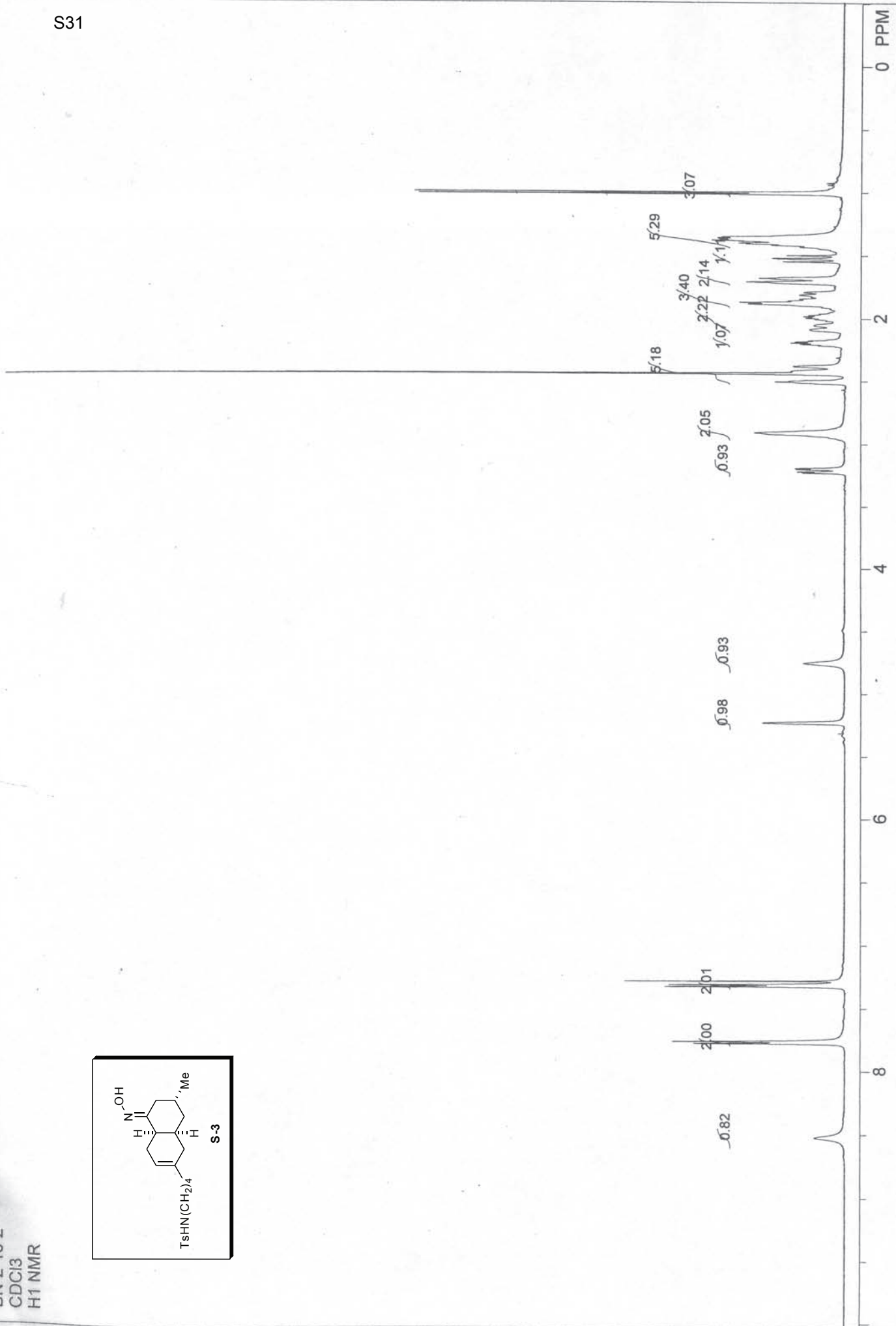
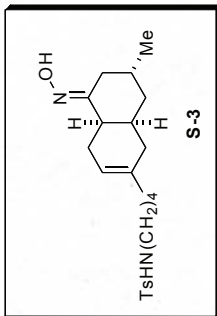


BN-2-15-2  
CDCl3  
H1 NMR



|             |           |               |             |   |
|-------------|-----------|---------------|-------------|---|
| F1: 499.934 | F2: 1.000 | SW1: 8013     | OF1: 3479.2 | USER: guest -- DATE: Fri Apr 28 17:22:38 2006 |
| EX:         |           | PW: 11.5 usec | NA: 8       | PTS1d: 65536                                  |
|             |           | PD: 0.1 sec   | LB: 0.1     | WinNuts - \$BN-3-15-2.1                       |

S32

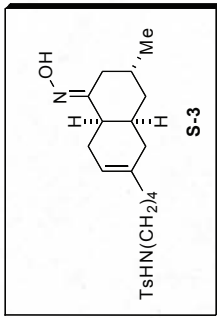
42.908  
39.644  
38.421  
36.948  
34.522  
31.999  
30.068  
28.917  
28.634  
25.801  
23.833  
22.274  
21.730

77.483  
77.000  
76.977

160.153  
143.401  
137.355  
135.377  
129.819  
127.318  
119.151

0 PPM  
50  
100  
150  
200

BN-3-15-2  
CDCI3  
C13 NMR



USER: nmrprd -- DATE: Sat Apr 29 15:11:18 2006

PTSIId: 65536

OF1: 13849.5

SW1: 30303

F2: 1.000

F1: 125.721

WinNuts - \$BN-3-15-2.1

LB: 2.0

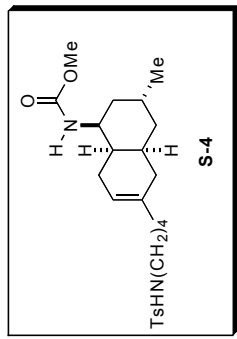
NA: 273

PD: 0.3 sec

PW: 7.0 usec

EX:

0.90695  
0.93231  
0.98966  
1.00366  
1.18185  
1.20762  
1.26314  
1.37791  
1.39610  
1.40095  
1.42013  
1.47338  
1.50796  
1.62635  
1.62666  
1.66087  
1.68878  
1.72962  
1.77750  
1.88458  
1.92316  
1.97305  
1.98705  
2.08144  
2.11552  
2.37445  
2.49970  
2.69482  
3.33697  
3.49390  
3.71088  
5.21801  
6.89281  
7.36673  
7.38222  
7.44865  
7.45844  
7.64742  
7.66305

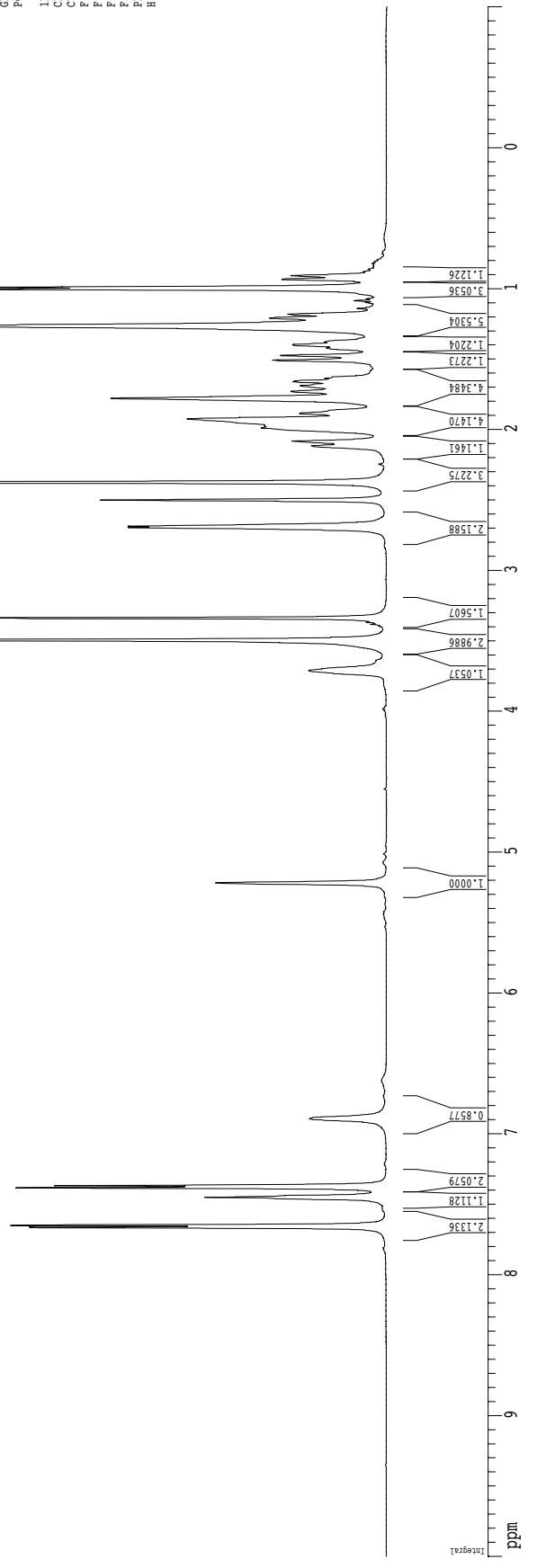


Current Data Parameters  
 USER jgreed  
 NAME xr-2-287-new  
 EXPNO 7  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20080616  
 Time 17:31  
 NS000H cryo300  
 PULPROG zgpg30  
 TD 81728  
 SOLVENT CDCl3  
 NS 8  
 DS 2  
 SWE 8012.820 Hz  
 FIDRES 0.098043 Hz  
 AQ 5.0999398 sec  
 RG 71.8  
 DW 62.400 usec  
 DE 6.00 usec  
 TE 298.1 K  
 MCFRESF 0.1000000 sec  
 MCHNK 0.0150000 sec  
 ===== CHANNEL f1 =====  
 NUC1 1H  
 P1 7.38 usec  
 PL1 1.60 dB  
 SFO1 500.2235015 MHz

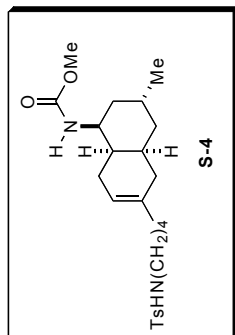
F2 - Processing parameters  
 SI 65536  
 SF 500.220122 MHz  
 WDW EM  
 SS 0.30 Hz  
 GB 0  
 PC 4.00

1D NMR plot parameters  
 CX 22.80 cm  
 CY 15.00 cm  
 FIP 10.000 ppm  
 F1 5002.20 Hz  
 F2 -1.000 ppm  
 FZ -500.22 Hz  
 PRCH 0.48246 ppm/cm  
 HCCH 241.33421 Hz/cm



Integral  
 wdd

<sup>13</sup>C spectrum with <sup>1</sup>H decoupling



Spectrum obtained at 323 °K

```

Current Data Parameters
USER          jgread
NAME         xt-2-287-new
EXPNO        5
PROCNO       1

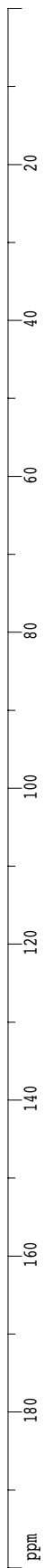
F2 - Acquisition Parameters
Date_        20080616
Time         17.22
INSTRUM      cryo500
PROBHD       5 mm CPCL1 H-
PULPROG      zgpg30
AQ           0.65438
SOLVENT      CDCl3
NS           172
DS           4
SPH          30303.031 Hz
FIDRES       0.463222 Hz
AQ           1.0794635 sec
RG           6502
DW           16.500 usec
DE           6.00 usec
TE           323.0 K
D1           0.25000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCPRK        0.01500000 sec

===== CHANNEL f1 =====
NUC1          13C
P1           14.75 usec
PL1          -1.00 dB
SFO1         125.7942548 MHz

===== CHANNEL f2 =====
CPDPRG2      walz216
NUC2          1H
PCPD2        100.00 usec
PL2          1.60 dB
PL12         24.80 dB
SFO2         500.2225011 MHz

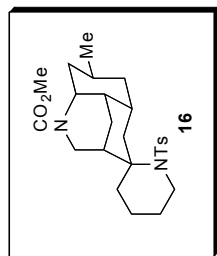
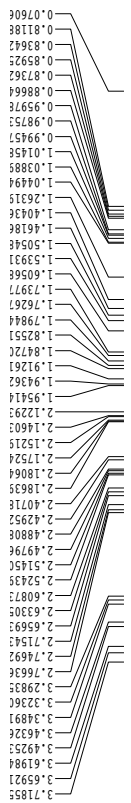
F2 - Processing parameters
SI           65536
SF           125.7805022 MHz
WDW          EM
SSB          0
LB           1.00 Hz
GB           0
PC           2.00

ID NMR plot parameters
CX           22.80 cm
CY           15.65 cm
F1P          200.000 ppm
F2P          25156.10 Hz
F2P          0.000 ppm
F2           0.00 Hz
PFMCH        8.77193 ppm/cm
HZCN         1103.33777 Hz/cm
    
```



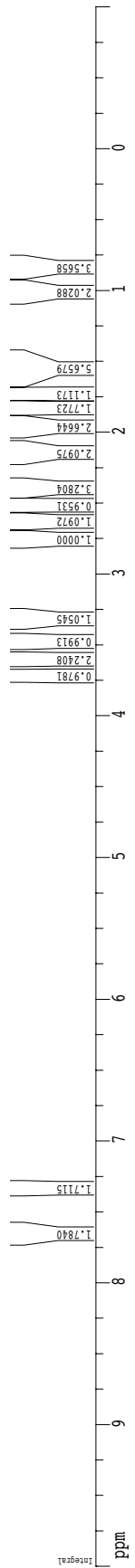
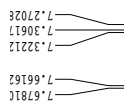


XR-1-171-2D  
proton  
1H spectrum

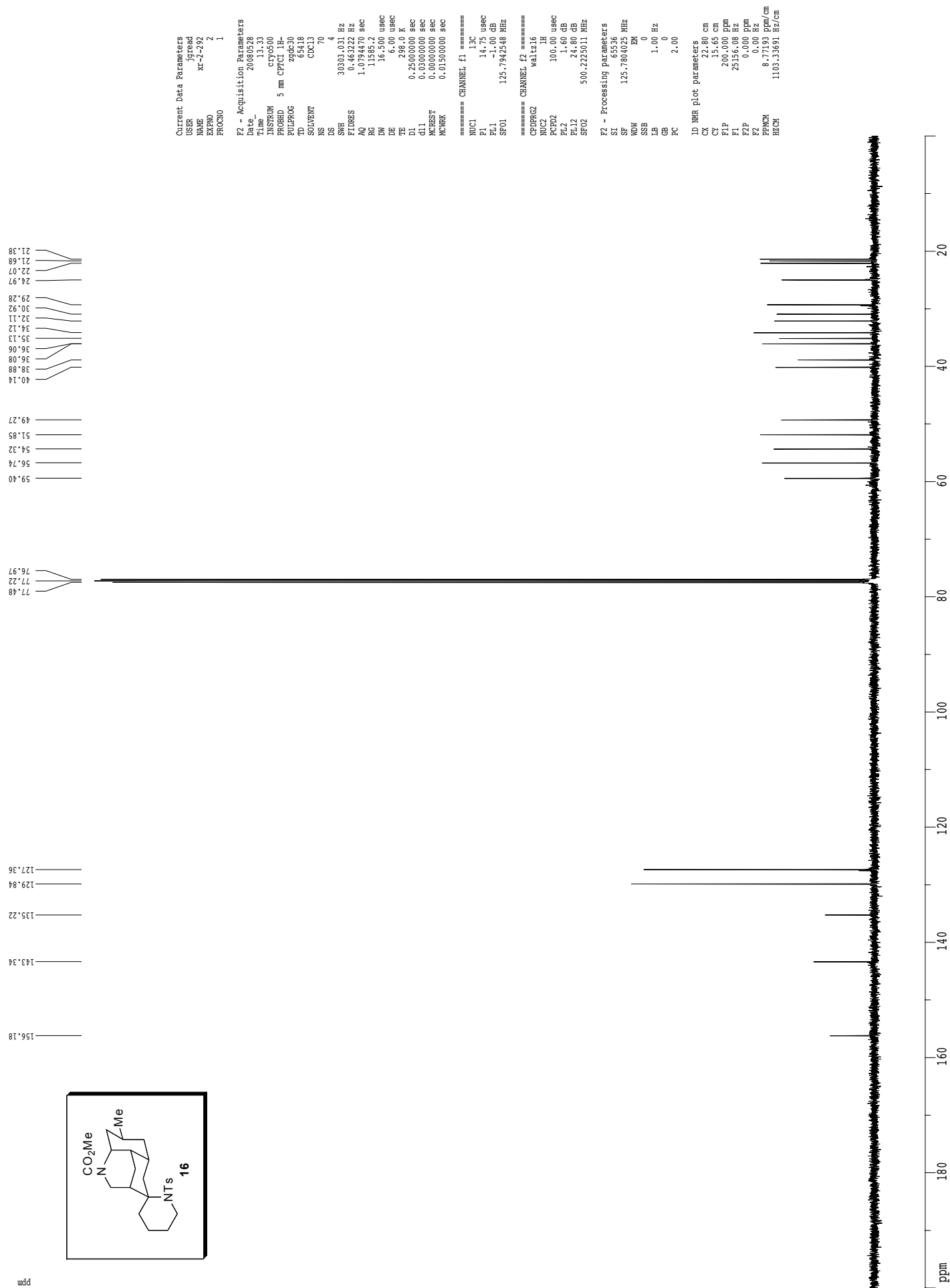


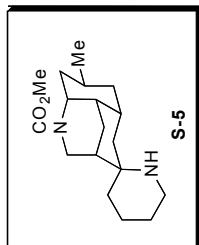
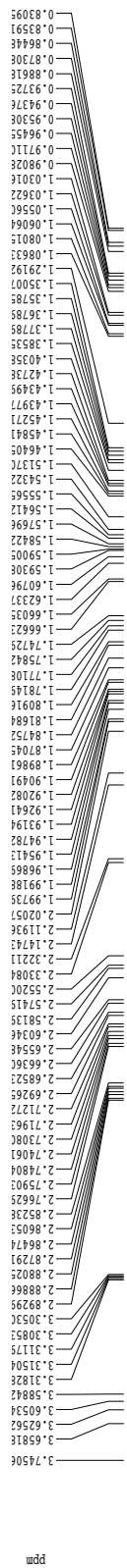
```

Current Data Parameters
USER          jread
NAME          XR-1-171-2D
EXPNO         1
PROCNO        1
F2 - Acquisition Parameters
Date_         20061119
Time          15.06
INSTRUM       crys500
PROBHD        5 mm CPCTCI IH-
PULPROG       zg30
TD            81728
SOLVENT       CDCl3
NS            8
DS            2
SWH           8012.820 Hz
FIDRES       0.098043 Hz
AQ           5.0998774 sec
RG           63
DR           62.00 usec
DE           288.0 K
TE           0.10000000 sec
D1           0.00000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec
===== CHANNEL f1 =====
NUC1          1H
P1           8.00 usec
PL1          1.60 dB
SFO1         500.2235015 MHz
F2 - Processing parameters
SI           32768
SF           500.220263 MHz
WDW          EM
SSB          0
LB           0.30 Hz
GB           0
PC           4.00
1D NMR plot parameters
CX          22.80 cm
CY          15.00 cm
F1          10.000 ppm
F2          500.220 Hz
F3          -500.32 ppm
PRCMO      0.48246 ppm/cm
HZCM       241.33423 Hz/cm
    
```



## 13C spectrum with 1H decoupling





Free Base

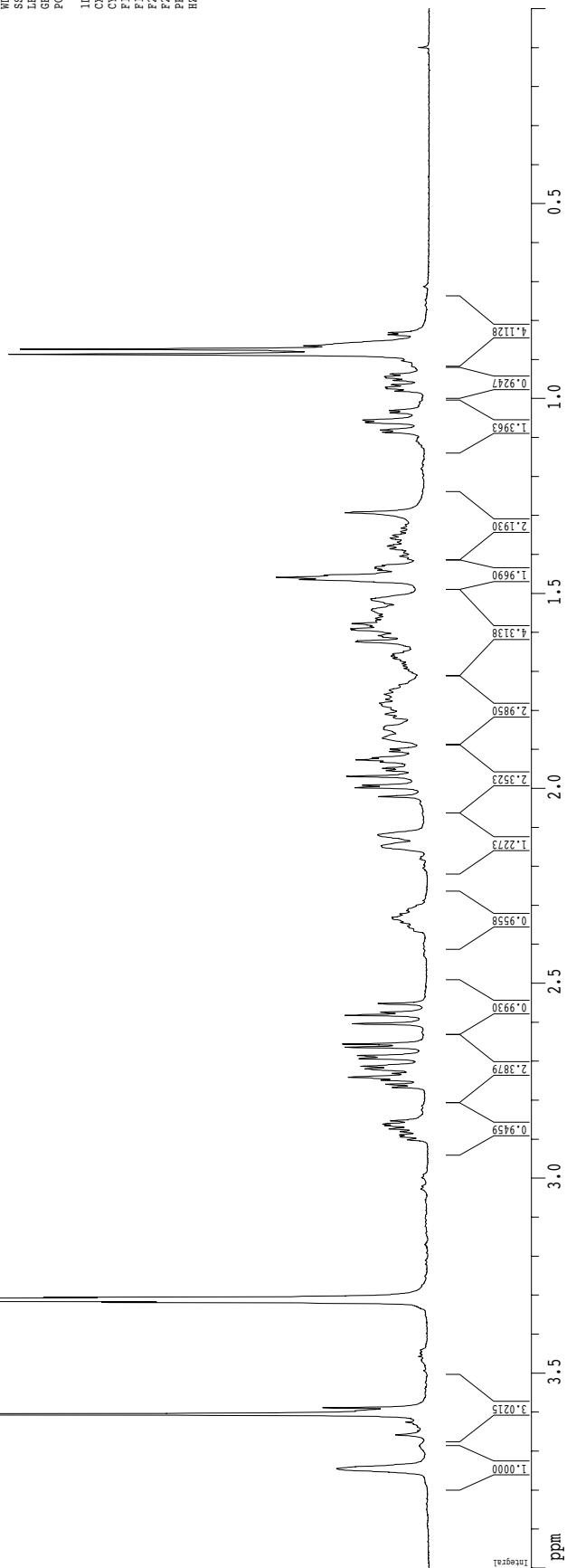
Current Data Parameters  
USER jgread  
NAME XT-2-293-MeOD-1  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20080604  
Time 8:03  
MSNO 93360  
PROCNO 1  
PULPROG 5 mm broadcast  
P1 4320  
TD 81728  
SOLVENT CDCl<sub>3</sub>  
NS 8  
DS 2  
SWH 8012.820 Hz  
FIDRES 0.098043 Hz  
AQ 5.0998774 sec  
RG 181  
DW 62.400 usec  
DE 6.00 usec  
TE 298.0 K  
MCREST 0.1000000 sec  
MCNPK 0.01500000 sec

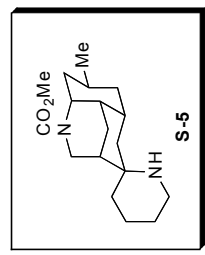
==== CHANNEL f1 =====  
NUC1 1H  
P1 12.00 usec  
PL1 -3.00 dB  
SFO1 499.8284988 MHz

F2 - Processing parameters  
SI 65536  
SF 499.8250175 MHz  
WDW EM  
SS 0  
GB 0  
PC 4.00

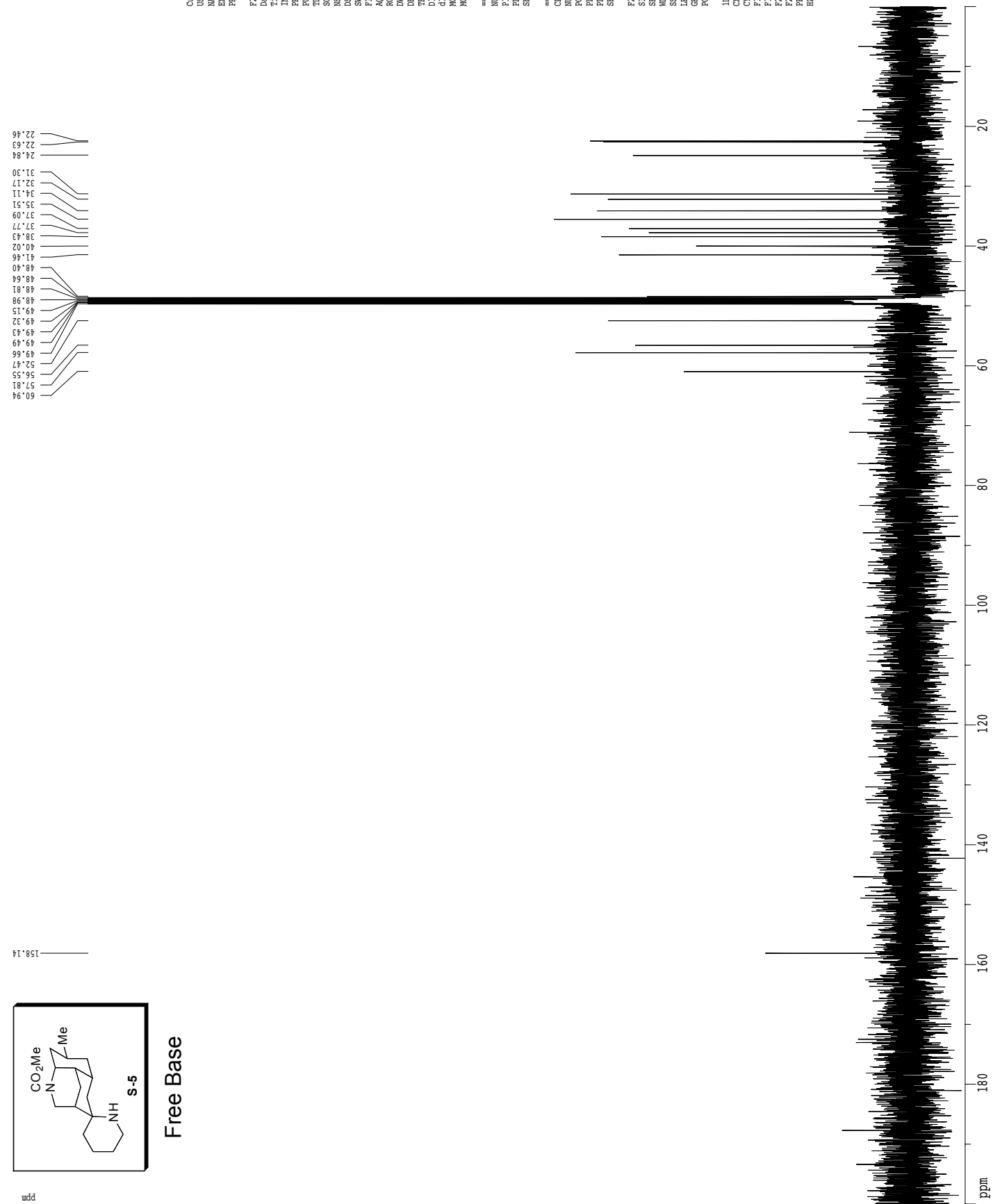
1D NMR plot parameters  
CX 22.80 cm  
CY 15.00 cm  
FIP 4.000 ppm  
F1 1999.30 Hz  
F2 0.000 ppm  
FZ 0.00 Hz  
PRCH 0.17544 ppm/cm  
HZCX 87.68660 Hz/cm



<sup>13</sup>C spectrum with <sup>1</sup>H decoupling



Free Base



```

Current Data Parameters
USER          jgread
NAME         XT-2-293-MeOD-2
EXPNO        1
PROCNO       1

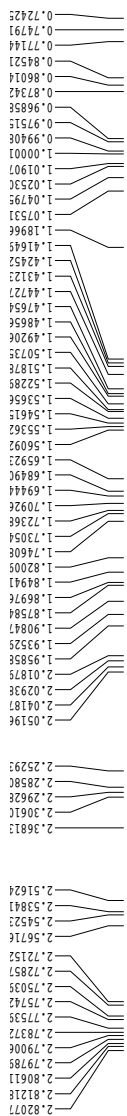
F2 - Acquisition Parameters
Date_        20080604
Time         8.30
INSTRUM     cryo500
PROBHD      5 mm CPCL1 H-
PULPROG     zgpg30
RG          654.0
SOLVENT     CDCl3
NS          634
DS          4
SWH         30303.031 Hz
FIDRES     0.463222 Hz
AQ         1.0794470 sec
RG         11585.2
DW         16.500 usec
DE         6.00 usec
TE         298.0 K
D1         1.0000000 sec
d11        0.0300000 sec
MCREST     0.0000000 sec
MCPRK      0.0150000 sec

===== CHANNEL f1 =====
NUC1        13C
P1         14.75 usec
PL1         -0.00 dB
SFO1       125.7942548 MHz

===== CHANNEL f2 =====
CPDPRG2    walz16
NUC2        1H
PCPD2     100.00 usec
PL2        1.60 dB
PL12      24.80 dB
SFO2       500.2225011 MHz

F2 - Processing parameters
SI         65536
SF         125.7802260 MHz
WDW        EM
SSB        0
LB         1.00 Hz
GB         0
PC         2.00

ID NMR plot parameters
CX         22.80 cm
CY         256.20 cm
F1P        200.000 ppm
F2P        25156.04 Hz
F2P        0.000 ppm
F2         0.00 Hz
PPMCH      8.77193 ppm/cm
HZCM       1103.33533 Hz/cm
    
```



Free Base

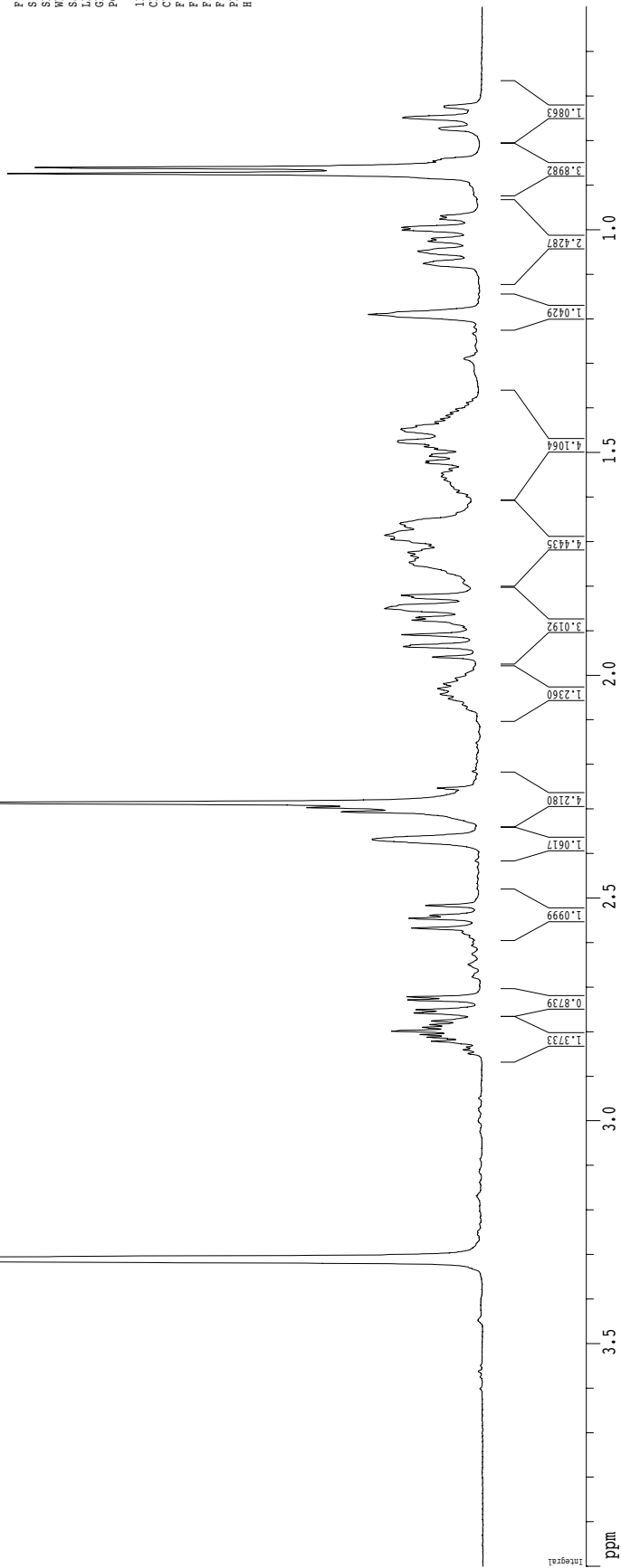
Current Data Parameters  
 USER jgread  
 NAME xi-2-294-1e60D  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20080605  
 Time 16.34  
 NS000H cryo300  
 PULPROG 5 mm CFPCL12  
 FIDRES 81728  
 TD 81728  
 SOLVENT CD3ODT  
 NS 8  
 DS 2  
 SWH 8012.820 Hz  
 FIDRES 0.098043 Hz  
 AQ 5.0998774 sec  
 RG 20.2  
 DW 62.400 usec  
 DE 6.00 usec  
 TE 298.0 K  
 MCREST 0.10000000 sec  
 MCHNK 0.01500000 sec

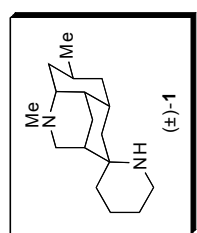
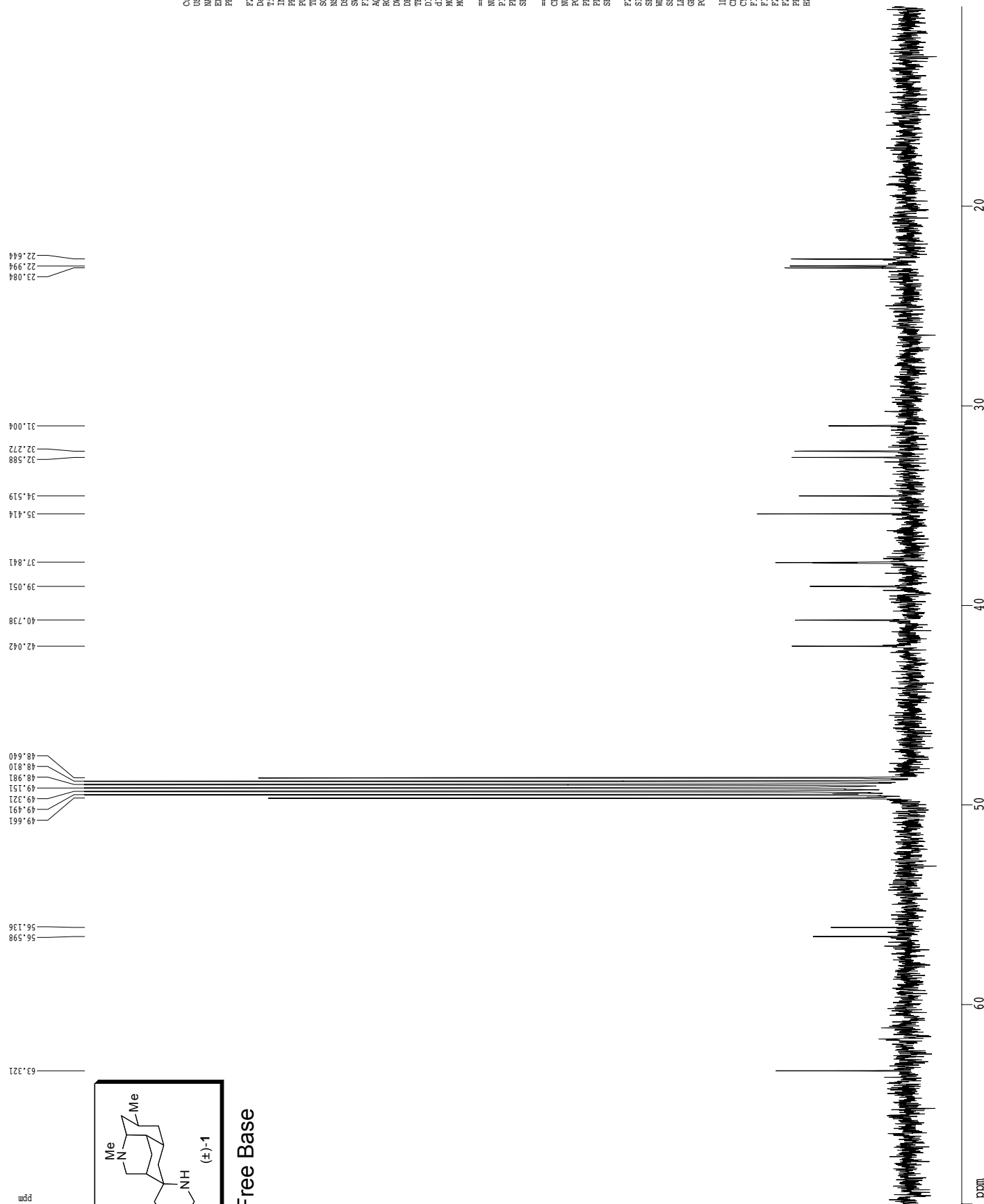
==== CHANNEL f1 =====  
 NUCL 1H  
 P1 7.38 usec  
 PL1 1.60 dB  
 SFO1 500.2235015 MHz

F2 - Processing parameters  
 SI 65536  
 SF 500.2230188 MHz  
 WDW EM  
 SS 0.30 Hz  
 GB 0  
 PC 4.00

1D NMR plot parameters  
 CX 22.80 cm  
 CY 15.00 cm  
 FIP 4.000 ppm  
 F1 2000.88 Hz  
 F2P 0.500 ppm  
 F2 250.11 Hz  
 PRCH 0.15351 ppm/cm  
 HZCX 76.78616 Hz/cm



<sup>13</sup>C spectrum with <sup>1</sup>H decoupling



Current Data Parameters  
 USER jread  
 NAME xr-2-294-MeOD  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20080605  
 Time 16.38  
 INSTRUM cryo500  
 PROBD 5 mm CPCL1H-  
 PULPROG zgpg30  
 SOLVENT CDCl3  
 NS 212  
 DS 4  
 SWH 30303.031 Hz  
 FIDRES 0.463222 Hz  
 AQ 1.0794470 sec  
 RG 7298.2  
 DW 16.500 usec  
 DE 6.00 usec  
 TE 298.0 K  
 D1 0.25000000 sec  
 d11 0.03000000 sec  
 MCREST 0.00000000 sec  
 MCRBK 0.01500000 sec

==== CHANNEL f1 =====  
 NUC1 <sup>13</sup>C  
 P1 14.75 usec  
 PL1 -0.00 dB  
 SFO1 125.7942548 MHz

==== CHANNEL f2 =====  
 CPDPRG2 waltz16  
 NUC2 <sup>1</sup>H  
 PCPD2 100.00 usec  
 PL2 1.60 dB  
 PL12 24.80 dB  
 SFO2 500.2225011 MHz

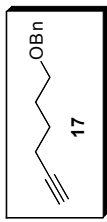
F2 - Processing parameters  
 SI 65536  
 SF 125.7802251 MHz  
 WDW EM  
 EN 0  
 LB 1.00 Hz  
 GB 0  
 PC 2.00

ID NMR plot parameters  
 CX 22.80 cm  
 CY 86.86 cm  
 F1P 70.000 ppm  
 F1 8804.62 Hz  
 F2P 10.000 ppm  
 F2 1257.80 Hz  
 PPMCH 2.63158 ppm/cm  
 HZCH 331.00061 Hz/cm

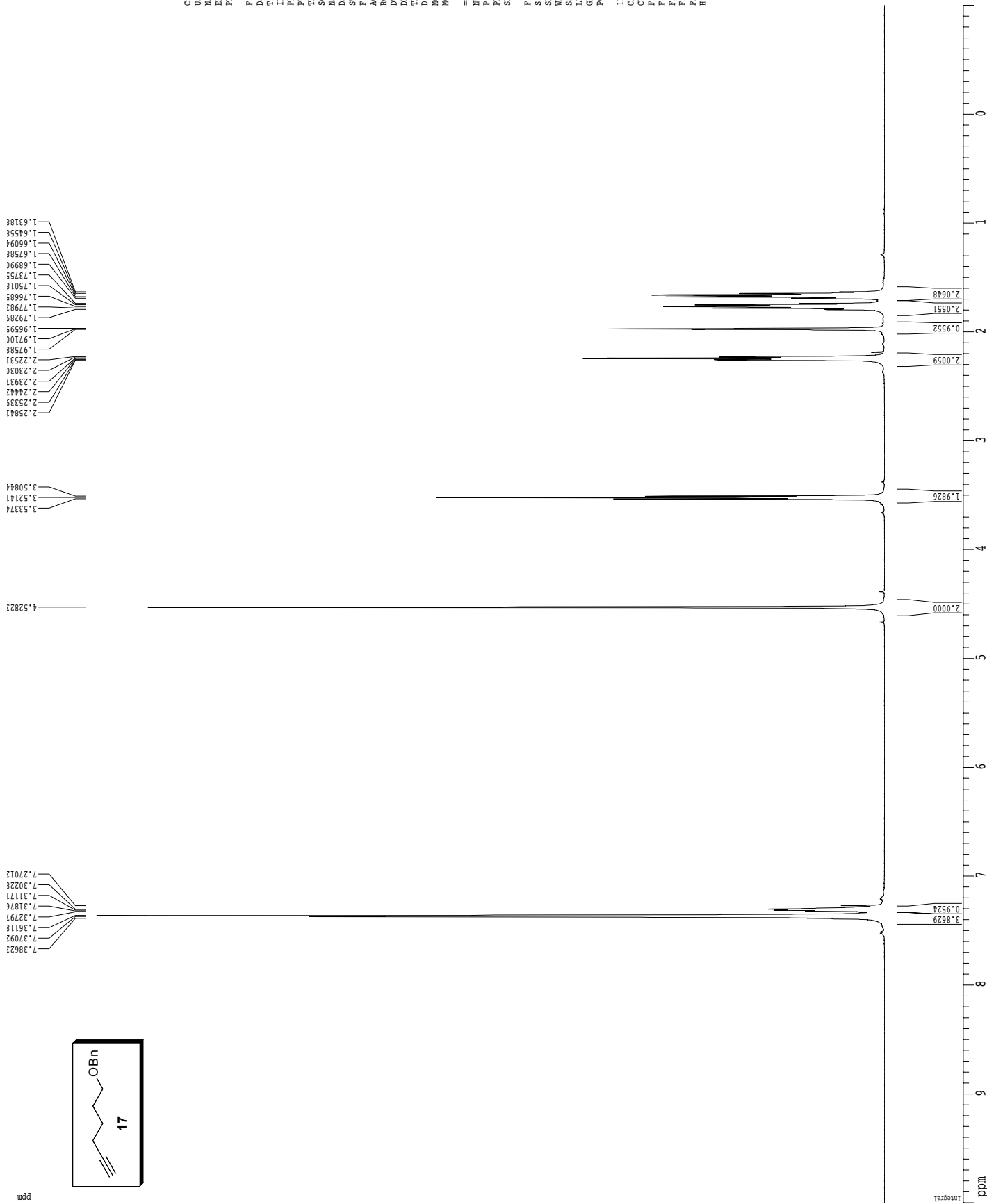
1.63186  
1.64556  
1.66094  
1.67588  
1.68996  
1.70355  
1.71501  
1.76882  
1.77983  
1.79285  
1.96594  
1.97100  
1.97586  
2.22531  
2.23030  
2.23937  
2.24442  
2.25335  
2.25841

3.53374  
3.52141  
3.50844

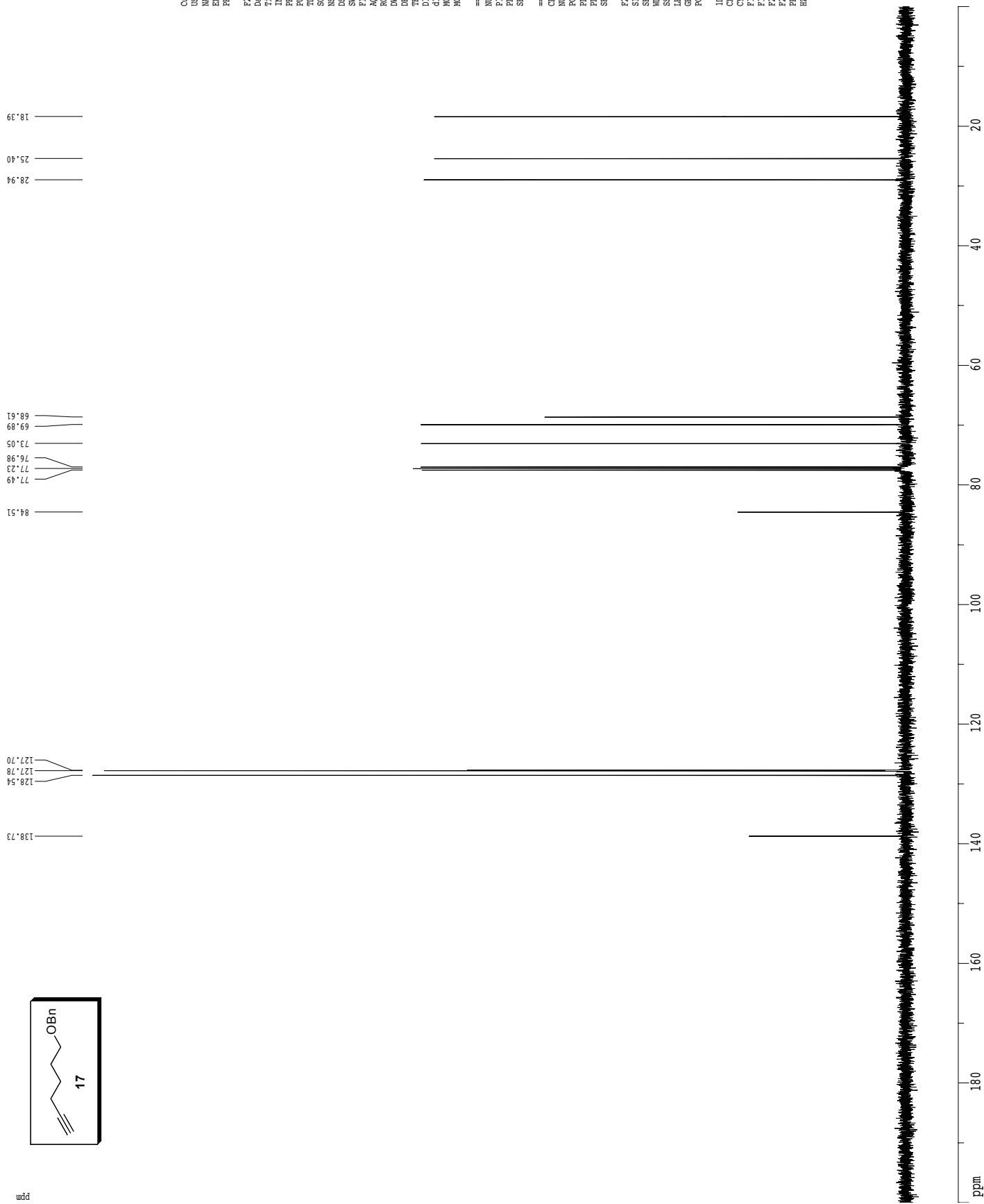
7.38623  
7.37092  
7.36116  
7.32791  
7.31876  
7.31171  
7.30226  
7.27012



Current Data Parameters  
 USER jgread  
 NAME XR-2-188  
 EXPNO 1  
 PROCNO 1  
 F2 - Acquisition Parameters  
 Date\_ 20080112  
 Time 14.16  
 INSTRUM crys500  
 PROBRD 5 mm CPXI 1H-  
 PULPROG zg30  
 TD 81728  
 SOLVENT CDCl3  
 NS 1  
 DS 2  
 SWH 8012.820 Hz  
 FIDRES 0.098043 Hz  
 AQ 5.0958774 sec  
 RG 4  
 DW 62.40 usec  
 DE 6.00 usec  
 TE 288.0 K  
 D1 0.10000000 sec  
 MCREST 0.00000000 sec  
 MCPRK 0.01500000 sec  
 ===== CHANNEL f1 =====  
 NUC1 1H  
 P1 8.00 usec  
 PL1 1.60 dB  
 SFO1 500.2235015 MHz  
 F2 - Processing parameters  
 SI 65536  
 SF 500.220256 MHz  
 EQ 1  
 MVM EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 4.00  
 1D NMR plot parameters  
 CX 22.80 cm  
 CY 15.00 cm  
 FIP 10.000 ppm  
 F1 500.220 Hz  
 F2 -500.32 ppm  
 FREQ 0.48246 MHz/cm  
 HZCM 241.33423 Hz/cm



13C spectrum with 1H decoupling



```

Current Data Parameters
USER          jgread
NAME          XI-2-188-C
EXPNO         1
PROCNO        1

F2 - Acquisition Parameters
Date_         20080112
Time          14.22
INSTRUM       cryo500
PROBHD        5 mm CPCLH-
PULPROG       zgpg30
RG            654.8
SOLVENT       CDCl3
NS            31
DS            4
SWH           30303.031 Hz
FIDRES        0.463222 Hz
AQ            1.0794470 sec
RG            13004
DW            16.500 usec
DE            6.00 usec
TE            298.0 K
D1            0.25000000 sec
d11           0.03000000 sec
MCREST        0.00000000 sec
MCPRK         0.01500000 sec

===== CHANNEL f1 =====
NUC1          13C
P1            15.00 usec
PL1           -1.00 dB
SFO1          125.7942548 MHz

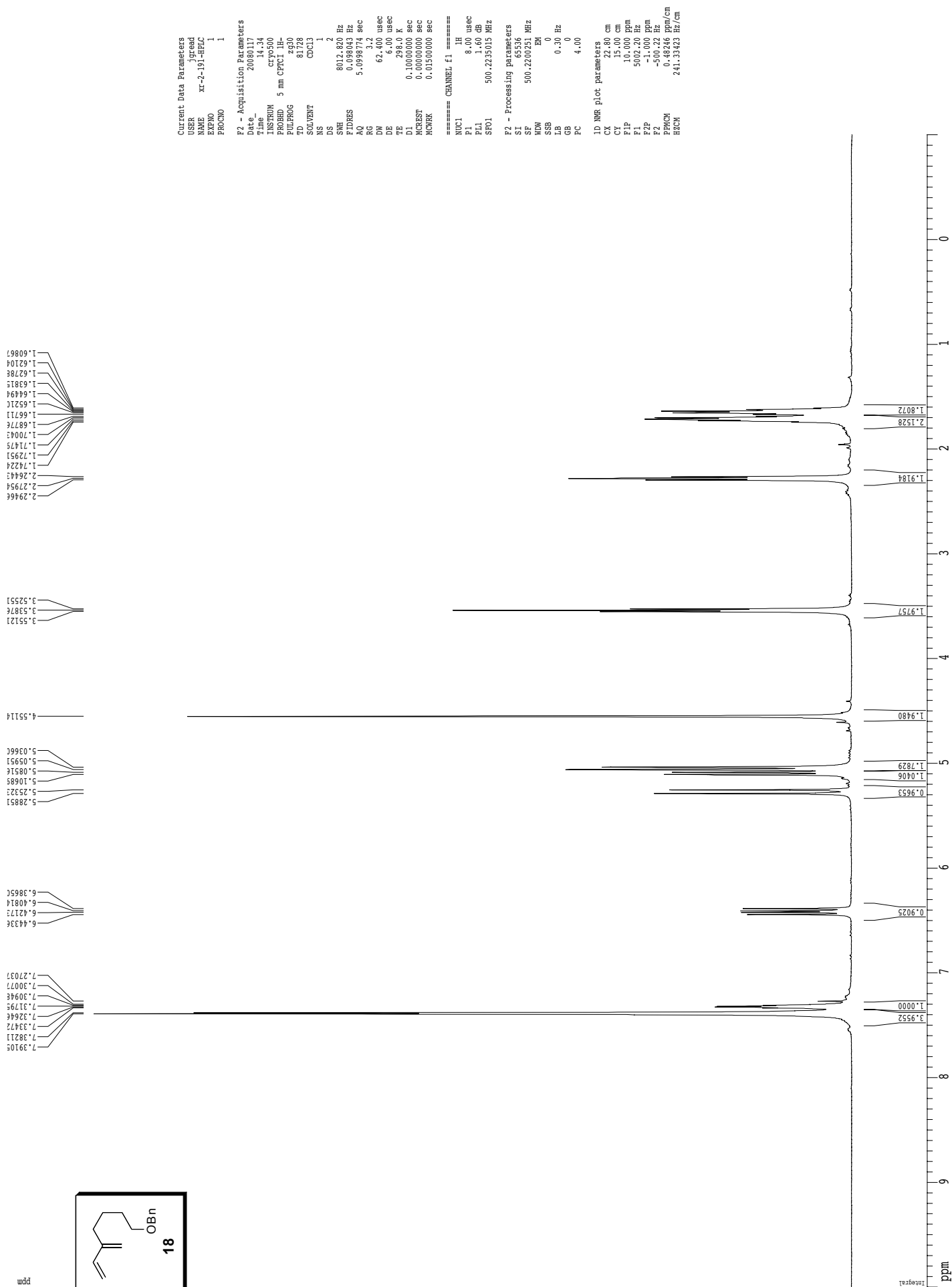
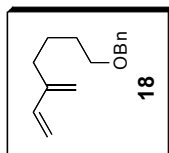
===== CHANNEL f2 =====
CPDPRG2       walz16
NUC2          1H
PCPD2         100.00 usec
PL2           1.60 dB
PL12          23.54 dB
SFO2          500.2225011 MHz

F2 - Processing parameters
SI            65536
SF            125.7804066 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            2.00

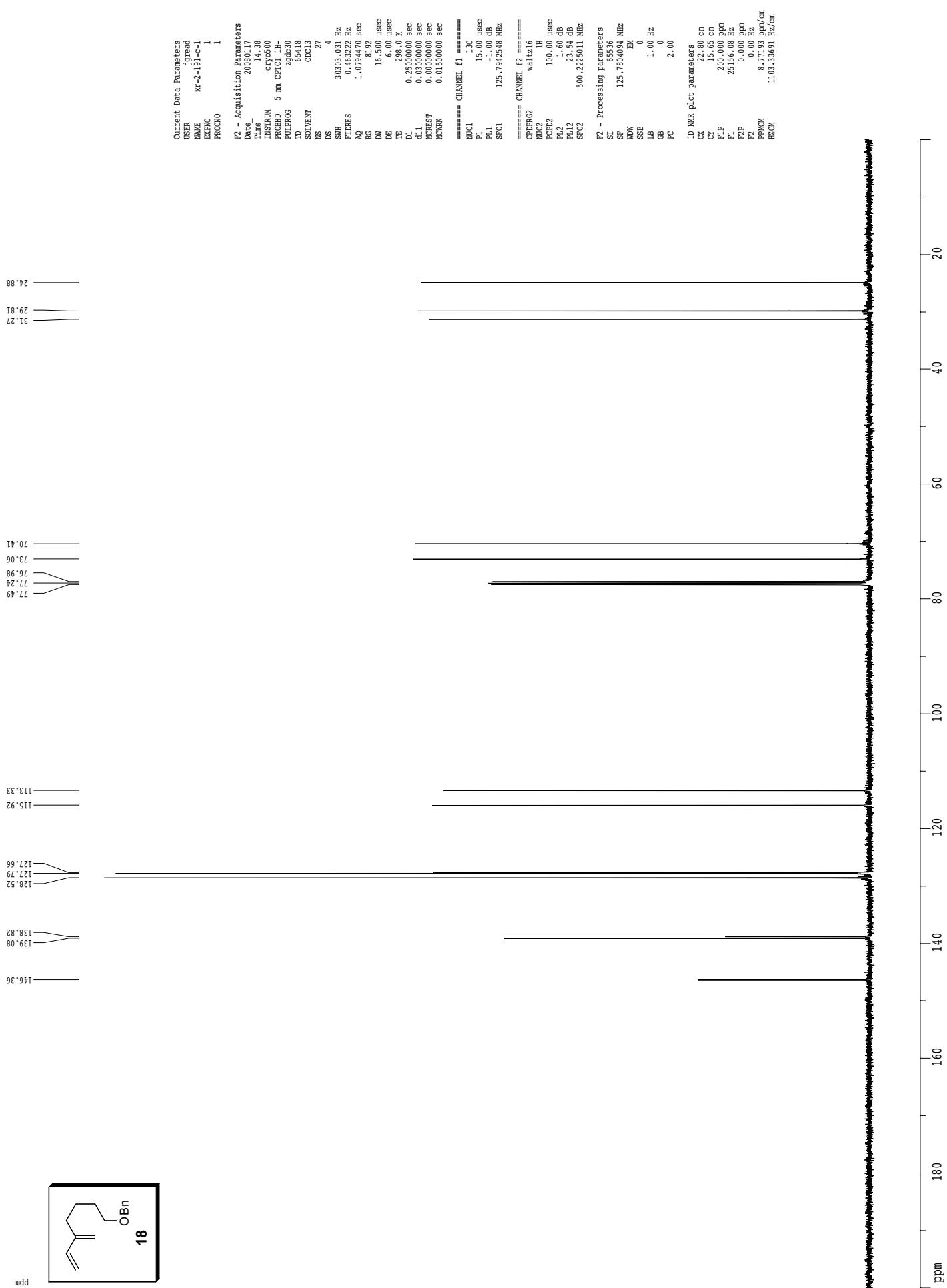
ID NMR plot parameters
CX            22.80 cm
CY            15.65 cm
F1P           200.000 ppm
F1            25156.08 Hz
F2P           0.000 ppm
F2            0.00 Hz
PFMCH         8.77193 ppm/cm
HZCM          1103.33691 Hz/cm
    
```



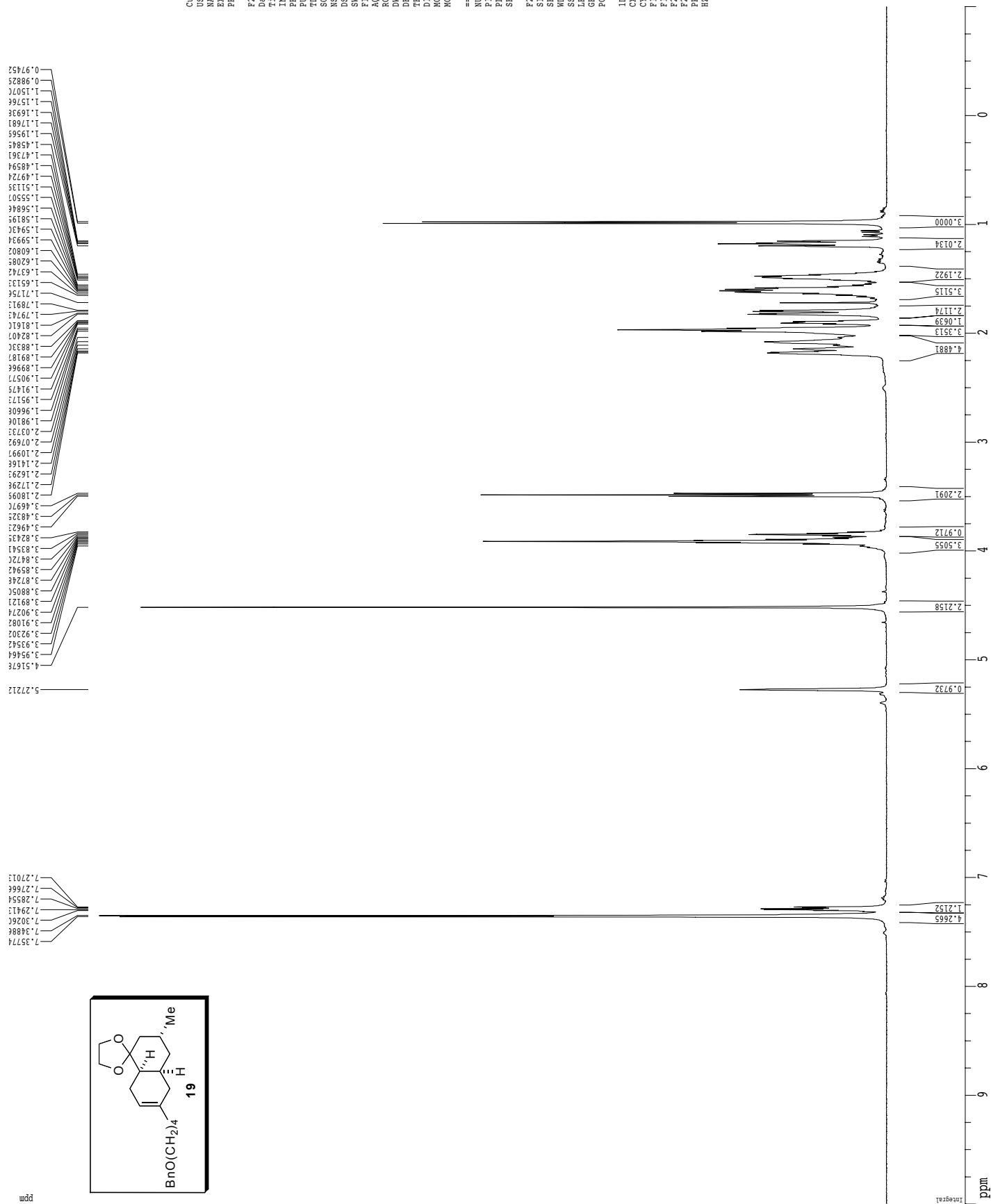
<sup>1</sup>H spectrum



<sup>13</sup>C spectrum with <sup>1</sup>H decoupling



<sup>1</sup>H spectrum



Current Data Parameters  
 USER jgread  
 NAME XI-2-193-HPLC  
 EXPNO 1  
 PROCNO 1

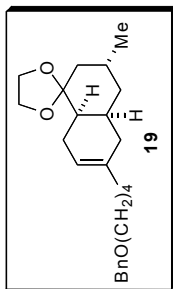
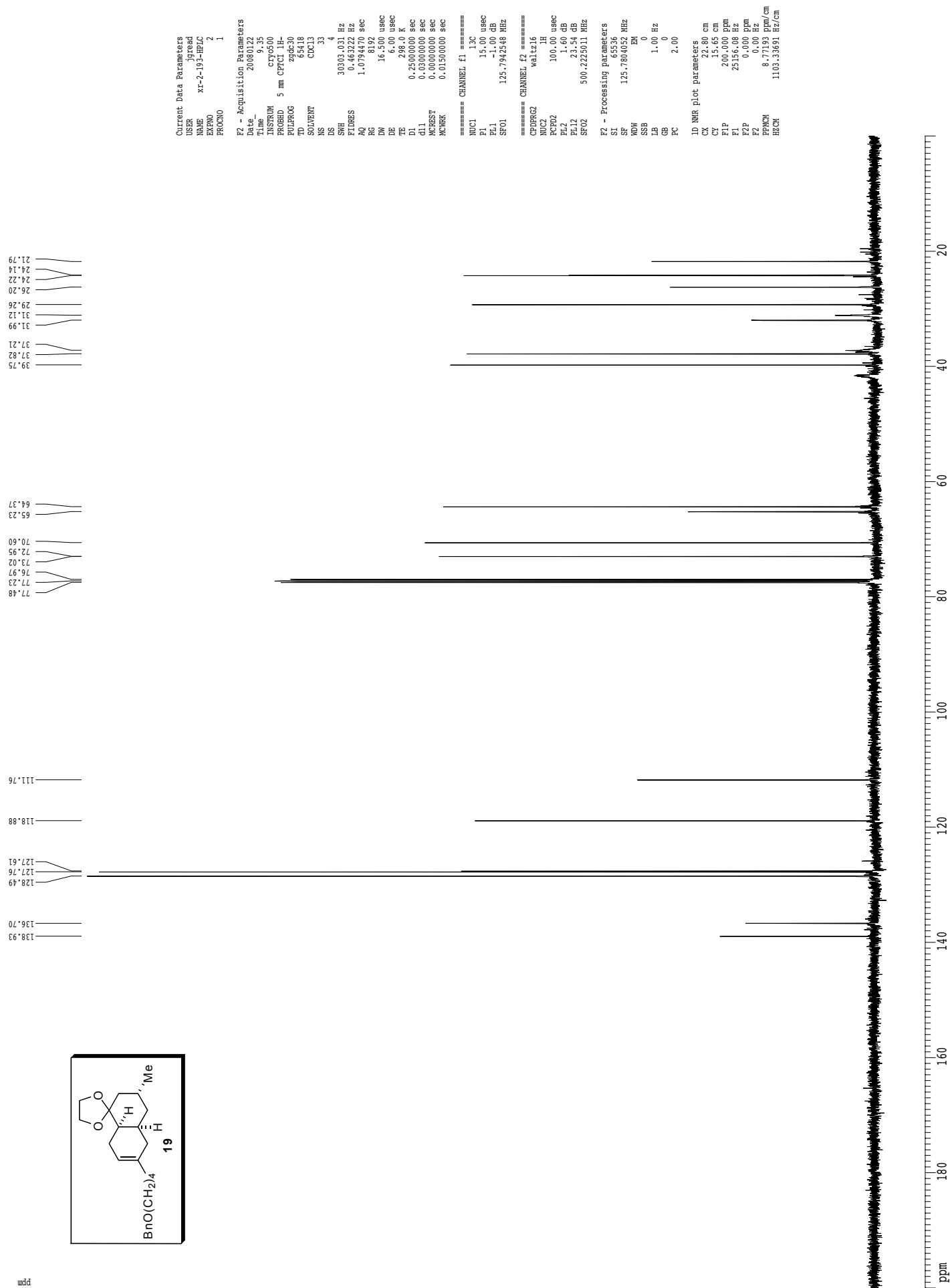
F2 - Acquisition Parameters  
 Date\_ 20160122  
 Time 13:03:03  
 INSTRUM crysco  
 PROBRD 5 mm CPCT 1H-  
 PULPROG zg30  
 TD 81728  
 SOLVENT CDCl3  
 NS 1  
 DS 2  
 SHW 8012.820 Hz  
 FIDRES 0.098043 Hz  
 AQ 5.0998774 sec  
 RG 3.6  
 DW 62.400 usec  
 DE 6.00 usec  
 TE 300.2 K  
 D1 0.10000000 sec  
 MCREST 0.00000000 sec  
 MCWBK 0.01500000 sec

==== CHANNEL f1 =====  
 NUC1 1H  
 P1 8.00 usec  
 PL1 1.60 dB  
 SFO1 500.2235015 MHz

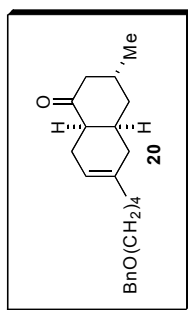
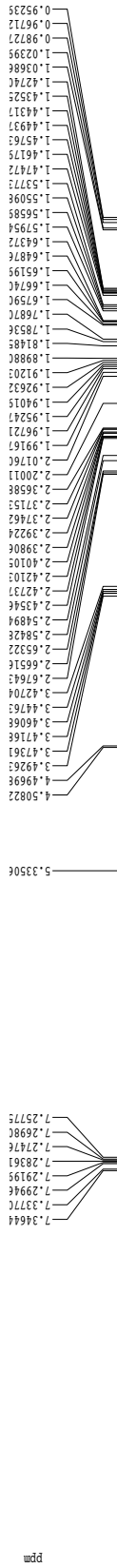
F2 - Processing parameters  
 SI 65536  
 SF 500.2235015 MHz  
 EQ 0  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 4.00

1D NMR plot parameters  
 CX 22.80 cm  
 CY 15.00 cm  
 FIP 10.000 ppm  
 F1 5002.20 Hz  
 F2 -1.000 ppm  
 F3 0.000 ppm  
 FWHM 0.4881 ppm/cm  
 HECM 241.3423 Hz/cm

## 13C spectrum with 1H decoupling



XR-2-200  
75 mg  
1H spectrum



```

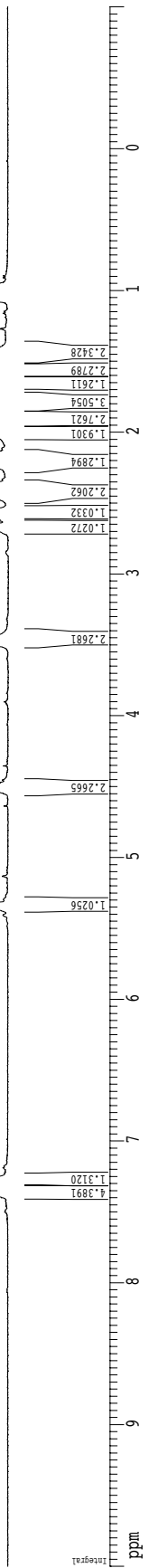
Current Data Parameters
USER      jgread
NAME      XR-2-200
EXPNO     1
PROCNO    1

F2 - Acquisition Parameters
Date_     20080123
Time      15.53
INSTRUM   gm500
PROBHD    5 mm broadband
PULPROG   zg30
TD         81728
SOLVENT   CDCl3
NS         1
DS         2
SWH        8012.820 Hz
FIDRES     0.098043 Hz
AQ          5.0998774 sec
RG          45.3
DR          627.00 usec
TE          298.0 K
D1          0.10000000 sec
MCREST     0.00000000 sec
MCWRK      0.01500000 sec

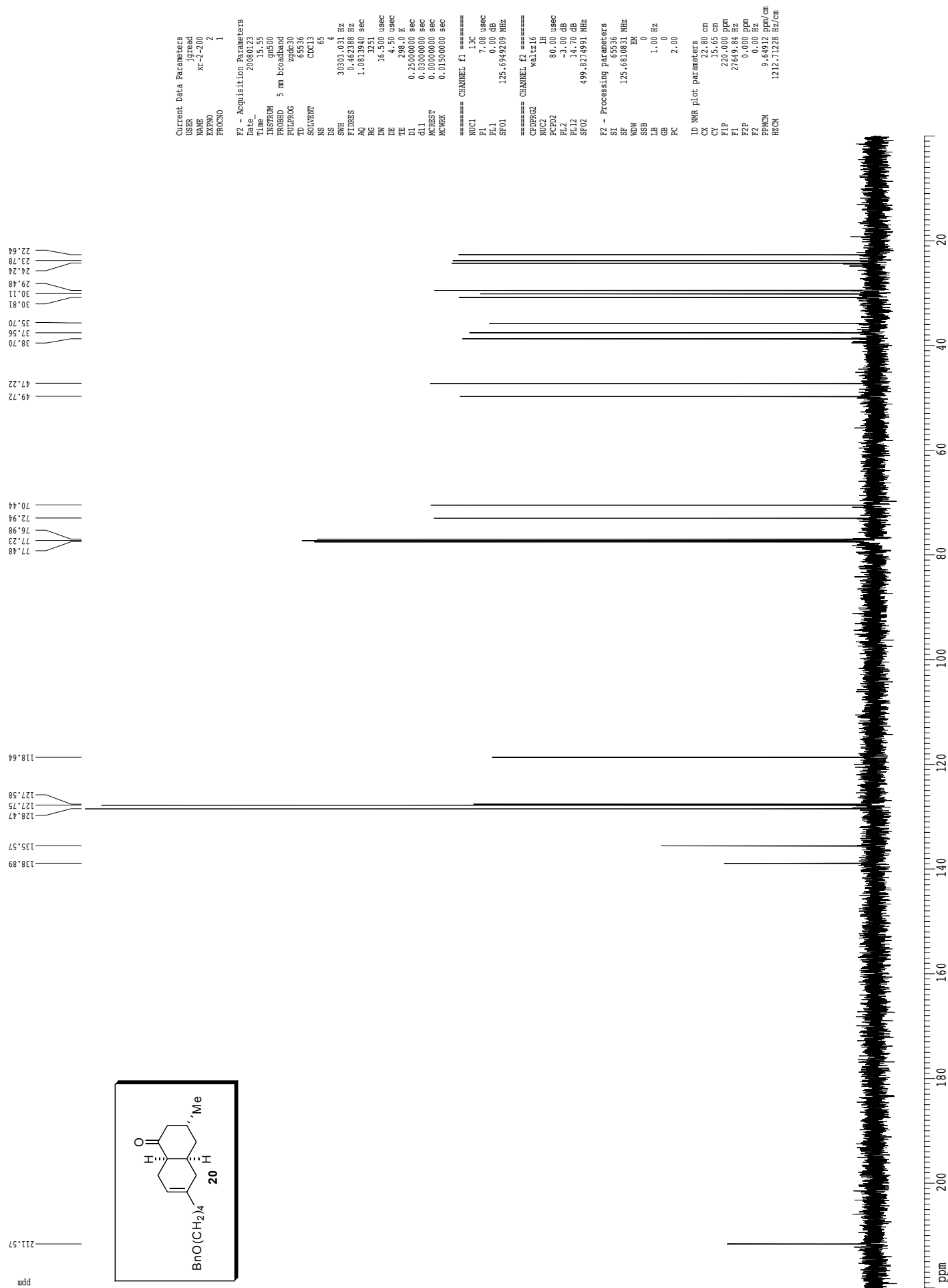
===== CHANNEL f1 =====
NUC1       1H
P1         12.00 usec
PL1        -3.00 dB
SFO1       499.8284988 MHz

F2 - Processing parameters
SI         65536
SF         499.825252 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         4.00

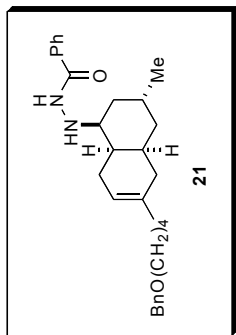
1D NMR plot parameters
CX         22.80 cm
CY         15.00 cm
F1         10.000 ppm
F2         499.623 Hz
F3         15.000 ppm
F4         -499.633 ppm
PRCM      0.48246 ppm/cm
HZCM      241.14366 Hz/cm
    
```



<sup>13</sup>C spectrum with <sup>1</sup>H decoupling



<sup>1</sup>H spectrum



Spectrum obtained at 323 °K

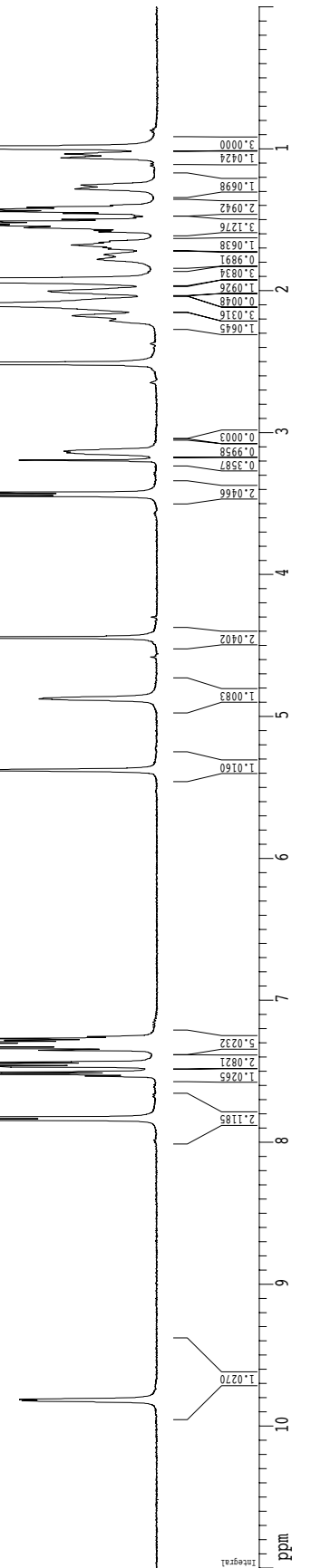
Current Data Parameters  
 USER jgreed  
 NAME XT-2-262-dmsc-h  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20030604  
 Time 14:00  
 INSTRUM spect  
 PROBRD 5 mm broadband  
 PULPROG zg30  
 TD 81728  
 SOLVENT CDCl3T  
 NS 8  
 DS 2  
 SWH 8012.820 Hz  
 FIDRES 0.098043 Hz  
 AQ 5.099338 sec  
 RG 574.7  
 DW 62.400 usec  
 DE 6.00 usec  
 TE 300.2 K  
 D1 0.1000000 sec  
 MCREST 0.0000000 sec  
 MCWBK 0.0150000 sec

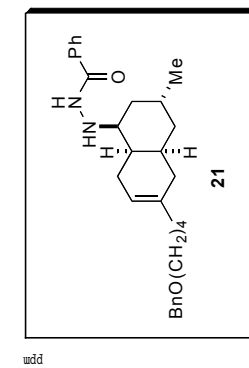
==== CHANNEL f1 =====  
 NUC1 1H  
 P1 12.00 usec  
 PL1 -3.00 dB  
 SFO1 499.8284988 MHz

F2 - Processing parameters  
 SI 6536  
 SF 499.823074 MHz  
 EQ 1  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 4.00

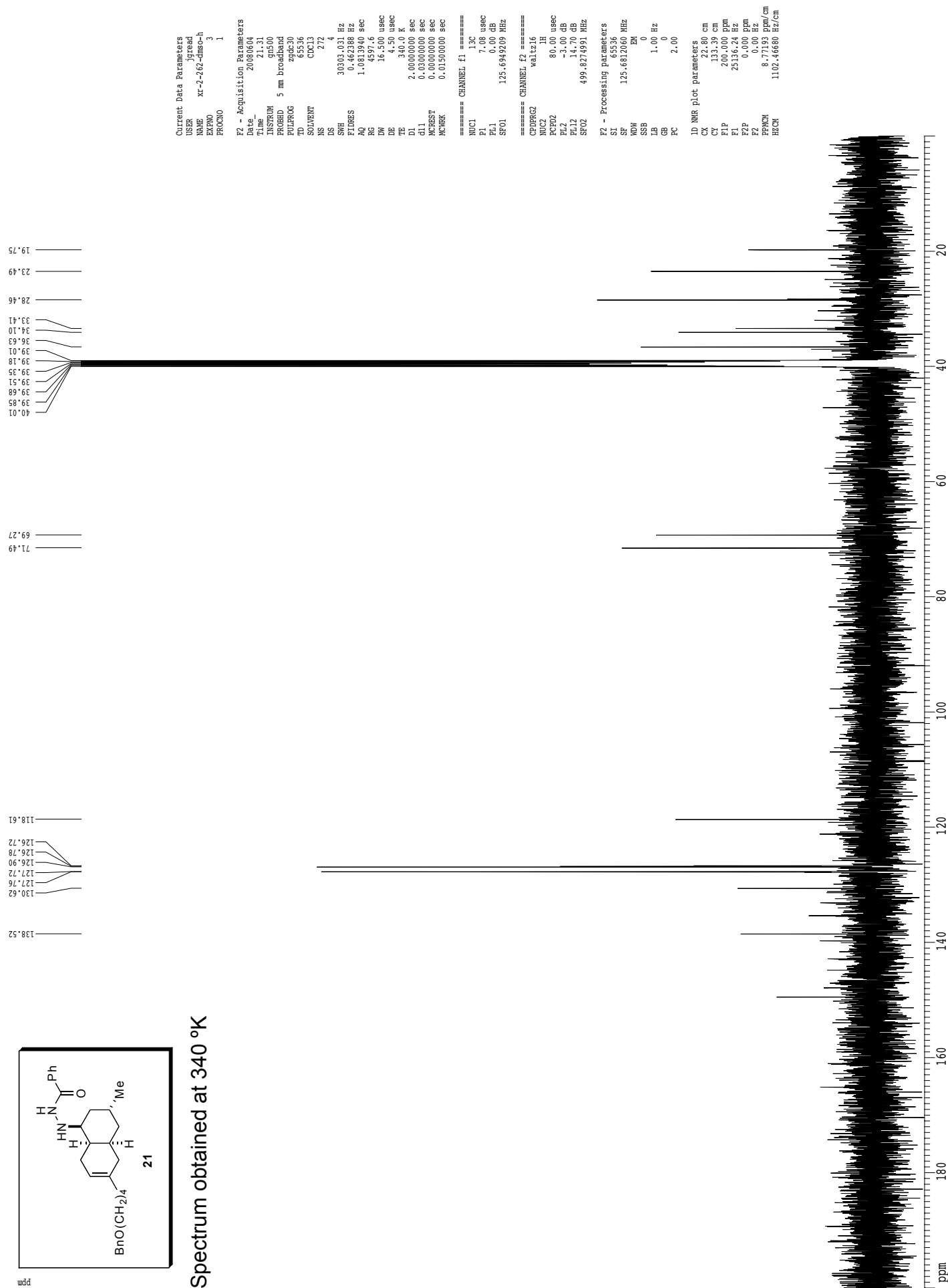
1D NMR plot parameters  
 CX 22.80 cm  
 CY 15.00 cm  
 F1 11.000 ppm  
 F2 5498.08 Hz  
 FZ 0.000 ppm  
 GB 0.00 Hz  
 FRQCX 0.4846 ppm/cm  
 HECX 241.14366 Hz/cm



## 13C spectrum with 1H decoupling

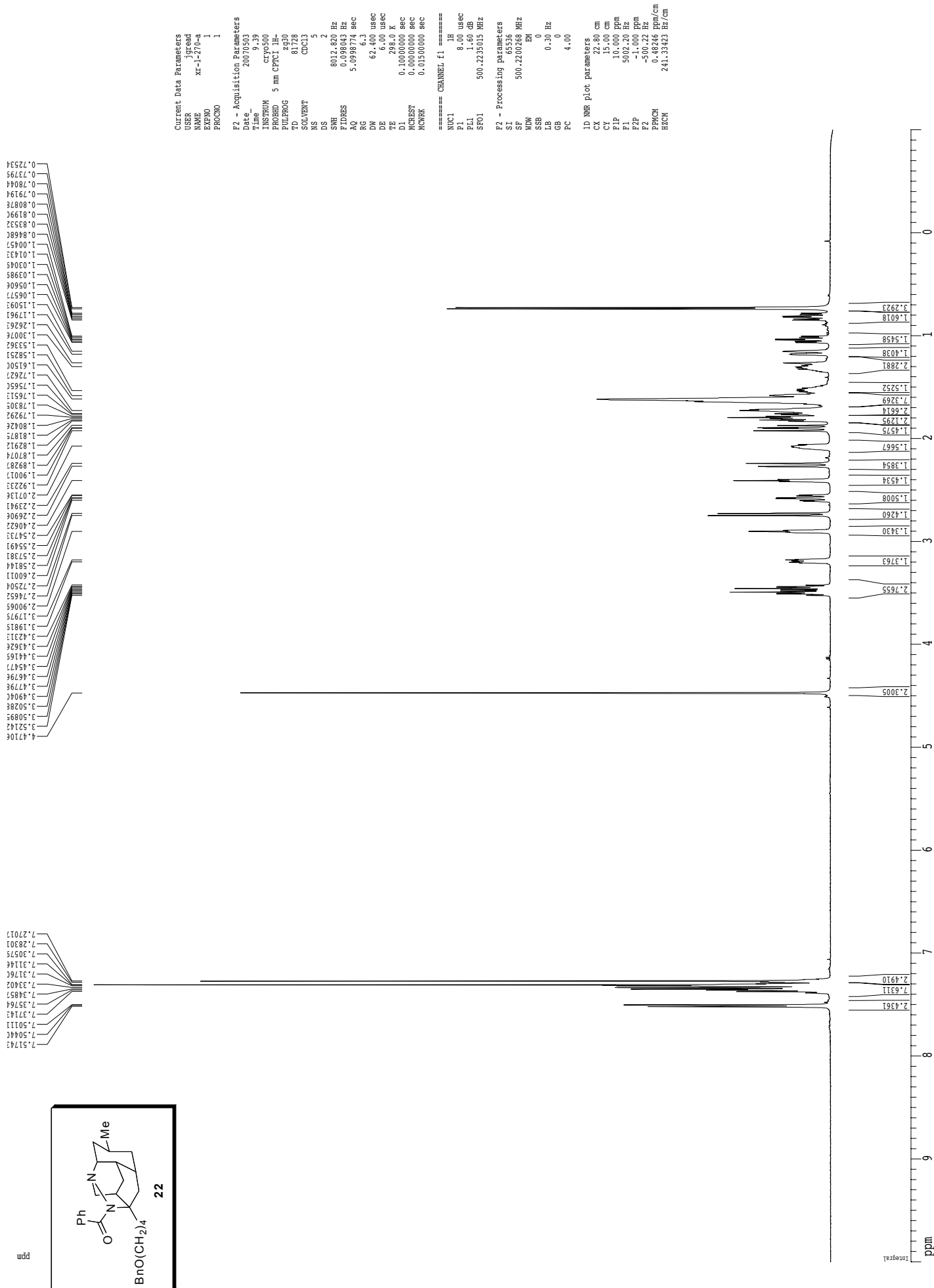


## Spectrum obtained at 340 °K

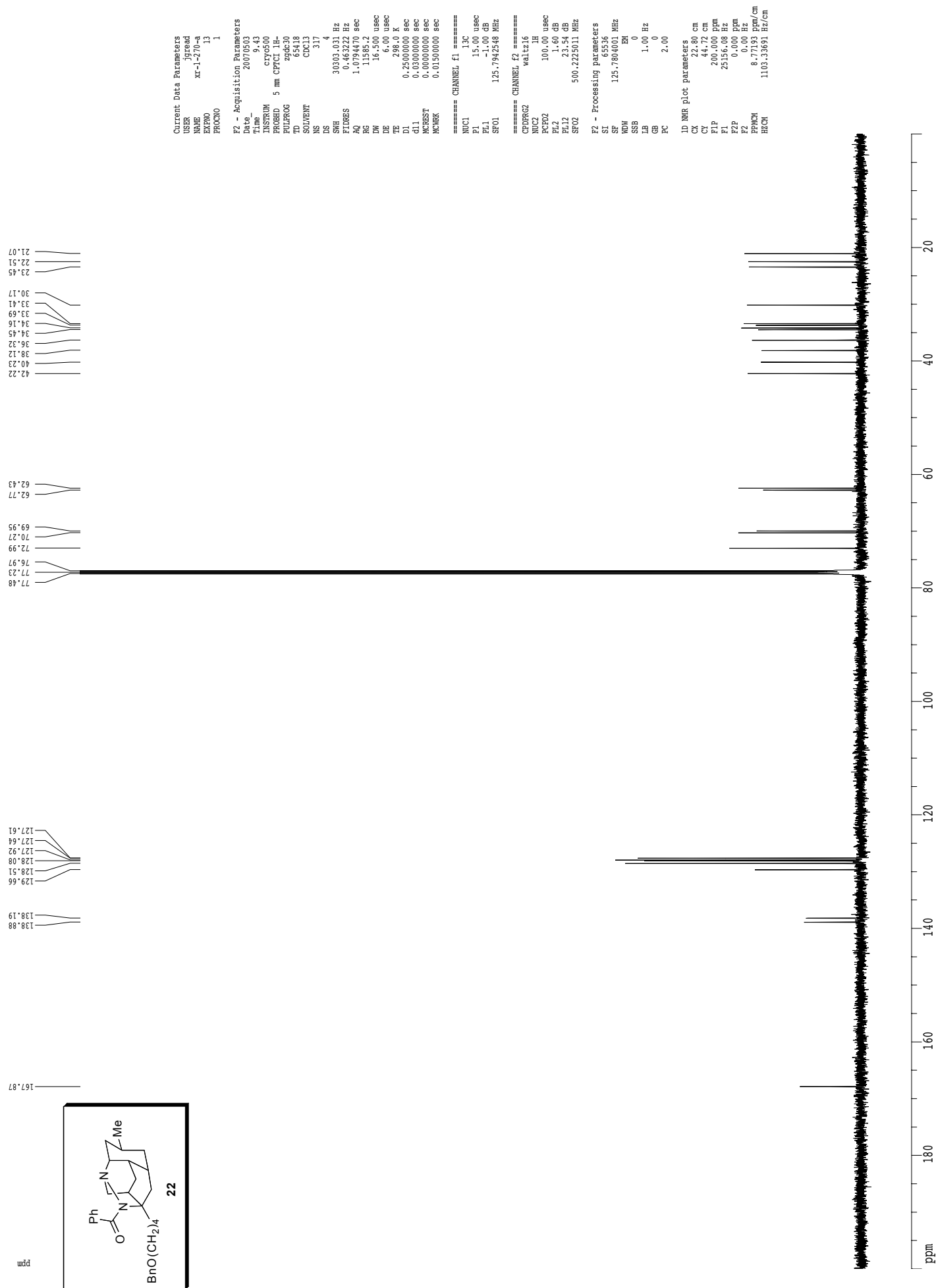




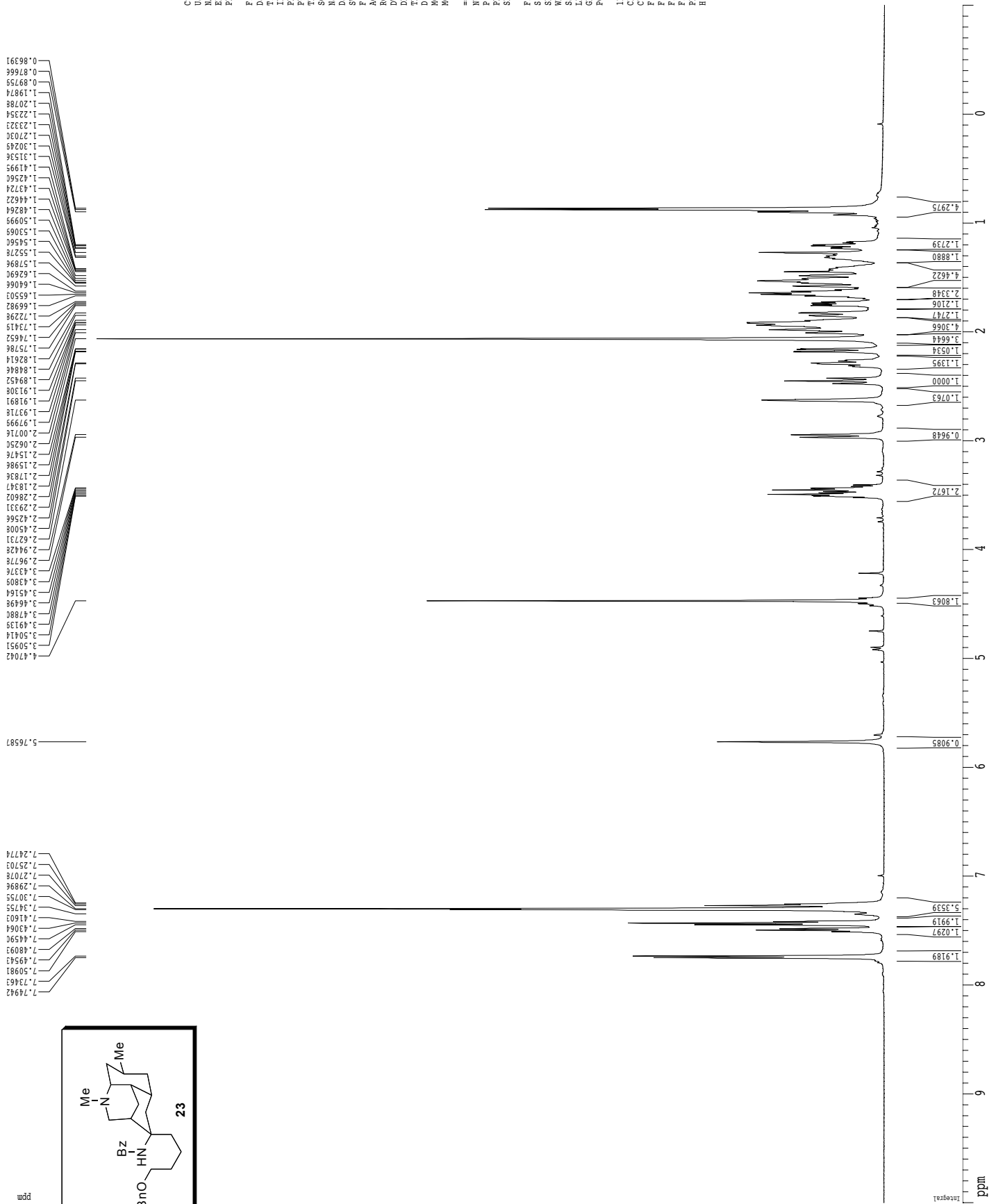
## 1H spectrum



## 13C spectrum with 1H decoupling



XI-2-208  
1H spectrum



Current Data Parameters  
 USER jgread  
 NAME XI-2-208  
 EXPNO 1  
 PROCNO 1  
 F2 - Acquisition Parameters  
 Date\_ 20080126  
 Time 11.11  
 INSTRUM crys500  
 PROBRD 5 mm CPACT IH-  
 PULPROG zg30  
 TD 81728  
 SOLVENT CDCl3  
 NS 4  
 DS 2  
 SWH 801.2820 Hz  
 FIDRES 0.098043 Hz  
 AQ 5.0958774 sec  
 RG 4  
 DW 62.60 usec  
 DE 0.00 usec  
 TE 298.0 K  
 D1 0.10000000 sec  
 MCREST 0.00000000 sec  
 MCPRK 0.01500000 sec  
 ===== CHANNEL f1 =====  
 NUC1 1H  
 P1 8.00 usec  
 PL1 1.60 dB  
 SFO1 500.2235015 MHz  
 F2 - Processing parameters  
 SI 65536  
 SF 500.220252 MHz  
 EQ 0  
 FWHM 0.30 Hz  
 LB 0  
 GB 0  
 PC 4.00  
 ID NMR plot parameters  
 CX 22.80 cm  
 CY 15.00 cm  
 FIP 10.000 ppm  
 F1 5002.20 Hz  
 F2 10.000 ppm  
 F3 -500.32 ppm  
 PRGM 0.48246 ppm/cm  
 HZCM 241.33423 Hz/cm

0.86391  
0.87666  
0.89755  
1.19874  
1.20786  
1.22354  
1.23232  
1.27030  
1.30249  
1.31536  
1.41995  
1.42564  
1.43724  
1.44822  
1.48284  
1.50595  
1.50565  
1.54566  
1.55278  
1.57996  
1.62990  
1.64066  
1.65503  
1.66982  
1.72296  
1.73415  
1.74652  
1.75786  
1.82614  
1.84846  
1.89452  
1.91308  
1.91891  
1.93718  
1.97999  
2.00716  
2.06256  
2.15716  
2.15986  
2.17836  
2.18347  
2.28602  
2.29331  
2.42566  
2.45008  
2.62731  
2.94428  
2.96778  
3.43376  
3.43809  
3.45164  
3.46498  
3.47880  
3.49135  
3.50414  
3.50951  
4.47042

5.76581

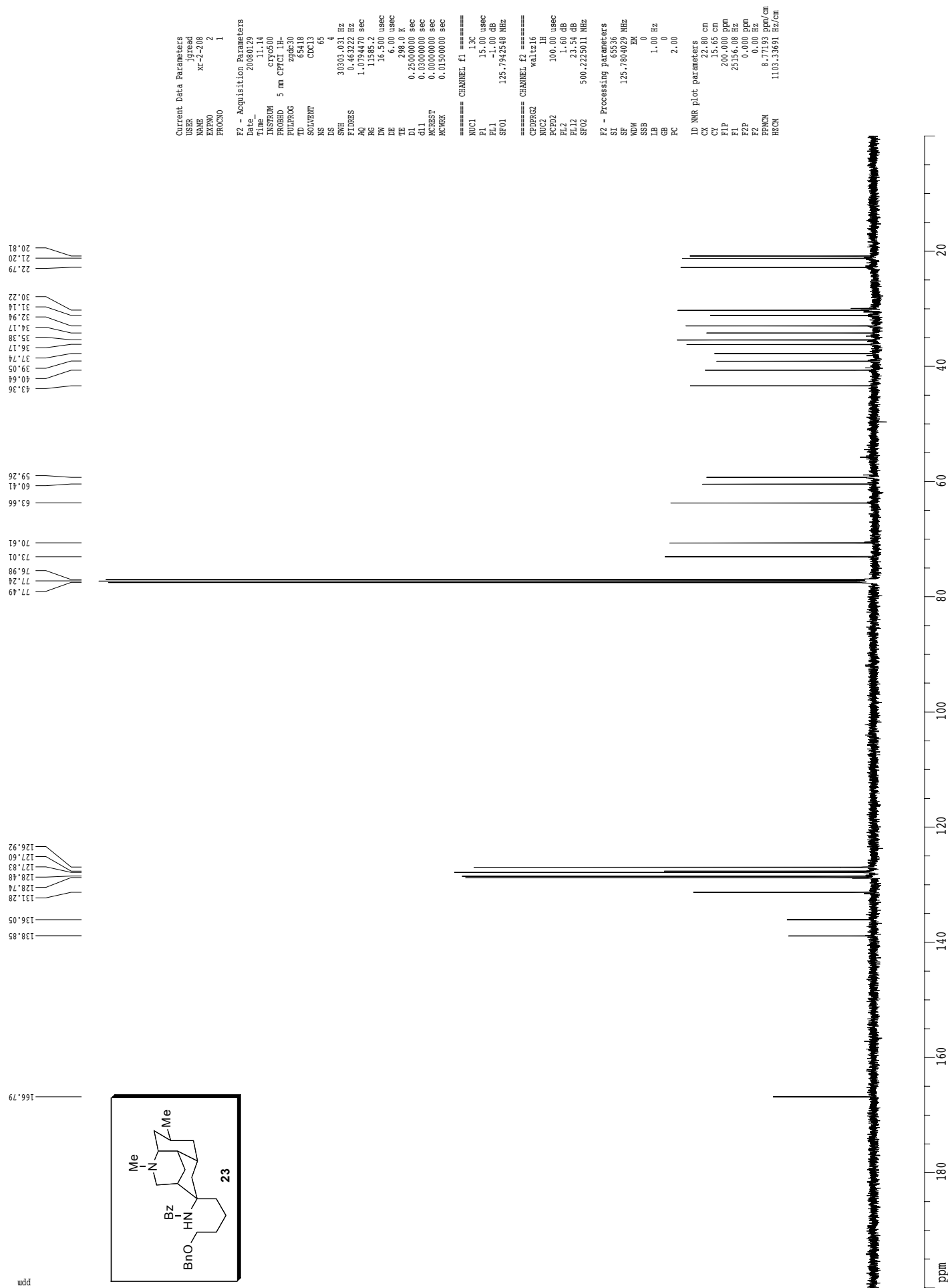
7.74942  
7.73463  
7.50981  
7.49543  
7.48093  
7.44590  
7.43064  
7.41603  
7.34755  
7.30755  
7.29896  
7.27078  
7.25703  
7.24774

0  
1  
2  
3  
4  
5  
6  
7  
8  
9  
10

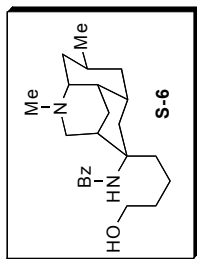
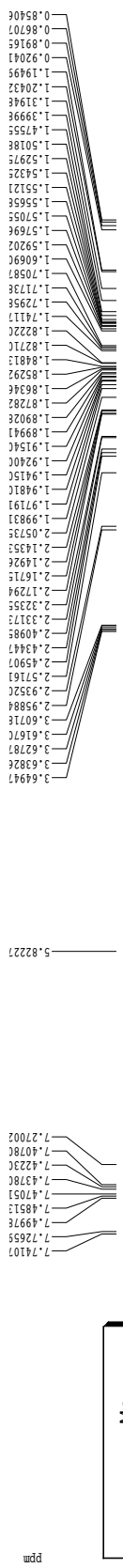
4.2975  
1.2739  
1.8880  
4.4622  
2.3348  
1.2106  
1.2747  
4.3066  
3.6644  
1.0534  
1.1395  
1.0000  
1.0763  
0.9648  
2.1672  
1.8063  
0.9085

Integral

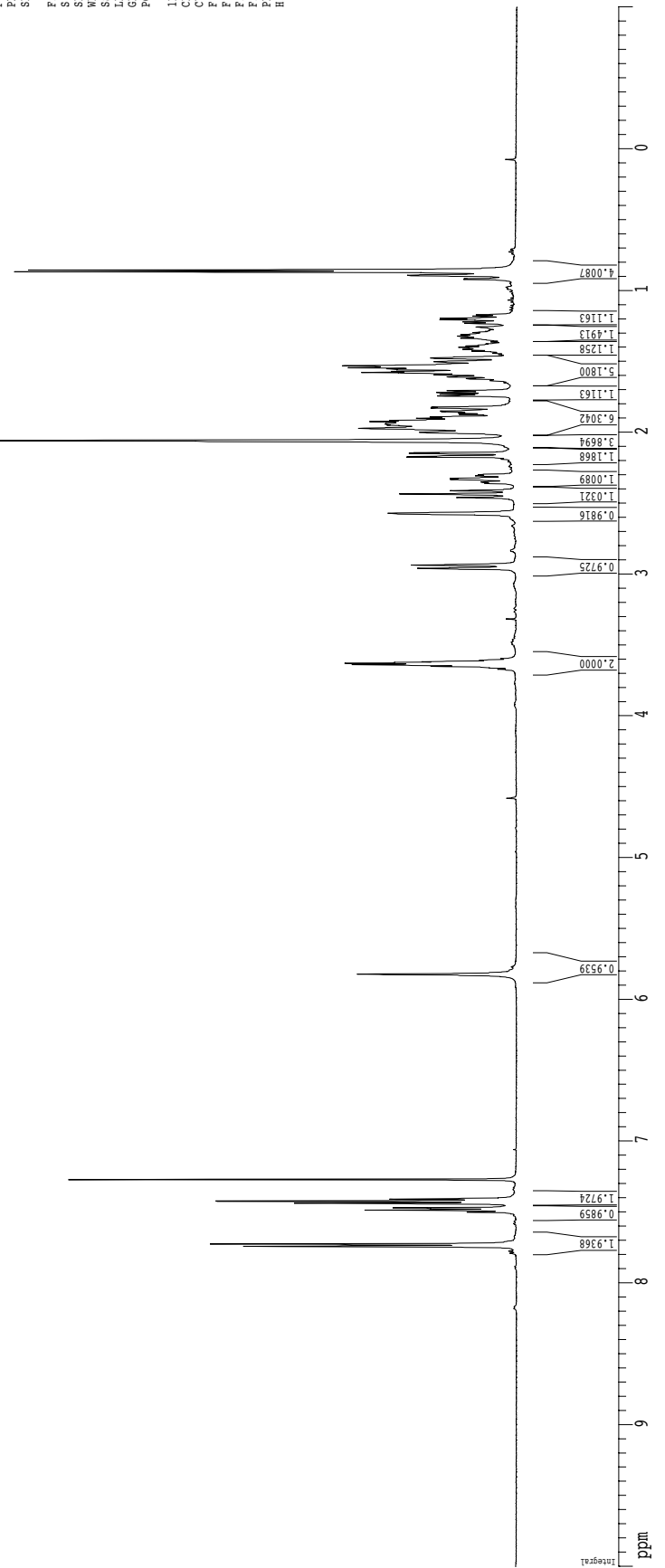
## 13C spectrum with 1H decoupling



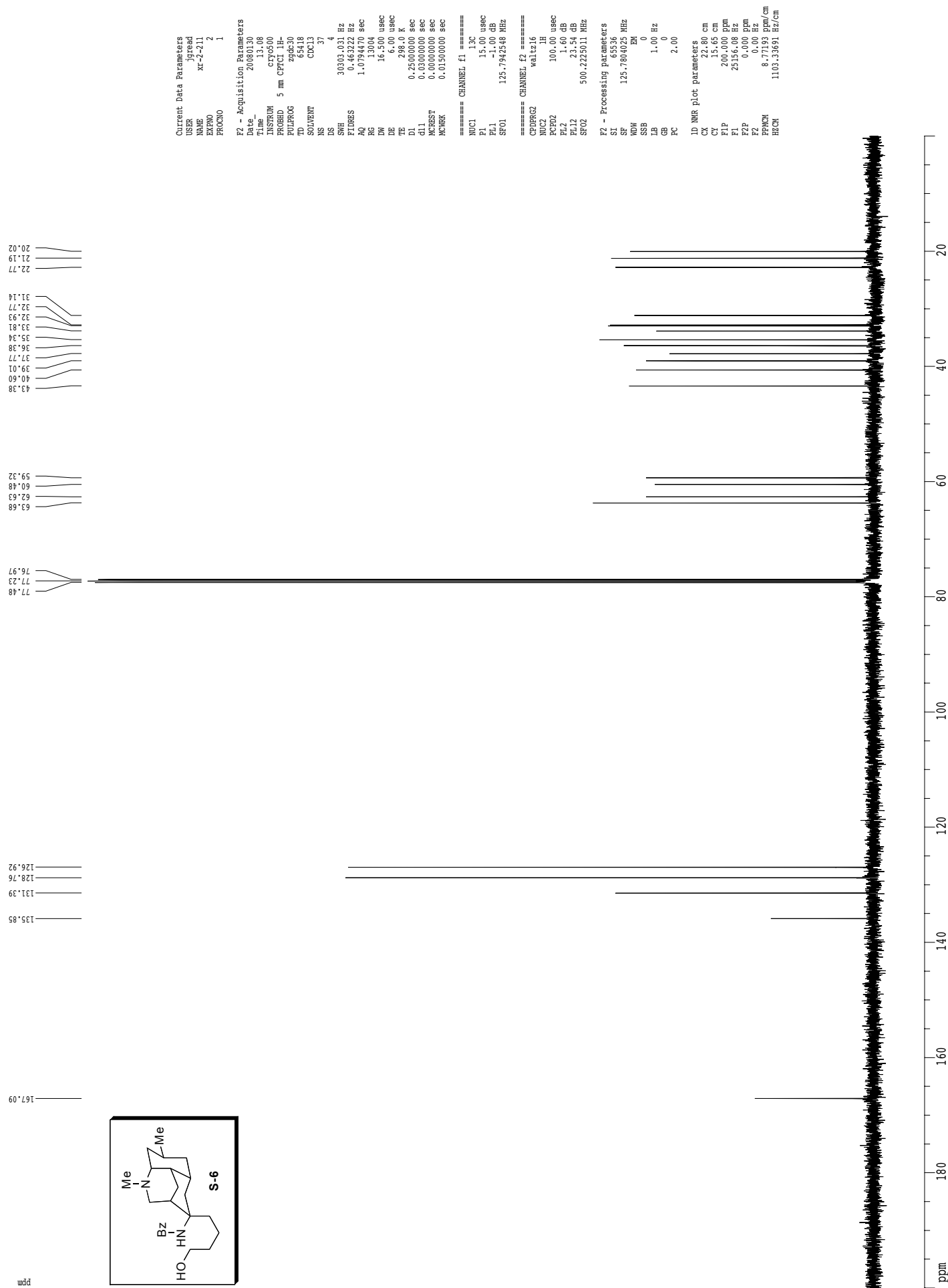
XR-2-211  
white foam  
1H spectrum



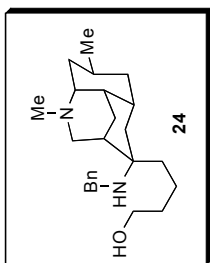
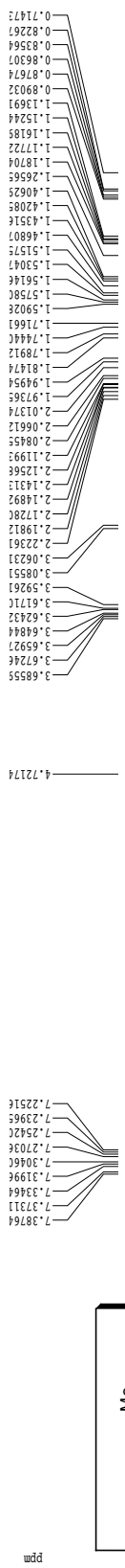
Current Data Parameters  
 USER jread  
 NAME XR-2-211  
 EXPNO 1  
 PROCNO 1  
 F2 - Acquisition Parameters  
 Date\_ 20080330  
 Time 13.05  
 INSTRUM crys500  
 PROBHD 5 mm CPXI 1H-  
 PULPROG zg30  
 TD 81728  
 SOLVENT CDCl3  
 NS 1  
 DS 2  
 SWH 801.2820 Hz  
 FIDRES 0.098043 Hz  
 AQ 5.0950774 sec  
 RG 45  
 DR 62.00 usec  
 DE 288.0 K  
 TE 0.10000000 sec  
 D1 0.00000000 sec  
 MCREST 0.00000000 sec  
 MCWPK 0.01500000 sec  
 ===== CHANNEL f1 =====  
 NUC1 1H  
 P1 8.00 usec  
 PL1 1.60 dB  
 SFO1 500.2235015 MHz  
 F2 - Processing parameters  
 SI 65536  
 SF 500.220257 MHz  
 DS 4  
 EM 0  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 4.00  
 1D NMR plot parameters  
 CX 22.80 cm  
 CY 15.00 cm  
 FIP 10.000 ppm  
 F1 5002.20 Hz  
 F2 -500.32 ppm  
 PRGM 0.48246 ppm/cm  
 HZCN 241.33423 Hz/cm



## 13C spectrum with 1H decoupling



XI-2-21b  
20 mg  
1H spectrum



```

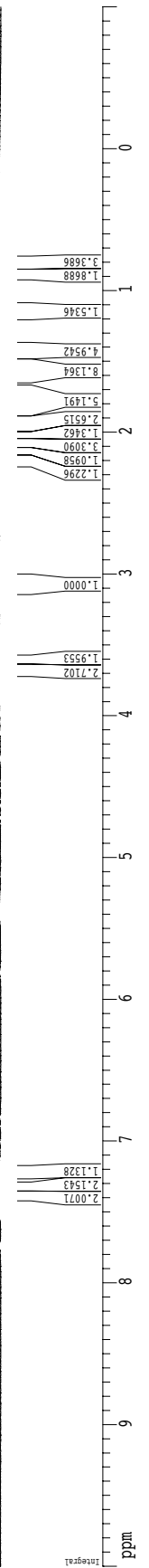
Current Data Parameters
=====
USER      jgread
NAME      XI-2-21b
EXPNO     1
PROCNO    1

F2 - Acquisition Parameters
=====
Date_     20080206
Time      15.07
INSTRUM   crys500
PROBHD    5 mm CPXI 1H-
PULPROG   zg30
TD         81728
SOLVENT   CDCl3
NS         4
DS         2
SWH        8012.820 Hz
FIDRES     0.098043 Hz
AQ         5.0958774 sec
RG         613
DR         62.00 usec
TE         288.0 K
D1         0.10000000 sec
MCREST     0.00000000 sec
MCWRK     0.01500000 sec

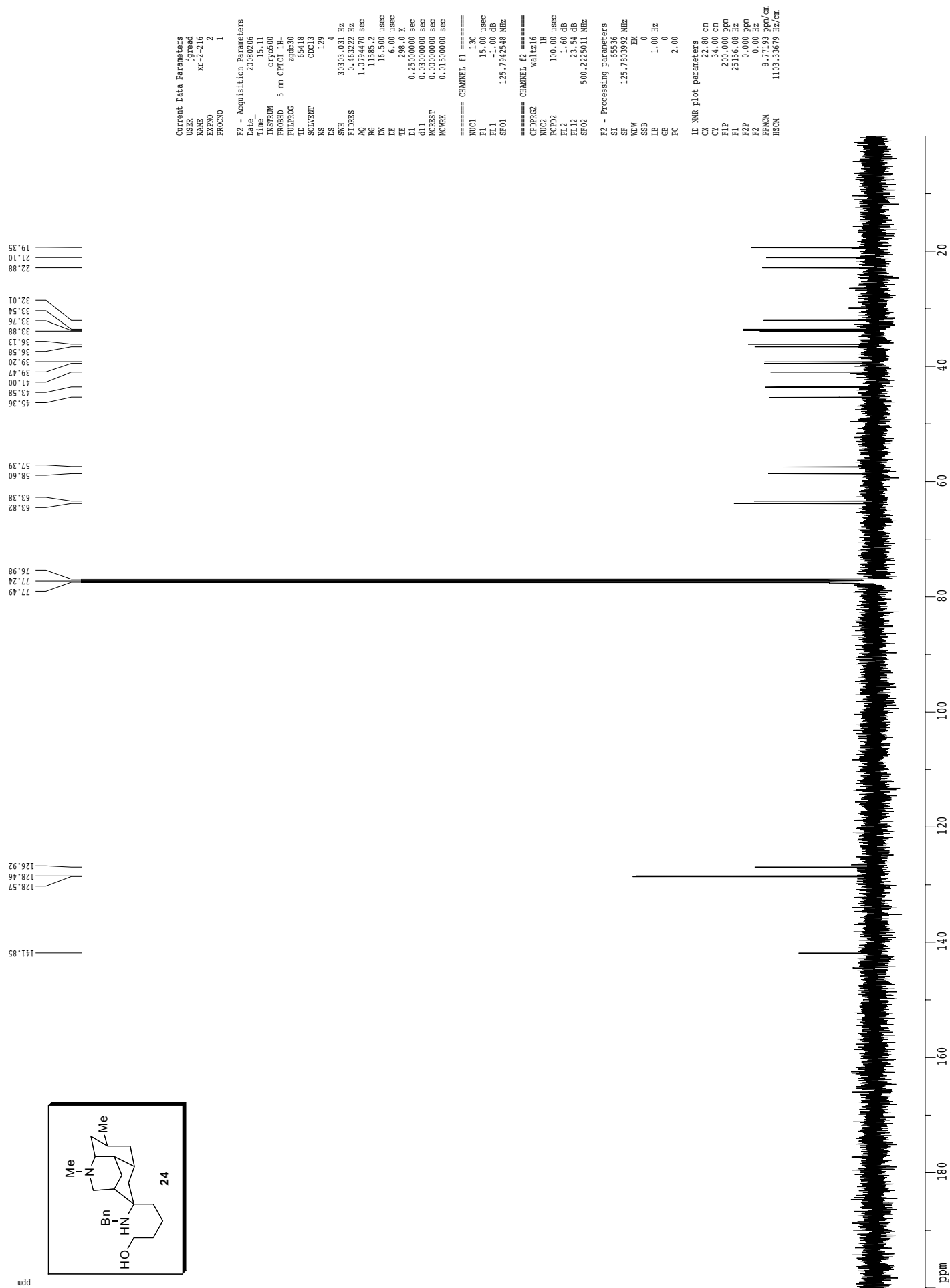
===== CHANNEL f1 =====
NUC1       1H
P1         8.00 usec
PL1        1.60 dB
SFO1       500.2235015 MHz

F2 - Processing parameters
=====
SI         32768
SF         500.220257 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         4.00

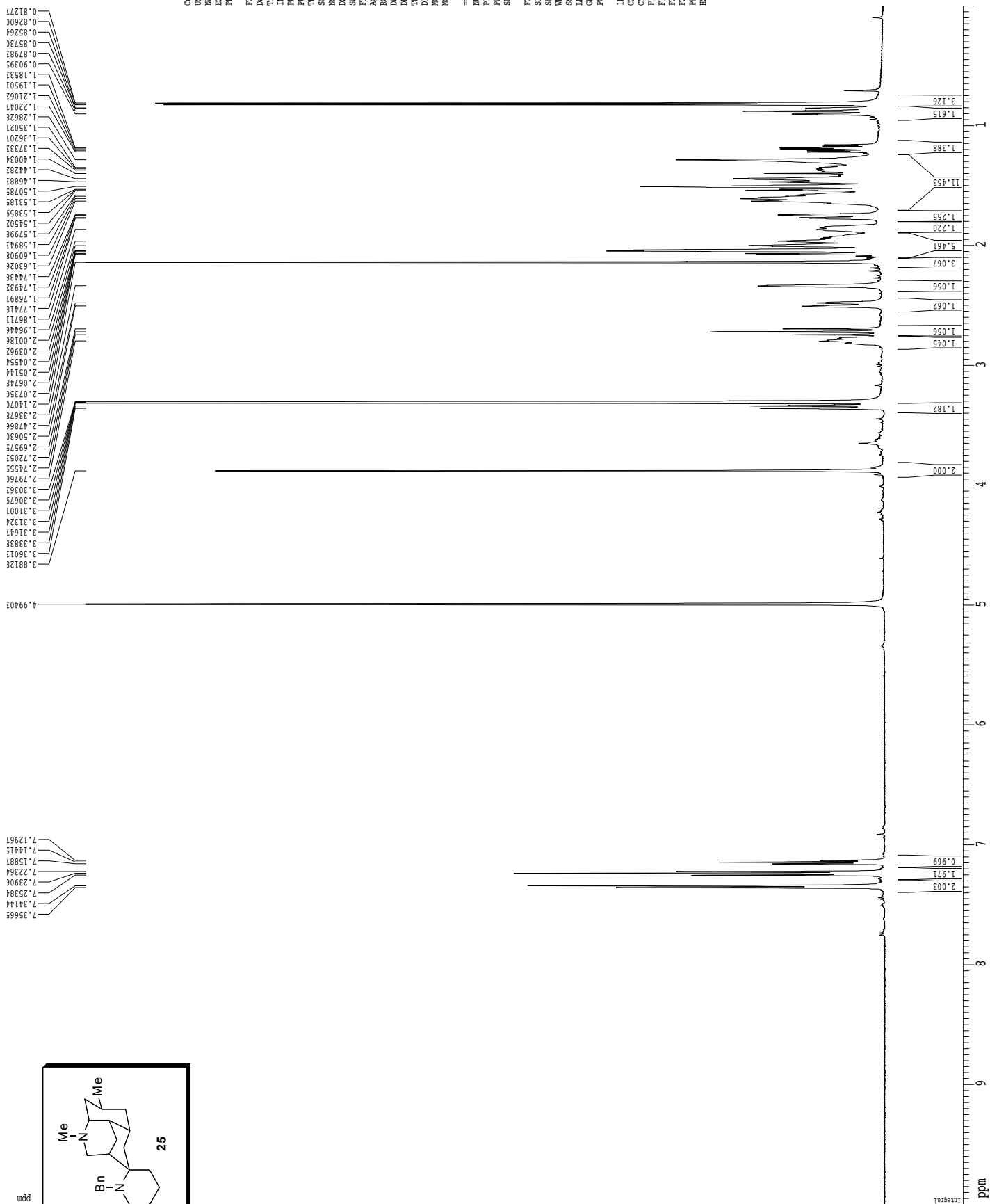
1D NMR plot parameters
CX         22.80 cm
CY         15.00 cm
F1         10.000 ppm
F2         500.220 Hz
P2         -500.32 ppm
PRGM       0.48246 ppm/cm
HZCM       241.33423 Hz/cm
    
```



## 13C spectrum with 1H decoupling







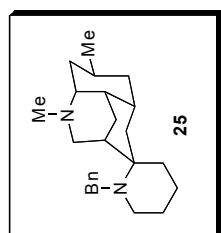
Current Data Parameters  
 USER jgread  
 NAME xr-2-229-hplc  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20080220  
 Time 7:23  
 SYSTEM cryo-500  
 PROBHD 5 mm CPYCL  
 PULPROG zgpg30  
 TD 8178  
 SOLVENT CD3OD  
 NS 8  
 DS 2  
 SWH 8012.820 Hz  
 FIDRES 0.098043 Hz  
 AQ 5.0998774 sec  
 RG 11.3  
 DW 62.400 usec  
 DE 6.00 usec  
 TE 285.0 K  
 ACQRES 0.1000000 sec  
 MCHRES 0.1000000 sec  
 MCHW 0.0150000 sec

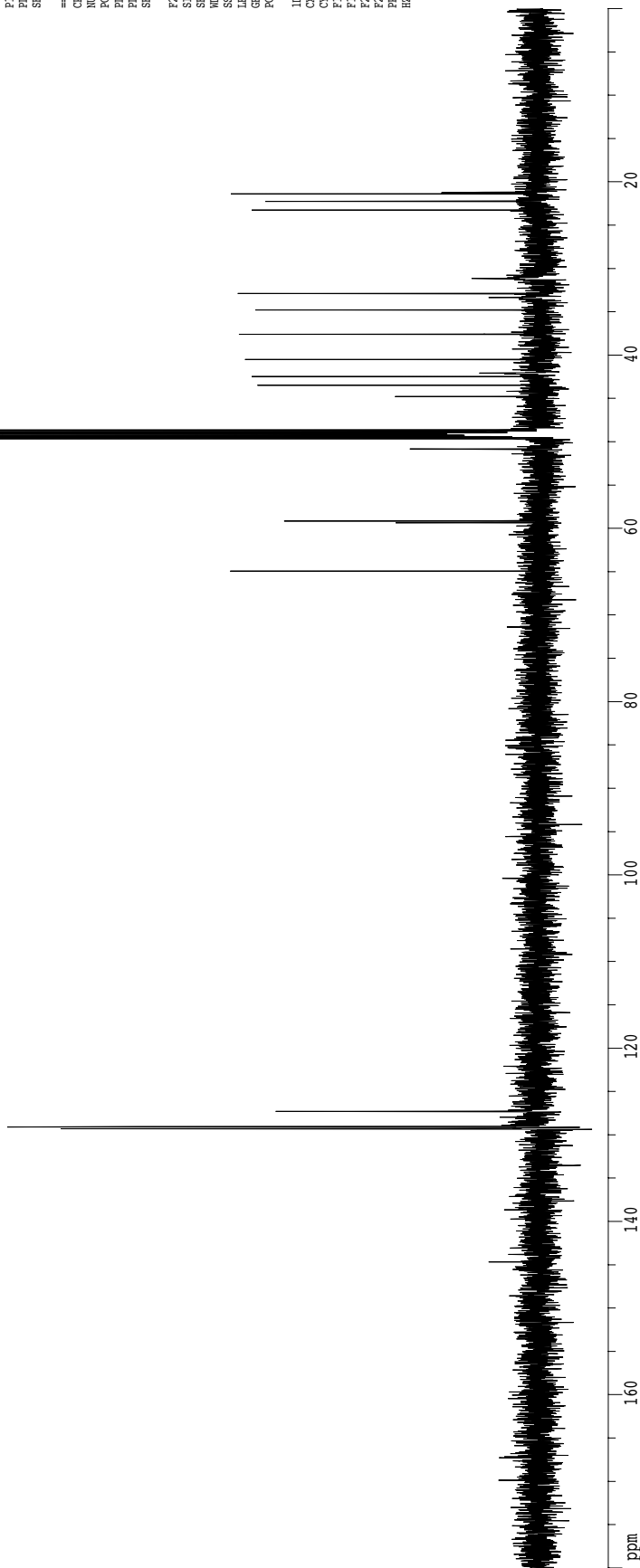
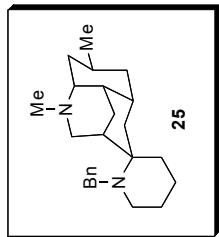
==== CHANNEL F1 =====  
 NUC1 1H  
 P1 7.38 usec  
 PL1 1.60 dB  
 SFO1 500.2235015 MHz

F2 - Processing parameters  
 SI 6556  
 SF 500.220189 MHz  
 RG 327.5  
 GB 0.30 Hz  
 CB 0  
 PC 4.00

ID NMR plot parameters  
 CX 22.80 cm  
 CY 74.83 cm  
 FID 10.000 ppm  
 F1 5002.20 Hz  
 F2 0.000 ppm  
 F3 0.00 Hz  
 PPGM 0.43860 ppm/cm  
 HCN 219.39476 Hz/cm



13C spectrum with 1H decoupling



Current Data Parameters  
 USER jgread  
 NAME xr-2-29-lp1c  
 EXPNO 2  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20080220  
 Time 7.28  
 INSTRUM cryo500  
 PROBED 5 mm CPCL1 H-  
 PULPROG zgpg30  
 SOLVENT CDCl3  
 NS 513  
 DS 4  
 SWH 30303.031 Hz  
 FIDRES 0.463222 Hz  
 AQ 1.0794470 sec  
 RG 10321.3  
 DW 16.500 usec  
 DE 6.00 usec  
 TE 298.0 K  
 D1 0.25000000 sec  
 d11 0.03000000 sec  
 MCREST 0.00000000 sec  
 MCPRK 0.01500000 sec

===== CHANNEL f1 =====  
 NUC1 13C  
 P1 14.75 usec  
 PL1 -0.00 dB  
 SFO1 125.7942548 MHz

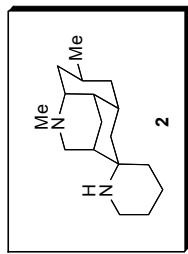
===== CHANNEL f2 =====  
 CPDPRG2 walz316  
 NUC2 1H  
 PCPD2 100.00 usec  
 PL2 1.60 dB  
 PL12 24.80 dB  
 SFO2 500.2225011 MHz

F2 - Processing parameters  
 SI 65536  
 SF 125.7802251 MHz  
 WDW EM  
 EN 0  
 LB 1.00 Hz  
 GB 0  
 PC 2.00

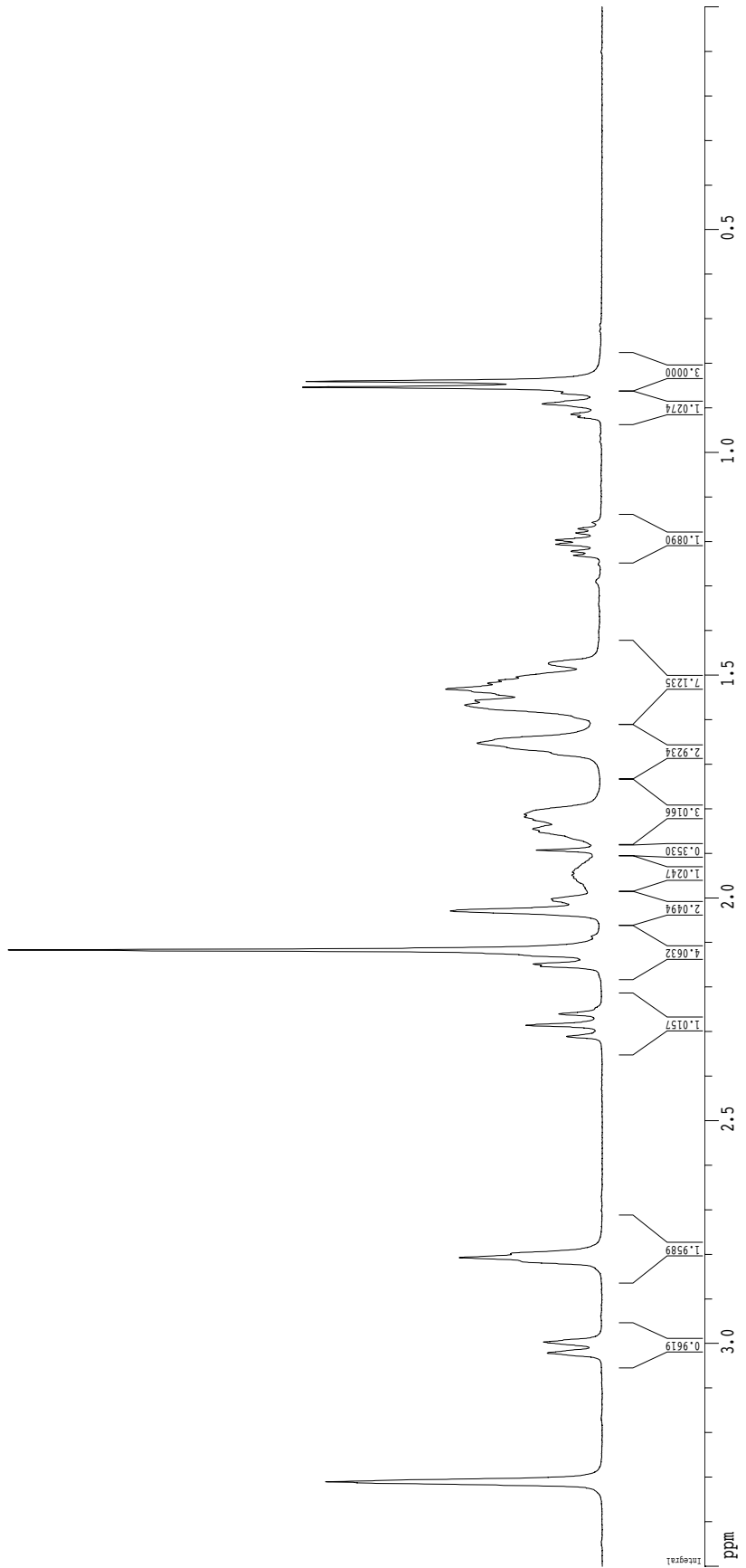
ID NMR plot parameters  
 CX 22.80 cm  
 CY 130.52 cm  
 F1P 180.000 ppm  
 F1 22640.44 Hz  
 F2P 0.000 ppm  
 F2 0.00 Hz  
 PPMCH 7.89474 ppm/cm  
 HZCH 993.00183 Hz/cm

D5 2  
 SWH 8012.820 Hz  
 FIDRES 0.098043 Hz  
 AQ 5.0959174 sec  
 DS 62.400 usec  
 DE 6.00 usec  
 TE 298.0 K  
 D1 0.10000000 sec  
 MCREST 0.00000000 sec  
 MCHWK 0.01500000 sec  
 ===== CHANNEL F1 =====  
 NUC1 1H  
 P1 7.38 usec  
 PL1 1.60 dB  
 SFO1 500.223015 MHz  
 F2 - Processing Parameters  
 SI 65536  
 SF 500.2200183 MHz  
 MDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 4.00  
 ID NMR plot parameters  
 CX 22.80 cm  
 CI 15.00 cm  
 FIP 18.500 ppm  
 F1P 115.00 Hz  
 F2P 0.000 ppm  
 F2 0.00 Hz  
 PPMCM 0.15351 ppm/cm  
 HZCM 76.78816 Hz/cm

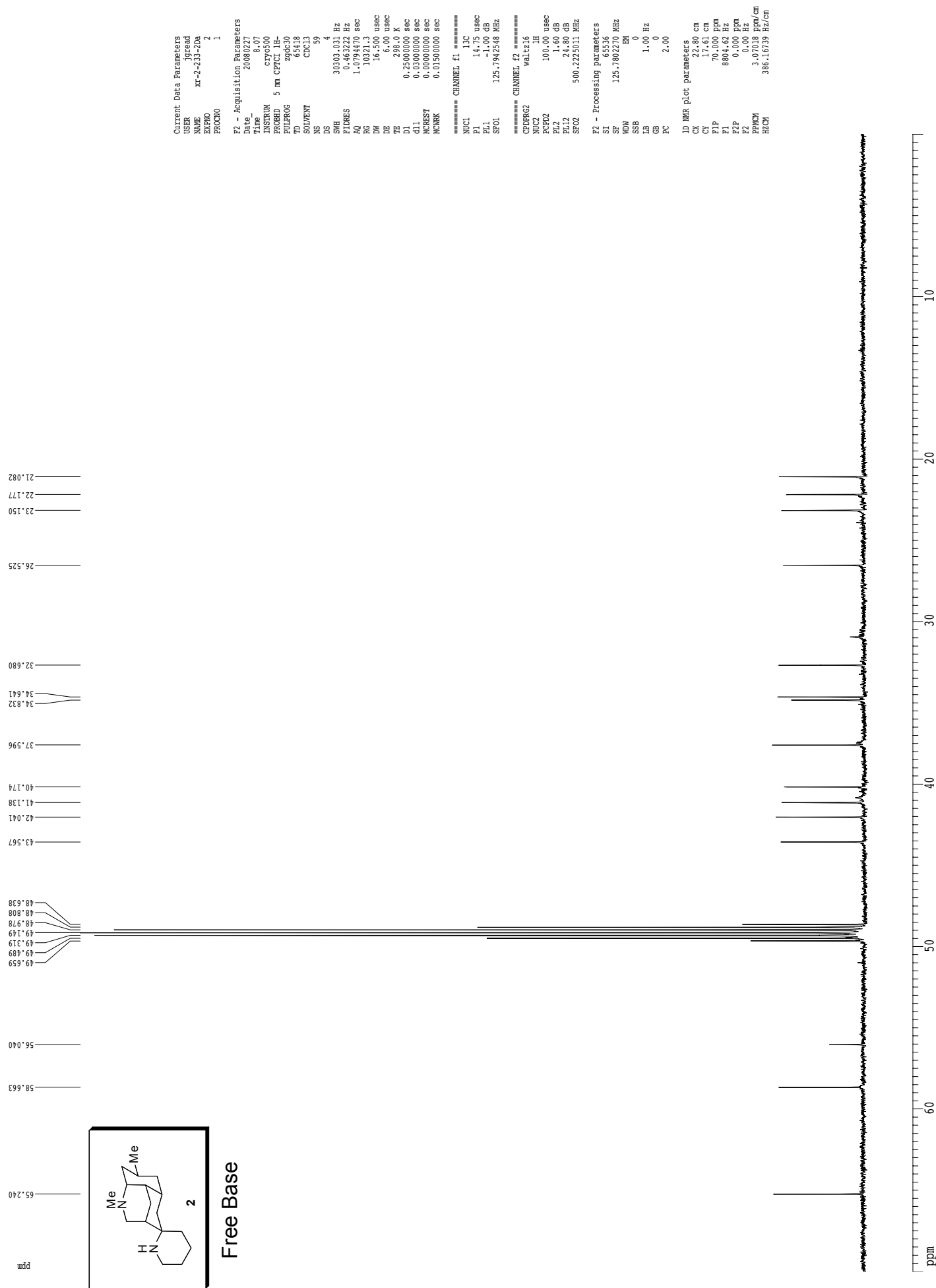
XI-Z-1/b-a  
 stack  
 1H spectrum



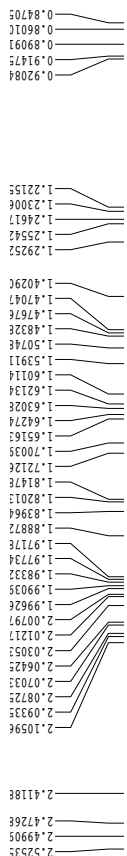
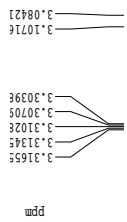
Free Base



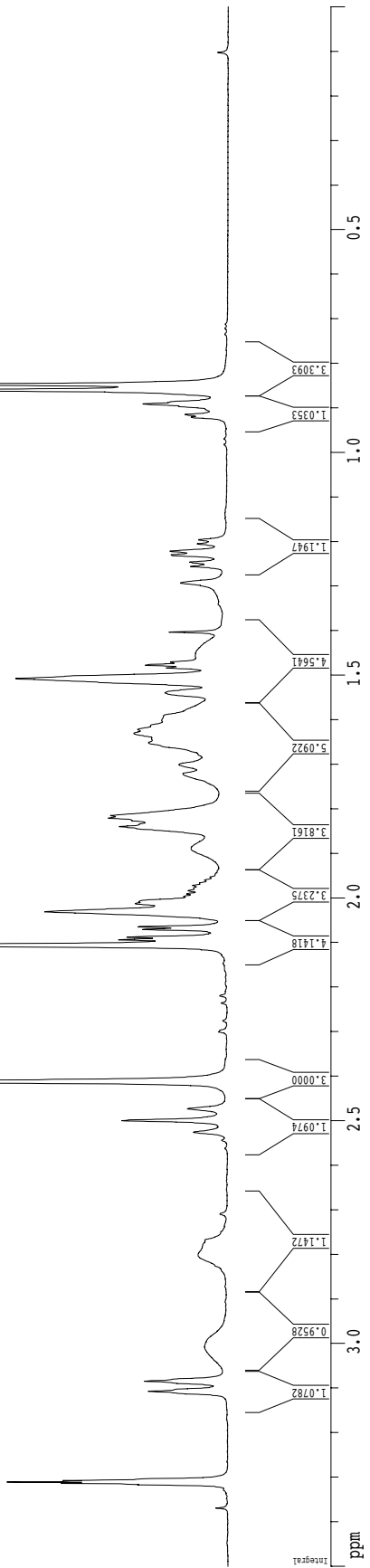
## 13C spectrum with 1H decoupling



XR-2-74  
crude rxn  
1H spectrum



Current Data Parameters  
 USER jread  
 NAME xr-2-295  
 EXPNO 1  
 PROCNO 1  
 F2 - Acquisition Parameters  
 Date\_ 20080606  
 Time 21.03  
 INSTRUM crys500  
 PROBRD 5 mm CPXI 1H-  
 PULPROG zg30  
 TD 81728  
 SOLVENT CD300T  
 NS 8  
 DS 2  
 SWH 8012.820 Hz  
 FIDRES 0.098043 Hz  
 AQ 5.0998774 sec  
 RG 62.40 usec  
 DR 6.00 usec  
 DE 288.0 K  
 TE 0.10000000 sec  
 D1 0.00000000 sec  
 MCREST 0.00000000 sec  
 MCPRK 0.01500000 sec  
 ===== CHANNEL f1 =====  
 NUC1 1H  
 P1 7.38 usec  
 PL1 1.60 dB  
 SFO1 500.2235015 MHz  
 F2 - Processing parameters  
 SI 65536  
 SF 500.220188 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 4.00  
 ID NMR plot parameters  
 CX 22.80 cm  
 CY 15.00 cm  
 FIP 3.500 ppm  
 F1 1750.77 Hz  
 F2 0.000 ppm  
 F3 0.000 ppm  
 PRGM 0.15351 ppm/cm  
 HZCN 76.78816 Hz/cm



## 13C spectrum with 1H decoupling

