

10.1071/CH12480\_AC

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Supplementary Material

## A Novel Organic Electron Donor Derived from *N*-Methylisatin.

Ryan Sword, Steven O'Sullivan and John A. Murphy,\*

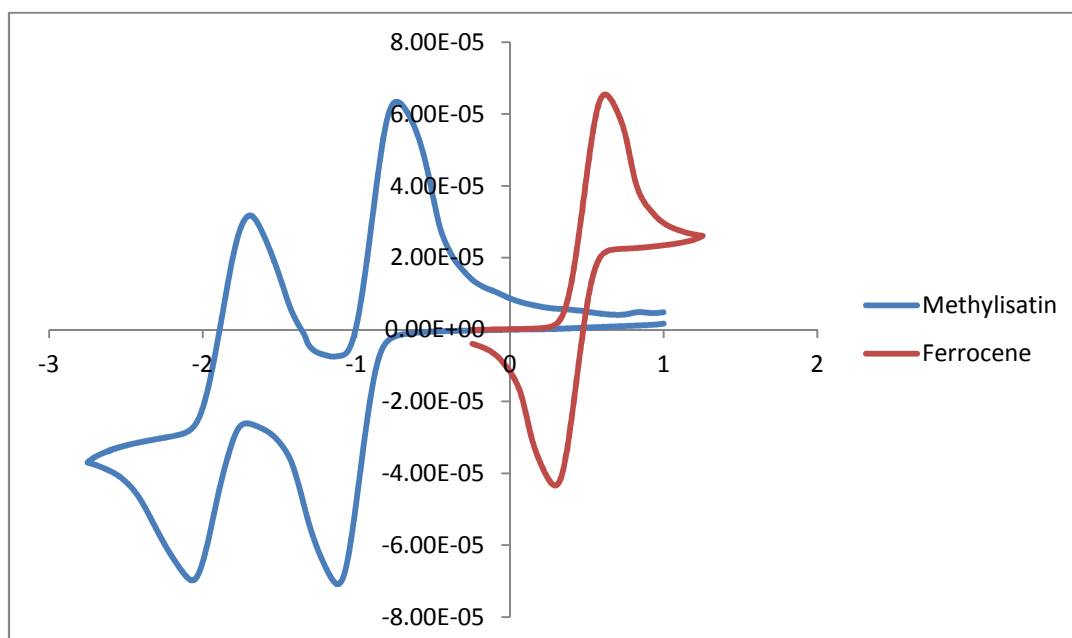
Department of Pure and Applied Chemistry, University of Strathclyde,  
295 Cathedral Street, Glasgow G1 1XL, UNITED KINGDOM.

Page S2                      Cyclic voltammogram of *N*-methylisatin.

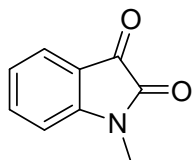
Pages S3-S52              <sup>1</sup>H NMR and <sup>13</sup>C-NMR spectra of compounds

Cyclic Voltammogram of *N*-Methylisatin (see experimental Section for details)

The x-axis scale below is in Volts relative to Ag/AgCl.



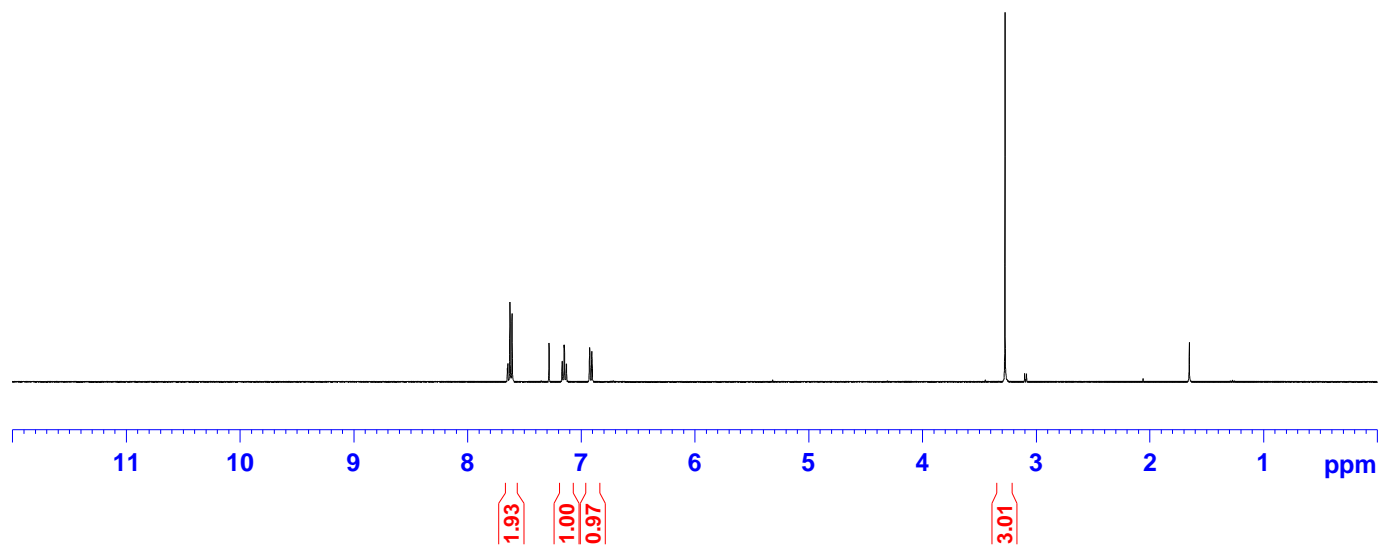
RS348



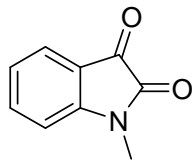
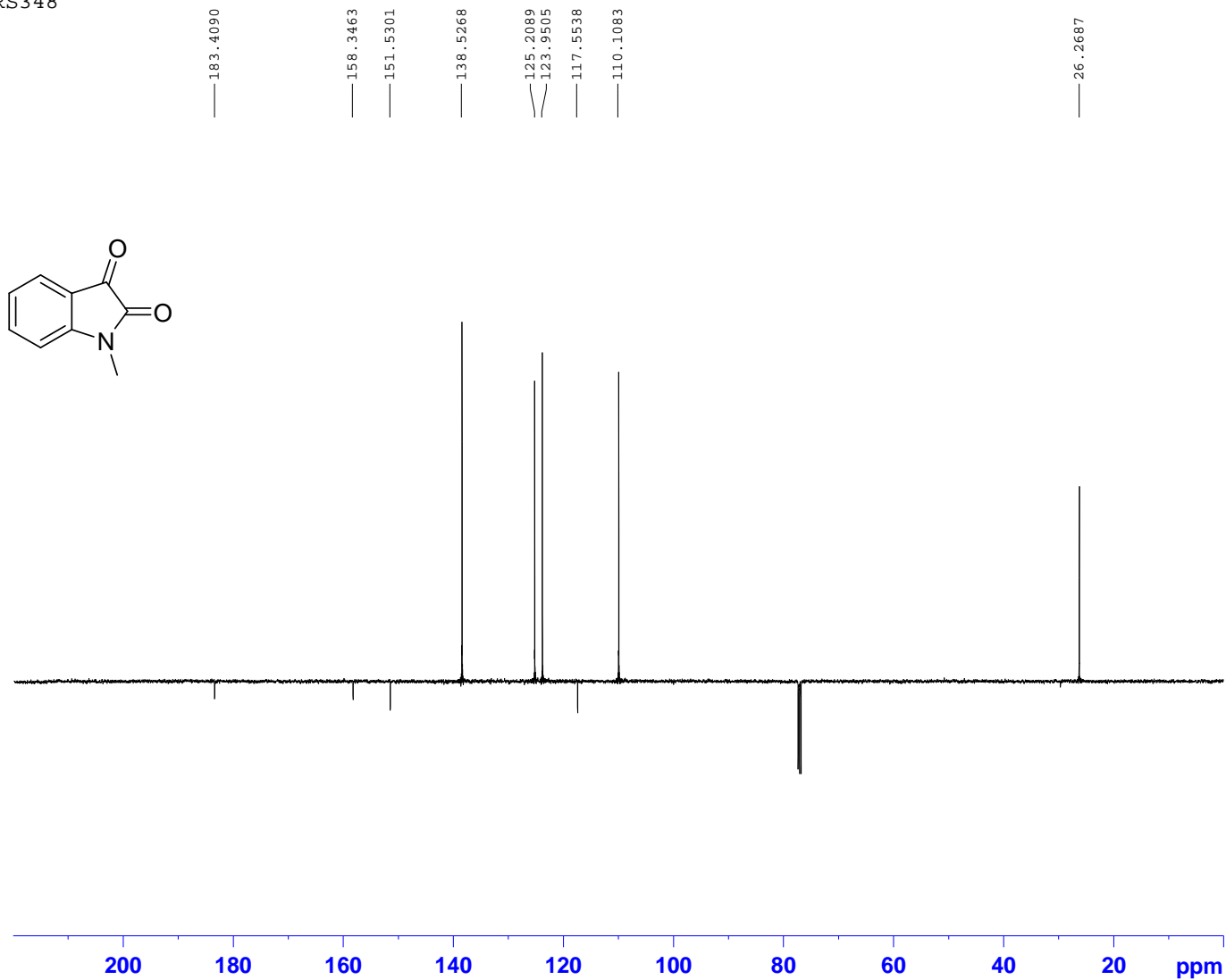
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7.6083  
7.2845  
7.1698  
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7.1509  
7.1493  
7.1321  
7.1304  
6.9266  
6.9074

3.2739

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NAME D148891
EXPNO 1
PROCNO 1
Date_ 20110824
Time 14.42
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252539 Hz
AQ 1.9799412 sec
RG 256
DW 60.800 usec
DE 6.50 usec
TE 295.1 K
D1 2.0000000 sec
TD0 1
===== CHANNEL f1 =====
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PL1W 19.93825150 W
SFO1 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```



RS348

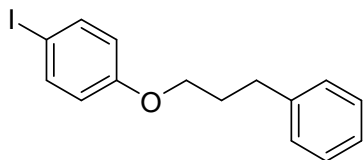


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PROCNO 1
Date_ 20110506
Time 17.34
INSTRUM DRX500
PROBHD 5 mm DUL 13C-1
PULPROG jmod
TD 16384
SOLVENT CDCl3
NS 1024
DS 4
SWH 30120.482 Hz
FIDRES 1.838409 Hz
AQ 0.2720244 sec
RG 13004
DW 16.600 usec
DE 6.00 usec
TE 300.0 K
CNST2 140.000000
CNSF11 1.000000
DL 2.00000000 sec
dS0 0.00714286 sec
DELTA 0.00001018 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 8.00 usec
p2 16.00 usec
PL1 -2.30 dB
SFO1 125.7703643 MHz

===== CHANNEL f2 =====
CPOPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -2.30 dB
PL12 15.00 dB
SFO2 500.1320005 MHz
S1 32768
SF 125.7577890 MHz
WDW EM
SSB 0
LB 2.00 Hz
GB 0
PC 1.40
```

RS269

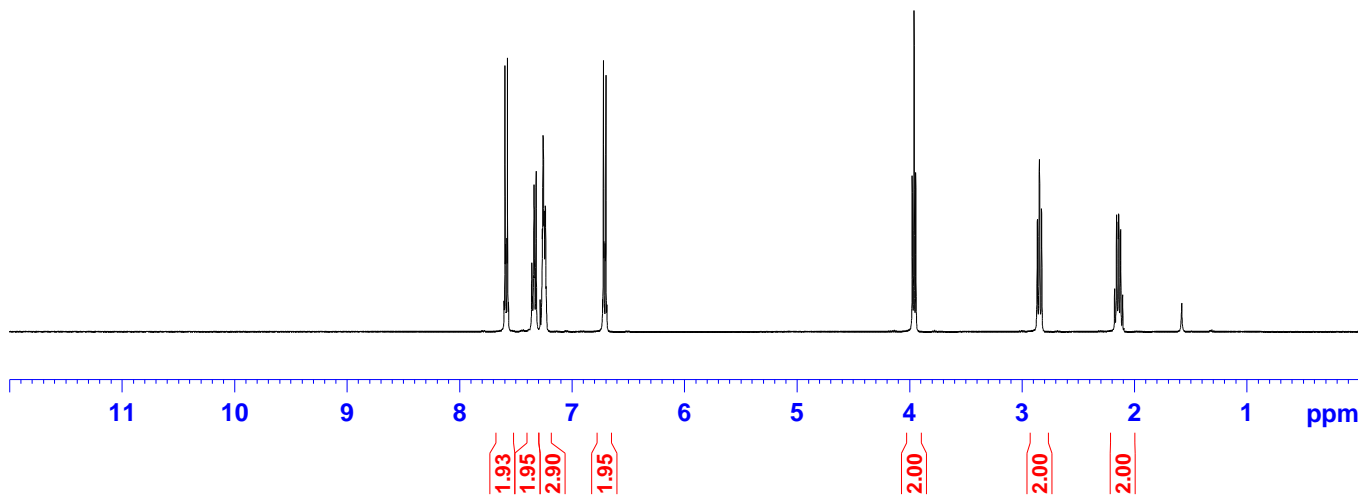


7.5970  
7.5746  
7.3578  
7.3389  
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7.2584  
7.2481  
7.2389  
6.7219  
6.6995

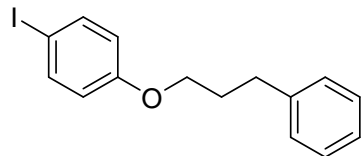
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3.9441  
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2.1439  
2.1406  
2.1391  
2.1223  
2.1063

```
NAME          D150497
EXPNO         1
PROCNO        1
Date_         20110930
Time          17.32
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zg30
TD            32564
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.252539 Hz
AQ            1.9799412 sec
RG            90.5
DW            60.800 usec
DE            6.50 usec
TE            300.0 K
D1            2.0000000 sec
TD0           1
```

```
===== CHANNEL f1 =====
NUC1          1H
P1            9.40 usec
PL1           -4.00 dB
PL1W          19.93825150 W
SFO1          400.1324710 MHz
SI            32768
SF            400.1300000 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
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RS269



— 158.4360

— 140.8525

— 137.7195

— 128.0378

— 127.9870

— 125.5388

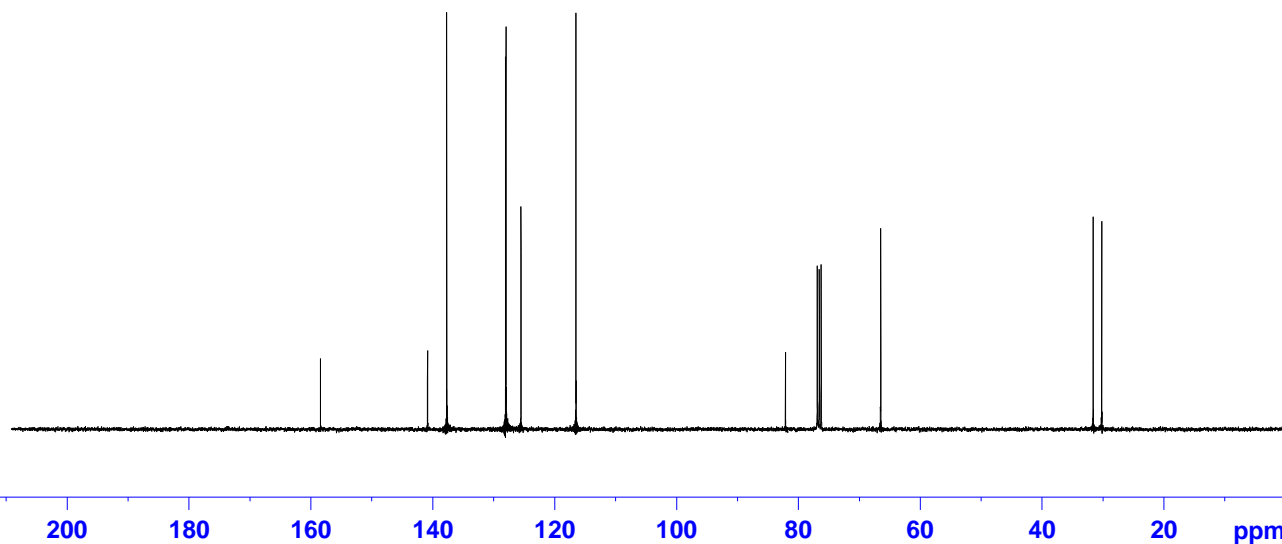
— 116.5057

— 82.1278

— 66.5061

— 31.6128

— 30.2169

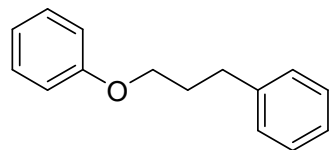


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NAME          D150497
EXPNO         2
PROCNO        1
Date_         20110930
Time          20.20
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zgpg30
TD            16384
SOLVENT       CDCl3
NS            1024
DS            4
SWH           22058.824 Hz
FIDRES        1.346364 Hz
AQ            0.3714207 sec
RG            2050
RW           22.687 usec
DE            6.50 usec
TE            300.0 K
D1            0.69999999 sec
D11           0.03000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          13C
P1            7.00 usec
PL1           -2.50 dB
PL12W         61.34123210 W
SFO1          100.6228298 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -4.00 dB
PL12          14.06 dB
PL13          120.00 dB
PL12W         19.31825150 W
PL12W         0.31166468 W
PL13W         0.00000000 W
SFO2          400.1316005 MHz
SI            32768
SF            100.6128193 MHz
NEW           SW
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
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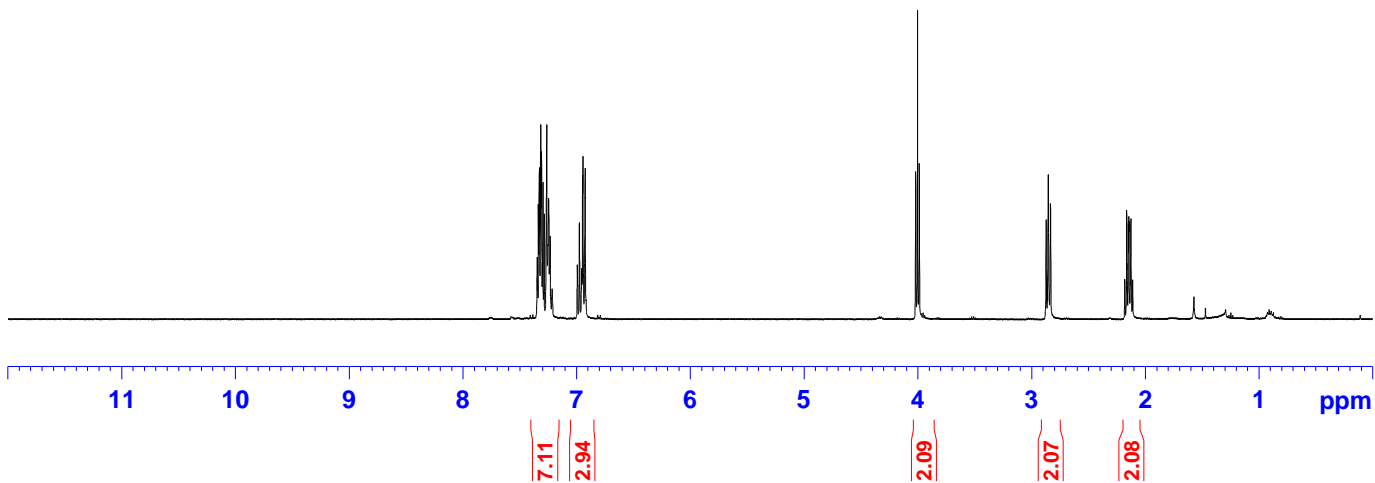
RS314



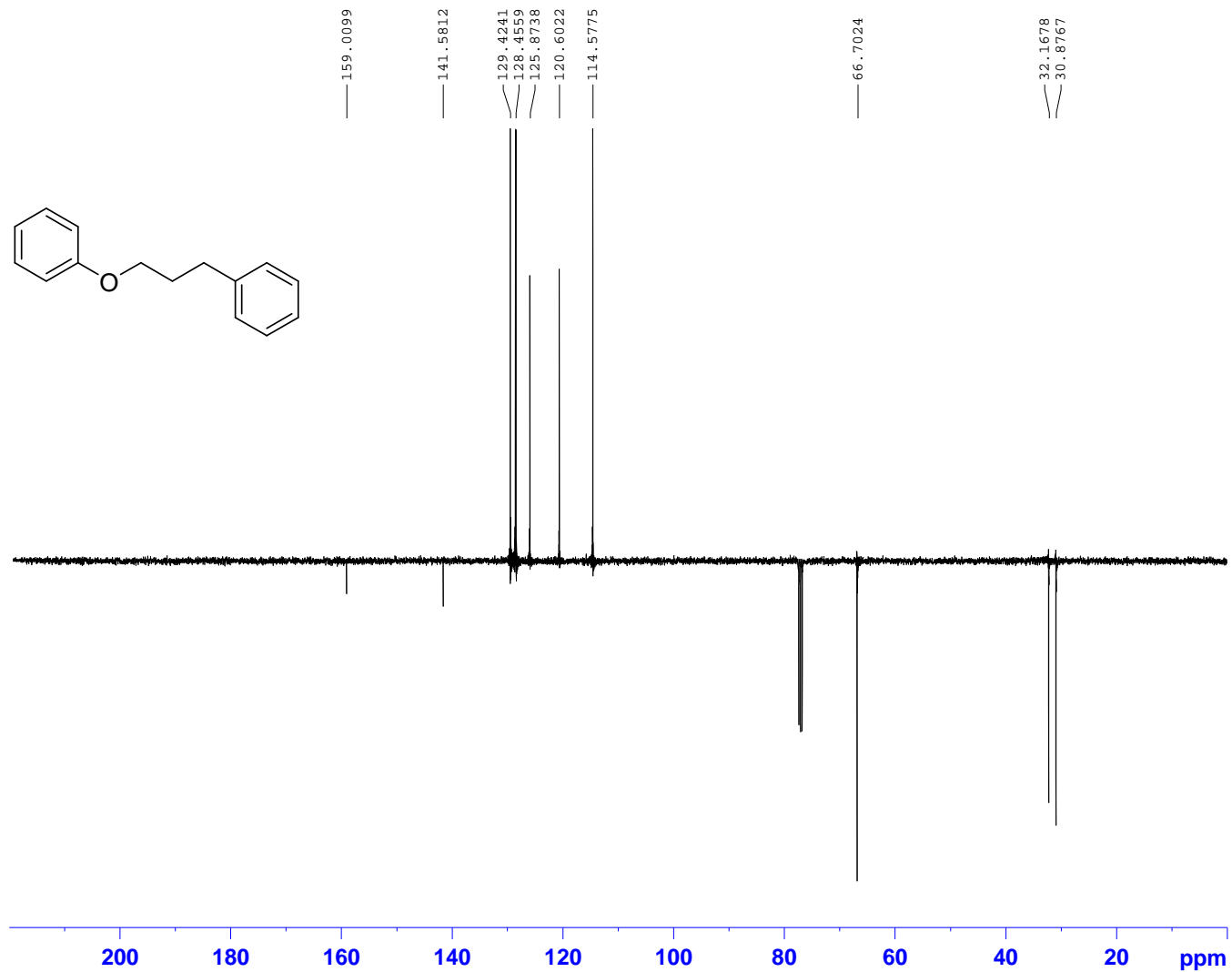
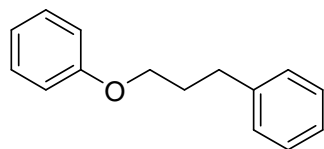
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7.2946  
7.2842  
7.2620  
7.2563  
7.2524  
7.2450  
7.2370  
7.2321  
6.9922  
6.9738  
6.9553  
6.9526  
6.9464  
6.9439  
6.9245  
6.9224  
4.0018  
3.9861  
2.8727  
2.8543  
2.8346  
2.1809  
2.1652  
2.1617  
2.1493  
2.1458  
2.1434  
2.1333  
2.1273  
2.1114

NAME D142723  
EXPNO 1  
PROCNO 1  
Date\_ 20110421  
Time 16.14  
INSTRUM spect  
PROBHD 5 mm QNP 1H/13  
PULPROG zg30  
TD 32564  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 8223.685 Hz  
FIDRES 0.252539 Hz  
AQ 1.9799412 sec  
RG 181  
DW 60.800 usec  
DE 6.50 usec  
TE 295.5 K  
D1 2.0000000 sec  
TDO 1

===== CHANNEL f1 =====  
NUC1 1H  
P1 8.80 usec  
PL1 -4.00 dB  
PL1W 19.93825150 W  
SF01 400.1324710 MHz  
SI 32768  
SF 400.1300000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



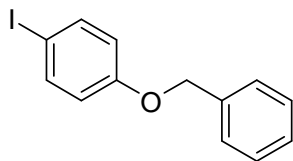
RS314



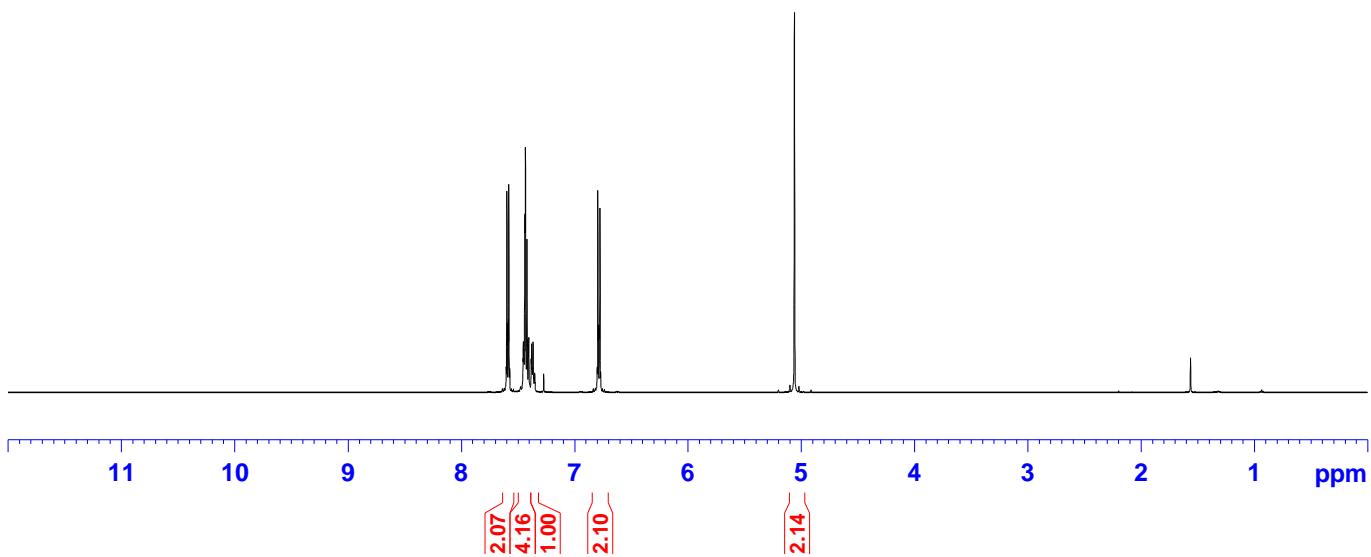
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PROCNO 1
Date_ 20110525
Time 21.10
INSTRUM AV400
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 16384
SOLVENT CDCl3
NS 512
DS 4
SHE 23980.814 Hz
FIDRES 1.463673 Hz
AQ 0.3418564 sec
RG 16384
DW 20.850 usec
DE 20.00 usec
TE 300.0 K
CNS1 145.000000
CNS2 1.0000000
D1 4.0000000 sec
D2 0.00689652 sec
TDO
===== CHANNEL f1 =====
NUC1 13C
P1 8.00 usec
P2 16.00 usec
PL1 -2.80 dB
PL2 57.91424173 W
SFO1 100.5976818 MHz
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 90.00 usec
PL2 -3.20 dB
PL12 14.30 dB
PL2W 15.00949383 W
PL12W 0.26691073 W
SFO2 400.0316001 MHz
SI 32768
SF 100.5976240 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
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RS381

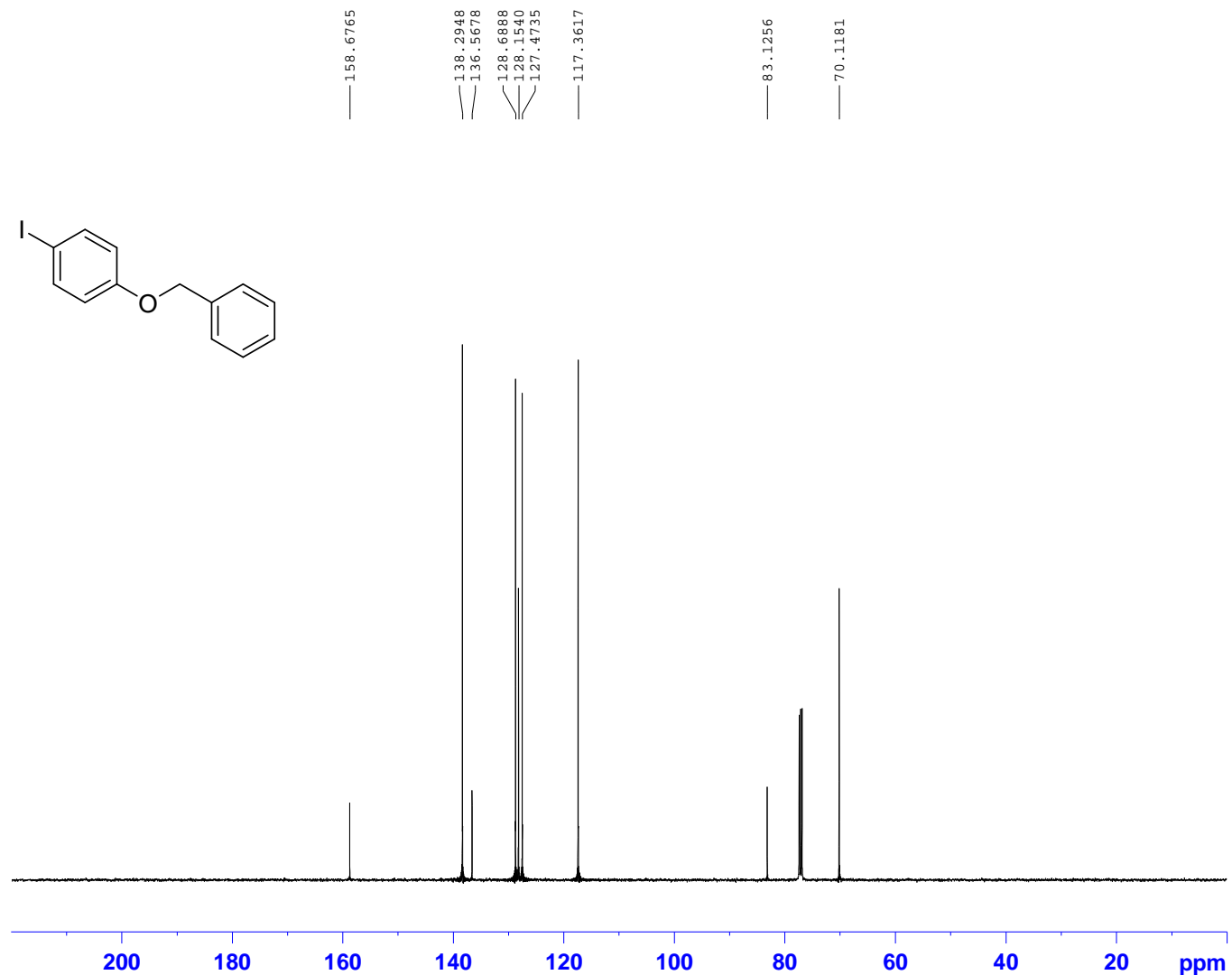
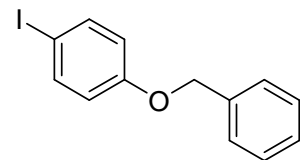


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7.4447  
7.4359  
7.4324  
7.4174  
7.4138  
7.4053  
7.4019  
7.3806  
7.3771  
7.3730  
7.3690  
7.3634  
6.7917  
6.7739  
— 5.0565



```
NAME          A23560
EXPNO         1
PROCNO        1
Date_         20110929
Time          18.05
INSTRUM       DRX500
PROBHD        5 mm DUL 13C-1
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           10288.065 Hz
FIDRES        0.156983 Hz
AQ            3.1850996 sec
RG            101.6
DW            48.600 usec
DE            6.00 usec
TE            300.0 K
D1            1.0000000 sec
TDO           1
===== CHANNEL f1 =====
NUC1          1H
P1            9.25 usec
PL1           -2.70 dB
SFO1         500.1330885 MHz
SI            32768
SF            500.1300084 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
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RS381

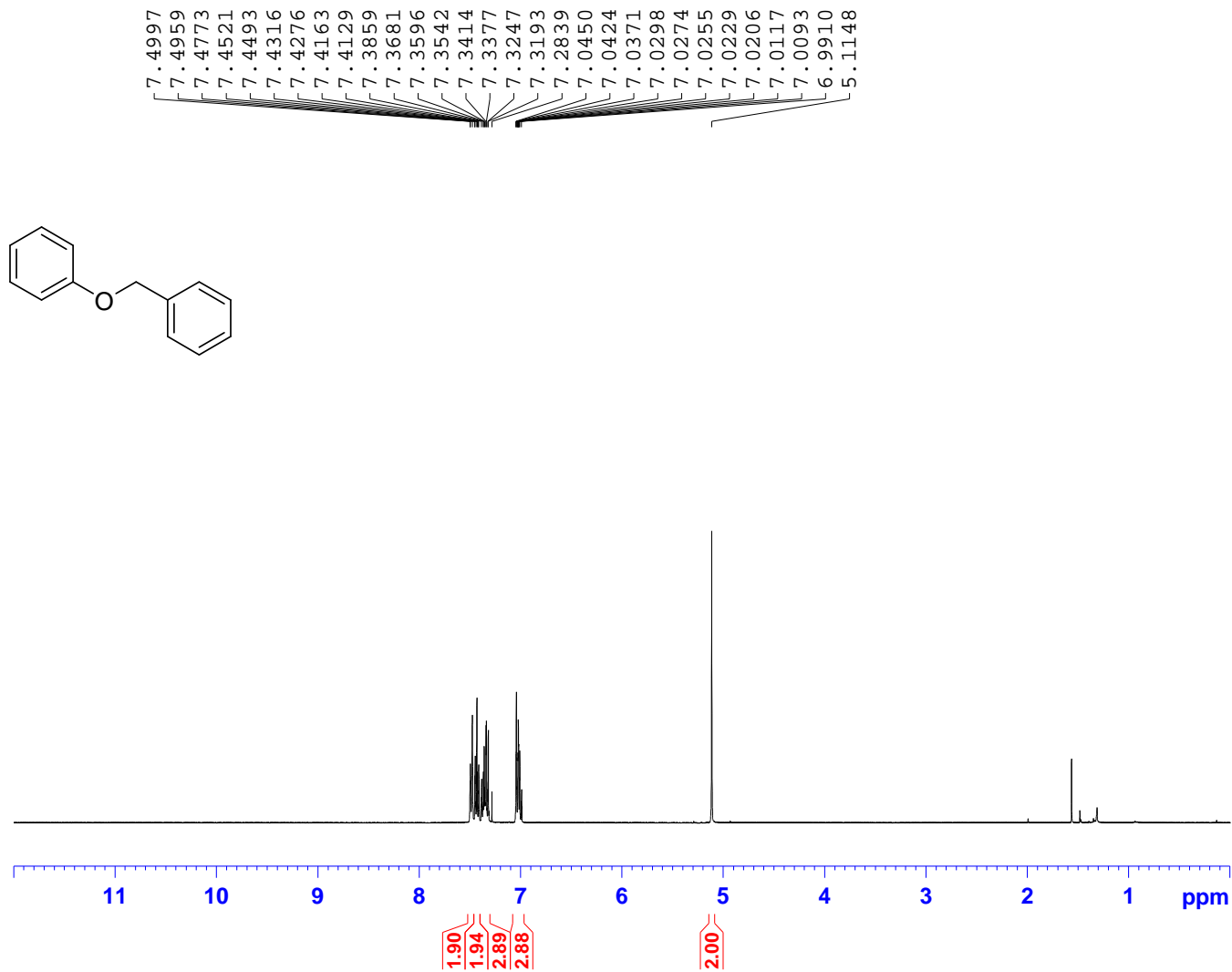
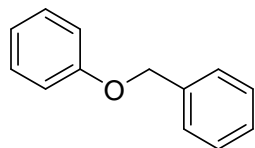


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NAME      A23560
EXPNO     2
PROCNO    1
Date_     20110929
Time      20.23
INSTRUM   DRX500
PROBHD    5 mm DUL 13C-1
PULPROG   zgpg30
TD         16384
SOLVENT   CDCl3
NS         1024
DS         4
SWH       30120.482 Hz
FIDRES    1.838408 Hz
AQ         0.2720244 sec
RG         10321.3
DM         16.600 usec
DE         6.00 usec
TE         300.0 K
D1         0.69999999 sec
d11        0.03000000 sec
DELTA     0.59999996 sec
TD0        1

===== CHANNEL f1 =====
NUC1       13C
P1         8.00 usec
PL1        -2.30 dB
SFO1       125.7703643 MHz

===== CHANNEL f2 =====
CPDPRG2   waltz16
NUC2       1H
PCPD2     80.00 usec
PL2        -2.30 dB
PL12       16.21 dB
PL13       120.00 dB
SFO2       500.1320005 MHz
SI         32768
SF         125.7577890 MHz
WDW        EM
SSB        0
LB         2.00 Hz
GB         0
PC         1.40
```

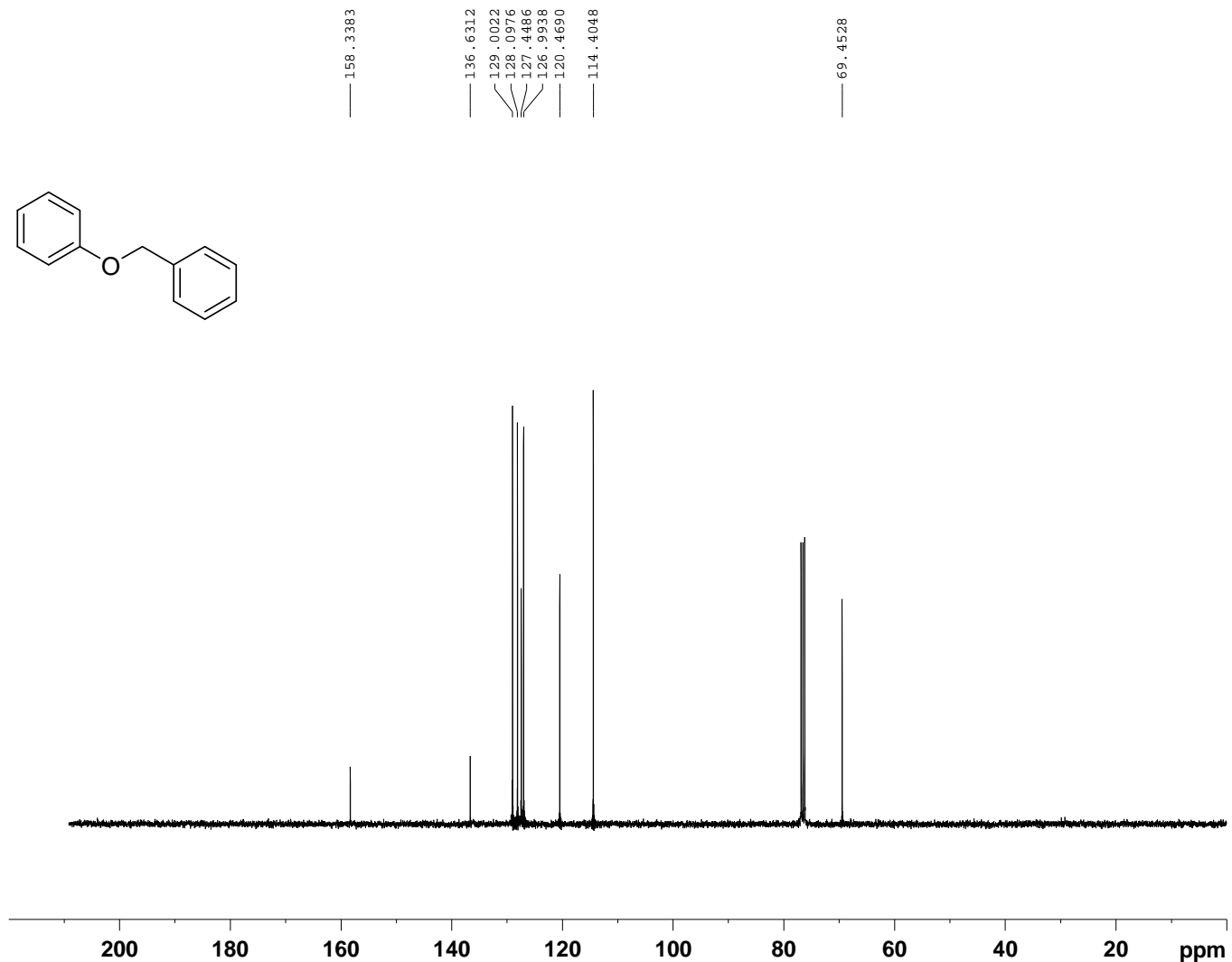
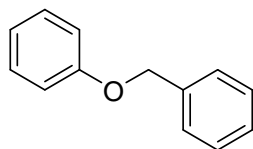
RS395



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NAME D150494
EXPNO 1
PROCNO 1
Date_ 20110930
Time 17.16
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252539 Hz
AQ 1.9799412 sec
RG 144
DW 60.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.0000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PL1W 19.93825150 W
SFO1 400.1324710 MHz
SI 32768
SP 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```

RS395

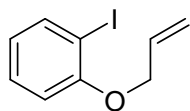
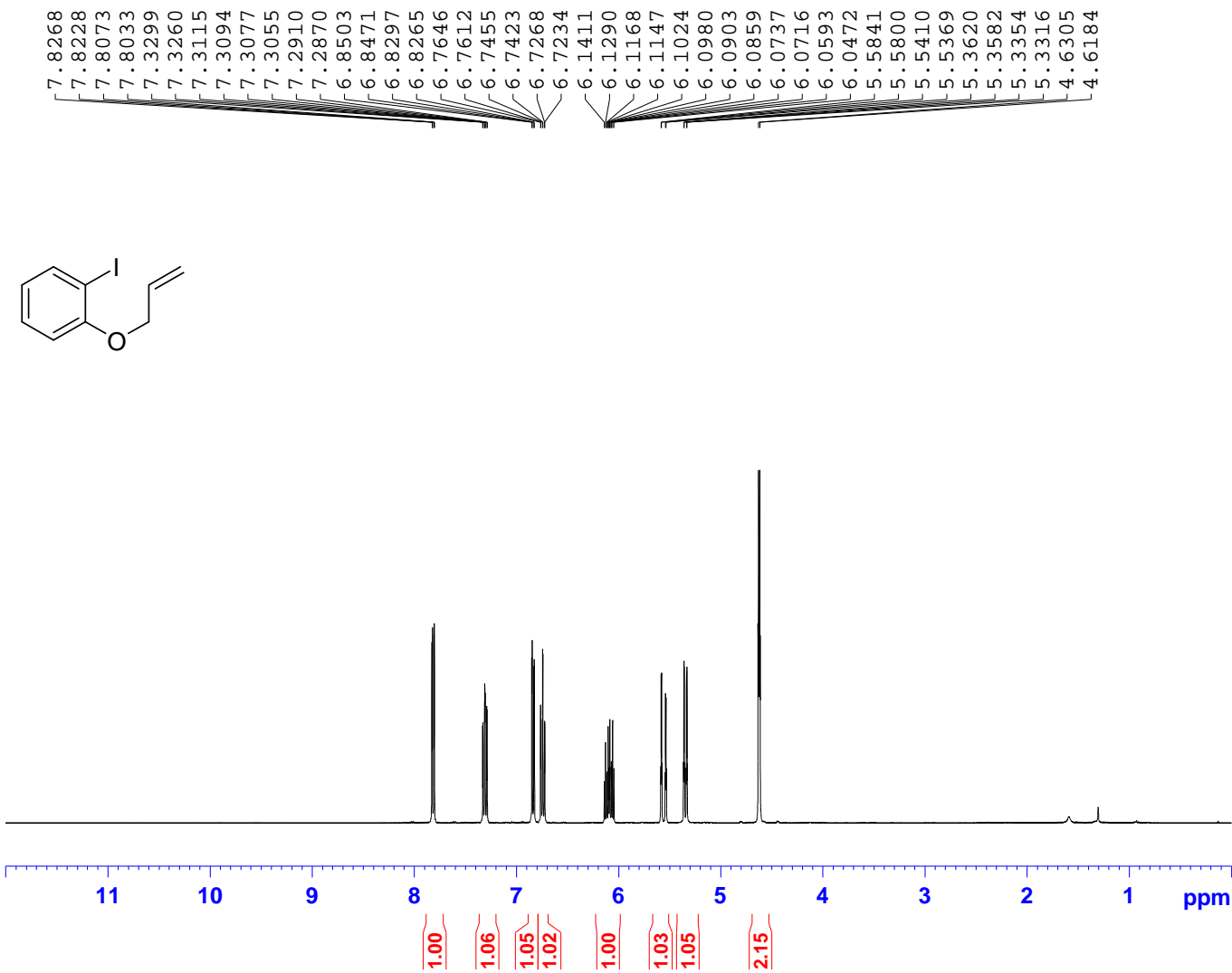


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PROCNO 1
Date_ 20110930
Time 20.50
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zgpg30
TD 16384
SOLVENT CDCl3
NS 1024
DS 4
SWH 22058.824 Hz
FIDRES 1.346364 Hz
AQ 0.3714207 sec
RG 2050
RW 22.667 usec
DE 6.50 usec
TE 300.0 K
D1 0.69999999 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 7.00 usec
PL1 -2.00 dB
PL1W 61.34123230 W
SFO1 100.6228298 MHz

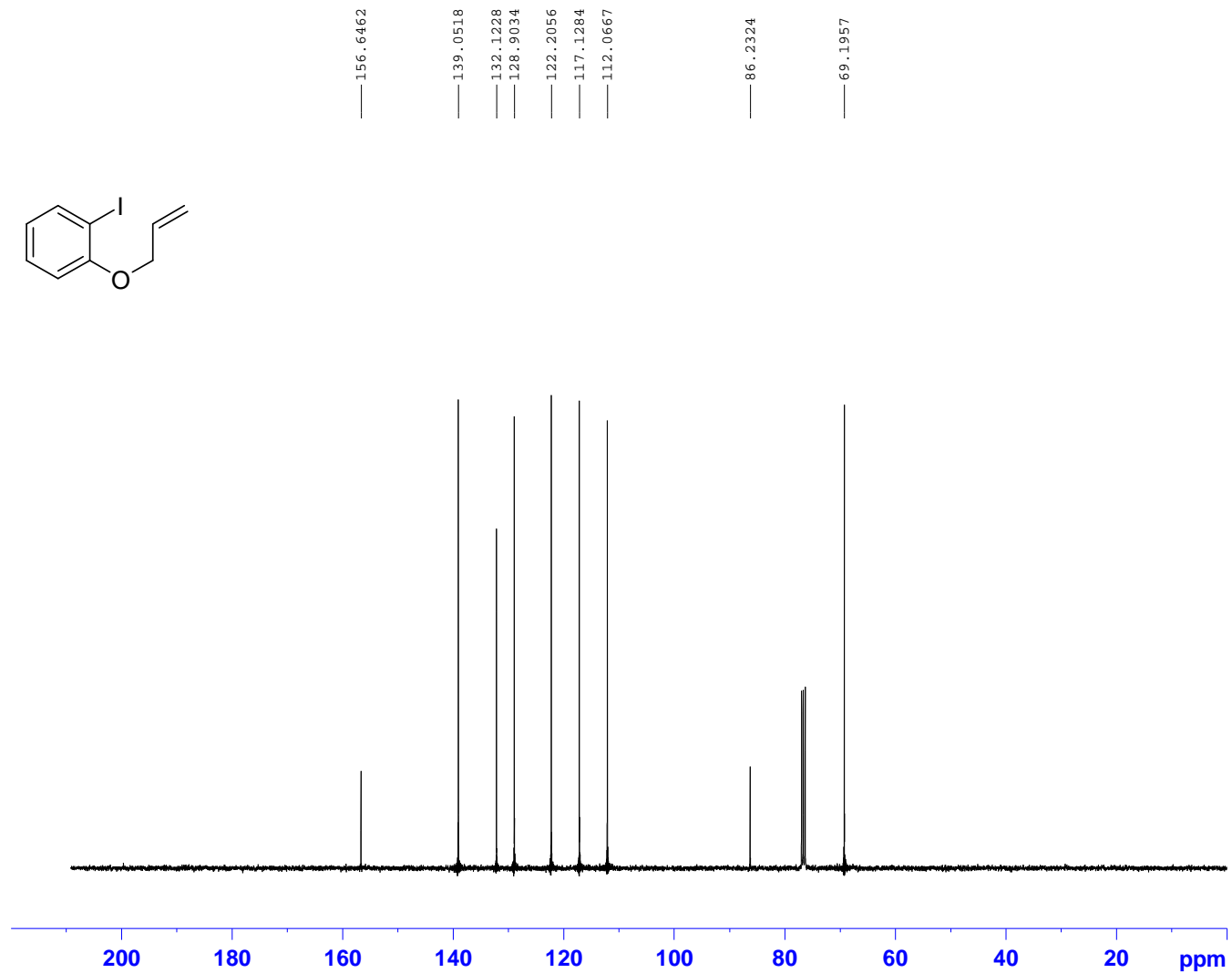
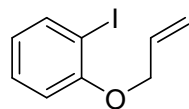
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -4.00 dB
PL12 14.06 dB
PL13 120.00 dB
PL1W 19.93825150 W
PL12W 0.31166428 W
PL13W 0.00000000 W
SFO2 400.1316005 MHz
SI 32768
SF 100.6128193 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
```

RS318

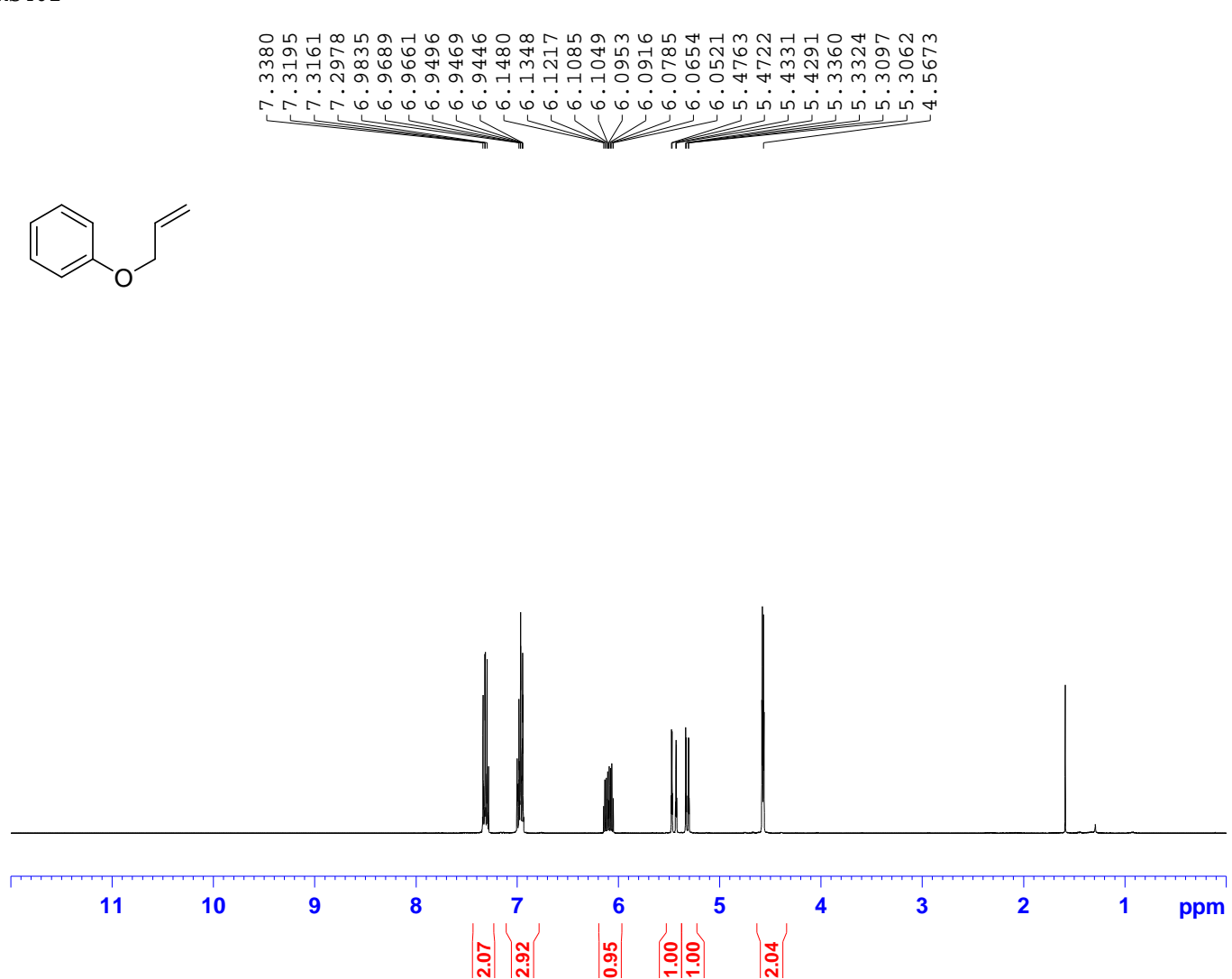
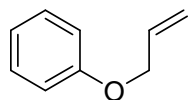


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EXPNO 1
PROCNO 1
Date_ 20110930
Time 17.21
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252538 Hz
AQ 1.9799412 sec
RG 80.6
DW 60.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
TDO 1
===== CHANNEL f1 =====
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PL1W 19.93825150 W
SFO1 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```

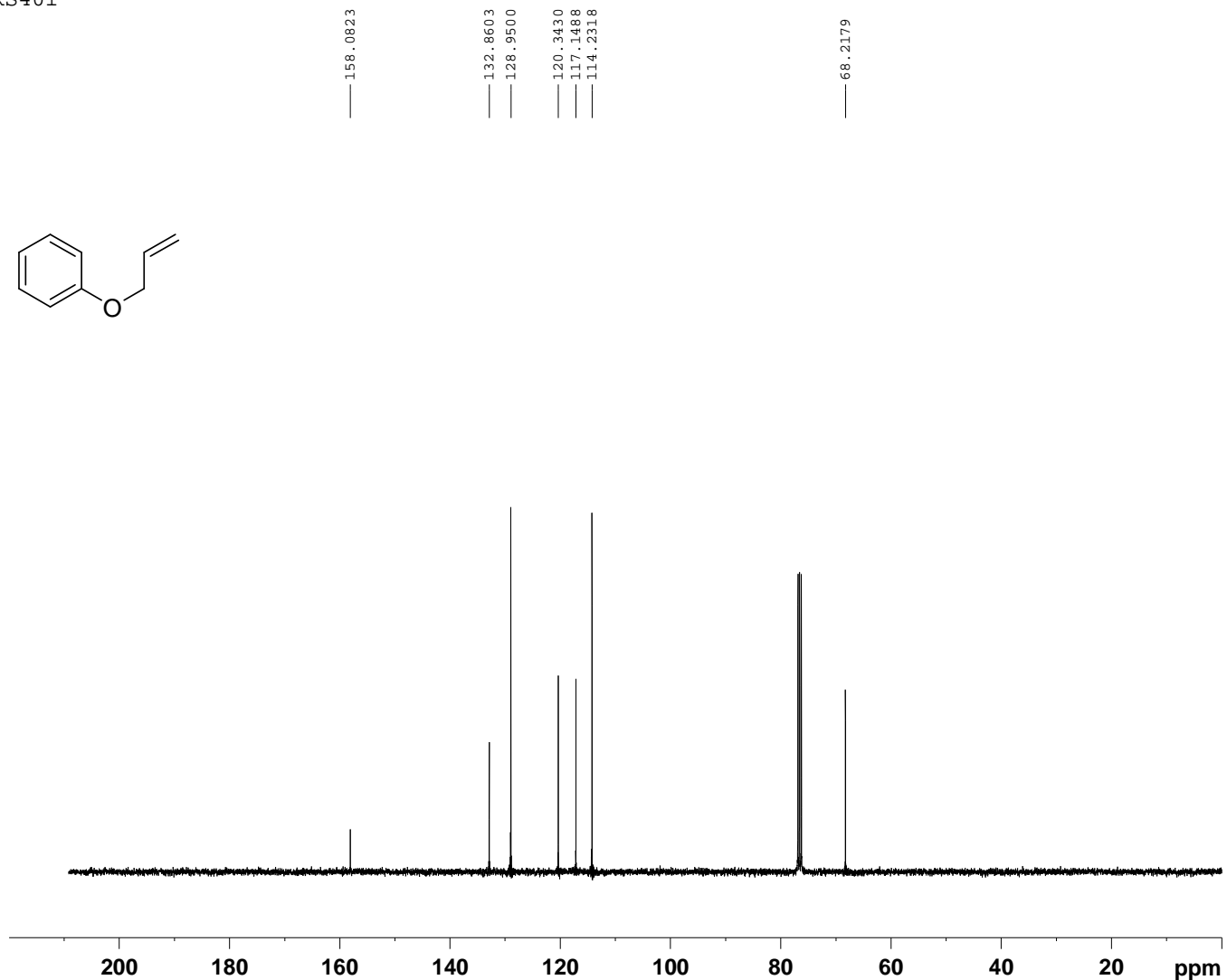
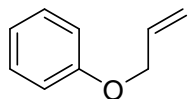
RS318



RS401



RS401



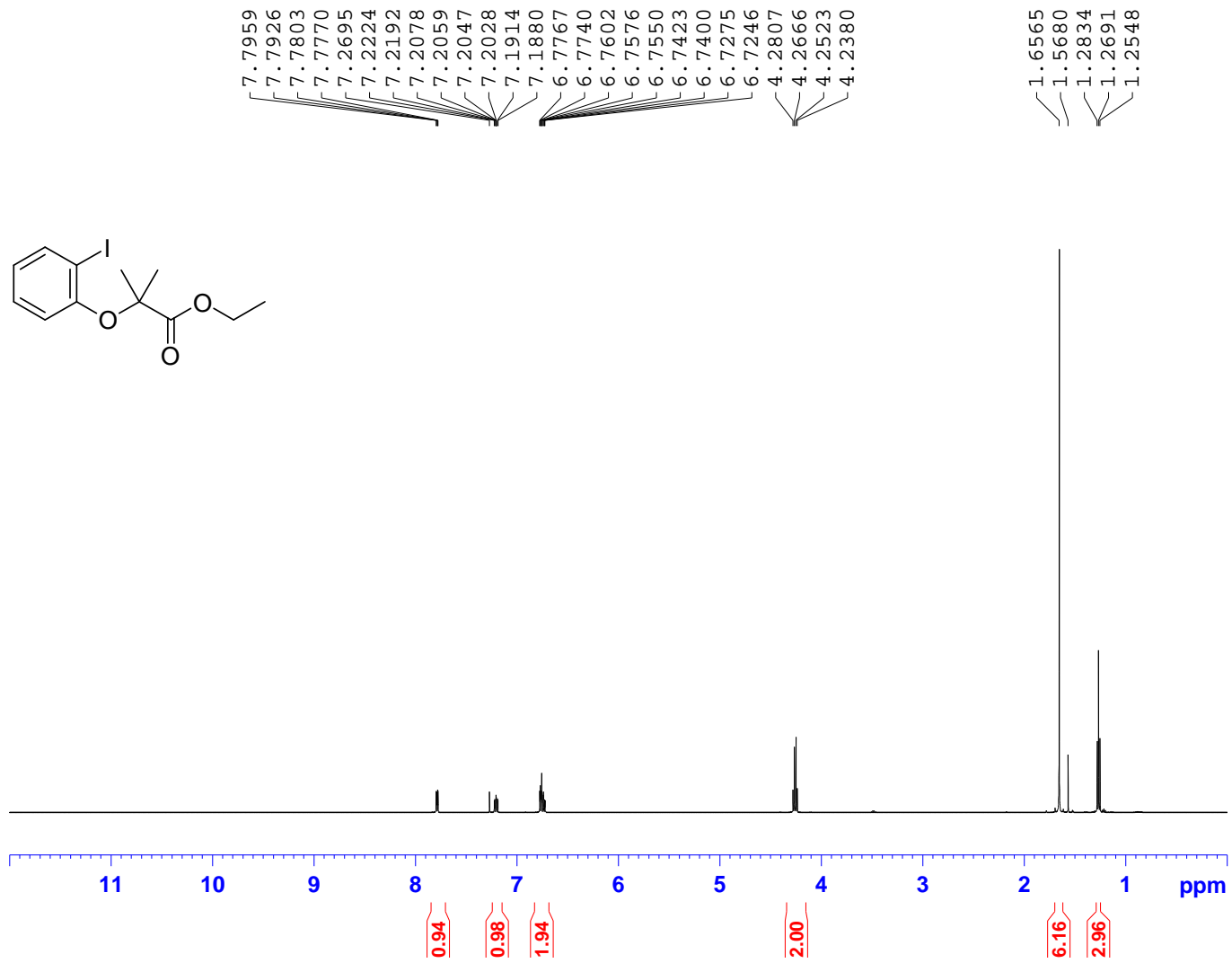
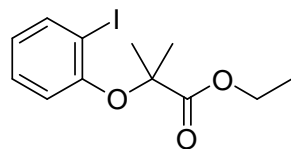
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PROCNO 1
Date_ 20111014
Time 16.16
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zgpg30
TD 15384
SOLVENT CDCl3
NS 1024
DS 4
SWH 22058.824 Hz
FIDRES 1.346364 Hz
AQ 0.3714207 sec
RG 2050
DW 22.667 usec
DE 6.50 usec
TE 295.4 K
D1 0.6999999 sec
D11 0.0300000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 7.00 usec
PL1 -2.60 dB
PL1W 61.3412320 W
SFO1 100.628298 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -4.00 dB
PL12 14.06 dB
PL13 120.00 dB
PL1W 19.9382350 W
PL12W 0.31166428 W
PL13W 0.0000000 W
SFO2 400.1316005 MHz
SI 32768
SF 100.6128193 MHz
NDW BW
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
```



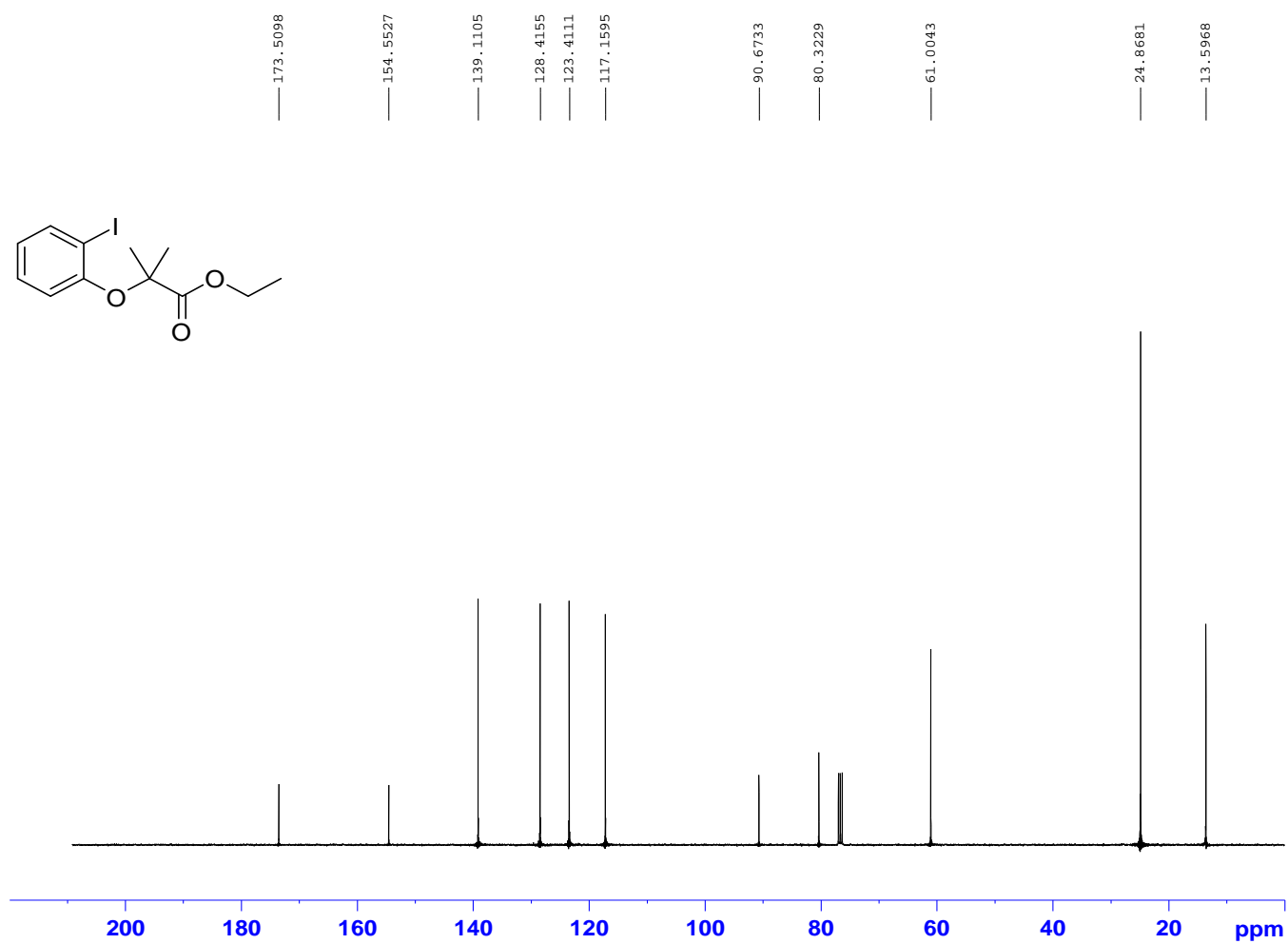
RS270



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EXPNO         1
PROCNO        1
Date_         20110316
Time          16.29
INSTRUM       DRX500
PROBHD        5 mm DUL 13C-1
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           10288.065 Hz
FIDRES        0.156983 Hz
AQ            3.1850996 sec
RG            322.5
DW            48.600 usec
DE            6.00 usec
TE            300.0 K
D1            1.00000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1           1H
P1             12.00 usec
PL1            -2.70 dB
SF01          500.1330885 MHz
SI             32768
SF            500.1300084 MHz
WDW            EM
SSB            0
LB             0.30 Hz
GB             0
PC             1.00
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RS270

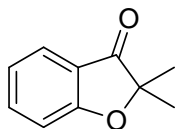


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EXPNO         2
PROCNO        1
Date_         20110930
Time          19.57
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zgpg30
TD            16384
SOLVENT       CDCl3
NS            1024
DS            4
SWH           22058.824 Hz
FIDRES        1.346364 Hz
AQ            0.3714207 sec
RG            3050
DM            22.667 usec
DE            6.50 usec
TE            300.0 K
D1            0.6999999 sec
d11           0.0300000 sec
TDO           1

===== CHANNEL f1 =====
NUC1          13C
P1            7.00 usec
PL1           -2.60 dB
PL1W          61.34123930 W
SFO1          100.628298 MHz

===== CHANNEL f2 =====
CUPROG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -4.00 dB
PL2W          120.00 dB
PL1W          19.93825150 W
PL12W         0.31166428 W
PL13W         0.00000000 W
SFO2          400.1316005 MHz
SI            32768
SF            100.6128193 MHz
NSM           RM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
```

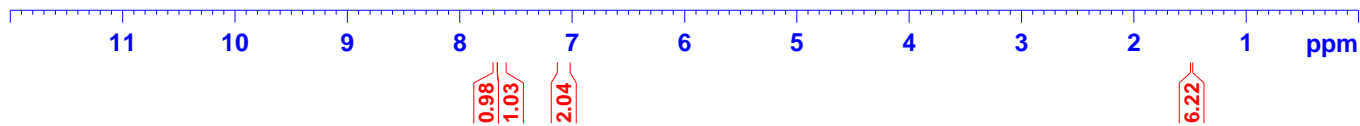
RS403



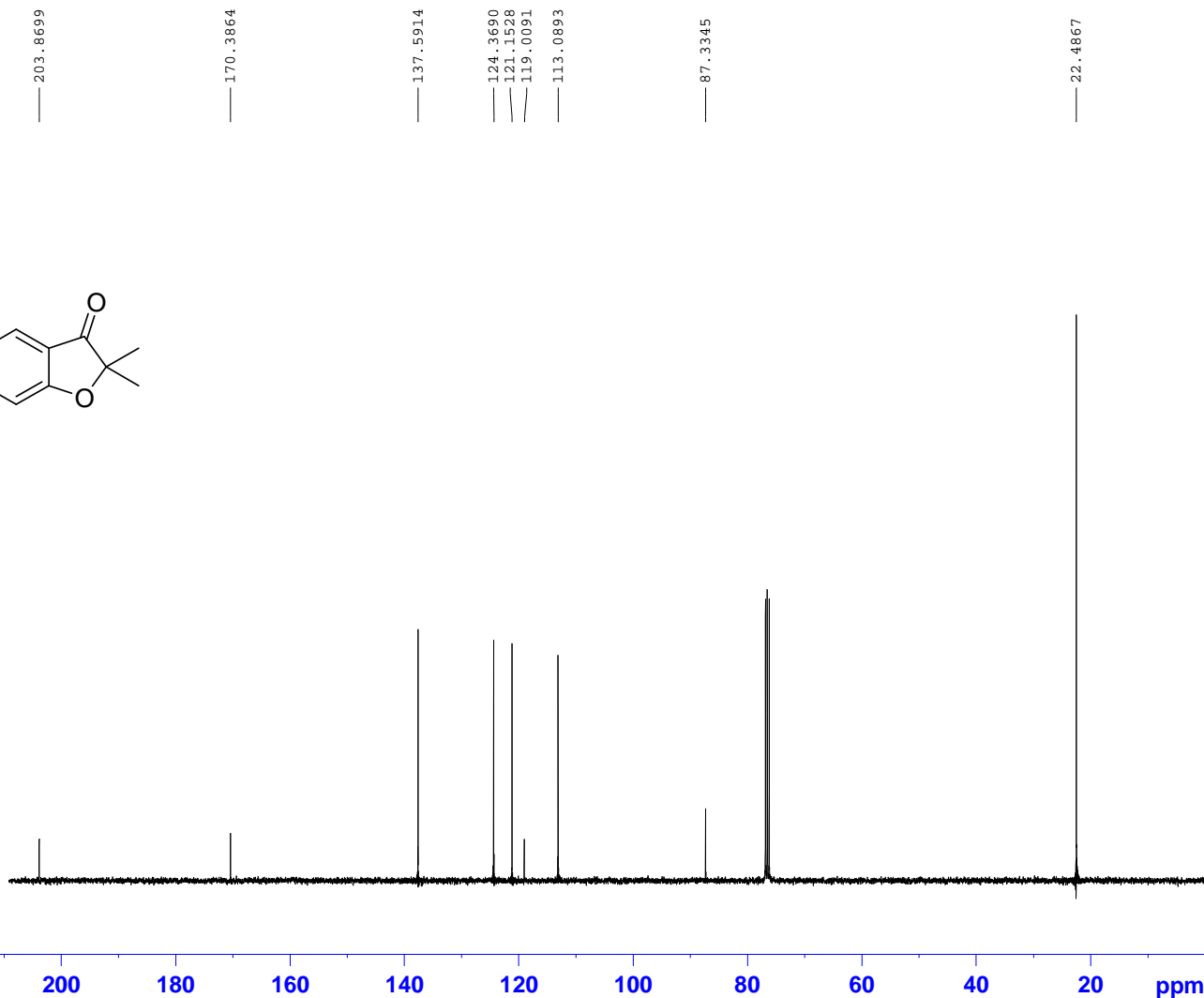
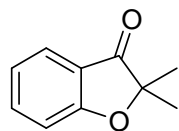
7.6935  
7.6759  
7.6547  
7.6510  
7.6365  
7.6335  
7.6158  
7.6121  
7.1042  
7.0832  
7.0642

1.4827

```
NAME          D151205
EXPNO          1
PROCNO         1
Date_          20111019
Time           11.50
INSTRUM        spect
PROBHD         5 mm QNP 1H/13
PULPROG        zg30
TD             32564
SOLVENT        CDCl3
NS             16
DS             2
SWH            8223.685 Hz
FIDRES         0.252539 Hz
AQ            1.9799412 sec
RG            144
DW            60.800 usec
DE            6.50 usec
TE            294.5 K
D1            2.00000000 sec
TDO           1
===== CHANNEL f1 =====
NUC1           1H
P1            9.40 usec
PL1           -4.00 dB
PL1W          19.93825150 W
SFO1          400.1324710 MHz
SI            32768
SF            400.1300000 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB           0
PC            1.00
```



RS403

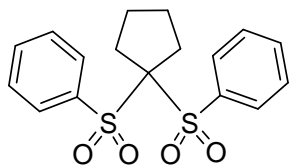


```
NAME D151205
EXPNO 2
PROCNO 1
Date_ 20111019
Time 12.10
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zgpg30
TD 16384
SOLVENT CDCl3
NS 1024
DS 4
SWH 22058.824 Hz
FIDRES 1.948364 Hz
AQ 0.3714207 sec
RG 2050
DM 22.667 usec
DE 6.50 usec
TE 298.7 K
D1 0.63999999 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 7.00 usec
PL1 -2.60 dB
PL1W 61.34123230 W
SFO1 100.6228298 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -4.00 dB
PL12 14.06 dB
PL13 120.00 dB
PL1W 19.93825150 W
PL1W 0.11166428 W
PL1W 0.00000000 W
SFO2 400.1316005 MHz
SI 32768
SF 100.6128193 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
```

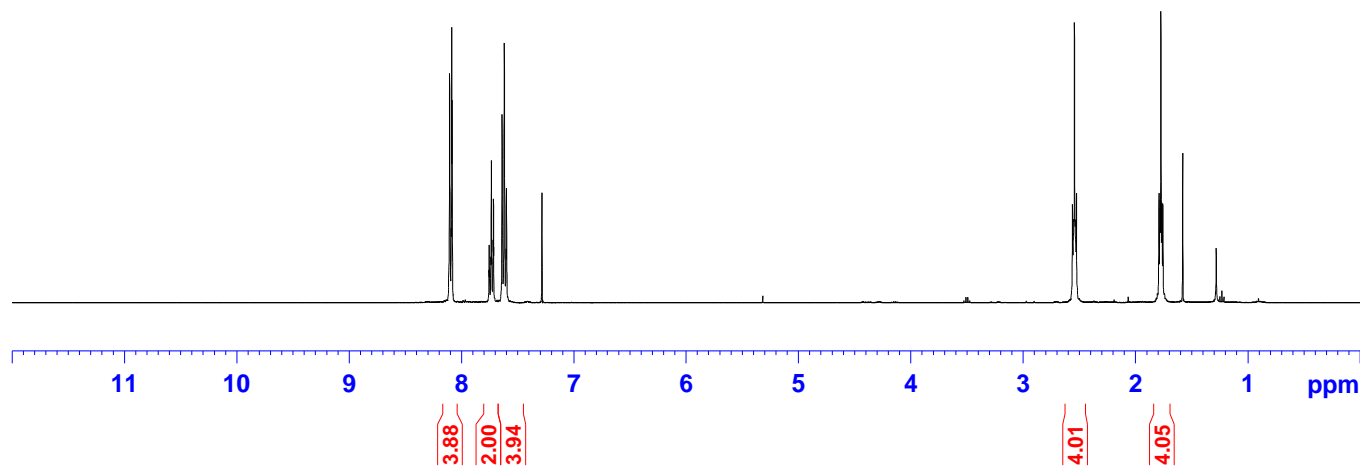
RS386



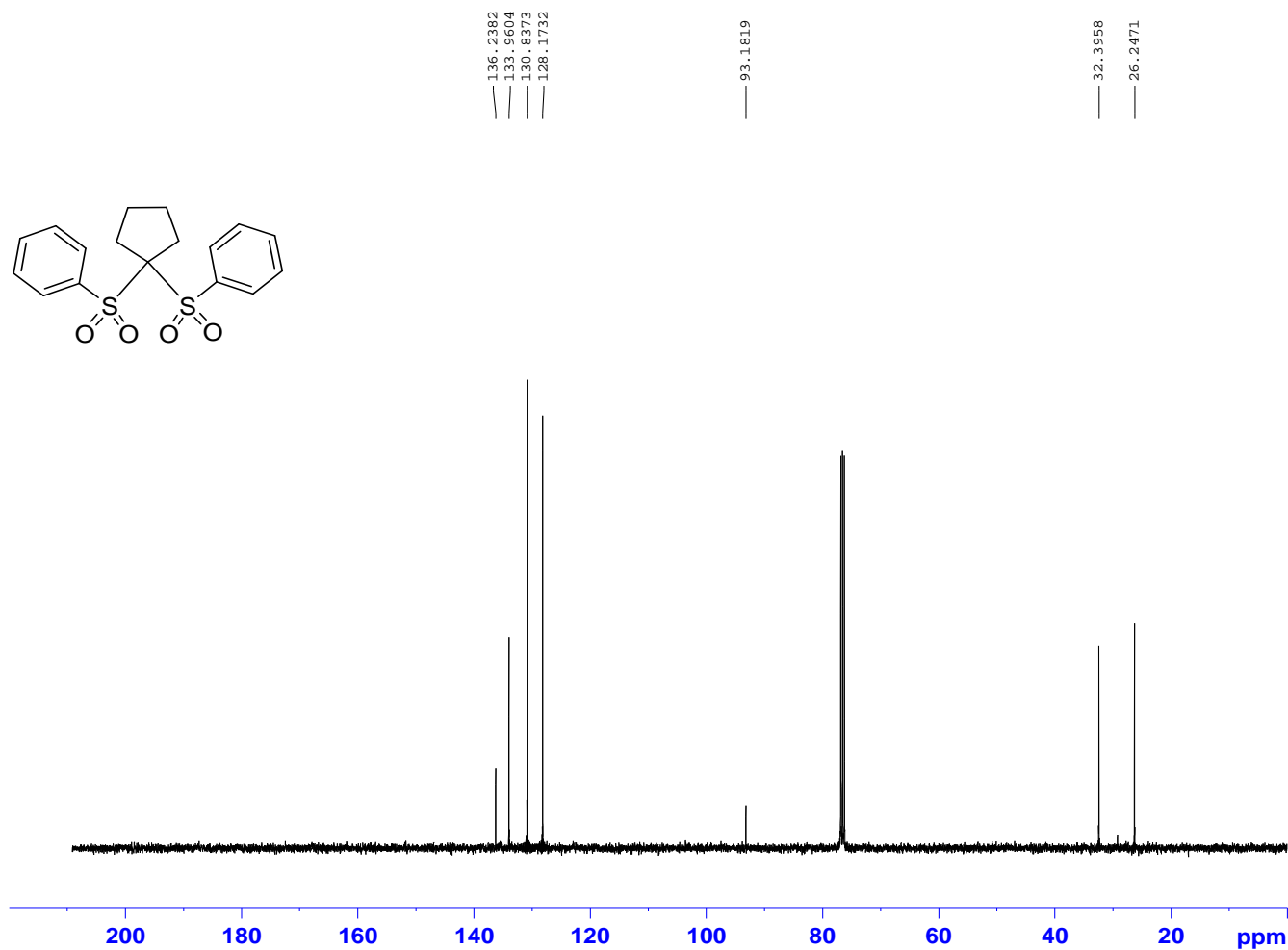
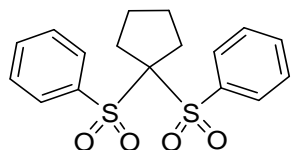
8.1062  
8.1037  
8.0903  
8.0854  
8.0821  
7.7513  
7.7327  
7.7171  
7.7141  
7.7111  
7.6367  
7.6329  
7.6165  
7.6022  
7.5980  
7.2841

2.5611  
2.5540  
2.5497  
2.5434  
2.5371  
2.5329  
2.5258  
1.7914  
1.7816  
1.7739  
1.7658  
1.7561

```
NAME          D150212
EXPNO         1
PROCNO        1
Date_         20110922
Time          14.47
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zg30
TD            32564
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.252539 Hz
AQ            1.9799412 sec
RG            203
DW            60.800 usec
DE            6.50 usec
TE            300.0 K
D1            2.00000000 sec
TD0           1
----- CHANNEL f1 -----
NUC1          1H
P1            9.40 usec
PL1           -4.00 dB
PLLW          19.93825150 W
SFO1          400.1324710 MHz
SI            32768
SF            400.1300000 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
```



RS386

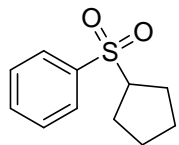
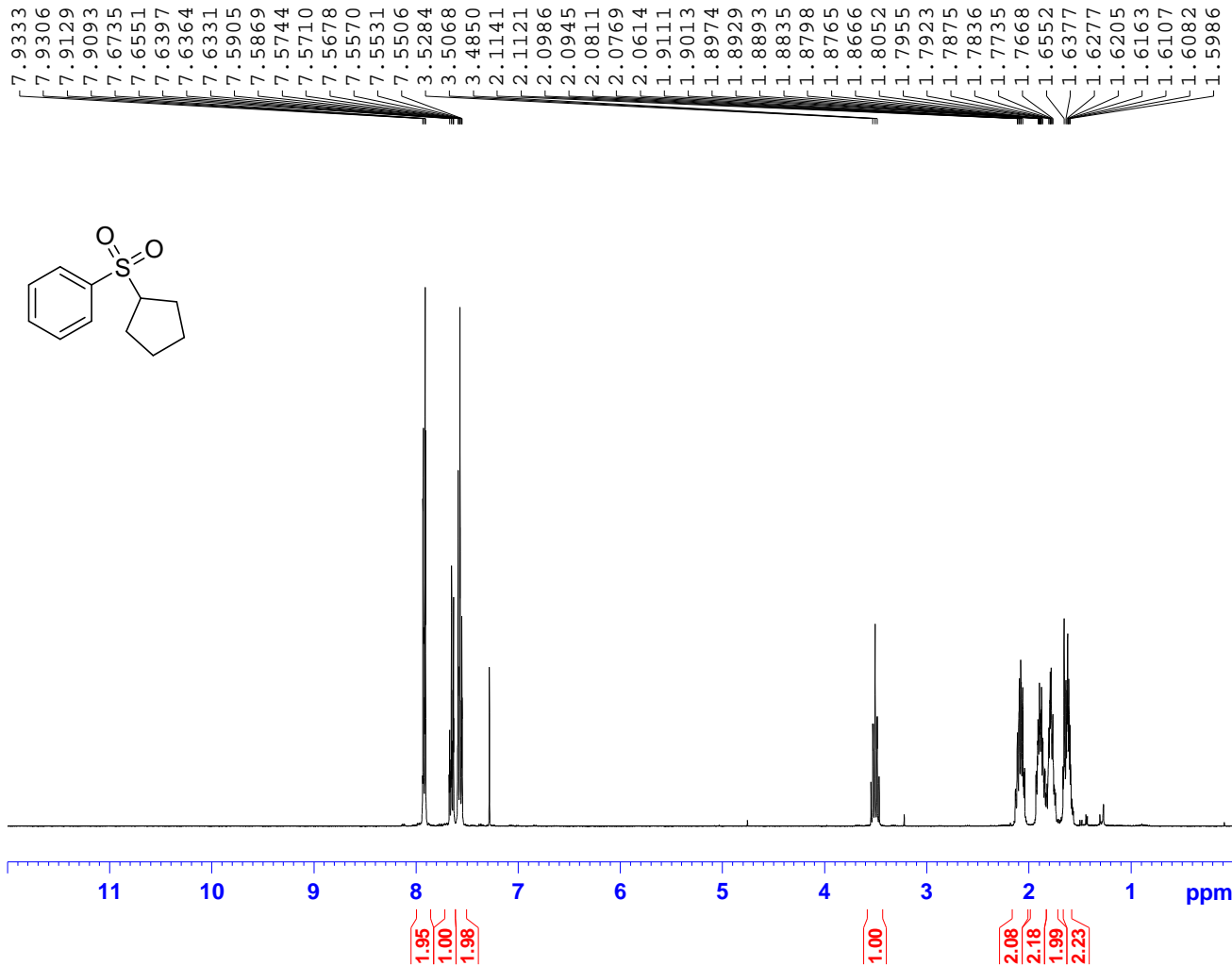


```
NAME          D150212
EXPNO         2
PROCNO       1
Date_         20110923
Time         3.27
INSTRUM      spect
PROBHD       5 mm QNP 1H/13
PULPROG      zgpg30
TD           65884
SOLVENT      CDCl3
NS           1024
DS           4
SWH          22058.824 Hz
FIDRES       1.346364 Hz
AQ           0.3714207 sec
RG           2050
EM           22.667 usec
DE           6.50 usec
TE           300.0 K
D1           0.6999999 sec
d11          0.0300000 sec
TD0          1

===== CHANNEL f1 =====
NUC1          13C
P1            7.00 usec
PL1           -2.00 dB
PL1W          61.34123230 W
SFO1          100.6228298 MHz

===== CHANNEL f2 =====
CPDPRG2      waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -4.00 dB
PL12          14.06 dB
PL13          120.00 dB
PL1W          19.93826150 W
PL12W         0.11166428 W
PL13W         0.00000000 W
SFO2          400.1316005 MHz
SE           32768
SF           100.6128193 MHz
WDW          EM
SSB           0
LB           1.00 Hz
GB           0
PC           1.40
```

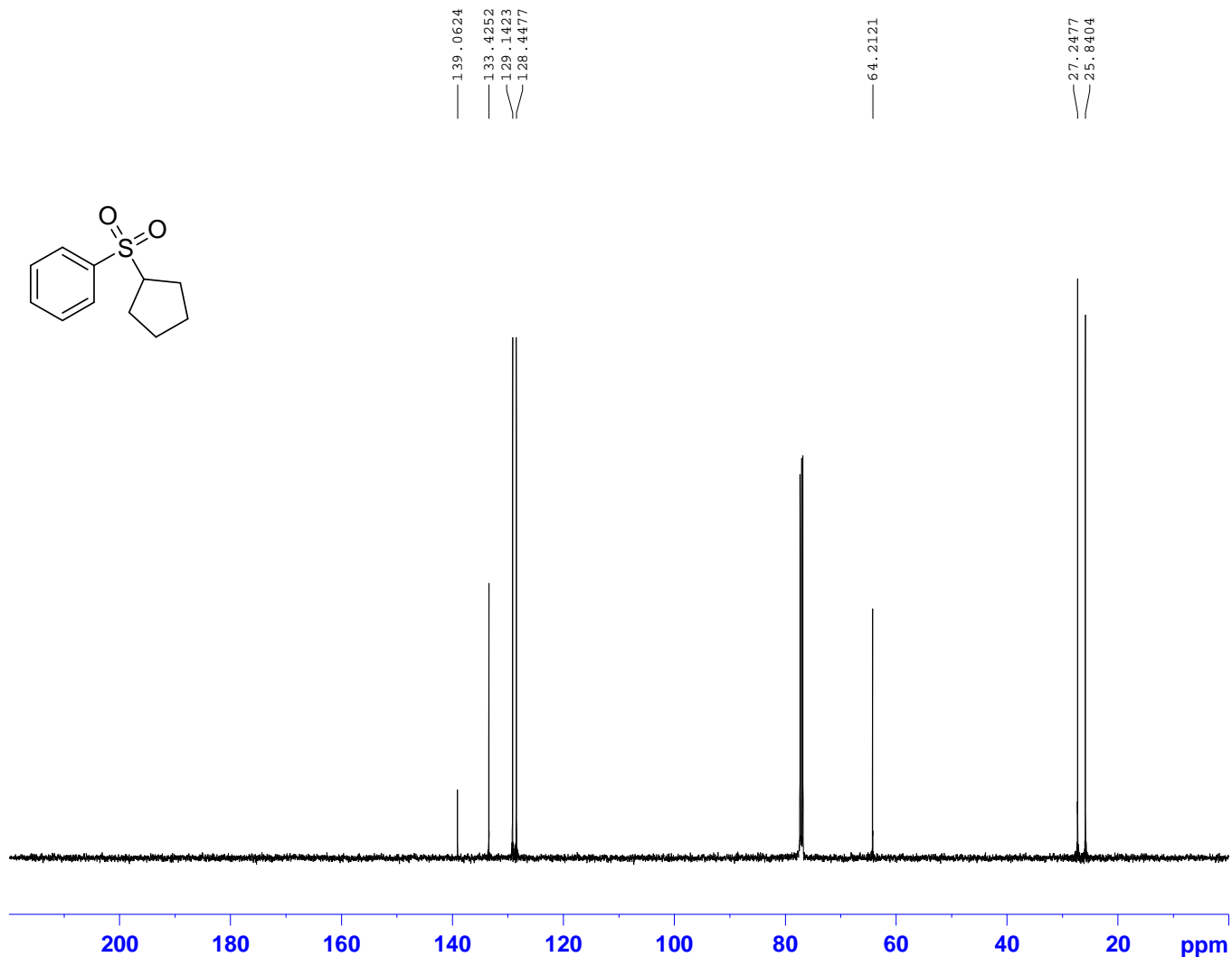
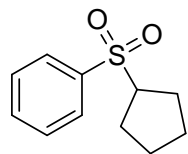
RS389



```
NAME D150328
EXPNO 1
PROCNO 1
Date_ 20110927
Time 14.08
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252539 Hz
AQ 1.9799412 sec
RG 144
DW 60.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.0000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PL1W 19.93825150 W
SF01 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```

RS389



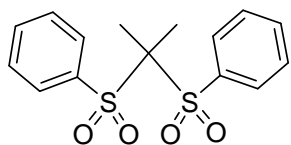
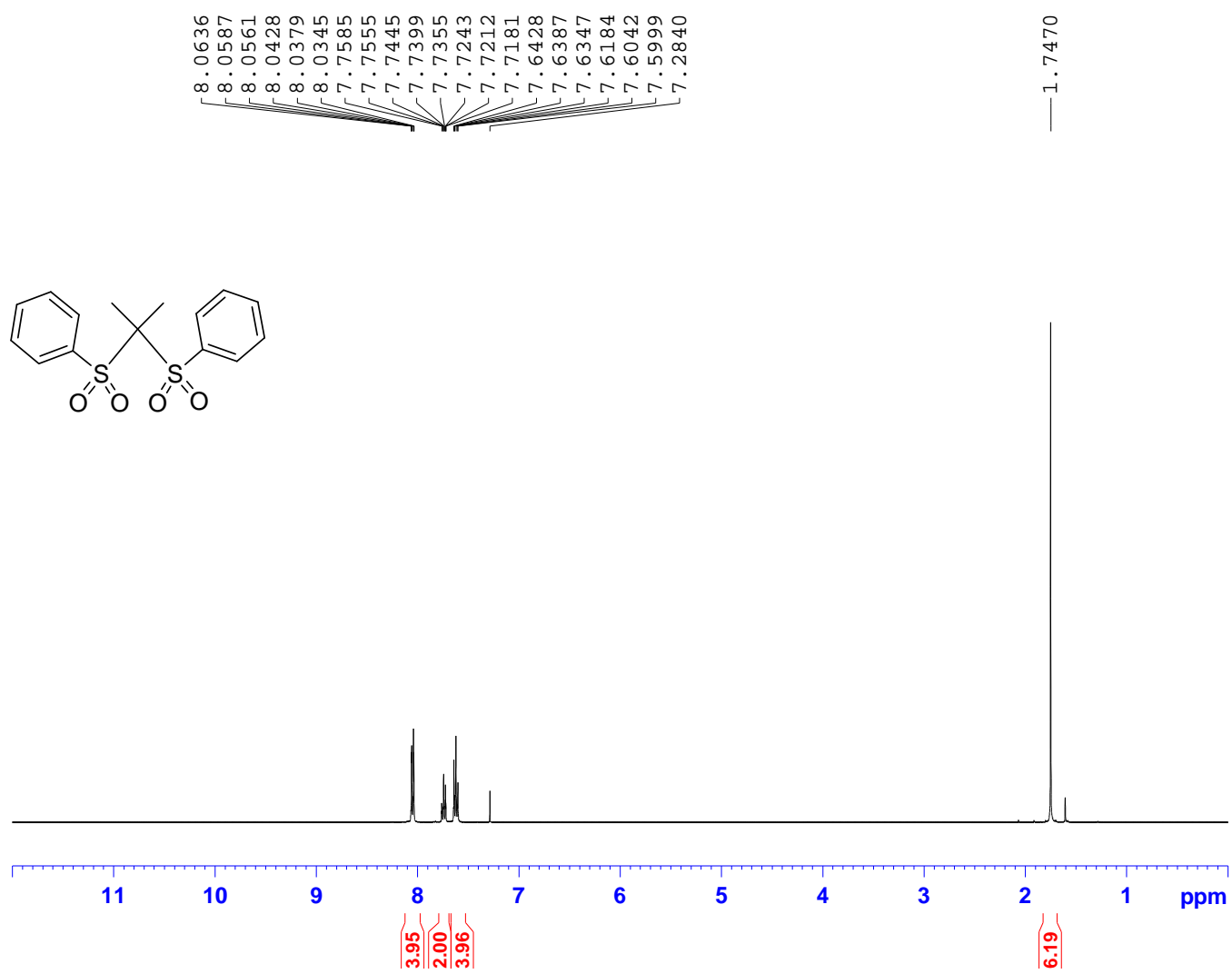
```
NAME      A23529
EXPNO     1
PROCNO    1
Date_     20110927
Time      15.36
INSTRUM   DRX500
PROBHD    5 mm DUL 13C-1
PULPROG   zgpg30
TD         16384
SOLVENT   CDCl3
NS         1024
DS         4
SWH        30120.482 Hz
FIDRES     1.838408 Hz
AQ         0.2720244 sec
RG         10321.3
DW         16.600 usec
DE         6.00 usec
TE         300.0 K
D1         0.69999999 sec
d11        0.03000000 sec
DELTA     0.59999996 sec
TD0        1

===== CHANNEL f1 =====
NUC1       13C
P1         8.00 usec
PL1        -2.30 dB
SFO1       125.7703643 MHz

===== CHANNEL f2 =====
CPDPRG2   waltz16
NUC2       1H
PCPD2     80.00 usec
PL2        -2.30 dB
PL12       16.21 dB
PL13       120.00 dB
SFO2       500.1320005 MHz
SI         32768
SF         125.7577890 MHz
WDW        EM
SSB        0
LB         2.00 Hz
GB         0
PC         1.40
```



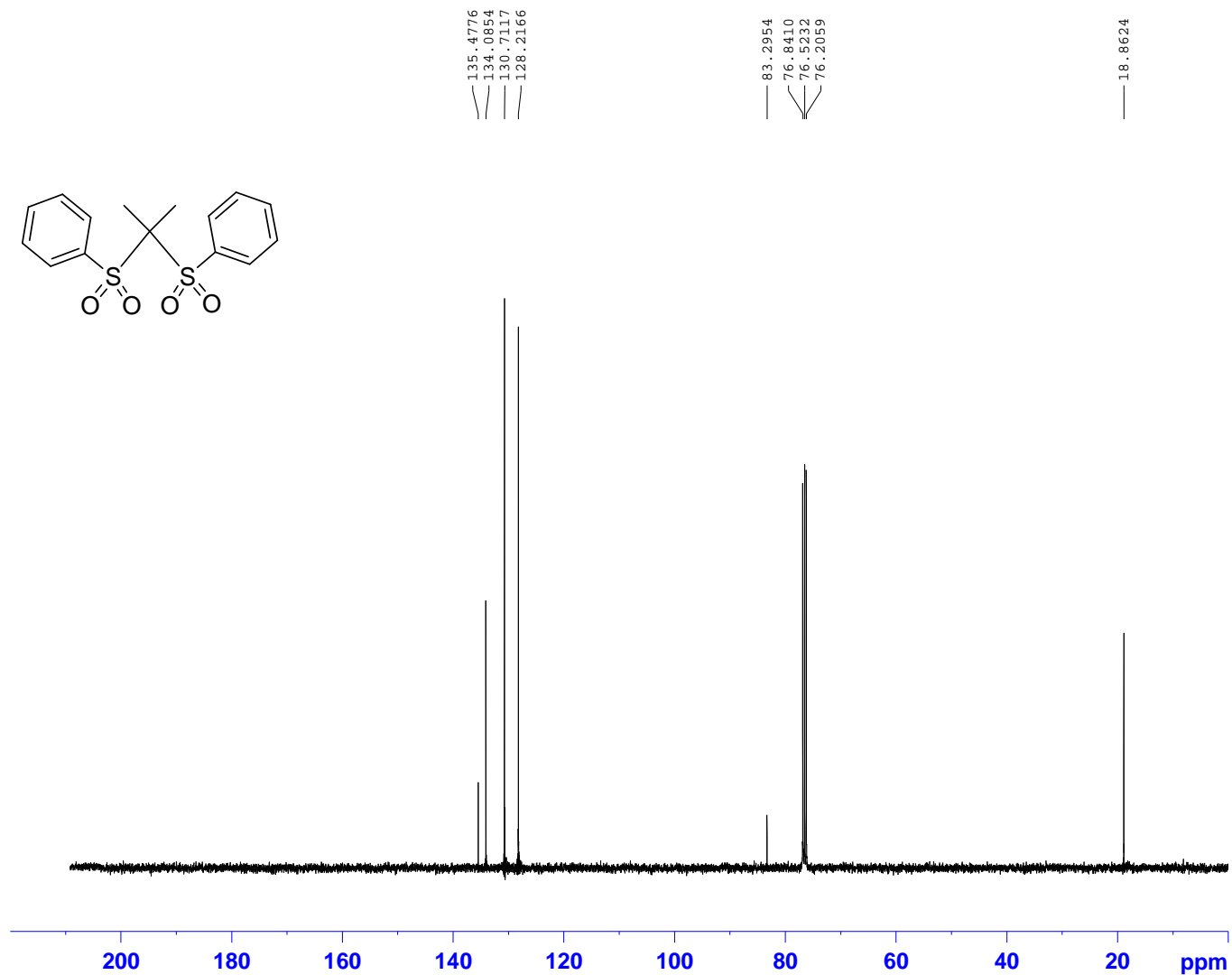
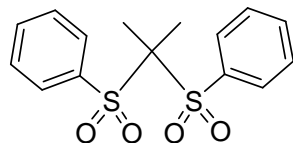
RS388



```
NAME D150213
EXPNO 1
PROCNO 1
Date_ 20110922
Time 14.52
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252539 Hz
AQ 1.9799412 sec
RG 228
DW 60.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.0000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PL1W 19.93825150 W
SF01 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```

RS388

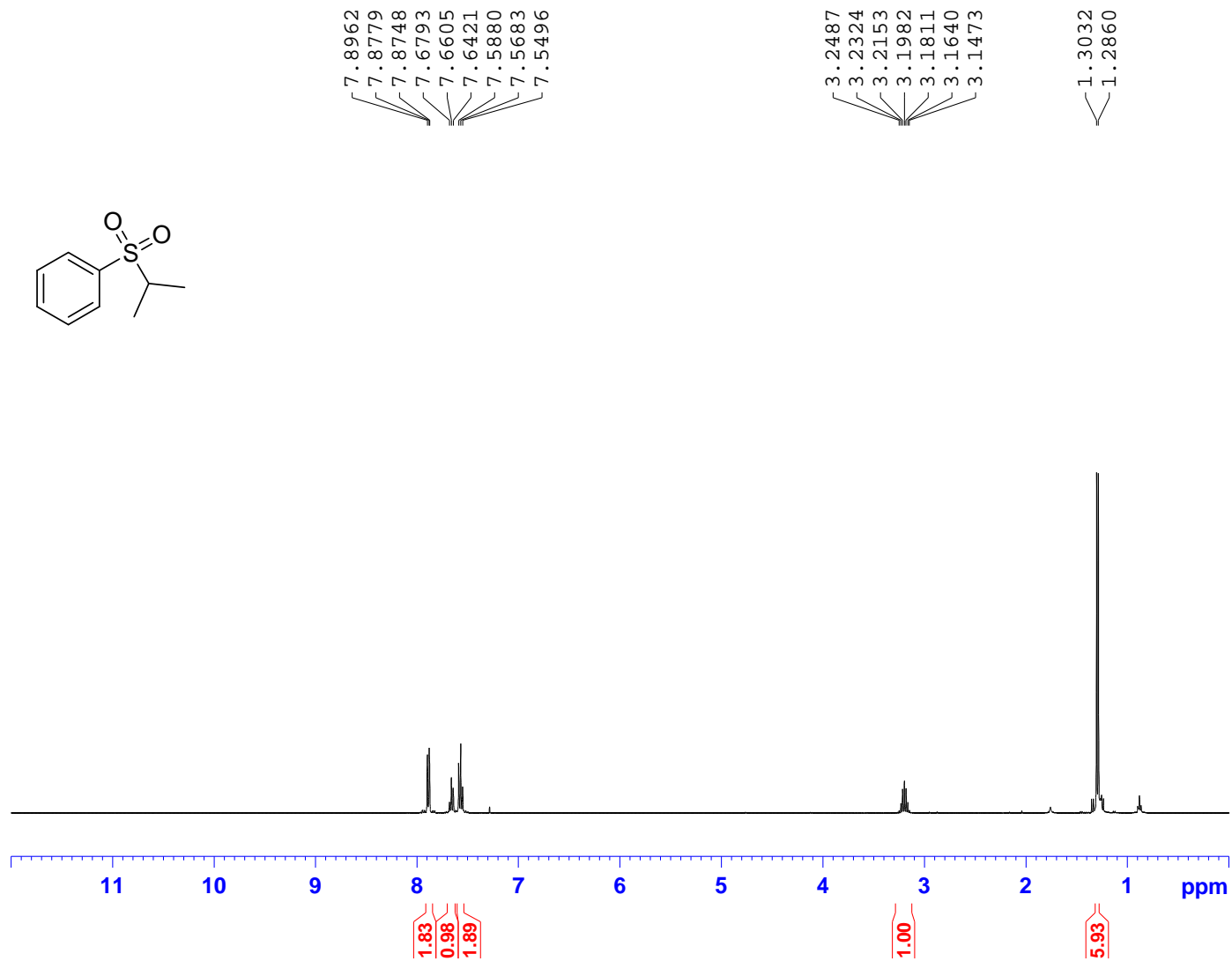
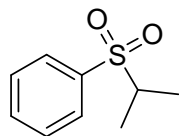


```
NAME          D150213
EXPNO         2
PROCNO        1
Date_         20110923
Time          3.50
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zgpg30
TD            16384
SOLVENT       CDCl3
NS            1024
DS            4
SWH           22058.824 Hz
FIDRES        1.346364 Hz
AQ            0.3714207 sec
RG            2050
DW            22.667 usec
DE            6.50 usec
TE            300.0 K
D3            0.6998999 sec
D11           0.0300000 sec
TDO           1

===== CHANNEL f1 =====
NUC1          13C
P1            7.00 usec
PL1           -2.60 dB
PL12W         61.3412230 W
SFO1          100.6228298 MHz

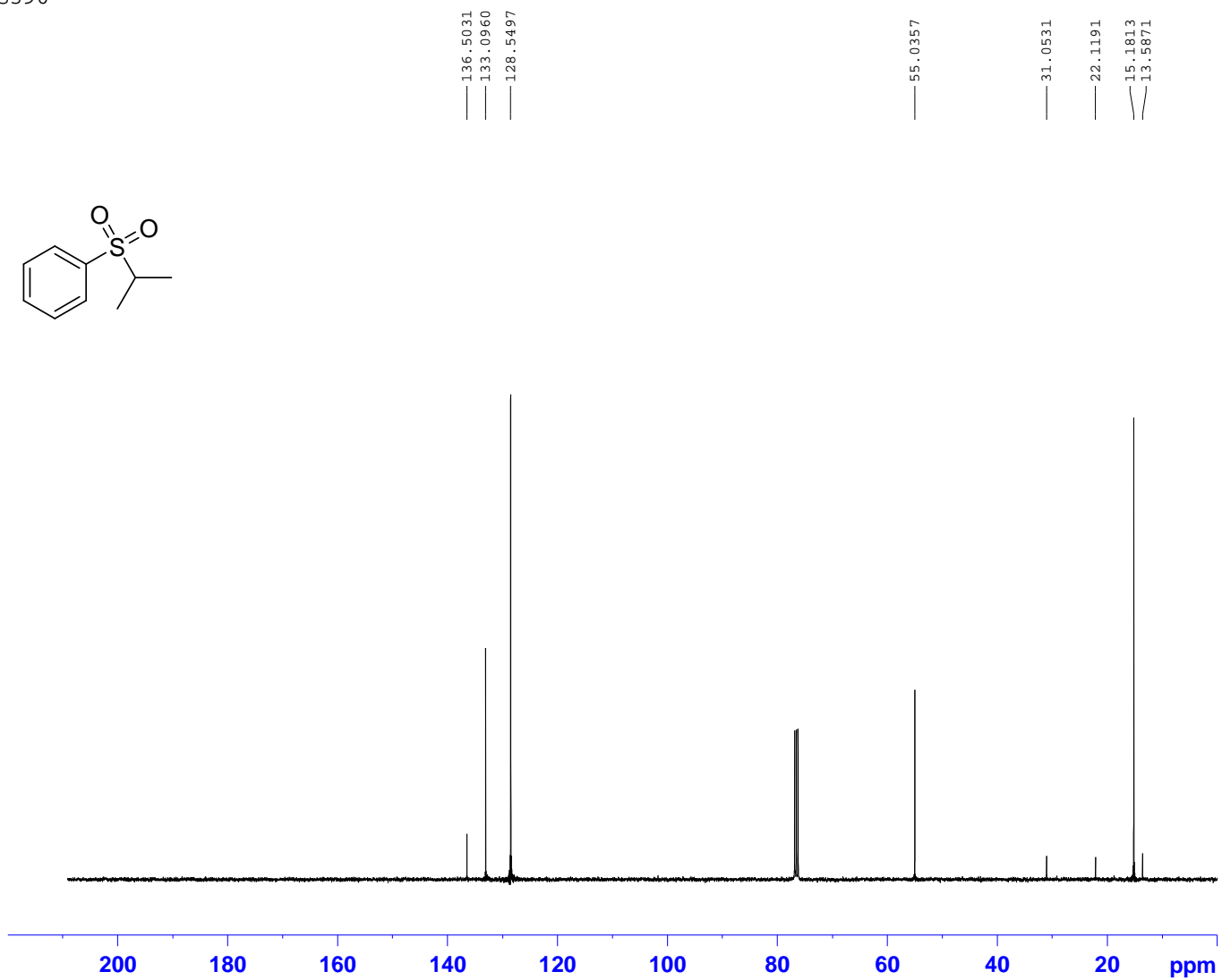
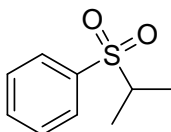
===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -4.00 dB
PL12          14.06 dB
PL13          120.00 dB
PL2W          19.93825150 W
PL12W         0.11166428 W
PL13W         0.00000000 W
SFO2          400.1316005 MHz
SI            32768
SF            100.6128193 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
```

RS390



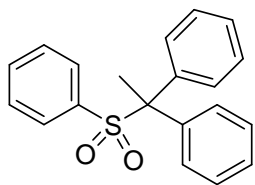
```
NAME D150385
EXPNO 1
PROCNO 1
Date_ 20110928
Time 12.03
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252539 Hz
AQ 1.9799412 sec
RG 80.6
DW 60.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
TD0 1
===== CHANNEL f1 =====
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PL1W 19.93825150 W
SF01 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```

RS390



```
NAME          D150385
EXPNO         2
PROCNO        1
Date_         20110928
Time          12.23
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zgpg30
TD            16384
SOLVENT       CDCl3
NS            1024
DS            4
SWH           22058.824 Hz
FIDRES        1.346364 Hz
AQ            0.3714207 sec
RG            2050
DW            22.667 usec
DE            6.50 usec
TE            300.0 K
D1            0.69999999 sec
D11           0.93000000 sec
TDO           1
===== CHANNEL f1 =====
NUC1          13C
P1            7.00 usec
PL1           -2.60 dB
PL1W          61.34123230 W
SFO1          100.628298 MHz
===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -4.00 dB
PL12          14.06 dB
PL13          120.00 dB
PL2W          19.93825150 W
PL12W         0.31166428 W
PL13W         0.00000000 W
SFO2          400.1316005 MHz
SI            32768
SF            100.6128193 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
```

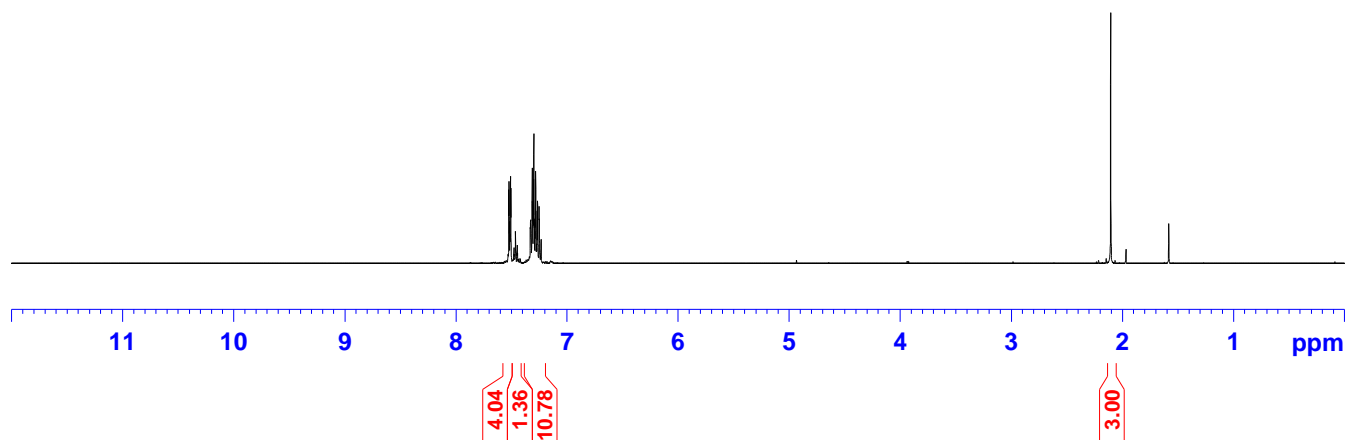
RS367



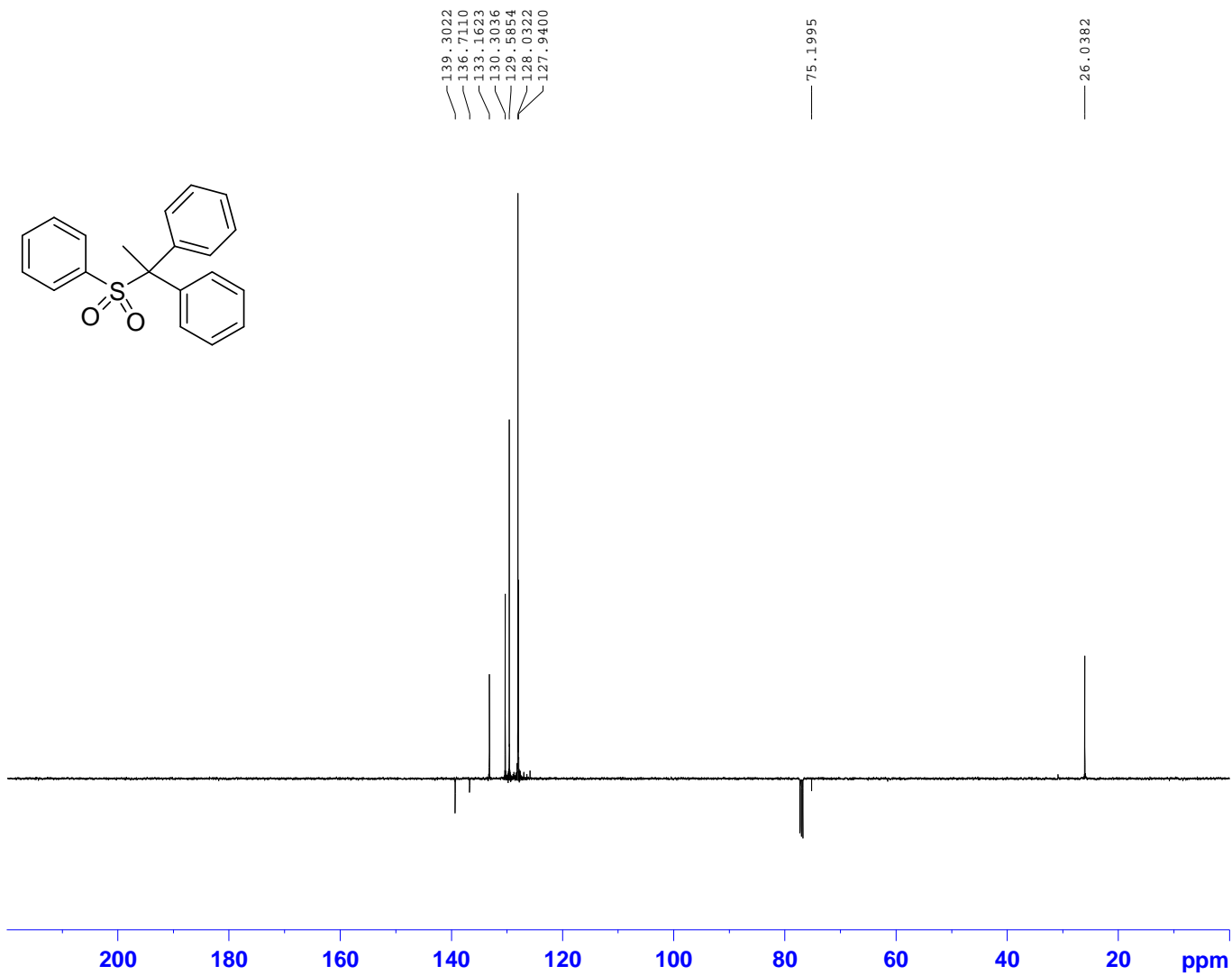
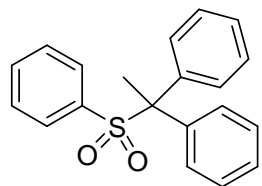
7.5259  
7.5231  
7.5194  
7.5143  
7.5100  
7.5065  
7.4789  
7.4641  
7.4618  
7.4494  
7.3308  
7.3286  
7.3254  
7.3146  
7.3116  
7.3058  
7.3027  
7.2989  
7.2954  
7.2898  
7.2869  
7.2838  
7.2776  
7.2750  
7.2711  
7.2695  
7.2661  
7.2625  
7.2512  
7.2494  
7.2345

— 2.1059

```
NAME          A23508
EXPNO         1
PROCNO        1
Date_         20110924
Time          14.49
INSTRUM       DRX500
PROBHD        5 mm DUL 13C-1
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           10288.065 Hz
FIDRES        0.156983 Hz
AQ            3.1850996 sec
RG            203.2
DW            48.600 usec
DE            6.00 usec
TE            300.0 K
D1            1.00000000 sec
TDO           1
===== CHANNEL f1 =====
NUC1          1H
P1            9.25 usec
PL1           -2.70 dB
SF01          500.1330885 MHz
SI            32768
SF            500.1300084 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
```



RS367

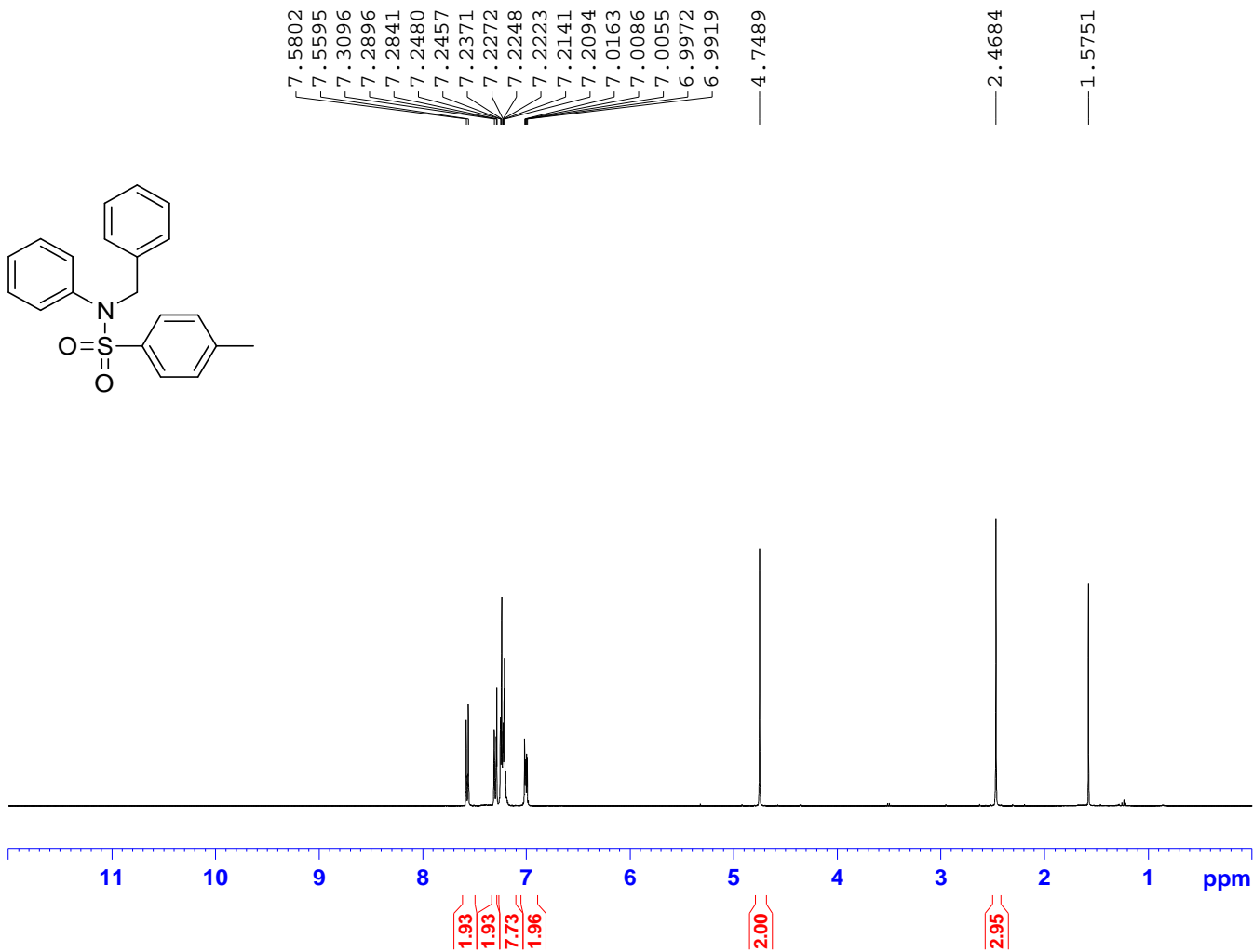
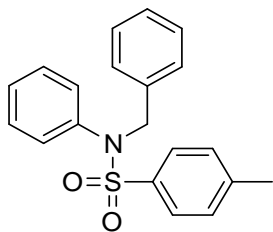


```
NAME          A23511
EXPNO         1
PROCNO        1
Date_         20110924
Time          17.47
INSTRUM       DRX500
PROBHD        5 mm DUL 13C-1
FULPROG       jmod
TD            16384
SOLVENT       CDCl3
NS            1024
DS            4
SWH           30120.482 Hz
FIDRES        1.838408 Hz
AQ            0.2720244 sec
RG            13004
DW            16.600 usec
DE            6.00 usec
TE            300.0 K
CNST2         140.0000000
CNST11        1.0000000
DI            2.0000000 sec
d20           0.00714286 sec
DELTA         0.00001019 sec
TDO           1
```

```
===== CHANNEL f1 =====
NUC1          13C
P1            8.00 usec
p2            16.00 usec
PL1           -2.30 dB
SFO1         125.7703643 MHz

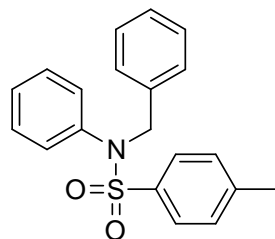
===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -2.30 dB
PL12          16.21 dB
SFO2         500.1320005 MHz
SI            32768
SF           125.7577890 MHz
WDW           EM
SSB           0
LB            2.00 Hz
GB            0
PC            1.40
```

RS361



```
NAME D149483
EXPNO 1
PROCNO 1
Date_ 20110906
Time 15.14
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252539 Hz
AQ 1.9799412 sec
RG 228
DW 60.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.0000000 sec
TD0 1
===== CHANNEL f1 =====
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PL1W 19.93825150 W
SFO1 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```

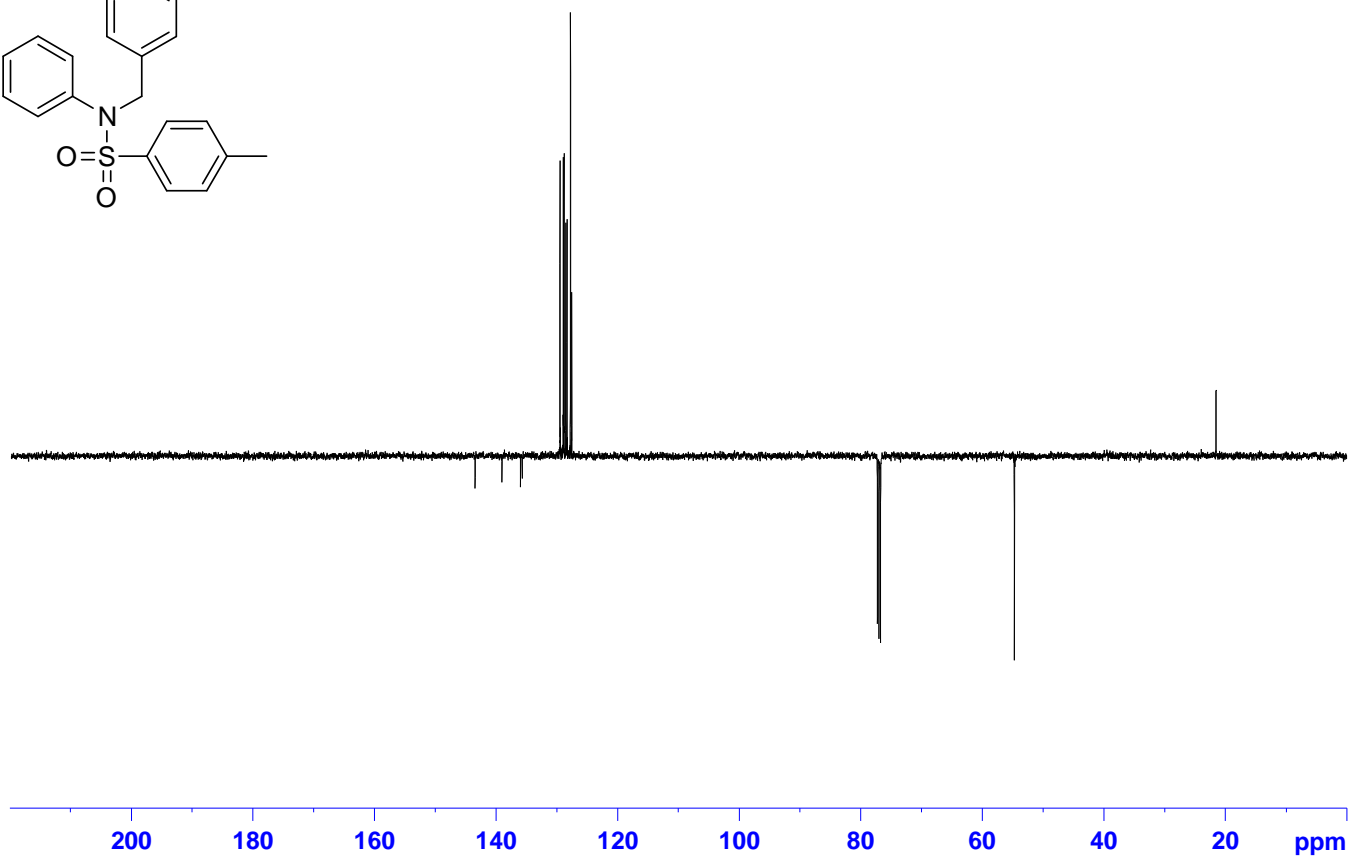
RS361



143.4733  
139.0523  
136.0154  
135.7332  
129.4982  
128.9741  
128.8263  
128.5307  
128.3426  
127.7782  
127.5901

54.7717

21.5539



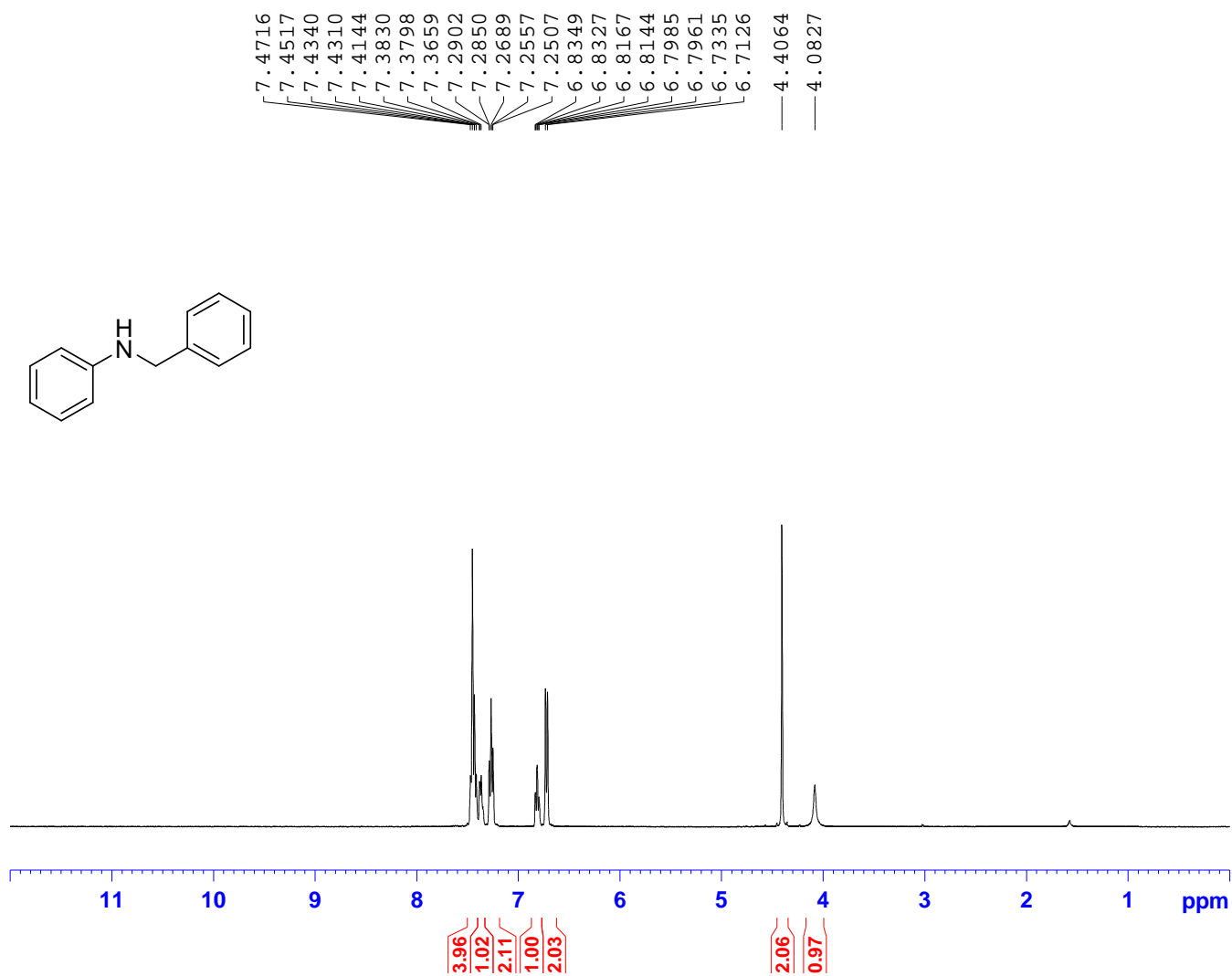
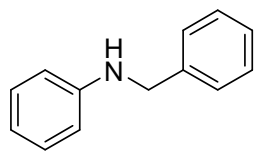
```
NAME          A23302
EXPNO         1
PROCNO       1
Date_         20110906
Time         23.49
INSTRUM      DRX500
PROBHD       5 mm DUL 1H-1
PULPROG      jmod
TD           16384
SOLVENT      CDCl3
NS           1024
DS           4
SWH          30120.482 Hz
FIDRES       1.838408 Hz
AQ           0.2720344 sec
RG           11585.2
DW           16.600 usec
DE           6.00 usec
TE           300.0 K
CNST2        140.0000000
CNST11        1.0000000
DI           2.0000000 sec
d20          0.00714286 sec
DELTA        0.00001019 sec
TDO          1

===== CHANNEL f1 =====
NUC1          13C
P1            8.00 usec
p2           16.00 usec
PL1          -2.30 dB
SFO1         125.7701643 MHz

===== CHANNEL f2 =====
CFPPROG2     waltz16
NUC2          1H
PCPD2        80.00 usec
PL2          -2.30 dB
PLL2         16.21 dB
SFO2         500.1320005 MHz
SI           32768
SF           125.7577890 MHz
WDW          EM
SSB          0
LB           2.00 Hz
GB           0
PC           1.40
```



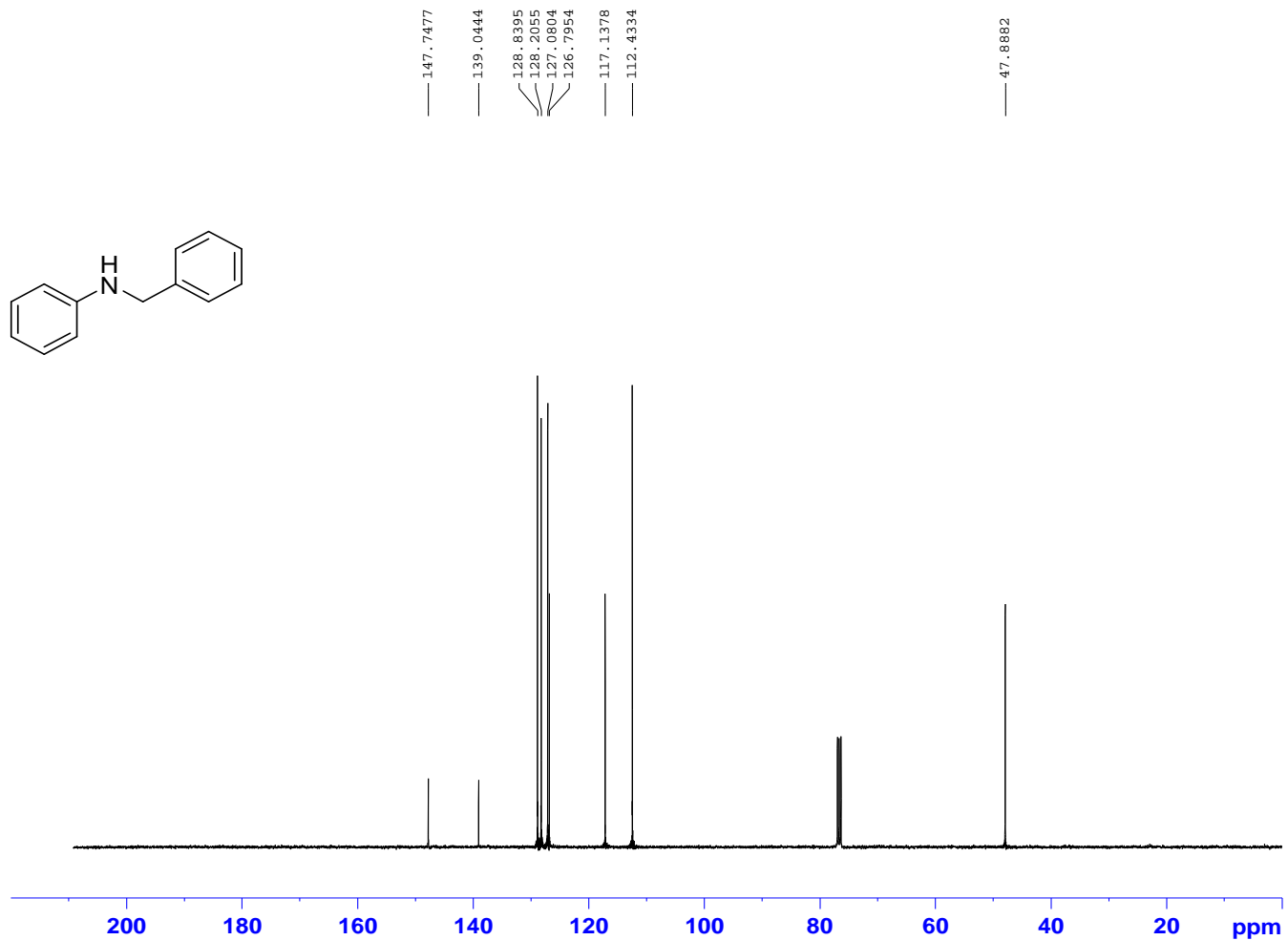
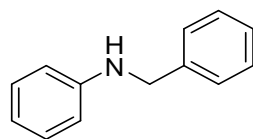
RS376



```
NAME D149816
EXPNO 1
PROCNO 1
Date_ 20110914
Time 6.36
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252539 Hz
AQ 1.9799412 sec
RG 64
DW 60.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.0000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PL1W 19.93825150 W
SFO1 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```

RS376

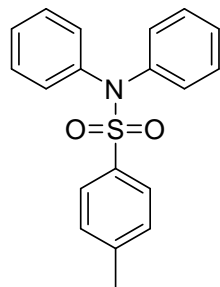


```
NAME          D149816
EXPNO         2
PROCNO        1
Date_         20110914
Time          6.55
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zgpg30
TD            6584
SOLVENT       CDCl3
NS            1024
DS            4
SWH           22058.824 Hz
FIDRES        1.346364 Hz
AQ            0.3714207 sec
RG            2050
DM            22.667 usec
DE            6.50 usec
TE            300.0 K
D1            0.6999999 sec
D11           0.03000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          13C
P1            7.00 usec
PL1           -2.50 dB
PL1W          61.34123230 W
SFO1          100.628298 MHz

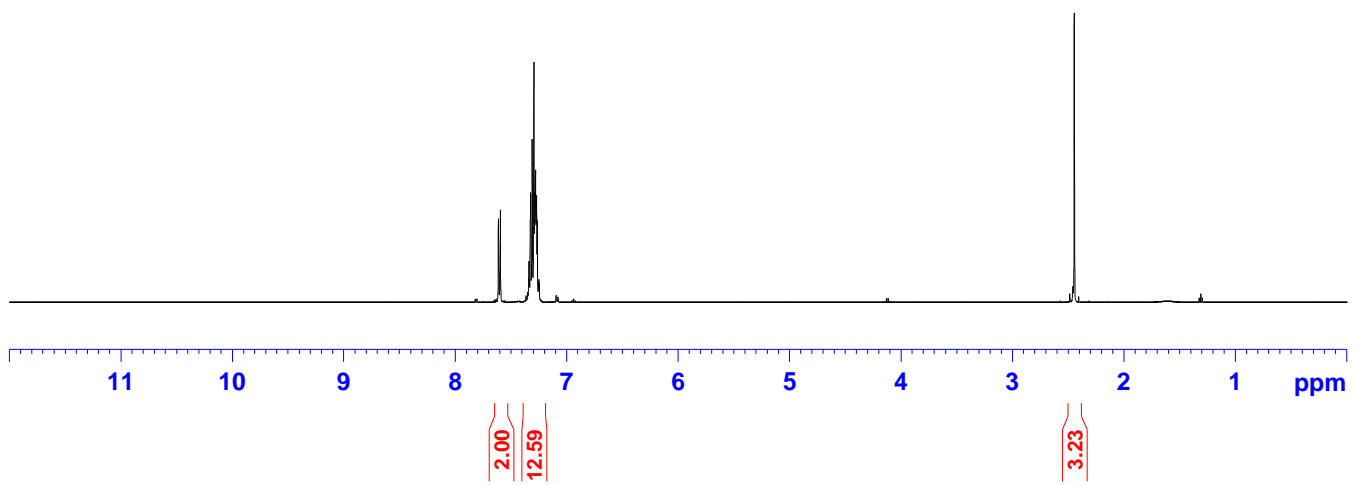
===== CHANNEL f2 =====
CHOPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -4.00 dB
PL12          14.06 dB
PL13          120.00 dB
PL2W          19.93825150 W
PL12W         0.31166428 W
PL13W         0.00000000 W
SFO2          400.1316005 MHz
Z1            2728
SP            100.6128193 MHz
WDW           EM
SSB            0
LB            1.00 Hz
GB            0
PC            1.40
```

RS378



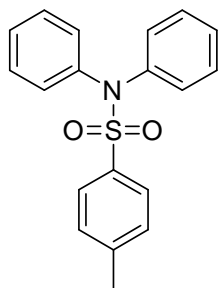
7.6094  
7.5929  
7.3215  
7.3069  
7.2949  
7.2916  
7.2853  
7.2775  
7.2692  
7.2617

2.4443



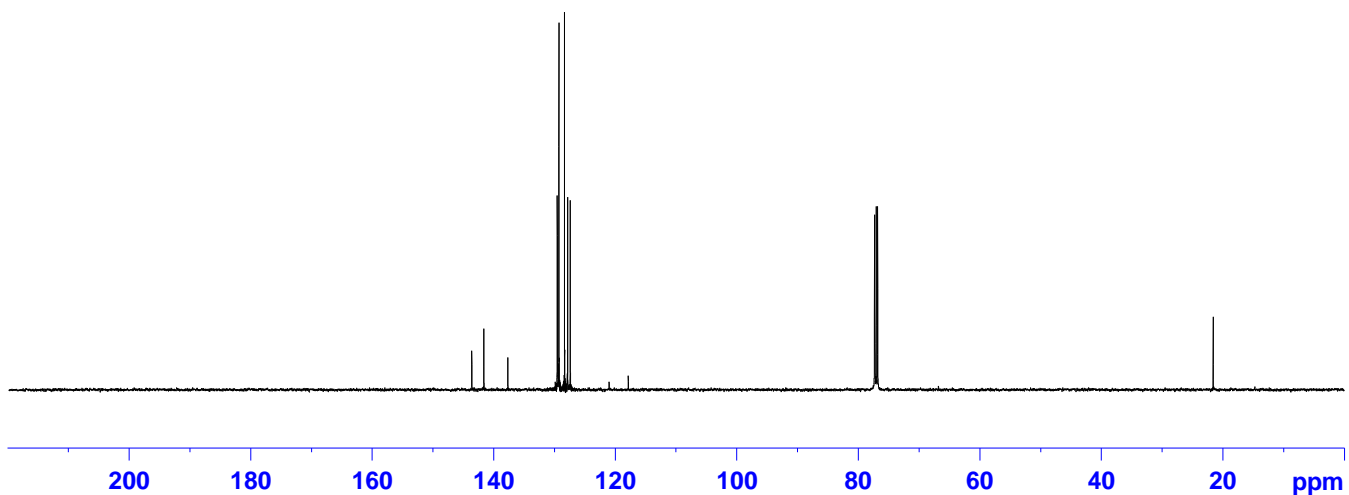
```
NAME          A23570
EXPNO         1
PROCNO        1
Date_         20110930
Time          10.39
INSTRUM       DRX500
PROBHD        5 mm DUL 13C-1
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           10288.065 Hz
FIDRES        0.156983 Hz
AQ            3.1850996 sec
RG            161.3
DW            48.600 usec
DE            6.00 usec
TE            300.0 K
D1            1.00000000 sec
TD0           1
===== CHANNEL f1 =====
NUC1          1H
P1            9.25 usec
PL1           -2.70 dB
SFO1          500.1330885 MHz
SI            32768
SF            500.1300084 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
```

RS378



143.5880  
141.5975  
137.6501  
129.5369  
129.2419  
128.3326  
127.8127  
127.3922

21.5864

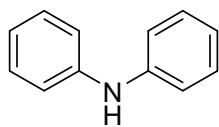


```
NAME          A23570
EXPNO         2
PROCNO        1
Date_         20110930
Time         10.58
INSTRUM       DRX500
PROBHD        5 mm DUL 13C-1
PULPROG       zgpg30
TD            16384
SOLVENT       CDCl3
NS            1024
DS            4
SWH           30120.482 Hz
FIDRES        1.838408 Hz
AQ            0.2720244 sec
RG            11586.2
DE            16.600 usec
TE            6.00 usec
TE           300.0 K
D1            0.69999999 sec
d11           0.03000000 sec
DELTA         0.59999996 sec
TD0           1

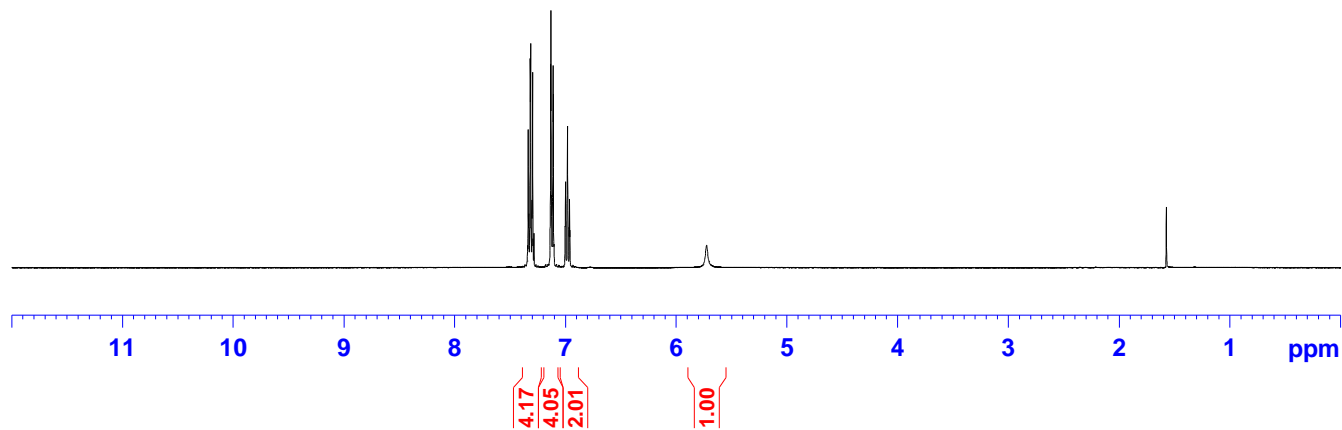
===== CHANNEL f1 =====
NUC1          13C
P1            8.00 usec
PL1           -2.30 dB
SFO1         125.7703643 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -2.30 dB
PL12          16.21 dB
PL13          120.00 dB
SFO2         500.1320005 MHz
SI            32768
SF           125.7577890 MHz
WDW           EM
SSB           0
LB            2.00 Hz
GB            0
PC            1.40
```

RS382

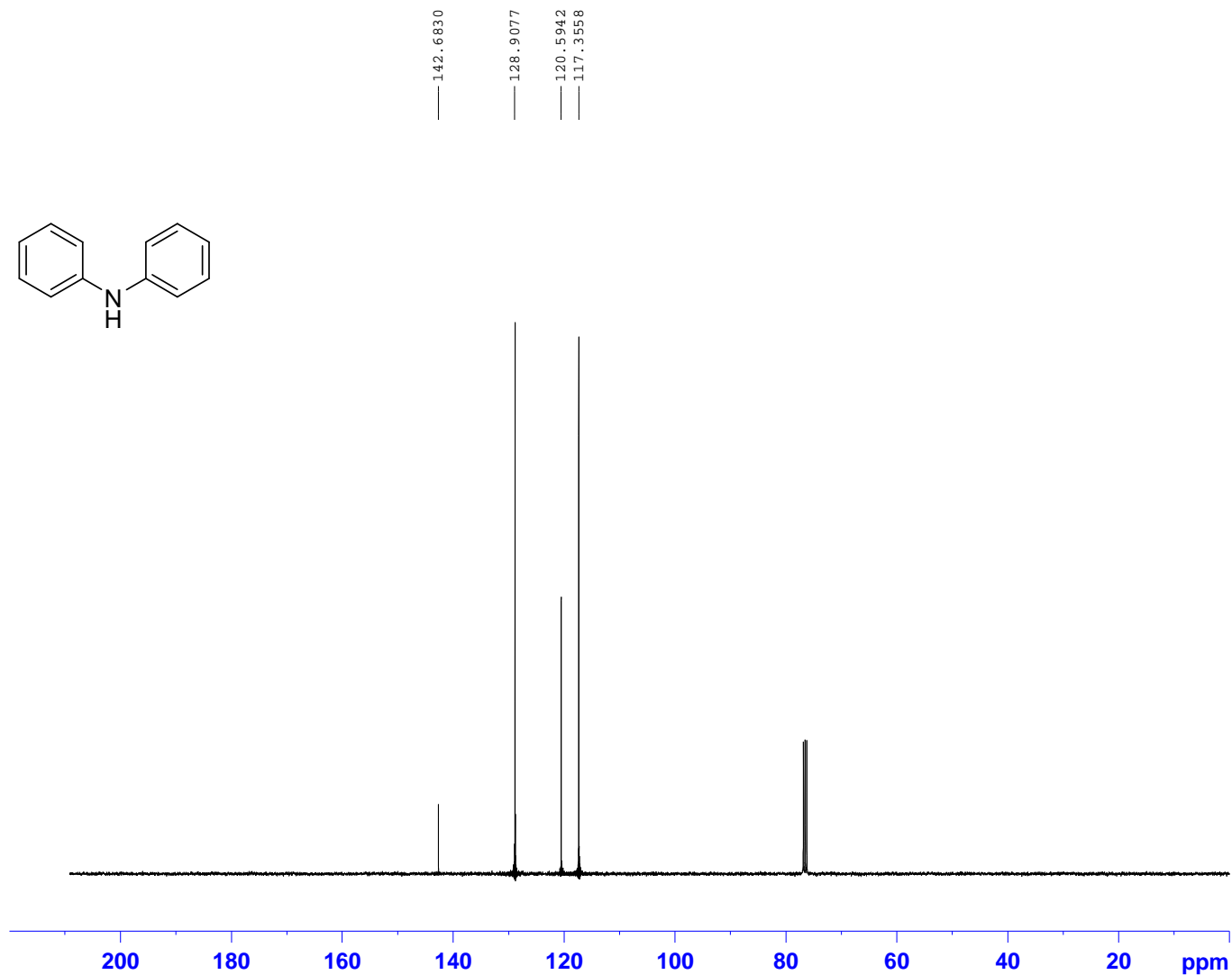
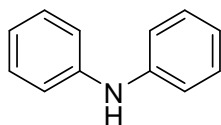


7.3369  
7.3319  
7.3184  
7.3156  
7.3107  
7.3021  
7.2972  
7.2840  
7.1336  
7.1309  
7.1258  
7.1144  
7.1120  
7.1096  
7.0024  
6.9998  
6.9970  
6.9839  
6.9814  
6.9658  
6.9630  
6.9604  
5.7253

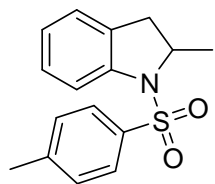


```
NAME          D149817
EXPNO         1
PROCNO        1
Date_         20110914
Time          7.00
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zg30
TD            32564
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.252539 Hz
AQ            1.9799412 sec
RG            128
DW            60.800 usec
DE            6.50 usec
TE            300.0 K
D1            2.00000000 sec
TDO           1
===== CHANNEL f1 =====
NUC1          1H
P1            9.40 usec
PL1           -4.00 dB
PL1W          19.93825150 W
SFO1          400.1324710 MHz
SI            32768
SF            400.1300000 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
```

RS382

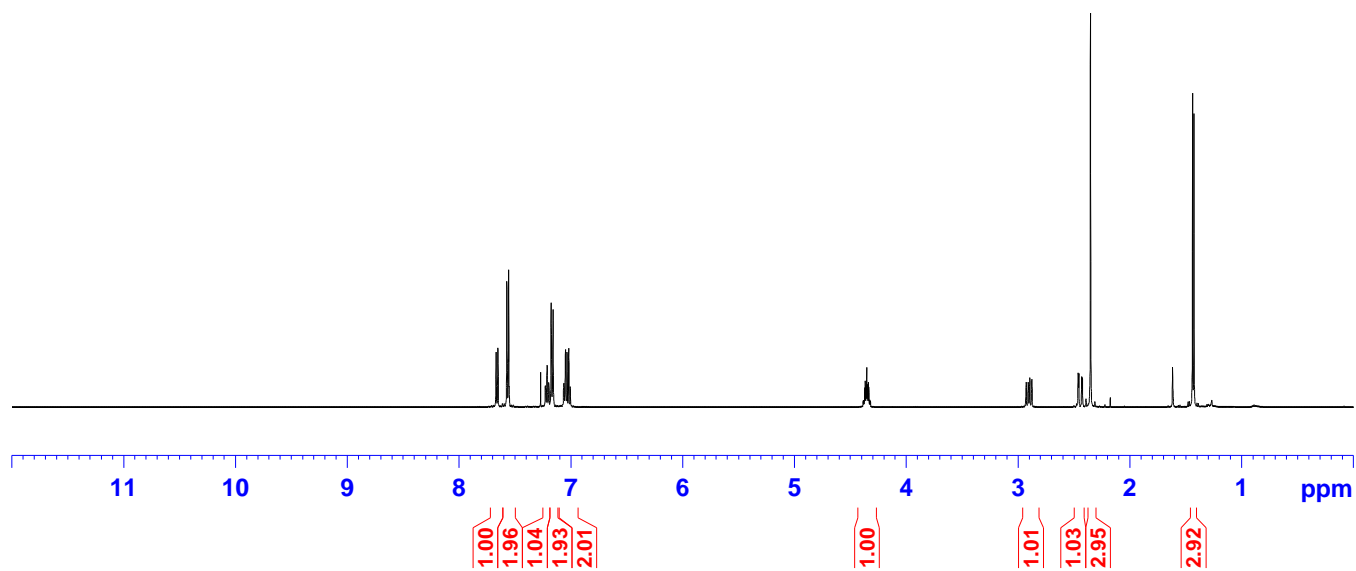


RS380

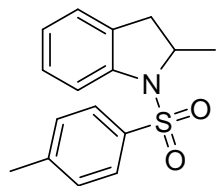


7.6677  
7.6515  
7.5712  
7.5545  
7.2121  
7.2105  
7.1972  
7.1960  
7.1741  
7.1582  
7.0620  
7.0608  
7.0475  
7.0334  
7.0316  
7.0188  
7.0171  
7.0042  
7.0023  
4.3729  
4.3671  
4.3599  
4.3541  
4.3483  
4.3411  
4.3352  
2.9283  
2.9096  
2.8964  
2.8777  
2.4628  
2.4571  
2.4308  
2.4251  
2.3525  
1.4401  
1.4270

```
NAME          A23561
EXPNO         1
PROCNO        1
Date_         20110929
Time          18.13
INSTRUM       DRX500
PROBHD        5 mm DUL 13C-1
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           10288.065 Hz
FIDRES        0.156983 Hz
AQ            3.1850996 sec
RG            128
DW            48.600 usec
DE            6.00 usec
TE            300.0 K
D1            1.00000000 sec
TDO           1
===== CHANNEL f1 =====
NUC1          1H
P1            9.25 usec
PL1           -2.70 dB
SFO1          500.1330885 MHz
SI            32768
SF            500.1300084 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
```



RS380



143.7089  
141.1082  
135.3881  
131.6188  
129.5384  
127.7060  
126.9715  
125.2363  
124.4523  
117.1372

58.4779

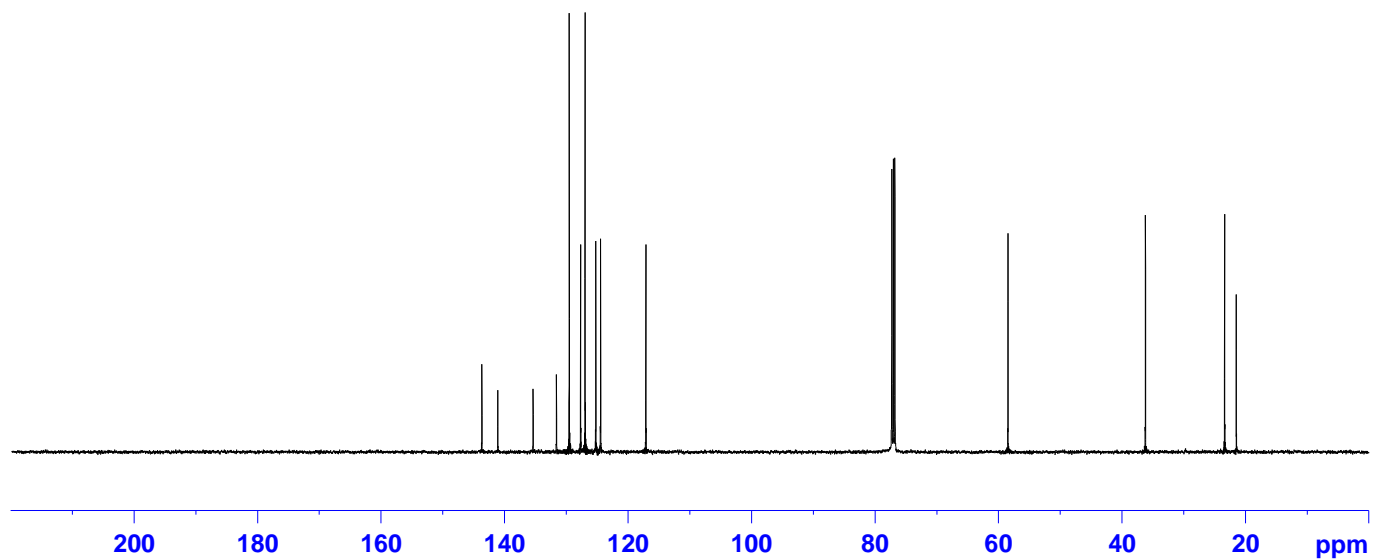
36.2266

23.3820  
21.5022

```
NAME      A23561
EXPNO     2
PROCNO    1
DATE_     20110929
Time      21.04
INSTRUM   DEX500
PROBHD    5 mm DUL-13C-1
PULPROG   zgpg30
TD         16384
SOLVENT   CDCl3
NS         2048
DS         4
SWH        30120.482 Hz
FIDRES     1.838408 Hz
AQ         0.2720244 sec
RG         11589.2
EW         16.600 usec
DE         6.00 usec
TE         300.0 K
D1         0.699999999 sec
d11        0.030000000 sec
DELTA      0.599999996 sec
TD0        1
```

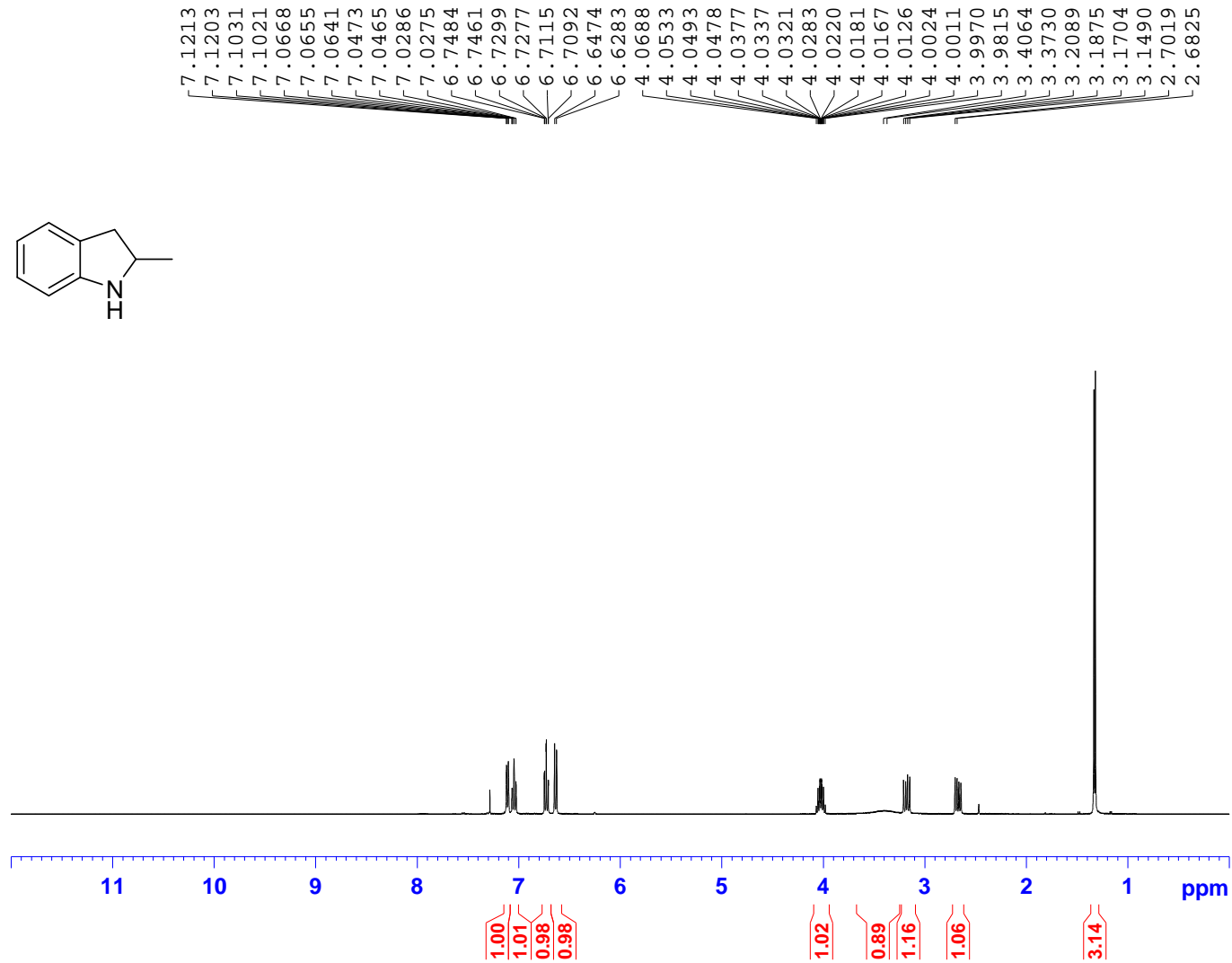
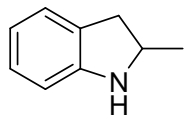
```
***** CHANNEL f1 *****
NUC1       13C
P1         8.00 usec
PL1        -2.30 dB
SFO1       125.7703643 MHz
```

```
***** CHANNEL f2 *****
CDDPRG2    waltz16
NUC2       1H
PCPD2      80.00 usec
PL2         2.30 dB
PL12        16.21 dB
PL13        120.00 dB
SFO2       500.1320005 MHz
SI         32768
SF         125.7577890 MHz
WDW        EM
SSB         0
LB          2.00 Hz
GB          0
PC          1.40
```





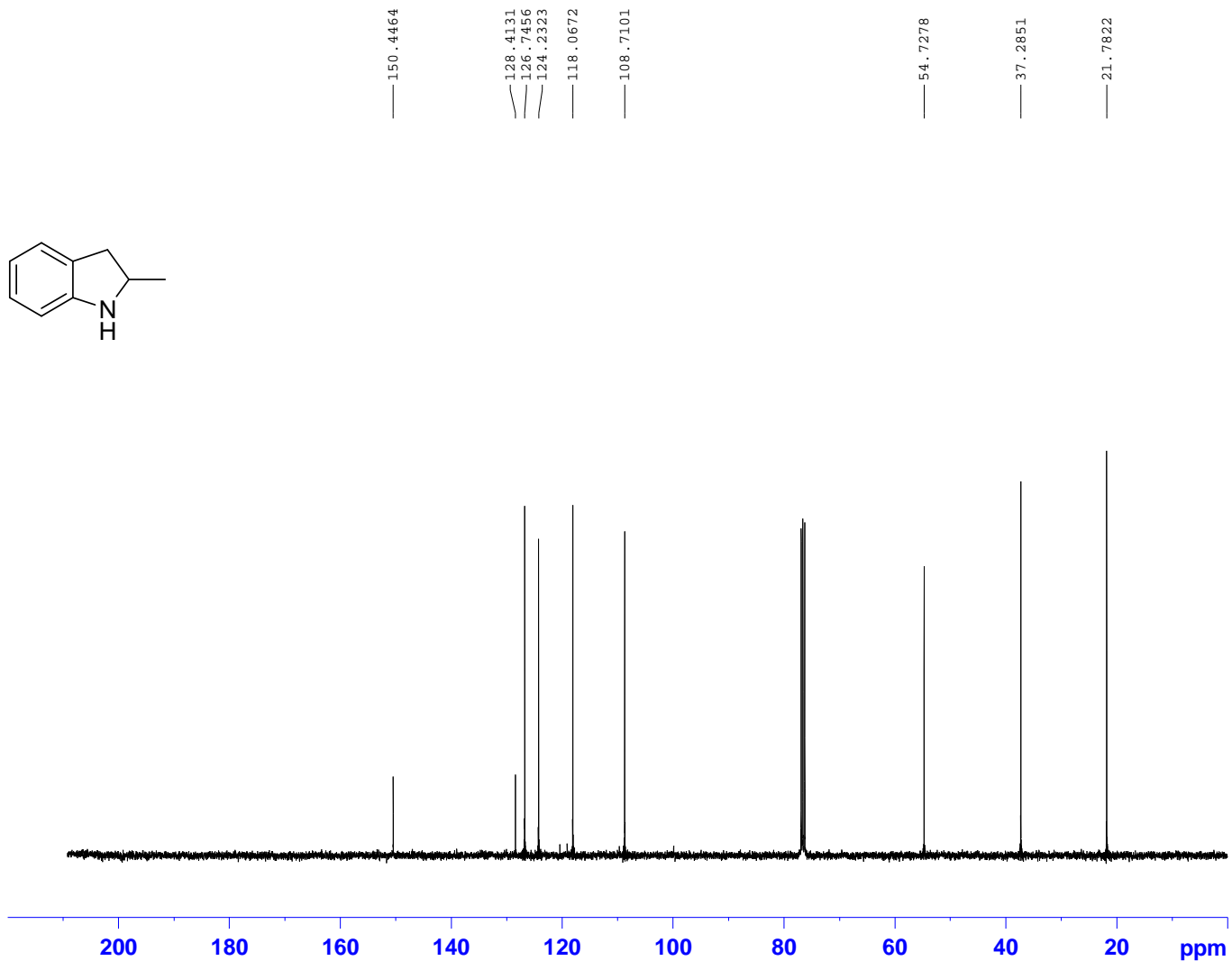
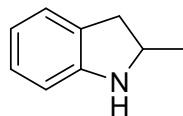
RS396



```
NAME D150503
EXPNO 1
PROCNO 1
Date_ 20110930
Time 18.45
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252539 Hz
AQ 1.9799412 sec
RG 114
DW 60.800 usec
DE 6.50 usec
TE 300.0 K
D1 2.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PLLW 19.93825150 W
SFO1 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```

RS396

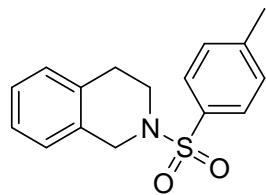


```
NAME          D150503
EXPNO         2
PROCNO        1
Date_         20110930
Time          21.36
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zgpg30
TD            16384
SOLVENT       CDCl3
NS            1024
DS            4
SWH           22058.824 Hz
FIDRES       1.346364 Hz
AQ           0.1714207 sec
RG            2050
DW           22.657 usec
DE           6.50 usec
TE           300.0 K
D1           0.69999999 sec
D11          0.03000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          13C
P1            7.00 usec
PL1          -2.60 dB
PL1W         61.3412320 W
SF01         100.6228298 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2        80.00 usec
PL2          -4.00 dB
PL12         14.06 dB
PL13         120.00 dB
PL2W         19.93825150 W
PL12W        0.11166428 W
PL13W        0.00000000 W
SFO2         400.1316025 MHz
SI           32768
SF           100.6128193 MHz
WDW          EM
SSB           0
LB           1.00 Hz
GB            0
PC            1.40
```

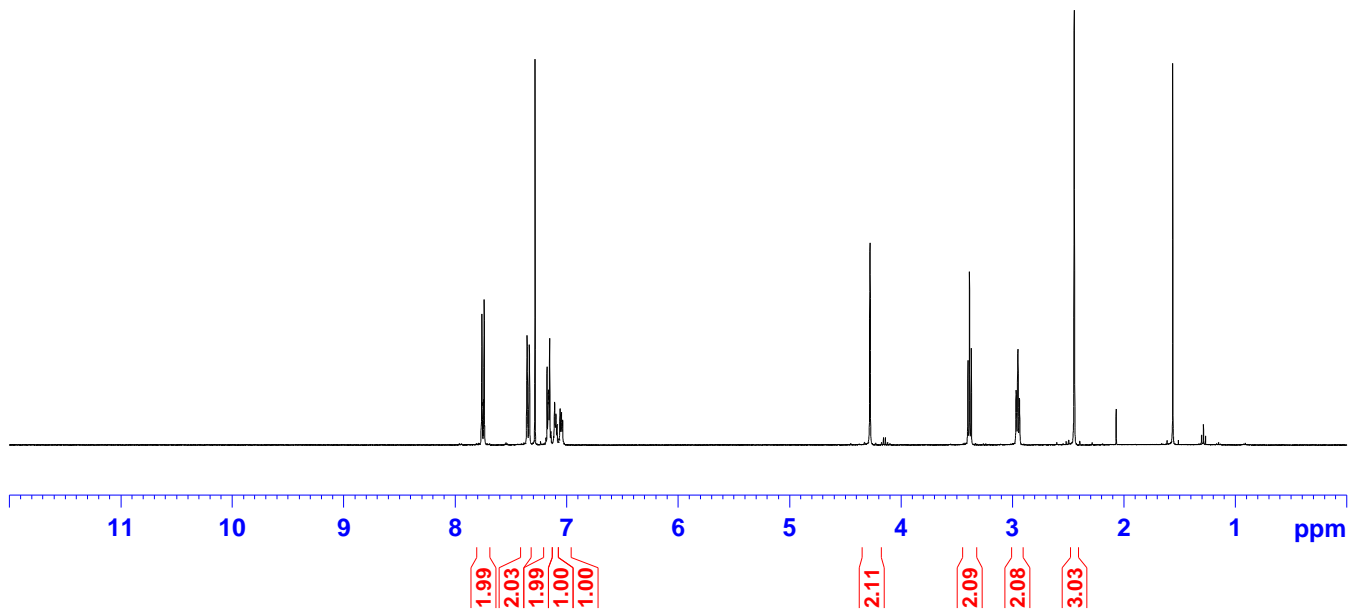
RS373



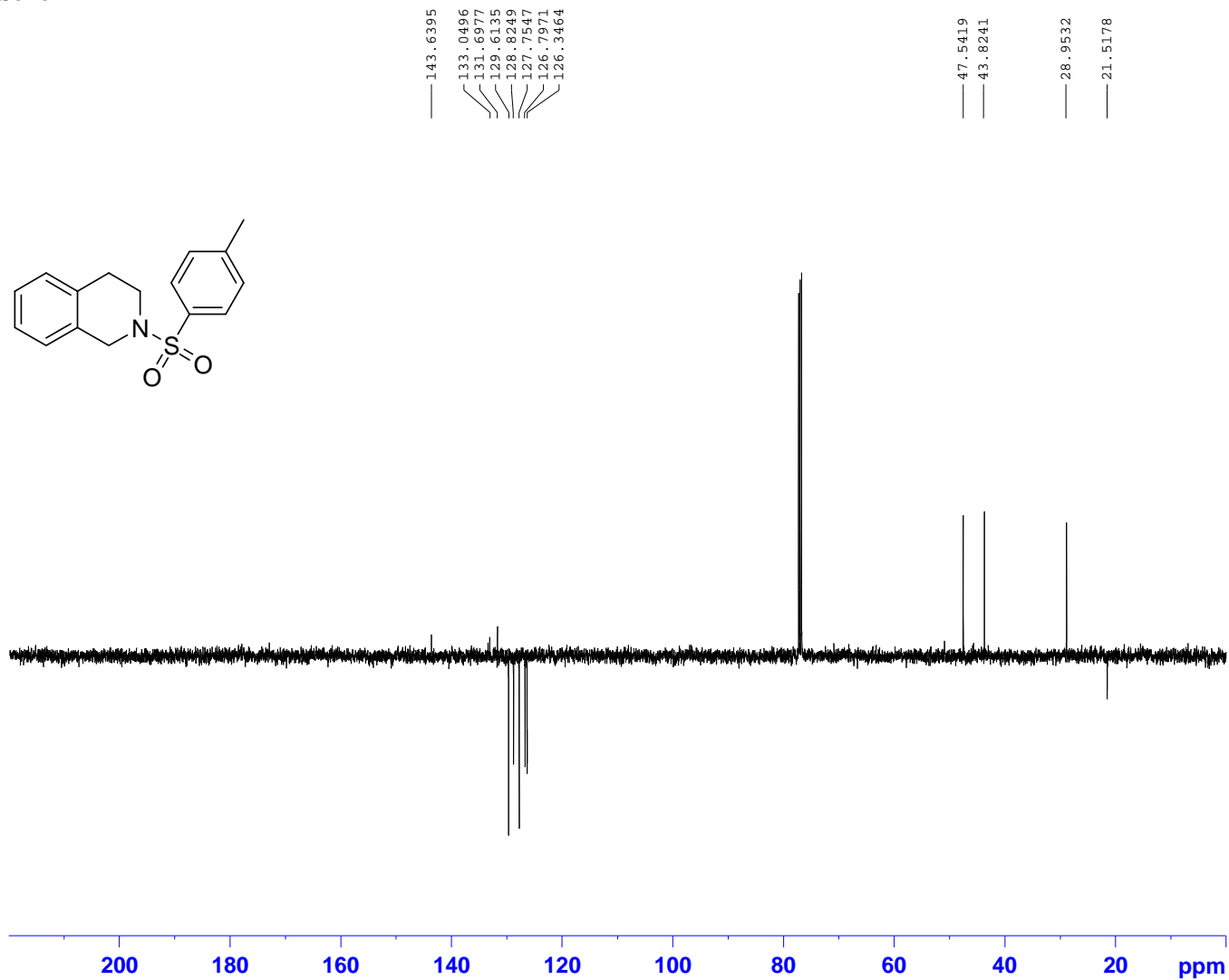
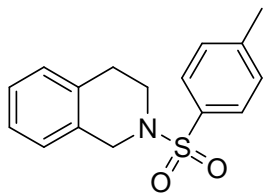
7.7615  
7.7572  
7.7451  
7.7408  
7.7360  
7.3549  
7.3349  
7.2841  
7.1750  
7.1681  
7.1647  
7.1625  
7.1590  
7.1524  
7.1086  
7.0970  
7.0939  
7.0861  
7.0592  
7.0507  
7.0475  
7.0368

— 4.2775  
3.3988  
3.3840  
3.3691  
2.9658  
2.9510  
2.9363  
2.4445

```
NAME          D149748
EXPNO         1
PROCNO        1
Date_         20110912
Time          14.29
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zg30
TD            32564
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.252539 Hz
AQ            1.9799412 sec
RG            406
DW            60.800 usec
DE            6.50 usec
TE            300.0 K
D1            2.00000000 sec
TDO           1
===== CHANNEL f1 =====
NUC1          1H
P1            9.40 usec
PL1           -4.00 dB
PL1W          19.93825150 W
SFO1          400.1324710 MHz
SI            32768
SF            400.1300000 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
```



RS373

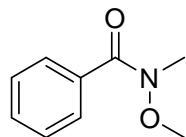


```
NAME A23379
EXPNO 1
PROCNO 1
Date_ 20110912
Time 16.26
INSTRUM DMX500
PROBHD 5 mm DUL 13C-1
PULPROG jmod
TD 16384
SOLVENT CDCl3
NS 1024
DS 4
SWH 30120.482 Hz
FIDRES 1.838408 Hz
AQ 0.2720244 sec
RG 11585.2
DW 16.600 usec
DE 6.00 usec
TE 300.0 K
CNST2 140.000000
CNSF11 1.000000
D1 2.00000000 sec
d20 0.00714286 sec
DELTA 0.0001019 sec
TDD 1

===== CHANNEL f1 =====
NUC1 13C
P1 8.00 usec
p2 16.00 usec
PL1 -2.30 dB
SFO1 125.7703643 MHz

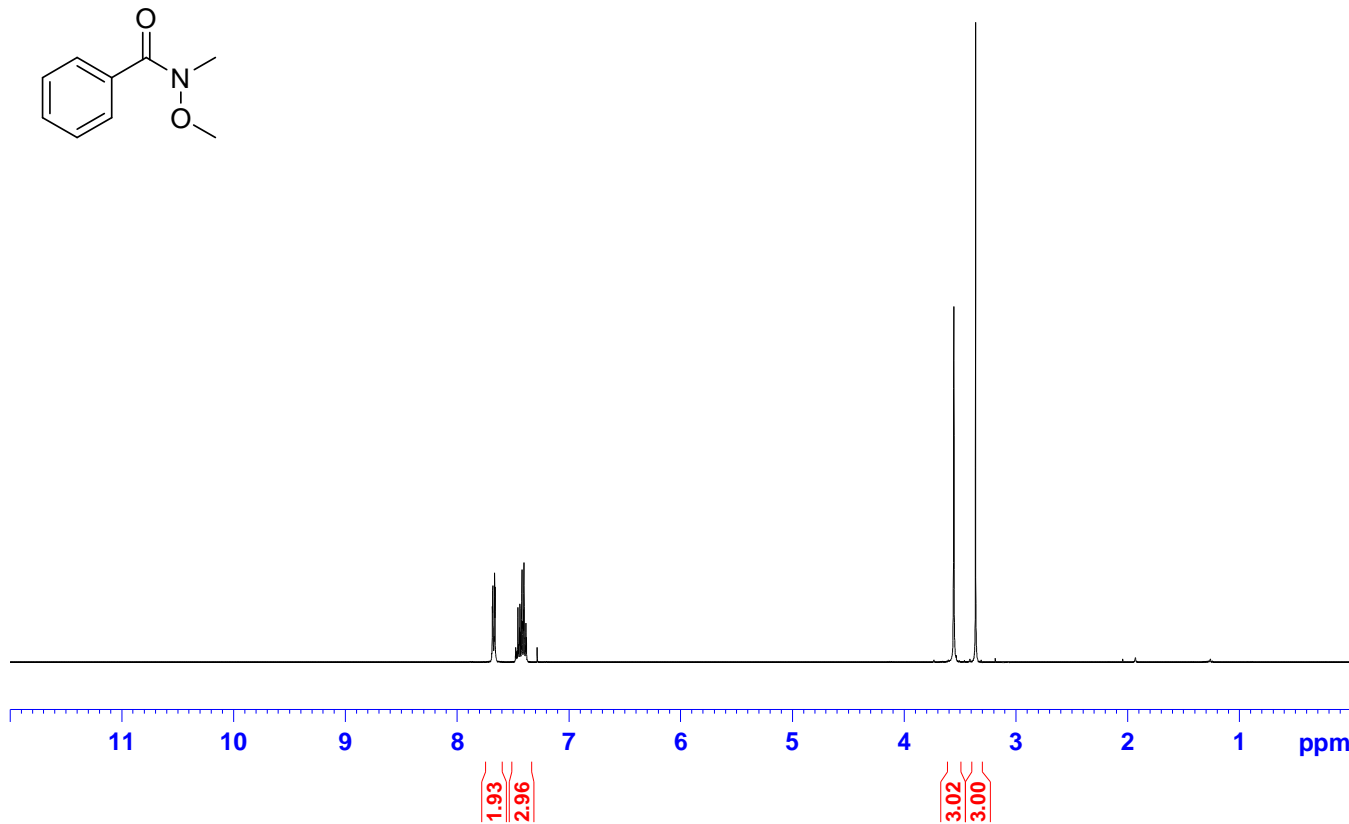
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -2.30 dB
PL12 16.21 dB
SFO2 500.1320005 MHz
SI 32768
SF 125.7577890 MHz
WDM ZM
SSB 0
LB 2.00 Hz
GB 0
PC 1.40
```

RS399



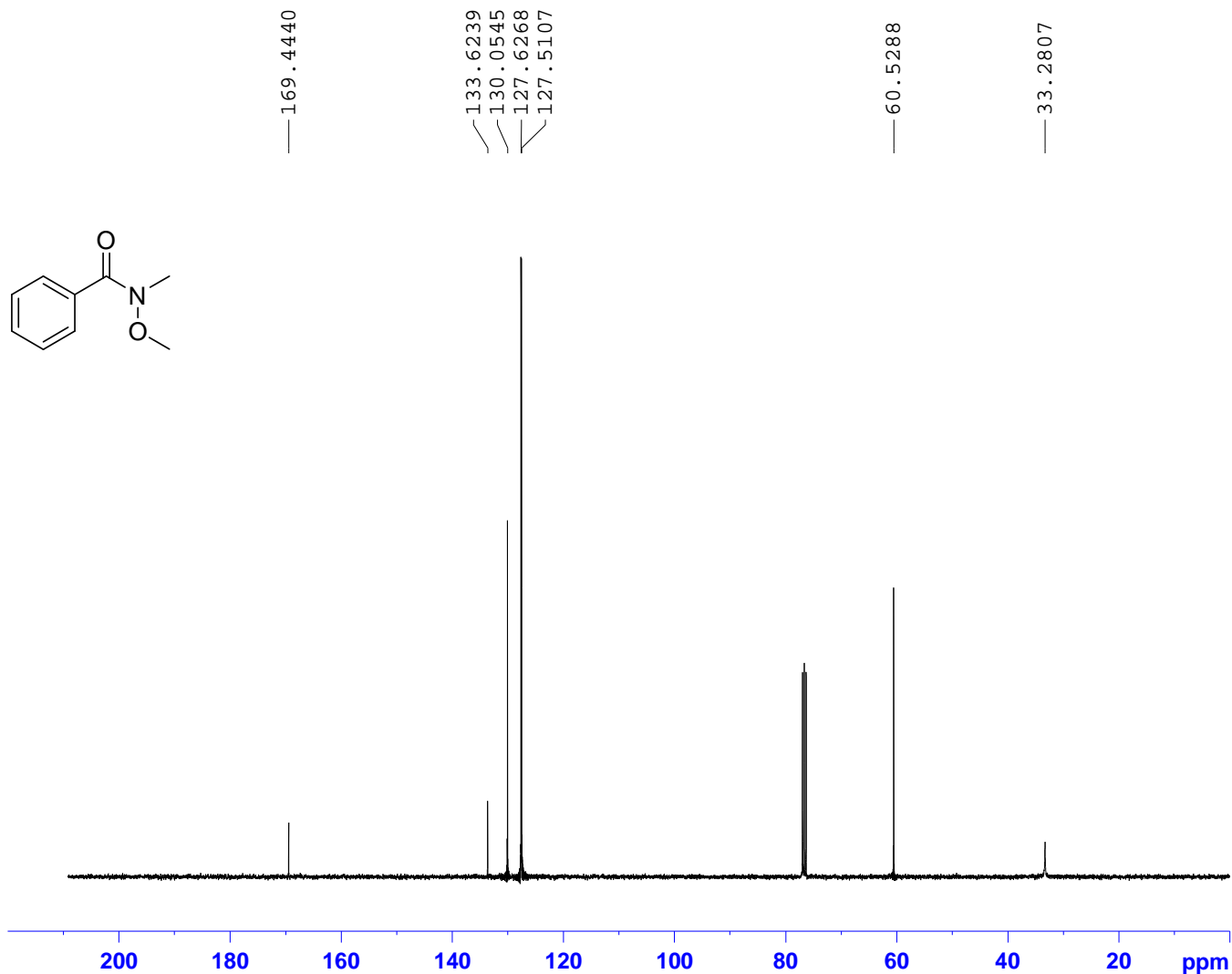
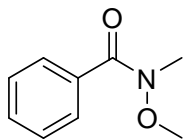
7.6858  
7.6825  
7.6656  
7.6616  
7.4755  
7.4571  
7.4507  
7.4432  
7.4394  
7.4353  
7.4268  
7.4230  
7.4213  
7.4178  
7.4070  
7.4030  
7.3981  
7.3897  
7.3855  
7.3813  
7.2842

3.5567  
3.3618



```
NAME D151462
EXPNO 1
PROCNO 1
Date_ 20111025
Time 16.25
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252539 Hz
AQ 1.9799412 sec
RG 80.6
DW 60.800 usec
DE 6.50 usec
TE 295.2 K
D1 2.00000000 sec
TD0 1
----- CHANNEL f1 -----
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PLLW 19.93825150 W
SF01 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```

RS399

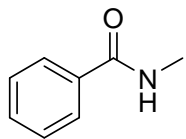


```
NAME D151462
EXPNO 2
PROCNO 1
Date_ 20111026
Time 1.07
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zgpg30
TD 6584
SOLVENT CDCl3
NS 1024
DS 4
SWH 22058.824 Hz
FIDRES 1.346364 Hz
AQ 0.3714207 sec
RG 2050
EW 22.667 usec
DE 6.50 usec
TE 294.8 K
D1 0.69999999 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 7.00 usec
PL1 -2.60 dB
PL1W 61.34123230 W
SFO1 100.6228298 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -4.00 dB
PL12 14.06 dB
PL13 120.00 dB
PL2W 19.93825150 W
PL12W 0.31166428 W
PL13W 0.00000000 W
SFO2 400.1316005 MHz
SI 32768
SF 100.6128193 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
```

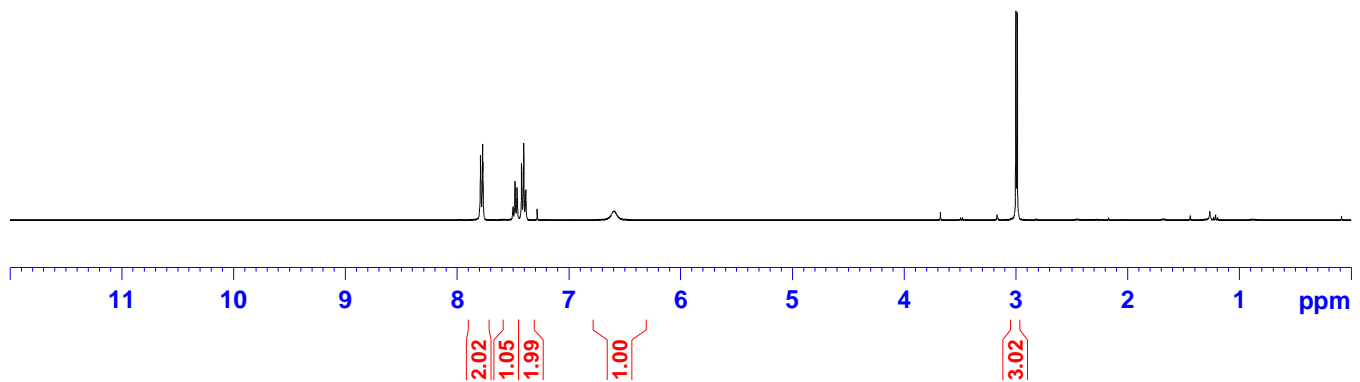
RS404



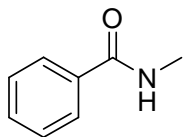
7.7911  
7.7735  
7.5041  
7.5012  
7.4981  
7.4886  
7.4828  
7.4777  
7.4677  
7.4645  
7.4615  
7.4240  
7.4048  
7.3870  
7.2845  
6.5966

3.0008  
2.9887

```
NAME          D151623
EXPNO         1
PROCNO        1
Date_         20111028
Time          10.06
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zg30
TD            32564
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.252539 Hz
AQ           1.9799412 sec
RG            114
DW           60.800 usec
DE           6.50 usec
TE           294.9 K
D1           2.00000000 sec
TD0          1
----- CHANNEL f1 -----
NUC1          1H
P1           9.40 usec
PL1          -4.00 dB
PLLW         19.93825150 W
SF01         400.1324710 MHz
SI           32768
SF           400.1300000 MHz
WDW           EM
SSB           0
LB           0.30 Hz
GB           0
PC           1.00
```



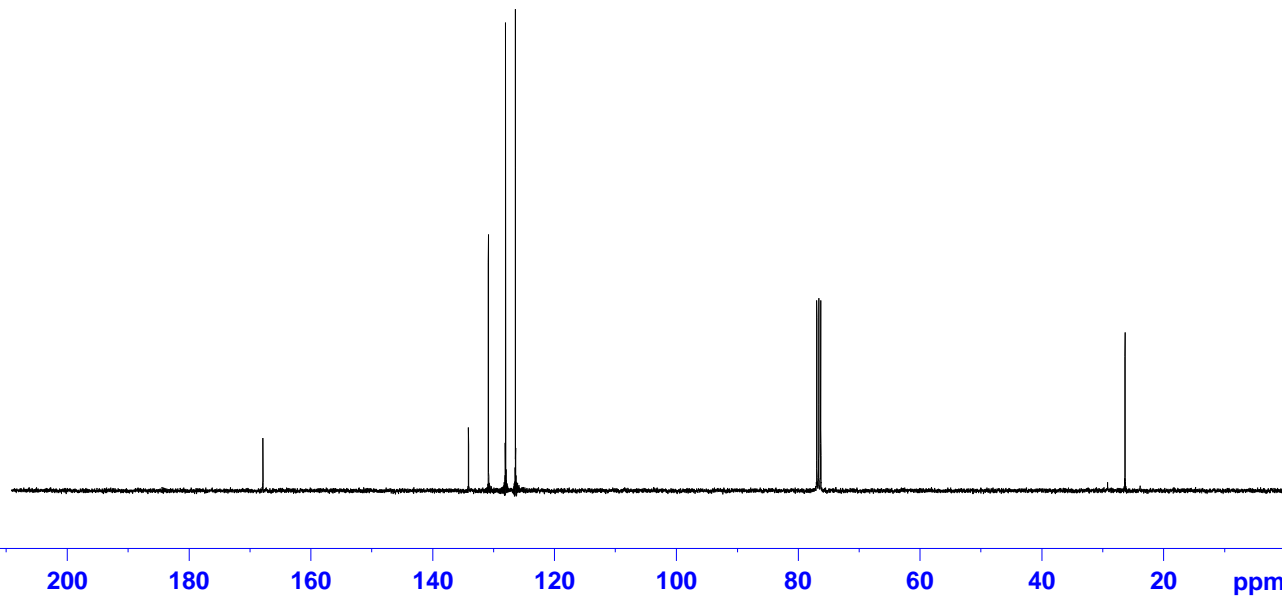
RS404



—167.8801

134.1044  
130.8199  
128.0057  
126.3874

—26.3353



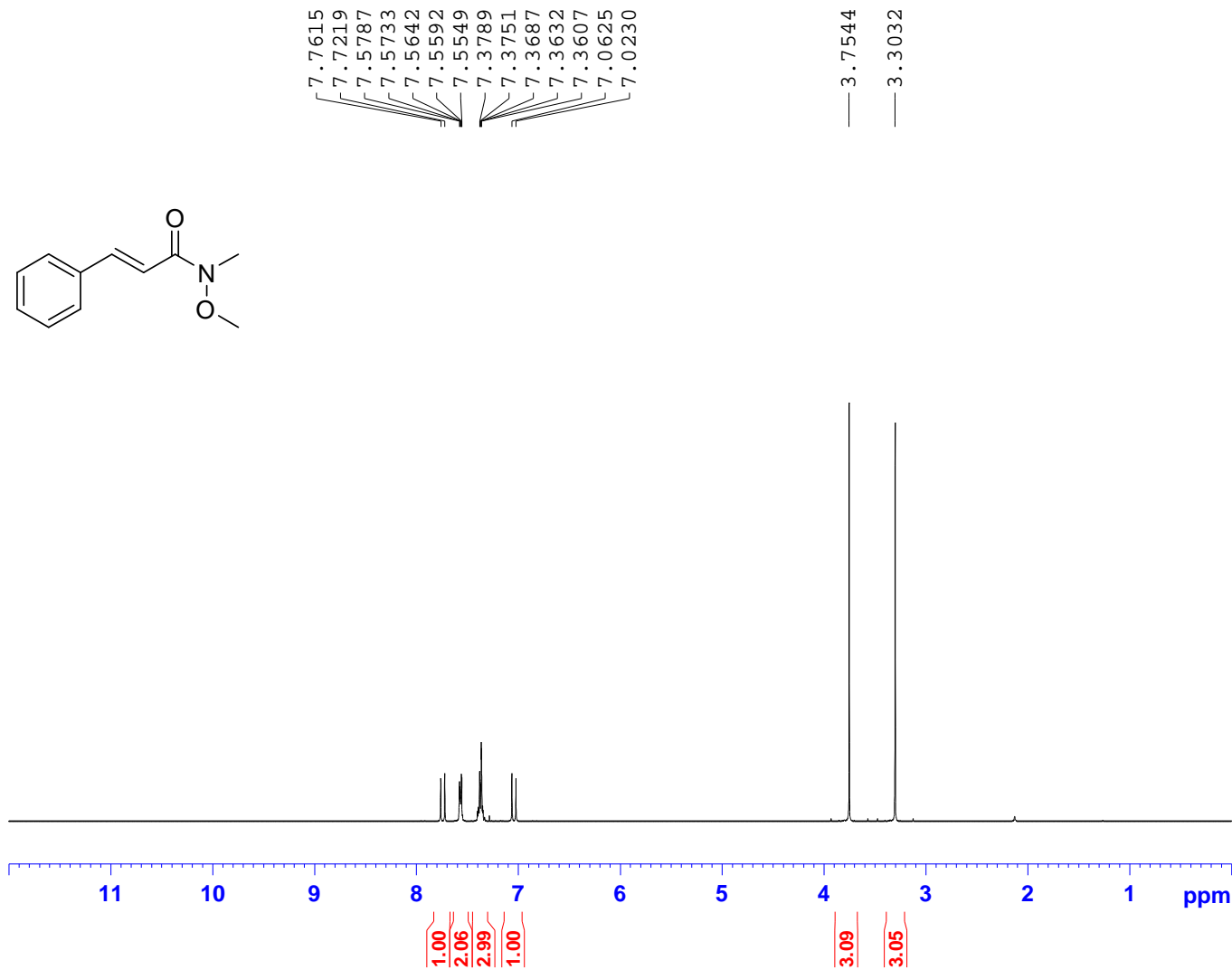
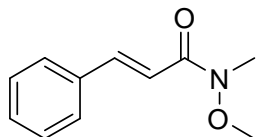
```
NAME          D151623
EXPNO         2
PROCNO        1
Date_         20111028
Time          10.54
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zgpg30
TD            16384
SOLVENT       CDCl3
NS            1024
DS            4
SWH           22058.824 Hz
FIDRES        1.346364 Hz
AQ            0.3714207 sec
RG            2050
DW            22.667 usec
DE            6.50 usec
TE            295.3 K
D1            0.69999999 sec
D11           0.03000000 sec
TDO           1

===== CHANNEL f1 =====
NUC1          13C
P1            7.00 usec
PL1           -2.60 dB
PL1W          61.34123230 W
SFO1          100.6228298 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -4.00 dB
PL12          14.06 dB
PL13          120.00 dB
PL1W          19.93825150 W
PL12W         0.11166428 W
PL13W         0.00000000 W
SFO2          400.1316005 MHz
SI            32768
SF            100.6128193 MHz
WDW           RM
SSB            0
LB            1.00 Hz
GB            0
PC            1.40
```



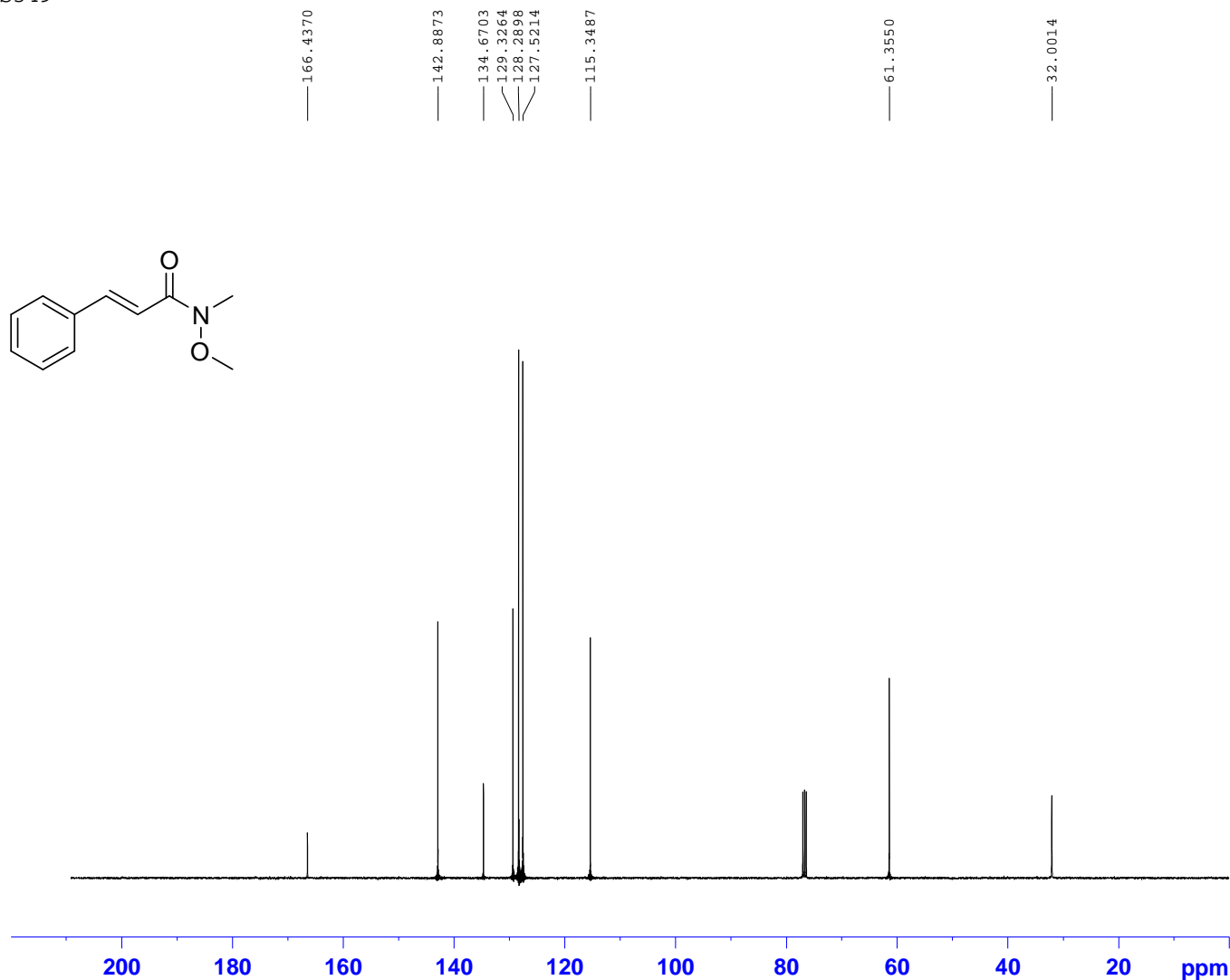
RS349



```
NAME          D150504
EXPNO         1
PROCNO        1
Date_         20110930
Time          18.50
INSTRUM       spect
PROBHD        5 mm QNP 1H/13
PULPROG       zg30
TD            32564
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.252539 Hz
AQ            1.9799412 sec
RG            50.8
DW            60.800 usec
DE            6.50 usec
TE            300.0 K
D1            2.00000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          1H
P1            9.40 usec
PL1           -4.00 dB
PL1W         19.93825150 W
SFO1         400.1324710 MHz
SI            32768
SF           400.1300000 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
```

RS349

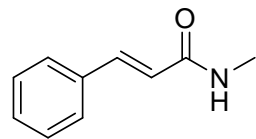
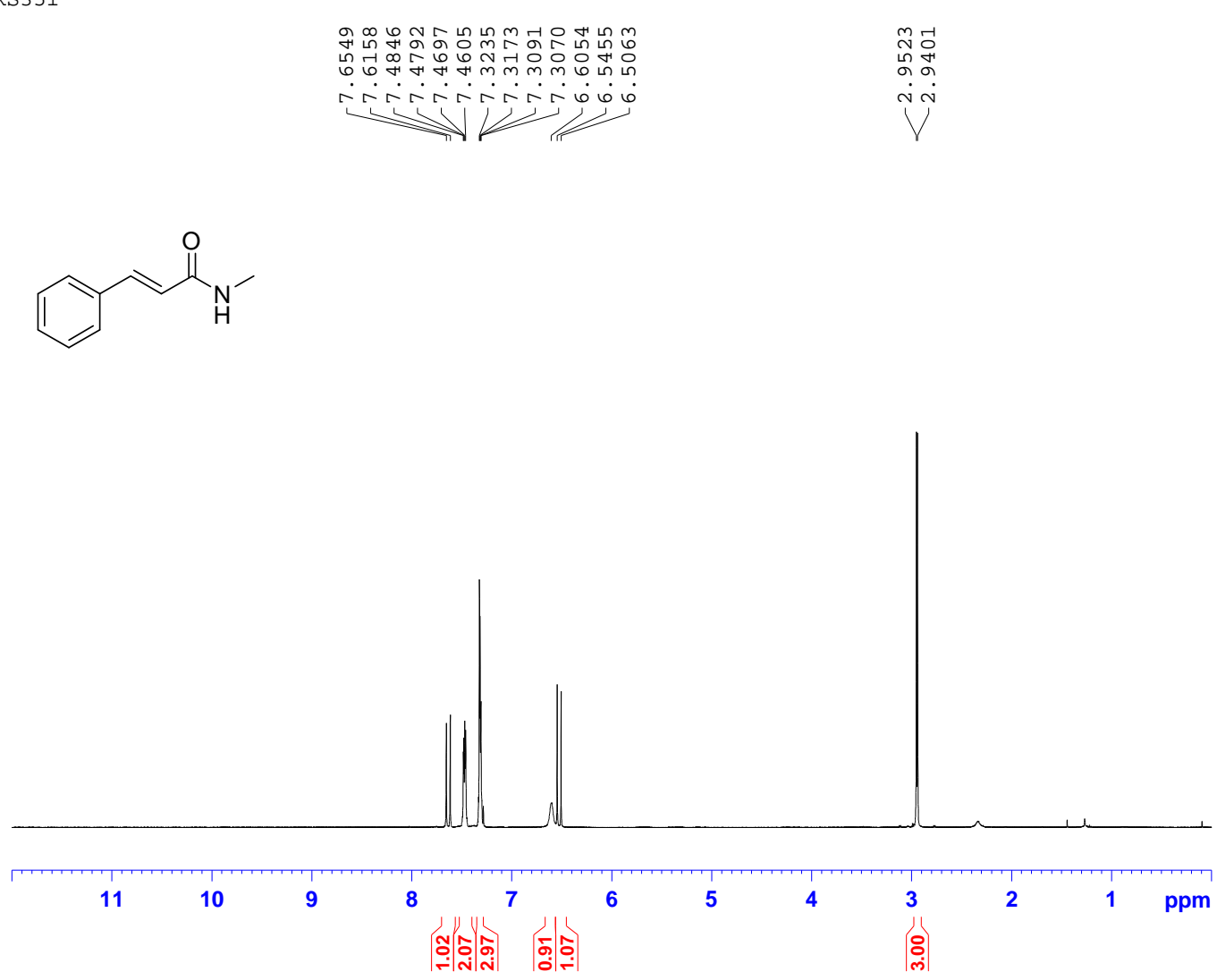


```
NAME D150504
EXPNO 2
PROCNO 1
Date_ 20110930
Time 21.59
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 1024
DS 4
SWH 22058.824 Hz
FIDRES 1.346364 Hz
AQ 0.3714207 sec
RG 2050
RW 23.667 usec
DE 6.50 usec
TE 300.0 K
D1 0.69999999 sec
D11 0.03000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 7.00 usec
PL1 -2.60 dB
PL12W 61.3412320 W
SFO1 100.6228298 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -4.00 dB
PL12 14.06 dB
PL13 120.00 dB
PL2W 19.93825150 W
PL12W 0.31146428 W
PL13W 0.00000000 W
SFO2 400.1318005 MHz
SI 12768
SF 100.6128193 MHz
WDW EM
SFB 0
LB 1.00 Hz
GB 0
PC 1.40
```

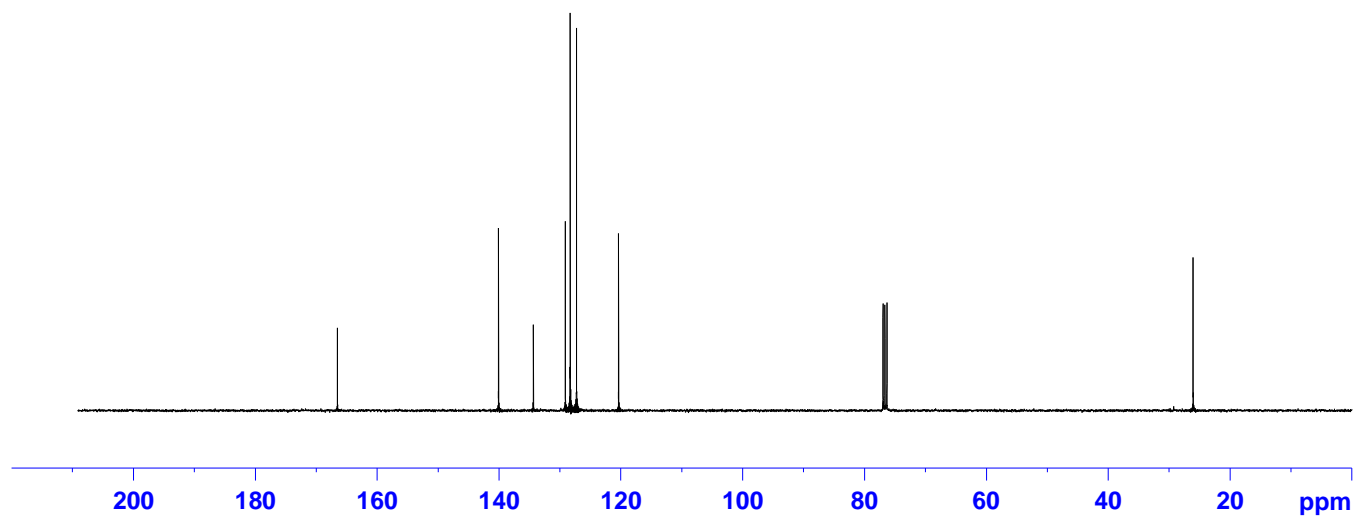
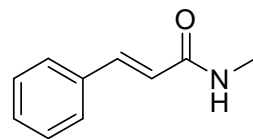
RS351



```
NAME D151795
EXPNO 1
PROCNO 1
Date_ 20111101
Time 10.38
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zg30
TD 32564
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.252539 Hz
AQ 1.9799412 sec
RG 71.8
DW 60.800 usec
DE 6.50 usec
TE 295.2 K
D1 2.0000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 1H
P1 9.40 usec
PL1 -4.00 dB
PLLW 19.93825150 W
SFO1 400.1324710 MHz
SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
```

RS351



```
NAME D151795
EXPNO 2
PROCNO 1
Date_ 20111101
Time 11.15
INSTRUM spect
PROBHD 5 mm QNP 1H/13
PULPROG zgpg30
TD 15384
SOLVENT CDCl3
NS 1024
DS 4
SWH 22058.824 Hz
FIDRES 1.346364 Hz
AQ 0.3714207 sec
RG 2050
DW 22.667 usec
DE 6.50 usec
TE 295.5 K
D1 0.6999999 sec
D11 0.0300000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 7.00 usec
PL1 -2.60 dB
PL1W 61.3412330 W
SFO1 100.628298 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -4.00 dB
PL12 14.06 dB
PL13 120.00 dB
PL1W 19.93825150 W
PL12W 0.33164428 W
PL13W 0.00000000 W
SFO2 400.1316005 MHz
SI 32768
SF 100.6128193 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40
```