

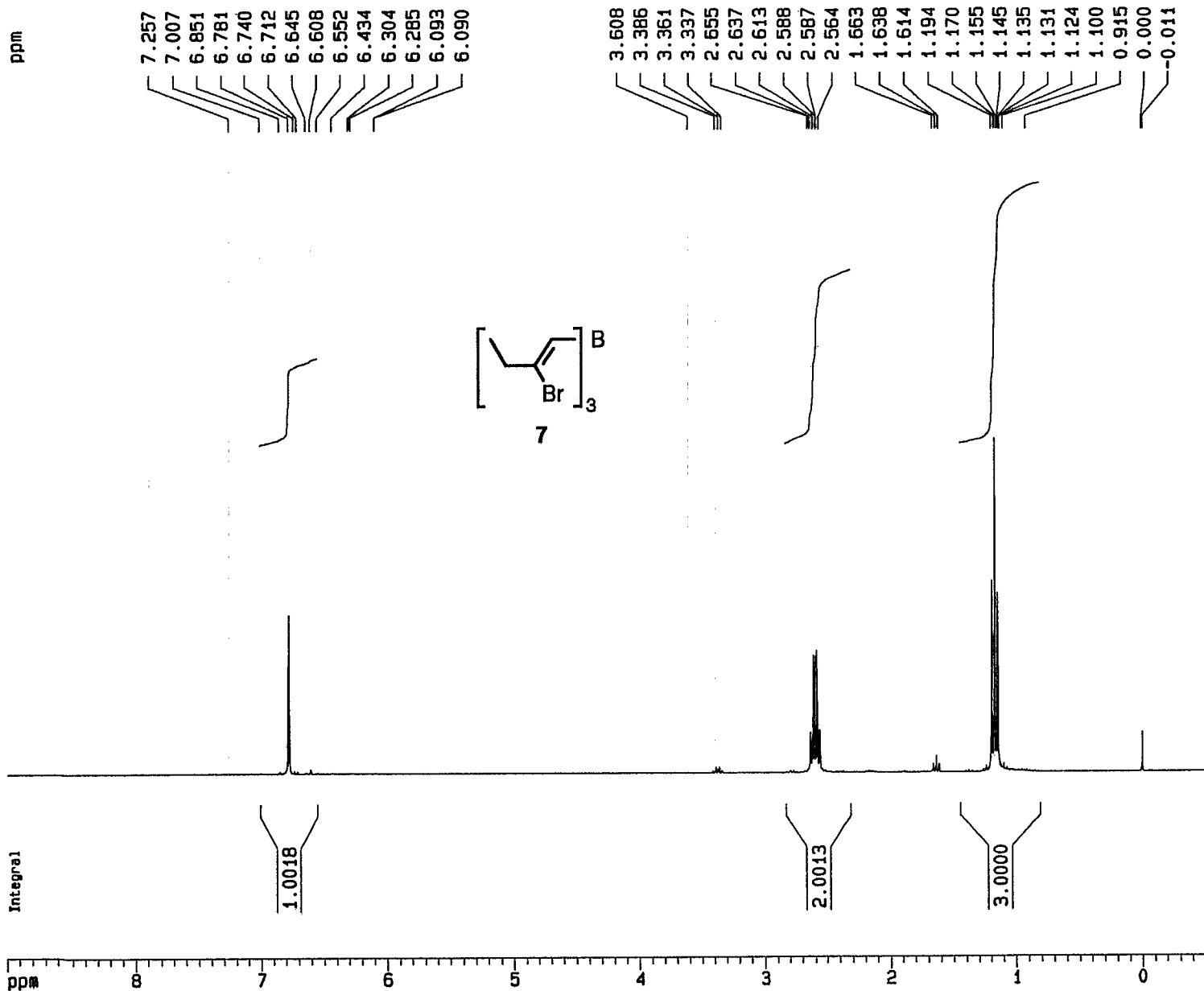
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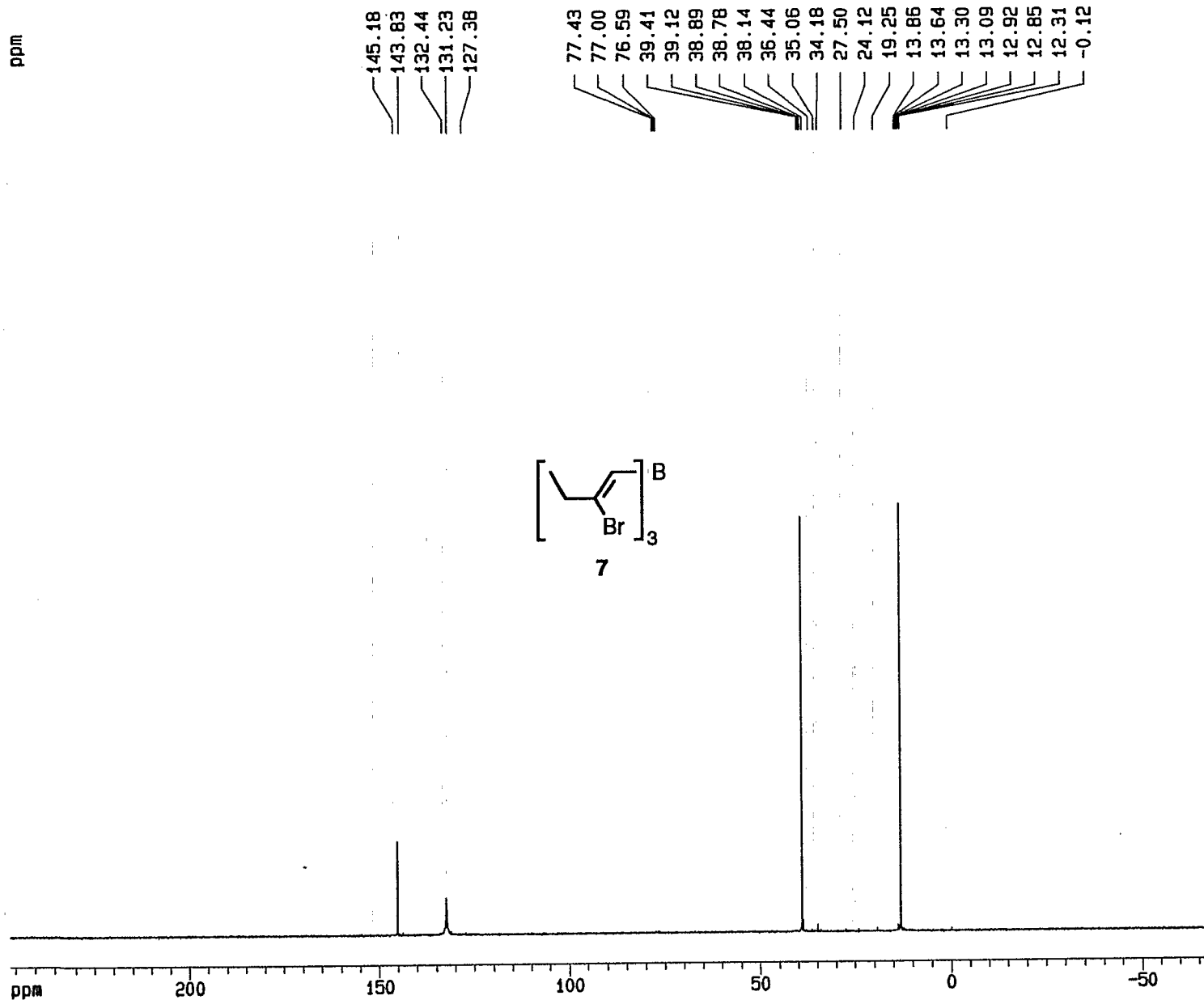


Current Data Parameters  
 NAME Rtest-1H  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 970401  
 Time 14.16  
 PULPROG zg30  
 SOLVENT CDCl3  
 AQ 2.6542280 sec  
 FIDRES 0.188380 Hz  
 DW 81.0 usec  
 RG 32  
 NUCLEUS 1H  
 HL1 1 dB  
 D1 1.0000000 sec  
 P1 10.0 usec  
 DE 101.3 usec  
 SF01 300.1351620 MHz  
 SWH 6172.84 Hz  
 TD 32768  
 NS 16  
 DS 2

F2 - Processing parameters  
 SI 16384  
 SF 300.1333687 MHz  
 MDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 9.000 ppm  
 F1 2701.20 Hz  
 F2P -0.500 ppm  
 F2 -150.07 Hz  
 PPMCM 0.47500 ppm/cm  
 HZCM 142.56335 Hz/cm

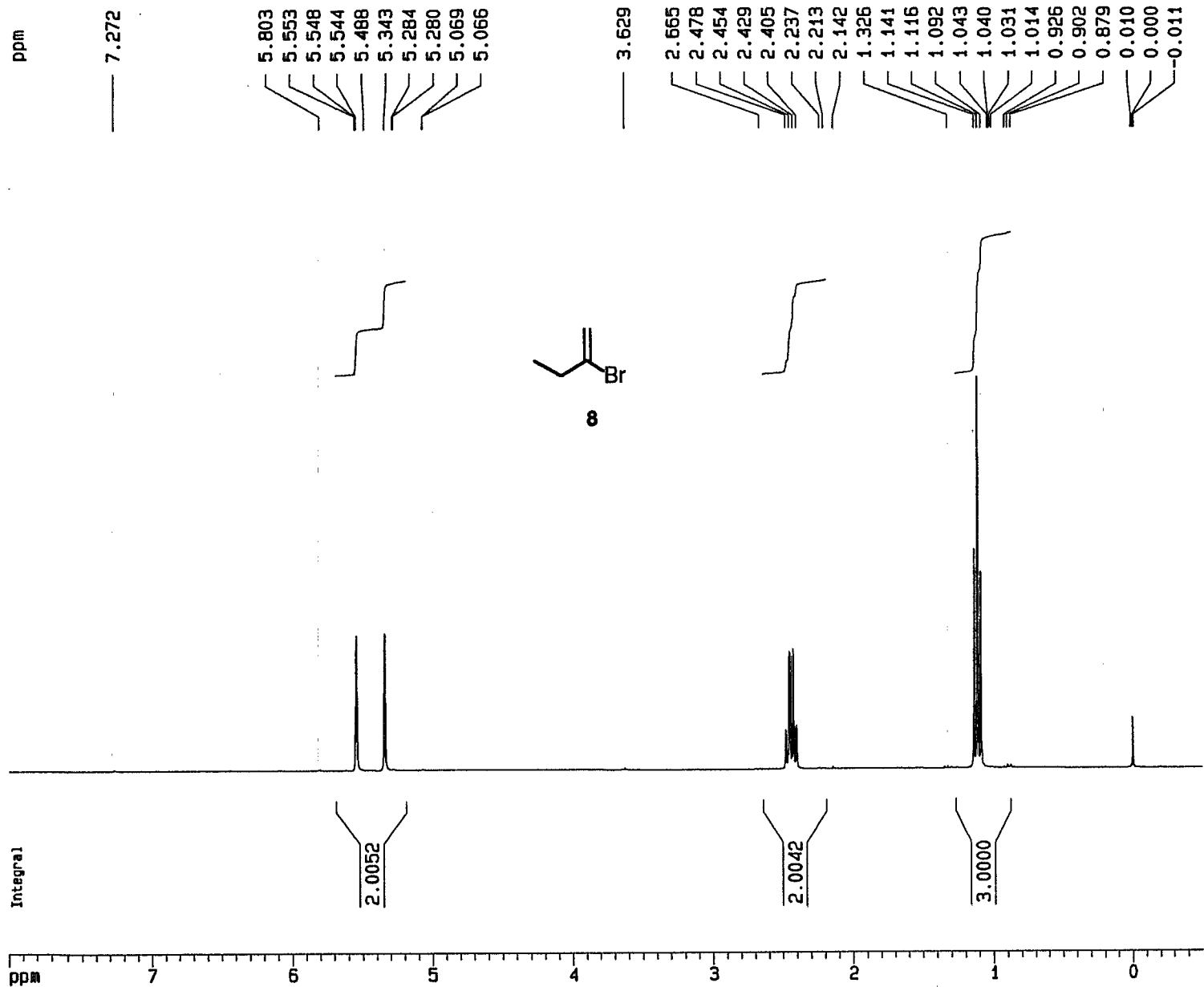


Current Data Parameters  
 NAME Rtest-13C  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 970401  
 Time 14.26  
 PULPROG zgpg30  
 SOLVENT CDCl3  
 AQ 1.3762760 sec  
 FIDRES 0.363304 Hz  
 DM 21.0 usec  
 RG 32768  
 NUCLEUS 13C  
 HL1 3 dB  
 D1 1.0000000 sec  
 P31 100.0 usec  
 S4 26 dB  
 D11 0.0300000 sec  
 S2 26 dB  
 P1 14.0 usec  
 DE 26.3 usec  
 SF01 75.4753021 MHz  
 SWH 23809.52 Hz  
 TD 65536  
 NS 182  
 DS 2

F2 - Processing parameters  
 SI 32768  
 SF 75.4686155 MHz  
 WDM EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 246.346 ppm  
 F1 18591.41 Hz  
 F2P -69.143 ppm  
 F2 -5218.11 Hz  
 PPMCM 15.77445 ppm/cm  
 HZCM 1190.47620 Hz/cm

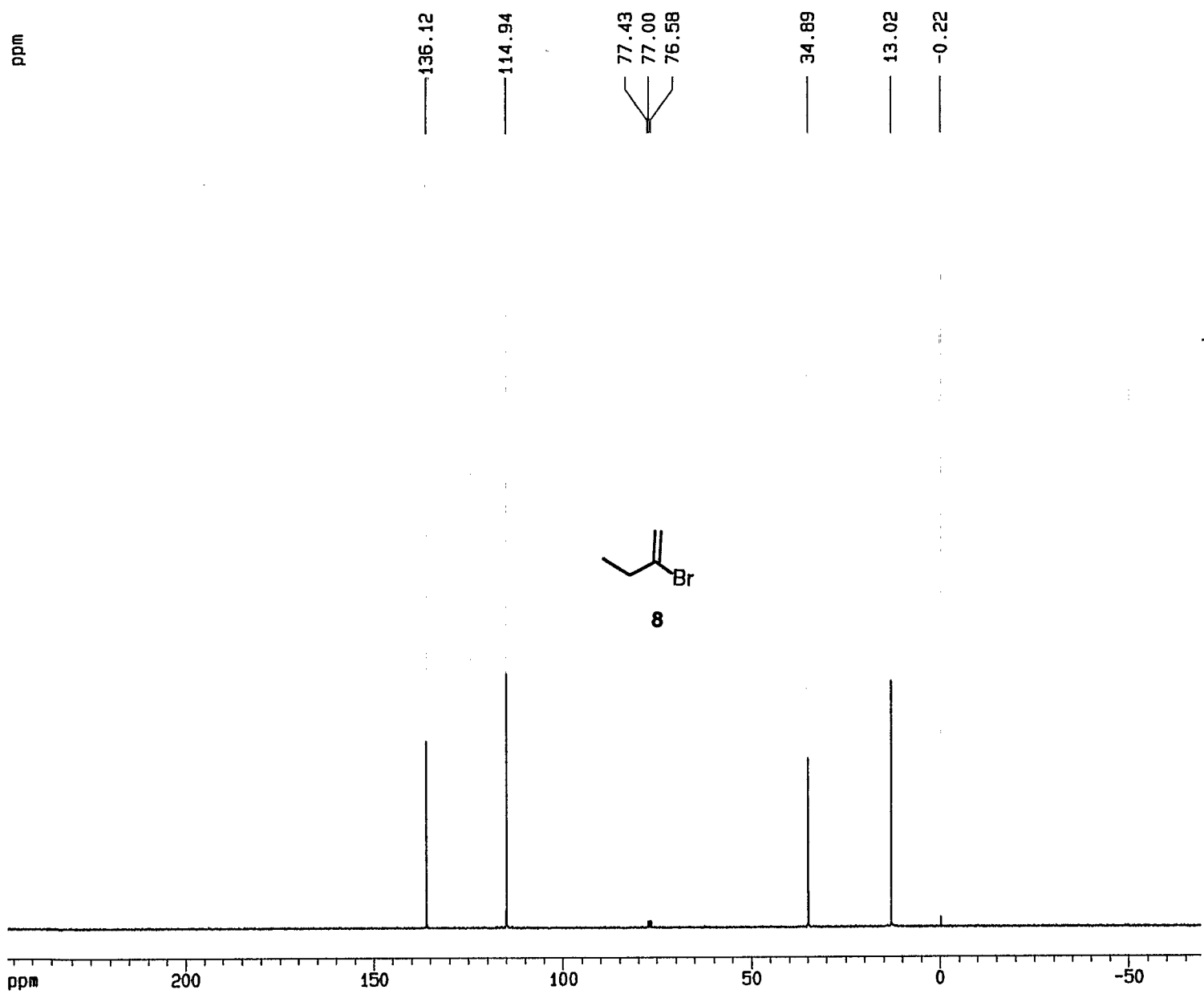


Current Data Parameters  
 NAME Rvinyl-1H  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 970403  
 Time 12.15  
 PULPROG zg30  
 SOLVENT CDCl3  
 AQ 2.6542280 sec  
 FIDRES 0.188380 Hz  
 DW 81.0 usec  
 RG 64  
 NUCLEUS 1H  
 HL1 1 dB  
 D1 1.0000000 sec  
 P1 10.0 usec  
 DE 101.3 usec  
 SFO1 300.1351620 MHz  
 SWH 6172.84 Hz  
 TD 32768  
 NS 66  
 DS 2

F2 - Processing parameters  
 SI 16384  
 SF 300.1333638 MHz  
 NDM EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 8.000 ppm  
 F1 2401.07 Hz  
 F2P -0.500 ppm  
 F2 -150.07 Hz  
 PPMCM 0.42500 ppm/cm  
 HZCM 127.55668 Hz/cm

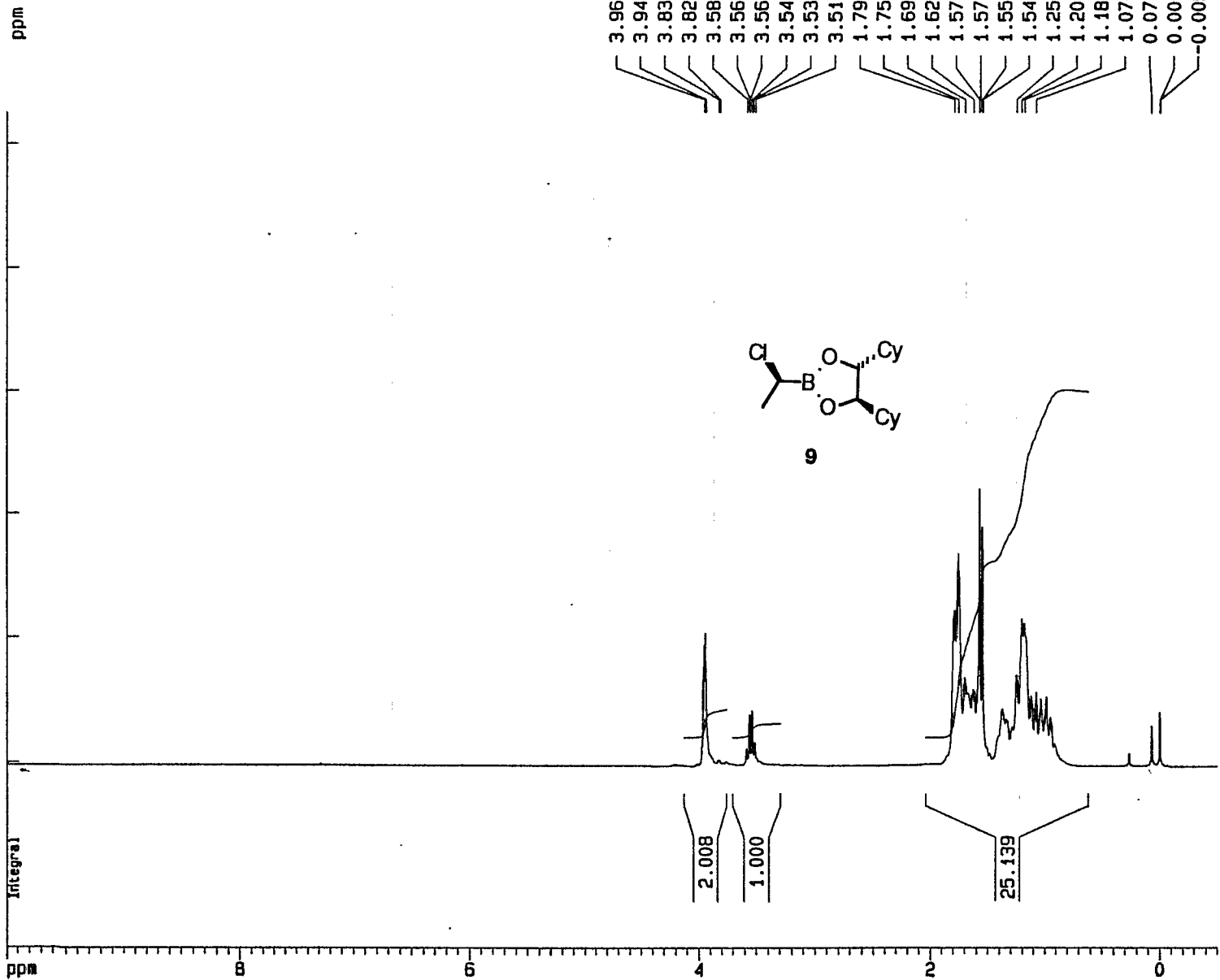


Current Data Parameters  
 NAME Rvinyl-13C  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 970403  
 Time 12.25  
 PULPROG zgpg30  
 SOLVENT CDCl3  
 AQ 1.3762760 sec  
 FIDRES 0.363304 Hz  
 DW 21.0 usec  
 RG 32768  
 NUCLEUS 13C  
 HL1 3 dB  
 D1 1.000000 sec  
 P31 100.0 usec  
 S4 26 dB  
 D11 0.0300000 sec  
 S2 26 dB  
 P1 14.0 usec  
 DE 26.3 usec  
 SF01 75.4753021 MHz  
 SNH 23809.52 Hz  
 TD 65536  
 NS 349  
 DS 2

F2 - Processing parameters  
 SI 32768  
 SF 75.4686002 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 246.548 ppm  
 F1 18606.67 Hz  
 F2P -68.941 ppm  
 F2 -5202.86 Hz  
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 HZCM 1190.47607 Hz/cm

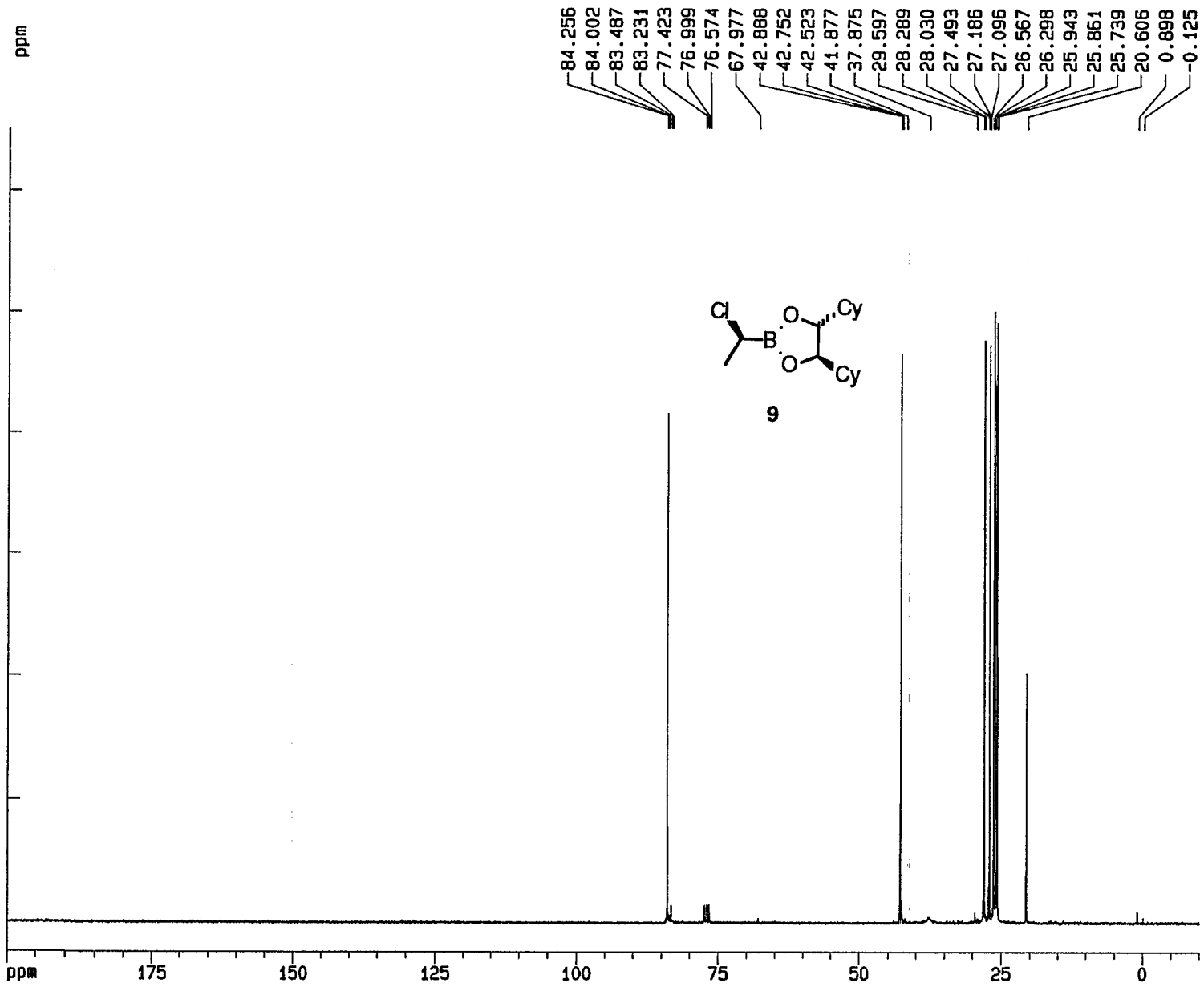


Current Data Parameters  
 NAME RPS-102-1H  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 991107  
 Time 16.32  
 PULPROG zg30  
 SOLVENT CDC13  
 AQ 2.6542280 sec  
 FIDRES 0.188380 Hz  
 DN 81.0 usec  
 RG 64  
 NUCLEUS 1H  
 HL1 1 dB  
 D1 1.0000000 sec  
 P1 10.0 usec  
 DE 101.3 usec  
 SF01 300.1351620 MHz  
 SWH 6172.84 Hz  
 TD 32768  
 NS 16  
 DS 2

F2 - Processing parameters  
 SI 16384  
 SF 300.1333592 MHz  
 WDM EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 10.000 ppm  
 F1 3001.33 Hz  
 F2P -0.500 ppm  
 F2 -150.07 Hz  
 PPMCM 0.52500 ppm/cm  
 HZCM 157.57001 Hz/cm

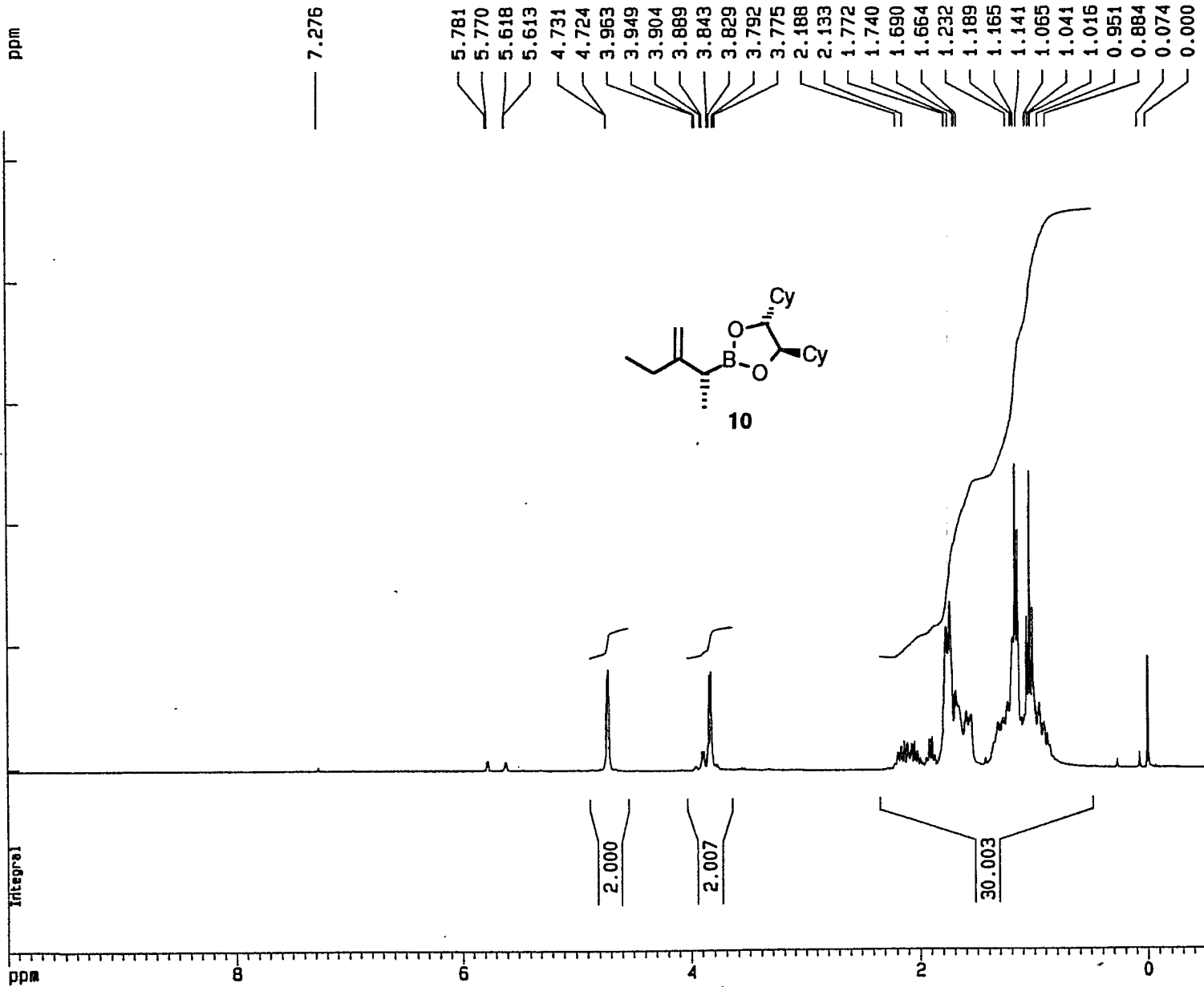


Current Data Parameters  
NAME RPS-102-13C  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date 991107  
Time 16.46  
PULPROG zgpg30  
SOLVENT CDC13  
AQ 1.3762760 sec  
FIDRES 0.363304 Hz  
DM 21.0 usec  
RG 32768  
NUCLEUS 13C  
HL1 3 dB  
D1 1.0000000 sec  
P31 100.0 usec  
S4 26 dB  
D11 0.0300000 sec  
S2 26 dB  
P1 14.0 usec  
DE 26.3 usec  
SF01 75.4753021 MHz  
SMH 23809.52 Hz  
TD 65536  
NS 698  
DS 2

F2 - Processing parameters  
SI 32768  
SF 75.4686010 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
F1P 200.000 ppm  
F1 15093.72 Hz  
F2P -10.000 ppm  
F2 -754.69 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 792.42029 Hz/cm



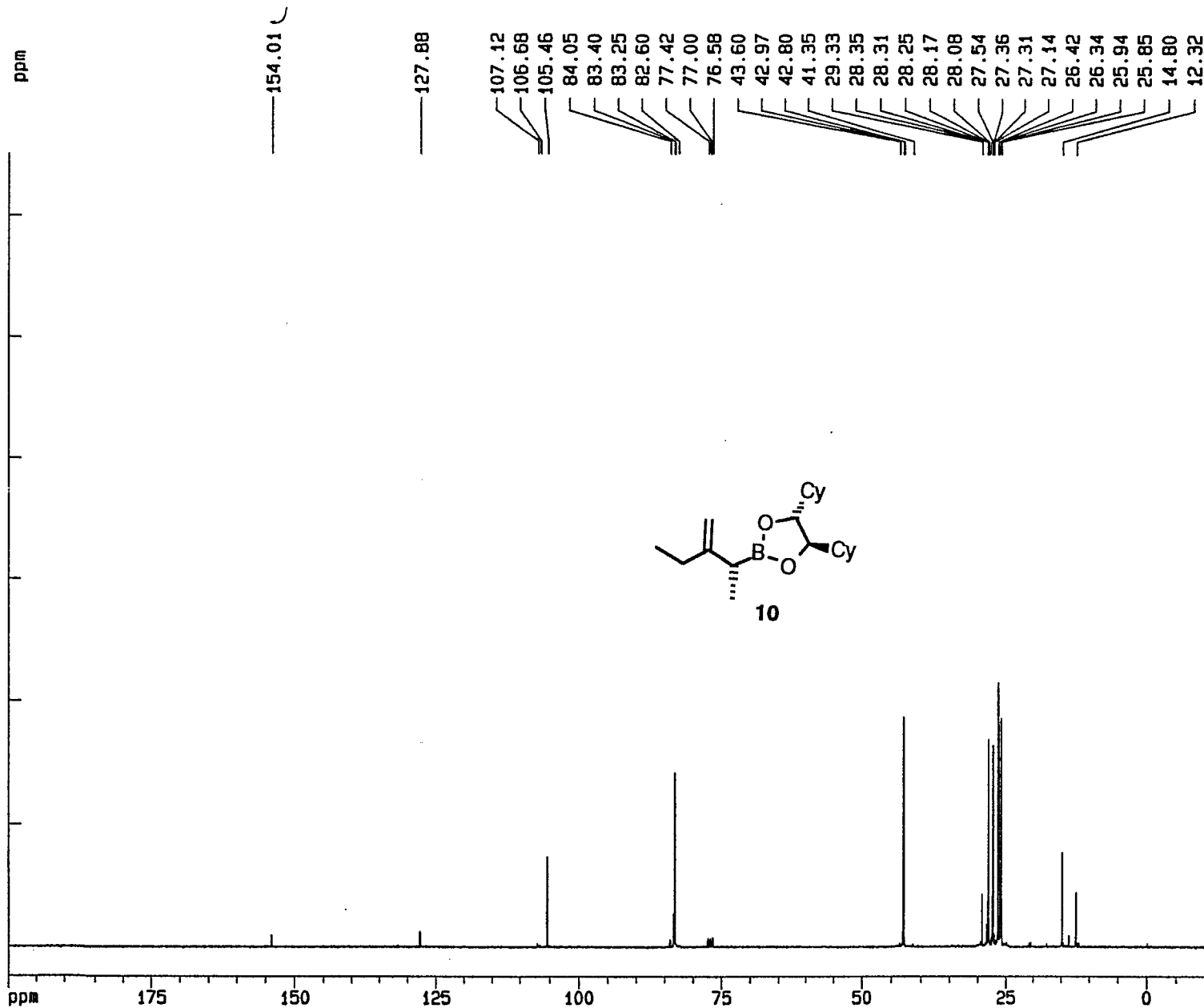
Current Data Parameters  
 NAME R-114-1H  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 0  
 Time 10.59  
 PULPROG zg30  
 SOLVENT CDCl3  
 AQ 2.6542280 sec  
 FIDRES 0.188380 Hz  
 DM 81.0 usec  
 RG 64  
 NUCLEUS 1H  
 HL1 1 dB  
 D1 1.0000000 sec  
 P1 10.0 usec  
 DE 101.3 usec  
 SF01 300.1351620 MHz  
 SWH 6172.84 Hz  
 TD 32768  
 NS 16  
 DS 2

F2 - Processing parameters  
 SI 16384  
 SF 300.1333630 MHz  
 WDM EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 10.000 ppm  
 F1 3001.33 Hz  
 F2P -0.500 ppm  
 F2 -150.07 Hz  
 PPMCM 0.52500 ppm/cm  
 HZCM 157.57001 Hz/cm





Current Data Parameters  
 NAME R-114-13C  
 EXPNO 1  
 PROCNO 1

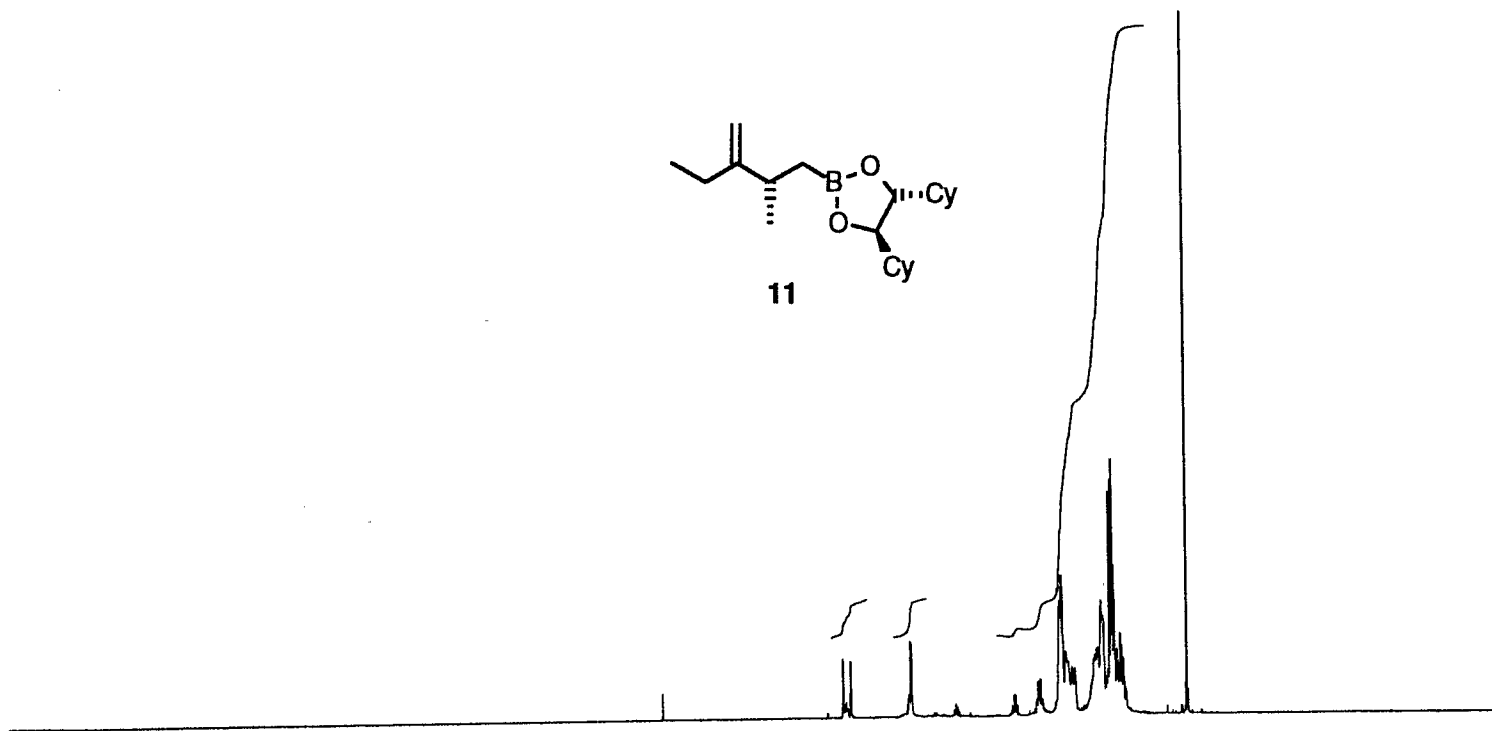
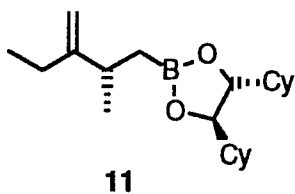
F2 - Acquisition Parameters  
 Date 0  
 Time 11.15  
 PULPROG zgpg30  
 SOLVENT CDCl3  
 AQ 1.3762760 sec  
 FIDRES 0.363304 Hz  
 DW 21.0 usec  
 RG 32768  
 NUCLEUS 13C  
 HL1 3 dB  
 D1 1.0000000 sec  
 P31 100.0 usec  
 S4 26 dB  
 D11 0.0300000 sec  
 S2 26 dB  
 P1 14.0 usec  
 DE 26.3 usec  
 SF01 75.4753021 MHz  
 SWH 23809.52 Hz  
 TD 65536  
 NS 483  
 DS 2

F2 - Processing parameters  
 SI 32768  
 SF 75.4685988 MHz  
 NDM EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 200.000 ppm  
 F1 15093.72 Hz  
 F2P -10.000 ppm  
 F2 -754.69 Hz  
 PPMCM 10.50000 ppm/cm  
 HZCM 792.42029 Hz/cm

ppm

7.267  
 4.750  
 4.646  
 4.641  
 4.636  
 3.828  
 3.818  
 3.802  
 1.774  
 1.767  
 1.742  
 1.187  
 1.165  
 1.069  
 1.054  
 1.047  
 1.029  
 1.005  
 0.882  
 0.010  
 0.000



Integral

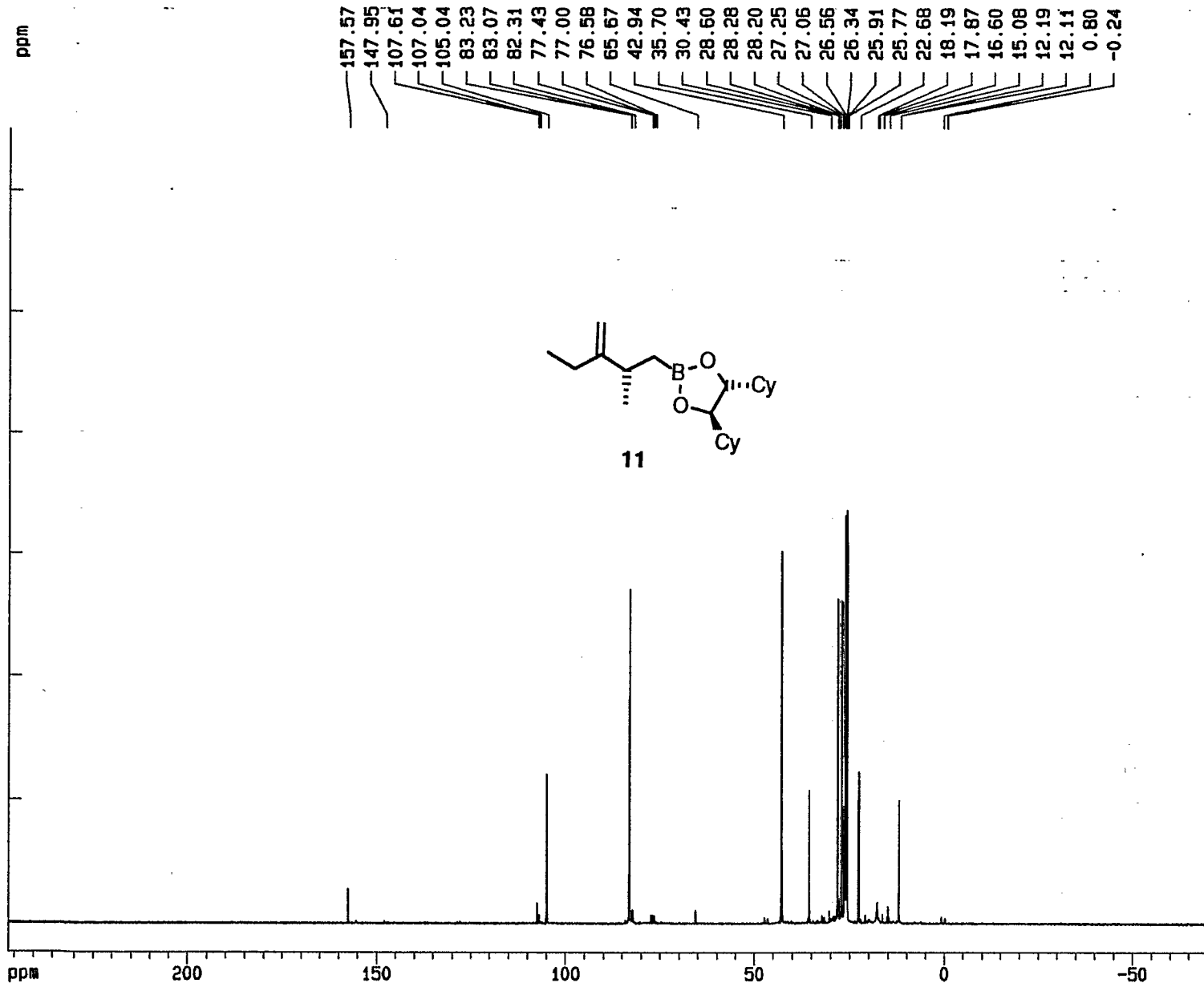


Current Data Parameters  
 NAME RMaR  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 990109  
 Time 11.41  
 PULPROG zg30  
 SOLVENT CDCl3  
 AQ 2.6542280 sec  
 FIDRES 0.188380 Hz  
 DM 81.0 usec  
 RG 256  
 NUCLEUS 1H  
 HL1 1 dB  
 D1 1.0000000 sec  
 P1 10.0 usec  
 DE 101.3 usec  
 SF01 300.1351620 MHz  
 SWH 6172.84 Hz  
 TD 32768  
 NS 55  
 DS 2

F2 - Processing parameters  
 SI 16384  
 SF 300.1333653 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 16.270 ppm  
 F1 4883.19 Hz  
 F2P -4.297 ppm  
 F2 -1289.65 Hz  
 PPMCM 1.02835 ppm/cm  
 HZCM 308.64200 Hz/cm



Current Data Parameters

NAME R-116-13CIC  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date 0  
Time 20.33  
PULPROG zgpg30  
SOLVENT COC13  
AQ 1.3762760 sec  
FIDRES 0.363304 Hz  
DN 21.0 usec  
RG 32768  
NUCLEUS 13C  
HL1 3 dB  
D1 1.0000000 sec  
P31 100.0 usec  
S4 26 dB  
D11 0.0300000 sec  
S2 26 dB  
P1 14.0 usec  
DE 26.3 usec  
SF01 75.4753021 MHz  
SMH 23809.52 Hz  
TD 65536  
NS 1024  
DS 2

F2 - Processing parameters

SI 32768  
SF 75.4686017 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

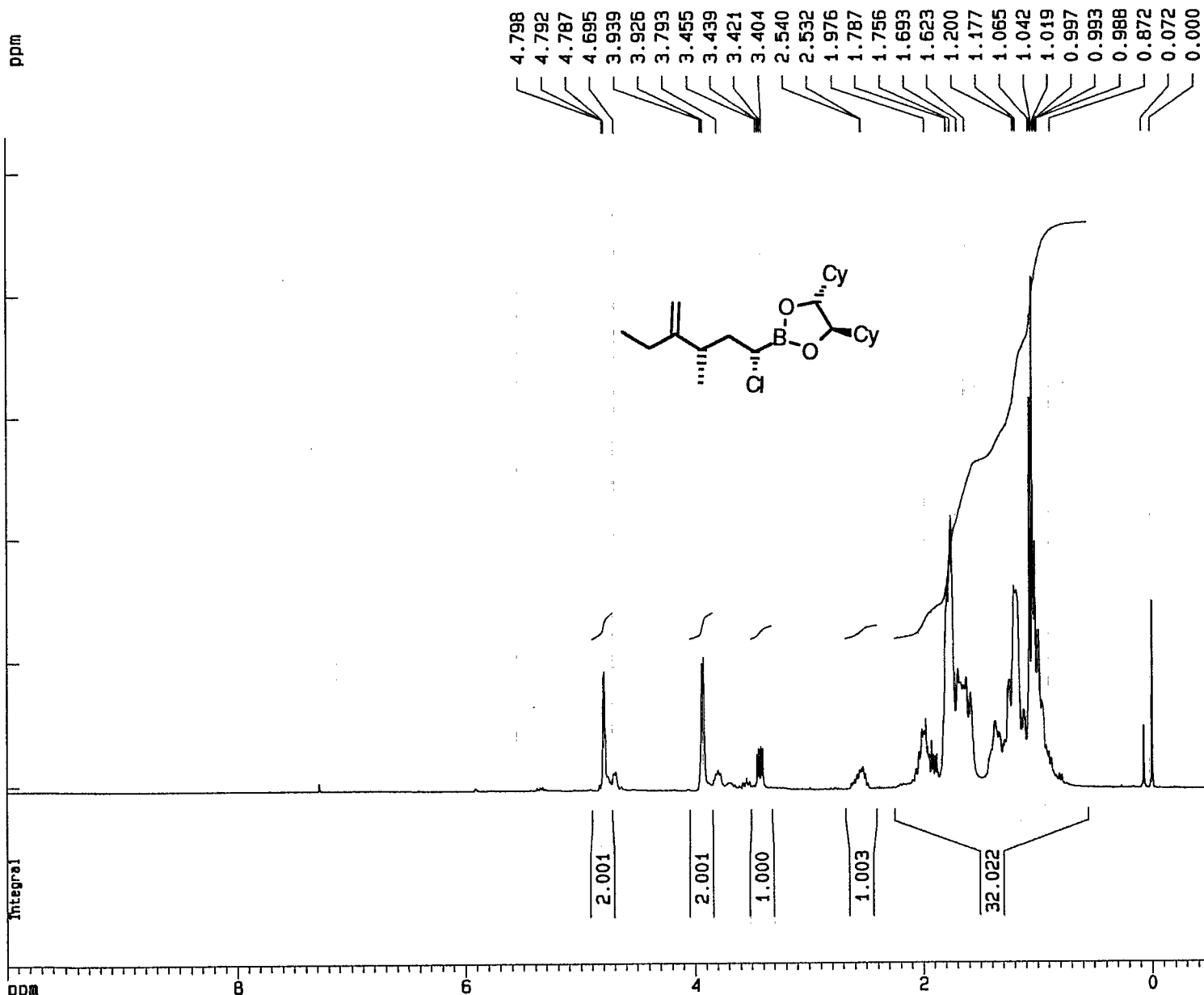
1D NMR plot parameters

CX 20.00 cm  
F1P 246.529 ppm  
F1 18605.21 Hz  
F2P -68.960 ppm  
F2 -5204.31 Hz  
PPMCH 15.77446 ppm/cm  
HZCM 1190.47620 Hz/cm

ppm

Integral

ppm



4.798  
4.792  
4.787  
4.695  
3.939  
3.926  
3.793  
3.455  
3.439  
3.421  
3.404  
2.540  
2.532  
1.976  
1.787  
1.756  
1.693  
1.623  
1.200  
1.177  
1.065  
1.042  
1.019  
0.997  
0.993  
0.988  
0.872  
0.072  
0.000

## Current Data Parameters

NAME R-117-1H-pure  
EXPNO 1  
PROCNO 1

## F2 - Acquisition Parameters

Date 0  
Time 13.49  
PULPROG zg30  
SOLVENT CDCl3  
AQ 2.6542280 sec  
FIDRES 0.188380 Hz  
DW 81.0 usec  
RG 64  
NUCLEUS 1H  
HL1 1 dB  
D1 1.0000000 sec  
P1 10.0 usec  
DE 101.3 usec  
SFO1 300.1351620 MHz  
SWH 6172.84 Hz  
TD 32768  
NS 32  
DS 2

## F2 - Processing parameters

SI 16384  
SF 300.1333611 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

## 1D NMR plot parameters

CX 20.00 cm  
F1P 10.000 ppm  
F1 3001.33 Hz  
F2P -0.500 ppm  
F2 -150.07 Hz  
PPMCM 0.52500 ppm/cm  
HZCM 157.57001 Hz/cm

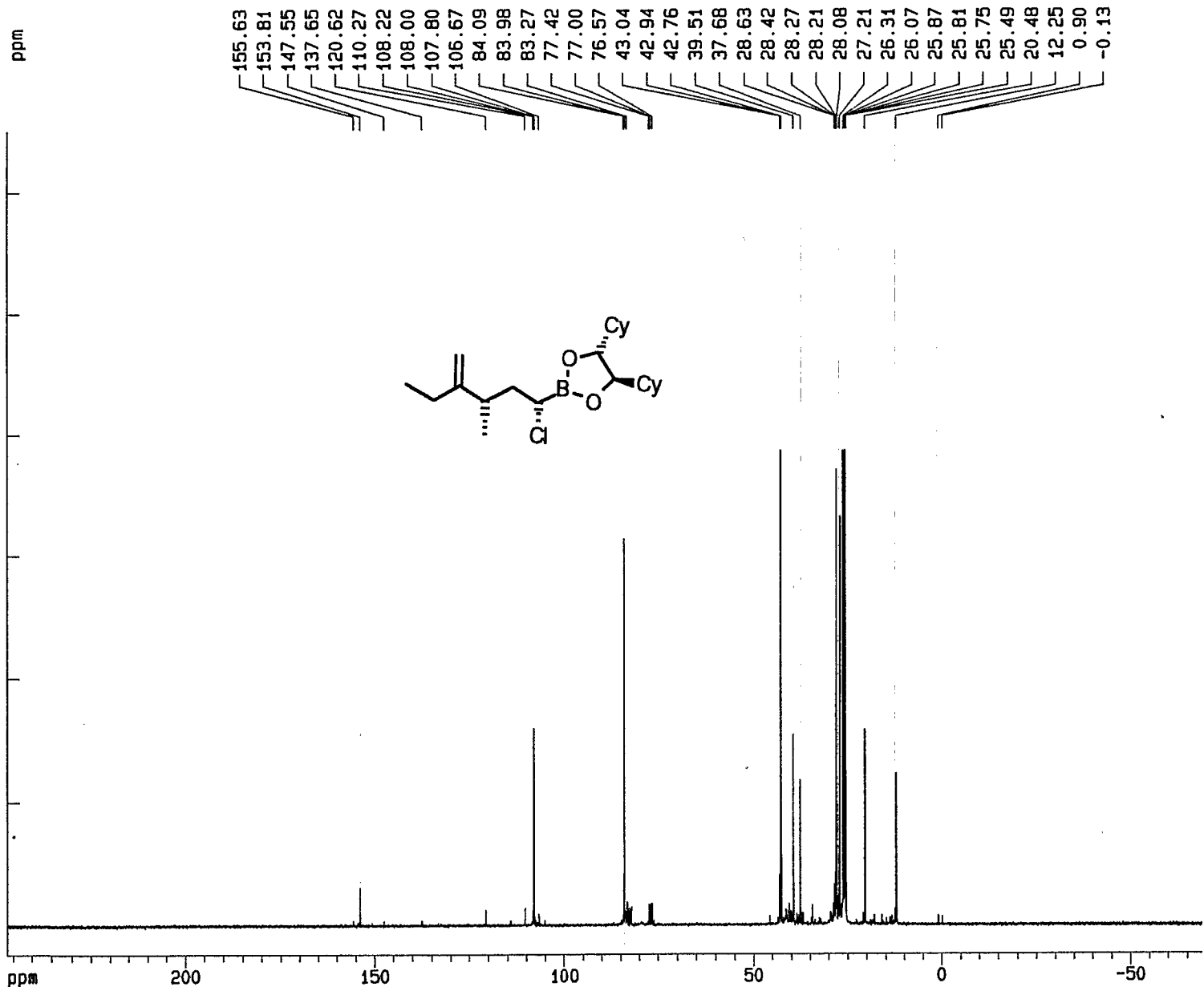
2.001

2.001

1.000

1.003

32.022

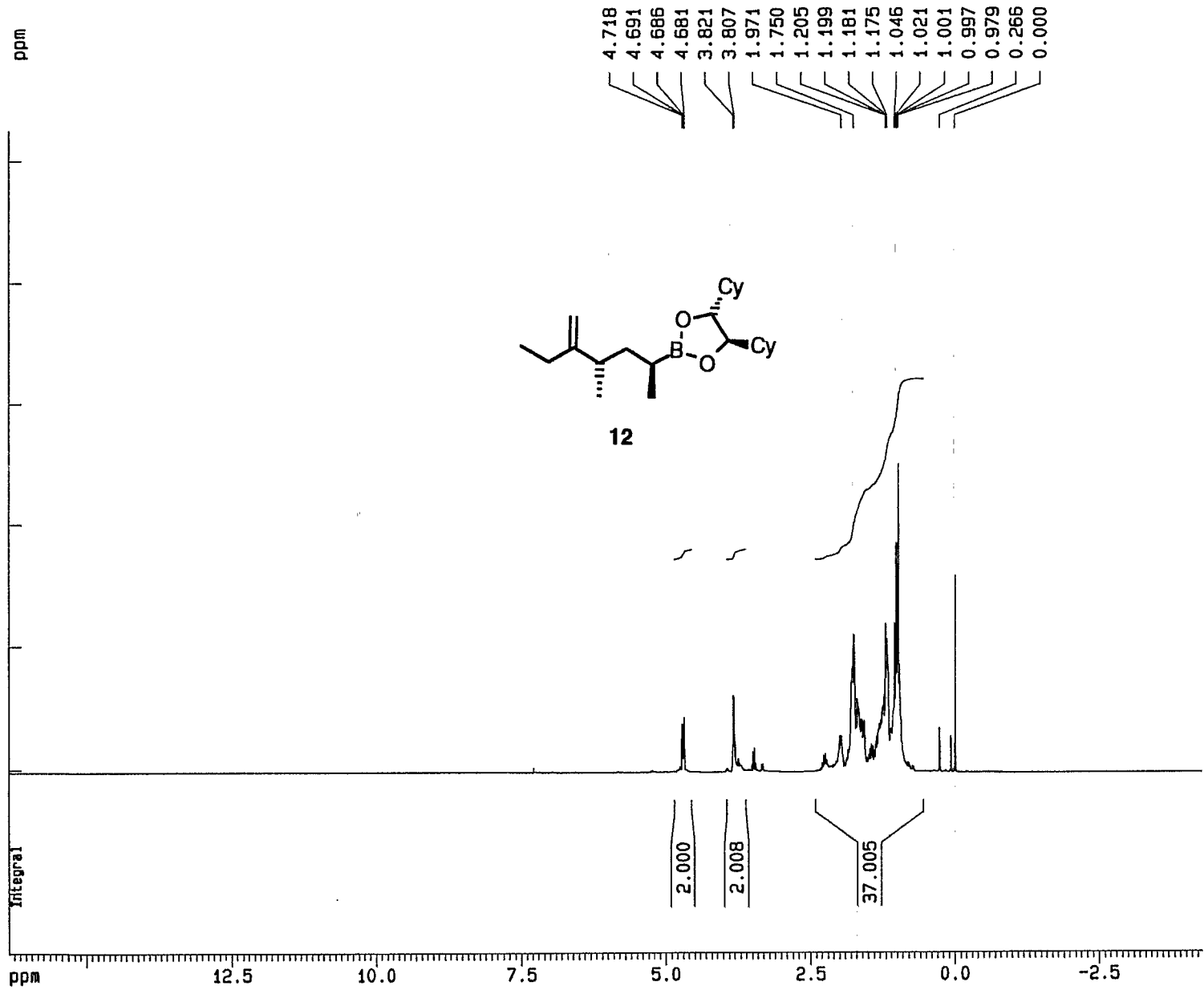


Current Data Parameters  
 NAME R-117-13Cpure  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 0  
 Time 14.10  
 PULPROG zgpg30  
 SOLVENT CDC13  
 AQ 1.3762760 sec  
 FIDRES 0.363304 Hz  
 DM 21.0 usec  
 RG 32768  
 NUCLEUS 13C  
 HL1 3 dB  
 D1 1.0000000 sec  
 P31 100.0 usec  
 S4 26 dB  
 D11 0.0300000 sec  
 S2 26 dB  
 P1 14.0 usec  
 DE 26.3 usec  
 SF01 75.4753021 MHz  
 SWH 23809.52 Hz  
 TD 65536  
 NS 645  
 DS 2

F2 - Processing parameters  
 SI 32768  
 SF 75.4686010 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 246.539 ppm  
 F1 18605.94 Hz  
 F2P -68.950 ppm  
 F2 -5203.58 Hz  
 PPMCM 15.77446 ppm/cm  
 HZCM 1190.47607 Hz/cm

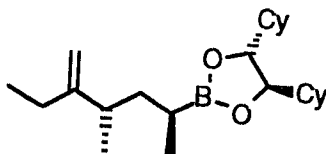
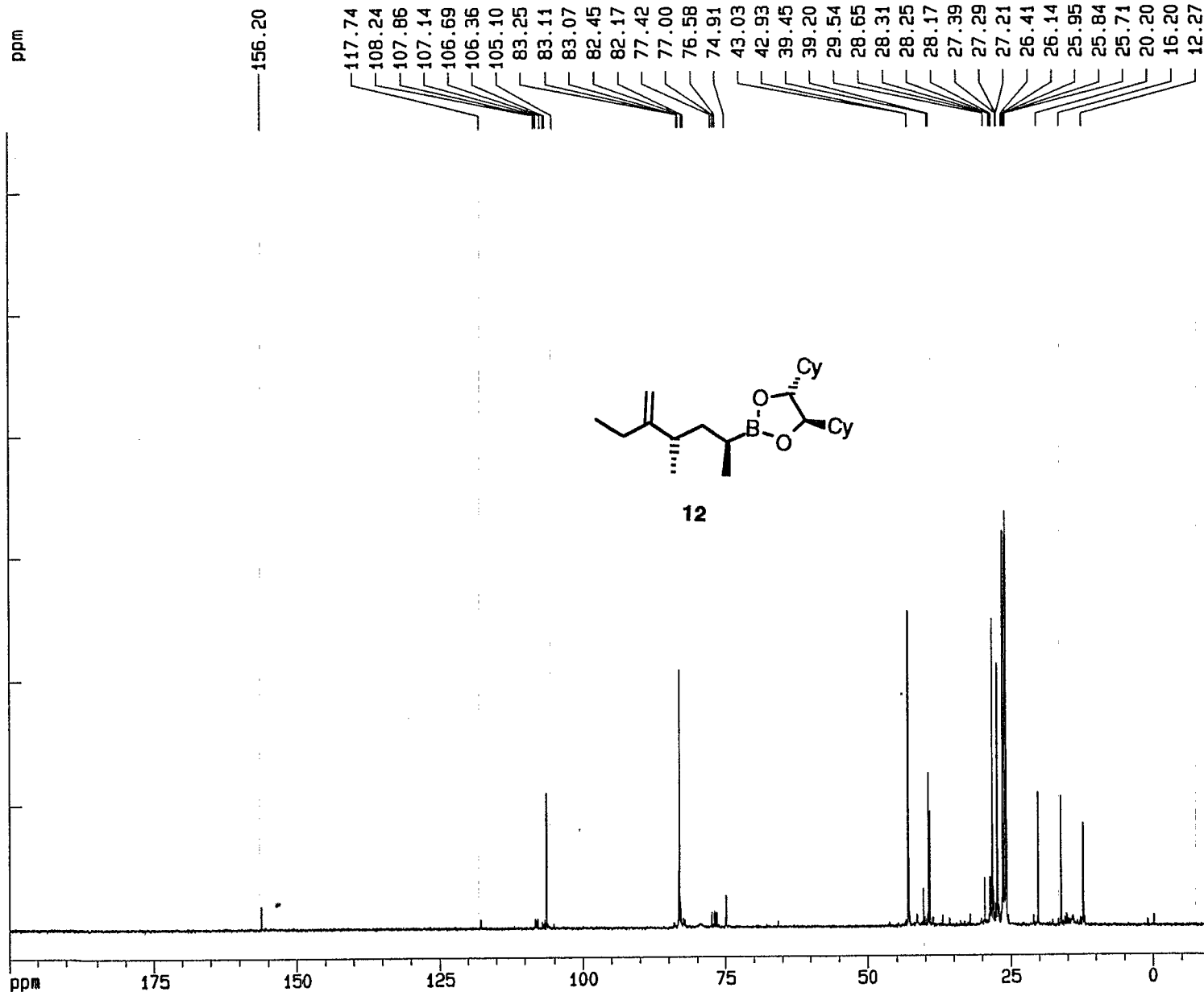


Current Data Parameters  
 NAME R-118-1H-pure  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 0  
 Time 17.55  
 PULPROG zg30  
 SOLVENT CDC13  
 AQ 2.6542280 sec  
 FIDRES 0.188380 Hz  
 DM 81.0 usec  
 RG 64  
 NUCLEUS 1H  
 HL1 1 dB  
 D1 1.000000 sec  
 P1 10.0 usec  
 DE 101.3 usec  
 SFO1 300.1351620 MHz  
 SWH 6172.84 Hz  
 TD 32768  
 NS 16  
 DS 2

F2 - Processing parameters  
 SI 16384  
 SF 300.1333581 MHz  
 NDM EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 16.294 ppm  
 F1 4890.35 Hz  
 F2P -4.273 ppm  
 F2 -1282.49 Hz  
 PPMCM 1.02835 ppm/cm  
 HZCM 308.64200 Hz/cm



Current Data Parameters  
NAME R-118-1Cpure  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

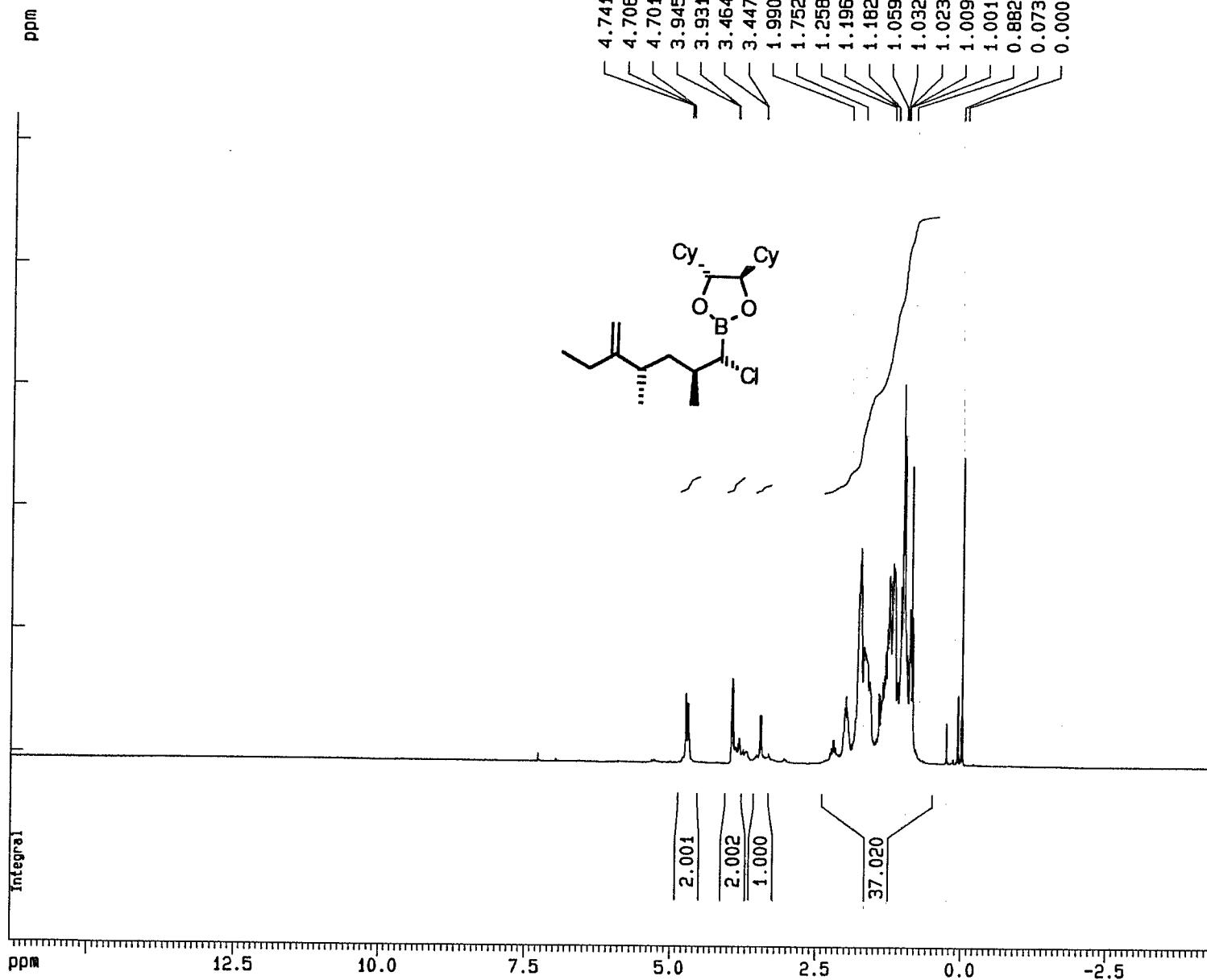
Date 0  
Time 18.22  
PULPROG zgpg30  
SOLVENT CDCl3  
AQ 1.3762760 sec  
FIDRES 0.363304 Hz  
DM 21.0 usec  
RG 32768  
NUCLEUS 13C  
HL1 3 dB  
D1 1.0000000 sec  
P31 100.0 usec  
S4 26 dB  
D11 0.0300000 sec  
S2 26 dB  
P1 14.0 usec  
DE 26.3 usec  
SF01 75.4753021 MHz  
SWM 23809.52 Hz  
TD 65536  
NS 367  
DS 2

F2 - Processing parameters

SI 32768  
SF 75.4685988 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
F1P 200.000 ppm  
F1 15093.72 Hz  
F2P -10.000 ppm  
F2 -754.69 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 792.42029 Hz/cm



Current Data Parameters

NAME R-119-1H  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters

Date 0  
 Time 14.47  
 PULPROG zg30  
 SOLVENT CDCl3  
 AQ 2.6542280 sec  
 FIDRES 0.188380 Hz  
 DM 81.0 usec  
 RG 64  
 NUCLEUS 1H  
 HL1 1 dB  
 D1 1.0000000 sec  
 P1 10.0 usec  
 DE 101.3 usec  
 SF01 300.1351620 MHz  
 SSW 6172.84 Hz  
 TD 32768  
 NS 16  
 DS 2

F2 - Processing parameters

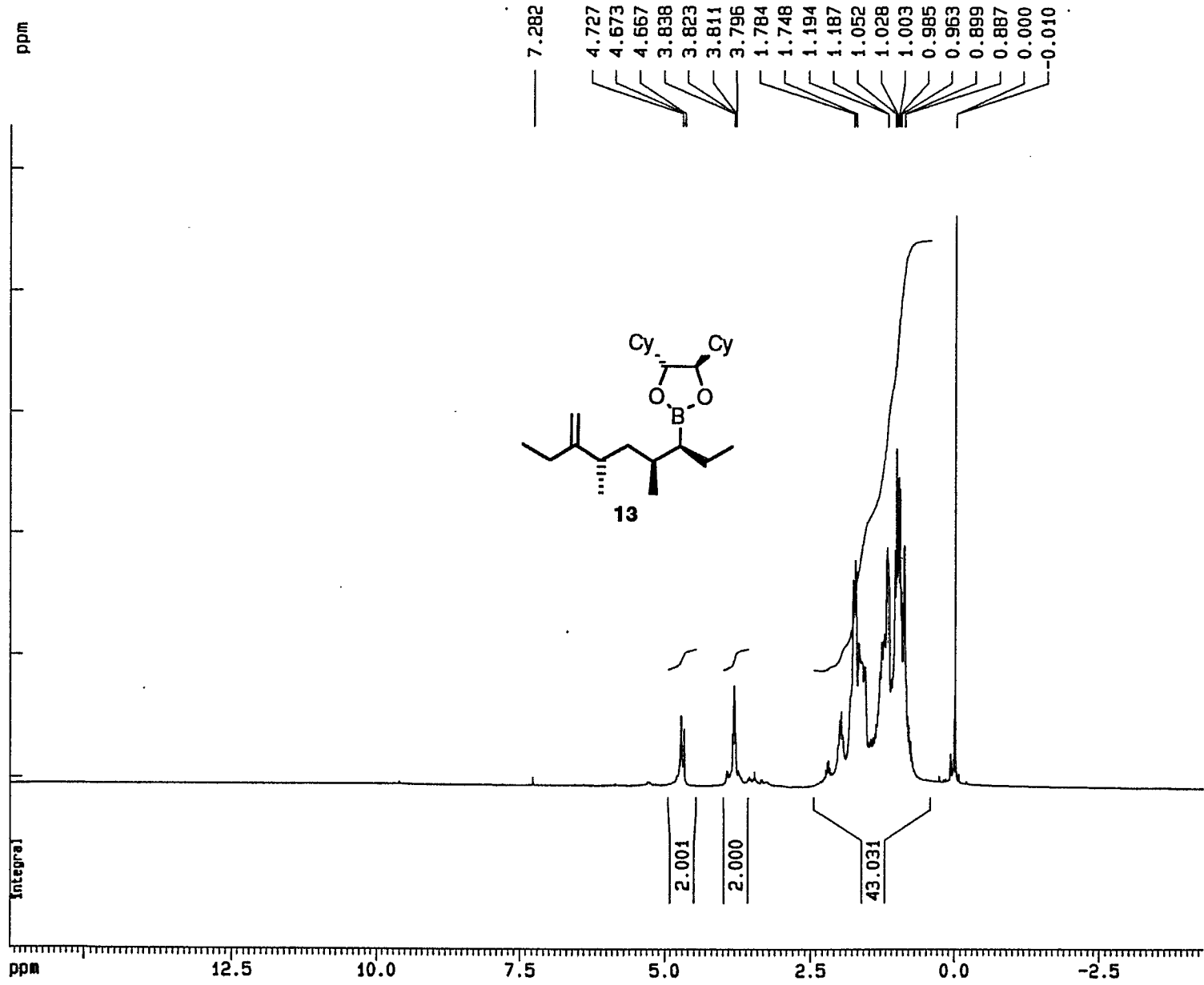
SI 16384  
 SF 300.1333611 MHz  
 WDM EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters

CX 20.00 cm  
 F1P 16.284 ppm  
 F1 4887.33 Hz  
 F2P -4.283 ppm  
 F2 -1285.51 Hz  
 PPMCM 1.02835 ppm/cm  
 HZCM 308.64200 Hz/cm





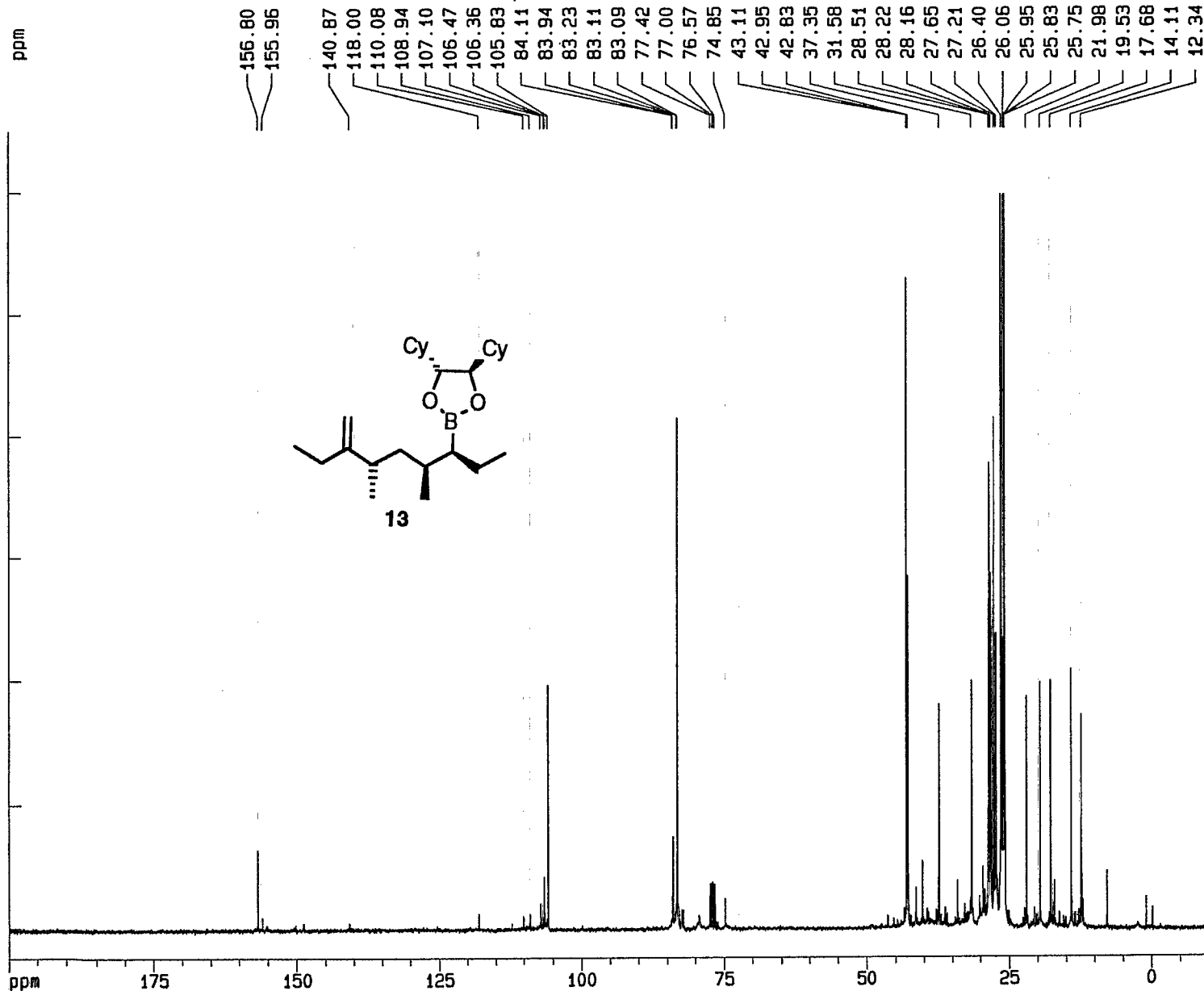


Current Data Parameters  
 NAME R-Sm  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 0  
 Time 12.21  
 PULPROG zg30  
 SOLVENT CDC13  
 AQ 2.6542280 sec  
 FIDRES 0.188380 Hz  
 DW 81.0 usec  
 RG 64  
 NUCLEUS 1H  
 HL1 1 dB  
 D1 1.0000000 sec  
 P1 10.0 usec  
 DE 101.3 usec  
 SFO1 300.1351620 MHz  
 SMH 6172.84 Hz  
 TD 32768  
 NS 93  
 DS 2

F2 - Processing parameters  
 SI 16384  
 SF 300.1333607 MHz  
 NDM EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 16.285 ppm  
 F1 4887.71 Hz  
 F2P -4.282 ppm  
 F2 -1285.13 Hz  
 PPMCM 1.02835 ppm/cm  
 HZCM 308.64200 Hz/cm



Current Data Parameters  
 NAME RPS-120-13C  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters

Date 0  
 Time 10.04  
 PULPROG zgpg30  
 SOLVENT CDCl3  
 AQ 1.3762760 sec  
 FIDRES 0.363304 Hz  
 DW 21.0 usec  
 RG 32768  
 NUCLEUS 13C  
 HL1 3 dB  
 D1 1.000000 sec  
 P31 100.0 usec  
 S4 26 dB  
 D11 0.0300000 sec  
 S2 26 dB  
 P1 14.0 usec  
 DE 26.3 usec  
 SF01 75.4753021 MHz  
 SWH 23809.52 Hz  
 TD 65536  
 NS 595  
 DS 2

F2 - Processing parameters

SI 32768  
 SF 75.4686010 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

10 NMR plot parameters

CX 20.00 cm  
 F1P 200.000 ppm  
 F1 15093.72 Hz  
 F2P -10.000 ppm  
 F2 -754.69 Hz  
 PPMCM 10.50000 ppm/cm  
 HZCM 792.42029 Hz/cm

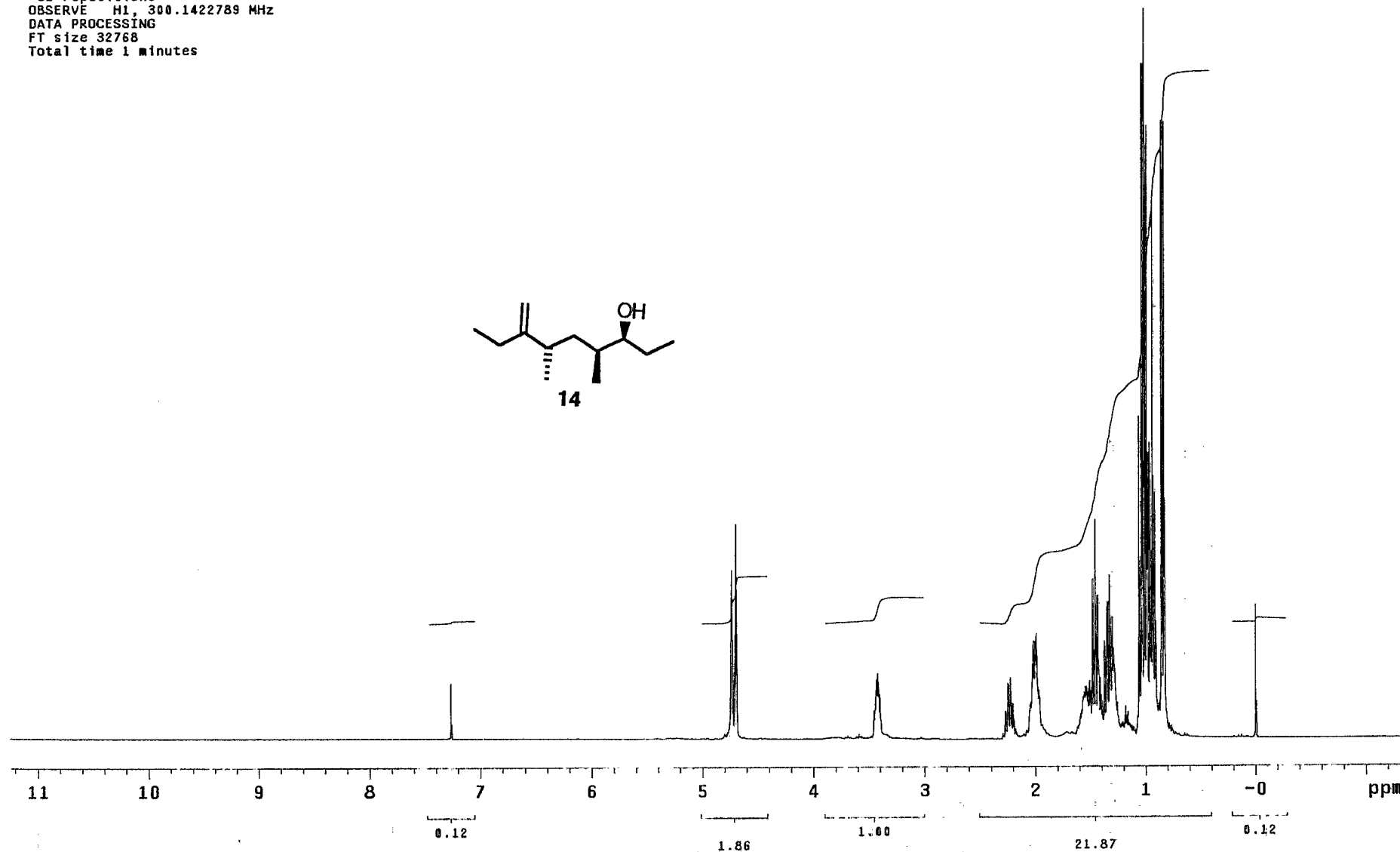
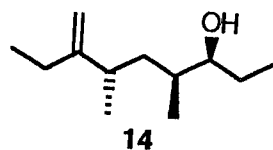
STANDARD 1H OBSERVE

chromatographed-and-distilled

Solvent: CDC13  
Ambient temperature  
File: R-OH-1HCDC13  
Mercury-300BB "nmrc300"

PULSE SEQUENCE

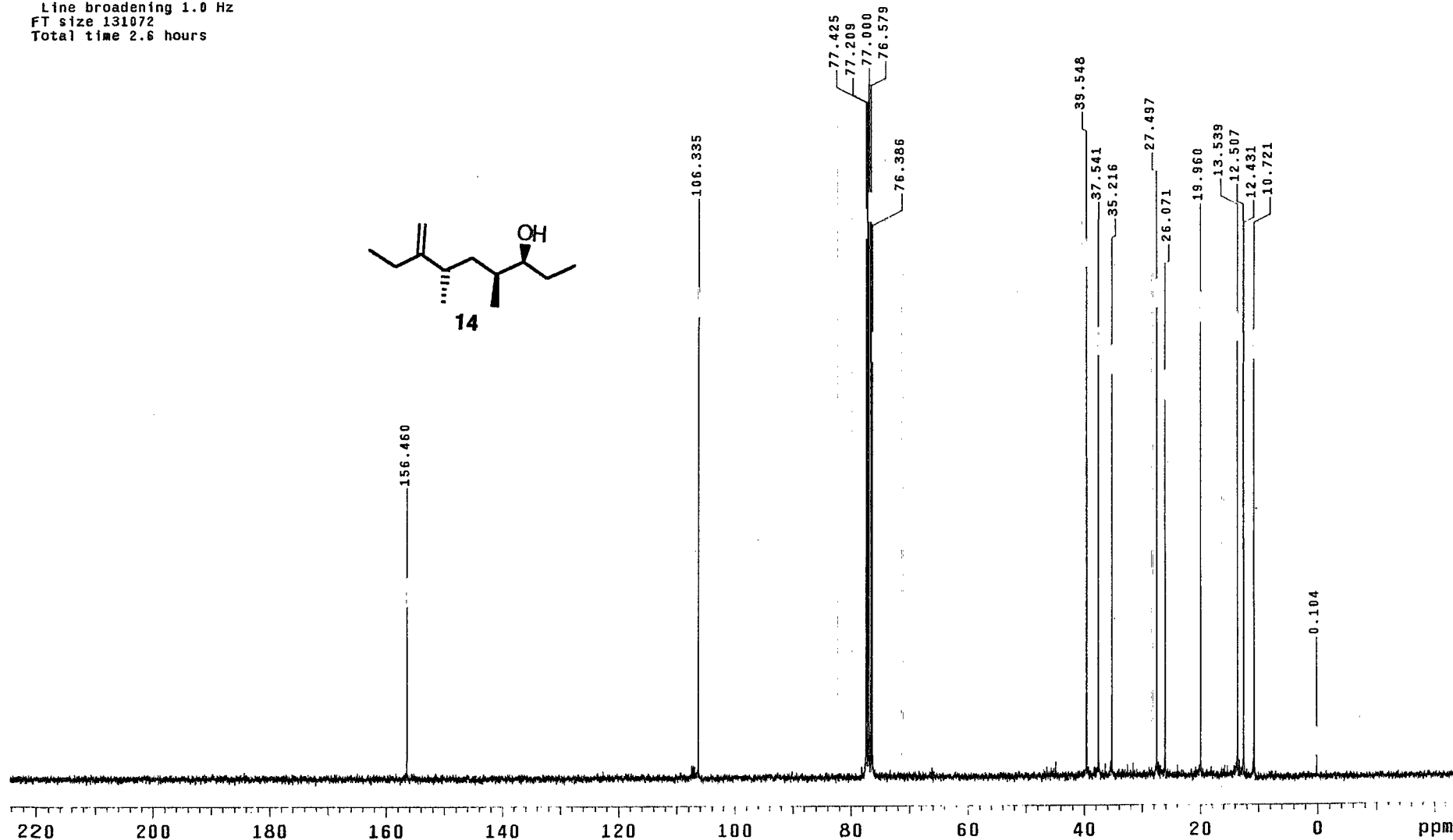
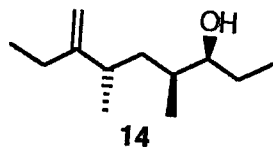
Relax. delay 1.000 sec  
Pulse 45.0 degrees  
Acq. time 1.997 sec  
Width 4502.2 Hz  
32 repetitions  
OBSERVE HI, 300.1422789 MHz  
DATA PROCESSING  
FT size 32768  
Total time 1 minutes

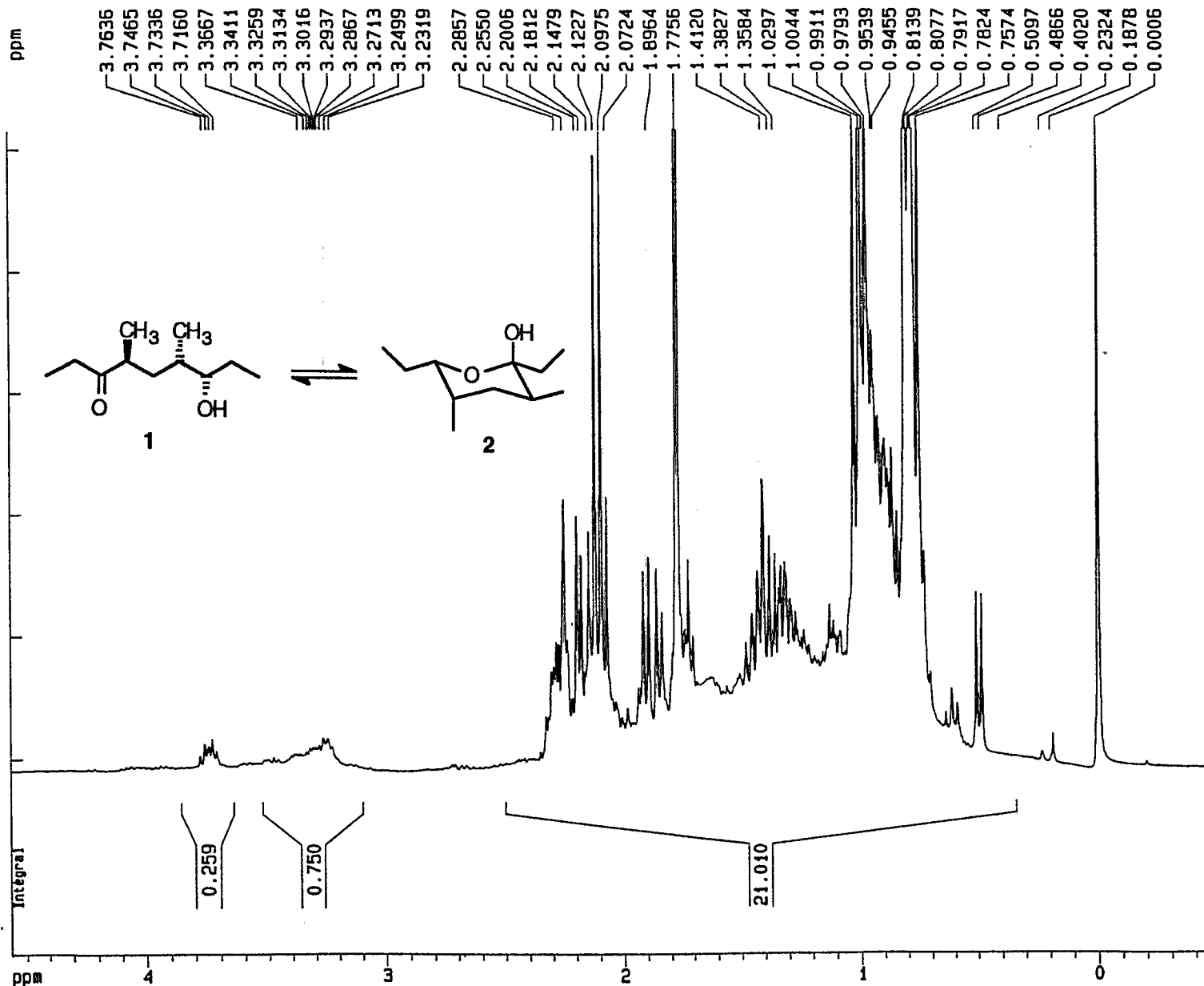


13C OBSERVE

Solvent: CDCl3  
 Ambient temperature  
 File: ROH  
 Mercury-300BB "nmrc300"

PULSE SEQUENCE  
 Relax. delay 0.500 sec  
 Pulse 83.0 degrees  
 Acq. time 1.815 sec  
 Width 18761.7 Hz  
 4096 repetitions  
 OBSERVE C13, 75.4708401 MHz  
 DECOUPLE H1, 300.1437816 MHz  
 Power 39 dB  
 continuously on  
 WALTZ-16 modulated  
 DATA PROCESSING  
 Line broadening 1.0 Hz  
 FT size 131072  
 Total time 2.6 hours





Current Data Parameters  
 NAME RPFpro-1H  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date 960626  
 Time 13.44  
 PULPROG zg30  
 SOLVENT CDC13  
 AQ 2.6542280 sec  
 FIDRES 0.188380 Hz  
 DW 81.0 usec  
 RG 64  
 NUCLEUS 1H  
 HL1 1 dB  
 D1 1.0000000 sec  
 P1 10.0 usec  
 DE 101.3 usec  
 SF01 300.1351620 MHz  
 SWH 6172.84 Hz  
 TD 32768  
 NS 62  
 DS 2

F2 - Processing parameters  
 SI 16384  
 SF 300.1333702 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 4.567 ppm  
 F1 1370.78 Hz  
 F2P -0.453 ppm  
 F2 -136.09 Hz  
 PPMCN 0.25103 ppm/cm  
 HZCN 75.34361 Hz/cm