

Evolution of a Strategy for the Synthesis of
Structurally Complex Batzelladine Alkaloids.
Enantioselective Total Synthesis of the Proposed
Structure of Batzelladine F and Structural
Revision

*Frederick Cohen and Larry E. Overman**

Supporting Information Part 2 (87 Pages)

**F. Copies of ^1H and ^{13}C NMR spectra of new compounds:
Pages 38–124**

Current Data Parameters
NAME fc-ii-175
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

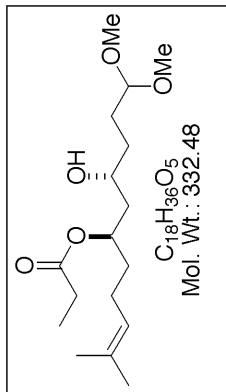
Date_ 990512
Time_ 9.14
INSTRUM spect
PROBHD 5 mm broadband
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 2
SWH 6009.615 Hz
SMH 0.183399 Hz
FIDRES 2.7653677 sec
AQ 286
RG 63.200 usec
DM 6.00 usec
DE 300.0 K
TE 1.00000000 sec
P1 4.00 usec
SFO1 500.0325001 MHz
NUC1 1H
PL1 0.00 dB

F2 - Processing parameters

SF 131072
SF 500.0299950 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

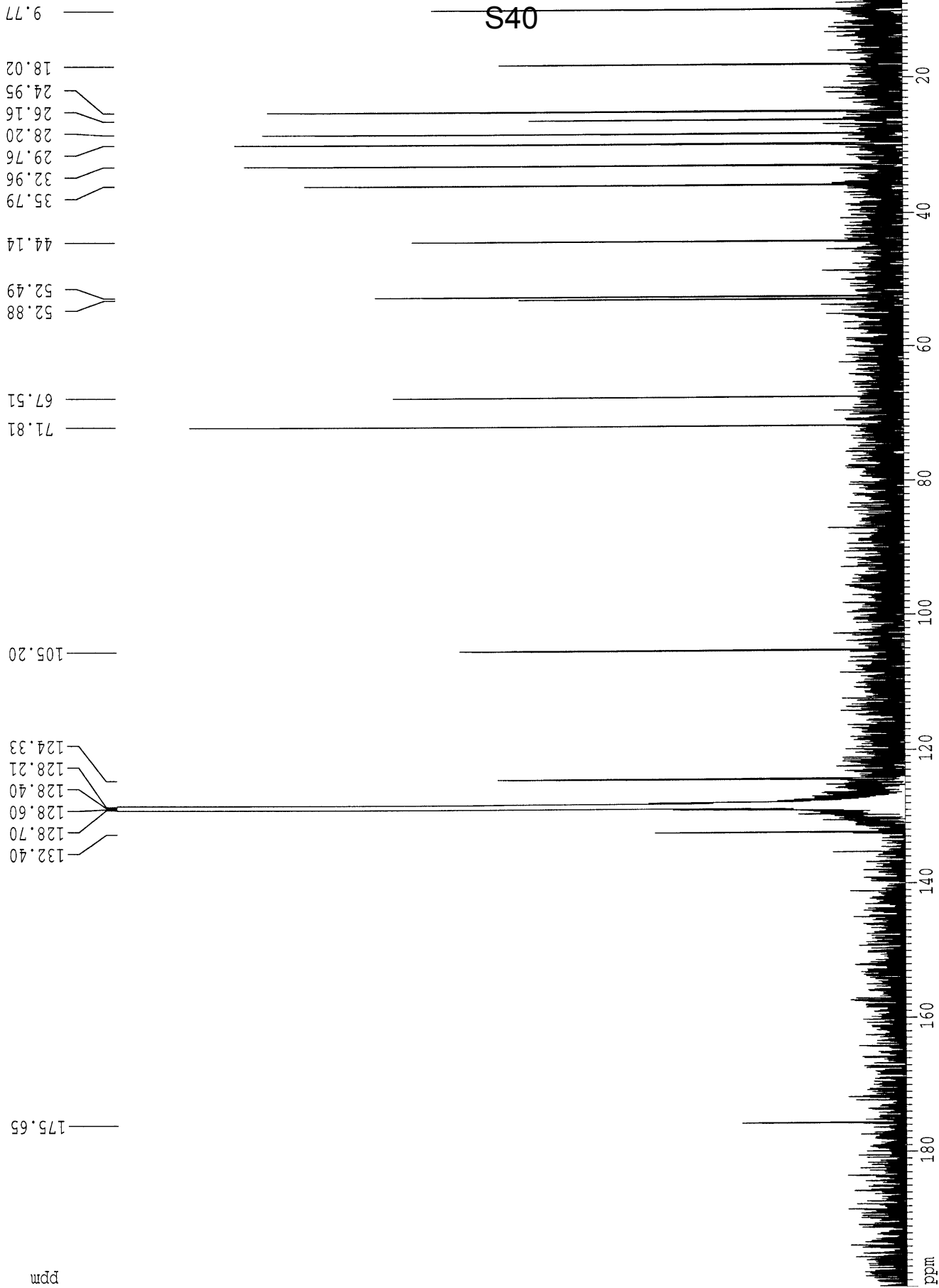
1D NMR plot parameters

CX 25.00 cm
F1P 10.000 ppm
F1 5000.30 Hz
F2P -0.500 ppm
F2 -250.01 Hz
PPMCK 0.42000 ppm/cm
HZCM 210.01260 Hz/cm



S39





Current Data Parameters
NAME fc-11-181
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

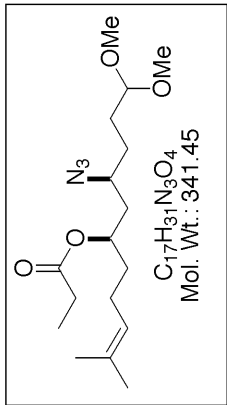
Date_ 980519
Time 7.09
INSTRUM spect
PROBHD 5 mm broadband
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 2
SWH 6009.615 Hz
FIDRES 0.183395 Hz
AQ 2.7263477 sec
RG 256
DM 83.200 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
P1 4.00 usec
SF01 500.0325003 MHz
NUC1 1H
PC1 0.00 dB

F2 - Processing parameters

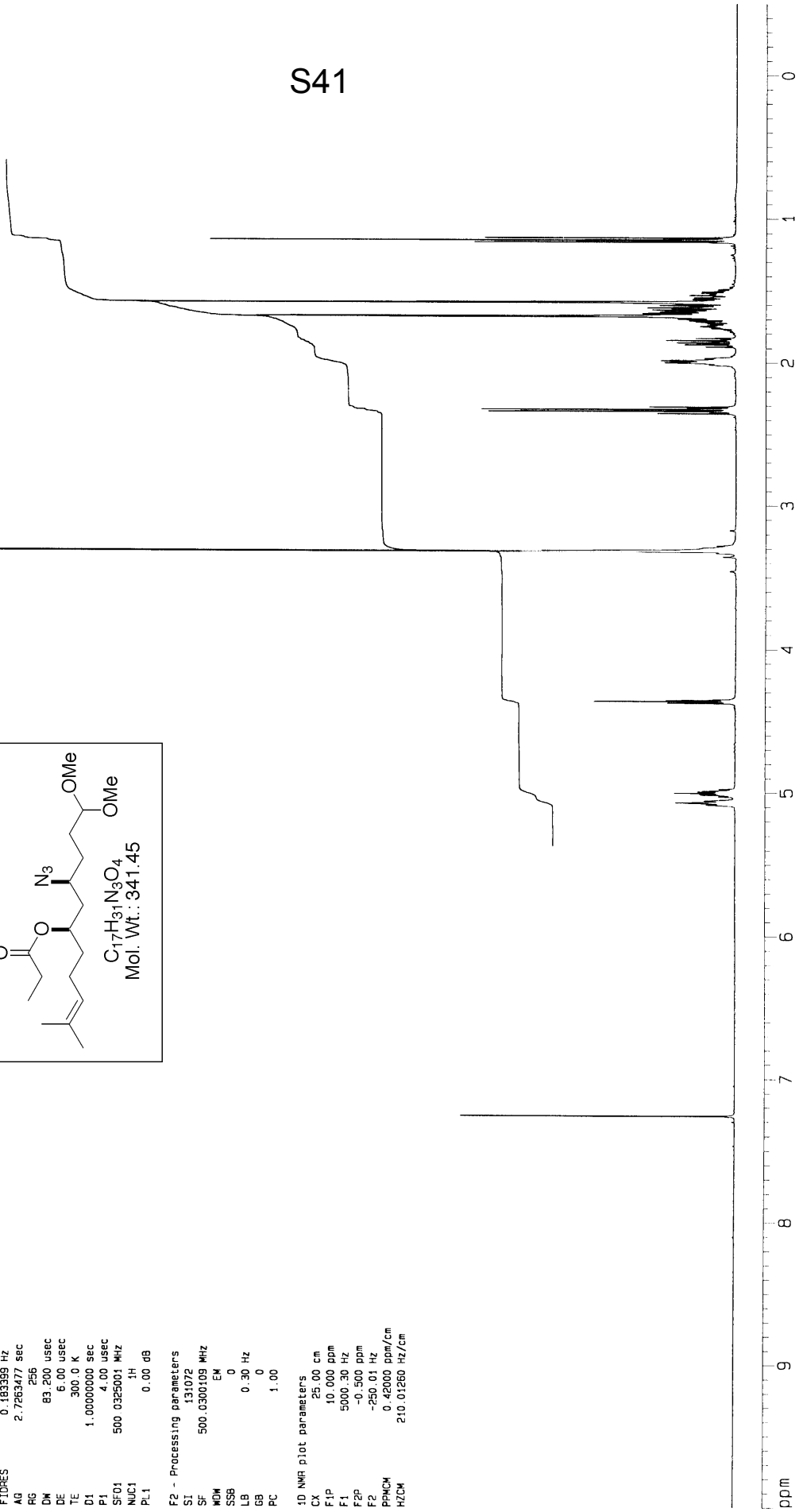
SI 131072
SF 500.0300109 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 25.00 cm
F1P 10.000 ppm
F1 5000.30 Hz
F2P -0.500 ppm
F2 -250.01 Hz
PRGCM 0.42000 ppm/cm
HZCM 210.01260 Hz/cm



S41



Current Data Parameters
NAME fc-ii-181
EXPNO 2
PROCNO 1
174.05

F2 - Acquisition Parameters

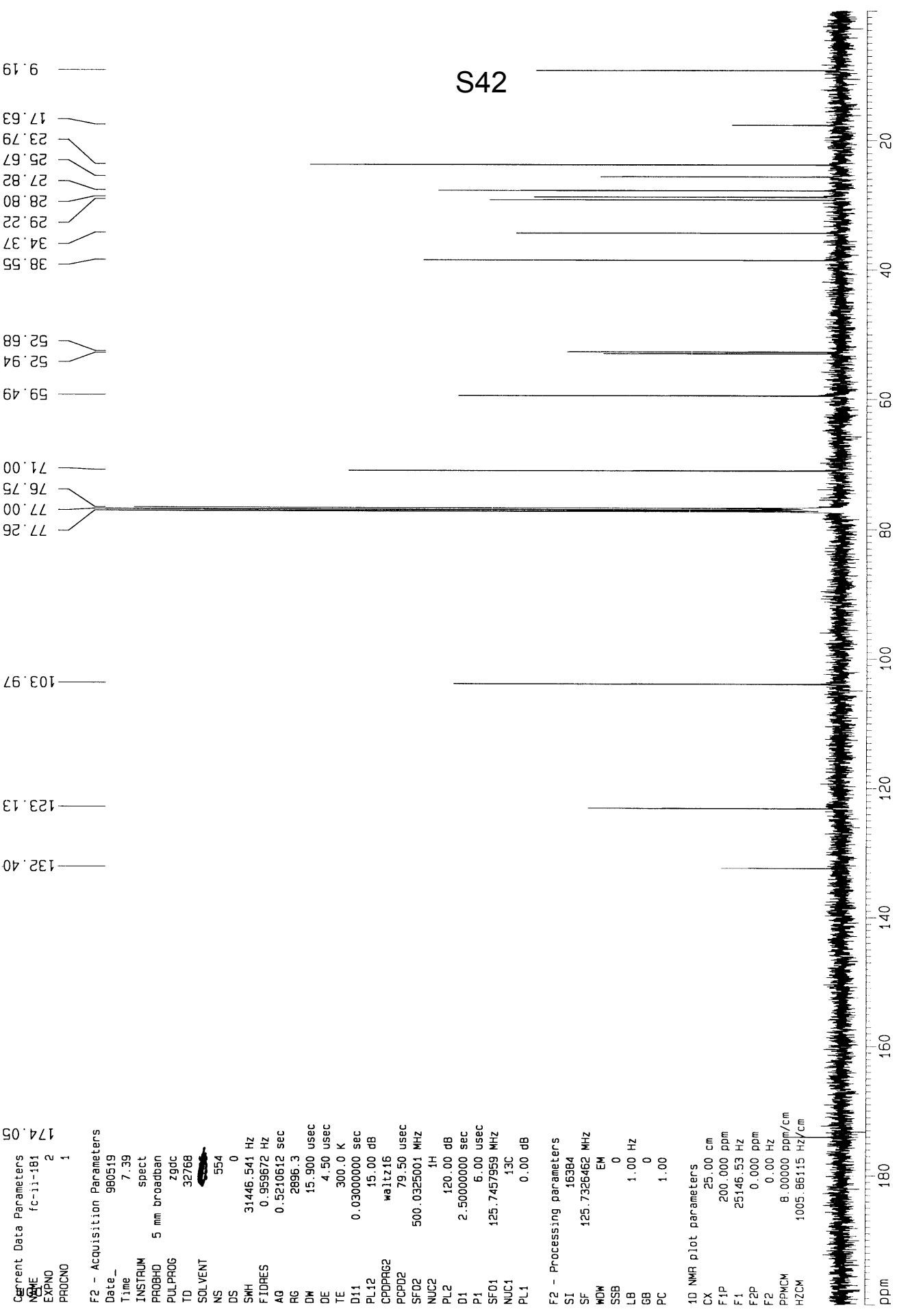
Date_ 980519
Time 7.39
INSTRUM spect
PROBHD 5 mm broadband
PULPROG zgpg
TD 32768
SOLVENT
NS 554
DS 0
SWH 31446.541 Hz
FIDRES 0.959672 Hz
AQ 0.5210612 sec
RG 2896.3
DM 15.900 usec
DE 4.50 usec
TE 300.0 K
D11 0.03000000 sec
PL12 15.00 dB
CPDPRG2 waltz16
PCPD2 79.50 usec
SF02 500.0325001 MHz
NUC2 1H
PL2 120.00 dB
D1 2.50000000 sec
P1 6.00 usec
SF01 125.7457959 MHz
NUC1 13C
PL1 0.00 dB

F2 - Processing parameters

SI 16384
SF 125.7326462 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 25.00 cm
F1P 200.000 ppm
F1 25146.53 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 8.00000 ppm/cm
HZCM 1005.86115 Hz/cm



Current Data Parameters
NAME fc-111-16a
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

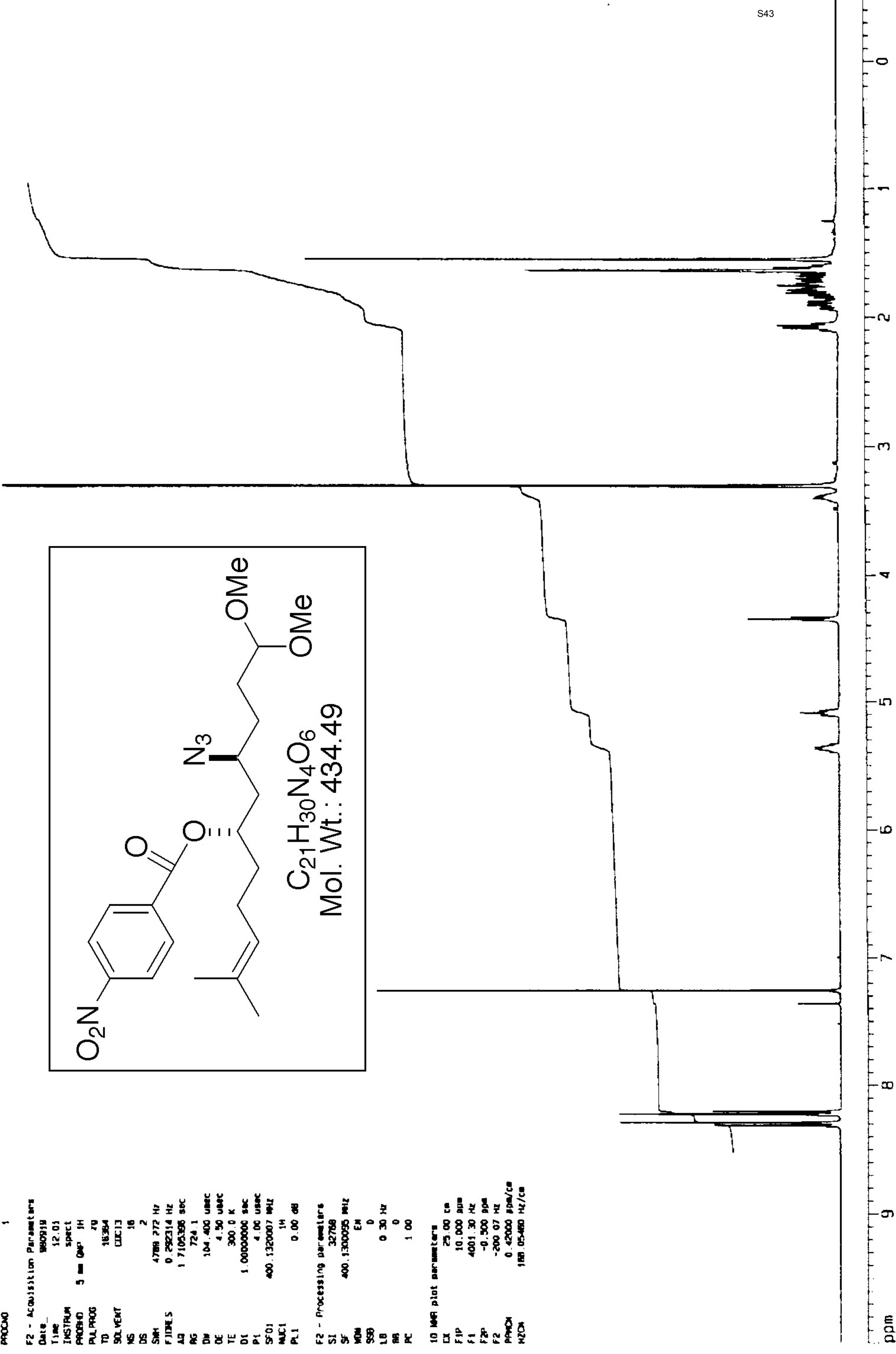
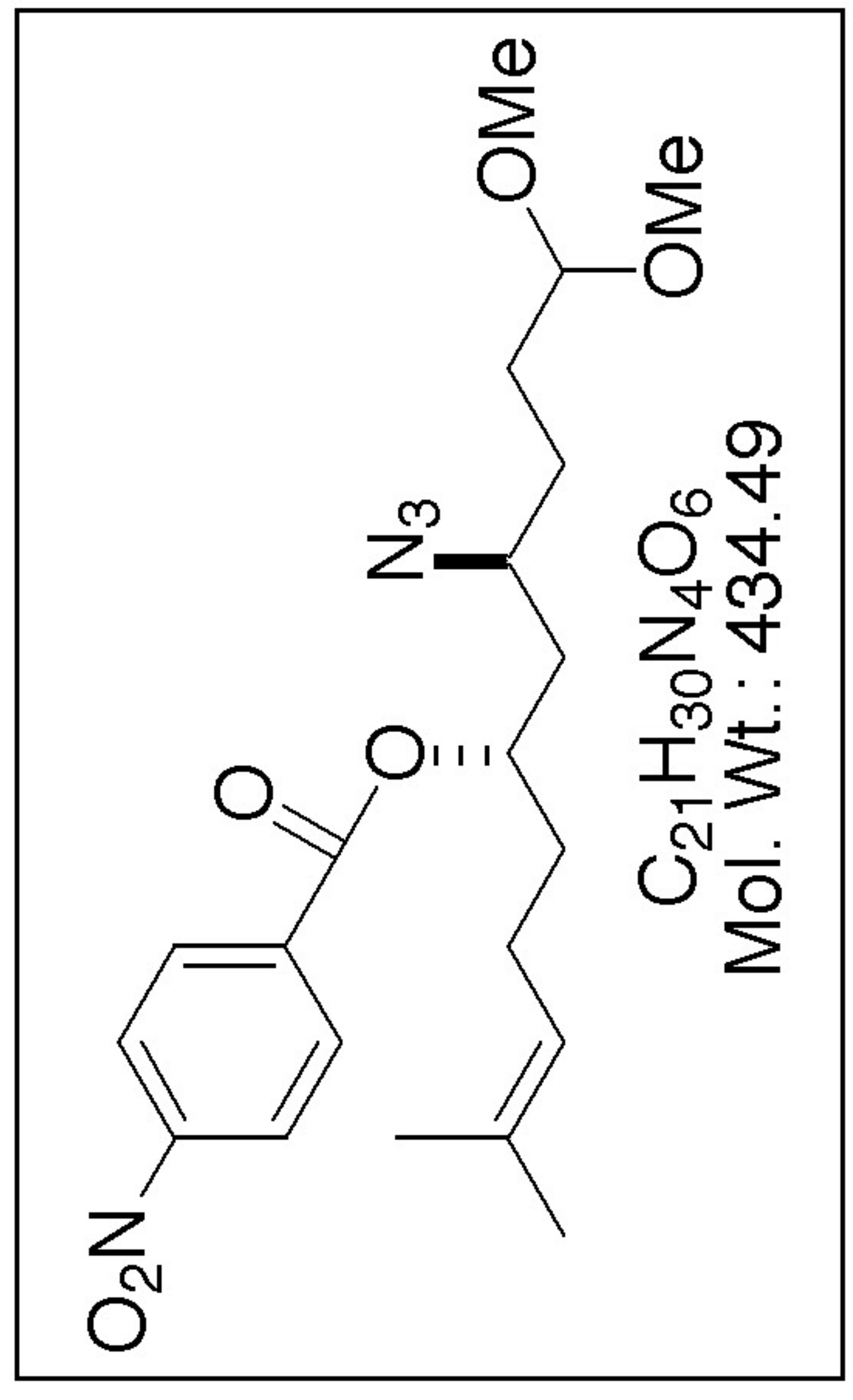
Date_ 980919
Time 12.01
INSTRUM spect
PROBHD 5 mm QNP 1H
PULPROG zg
TD 16384
SOLVENT CLC13
NS 16
DS 2
SWH 4789.272 Hz
FIDRES 0.292314 Hz
AQ 1.7105395 sec
RG 724.1
DM 104.400 usec
DE 4.50 usec
TE 300.0 K
D1 1.0000000 sec
P1 4.00 usec
SFO1 400.1320007 MHz
NUC1 1H
PL1 0.00 dB

F2 - Processing parameters

SI 32768
SF 400.1300005 MHz
WDW EM
SSB 0
LB 0.30 Hz
RB 0
PC 1.00

10 MHz plot parameters

EX 29.00 cm
FIP 10.000 ppm
F1 4001.30 Hz
F2 -0.500 ppm
F2 -200.07 Hz
PPhCn 0.42000 ppm/cm
HZCn 169.05460 Hz/cm



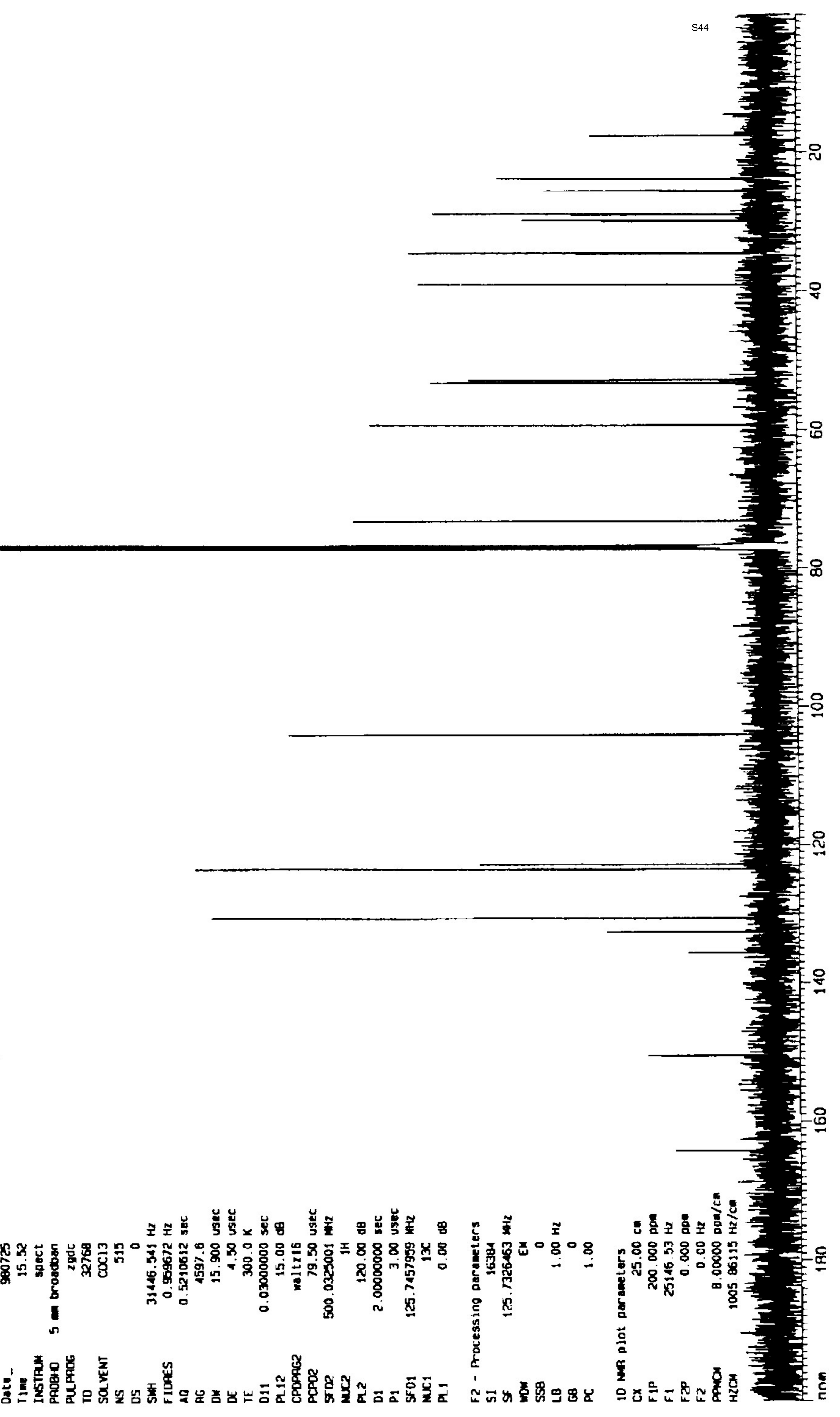
Current Data Parameters
 NAME fc-11-247
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 980725
 Time 15.52
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zgdc
 TD 32768
 SOLVENT CDCl3
 NS 515
 DS 0
 SWH 31446.541 Hz
 FIDRES 0.959672 Hz
 AQ 0.5210612 sec
 RG 4597.6
 DW 15.900 usec
 DE 4.50 usec
 TE 300.0 K
 D11 0.0300000 sec
 PL12 15.00 dB
 CPDPRG2 waltz16
 PCPD2 79.50 usec
 SF02 500.0325001 MHz
 NUC2 1H
 PL2 120.00 dB
 D1 2.0000000 sec
 P1 3.00 usec
 SF01 125.7457959 MHz
 NUC1 13C
 PL1 0.00 dB

F2 - Processing parameters
 SI 16384
 SF 125.7326463 MHz
 WDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 25.00 cm
 F1P 200.000 ppe
 F1 25146.53 Hz
 F2P 0.000 ppe
 F2 0.00 Hz
 PPM0H 8.00000 ppe/cm
 HZ0H 1005.86115 Hz/cm

164.21
 150.55
 135.68
 132.69
 130.70
 123.57
 122.87
 104.10
 77.26
 77.00
 76.75
 73.15
 59.32
 53.26
 52.87
 39.11
 34.61
 29.93
 28.99
 25.65
 23.88
 17.67



EXPNO 1
PROCNO 1

F2 Acquisition Parameters

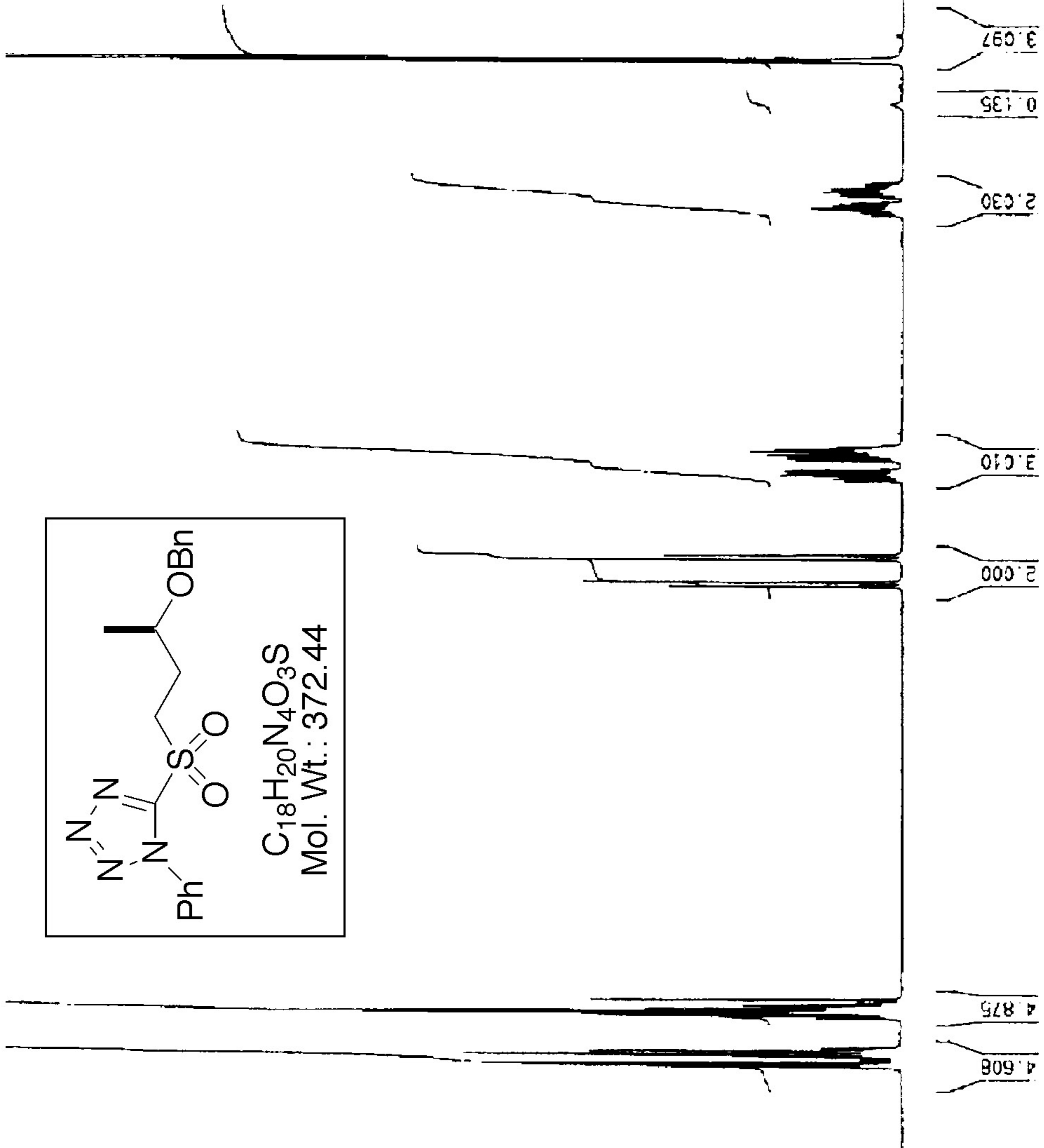
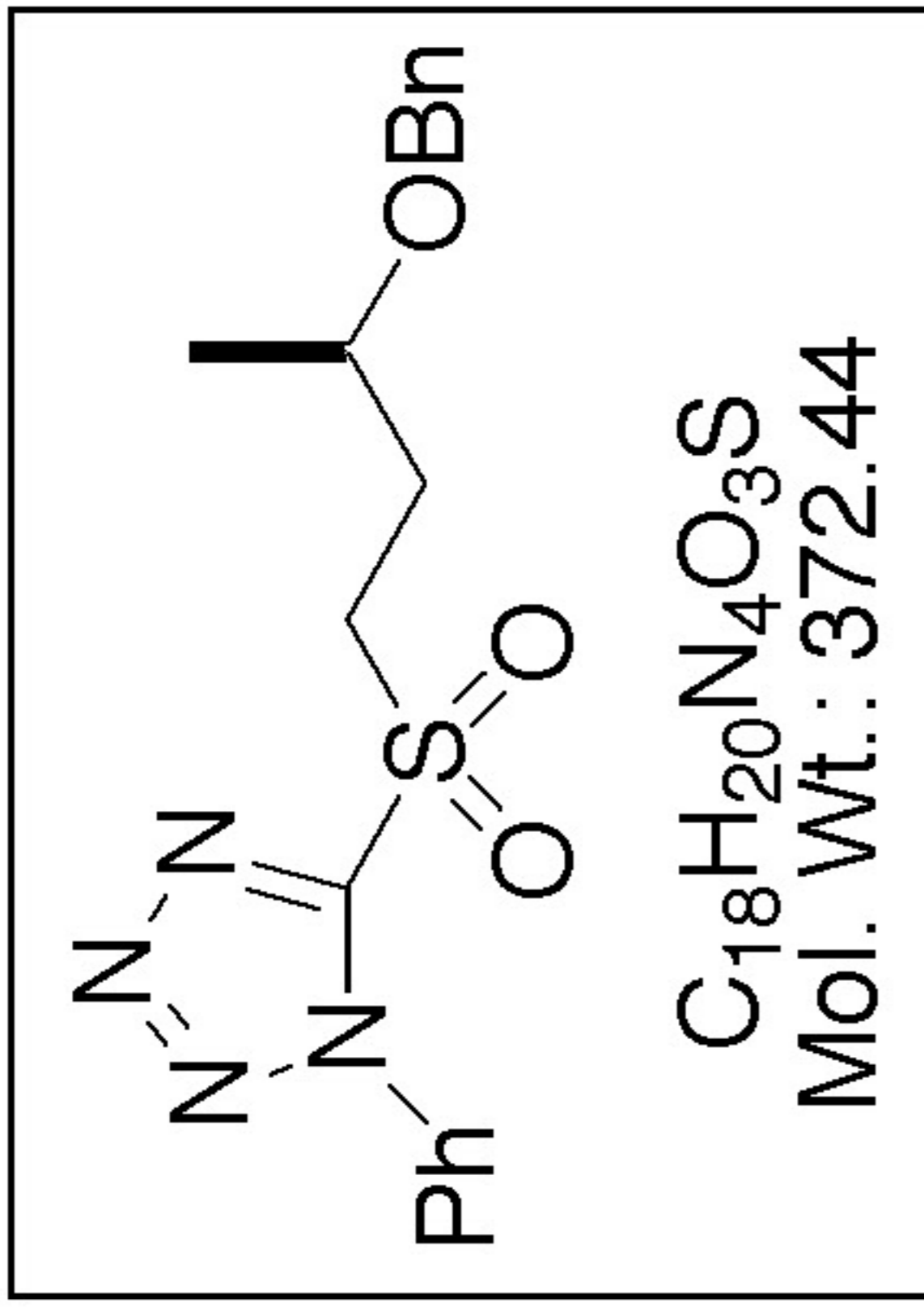
Date_ 990106
Time 8.21
INSTRUM spect
PROBHD 5 mm QNP 1H
PULPROG zgpg30
TD 65536
SFAVENT 10011
NS 16
DS 2
SWH 4789.272 Hz
FIDRES 0.292314 Hz
AQ 1.7103395 sec
RG 322.5
DM 104.480 usec
DE 4.50 usec
TE 300.2 K
D1 1.00000000 sec
P1 4.80 usec
SFO1 400.1300002 MHz
MUL1 1H
PC 1.03

F2 - Processing parameters

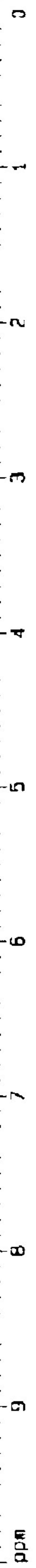
SI 32768
SF 400.1300002 MHz
WDW EM
SSB 0
LB 0.32 Hz
GB 0
PC 1.03

10 MHz plot parameters

CH 2H.00 cm
FHP 10.000 ppm
F1 400.130 Hz
F2 -8.500 ppm
F3 -290.07 Hz
NUC1 0.4200000000
HZLH 156.92460 MHz



5.000



Current Data Parameters
NAME f0-11-161
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 990106
Time 9:27
INSTRUM spect
PROBHD 5 mm QNP 1H
PULPROG zgpg30
TD 32768
SOLVENT CDCl3
NS 385
DS 0
SWH 25129.629 Hz
FIDRES 0.786773 Hz
AQ 0.0521332 sec
RG 2048
DM 19.900 usec
DE 4.50 usec
TE 300.0 K
O11 0.03000000 sec
PL12 17.00 dB
CPOPRG2 mlev16
PCPRG2 90.00 usec
SF02 400.1320007 MHz
NUC2 1H
PL2 17.00 dB
D1 2.00000000 sec
P1 4.00 usec
SF01 100.6229933 MHz
NUC1 13C
PL1 0.00 dB

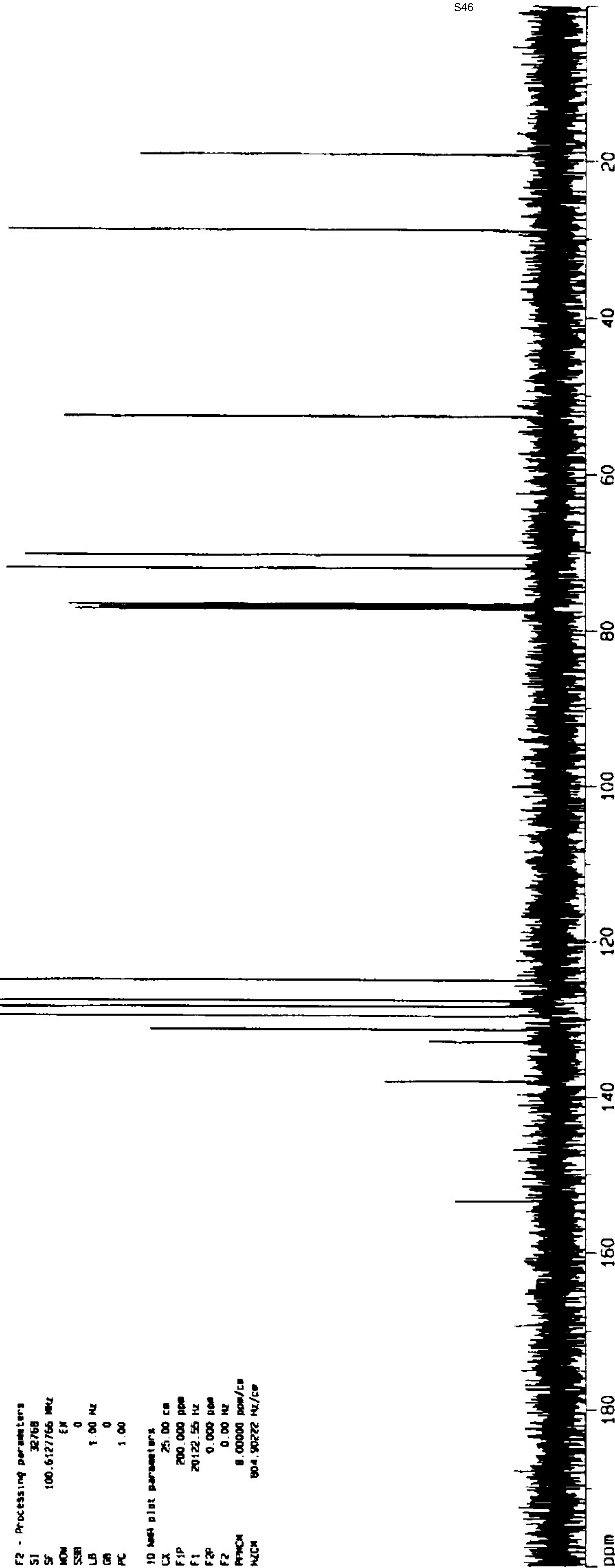
F2 - Processing parameters

SI 32768
SF 100.6127766 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 25.00 cm
F1P 200.000 pps
F1 20122.55 Hz
F2P 0.000 pps
F2 0.00 Hz
PPMCM 8.00000 ppm/cm
HZCM 804.90272 Hz/cm

153.4
138.1
133.0
131.4
129.6
128.4
127.7
127.7
127.7
125.1
77.3
77.0
76.7
72.1
70.4
52.7
28.9
19.3

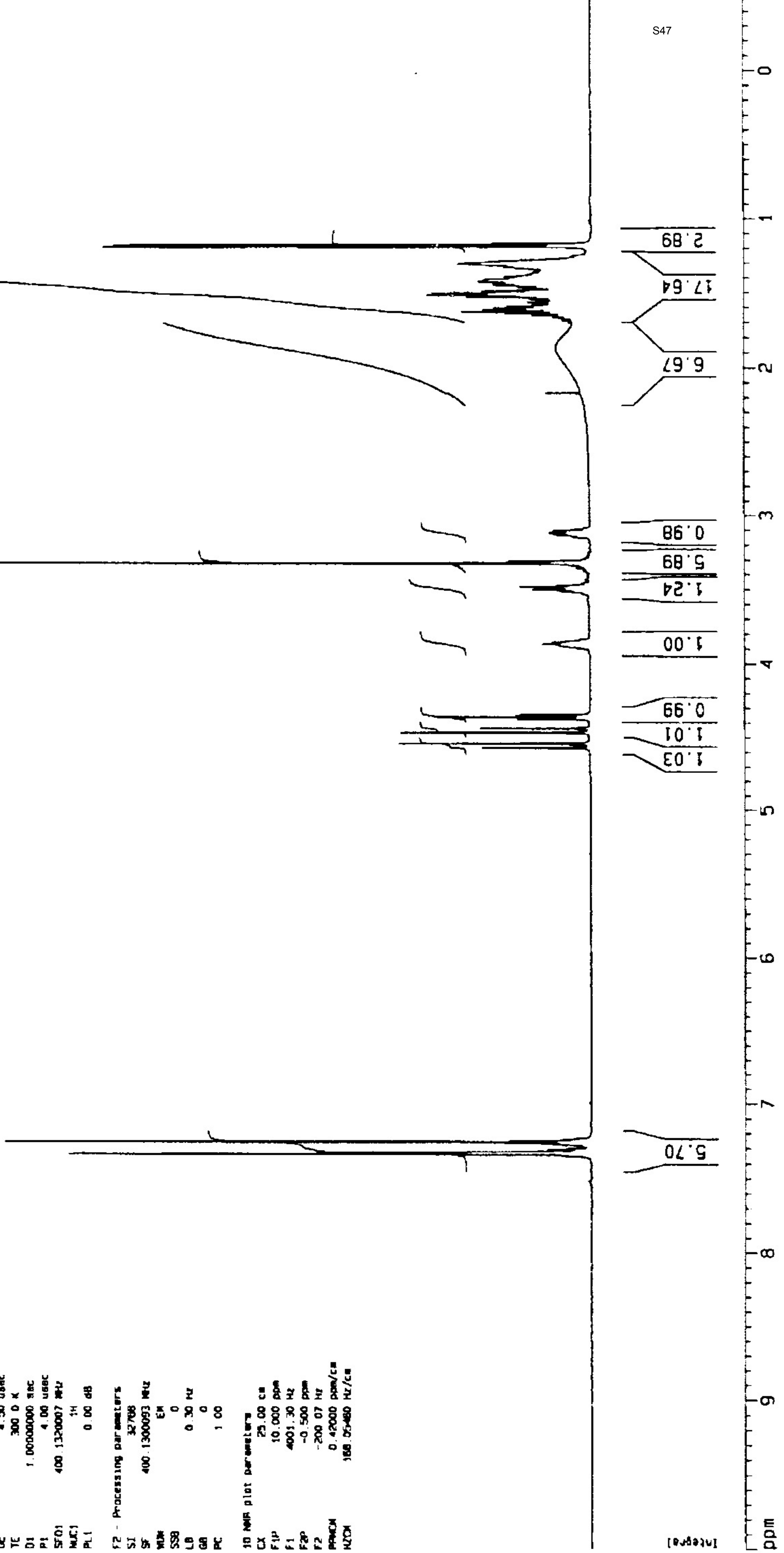
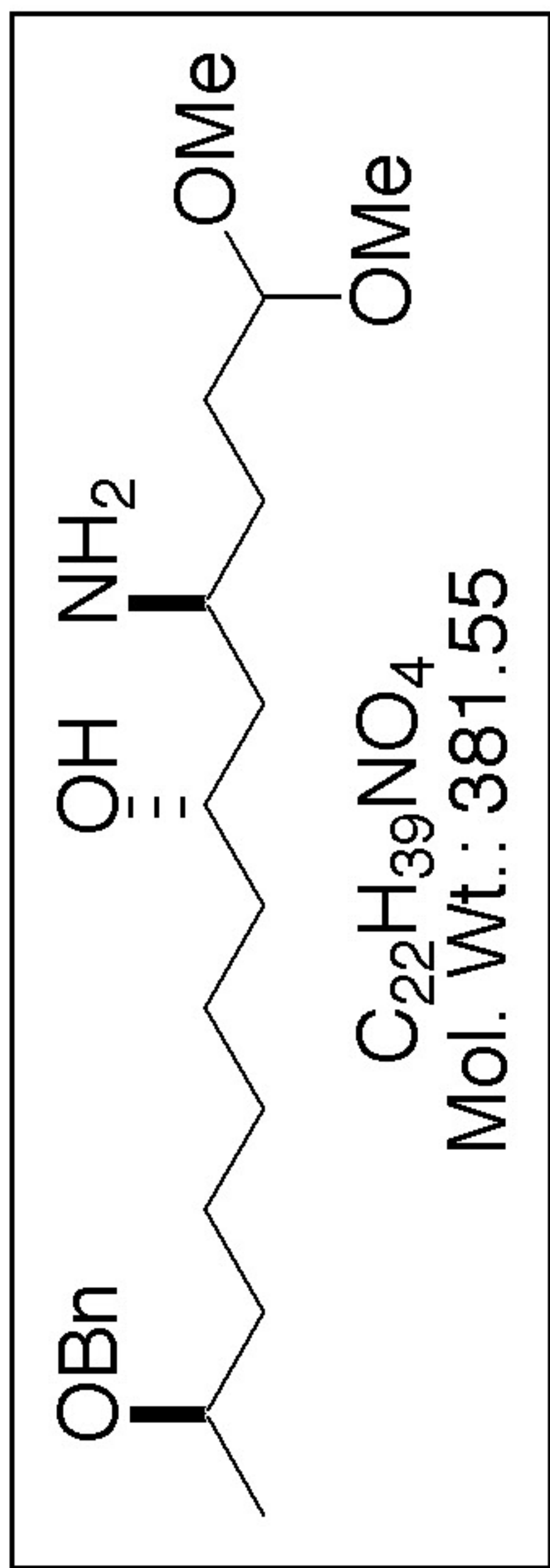


Current Date Parameters
NAME fc-111-172
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 990112
Time 19.04
INSTRUM spect
PROBHD 5 mm DNP 1H
PULPROG zg
TD 16384
SOLVENT CDCl3
NS 16
DS 2
SWH 4789.272 Hz
FIDRES 0.292314 Hz
AQ 1.7105396 sec
RG 322.5
DM 104.400 usec
DE 4.50 usec
TE 300.0 K
D1 1.00000000 sec
P1 4.00 usec
SFO1 400.1320007 MHz
NUC1 1H
PL1 0.00 dB

F2 - Processing parameters
SI 32768
SF 400.130093 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 25.00 cm
F1P 10.000 ppm
F1 4001.30 Hz
F2P -0.500 ppm
F2 -200.07 Hz
PRACH 0.42000 ppm/cm
HZCK 168.05460 Hz/cm



Integrals

ppm

Current Data Parameters

NAME fc-111-172
 EXPNO 3
 PRGNO 1

F2 - Acquisition Parameters

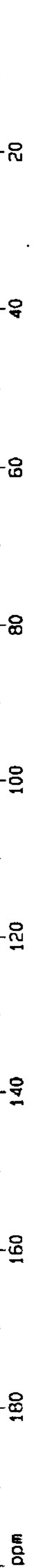
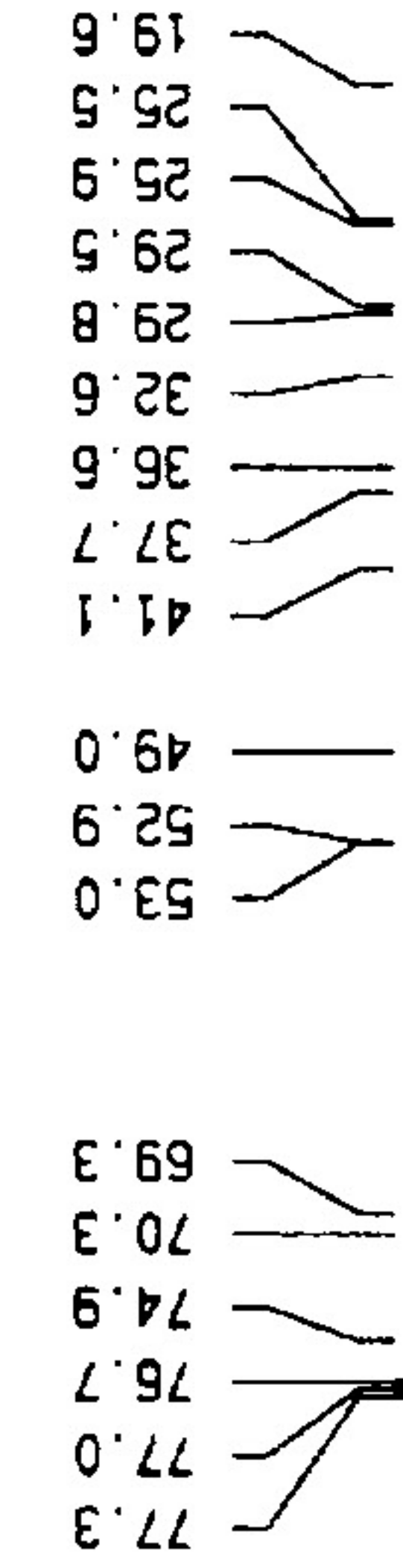
Date_ 990112
 Time 19.13
 INSTRUM spect
 PULPROG zgpg
 TD 32768
 SOLVENT CDCl3
 NS 1096
 DS 0
 SM 25125.629 Hz
 FIDRES 0.766773 Hz
 AQ 0.6521332 sec
 RG 2048
 DW 19.900 usec
 DE 4.50 usec
 TE 300.0 K
 D11 0.0300000 sec
 PL12 17.00 dB
 D1PRG2 mlev16
 PCPD2 90.00 usec
 SF02 400.1320007 MHz
 NUC2 1H
 PL2 17.00 dB
 O1 2.0000000 sec
 P1 4.00 usec
 SF01 100.6232933 MHz
 NUC1 13C
 PL1 0.00 dB

F2 - Processing Parameters

SF 32768
 SF 100.612712 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

10 NMR plot parameters

CX 25.00 cm
 F1P 200.000 ppm
 F1 20122.55 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPM04 8.00000 ppm/cm
 HZCM 804.80216 Hz/cm

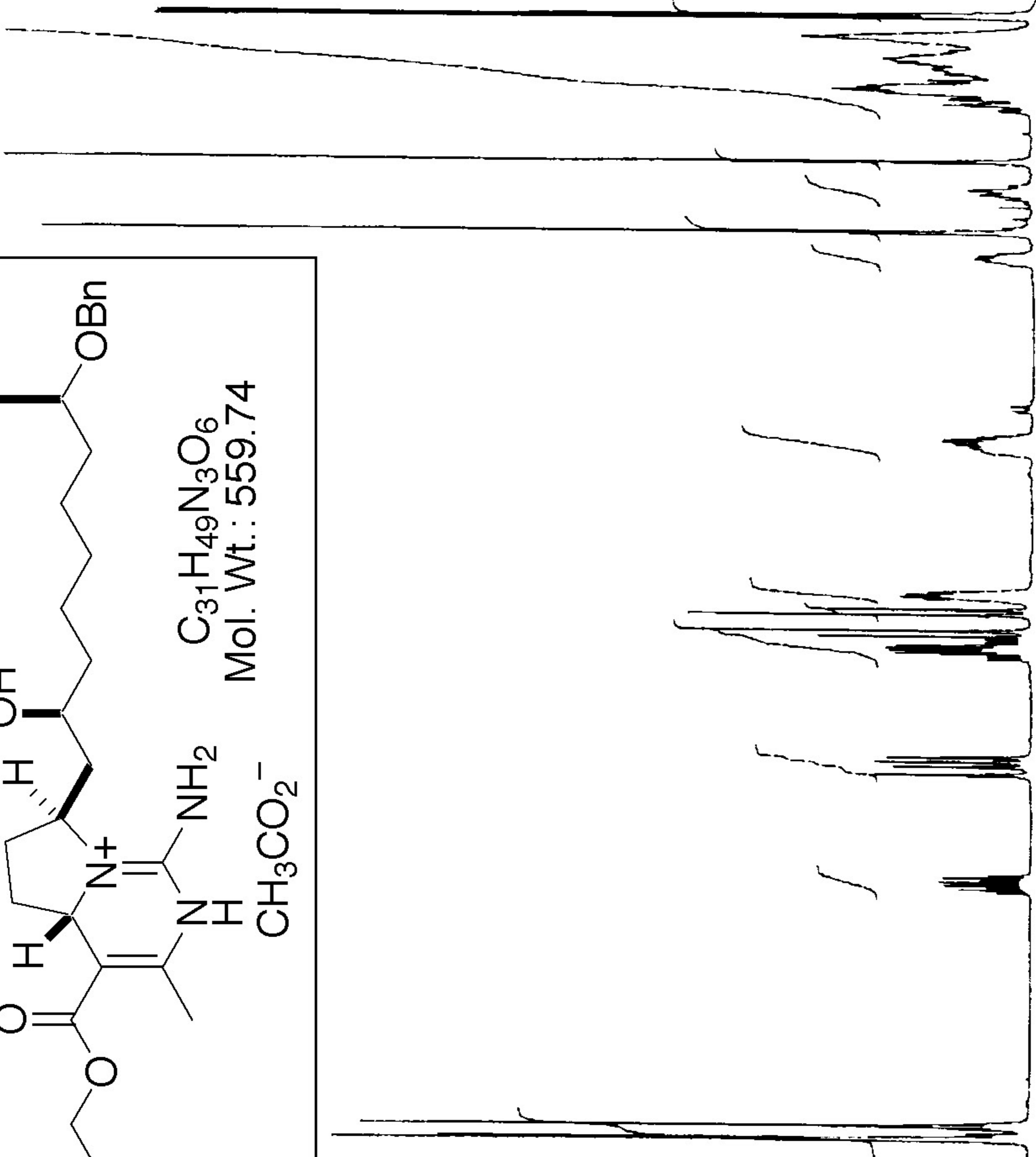
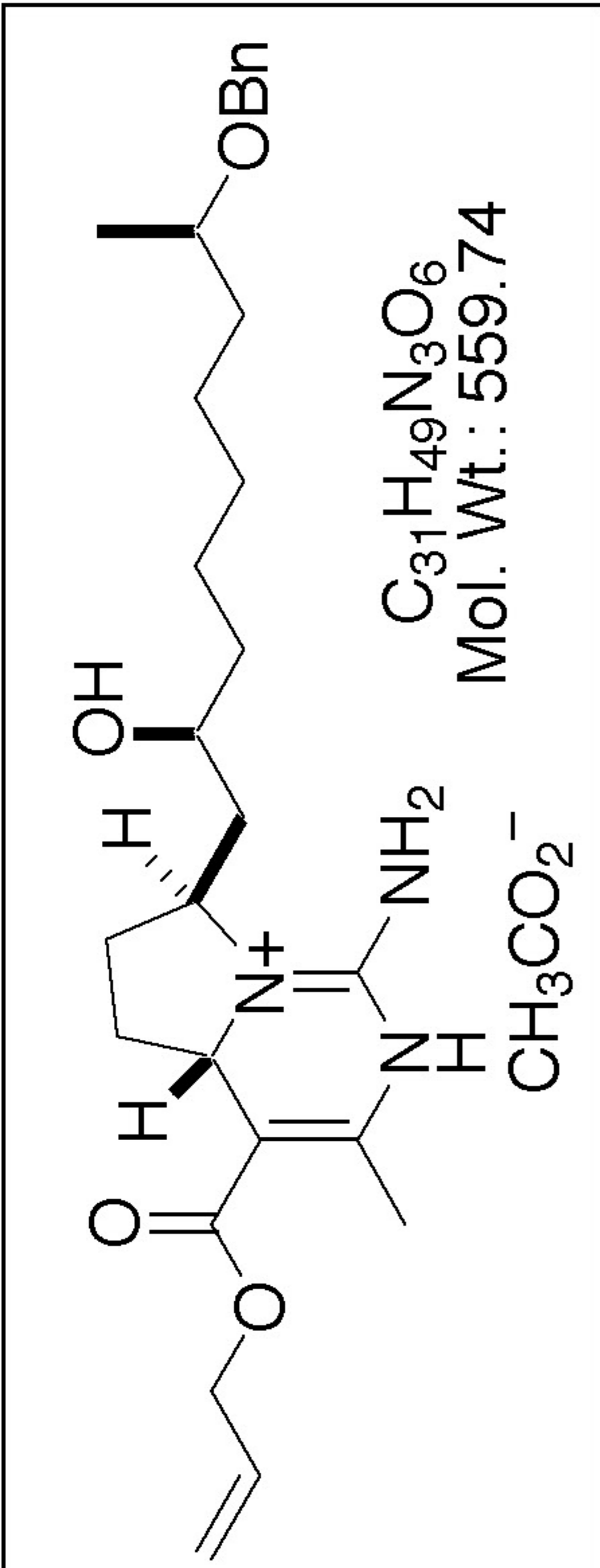


Current Date Parameters
NAME 12-11-179
EXPCNC
PROCNC

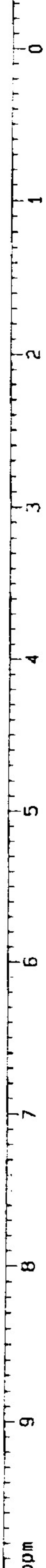
F2 - Acquisition Parameters
Date: 99012
Time 10 29
INSTRUM spect
PROBHD 5 mm QNP 1H
PULPROG zg
TD 16384
SOLVENT CDCl3
NS 16
DS 2
SWH 4789.272 Hz
FIDRES 0.292114 Hz
AQ 1.7101396 sec
RG 322.5
DN 104.400 usec
DC 4.50 usec
TE 300.2 K
DT 1.0000000 sec
PI 4.00 usec
SF01 400.120007 MHz
NUC1 1H
PL1 0.00 dB

F2 - Processing parameters
SI 32788
SF 400.1360093 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
EX 25.00 CF
F1P 10.000 ppm
F1 4001.30 Hz
F2P -0.500 ppm
F2 -200.07 Hz
PPM0M 0.42000 ppm/cm
MATH 16R 05460 Hz/cm



| Chemical Shift (ppm) | Integration |
|----------------------|-------------|
| 4.88 | 4.88 |
| 2.86 | 2.86 |
| 2.80 | 2.80 |
| 1.75 | 1.75 |
| 1.66 | 1.66 |
| 1.03 | 1.03 |
| 0.93 | 0.93 |



Current Data Parameters
NAME 1c-111-179
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters

Date_ 990121
Time 13 13
INSTRUM spect
PROBHD 5 mm QNP 1H
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 454
DS 0
SFO 25125.628 MHz
FIDRES 0.766773 Hz
AQ 0.6521332 sec
RG 1825.5
DM 19.900 usec
DE 4.50 usec
TE 300.0 K
D11 0.03000000 sec
P112 17.00 usec
EPCPRG2 mlev15
PCPD2 90.00 usec
SFO2 400.1320007 MHz
NUC2 1H
P12 17.00 usec
D1 2.00000000 sec
P1 4.00 usec
SFO1 100.6232933 MHz
NUC1 13C
P11 0.00 usec

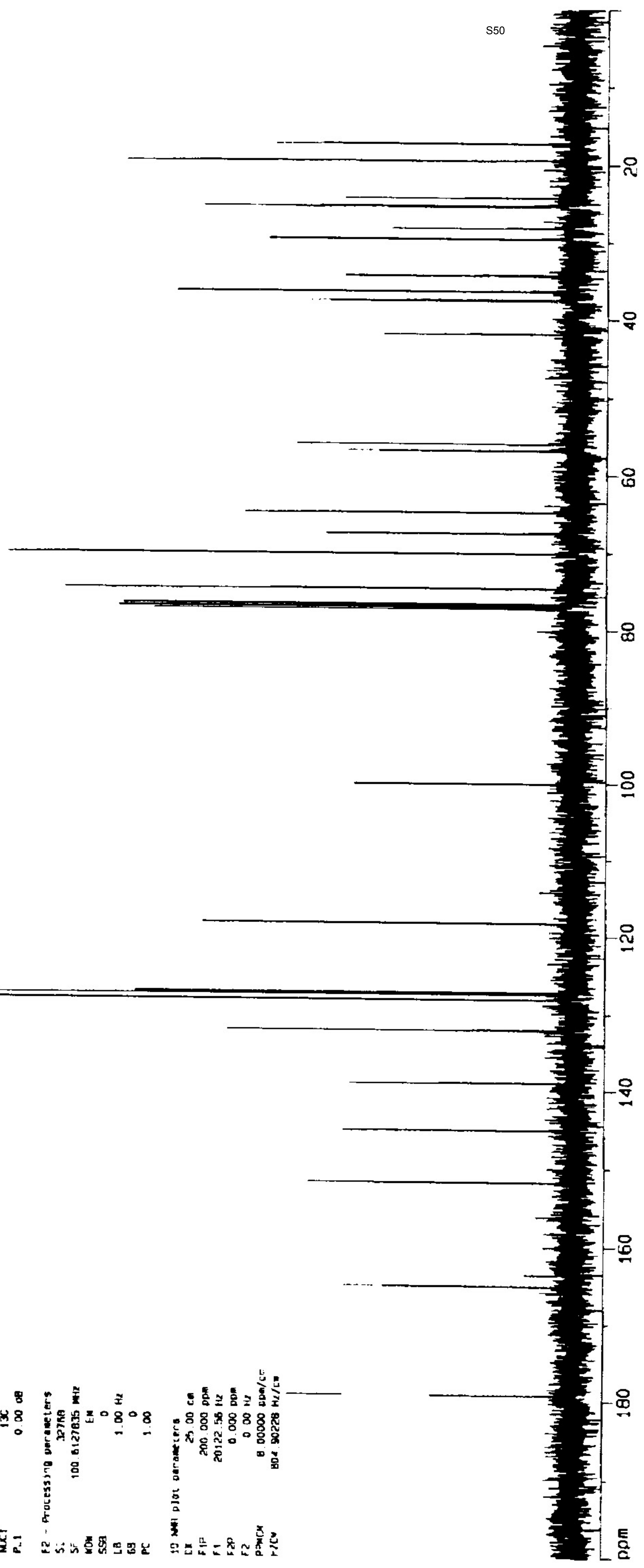
F2 - Processing parameters

SI 32768
SF 100.6127635 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

EX 25.00 cm
F1F 200.000 ppm
F1 20122.56 Hz
F2P 0.000 ppm
F2 0.00 Hz
P2MCK 8.00000 ppm/cm
F2CV 804.90226 Hz/cm

179.2
177.3
177.0
176.7
174.7
170.1
167.5
164.8
155.9
156.8
155.9
151.7
145.1
139.0
132.1
128.1
127.4
127.2
118.3
100.1
77.3
76.7
74.7
70.1
67.5
64.8
56.8
55.9
41.9
37.6
36.4
34.3
29.8
28.2
25.4
25.4
24.3
19.5
17.3

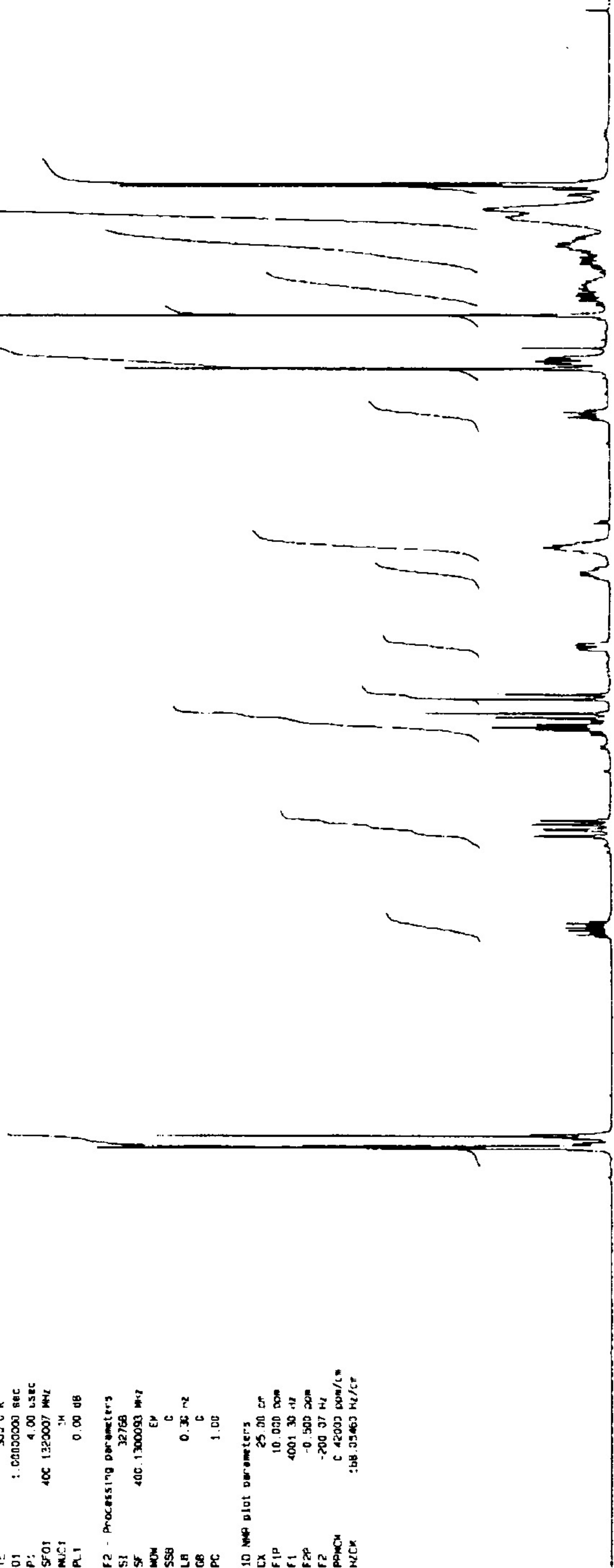
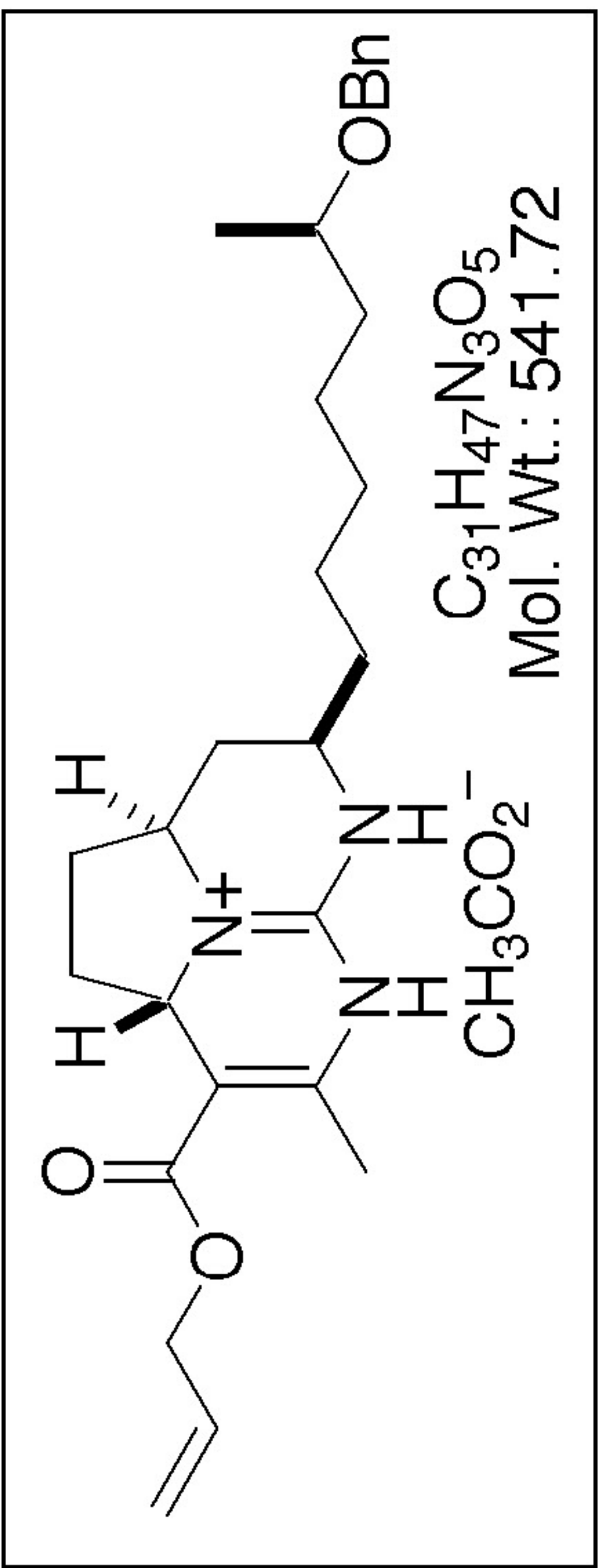


Current Data Parameters
NAME 15-111-18502
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 990201
Time 8 25
INSTRUM spect
PROBHD 5 mm QNP 1H
PULPROG zg
TD 16384
SOLVENT DMSO
NS 16
DS 2
SWH 4785.272 Hz
FIDRES 0.292314 Hz
AQ 1.7105395 sec
RG 322.5
DM 104.400 usec
DE 4.50 usec
TE 300.0 K
D1 1.0000000 sec
P1 4.00 usec
SFO1 400.1320007 MHz
NUC1 1H
PL1 0.00 dB

F2 - Processing parameters
SI 32768
SF 400.130093 MHz
WDW EP
SSB C
LB 0.36 Hz
GB C
PC 1.00

1D NMR plot parameters
EX 25.00 cr
F1P 10.000 ppm
F1 4001.30 Hz
F2P -0.500 ppm
F2 -200.07 Hz
PPOCK C 42003 ppm/LW
NUCK :bb.05463 Hz/cr



| Chemical Shift (ppm) | Integration |
|----------------------|-------------|
| 5.239 | 0.852 |
| 2.779 | 1.061 |
| 0.880 | 0.949 |
| 2.055 | 2.055 |
| 4.511 | 1.000 |
| 2.847 | 1.925 |
| 3.381 | 3.381 |
| 7.718 | 7.718 |
| 3.953 | 3.953 |

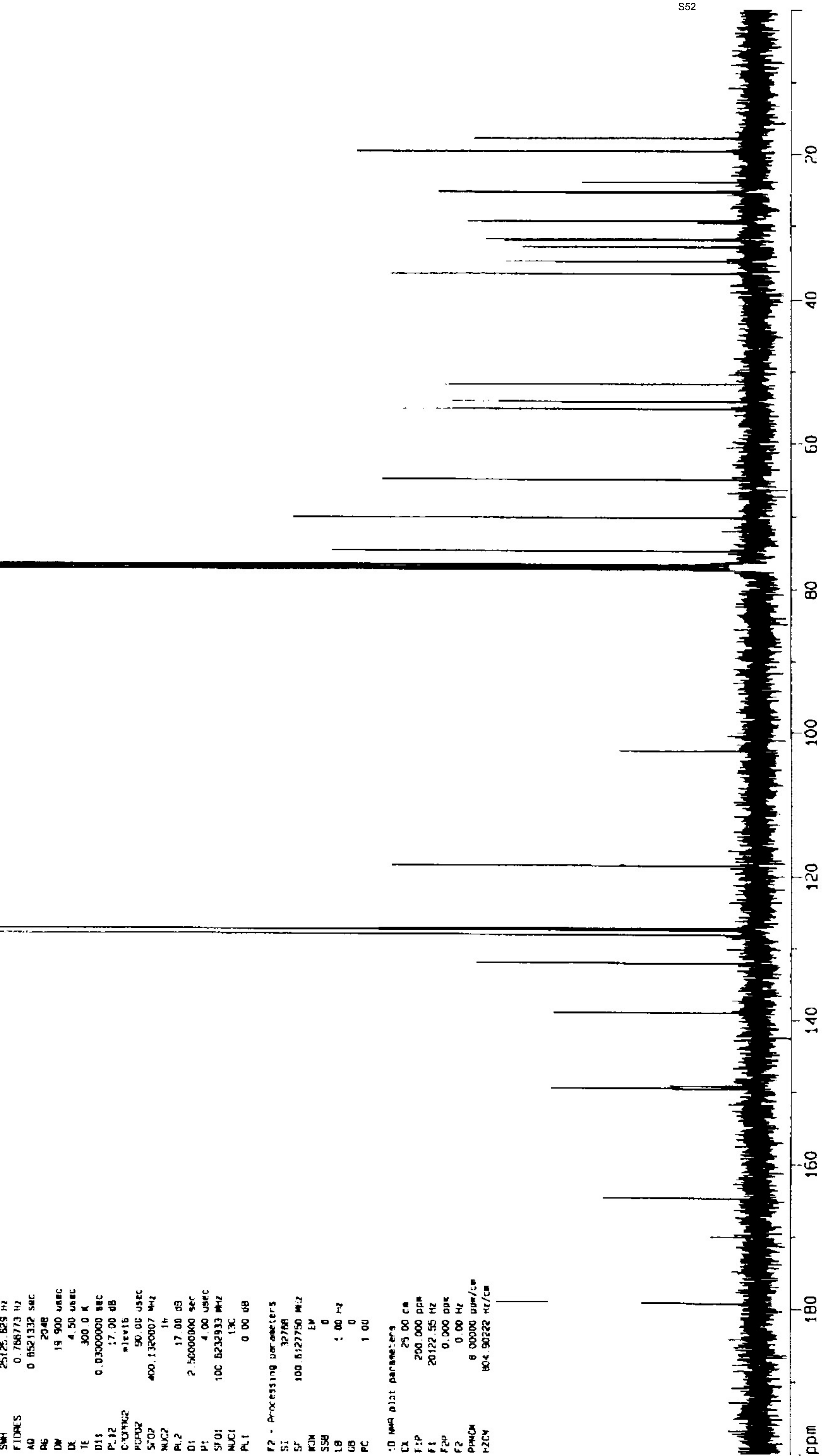
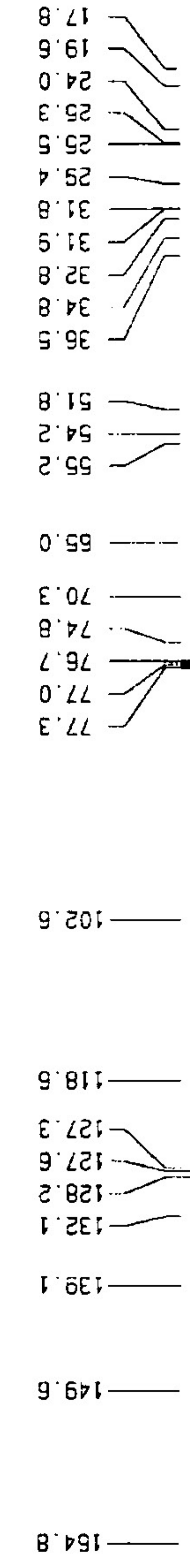
ppm 0 1 2 3 4 5 6 7 8 9

Current Data Parameters
NAME 16-111-1890
EXNO 9
PROCNO 1

F2 - Acquisition Parameters
Date 990209
Time 6:35
SPECTRUM
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 8596
DS 0
SWH 25125.825 Hz
FIDRES 0.766773 Hz
AQ 0.852132 sec
RG 2048
DM 19.900 uSAC
DL 4.50 uSEC
TE 300.0 K
D11 0.0300000 sec
PL12 17.00 dB
C-ORIG2 mlev16
PCPDZ 50.00 uSEC
SF02 400.132007 MHz
NUC2 1H
PL2 17.00 dB
DT 2.50000000 sec
PI 4.00 uSEC
SF01 100.6232933 MHz
NUC1 13C
PL1 0.00 dB

F2 - Processing parameters
SI 32768
SF 100.612750 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.00

F0 Hetero dit parameters
CX 25.00 cm
F1P 200.000 ppm
F1 20122.55 Hz
F2P 0.000 ppm
F2 0.00 Hz
P1PDM 8.00000 ppm/cm
F2CY 804.90322 Hz/cm



Current Data Parameters
 NAME FC-111-241
 EXPNO 10
 PRCCNO 1

F2 - Acquisition Parameters

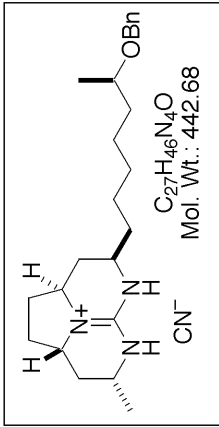
Date_ 990315
 Time_ 8.50
 INSTRUM spect
 PROCNO 5
 PULPROG zg
 TC 32768
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6009.615 Hz
 FIDRES 0.163399 Hz
 AQ 2.7263477 sec
 RG 574.7
 DM 83.200 usec
 DE 6.00 usec
 TE 300.0 K
 O1 1.00000000 sec
 P1 4.00 usec
 SF01 499.8924995 MHz
 NUC1 1H
 PL1 0.00 g3

F2 - Processing parameters

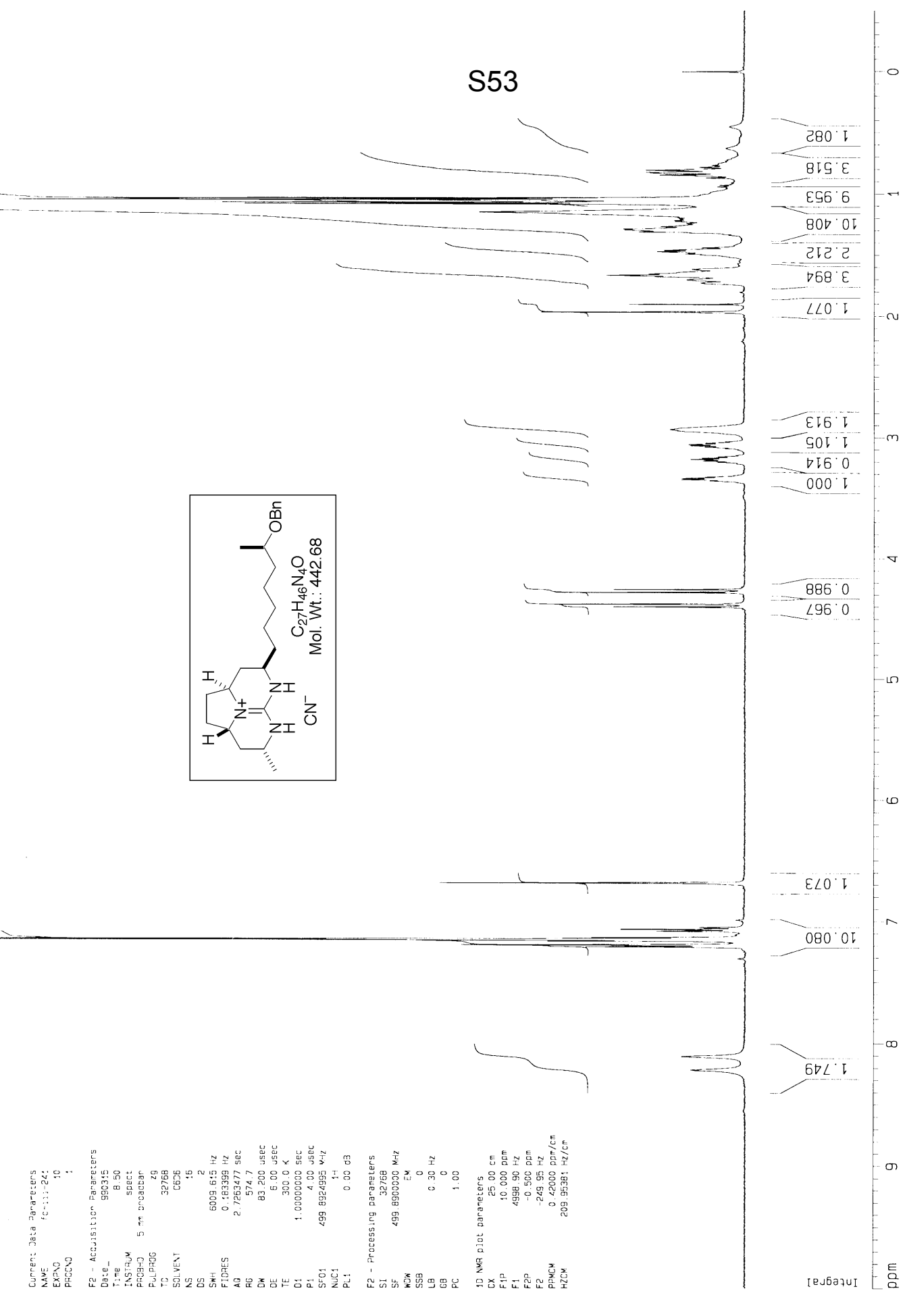
SI 32768
 SF 499.8900000 MHz
 WCW 3M
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 25.00 cm
 F1 10.000 ppm
 F1 4998190 Hz
 F2 -0.500 ppm
 F2 -249.95 Hz
 PPM0 0.42000 ppm/cm
 HZ0 209.95391 Hz/cm



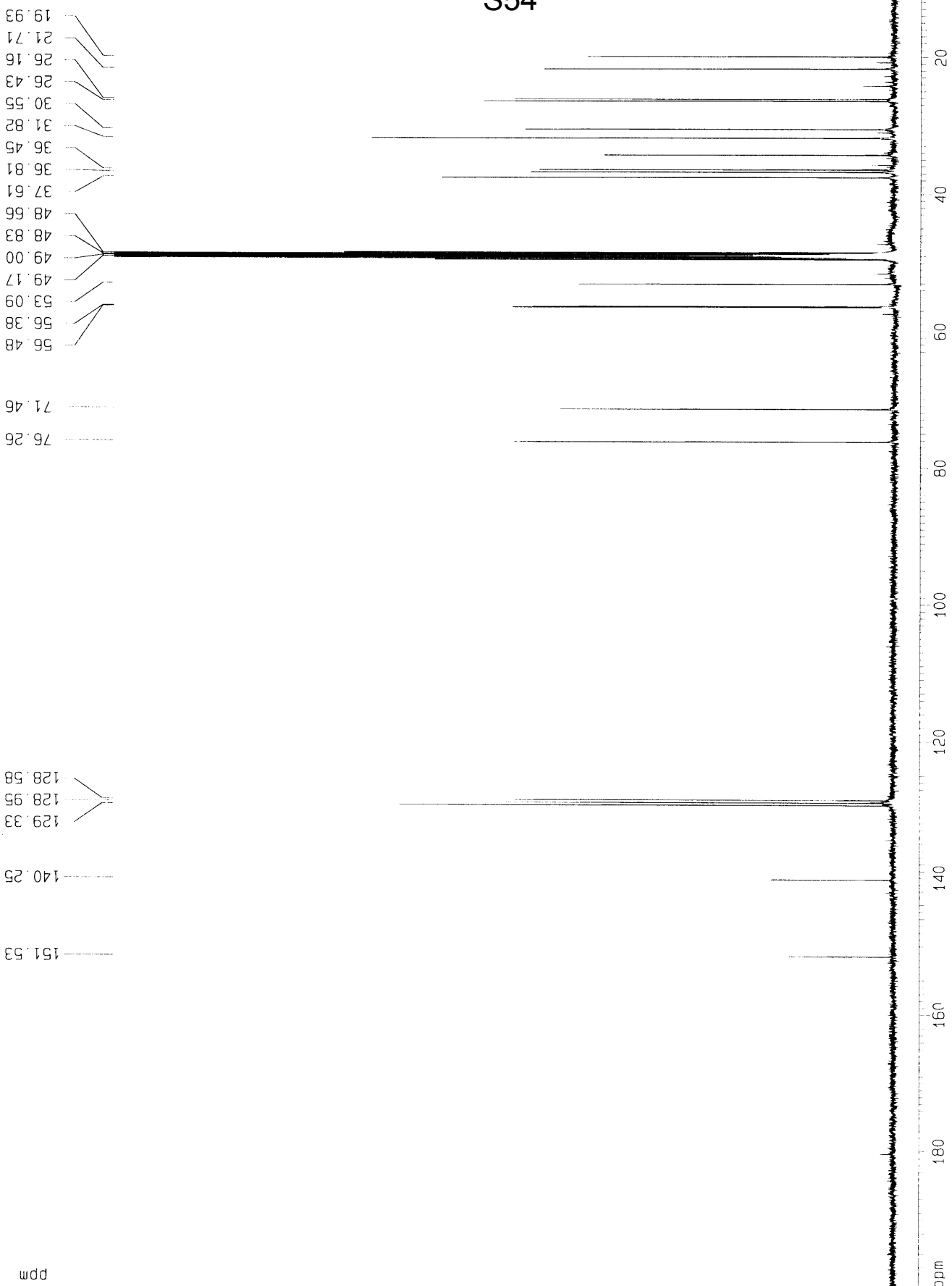
S53



Integral

ppm

S54

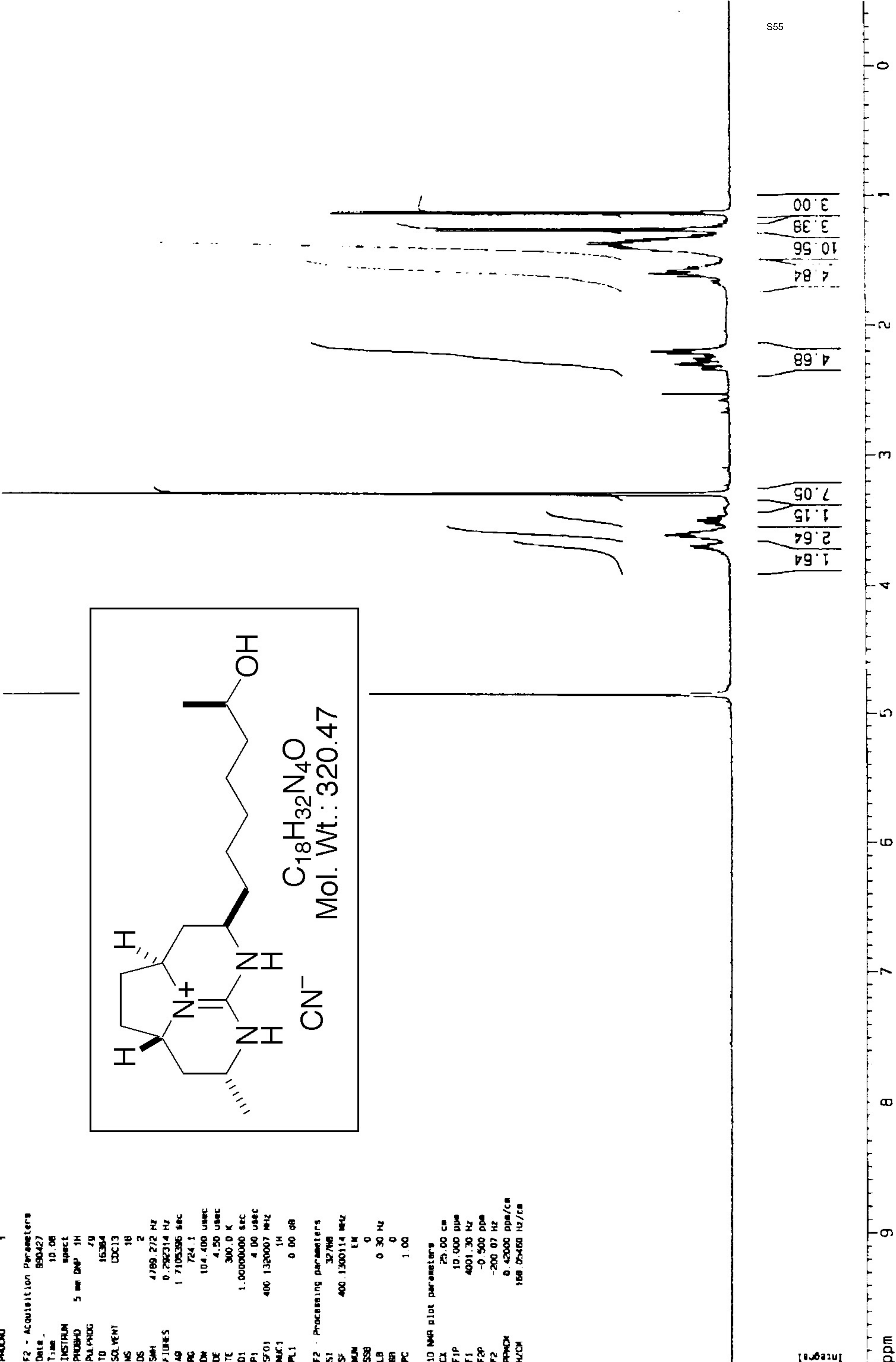
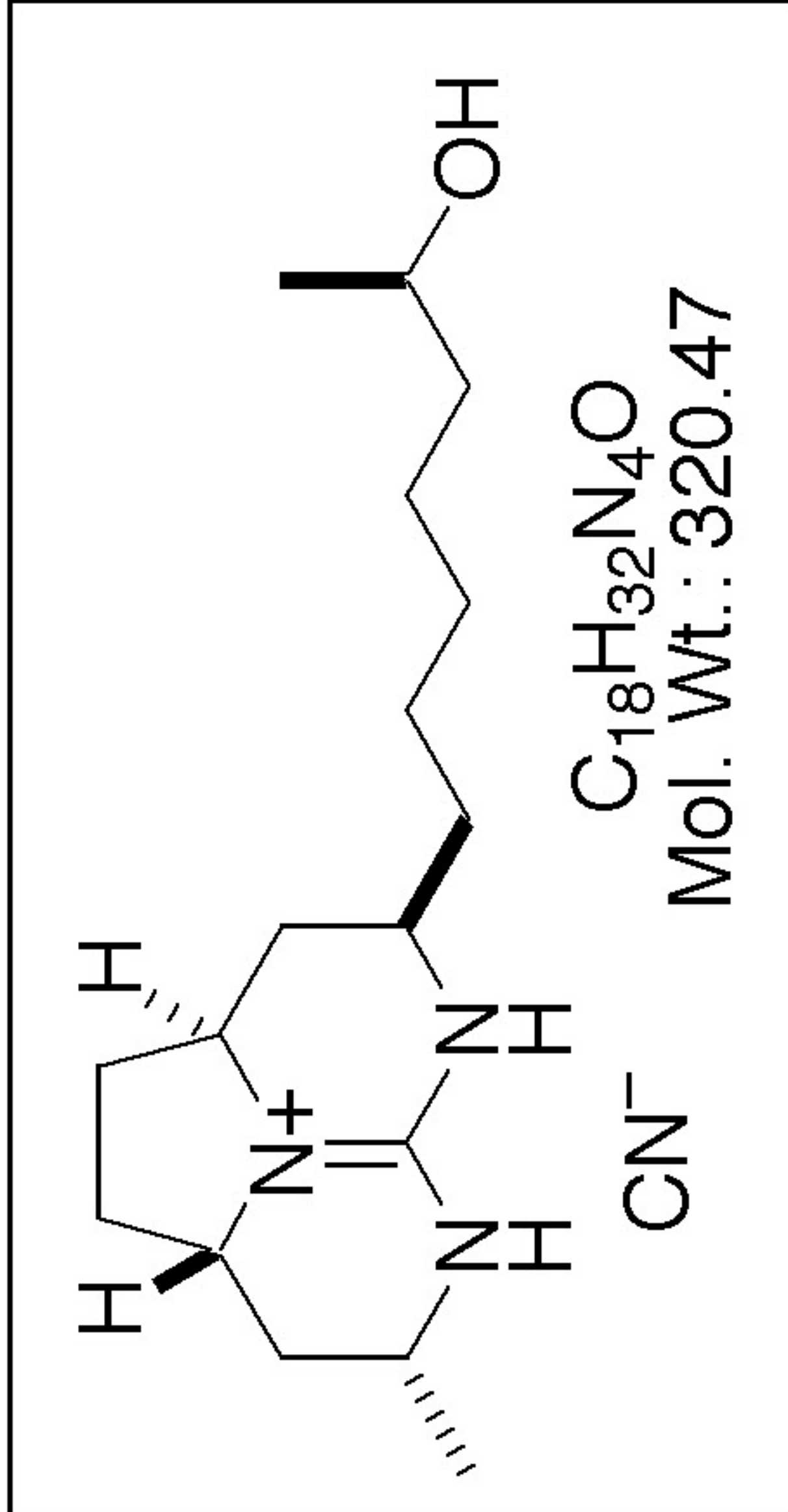


Current Data Parameters
NAME fc-111-2816
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 990427
Time 10.08
INSTRUM spect
PROBHD 5 mm DNP 1H
PULPROG zg
TD 16384
SOLVENT CDCl3
NS 16
DS 2
SWH 4789.272 Hz
FIDRES 0.292314 Hz
AQ 1.7105396 sec
RG 724.1
Dw 104.400 usec
DE 4.50 usec
TE 300.0 K
D1 1.0000000 sec
F1 4.00 usec
SFO1 400.1320007 MHz
NUC1 1H
PL1 0.00 dB

F2 - Processing parameters
SI 32768
SF 400.1300114 MHz
MUM EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CA 25.00 cm
F1P 10.000 usec
F1 4001.30 Hz
F2P -0.500 usec
F2 -200.07 Hz
PPHMX 0.42000 ppm/cm
NACM 188.05460 Hz/cm



Integral

ppm

21.68
23.54
26.16
26.70
30.60
31.82
34.29
36.77
40.01
48.82
49.00
49.17
49.34
53.07
56.34
68.45

151.54

Current Data Parameters
NAME fc-111-286
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters

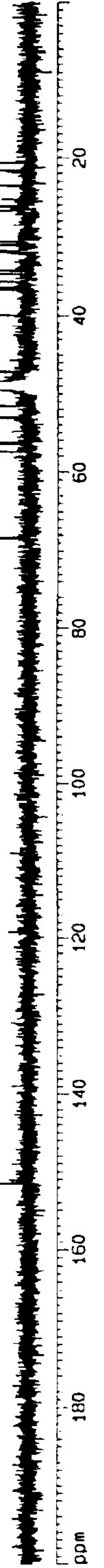
Date_ 990427
Time 13.47
INSTRUM spect
PROBHD 5 mm broadband
PULPROG zgdc
TD 32768
SOLVENT C5D6
NS 627
DS 0
SWH 31446.541 Hz
FIDRES 0.959672 Hz
AQ 0.5210612 sec
RG 2048
DM 15.900 usec
DE 4.50 usec
TE 300.0 K
D11 0.0300000 sec
PL12 15.00 dB
CPOPHG2 waltz16
PCPD2 79.50 usec
SF02 499.8924995 MHz
NUC2 1H
PL2 120.00 dB
D1 2.0000000 sec
P1 3.00 usec
SF01 125.7105882 MHz
NUC1 13C
PL1 0.00 dB

F2 - Processing parameters

S1 16384
SF 125.6972680 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 25.00 cm
F1P 200.000 ppm
F1 25139.45 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPHCH 8.00000 ppm/cm
HZCM 1005.57812 Hz/cm



Current Data Parameters
NAME fc-111-216
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters

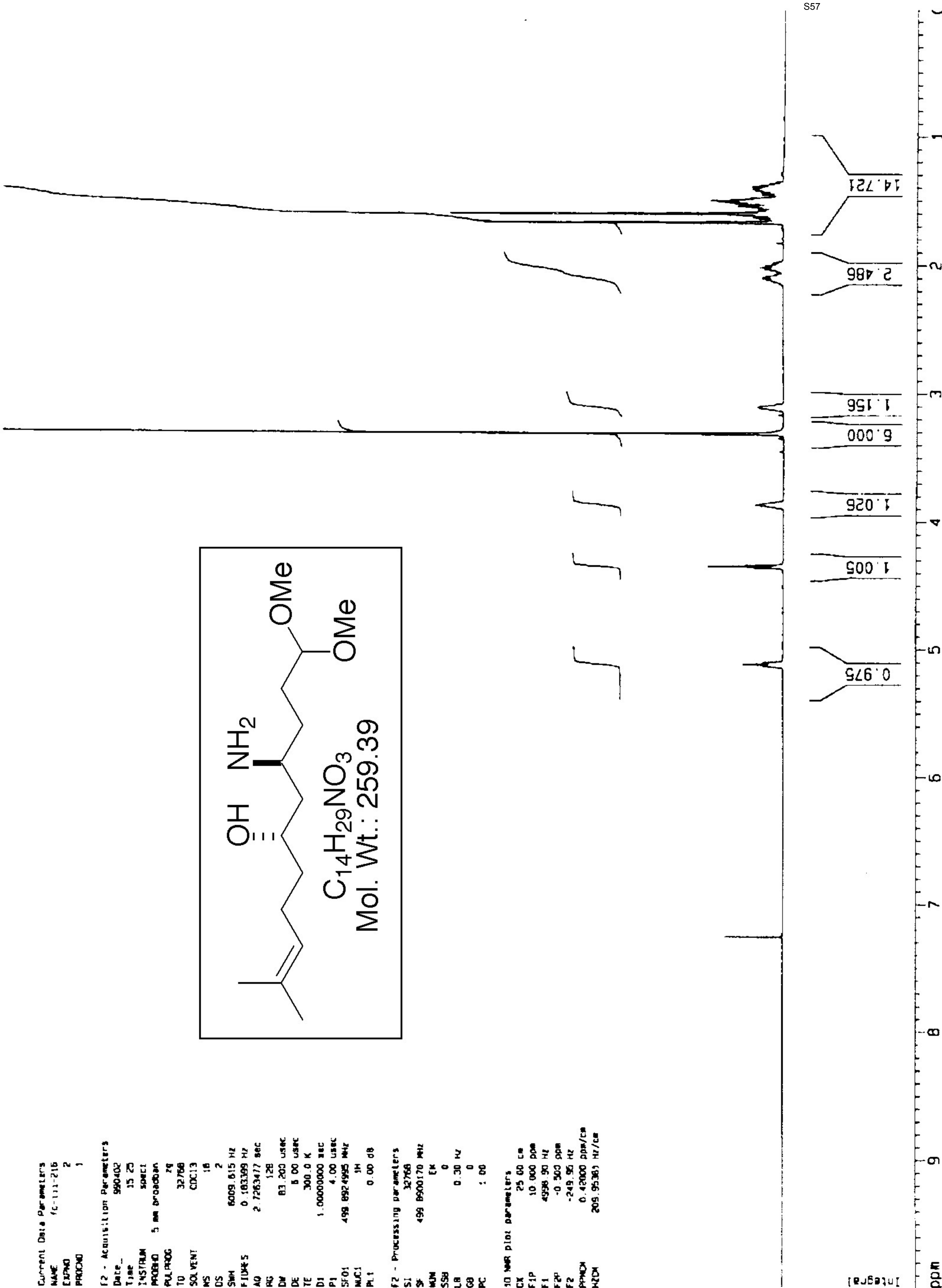
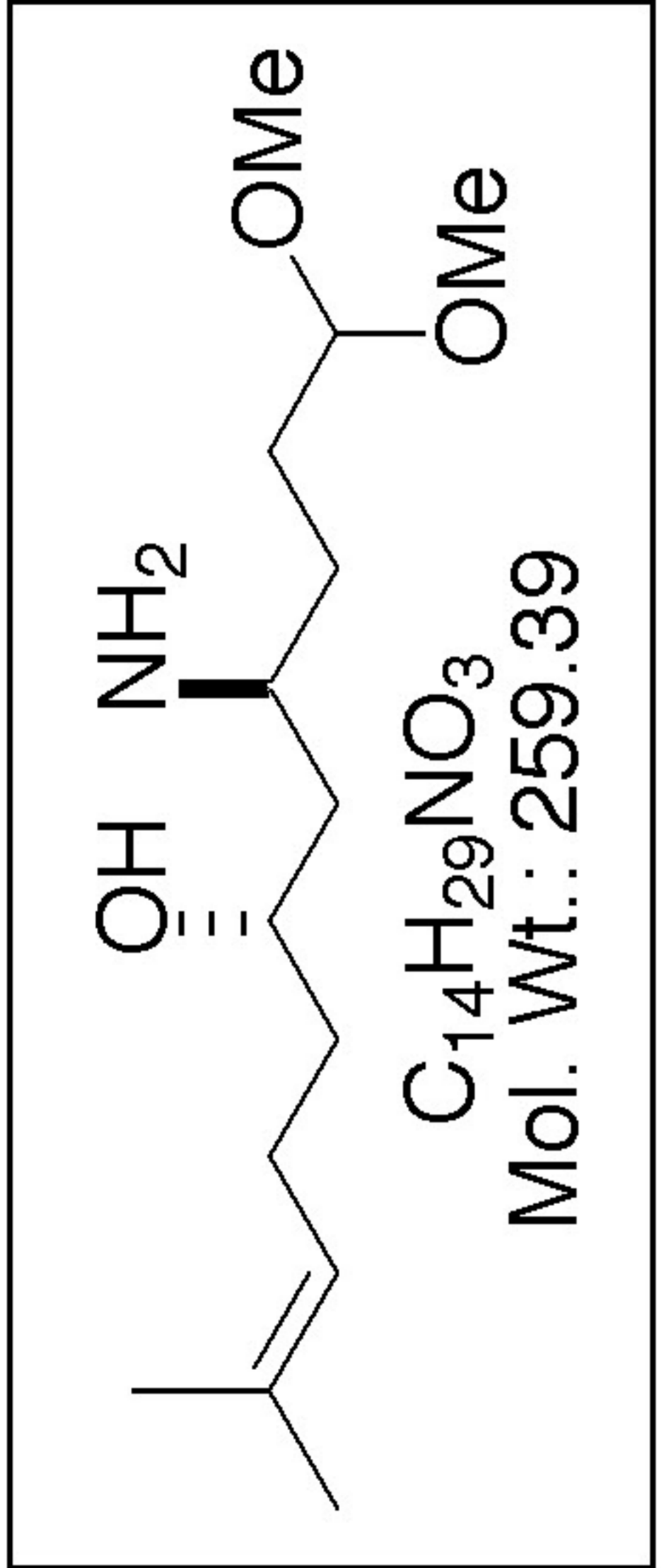
Date_ 990402
Time 15 25
INSTRUM spect
PROBHD 5 mm Broadband
PULPROG zg
TU 32768
SOLVENT CDCl3
NS 16
DS 2
SWH 6009.615 Hz
FIDRES 0.163399 Hz
AQ 2.7263477 sec
RG 128
DI 83.200 usec
DE 5.00 usec
TE 300.0 K
D1 1.00000000 sec
P1 4.00 usec
SFO1 499.8924995 MHz
NUC1 1H
PL1 0.00 dB

F2 - Processing parameters

SI 32768
SF 499.8924995 MHz
NUC1 1H
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 25.00 cm
F1P 10.000 ppm
F1 4998.90 Hz
F2P -0.300 ppm
F2 -249.95 Hz
PPM0 0.42000 ppm/cm
HZ0 209.95361 Hz/cm



Current Data Parameters
 NAME fc-111-216
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters

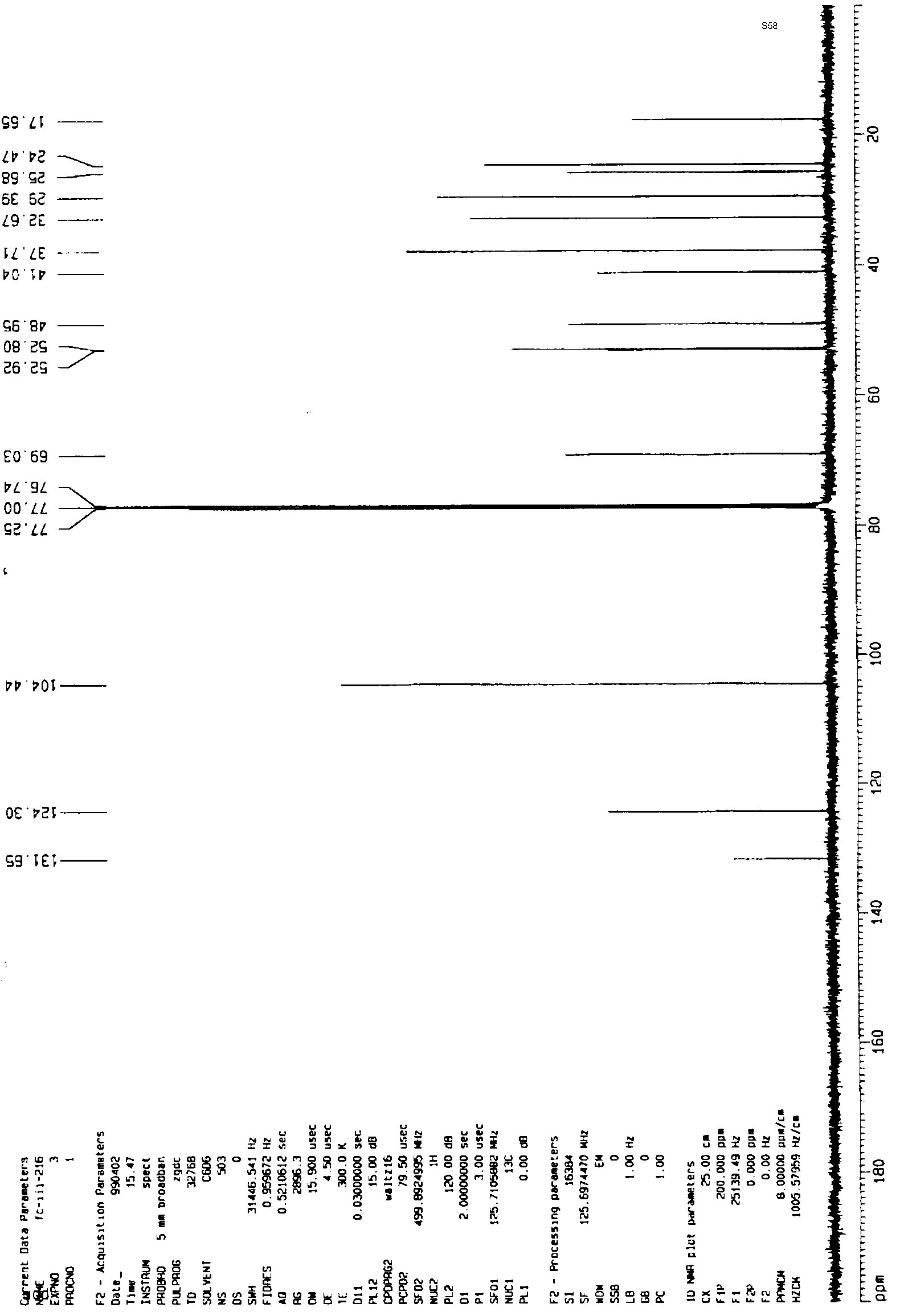
Date_ 990402
 Time 15.47
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zgdc
 TD 32768
 SOLVENT C6D6
 NS 503
 DS 0
 SWH 31446.541 Hz
 FIDRES 0.959672 Hz
 AQ 0.5210612 sec
 RG 2896.3
 DM 15.900 usec
 DE 4.50 usec
 TE 300.0 K
 D11 0.0300000 sec
 PL12 15.00 dB
 CPDPRG2 waltz16
 PCPD2 79.50 usec
 SF02 499.8924995 MHz
 NUC2 1H
 PL2 120.00 dB
 D1 2.0000000 sec
 P1 3.00 usec
 SF01 125.7105882 MHz
 NUC1 13C
 PL1 0.00 dB

F2 - Processing parameters

SI 16384
 SF 125.6974470 MHz
 HDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 25.00 cm
 F1P 200.000 ppm
 F1 25139.49 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCH 8.00000 ppm/cm
 HZCH 1005.57959 Hz/cm



Current Data Parameters
 NAME fc-311-150
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

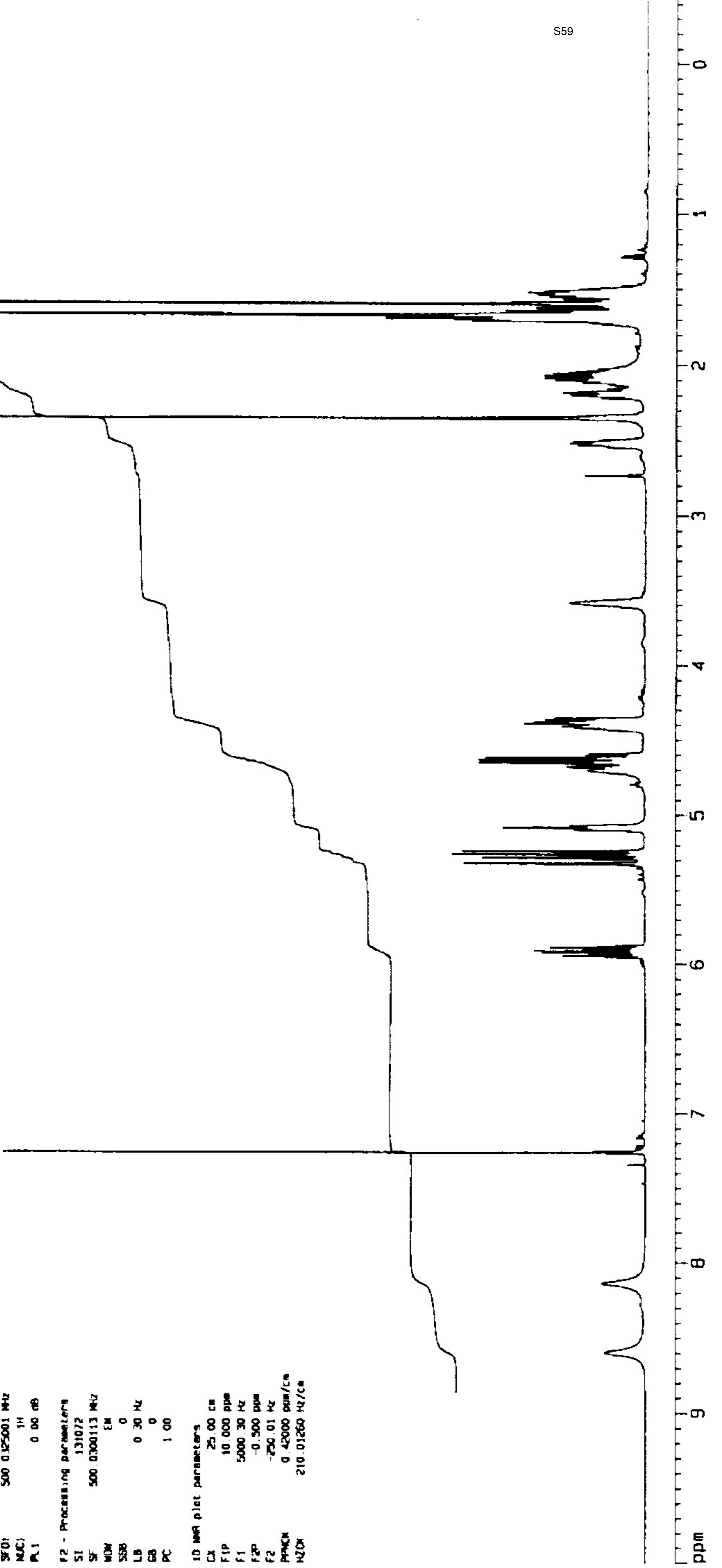
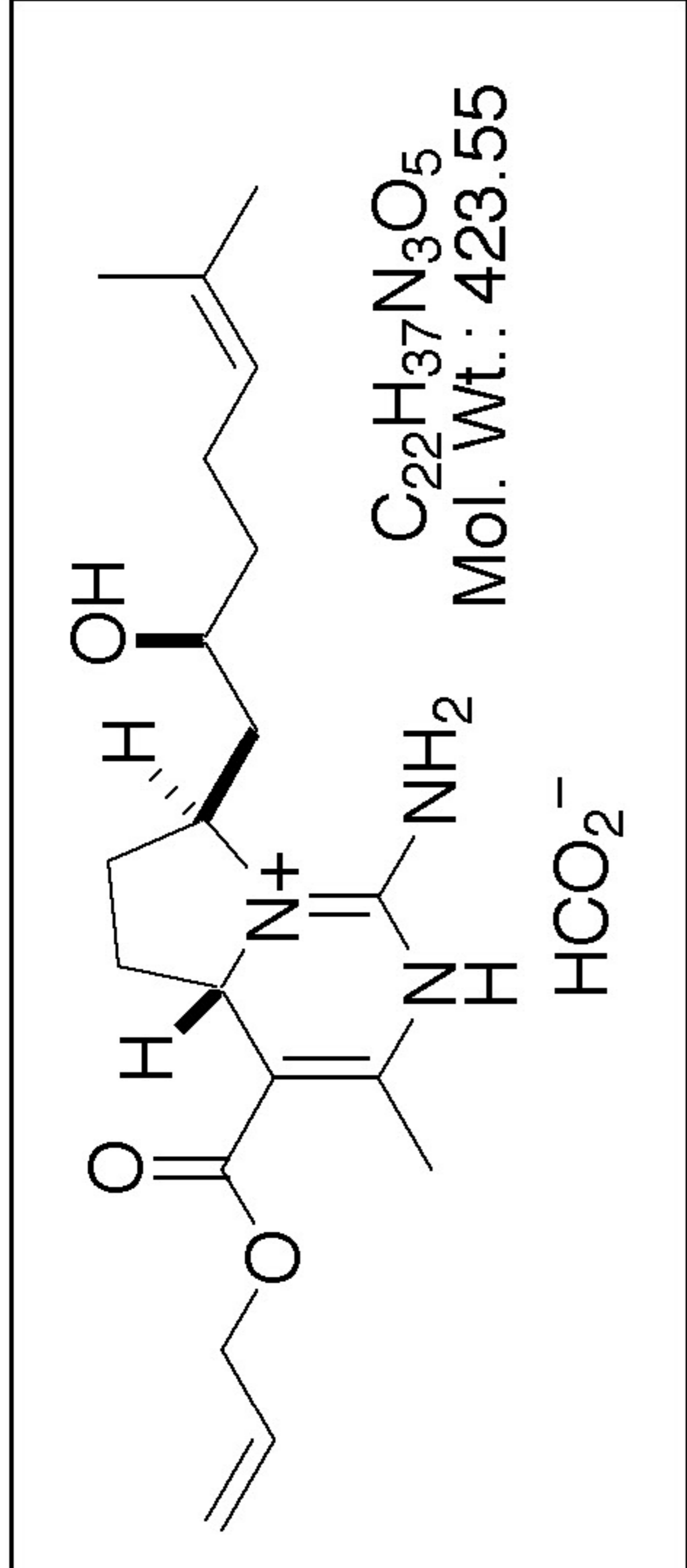
Date_ 980919
 Time 12.38
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zg
 TO 32786
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6009.615 Hz
 FIDRES 0.183399 Hz
 AQ 2.7283477 sec
 RG 128
 DR 83.200 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec
 P1 4.00 usec
 SF01 500.0125001 MHz
 NUC1 1H
 PL1 0.00 dB

F2 - Processing parameters

SI 131072
 SF 500.0300113 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

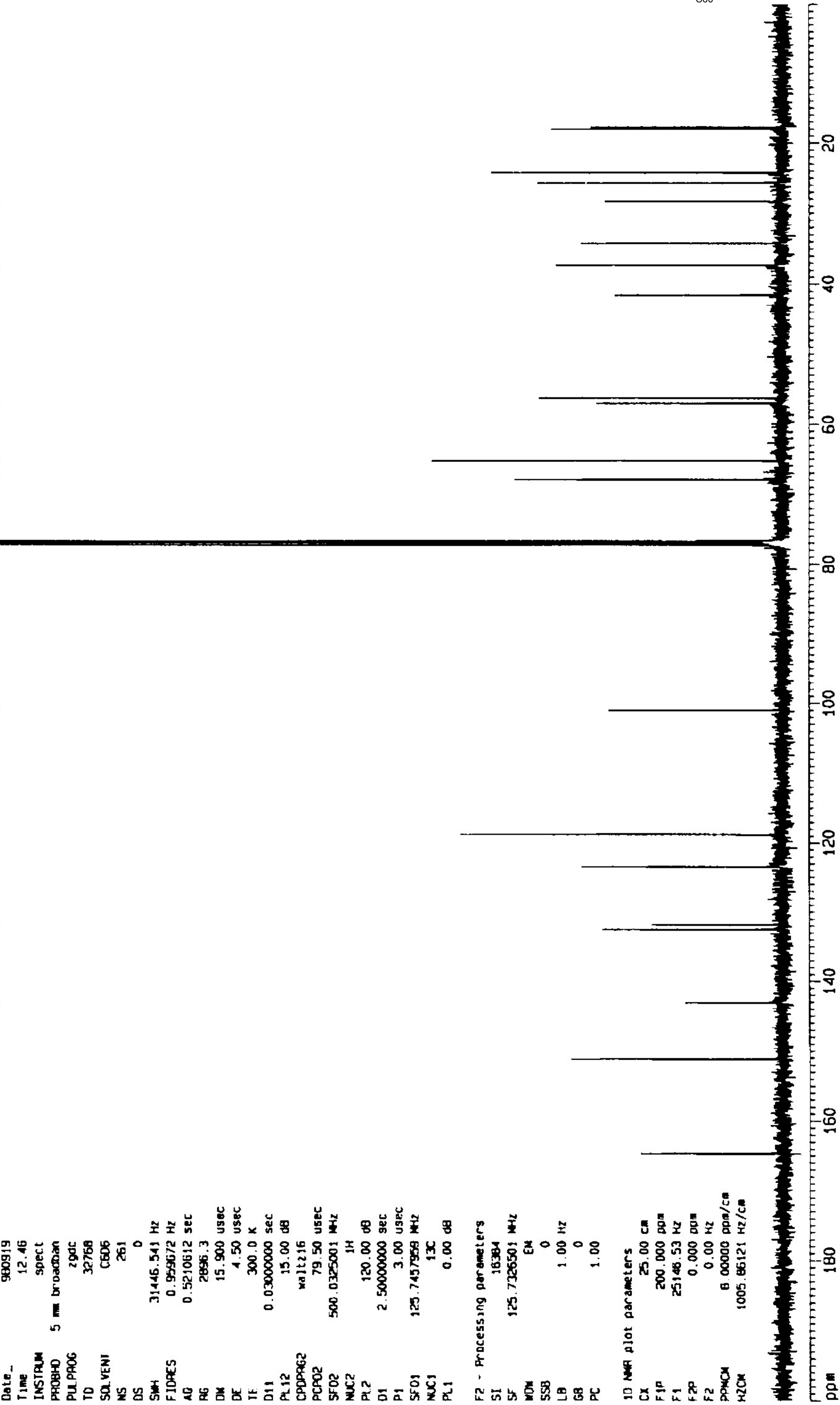
1D NMR plot parameters

CA 25.00 cm
 F1P 10.000 ppm
 F1 5000.30 Hz
 F2P -0.500 ppm
 F2 -250.01 Hz
 PPMCM 0.42000 ppm/cm
 HZCM 210.01250 Hz/cm



Current Data Parameters
 NAME fc-111-15b
 EXPNO 2
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 980919
 Time 12.46
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zgpgc
 TD 32768
 SOLVENT CDCl3
 NS 261
 DS 0
 SWH 31446.541 Hz
 FIDRES 0.959672 Hz
 AQ 0.5210612 sec
 RG 2896.3
 DM 15.900 usec
 DE 4.50 usec
 TE 300.0 K
 D11 0.03000000 sec
 PL12 15.00 dB
 CPDPRG2 waltz16
 PCPD2 79.50 usec
 SF02 500.0325001 MHz
 NUC2 1H
 PL2 120.00 dB
 D1 2.50000000 sec
 P1 3.00 usec
 SF01 125.7457958 MHz
 NUC1 13C
 PL1 0.00 dB
 F2 - Processing parameters
 SI 16384
 SF 125.7326501 MHz
 WDM GM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00
 1D NMR plot parameters
 CX 25.00 cm
 F1P 200.000 ppm
 F1 25148.53 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 ppmCM 6.00000 ppm/cm
 HzCM 1005.66121 Hz/cm

164.74
 151.16
 143.12
 132.52
 131.89
 123.43
 118.76
 101.03
 77.26
 77.00
 76.75
 67.92
 65.22
 57.03
 56.28
 41.56
 37.30
 34.24
 28.32
 25.67
 24.20
 18.00
 17.74

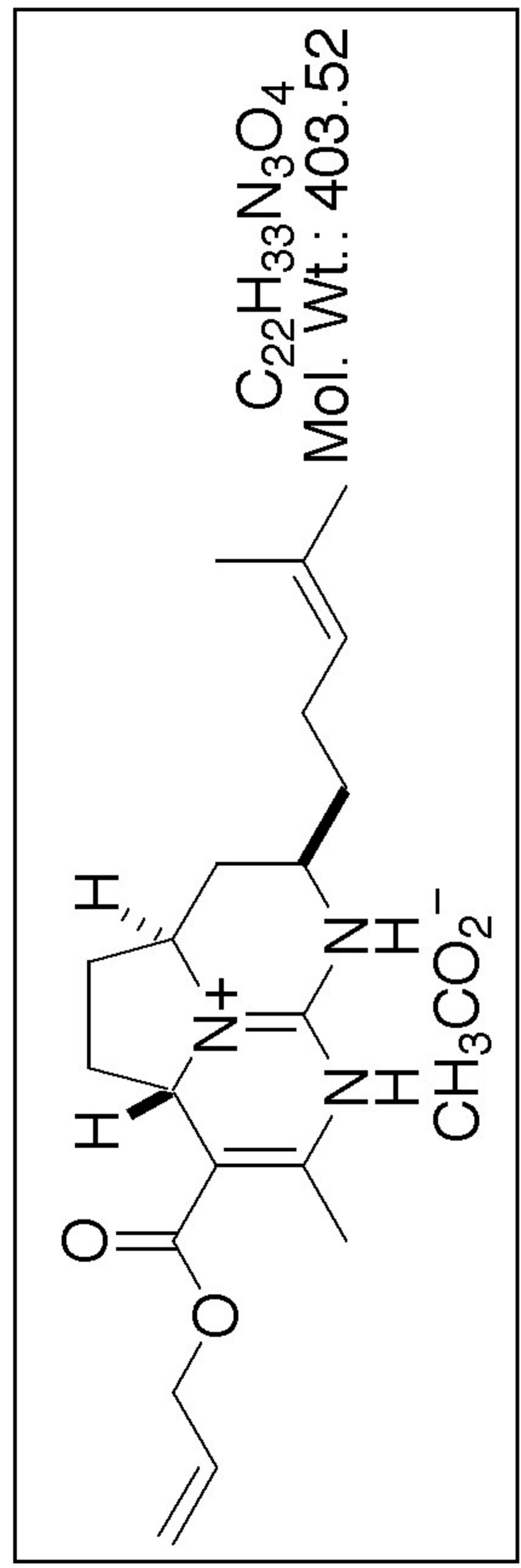


Current Data Parameters
NAME FC-11-236
EXPNO 3
PROCNO 1

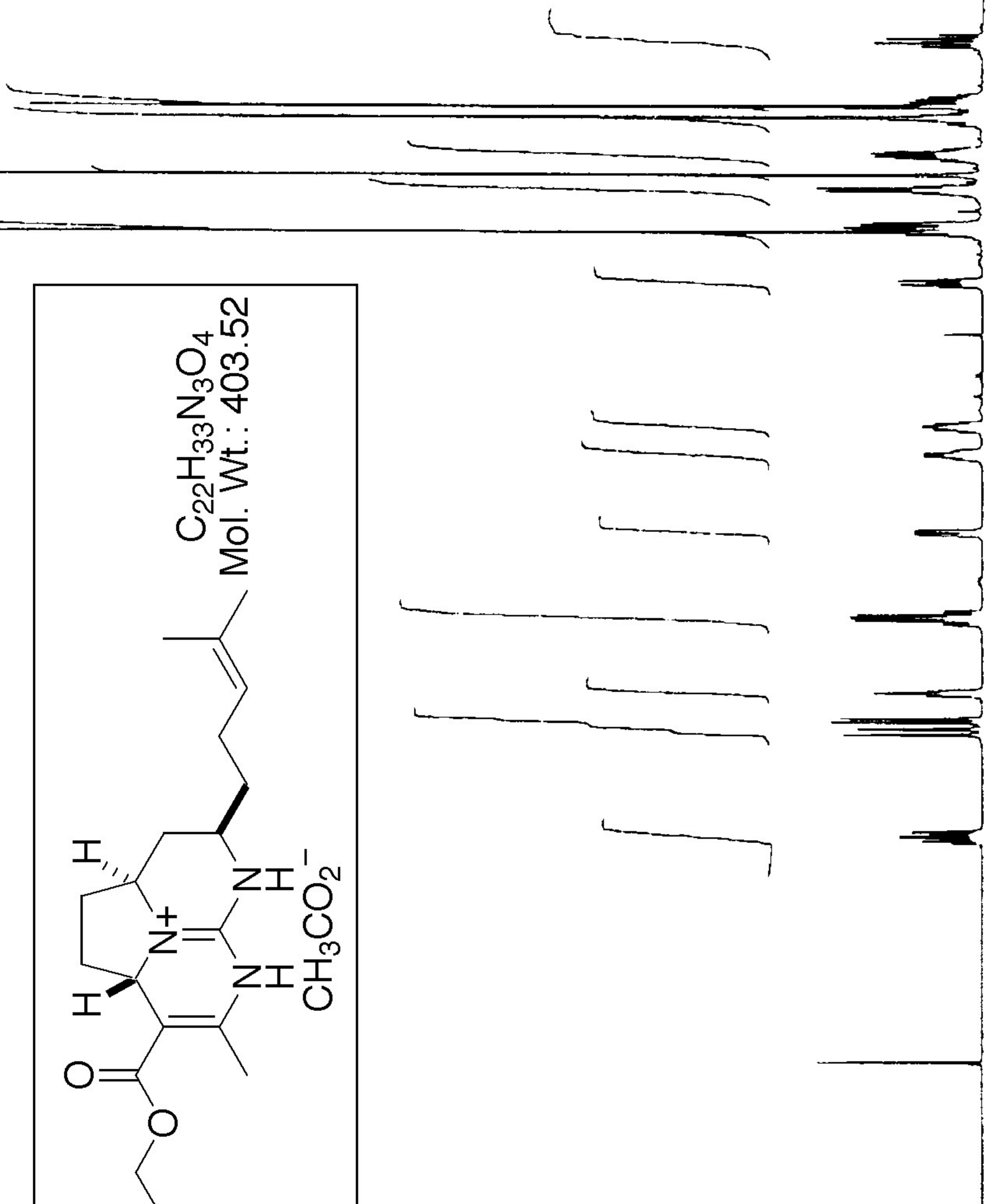
F2 - Acquisition Parameters
Date_ 990313
Time 15:01
INSTRUM spect
PROBHD 5 mm broadband
PULPROG zg
TD 32768
SOLVENT DMSO
NS 16
DS 2
SWH 8009.615 Hz
FIDRES 0.183399 Hz
AQ 2.7263477 sec
RG 128
DM 83.200 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
P1 4.00 usec
SFO1 499.8924995 MHz
NUC1 1H
PL1 0.00 dB

F2 - Processing parameters
SI 32768
SF 499.8900189 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 25.00 cm
FIP 10.000 000
F1 4998.90 Hz
F2 -0.500 ppm
F2 -249.95 Hz
PPHM 0.42000 ppm/cm
HZCM 209.95361 Hz/cm



| ppm | Integral |
|--------|----------|
| 0.9401 | 2.0167 |
| 1.0313 | 1.0313 |
| 2.0962 | 0.9632 |
| 1.0702 | 1.0702 |
| 1.0180 | 1.0180 |
| 1.0000 | 1.0000 |
| 5.2594 | 5.2594 |
| 2.2907 | 2.2907 |
| 3.8710 | 3.8710 |
| 2.0514 | 2.0514 |
| 4.3163 | 4.3163 |
| 4.3551 | 4.3551 |
| 1.2518 | 1.2518 |

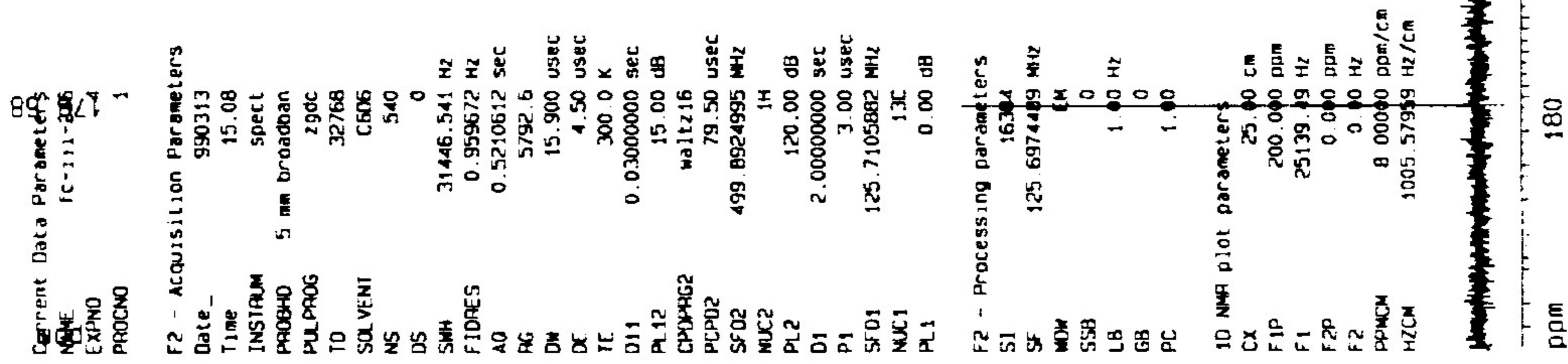


Current Data Parameters
 NAME FC-111-206
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 990313
 Time 15.08
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zgdc
 TD 32768
 SOLVENT C6D6
 NS 540
 DS 0
 SMH 31446.541 Hz
 FIDRES 0.959672 Hz
 AQ 0.5210612 sec
 RG 5792.6
 DW 15.900 usec
 DE 4.50 usec
 TE 300.0 K
 D11 0.0300000 sec
 PL12 15.00 dB
 CPMPRG2 waltz16
 PCPD2 79.50 usec
 SF02 499.8924995 MHz
 NUC2 1H
 PL2 120.00 dB
 D1 2.0000000 sec
 P1 3.00 usec
 SF01 125.7105882 MHz
 NUC1 13C
 PL1 0.00 dB

F2 - Processing parameters
 SI 16304
 SF 125.697409 MHz
 MDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

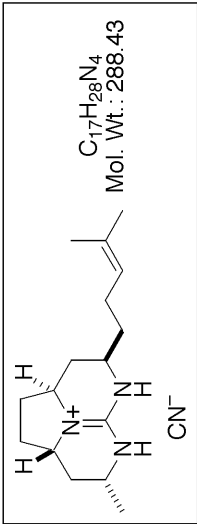
1D NMR plot parameters
 CX 25.00 cm
 FIP 200.000 ppm
 F1 25139.49 Hz
 F2P 0.00 ppm
 F2 0.00 Hz
 PPMCM 8 00000 ppm/cm
 HZCM 1005.57959 Hz/cm



Current Data Parameters
 NAME fc-11-28
 EXPNO 8
 PROCNO 1

F2 - Acquisition Parameters

Date_ 990624
 Time 20.36
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zg
 TO 32758
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6009.615 Hz
 FIDRES 0.163389 Hz
 AQ 2.7253477 sec
 RG 256
 DM 83.200 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec
 P1 4.00 usec
 SFO1 499.8924995 MHz
 NUC1 1H
 PL1 0.00 dB



F2 - Processing parameters

SF 32768
 SF 499.8900194 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 25.00 cm
 F1P 10.000 ppm
 F1 4998.90 Hz
 F2P -0.500 ppm
 F2 -249.95 Hz
 PPMCM 0.42000 ppm/cm
 HZCM 209.95381 Hz/cm

Integral

1.0000
 8.6165

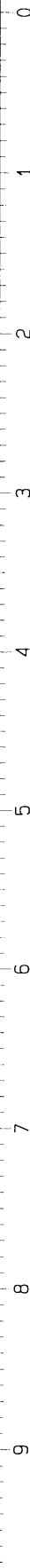
3.0973
 1.1018
 2.7247

2.4388
 2.4577
 2.4534

3.4597
 3.4749
 7.5346
 2.4965
 4.0823

S63

ppm



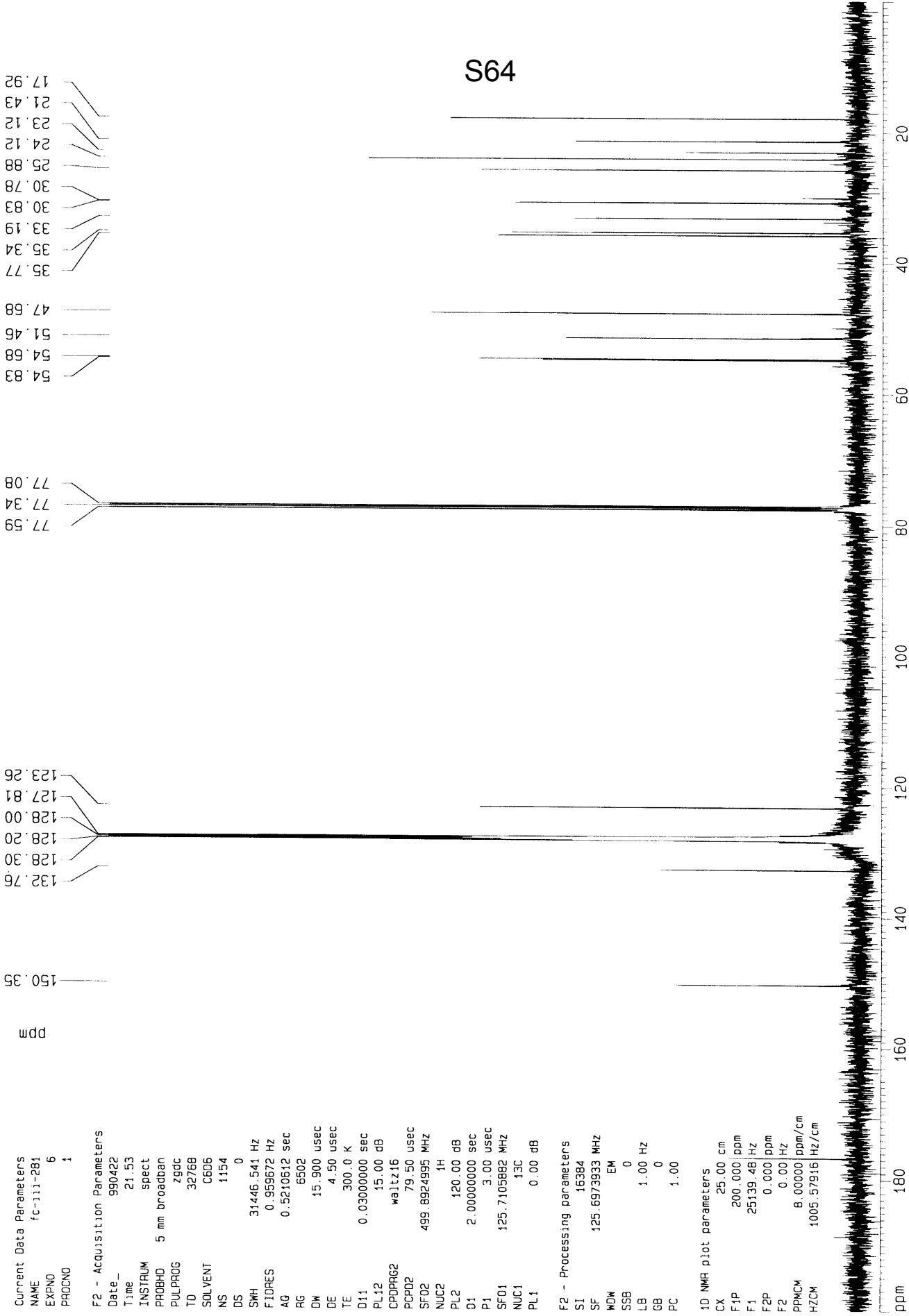
Current Data Parameters

NAME fc-111-281
 EXPNO 6
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 990422
 Time 21.53
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zgpg
 TD 32768
 SOLVENT C6D6
 NS 1154
 DS 0
 SWH 31446.541 Hz
 FIDRES 0.959672 Hz
 AQ 0.5210612 sec
 RG 6502
 DW 15.900 usec
 DE 4.50 usec
 TE 300.0 K
 D11 0.03000000 sec
 PL12 15.00 dB
 PLT16
 CPDPRG2 waltz16
 PCPD2 79.50 usec
 SF02 499.8924995 MHz
 NUC2 1H
 PL2 120.00 dB
 D1 2.00000000 sec
 P1 3.00 usec
 SF01 125.7105882 MHz
 NUC1 13C
 PL1 0.00 dB

F2 - Processing parameters
 SI 16384
 SF 125.6973933 MHz
 NDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

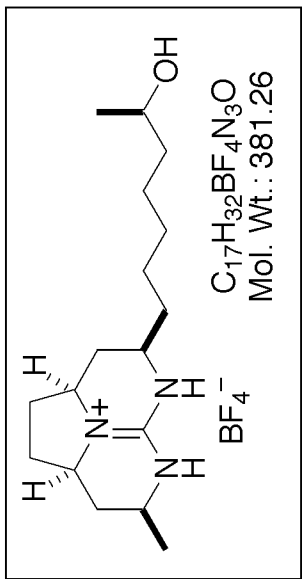
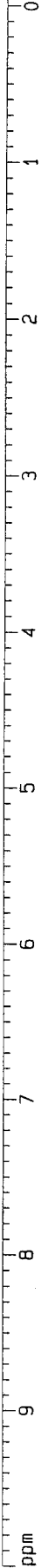
1D NMR plot parameters
 CX 25.00 cm
 F1P 200.000 ppm
 F1 25139.48 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 8.00000 ppm/cm
 HZCM 1005.57916 Hz/cm



S65

Integral

| |
|-------|
| 3.294 |
| 1.189 |
| 1.046 |
| 4.491 |
| 2.331 |
| 2.443 |
| 9.558 |
| 5.665 |
| 3.300 |



Current Data Parameters
 NAME fc-1v-125b
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 991002
 Time 14.55
 INSTRUM spect
 PROBHD 5 mm QNP 1H
 PULPROG zg
 TO 16384
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 4769.272 Hz
 FIDRES 0.254314 Hz
 AQ 1.119295 sec
 RG 256
 DN 104.400 usec
 DE 4.50 usec
 TE 300.0 K
 D1 1.00000000 sec

***** CHANNEL f1 *****
 NUC1 31P
 P1 4.00 usec
 PL1 0.00 dB
 SFO1 400.1320007 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300113 MHz
 WDM EK
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 25.00 cm
 F1P 10.000 ppm
 F1 4001.30 Hz
 F2P -0.500 ppm
 F2 -200.07 Hz
 PPM0K 0.42000 ppm/cm
 HZCM 169.05460 Hz/cm

151.10

Current Data Parameters
NAME fc-iv-103
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters

Date_ 990921
Time 9.42
INSTRUM spect
PROBHD 5 mm broadband
PULPROG zgdc
TO 32768
SOLVENT C6D6
NS 681
DS 0
SWH 31446.541 Hz
FIDRES 0.959672 Hz
AQ 0.5210612 sec
RG 7298.2
DW 15.900 usec
DE 4.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec

==== CHANNEL f1 =====

NUC1 13C
P1 3.00 usec
PL1 0.00 dB
SF01 125.7105882 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16
NUC2 1H
PCPD2 79.50 usec
PL2 120.00 dB
PL12 15.00 dB
SF02 499.8924995 MHz

F2 - Processing parameters

SI 16384
SF 125.6972661 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 25.00 cm
F1P 200.000 ppm
F1 25139.45 Hz
F2P 0.000 ppm
F2 0.00 Hz

68.47
57.53
57.47
51.58
49.34
49.17
49.00
48.83
40.01
36.72
31.06
31.03
30.57
26.71
26.22
23.56
20.78

S99



Current Data Parameters
 NAME fc-111-299
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters

Date_ 990515
 Time 9.29
 INSTRUM spect
 PROBO 5 mm broadband
 PULPROG zg
 TD 32768
 SOLVENT CDCl3
 NS 16
 DS 2
 SRR 6009.615 Hz
 FIDRES 0.183389 Hz
 AQ 2.7263477 sec
 RG 574.7
 DW 83.200 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec
 P1 4.00 usec
 SF01 499.8924995 MHz
 NUC1 1H
 PL1 0.00 dB

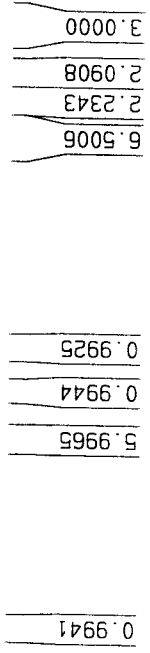
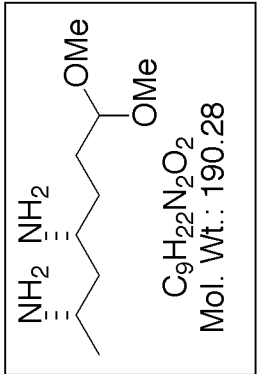
F2 - Processing parameters

SI 32768
 SF 499.8900172 MHz
 KW 0
 SSS 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 25.00 cm
 F1P 10.000 ppm
 F1 4999.90 Hz
 F2P -0.500 ppm
 F2 -249.95 Hz
 PRGM 0.42000 ppm/cm
 HZCM 209.85381 Hz/cm

S67



Integral

ppm

Current Data Parameters
 NAME fc-111-259
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters

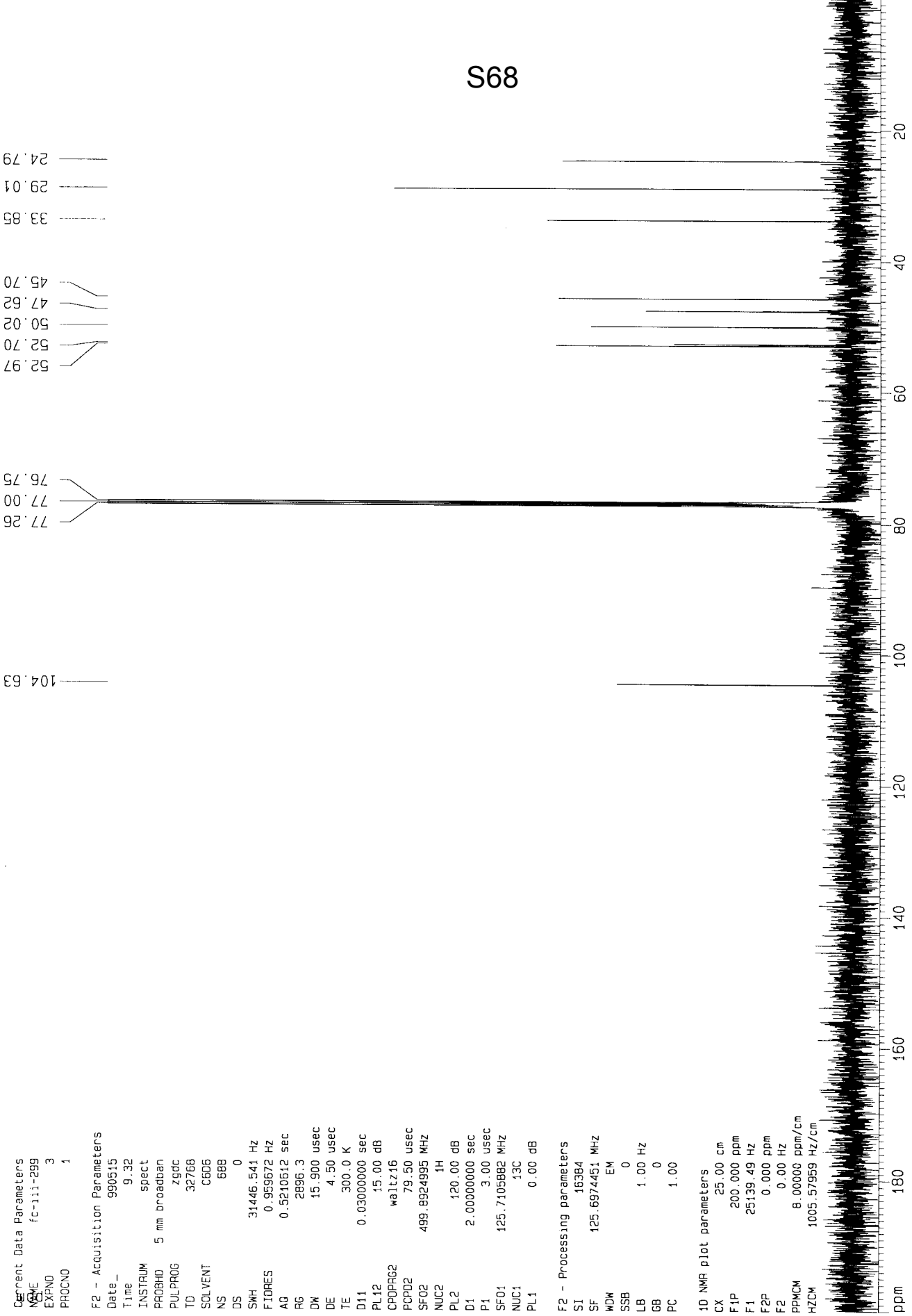
Date_ 990515
 Time 9.32
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zgpg
 TD 32768
 SOLVENT C6D6
 NS 688
 DS 0
 SWH 31446.541 Hz
 FIDRES 0.959672 Hz
 AQ 0.5210612 sec
 RG 2896.3
 DW 15.900 usec
 DE 4.50 usec
 TE 300.0 K
 D11 0.03000000 sec
 PL12 15.00 dB
 CPOPRG2 waitz16
 PCPD02 79.50 usec
 SF02 499.8924995 MHz
 NUC2 1H
 PL2 120.00 dB
 D1 2.00000000 sec
 P1 3.00 usec
 SF01 125.7105882 MHz
 NUC1 13C
 PL1 0.00 dB

F2 - Processing parameters

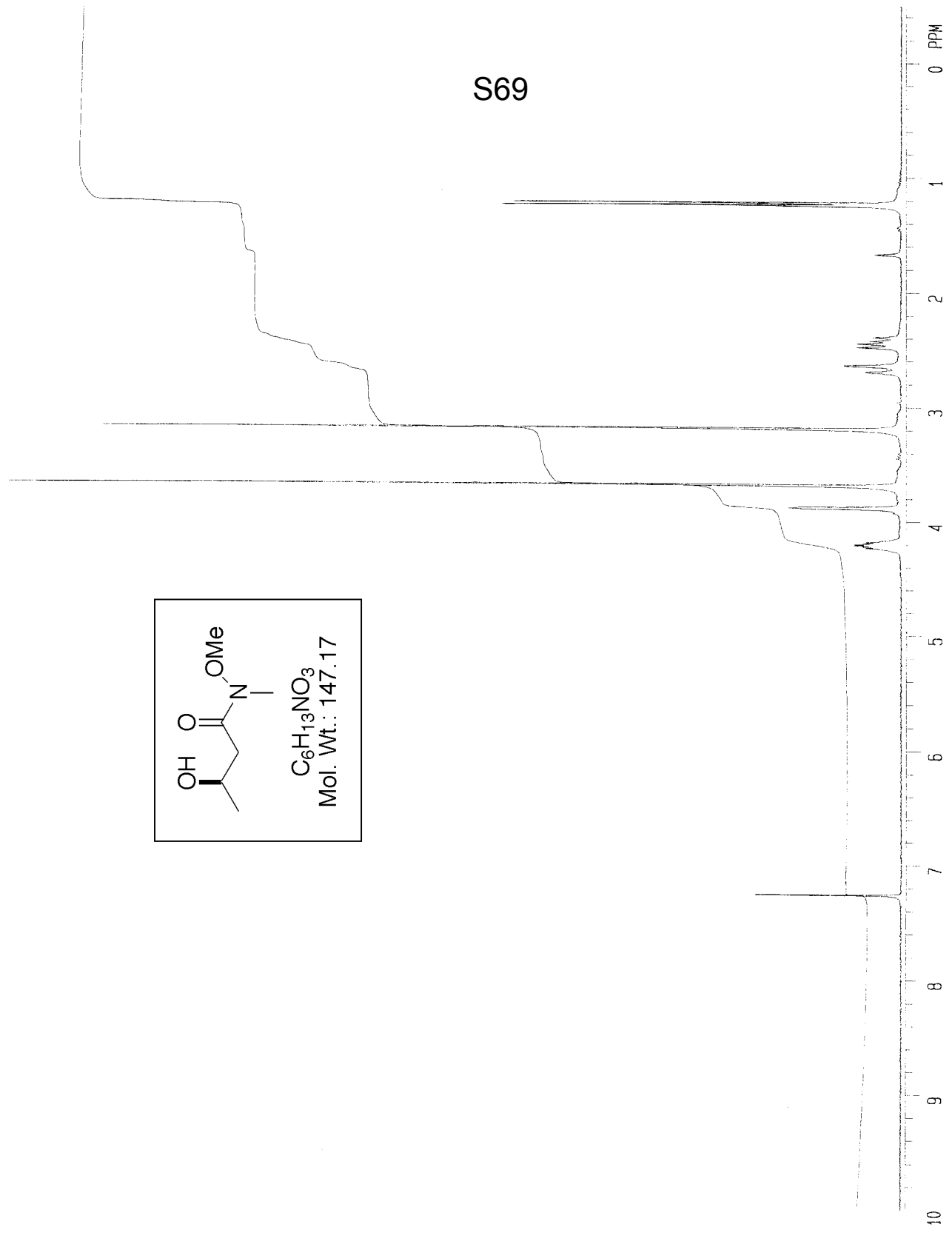
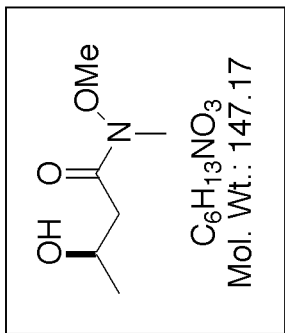
SI 16384
 SF 125.6974451 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 25.00 cm
 F1P 200.000 ppm
 F1 25139.49 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 8.00000 ppm/cm
 HZCM 1005.57959 Hz/cm



S69



NAME
EXPNO
PROCNO

F2 - ACQUISITION PARAMETERS
Date: 1997.07.17
Time: 10.00
PULPROG: zgpg30
PULPROG2: zgpg30
TD: 65536
SOLVENT: CDCl3
DS: 4
SWH: 19999.999 Hz
FIDRES: 0.278173 Hz
AQ: 0.5827132 SEC
RG: 6548
DM: 1.5960 USEC
DE: 4.00 USEC
TE: 300.0 K
D11: 0.0300000 SEC
PL12: 1.700 DB
CPODPRG2: waltz16
PCPD2: 30.00 USEC
SFDE: 400.136067 MHz
NUC2: 13C
PL1: 0.00 DB

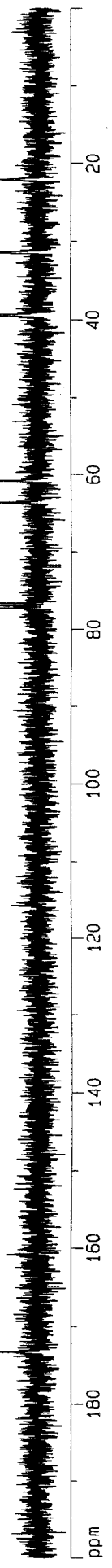
F2 - Processing parameters
SI: 32768
SF: 100.6127942 MHz
WDW: FM
SSB: 0
LB: 1.00 Hz
GB: 0
PC: 1.00

1D NMR plot parameters
CX: 25.00 cm
F1P: 200.000 ppm
F1: 20122.55 Hz
F2P: 0.000 ppm
F2: 0.00 Hz
PPMCM: 6.00000 ppm/cm
HZCM: 804.50234 Hz/cm

173.3

77.3
77.0
76.7
63.7
60.9
39.4
31.4
22.1

S70



Current Data Parameters
NAME fc-111-297
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters

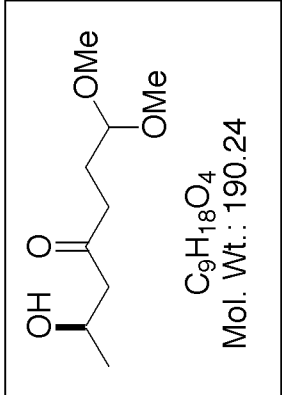
Date_ 980515
Time 15.01
INSTRUM spect
PROBHD 5 mm broadband
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 16
DS 2
SWH 6009.615 Hz
FIDRES 0.163399 Hz
AQ 2.7263477 sec
RG 128
DW 83.200 usec
DE 6.00 usec
TE 300.0 K
D1 1.0000000 sec
P1 4.00 usec
SFO1 499.8924955 MHz
NUC1 1H
PL1 0.00 dB

F2 - Processing parameters

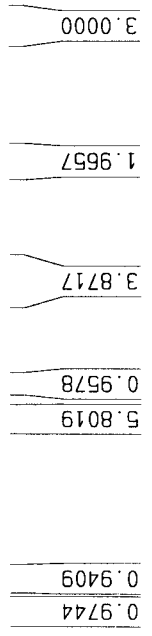
SF 32768
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters

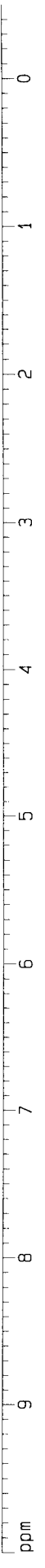
CX 25.00 cm
F1P 10.000 ppm
F1 4998.50 Hz
F2P -0.500 ppm
F2 -249.95 Hz
PRMCM 0.42000 ppm/cm
HZCM 209.39391 Hz/cm



S71



Integral



ppm

211.27

103.71

77.26
77.00
76.75

63.91

53.31
53.26
50.69

37.96

26.37
22.35

Current Data Parameters
NAME fc-111-297
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 990515
Time 15.37
INSTRUM spect
PROBHD 5 mm broadband
PULPROG zgdc
TD 32768
SOLVENT C6D6
NS 670
DS 0

SWH 31446.541 Hz
FIDRES 0.959672 Hz
AQ 0.5210612 sec
RG 2896.3
DM 15.900 usec
DE 4.50 usec
TE 300.0 K

Df1 0.03000000 sec
PL12 15.00 dB
CPOPRG2 waltz16
PCPO2 79.50 usec
SFO2 499.8924995 MHz
NUC2 1H

PL2 120.00 dB
D1 2.50000000 sec
P1 3.00 usec
SFO1 125.7105882 MHz
NUC1 13C
PL1 0.00 dB

F2 - Processing parameters
SI 16384
SF 125.6974470 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 25.00 cm
F1P 220.000 ppm
F1 27653.44 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 8.80000 ppm/cm
HZCM 1106.13757 Hz/cm

S72

ppm

200

180

160

140

120

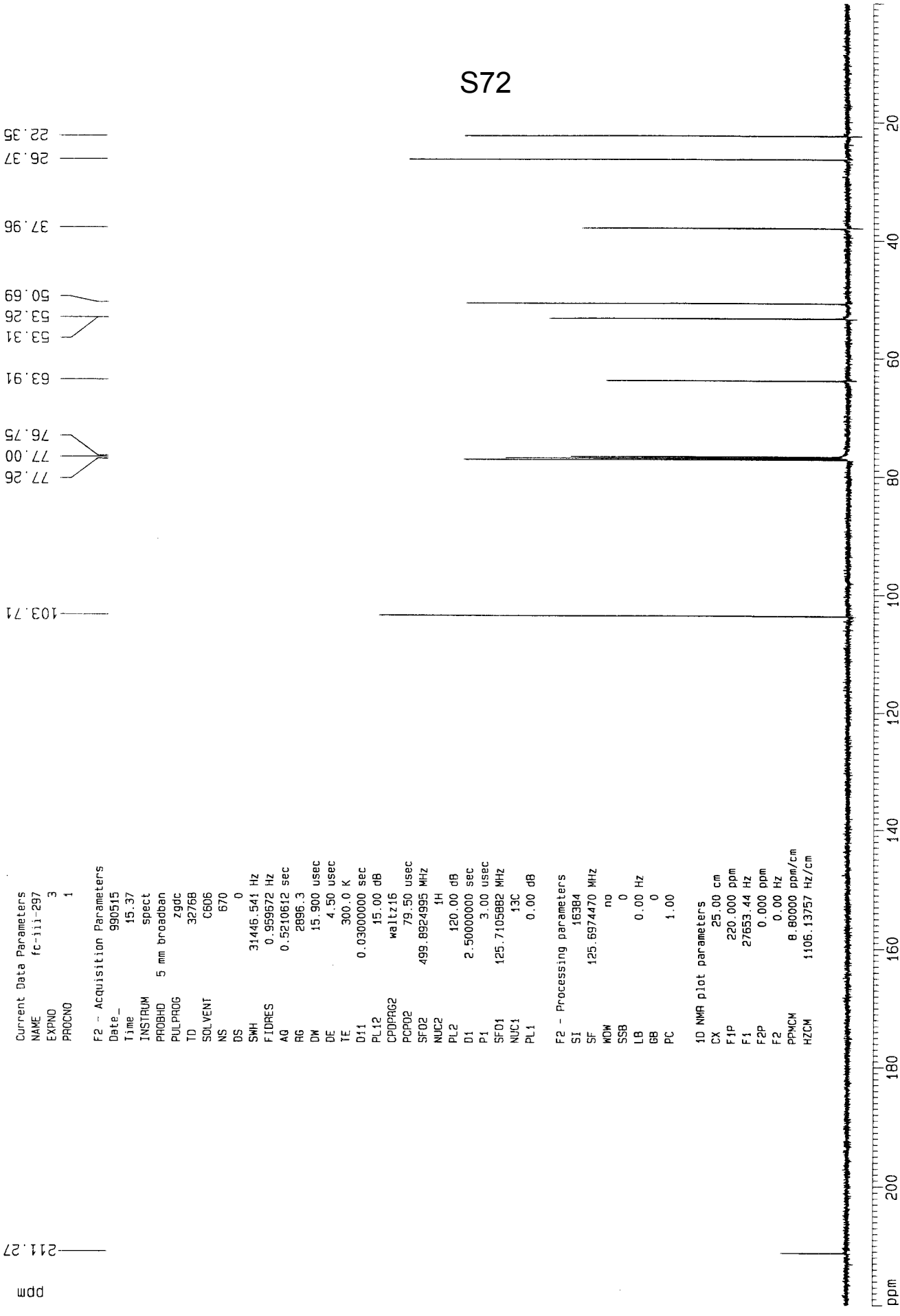
100

80

60

40

20



S73

Current Data Parameters

NAME: FC-111-287
EXPNO: 4
PROCNO: 1

F2 - Acquisition Parameters

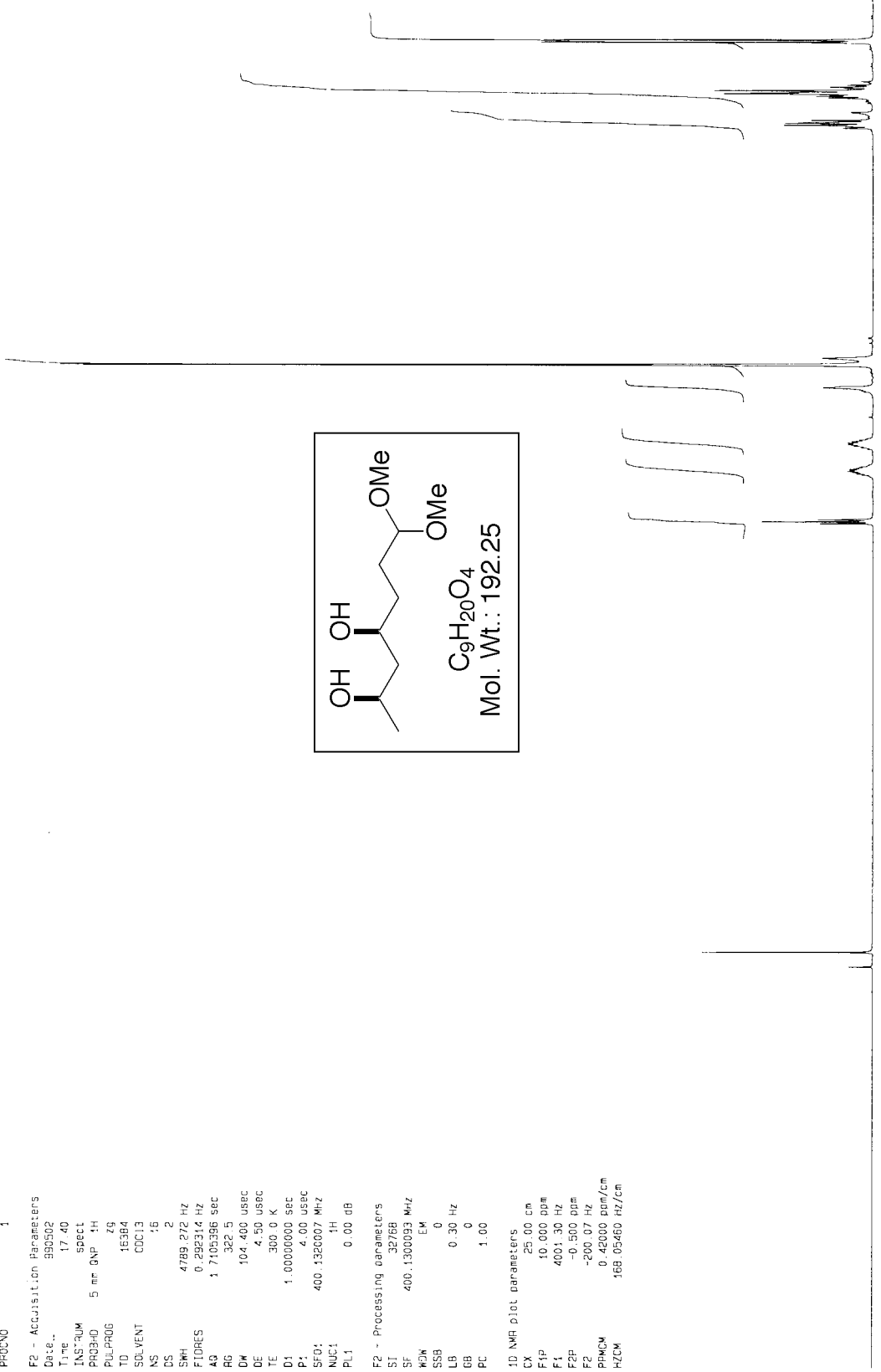
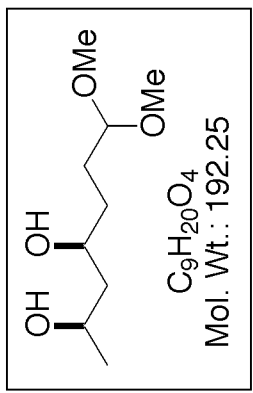
Date_: 990502
Time: 17.40
INSTRUM: spect
PROBHD: 5 mm GNP 1H
PULPROG: zg30
TD: 16384
SOLVENT: CDCl3
NS: 16
DS: 2
SWH: 4789.272 Hz
FIDRES: 0.292314 Hz
AQ: 1.7105396 sec
RG: 322.5
DM: 104.400 usec
DE: 4.50 usec
TE: 300.0 K
D1: 1.00000000 sec
P1: 4.00 usec
SFO: 400.132007 MHz
NUC1: 1H
PL1: 0.00 dB

F2 - Processing parameters

SF: 32768
WDW: EM
SSB: 0
LB: 0.30 Hz
GB: 0
PC: 1.00

1D NMR plot parameters

CX: 25.00 cm
F1P: 10.000 ppm
F1: 4001.30 Hz
F2P: -0.500 ppm
F2: -200.07 Hz
P1P1CM: 0.42000 ppm/cm
HZCM: 168.05460 Hz/cm



| |
|-------|
| 0.925 |
| 0.946 |
| 0.976 |
| 0.948 |
| 6.710 |
| 2.350 |
| 4.042 |
| 3.000 |

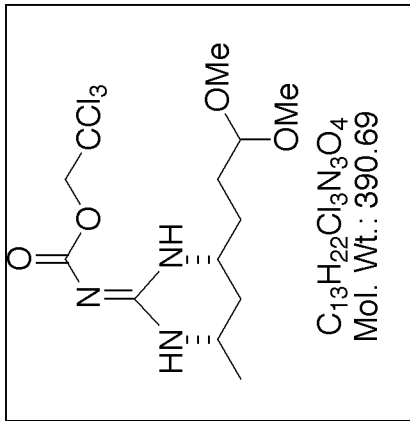
Integral

ppm 0 1 2 3 4 5 6 7 8 9 10

Current Data Parameters
 NAME fc-iv-013
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters

Date_ 990602
 Time_ 12.33
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zg
 TD 32768
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6009.615 Hz
 FIDRES 0.1483569 Hz
 AQ 2.7263477 sec
 RG 32
 DM 83.200 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec
 P1 4.00 usec
 SF01 499.8824995 MHz
 NUC1 ¹H
 PL1 0.00 dB



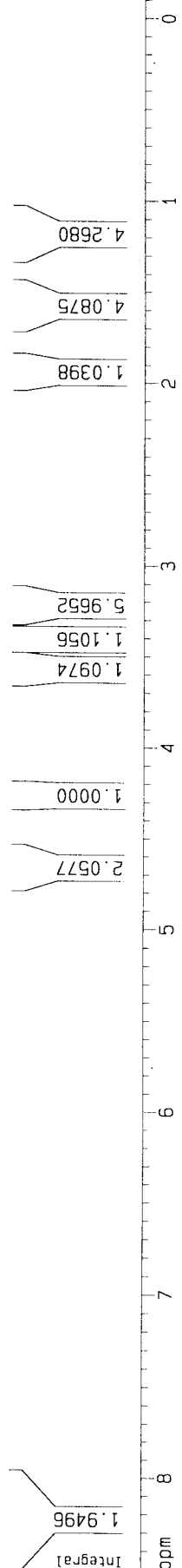
F2 - Processing parameters

SF 32768
 SF 499.8900172 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 25.00 cm
 F1P 8.500 ppm
 F1 4249.06 Hz
 F2P -0.500 ppm
 F2 -248.95 Hz
 PPMCK 0.36000 ppm/cm
 HZCK 179.96040 Hz/cm

S75



S76

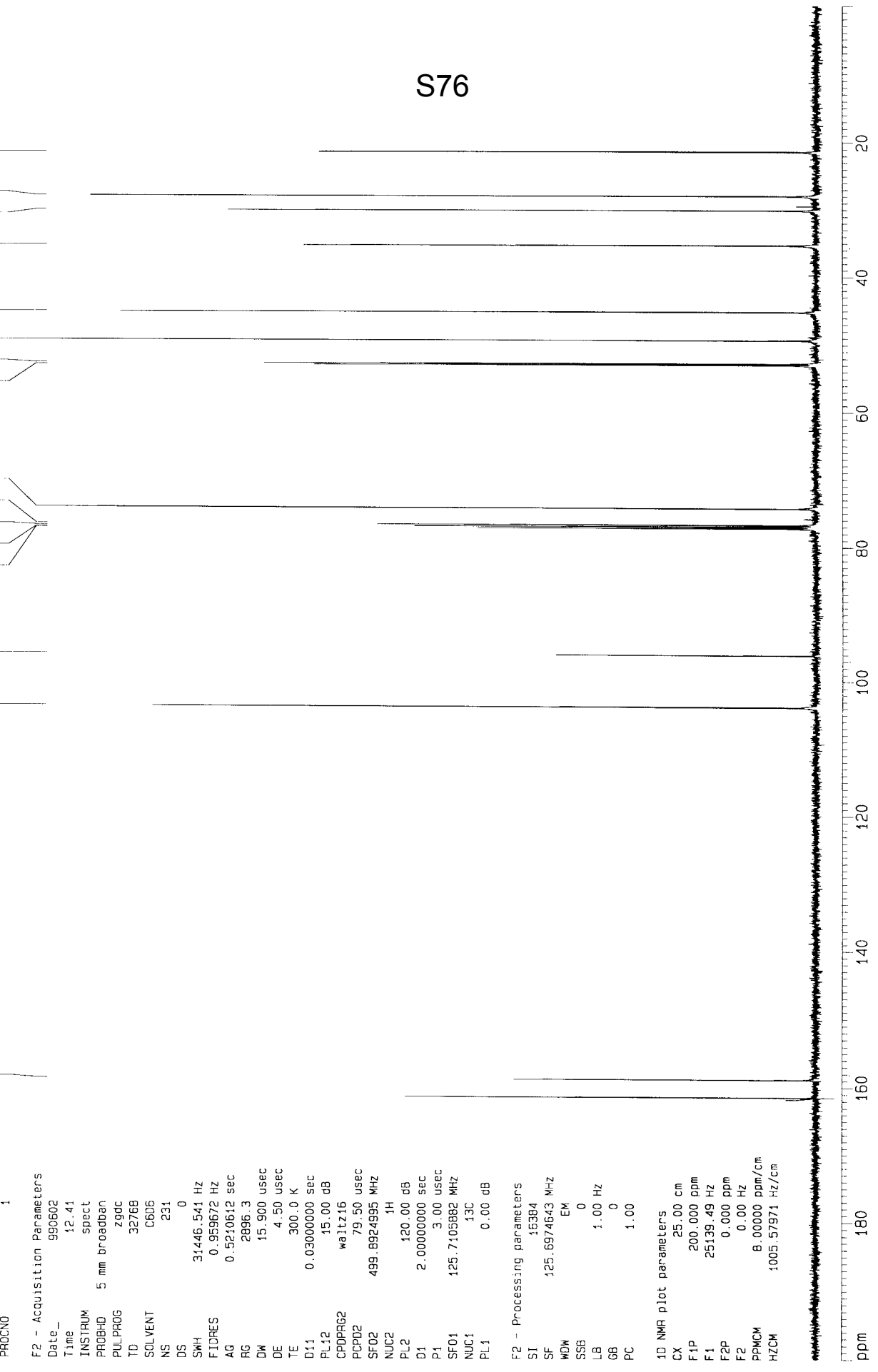
Current Data Parameters
NAME fc-iv-013
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 990602
Time 12.41
INSTRUM spect
PROBHD 5 mm broadband
PULPROG zgpg
TD 32768
SOLVENT C6D6
NS 231
DS 0
SWH 31446.541 Hz
FIDRES 0.959672 Hz
AQ 0.5210612 sec
RG 2896.3
DW 15.900 usec
DE 4.50 usec
TE 300.0 K
D11 0.03000000 sec
PL12 15.00 dB
CPDPRG2 waitz16
PCPD2 79.50 usec
SF02 499.8924995 MHz
NUC2 1H
PL2 120.00 dB
D1 2.00000000 sec
P1 3.00 usec
SF01 125.7105882 MHz
NUC1 13C
PL1 0.00 dB

F2 - Processing parameters
SI 16384
SF 125.6974643 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 25.00 cm
F1P 200.000 ppm
F1 25139.49 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 8.00000 ppm/cm
HZCM 1005.57971 Hz/cm

161.49
158.87
103.87
96.09
77.25
77.00
76.74
74.31
52.98
52.76
49.32
45.16
35.31
30.09
27.95
21.41



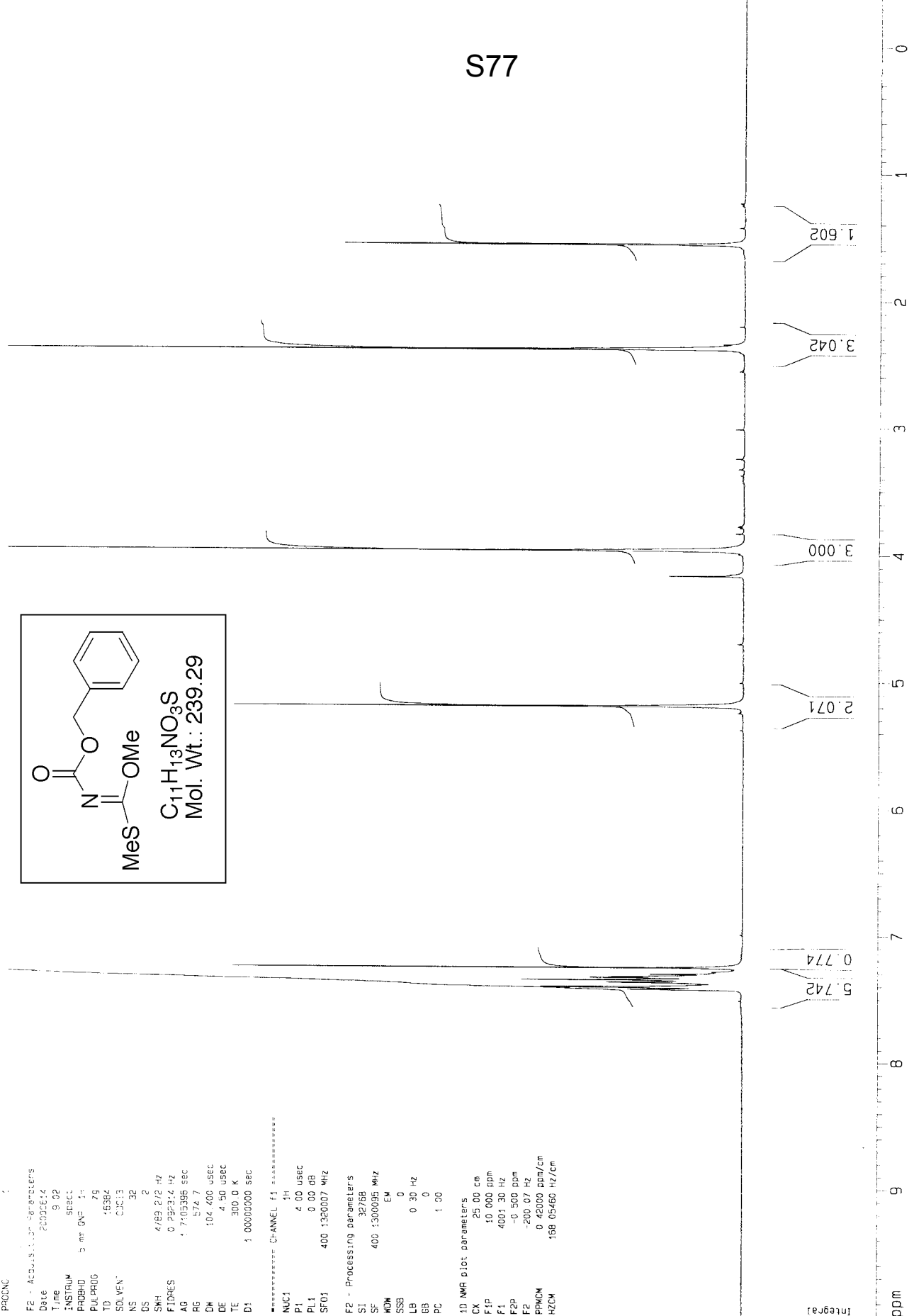
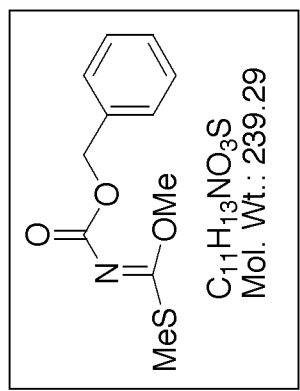
Current Data Parameters
 NAME: 10-17-112
 EXPNO: 1
 PROCNO: 1

F2 - Acquisition Parameters
 Date: 20090614
 Time: 9:02
 INSTRUM: spect
 PROBHD: 5 mm QNP 1H
 PULPROG: zg
 TD: 65536
 SOLVENT: CDCl3
 NS: 32
 DS: 2
 SWH: 4789.272 Hz
 FIDRES: 0.292374 Hz
 AQ: 1.7103396 sec
 RG: 574.7
 DW: 104.400 usec
 DE: 4.50 usec
 TE: 300.0 K
 D1: 1.0000000 sec

***** CHANNEL f1 *****
 NUC1: 1H
 P1: 4.00 usec
 PL1: 0.00 dB
 SF01: 400.1320007 MHz

F2 - Processing parameters
 SI: 32768
 SF: 400.1300095 MHz
 MDW: EM
 SSB: 0
 LB: 0.30 Hz
 GB: 0
 PC: 1.00

1D NMR plot parameters
 CX: 25.00 cm
 F1P: 10.000 ppm
 F1: 4001.30 Hz
 F2P: -0.500 ppm
 F2: -200.07 Hz
 PPMCM: 0.42000 ppm/cm
 HZCM: 168.05460 Hz/cm



S77

ppm

13.87

57.65

58.49

68.10

76.74

76.99

77.25

128.20

128.46

128.52

135.96

160.57

168.10

76.74

76.99

77.25

58.49

57.65

13.87

13.87

13.87

13.87

13.87

13.87

13.87

13.87

13.87

13.87

13.87

13.87

13.87

13.87

13.87

13.87

13.87

S78

```

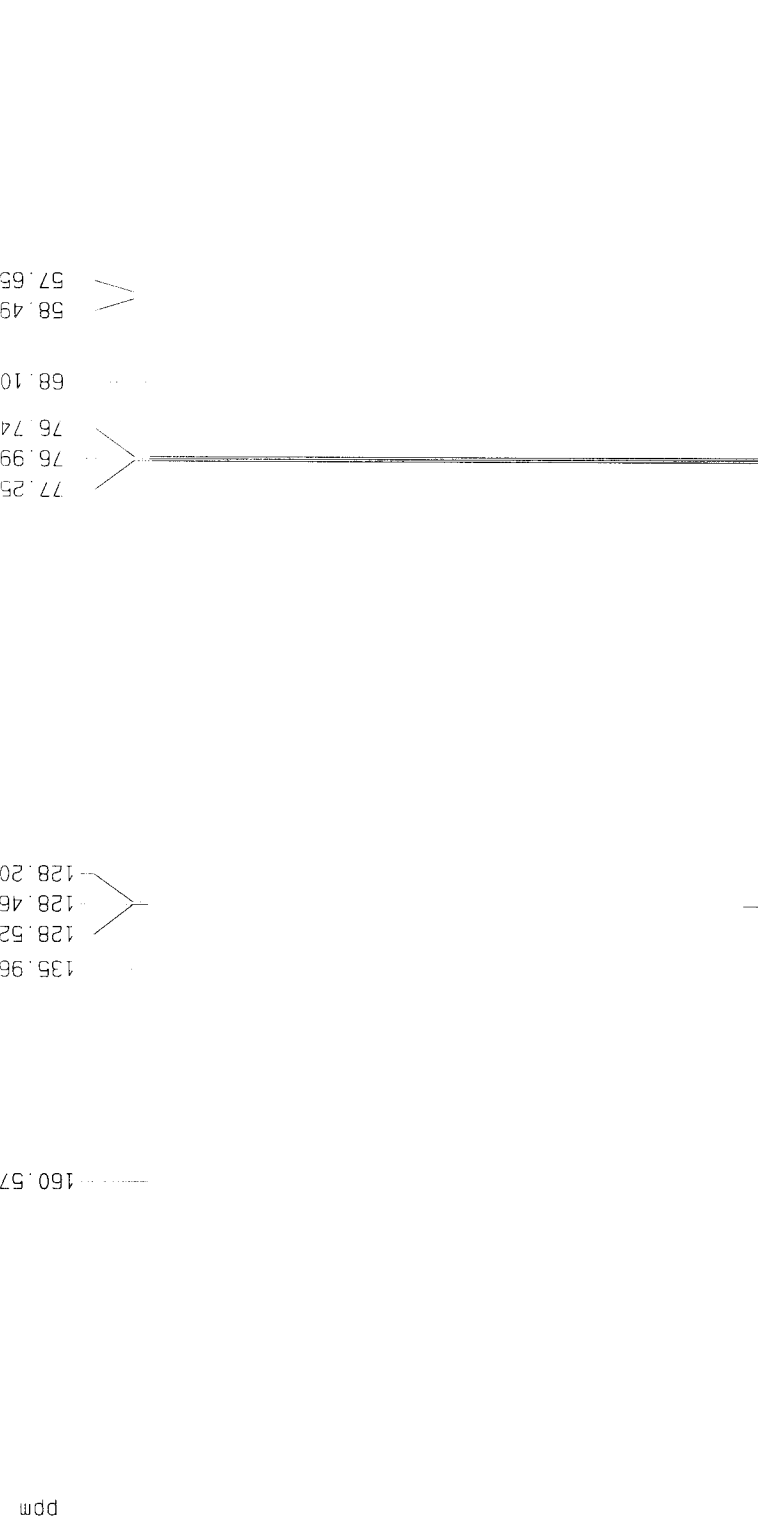
NAME: 1
EXPNO: 1
PROCNO: 1
PROCNAME: 1
F2:
F3:
AQ: 0.02000000 SEC
RG: 327.68
SF: 125.760463 MHz
WDW: EM
SSB: 0
LB: 1.00 Hz
GB: 0
CB: 0
PC: 1.00
ID: NMR 0101 Parameters
CX: 23.00 cm
FID: 200.000 ppm
F1: 25156.09 Hz
F2: 0.000000 ppm
F3: 0.000000 ppm
P0: 8.65655 ppm/cm
P1: 1033.74280 Hz/cm
P2:
P3:

```

```

===== CHANNEL f1 =====
NUC1: 13C
P1: 3.000000 dB
NUC2:
P2: 0.000000 dB
SF1: 125.760463 MHz
===== CHANNEL f2 =====
CPDPRG2: waltz16
NUC1: 1H
P1: 0.000000 dB
P2: 0.000000 dB
SF2: 500.135420 MHz
===== PROCESSING PARAMETERS =====
SI: 32768
SF: 125.760463 MHz
WDW: EM
SSB: 0
LB: 1.00 Hz
GB: 0
CB: 0
PC: 1.00

```



NAME: 1c-v-17
 EXPC: 4
 PROCN: 1

F2 - Acquisition Parameters

Date: 20000512
 Time: 12.13
 INSTRUM: spect
 PROBHD: 5 mm
 PULPROG: zg
 C1: 153B2
 SOLVENT: CDCl3
 NS: 64
 DS: 2
 SWH: 7759.272 Hz
 F2CH5: 0.2942314 Hz
 AS: 1.7105198 sec
 RG: 912.3
 DW: 102.400 usec
 DE: 4.50 usec
 TE: 300.0 K
 D0: 1.00000000 sec

----- CHANNEL f1 -----

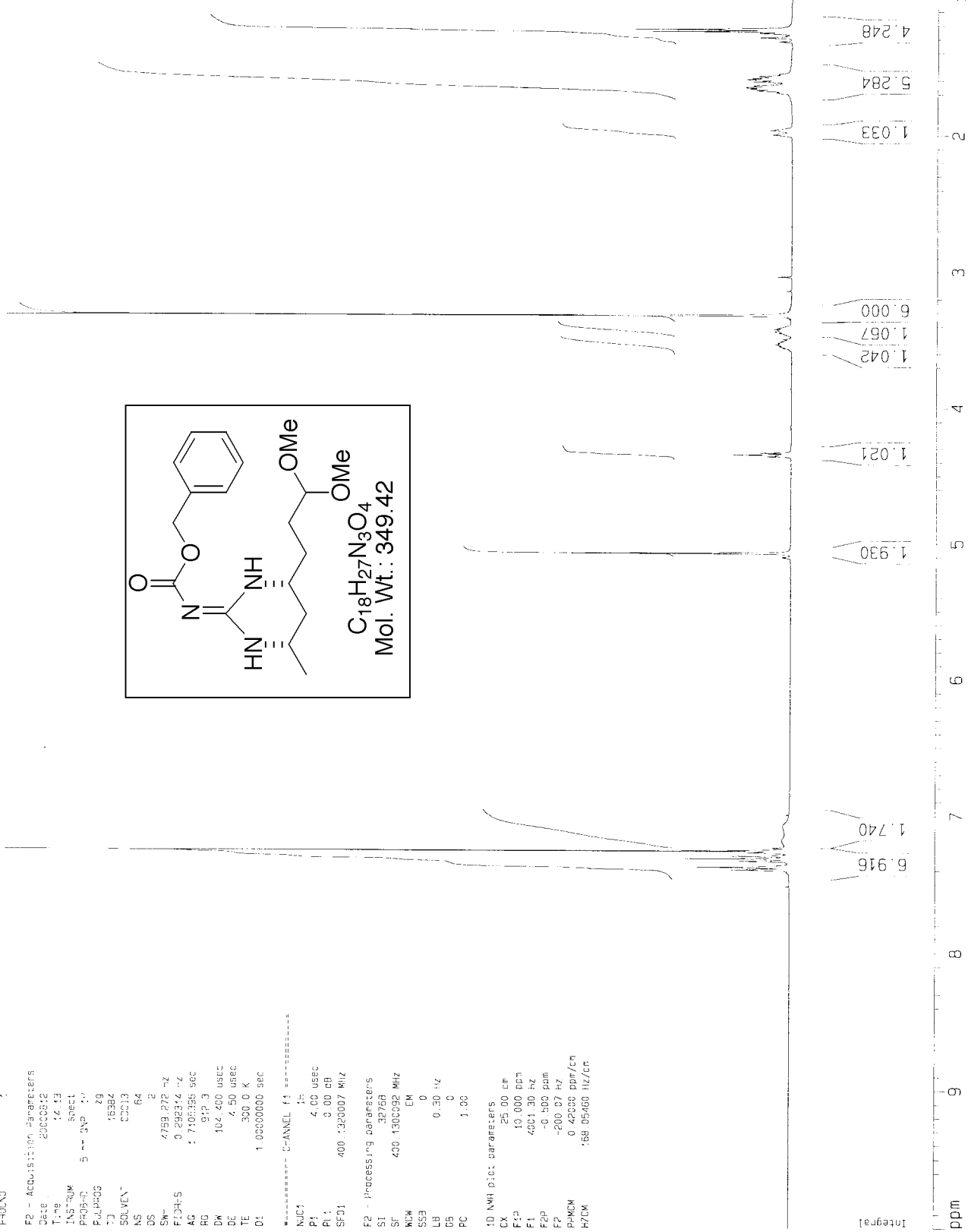
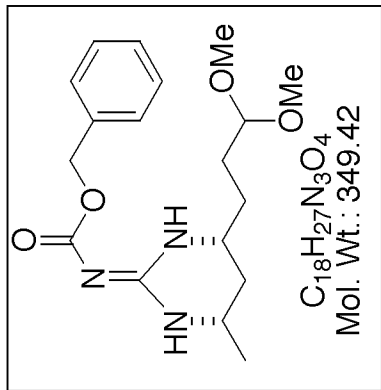
NUC1: 1H
 P1: 4.00 usec
 PL1: 0.00 dB
 SF01: 400.1320007 MHz

F2 - Processing parameters

SI: 32768
 SF: 400.130092 MHz
 AQW: EM
 EN: 0
 ZF: 0.30 Hz
 LB: 0
 GB: 0
 PC: 1.00

MNR parameters

CX: 25.00 cm
 CX3: 10.000 ppm
 F1: 4001.30 Hz
 F2P: -0.500 ppm
 F2: -200.07 Hz
 PHM0M: 0.42000 ppm/cm
 HZCM: 188.05950 Hz/cm



Current Data Parameters
 NAME 1c-1v-083
 EXPNO 2
 PROCNO 1

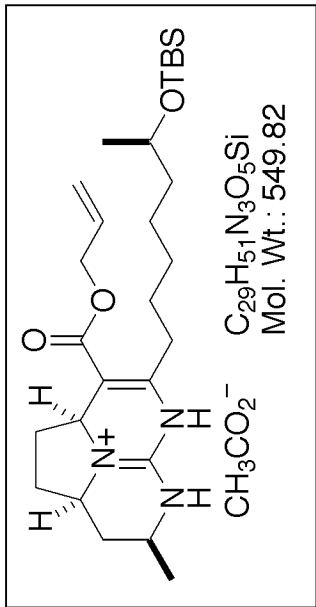
F2 - Acquisition Parameters

Date_ 990810
 Time 9.03
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zg
 TD 32768
 SOLVENT C0C13
 NS 16
 DS 2
 SWH 6009.615 Hz
 FIDRES 0.163399 Hz
 AQ 2.7263477 sec
 RG 128
 DW 83.200 usec
 DE 6.00 usec
 TE 300.0 K
 D1 5.00000000 sec

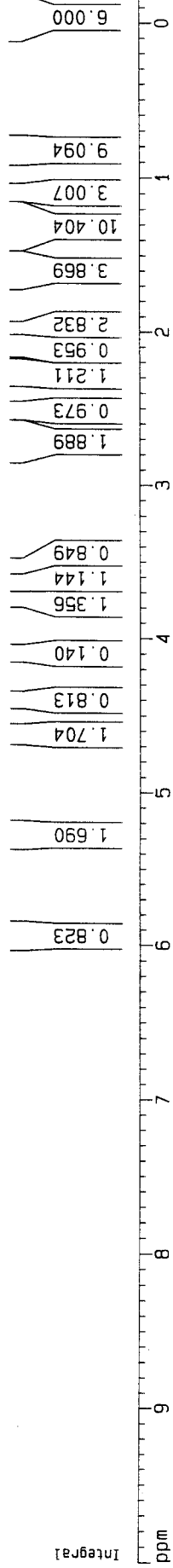
***** CHANNEL f1 *****

NUC1 1H
 P1 4.00 usec
 PL1 0.00 dB
 SF01 499.8924995 MHz
 F2 - Processing parameters
 S1 32768
 SF 499.8900170 MHz
 NCM EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 25.00 cm
 F1P 10.000 ppm
 F1 4998.90 Hz
 F2P -0.500 ppm
 F2 -249.95 Hz
 PRNCM 0.42000 ppm/cm
 HZCN 209.95381 Hz/cm



S81



S82

-4.69
-4.47

18.15
19.53
23.65
23.78
25.68
25.91
26.96
29.51
33.21
35.65
39.65
45.36
54.31
55.27
55.52
56.98
64.95
65.06
68.65
76.75
77.00
77.26

99.06

118.52
118.76

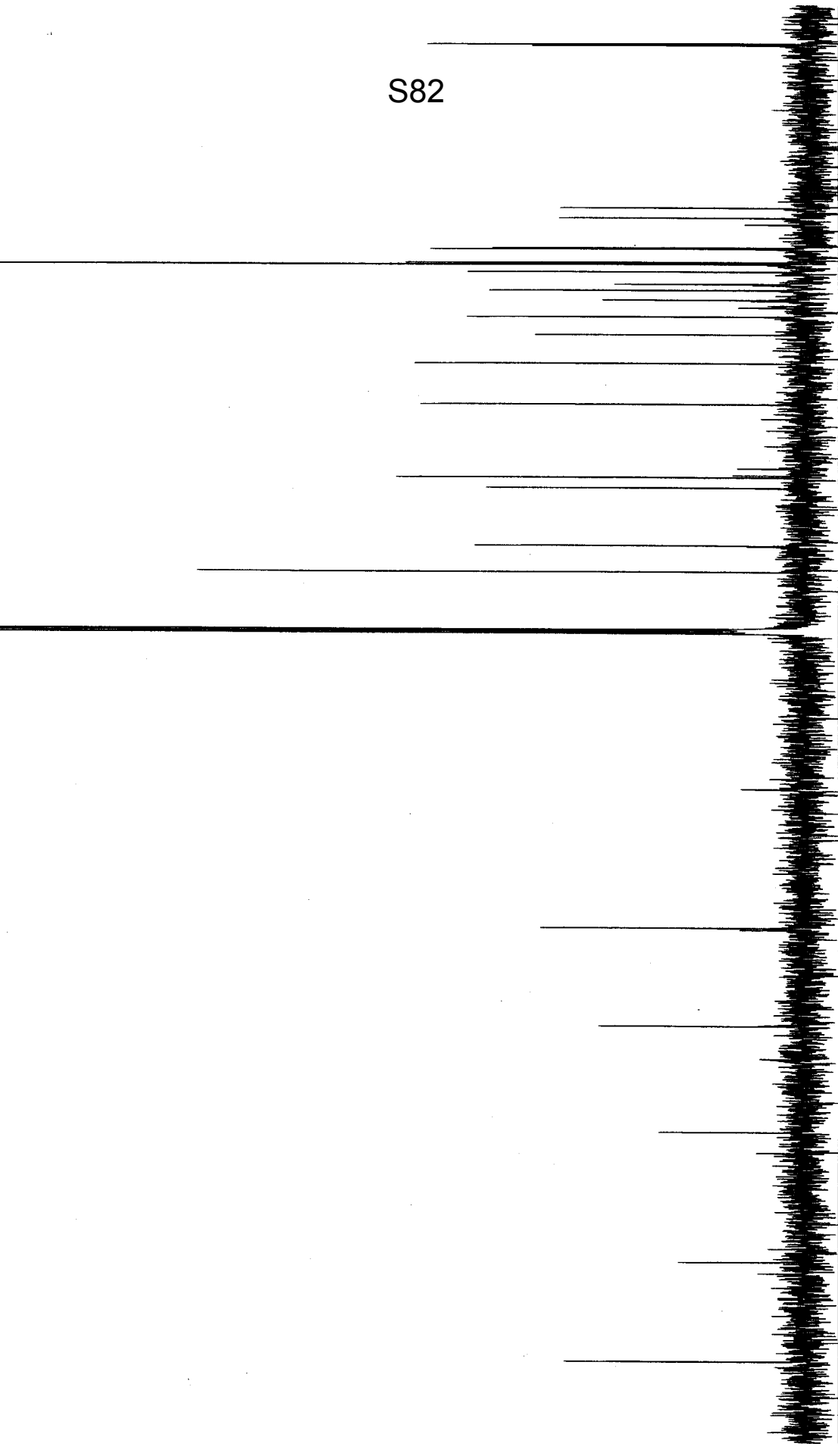
132.17

146.97

164.95

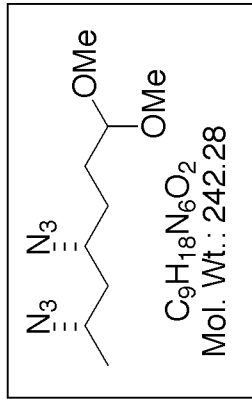
178.74

ppm



S83

3.000
5.942
5.424
0.859
0.862
0.883

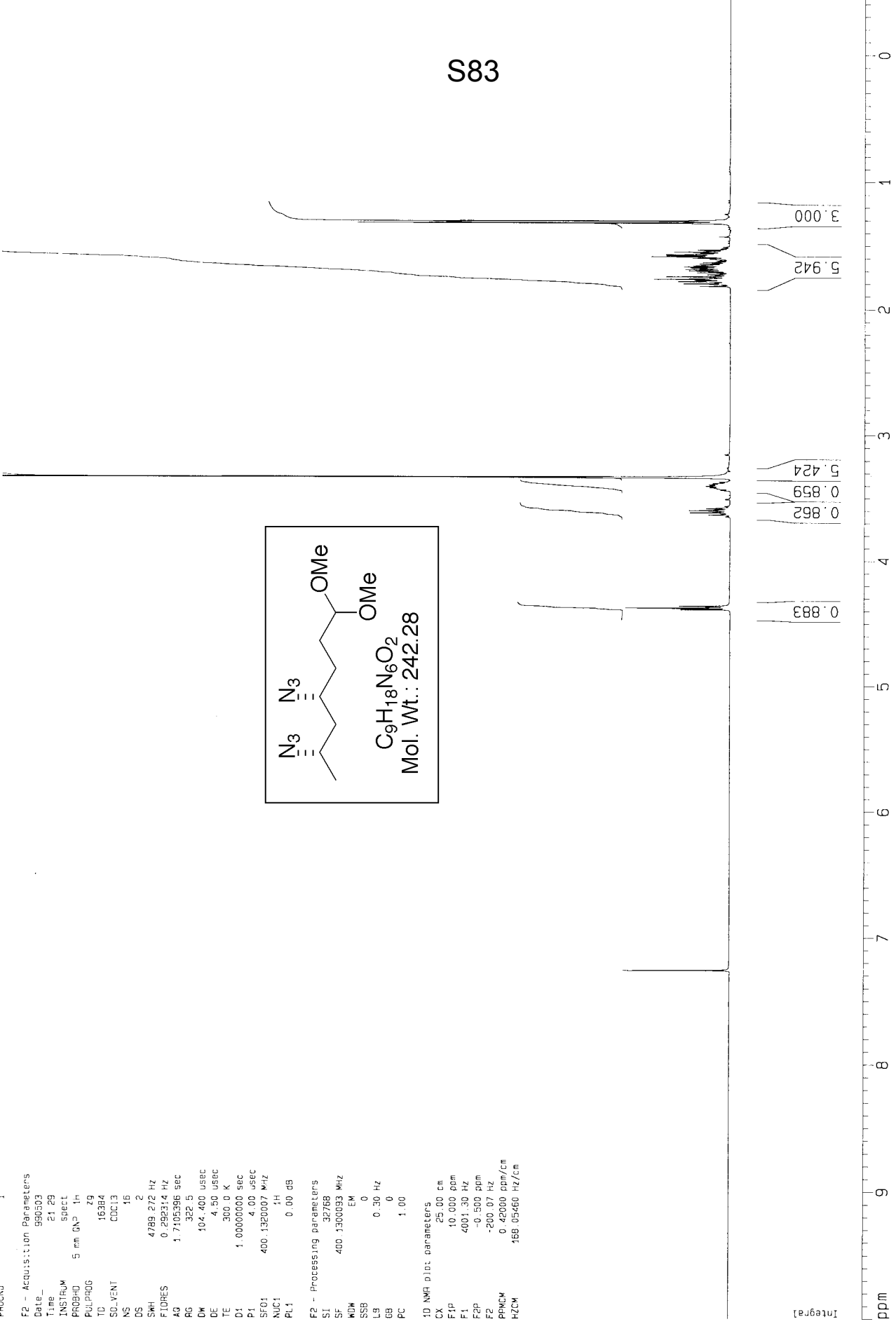


Current Data Parameters
NAME fc-11--292
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 990503
Time 21.29
INSTRUM spect
PROBHD 5 mm QNP 1H
PULPROG zg
TD 16384
SO_VENT CDC13
NS 16
DS 2
SMH 4789.272 Hz
FIDRES 0.292514 Hz
AQ 1.7105396 sec
RG 322.5
Dw 104.400 usec
DE 4.50 usec
TE 300.0 K
D1 1.00000000 sec
P1 4.00 usec
SFO1 400.1320007 MHz
NUC1 1H
PL1 0.00 dB

F2 - Processing parameters
SI 32768
SF 400.1300093 MHz
WDW EM
SSB 0
L9 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 25.00 cm
F1P 10.000 p8m
F1 4001.30 Hz
F2P -0.500 p8m
F2 -200.07 Hz
PPHMC 0.42000 p8m/cm
HZCM 168.05460 Hz/cm



Integral

Current Data Parameters
 USER fcohen
 NAME fc-v-205
 EXPNO 1
 PROCNO 1

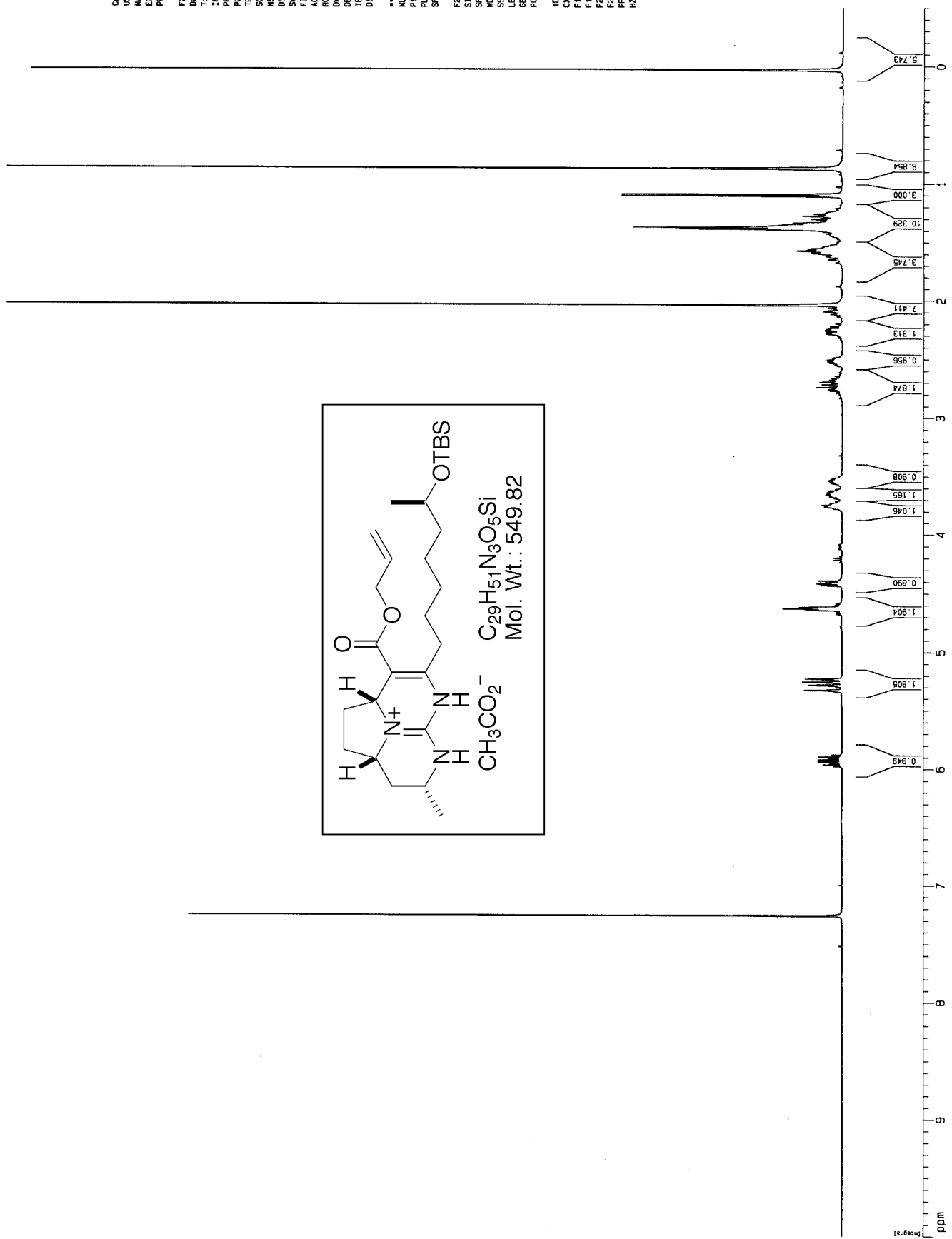
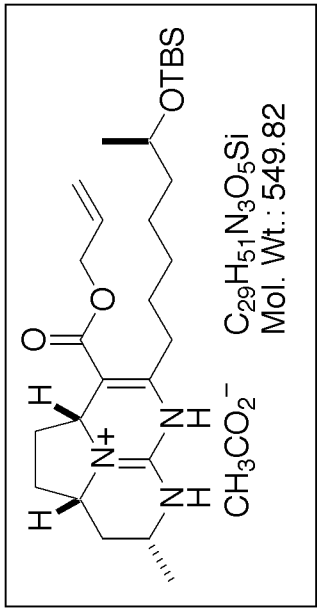
F2 - Acquisition Parameters
 Date_ 20001208
 Time 12.14
 INSTRUM spect
 PROBM 5 mm QNP 1H
 PULPROG zgpg30
 TO 65536
 SOLVENT CDCl3
 NS 32
 DS 2
 SWH 6410.256 Hz
 FIDRES 0.097813 Hz
 AQ 5.1118579 sec
 RG 456.1
 DW 78.000 usec
 DE 4.50 usec
 TE 300.0 K
 D1 0.10000000 sec

***** CHANNEL f1 *****
 NUC1 1H
 P1 12.00 usec
 PL1 0.00 dB
 SF01 400.1328009 MHz

F2 - Processing parameters
 SI 65536
 SF 400.1300215 MHz
 SW 6400
 SFO 400.1328009 MHz
 LB 0.30 Hz
 GB 0
 PC 2.00

1D NMR plot parameters
 CX 22.80 cm
 FIP 10.000 ppm
 F1 4001.30 Hz
 F2 -0.500 ppm
 F2 -200.07 Hz
 PPMCM 0.46053 ppm/cm
 HZCM 184.27042 Hz/cm

S85



Current Data Parameters
 USER lcohen
 NAME fc-v-209
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20001217
 Time 14.51
 INSTRUM dmwga500
 PROBO 5 mm broadband
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 4740
 DS 4

SWH 30303.031 Hz
 FIDRES 0.465366 Hz
 AQ 1.063845 sec
 RG 728
 DW 16.500 usec
 DE 4.50 usec
 TE 300.0 K
 D1 0.25000000 sec
 D11 0.03000000 sec

***** CHANNEL f1 *****
 NUC1 13C
 P1 7.00 usec
 PL1 0.00 dB
 SF01 125.764272 MHz

***** CHANNEL f2 *****
 CPDPRG2 waltz16
 NUC2 1H
 P2 80.00 usec
 PL2 120.00 dB
 PL12 15.00 dB
 SF02 400.2230013 MHz

F2 - Processing parameters
 SI 65536
 SF 125.764272 MHz
 WFN 0
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

1D NMR pilot parameters
 CX 22.80 cm
 F1P 190.000 ppm
 F1 23898.28 Hz
 F2P -10.000 ppm
 F2 -1257.80 Hz
 PPM0N 8.77193 ppm/cm
 HZCM 1103.33716 Hz/cm



S86



Current Data Parameters
 USER fcohen
 NAME f-c-v-267
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20010523
 Time 7.46
 INSTRUM omegads00
 PULPROG zgpg30
 TO 65526
 SOLVENT CDCl3
 NS 24
 DS 2
 SWH 8012.820 Hz
 FIDRES 0.122266 Hz
 AQ 4.0894966 sec
 RG 101.6
 DM 62.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 0.10000000 sec

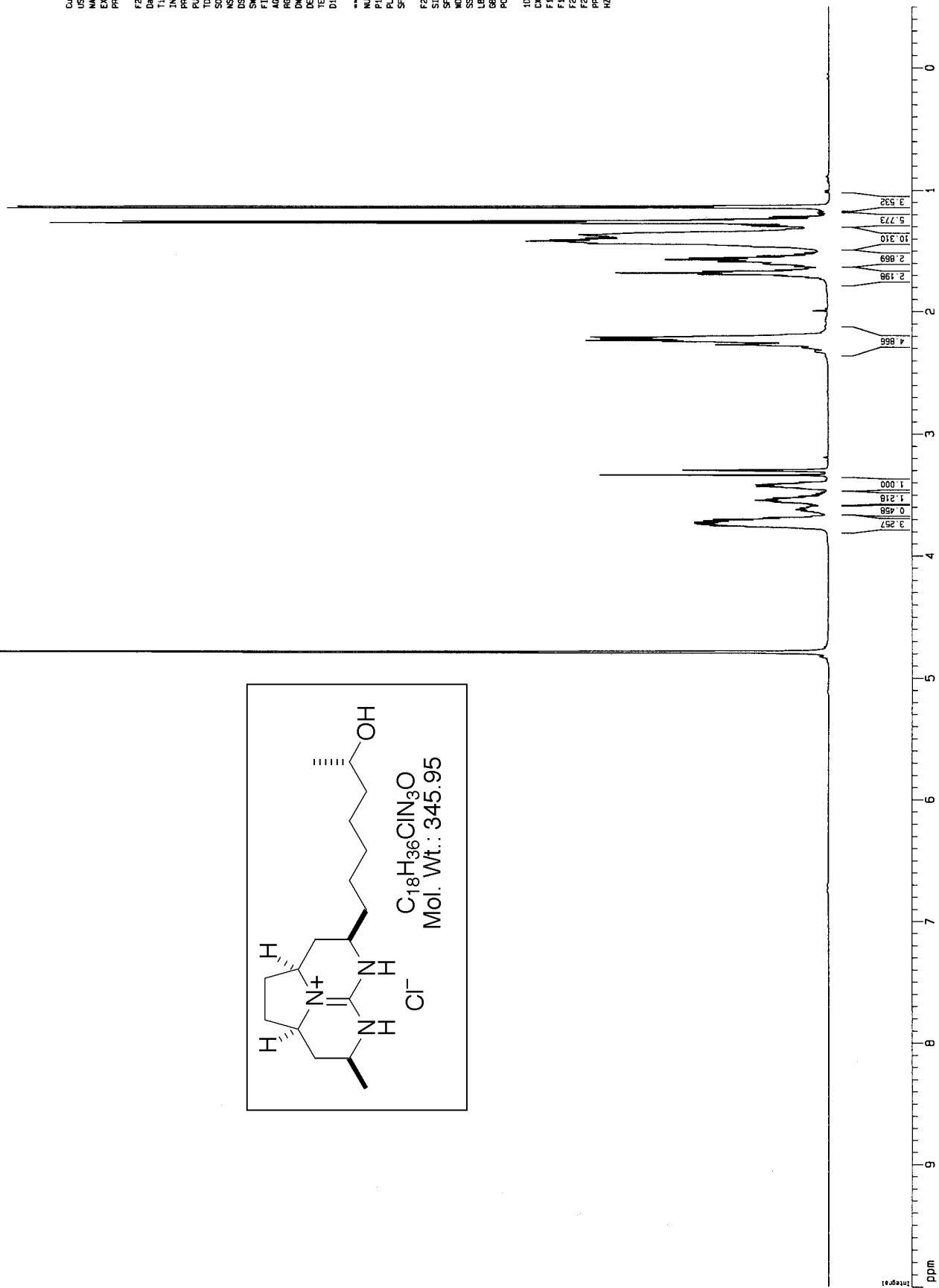
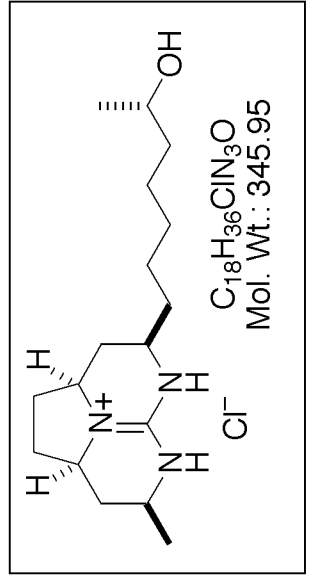
***** CHANNEL f1 *****
 NUC1 1H
 P1 14.00 usec
 PL1 0.00 dB
 SFO1 500.2235015 MHz

F2 - Processing parameters

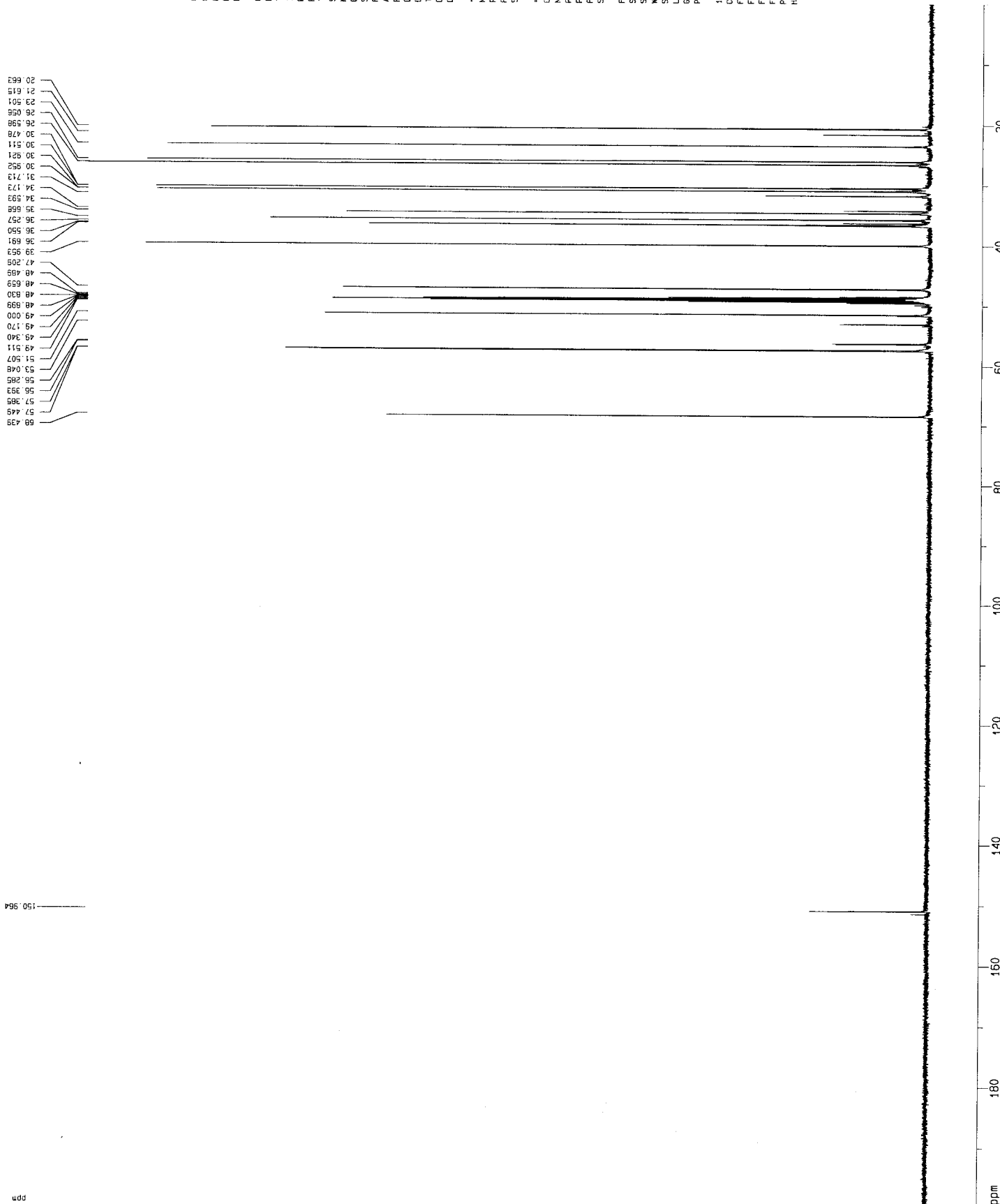
SF 500.2201931 MHz
 SI 65536
 GB 0
 SB 0.30 Hz
 AB 1
 PC 1.00

S87

10. NMR plot parameters
 CX 22.80 cm
 FIP 10.000 ppm
 F1 5002.20 Hz
 F2 -250.11 Hz
 PPHCM 0.46053 ppm/cm
 HZCM 230.36450 Hz/cm



13C spectrum with 1H decoupling



Current Data Parameters
USER: fcm
NAME: fc-Y-EB7
EXPNO: 2
PROCNO: 1

F2 - Acquisition Parameters
Date_: 20010323
Time: 9.39
INSTRUM: omega500
PROBHD: 5 mm broadband
PULPROG: zgpg30
TD: 65536
SOLVENT: CDCl3
NS: 1616
DS: 4
SWH: 30303.031 Hz
FIDRES: 0.462380 Hz
AQ: 1.0613840 sec
RG: 7288.2
DB: 16.500 usec
DE: 4.50 usec
TE: 300.2 K
O1: 0.75000000 sec
O11: 0.63000000 sec

***** CHANNEL f1 *****
NUC1: 13C
P1: 9.00 usec
PL1: -3.00 dB
SFO1: 125.7642648 MHz

***** CHANNEL f2 *****
CPDPRG2: waltz16
NUC2: 1H
P2: 80.00 usec
PL2: 120.00 dB
PL12: 17.00 dB
SFO2: 22230013 MHz

F2 - Processing parameters
SI: 65536
SF: 125.7642648 MHz
WDW: EM
SSB: 0
LB: 1.00 Hz
GB: 0
PC: 1.00

1D NMR plot parameters
CX: 22.80 cs
FIP: 200.000 ppm
F1: 25156.05 Hz
F2: 0.000 ppm
PQCM: 8.77193 ppm/cm
HZCM: 1103.33569 Hz/cm

S88

Current Date Parameters
USER fcohen
NAME 1c-v-1956
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20001120
Time 10.56
INSTRUM gn500
PROBHD 5 mm broadband
PULPROG zg30
TD 65536
SOLVENT CD300
NS 111
DS 2
SWH 6012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 512
DW 62.400 usec
DE 6.00 usec
TE 300.0 K
D1 0.1000000 sec

***** CHANNEL f1 *****

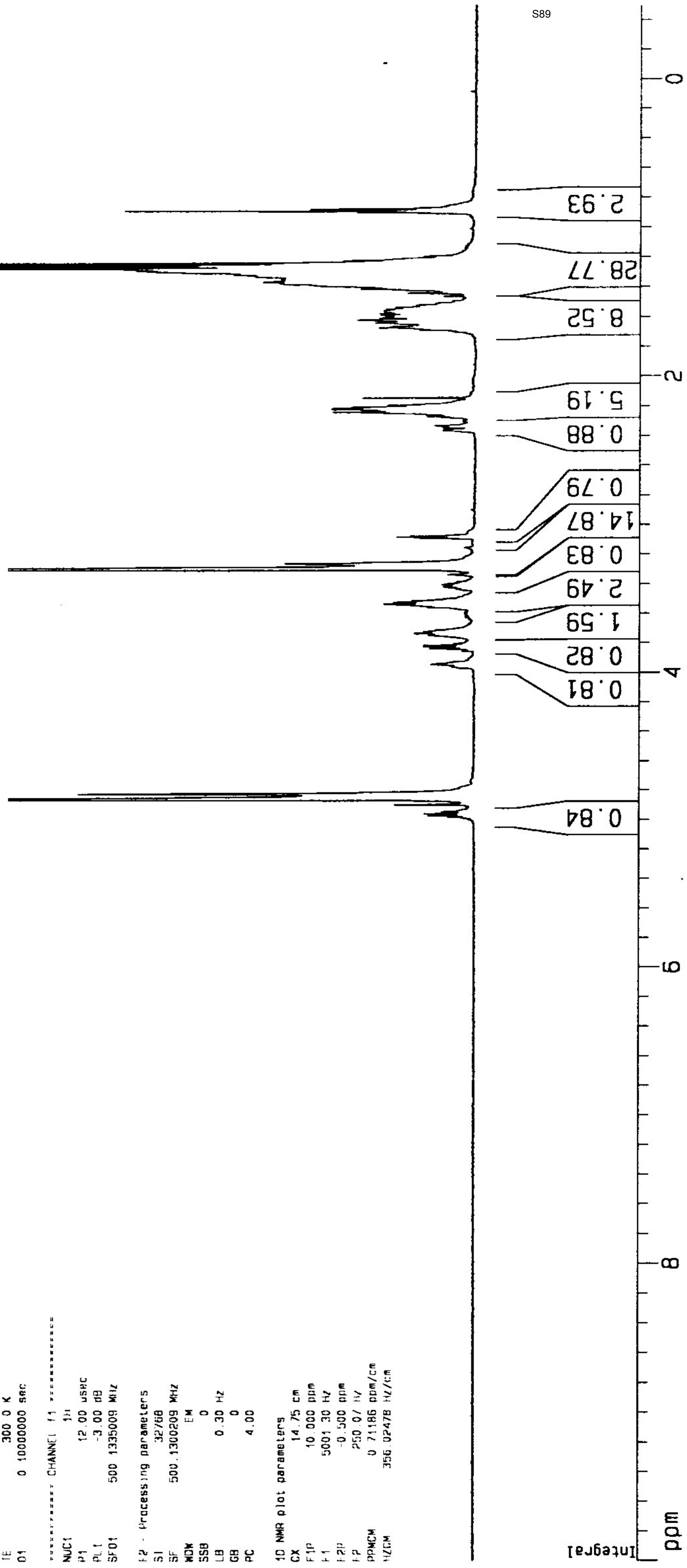
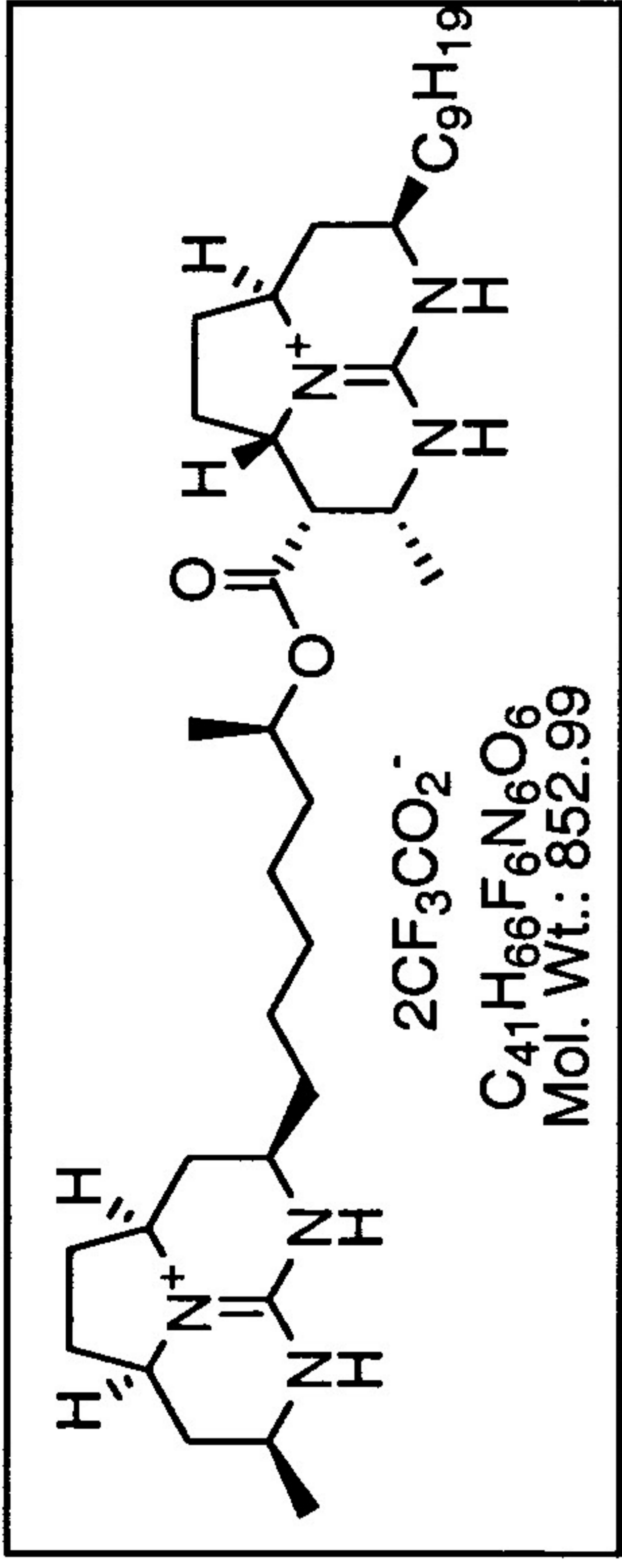
NUC1 1H
P1 12.00 usec
PL1 -3.00 dB
SF01 500.1335009 MHz

F2 - Processing parameters

SI 32768
SF 500.1300209 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 4.00

1D NMR plot parameters

CX 14.75 cm
FIP 10.000 ppm
F1 5001.30 Hz
F2P -0.500 ppm
F2 250.07 Hz
PPMCM 0.71186 ppm/cm
VIZCM 356.02478 Hz/cm



Current Data Parameters

USER fcohin
NAME fc-v-1956
EXPNO 2
PROCNO 1

F2 Acquisition Parameters

Date 20001121
Time 6.56
INSTRUM gn500
PROBHD 5 mm broadband
PULPROG zgpg30
TD 65536
SOLVENT CD3OD
NS 23508
DS 2
SWH 30185.178 Hz
FIDRES 0.460589 Hz
AQ 1.0856159 sec
RG 9195 2
DM 16.564 usec
DE 4.50 usec
TE 300.0 K
D1 0.25000000 sec
D11 0.03000000 sec

CHANNEL F1
NUC1 13C
P1 6.25 usec
PL1 0.00 dB
SFO1 125.7715724 MHz

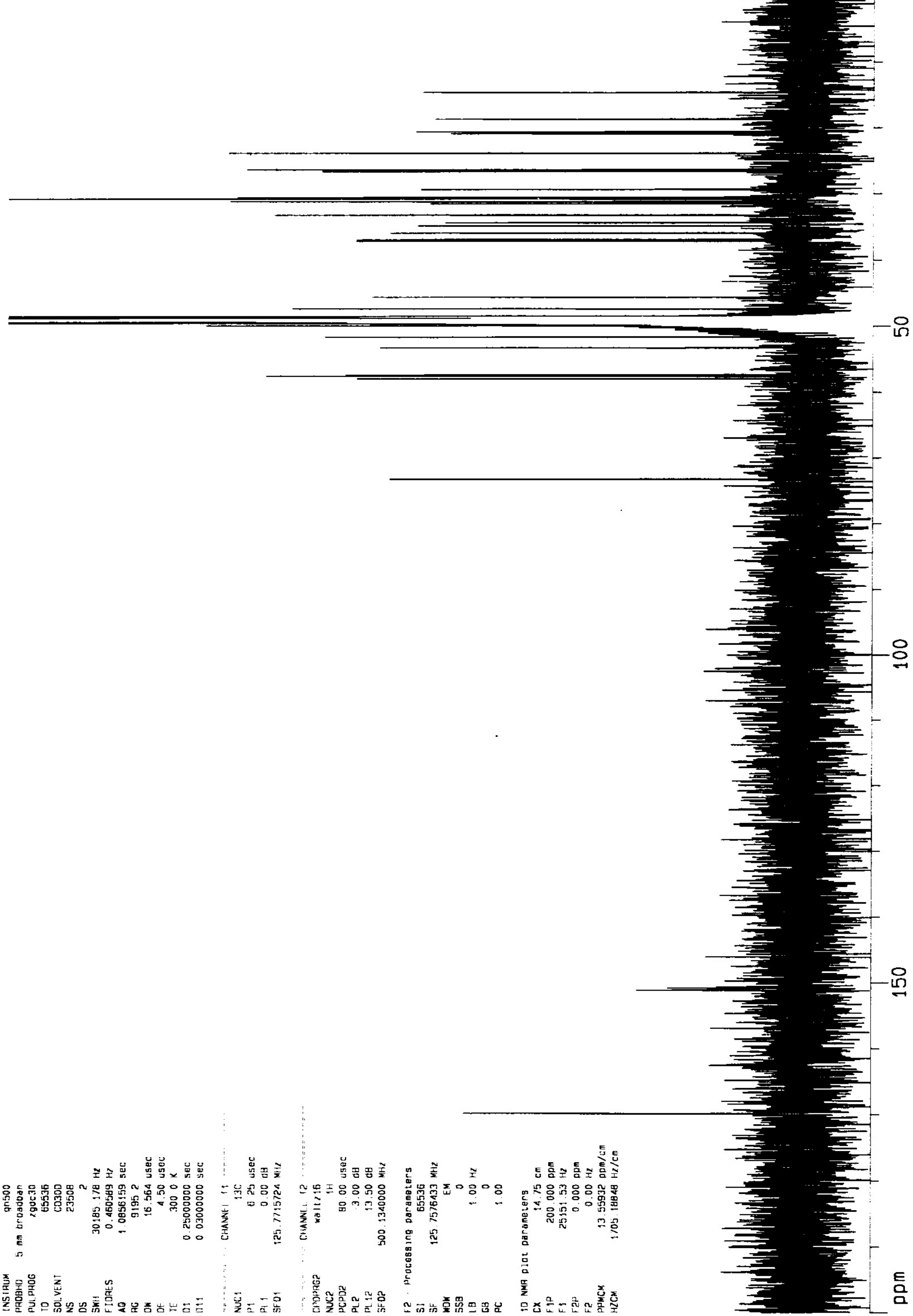
CHANNEL F2
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -3.00 dB
PL12 13.50 dB
SFO2 500.1340000 MHz

F2 Processing parameters

SI 65536
SF 125.7576433 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 14.75 cm
F1P 200.000 ppm
F1 25151.53 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 13.55932 ppm/cm
HZCM 1705.18848 Hz/cm



Current Data Parameters
 NAME fc-1v-146
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 991016
 Time 19.11
 INSTRUM spect
 PROBHC 5 mm broadband
 PULPROG zg
 TD 32768
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6009.815 Hz
 FIDRES 0.183399 Hz
 AQ 2.7283477 sec
 RG 128
 DW 83.200 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

***** CHANNEL f1 *****

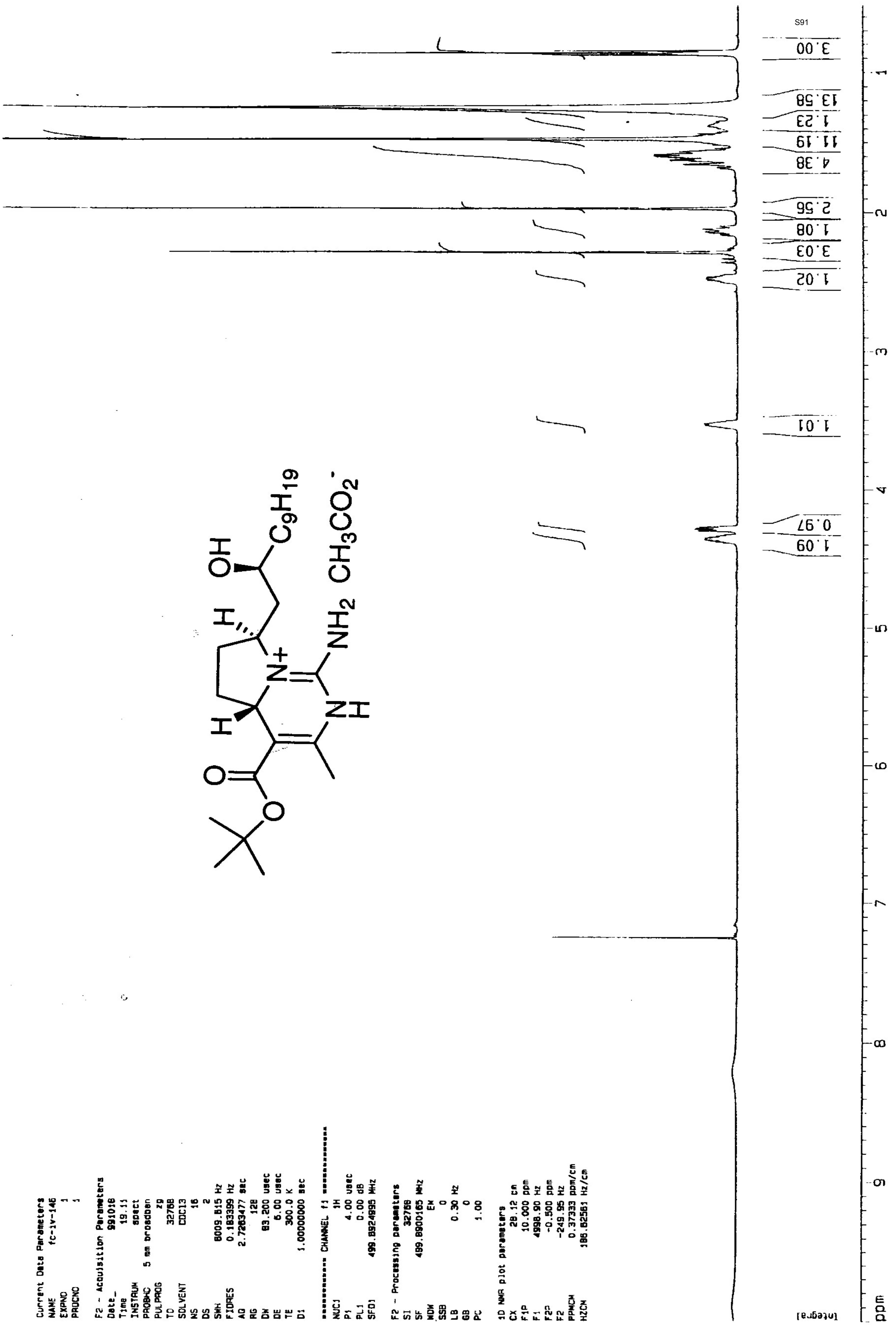
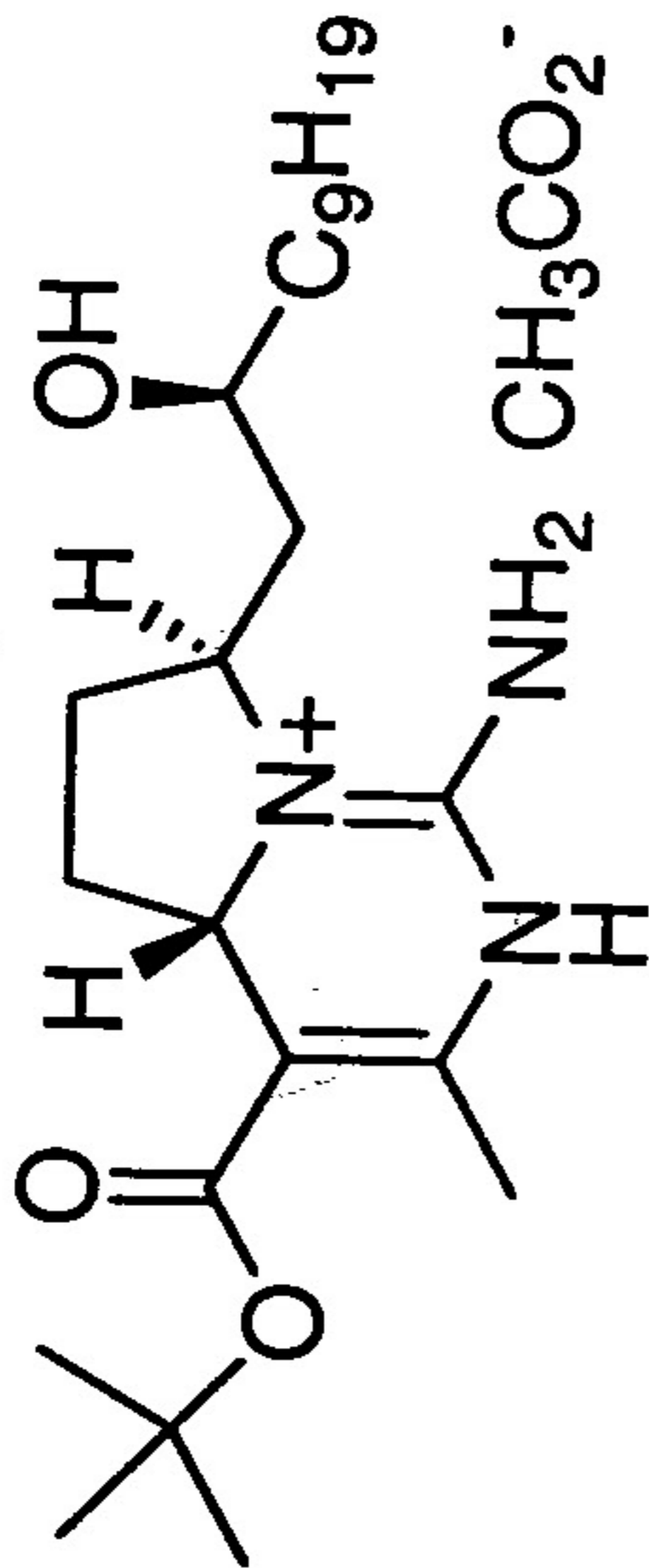
NUC1 1H
 P1 4.00 usec
 PL1 0.00 dB
 SFO1 499.8924895 MHz

F2 - Processing parameters

SI 32768
 SF 499.8990165 MHz
 MDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 28.12 cm
 F1P 10.000 ppm
 F1 4998.90 Hz
 F2P -0.500 ppm
 F2 -249.95 Hz
 PPMCM 0.37333 ppm/cm
 HZCM 186.82561 Hz/cm



Current Data Parameters
 NAME fc-iv-100
 EXPNO 1
 PROCNO 1

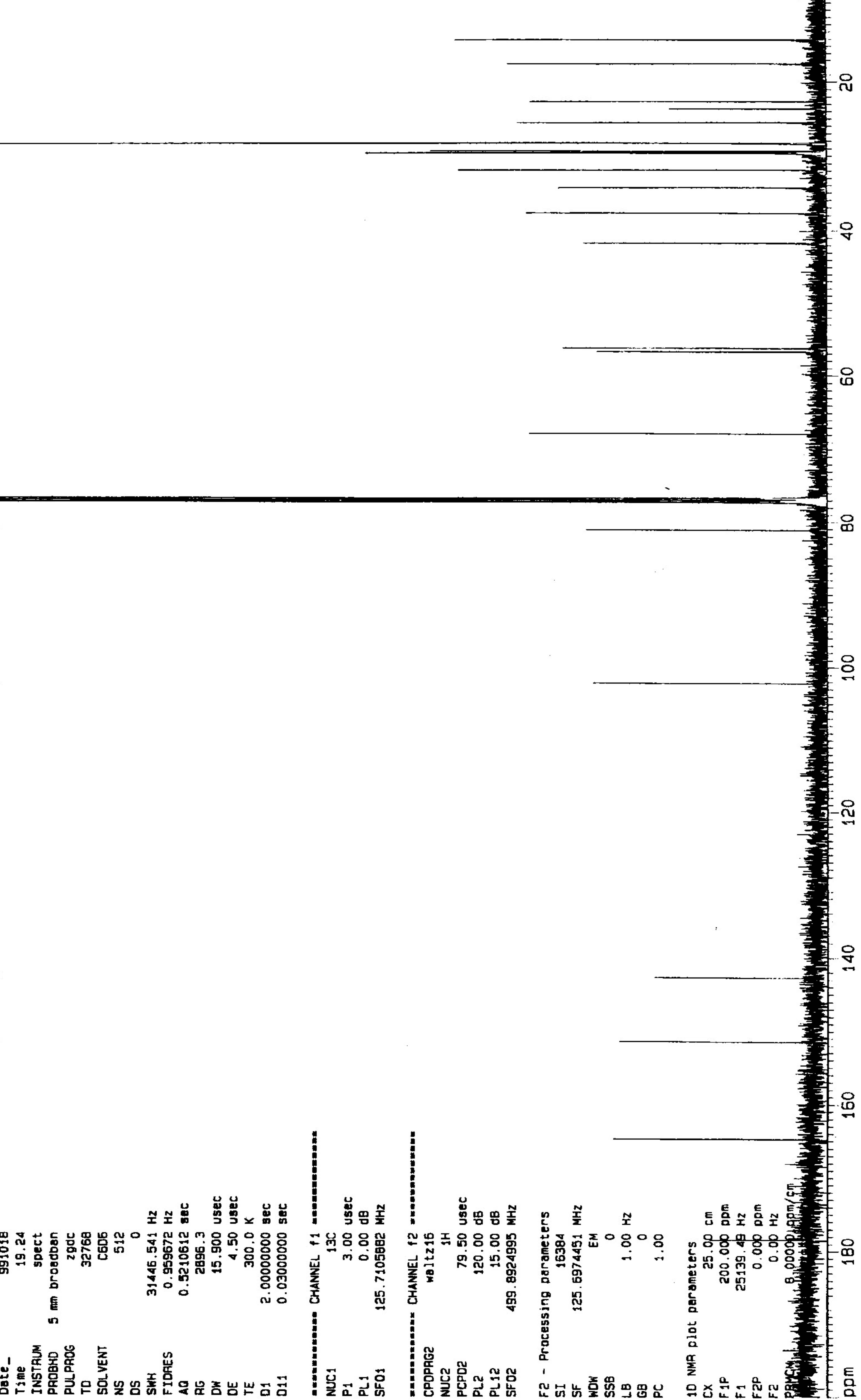
F2 - Acquisition Parameters
 Date_ 991018
 Time 19.24
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zgdc
 TD 32768
 SOLVENT C6D6
 NS 512
 DS 0
 SMH 31446.541 Hz
 FIDRES 0.959672 Hz
 AQ 0.5210612 sec
 RG 2896.3
 DW 15.900 usec
 DE 4.50 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec

CHANNEL f1
 NUC1 13C
 P1 3.00 usec
 PL1 0.00 dB
 SFO1 125.7105882 MHz

CHANNEL f2
 CPOPRG2 waltz16
 NUC2 1H
 PCPD2 79.50 usec
 PL2 120.00 dB
 PL12 15.00 dB
 SFO2 499.8924995 MHz

F2 - Processing parameters
 SI 16384
 SF 125.6974451 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 25.00 cm
 F1P 200.000 ppm
 F1 25139.48 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PRGCM 8.00000 ppm/50



Current Data Parameters
 NAME fc-1v-144
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters

Date_ 991018
 Time 11.58
 INSTRUM spect
 PROBRD 5 mm broadban
 PULPROG zg
 TD 32768
 SOLVENT CDCl3
 NS 15
 DS 2
 SWH 6009.615 Hz
 FIDRES 0.183399 Hz
 AQ 2.7263477 sec
 RG 203.2
 DM 83.200 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

***** CHANNEL f1 *****

NUC1 1H
 P1 4.00 usec
 PL1 0.00 dB
 SFO1 499.8924895 MHz

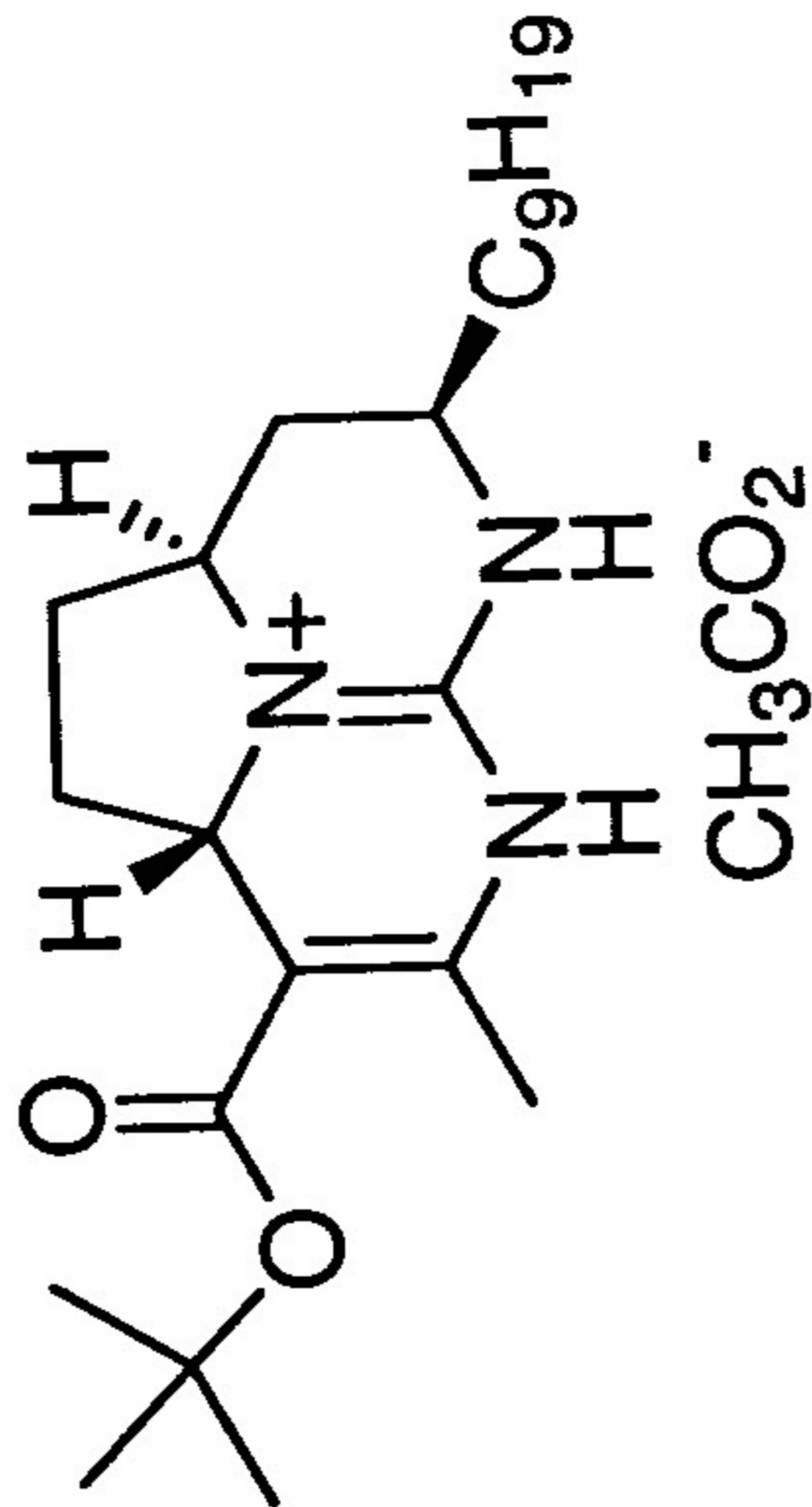
F2 - Processing parameters

SI 32768
 SF 499.890165 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 BB 0
 PC 1.00

1D NMR plot parameters

CX 28.12 cm
 FJP 10.000 ppm
 F1 4998.90 Hz
 F2P -0.500 ppm
 F2 -249.95 Hz

HZCM 186.62561 hz/cm



Integral

ppm

Current Data Parameters
 NAME fc-iv-074
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters

Date_ 991018
 Time 12.09
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zgdc
 TD 32768
 SOLVENT C6D6
 NS 512
 DS 0
 SWH 31446.541 Hz
 FIDRES 0.959672 Hz
 AQ 0.5210612 sec
 RG 4096
 DW 15.900 usec
 DE 4.50 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec

CHANNEL f1

NUC1 13C
 P1 3.00 usec
 PL1 0.00 dB
 SF01 125.710582 MHz

CHANNEL f2

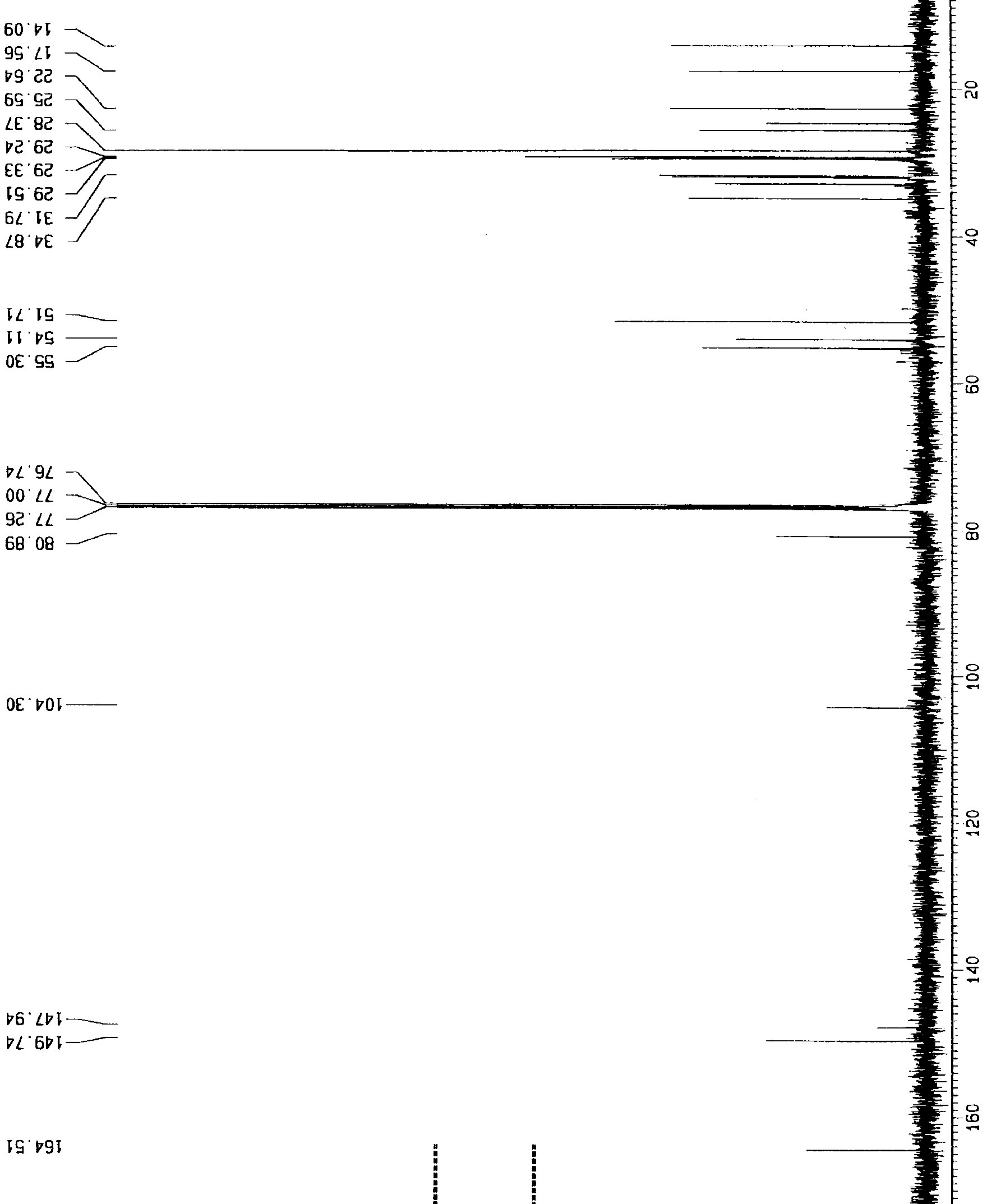
CPDPRG2 waltz16
 NUC2 1H
 PCPD2 79.50 usec
 PL2 120.00 dB
 PL12 15.00 dB
 SF02 499.8924995 MHz

F2 - Processing parameters

SI 16384
 SF 125.697470 MHz
 WDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1 00

3D NMR plot parameters

CX 25 00 cm
 F1P 200.000 ppm
 F1 25139.49 Hz
 F2P 0.000 ppm
 F2 0 00 Hz



Current Data Parameters
 NAME fc-3v-268a
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20000417
 Time 15.07
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zg
 TD 32768
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6009.615 Hz
 FIDRES 0.183389 Hz
 AQ 2.7263477 sec
 RG 322.5
 DM 83.200 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----

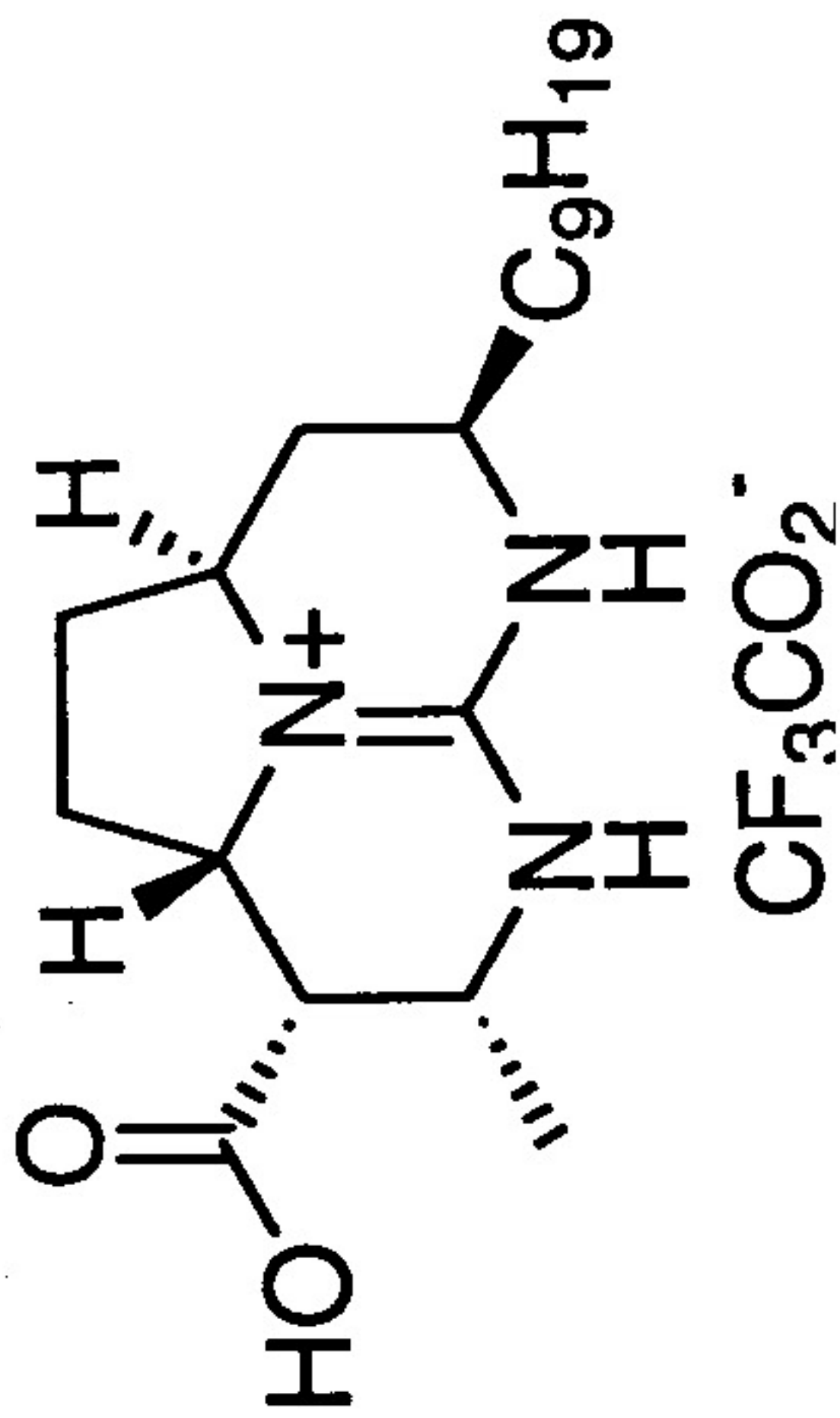
NUC1 1H
 P1 4.00 usec
 PL1 0.00 dB
 SFO1 499.8924995 MHz

F2 - Processing parameters

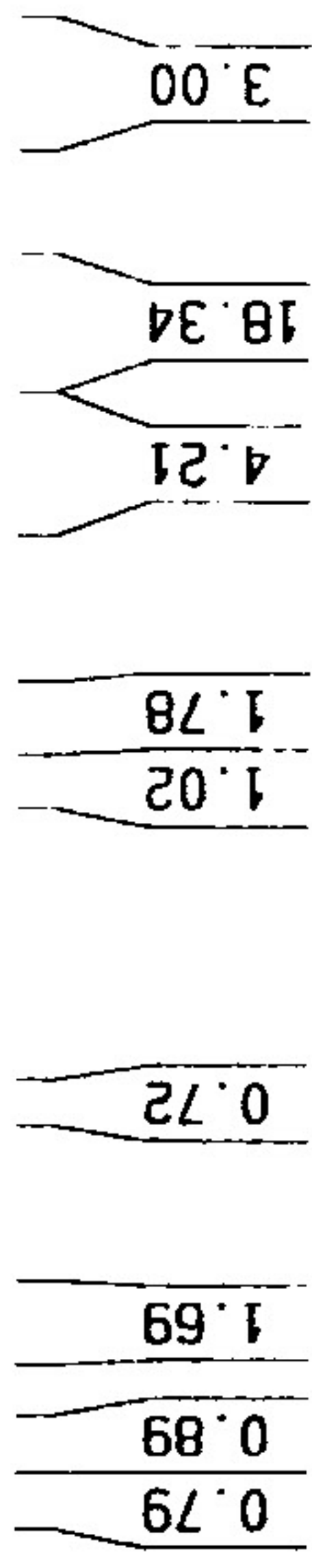
SI 32768
 SF 499.8900192 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 25.00 cm
 F1P 10.000 ppb
 F1 4988.80 Hz
 F2P -0.500 ppb
 F2 -248.95 Hz
 PPMCK 0.42000 ppm/cm
 HZCM 209.95381 Hz/cm



Integrals



ppm

Current Data Parameters
 NAME fc-1v-230a
 EXPNO 3
 PROCNO 1
 172.56

F2 - Acquisition Parameters

Date_ 20000114
 Time 6.35
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zgdc
 TD 32768
 SOLVENT C6D6
 NS 9000
 DS 0
 SWH 31446.541 Hz
 FIDRES 0.959672 Hz
 AQ 0.5210612 sec
 RG 5792.6
 DW 15.900 usec
 DE 4.50 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec

----- CHANNEL f1 -----

NUC1 13C
 P1 3.00 usec
 PL1 0.00 dB
 SFO1 125.7105882 MHz

----- CHANNEL f2 -----

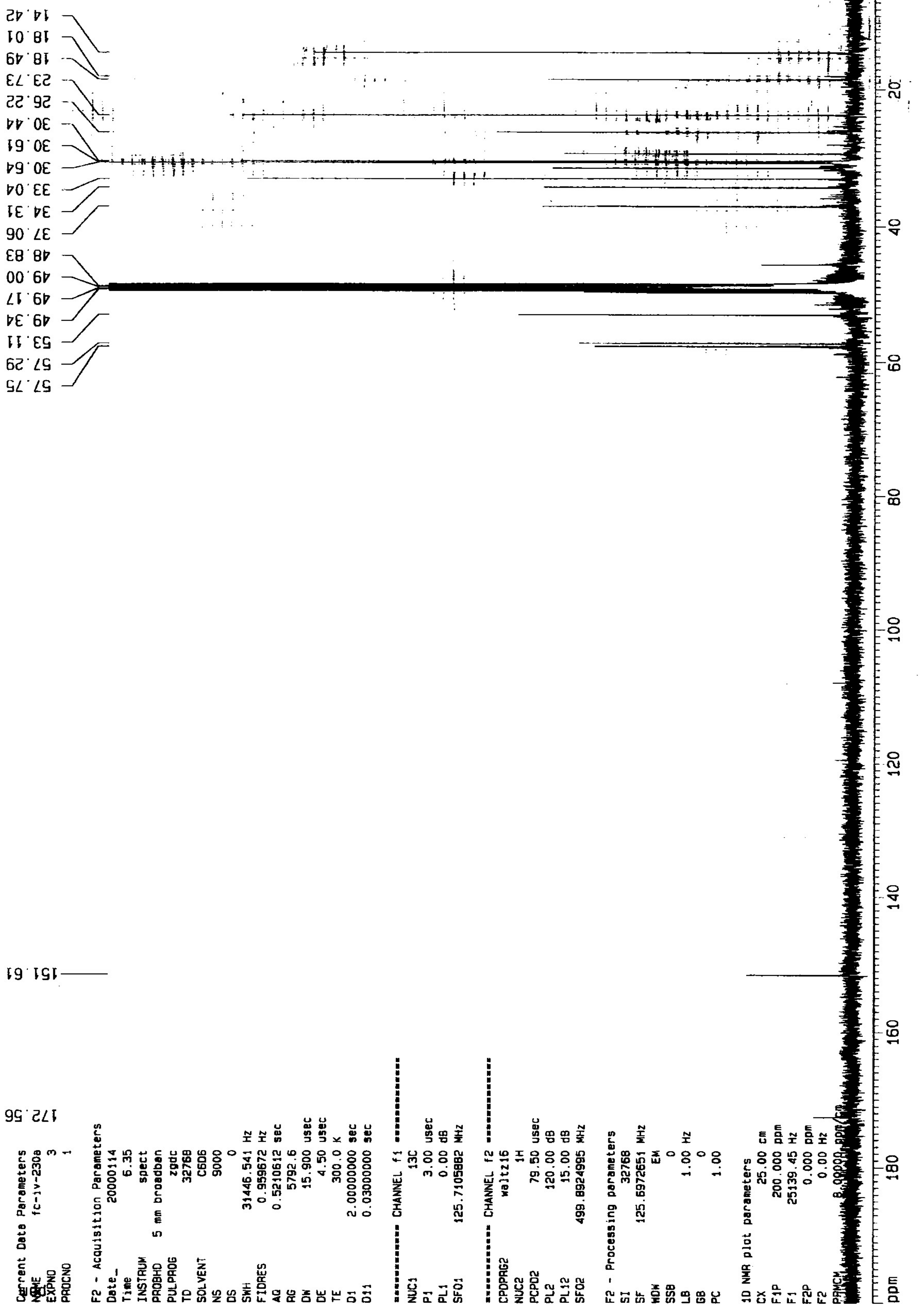
CPDPRG2 waltz16
 NUC2 1H
 PCPD2 79.50 usec
 PL2 120.00 dB
 PL12 15.00 dB
 SFO2 499.8924995 MHz

F2 - Processing parameters

SI 32768
 SF 125.6972651 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 25.00 cm
 F1P 200.000 ppm
 F1 25139.45 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PRNCH 8.00000 ppm/cm



57.75
 57.29
 53.11
 49.34
 49.17
 49.00
 48.83
 37.06
 34.31
 33.04
 30.64
 30.61
 30.44
 26.22
 23.73
 18.49
 18.01
 14.42

180
 160
 140
 120
 100
 80
 60
 40
 20
 ppm

Current Data Parameters
NAME fc-1v-247b
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20000205
Time 9.27
INSTRUM spect
PROBHD 5 mm Broadband
PULPROG zg
TD 32768
SOLVENT CDC13
NS 32
DS 2
SWH 6009.615 Hz
FIDRES 0.183369 Hz
AQ 2.7263477 sec
RG 322.5
DM 83.200 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

***** CHANNEL f1 *****

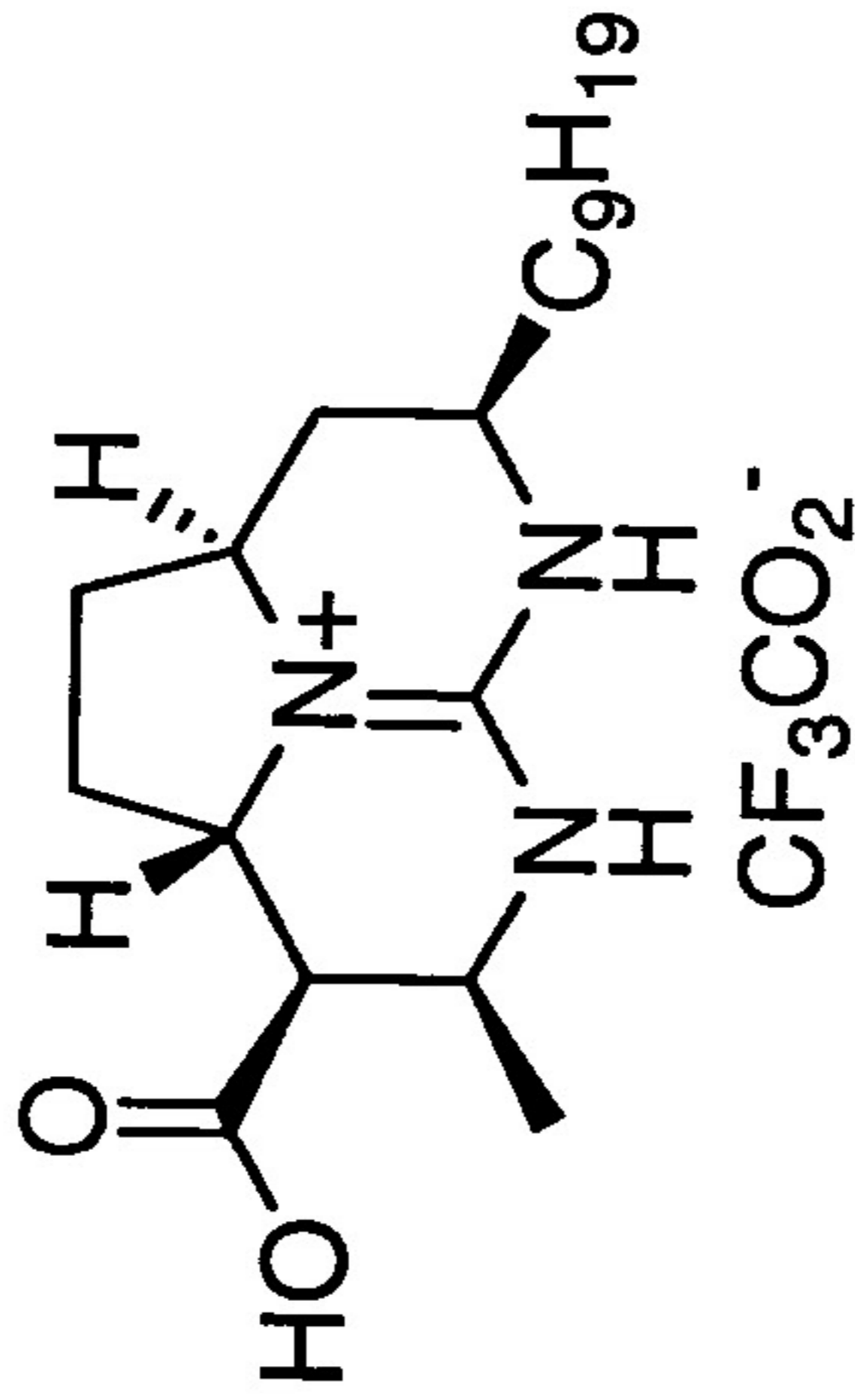
NUC1 1H
P1 4.00 usec
PL1 0.00 dB
SFO1 499.8924955 MHz

F2 - Processing parameters

SI 32768
SF 499.8900192 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 29.12 cm
F1P 10.000 ppm
F1 4998.90 Hz
F2P -0.500 ppm
F2 -249.95 Hz
PPMCH 0.37333 ppm/cm
HZCM 186.62561 Hz/cm



Integral

1.05

1.35

1.18

1.24

1.00

1.14

1.48

1.64

6.21

21.76

3.33

4.38

S97

ppm

6

8

7

6

5

4

3

2

1

14.42
19.49
23.73
26.22
30.44
30.63
30.65
31.56
33.04
36.86
48.83
49.00
49.17
49.34
53.21
57.12

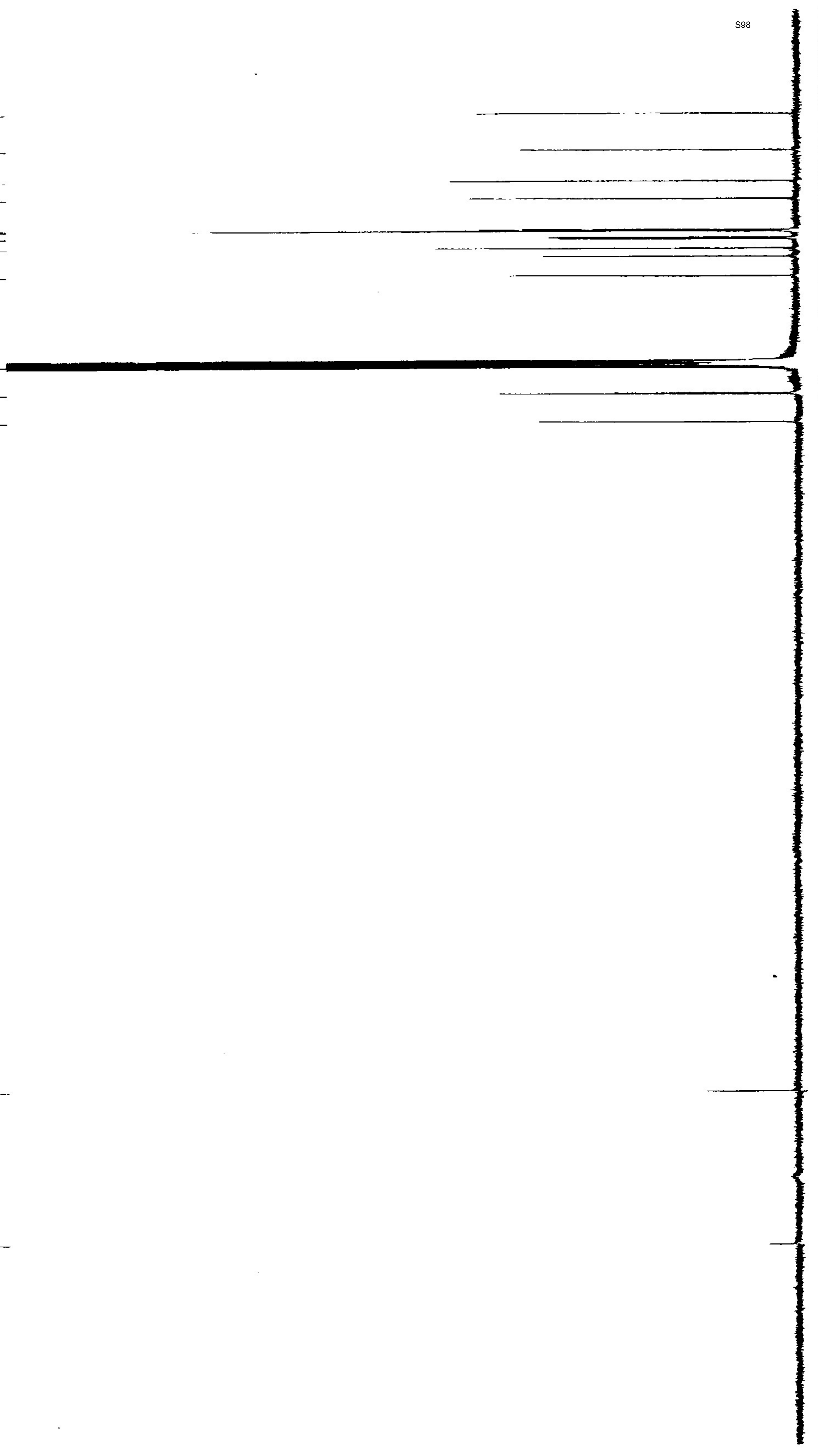
151.03

172.29

ppm

ppm

20
40
60
80
100
120
140
160
180



Current Data Parameters
 USER fcohen
 NAME fc-v-195b
 EXPNO 1
 PROCNO 1

F2 Acquisition Parameters

Date 20001201
 Time 10.04
 INSTRUM gn500
 PROBH0 5 mm broadband
 PULPROG zg30
 ID 65536
 SOLVENT CDCl3
 NS 32
 DS 2
 SWH 8012.820 HZ
 FIDRES 0.122266 HZ
 AQ 4.0894966 sec
 RG 406.4
 DW 52.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 0.10000000 sec

***** CHANNEL f1 *****

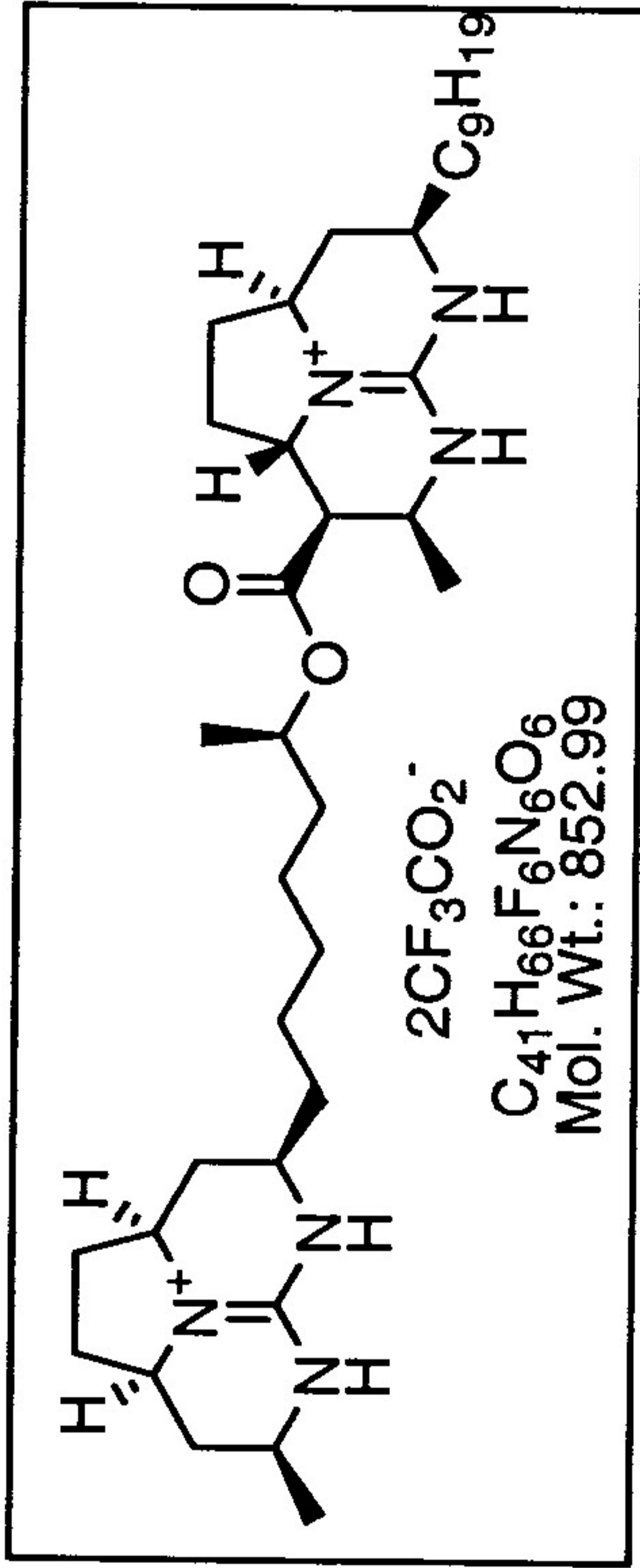
NUC1 1H
 P1 12.00 usec
 PL1 -3.00 dB
 SF01 500.1335008 MHz

F2 - Processing parameters

SI 32768
 SF 500.1300160 MHz
 KDN EM
 SSB 0
 LB 0.30 HZ
 GR 0
 PC 1.00

1D NMR plot parameters

CX 14.75 cm
 F1P 10.000 ppm
 F1 5001.30 HZ
 F2P 0.500 ppm
 F2 -250.07 HZ
 ppmCM 0.71186 ppm/cm
 HZCM 356.02475 HZ/cm



Integral

1.27

0.98

2.83

1.37

2.01

1.05

1.00

1.08

1.21

4.81

9.98

29.41

3.01

3.24

ppm

4

2

0

Current Data Parameters
USER Iconan
NAME fc-v-1950
EXPNO 4
PROCNO 1

F2 - Acquisition Parameters

Date_ 20001219
Time 7.06
INSTRUM gn500
PROBHD 5 mm broadband
PULPROG zgpg30
TD 65536
SOLVENT CD300
NS 18978
DS 2
SWH 30185.178 Hz
FIDRES 0.460589 Hz
AQ 1.0856159 sec
RG 1290 2
DM 16.564 usec
DE 4.50 usec
TE 300.0 K
D1 0.25000000 sec
D11 0.03000000 sec

===== CHANNEL f1 =====

NUC1 13C
P1 6.25 usec
PL1 0.00 dB
SFO1 125.7715724 MHz

===== CHANNEL f2 =====

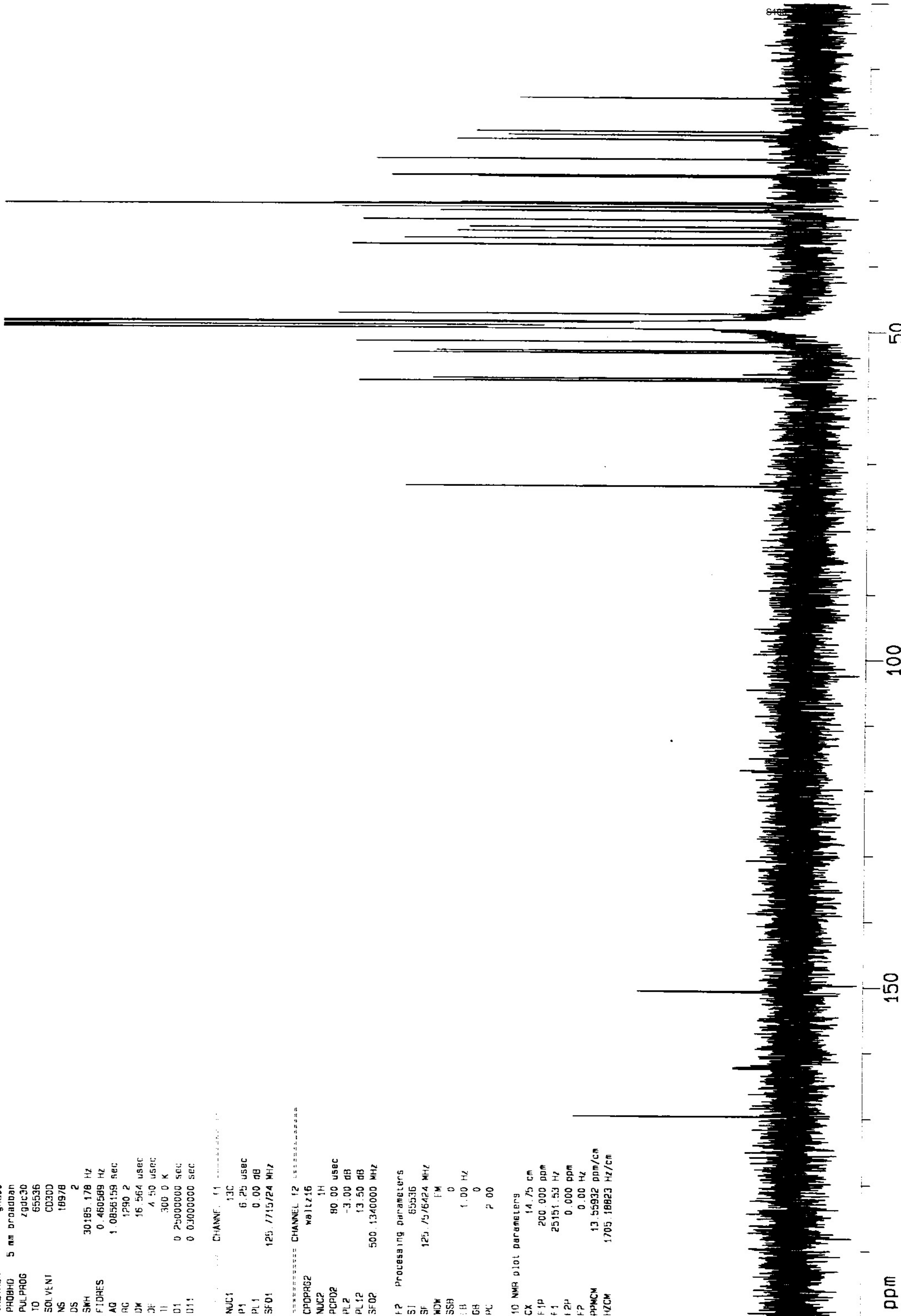
CPROG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -3.00 dB
PL12 13.50 dB
SFO2 500.1340000 MHz

F2 Processing parameters

SI 65536
SF 125.7576424 MHz
WDW EM
SSB 0
EB 1.00 Hz
GB 0
PC 2.00

1D NMR plot parameters

CX 14.75 cm
F1p 200.000 ppm
F1 25151.53 Hz
F2p 0.000 ppm
F2 0.00 Hz
PPMCM 13.55932 ppm/cm
HZCM 1705.18823 Hz/cm



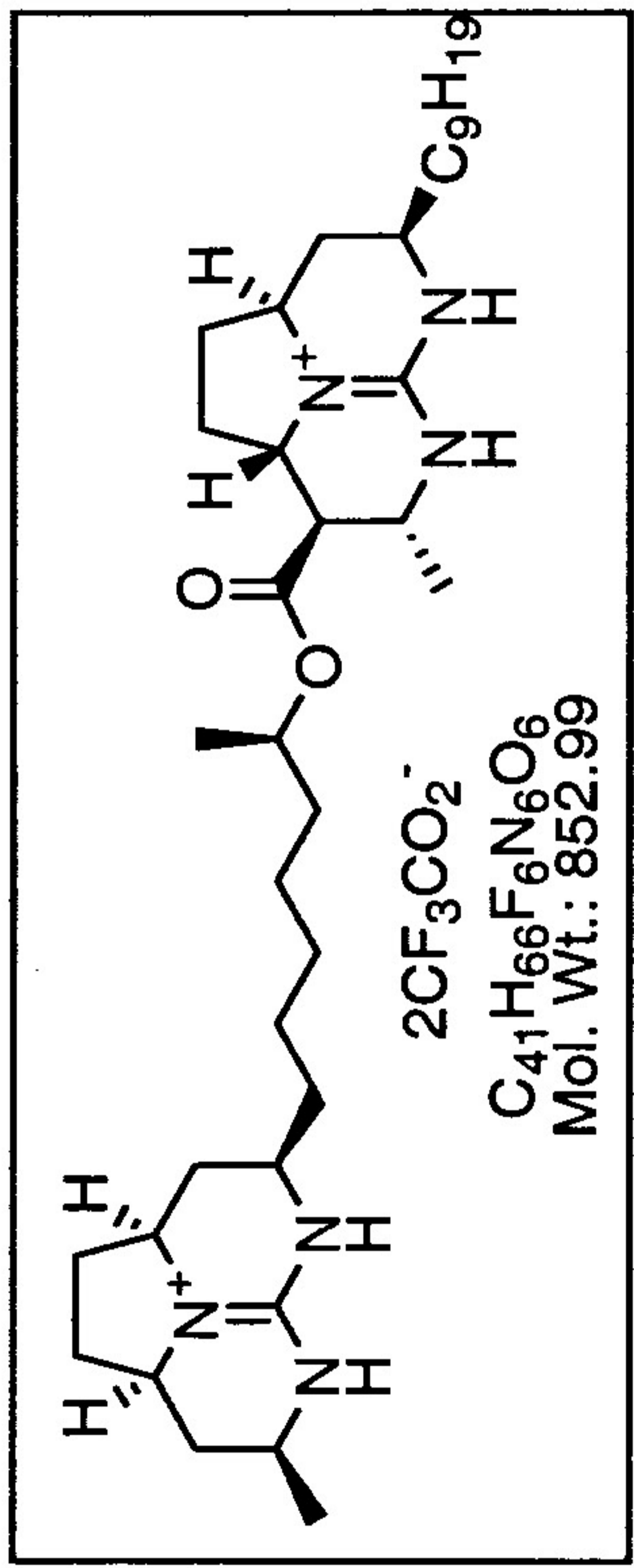
Current Data Parameters
 USER fconen
 NAME 1c-1v-259
 EXPNO 3
 PROCNO 1

F2 Acquisition Parameters
 Date 20001130
 Time 22.59
 INSTRUM gn500
 PROBHD 5 mm broadband
 PULPROG zg30
 TD 65536
 SOLVENT1 COCL3
 NS 32
 DS 2
 SWH 8012.820 Hz
 FIDRES 0.122266 Hz
 AQ 4.0894966 sec
 RG 408.4
 DW 62.400 usec
 DE 6.00 usec
 TE 300.0 K
 O1 0.1000000 sec

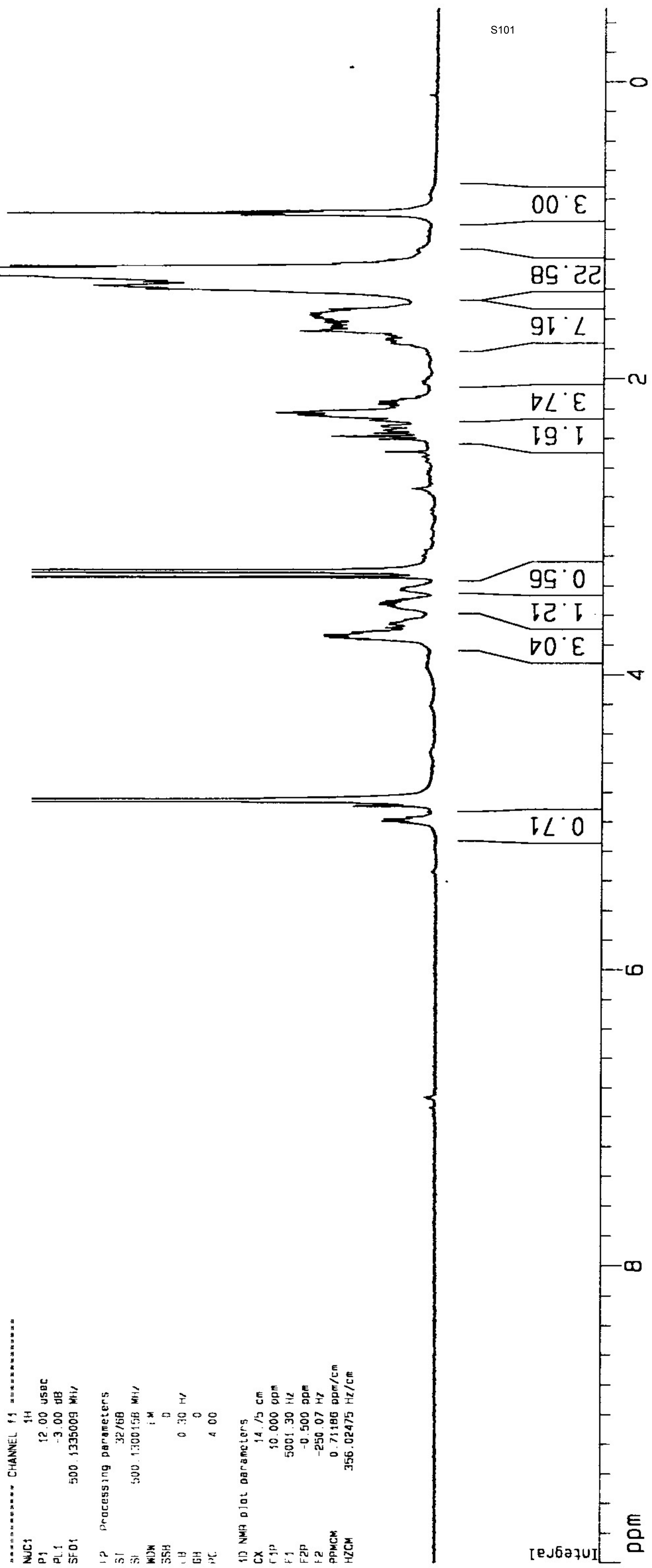
***** CHANNEL f1 *****
 NUC1 1H
 P1 12.00 usec
 PL1 -3.00 dB
 SFO1 500.1335009 MHz

IP Processing parameters
 SI 32768
 SF 500.1300158 MHz
 WDW EM
 SSB 0
 GB 0.30 Hz
 GH 0
 PC 4.00

1D NMR plot parameters
 CX 14.75 cm
 F1P 10.000 ppm
 F1 5001.30 Hz
 F2P -0.500 ppm
 F2 -250.07 Hz
 PPMCM 0.71186 ppm/cm
 HZCM 356.02475 Hz/cm



2CF₃CO₂⁻
 C₄₁H₆₆F₆N₆O₆
 Mol. Wt.: 852.99



Current Data Parameters
USER fcohen
NAME 1c-1v-259
EXPNO 4
PROCNO 1

F2 - Acquisition Parameters

Date 20001201
Time 6.50
INSTRUM gn500
PROBHD 5 mm broadband
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 21000
DS 2
SWH 30185.178 Hz
FIDRES 0.450589 Hz
AQ 1.0856159 sec
RG 6502
DM 16.564 usec
DE 4.50 usec
TE 300.0 K
D1 0.25000000 sec
D11 0.03000000 sec

===== CHANNEL f1 =====

NUC1 13C
P1 6.25 usec
PL1 0.00 dB
SFO1 125.7715724 MHz

===== CHANNEL f2 =====

CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -3.00 dB
PL12 13.50 dB
SFO2 500.1340000 MHz

F2 - Processing parameters

SI 65536
SF 125.7576424 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 2.00

3D NMR plot parameters

CX 14.75 cm
F1P 200.000 ppm
F1 25151.53 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 13.55932 ppm/cm
HZCM 1705.18823 Hz/cm



Current Data Parameters
 USER fcoman
 NAME fc-v-092
 EXPNO 1
 PROCNO 1

F2 Acquisition Parameters

Date: 20000701
 Time: 15.42
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zg30
 ID 32758
 SOLVENT MeOH
 NS 32
 DS 0
 SWH 6009.615 Hz
 FIDRES 0.183399 Hz
 AQ 2.7263477 sec
 RG 1290.2
 OW 83.200 usec
 OF 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----

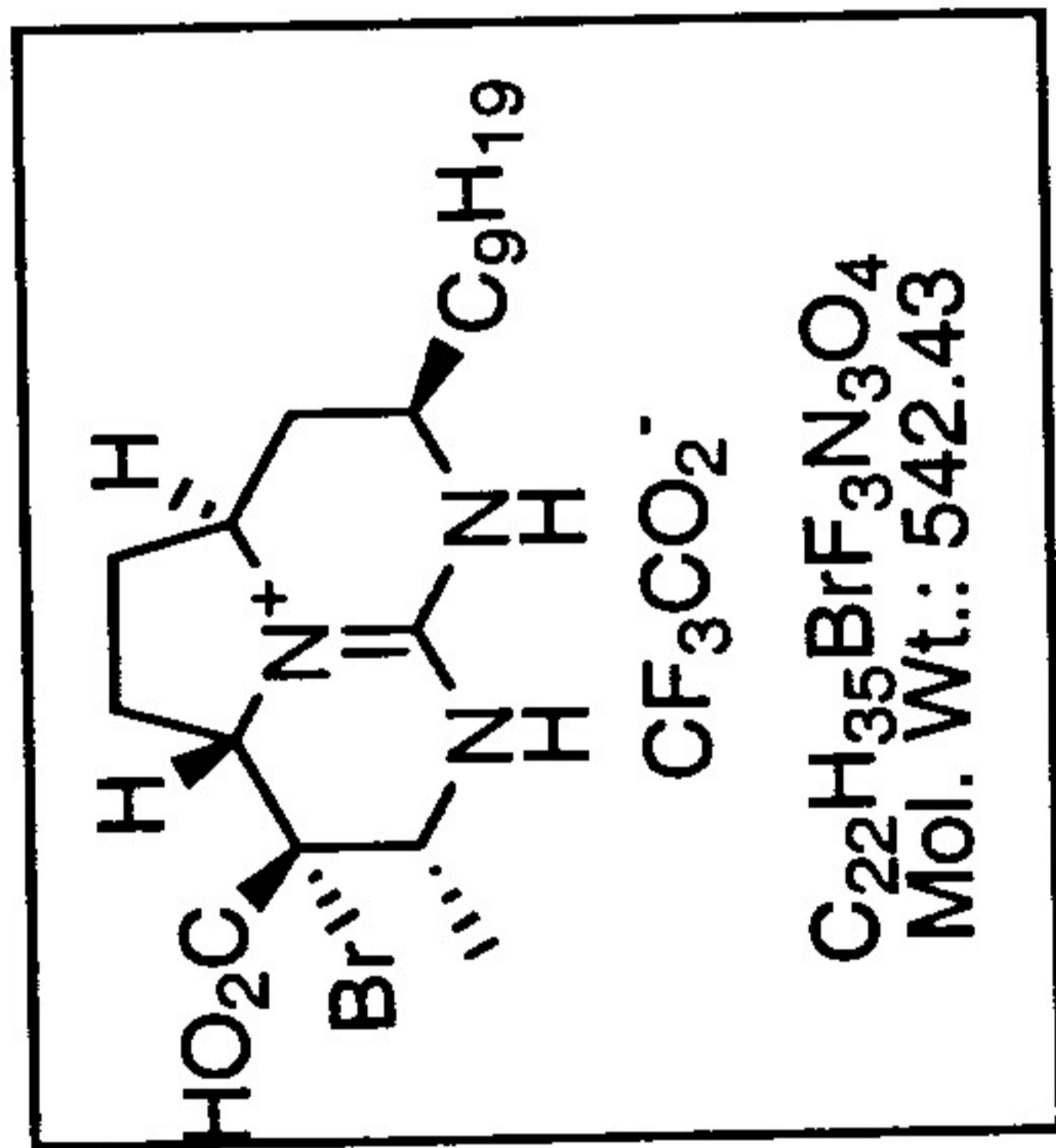
NUC1 1H
 P1 4.00 usec
 PL1 0.00 dB
 SF01 500.1323506 MHz

F2 - Processing parameters

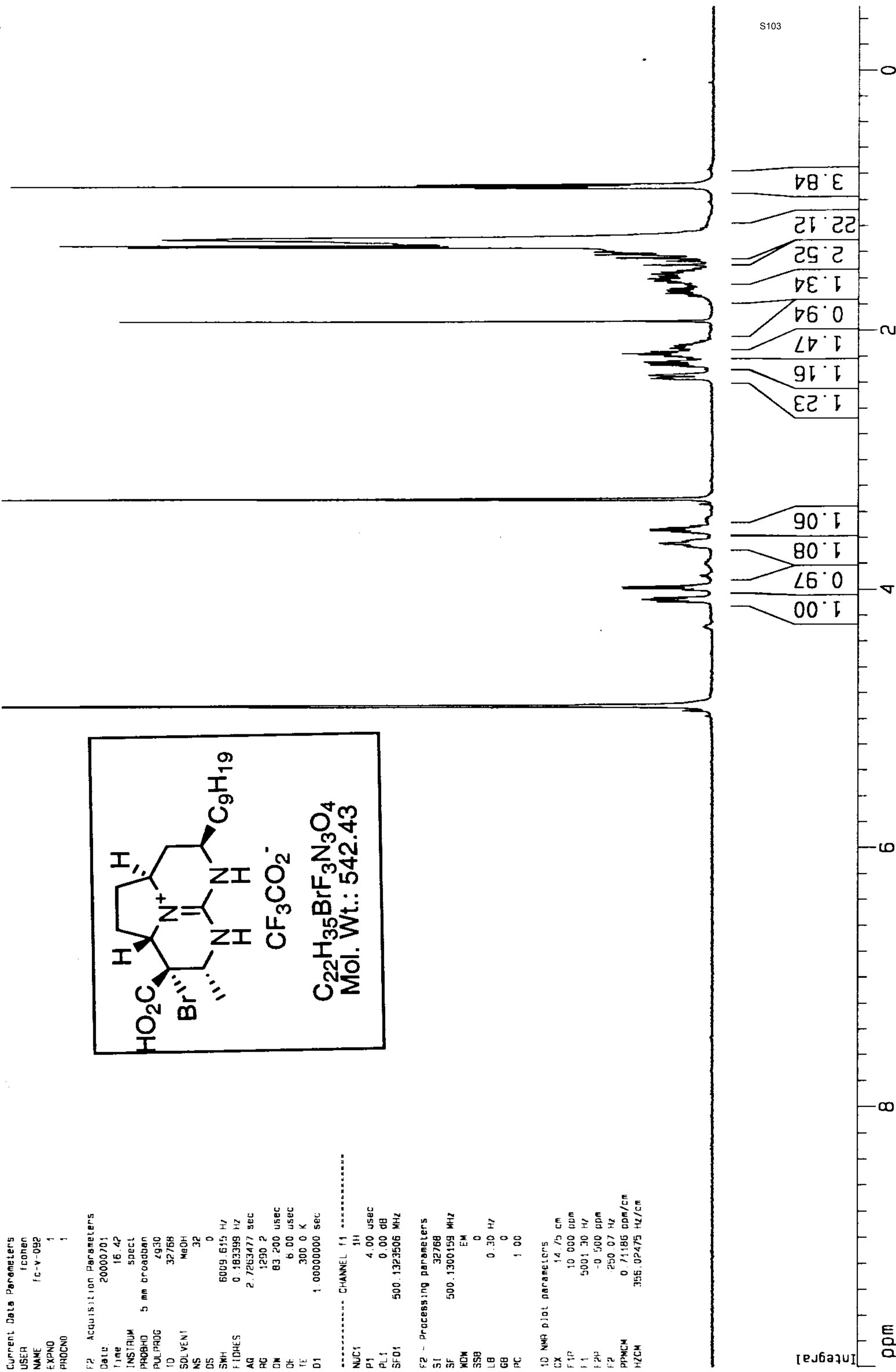
SI 32768
 SF 500.1300159 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 14.75 cm
 F1P 10 000 ppm
 F1 5001.30 Hz
 F2P -0.500 ppm
 F2 -250.07 Hz
 PPMCM 0.71186 ppm/cm
 HZCM 355.02475 Hz/cm



S103



Current Data Parameters
 USER fcohen
 NAME fc-v-095
 EXPNO 4
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20000810
 Time 7.02
 INSTRUM spect
 PROBHD 5 mm broadband
 PULPROG zguc
 TD 32768
 SOLVENT CDC13
 NS 9828
 DS 0
 SMH 31446.541 Hz
 FIDRES 0.959672 Hz
 AQ 0.5210612 sec
 RG 4096
 DW 15.900 usec
 DE 4.50 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec

***** CHANNEL f1 *****

NUC1 13C
 P1 10.00 usec
 PL1 0.00 dB
 SFO1 125.7935759 MHz

***** CHANNEL f2 *****

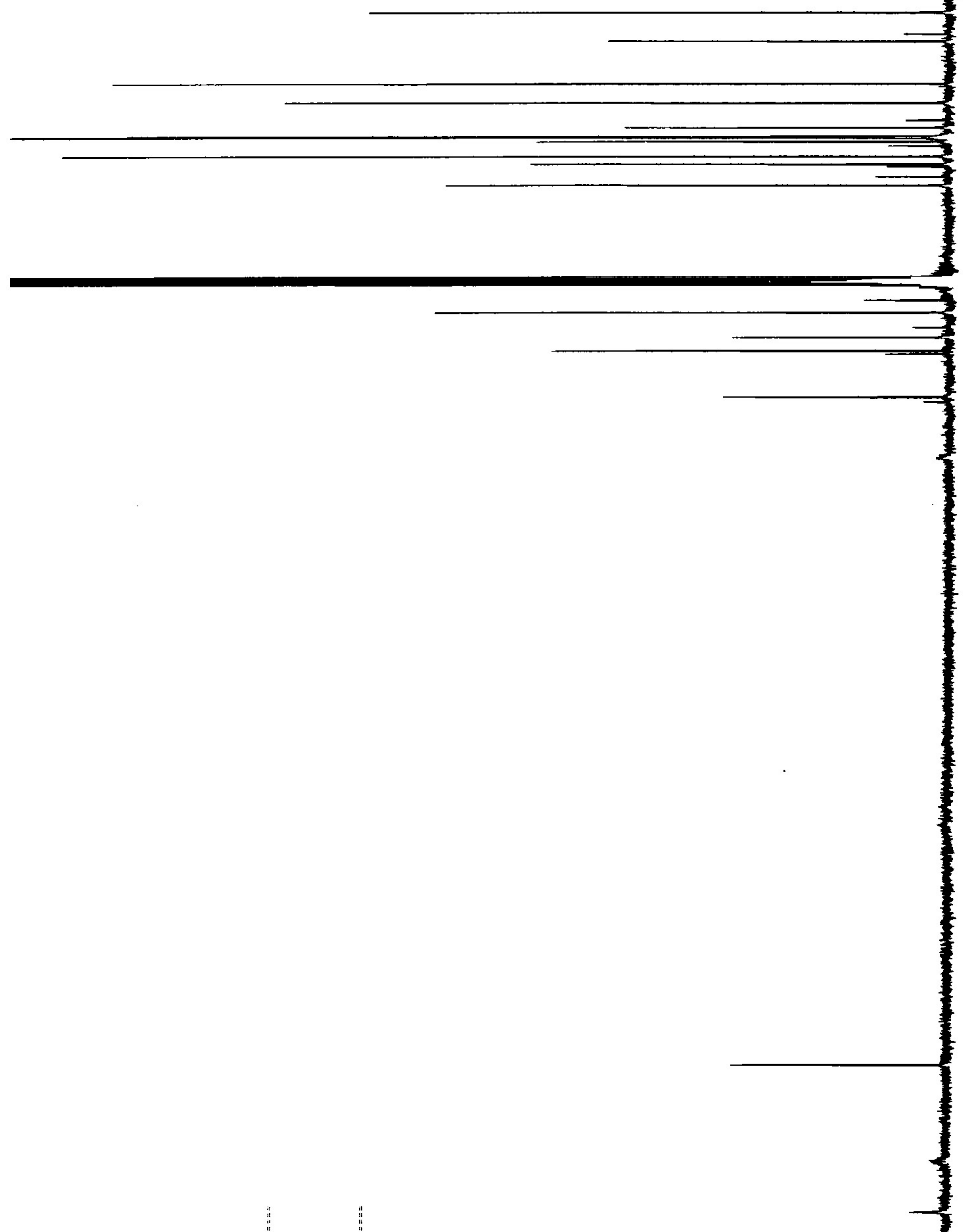
CPDPRG2 waltz16
 NUC2 1H
 PCPD2 80.00 usec
 PL2 120.00 dB
 PL12 15.00 dB
 SFO2 500.225010 MHz

F2 processing parameters

SI 32768
 SF 125.7802459 MHz
 NDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 14.75 cm
 F1P 200.000 ppm
 F1 25156.05 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 13.55932 ppm/cm
 HZCM 1705.49500 Hz/cm



ppm

150

100

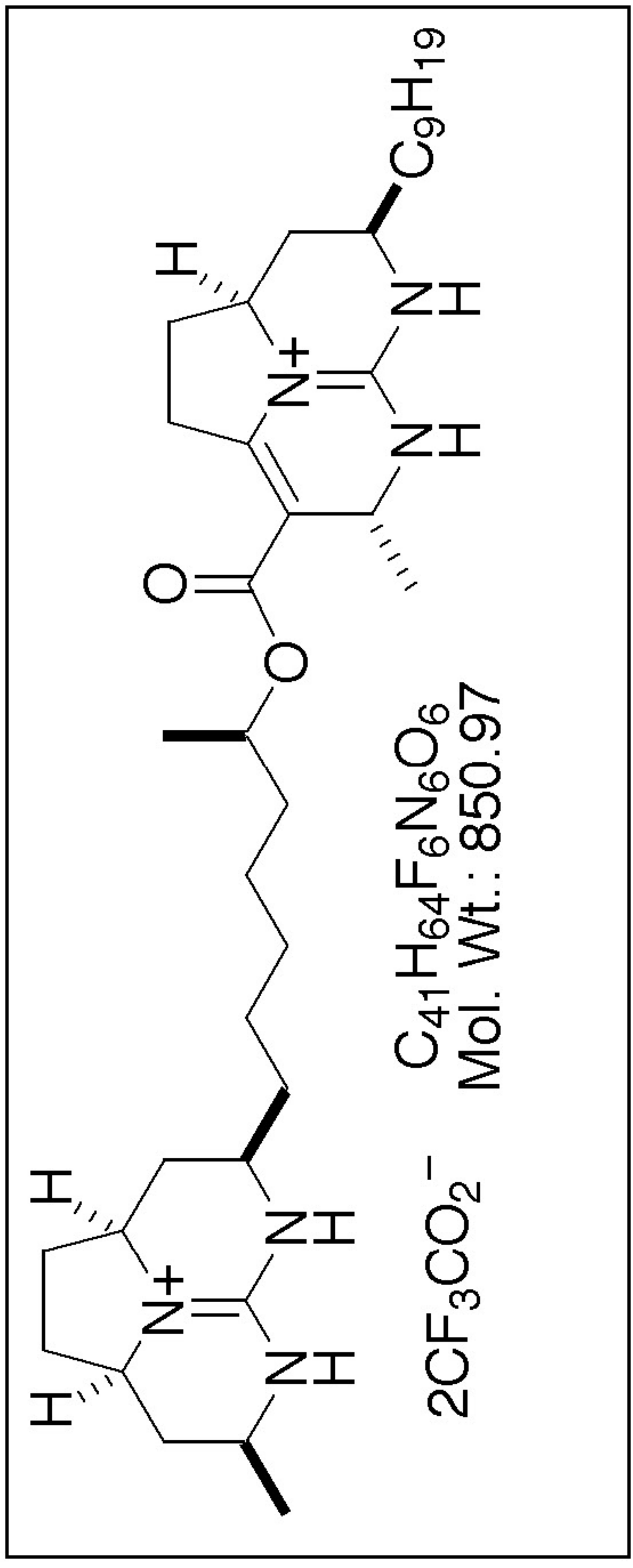
50

Current Data Parameters
 USER fcohen
 NAME 1c-v-194a
 EXPNO 1
 PROCNO 1

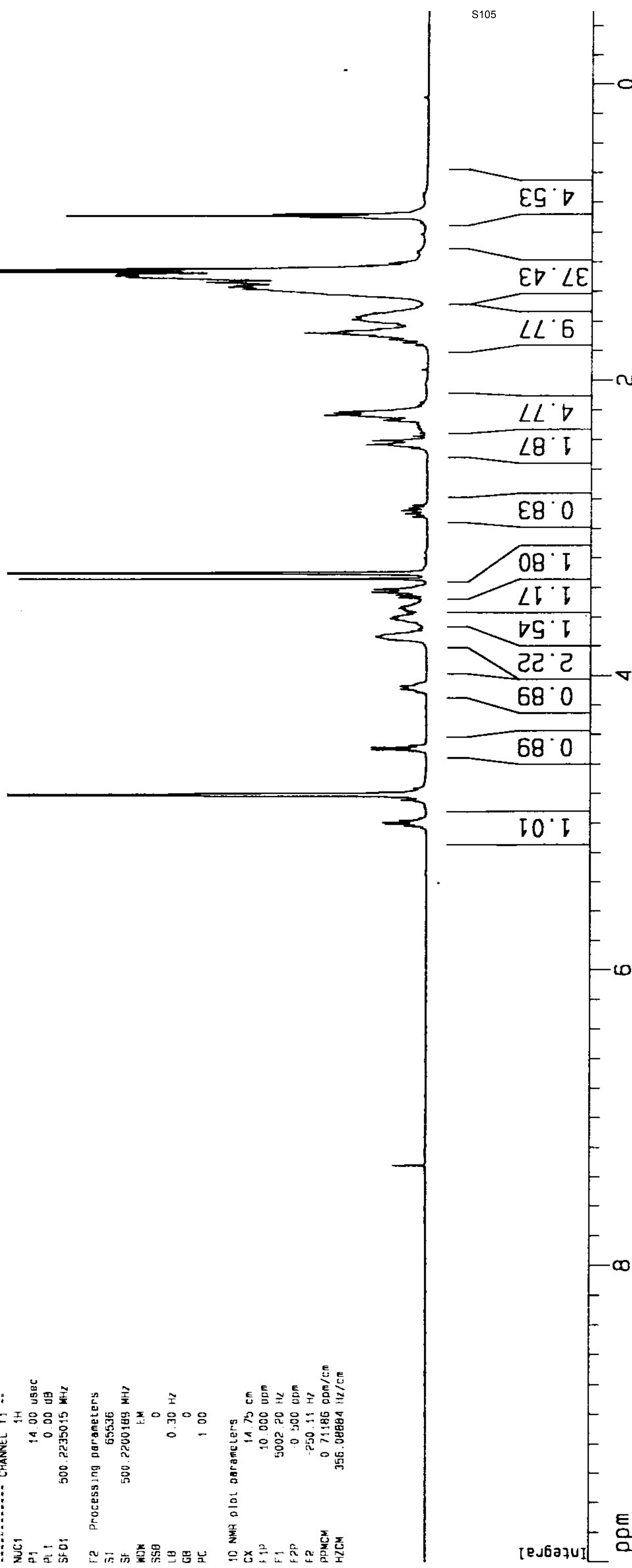
F2 - Acquisition Parameter
 Date_ 20001119
 Time 0.07
 INSTRUM omega500
 PROBHD 5 mm broadband
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 32
 DS 2
 SWH 8012.820 Hz
 FLORES 0.122266 Hz
 AQ 4.0894966 sec
 RG 256
 DW 62.400 us
 DE 6.00 us
 TE 300.0 K
 O1 0.10000000 sec

----- CHANNEL f1 -----
 NUC1 1H
 P1 14.00 usec
 PL1 0.00 dB
 SF01 500.2235015 MHz
 F2 Processing parameters
 SI 65536
 SF 500.2200189 MHz
 WDM EM
 SSB 0
 LB 0.30 Hz
 GB 0
 HC 1.00

1D NMR plot parameters
 CX 14.75 cm
 F1P 10.000 ppm
 F1 5002.20 Hz
 F2P -0.500 ppm
 F2 -250.11 Hz
 PPMCM 0.71186 ppm/cm
 HZCM 356.08884 Hz/cm



C₄₁H₆₄F₆N₆O₆
 Mol. Wt.: 850.97
 2CF₃CO₂⁻

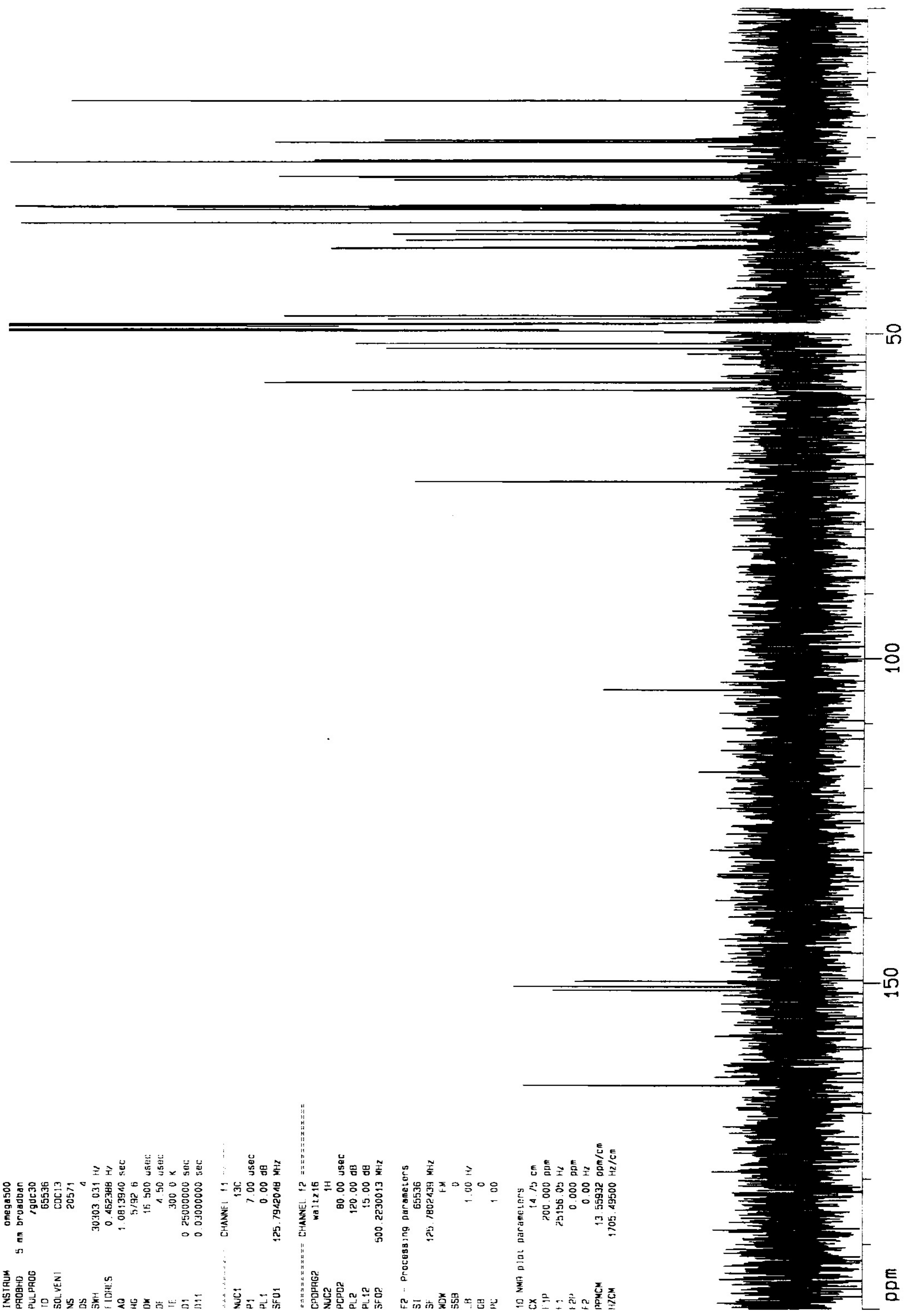


Current Data Parameters
USER iconien
NAME fc.v.194a
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20001119
Time 7.47
INSTRUM omegas500
PROBHD 5 mm broadband
PULPROG zgpg30
TD 65536
SOLVENTI CDCl3
NS 20571
DS 4
SWH 30303.031 Hz
FIDRES 0.462388 Hz
AQ 1.0813940 sec
RG 5192.6
DM 15.500 uSRR
DE 4.50 uSRR
TE 300.0 K
D1 0.25000000 sec
D11 0.03000000 sec

***** CHANNEL f1 *****
NUC1 13C
P1 7.00 usec
PL1 0.00 dB
SFO1 125.7942048 MHz
***** CHANNEL f2 *****
CPROG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 120.00 dB
PL12 15.00 dB
SFO2 500.2230013 MHz

F2 - Processing parameters
SI 65536
SF 125.7802439 MHz
WDW FM
SSB 0
LR 1.00 Hz
GB 0
PC 1.00
10 NMR plot parameters
CX 14.75 cm
F1P 200.000 ppm
F1 25156.05 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 13.55932 ppm/cm
HZCM 1705.49500 Hz/cm



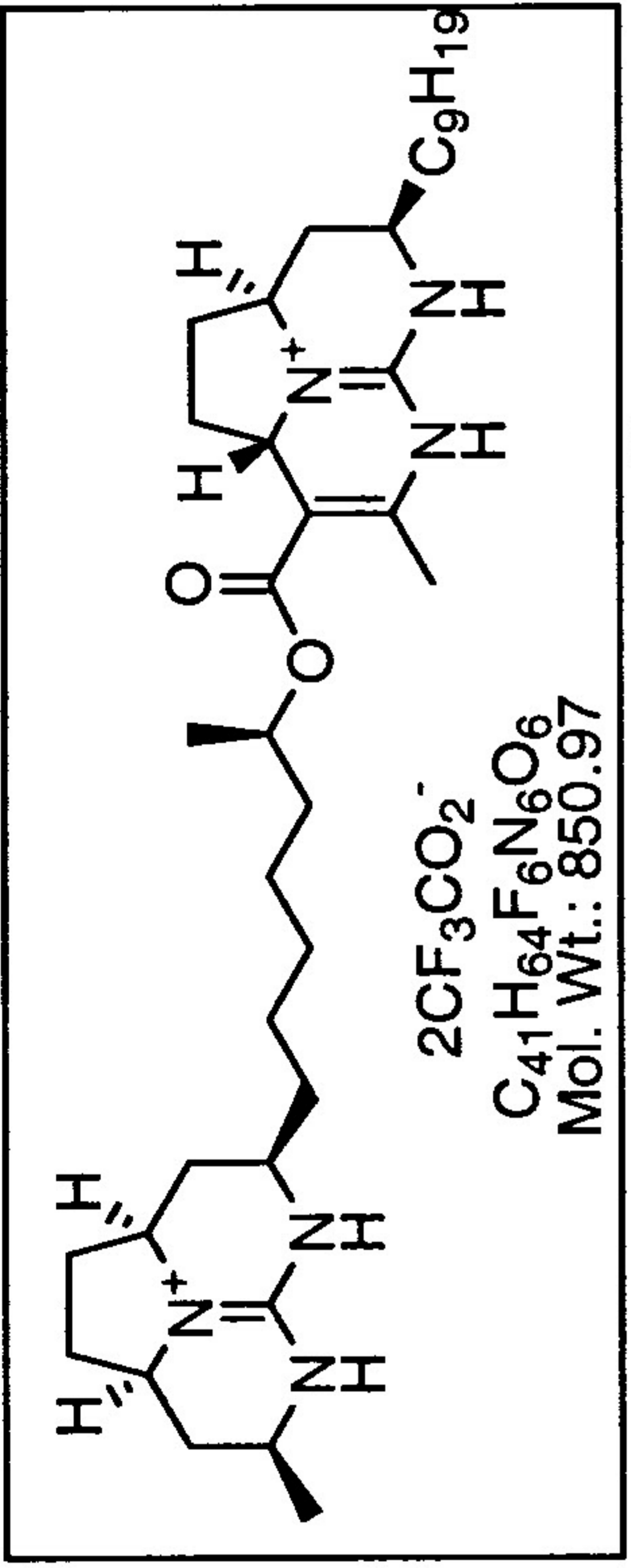
Current Data Parameters
USER fcohen
NAME fc-v-194
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20001112
Time 21.19
INSTRUM gn500
PROBHD 5 mm broadband
PULPROG zg30
TD 65536
SOLVENT MeOH
NS 24
DS 2
SWH 8012.820 Hz
FIDRES 0.122266 Hz
AQ 4.0894966 sec
RG 362
DQ 62.400 usec
DE 6.00 usec
TE 300.0 K
O1 0.1000000 sec

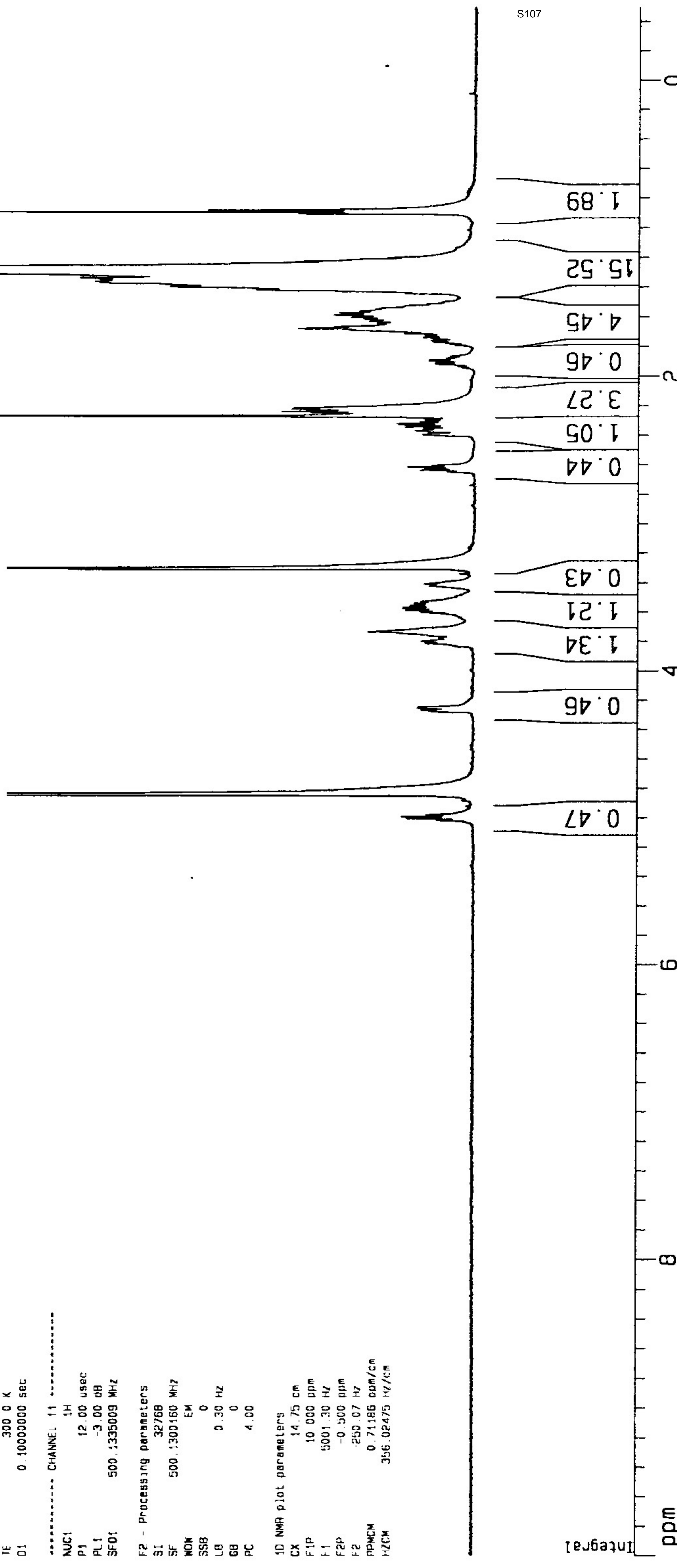
***** CHANNEL f1 *****
NUC1 1H
P1 12.00 usec
PL1 -3.00 dB
SFO1 500.1335009 MHz

F2 - Processing parameters
SI 32768
SF 500.1300160 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 4.00

1D NMR plot parameters
CX 14.75 cm
F1P 10.000 ppm
F1 5001.30 Hz
F2P -0.500 ppm
F2 -250.07 Hz
PPMCM 0.71186 ppm/cm
HZCM 356.02475 Hz/cm



2CF₃CO₂⁻
C₄₁H₆₄F₆N₆O₆
Mol. Wt.: 850.97



| Chemical Shift (ppm) | Integration |
|----------------------|-------------|
| 0.47 | 0.47 |
| 1.21 | 1.21 |
| 1.34 | 1.34 |
| 1.89 | 1.89 |
| 3.27 | 3.27 |
| 4.45 | 4.45 |
| 15.52 | 15.52 |

Integral

Current Data Parameters
USER fcohen
NAME fc-v-19A
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters

Date_ 2000113
Time 7.14
INSTRUM gn500
PROBHD 5 mm broadband
PULPROG zgpg30
TD 65536
SOLVENT CGD6
NS 24675
DS 2
SWH 30185.178 Hz
FIDRES 0.460589 Hz
AQ 1.0856159 sec
RG 5160 5
DM 16.564 usec
DE 4.50 usec
TE 300.0 K
D1 0.25000000 sec
D11 0.03000000 sec

CHANNEL F1
NUC1 13C
P1 6.25 usec
PL1 0.00 dB
SF01 125.7715724 MHz

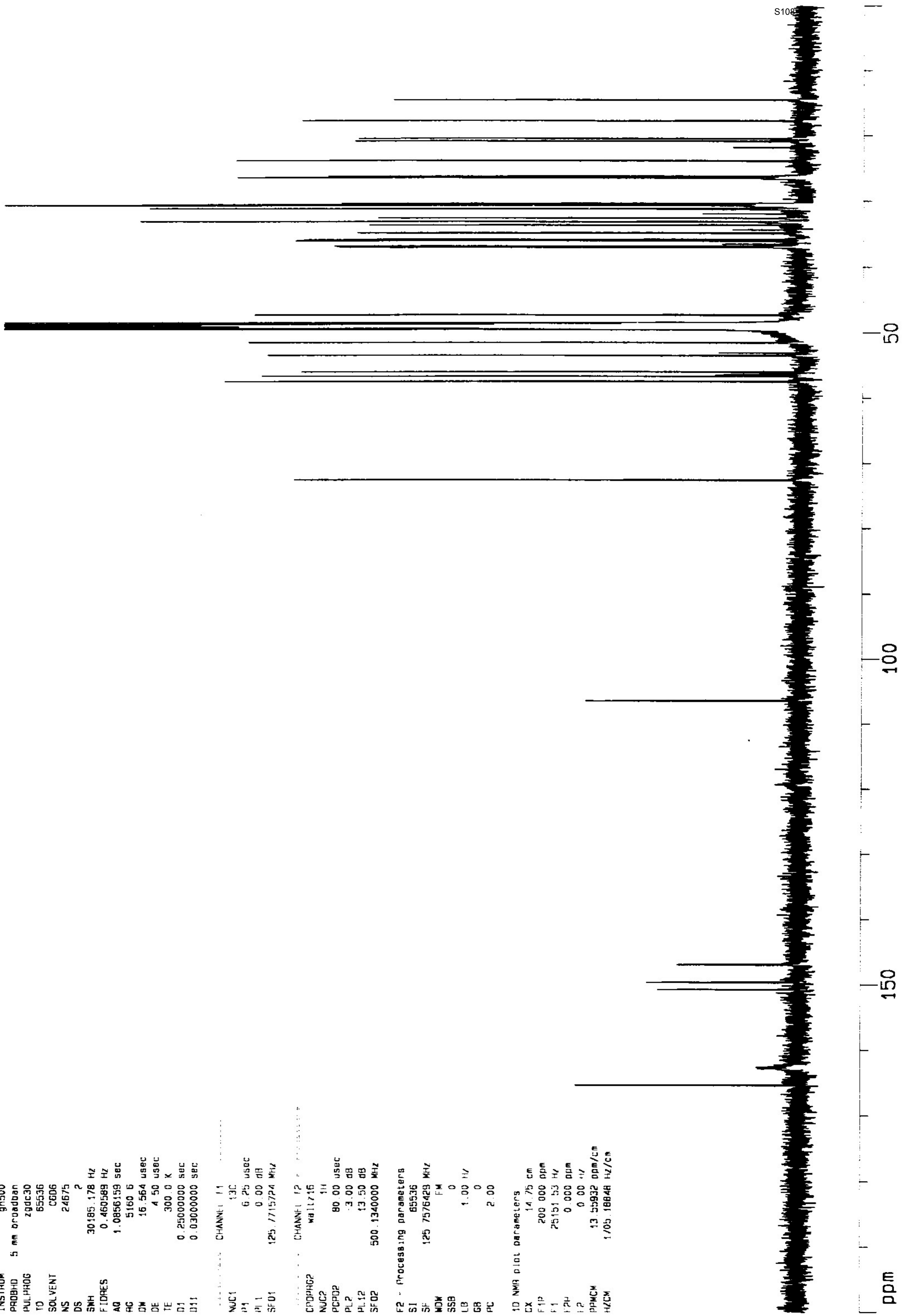
CHANNEL F2
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 3.00 dB
PL12 13.50 dB
SF02 500.1340000 MHz

F2 - Processing parameters

SI 65536
SF 125.7576429 MHz
WDW FM
SSB 0
LB 1.00 Hz
GB 0
PC 2.00

1D NMR plot parameters

CX 14.75 cm
F1P 200.000 ppm
F1 25151.53 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 13.55932 ppm/cm
HZCM 1705.18848 Hz/cm



Current Data Parameters
 USLR fcohen
 NAME fc-v-214
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20001229
 Time 12 04
 INSTRUM drx400
 P4ORBIT 5 mm QNP 1H
 PULPROG zg30
 TO 65536
 SOLVENT CDCl3
 NS 24
 DS 2
 SWH 6410.256 Hz
 FIDRES 0.097813 Hz
 AQ 5.118579 sec
 FC 322.5
 CH 78.000 uSec
 JE 4.50 uSec
 TL 300.0 K
 O1 0.1000000 sec

***** CHANNEL f1 *****

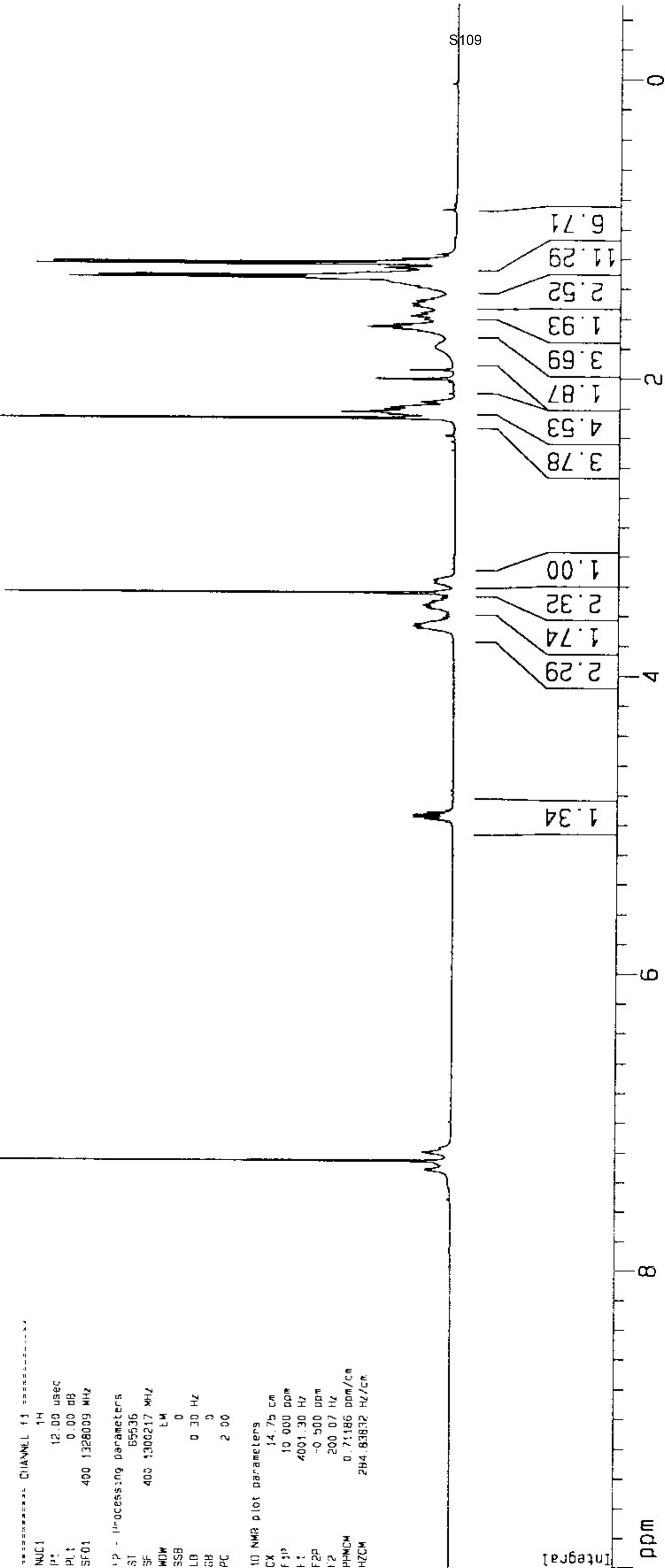
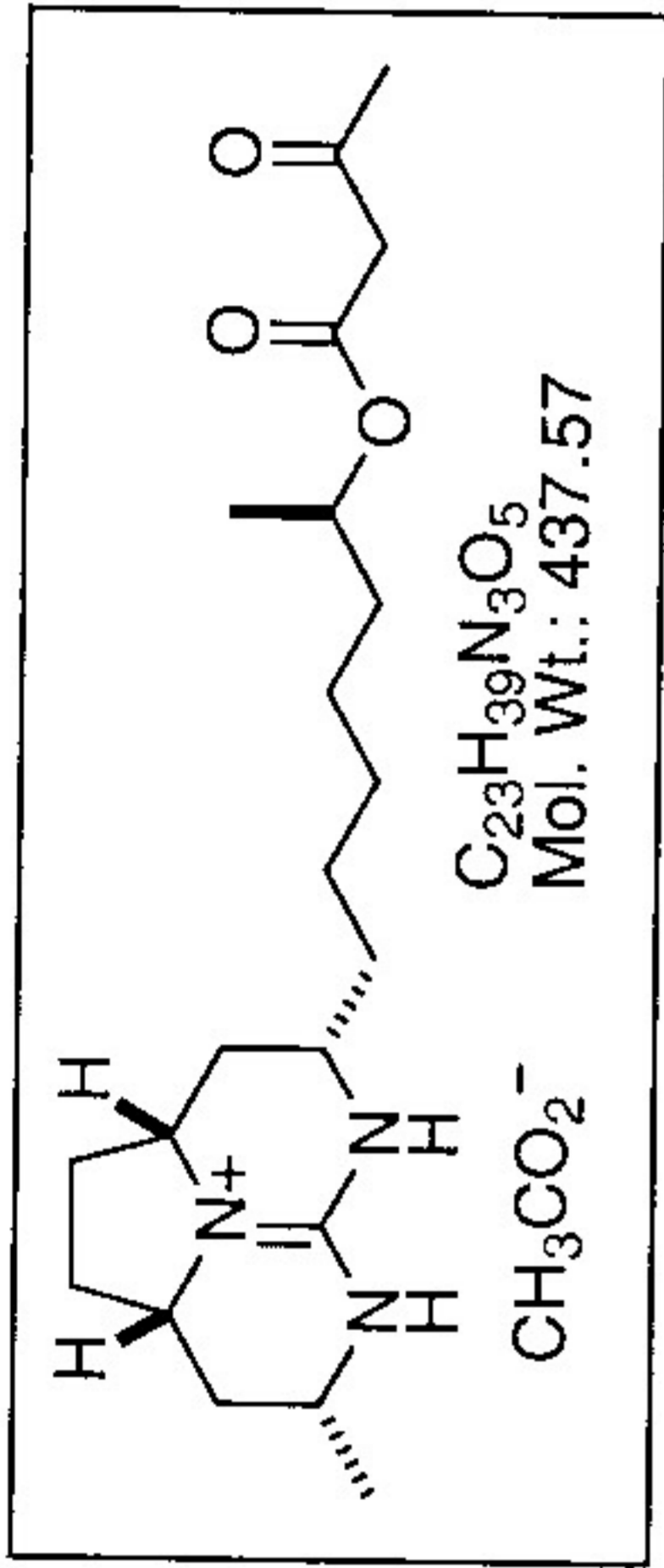
NUC1 1H
 P1 12.00 usec
 PL1 0.00 dB
 SF01 400.1328009 MHz

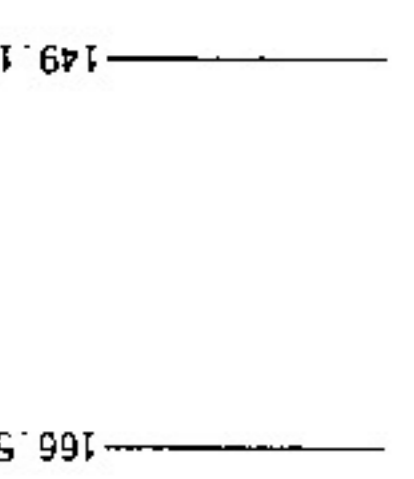
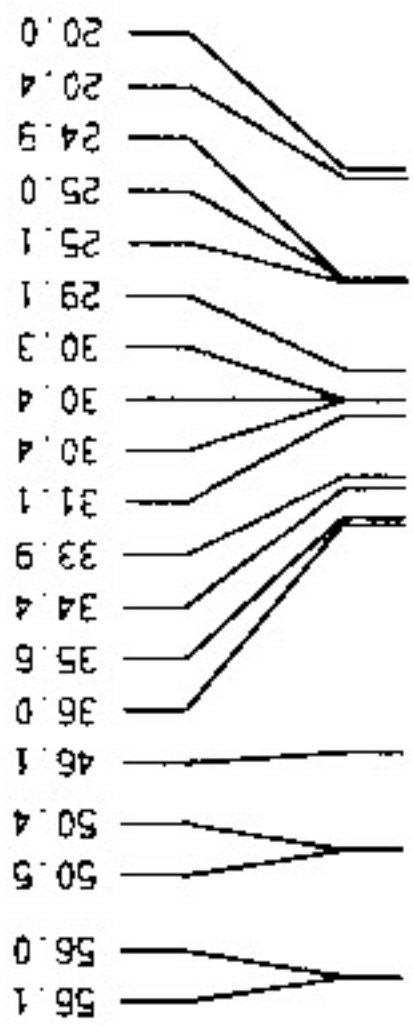
F2 - Processing parameters

SI 65536
 SF 400.1306217 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 2.00

10 NMR plot parameters

CX 14.75 cm
 F1P 10.000 ppm
 F1 4001.30 Hz
 F2P -0.500 ppm
 F2 200.07 Hz
 PHMCM 0.71186 ppm/cm
 HZCM 284.63632 Hz/cm





Current Data Parameters
 USR fconen
 NAME rc-v-214
 EXPNO 2
 PRDCNO 1

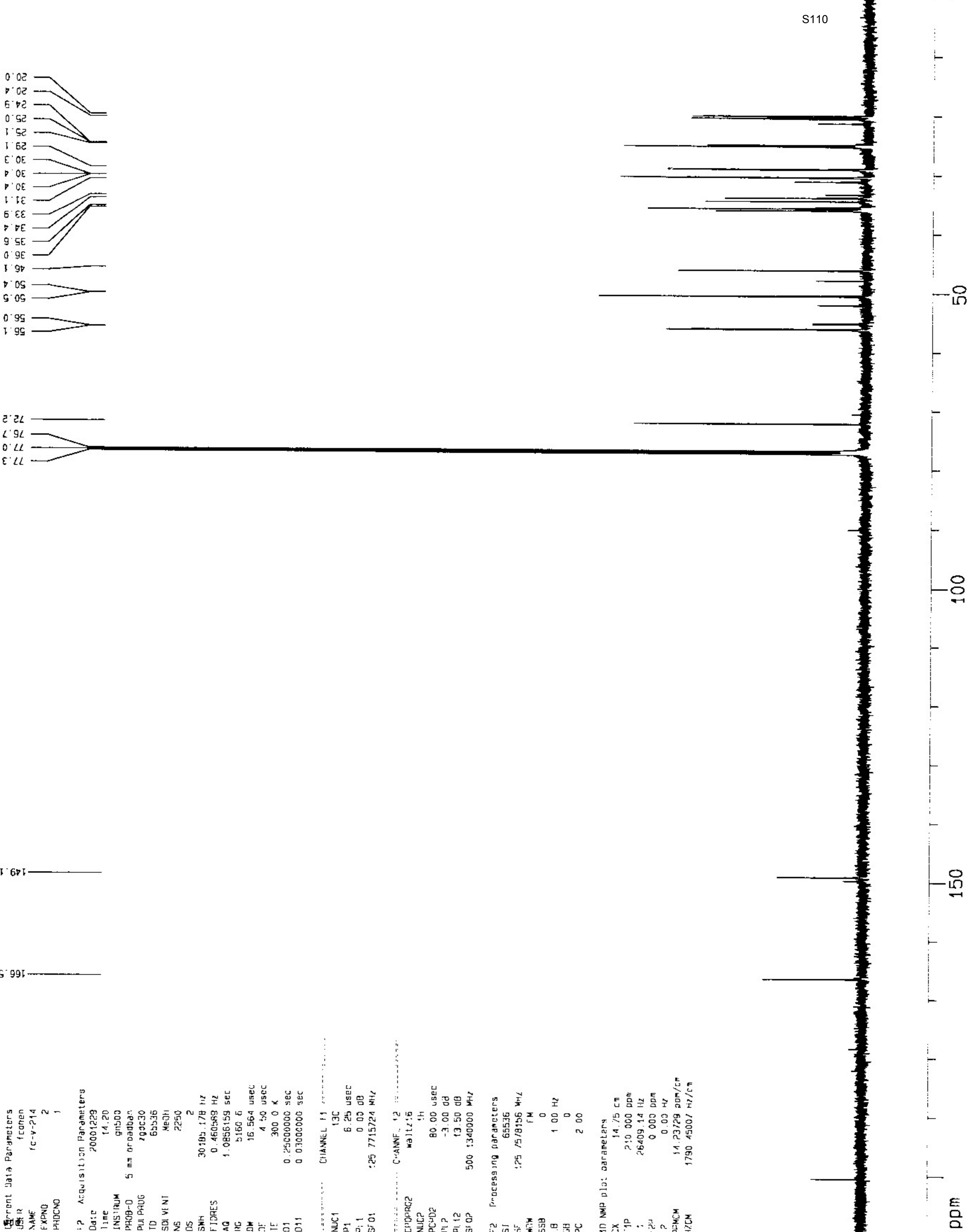
1: Acquisition Parameters
 Date 20001229
 Time 14.20
 INS:RUM gn503
 PROB-D 5 mm broadban
 PULPROG zgpg30
 TD 65536
 SOLVENT MeOH
 NS 2250
 DS 2
 SWH 30185.178 Hz
 FIDRES 0.460589 Hz
 AQ 1.0856159 sec
 RG 5160.6
 DM 16.564 usec
 DF 4.50 usec
 TE 300.0 K
 D1 0.25000000 sec
 D11 0.03000000 sec

CHANNEL F1
 NUC1 13C
 P1 6.25 usec
 P11 0.00 dB
 SF01 7715724 MHz

CHANNEL 12
 CHOPROG2 waltz16
 NUC2 1H
 PCPD2 80.00 usec
 PLP -3.00 dB
 PL12 13.50 dB
 SF02 500.1340000 MHz

2: Processing parameters
 SI 65536
 SF 125.7578156 MHz
 WMW FM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 2.00

1D NMR plot parameters
 CX 14.75 cm
 F1P 210.000 ppm
 F1 26409.14 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PCMC 14.23729 ppm/CP
 HZCM 1790.45007 Hz/cm



ppm

150

100

50

Current Data Parameters
 USLR fcohen
 NAME fc-v-272
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date 20010331
 Time 8.34
 INSTRUM gn500
 PULPROG 5 mm broadband
 PU:PROG zg30
 SI 65536
 SOLVENT MeOH
 NS 32
 DS 2
 SWH 8012.820 Hz
 FIDRES 0.122266 Hz
 AQ 4.0894966 sec
 RG 456 1
 DM 62 400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 0.10000000 sec

***** CHANNEL f1 *****

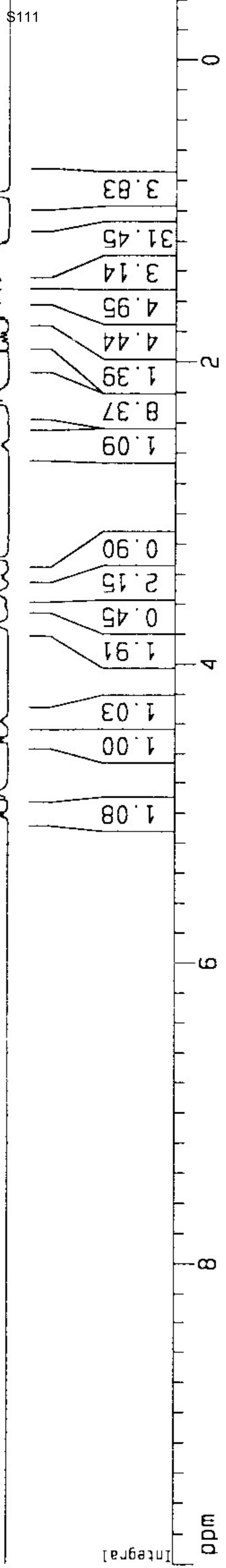
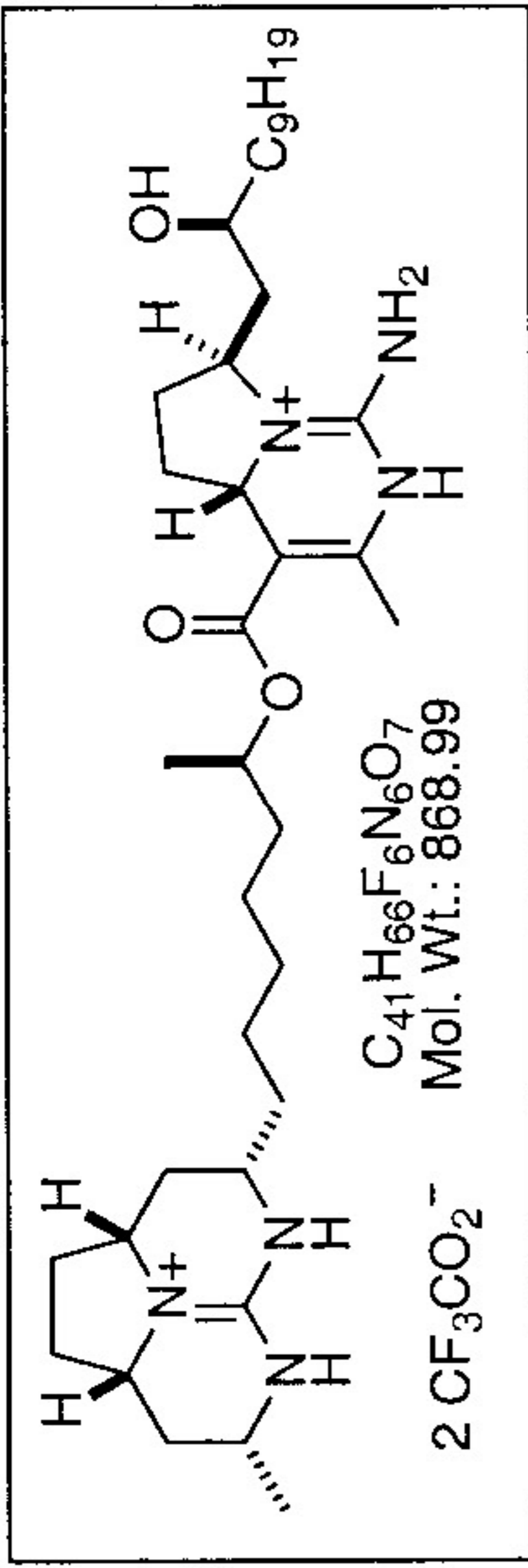
NUC1 1H
 P1 12.00 usec
 PL1 -3.00 dB
 SFO1 500.0335002 MHz

F2 Processing parameters

SI 32768
 SF 500.0300134 MHz
 WDM 1M
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 4.00

1D NMR plot parameters

CX 14.75 cm
 F10 10 000 ppm
 F1 5000.30 Hz
 F2 500 ppm
 F3 250.01 Hz
 FWHM 0.71186 ppm/cm
 HZCM 365.95355 Hz/cm



Experiment Parameters
 USER fcohen
 NAME rc-y-272
 LXPRNO 2
 PROCNO 1

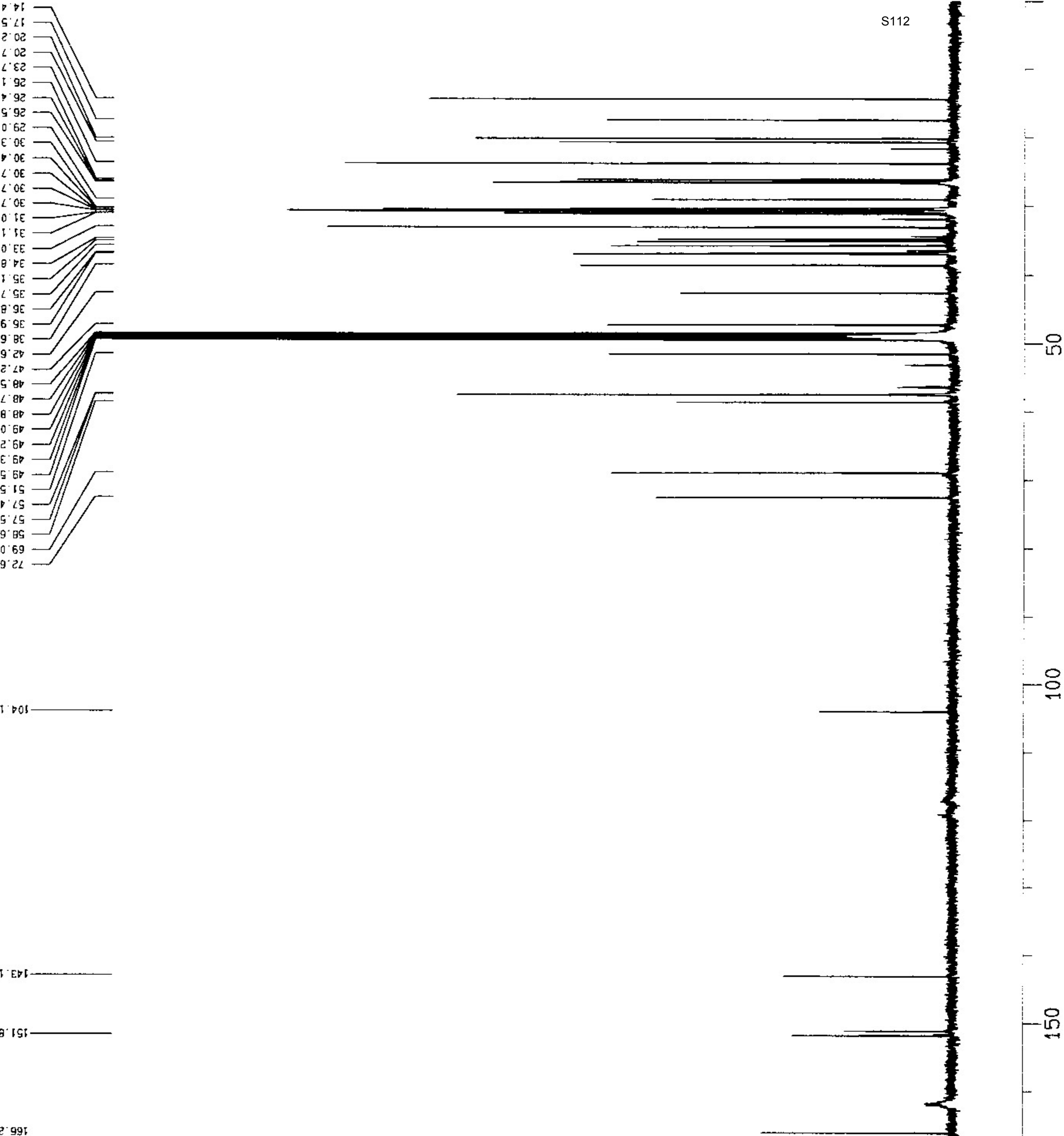
F2 Acquisition Parameters
 Date_ 20070331
 Time 10.47
 INSTRUM gmb00
 PROBD 5 mm broadband
 PULPROG zgpg30
 IC 65536
 SOLVENT MeOH
 NS 5100
 DS 2
 SWH 30303.031 Hz
 FIDRES 0.487388 Hz
 AQ 1.0813940 sec
 RG 4597.5
 DM 15.500 usec
 DE 4.50 usec
 TE 300.0 K
 D1 0.25000000 sec
 D11 0.03000000 sec

----- CHANNEL f1 -----
 NUC1 13C
 P1 6.25 usec
 PL1 0.00 dB
 SF01 125.7464486 MHz

----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCP2P 80.00 usec
 PL2 -3.00 dB
 PL1P 13.50 dB
 SF02 500.0335002 MHz

F2 - Processing parameters
 SI 65536
 SF 125.7324692 MHz
 WDW FM
 SSB 0
 GB 0
 PC 2.00

1D NMR plot parameters
 CX 14.75 cm
 F1P 200.000 ppm
 F1 25146.48 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 13.55932 ppm/cm
 HZCM 1704.84692 Hz/cm



ppm

150

100

50

Current Data Parameters
 USER f.cohen
 NAME fc v 277
 EXPNO 1
 PROCNO 1

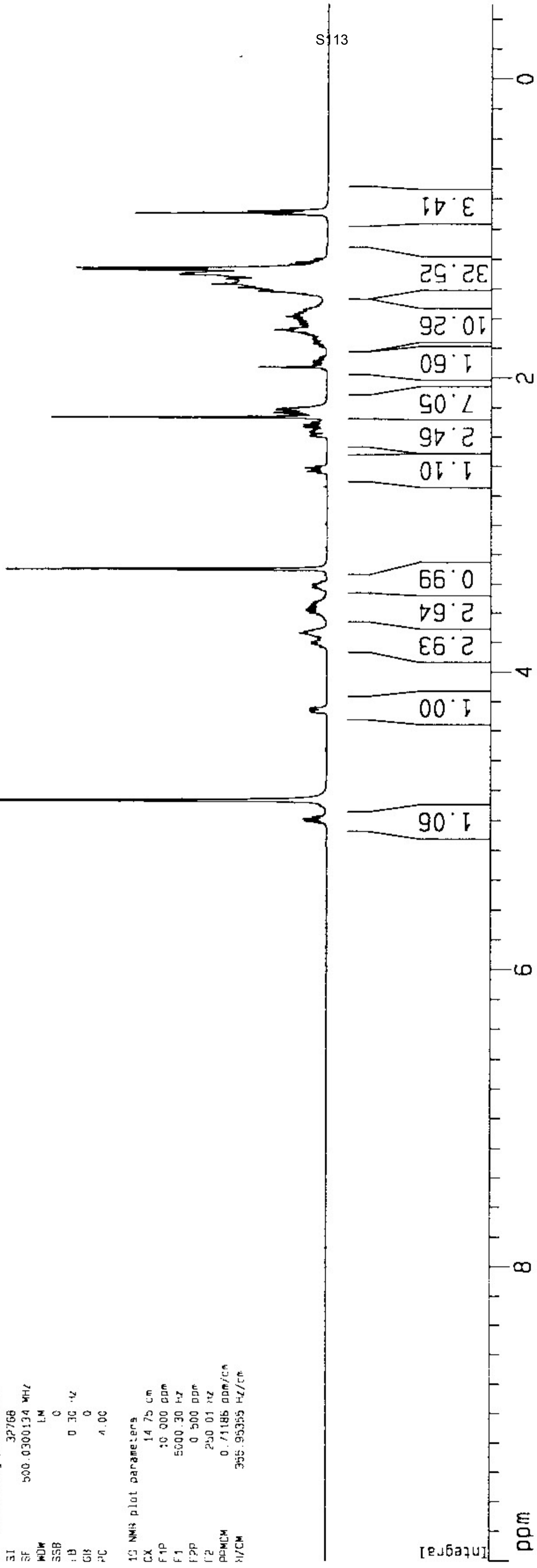
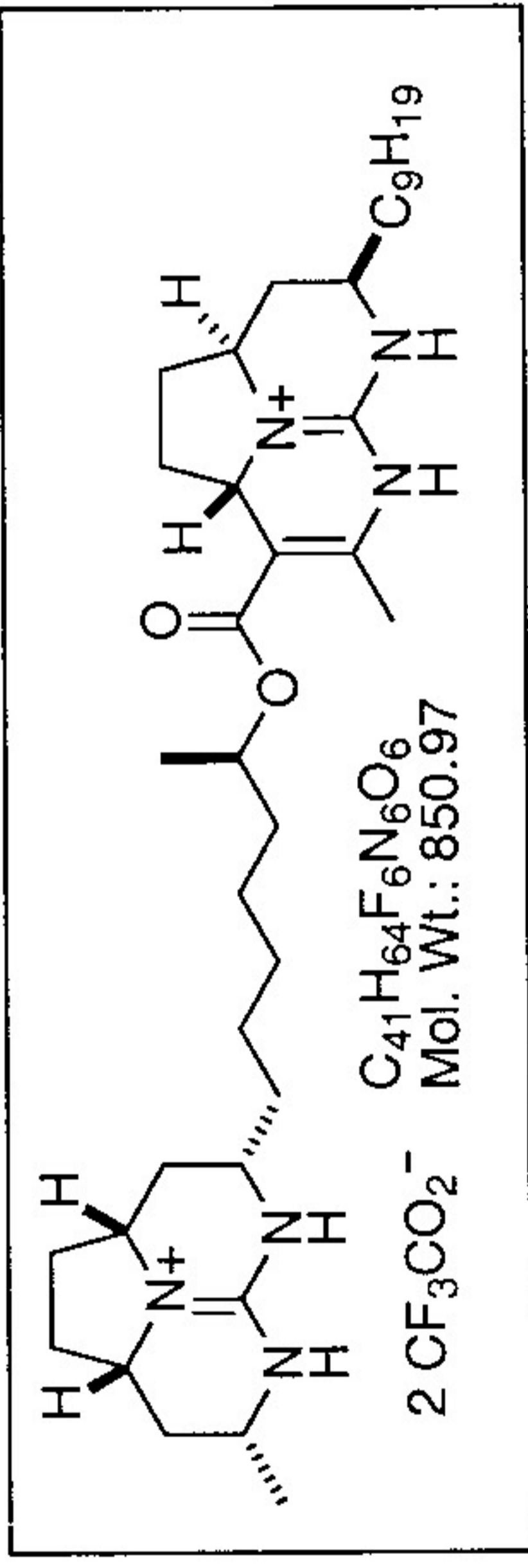
F2 Acquisition Parameters
 Date 20010413
 Time 9:54
 INSTRUM gn500
 PROBHD 5 mm broadban
 PULPROG zg30
 TD 65536
 SOLVEN' CCl3
 NS 24
 DS 2
 SWH 8012.820 Hz
 FIDRES 0.122266 Hz
 AQ 4.0894966 sec
 RG 203.2
 DW 62.400 usec
 DE 6.60 usec
 TE 300.0 K
 D1 0.1000000 sec

..... CHANNEL F1

NUC1 1H
 P1 12.00 usec
 PL1 3.00 dB
 SF01 500.0335002 MHz

F2 Processing parameters
 SI 32768
 SF 500.0300134 MHz
 WDW LM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 4.00

1D NMR plot parameters
 CX 14.75 cm
 F1P 10.000 ppm
 F1 5000.30 Hz
 F2P 0.500 ppm
 F2 250.01 Hz
 PPMCM 0.1185 ppm/cm
 X/CM 355.95355 Hz/cm



Current Data Parameters
 JOB# 1
 NAME fc v 225
 EXPNO 3
 PROCNO 1

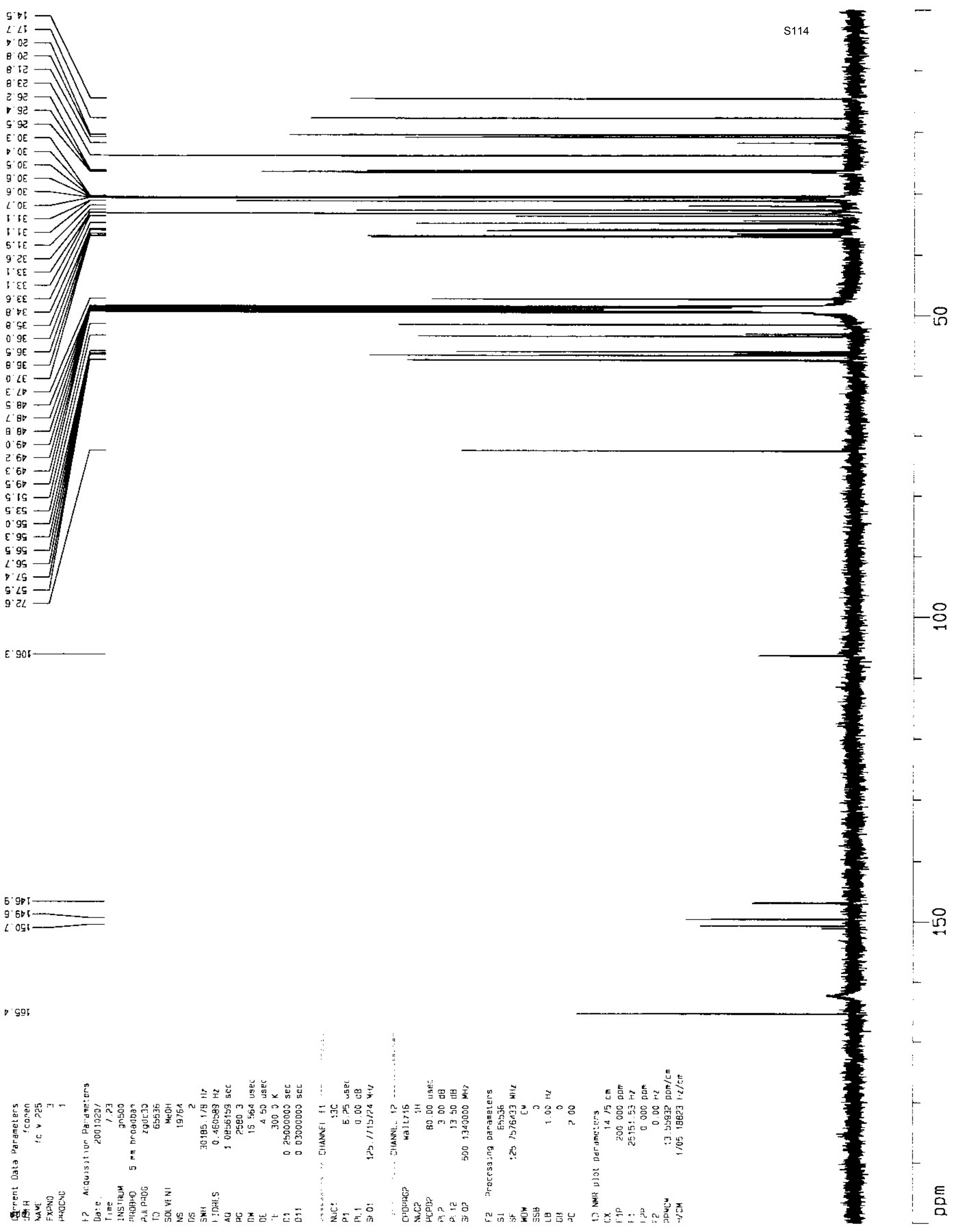
F2 Acquisition Parameters
 Date_ 20010207
 Time 7.23
 INSTRUM spect
 P1000 5 mm broadben
 PULPROG zgpg30
 TO 65536
 SOLVENT MeOH
 NS 19764
 DS 2
 SMH 30185.178 Hz
 FIDRES 0.460589 Hz
 AQ 1.0856159 sec
 RG 2580.3
 DM 15.564 usec
 DE 4.50 usec
 TE 300.2 K
 D1 0.2500000 sec
 D11 0.0300000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 5.25 usec
 PL1 0.00 dB
 SF01 125.7715724 MHz

===== CHANNEL f2 =====
 CPDPRGP wait136
 NUC2 1H
 PEPH2 80.00 usec
 PL2 3.00 dB
 PL12 13.50 dB
 SF02 500.1340000 MHz

F2 Processing parameters
 SI 65536
 SF 125.7576433 MHz
 WDW CW
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 2.00

F2 NMR plot parameters
 CX 14.75 cm
 F1P 200.000 ppm
 F1 25151.53 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 13.55932 ppm/cm
 WCM 1705.18823 Hz/cm



169.4
 150.7
 149.6
 146.9

72.6
 57.5
 57.4
 56.7
 56.5
 56.3
 56.0
 53.5
 51.5
 49.5
 49.3
 49.2
 49.0
 48.8
 48.7
 48.5
 47.3
 37.0
 36.8
 36.5
 36.0
 35.8
 34.8
 33.6
 33.1
 33.1
 31.9
 31.1
 31.1
 30.7
 30.6
 30.6
 30.5
 30.4
 30.3
 26.5
 26.4
 26.2
 23.8
 21.8
 20.8
 20.4
 17.7
 14.5

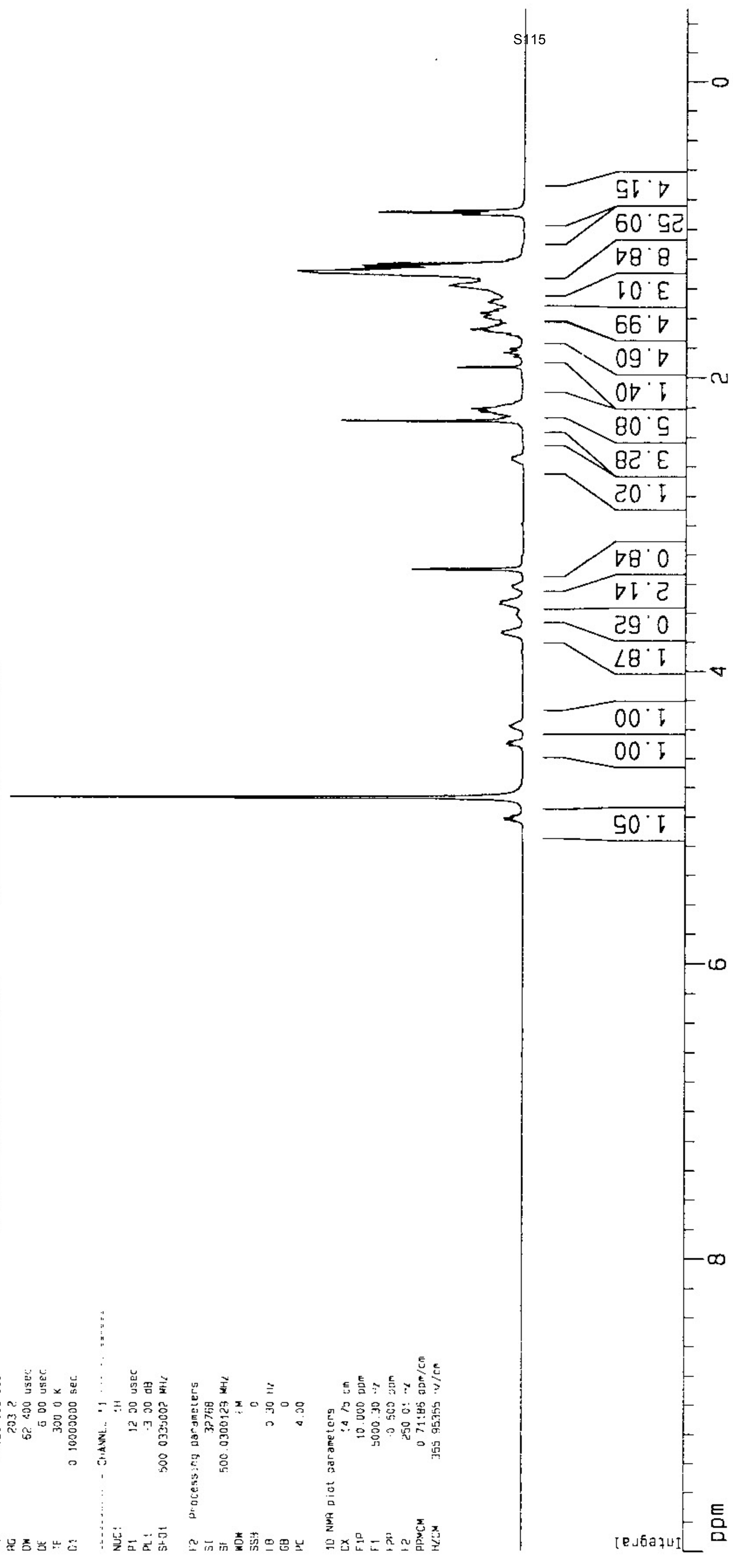
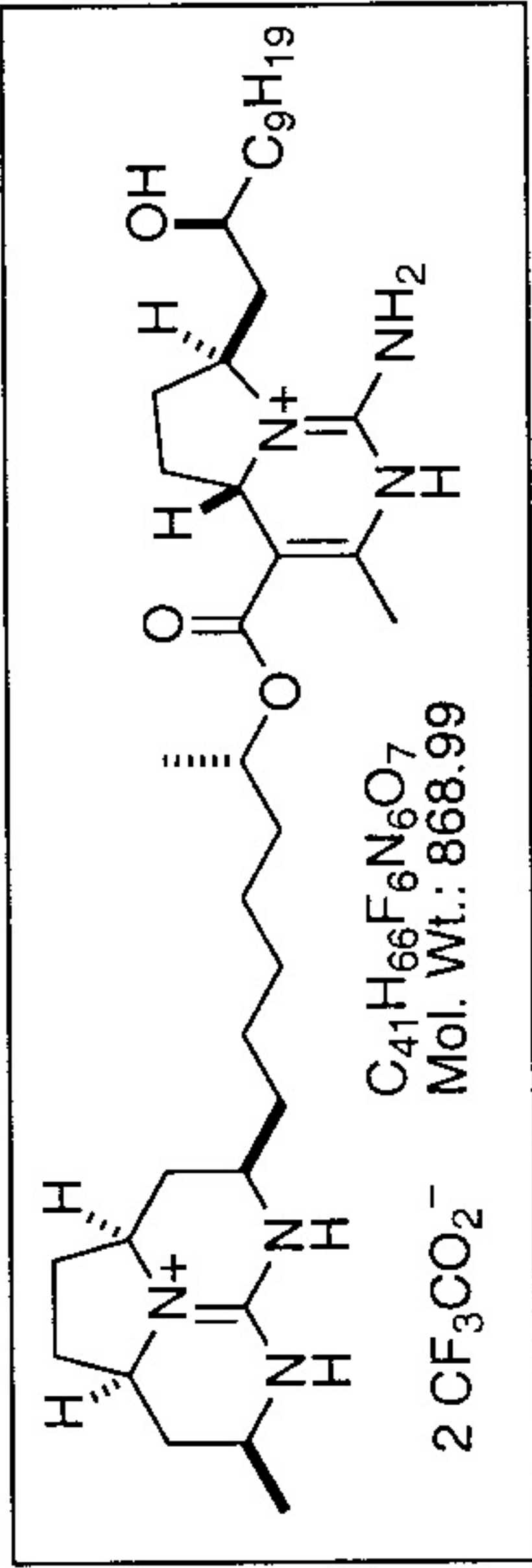
Current Data Parameters
 LSF4 fcsghn
 NAME fc-v 265
 LX:ND *
 PROCNO *

F2 Acquisition Parameters
 Date: 20010323
 Time: 8 55
 INSTRUM gn503
 PROCNO 5 nm broadband
 PulProg zg30
 LC 63536
 SOLVENT CCl4
 NS 32
 DS 2
 SWH 8012.820 Hz
 FIDRES 0.122266 Hz
 AQ 4.0994966 sec
 RG 203.2
 DM 62.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 0.1000000 sec

----- CHANNEL f1 -----
 NUC1 1H
 P1 12.00 usec
 PL1 -3.00 dB
 SF1 500.033002 MHz

F2 Processing parameters
 SI 32768
 SF 500.0300129 MHz
 WDM 1M
 SSF 0
 LB 0.30 Hz
 GB 0
 PC 4.00

1D NMR pict parameters
 CX 14.75 cm
 FIP 10.000 ppm
 F1 5000.30 Hz
 F2 250.01 Hz
 PPMCM 0.71186 ppm/cm
 HZCM 355.95355 Hz/cm



Current Data Parameters
 USER fcoren
 NAME IC-V-233
 EXPNO 2
 PROCNO 1

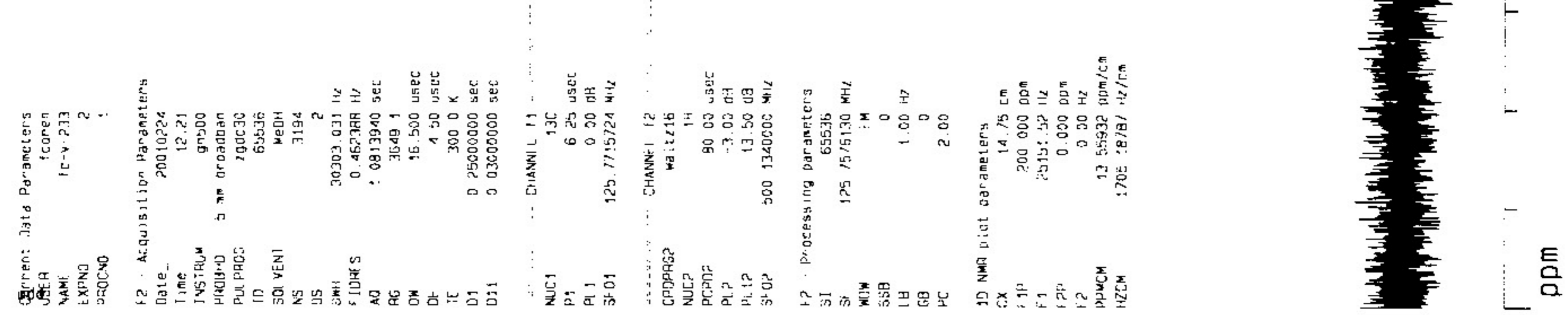
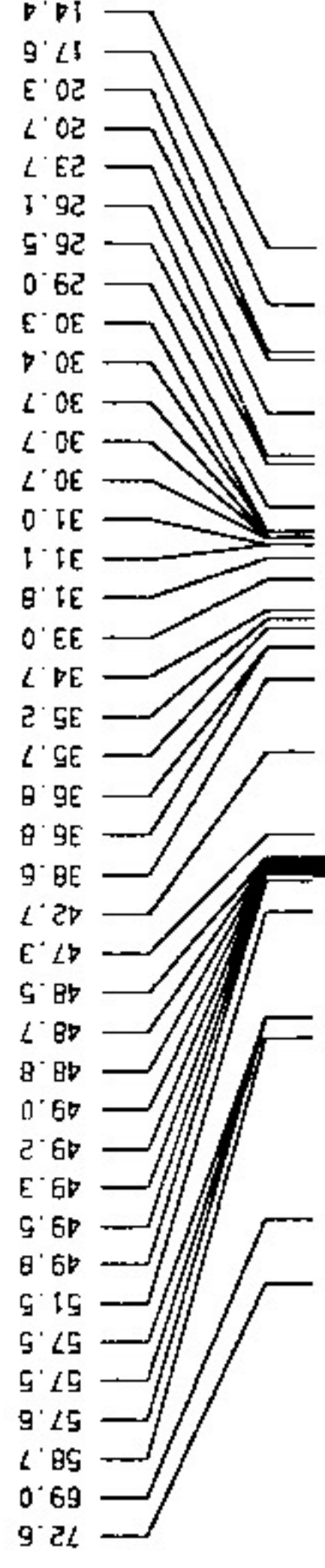
F2 - Acquisition Parameters
 Date_ 20010224
 Time 12.21
 INSTRUM gmb00
 PROBHD 5 mm orca500
 PULPROG zgpg30
 ID 65536
 SOLVENT MeOH
 NS 3194
 DS 2
 SWH 30303.031 Hz
 FIDRES 0.462388 Hz
 AQ 0.0813940 sec
 RG 3649 1
 DM 16.500 usec
 DE 4.50 usec
 TE 300.0 K
 D1 0.25000000 sec
 D11 0.03000000 sec

--- CHANNEL f1 ---
 NUC1 13C
 P1 6.25 usec
 PL1 0.00 dB
 SF01 125.7715724 MHz

--- CHANNEL f2 ---
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 90.00 usec
 PL2 -3.00 dB
 PL12 13.50 dB
 SF02 500.1340000 MHz

F2 - Processing parameters
 SI 65536
 SF 125.7575130 MHz
 WDW : M
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 2.00

3D NMR plot parameters
 CX 14.75 cm
 F1P 200.000 ppm
 F1 25157.52 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 ppm0M 13.55932 ppm/cm
 HZCM 1705.28787 Hz/cm



Current Data Parameters
 USE1H fconen
 NAME fc-y-273
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20030327
 Time 12 14
 INSTRUM gn500
 PROBRD 5 mm broadband
 PULPROG zg30
 TO 65536
 SOLVENT Acetone
 NS 16
 DS 2
 SWH 8812.820 Hz
 FREQS 0 122266 Hz
 AQ 4.0894956 sec
 RG 90 b
 CW 62.400 usec
 DE 6.00 usec
 LE 300.0 K
 DT 0 1000000 sec

***** CHANNEL f1 *****

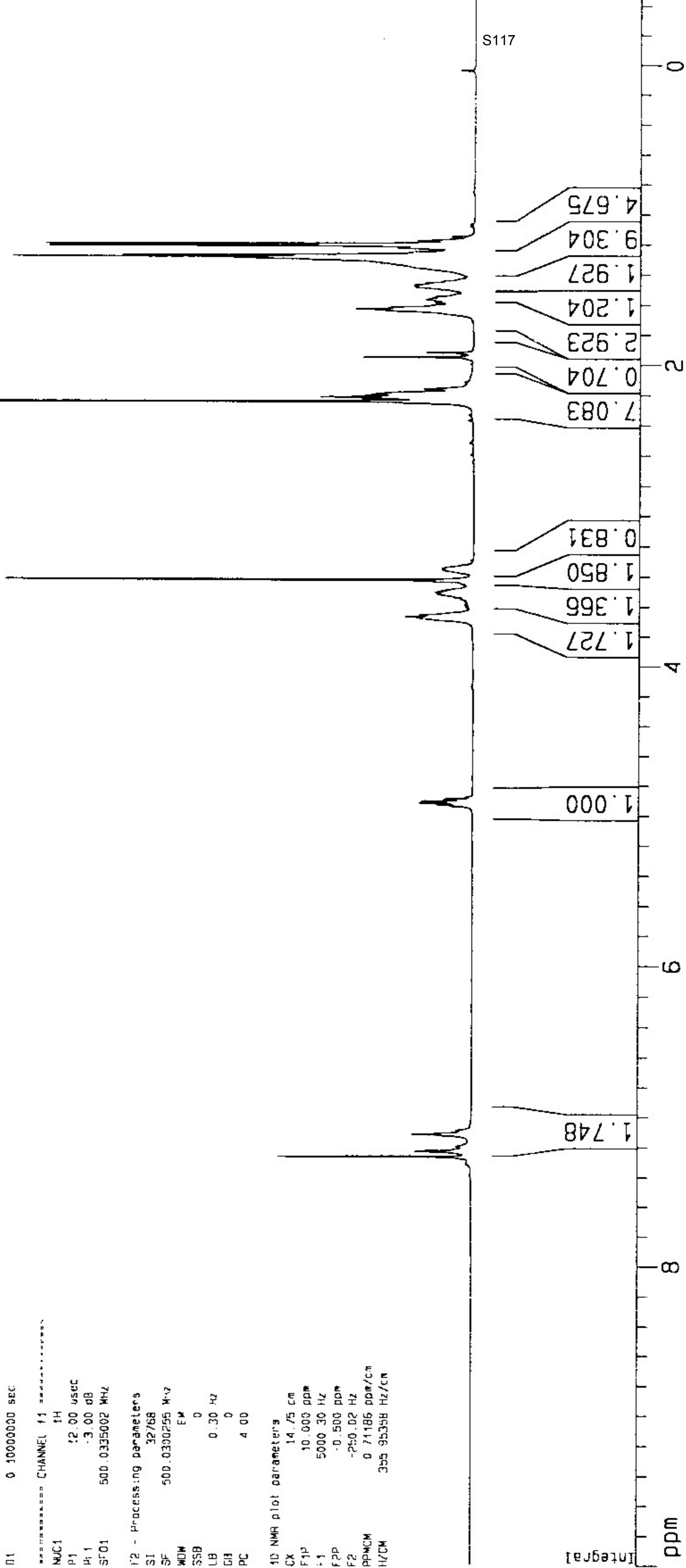
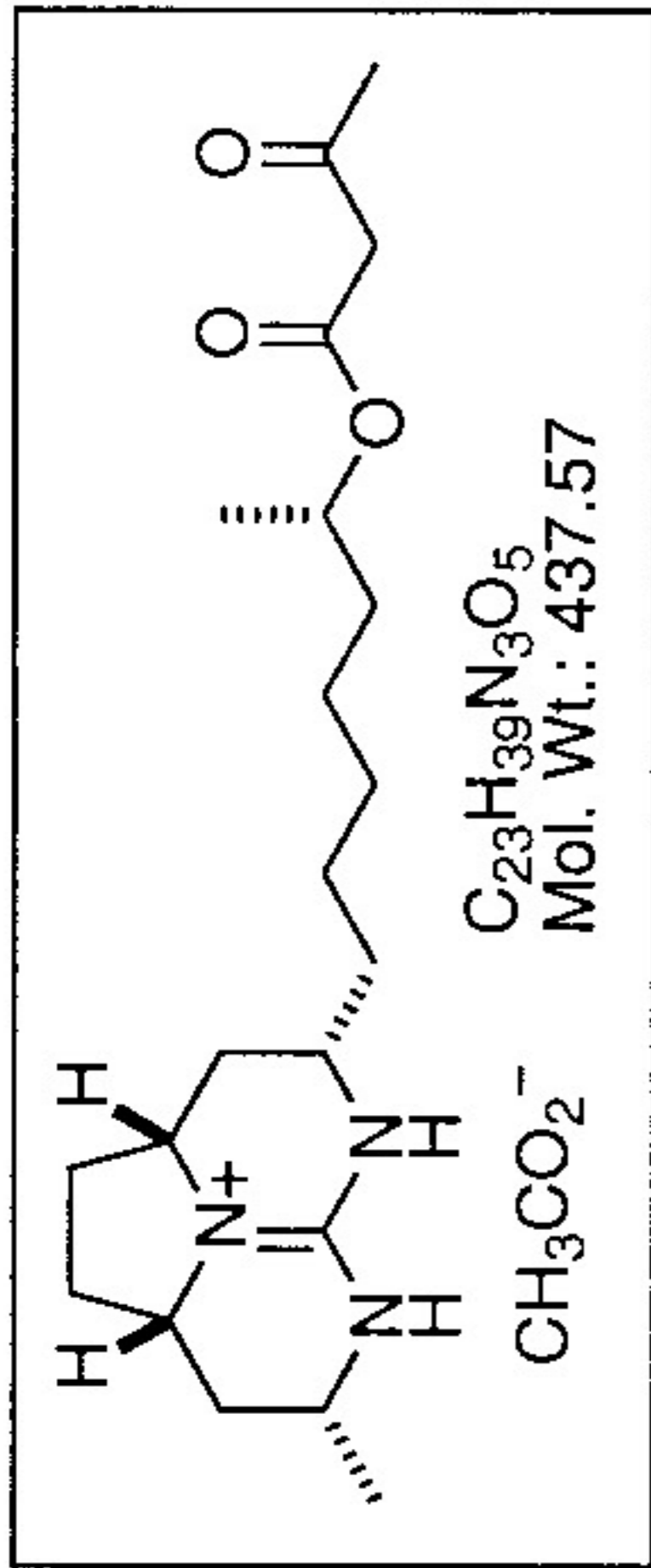
NUC1 1H
 P1 12.00 usec
 PL1 -3.00 dB
 SF01 500.0335002 MHz

F2 - Processing parameters

SI 32768
 SF 500.0300255 MHz
 WDM EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 4.00

1D NMR plot parameters

CX 14.75 cm
 F1P 10.000 ppm
 F1 5000.30 Hz
 F2P -0.500 ppm
 F2 -250.02 Hz
 PPMCM 0 71185 ppm/cm
 HZCM 355 95358 Hz/cm



Current Data Parameters
 USER fcohen
 NAME tc v 273
 EXPNO 2
 PROCNO 1

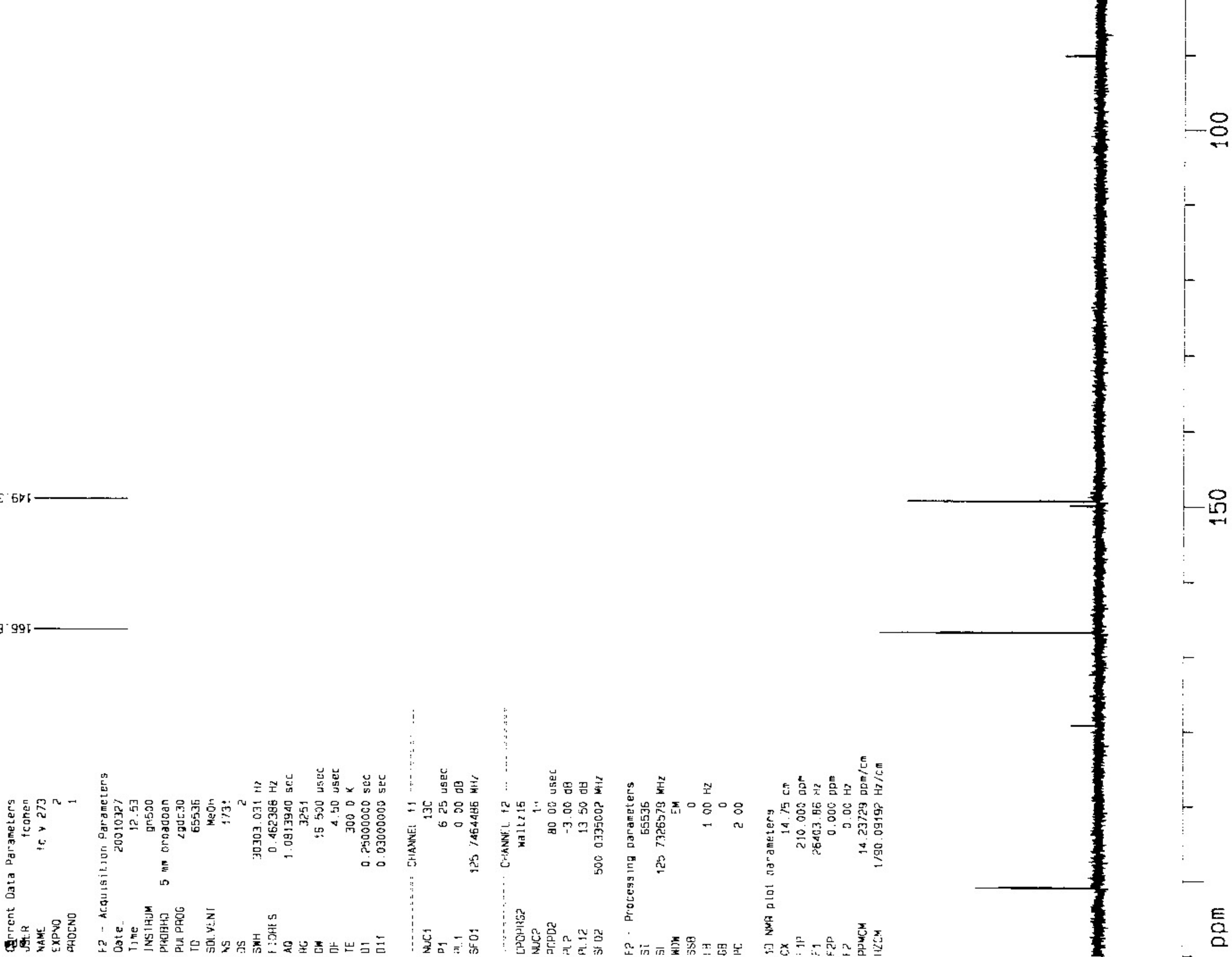
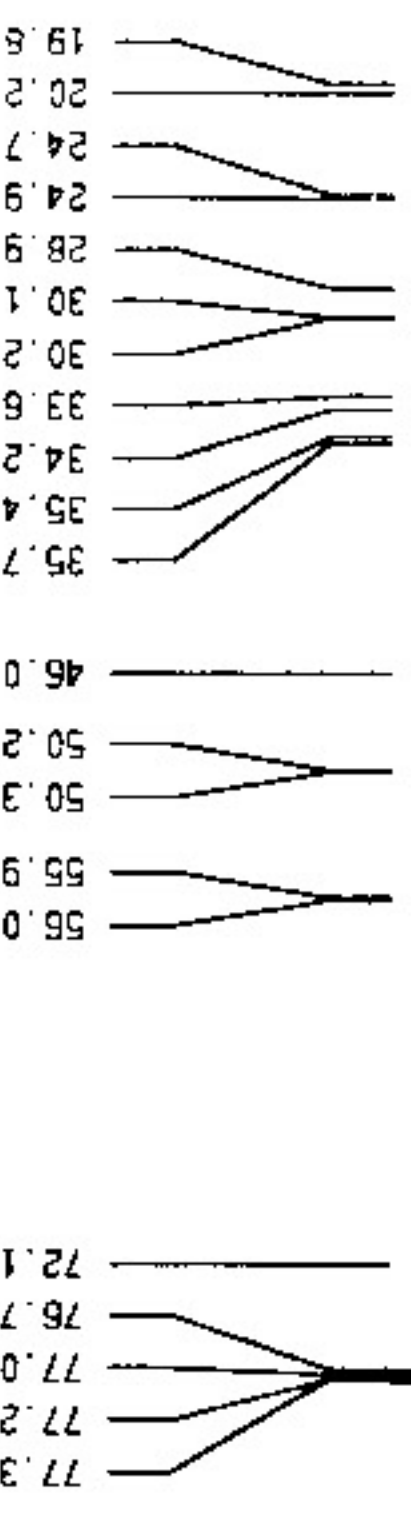
F2 - Acquisition Parameters
 Date_ 20010327
 Time 12.53
 INSTRUM gn500
 PROBHD 5 mm broadban
 PULPROG zgpg30
 TD 65536
 SOLVENT MeOH
 NS 173
 DS 2
 SWH 30303.031 Hz
 FIDRES 0.462388 Hz
 AQ 1.0813940 sec
 RG 3251
 DM 15.500 usec
 DE 4.50 usec
 TE 300.0 K
 U1 0.25000000 sec
 U11 0.03000000 sec

----- CHANNEL f1 -----
 NUC1 13C
 P1 6.25 usec
 PL1 0.00 dB
 SFO1 125.7464486 MHz

----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 P2 80.00 usec
 PL2 -3.00 dB
 PL12 13.50 dB
 SFO2 500.0335002 MHz

F2 - Processing parameters
 SI 65536
 SF 125.7326579 MHz
 WDW EM
 SSB 0
 FH 1.00 Hz
 GB 0
 PC 2.00

3D NMR plot parameters
 CX 14.75 cm
 F1P 210.000 ppm
 F1 26403.86 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 14.23729 ppm/cm
 HZCM 1/90.09192 Hz/cm



ppm

150

100

50

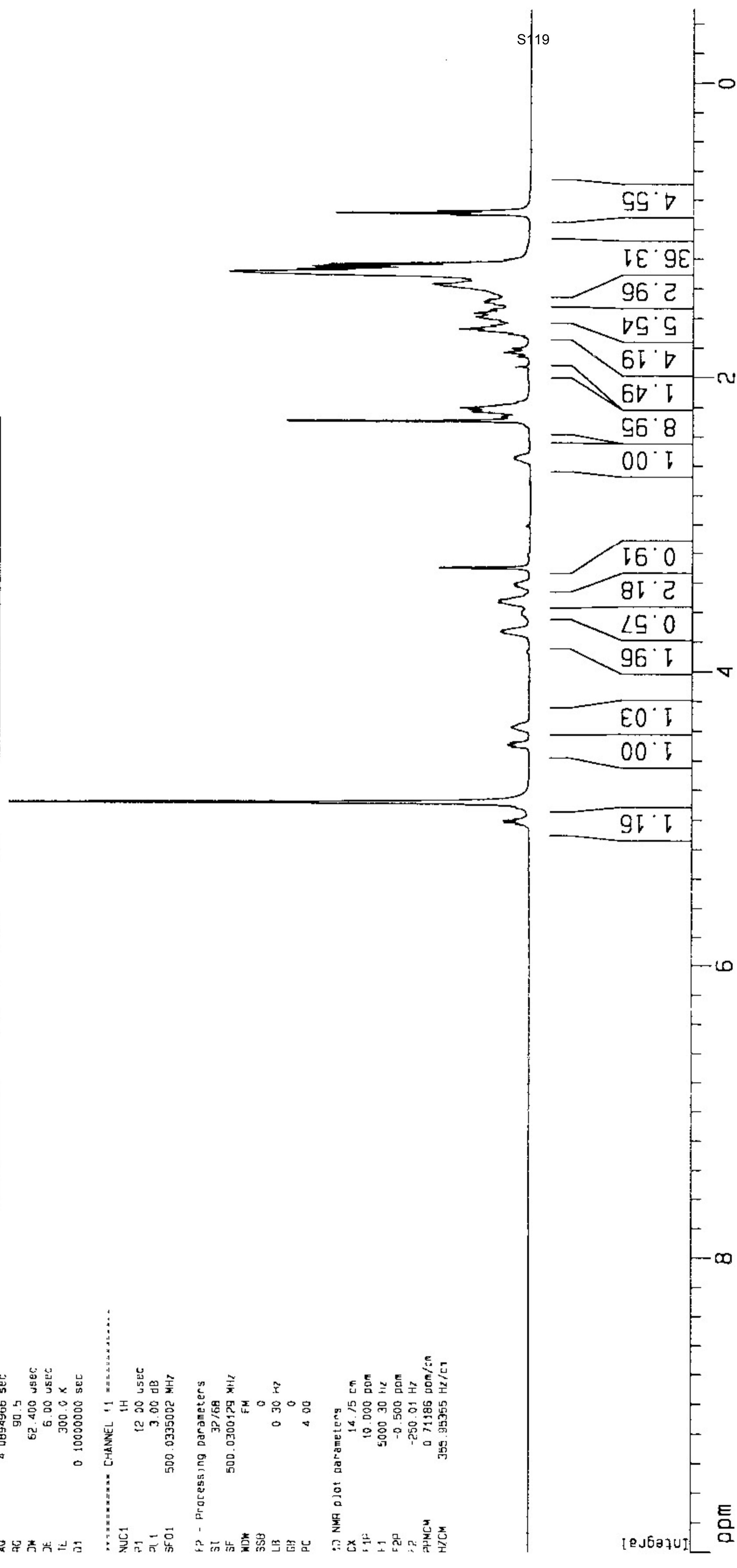
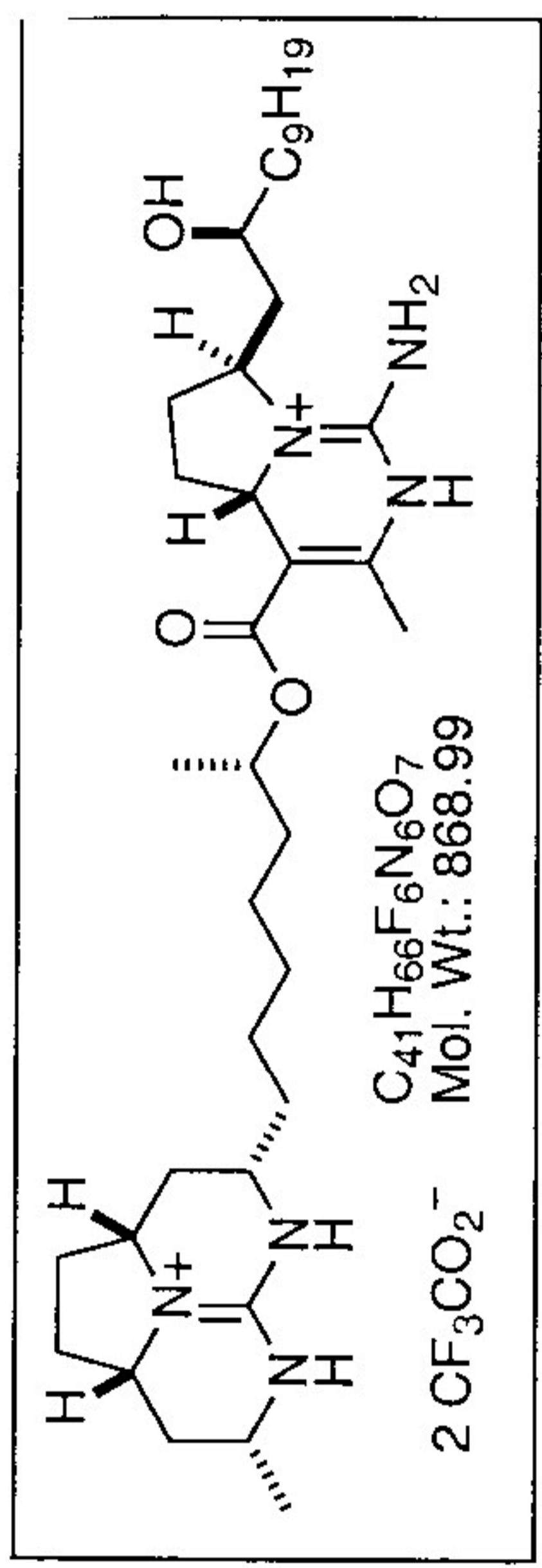
Current Data Parameters
 USLR fcohen
 NAME fc v 275
 EXPNO 1
 PRDCND 1

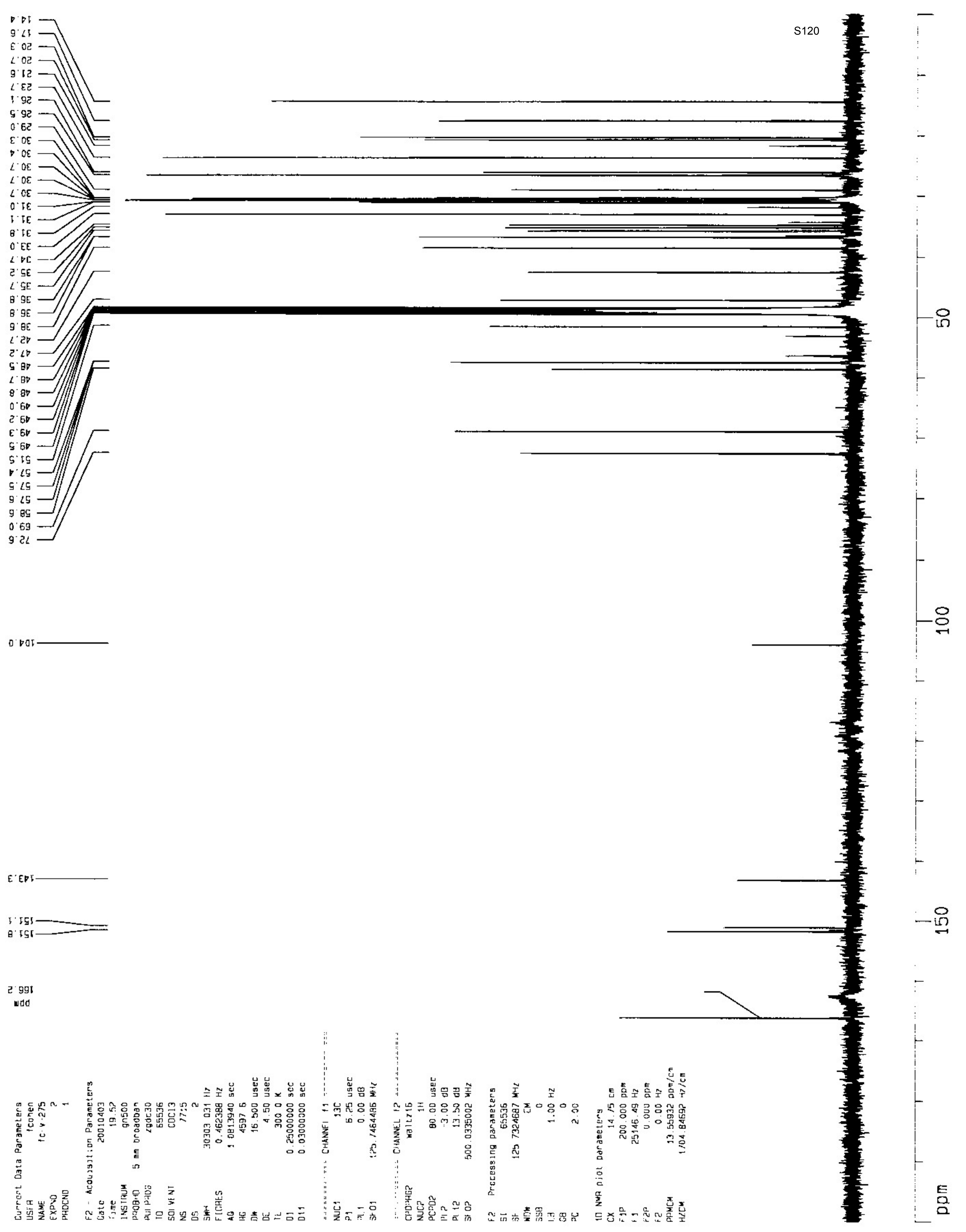
F2 - Acquisition Parameters
 Date_ 20010403
 Time 17.00
 INSTRUM gn500
 PULPROG 5 mm broadpu
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8012.820 Hz
 FIDRES 0.122266 Hz
 AQ 4.0894966 sec
 RG 90.5
 DM 62.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 0.10000000 sec

***** CHANNEL f1 *****
 NUC1 1H
 P1 12.00 usec
 PL1 3.00 dB
 SFO1 500.0335002 MHz

F2 - Processing Parameters
 SI 32/68
 SF 500.0300129 MHz
 MDW FM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 4.00

F2 NMR plot parameters
 CX 14.75 cm
 F1P 10.000 ppm
 F1 5000.30 Hz
 F2P -0.500 ppm
 F2 -250.01 Hz
 PUNCH 0.71186 ppm/cm
 HZCM 355.85365 Hz/cm





Current Data Parameters
 USF# fcohen
 NAME IC-V-275
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date 20010403
 Time 19.52
 INSTRUM gn500
 PQA0 5 mm broadband
 PULPROG zgpgc30
 TO 55536
 SOLVENT CDCl3
 NS 77:5
 DS 2
 SWH 30303.031 Hz
 FIDRES 0.462388 Hz
 AQ 1.0813940 sec
 RG 4597.6
 DM 16.500 usec
 DE 4.50 usec
 TE 300.0 K
 D1 0.25000000 sec
 D11 0.03000000 sec

***** CHANNEL f1 *****
 NUC1 13C
 P1 5.25 usec
 PL1 0.00 dB
 SF01 125.746485 MHz

***** CHANNEL f2 *****
 CPDPRGR waitz16
 NUC2 1H
 PCPD2 80.00 usec
 PL2 -3.00 dB
 PL12 13.50 dB
 SF02 500.0335002 MHz

F2 Processing parameters
 SI 65536
 SF 125.7324687 MHz
 WDM CM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 2.00

10 NMR pilot parameters
 CX 14.75 cm
 F1P 200.000 ppm
 F1 25146.48 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 13.55832 ppm/cm
 HZCM 1704.84692 Hz/cm

14.4
17.6
20.3
20.7
21.6
23.7
26.1
26.5
29.0
30.3
30.4
30.7
30.7
30.7
31.0
31.1
31.1
31.8
33.0
34.7
35.2
35.7
36.8
36.8
36.8
36.8
42.7
47.2
48.5
48.7
48.8
49.0
49.2
49.3
49.5
51.5
57.4
57.5
57.6
58.6
69.0
72.6

50

100

150

ppm

Current Data Parameters

USF4 fconan
 NAME fc v 274
 FXPND 1
 PRDCND 1

F2 Acquisition Parameters

Date_ 20010329
 Time 18 27
 INSTRUM omega500
 PROBHD 5 mm Broadban
 PULPROG zg30
 ID 65536
 SOLVENT CDCl3
 NS 32
 DS 2
 SWH 8012.620 Hz
 FIDRFS 0.22266 Hz
 AQ 4.0894966 sec
 RG 287.4
 DM 62.400 usec
 DF 6.00 usec
 IE 300.0 K
 QT 0.1000000 sec

***** CHANNEL f1 *****

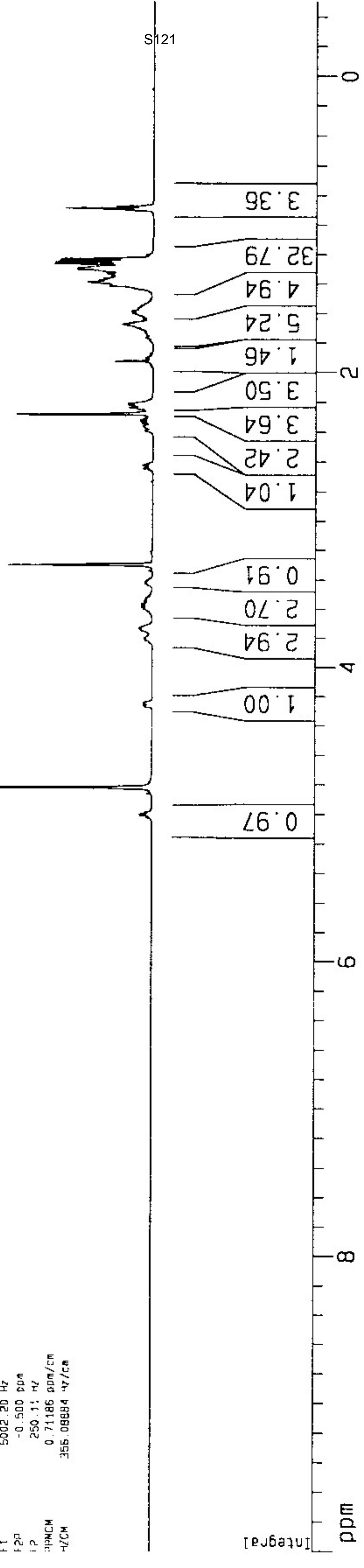
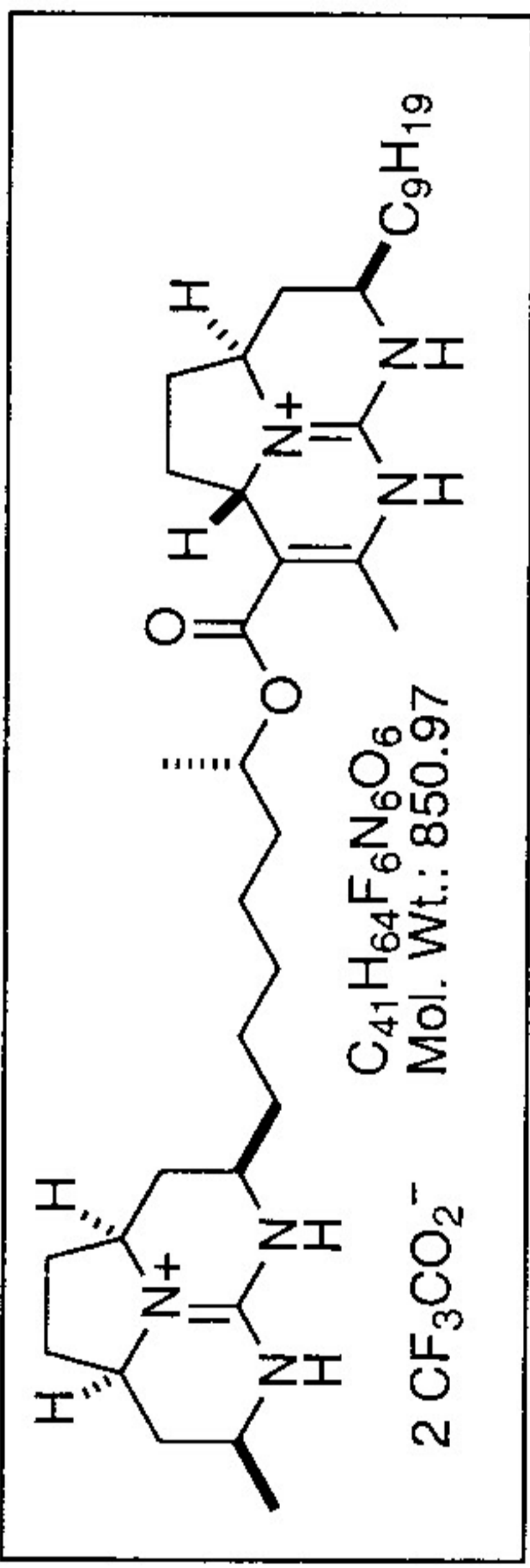
NUC1 1H
 P1 14.00 usec
 P2 0.00 dB
 SF01 500.2235015 MHz

F2 - Processing parameters

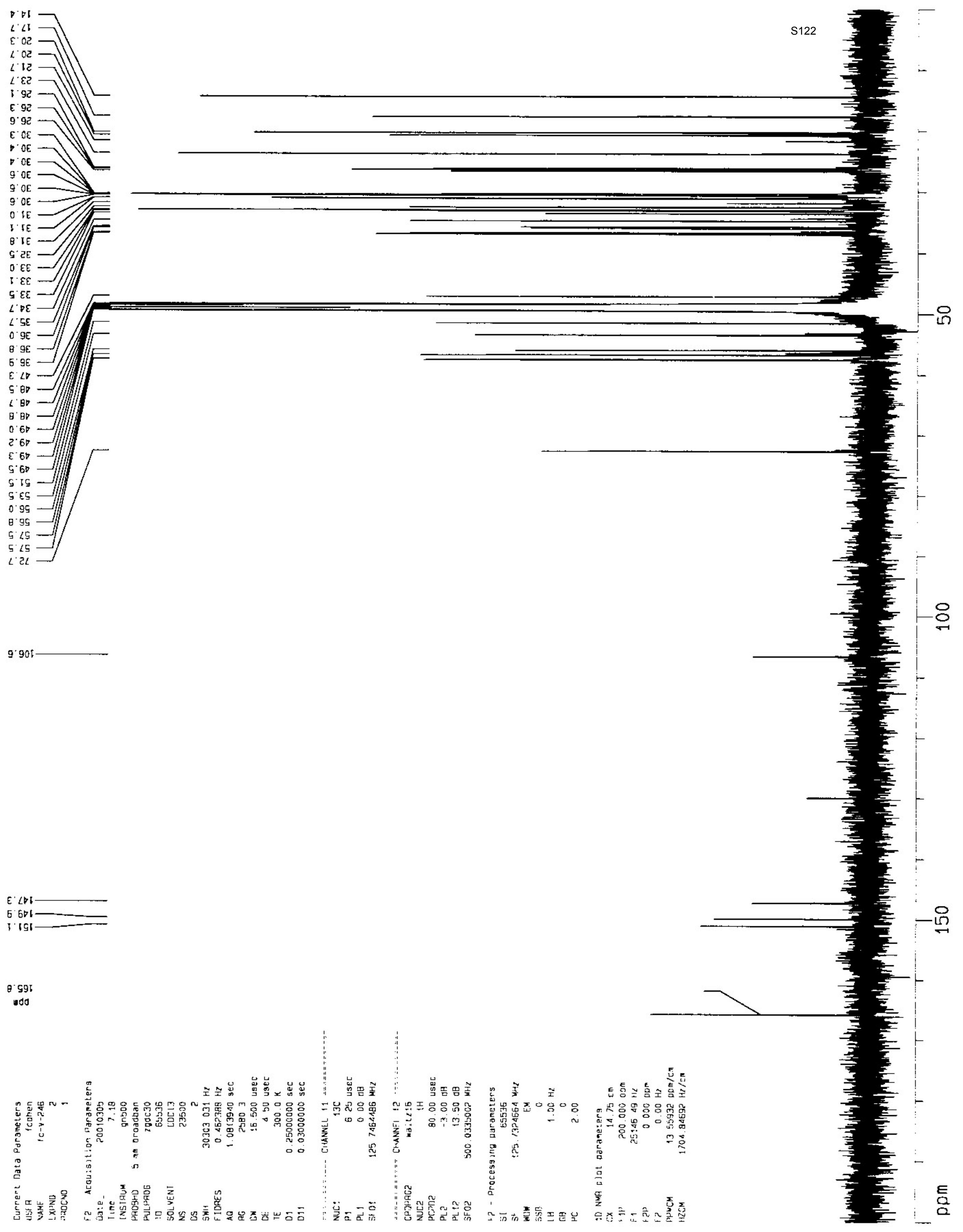
SI 55536
 SF 500.220190 MHz
 WDM EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 14.75 cm
 F1 10.000 ppm
 F2 5002.20 Hz
 F2P -0.500 ppm
 F2 250.11 Hz
 F2MCM 0.71186 ppm/cm
 F2CM 355.08884 Hz/cm



S121



Current Data Parameters
 USR R fcben
 NAME fc-v-246
 LXPND 2
 PROCNO 1

F2 Acquisition Parameters
 Date_ 20010305
 Time 7.18
 INSTRUM gnb00
 PROBHD 5 mm broadband
 PULPROG zgpg30
 TO 65536
 SOLVENT CDCl3
 NS 23500
 DS 2
 SWH 30303.031 Hz
 FIDRES 0.462388 Hz
 AQ 1.0813940 sec
 RG 2580.3
 DM 16.500 usec
 DE 4.50 usec
 TE 300.0 K
 D1 0.25000000 sec
 D11 0.03000000 sec

----- CHANNEL 11 -----
 NUC1 13C
 P1 6.25 usec
 PL1 0.00 dB
 SF01 125.7464486 MHz

----- CHANNEL 12 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 80.00 usec
 PL2 -3.00 dB
 PL12 13.50 dB
 SF02 500.0335002 MHz

F2 - Processing parameters
 SI 65536
 SF 125.7324664 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 2.00

3D NMR plot parameters
 CX 14.75 cm
 S1P 200.000 00m
 F1 25146.49 Hz
 F2 0.000 ppm
 F2 0.00 Hz
 PPMCM 13.55932 ppm/cm
 HZCM 1704.84692 Hz/cm

106.6
 147.3
 149.9
 151.1
 165.8
 17.7
 14.4
 20.3
 20.7
 21.7
 23.7
 26.1
 26.3
 26.6
 30.3
 30.4
 30.4
 30.6
 30.6
 30.6
 31.0
 31.1
 31.8
 32.5
 33.0
 33.1
 33.5
 34.7
 35.7
 36.0
 36.8
 36.9
 36.9
 47.3
 48.5
 48.7
 48.8
 49.0
 49.2
 49.3
 49.5
 51.5
 53.5
 56.0
 56.8
 57.5
 57.5
 72.7

ppm 150 100 50

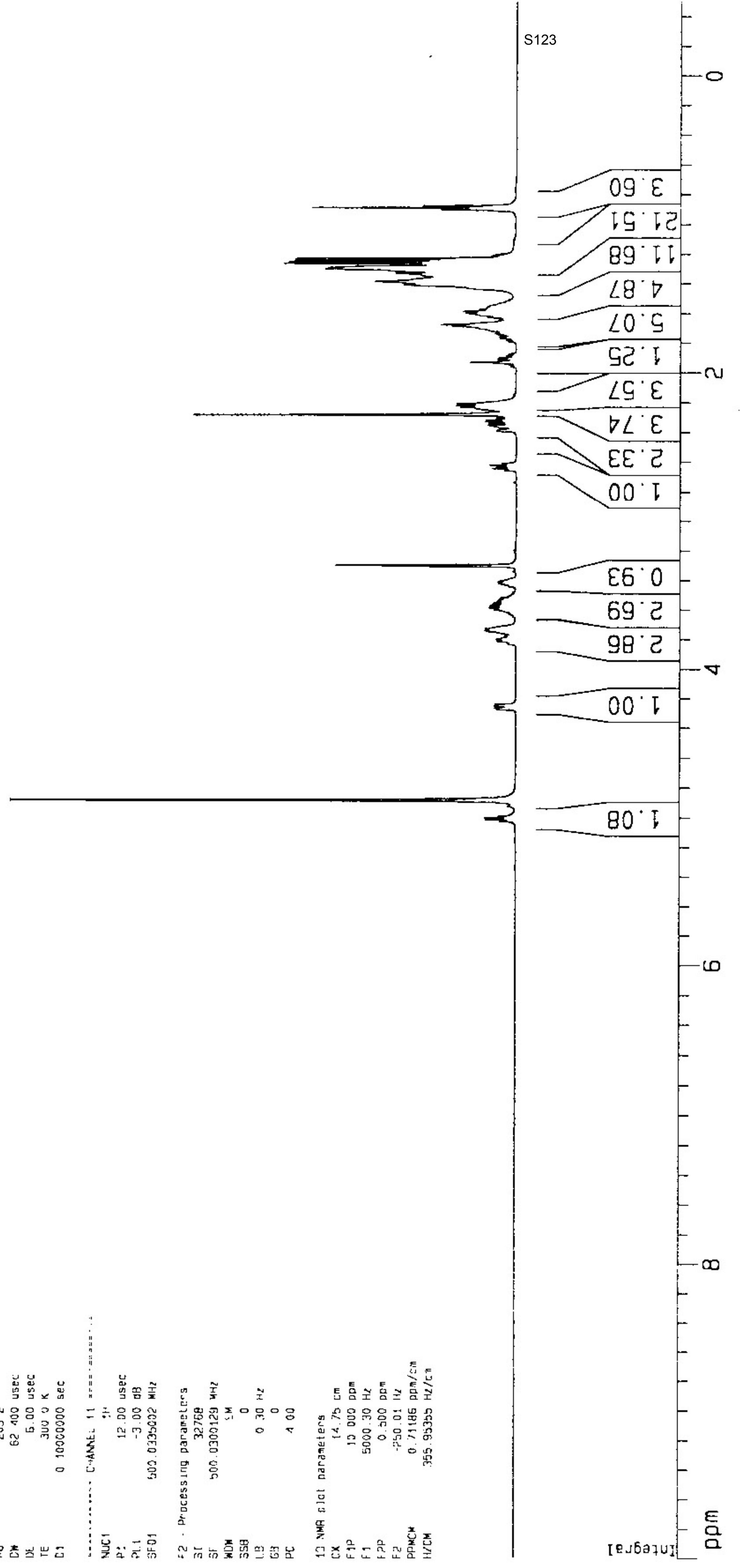
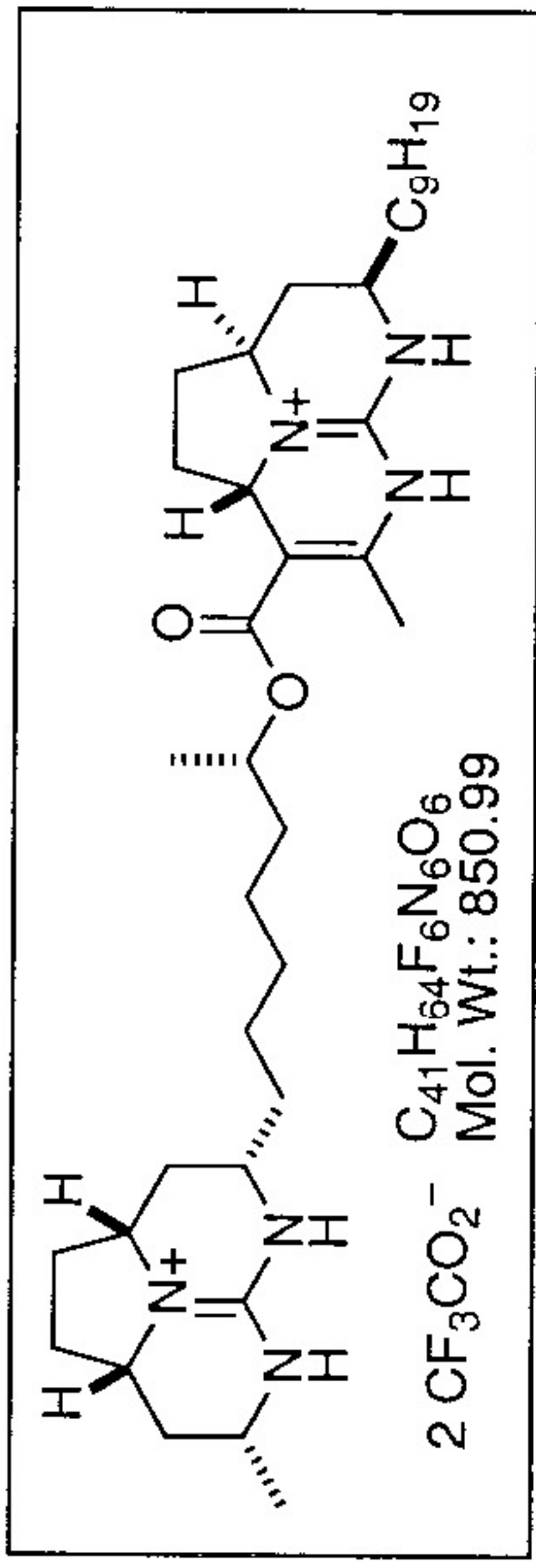
Current Data Parameters
 USER fcohen
 NAME fc-y-2/9
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date 20010417
 Time 17.02
 INSTRUM gn500
 PROBHD 5 mm broadban
 PULPROG zg30
 TO 65536
 SOLVENT CDCl3
 NS 24
 DS 2
 SWH 8012.820 Hz
 FIDHLS 0.122266 Hz
 AQ 4.0894966 sec
 RG 203.2
 DM 62.400 usec
 DL 5.00 usec
 TE 300.0 K
 D1 0.10000000 sec

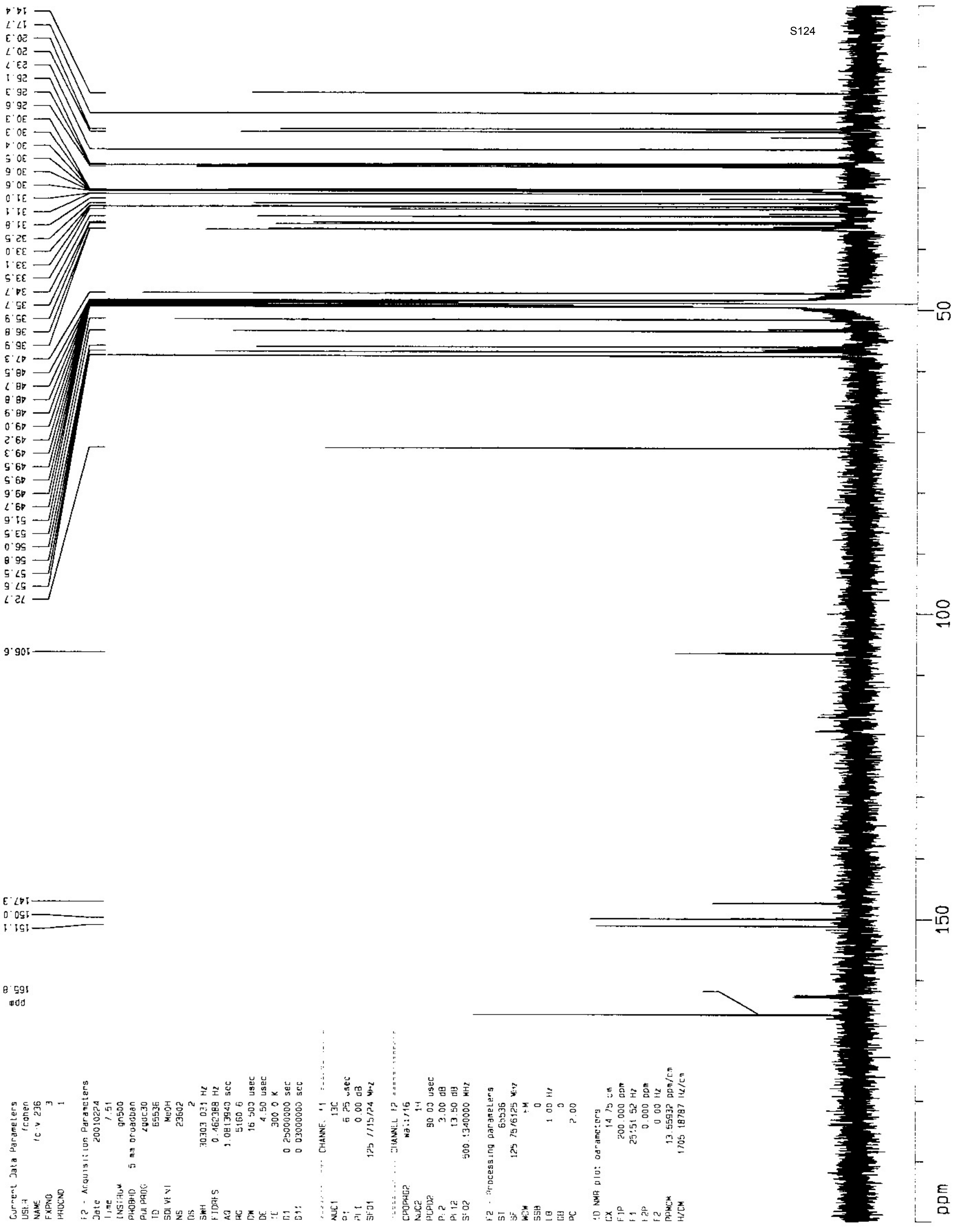
----- CHANNEL f1 -----
 NUC1 1H
 P1 12.00 usec
 PL1 -3.00 dB
 SF01 500.0335002 MHz

F2 - Processing parameters
 SI 32768
 SF 500.0300129 MHz
 NDM 5M
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 4.00

1D NMR plot parameters
 CX 14.75 cm
 F1P 10.000 ppm
 F1 50000.30 Hz
 F2P 0.500 ppm
 F2 -750.01 Hz
 PPMCM 0.71186 ppm/cm
 HZCM 355.95355 Hz/cm



S123



Current Data Parameters
 USL:3
 NAME fcv 236
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters
 Date 20010224
 Time 7.51
 INSTRUM gm500
 PROBHD 5 mm broadband
 PULPROG zgpg30
 TD 65536
 SOLVENT MeOH
 NS 23602
 DS 2
 SWH 30303.031 Hz
 FIDRES 0.462388 Hz
 AQ 1.0813940 sec
 RG 5160.6
 DW 16.500 usec
 DE 4.50 usec
 TE 300.0 K
 D1 0.25000000 sec
 D11 0.03000000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 6.25 usec
 PL1 0.00 dB
 SF01 125.775724 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PUPD2 80.00 usec
 PL2 2.00 dB
 PL12 13.50 dB
 SF02 500.1340000 MHz

F2 - Processing parameters
 SI 65536
 SF 125.7576125 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 2.00

F0 NMR pilot: oaramc.org
 CX 14.75 cm
 F1P 200.000 ppm
 F1 25151.52 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCK 13.55932 ppm/cm
 HZCM 1705.18787 Hz/cm