

Supporting Information for:

Synthesis of Four Diastereomeric 3,5-Dialkoxy-2,4-dimethylalkanals by a Simple Extension of the Non-aldol Aldol Process to Bis(propionates)

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General Procedure For Epoxide Rearrangement

Rearrangement of Epoxides From *E*-allylic Alcohols

The epoxide silyl ether **9** or **11** (0.17 mmol, 1 eq) was dissolved in 3 ml of dichloro-methane and treated with diisopropylethylamine (DIPEA, 6 eq). The solution was cooled to -78°C and treated with trimethylsilyl triflate (TMSOTf, 6 eq). After the solution stirred for 3.5 h, the reaction mixture was quenched with water and extracted with ether. The organic layers were washed with brine and dried over MgSO_4 . The solvent was removed under reduced pressure and the resulting oil was chromatographed (50% ether/ 50% hexane) to give the aldehyde **10** or **12** in 82% or 70% yield respectively.

Rearrangement of Epoxides From *Z*-allylic Alcohols

A solution of the epoxy alcohol **13** (0.1 mmol, 1 eq) in 5 ml of dichloromethane was treated successively with DIPEA (2 eq) and triethylsilyl chloride (TESCl, 1.5 eq) at 25°C . After the solution stirred for 3 h, the mixture was poured onto 50 ml of ether and shaken with 25 ml of 0.2 M pH 7 phosphate buffer. The layers were separated, extracted with ether, washed with 0.2 M pH 7 phosphate buffer, brine, dried over MgSO_4 , and concentrated to give the silyl epoxide. The silyl epoxide was then dissolved in 4 ml of dichloromethane and treated with DIPEA (6 eq). The solution was cooled to -42°C and treated with TMSOTf (6 eq). After the solution stirred for 3 h, the solution was poured onto 50 ml of ether and shaken with 25 ml of 0.2 M pH 7 phosphate buffer. The layers were separated, extracted with ether, washed with 0.2 M pH 7 phosphate buffer, brine, dried (MgSO_4), and concentrated to give a mixture of the aldehyde **14** and the allylic silyl ether **15** in a 4:1 ratio.

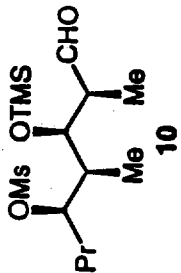
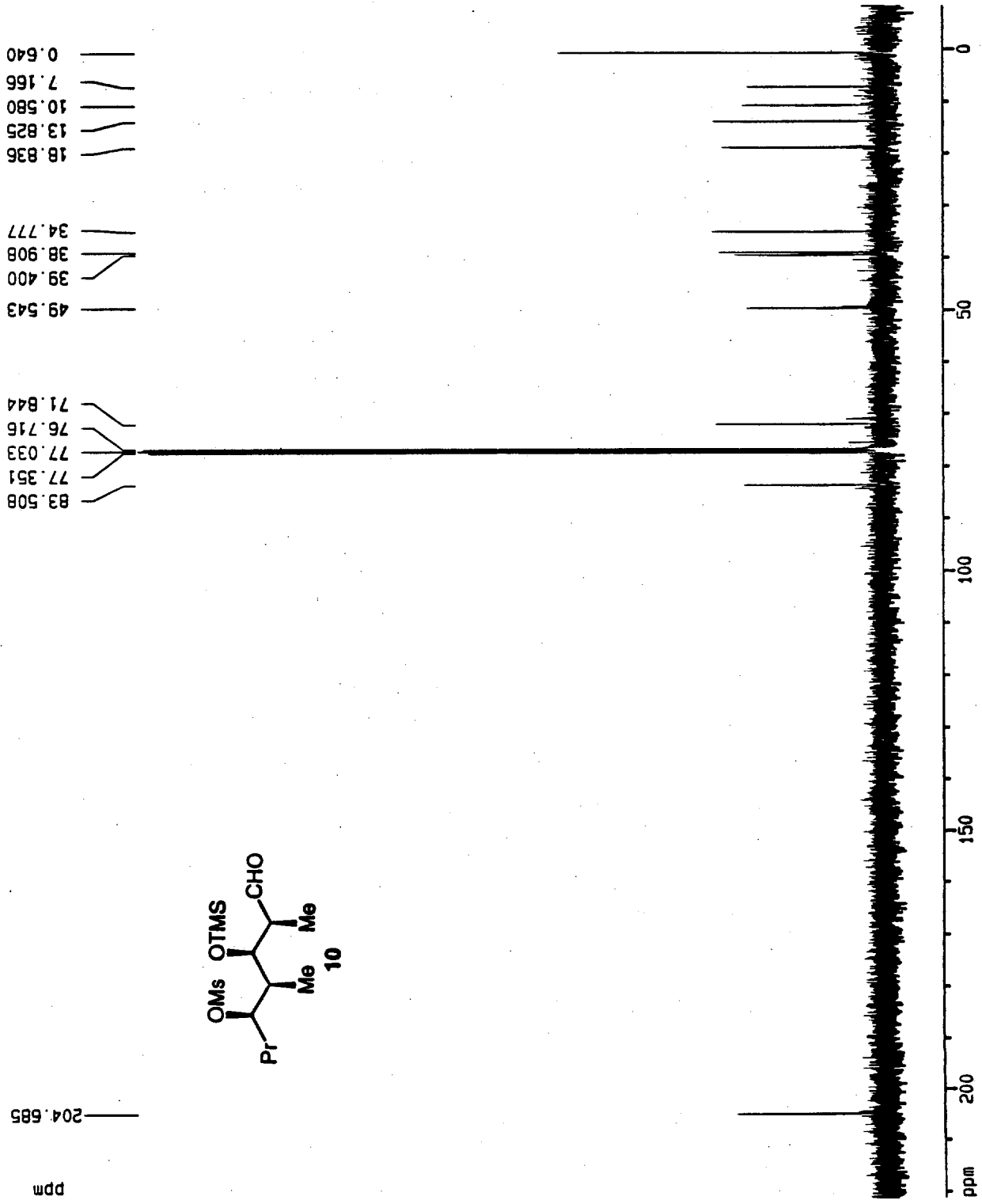
Default parameters for C-13 with proton decoupling

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 TD 65536
 SOLVENT CDCl3
 NS 128
 DS 0
 SMH 27777.777 Hz
 FIDRES 0.423855 Hz
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 RG 32768
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 DE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 DL5 23.00 dB
 CPDPRG waltz16
 P31 105.00 usec
 P1 2.00000000 sec
 P2 6.00 usec
 DE 25.71 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
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 SF 100.6127710 MHz
 MDW EM
 SS8 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 221.171 ppm
 F1 2252.59 Hz
 F2P -8.292 ppm
 F2 -834.24 Hz
 PPMCM 11.47311 ppm/cm
 HZCM 1154.34143 Hz/cm



ppm
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ppm
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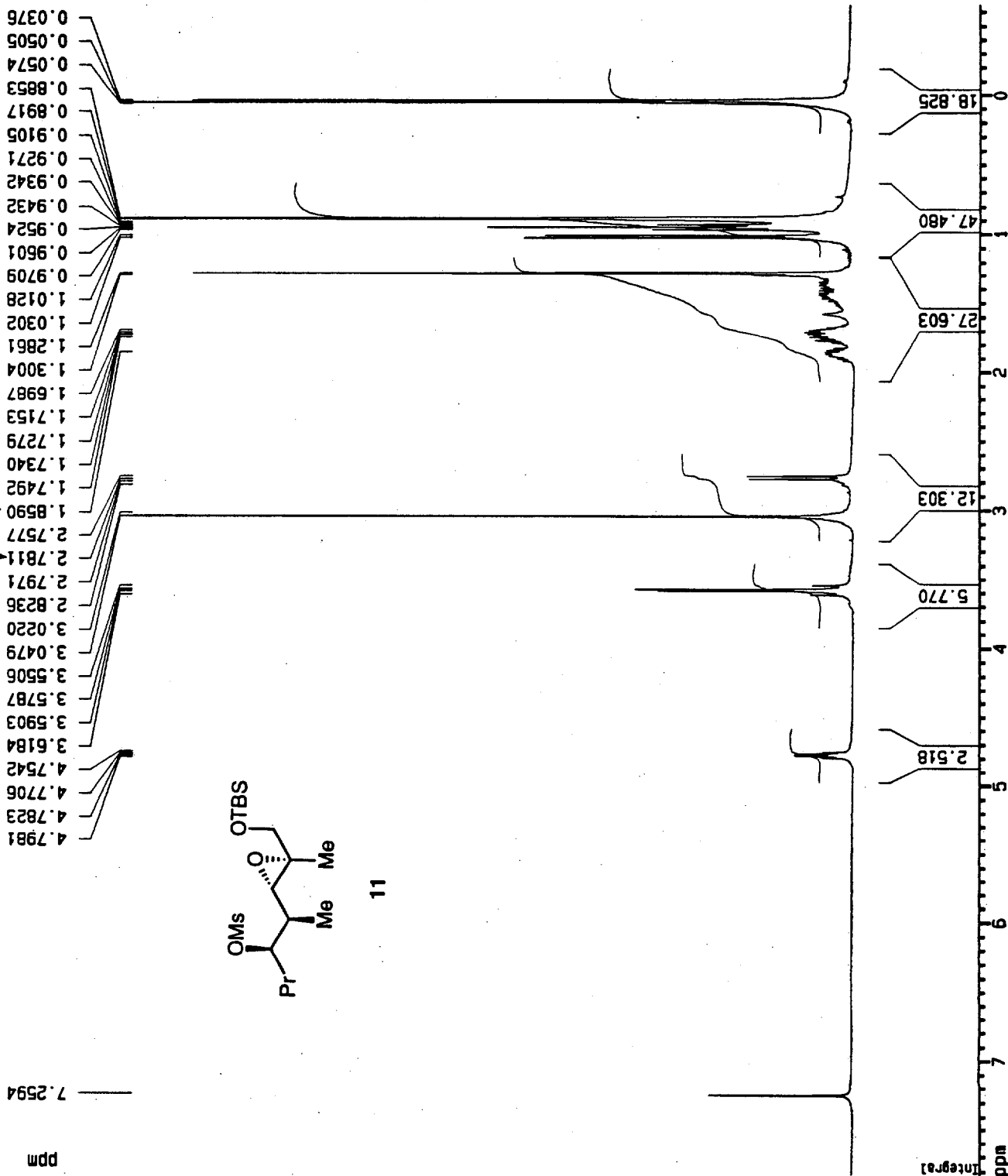
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 Time 14.52
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 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 715
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.00 usec
 DE 88.57 usec
 SF01 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
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 SF 400.1300173 MHz
 MDW EM
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 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
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 F2 -260.15 Hz
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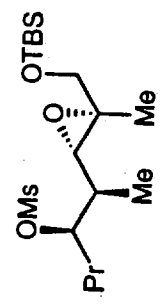
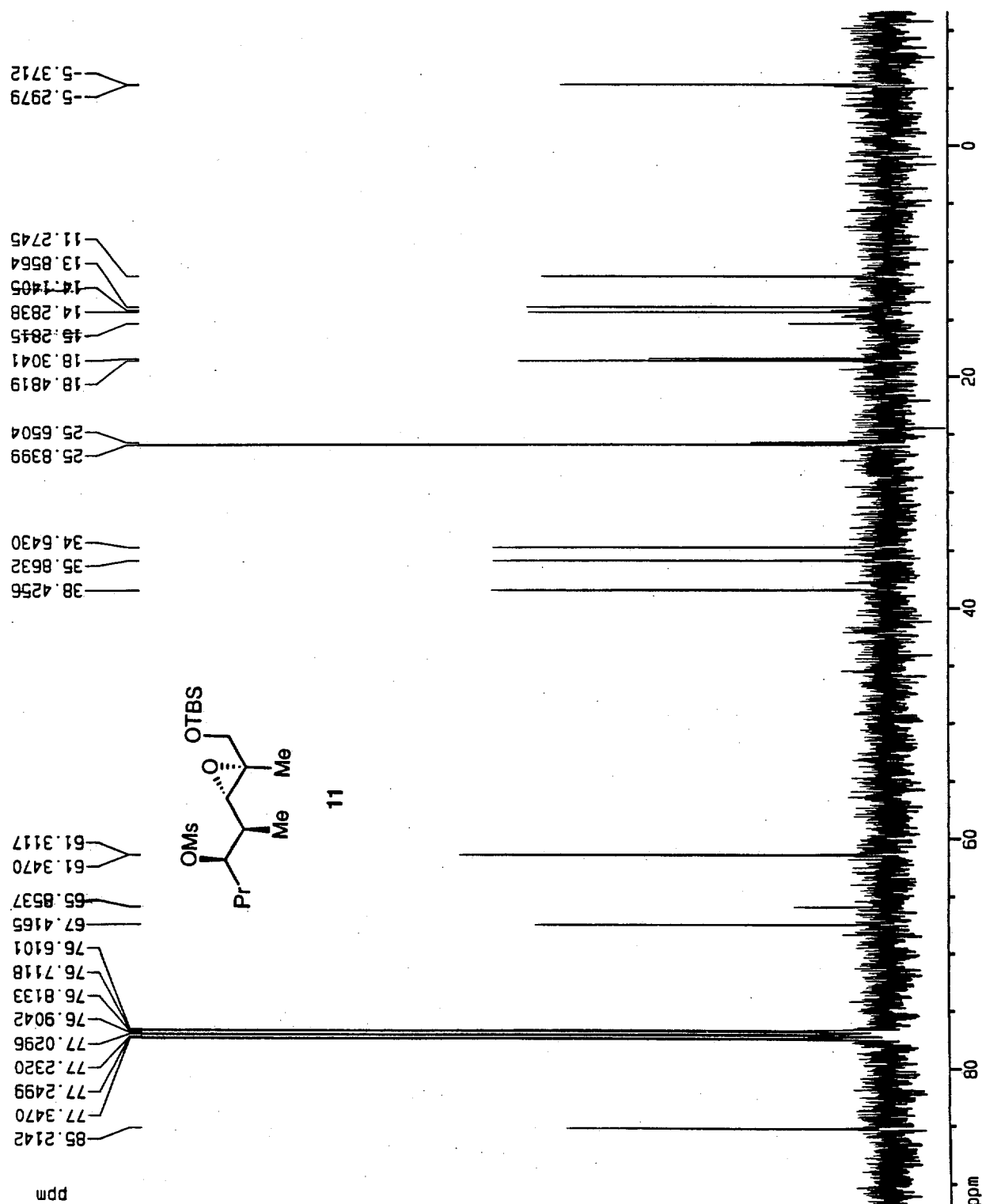
Default parameters for C-13 with proton decoupling

Current Data Parameters
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 PROCNO 1

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 TD 65536
 SOLVENT COCl3
 NS 128
 DS 0
 SMH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 DL5 23.00 dB
 CPOPRG waltz16
 P31 105.00 usec
 D1 2.0000000 sec
 P1 6.00 usec
 DE 25.71 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
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 SF 100.6127710 MHz
 MDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 0.10

1D NMR plot parameters
 CX 20.00 cm
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 F1 9452.83 Hz
 F2P -11.644 ppm
 F2 -1171.50 Hz
 PPMCM 5.18042 ppm/cm
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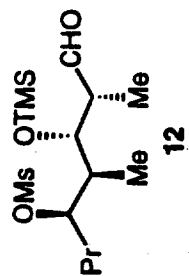
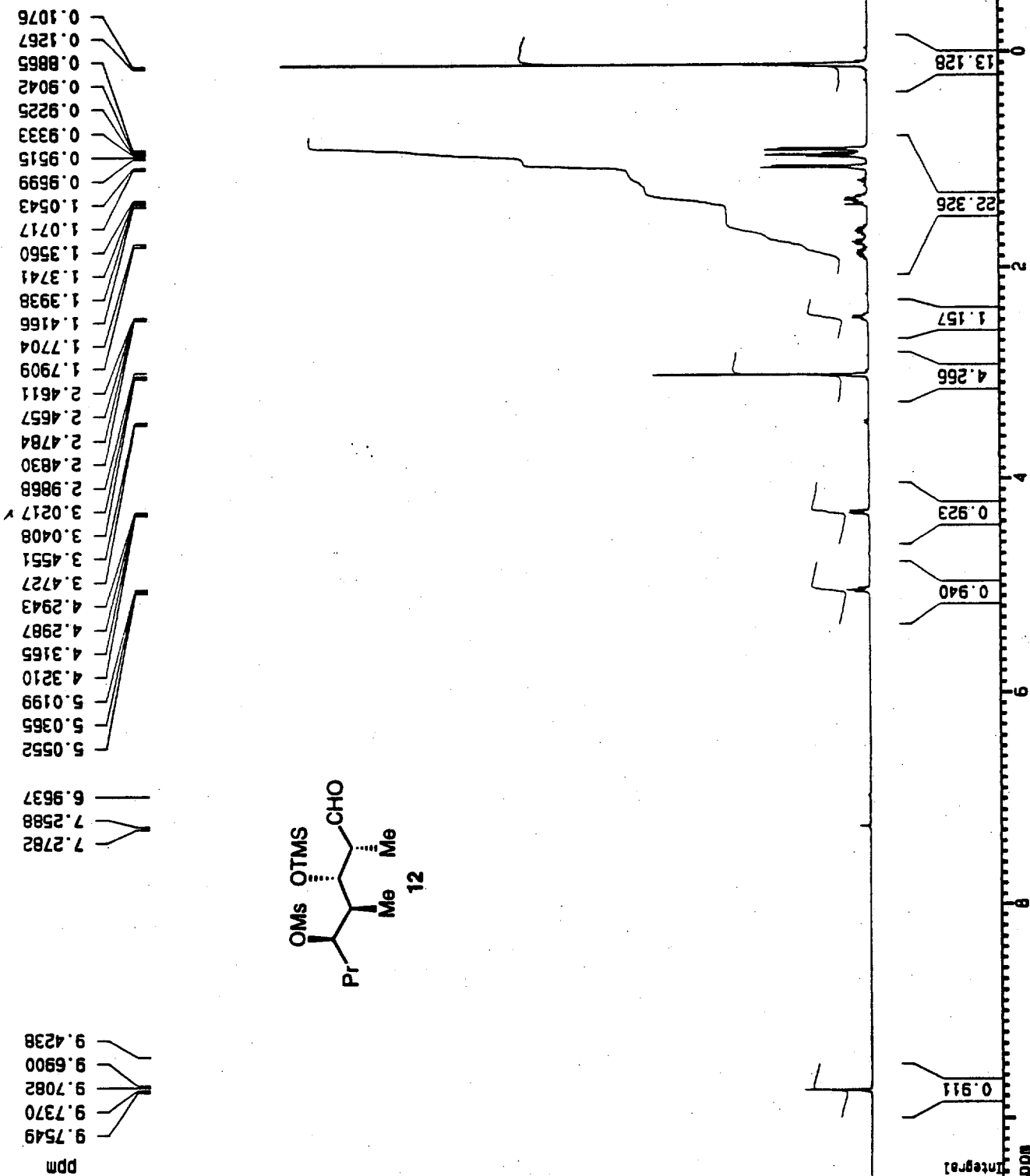
proton default parameters

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 PROCNO 1

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 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 0
 SHH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 512
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.00 usec
 DE 88.57 usec
 SF01 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
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 SF 400.1300173 MHz
 NDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
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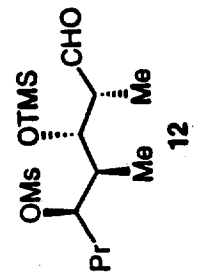
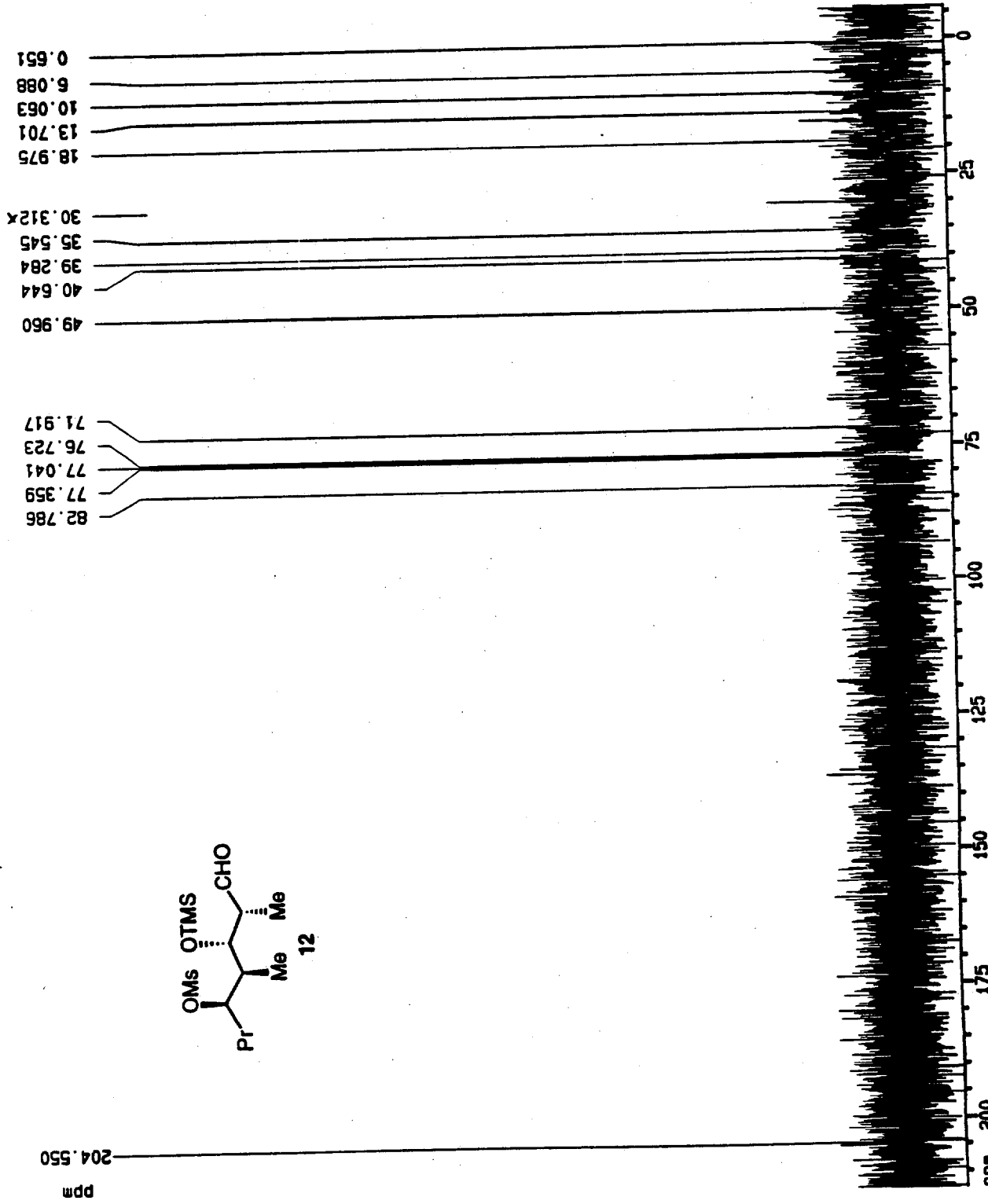
Default parameters for C-13 with proton decoupling

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 PROCNO 1

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 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 128
 DS 0
 SMH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 DL5 23.00 dB
 CPDPRG waitz16
 P31 105.00 usec
 P1 2.0000000 sec
 P1 6.00 usec
 DE 25.71 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
 SI 65536
 SF 100.6127710 MHz
 EM EM
 0
 1.00 Hz
 0
 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 212.943 ppm
 F1 21424.77 Hz
 F2P -6.159 ppm
 F2 -619.63 Hz
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 HZCN 1102.21973 Hz/cm



ppm
 204.550

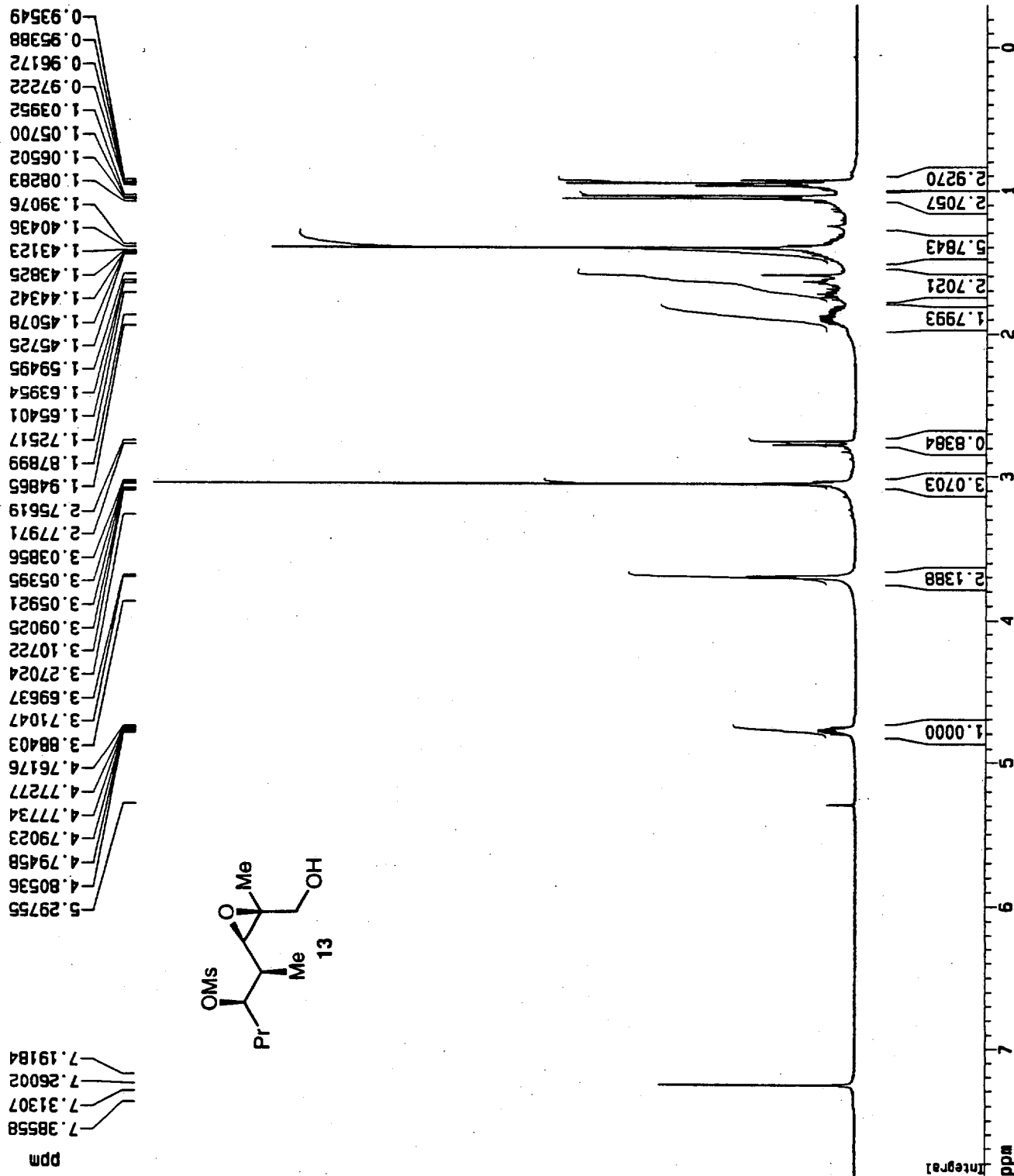
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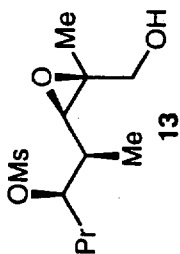
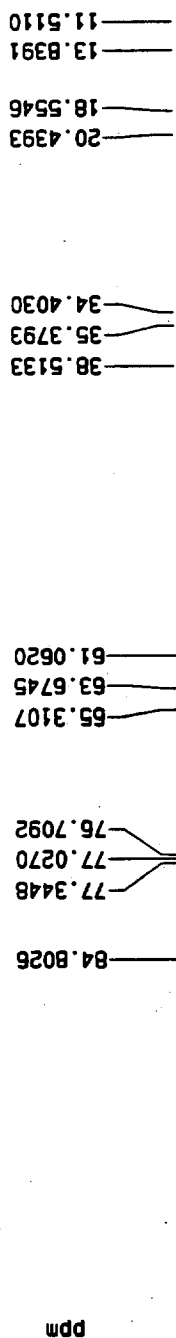
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 NS 16
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 1024
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.25 usec
 SF01 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 MDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 7.880 ppm
 F1 3153.09 Hz
 F2P -0.293 ppm
 F2 -117.37 Hz
 PPMCH 0.40868 ppm/cm
 HZCM 163.52330 Hz/cm



Default parameters for C-13 with proton decoupling



Current Data Parameters
 NAME dq-0127c1
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 990127
 Time 17.47
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TO 65536
 SOLVENT CDC13
 NS 600
 DS 0
 SWH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 DL5 23.50 dB
 CPDPRG waltz16
 P31 100.00 usec
 D1 2.0000000 sec
 P1 6.25 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
 SI 65536
 SF 100.6127710 MHz
 WDM no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
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 PPMCM 5.87928 ppm/cm
 HZCM 591.53064 Hz/cm

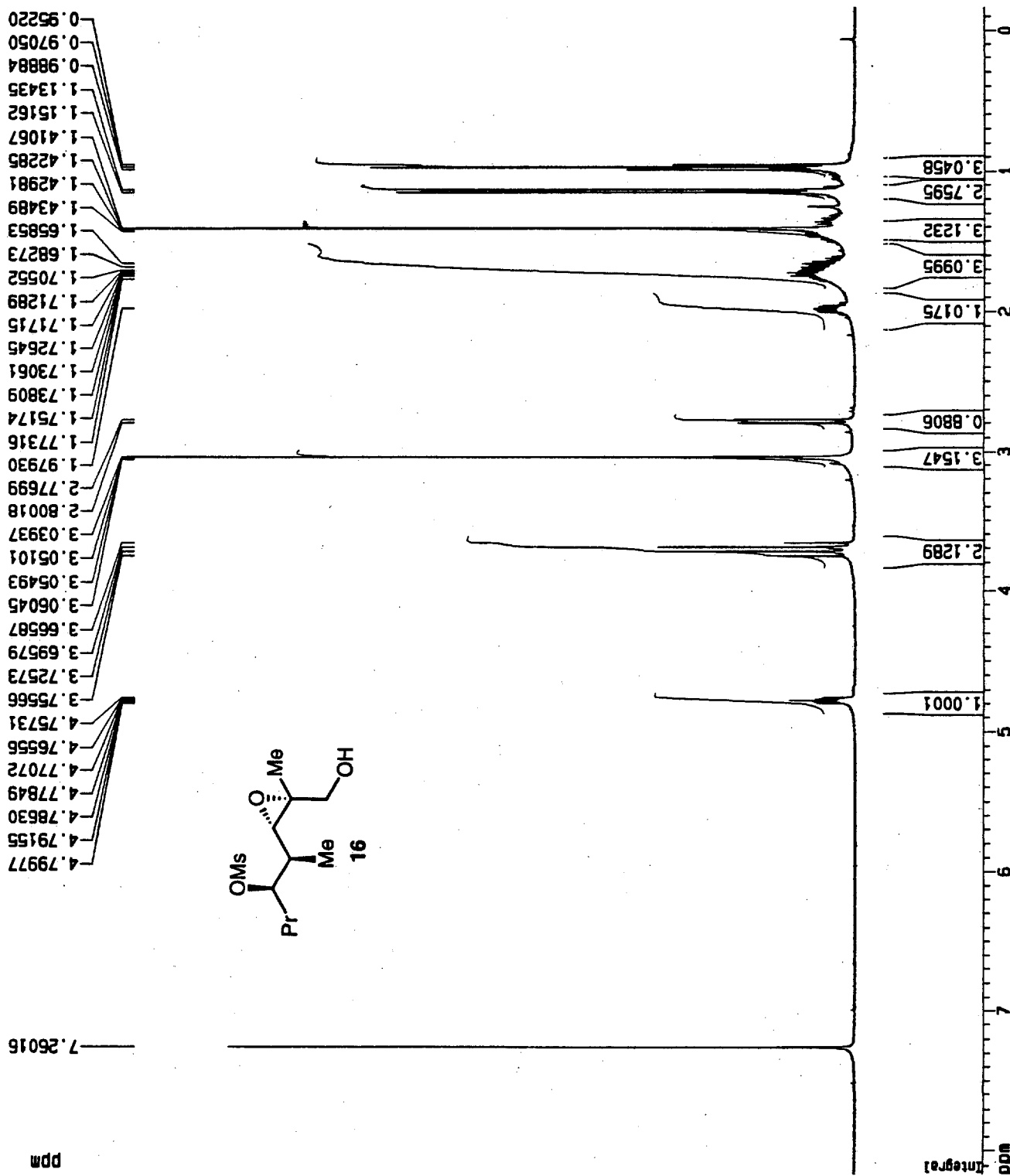
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 PROCNO 1

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 Time 17.11
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 32
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 2048
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.25 usec
 SF01 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 WDM no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
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 F2 -66.33 Hz
 PPMCH 0.41623 ppm/cm
 HZCM 166.54585 Hz/cm



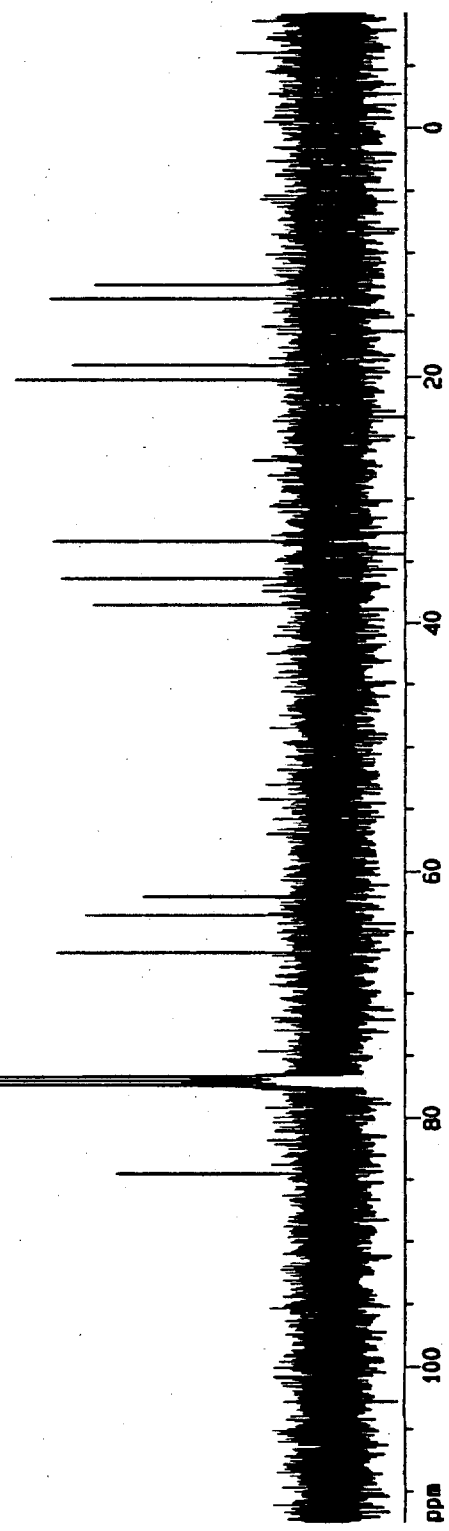
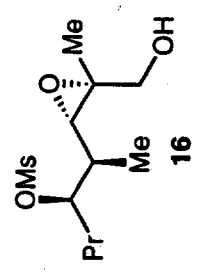
Default parameters for C-13 with proton decoupling

Current Data Parameters
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 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
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 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 600
 DS 0
 SWH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1795980 sec
 RG 32768
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 O12 0.0000200 sec
 DL5 23.50 dB
 CPDPRG waltz16
 P31 100.00 usec
 O1 2.0000000 sec
 P1 6.25 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 O11 0.0300000 sec

F2 - Processing parameters
 SI 65536
 SF 100.6127710 MHz
 WDM no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
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 HZCM 613.16073 Hz/cm



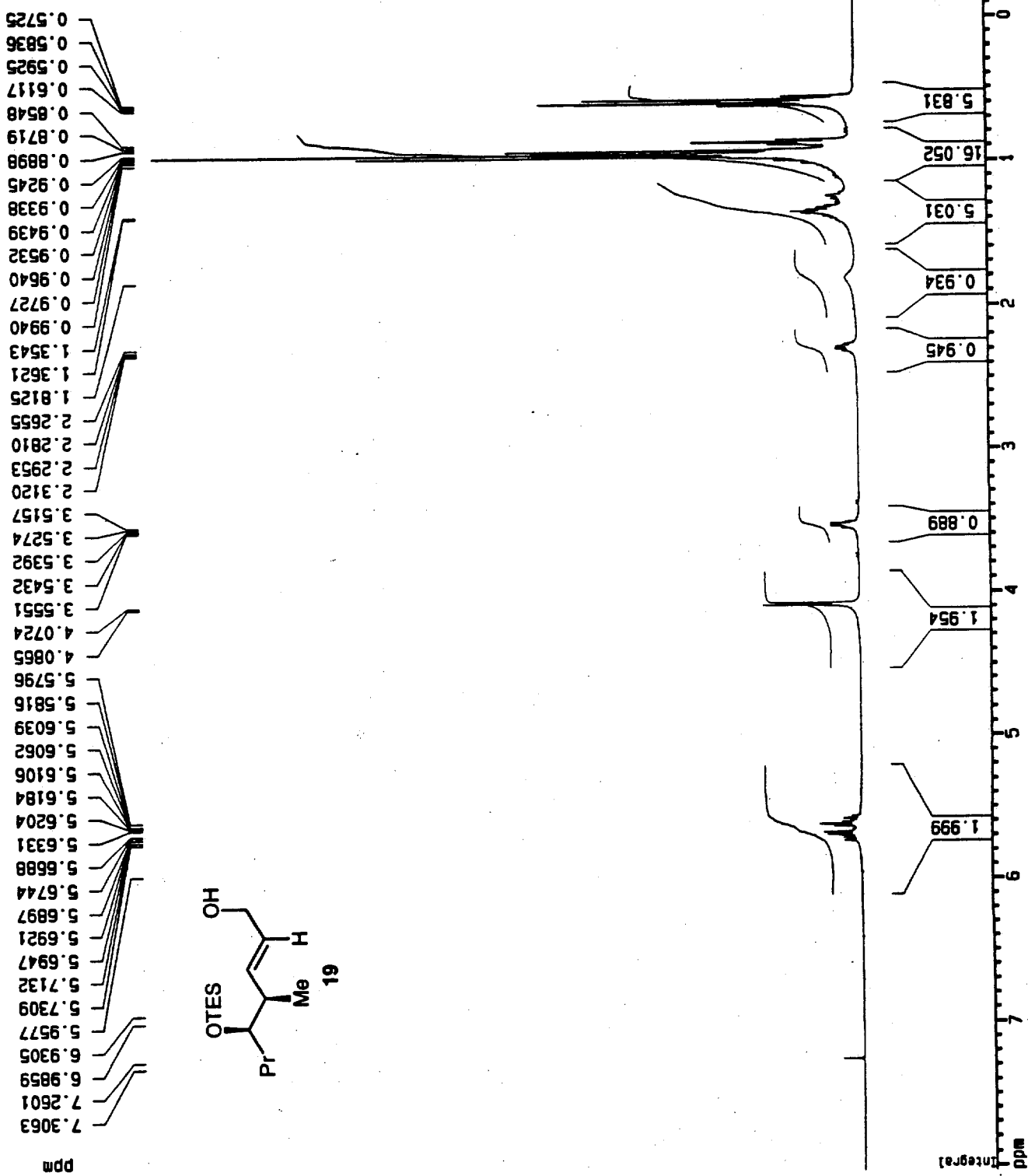
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 PROCNO 1

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 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 90
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.25 usec
 DE 88.57 usec
 SFO1 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 MDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
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 HZCM 163.34383 Hz/cm

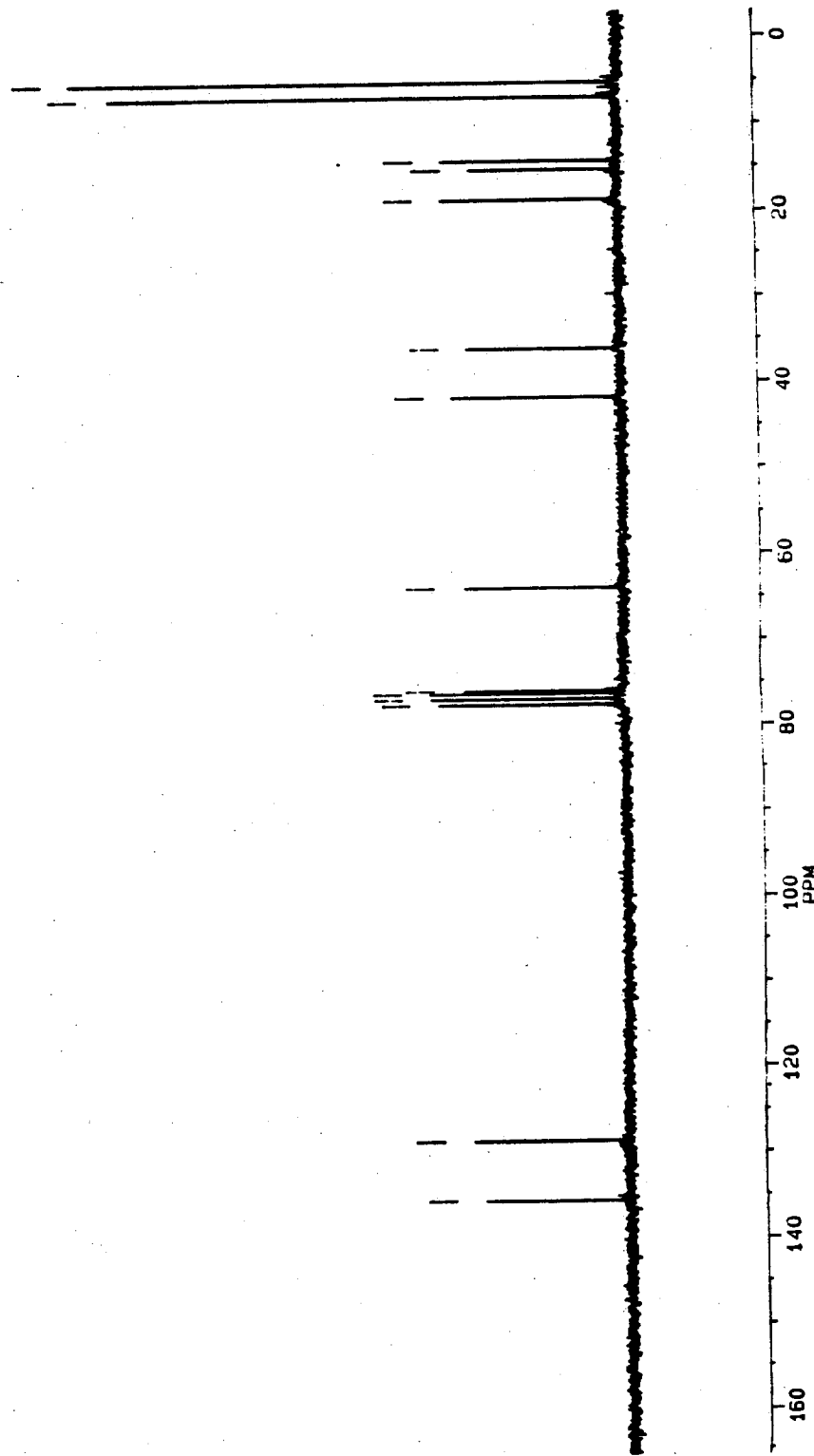
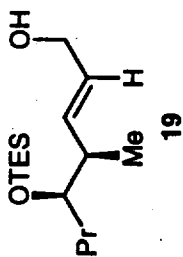




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 RG 200
 NS 500
 DE 50.0
 DR 12
 DN 40
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 CY 10.00
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 PPM/CM 6.375
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 D5 .0010000
 PD 2.0
 RGA 0.0
 RD 0.0
 PM 50.0
 DE 500
 NS 0
 DS 0

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D044-2-13C



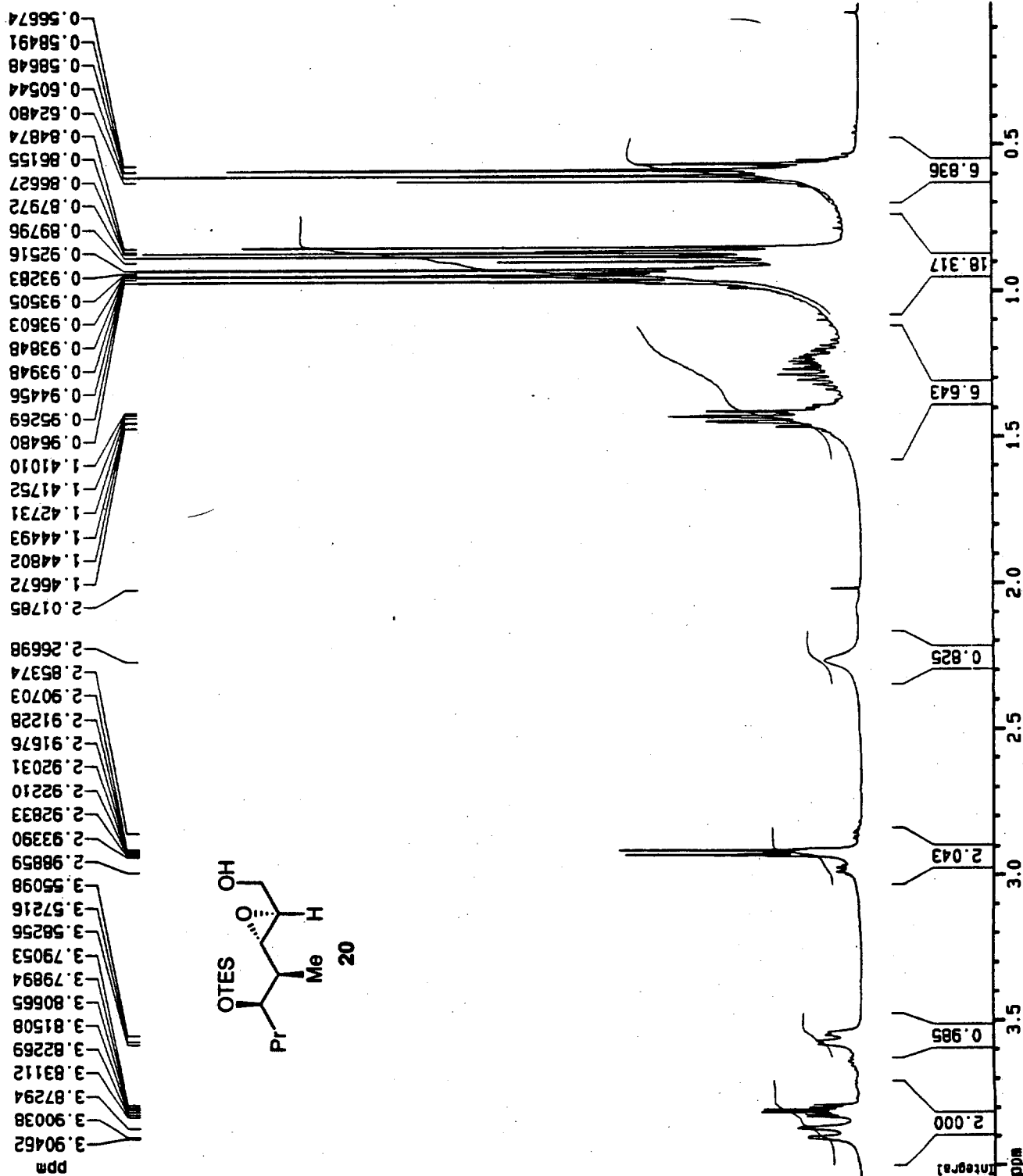
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 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 8
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 90
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.25 usec
 DE 88.57 usec
 SFO1 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 MDN no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
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 F1P 4.041 ppm
 F1 1616.90 Hz
 F2P 0.014 ppm
 F2 5.47 Hz
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 HZCM 80.57136 Hz/cm





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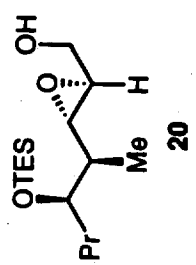
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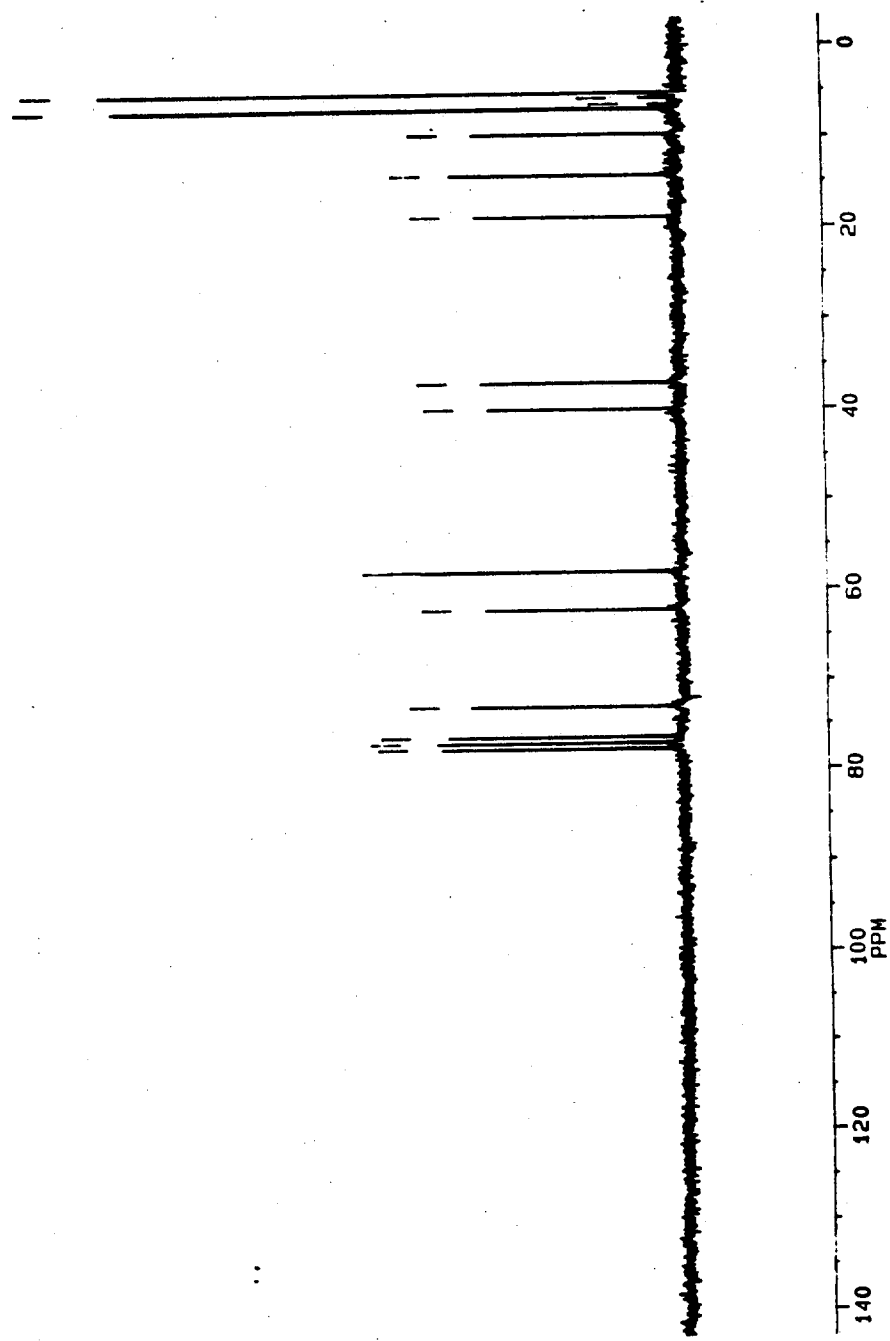
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 IS 1
 SR 3316.65

D1 2.0000000
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 RGA 0.0
 RD 0.0
 PW 0.0
 DE 50.0
 NS 500
 DS 0

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D0045-2-C13



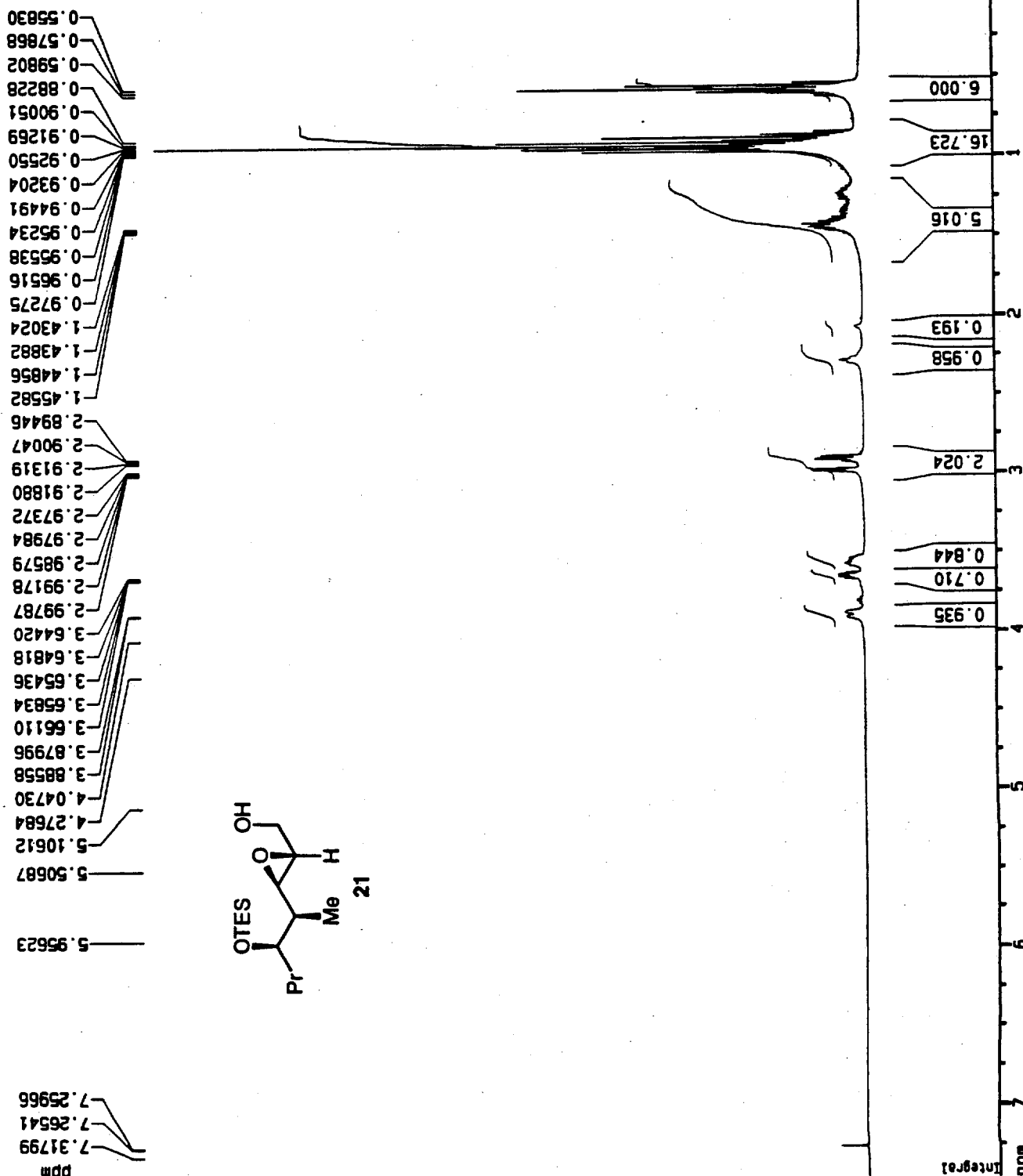
proton default parameters

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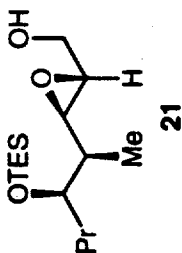
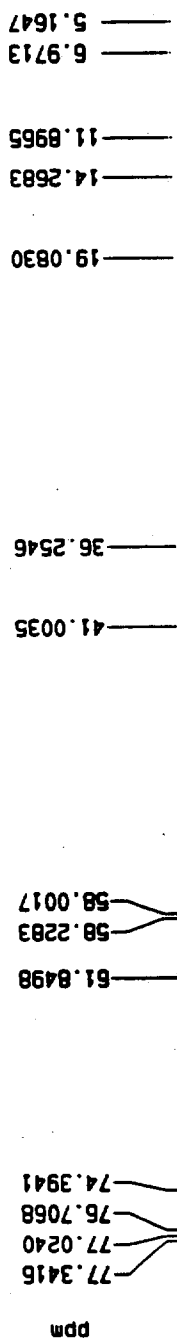
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 PULPROG zg30
 TO 65536
 SOLVENT CDCl3
 NS 8
 DS 0
 SMH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 90
 DH 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.25 usec
 DE 88.57 usec
 SFO1 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 MDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
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 F2 2.43 Hz
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 HZCM 149.09563 Hz/cm



Default parameters for C-13 with proton decoupling

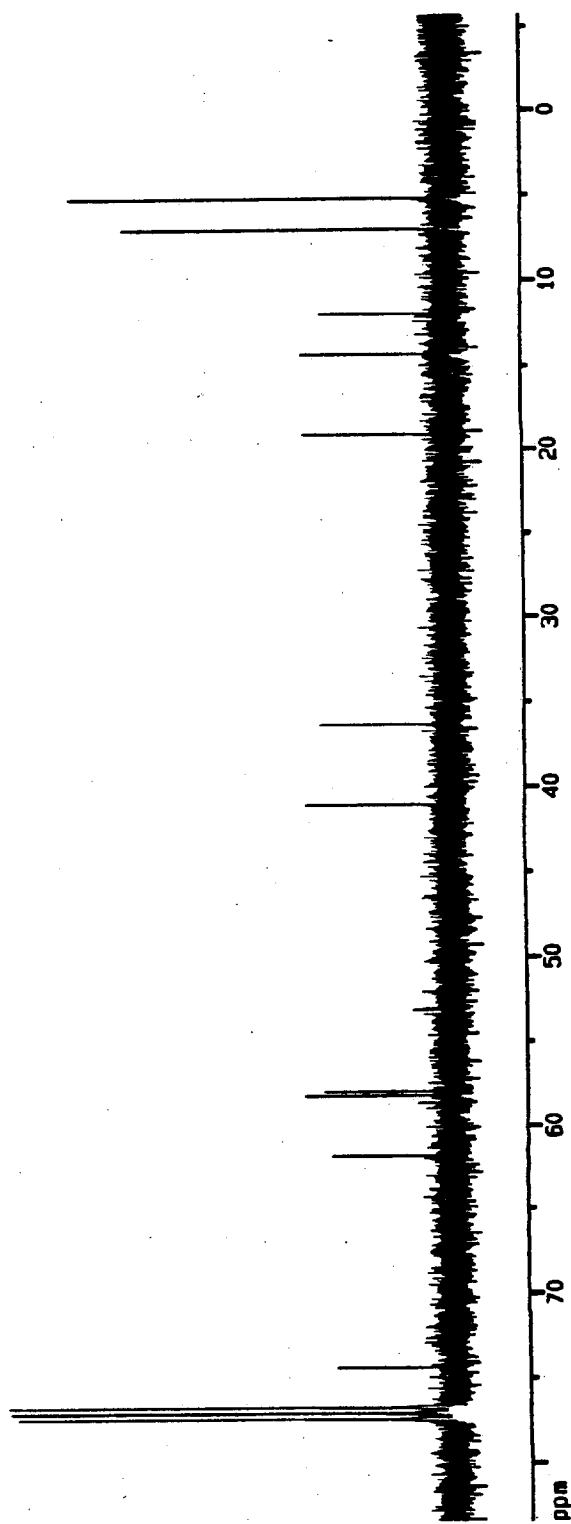


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 TD 65536
 SOLVENT CDCl3
 NS 128
 DS 0
 SMH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 DL5 23.50 dB
 CPDPRG walz16
 P31 100.00 usec
 D1 2.0000000 sec
 P1 6.25 usec
 DE 25.71 usec
 SF01 100.624845 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
 SI 65536
 SF 100.6127710 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
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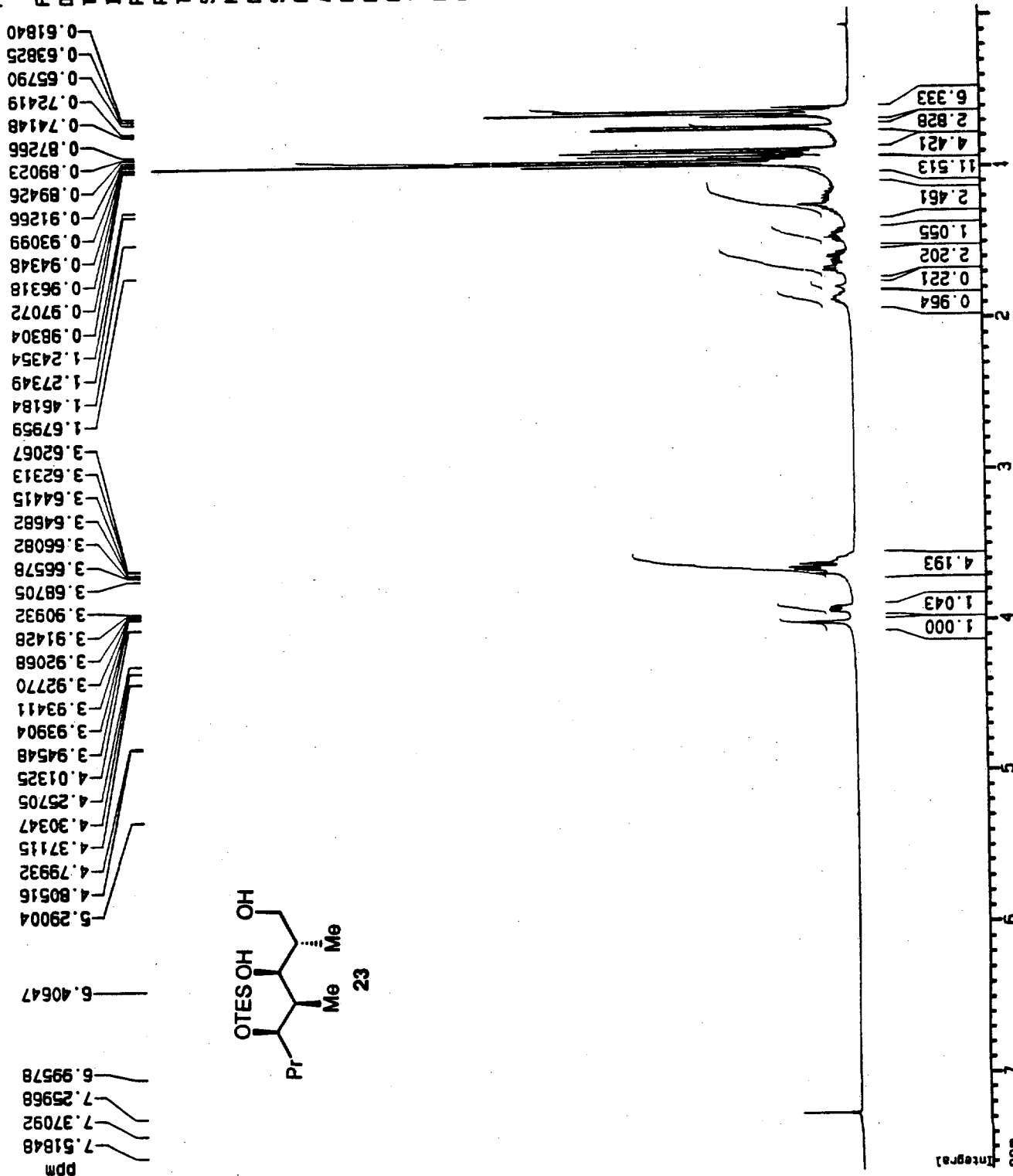
proton default parameters

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 SOLVENT CDCl3
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 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
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 DE 88.57 usec
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 SF01 400.1324008 MHz
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F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 MDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 7.650 ppm
 F1 3060.83 Hz
 F2P -0.052 ppm
 F2 -20.77 Hz
 PPMCH 0.38507 ppm/cm
 HZCM 154.07968 Hz/cm





S1820F.151
 AU PROG: X02.AU
 DATE 19-9-98
 TIME 17:06

SF 50.323
 O1 8349.000
 S1 32768
 TD 32768
 SM 12500.000
 HZ/PT .763

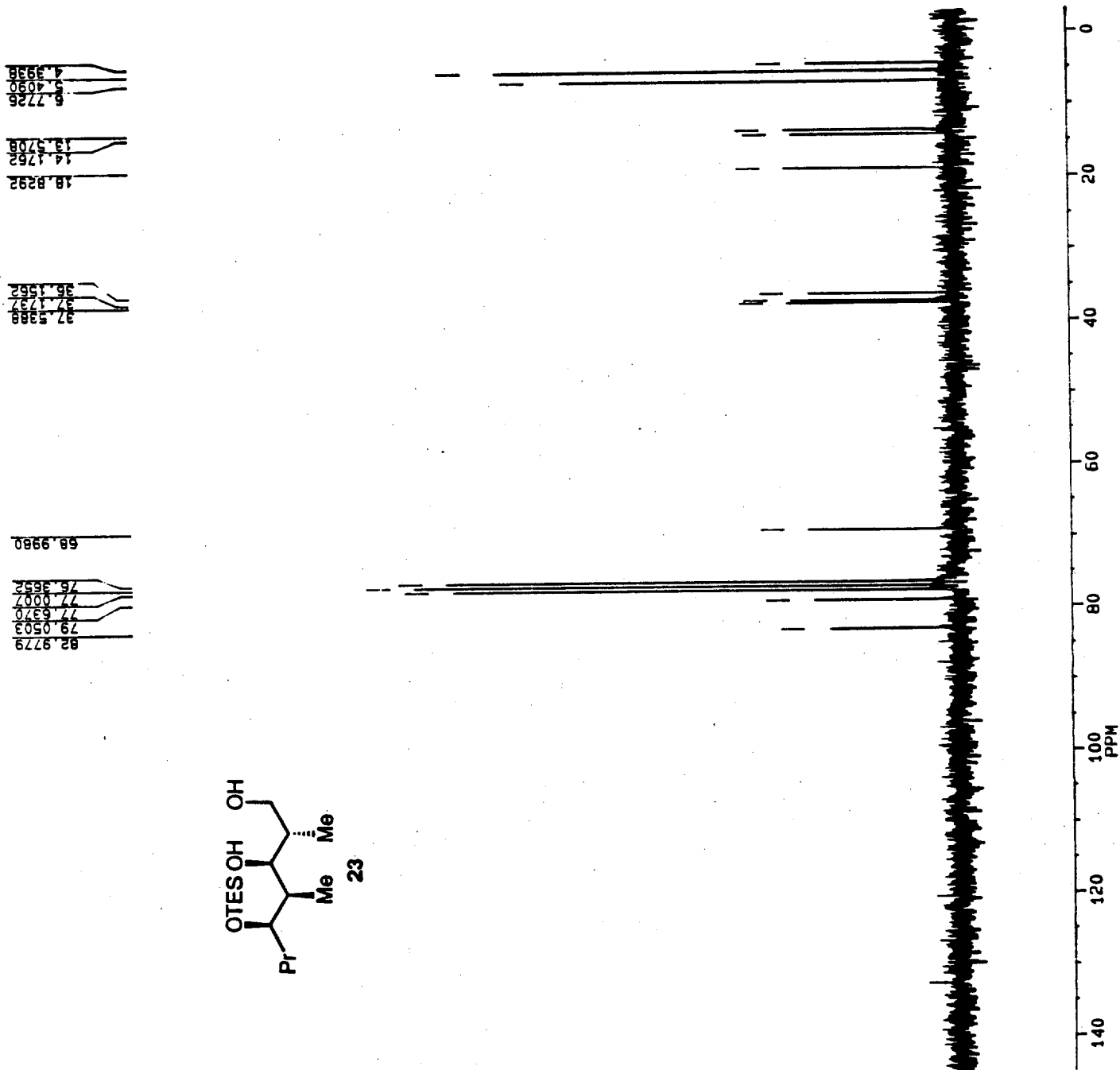
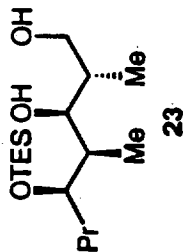
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 NC 3
 CX 32.00
 CY 10.00
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 F2 -2.972P
 MI 0.0
 HZ/CM 320.816
 PPM/CM 6.375
 IS 1
 SR 3316.65

D1 2.0000000
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 RGA 0.0
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 PM 0.0
 DE 50.0
 NS 500
 DS 0

DDSD-2-13C



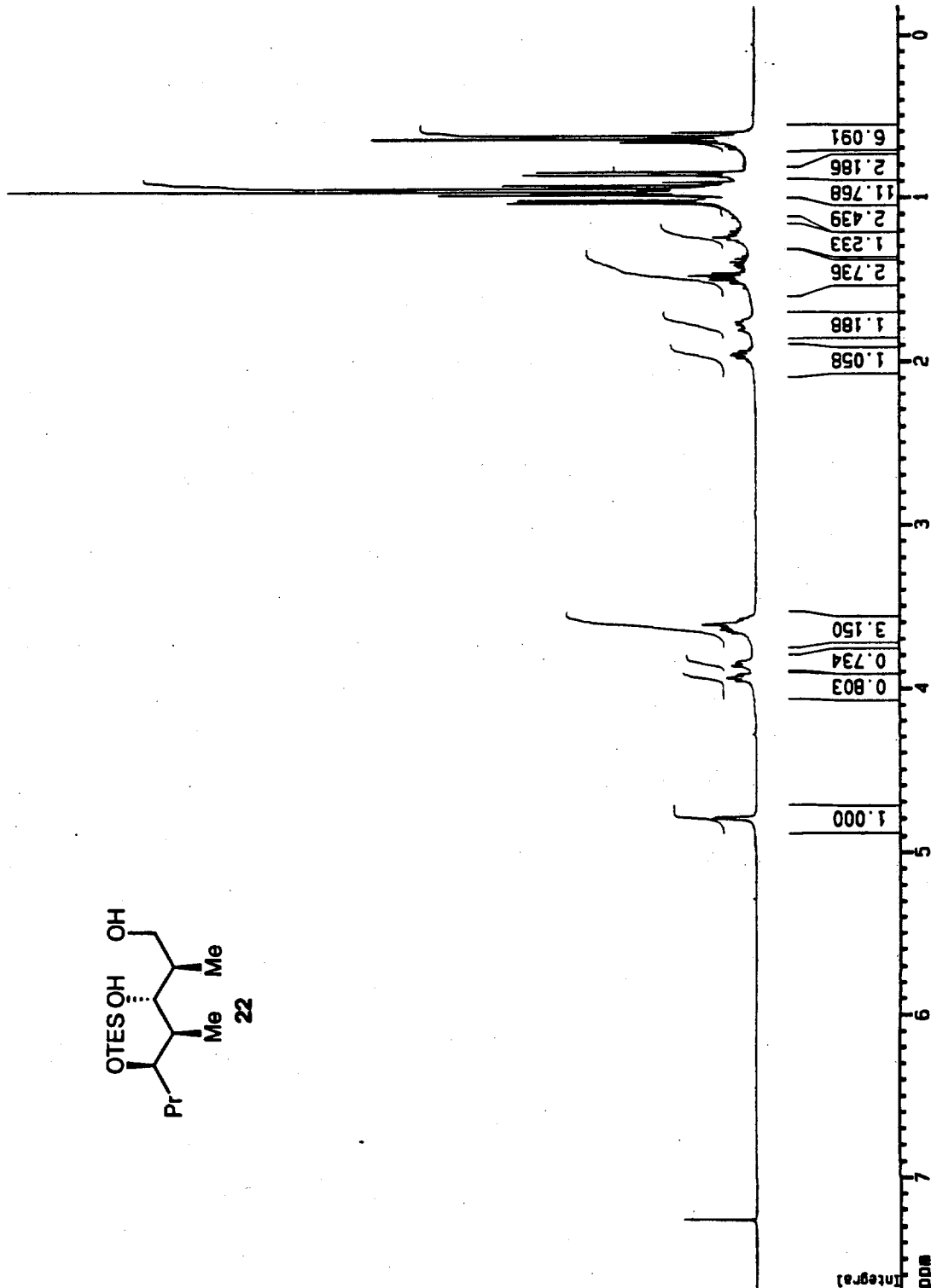
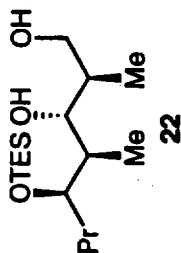
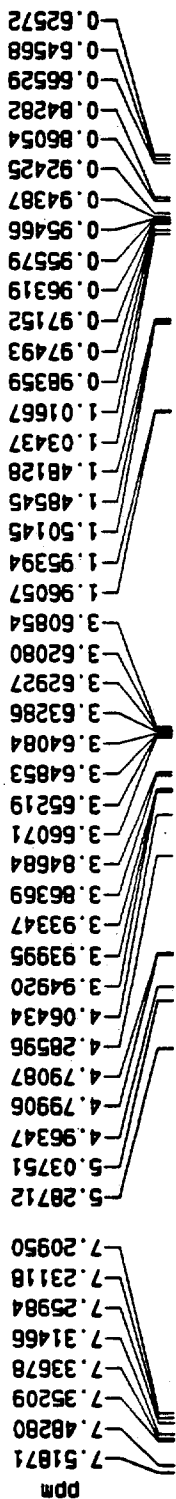
proton default parameters

Current Data Parameters
 NAME dq571-h
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 980920
 Time 18.05
 INSTRUM arx400
 PROBHD 5 mm GNP 1H
 PULPROG zg30
 TO 65536
 SOLVENT CDCl3
 NS 16
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 256
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.25 usec
 DE 88.57 usec
 SF01 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 WDM no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 7.681 ppm
 F1 3073.36 Hz
 F2P -0.172 ppm
 F2 -68.78 Hz
 PPMCM 0.39264 ppm/cm
 HZCM 157.10675 Hz/cm





S1820F.150
 AU PR06:
 X02.AU
 DATE 19-9-98
 TIME 16:33

SF 50.323
 O1 8349.000
 SI 32768
 TD 32768
 SM 12500.000
 HZ/PT .763

PW 0.0
 RD 0.0
 AG 1.311
 RG 200
 NS 500

DE 50.0
 DR 12
 DM 40
 FM 15700
 O2 3545.000
 DP 17H BB

LB 1.000
 NC 3
 CX 32.00
 CY 10.00
 F1 201.032P
 F2 -2.972P
 MI 0.0
 HZ/CM 320.816
 PPM/CM 6.375
 IS 1
 SR 3307.50

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 D5 .0010000
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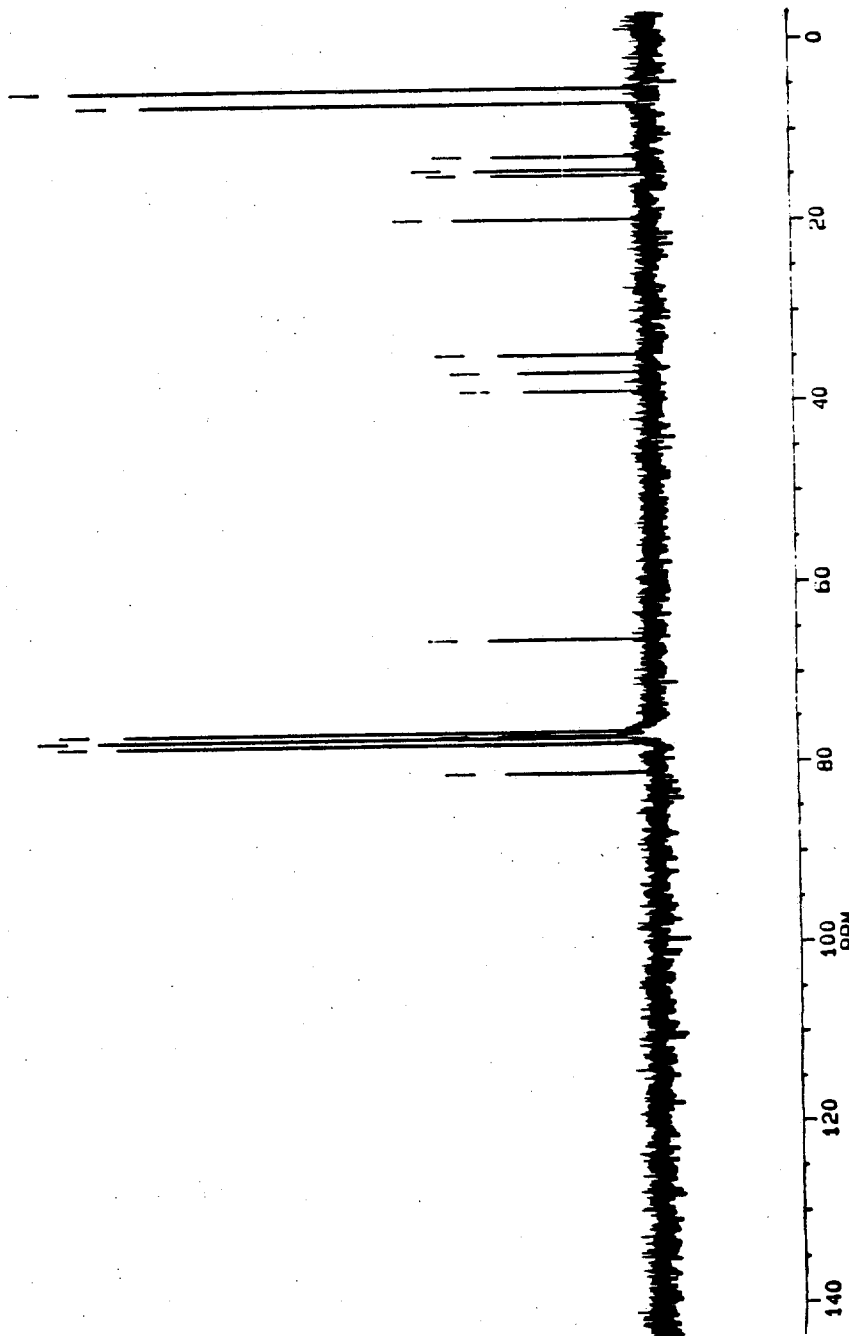
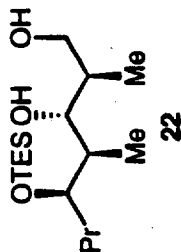
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38.8319
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66.2095

84.1537
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 75.9440

D044-2-13C



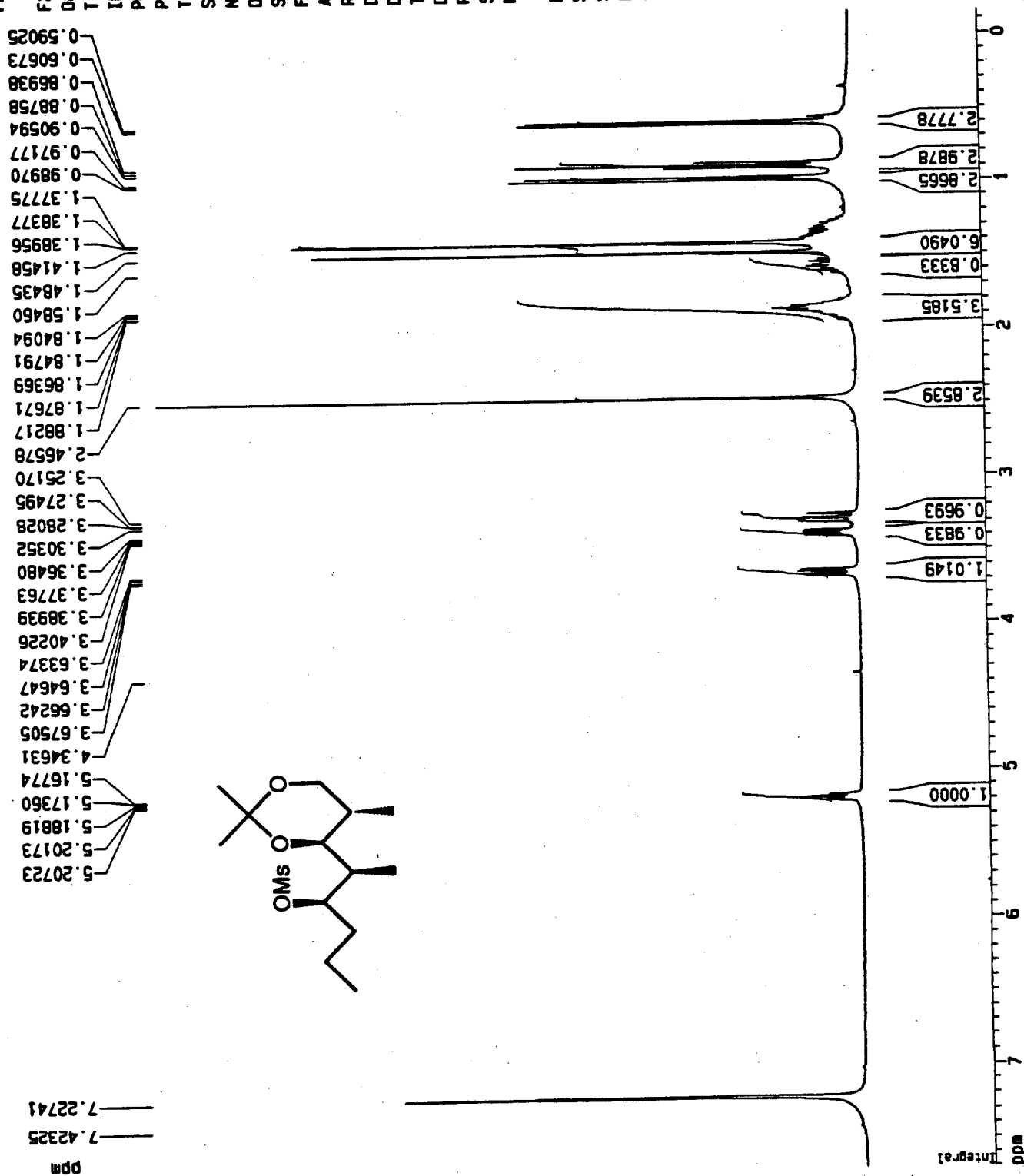
proton default parameters

Current Data Parameters
 NAME dq-0222h1
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 990222
 Time 11.11
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT C6D6
 NS 32
 DS 0
 SMH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 715
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.25 usec
 SFO1 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 7.711 ppm
 F1 3085.55 Hz
 F2P -0.153 ppm
 F2 -61.30 Hz
 PPMCH 0.39323 ppm/cm
 HZCM 157.34241 Hz/cm



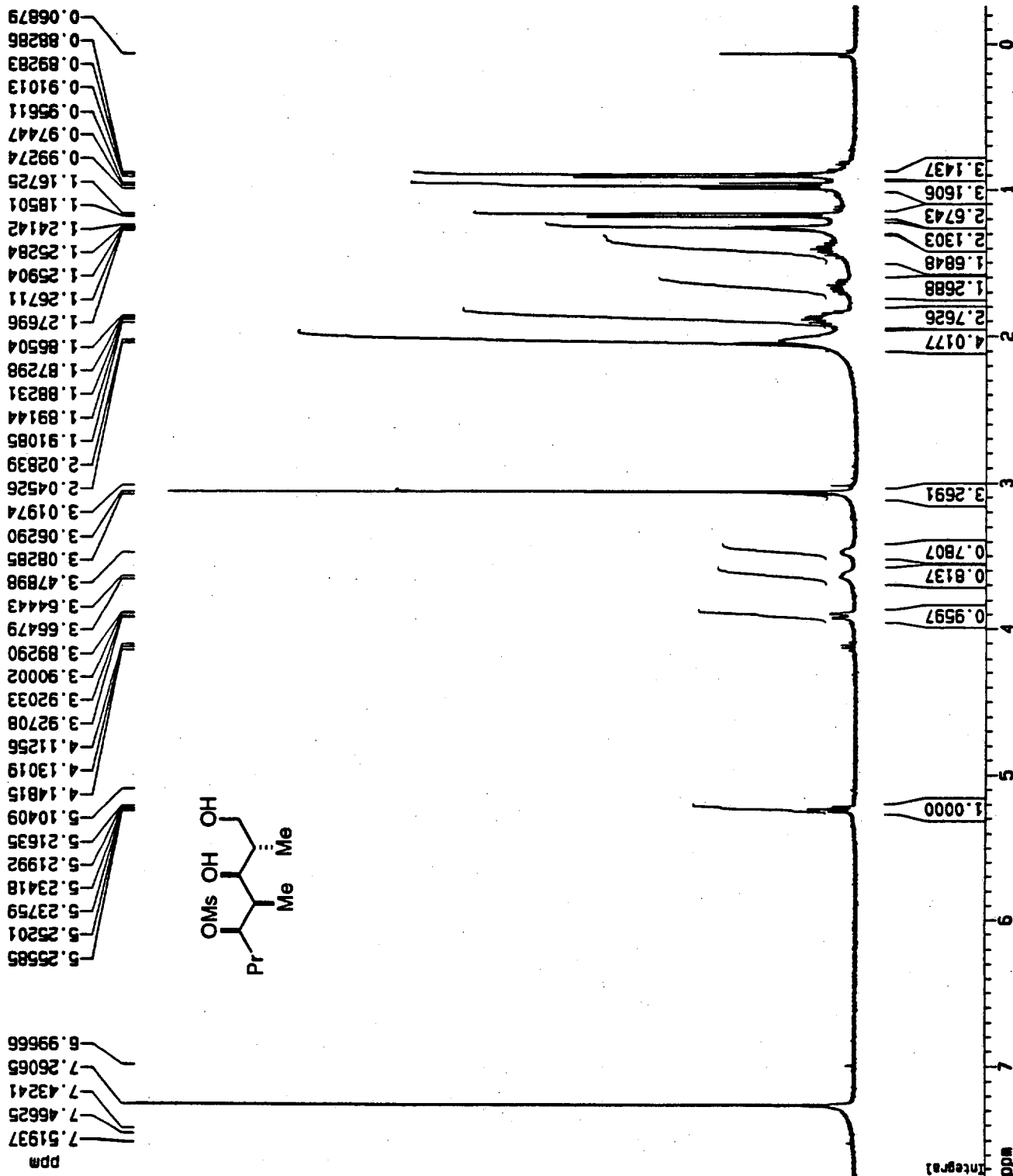
proton default parameters

Current Data Parameters
 NAME dq-1208h3
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 981208
 Time 15.48
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 48
 DS 0
 SMH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 5700
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.25 usec
 SFO1 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 MDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 FIP 7.748 ppm
 F1 3100.06 Hz
 F2P -0.261 ppm
 F2 -104.38 Hz
 PPMCH 0.40043 ppm/cm
 HZCH 160.22217 Hz/cm



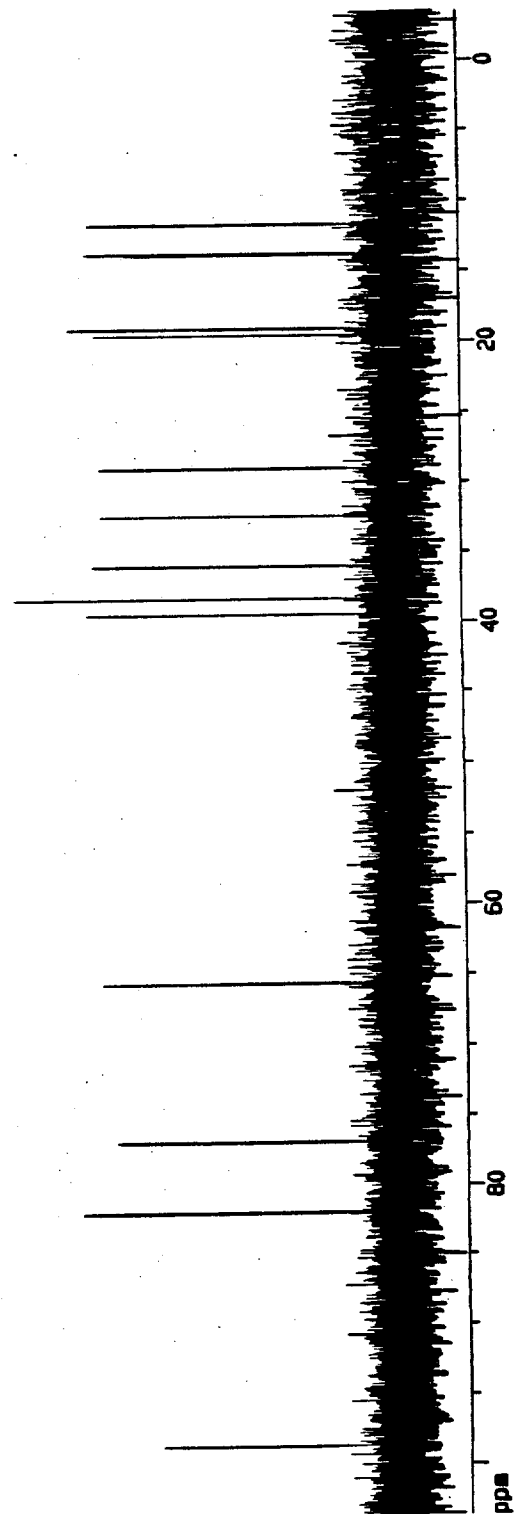
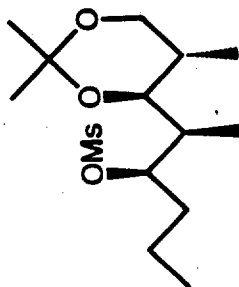
Default parameters for C-13 with proton decoupling

Current Data Parameters
 NAME dq-0222c1
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 990222
 Time 11.38
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT C6D6
 NS 400
 DS 0
 SMH 27777.777 Hz
 F1F0ES 0.423855 Hz
 AQ 1.1796980 sec
 RG 16384
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 DL5 23.50 dB
 CPDPRG waltz16
 P31 100.00 usec
 D1 2.0000000 sec
 P1 6.25 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
 SI 65536
 SF 100.6127710 MHz
 WDM no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 103.559 ppm
 F1 10419.37 Hz
 F2P -3.537 ppm
 F2 -355.89 Hz
 PPNCH 5.35482 ppm/cm
 HZCM 538.76331 Hz/cm



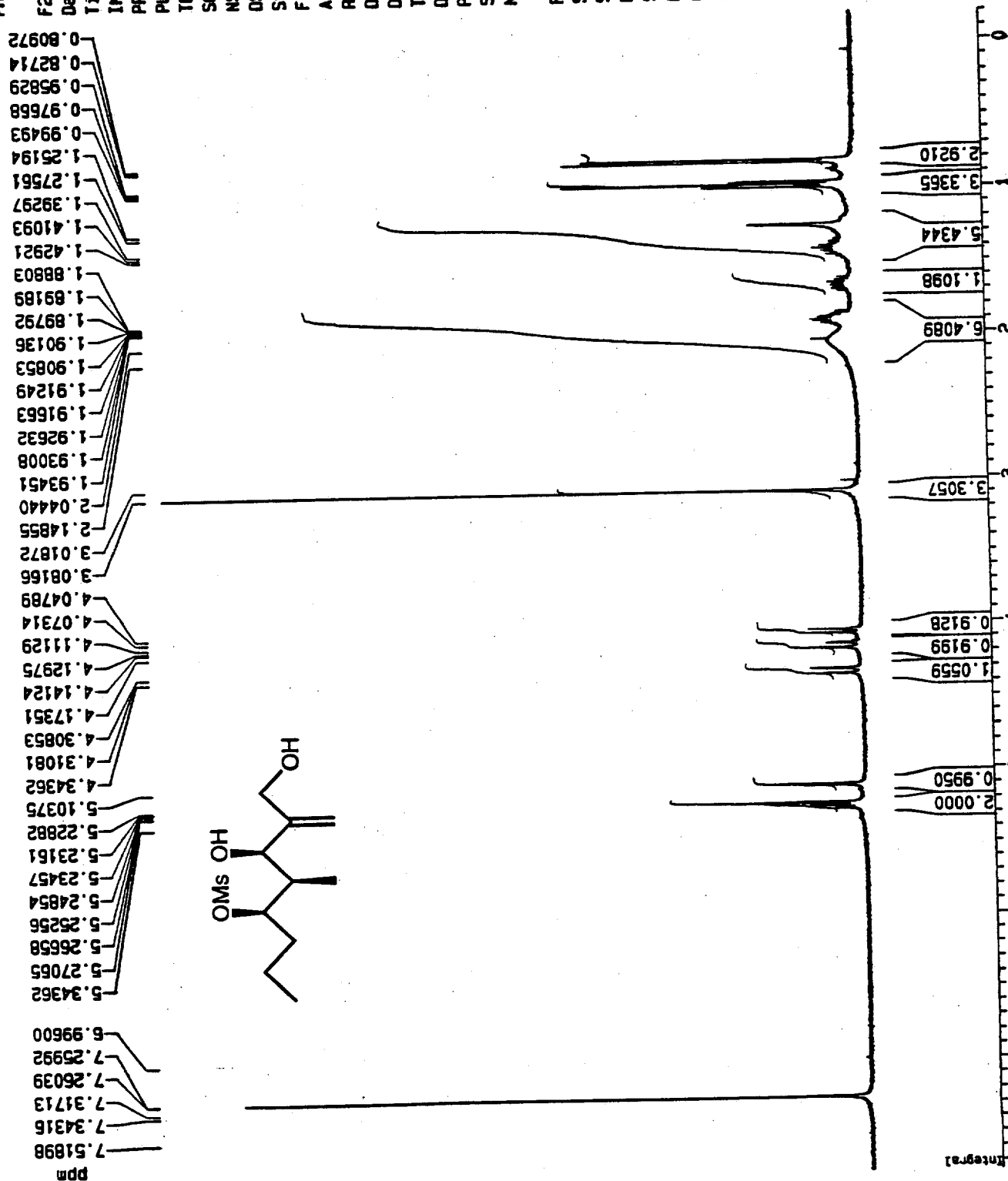
proton default parameters

Current Data Parameters
 NAME dq-1208h2
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 981208
 Time 15.40
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TO 65536
 SOLVENT CDC13
 NS 16
 DS 0
 SMH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 4096
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.00000000 sec
 P1 8.25 usec
 SF01 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 MDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 7.767 ppm
 F1 3107.92 Hz
 F2P -0.202 ppm
 F2 -80.63 Hz
 PPMCH 0.39844 ppm/cm
 HZCH 159.42743 Hz/cm



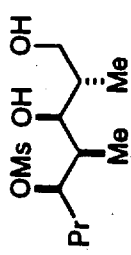
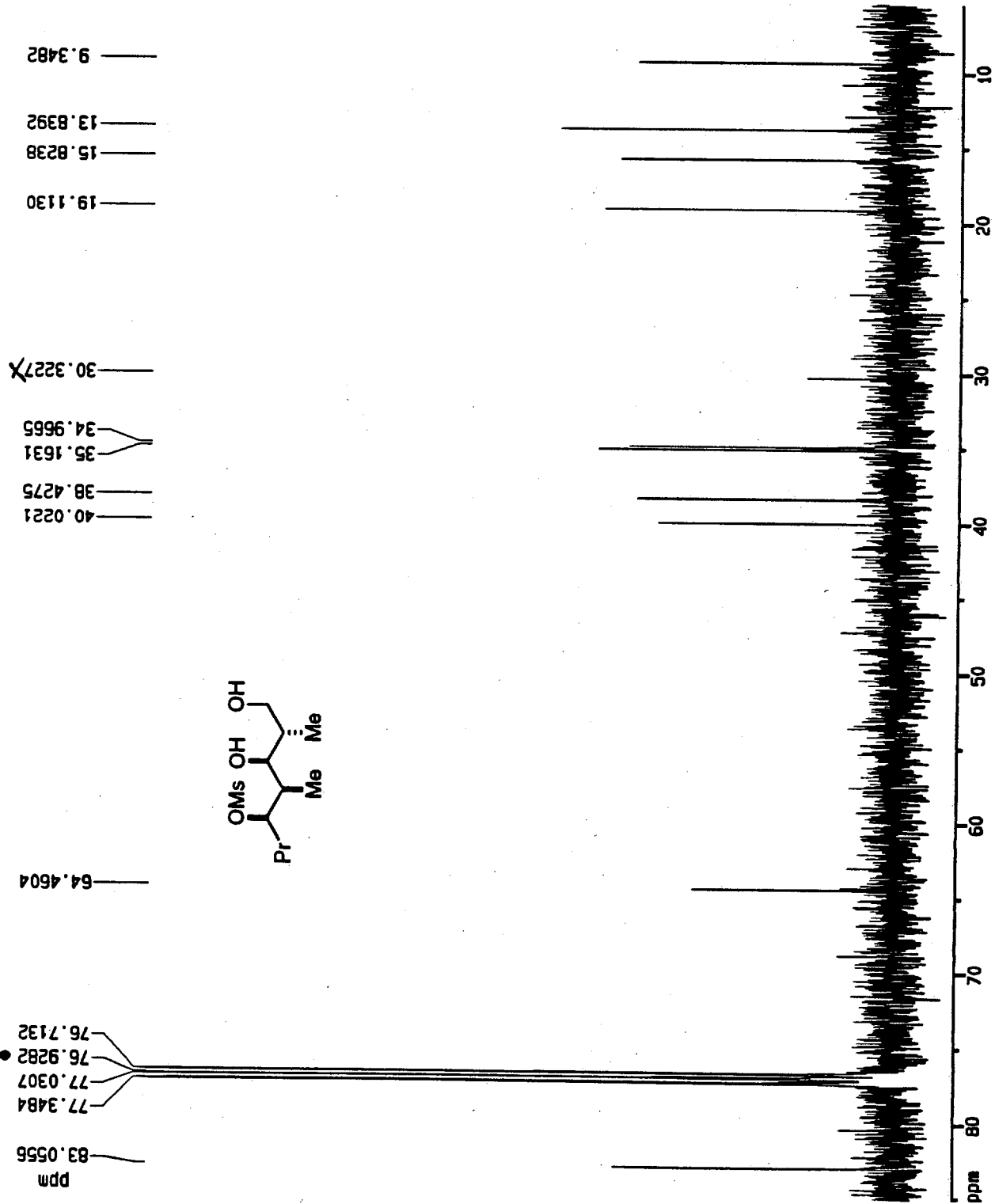
Default parameters for C-13 with proton decoupling

Current Data Parameters
 NAME alcohol-2-13c
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 971218
 Time 20.16
 INSTRUM apr400
 PROBRD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 128
 DS 0
 SMH 2777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 OM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 DL5 24.00 dB
 CPDPRG waltz16
 P31 105.00 usec
 D1 2.00000000 sec
 P1 6.00 usec
 DE 25.71 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
 SI 65536
 SF 100.6127710 MHz
 NDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

10 NMR plot parameters
 CX 20.00 cm
 F1P 85.105 ppm
 F1 8562.65 Hz
 F2P 5.410 ppm
 F2 544.36 Hz
 PPMCN 3.98472 ppm/cm
 HZCN 400.91409 Hz/cm



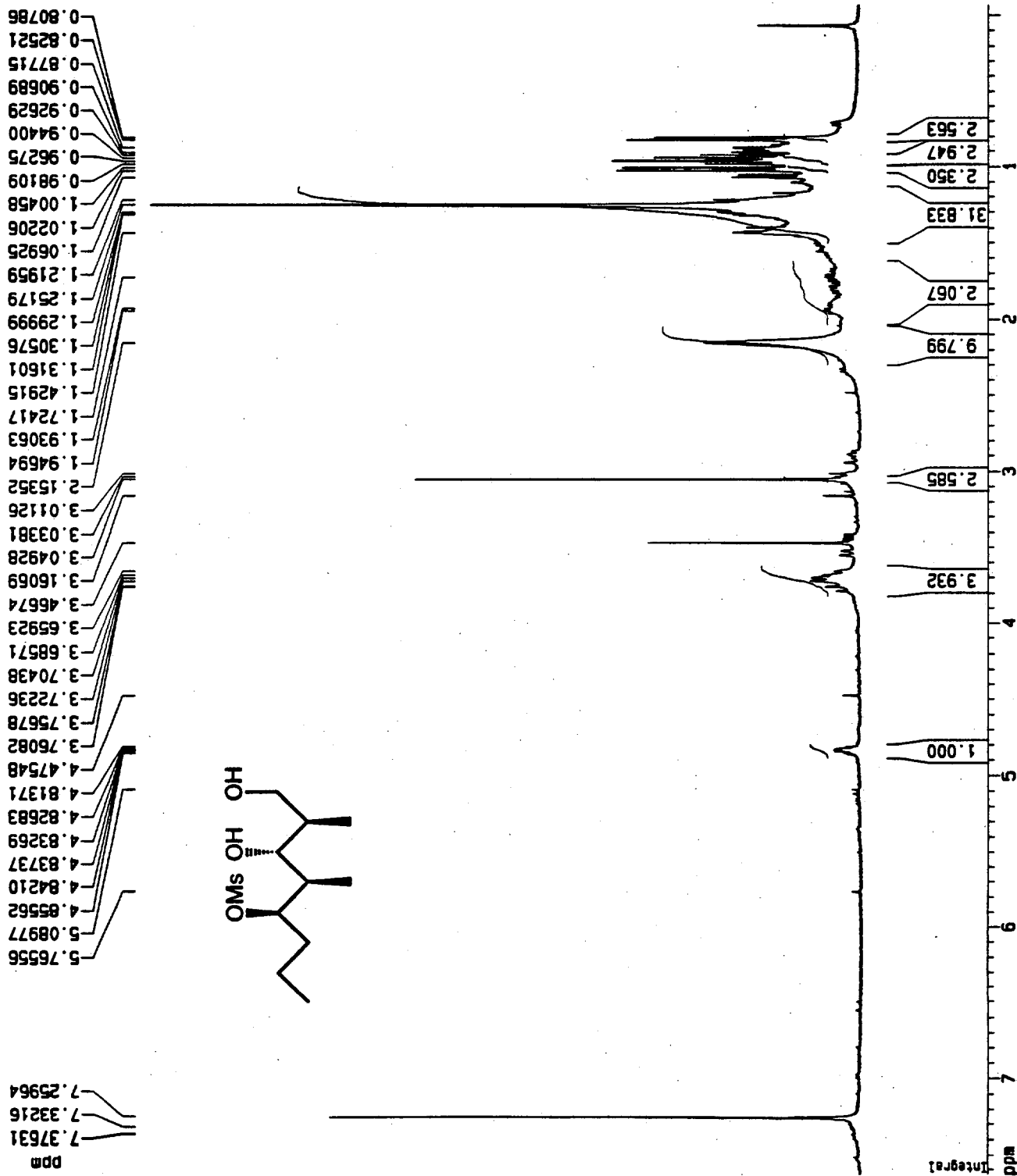
proton default parameters

Current Data Parameters
 NAME dq-0303h1
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 990303
 Time 17.35
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 64
 DS 0
 SMH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 1024
 OM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.25 usec
 SF01 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 HOMO no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 7.634 ppm
 F1 3054.53 Hz
 F2P -0.071 ppm
 F2 -28.27 Hz
 PPMCH 0.38523 ppm/cm
 HZCM 154.14032 Hz/cm



Default parameters for C-13 with proton decoupling

Current Data Parameters
 NAME dq-0303c1
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 990303
 Time 18.48
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1334
 DS 0
 SMH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 DLS 23.50 dB
 CPDPRG waltz16
 P31 100.00 usec
 D1 2.0000000 sec
 P1 6.25 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
 SI 65536
 SF 100.6127710 MHz
 MDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 FIP 111.517 ppm
 F1 1120.00 Hz
 F2P -11.058 ppm
 F2 -1112.53 Hz
 PPRCM 6.12871 ppm/cm
 HZCM 616.62640 Hz/cm

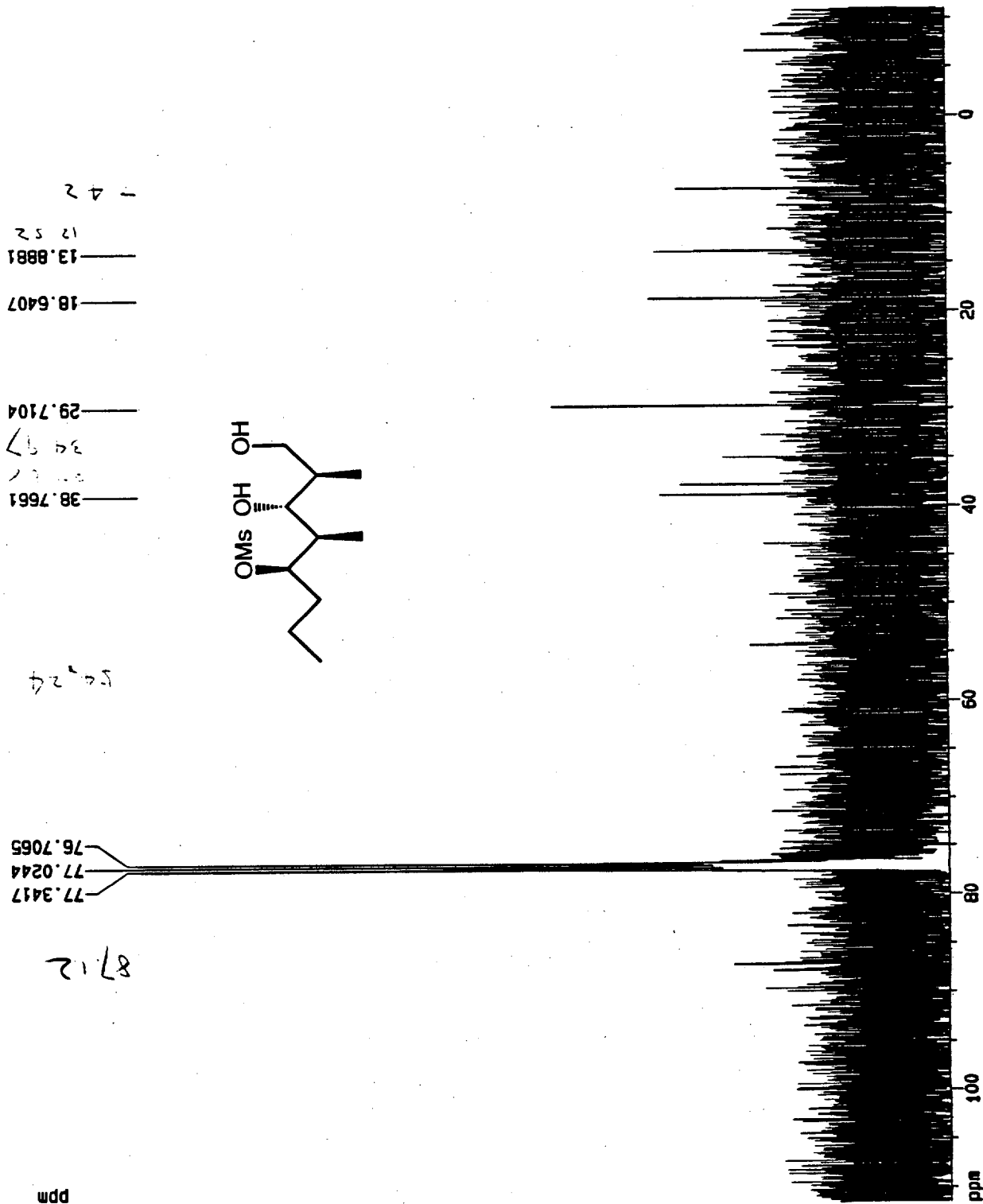
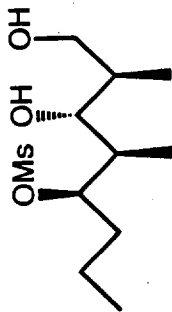
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 38.7661

29.7104
 38.7661

76.7065
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87.12

ppm



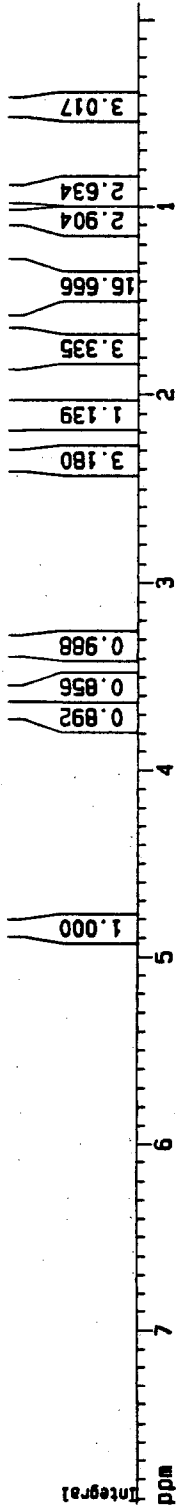
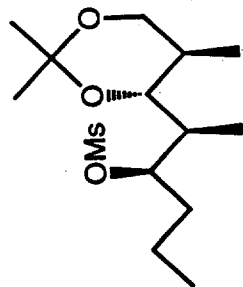
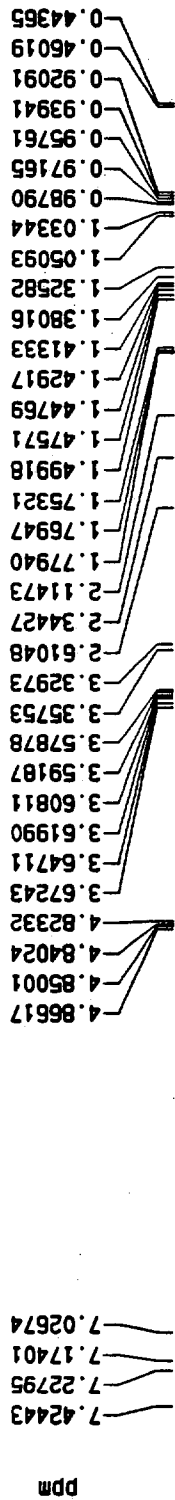
proton default parameters

Current Data Parameters
 NAME dq-0302h1
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 990302
 Time 16.31
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TO 65536
 SOLVENT C6D6
 NS 16
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 1024
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.25 usec
 SF01 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300173 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 7.928 ppm
 F1 3172.19 Hz
 F2P -0.091 ppm
 F2 -36.23 Hz
 PPMCH 0.40092 ppm/cm
 HZCM 160.42148 Hz/cm



Default parameters for C-13 with proton decoupling

Current Data Parameters
 NAME dq-0302c1
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 990302
 Time 16.54
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT C6D6
 NS 400
 DS 0
 SWH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 16384
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 D15 23.50 dB
 CPDPRG Waltz16
 P31 100.00 usec
 D1 2.0000000 sec
 P1 6.25 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
 SI 65536
 SF 100.6127710 MHz
 NDM no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 FIP 100.888 ppm
 F1 10150.67 Hz
 F2 7.005 ppm
 F2 704.83 Hz
 PPMCM 4.69416 ppm/cm
 HZCM 472.29199 Hz/cm

18.6968
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 37.7870

97.8875
 65.90
 75.83

