

# SUPPORTING INFORMATION

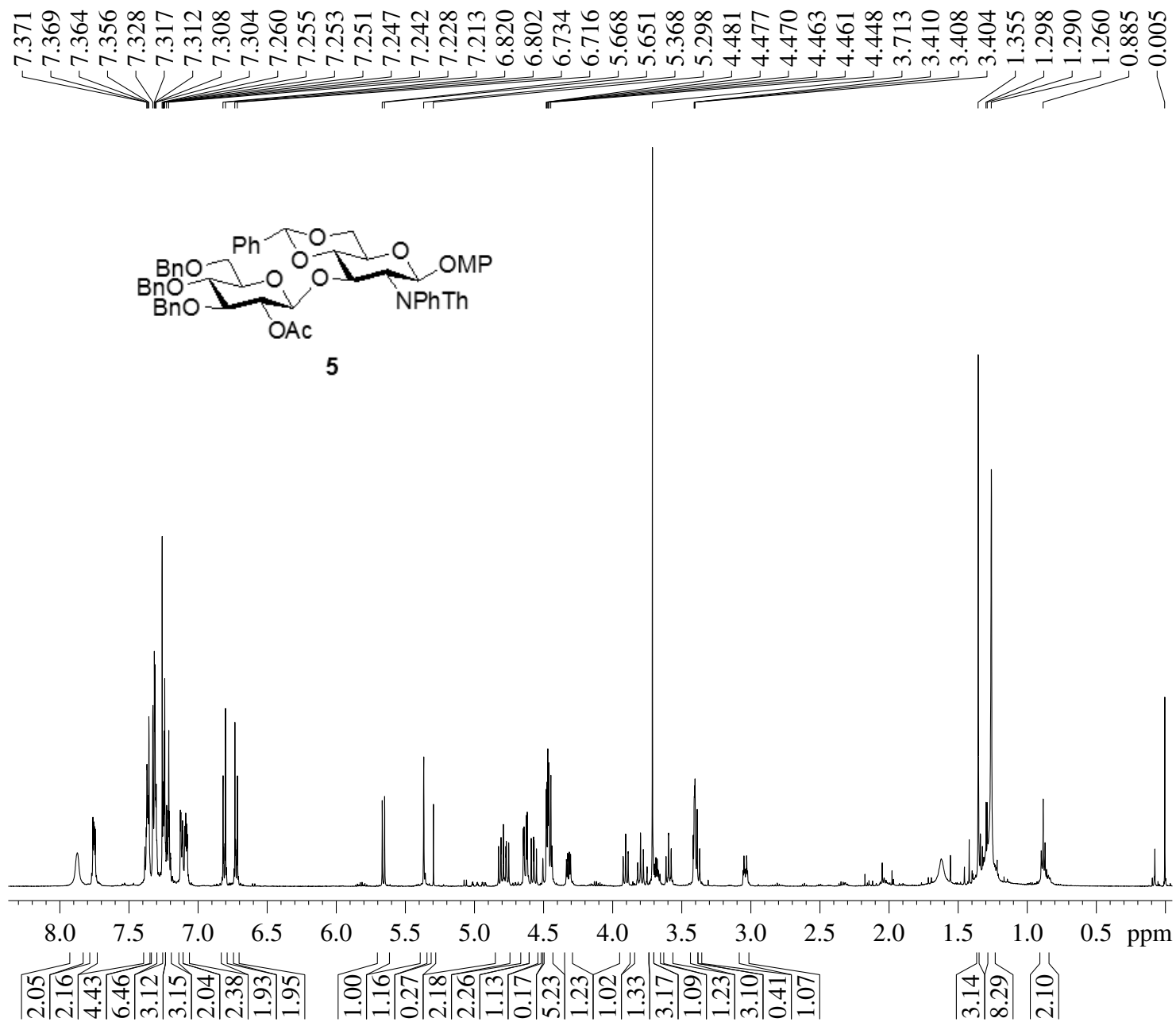
**Concise synthesis of a tetra- and a trisaccharide related to the repeating unit of the *O*-antigen from *Providencia rustigianii* O34 in the form of their *p*-methoxyphenyl glycosides**

Prashant Ranjan Verma, Balaram Mukhopadhyay\*

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BM-PRV-0038A in CDCl<sub>3</sub>



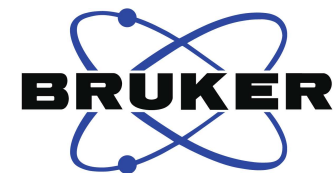
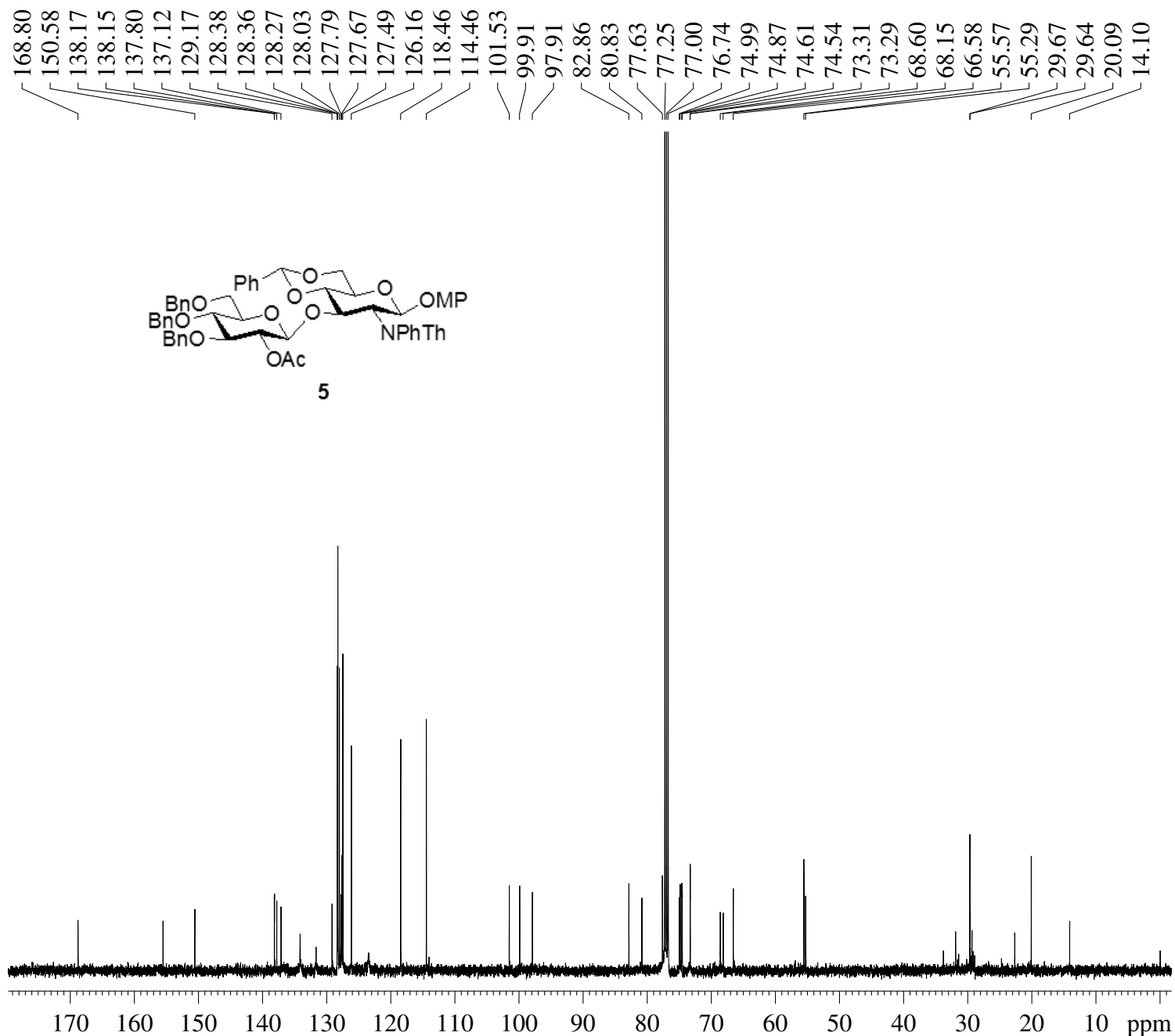
Current Data Parameters  
NAME BM-PRV-0038A  
EXPNO 30  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100112  
Time 14.58  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 114  
DW 48.400 usec  
DE 6.50 usec  
TE 296.2 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300135 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

BM-PRV-0038A in CDCl<sub>3</sub> (carbon)

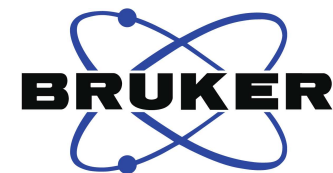
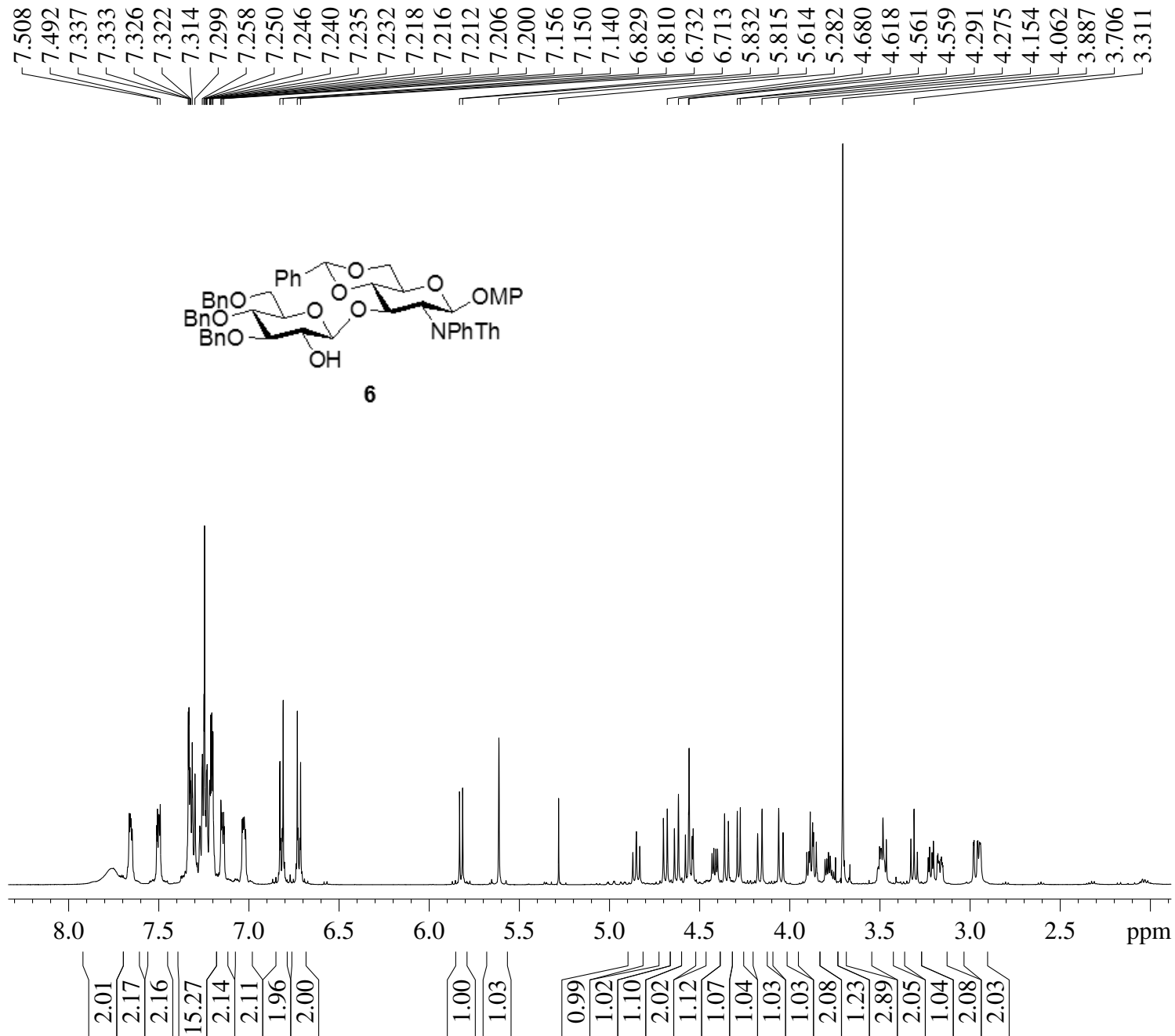


Current Data Parameters  
NAME BM-PRV-0038A  
EXPNO 33  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100112  
Time 15.33  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 864  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 297.6 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577940 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0039



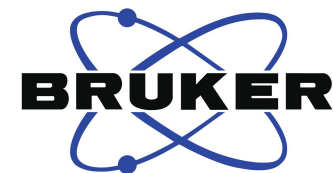
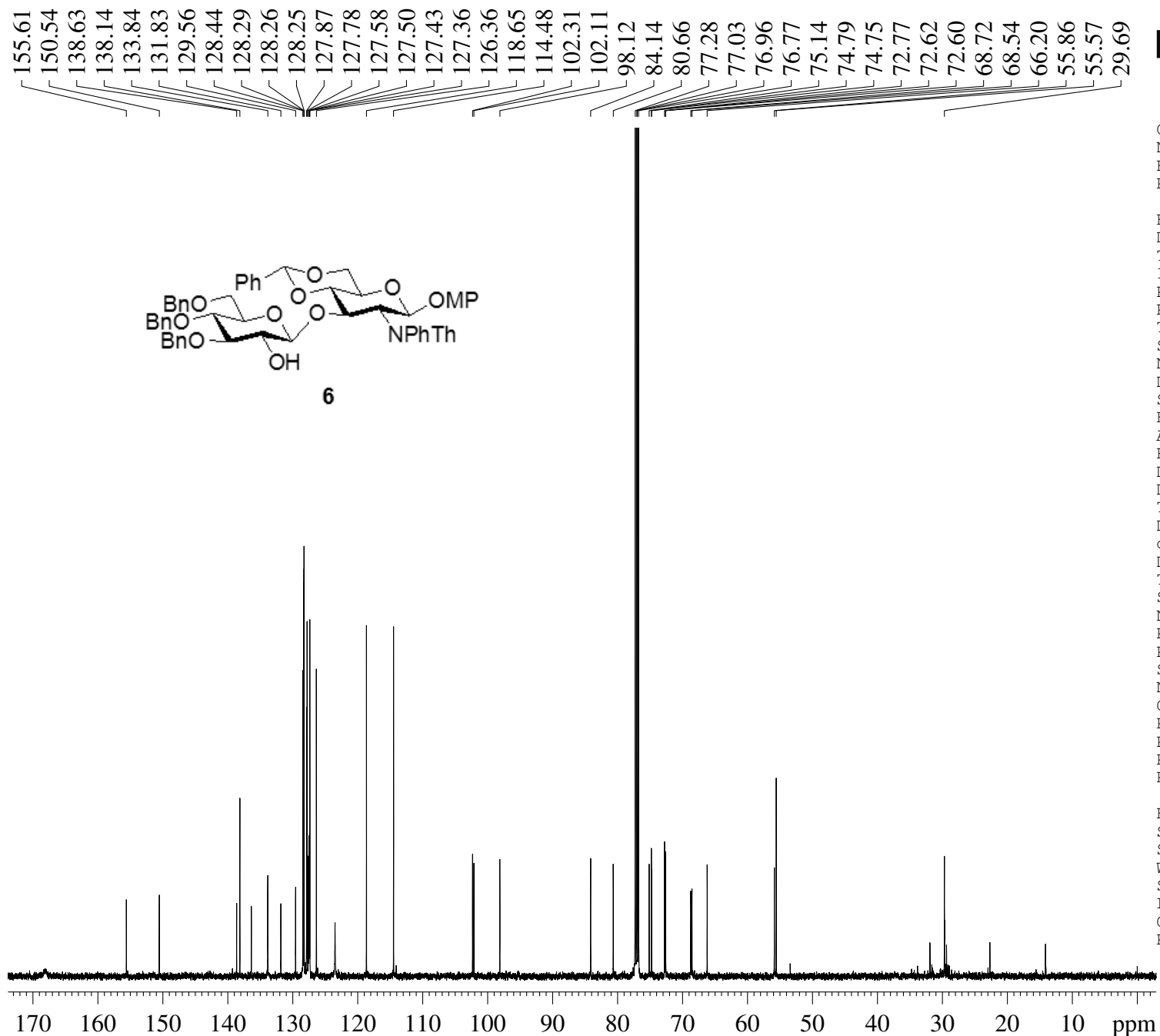
Current Data Parameters  
NAME BM-PRV-0039  
EXPNO 30  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100207  
Time 18.03  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 64  
DW 48.400 usec  
DE 6.50 usec  
TE 294.9 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300203 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10

BM-PRV-0039

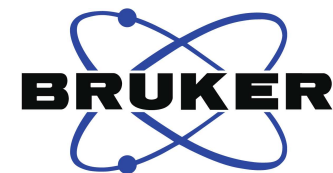
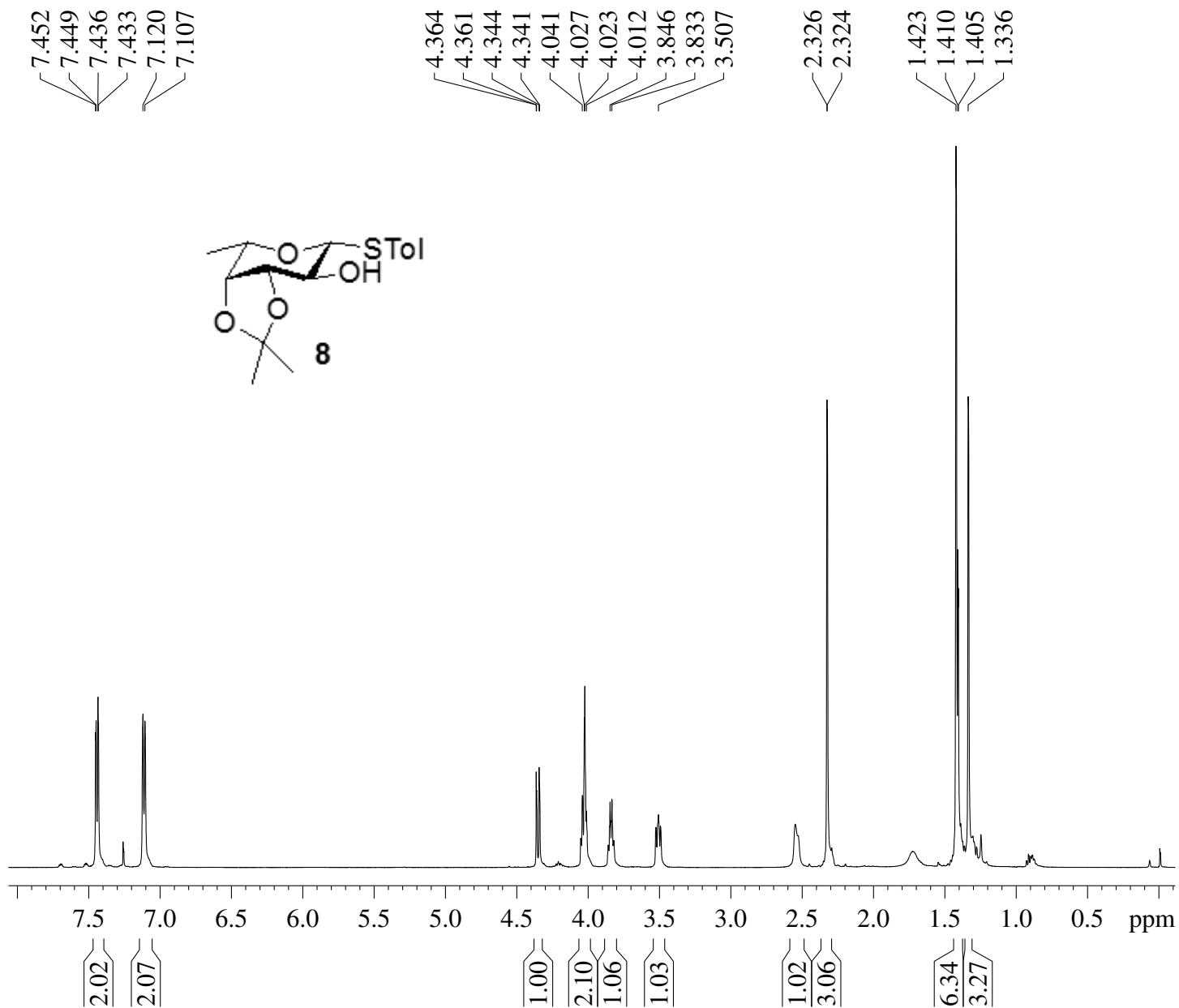


Current Data Parameters  
NAME BM-PRV-0039  
EXPNO 31  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100207  
Time 18.43  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 790  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 296.3 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577940 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0243 in CDCl<sub>3</sub>



Current Data Parameters  
NAME BM-PRV-0243  
EXPNO 210  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20120607  
Time 13.21  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 57  
DW 48.400 usec  
DE 6.50 usec  
TE 298.2 K  
D1 1.00000000 sec  
TD0 1

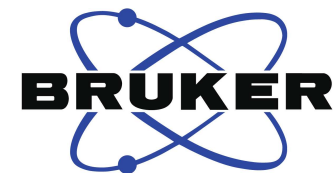
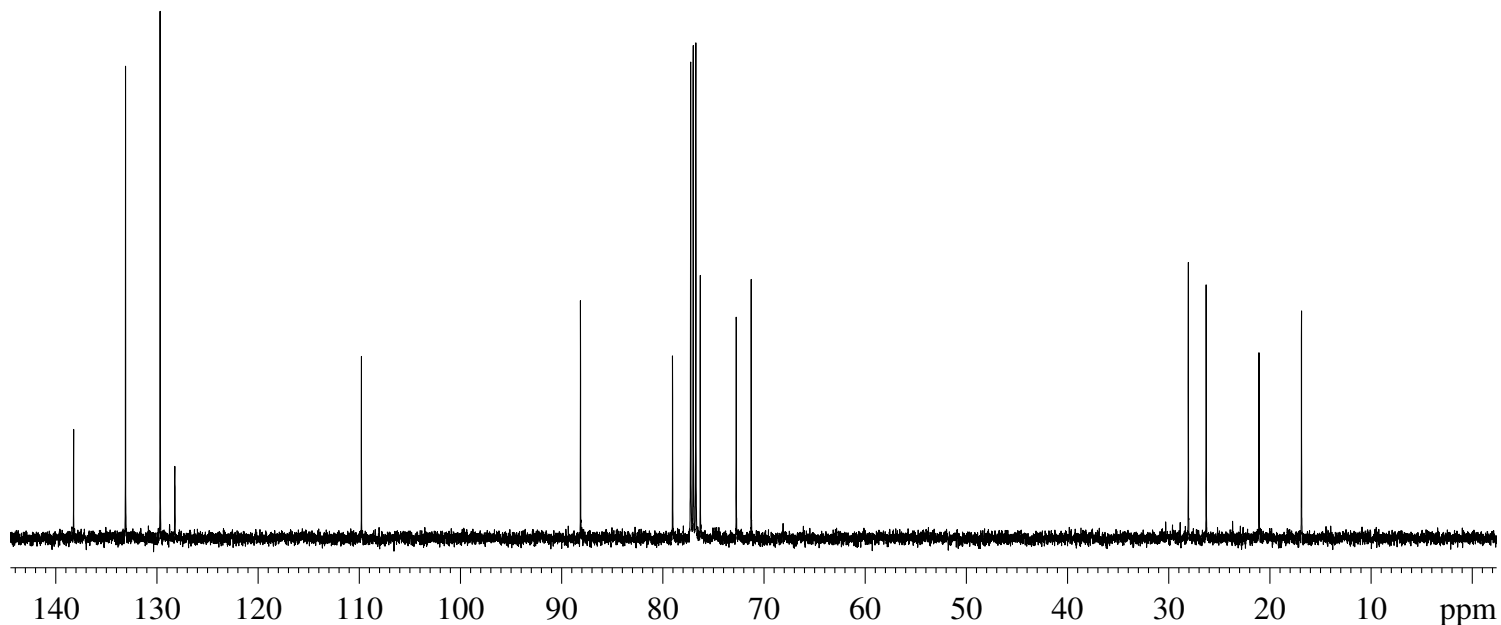
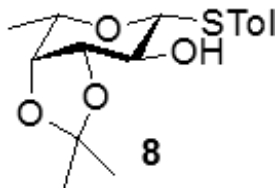
==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1830888 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1800122 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

BM-PRV-0243 in CDCl<sub>3</sub>

138.24  
133.10  
129.68  
128.23  
109.79  
88.13  
79.03  
77.25  
77.00  
76.74  
76.29  
72.74  
71.26

28.07  
26.31  
21.09  
16.89

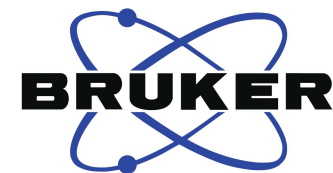
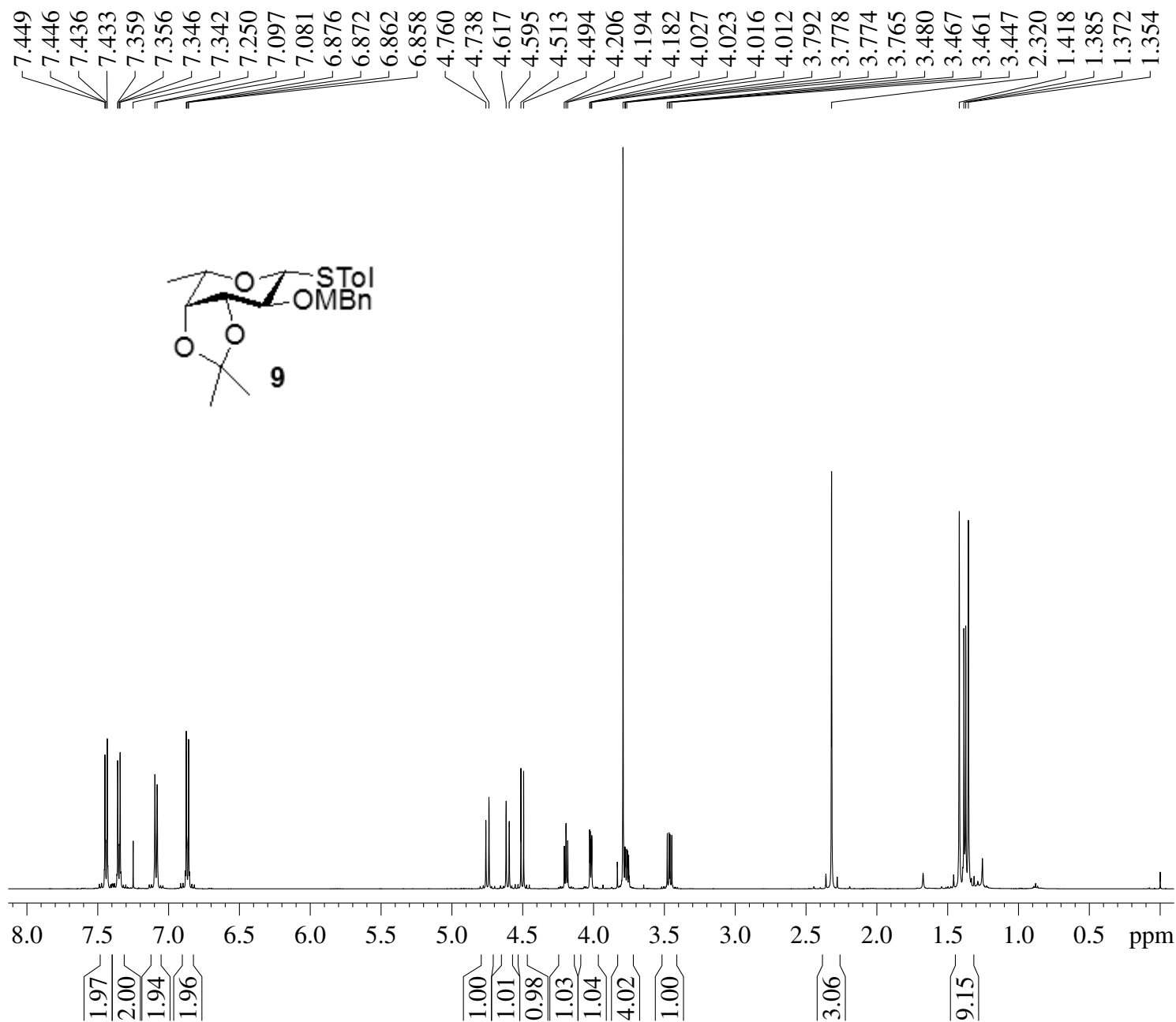


Current Data Parameters  
NAME BM-PRV-0243  
EXPNO 213  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20120607  
Time 13.43  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 111  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 299.4 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7829381 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1820007 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7703679 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0040



Current Data Parameters  
NAME BM-PRV-0040  
EXPNO 20  
PROCNO 1

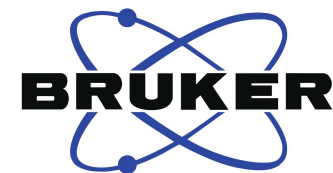
F2 - Acquisition Parameters  
Date\_ 20100207  
Time 17.26  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 40.3  
DW 48.400 usec  
DE 6.50 usec  
TE 294.7 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300183 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10



BM-PRV-0040

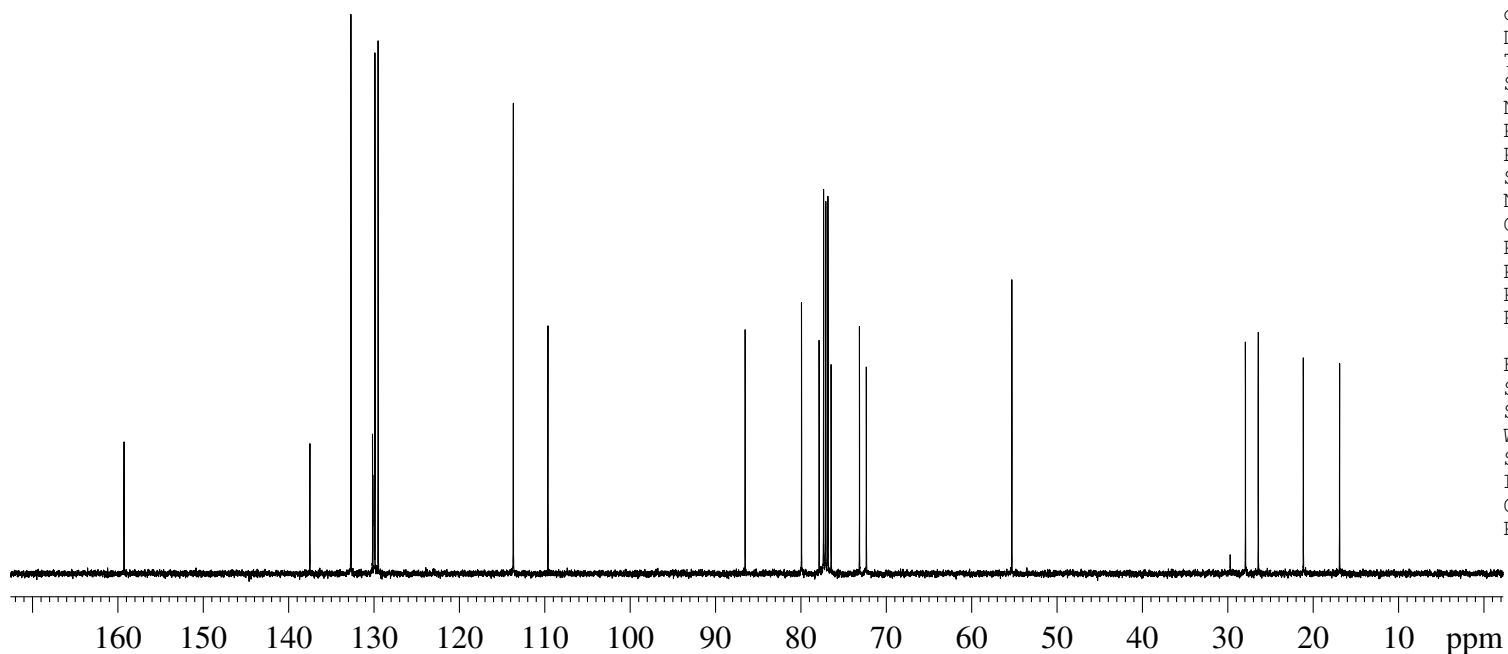
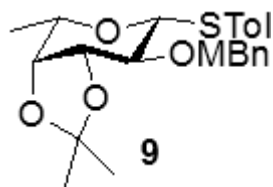


Current Data Parameters  
NAME BM-PRV-0040  
EXPNO 21  
PROCNO 1

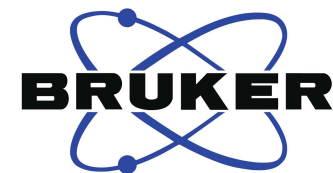
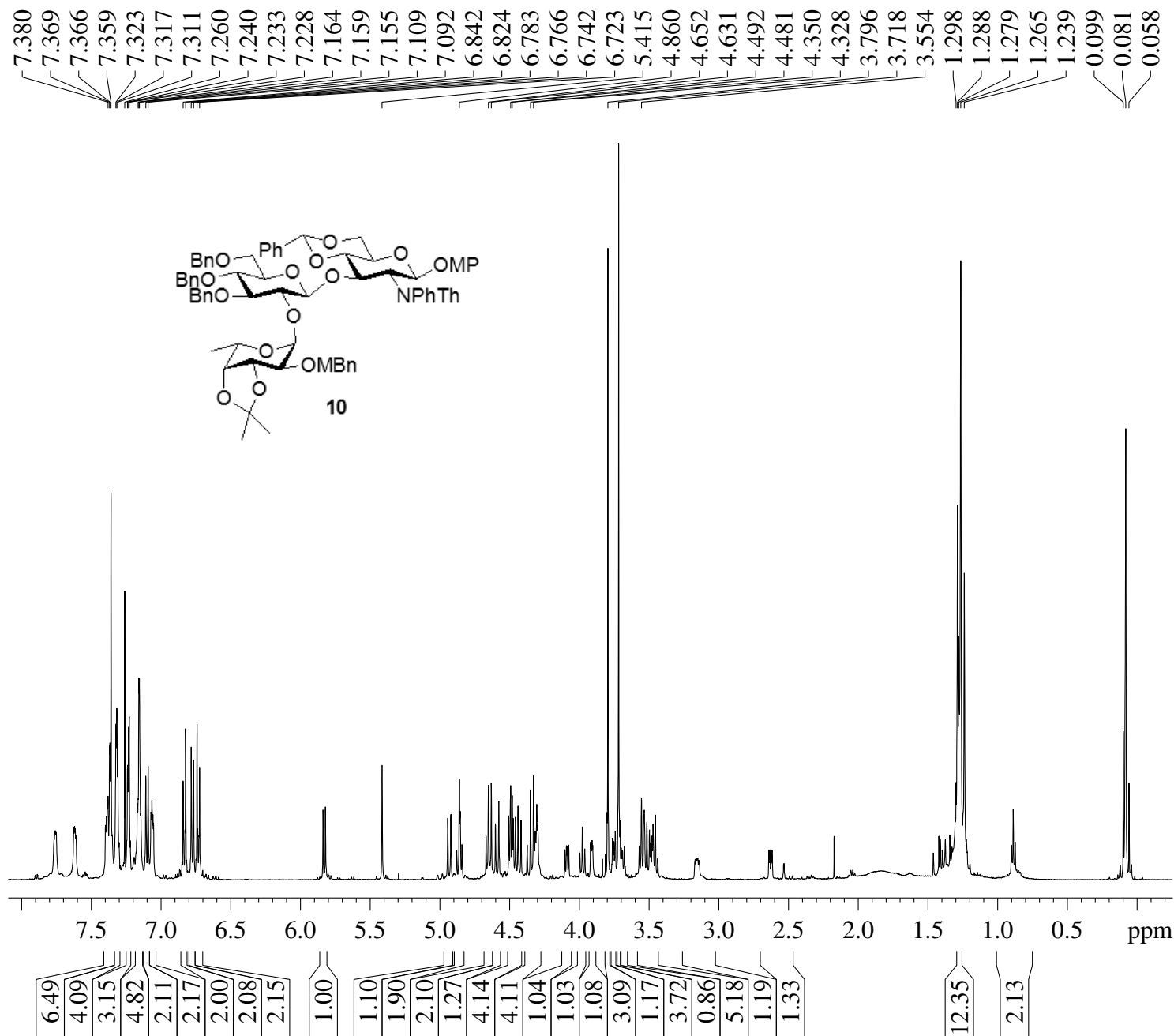
F2 - Acquisition Parameters  
Date\_ 20100207  
Time 17.32  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 131  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 295.7 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577890 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

159.29  
137.52  
132.71  
130.18  
129.98  
129.90  
129.53  
113.69  
109.64  
86.54  
79.94  
77.87  
77.35  
77.09  
76.84  
76.47  
73.15  
72.34  
55.30  
27.94  
26.43  
21.16  
16.91



BM-PRV-0055A in CDCl<sub>3</sub>



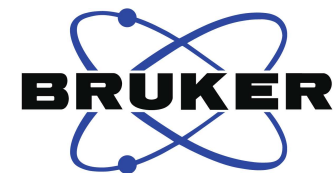
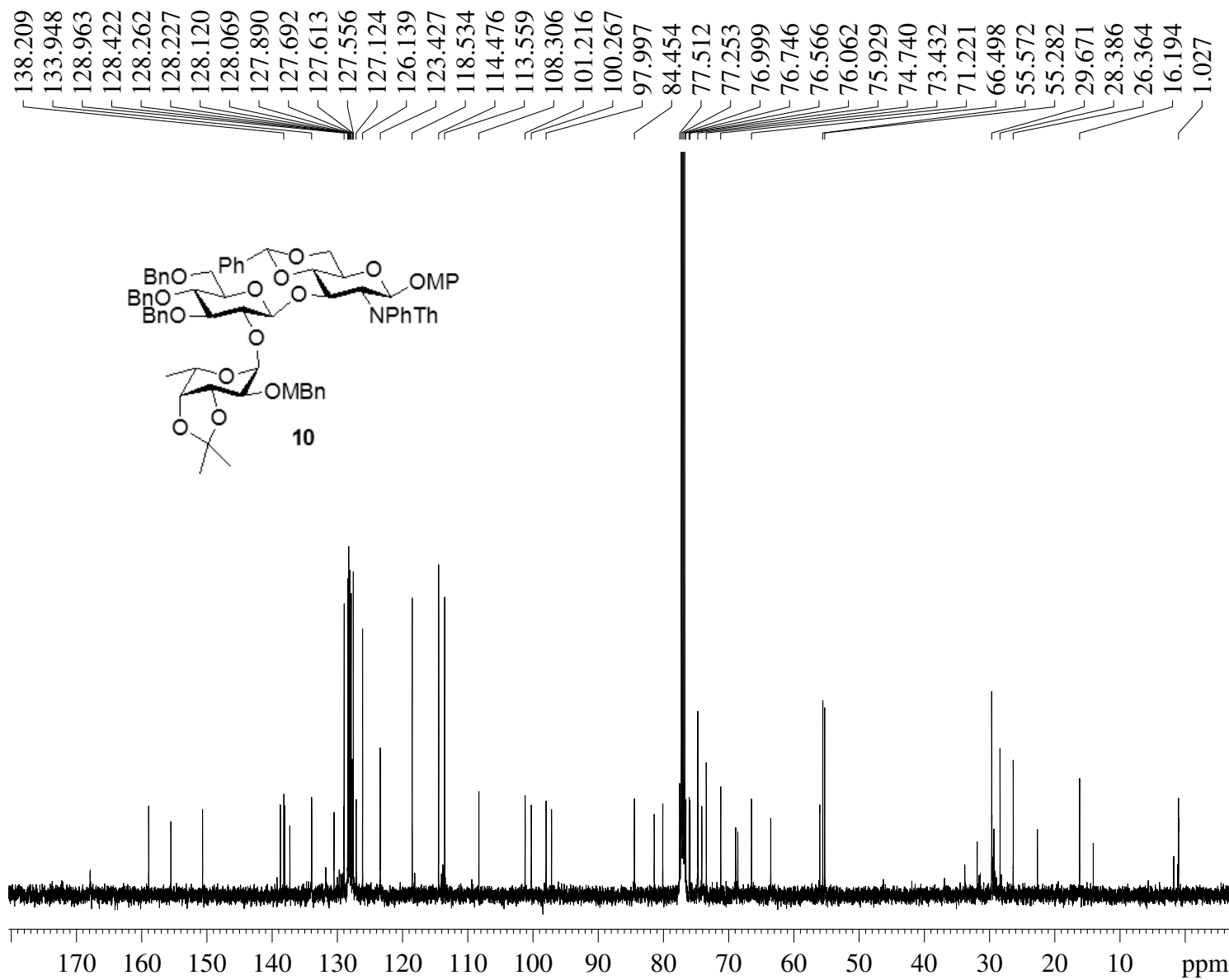
Current Data Parameters  
NAME BM-PRV-055A  
EXPNO 190  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100423  
Time 12.35  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 80.6  
DW 48.400 usec  
DE 6.50 usec  
TE 299.3 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300135 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10

BM-PRV-0055A in CDCl<sub>3</sub>

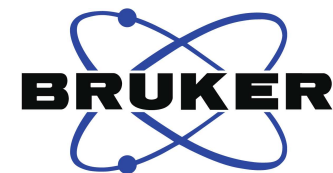
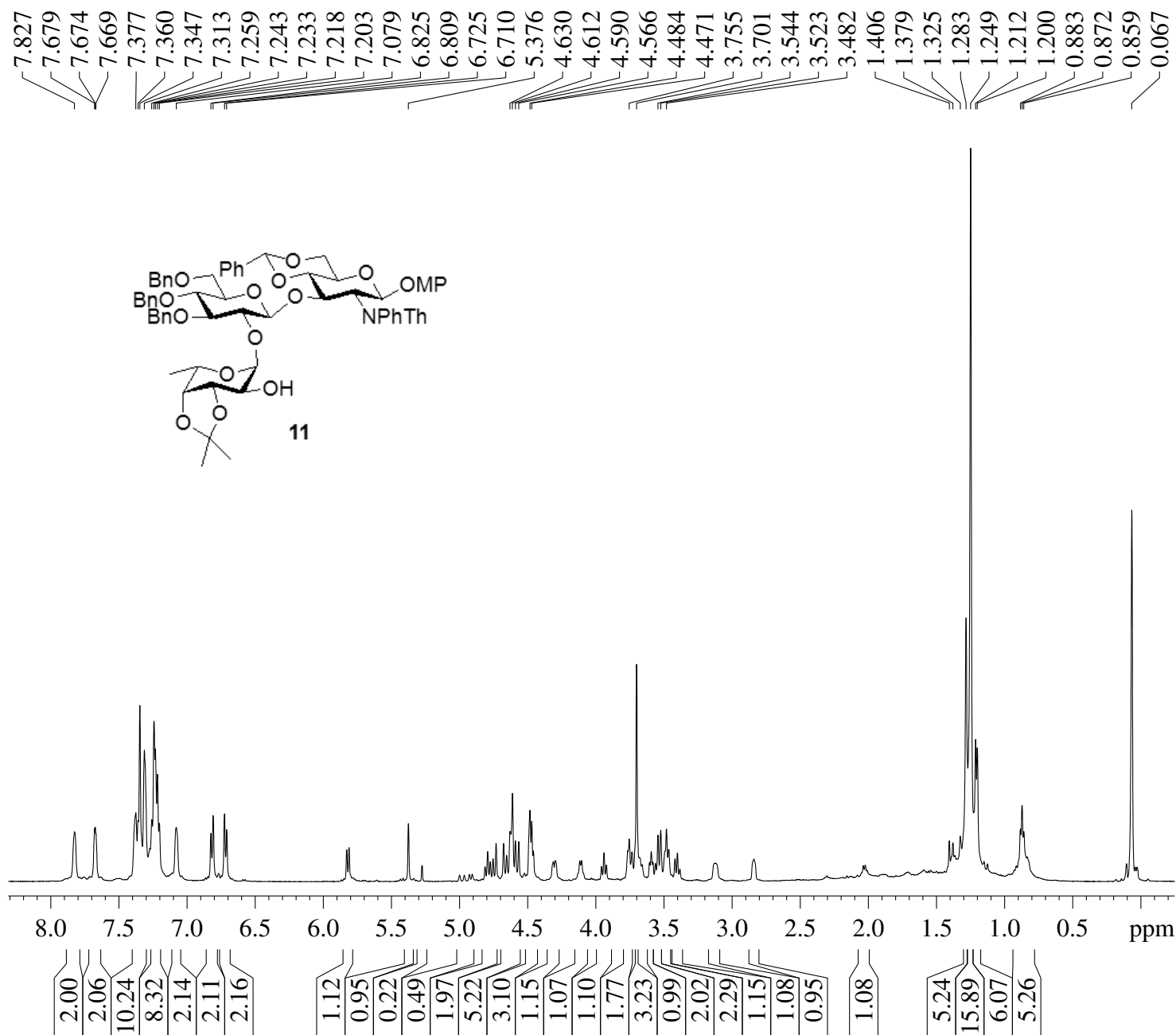


Current Data Parameters  
NAME BM-PRV-055A  
EXPNO 192  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100423  
Time 12.45  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 1200  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 300.4 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577932 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0056 in CDCl<sub>3</sub>



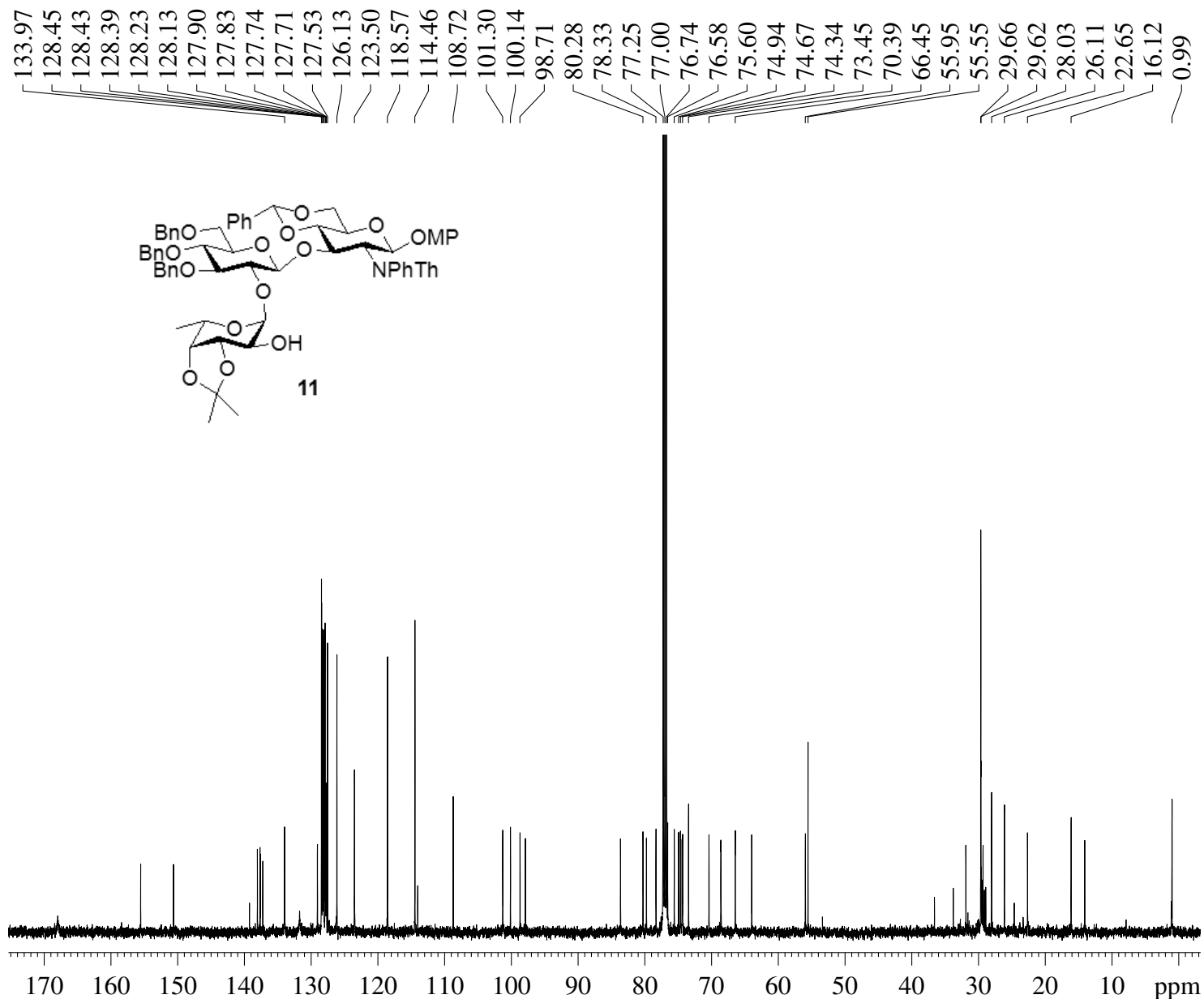
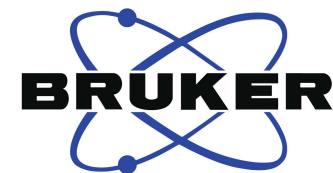
Current Data Parameters  
NAME BM-PRV-0056  
EXPNO 150  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100429  
Time 12.05  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 50.8  
DW 48.400 usec  
DE 6.50 usec  
TE 297.7 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300222 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10

BM-PRV-0056 in CDCl<sub>3</sub>

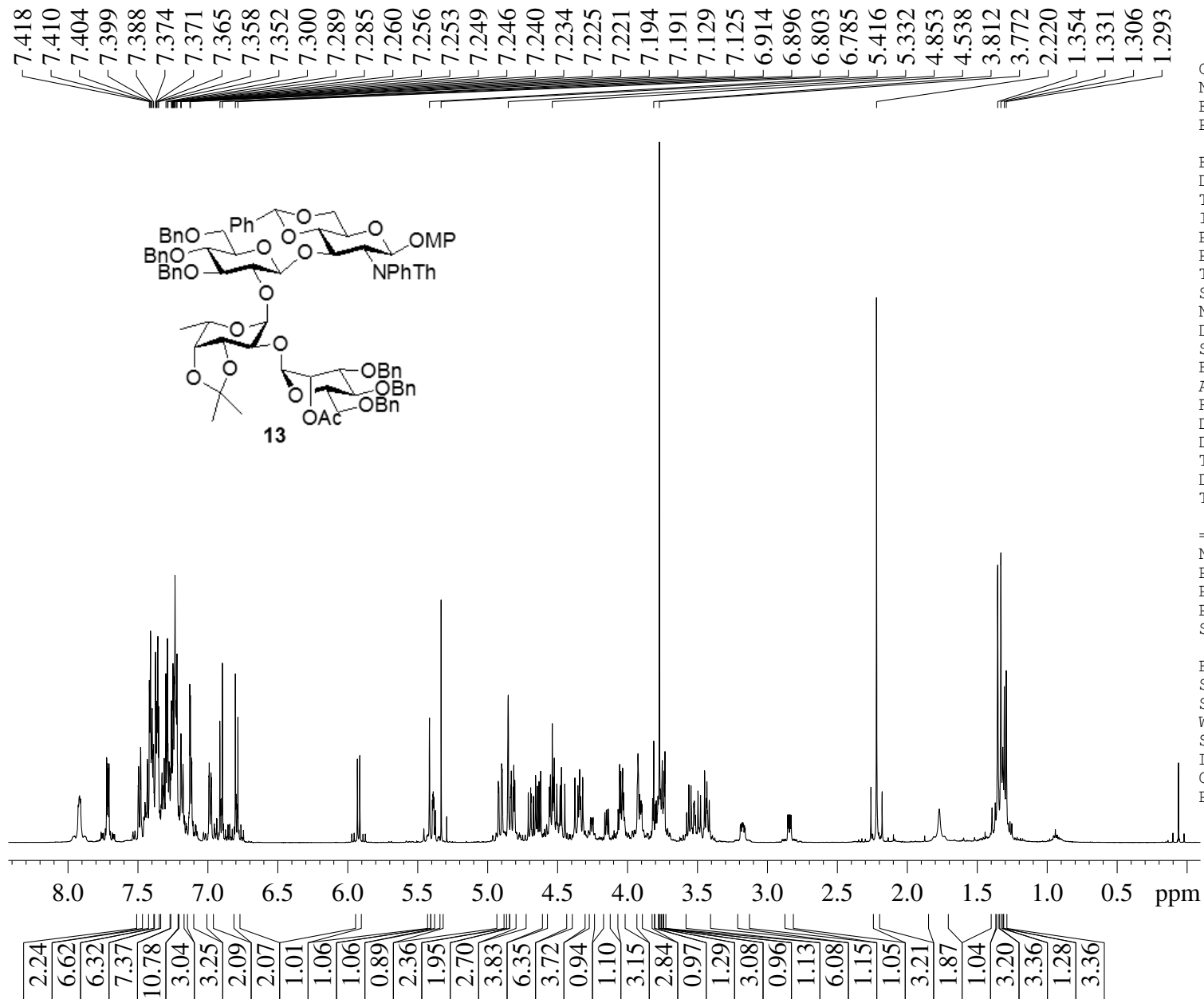
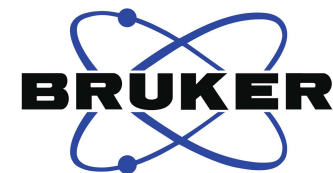


Current Data Parameters  
NAME BM-PRV-0056  
EXPNO 152  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100429  
Time 12.31  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 1758  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 298.7 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577958 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0080 in CDCl<sub>3</sub>



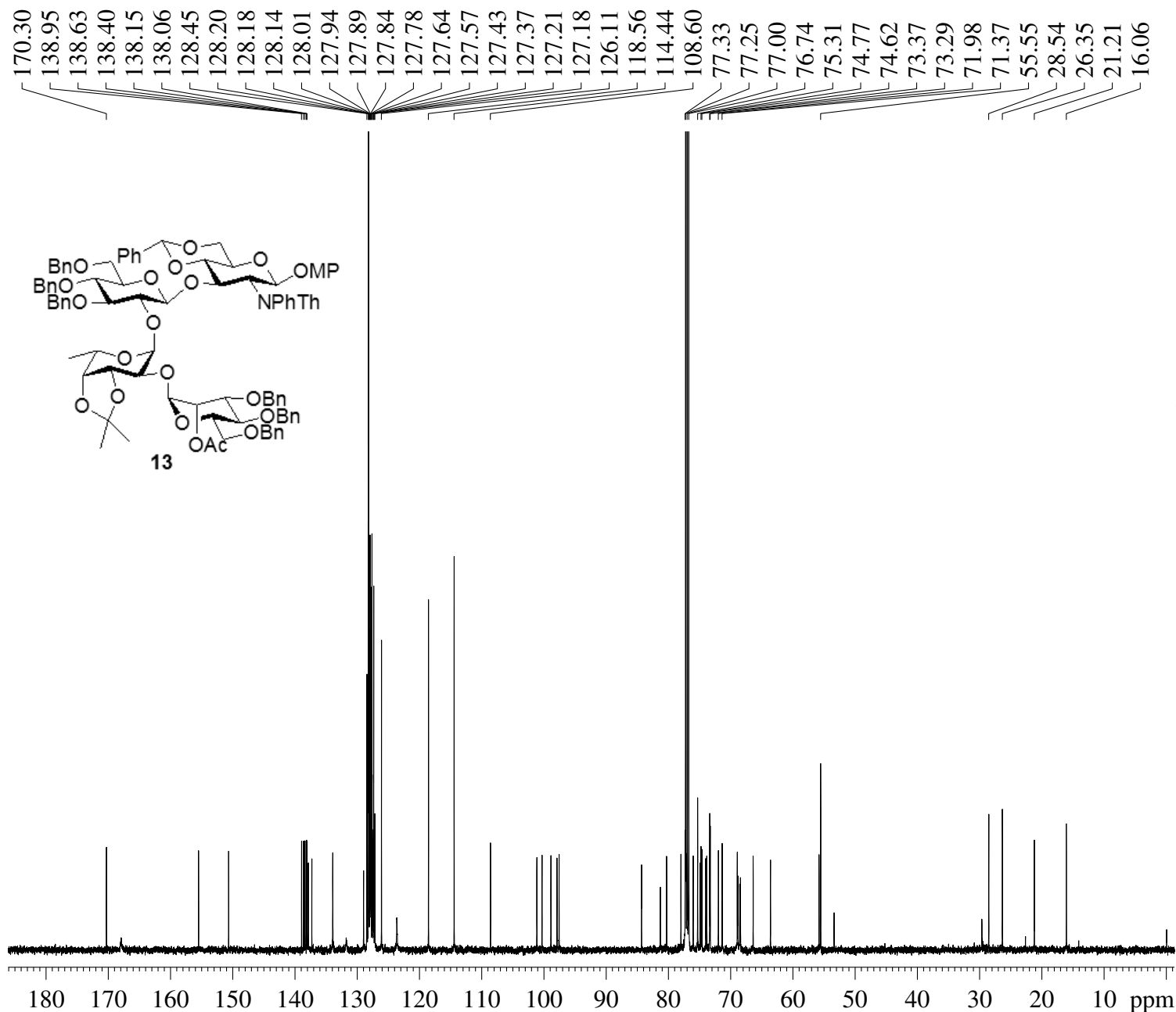
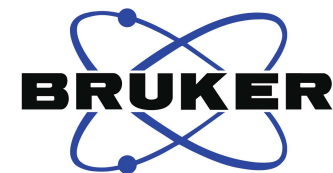
Current Data Parameters  
NAME BM-PRV-0080  
EXPNO 20  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20101209  
Time 10.56  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 32  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 50.8  
DW 48.400 usec  
DE 6.50 usec  
TE 297.7 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1299932 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10

BM-PRV-0080 in CDCl<sub>3</sub>

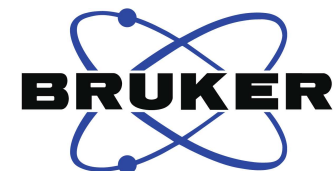
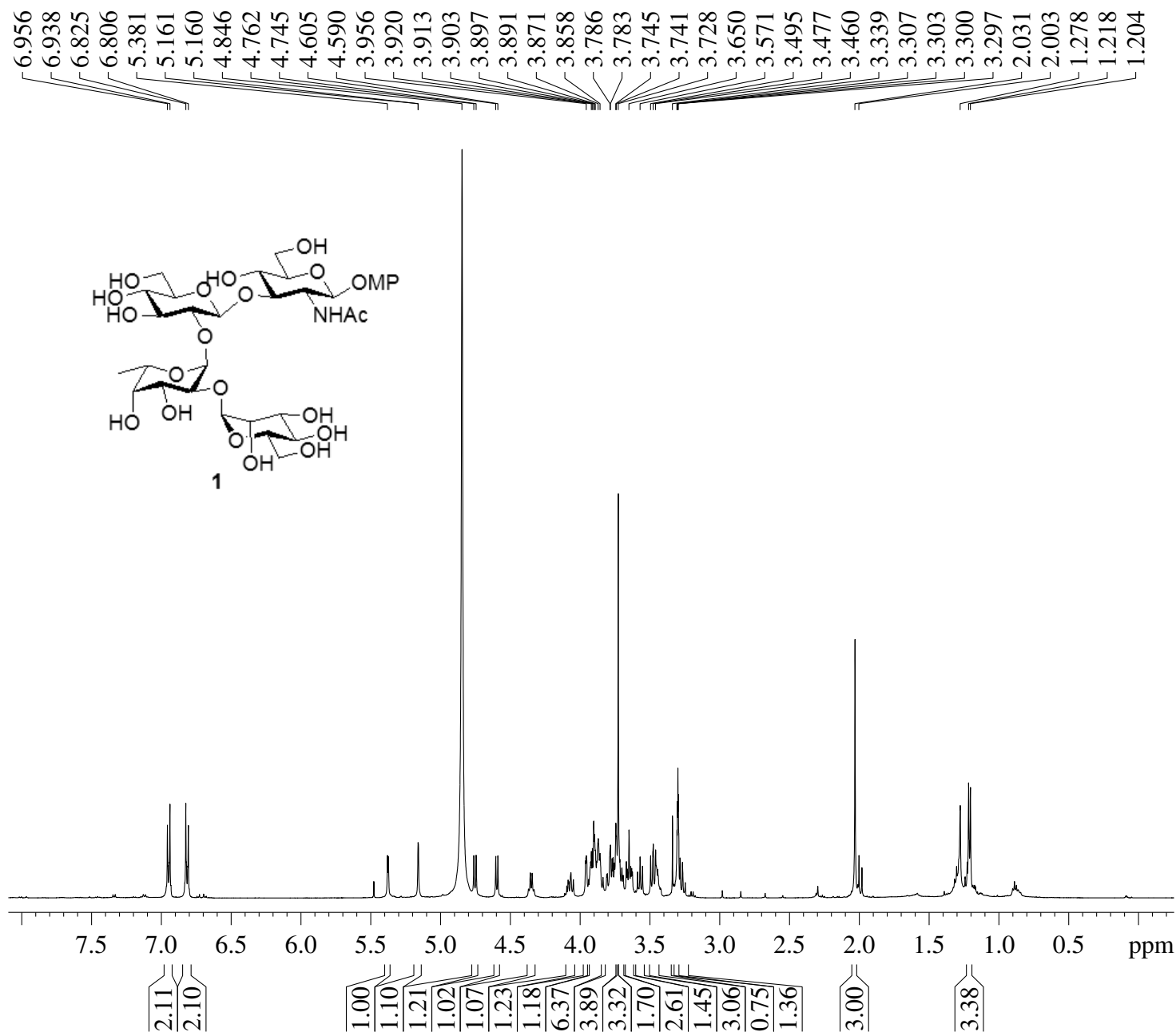


Current Data Parameters  
NAME BM-PRV-0080  
EXPNO 22  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20101209  
Time 11.18  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 1322  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 298.8 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577987 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0215 in MeOD



Current Data Parameters  
NAME BM-PRV-0215  
EXPNO 120  
PROCNO 1

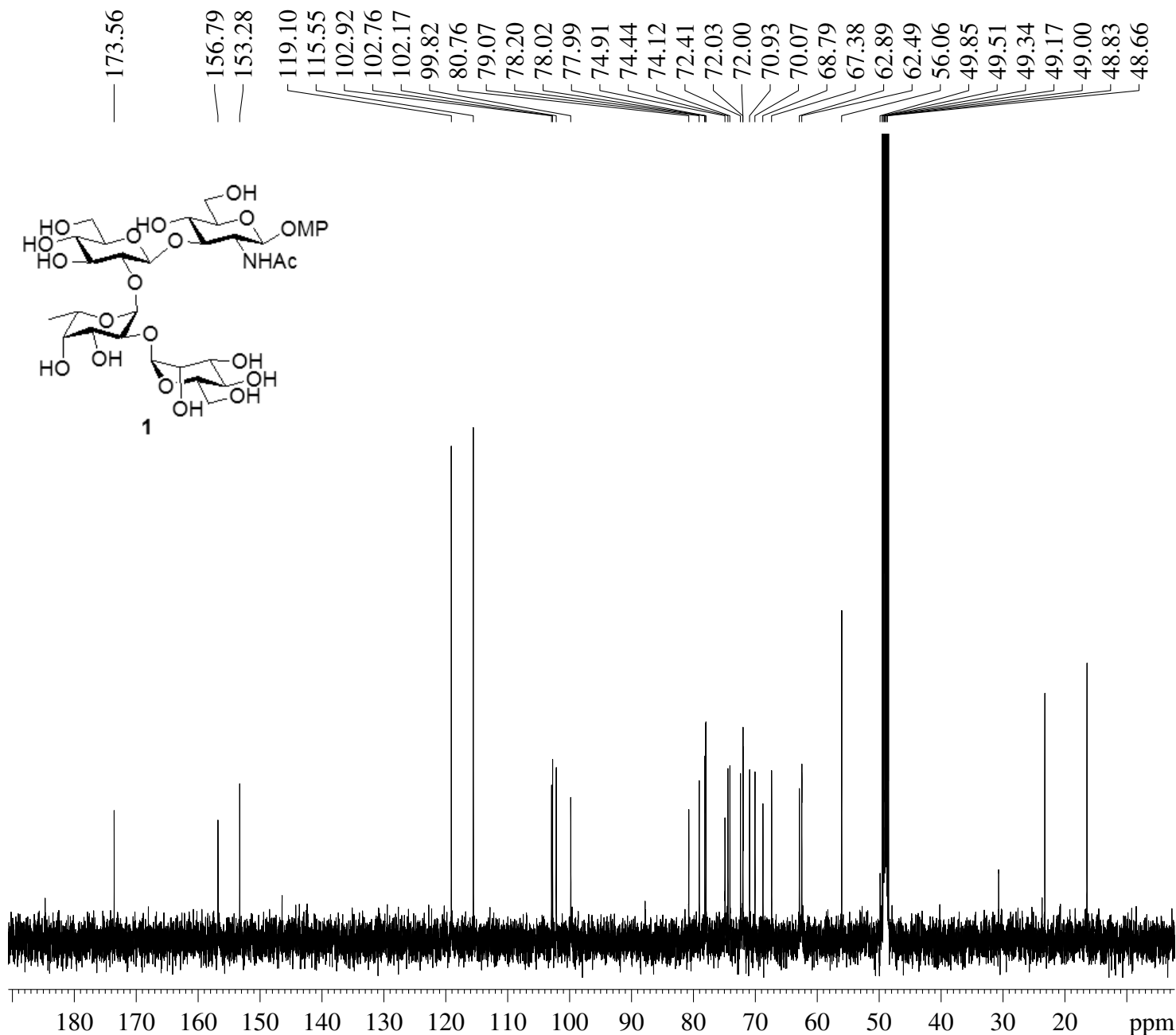
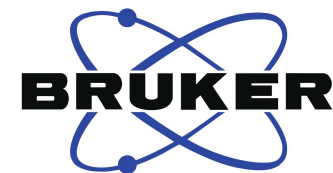
F2 - Acquisition Parameters  
Date\_ 20120420  
Time 13.20  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT MeOD  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 80.6  
DW 48.400 usec  
DE 6.50 usec  
TE 298.8 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1830888 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1800137 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



BM-PRV-0215 in MeOD

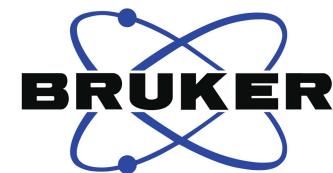


Current Data Parameters  
NAME BM-PRV-0215  
EXPNO 123  
PROCNO 1

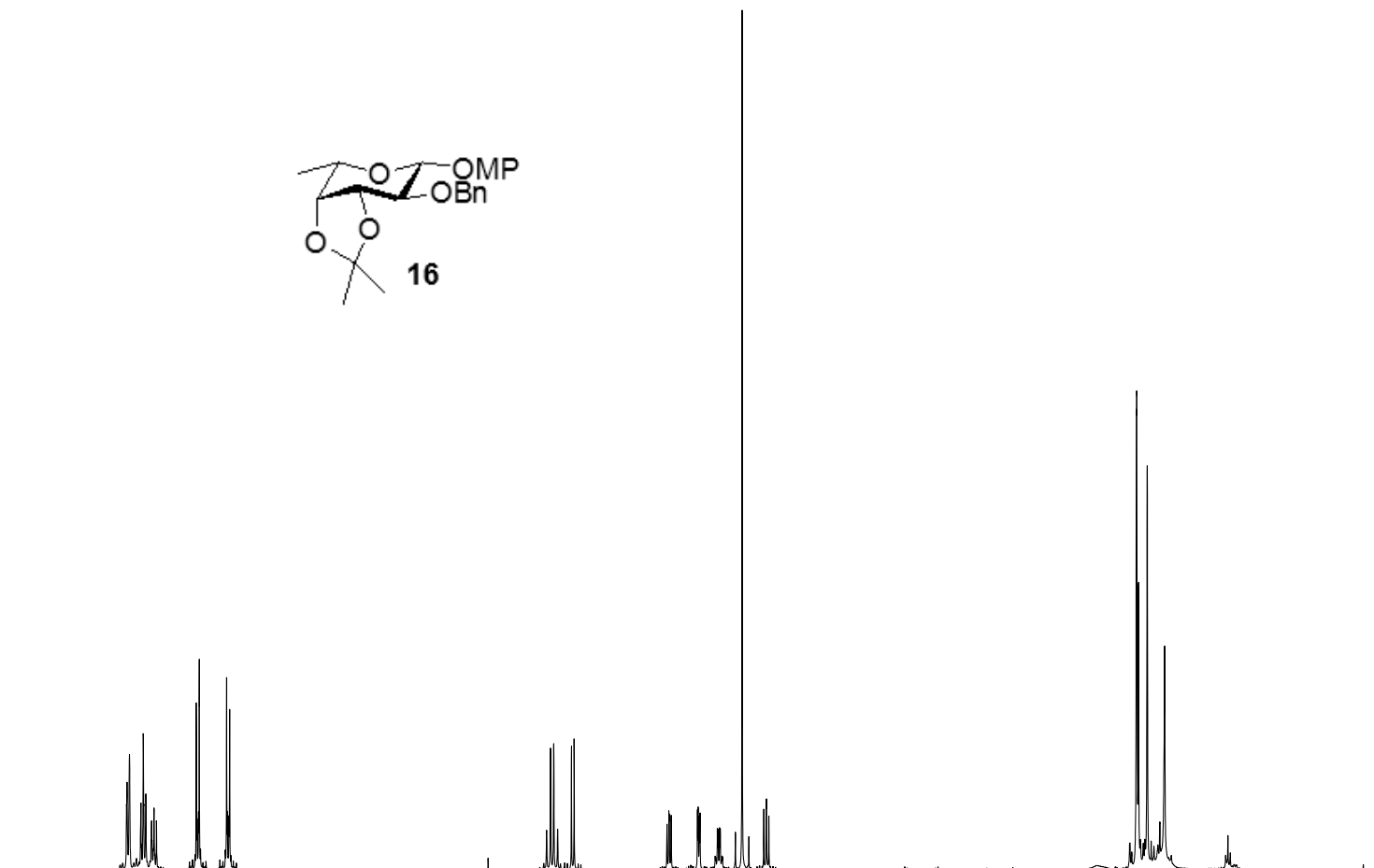
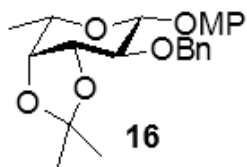
F2 - Acquisition Parameters  
Date\_ 20120420  
Time 13.45  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT MeOD  
NS 182  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 300.0 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7829381 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1820007 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7701882 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0065 in CDCl<sub>3</sub>



7.437  
7.435  
7.420  
7.352  
7.338  
7.335  
7.323  
7.289  
7.274  
7.260  
7.023  
7.019  
7.010  
7.005  
6.843  
6.838  
6.829  
6.825  
4.918  
4.899  
4.793  
4.777  
4.215  
4.212  
4.201  
4.045  
4.040  
4.034  
4.029  
3.779  
3.651  
3.636  
3.635  
3.620  
1.436  
1.435  
1.424  
1.372  
1.298  
1.297  
1.268



8.0 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 ppm

2.00  
2.05  
0.87  
2.02  
2.02  
2.21  
1.02  
1.03  
1.03  
1.08  
3.02  
1.06  
6.21  
3.21  
2.74  
0.53

Current Data Parameters  
NAME BM-PRV-0065  
EXPNO 160  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100702  
Time 16.20  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 45.2  
DW 48.400 usec  
DE 6.50 usec  
TE 297.4 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

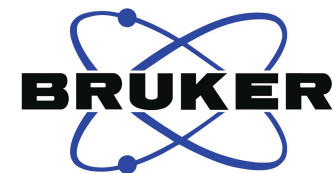
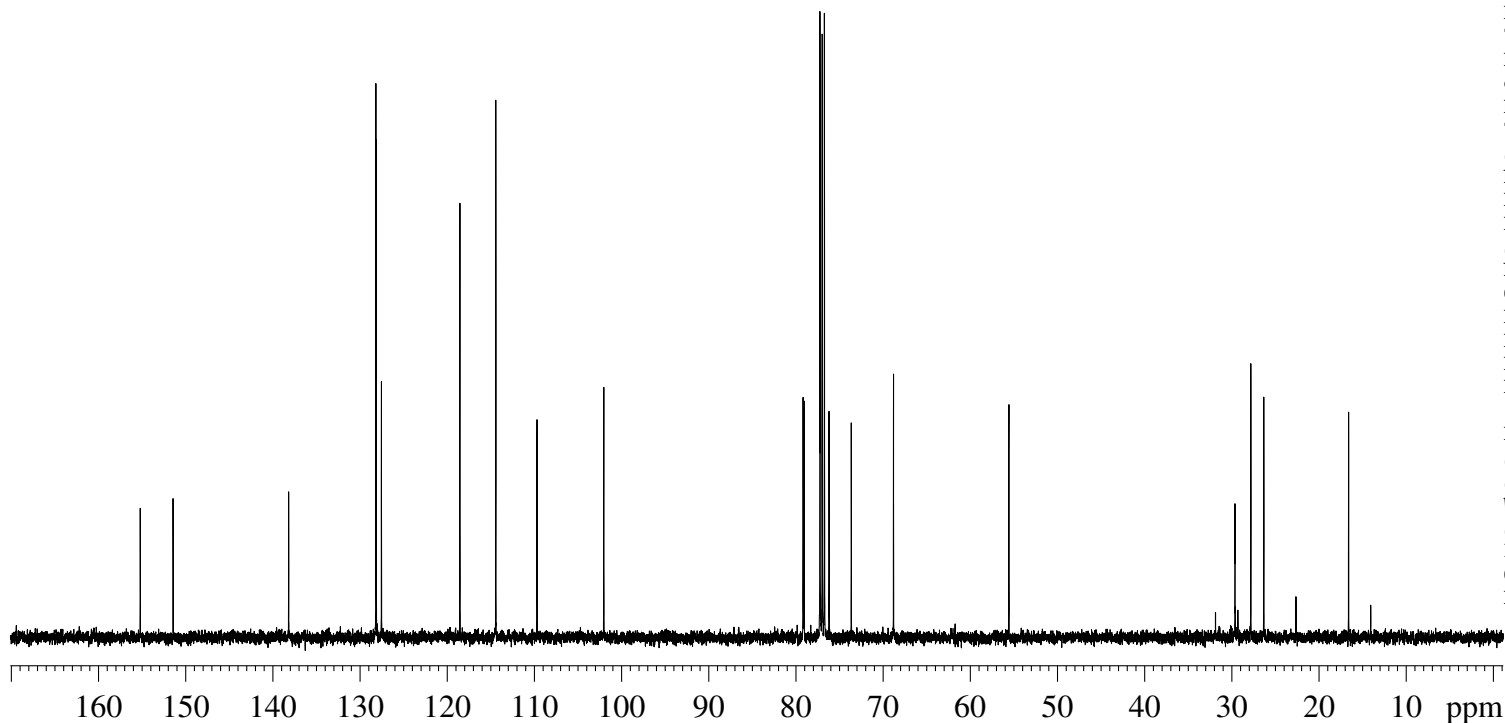
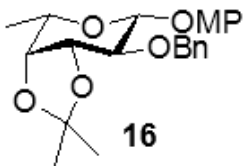
F2 - Processing parameters  
SI 32768  
SF 500.1300132 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10

BM-PRV-0065 in CDCl<sub>3</sub>

— 155.22  
— 151.45  
  
— 138.20  
— 128.20  
— 128.16  
— 127.56  
  
— 118.56  
— 114.44  
— 109.71  
  
— 102.05

— 79.19  
— 79.09  
— 77.25  
— 77.00  
— 76.74  
— 76.21  
— 73.66  
— 68.82  
  
— 55.58

— 31.88  
— 29.65  
— 29.31  
— 27.83  
— 26.34  
— 22.65  
— 16.61  
— 14.08

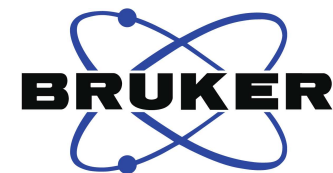
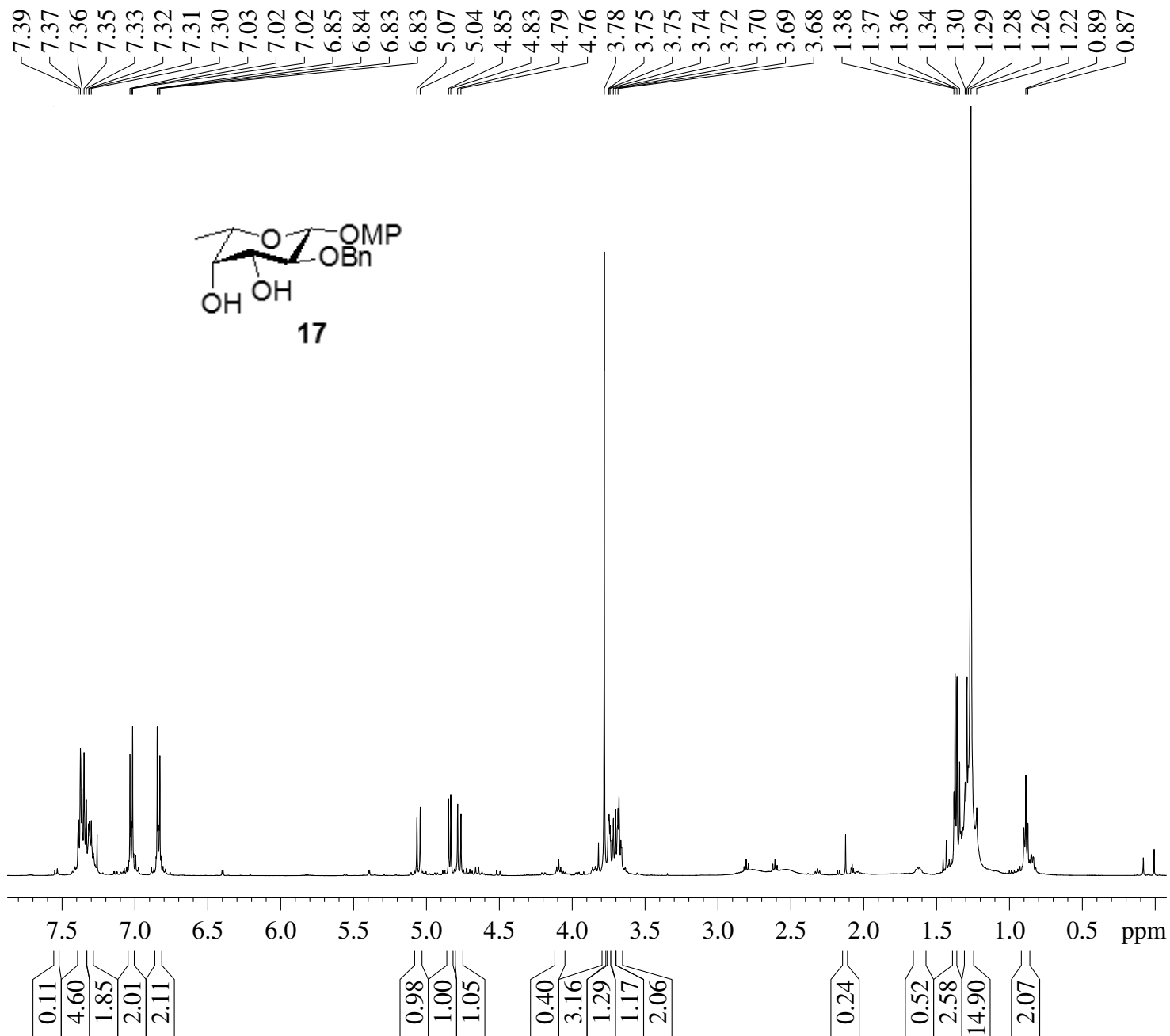


Current Data Parameters  
NAME BM-PRV-0065  
EXPNO 162  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100702  
Time 16.34  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 110  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 298.6 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577977 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0066 in CDCl<sub>3</sub>



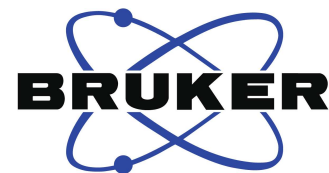
Current Data Parameters  
NAME BM-PRV-0066  
EXPNO 120  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100710  
Time 10.42  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 50.8  
DW 48.400 usec  
DE 6.50 usec  
TE 299.3 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300132 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10

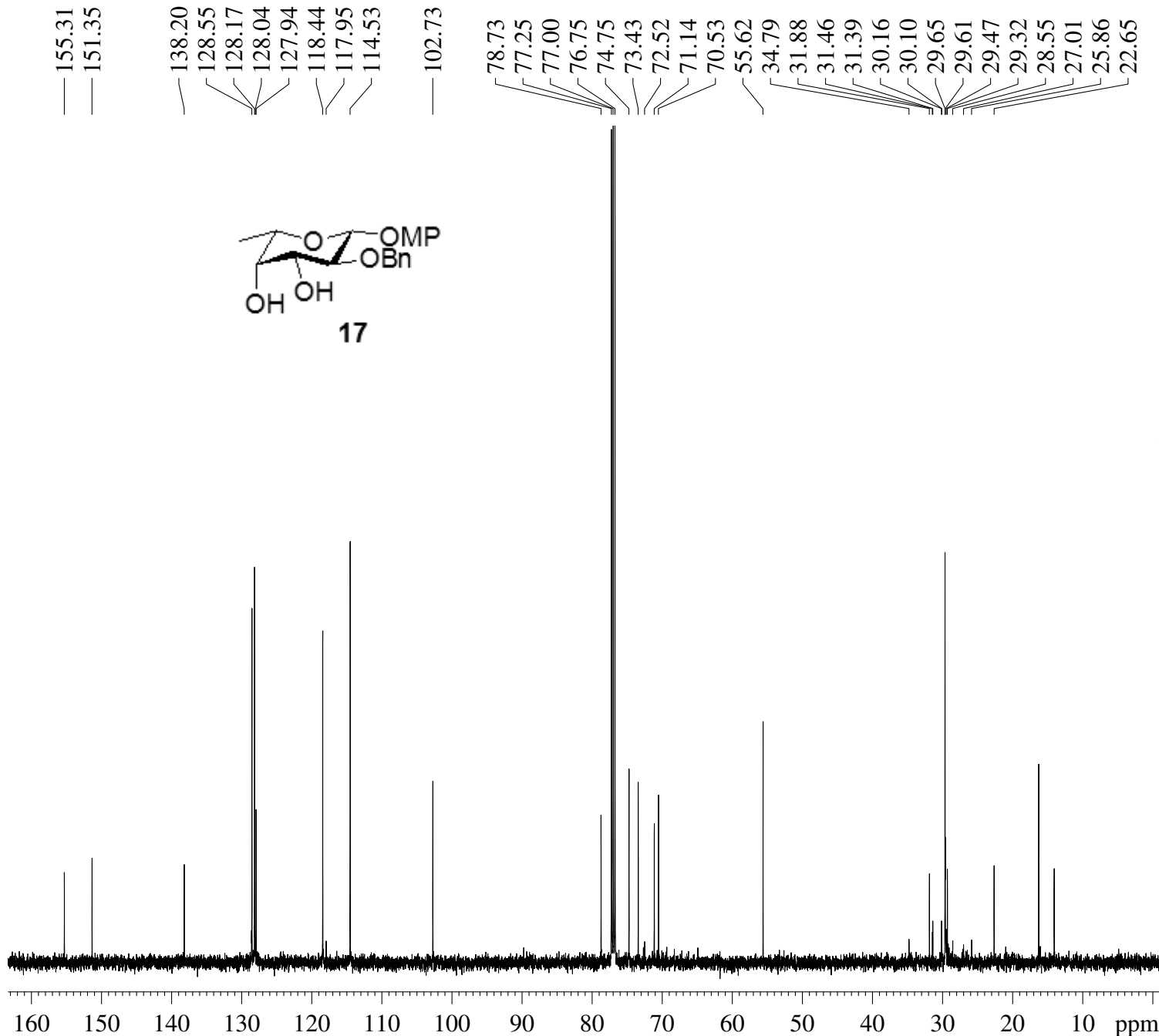
BM-PRV-0066 in CDCl<sub>3</sub>



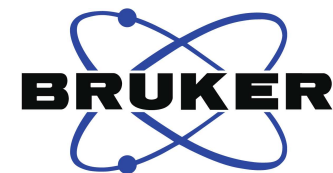
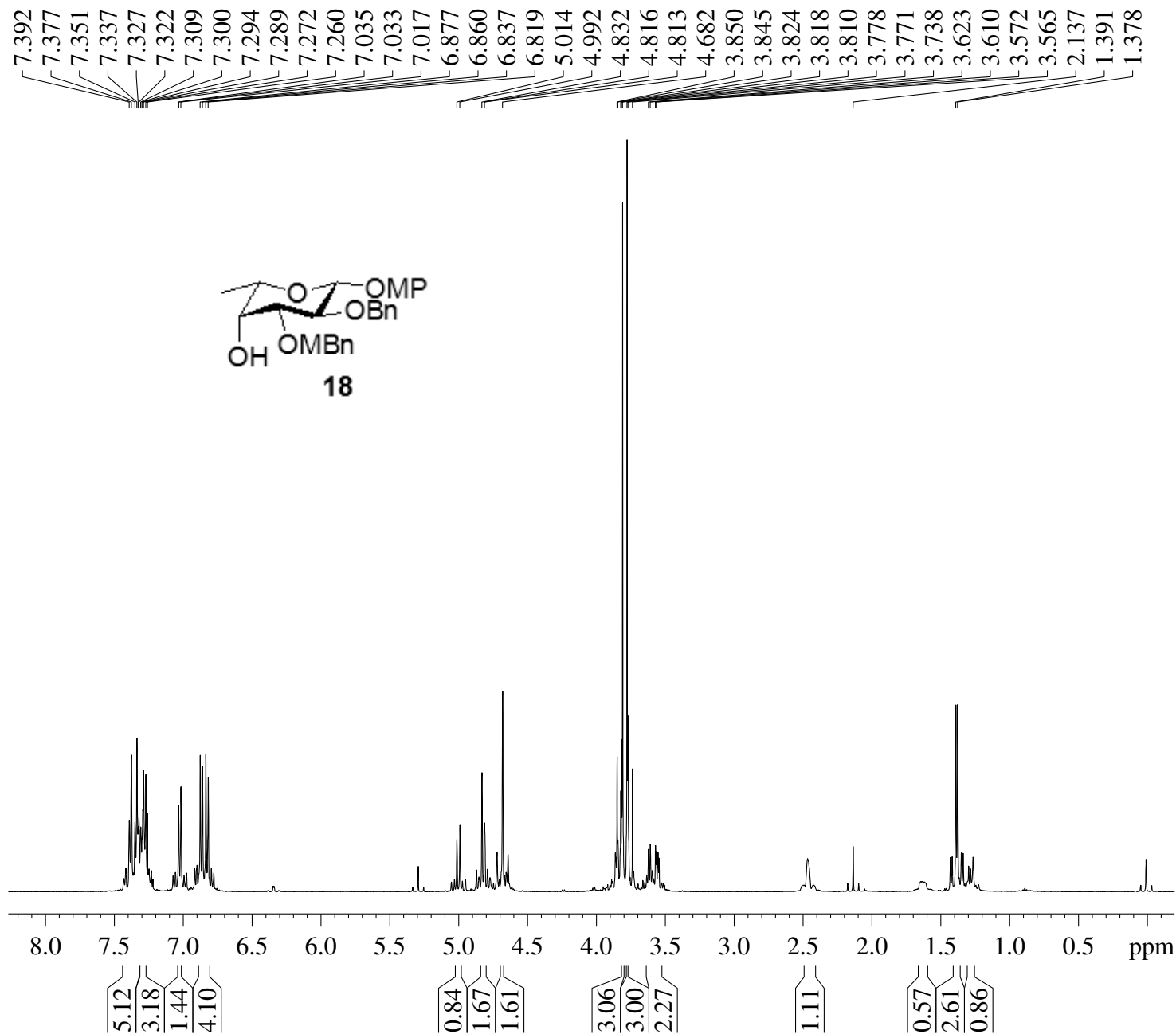
Current Data Parameters  
NAME BM-PRV-0066  
EXPNO 122  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100710  
Time 11.07  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 157  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 300.3 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577959 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40



BM-PRV-0067 in CDCl<sub>3</sub>



Current Data Parameters  
NAME BM-PRV-0067  
EXPNO 30  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20110104  
Time 10.41  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 80.6  
DW 48.400 usec  
DE 6.50 usec  
TE 298.0 K  
D1 1.00000000 sec  
TD0 1

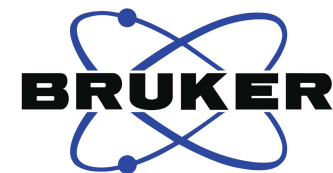
==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300129 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10

BM-PRV-0067 in CDCl<sub>3</sub>

159.40  
155.22  
151.57  
138.52  
129.91  
129.49  
129.38  
128.39  
128.30  
128.12  
127.93  
127.64  
118.63  
114.45  
113.87  
102.86  
80.50  
78.50  
77.25  
77.00  
76.74  
75.29  
72.13  
70.20  
69.34  
55.61  
55.25

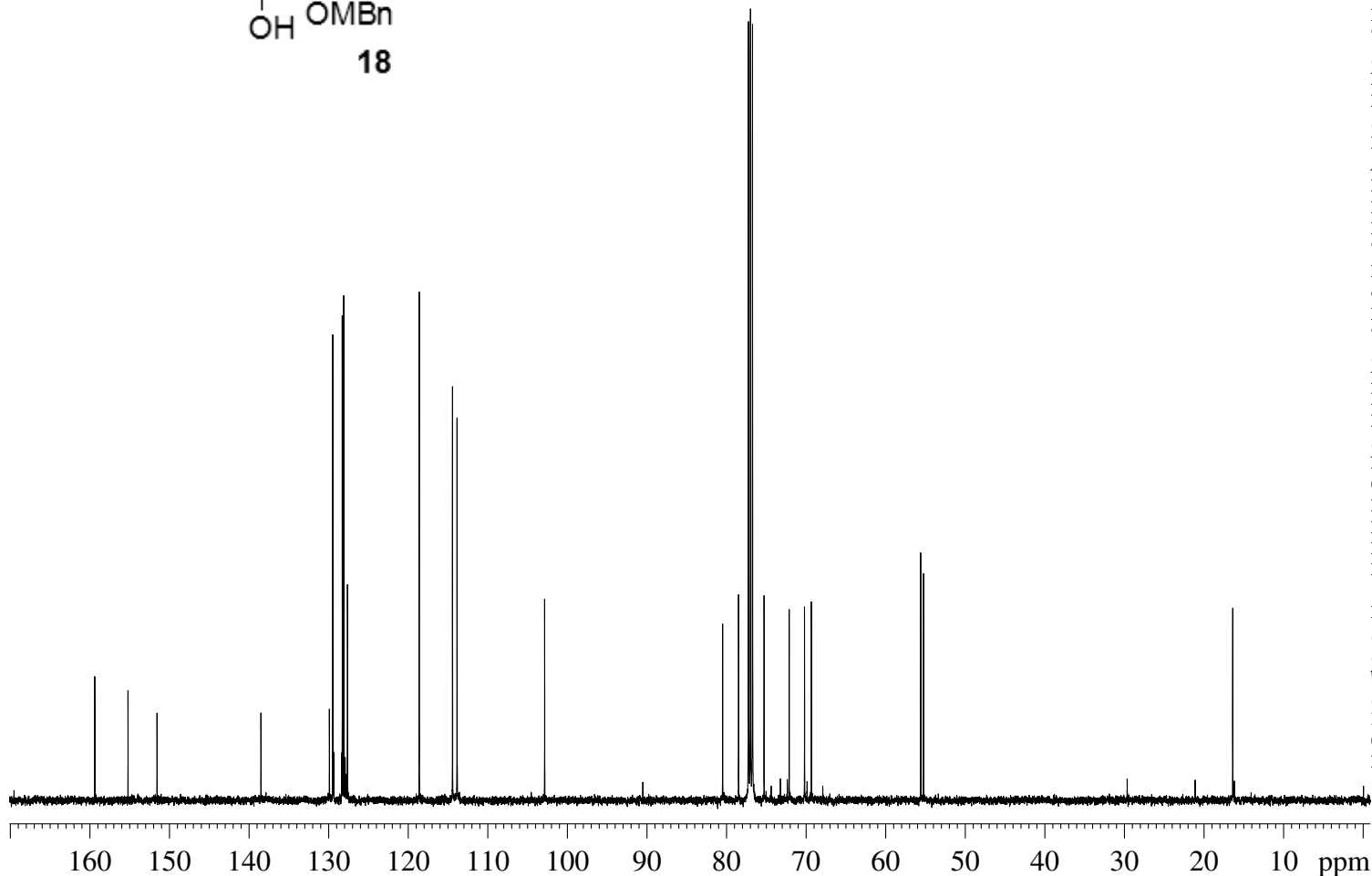
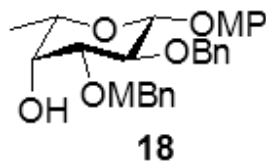
16.39



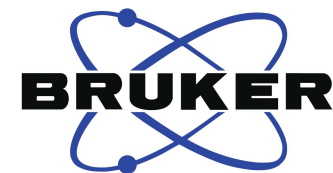
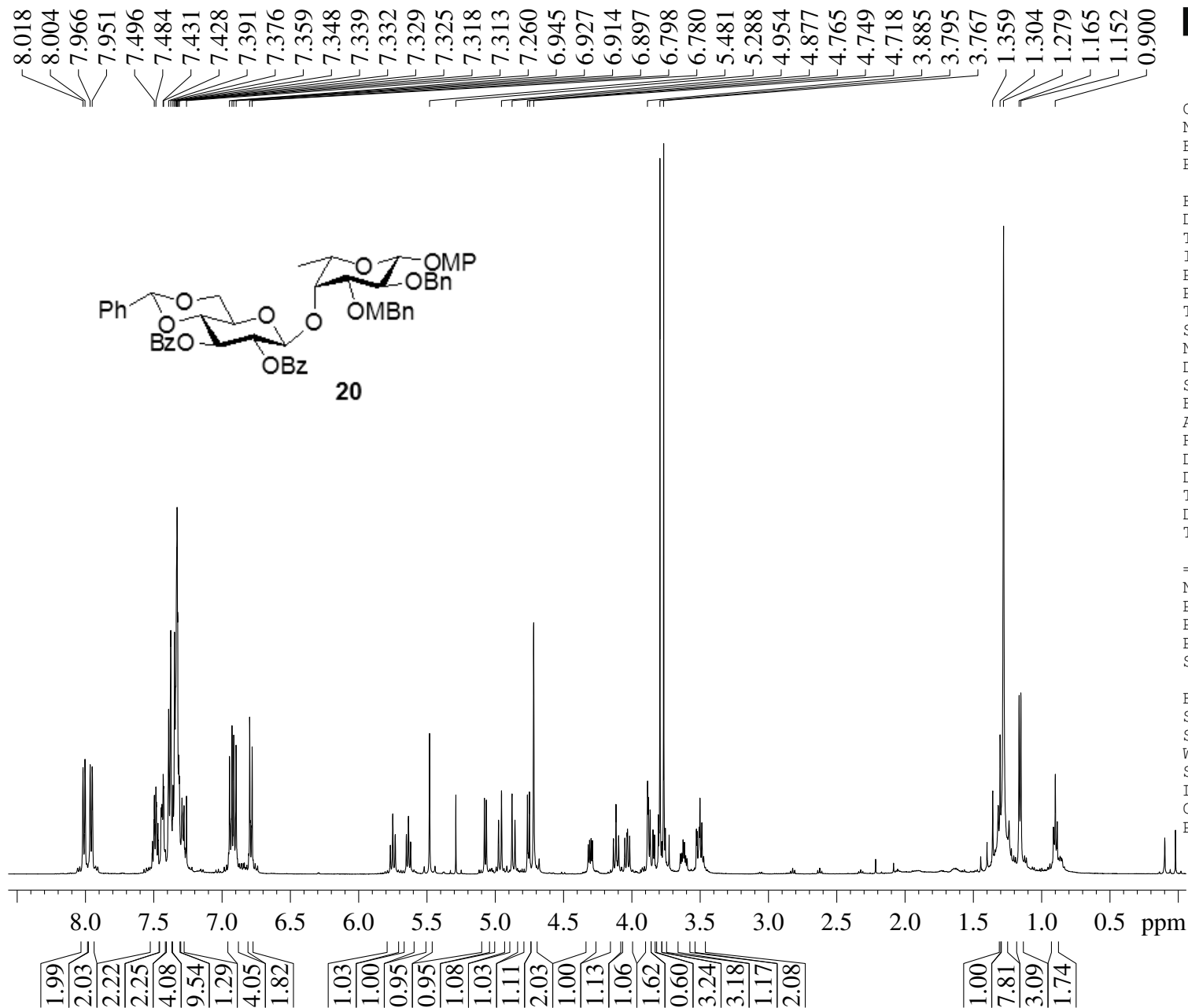
Current Data Parameters  
NAME BM-PRV-0067  
EXPNO 32  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20110104  
Time 10.57  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 800  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 299.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577950 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40



BM-PRV-0068 in CDCl<sub>3</sub>



Current Data Parameters  
NAME BM-PRV-0068  
EXPNO 210  
PROCNO 1

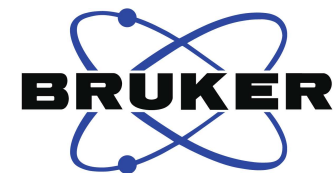
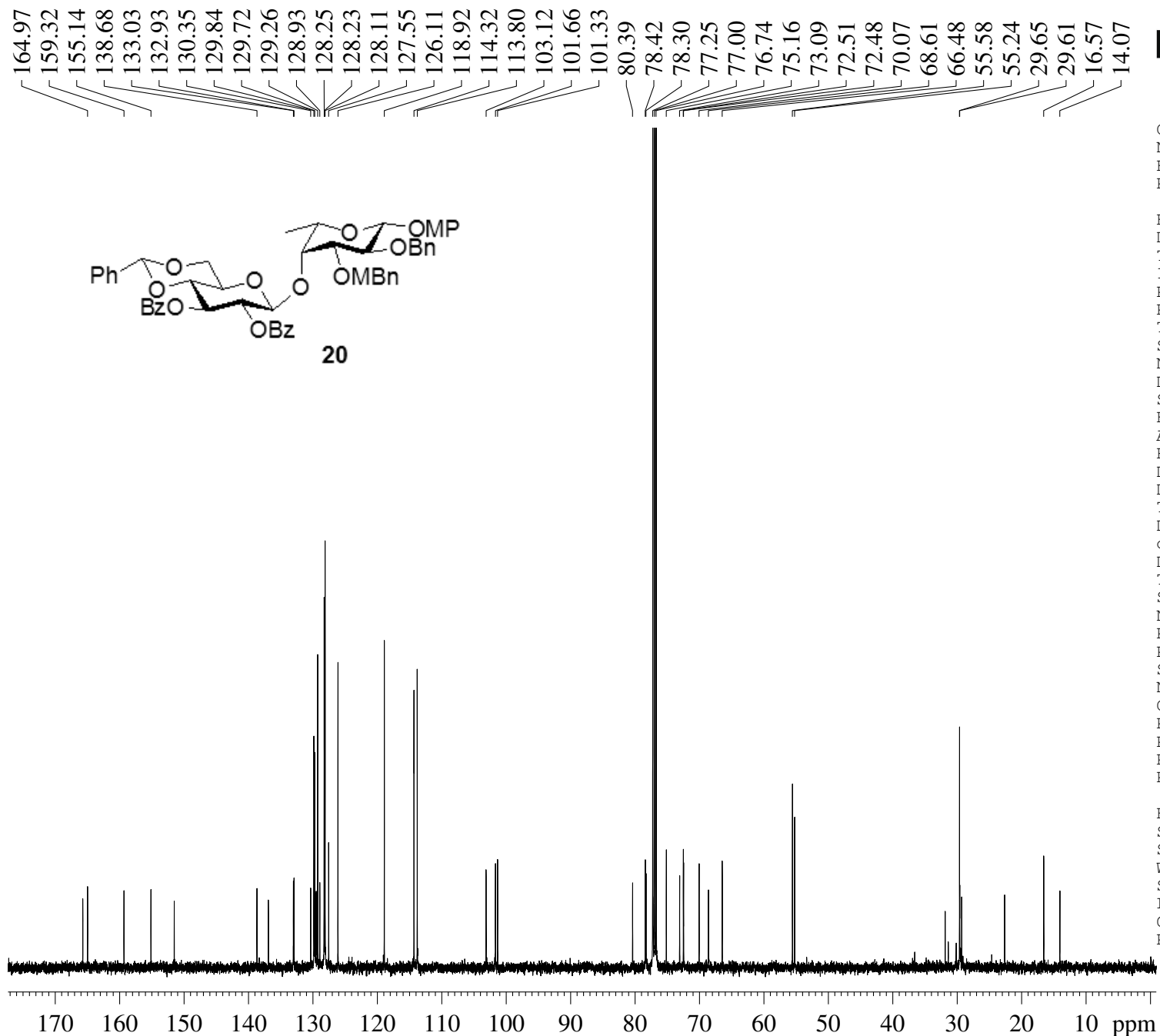
F2 - Acquisition Parameters  
Date\_ 20100712  
Time 13.03  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 50.8  
DW 48.400 usec  
DE 6.50 usec  
TE 299.3 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300133 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10



BM-PRV-0068 in CDCl<sub>3</sub>

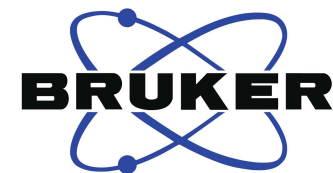
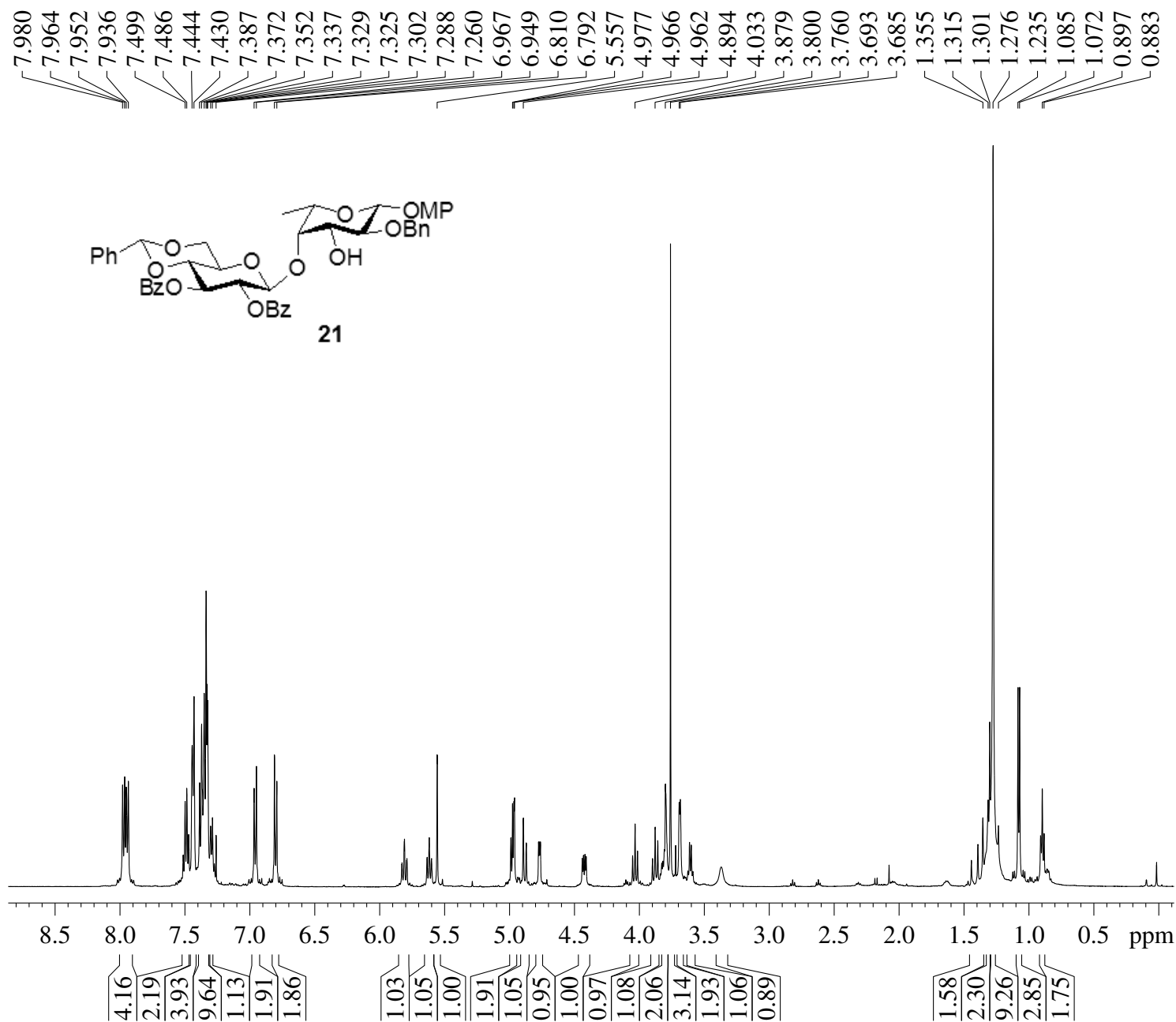


Current Data Parameters  
NAME BM-PRV-0068  
EXPNO 212  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100712  
Time 13.32  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 393  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 301.0 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577978 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0069 in CDCl<sub>3</sub>



Current Data Parameters  
NAME BM-PRV-0069  
EXPNO 230  
PROCNO 1

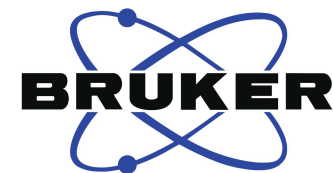
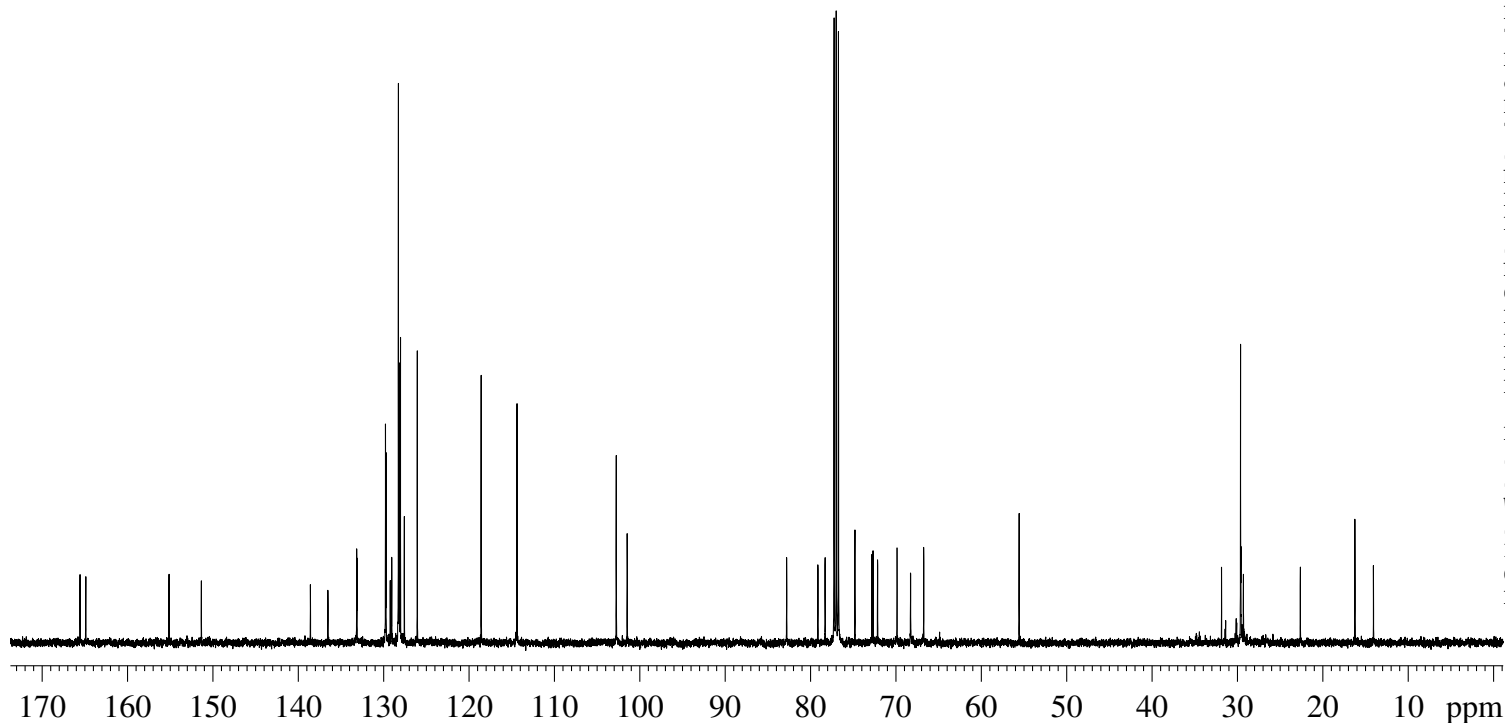
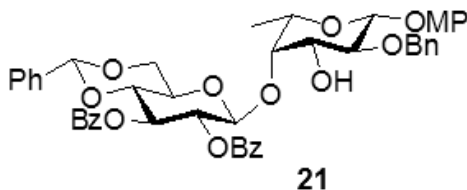
F2 - Acquisition Parameters  
Date\_ 20100715  
Time 16.37  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 50.8  
DW 48.400 usec  
DE 6.50 usec  
TE 298.3 K  
D1 1.00000000 sec  
TD0 1

==== CHANNEL f1 =====  
NUC1 1H  
P1 14.25 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300132 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10

BM-PRV-0069 in CDCl<sub>3</sub>

165.57  
164.90  
155.15  
151.36  
133.17  
133.13  
129.80  
129.74  
129.24  
129.12  
129.07  
128.28  
128.18  
128.04  
127.59  
126.07  
118.59  
114.39  
102.77  
101.48  
82.81  
79.15  
78.30  
77.25  
77.00  
76.74  
74.81  
72.83  
72.68  
72.16  
69.88  
68.29  
66.76  
55.58  
31.87  
29.64  
29.61  
29.31  
22.64  
16.25  
14.07



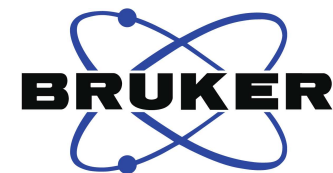
Current Data Parameters  
NAME BM-PRV-0069  
EXPNO 232  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100715  
Time 16.47  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 491  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 299.3 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577986 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0070A in CDCl<sub>3</sub>

8.008  
7.993  
7.954  
7.939  
7.468  
7.464  
7.452  
7.381  
7.365  
7.351  
7.338  
7.322  
7.308  
7.286  
7.272  
7.257  
7.251  
6.809  
6.791  
6.742  
6.724  
5.708  
5.536  
5.528  
5.460  
4.307  
4.074  
3.865  
3.747  
2.158  
2.131  
2.054  
1.374  
1.336  
1.285  
1.257  
1.242  
1.228  
0.893  
0.880  
0.866

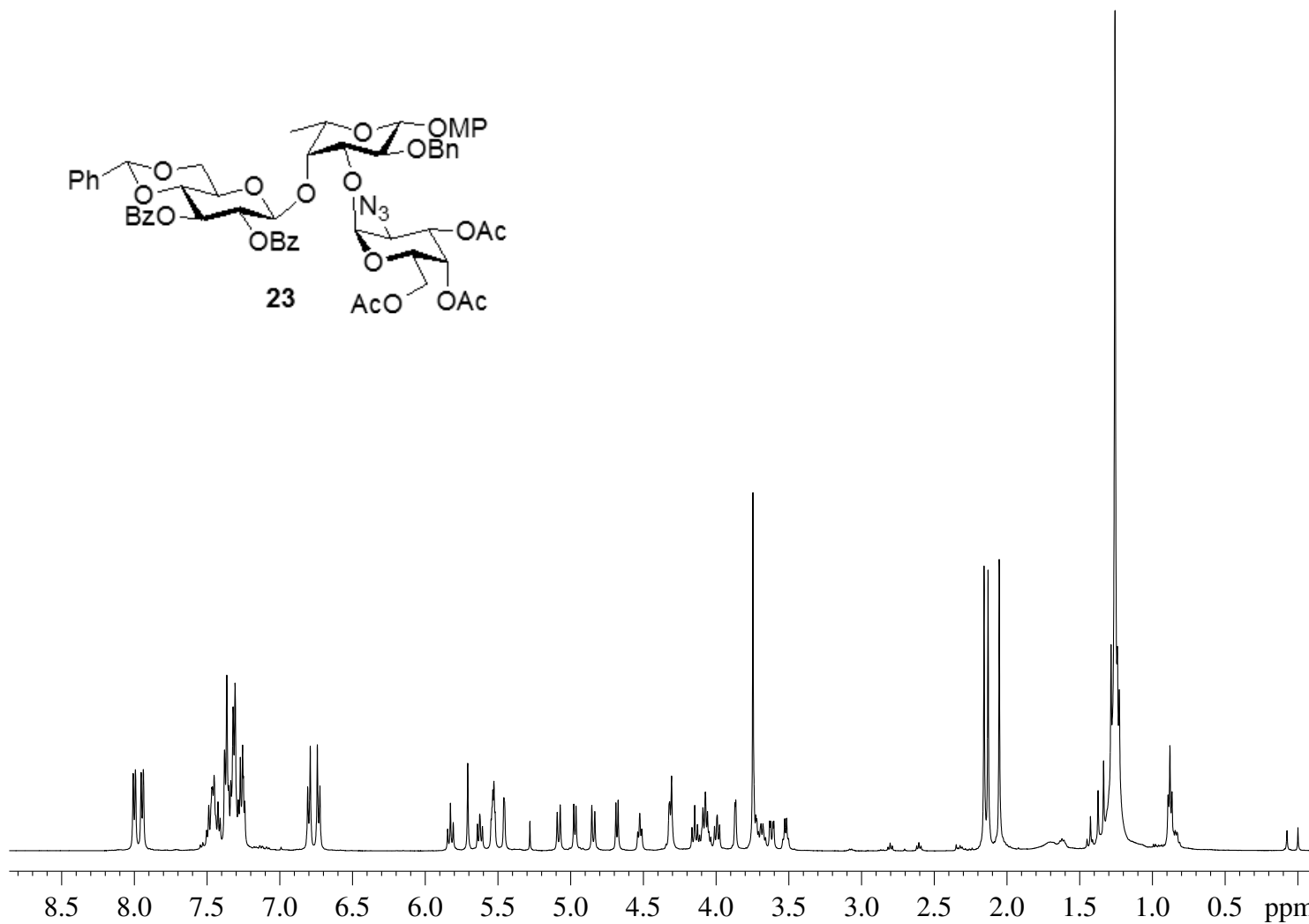
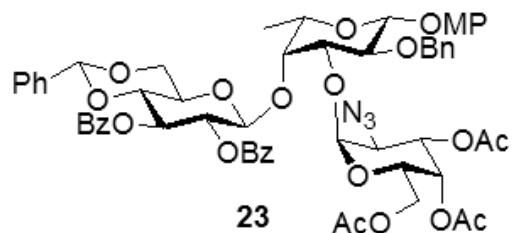


Current Data Parameters  
NAME BM-PRV-0070  
EXPNO 30  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100729  
Time 15.18  
INSTRUM spect  
PROBHD 5 mm SEI 1H/D-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719425 sec  
RG 32  
DW 48.400 usec  
DE 6.50 usec  
TE 298.0 K  
D1 1.00000000 sec  
TD0 1

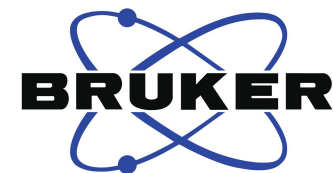
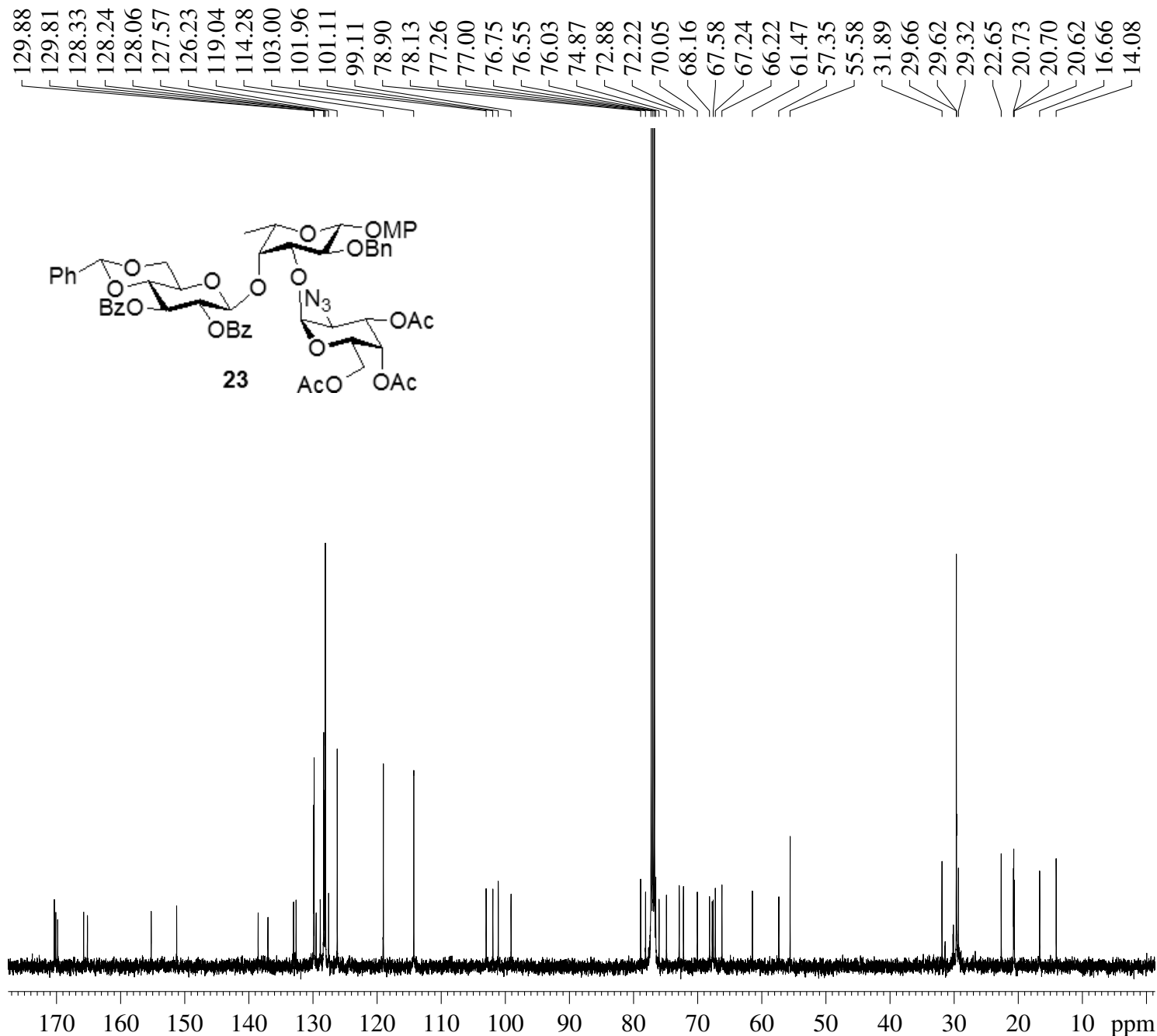
==== CHANNEL f1 =====  
NUC1 1H  
P1 7.65 usec  
PL1 1.30 dB  
PL1W 15.30635643 W  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300183 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.10



1.92  
2.00  
4.30  
4.02  
4.74  
3.50  
1.92  
1.92  
1.00  
0.95  
1.00  
1.88  
1.01  
0.99  
1.01  
0.96  
0.95  
0.93  
1.93  
1.13  
1.99  
1.06  
0.99  
3.27  
1.16  
1.09  
0.99  
2.76  
2.95  
3.23  
0.40  
0.91  
1.29  
2.68  
13.73  
3.38  
2.58

BM-PRV-0070 in CDCl<sub>3</sub>

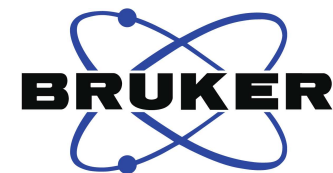
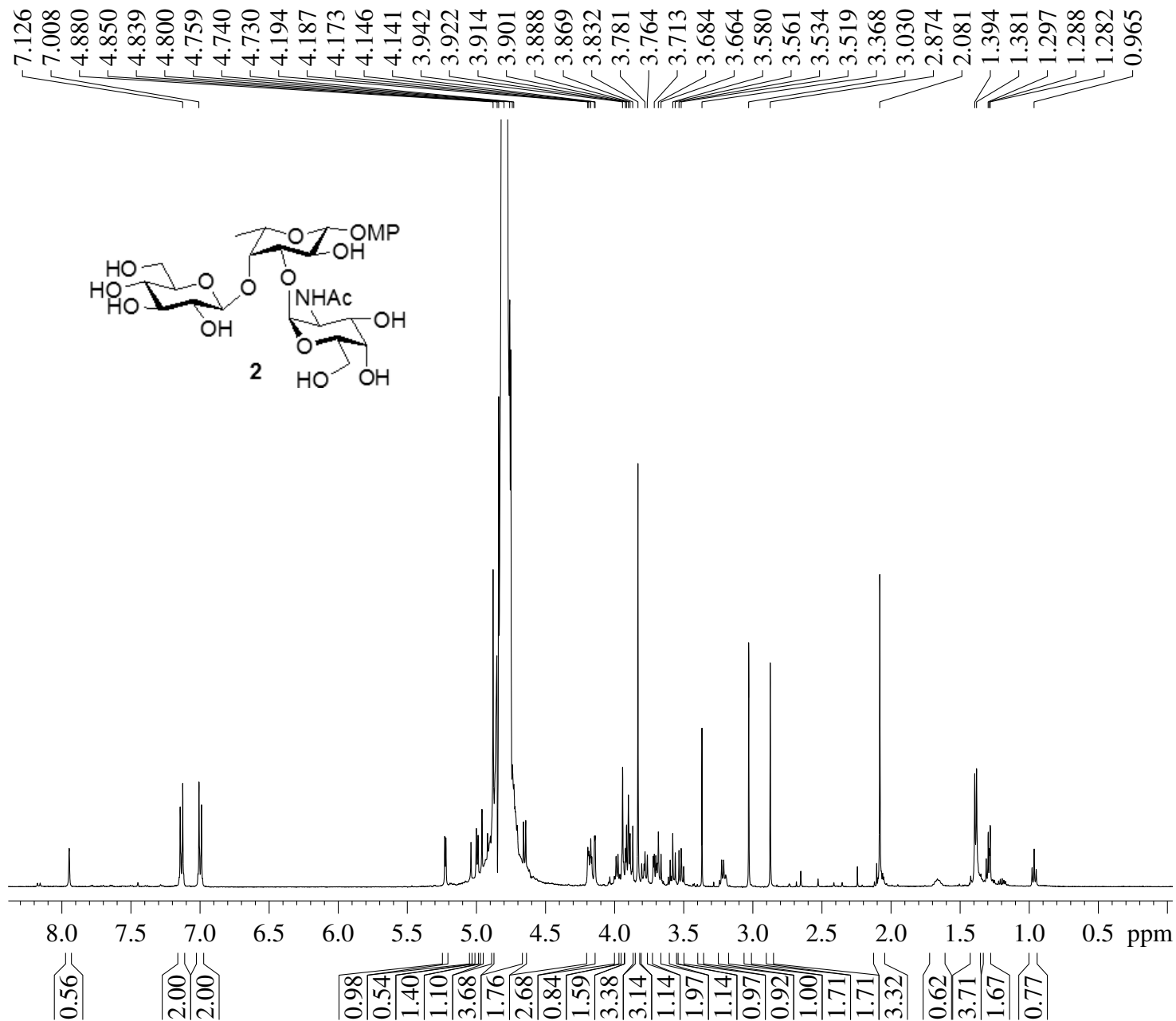


Current Data Parameters  
NAME BM-PRV-0070  
EXPNO 62  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20100721  
Time 10.11  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl<sub>3</sub>  
NS 516  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 301.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7703643 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1320005 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7577949 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

BM-PRV-0216 in D2O



Current Data Parameters  
 NAME BM-PRV-0216  
 EXPNO 80  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20120424  
 Time 11.52  
 INSTRUM spect  
 PROBHD 5 mm PABBO BB-  
 PULPROG zg30  
 TD 65536  
 SOLVENT D2O  
 NS 32  
 DS 2  
 SWH 10330.578 Hz  
 FIDRES 0.157632 Hz  
 AQ 3.1719425 sec  
 RG 22.6  
 DW 48.400 usec  
 DE 6.50 usec  
 TE 298.7 K  
 D1 1.00000000 sec  
 TD0 1

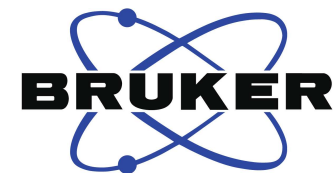
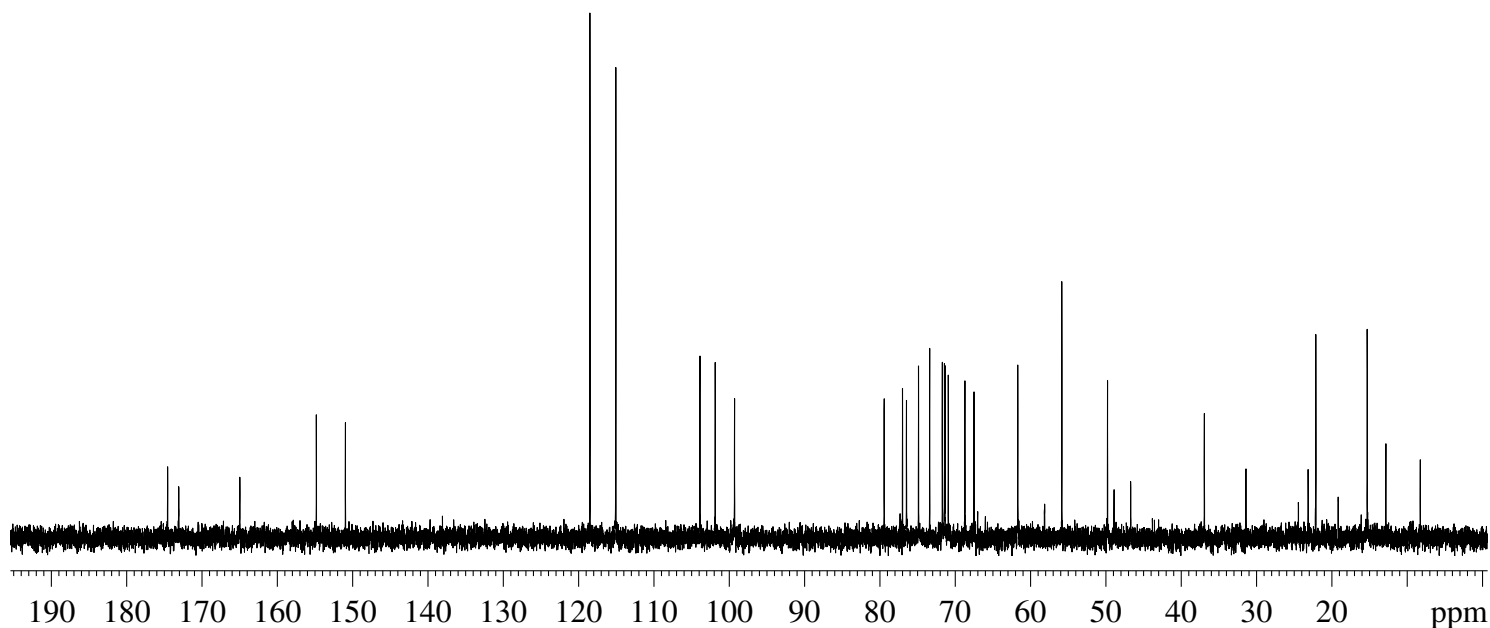
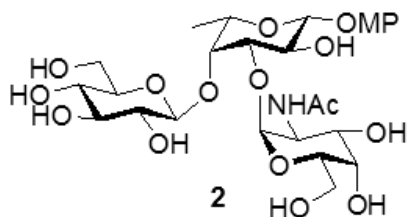
==== CHANNEL f1 =====  
 NUC1 1H  
 P1 14.25 usec  
 PL1 1.30 dB  
 PL1W 15.30635643 W  
 SFO1 500.1830888 MHz

F2 - Processing parameters  
 SI 32768  
 SF 500.1799497 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

BM-PRV-0216 in D2O

174.56  
173.08  
164.98  
154.81  
150.95

118.51  
115.07  
103.90  
101.87  
99.31  
79.44  
77.01  
76.48  
74.88  
73.40  
71.72  
71.44  
71.36  
70.92  
68.72  
67.51  
61.71  
58.13  
55.85  
49.79  
48.92  
46.71  
36.93  
31.41  
24.44  
23.15  
22.13



Current Data Parameters  
NAME BM-PRV-0216  
EXPNO 290  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20120424  
Time 21.34  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT D2O  
NS 8000  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 203  
DW 16.800 usec  
DE 6.50 usec  
TE 301.2 K  
D1 2.00000000 sec  
d11 0.03000000 sec  
DELTA 1.89999998 sec  
TD0 1  
SFO1 125.7829381 MHz  
NUC1 13C  
P1 9.50 usec  
PLW1 -1.00000000 W  
SFO2 500.1820007 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLW2 -1.00000000 W  
PLW12 -1.00000000 W  
PLW13 -1.00000000 W

F2 - Processing parameters  
SI 32768  
SF 125.7703610 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40