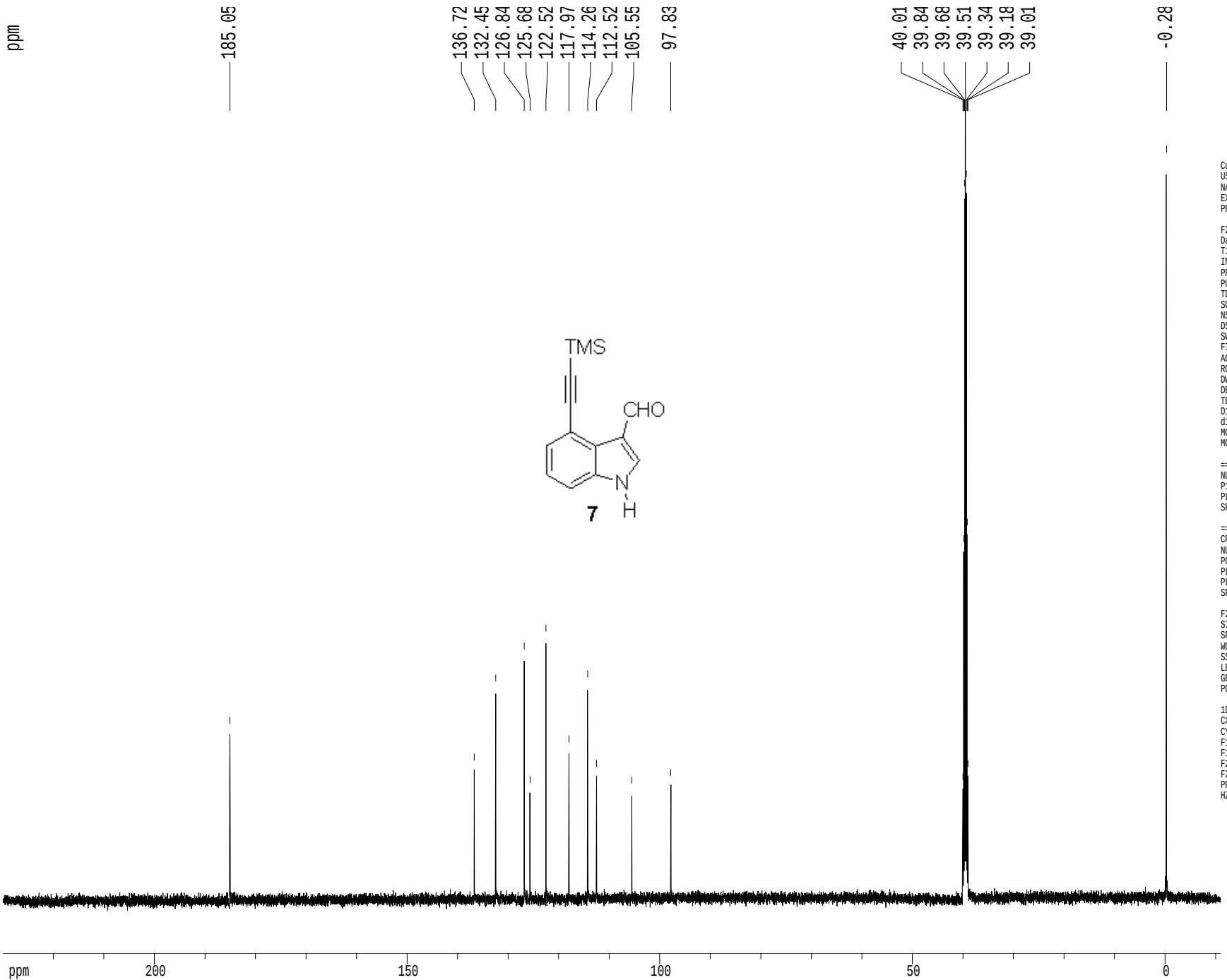
4-Trimethylsilanylethynyl-1H-indole-3-carbaldehyde (7) 1H spectrum

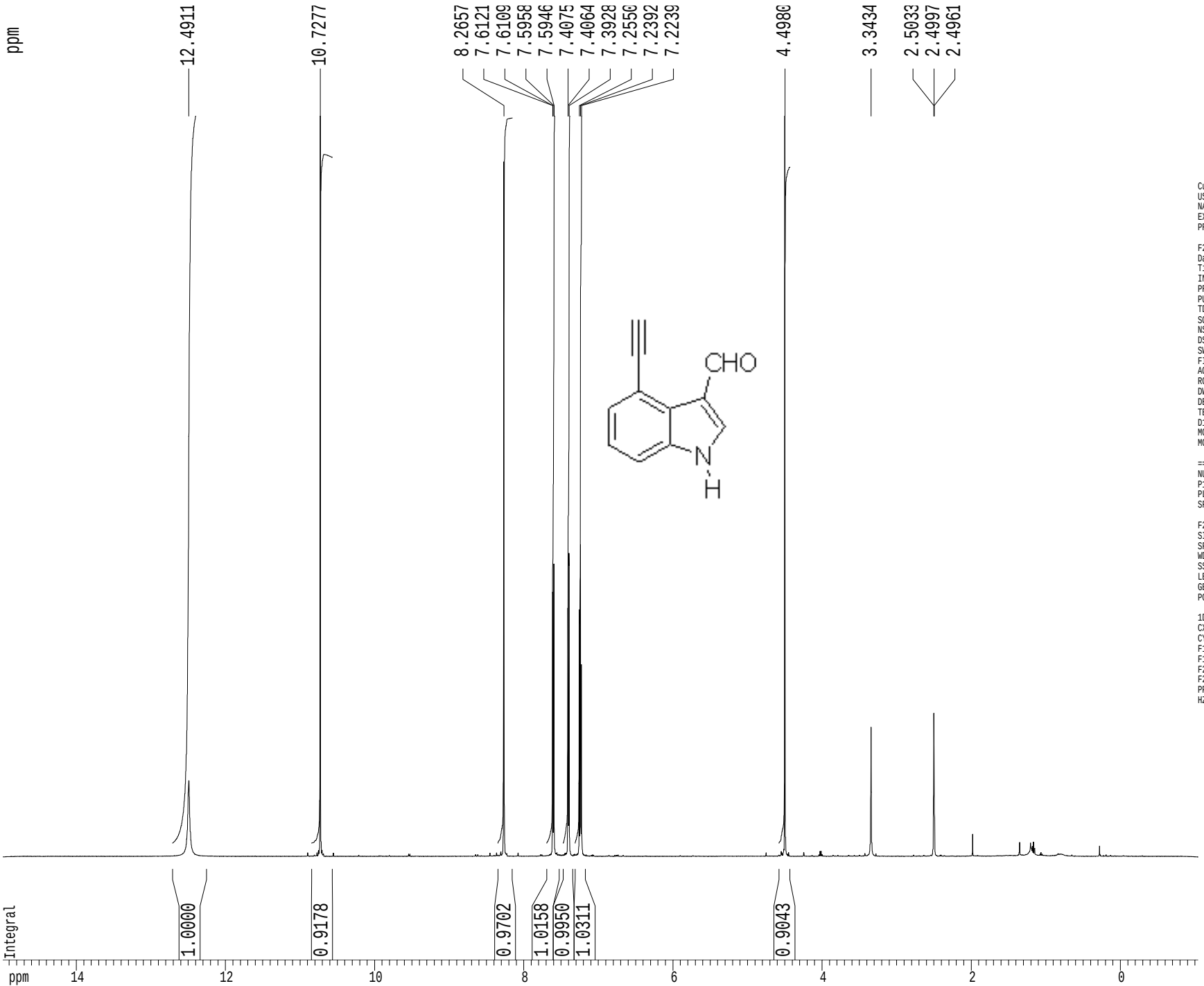
```
Current Data Parameters
USER              lauchl
NAME           rl061406a
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060615
Time               11.44
INSTRUM          cryo500
PROBHD   5 mm broadband
PULPROG             zg30
TD                 81728
SOLVENT            CDCl3
NS                     8
DS                     2
SWH             8012.820 Hz
FIDRES          0.098043 Hz
AQ             5.0998774 sec
RG                  80.6
DW                62.400 usec
DE                 6.00 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               -5.00 dB
SFO1        500.2235015 MHz

F2 - Processing parameters
SI                 65536
SF          500.2200134 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
F1P               14.983 ppm
F1               7494.55 Hz
F2P               -1.036 ppm
F2               -518.27 Hz
PPMCM            0.70257 ppm/cm
HZCM           351.43951 Hz/cm
```

4-Trimethylsilanylethynyl-1H-indole-3-carbaldehyde (7) 13C spectrum with 1H decoupling



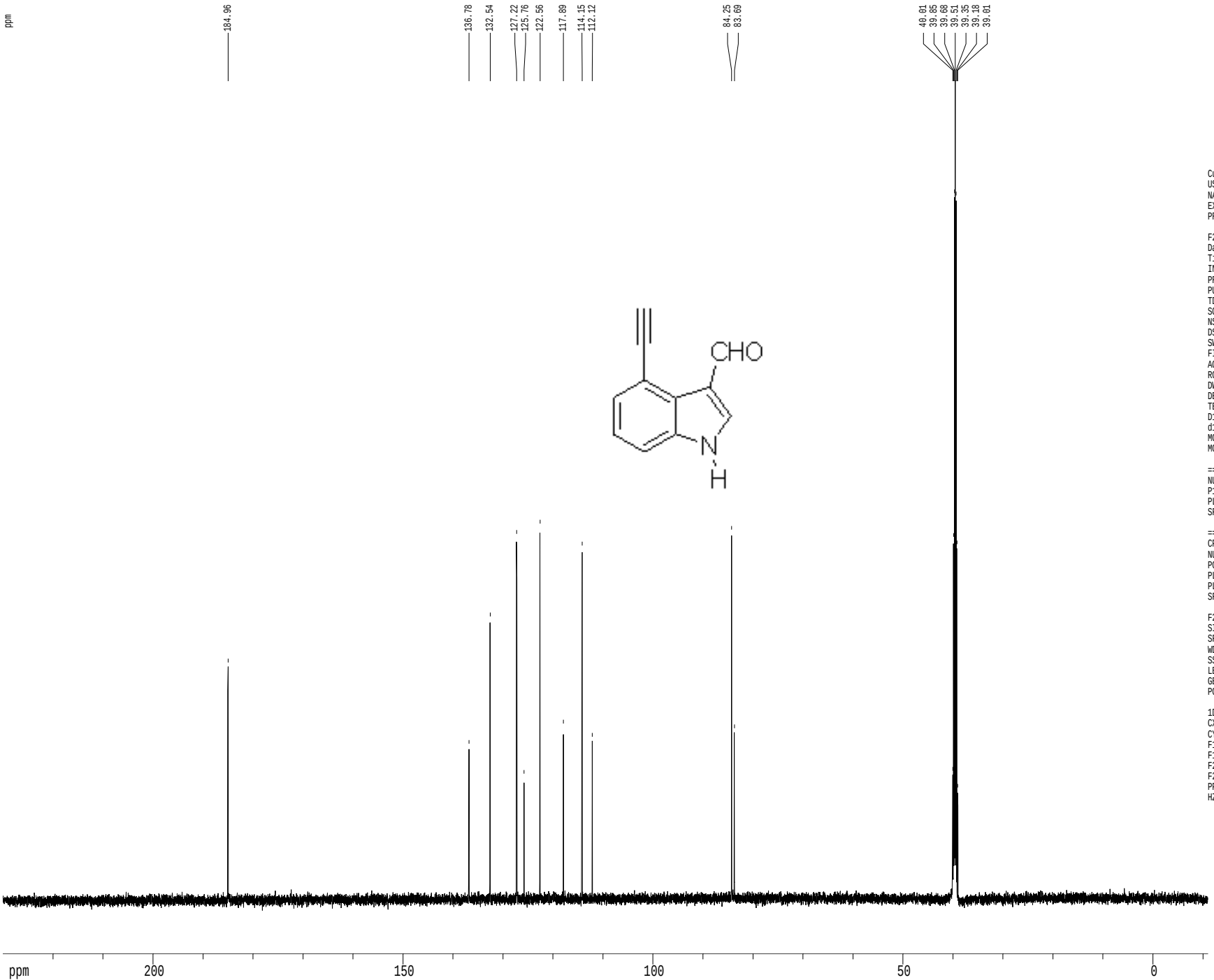

```
Current Data Parameters
USER              lauchl
NAME           rl061406a
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060615
Time               11.47
INSTRUM          cryo500
PROBHD   5 mm broadband
PULPROG          zgdc30
TD                65536
SOLVENT            DMSO
NS                   302
DS                     4
SWH            30303.031 Hz
FIDRES          0.462388 Hz
AQ             1.0813940 sec
RG                  6502
DW                16.500 usec
DE                 6.00 usec
TE                298.0 K
D1            0.25000000 sec
d11           0.03000000 sec
MCREST        0.00000000 sec
MCWRK         0.01500000 sec

======== CHANNEL f1 ========
NUC1                13C
P1                 8.90 usec
PL1                0.00 dB
SFO1        125.7942548 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2            100.00 usec
PL2                1.60 dB
PL12              13.40 dB
SFO2        500.2225011 MHz

F2 - Processing parameters
SI                  65536
SF           125.7804846 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   2.00

1D NMR plot parameters
CX                  22.80 cm
CY                  15.65 cm
F1P              229.938 ppm
F1              28921.71 Hz
F2P              -10.982 ppm
F2              -1381.32 Hz
PPMCM           10.56667 ppm/cm
HZCM          1329.08044 Hz/cm
```

4-Ethynyl-1H-indole-carbaldehyde 1H spectrum



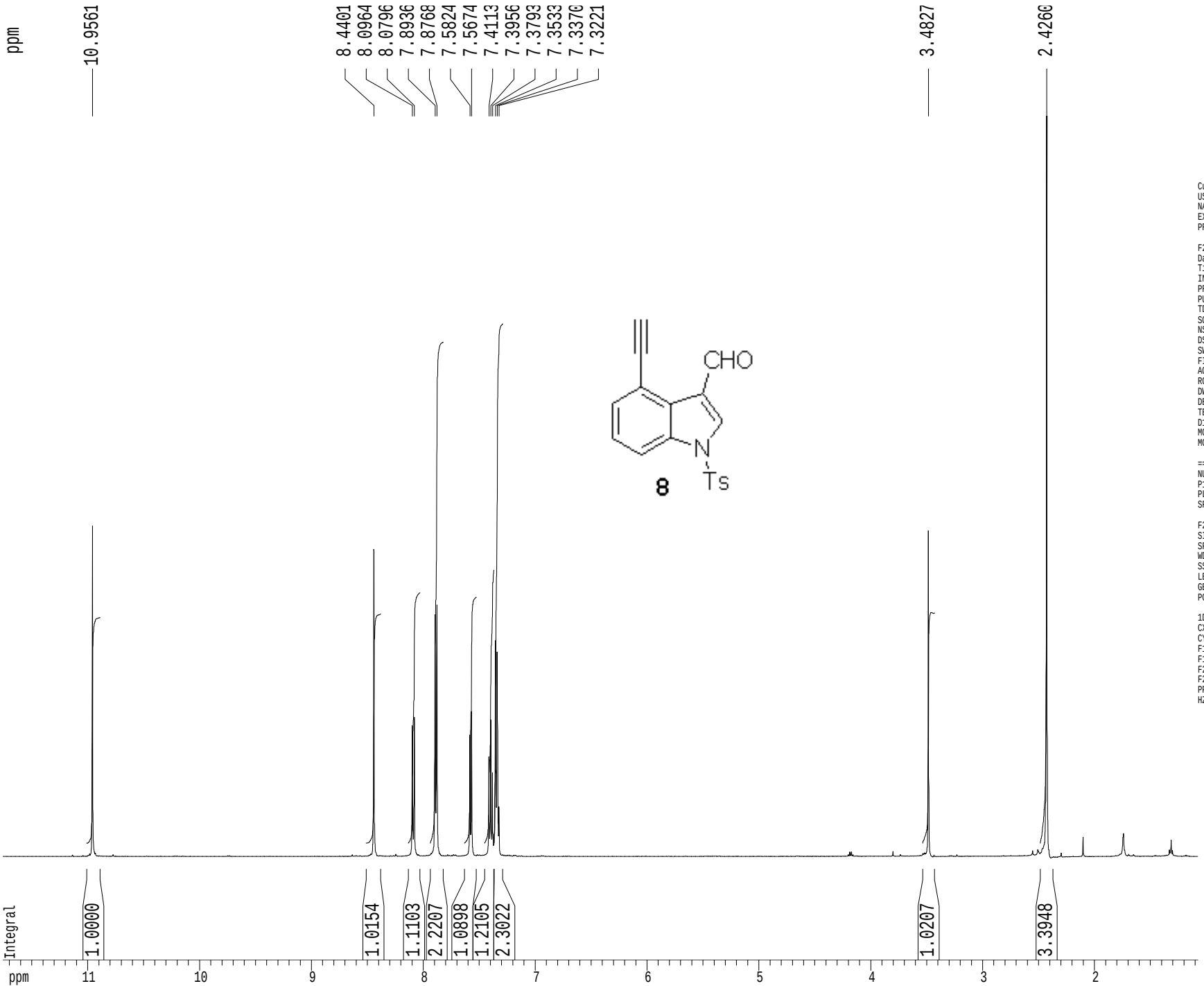

```
Current Data Parameters
USER            lauchl
NAME         rl061506a
EXPNO                1
PROCNO               1

F2 - Acquisition Parameters
Date_         20060616
Time             15.15
INSTRUM        cryo500
PROBHD   5 mm broadband
PULPROG            zg30
TD                81728
SOLVENT           CDCl3
NS                    8
DS                    2
SWH           8012.820 Hz
FIDRES        0.098043 Hz
AQ           5.0998774 sec
RG               161.3
DW              62.400 usec
DE               6.00 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              -5.00 dB
SFO1       500.2235015 MHz

F2 - Processing parameters
SI                65536
SF         500.2200138 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
F1P              14.982 ppm
F1             7494.18 Hz
F2P              -1.037 ppm
F2             -518.64 Hz
PPMCM          0.70257 ppm/cm
HZCM         351.43951 Hz/cm
```

4-Ethynyl-1H-indole-3-carbaldehyde 13C spectrum with 1H decoupling



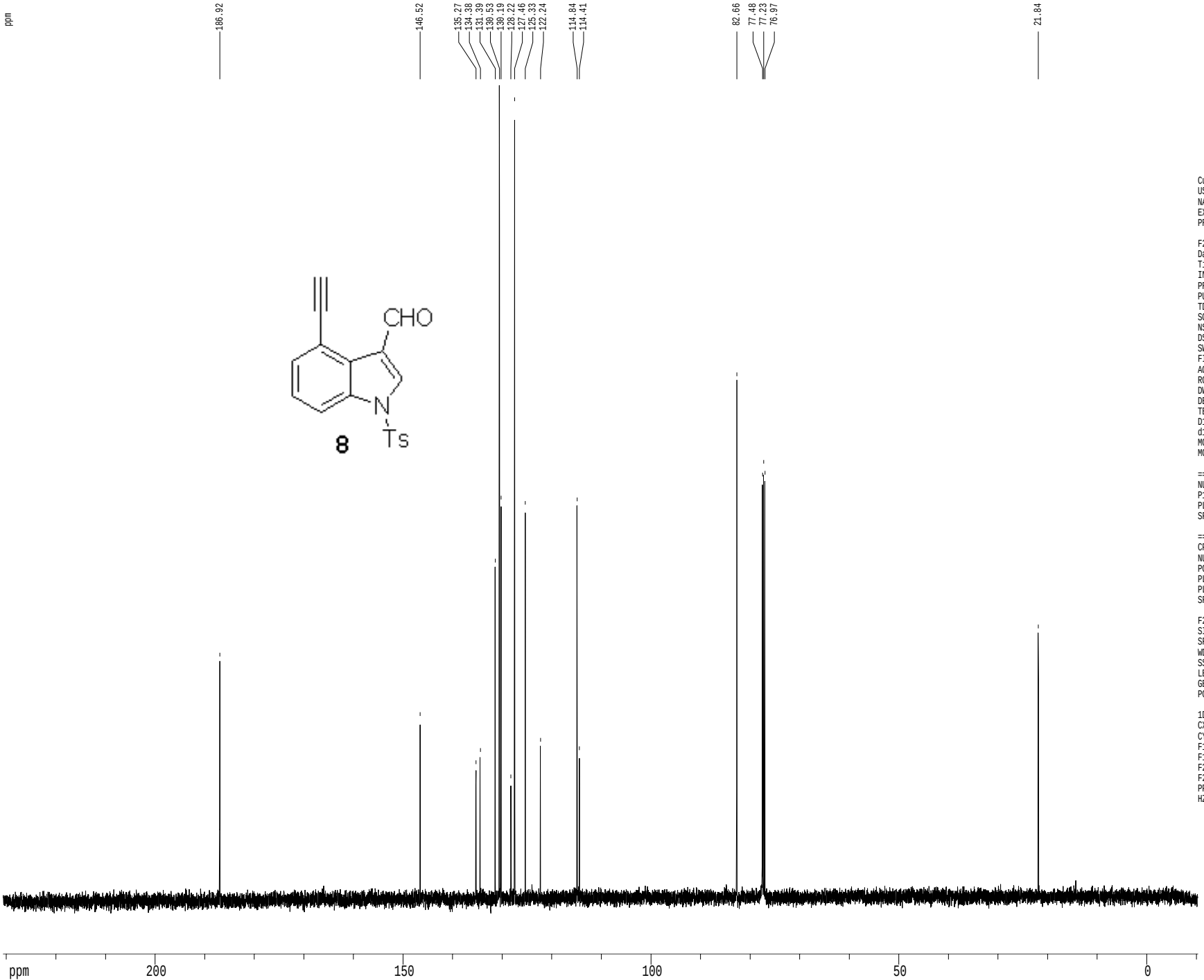

```
Current Data Parameters
USER              lauchl
NAME           rl061506a
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060616
Time              15.19
INSTRUM          cryo500
PROBHD   5 mm broadband
PULPROG          zgdc30
TD                65536
SOLVENT            DMSO
NS                  292
DS                    4
SWH           30303.031 Hz
FIDRES         0.462388 Hz
AQ            1.0813940 sec
RG               5792.6
DW               16.500 usec
DE                6.00 usec
TE               298.0 K
D1           0.25000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1                13C
P1                 8.90 usec
PL1                0.00 dB
SFO1        125.7942548 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2            100.00 usec
PL2                1.60 dB
PL12              13.40 dB
SFO2        500.2225011 MHz

F2 - Processing parameters
SI                  65536
SF          125.7804833 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   2.00

1D NMR plot parameters
CX                  22.80 cm
CY                  15.65 cm
F1P              229.949 ppm
F1              28923.11 Hz
F2P              -10.971 ppm
F2              -1379.92 Hz
PPMCM           10.56667 ppm/cm
HZCM          1329.08044 Hz/cm
```

4-Ethynyl-1-(toluene-4-sulfonyl)-1H-indole-3-carbaldehyde (8) 1H spectrum



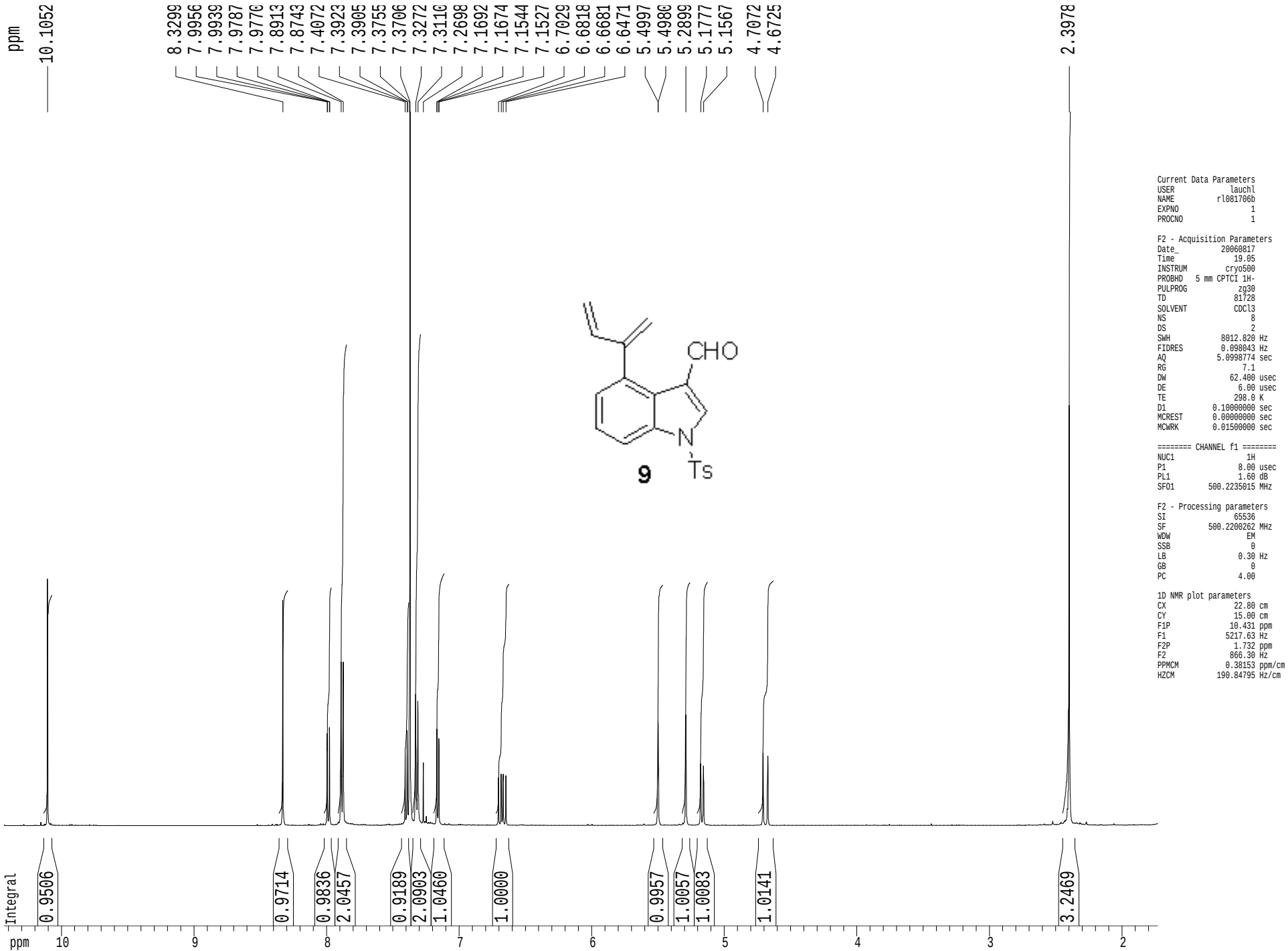

```
Current Data Parameters
USER              lauchl
NAME           rl062006a
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060621
Time              10.52
INSTRUM         cryo500
PROBHD   5 mm broadband
PULPROG            zg30
TD                81728
SOLVENT           CDCl3
NS                    8
DS                    2
SWH            8012.820 Hz
FIDRES         0.098043 Hz
AQ            5.0998774 sec
RG                   64
DW               62.400 usec
DE                6.00 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               -5.00 dB
SFO1        500.2235015 MHz

F2 - Processing parameters
SI                65536
SF          500.2200000 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
F1P              11.756 ppm
F1              5880.62 Hz
F2P               1.077 ppm
F2               538.74 Hz
PPMCM          0.46838 ppm/cm
HZCM         234.29303 Hz/cm
```

4-Ethynyl-1-(toluene-4-sulfonyl)-1H-indole-3-carbaldehyde (8) 13C spectrum with 1H decoupling



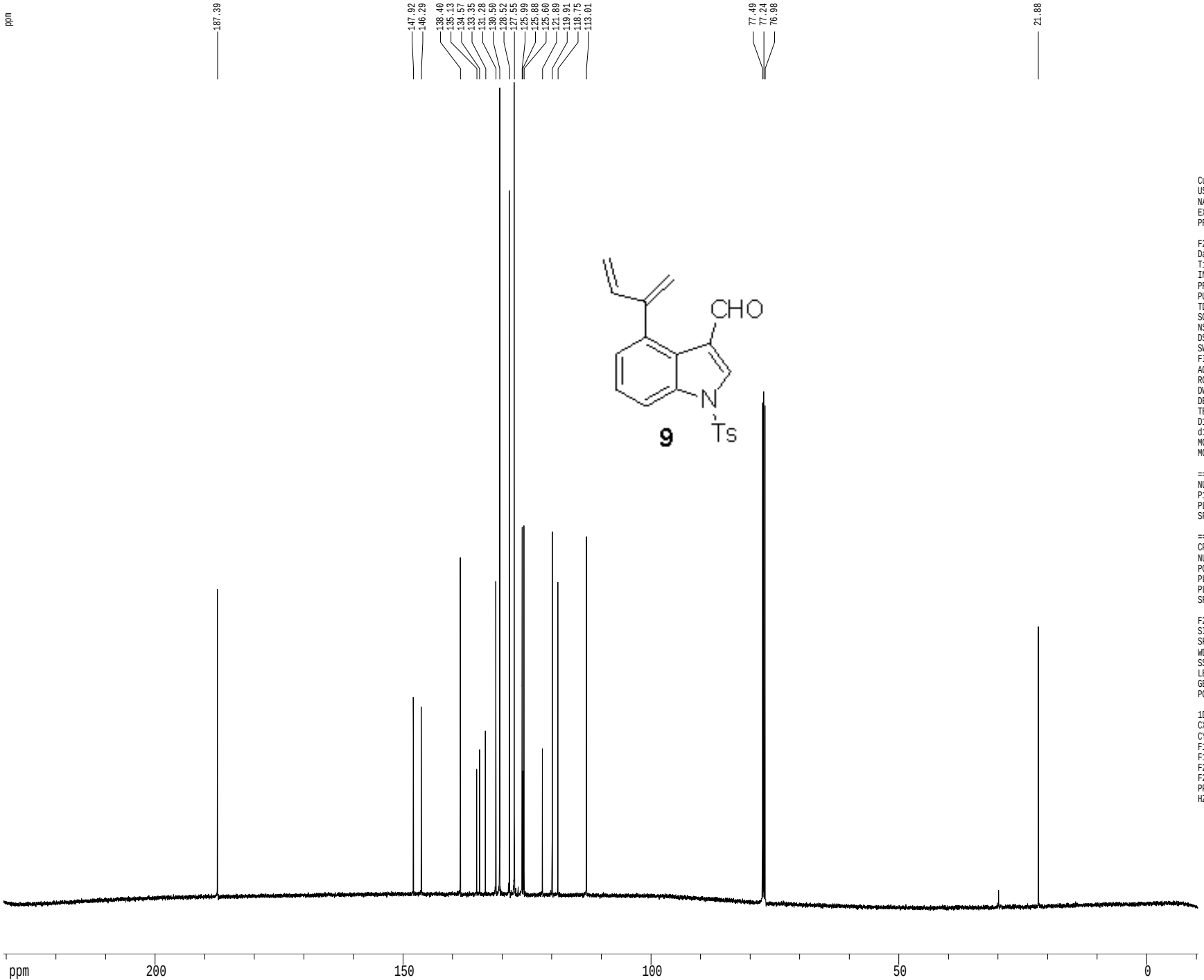

```
Current Data Parameters
USER              lauchl
NAME           rl062006a
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060621
Time               10.55
INSTRUM          cryo500
PROBHD   5 mm broadband
PULPROG           zgdc30
TD                 65536
SOLVENT            CDCl3
NS                   160
DS                     4
SWH            30303.031 Hz
FIDRES          0.462388 Hz
AQ             1.0813940 sec
RG                  3251
DW                16.500 usec
DE                 6.00 usec
TE                298.0 K
D1            0.25000000 sec
d11           0.03000000 sec
MCREST        0.00000000 sec
MCWRK         0.01500000 sec

======== CHANNEL f1 ========
NUC1                13C
P1                 8.90 usec
PL1                0.00 dB
SFO1        125.7942548 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2            100.00 usec
PL2                1.60 dB
PL12              13.40 dB
SFO2        500.2225011 MHz

F2 - Processing parameters
SI                  65536
SF           125.7804034 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   2.00

1D NMR plot parameters
CX                  22.80 cm
CY                  15.65 cm
F1P              230.637 ppm
F1              29009.68 Hz
F2P              -10.287 ppm
F2              -1293.96 Hz
PPMCM           10.56688 ppm/cm
HZCM          1329.10693 Hz/cm
```

4-(1-Methylene-allyl)-1-(toluene-4-sulfonyl)-1H-indole-3-carbaldehyde (9) 1H spectrum



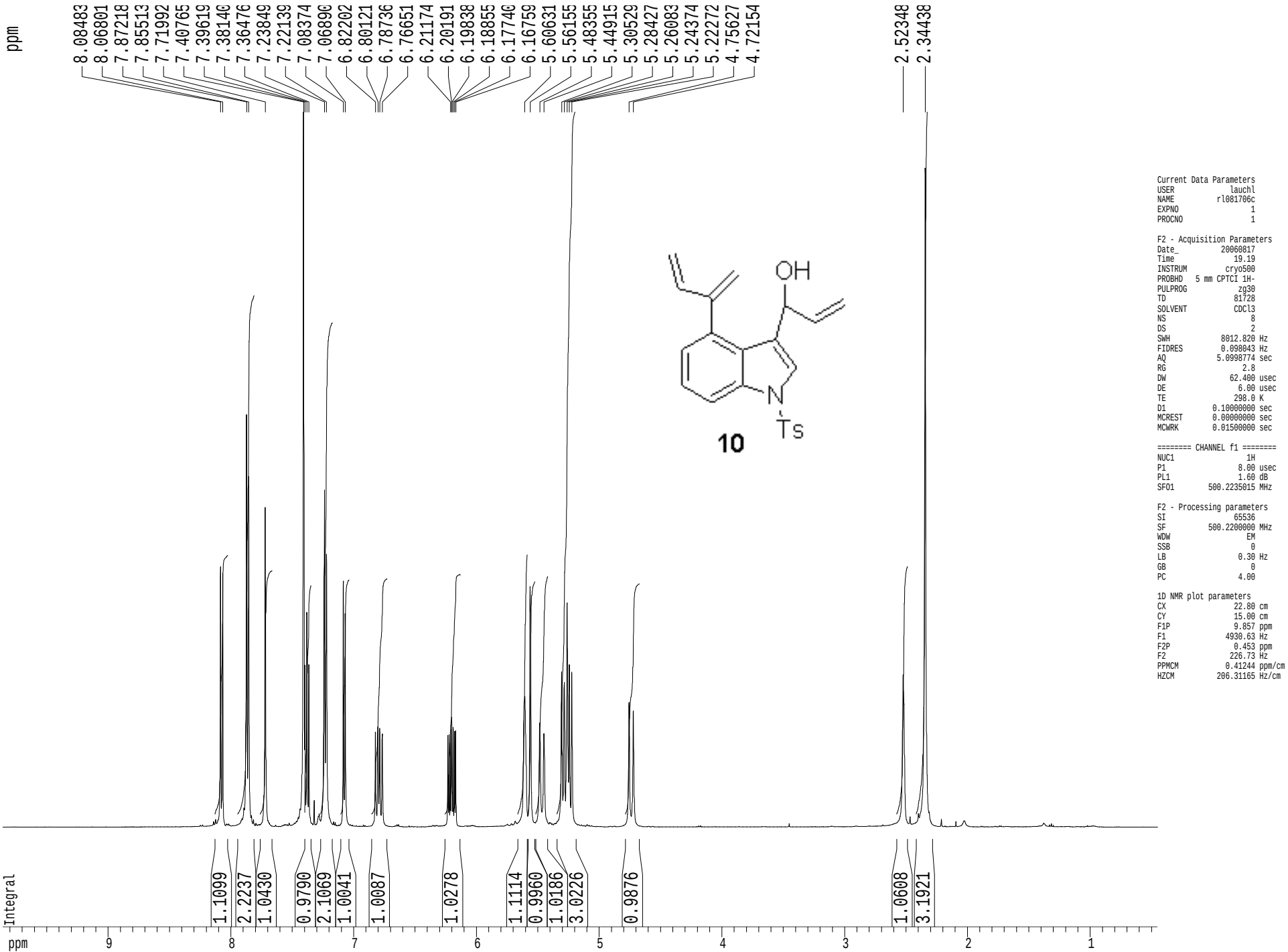

```
Current Data Parameters
USER              lauchl
NAME           rl081706b
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060817
Time              19.05
INSTRUM          cryo500
PROBHD   5 mm CPTCI 1H-
PULPROG            zg30
TD                81728
SOLVENT           CDCl3
NS                    8
DS                    2
SWH            8012.820 Hz
FIDRES         0.098043 Hz
AQ            5.0998774 sec
RG                  7.1
DW               62.400 usec
DE                6.00 usec
TE                298.0 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                65536
SF          500.2200262 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
F1P              10.431 ppm
F1             5217.63 Hz
F2P               1.732 ppm
F2              866.30 Hz
PPMCM           0.38153 ppm/cm
HZCM          190.84795 Hz/cm
```

4-(1-Methylene-allyl)-1-(toluene-4-sulfonyl)-1H-indole-3-carbaldehyde (9) 13C spectrum with 1H decoupling



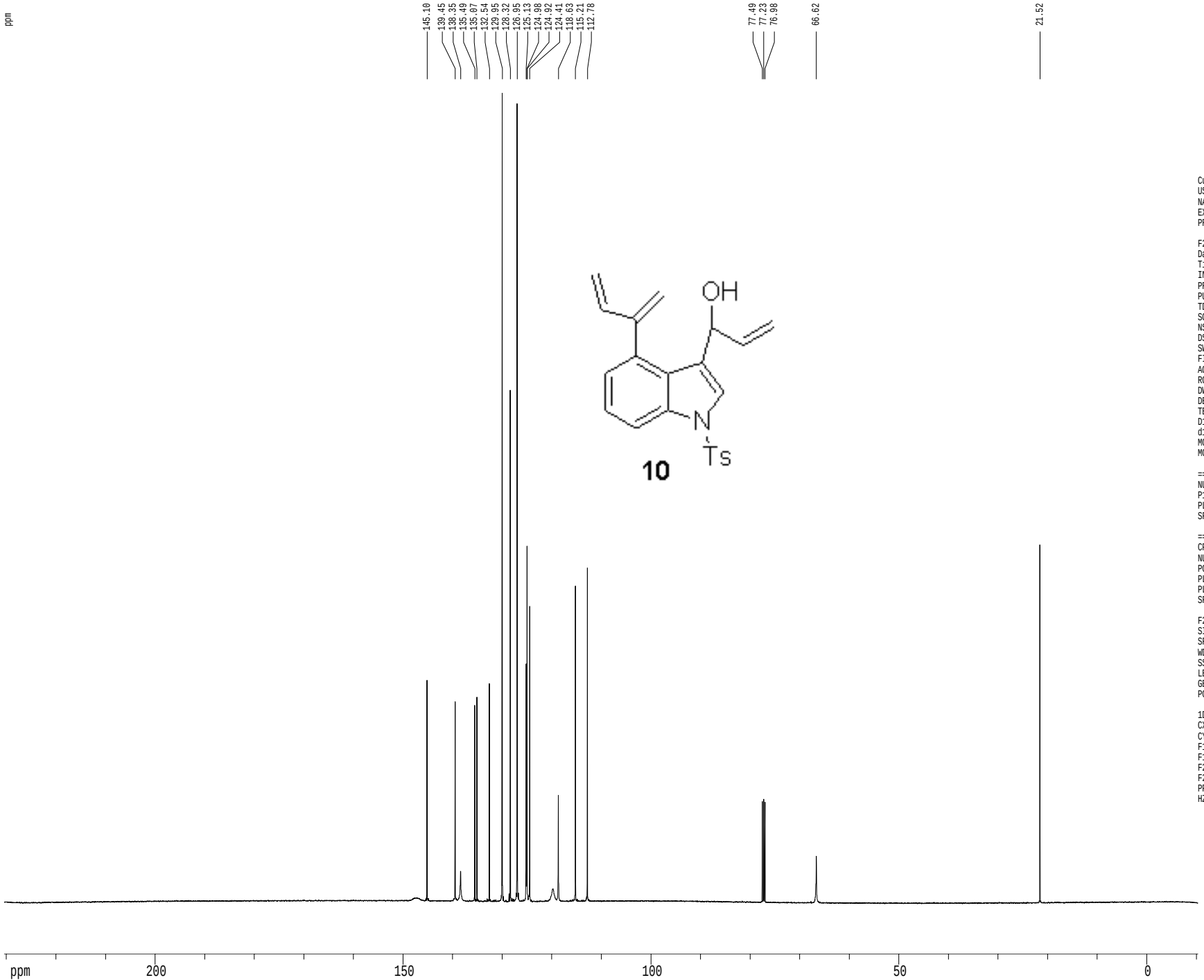

```
Current Data Parameters
USER              lauchl
NAME           rl081706b
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060817
Time              19.12
INSTRUM          cryo500
PROBHD   5 mm CPTCI 1H-
PULPROG           zgdc30
TD                65536
SOLVENT           CDCl3
NS                  428
DS                    4
SWH            30303.031 Hz
FIDRES          0.462388 Hz
AQ             1.0813940 sec
RG               9195.2
DW               16.500 usec
DE                6.00 usec
TE                298.0 K
D1            0.25000000 sec
d11           0.03000000 sec
MCREST        0.00000000 sec
MCWRK         0.01500000 sec

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

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                  1H
PCPD2            100.00 usec
PL2                1.60 dB
PL12              23.54 dB
SFO2        500.2225011 MHz

F2 - Processing parameters
SI                  65536
SF           125.7804043 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   2.00

1D NMR plot parameters
CX                  22.80 cm
CY                  15.65 cm
F1P              230.637 ppm
F1              29009.68 Hz
F2P              -10.287 ppm
F2              -1293.96 Hz
PPMCM           10.56688 ppm/cm
HZCM          1329.10693 Hz/cm
```

1-[4-(1-Methylene-allyl)-10(toluene-4-sulfonyl)-1H-indol-3-yl]-prop-2-en-ol (10) 1H spectrum



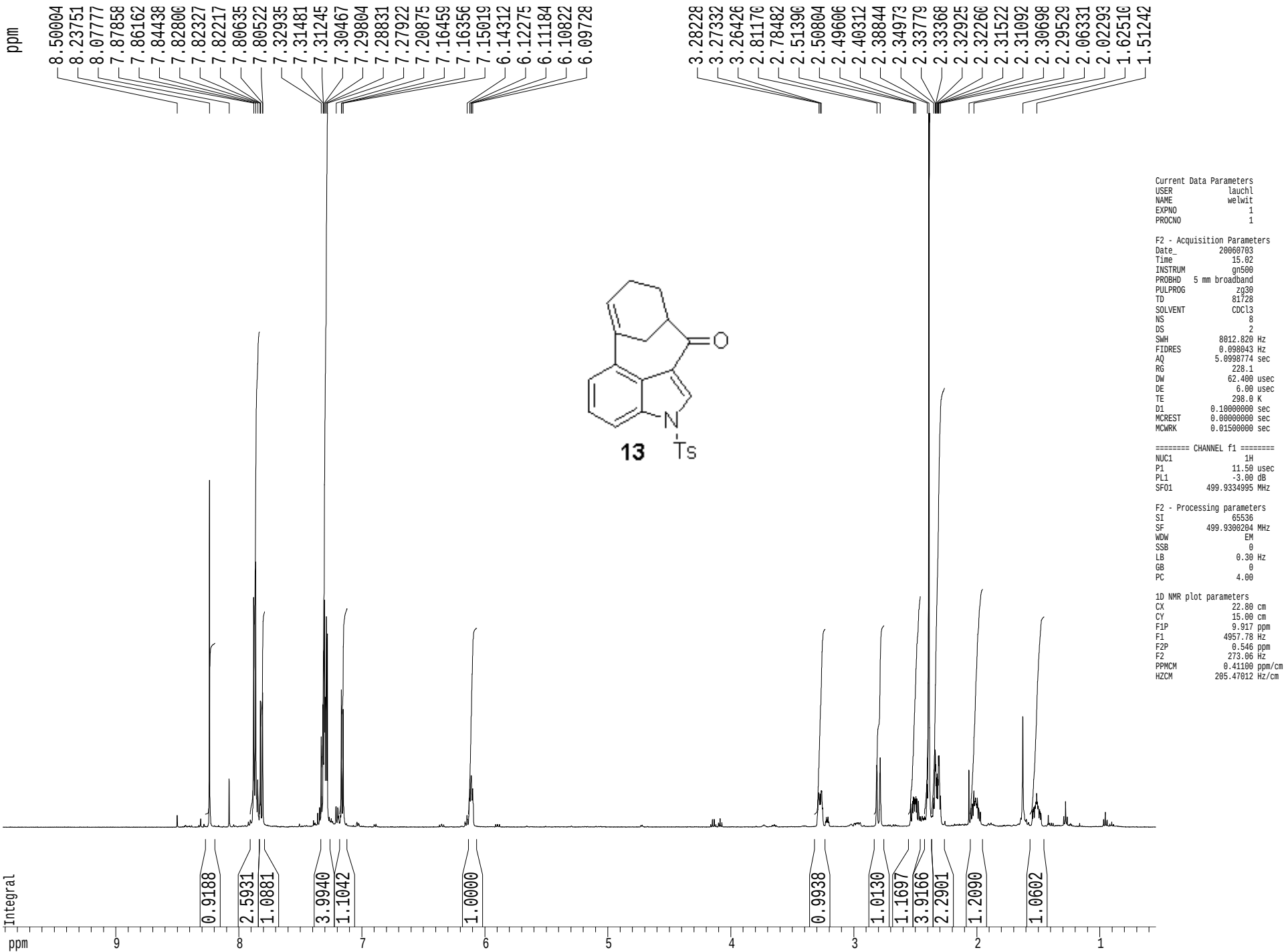

```
Current Data Parameters
USER              lauchl
NAME           rl081706c
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060817
Time              19.19
INSTRUM         cryo500
PROBHD   5 mm CPTCI 1H-
PULPROG            zg30
TD                81728
SOLVENT           CDCl3
NS                    8
DS                    2
SWH            8012.820 Hz
FIDRES         0.098043 Hz
AQ            5.0998774 sec
RG                  2.8
DW               62.400 usec
DE                6.00 usec
TE                298.0 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                65536
SF          500.2200000 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
F1P               9.857 ppm
F1              4930.63 Hz
F2P               0.453 ppm
F2              226.73 Hz
PPMCM           0.41244 ppm/cm
HZCM          206.31165 Hz/cm
```

1-[4-(1-Methylene-allyl)-10(toluene-4-sulfonyl)-1H-indol-3-yl]-prop-2-en-ol 13C spectrum with 1H decoupling

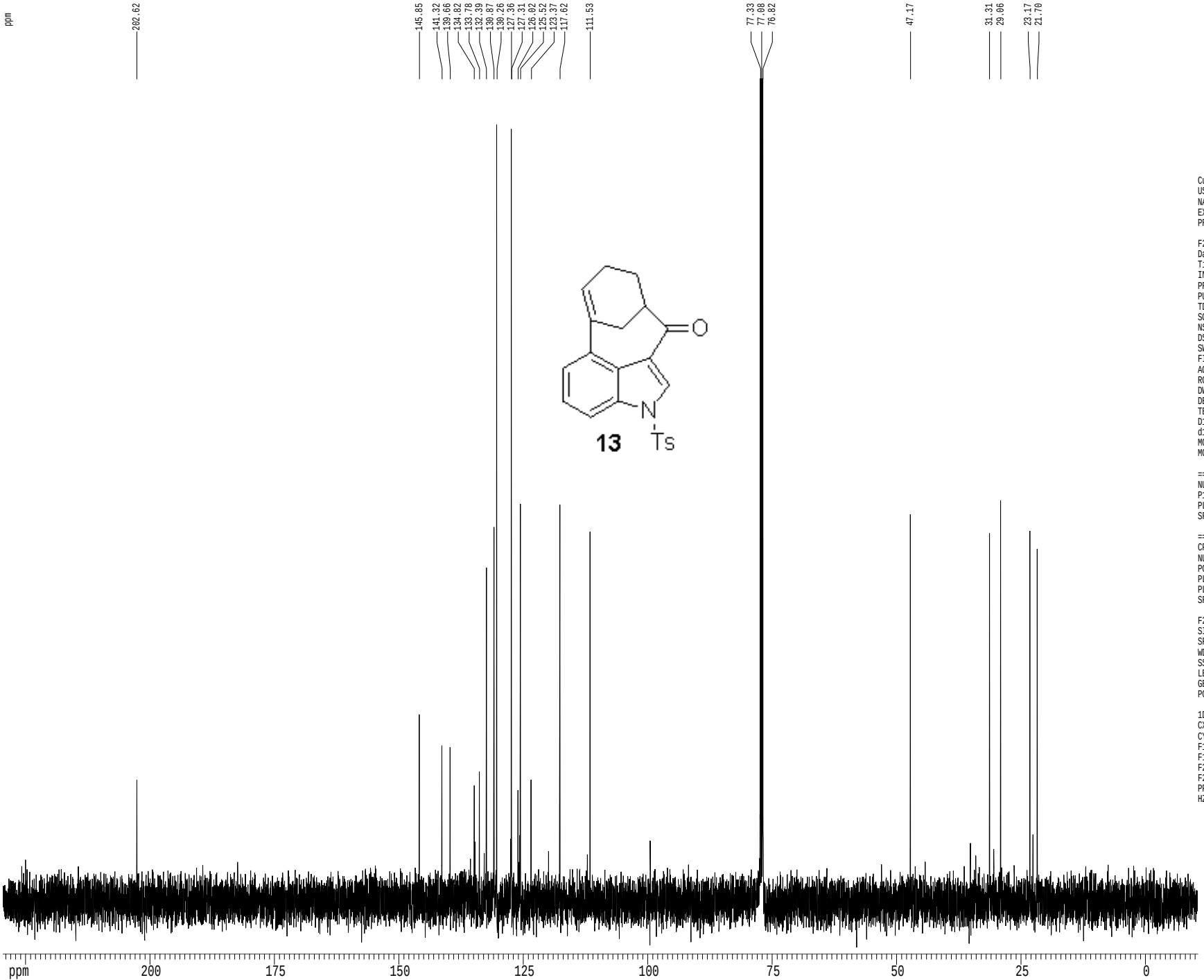



```
Current Data Parameters
USER              lauchl
NAME           rl081706c
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060817
Time              19.25
INSTRUM          cryo500
PROBHD   5 mm CPTCI 1H-
PULPROG           zgdc30
TD                65536
SOLVENT           CDCl3
NS                  277
DS                    4
SWH            30303.031 Hz
FIDRES          0.462388 Hz
AQ             1.0813940 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
MCWRK        0.01500000 sec

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

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2             100.00 usec
PL2                1.60 dB
PL12              23.54 dB
SFO2        500.2225011 MHz

F2 - Processing parameters
SI                  65536
SF          125.7804316 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   2.00

1D NMR plot parameters
CX                  22.80 cm
CY                  15.65 cm
F1P              230.637 ppm
F1              29009.68 Hz
F2P              -10.287 ppm
F2              -1293.96 Hz
PPMCM           10.56688 ppm/cm
HZCM          1329.10718 Hz/cm
```

Cycloadduct (13) 1H spectrum

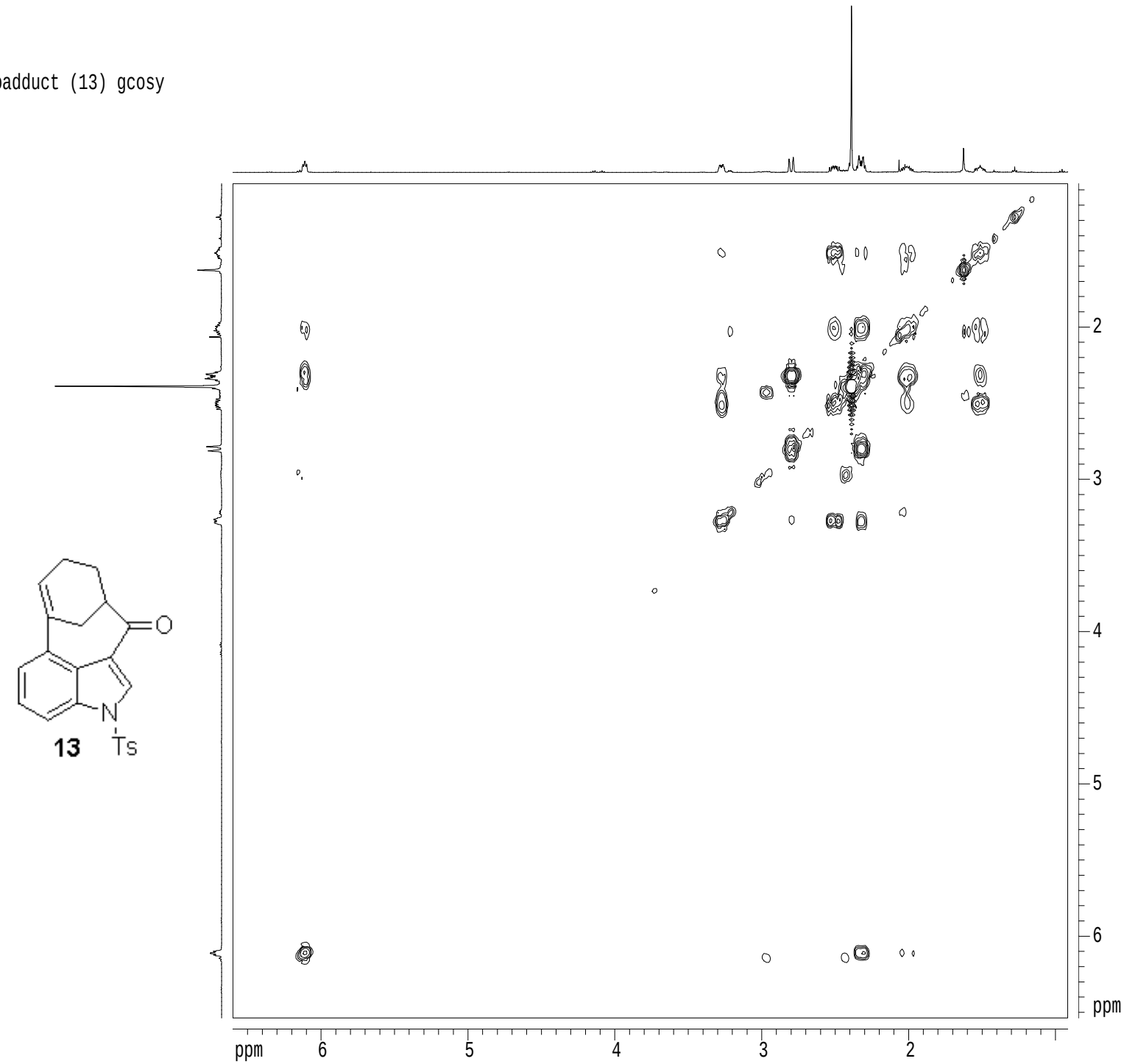


Cycloadduct (13) 13C spectrum with 1H decoupling



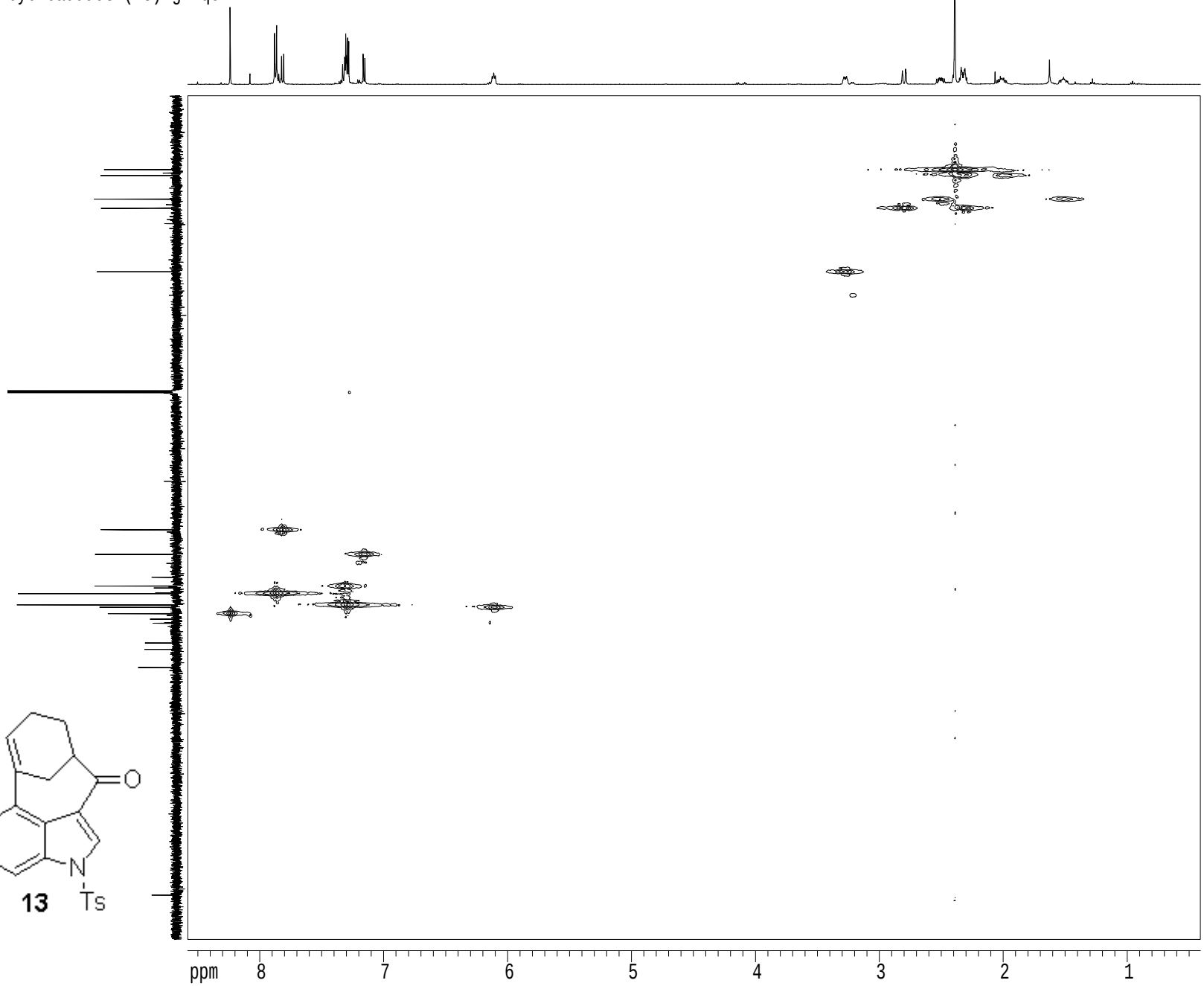

```
Current Data Parameters
USER            lauchl
NAME            welwit
EXPNO                2
PROCNO               1

F2 - Acquisition Parameters
Date_          20060703
Time              15.05
INSTRUM           gn500
PROBHD   5 mm broadband
PULPROG          zgdc30
TD                65536
SOLVENT           CDCl3
NS                  134
DS                    4
SWH           30303.031 Hz
FIDRES         0.462388 Hz
AQ            1.0813940 sec
RG               9195.2
DW               16.500 usec
DE                4.50 usec
TE               298.0 K
D1           0.25000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1                13C
P1                 7.00 usec
PL1                0.00 dB
SFO1        125.7213258 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2             80.00 usec
PL2               -3.00 dB
PL12              15.00 dB
SFO2        499.9324997 MHz

F2 - Processing parameters
SI                  65536
SF          125.7074980 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   2.00

1D NMR plot parameters
CX                  22.80 cm
CY                  15.65 cm
F1P              229.520 ppm
F1             28852.35 Hz
F2P             -10.507 ppm
F2             -1320.76 Hz
PPMCM          10.52747 ppm/cm
HZCM         1323.38171 Hz/cm
```

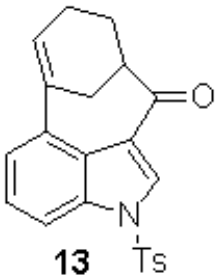
Cycloadduct (13) gcosy




```
        Current Data Parameters
USER             lauchl
NAME             welwit
EXPNO                 3
PROCNO                1

      F2 - Acquisition Parameters
Date_           20060703
Time              15.09
INSTRUM           gn500
PROBHD   5 mm broadband
PULPROG          cosygp
TD                 2048
SOLVENT           CDCl3
NS                    2
DS                   16
SWH            8012.820 Hz
FIDRES         3.912510 Hz
AQ           0.1278452 sec
RG                  181
DW               62.400 usec
DE                6.00 usec
TE               298.0 K
D0           0.00000300 sec
D1           1.00000000 sec
D13          0.00000300 sec
D16          0.00025000 sec
IN0          0.00012480 sec

     ======== CHANNEL f1 ========
NUC1                 1H
P0                11.50 usec
P1                11.50 usec
PL1               -3.00 dB
SF01        499.9334995 MHz

     ====== GRADIENT CHANNEL =====
GPNAM1         SINE.100
GPNAM2         SINE.100
GPX1               0.00 %
GPX2               0.00 %
GPY1               0.00 %
GPY2               0.00 %
GPZ1              17.00 %
GPZ2              17.00 %
P16             1000.00 usec

      F1 - Acquisition parameters
ND0                   1
TD                  256
SF01           499.9335 MHz
FIDRES        31.300079 Hz
SW               16.028 ppm
FnMODE        undefined

      F2 - Processing parameters
SI                 1024
SF          499.9300204 MHz
WDW                SINE
SSB                   0
LB                 0.00 Hz
GB                    0
PC                 4.00

      F1 - Processing parameters
SI                 1024
MC2                  QF
SF          499.9300204 MHz
WDW                SINE
SSB                   0
LB                 0.00 Hz
GB                    0

        2D NMR plot parameters
CX2               15.00 cm
CX1               15.00 cm
F2PLO             6.599 ppm
F2LO            3299.19 Hz
F2PHI             0.918 ppm
F2HI            458.70 Hz
F1PLO             6.537 ppm
F1LO            3267.89 Hz
F1PHI             1.058 ppm
F1HI            529.13 Hz
F2PPMCM         0.37878 ppm/cm
F2HZCM        189.36549 Hz/cm
F1PPMCM         0.36522 ppm/cm
F1HZCM        182.58382 Hz/cm
```

Cycloadduct (13) ghmqc

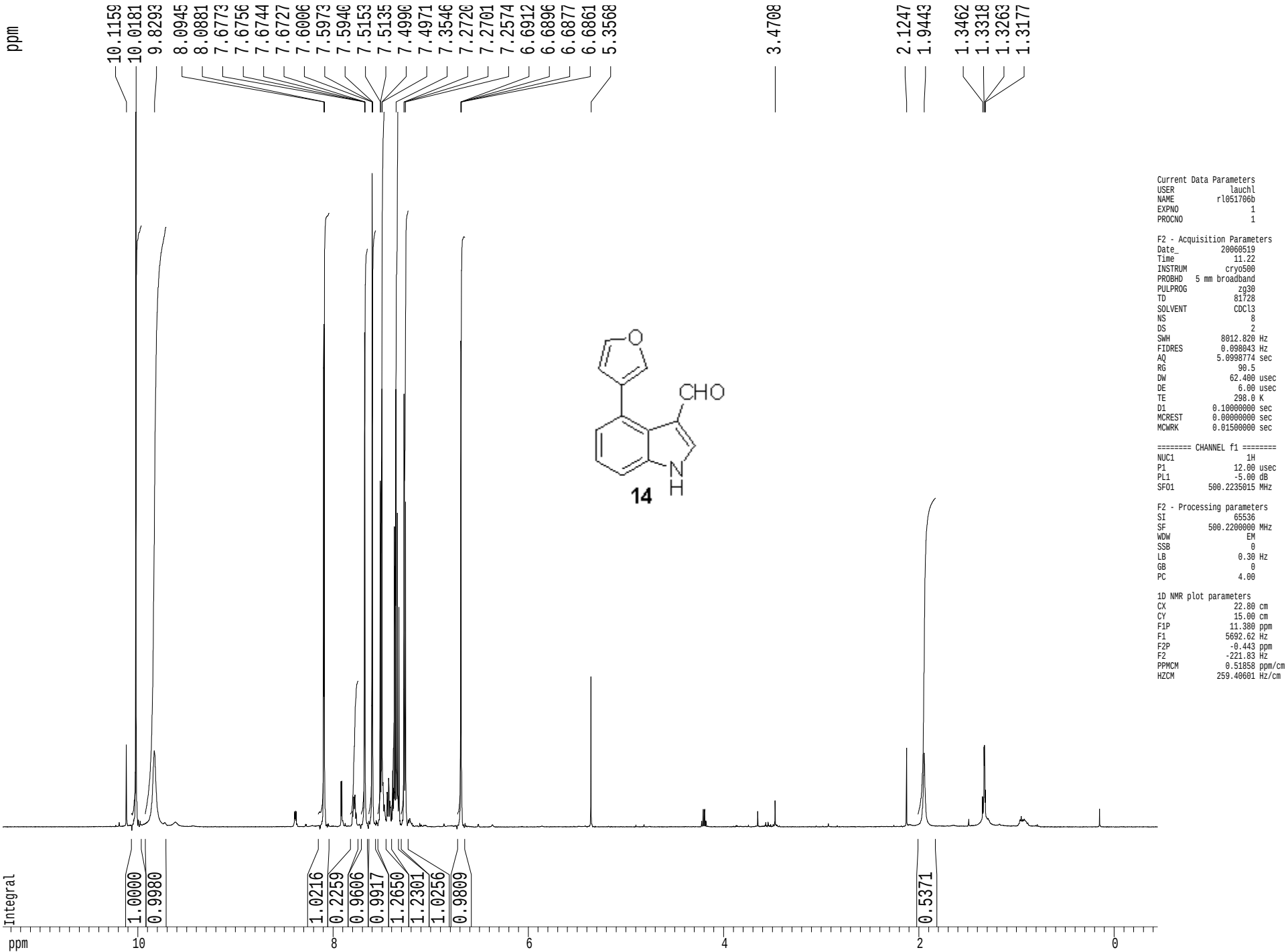




13

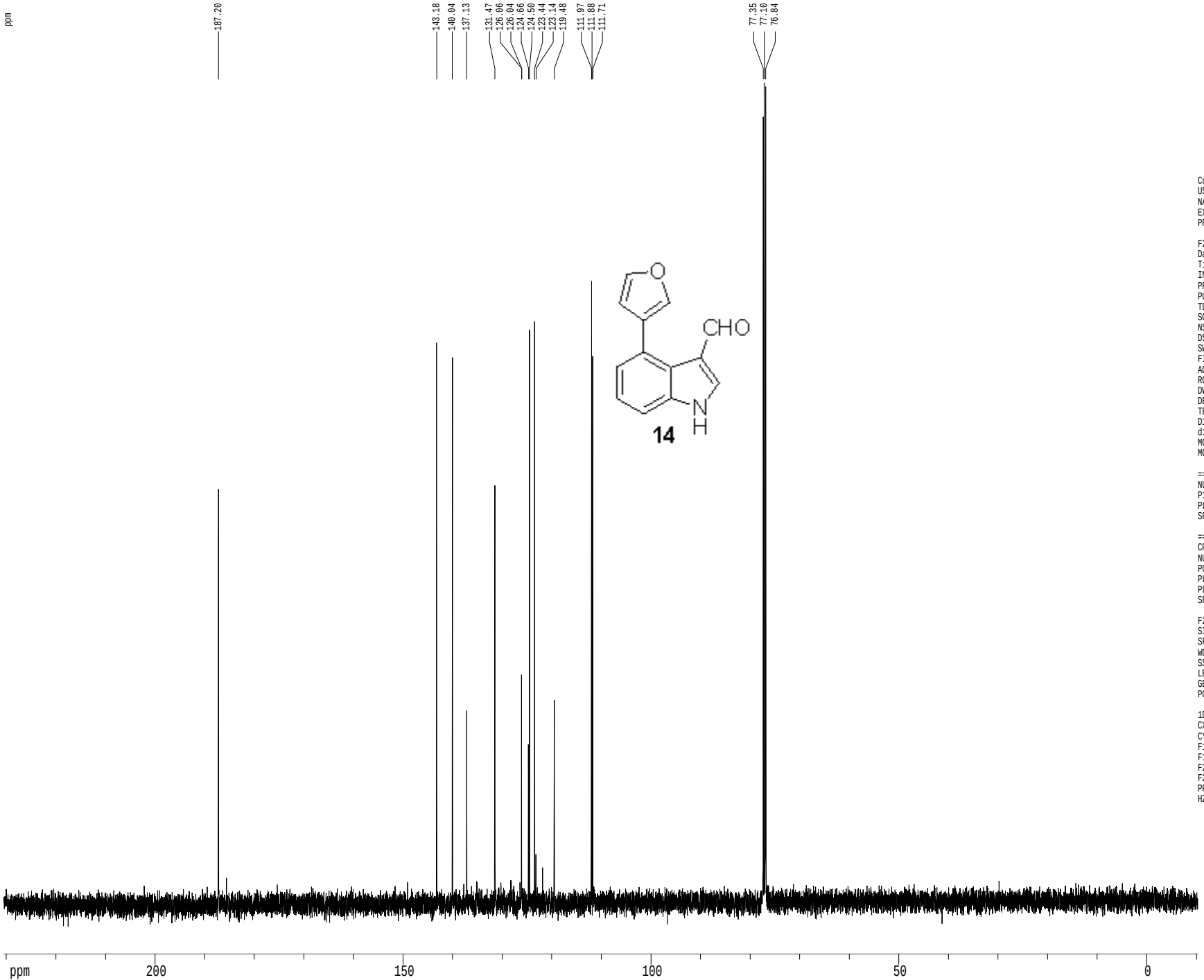
```
        Current Data Parameters
USER              lauchl
NAME              welwit
EXPNO                  4
PROCNO                 1

      F2 - Acquisition Parameters
Date_           20060703
Time              15.22
INSTRUM           gn500
PROBHD   5 mm broadband
PULPROG       inv4gp.wu
TD                 2048
SOLVENT          CD2Cl2
NS                     2
DS                    16
SWH            4084.967 Hz
FIDRES         1.994613 Hz
AQ            0.2507252 sec
RG               4597.6
DW              122.400 usec
DE                 6.50 usec
TE                297.9 K
CNST2       145.0000000
d0           0.00000300 sec
D1           1.00000000 sec
d2           0.00344828 sec
d12          0.00002000 sec
d13          0.00000300 sec
D16          0.00025000 sec
d20          0.00242528 sec
IN0          0.00001890 sec

      ======== CHANNEL f1 ========
NUC1                  1H
P1                12.00 usec
p2                24.00 usec
PL1               -3.00 dB
SFO1        499.9322674 MHz

      ======== CHANNEL f2 ========
CPDPRG2             garp
NUC2                 13C
P3                 7.00 usec
PCPD2             70.00 usec
PL2                0.00 dB
PL12              20.80 dB
SFO2        125.7211356 MHz

      ====== GRADIENT CHANNEL =====
GPNAM1         SINE.100
GPNAM2         SINE.100
GPNAM3         SINE.100
GPX1               0.00 %
GPX2               0.00 %
GPX3               0.00 %
GPY1               0.00 %
GPY2               0.00 %
GPY3               0.00 %
GPZ1              30.00 %
GPZ2              18.00 %
GPZ3              24.00 %
P16             1000.00 usec

      F1 - Acquisition parameters
ND0                    2
TD                   256
SFO1           125.7211 MHz
FIDRES       103.339951 Hz
SW              210.426 ppm
FnMODE        undefined

      F2 - Processing parameters
SI                  1024
SF          499.9300204 MHz
WDW                   EM
SSB                    0
LB                  5.00 Hz
GB                     0
PC                  4.00

      F1 - Processing parameters
SI                  1024
MC2                   QF
SF          125.7074980 MHz
WDW              QSINE
SSB                    3
LB                  0.00 Hz
GB                     0

        2D NMR plot parameters
CX2                18.00 cm
CX1                15.00 cm
F2PLO              8.580 ppm
F2LO            4289.54 Hz
F2PHI              0.409 ppm
F2HI             204.58 Hz
F1PLO            213.712 ppm
F1LO           26685.15 Hz
F1PHI              3.263 ppm
F1HI             410.12 Hz
F2PPMCM         0.45395 ppm/cm
F2HZCM        226.94264 Hz/cm
F1PPMCM        14.02994 ppm/cm
F1HZCM       1763.66846 Hz/cm
```

4-Furan-3-yl-1H-indole-3-carbaldehyde (14) 1H spectrum



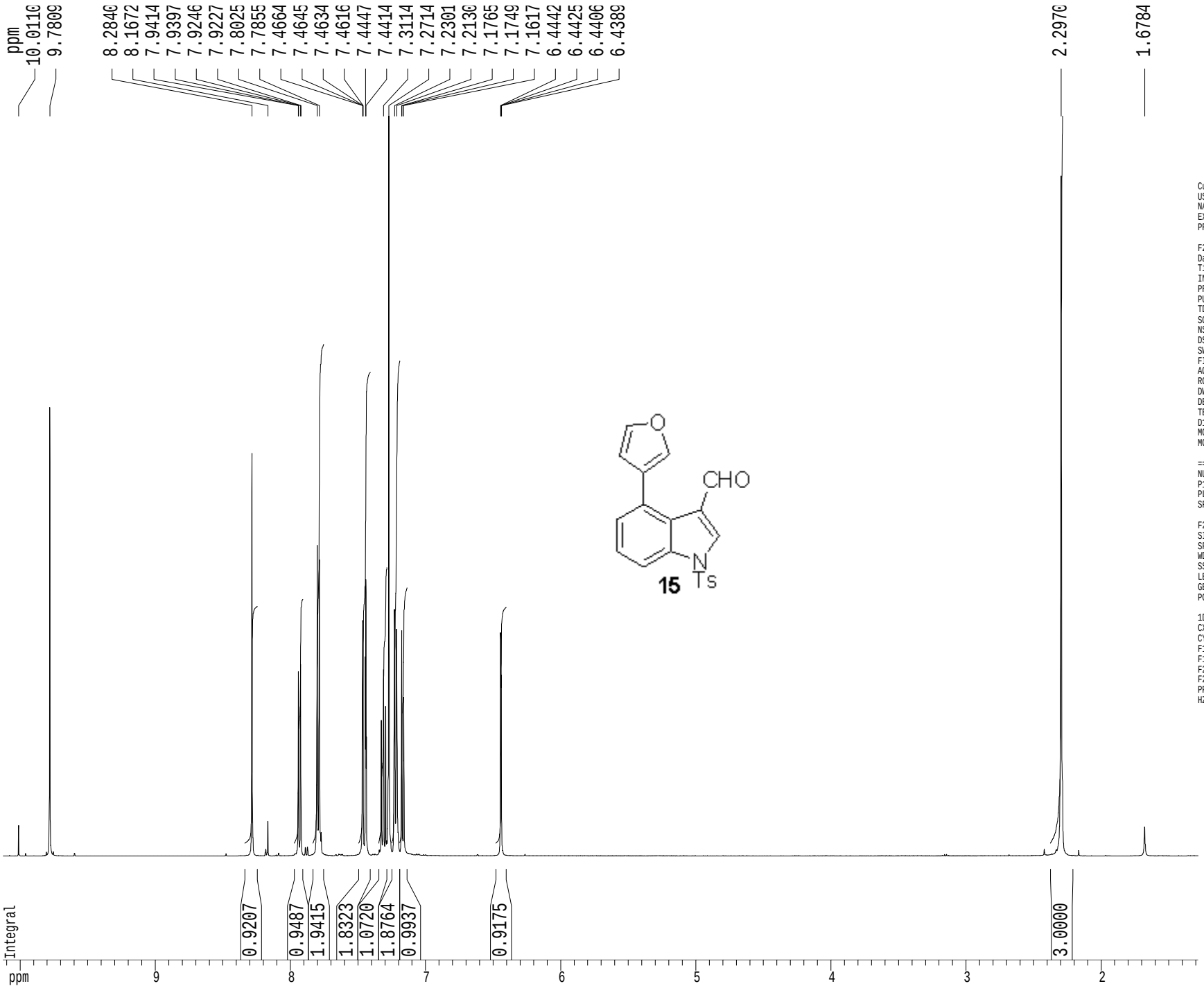

```
Current Data Parameters
USER              lauchl
NAME           rl051706b
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060519
Time               11.22
INSTRUM          cryo500
PROBHD   5 mm broadband
PULPROG             zg30
TD                 81728
SOLVENT            CDCl3
NS                     8
DS                     2
SWH             8012.820 Hz
FIDRES          0.098043 Hz
AQ             5.0998774 sec
RG                  90.5
DW                62.400 usec
DE                 6.00 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               -5.00 dB
SFO1        500.2235015 MHz

F2 - Processing parameters
SI                 65536
SF          500.2200000 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
F1P               11.380 ppm
F1               5692.62 Hz
F2P               -0.443 ppm
F2              -221.83 Hz
PPMCM           0.51858 ppm/cm
HZCM          259.40601 Hz/cm
```

4-Furan-3-yl-1H-indole-3-carbaldehyde (14) 13C spectrum with 1H decoupling



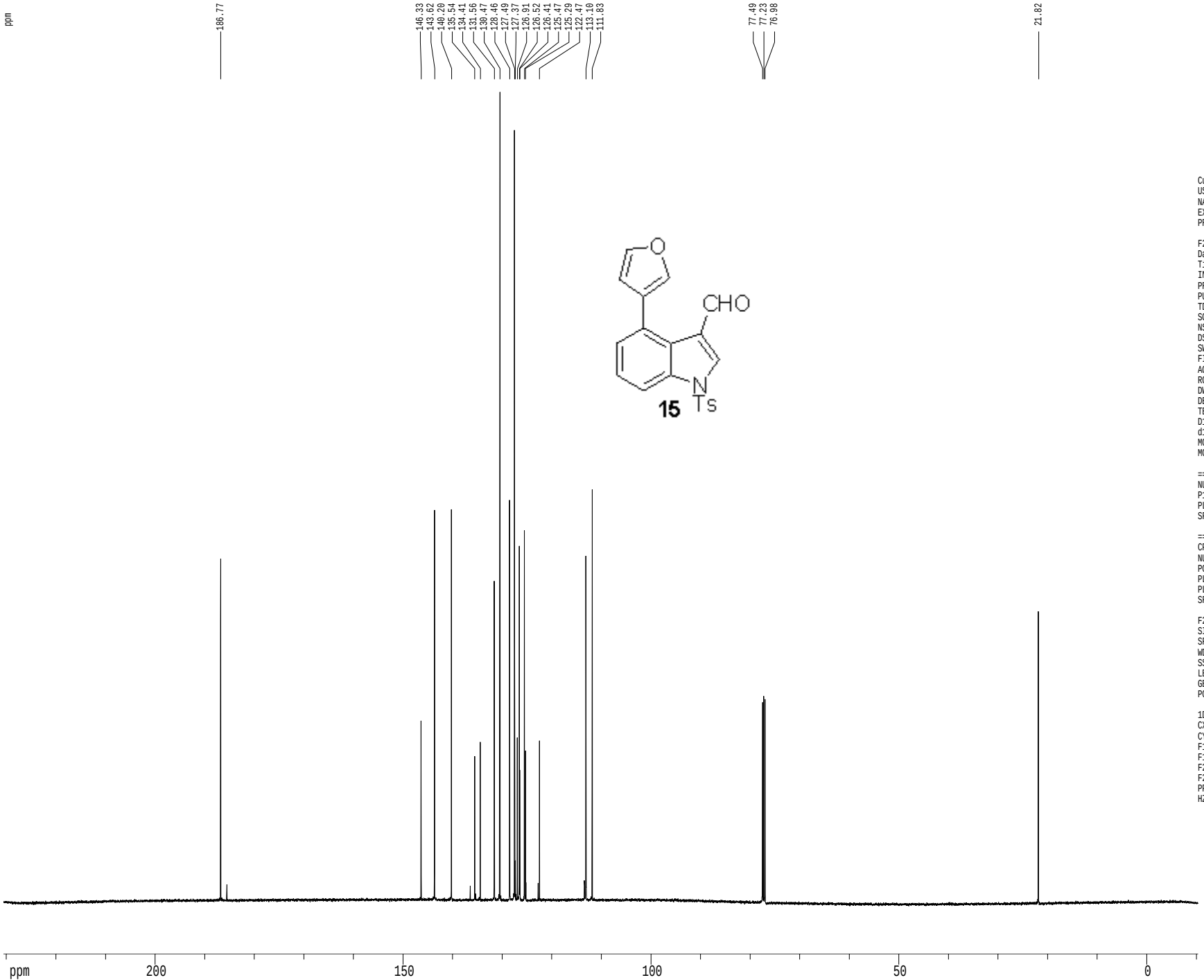

```
Current Data Parameters
USER              lauchl
NAME           rl051706b
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060519
Time               11.25
INSTRUM          cryo500
PROBHD   5 mm broadband
PULPROG          zgdc30
TD                65536
SOLVENT           CDCl3
NS                  240
DS                    4
SWH            30303.031 Hz
FIDRES          0.462388 Hz
AQ             1.0813940 sec
RG               18390.4
DW                16.500 usec
DE                 6.00 usec
TE                298.0 K
D1           0.25000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1                13C
P1                 8.90 usec
PL1                0.00 dB
SFO1        125.7942548 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2            100.00 usec
PL2                1.60 dB
PL12              13.40 dB
SFO2        500.2225011 MHz

F2 - Processing parameters
SI                  65536
SF          125.7804190 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   2.00

1D NMR plot parameters
CX                  22.80 cm
CY                  15.65 cm
F1P              230.637 ppm
F1              29009.68 Hz
F2P              -10.287 ppm
F2              -1293.96 Hz
PPMCM           10.56688 ppm/cm
HZCM          1329.10706 Hz/cm
```

4-Furan-3-yl-1-(toluene-4-sulfonyl)-1H-indole-3-carbaldehyde (15) 1H spectrum



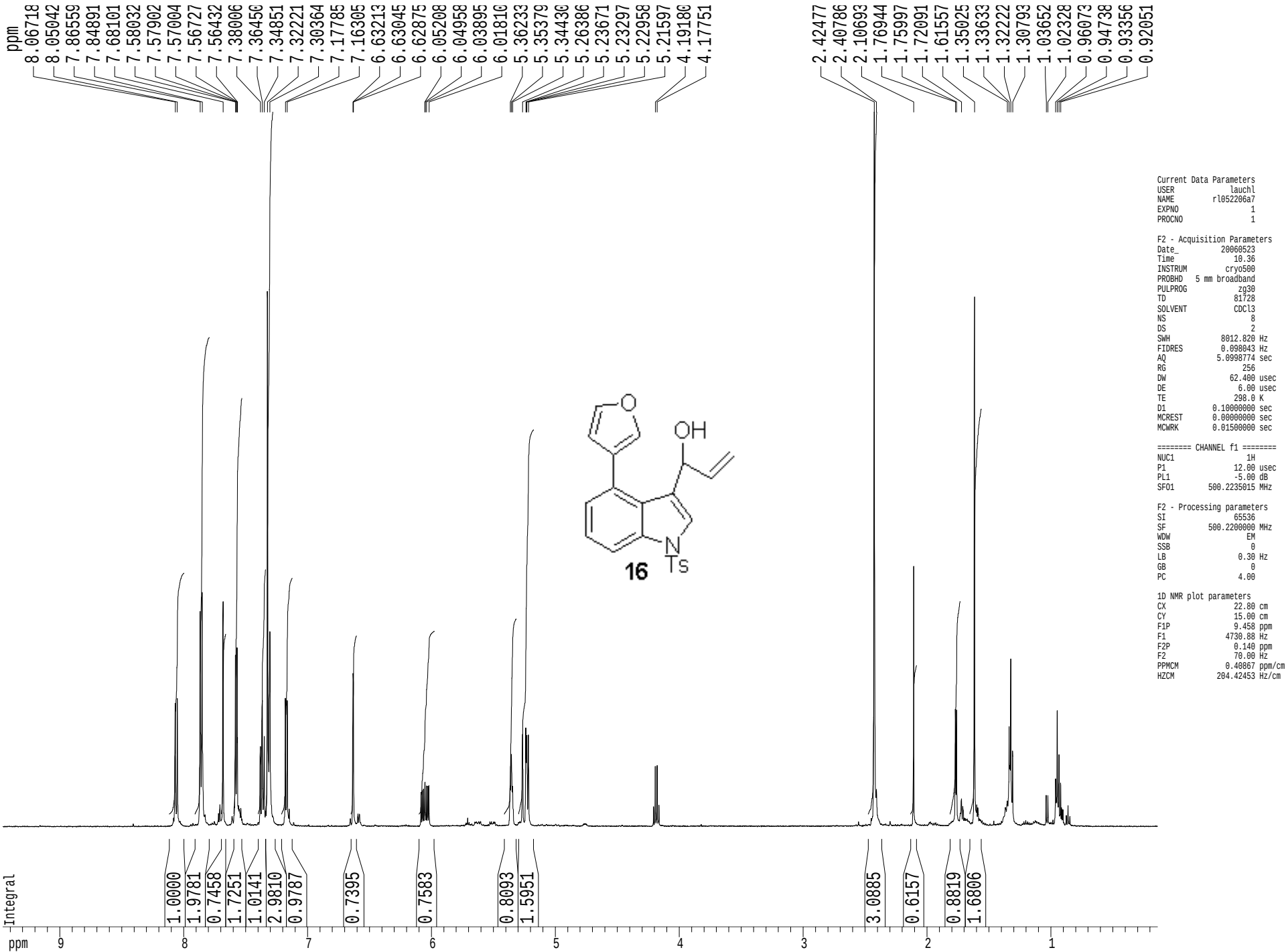

```
Current Data Parameters
USER              lauchl
NAME           rl081706a
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060817
Time              16.33
INSTRUM         cryo500
PROBHD   5 mm CPTCI 1H-
PULPROG            zg30
TD                81728
SOLVENT           CDCl3
NS                    8
DS                    2
SWH            8012.820 Hz
FIDRES         0.098043 Hz
AQ            5.0998774 sec
RG                    5
DW               62.400 usec
DE                6.00 usec
TE                298.0 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                65536
SF          500.2200729 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
F1P             10.125 ppm
F1             5064.80 Hz
F2P              1.285 ppm
F2              642.71 Hz
PPMCM          0.38773 ppm/cm
HZCM         193.95116 Hz/cm
```

4-Furan-3-yl-1-(toluene-4-sulfonyl)-1H-indole-3-carbaldehyde (15) 13C spectrum with 1H decoupling

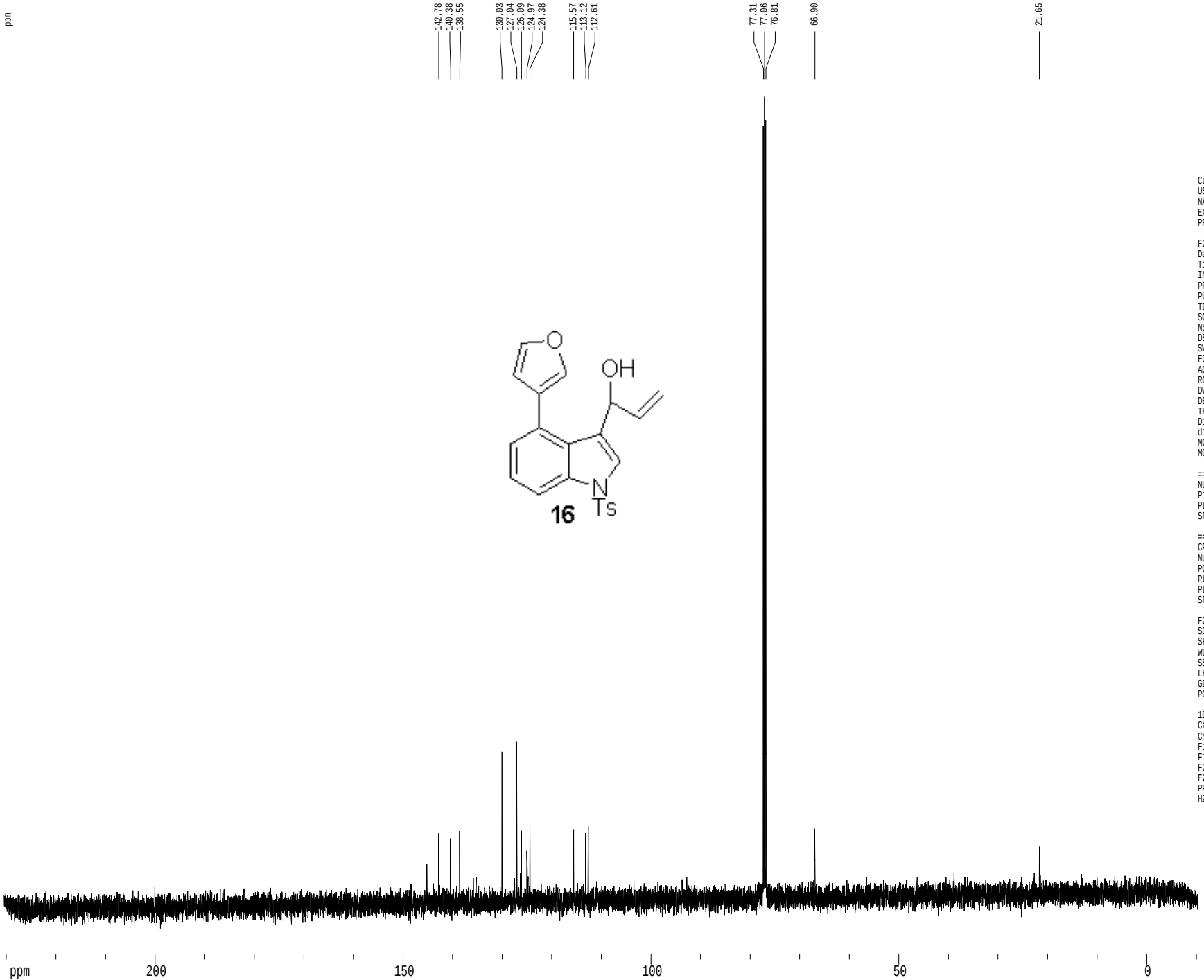



```
Current Data Parameters
USER              lauchl
NAME           rl081706a
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060817
Time              16.36
INSTRUM          cryo500
PROBHD   5 mm CPTCI 1H-
PULPROG           zgdc30
TD                65536
SOLVENT           CDCl3
NS                  224
DS                    4
SWH            30303.031 Hz
FIDRES          0.462388 Hz
AQ             1.0813940 sec
RG               11585.2
DW                16.500 usec
DE                 6.00 usec
TE                298.0 K
D1           0.25000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

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

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2            100.00 usec
PL2                1.60 dB
PL12              23.54 dB
SFO2        500.2225011 MHz

F2 - Processing parameters
SI                  65536
SF          125.7804112 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   2.00

1D NMR plot parameters
CX                  22.80 cm
CY                  15.65 cm
F1P              230.637 ppm
F1              29009.68 Hz
F2P              -10.287 ppm
F2              -1293.96 Hz
PPMCM           10.56688 ppm/cm
HZCM          1329.10693 Hz/cm
```

1-[4-Furan-3-yl-1-(toluene-4-sulfonyl)-1H-indol-3-yl]-prop-2-en-1-ol (16) 1H spectrum

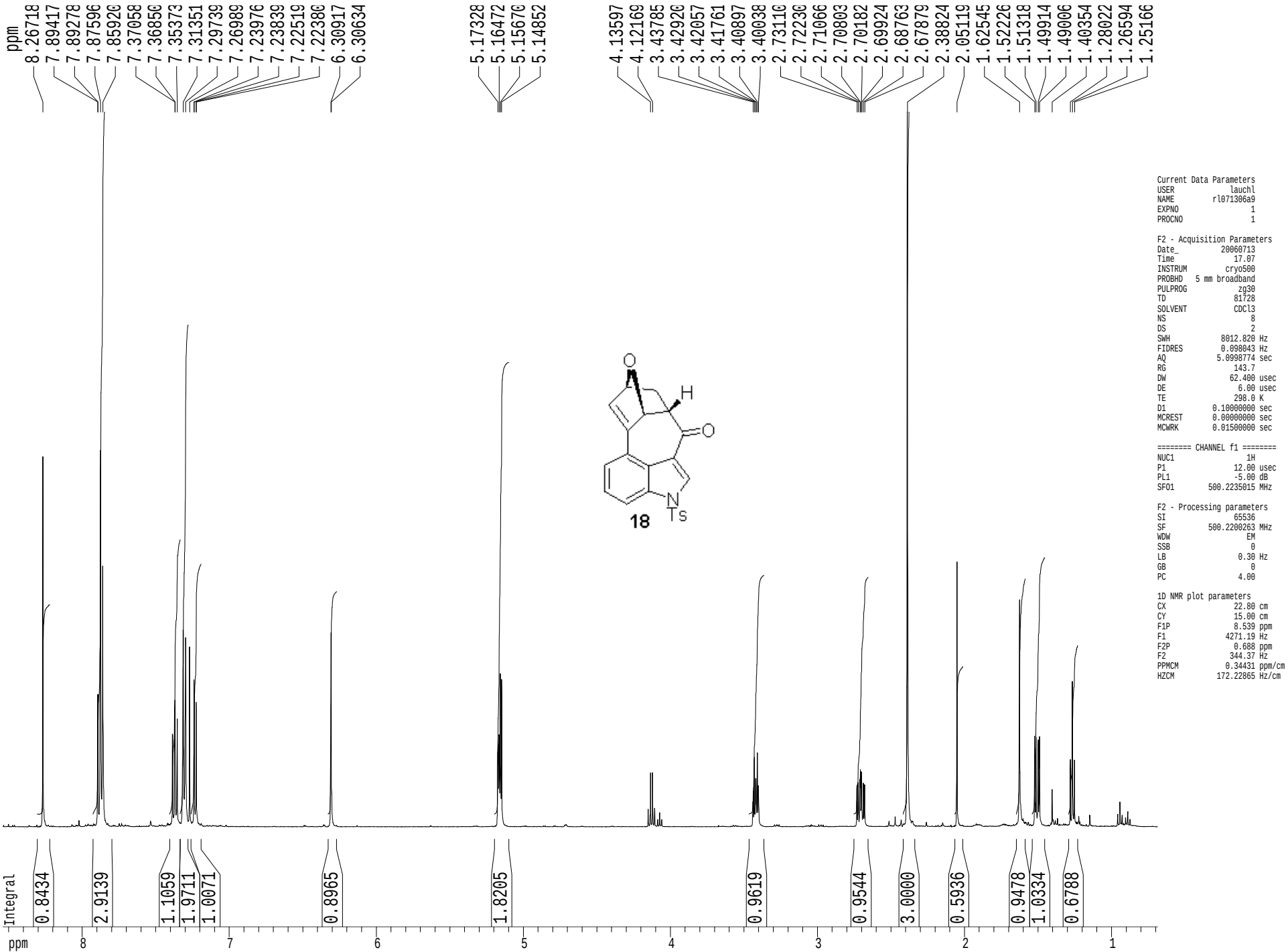


1-[4-Furan-3-yl-1-(toluene-4-sulfonyl)-1H-indol-3-yl]-prop-2-en-1-ol (16) 13C spectrum with 1H decoupling

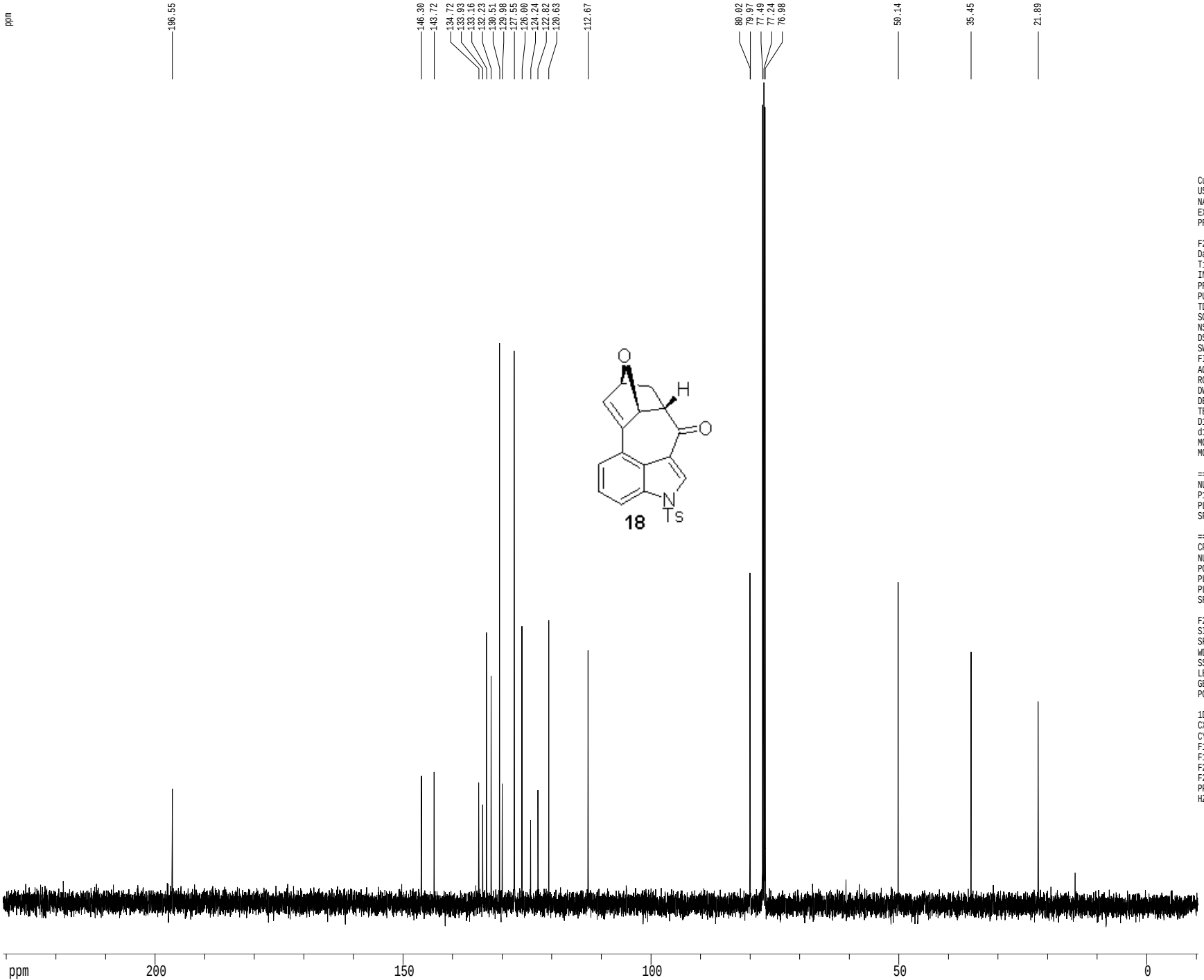



```
Current Data Parameters
USER              lauchl
NAME          rl052206a7
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_          20060523
Time              10.39
INSTRUM          cryo500
PROBHD   5 mm broadband
PULPROG           zgdc30
TD                65536
SOLVENT           CDCl3
NS                  216
DS                    4
SWH           30303.031 Hz
FIDRES         0.462388 Hz
AQ            1.0813940 sec
RG               2580.3
DW               16.500 usec
DE                6.00 usec
TE                298.0 K
D1           0.25000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1                13C
P1                 8.90 usec
PL1                0.00 dB
SFO1        125.7942548 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2            100.00 usec
PL2                1.60 dB
PL12              13.40 dB
SFO2        500.2225011 MHz

F2 - Processing parameters
SI                  65536
SF          125.7804190 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   2.00

1D NMR plot parameters
CX                  22.80 cm
CY                  15.65 cm
F1P              230.637 ppm
F1             29009.68 Hz
F2P              -10.287 ppm
F2             -1293.96 Hz
PPMCM           10.56688 ppm/cm
HZCM         1329.10706 Hz/cm
```

Cycloadduct (18) 1H spectrum



Cycloadduct (18) 13C spectrum with 1H decoupling




```
Current Data Parameters
USER              lauchl
NAME          rl071306a9
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20060713
Time              17.10
INSTRUM          cryo500
PROBHD   5 mm broadband
PULPROG          zgdc30
TD                65536
SOLVENT           CDCl3
NS                  254
DS                    4
SWH           30303.031 Hz
FIDRES         0.462388 Hz
AQ            1.0813940 sec
RG              18390.4
DW               16.500 usec
DE                6.00 usec
TE               298.0 K
D1           0.25000000 sec
d11          0.03000000 sec
MCREST       0.00000000 sec
MCWRK        0.01500000 sec

======== CHANNEL f1 ========
NUC1                13C
P1                 8.90 usec
PL1                0.00 dB
SFO1        125.7942548 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2            100.00 usec
PL2                1.60 dB
PL12              13.40 dB
SFO2        500.2225011 MHz

F2 - Processing parameters
SI                  65536
SF          125.7803988 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   2.00

1D NMR plot parameters
CX                  22.80 cm
CY                  15.65 cm
F1P              230.637 ppm
F1              29009.67 Hz
F2P              -10.287 ppm
F2              -1293.96 Hz
PPMCM           10.56688 ppm/cm
HZCM          1329.10681 Hz/cm
```