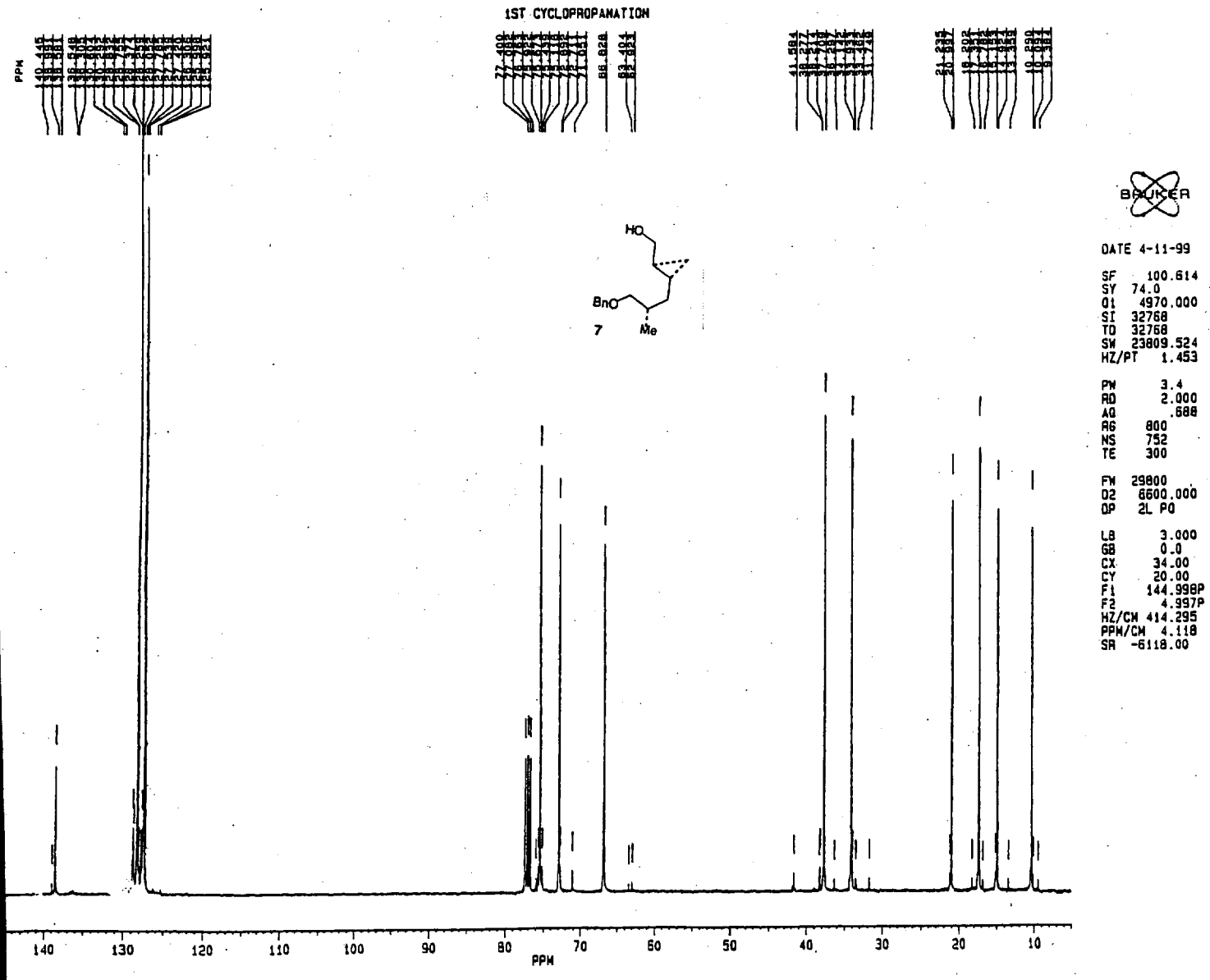
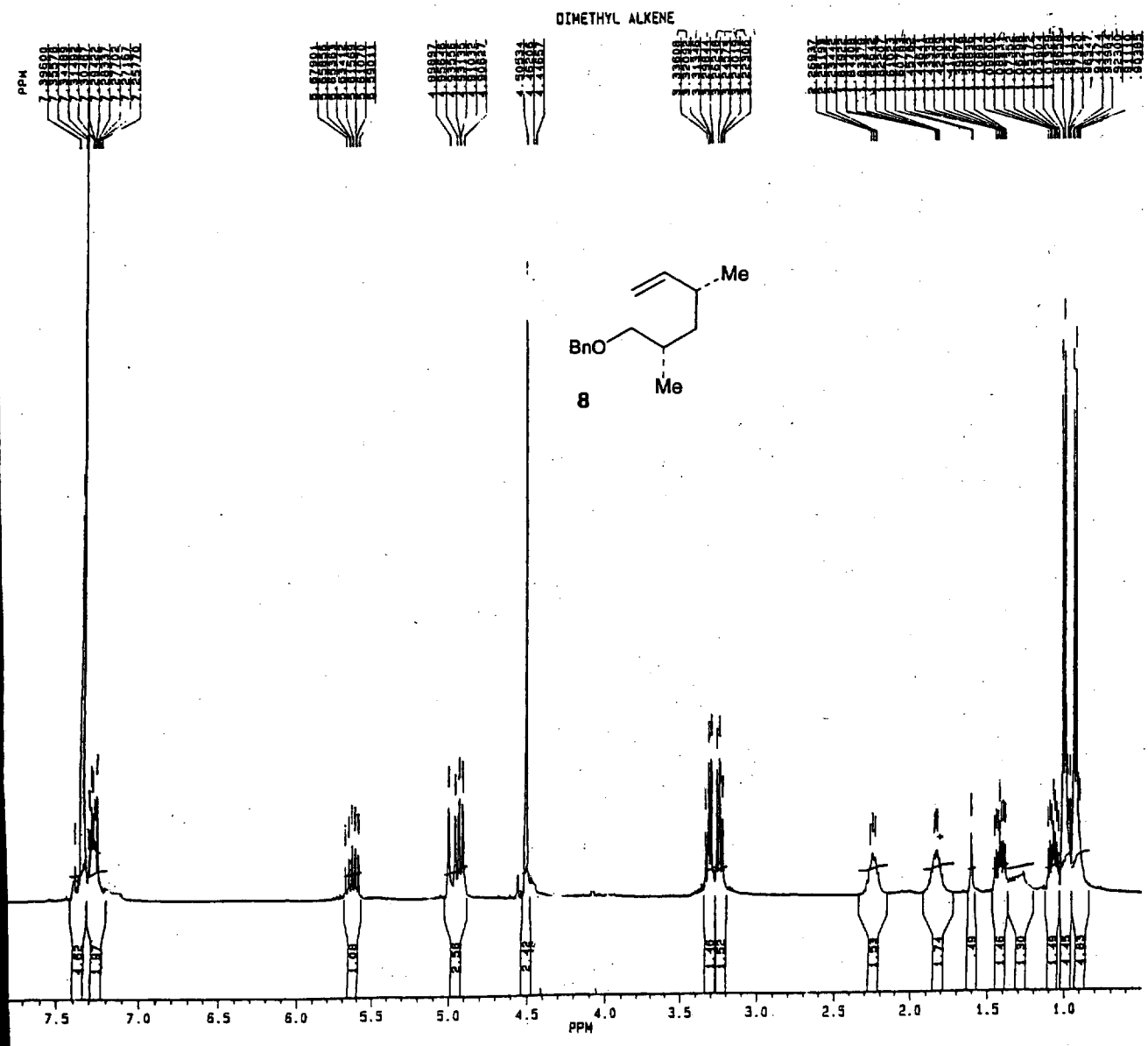
# Compound 7



# Compound 8

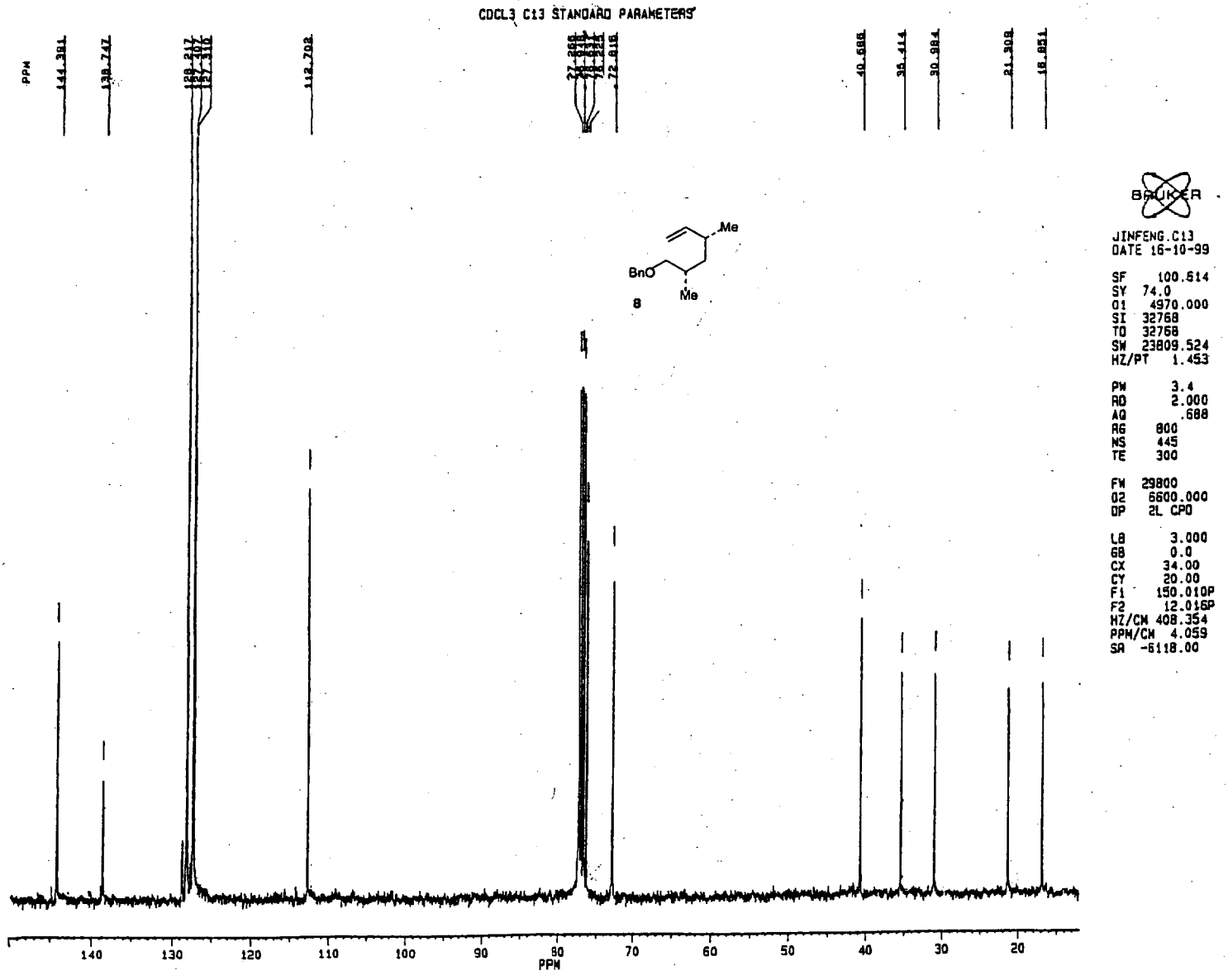



BRUKER

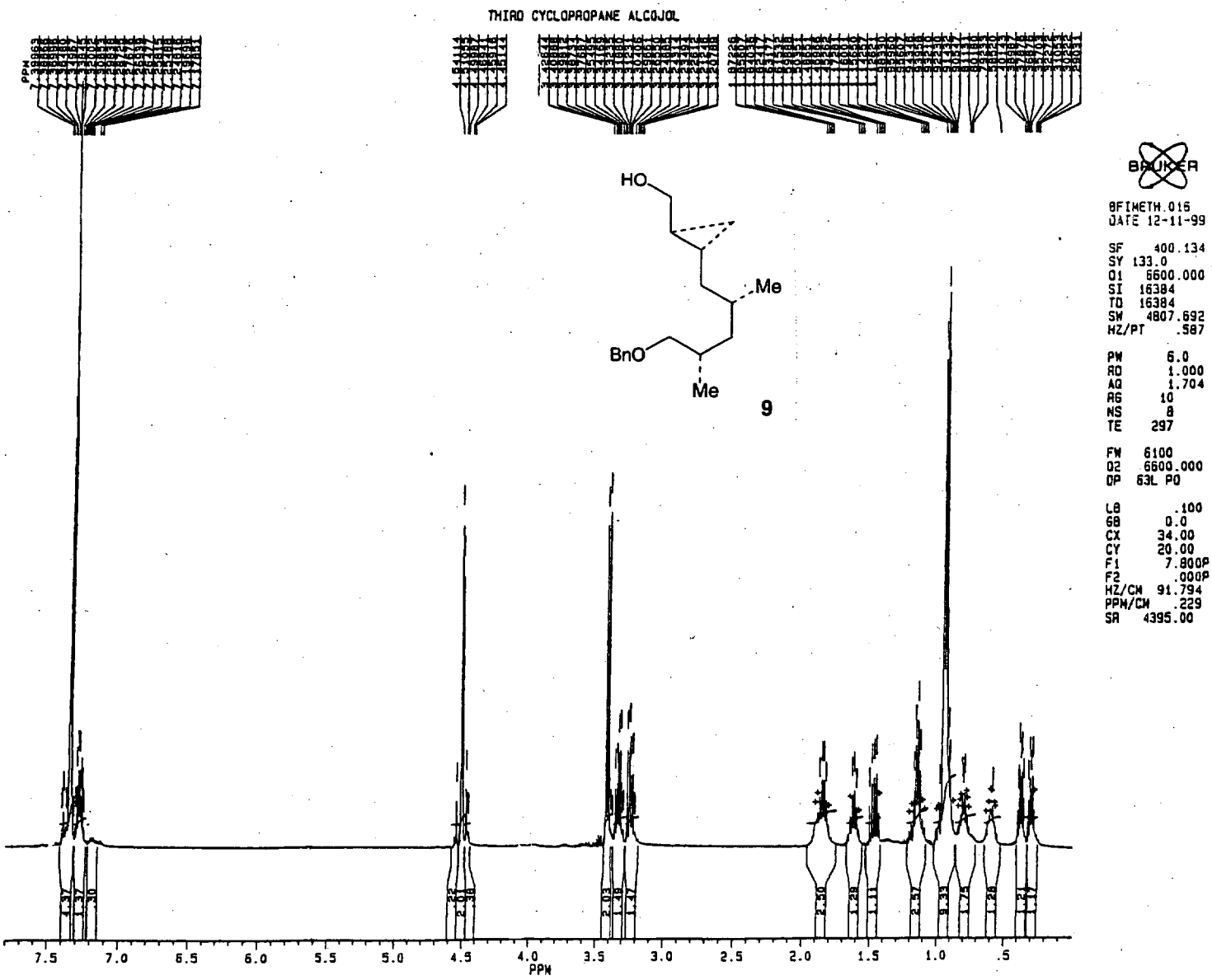
JINFENG.C13
DATE 15-10-99

| | |
|---|---|
| SF | 400.134 |
| SY | 133.0 |
| O1 | 6600.000 |
| SI | 16384 |
| TD | 16384 |
| SW | 4807.692 |
| HZ/PT | .587 |
| PW | 6.0 |
| RD | 1.000 |
| AQ | 1.704 |
| RG | 32 |
| NS | 8 |
| TE | 297 |
| FW | 6100 |
| O2 | 6600.000 |
| OP | 63L PO |
| LB | .100 |
| GB | 0.0 |
| CX | 34.00 |
| CY | 20.00 |
| F1 | 7.800P |
| F2 | .500P |
| HZ/CM | 85.908 |
| PPM/CM | .215 |
| SR | 4395.00 |

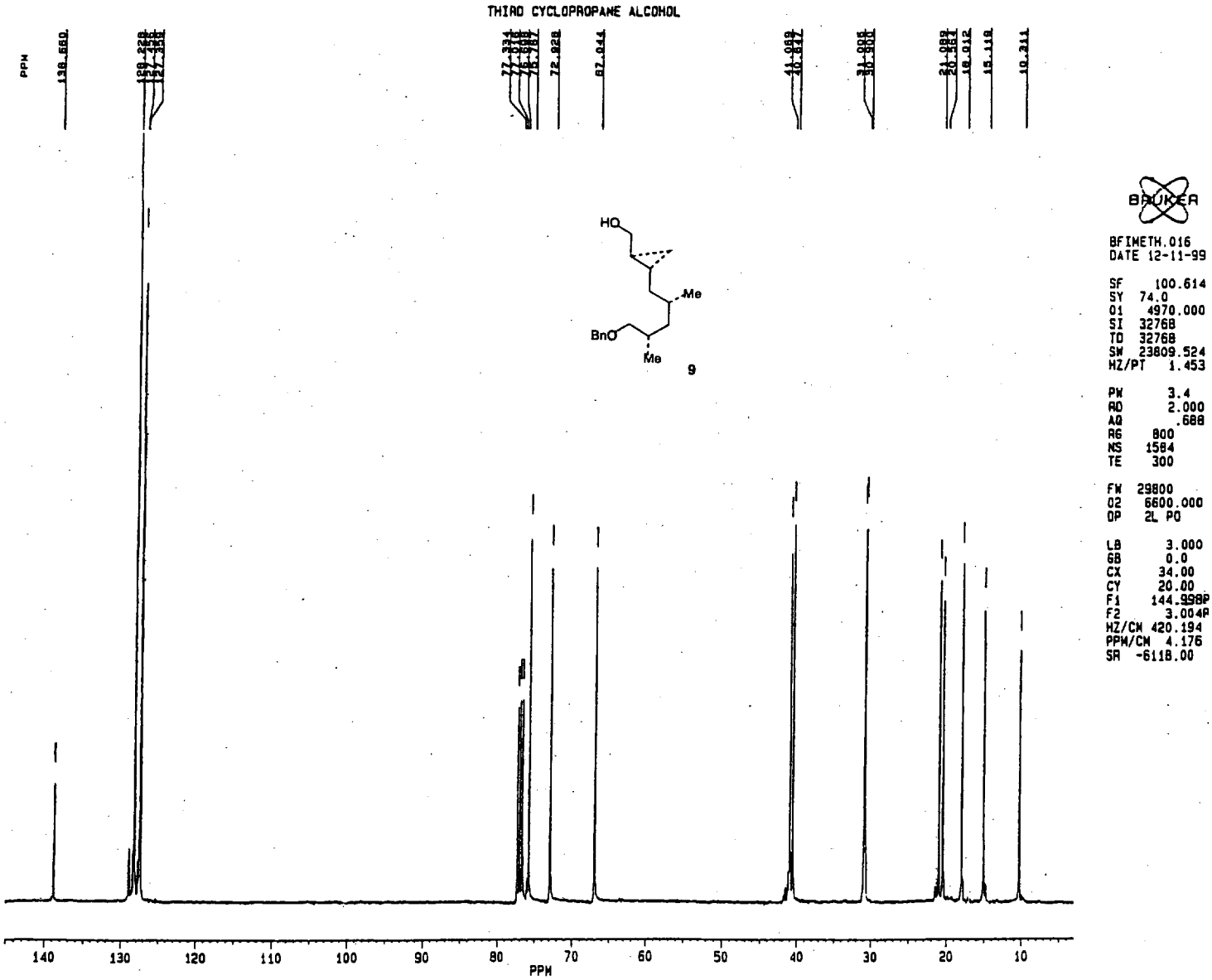
# Compound 8



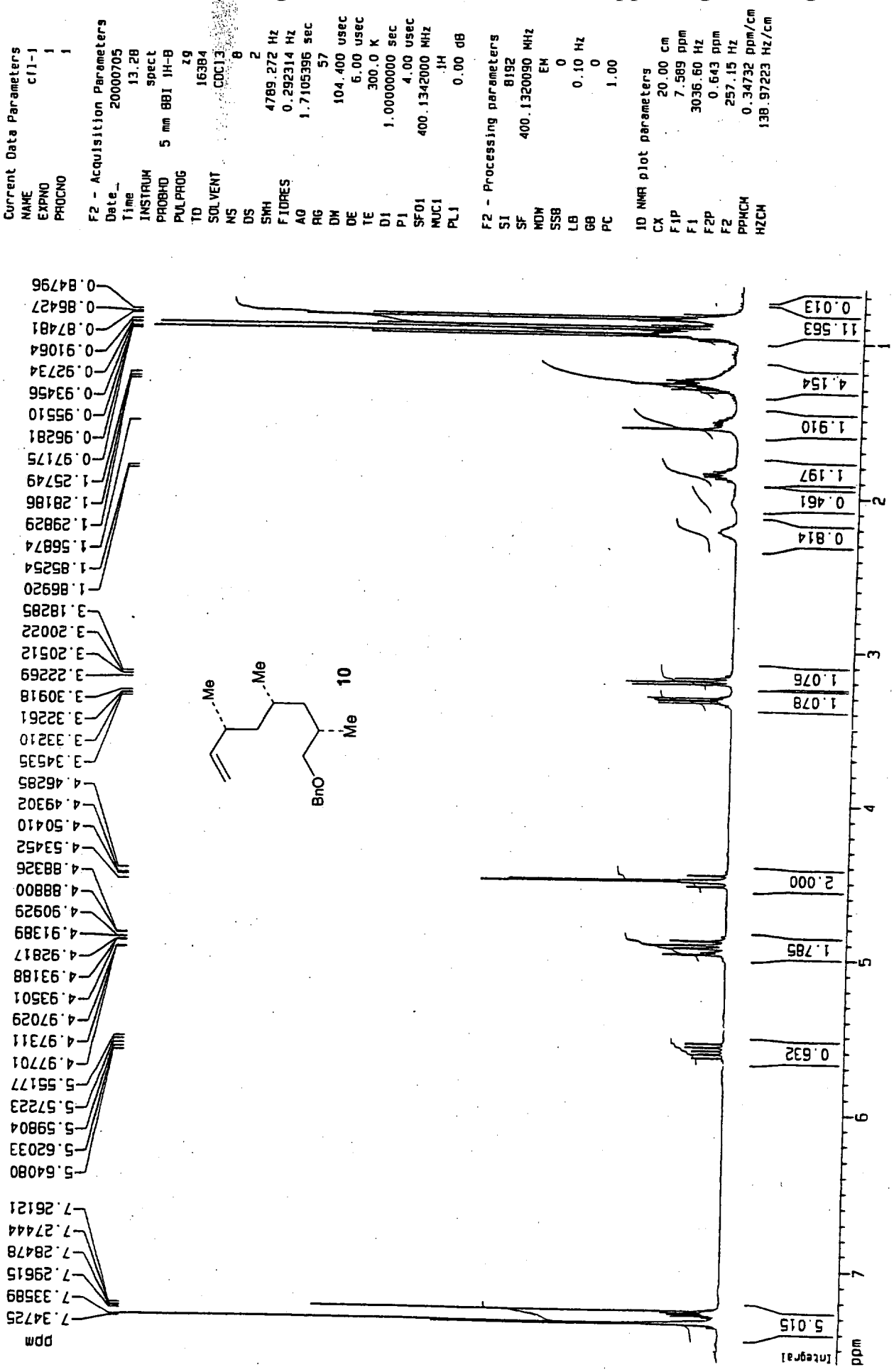
# Compound 9



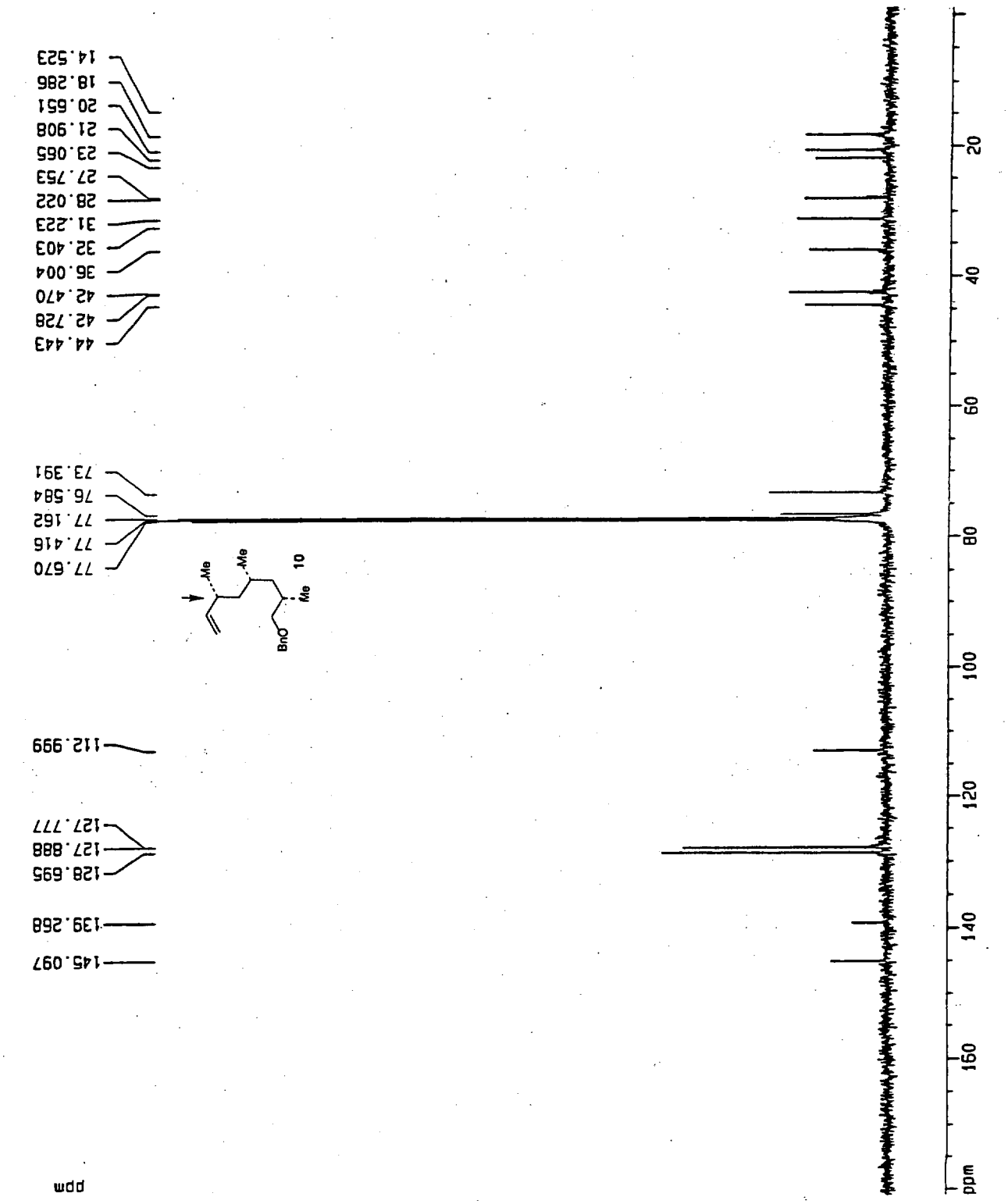
# Compound 9



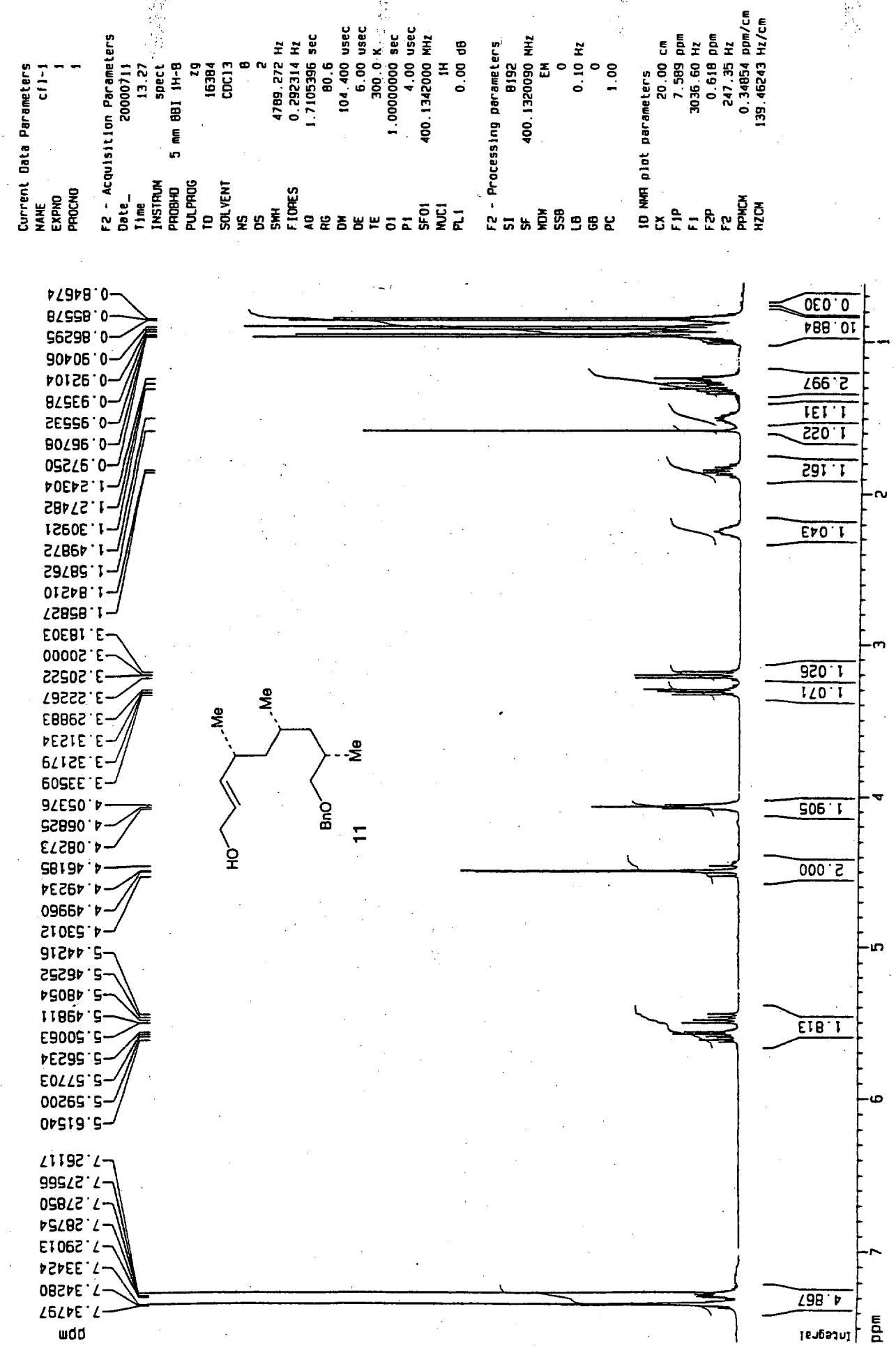
**Compound 10**



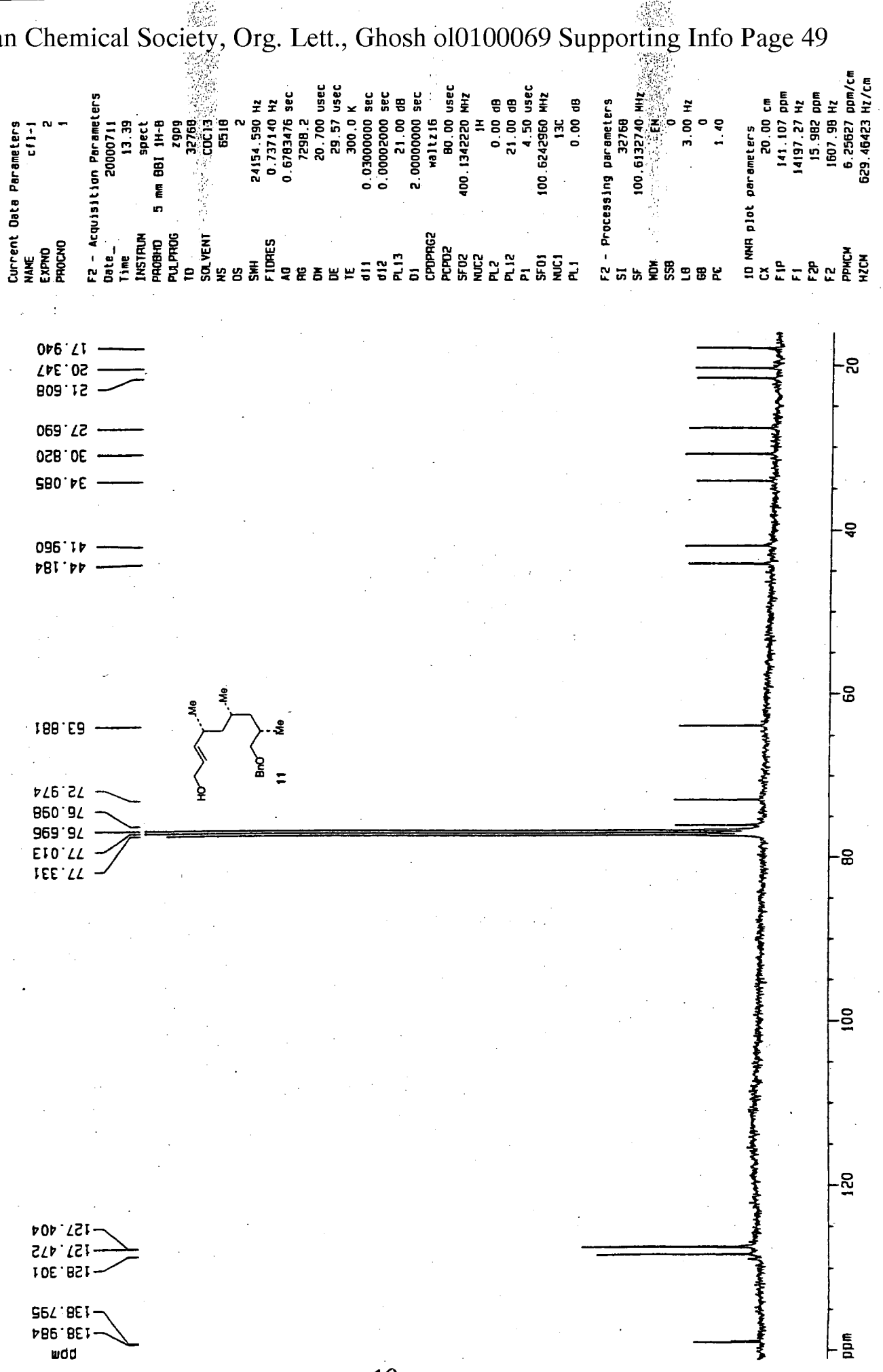
## Compound 10



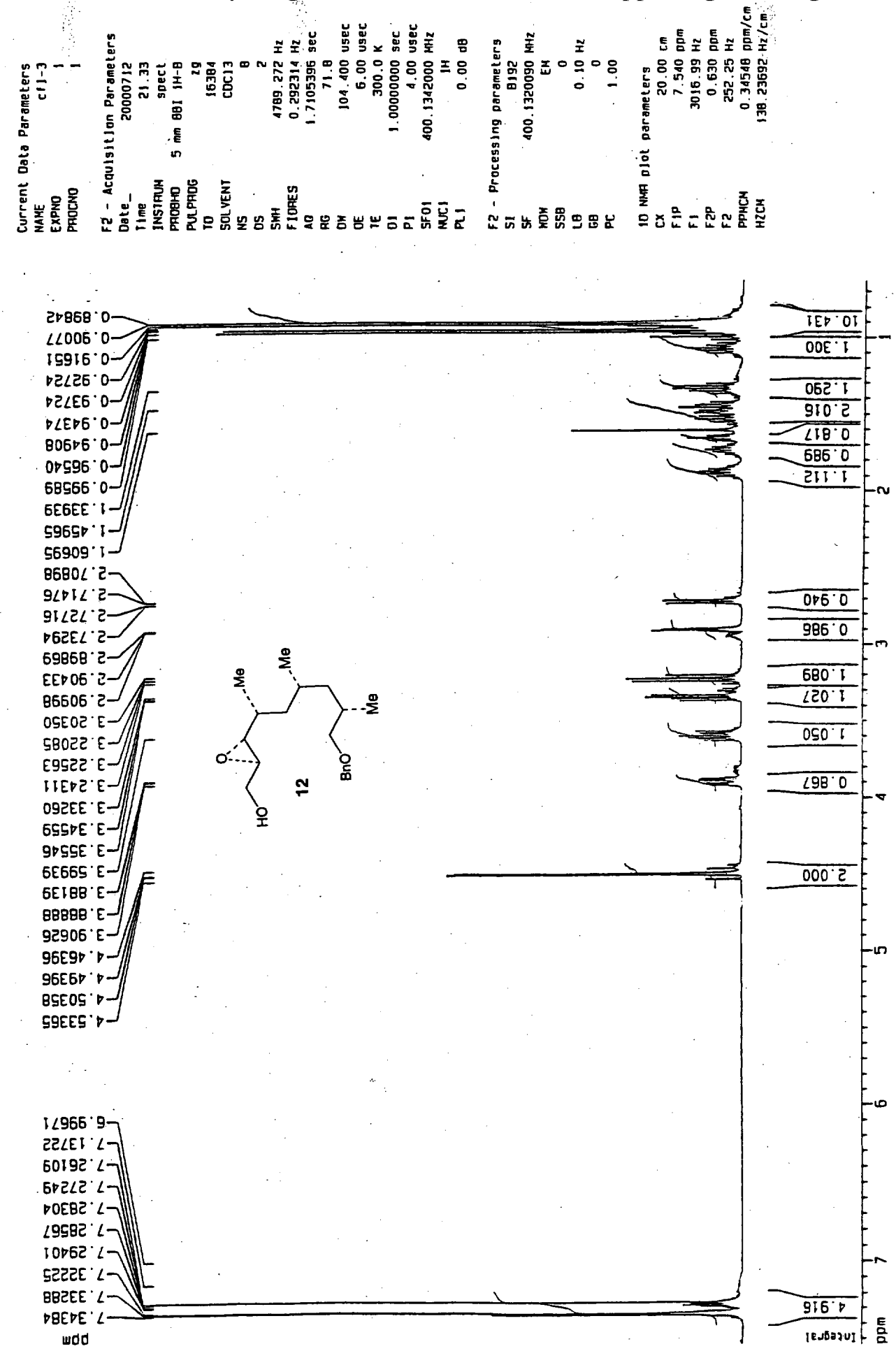
## Compound 11



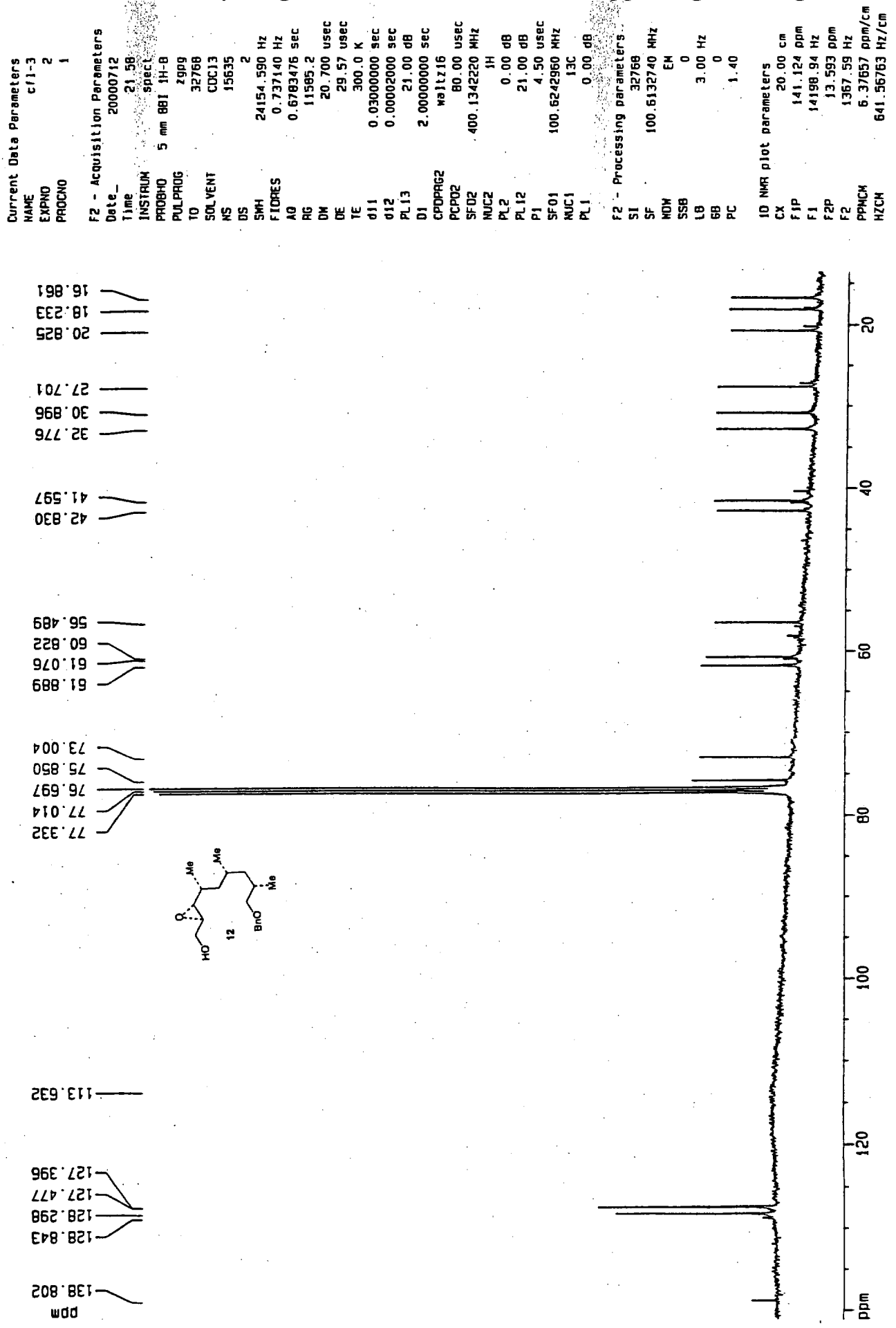
## Compound 11


Current Data Parameters
NAME cf1-1
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20000711
Time 13.39
INSTRUM spect
PROBHD 5 mm BBI 1H-B
PULPROG zgpg
TD 32768
SOLVENT CDCl3
NS 6518
DS 2
SWH 24154.590 Hz
FIDRES 0.737140 Hz
AQ 0.6783476 sec
RG 7298.2
DW 20.700 usec
DE 29.57 usec
TE 300.0 K
d11 0.03000000 sec
d12 0.00002000 sec
PL13 21.00 dB
D1 2.00000000 sec
CPDPRG2 waltz16
PCPD2 80.00 usec
SFO2 400.1342220 MHz
NUC2 1H
PL2 0.00 dB
PL12 21.00 dB
P1 4.50 usec
SFO1 100.6242960 MHz
NUC1 13C
PL1 0.00 dB
F2 - Processing parameters
SI 32768
SF 100.6132740 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
F1P 141.107 ppm
F1 14197.27 Hz
F2P 15.982 ppm
F2 1607.98 Hz
PPMCM 6.25627 ppm/cm
HZCM 629.46423 Hz/cm
17.940
20.347
21.608
27.690
30.820
34.085
41.960
44.184
63.881
72.974
76.098
76.696
77.013
77.331
127.404
127.472
128.301
138.795
138.984
Me
Me
Me
HO
BnO
11
ppm
20
40
60
80
100
120

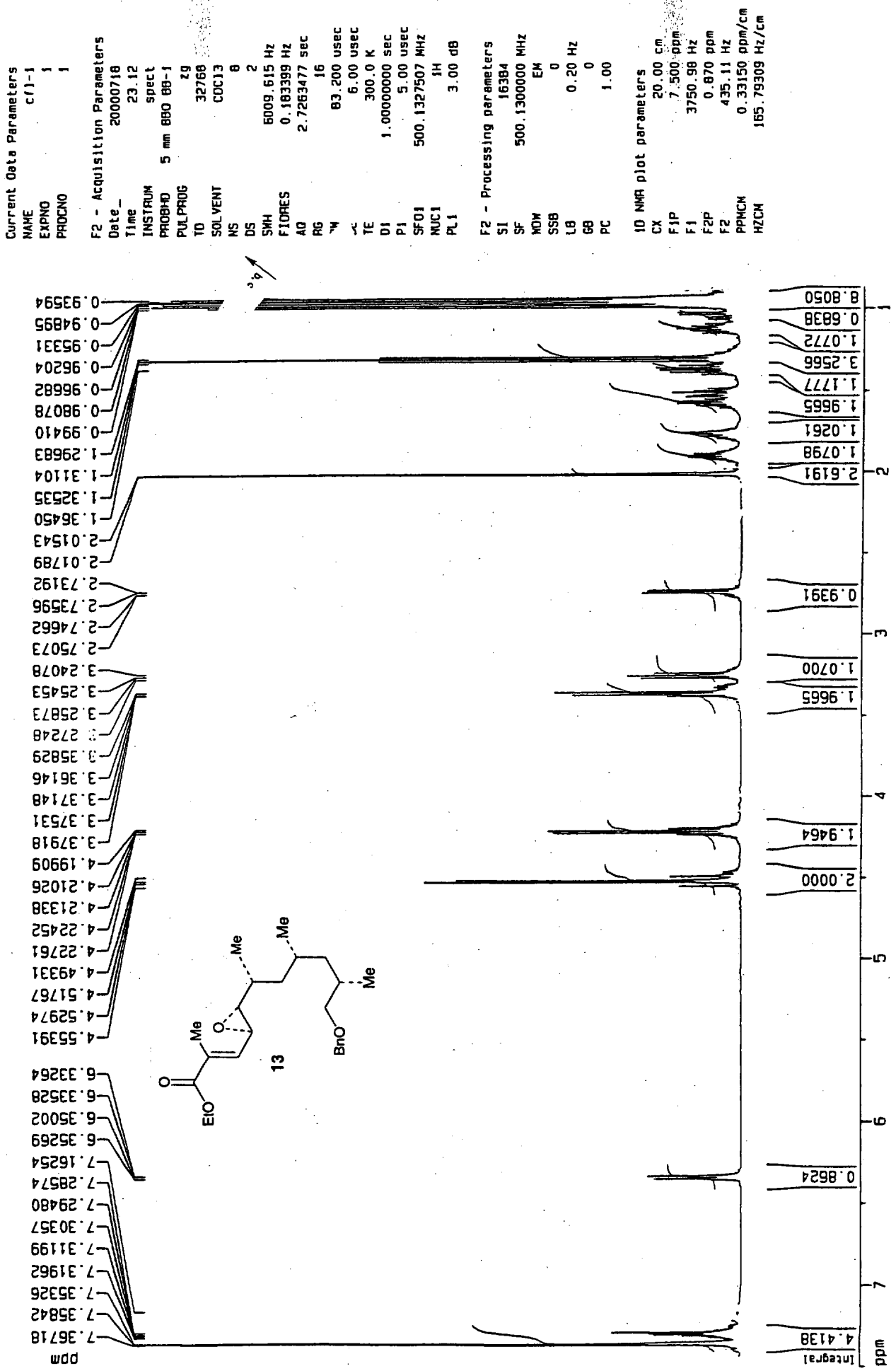
## Compound 12



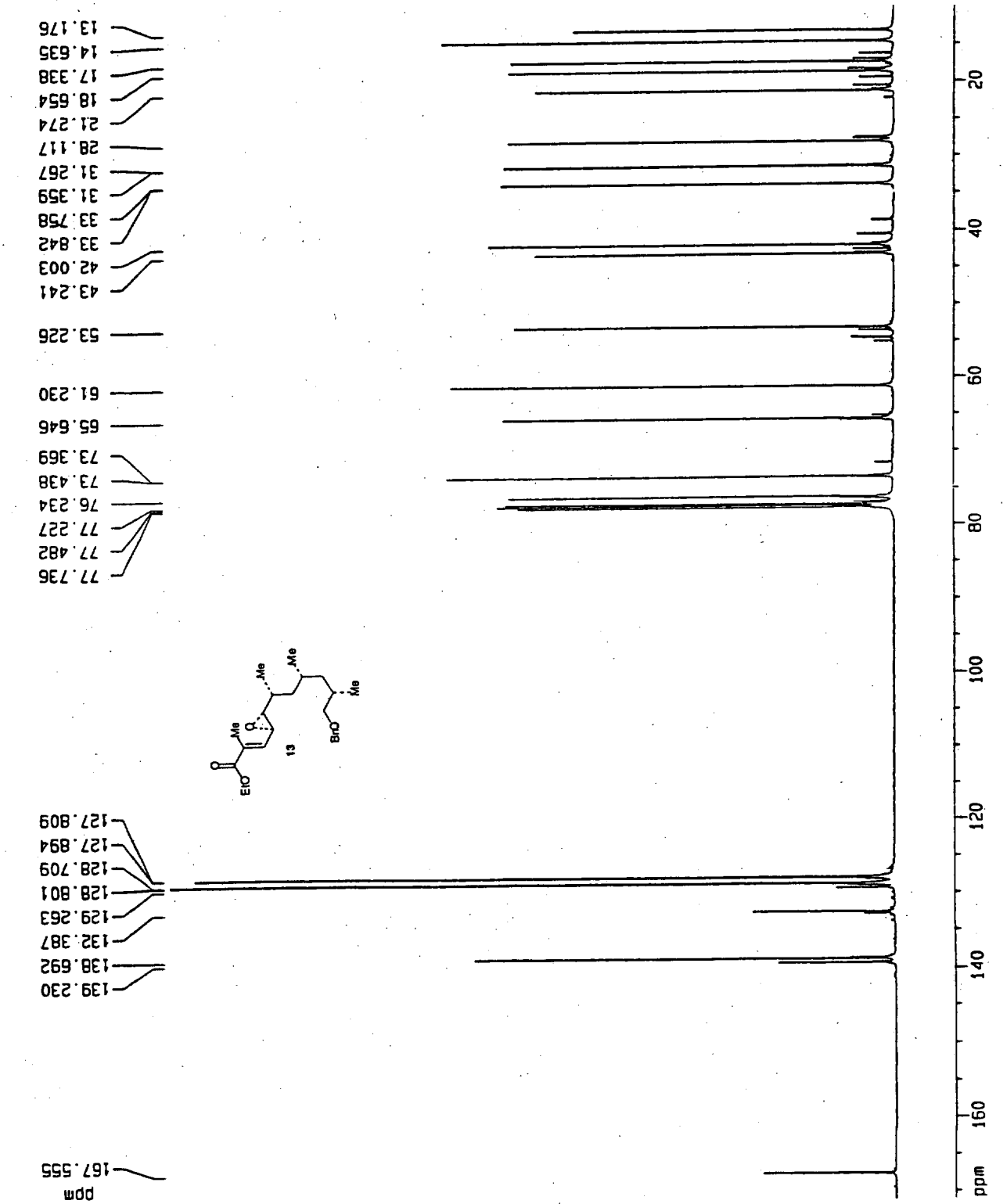
## Compound 12



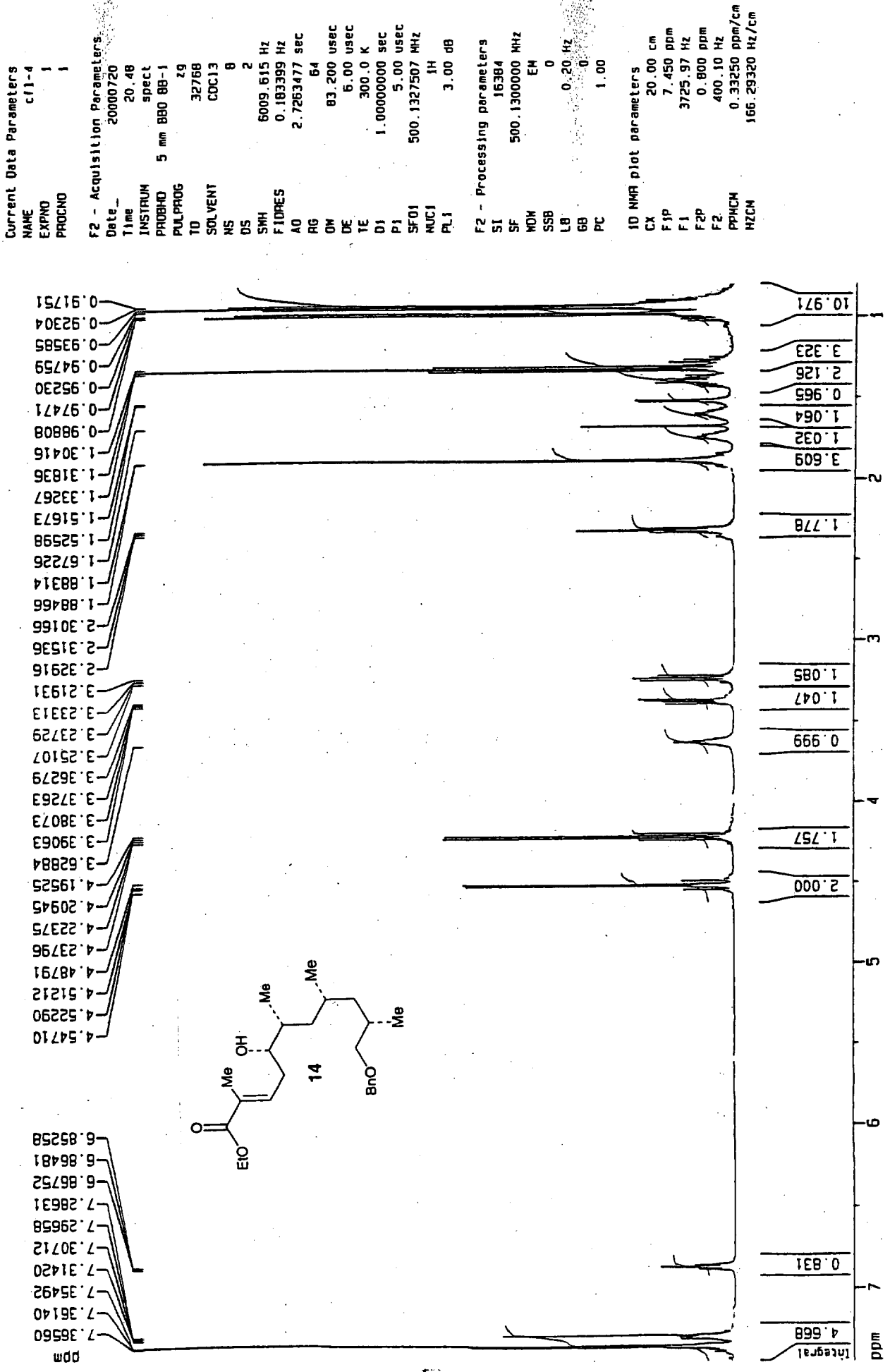
## Compound 13



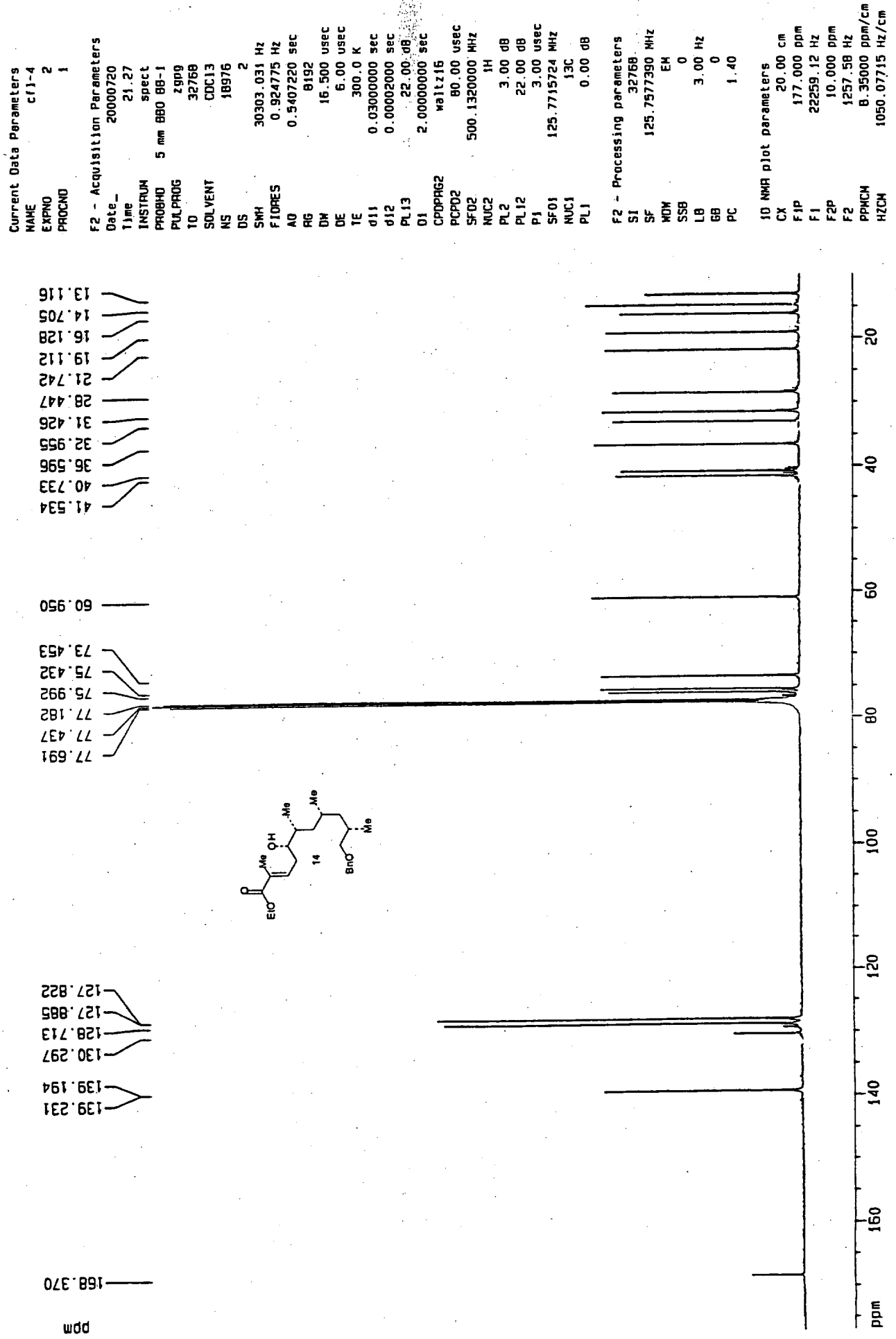
## Compound 13



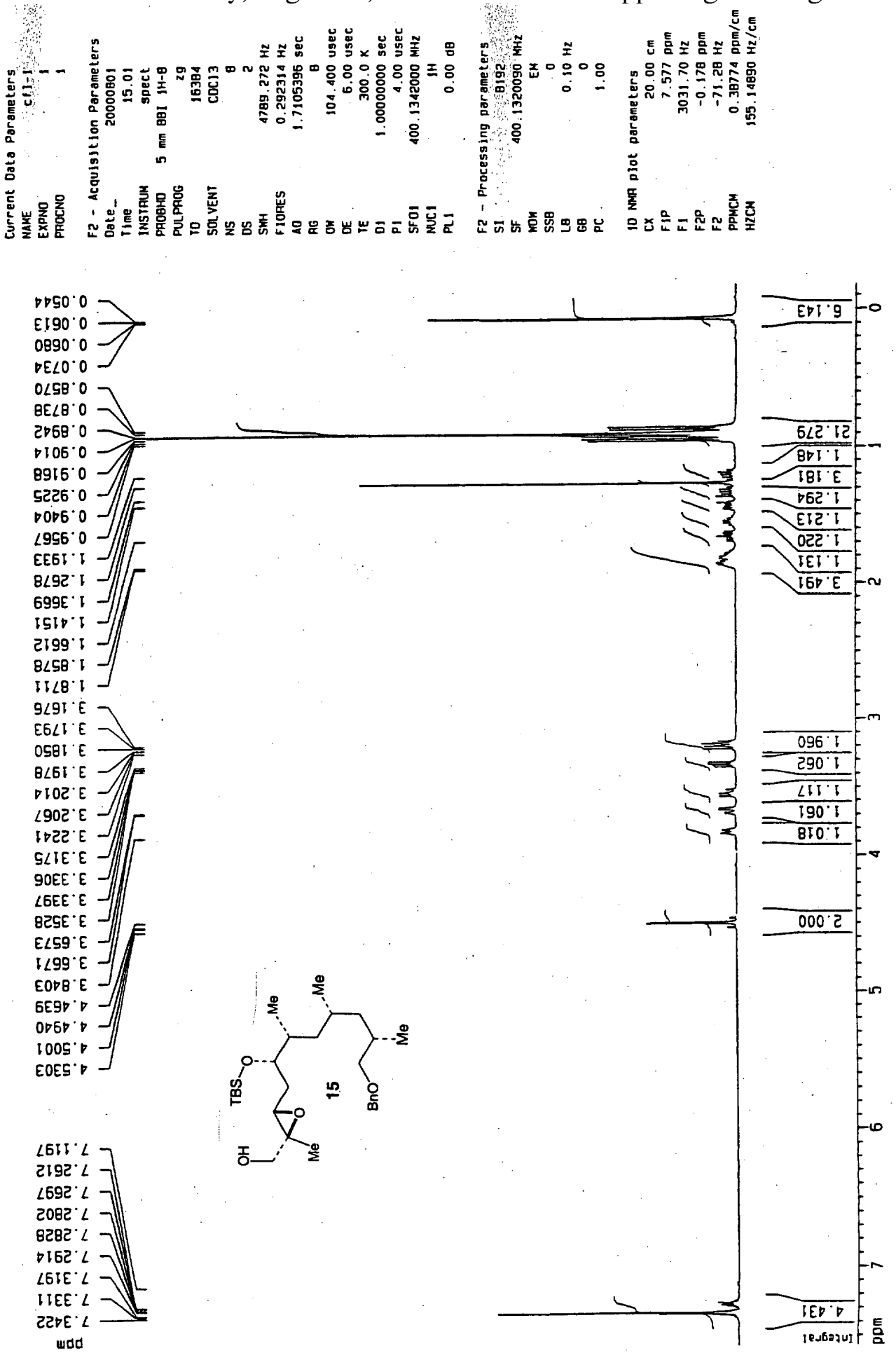
## Compound 14



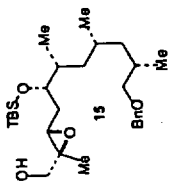
## Compound 14



# Compound 15



# Compound 15



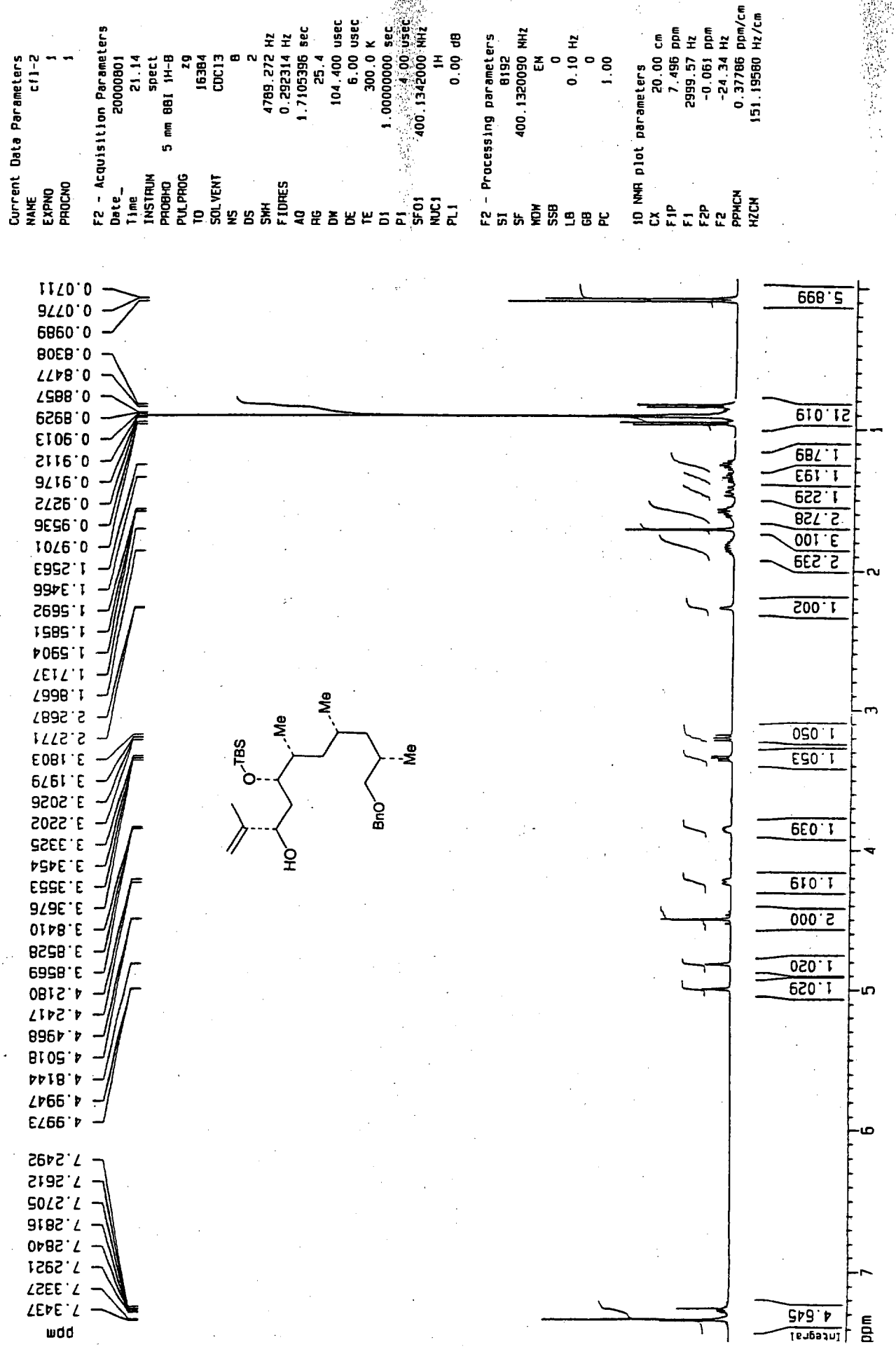




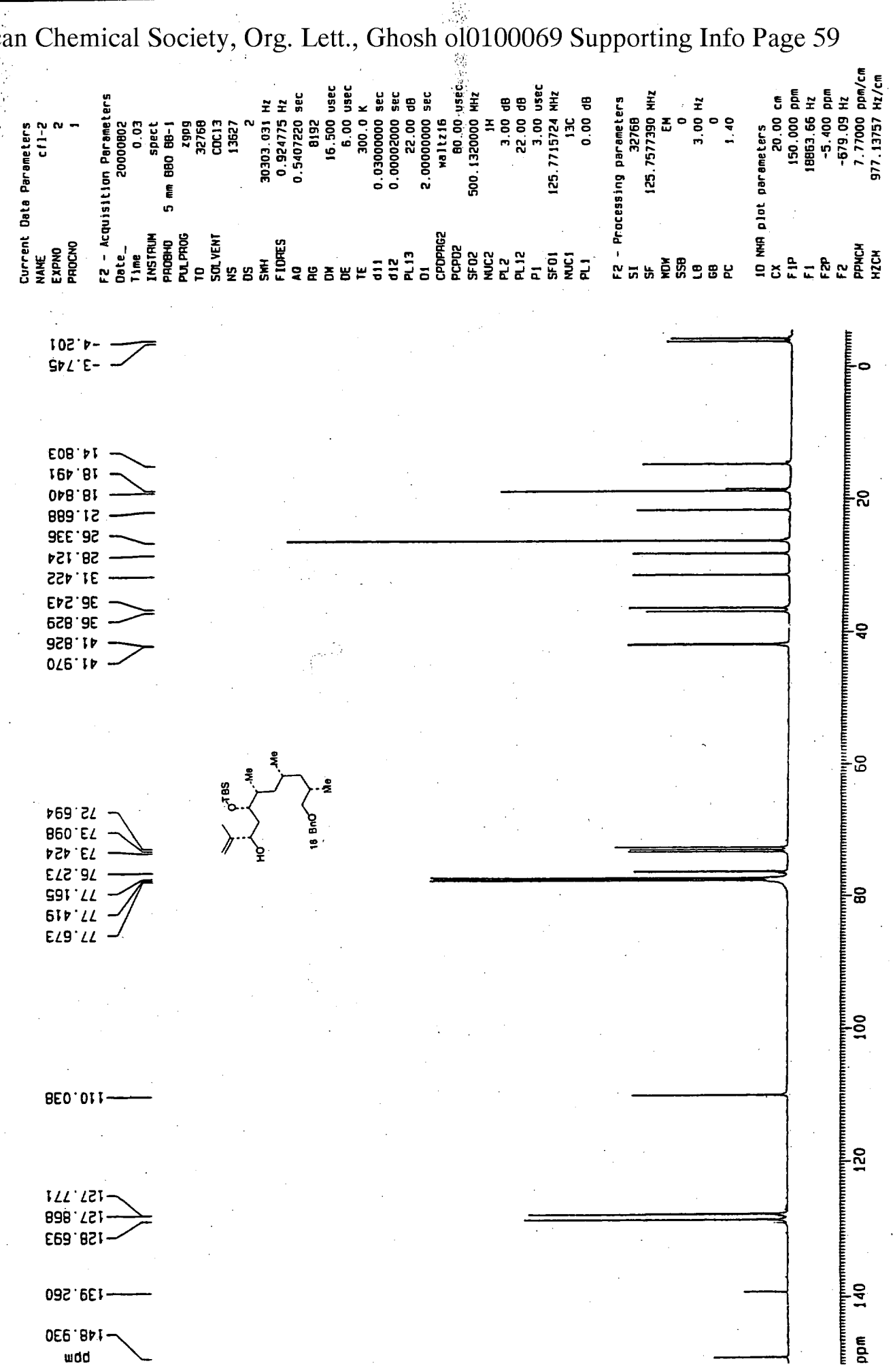
CDCl3 standard parameters, DB probe

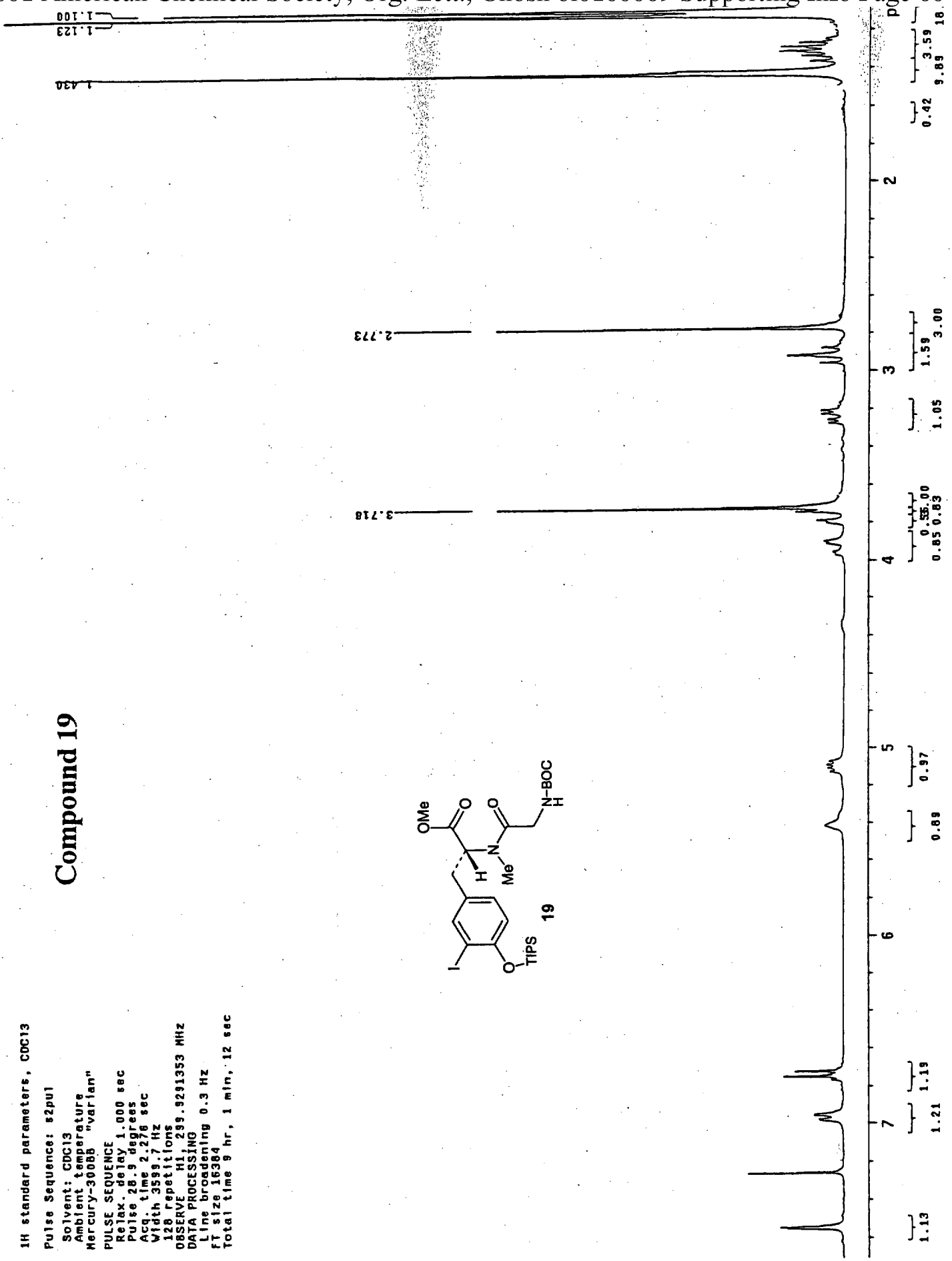
OBSERVE C13
FREQUENCY 75.429 MHz
SPECTRAL WIDTH 18868.0 Hz
ACQUISITION TIME 0.910 sec
RELAXATION DELAY 1.500 sec
PULSE WIDTH 7.5 usec
TEMPERATURE 23.0 deg. C.
NO. REPETITIONS 14168
DECOUPLE H1
HIGH POWER 42
DECOUPLER CONTINUOUSLY ON
WALTZ-16 MODULATED
DATA PROCESSING
LINE BROADENING 3.0 Hz
FT SIZE 32768
TOTAL ACQUISITION TIME 9.5 hours

## Compound 16

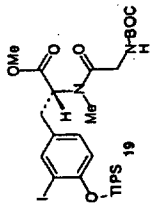


# Compound 16




1H standard parameters, CDCl3
Pulse Sequence: s2pul
Solvent: CDCl3
Ambient temperature
Mercury-300BB "varian"
PULSE SEQUENCE
Relax. delay 1.000 sec
Pulse 28.9 degrees
Acq. time 2.276 sec
Width 3599.7 Hz
128 repetitions
OBSERVE H1, 299.9291353 MHz
DATA PROCESSING
Line broadening 0.3 Hz
FT size 16384
Total time 9 hr, 1 min, 12 sec
Compound 19
OMe
O
O
N-BOC
H
N
H
Me
I
O
TIPS
19
1.100
1.123
1.430
2.773
3.718
ppm
1.13
1.21
1.19
0.89
0.97
0.85
0.83
0.85
1.05
1.59
3.00
0.42
3.59
9.89
18

# Compound 19







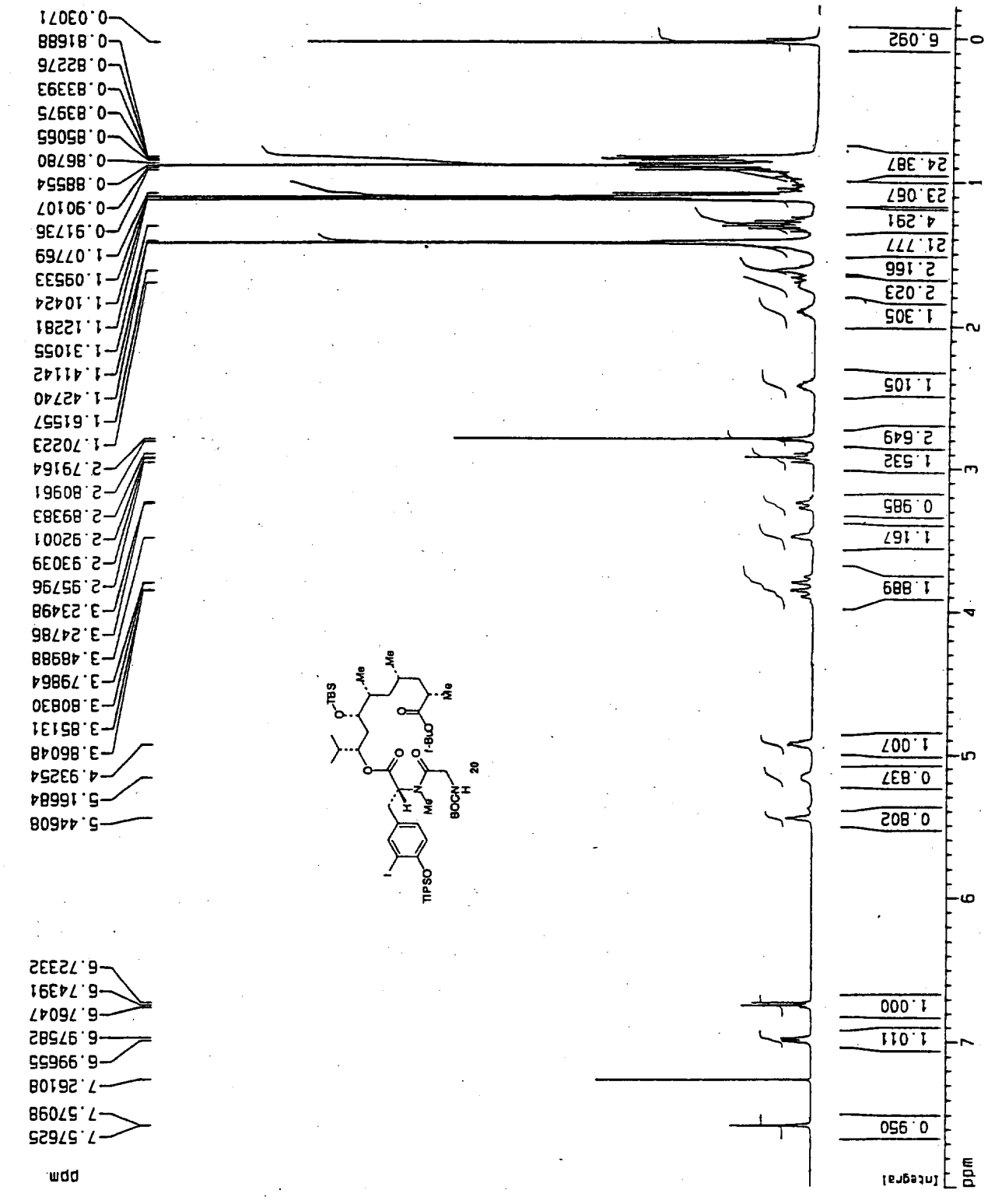
C13 standard parameters, CDCl3

Pulse Sequence: s2pul

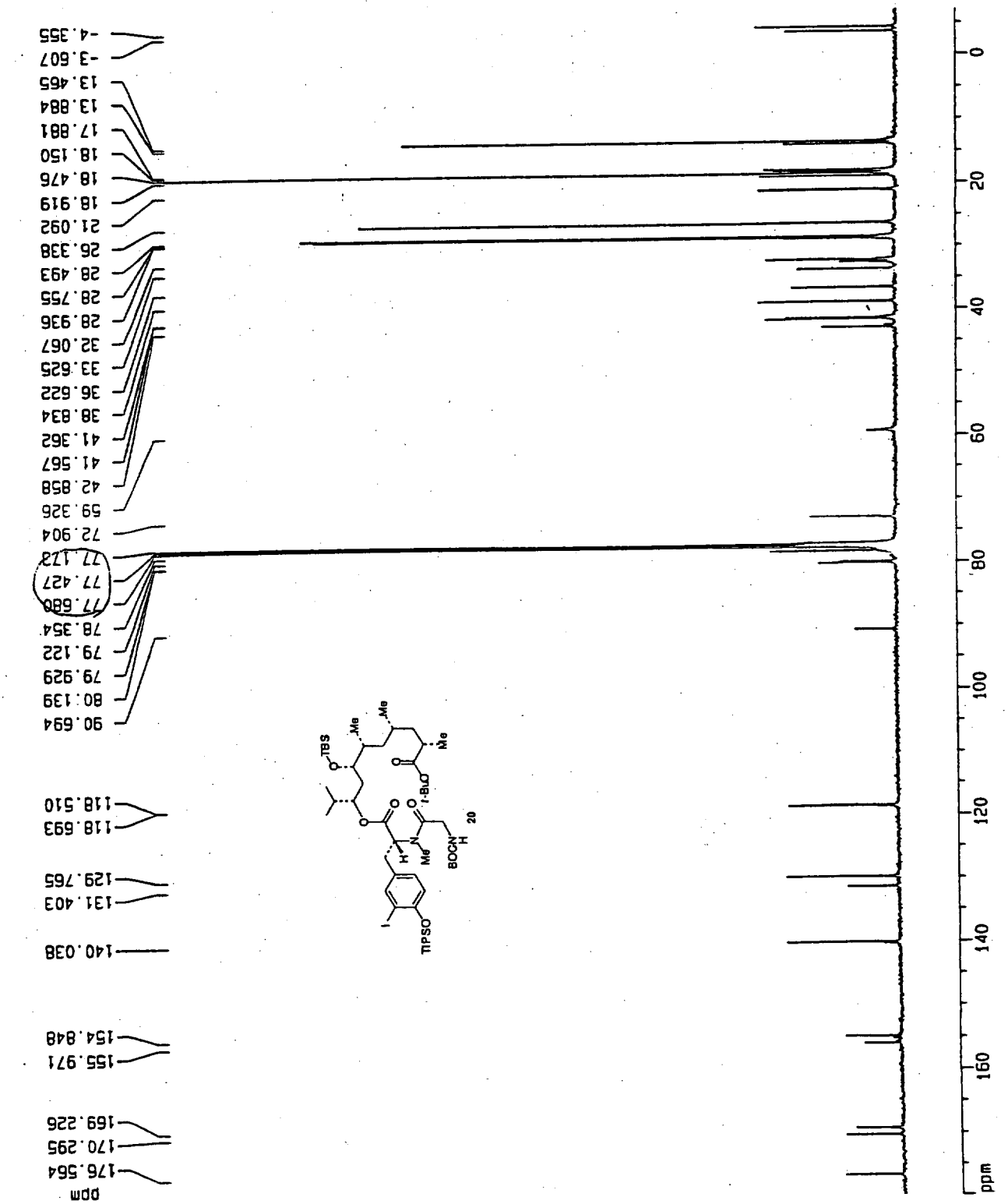
Solvent: CDCl3
Ambient temperature
Mercury-300BB "varian"

PULSE SEQUENCE
Relax. delay 2.000 sec
Pulse 36.7 degrees
Acq. time 0.482 sec
Width 17006.8 Hz
18032 repetitions
OBSERVE C13, 75.4172461 MHz
DECOUPLE H1, 299.9307943 MHz
Power 39 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 4.0 Hz
FT size 18384
Total time 690 hr, 40 sec

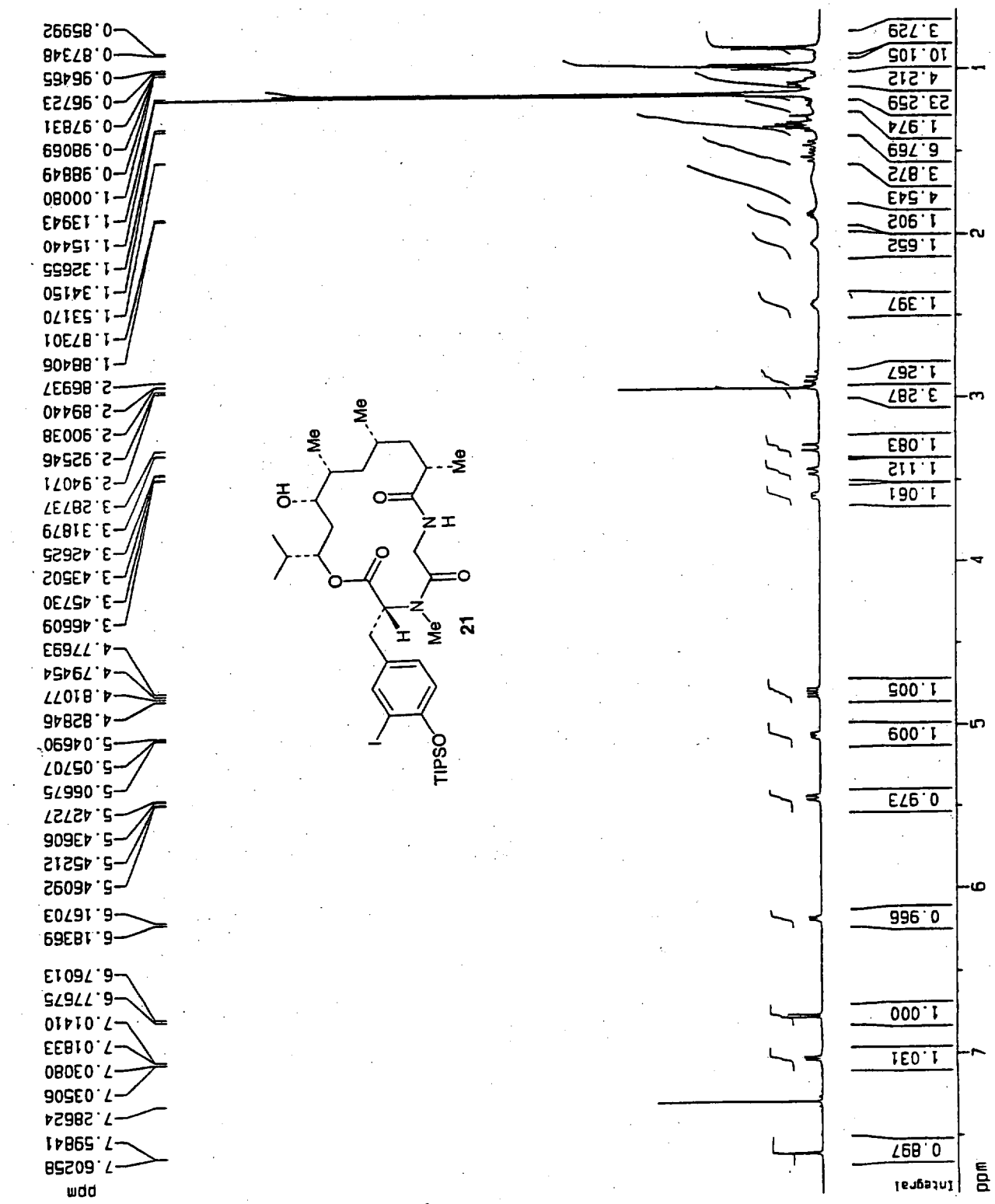
## Compound 20



## Compound 20


Current Data Parameters
NAME cf1-10
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20000917
Time 23.06
INSTRUM spect
PROBHD 5 mm BBO BB-1
PULPROG zgpg
TD 32768
SOLVENT CDCl3
NS 1548
DS 2
SWH 30303.031 Hz
FIDRES 0.924775 Hz
AQ 0.5407220 sec
RG 8192
DW 16.500 usec
DE 6.00 usec
TE 300.0 K
d11 0.03000000 sec
d12 0.00002000 sec
PL13 22.00 dB
D1 2.00000000 sec
CPDPRG2 waltz16
PCPD2 80.00 usec
SFO2 500.1320000 MHz
NUC2 1H
PL2 3.00 dB
PL12 22.00 dB
P1 3.80 usec
SFO1 125.7715724 MHz
NUC1 13C
PL1 3.00 dB
F2 - Processing parameters
SI 32768
SF 125.7577390 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
F1P 180.000 ppm
F1 22636.39 Hz
F2P -7.000 ppm
F2 -880.30 Hz
PPMCM 9.35000 ppm/cm
HZCM 1175.83484 Hz/cm
-4.355
-3.607
13.465
13.884
17.881
18.150
18.476
18.919
21.092
26.338
28.493
28.755
28.936
32.067
33.625
36.622
38.834
41.362
41.567
42.858
59.326
72.904
77.173
77.427
77.680
78.354
79.122
79.929
80.139
90.694
118.510
118.693
129.765
131.403
140.038
154.848
155.971
169.226
170.295
176.564
ppm
TBS
Me
Me
Me
t-BuO
BOCN
H
20
H
N
Me
TIPSO
0
20
40
60
80
100
120
140
160
ppm

## Compound 21


Current Data Parameters
NAME cf1-12
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20000930
Time 12.28
INSTRUM spect
PROBHD 5 mm BBO BB-1
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 118
DS 2
SWH 6009.615 Hz
FIDRES 0.183399 Hz
AQ 2.7263477 sec
RG 256
DW 83.200 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec
P1 5.00 usec
SFO1 500.1327507 MHz
NUC1 1H
PL1 3.00 dB
F2 - Processing parameters
SI 16384
SF 500.1300000 MHz
WDW EM
SSB 0
LB 0.20 Hz
GB 0
PC 1.00
1D NMR plot parameters
CX 20.00 cm
F1P 7.854 ppm
F1 3928.19 Hz
F2P 0.637 ppm
F2 318.56 Hz
PPMCM 0.36087 ppm/cm
HZCM 180.48149 Hz/cm
Me
Me
OH
Me
O
N
H
O
O
N
Me
H
21
TIPSO
ppm
Integral

## Compound 21