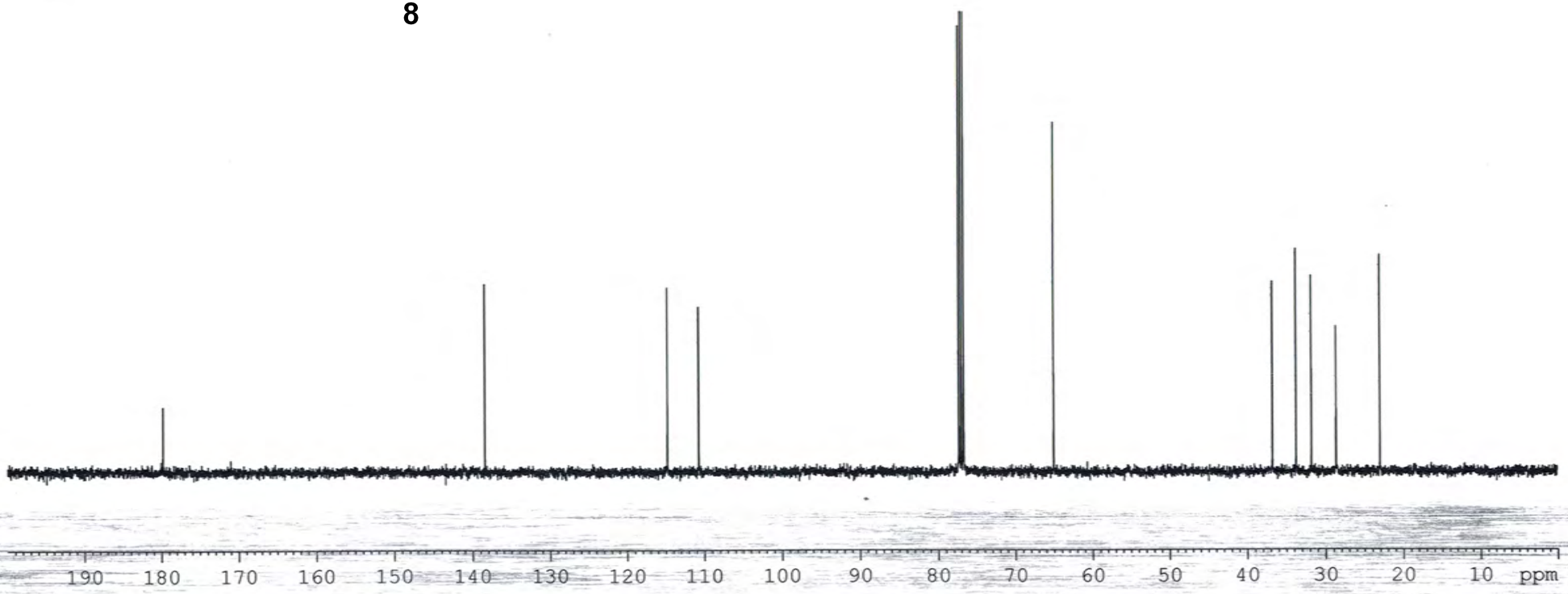
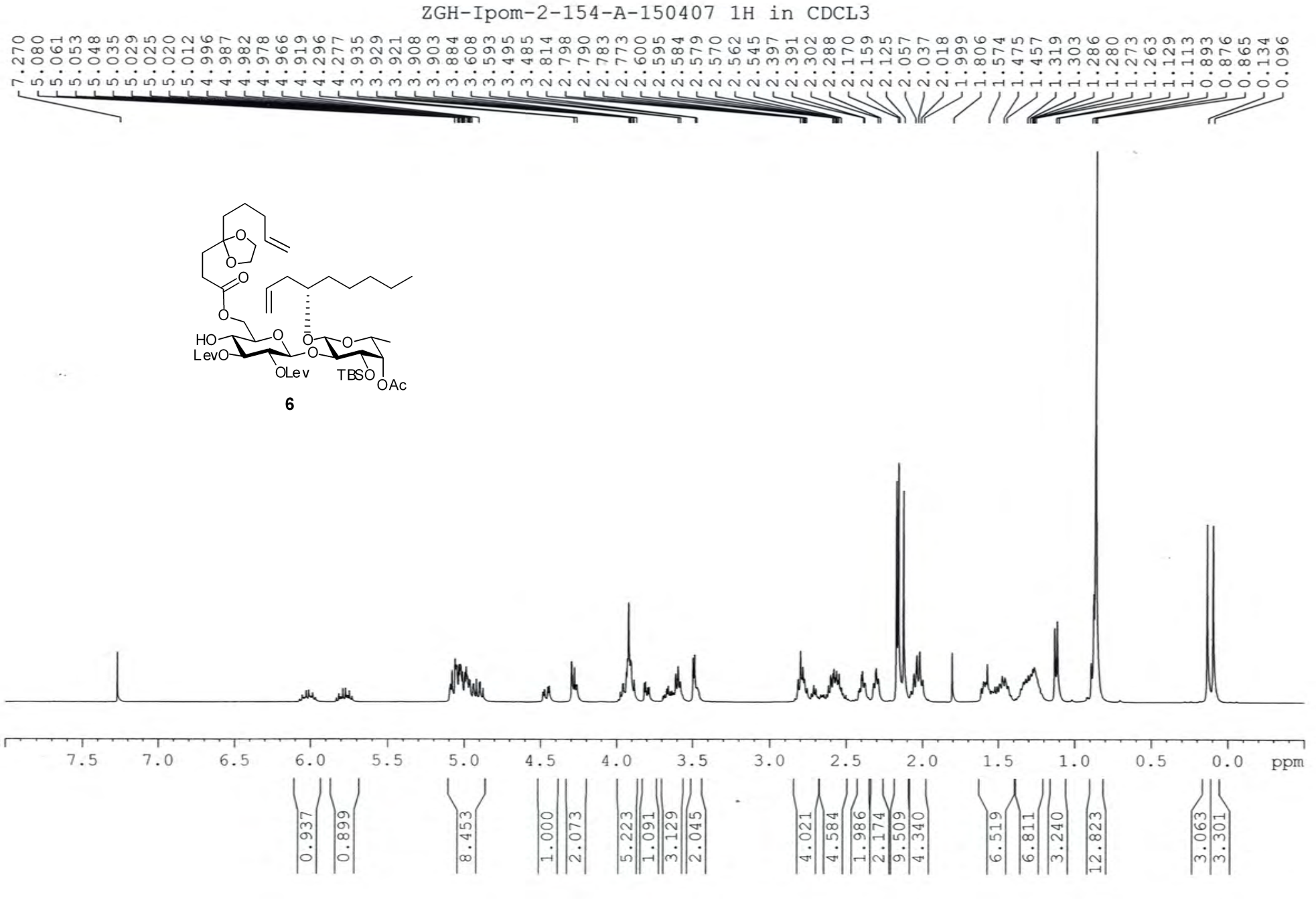
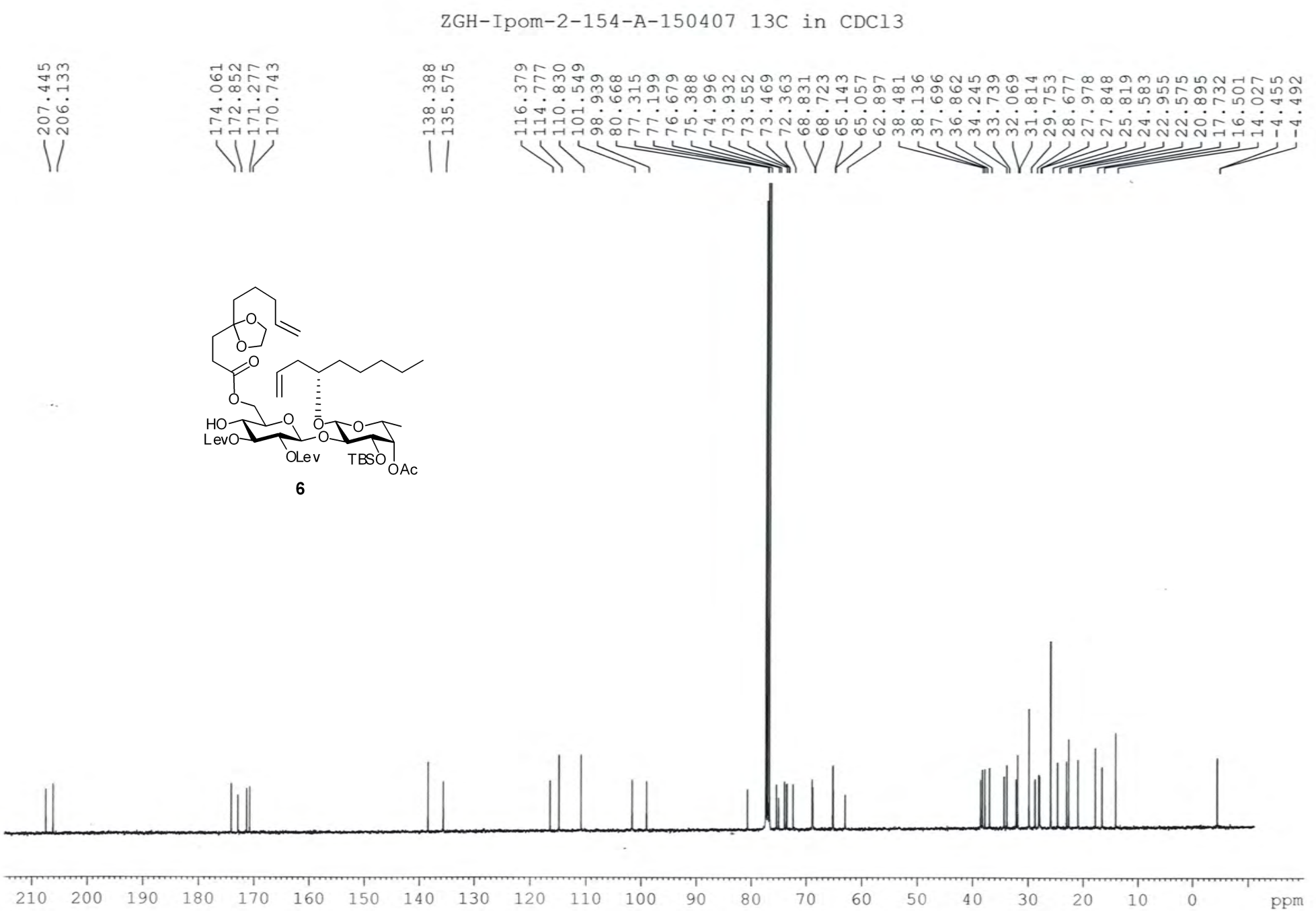
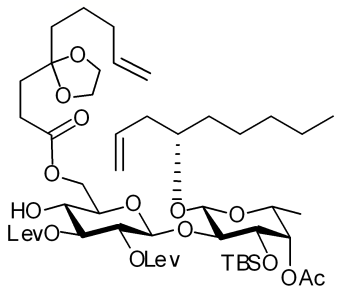


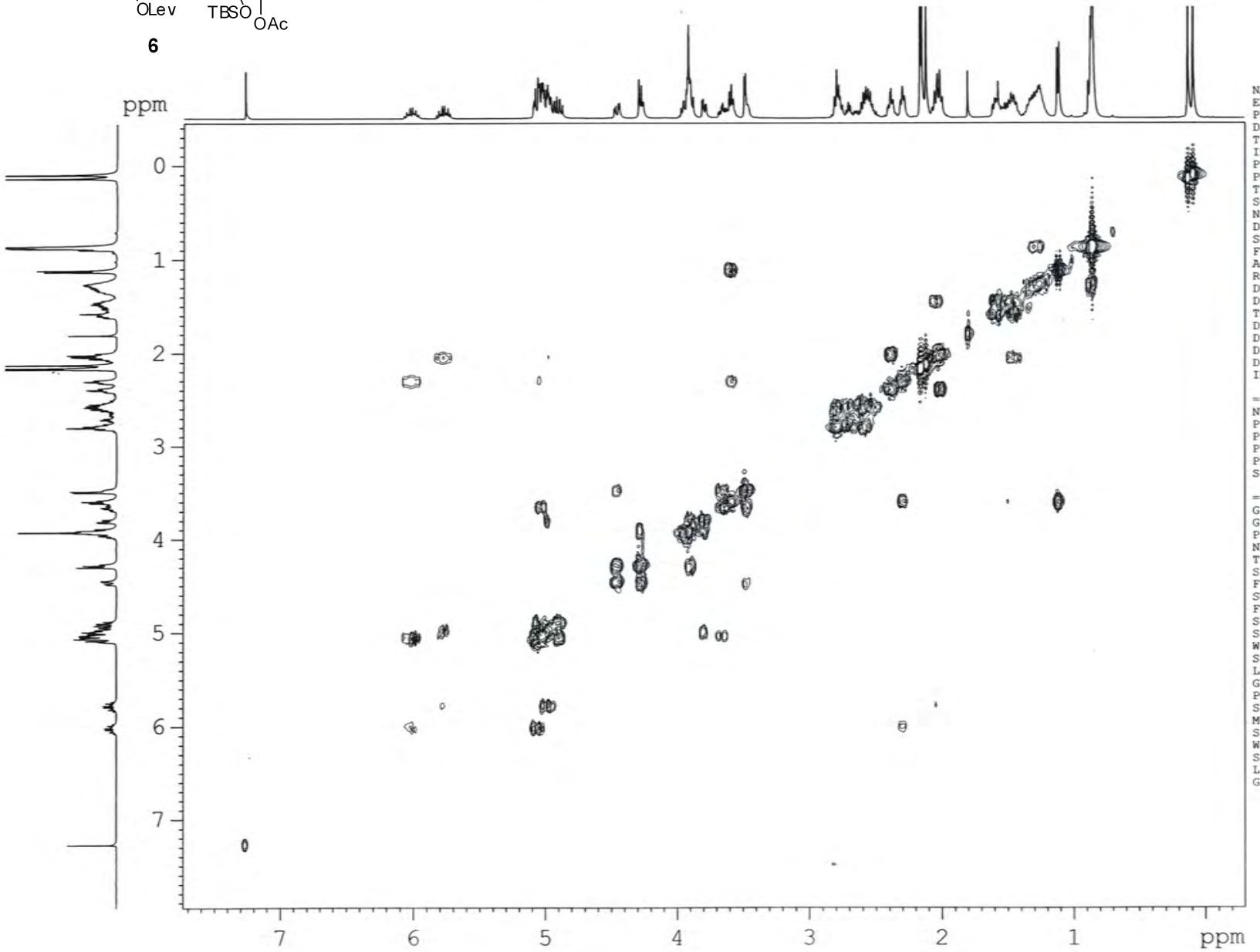

ZGH-Ipom-2-154-A-150407 1H in CDCL3
7.270
5.080
5.061
5.053
5.048
5.035
5.029
5.025
5.020
5.012
4.996
4.987
4.982
4.978
4.966
4.919
4.296
4.277
3.935
3.929
3.921
3.908
3.903
3.884
3.608
3.593
3.495
3.485
2.814
2.798
2.790
2.783
2.773
2.600
2.595
2.584
2.579
2.570
2.562
2.545
2.397
2.391
2.302
2.288
2.170
2.159
2.125
2.057
2.037
2.018
1.999
1.806
1.574
1.475
1.457
1.319
1.303
1.286
1.280
1.273
1.263
1.129
1.113
0.893
0.876
0.865
0.134
0.096
HO
LevO
OLev
TBSO
OAc
6
7.5
7.0
6.5
6.0
5.5
5.0
4.5
4.0
3.5
3.0
2.5
2.0
1.5
1.0
0.5
0.0
ppm
0.937
0.899
8.453
1.000
2.073
5.223
1.091
3.129
2.045
4.021
4.584
1.986
2.174
9.509
4.340
6.519
6.811
3.240
12.823
3.063
3.301


ZGH-Ipom-2-154-A-150407 13C in CDCl3
207.445
206.133
174.061
172.852
171.277
170.743
138.388
135.575
116.379
114.777
110.830
101.549
98.939
80.668
77.315
77.199
76.679
75.388
74.996
73.932
73.552
73.469
72.363
68.831
68.723
65.143
65.057
62.897
38.481
38.136
37.696
36.862
34.245
33.739
32.069
31.814
29.753
28.677
27.978
27.848
25.819
24.583
22.955
22.575
20.895
17.732
16.501
14.027
-4.455
-4.492
HO
LevO
OLev
TBSO
OAc
6
210
200
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
ppm



6

ZGH-Ipom-2-154-A-150407 COSY



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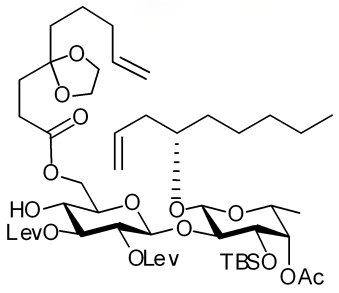
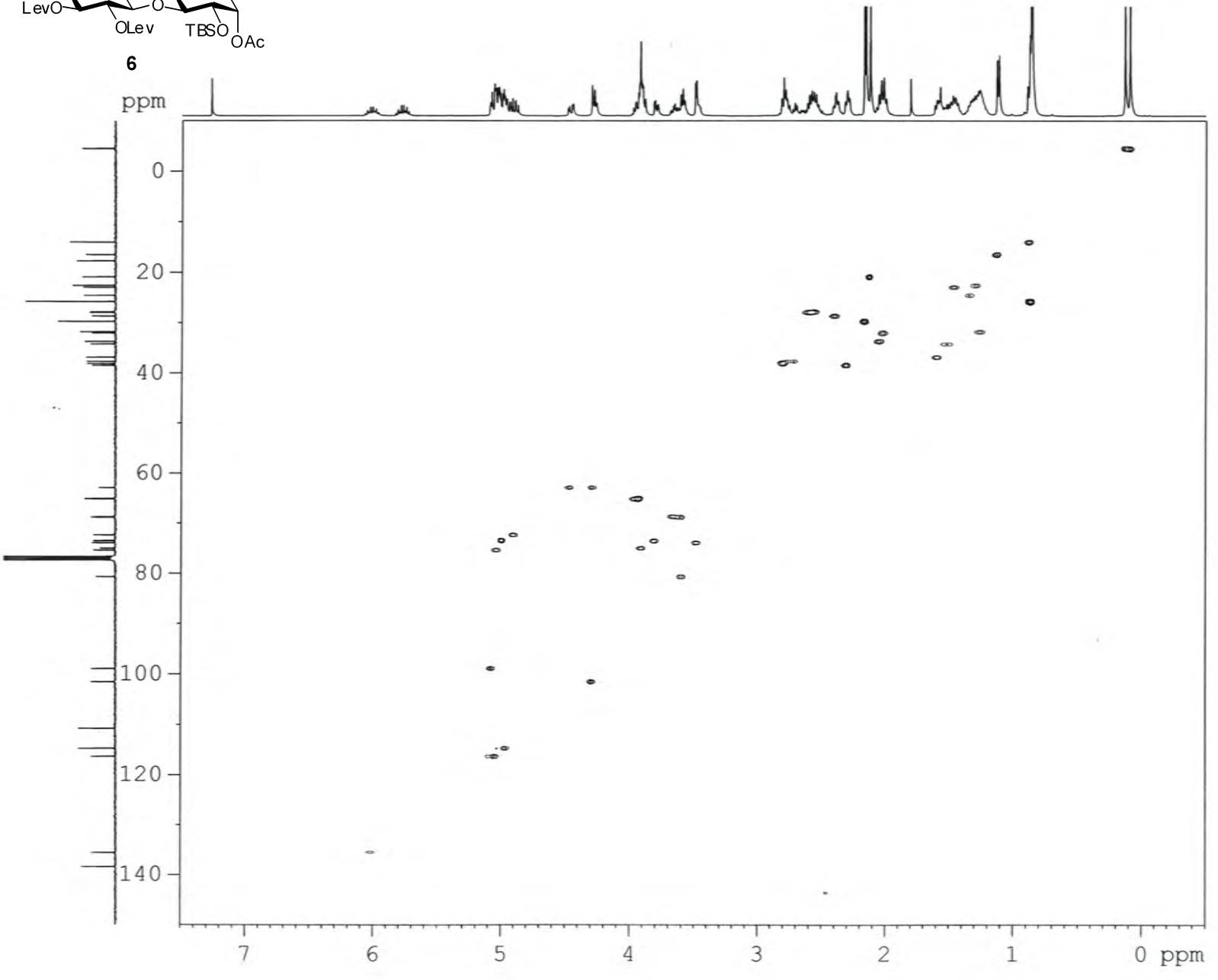
PROCNO	1
Date_	20150409
Time	1.43
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	cosygpqf
TD	2048
SOLVENT	CDC13
NS	8
DS	8
SWH	5341.880 Hz
FIDRES	2.608340 Hz
AQ	0.1917428 sec
RG	80.6
DW	93.600 usec
DE	6.50 usec
TE	292.8 K
D0	0.00000300 sec
D1	1.48689198 sec
D13	0.00000400 sec
D16	0.00020000 sec
IN0	0.00018720 sec
======== CHANNEL f1 ========	
NUC1	1H
P0	10.00 usec
P1	10.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPZ1	10.00 %
P16	1000.00 usec
ND0	1
TD	128
SFO1	400.1324 MHz
FIDRES	41.733440 Hz
SW	13.350 ppm
FnMODE	QF
SI	1024
SF	400.1300040 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	QF
SF	400.1300033 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0

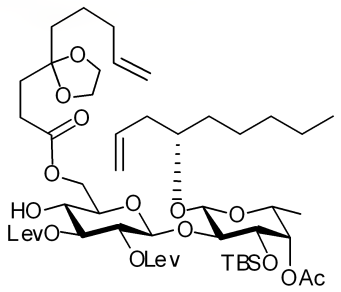


6

ZGH-Ipom-2-154-A-150407 HSQC



NAME	ZGH-Ipom-2-154-A-150407
EXPNO	4
PROCNO	1
Date_	20150409
Time	2.12
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hsqcetgpsi
TD	1024
SOLVENT	CDCl3
NS	8
DS	16
SWH	5341.880 Hz
FIDRES	5.216680 Hz
AQ	0.0958964 sec
RG	2050
DW	93.600 usec
DE	6.50 usec
TE	292.6 K
CNST2	145.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D4	0.00172414 sec
D11	0.03000000 sec
D13	0.00000400 sec
D16	0.00020000 sec
D24	0.00110000 sec
IN0	0.00003000 sec
ZGOPTNS	
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
P28	1000.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
======== CHANNEL f2 ========	
CPDPRG2	garp
NUC2	13C
P3	10.00 usec
P4	20.00 usec
PCPD2	75.00 usec
PL2	-2.10 dB
PL12	15.40 dB
PL2W	58.37759399 W
PL12W	1.03811681 W
SFO2	100.6202727 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPZ1	80.00 %
GPZ2	20.10 %
P16	1000.00 usec
ND0	2
TD	256
SFO1	100.6203 MHz
FIDRES	65.104164 Hz
SW	165.639 ppm
FnMODE	Echo-Antiecho
SI	1024
SF	400.1300000 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	echo-antiecho
SF	100.6127690 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0



6

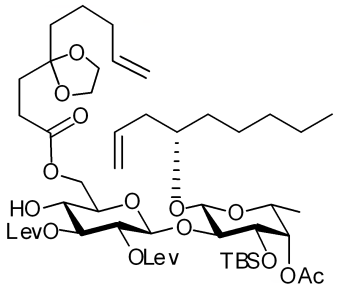
ZGH-Ipom-2-154-A-150407 HMBC in CDCL3

ppm

0
20
40
60
80
100
120
140
160

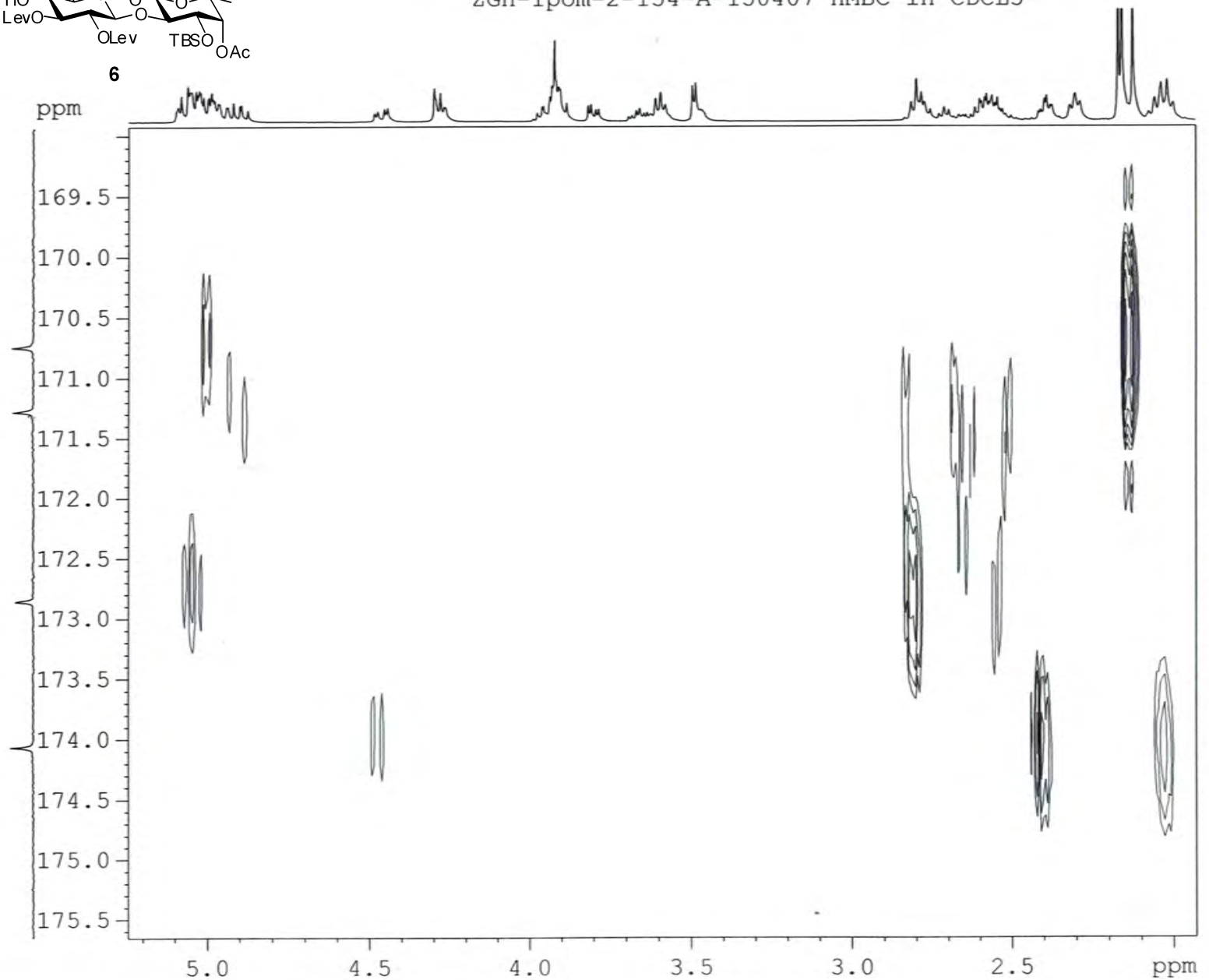
7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 ppm

NAME	ZGH-Ipom-2-154-A-150407
EXPNO	5
PROCNO	1
Date_	20150409
Time	3.09
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hmbcgplpndqf
TD	4096
SOLVENT	CDC13
NS	45
DS	16
SWH	5208.333 Hz
FIDRES	1.271566 Hz
AQ	0.3932660 sec
RG	2050
DW	96.000 usec
DE	6.50 usec
TE	292.5 K
CNST2	145.0000000
CNST13	10.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D2	0.00344828 sec
D6	0.05000000 sec
D16	0.00020000 sec
IN0	0.00003010 sec
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1325208 MHz
======== CHANNEL f2 ========	
NUC2	13C
P3	10.00 usec
PL2	-2.10 dB
PL2W	58.37759399 W
SFO2	100.6228138 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPNAM3	SINE.100
GPZ1	50.00 %
GPZ2	30.00 %
GPZ3	40.10 %
P16	1000.00 usec
ND0	2
TD	128
SFO1	100.6228 MHz
FIDRES	129.709091 Hz
SW	165.000 ppm
FnMODE	QF
SI	2048
SF	400.1300000 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	4.00
SI	1024
MC2	QF
SF	100.6127690 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0



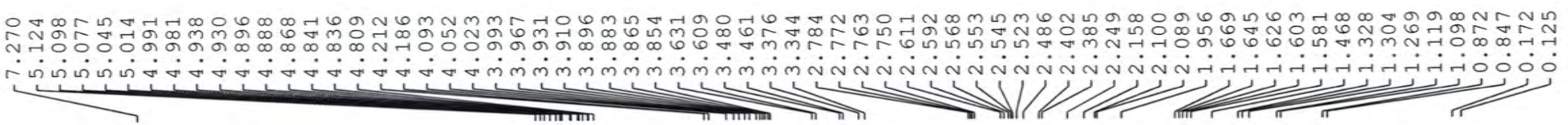
6

ZGH-Ipom-2-154-A-150407 HMBC in CDCL3

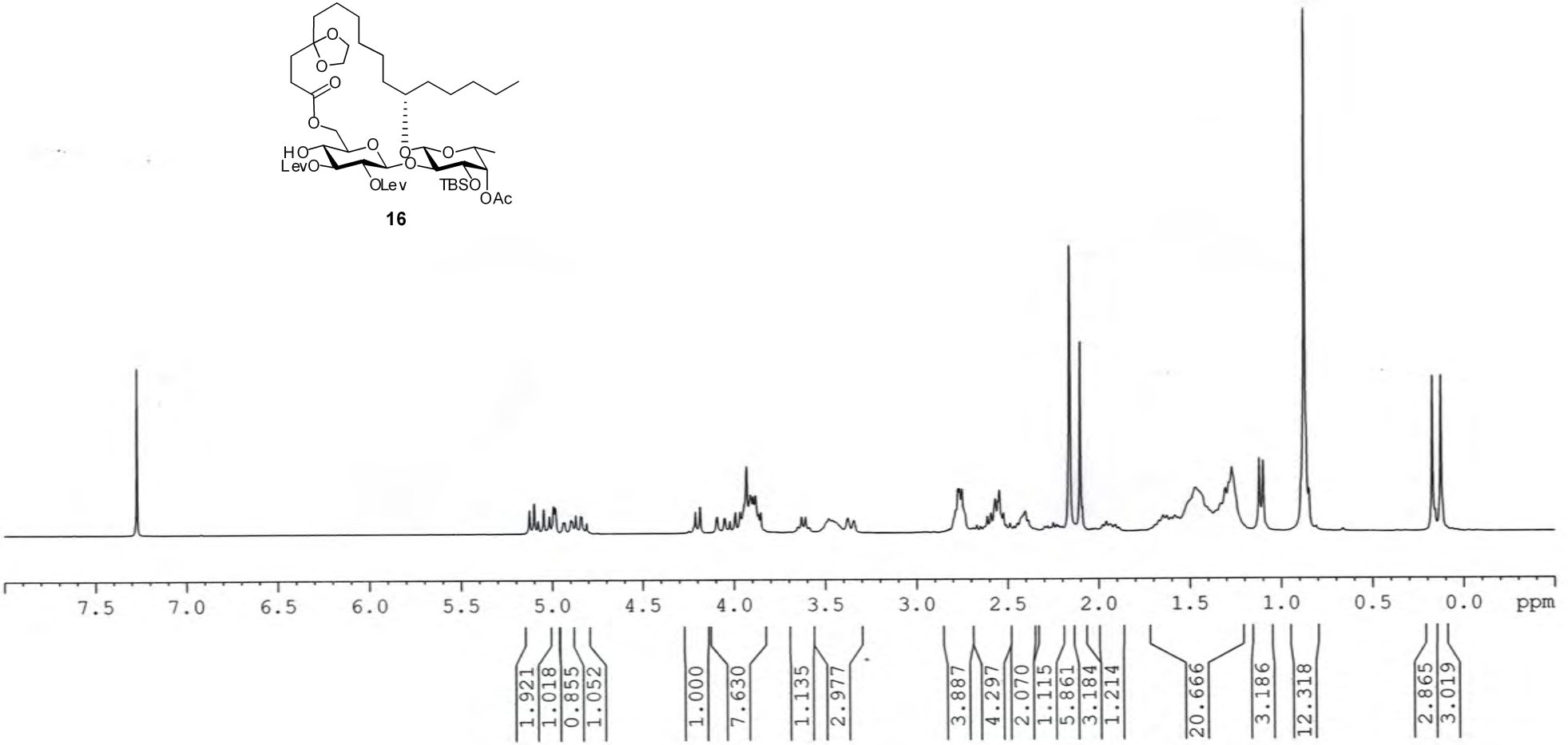


NAME	ZGH-Ipom-2-154-A-150407
EXPNO	5
PROCNO	1
Date_	20150409
Time	3.09
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hmbcgplpndqf
TD	4096
SOLVENT	CDCl3
NS	45
DS	16
SWH	5208.333 Hz
FIDRES	1.271566 Hz
AQ	0.3932660 sec
RG	2050
DW	96.000 usec
DE	6.50 usec
TE	292.5 K
CNST2	145.0000000
CNST13	10.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D2	0.00344828 sec
D6	0.05000000 sec
D16	0.00020000 sec
IN0	0.00003010 sec
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1325208 MHz
======== CHANNEL f2 ========	
NUC2	13C
P3	10.00 usec
PL2	-2.10 dB
PL2W	58.37759399 W
SFO2	100.6228138 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPNAM3	SINE.100
GPZ1	50.00 %
GPZ2	30.00 %
GPZ3	40.10 %
P16	1000.00 usec
ND0	2
TD	128
SFO1	100.6228 MHz
FIDRES	129.709091 Hz
SW	165.000 ppm
FnMODE	QF
SI	2048
SF	400.1300003 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	4.00
SI	1024
MC2	QF
SF	100.6127690 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0

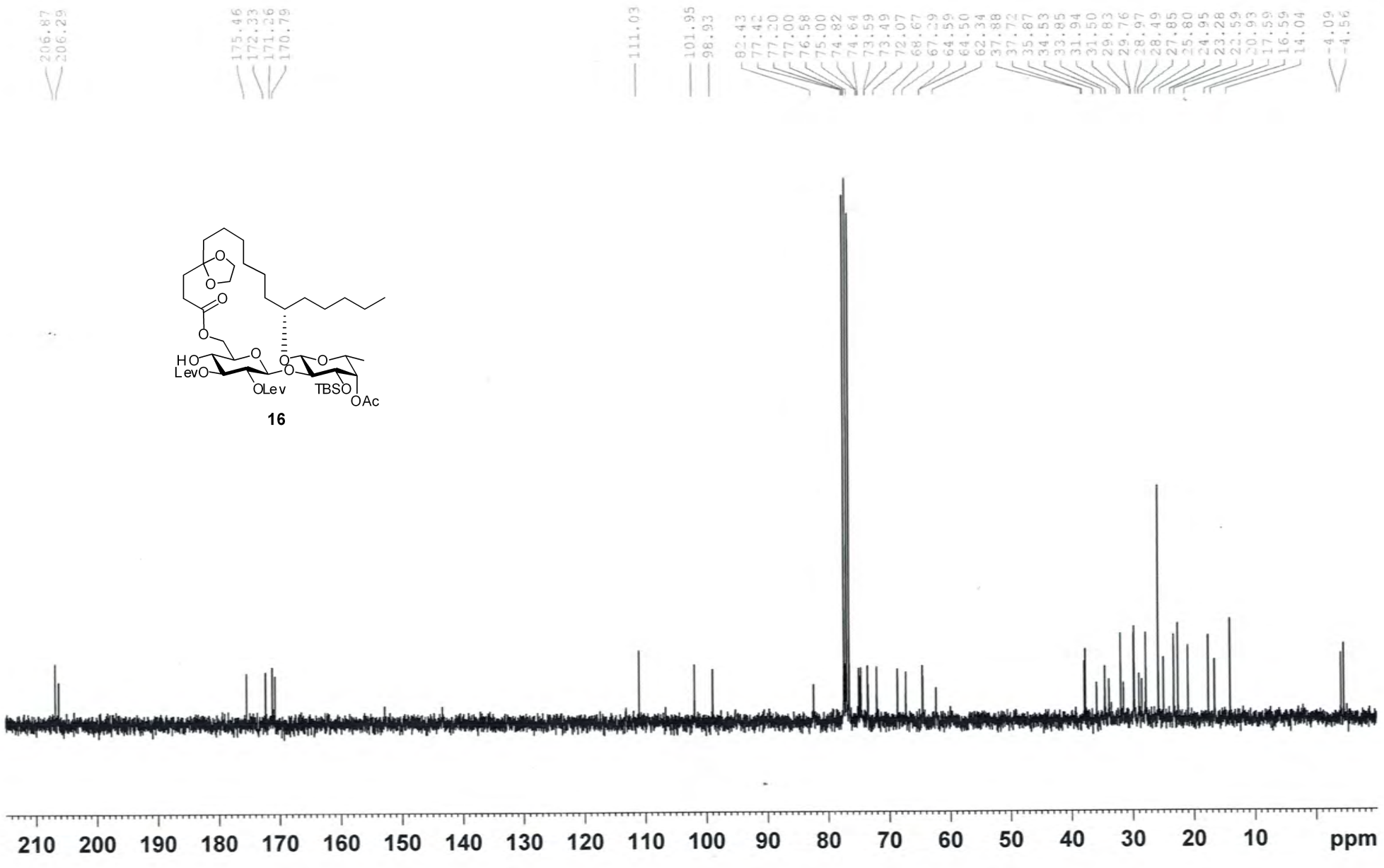
ZGH-Ipom-2-134-A-151210 (3) in CDCl3

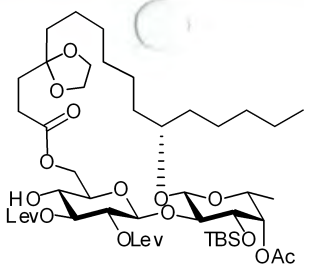


16



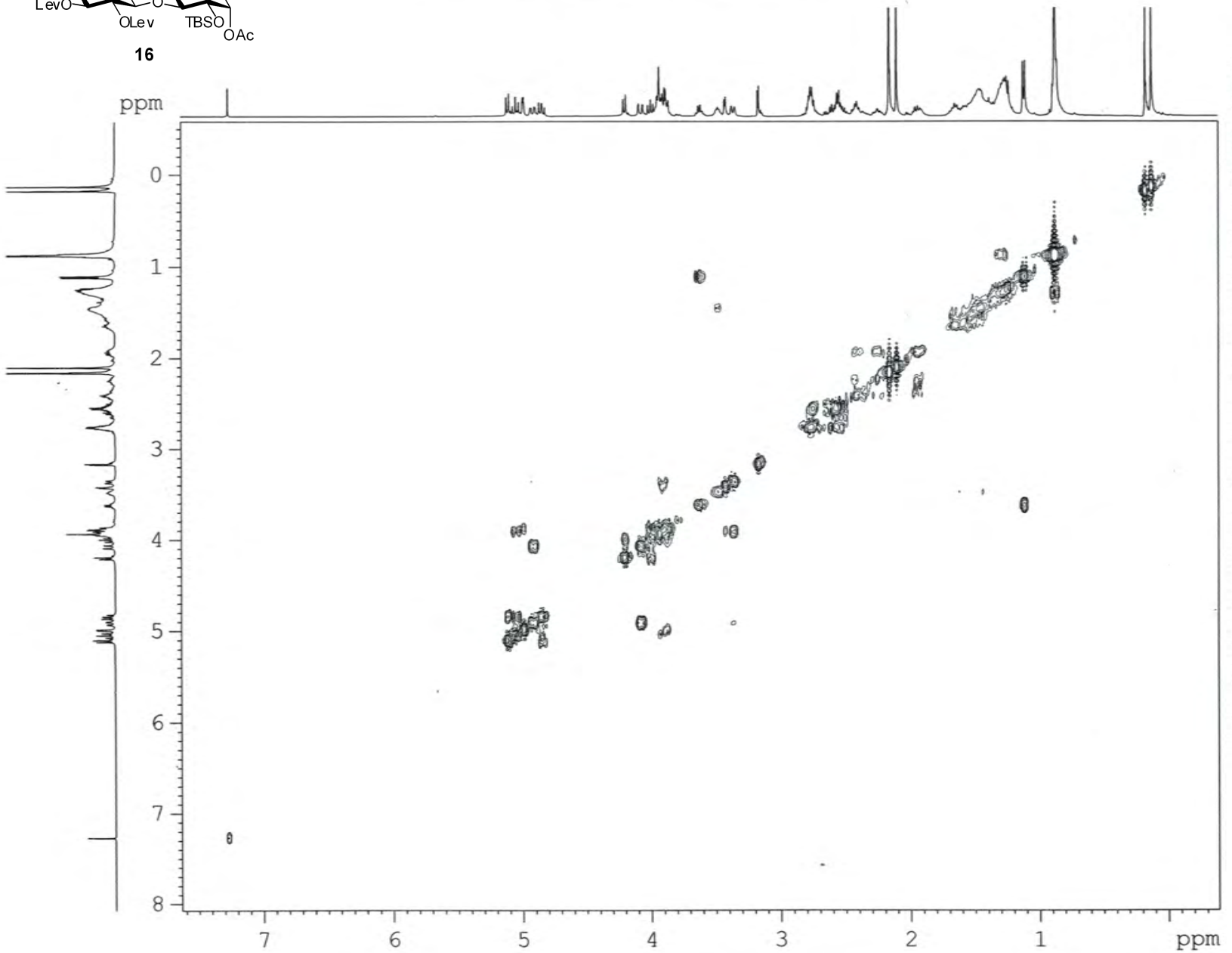
ZGH-Ipom-2-134-A-151210 (3) 13C



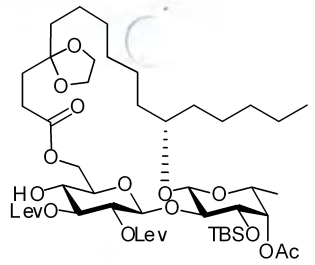


16

ZGH-Ipom-2-134-A-150122 COSY

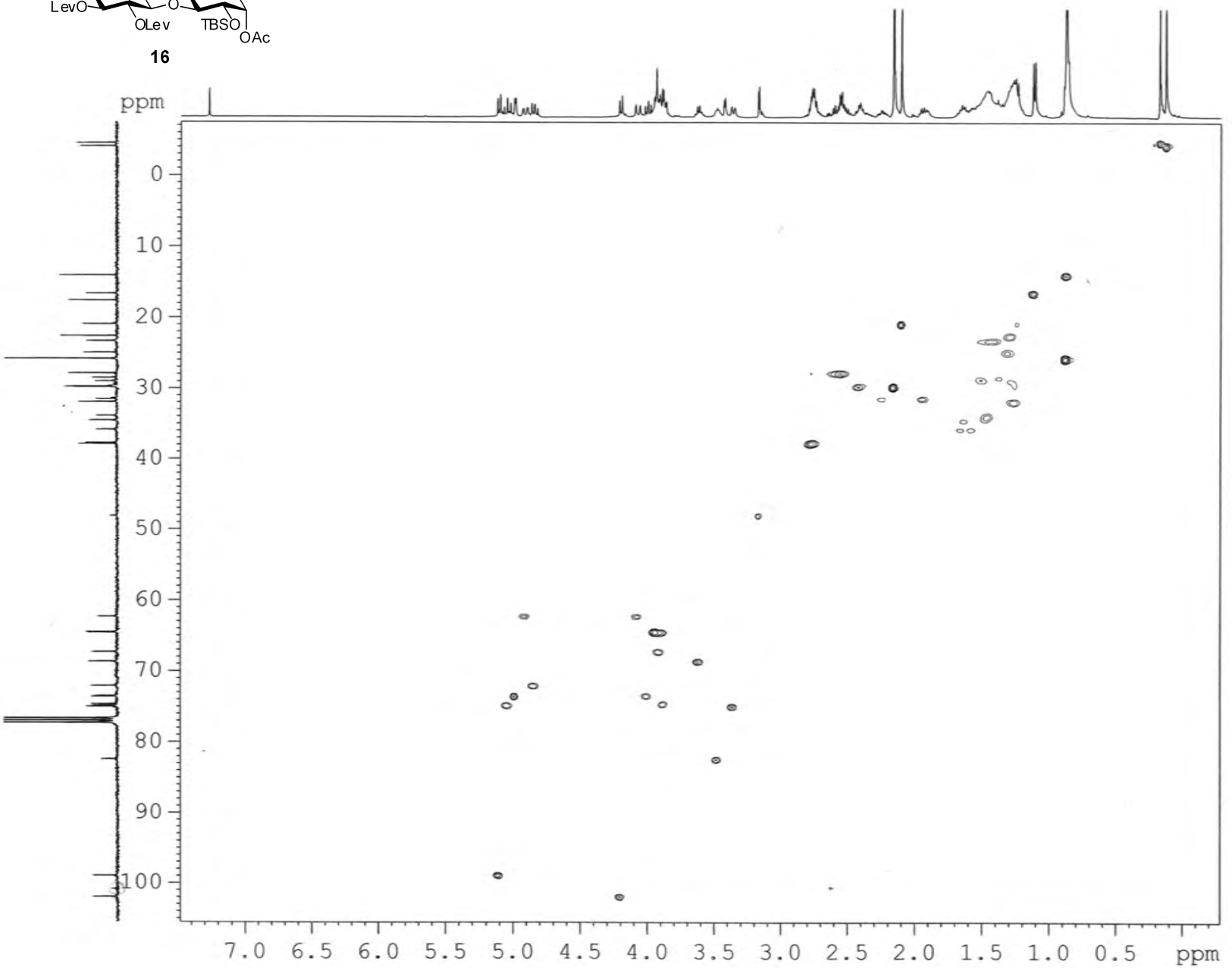


NAME	ZGH-Ipom-2-134-A-150122
EXPNO	2
PROCNO	1
Date_	20150123
Time	19.39
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	cosygpqf
TD	2048
SOLVENT	CDCl3
NS	4
DS	8
SWH	5341.880 Hz
FIDRES	2.608340 Hz
AQ	0.1917428 sec
RG	57
DW	93.600 usec
DE	6.50 usec
TE	292.1 K
D0	0.00000300 sec
D1	1.48689198 sec
D13	0.00000400 sec
D16	0.00020000 sec
IN0	0.00018720 sec
======== CHANNEL f1 ========	
NUC1	1H
P0	10.00 usec
P1	10.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPZ1	10.00 %
P16	1000.00 usec
ND0	1
TD	128
SFO1	400.1324 MHz
FIDRES	41.733440 Hz
SW	13.350 ppm
FnMODE	QF
SI	1024
SF	400.1300040 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	QF
SF	400.1300033 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0



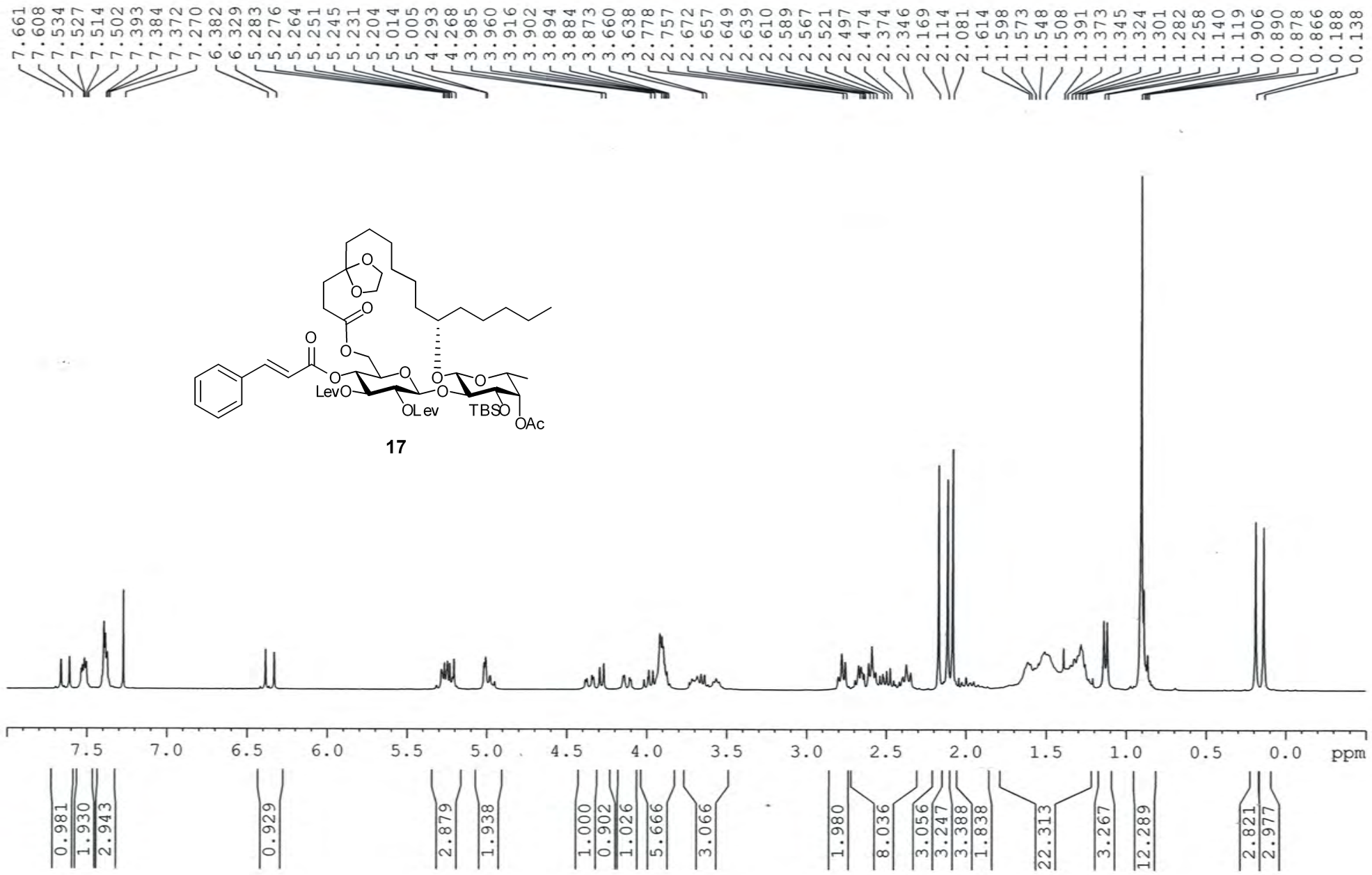
16

ZGH-Ipom-2-134-A-150122 HSQC



NAME	ZGH-Ipom-2-134-A-150122
EXPNO	4
PROCNO	1
Date_	20150123
Time_	20.52
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hsqcetgpsi
TD	1024
SOLVENT	CDCl3
NS	4
DS	16
SWH	5341.880 Hz
FIDRES	5.216680 Hz
AQ	0.0958964 sec
RG	2050
DW	93.600 usec
DE	6.50 usec
TE	292.6 K
CNST2	145.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D4	0.00172414 sec
D11	0.03000000 sec
D13	0.00000400 sec
D16	0.00020000 sec
D24	0.00110000 sec
IN0	0.00003000 sec
ZGOPTNS	
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
P28	1000.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
======== CHANNEL f2 ========	
CPDPRG2	garp
NUC2	13C
P3	10.00 usec
P4	20.00 usec
PCPD2	75.00 usec
PL2	-2.10 dB
PL12	15.40 dB
PL2W	58.37759399 W
PL12W	1.03811681 W
SFO2	100.6202727 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPZ1	80.00 %
GPZ2	20.10 %
P16	1000.00 usec
ND0	2
TD	256
SFO1	100.6203 MHz
FIDRES	65.104164 Hz
SW	165.639 ppm
FnMODE	Echo-Antiecho
SI	1024
SF	400.1300000 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	echo-antiecho
SF	100.6127690 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0

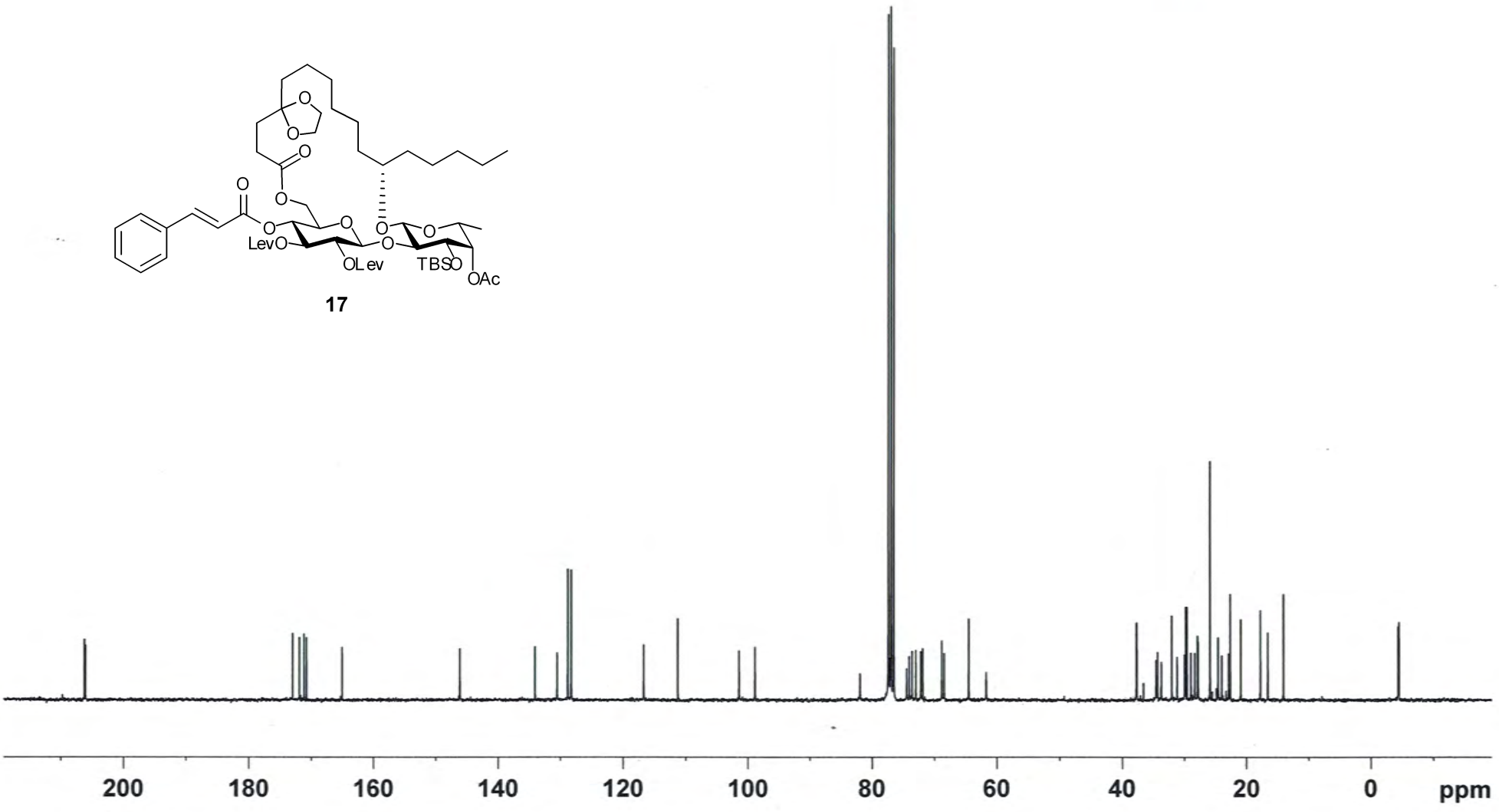
ZGH-Ipom-2-136-A-151212 in CDCl3 (300MHz)

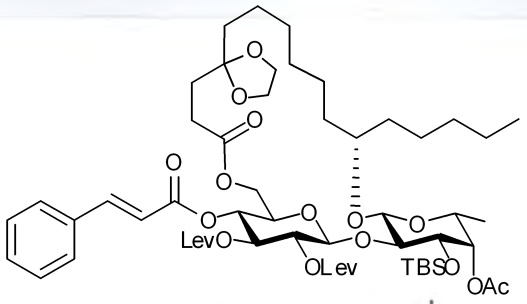


17

ZGH-Ipom-2-136-A-151212 in CDCl3 300 MHz

17





17

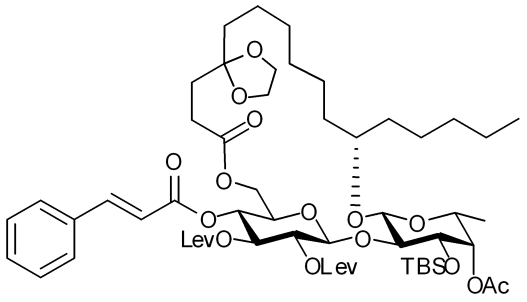
ZGH-Ipom-2-136-A-151212 COSY

ppm

0 1 2 3 4 5 6 7 8

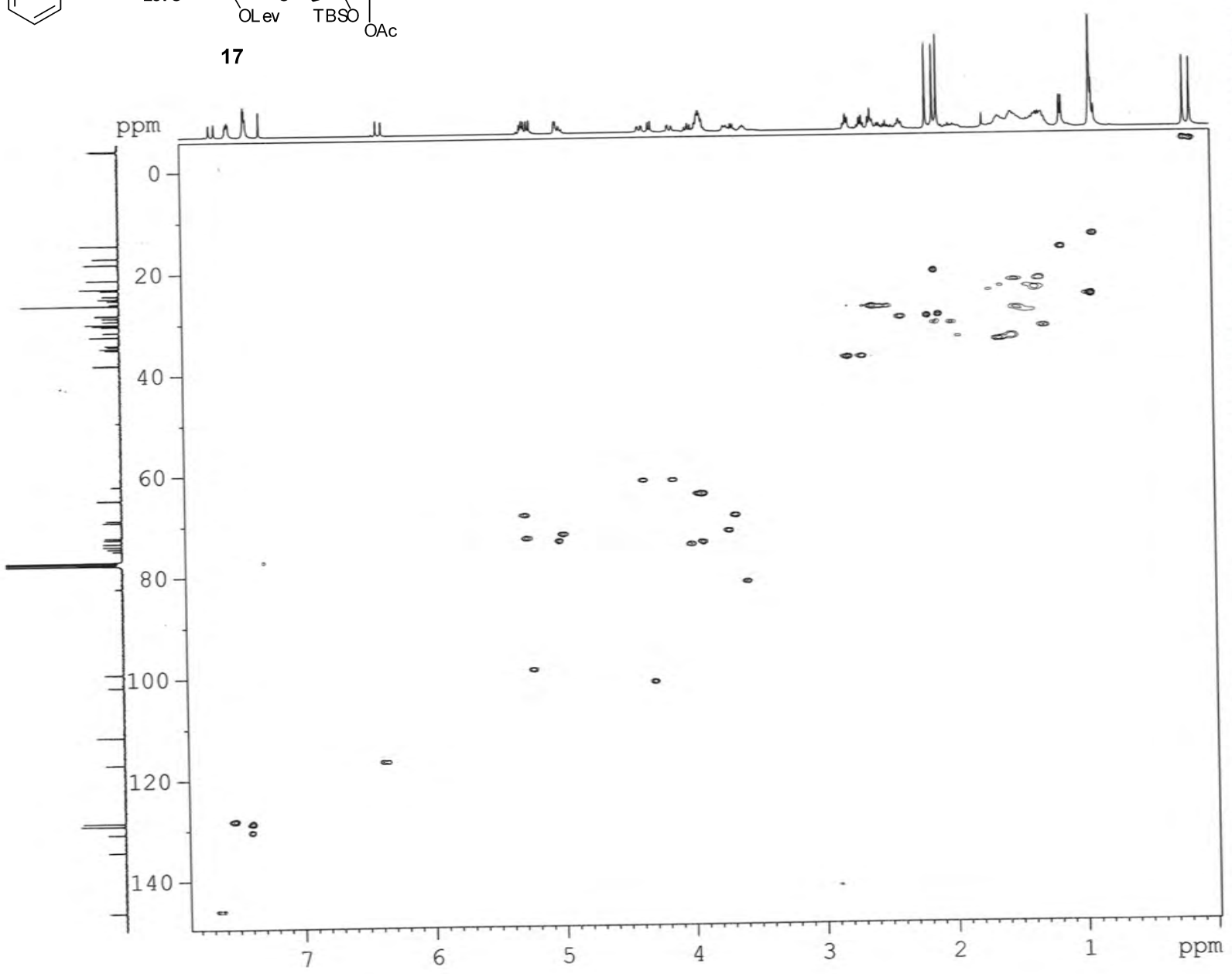
7 6 5 4 3 2 1 ppm

NAME	ZGH-Ipom-2-136-A-151212
EXPNO	3
PROCNO	1
Date_	20151220
Time	22.45
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	cosygpprqf
TD	4096
SOLVENT	CDCl3
NS	16
DS	8
SWH	4816.956 Hz
FIDRES	1.176015 Hz
AQ	0.4252148 sec
RG	128
DW	103.800 usec
DE	6.50 usec
TE	295.0 K
D0	0.00000300 sec
D1	2.00000000 sec
D11	0.03000000 sec
D12	0.00002000 sec
D16	0.00010000 sec
IN0	0.00020785 sec
======== CHANNEL f1 ========	
NUC1	1H
P0	12.20 usec
P1	12.20 usec
PL1	-1.00 dB
PL9	51.25 dB
PL1W	13.28156662 W
PL9W	0.00007911 W
SFO1	300.1314102 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SMSQ10.100
GPZ1	20.00 %
P16	1000.00 usec
ND0	1
TD	133
SFO1	300.1314 MHz
FIDRES	36.171562 Hz
SW	16.029 ppm
FnMODE	QF
SI	2048
SF	300.1300043 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00
SI	2048
MC2	QF
SF	300.1300000 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0



17

ZGH-Ipom-2-136-A-150129 HSQC



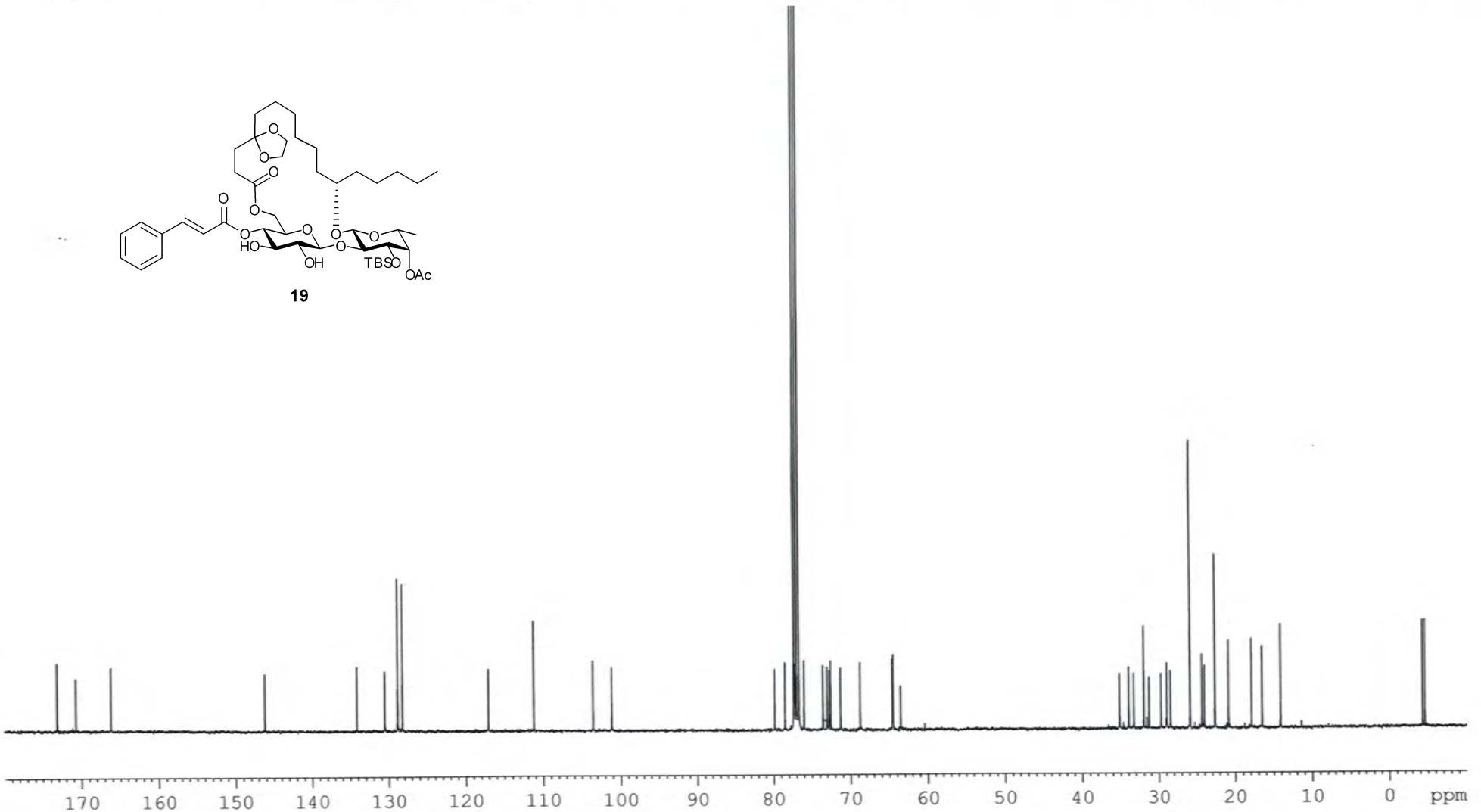
NAME	ZGH-Ipom-2-136-A-150129
EXPNO	4
PROCNO	1
Date_	20150201
Time	1.38
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hsqcetgpsi
TD	1024
SOLVENT	CDC13
NS	8
DS	16
SWH	5341.880 Hz
FIDRES	5.216680 Hz
AQ	0.0958964 sec
RG	2050
DW	93.600 usec
DE	6.50 usec
TE	293.2 K
CNST2	145.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D4	0.00172414 sec
D11	0.03000000 sec
D13	0.00000400 sec
D16	0.00020000 sec
D24	0.00110000 sec
IN0	0.00003000 sec
ZGOPTNS	
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
P28	1000.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
======== CHANNEL f2 ========	
CPDPRG2	garp
NUC2	13C
P3	10.00 usec
P4	20.00 usec
PCPD2	75.00 usec
PL2	-2.10 dB
PL12	15.40 dB
PL2W	58.37759399 W
PL12W	1.03811681 W
SFO2	100.6202727 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPZ1	80.00 %
GPZ2	20.10 %
P16	1000.00 usec
ND0	2
TD	256
SFO1	100.6203 MHz
FIDRES	65.104164 Hz
SW	165.639 ppm
FnMODE	Echo-Antiecho
SI	1024
SF	400.1300000 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	echo-antiecho
SF	100.6127690 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0

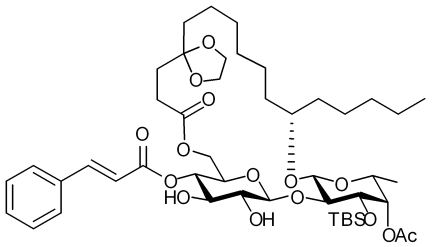
ZGH-Ipom-2-137-A-150202 1H in CDCL3

ZGH-Ipom-2-137-A-150202 13C in CDCl3

173.147
170.690
166.177
146.180
134.139
130.511
128.858
128.222
117.075
111.201
103.532
101.124
79.806
78.466
77.321
77.207
77.004
76.687
75.993
73.559
73.035
72.747
72.545
71.267
68.738
64.585
64.497
63.519
35.121
33.916
33.251
31.950
31.256
29.662
28.910
28.439
25.873
24.314
23.998
22.609
20.828
17.851
16.482
14.082
-4.326
-4.629

19





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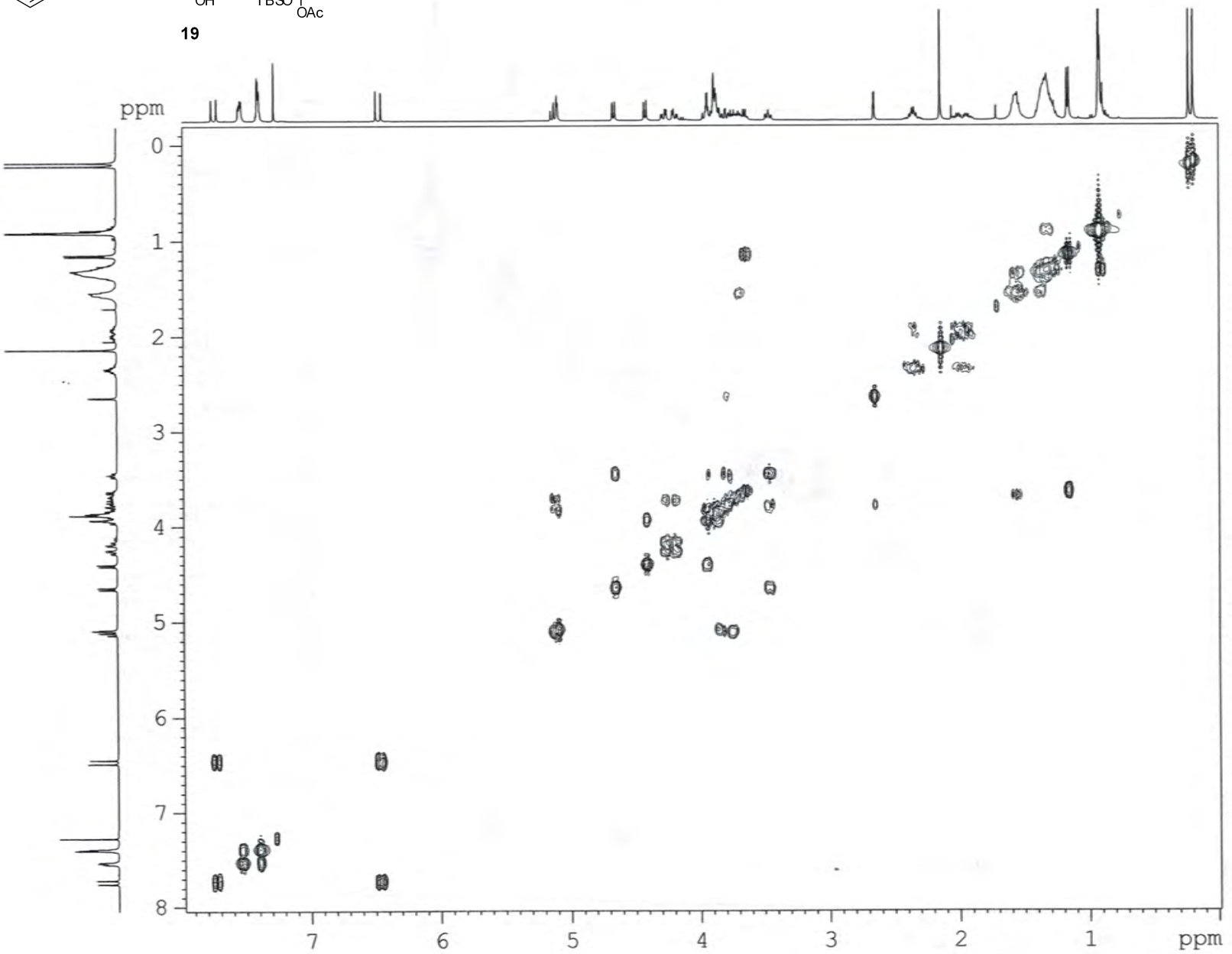
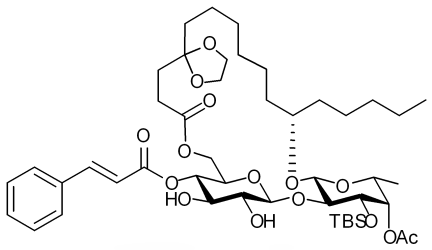
ZGH-Ipom-2-137-A-150202 COSY

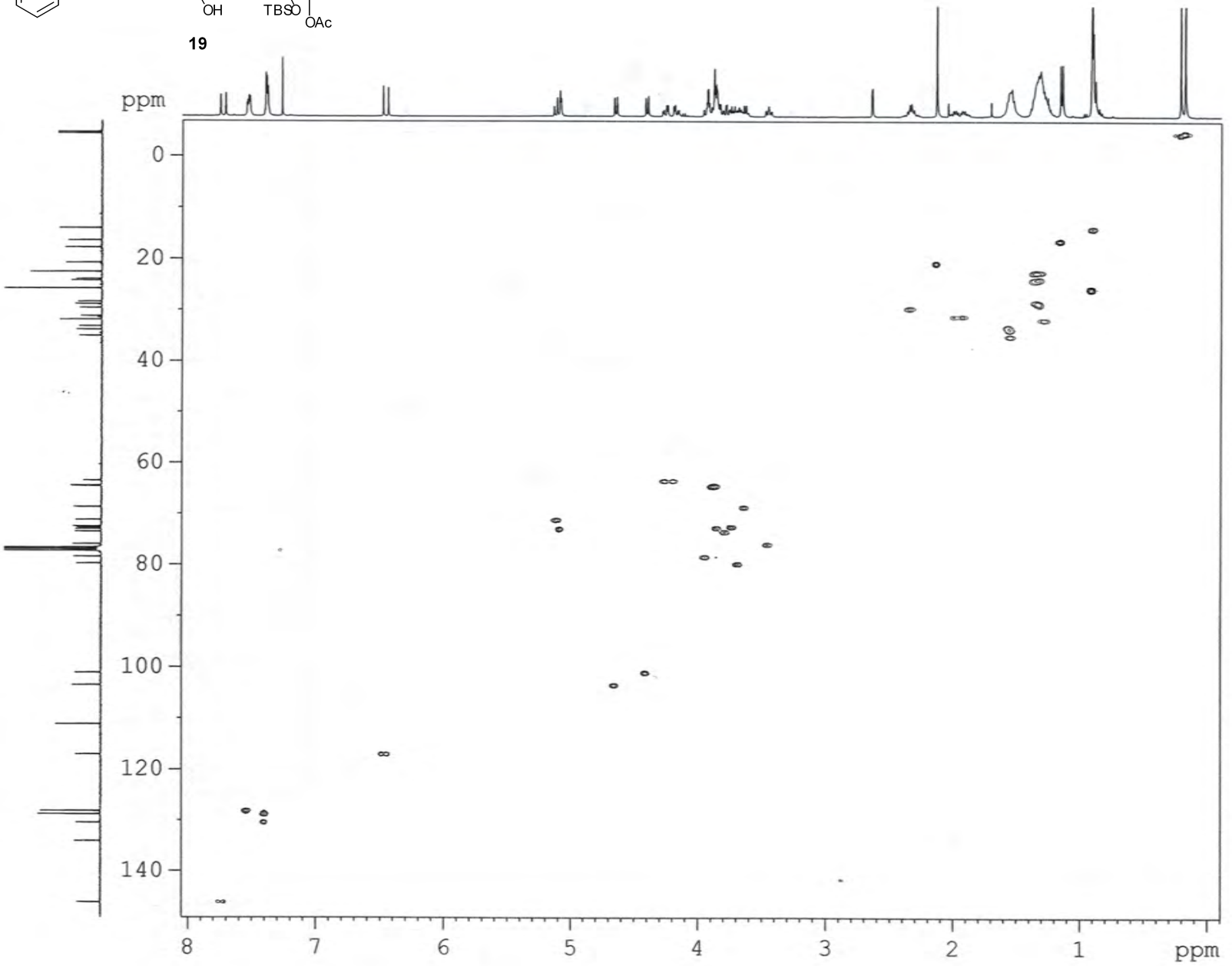


NAME	ZGH-Ipom-2-137-A-150202
EXPNO	2
PROCNO	1
Date_	20150202
Time	23.02
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	cosygpqf
TD	2048
SOLVENT	CDCl3
NS	4
DS	8
SWH	5341.880 Hz
FIDRES	2.608340 Hz
AQ	0.1917428 sec
RG	80.6
DW	93.600 usec
DE	6.50 usec
TE	292.6 K
D0	0.00000300 sec
D1	1.48689198 sec
D13	0.00000400 sec
D16	0.00020000 sec
IN0	0.00018720 sec
======== CHANNEL f1 ========	
NUC1	1H
P0	10.00 usec
P1	10.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPZ1	10.00 %
P16	1000.00 usec
ND0	1
TD	128
SFO1	400.1324 MHz
FIDRES	41.733440 Hz
SW	13.350 ppm
FnMODE	QF
SI	1024
SF	400.1300040 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	QF
SF	400.1300033 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0

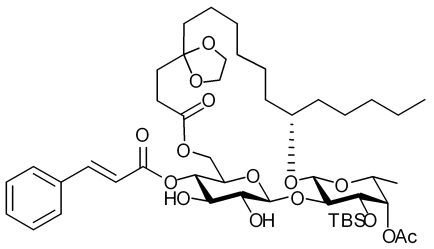


19

ZGH-Ipom-2-137-A-150202 HSQC

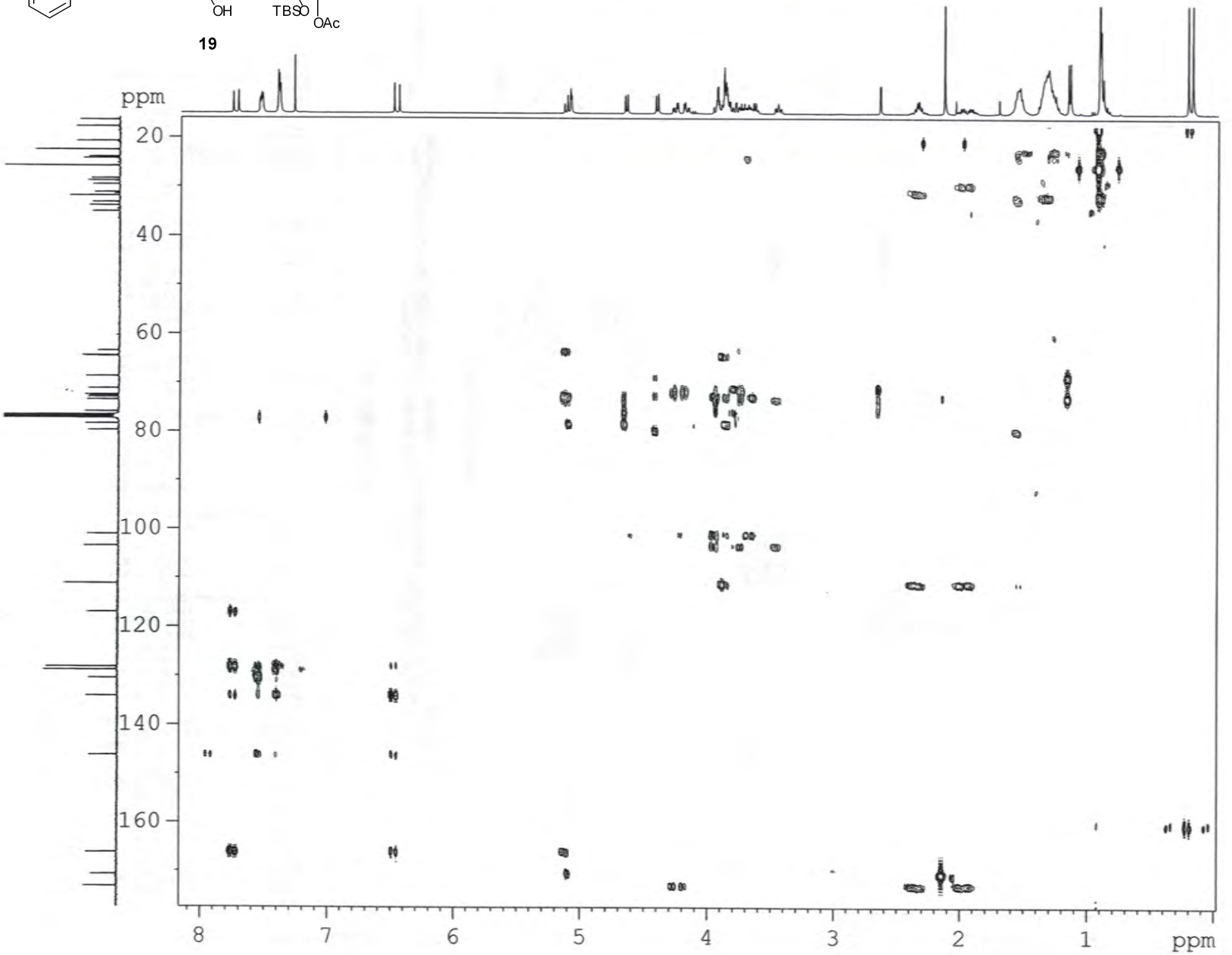


NAME	ZGH-Ipom-2-137-A-150202
EXPNO	4
PROCNO	1
Date_	20150203
Time_	3.56
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hsqcetgpsi
TD	1024
SOLVENT	CDCl3
NS	8
DS	16
SWH	5341.880 Hz
FIDRES	5.216680 Hz
AQ	0.0958964 sec
RG	2050
DW	93.600 usec
DE	6.50 usec
TE	293.5 K
CNST2	145.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D4	0.00172414 sec
D11	0.03000000 sec
D13	0.00000400 sec
D16	0.00020000 sec
D24	0.00110000 sec
IN0	0.00003000 sec
ZGOPTNS	
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
P28	1000.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
======== CHANNEL f2 ========	
CPDPRG2	garp
NUC2	13C
P3	10.00 usec
P4	20.00 usec
PCPD2	75.00 usec
PL2	-2.10 dB
PL12	15.40 dB
PL2W	58.37759399 W
PL12W	1.03811681 W
SFO2	100.6202727 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPZ1	80.00 %
GPZ2	20.10 %
P16	1000.00 usec
ND0	2
TD	256
SFO1	100.6203 MHz
FIDRES	65.104164 Hz
SW	165.639 ppm
FnMODE	Echo-Antiecho
SI	1024
SF	400.1300000 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	echo-antiecho
SF	100.6127690 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0

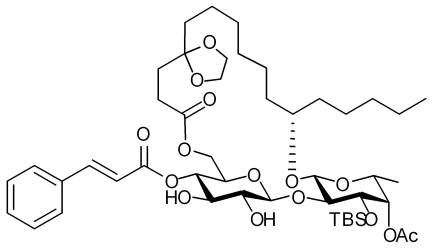


19

ZGH-Ipom-2-137-A-150202 HMBC in CDCL3

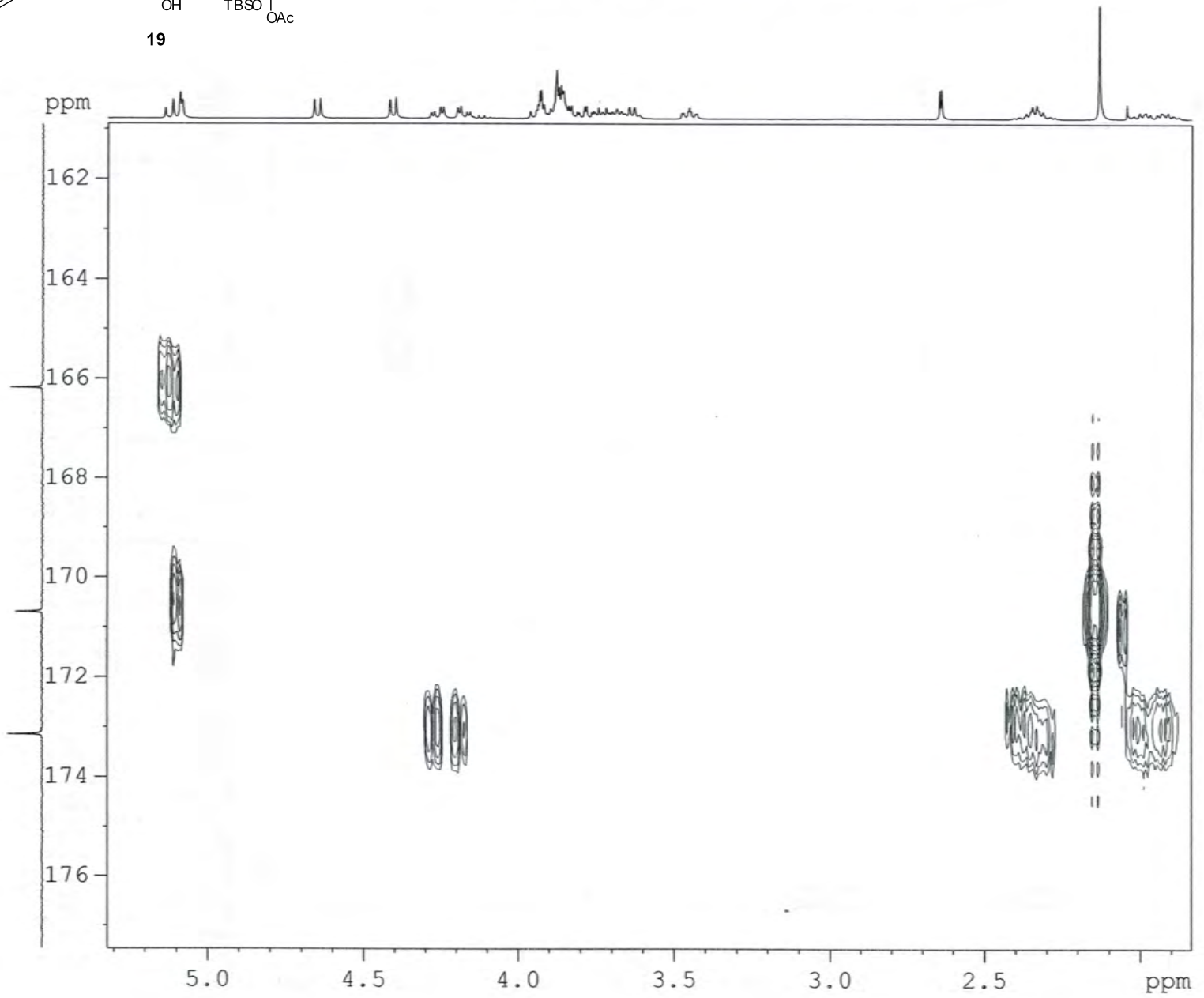


NAME	ZGH-Ipom-2-137-A-150202
EXPNO	5
PROCNO	1
Date_	20150203
Time_	4.53
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hmbcgplpndqf
TD	4096
SOLVENT	CDCl3
NS	40
DS	16
SWH	5208.333 Hz
FIDRES	1.271566 Hz
AQ	0.3932660 sec
RG	2050
DW	96.000 usec
DE	6.50 usec
TE	293.0 K
CNST2	145.0000000
CNST13	10.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D2	0.00344828 sec
D6	0.05000000 sec
D16	0.00020000 sec
IN0	0.00003010 sec
========	CHANNEL f1 ========
NUC1	1H
P1	10.00 usec
P2	20.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1325208 MHz
========	CHANNEL f2 ========
NUC2	13C
P3	10.00 usec
PL2	-2.10 dB
PL2W	58.37759399 W
SFO2	100.6228138 MHz
======	GRADIENT CHANNEL =====
GPNAM1	SINE.100
GPNAM2	SINE.100
GPNAM3	SINE.100
GPZ1	50.00 %
GPZ2	30.00 %
GPZ3	40.10 %
P16	1000.00 usec
ND0	2
TD	128
SFO1	100.6228 MHz
FIDRES	129.709091 Hz
SW	165.000 ppm
FnMODE	QF
SI	2048
SF	400.1300000 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	4.00
SI	1024
MC2	QF
SF	100.6127690 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0



19

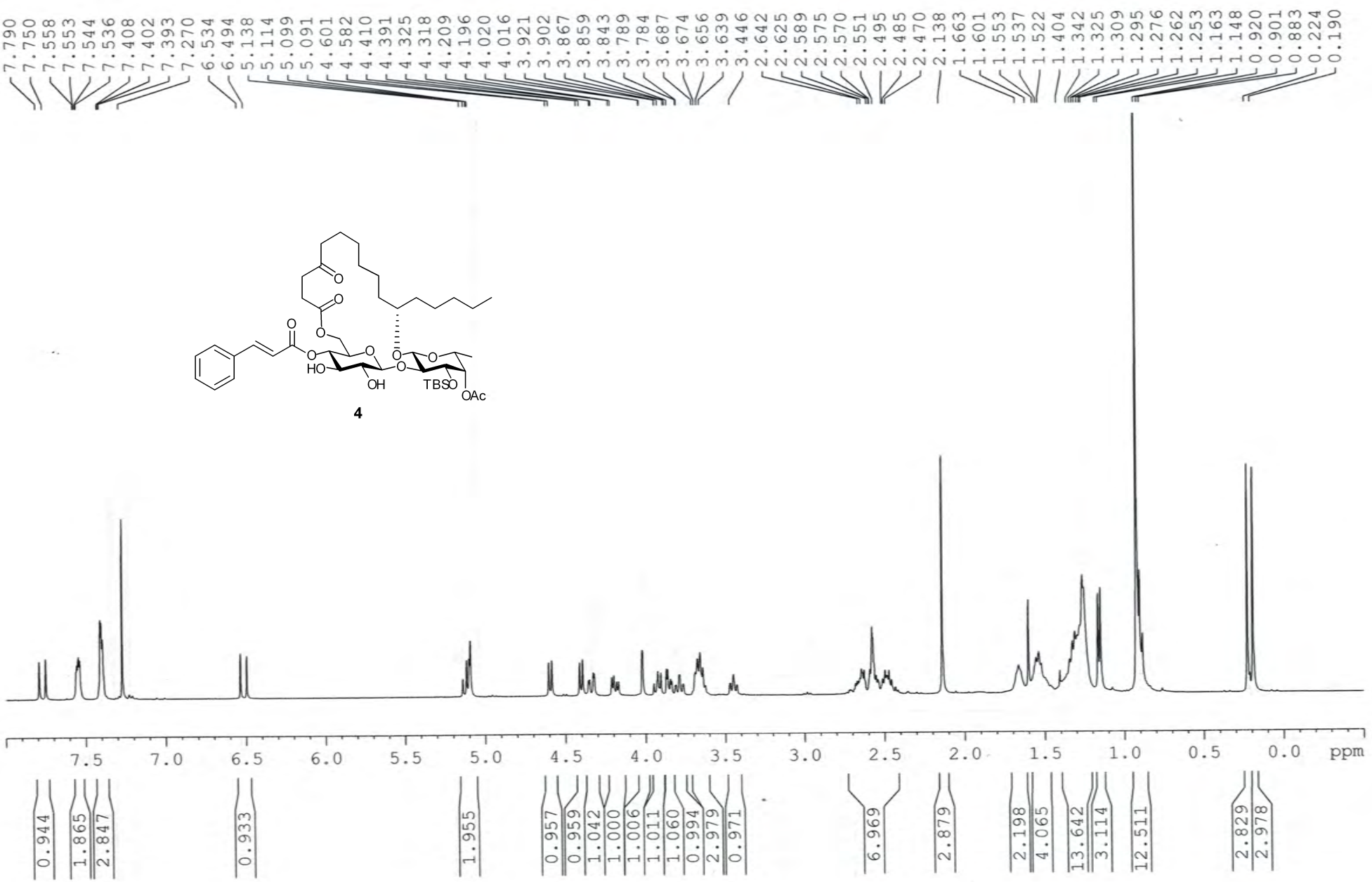
ZGH-Ipom-2-137-A-150202 HMBC in CDCL3



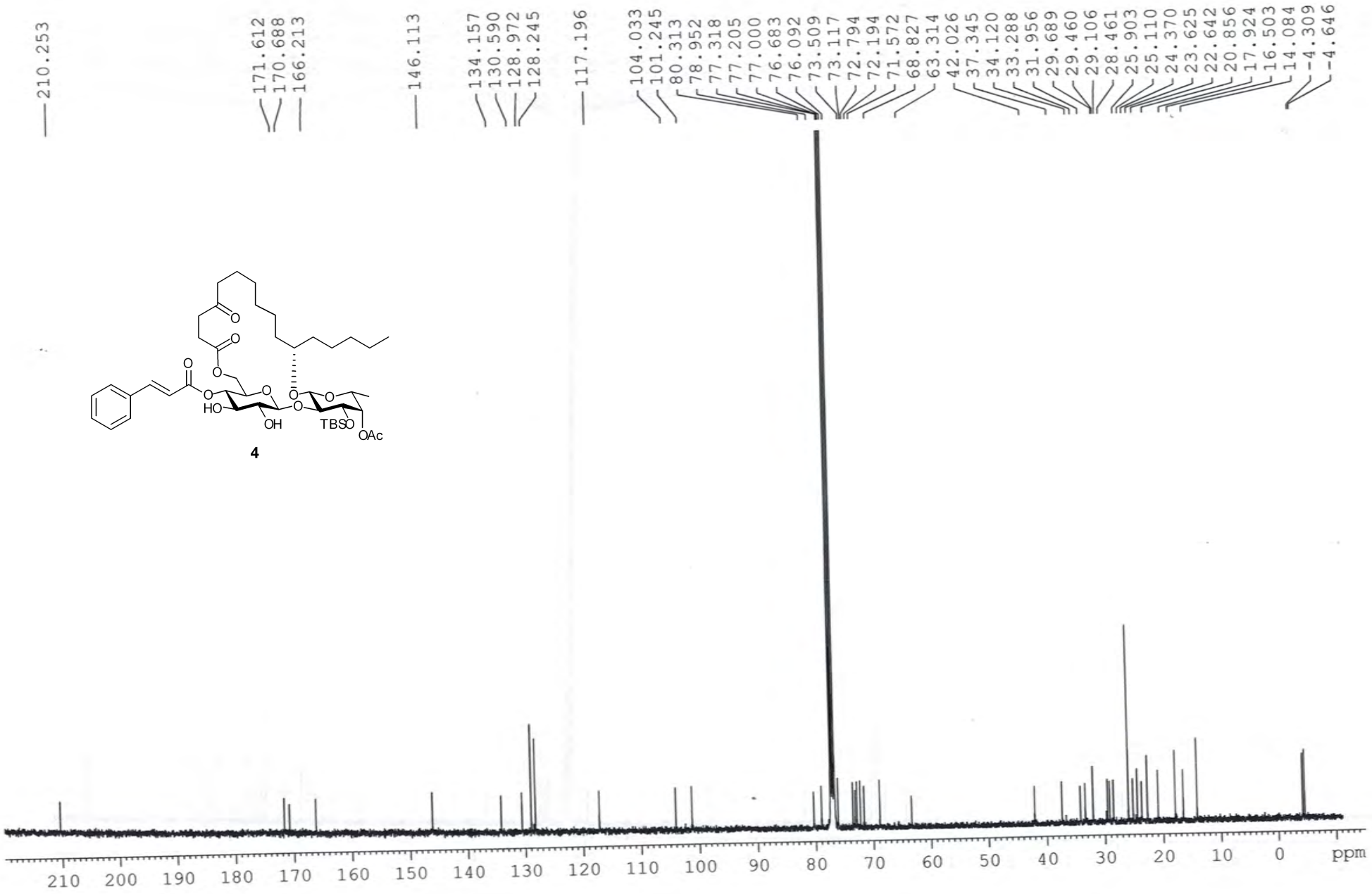
NAME	ZGH-Ipom-2-137-A-150202	
EXPNO	5	
PROCNO	1	
Date_	20150203	
Time	4.53	
INSTRUM	spect	
PROBHD	5 mm PABBO BB-	
PULPROG	hmbcgplpndqf	
TD	4096	
SOLVENT	CDCl3	
NS	40	
DS	16	
SWH	5208.333	Hz
FIDRES	1.271566	Hz
AQ	0.3932660	sec
RG	2050	
DW	96.000	usec
DE	6.50	usec
TE	293.0	K
CNST2	145.0000000	
CNST13	10.0000000	
D0	0.00000300	sec
D1	1.50000000	sec
D2	0.00344828	sec
D6	0.05000000	sec
D16	0.00020000	sec
IN0	0.00003010	sec
======== CHANNEL f1 ========		
NUC1	1H	
P1	10.00	usec
P2	20.00	usec
PL1	-3.50	dB
PL1W	31.17620277	W
SFO1	400.1325208	MHz
======== CHANNEL f2 ========		
NUC2	13C	
P3	10.00	usec
PL2	-2.10	dB
PL2W	58.37759399	W
SFO2	100.6228138	MHz
====== GRADIENT CHANNEL =====		
GPNAM1	SINE.100	
GPNAM2	SINE.100	
GPNAM3	SINE.100	
GPZ1	50.00	%
GPZ2	30.00	%
GPZ3	40.10	%
P16	1000.00	usec
ND0	2	
TD	128	
SFO1	100.6228	MHz
FIDRES	129.709091	Hz
SW	165.000	ppm
FnMODE	QF	
SI	2048	
SF	400.1300000	MHz
WDW	SINE	
SSB	0	
LB	0.00	Hz
GB	0	
PC	4.00	
SI	1024	
MC2	QF	
SF	100.6127690	MHz
WDW	SINE	
SSB	0	
LB	0.00	Hz
GB	0	

ZGH-Ipom-2-140-B-150209 1H in CDCL3

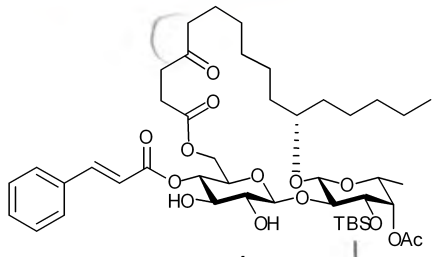
4



ZGH-Ipom-2-140-B-150209 13C in CDCl3

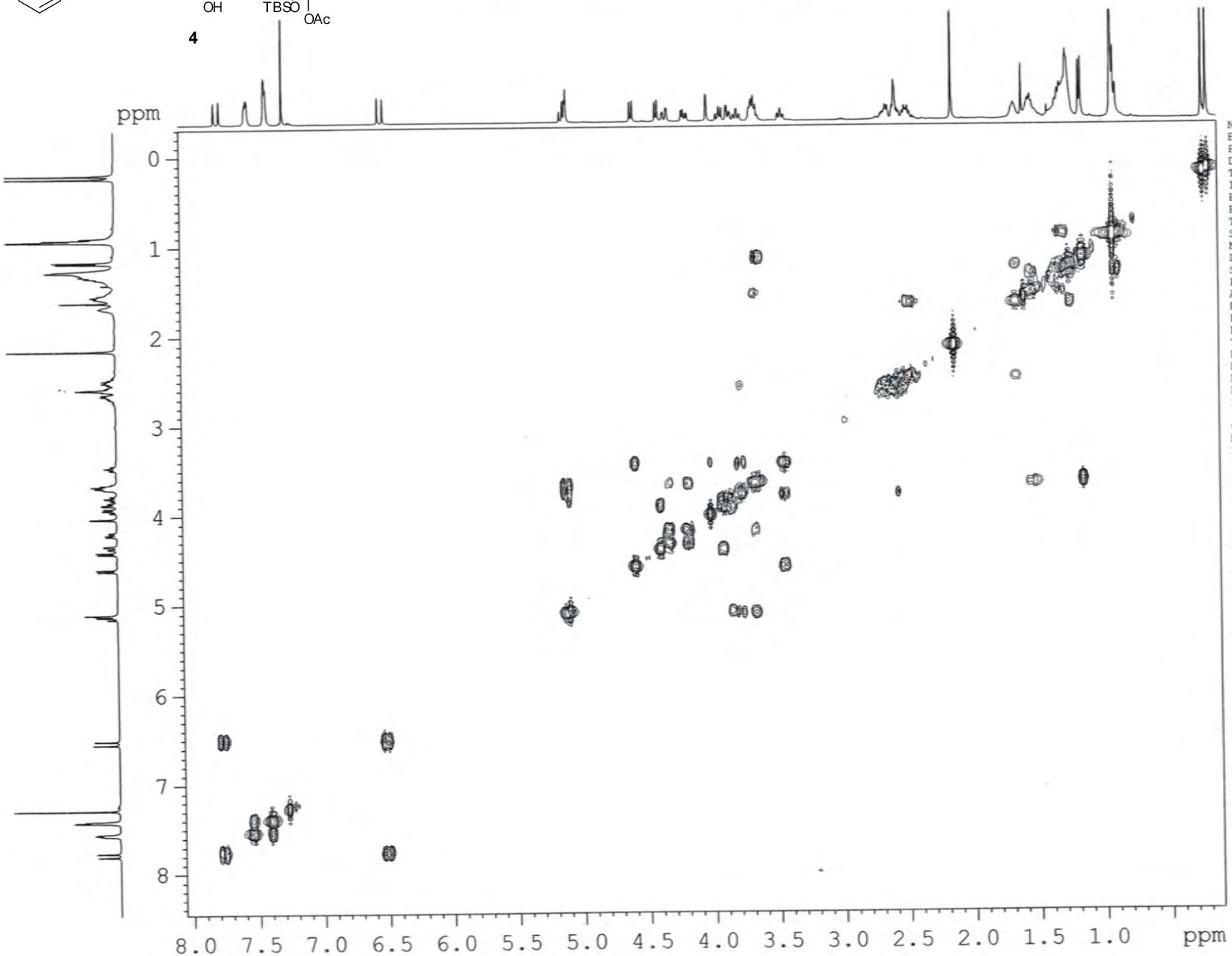


4

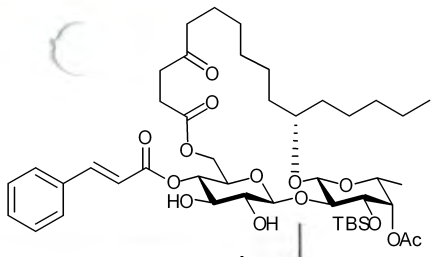


4

ZGH-Ipom-2-140-B-150209 COSY

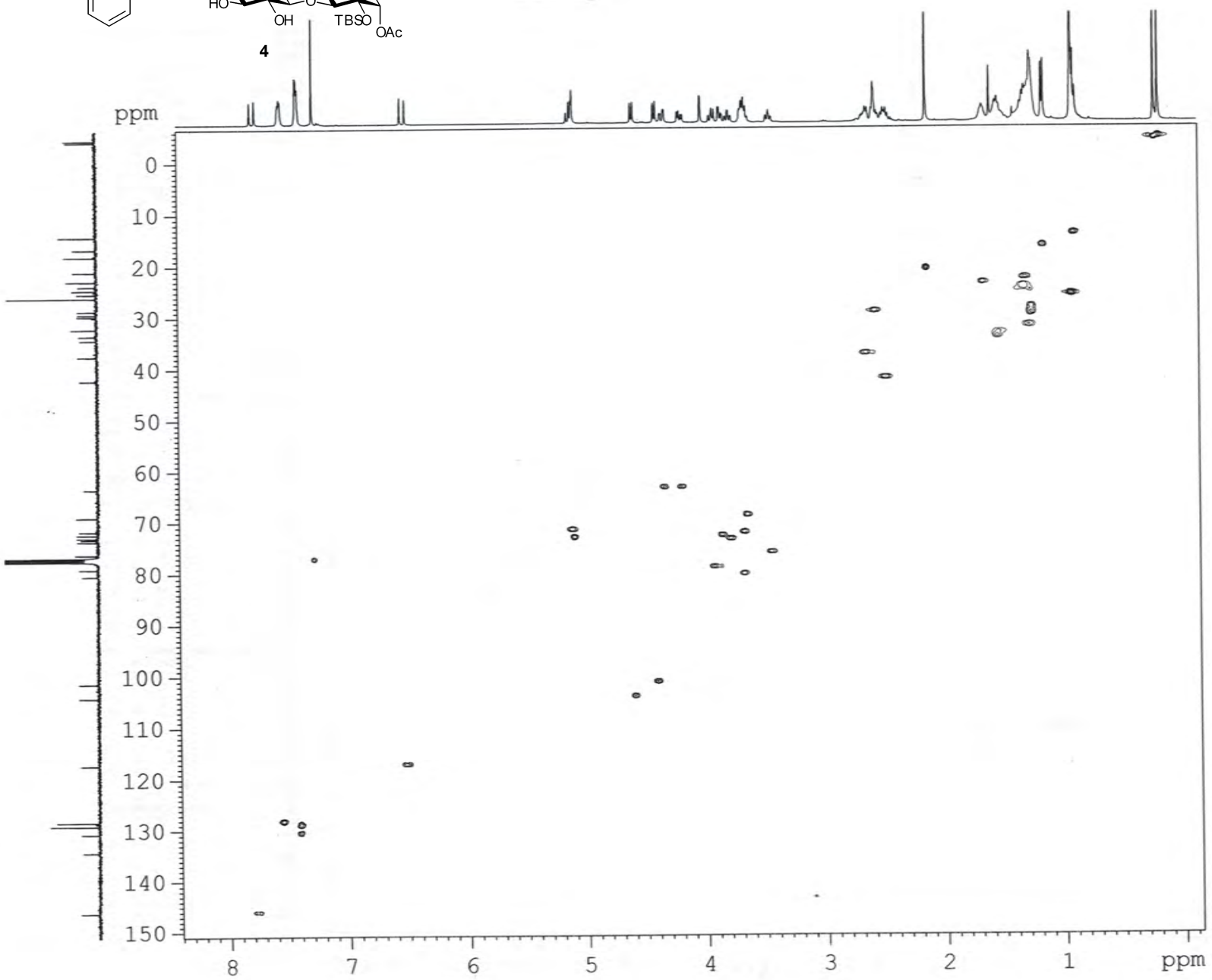


NAME	ZGH-Ipom-2-140-B-150209
EXPNO	2
PROCNO	1
Date_	20150209
Time	22.41
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	cosygpqf
TD	2048
SOLVENT	CDCl3
NS	8
DS	8
SWH	5341.880 Hz
FIDRES	2.608340 Hz
AQ	0.1917428 sec
RG	287
DW	93.600 usec
DE	6.50 usec
TE	292.3 K
D0	0.00000300 sec
D1	1.48689198 sec
D13	0.00000400 sec
D16	0.00020000 sec
IN0	0.00018720 sec
======== CHANNEL f1 ========	
NUC1	1H
P0	10.00 usec
P1	10.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPZ1	10.00 %
P16	1000.00 usec
ND0	1
TD	128
SFO1	400.1324 MHz
FIDRES	41.733440 Hz
SW	13.350 ppm
FnMODE	QF
SI	1024
SF	400.1300040 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	QF
SF	400.1300033 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0



4

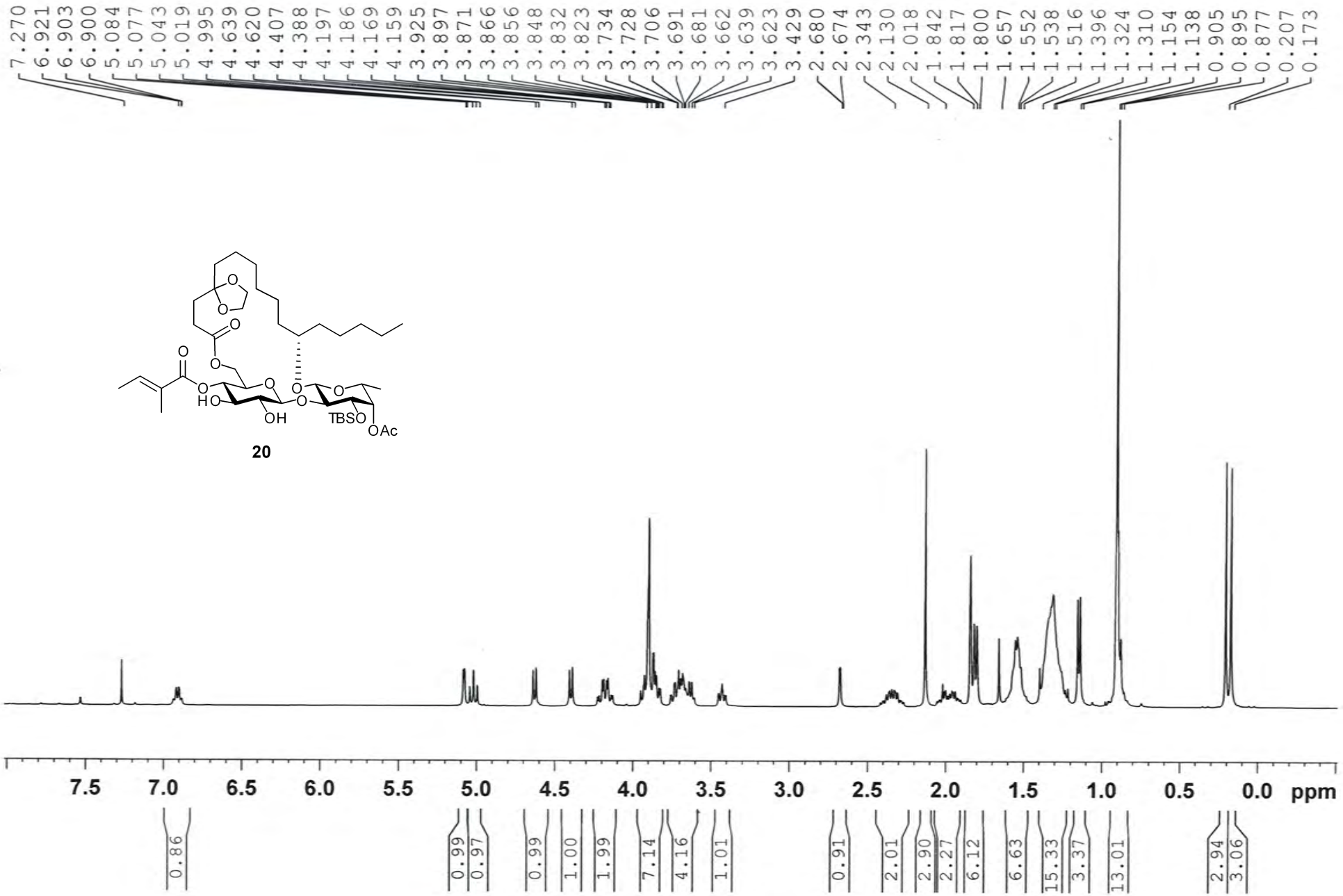
ZGH-Ipom-2-140-B-150209 HSQC



NAME	ZGH-Ipom-2-140-B-150209
EXPNO	4
PROCNO	1
Date_	20150210
Time	6.36
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hsqcetgpsi
TD	1024
SOLVENT	CDCl3
NS	8
DS	16
SWH	5341.880 Hz
FIDRES	5.216680 Hz
AQ	0.0958964 sec
RG	2050
DW	93.600 usec
DE	6.50 usec
TE	293.6 K
CNST2	145.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D4	0.00172414 sec
D11	0.03000000 sec
D13	0.00000400 sec
D16	0.00020000 sec
D24	0.00110000 sec
IN0	0.00003000 sec
ZGOPTNS	
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
P28	1000.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
======== CHANNEL f2 ========	
CPDPRG2	garp
NUC2	13C
P3	10.00 usec
P4	20.00 usec
PCPD2	75.00 usec
PL2	-2.10 dB
PL12	15.40 dB
PL2W	58.37759399 W
PL12W	1.03811681 W
SFO2	100.6202727 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPZ1	80.00 %
GPZ2	20.10 %
P16	1000.00 usec
ND0	2
TD	256
SFO1	100.6203 MHz
FIDRES	65.104164 Hz
SW	165.639 ppm
FnMODE	Echo-Antiecho
SI	1024
SF	400.1300000 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	echo-antiecho
SF	100.6127690 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0

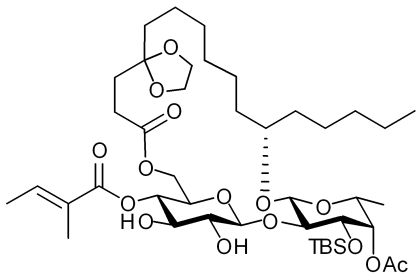
ZGH-Ipom-3-159-161101-A in CDCl3

20



ZGH-Ipom-3-159-161101-A 13C in CDCl3

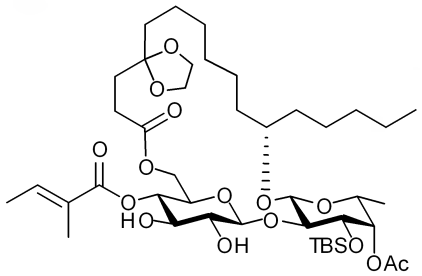
173.191
170.708
167.286
138.732
127.967
111.220
103.495
101.032
79.631
78.380
77.317
77.000
76.682
76.023
73.743
73.079
72.785
72.685
71.209
68.751
64.598
64.535
63.480
35.105
33.984
33.203
31.953
31.315
29.628
28.845
28.402
25.876
24.353
23.992
22.624
22.587
20.834
17.853
16.478
14.455



20

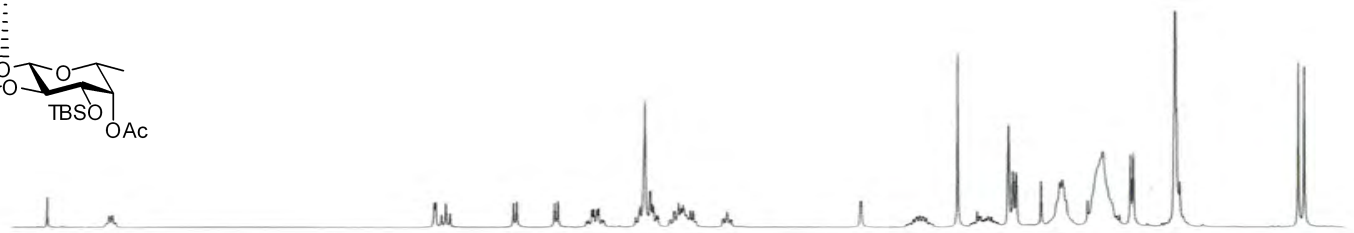
-4.336
-4.613
-4 ppm

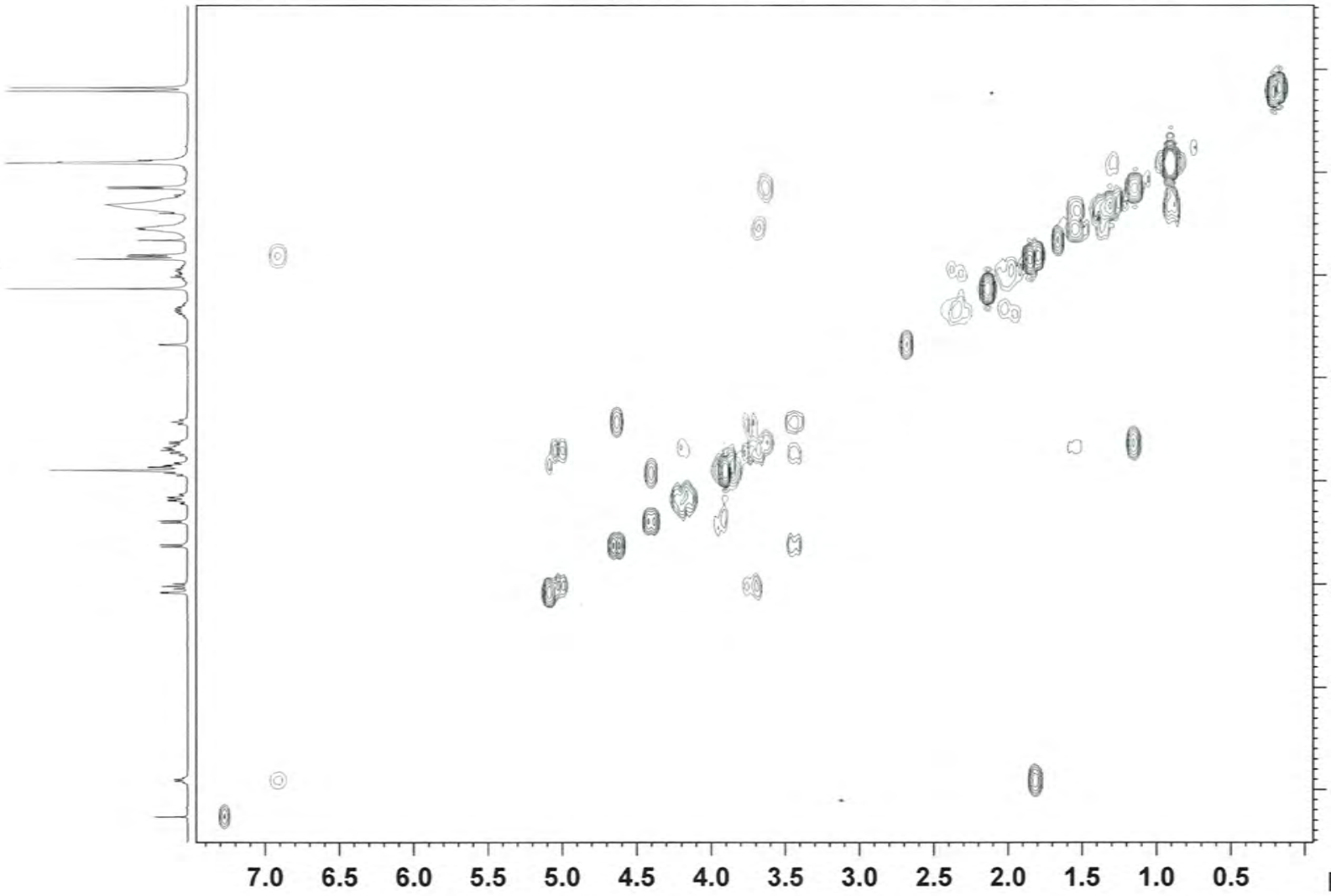
200 180 160 140 120 100 80 60 40 20 0 ppm



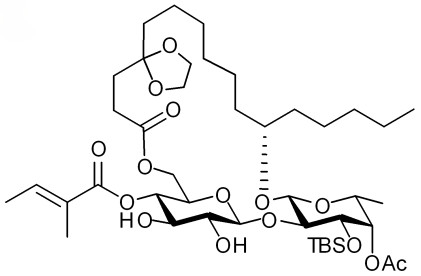
20

ZGH-Ipom-3-159-161101-A in CDCL3






```
Current Data Parameters
NAME      ZGH-Ipom-3-159-161101-A
EXPNO                           3
PROCNO                          1

F2 - Acquisition Parameters
Date_                    20161102
Time                         6.08
INSTRUM                     spect
PROBHD    5 mm PABBO BB-
PULPROG                 cosygpqf
TD                          2048
SOLVENT                    CDCl3
NS                            16
DS                             8
SWH                     8012.820 Hz
FIDRES                  3.912510 Hz
AQ                      0.1277952 sec
RG                            114
DW                         62.400 usec
DE                          6.50 usec
TE                         294.8 K
D0                   0.00000300 sec
D1                   1.50000000 sec
D13                  0.00000400 sec
D16                  0.00020000 sec
IN0                  0.00012480 sec

======== CHANNEL f1 ========
SFO1                400.1520008 MHz
NUC1                        1H
P0                         12.50 usec
P1                         12.50 usec
PLW1                20.00000000 W

====== GRADIENT CHANNEL =====
GPNAM[1]          SMSQ10.100
GPZ1                       10.00 %
P16                      1000.00 usec

F1 - Acquisition parameters
TD                           128
SFO1                    400.152 MHz
FIDRES                62.600159 Hz
SW                       20.024 ppm
FnMODE                        QF

F2 - Processing parameters
SI                           1024
SF                  400.1500070 MHz
WDW                        QSINE
SSB                 0
LB                  0 Hz
GB                  0
PC                          1.00

F1 - Processing parameters
SI                           1024
MC2                           QF
SF                  400.1500052 MHz
WDW                        QSINE
SSB                 0
LB                  0 Hz
GB                  0
```



20

ZGH-Ipom-3-159-161101-A HSQC in CDCl3

ppm

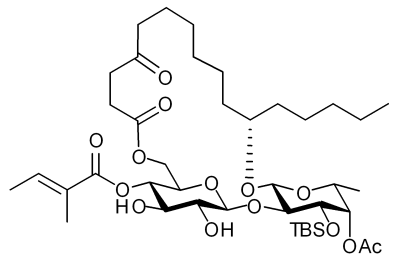
0
20
40
60
80
100
120
140

7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 1.0 0.5

ppm

```
Current Data Parameters
NAME          ZGH-Ipom-3-159-161101-A
EXPNO                               4
PROCNO                              1

F2 - Acquisition Parameters
Date_                        20161102
Time                             7.05
INSTRUM                         spect
PROBHD     5 mm PABBO BB-
PULPROG                  hsqcetgpsi
TD                               1024
SOLVENT                       CDCl3
NS                                16
DS                                16
SWH                         5197.505 Hz
FIDRES                      5.075689 Hz
AQ                          0.0985088 sec
RG                               2050
DW                             96.200 usec
DE                              6.50 usec
TE                             294.6 K
CNST2                     145.0900000
D0                        0.00000300 sec
D1                        1.50000000 sec
D4                        0.00172414 sec
D11                       0.03000000 sec
D16                       0.00020000 sec
D24                       0.00110000 sec
IN0                       0.00003000 sec
DGOPTNS

======== CHANNEL f1 ========
SFO1                  400.1524058 MHz
NUC1                             1H
P1                             12.50 usec
P2                             25.00 usec
P28                          1000.00 usec
PLW1                  20.00000000 W

======== CHANNEL f2 ========
SFO2                  100.6253021 MHz
NUC2                             13C
CPDPRG[2                      garp
P3                             10.00 usec
P4                             20.00 usec
PCPD2                          80.00 usec
PLW2                  65.00000000 W
PLW12                  1.01559997 W

====== GRADIENT CHANNEL =====
GPNAM[1]              SMSQ10.100
GPNAM[2]              SMSQ10.100
GPZ1                          80.00 %
GPZ2                          20.10 %
P16                          1000.00 usec

F1 - Acquisition parameters
TD                               128
SFO1                      100.6253 MHz
FIDRES                130.208328 Hz
SW                        165.631 ppm
FnMODE          Echo-Antiecho

F2 - Processing parameters
SI                               1024
SF                    400.1500000 MHz
WDW                           QSINE
SSB                               2
LB                 0 Hz
GB                 0
PC                            1.40

F1 - Processing parameters
SI                               1024
MC2                echo-antiecho
SF                    100.6177975 MHz
WDW                           QSINE
SSB                               2
LB                 0 Hz
GB                 0
```

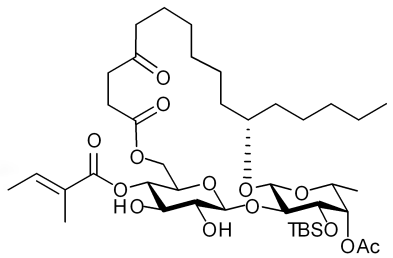
ZGH-Ipom-3-179-170111-A(2) in CDCl3



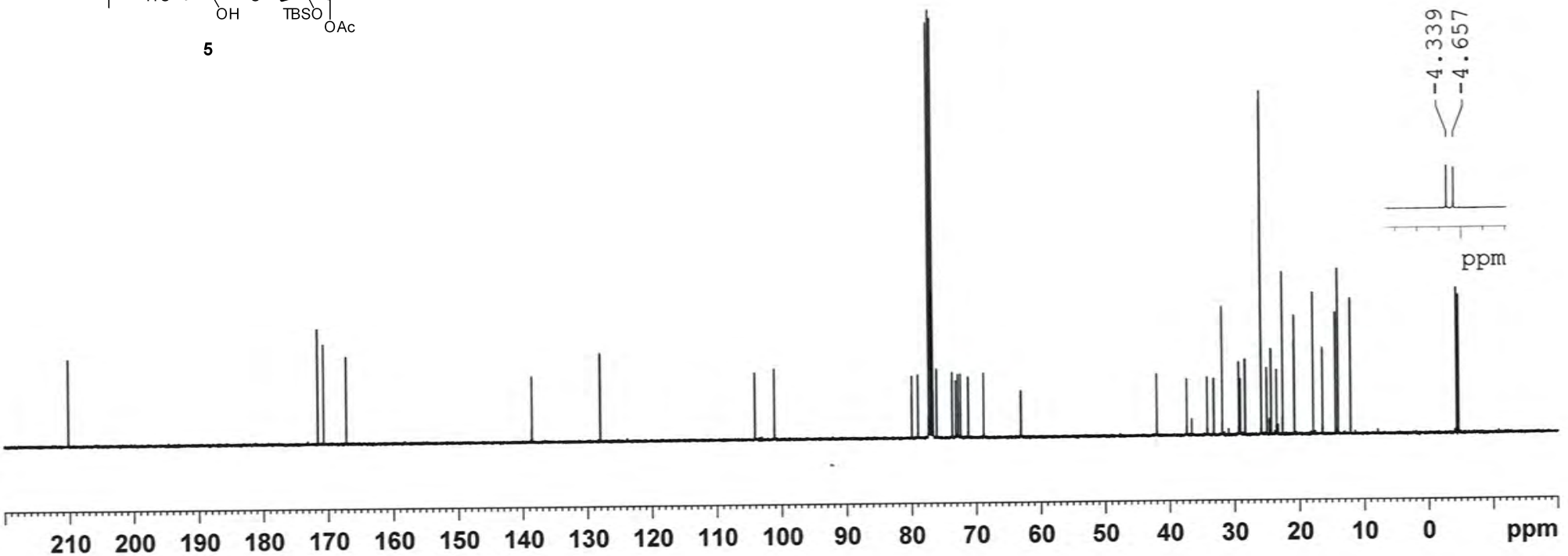
5

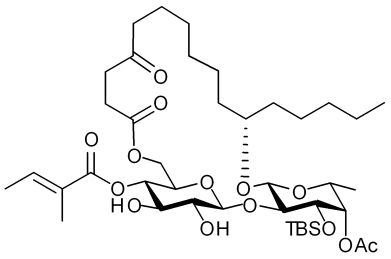
ZGH-Ipom-3-179-170111-A(2) 13C in CDCl3

210.221
171.617
170.690
167.221
138.594
128.048
104.116
101.114
79.943
78.990
77.318
77.000
76.683
76.083
73.672
73.118
72.789
72.391
71.213
68.819
63.079
41.990
37.377
34.200
33.219
31.923
29.358
29.114
28.380
25.894
25.045
24.385
23.554
22.633
20.821
17.900
16.467
14.446
14.056
12.128



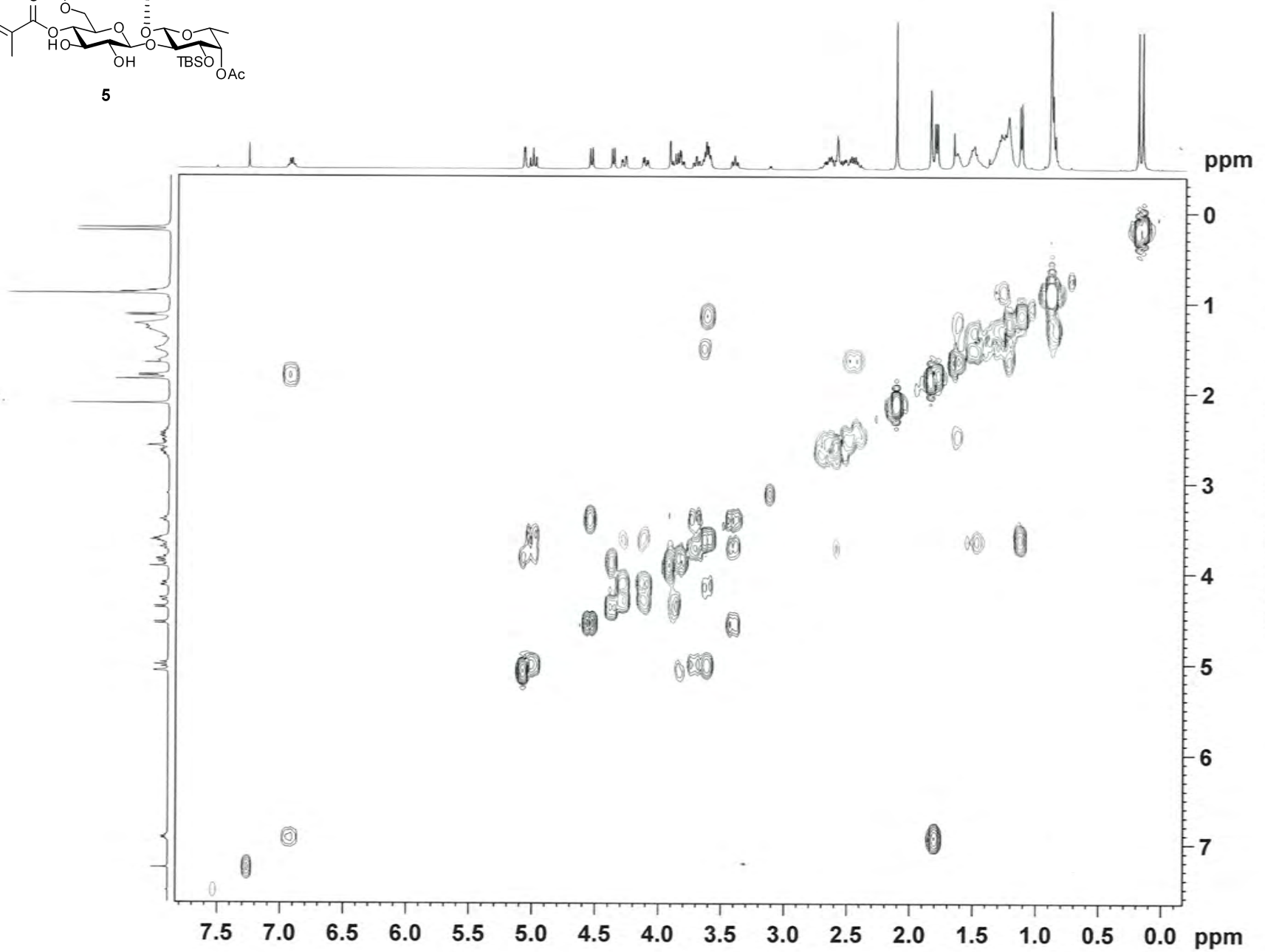
5

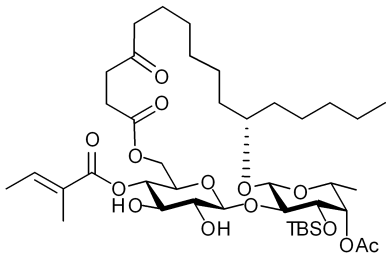




5

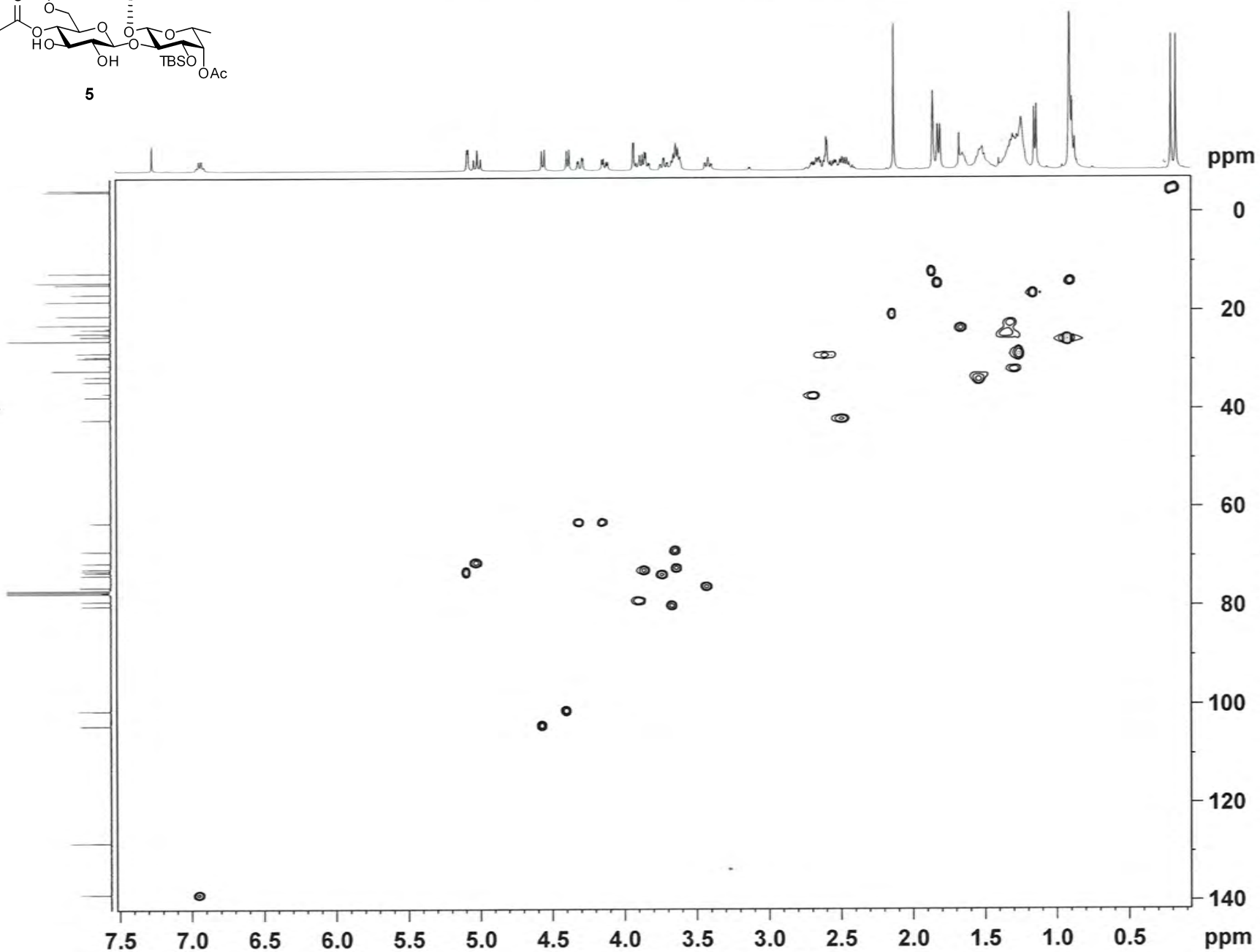
ZGH-Ipom-3-179-170111-A(2) in CDCL3





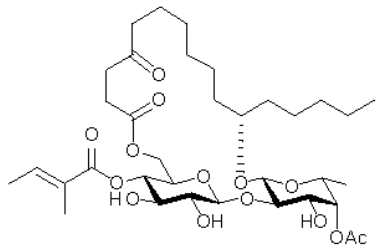
5

ZGH-Ipom-3-179-170111-A(2) HSQC in CDCl3

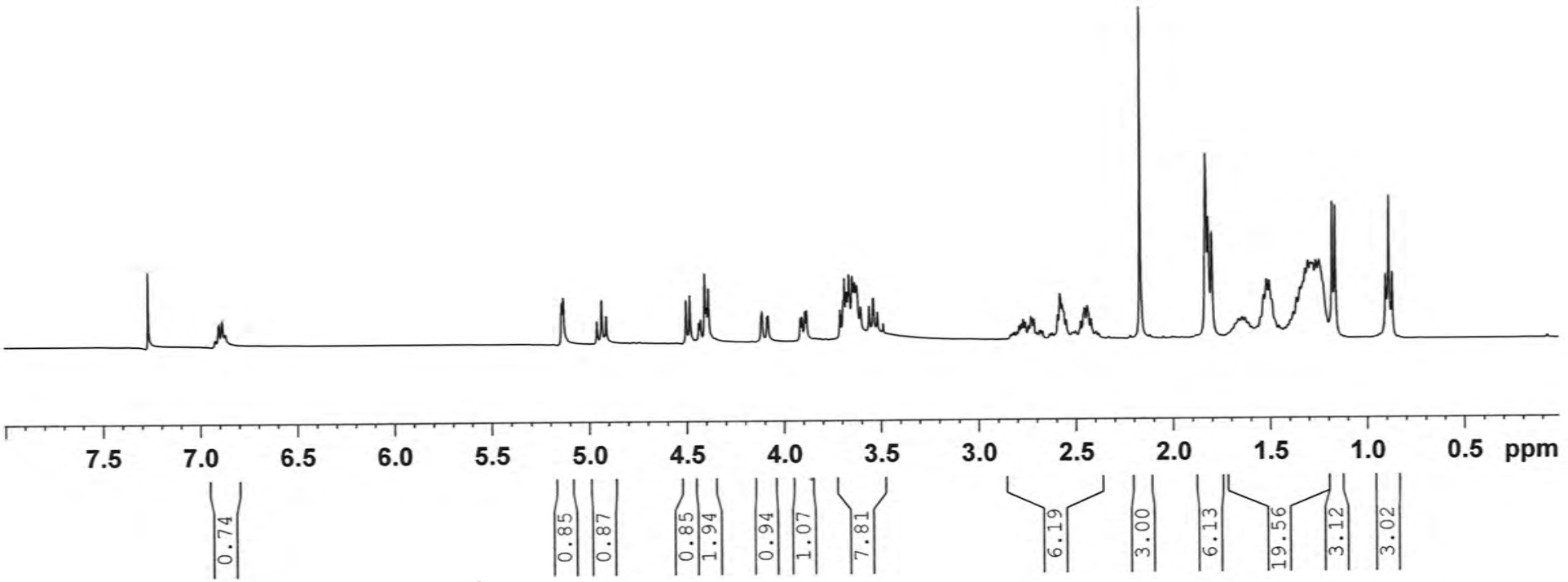


ZGH-Ipom-3-179-170111-B in CDCl3

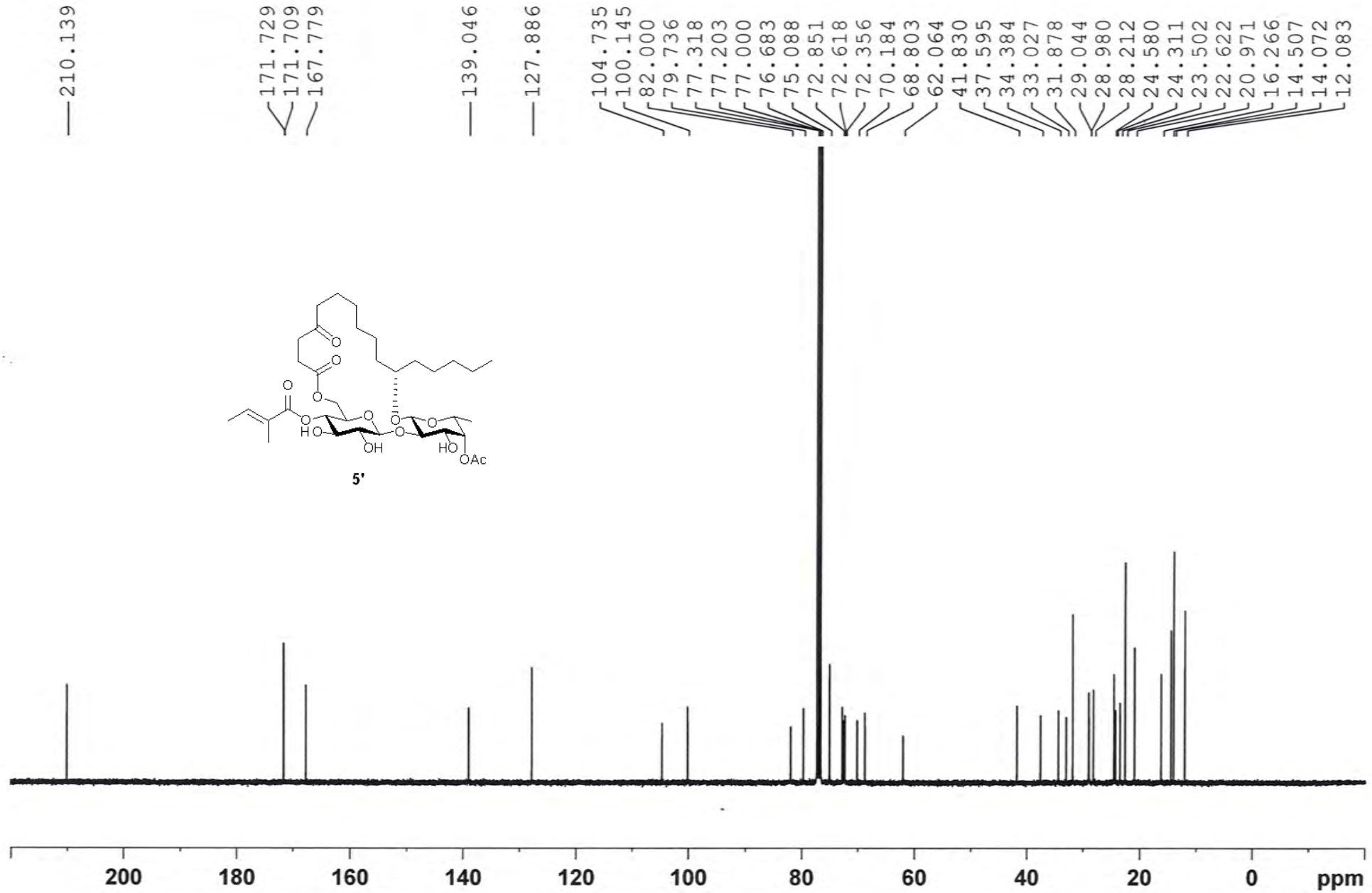
7.270 6.887 5.142 5.134 4.937 4.913 4.504 4.484 4.408 4.399 4.389 4.114 4.087 4.083 3.917 3.908 3.893 3.884 3.711 3.688 3.677 3.665 3.647 3.635 3.623 3.604 3.561 3.540 3.518 2.731 2.593 2.582 2.571 2.455 2.441 2.169 1.833 1.819 1.801 1.533 1.519 1.505 1.381 1.363 1.345 1.318 1.302 1.287 1.278 1.264 1.246 1.180 1.164 0.905 0.889 0.871



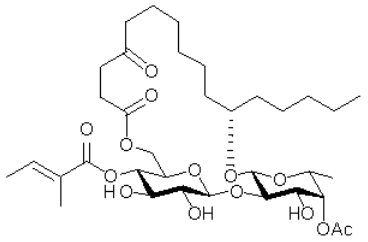
5'



ZGH-Ipom-3-179-170111-B 13C in CDCl3

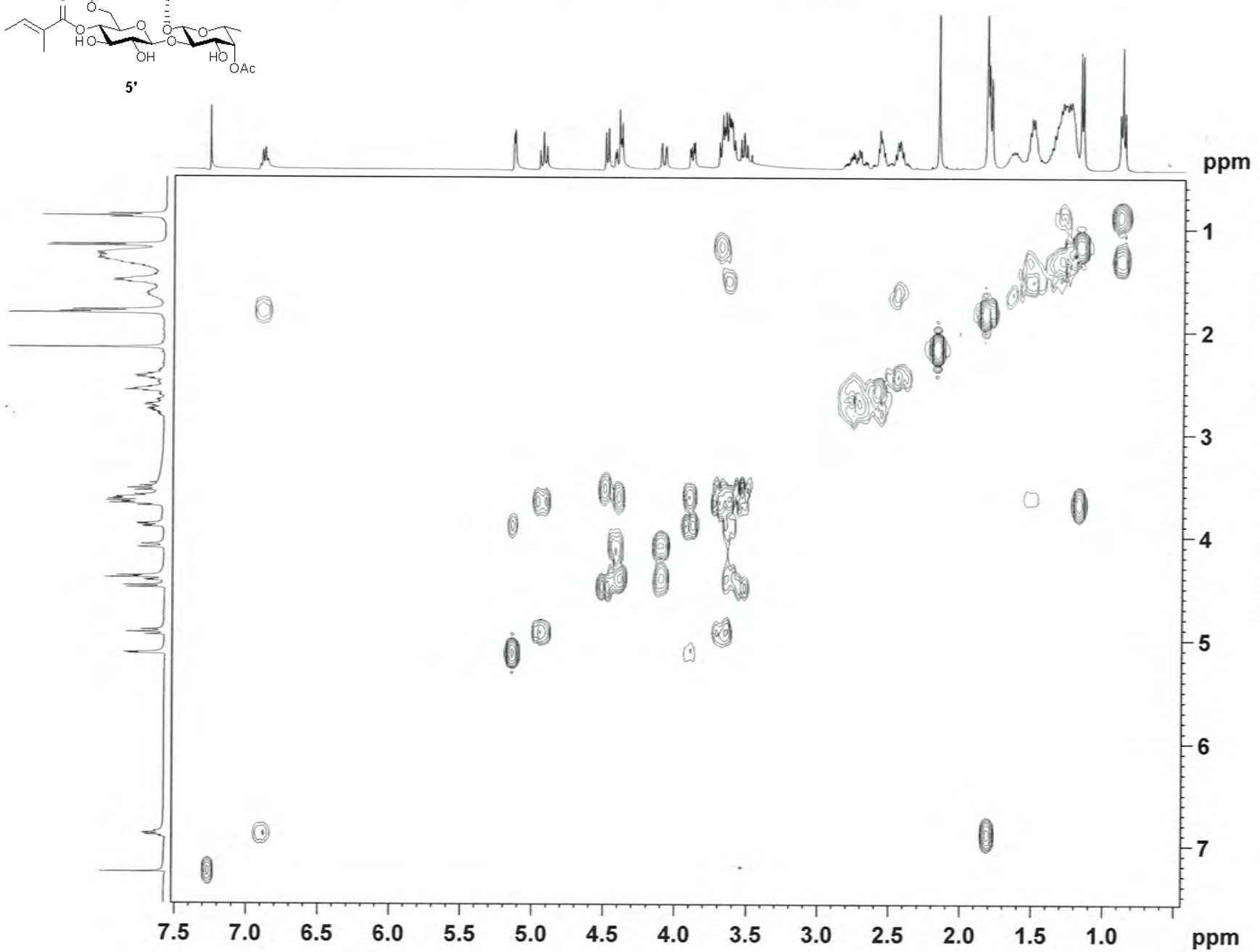


5'



5'

ZGH-Ipom-3-179-170111-B in CDCL3



Current Data Parameters
NAME ZGH-Ipom-3-179-170111-B
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20170127
Time 6.21
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG cosygpqf
TD 2048
SOLVENT CDCl3
NS 24
DS 16
SWH 8012.820 Hz
FIDRES 3.912510 Hz
AQ 0.1277952 sec
RG 203
DW 62.400 usec
DE 6.50 usec
TE 295.1 K
D0 0.00000300 sec
D1 1.50000000 sec
D13 0.00000400 sec
D16 0.00020000 sec
IN0 0.00012480 sec

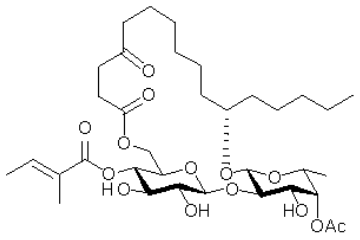
======== CHANNEL f1 ========
SFO1 400.1520008 MHz
NUC1 1H
P0 12.50 usec
P1 12.50 usec
PLW1 20.00000000 W

====== GRADIENT CHANNEL =====
GPNAM[1] SMDQ10.100
GPZ1 10.00 %
P16 1000.00 usec

F1 - Acquisition parameters
TD 128
SFO1 400.152 MHz
FIDRES 62.600159 Hz
SW 20.024 ppm
FnMODE QF

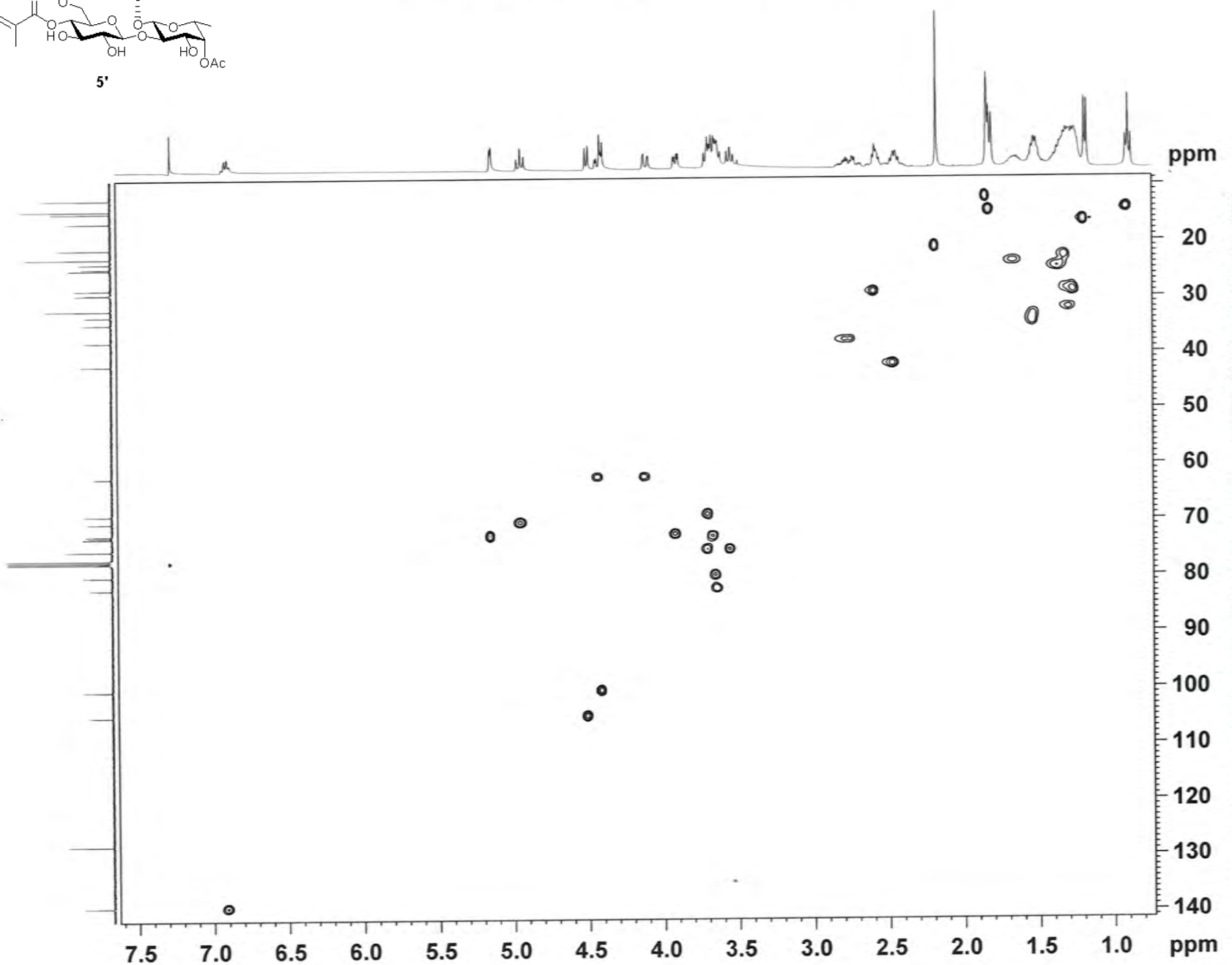
F2 - Processing parameters
SI 1024
SF 400.1500070 MHz
WDW QSINE
SSB 0
LB 0 Hz
GB 0
PC 1.00

F1 - Processing parameters
SI 1024
MC2 QF
SF 400.1500052 MHz
WDW QSINE
SSB 0
LB 0 Hz
GB 0



5'

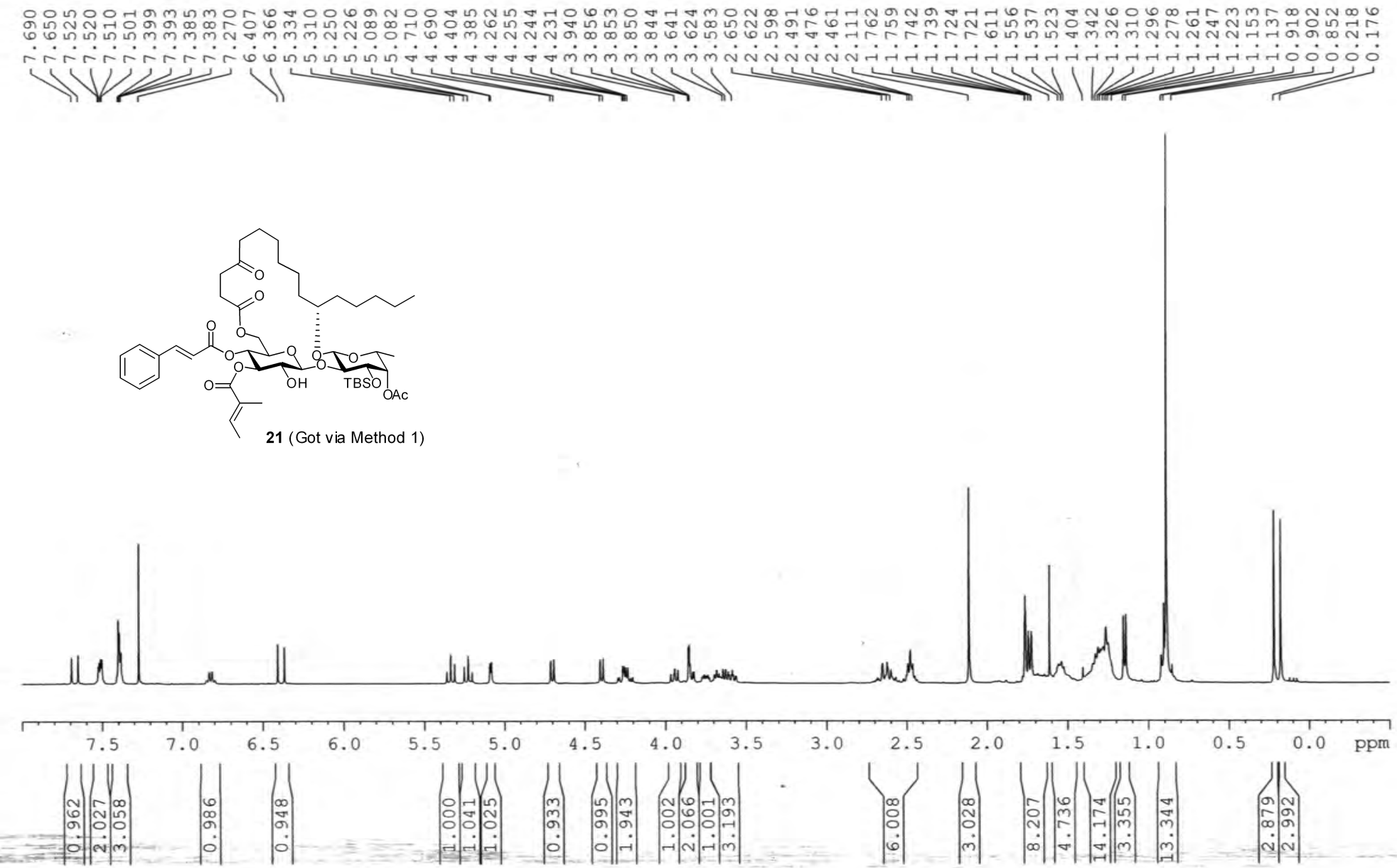
ZGH-Ipom-3-179-170111-B HSQC in CDCl3




```
Current Data Parameters
NAME       ZGH-Ipom-3-179-170111-B
EXPNO                   4
PROCNO                  1

F2 - Acquisition Parameters
Date_           20170127
Time               7.45
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG       hsqcetgpsi
TD                 1024
SOLVENT            CDCl3
NS                   10
DS                   16
SWH             5197.505 Hz
FIDRES          5.075689 Hz
AQ              0.0985088 sec
RG                 2050
DW                96.200 usec
DE                 6.50 usec
TE                294.5 K
CNST2          145.0000000
D0              0.00000300 sec
D1              1.50000000 sec
D4              0.00172414 sec
D11             0.03000000 sec
D16             0.00020000 sec
D24             0.00110000 sec
IN0             0.00003000 sec
ZGOPTNS

======== CHANNEL f1 ========
SFO1          400.1524058 MHz
NUC1                  1H
P1                 12.50 usec
P2                 25.00 usec
P28              1000.00 usec
PLW1          20.00000000 W

======== CHANNEL f2 ========
SFO2          100.6253021 MHz
NUC2                 13C
CPDPRG[2             garp
P3                 10.00 usec
P4                 20.00 usec
PCPD2              80.00 usec
PLW2          65.00000000 W
PLW12          1.01559997 W

====== GRADIENT CHANNEL =====
GPNAM[1]       SMSQ10.100
GPNAM[2]       SMSQ10.100
GPZ1               80.00 %
GPZ2               20.10 %
P16              1000.00 usec

F1 - Acquisition parameters
TD                  128
SFO1            100.6253 MHz
FIDRES        130.208328 Hz
SW              165.631 ppm
FnMODE     Echo-Antiecho

F2 - Processing parameters
SI                 1024
SF            400.1500000 MHz
WDW                QSINE
SSB                   2
LB         0 Hz
GB         0
PC                 1.40

F1 - Processing parameters
SI                 1024
MC2         echo-antiecho
SF            100.6177975 MHz
WDW                QSINE
SSB                   2
LB         0 Hz
GB         0
```

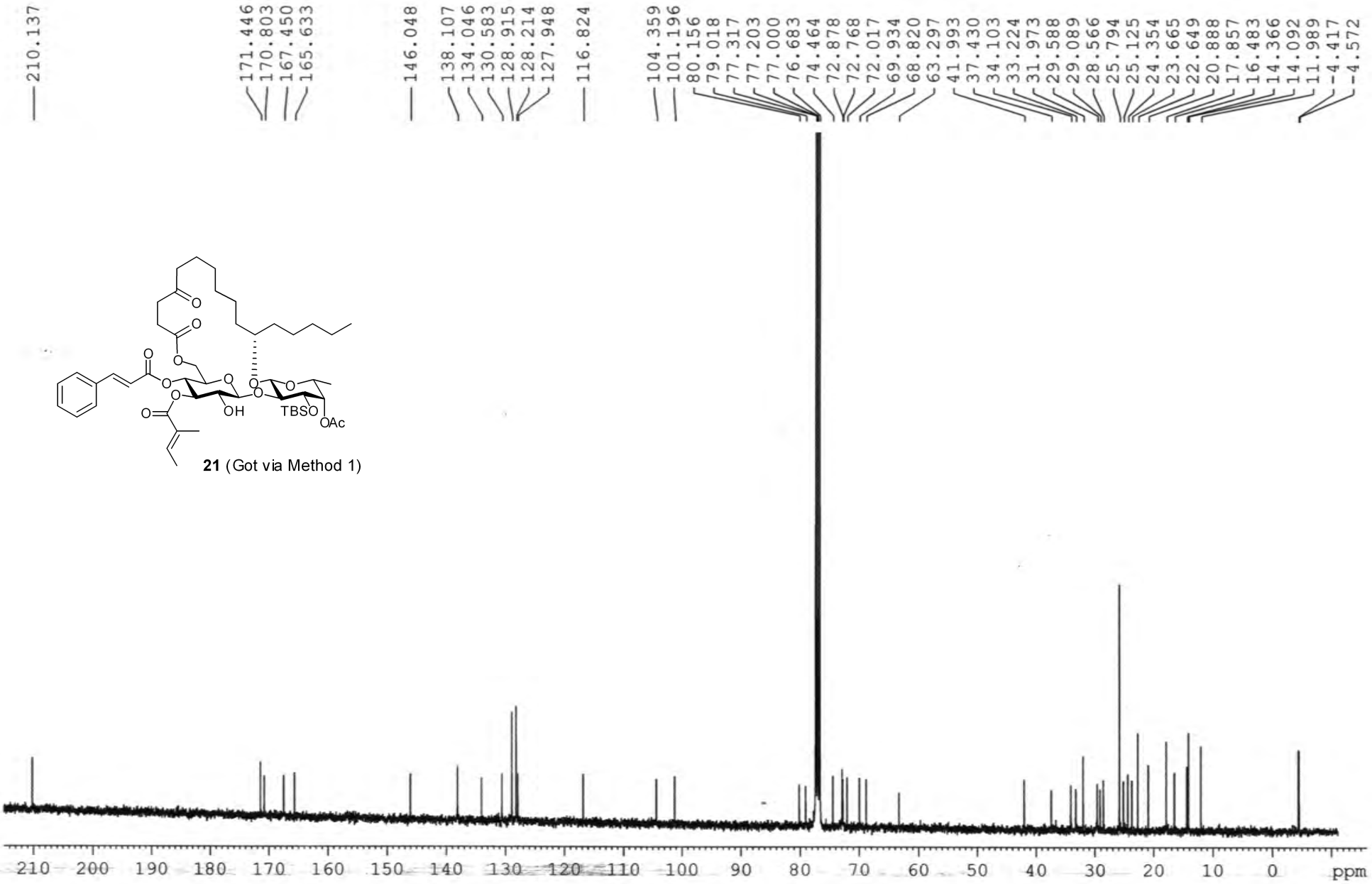
ZGH-Ipom-2-143-A-150423 1H in CDCL3

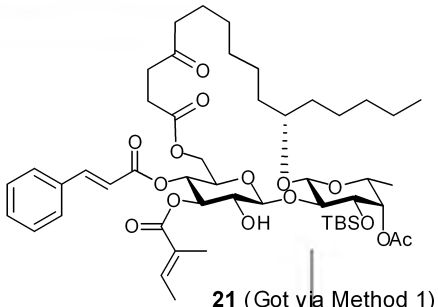
21 (Got via Method 1)



ZGH-Ipom-2-143-A-150423 13C in CDCl3

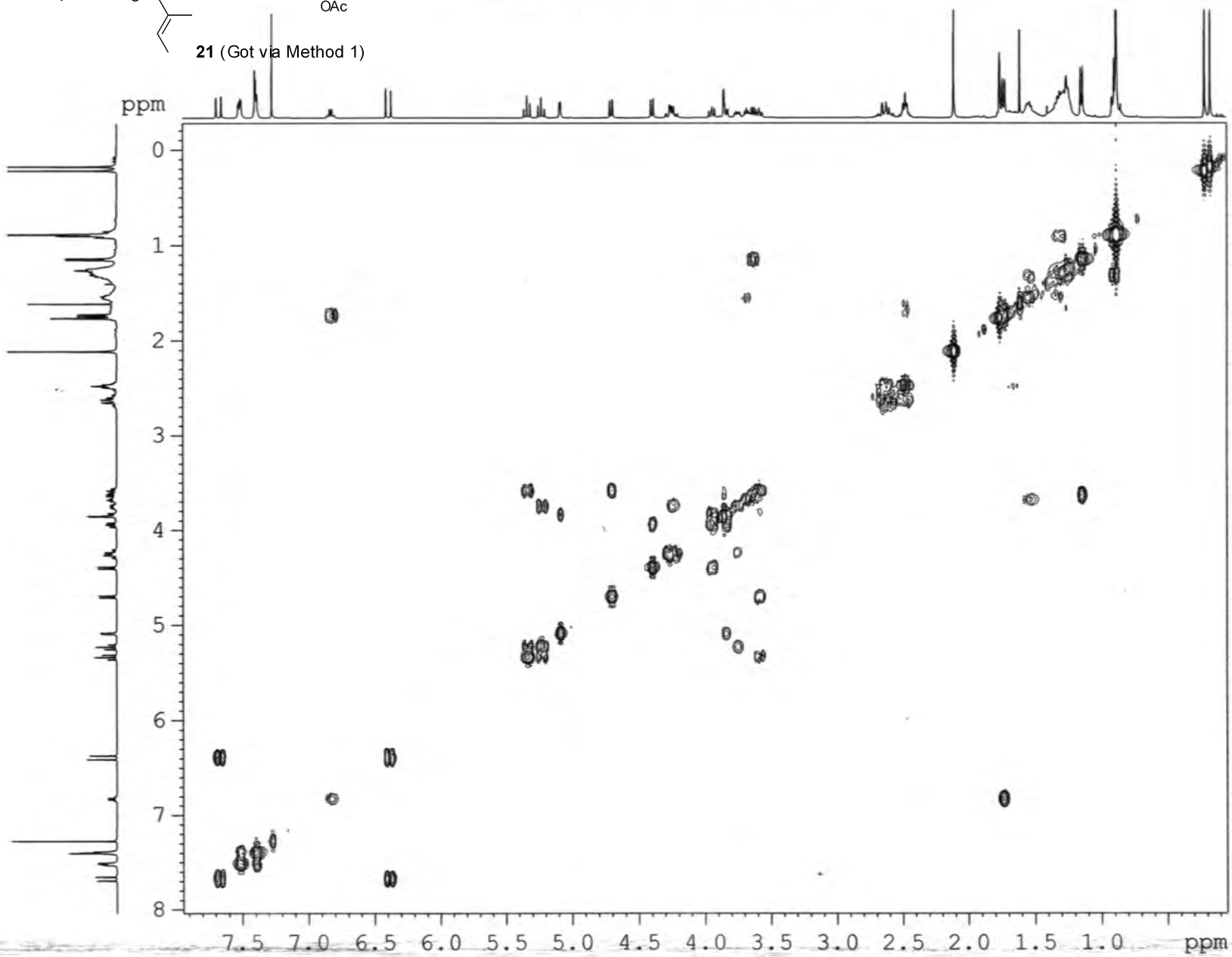
21 (Got via Method 1)



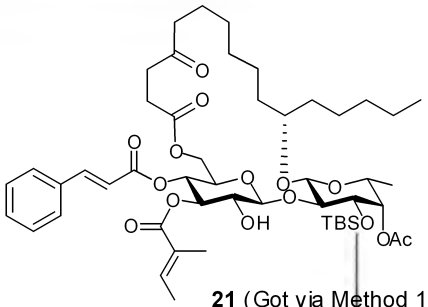


21 (Got via Method 1)

ZGH-Ipom-2-143-A-150423 COSY

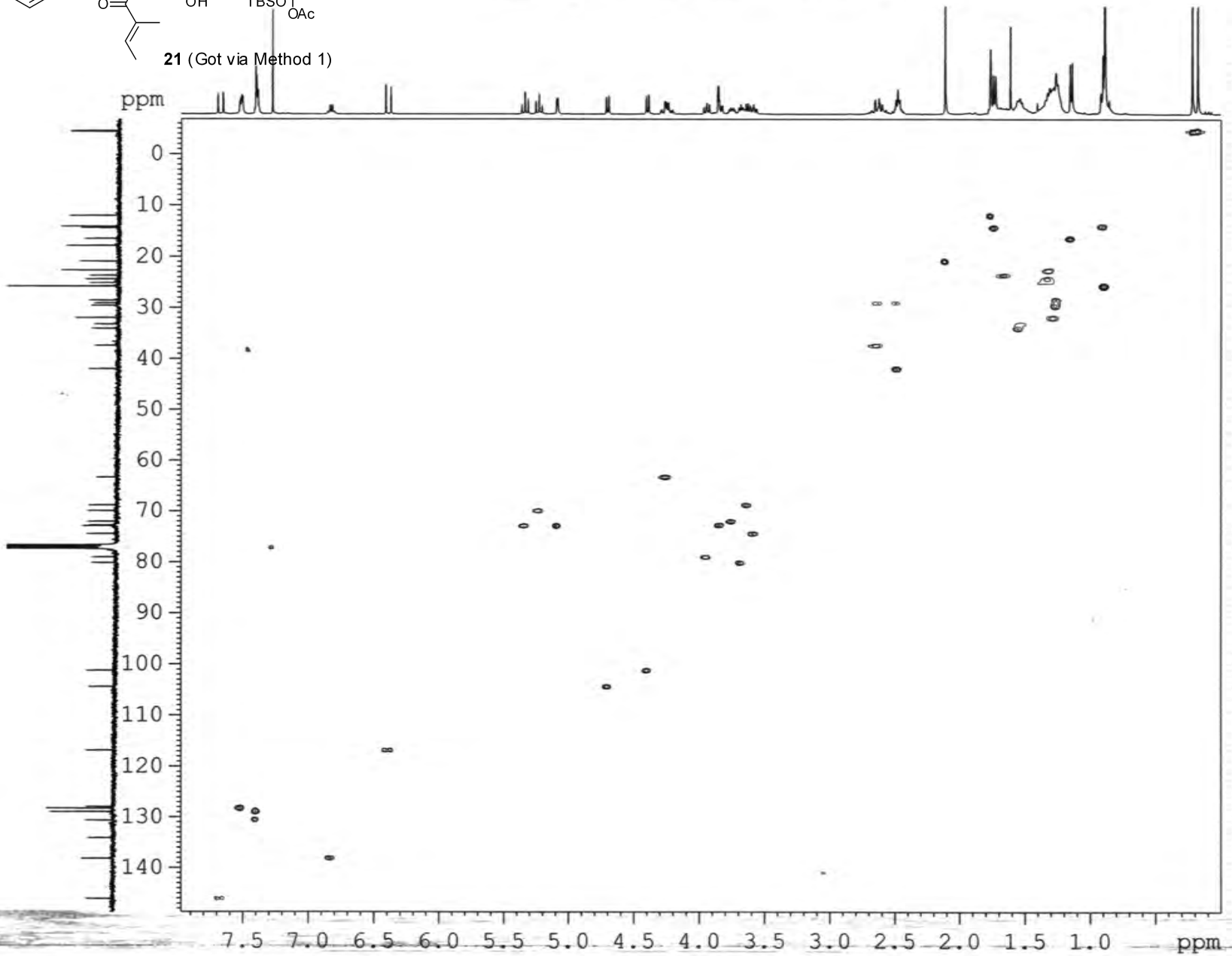


NAME	ZGH-Ipom-2-143-A-150423
EXPNO	2
PROCNO	1
Date_	20150429
Time	22.20
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	cosygpqf
TD	2048
SOLVENT	CDCl3
NS	8
DS	8
SWH	5341.880 Hz
FIDRES	2.608340 Hz
AQ	0.1917428 sec
RG	203
DW	93.600 usec
DE	6.50 usec
TE	292.2 K
D0	0.00000300 sec
D1	1.48689198 sec
D13	0.00000400 sec
D16	0.00020000 sec
IN0	0.00018720 sec
======== CHANNEL f1 ========	
NUC1	1H
P0	10.00 usec
P1	10.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPZ1	10.00 %
P16	1000.00 usec
ND0	1
TD	128
SFO1	400.1324 MHz
FIDRES	41.733440 Hz
SW	13.350 ppm
FnMODE	QF
SI	1024
SF	400.1300040 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	QF
SF	400.1300033 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0

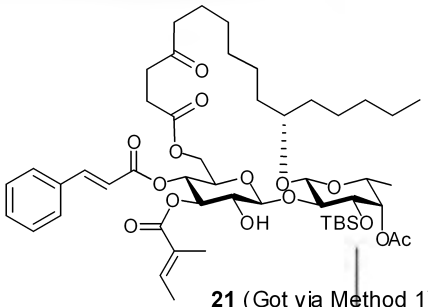


21 (Got via Method 1)

ZGH-Ipom-2-143-A-150423 HSQC

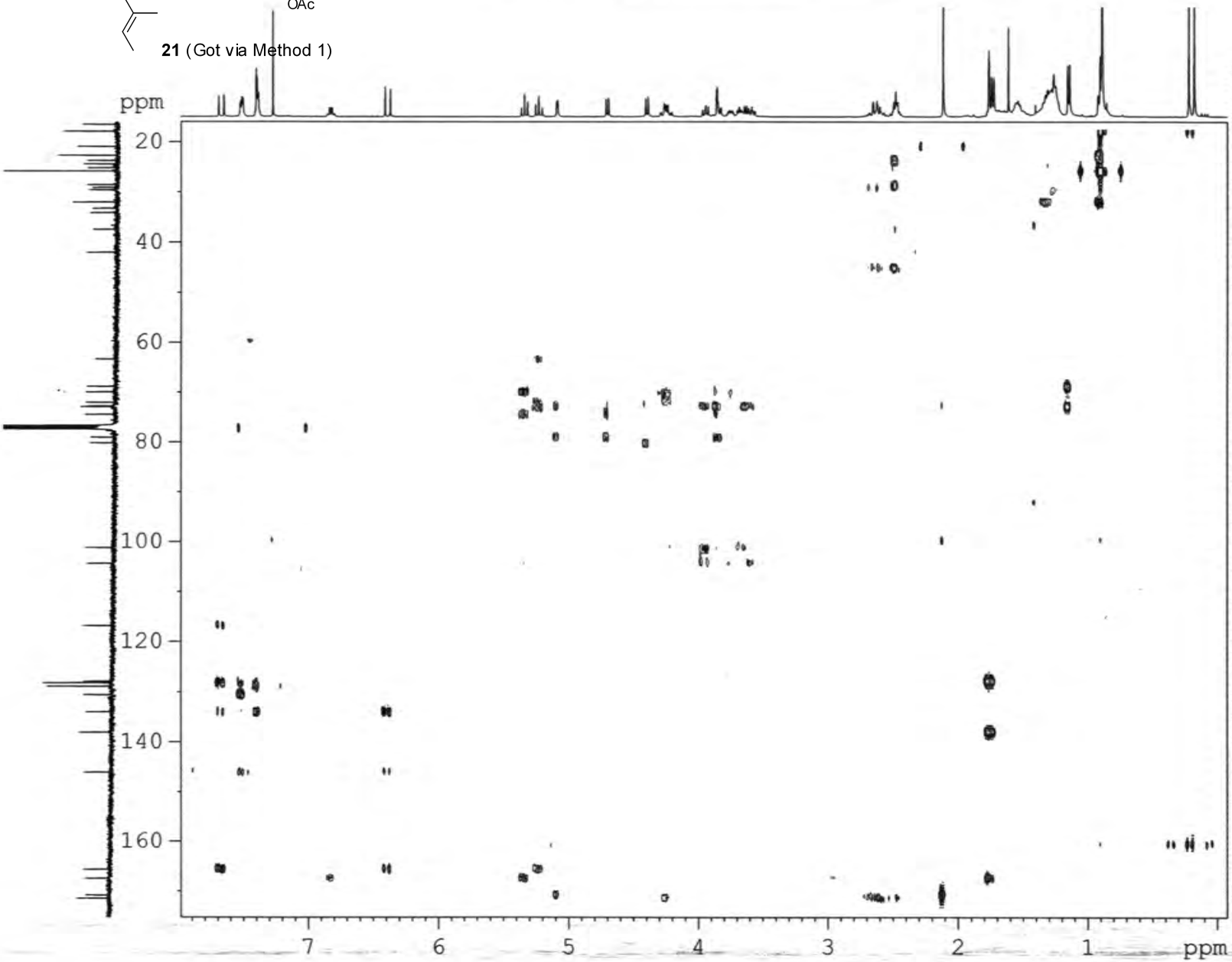


NAME	ZGH-Ipom-2-143-A-150423
EXPNO	4
PROCNO	1
Date_	20150430
Time	3.16
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hsqcetgpsi
TD	1024
SOLVENT	CDCl3
NS	8
DS	16
SWH	5341.880 Hz
FIDRES	5.216680 Hz
AQ	0.0958964 sec
RG	2050
DW	93.600 usec
DE	6.50 usec
TE	292.8 K
CNST2	145.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D4	0.00172414 sec
D11	0.03000000 sec
D13	0.00000400 sec
D16	0.00020000 sec
D24	0.00110000 sec
IN0	0.00003000 sec
ZGOPTNS	
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
P28	1000.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
======== CHANNEL f2 ========	
CPDPRG2	garp
NUC2	13C
P3	10.00 usec
P4	20.00 usec
PCPD2	75.00 usec
PL2	-2.10 dB
PL12	15.40 dB
PL2W	58.37759399 W
PL12W	1.03811681 W
SFO2	100.6202727 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPZ1	80.00 %
GPZ2	20.10 %
P16	1000.00 usec
ND0	2
TD	256
SFO1	100.6203 MHz
FIDRES	65.104164 Hz
SW	165.639 ppm
FnMODE	Echo-Antiecho
SI	1024
SF	400.1300000 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	echo-antiecho
SF	100.6127690 MHz
WDW	QSINE
SSB	2
LB	0.00 Hz
GB	0

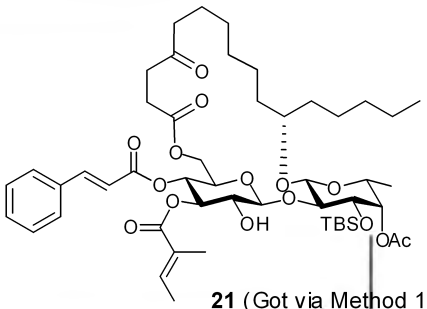


21 (Got via Method 1)

ZGH-Ipom-2-143-A-150423 HMBC in CDCL3

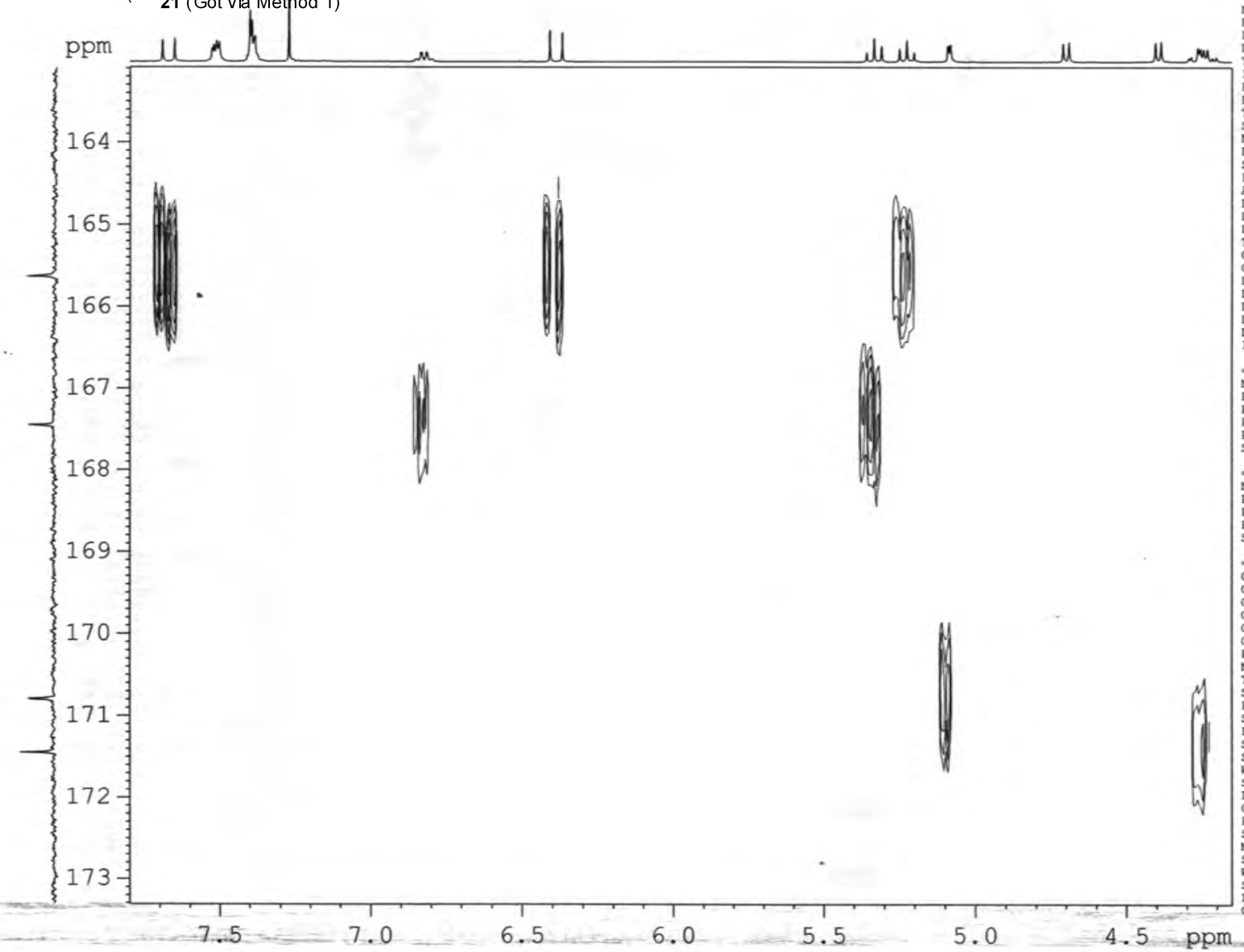


NAME	ZGH-Ipom-2-143-A-150423
EXPNO	5
PROCNO	1
Date_	20150430
Time	4.13
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hmbcgplpndqf
TD	4096
SOLVENT	CDC13
NS	35
DS	16
SWH	5208.333 Hz
FIDRES	1.271566 Hz
AQ	0.3932660 sec
RG	2050
DW	96.000 usec
DE	6.50 usec
TE	292.3 K
CNST2	145.0000000
CNST13	10.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D2	0.00344828 sec
D6	0.05000000 sec
D16	0.00020000 sec
IN0	0.00003010 sec
========	CHANNEL f1 ========
NUC1	1H
P1	10.00 usec
P2	20.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1325208 MHz
========	CHANNEL f2 ========
NUC2	13C
P3	10.00 usec
PL2	-2.10 dB
PL2W	58.37759399 W
SFO2	100.6228138 MHz
======	GRADIENT CHANNEL =====
GPNAM1	SINE.100
GPNAM2	SINE.100
GPNAM3	SINE.100
GPZ1	50.00 %
GPZ2	30.00 %
GPZ3	40.10 %
P16	1000.00 usec
ND0	2
TD	128
SFO1	100.6228 MHz
FIDRES	129.709091 Hz
SW	165.000 ppm
FnMODE	QF
SI	2048
SF	400.1300000 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	4.00
SI	1024
MC2	QF
SF	100.6127690 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0

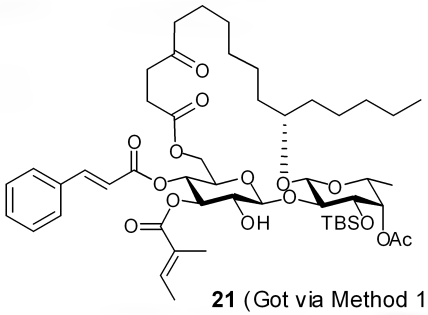


21 (Got via Method 1)

ZGH-Ipom-2-143-A-150423 HMBC in CDCL3

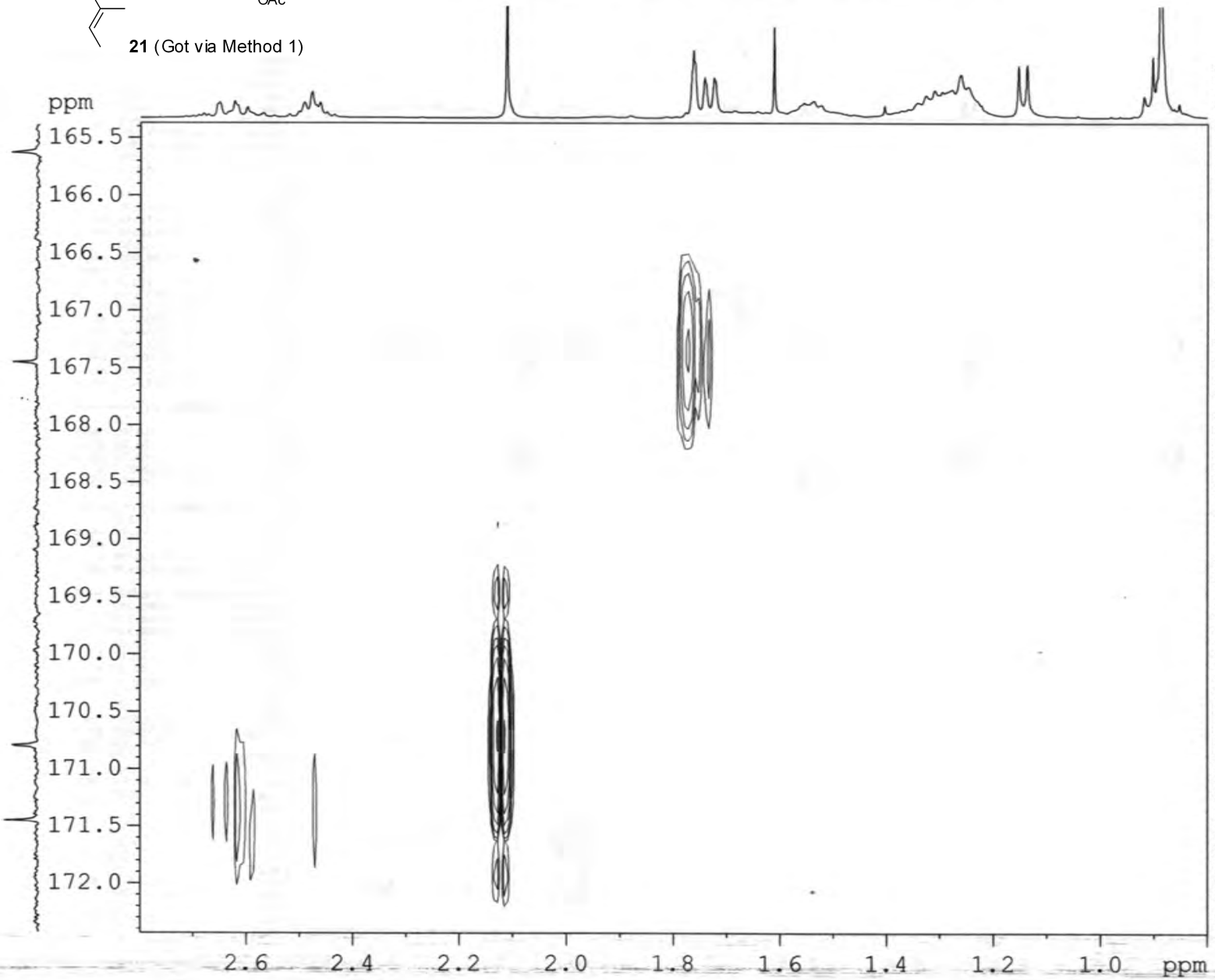


NAME	ZGH-Ipom-2-143-A-150423
EXPNO	5
PROCNO	1
Date_	20150430
Time	4.13
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hmbcgplpndqf
TD	4096
SOLVENT	CDC13
NS	35
DS	16
SWH	5208.333 Hz
FIDRES	1.271566 Hz
AQ	0.3932660 sec
RG	2050
DW	96.000 usec
DE	6.50 usec
TE	292.3 K
CNST2	145.0000000
CNST13	10.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D2	0.00344828 sec
D6	0.05000000 sec
D16	0.00020000 sec
IN0	0.00003010 sec
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1325208 MHz
======== CHANNEL f2 ========	
NUC2	13C
P3	10.00 usec
PL2	-2.10 dB
PL2W	58.37759399 W
SFO2	100.6228138 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPNAM3	SINE.100
GPZ1	50.00 %
GPZ2	30.00 %
GPZ3	40.10 %
P16	1000.00 usec
ND0	2
TD	128
SFO1	100.6228 MHz
FIDRES	129.709091 Hz
SW	165.000 ppm
FnMODE	QF
SI	2048
SF	400.1300000 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	4.00
SI	1024
MC2	QF
SF	100.6127690 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0



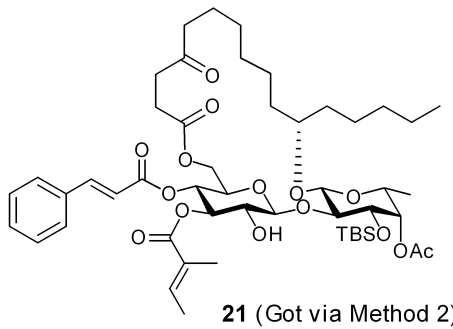
21 (Got via Method 1)

ZGH-Ipom-2-143-A-150423 HMBC in CDCL3



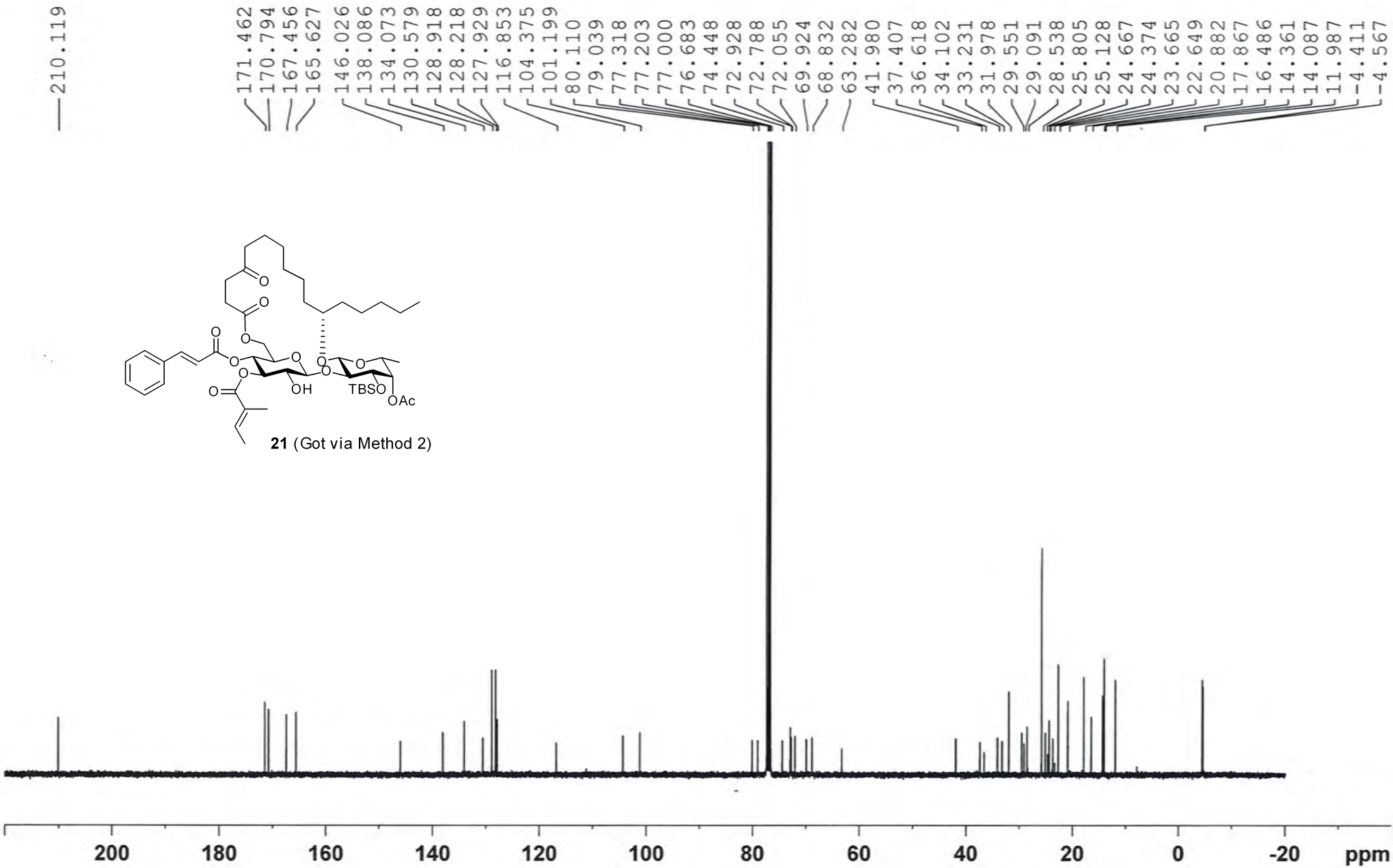
NAME	ZGH-Ipom-2-143-A-150423
EXPNO	5
PROCNO	1
Date_	20150430
Time	4.13
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	hmbcgplpndqf
TD	4096
SOLVENT	CDCl3
NS	35
DS	16
SWH	5208.333 Hz
FIDRES	1.271566 Hz
AQ	0.3932660 sec
RG	2050
DW	96.000 usec
DE	6.50 usec
TE	292.3 K
CNST2	145.0000000
CNST13	10.0000000
D0	0.00000300 sec
D1	1.50000000 sec
D2	0.00344828 sec
D6	0.05000000 sec
D16	0.00020000 sec
IN0	0.00003010 sec
======== CHANNEL f1 ========	
NUC1	1H
P1	10.00 usec
P2	20.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1325208 MHz
======== CHANNEL f2 ========	
NUC2	13C
P3	10.00 usec
PL2	-2.10 dB
PL2W	58.37759399 W
SFO2	100.6228138 MHz
====== GRADIENT CHANNEL =====	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPNAM3	SINE.100
GPZ1	50.00 %
GPZ2	30.00 %
GPZ3	40.10 %
P16	1000.00 usec
ND0	2
TD	128
SFO1	100.6228 MHz
FIDRES	129.709091 Hz
SW	165.000 ppm
FnMODE	QF
SI	2048
SF	400.1300000 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	4.00
SI	1024
MC2	QF
SF	100.6127690 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0

ZGH-Ipom-3-192-170205-A in CDCl3

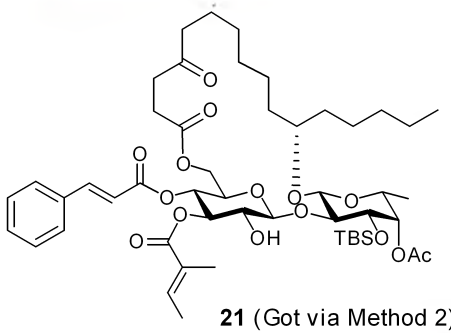


21 (Got via Method 2)

ZGH-Ipom-3-192-170205-A 13C in CDCl3

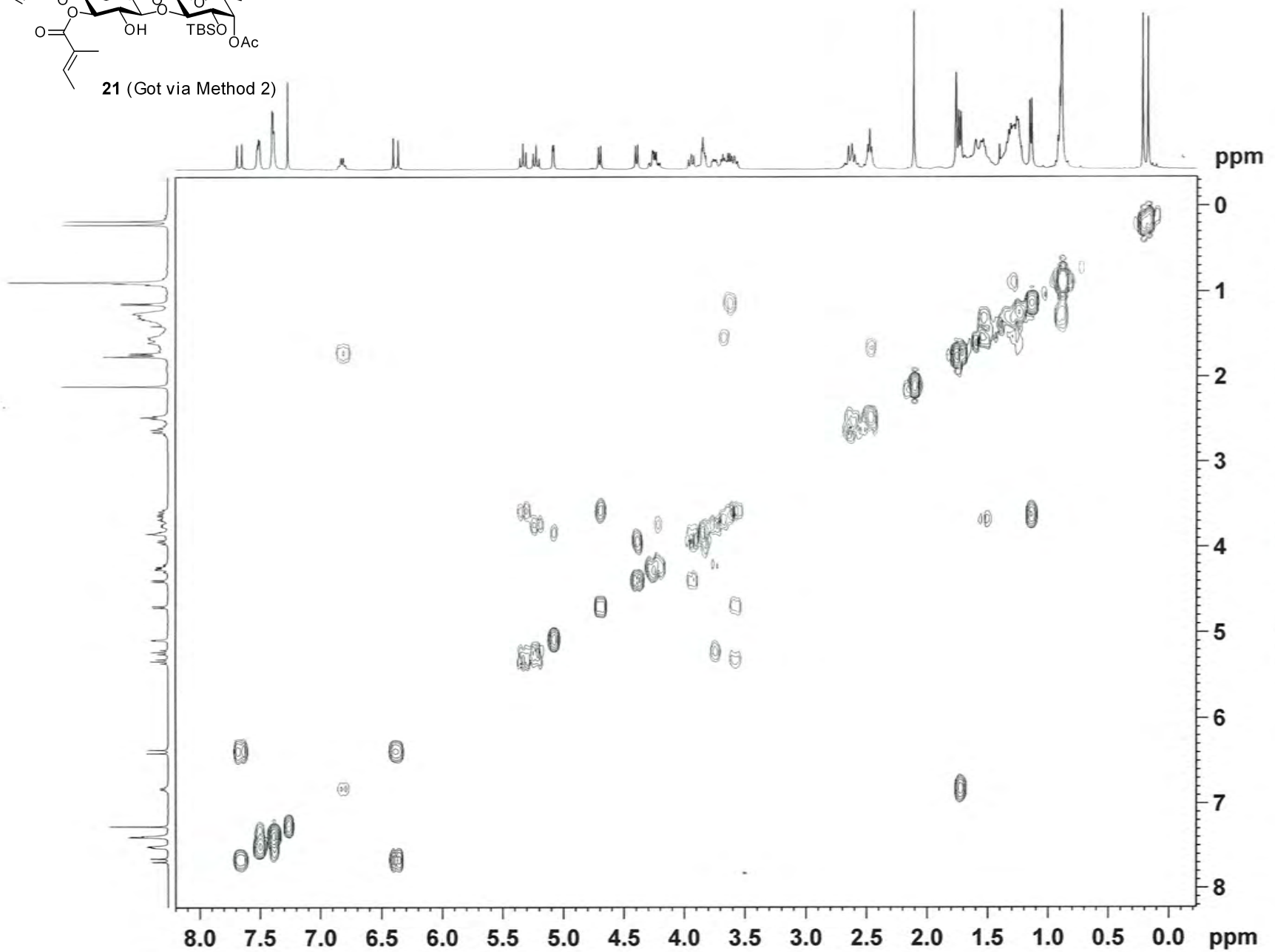


21 (Got via Method 2)



21 (Got via Method 2)

ZGH-Ipom-3-192-170205-A in CDCL3



Current Data Parameters
NAME ZGH-Ipom-3-192-170205-A
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20170206
Time 7.02
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG cosygpqf
TD 2048
SOLVENT CDCl3
NS 24
DS 8
SWH 8012.820 Hz
FIDRES 3.912510 Hz
AQ 0.1277952 sec
RG 406
DW 62.400 usec
DE 6.50 usec
TE 294.8 K
D0 0.00000300 sec
D1 1.50000000 sec
D13 0.00000400 sec
D16 0.00020000 sec
IN0 0.00012480 sec

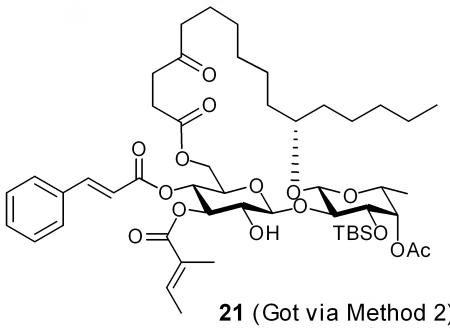
-------- CHANNEL f1 --------
SFO1 400.1520008 MHz
NUC1 1H
PL1 12.50 usec
P1 12.50 usec
PLW1 20.00000000 W

------ GRADIENT CHANNEL -----
GPNAM[1] SMSQ10.100
GPZ1 10.00 %
P16 1000.00 usec

F1 - Acquisition parameters
TD 128
SFO1 400.152 MHz
FIDRES 62.600159 Hz
SW 20.024 ppm
FnMODE QF

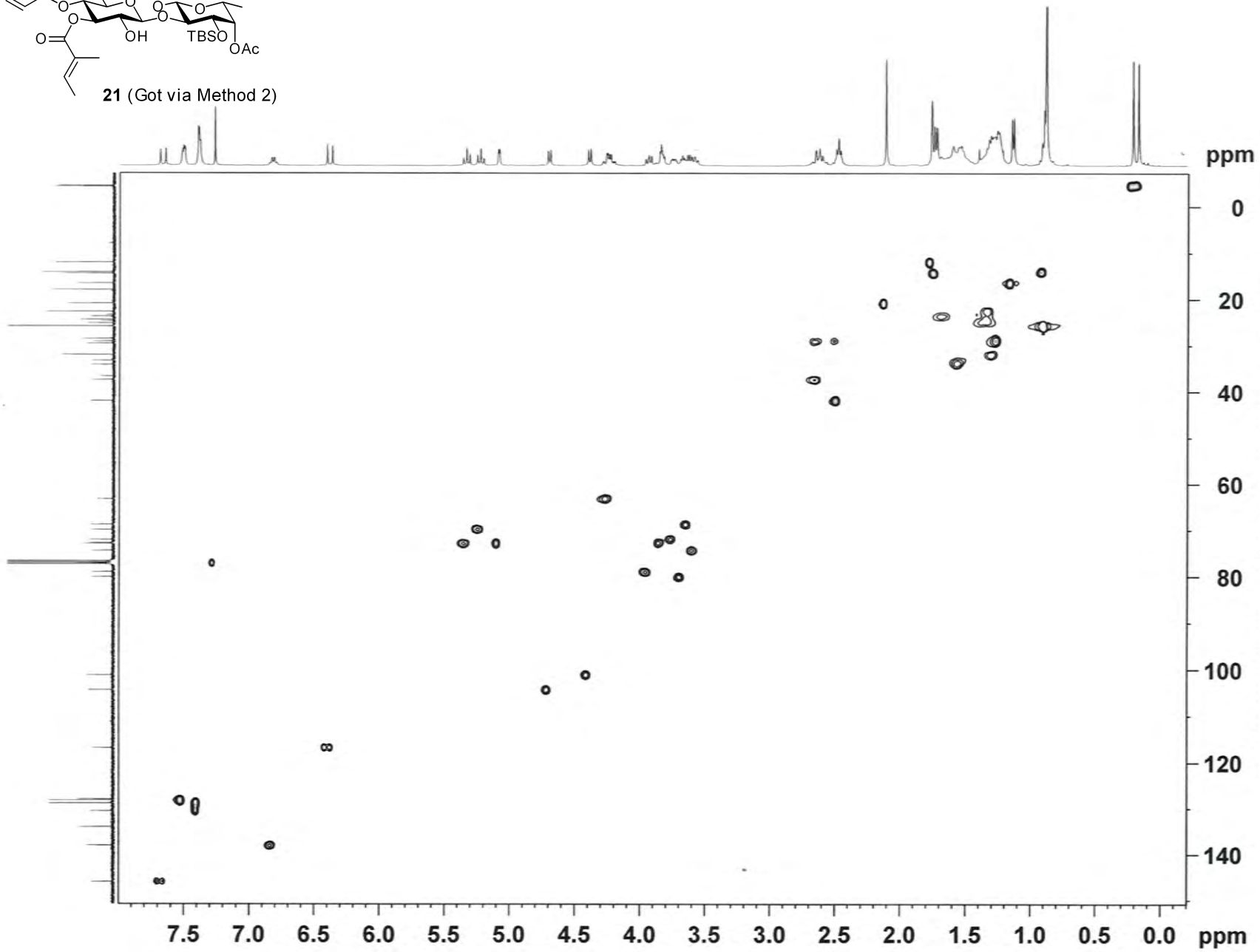
F2 - Processing parameters
SI 1024
SF 400.1500070 MHz
WDW QSINE
SSB 0
LB 0 Hz
GB 0
PC 1.00

F1 - Processing parameters
SI 1024
MC2 QF
SF 400.1500052 MHz
WDW QSINE
SSB 0
LB 0 Hz
GB 0



21 (Got via Method 2)

ZGH-Ipom-3-192-170205-A HSQC in CDCl3



Current Data Parameters
NAME ZGH-Ipom-3-192-170205-A
EXPNO 4
PROCNO 1

F2 - Acquisition Parameters
Date_ 20170206
Time 8.27
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG hsqcetgpsi
TD 1024
SOLVENT CDCl3
NS 8
DS 16
SWH 5197.505 Hz
FIDRES 5.075689 Hz
AQ 0.6935088 sec
RG 2050
DW 96.200 usec
DE 6.50 usec
TE 294.3 K
CNST2 145.0000000
D0 0.00000300 sec
D1 1.50000000 sec
D4 0.00172414 sec
D11 0.03000000 sec
D16 0.00020000 sec
D24 0.00110000 sec
IN0 0.00003000 sec
2GOPTNS

======== CHANNEL f1 ========
SFO1 400.1524058 MHz
NUC1 1H
P1 12.50 usec
P2 25.00 usec
PL8 1000.00 usec
PLW1 20.00000000 W

======== CHANNEL f2 ========
SFO2 100.6253021 MHz
NUC2 13C
CPDPRG[2 garp
P3 10.00 usec
P4 20.00 usec
PCPD2 80.00 usec
PLW2 65.00000000 W
PLW12 1.01559997 W

====== GRADIENT CHANNEL =====
GPNAM[1] SMSQ10.100
GPNAM[2] SMSQ10.100
GPZ1 80.00 %
GPZ2 20.10 %
P16 1000.00 usec

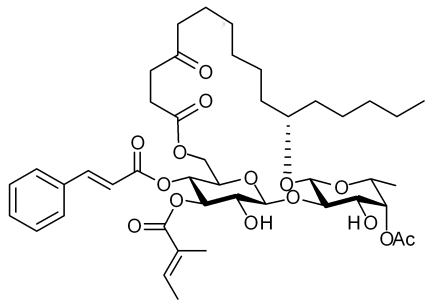
F1 - Acquisition parameters
TD 128
SFO1 100.6253 MHz
FIDRES 130.208328 Hz
SW 165.631 ppm
FnMODE Echo-Antiecho

F2 - Processing parameters
SI 1024
SF 400.1500000 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0
PC 1.40

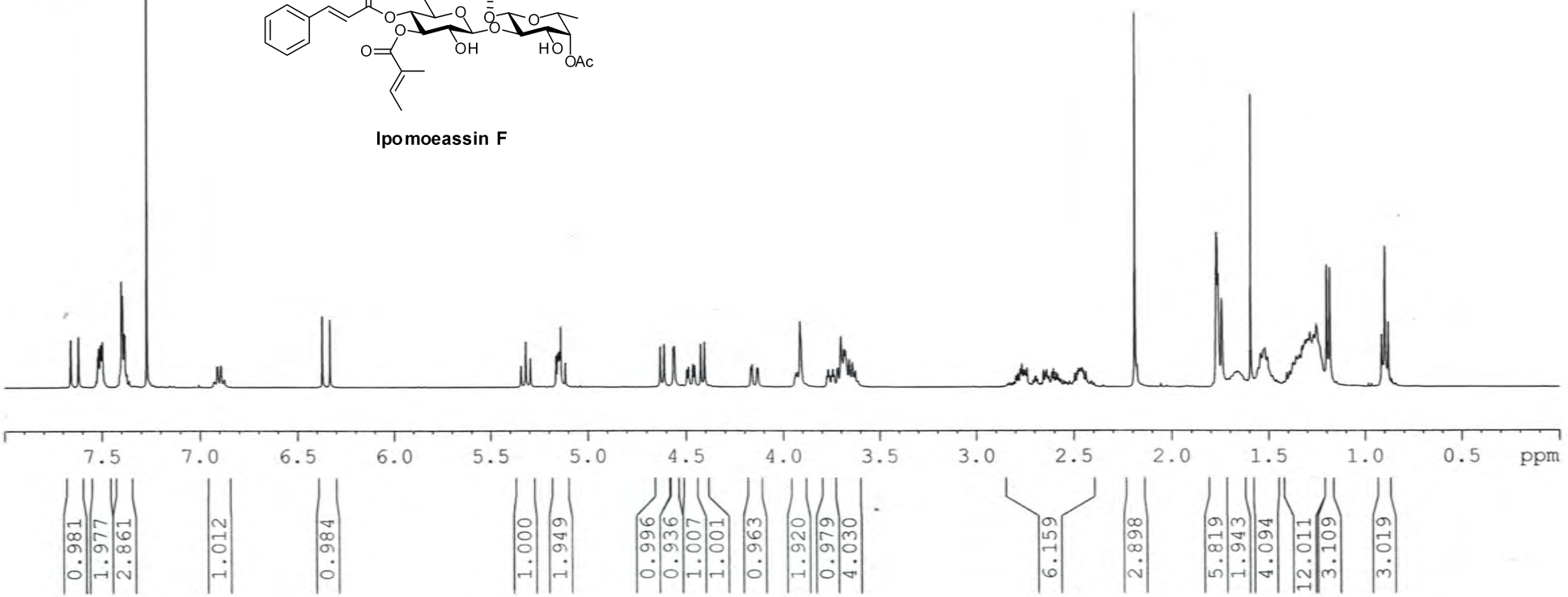
F1 - Processing parameters
SI 1024
MC2 echo-antiecho
SF 100.6177975 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0

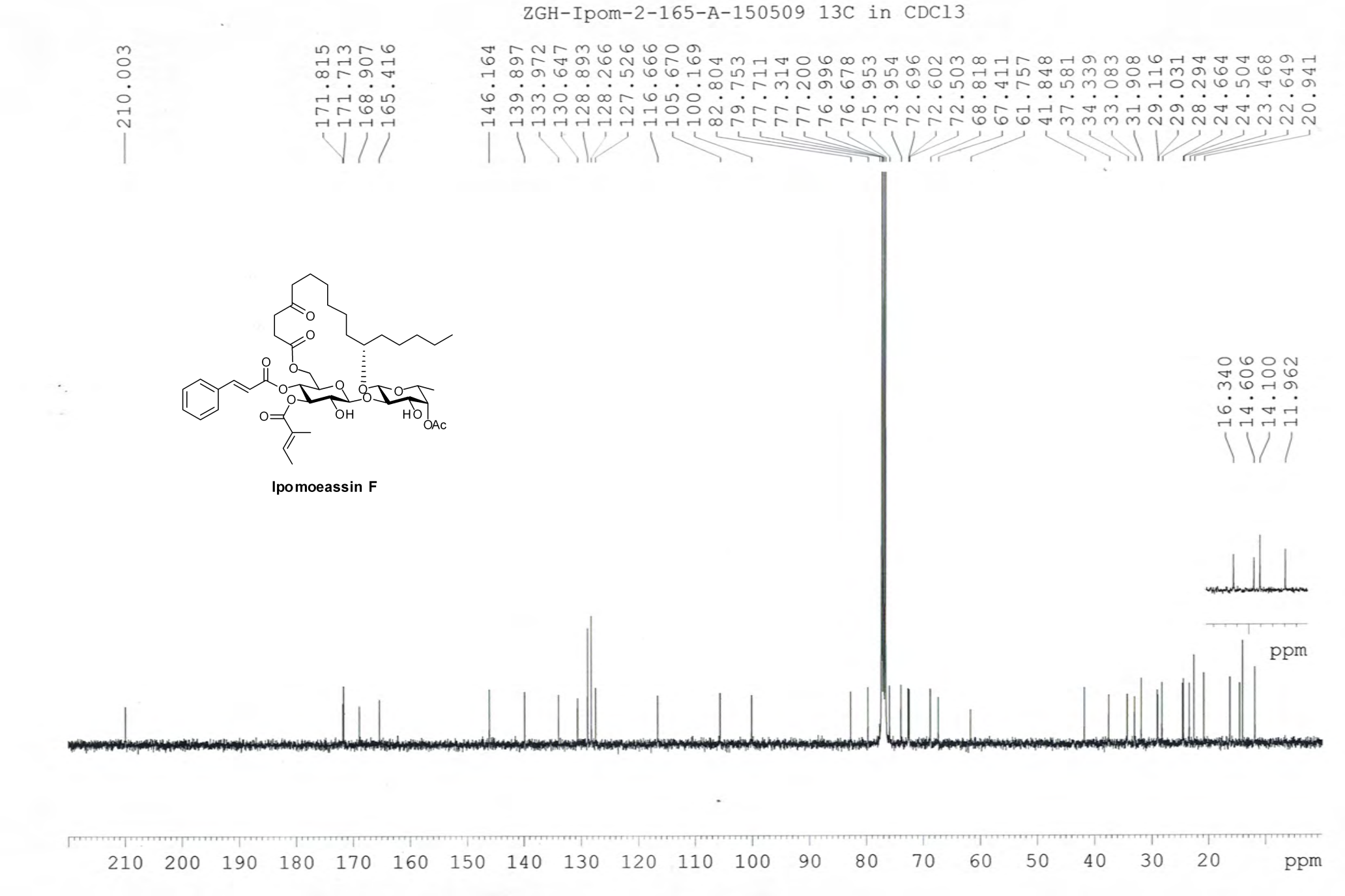
ZGH-Ipom-2-165-A-150509 1H in CDCL3

7.660 7.620 7.521 7.516 7.506 7.497 7.400 7.395 7.386 7.383 7.270 6.912 6.908 6.894 6.891 6.372 6.332 5.343 5.319 5.294 5.162 5.152 5.146 5.138 5.115 4.630 4.611 4.563 4.559 4.486 4.464 4.455 4.424 4.404 4.167 4.161 4.136 3.913 3.716 3.700 3.684 3.676 3.656 3.641 2.766 2.188 1.770 1.767 1.761 1.743 1.740 1.593 1.541 1.526 1.519 1.340 1.325 1.309 1.301 1.296 1.285 1.265 1.252 1.199 1.183 0.914 0.897 0.879

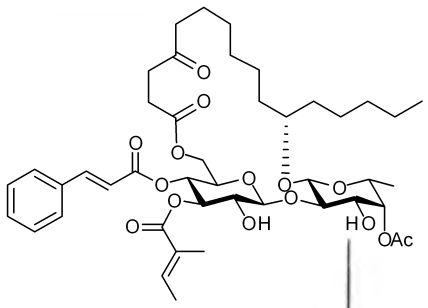


Ipomoeassin F





Ipomoeassin F



Ipomoeassin F

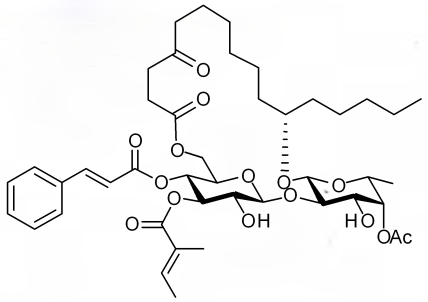
ZGH-Ipom-2-165-A-150509 COSY

ppm

1 2 3 4 5 6 7 8

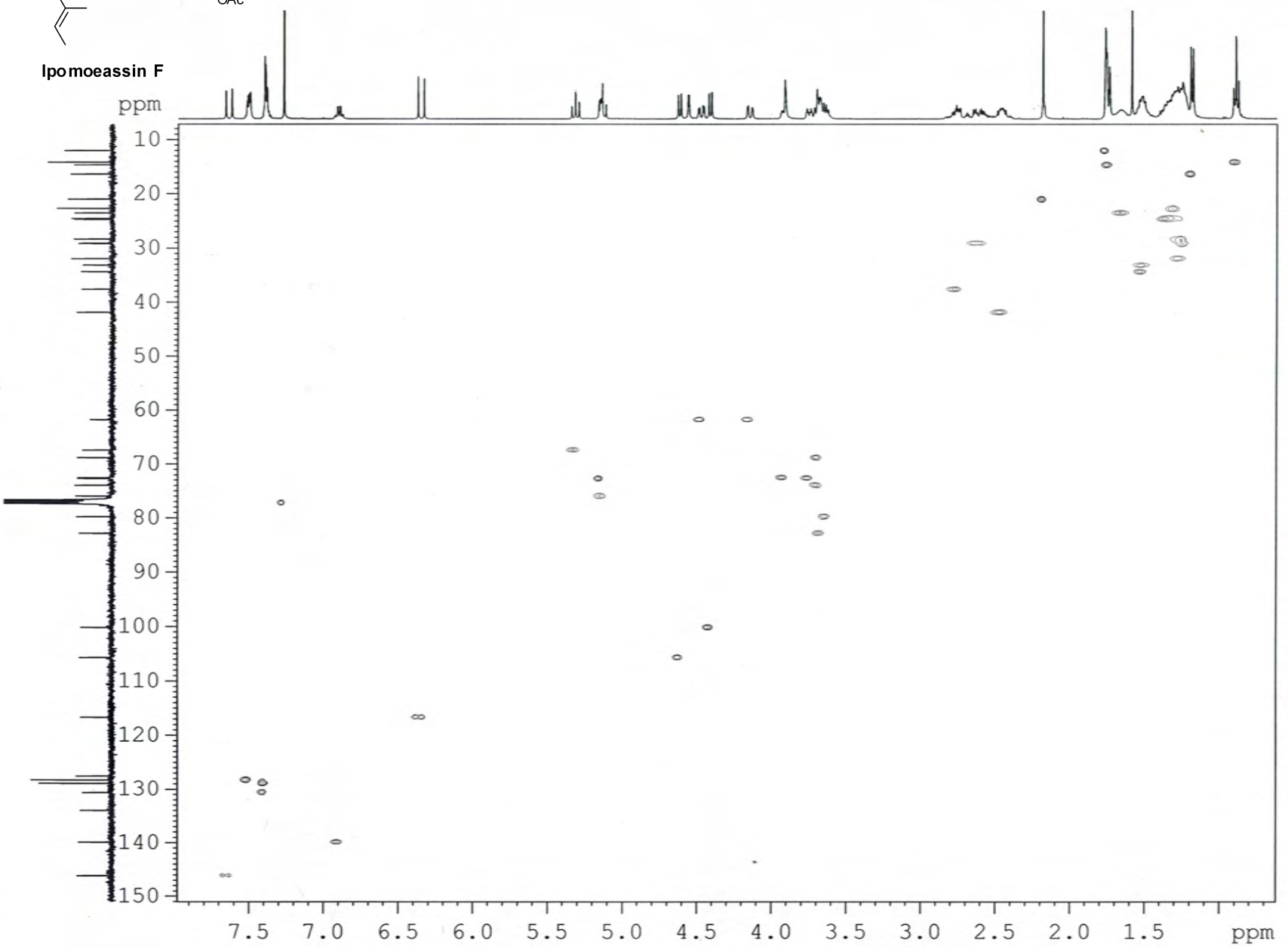
7.5 7.0 6.5 6.0 5.5 5.0 4.5 4.0 3.5 3.0 2.5 2.0 1.5 ppm

NAME	ZGH-Ipom-2-165-A-150509
EXPNO	2
PROCNO	1
Date_	20150511
Time	1.14
INSTRUM	spect
PROBHD	5 mm PABBO BB-
PULPROG	cosygpqf
TD	2048
SOLVENT	CDCl3
NS	16
DS	8
SWH	5341.880 Hz
FIDRES	2.608340 Hz
AQ	0.1917428 sec
RG	512
DW	93.600 usec
DE	6.50 usec
TE	292.4 K
D0	0.00000300 sec
D1	1.48689198 sec
D13	0.00000400 sec
D16	0.00020000 sec
IN0	0.00018720 sec
========	CHANNEL f1 ========
NUC1	1H
P0	10.00 usec
P1	10.00 usec
PL1	-3.50 dB
PL1W	31.17620277 W
SFO1	400.1324057 MHz
======	GRADIENT CHANNEL =====
GPNAM1	SINE.100
GPZ1	10.00 %
P16	1000.00 usec
ND0	1
TD	128
SFO1	400.1324 MHz
FIDRES	41.733440 Hz
SW	13.350 ppm
FnMODE	QF
SI	1024
SF	400.1300040 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0
PC	1.00
SI	1024
MC2	QF
SF	400.1300033 MHz
WDW	SINE
SSB	0
LB	0.00 Hz
GB	0



Ipomoeassin F

ZGH-Ipom-2-165-A-150509 HSQC



Current Data Parameters
NAME ZGH-Ipom-2-165-A-150509
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20150511
Time 2.12
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG hsqcetgpsi
TD 1024
SOLVENT CDCl3
NS 16
DS 16
SWH 5341.880 Hz
FIDRES 5.216680 Hz
AQ 0.0958464 sec
RG 2050
DW 93.600 usec
DE 6.50 usec
TE 292.7 K
CNST2 145.0000000
D0 0.00000300 sec
D1 1.50000000 sec
D4 0.0017241 sec
D11 0.03000000 sec
D13 0.00000400 sec
D16 0.00020000 sec
D24 0.00110000 sec
IN0 0.00003000 sec
ZGOPTNS

======== CHANNEL f1 ========
NUC1 1H
P1 10.00 usec
P2 20.00 usec
P28 1000.00 usec
PL1 -3.50 dB
PL1W 31.17620277 W
SFO1 400.1324057 MHz

======== CHANNEL f2 ========
CPDPRG[2 garp
NUC2 13C
P3 10.00 usec
P4 20.00 usec
PCPD2 75.00 usec
PL2 -2.10 dB
PL12 15.40 dB
PL2W 58.37759399 W
PL12W 1.03811681 W
SFO2 100.6202727 MHz

====== GRADIENT CHANNEL =====
GPNAM[1] SINE.100
GPNAM[2] SINE.100
GPZ1 80.00 %
GPZ2 20.10 %
P16 1000.00 usec

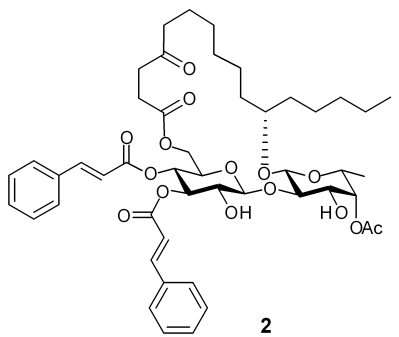
F1 - Acquisition parameters
TD 256
SFO1 100.6203 MHz
FIDRES 65.104164 Hz
SW 165.639 ppm
FnMODE Echo-Antiecho

F2 - Processing parameters
SI 1024
SF 400.1300000 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0
PC 1.00

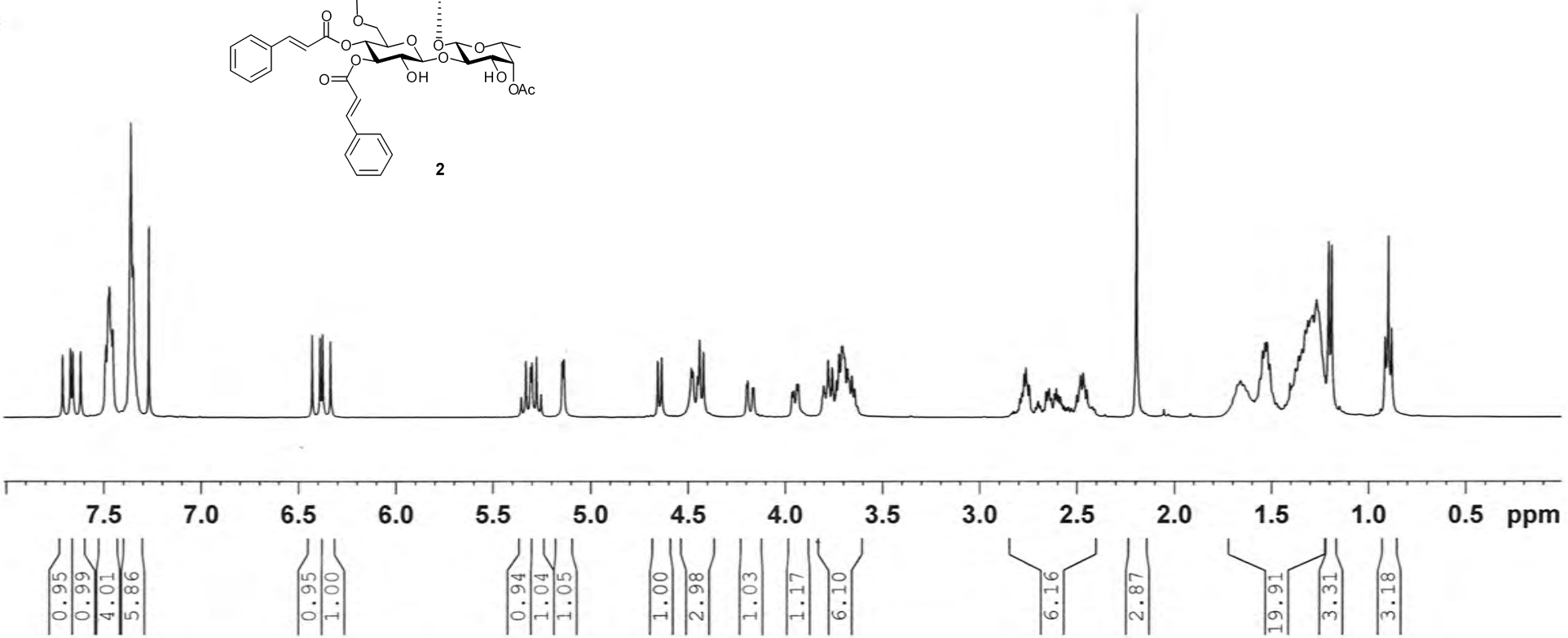
F1 - Processing parameters
SI 1024
MC2 echo-antiecho
SF 100.6127690 MHz
WDW QSINE
SSB 2
LB 0 Hz
GB 0

ZGH-Ipom-3-161-161104-A in CDCl3

7.711 7.671 7.659 7.618 7.489 7.477 7.472 7.454 7.364 7.350 7.270 6.430 6.390 6.377 6.337 5.332 5.308 5.301 5.278 5.146 5.138 4.656 4.636 4.483 4.474 4.440 4.421 3.779 3.758 3.723 3.707 3.704 3.694 3.679 2.773 2.763 2.482 2.468 2.194 1.546 1.533 1.522 1.509 1.376 1.360 1.341 1.327 1.311 1.287 1.267 1.256 1.206 1.190 0.915 0.899 0.881



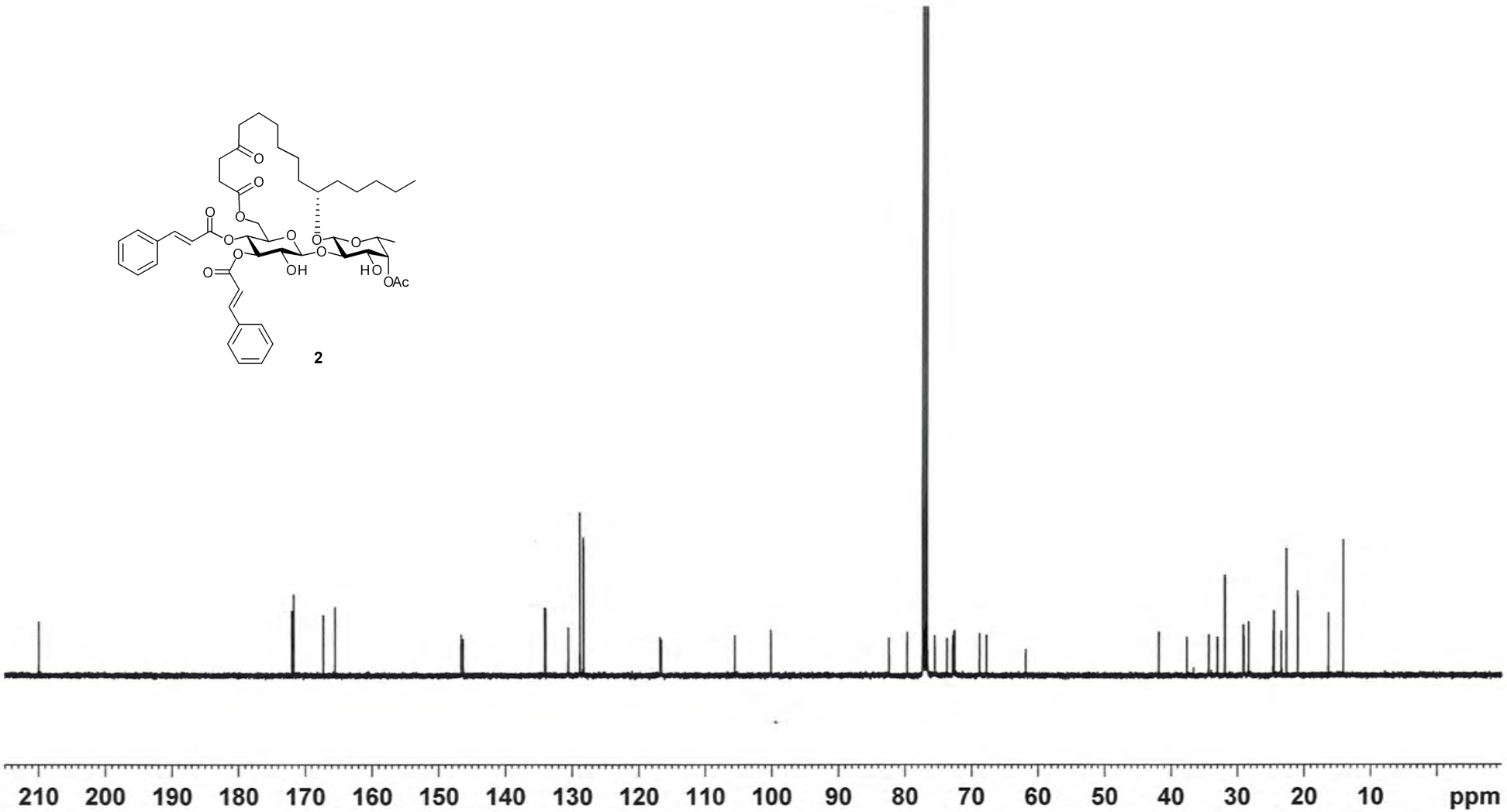
2

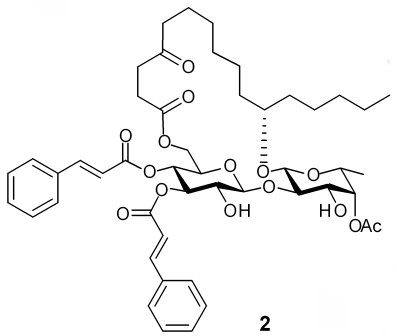


ZGH-Ipom-3-161-161104-A 13C in CDCl3

209.989
171.982
171.718
167.287
165.518
146.624
146.313
134.082
133.959
130.586
130.570
128.834
128.826
128.297
128.275
116.778
116.617
105.505
100.111
82.409
79.678
77.317
77.203
77.000
76.682
75.511
73.691
72.818
72.669
72.533
68.787
67.752
61.853
41.864
37.598
34.331
33.029
31.906
29.116
29.041
28.302
24.604
24.524
23.448
22.651
20.935
16.335
14.099

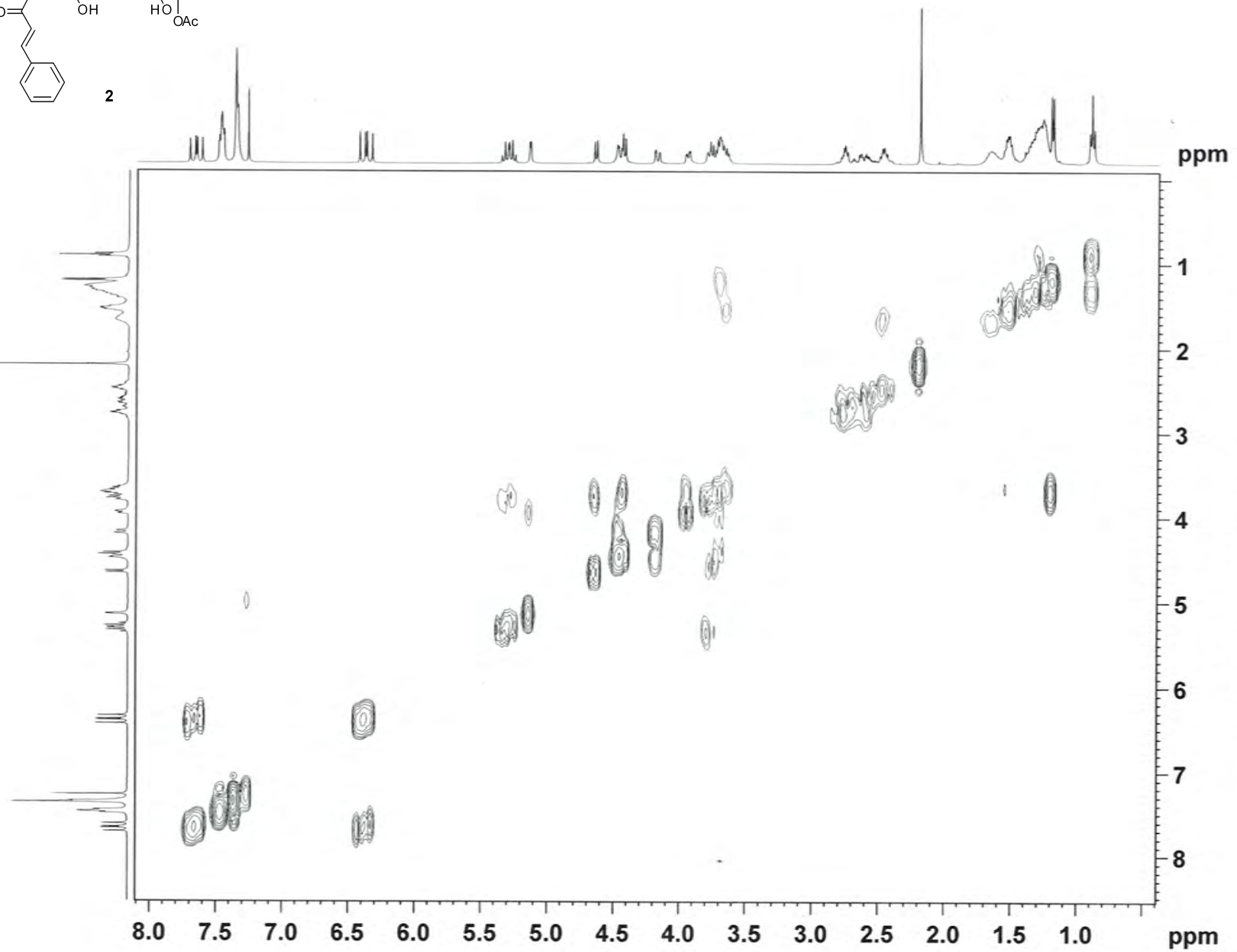
2



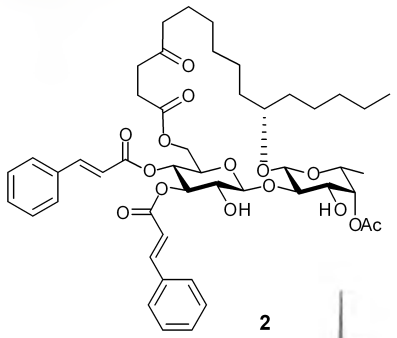


2

ZGH-Ipom-3-161-161104-A in CDCL3

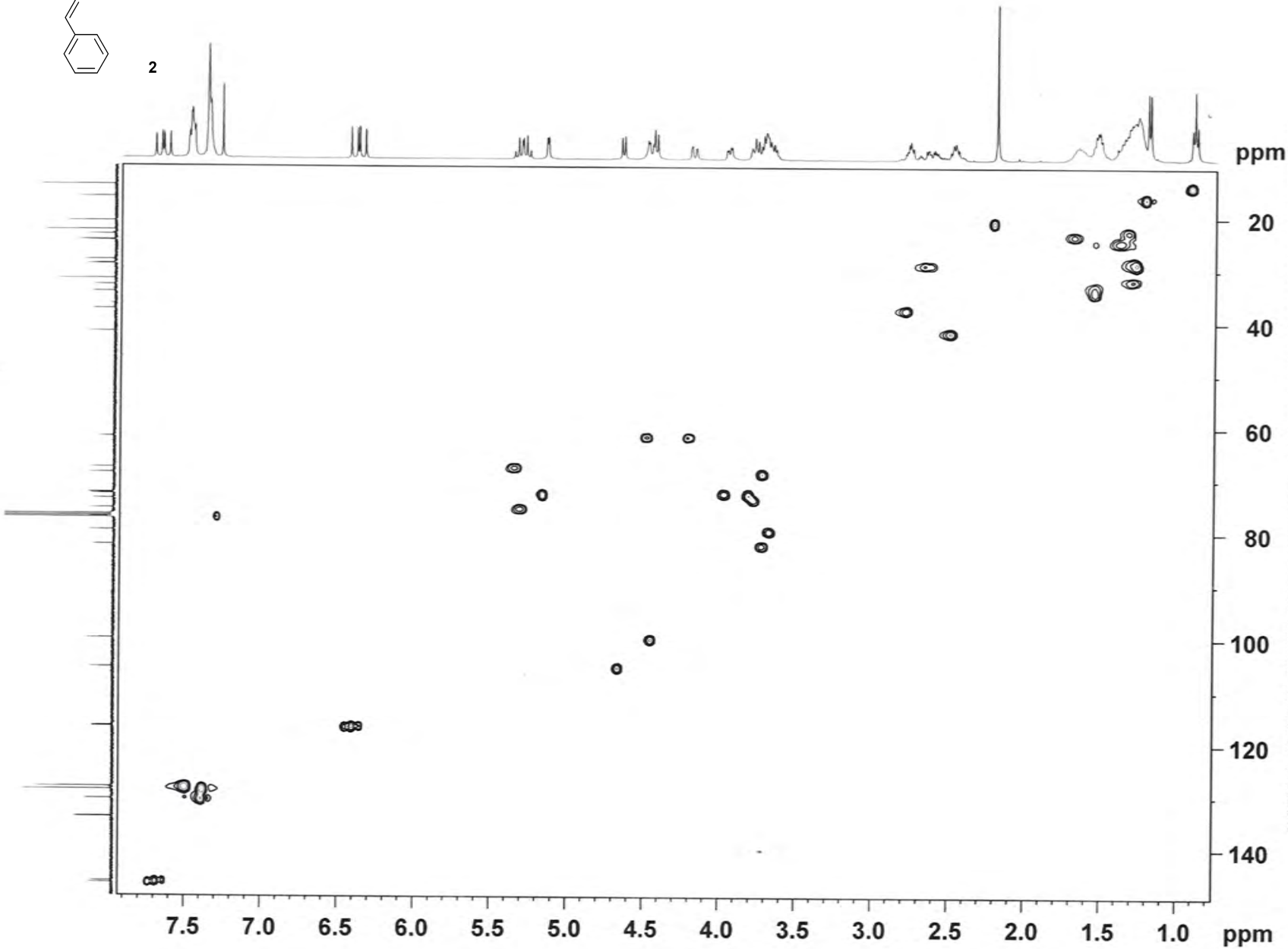



```
Current Data Parameters
NAME      ZGH-Ipom-3-161-161104-A
EXPNO                  13
PROCNO                  1

F2 - Acquisition Parameters
Date_           20161107
Time              22.38
INSTRUM             spect
PROBHD   5 mm PABBO BB-
PULPROG         cosygpqf
TD                 2048
SOLVENT           CDCl3
NS                   32
DS                    8
SWH            6012.620 Hz
FIDRES         3.912510 Hz
AQ             0.1277952 sec
RG                 362
DW              62.400 usec
DE               6.50 usec
TE              293.0 K
D0           0.00000300 sec
D1           1.50000000 sec
D13          0.00000400 sec
D16          0.00020000 sec
IN0          0.00012480 sec

======== CHANNEL f1 ========
SFO1         400.1520008 MHz
NUC1               1H
P0               12.50 usec
P1               12.50 usec
PLW1         20.00000000 W

======= GRADIENT CHANNEL =====
GPNAM[1]       SMSQ10.100
GPZ1              10.00 %
P16             1000.00 usec

F1 - Acquisition parameters
TD                  128
SFO1           400.152 MHz
FIDRES         82.600159 Hz
SW              20.024 ppm
FnMODE               QF

F2 - Processing parameters
SI                 1024
SF           400.1500070 MHz
WDW                QSINE
SSB        0
LB         0 Hz
GB         0
PC                 1.00

F1 - Processing parameters
SI                 1024
MC2                QF
SF           400.1500052 MHz
WDW                QSINE
SSB        0
LB         0 Hz
GB         0
```

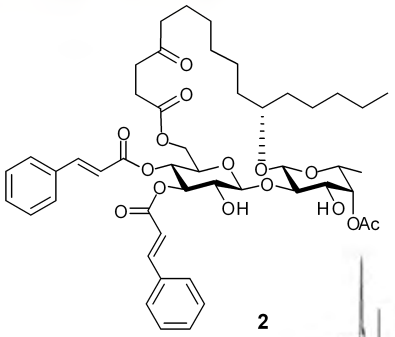


2

ZGH-Ipom-3-161-161104-A HSQC in CDCl3

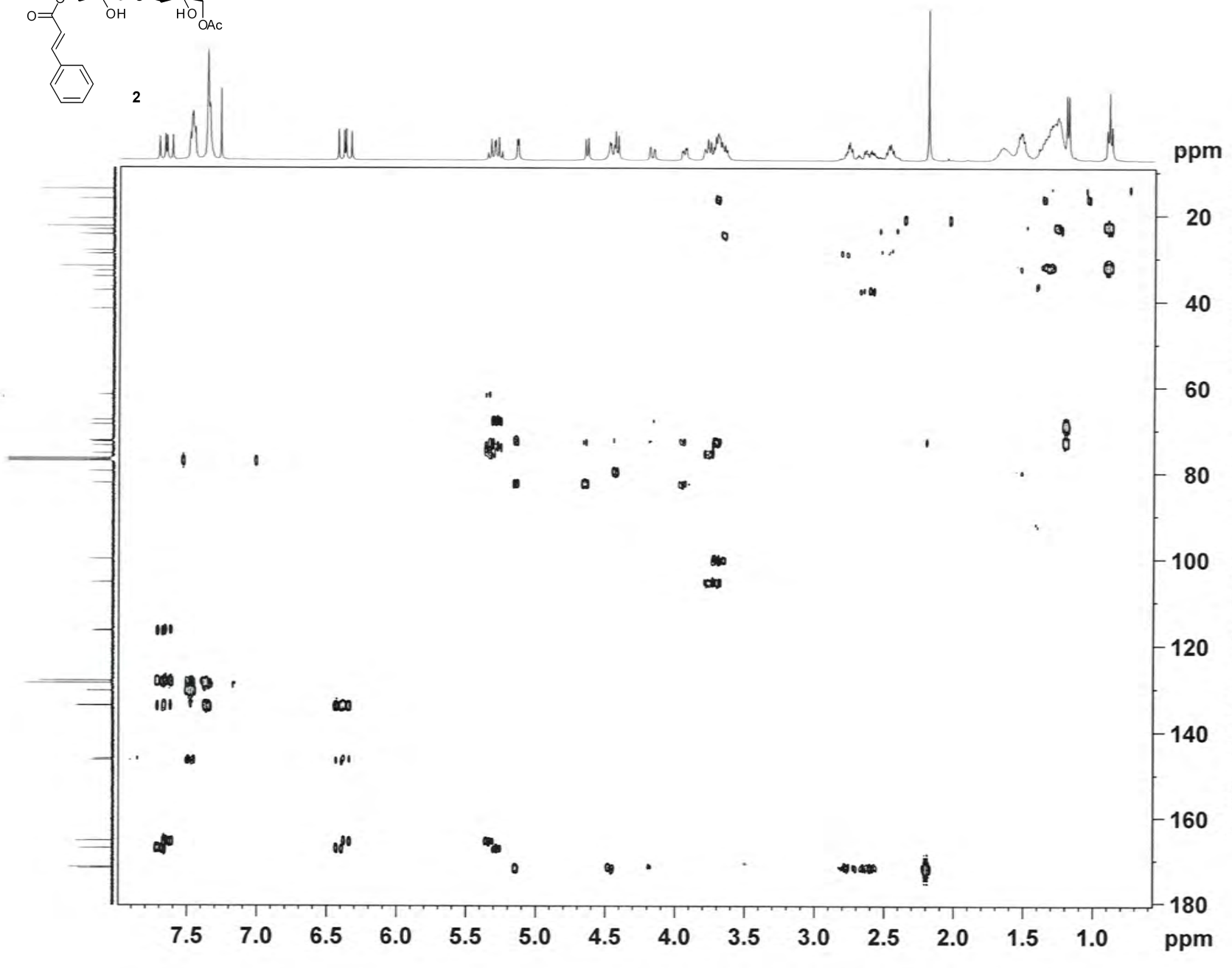



```
Current Data Parameters
NAME                  ZGH-Ipom-3-161-161104-A
EXPNO                      14
PROCNO                      1

F2 - Acquisition Parameters
Date_              20161108
Time                   0.30
INSTRUM                spect
PROBHD     5 mm PABBO BB-
PULPROG            hsqcetgpsi
TD                       1024
SOLVENT                CDC13
NS                         16
DS                         16
SWH                  5197.505 Hz
FIDRES               5.075689 Hz
AQ                   0.0985088 sec
RG                        2050
DW                     96.200 usec
DE                      6.50 usec
TE                     293.1 K
CNST2                145.0000000
D0                   0.00000300 sec
D1                   1.50000000 sec
D4                   0.00172414 sec
D11                  0.03000000 sec
D16                  0.00020000 sec
D24                  0.00110000 sec
IN0                  0.00003000 sec
ZGOPTNS

======== CHANNEL f1 ========
SFO1               400.1524058 MHz
NUC1                       1H
P1                       12.50 usec
P2                       25.00 usec
PL8                    1000.00 usec
PLW1                20.00000000 W

======== CHANNEL f2 ========
SFO2               100.6253021 MHz
NUC2                       13C
CPDPRG[2                 garp
P3                       10.00 usec
P4                       20.00 usec
PCPD2                    80.00 usec
PLW2                65.00000000 W
PLW12                1.01559997 W

====== GRADIENT CHANNEL =====
GPNAM[1]             SMSQ10.100
GPNAM[2]             SMSQ10.100
GPZ1                      80.00 %
GPZ2                      20.10 %
P16                    1000.00 usec

F1 - Acquisition parameters
TD                         128
SFO1               100.6253 MHz
FIDRES             130.208328 Hz
SW                 169.631 ppm
FnMODE       Echo-Antiecho

F2 - Processing parameters
SI                        1024
SF                 400.1500000 MHz
WDW                      QSINE
SSB                         2
LB                   0 Hz
GB                   0
PC                        1.40

F1 - Processing parameters
SI                        1024
MC2              echo-antiecho
SF                 100.6177975 MHz
WDW                      QSINE
SSB                         2
LB                   0 Hz
GB                   0
```

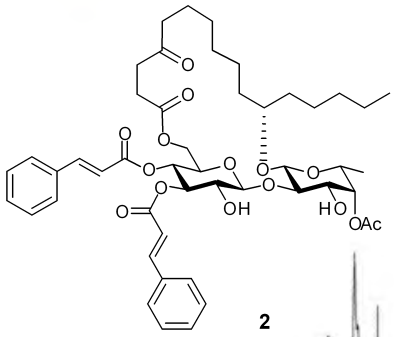


2

ZGH-Ipom-3-161-161104-A HMBC in CDCl3

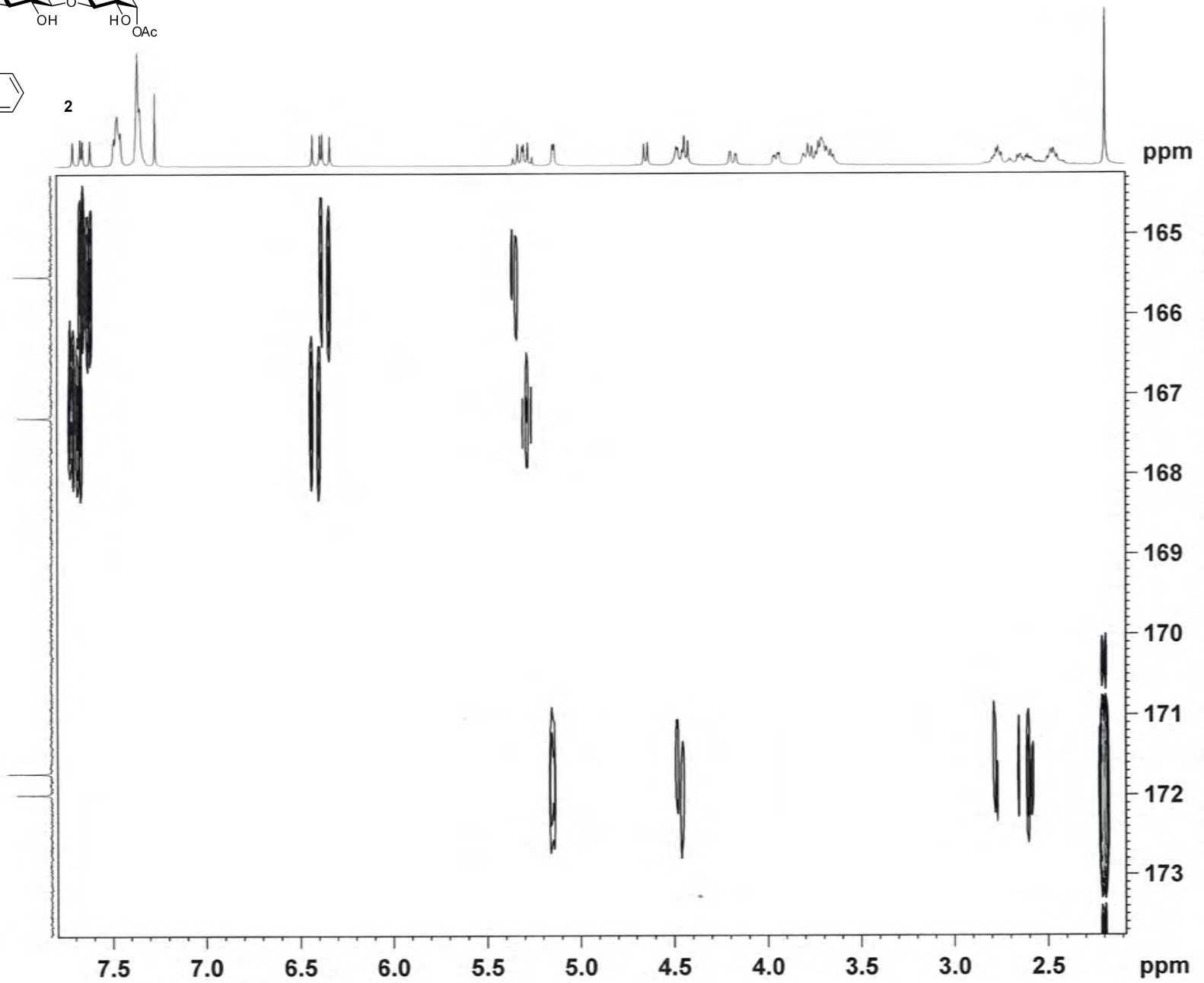



```
Current Data Parameters
NAME        ZGH-Ipom-3-161-161104-A
EXPNO                            15
PROCNO                            1

F2 - Acquisition Parameters
Date_                      20161108
Time                           1.29
INSTRUM                       spect
PROBHD     5 mm PABBO BB-
PULPROG        hmbcgplpndqf
TD                             4096
SOLVENT                       CDCl3
NS                              100
DS                               16
SWH                      5208.333 Hz
FIDRES                   1.271566 Hz
AQ                       0.3932160 sec
RG                            2050
DW                          96.000 usec
DE                           6.50 usec
TE                          293.2 K
CNST2                  145.0000000
CNST13                  10.0000000
D0                      0.00000300 sec
D1                      1.50000000 sec
D2                      0.00344828 sec
D6                      0.05000000 sec
D16                     0.00020000 sec
IN0                     0.00002240 sec

======== CHANNEL f1 ========
SFO1                  400.1516006 MHz
NUC1                          1H
P1                           12.50 usec
P2                           25.00 usec
PLW1                  20.00000000 W

======== CHANNEL f2 ========
SFO2                  100.6258470 MHz
NUC2                          13C
P3                           10.00 usec
PLW2                  65.00000000 W

====== GRADIENT CHANNEL =====
GPNAM[1]                 SINE.100
GPNAM[2]                 SINE.100
GPNAM[3]                 SINE.100
GPZ1                         50.00 %
GPZ2                         30.00 %
GPZ3                         40.10 %
P16                        1000.00 usec

F1 - Acquisition parameters
TD                             128
SFO1                  100.6258 MHz
FIDRES                174.386154 Hz
SW                       221.826 ppm
FnMODE                        QF

F2 - Processing parameters
SI                            2048
SF                  400.1500046 MHz
WDW                         SINE
SSB                  0
LB                   0 Hz
GB                   0
PC                           4.00

F1 - Processing parameters
SI                            1024
MC2                           QF
SF                  100.6177921 MHz
WDW                         SINE
SSB                  0
LB                   0 Hz
GB                   0
```



2

ZGH-Ipom-3-161-161104-A HMBC in CDCl3



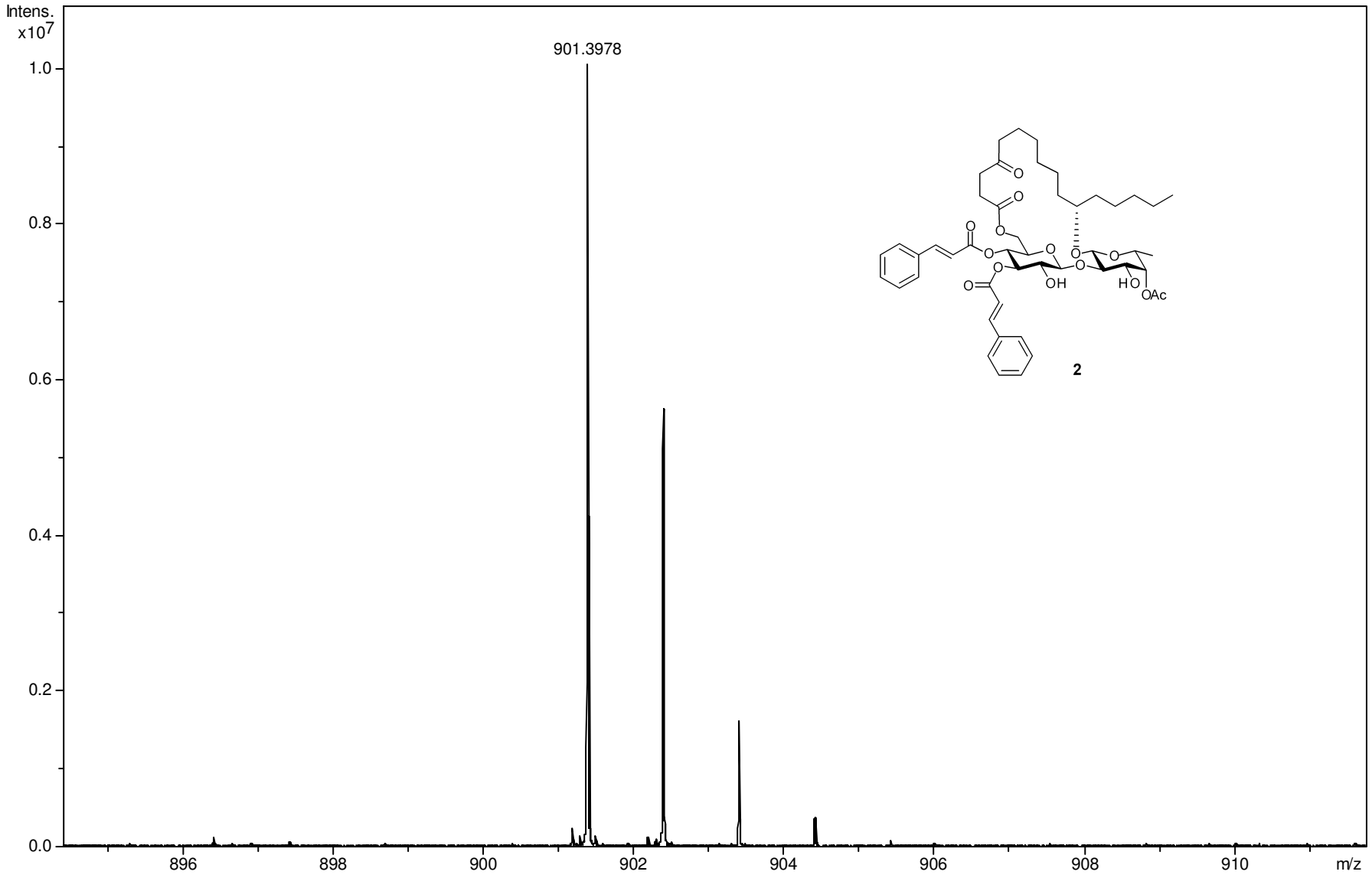

```
Current Data Parameters
NAME      ZGH-Ipom-3-161-161104-A
EXPNO                 15
PROCNO                 1

F2 - Acquisition Parameters
Date_              20161108
Time                  1.29
INSTRUM              spect
PROBHD   5 mm PABBO BB-
PULPROG    hmbcqplpndqf
TD                  4096
SOLVENT             CDCl3
NS                   100
DS                    16
SWH              5208.333 Hz
FIDRES           1.271566 Hz
AQ               0.3932160 sec
RG                  2050
DW                96.000 usec
DE                 6.50 usec
TE                293.2 K
CNST2           145.0000000
CNST13           10.0000000
D0               0.00000300 sec
D1               1.50000000 sec
D2               0.00344828 sec
D6               0.05000000 sec
D16              0.00020000 sec
IN0              0.00002240 sec

======== CHANNEL f1 ========
SFO1          400.1516006 MHz
NUC1                  1H
P1                 12.50 usec
P2                 25.00 usec
PLW1         20.00000000 W

======== CHANNEL f2 ========
SFO2          100.6258470 MHz
NUC2                  13C
P3                 10.00 usec
PLW2         65.00000000 W

====== GRADIENT CHANNEL =====
GPNAM[1]         SINE.100
GPNAM[2]         SINE.100
GPNAM[3]         SINE.100
GPZ1                50.00 %
GPZ2                30.00 %
GPZ3                40.10 %
P16               1000.00 usec

F1 - Acquisition parameters
TD                   128
SFO1          100.6258 MHz
FIDRES        174.386154 Hz
SW               221.826 ppm
FnMODE                QF

F2 - Processing parameters
SI                   2048
SF            400.1500046 MHz
WDW                  SINE
SSB          0
LB           0 Hz
GB           0
PC                   4.00

F1 - Processing parameters
SI                   1024
MC2                    QF
SF            100.6177921 MHz
WDW                  SINE
SSB          0
LB           0 Hz
GB           0
```

Arkansas Statewide Mass Spectrometry Facility

ESI-FTMS Mass Spectrum

Sample Name: ZIF-50
Sample id#: 918
Instrument: Bruker ApexII-FTMS

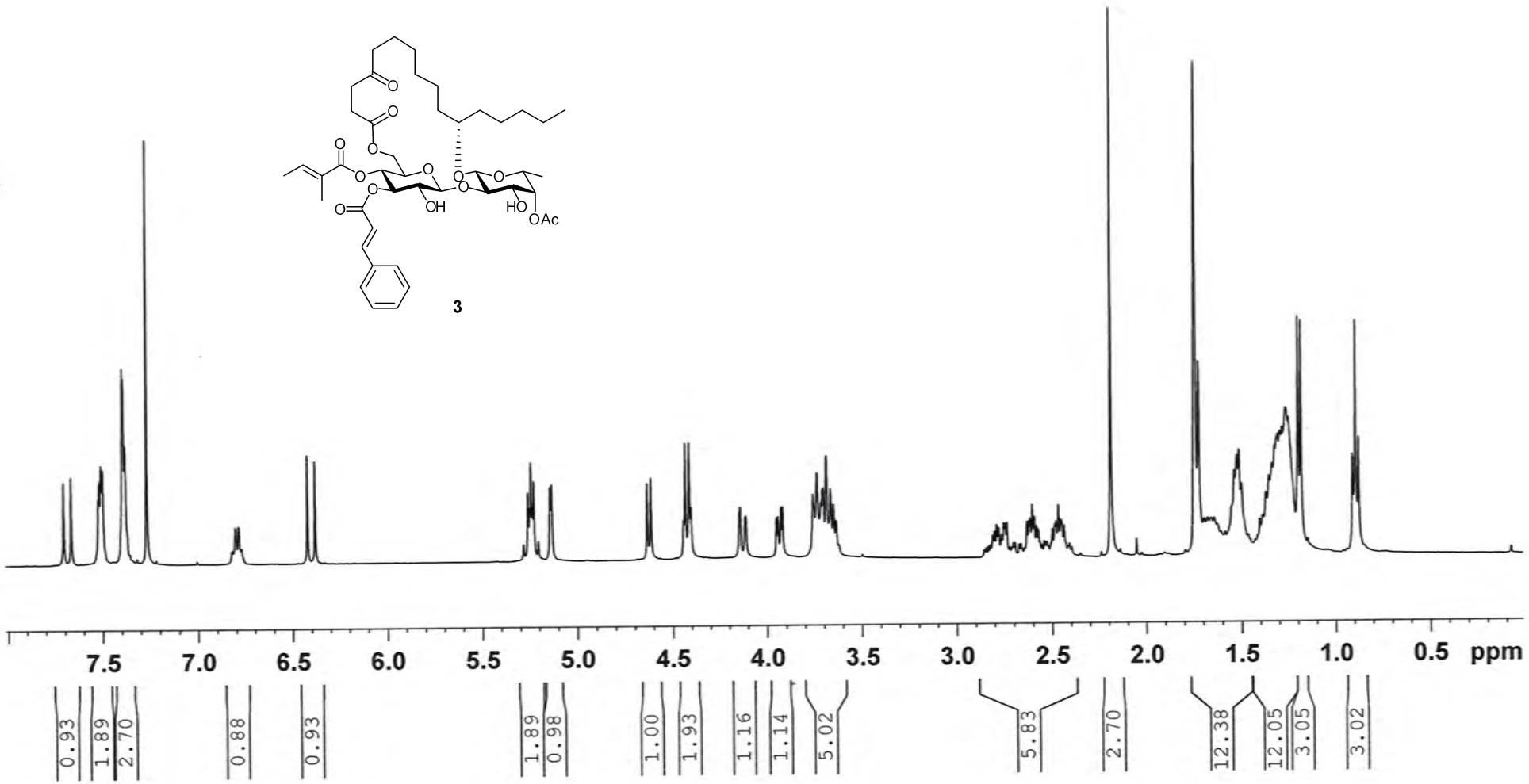
2/8/2017

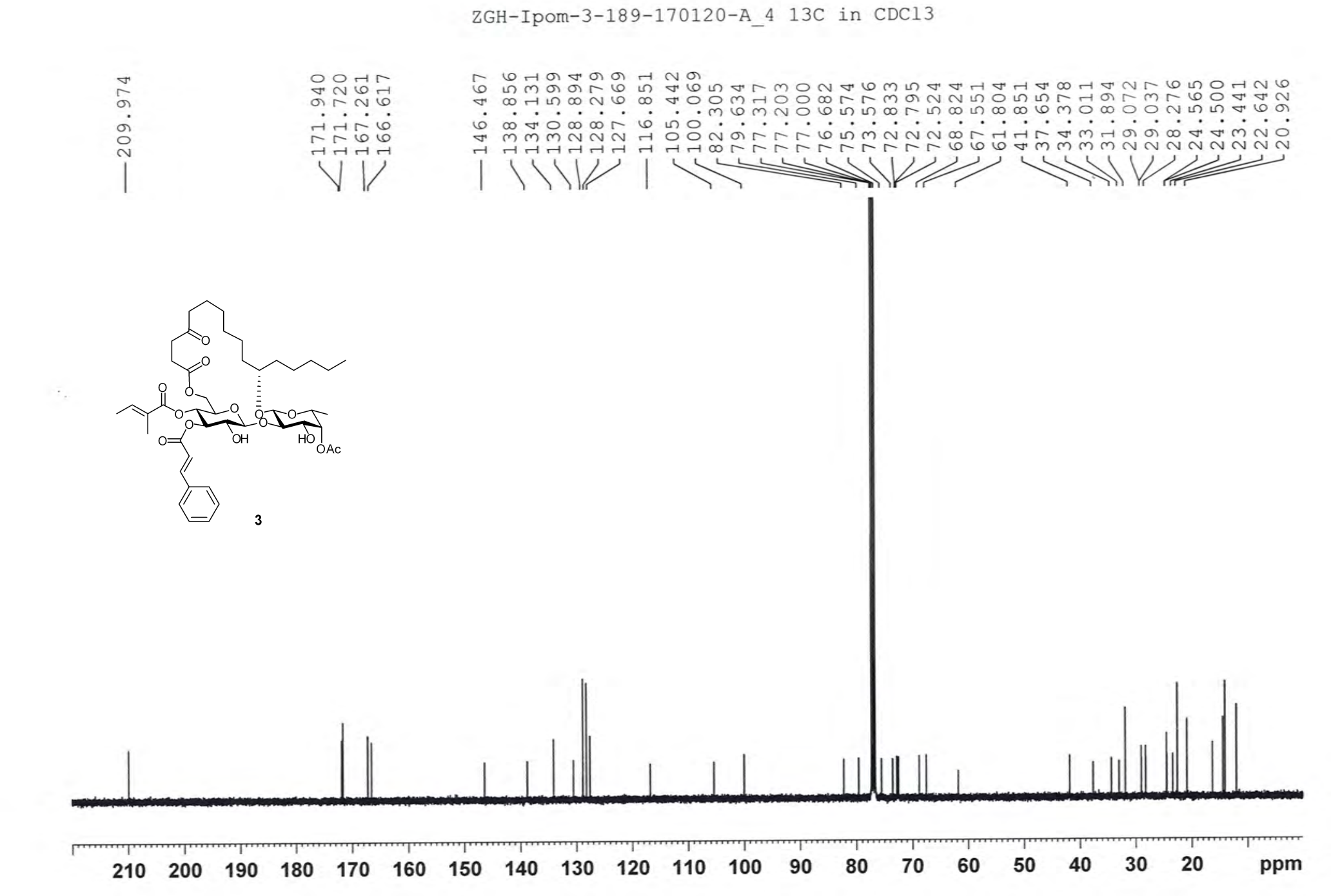


ZGH-Ipom-3-189-170120-A_4 in CDCl3

7.707 7.667 7.524 7.519 7.510 7.501 7.397 7.392 7.384 7.270 6.423 6.383 5.260 5.251 5.244 5.236 5.229 5.143 5.135 4.635 4.616 4.434 4.414 3.919 3.758 3.736 3.716 3.709 3.705 3.687 3.666 3.650 2.604 2.467 2.190 1.745 1.725 1.538 1.525 1.513 1.500 1.371 1.355 1.338 1.324 1.308 1.295 1.285 1.267 1.262 1.251 1.201 1.185 0.911 0.895 0.877

3

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171.720
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134.131
130.599
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128.279
127.669
116.851
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68.824
67.551
61.804
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34.378
33.011
31.894
29.072
29.037
28.276
24.565
24.500
23.441
22.642
20.926
OH
HO
OAc
3
210
200
190
180
170
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150
140
130
120
110
100
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80
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60
50
40
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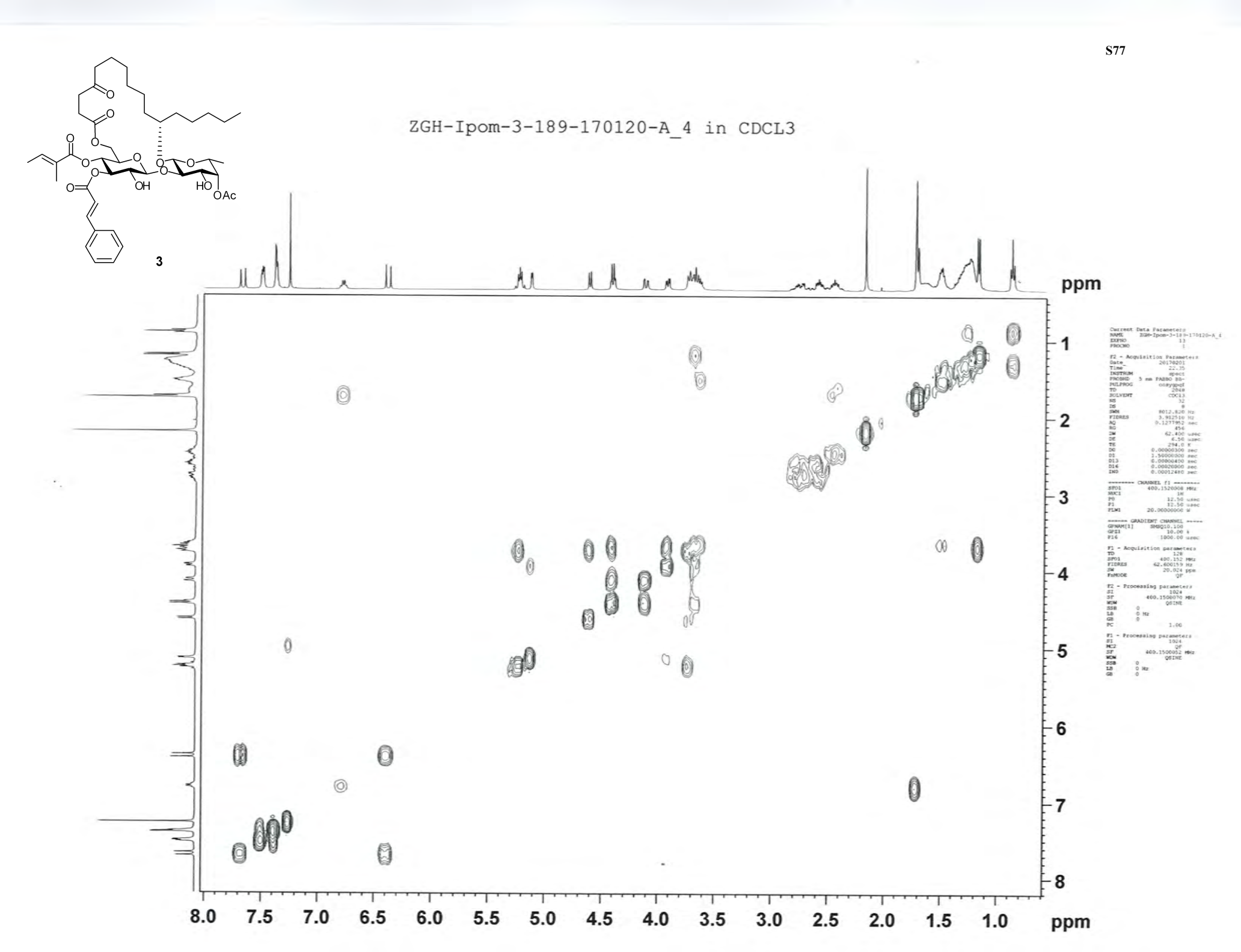
20
ppm

OH
HO
OAc

3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4
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2.5
2.0
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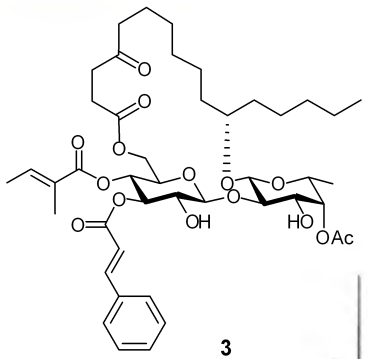

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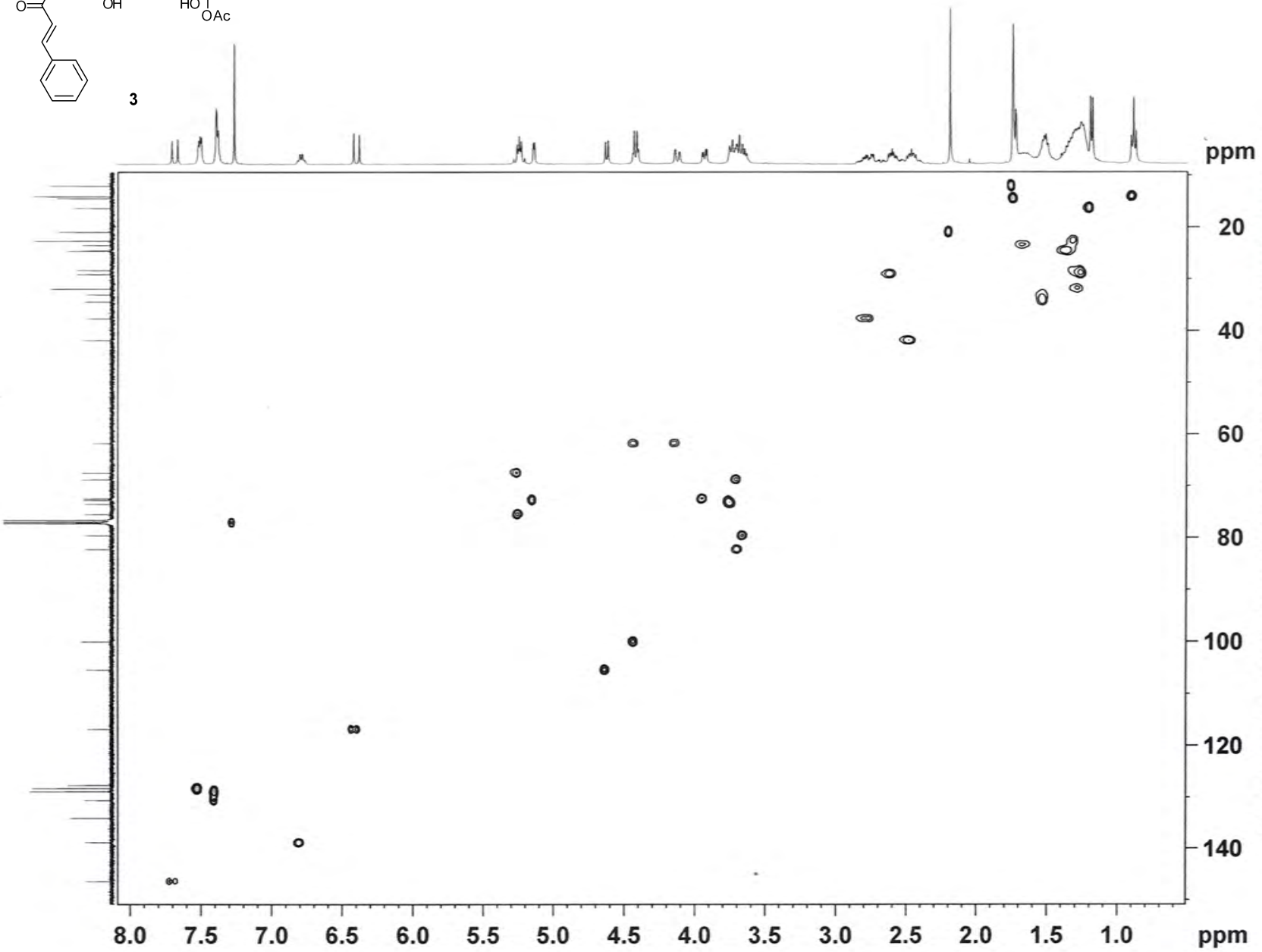
ZGH-Ipom-3-189-170120-A_4 HSQC in CDCl3

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EXPNO                 14
PROCNO                 1

F2 - Acquisition Parameters
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Time                   0.28
INSTRUM               spect
PROBHD  5 mm PABBO BB-
PULPROG         hsqcetgpsi
TD                    1024
SOLVENT               CDCl3
NS                      16
DS                      16
SWH                3197.505 Hz
FIDRES             3.075689 Hz
AQ                 0.0985056 sec
RG                      2050
DW                   96.200 usec
DE                    6.50 usec
TE                   294.4 K
CNST2            145.0000000
D0                0.00000300 sec
D1                1.50000000 sec
D4                0.00172414 sec
D11               0.03000000 sec
D16               0.00020000 sec
D24               0.00115000 sec
IN0               0.00003000 sec
ZGOPTNS

======== CHANNEL f1 ========
SFO1           400.1524058 MHz
NUC1                    1H
P1                   12.50 usec
P2                   25.00 usec
P28                1000.00 usec
PLW1            20.00000000 W

======== CHANNEL f2 ========
SFO2           100.6253021 MHz
NUC2                    13C
CPDPRG[2              garp
P3                   10.00 usec
P4                   20.00 usec
PCPD2                80.00 usec
PLW2            65.00000000 W
PLW12            1.01559997 W

====== GRADIENT CHANNEL =====
GPNAM[1]       SMSQ10.100
GPNAM[2]       SMSQ10.100
GPZ1                 80.00 %
GPZ2                 20.10 %
P16                1000.00 usec

F1 - Acquisition parameters
TD                      128
SFO1             100.6253 MHz
FIDRES         130.208328 Hz
SW               165.631 ppm
FnMODE     Echo-Antiecho

F2 - Processing parameters
SI                     1024
SF           400.1500000 MHz
WDW                  QSINE
SSB                      2
LB         0 Hz
GB         0
PC                    1.40

F1 - Processing parameters
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MC2          echo-antiecho
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WDW                  QSINE
SSB                      2
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GB         0
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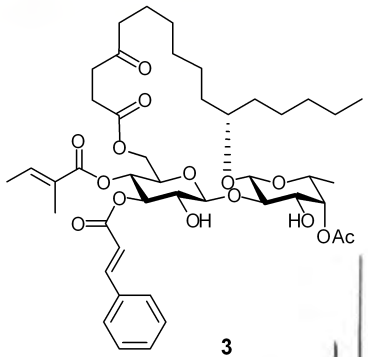

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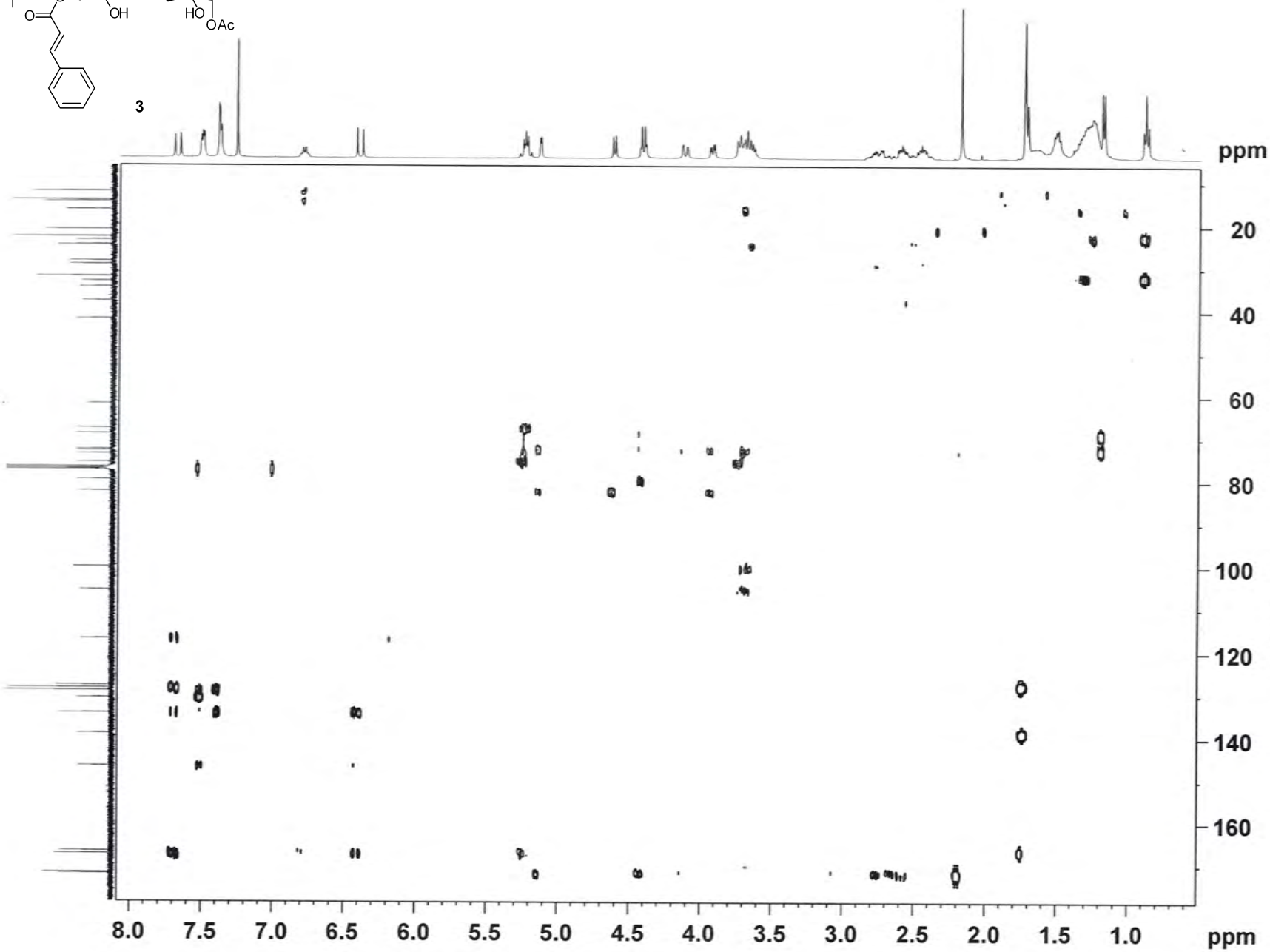

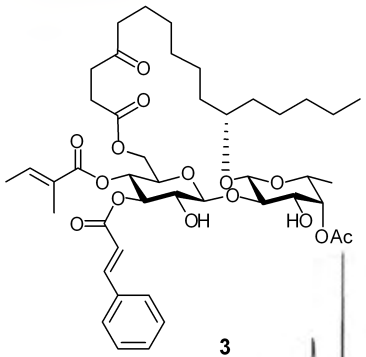

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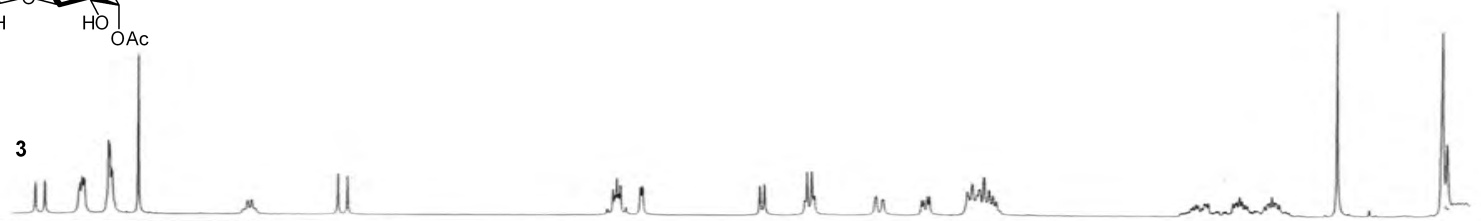
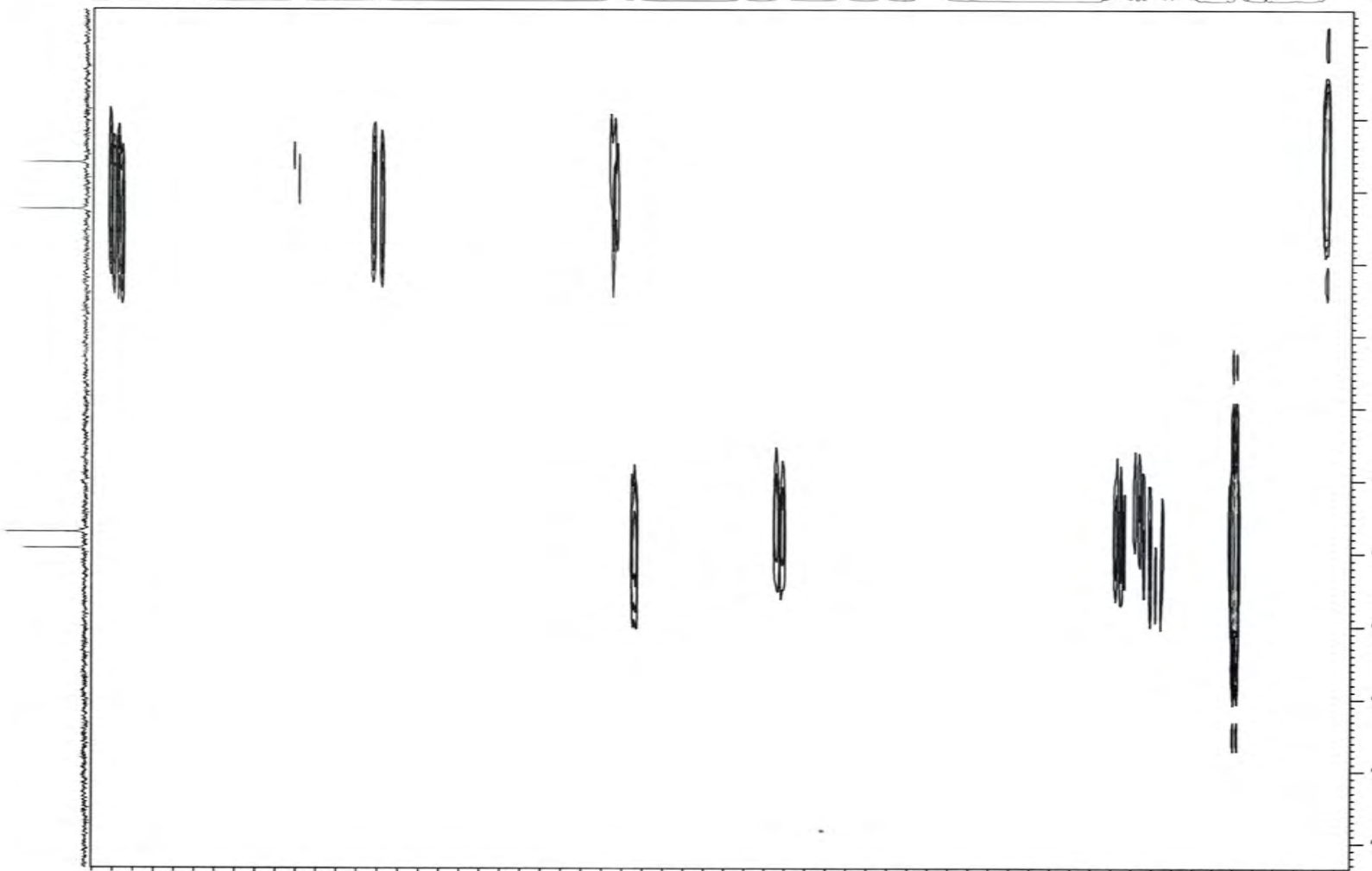
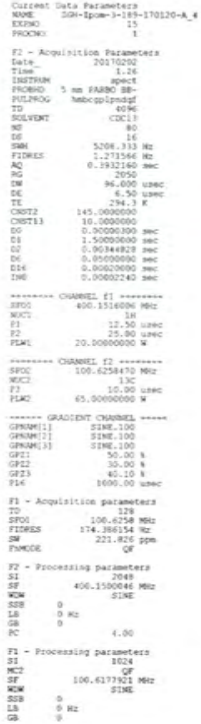
ZGH-Ipom-3-189-170120-A_4 HMBC in CDCl3





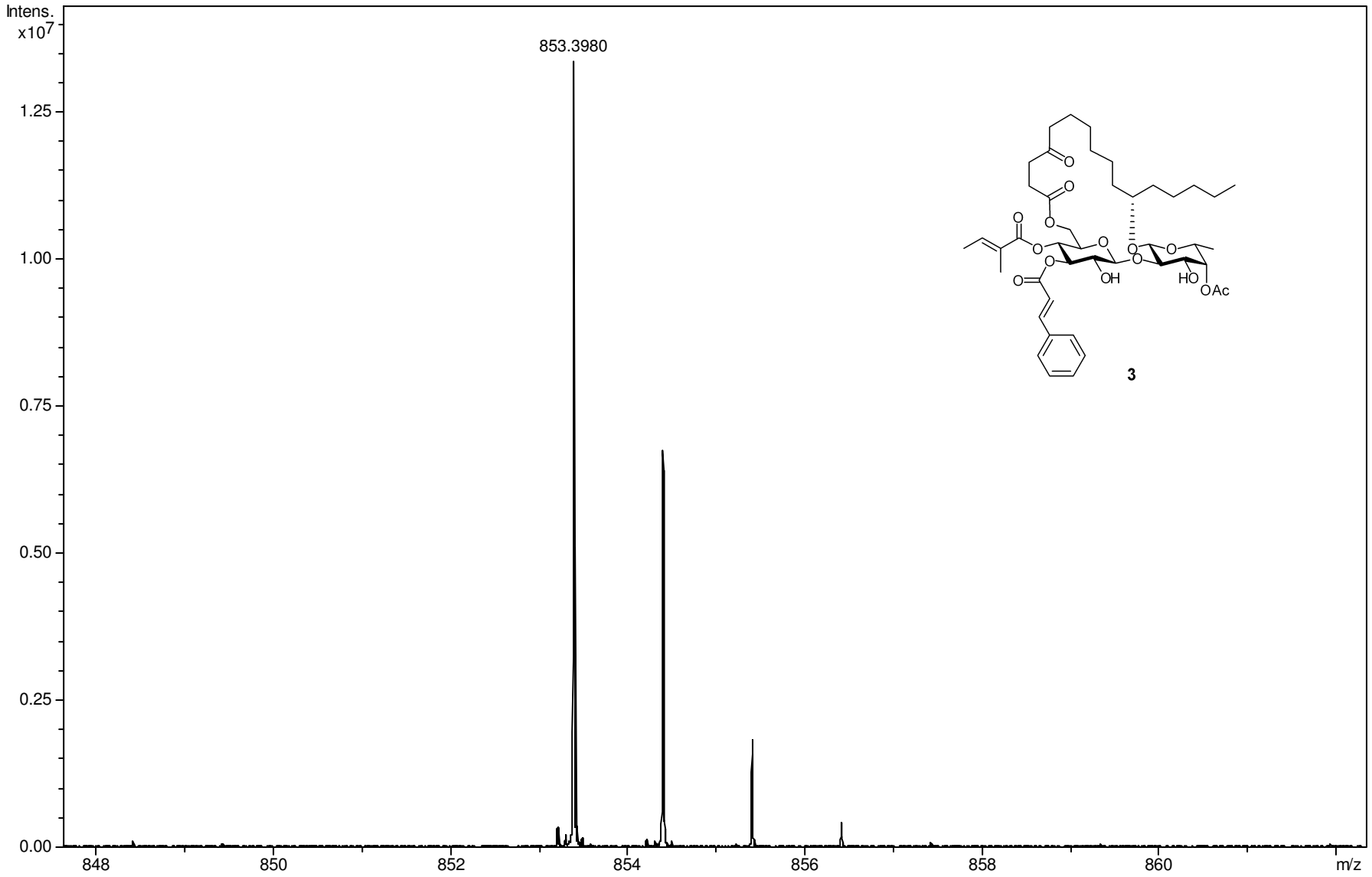


Arkansas Statewide Mass Spectrometry Facility

ESI-FTMS Mass Spectrum

Sample Name: ZIF-54
Sample id#: 921
Instrument: Bruker ApexII-FTMS

2/8/2017



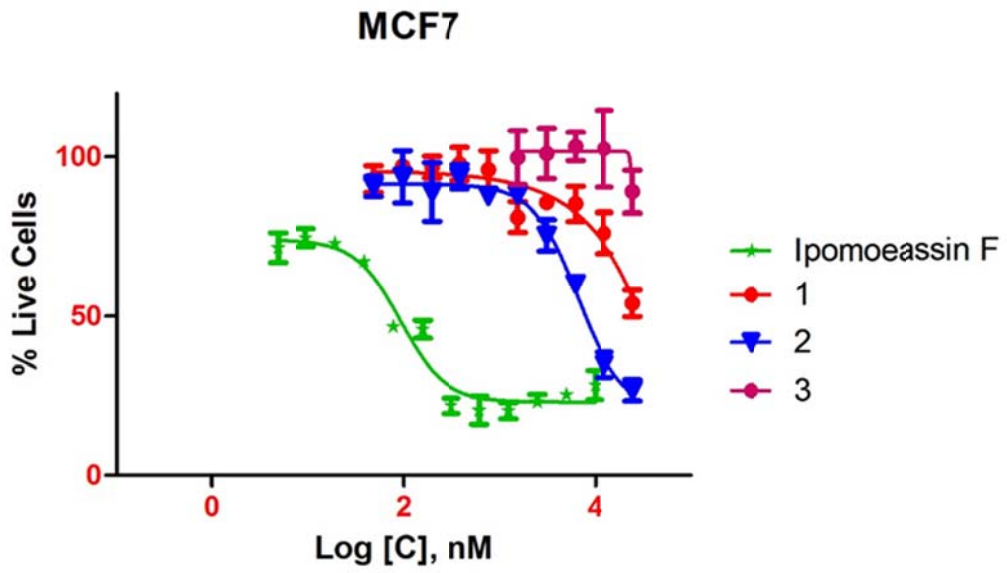


Figure S1. IC_{50} curves of ipomoeassin F and analohues **1**–**3** against the MCF7 cell line.

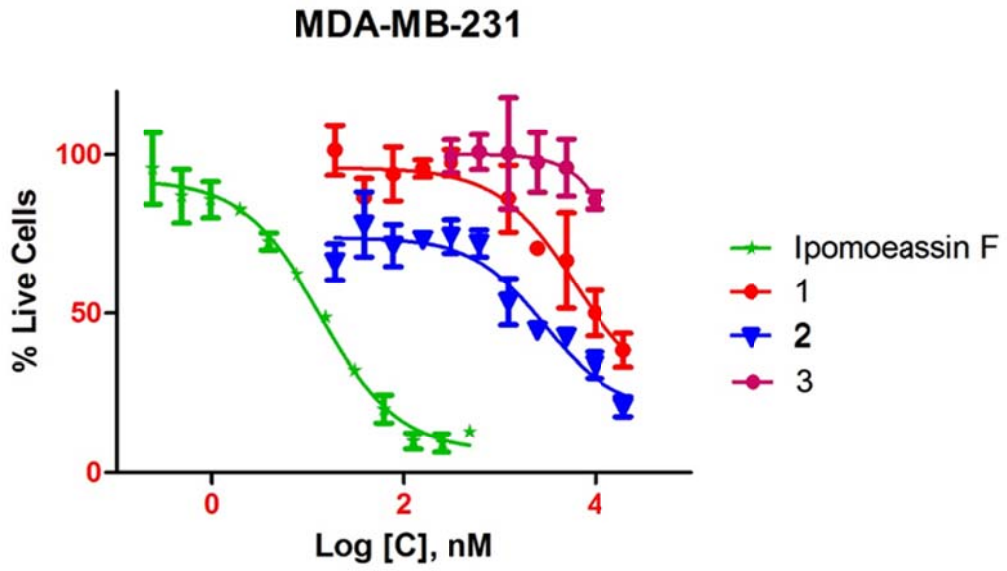
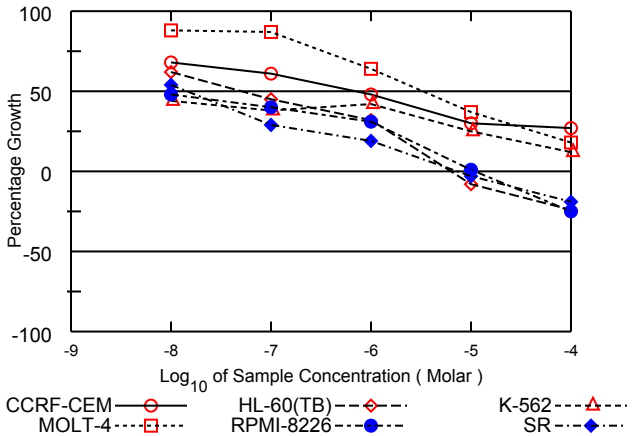
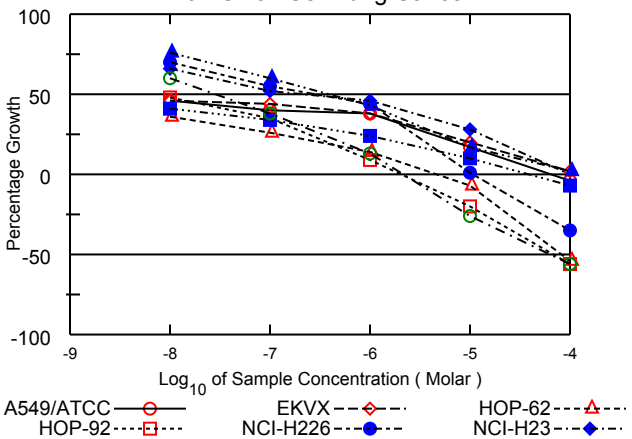


Figure S2. IC_{50} curves of ipomoeassin F and analohues **1**–**3** against the MDA-MB-231 cell line.

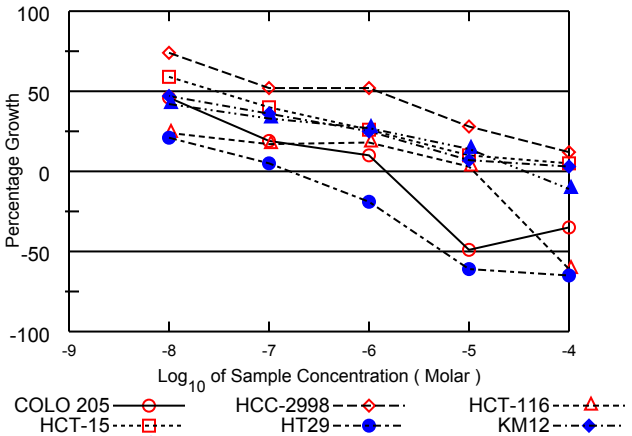
Leukemia



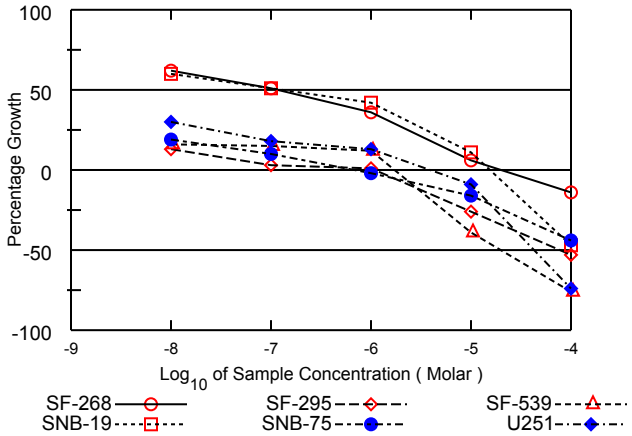
Non-Small Cell Lung Cancer



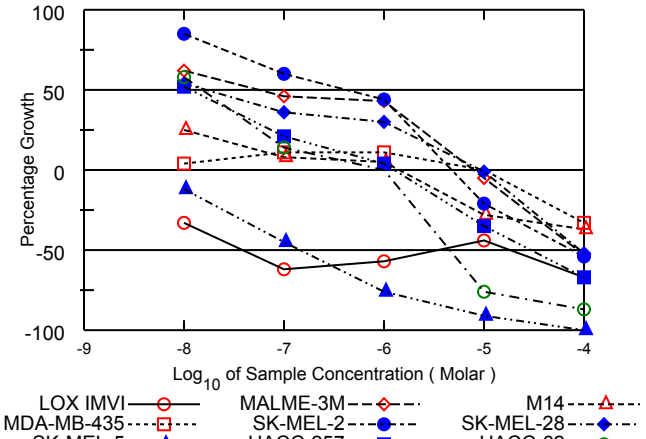
Colon Cancer



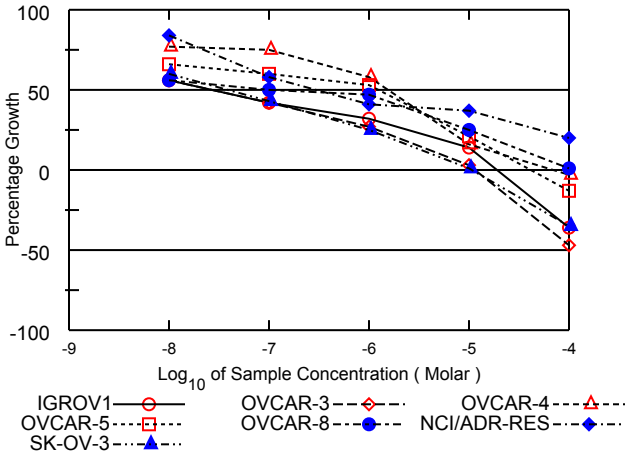
CNS Cancer



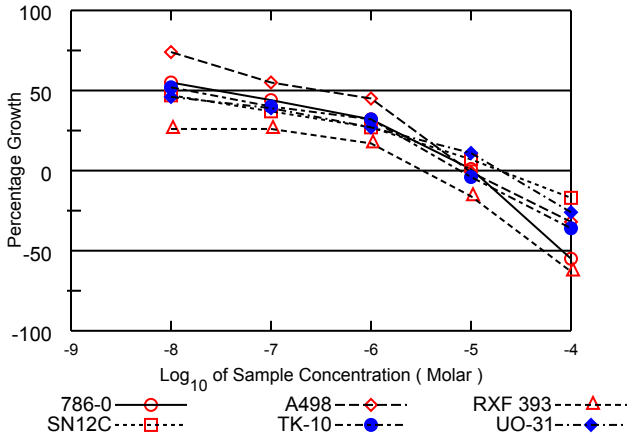
Melanoma



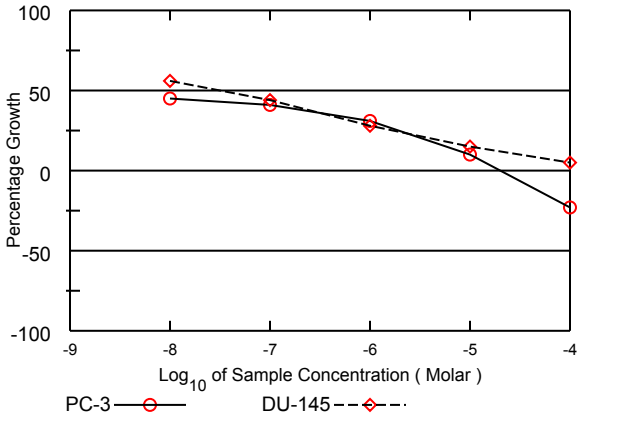
Ovarian Cancer



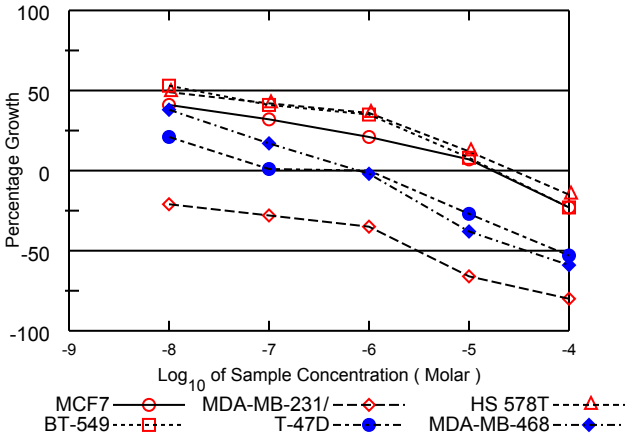
Renal Cancer



Prostate Cancer



Breast Cancer



National Cancer Institute Developmental Therapeutics Program
In-Vitro Testing Results

NSC : D - 791000 / 1	Experiment ID : 1610RS07	Test Type : 08	Units : Molar
Report Date : January 17, 2017	Test Date : October 31, 2016	QNS :	MC :
COMI : ZIF	Stain Reagent : SRB Dual-Pass Related	SSPL : 1A0E	

		Log10 Concentration												
	Time		Mean Optical Densities					Percent Growth						
Panel/Cell Line	Zero	Ctrl	-8.0	-7.0	-6.0	-5.0	-4.0	-8.0	-7.0	-6.0	-5.0	-4.0	GI50	TGI	LC50
Leukemia															
CCRF-CEM	0.382	1.605	1.218	1.127	0.974	0.747	0.712	68	61	48	30	27	7.41E-7	> 1.00E-4	> 1.00E-4
HL-60(TB)	0.809	2.804	2.048	1.699	1.442	0.746	0.616	62	45	32	-8	-24	4.90E-8	6.33E-6	> 1.00E-4
K-562	0.228	2.065	1.032	0.919	0.992	0.693	0.451	44	38	42	25	12	< 1.00E-8	> 1.00E-4	> 1.00E-4
MOLT-4	0.563	1.986	1.814	1.803	1.480	1.095	0.825	88	87	64	37	18	3.42E-6	> 1.00E-4	> 1.00E-4
RPMI-8226	0.926	2.465	1.669	1.538	1.408	0.948	0.695	48	40	31	1	-25	< 1.00E-8	1.13E-5	> 1.00E-4
SR	0.568	2.300	1.503	1.073	0.905	0.552	0.460	54	29	19	-3	-19	1.44E-8	7.42E-6	> 1.00E-4
Non-Small Cell Lung Cancer															
A549/ATCC	0.470	2.114	1.228	1.129	1.095	0.744	0.452	46	40	38	17	-4	< 1.00E-8	6.50E-5	> 1.00E-4
EKVX	0.853	2.545	1.637	1.598	1.489	1.195	0.881	46	44	38	20	2	< 1.00E-8	> 1.00E-4	> 1.00E-4
HOP-62	0.945	2.009	1.328	1.225	1.091	0.878	0.439	36	26	14	-7	-54	< 1.00E-8	4.55E-6	8.37E-5
HOP-92	1.002	1.608	1.292	1.211	1.055	0.798	0.444	48	35	9	-20	-56	< 1.00E-8	1.99E-6	6.90E-5
NCI-H226	0.768	1.416	1.220	1.123	1.053	0.776	0.498	70	55	44	1	-35	2.76E-7	1.08E-5	> 1.00E-4
NCI-H23	0.648	2.191	1.666	1.448	1.361	1.082	0.644	66	52	46	28	.	2.13E-7	9.52E-5	> 1.00E-4
NCI-H322M	0.967	2.266	1.951	1.743	1.529	1.187	0.992	76	60	43	17	2	3.91E-7	> 1.00E-4	> 1.00E-4
NCI-H460	0.183	2.001	0.933	0.804	0.617	0.360	0.170	41	34	24	10	-7	< 1.00E-8	3.71E-5	> 1.00E-4
NCI-H522	0.922	2.101	1.629	1.367	1.073	0.684	0.404	60	38	13	-26	-56	2.79E-8	2.14E-6	6.23E-5
Colon Cancer															
COLO 205	0.580	1.848	1.159	0.815	0.703	0.293	0.375	46	19	10	-49	-35	< 1.00E-8	1.46E-6	> 1.00E-4
HCC-2998	0.864	2.919	2.378	1.931	1.927	1.442	1.117	74	52	52	28	12	1.18E-6	> 1.00E-4	> 1.00E-4
HCT-116	0.252	2.206	0.718	0.580	0.606	0.319	0.098	24	17	18	3	-61	< 1.00E-8	1.13E-5	6.69E-5
HCT-15	0.330	2.340	1.515	1.137	0.857	0.541	0.430	59	40	26	10	5	2.98E-8	> 1.00E-4	> 1.00E-4
HT29	0.228	1.403	0.479	0.292	0.184	0.089	0.080	21	5	-19	-61	-65	< 1.00E-8	1.66E-7	5.46E-6
KM12	0.566	2.933	1.681	1.414	1.166	0.737	0.638	47	36	25	7	3	< 1.00E-8	> 1.00E-4	> 1.00E-4
SW-620	0.254	1.812	0.913	0.771	0.676	0.474	0.226	42	33	27	14	-11	< 1.00E-8	3.60E-5	> 1.00E-4
CNS Cancer															
SF-268	0.752	2.388	1.767	1.585	1.342	0.848	0.645	62	51	36	6	-14	1.15E-7	1.95E-5	> 1.00E-4
SF-295	0.611	3.049	0.923	0.691	0.636	0.452	0.287	13	3	1	-26	-53	< 1.00E-8	1.09E-6	7.72E-5
SF-539	1.194	3.061	1.490	1.481	1.411	0.728	0.290	16	15	12	-39	-76	< 1.00E-8	1.69E-6	1.99E-5
SNB-19	0.265	1.129	0.781	0.705	0.631	0.358	0.141	60	51	42	11	-47	1.29E-7	1.54E-5	> 1.00E-4
SNB-75	0.941	1.836	1.111	1.033	0.927	0.792	0.528	19	10	-2	-16	-44	< 1.00E-8	7.40E-7	> 1.00E-4
U251	0.495	2.137	0.985	0.798	0.710	0.452	0.131	30	18	13	-9	-74	< 1.00E-8	3.99E-6	4.34E-5
Melanoma															
LOX IMVI	0.462	2.918	0.311	0.178	0.201	0.261	0.152	-33	-62	-57	-44	-67	< 1.00E-8	< 1.00E-8	.
MALME-3M	0.588	1.077	0.890	0.816	0.799	0.561	0.277	62	46	43	-5	-53	5.87E-8	8.01E-6	8.71E-5
M14	0.406	1.633	0.713	0.503	0.468	0.291	0.257	25	8	5	-28	-37	< 1.00E-8	1.42E-6	> 1.00E-4
MDA-MB-435	0.495	2.355	0.571	0.699	0.693	0.494	0.332	4	11	11	.	-33	< 1.00E-8	9.38E-6	> 1.00E-4
SK-MEL-2	1.000	2.081	1.915	1.654	1.479	0.787	0.463	85	60	44	-21	-54	4.45E-7	4.73E-6	7.68E-5
SK-MEL-28	0.560	1.705	1.183	0.975	0.906	0.553	0.271	54	36	30	-1	-52	1.75E-8	9.13E-6	9.29E-5
SK-MEL-5	0.727	2.668	0.642	0.398	0.174	0.066	-0.057	-12	-45	-76	-91	-100	< 1.00E-8	< 1.00E-8	1.43E-7
UACC-257	1.025	2.071	1.572	1.249	1.072	0.663	0.340	52	21	4	-35	-67	1.19E-8	1.30E-6	2.92E-5
UACC-62	0.899	2.944	2.088	1.190	0.902	0.220	0.118	58	14	.	-76	-87	1.53E-8	1.00E-6	4.60E-6
Ovarian Cancer															
IGROV1	0.532	1.904	1.303	1.103	0.969	0.718	0.340	56	42	32	14	-36	2.67E-8	1.88E-5	> 1.00E-4
OVCAR-3	0.441	1.533	1.058	0.902	0.737	0.479	0.233	56	42	27	3	-47	2.83E-8	1.17E-5	> 1.00E-4
OVCAR-4	0.705	1.587	1.388	1.369	1.220	0.848	0.687	77	75	58	16	-3	1.58E-6	7.30E-5	> 1.00E-4
OVCAR-5	0.733	2.240	1.734	1.631	1.530	1.044	0.638	66	60	53	21	-13	1.23E-6	4.11E-5	> 1.00E-4
OVCAR-8	0.522	2.262	1.491	1.396	1.343	0.961	0.546	56	50	47	25	1	1.17E-7	> 1.00E-4	> 1.00E-4
NCI/ADR-RES	0.647	2.426	2.150	1.677	1.381	1.300	1.009	84	58	41	37	20	2.97E-7	> 1.00E-4	> 1.00E-4
SK-OV-3	1.104	2.045	1.664	1.511	1.342	1.113	0.716	60	43	25	1	-35	3.84E-8	1.06E-5	> 1.00E-4
Renal Cancer															
786-0	0.636	2.295	1.552	1.371	1.167	0.659	0.284	55	44	32	1	-55	3.01E-8	1.06E-5	8.05E-5
A498	1.153	1.933	1.727	1.586	1.501	1.138	0.782	74	55	45	-1	-32	3.15E-7	9.35E-6	> 1.00E-4
RXF 393	0.641	1.315	0.819	0.814	0.755	0.542	0.235	26	26	17	-16	-63	< 1.00E-8	3.32E-6	5.25E-5
SN12C	0.522	2.270	1.339	1.171	0.993	0.648	0.436	47	37	27	7	-17	< 1.00E-8	2.01E-5	> 1.00E-4
TK-10	1.429	2.523	2.000	1.870	1.774	1.375	0.915	52	40	32	-4	-36	1.52E-8	7.82E-6	> 1.00E-4
UO-31	0.508	1.896	1.152	1.045	0.888	0.656	0.375	46	39	27	11	-26	< 1.00E-8	1.95E-5	> 1.00E-4
Prostate Cancer															
PC-3	0.588	1.724	1.098	1.049	0.938	0.698	0.452	45	41	31	10	-23	< 1.00E-8	1.97E-5	> 1.00E-4
DU-145	0.346	1.749	1.133	0.964	0.746	0.553	0.412	56	44	28	15	5	3.19E-8	> 1.00E-4	> 1.00E-4
Breast Cancer															
MCF7	0.360	2.157	1.098	0.934	0.740	0.481	0.276	41	32	21	7	-23	< 1.00E-8	1.67E-5	> 1.00E-4
MDA-MB-231/ATCC	0.573	1.352	0.453	0.412	0.371	0.195	0.114	-21	-28	-35	-66	-80	< 1.00E-8	< 1.00E-8	3.01E-6
HS 578T	1.105	2.160	1.623	1.551	1.486	1.232	0.936	49	42	36	12	-15	< 1.00E-8	2.75E-5	> 1.00E-4
BT-549	1.113	2.143	1.661	1.532	1.470	1.193	0.852	53	41	35	8	-23	1.79E-8	1.77E-5	> 1.00E-4
T-47D	0.851	1.514	0.990	0.859	0.848	0.618	0.401	21	1	.	-27	-53	< 1.00E-8	5.57E-7	7.71E-5
MDA-MB-468	0.913	2.031	1.334	1.100	0.892	0.563	0.372	38	17	-2	-38	-59	< 1.00E-8	7.52E-7	3.60E-5

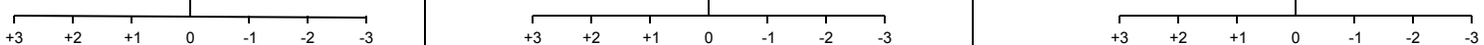
National Cancer Institute Developmental Therapeutics Program

Mean Graphs

NSC : D - 791000/1 | Units :Molar | SSPL :1A0E | EXP. ID :1610RS07

Report Date :January 17, 2017 | Test Date :October 31, 2016

Panel/Cell Line	Log_{10}GI50	GI50	Log_{10}TGI	TGI	Log_{10}LC50	LC50
Leukemia						
CCRF-CEM	-6.13		> -4.00		> -4.00	
HL-60(TB)	-7.31		-5.20		> -4.00	
K-562	< -8.00		> -4.00		> -4.00	
MOLT-4	-5.47		> -4.00		> -4.00	
RPMI-8226	< -8.00		-4.95		> -4.00	
SR	-7.84		-5.13		> -4.00	
Non-Small Cell Lung Cancer						
A549/ATCC	< -8.00		-4.19		> -4.00	
EKVX	< -8.00		> -4.00		> -4.00	
HOP-62	< -8.00		-5.34		-4.08	
HOP-92	< -8.00		-5.70		-4.16	
NCI-H226	-6.56		-4.97		> -4.00	
NCI-H23	-6.67		-4.02		> -4.00	
NCI-H322M	-6.41		> -4.00		> -4.00	
NCI-H460	< -8.00		-4.43		> -4.00	
NCI-H522	-7.55		-5.67		-4.21	
Colon Cancer						
COLO 205	< -8.00		-5.84		> -4.00	
HCC-2998	-5.93		> -4.00		> -4.00	
HCT-116	< -8.00		-4.95		-4.17	
HCT-15	-7.53		> -4.00		> -4.00	
HT29	< -8.00		-6.78		-5.26	
KM12	< -8.00		> -4.00		> -4.00	
SW-620	< -8.00		-4.44		> -4.00	
CNS Cancer						
SF-268	-6.94		-4.71		> -4.00	
SF-295	< -8.00		-5.96		-4.11	
SF-539	< -8.00		-5.77		-4.70	
SNB-19	-6.89		-4.81		> -4.00	
SNB-75	< -8.00		-6.13		> -4.00	
U251	< -8.00		-5.40		-4.36	
Melanoma						
LOX IMVI	< -8.00		< -8.00			
MALME-3M	-7.23		-5.10		-4.06	
M14	< -8.00		-5.85		> -4.00	
MDA-MB-435	< -8.00		-5.03		> -4.00	
SK-MEL-2	-6.35		-5.33		-4.11	
SK-MEL-28	-7.76		-5.04		-4.03	
SK-MEL-5	< -8.00		< -8.00		-6.85	
UACC-257	-7.93		-5.89		-4.53	
UACC-62	-7.82		-6.00		-5.34	
Ovarian Cancer						
IGROV1	-7.57		-4.73		> -4.00	
OVCAR-3	-7.55		-4.93		> -4.00	
OVCAR-4	-5.80		-4.14		> -4.00	
OVCAR-5	-5.91		-4.39		> -4.00	
OVCAR-8	-6.93		> -4.00		> -4.00	
NCI/ADR-RES	-6.53		> -4.00		> -4.00	
SK-OV-3	-7.42		-4.97		> -4.00	
Renal Cancer						
786-0	-7.52		-4.98		-4.09	
A498	-6.50		-5.03		> -4.00	
RXF 393	< -8.00		-5.48		-4.28	
SN12C	< -8.00		-4.70		> -4.00	
TK-10	-7.82		-5.11		> -4.00	
UO-31	< -8.00		-4.71		> -4.00	
Prostate Cancer						
PC-3	< -8.00		-4.71		> -4.00	
DU-145	-7.50		> -4.00		> -4.00	
Breast Cancer						
MCF7	< -8.00		-4.78		> -4.00	
MDA-MB-231/ATCC	< -8.00		< -8.00		-5.52	
HS 578T	< -8.00		-4.56		> -4.00	
BT-549	-7.75		-4.75		> -4.00	
T-47D	< -8.00		-6.25		-4.11	
MDA-MB-468	< -8.00		-6.12		-4.44	
_MID	-7.5		-5.09		-4.18	
Delta	0.5		2.91		2.67	
Range	2.53		4.0		2.85	



National Cancer Institute Developmental Therapeutics Program Dose Response Curves	NSC : D - 791000/1	SSPL:1A0E	EXP. ID:1610RS07
	Report Date:January 17, 2017	Test Date:October 31, 2016