

twj 02-52 54

Current Data Parameters
 NAME TWJ-II-052
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 970114
 Time 16.36
 INSTRUM arx400
 PROBHD 5 mm GNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 OS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 128
 DW 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.00 usec
 DE 88.57 usec
 SFO1 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters

SI 65536
 SF 400.1300175 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

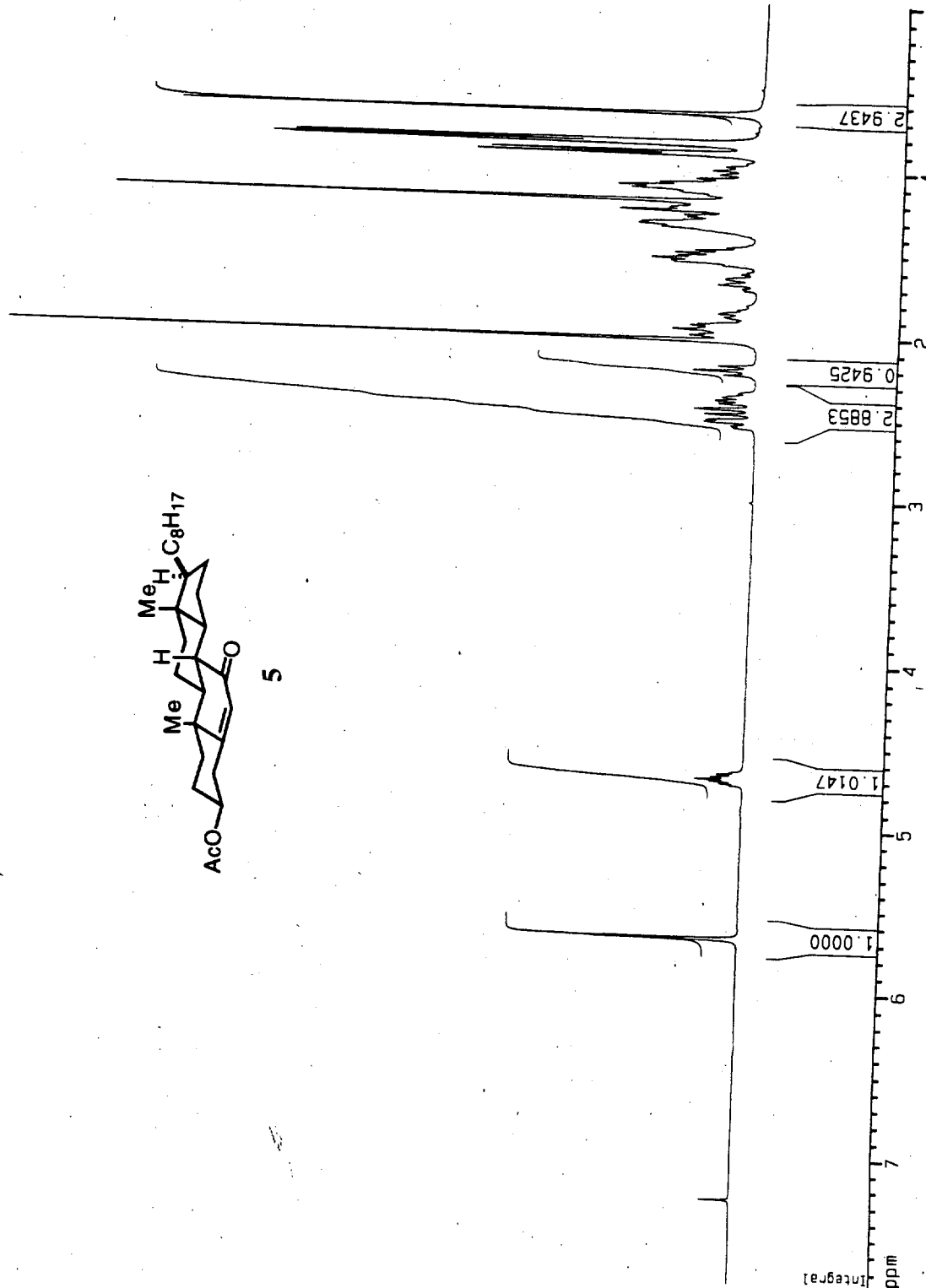
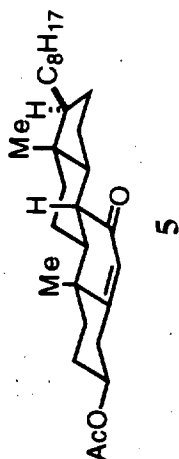
1D NMR plot parameters

CX 20.00 cm
 F1P 7.766 ppm
 F1 3107.59 Hz
 F2P -0.015 ppm
 F2 -6.01 Hz
 PPMCM 0.38907 ppm/cm
 HZCM 155.67973 Hz/cm

0.51295
 2.43896
 2.20325
 2.02363
 1.99371
 1.95832
 1.52645
 1.33682
 1.32080
 1.31108
 1.24266
 1.22387
 1.18523
 1.10932
 1.09313
 1.07686
 0.90537
 0.88915
 0.84798
 0.84377
 0.83147
 0.82730
 0.65686

5.67364
 5.67109
 4.72732
 4.71571
 4.69912
 4.68716
 4.67513
 4.65860
 4.64706

7.26014
 ppm



twj 02-52 54

Current Data Parameters
 NAME TWJ-II-052
 EXPNO 1
 PROCNO 1

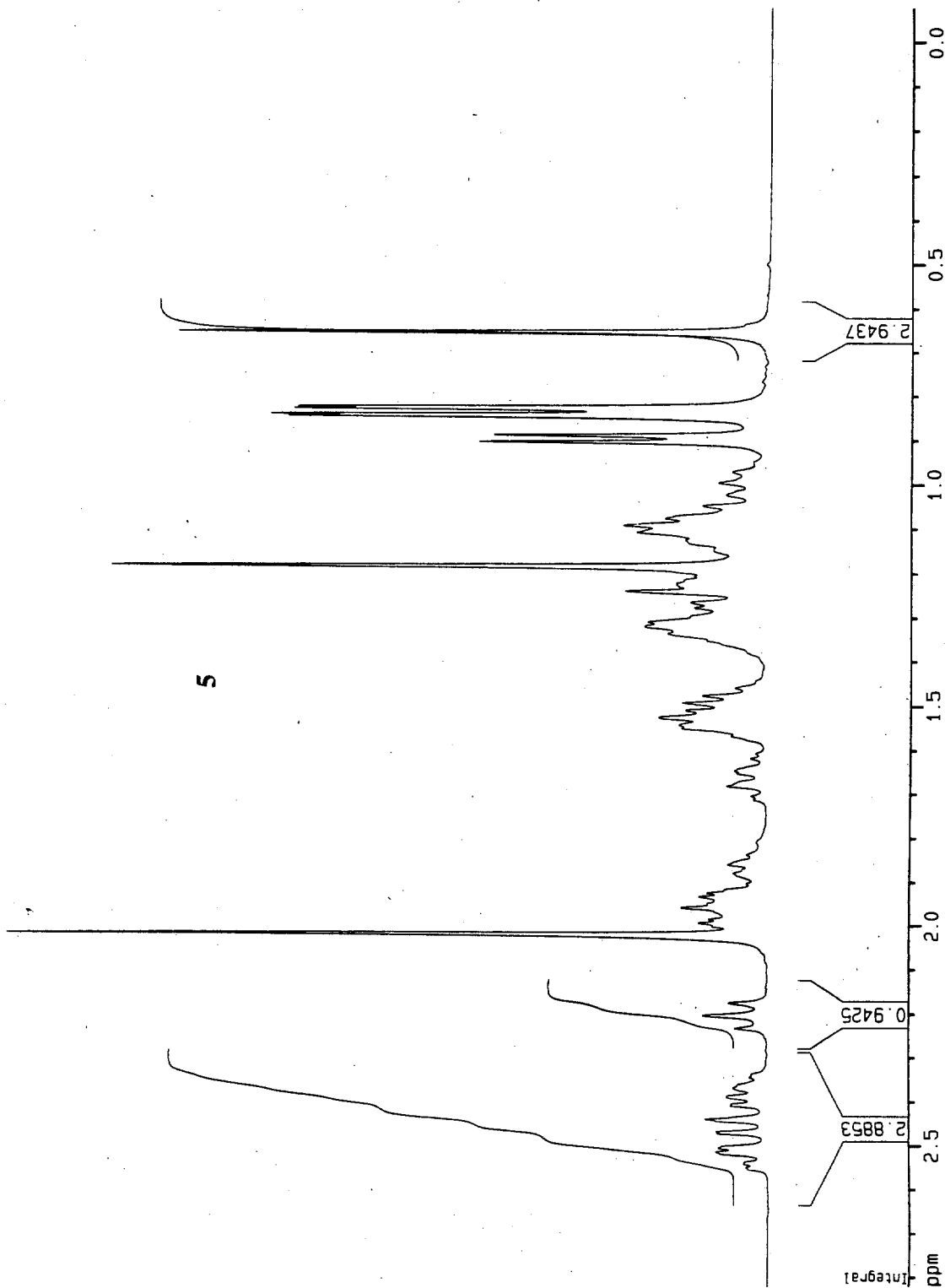
F2 - Acquisition Parameters
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 Time 16.36
 INSTRUM arx400
 PROBHO 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 8
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 128
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 8.00 usec
 DE' 88.57 usec
 SFO1 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300175 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 2.819 ppm
 F1 1127.91 Hz
 F2P -0.077 ppm
 F2 -30.98 Hz
 PPMCM 0.14482 ppm/cm
 HZCM 57.94492 Hz/cm

ppm

2.51295
2.47194
2.46829
2.43896
2.20325
2.02363
2.00245
1.99371
1.98493
1.95832
1.94894
1.93225
1.92367
1.55120
1.54351
1.52645
1.51028
1.49247
1.33682
1.32080
1.31108
1.29754
1.27918
1.26784
1.24266
1.22768
1.22387
1.21747
1.18523
1.13240
1.12657
1.10932
1.09313
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0.88915
0.84798
0.84377
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0.82730
0.65686
0.63667



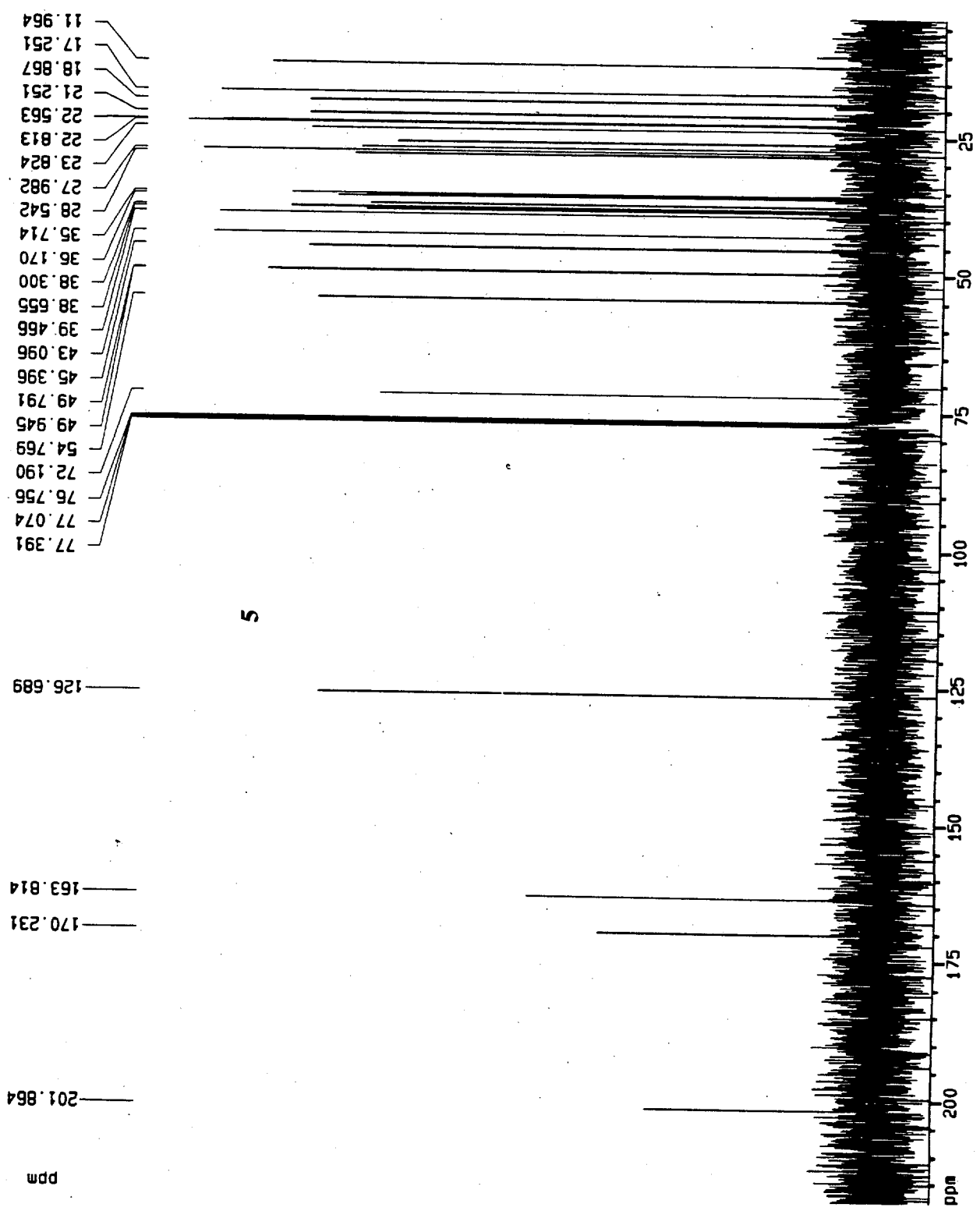
twj 02-52 54

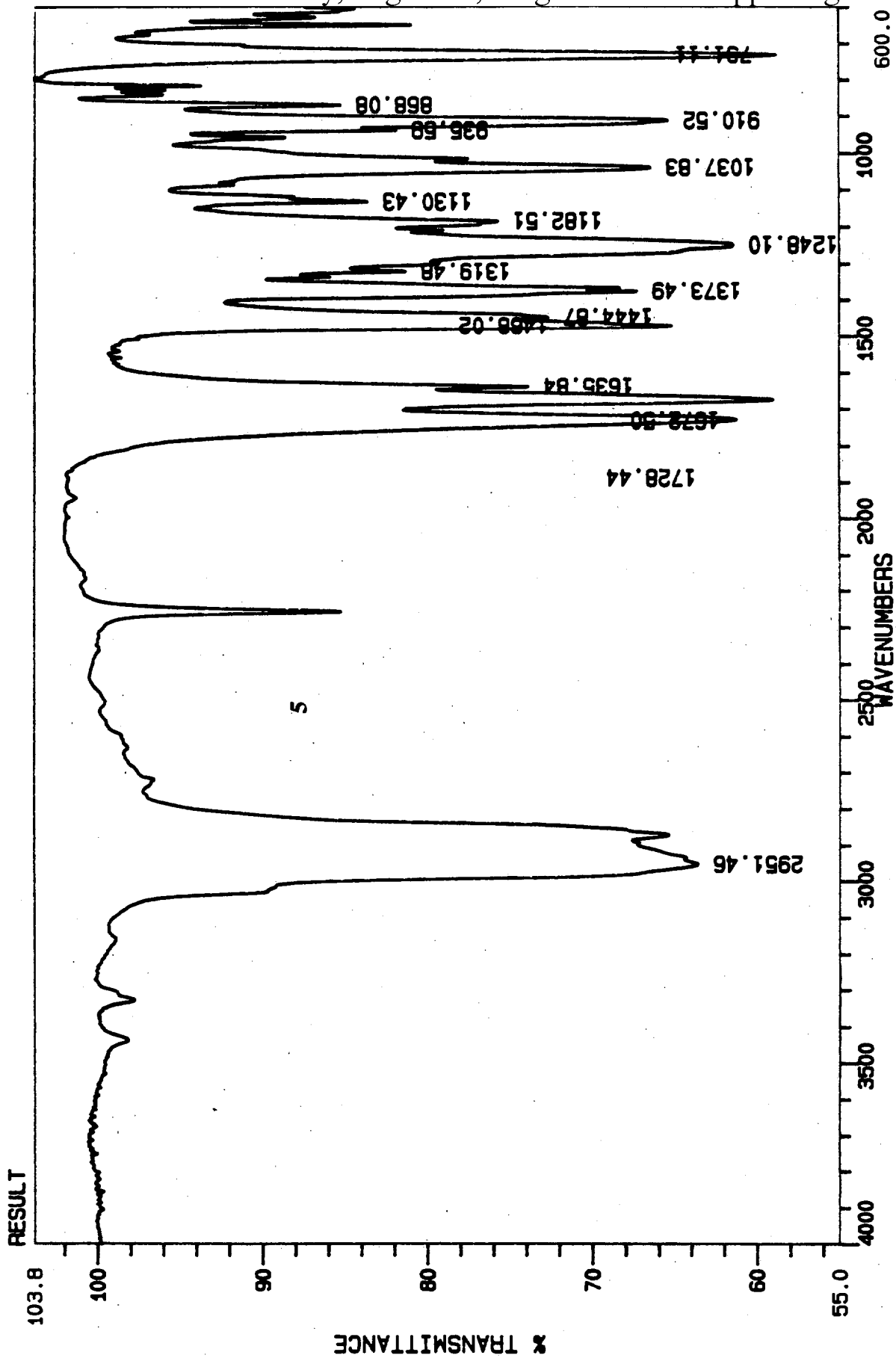
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 NAME TWJ-II-052
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 970114
 Time 16.39
 INSTRUM arcx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 46
 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 waltz16
 P31 105.00 usec
 D1 2.0000000 sec
 P1 7.50 usec
 DE 25.71 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

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

1D NMR plot parameters
 CX 20.00 cm
 FIP 218.428 ppm
 F1 21976.65 Hz
 F2P 3.288 ppm
 F2 330.83 Hz
 PPMCH 10.75699 ppm/cm
 HZCM 1082.29089 Hz/cm





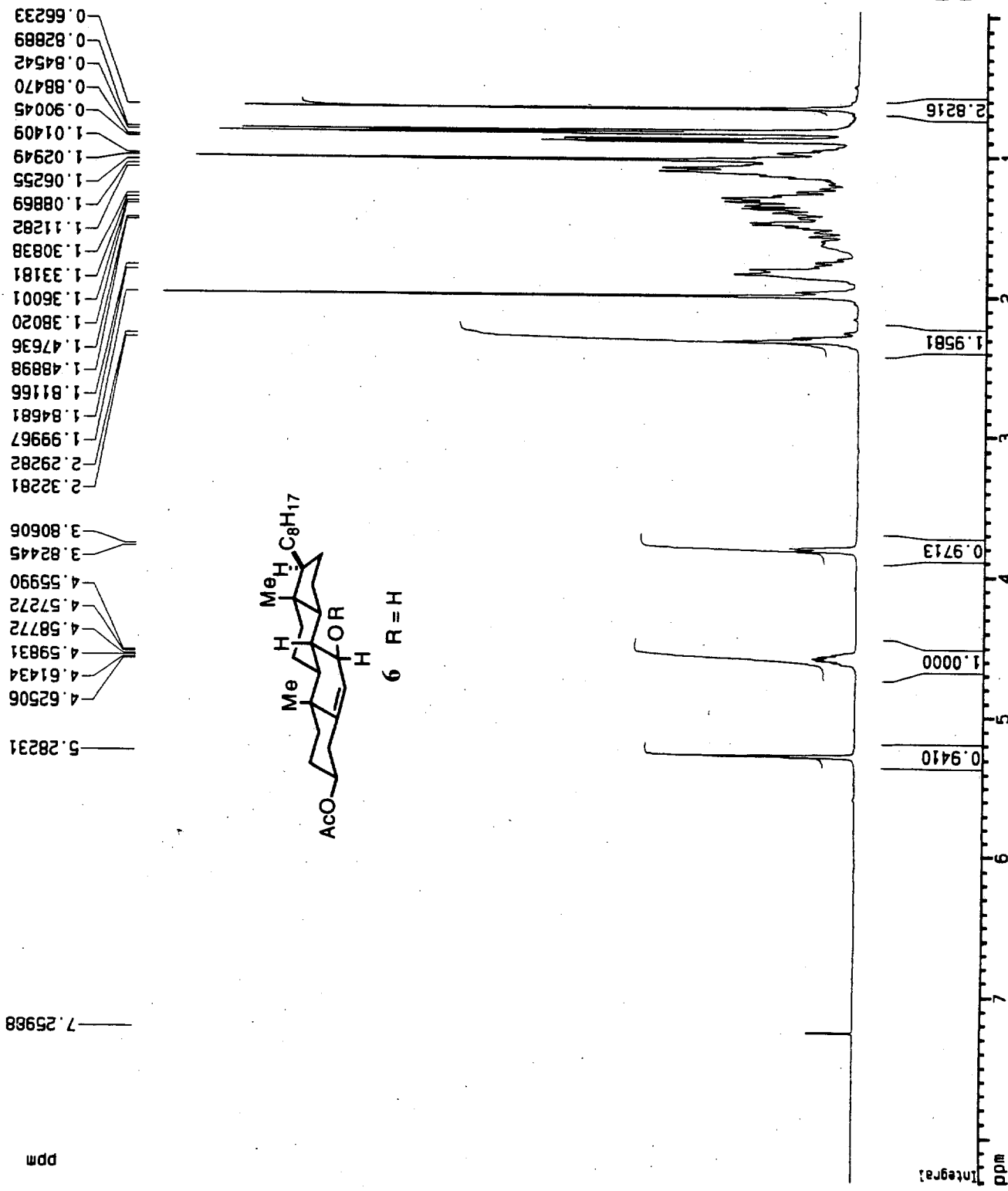
twj 02-55

Current Data Parameters
 NAME TWJ-II-055p
 EXPNO 1
 PROCNO 1

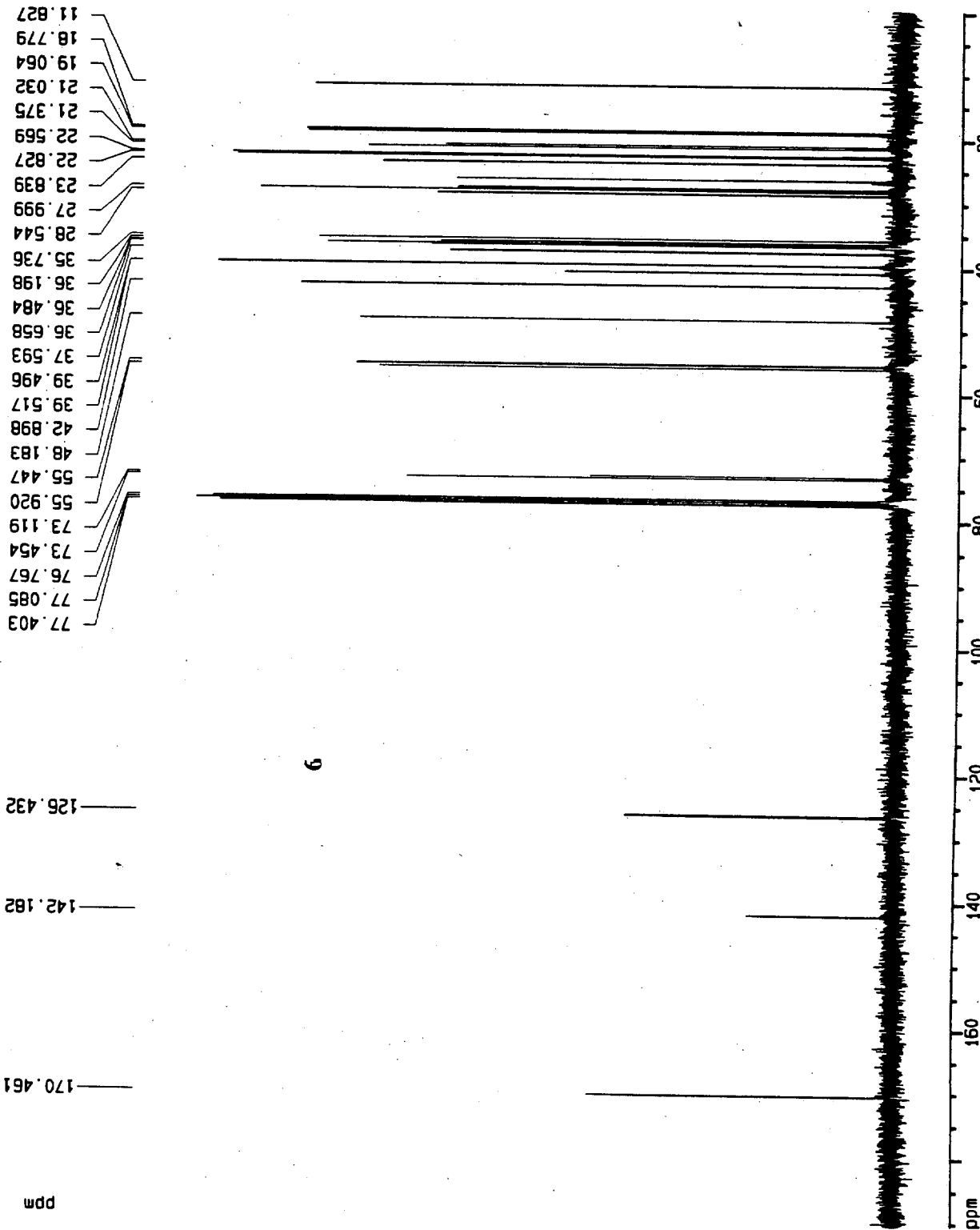
F2 - Acquisition Parameters
 Date_ 970115
 Time 16.59
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 90
 OW 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 O1 2.0000000 sec
 P1 8.00 usec
 DE 88.57 usec
 SF01 400.1324008 MHz
 NUCLEUS 1H

F2 - Processing parameters
 SI 65536
 SF 400.1300175 MHz
 NQW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 8.312 ppm
 F1 3325.75 Hz
 F2P -0.031 ppm
 F2 -12.56 Hz
 PPMCM 0.41715 ppm/cm
 HZCM 166.91556 Hz/cm



twj 02-55



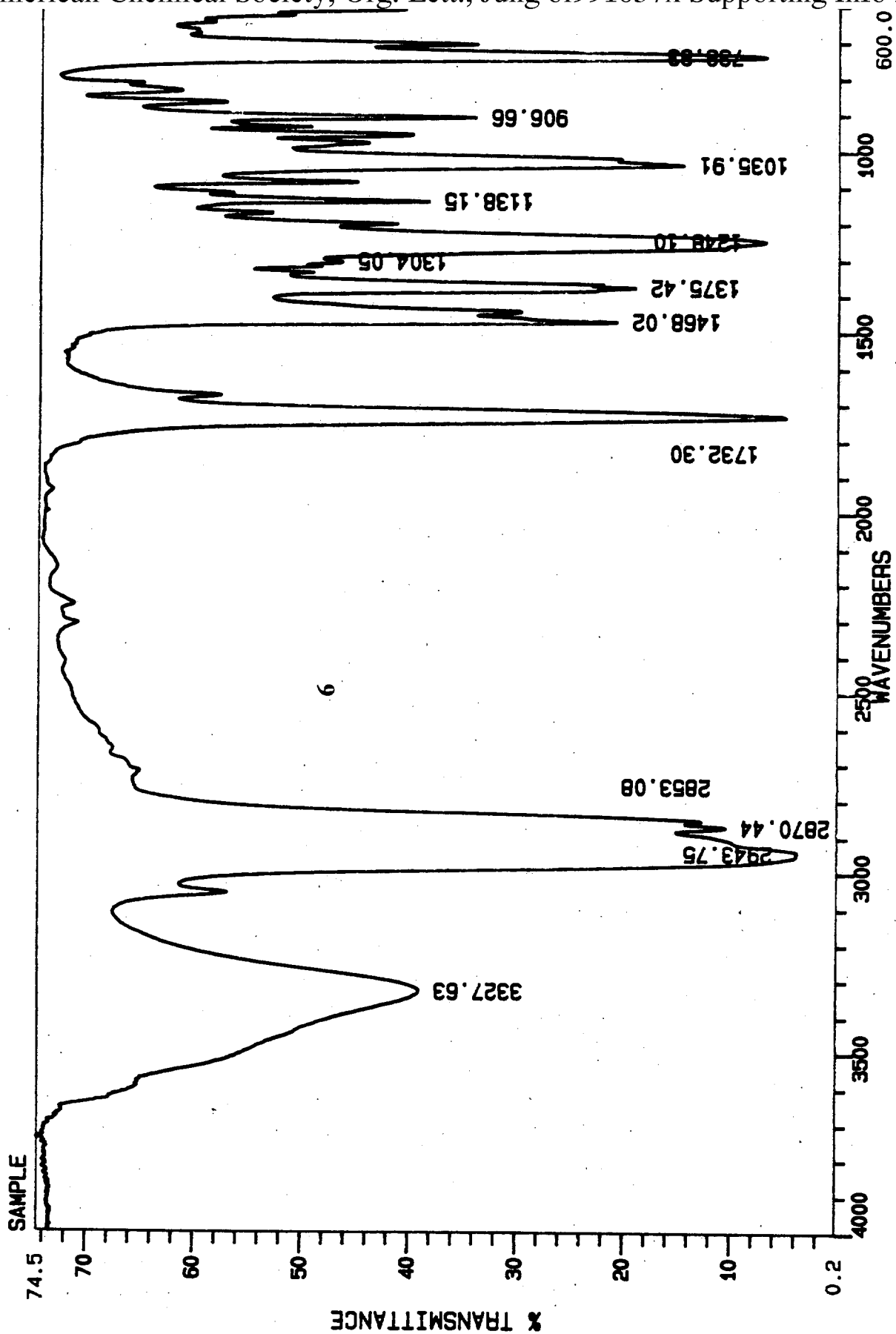
Current Data Parameters
 NAME TWJ-11-055p
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 970115
 Time 17.06
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 111
 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 7.50 usec
 DE 25.71 usec
 SFO1 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

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

1D NMR plot parameters
 CX 20.00 cm
 FIP 190.393 ppm
 F1 19155.94 Hz
 F2P -0.369 ppm
 F2 -37.09 Hz
 PPMCM 9.53807 ppm/cm
 HZCM 959.65161 Hz/cm

9



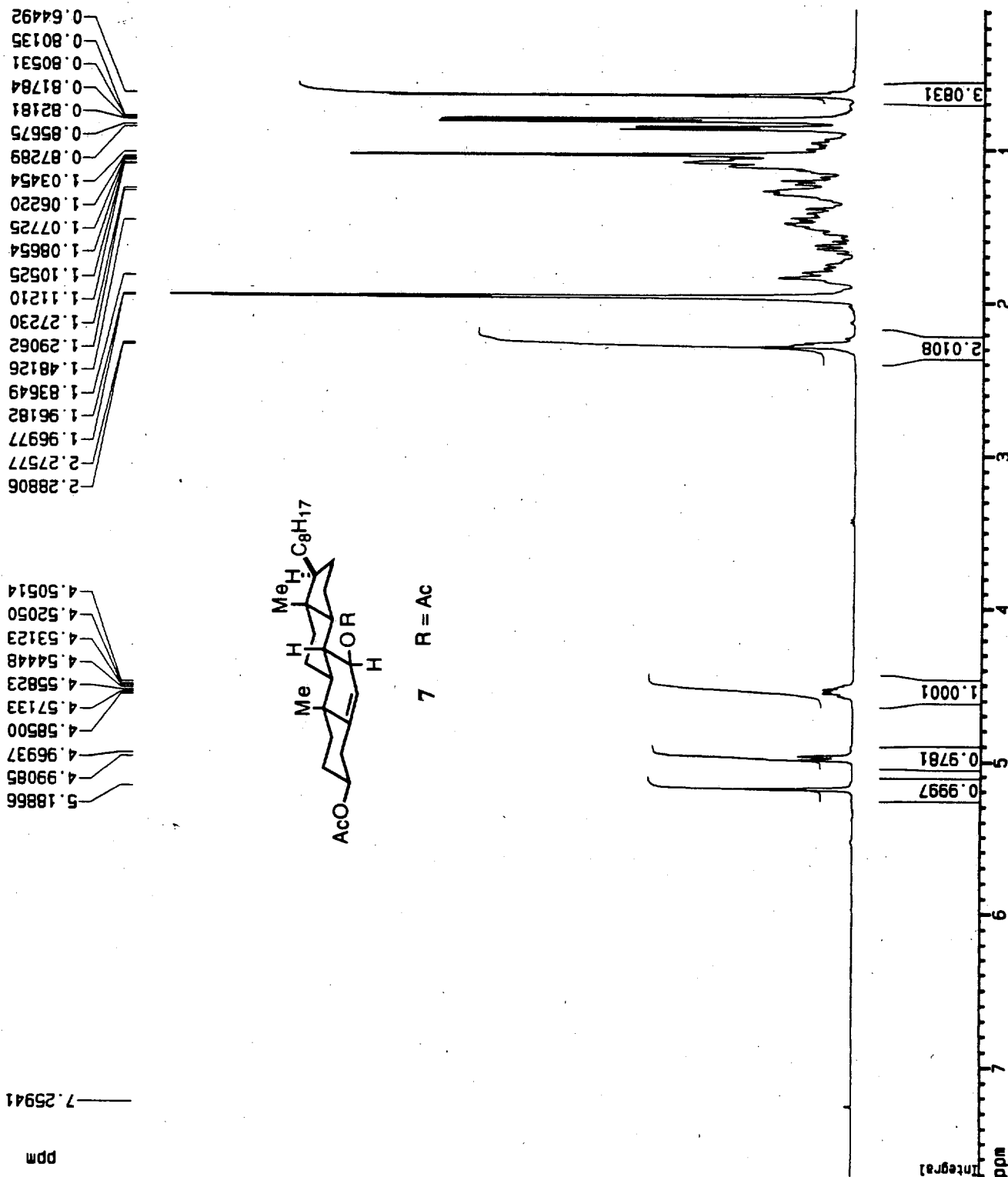
twj 03-27

Current Data Parameters
 NAME twj03-27
 EXPNO 1
 PROCNO 1

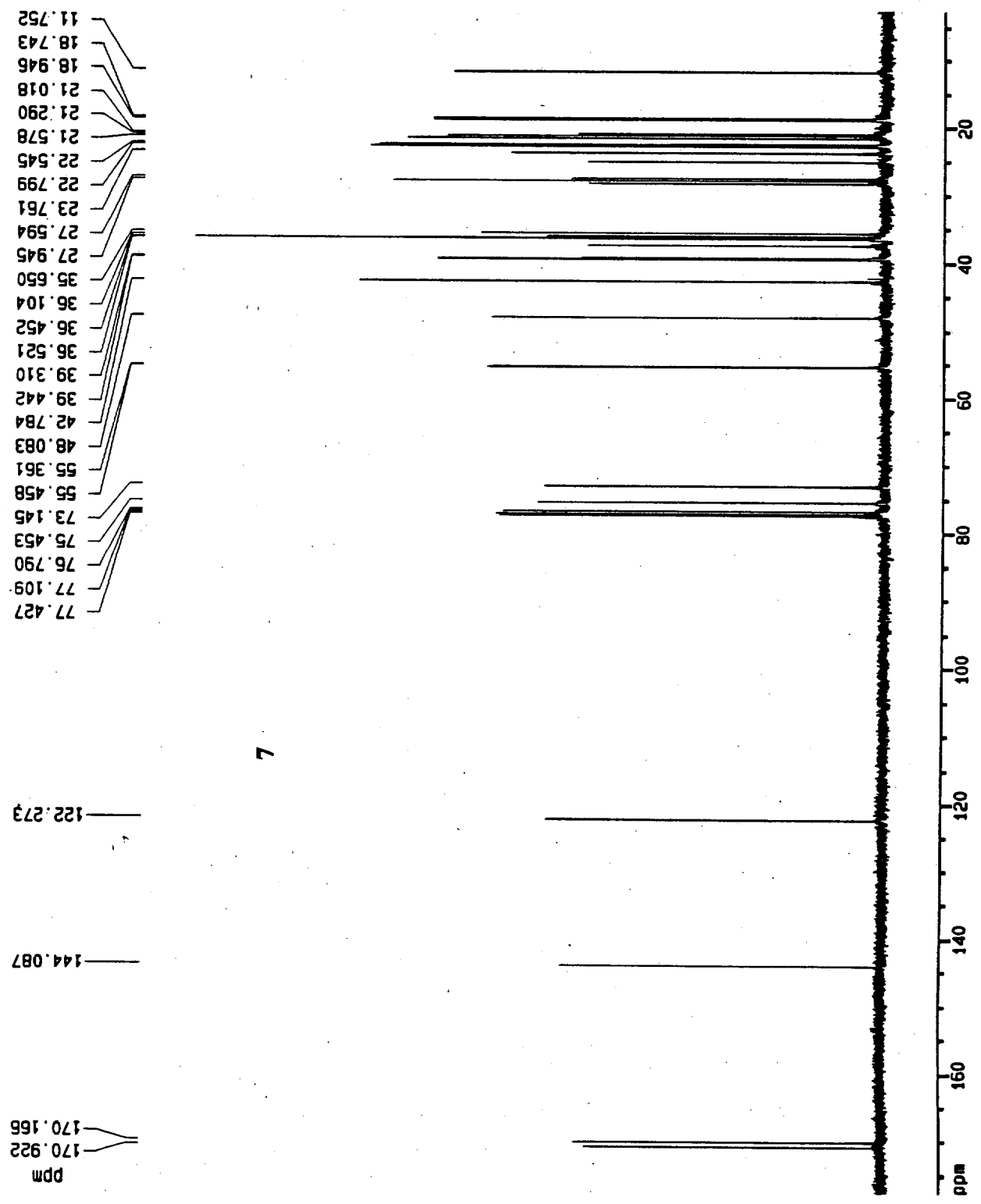
F2 - Acquisition Parameters
 Date_ 980415
 Time 14.00
 INSTRUM apx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 0
 SMH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 64
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.0000000 sec
 P1 7.00 usec
 DE 88.57 usec
 SFO1 400.1324008 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 7.710 ppm
 F1 3085.13 Hz
 F2P 0.085 ppm
 F2 33.94 Hz
 PPMCM 0.38128 ppm/cm
 HZCM 152.55978 Hz/cm



twj 03-27



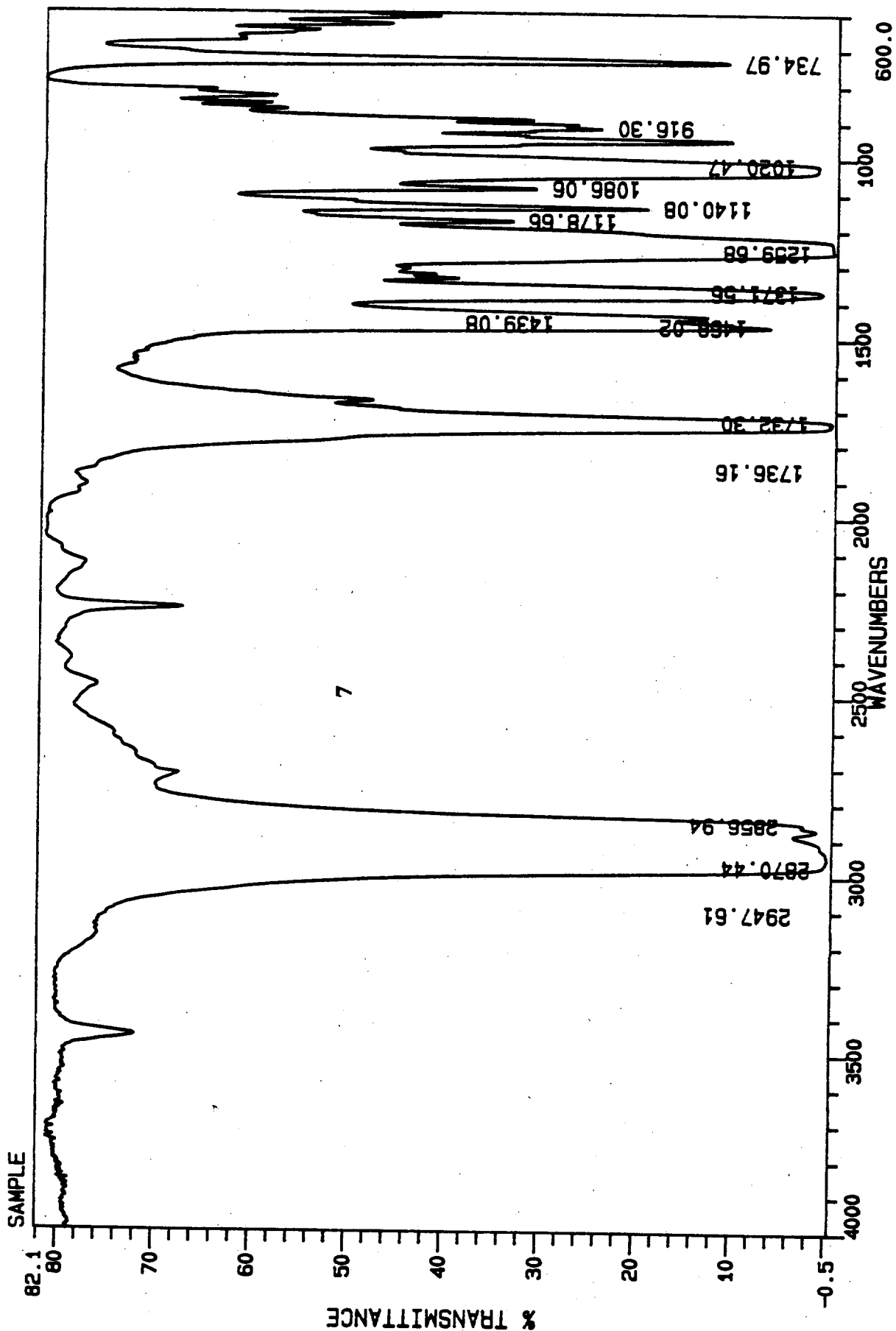
Current Data Parameters
 NAME twj03-27
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 980415
 Time 14.08
 INSTRUM apx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 137
 DS 0
 SMH 27777.777 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 2.0000000 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
 MDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 177.569 ppm
 F1 17865.76 Hz
 F2P 2.694 ppm
 F2 271.09 Hz
 PPMCH B.74375 ppm/cm
 HZCM 679.73340 Hz/cm

7

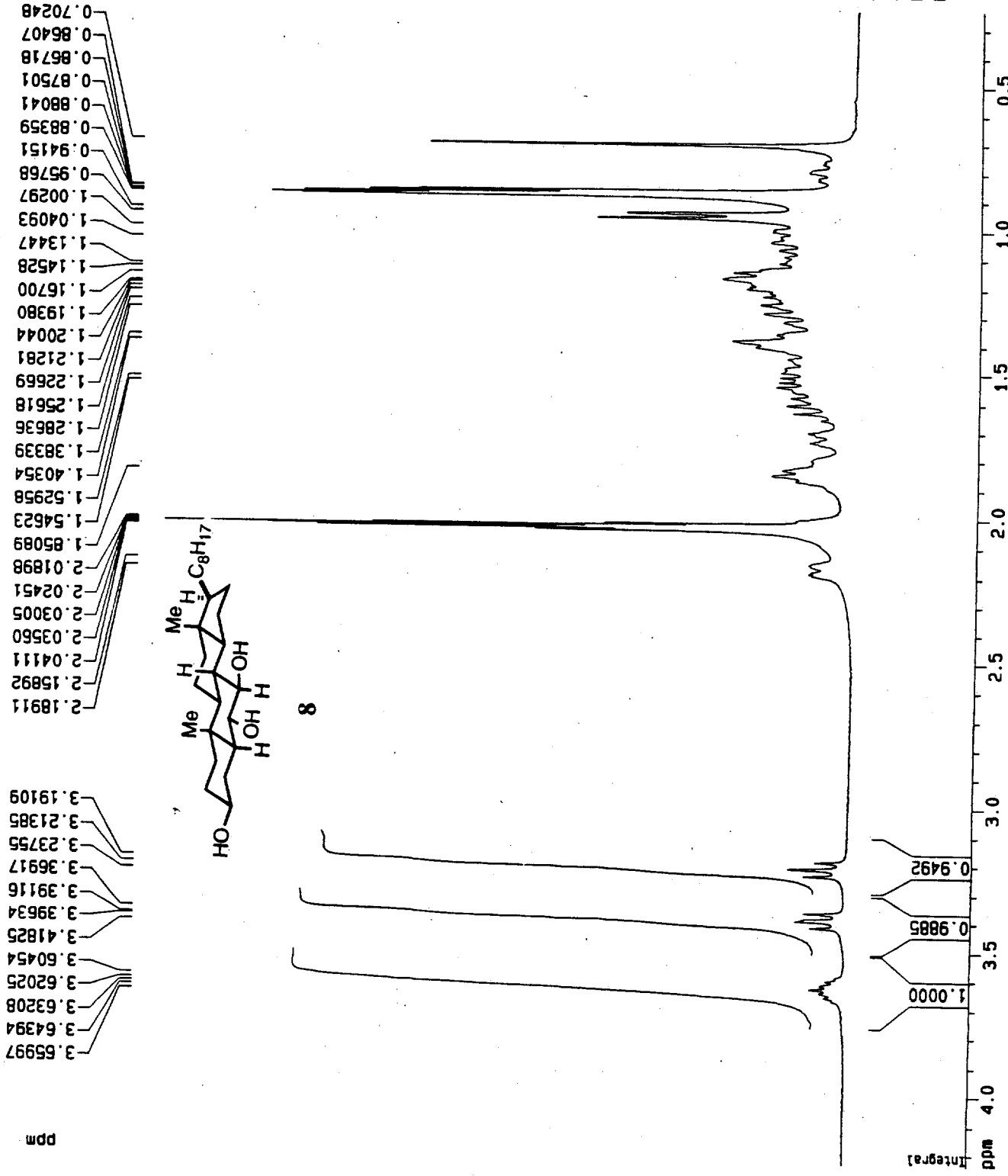


Current Data Parameters
 NAME triol
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 981028
 Time 16.06
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPRDG 2930
 TD 65536
 SOLVENT Aceton
 NS 8
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 715
 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 400.1300181 MHz
 MDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 4.236 ppm
 F1 1694.87 Hz
 F2P 0.233 ppm
 F2 93.23 Hz
 PPMCM 0.20014 ppm/cm
 HZCM 80.08215 Hz/cm



ppm

3.65997
 3.64394
 3.63208
 3.62025
 3.60454
 3.41825
 3.39634
 3.39116
 3.36917
 3.23755
 3.21385
 3.19109

2.18911
 2.15892
 2.04111
 2.03560
 2.03005
 2.02451
 2.01898
 1.85089
 1.54623
 1.52958
 1.40354
 1.38339
 1.28636
 1.25618
 1.22669
 1.21281
 1.20044
 1.19380
 1.16700
 1.14528
 1.13447
 1.04093
 1.00297
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 0.88041
 0.87501
 0.86718
 0.86407
 0.70248

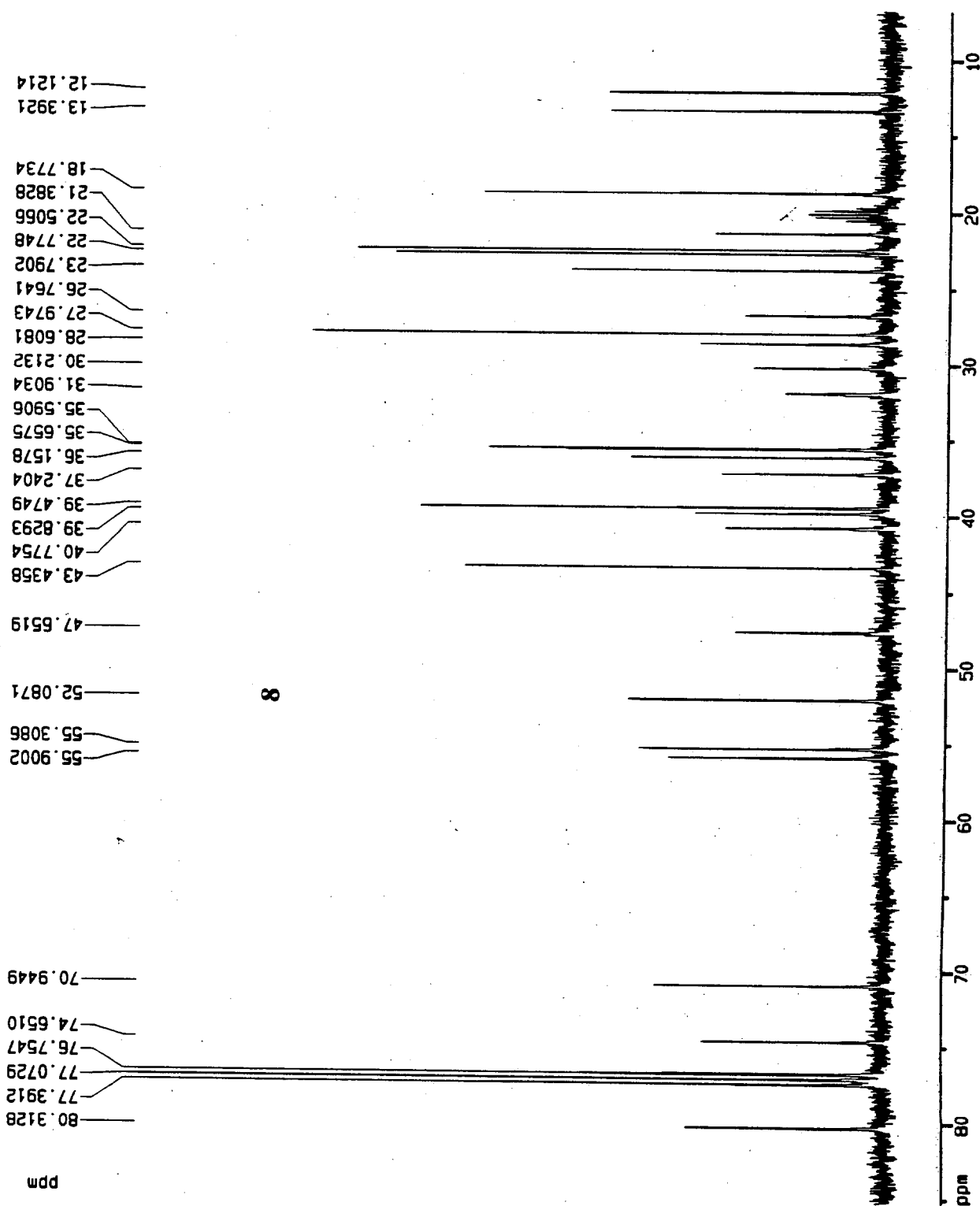
Current Data Parameters
 NAME twj03-31pure
 EXPNO 2
 PROCNO 1

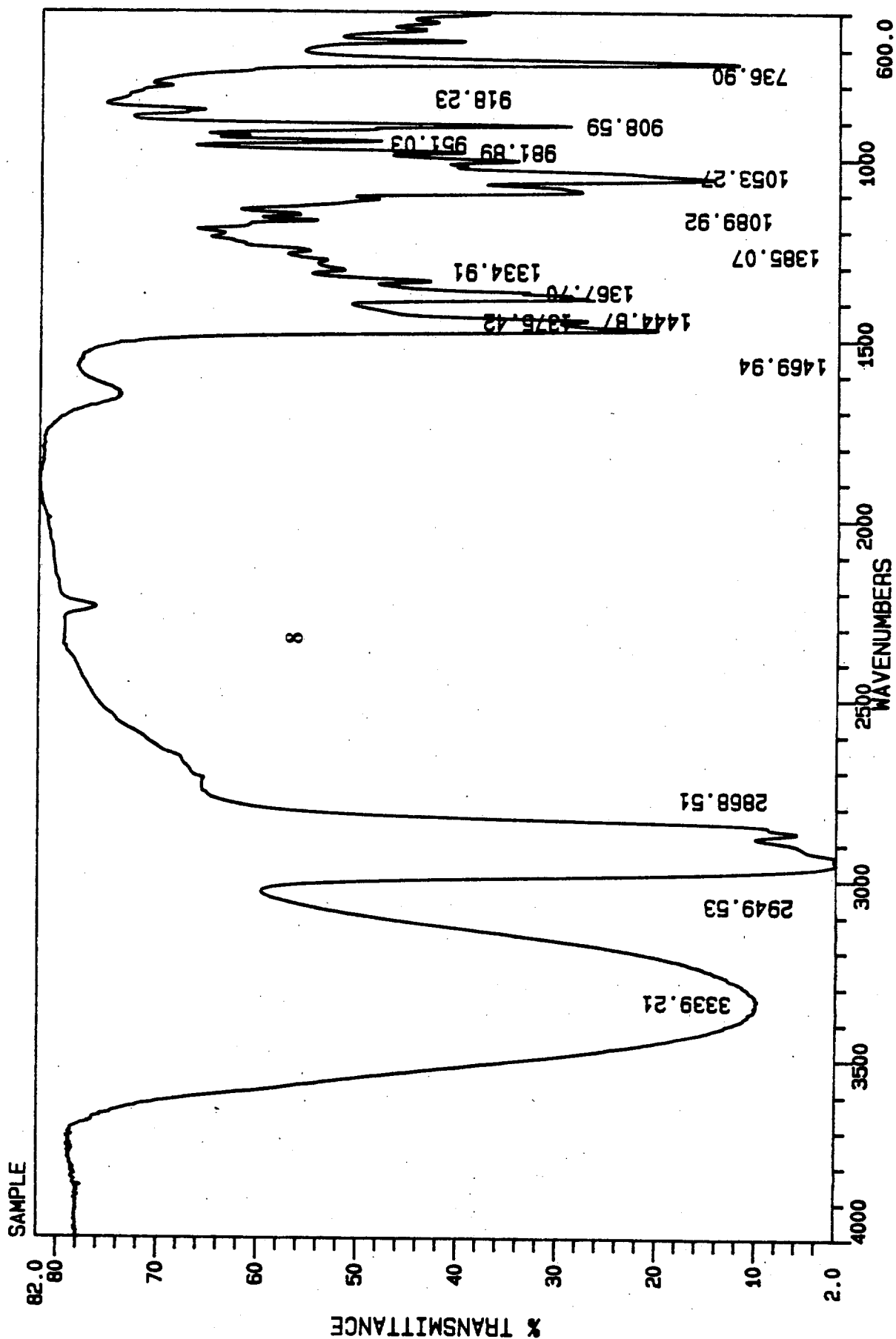
F2 - Acquisition Parameters
 Date_ 980428
 Time 14.42
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 177
 DS 0
 SWH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 DM 18.000 usec
 OE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 DL5 24.00 dB
 CPDPRG Waltz16
 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
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 FIP 85.231 ppm
 F1 8575.33 Hz
 F2P 6.767 ppm
 F2 680.83 Hz
 PPMCH 3.92321 ppm/cm
 HZCM 394.72504 Hz/cm

twj 03-31





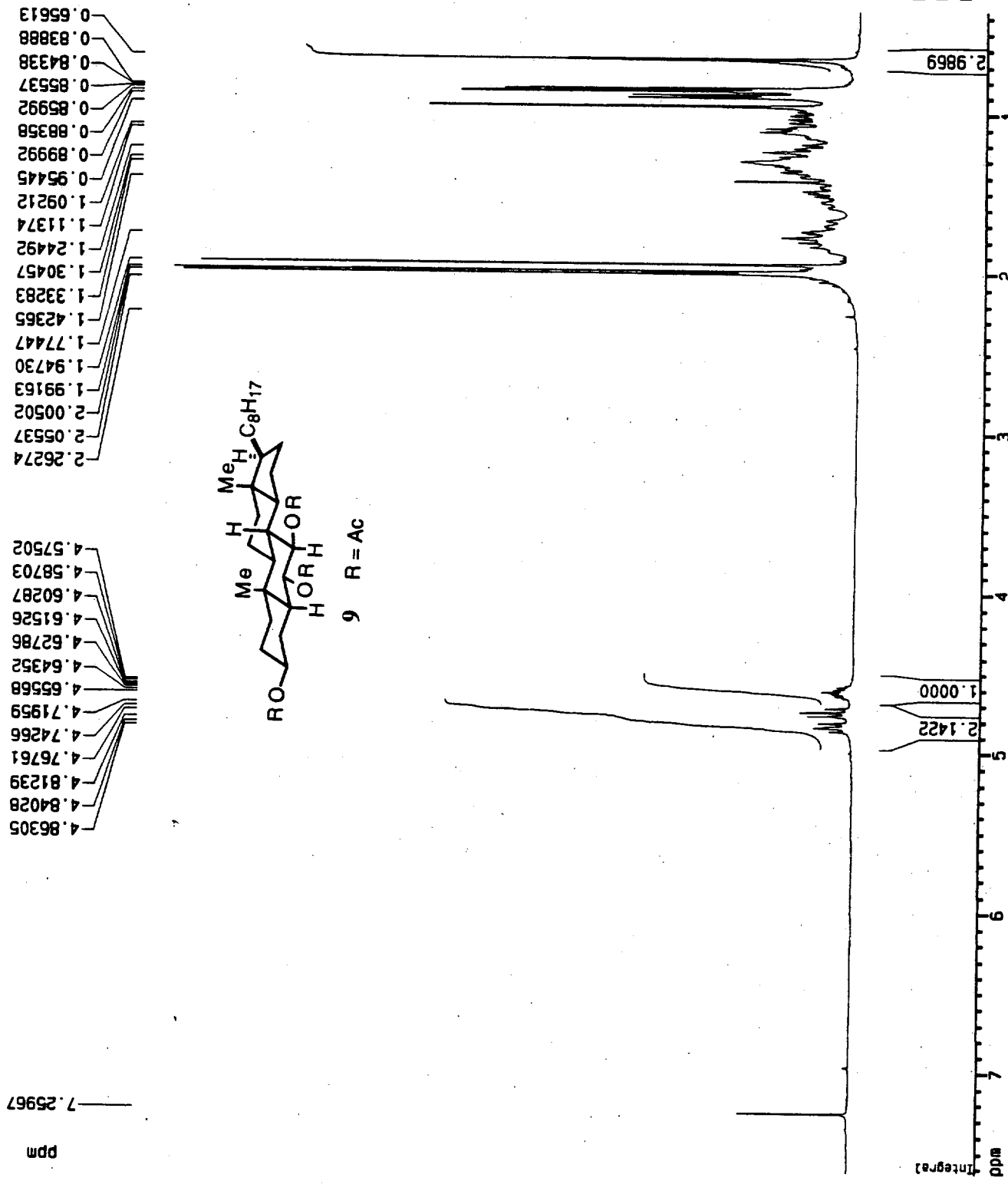
twj 03-49

Current Data Parameters
 NAME twj03-49
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 980710
 Time 12.08
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TO 65536
 SOLVENT CDC13
 NS 8
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 360
 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
 WDWH EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 7.631 ppm
 F1 3053.23 Hz
 F2P 0.359 ppm
 F2 143.61 Hz
 PPMCM 0.36358 ppm/cm
 HZCM 145.48105 Hz/cm



4.86305
 4.84028
 4.81239
 4.76761
 4.74266
 4.71959
 4.65568
 4.64352
 4.62786
 4.61526
 4.60287
 4.58703
 4.57502

2.26274
 2.05537
 2.00502
 1.99163
 1.94730
 1.77447
 1.42365
 1.33283
 1.30457
 1.24492
 1.11374
 1.09212
 0.95445
 0.89992
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 0.85992
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 0.83888
 0.65613

ppm
 7.25967

Integral
 ppm

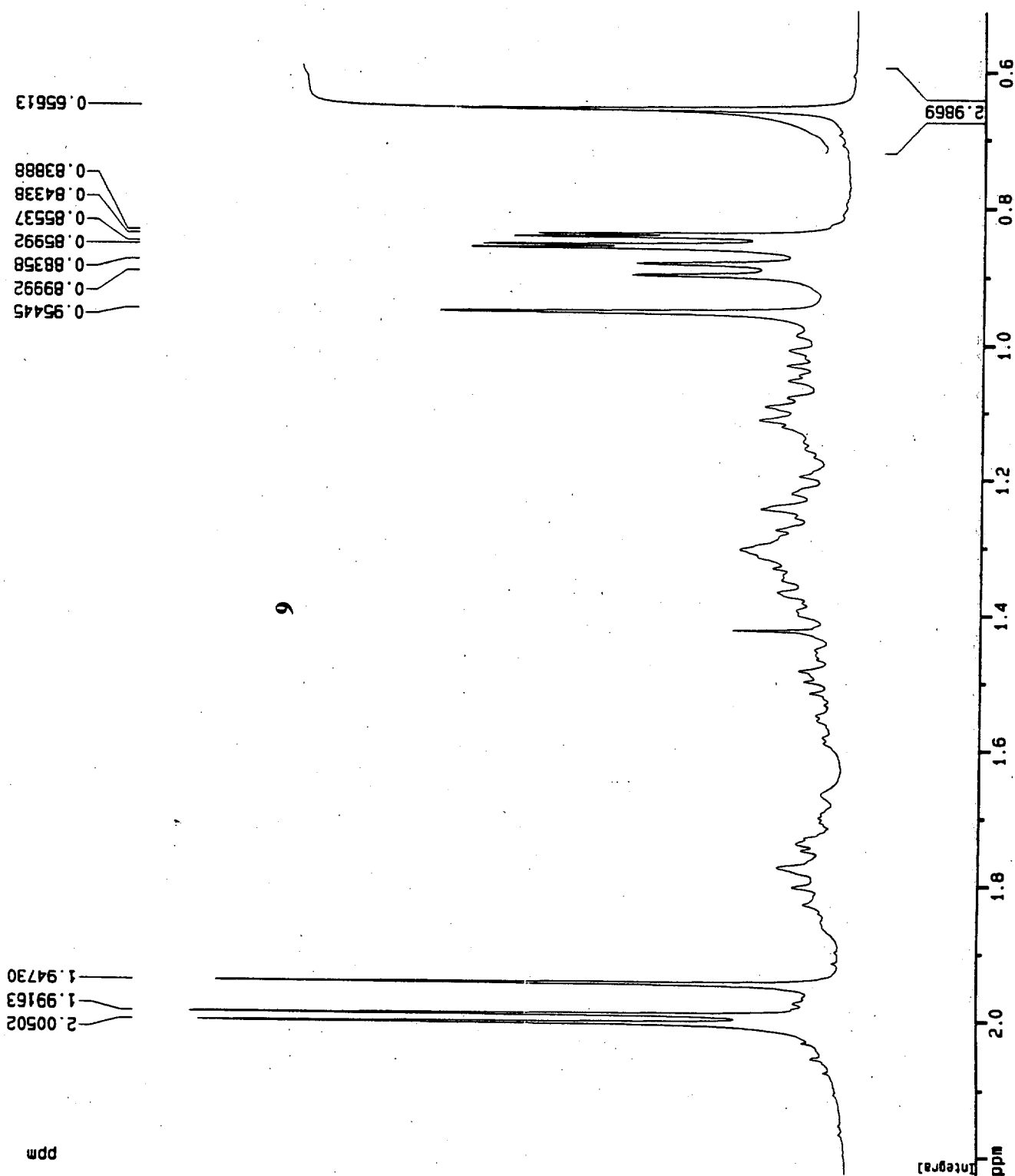
twj 03-49

Current Data Parameters
 NAME twj03-49
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 980710
 Time 12.08
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TO 65536
 SOLVENT CDC13
 NS 8
 OS 0
 SMH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 360
 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 EM
 SS8 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 2.224 ppm
 F1 889.91 Hz
 F2P 0.511 ppm
 F2 204.33 Hz
 PPMCM 0.08567 ppm/cm
 HZCM 34.27926 Hz/cm



9

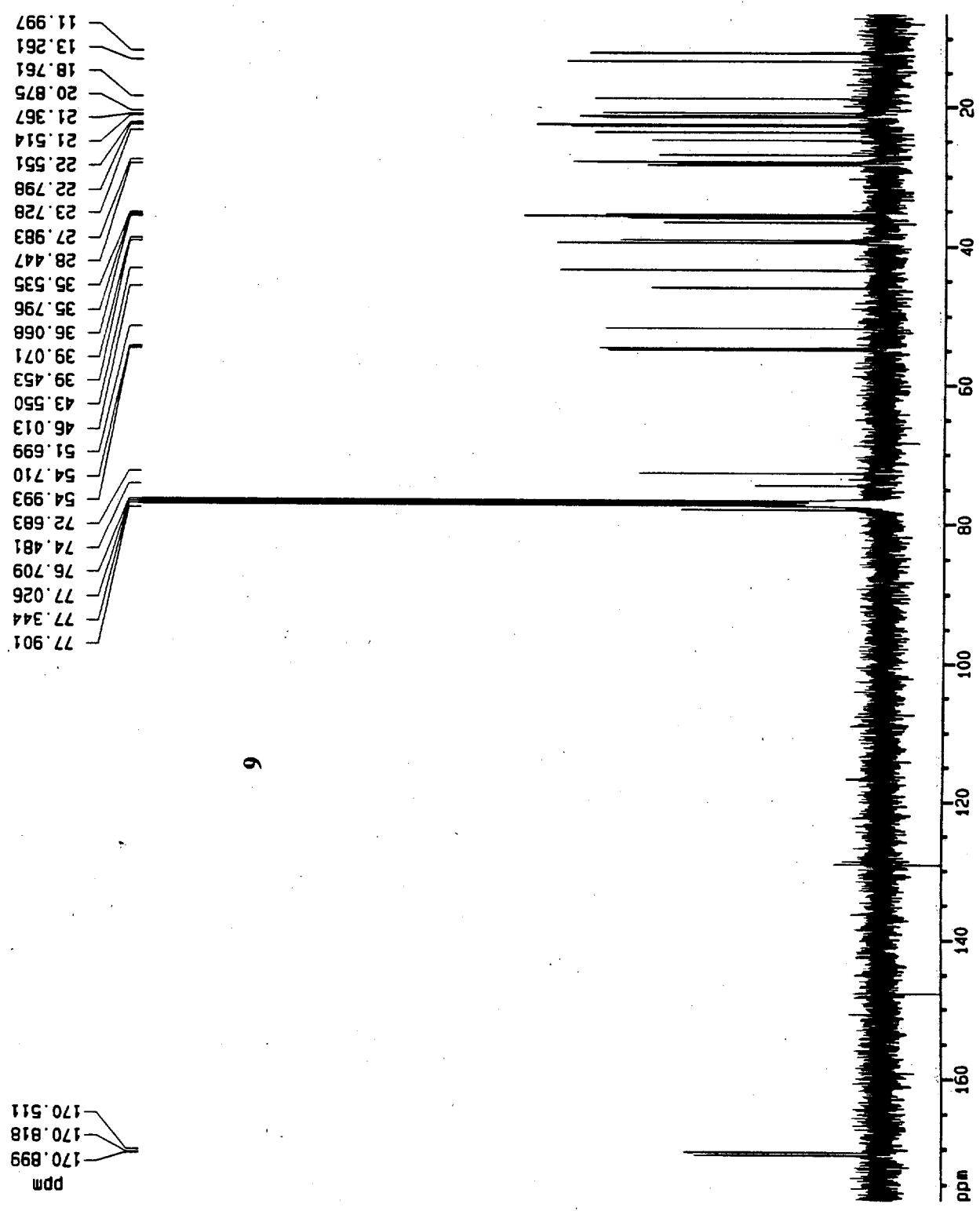
twj 03-49

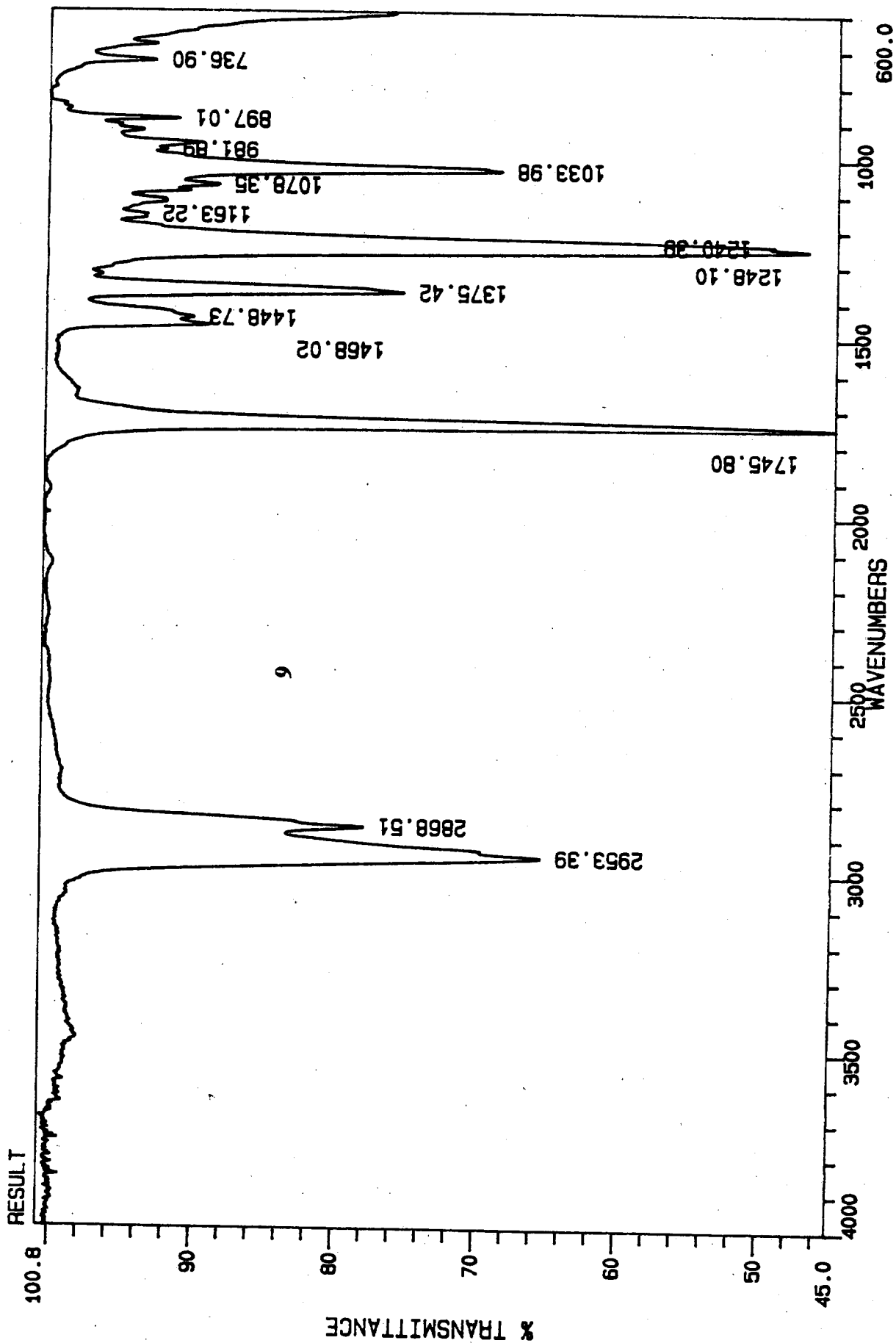
Current Data Parameters
 NAME twj03-49
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
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 Time 12.16
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 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 587
 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 waitz16
 P31 100.00 usec
 D1 2.0000000 sec
 P1 6.25 usec
 DE 25.71 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
 SI 85536
 SF 100.6127710 MHz
 WDM EM
 SS8 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 177.202 ppm
 F1 17828.81 Hz
 F2P 6.475 ppm
 F2 651.50 Hz
 PPMCH 8.53635 ppm/cm
 HZCM 858.86536 Hz/cm





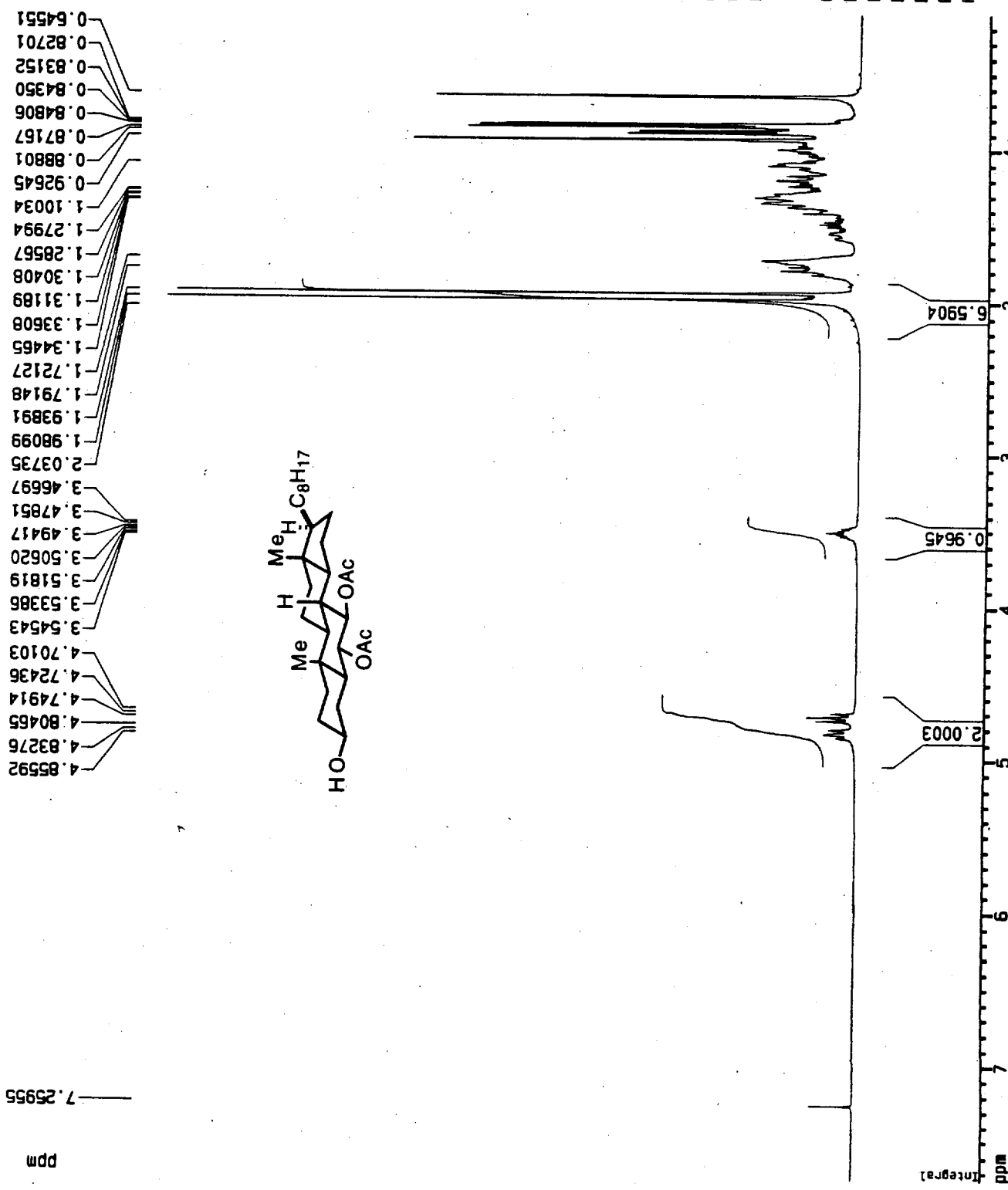
twj 03-51

Current Data Parameters
 NAME twj03-51
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 980707
 Time 10.37
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TO 65536
 SOLVENT CDCl3
 NS 8
 DS 0
 SMH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 180
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.00000000 sec
 P1 8.25 usec
 DE 88.57 usec
 SFO1 400.132408 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
 FIP 7.752 ppm
 F1 3101.81 Hz
 F2P 0.106 ppm
 F2 42.52 Hz
 PPMCM 0.38229 ppm/cm
 HZCM 152.96449 Hz/cm



7.25955
 ppm

Integral
 ppm

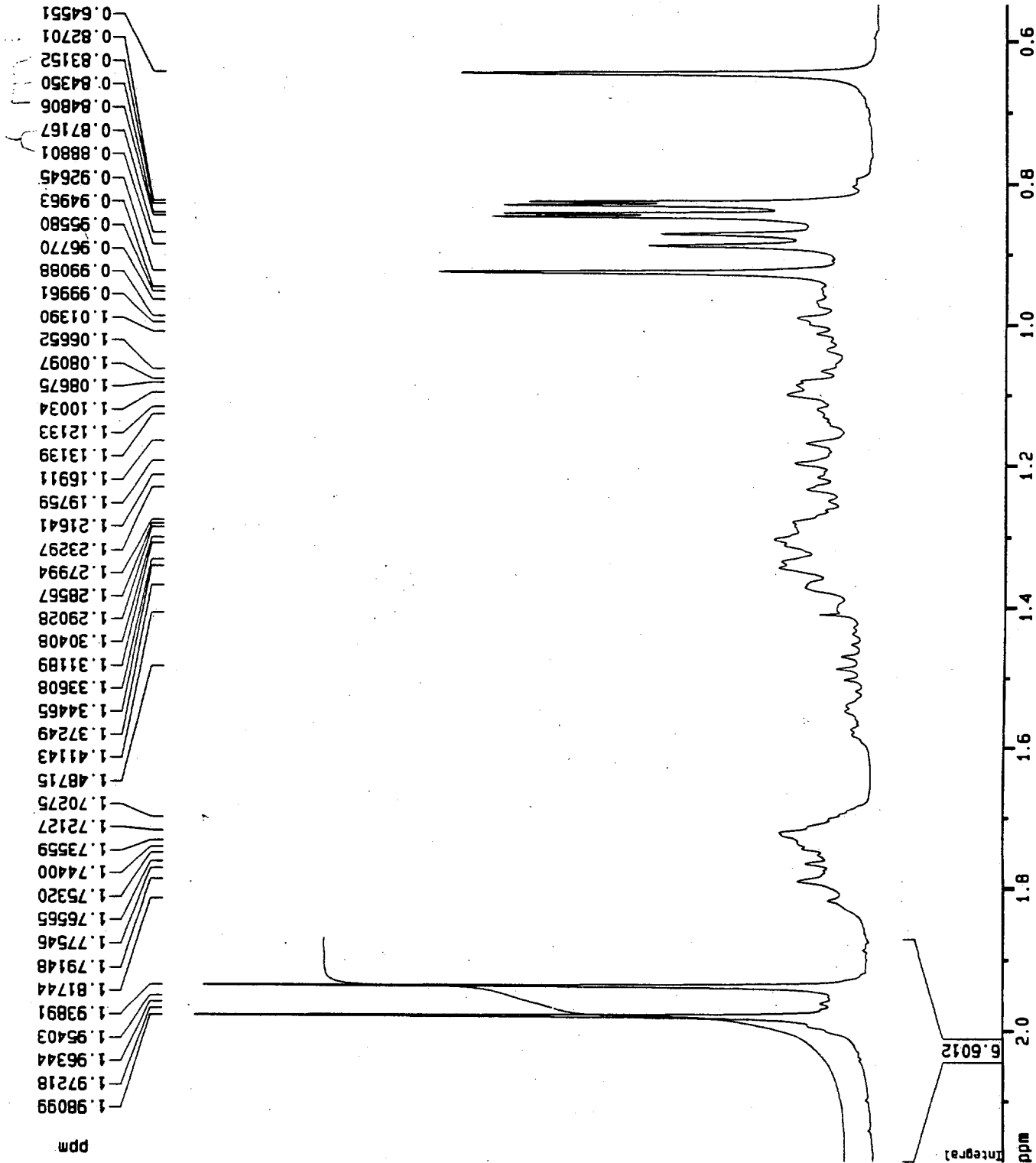
twj 03-51

Current Data Parameters
 NAME twj03-51
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 980707
 Time 10.37
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 180
 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
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 2.184 ppm
 F1 874.01 Hz
 F2P 0.547 ppm
 F2 218.81 Hz
 PPMCM 0.08187 ppm/cm
 MZCM 32.76022 Hz/cm



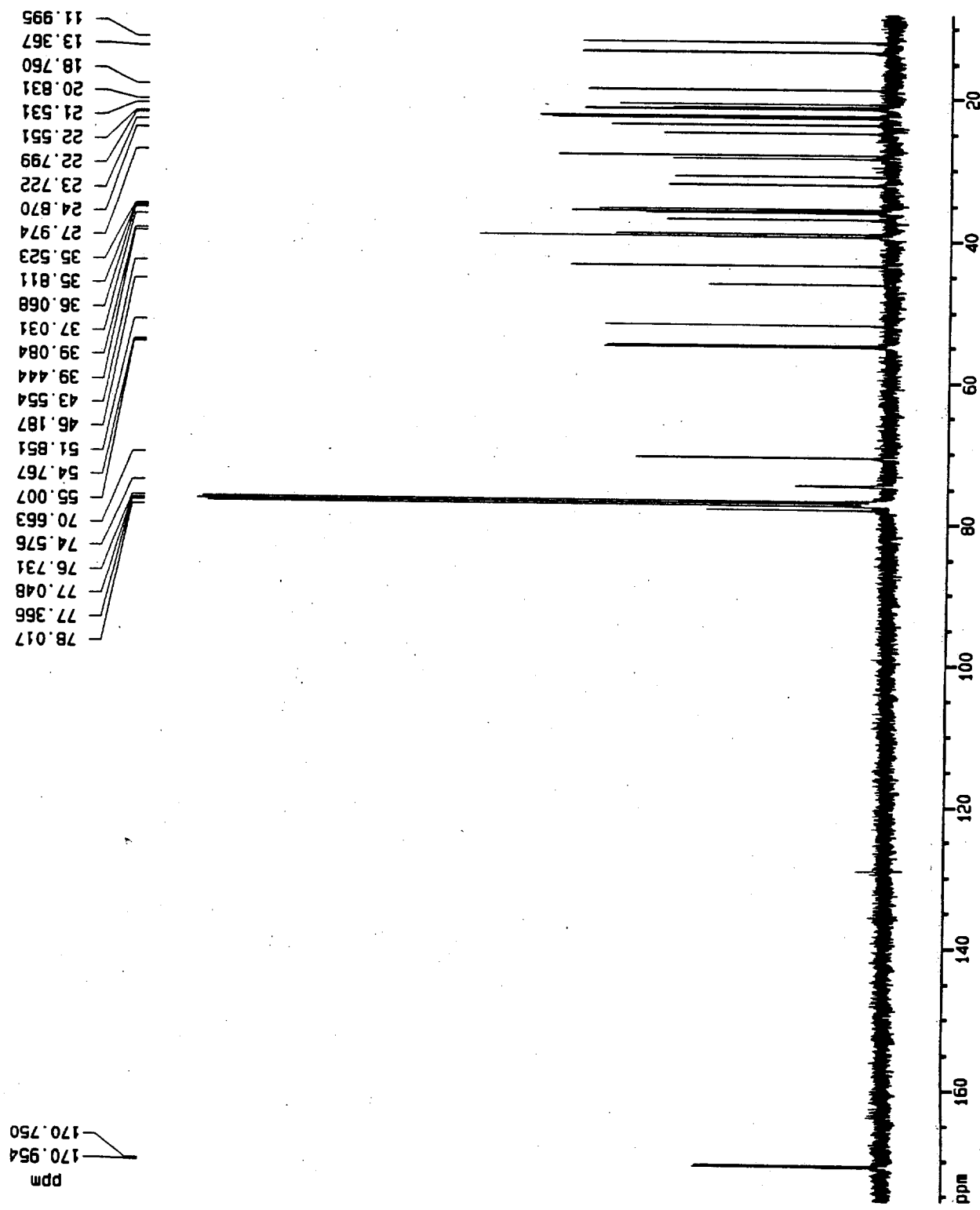
twj 03-51

Current Data Parameters
 NAME twj03-51
 EXPNO 2
 PROCNO 1

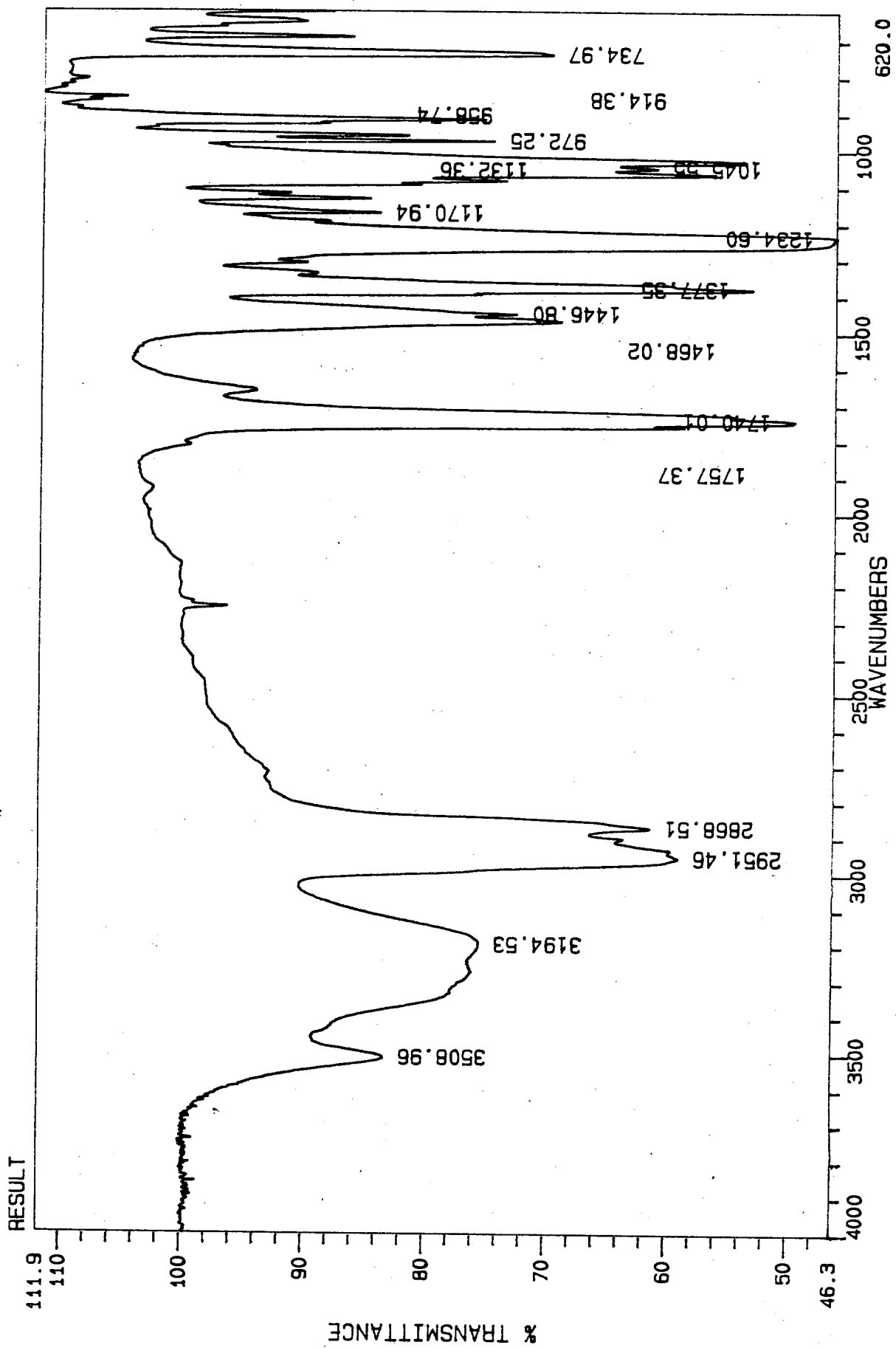
F2 - Acquisition Parameters
 Date_ 980707
 Time 10.49
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 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 297
 DS 0
 SMH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 D12 0.0000200 sec
 DL5 23.50 dB
 CPOPRG waltz16
 P31 100.00 usec
 P1 2.00000000 sec
 P1 6.25 usec
 DE 25.71 usec
 SFO1 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

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

1D NMR plot parameters
 CX 20.00 cm
 FIP 175.850 ppm
 F1 17692.79 Hz
 F2P 7.990 ppm
 F2 803.89 Hz
 PPMOH 8.39302 ppm/cm
 HZCM 844.44476 Hz/cm



1W 03 51



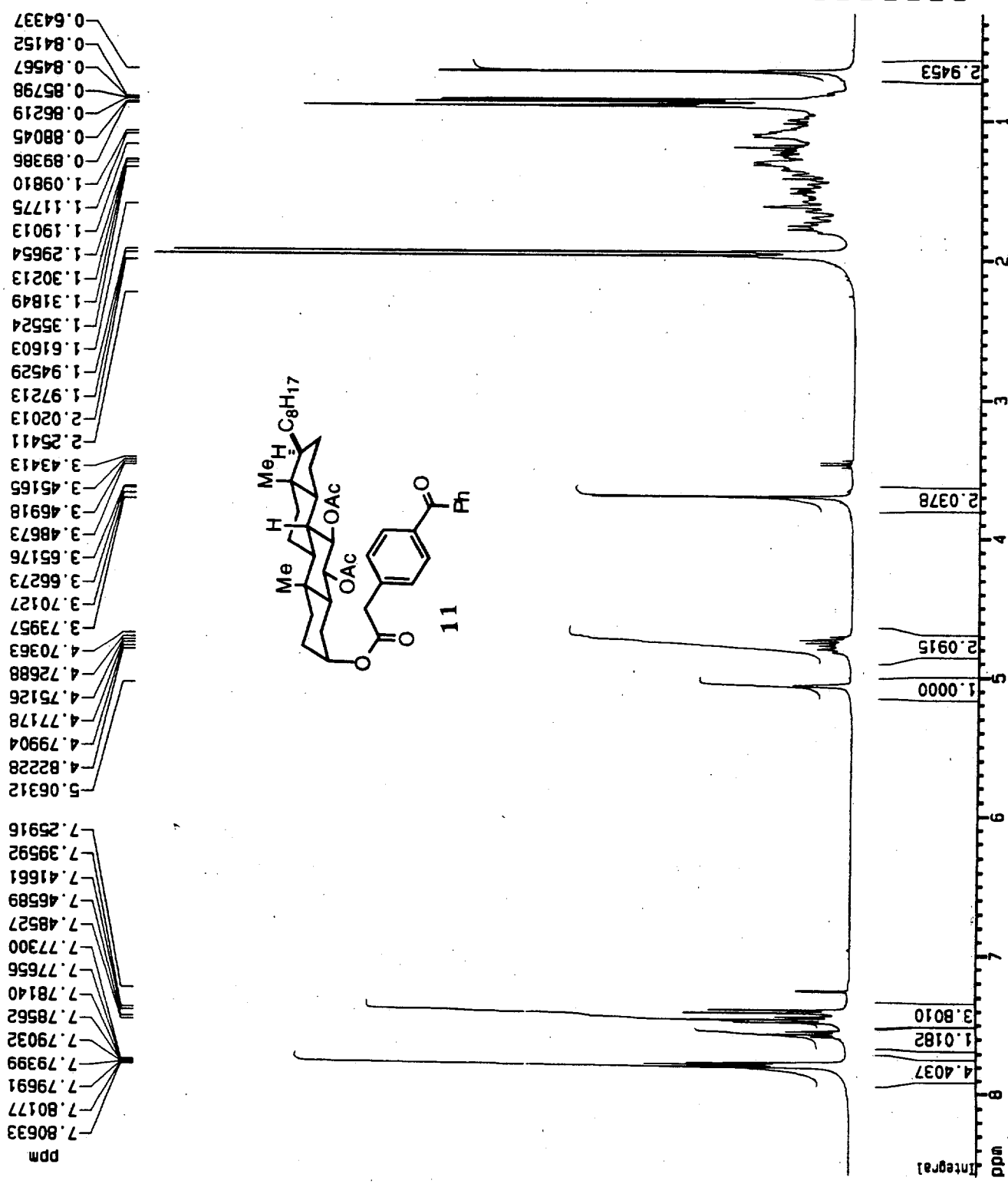
twj 03-52

Current Data Parameters
 NAME twj03-52
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 980710
 Time 12.48
 INSTRUM apr400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 180
 DW 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 O1 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 EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 8.575 ppm
 F1 3431.17 Hz
 F2P 0.225 ppm
 F2 89.97 Hz
 PPMCM 0.41751 ppm/cm
 HZCM 167.05994 Hz/cm



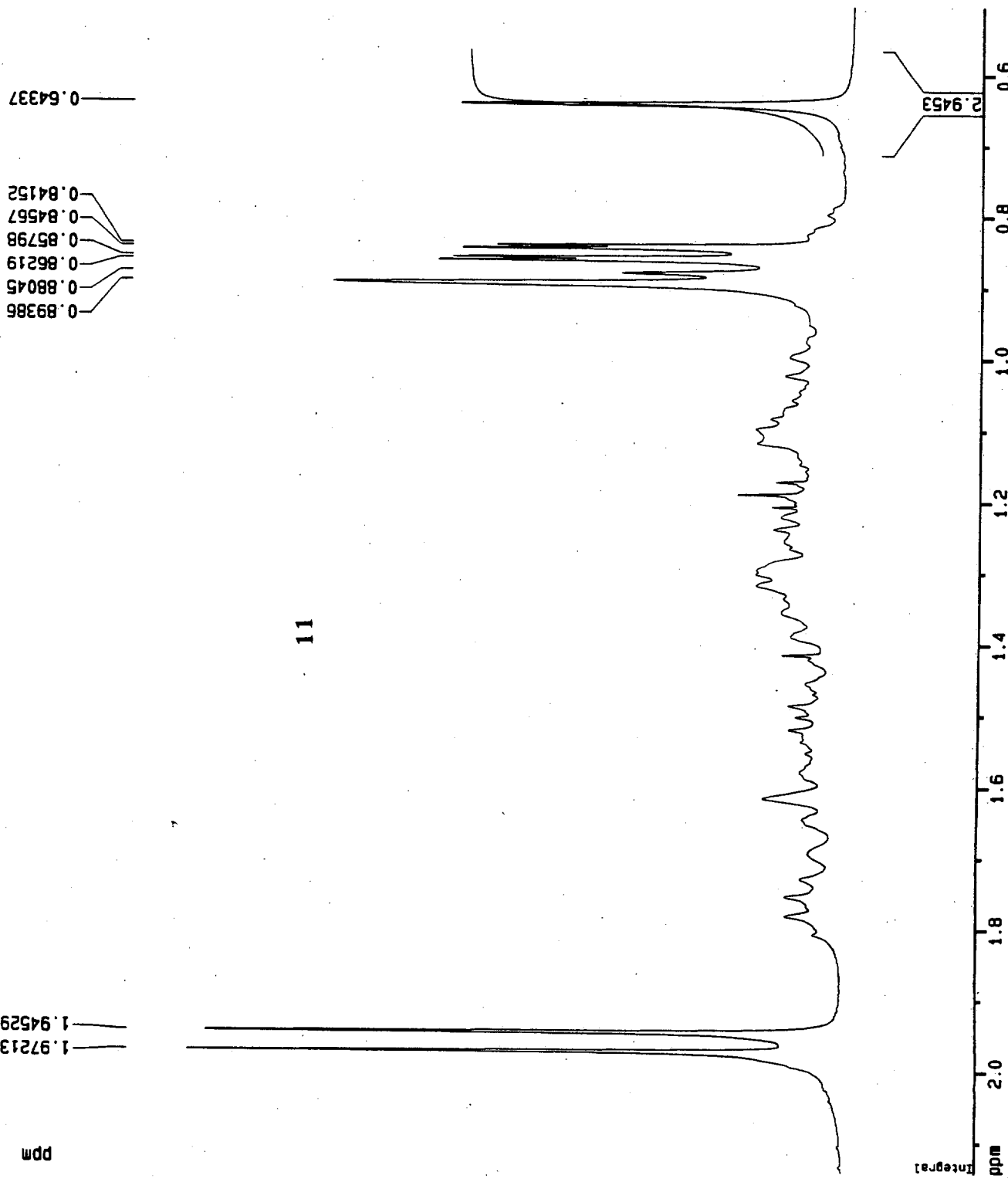
twj 03-52

Current Data Parameters
 NAME twj03-52
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 980710
 Time 12.48
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 180
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 O1 2.00000000 sec
 P1 8.25 usec
 DE 88.57 usec
 SF01 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 2.142 ppm
 F1 856.96 Hz
 F2P 0.504 ppm
 F2 201.60 Hz
 PPMCM 0.08189 ppm/cm
 HZCM 32.76831 Hz/cm



11

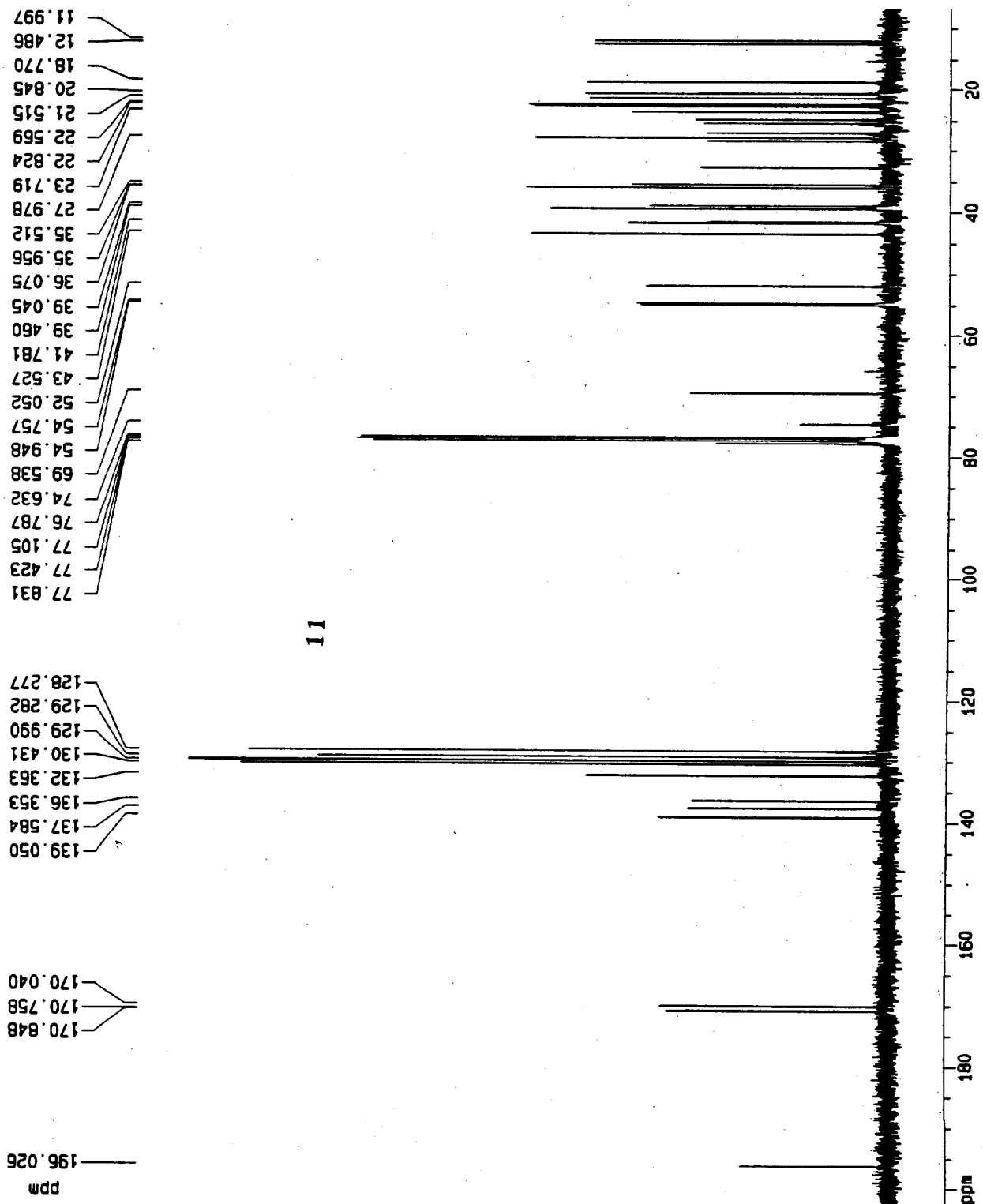
twj 03-121

Current Data Parameters
 NAME twj03-121
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 981119
 Time 14.20
 INSTRUM spx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 197
 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 waitz16
 P31 100.00 usec
 D1 2.00000000 sec
 P1 6.25 usec
 SF01 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
 SI 65536
 SF 100.6127710 MHz
 HDW EM
 SS8 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 202.374 ppm
 F1 20361.38 Hz
 F2P 6.825 ppm
 F2 686.63 Hz
 PPMCH 9.77746 ppm/cm
 WZCM 983.73706 Hz/cm



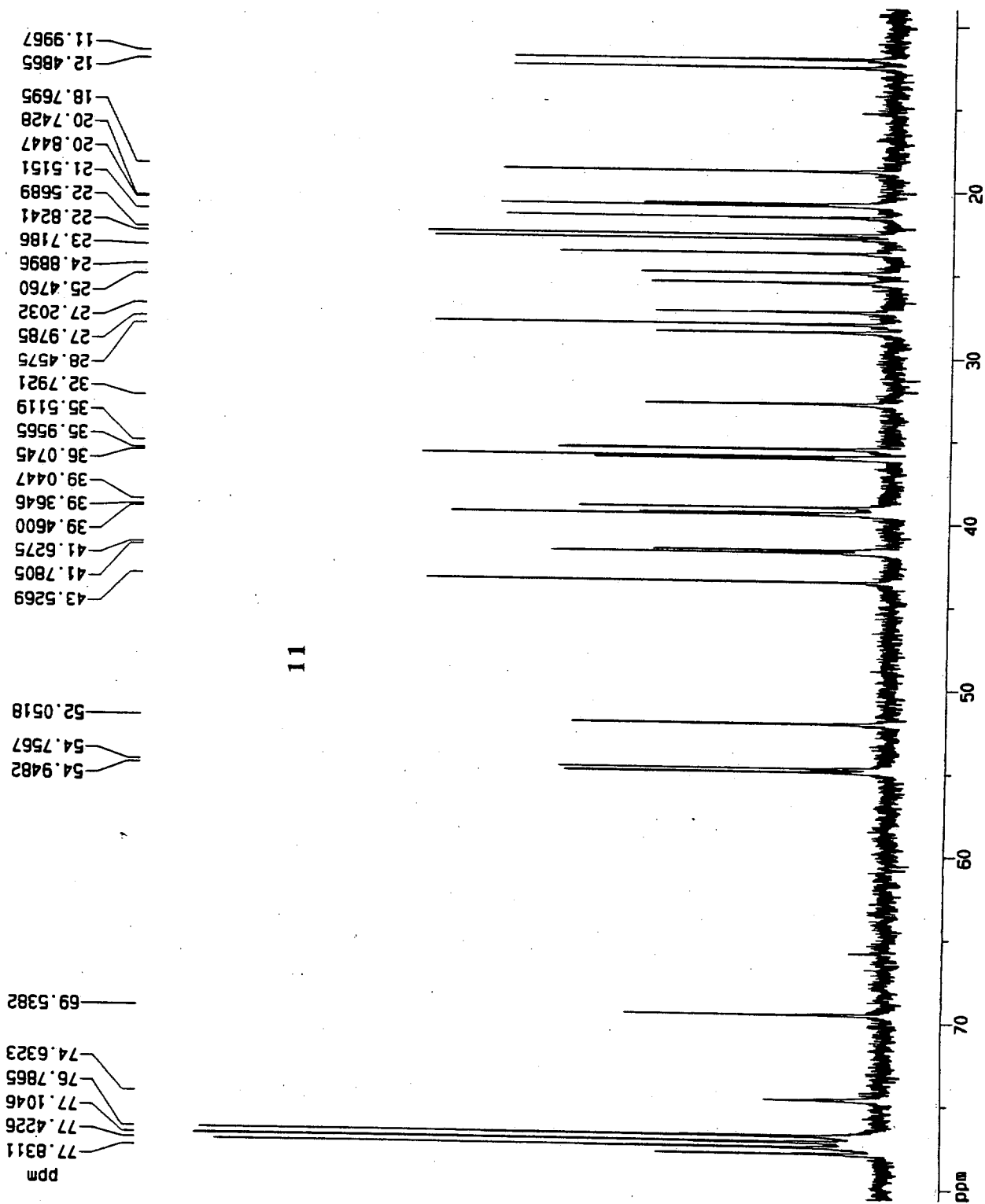
Current Data Parameters
 NAME twj03-121
 EXPNO 2
 PROCNO 1

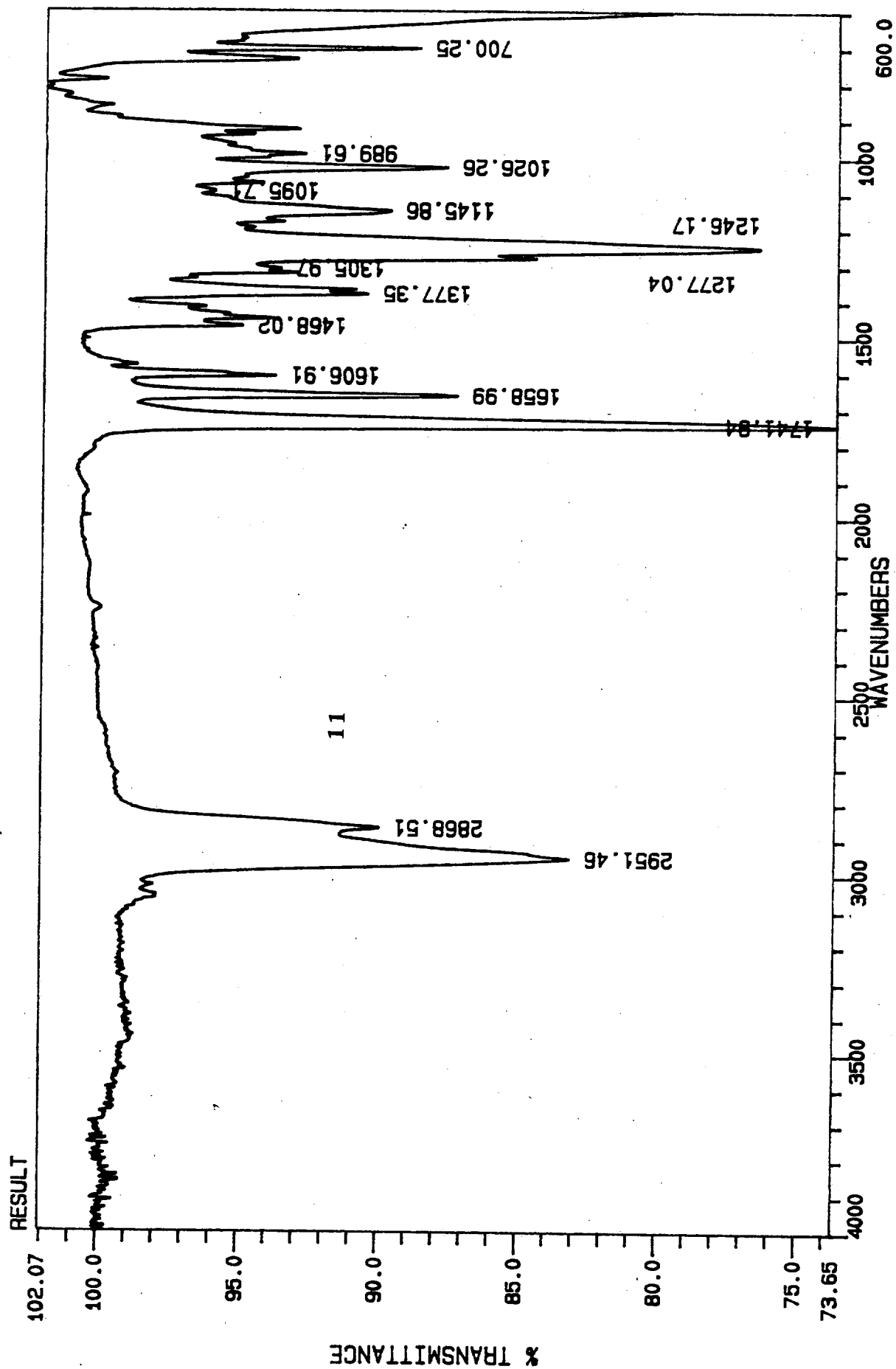
F2 - Acquisition Parameters
 Date_ 981119
 Time 14.20
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 197
 DS 0
 SMH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 D12 0.000200 sec
 DL5 23.50 dB
 CPDPRG waltz16
 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
 MDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 80.576 ppm
 F1 8106.99 Hz
 F2P 8.993 ppm
 F2 904.85 Hz
 PPMCM 3.57914 ppm/cm
 HZCM 360.10690 Hz/cm

twj 03-121





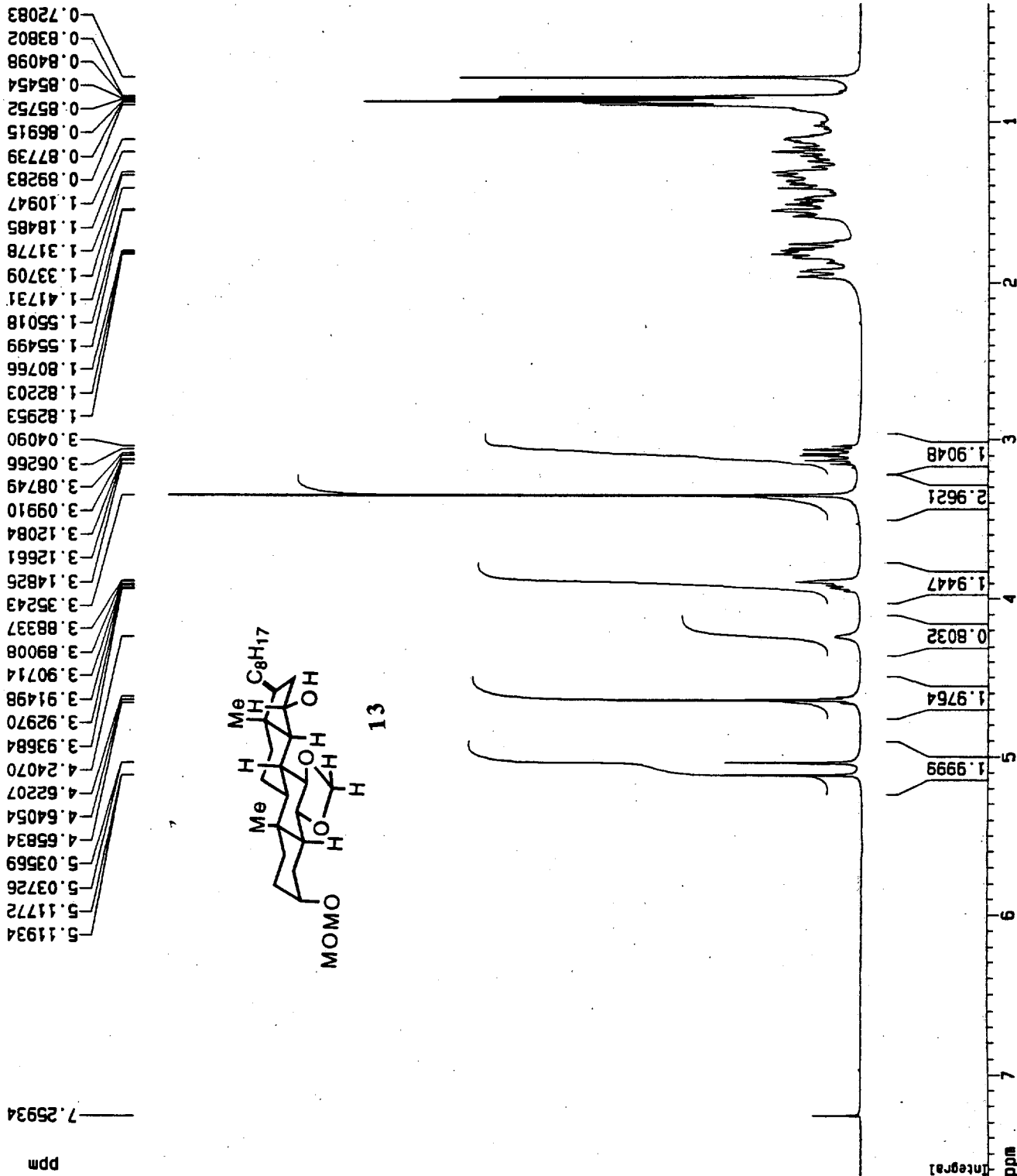
twj 03-134b

Current Data Parameters
 NAME twj03-134b
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 981209
 Time 12.00
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TO 65536
 SOLVENT CDCl3
 NS 16
 DS 0
 SMH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 180
 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
 MOW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 7.645 ppm
 F1 3059.01 Hz
 F2P 0.250 ppm
 F2 99.99 Hz
 PPMCM 0.36976 ppm/cm
 HZCM 147.95094 Hz/cm



twj 03-134b

Current Data Parameters
 NAME twj03-134b
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 981209
 Time 12.00
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 180
 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 EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

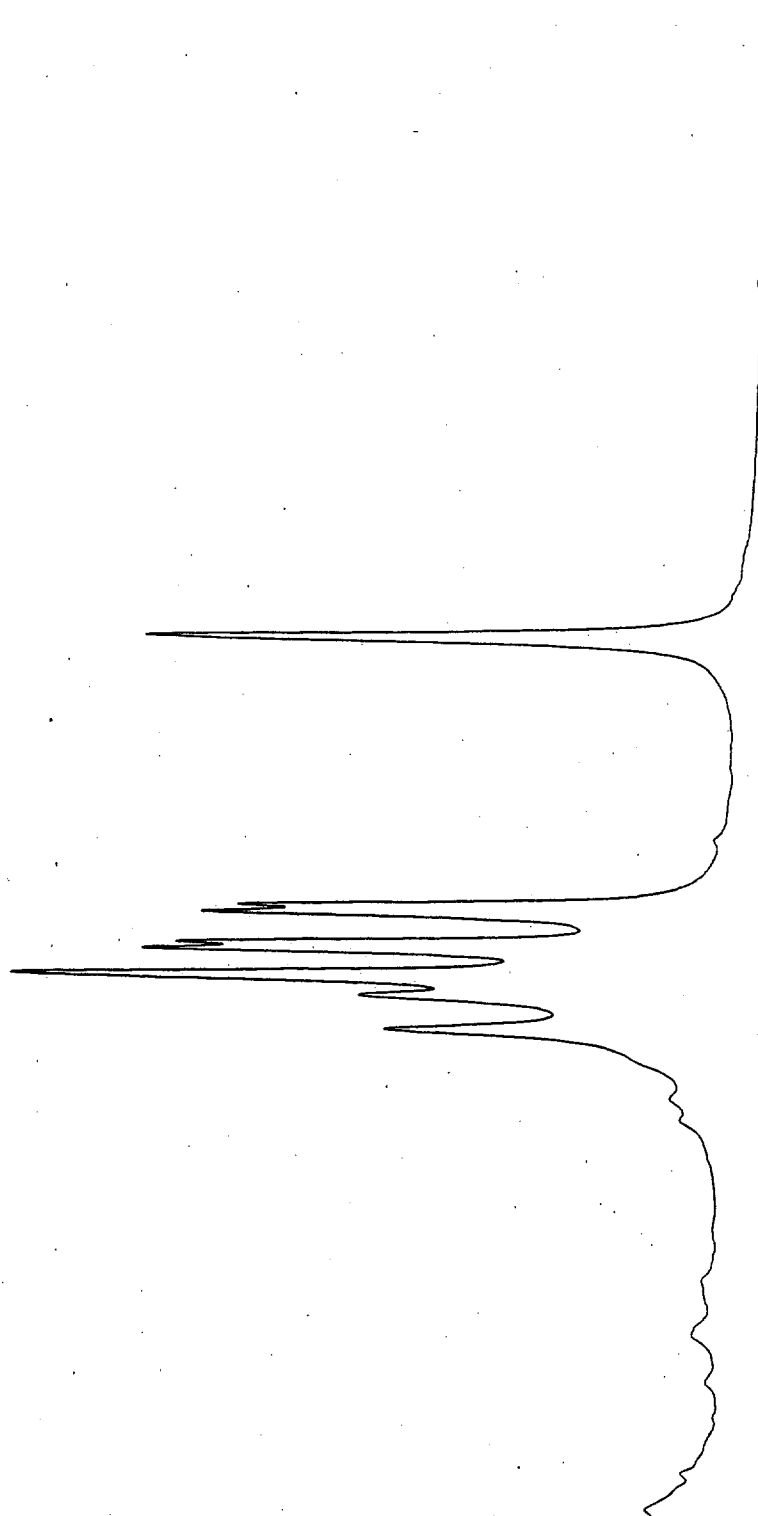
1D NMR plot parameters

CX 20.00 cm
 F1P 1.107 ppm
 F1 442.78 Hz
 F2P 0.441 ppm
 F2 176.31 Hz
 PPMCM 0.03330 ppm/cm
 HZCM 13.32357 Hz/cm

0.89269
 0.87728
 0.86902
 0.85743
 0.85444
 0.84088
 0.83793
 0.72066

13

ppm



ppm

1.0

0.9

0.8

0.7

0.6

0.5

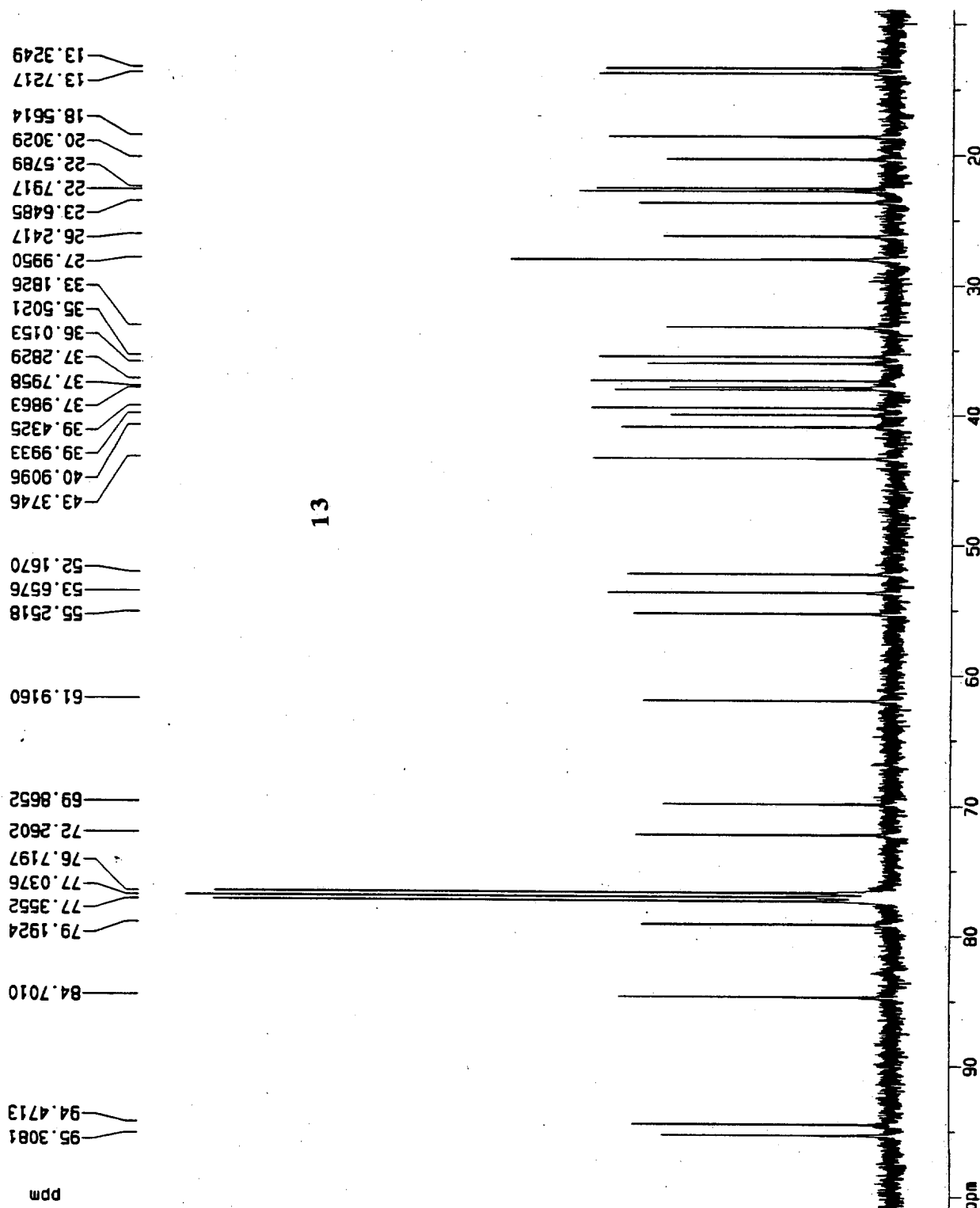
Current Data Parameters
 NAME twj03-134b
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 981209
 Time 12.08
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 216
 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 2.00000000 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 101.060 ppm
 F1 10167.89 Hz
 F2P 8.845 ppm
 F2 889.88 Hz
 HZCM 4.61075 ppm/cm
 HZCM 463.90035 Hz/cm

twj 03-134b



twj 03-134b

27.9950 —
27.921 —

13

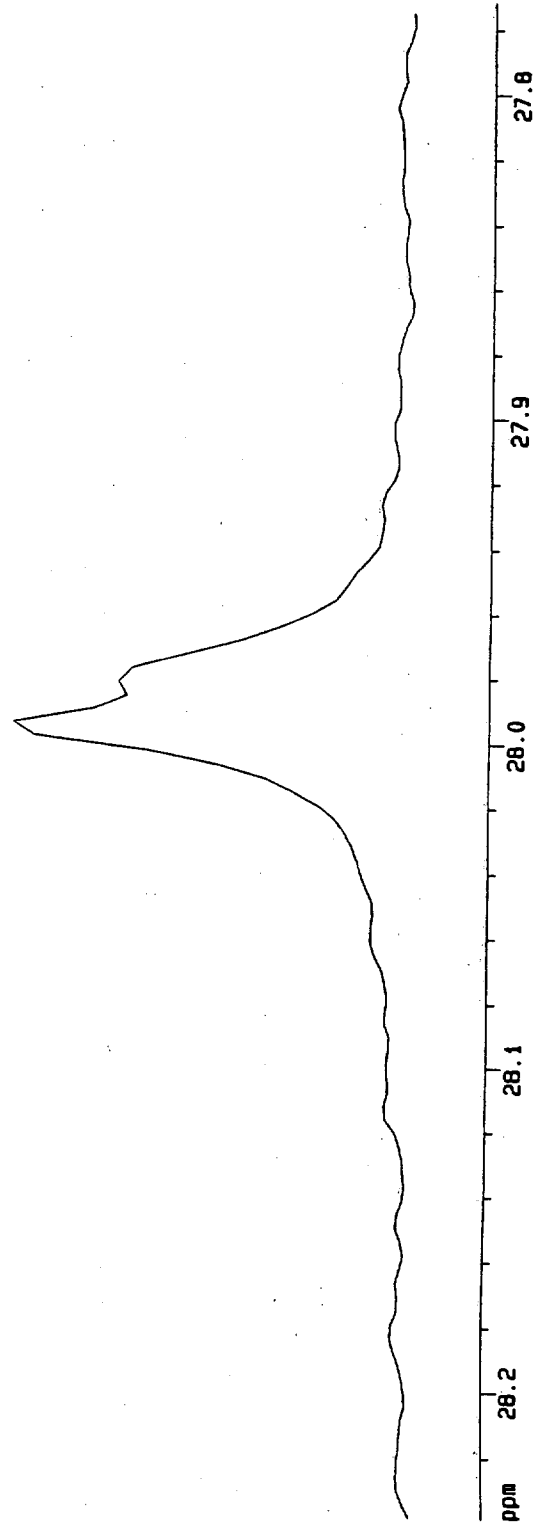
Current Data Parameters
 NAME twj03-134b
 EXPNO 2
 PROCNO 1

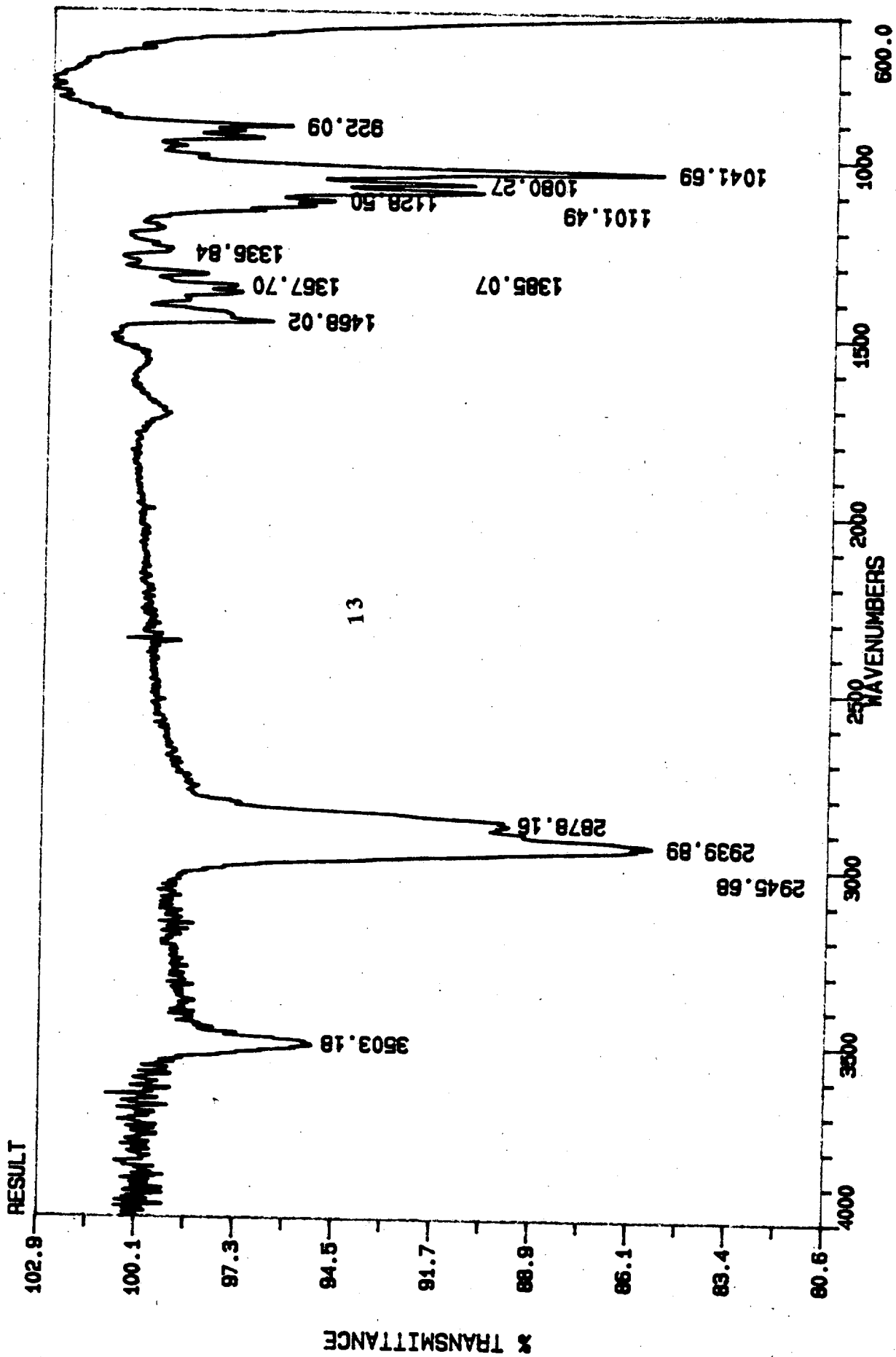
F2 - Acquisition Parameters
 Date_ 981209
 Time 12.08
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zgdc30
 TD 65536
 SOLVENT CDCl3
 NS 216
 DS 0
 SWH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 O12 0.0000200 sec
 DL5 23.50 dB
 CPDPRG waltz16
 P31 100.00 usec
 O1 2.00000000 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 28.239 ppm
 F1 2841.17 Hz
 F2P 27.772 ppm
 F2 2794.18 Hz
 PPMCM 0.02335 ppm/cm
 HZCM 2.34952 Hz/cm

ppm





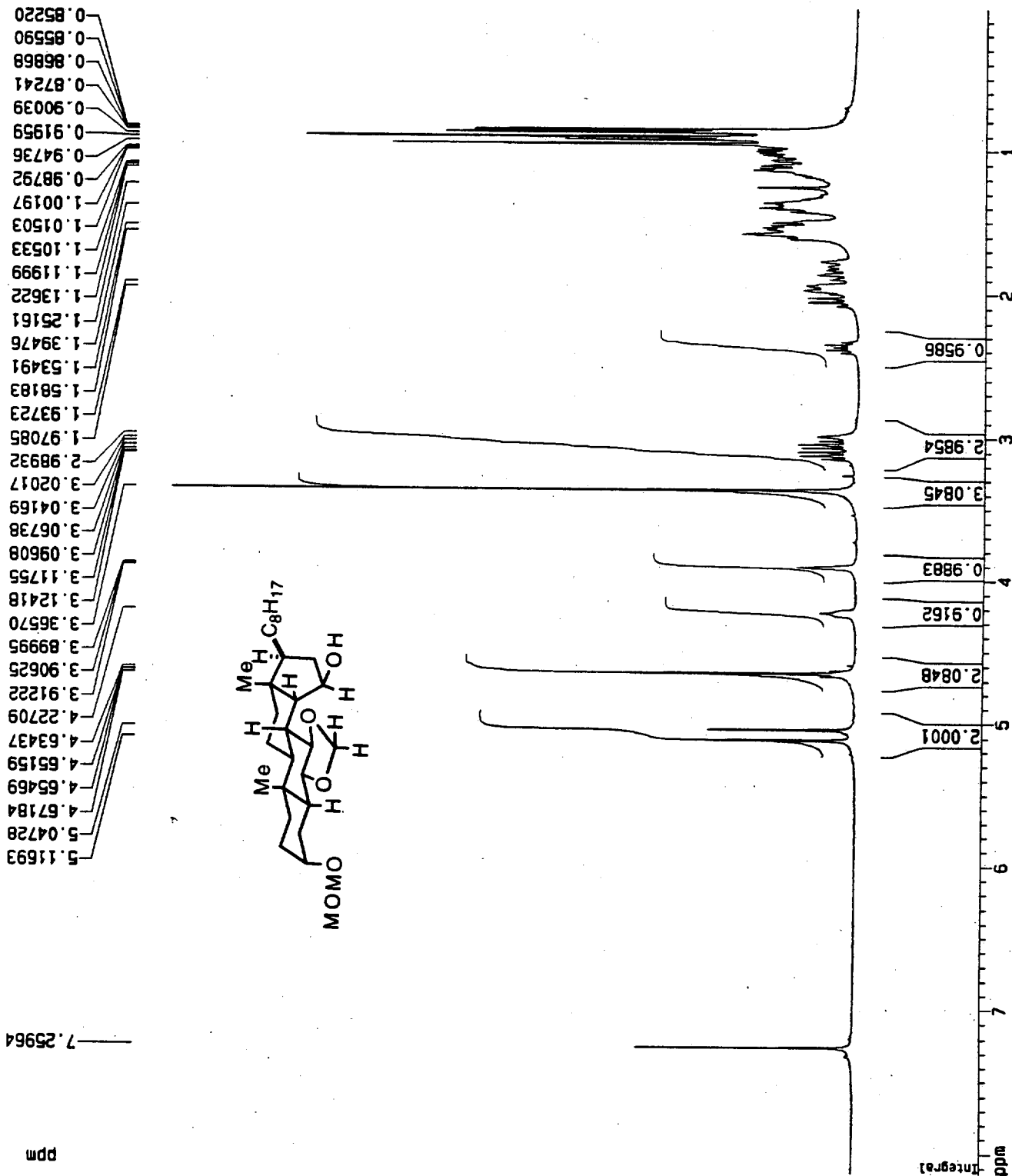
twj 03-134a

Current Data Parameters
 NAME twj03-134a
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 981209
 Time 12.22
 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 715
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 O1 2.0000000 sec
 P1 8.25 usec
 SF01 400.132408 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
 FfP 8.142 ppm
 F1 3257.75 Hz
 F2P 0.007 ppm
 F2 2.83 Hz
 PPMCM 0.40673 ppm/cm
 HZCM 162.74605 Hz/cm



twj 03-134a

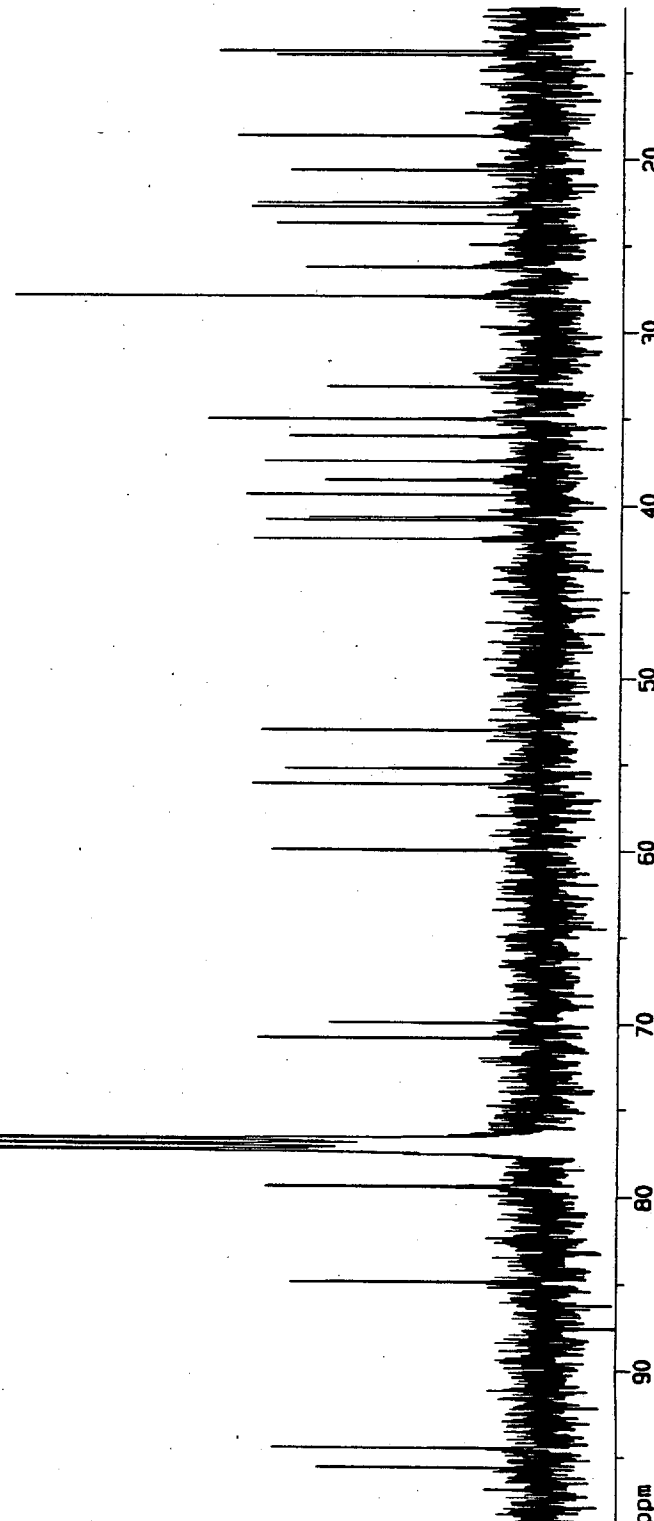
Current Data Parameters
 NAME twj03-134a
 EXPNO 2
 PROCNO 1

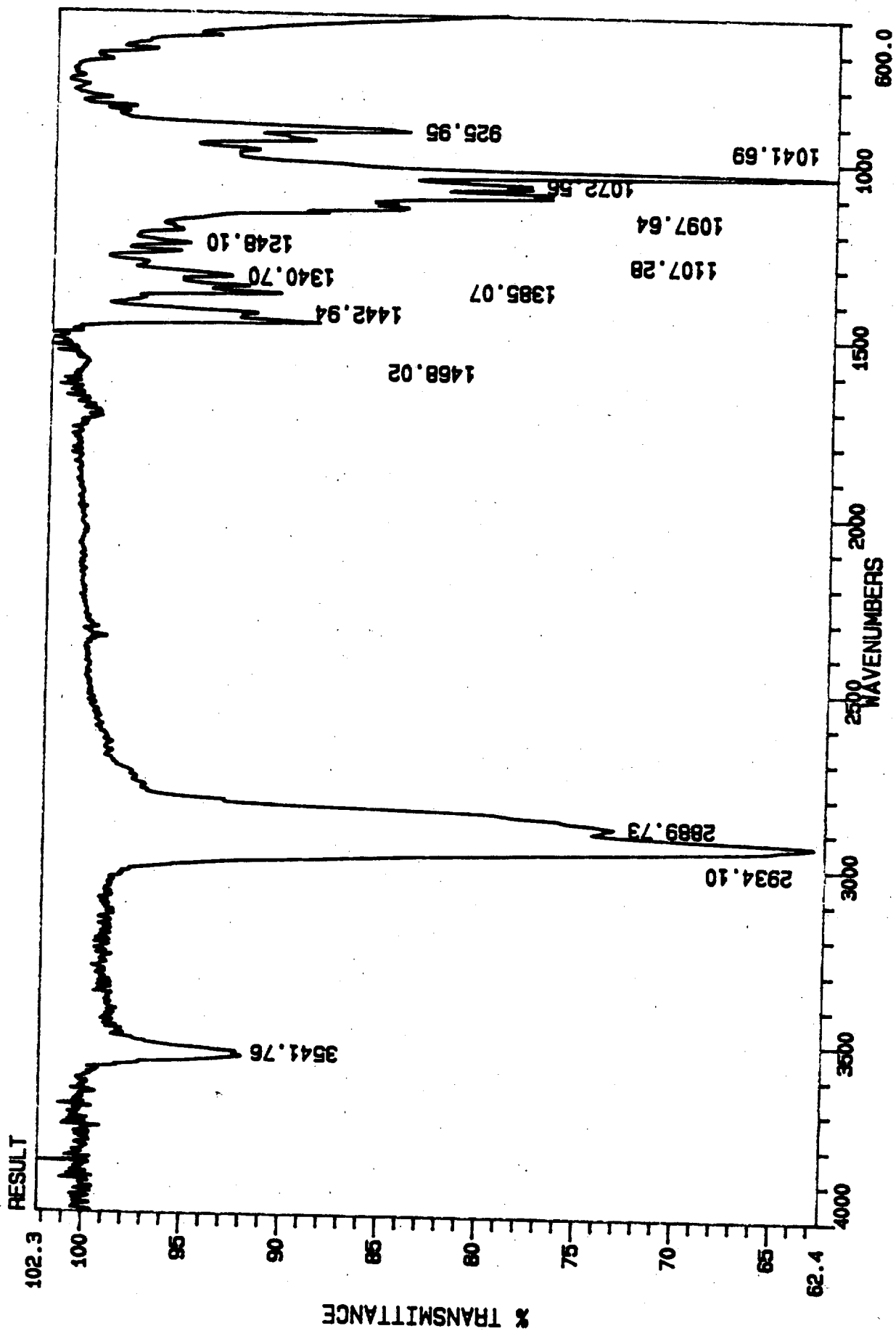
F2 - Acquisition Parameters
 Date_ 981209
 Time 12.29
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpgc30
 TD 65536
 SOLVENT CDCl3
 NS 480
 DS 0
 SMH 27777.777 Hz
 FIDRES 0.423855 Hz
 AQ 1.1796980 sec
 RG 32768
 DM 18.000 usec
 DE 25.71 usec
 TE 300.0 K
 O12 0.0000200 sec
 DL5 23.50 dB
 CPDPRG waitz16
 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
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 98.813 ppm
 F1 9941.86 Hz
 F2P 11.251 ppm
 F2 1132.04 Hz
 PPNCH 4.37808 ppm/cm
 HZCM 440.49094 Hz/cm

13.7679
 13.9812
 18.7038
 20.6573
 22.5599
 22.8029
 23.7316
 26.2254
 27.9741
 33.2210
 35.0502
 35.0961
 36.0527
 37.5039
 38.5966
 39.4223
 40.7256
 40.8810
 41.9922
 53.0096
 55.2517
 56.1615
 59.9607
 69.9447
 70.8073
 76.7009
 77.0181
 77.3358
 79.4430
 84.9073
 94.4783
 95.6747





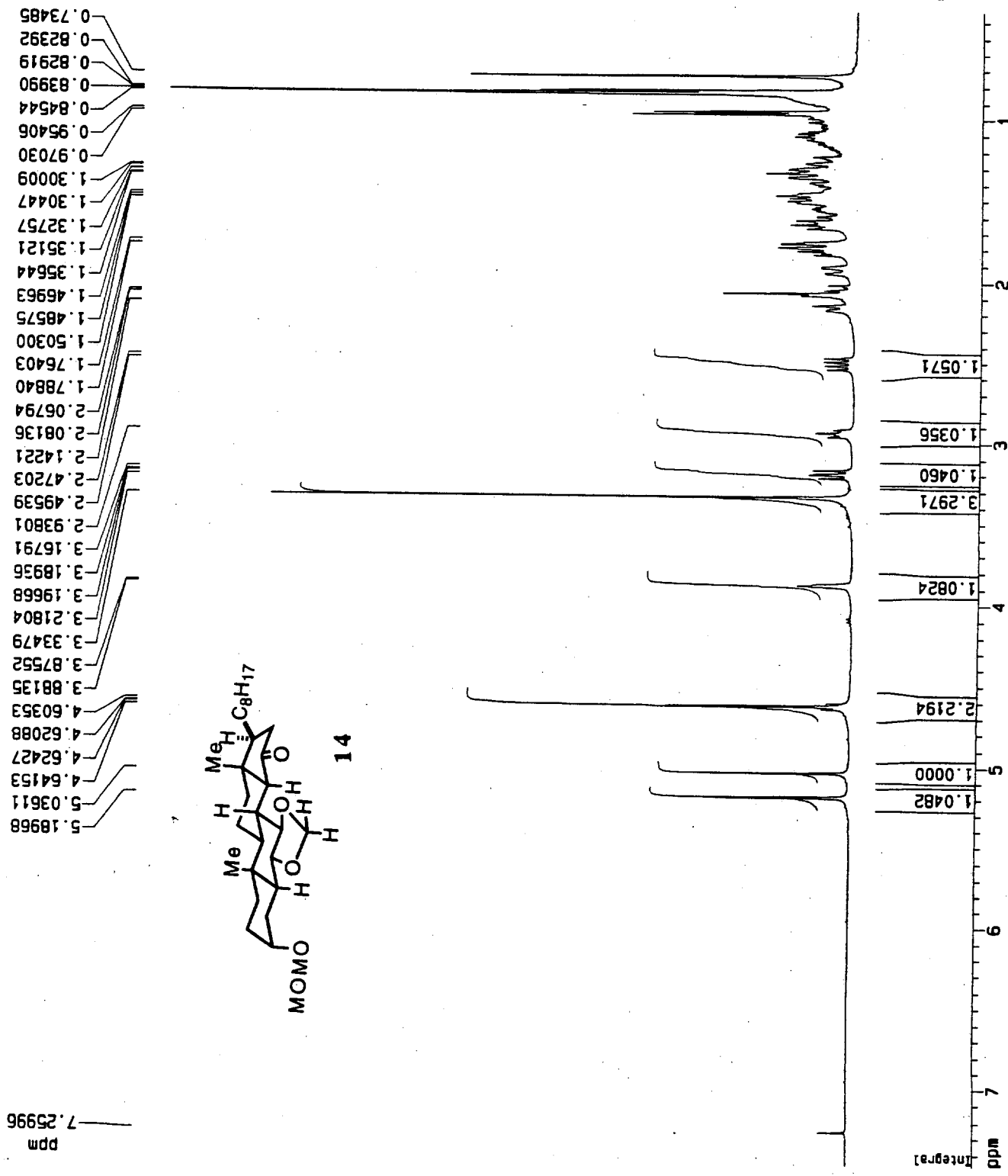
twj 03-141

Current Data Parameters
 NAME twj03-141
 EXPNO 1
 PROCNO 1

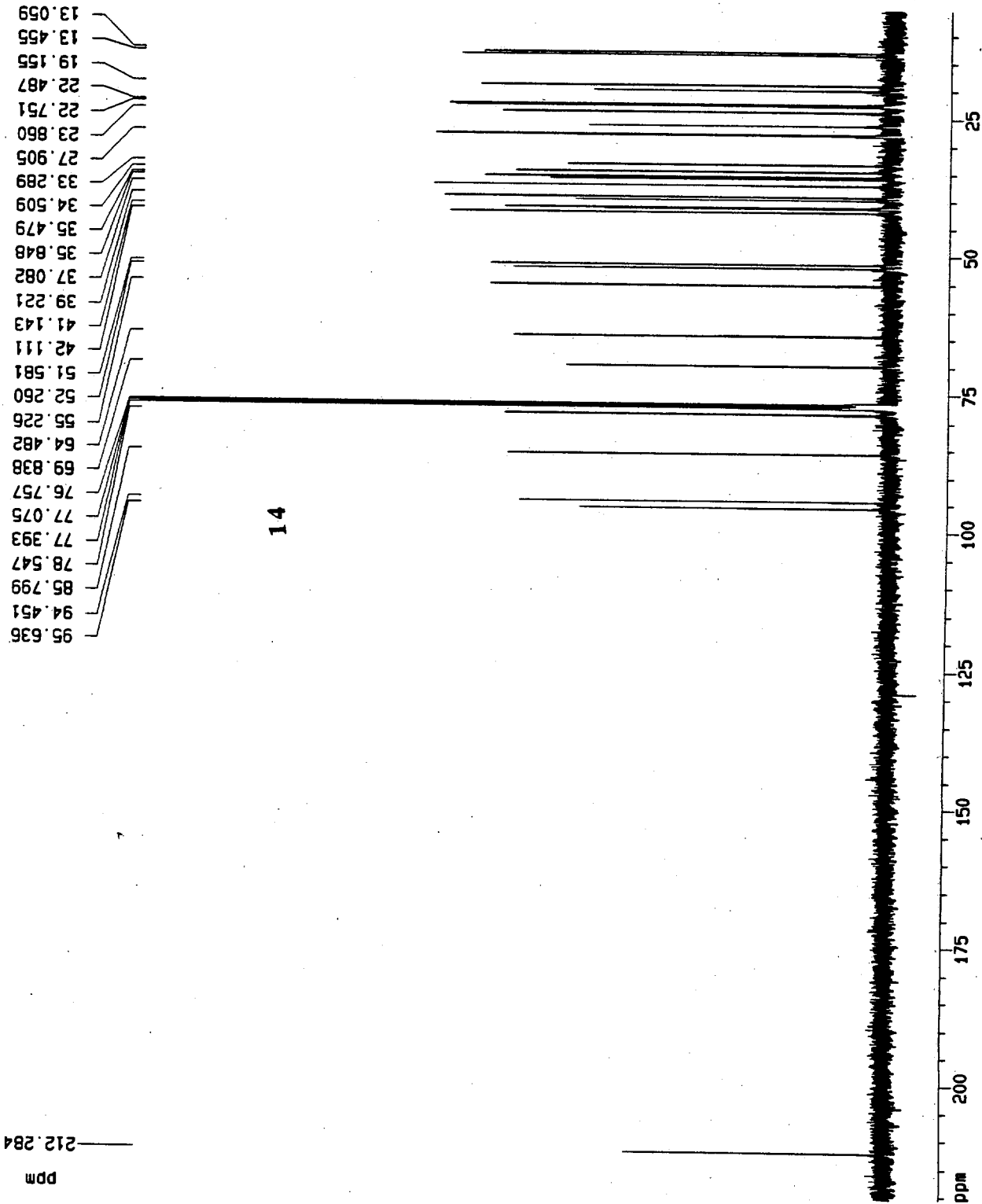
F2 - Acquisition Parameters
 Date_ 981226
 Time 17.35
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 8
 DS 0
 SWH 8064.516 Hz
 FIDRES 0.123055 Hz
 AQ 4.0632820 sec
 RG 128
 DM 62.000 usec
 DE 88.57 usec
 TE 300.0 K
 D1 2.00000000 sec
 P1 8.25 usec
 SF01 400.1324008 MHz
 NUCLEUS 1H

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

1D NMR plot parameters
 CX 20.00 cm
 F1P 7.465 ppm
 F1 2986.79 Hz
 F2P 0.333 ppm
 F2 133.10 Hz
 PPMCM 0.35660 ppm/cm
 HZCM 142.68484 Hz/cm



twj 03-141



Current Data Parameters
 NAME twj03-141
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 981226
 Time 17.48
 INSTRUM ark400
 PROBHD 5 mm QNP 1H
 PULPROG zgdc30
 TD 65536
 SOLVENT CDCl3
 NS 376
 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 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 100.6127710 MHz
 MDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 220.561 ppm
 F1 22191.27 Hz
 F2P 5.421 ppm
 F2 545.45 Hz
 PPMCM 10.75699 ppm/cm
 HZCM 1082.29089 Hz/cm

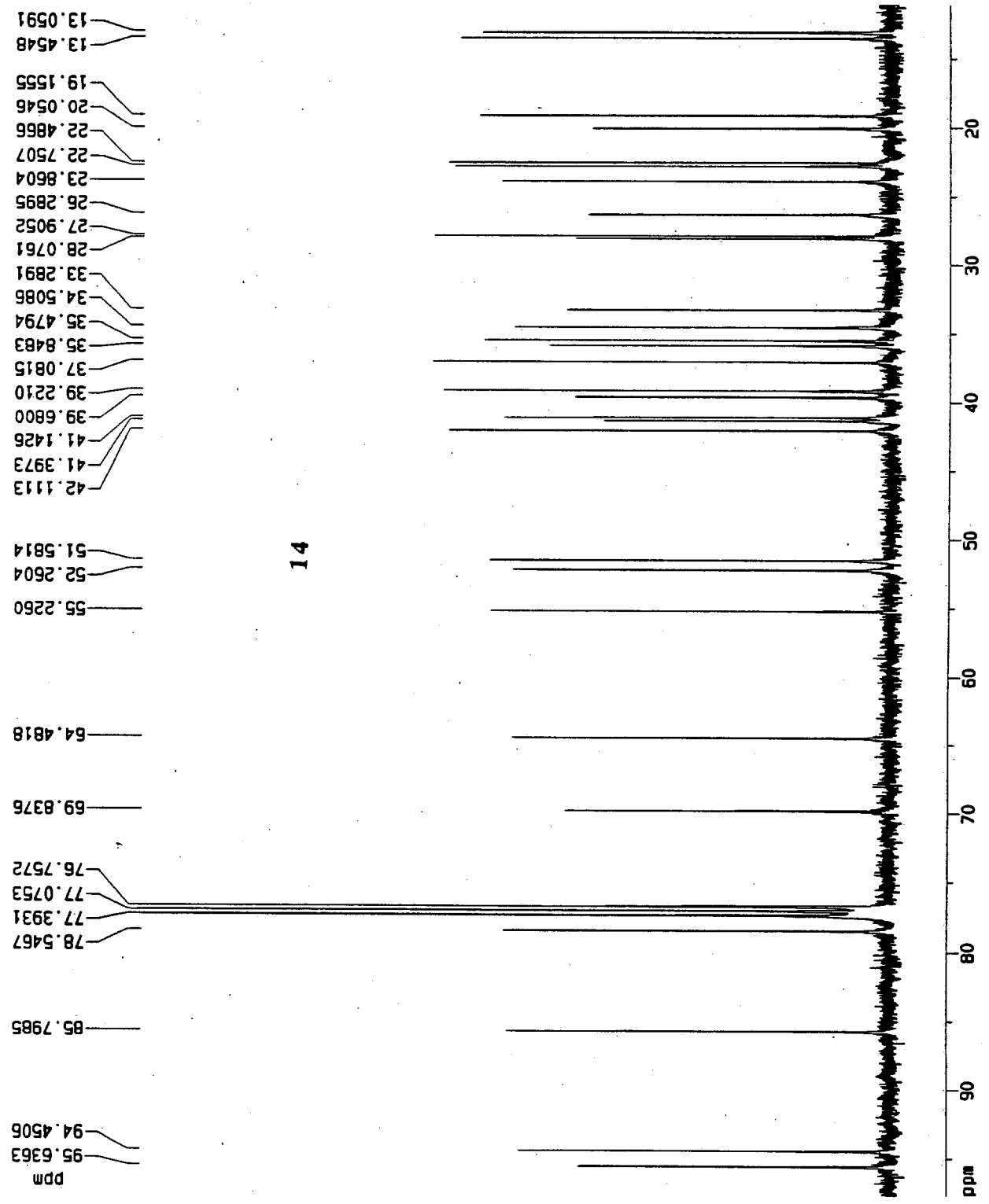
twj 03-141

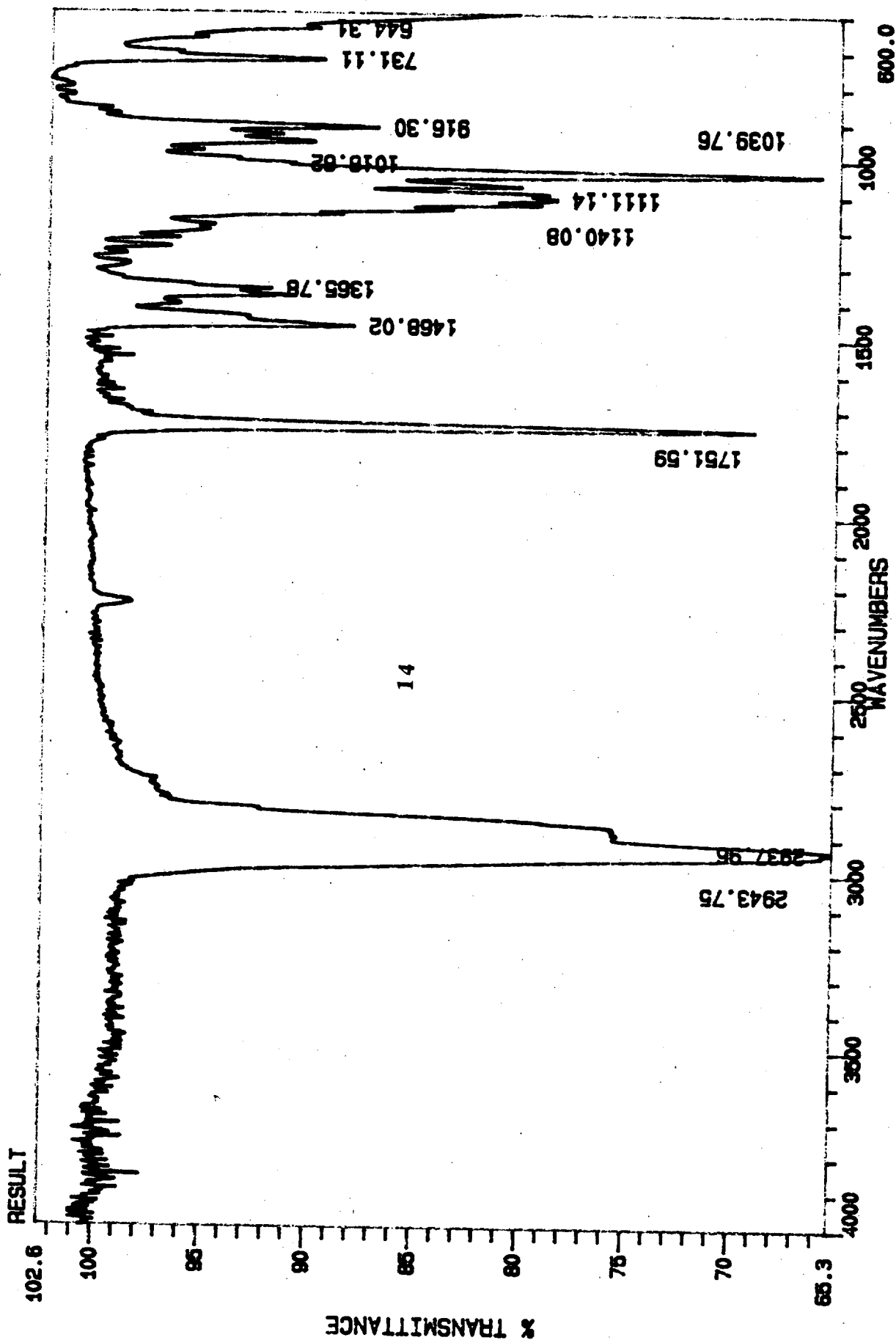
Current Data Parameters
 NAME twj03-141
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 981226
 Time 17.48
 INSTRUM apx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 376
 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 0.000200 sec
 DL5 23.50 dB
 CPDPRG maltz16
 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 EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 FIP 97.678 ppm
 F1 9827.69 Hz
 F2P 11.128 ppm
 FP 1119.64 Hz
 PPMCH 4.32751 ppm/cm
 HZCM 435.40259 Hz/cm





twj 03-137

Current Data Parameters
 NAME twj03-137
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 981214
 Time 18.14
 INSTRUM arx400
 PROBHD 5 mm QNP 1H
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 8
 OS 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 2.00000000 sec
 P1 8.25 usec
 SFO1 400.1324008 MHz
 NUCLEUS 1H

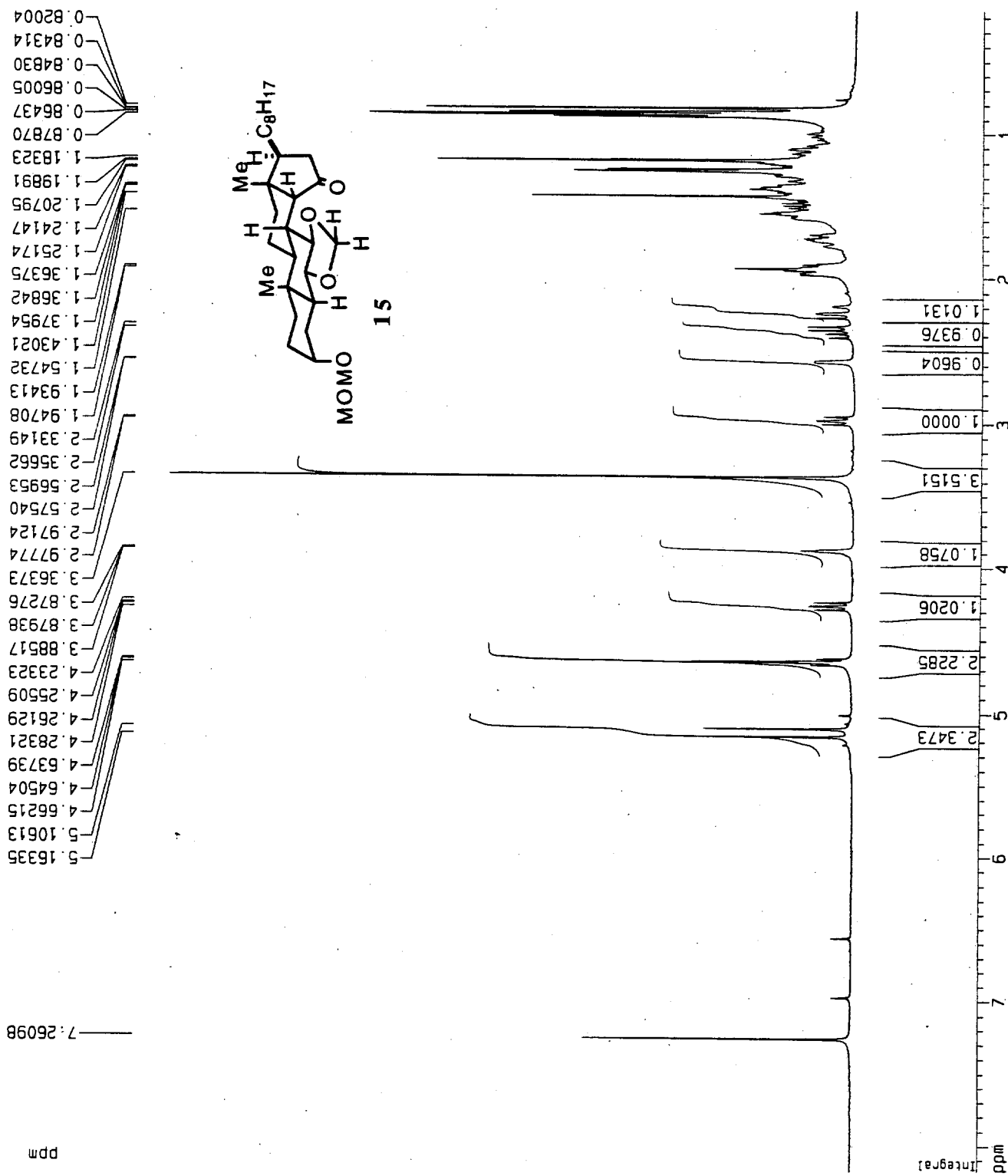
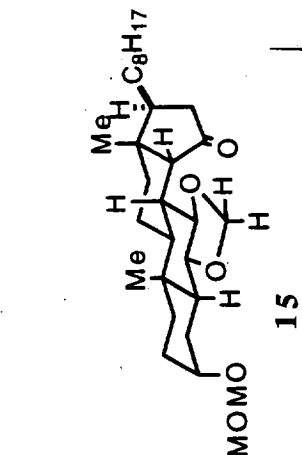
F2 - Processing parameters

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 8.181 ppm
 F1 3273.63 Hz
 F2P 0.151 ppm
 F2 60.29 Hz
 PPMCM 0.40154 ppm/cm
 HZCM 160.66722 Hz/cm

5.16335
 5.10613
 4.66215
 4.64504
 4.63739
 4.28321
 4.26129
 4.25509
 4.23323
 3.88517
 3.87938
 3.87276
 3.36373
 2.97774
 2.97124
 2.57540
 2.56953
 2.35662
 2.33149
 1.94708
 1.93413
 1.54732
 1.43021
 1.37954
 1.36842
 1.36375
 1.25174
 1.24147
 1.20795
 1.19891
 1.18323
 0.87870
 0.86437
 0.86005
 0.84830
 0.84314
 0.82004



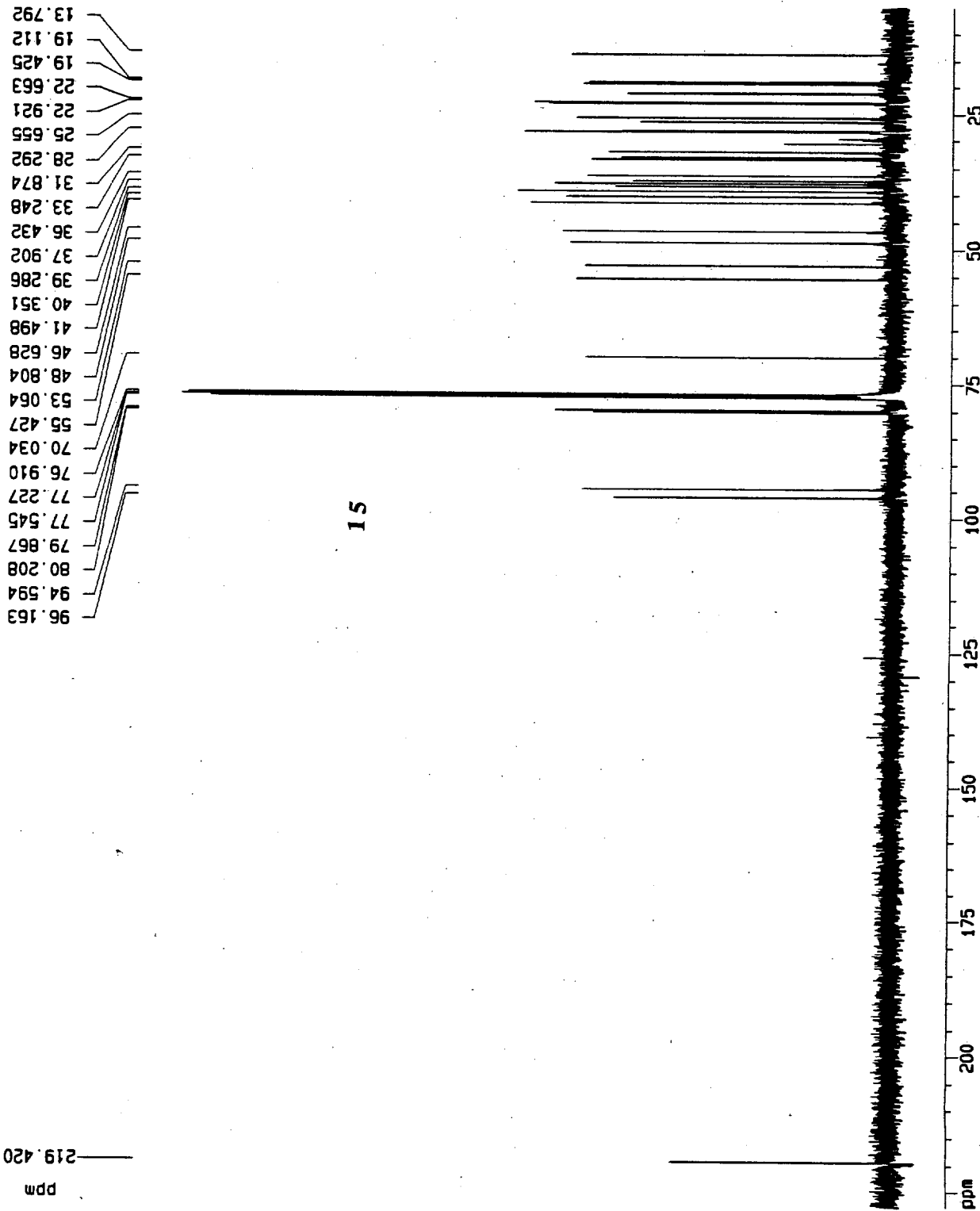
twj 03-142

Current Data Parameters
 NAME twj03-142
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 981229
 Time 12.05
 INSTRUM apx400
 PROBHD 5 mm QNP 1H
 PULPROG zgpg30
 TO 65536
 SOLVENT CDCl3
 NS 258
 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 2.00000000 sec
 P1 6.25 usec
 SFO1 100.6248445 MHz
 NUCLEUS 13C
 D11 0.0300000 sec

F2 - Processing parameters
 SI 65536
 SF 100.6127530 MHz
 WDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 227.875 ppm
 F1 22927.10 Hz
 F2P 5.117 ppm
 F2 514.79 Hz
 PPNCH 11.13791 ppm/cm
 HZCM 1120.61560 Hz/cm



219.420 ppm