

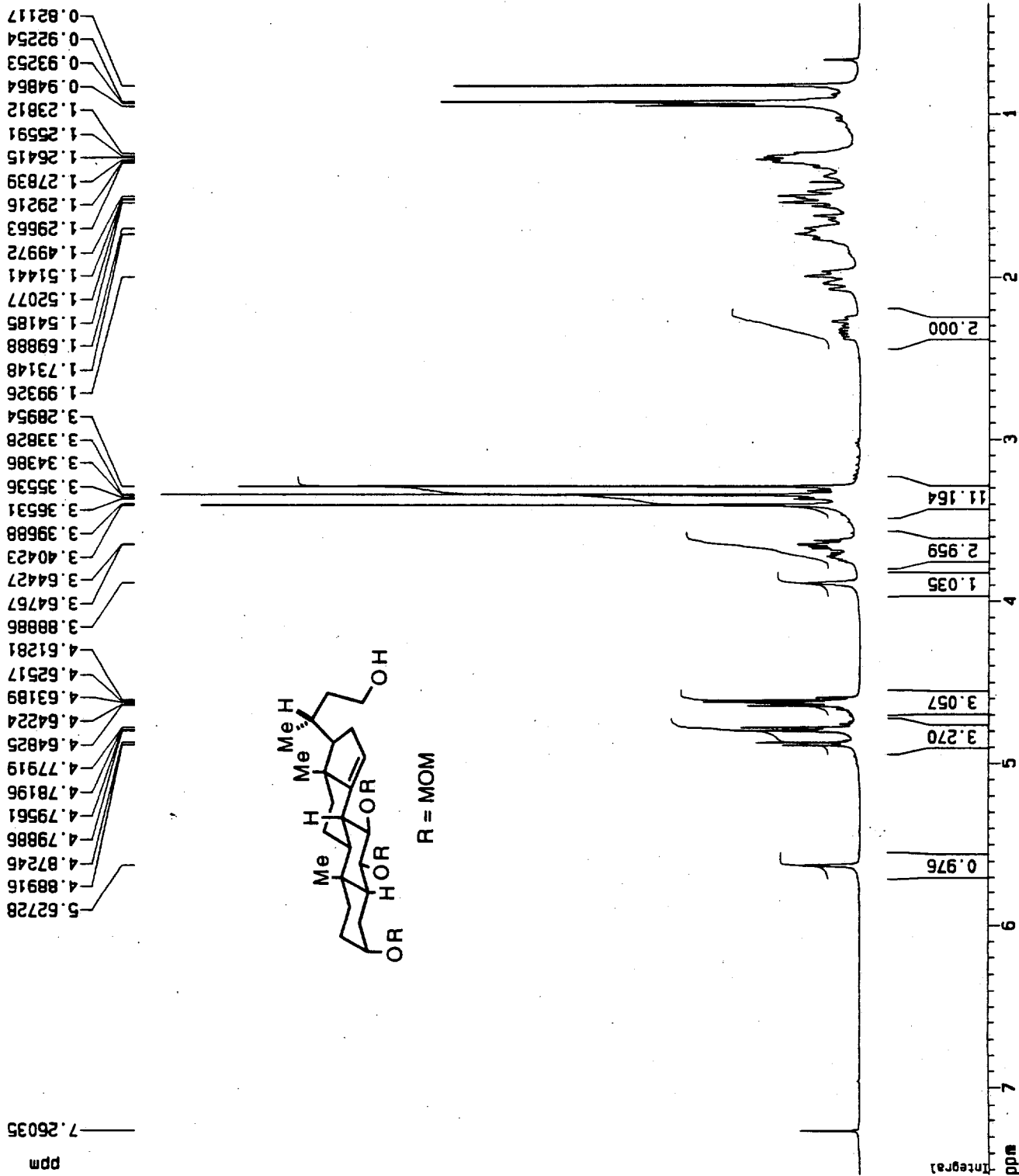
twj 03-198

Current Data Parameters  
 NAME twj03-198  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 990408  
 Time 12.04  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zg30  
 TO 65536  
 SOLVENT CDCl3  
 NS 32  
 DS 0  
 SWH 8064.516 Hz  
 FIDRES 0.123055 Hz  
 AQ 4.0632820 sec  
 RG 256  
 DW 62.000 usec  
 DE 88.57 usec  
 TE 300.0 K  
 D1 2.0000000 sec  
 P1 8.25 usec  
 SFO1 400.132408 MHz  
 NUCLEUS 1H

F2 - Processing parameters  
 SI 65536  
 SF 400.1300173 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 7.535 ppm  
 F1 3014.84 Hz  
 F2P 0.316 ppm  
 F2 126.49 Hz  
 PPMCM 0.36093 ppm/cm  
 HZCM 144.41779 Hz/cm



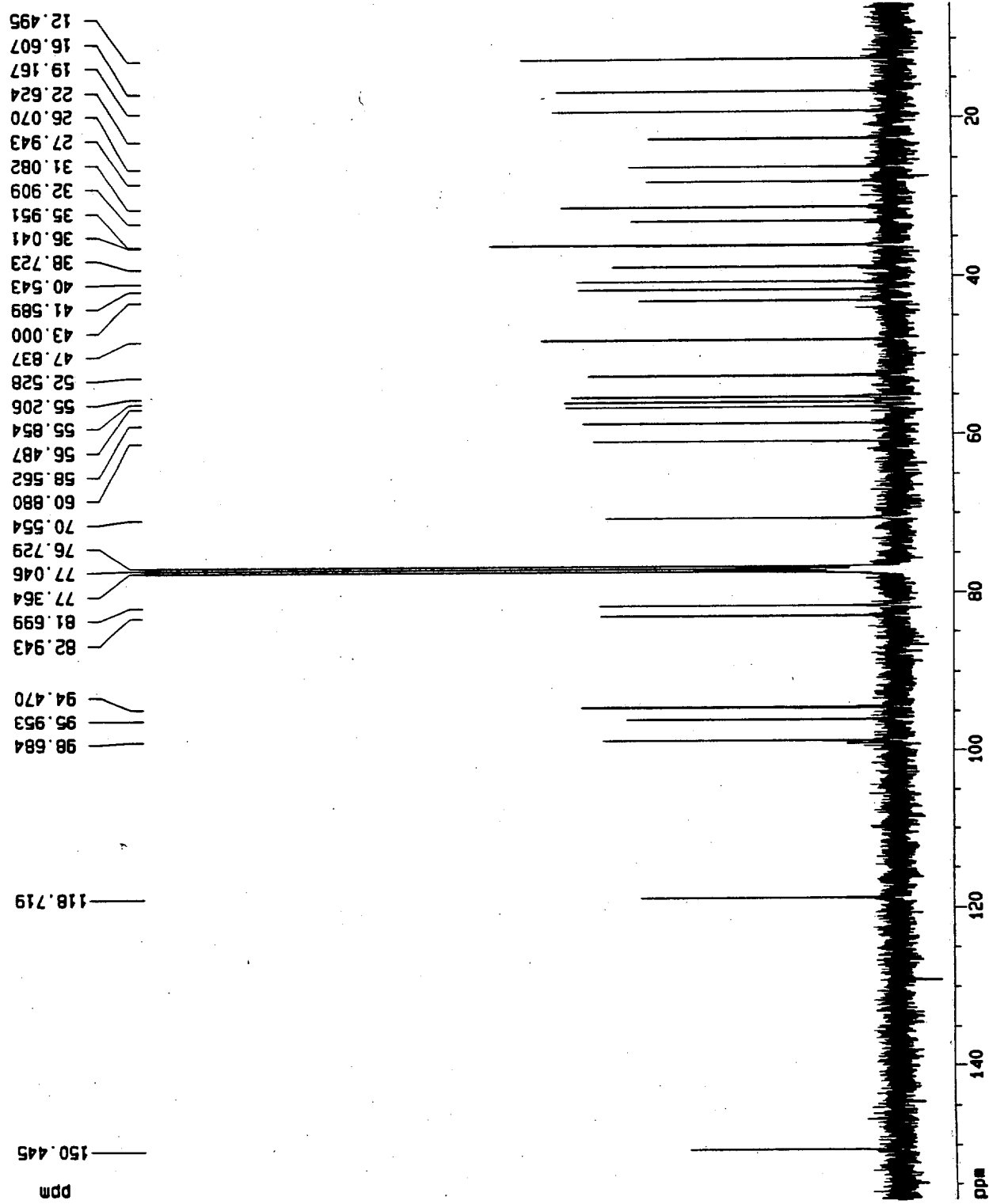
twj 03-198

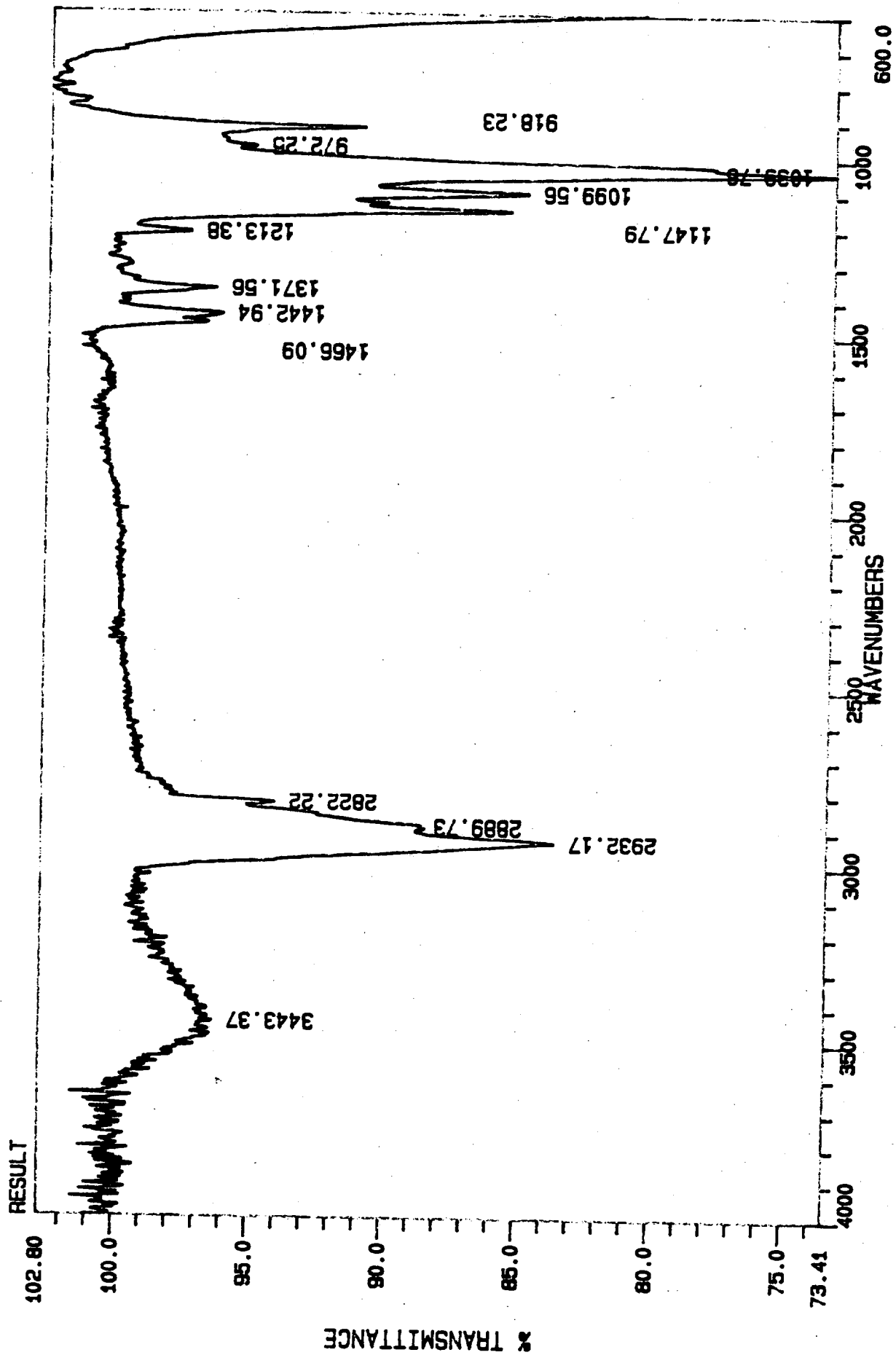
Current Data Parameters  
 NAME twj03-198  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 990408  
 Time 12.15  
 INSTRUM arx400  
 PROBRD 5 mm QNP 1H  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 255  
 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  
 P1 2.00000000 sec  
 P1 6.25 usec  
 SF01 100.6248445 MHz  
 NUCLEUS 13C  
 D11 0.0300000 sec

F2 - Processing parameters  
 SI 55536  
 SF 100.6127710 MHz  
 WDM EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 FIP 156.872 ppm  
 F1 15783.37 Hz  
 F2 5.726 ppm  
 F2 576.11 Hz  
 PPMCM 7.55732 ppm/cm  
 HZCM 760.36304 Hz/cm





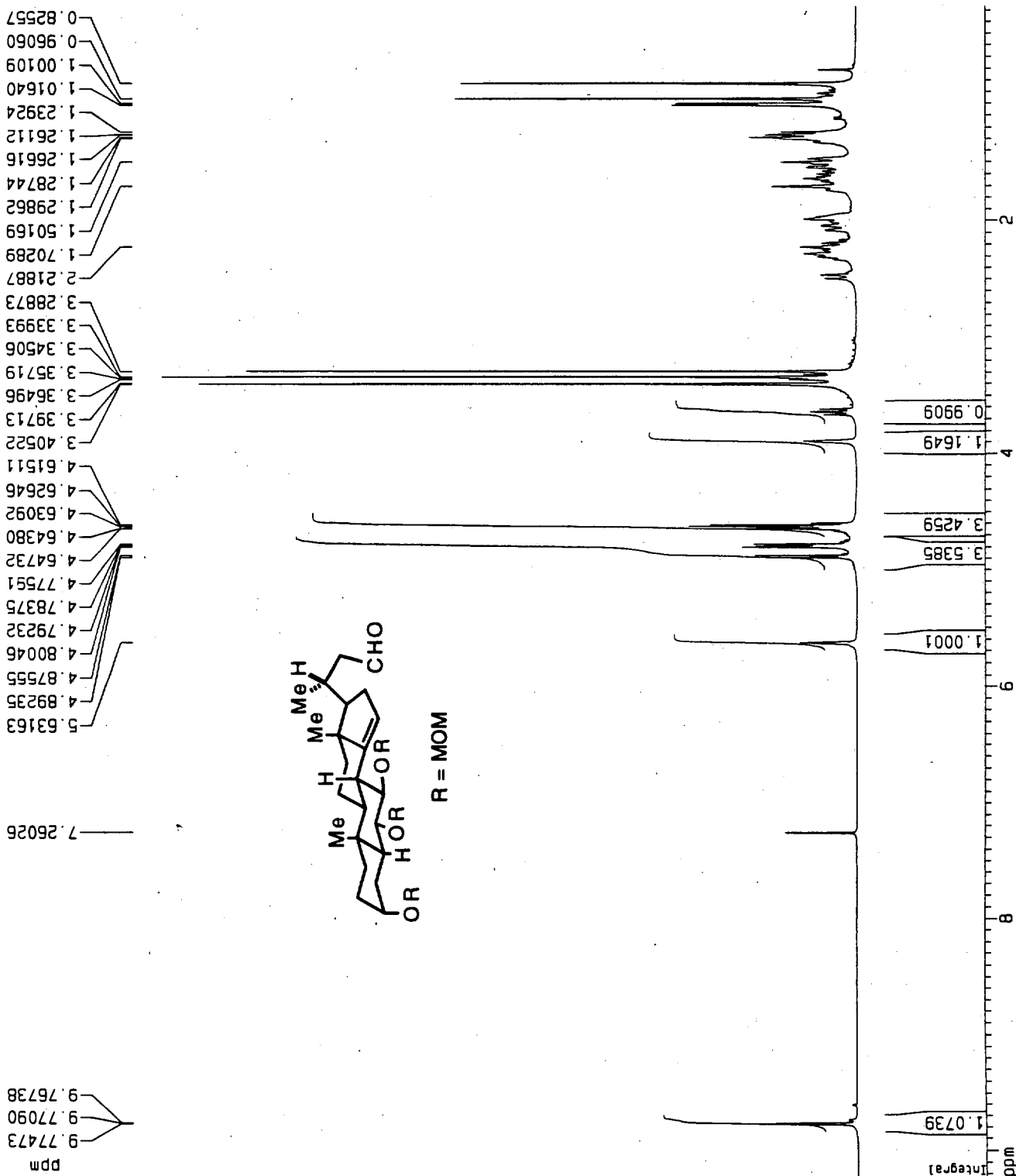
twj 03-199

Current Data Parameters  
 NAME twj03-199  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 990413  
 Time 11.46  
 INSTRUM apr400  
 PROBH0 5 mm QNP 1H  
 PULPROG zg30  
 TO 65536  
 SOLVENT CDC13  
 NS 32  
 DS 0  
 SWH 8064.516 Hz  
 FIDRES 0.123055 Hz  
 AQ 4.0632820 sec  
 RG 256  
 DW 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 EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 10.228 ppm  
 F1 4092.46 Hz  
 F2P 0.162 ppm  
 F2 64.66 Hz  
 PPMCM 0.50331 ppm/cm  
 HZCM 201.38995 Hz/cm



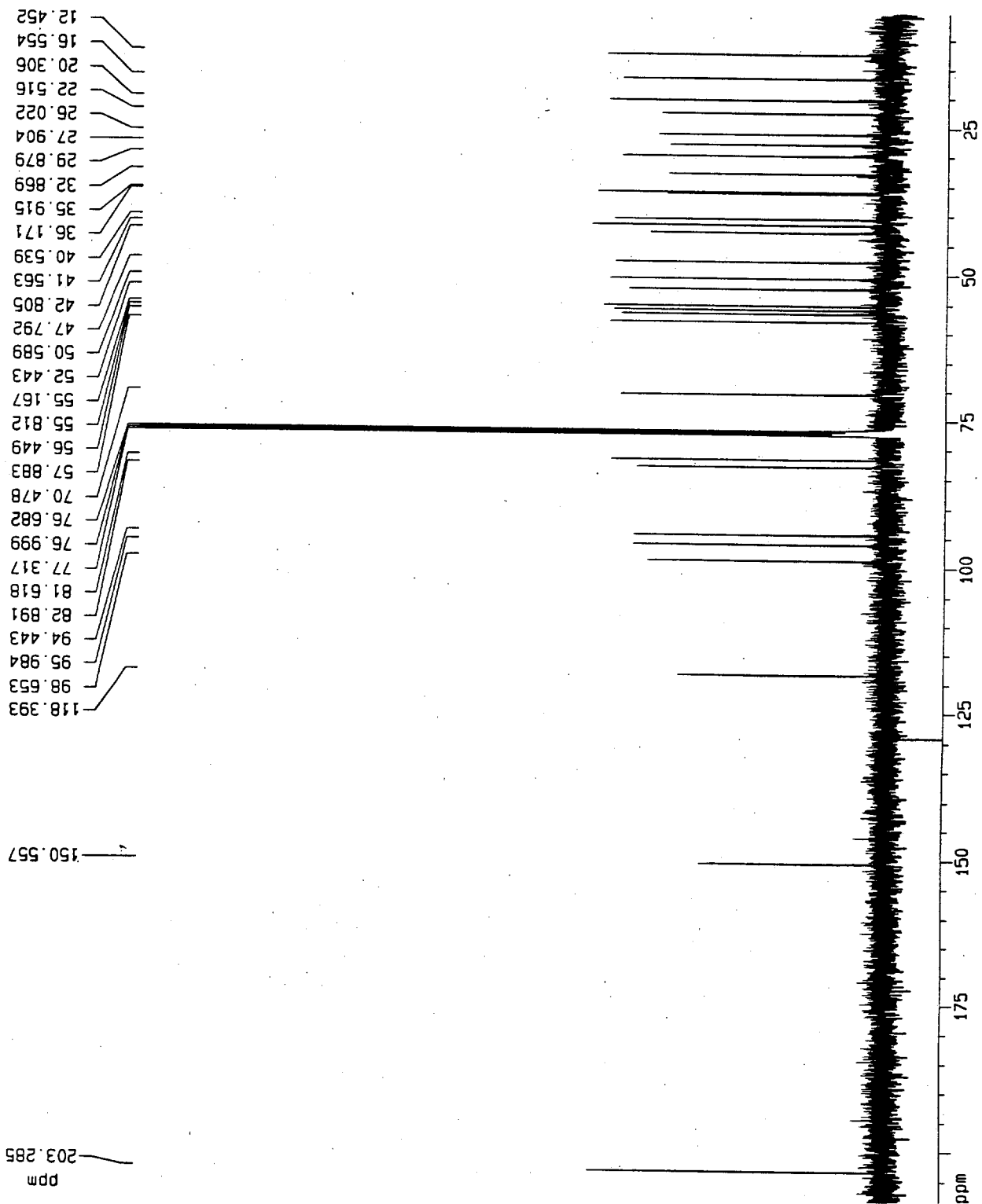
twj 03-199

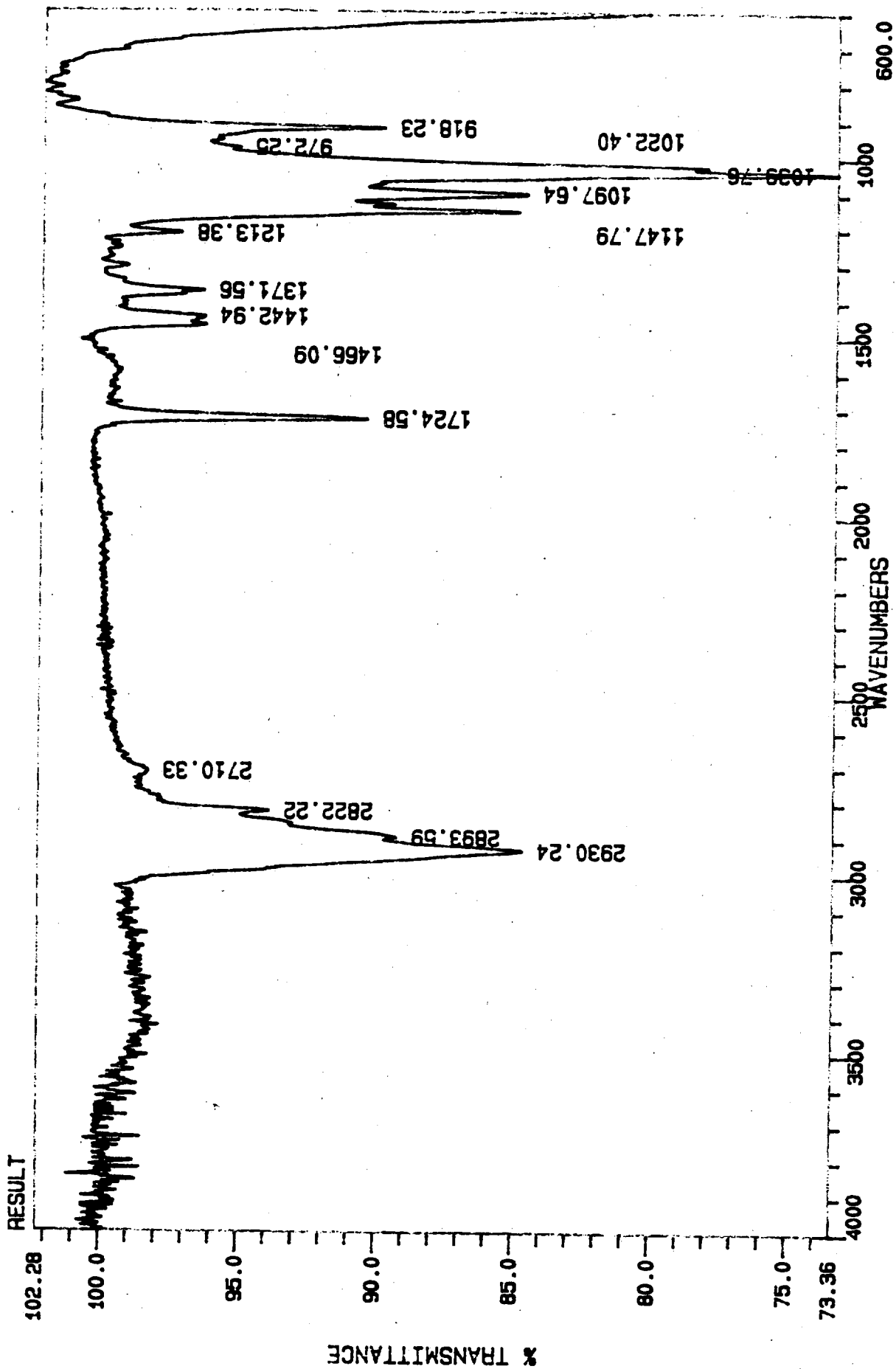
Current Data Parameters  
 NAME twj03-199  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 990413  
 Time 11.57  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 309  
 DS 0  
 SWH 27777.777 Hz  
 FIDRES 0.423855 Hz  
 AQ 1.1796980 sec  
 RG 32768  
 DW 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 2.00000000 sec  
 P1 6.25 usec  
 SFO1 100.6248445 MHz  
 NUCLEUS 13C  
 D11 0.0300000 sec

F2 - Processing parameters  
 SI 65536  
 SF 100.6127753 MHz  
 WDM EM  
 SS8 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 208.372 ppm  
 F1 20964.87 Hz  
 F2P 5.421 ppm  
 F2 545.45 Hz  
 PPHCM 10.14753 ppm/cm  
 HZCM 1020.97137 Hz/cm





twj 03-204a

Current Data Parameters  
 NAME twj03-204a  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters

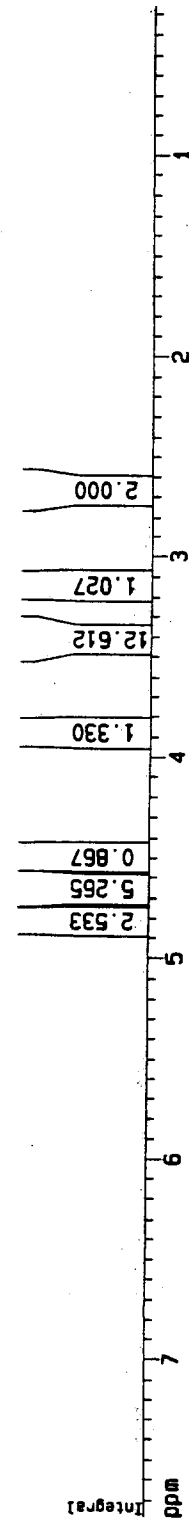
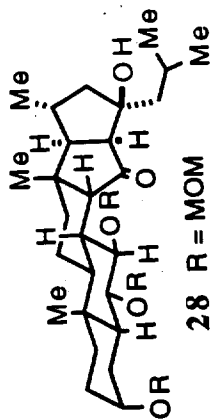
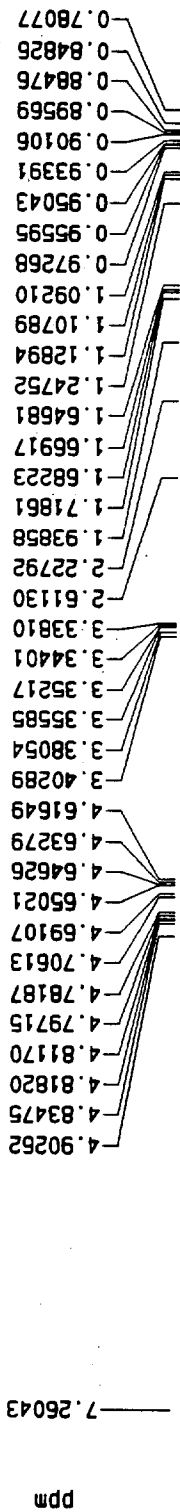
Date\_ 990421  
 Time 21.05  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 32  
 DS 0  
 SMH 8064.516 Hz  
 FIDRES 0.123055 Hz  
 AQ 4.0632820 sec  
 RG 512  
 DM 62.000 usec  
 DE 88.57 usec  
 TE 300.0 K  
 O1 2.0000000 sec  
 P1 8.25 usec  
 SFO1 400.1324008 MHz  
 NUCLEUS 1H

F2 - Processing parameters

SI 65536  
 SF 400.1300173 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

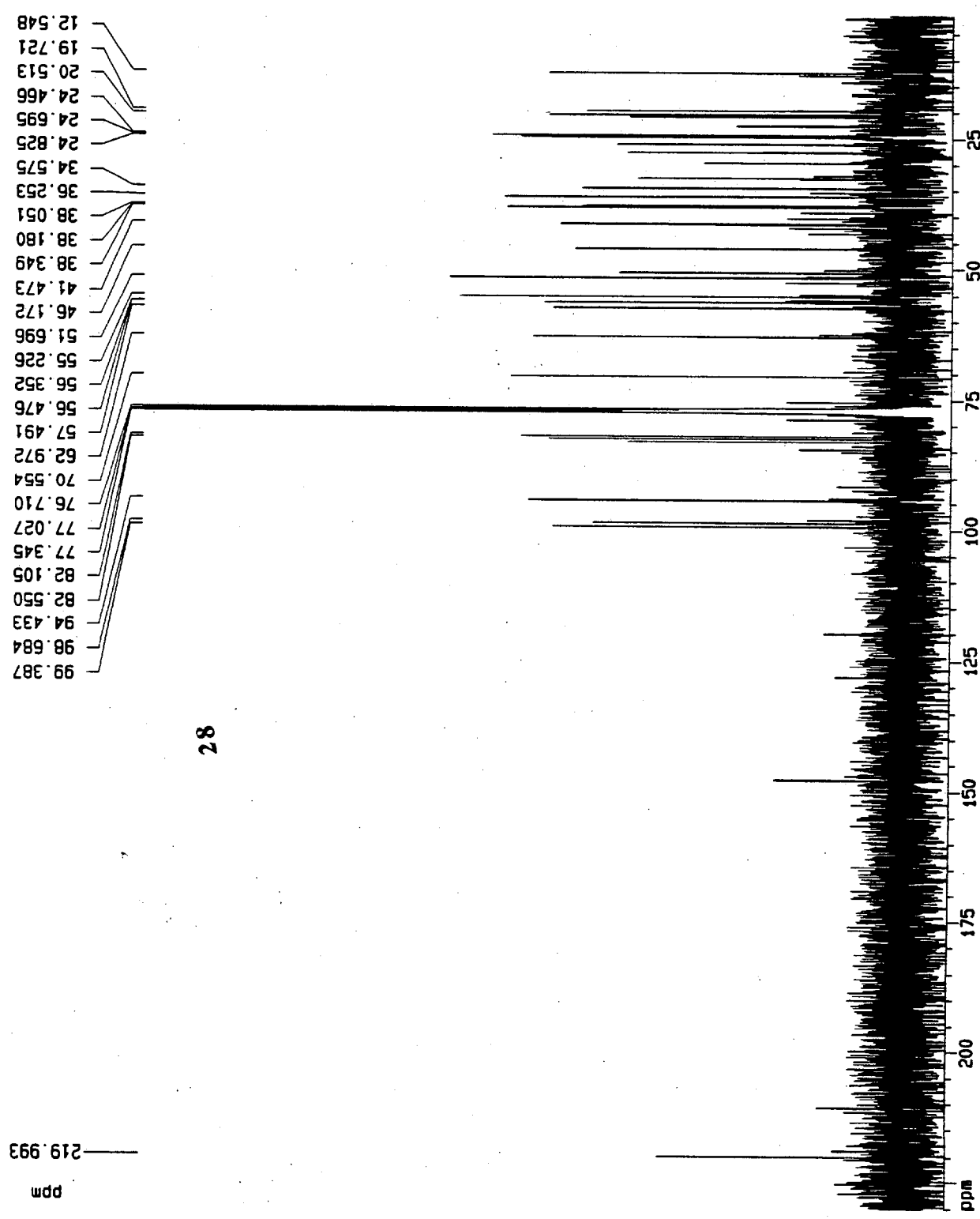
1D NMR plot parameters

CX 20.00 cm  
 F1P 7.786 ppm  
 F1 3115.45 Hz  
 F2P 0.258 ppm  
 F2 103.32 Hz  
 PPMCM 0.37639 ppm/cm  
 HZCM 150.60686 Hz/cm



Integral

twj 03-204a



Current Data Parameters  
 NAME twj03-204a  
 EXPNO 2  
 PROCNO 1

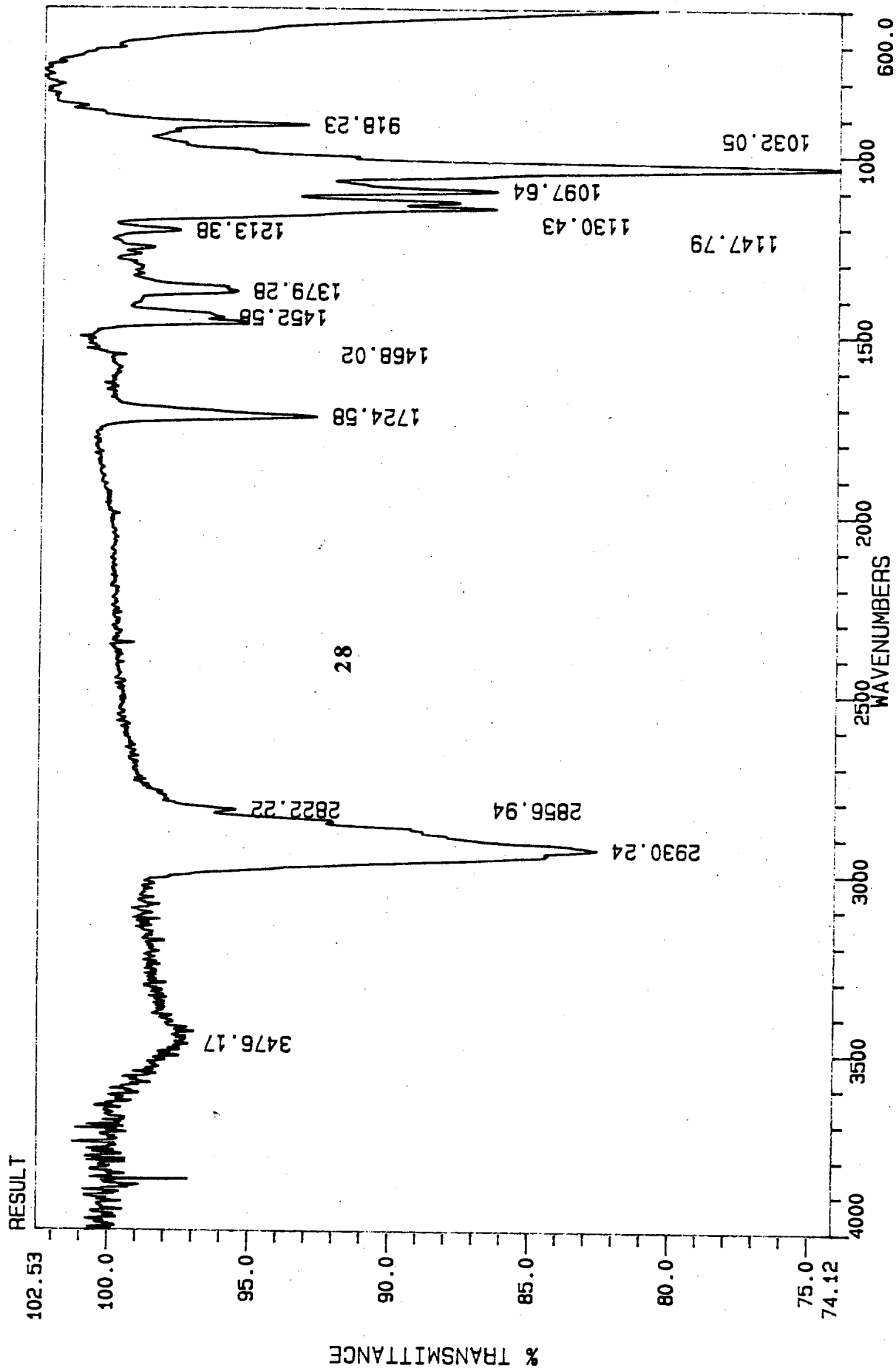
F2 - Acquisition Parameters  
 Date\_ 990421  
 Time 21.11  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 1329  
 DS 0  
 SMH 27777.777 Hz  
 FIDRES 0.423655 Hz  
 AQ 1.1795980 sec  
 RG 32768  
 DM 18.000 usec  
 DE 25.71 usec  
 TE 300.0 K  
 D12 0.0000200 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 EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 230.074 ppm  
 F1 23148.39 Hz  
 F2 1.602 ppm  
 F2 151.17 Hz  
 PPNCM 11.42361 ppm/cm  
 HZCM 1149.36108 Hz/cm

28





twj 03-207

Current Data Parameters  
 NAME twj03-207  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters

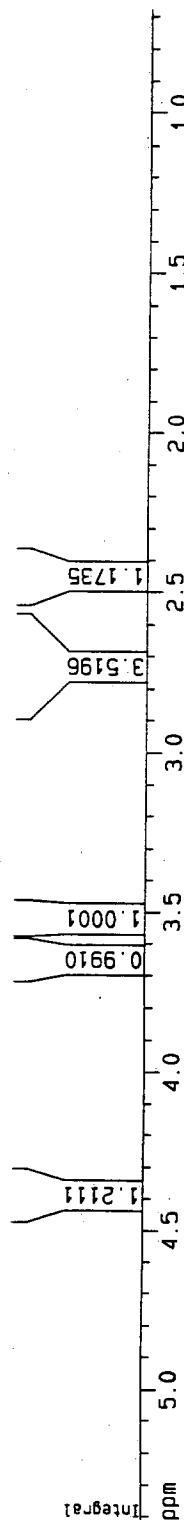
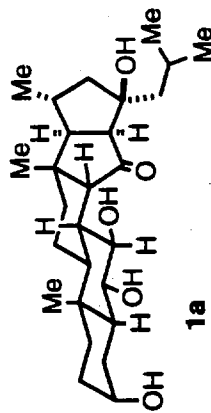
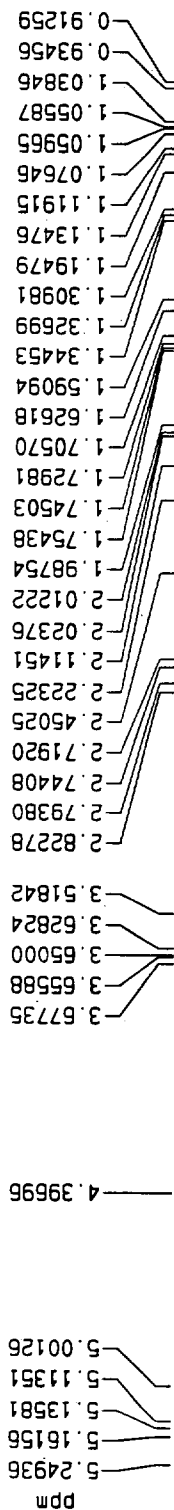
Date\_ 990423  
 Time 16.53  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zg30  
 TD 65536  
 SOLVENT Pyr  
 NS 32  
 DS 0  
 SWH 8064.516 Hz  
 FIDRES 0.123055 Hz  
 AQ 4.0632820 sec  
 RG 1024  
 DM 62.000 usec  
 DE 88.57 usec  
 TE 300.0 K  
 D1 2.00000000 sec  
 P1 8.25 usec  
 SFO1 400.1324008 MHz  
 NUCLEUS 1H

F2 - Processing parameters

SI 65536  
 SF 400.1299852 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters

CX 20.00 cm  
 F1P 5.411 ppm  
 F1 2165.14 Hz  
 F2P 0.677 ppm  
 F2 271.03 Hz  
 PPMCM 0.23669 ppm/cm  
 HZCM 94.70541 Hz/cm



twj 03-207

Current Data Parameters  
 NAME twj03-207  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 990423  
 Time 16.53  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zg30  
 TD 65536  
 SOLVENT Pyr  
 NS 32  
 DS 0  
 SMH 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 400.1299852 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

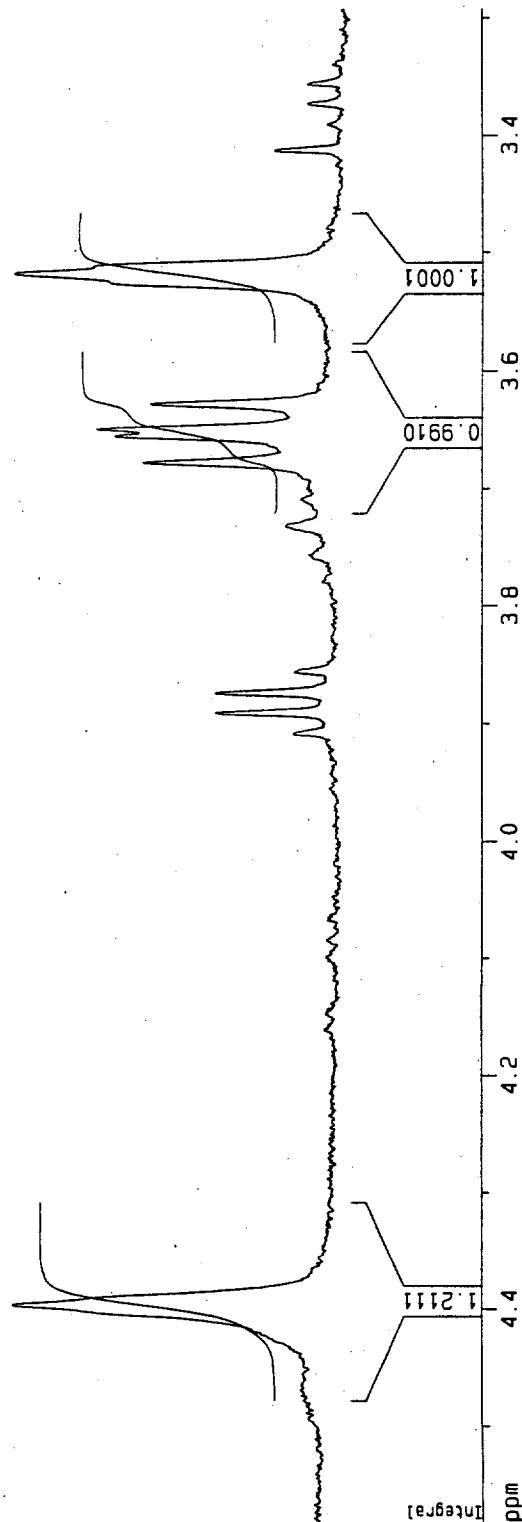
1D NMR plot parameters  
 CX 20.00 cm  
 F1P 4.580 ppm  
 F1 1832.68 Hz  
 F2P 3.292 ppm  
 F2 1317.26 Hz  
 PPMCM 0.05441 ppm/cm  
 HZCM 25.77131 Hz/cm

3.6735  
 3.6588  
 3.6500  
 3.62824  
 3.51842

4.39696

1a

ppm



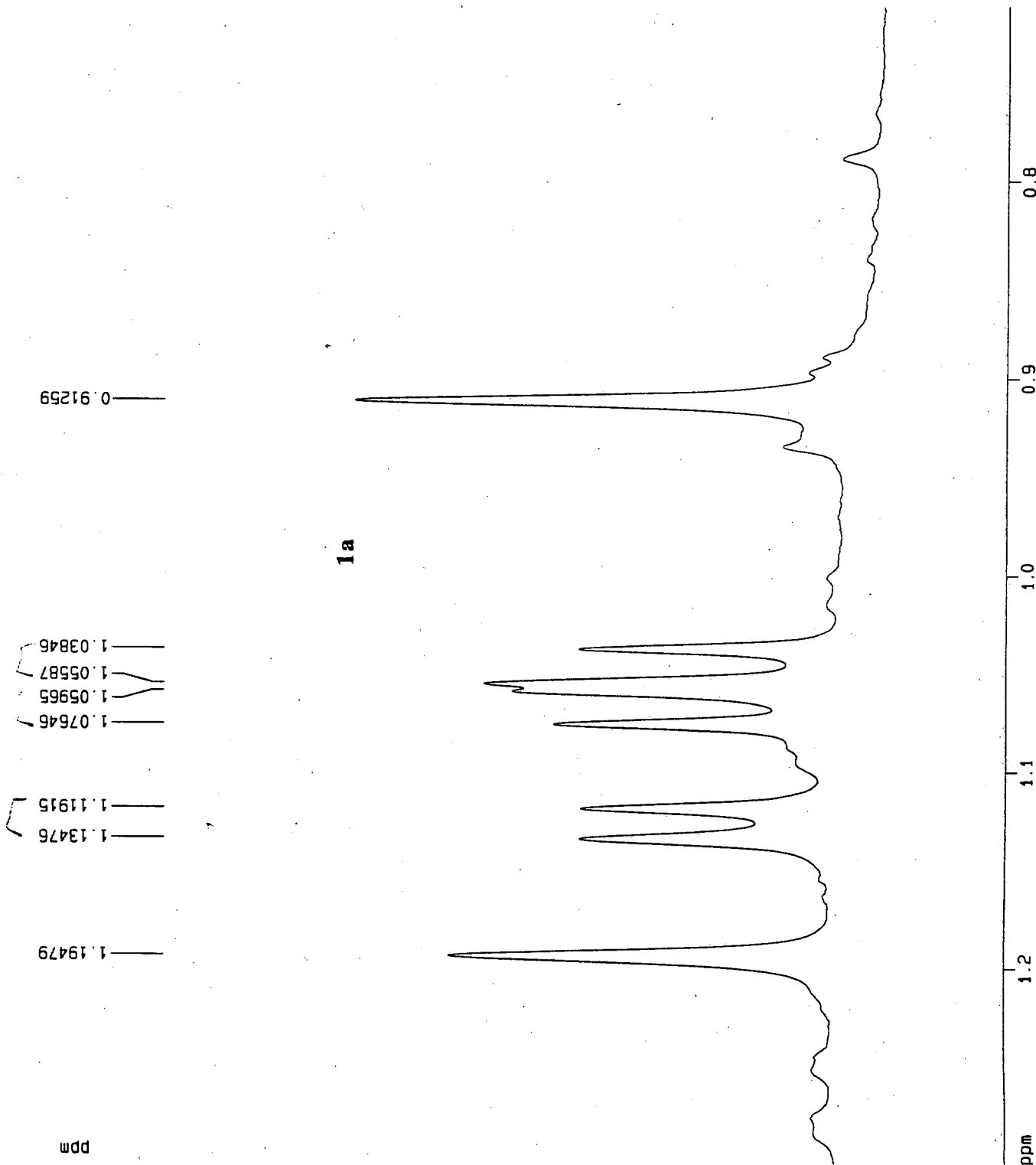
twj 03-207

Current Data Parameters  
 NAME twj03-207  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 990423  
 Time 16.53  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zg30  
 TD 65536  
 SOLVENT Pyr  
 NS 32  
 DS 0  
 SWH 8064.516 Hz  
 FIDRES 0.123055 Hz  
 AQ 4.0632820 sec  
 RG 1024  
 DW 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 400.1299852 MHz  
 MDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 1.299 ppm  
 F1 519.75 Hz  
 F2P 0.712 ppm  
 F2 284.78 Hz  
 PPMCM 0.02936 ppm/cm  
 HZCM 11.74808 Hz/cm



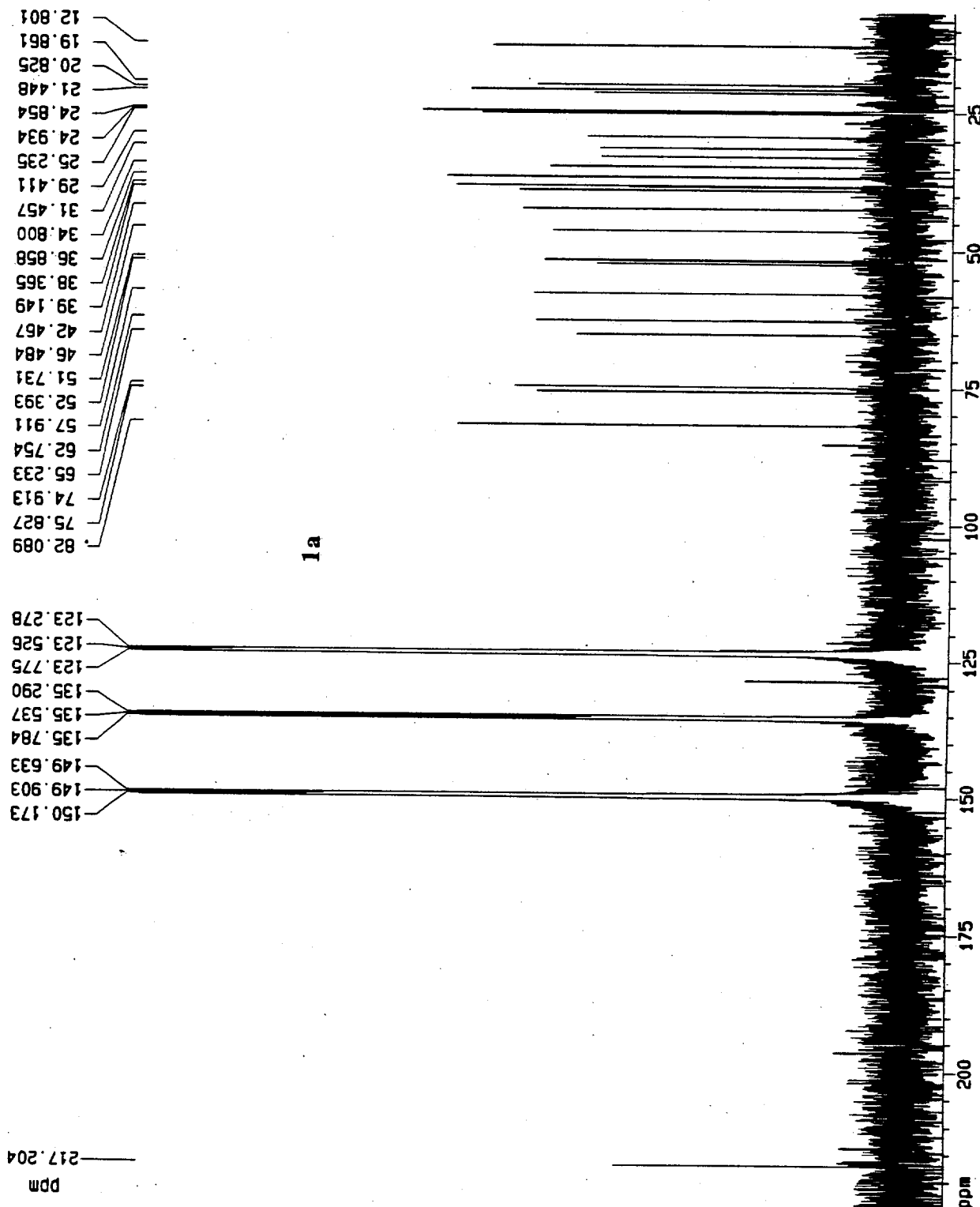
twj 03-207

Current Data Parameters  
 NAME twj03-207  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 990427  
 Time 21.32  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT Pyr  
 NS 924  
 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  
 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 100.6127437 MHz  
 MDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 FIP 224.307 ppm  
 F1 22568.11 Hz  
 F2 6.626 ppm  
 F2 666.67 Hz  
 PPMCM 10.88403 ppm/cm  
 HZCM 1095.07239 Hz/cm



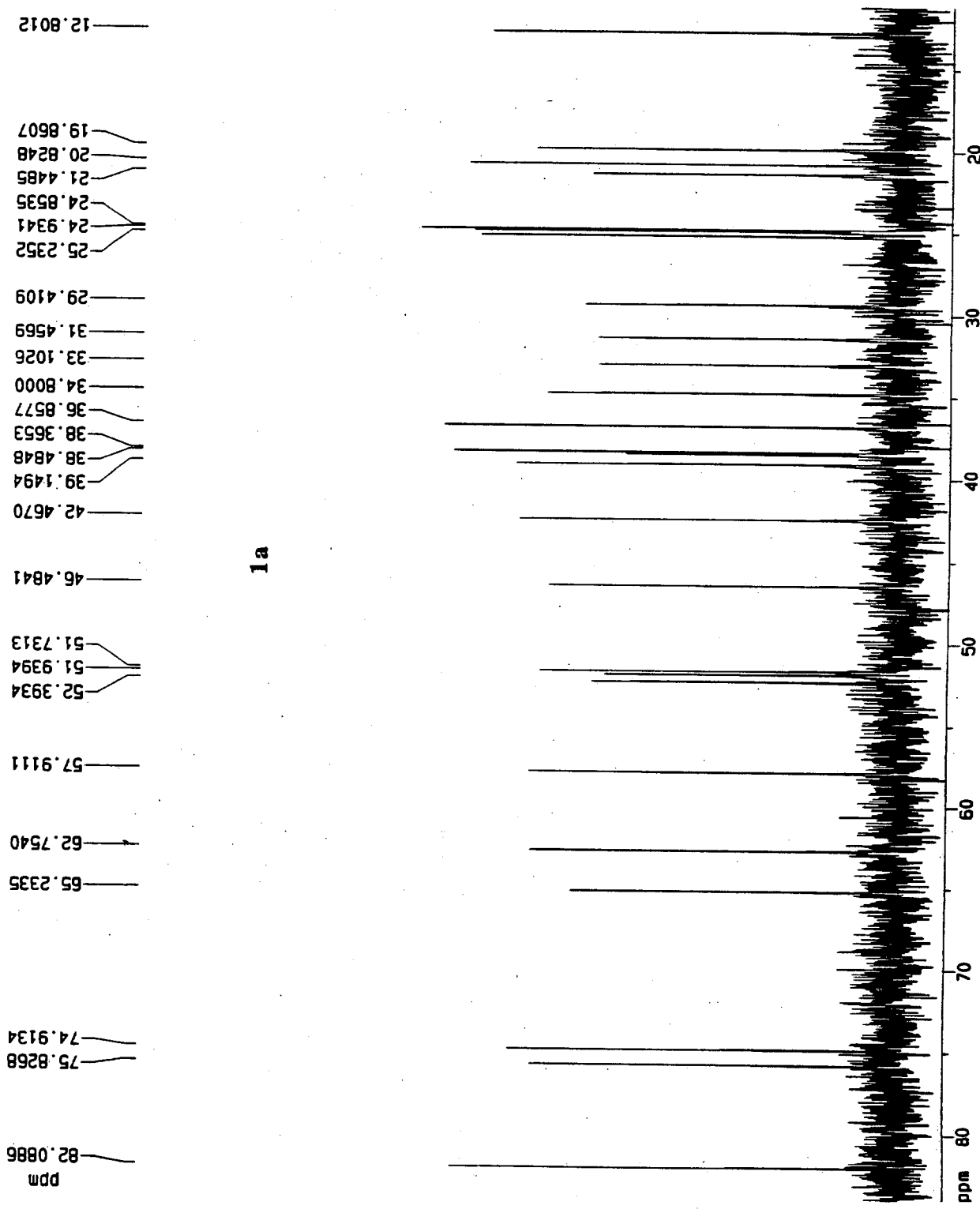
twj 03-207

Current Data Parameters  
 NAME twj03-207  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 990427  
 Time 21.32  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT pyr  
 NS 924  
 DS 0  
 SMH 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  
 DL5 23.50 dB  
 CPDPRG waltz16  
 P31 100.00 usec  
 D1 2.0000000 sec  
 P1 6.25 usec  
 SFO1 100.6248445 MHz  
 NUCLEUS 13C  
 D11 0.0300000 sec

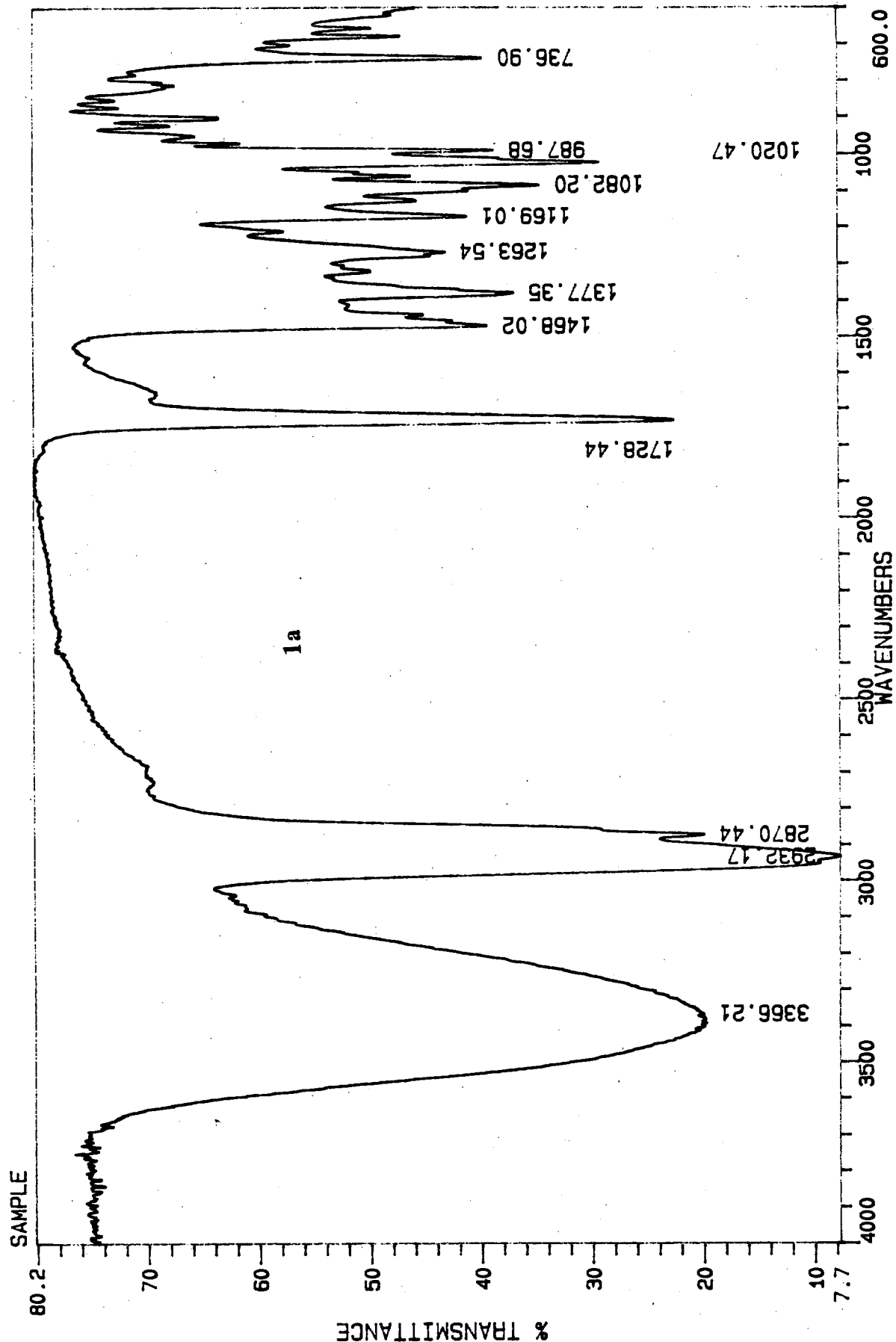
F2 - Processing parameters  
 SI 65536  
 SF 100.6127437 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 83.974 ppm  
 F1 8448.86 Hz  
 F2P 11.196 ppm  
 F2 1126.45 Hz  
 PPNCH 3.63891 ppm/cm  
 HZCM 365.12076 Hz/cm



1a

1000 8-2497  
Sample 1a



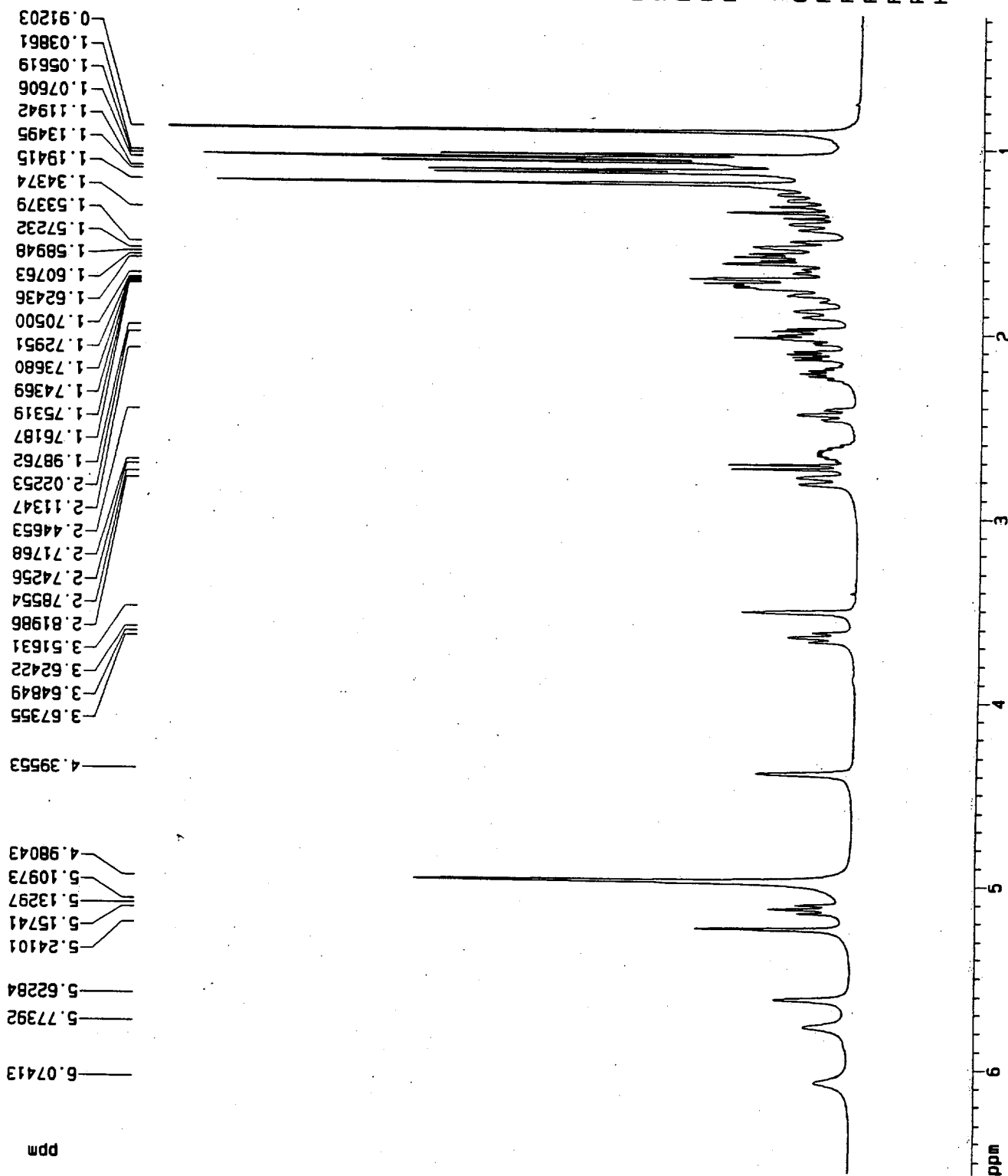
natural xestobergsterol A

Current Data Parameters  
 NAME natxesto  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 990427  
 Time 13.53  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zg30  
 TD 65536  
 SOLVENT Pyr  
 NS 32  
 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  
 O1 2.0000000 sec  
 P1 8.25 usec  
 SFO1 400.1324008 MHz  
 NUCLEUS 1H

F2 - Processing parameters  
 SI 65536  
 SF 400.1299855 MHz  
 MDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 F1P 6.559 ppm  
 F1 2624.41 Hz  
 F2P 0.276 ppm  
 F2 110.45 Hz  
 PPMCH 0.31414 ppm/cm  
 HZCM 125.69805 Hz/cm





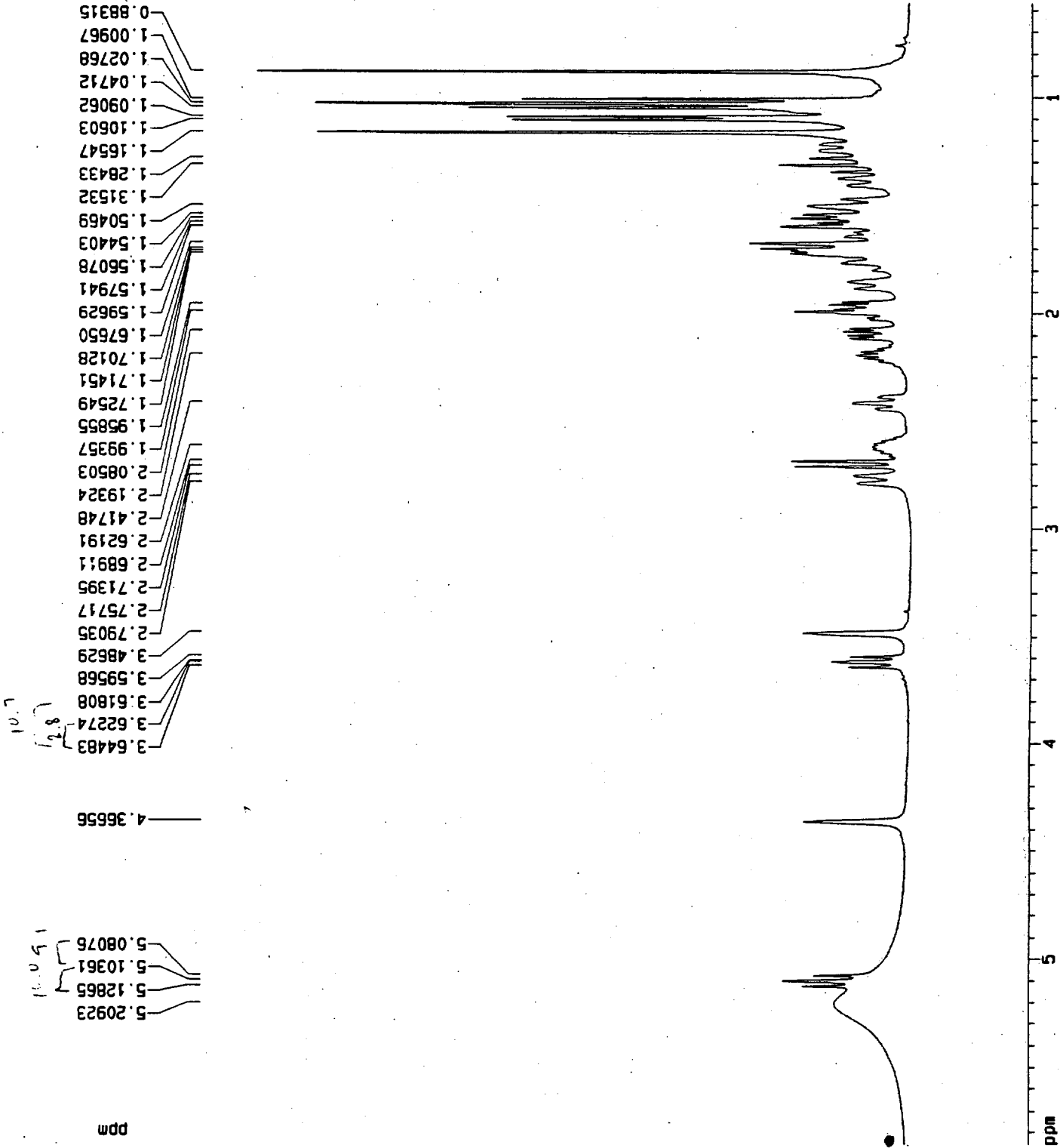
natural xesto A and synthetic xesto A mix (1:1)

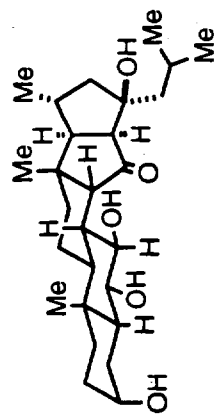
Current Data Parameters  
 NAME mix  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 990427  
 Time 22.24  
 INSTRUM arx400  
 PROBHD 5 mm QNP 1H  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDC13  
 NS 31  
 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  
 O1 2.0000000 sec  
 P1 8.25 usec  
 SF01 400.1324008 MHz  
 NUCLEUS 1H

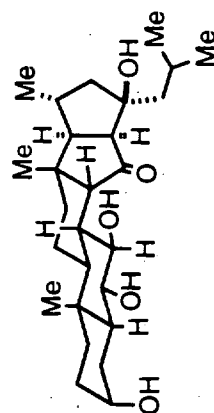
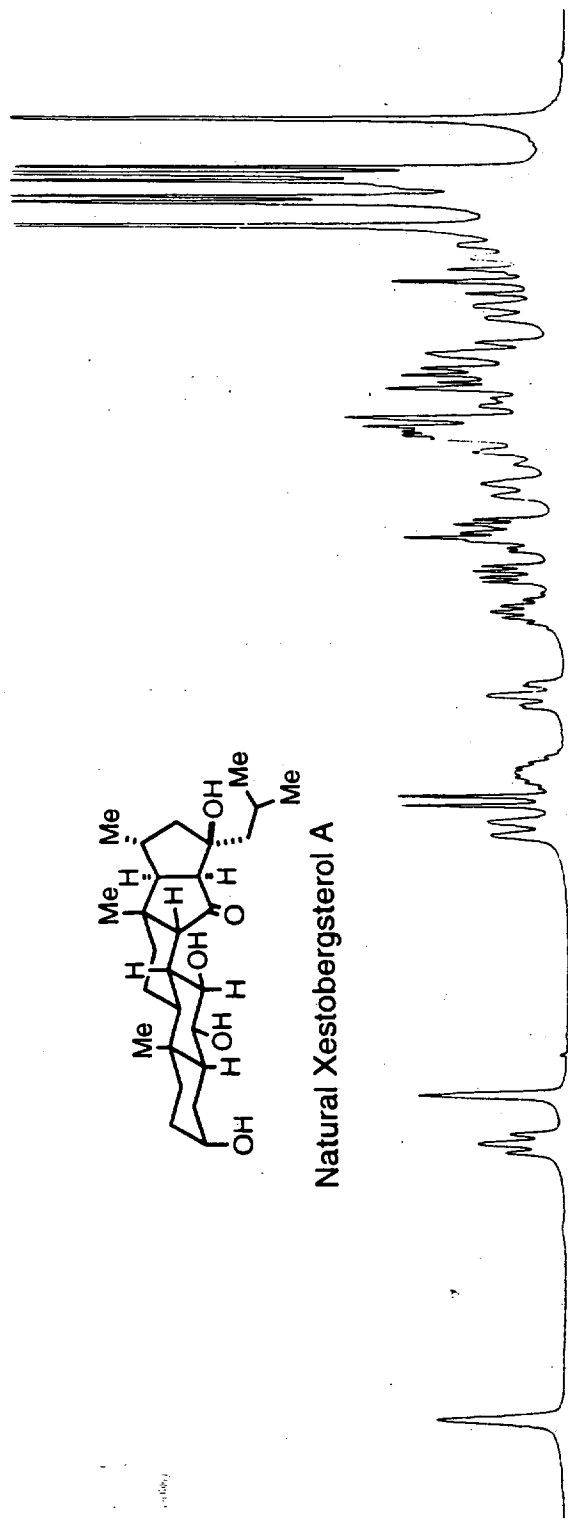
F2 - Processing parameters  
 SI 65536  
 SF 400.1299969 MHz  
 MDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00

1D NMR plot parameters  
 CX 20.00 cm  
 FIP 5.857 ppm  
 F1 2343.46 Hz  
 F2 0.567 ppm  
 PPMCM 0.26450 ppm/cm  
 HZCM 105.83549 Hz/cm





Natural Xestobergsterol A



Synthetic Xestobergsterol A

