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Supplementary Information

Photoredox-catalyzed indirect acyl radical generation from thioesters

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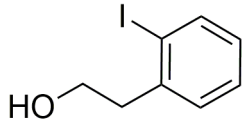
General Experimental:

All reactions were performed under an inert atmosphere (nitrogen or argon) in oven dried glassware, unless otherwise stated. Dichloromethane and triethylamine were distilled from calcium hydride. Tetrahydrofuran, toluene, acetonitrile, methanol, diethyl ether, dichloromethane, tetrahydrofuran and dimethylformamide were purified using an Innovative Technology, Inc., PureSolv™ solvent purification system. All other solvents and reagents were used as received from commercial sources. Melting points were determined using a Stanford Research Systems Optimelt automated melting point system and are uncorrected. Infrared spectra were acquired on a Bruker ALPHA FT-IR as thin films, neat. Absorption maxima are expressed in wavenumbers (cm^{-1}). ^{1}H and ^{13}C NMR spectra were recorded in deuterochloroform on a Bruker AVANCE III 500, a Bruker AVANCE III 400, a Bruker AVANCE 300, or a Bruker AVANCE 200 spectrometer (^{1}H frequencies 500, 400, 300, 200 MHz; ^{13}C frequencies 125, 100, 75 and 50 MHz respectively). ^{1}H chemical shifts are expressed as parts per million (ppm) with residual chloroform (δ 7.26) as an internal reference and are reported as chemical shift (δ_H); relative integral; multiplicity (s = singlet, br = broad, d = doublet, t = triplet, dd = doublet of doublets, ddd = doublet of doublet of doublets, m = multiplet); and coupling constants (*J*) reported in Hz. ^{13}C NMR chemical shifts are expressed as parts per million (ppm) with residual chloroform (δ 77.1) as internal reference and are reported as chemical shift (δ_C); multiplicity (assigned from DEPT or HSQC experiments); and coupling constants (*J*) reported in Hz. High resolution mass spectra were recorded on a Bruker Apex II Fourier Transform Ion Cyclotron Resonance mass spectrometer with a 7.0 T magnet, fitted with an off-axis Analytica electrospray source. Column chromatography was performed using Grace Davison, Merck, or Scharlau 40-60 µm (230-400 mesh) silica gel using commercial solvents. Analytical thin layer chromatography was performed using preconditioned plates (Merck TLC silica gel 60 F_{254} on aluminium) and visualised using UV light (254 nm and 365 nm), ethanolic anisaldehyde, ethanolic vanillin, or potassium permanganate solution.

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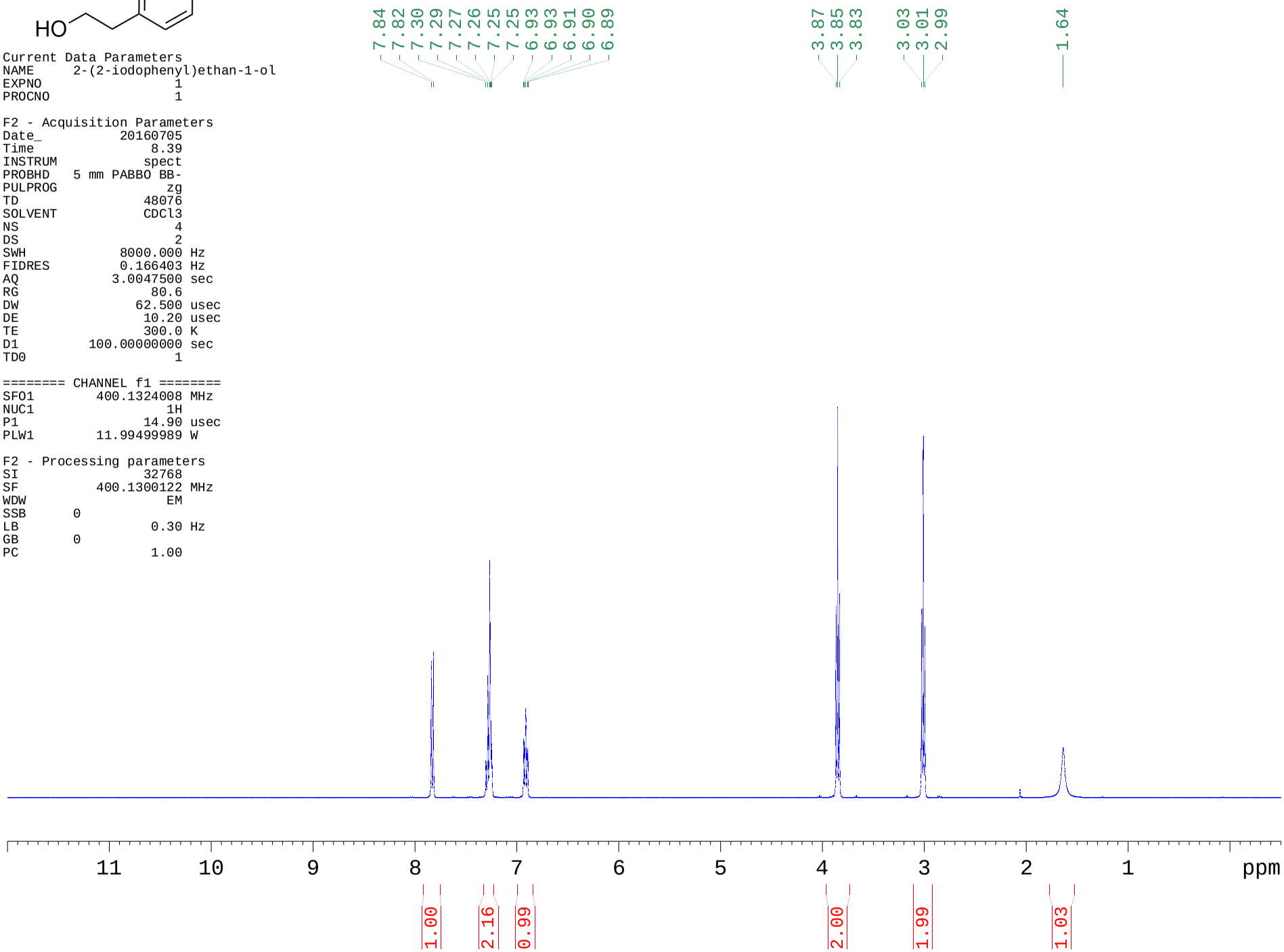

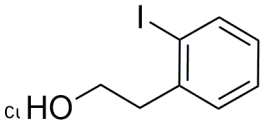

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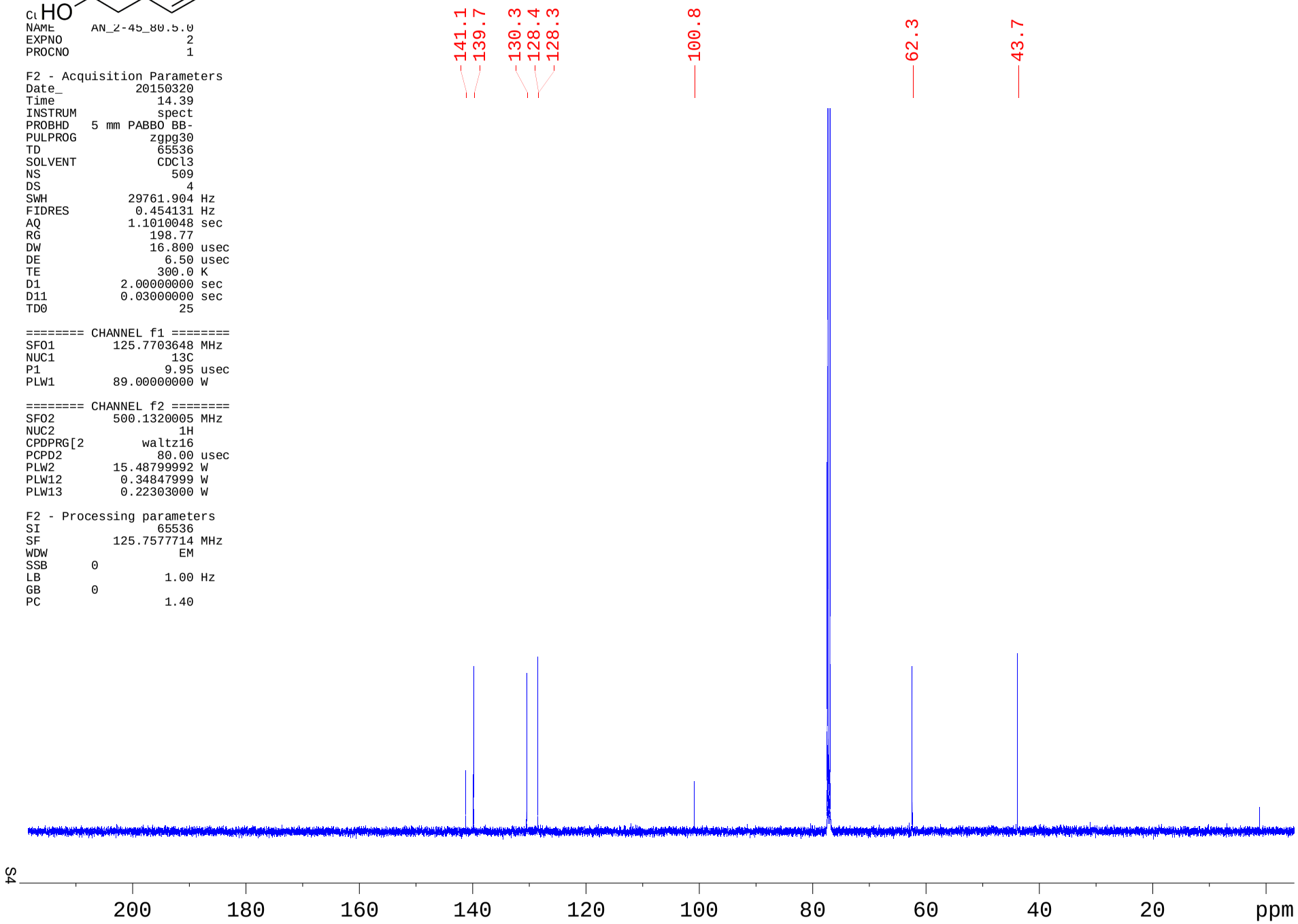

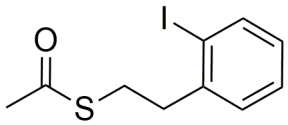

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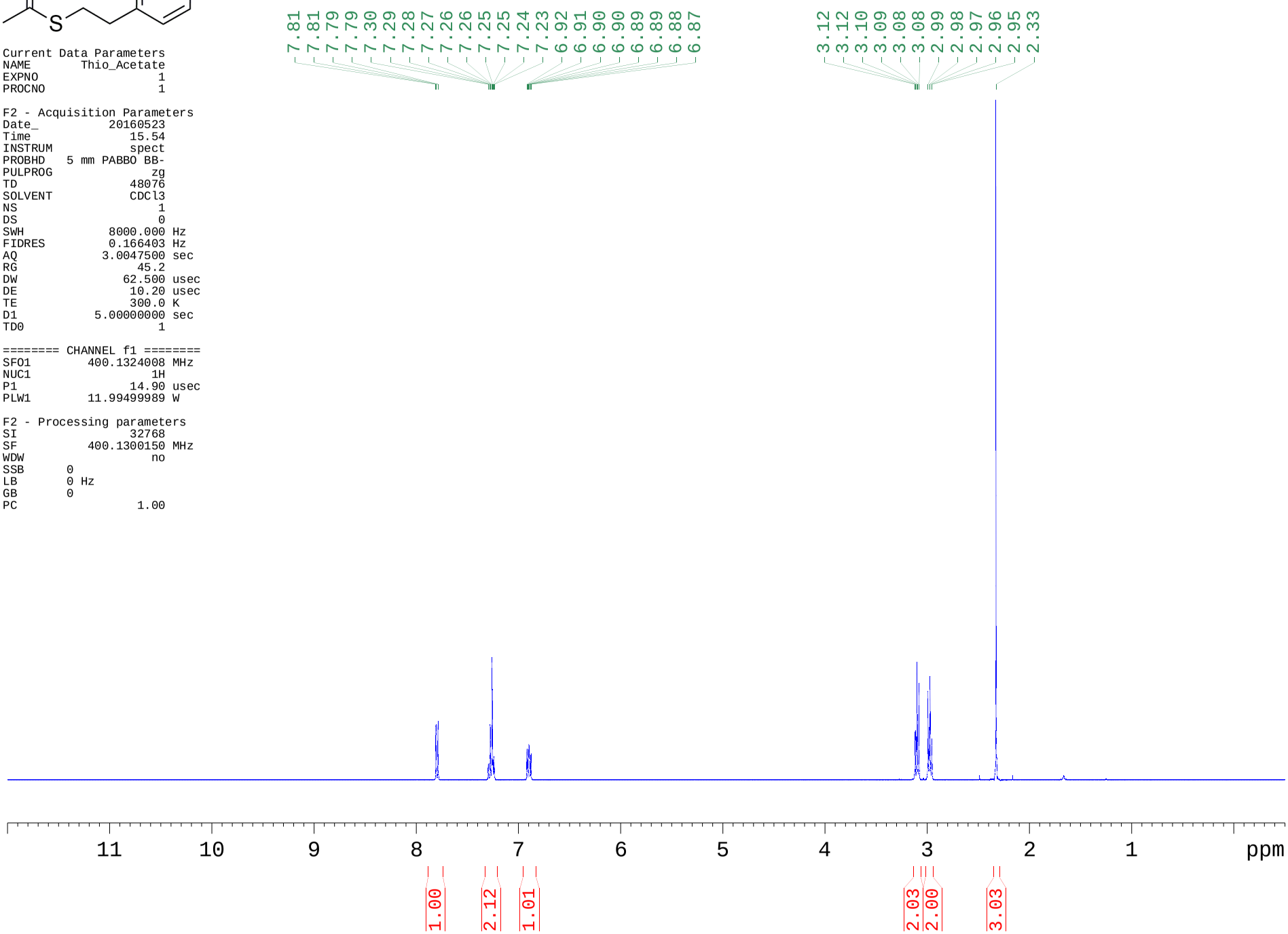

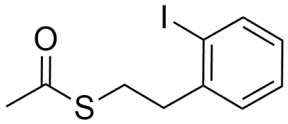

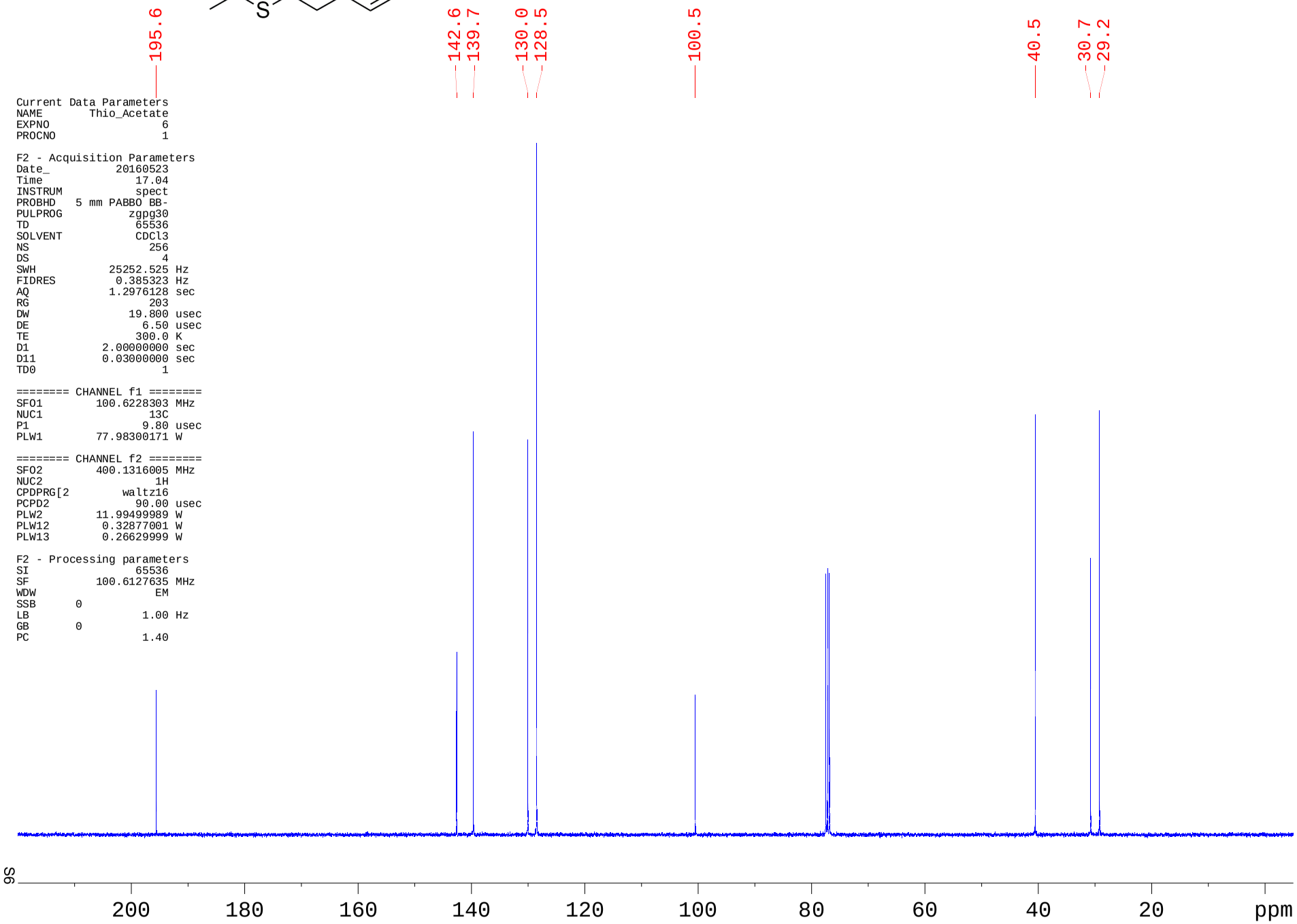


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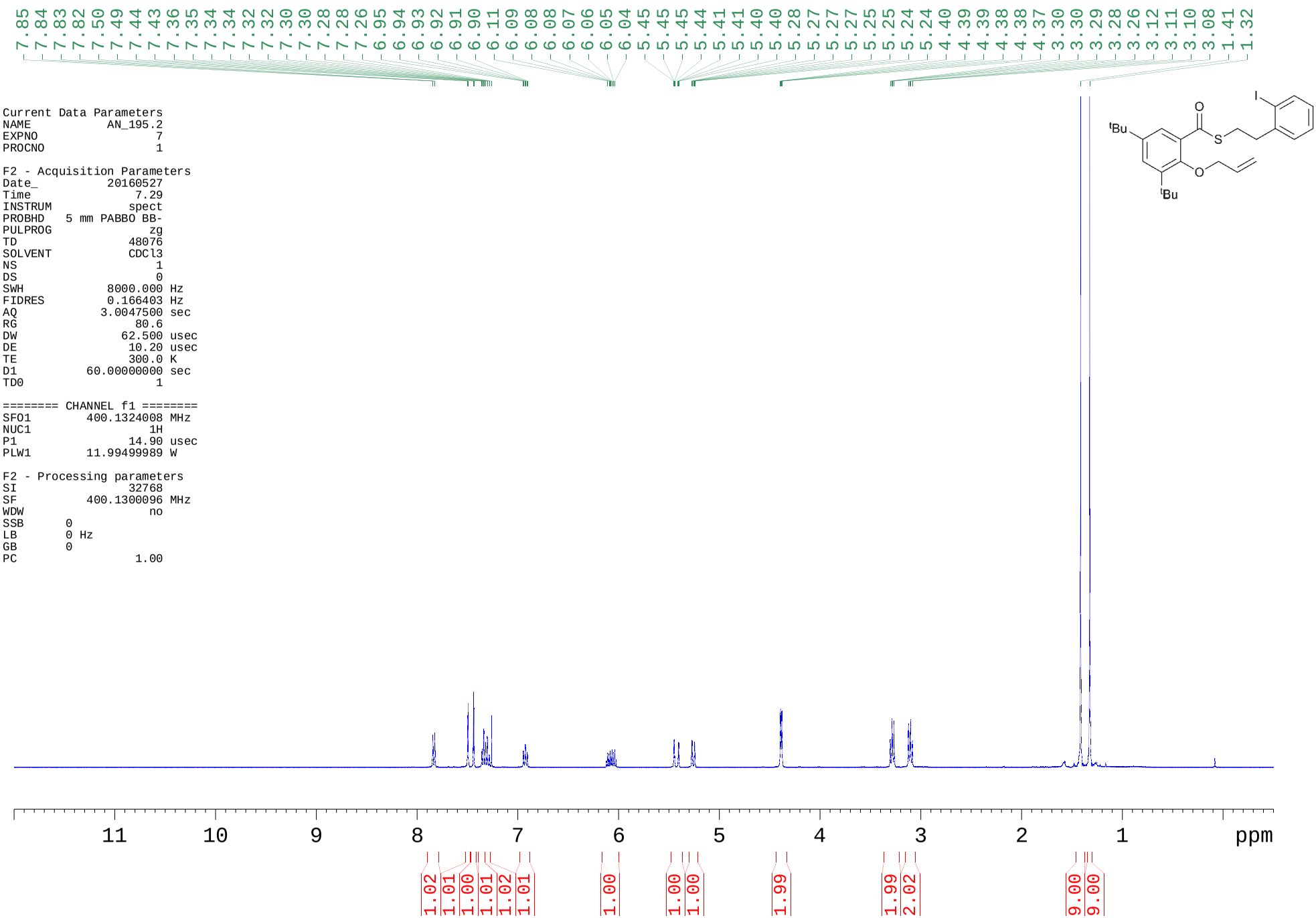
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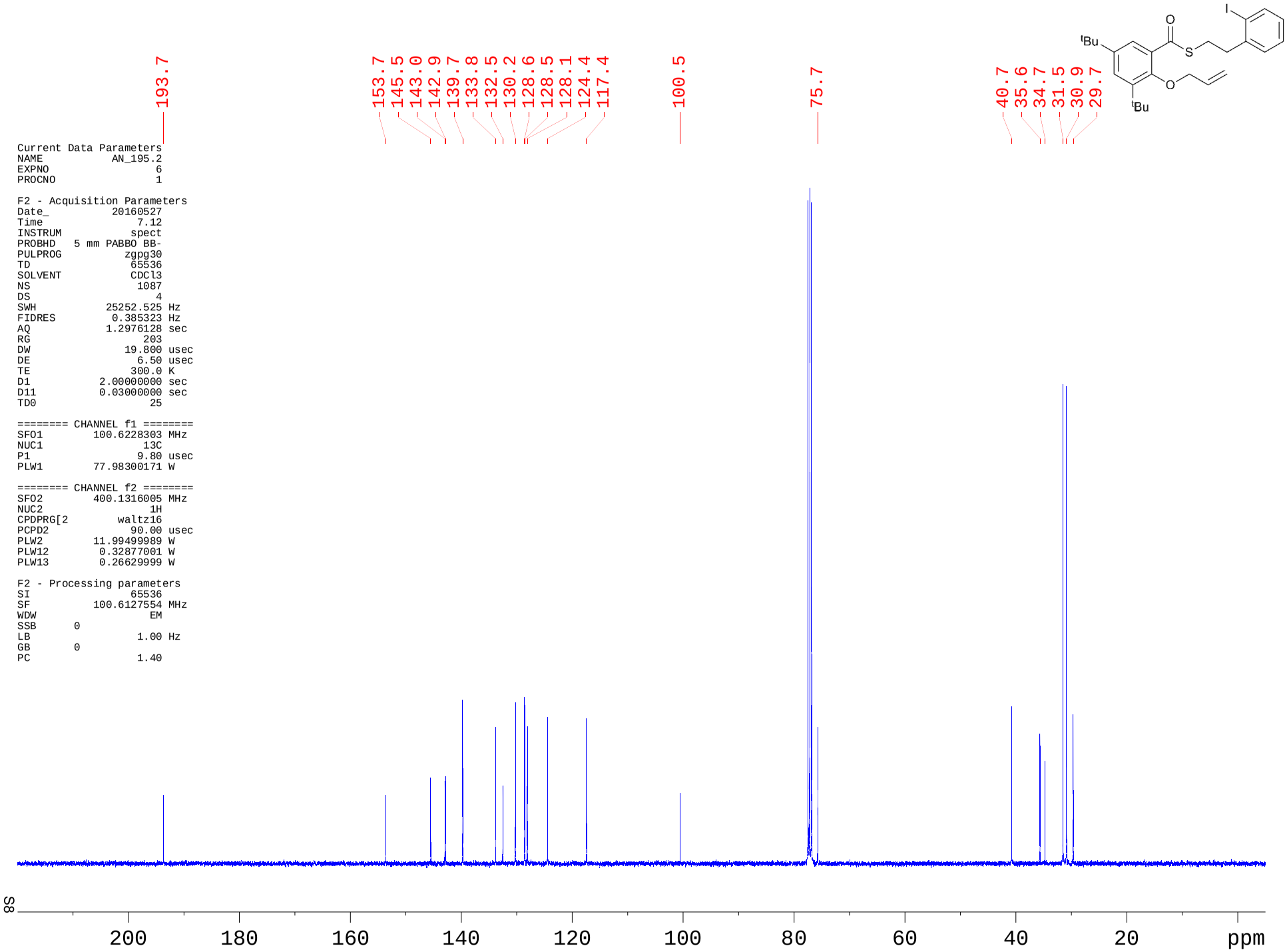
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NUC2 1H
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AQ           3.0047500 sec
RG                   32
DW               62.500 usec
DE               10.20 usec
TE               300.0 K
D1           5.00000000 sec
TD0                   1

======== CHANNEL f1 ========
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P1                14.90 usec
PLW1        11.99499989 W

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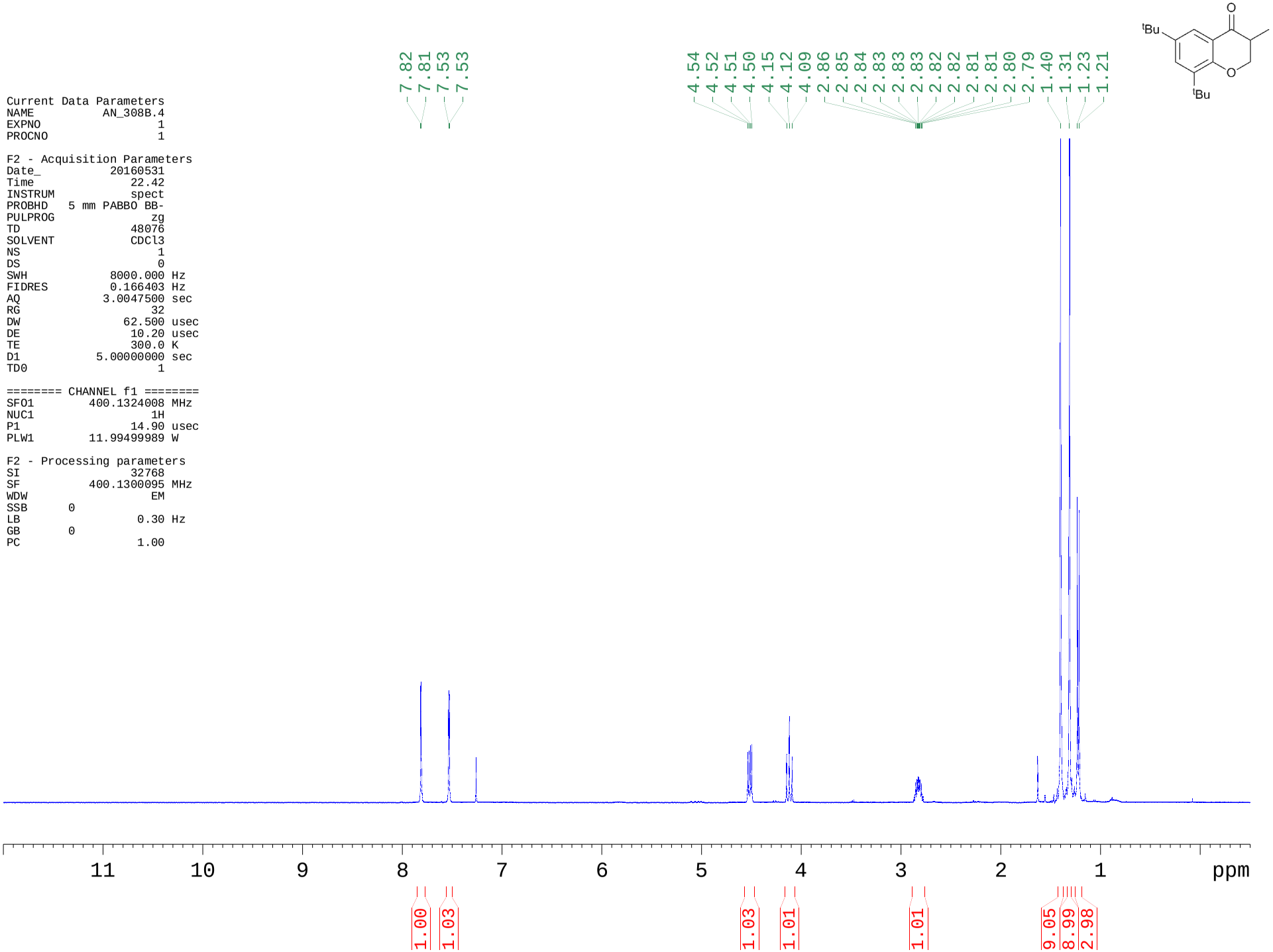

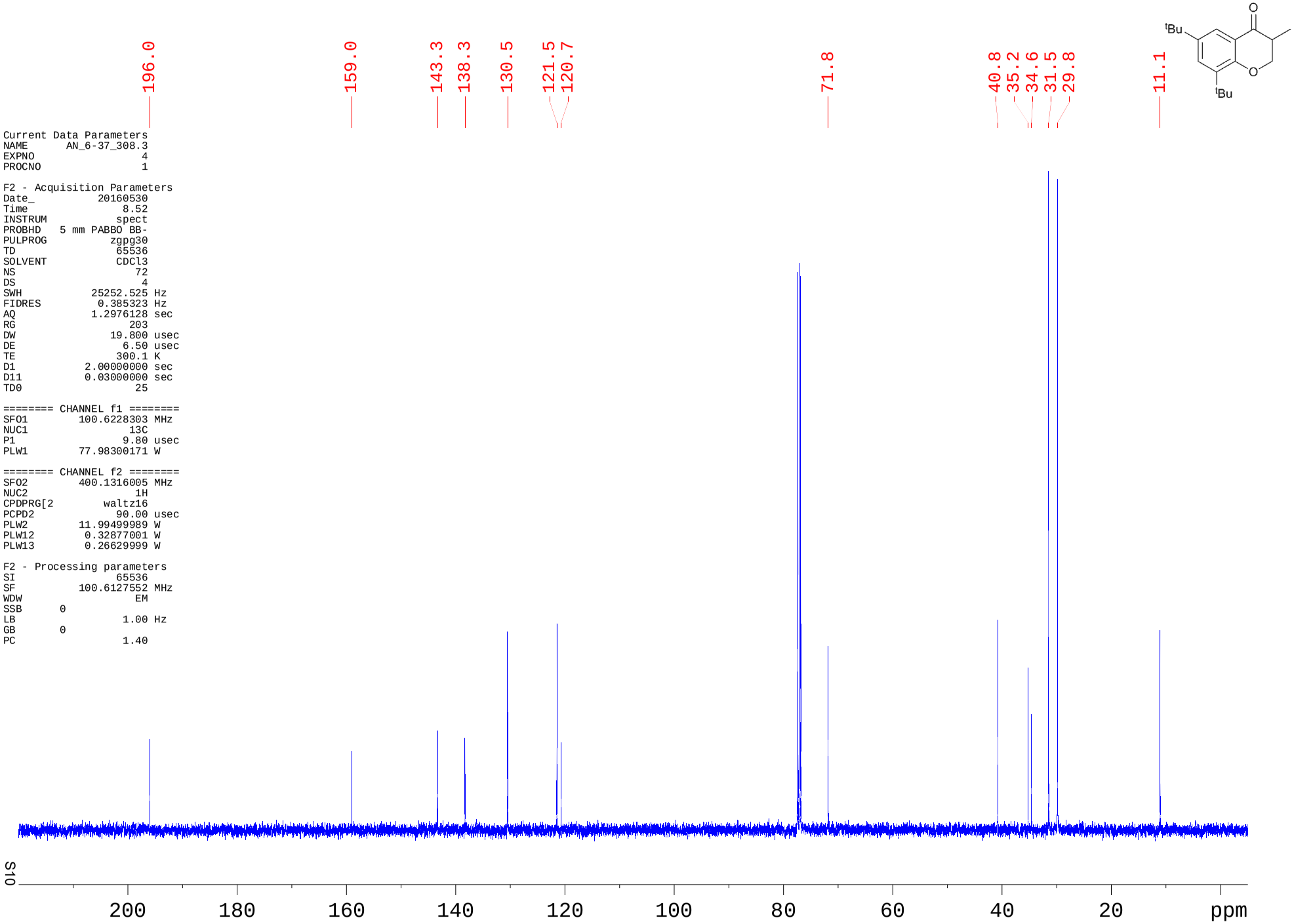
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SFO1 100.6228303 MHz
NUC1 13C
P1 9.80 usec
PLW1 77.98300171 W
======== CHANNEL f2 ========
SFO2 400.1316005 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
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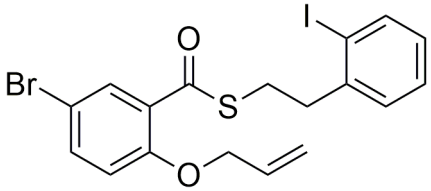

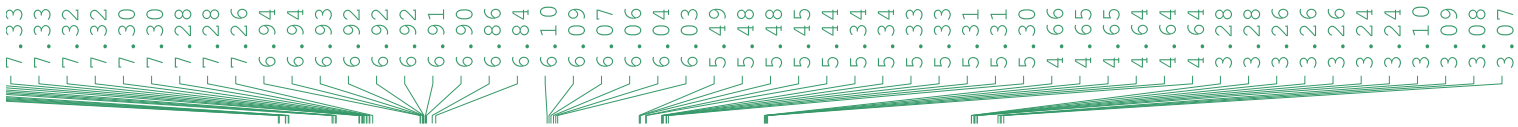


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TD0                  1

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P1              14.90 usec
PLW1        11.99499989 W

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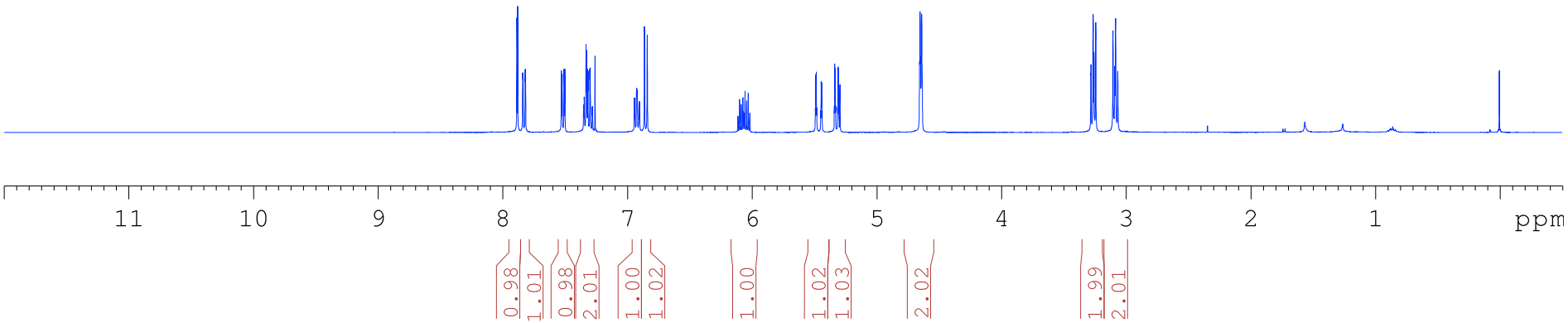

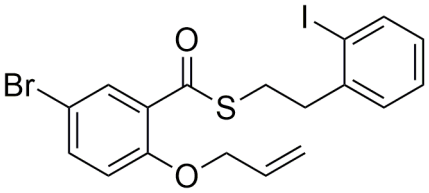

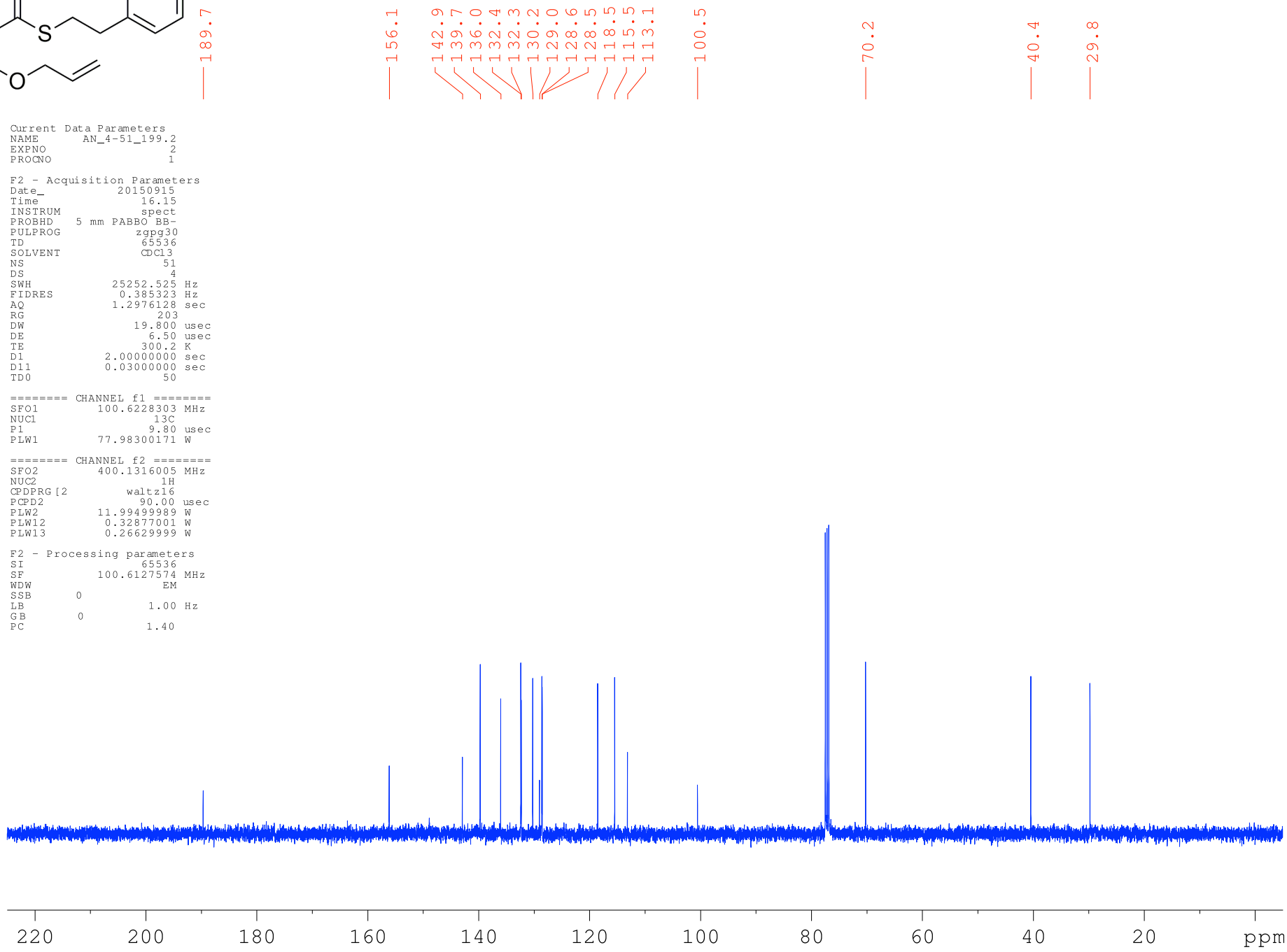


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NS                   51
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AQ            1.2976128 sec
RG                  203
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DE                6.50 usec
TE               300.2 K
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D11          0.03000000 sec
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NUC2                  1H
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PLW12        0.32877001 W
PLW13        0.26629999 W

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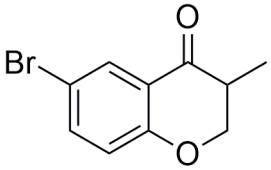

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DW              62.500 usec
DE               10.20 usec
TE               300.0 K
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NUC1                1H
P1               14.90 usec
PLW1        11.99499989 W

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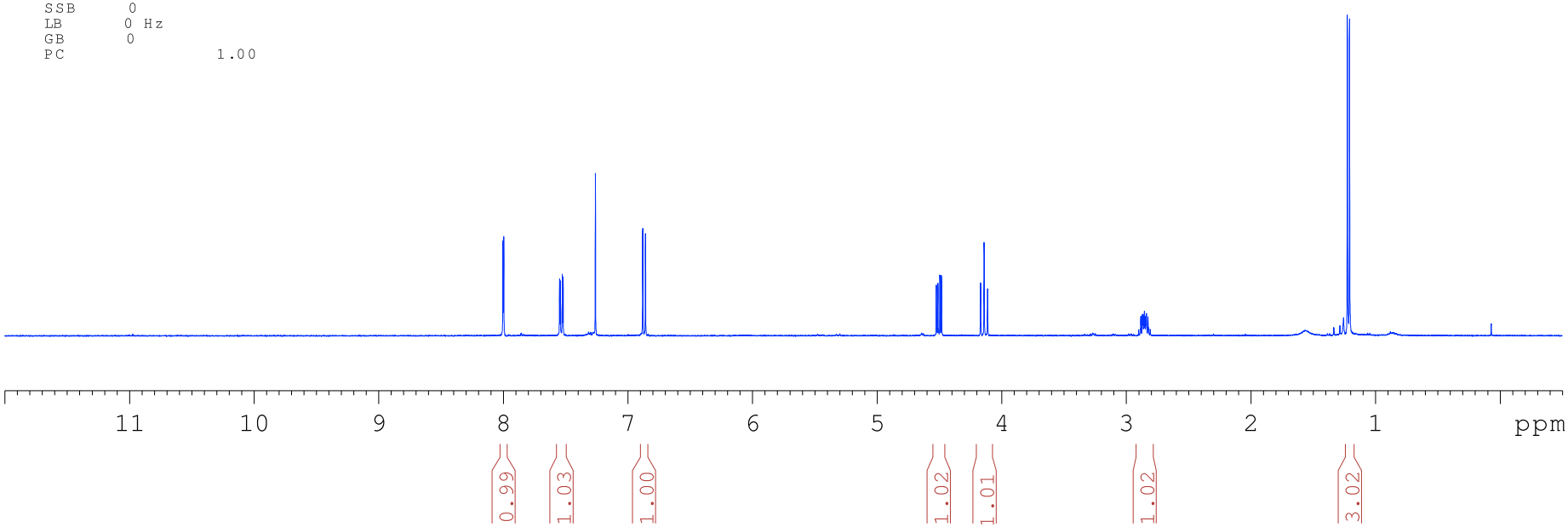

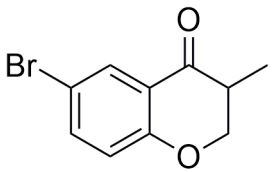

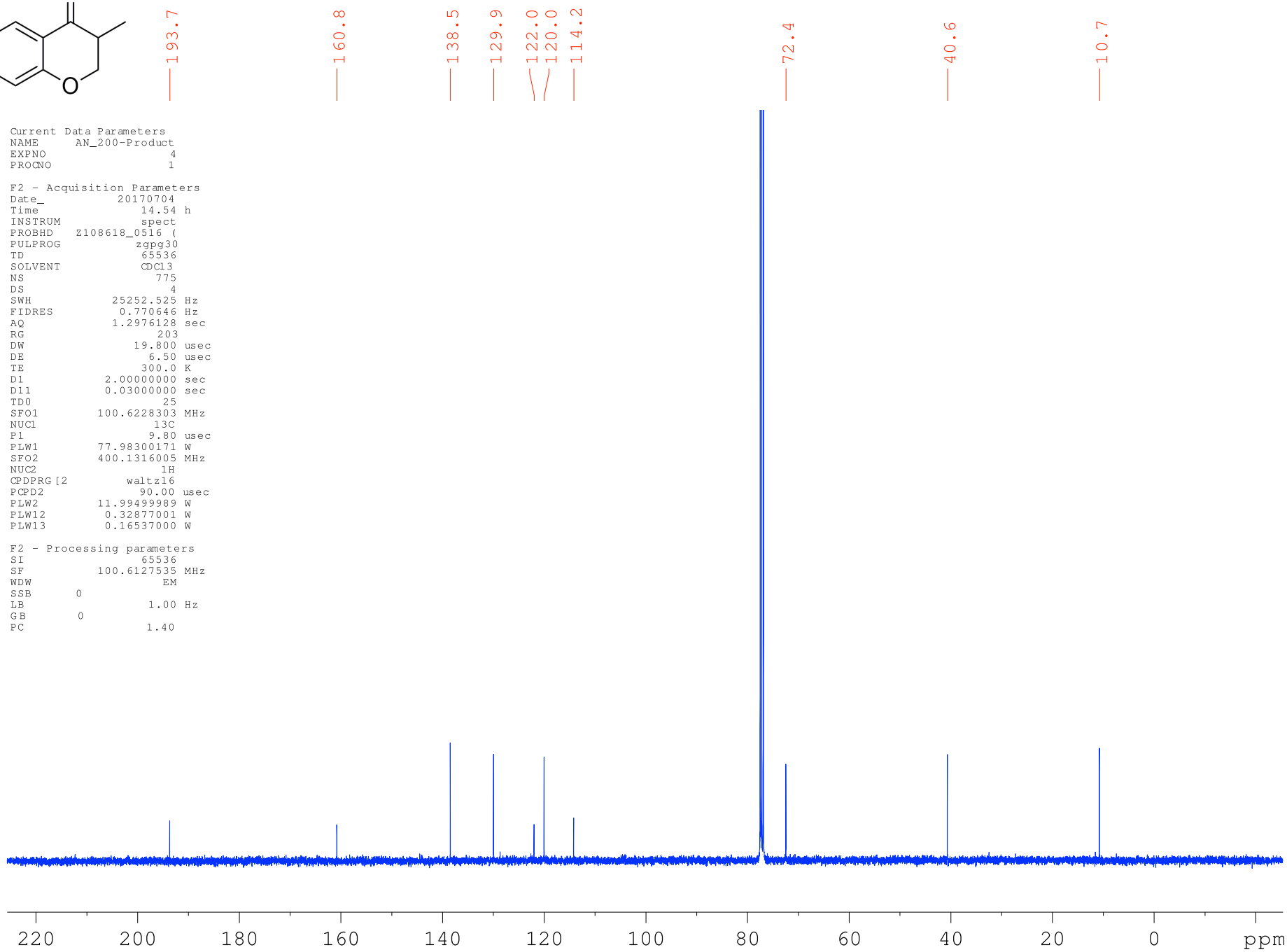


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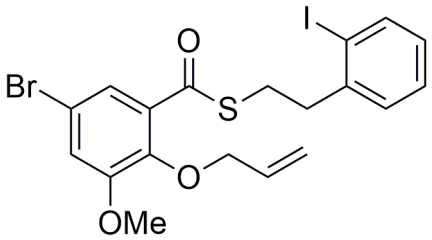
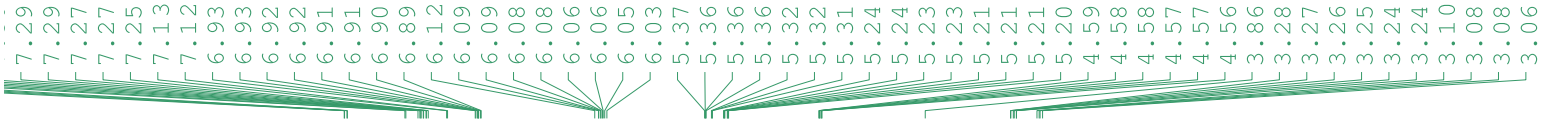
SOLVENT           CDCl3
NS                  775
DS                    4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE               300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25
SFO1        100.6228303 MHz
NUC1                13C
P1                 9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                 1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                65536
SF          100.6127535 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```



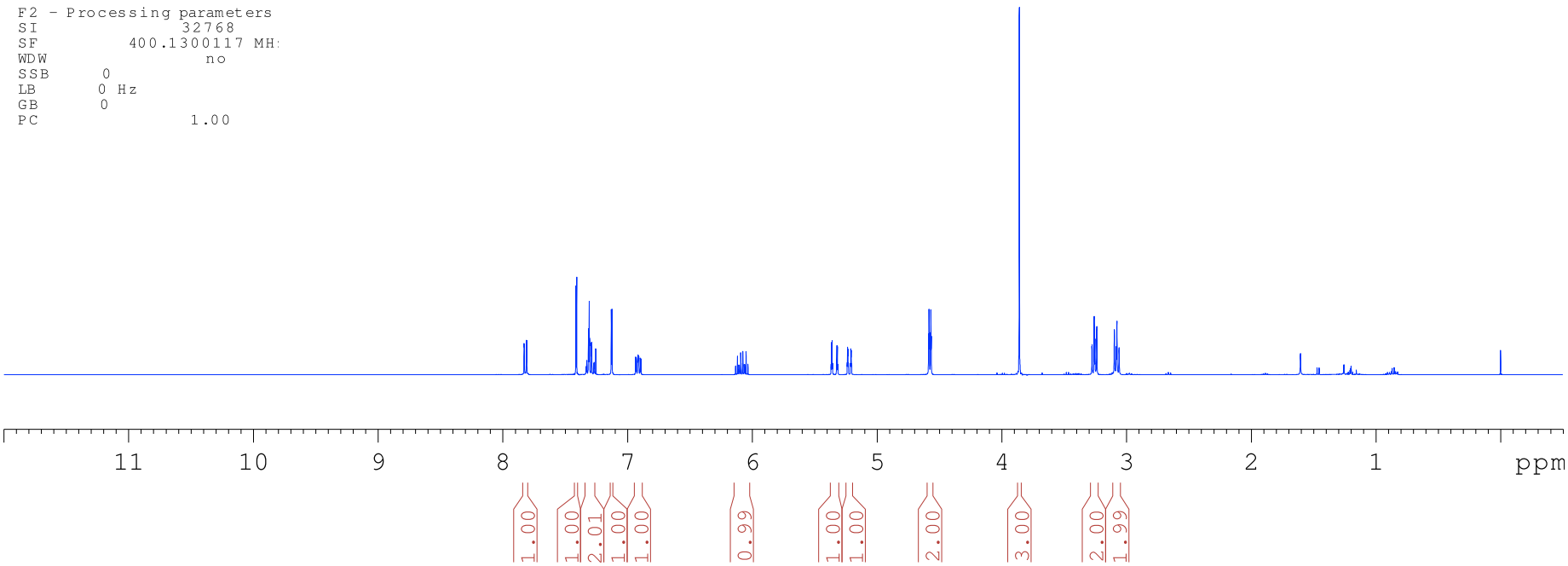


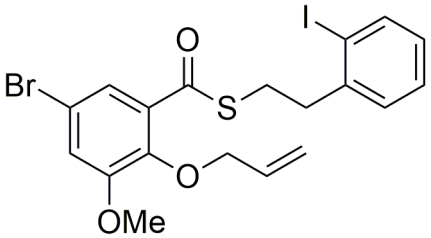

```
Current Data Parameters
NAME     AN_5-63_263.3_13C
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameter
Date_          20160211
Time             10.46
INSTRUM          spect
PROBHD   5 mm PABBO BB-
PULPROG             zg
TD               48076
SOLVENT          CDCl3
NS                   1
DS                   0
SWH            8000.000 Hz
FIDRES         0.166403 Hz
AQ           3.0047500 sec
RG                  36
DW              62.500 usec
DE               10.20 usec
TE               300.0 K
D1           5.00000000 sec
TD0                  1

======== CHANNEL f1 ========
SFO1        400.1324008 MH
NUC1                 1H
P1               14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI               32768
SF          400.1300117 MH
WDW                 no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```





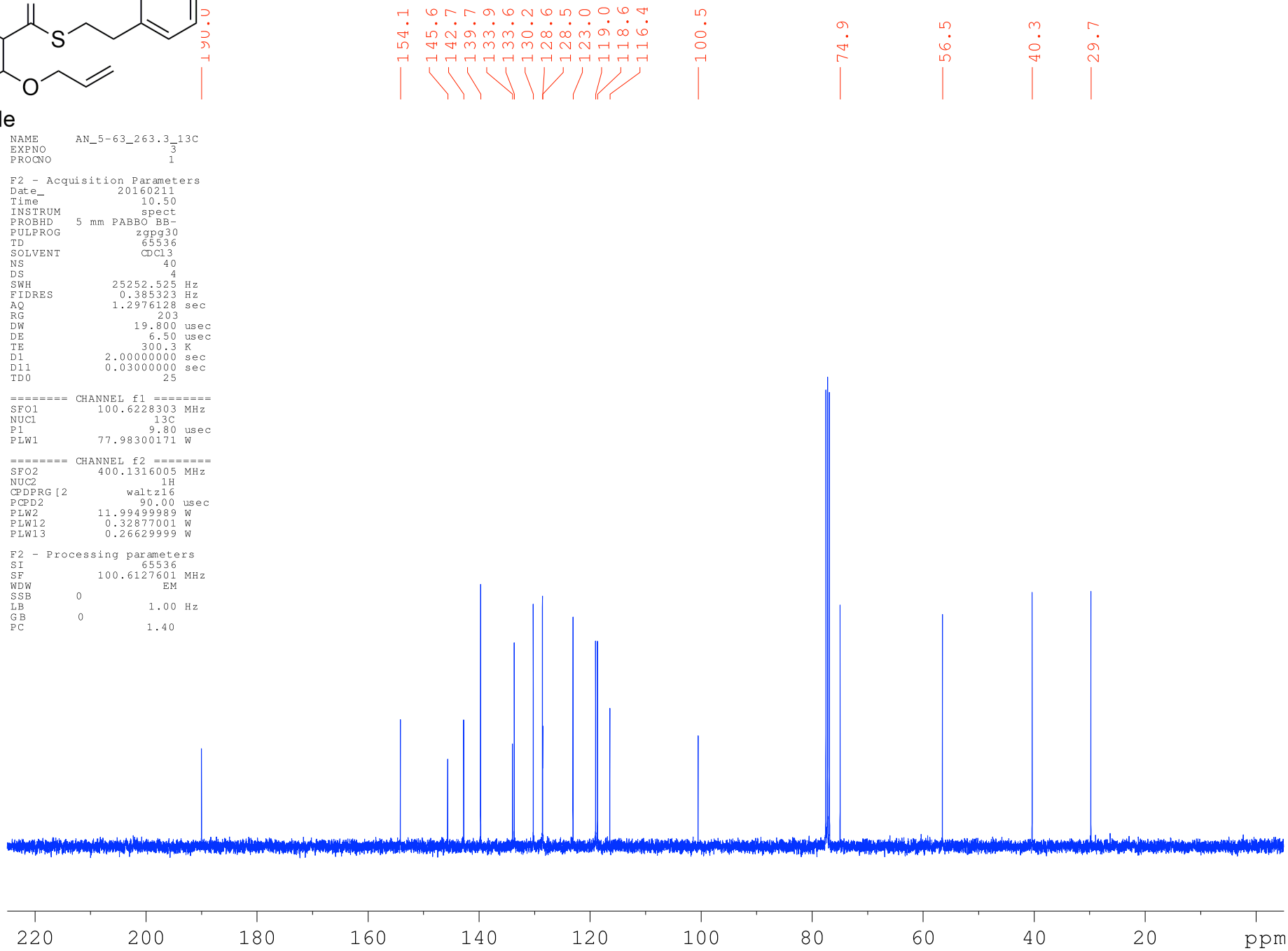

```
NAME      AN_5-63_263.3_13C
EXPNO                    3
PROCNO                   1

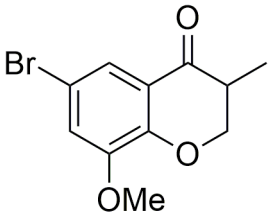
F2 - Acquisition Parameters
Date_           20160211
Time               10.50
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                   40
DS                    4
SWH            25252.525 Hz
FIDRES          0.385323 Hz
AQ             1.2976128 sec
RG                  203
DW                19.800 usec
DE                 6.50 usec
TE                300.3 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25

======== CHANNEL f1 ========
SFO1         100.6228303 MHz
NUC1                  13C
P1                   9.80 usec
PLW1         77.98300171 W

======== CHANNEL f2 ========
SFO2         400.1316005 MHz
NUC2                   1H
CPDPRG[2          waltz16
PCPD2               90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.26629999 W

F2 - Processing parameters
SI                  65536
SF           100.6127601 MHz
WDW                    EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```

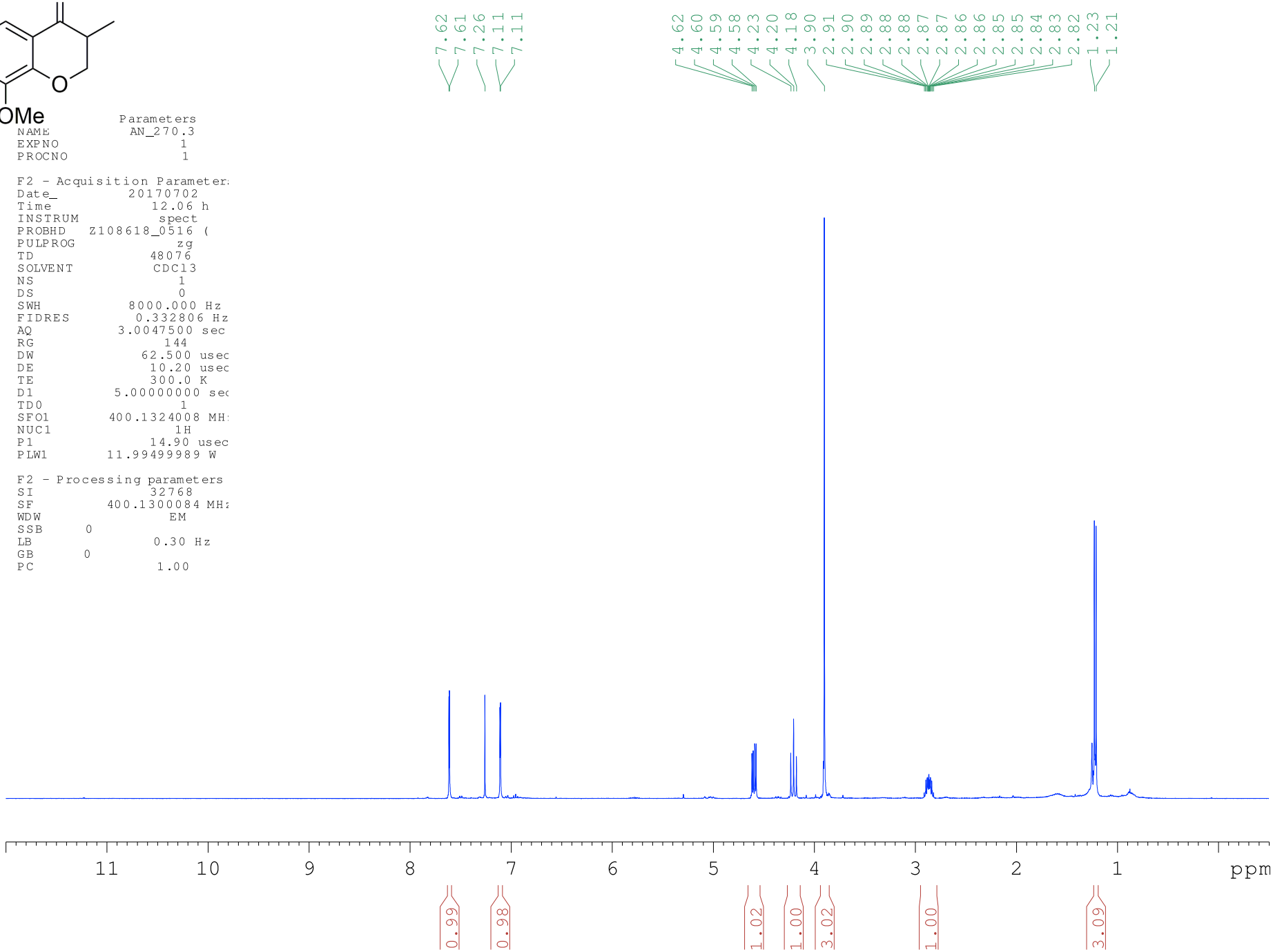


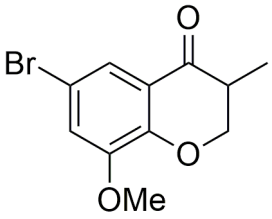



```
Parameters
NAME          AN_270.3
EXPNO                1
PROCNO               1

F2 - Acquisition Parameter
Date_         20170702
Time            12.06 h
INSTRUM          spect
PROBHD   Z108618_0516 (
PULPROG             zg
TD               48076
SOLVENT          CDCl3
NS                   1
DS                   0
SWH           8000.000 Hz
FIDRES        0.332806 Hz
AQ           3.0047500 sec
RG                 144
DW              62.500 usec
DE              10.20 usec
TE              300.0 K
D1          5.00000000 sec
TD0                  1
SFO1        400.1324008 MH
NUC1                1H
P1              14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI               32768
SF          400.1300084 MH
WDW                 EM
SSB      0
LB               0.30 Hz
GB       0
PC               1.00
```





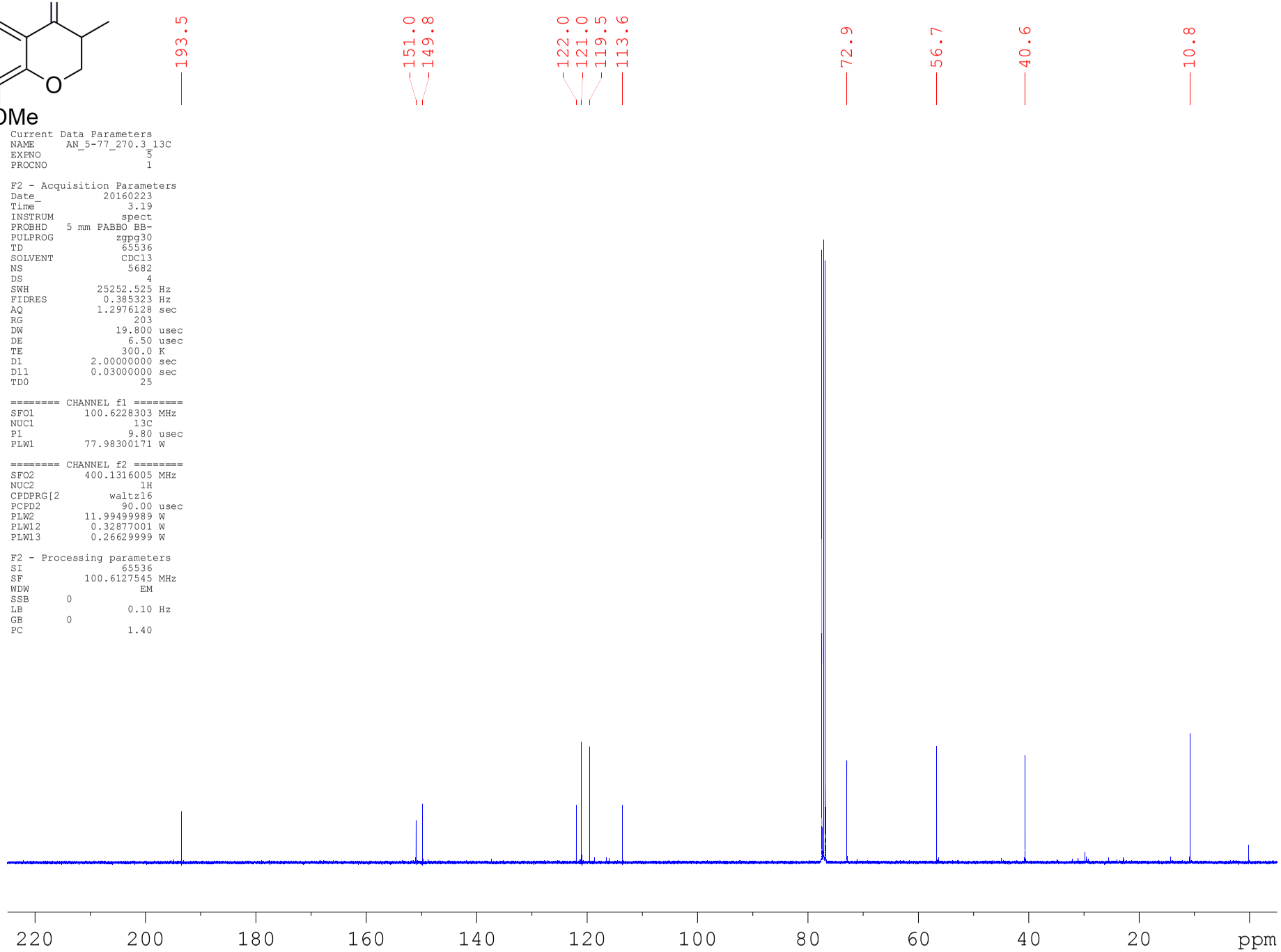

```
Current Data Parameters
NAME      AN_5-77_270.3_13C
EXPNO                     5
PROCNO                    1

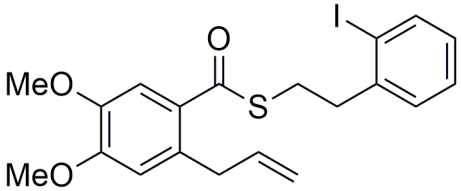
F2 - Acquisition Parameters
Date_            20160223
Time                 3.19
INSTRUM             spect
PROBHD   5 mm PABBO BB-
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                  5682
DS                     4
SWH            25252.525 Hz
FIDRES          0.385323 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                 6.50 usec
TE                300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   25

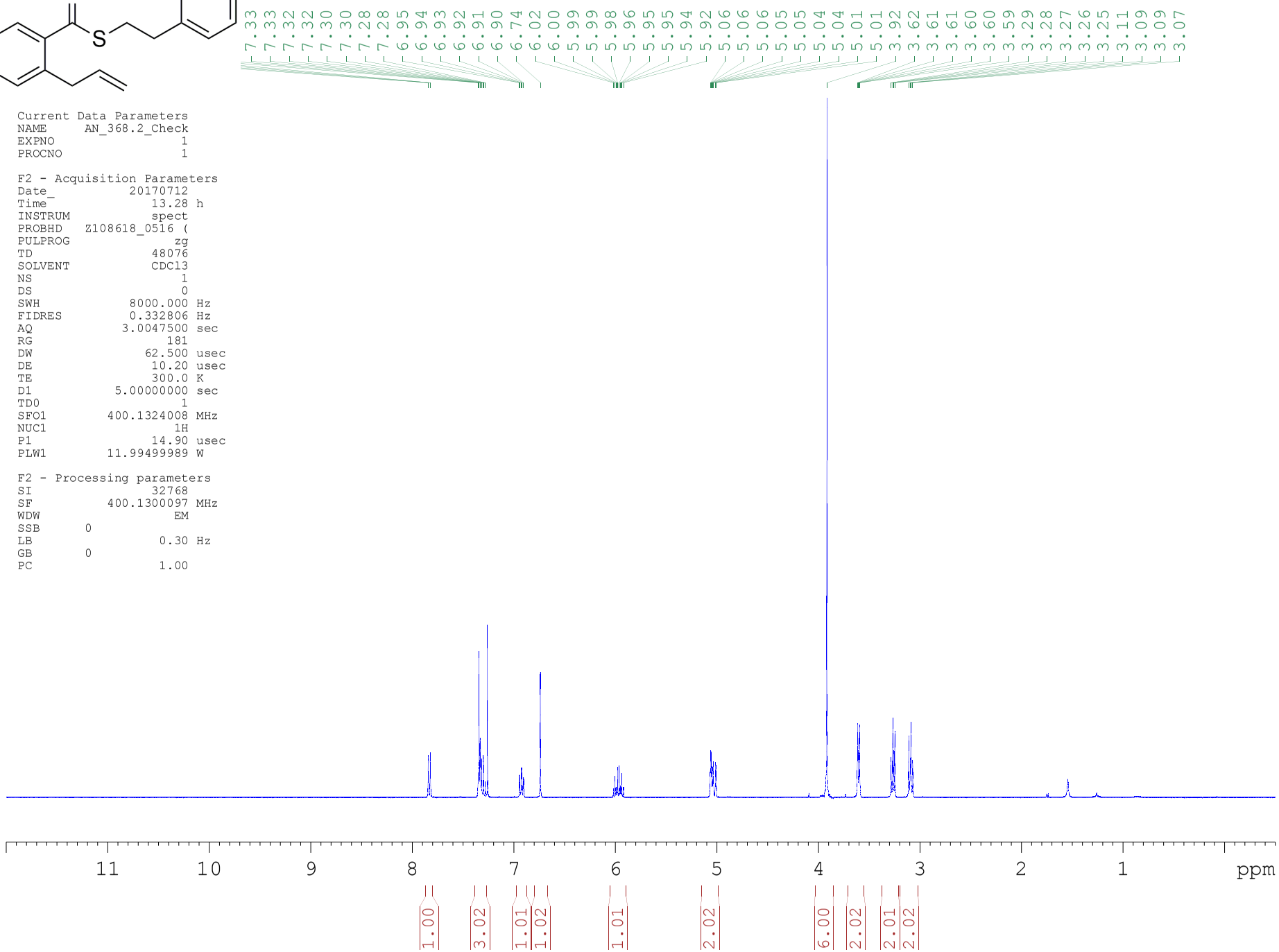
======== CHANNEL f1 ========
SFO1         100.6228303 MHz
NUC1                  13C
P1                   9.80 usec
PLW1         77.98300171 W

======== CHANNEL f2 ========
SFO2         400.1316005 MHz
NUC2                   1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.26629999 W

F2 - Processing parameters
SI                 65536
SF           100.6127545 MHz
WDW                   EM
SSB       0
LB                 0.10 Hz
GB        0
PC                 1.40
```



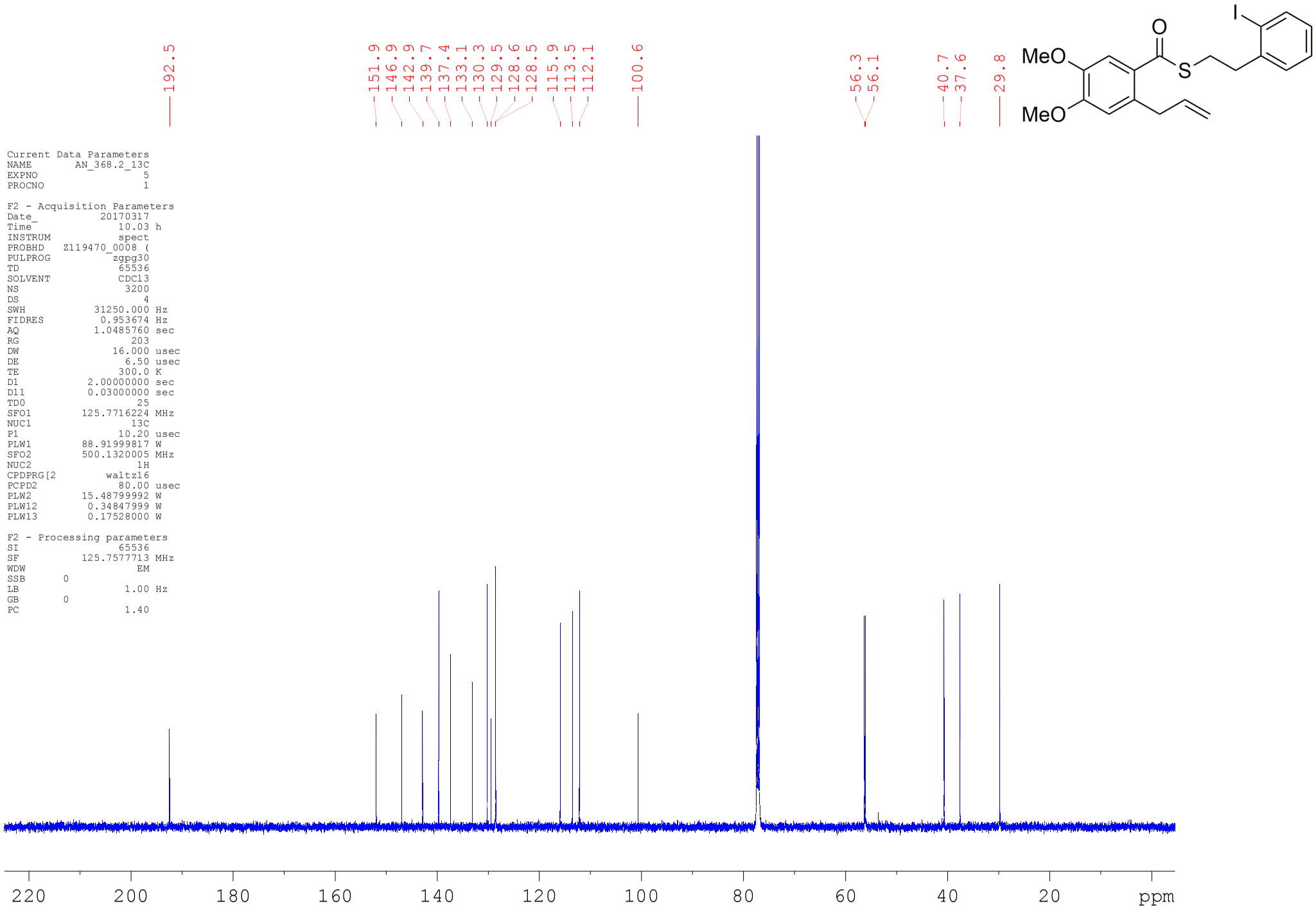


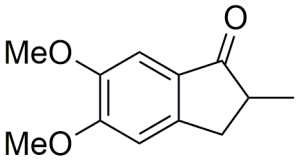



```
Current Data Parameters
NAME      AN_368.2_Check
EXPNO                   1
PROCNO                  1

F2 - Acquisition Parameters
Date_           20170712
Time               13.28 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG                zg
TD                 48076
SOLVENT            CDCl3
NS                     1
DS                     0
SWH             8000.000 Hz
FIDRES          0.332806 Hz
AQ             3.0047500 sec
RG                   181
DW                62.500 usec
DE                 10.20 usec
TE                 300.0 K
D1            5.00000000 sec
TD0                    1
SFO1         400.1324008 MHz
NUC1                  1H
P1                 14.90 usec
PLW1         11.99499989 W

F2 - Processing parameters
SI                 32768
SF           400.1300097 MHz
WDW                   EM
SSB       0
LB                  0.30 Hz
GB        0
PC                  1.00
```

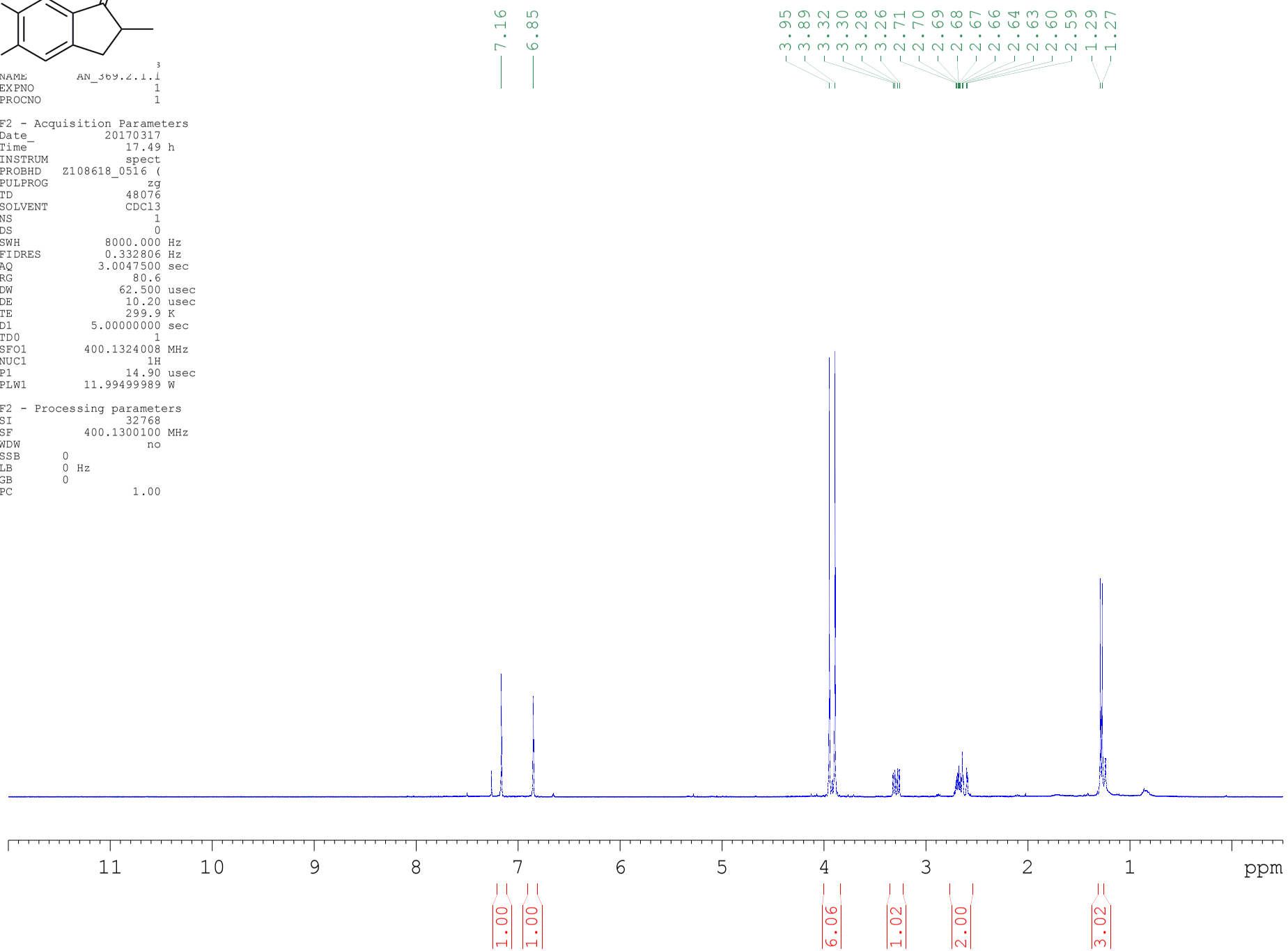

192.5
151.9
146.9
142.9
139.7
137.4
133.1
130.3
129.5
128.6
128.5
115.9
113.5
112.1
100.6
56.3
56.1
40.7
37.6
29.8
MeO
MeO
O
S
I
Current Data Parameters
NAME AN_368.2_13C
EXPNO 5
PROCNO 1
F2 - Acquisition Parameters
Date_ 20170317
Time 10.03 h
INSTRUM spect
PROBHD Z119470_0008 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 3200
DS 4
SWH 31250.000 Hz
FIDRES 0.953674 Hz
AQ 1.0485760 sec
RG 203
DW 16.000 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 25
SFO1 125.7716224 MHz
NUC1 13C
P1 10.20 usec
PLW1 88.91999817 W
SFO2 500.1320005 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 80.00 usec
PLW2 15.48799992 W
PLW12 0.34847999 W
PLW13 0.17528000 W
F2 - Processing parameters
SI 65536
SF 125.7577713 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
220
200
180
160
140
120
100
80
60
40
20
ppm

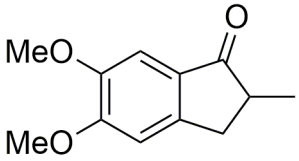


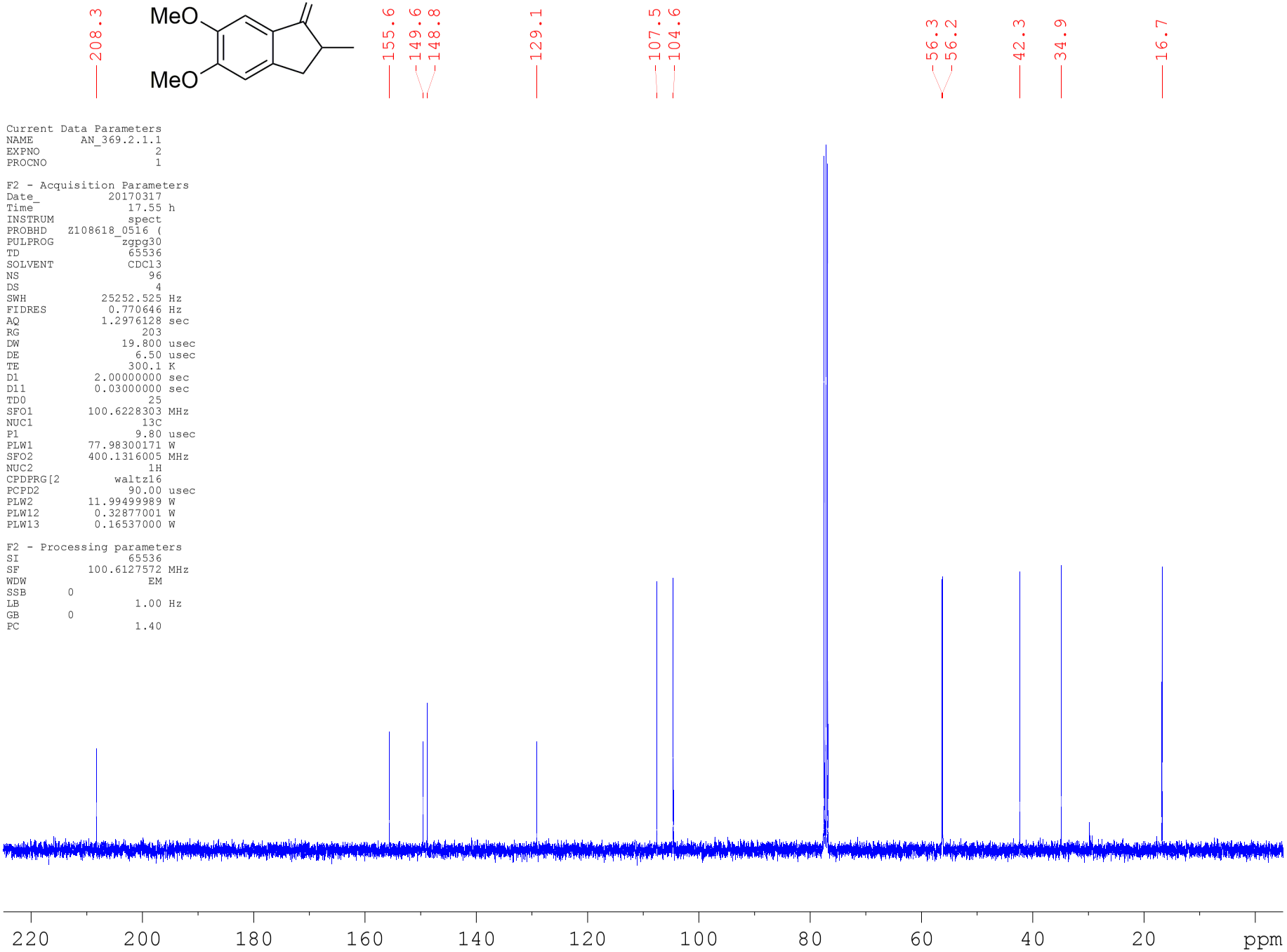

```
NAME        AN_369.2.1.1
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20170317
Time              17.49 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG               zg
TD                48076
SOLVENT           CDCl3
NS                    1
DS                    0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ            3.0047500 sec
RG                 80.6
DW               62.500 usec
DE                10.20 usec
TE                299.9 K
D1           5.00000000 sec
TD0                   1
SFO1        400.1324008 MHz
NUC1                 1H
P1                14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI                32768
SF          400.1300100 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```



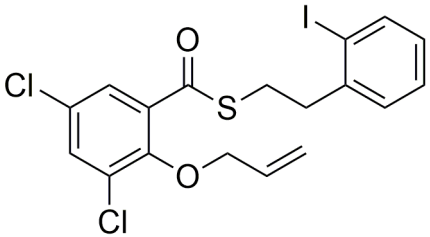


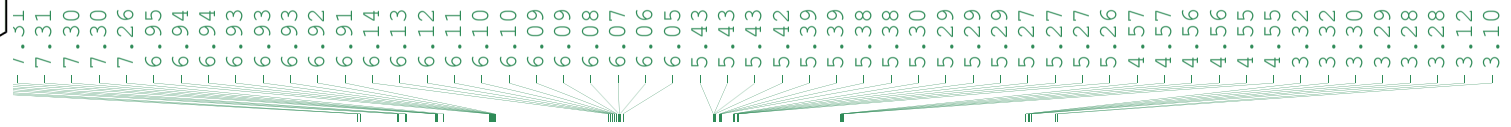



```
Current Data Parameters
NAME        AN_369.2.1.1
EXPNO                   2
PROCNO                  1

F2 - Acquisition Parameters
Date_            20170317
Time               17.55 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                    96
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                 6.50 usec
TE                 300.1 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   25
SFO1         100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

F2 - Processing parameters
SI                 65536
SF           100.6127572 MHz
WDW                   EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```



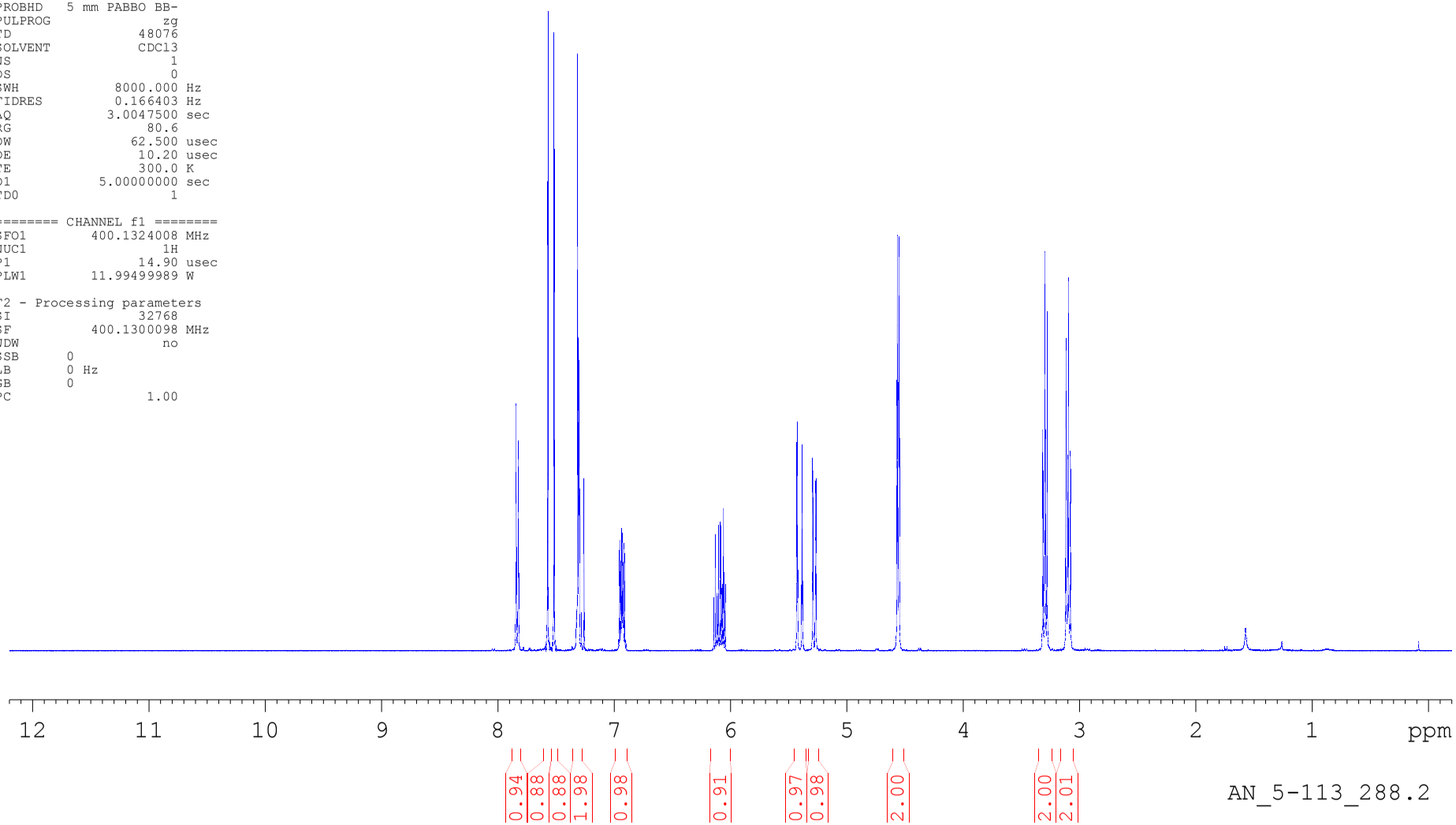


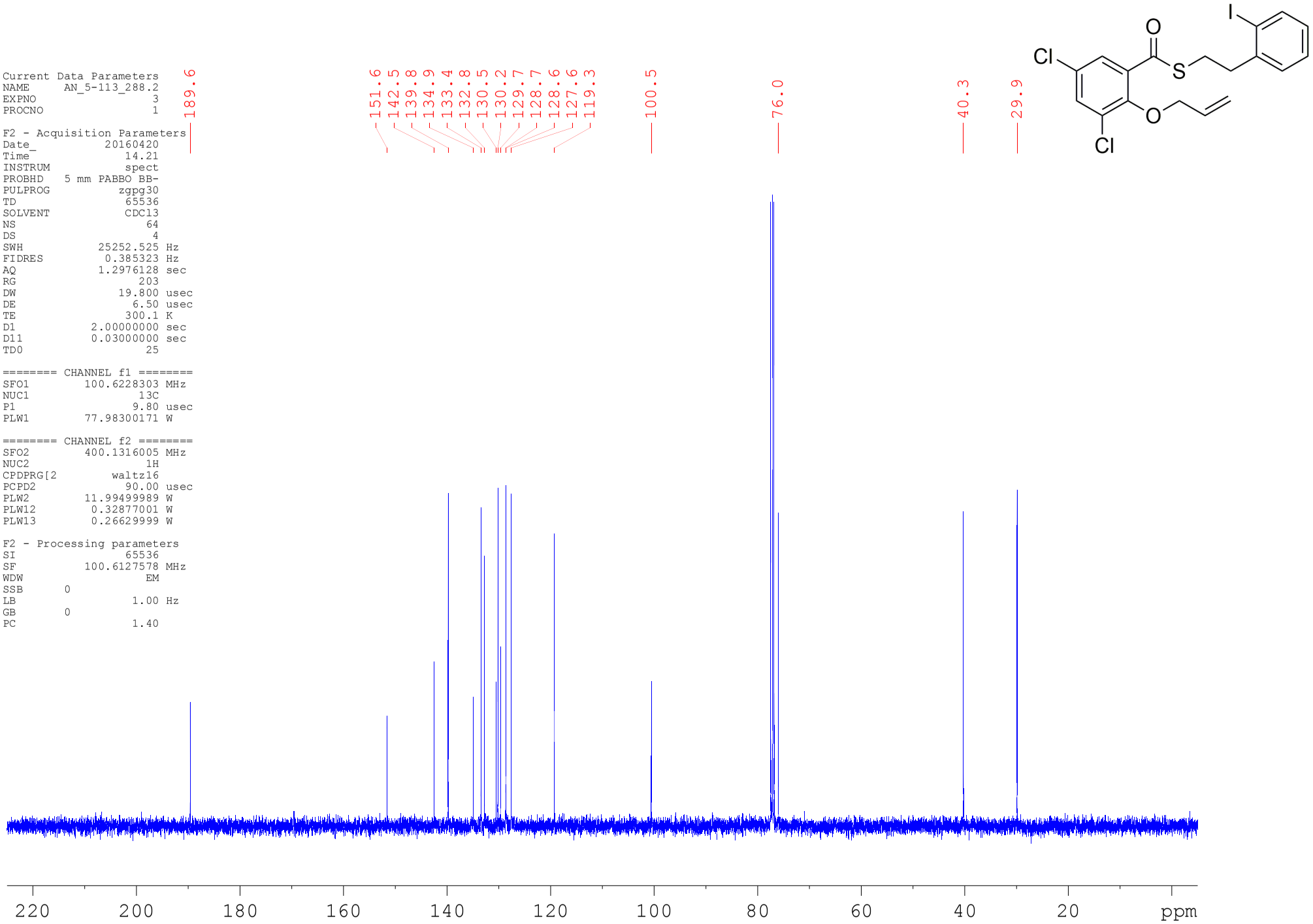

```
PROCNO                 1

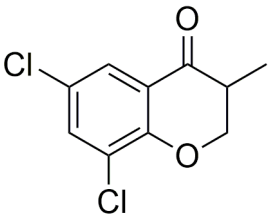
F2 - Acquisition Parameters
Date_            20160420
Time                14.08
INSTRUM             spect
PROBHD   5 mm PABBO BB-
PULPROG                zg
TD                  48076
SOLVENT             CDCl3
NS                      1
DS                      0
SWH             8000.000 Hz
FIDRES          0.166403 Hz
AQ            3.0047500 sec
RG                   80.6
DW                62.500 usec
DE                 10.20 usec
TE                 300.0 K
D1            5.00000000 sec
TD0                     1

======== CHANNEL f1 ========
SFO1         400.1324008 MHz
NUC1                  1H
P1                 14.90 usec
PLW1         11.99499989 W

F2 - Processing parameters
SI                  32768
SF           400.1300098 MHz
WDW                    no
SSB       0
LB        0 Hz
GB        0
PC                  1.00
```



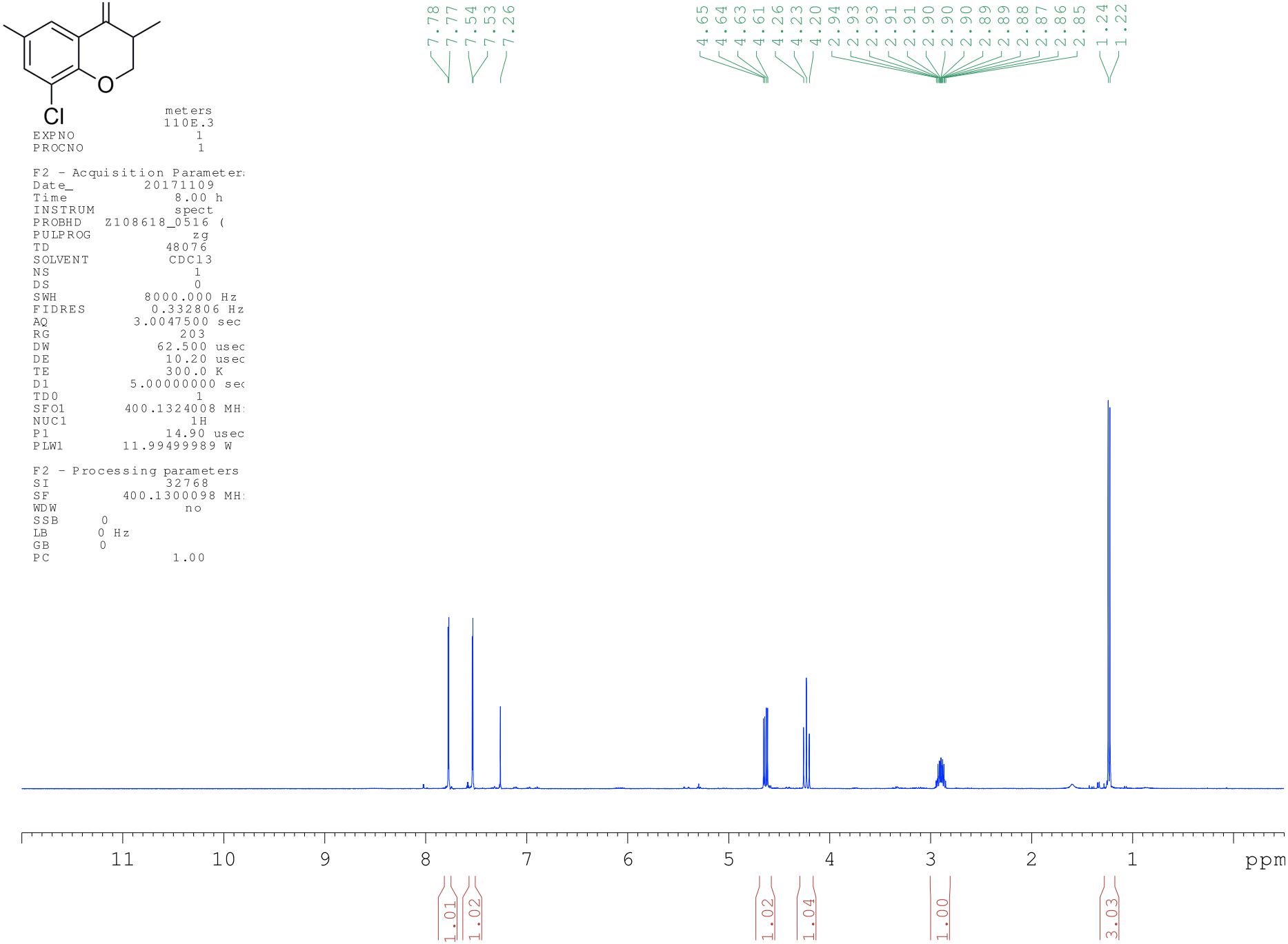

Current Data Parameters
NAME AN_5-113_288.2
EXPNO 3
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160420
Time 14.21
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 64
DS 4
SWH 25252.525 Hz
FIDRES 0.385323 Hz
AQ 1.2976128 sec
RG 203
DW 19.800 usec
DE 6.50 usec
TE 300.1 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 25
======== CHANNEL f1 ========
SFO1 100.6228303 MHz
NUC1 13C
P1 9.80 usec
PLW1 77.98300171 W
======== CHANNEL f2 ========
SFO2 400.1316005 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 11.99499989 W
PLW12 0.32877001 W
PLW13 0.26629999 W
F2 - Processing parameters
SI 65536
SF 100.6127578 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
189.6
151.6
142.5
139.8
134.9
133.4
132.8
130.5
130.2
129.7
128.7
128.6
127.6
119.3
100.5
76.0
40.3
29.9
220
200
180
160
140
120
100
80
60
40
20
ppm
Cl
O
S
I
O
Cl

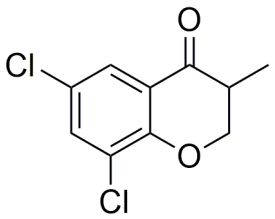


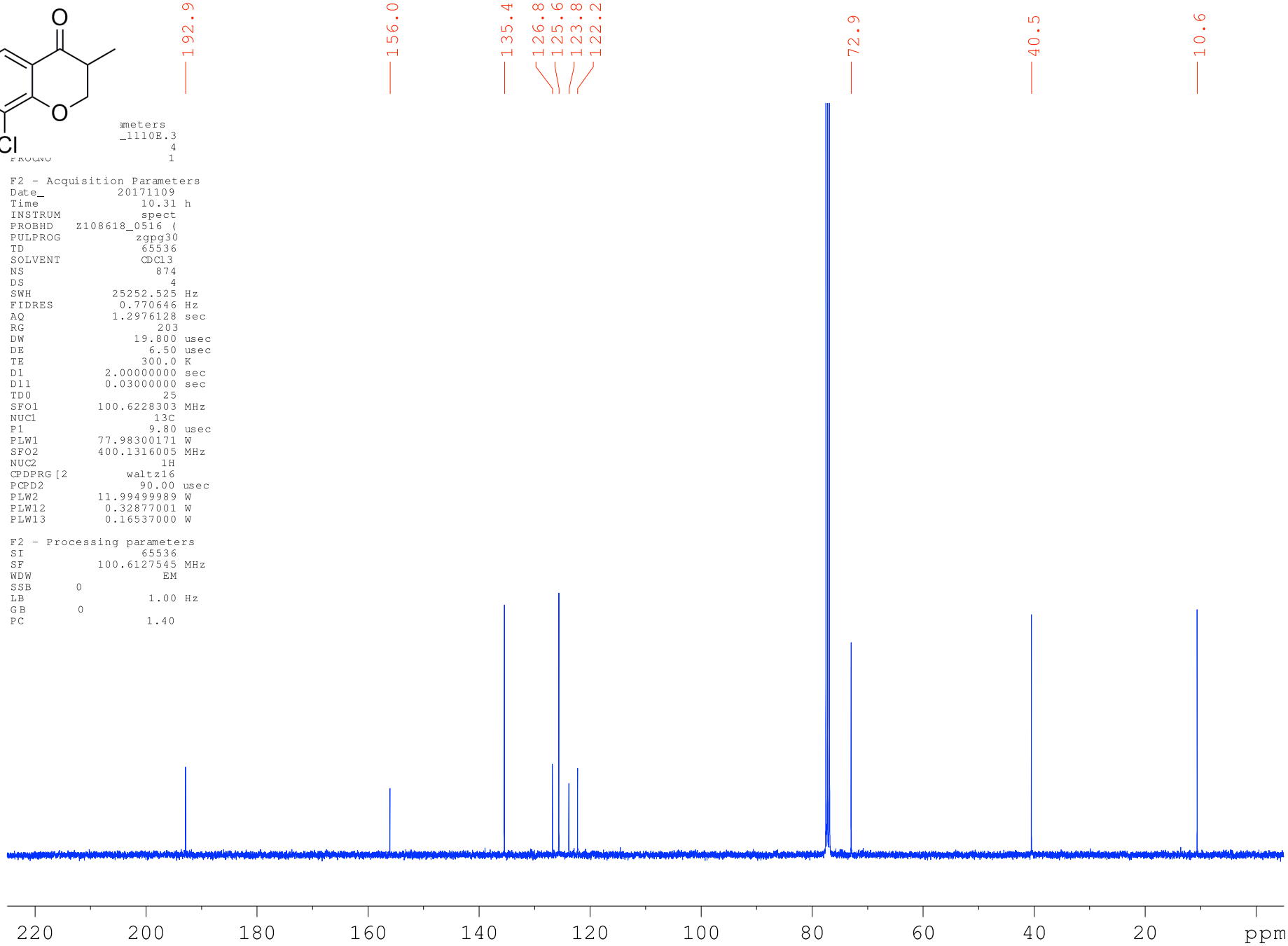
```
                    meters
                   110E.3
EXPNO                   1
PROCNO                  1

F2 - Acquisition Parameter
Date_            20171109
Time                8.00 h
INSTRUM             spect
PROBHD   Z108618_0516 (
PULPROG               zg
TD                48076
SOLVENT           CDCl3
NS                      1
DS                      0
SWH             8000.000 Hz
FIDRES          0.332806 Hz
AQ            3.0047500 sec
RG                    203
DW               62.500 usec
DE                10.20 usec
TE                300.0 K
D1            5.00000000 sec
TD0                     1
SFO1         400.1324008 MH
NUC1                   1H
P1                14.90 usec
PLW1         11.99499989 W

F2 - Processing parameters
SI                  32768
SF           400.1300098 MH
WDW                    no
SSB      0
LB       0 Hz
GB       0
PC                   1.00
```



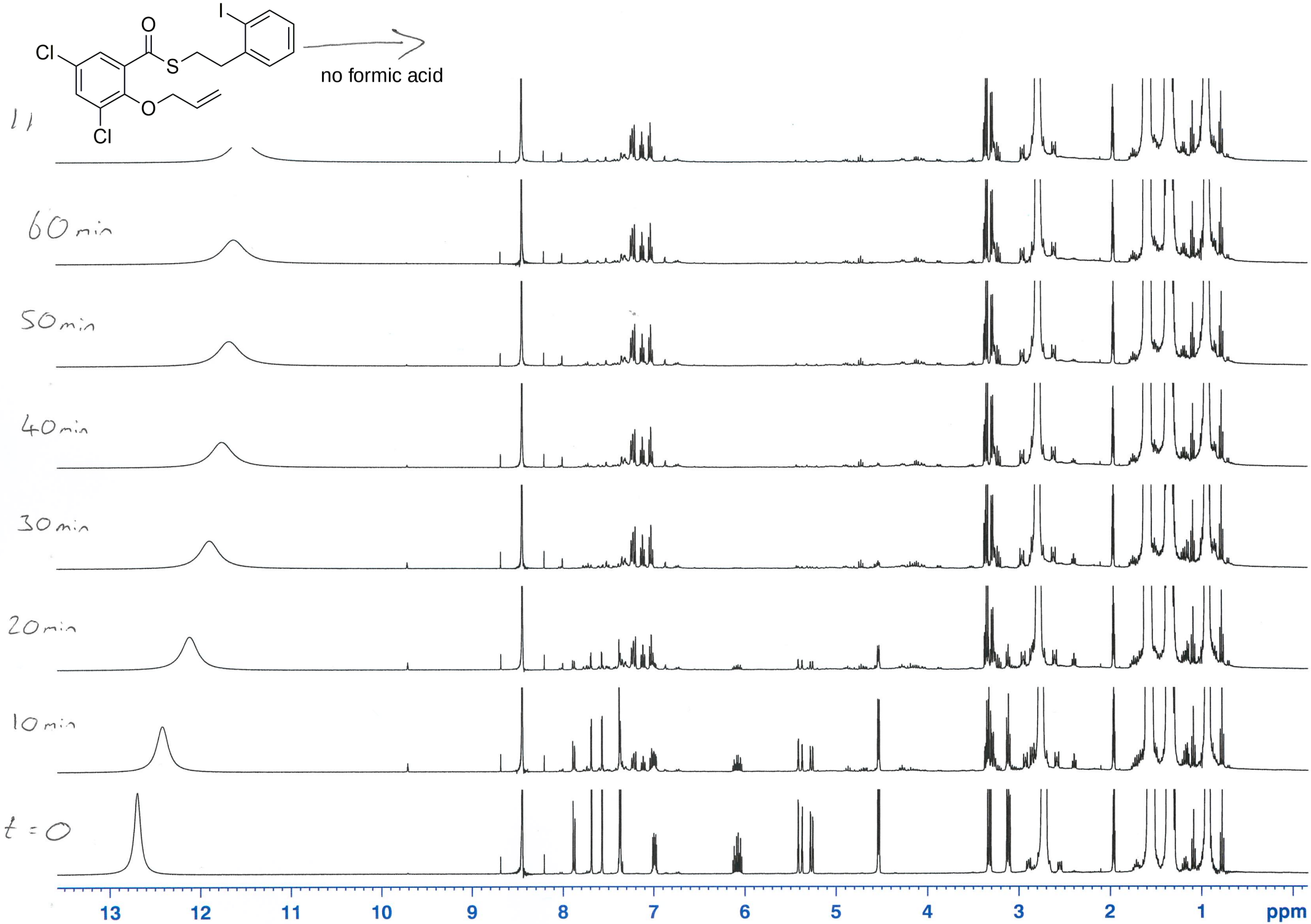


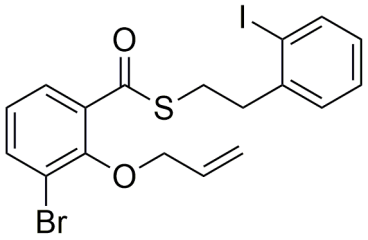


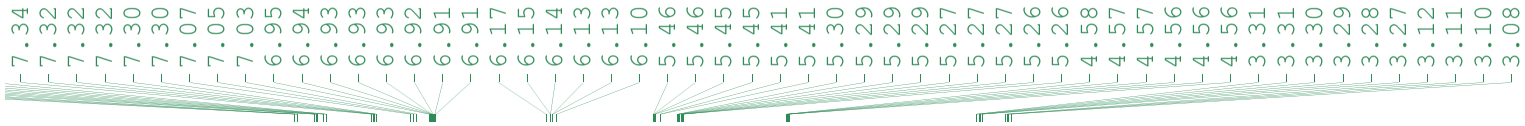

```
ameters
_1110E.3
       4
       1

F2 - Acquisition Parameters
Date_          20171109
Time               10.31 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                  874
DS                    4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE               300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25
SFO1        100.6228303 MHz
NUC1                13C
P1                 9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                 1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                65536
SF          100.6127545 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```


Cl
O
S
I
O
Cl
no formic acid
11
60 min
50 min
40 min
30 min
20 min
10 min
t = 0
13
12
11
10
9
8
7
6
5
4
3
2
1
ppm



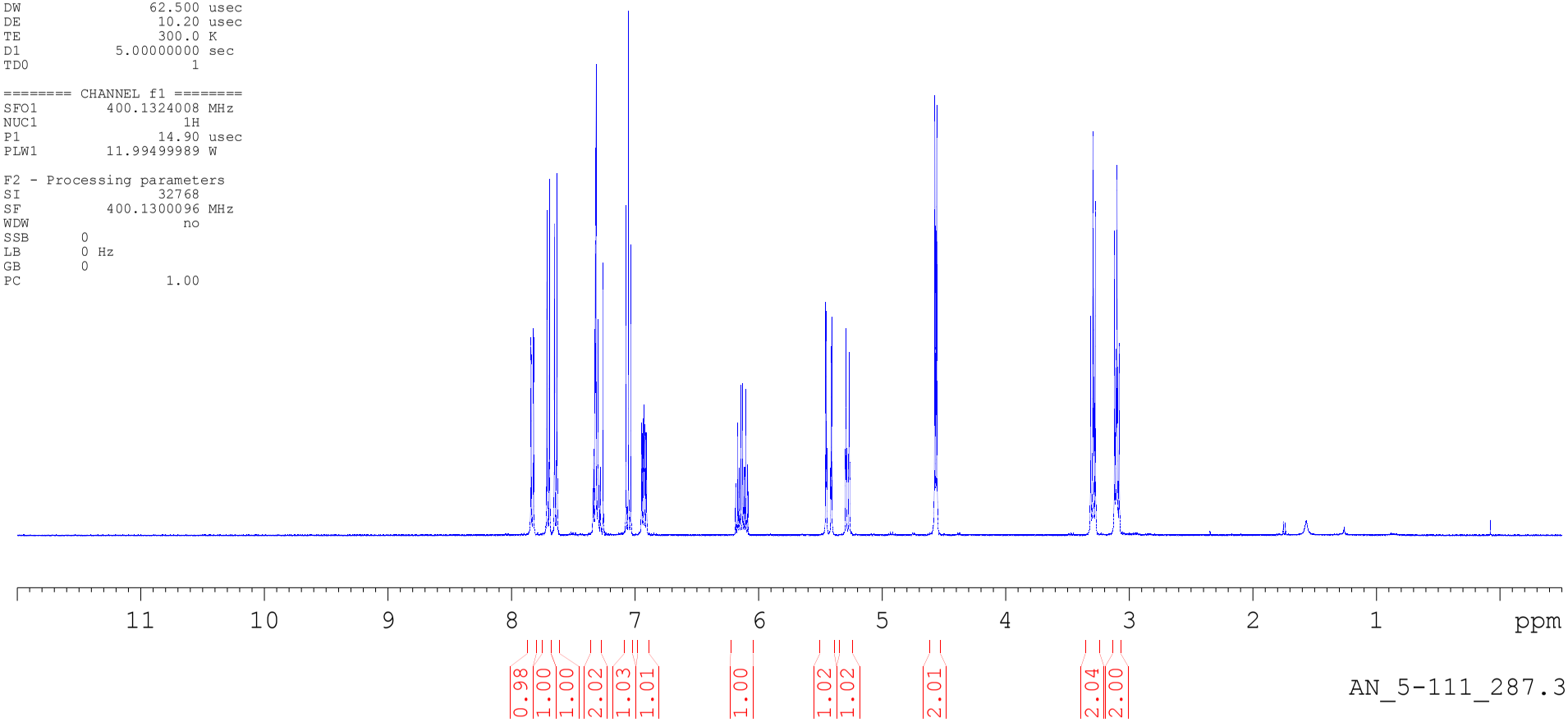



```
Current Data Parameters
NAME      AN_5-111_287.3
EXPNO                   1
PROCNO                  1

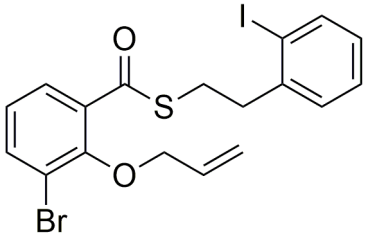
F2 - Acquisition Parameters
Date_            20160411
Time               14.25
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG               zg
TD                 48076
SOLVENT            CDCl3
NS                     1
DS                     0
SWH             8000.000 Hz
FIDRES          0.166403 Hz
AQ             3.0047500 sec
RG                  80.6
DW                62.500 usec
DE                 10.20 usec
TE                 300.0 K
D1            5.00000000 sec
TD0                    1

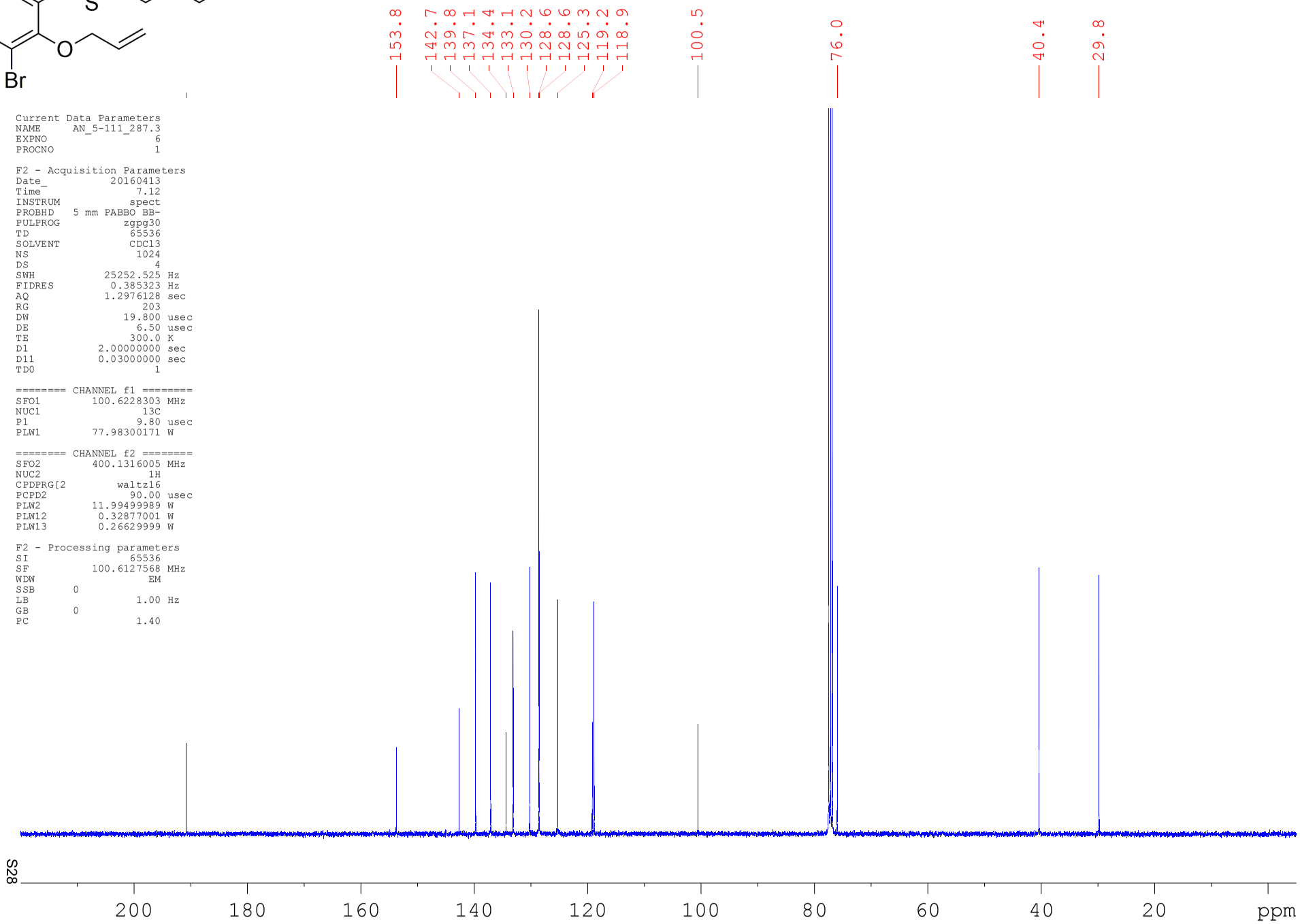
======== CHANNEL f1 ========
SFO1         400.1324008 MHz
NUC1                  1H
P1                 14.90 usec
PLW1         11.99499989 W

F2 - Processing parameters
SI                 32768
SF          400.1300096 MHz
WDW                   no
SSB       0
LB        0 Hz
GB        0
PC                 1.00
```



AN_5-111_287.3





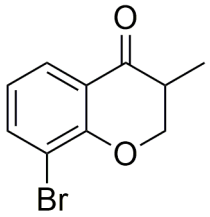

```
Current Data Parameters
NAME      AN_5-111_287.3
EXPNO                   6
PROCNO                  1

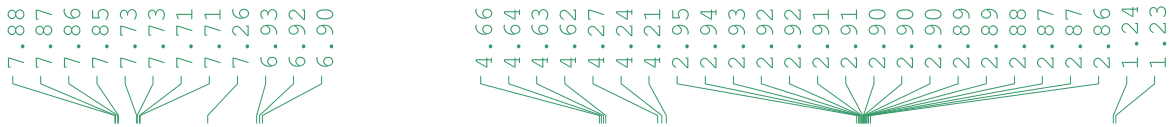
F2 - Acquisition Parameters
Date_            20160413
Time                 7.12
INSTRUM             spect
PROBHD   5 mm PABBO BB-
PULPROG            zgpg30
TD                  65536
SOLVENT             CDCl3
NS                   1024
DS                      4
SWH            25252.525 Hz
FIDRES          0.385323 Hz
AQ             1.2976128 sec
RG                    203
DW                 19.800 usec
DE                   6.50 usec
TE                  300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                     1

======== CHANNEL f1 ========
SFO1         100.6228303 MHz
NUC1                  13C
P1                   9.80 usec
PLW1         77.98300171 W

======== CHANNEL f2 ========
SFO2         400.1316005 MHz
NUC2                   1H
CPDPRG[2          waltz16
PCPD2               90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.26629999 W

F2 - Processing parameters
SI                  65536
SF           100.6127568 MHz
WDW                    EM
SSB      0
LB                   1.00 Hz
GB       0
PC                   1.40
```

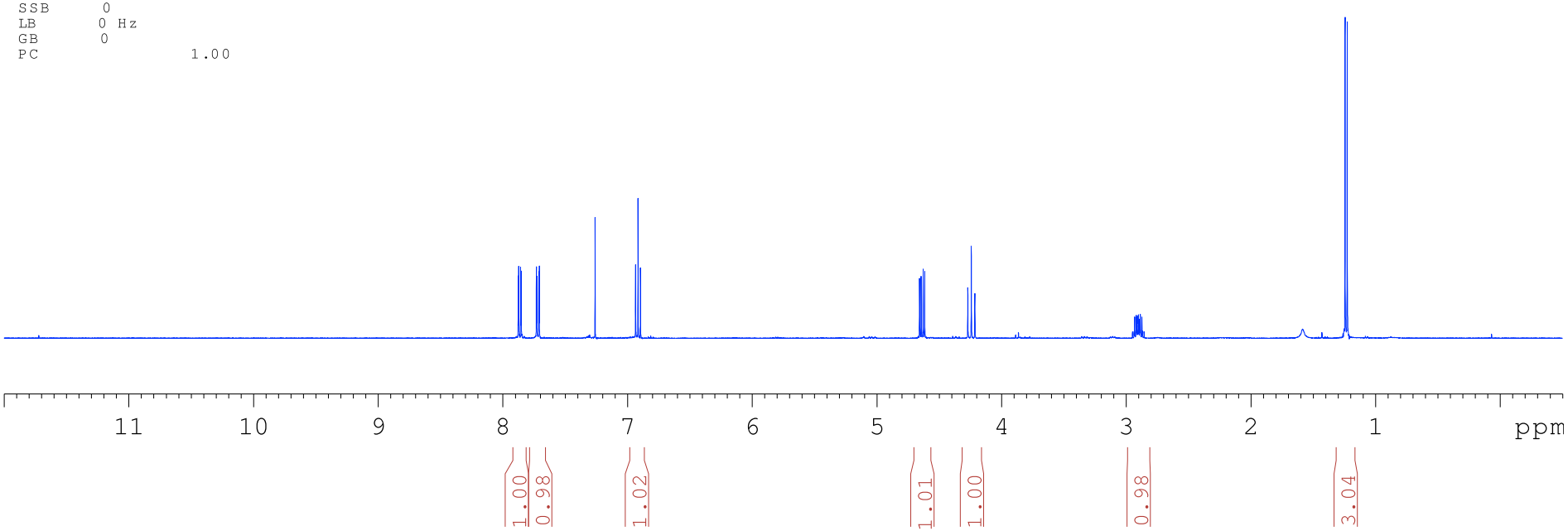


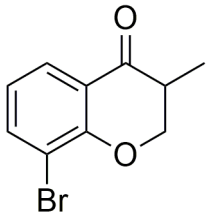


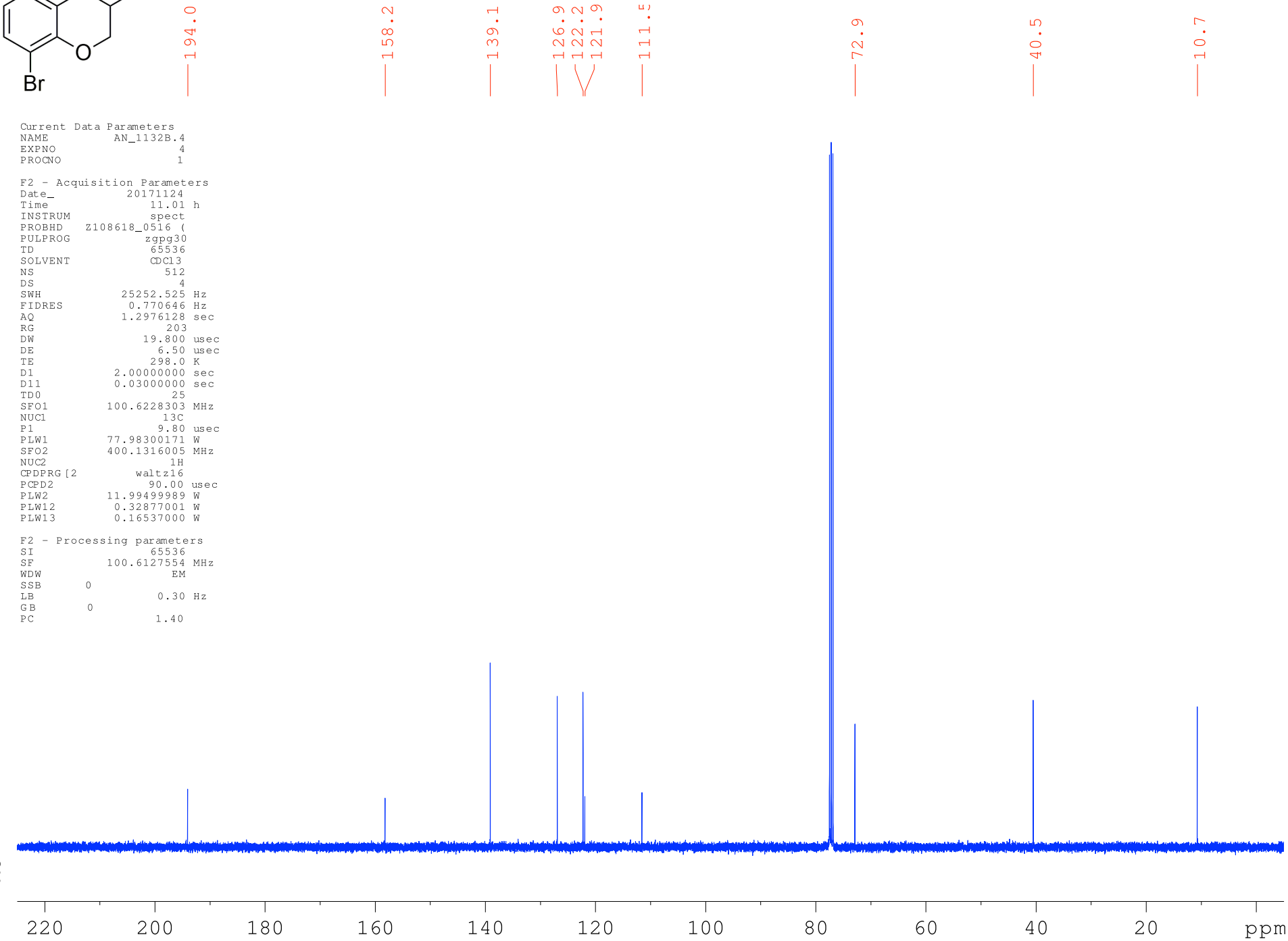

```
Current Data Parameters
NAME        AN_1132B.4
EXPNO                1
PROCNO               1

F2 - Acquisition Parameter
Date_         20171124
Time              8.32 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG              zg
TD               48076
SOLVENT          CDCl3
NS                   1
DS                   0
SWH           8000.000 Hz
FIDRES        0.332806 Hz
AQ          3.0047500 sec
RG                 203
DW              62.500 usec
DE              10.20 usec
TE              298.0 K
D1          5.00000000 sec
TD0                  1
SFO1        400.1324008 MH
NUC1                1H
P1              14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI                32768
SF          400.1300099 MH
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```



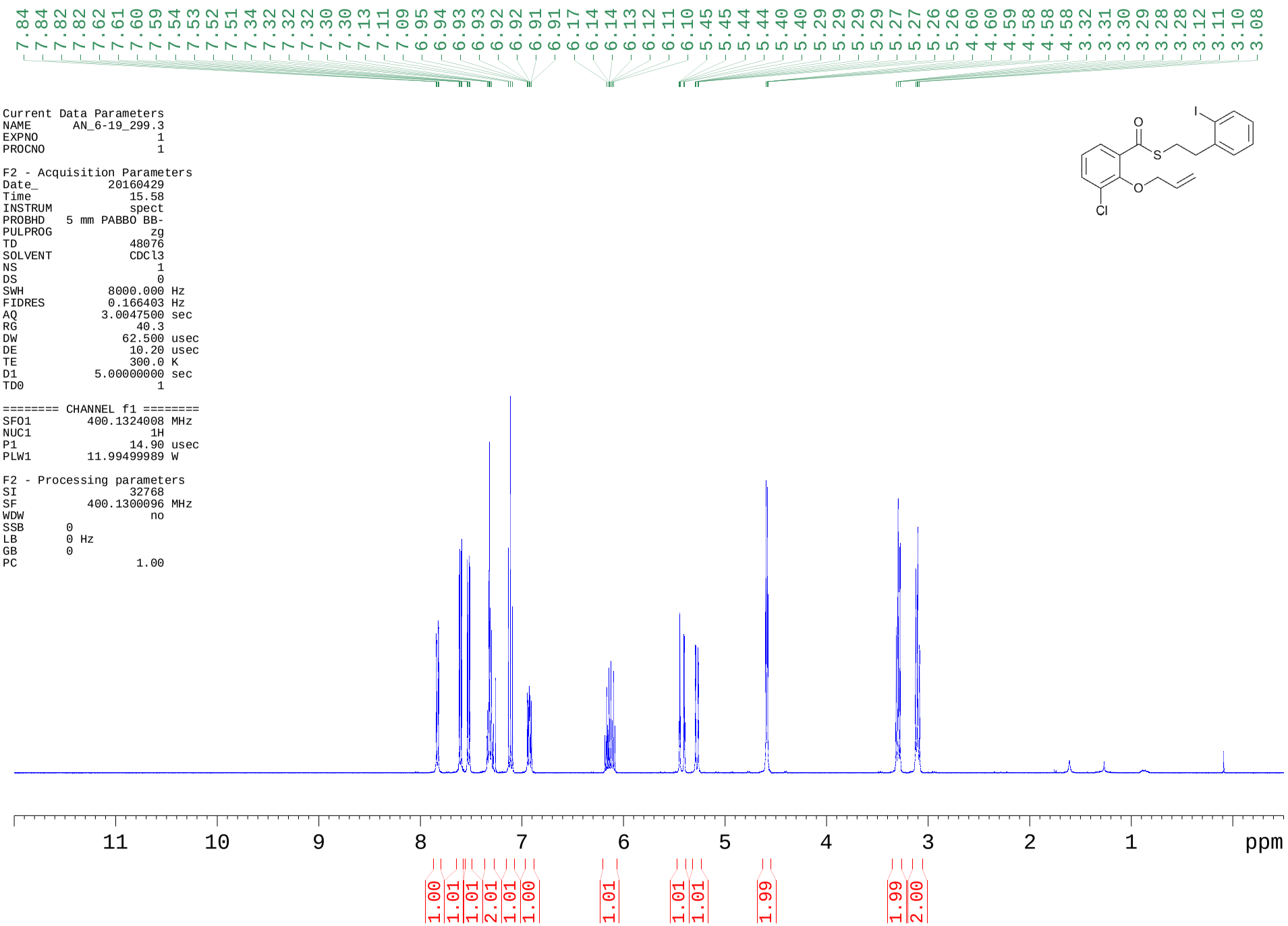





```
Current Data Parameters
NAME          AN_1132B.4
EXPNO                  4
PROCNO                 1

F2 - Acquisition Parameters
Date_            20171124
Time               11.01 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG           zgpg30
TD                65536
SOLVENT           CDCl3
NS                  512
DS                    4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                  203
DW                19.800 usec
DE                 6.50 usec
TE                298.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   25
SFO1         100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

F2 - Processing parameters
SI                65536
SF           100.6127554 MHz
WDW                  EM
SSB       0
LB                 0.30 Hz
GB        0
PC                 1.40
```


7.84 7.84 7.82 7.82 7.62 7.61 7.60 7.59 7.54 7.53 7.52 7.51 7.34 7.32 7.32 7.32 7.30 7.30 7.13 7.11 7.09 6.95 6.94 6.93 6.93 6.92 6.92 6.91 6.91 6.17 6.14 6.14 6.13 6.12 6.11 6.10 5.45 5.45 5.44 5.44 5.40 5.40 5.29 5.29 5.29 5.29 5.27 5.27 5.26 5.26 4.60 4.60 4.59 4.58 4.58 4.58 3.32 3.31 3.30 3.29 3.28 3.28 3.12 3.11 3.10 3.08
Current Data Parameters
NAME AN_6-19_299.3
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160429
Time 15.58
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.166403 Hz
AQ 3.0047500 sec
RG 40.3
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300096 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
I
O
S
O
Cl
11 10 9 8 7 6 5 4 3 2 1 ppm
1.00 1.01 1.01 2.01 1.01 1.00 1.01 1.01 1.01 1.99 1.99 2.00

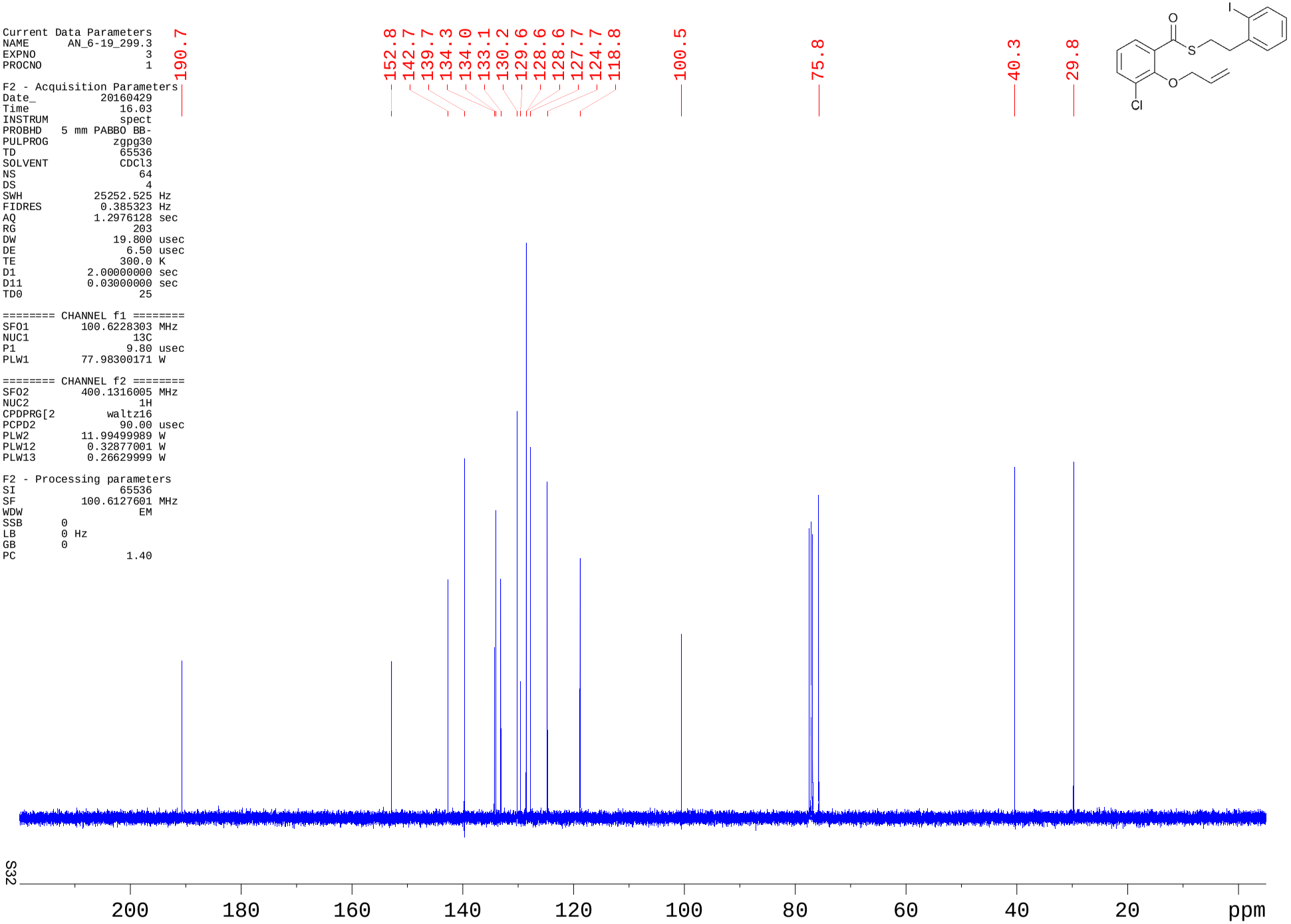
```
Current Data Parameters
NAME      AN_6-19_299.3
EXPNO                 3
PROCNO                1

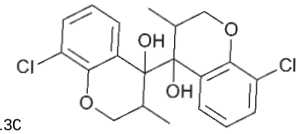
F2 - Acquisition Parameters
Date_          20160429
Time              16.03
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                   64
DS                    4
SWH           25252.525 Hz
FIDRES         0.385323 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE               300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25

======== CHANNEL f1 ========
SFO1        100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1        77.98300171 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.26629999 W

F2 - Processing parameters
SI                65536
SF          100.6127601 MHz
WDW                   EM
SSB      0
LB       0 Hz
GB       0
PC                 1.40
```

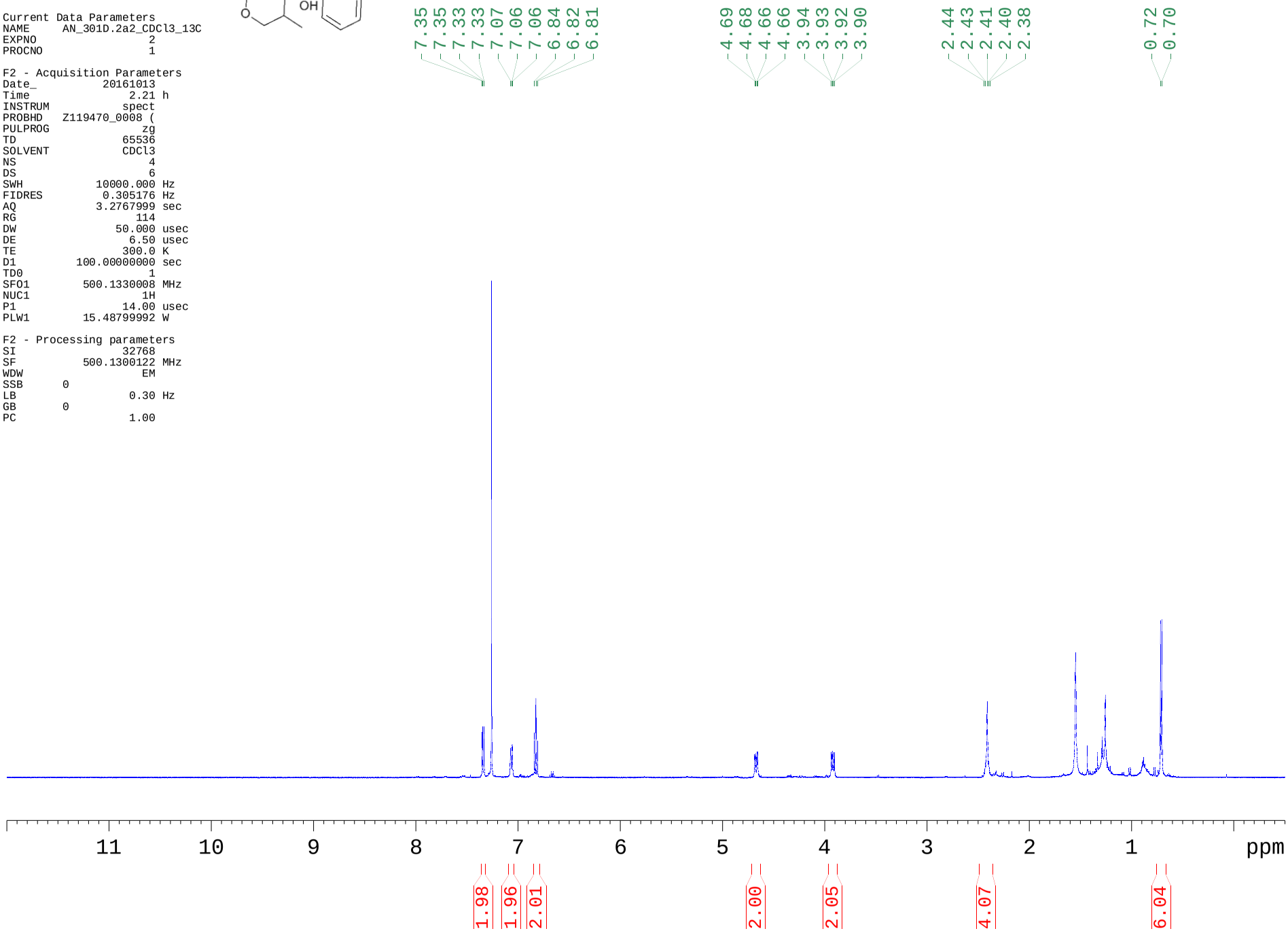


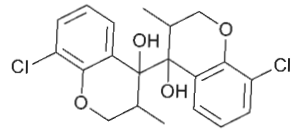



```
Current Data Parameters
NAME     AN_301D.2a2_CDCl3_13C
EXPNO                        2
PROCNO                       1

F2 - Acquisition Parameters
Date_              20161013
Time                   2.21 h
INSTRUM               spect
PROBHD   Z119470_0008 (
PULPROG                 zg
TD                    65536
SOLVENT               CDCl3
NS                        4
DS                        6
SWH               10000.000 Hz
FIDRES             0.305176 Hz
AQ                3.2767999 sec
RG                      114
DW                   50.000 usec
DE                     6.50 usec
TE                    300.0 K
D1            100.00000000 sec
TD0                       1
SFO1            500.1330008 MHz
NUC1                     1H
P1                    14.00 usec
PLW1           15.48799992 W

F2 - Processing parameters
SI                    32768
SF              500.1300122 MHz
WDW                      EM
SSB       0
LB                     0.30 Hz
GB        0
PC                     1.00
```

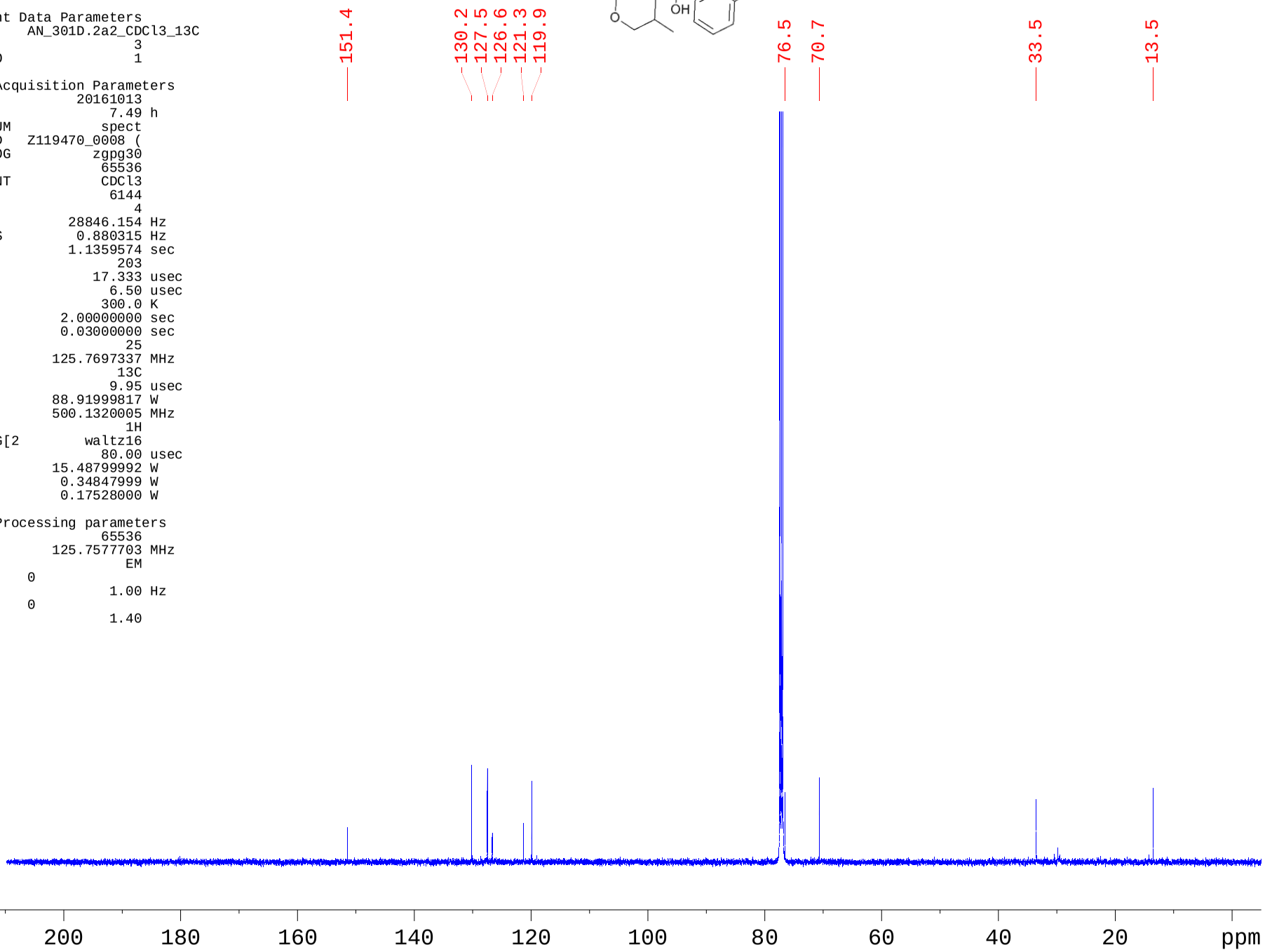


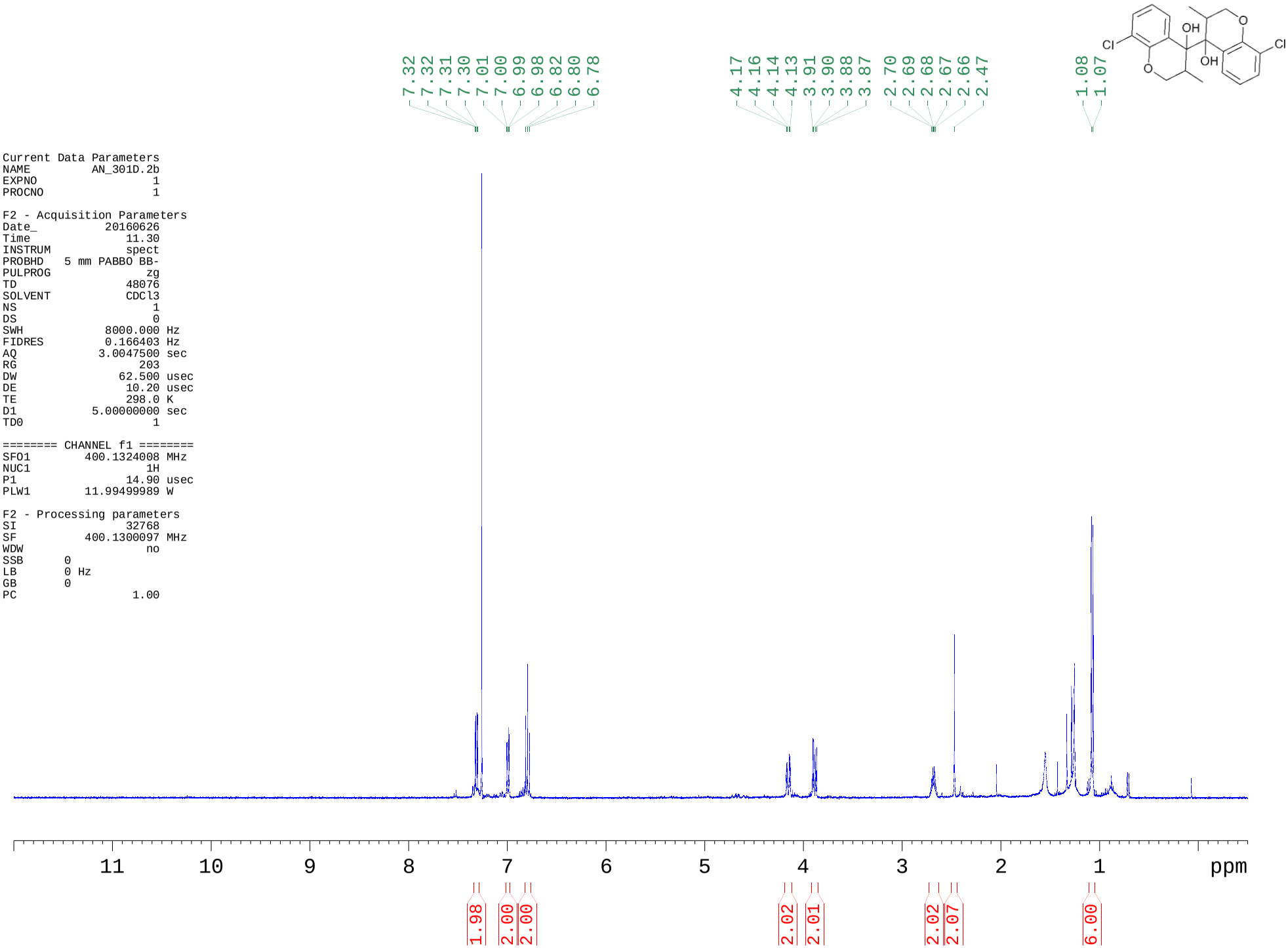



```
Current Data Parameters
NAME      AN_301D.2a2_CDCl3_13C
EXPNO                         3
PROCNO                        1

F2 - Acquisition Parameters
Date_            20161013
Time                 7.49 h
INSTRUM             spect
PROBHD   Z119470_0008 (
PULPROG            zgpg30
TD                  65536
SOLVENT             CDCl3
NS                   6144
DS                      4
SWH             28846.154 Hz
FIDRES           0.880315 Hz
AQ              1.1359574 sec
RG                    203
DW                 17.333 usec
DE                   6.50 usec
TE                  300.0 K
D1             2.00000000 sec
D11            0.03000000 sec
TD0                    25
SFO1          125.7697337 MHz
NUC1                  13C
P1                   9.95 usec
PLW1          88.91999817 W
SFO2          500.1320005 MHz
NUC2                   1H
CPDPRG[2          waltz16
PCPD2                80.00 usec
PLW2          15.48799992 W
PLW12          0.34847999 W
PLW13          0.17528000 W

F2 - Processing parameters
SI                   65536
SF            125.7577703 MHz
WDW                     EM
SSB       0
LB                    1.00 Hz
GB        0
PC                    1.40
```






```
Current Data Parameters
NAME         AN_301D.2b
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20160626
Time               11.30
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG               zg
TD                 48076
SOLVENT            CDCl3
NS                     1
DS                     0
SWH             8000.000 Hz
FIDRES          0.166403 Hz
AQ             3.0047500 sec
RG                   203
DW                62.500 usec
DE                 10.20 usec
TE                 298.0 K
D1            5.00000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1         400.1324008 MHz
NUC1                  1H
P1                 14.90 usec
PLW1         11.99499989 W

F2 - Processing parameters
SI                 32768
SF           400.1300097 MHz
WDW                   no
SSB       0
LB        0 Hz
GB        0
PC                 1.00
```

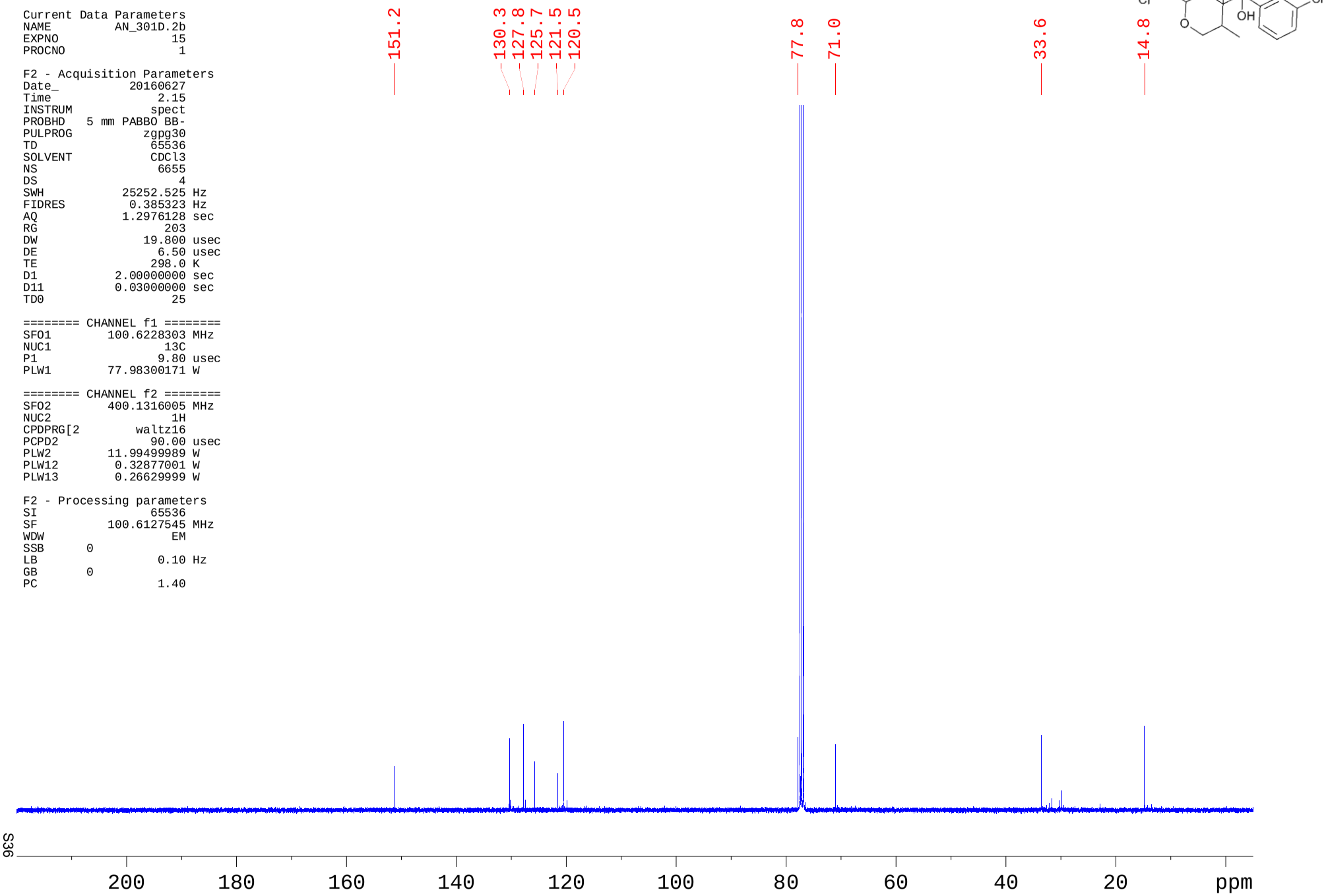
```
Current Data Parameters
NAME          AN_301D.2b
EXPNO                 15
PROCNO                 1

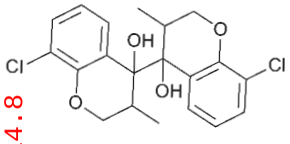
F2 - Acquisition Parameters
Date_           20160627
Time                2.15
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG           zgpg30
TD                65536
SOLVENT           CDCl3
NS                 6655
DS                    4
SWH            25252.525 Hz
FIDRES          0.385323 Hz
AQ             1.2976128 sec
RG                  203
DW                19.800 usec
DE                 6.50 usec
TE                298.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                  25

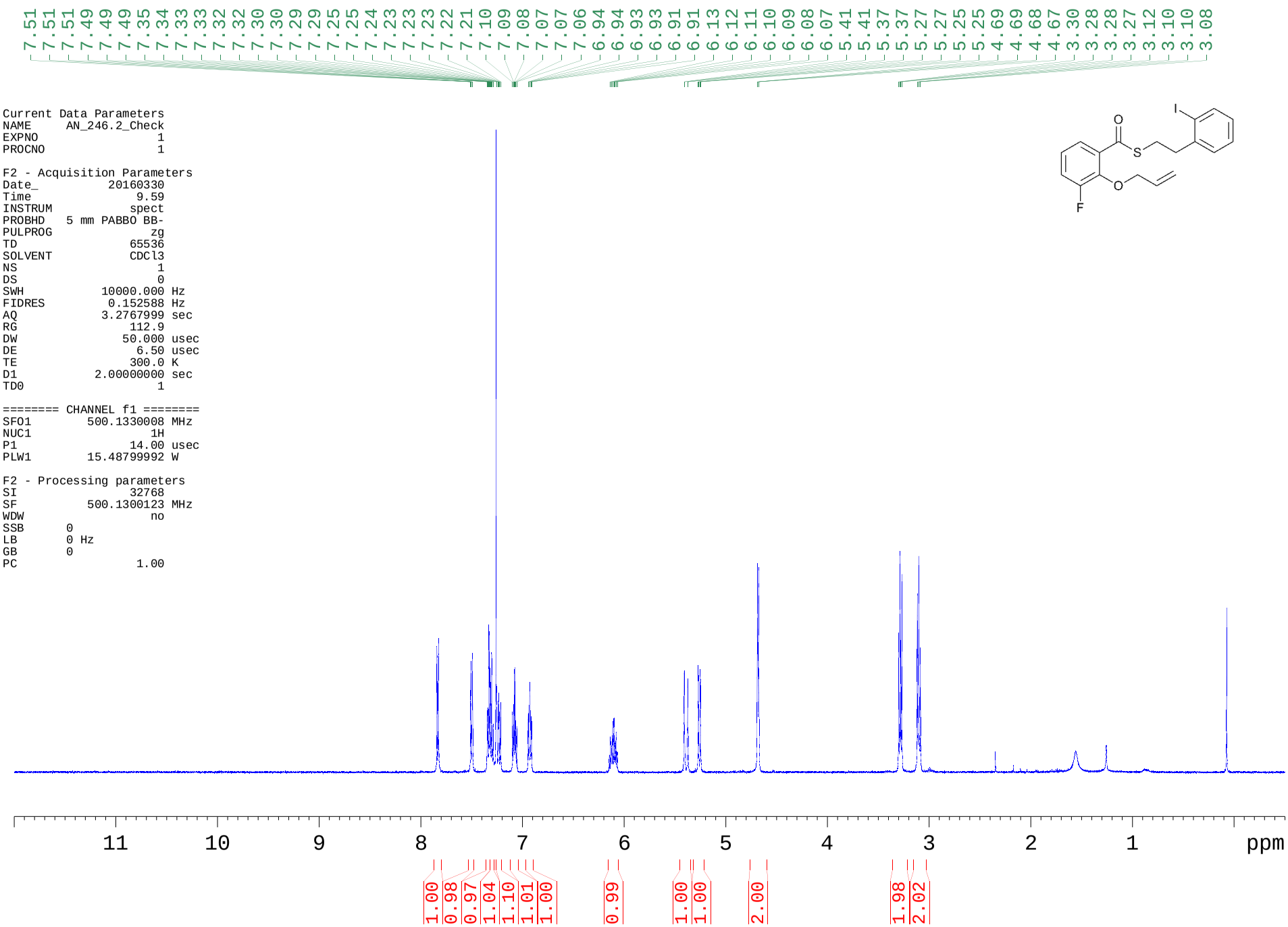
======== CHANNEL f1 ========
SFO1         100.6228303 MHz
NUC1                  13C
P1                  9.80 usec
PLW1         77.98300171 W

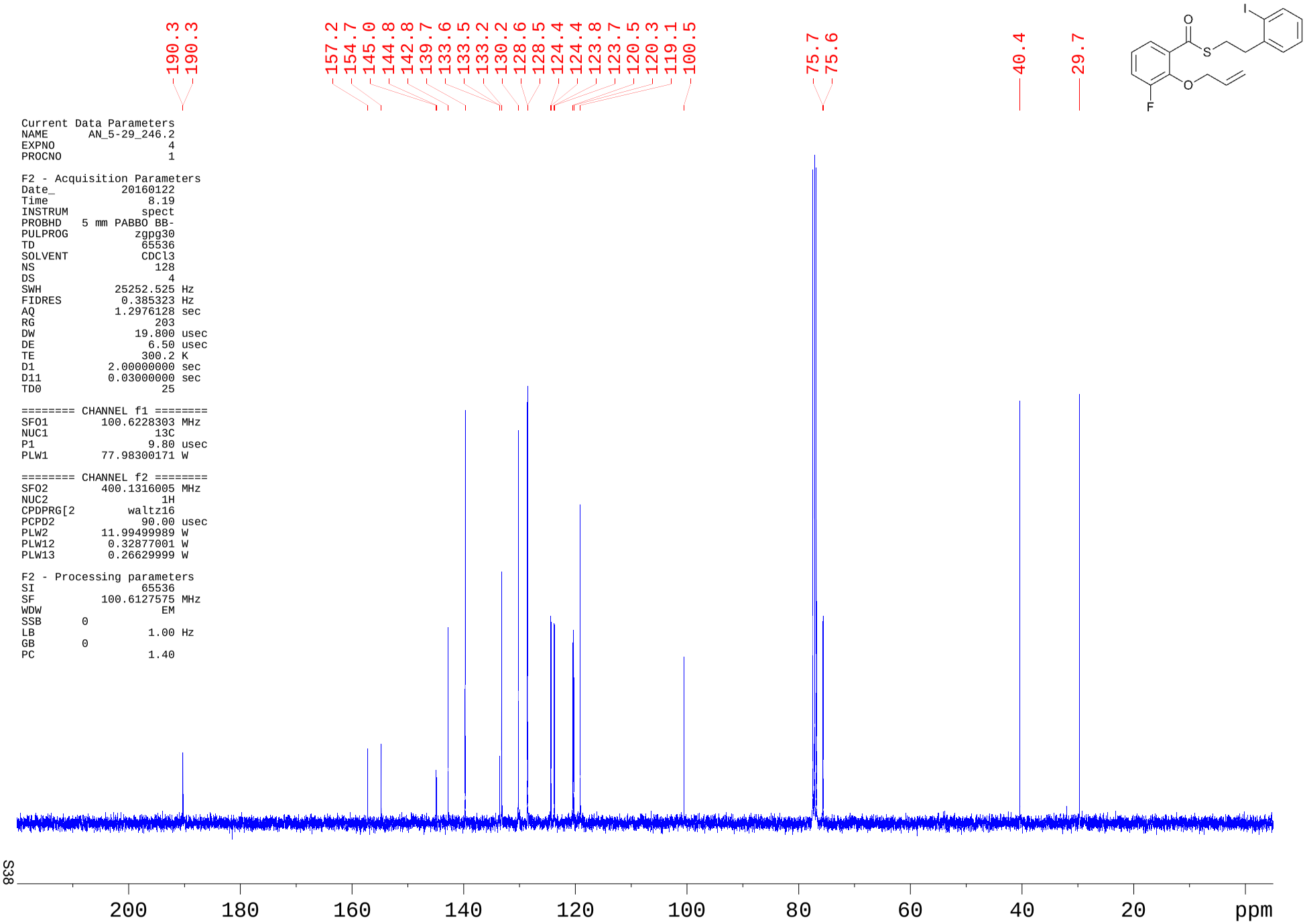
======== CHANNEL f2 ========
SFO2         400.1316005 MHz
NUC2                   1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.26629999 W

F2 - Processing parameters
SI                 65536
SF           100.6127545 MHz
WDW                   EM
SSB      0
LB                  0.10 Hz
GB       0
PC                  1.40
```






7.51 7.51 7.51 7.49 7.49 7.49 7.35 7.34 7.33 7.33 7.32 7.32 7.30 7.30 7.29 7.29 7.25 7.25 7.24 7.23 7.23 7.23 7.22 7.21 7.10 7.09 7.08 7.07 7.07 7.06 6.94 6.94 6.93 6.93 6.91 6.91 6.13 6.12 6.11 6.10 6.09 6.08 6.07 5.41 5.41 5.37 5.37 5.27 5.27 5.25 5.25 4.69 4.69 4.68 4.67 3.30 3.28 3.28 3.27 3.12 3.10 3.10 3.08
Current Data Parameters
NAME AN_246.2_Check
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160330
Time 9.59
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 65536
SOLVENT CDCl3
NS 1
DS 0
SWH 10000.000 Hz
FIDRES 0.152588 Hz
AQ 3.2767999 sec
RG 112.9
DW 50.000 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 500.1330008 MHz
NUC1 1H
P1 14.00 usec
PLW1 15.48799992 W
F2 - Processing parameters
SI 32768
SF 500.1300123 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
O
I
S
O
F
11 10 9 8 7 6 5 4 3 2 1 ppm
1.00 0.98 0.97 1.04 1.10 1.01 1.00 0.99 1.00 1.00 2.00 1.98 2.02


190.3
190.3
157.2
154.7
145.0
144.8
142.8
139.7
133.6
133.5
133.2
130.2
128.6
128.5
124.4
124.4
123.8
123.7
120.5
120.3
119.1
100.5
75.7
75.6
40.4
29.7
O
S
I
O
F
Current Data Parameters
NAME AN_5-29_246.2
EXPNO 4
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160122
Time 8.19
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 128
DS 4
SWH 25252.525 Hz
FIDRES 0.385323 Hz
AQ 1.2976128 sec
RG 203
DW 19.800 usec
DE 6.50 usec
TE 300.2 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 25
======== CHANNEL f1 ========
SFO1 100.6228303 MHz
NUC1 13C
P1 9.80 usec
PLW1 77.98300171 W
======== CHANNEL f2 ========
SFO2 400.1316005 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 11.99499989 W
PLW12 0.32877001 W
PLW13 0.26629999 W
F2 - Processing parameters
SI 65536
SF 100.6127575 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
200
180
160
140
120
100
80
60
40
20
ppm

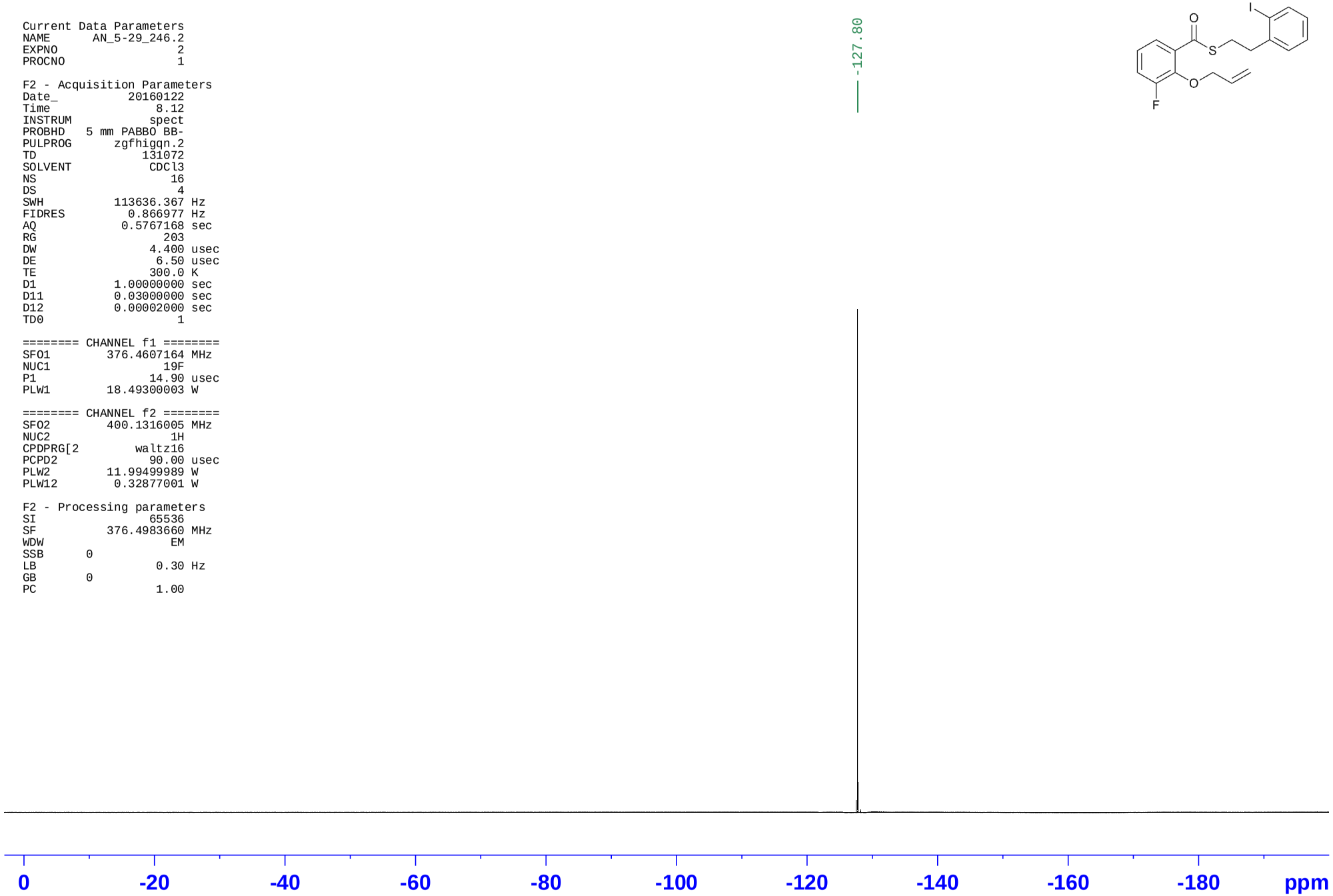
```
Current Data Parameters
NAME      AN_5-29_246.2
EXPNO                 2
PROCNO                1

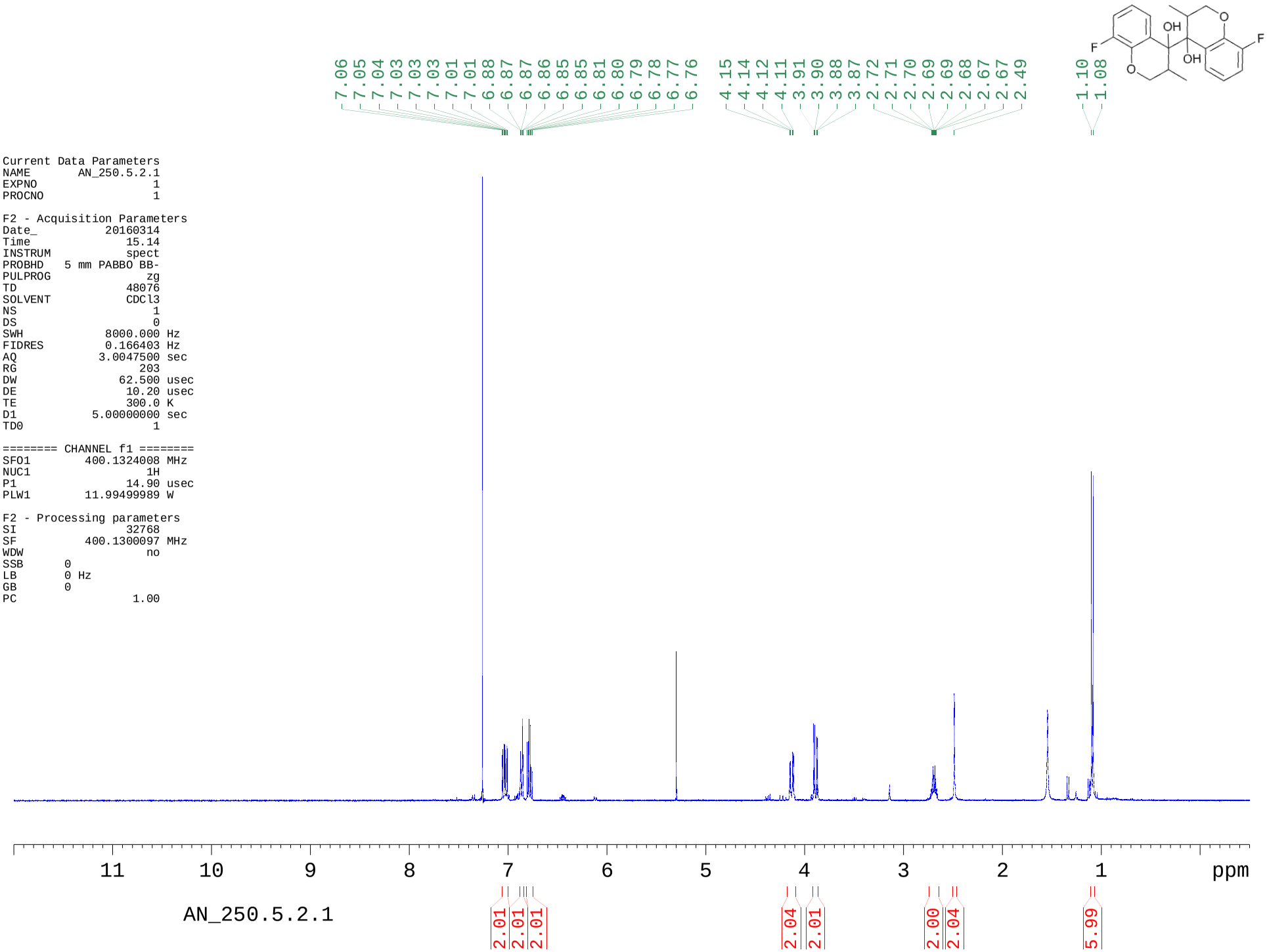
F2 - Acquisition Parameters
Date_           20160122
Time               8.12
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG      zgfhigqn.2
TD               131072
SOLVENT           CDCl3
NS                    16
DS                     4
SWH          113636.367 Hz
FIDRES         0.866977 Hz
AQ            0.5767168 sec
RG                  203
DW                4.400 usec
DE                 6.50 usec
TE                300.0 K
D1           1.00000000 sec
D11          0.03000000 sec
D12          0.00002000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        376.4607164 MHz
NUC1                 19F
P1                14.90 usec
PLW1        18.49300003 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W

F2 - Processing parameters
SI                65536
SF          376.4983660 MHz
WDW                   EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.00
```




7.06 7.05 7.04 7.03 7.03 7.03 7.01 7.01 6.88 6.87 6.87 6.86 6.85 6.85 6.81 6.80 6.79 6.78 6.77 6.76
4.15 4.14 4.12 4.11 3.91 3.90 3.88 3.87 2.72 2.71 2.70 2.69 2.69 2.68 2.67 2.67 2.49
1.10 1.08
OH
OH
F
F
O
O
Current Data Parameters
NAME AN_250.5.2.1
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160314
Time 15.14
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.166403 Hz
AQ 3.0047500 sec
RG 203
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300097 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
11 10 9 8 7 6 5 4 3 2 1 ppm
AN_250.5.2.1
2.01 2.01 2.01
2.04 2.01
2.00 2.04
5.99

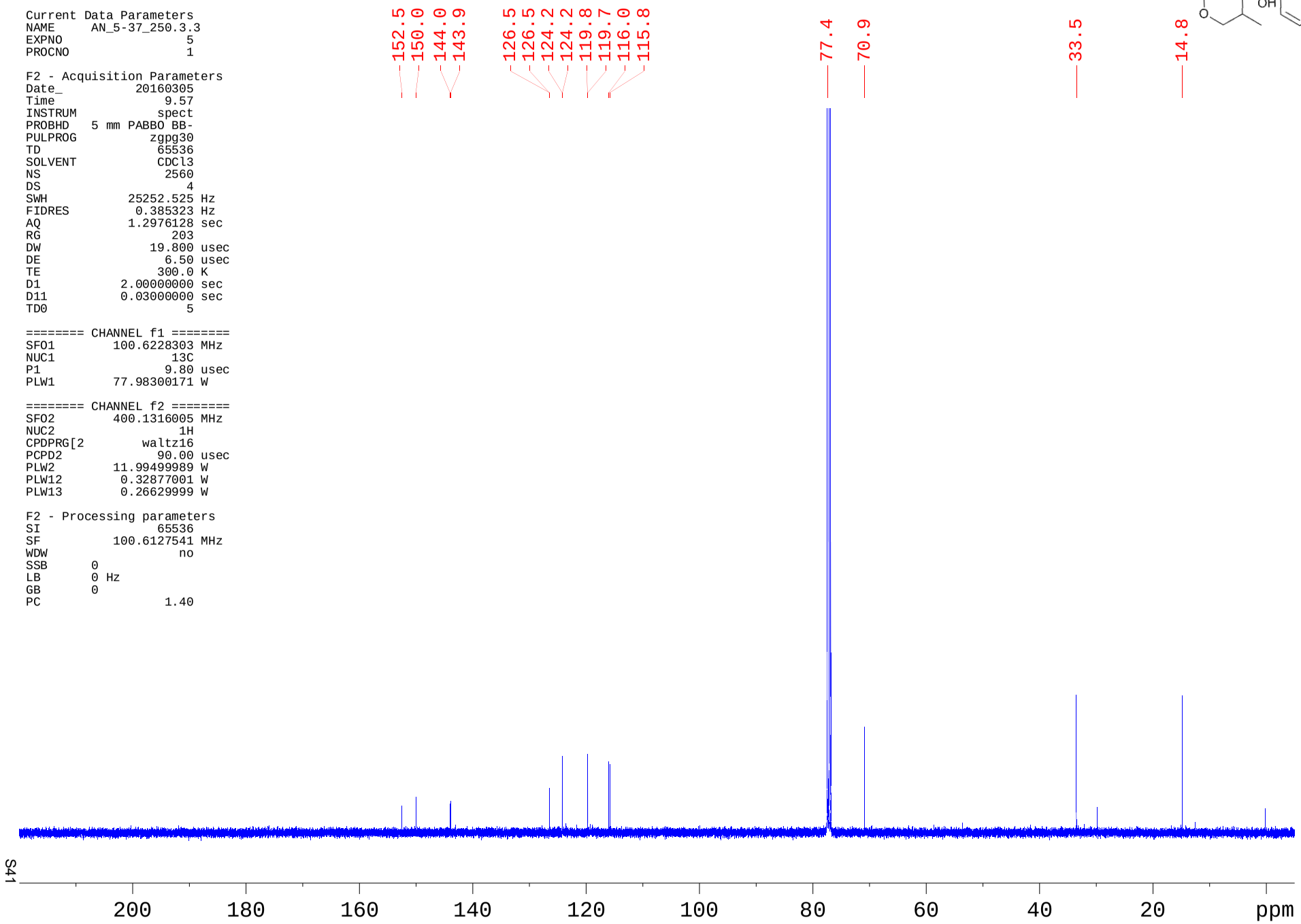
```
Current Data Parameters
NAME     AN_5-37_250.3.3
EXPNO                  5
PROCNO                 1

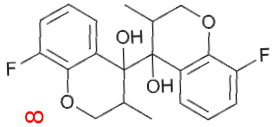
F2 - Acquisition Parameters
Date_          20160305
Time               9.57
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                 2560
DS                    4
SWH           25252.525 Hz
FIDRES         0.385323 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE               300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   5

======== CHANNEL f1 ========
SFO1        100.6228303 MHz
NUC1                 13C
P1                 9.80 usec
PLW1        77.98300171 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.26629999 W

F2 - Processing parameters
SI                65536
SF          100.6127541 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.40
```





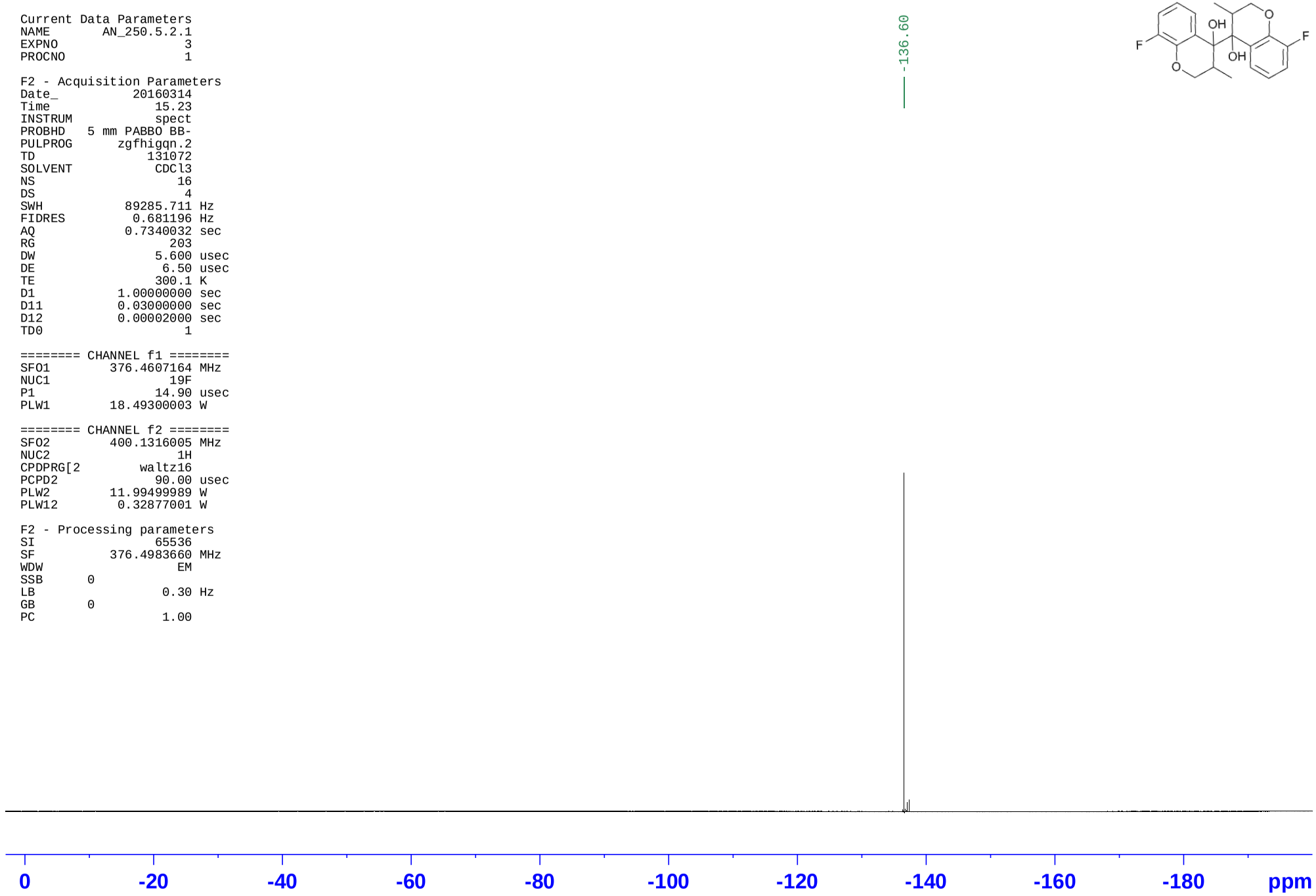
```
Current Data Parameters
NAME       AN_250.5.2.1
EXPNO                  3
PROCNO                 1

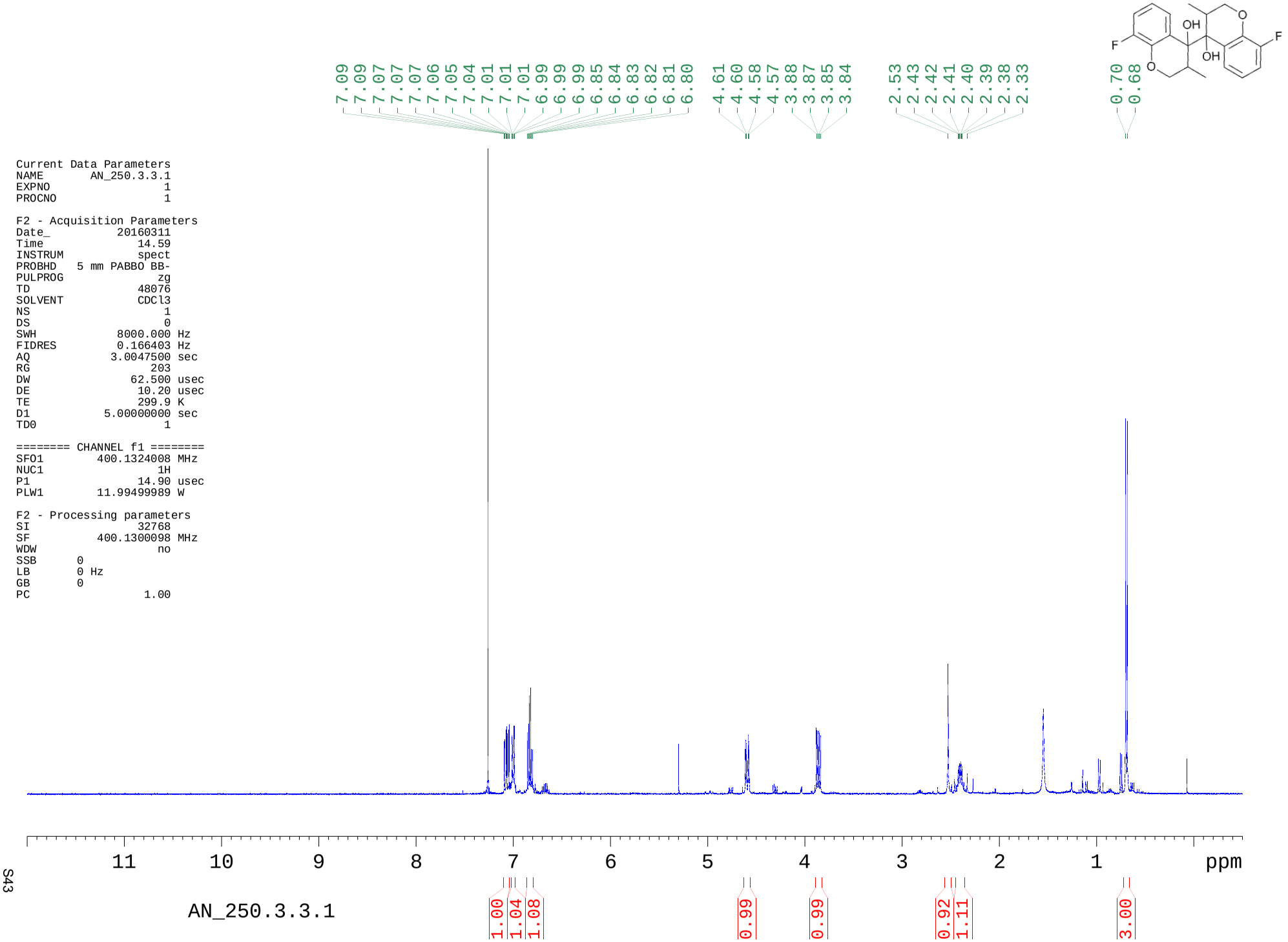
F2 - Acquisition Parameters
Date_           20160314
Time               15.23
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG      zgfhigqn.2
TD               131072
SOLVENT           CDCl3
NS                    16
DS                     4
SWH           89285.711 Hz
FIDRES         0.681196 Hz
AQ            0.7340032 sec
RG                  203
DW                5.600 usec
DE                 6.50 usec
TE                300.1 K
D1           1.00000000 sec
D11          0.03000000 sec
D12          0.00002000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1        376.4607164 MHz
NUC1                19F
P1                14.90 usec
PLW1        18.49300003 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                 1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W

F2 - Processing parameters
SI                65536
SF          376.4983660 MHz
WDW                   EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.00
```




7.09 7.09 7.07 7.07 7.07 7.06 7.05 7.04 7.01 7.01 7.01 6.99 6.99 6.99 6.85 6.84 6.83 6.82 6.81 6.80
4.61 4.60 4.58 4.57
3.88 3.87 3.85 3.84
2.53 2.43 2.42 2.41 2.40 2.39 2.38 2.33
0.70 0.68
F
OH
OH
O
O
F
Current Data Parameters
NAME AN_250.3.3.1
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160311
Time 14.59
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.166403 Hz
AQ 3.0047500 sec
RG 203
DW 62.500 usec
DE 10.20 usec
TE 299.9 K
D1 5.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300098 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
11 10 9 8 7 6 5 4 3 2 1 ppm
AN_250.3.3.1
1.00 1.04 1.08
0.99
0.99
0.92 1.11
3.00

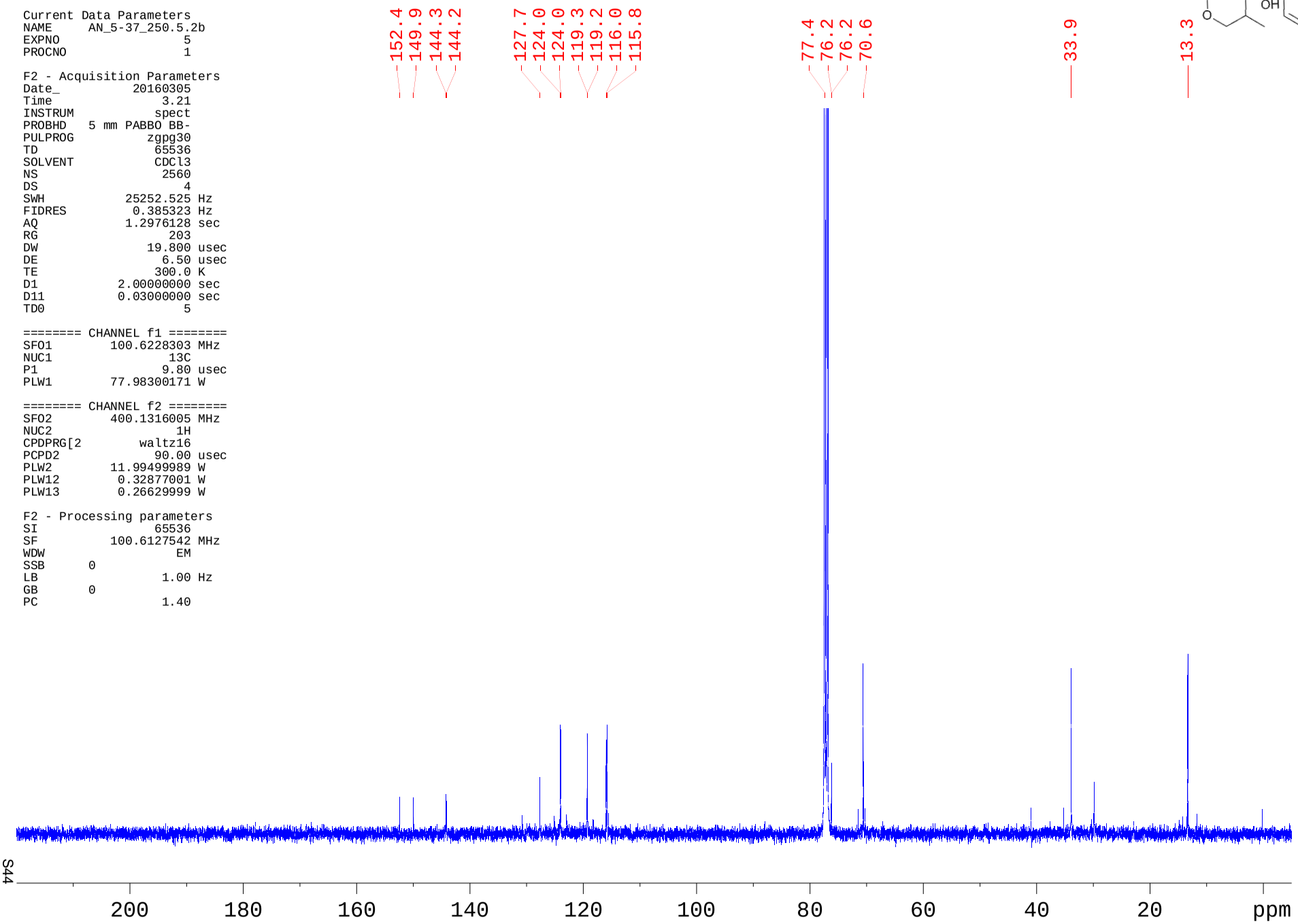
```
Current Data Parameters
NAME     AN_5-37_250.5.2b
EXPNO                   5
PROCNO                  1

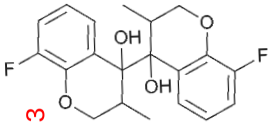
F2 - Acquisition Parameters
Date_           20160305
Time                3.21
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                  2560
DS                     4
SWH            25252.525 Hz
FIDRES          0.385323 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                 6.50 usec
TE                300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                    5

======== CHANNEL f1 ========
SFO1         100.6228303 MHz
NUC1                  13C
P1                  9.80 usec
PLW1         77.98300171 W

======== CHANNEL f2 ========
SFO2         400.1316005 MHz
NUC2                   1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.26629999 W

F2 - Processing parameters
SI                 65536
SF           100.6127542 MHz
WDW                    EM
SSB      0
LB                  1.00 Hz
GB       0
PC                  1.40
```





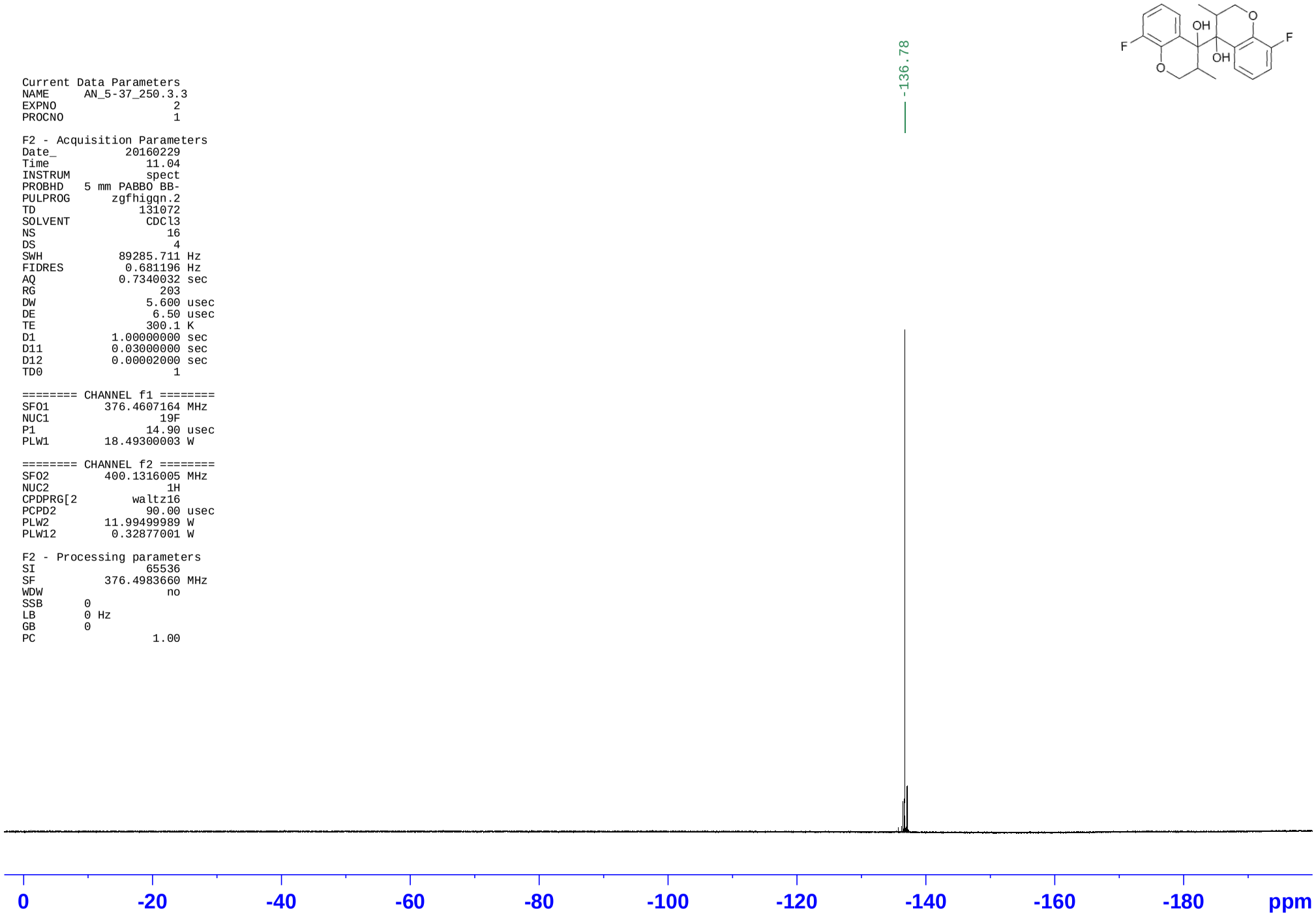
```
Current Data Parameters
NAME     AN_5-37_250.3.3
EXPNO                  2
PROCNO                 1

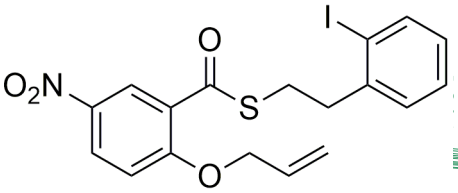
F2 - Acquisition Parameters
Date_           20160229
Time              11.04
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG      zgfhigqn.2
TD               131072
SOLVENT           CDCl3
NS                    16
DS                     4
SWH           89285.711 Hz
FIDRES         0.681196 Hz
AQ            0.7340032 sec
RG                  203
DW                5.600 usec
DE                 6.50 usec
TE                300.1 K
D1           1.00000000 sec
D11          0.03000000 sec
D12          0.00002000 sec
TD0                    1

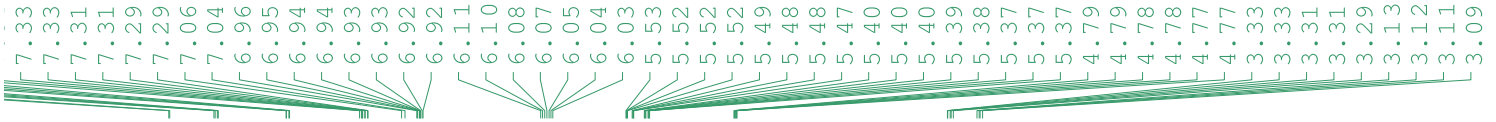
======== CHANNEL f1 ========
SFO1        376.4607164 MHz
NUC1                 19F
P1                14.90 usec
PLW1        18.49300003 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W

F2 - Processing parameters
SI                65536
SF          376.4983660 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                 1.00
```



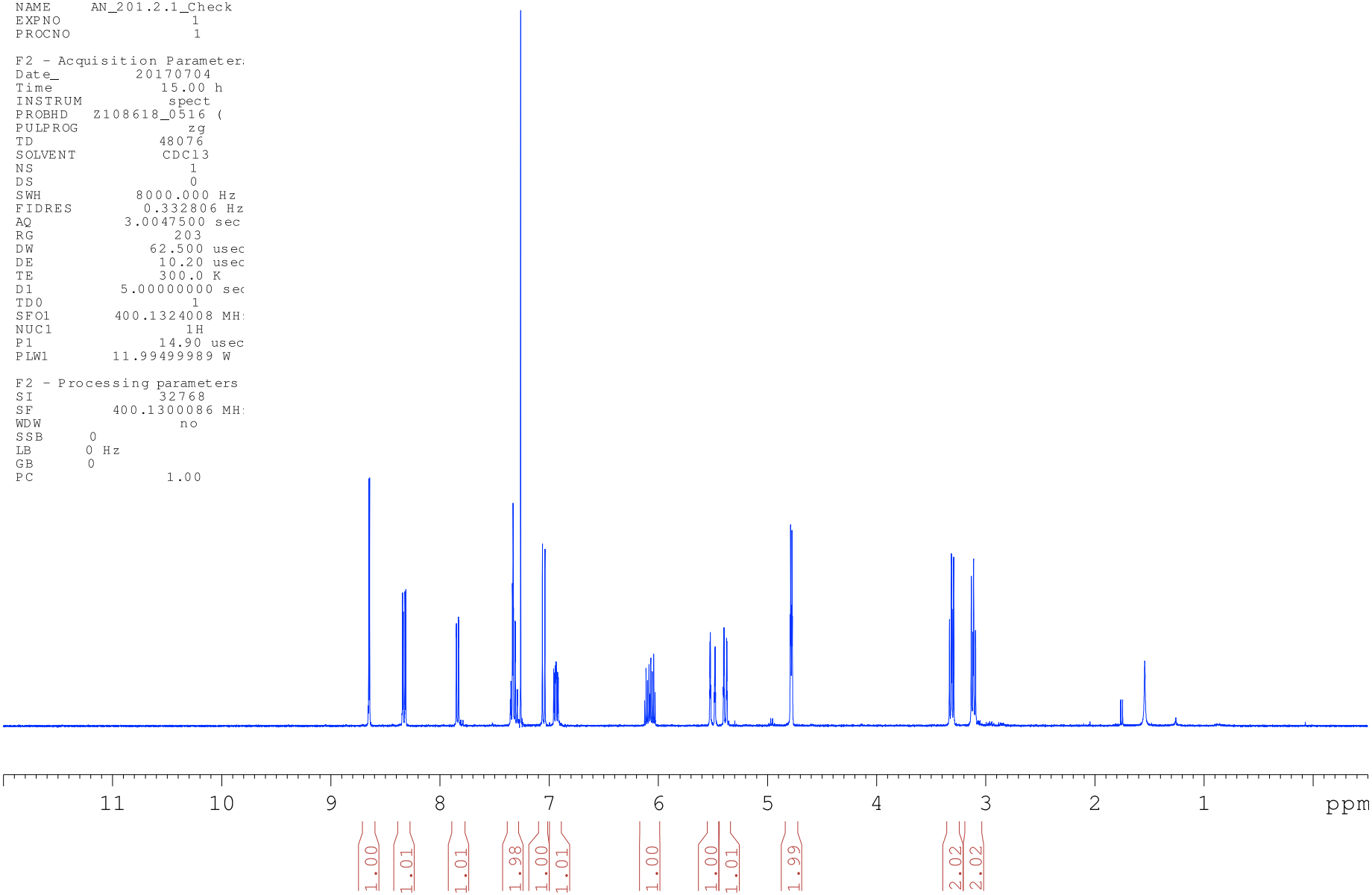


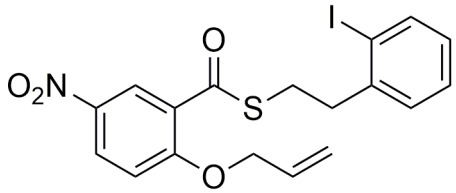


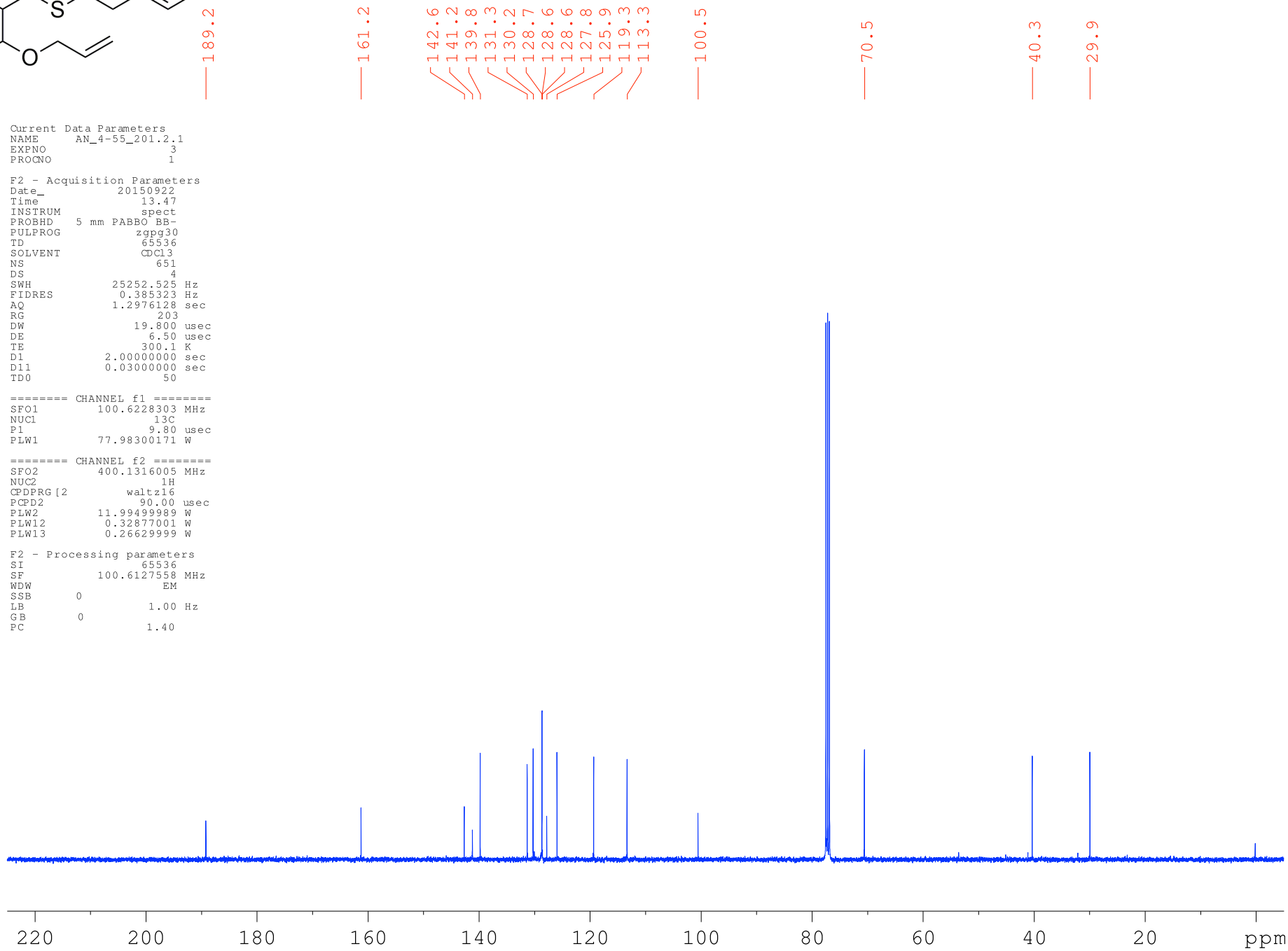

```
Current Data Parameters
NAME     AN_201.2.1_Check
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameter
Date_          20170704
Time             15.00 h
INSTRUM          spect
PROBHD   Z108618_0516 (
PULPROG             zg
TD               48076
SOLVENT          CDCl3
NS                   1
DS                   0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ           3.0047500 sec
RG                 203
DW              62.500 usec
DE              10.20 usec
TE              300.0 K
D1           5.00000000 sec
TD0                  1
SFO1        400.1324008 MH
NUC1                1H
P1               14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI               32768
SF          400.1300086 MH
WDW                 no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```







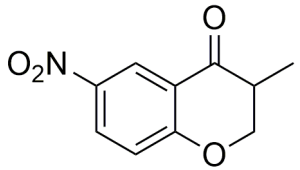

```
Current Data Parameters
NAME      AN_4-55_201.2.1
EXPNO                   3
PROCNO                  1

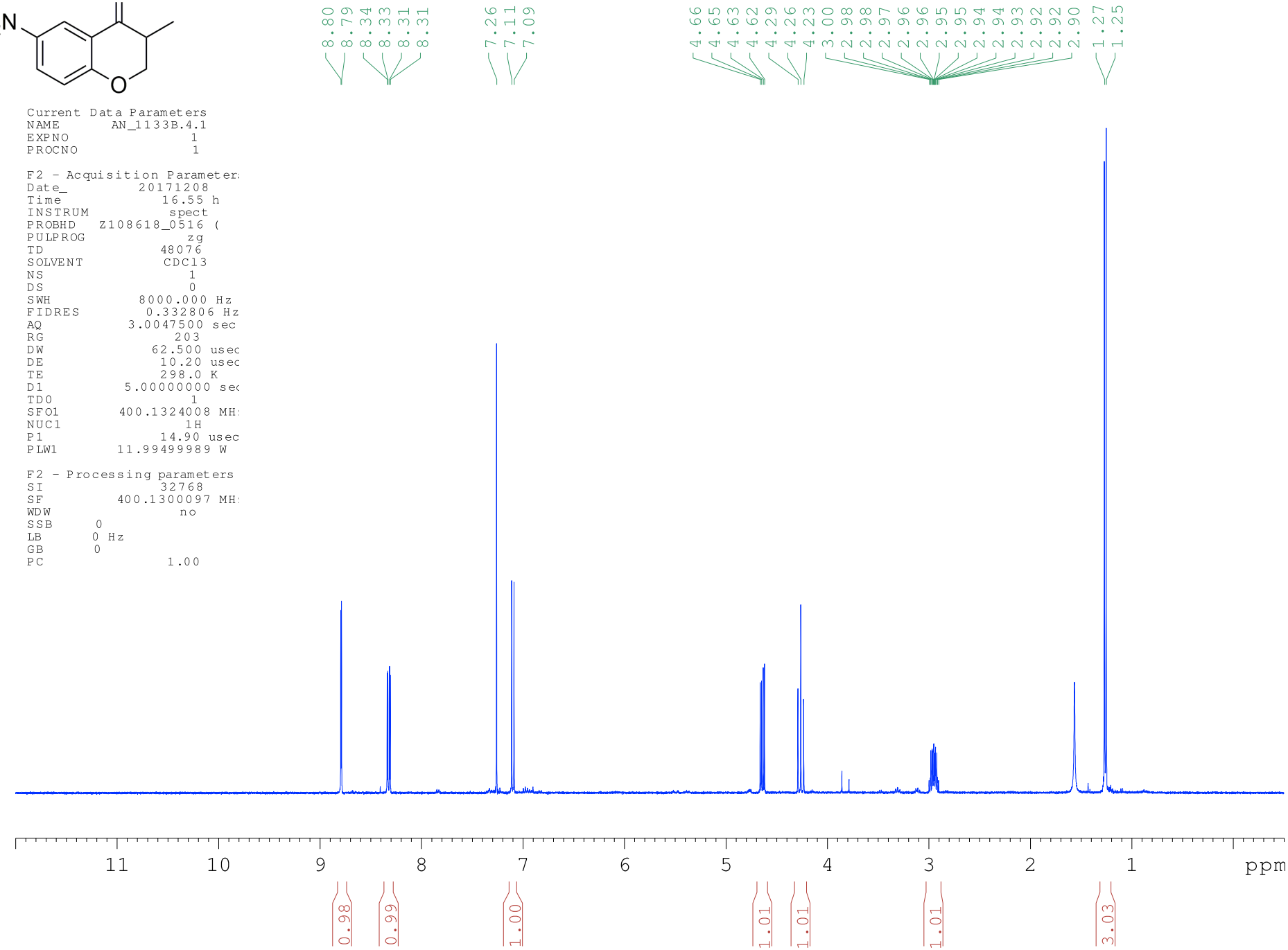
F2 - Acquisition Parameters
Date_           20150922
Time               13.47
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                  651
DS                    4
SWH           25252.525 Hz
FIDRES         0.385323 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE               300.1 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  50

======== CHANNEL f1 ========
SFO1        100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1        77.98300171 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.26629999 W

F2 - Processing parameters
SI                65536
SF          100.6127558 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```

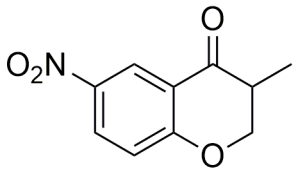


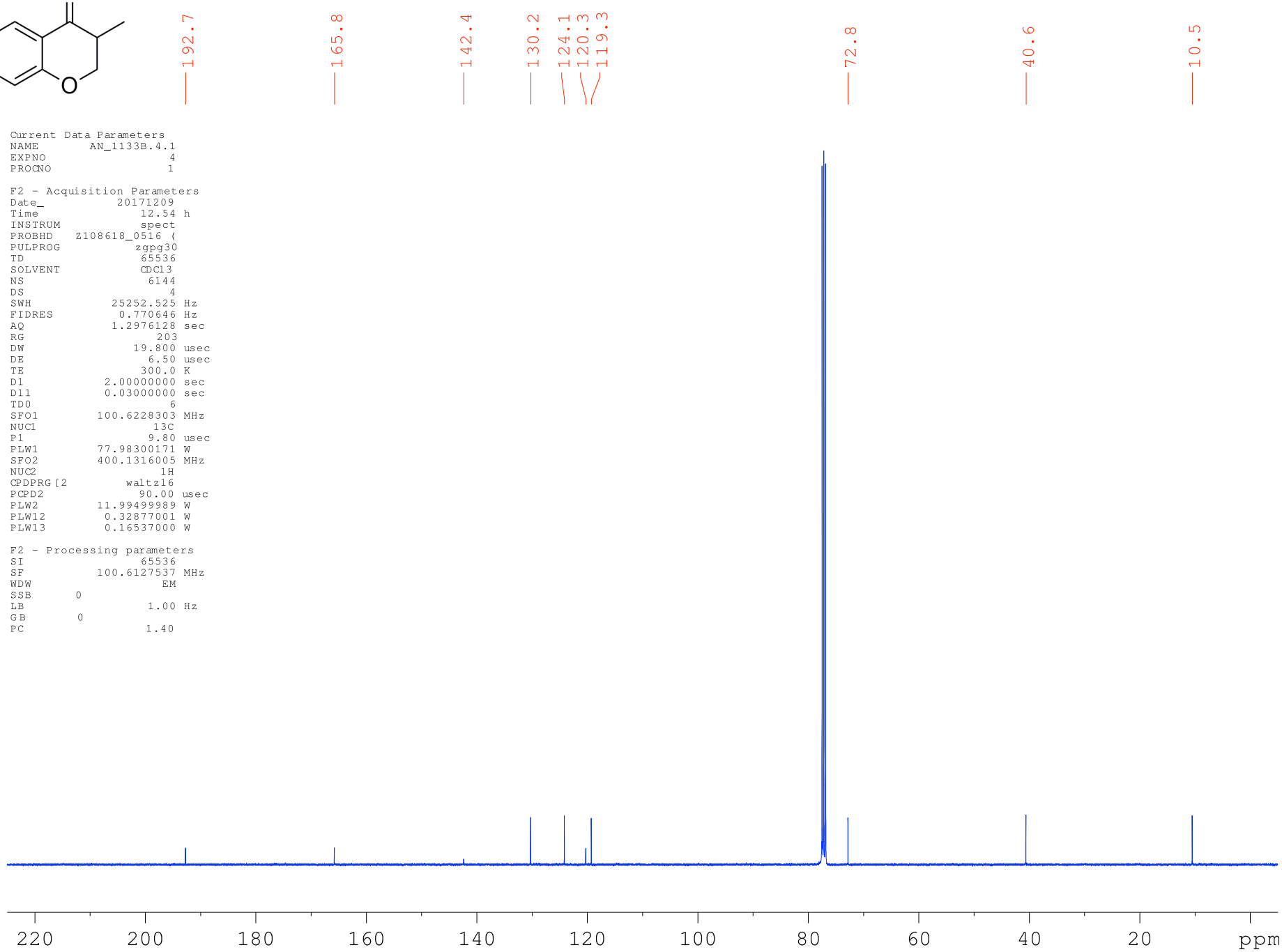



```
Current Data Parameters
NAME        AN_1133B.4.1
EXPNO                  1
PROCNO                 1

F2 - Acquisition Parameter
Date_           20171208
Time              16.55 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG              zg
TD                48076
SOLVENT           CDCl3
NS                    1
DS                    0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ            3.0047500 sec
RG                  203
DW               62.500 usec
DE                10.20 usec
TE                298.0 K
D1           5.00000000 sec
TD0                   1
SFO1         400.1324008 MH
NUC1                 1H
P1                14.90 usec
PLW1         11.99499989 W

F2 - Processing parameters
SI                32768
SF           400.1300097 MH
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```

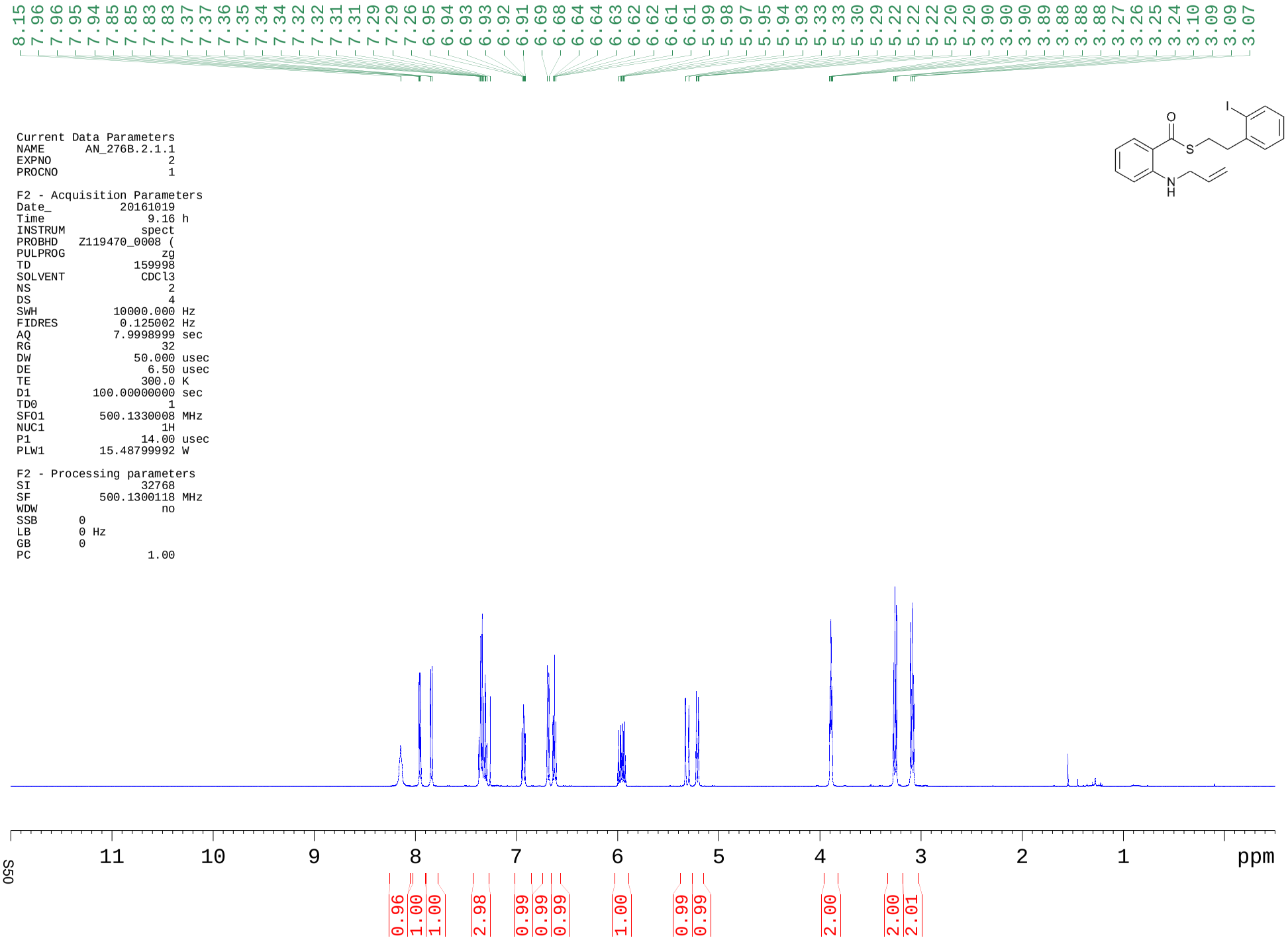





```
Current Data Parameters
NAME        AN_1133B.4.1
EXPNO                   4
PROCNO                  1

F2 - Acquisition Parameters
Date_           20171209
Time               12.54 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                  6144
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                 6.50 usec
TE                300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                    6
SFO1         100.6228303 MHz
NUC1                13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

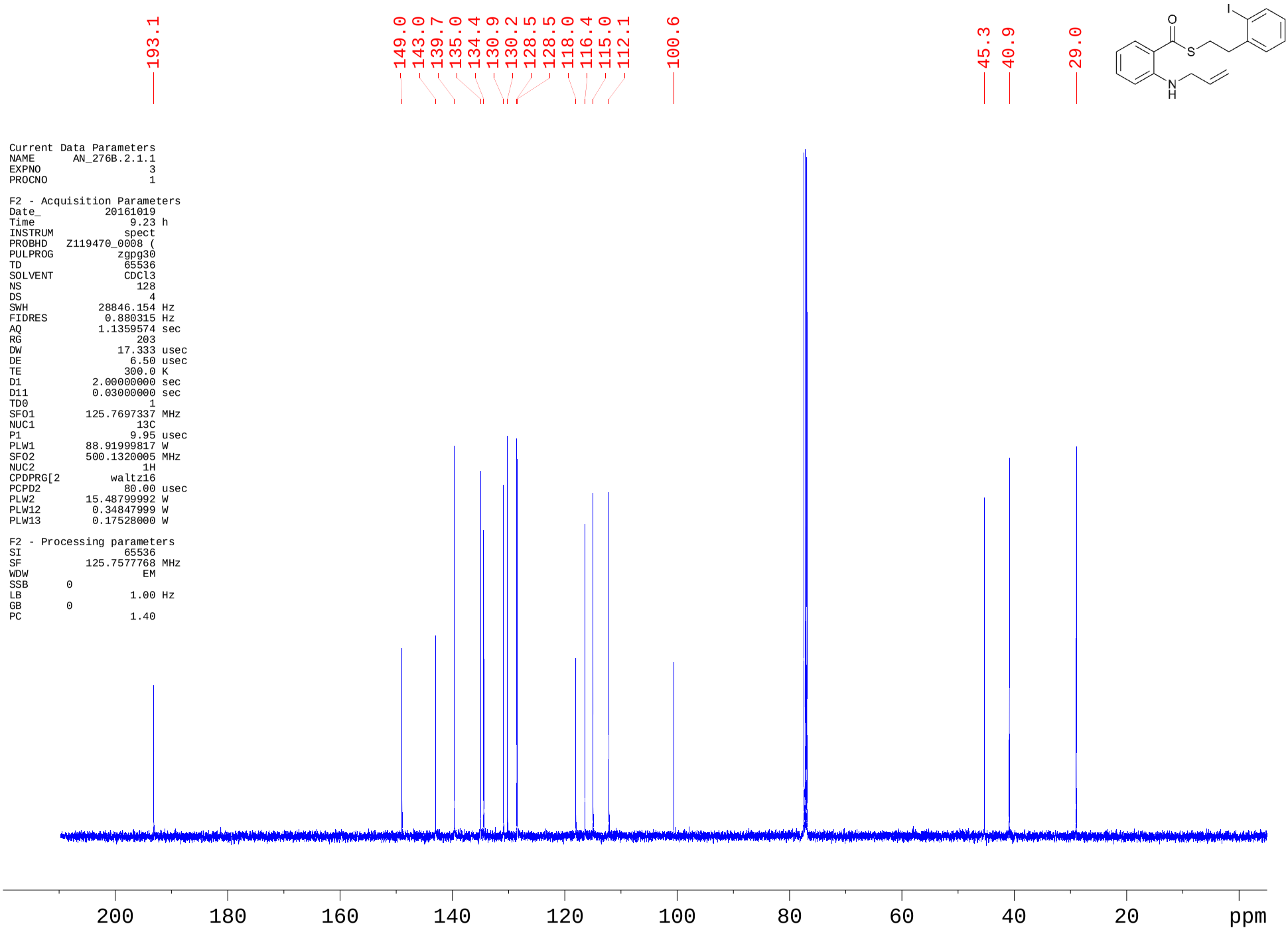
F2 - Processing parameters
SI                 65536
SF           100.6127537 MHz
WDW                   EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```

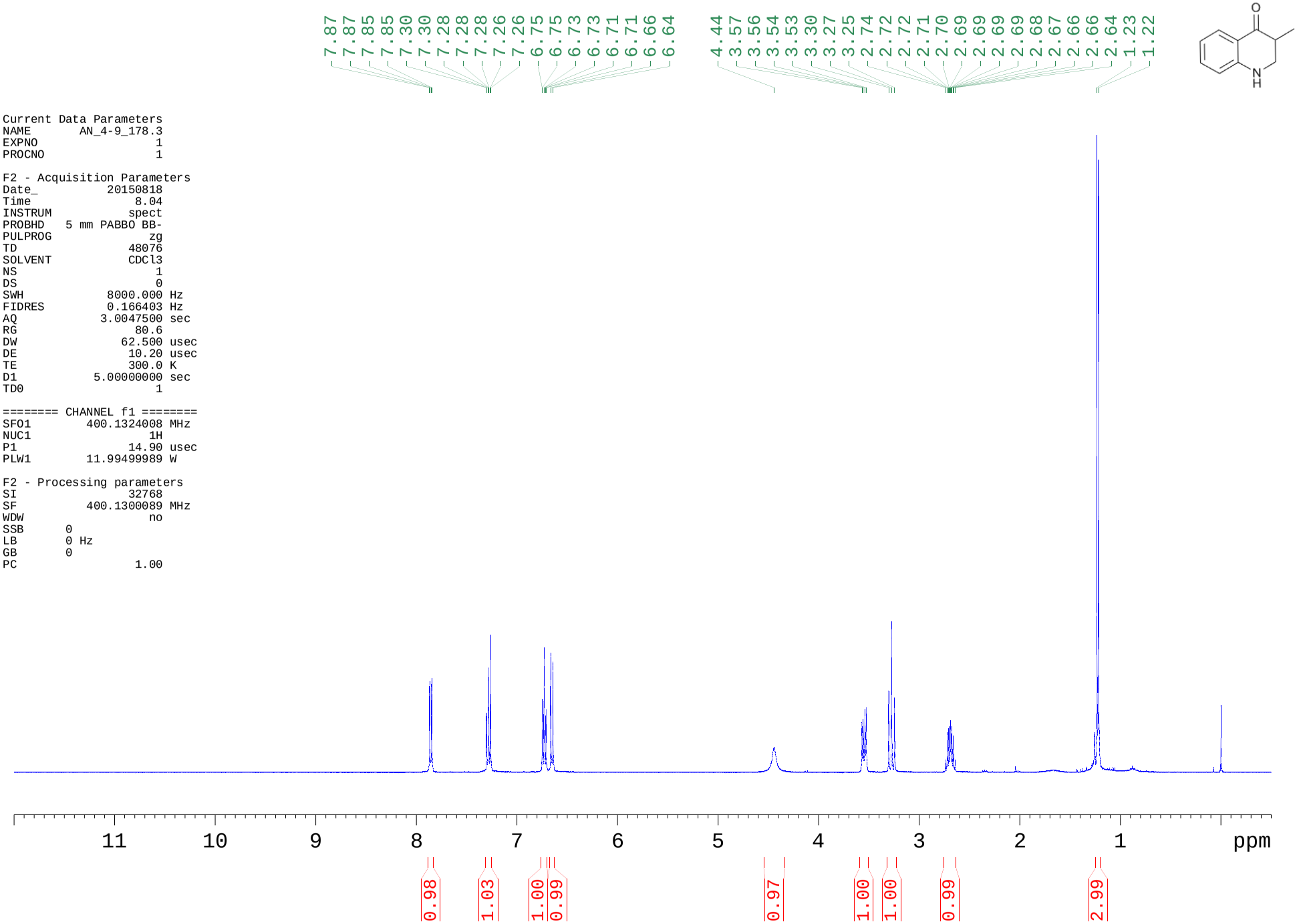


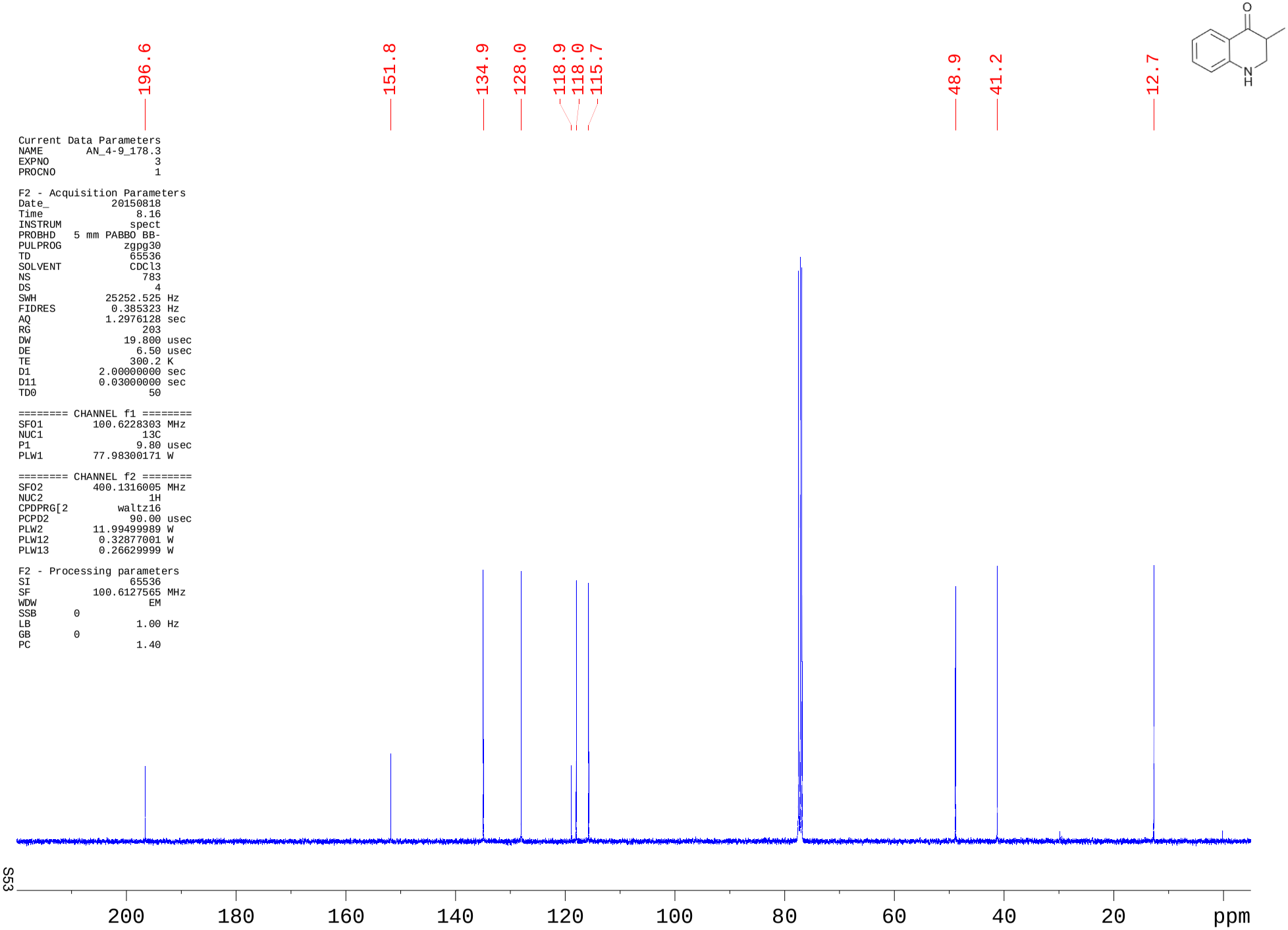

```
Current Data Parameters
NAME      AN_276B.2.1.1
EXPNO                 2
PROCNO                1

F2 - Acquisition Parameters
Date_           20161019
Time               9.16 h
INSTRUM           spect
PROBHD   Z119470_0008 (
PULPROG              zg
TD               159998
SOLVENT           CDCl3
NS                    2
DS                    4
SWH           10000.000 Hz
FIDRES         0.125002 Hz
AQ            7.9998999 sec
RG                   32
DW               50.000 usec
DE                 6.50 usec
TE                300.0 K
D1         100.00000000 sec
TD0                   1
SFO1        500.1330008 MHz
NUC1                 1H
P1                14.00 usec
PLW1        15.48799992 W

F2 - Processing parameters
SI                32768
SF          500.1300118 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```


193.1
149.0
143.0
139.7
135.0
134.4
130.9
130.2
128.5
128.5
118.0
116.4
115.0
112.1
100.6
45.3
40.9
29.0
Current Data Parameters
NAME AN_276B.2.1.1
EXPNO 3
PROCNO 1
F2 - Acquisition Parameters
Date_ 20161019
Time 9.23 h
INSTRUM spect
PROBHD Z119470_0008 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 128
DS 4
SWH 28846.154 Hz
FIDRES 0.880315 Hz
AQ 1.1359574 sec
RG 203
DW 17.333 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 1
SFO1 125.7697337 MHz
NUC1 13C
P1 9.95 usec
PLW1 88.91999817 W
SFO2 500.1320005 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 80.00 usec
PLW2 15.48799992 W
PLW12 0.34847999 W
PLW13 0.17528000 W
F2 - Processing parameters
SI 65536
SF 125.7577768 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
200
180
160
140
120
100
80
60
40
20
ppm


7.87 7.87 7.85 7.85 7.30 7.30 7.28 7.28 7.28 7.26 7.26 6.75 6.75 6.73 6.73 6.71 6.71 6.66 6.64
4.44 3.57 3.56 3.54 3.53 3.30 3.27 3.25 2.74 2.72 2.72 2.71 2.70 2.69 2.69 2.69 2.69 2.68 2.67 2.66 2.66 2.64 1.23 1.22
O
N
H
Current Data Parameters
NAME AN_4-9_178.3
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20150818
Time 8.04
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.166403 Hz
AQ 3.0047500 sec
RG 80.6
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300089 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
11 10 9 8 7 6 5 4 3 2 1 ppm
0.98 1.03 1.00 0.99 0.97 1.00 1.00 0.99 2.99



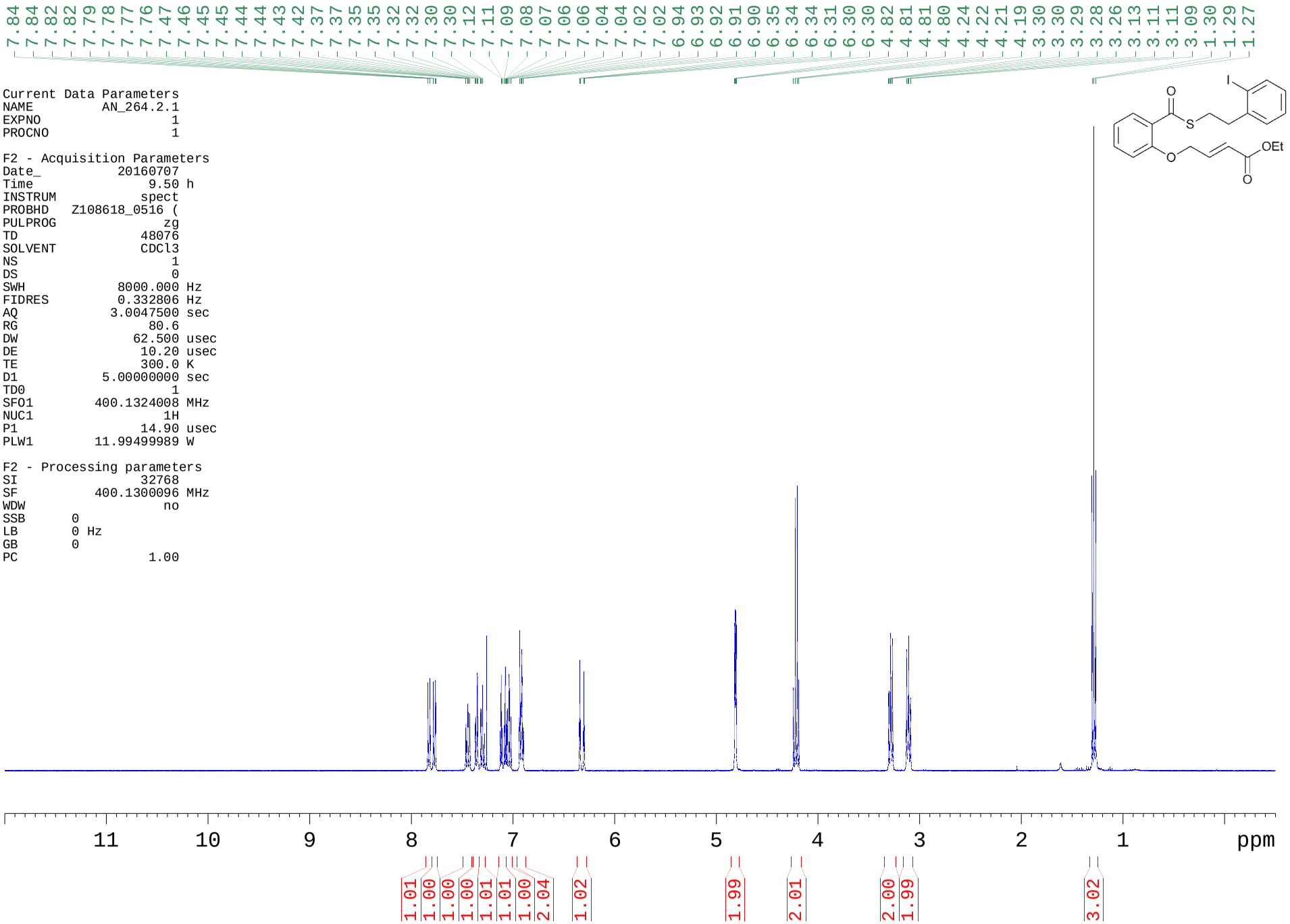

```
Current Data Parameters
NAME       AN_4-9_178.3
EXPNO                 3
PROCNO                1

F2 - Acquisition Parameters
Date_           20150818
Time                8.16
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                   783
DS                     4
SWH            25252.525 Hz
FIDRES          0.385323 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                  6.50 usec
TE                 300.2 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   50

======== CHANNEL f1 ========
SFO1         100.6228303 MHz
NUC1                  13C
P1                   9.80 usec
PLW1         77.98300171 W

======== CHANNEL f2 ========
SFO2         400.1316005 MHz
NUC2                   1H
CPDPRG[2         waltz16
PCPD2               90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.26629999 W

F2 - Processing parameters
SI                 65536
SF           100.6127565 MHz
WDW                   EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```


7.84 7.84 7.82 7.82 7.79 7.78 7.77 7.76 7.47 7.46 7.45 7.45 7.44 7.44 7.43 7.42 7.37 7.37 7.35 7.35 7.32 7.32 7.30 7.30 7.12 7.11 7.09 7.08 7.07 7.06 7.06 7.04 7.04 7.02 7.02 6.94 6.93 6.92 6.91 6.90 6.35 6.34 6.34 6.31 6.30 6.30 4.82 4.81 4.81 4.80 4.24 4.22 4.21 4.19 3.30 3.30 3.29 3.28 3.26 3.13 3.11 3.11 3.09 1.30 1.29 1.27
Current Data Parameters
NAME AN_264.2.1
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160707
Time 9.50 h
INSTRUM spect
PROBHD Z108618_0516 (
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.332806 Hz
AQ 3.0047500 sec
RG 80.6
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300096 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
O
S
I
O
OEt
O
11 10 9 8 7 6 5 4 3 2 1 ppm
1.01 1.00 1.00 1.00 1.01 1.01 1.00 2.04 1.02 1.99 2.01 2.00 1.99 3.02

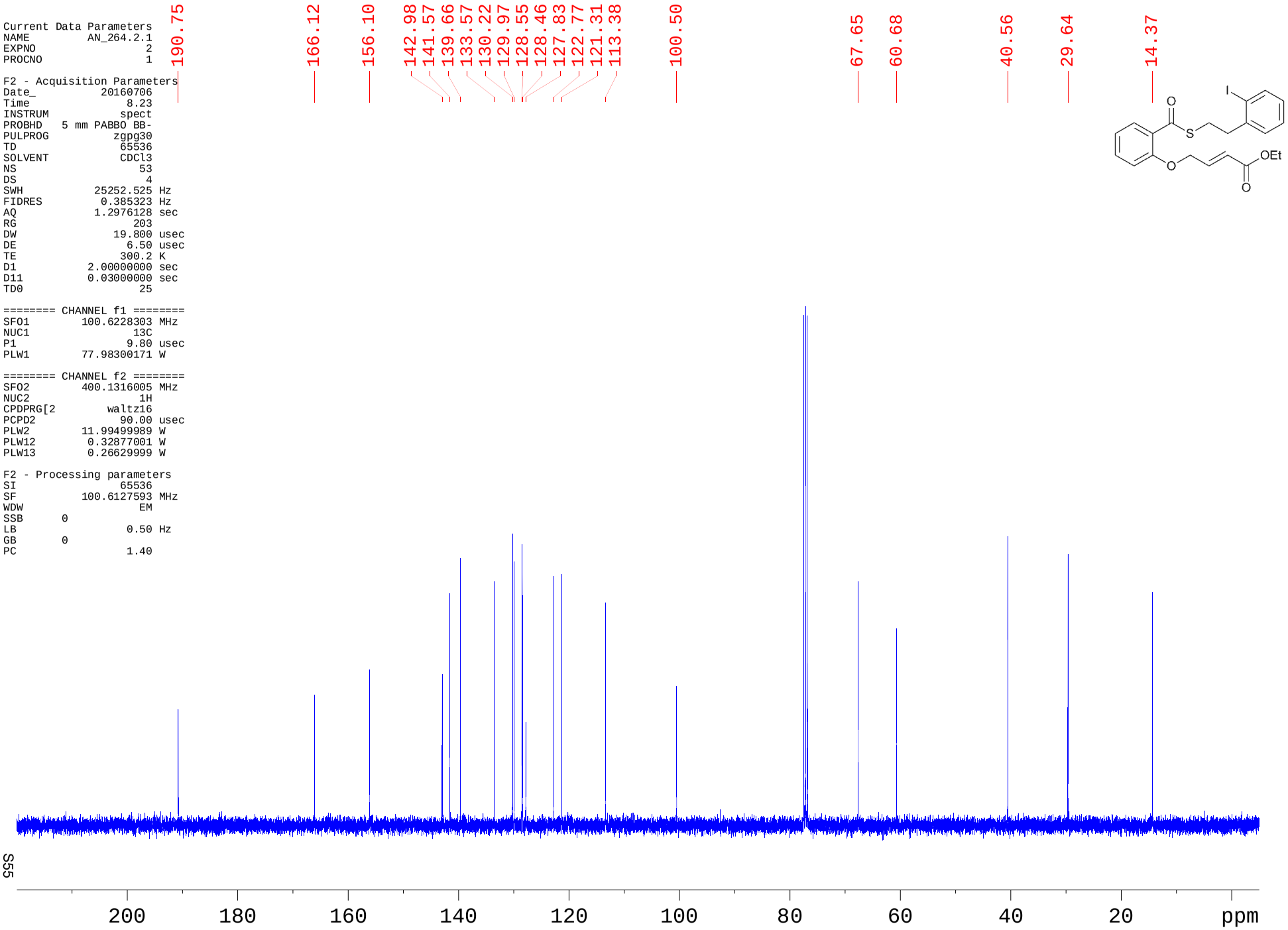
```
Current Data Parameters
NAME          AN_264.2.1
EXPNO                  2
PROCNO                 1

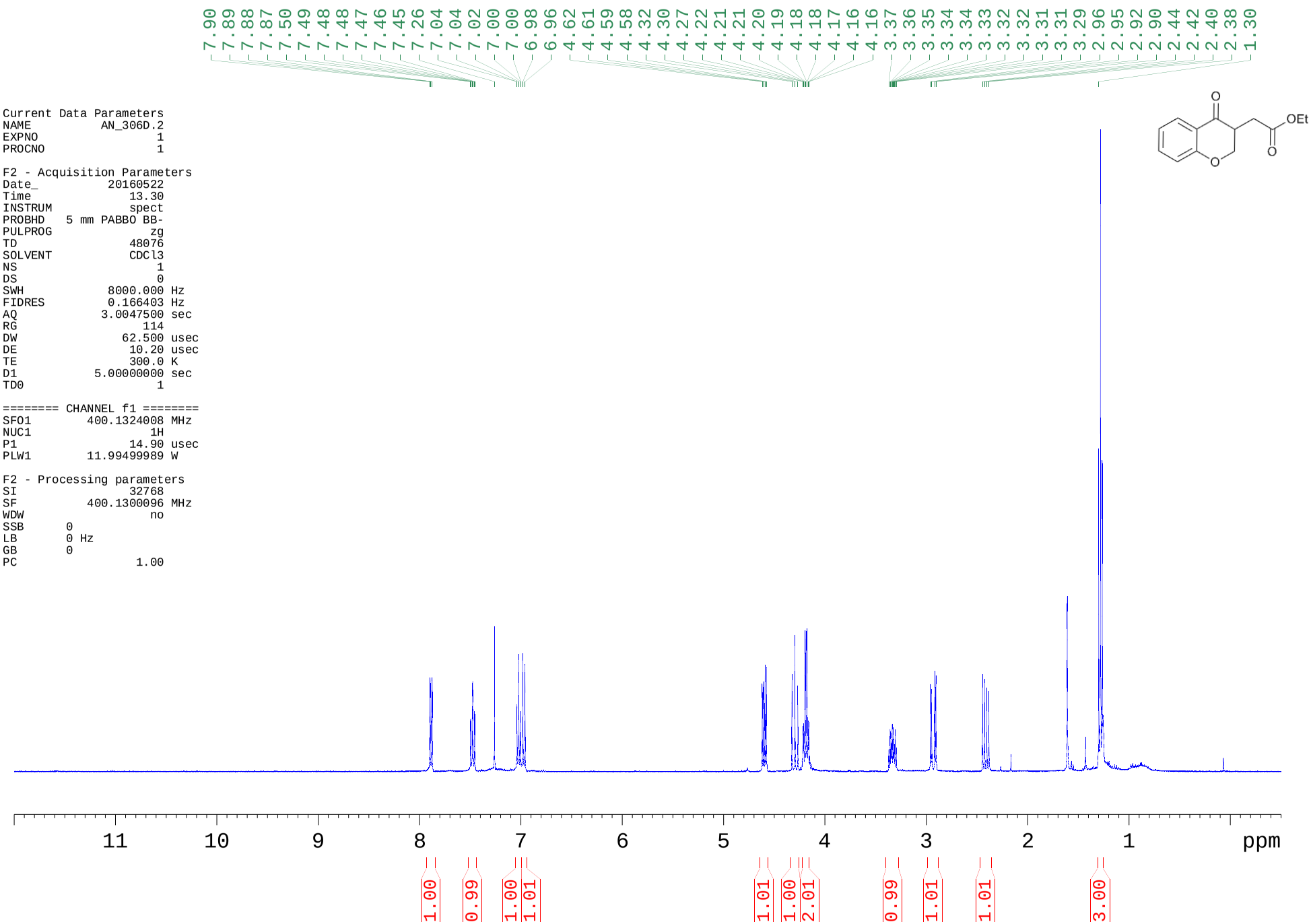
F2 - Acquisition Parameters
Date_           20160706
Time                8.23
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                    53
DS                     4
SWH            25252.525 Hz
FIDRES          0.385323 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                  6.50 usec
TE                 300.2 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   25

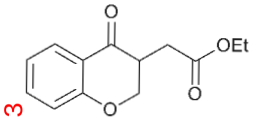
======== CHANNEL f1 ========
SFO1         100.6228303 MHz
NUC1                  13C
P1                   9.80 usec
PLW1         77.98300171 W

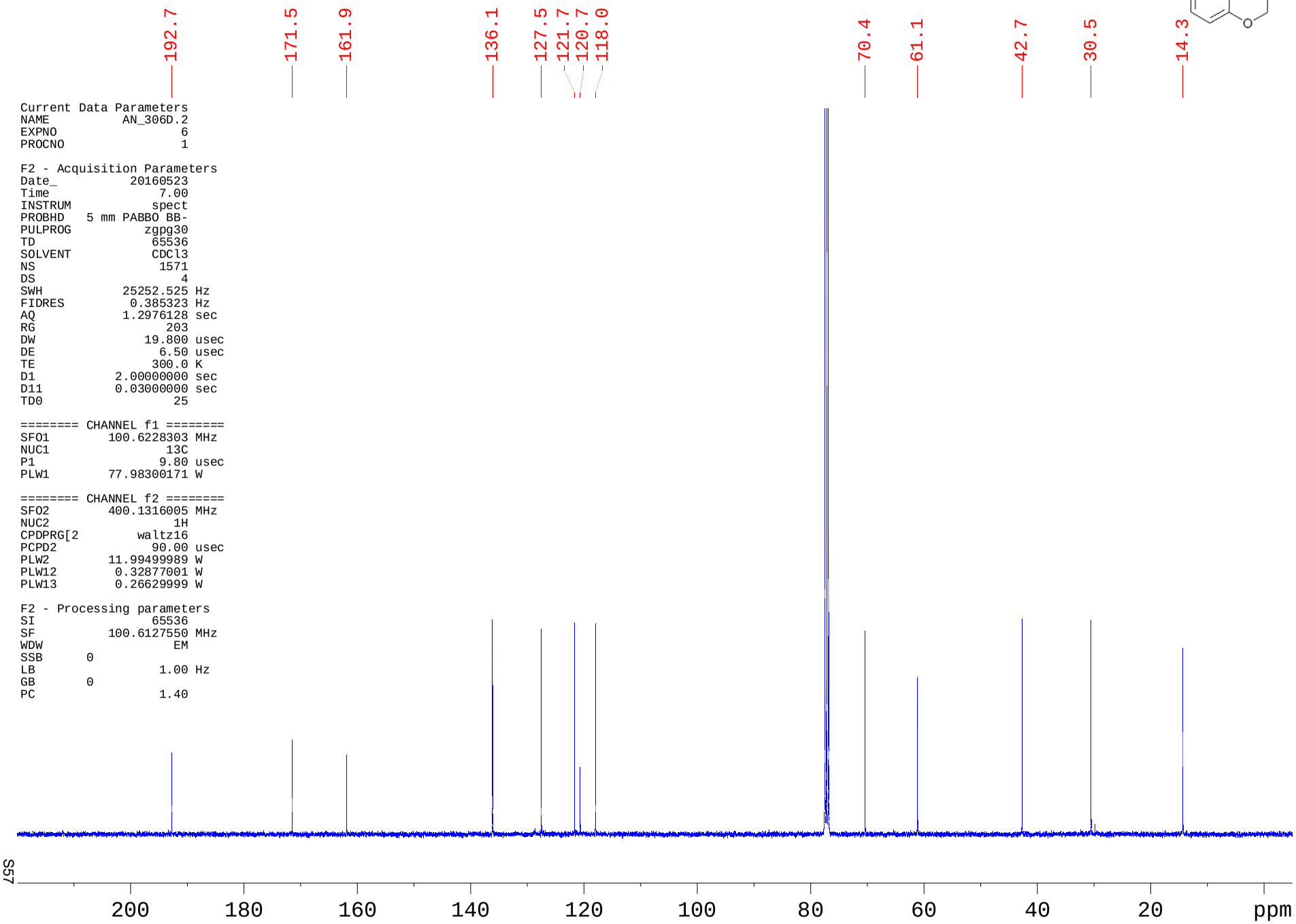
======== CHANNEL f2 ========
SFO2         400.1316005 MHz
NUC2                   1H
CPDPRG[2         waltz16
PCPD2               90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.26629999 W

F2 - Processing parameters
SI                 65536
SF          100.6127593 MHz
WDW                   EM
SSB      0
LB                  0.50 Hz
GB       0
PC                  1.40
```




7.90 7.89 7.88 7.87 7.50 7.49 7.48 7.48 7.47 7.46 7.45 7.26 7.04 7.04 7.02 7.00 7.00 6.98 6.96 4.62 4.61 4.59 4.58 4.32 4.30 4.27 4.22 4.21 4.21 4.20 4.19 4.18 4.18 4.17 4.16 4.16 3.37 3.36 3.35 3.34 3.34 3.33 3.32 3.32 3.31 3.31 3.29 2.96 2.95 2.92 2.90 2.44 2.42 2.40 2.38 1.30
Current Data Parameters
NAME AN_306D.2
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160522
Time 13.30
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.166403 Hz
AQ 3.0047500 sec
RG 114
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300096 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
O
OEt
O
O
11 10 9 8 7 6 5 4 3 2 1 ppm
1.00 0.99 1.00 1.01 1.01 1.00 2.01 0.99 1.01 1.01 3.00





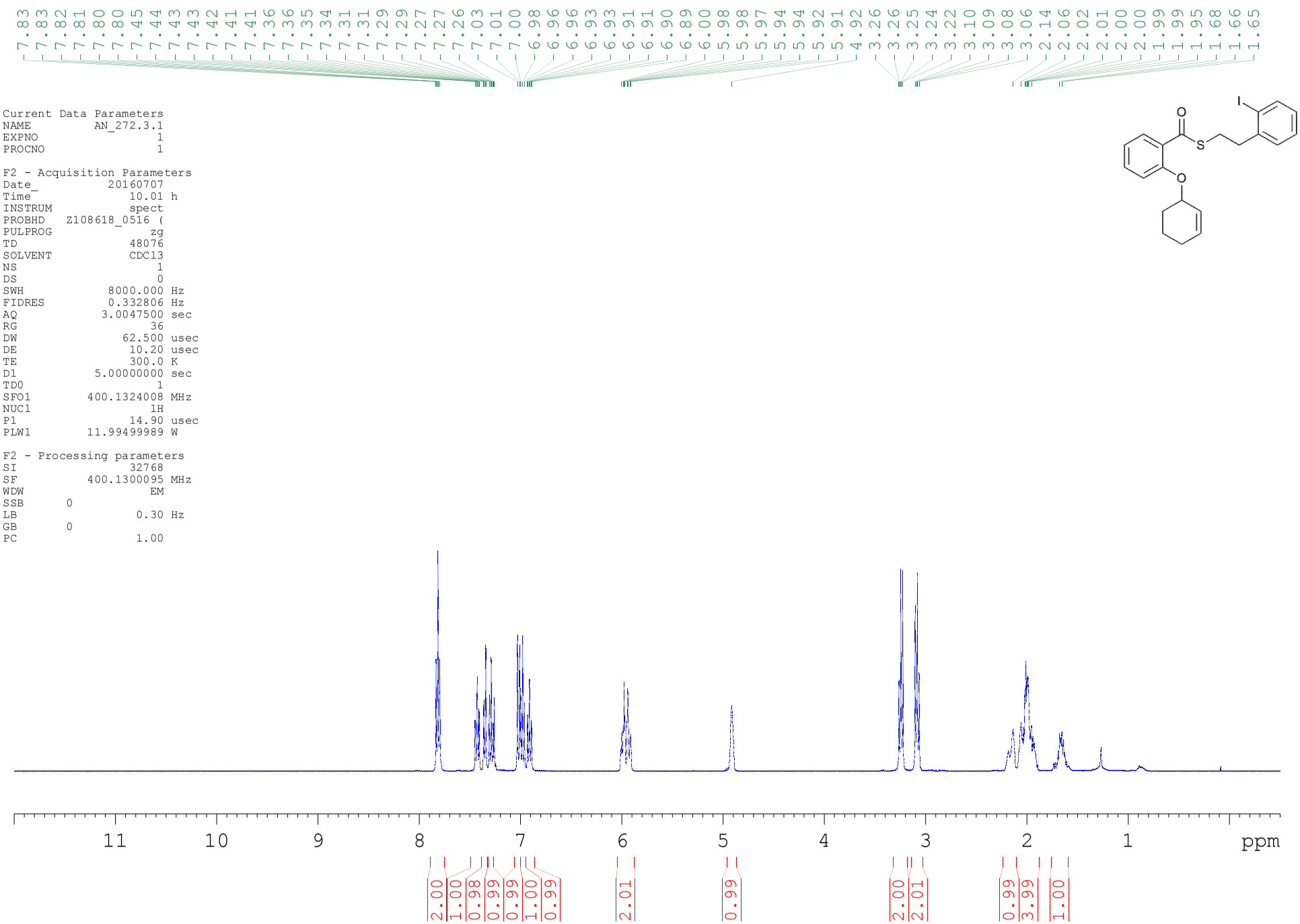

```
Current Data Parameters
NAME          AN_306D.2
EXPNO                 6
PROCNO                1

F2 - Acquisition Parameters
Date_          20160523
Time               7.00
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                 1571
DS                    4
SWH           25252.525 Hz
FIDRES         0.385323 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE               300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25

======== CHANNEL f1 ========
SFO1        100.6228303 MHz
NUC1                13C
P1                 9.80 usec
PLW1        77.98300171 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.26629999 W

F2 - Processing parameters
SI                65536
SF          100.6127550 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```


7.83 7.83 7.82 7.81 7.80 7.80 7.45 7.44 7.43 7.43 7.42 7.41 7.41 7.36 7.36 7.35 7.34 7.31 7.31 7.29 7.29 7.27 7.27 7.26 7.03 7.01 7.00 6.98 6.96 6.96 6.93 6.93 6.91 6.91 6.90 6.89 6.00 5.98 5.98 5.97 5.94 5.94 5.92 5.91 4.92 3.26 3.26 3.25 3.24 3.22 3.10 3.09 3.08 3.06 2.14 2.06 2.02 2.01 2.00 2.00 1.99 1.99 1.95 1.68 1.66 1.65
Current Data Parameters
NAME AN_272.3.1
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160707
Time 10.01 h
INSTRUM spect
PROBHD Z108618_0516 (
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.332806 Hz
AQ 3.0047500 sec
RG 36
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300095 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
S
I
O
11 10 9 8 7 6 5 4 3 2 1 ppm
2.00 1.00 0.98 0.99 0.99 1.00 0.99 2.01 0.99 2.00 2.01 0.99 3.99 1.00

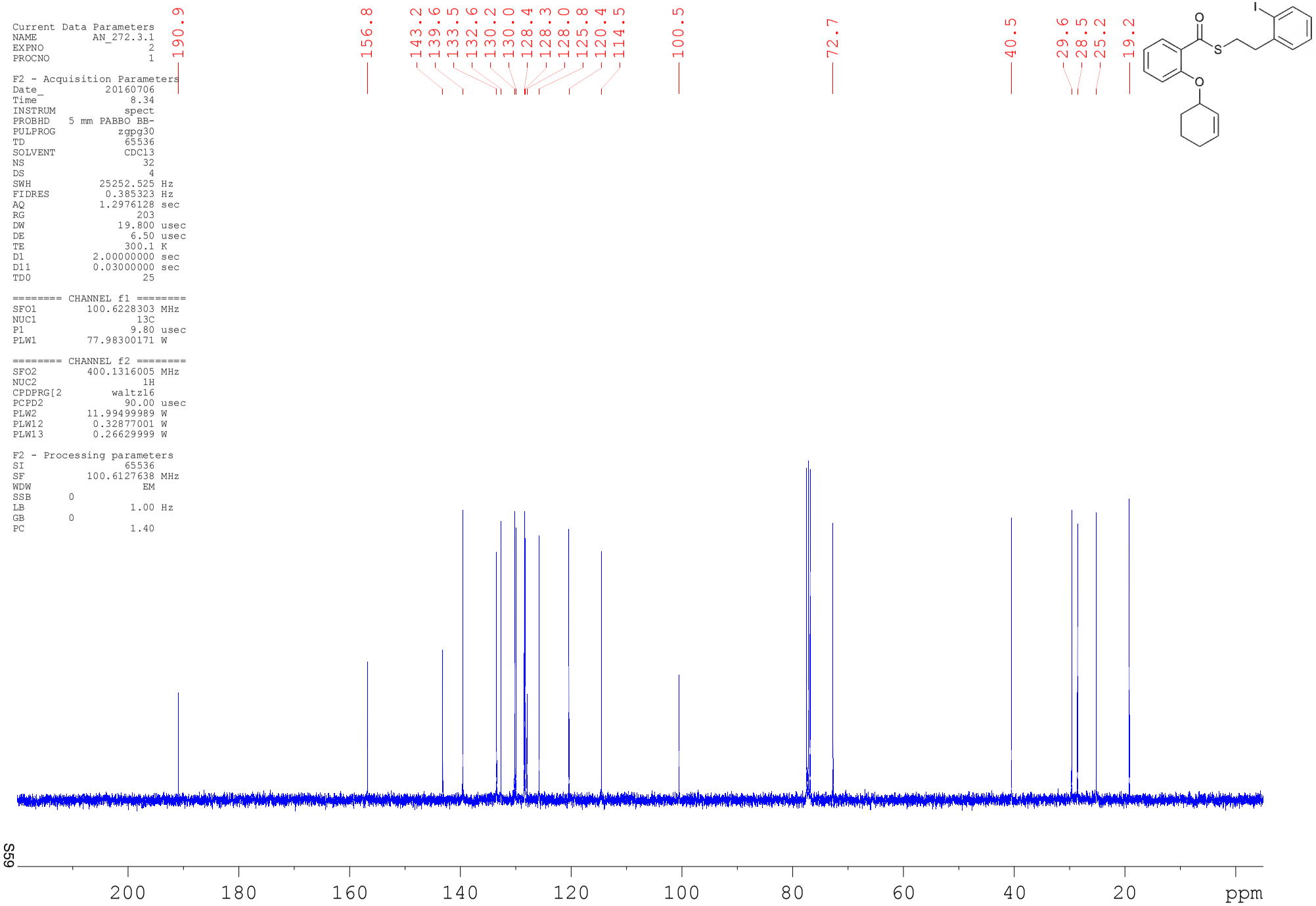
```
Current Data Parameters
NAME          AN_272.3.1
EXPNO                  2
PROCNO                 1

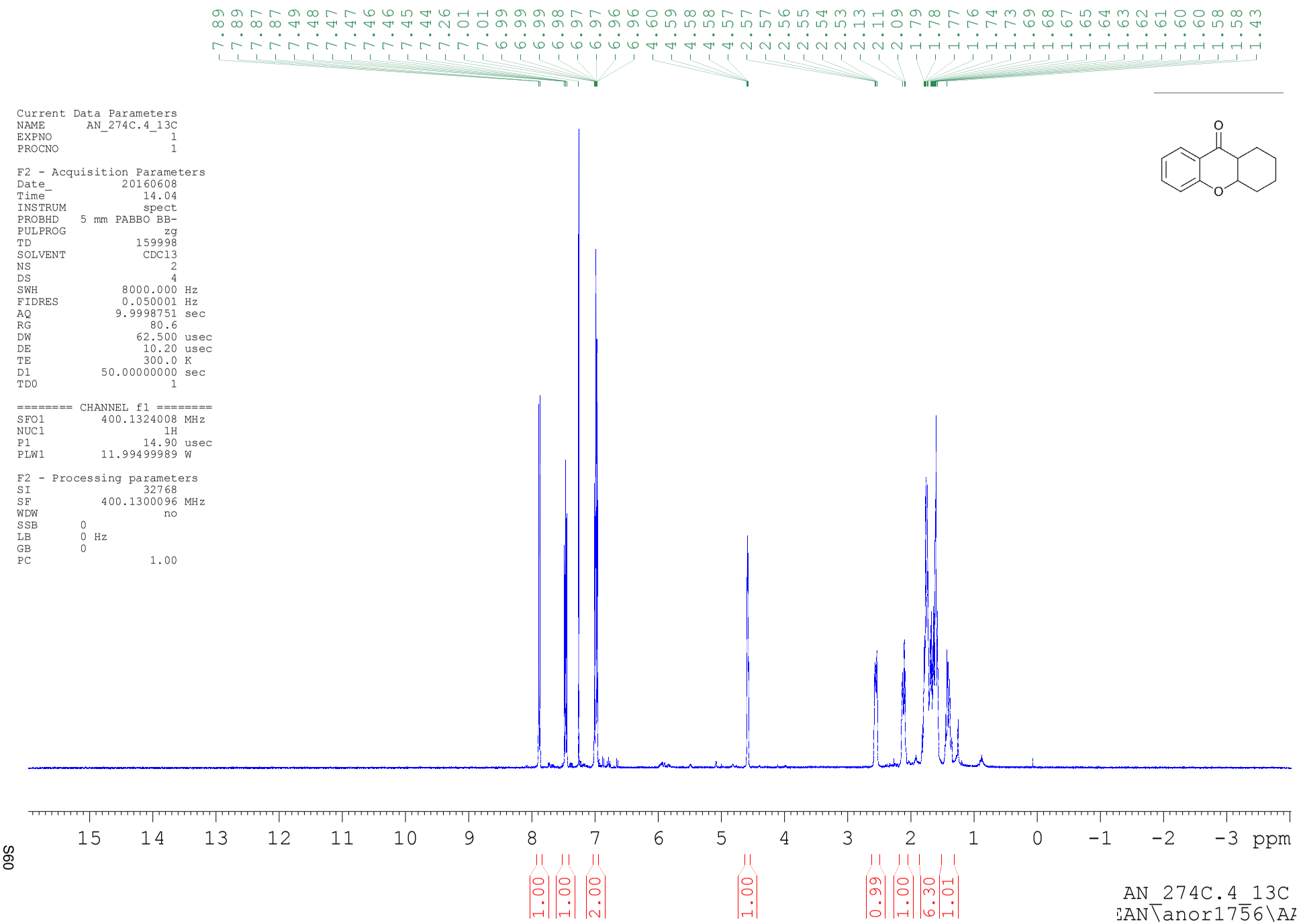
F2 - Acquisition Parameters
Date_           20160706
Time                8.34
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                   32
DS                    4
SWH           25252.525 Hz
FIDRES         0.385323 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                 6.50 usec
TE                300.1 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25

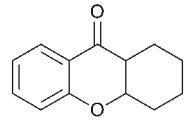
======== CHANNEL f1 ========
SFO1        100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1        77.98300171 W

======== CHANNEL f2 ========
SFO2         400.1316005 MHz
NUC2                   1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.26629999 W

F2 - Processing parameters
SI                65536
SF          100.6127638 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```




7.89 7.89 7.87 7.87 7.49 7.48 7.47 7.47 7.46 7.46 7.45 7.44 7.26 7.01 7.01 6.99 6.99 6.99 6.98 6.97 6.97 6.96 6.96 4.60 4.59 4.58 4.58 4.57 2.57 2.57 2.56 2.55 2.54 2.53 2.13 2.11 2.09 1.79 1.78 1.77 1.76 1.74 1.73 1.69 1.68 1.67 1.65 1.64 1.63 1.62 1.61 1.60 1.60 1.58 1.58 1.43
Current Data Parameters
NAME AN_274C.4_13C
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160608
Time 14.04
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 159998
SOLVENT CDCl3
NS 2
DS 4
SWH 8000.000 Hz
FIDRES 0.050001 Hz
AQ 9.9998751 sec
RG 80.6
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 50.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300096 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
O
O
15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0 -1 -2 -3 ppm
1.00 1.00 2.00 1.00 0.99 1.00 6.30 1.01
AN_274C.4_13C
EAN\anor1756\A



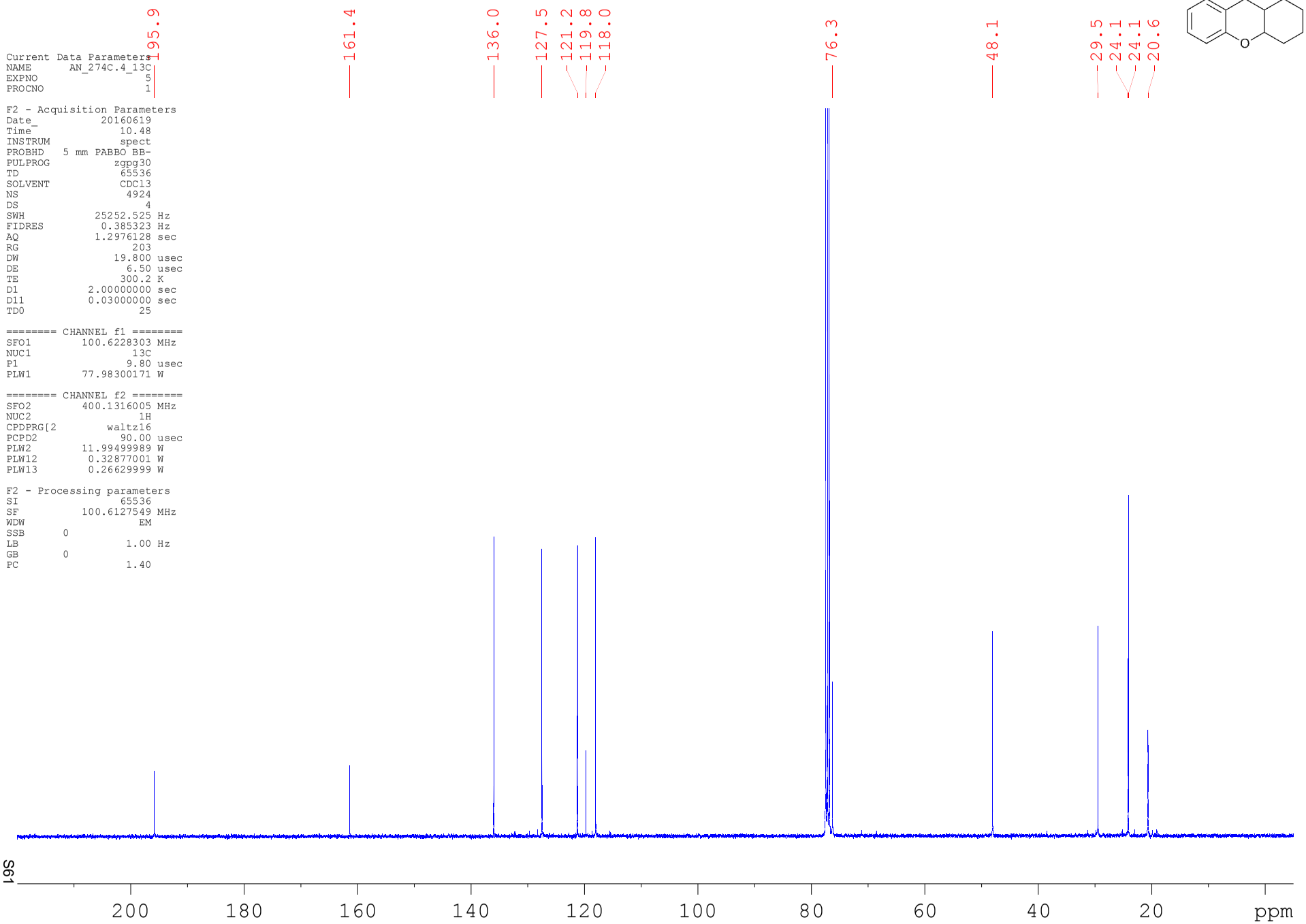
```
Current Data Parameters
NAME      AN_274C.4_13C
EXPNO                 5
PROCNO                1

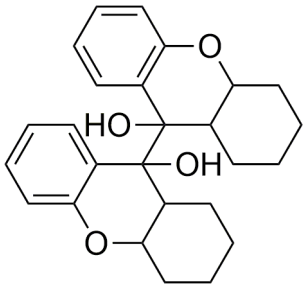
F2 - Acquisition Parameters
Date_           20160619
Time              10.48
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDC13
NS                 4924
DS                    4
SWH           25252.525 Hz
FIDRES         0.385323 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE               300.2 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25

======== CHANNEL f1 ========
SFO1        100.6228303 MHz
NUC1                 13C
P1                9.80 usec
PLW1        77.98300171 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2            90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.26629999 W

F2 - Processing parameters
SI                65536
SF          100.6127549 MHz
WDW                   EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```





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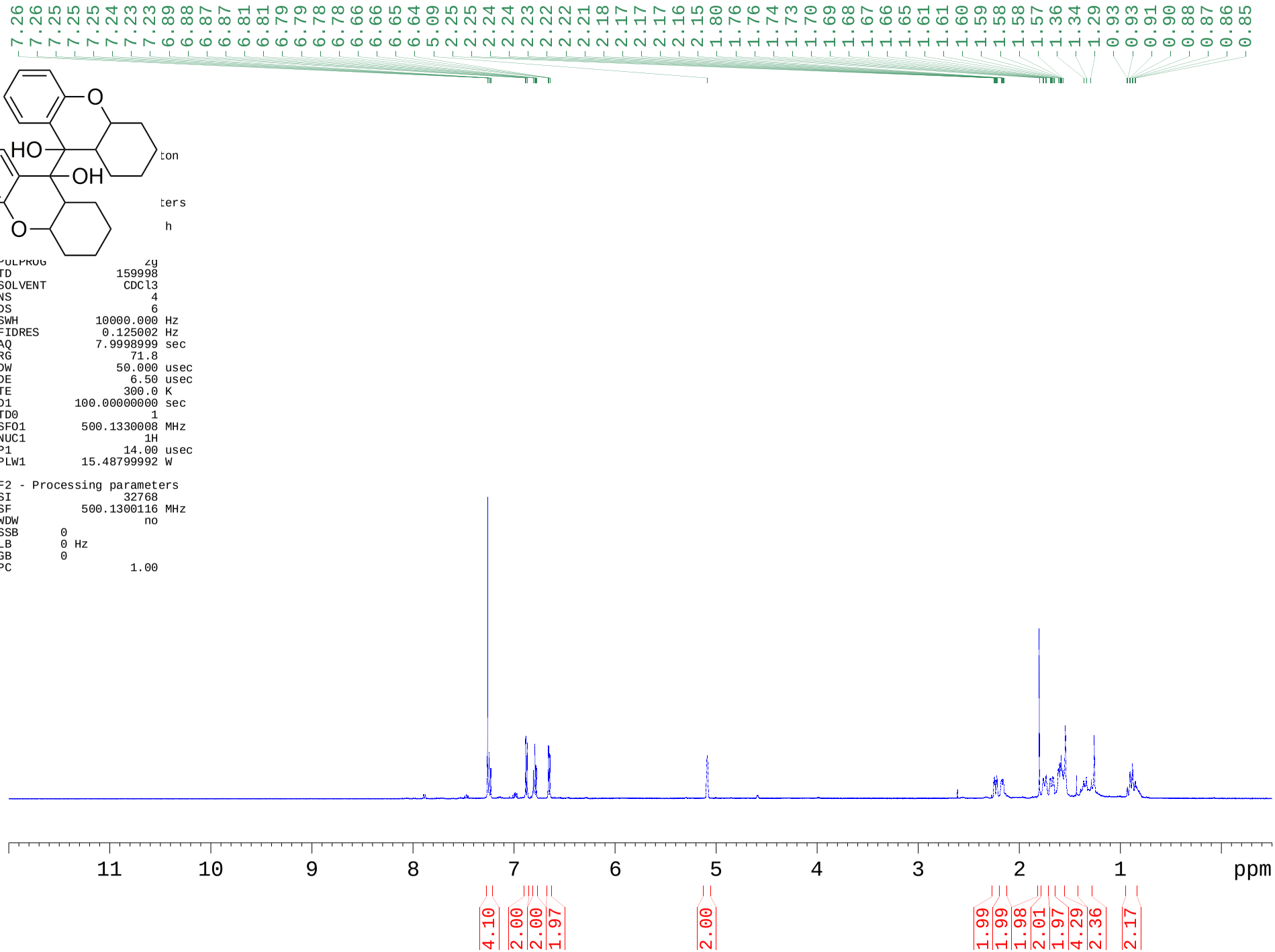
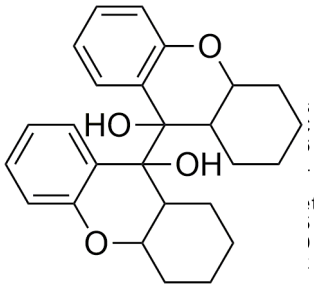
```
PULPROG              zg
TD               159998
SOLVENT           CDCl3
NS                    4
DS                    6
SWH           10000.000 Hz
FIDRES         0.125002 Hz
AQ            7.9998999 sec
RG                 71.8
DW               50.000 usec
DE                 6.50 usec
TE                300.0 K
D1         100.00000000 sec
TD0                   1
SFO1        500.1330008 MHz
NUC1                 1H
P1                14.00 usec
PLW1        15.48799992 W

F2 - Processing parameters
SI                32768
SF          500.1300116 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```





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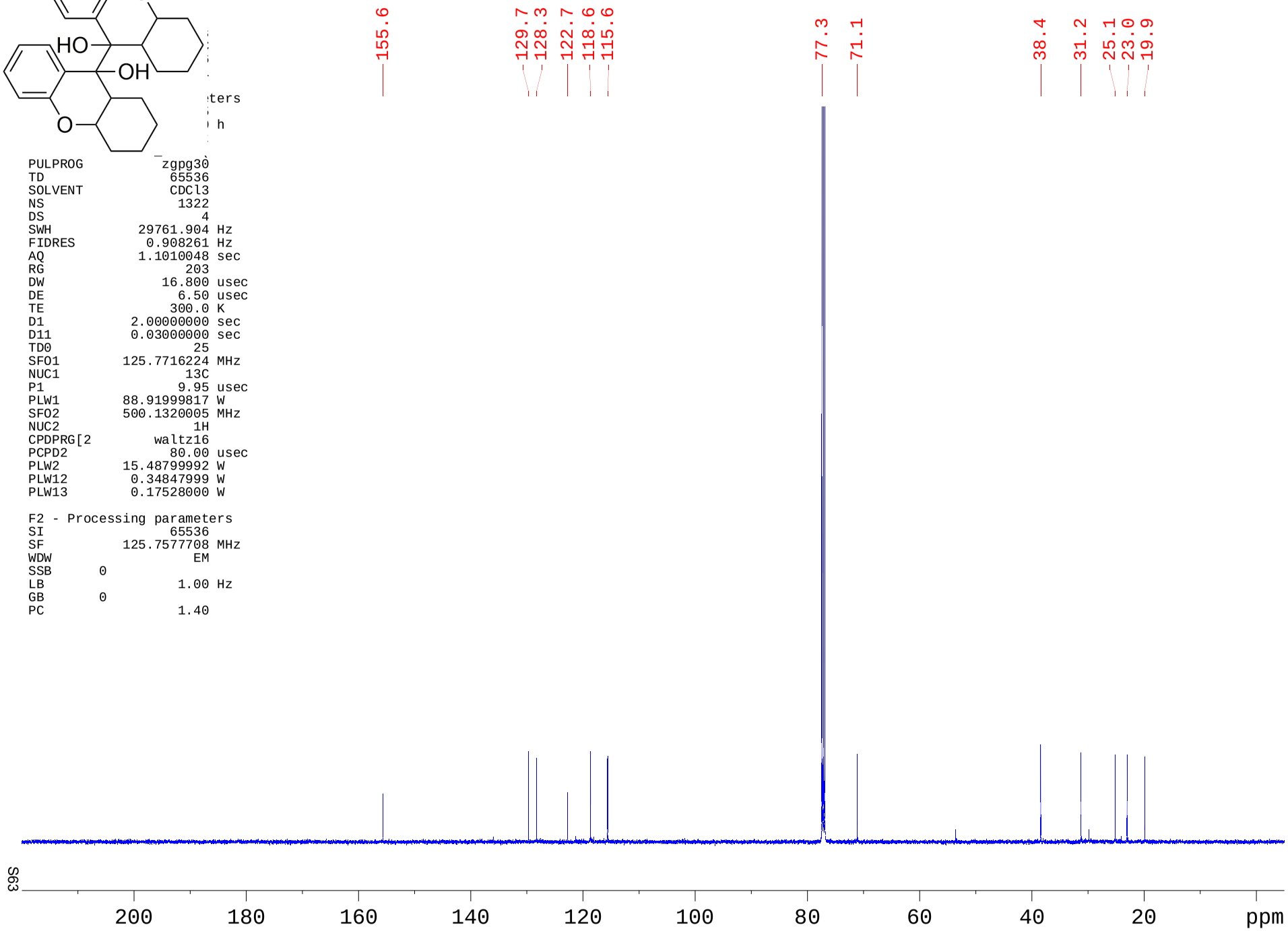
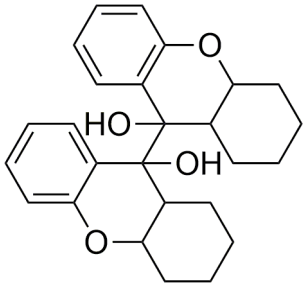
```
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                 1322
DS                    4
SWH           29761.904 Hz
FIDRES         0.908261 Hz
AQ            1.1010048 sec
RG                  203
DW               16.800 usec
DE                 6.50 usec
TE                300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25
SFO1        125.7716224 MHz
NUC1                13C
P1                 9.95 usec
PLW1        88.91999817 W
SFO2        500.1320005 MHz
NUC2                 1H
CPDPRG[2        waltz16
PCPD2             80.00 usec
PLW2        15.48799992 W
PLW12        0.34847999 W
PLW13        0.17528000 W

F2 - Processing parameters
SI                 65536
SF          125.7577708 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```

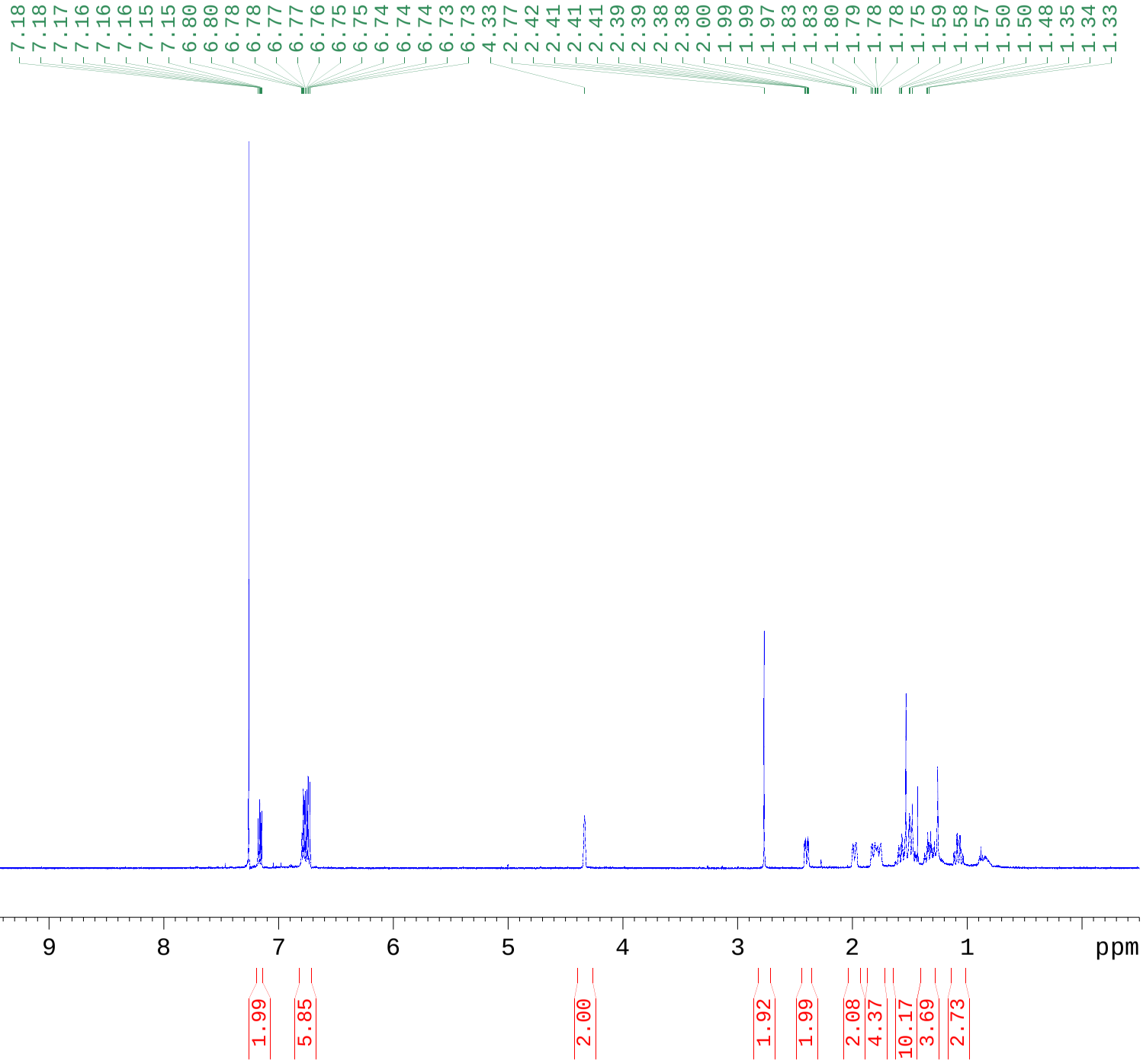


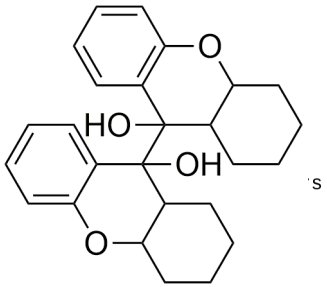



```
PROCNO                1

F2 - Acquisition Parameters
Date_           20161020
Time              13.45 h
INSTRUM           spect
PROBHD   Z119470_0008 (
PULPROG              zg
TD                65536
SOLVENT           CDCl3
NS                    1
DS                    0
SWH           10000.000 Hz
FIDRES         0.305176 Hz
AQ            3.2767999 sec
RG               80.6
DW               50.000 usec
DE                6.50 usec
TE               300.0 K
D1           2.00000000 sec
TD0                   1
SFO1        500.1330008 MHz
NUC1                 1H
P1                14.00 usec
PLW1        15.48799992 W

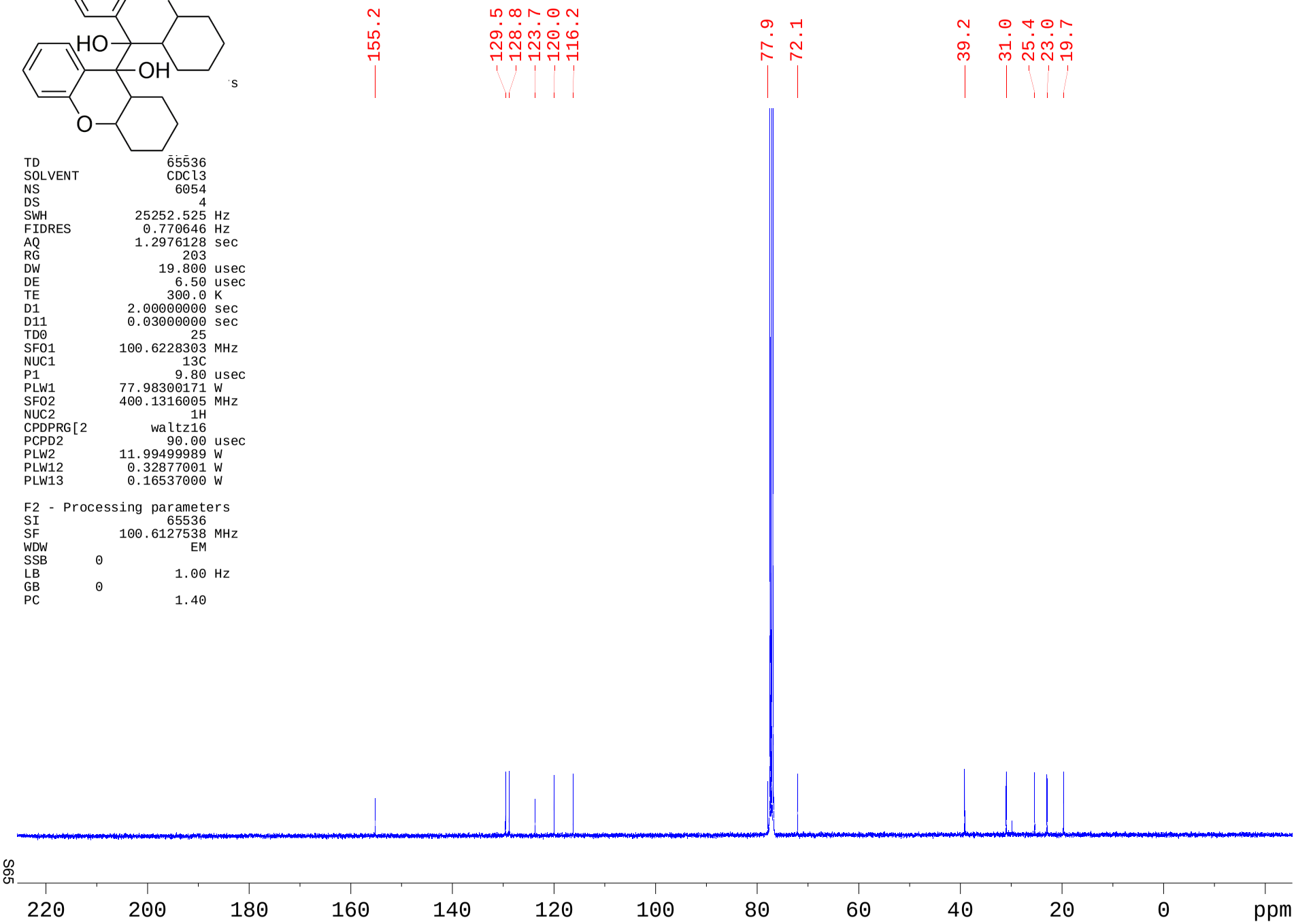
F2 - Processing parameters
SI                32768
SF          500.1300119 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```

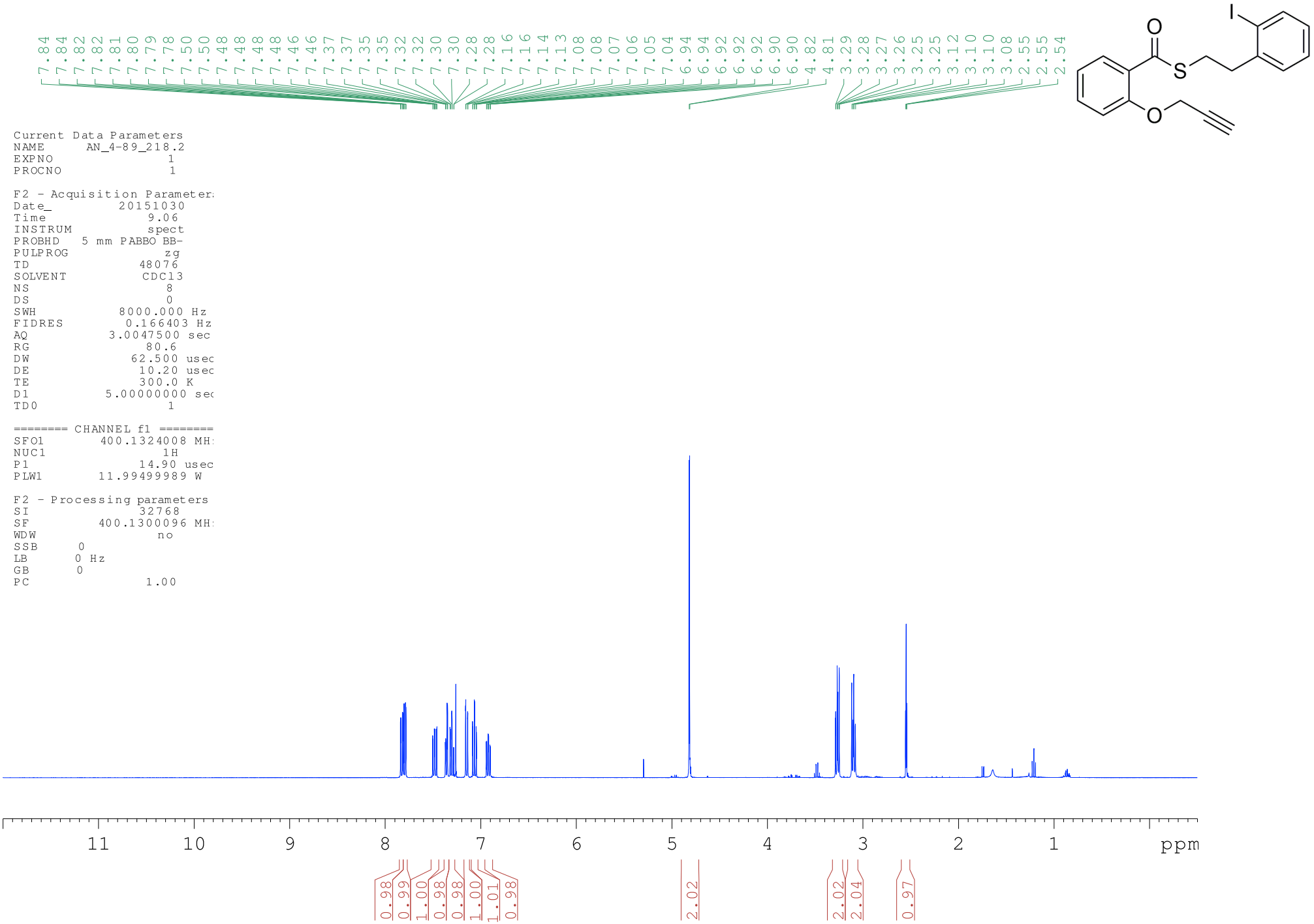


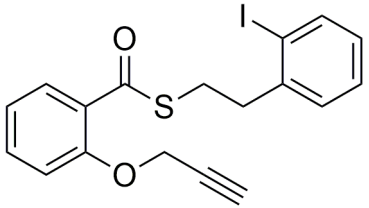


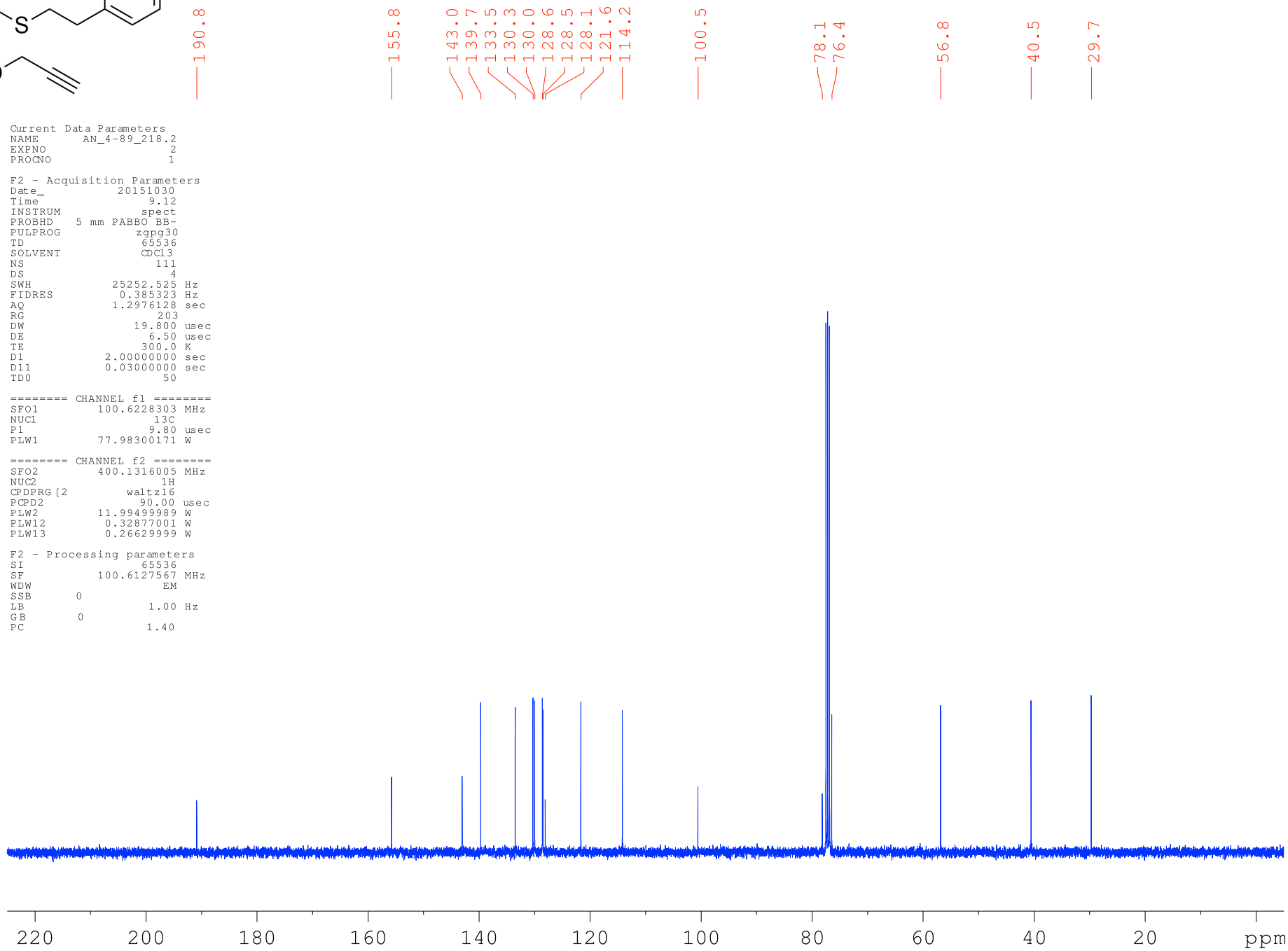

```
TD                 65536
SOLVENT            CDCl3
NS                  6054
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                  6.50 usec
TE                 300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   25
SFO1         100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2               90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

F2 - Processing parameters
SI                 65536
SF           100.6127538 MHz
WDW                   EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```




7.84 7.84 7.82 7.82 7.81 7.80 7.79 7.78 7.50 7.50 7.48 7.48 7.48 7.48 7.46 7.46 7.37 7.37 7.35 7.35 7.32 7.32 7.30 7.30 7.28 7.28 7.16 7.16 7.14 7.13 7.08 7.08 7.07 7.06 7.05 7.04 6.94 6.94 6.92 6.92 6.92 6.90 6.90 4.82 4.81 3.29 3.28 3.27 3.26 3.25 3.25 3.12 3.10 3.10 3.08 2.55 2.55 2.54
O
I
S
O
Current Data Parameters
NAME AN_4-89_218.2
EXPNO 1
PROCNO 1
F2 - Acquisition Parameter
Date_ 20151030
Time 9.06
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 8
DS 0
SWH 8000.000 Hz
FIDRES 0.166403 Hz
AQ 3.0047500 sec
RG 80.6
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1324008 MH
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300096 MH
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
11 10 9 8 7 6 5 4 3 2 1 ppm
0.98 0.99 1.00 0.98 0.98 1.00 1.01 0.98
2.02
2.02 2.04
0.97





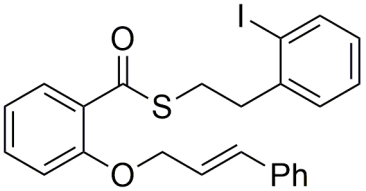

```
Current Data Parameters
NAME       AN_4-89_218.2
EXPNO                   2
PROCNO                  1

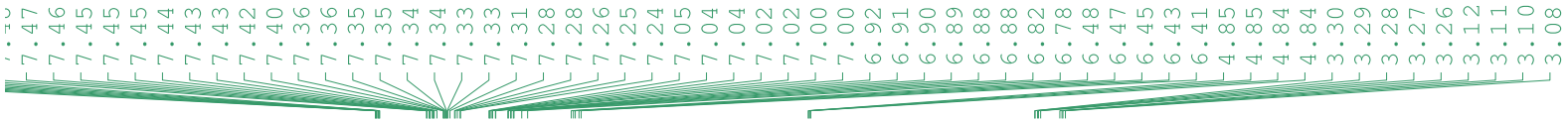
F2 - Acquisition Parameters
Date_            20151030
Time                 9.12
INSTRUM             spect
PROBHD   5 mm PABBO BB-
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                   111
DS                     4
SWH            25252.525 Hz
FIDRES          0.385323 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                 6.50 usec
TE                300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   50

======== CHANNEL f1 ========
SFO1         100.6228303 MHz
NUC1                  13C
P1                   9.80 usec
PLW1         77.98300171 W

======== CHANNEL f2 ========
SFO2         400.1316005 MHz
NUC2                   1H
CPDPRG[2          waltz16
PCPD2               90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.26629999 W

F2 - Processing parameters
SI                 65536
SF           100.6127567 MHz
WDW                    EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```

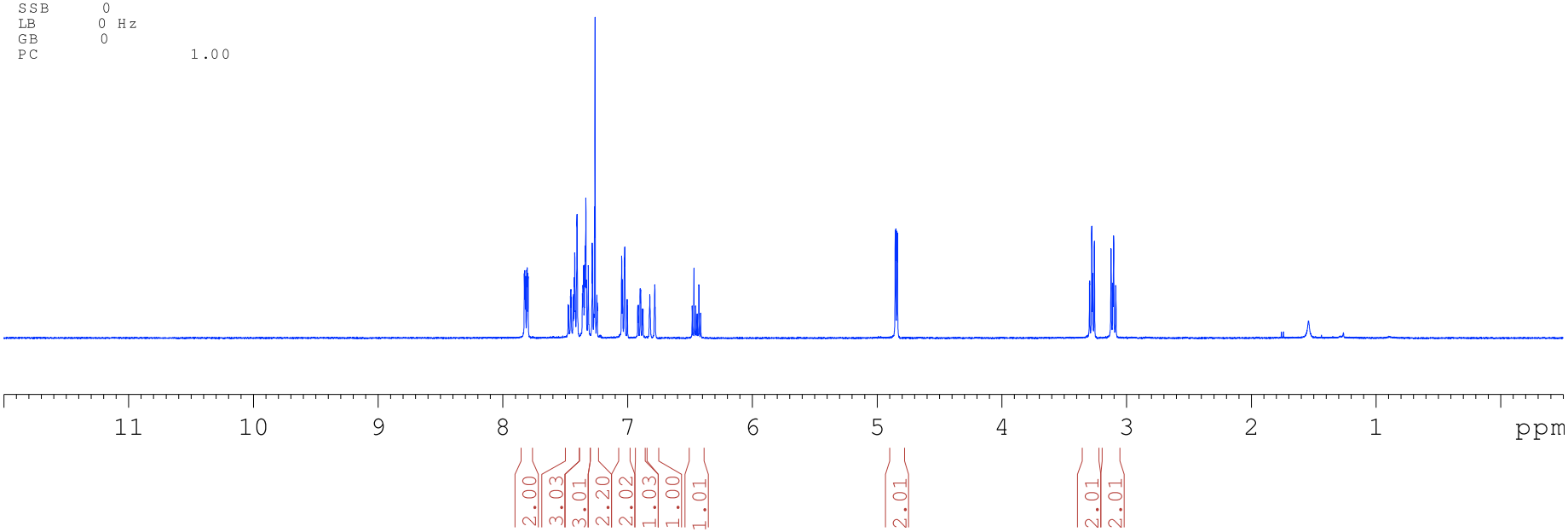


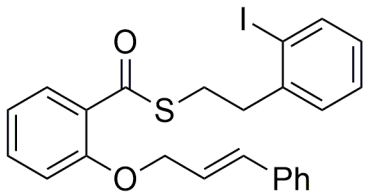


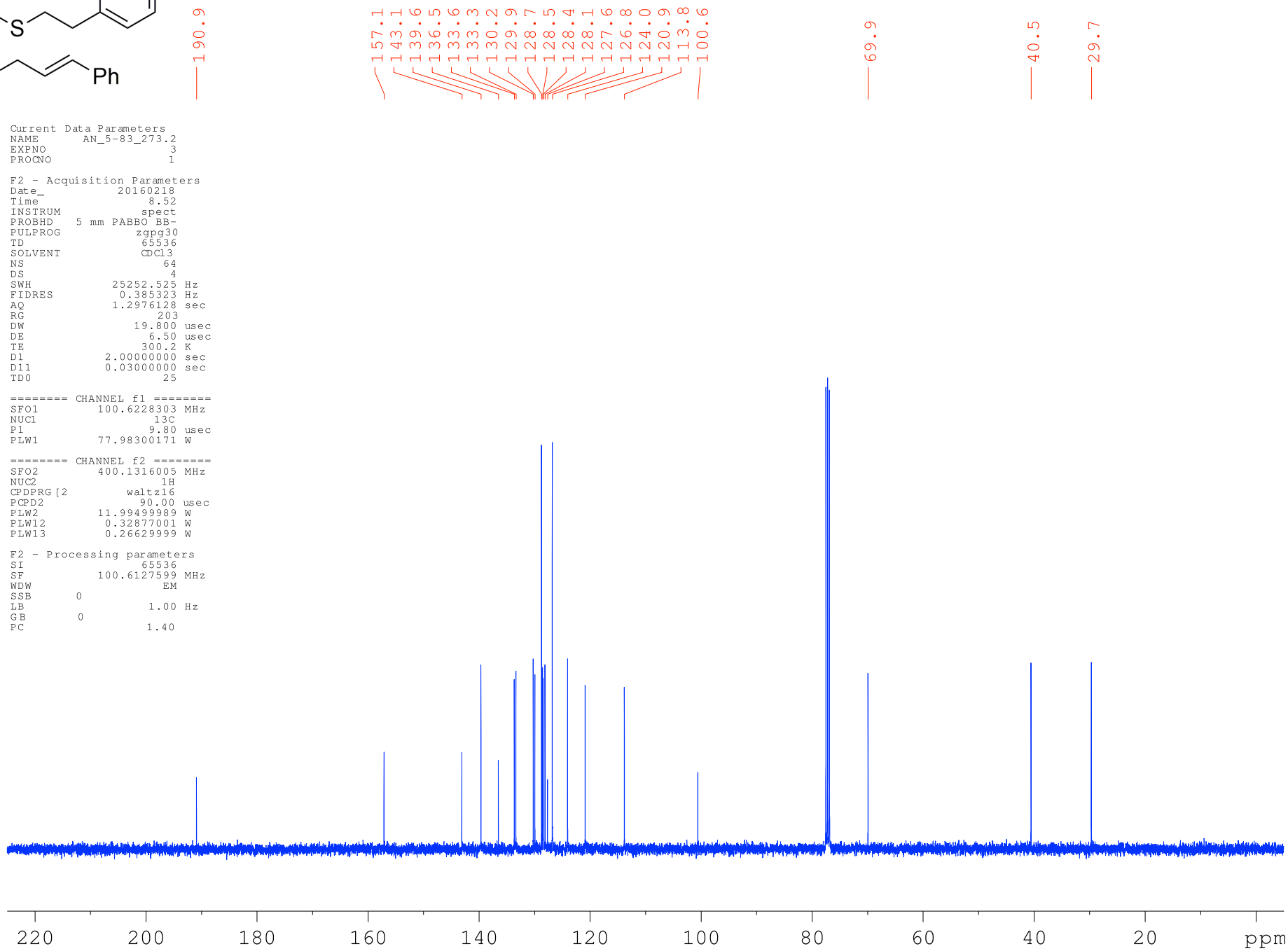

```
Current Data Parameters
NAME     AN_273.2_Check
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameter
Date_          20171101
Time             16.06 h
INSTRUM          spect
PROBHD   Z108618_0516 (
PULPROG             zg
TD               48076
SOLVENT          CDCl3
NS                   1
DS                   0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ           3.0047500 sec
RG                 203
DW              62.500 usec
DE               10.20 usec
TE               300.0 K
D1           5.00000000 sec
TD0                  1
SFO1        400.1324008 MH
NUC1                1H
P1               14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI               32768
SF          400.1300098 MH
WDW                 no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```







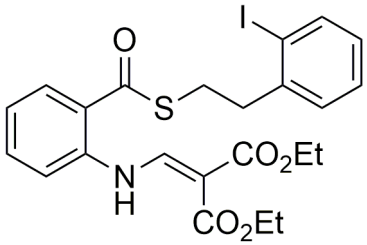

```
Current Data Parameters
NAME      AN_5-83_273.2
EXPNO                 3
PROCNO                1

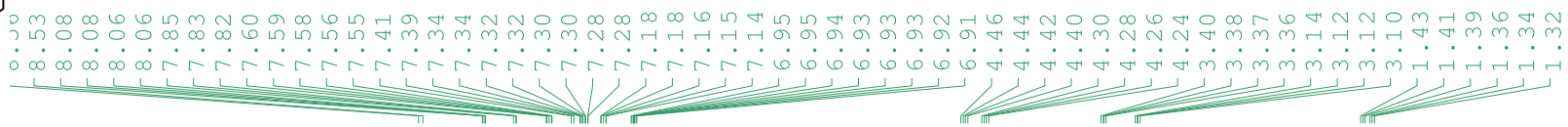
F2 - Acquisition Parameters
Date_           20160218
Time                8.52
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                   64
DS                    4
SWH           25252.525 Hz
FIDRES         0.385323 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE               300.2 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25

======== CHANNEL f1 ========
SFO1        100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1        77.98300171 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.26629999 W

F2 - Processing parameters
SI                65536
SF          100.6127599 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```

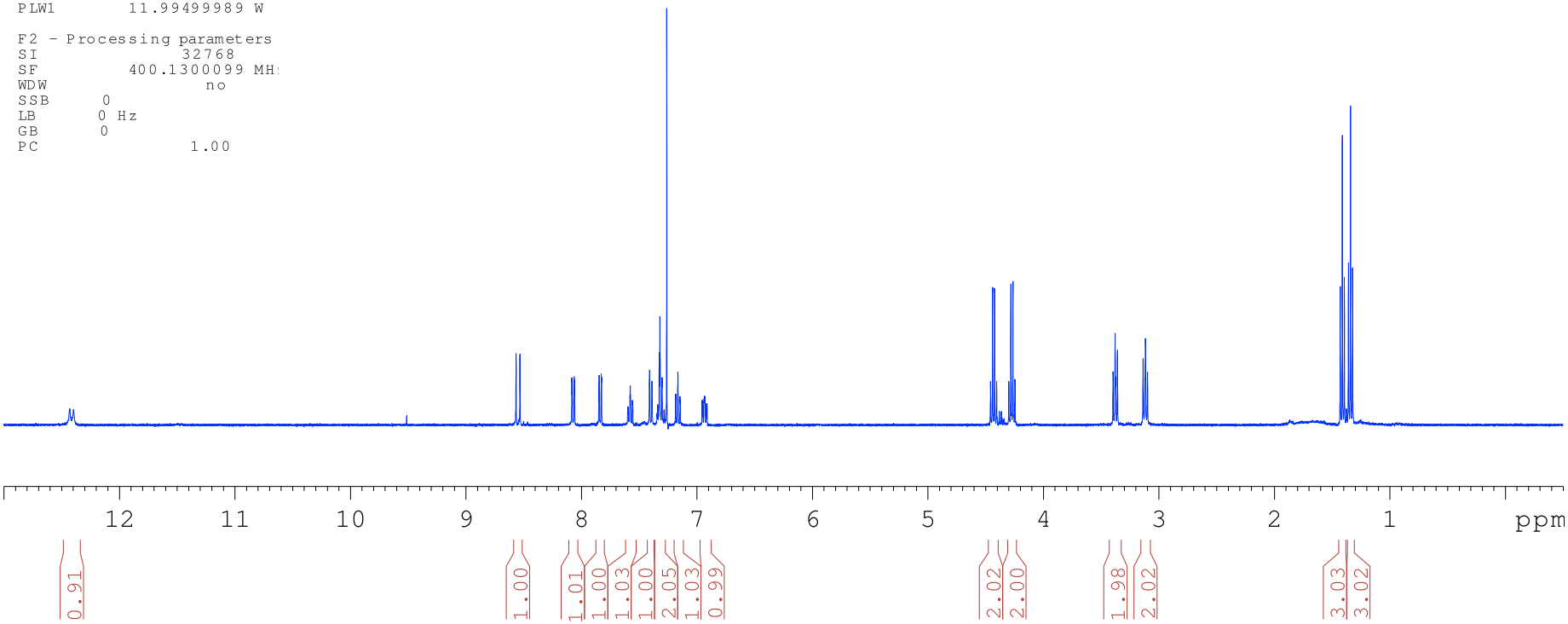


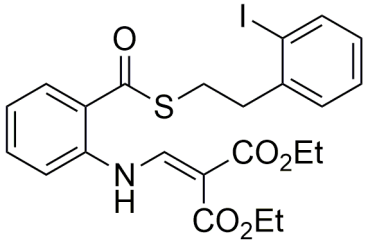


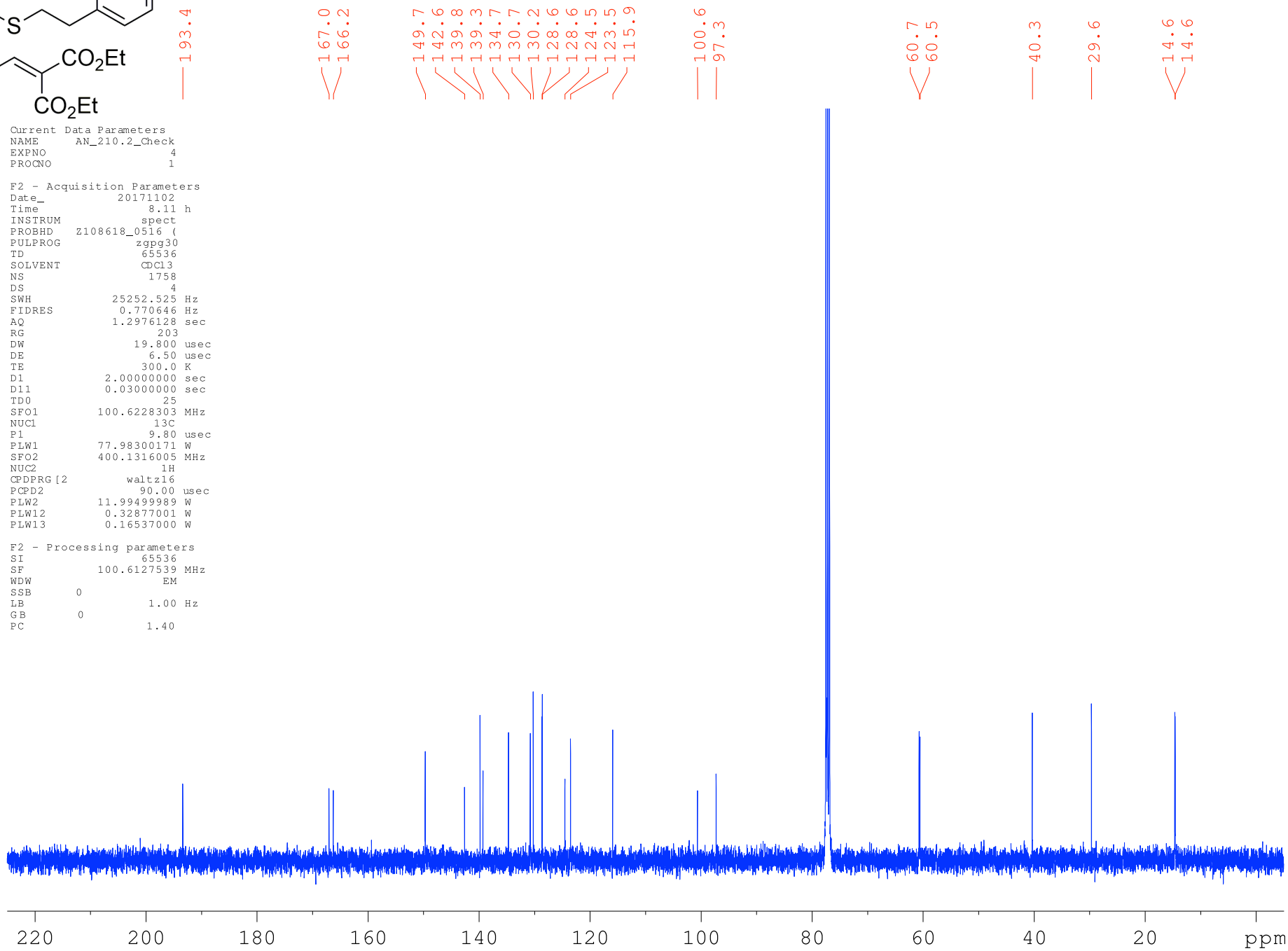

```
arameters
NAME     AN_210.2_Check
EXPNO              11
PROCNO              1

F2 - Acquisition Parameter
Date_         20171101
Time             15.49 h
INSTRUM          spect
PROBHD   Z108618_0516 (
PULPROG             zg
TD               48076
SOLVENT          CDCl3
NS                   1
DS                   0
SWH           8000.000 Hz
FIDRES        0.332806 Hz
AQ           3.0047500 sec
RG                 203
DW              62.500 usec
DE              10.20 usec
TE              300.0 K
D1           5.00000000 sec
TD0                  1
SFO1        400.1324008 MH
NUC1                1H
P1               14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI               32768
SF          400.1300099 MH
WDW                 no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```



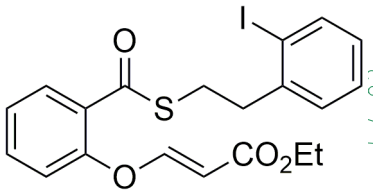


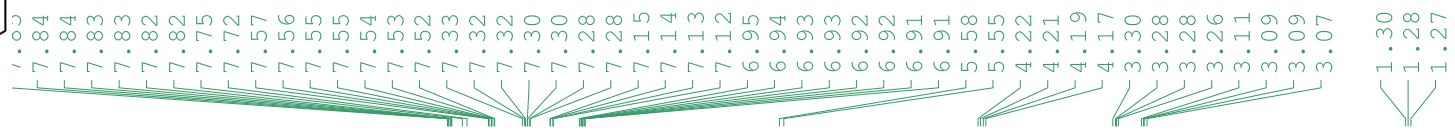



```
Current Data Parameters
NAME      AN_210.2_Check
EXPNO                   4
PROCNO                  1

F2 - Acquisition Parameters
Date_           20171102
Time                8.11 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                 1758
DS                    4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                  203
DW                19.800 usec
DE                 6.50 usec
TE                300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   25
SFO1         100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

F2 - Processing parameters
SI                 65536
SF           100.6127539 MHz
WDW                   EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.40
```

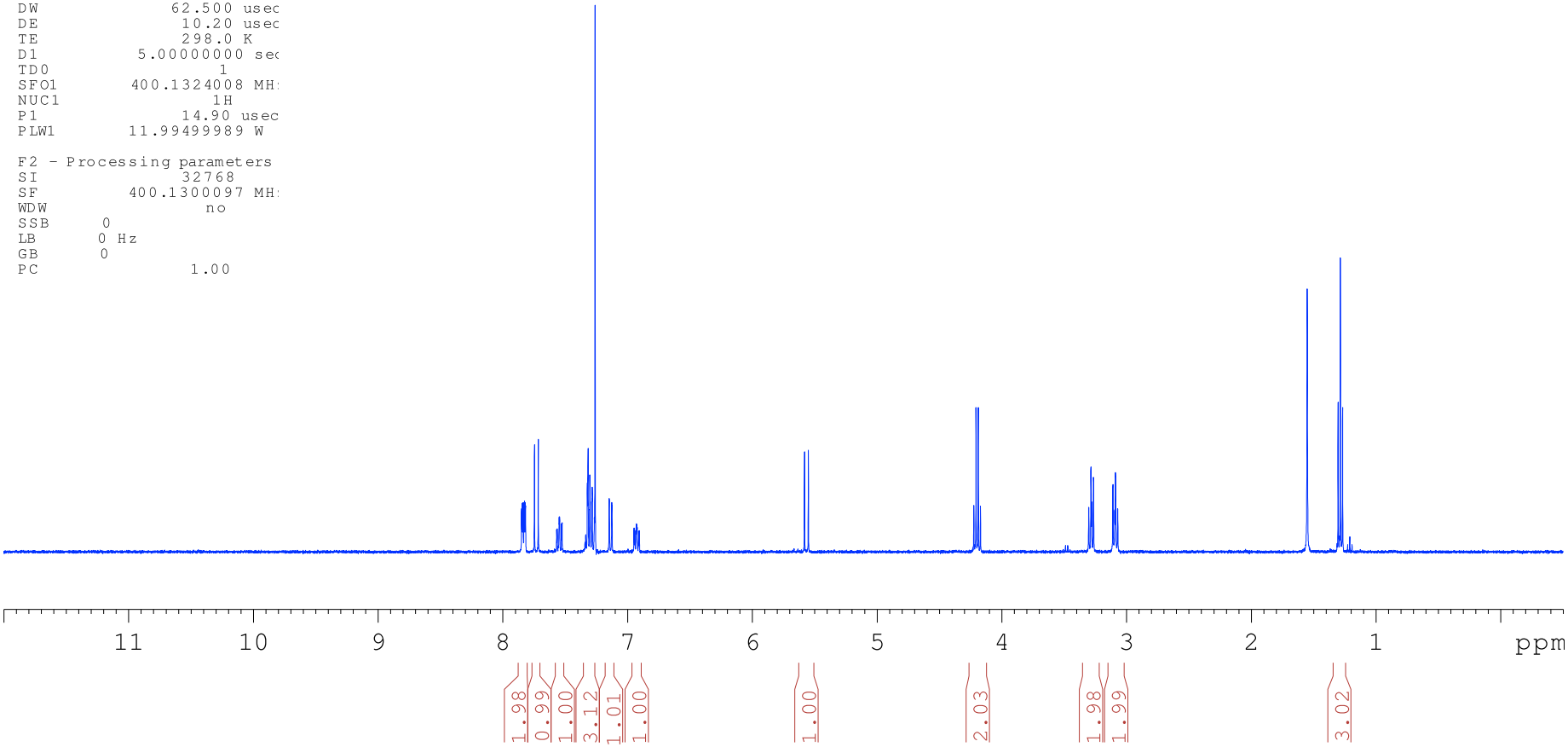


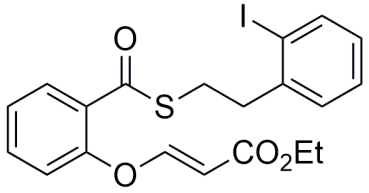


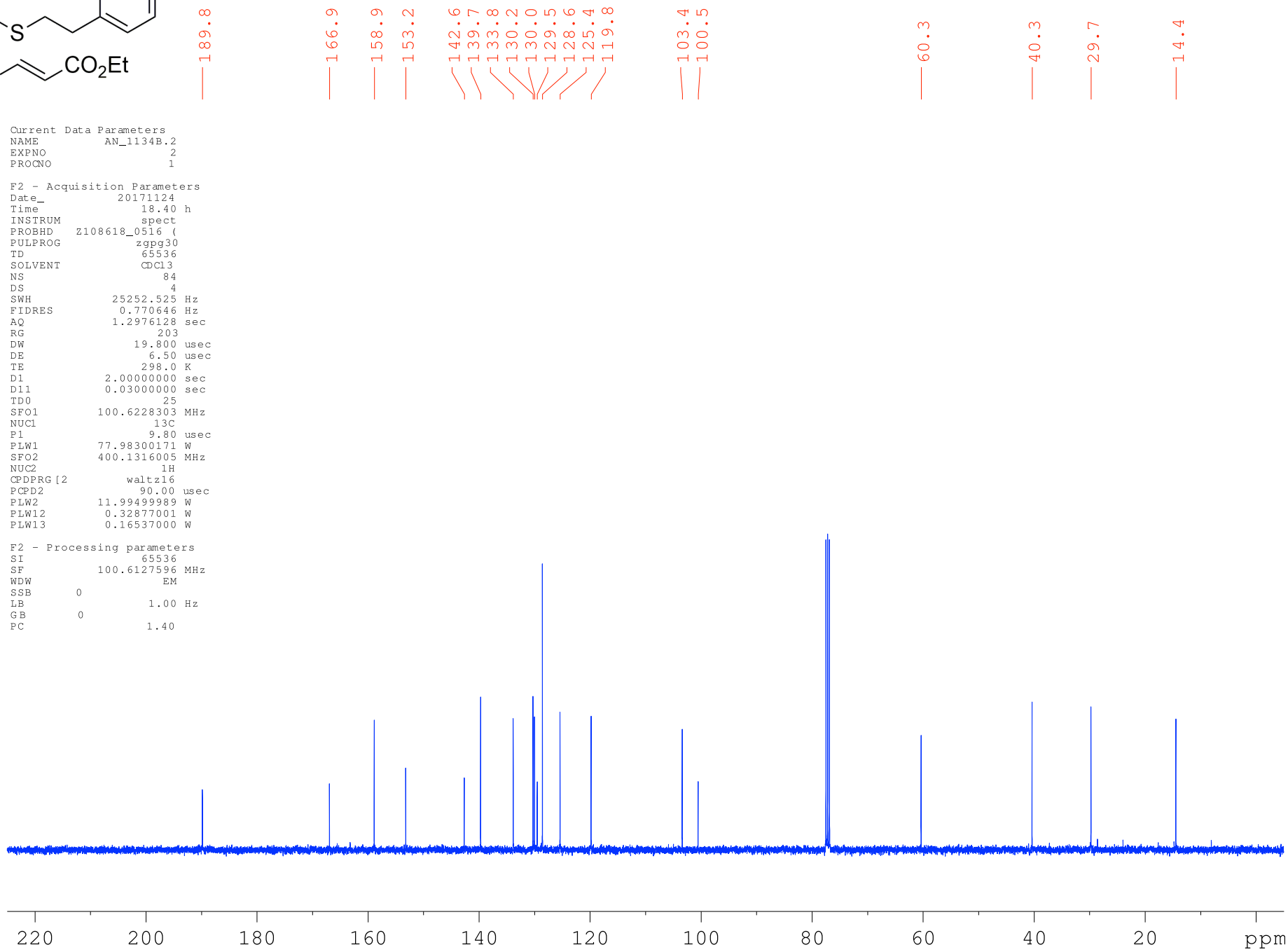

```
Current Data Parameters
NAME          AN_361.3
EXPNO               11
PROCNO               1

F2 - Acquisition Parameter
Date_         20171208
Time            16.46 h
INSTRUM          spect
PROBHD   Z108618_0516 (
PULPROG             zg
TD               48076
SOLVENT          CDCl3
NS                   1
DS                   0
SWH           8000.000 Hz
FIDRES        0.332806 Hz
AQ          3.0047500 sec
RG                 203
DW             62.500 usec
DE              10.20 usec
TE              298.0 K
D1          5.00000000 sec
TD0                  1
SFO1       400.1324008 MH
NUC1                1H
P1              14.90 usec
PLW1       11.99499989 W

F2 - Processing parameters
SI               32768
SF         400.1300097 MH
WDW                 no
SSB      0
LB       0 Hz
GB       0
PC               1.00
```



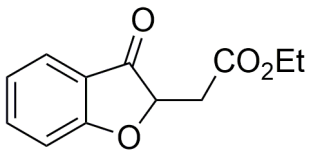





```
Current Data Parameters
NAME          AN_1134B.2
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20171124
Time               18.40 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                    84
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                 6.50 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   25
SFO1        100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                 65536
SF          100.6127596 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```

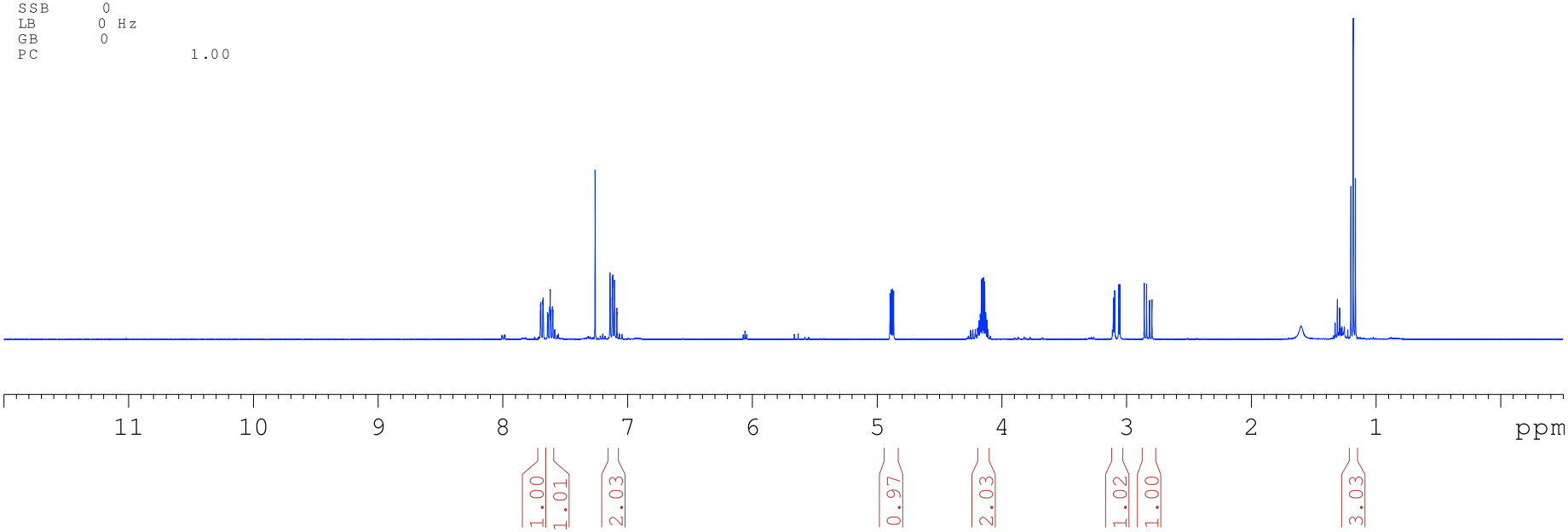


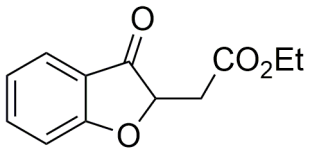
7.70 7.70 7.69 7.69 7.68 7.68 7.68 7.67 7.64 7.64 7.62 7.62 7.62 7.60 7.60 7.14 7.12 7.12 7.12 7.10 7.09 7.08 4.89 4.89 4.88 4.87 4.19 4.18 4.17 4.16 4.15 4.15 4.14 4.13 4.12 4.11 3.10 3.09 3.06 3.05 2.86 2.84 2.81 2.79 1.20 1.18 1.16

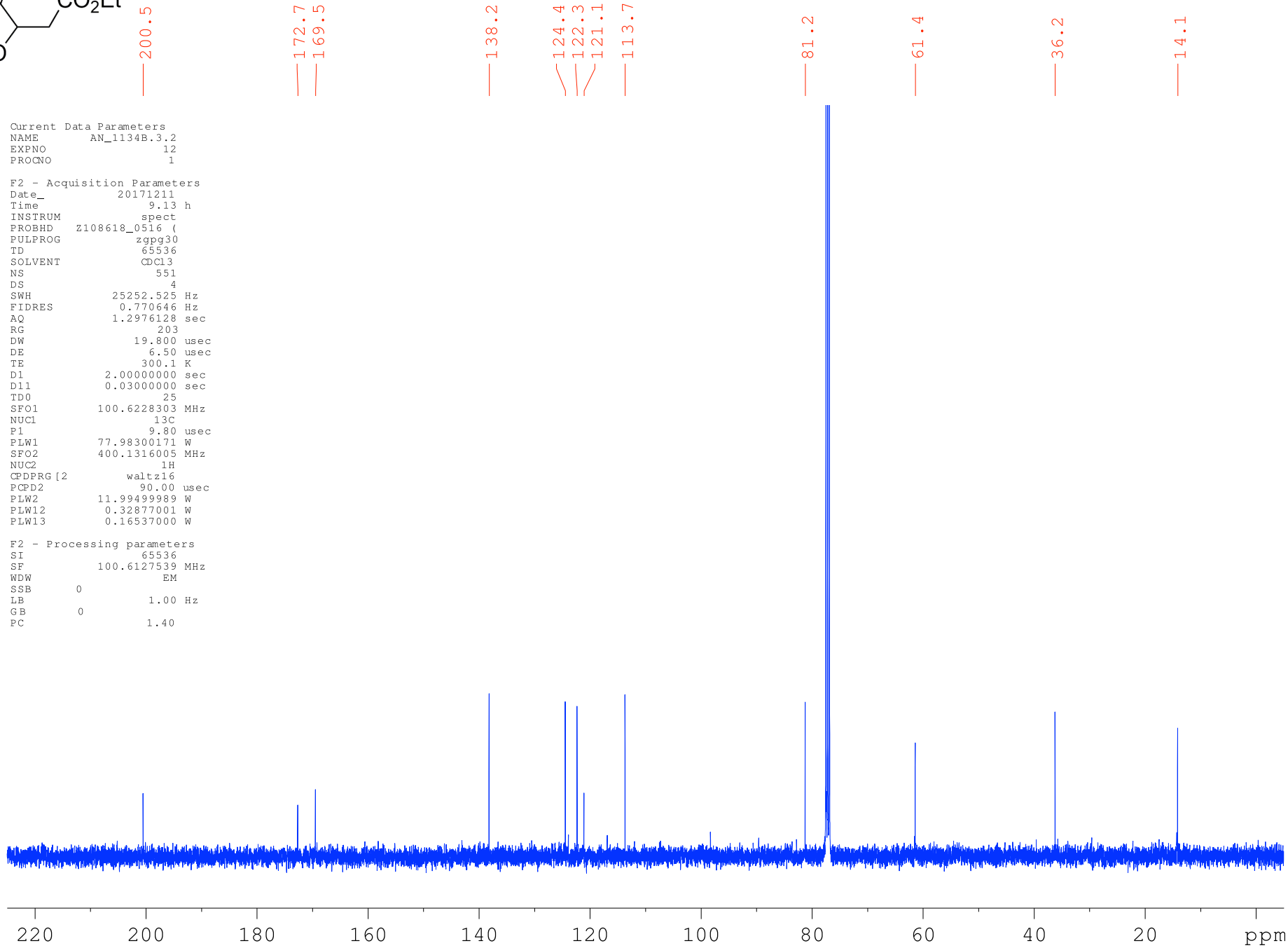
```
Current Data Parameters
NAME       AN_1134B.3.2
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameter
Date_          20171208
Time             16.50 h
INSTRUM          spect
PROBHD   Z108618_0516 (
PULPROG             zg
TD               48076
SOLVENT          CDCl3
NS                   1
DS                   0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ           3.0047500 sec
RG                 203
DW              62.500 usec
DE               10.20 usec
TE               298.1 K
D1           5.00000000 sec
TD0                  1
SFO1        400.1324008 MH
NUC1                1H
P1               14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI               32768
SF          400.1300098 MH
WDW                 no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```



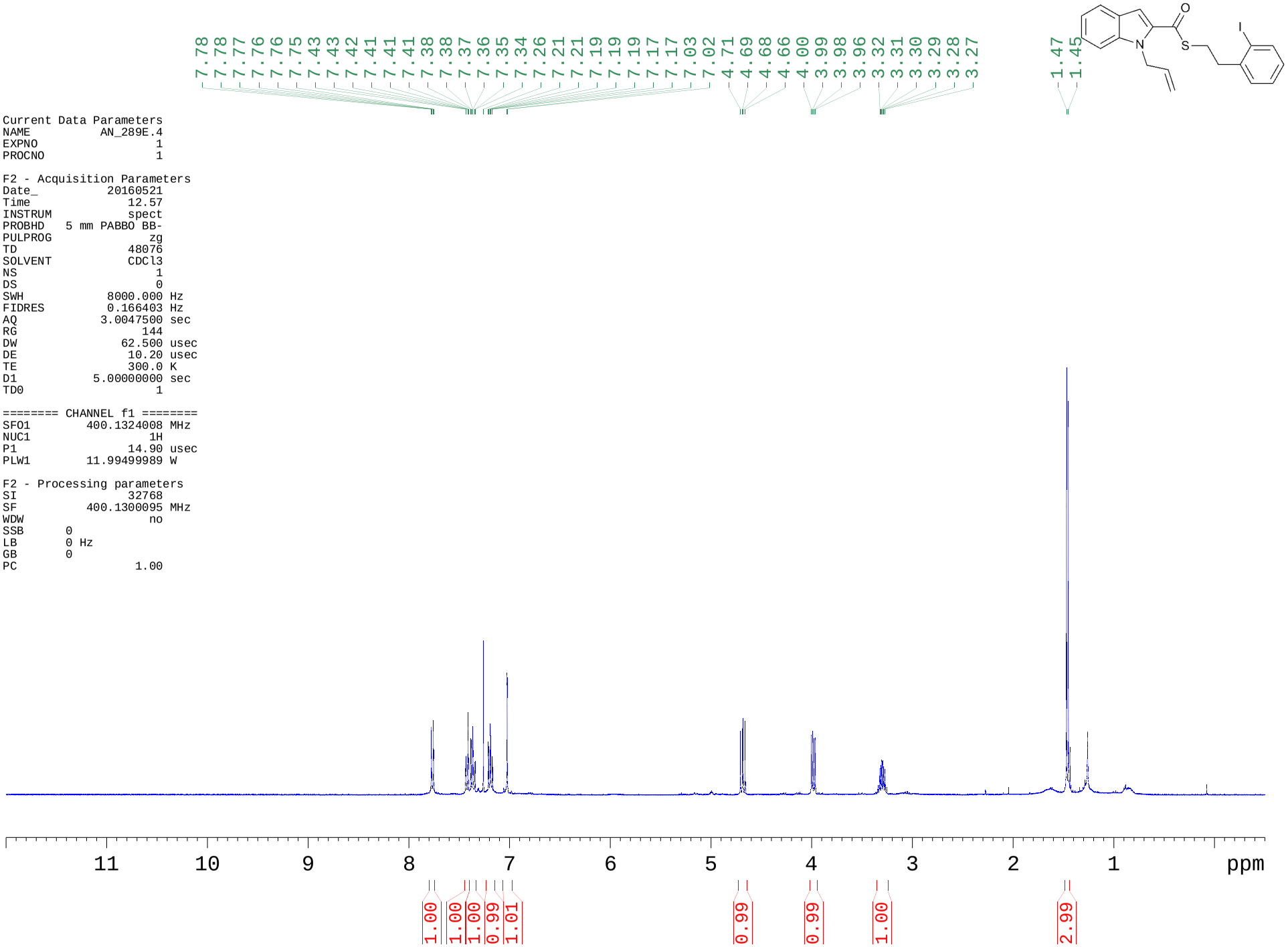


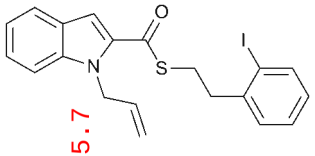


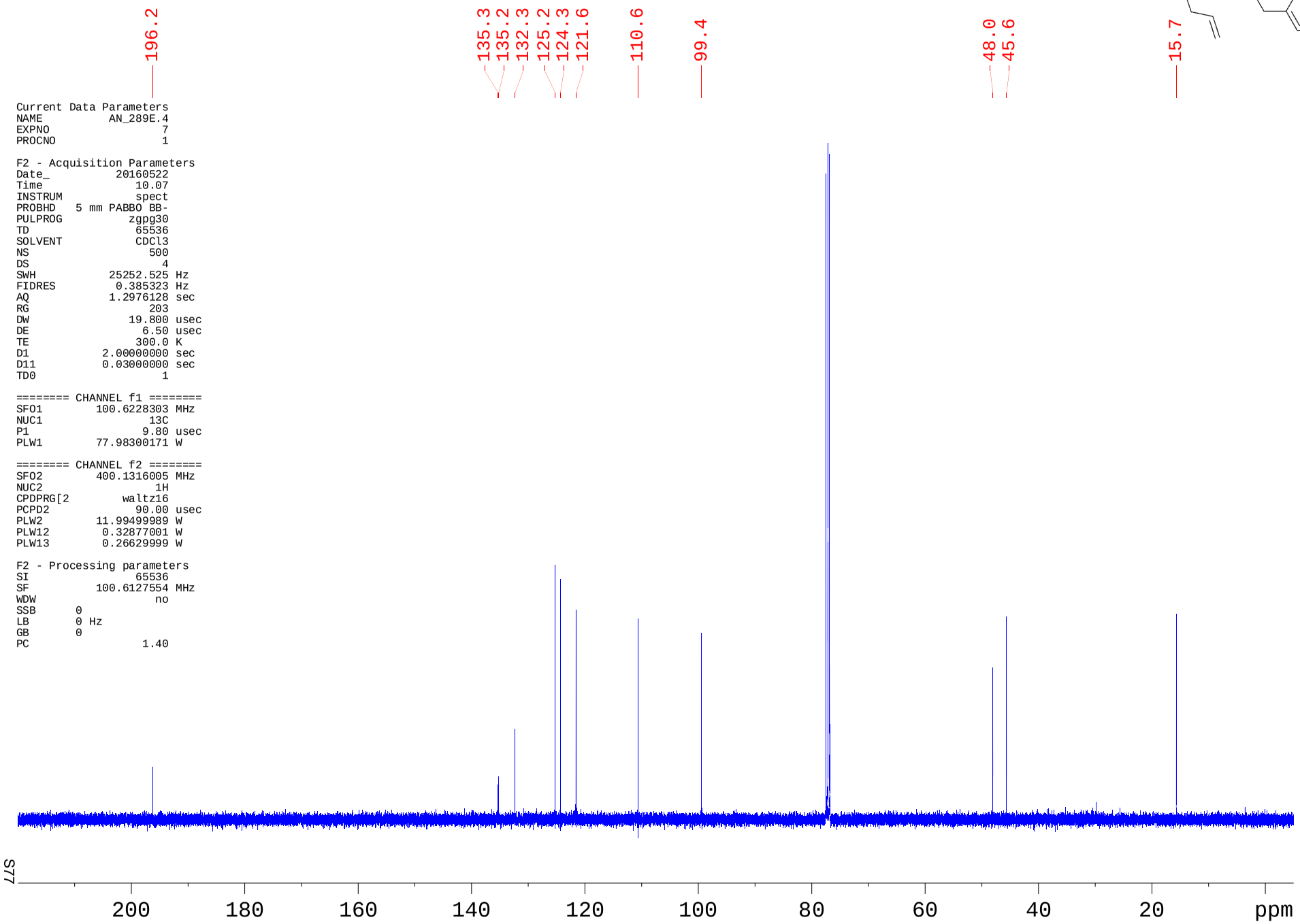

```
Current Data Parameters
NAME        AN_1134B.3.2
EXPNO                 12
PROCNO                 1

F2 - Acquisition Parameters
Date_           20171211
Time                9.13 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                   551
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                 6.50 usec
TE                300.1 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   25
SFO1         100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

F2 - Processing parameters
SI                 65536
SF           100.6127539 MHz
WDW                   EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```


7.78 7.78 7.77 7.76 7.76 7.75 7.43 7.43 7.42 7.41 7.41 7.41 7.38 7.38 7.37 7.36 7.35 7.34 7.26 7.21 7.21 7.19 7.19 7.19 7.17 7.17 7.03 7.02 4.71 4.69 4.68 4.66 4.00 3.99 3.98 3.96 3.32 3.31 3.30 3.29 3.28 3.27
1.47 1.45
O
S
I
N
Current Data Parameters
NAME AN_289E.4
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160521
Time 12.57
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.166403 Hz
AQ 3.0047500 sec
RG 144
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
======== CHANNEL f1 ========
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300095 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
11 10 9 8 7 6 5 4 3 2 1 ppm
1.00 1.00 1.00 0.99 1.01 0.99 0.99 1.00 2.99





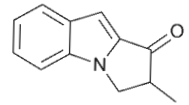

```
Current Data Parameters
NAME          AN_289E.4
EXPNO                 7
PROCNO                1

F2 - Acquisition Parameters
Date_          20160522
Time              10.07
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                  500
DS                    4
SWH           25252.525 Hz
FIDRES         0.385323 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                 6.50 usec
TE                300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1        77.98300171 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.26629999 W

F2 - Processing parameters
SI                65536
SF          100.6127554 MHz
WDW                   no
SSB      0
LB       0 Hz
GB       0
PC                 1.40
```



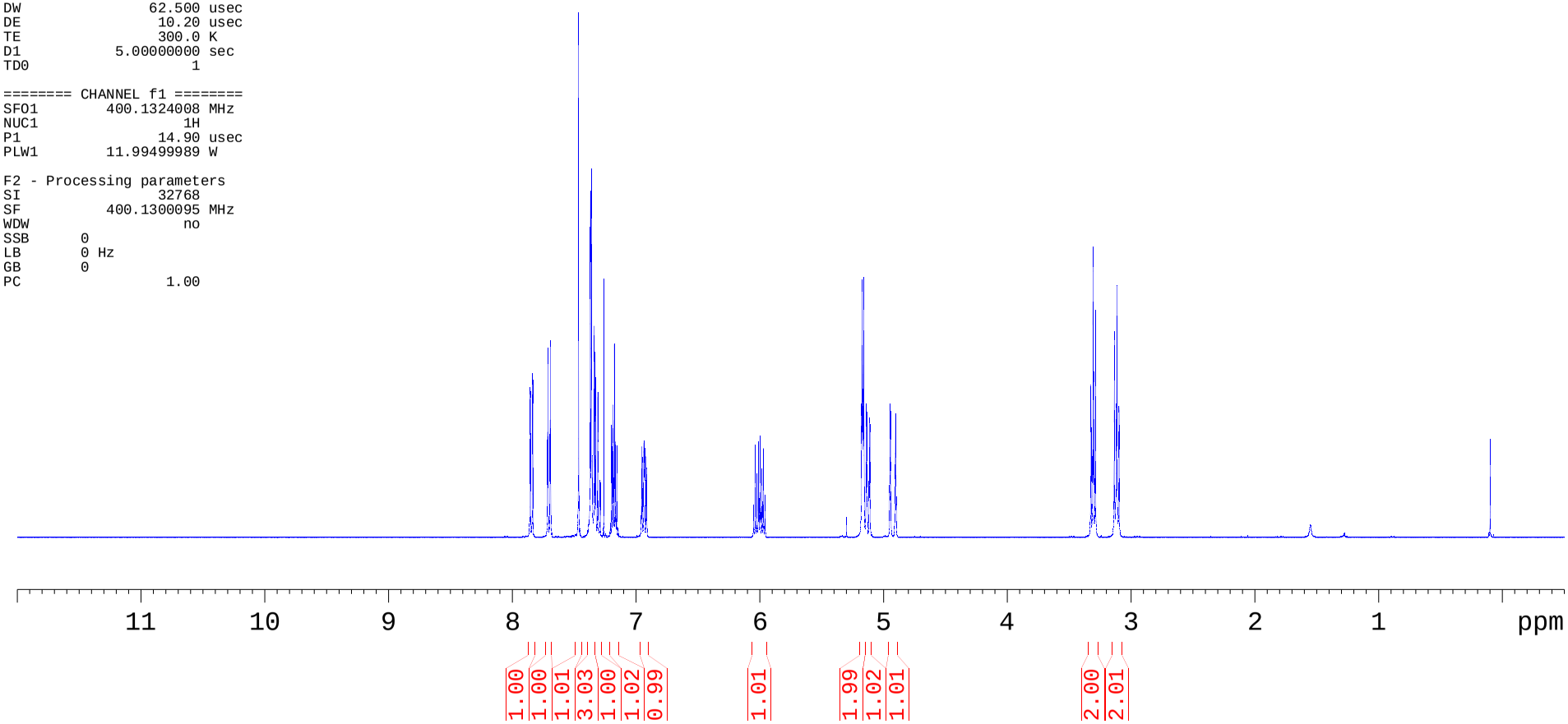
7.86 7.85 7.84 7.83 7.71 7.71 7.71 7.69 7.69 7.69 7.46 7.37 7.37 7.36 7.36 7.35 7.34 7.33 7.33 7.32 7.31 7.31 7.26 7.20 7.19 7.18 7.17 7.16 6.96 6.95 6.94 6.94 6.93 6.93 6.92 6.91 6.04 6.01 5.99 5.98 5.97 5.18 5.17 5.17 5.17 5.16 5.16 5.14 5.14 5.14 5.11 5.11 4.95 4.94 4.90 4.90 3.33 3.32 3.31 3.30 3.29 3.29 3.13 3.12 3.11 3.10

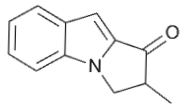
```
Current Data Parameters
NAME     AN_5-109_286.2
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20160411
Time               14.18
INSTRUM            spect
PROBHD   5 mm PABBO BB-
PULPROG               zg
TD                 48076
SOLVENT            CDCl3
NS                     1
DS                     0
SWH            8000.000 Hz
FIDRES         0.166403 Hz
AQ            3.0047500 sec
RG                 80.6
DW                62.500 usec
DE                10.20 usec
TE                300.0 K
D1           5.00000000 sec
TD0                    1

======== CHANNEL f1 ========
SFO1        400.1324008 MHz
NUC1                  1H
P1                14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI                 32768
SF          400.1300095 MHz
WDW                   no
SSB      0
LB       0 Hz
GB       0
PC                 1.00
```





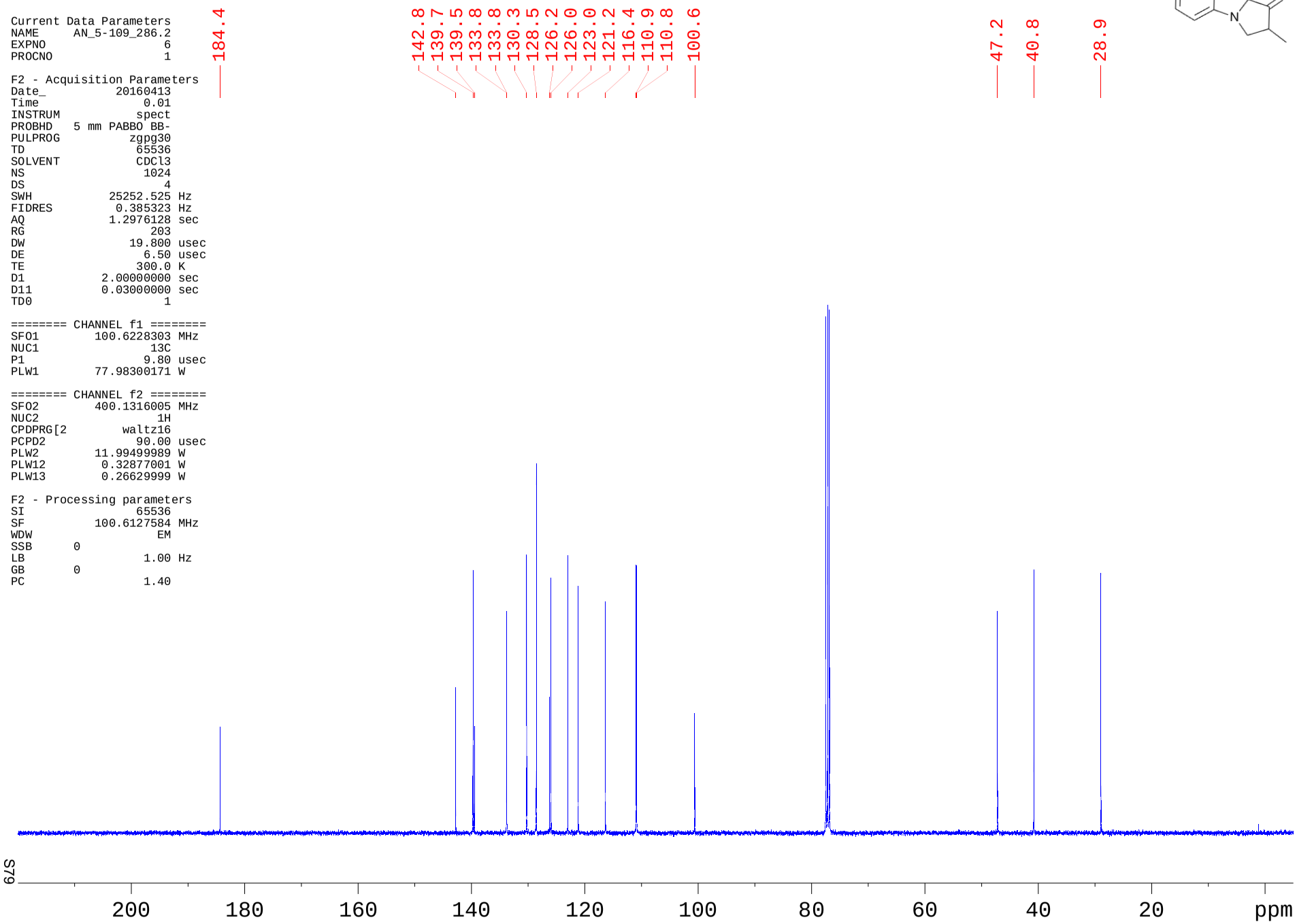
```
Current Data Parameters
NAME     AN_5-109_286.2
EXPNO                 6
PROCNO                1

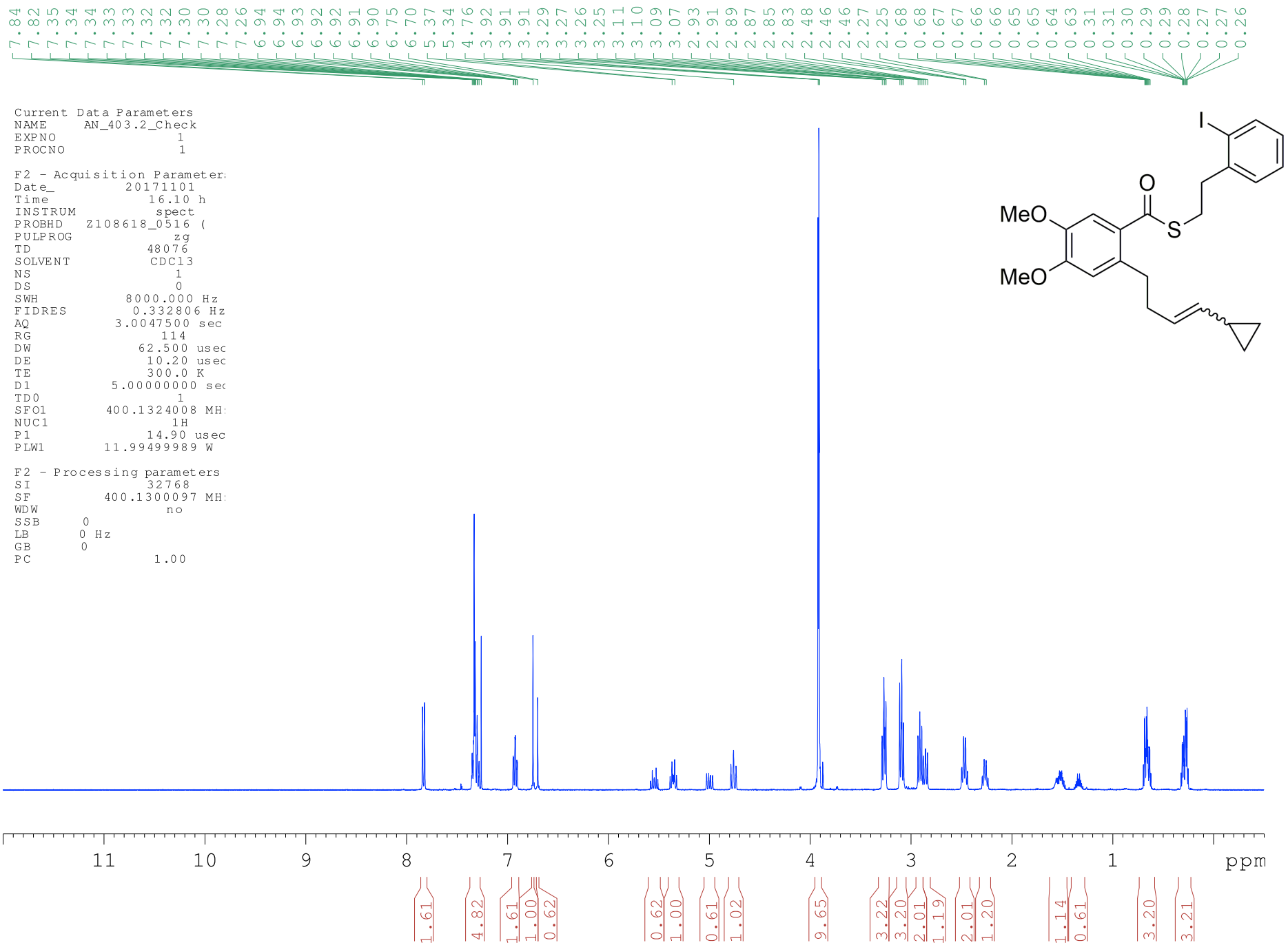
F2 - Acquisition Parameters
Date_           20160413
Time               0.01
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                 1024
DS                    4
SWH           25252.525 Hz
FIDRES         0.385323 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                 6.50 usec
TE                300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   1

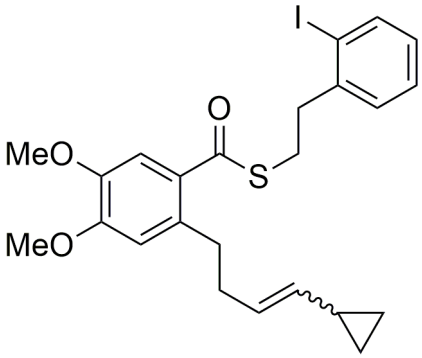
======== CHANNEL f1 ========
SFO1        100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1        77.98300171 W

======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.26629999 W

F2 - Processing parameters
SI                65536
SF          100.6127584 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```




7.84 7.82 7.35 7.34 7.34 7.33 7.33 7.32 7.32 7.30 7.30 7.28 7.26 6.94 6.94 6.93 6.92 6.92 6.91 6.90 6.75 6.70 5.37 5.34 4.76 3.92 3.91 3.91 3.29 3.27 3.26 3.25 3.11 3.10 3.09 3.07 2.93 2.91 2.89 2.87 2.85 2.83 2.48 2.46 2.46 2.27 2.25 0.68 0.68 0.67 0.67 0.66 0.66 0.65 0.65 0.64 0.63 0.31 0.31 0.30 0.29 0.29 0.28 0.27 0.27 0.26
Current Data Parameters
NAME AN_403.2_Check
EXPNO 1
PROCNO 1
F2 - Acquisition Parameter
Date_ 20171101
Time 16.10 h
INSTRUM spect
PROBHD Z108618_0516 (
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.332806 Hz
AQ 3.0047500 sec
RG 114
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
SFO1 400.1324008 MH
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300097 MH
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
I
O
S
MeO
MeO
11 10 9 8 7 6 5 4 3 2 1 ppm
1.61 4.82 1.61 1.00 0.62 0.62 1.00 0.61 1.02 9.65 3.22 3.20 2.01 1.19 2.01 1.20 1.14 0.61 3.20 3.21



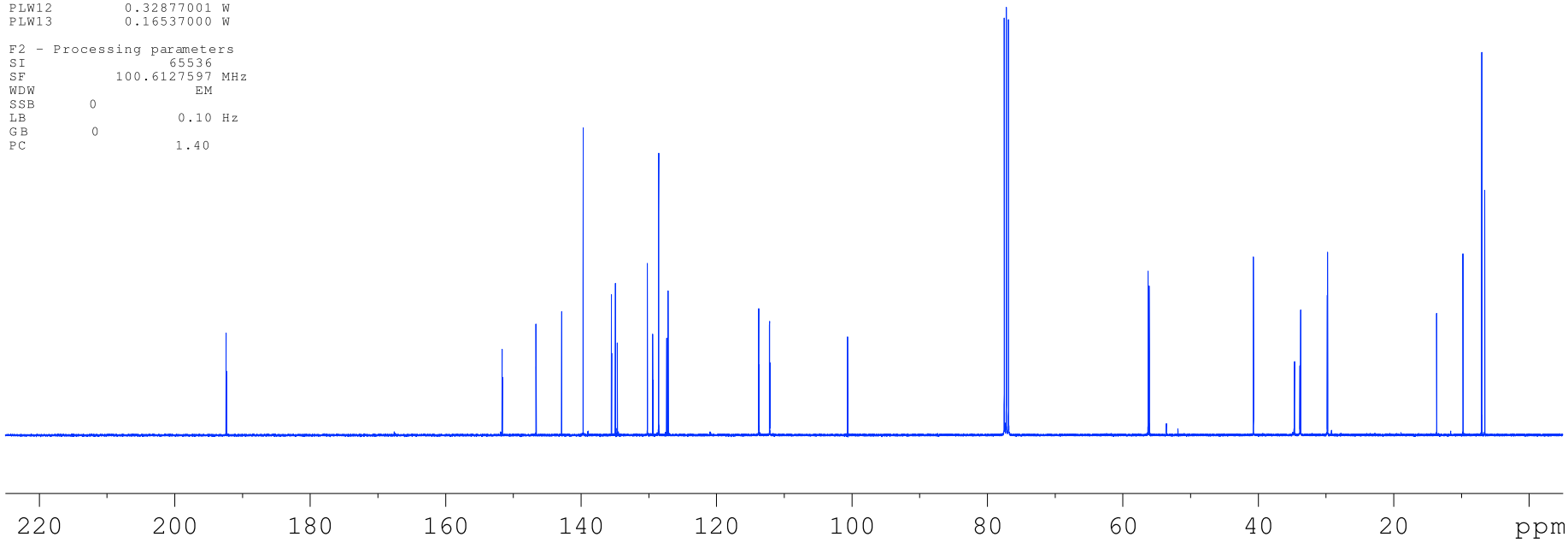
192.39
192.35

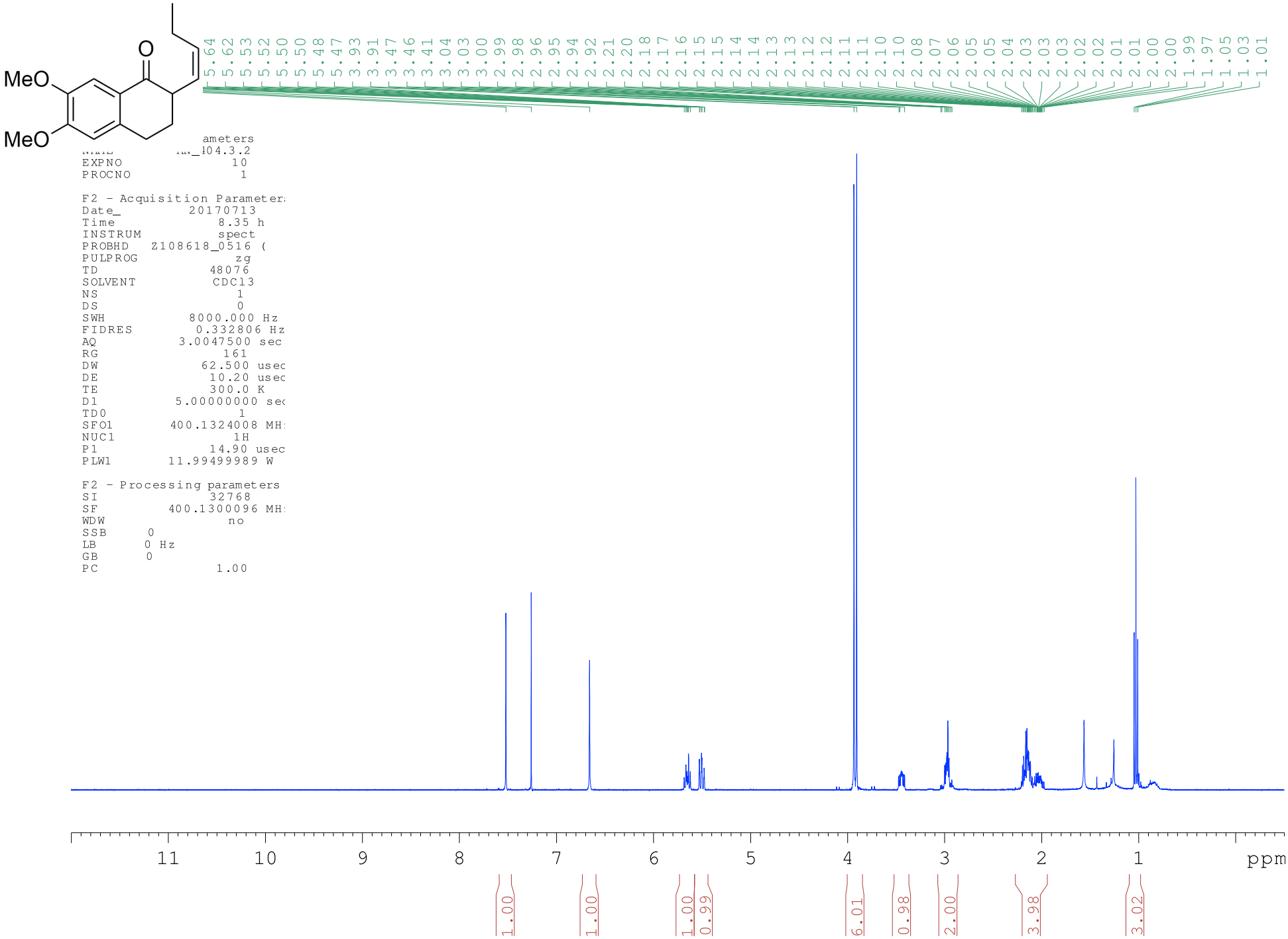
151.64
151.60
146.63
146.59
142.84
142.83
139.66
135.49
135.46
134.91
134.62
130.18
130.17
129.39
129.33
128.51
128.49
127.32
127.12
113.74
113.69
112.14
112.08
100.63
100.60

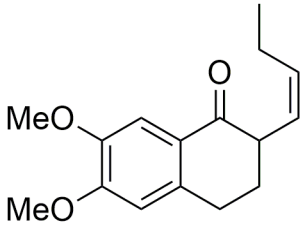
56.24
56.22
56.08
56.06
40.70
40.67
34.62
33.82
33.71
29.78
29.72
13.63
9.73
6.96
6.51

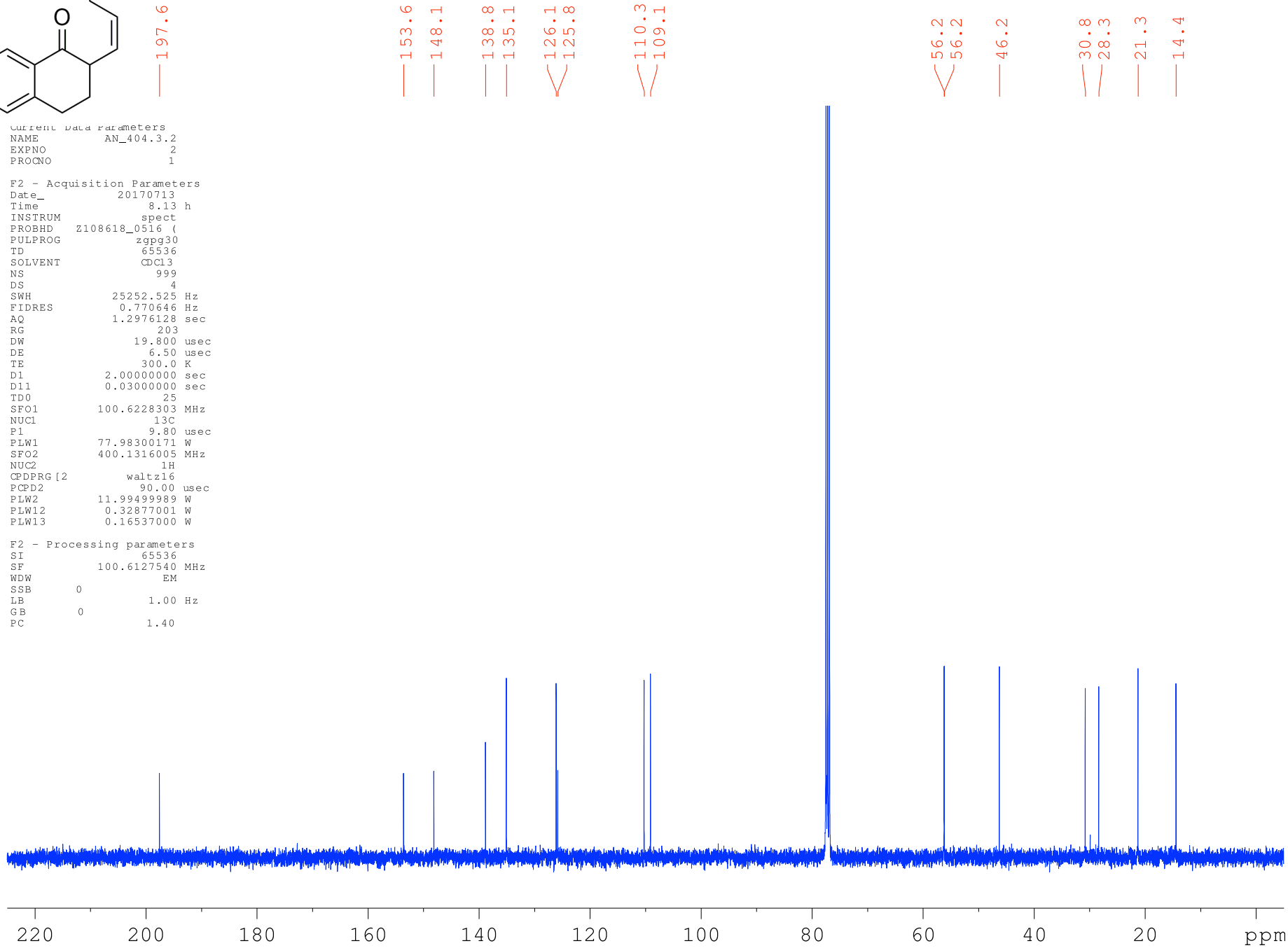
```
PROBHD    Z108618_0516 (
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                  5314
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                 6.50 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   25
SFO1         100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

F2 - Processing parameters
SI                 65536
SF           100.6127597 MHz
WDW                   EM
SSB       0
LB                 0.10 Hz
GB        0
PC                 1.40
```




MeO
MeO
O
5.64 5.62 5.53 5.52 5.50 5.50 5.48 5.47 3.93 3.91 3.47 3.46 3.41 3.04 3.03 3.00 2.99 2.98 2.96 2.95 2.94 2.92 2.21 2.20 2.18 2.17 2.16 2.15 2.15 2.14 2.14 2.13 2.13 2.12 2.12 2.11 2.11 2.10 2.10 2.08 2.07 2.06 2.05 2.05 2.04 2.03 2.03 2.03 2.02 2.02 2.01 2.01 2.00 2.00 1.99 1.97 1.05 1.03 1.01
ameters
NAME ...104.3.2
EXPNO 10
PROCNO 1
F2 - Acquisition Parameter
Date_ 20170713
Time 8.35 h
INSTRUM spect
PROBHD Z108618_0516 (
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.332806 Hz
AQ 3.0047500 sec
RG 161
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
SFO1 400.1324008 MH
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300096 MH
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
11 10 9 8 7 6 5 4 3 2 1 ppm
1.00 1.00 1.00 0.99 6.01 0.98 2.00 3.98 3.02

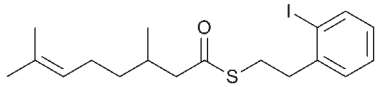


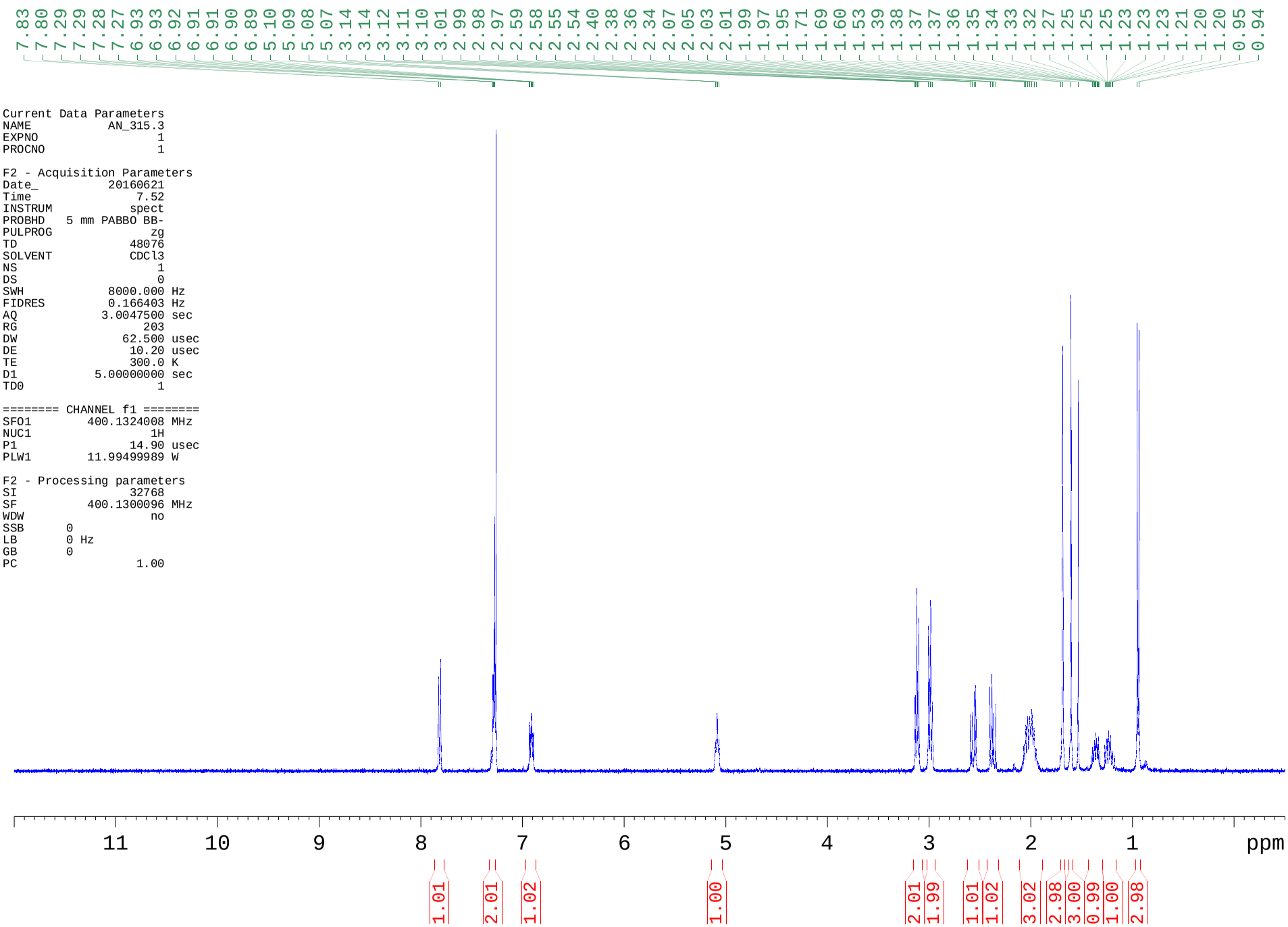



```
Current Data Parameters
NAME          AN_404.3.2
EXPNO                  2
PROCNO                 1

F2 - Acquisition Parameters
Date_           20170713
Time                8.13 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                   999
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                 6.50 usec
TE                300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   25
SFO1         100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

F2 - Processing parameters
SI                 65536
SF           100.6127540 MHz
WDW                   EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.40
```



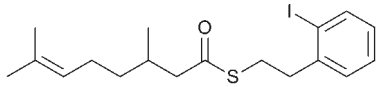


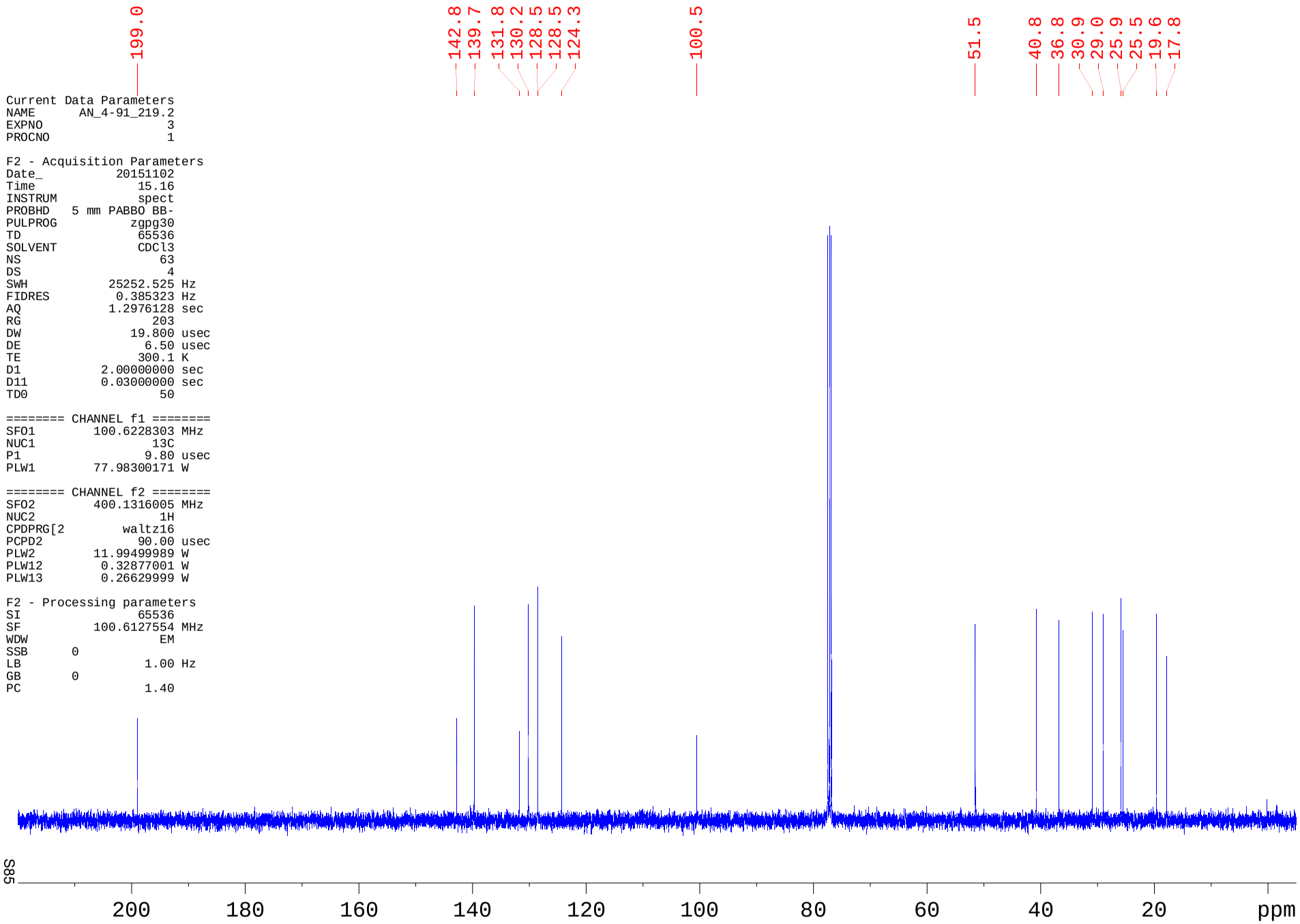

```
Current Data Parameters
NAME          AN_315.3
EXPNO                1
PROCNO               1

F2 - Acquisition Parameters
Date_          20160621
Time               7.52
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG              zg
TD                48076
SOLVENT           CDCl3
NS                    1
DS                    0
SWH            8000.000 Hz
FIDRES         0.166403 Hz
AQ            3.0047500 sec
RG                  203
DW               62.500 usec
DE               10.20 usec
TE               300.0 K
D1           5.00000000 sec
TD0                   1

======== CHANNEL f1 ========
SFO1        400.1324008 MHz
NUC1                 1H
P1                14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI                32768
SF          400.1300096 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```






```
Current Data Parameters
NAME      AN_4-91_219.2
EXPNO                 3
PROCNO                1

F2 - Acquisition Parameters
Date_          20151102
Time              15.16
INSTRUM           spect
PROBHD   5 mm PABBO BB-
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                   63
DS                    4
SWH           25252.525 Hz
FIDRES         0.385323 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                 6.50 usec
TE                300.1 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  50

======== CHANNEL f1 ========
SFO1        100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1        77.98300171 W

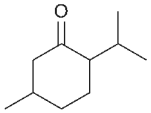
======== CHANNEL f2 ========
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.26629999 W

F2 - Processing parameters
SI                 65536
SF          100.6127554 MHz
WDW                   EM
SSB      0
LB                  1.00 Hz
GB       0
PC                  1.40
```

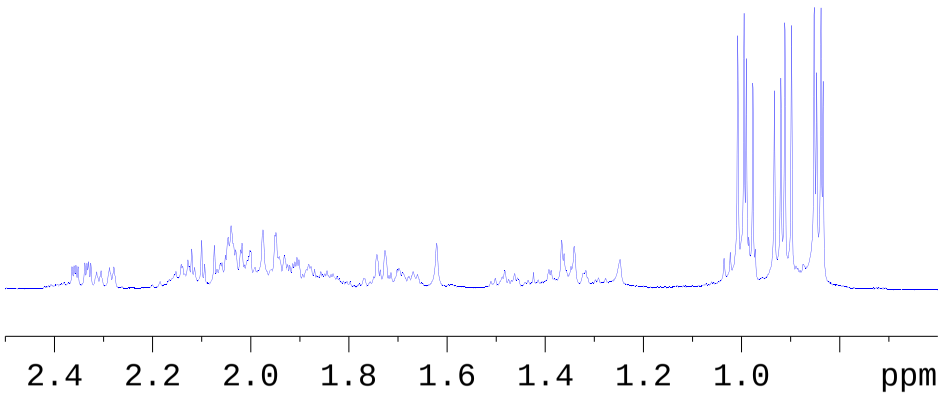
```
Current Data Parameters
NAME          AN_302E.3
EXPNO                 2
PROCNO                1

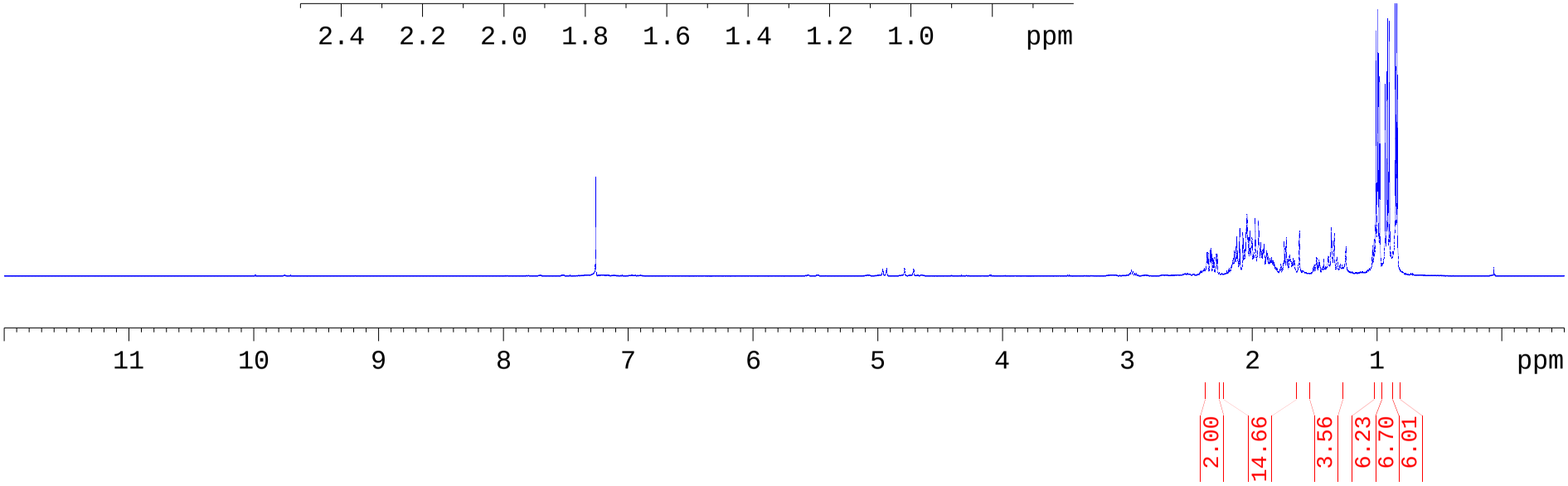
F2 - Acquisition Parameters
Date_           20161024
Time               18.44 h
INSTRUM            spect
PROBHD   Z119470_0008 (
PULPROG              zg
TD               159998
SOLVENT           CDCl3
NS                    4
DS                    4
SWH            10000.000 Hz
FIDRES          0.125002 Hz
AQ             7.9998999 sec
RG                 45.2
DW                50.000 usec
DE                  6.50 usec
TE                 300.0 K
D1          100.00000000 sec
TD0                   1
SFO1         500.1330008 MHz
NUC1                 1H
P1                14.00 usec
PLW1         15.48799992 W

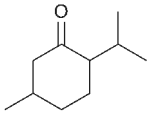
F2 - Processing parameters
SI                32768
SF           500.1300118 MHz
WDW                  EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.00
```

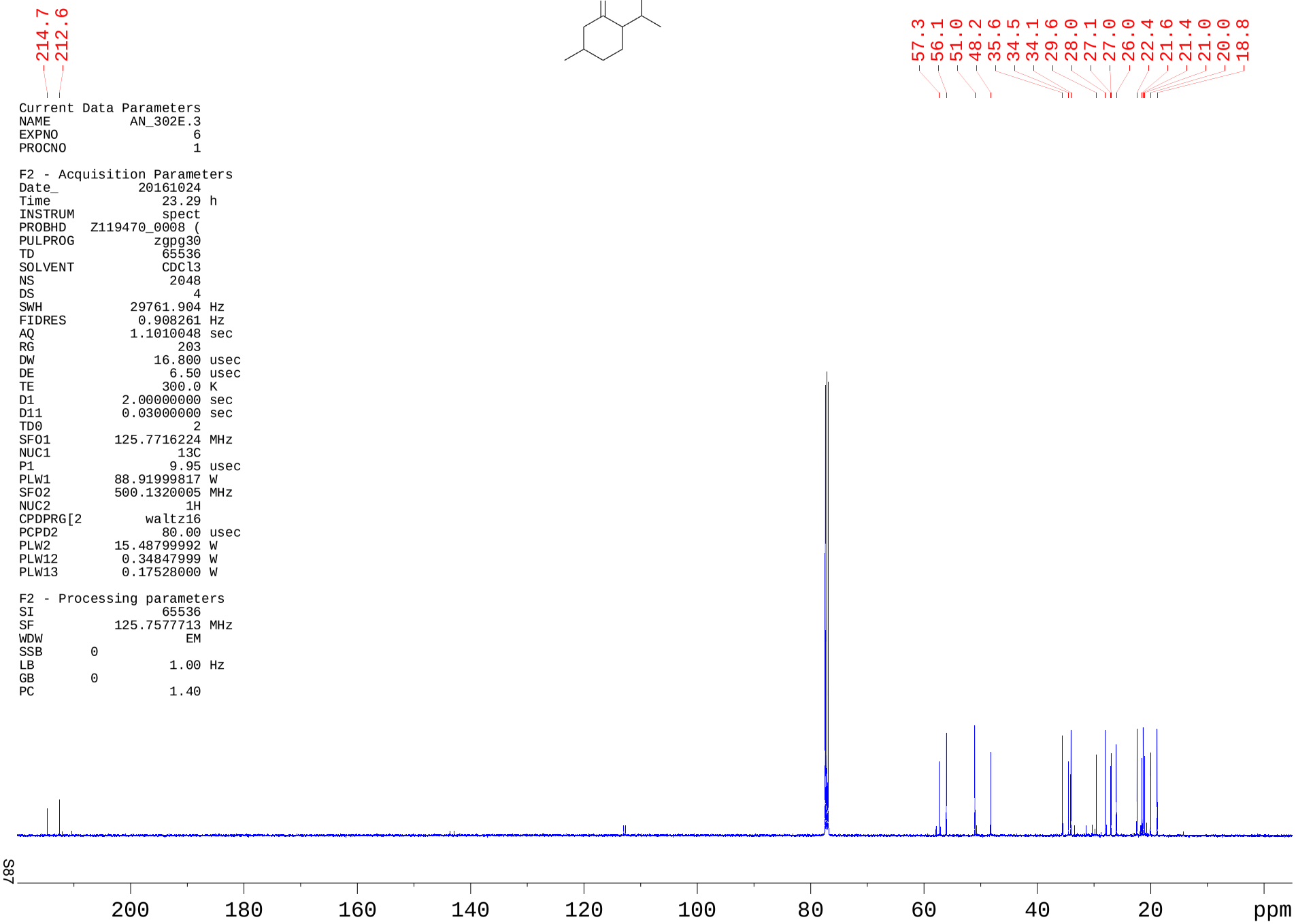


2.36 2.36 2.36 2.35 2.34 2.33 2.33 2.33 2.31 2.31 2.29 2.28 2.28 2.19 2.18 2.13 2.12 2.10 2.07 2.05 2.04 1.97 1.95 1.95 1.88 1.88 1.82 1.81 1.80 1.80 1.77 1.74 1.73 1.69 1.67 1.66 1.51





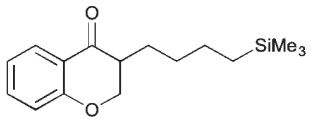





```
Current Data Parameters
NAME          AN_302E.3
EXPNO                 6
PROCNO                1

F2 - Acquisition Parameters
Date_           20161024
Time              23.29 h
INSTRUM           spect
PROBHD   Z119470_0008 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                 2048
DS                    4
SWH           29761.904 Hz
FIDRES         0.908261 Hz
AQ            1.1010048 sec
RG                  203
DW               16.800 usec
DE                 6.50 usec
TE                300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   2
SFO1        125.7716224 MHz
NUC1                13C
P1                 9.95 usec
PLW1        88.91999817 W
SFO2        500.1320005 MHz
NUC2                 1H
CPDPRG[2        waltz16
PCPD2             80.00 usec
PLW2        15.48799992 W
PLW12        0.34847999 W
PLW13        0.17528000 W

F2 - Processing parameters
SI                65536
SF          125.7577713 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```

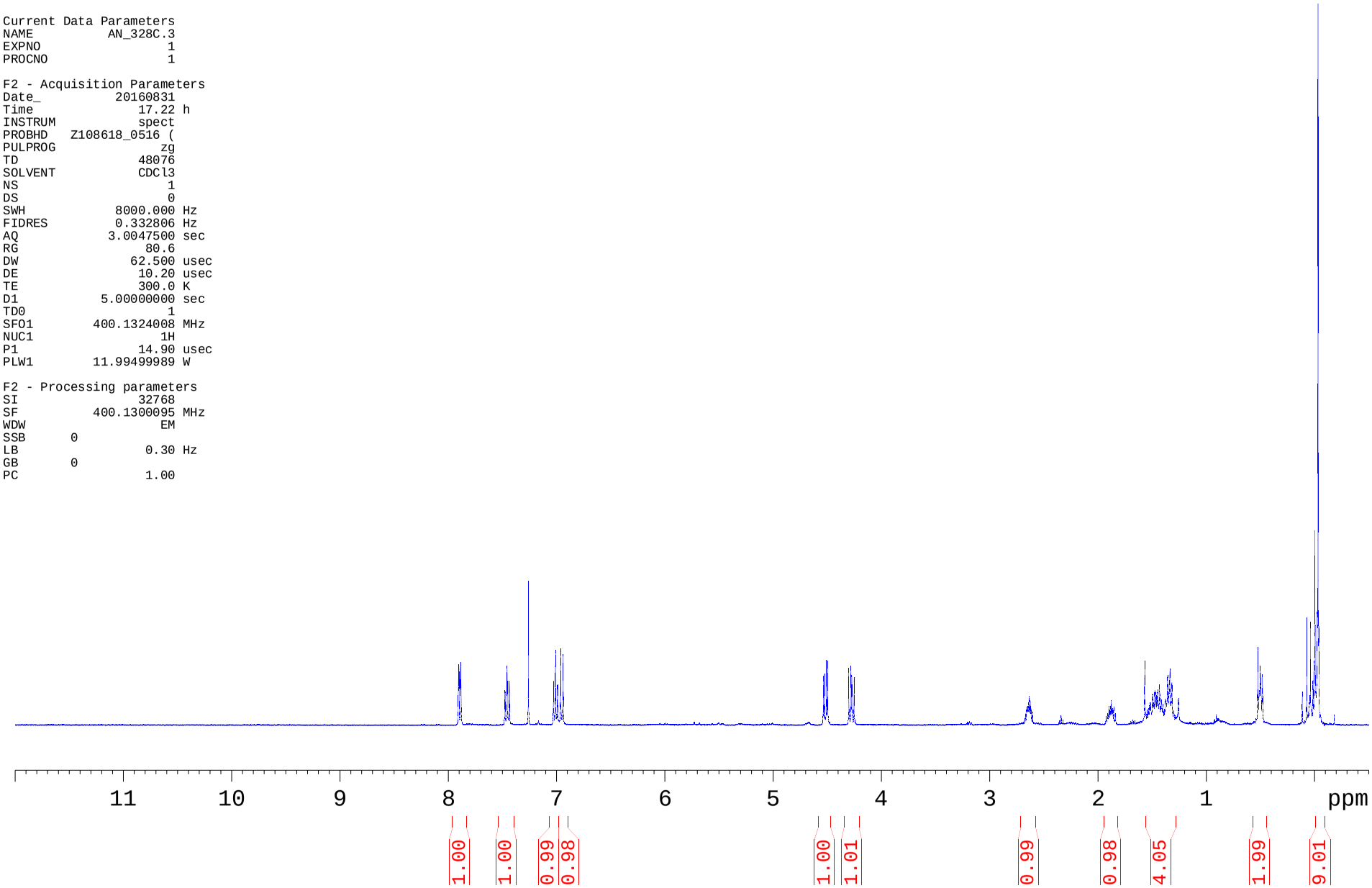


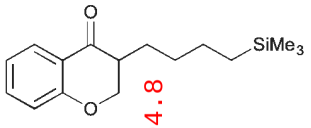
7.91 7.90 7.89 7.88 7.48 7.47 7.46 7.46 7.45 7.44 7.44 7.03 7.03 7.01 6.99 6.99 6.96 6.94 4.54 4.53 4.51 4.50 4.30 4.28 4.27 4.25 2.66 2.65 2.65 2.64 2.63 1.91 1.90 1.89 1.89 1.88 1.87 1.87 1.86 1.85 1.84 1.57 1.50 1.50 1.48 1.46 1.46 1.45 1.43 1.41 1.38 1.37

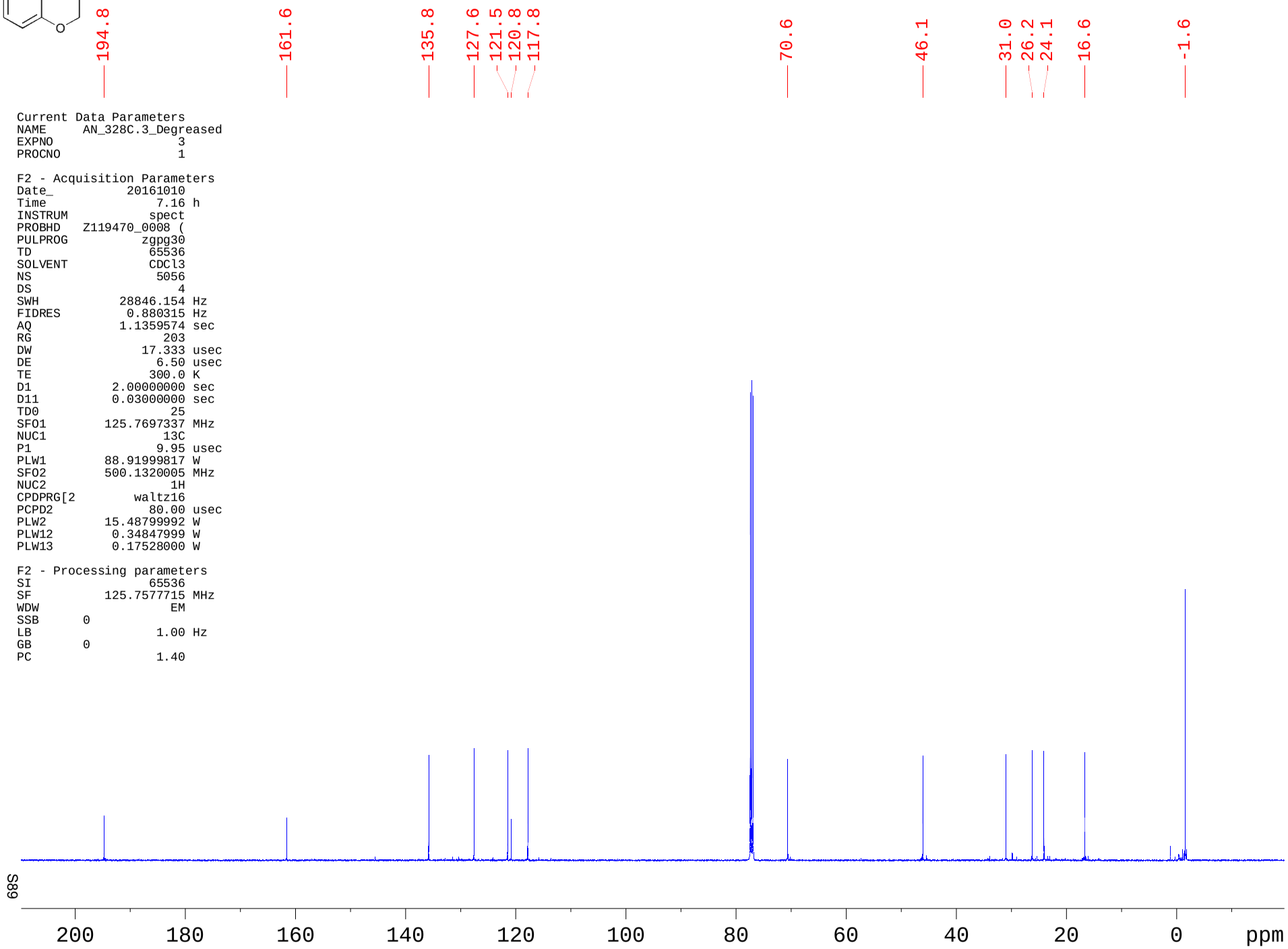
```
Current Data Parameters
NAME          AN_328C.3
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_           20160831
Time               17.22 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG               zg
TD                 48076
SOLVENT            CDCl3
NS                     1
DS                     0
SWH             8000.000 Hz
FIDRES          0.332806 Hz
AQ             3.0047500 sec
RG                  80.6
DW                62.500 usec
DE                 10.20 usec
TE                 300.0 K
D1            5.00000000 sec
TD0                    1
SFO1         400.1324008 MHz
NUC1                  1H
P1                 14.90 usec
PLW1         11.99499989 W

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



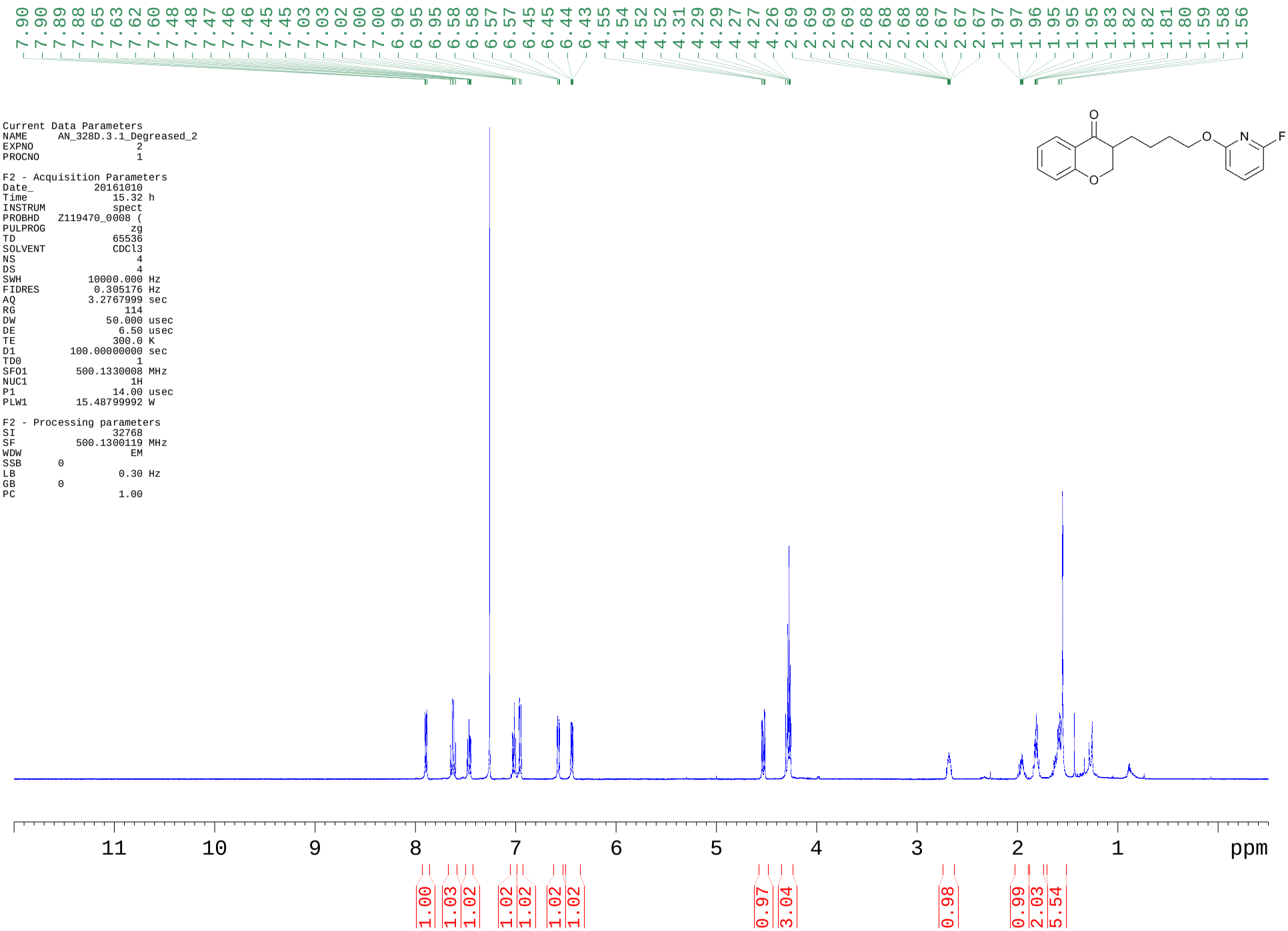


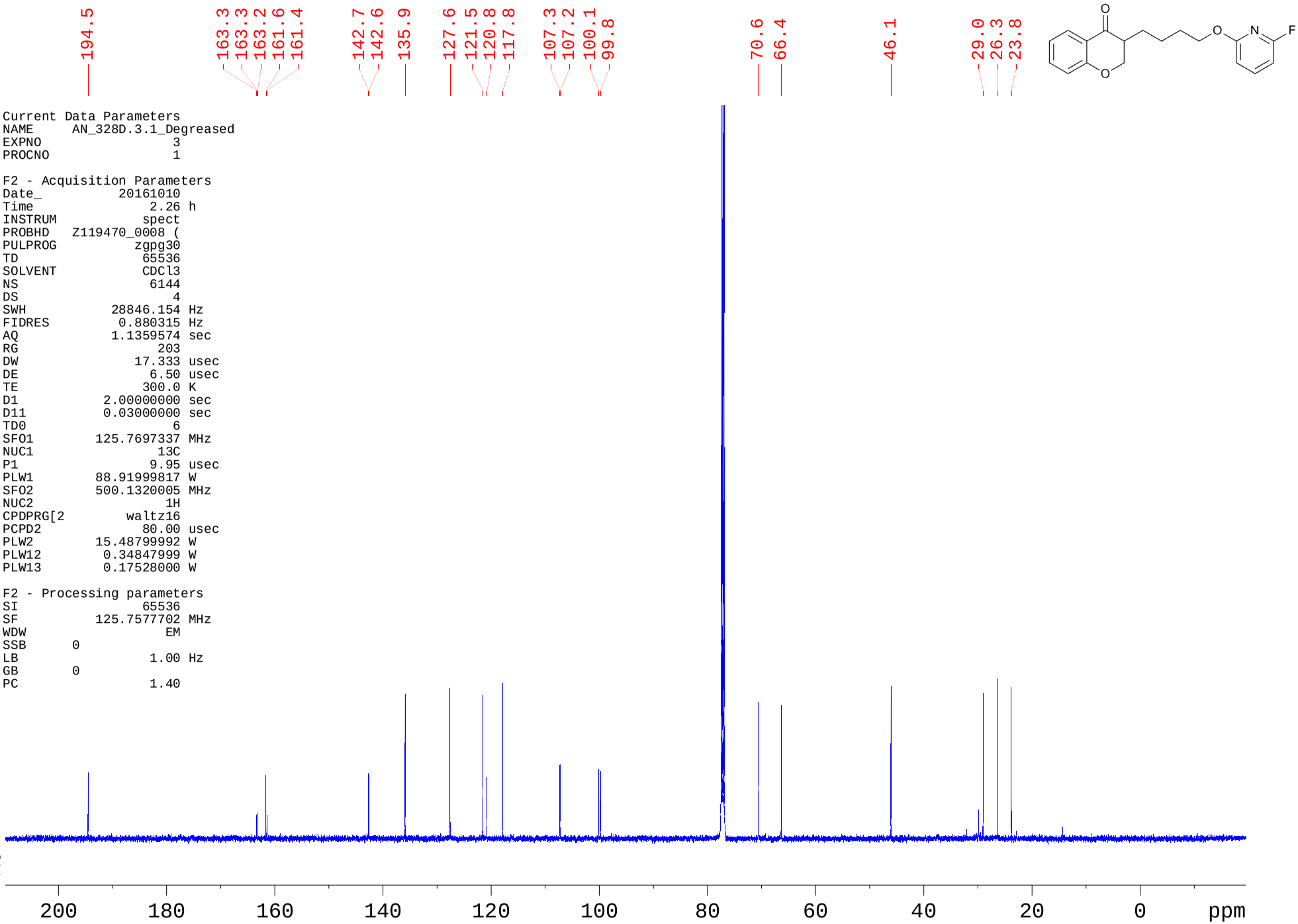



```
Current Data Parameters
NAME     AN_328C.3_Degreased
EXPNO                      3
PROCNO                     1

F2 - Acquisition Parameters
Date_            20161010
Time                 7.16 h
INSTRUM             spect
PROBHD   Z119470_0008 (
PULPROG            zgpg30
TD                  65536
SOLVENT             CDCl3
NS                   5056
DS                      4
SWH            28846.154 Hz
FIDRES          0.880315 Hz
AQ             1.1359574 sec
RG                    203
DW                 17.333 usec
DE                   6.50 usec
TE                  300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                    25
SFO1         125.7697337 MHz
NUC1                 13C
P1                   9.95 usec
PLW1         88.91999817 W
SFO2         500.1320005 MHz
NUC2                  1H
CPDPRG[2          waltz16
PCPD2               80.00 usec
PLW2         15.48799992 W
PLW12         0.34847999 W
PLW13         0.17528000 W

F2 - Processing parameters
SI                  65536
SF           125.7577715 MHz
WDW                    EM
SSB      0
LB                   1.00 Hz
GB       0
PC                   1.40
```

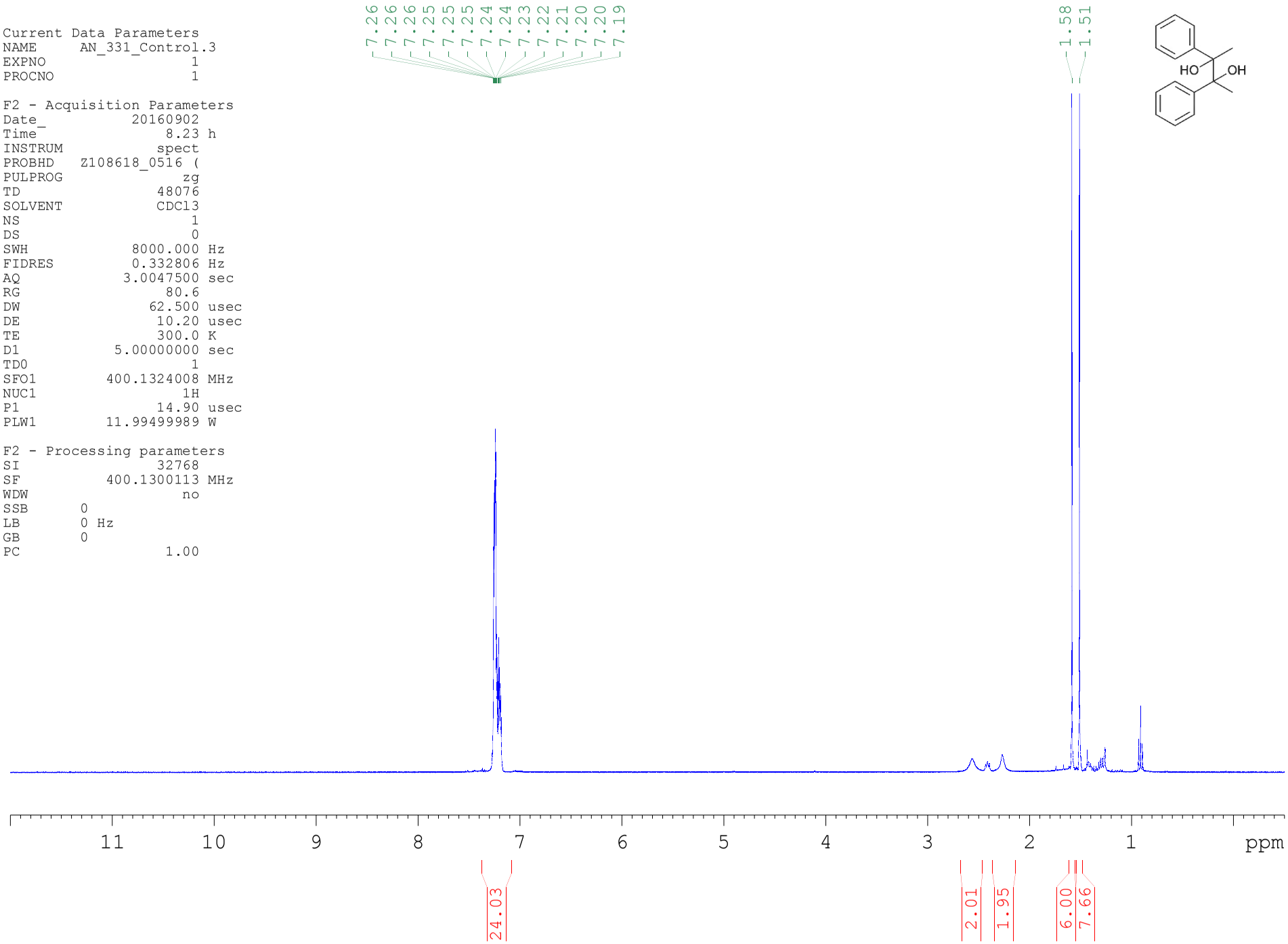

7.90 7.90 7.89 7.88 7.65 7.63 7.62 7.60 7.48 7.48 7.47 7.46 7.46 7.45 7.45 7.03 7.03 7.02 7.00 7.00 6.96 6.95 6.95 6.58 6.58 6.57 6.57 6.45 6.45 6.44 6.43 4.55 4.54 4.52 4.52 4.31 4.29 4.29 4.27 4.27 4.26 2.69 2.69 2.69 2.69 2.68 2.68 2.68 2.68 2.67 2.67 2.67 2.67 1.97 1.97 1.96 1.95 1.95 1.95 1.83 1.82 1.82 1.81 1.80 1.59 1.58 1.56
Current Data Parameters
NAME AN_328D.3.1_Degreased_2
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20161010
Time 15.32 h
INSTRUM spect
PROBHD Z119470_0008 (
PULPROG zg
TD 65536
SOLVENT CDCl3
NS 4
DS 4
SWH 10000.000 Hz
FIDRES 0.305176 Hz
AQ 3.2767999 sec
RG 114
DW 50.000 usec
DE 6.50 usec
TE 300.0 K
D1 100.00000000 sec
TD0 1
SFO1 500.1330008 MHz
NUC1 1H
P1 14.00 usec
PLW1 15.48799992 W
F2 - Processing parameters
SI 32768
SF 500.1300119 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
O
O
N
F
O
11 10 9 8 7 6 5 4 3 2 1 ppm
1.00 1.03 1.02 1.02 1.02 1.02 1.02 0.97 3.04 0.98 0.99 2.03 5.54


194.5
163.3
163.3
163.2
161.6
161.4
142.7
142.6
135.9
127.6
121.5
120.8
117.8
107.3
107.2
100.1
99.8
70.6
66.4
46.1
29.0
26.3
23.8
O
O
O
N
F
Current Data Parameters
NAME AN_328D.3.1_Degreased
EXPNO 3
PROCNO 1
F2 - Acquisition Parameters
Date_ 20161010
Time 2.26 h
INSTRUM spect
PROBHD Z119470_0008 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 6144
DS 4
SWH 28846.154 Hz
FIDRES 0.880315 Hz
AQ 1.1359574 sec
RG 203
DW 17.333 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 6
SFO1 125.7697337 MHz
NUC1 13C
P1 9.95 usec
PLW1 88.91999817 W
SFO2 500.1320005 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 80.00 usec
PLW2 15.48799992 W
PLW12 0.34847999 W
PLW13 0.17528000 W
F2 - Processing parameters
SI 65536
SF 125.7577702 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
200
180
160
140
120
100
80
60
40
20
0
ppm

```
Current Data Parameters
NAME      AN_331_Control.3
EXPNO                    1
PROCNO                   1

F2 - Acquisition Parameters
Date_            20160902
Time                 8.23 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG                 zg
TD                  48076
SOLVENT             CDCl3
NS                      1
DS                      0
SWH              8000.000 Hz
FIDRES           0.332806 Hz
AQ             3.0047500 sec
RG                   80.6
DW                 62.500 usec
DE                  10.20 usec
TE                  300.0 K
D1            5.00000000 sec
TD0                     1
SFO1         400.1324008 MHz
NUC1                  1H
P1                  14.90 usec
PLW1         11.99499989 W

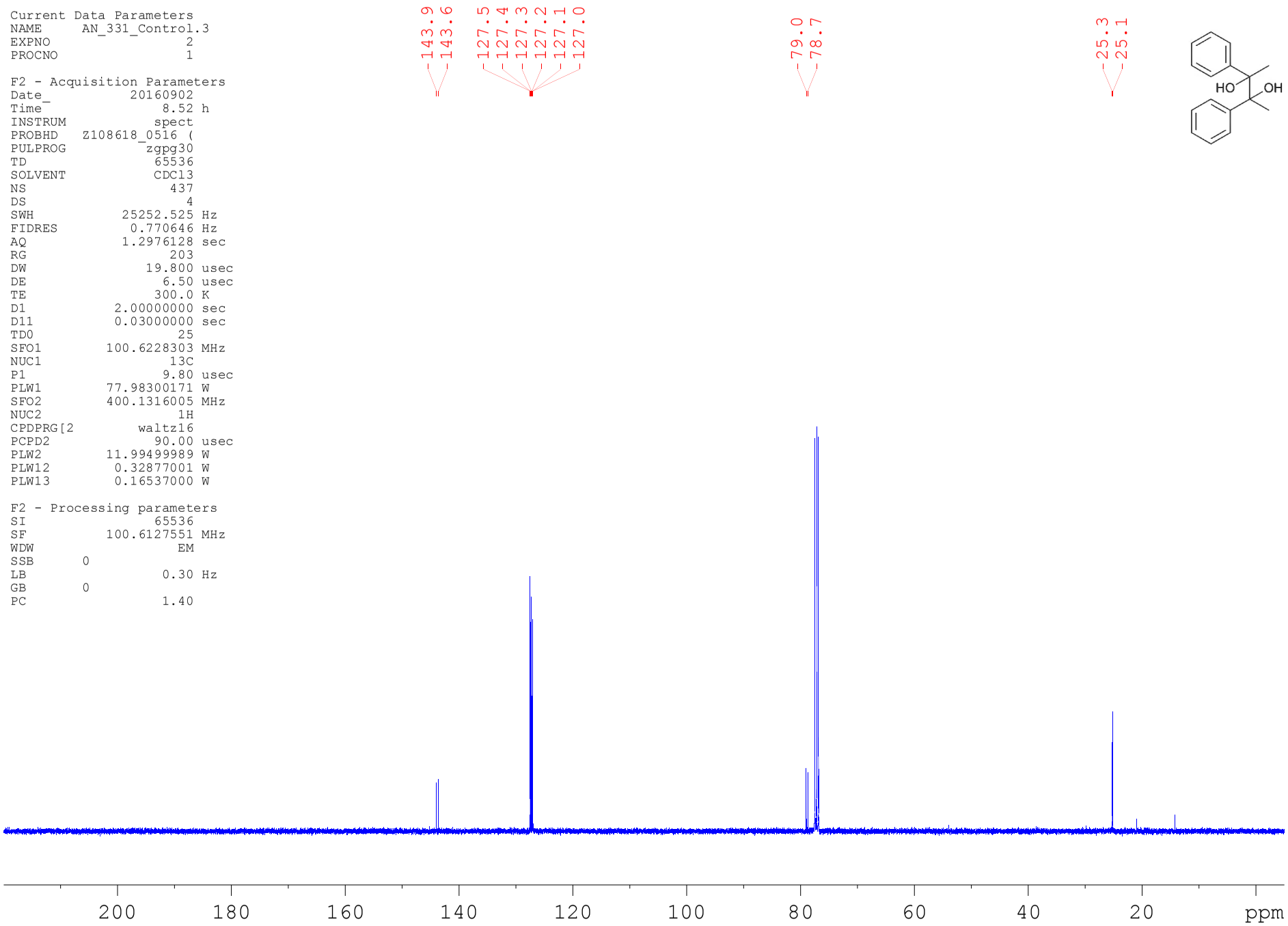
F2 - Processing parameters
SI                  32768
SF           400.1300113 MHz
WDW                    no
SSB       0
LB        0 Hz
GB        0
PC                   1.00
```

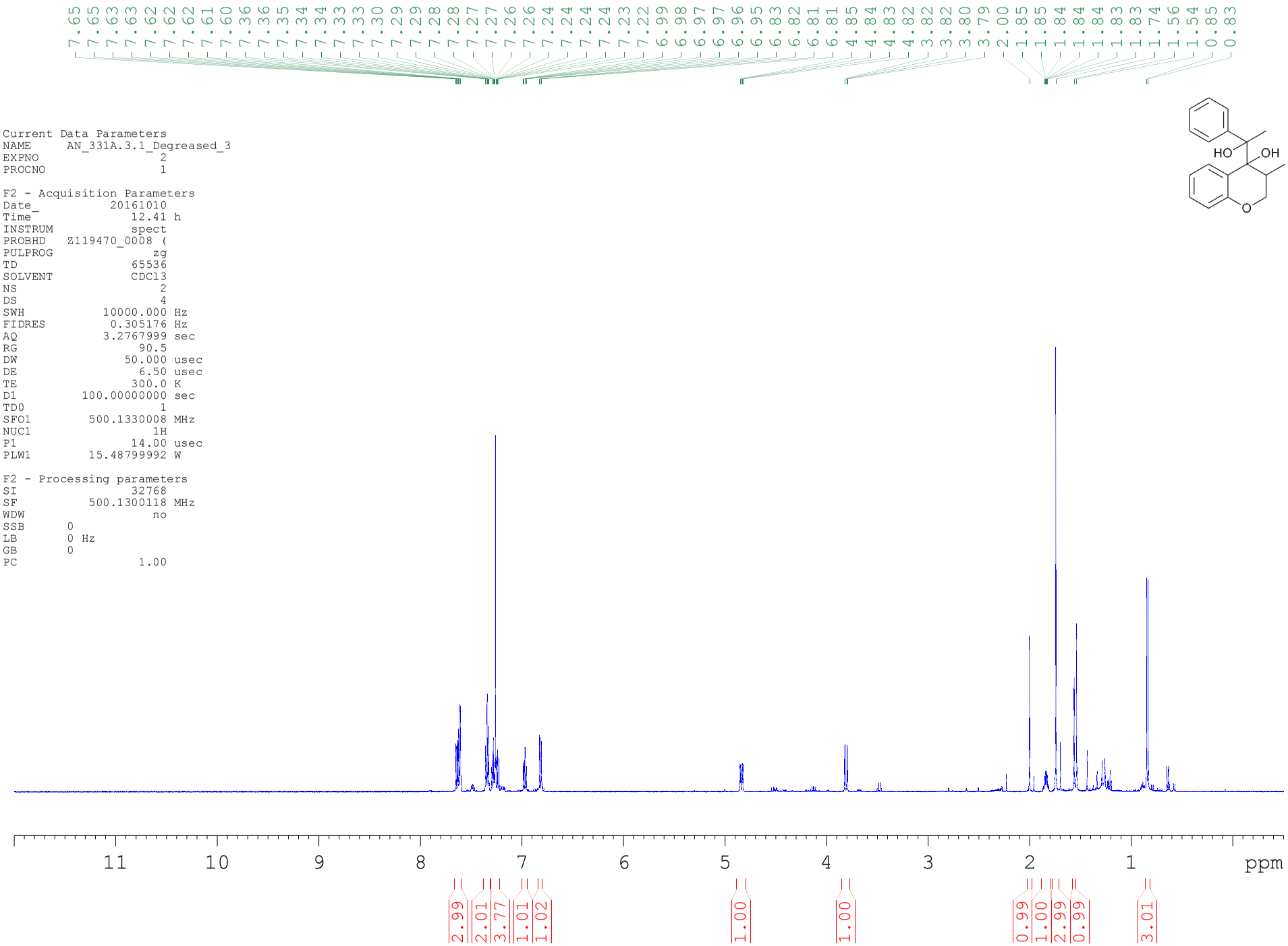


```
Current Data Parameters
NAME      AN_331_Control.3
EXPNO                    2
PROCNO                   1

F2 - Acquisition Parameters
Date_           20160902
Time                8.52 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                  437
DS                    4
SWH           25252.525 Hz
FIDRES         0.770646 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE                300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25
SFO1        100.6228303 MHz
NUC1                13C
P1                 9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                 1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                65536
SF          100.6127551 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.40
```

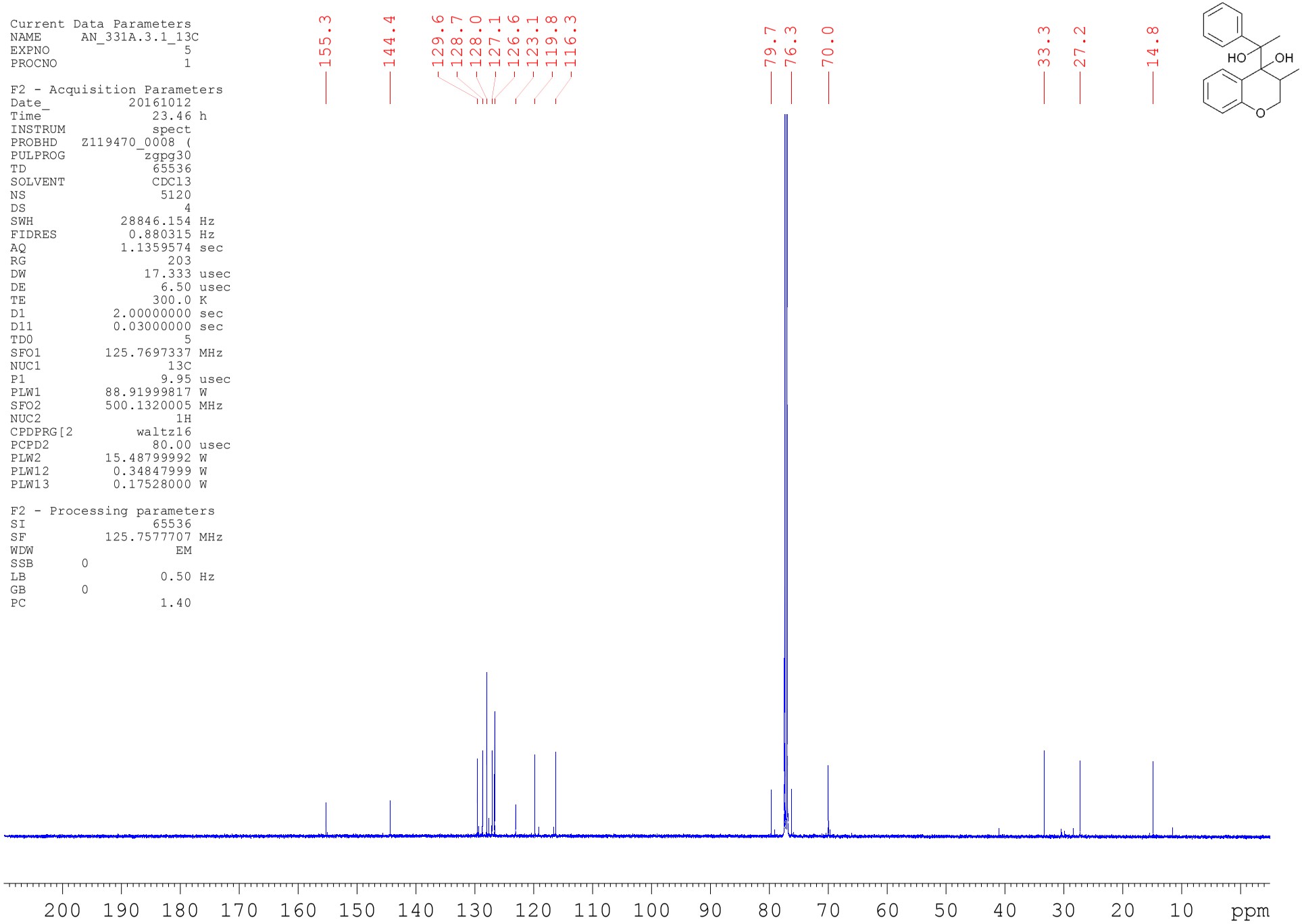


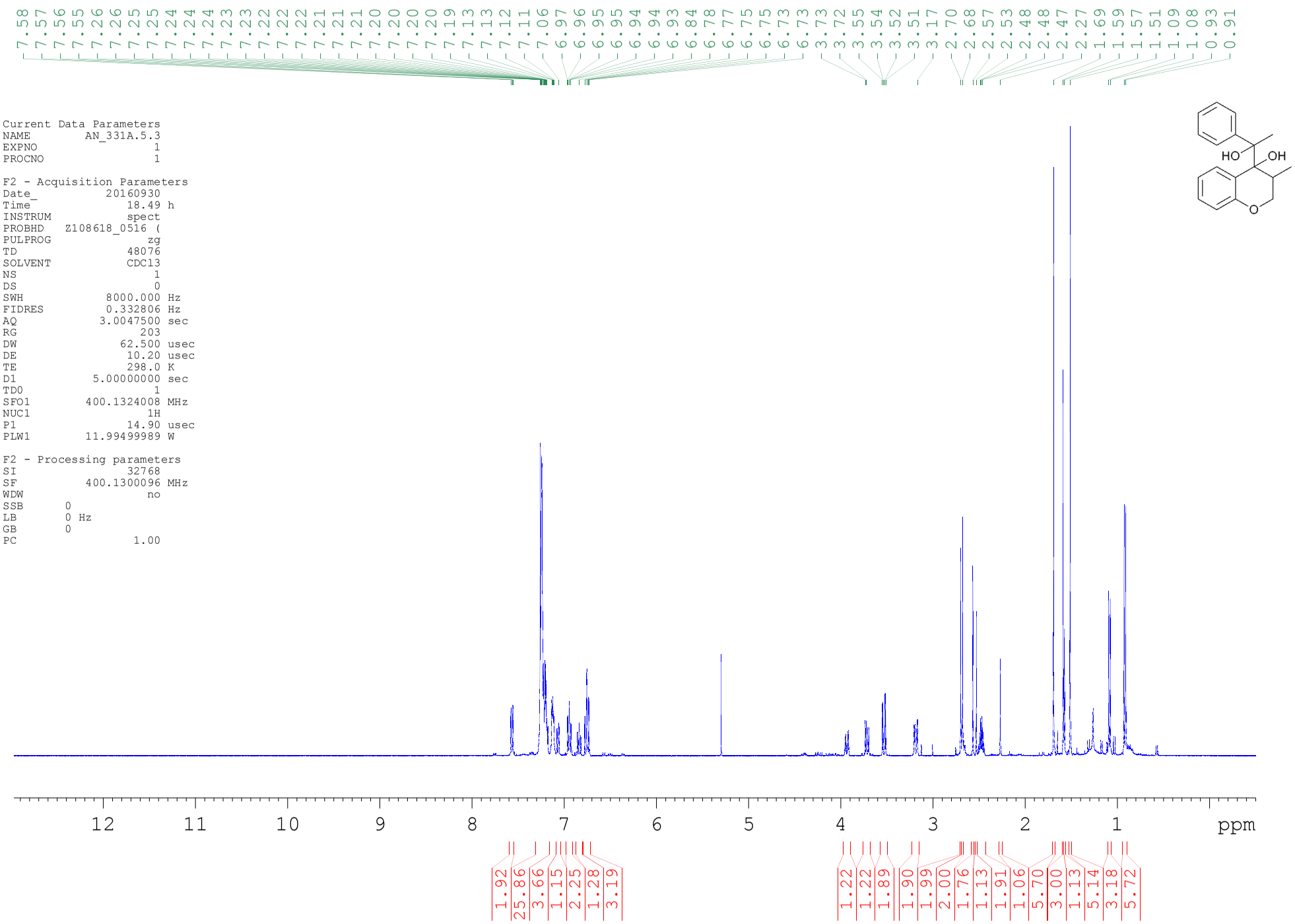

7.65 7.65 7.63 7.63 7.62 7.62 7.62 7.61 7.60 7.36 7.36 7.35 7.34 7.34 7.33 7.33 7.30 7.29 7.29 7.28 7.28 7.27 7.27 7.26 7.26 7.24 7.24 7.24 7.24 7.23 7.22 6.99 6.98 6.97 6.97 6.96 6.95 6.83 6.82 6.81 6.81 4.85 4.84 4.83 4.82 3.82 3.82 3.80 3.79 2.00 1.85 1.85 1.84 1.84 1.84 1.83 1.83 1.74 1.56 1.54 0.85 0.83
HO
OH
O
Current Data Parameters
NAME AN_331A.3.1_Degreased_3
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20161010
Time 12.41 h
INSTRUM spect
PROBHD Z119470_0008 (
PULPROG zg
TD 65536
SOLVENT CDCl3
NS 2
DS 4
SWH 10000.000 Hz
FIDRES 0.305176 Hz
AQ 3.2767999 sec
RG 90.5
DW 50.000 usec
DE 6.50 usec
TE 300.0 K
D1 100.00000000 sec
TD0 1
SFO1 500.1330008 MHz
NUC1 1H
P1 14.00 usec
PLW1 15.48799992 W
F2 - Processing parameters
SI 32768
SF 500.1300118 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
11 10 9 8 7 6 5 4 3 2 1 ppm
2.99 2.01 3.77 1.01 1.02 1.00 1.00 0.99 1.00 2.99 0.99 3.01

```
Current Data Parameters
NAME      AN_331A.3.1_13C
EXPNO                   5
PROCNO                  1

F2 - Acquisition Parameters
Date_           20161012
Time               23.46 h
INSTRUM            spect
PROBHD   Z119470_0008 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                 5120
DS                    4
SWH            28846.154 Hz
FIDRES          0.880315 Hz
AQ             1.1359574 sec
RG                  203
DW                17.333 usec
DE                 6.50 usec
TE                300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   5
SFO1         125.7697337 MHz
NUC1                 13C
P1                  9.95 usec
PLW1         88.91999817 W
SFO2         500.1320005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              80.00 usec
PLW2         15.48799992 W
PLW12         0.34847999 W
PLW13         0.17528000 W

F2 - Processing parameters
SI                 65536
SF           125.7577707 MHz
WDW                   EM
SSB       0
LB                 0.50 Hz
GB        0
PC                 1.40
```

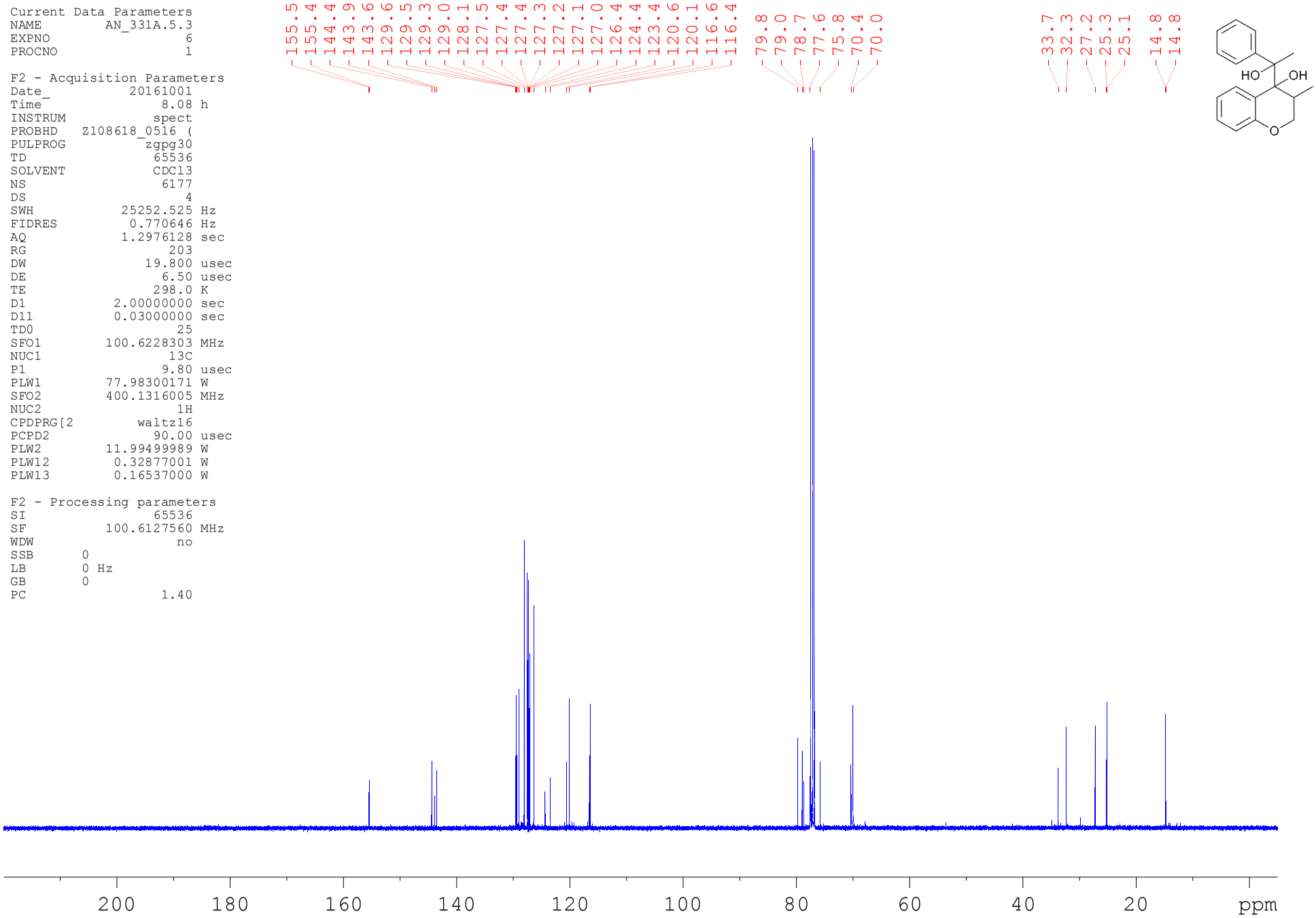


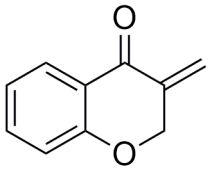

7.58 7.57 7.56 7.55 7.26 7.26 7.25 7.25 7.24 7.24 7.24 7.23 7.23 7.22 7.22 7.22 7.21 7.21 7.21 7.20 7.20 7.20 7.20 7.19 7.13 7.13 7.12 7.11 7.06 6.97 6.96 6.95 6.95 6.94 6.94 6.93 6.84 6.78 6.77 6.75 6.75 6.73 6.73 3.73 3.72 3.55 3.54 3.52 3.51 3.17 2.70 2.68 2.57 2.53 2.48 2.48 2.47 2.27 1.69 1.59 1.57 1.51 1.09 1.08 0.93 0.91
Current Data Parameters
NAME AN_331A.5.3
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20160930
Time 18.49 h
INSTRUM spect
PROBHD Z108618_0516 (
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.332806 Hz
AQ 3.0047500 sec
RG 203
DW 62.500 usec
DE 10.20 usec
TE 298.0 K
D1 5.00000000 sec
TD0 1
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300096 MHz
WDW no
SSB 0
LB 0 Hz
GB 0
PC 1.00
HO
OH
O
12 11 10 9 8 7 6 5 4 3 2 1 ppm
1.92 25.86 3.66 1.15 2.25 1.28 3.19
1.22 1.22 1.89 1.90 1.99 2.00 1.76 1.13 1.91 1.06 5.70 3.00 1.13 5.14 3.18 5.72

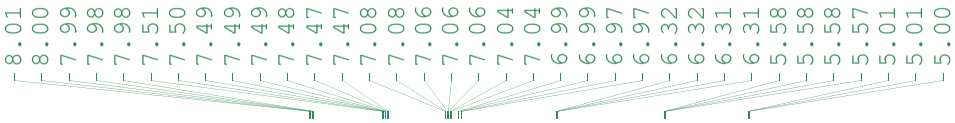
```
Current Data Parameters
NAME        AN_331A.5.3
EXPNO                 6
PROCNO                1

F2 - Acquisition Parameters
Date_          20161001
Time               8.08 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                 6177
DS                    4
SWH           25252.525 Hz
FIDRES         0.770646 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25
SFO1        100.6228303 MHz
NUC1                13C
P1                 9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                 1H
CPDPRG[2         waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                65536
SF          100.6127560 MHz
WDW                  no
SSB       0
LB        0 Hz
GB        0
PC                 1.40
```



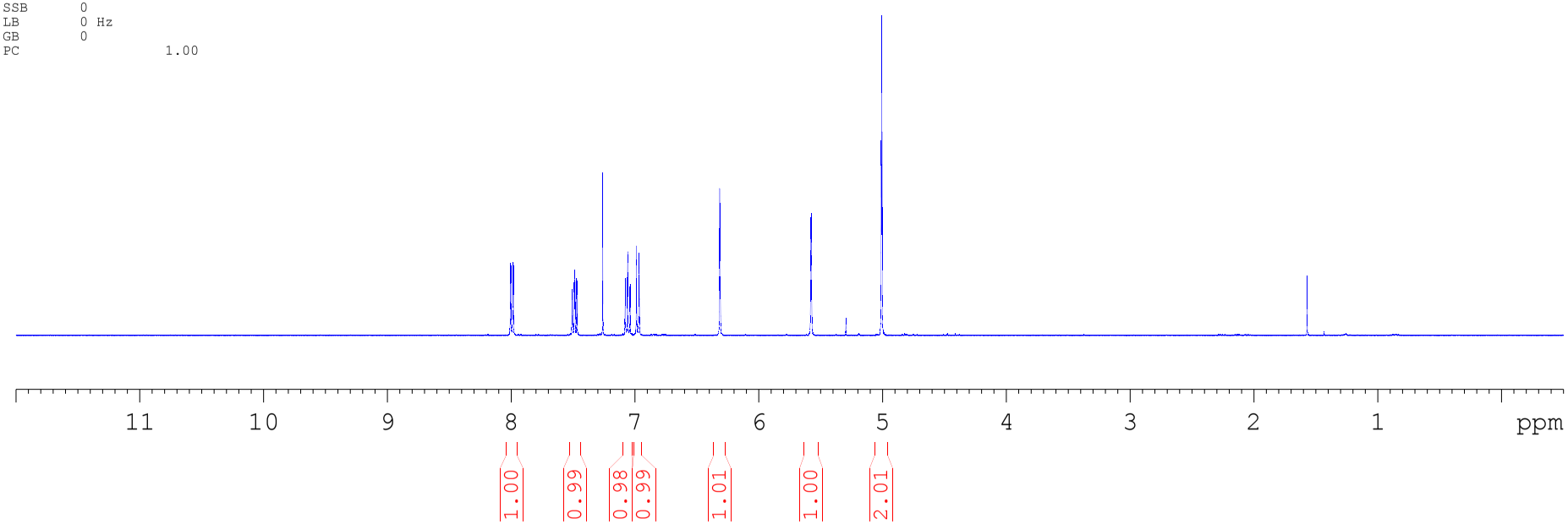


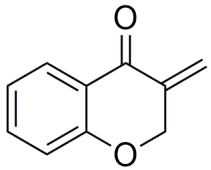


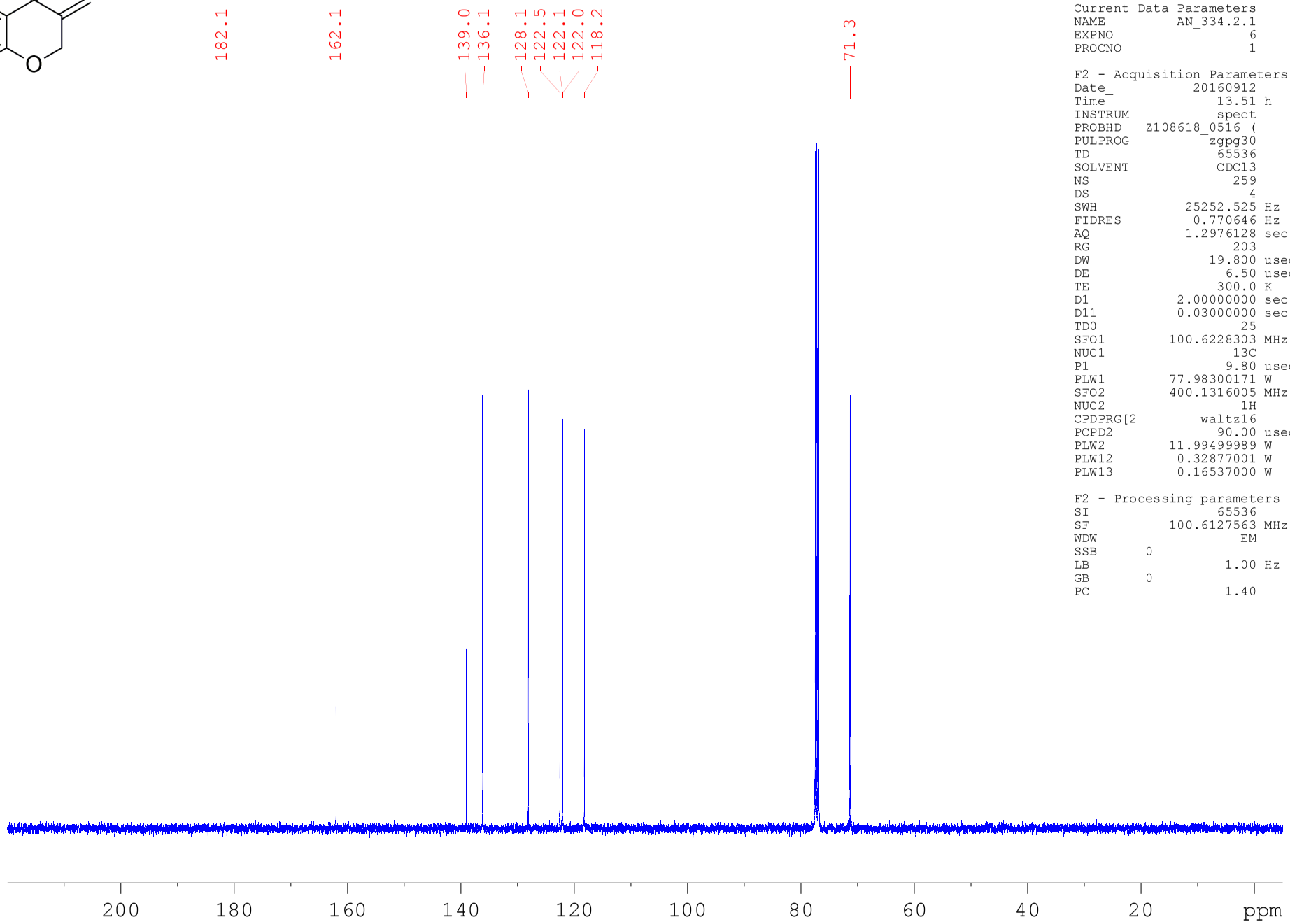

```
Current Data Parameters
NAME          AN_334B.2
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20160917
Time              15.56 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG              zg
TD                48076
SOLVENT           CDCl3
NS                    1
DS                    0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ            3.0047500 sec
RG                  181
DW               62.500 usec
DE               10.20 usec
TE               300.0 K
D1           5.00000000 sec
TD0                   1
SFO1        400.1324008 MHz
NUC1                 1H
P1               14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI                32768
SF          400.1300096 MHz
WDW                  no
SSB       0
LB        0 Hz
GB        0
PC                 1.00
```



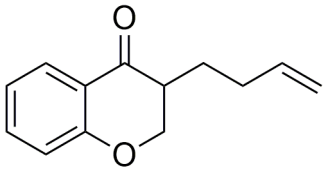





```
Current Data Parameters
NAME          AN_334.2.1
EXPNO                  6
PROCNO                 1

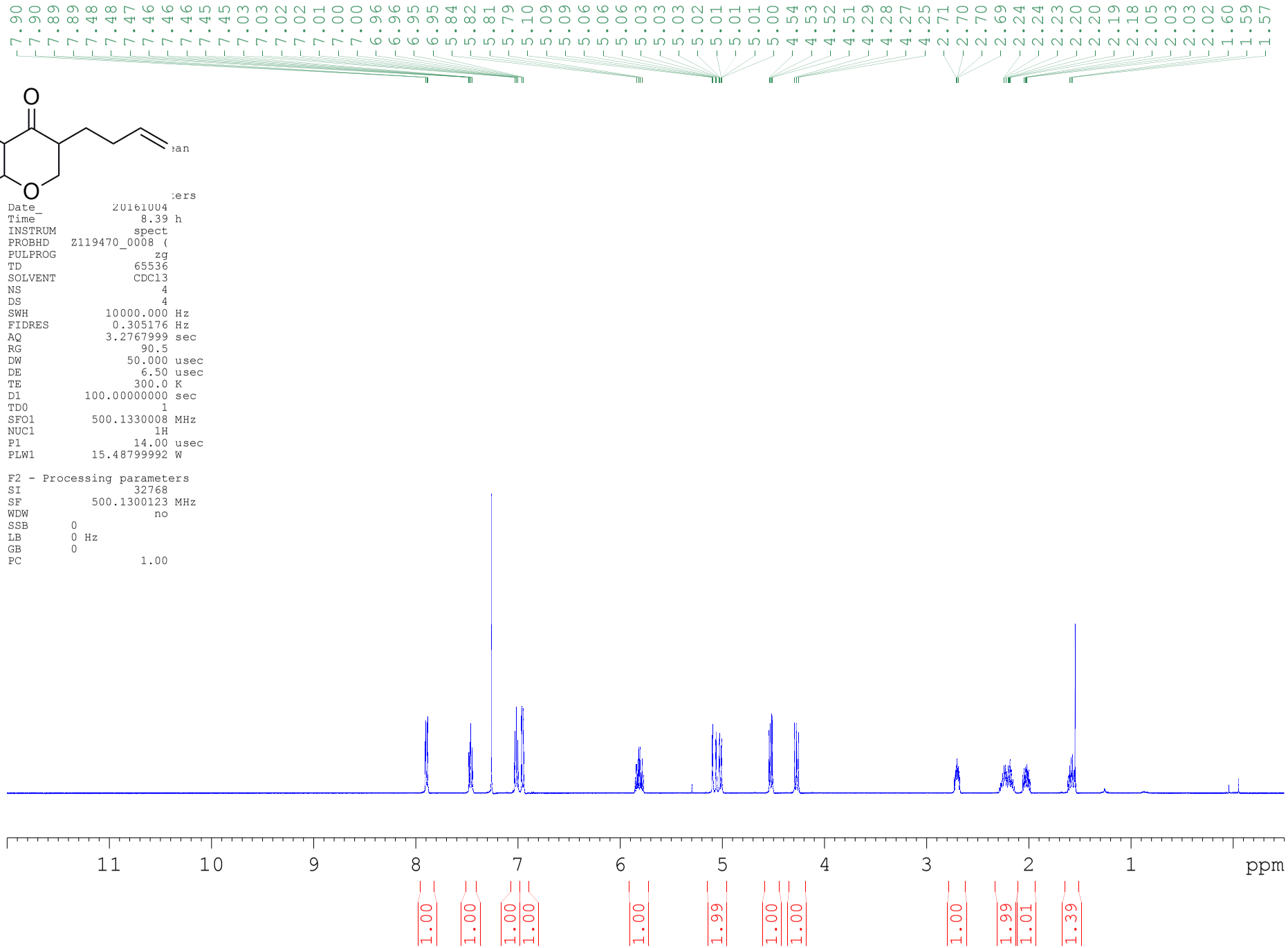
F2 - Acquisition Parameters
Date_            20160912
Time               13.51 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                  259
DS                    4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                  203
DW                19.800 usec
DE                 6.50 usec
TE                300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                  25
SFO1         100.6228303 MHz
NUC1                13C
P1                 9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                 1H
CPDPRG[2         waltz16
PCPD2             90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

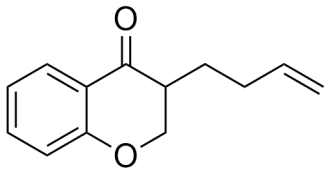
F2 - Processing parameters
SI                 65536
SF           100.6127563 MHz
WDW                   EM
SSB       0
LB                 1.00 Hz
GB        0
PC                 1.40
```

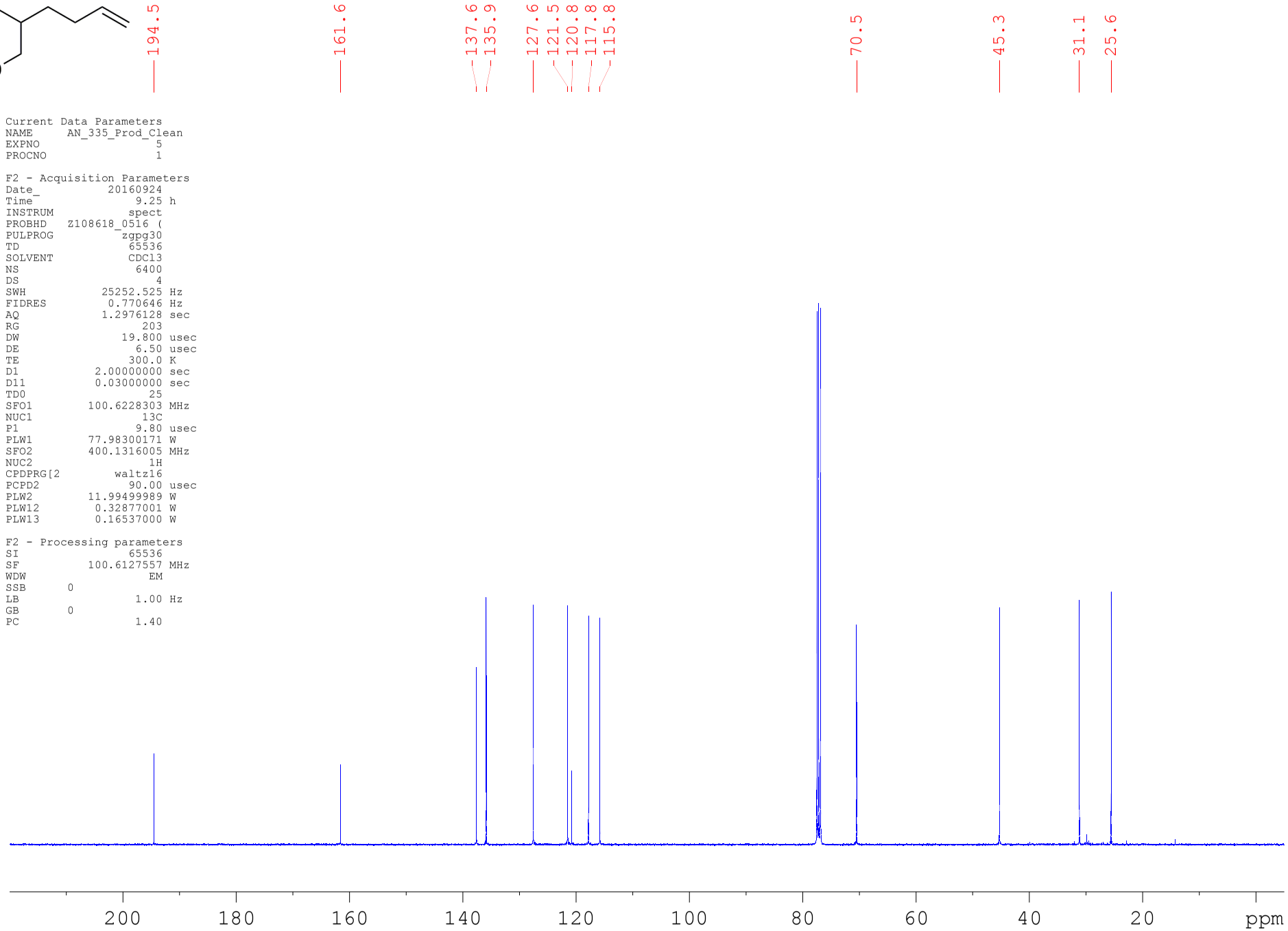


```
Date_          20161004
Time               8.39 h
INSTRUM           spect
PROBHD   Z119470_0008 (
PULPROG              zg
TD                65536
SOLVENT           CDCl3
NS                    4
DS                    4
SWH           10000.000 Hz
FIDRES         0.305176 Hz
AQ            3.2767999 sec
RG                 90.5
DW                50.000 usec
DE                  6.50 usec
TE                300.0 K
D1         100.00000000 sec
TD0                   1
SFO1        500.1330008 MHz
NUC1                 1H
P1                14.00 usec
PLW1        15.48799992 W

F2 - Processing parameters
SI                32768
SF          500.1300123 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```



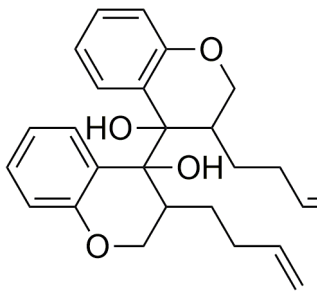


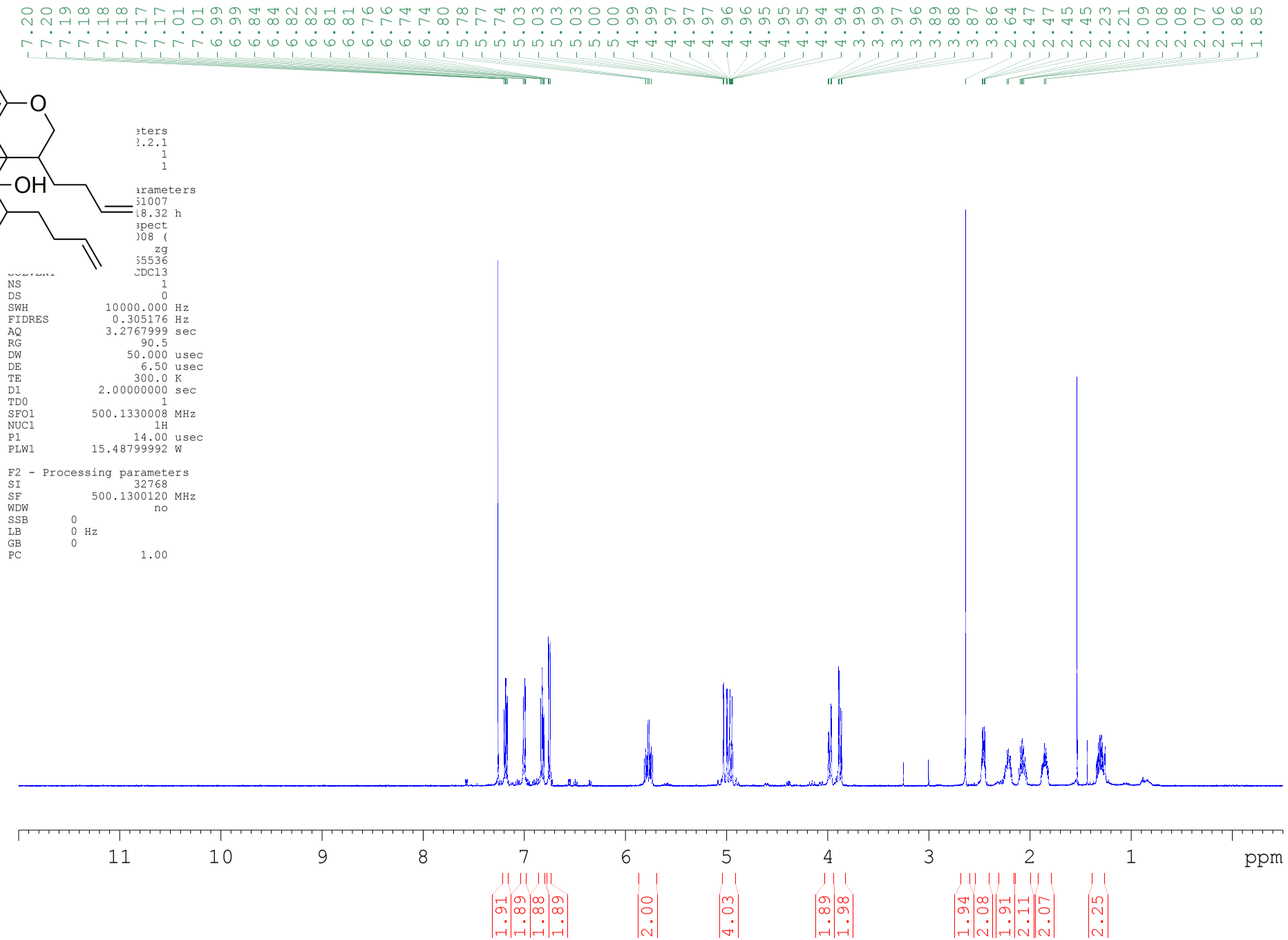



```
Current Data Parameters
NAME      AN_335_Prod_Clean
EXPNO                   5
PROCNO                  1

F2 - Acquisition Parameters
Date_            20160924
Time                9.25 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                  6400
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                  6.50 usec
TE                 300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   25
SFO1         100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

F2 - Processing parameters
SI                 65536
SF           100.6127557 MHz
WDW                   EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```

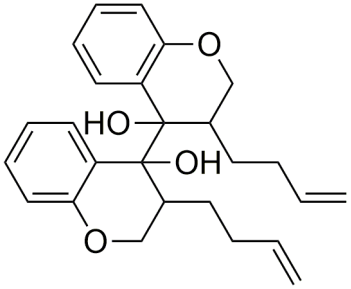





```
eters
2.2.1
    1
    1

arameters
51007
18.32 h
spect
008 (
   zg
65536
CDCl3
NS                  1
DS                  0
SWH           10000.000 Hz
FIDRES         0.305176 Hz
AQ            3.2767999 sec
RG                 90.5
DW               50.000 usec
DE                 6.50 usec
TE                300.0 K
D1           2.00000000 sec
TD0                 1
SFO1        500.1330008 MHz
NUC1                1H
P1                14.00 usec
PLW1        15.48799992 W

F2 - Processing parameters
SI                32768
SF          500.1300120 MHz
WDW                 no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```

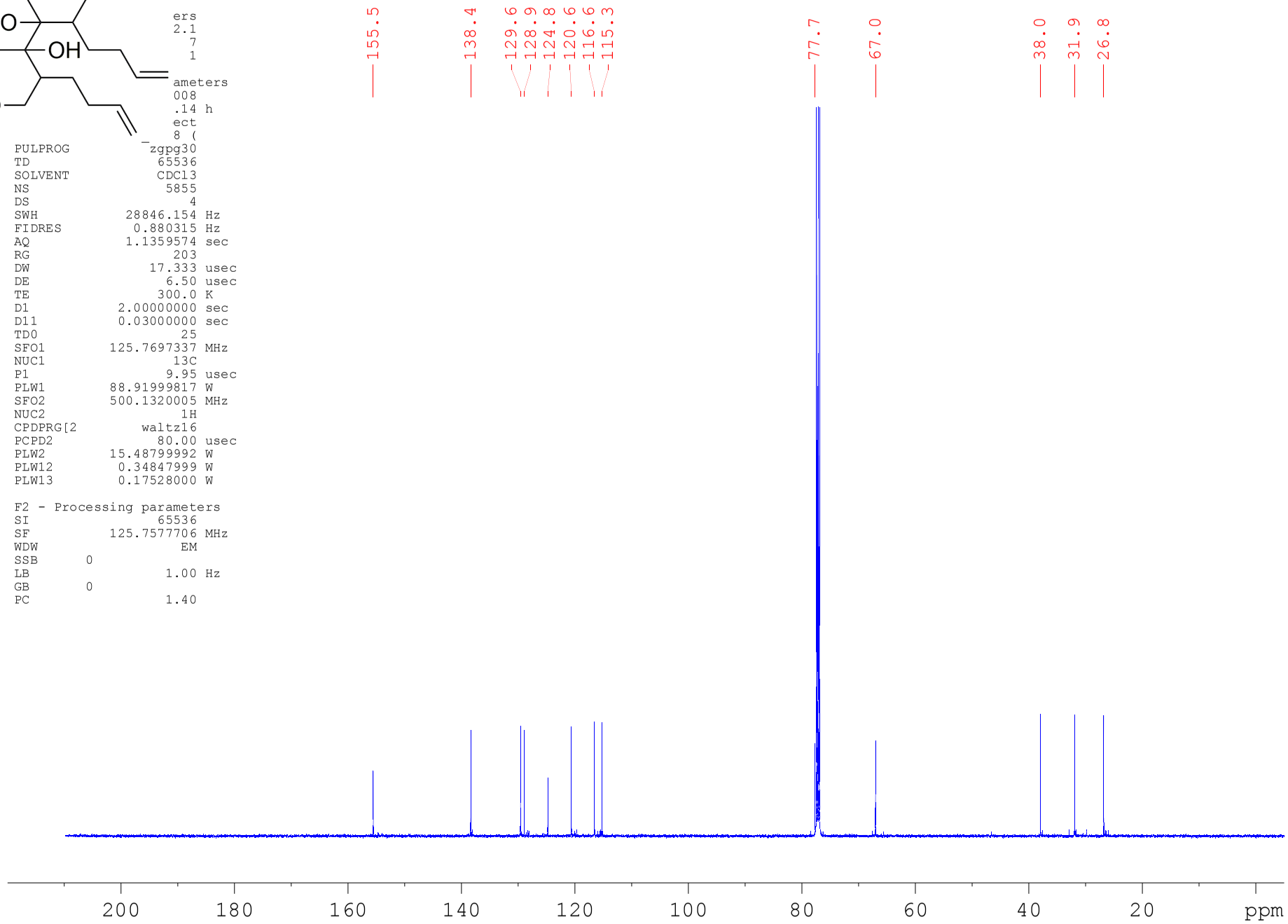


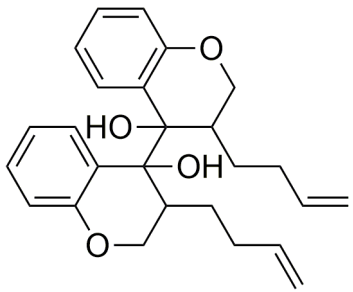

```
ers
2.1
  7
  1

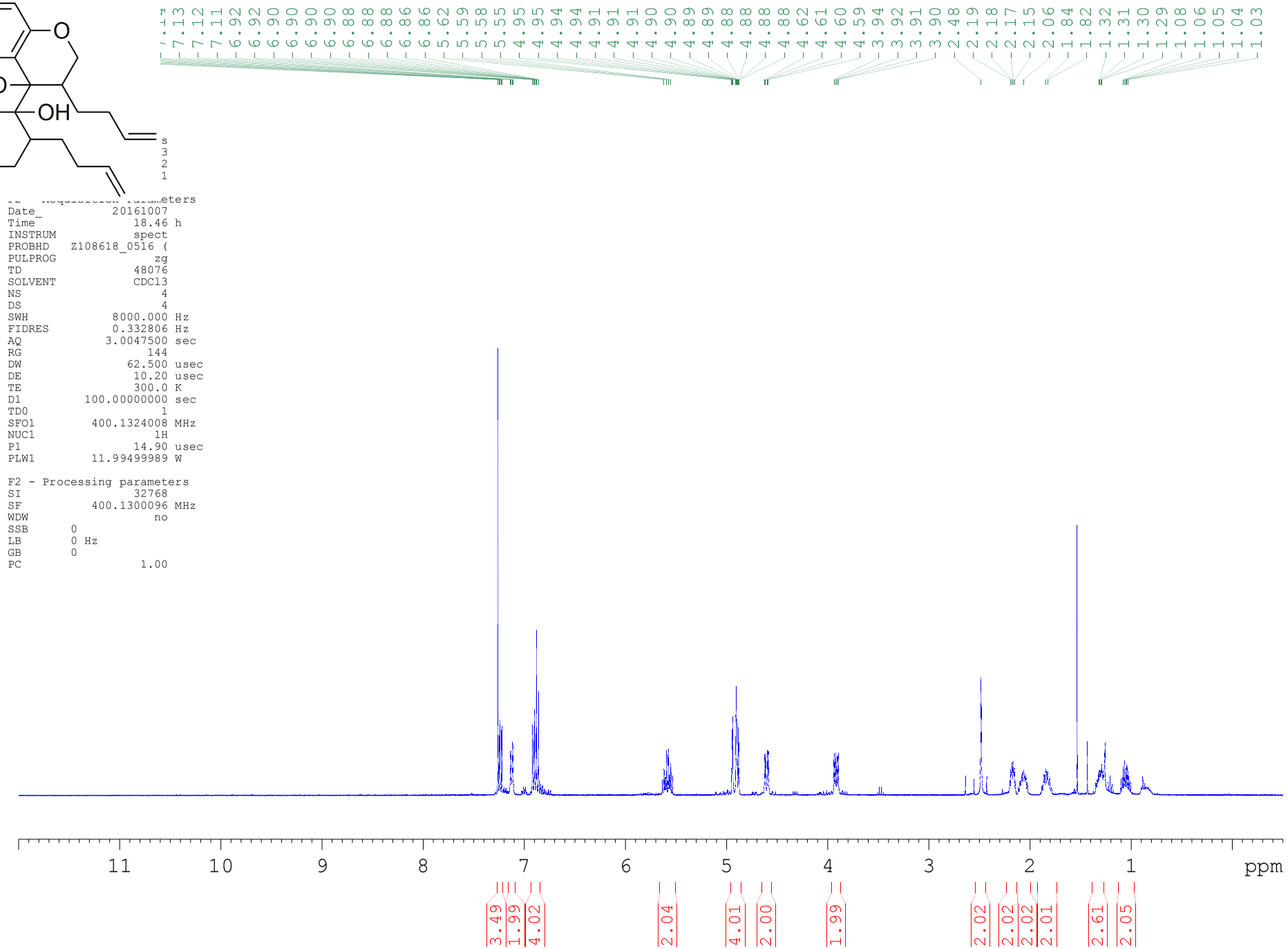
ameters
008
.14 h
ect
8 (
```

```
PULPROG          zgpg30
TD               65536
SOLVENT          CDCl3
NS               5855
DS               4
SWH              28846.154 Hz
FIDRES           0.880315 Hz
AQ               1.1359574 sec
RG               203
DW               17.333 usec
DE               6.50 usec
TE               300.0 K
D1               2.00000000 sec
D11              0.03000000 sec
TD0              25
SFO1             125.7697337 MHz
NUC1             13C
P1               9.95 usec
PLW1             88.91999817 W
SFO2             500.1320005 MHz
NUC2             1H
CPDPRG[2         waltz16
PCPD2            80.00 usec
PLW2             15.48799992 W
PLW12            0.34847999 W
PLW13            0.17528000 W

F2 - Processing parameters
SI               65536
SF               125.7577706 MHz
WDW              EM
SSB      0
LB               1.00 Hz
GB       0
PC               1.40
```

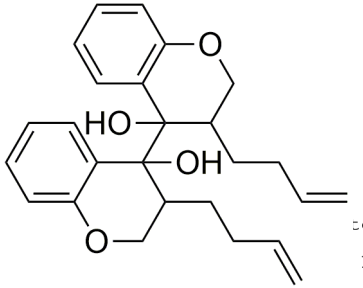







```
F2 - Acquisition Parameters
Date_          20161007
Time              18.46 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG              zg
TD                48076
SOLVENT           CDCl3
NS                    4
DS                    4
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ            3.0047500 sec
RG                  144
DW               62.500 usec
DE               10.20 usec
TE               300.0 K
D1         100.00000000 sec
TD0                   1
SFO1        400.1324008 MHz
NUC1                 1H
P1                14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI                32768
SF          400.1300096 MHz
WDW                  no
SSB       0
LB        0 Hz
GB        0
PC                 1.00
```



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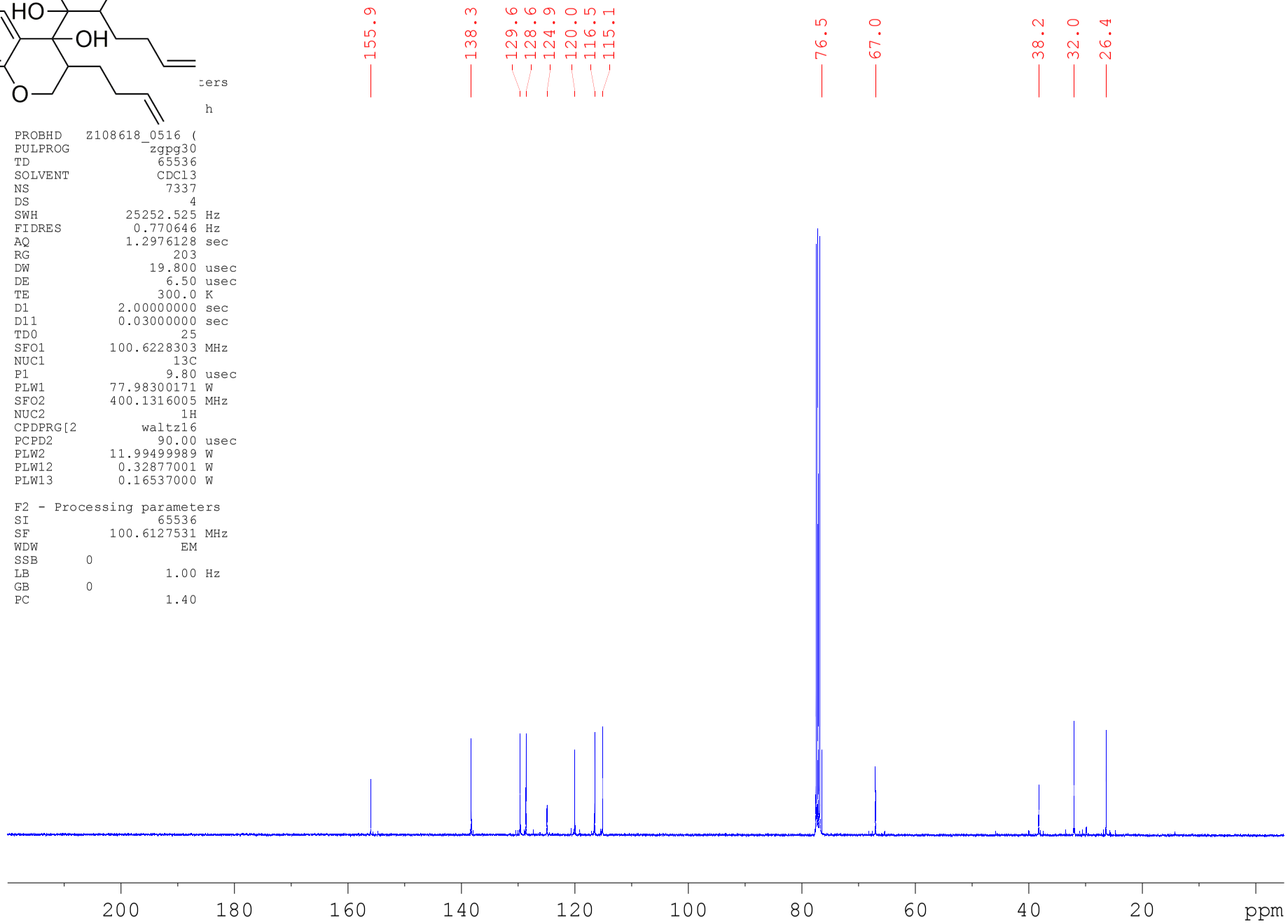
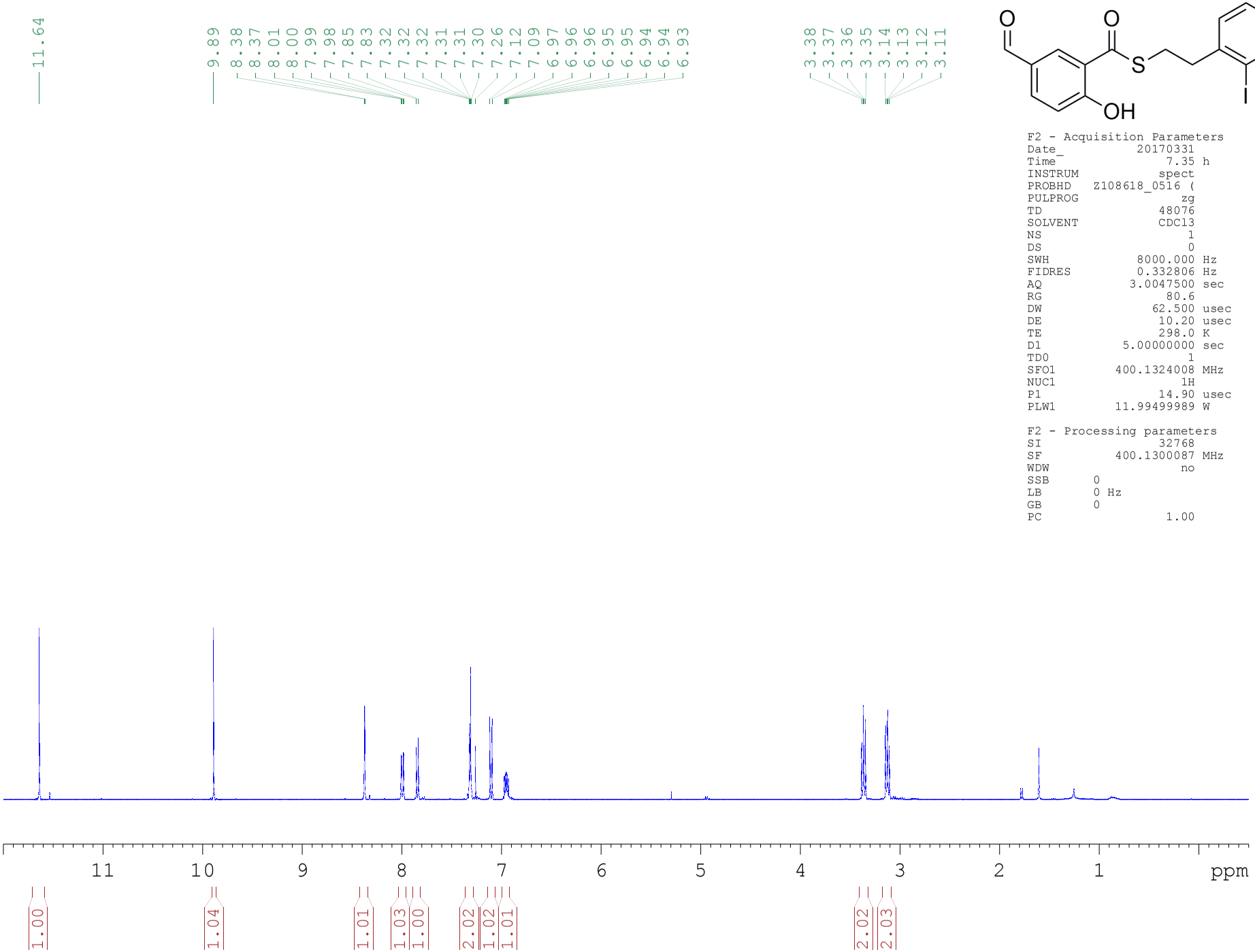
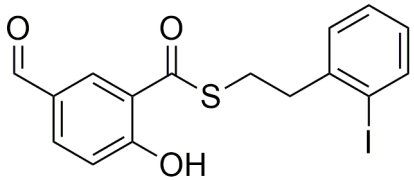
```
PROBHD    Z108618_0516 (
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                  7337
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                  6.50 usec
TE                 300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   25
SFO1         100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

F2 - Processing parameters
SI                 65536
SF           100.6127531 MHz
WDW                   EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```

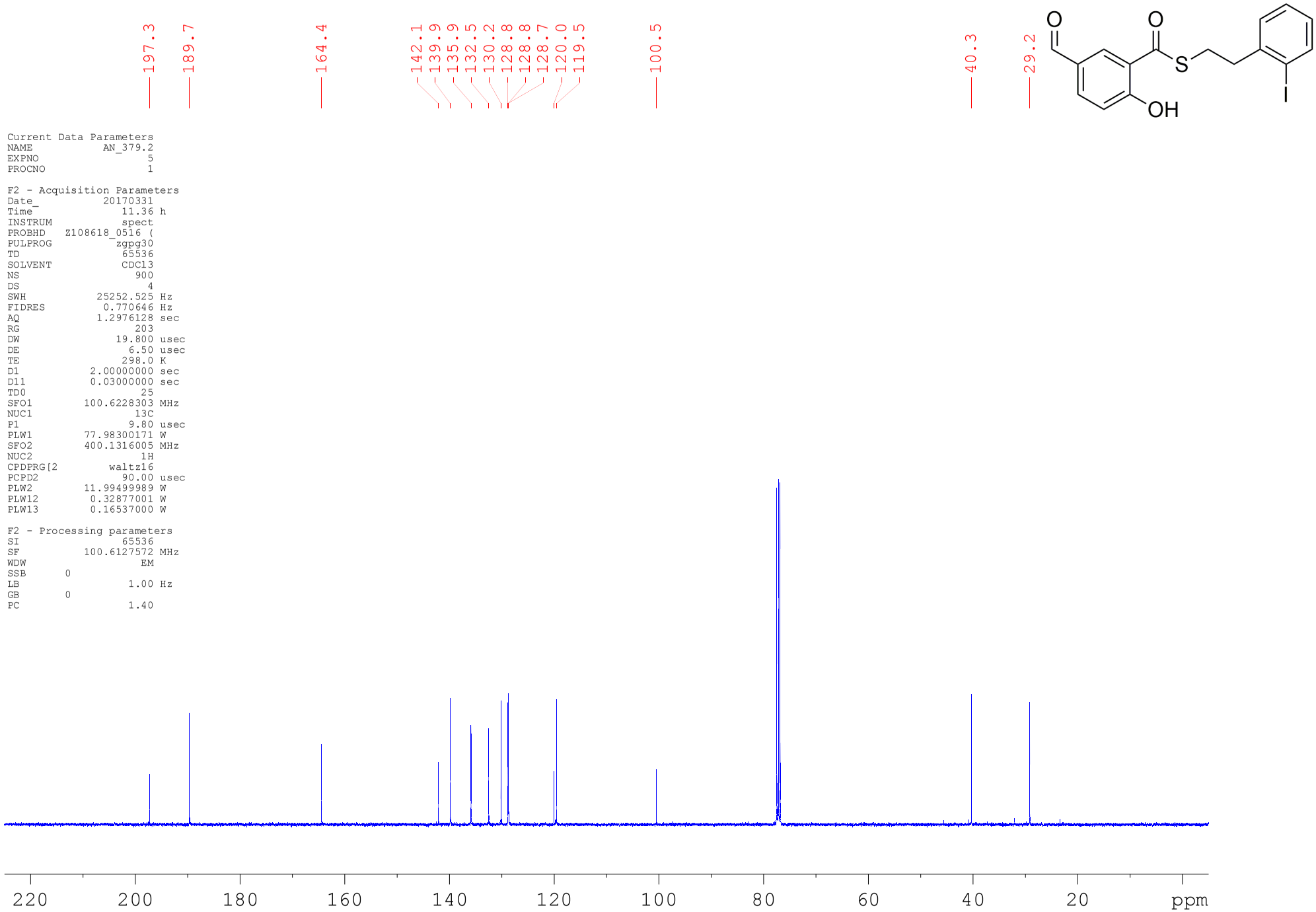







```
F2 - Acquisition Parameters
Date_          20170331
Time               7.35 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG              zg
TD                48076
SOLVENT           CDCl3
NS                    1
DS                    0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ            3.0047500 sec
RG                 80.6
DW               62.500 usec
DE                10.20 usec
TE                298.0 K
D1           5.00000000 sec
TD0                   1
SFO1        400.1324008 MHz
NUC1                 1H
P1                14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI                32768
SF          400.1300087 MHz
WDW                  no
SSB       0
LB        0 Hz
GB        0
PC                 1.00
```


197.3
189.7
164.4
142.1
139.9
135.9
132.5
130.2
128.8
128.8
128.7
120.0
119.5
100.5
40.3
29.2
O
O
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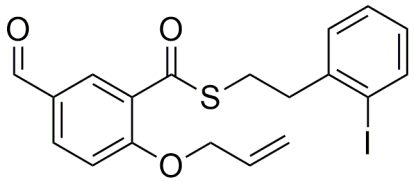
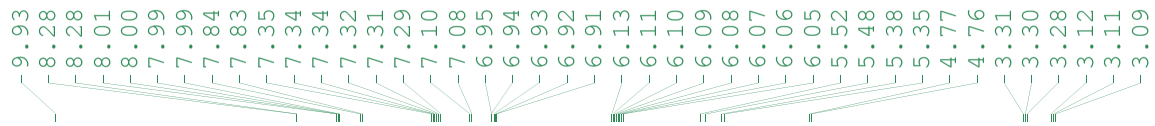
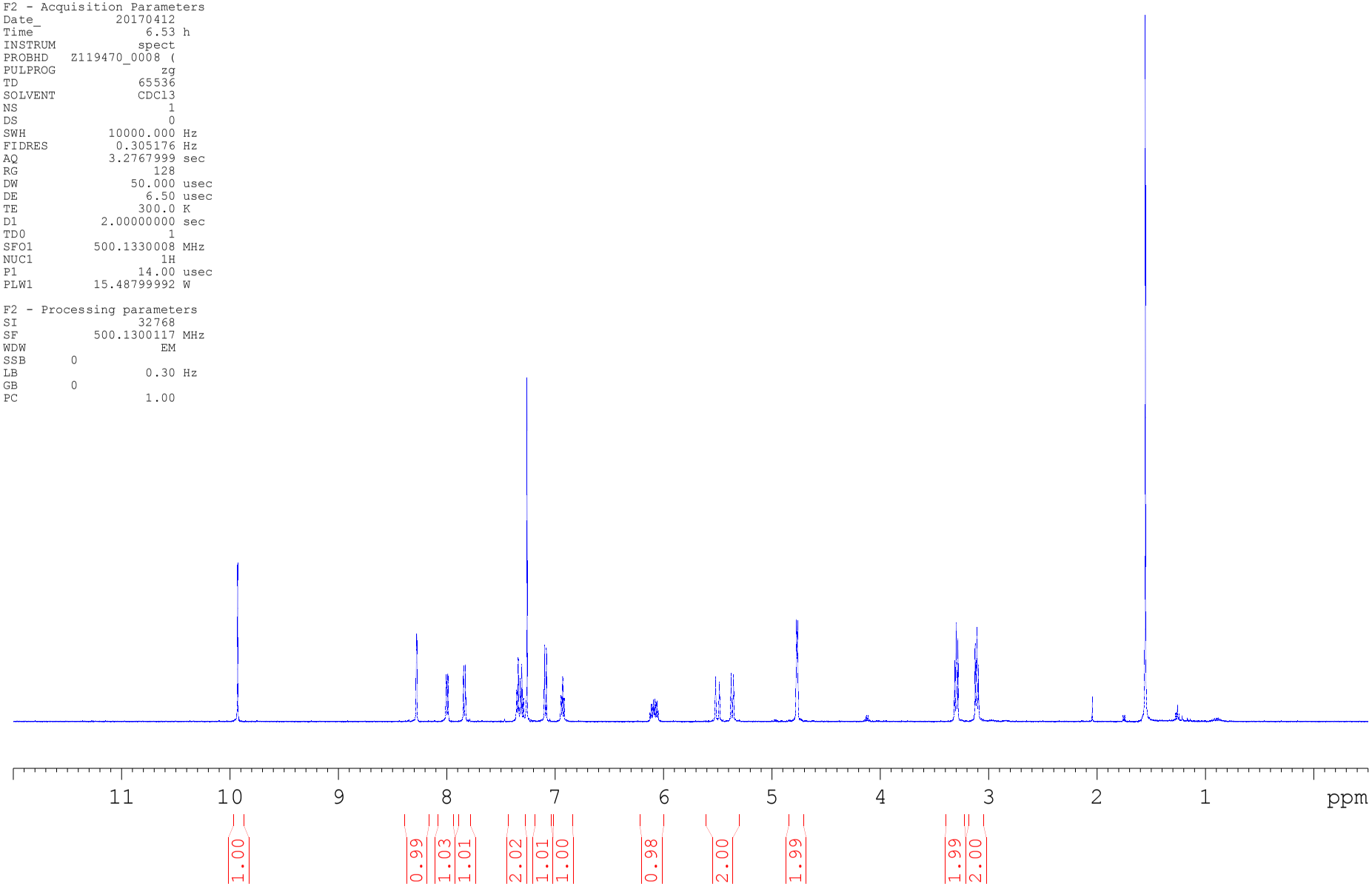
I
Current Data Parameters
NAME AN_379.2
EXPNO 5
PROCNO 1
F2 - Acquisition Parameters
Date_ 20170331
Time 11.36 h
INSTRUM spect
PROBHD Z108618_0516 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 900
DS 4
SWH 25252.525 Hz
FIDRES 0.770646 Hz
AQ 1.2976128 sec
RG 203
DW 19.800 usec
DE 6.50 usec
TE 298.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 25
SFO1 100.6228303 MHz
NUC1 13C
P1 9.80 usec
PLW1 77.98300171 W
SFO2 400.1316005 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 11.99499989 W
PLW12 0.32877001 W
PLW13 0.16537000 W
F2 - Processing parameters
SI 65536
SF 100.6127572 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
220
200
180
160
140
120
100
80
60
40
20
ppm

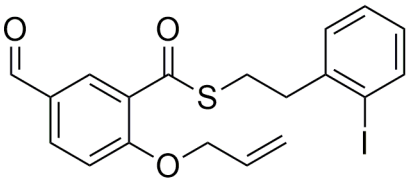


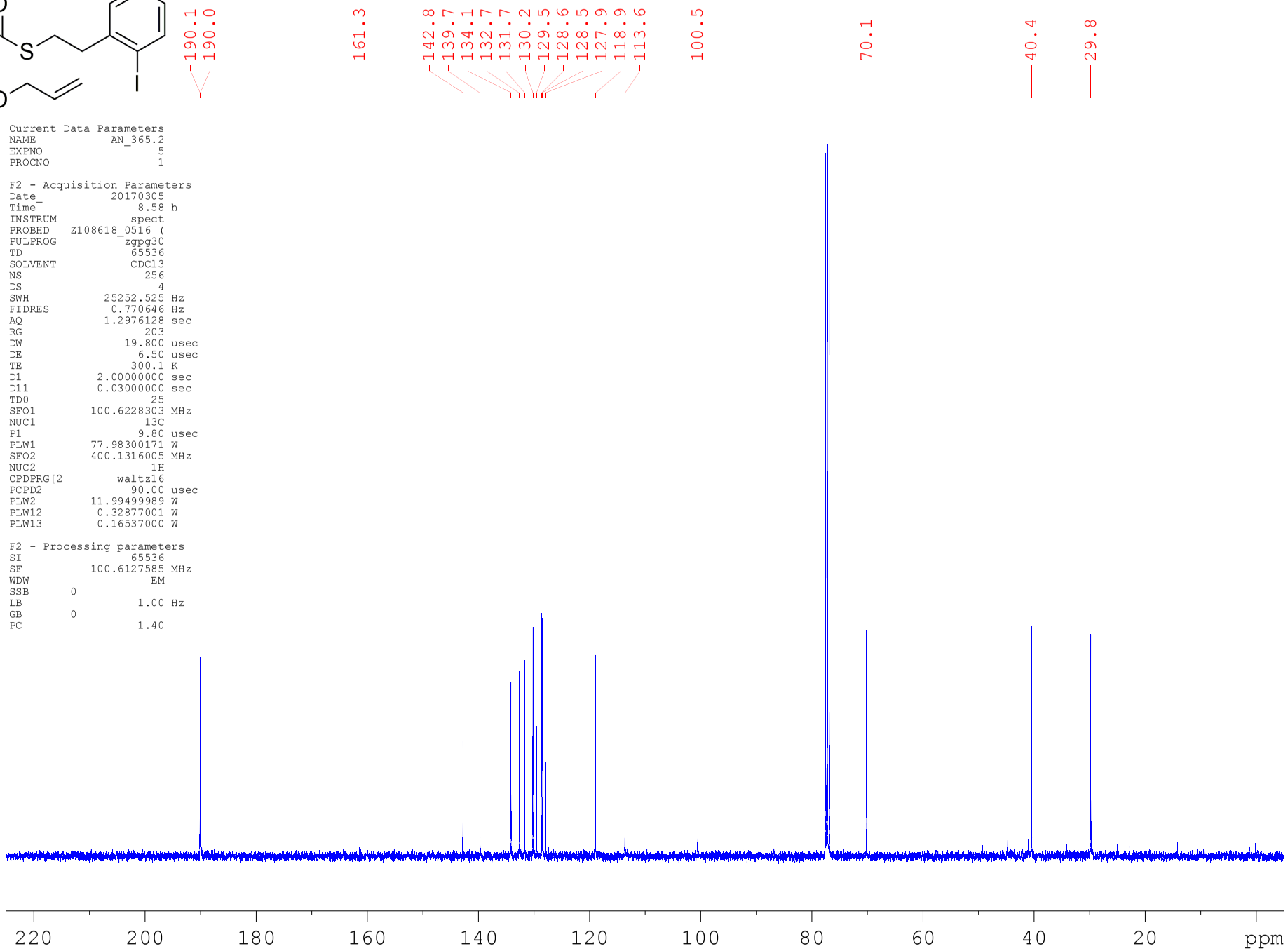



```
F2 - Acquisition Parameters
Date_            20170412
Time                6.53 h
INSTRUM            spect
PROBHD   Z119470_0008 (
PULPROG               zg
TD                 65536
SOLVENT            CDCl3
NS                     1
DS                     0
SWH            10000.000 Hz
FIDRES          0.305176 Hz
AQ             3.2767999 sec
RG                   128
DW                50.000 usec
DE                 6.50 usec
TE                300.0 K
D1            2.00000000 sec
TD0                    1
SFO1         500.1330008 MHz
NUC1                  1H
P1                14.00 usec
PLW1         15.48799992 W

F2 - Processing parameters
SI                 32768
SF           500.1300117 MHz
WDW                   EM
SSB      0
LB                 0.30 Hz
GB       0
PC                 1.00
```



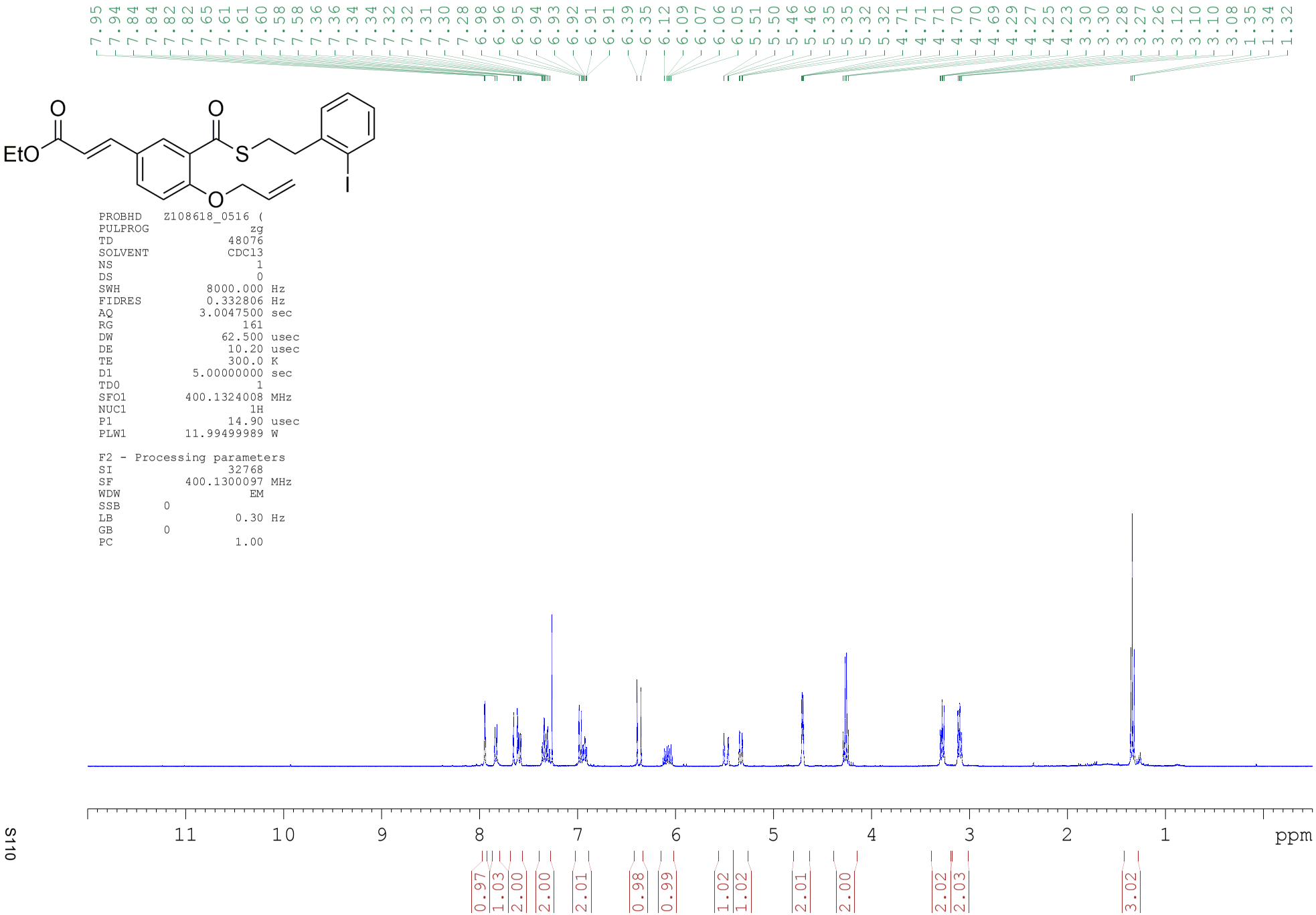





```
Current Data Parameters
NAME            AN_365.2
EXPNO                  5
PROCNO                 1

F2 - Acquisition Parameters
Date_           20170305
Time               8.58 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                  256
DS                    4
SWH           25252.525 Hz
FIDRES         0.770646 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                6.50 usec
TE                300.1 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   25
SFO1        100.6228303 MHz
NUC1                 13C
P1                9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                65536
SF          100.6127585 MHz
WDW                   EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```


7.95 7.94 7.84 7.84 7.82 7.82 7.65 7.61 7.61 7.60 7.58 7.58 7.36 7.36 7.34 7.34 7.32 7.32 7.31 7.30 7.28 6.98 6.96 6.95 6.94 6.93 6.92 6.91 6.91 6.39 6.35 6.12 6.09 6.07 6.06 6.05 5.51 5.50 5.46 5.46 5.35 5.35 5.32 5.32 4.71 4.71 4.71 4.70 4.70 4.69 4.29 4.27 4.25 4.23 3.30 3.30 3.28 3.27 3.26 3.12 3.10 3.10 3.08 1.35 1.34 1.32
O
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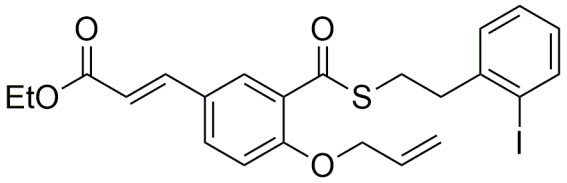
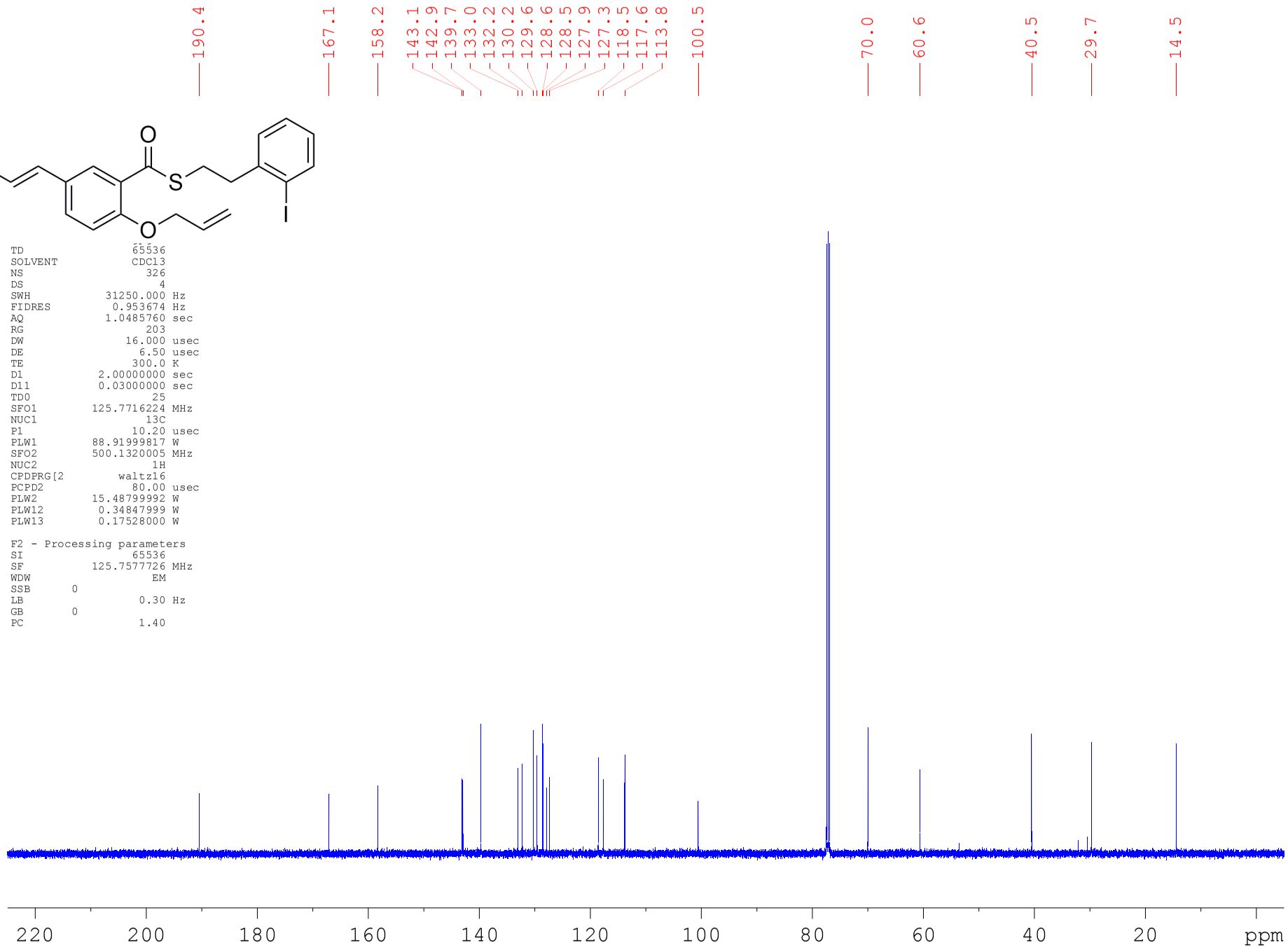
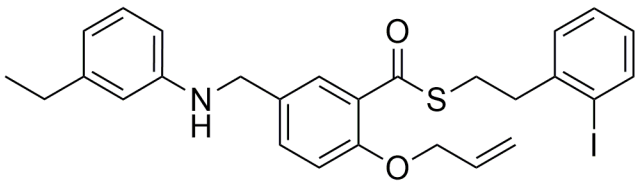
S
I
O
PROBHD Z108618_0516 (
PULPROG zg
TD 48076
SOLVENT CDCl3
NS 1
DS 0
SWH 8000.000 Hz
FIDRES 0.332806 Hz
AQ 3.0047500 sec
RG 161
DW 62.500 usec
DE 10.20 usec
TE 300.0 K
D1 5.00000000 sec
TD0 1
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300097 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
11 10 9 8 7 6 5 4 3 2 1 ppm
0.97 1.03 2.00 2.00 2.01 0.98 0.99 1.02 1.02 2.01 2.00 2.02 2.03 3.02

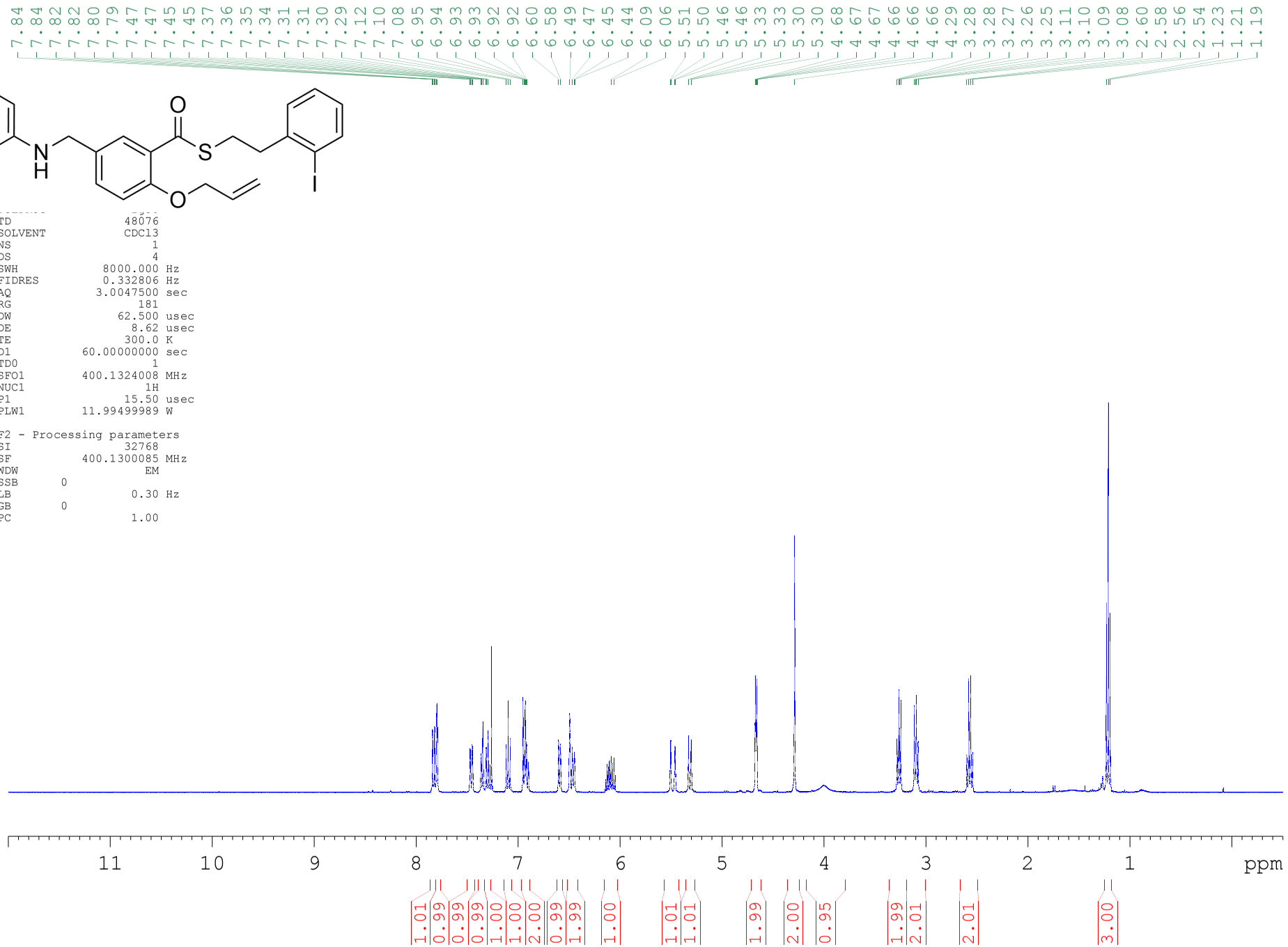





```
TD                 65536
SOLVENT            CDCl3
NS                   326
DS                     4
SWH            31250.000 Hz
FIDRES          0.953674 Hz
AQ             1.0485760 sec
RG                   203
DW                16.000 usec
DE                 6.50 usec
TE                300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   25
SFO1        125.7716224 MHz
NUC1                 13C
P1                10.20 usec
PLW1        88.91999817 W
SFO2        500.1320005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2             80.00 usec
PLW2        15.48799992 W
PLW12        0.34847999 W
PLW13        0.17528000 W

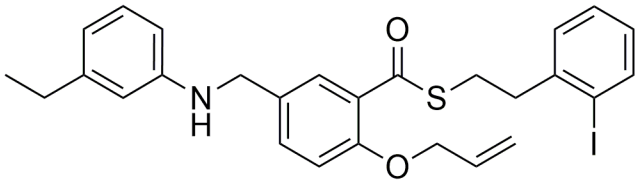
F2 - Processing parameters
SI                 65536
SF          125.7577726 MHz
WDW                   EM
SSB       0
LB                 0.30 Hz
GB        0
PC                 1.40
```

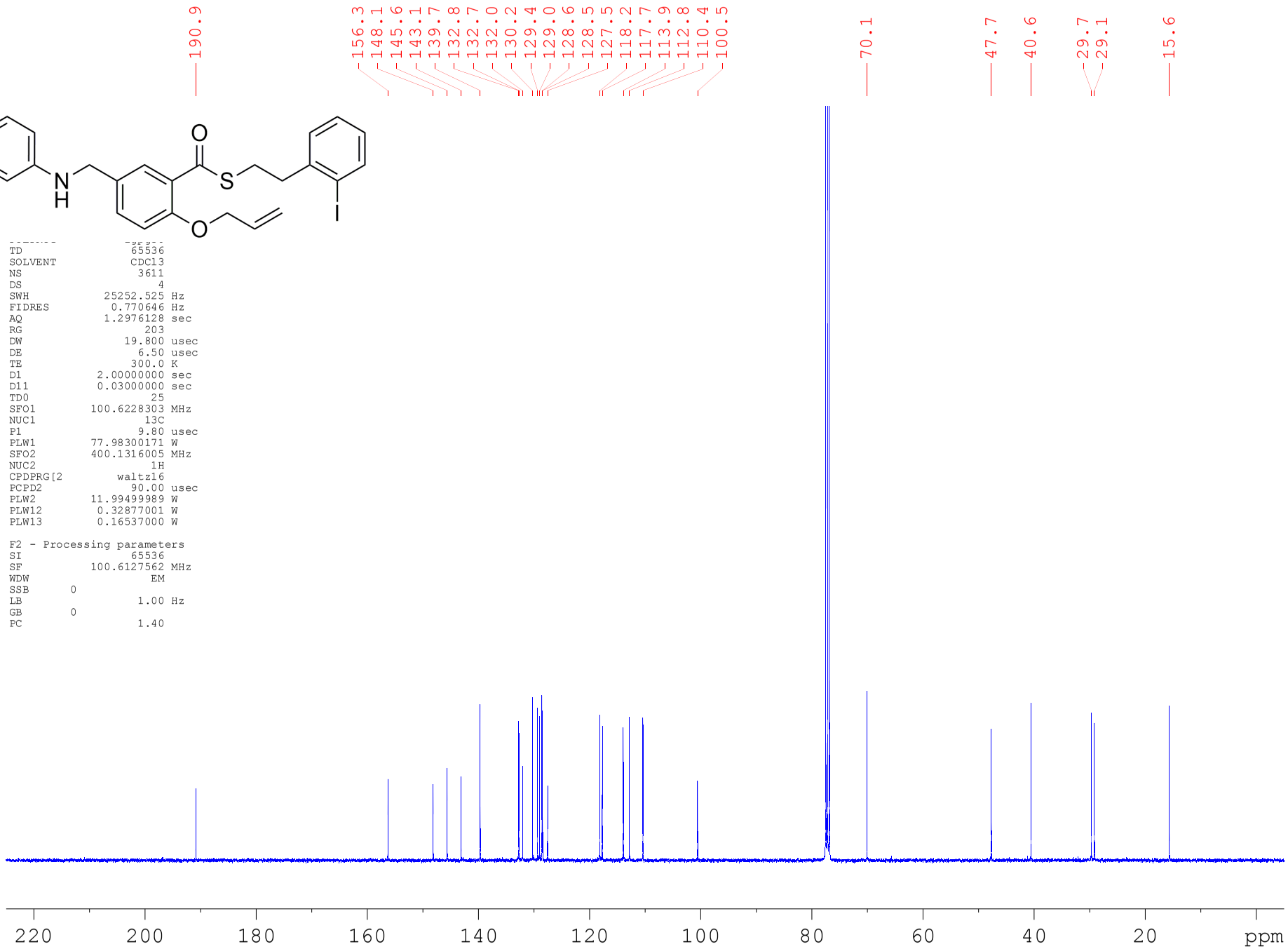





```
TD                 48076
SOLVENT            CDCl3
NS                     1
DS                     4
SWH             8000.000 Hz
FIDRES          0.332806 Hz
AQ             3.0047500 sec
RG                   181
DW                62.500 usec
DE                 8.62 usec
TE                300.0 K
D1           60.00000000 sec
TD0                    1
SFO1         400.1324008 MHz
NUC1                  1H
P1                 15.50 usec
PLW1         11.99499989 W

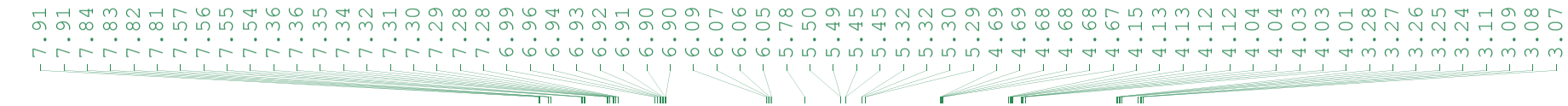
F2 - Processing parameters
SI                 32768
SF           400.1300085 MHz
WDW                    EM
SSB       0
LB                  0.30 Hz
GB        0
PC                  1.00
```

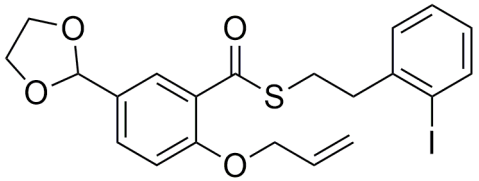





```
TD                 65536
SOLVENT            CDCl3
NS                  3611
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                  6.50 usec
TE                 300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   25
SFO1         100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

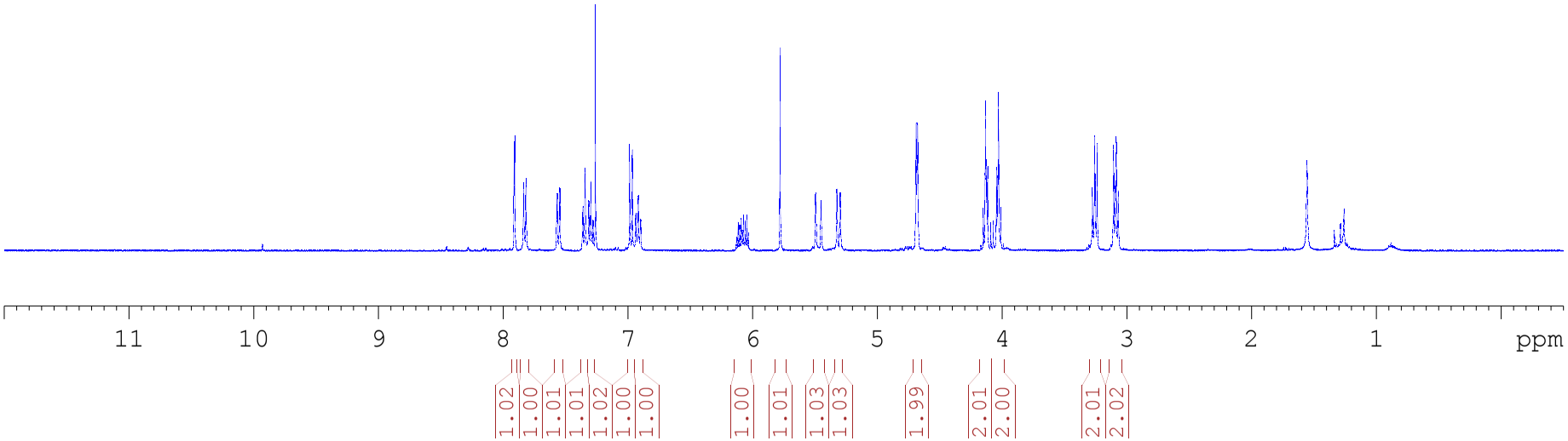
F2 - Processing parameters
SI                 65536
SF           100.6127562 MHz
WDW                   EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```

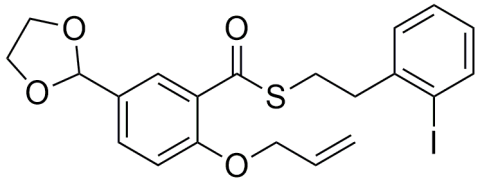




```
PROBHD    Z106816_0516 (
PULPROG              zg
TD               48076
SOLVENT          CDCl3
NS                   1
DS                   0
SWH           8000.000 Hz
FIDRES        0.332806 Hz
AQ           3.0047500 sec
RG                 161
DW              62.500 usec
DE              10.20 usec
TE              300.0 K
D1           5.00000000 sec
TD0                  1
SFO1       400.1324008 MHz
NUC1                1H
P1               14.90 usec
PLW1       11.99499989 W

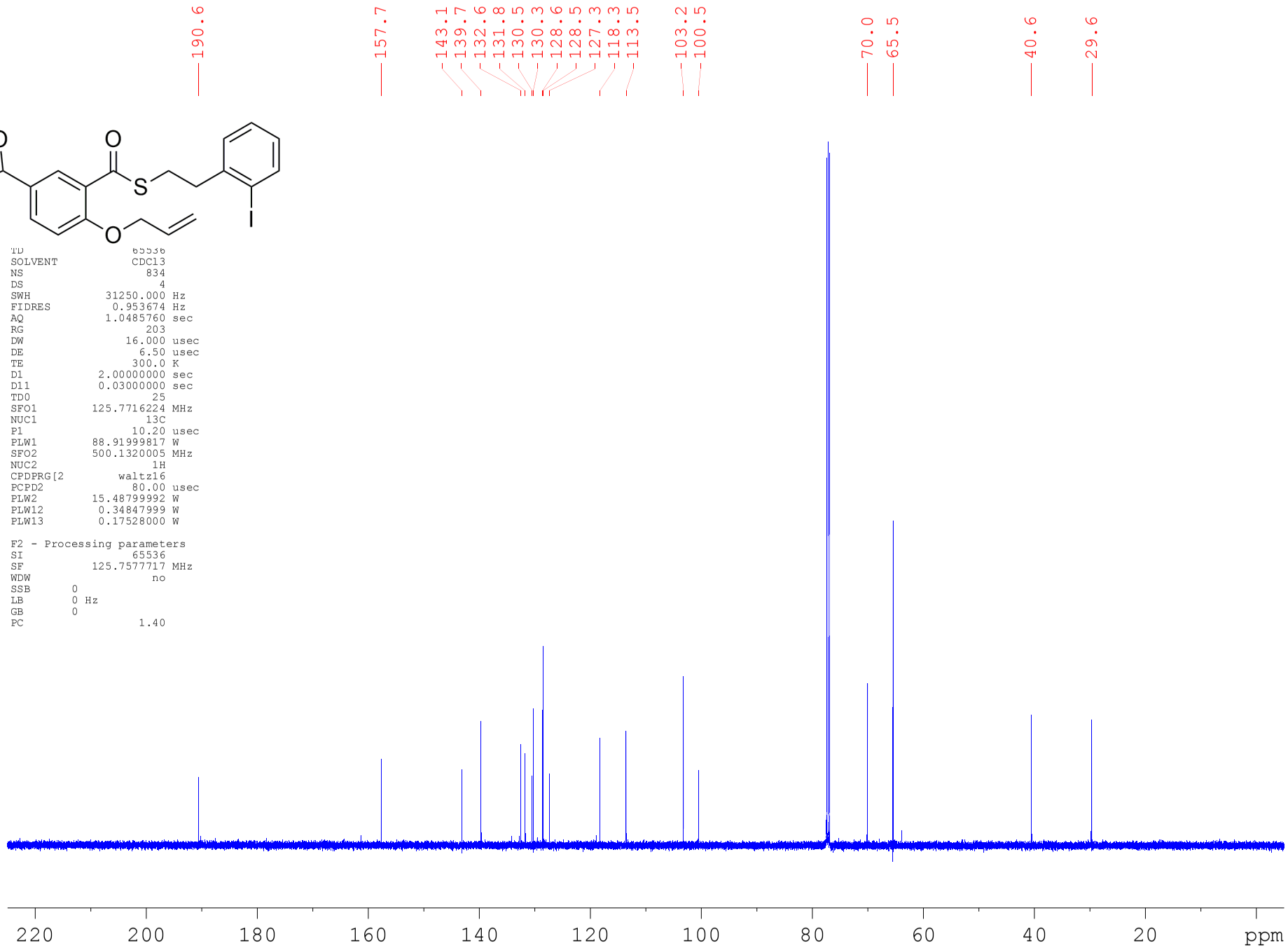
F2 - Processing parameters
SI               32768
SF         400.1300084 MHz
WDW                 EM
SSB      0
LB               0.30 Hz
GB       0
PC               1.00
```

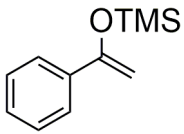




```
TD                 65536
SOLVENT            CDCl3
NS                   834
DS                     4
SWH            31250.000 Hz
FIDRES          0.953674 Hz
AQ             1.0485760 sec
RG                   203
DW                16.000 usec
DE                  6.50 usec
TE                 300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                   25
SFO1         125.7716224 MHz
NUC1                 13C
P1                 10.20 usec
PLW1         88.91999817 W
SFO2         500.1320005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              80.00 usec
PLW2         15.48799992 W
PLW12         0.34847999 W
PLW13         0.17528000 W

F2 - Processing parameters
SI                 65536
SF           125.7577717 MHz
WDW                   no
SSB       0
LB        0 Hz
GB        0
PC                  1.40
```

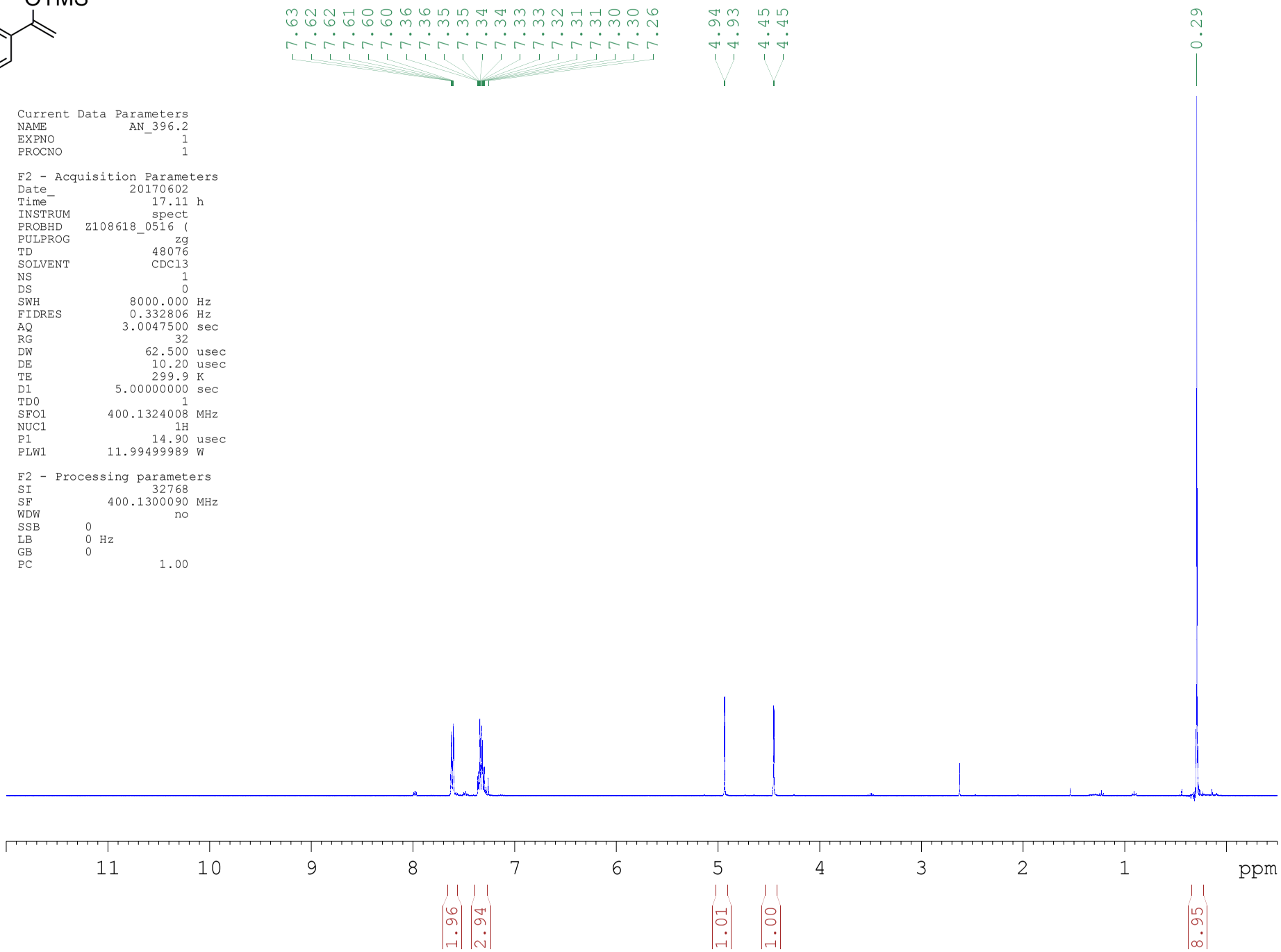





```
Current Data Parameters
NAME           AN_396.2
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20170602
Time              17.11 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG               zg
TD                48076
SOLVENT           CDCl3
NS                    1
DS                    0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ            3.0047500 sec
RG                   32
DW               62.500 usec
DE               10.20 usec
TE               299.9 K
D1           5.00000000 sec
TD0                   1
SFO1        400.1324008 MHz
NUC1                 1H
P1                14.90 usec
PLW1        11.99499989 W

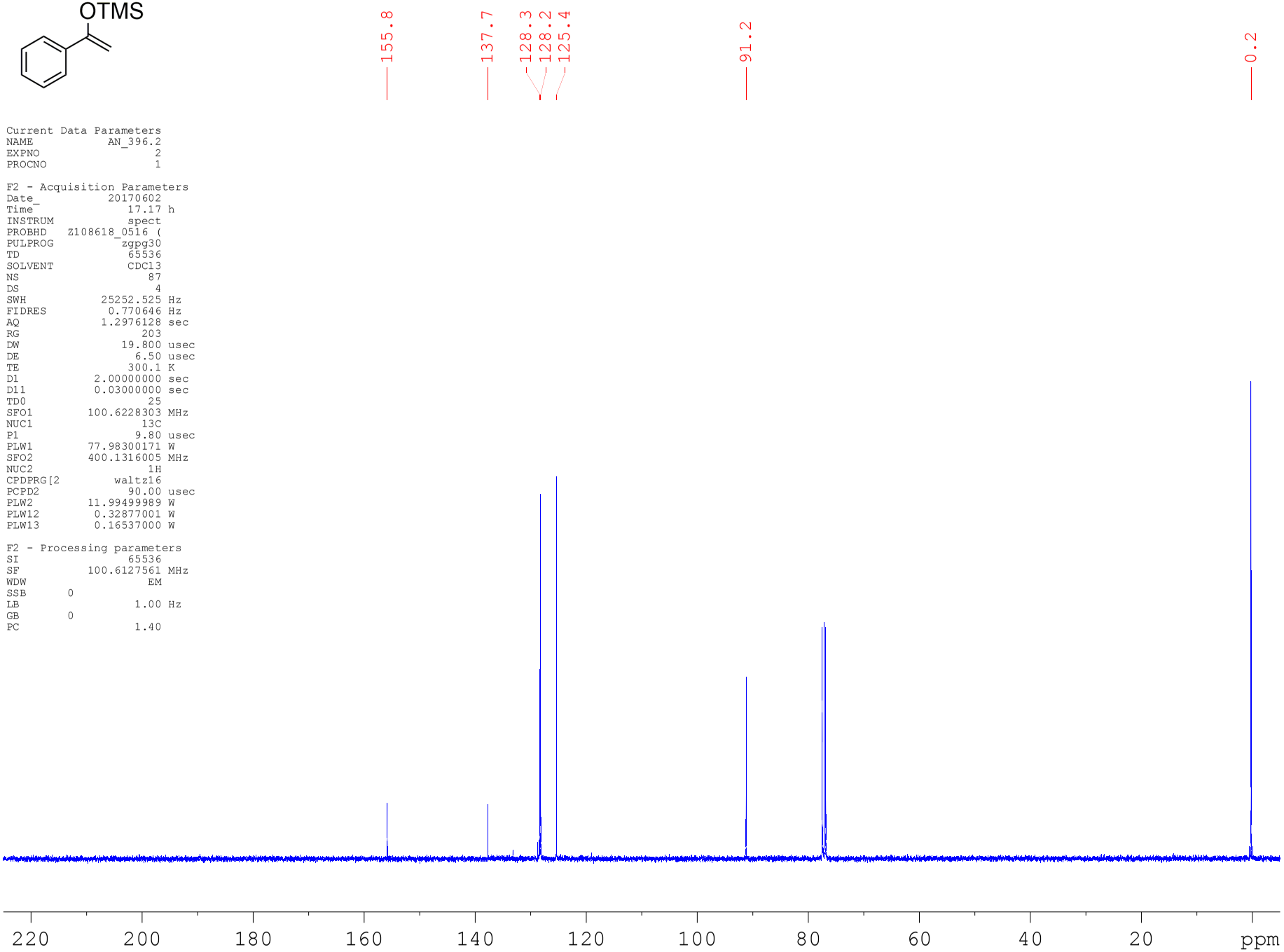
F2 - Processing parameters
SI                32768
SF          400.1300090 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```

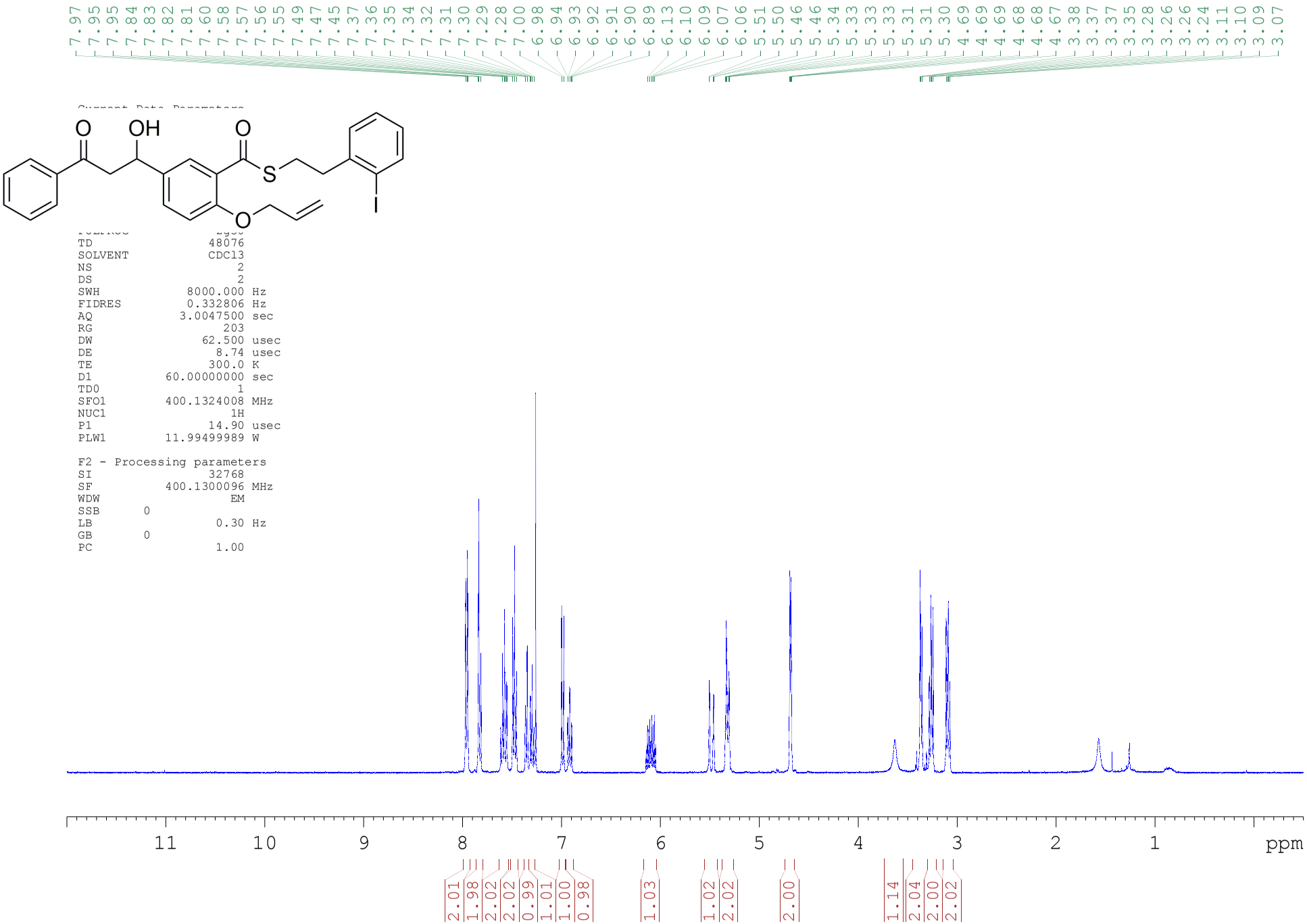


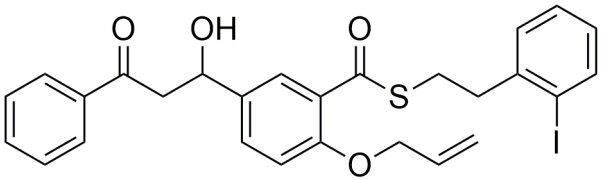
```
Current Data Parameters
NAME            AN_396.2
EXPNO                  2
PROCNO                 1

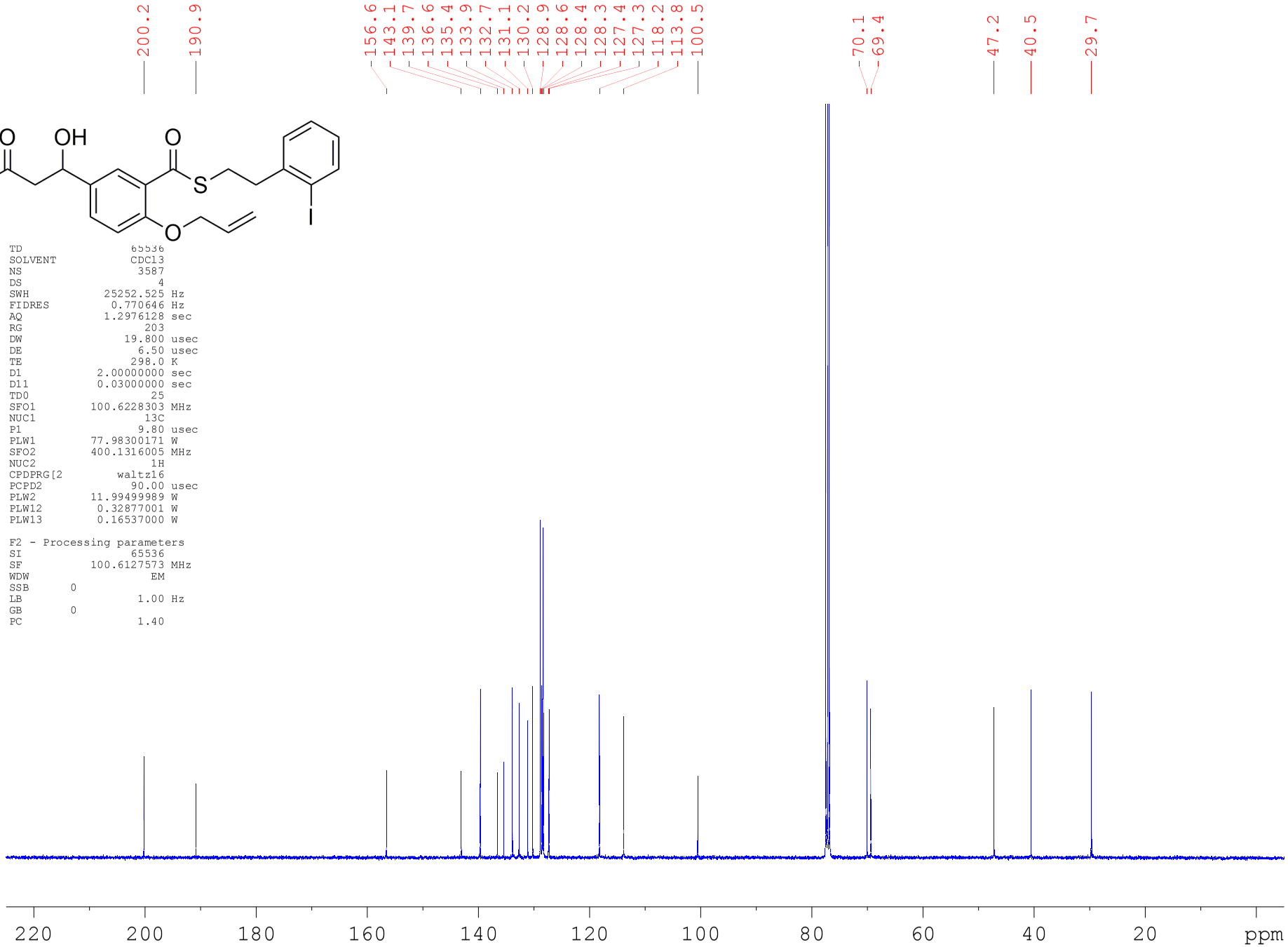
F2 - Acquisition Parameters
Date_           20170602
Time              17.17 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                   87
DS                    4
SWH           25252.525 Hz
FIDRES         0.770646 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                 6.50 usec
TE                300.1 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25
SFO1        100.6228303 MHz
NUC1                13C
P1                 9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                 1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                65536
SF          100.6127561 MHz
WDW                  EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```



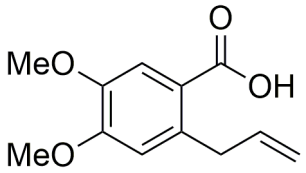

7.97 7.95 7.95 7.84 7.83 7.82 7.81 7.60 7.58 7.57 7.56 7.55 7.49 7.47 7.45 7.37 7.36 7.35 7.34 7.32 7.31 7.30 7.29 7.28 7.00 6.98 6.94 6.93 6.92 6.91 6.90 6.89 6.13 6.10 6.09 6.07 6.06 5.51 5.50 5.46 5.46 5.34 5.33 5.33 5.33 5.31 5.31 5.30 4.69 4.69 4.69 4.68 4.68 4.67 3.38 3.37 3.37 3.35 3.28 3.26 3.26 3.24 3.11 3.10 3.09 3.07
O
OH
O
S
O
I
TD 48076
SOLVENT CDCl3
NS 2
DS 2
SWH 8000.000 Hz
FIDRES 0.332806 Hz
AQ 3.0047500 sec
RG 203
DW 62.500 usec
DE 8.74 usec
TE 300.0 K
D1 60.00000000 sec
TD0 1
SFO1 400.1324008 MHz
NUC1 1H
P1 14.90 usec
PLW1 11.99499989 W
F2 - Processing parameters
SI 32768
SF 400.1300096 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
11 10 9 8 7 6 5 4 3 2 1 ppm
2.01 1.98 2.02 2.02 0.99 1.01 1.00 0.98 1.03 1.02 2.02 2.00 1.14 2.04 2.00 2.02

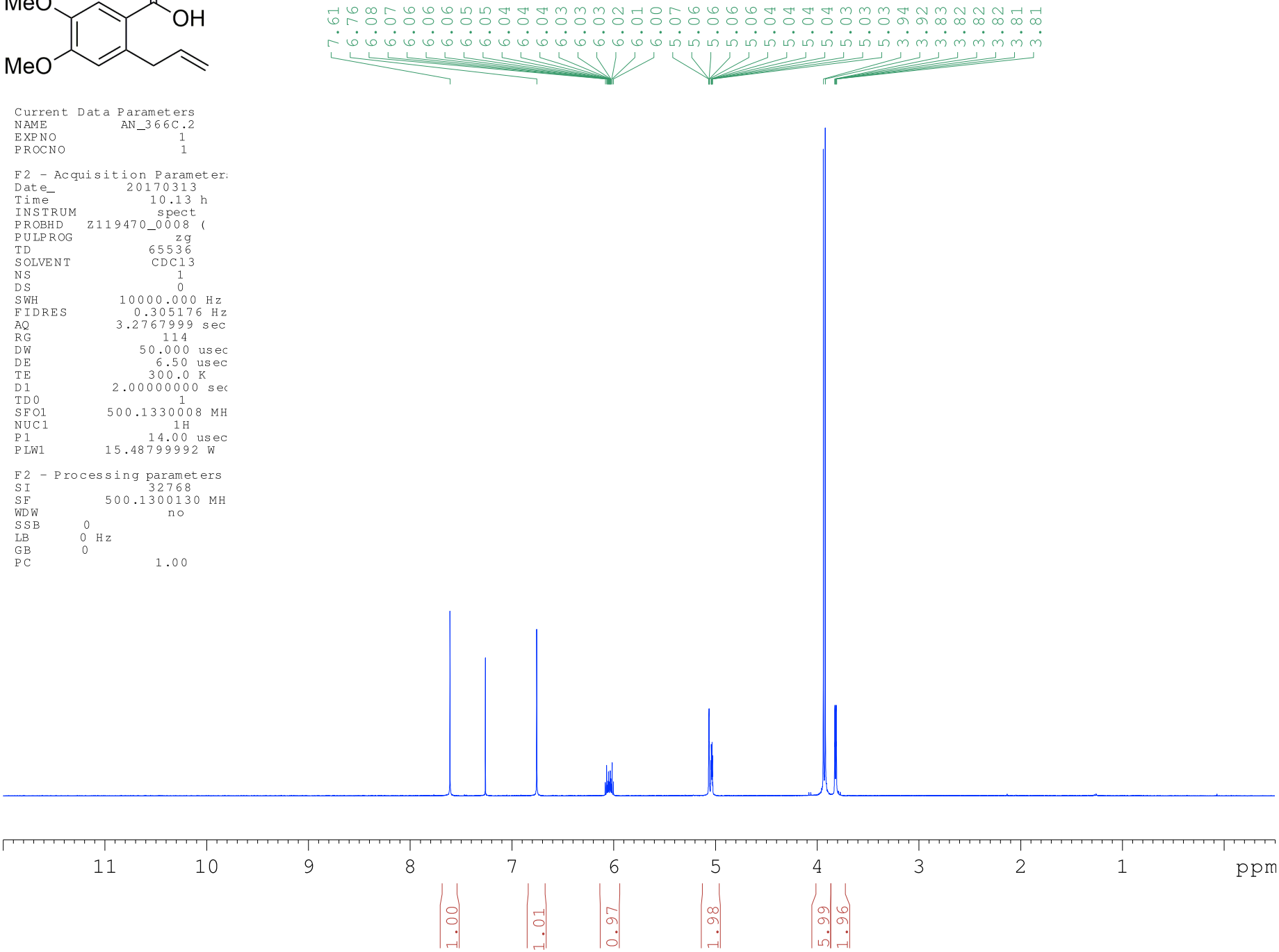





```
TD                 65536
SOLVENT            CDCl3
NS                  3587
DS                     4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                   203
DW                19.800 usec
DE                  6.50 usec
TE                 298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   25
SFO1        100.6228303 MHz
NUC1                 13C
P1                  9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                 65536
SF          100.6127573 MHz
WDW                   EM
SSB       0
LB                  1.00 Hz
GB        0
PC                  1.40
```

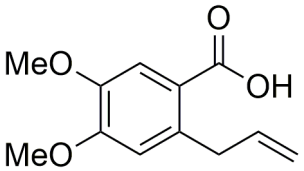


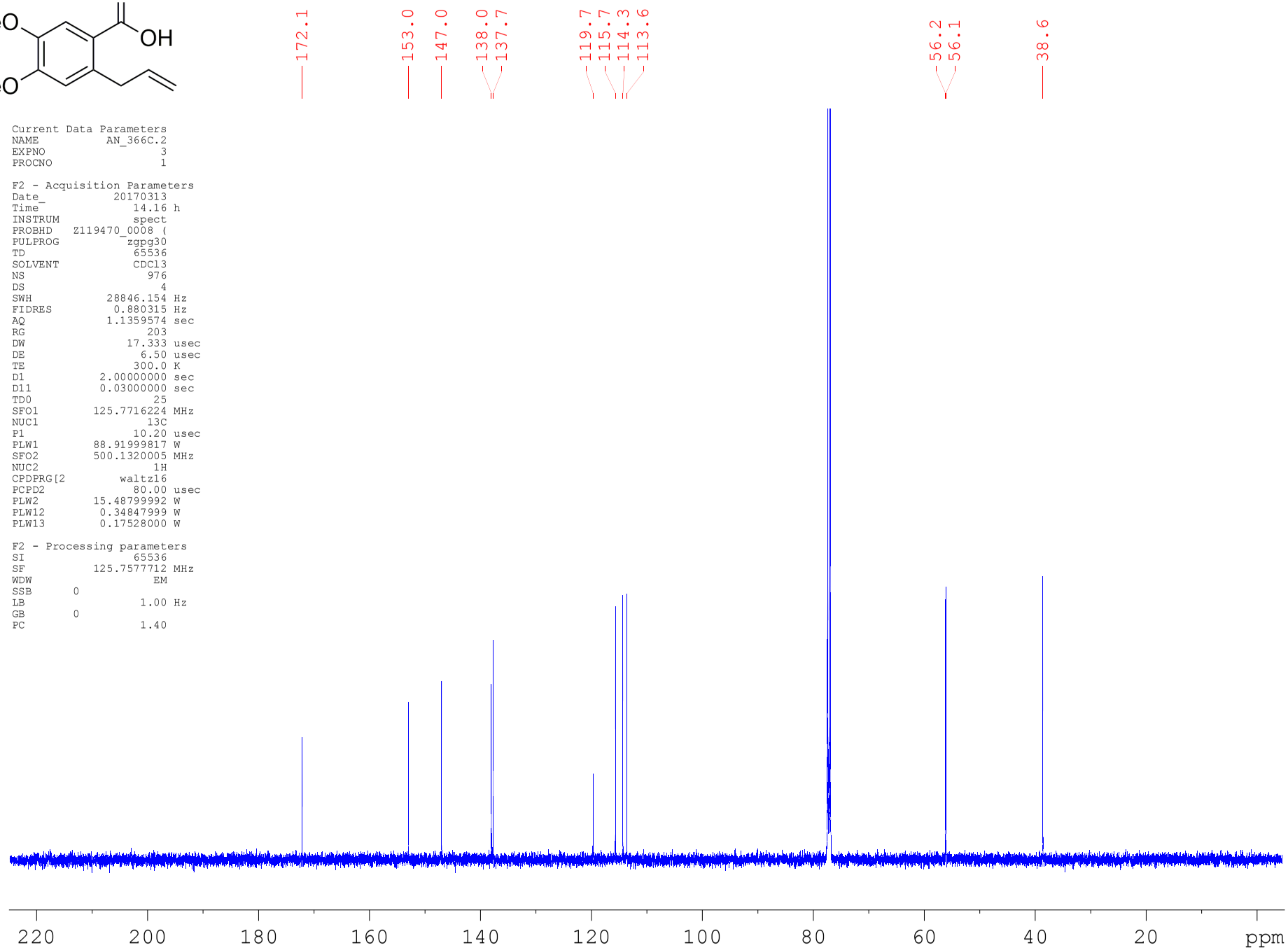



```
Current Data Parameters
NAME          AN_366C.2
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameter:
Date_          20170313
Time             10.13 h
INSTRUM          spect
PROBHD   Z119470_0008 (
PULPROG             zg
TD               65536
SOLVENT          CDCl3
NS                   1
DS                   0
SWH          10000.000 Hz
FIDRES        0.305176 Hz
AQ           3.2767999 sec
RG                 114
DW              50.000 usec
DE                6.50 usec
TE               300.0 K
D1          2.00000000 sec
TD0                  1
SFO1        500.1330008 MH
NUC1                1H
P1               14.00 usec
PLW1        15.48799992 W

F2 - Processing parameters
SI               32768
SF          500.1300130 MH
WDW                 no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```






```
Current Data Parameters
NAME          AN_366C.2
EXPNO                 3
PROCNO                1

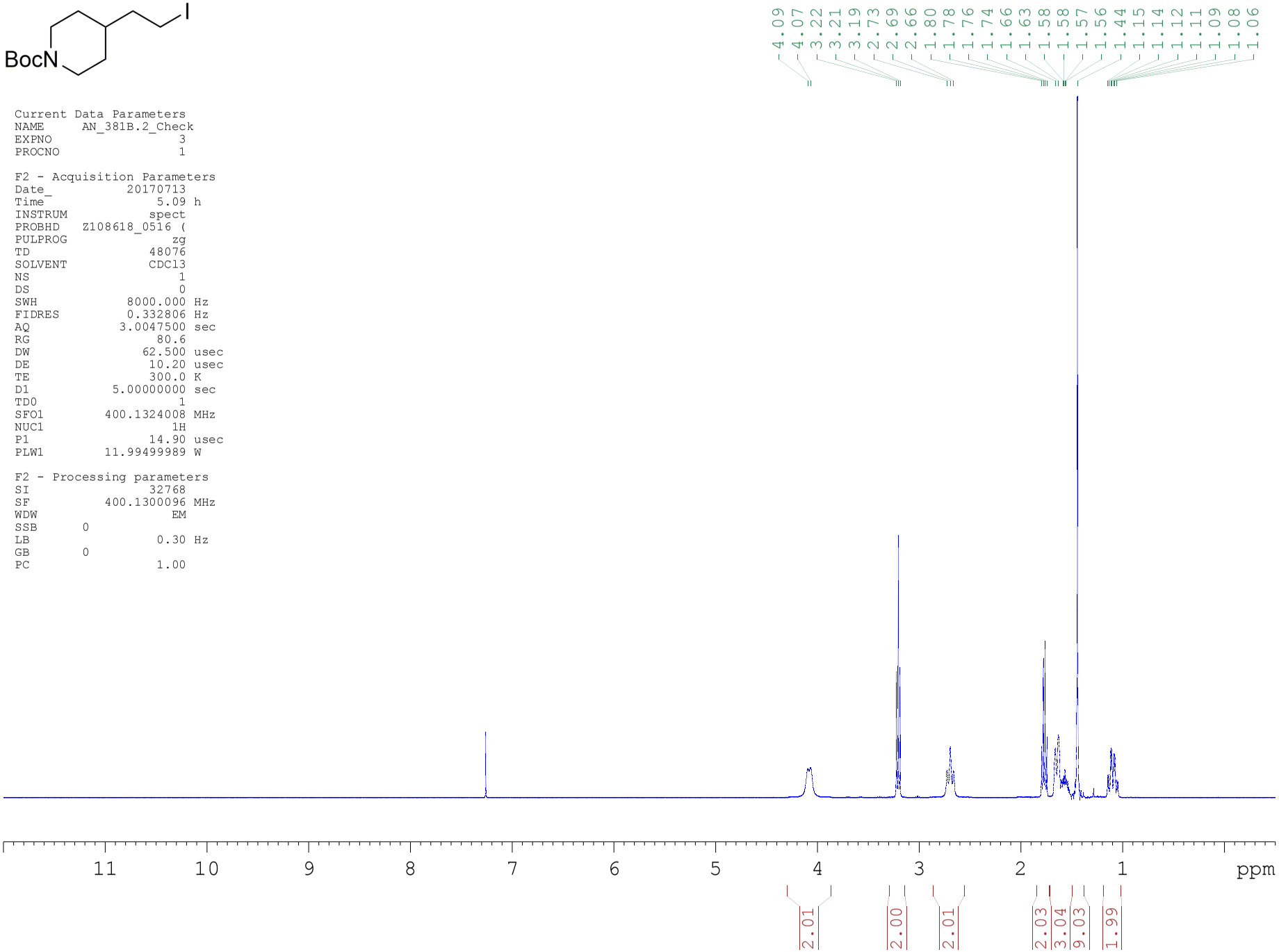
F2 - Acquisition Parameters
Date_           20170313
Time              14.16 h
INSTRUM           spect
PROBHD   Z119470_0008 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                  976
DS                    4
SWH           28846.154 Hz
FIDRES         0.880315 Hz
AQ            1.1359574 sec
RG                  203
DW               17.333 usec
DE                 6.50 usec
TE                300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25
SFO1        125.7716224 MHz
NUC1                13C
P1                10.20 usec
PLW1        88.91999817 W
SFO2        500.1320005 MHz
NUC2                 1H
CPDPRG[2        waltz16
PCPD2             80.00 usec
PLW2        15.48799992 W
PLW12        0.34847999 W
PLW13        0.17528000 W

F2 - Processing parameters
SI                65536
SF          125.7577712 MHz
WDW                  EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```

```
Current Data Parameters
NAME      AN_381B.2_Check
EXPNO                   3
PROCNO                  1

F2 - Acquisition Parameters
Date_           20170713
Time                5.09 h
INSTRUM            spect
PROBHD   Z108618_0516 (
PULPROG               zg
TD                 48076
SOLVENT            CDCl3
NS                     1
DS                     0
SWH             8000.000 Hz
FIDRES          0.332806 Hz
AQ             3.0047500 sec
RG                  80.6
DW                62.500 usec
DE                 10.20 usec
TE                 300.0 K
D1             5.00000000 sec
TD0                    1
SFO1         400.1324008 MHz
NUC1                  1H
P1                 14.90 usec
PLW1         11.99499989 W

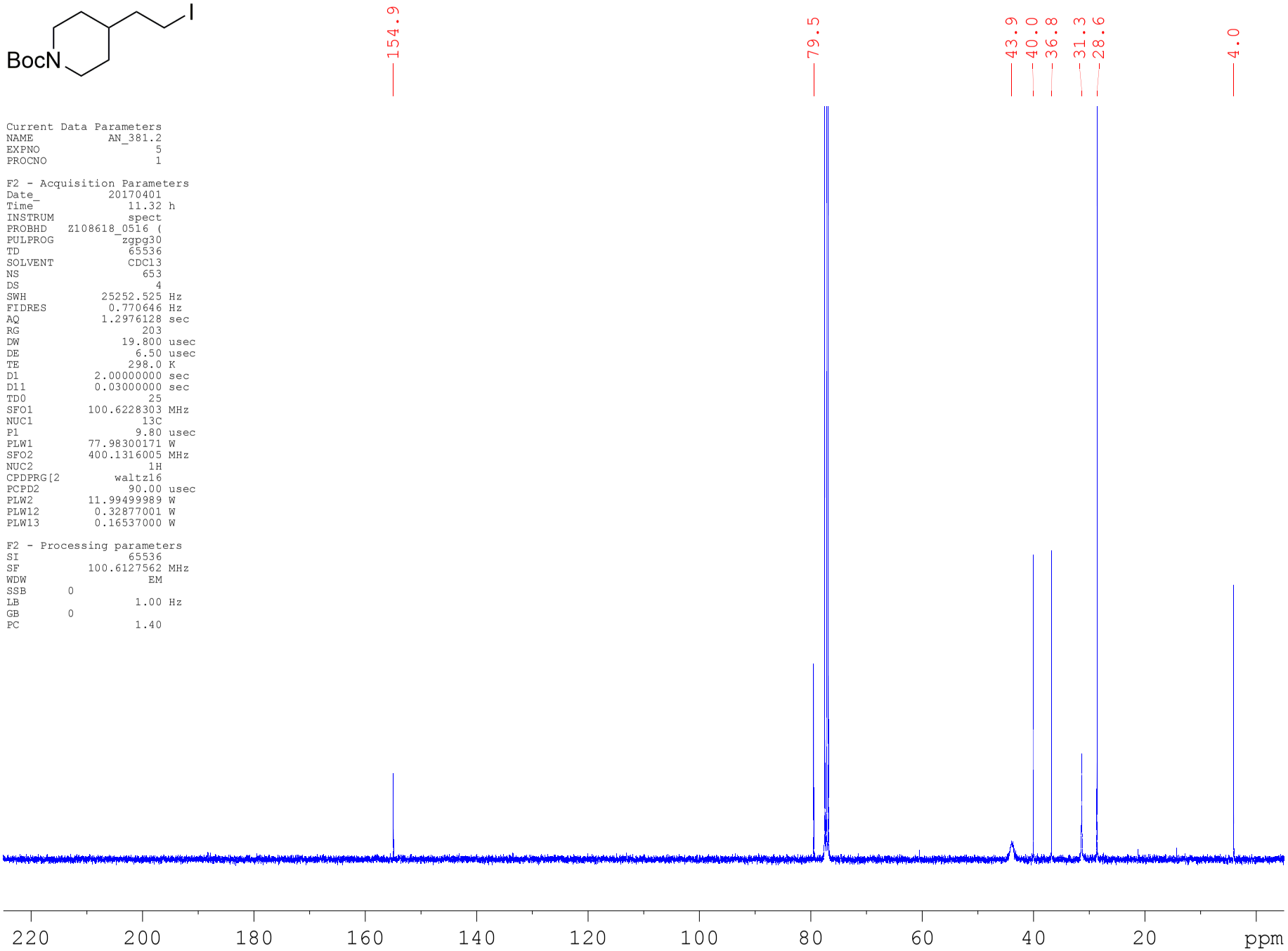
F2 - Processing parameters
SI                 32768
SF           400.1300096 MHz
WDW                   EM
SSB       0
LB                  0.30 Hz
GB        0
PC                  1.00
```

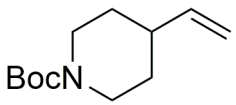


```
Current Data Parameters
NAME            AN_381.2
EXPNO                  5
PROCNO                 1

F2 - Acquisition Parameters
Date_           20170401
Time              11.32 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                  653
DS                    4
SWH           25252.525 Hz
FIDRES         0.770646 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                 6.50 usec
TE                298.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   25
SFO1        100.6228303 MHz
NUC1                 13C
P1                 9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2              90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                65536
SF          100.6127562 MHz
WDW                  EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```

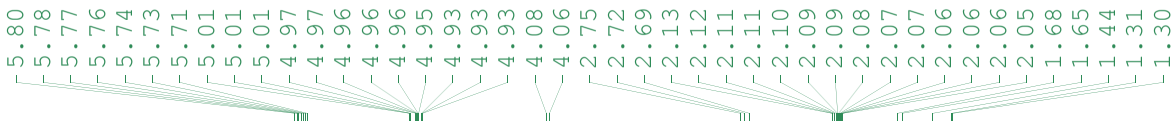


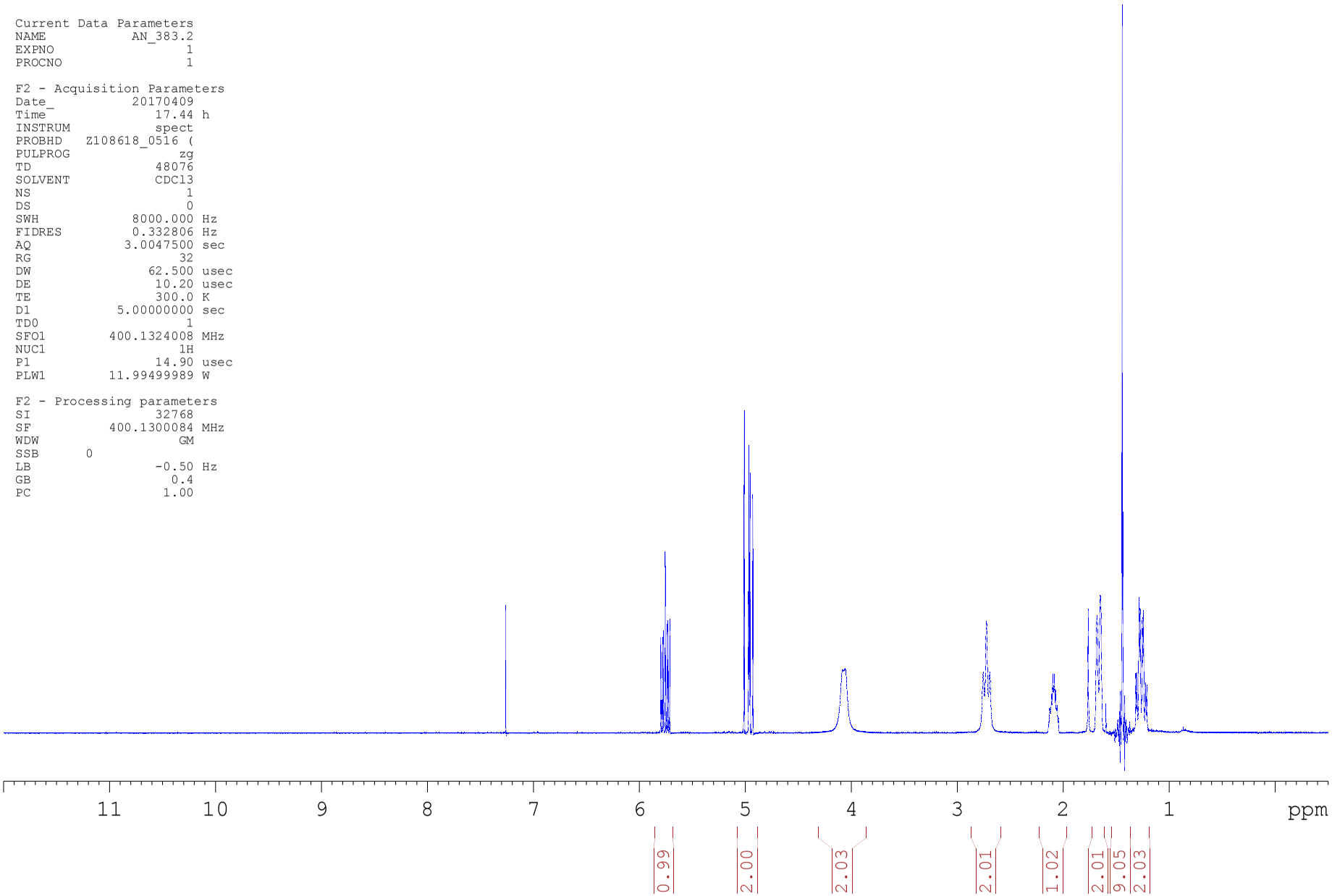



```
Current Data Parameters
NAME           AN_383.2
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20170409
Time              17.44 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG               zg
TD                48076
SOLVENT           CDCl3
NS                    1
DS                    0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ            3.0047500 sec
RG                   32
DW               62.500 usec
DE               10.20 usec
TE               300.0 K
D1           5.00000000 sec
TD0                   1
SFO1        400.1324008 MHz
NUC1                 1H
P1                14.90 usec
PLW1        11.99499989 W

F2 - Processing parameters
SI                32768
SF          400.1300084 MHz
WDW                  GM
SSB      0
LB                -0.50 Hz
GB                  0.4
PC                 1.00
```

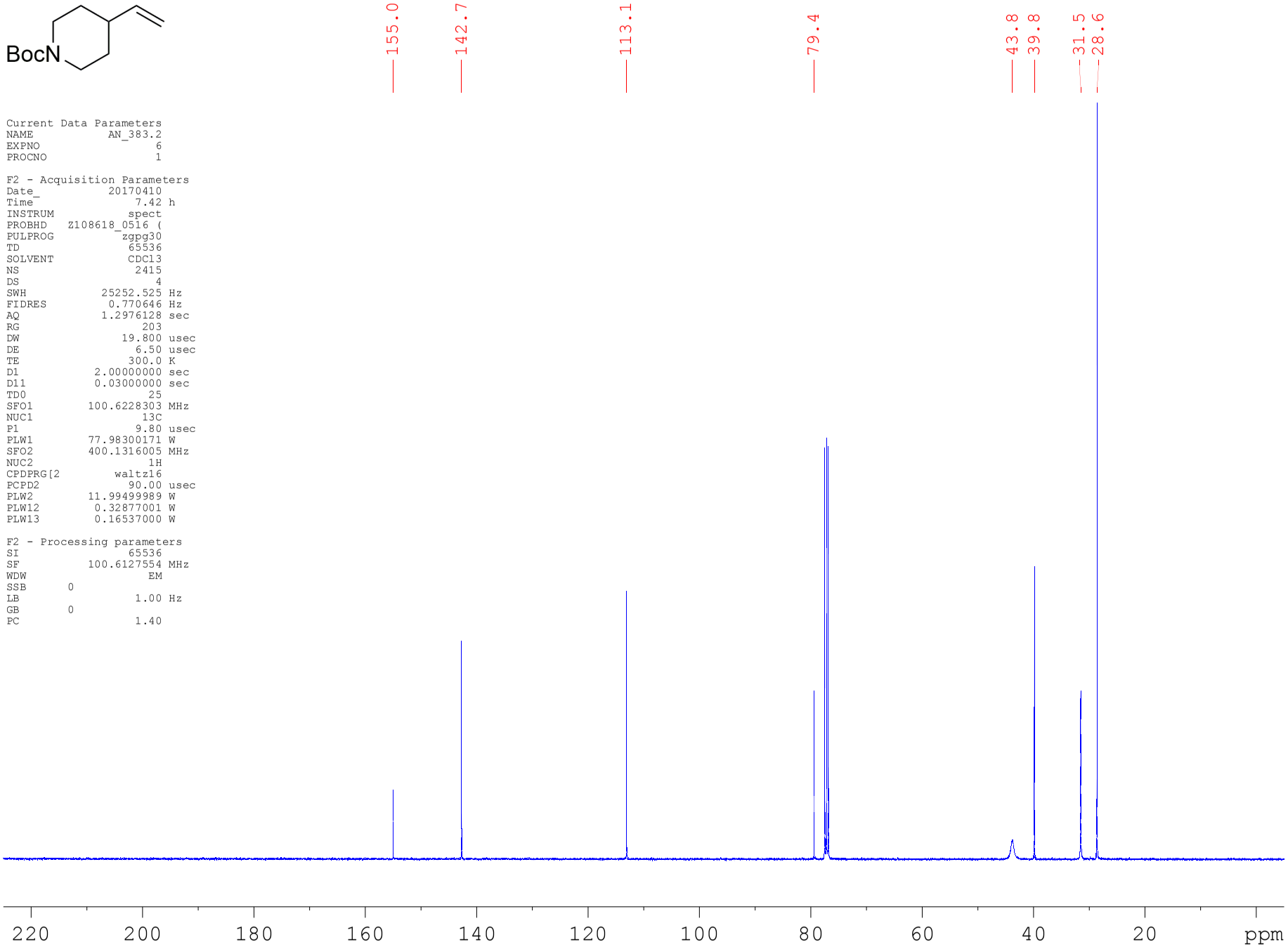


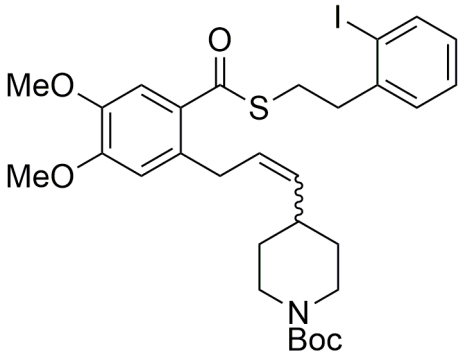


```
Current Data Parameters
NAME            AN_383.2
EXPNO                  6
PROCNO                 1

F2 - Acquisition Parameters
Date_           20170410
Time               7.42 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG          zgpg30
TD                65536
SOLVENT           CDCl3
NS                 2415
DS                    4
SWH           25252.525 Hz
FIDRES         0.770646 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                 6.50 usec
TE                300.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                   25
SFO1        100.6228303 MHz
NUC1                 13C
P1                 9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                  1H
CPDPRG[2         waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                65536
SF          100.6127554 MHz
WDW                  EM
SSB      0
LB                 1.00 Hz
GB       0
PC                 1.40
```

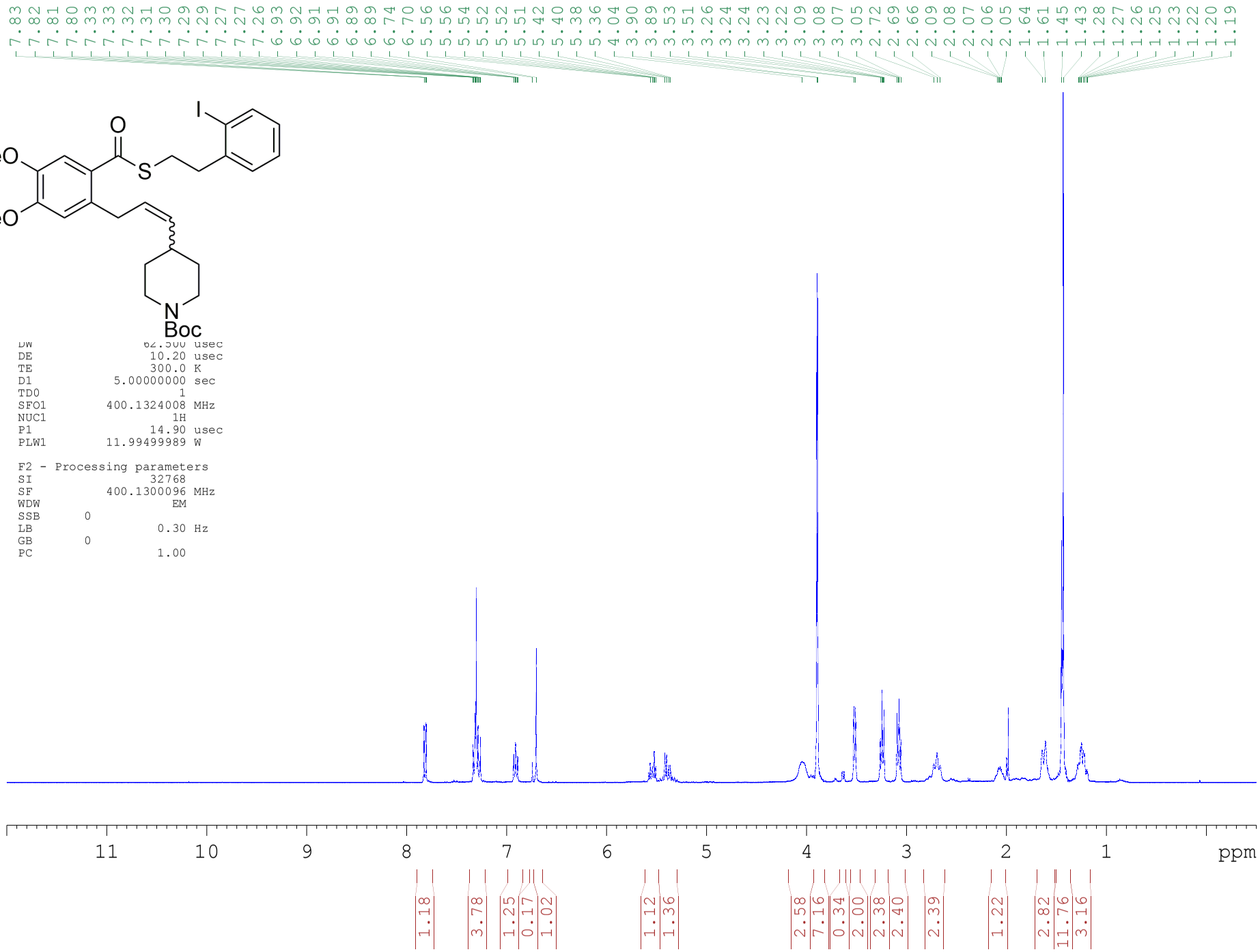


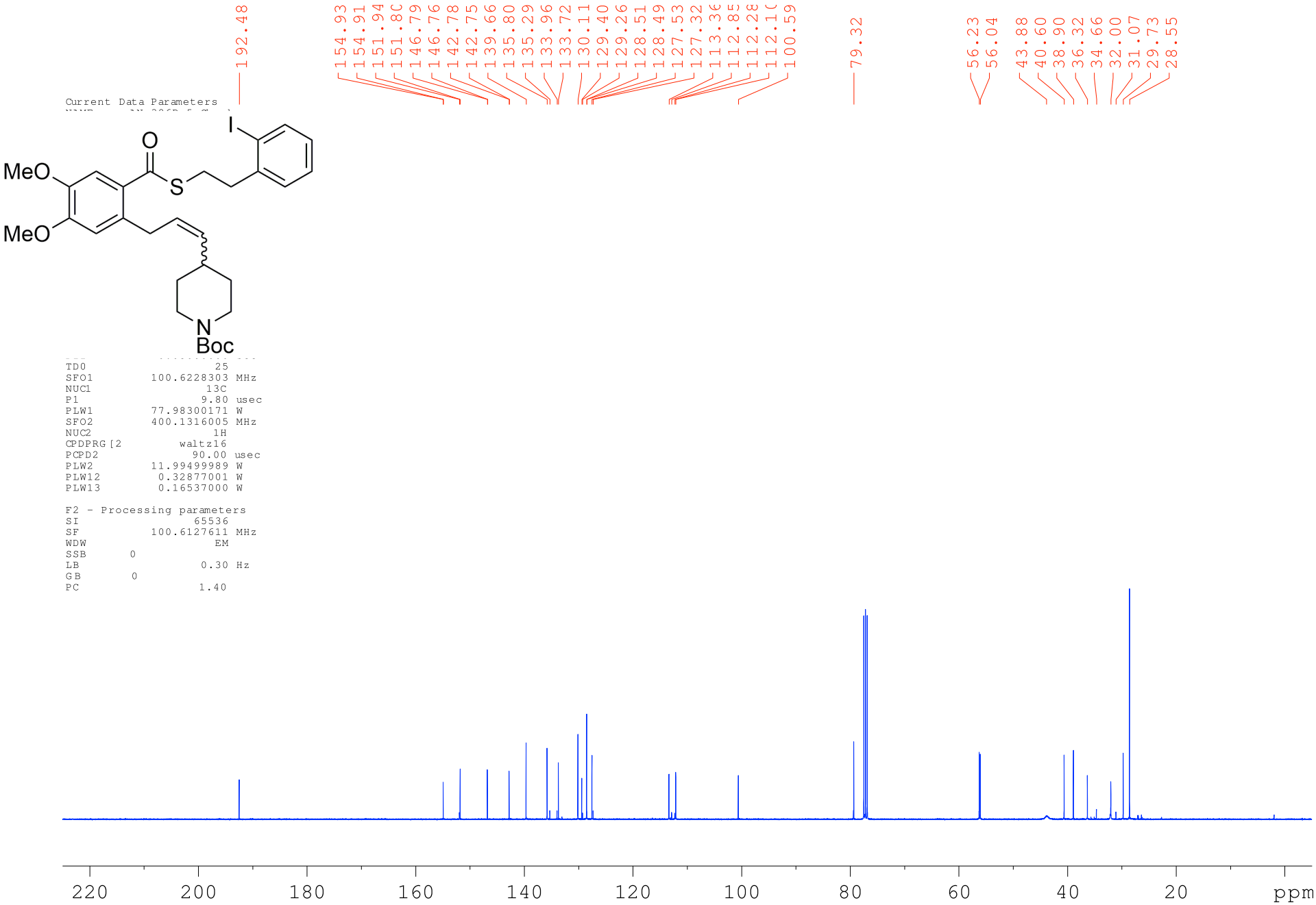


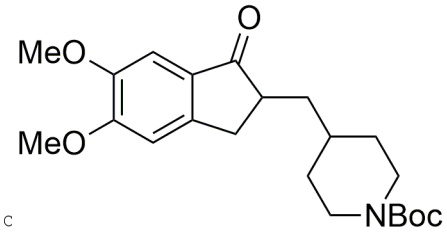
DW	62.500	usec
DE	10.20	usec
TE	300.0	K
D1	5.00000000	sec
TD0	1	
SFO1	400.1324008	MHz
NUC1	1H	
P1	14.90	usec
PLW1	11.99499989	W

F2 - Processing parameters

SI	32768	
SF	400.1300096	MHz
WDW	EM	
SSB	0	
LB	0.30	Hz
GB	0	
PC	1.00	



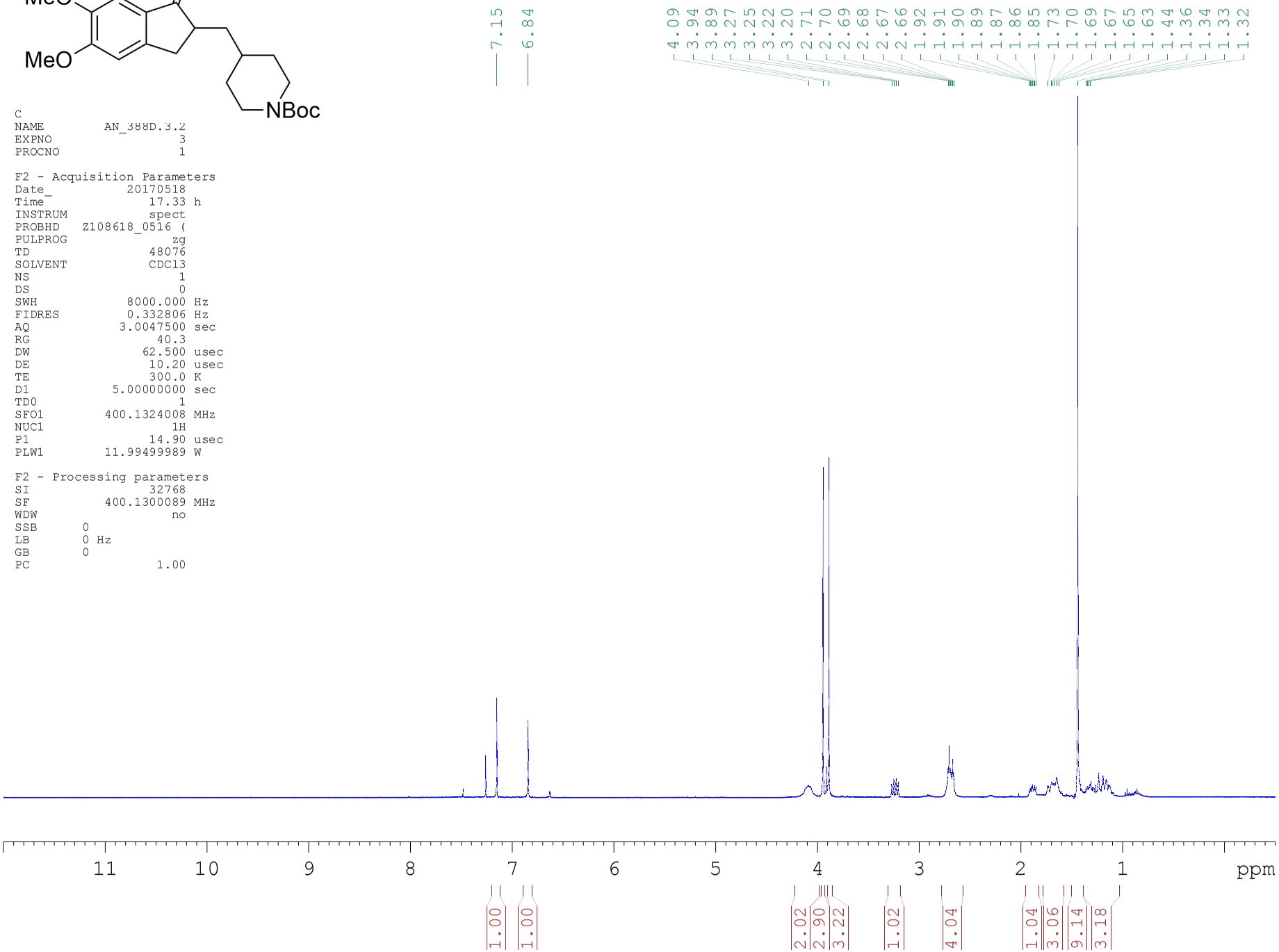

192.48
154.93
154.91
151.94
151.80
146.79
146.76
142.78
142.75
139.66
135.80
135.29
133.96
133.72
130.11
129.40
129.26
128.51
128.49
127.53
127.32
113.36
112.85
112.28
112.10
100.59
79.32
56.23
56.04
43.88
40.60
38.90
36.32
34.66
32.00
31.07
29.73
28.55
Current Data Parameters
MeO
MeO
O
S
I
N
Boc
TD0 25
SFO1 100.6228303 MHz
NUC1 13C
P1 9.80 usec
PLW1 77.98300171 W
SFO2 400.1316005 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 90.00 usec
PLW2 11.99499989 W
PLW12 0.32877001 W
PLW13 0.16537000 W
F2 - Processing parameters
SI 65536
SF 100.6127611 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.40
220
200
180
160
140
120
100
80
60
40
20
ppm

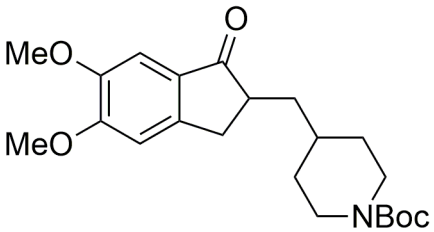



```
C
NAME        AN_388D.3.2
EXPNO                 3
PROCNO                1

F2 - Acquisition Parameters
Date_          20170518
Time              17.33 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG               zg
TD                48076
SOLVENT           CDCl3
NS                    1
DS                    0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ            3.0047500 sec
RG                 40.3
DW               62.500 usec
DE               10.20 usec
TE               300.0 K
D1           5.00000000 sec
TD0                   1
SFO1        400.1324008 MHz
NUC1                 1H
P1                14.90 usec
PLW1        11.99499989 W

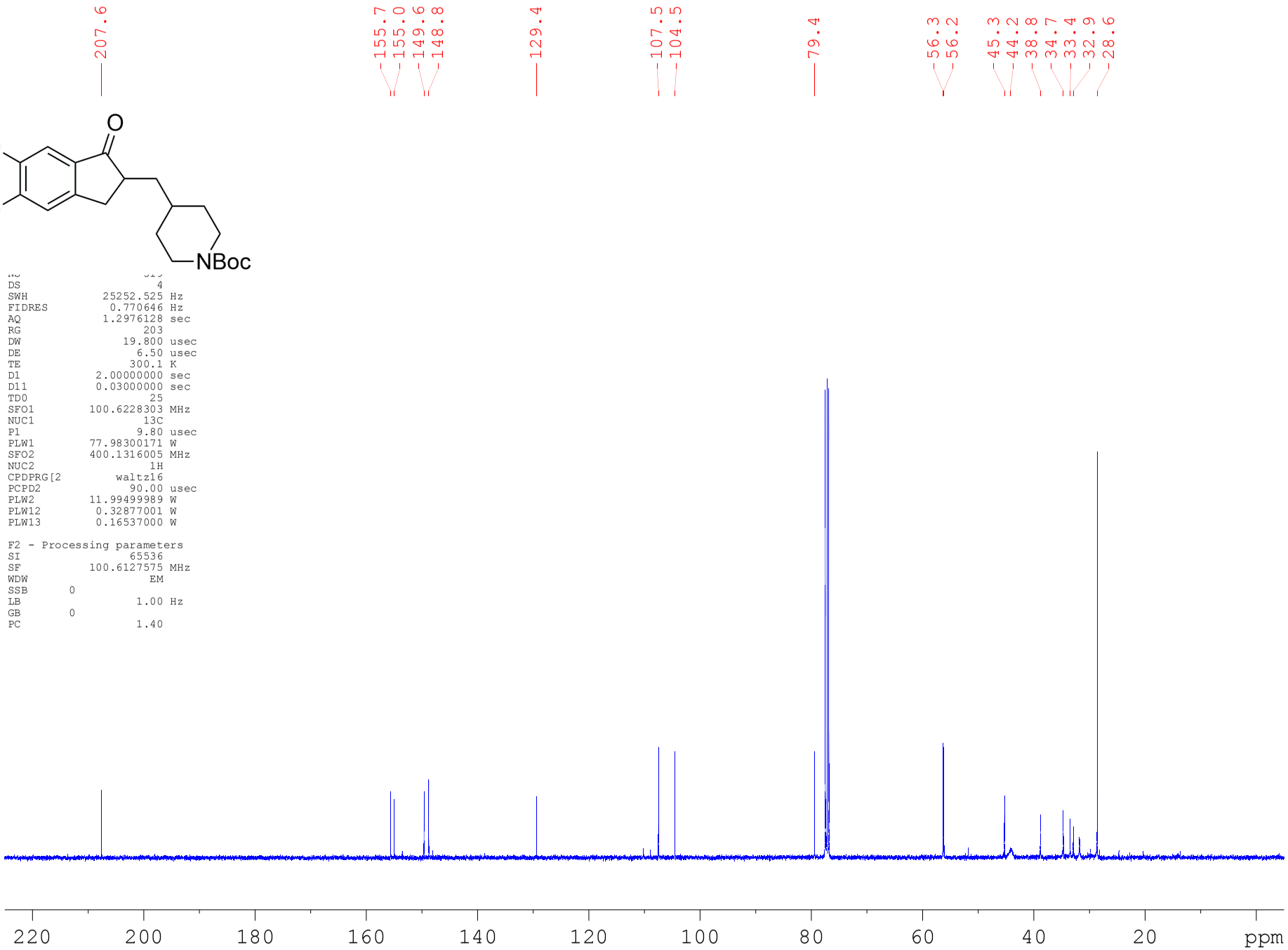
F2 - Processing parameters
SI                32768
SF          400.1300089 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                 1.00
```

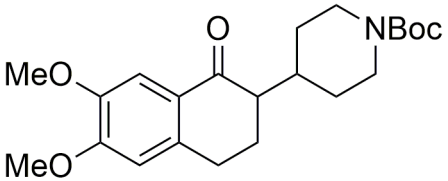





```
DS                    4
SWH           25252.525 Hz
FIDRES         0.770646 Hz
AQ            1.2976128 sec
RG                  203
DW               19.800 usec
DE                 6.50 usec
TE                300.1 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                  25
SFO1        100.6228303 MHz
NUC1                13C
P1                 9.80 usec
PLW1        77.98300171 W
SFO2        400.1316005 MHz
NUC2                 1H
CPDPRG[2        waltz16
PCPD2             90.00 usec
PLW2        11.99499989 W
PLW12        0.32877001 W
PLW13        0.16537000 W

F2 - Processing parameters
SI                65536
SF          100.6127575 MHz
WDW                  EM
SSB      0
LB                1.00 Hz
GB       0
PC                1.40
```

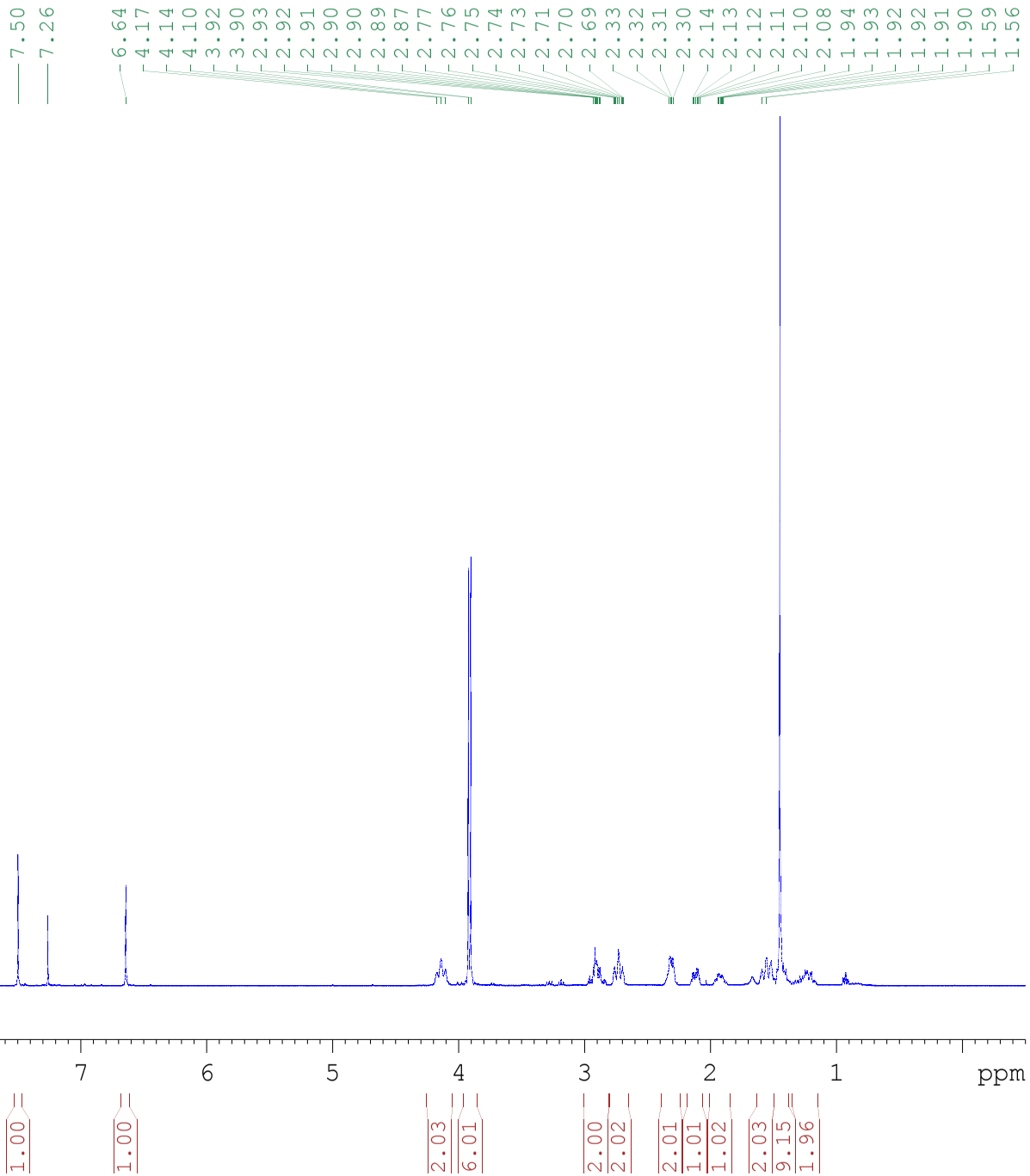


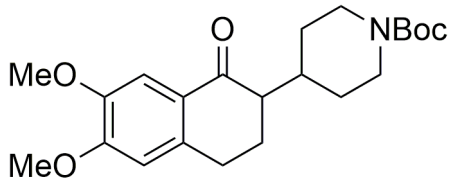



```
Current Data Parameters
NAME      AN_388D.3.1.1
EXPNO                 1
PROCNO                1

F2 - Acquisition Parameters
Date_          20170713
Time               5.30 h
INSTRUM           spect
PROBHD   Z108618_0516 (
PULPROG               zg
TD                48076
SOLVENT           CDCl3
NS                    1
DS                    0
SWH            8000.000 Hz
FIDRES         0.332806 Hz
AQ            3.0047500 sec
RG                 80.6
DW               62.500 usec
DE                10.20 usec
TE                300.0 K
D1           5.00000000 sec
TD0                   1
SFO1        400.1324008 MHz
NUC1                 1H
P1                14.90 usec
PLW1        11.99499989 W

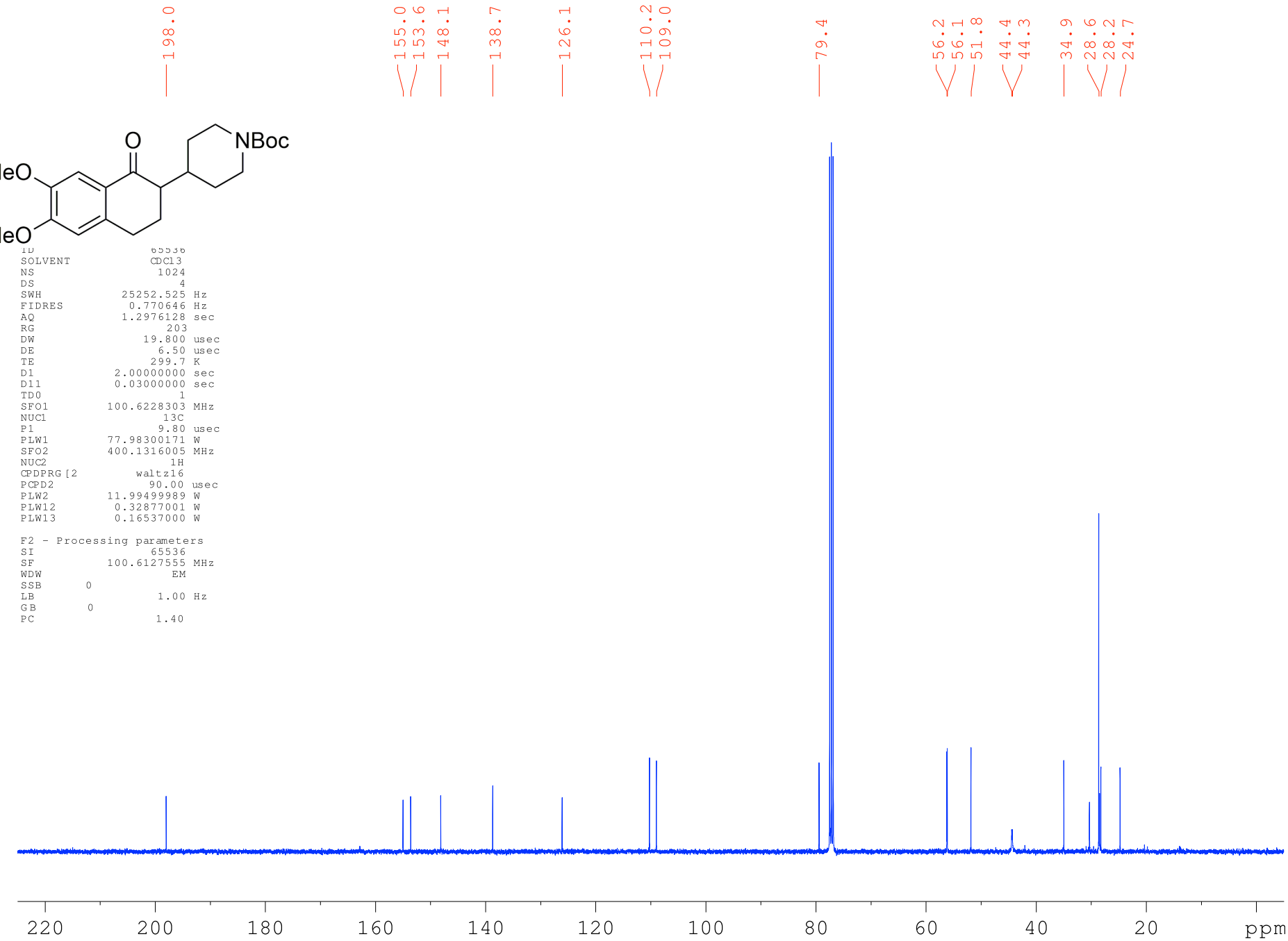
F2 - Processing parameters
SI                32768
SF          400.1300095 MHz
WDW                  EM
SSB      0
LB                0.30 Hz
GB       0
PC                1.00
```

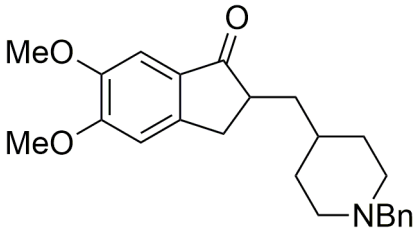





```
ID                  65536
SOLVENT             CDCl3
NS                   1024
DS                      4
SWH            25252.525 Hz
FIDRES          0.770646 Hz
AQ             1.2976128 sec
RG                    203
DW                 19.800 usec
DE                   6.50 usec
TE                  299.7 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                    1
SFO1         100.6228303 MHz
NUC1                 13C
P1                   9.80 usec
PLW1         77.98300171 W
SFO2         400.1316005 MHz
NUC2                  1H
CPDPRG[2          waltz16
PCPD2               90.00 usec
PLW2         11.99499989 W
PLW12         0.32877001 W
PLW13         0.16537000 W

F2 - Processing parameters
SI                  65536
SF           100.6127555 MHz
WDW                    EM
SSB       0
LB                   1.00 Hz
GB        0
PC                   1.40
```

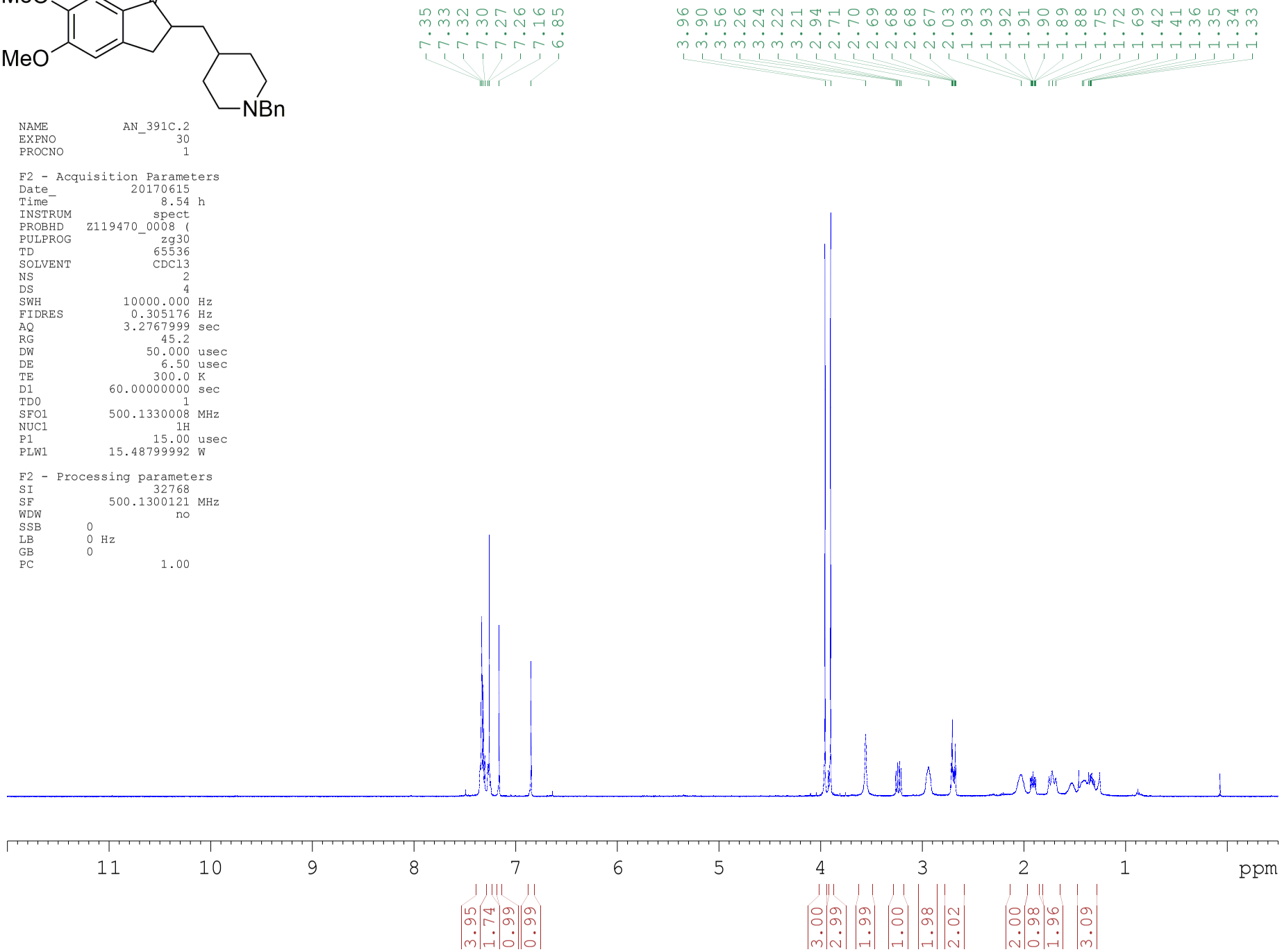


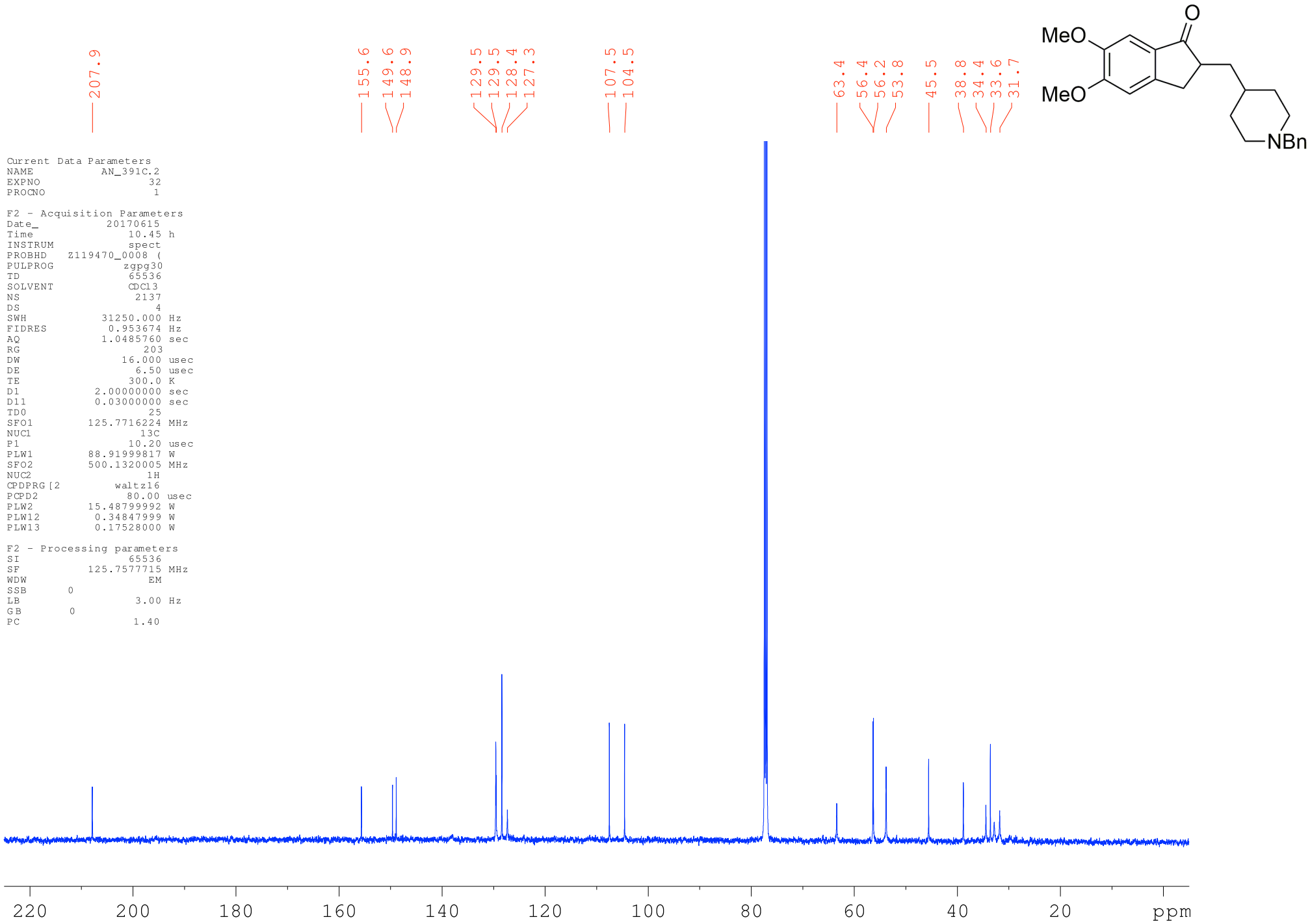



```
NAME          AN_391C.2
EXPNO                30
PROCNO                1

F2 - Acquisition Parameters
Date_          20170615
Time               8.54 h
INSTRUM           spect
PROBHD   Z119470_0008 (
PULPROG            zg30
TD                65536
SOLVENT           CDCl3
NS                    2
DS                    4
SWH           10000.000 Hz
FIDRES         0.305176 Hz
AQ            3.2767999 sec
RG                 45.2
DW               50.000 usec
DE                6.50 usec
TE               300.0 K
D1          60.00000000 sec
TD0                   1
SFO1        500.1330008 MHz
NUC1                 1H
P1                15.00 usec
PLW1        15.48799992 W

F2 - Processing parameters
SI                32768
SF          500.1300121 MHz
WDW                  no
SSB      0
LB       0 Hz
GB       0
PC                1.00
```




207.9
155.6
149.6
148.9
129.5
129.5
128.4
127.3
107.5
104.5
63.4
56.4
56.2
53.8
45.5
38.8
34.4
33.6
31.7
MeO
MeO
O
NBn
Current Data Parameters
NAME AN_391C.2
EXPNO 32
PROCNO 1
F2 - Acquisition Parameters
Date_ 20170615
Time 10.45 h
INSTRUM spect
PROBHD Z119470_0008 (
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 2137
DS 4
SWH 31250.000 Hz
FIDRES 0.953674 Hz
AQ 1.0485760 sec
RG 203
DW 16.000 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
TD0 25
SFO1 125.7716224 MHz
NUC1 13C
P1 10.20 usec
PLW1 88.91999817 W
SFO2 500.1320005 MHz
NUC2 1H
CPDPRG[2 waltz16
PCPD2 80.00 usec
PLW2 15.48799992 W
PLW12 0.34847999 W
PLW13 0.17528000 W
F2 - Processing parameters
SI 65536
SF 125.7577715 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.40
220
200
180
160
140
120
100
80
60
40
20
ppm