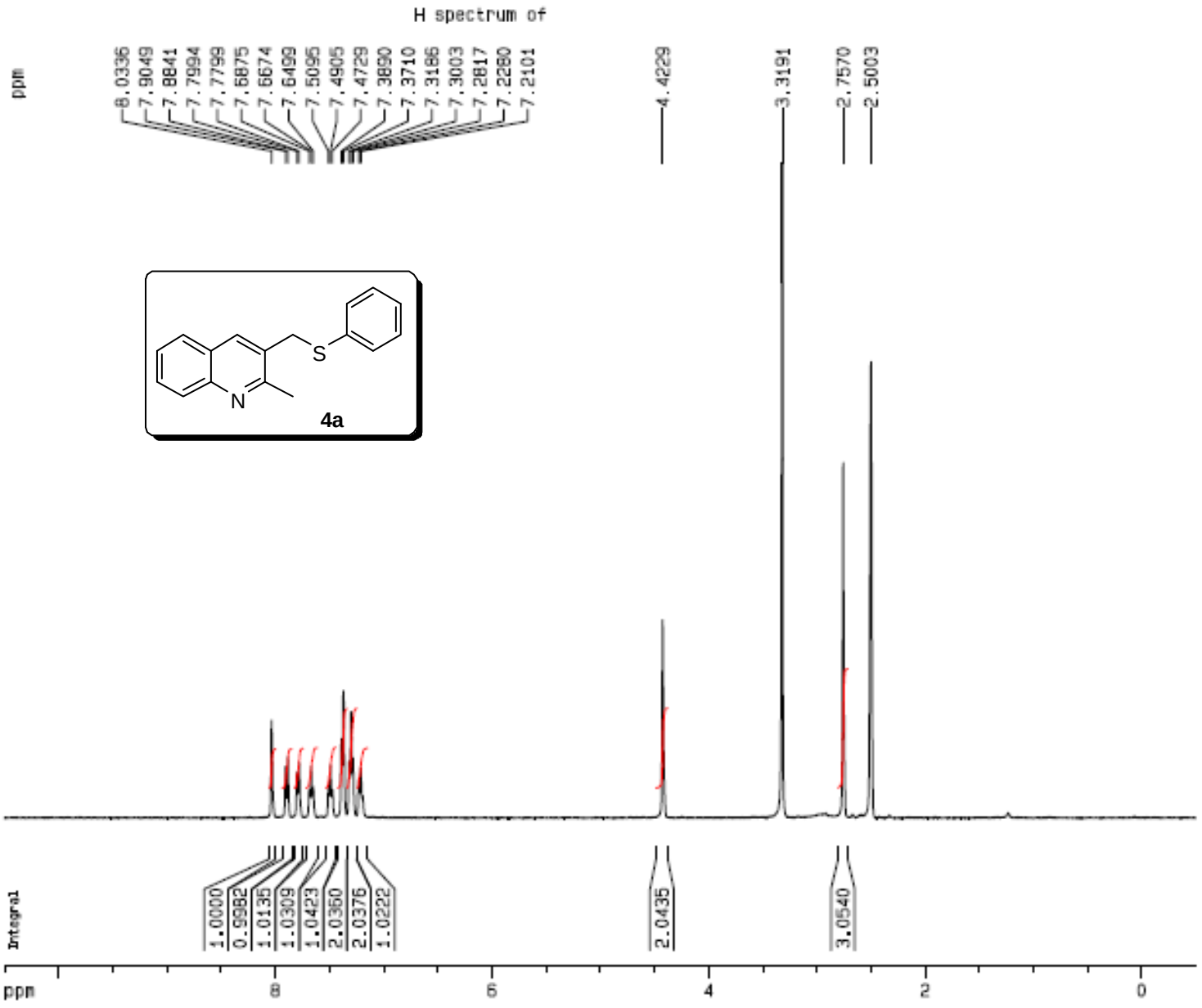
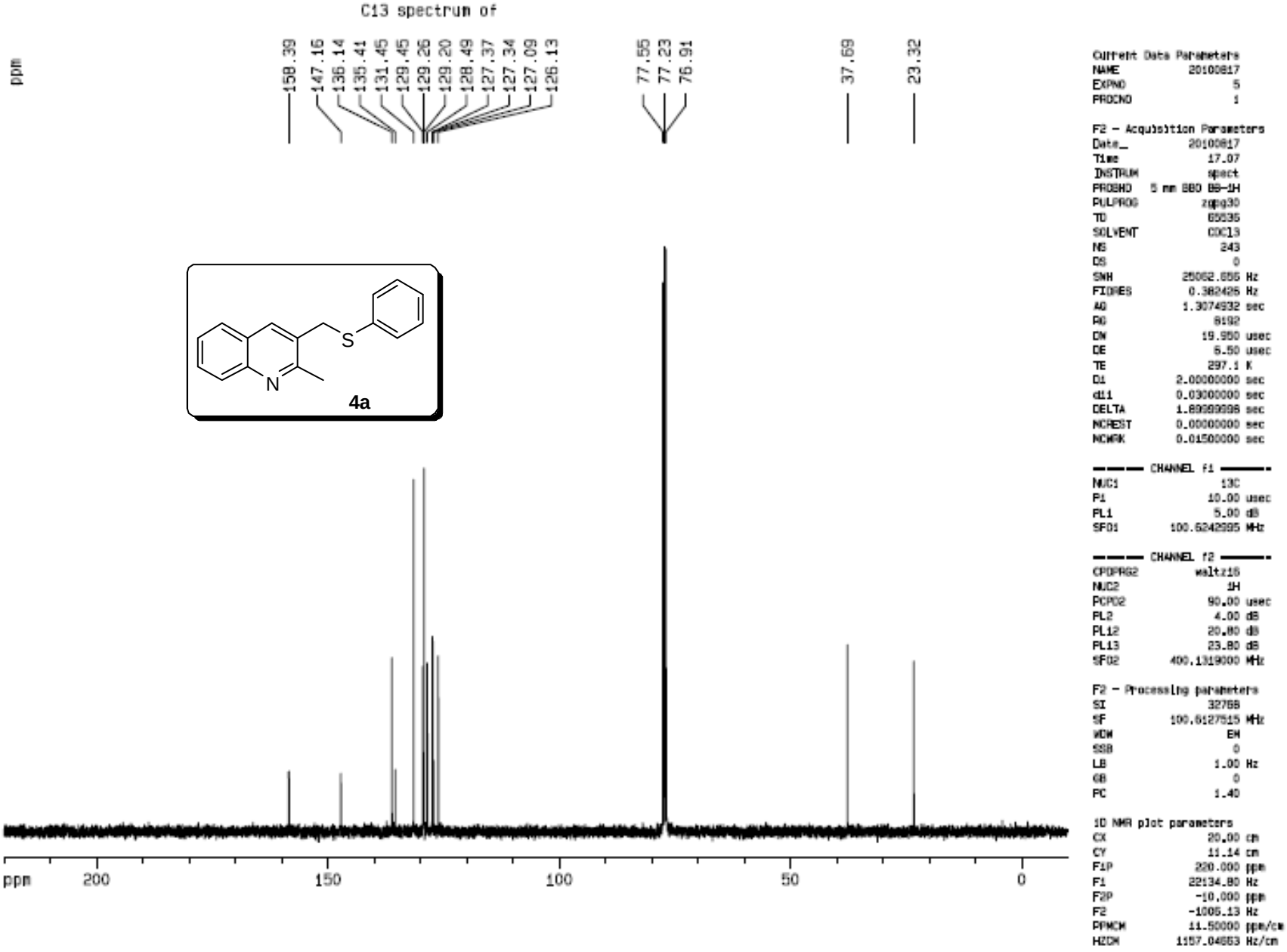
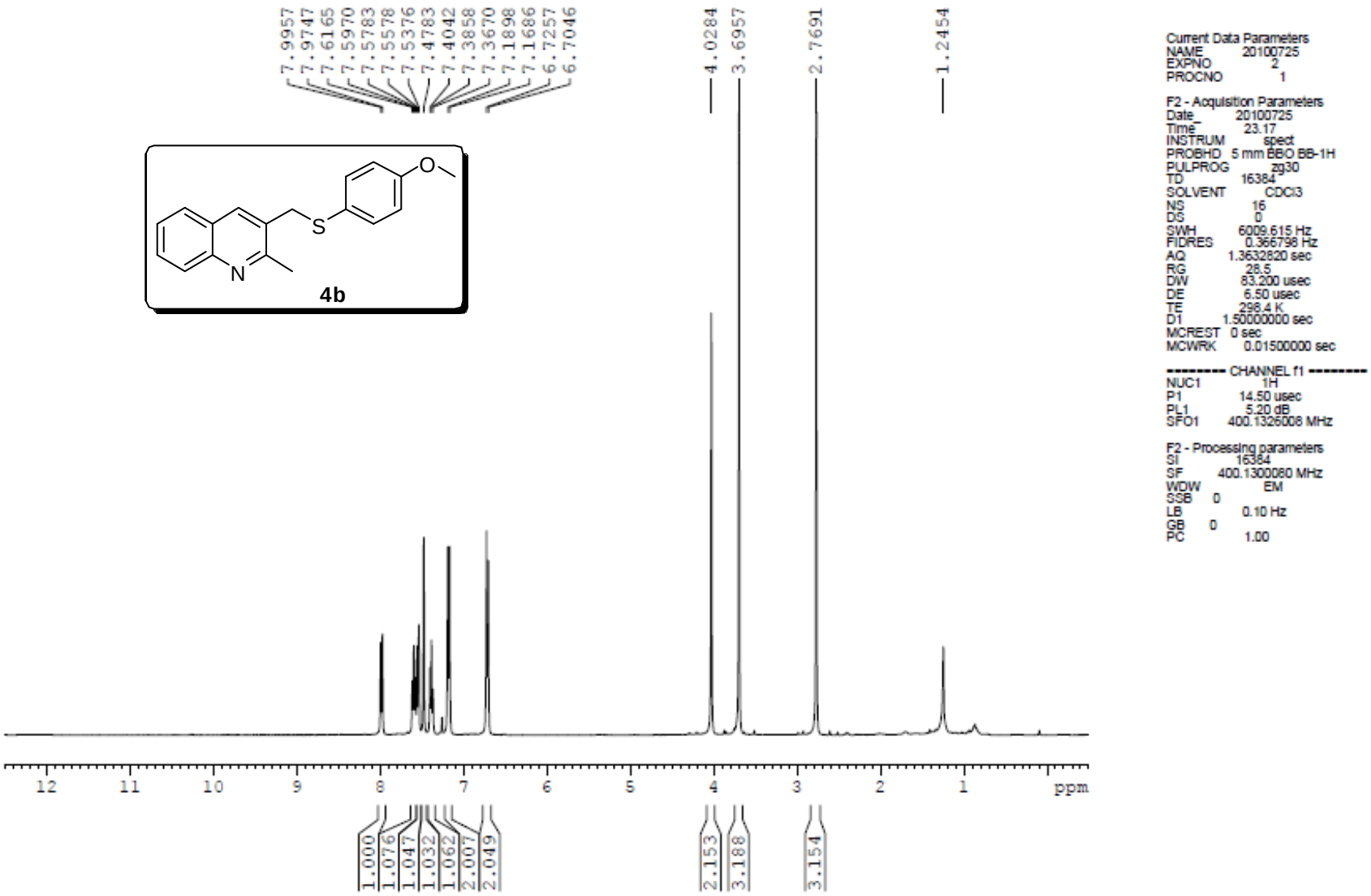



```
Current Data Parameters
NAME                  20100825
EXPNO                        3
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20100825
Time                     21.02
INSTRUM                  spect
PROBHD     5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  DMSO
NS                         24
DS                          0
SWH                6009.615 Hz
FIDRES             0.366798 Hz
AQ                 1.3631988 sec
RG                       362
DW                    83.200 usec
DE                     6.50 usec
TE                    299.6 K
D1                 1.50000000 sec
MCREST             0.00000000 sec
MCWRK              0.01500000 sec

======== CHANNEL f1 ========
NUC1                      1H
P1                     8.80 usec
PL1                    0.00 dB
SFO1           400.1326008 MHz

F2 - Processing parameters
SI                      16384
SF             400.1300009 MHz
WDW                        EM
SSB                         0
LB                     0.10 Hz
GB                          0
PC                     1.00

1D NMR plot parameters
CX                    20.00 cm
CY                    22.56 cm
F1P                  10.500 ppm
F1                  4201.37 Hz
F2P                 -0.500 ppm
F2                 -200.06 Hz
PPMCM               0.55000 ppm/cm
HZCM              220.07150 Hz/cm
```


C13 spectrum of
ppm
158.39
147.16
136.14
135.41
131.45
129.45
129.26
129.20
128.49
127.37
127.34
127.09
126.13
77.55
77.23
76.91
37.69
23.32
S
N
4a
ppm
200
150
100
50
0
Current Data Parameters
NAME 20100817
EXPNO 5
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100817
Time 17.07
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 243
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 297.1 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.5242695 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127515 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.14 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

H spectrum of

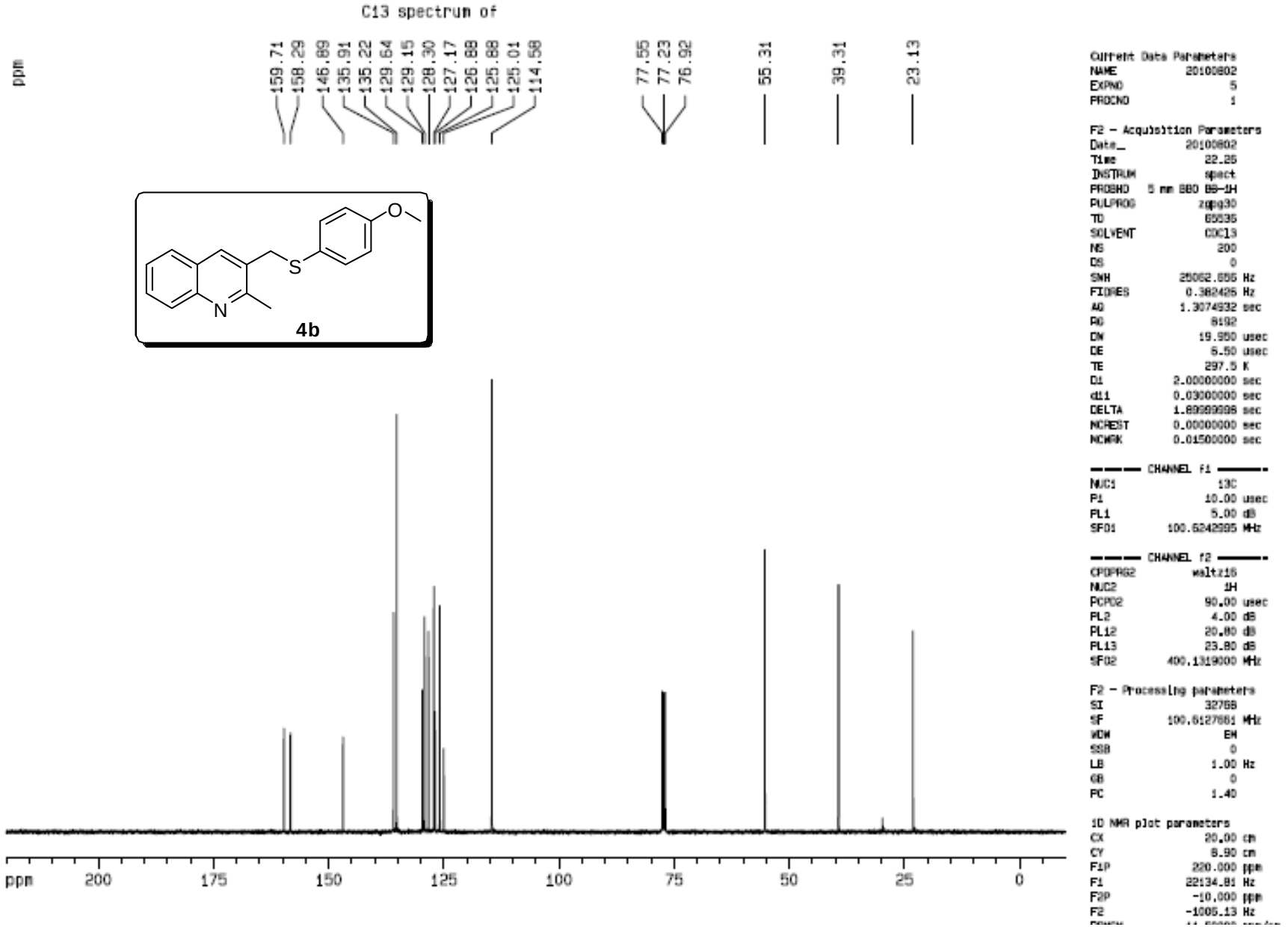


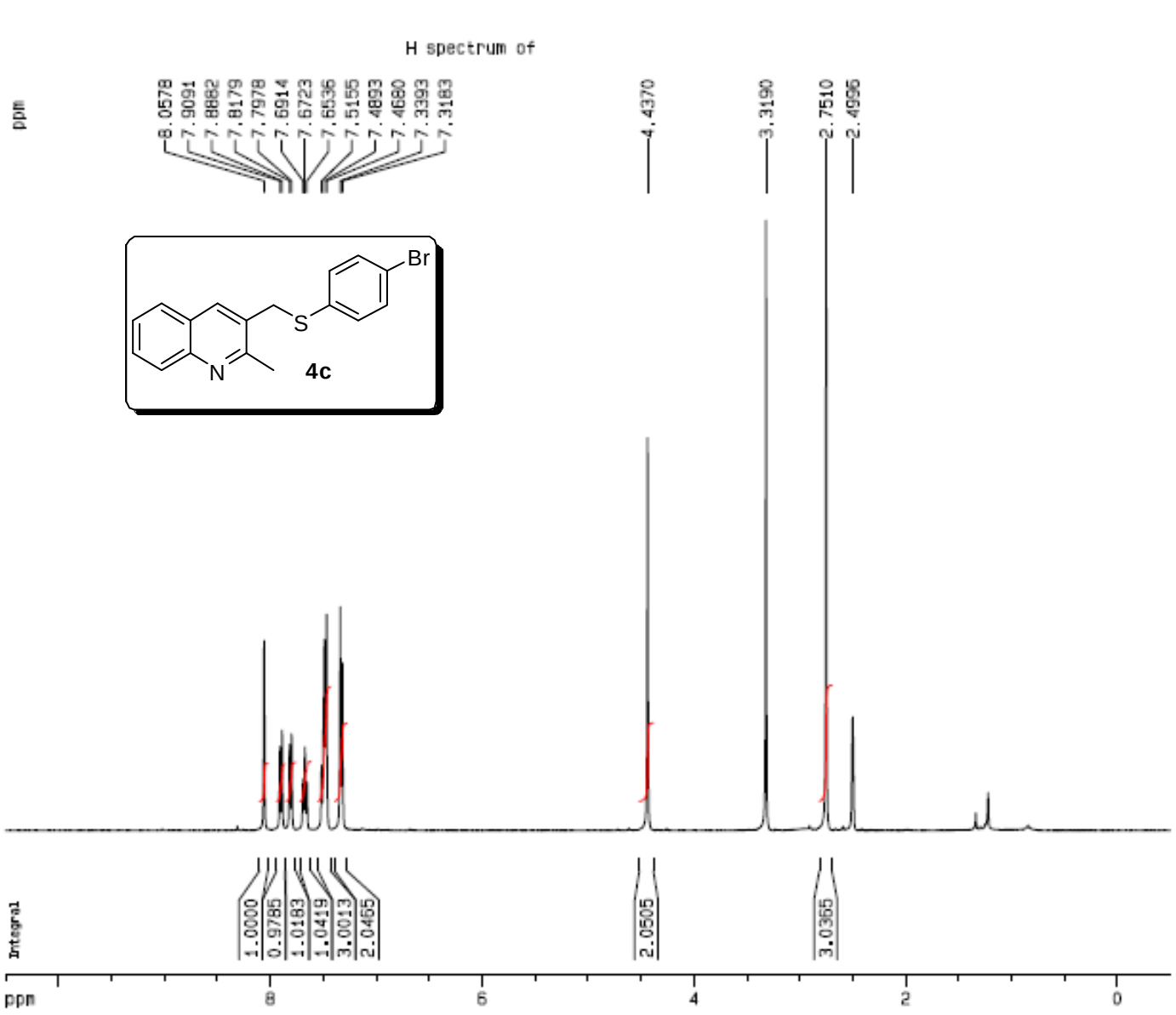
Current Data Parameters
NAME 20100725
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20100725
Time 23.17
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg30
TD 16384
SOLVENT CDCl3
NS 16
DS 0
SWH 6009.615 Hz
FIDRES 0.366798 Hz
AQ 1.3632820 sec
RG 28.5
DW 83.200 usec
DE 6.50 usec
TE 298.4 K
D1 1.50000000 sec
MCREST 0 sec
MCWRK 0.01500000 sec

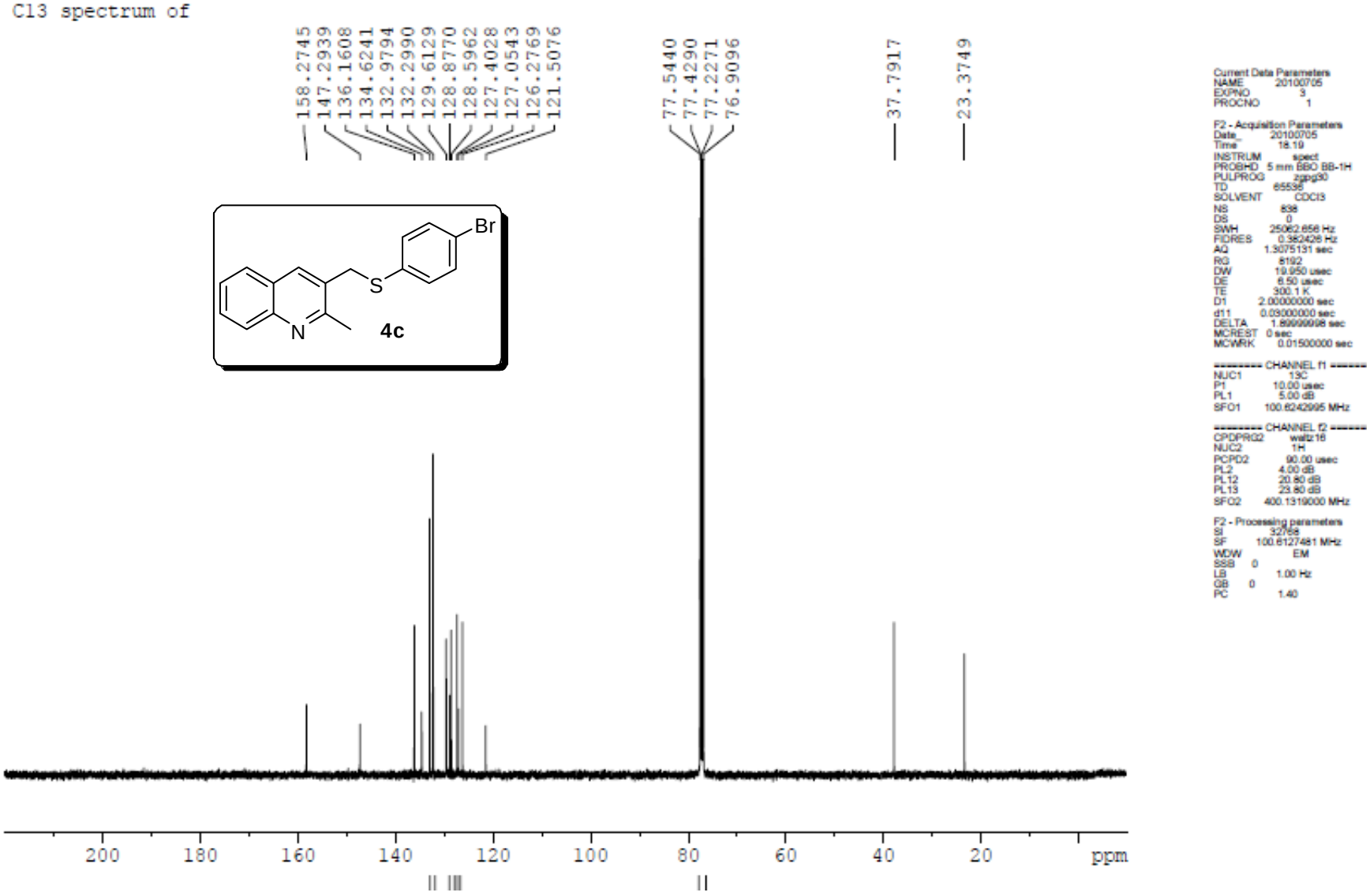
--------- CHANNEL f1 ---------
NUC1 1H
P1 14.50 usec
PL1 5.20 dB
SFO1 400.1326008 MHz

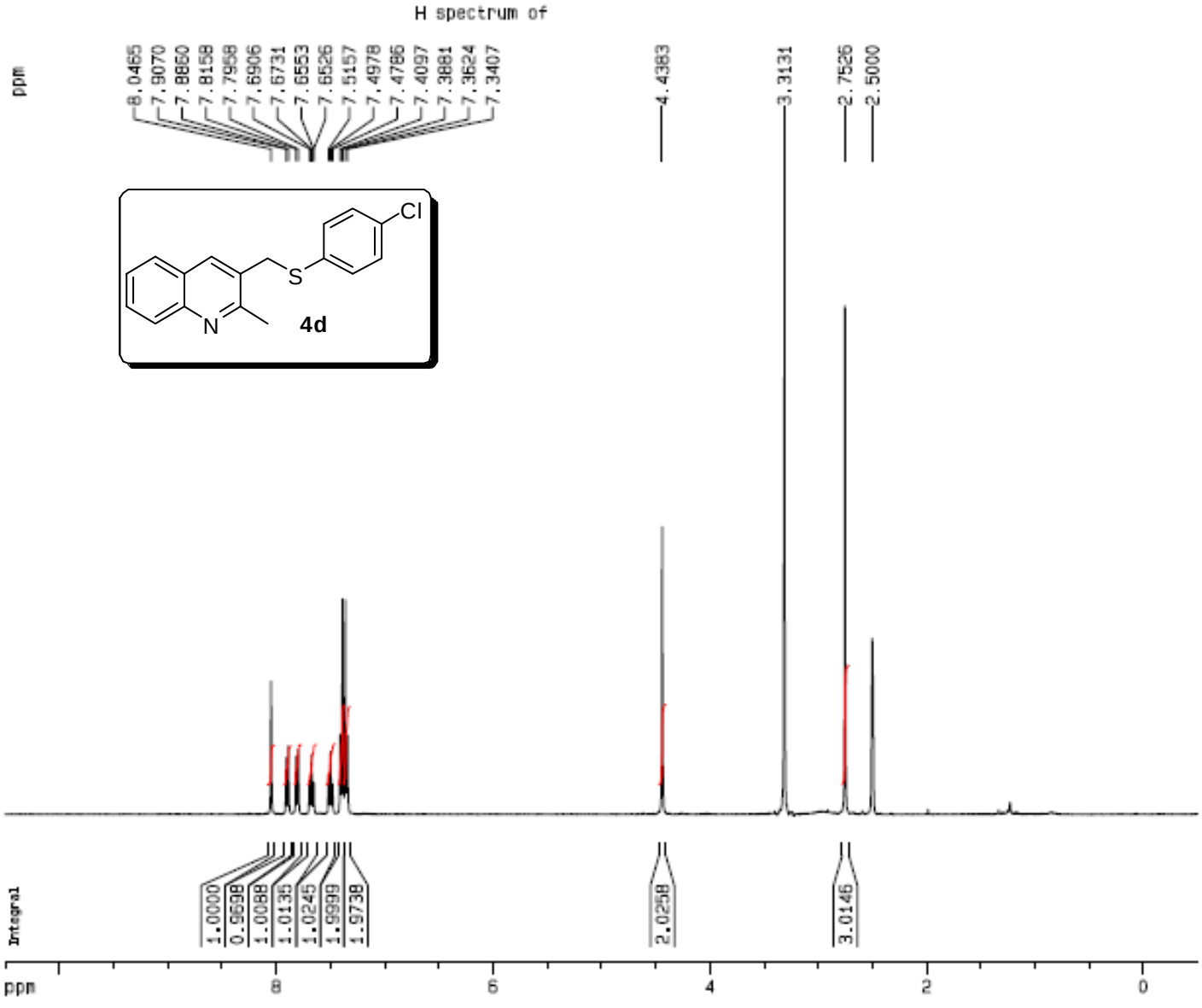
F2 - Processing parameters
SI 16384
SF 400.1300080 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00


C13 spectrum of
ppm
159.71
158.29
146.89
135.91
135.22
129.64
129.15
128.30
127.17
126.88
125.88
125.01
114.58
77.55
77.23
76.92
55.31
39.31
23.13
O
S
N
4b
ppm
200
175
150
125
100
75
50
25
0
Current Data Parameters
NAME 20100802
EXPNO 5
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100802
Time 22.25
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 200
DS 0
SWH 25062.656 Hz
FIDRES 0.382426 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 297.5 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.00 dB
PL13 23.00 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127681 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 8.90 cm
F1P 220.000 ppm
F1 22134.81 Hz
F2P -10.000 ppm
F2 -1005.13 Hz

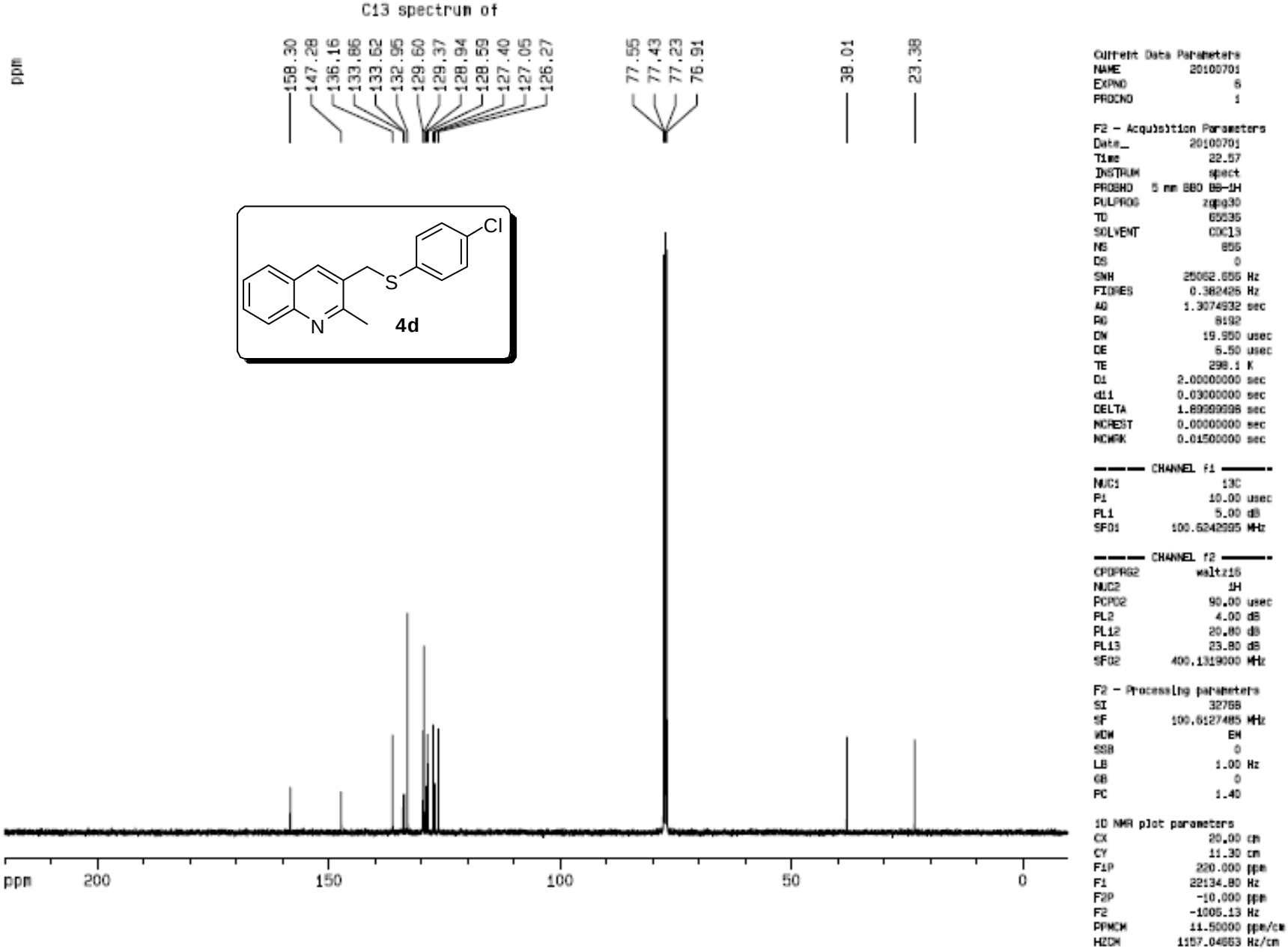


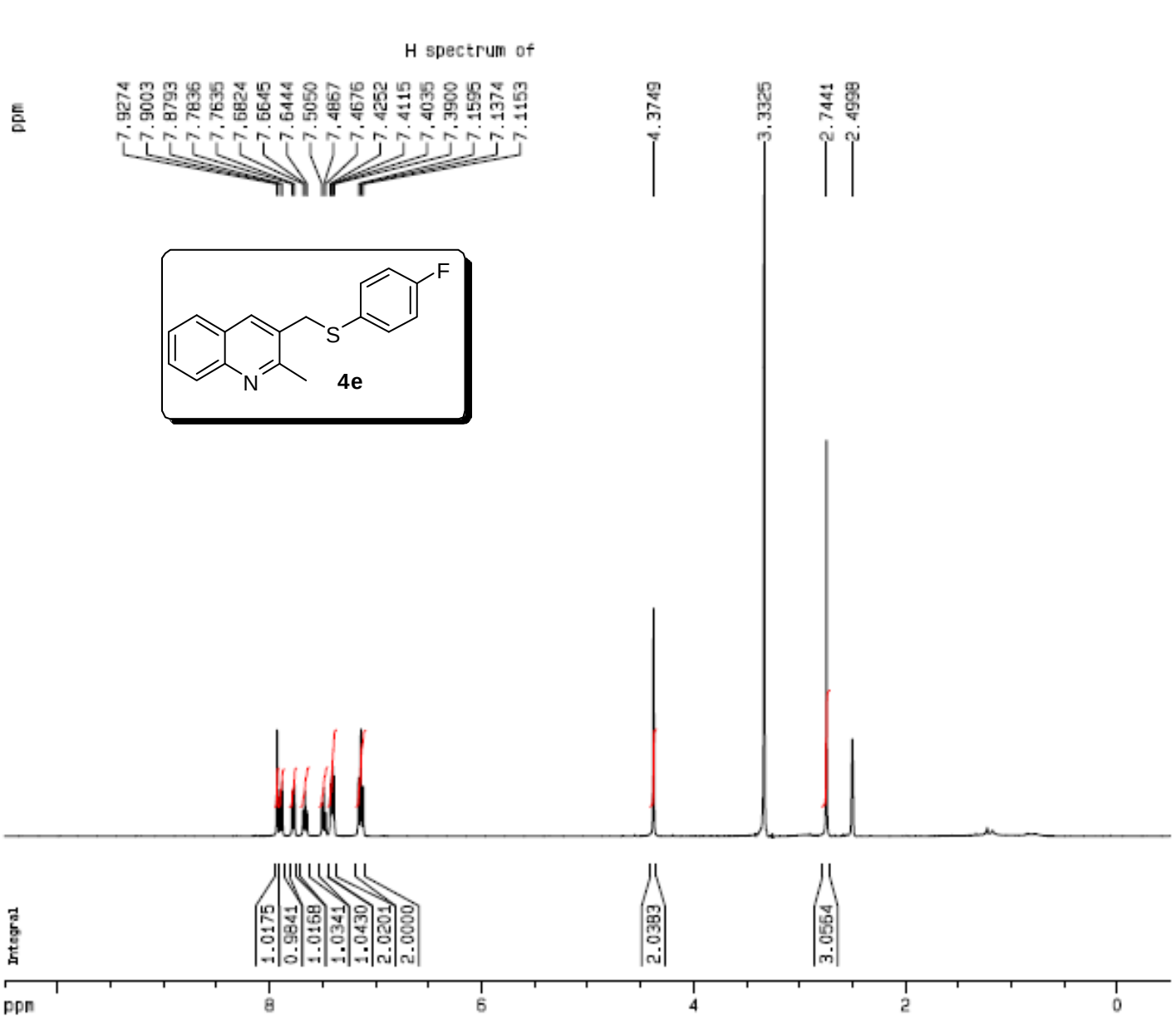

```
Current Data Parameters
NAME                 20110210
EXPNO                       7
PROCNO                      1

F2 - Acquisition Parameters
Date_               20110210
Time                   15.03
INSTRUM                spect
PROBHD   5 mm BBO BB-1H
PULPROG                zg30
TD                    16384
SOLVENT                DMSO
NS                        16
DS                         0
SWH                6009.615 Hz
FIDRES            0.366798 Hz
AQ                1.3631988 sec
RG                     203.2
DW                  83.200 usec
DE                   6.50 usec
TE                   301.8 K
D1                1.50000000 sec
MCREST            0.00000000 sec
MCWRK             0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                      11.20 usec
PL1                      0.00 dB
SFO1              400.1326008 MHz

F2 - Processing parameters
SI                        16384
SF                400.1300016 MHz
WDW                        EM
SSB                         0
LB                       0.10 Hz
GB                          0
PC                       1.00

1D NMR plot parameters
CX                      20.00 cm
CY                      11.35 cm
F1P                    10.500 ppm
F1                    4201.37 Hz
F2P                   -0.500 ppm
F2                   -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```


C13 spectrum of
158.2745
147.2939
136.1608
134.6241
132.9794
132.2990
129.6129
128.8770
128.5962
127.4028
127.0543
126.2769
121.5076
77.5440
77.4290
77.2271
76.9096
37.7917
23.3749
Br
S
N
4c
200
180
160
140
120
100
80
60
40
20
ppm
Current Data Parameters
NAME 20100705
EXPNO 3
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100705
Time 16.19
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 838
DS 0
SWH 25062.656 Hz
FIDRES 0.382426 Hz
AQ 1.3075131 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
MCREST 0 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ======
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242995 MHz
======== CHANNEL f2 ======
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127481 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

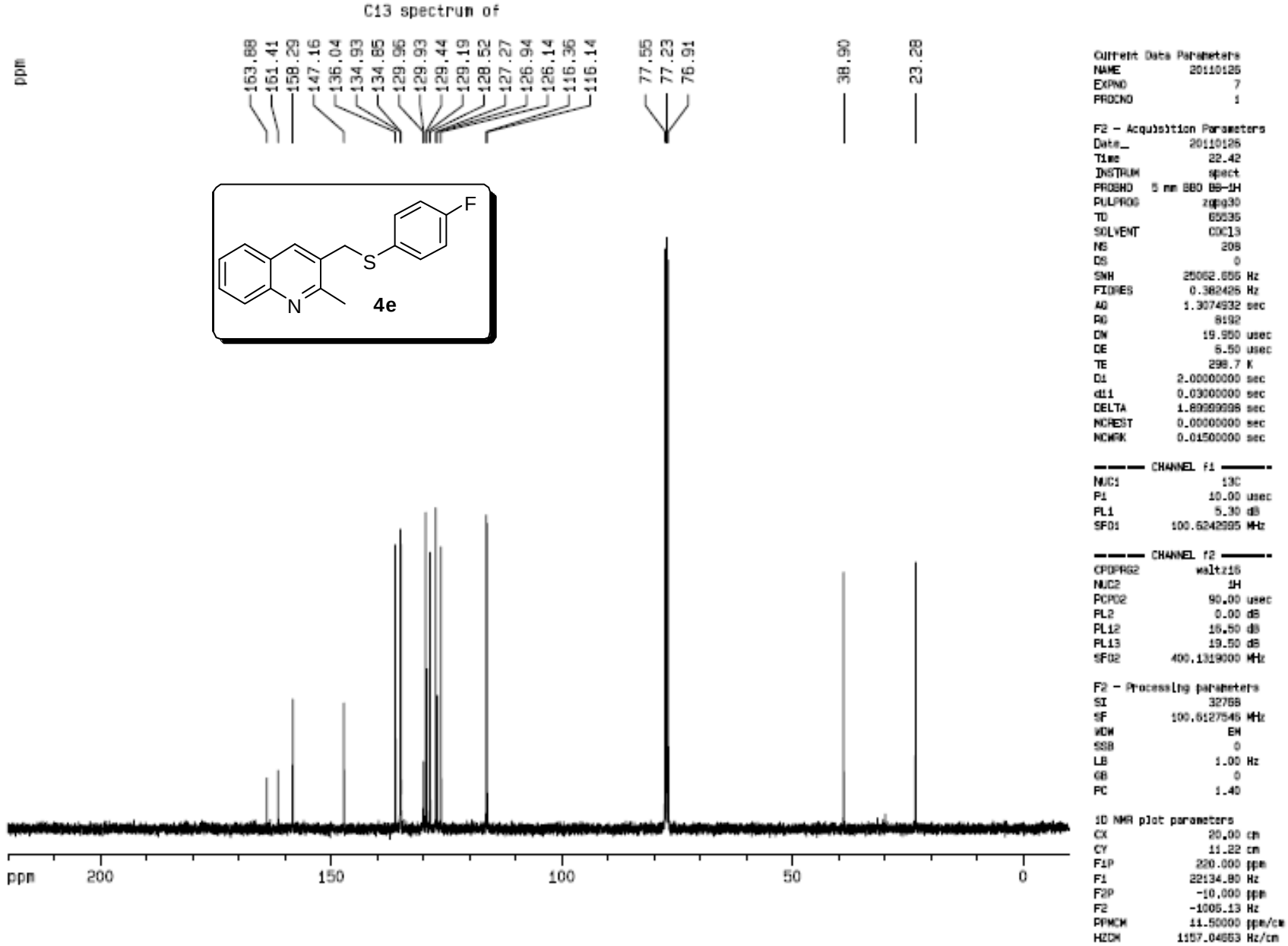


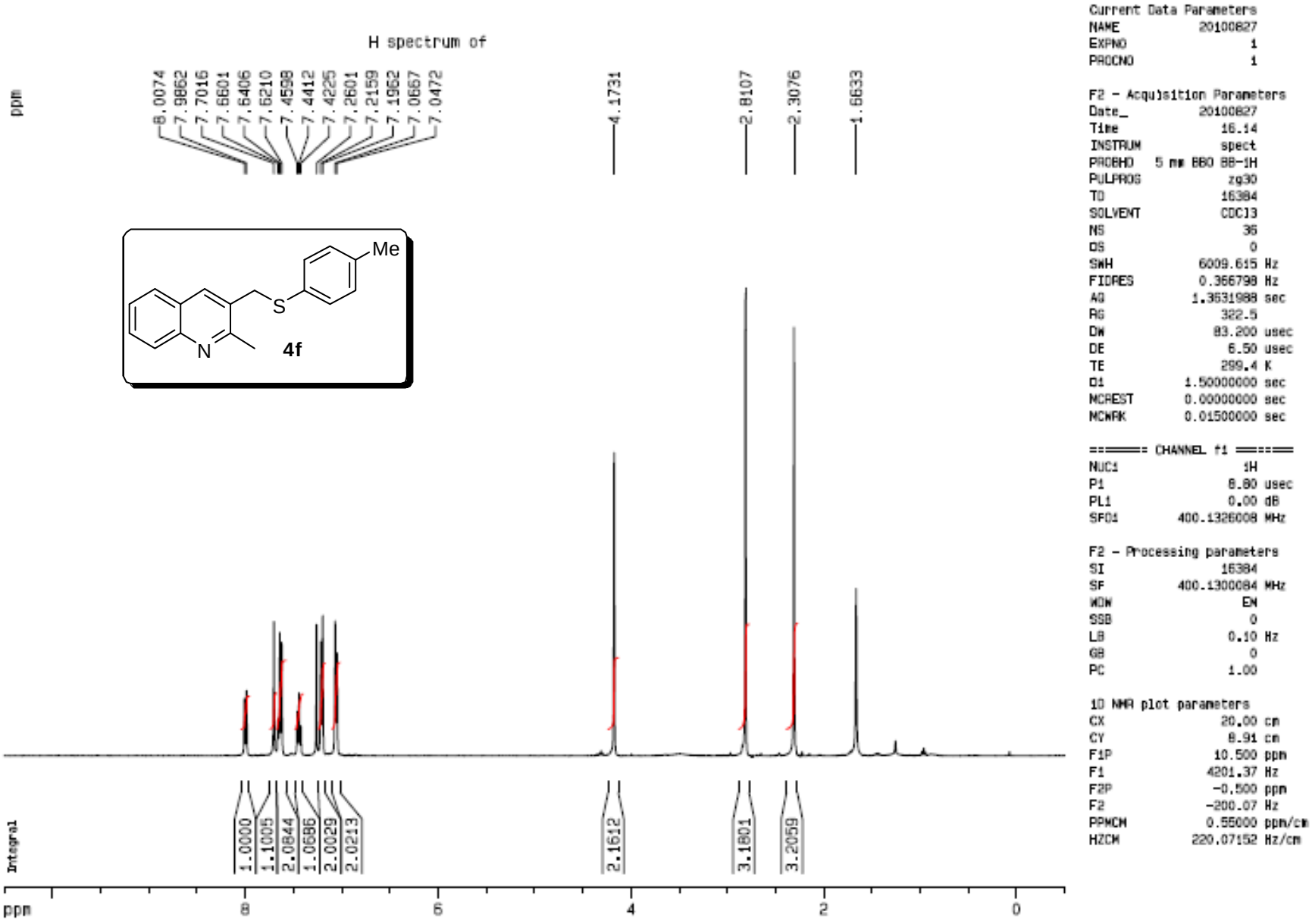

```
Current Data Parameters
NAME                  20110210
EXPNO                        5
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20110210
Time                     14.29
INSTRUM                  spect
PROBHD   5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  DMSO
NS                         16
DS                          0
SWH                6009.615 Hz
FIDRES             0.366798 Hz
AQ                 1.3631988 sec
RG                        256
DW                   83.200 usec
DE                    6.50 usec
TE                    301.8 K
D1                 1.50000000 sec
MCREST             0.00000000 sec
MCWRK              0.01500000 sec

======== CHANNEL f1 ========
NUC1                      1H
P1                     11.20 usec
PL1                     0.00 dB
SFO1             400.1326008 MHz

F2 - Processing parameters
SI                       16384
SF               400.1300020 MHz
WDW                         EM
SSB                          0
LB                      0.10 Hz
GB                           0
PC                        1.00

1D NMR plot parameters
CX                     20.00 cm
CY                     22.43 cm
F1P                   10.500 ppm
F1                  4201.37 Hz
F2P                   -0.500 ppm
F2                  -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```


C13 spectrum of
ppm
158.30
147.28
136.16
133.86
133.62
132.95
129.60
129.37
128.94
128.59
127.40
127.05
126.27
77.55
77.43
77.23
76.91
38.01
23.38
Cl
S
N
4d
ppm
200
150
100
50
0
Current Data Parameters
NAME 20100701
EXPNO 6
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100701
Time 22.57
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 856
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 298.1 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242895 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127485 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.30 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

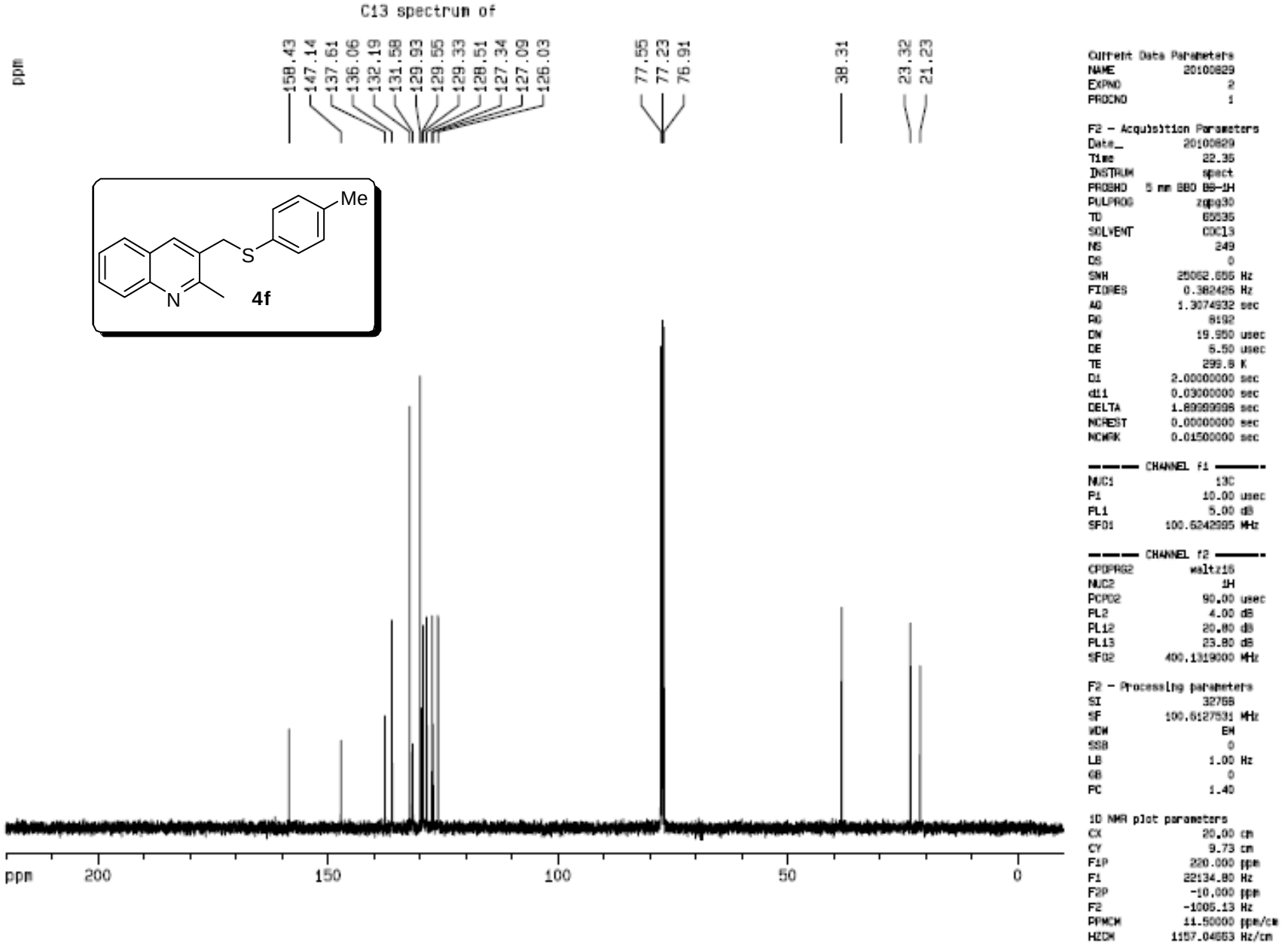


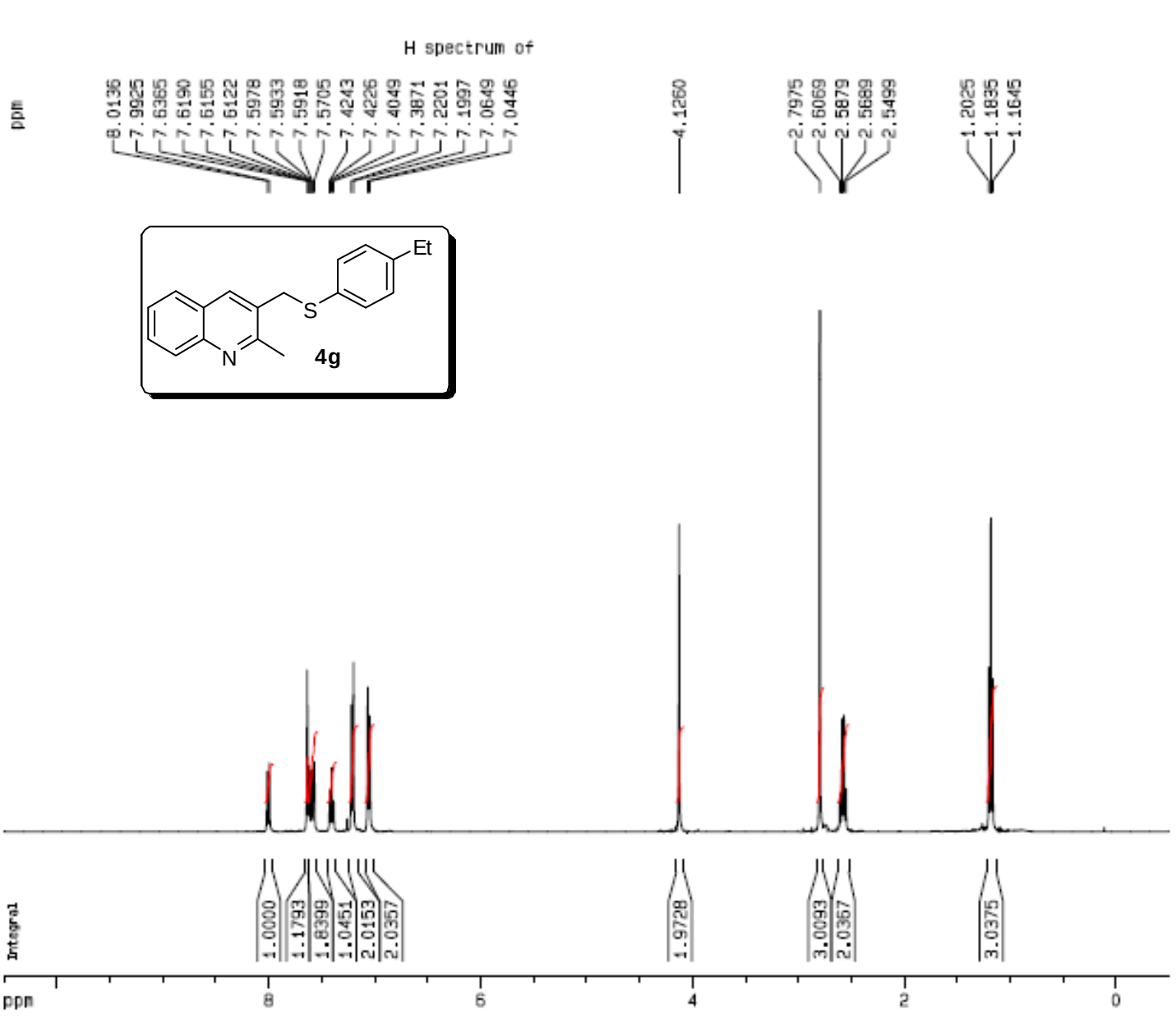

```
Current Data Parameters
NAME                  20110120
EXPNO                        5
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20110120
Time                     16.29
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  DMSO
NS                         16
DS                          0
SWH                 6009.615 Hz
FIDRES              0.366798 Hz
AQ                  1.3631988 sec
RG                        256
DW                     83.200 usec
DE                      6.50 usec
TE                     299.3 K
D1                  1.50000000 sec
MCREST              0.00000000 sec
MCWRK               0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                     11.20 usec
PL1                     0.00 dB
SFO1               400.1326008 MHz

F2 - Processing parameters
SI                      16384
SF                 400.1300020 MHz
WDW                        EM
SSB                         0
LB                      0.10 Hz
GB                          0
PC                      1.00

1D NMR plot parameters
CX                     20.00 cm
CY                     22.66 cm
F1P                   10.500 ppm
F1                   4201.37 Hz
F2P                  -0.500 ppm
F2                   -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```


C13 spectrum of
ppm
163.88
161.41
158.29
147.16
136.04
134.93
134.85
129.96
129.93
129.44
129.19
128.52
127.27
126.94
126.14
116.36
116.14
77.55
77.23
76.91
38.90
23.28
F
S
N
4e
ppm
200
150
100
50
0
Current Data Parameters
NAME 20110125
EXPNO 7
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110126
Time 22.42
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 208
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 298.7 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127546 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.22 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm




```
Current Data Parameters
NAME                  20100827
EXPNO                        1
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20100827
Time                     16.14
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  CDCl3
NS                          36
DS                           0
SWH                 6009.615 Hz
FIDRES              0.366798 Hz
AQ                  1.3631988 sec
RG                       322.5
DW                    83.200 usec
DE                     6.50 usec
TE                     299.4 K
D1                  1.50000000 sec
MCREST              0.00000000 sec
MCWRK               0.01500000 sec

======== CHANNEL f1 ========
NUC1                        1H
P1                       8.80 usec
PL1                      0.00 dB
SFO1               400.1326008 MHz

F2 - Processing parameters
SI                      16384
SF                 400.1300084 MHz
WDW                        EM
SSB                         0
LB                       0.10 Hz
GB                          0
PC                       1.00

1D NMR plot parameters
CX                      20.00 cm
CY                       8.91 cm
F1P                    10.500 ppm
F1                    4201.37 Hz
F2P                   -0.500 ppm
F2                    -200.07 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07152 Hz/cm
```


C13 spectrum of
ppm
158.43
147.14
137.61
136.06
132.19
131.58
129.93
129.55
129.33
128.51
127.34
127.09
126.03
77.55
77.23
76.91
38.31
23.32
21.23
Me
S
N
4f
ppm
200
150
100
50
0
Current Data Parameters
NAME 20100829
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100829
Time 22.35
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 249
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 299.8 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWFK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242895 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.00 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127531 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 9.73 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1006.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm



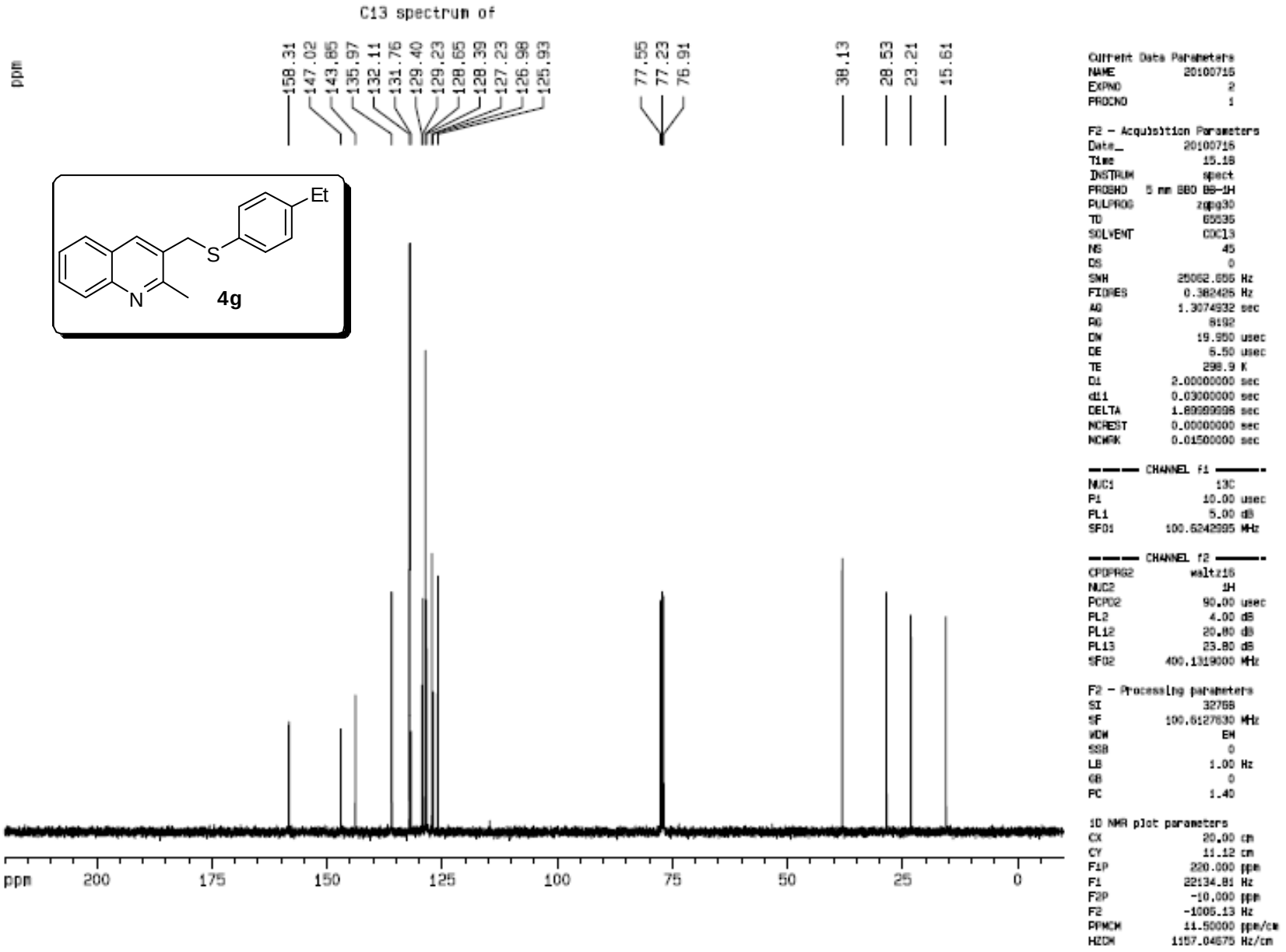
Current Data Parameters
NAME 20100716
EXPNO 1
PROCNO 1

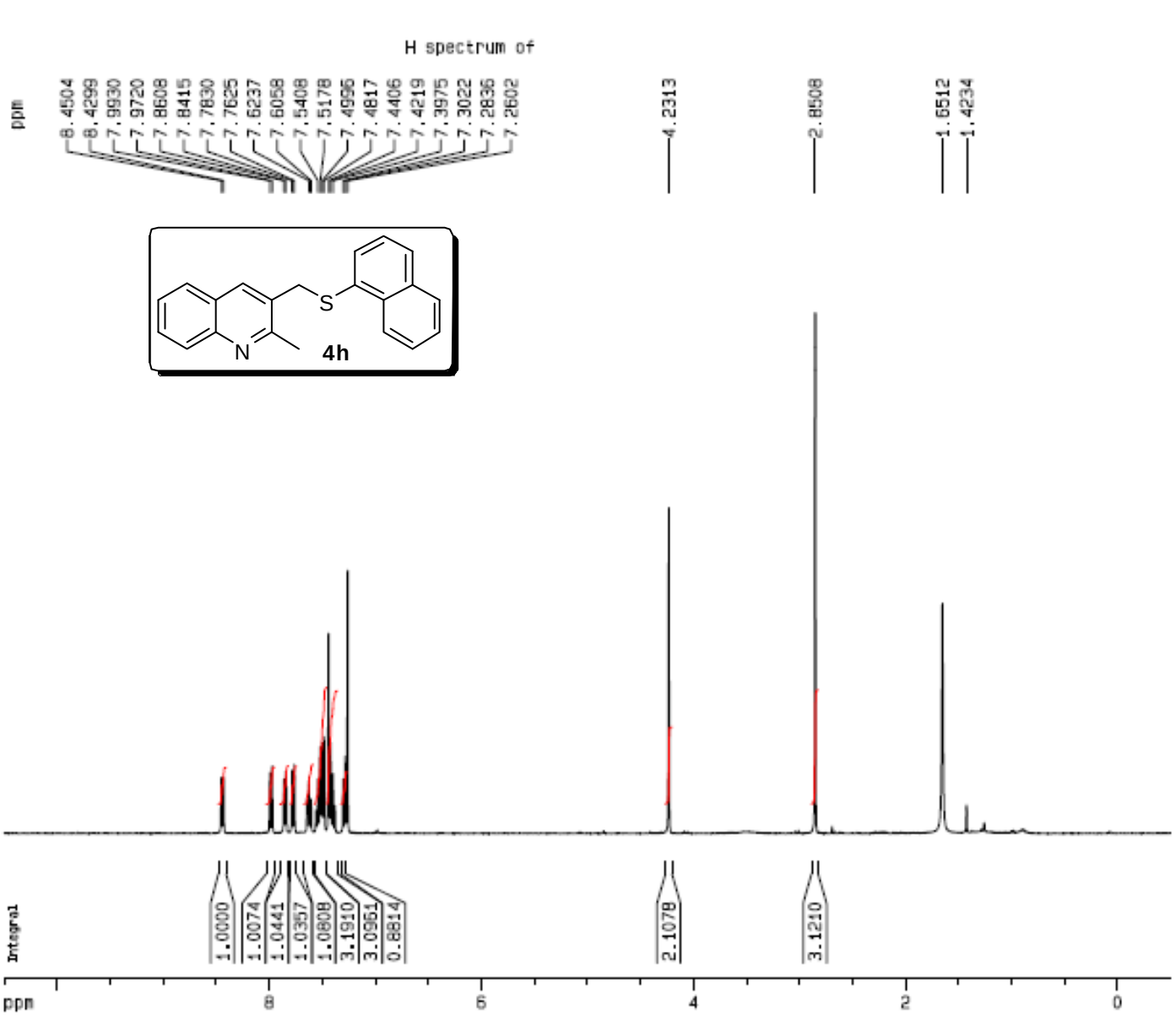
F2 - Acquisition Parameters
Date_ 20100716
Time 15.16
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg30
TD 16384
SOLVENT CDCl3
NS 1
DS 0
SWH 6009.615 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 28.5
DW 83.200 usec
DE 6.50 usec
TE 298.5 K
D1 1.50000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

======== CHANNEL f1 ========
NUC1 1H
P1 14.50 usec
PL1 5.20 dB
SFO1 400.1326008 MHz

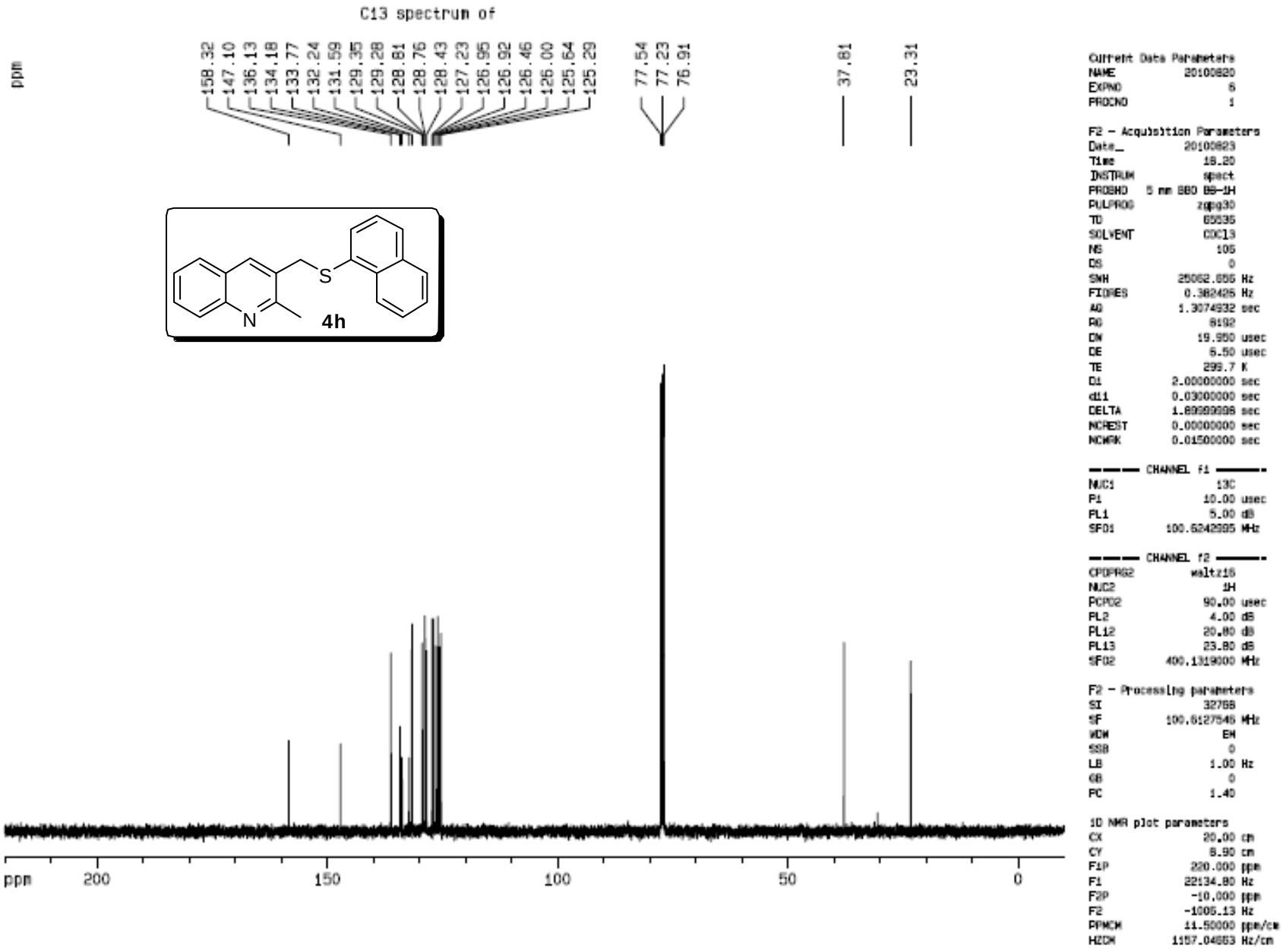
F2 - Processing parameters
SI 16384
SF 400.1300088 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

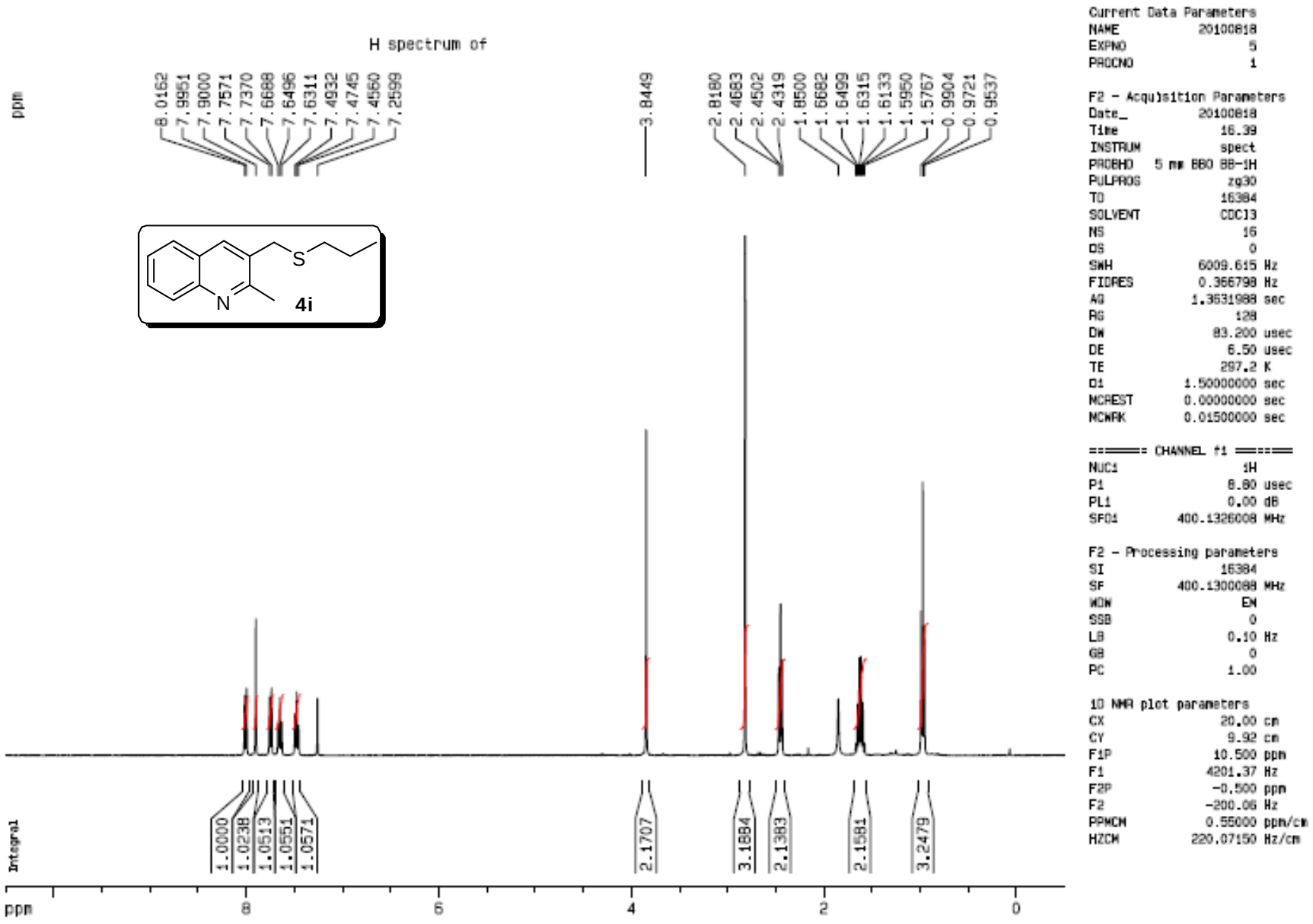
1D NMR plot parameters
CX 20.00 cm
CY 8.97 cm
F1P 10.500 ppm
F1 4201.37 Hz
F2P -0.500 ppm
F2 -200.06 Hz
PPMCM 0.55000 ppm/cm
HZCM 220.07150 Hz/cm


C13 spectrum of
ppm
158.31
147.02
143.85
135.97
132.11
131.76
129.40
129.23
128.65
128.39
127.23
126.98
125.93
77.55
77.23
76.91
38.13
28.53
23.21
15.61
Et
S
N
4g
ppm 200 175 150 125 100 75 50 25 0
Current Data Parameters
NAME 20100715
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100715
Time 15.18
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 45
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 298.9 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127630 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.12 cm
F1P 220.000 ppm
F1 22134.81 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04675 Hz/cm

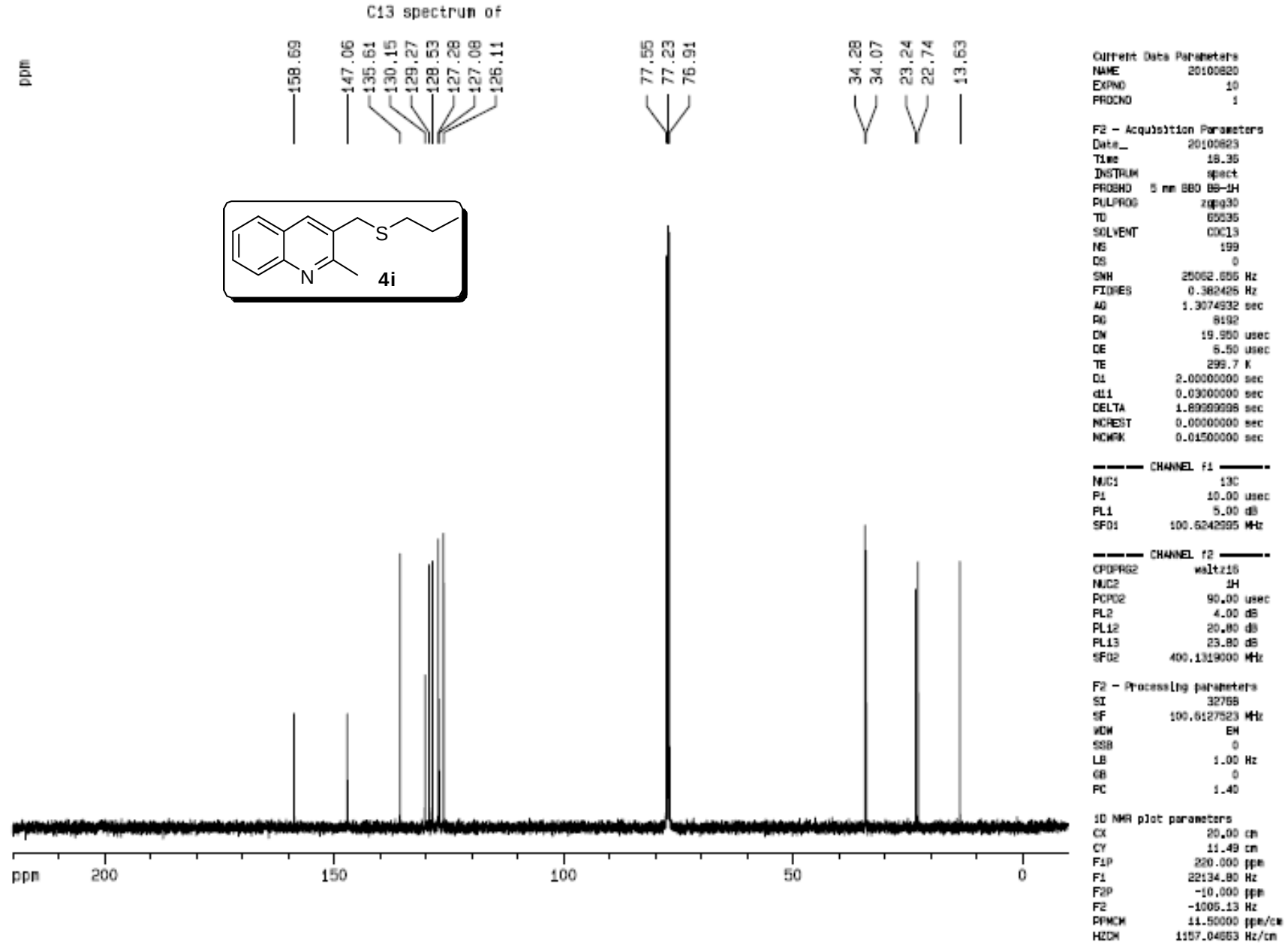


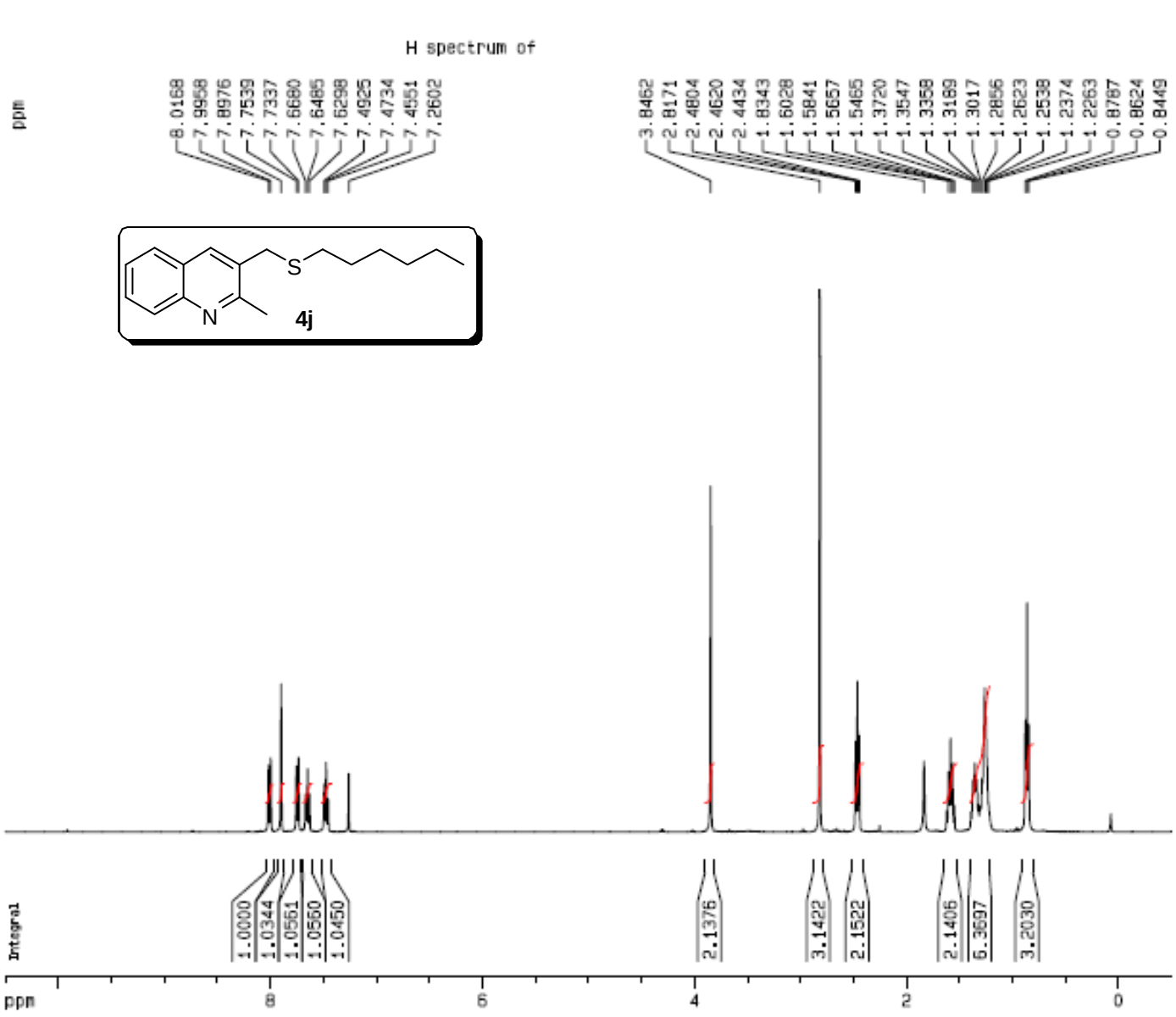

```
Current Data Parameters
NAME                  20100813
EXPNO                        1
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20100813
Time                     10.45
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  CDCl3
NS                          16
DS                           0
SWH                 6009.615 Hz
FIDRES              0.366798 Hz
AQ                  1.3631988 sec
RG                       322.5
DW                   83.200 usec
DE                    6.50 usec
TE                     299.2 K
D1                  1.50000000 sec
MCREST              0.00000000 sec
MCWRK               0.01500000 sec

======== CHANNEL f1 ========
NUC1                        1H
P1                    14.50 usec
PL1                    5.20 dB
SFO1               400.1326008 MHz

F2 - Processing parameters
SI                       16384
SF                 400.1300084 MHz
WDW                         EM
SSB                          0
LB                     0.10 Hz
GB                           0
PC                        1.00

1D NMR plot parameters
CX                       20.00 cm
CY                        8.94 cm
F1P                     10.500 ppm
F1                     4201.37 Hz
F2P                    -0.500 ppm
F2                     -200.06 Hz
PPMCM                  0.55000 ppm/cm
HZCM                 220.07150 Hz/cm
```


C13 spectrum of
ppm
158.32
147.10
136.13
134.18
133.77
132.24
131.59
129.35
129.28
128.81
128.76
128.43
127.23
126.95
126.92
126.46
126.00
125.64
125.29
77.54
77.23
76.91
37.81
23.31
S
N
4h
ppm
200
150
100
50
0
Current Data Parameters
NAME 20100820
EXPNO 6
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100823
Time 18.20
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 105
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 299.7 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242695 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127546 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 8.90 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

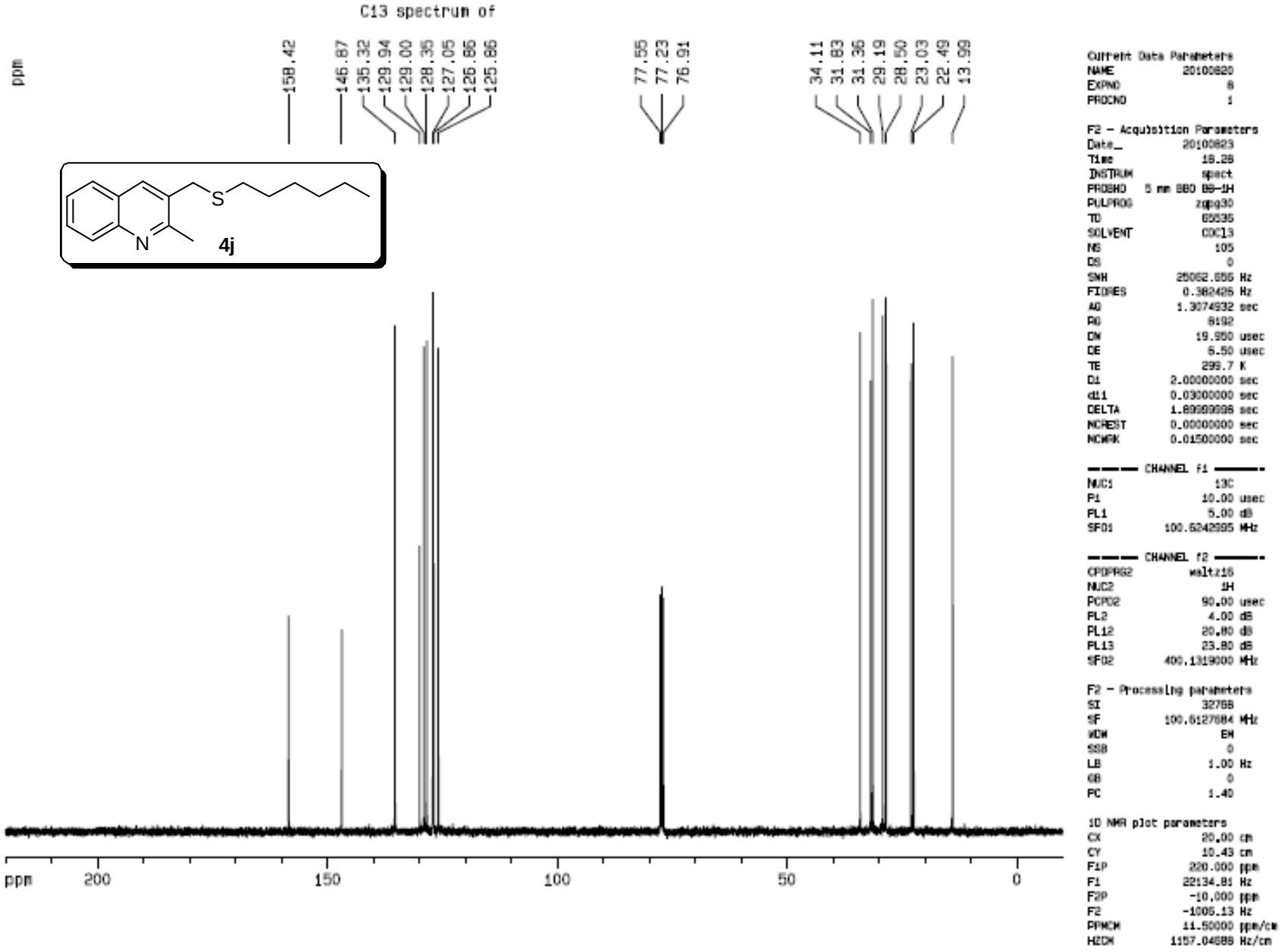


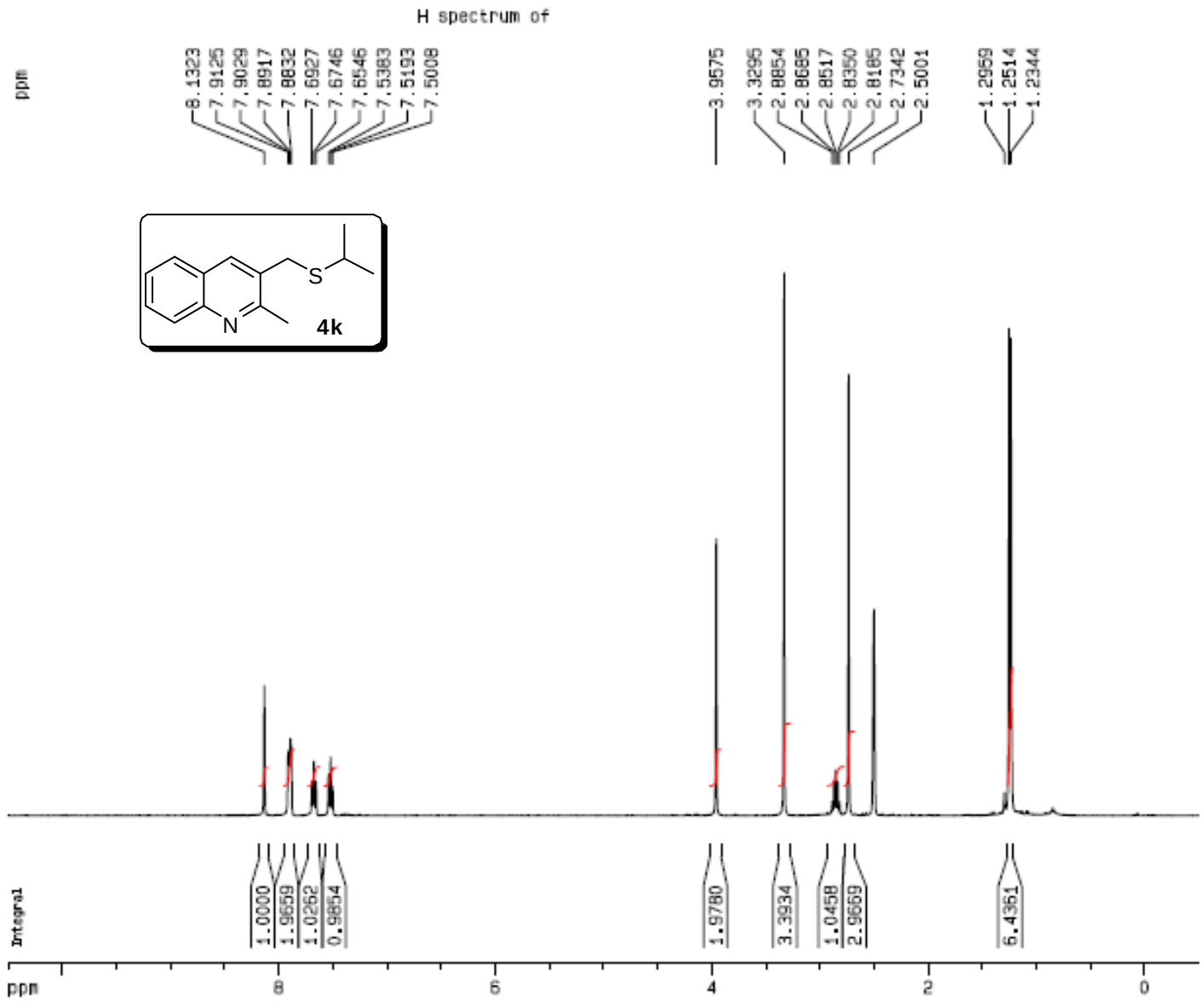

```
Current Data Parameters
NAME                  20100818
EXPNO                        5
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20100818
Time                     16.39
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  CDCl3
NS                          16
DS                           0
SWH                 6009.615 Hz
FIDRES              0.366798 Hz
AQ                  1.3631988 sec
RG                         128
DW                    83.200 usec
DE                     6.50 usec
TE                     297.2 K
D1                  1.50000000 sec
MCREST              0.00000000 sec
MCWRK               0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                      8.80 usec
PL1                     0.00 dB
SFO1             400.1326008 MHz

F2 - Processing parameters
SI                       16384
SF                400.1300088 MHz
WDW                         EM
SSB                          0
LB                      0.10 Hz
GB                           0
PC                      1.00

1D NMR plot parameters
CX                     20.00 cm
CY                      9.92 cm
F1P                   10.500 ppm
F1                   4201.37 Hz
F2P                   -0.500 ppm
F2                   -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```


C13 spectrum of
ppm
158.69
147.06
135.61
130.15
129.27
128.53
127.28
127.08
126.11
77.55
77.23
76.91
34.28
34.07
23.24
22.74
13.63
S
N
4i
ppm
200
150
100
50
0
Current Data Parameters
NAME 20100820
EXPNO 10
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100823
Time 18.35
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 199
DS 0
SWH 25062.656 Hz
FIDRES 0.382426 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 299.7 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCHEST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCP02 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127523 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.49 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

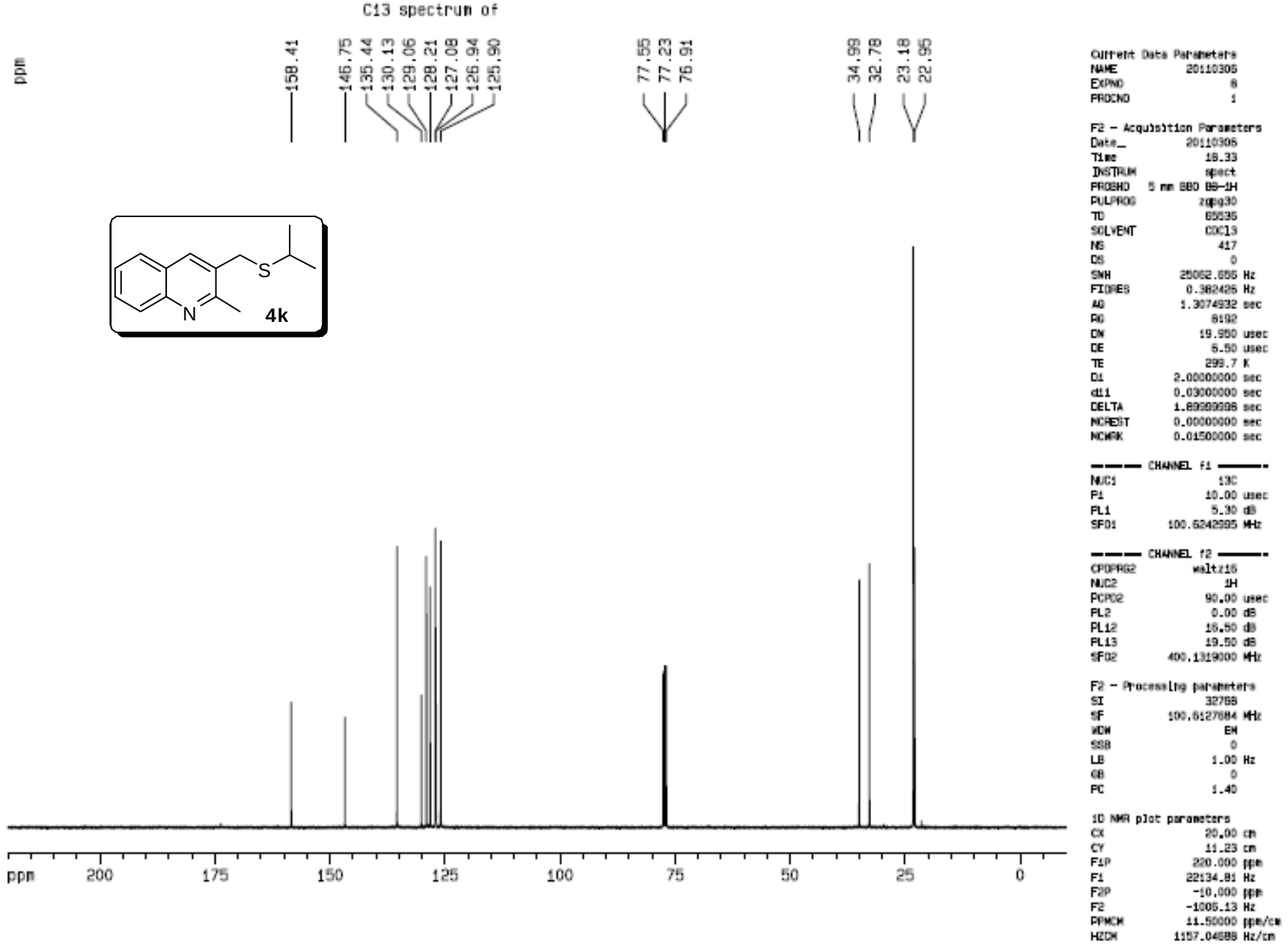


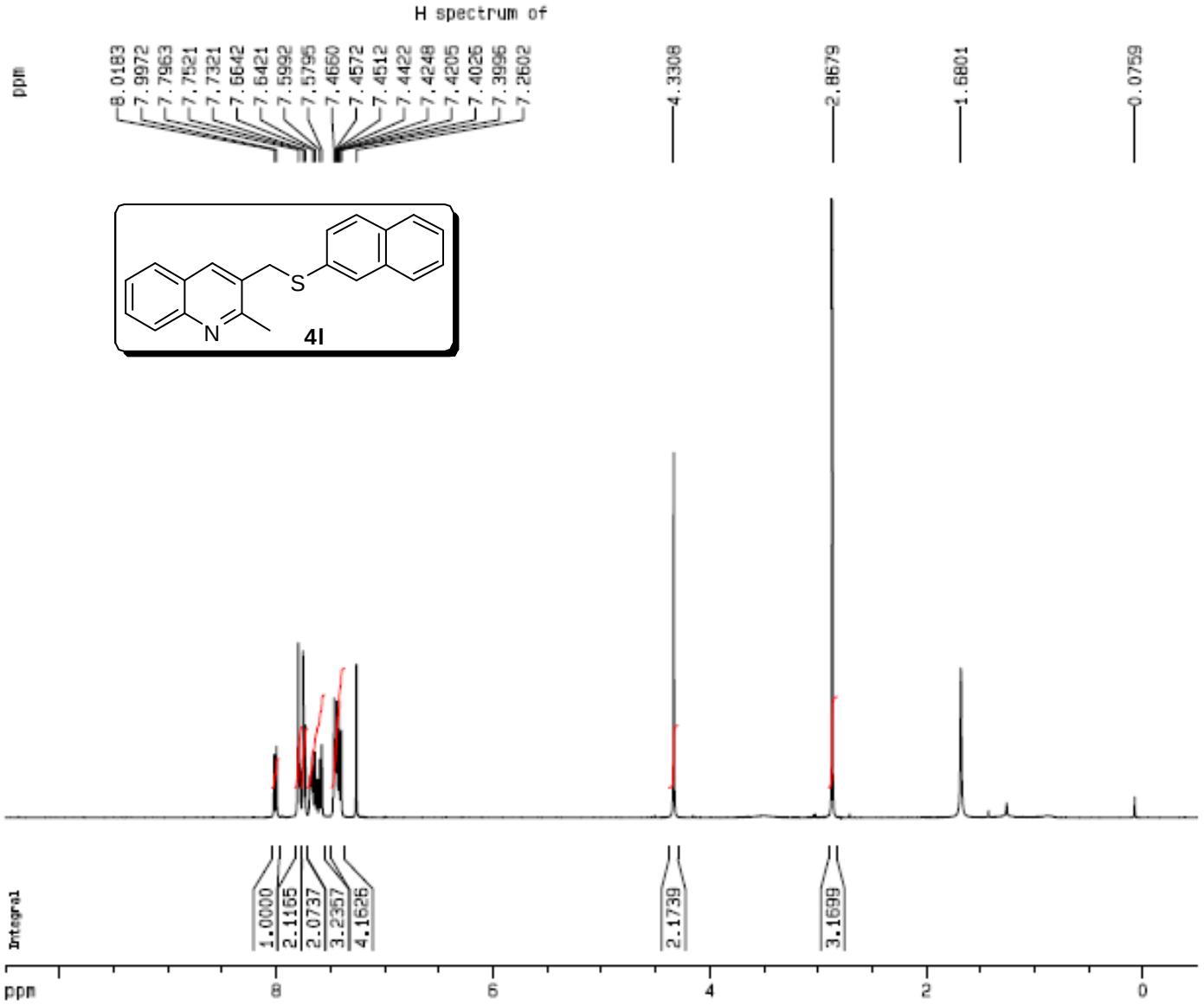

```
Current Data Parameters
NAME                  20100819
EXPNO                        1
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20100819
Time                     15.52
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  CDCl3
NS                          16
DS                           0
SWH                 6009.615 Hz
FIDRES              0.366798 Hz
AQ                  1.3631988 sec
RG                         128
DW                    83.200 usec
DE                     6.50 usec
TE                     299.4 K
D1                  1.50000000 sec
MCREST              0.00000000 sec
MCWRK               0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                      8.80 usec
PL1                     0.00 dB
SFO1              400.1326008 MHz

F2 - Processing parameters
SI                       16384
SF                400.1300084 MHz
WDW                         EM
SSB                          0
LB                      0.10 Hz
GB                           0
PC                        1.00

1D NMR plot parameters
CX                      20.00 cm
CY                       9.44 cm
F1P                    10.500 ppm
F1                   4201.37 Hz
F2P                   -0.500 ppm
F2                   -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```


C13 spectrum of
ppm
158.42
146.87
135.32
129.94
129.00
128.35
127.05
126.86
125.86
77.55
77.23
76.91
34.11
31.83
31.36
29.19
28.50
23.03
22.49
13.99
S
N
4j
ppm
200
150
100
50
0
Current Data Parameters
NAME 20100820
EXPNO 8
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100823
Time 18.28
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 105
DS 0
SWH 25062.656 Hz
FIDRES 0.382426 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 299.7 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127684 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 10.43 cm
F1P 220.000 ppm
F1 22134.81 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04688 Hz/cm

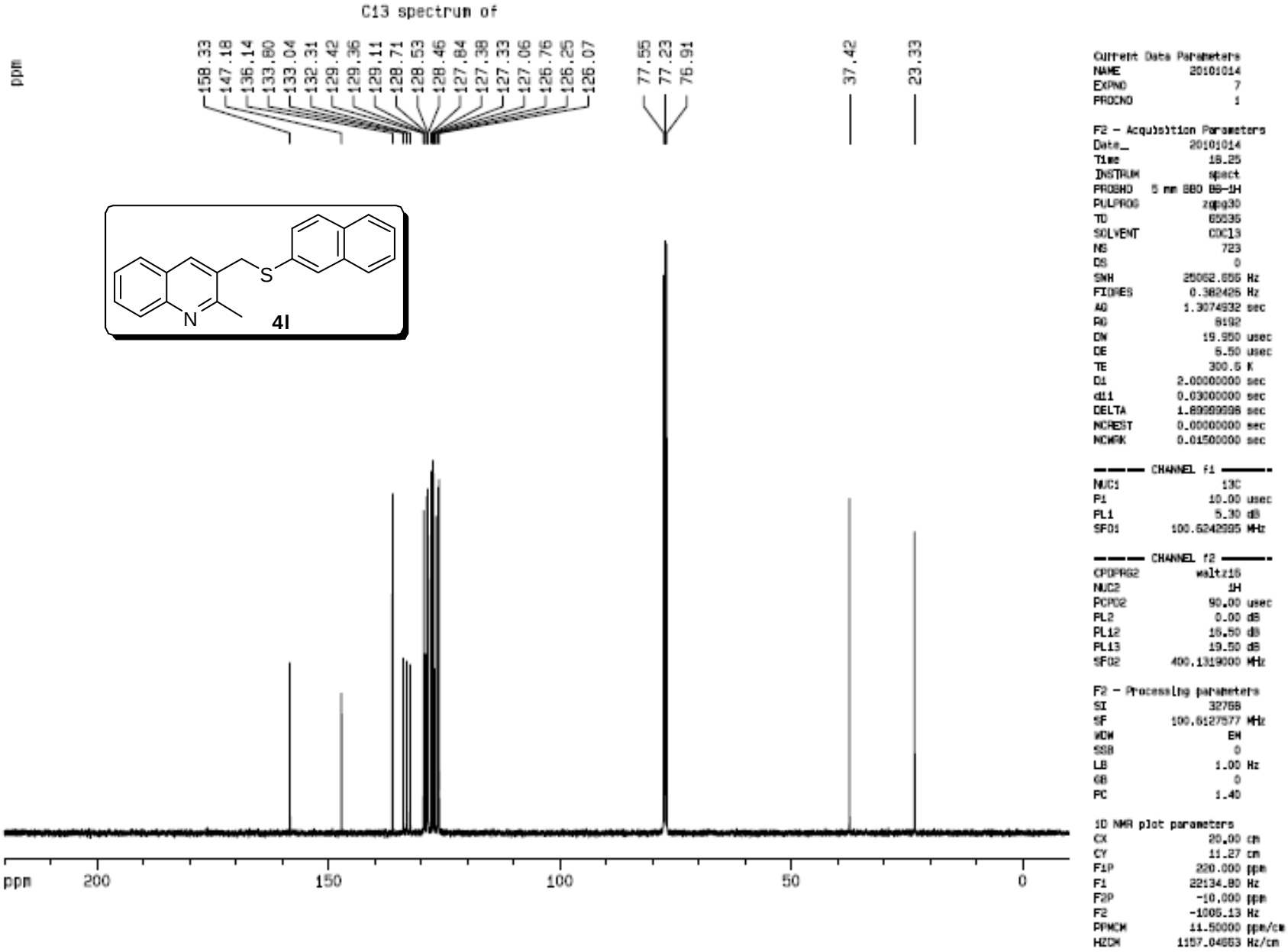


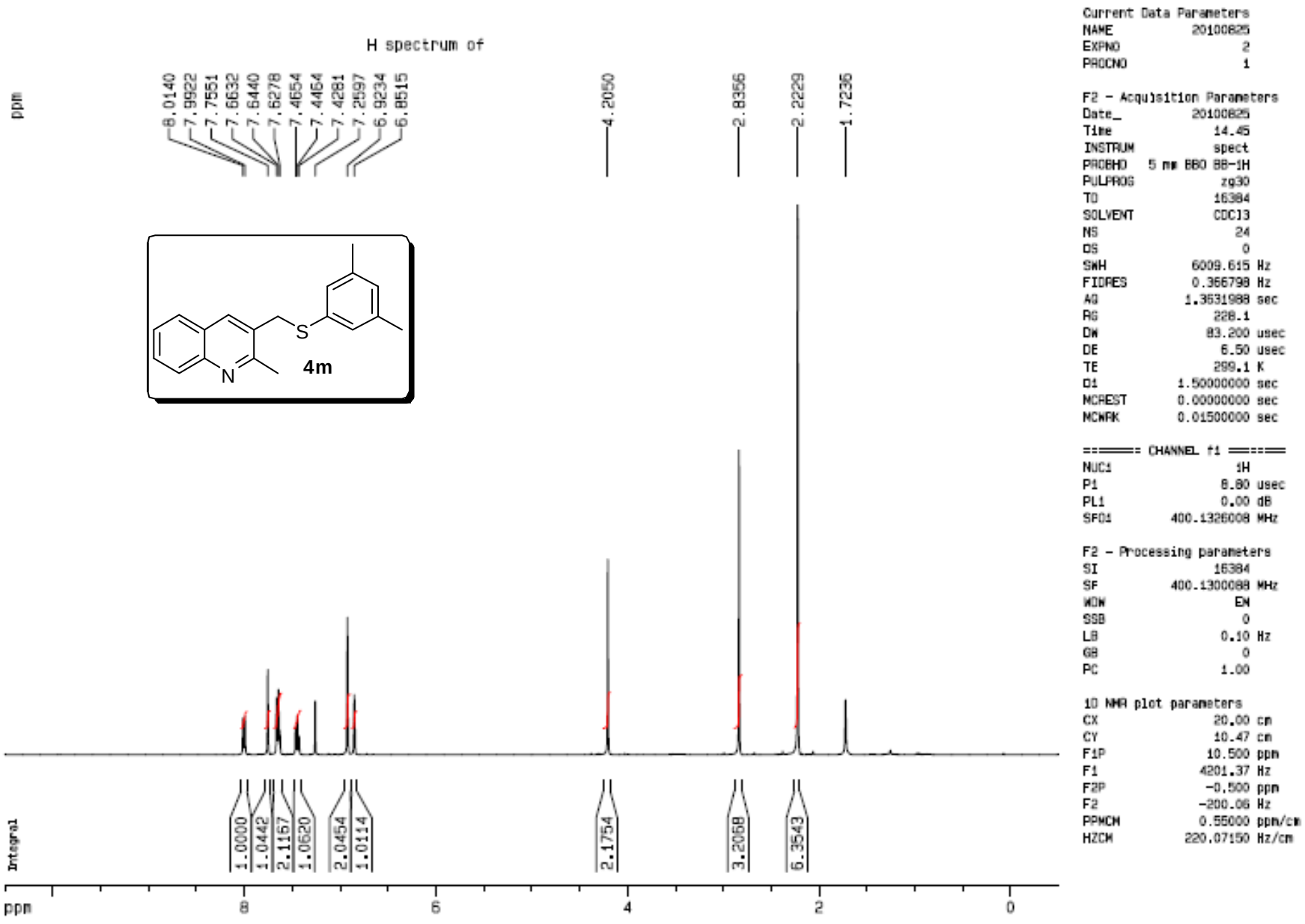

```
Current Data Parameters
NAME                  20100809
EXPNO                        4
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20100809
Time                     20.26
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  DMSO
NS                         16
DS                          0
SWH                6009.615 Hz
FIDRES             0.366798 Hz
AQ                 1.3631988 sec
RG                       287.4
DW                    83.200 usec
DE                     6.50 usec
TE                     297.3 K
D1                 1.50000000 sec
MCREST             0.00000000 sec
MCWRK              0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                     14.50 usec
PL1                     5.20 dB
SFO1              400.1326008 MHz

F2 - Processing parameters
SI                      16384
SF                400.1300009 MHz
WDW                        EM
SSB                         0
LB                     0.10 Hz
GB                          0
PC                      1.00

1D NMR plot parameters
CX                     20.00 cm
CY                      9.15 cm
F1P                   10.500 ppm
F1                   4201.37 Hz
F2P                  -0.500 ppm
F2                  -200.06 Hz
PPMCM                0.55000 ppm/cm
HZCM               220.07150 Hz/cm
```

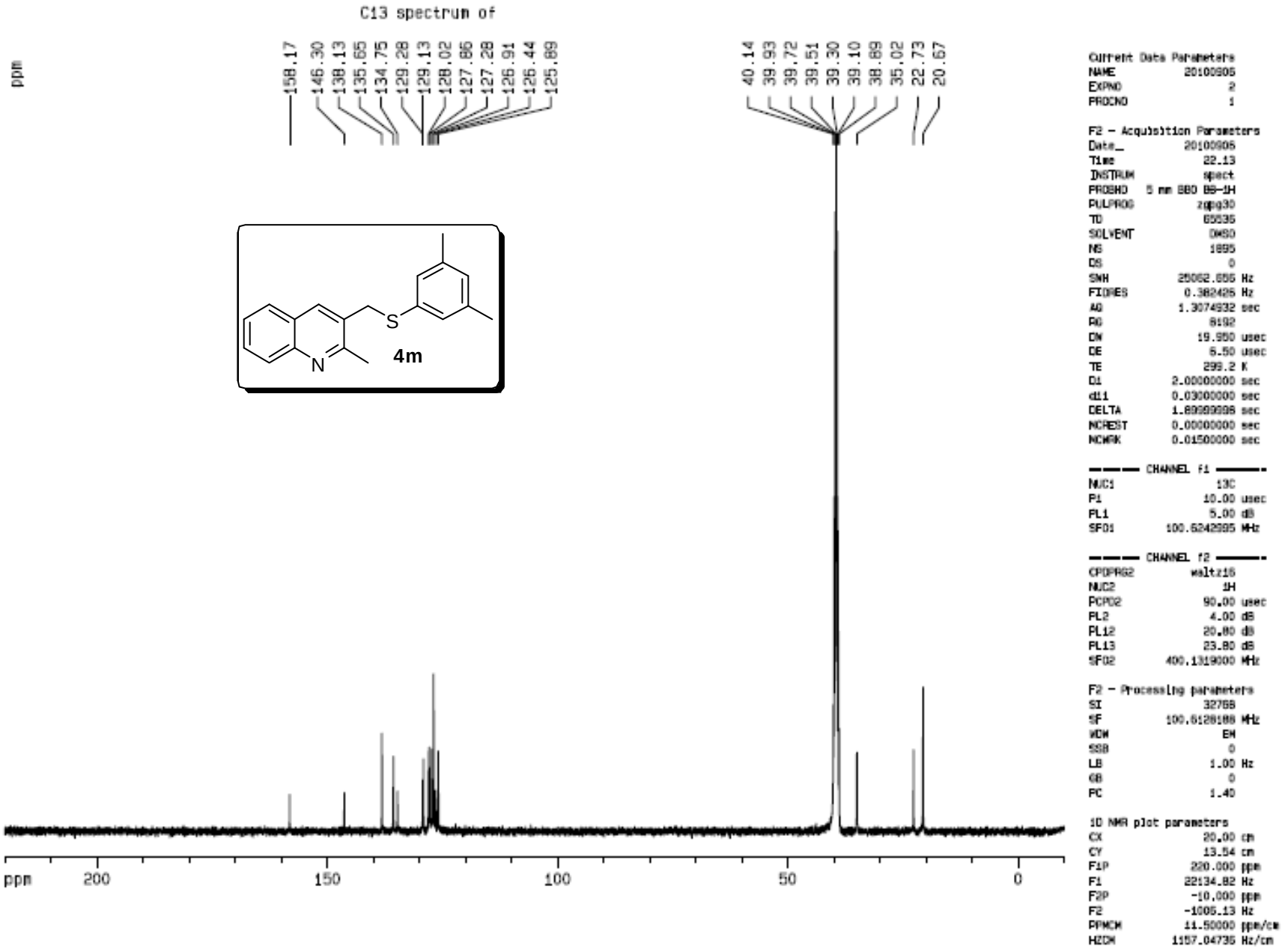

C13 spectrum of
ppm
158.41
146.75
135.44
130.13
129.06
128.21
127.08
126.94
125.90
77.55
77.23
76.91
34.99
32.78
23.18
22.95
S
N
4k
ppm
200
175
150
125
100
75
50
25
0
Current Data Parameters
NAME 20110305
EXPNO 8
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110305
Time 18.33
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 417
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 299.7 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242595 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127684 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.23 cm
F1P 220.000 ppm
F1 22134.81 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04688 Hz/cm

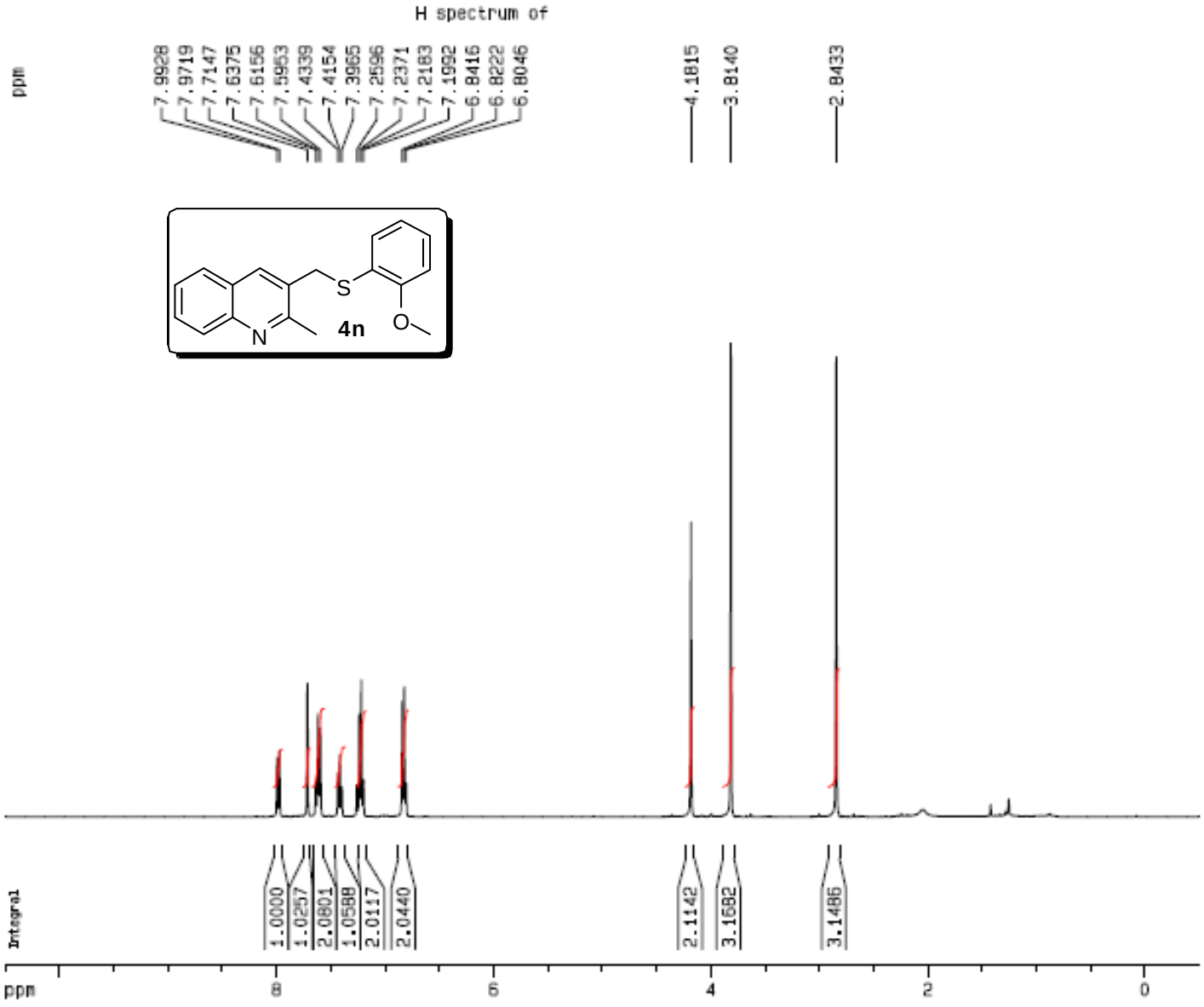



```
Current Data Parameters
NAME                  20101012
EXPNO                        1
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20101012
Time                     16.48
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  CDCl3
NS                          16
DS                           0
SWH                 6009.615 Hz
FIDRES              0.366798 Hz
AQ                  1.3631988 sec
RG                         256
DW                    83.200 usec
DE                     6.50 usec
TE                     299.5 K
D1                  1.50000000 sec
MCREST              0.00000000 sec
MCWRK               0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                     11.20 usec
PL1                     0.00 dB
SFO1              400.1326008 MHz

F2 - Processing parameters
SI                       16384
SF                400.1300088 MHz
WDW                         EM
SSB                          0
LB                      0.10 Hz
GB                           0
PC                      1.00

1D NMR plot parameters
CX                     20.00 cm
CY                     10.40 cm
F1P                   10.500 ppm
F1                   4201.37 Hz
F2P                  -0.500 ppm
F2                  -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```

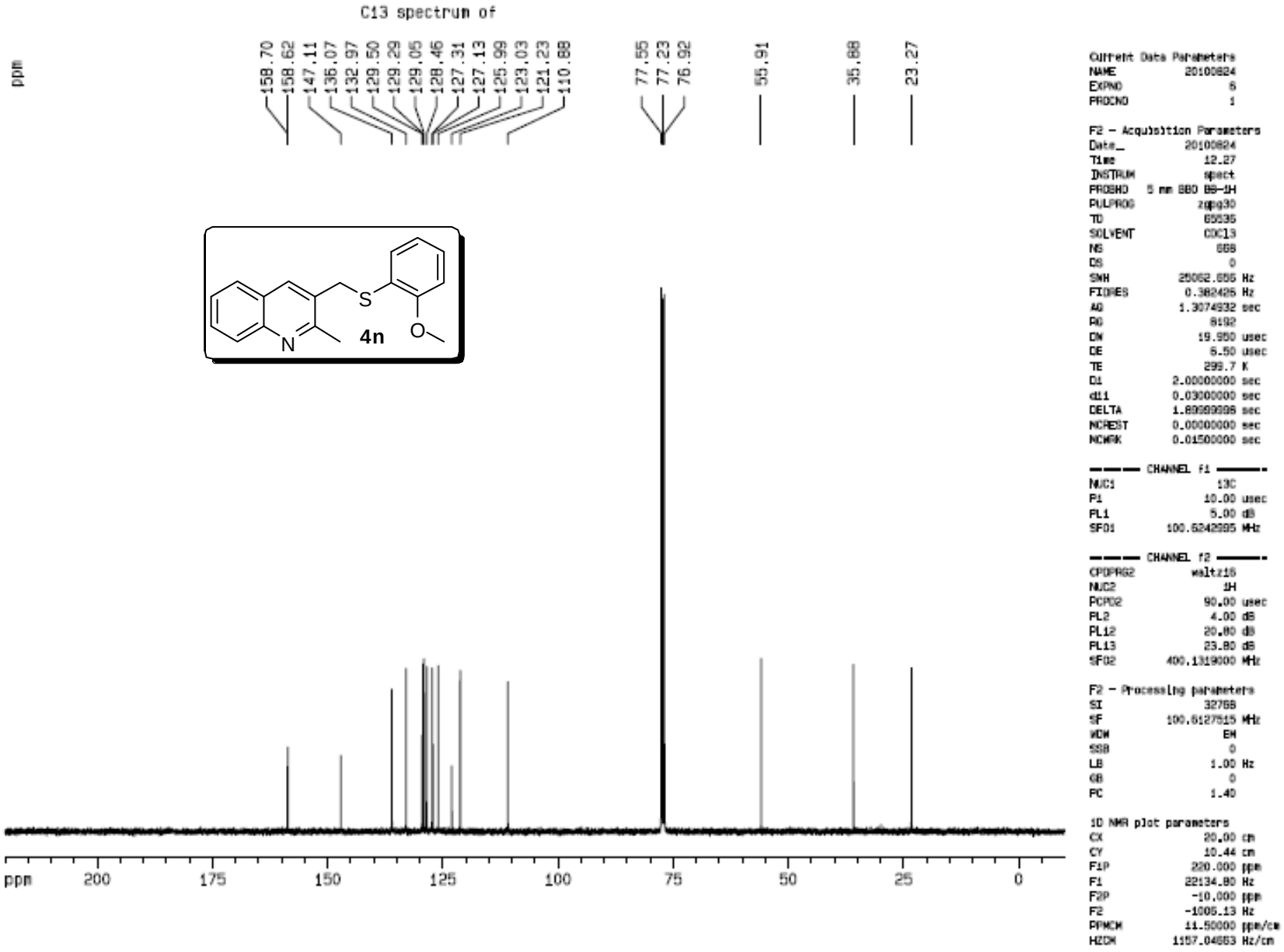

C13 spectrum of
ppm
158.33
147.18
136.14
133.80
133.04
132.31
129.42
129.36
129.11
128.71
128.53
128.46
127.84
127.38
127.33
127.06
126.76
126.25
126.07
77.55
77.23
76.91
37.42
23.33
S
N
4l
ppm
200
150
100
50
0
Current Data Parameters
NAME 20101014
EXPNO 7
PROCNO 1
F2 - Acquisition Parameters
Date_ 20101014
Time 18.25
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 723
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 300.6 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127577 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.27 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

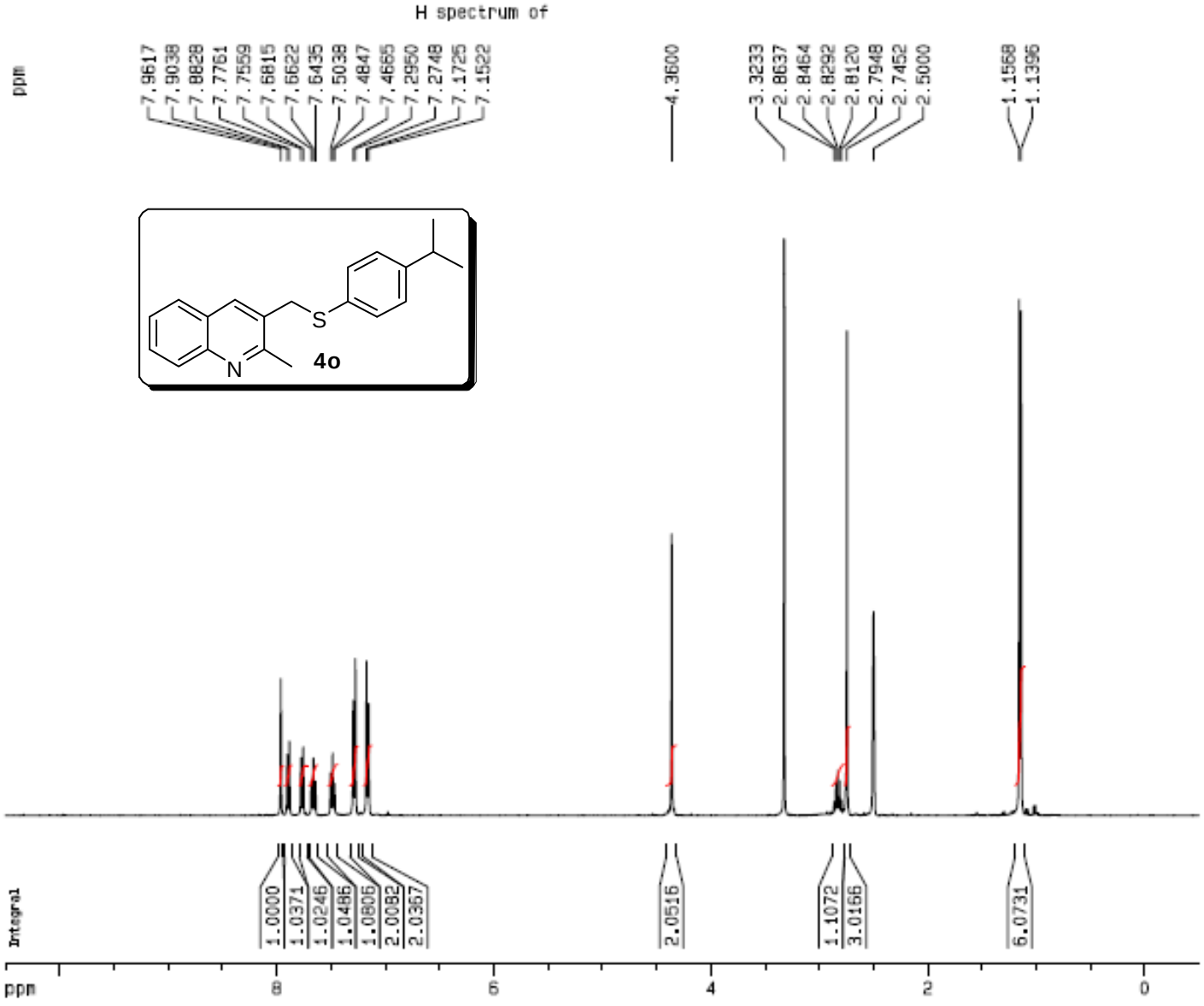

H spectrum of
ppm
8.0140
7.9922
7.7551
7.6632
7.6440
7.6278
7.4654
7.4464
7.4281
7.2597
6.9234
6.8515
4.2050
2.8356
2.2229
1.7236
S
N
4m
Integral
1.0000
1.0442
2.1167
1.0620
2.0454
1.0114
2.1754
3.2068
6.3543
ppm
8
6
4
2
0
Current Data Parameters
NAME 20100825
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100825
Time 14.45
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg30
TD 16384
SOLVENT CDCl3
NS 24
DS 0
SWH 6009.615 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 228.1
DW 83.200 usec
DE 6.50 usec
TE 299.1 K
D1 1.50000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 8.80 usec
PL1 0.00 dB
SFO1 400.1326008 MHz
F2 - Processing parameters
SI 16384
SF 400.1300088 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00
1D NMR plot parameters
CX 20.00 cm
CY 10.47 cm
F1P 10.500 ppm
F1 4201.37 Hz
F2P -0.500 ppm
F2 -200.06 Hz
PPMCM 0.55000 ppm/cm
HZCM 220.07150 Hz/cm


C13 spectrum of
ppm
158.17
146.30
138.13
135.65
134.75
129.28
129.13
128.02
127.86
127.28
126.91
126.44
125.89
40.14
39.93
39.72
39.51
39.30
39.10
38.89
35.02
22.73
20.67
S
N
4m
ppm
200
150
100
50
0
Current Data Parameters
NAME 20100905
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100905
Time 22.13
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1895
DS 0
SWH 25062.656 Hz
FIDRES 0.382426 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 299.2 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242895 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6128188 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 13.54 cm
F1P 220.000 ppm
F1 22134.82 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04736 Hz/cm

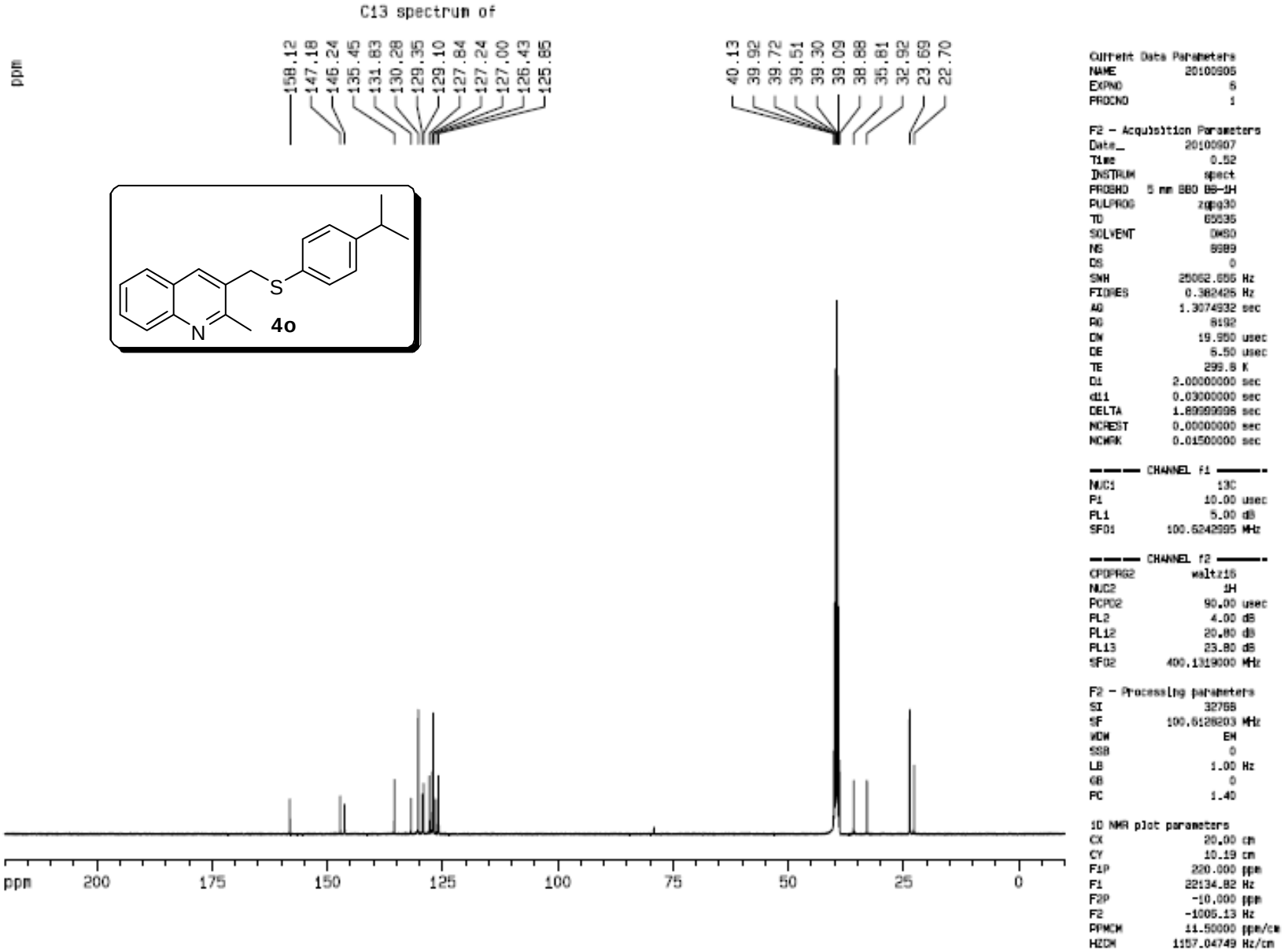


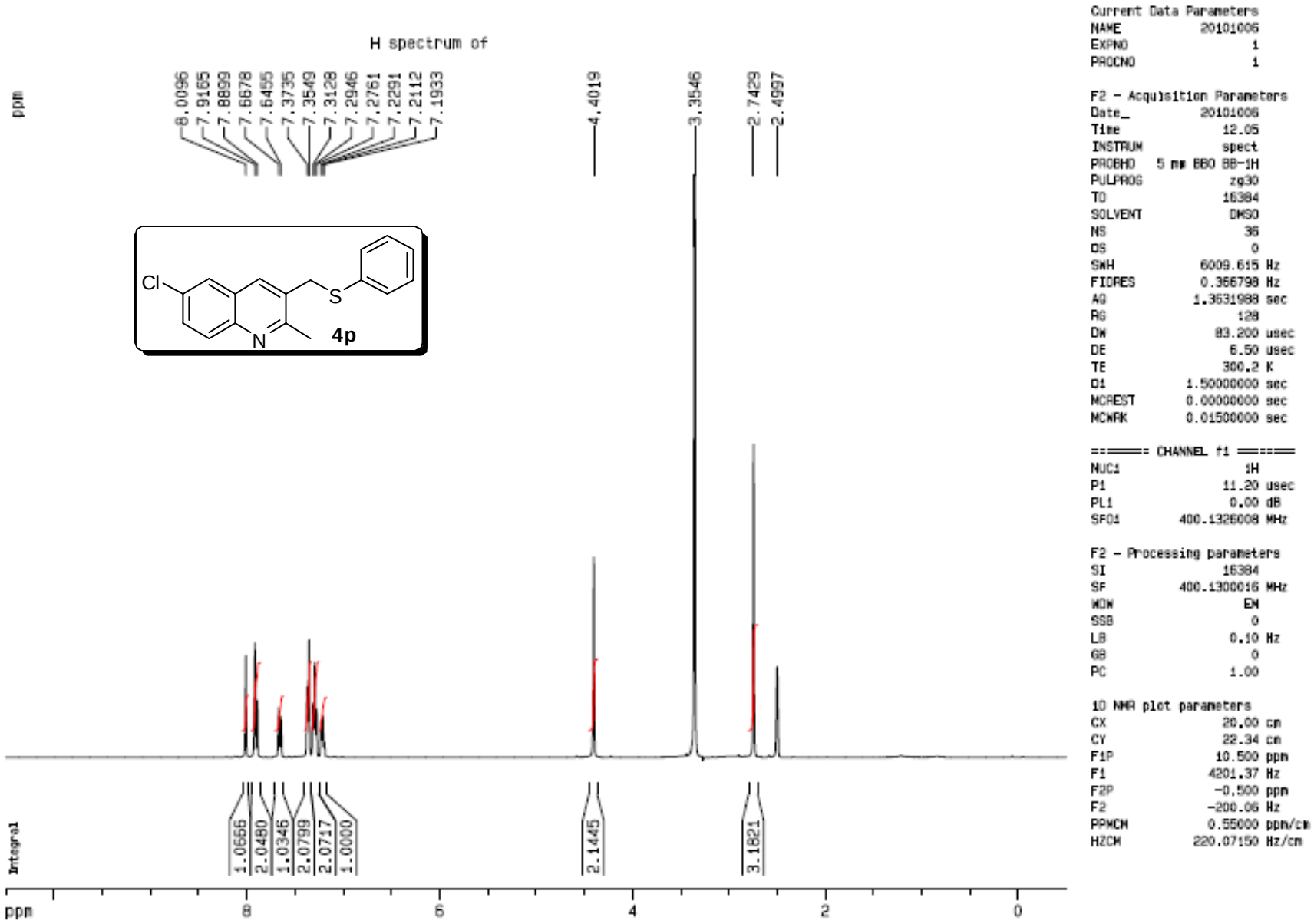

```
Current Data Parameters
NAME                 20100824
EXPNO                       3
PROCNO                      1

F2 - Acquisition Parameters
Date_                20100824
Time                    12.15
INSTRUM                 spect
PROBHD   5 mm BBO BB-1H
PULPROG                 zg30
TD                     16384
SOLVENT                CDCl3
NS                         16
DS                          0
SWH                 6009.615 Hz
FIDRES              0.366798 Hz
AQ                  1.3631988 sec
RG                        128
DW                   83.200 usec
DE                    6.50 usec
TE                    299.3 K
D1                  1.50000000 sec
MCREST              0.00000000 sec
MCWRK               0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                      8.80 usec
PL1                     0.00 dB
SFO1               400.1326008 MHz

F2 - Processing parameters
SI                     16384
SF                400.1300088 MHz
WDW                        EM
SSB                         0
LB                      0.10 Hz
GB                          0
PC                      1.00

1D NMR plot parameters
CX                     20.00 cm
CY                      7.96 cm
F1P                   10.500 ppm
F1                   4201.37 Hz
F2P                   -0.500 ppm
F2                   -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```


C13 spectrum of
ppm
158.70
158.62
147.11
136.07
132.97
129.50
129.29
129.05
128.46
127.31
127.13
125.99
123.03
121.23
110.88
77.55
77.23
76.92
55.91
35.88
23.27
S
N
O
4n
ppm 200 175 150 125 100 75 50 25 0
Current Data Parameters
NAME 20100824
EXPNO 6
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100824
Time 12.27
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 668
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 299.7 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWFK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242695 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127515 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 10.44 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

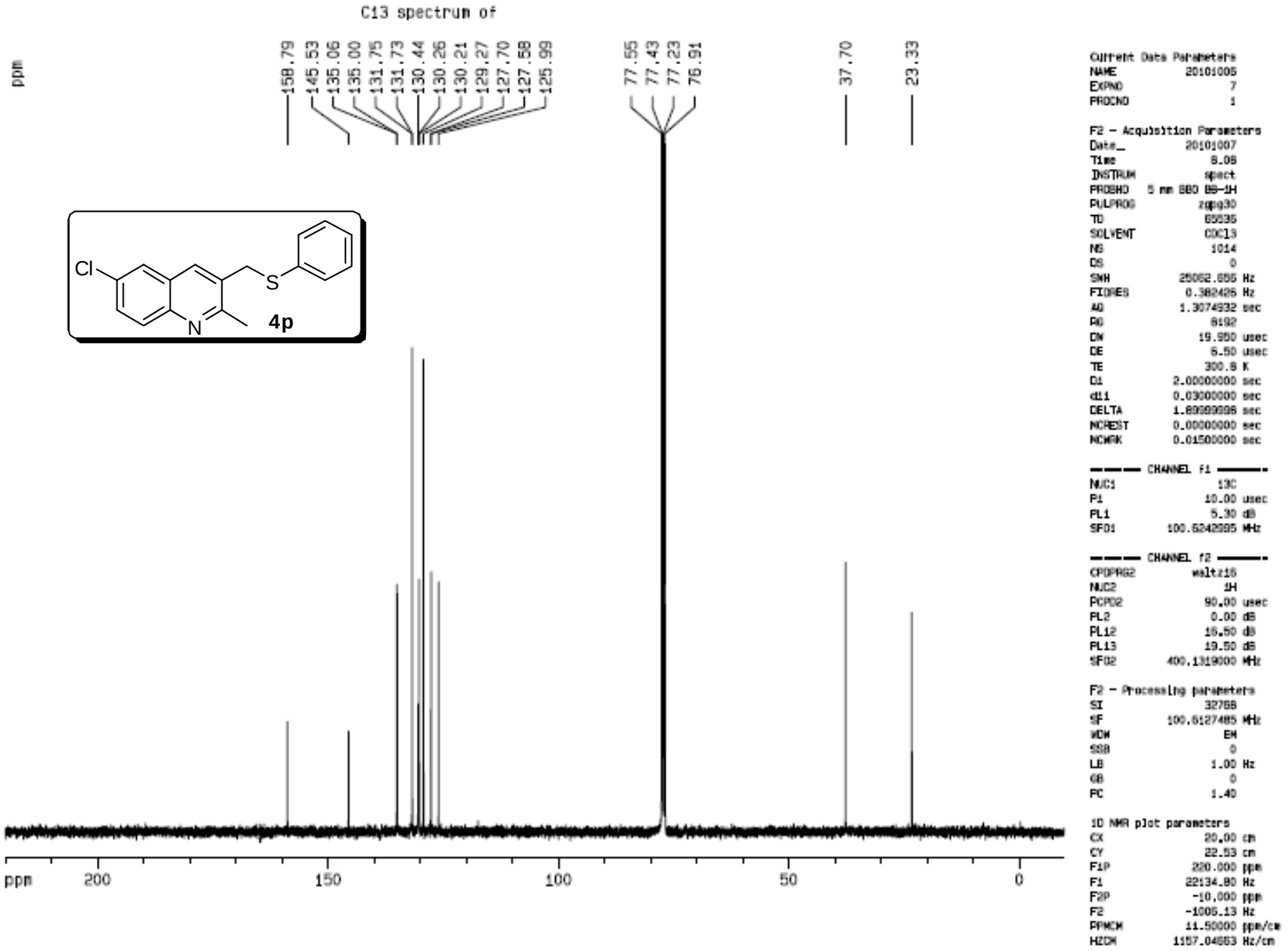


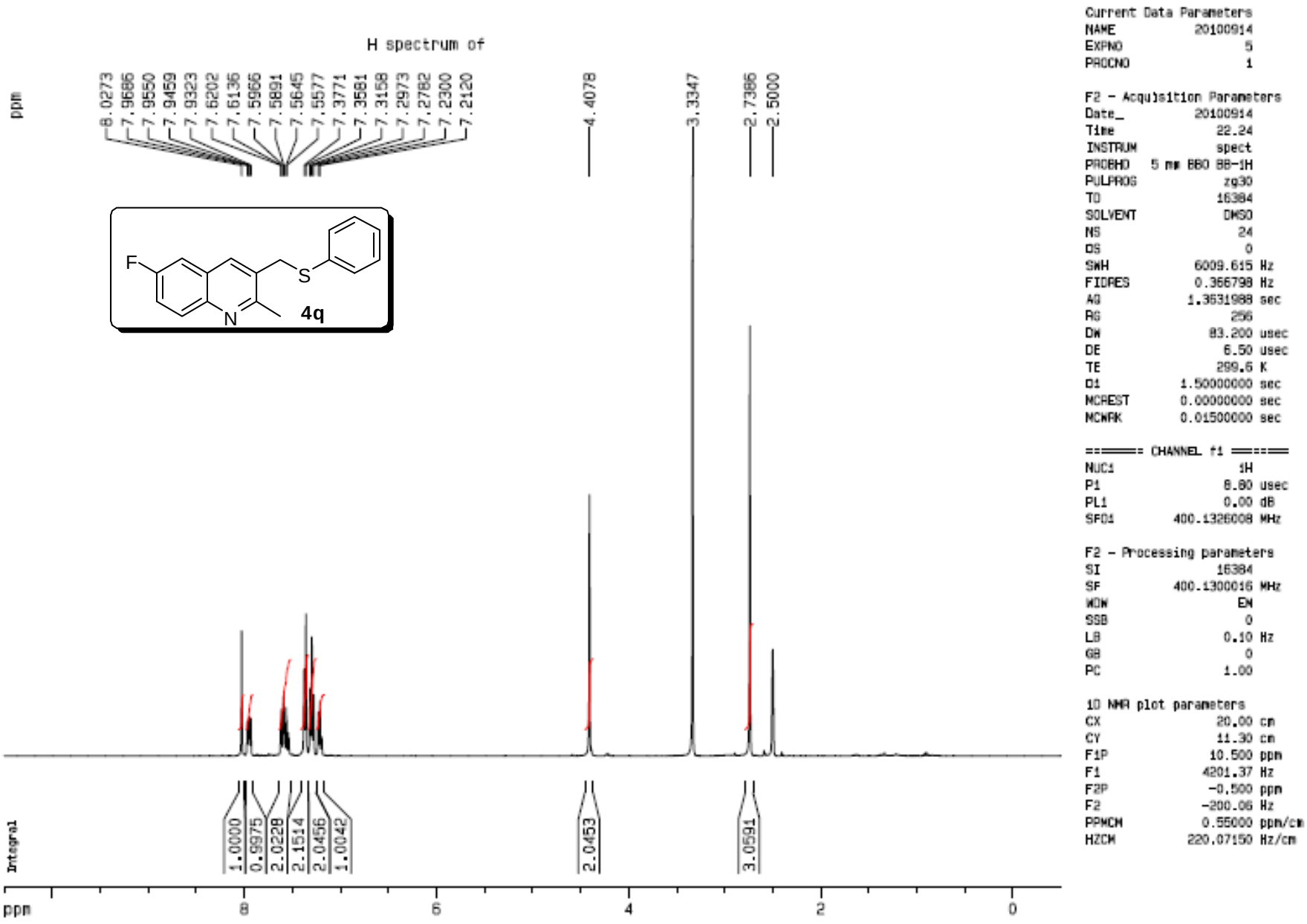

```
Current Data Parameters
NAME                  20100813
EXPNO                        5
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20100813
Time                     16.00
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  DMSO
NS                          16
DS                           0
SWH                   6009.615 Hz
FIDRES                0.366798 Hz
AQ                    1.3631988 sec
RG                        287.4
DW                       83.200 usec
DE                        6.50 usec
TE                       299.0 K
D1                    1.50000000 sec
MCREST                0.00000000 sec
MCWRK                 0.01500000 sec

======== CHANNEL f1 ========
NUC1                         1H
P1                        14.50 usec
PL1                        5.20 dB
SFO1                400.1326008 MHz

F2 - Processing parameters
SI                       16384
SF                  400.1300016 MHz
WDW                         EM
SSB                          0
LB                        0.10 Hz
GB                           0
PC                        1.00

1D NMR plot parameters
CX                       20.00 cm
CY                        9.70 cm
F1P                     10.500 ppm
F1                     4201.37 Hz
F2P                    -0.500 ppm
F2                    -200.06 Hz
PPMCM                  0.55000 ppm/cm
HZCM                 220.07150 Hz/cm
```

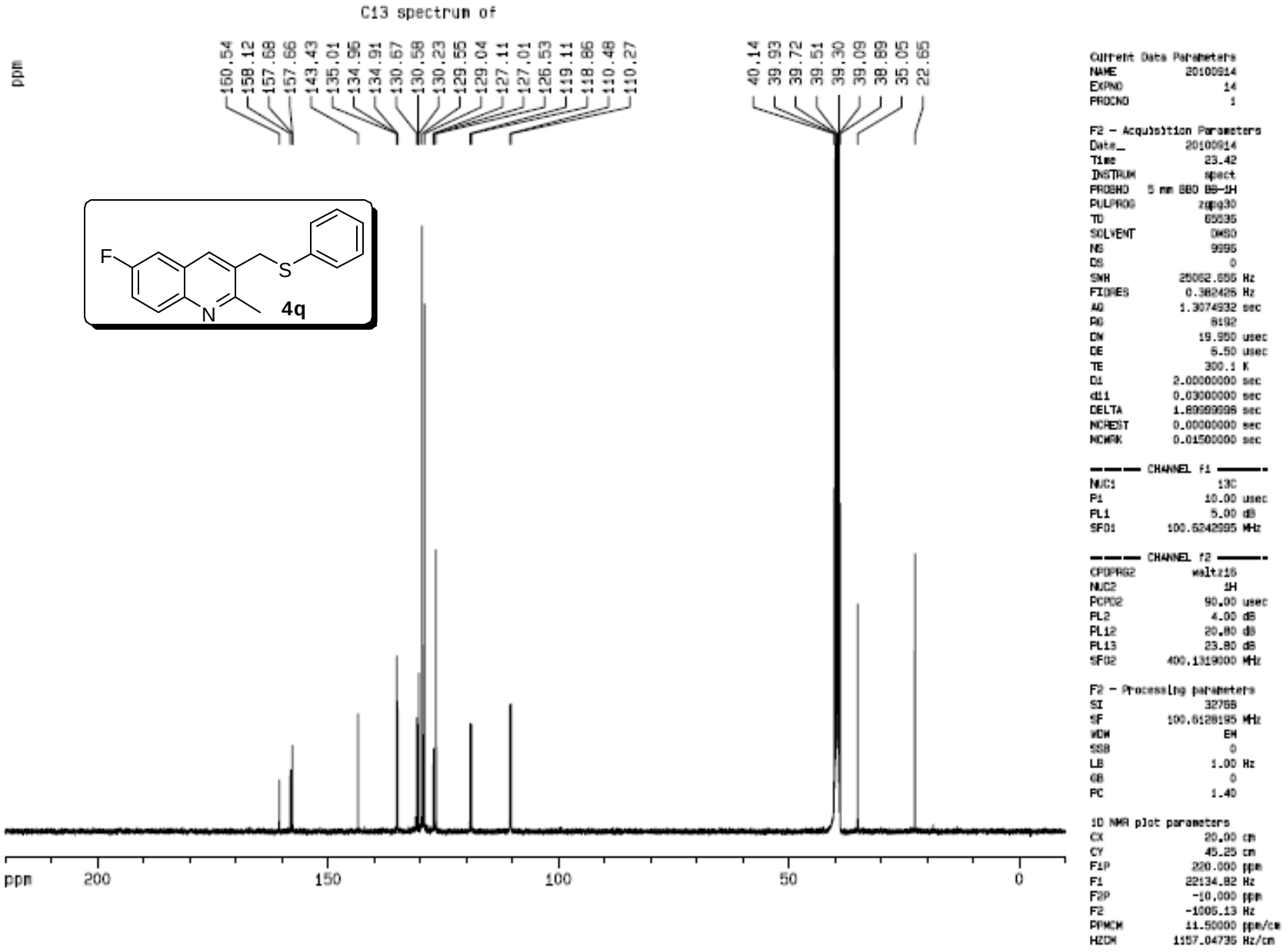

C13 spectrum of
ppm
158.12
147.18
146.24
135.45
131.83
130.28
129.35
129.10
127.84
127.24
127.00
126.43
125.85
40.13
39.92
39.72
39.51
39.30
39.09
38.88
35.81
32.92
23.69
22.70
S
N
4o
ppm 200 175 150 125 100 75 50 25 0
Current Data Parameters
NAME 20100905
EXPNO 5
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100907
Time 0.52
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65535
SOLVENT DMSO
NS 9989
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 298.8 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.5242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319800 MHz
F2 - Processing parameters
SI 32768
SF 100.6128203 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 10.19 cm
F1P 220.000 ppm
F1 22134.82 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04749 Hz/cm

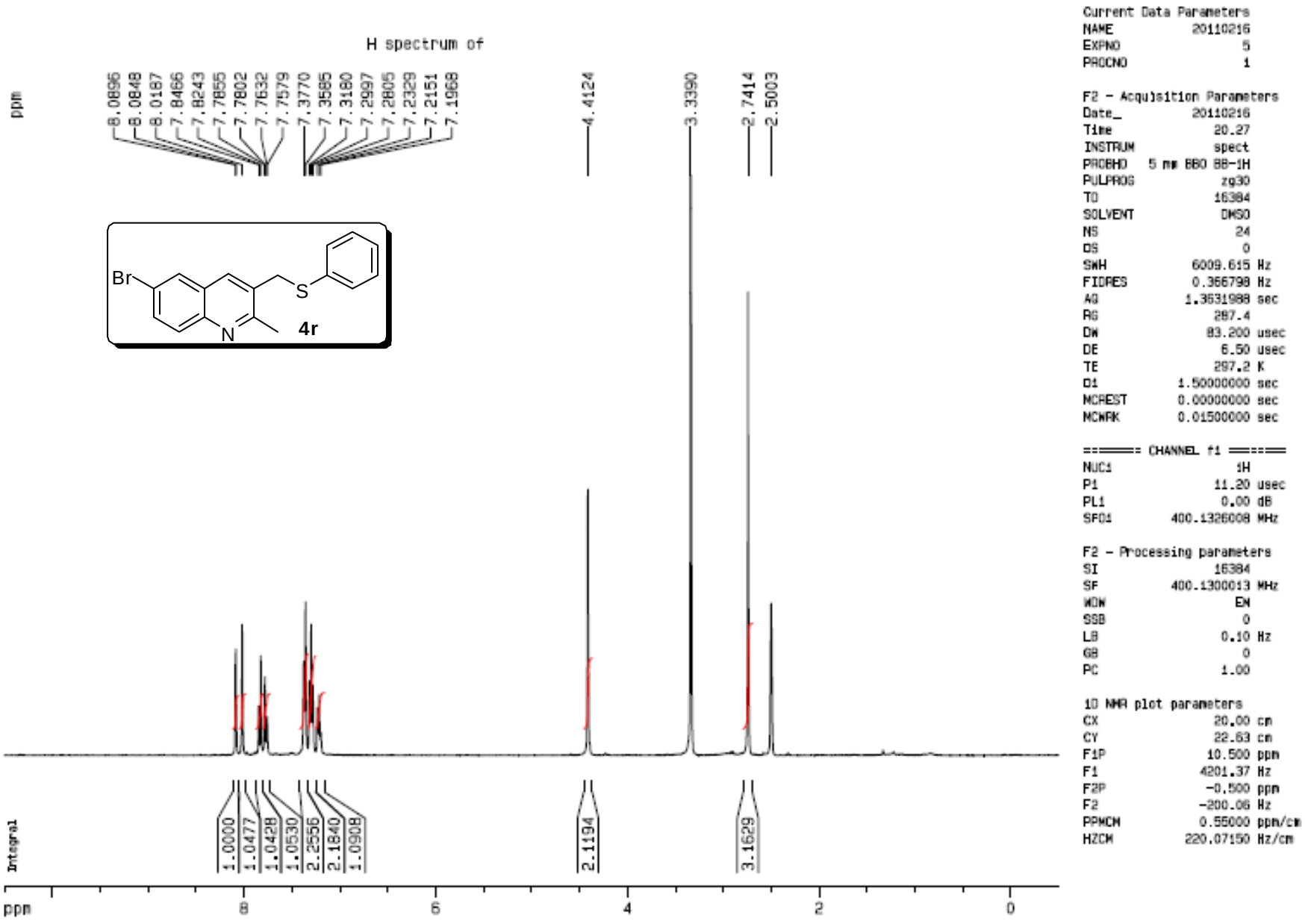


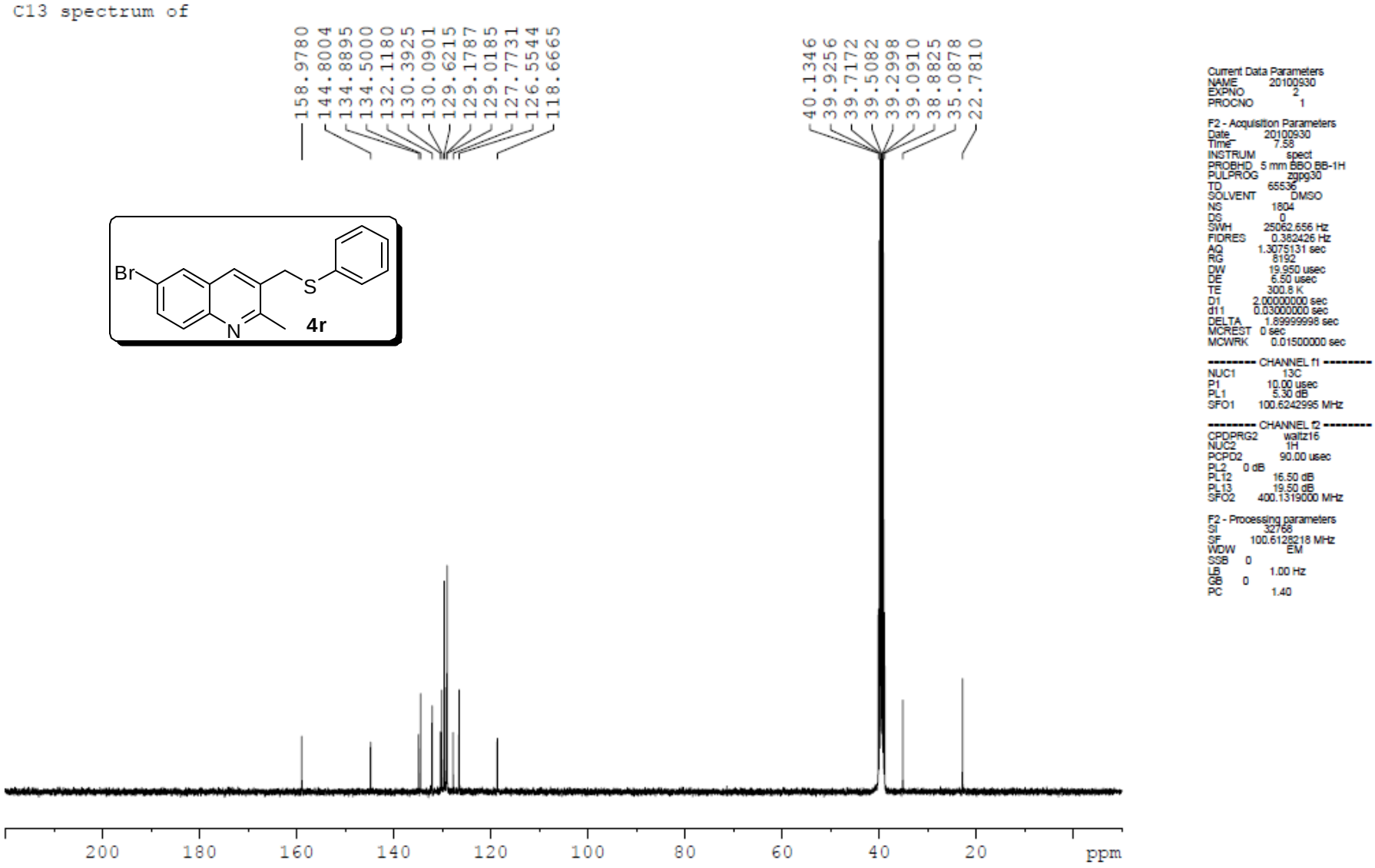

```
Current Data Parameters
NAME                  20101006
EXPNO                        1
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20101006
Time                     12.05
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  DMSO
NS                         36
DS                          0
SWH                6009.615 Hz
FIDRES             0.366798 Hz
AQ                 1.3631988 sec
RG                        128
DW                   83.200 usec
DE                    6.50 usec
TE                    300.2 K
D1                 1.50000000 sec
MCREST             0.00000000 sec
MCWRK              0.01500000 sec

======== CHANNEL f1 ========
NUC1                      1H
P1                    11.20 usec
PL1                    0.00 dB
SFO1             400.1326008 MHz

F2 - Processing parameters
SI                       16384
SF                400.1300016 MHz
WDW                        EM
SSB                         0
LB                     0.10 Hz
GB                          0
PC                      1.00

1D NMR plot parameters
CX                     20.00 cm
CY                     22.34 cm
F1P                   10.500 ppm
F1                   4201.37 Hz
F2P                  -0.500 ppm
F2                   -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```

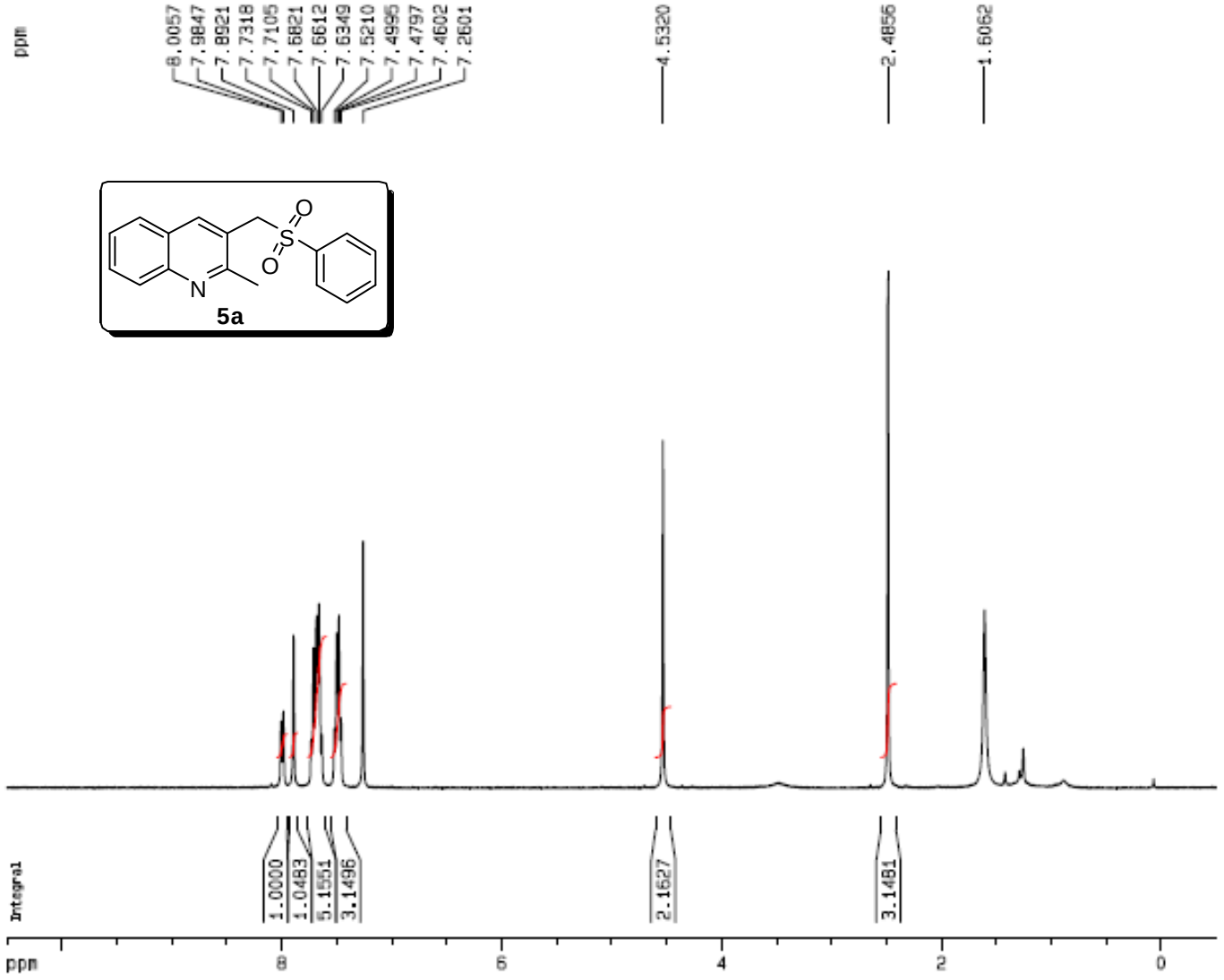

C13 spectrum of
ppm
158.79
145.53
135.06
135.00
131.75
131.73
130.44
130.26
130.21
129.27
127.70
127.58
125.99
77.55
77.43
77.23
76.91
37.70
23.33
Cl
S
N
4p
200
150
100
50
0
Current Data Parameters
NAME 20101005
EXPNO 7
PROCNO 1
F2 - Acquisition Parameters
Date_ 20101007
Time 8.08
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 1014
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 300.8 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127485 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 22.53 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm


H spectrum of
ppm
8.0273
7.9686
7.9550
7.9459
7.9323
7.6202
7.6136
7.5966
7.5891
7.5645
7.5577
7.3771
7.3581
7.3158
7.2973
7.2782
7.2300
7.2120
4.4078
3.3347
2.7386
2.5000
F
S
N
4q
Integral
1.0000
0.9975
2.0228
2.1514
2.0456
1.0042
2.0453
3.0591
ppm
8
6
4
2
0
Current Data Parameters
NAME 20100914
EXPNO 5
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100914
Time 22.24
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg30
TD 16384
SOLVENT DMSO
NS 24
DS 0
SWH 6009.615 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 256
DW 83.200 usec
DE 6.50 usec
TE 299.6 K
D1 1.50000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 8.80 usec
PL1 0.00 dB
SFO1 400.1326008 MHz
F2 - Processing parameters
SI 16384
SF 400.1300016 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00
1D NMR plot parameters
CX 20.00 cm
CY 11.30 cm
F1P 10.500 ppm
F1 4201.37 Hz
F2P -0.500 ppm
F2 -200.06 Hz
PPMCM 0.55000 ppm/cm
HZCM 220.07150 Hz/cm

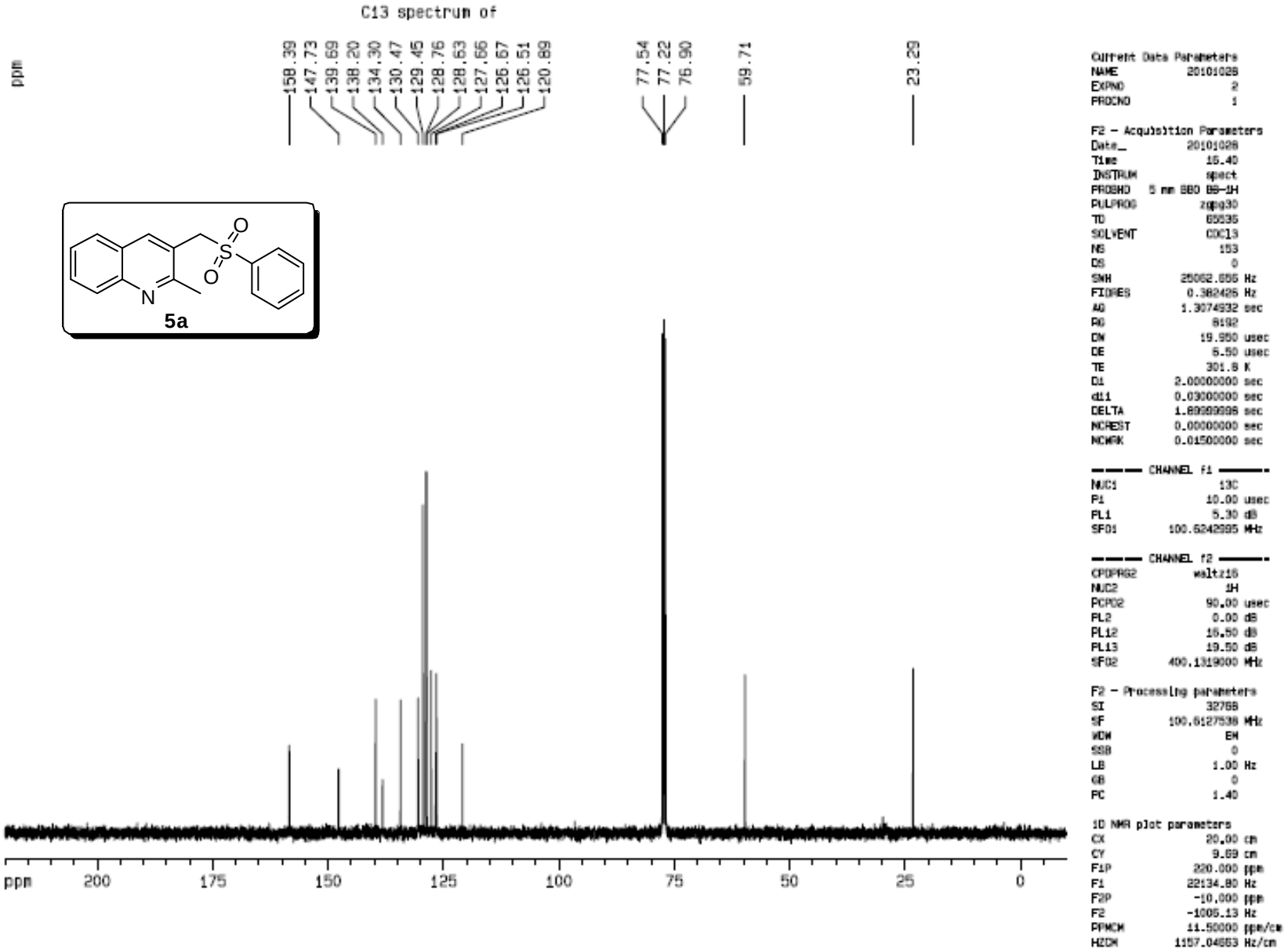

C13 spectrum of
ppm
160.54
158.12
157.68
157.66
143.43
135.01
134.96
134.91
130.67
130.58
130.23
129.55
129.04
127.11
127.01
126.53
119.11
118.86
110.48
110.27
40.14
39.93
39.72
39.51
39.30
39.09
38.89
35.05
22.65
F
S
N
4q
ppm
200
150
100
50
0
Current Data Parameters
NAME 20100914
EXPNO 14
PROCNO 1
F2 - Acquisition Parameters
Date_ 20100914
Time 23.42
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 9999
DS 0
SWH 25062.656 Hz
FIDRES 0.382426 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.00 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 4.00 dB
PL12 20.80 dB
PL13 23.80 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6128185 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 45.25 cm
F1P 220.000 ppm
F1 22134.82 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04735 Hz/cm

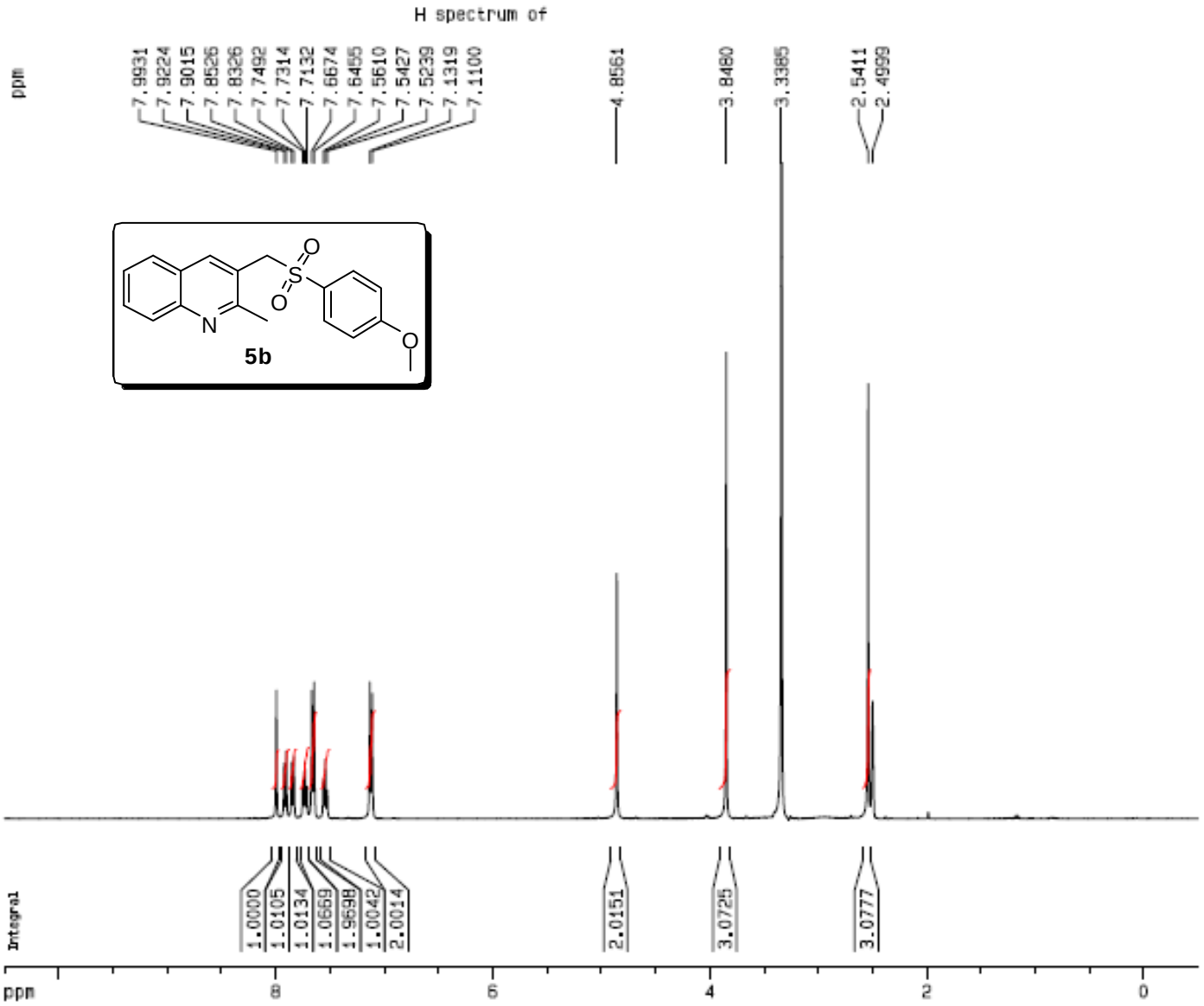

H spectrum of
ppm
8.0896
8.0848
8.0187
7.8466
7.8243
7.7855
7.7802
7.7632
7.7579
7.3770
7.3585
7.3180
7.2997
7.2805
7.2329
7.2151
7.1968
4.4124
3.3390
2.7414
2.5003
Br
S
N
4r
Integral
1.0000
1.0477
1.0428
1.0530
2.2556
2.1840
1.0908
2.1194
3.1629
ppm
8
6
4
2
0
Current Data Parameters
NAME 20110216
EXPNO 5
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110216
Time 20.27
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg30
TD 16384
SOLVENT DMSO
NS 24
DS 0
SWH 6009.615 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 287.4
DW 83.200 usec
DE 6.50 usec
TE 297.2 K
D1 1.50000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
CHANNEL f1
NUC1 1H
P1 11.20 usec
PL1 0.00 dB
SFO1 400.1326008 MHz
F2 - Processing parameters
SI 16384
SF 400.1300013 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00
1D NMR plot parameters
CX 20.00 cm
CY 22.63 cm
F1P 10.500 ppm
F1 4201.37 Hz
F2P -0.500 ppm
F2 -200.06 Hz
PPMCM 0.55000 ppm/cm
HZCM 220.07150 Hz/cm


C13 spectrum of
158.9780
144.8004
134.8895
134.5000
132.1180
130.3925
130.0901
129.6215
129.1787
129.0185
127.7731
126.5544
118.6665
40.1346
39.9256
39.7172
39.5082
39.2998
39.0910
38.8825
35.0878
22.7810
Br
S
N
4r
200
180
160
140
120
100
80
60
40
20
ppm
Current Data Parameters
NAME 20100930
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date 20100930
Time 7.58
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1804
DS 0
SWH 25062.656 Hz
FIDRES 0.382426 Hz
AQ 1.3075131 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 300.8 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
MCREST 0 sec
MCWRK 0.01500000 sec
---------- CHANNEL f1 ----------
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242995 MHz
---------- CHANNEL f2 ----------
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6128218 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

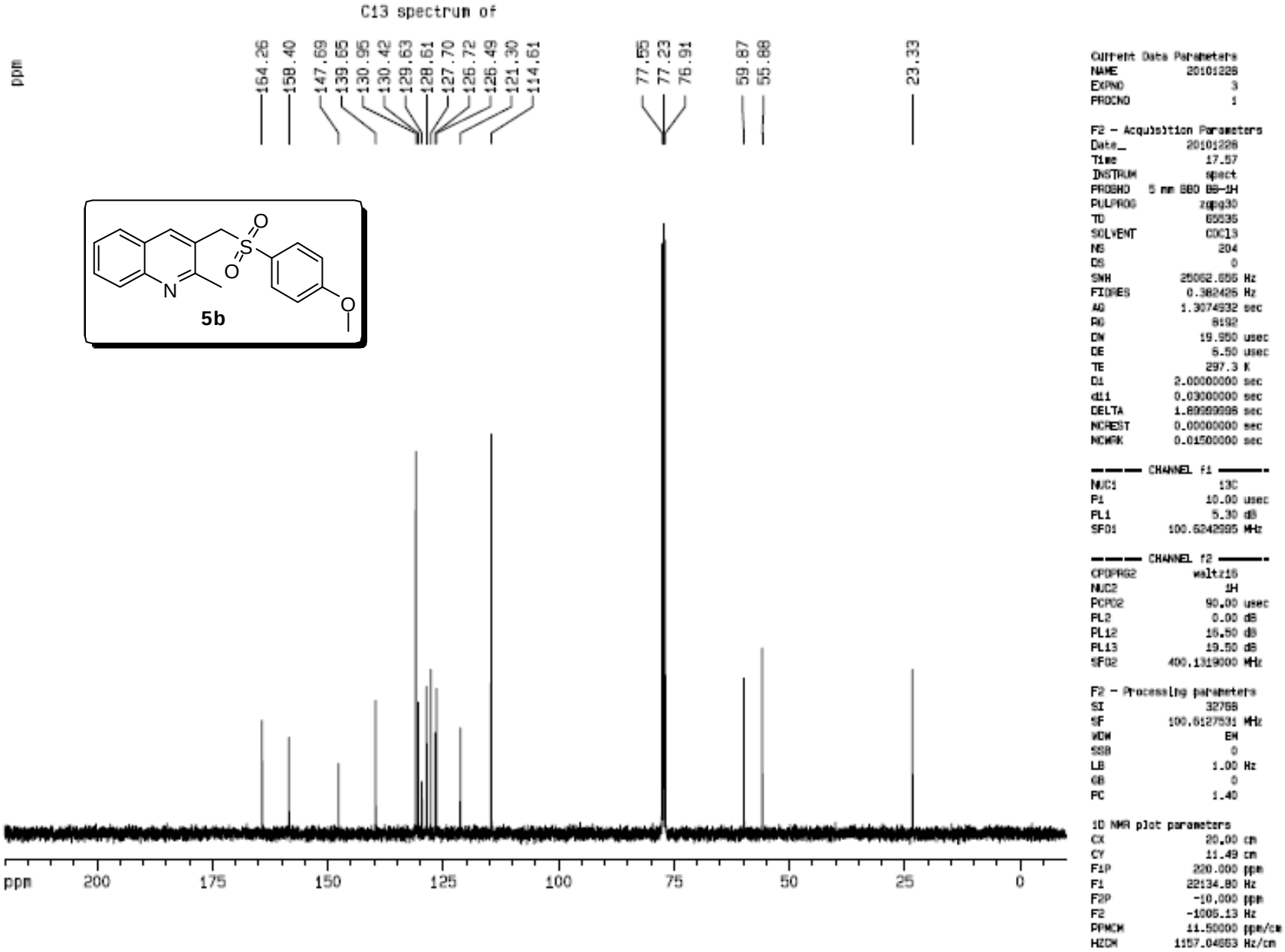


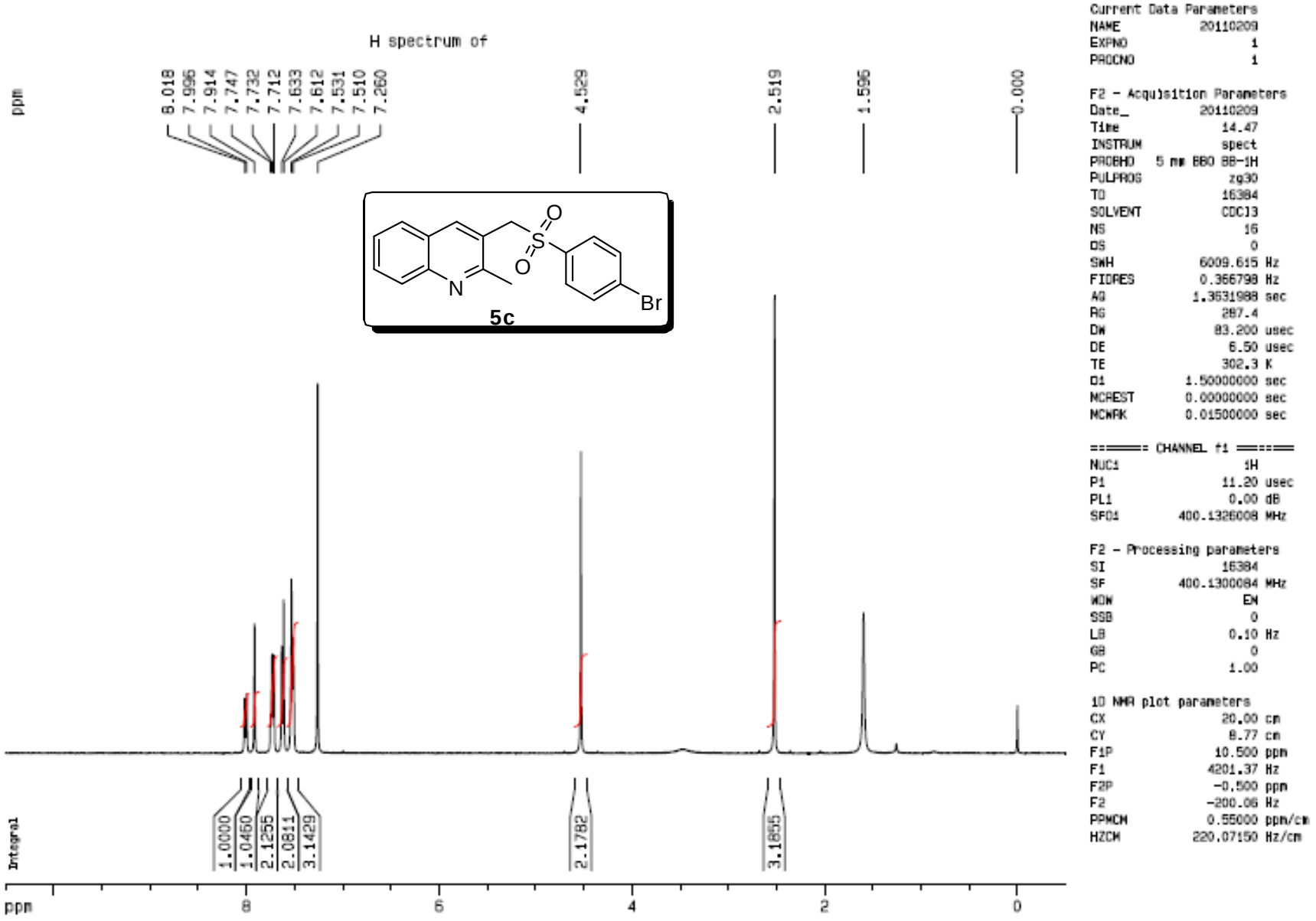

```
Current Data Parameters
NAME                 20101101
EXPNO                       1
PROCNO                      1

F2 - Acquisition Parameters
Date_               20101101
Time                    21.10
INSTRUM                 spect
PROBHD   5 mm BBO BB-1H
PULPROG                 zg30
TD                     16384
SOLVENT                CDCl3
NS                        16
DS                         0
SWH                6009.615 Hz
FIDRES             0.366798 Hz
AQ                 1.3631988 sec
RG                     322.5
DW                    83.200 usec
DE                     6.50 usec
TE                     300.0 K
D1                 1.50000000 sec
MCREST             0.00000000 sec
MCWRK              0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                      11.20 usec
PL1                      0.00 dB
SFO1               400.1326008 MHz

F2 - Processing parameters
SI                         16384
SF                 400.1300084 MHz
WDW                        EM
SSB                         0
LB                       0.10 Hz
GB                          0
PC                       1.00

1D NMR plot parameters
CX                      20.00 cm
CY                       8.55 cm
F1P                    10.500 ppm
F1                    4201.37 Hz
F2P                   -0.500 ppm
F2                   -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```


C13 spectrum of
ppm
158.39
147.73
139.69
138.20
134.30
130.47
129.45
128.76
128.63
127.66
126.67
126.51
120.89
77.54
77.22
76.90
59.71
23.29
5a
ppm 200 175 150 125 100 75 50 25 0
Current Data Parameters
NAME 20101028
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20101028
Time 15.40
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 153
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 301.8 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127538 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 9.69 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

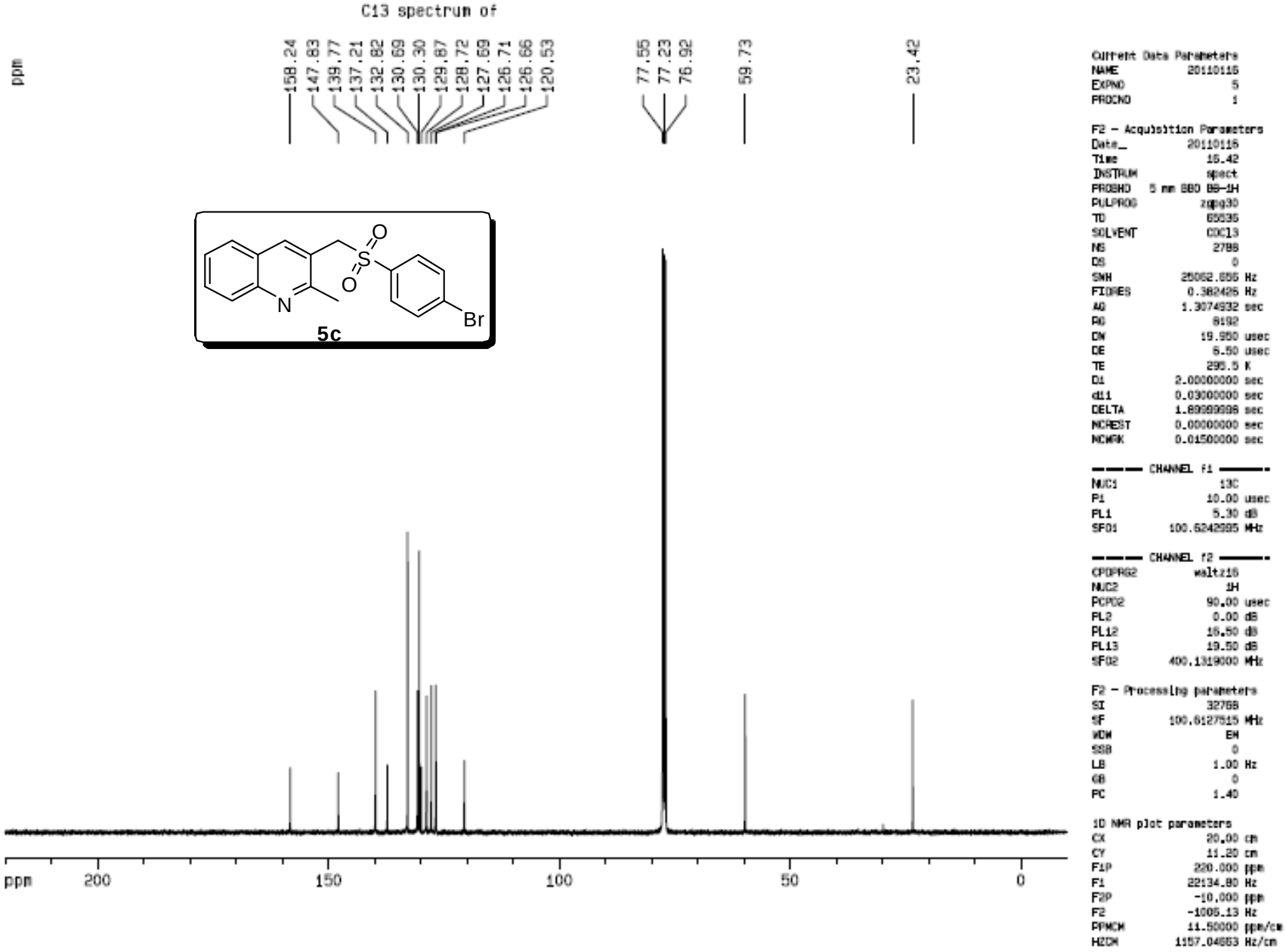


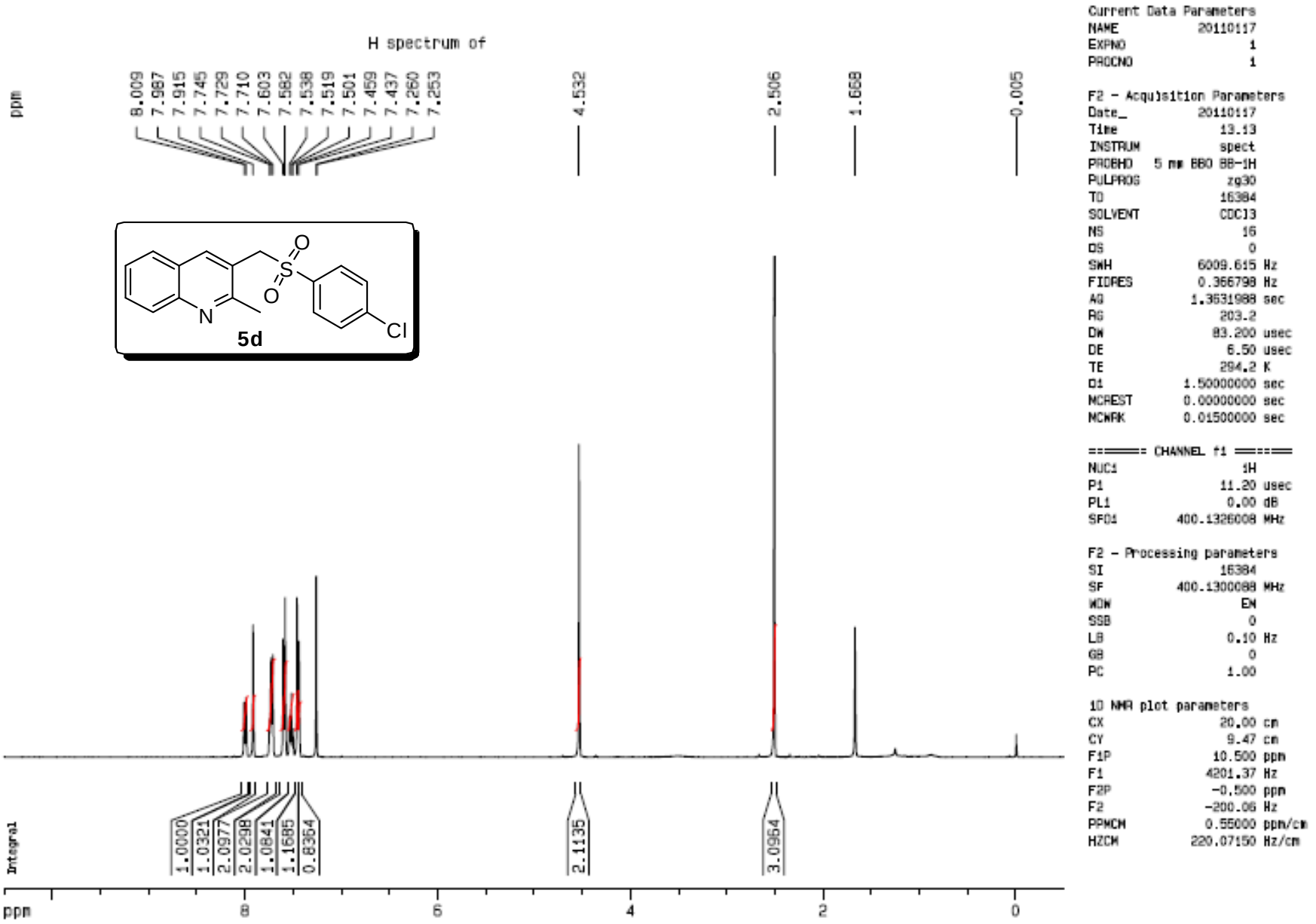

```
Current Data Parameters
NAME                  20110120
EXPNO                        2
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20110120
Time                     16.12
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  DMSO
NS                         16
DS                          0
SWH                  6009.615 Hz
FIDRES               0.366798 Hz
AQ                   1.3631988 sec
RG                       228.1
DW                      83.200 usec
DE                       6.50 usec
TE                      299.3 K
D1                   1.50000000 sec
MCREST               0.00000000 sec
MCWRK                0.01500000 sec

======== CHANNEL f1 ========
NUC1                        1H
P1                       11.20 usec
PL1                       0.00 dB
SFO1                400.1326008 MHz

F2 - Processing parameters
SI                      16384
SF                  400.1300016 MHz
WDW                        EM
SSB                         0
LB                       0.10 Hz
GB                          0
PC                       1.00

1D NMR plot parameters
CX                      20.00 cm
CY                      22.53 cm
F1P                    10.500 ppm
F1                    4201.37 Hz
F2P                    -0.500 ppm
F2                    -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```

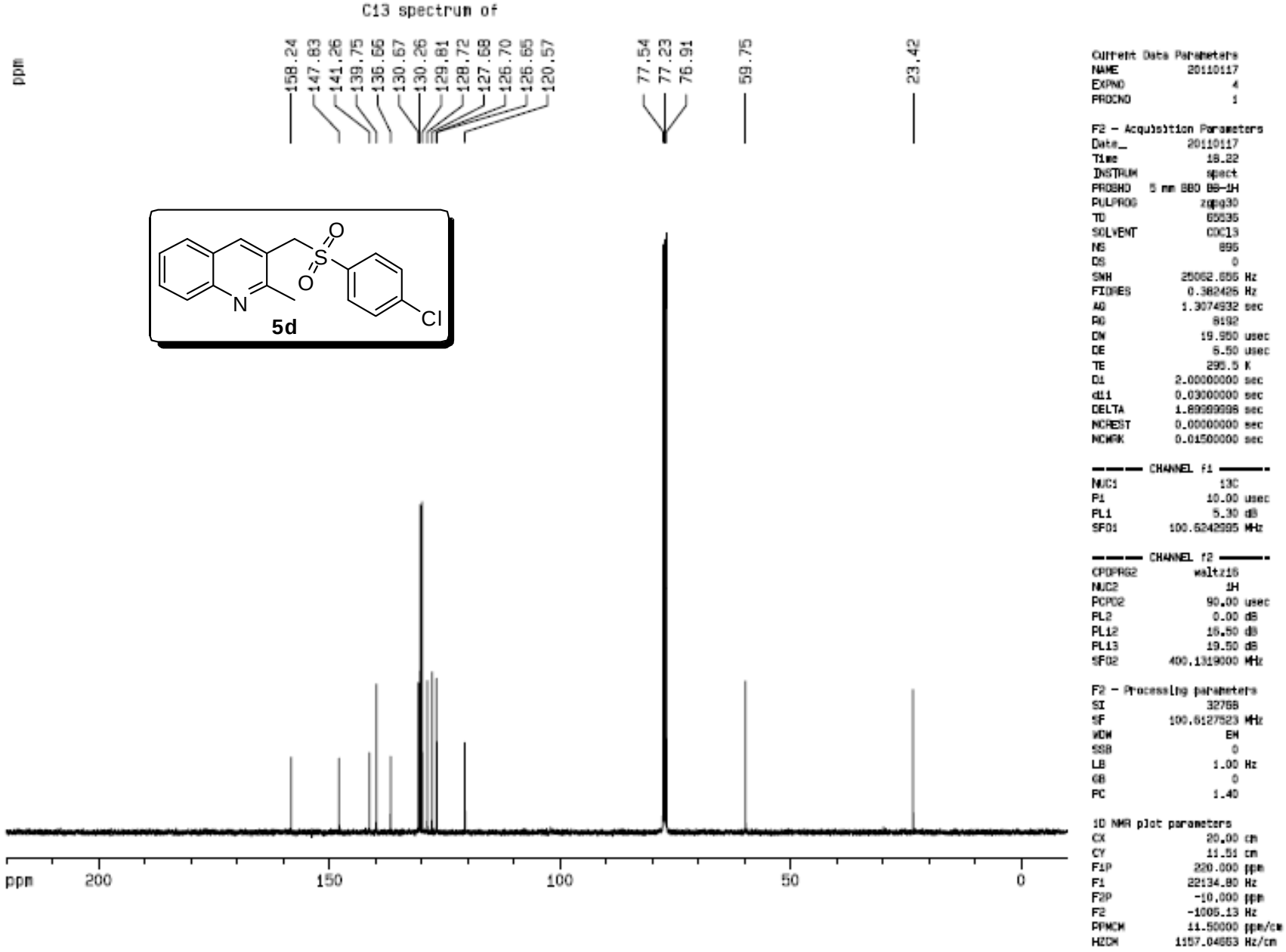

C13 spectrum of
ppm
164.26
158.40
147.69
139.65
130.95
130.42
129.63
128.61
127.70
126.72
126.49
121.30
114.61
77.55
77.23
76.91
59.87
55.88
23.33
5b
ppm 200 175 150 125 100 75 50 25 0
Current Data Parameters
NAME 20101228
EXPNO 3
PROCNO 1
F2 - Acquisition Parameters
Date_ 20101228
Time 17.57
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 204
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 297.3 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127531 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.49 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

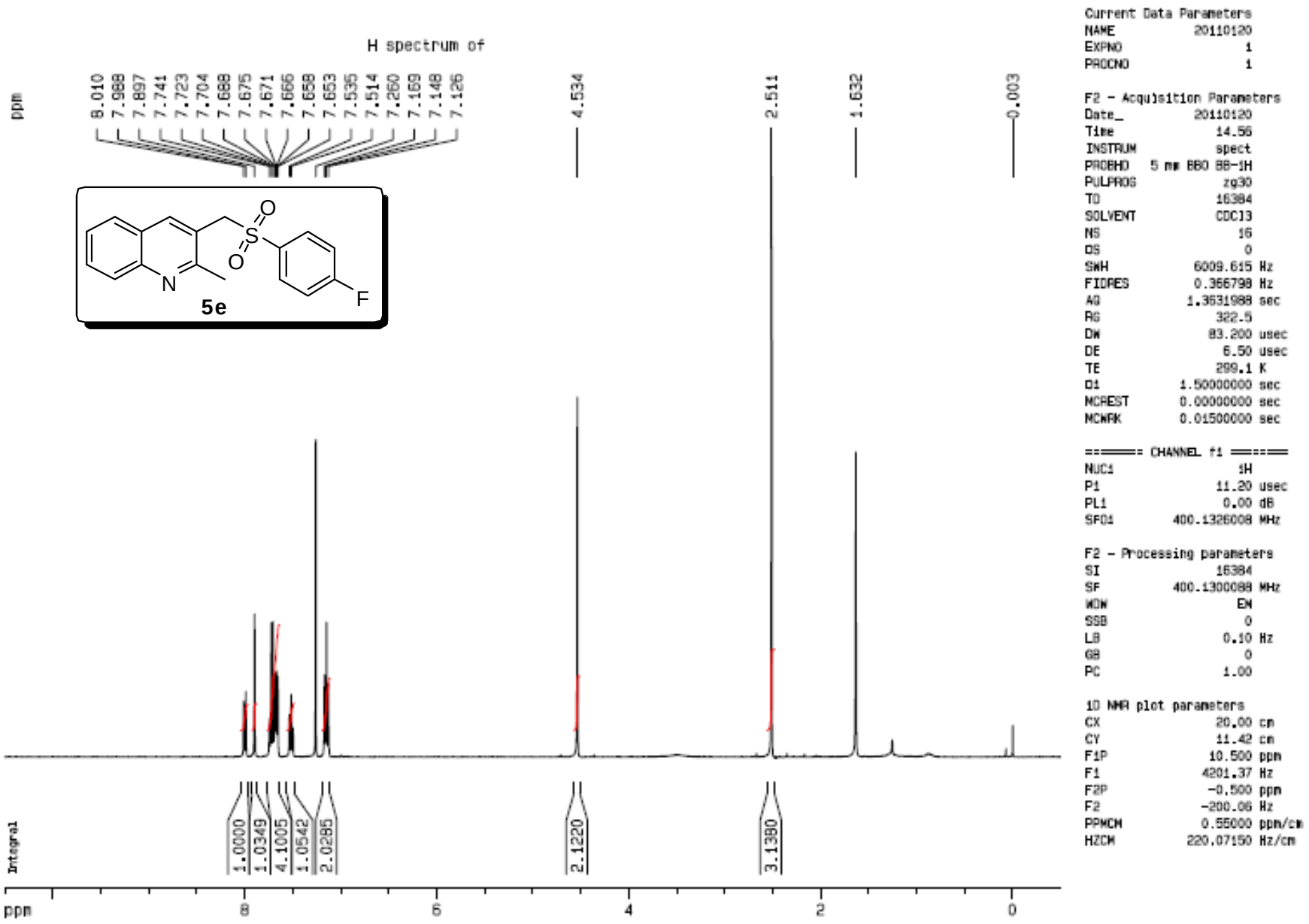


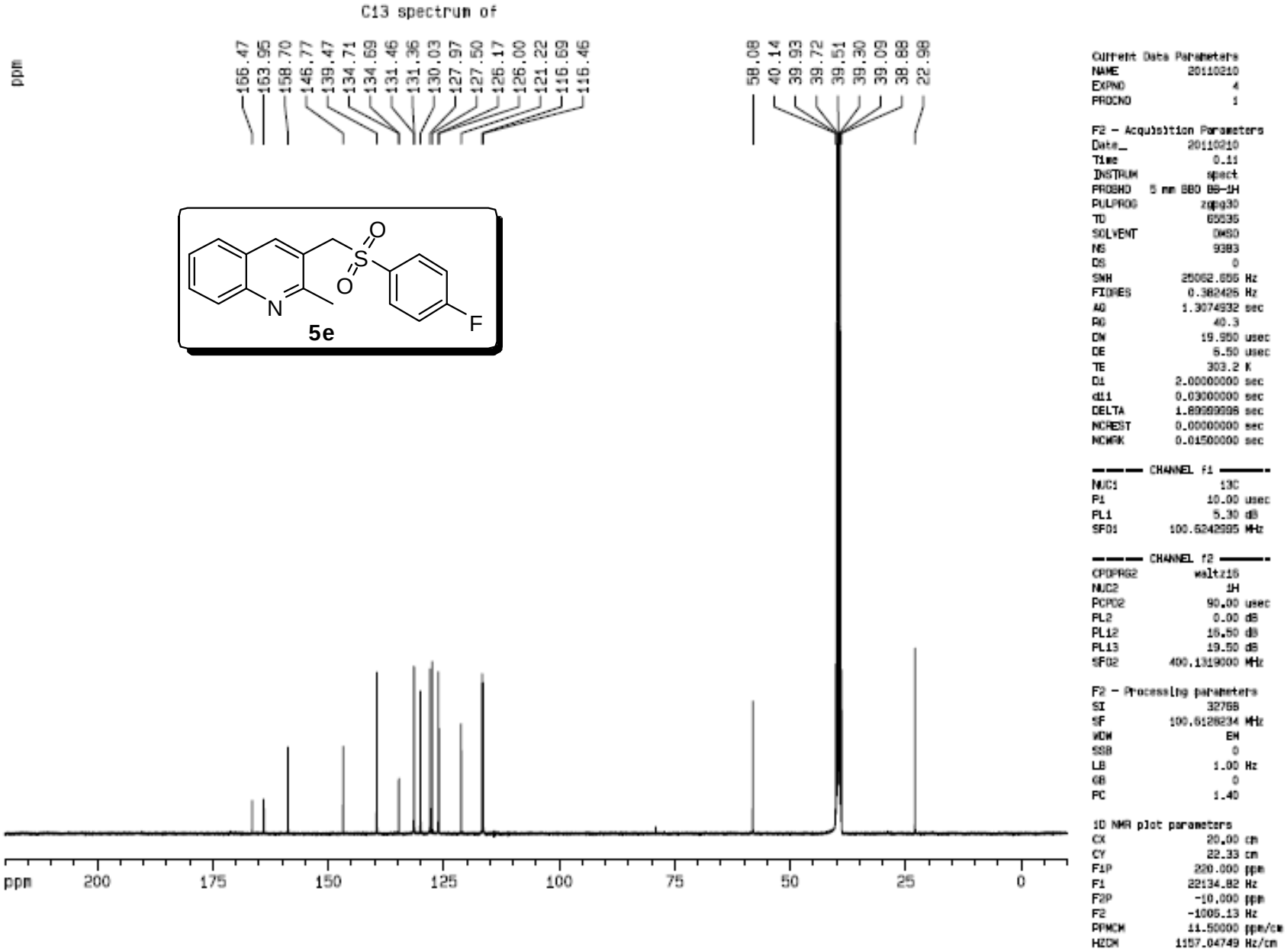

```
Current Data Parameters
NAME                  20110209
EXPNO                        1
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20110209
Time                     14.47
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  CDCl3
NS                          16
DS                           0
SWH                 6009.615 Hz
FIDRES              0.366798 Hz
AQ                  1.3631988 sec
RG                       287.4
DW                    83.200 usec
DE                     6.50 usec
TE                     302.3 K
D1                  1.50000000 sec
MCREST              0.00000000 sec
MCWRK               0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                      11.20 usec
PL1                      0.00 dB
SFO1              400.1326008 MHz

F2 - Processing parameters
SI                       16384
SF                400.1300084 MHz
WDW                         EM
SSB                          0
LB                       0.10 Hz
GB                           0
PC                        1.00

1D NMR plot parameters
CX                      20.00 cm
CY                       8.77 cm
F1P                     10.500 ppm
F1                    4201.37 Hz
F2P                    -0.500 ppm
F2                    -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```

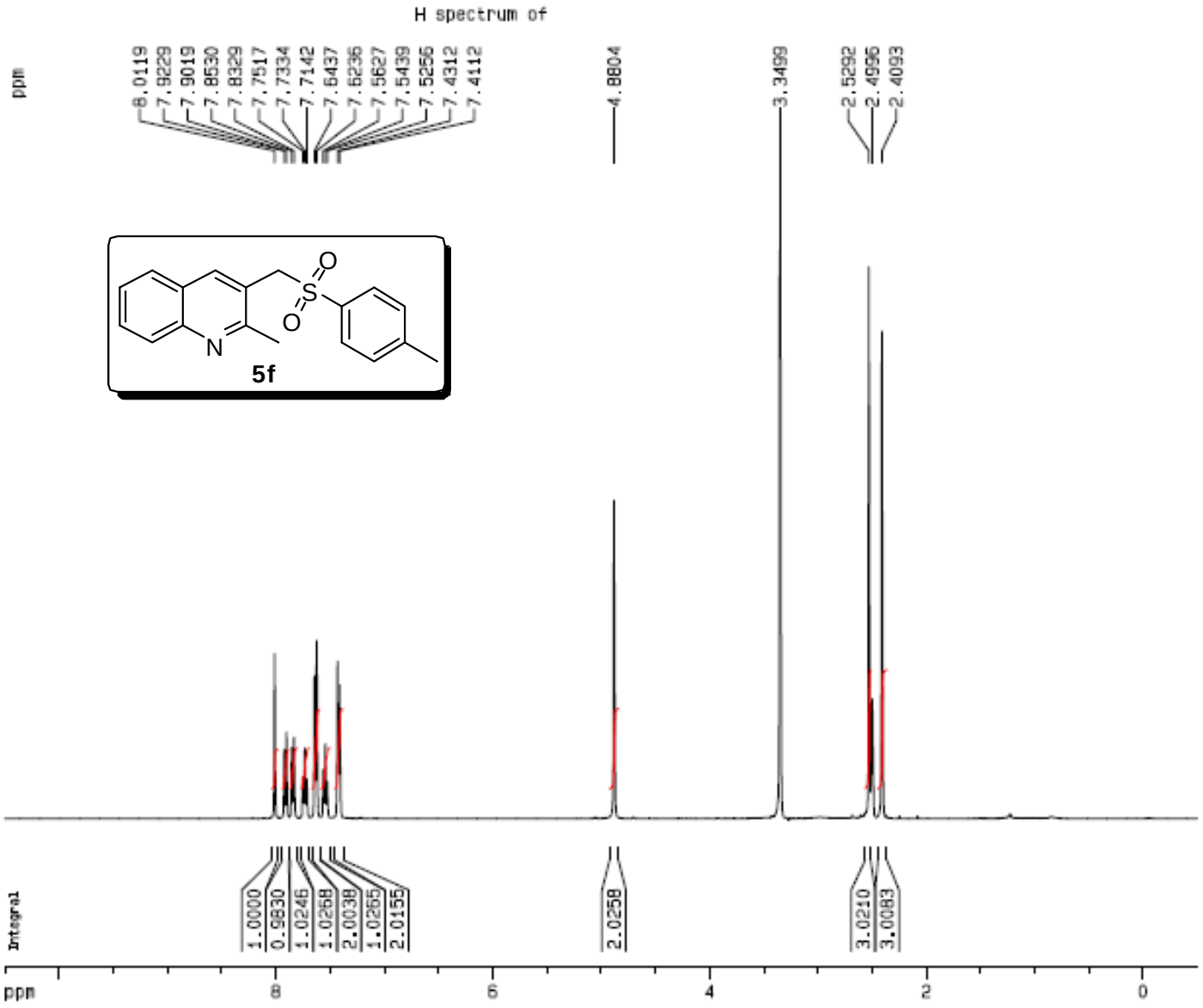

C13 spectrum of
ppm
158.24
147.83
139.77
137.21
132.82
130.69
130.30
129.87
128.72
127.69
126.71
126.66
120.53
77.55
77.23
76.92
59.73
23.42
O
S
O
N
Br
5c
ppm
200
150
100
50
0
Current Data Parameters
NAME 20110116
EXPNO 5
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110116
Time 15.42
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 2788
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 298.5 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242695 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127515 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.20 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm


H spectrum of
ppm
8.009
7.987
7.915
7.745
7.729
7.710
7.603
7.582
7.538
7.519
7.501
7.459
7.437
7.260
7.253
4.532
2.506
1.668
0.005
O
S
O
N
Cl
5d
Integral
1.0000
1.0321
2.0977
2.0298
1.0841
1.1685
0.8364
2.1135
3.0964
ppm
8
6
4
2
0
Current Data Parameters
NAME 20110117
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110117
Time 13.13
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg30
TD 16384
SOLVENT CDCl3
NS 16
DS 0
SWH 6009.615 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 203.2
DW 83.200 usec
DE 6.50 usec
TE 294.2 K
D1 1.50000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 11.20 usec
PL1 0.00 dB
SFO1 400.1326008 MHz
F2 - Processing parameters
SI 16384
SF 400.1300088 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00
1D NMR plot parameters
CX 20.00 cm
CY 9.47 cm
F1P 10.500 ppm
F1 4201.37 Hz
F2P -0.500 ppm
F2 -200.06 Hz
PPMCM 0.55000 ppm/cm
HZCM 220.07150 Hz/cm

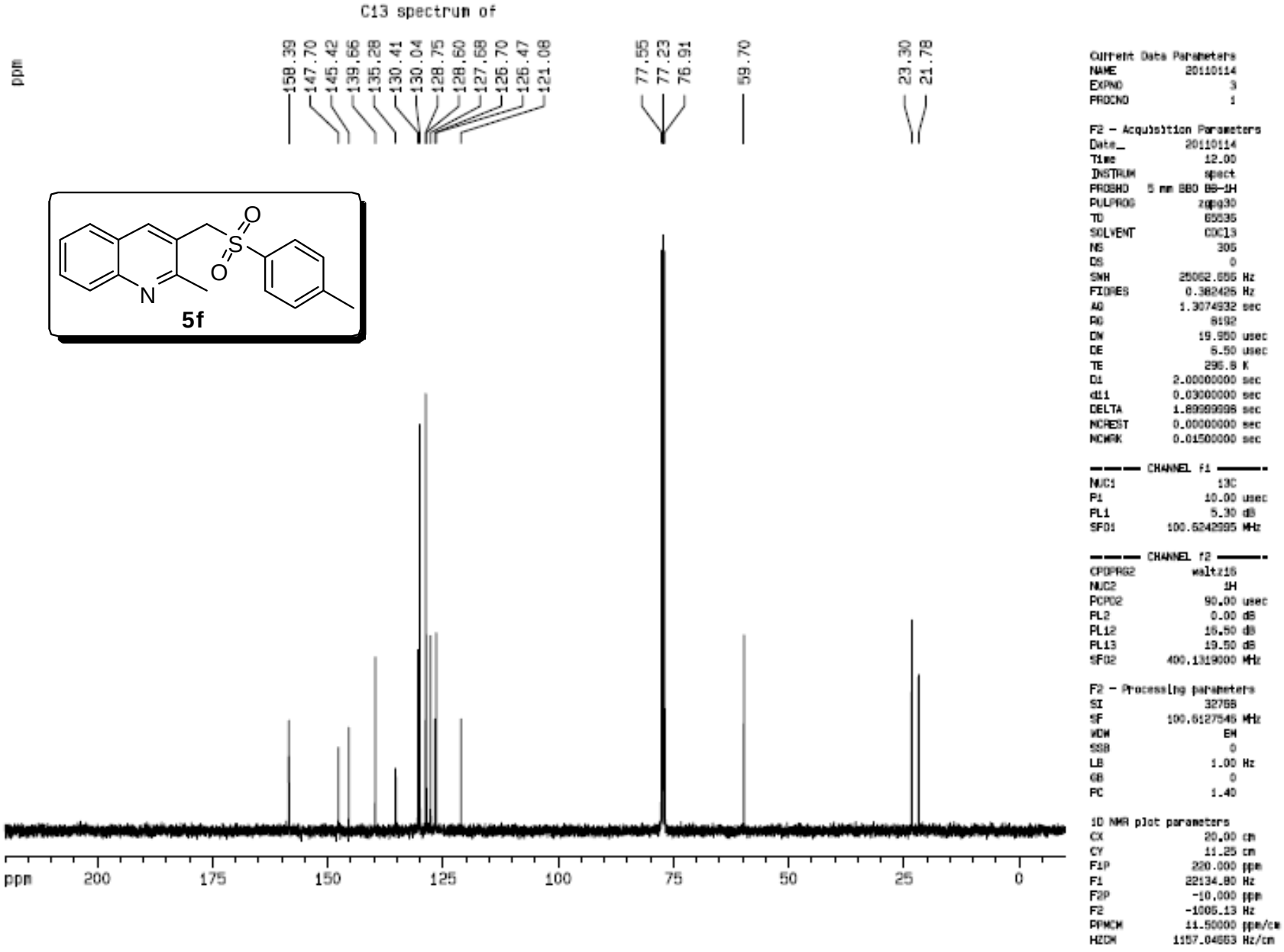

C13 spectrum of
ppm
158.24
147.83
141.26
139.75
136.66
130.67
130.26
129.81
128.72
127.68
126.70
126.65
120.57
77.54
77.23
76.91
59.75
23.42
5d
Cl
ppm
200
150
100
50
0
Current Data Parameters
NAME 20110117
EXPNO 4
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110117
Time 18.22
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 896
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 298.5 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242695 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127523 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.51 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

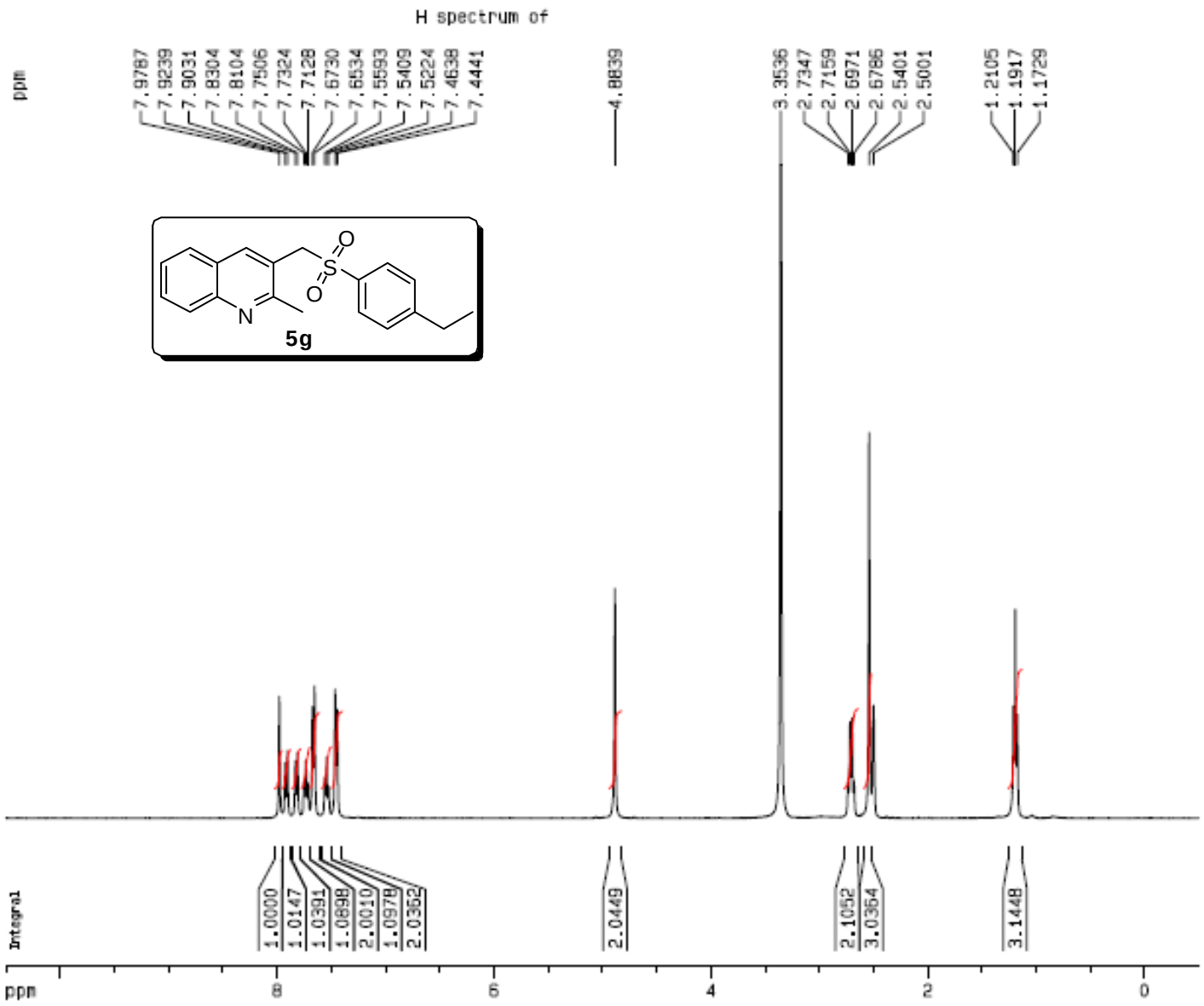

H spectrum of
ppm
8.010
7.988
7.897
7.741
7.723
7.704
7.688
7.675
7.671
7.666
7.658
7.653
7.535
7.514
7.260
7.169
7.148
7.126
4.534
2.511
1.632
0.003
5e
F
Integral
1.0000
1.0349
4.1005
1.0542
2.0285
2.1220
3.1380
ppm
8
6
4
2
0
Current Data Parameters
NAME 20110120
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110120
Time 14.56
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg30
TD 16384
SOLVENT CDCl3
NS 16
DS 0
SWH 6009.615 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 322.5
DW 83.200 usec
DE 6.50 usec
TE 299.1 K
D1 1.50000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 11.20 usec
PL1 0.00 dB
SFO1 400.1326008 MHz
F2 - Processing parameters
SI 16384
SF 400.1300088 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00
1D NMR plot parameters
CX 20.00 cm
CY 11.42 cm
F1P 10.500 ppm
F1 4201.37 Hz
F2P -0.500 ppm
F2 -200.06 Hz
PPMCM 0.55000 ppm/cm
HZCM 220.07150 Hz/cm


C13 spectrum of
ppm
166.47
163.95
158.70
146.77
139.47
134.71
134.69
131.46
131.36
130.03
127.97
127.50
126.17
126.00
121.22
116.69
116.46
58.08
40.14
39.93
39.72
39.51
39.30
39.09
38.88
22.98
5e
N
O
O
S
F
ppm
200
175
150
125
100
75
50
25
0
Current Data Parameters
NAME 20110210
EXPNO 4
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110210
Time 0.11
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 9383
DS 0
SWH 25062.656 Hz
FIDRES 0.382426 Hz
AQ 1.3074932 sec
RG 40.3
DW 19.950 usec
DE 6.50 usec
TE 303.2 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6128234 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 22.33 cm
F1P 220.000 ppm
F1 22134.82 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04749 Hz/cm

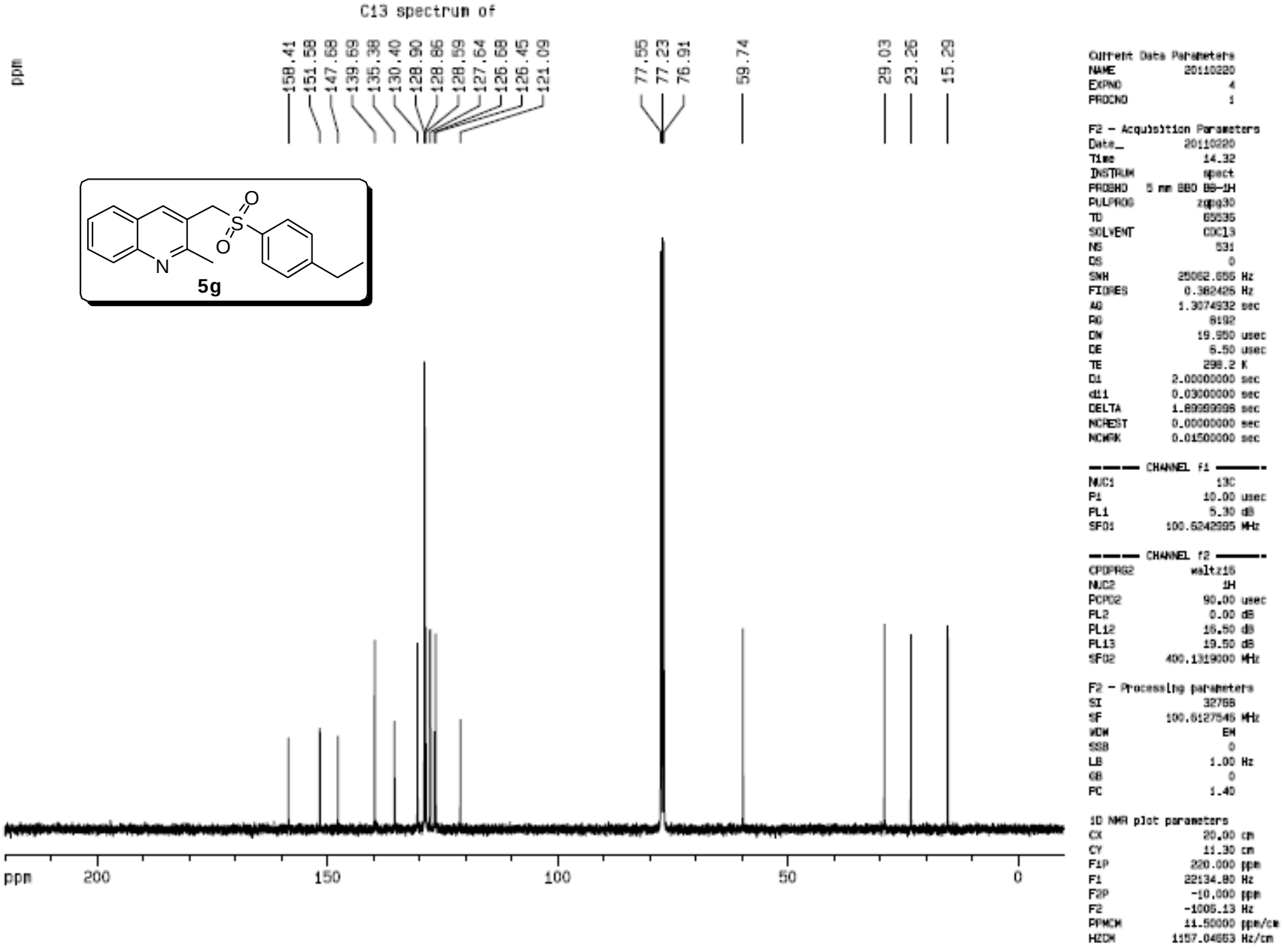


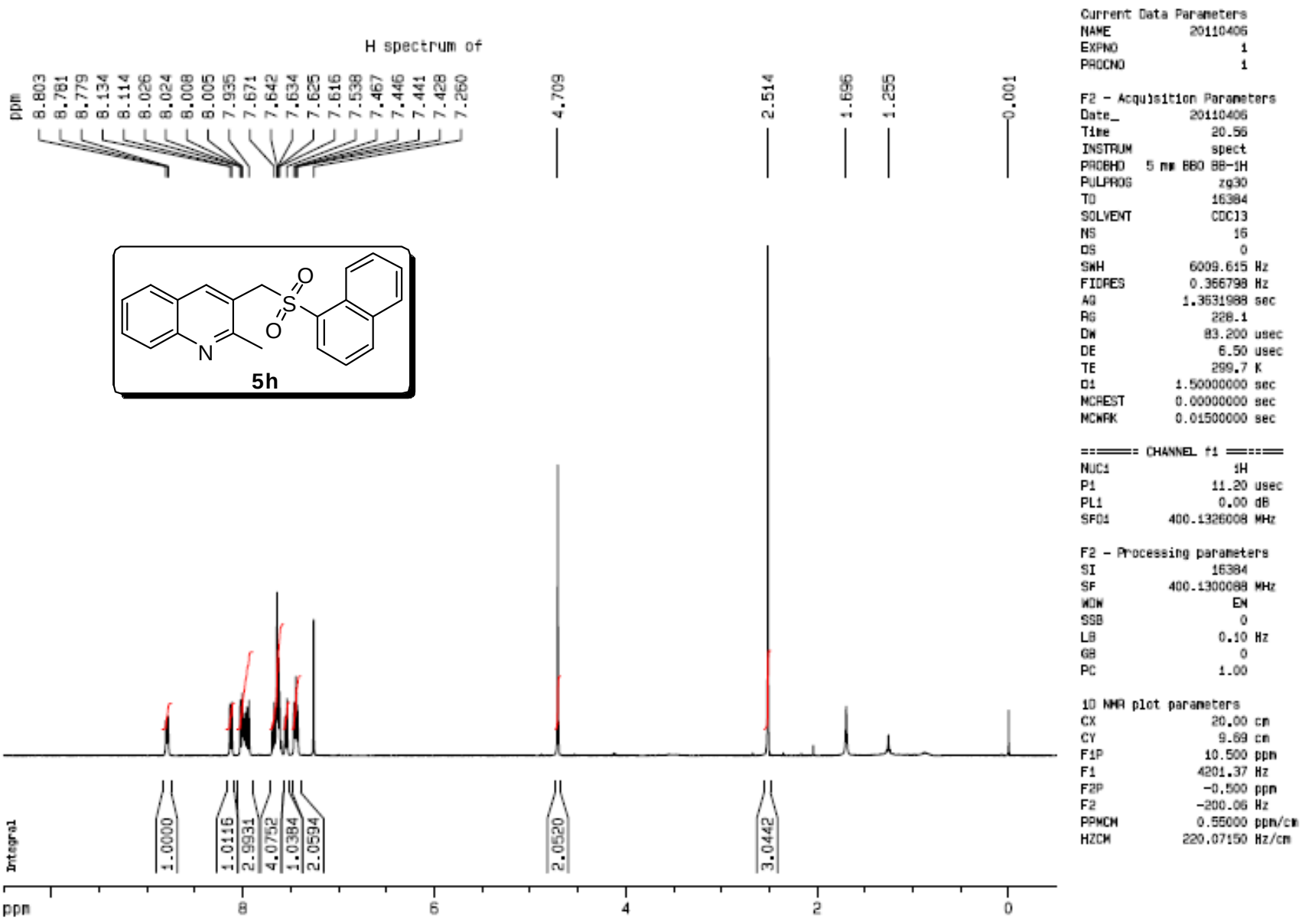

```
Current Data Parameters
NAME                 20110112
EXPNO                       4
PROCNO                      1

F2 - Acquisition Parameters
Date_                20110112
Time                    20.00
INSTRUM                  spect
PROBHD     5 mm BBO BB-1H
PULPROG                 zg30
TD                     16384
SOLVENT                 DMSO
NS                        36
DS                         0
SWH                6009.615 Hz
FIDRES             0.366798 Hz
AQ                 1.3631988 sec
RG                     203.2
DW                  83.200 usec
DE                   6.50 usec
TE                   294.2 K
D1                 1.50000000 sec
MCREST             0.00000000 sec
MCWRK              0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                      11.20 usec
PL1                      0.00 dB
SFO1              400.1326008 MHz

F2 - Processing parameters
SI                     16384
SF                400.1300016 MHz
WDW                       EM
SSB                        0
LB                      0.10 Hz
GB                         0
PC                      1.00

1D NMR plot parameters
CX                     20.00 cm
CY                     22.37 cm
F1P                   10.500 ppm
F1                   4201.37 Hz
F2P                   -0.500 ppm
F2                   -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```

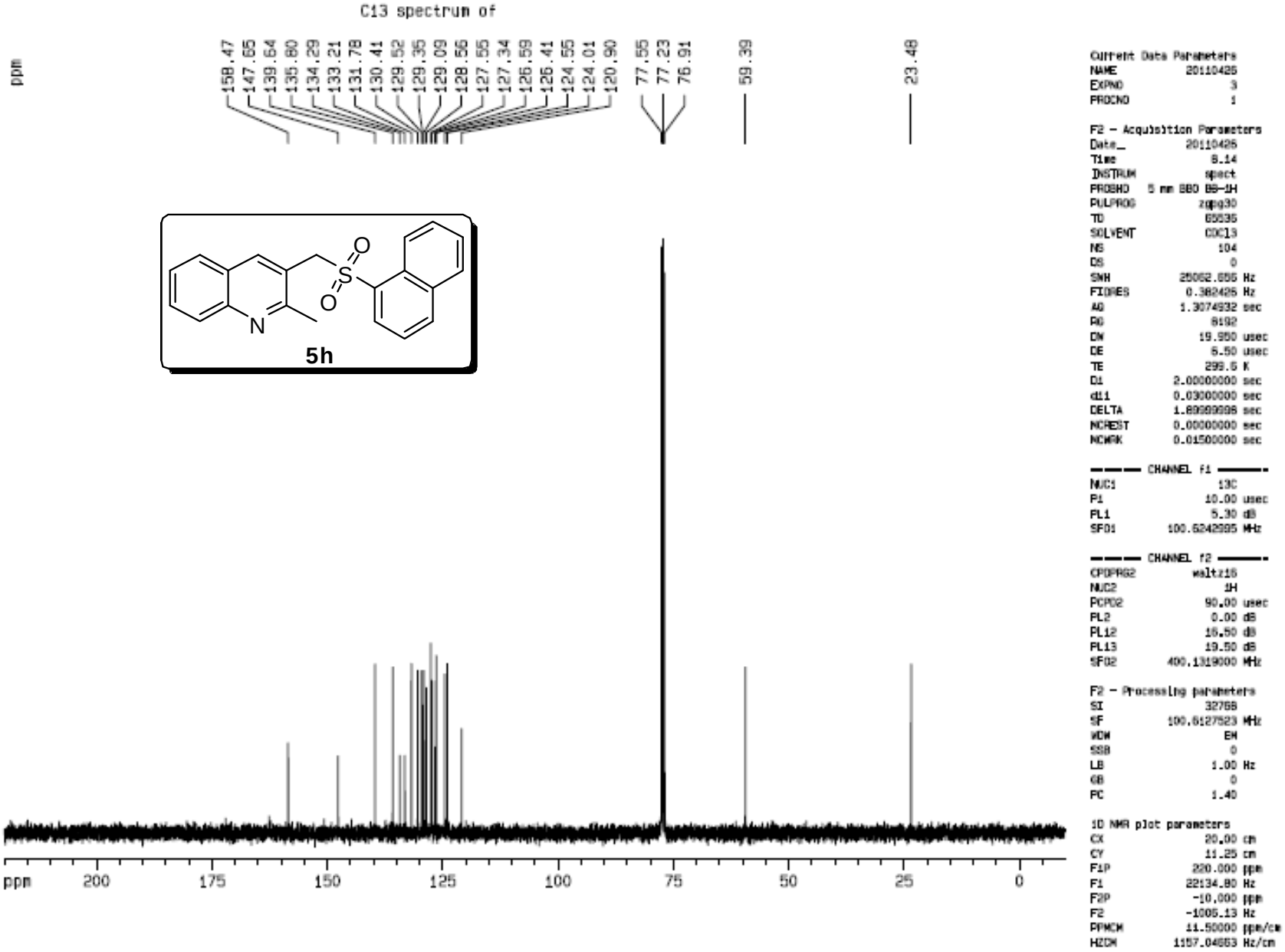

C13 spectrum of
ppm
158.39
147.70
145.42
139.66
135.28
130.41
130.04
128.75
128.60
127.68
126.70
126.47
121.08
77.55
77.23
76.91
59.70
23.30
21.78
5f
ppm 200 175 150 125 100 75 50 25 0
Current Data Parameters
NAME 20110114
EXPNO 3
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110114
Time 12.00
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 305
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 296.8 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242695 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127546 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.25 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1006.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

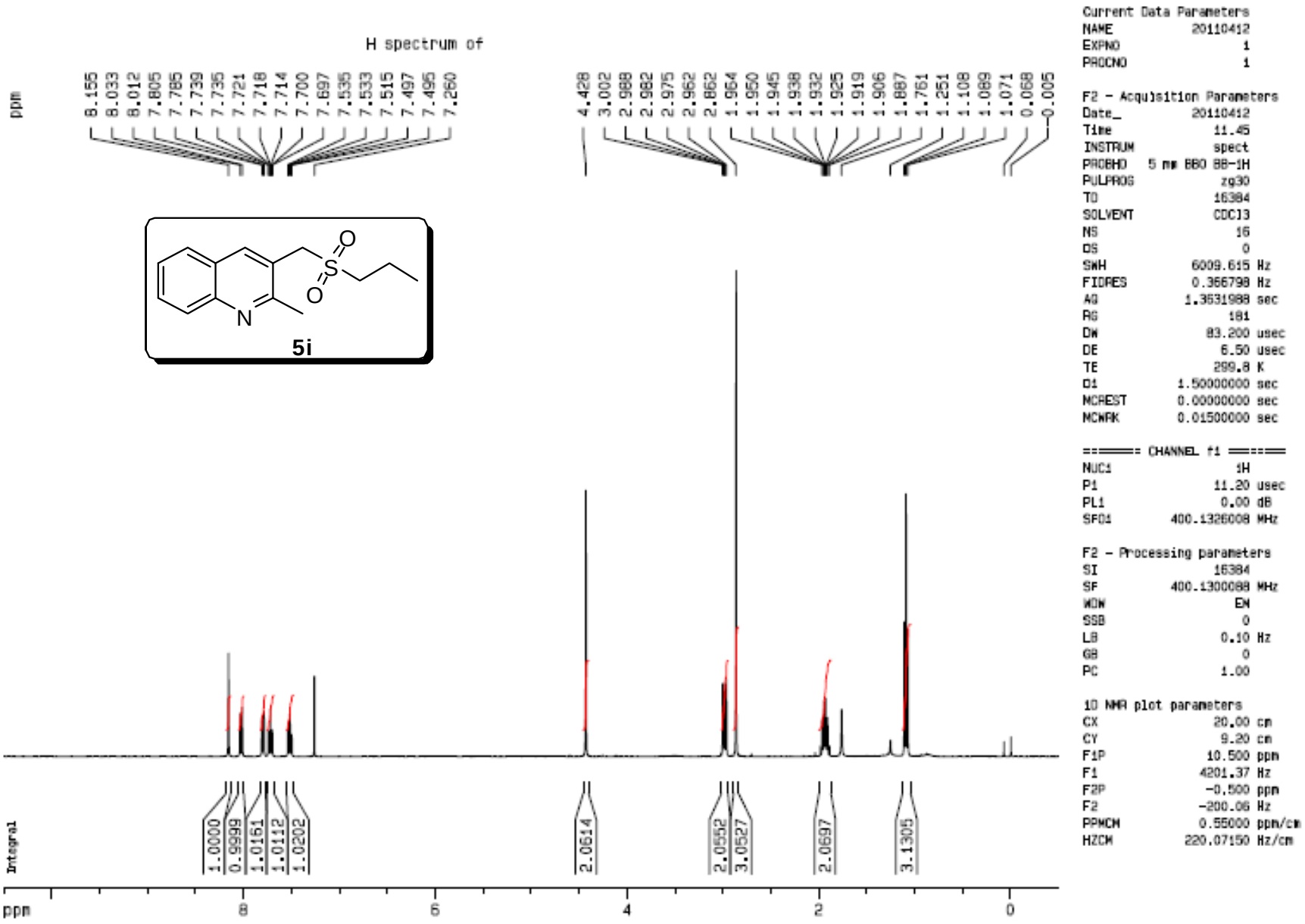



```
Current Data Parameters
NAME                  20110215
EXPNO                        3
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20110215
Time                     16.30
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  DMSO
NS                         16
DS                          0
SWH                 6009.615 Hz
FIDRES              0.366798 Hz
AQ                  1.3631988 sec
RG                        128
DW                     83.200 usec
DE                      6.50 usec
TE                     294.8 K
D1                  1.50000000 sec
MCREST              0.00000000 sec
MCWRK               0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                      11.20 usec
PL1                      0.00 dB
SFO1               400.1326008 MHz

F2 - Processing parameters
SI                      16384
SF                 400.1300009 MHz
WDW                        EM
SSB                         0
LB                       0.10 Hz
GB                          0
PC                       1.00

1D NMR plot parameters
CX                      20.00 cm
CY                      22.55 cm
F1P                    10.500 ppm
F1                   4201.37 Hz
F2P                   -0.500 ppm
F2                  -200.06 Hz
PPMCM                 0.55000 ppm/cm
HZCM                220.07150 Hz/cm
```

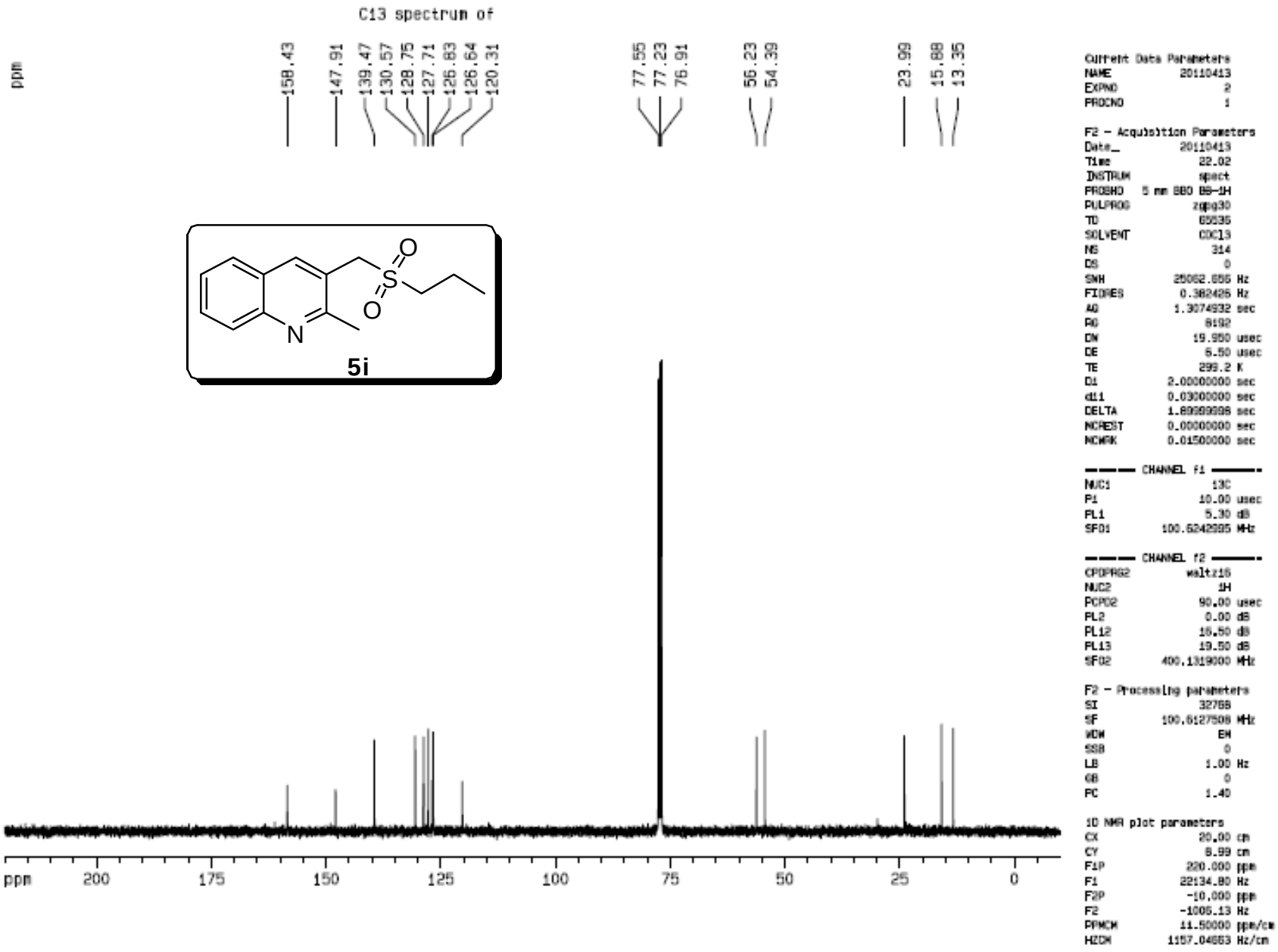

C13 spectrum of
ppm
158.41
151.58
147.68
139.69
135.38
130.40
128.90
128.86
128.59
127.64
126.68
126.45
121.09
77.55
77.23
76.91
59.74
29.03
23.26
15.29
5g
ppm
200
150
100
50
0
Current Data Parameters
NAME 20110220
EXPNO 4
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110220
Time 14.32
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 531
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 298.2 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127546 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.30 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1006.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

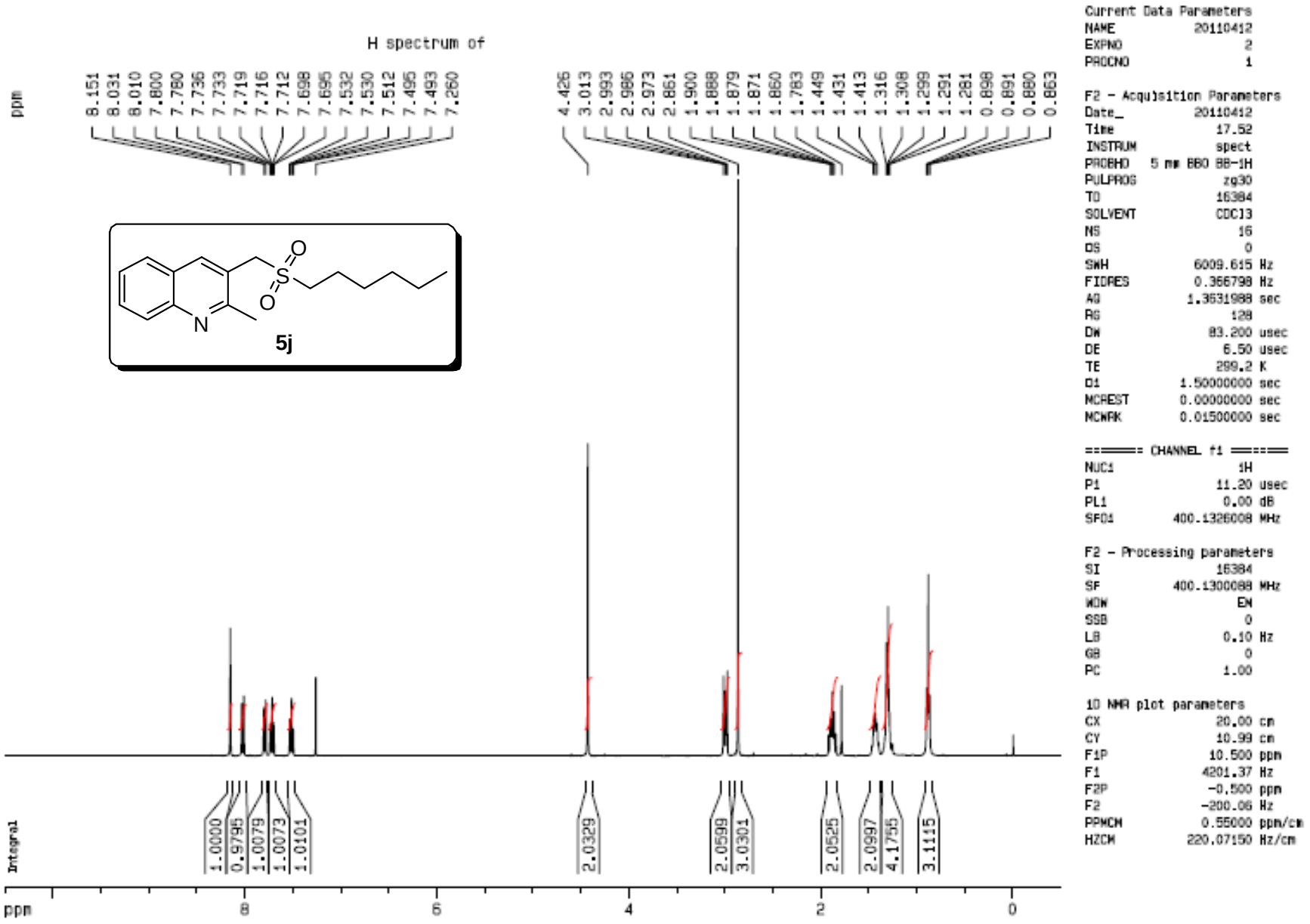

H spectrum of
ppm
8.803
8.781
8.779
8.134
8.114
8.026
8.024
8.008
8.005
7.935
7.671
7.642
7.634
7.625
7.616
7.538
7.467
7.446
7.441
7.428
7.260
4.709
2.514
1.696
1.255
0.001
5h
Integral
1.0000
1.0116
2.9931
4.0752
1.0384
2.0594
2.0520
3.0442
ppm
8
6
4
2
0
Current Data Parameters
NAME 20110406
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110406
Time 20.56
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg30
TD 16384
SOLVENT CDCl3
NS 16
DS 0
SWH 6009.615 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 228.1
DW 83.200 usec
DE 6.50 usec
TE 299.7 K
D1 1.50000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
CHANNEL f1
NUC1 1H
P1 11.20 usec
PL1 0.00 dB
SFO1 400.1326008 MHz
F2 - Processing parameters
SI 16384
SF 400.1300088 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00
1D NMR plot parameters
CX 20.00 cm
CY 9.69 cm
F1P 10.500 ppm
F1 4201.37 Hz
F2P -0.500 ppm
F2 -200.06 Hz
PPMCM 0.55000 ppm/cm
HZCM 220.07150 Hz/cm


C13 spectrum of
ppm
158.47
147.65
139.64
135.80
134.29
133.21
131.78
130.41
129.52
129.35
129.09
128.56
127.55
127.34
126.59
126.41
124.55
124.01
120.90
77.55
77.23
76.91
59.39
23.48
O
S
O
N
5h
ppm
200
175
150
125
100
75
50
25
0
Current Data Parameters
NAME 20110426
EXPNO 3
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110426
Time 8.14
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 104
DS 0
SWH 25062.656 Hz
FIDRES 0.382426 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 298.5 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242695 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127523 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.25 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1006.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

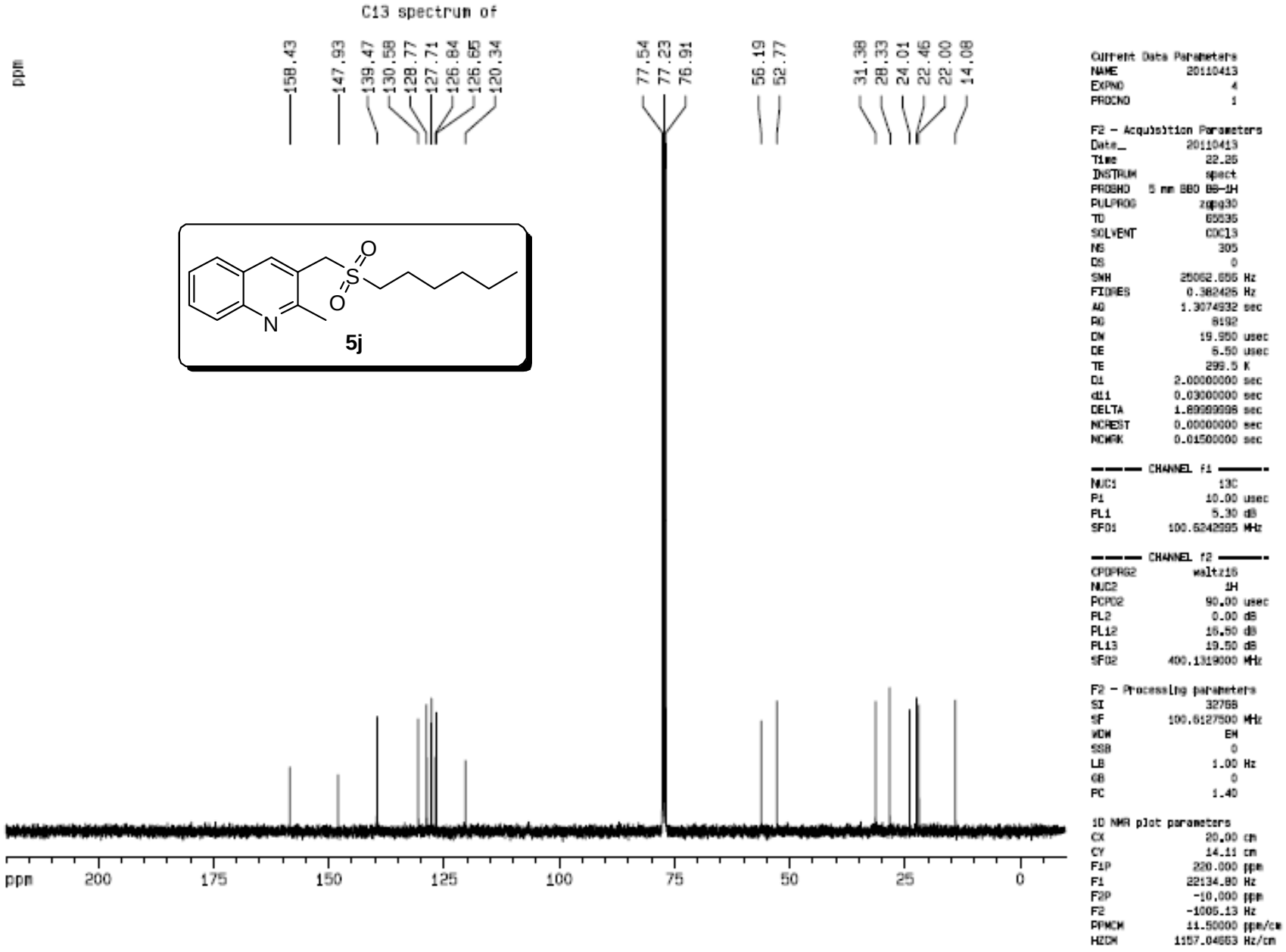


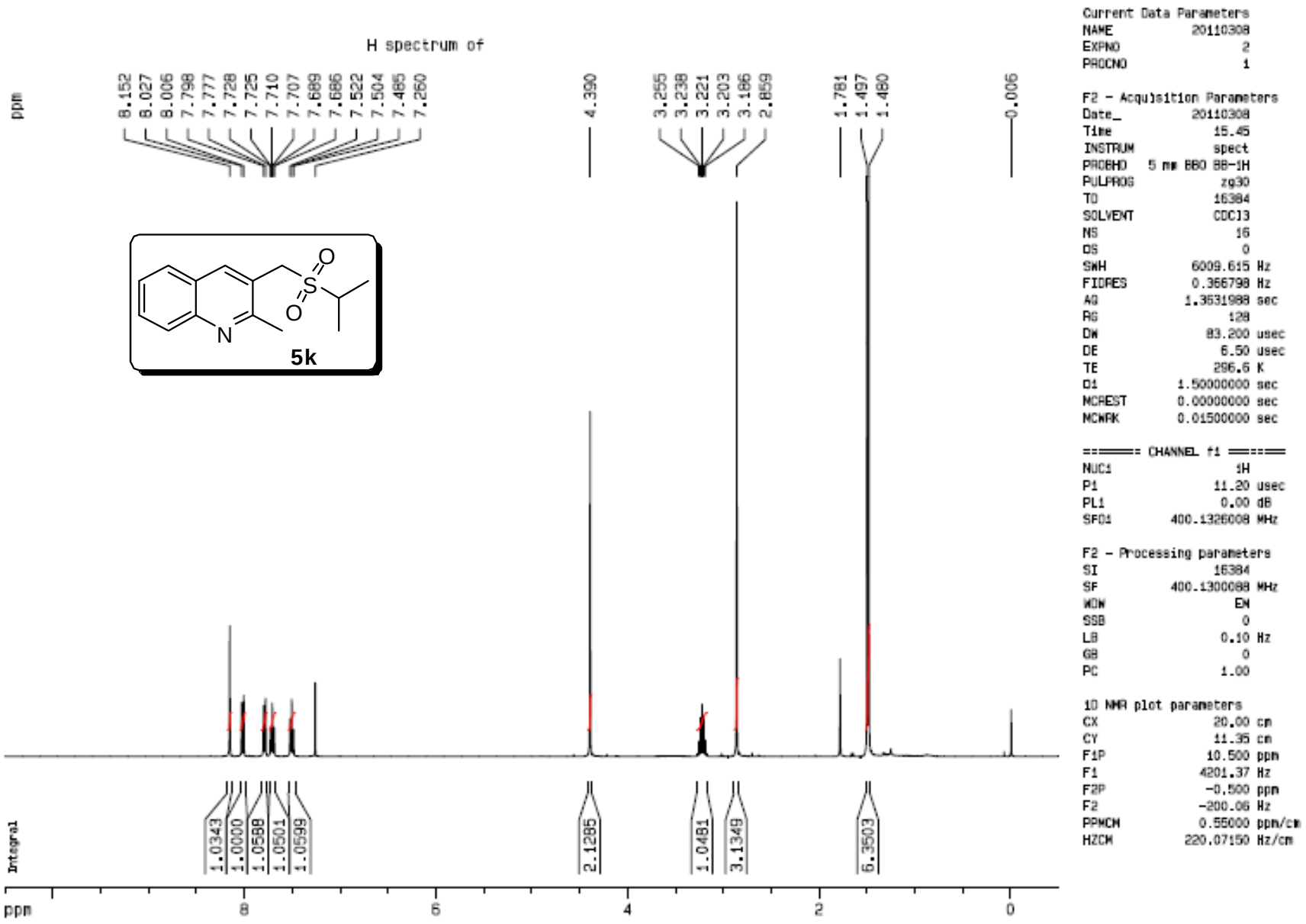

```
Current Data Parameters
NAME                  20110412
EXPNO                        1
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20110412
Time                     11.45
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  CDCl3
NS                          16
DS                           0
SWH                6009.615 Hz
FIDRES             0.366798 Hz
AQ                 1.3631988 sec
RG                         181
DW                   83.200 usec
DE                    6.50 usec
TE                     299.8 K
D1                 1.50000000 sec
MCREST             0.00000000 sec
MCWRK              0.01500000 sec

======== CHANNEL f1 ========
NUC1                       1H
P1                    11.20 usec
PL1                    0.00 dB
SFO1             400.1326008 MHz

F2 - Processing parameters
SI                      16384
SF               400.1300088 MHz
WDW                        EM
SSB                         0
LB                     0.10 Hz
GB                          0
PC                       1.00

1D NMR plot parameters
CX                    20.00 cm
CY                     9.20 cm
F1P                  10.500 ppm
F1                  4201.37 Hz
F2P                  -0.500 ppm
F2                  -200.06 Hz
PPMCM                0.55000 ppm/cm
HZCM               220.07150 Hz/cm
```

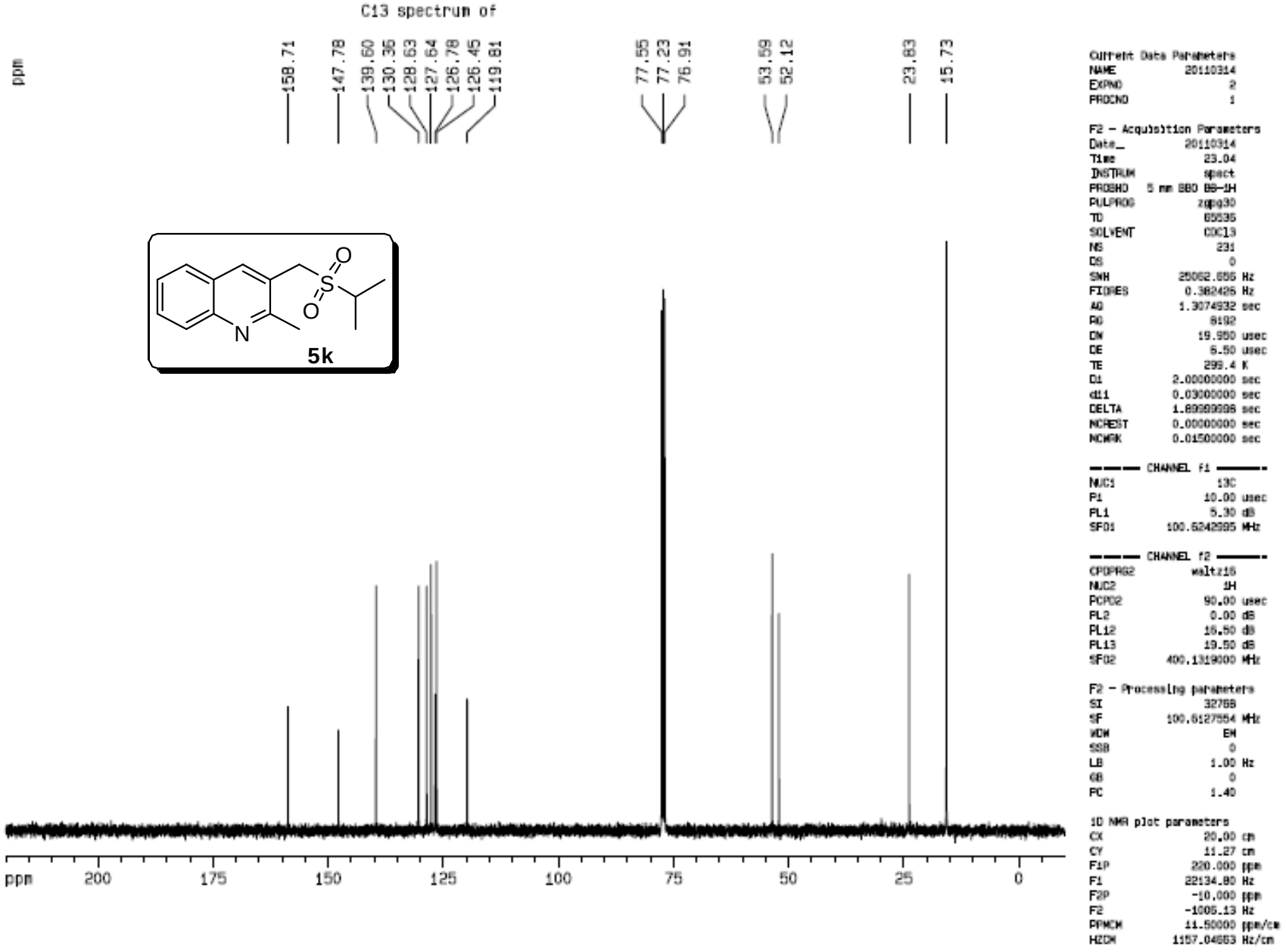

C13 spectrum of
ppm
158.43
147.91
139.47
130.57
128.75
127.71
126.83
126.64
120.31
77.55
77.23
76.91
56.23
54.39
23.99
15.88
13.35
5i
ppm 200 175 150 125 100 75 50 25 0
Current Data Parameters
NAME 20110413
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110413
Time 22.02
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 314
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 299.2 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242885 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 18.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127508 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 8.99 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm

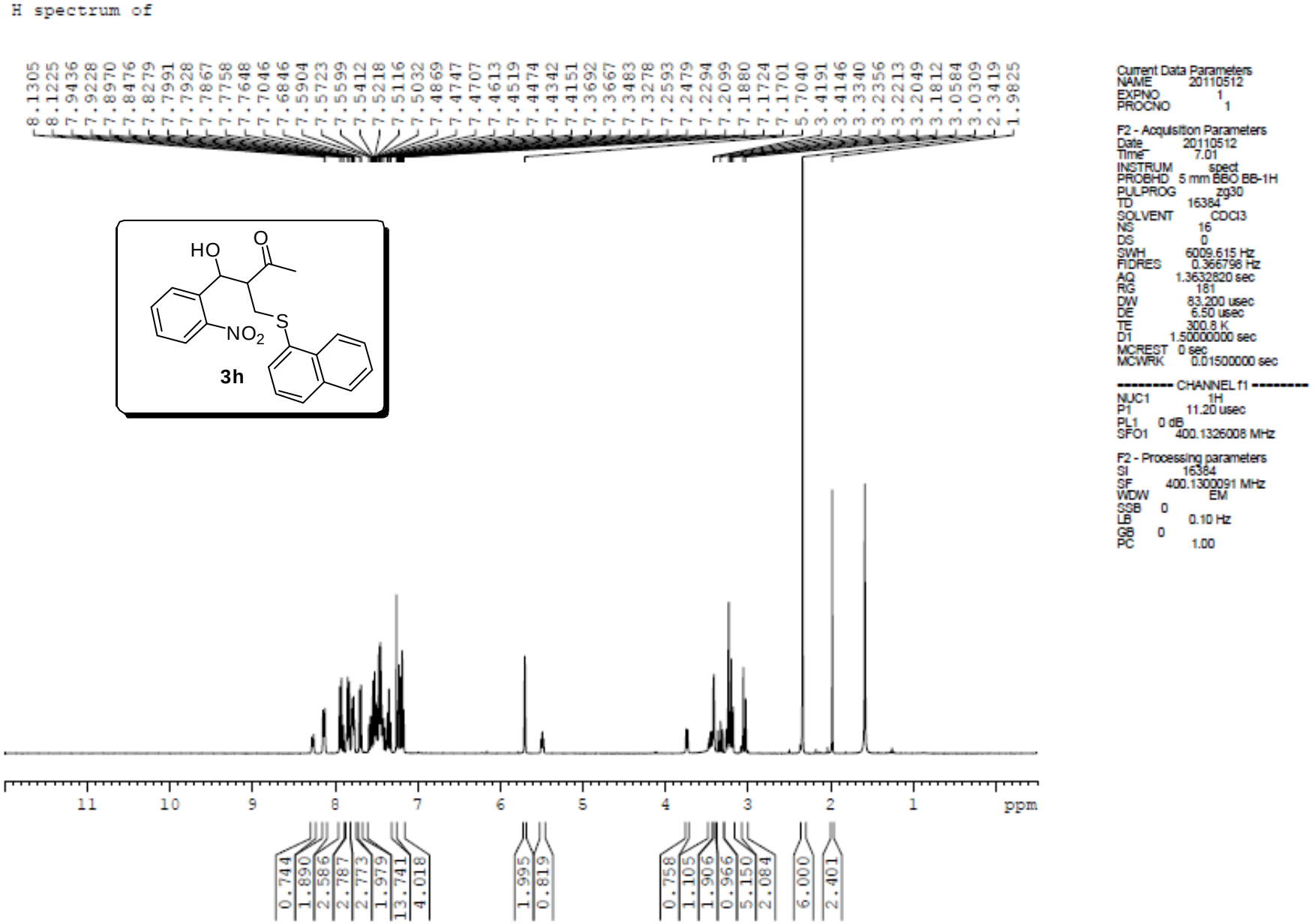


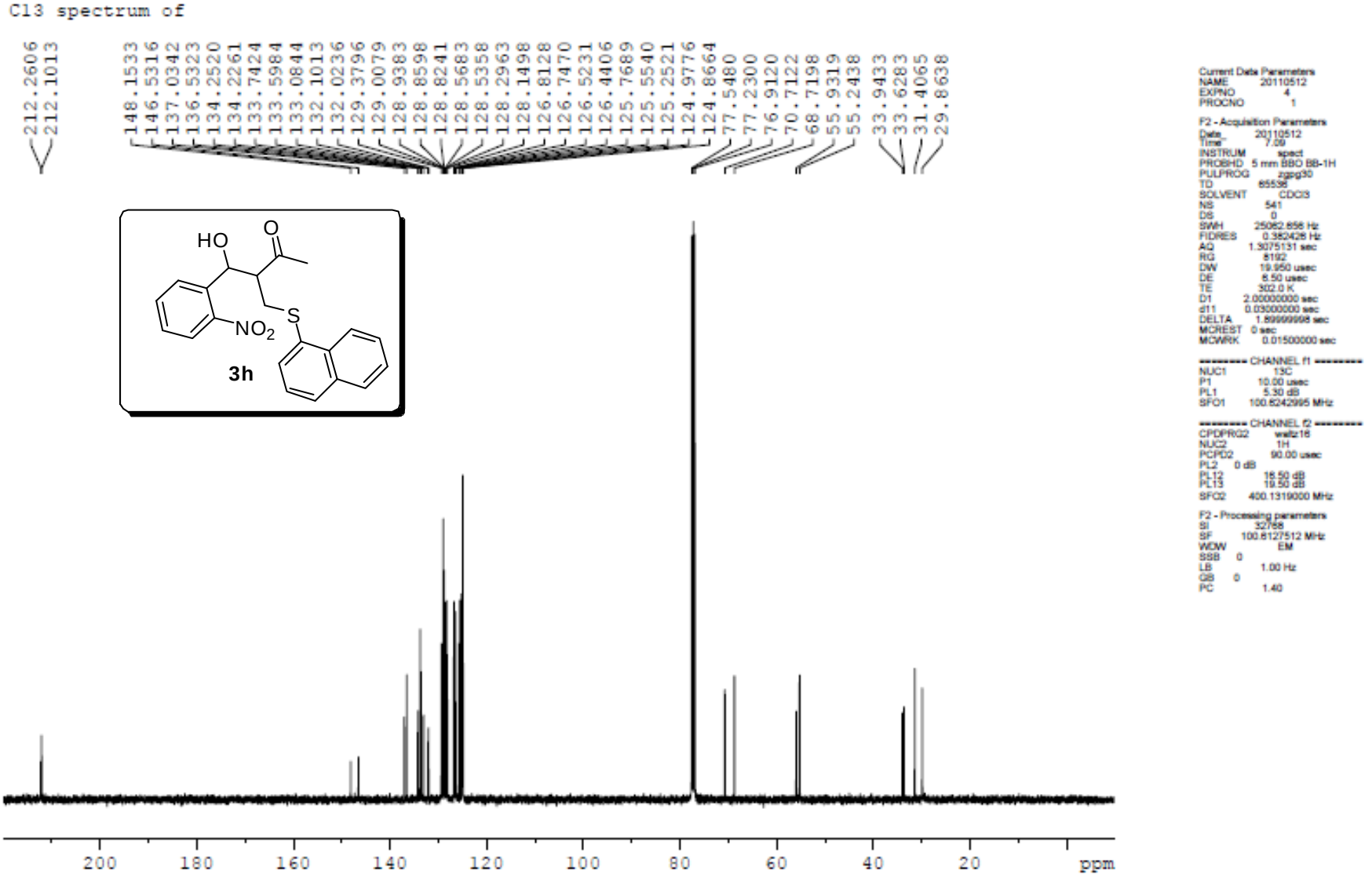

```
Current Data Parameters
NAME                  20110412
EXPNO                        2
PROCNO                       1

F2 - Acquisition Parameters
Date_                 20110412
Time                     17.52
INSTRUM                  spect
PROBHD    5 mm BBO BB-1H
PULPROG                  zg30
TD                      16384
SOLVENT                  CDCl3
NS                          16
DS                           0
SWH                   6009.615 Hz
FIDRES                0.366798 Hz
AQ                    1.3631988 sec
RG                         128
DW                      83.200 usec
DE                       6.50 usec
TE                      299.2 K
D1                    1.50000000 sec
MCREST                0.00000000 sec
MCWRK                 0.01500000 sec

======== CHANNEL f1 ========
NUC1                        1H
P1                       11.20 usec
PL1                       0.00 dB
SFO1                400.1326008 MHz

F2 - Processing parameters
SI                      16384
SF                  400.1300088 MHz
WDW                        EM
SSB                         0
LB                       0.10 Hz
GB                          0
PC                       1.00

1D NMR plot parameters
CX                       20.00 cm
CY                       10.99 cm
F1P                      10.500 ppm
F1                     4201.37 Hz
F2P                      -0.500 ppm
F2                     -200.06 Hz
PPMCM                    0.55000 ppm/cm
HZCM                   220.07150 Hz/cm
```


C13 spectrum of
ppm
158.43
147.93
139.47
130.58
128.77
127.71
126.84
126.65
120.34
77.54
77.23
76.91
56.19
52.77
31.38
28.33
24.01
22.46
22.00
14.08
O
S
O
N
5j
ppm
200
175
150
125
100
75
50
25
0
Current Data Parameters
NAME 20110413
EXPNO 4
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110413
Time 22.26
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65535
SOLVENT CDCl3
NS 305
DS 0
SWH 25062.656 Hz
FIDRES 0.382426 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 299.5 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127500 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 14.11 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm


H spectrum of
ppm
8.152
8.027
8.006
7.798
7.777
7.728
7.725
7.710
7.707
7.689
7.686
7.522
7.504
7.485
7.260
4.390
3.255
3.238
3.221
3.203
3.186
2.859
1.781
1.497
1.480
0.006
5k
Integral
1.0343
1.0000
1.0588
1.0501
1.0599
2.1285
1.0481
3.1349
6.3503
ppm
8
6
4
2
0
Current Data Parameters
NAME 20110308
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110308
Time 15.45
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg30
TD 16384
SOLVENT CDCl3
NS 16
DS 0
SWH 6009.615 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 128
DW 83.200 usec
DE 6.50 usec
TE 296.6 K
D1 1.50000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec
======== CHANNEL f1 ========
NUC1 1H
P1 11.20 usec
PL1 0.00 dB
SFO1 400.1326008 MHz
F2 - Processing parameters
SI 16384
SF 400.1300088 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00
1D NMR plot parameters
CX 20.00 cm
CY 11.35 cm
F1P 10.500 ppm
F1 4201.37 Hz
F2P -0.500 ppm
F2 -200.06 Hz
PPMCM 0.55000 ppm/cm
HZCM 220.07150 Hz/cm


C13 spectrum of
ppm
158.71
147.78
139.60
130.36
128.63
127.64
126.78
126.45
119.81
77.55
77.23
76.91
53.59
52.12
23.83
15.73
5k
ppm 200 175 150 125 100 75 50 25 0
Current Data Parameters
NAME 20110314
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20110314
Time 23.04
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65535
SOLVENT CDCl3
NS 231
DS 0
SWH 25062.656 Hz
FIDRES 0.382425 Hz
AQ 1.3074932 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 299.4 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
NCREST 0.00000000 sec
NCWRK 0.01500000 sec
CHANNEL f1
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.5242995 MHz
CHANNEL f2
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0.00 dB
PL12 16.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz
F2 - Processing parameters
SI 32768
SF 100.6127554 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
1D NMR plot parameters
CX 20.00 cm
CY 11.27 cm
F1P 220.000 ppm
F1 22134.80 Hz
F2P -10.000 ppm
F2 -1005.13 Hz
PPMCM 11.50000 ppm/cm
HZCM 1157.04663 Hz/cm


H spectrum of
8.1305
8.1225
7.9436
7.9228
7.8970
7.8476
7.8279
7.7991
7.7928
7.7867
7.7758
7.7648
7.7046
7.6846
7.5904
7.5723
7.5599
7.5412
7.5218
7.5116
7.5032
7.4869
7.4747
7.4707
7.4613
7.4519
7.4474
7.4342
7.4151
7.3692
7.3667
7.3483
7.3278
7.2593
7.2479
7.2294
7.2099
7.1880
7.1724
7.1701
5.7040
3.4191
3.4146
3.3340
3.2356
3.2213
3.2049
3.1812
3.0584
3.0309
2.3419
1.9825
HO
O
NO2
S
3h
11
10
9
8
7
6
5
4
3
2
1
ppm
0.744
1.890
2.586
2.787
2.773
1.979
13.741
4.018
1.995
0.819
0.758
1.105
1.906
0.966
5.150
2.084
6.000
2.401
Current Data Parameters
NAME 20110512
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date 20110512
Time 7.01
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg30
TD 16384
SOLVENT CDCl3
NS 16
DS 0
SWH 6009.615 Hz
FIDRES 0.366798 Hz
AQ 1.3632820 sec
RG 181
DW 83.200 usec
DE 6.50 usec
TE 300.8 K
D1 1.50000000 sec
MCREST 0 sec
MCWRK 0.01500000 sec
-------- CHANNEL f1 --------
NUC1 1H
P1 11.20 usec
PL1 0 dB
SFO1 400.1326008 MHz
F2 - Processing parameters
SI 16384
SF 400.1300091 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00



Current Data Parameters
NAME 20110512
EXPNO 4
PROCNO 1

F2 - Acquisition Parameters
Date_ 20110512
Time 7.09
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 541
DS 0
SWH 25062.656 Hz
FIDRES 0.382428 Hz
AQ 1.3075131 sec
RG 8192
DW 19.950 usec
DE 6.50 usec
TE 302.0 K
D1 2.00000000 sec
d11 0.03000000 sec
DELTA 1.89999998 sec
MCREST 0 sec
MCWRK 0.01500000 sec

--------- CHANNEL f1 ---------
NUC1 13C
P1 10.00 usec
PL1 5.30 dB
SFO1 100.6242995 MHz

--------- CHANNEL f2 ---------
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 0 dB
PL12 18.50 dB
PL13 19.50 dB
SFO2 400.1319000 MHz

F2 - Processing parameters
SI 32768
SF 100.6127512 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

Crystallographic description of 3h:

Identification code	a12327	
Empirical formula	C_{21} H_{19} N O_4 S	
Formula weight	381.43	
Temperature	200(2) K	
Wavelength	0.71073 Å	
Crystal system	Monoclinic	
Space group	P 21/c	
Unit cell dimensions	a = 32.290(4) Å	α = 90°.
	b = 7.4466(9) Å	β = 103.742(6)°
	c = 15.7324(16) Å	γ = 90°.
Volume	3674.6(7) $Å^3$	
Z	8	
Density (calculated)	1.379 Mg/m^3	
Absorption coefficient	0.204 mm^{-1}	
F(000)	1600	
Crystal size	0.44 × 0.32 × 0.08 mm^3	
Theta range for data collection	1.30 to 25.02°.	
Index ranges	−29·≤ h ≤ 38,·−7 ≤ k ≤ 8, −16 ≤ l ≤ 18	
Reflections collected	13232	
Independent reflections	6139 [R(int) = 0.0734]	
Completeness to theta = 25.02°	94.4%	
Absorption correction	multi-scan	
Max. and min. transmission	0.9839 and 0.9158	
Refinement method	Full-matrix least-squares on F^2	
Data / restraints / parameters	6139 / 0 / 277	
Goodness-of-fit on F^2	1.183	
Final R indices [I>2sigma(I)]	R1 = 0.2457, wR2 = 0.4913	
R indices (all data)	R1 = 0.2811, wR2 = 0.5062	
Largest diff. peak and hole	1.222 and −0.713 e.$Å^{-3}$	