

Electronic Supplementary Information

N-Heterocyclic Carbene-Catalyzed Cascade Annulation Reaction of *o*-Vinylarylaldehydes with Nitrosoarenes: One-Step Assembly of Functionalized 2,3-Benzoxazin-4-ones

*Zhong-Xin Sun and Ying Cheng**

College of Chemistry, Beijing Normal University, Beijing, 100875, China.

ycheng2@bnu.edu.cn

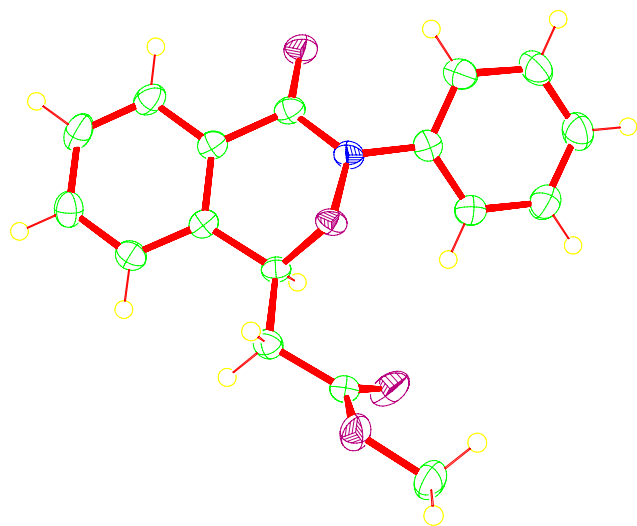
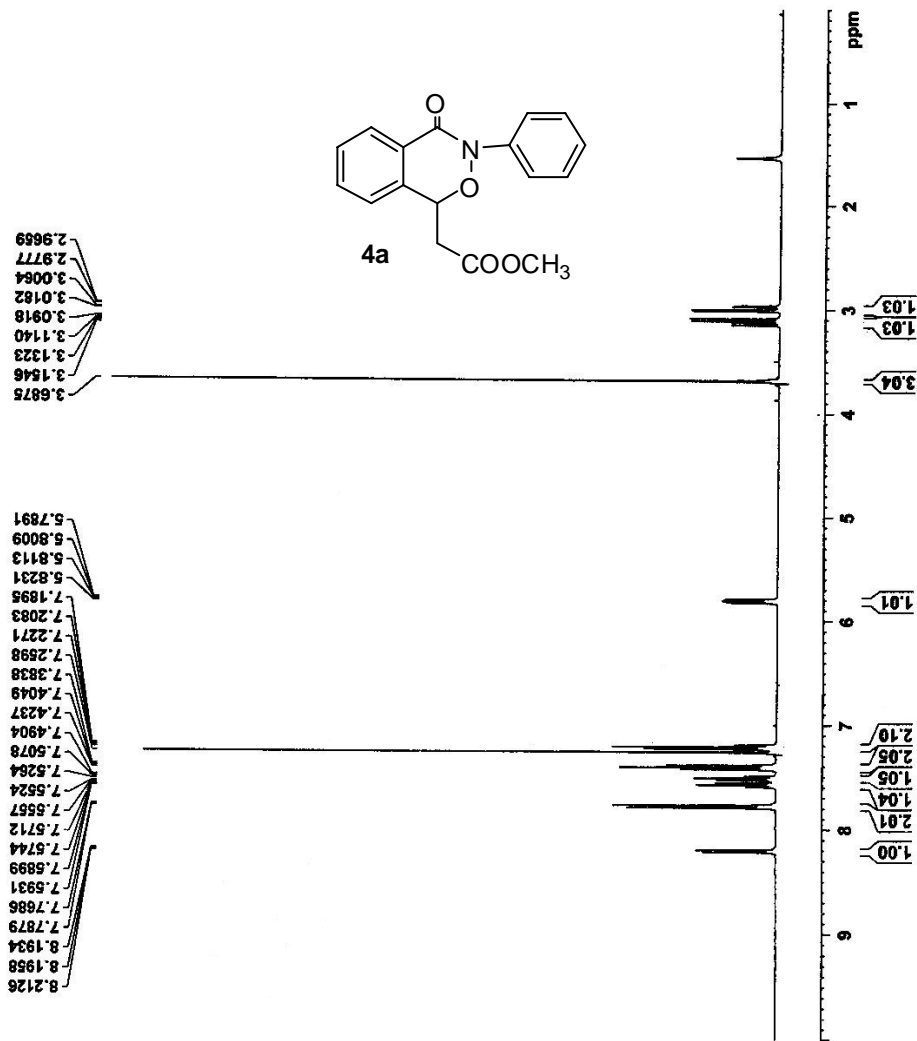


Figure S1. ORTEP drawing of X-ray structure of **4a**.



NAME SZX13-13
EXPNO 1
PROCNO 1
Date_ 20110318
Time_ 15.40
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 203
DW 60.800 usec
DE 6.50 usec
TE 296.7 K
DL 1.00000000 sec
TDO 1

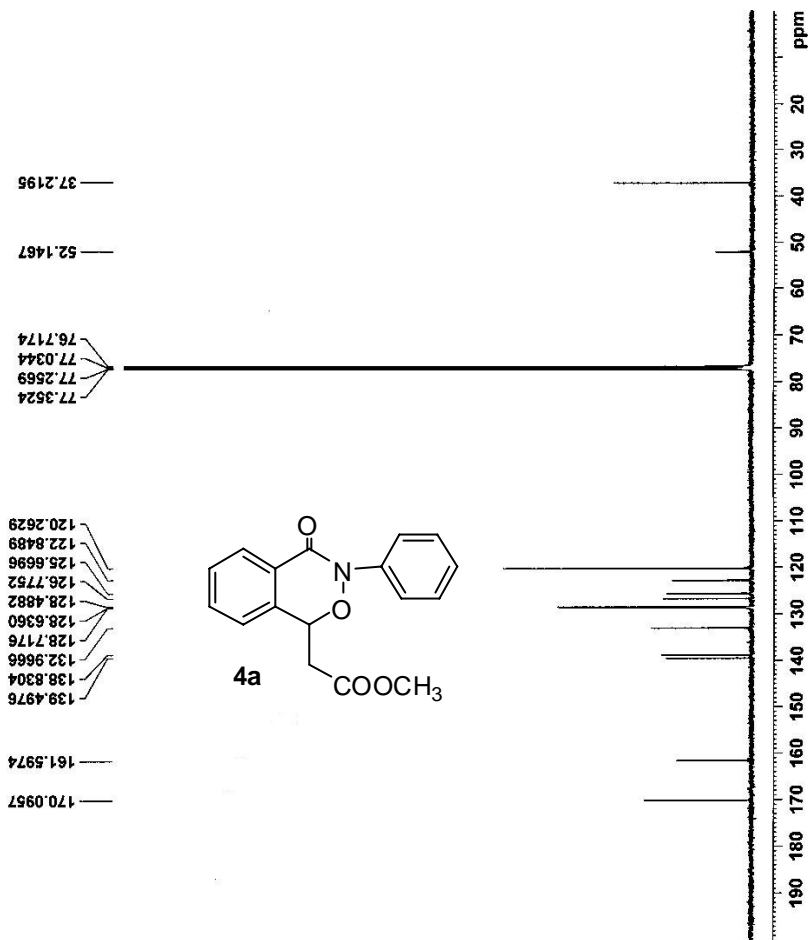
===== CHANNEL f1 =====
NUC1 1H
P1 14.20 usec
PL1 -1.00 dB
FLLW 13.18669796 W
SFO1 400.1724712 MHz
SI 32768
SF 400.1700034 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00





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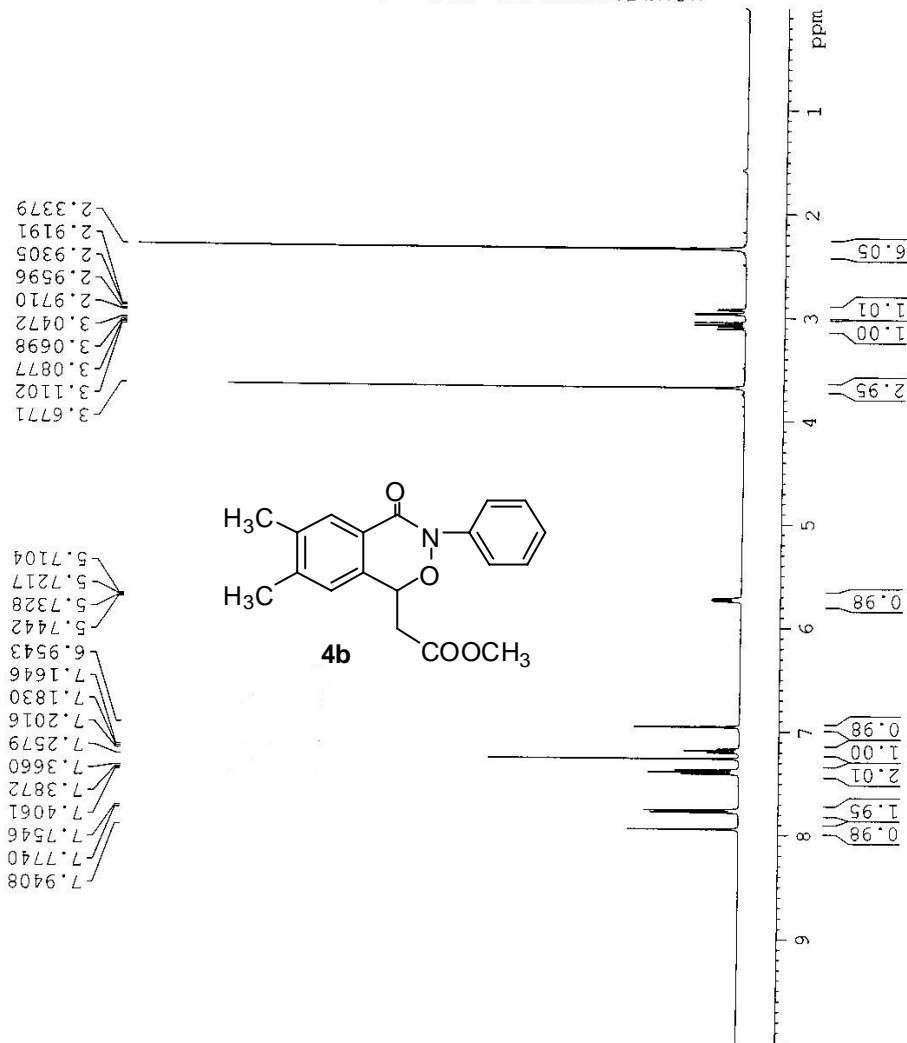
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EXPNO         1
PROCNO        1
Date_         20110319
Time          17.32
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            1097
DS            4
SWH           24038.463 Hz
FIDRES        0.365798 Hz
AQ            1.3631988 sec
RG            203
DW            20.800 usec
DE            6.50 usec
TE            297.7 K
D1            2.0000000 sec
D11           0.0300000 sec
TD0           1
===== CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1          -2.00 dB
PL1W         57.32743073 W
SFO1         100.6282888 MHz
===== CHANNEL f2 =====
CFDPRG2       waitz16
NUC2          1H
PCPD2         80.00 usec
ELZ          1.00 dB
PL2          14.02 dB
PL3          14.02 dB
PL12W        13.186669706 W
PL12M        0.41508400 W
PL13W        0.37509048 W
SFO2         400.1716007 MHz
SI            32768
SF           100.62828256 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
    
```





NAME SZX13-47
EXPNO 1
PROCNO 1
Date_ 20110608
Time 16.46
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
ID 68536
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 203
DW 60.800 usec
DE 6.50 usec
TE 298.1 K
D1 1.00000000 sec
TDO 1

==== CHANNEL f1 =====
Nuc1 1H
P1 14.20 usec
PL1 -1.00 dB
PL1W 13.18669796 W
SF01 400.1724712 MHz
SI 32768
SF 400.1700042 MHz
EM 0
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00





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NAME          SZX13-47-C13
EXPNO         1
PROCNO        1
Date_         20110609
Time_         21.52
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            1070
DS            4
SWH           24038.461 Hz
FIDRES       0.366798 Hz
AQ           1.3631988 sec
RG           203
DW           20.800 usec
DE           6.50 usec
TE           300.0 K
D1           2.0000000 sec
D11          0.0300000 sec
TD0          1

===== CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1          -2.00 dB
FLLW         57.32743073 W
SFO1         100.628886 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2          -1.00 dB
FLL2         14.02 dB
PL13         14.46 dB
PL2W         13.18669796 W
PL12W        0.41508400 W
PL13W        0.37509048 W
SFO2         400.1716007 MHz
SI           32768
SF           100.62828246 MHz
WDW           EM
SSB           0
LB           1.00 Hz
GB           0
PC           1.40
    
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20.25

37.36

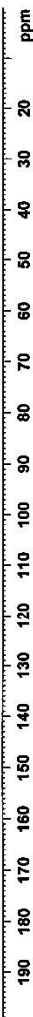
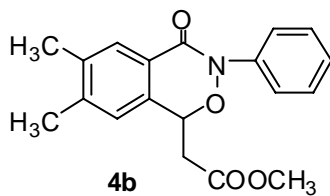
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77.18
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124.26
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129.25
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137.37
139.74
142.57

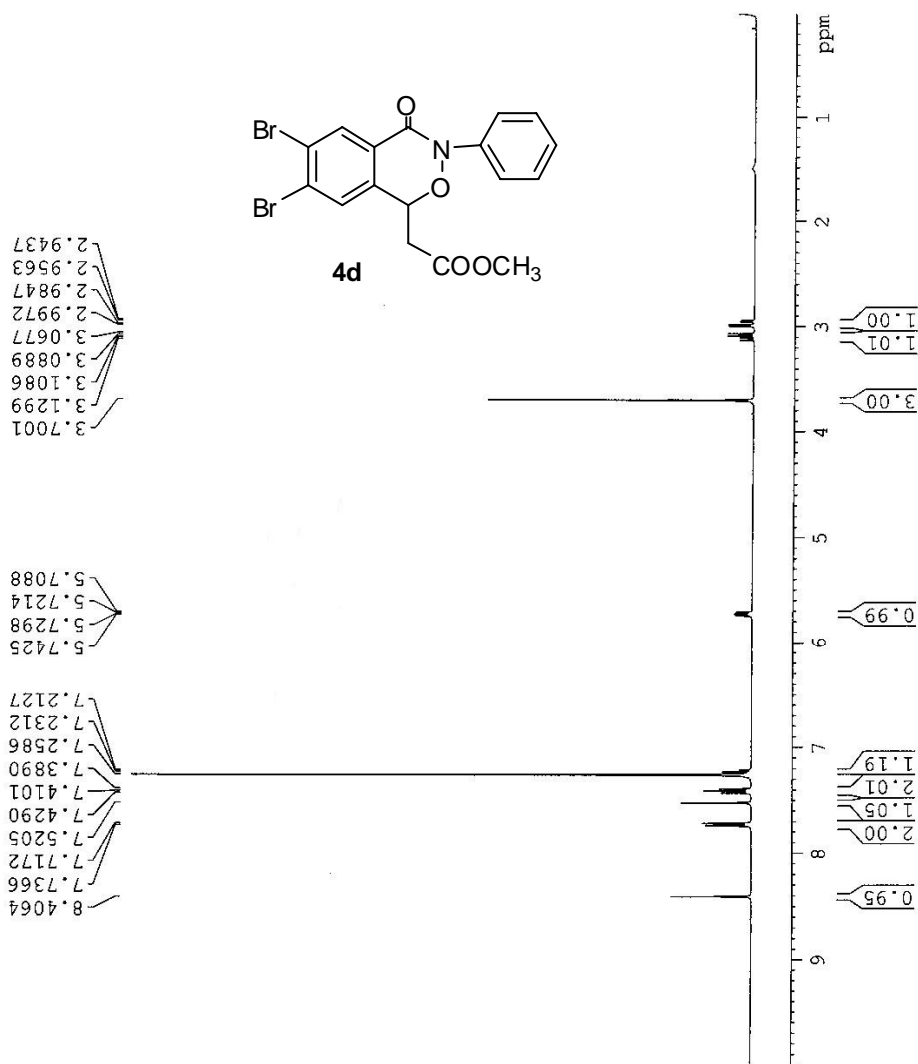
162.01

170.24





NAME SZX13-55
EXPNO 1
PROCNO 1
Date_ 20110418
Time 15.11
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 203
DW 60.800 usec
DE 6.50 usec
TE 299.6 K
D1 1.0000000 sec
TDO 1
===== CHANNEL f1 =====
NUC1 1H
P1 14.20 usec
PL1 -1.00 dB
PL1W 13.18669796 W
SF01 400.1724712 MHz
SI 32768
SF 400.1700039 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

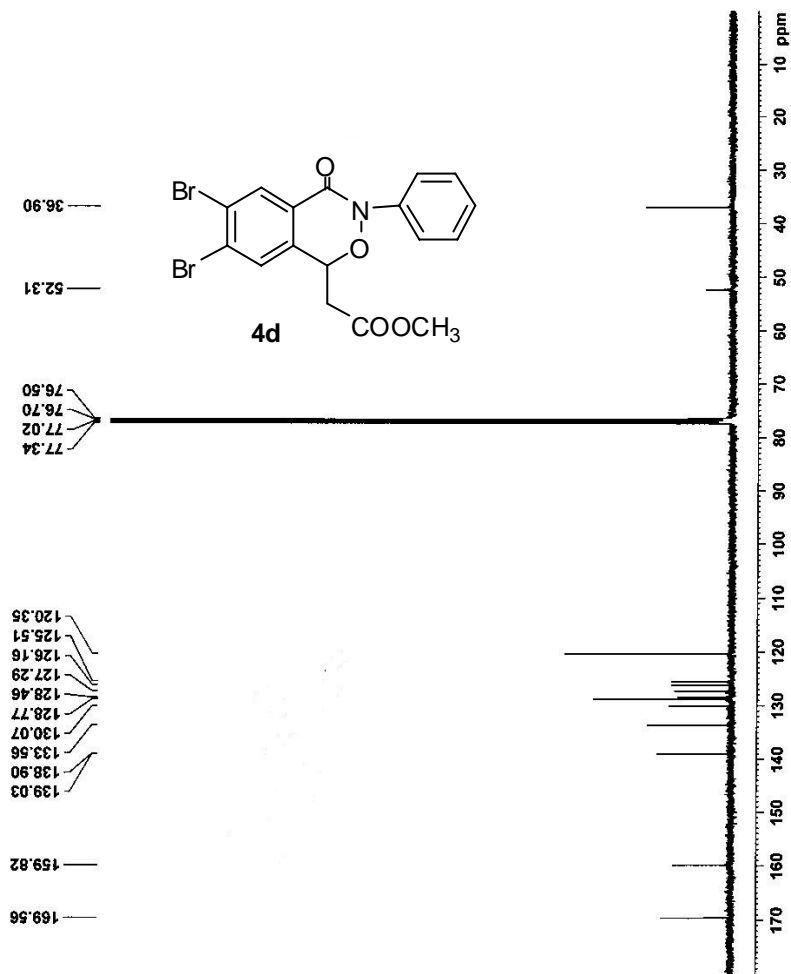




NAME szx13-55-C13
EXPNO 1
PROCNO 1
Date_ 20110418
Time_ 21.16
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TO 63536
SOLVENT CDCl3
NS 622
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 203
DW 20.800 usec
DE 6.50 usec
TE 300.1 K
D1 2.0000000 sec
D11 0.0300000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 13C
P1 8.70 usec
PL1 -2.00 dB
PL1W 57.32743073 W
SFO1 100.6228888 MHz

===== CHANNEL f2 =====
CEDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -1.00 dB
PL12 14.02 dB
PL13 14.46 dB
PL2W 13.18669796 W
PL12W 0.41508400 W
PL13W 0.37509048 W
SFO2 400.1716007 MHz
SI 32768
SF 100.6228246 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

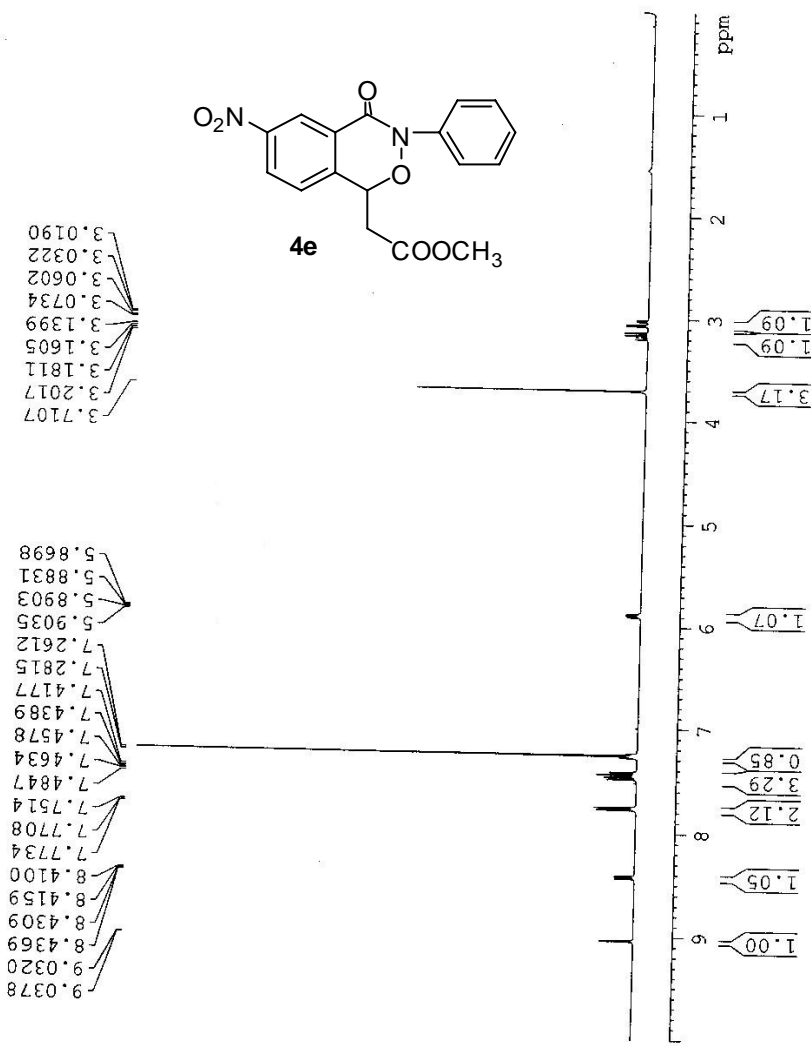




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NAME          SZX13-43a
EXPNO         1
PROCNO        1
Date_         20110411
Time_         9.28
INSTRUM       spect
PROBHD        5 mm PAEBQ BB-
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.125483 Hz
AQ            3.9846387 sec
RG            203
DW            60.800 usec
DE            6.50 usec
TE            295.1 K
D1            1.00000000 sec
TDO           1

===== CHANNEL f1 =====
NUC1          1H
P1            14.20 usec
PL1          -1.00 dB
PL12         13.18669796 W
SF01         400.1724712 MHz
SI           32768
SF           400.1700029 MHz
WDW          EM
SSB          0
LB           0.30 Hz
GB           0
PC           1.00
    
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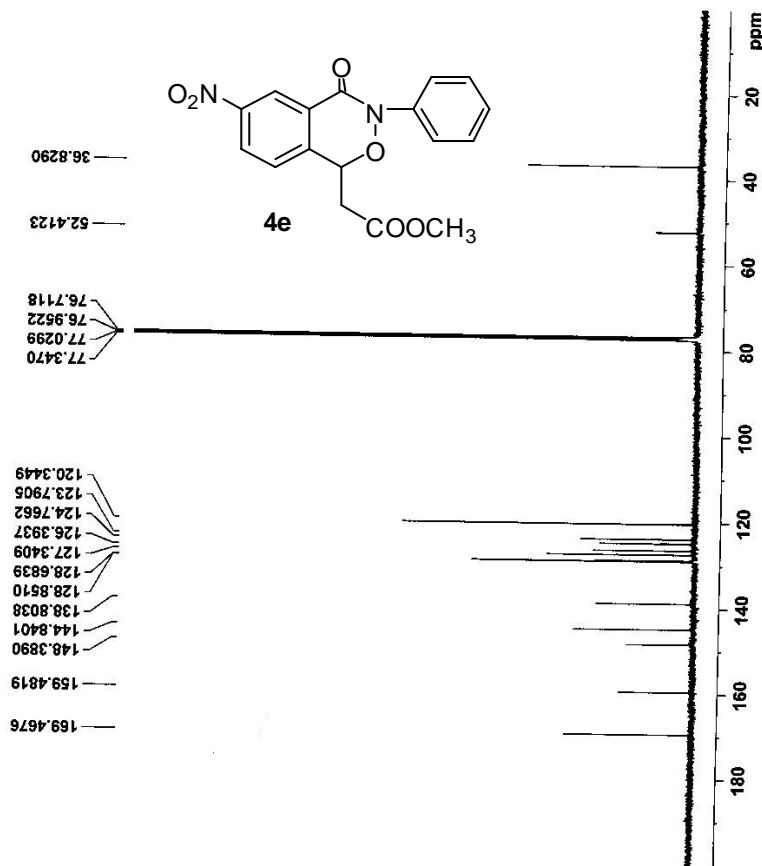


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NAME          SZX13-43a-C13
EXPNO         1
PROCNO        1
Date_         20110412
Time          1.57
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            1600
DS            4
SWH           24038.461 Hz
FIDRES        0.366798 Hz
AQ            1.3631986 sec
RG            203
DW            20.800 usec
DE            6.50 usec
TE            297.5 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1           -2.00 dB
PL1W         57.32743073 W
SFO1         100.6328888 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -1.00 dB
PL12         14.02 dB
PL13         14.86 dB
PL14         14.86 dB
PL12W        13.18669796 W
PL12W        0.41508400 W
PL13W        0.37509008 W
SFO2         400.1760007 MHz
SI            32768
SF            100.6228258 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
    
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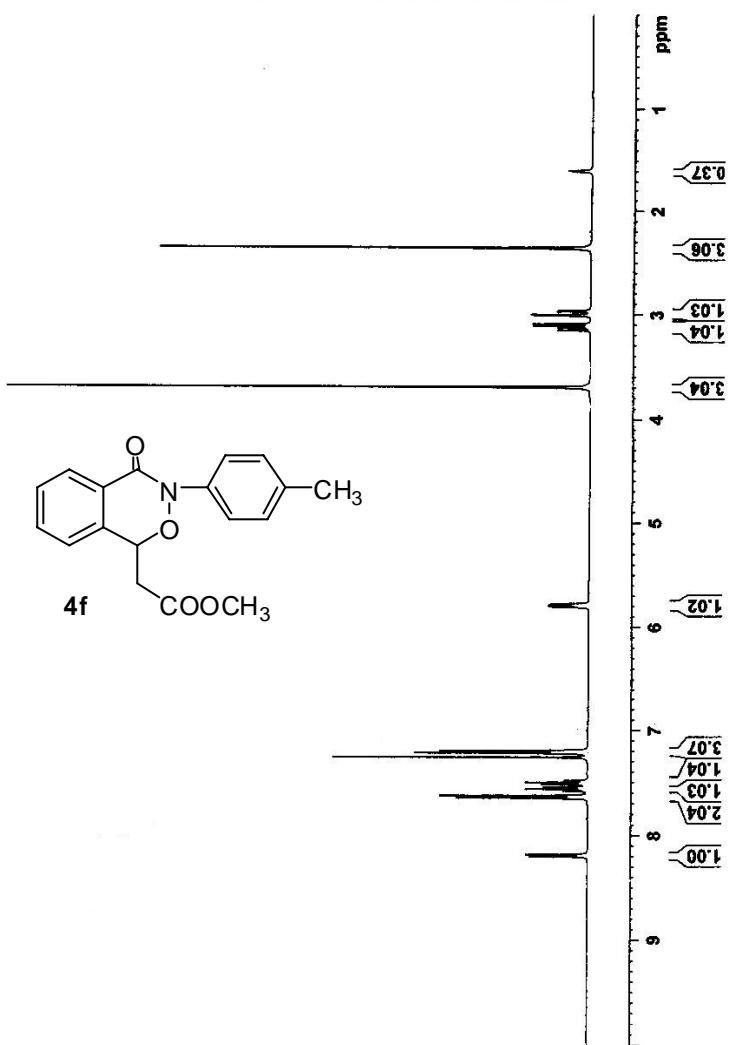




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SZX12-19-2B
NAME EXPNO 1
PROCNO 1
Date_ 20110221
Time_ 9.46
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 203
DW 60.800 usec
DE 6.50 usec
TE 292.3 K
D1 1.00000000 sec
TD0 1
===== CHANNEL f1 =====
NUC1 1H
P1 14.20 usec
PL1 -1.00 dB
PL12 13.19665796 W
SFO1 400.1724712 MHz
SI 32768
SF 400.1700027 MHz
WDW EM
SSB 0
LB 0
GB 0
PC 1.00
    
```

1.5969
 2.3583
 2.9616
 2.9734
 3.0022
 3.0140
 3.0934
 3.1156
 3.1340
 3.1582
 3.6964
 5.7731
 5.7849
 5.7951
 5.8069
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 7.4808
 7.4995
 7.5183
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 8.1996



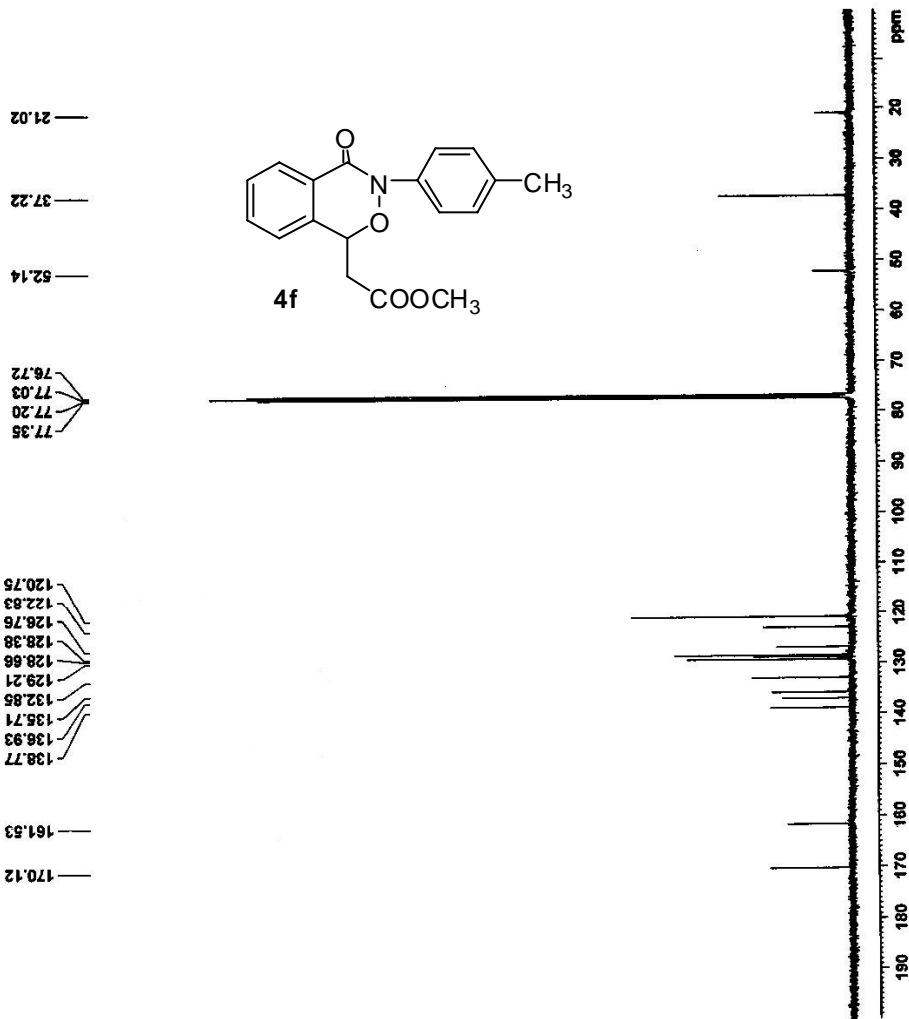


```

NAME          szx12-19-2b-cl3
EXPNO        1
PROCNO       1
Date_        20110303
Time_        21.29
INSTRUM      spect
PROBHD       5 mm PABBO BB
PULPROG      zgpg30
TD           65536
SOLVENT      CDCl3
NS           278
DS           4
SWH          24038.461 Hz
FIDRES       0.366798 Hz
AQ           1.3631988 sec
RG           203
DW           20.800 usec
DE           6.50 usec
TE           294.7 K
D1           2.0000000 sec
D11          0.0300000 sec
TDO          1

===== CHANNEL f1 =====
NUC1         13C
P1           8.70 usec
PL1          -2.00 dB
PL12         57.32743073 W
SF01         100.6328888 MHz

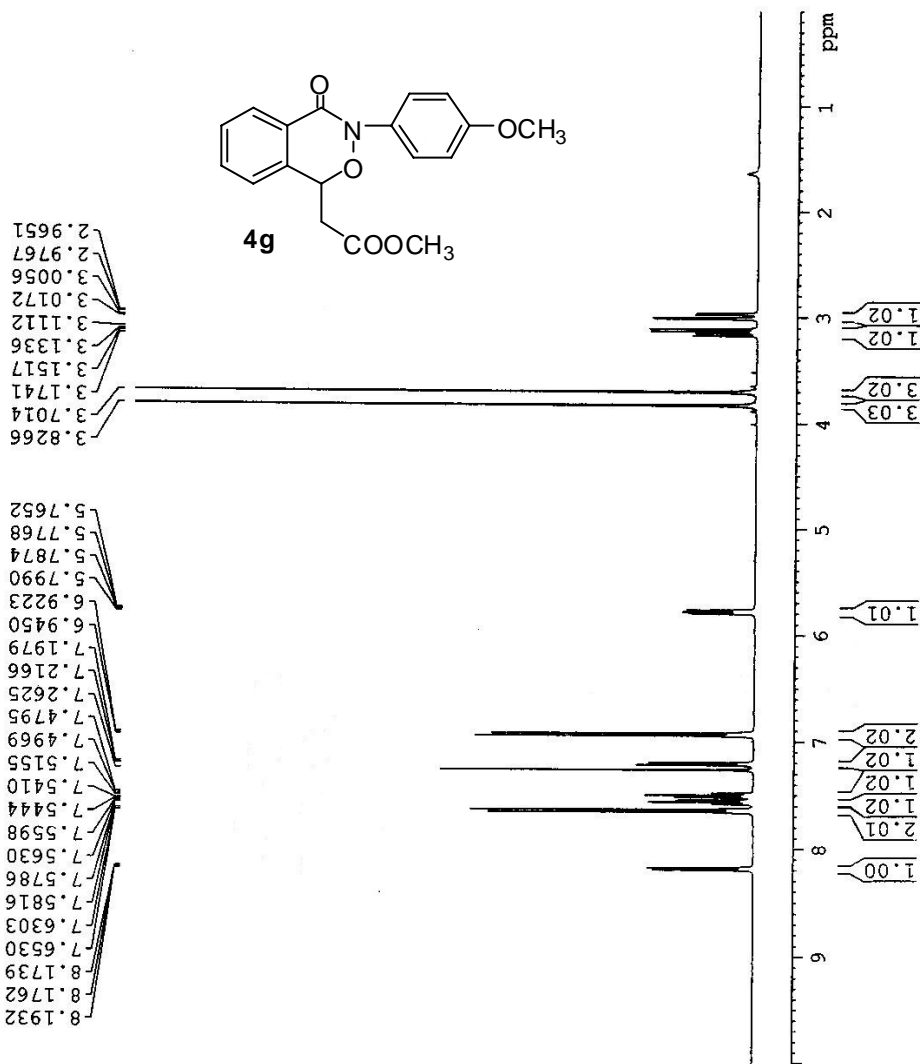
===== CHANNEL f2 =====
CPDPRG2      waltz16
NUC2         1H
PCPD2        80.00 usec
PL2          -1.00 dB
PL12         14.02 dB
PL13         14.46 dB
PL14         13.186669796 W
PL12W        0.41508400 W
PL13W        0.37509048 W
SF02         400.1716007 MHz
SI           32768
SF           100.6228276 MHz
WDW          EM
SSB          0
LB           1.00 Hz
GB           0
PC           1.40
    
```





NAME SXX12-76
EXPNO 1
PROCNO 1
Date_ 20110308
Time_ 9.46
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 203
DW 60.800 usec
DE 6.50 usec
TE 293.4 K
D1 1.00000000 sec
TDO 1

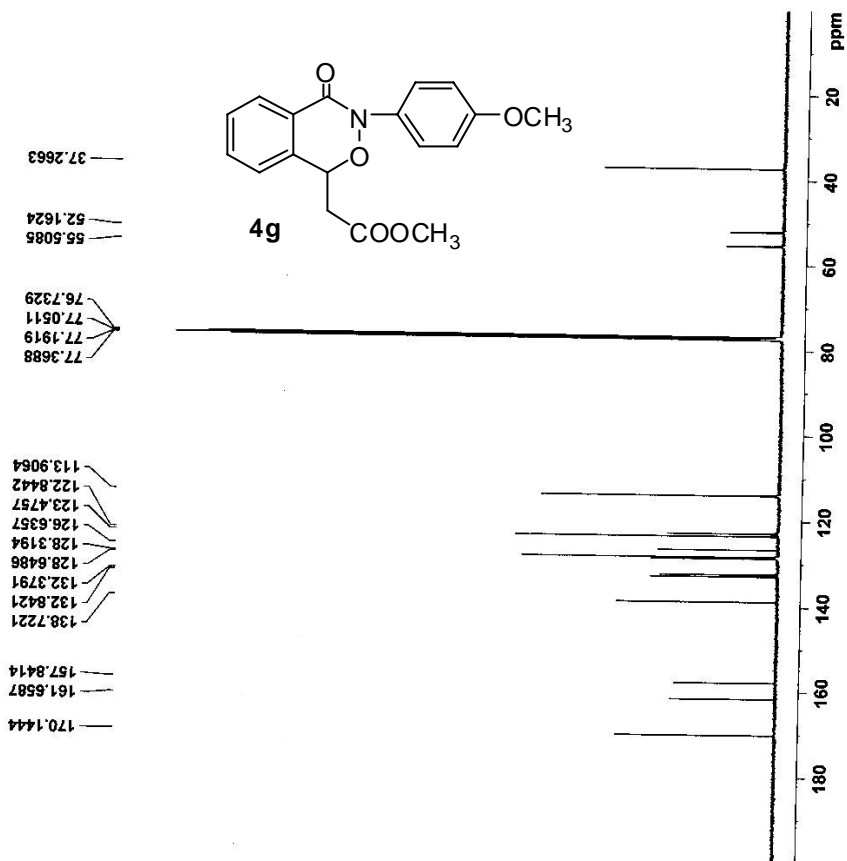
==== CHANNEL f1 =====
NUC1 1H
P1 14.20 usec
PL1 -1.00 dB
PL1W 13.18669796 W
SFOL 400.1724712 MHz
SI 32768
SF 400.1700023 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00





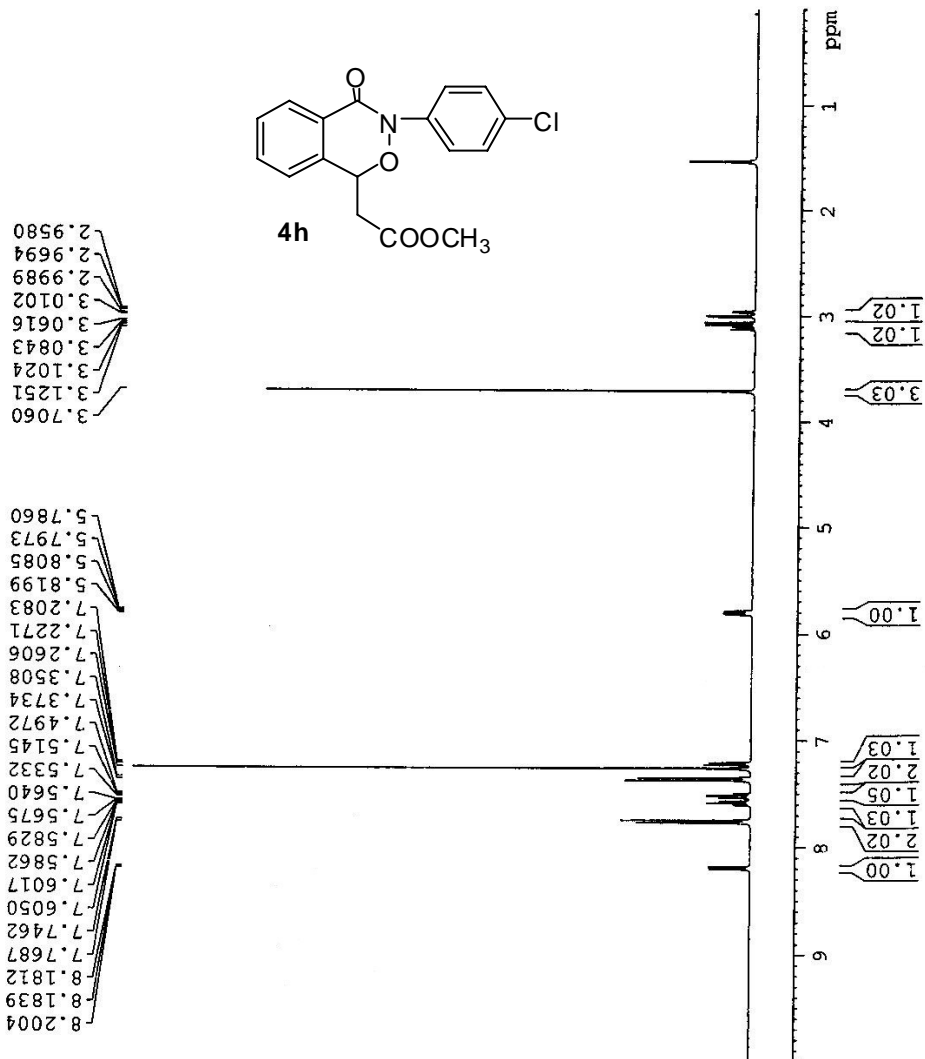
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NAME          SFX12-76-C13
EXPNO         1
PROCNO        1
Date_         20110310
Time          5.13
INSTRUM       spect
PROBHD        5 mm PABBO BE
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            2000
DS            4
SWH           24038.461 Hz
FIDRES        0.366798 Hz
AQ            1.3631988 sec
RG            203
DW            20.800 usec
DE            6.50 usec
TE            295.4 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0           1
===== CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1           -2.00 dB
PL1W         57.32743073 W
SF01         100.6328888 MHz
===== CHANNEL f2 =====
CPDPRG2      waltz16
NUC2          1H
PCPD2        80.00 usec
PL2           -1.00 dB
PL12         14.02 dB
PL13         14.46 dB
PL2W         13.18669796 W
PL12W        0.41508400 W
PL13W        0.37509048 W
SF02         400.1716007 MHz
SI            32768
SF           100.6228274 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
    
```





```
NAME          SZX13-21
EXPNO         1
PROCNO        1
Date_         20110321
Time          14.52
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.125483 Hz
AQ            3.9846387 sec
RG            203
DM            60.800 usec
DE            6.50 usec
TE            296.3 K
D1            1.0000000 sec
TD0           1
===== CHANNEL f1 =====
NUC1          1H
P1            14.20 usec
PL1           -1.00 dB
P2            13.18669796 W
SFO1          400.1724712 MHz
SI            32768
SF            400.1700032 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
```



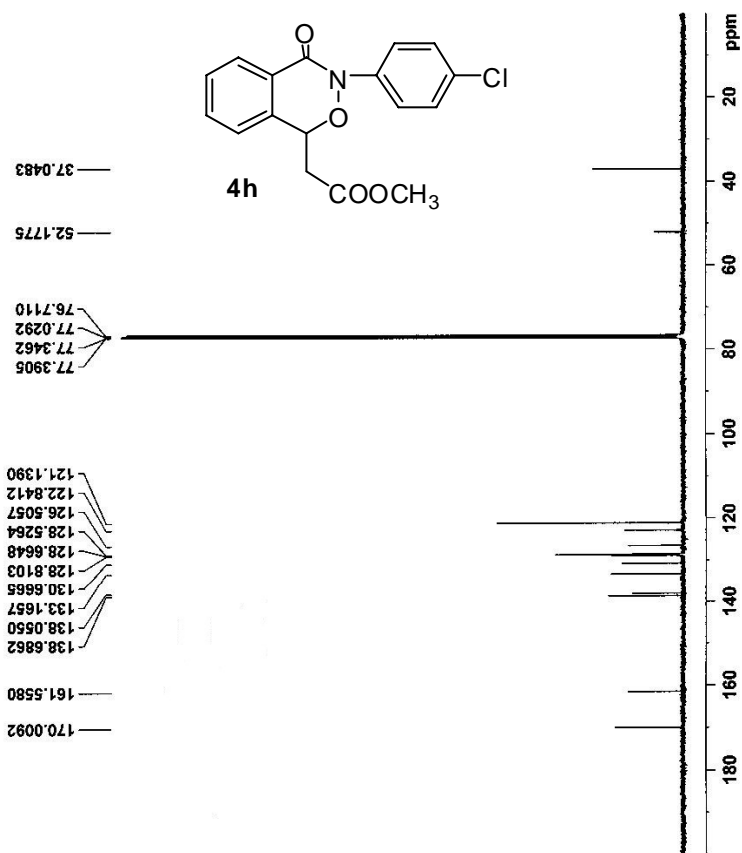


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NAME          S2X13-21-C13
EXPNO        1
PROCNO       1
PROCNO2      1
Time         20110322
Date_       8.34
INSTRUM      spect
PROBHD       5 mm PABBO BB-
PULPROG      zgpg30
TD           65536
SOLVENT      CDCl3
NS           582
DS           4
SWH          24038.461 Hz
FIDRES       0.366798 Hz
AQ           1.363198 sec
RG           327.5
DM           20.800 uSsec
DE           6.50 uSsec
TE           295.1 K
D1           2.0000000 sec
D11          0.03000000 sec
TD0          1

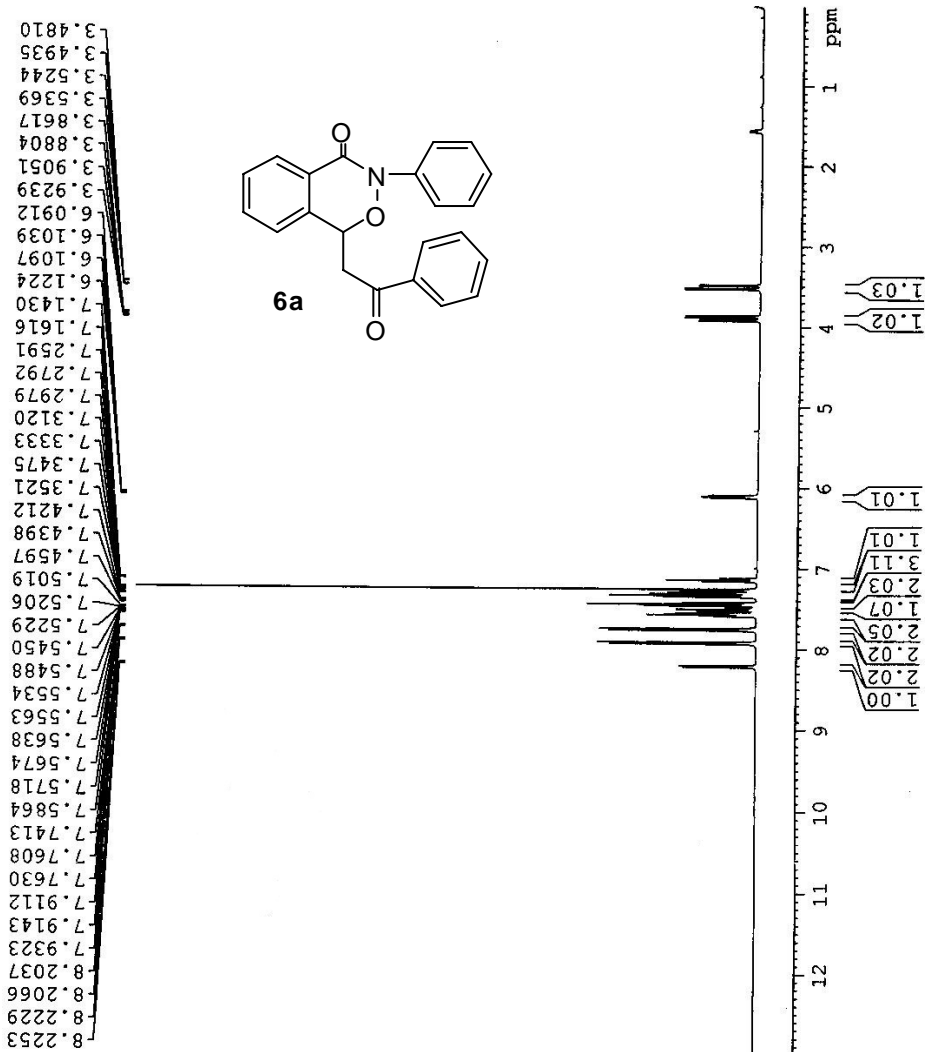
===== CHANNEL f1 =====
NUC1         13C
P1           8.70 uSsec
PL1         0.00 dB
PL12        57.32743073 dB
SFO1         100.628888 MHz

===== CHANNEL f2 =====
NAME         waltz16
NUC2         13C
PCPG2       80.00 uSsec
PL2         -1.00 dB
PL12        14.02 dB
PL13        14.46 dB
PL14        13.18668756 W
PL15        0.37500000 W
PL16        0.37500000 W
SFO2         400.1716037 MHz
SI          32768
SF          100.62282456 MHz
WDW         EM
SSB         0
LSSB        1.00 Hz
GB          0
PC          1.40
    
```





NAME SZX12-73
 EXPNO 1
 PROCNO 1
 Date_ 20110302
 Time_ 16.08
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65836
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125485 Hz
 AQ 3.9846387 sec
 RG 203
 DW 60.800 usec
 DE 6.50 usec
 TE 294.7 K
 D1 1.00000000 sec
 TD0 1
 ===== CHANNEL f1 =====
 NUC1 1H
 P1 14.20 usec
 PL1 -1.00 dB
 FLLW 13.18669796 W
 SFOL 400.1724712 MHz
 SI 32768
 SF 400.1700037 MHz
 EM 0
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



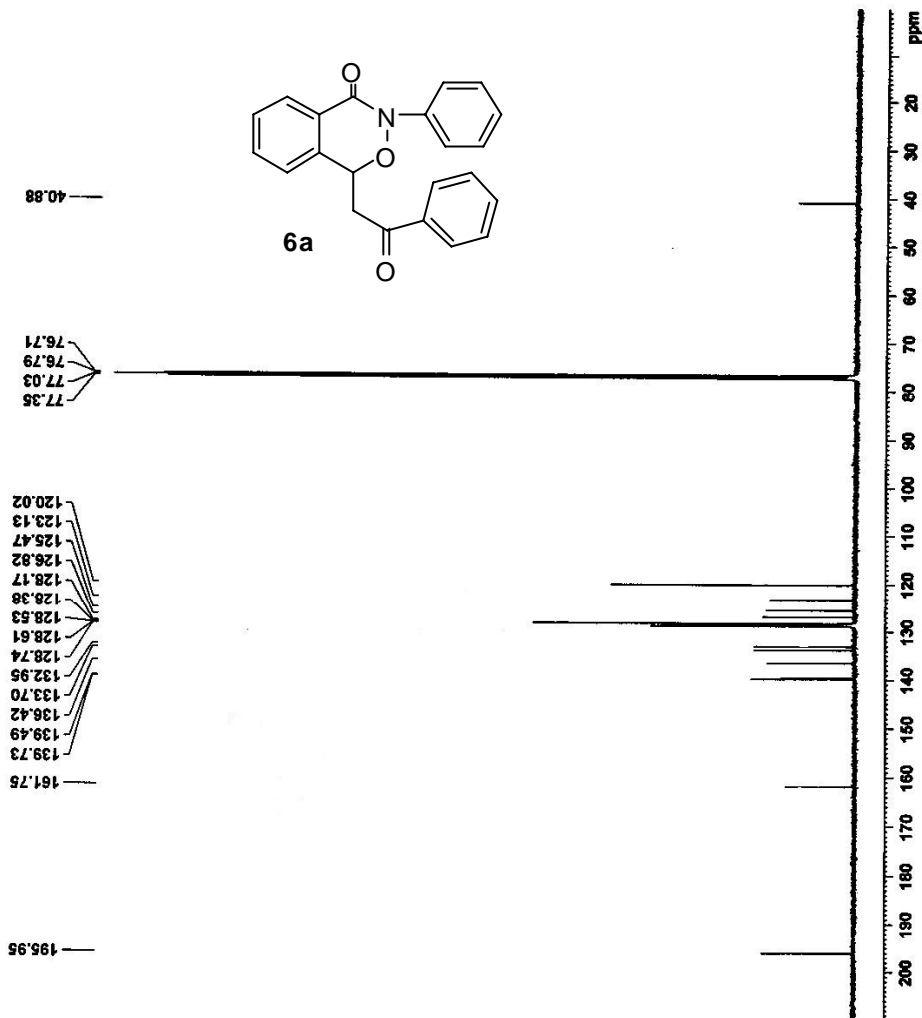


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NAME          szx12-73-cl3
EXPNO         1
PROCNO        1
Date_         20110303
Time_         21.12
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            936
DS            4
SWH           24038.461 Hz
FIDRES        0.366798 Hz
AQ            1.3631988 sec
RG            203
DW            20.800 usec
DE            6.50 usec
TE            295.2 K
D1            2.0000000 sec
D11           0.03000000 sec
TD0           1

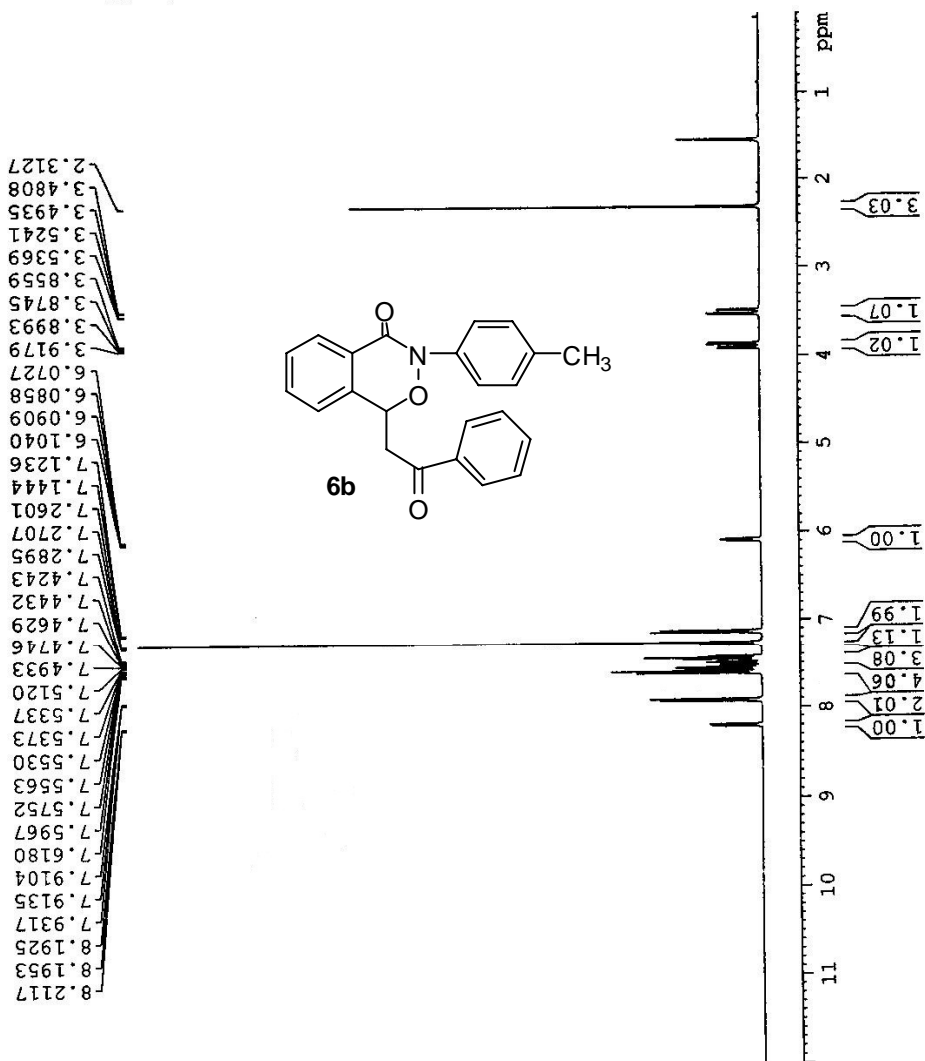
===== CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1           -2.00 dB
PL1W          57.32743073 W
SF01         100.6328888 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -1.00 dB
PL12         14.02 dB
PL13         14.46 dB
PL1W          13.18663796 W
PL12W         0.41508400 W
PL13W         0.37509048 W
SFO2         400.1716007 MHz
SI            32768
SE           100.6228282 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
    
```





NAME SZX13-24 (2) 1
EXPNO 1
PROCNO 1
Date_ 20110330
Time_ 9.26
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846987 sec
RG 60.503
DW 60.800 usec
DE 6.50 usec
TE 298.6 K
D1 1.00000000 sec
TD0 1
----- CHANNEL f1 -----
NUC1 1H
P1 14.20 usec
PL1 -1.00 dB
PL1W 13.18669796 W
SFO1 400.1724712 MHz
SI 32768
SF 400.1700033 MHz
EM 0
WDW 0
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

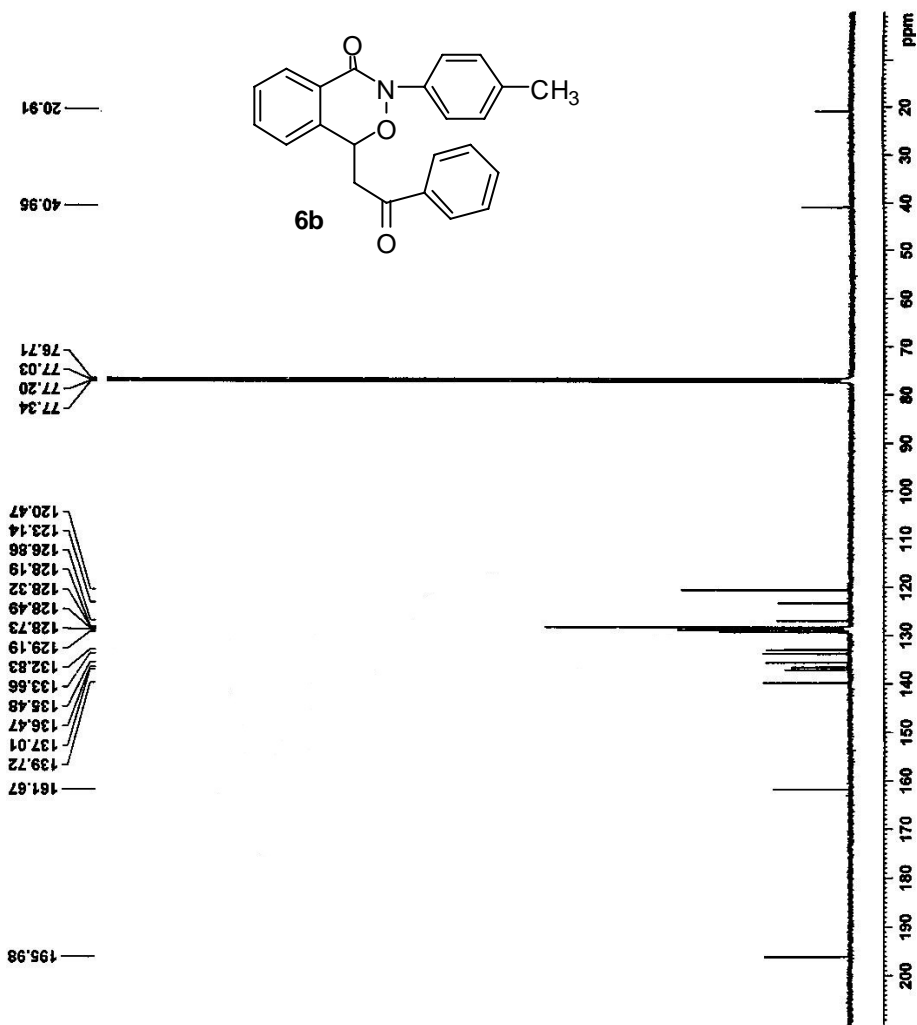




NAME SZX13-24-Cl3
EXPNO 1
PROCNO 1
Date_ 20110331
Time 21.18
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 2000
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 203
DW 20.800 usec
DE 6.50 usec
TE 298.2 K
D1 2.00000000 sec
D11 0.03000000 sec
TDO 1

==== CHANNEL f1 =====
NUC1 13C
P1 8.70 usec
PL1 -2.00 dB
PL1W 57.32743073 W
SFO1 100.6328888 MHz

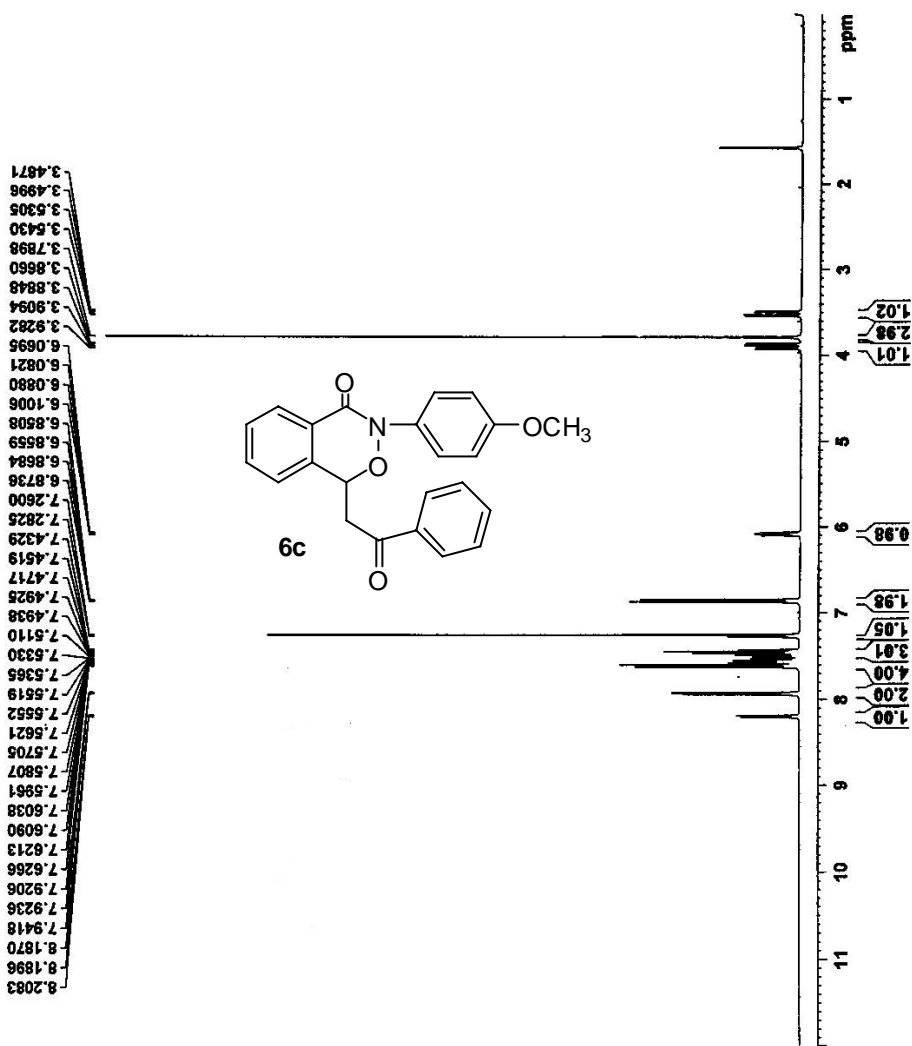
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CPDPRG2 waltz16
NUC2 13C
PCPD2 80.00 usec
PL2 -1.00 dB
PL12 14.00 dB
PL13 14.00 dB
PL2W 13.186569796 W
PL12W 0.41588400 W
PL13W 0.37509048 W
SFO2 400.1716007 MHz
SI 32768
SF 100.6228267 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40





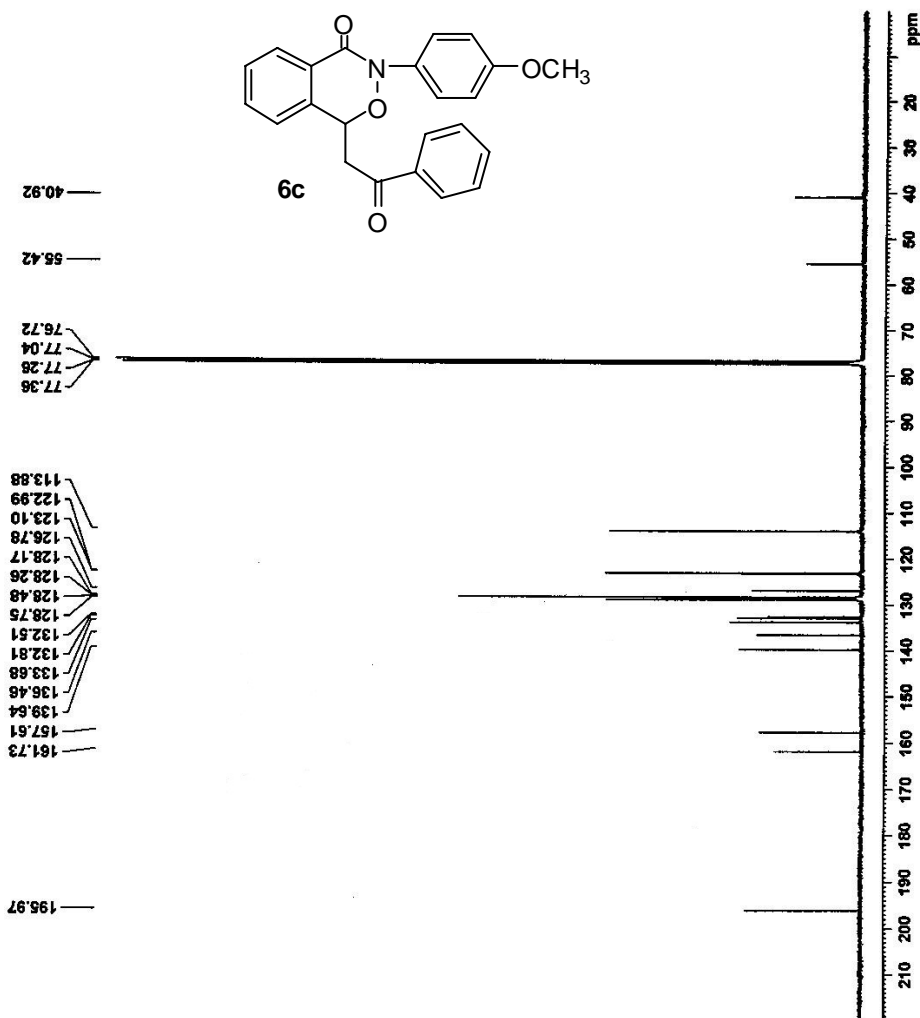
NAME SZX13-35a
EXPNO 1
PROCNO 1
Date_ 20110401
Time 9.43
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 203
DW 60.800 usec
DE 6.50 usec
TE 295.6 K
D1 1.00000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.20 usec
PL -1.00 dB
PL1W 13.18669796 W
SFO1 400.1724712 MHz
SI 32768
SF 400.1700034 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00





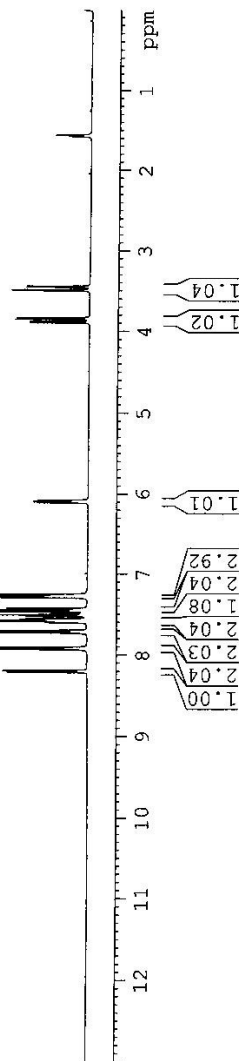
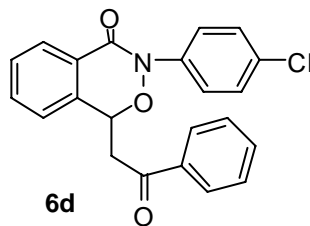
NAME SZX13-35a-Cl3
 EXPNO 1
 PROCNO 1
 Date_ 20110401
 Time 22.22
 INSTRUM spect
 PROBD 5 mm FAPBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 2011
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631988 sec
 RG 203
 DW 20.800 usec
 DE 6.50 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 1
 =====
 CHANNEL f1 13C
 NUC1 13C
 P1 8.70 usec
 PL1 -2.00 dB
 PL1W 57.32743073 W
 SFO1 100.6328888 MHz
 =====
 CHANNEL f2 waltz16
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 80.00 usec
 PL2 -1.00 dB
 PL12 14.02 dB
 PL13 14.46 dB
 PL2W 13.18665796 W
 PL12W 0.41508400 W
 PL13W 0.37509048 W
 SFO2 400.1716007 MHz
 SI 32768
 SF 100.6228273 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40





NAME SZX13-25a
EXPNO 1
PROCNO 1
Date_ 20110402
Time 14.39
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 203
DW 60.800 usec
DE 6.50 usec
TE 296.1 K
D1 1.00000000 sec
D11 1
===== CHANNEL f1 =====
NUC1 1H
P1 14.20 usec
PL1 -1.00 dB
PL1W 13.18668796 W
SF01 400.1724712 MHz
SI 32768
SF 400.1700036 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

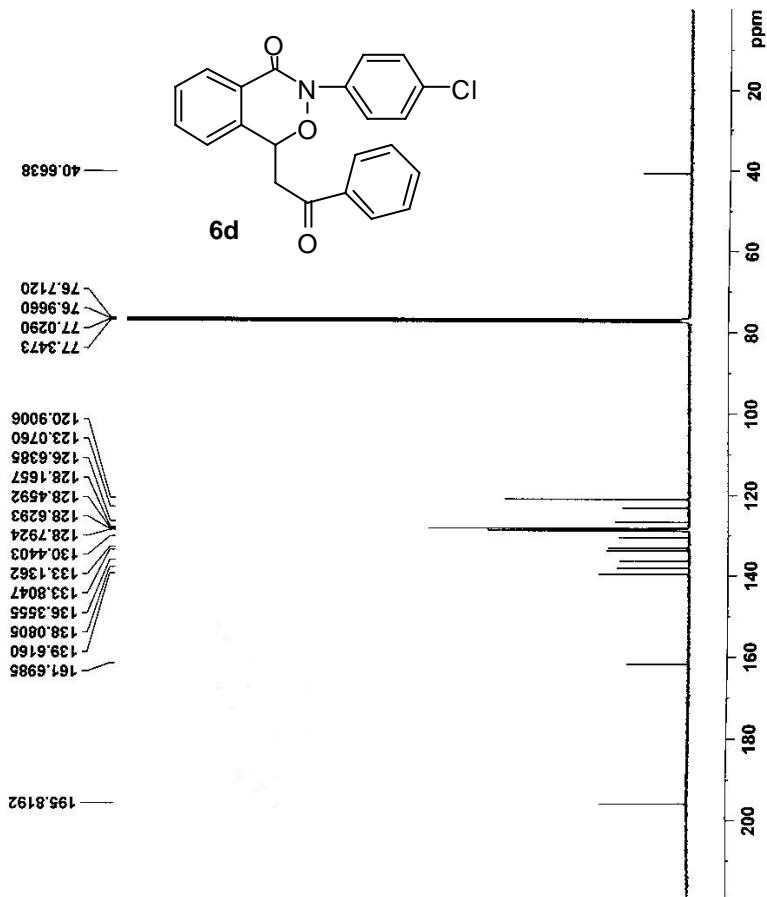
8.2110
8.1920
7.9298
7.9116
7.9086
7.7273
7.7047
7.6066
7.6037
7.6004
7.5969
7.5879
7.5817
7.5782
7.5726
7.5696
7.5629
7.5594
7.5286
7.5098
7.4911
7.4698
7.4500
7.4311
7.2957
7.2841
7.2788
7.2597
6.1105
6.0990
6.0907
6.0792
3.8994
3.8795
3.8560
3.8361
3.5019
3.4904
3.4585
3.4470





```

NAME          SXAI13-458-c13
EXPNO         1
PROCNO        1
Date_         20110403
Time          19:35
INSTRUM       spect
PROBHD        5 mm PABBO
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            2000
DS            4
SFO1          24038.463 Hz
SFO2          0.366798 Hz
FIDRES       1.3631988 sec
AQ            0.720203
RG            203
CW            20.800 usec
PC            297.50 usec
TE            297.2 K
D1            2.0000000 sec
D11           0.0300000 sec
D12           0.0300000 sec
D13           0.0300000 sec
D14           0.0300000 sec
D15           0.0300000 sec
D16           0.0300000 sec
D17           0.0300000 sec
D18           0.0300000 sec
D19           0.0300000 sec
D20           0.0300000 sec
D21           0.0300000 sec
D22           0.0300000 sec
D23           0.0300000 sec
D24           0.0300000 sec
D25           0.0300000 sec
D26           0.0300000 sec
D27           0.0300000 sec
D28           0.0300000 sec
D29           0.0300000 sec
D30           0.0300000 sec
===== CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1          -2.00 dB
PL1W         57.32743073 W
SFO1         100.6282685 MHz
===== CHANNEL f2 =====
CPDPRG2      waltz16
NUC2          1H
PCPD2        80.00 usec
PL2          -1.00 dB
PL2W         14.46 dB
PL3          14.46 dB
PL3W         13.18669796 W
PL4W         0.41508400 W
PL5W         0.37509048 W
SF02         400.1476025 MHz
SF           100.6282685 MHz
WFLW         EM
SSB          0
LB           1.00 Hz
GB           0
PC           1.40
    
```

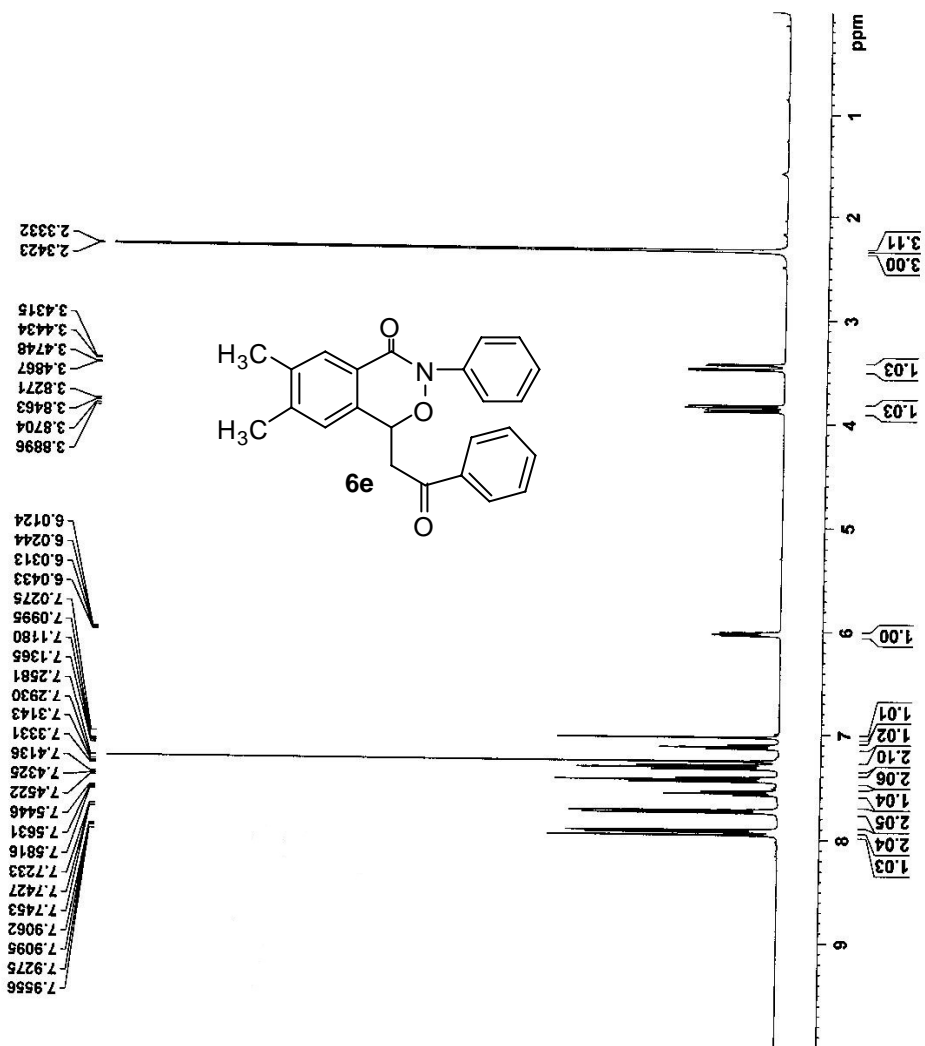




```

NAME          SZX13-46
EXPNO         1
PROCNO        1
Date_         20110412
Time          9.51
INSTRUM       spect
PROBHD        5 mm F4BBO BB-
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.125483 Hz
AQ            3.9846387 sec
RG            203
DM            60.800 usec
DE            6.50 usec
TE            296.2 K
D1            1.00000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          1H
P1            14.20 usec
PL1           -1.00 dB
PL1W          13.18689796 W
SFO1          400.1724712 MHz
SI            32768
SF            400.1700041 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
    
```



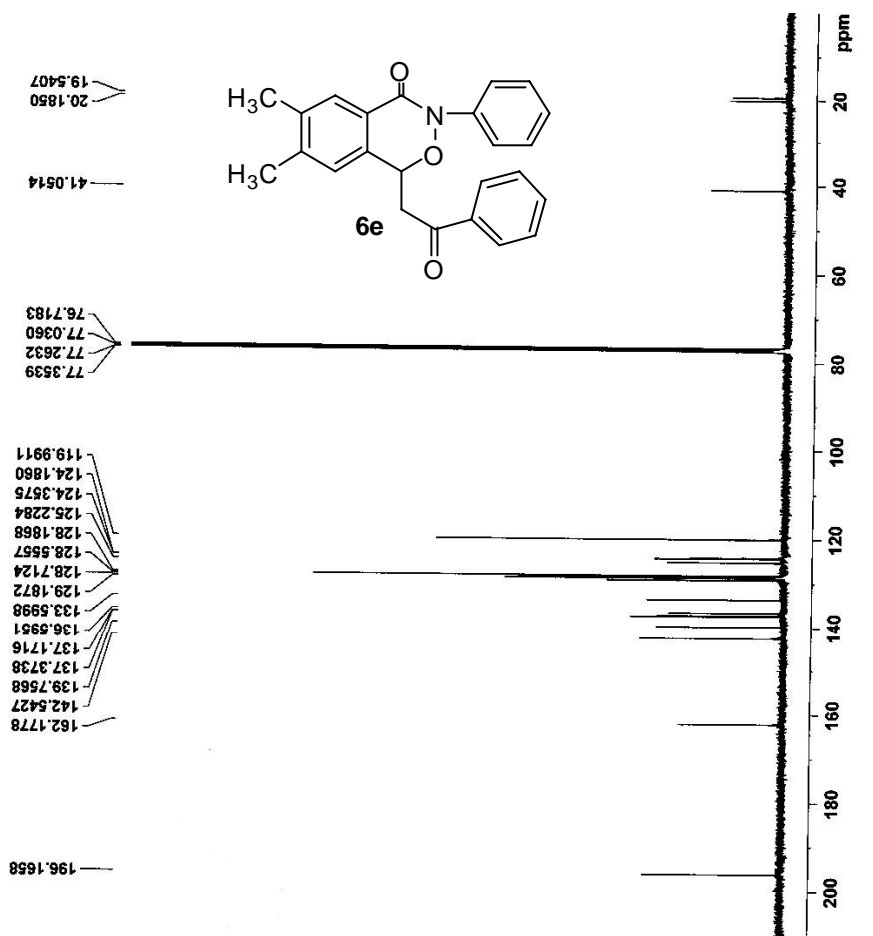


NAME SZX13-46-Cl3
 EXPNO 1
 PROCNO 1
 Date_ 20110414
 Time_ 21.26
 INSTRUM spect
 PROBD 5 mm PABRO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 904
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3651988 sec
 RG 203
 DM 20.800 usec
 DE 6.50 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TD0 1

===== CHANNEL f1 =====
 NUC1 13C
 P1 8.70 usec
 PL1 -2.00 dB
 FLLW 57.32743073 W
 SFO1 100.6328888 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 P2 80.00 usec
 PL2 -1.00 dB
 PL12 14.02 dB
 PL13 14.46 dB
 PL2W 13.18669796 W
 PL12W 0.41508400 W
 PL13W 0.37509048 W
 SE02 400.1716007 MHz
 SI 32768
 SF 100.6228253 MHz

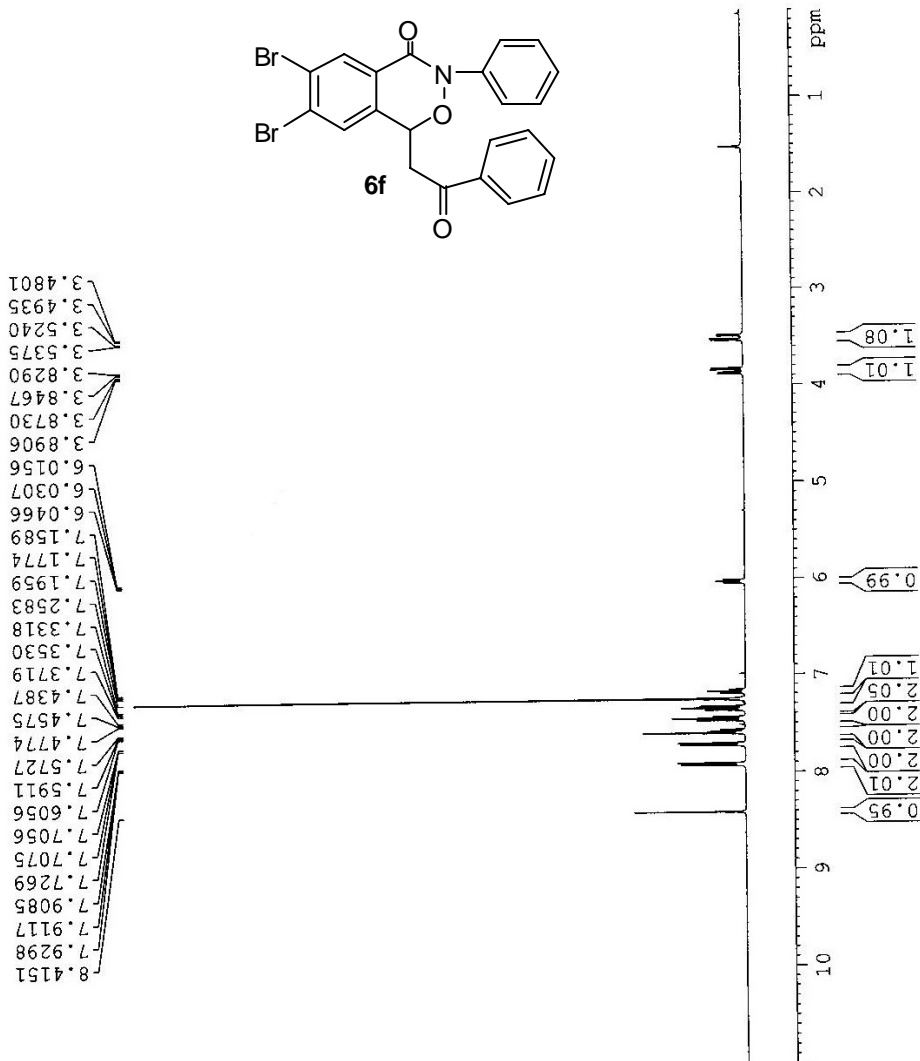
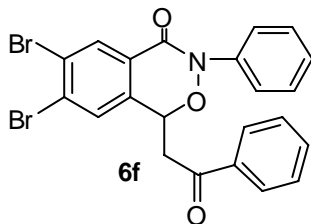
EM 0
 SSB 1.00 Hz
 LB 0
 GB 0
 PC 1.40





NAME SZX13-56
EXPNO 1
PROCNO 1
Date_ 20110418
Time 15.16
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.665 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 203
DM 60.800 usec
DE 6.50 usec
TE 299.6 K
D1 1.00000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.20 usec
PL1 -1.00 dB
PL1W 13.18669796 W
SFO1 400.1724712 MHz
SI 32768
SF 400.1700041 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



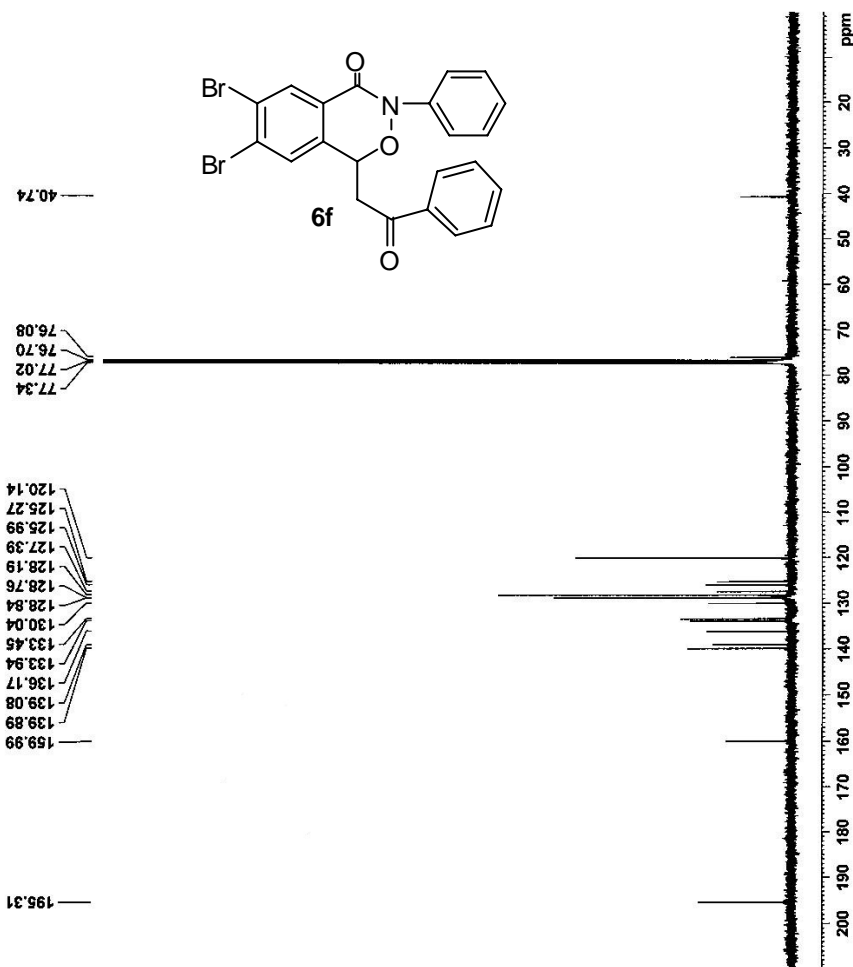


```

NAME          szx13-56-C13
EXPNO         1
PROCNO        1
Date_         20110418
Time          21.26
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            1063
DS            4
SWH           24038.461 Hz
FIDRES        0.366798 Hz
AQ            1.3631988 sec
RG            203
DM            20.800 usec
DE            6.50 usec
TE            299.7 K
D1            2.0000000 sec
D11           0.0300000 sec
TDO           1

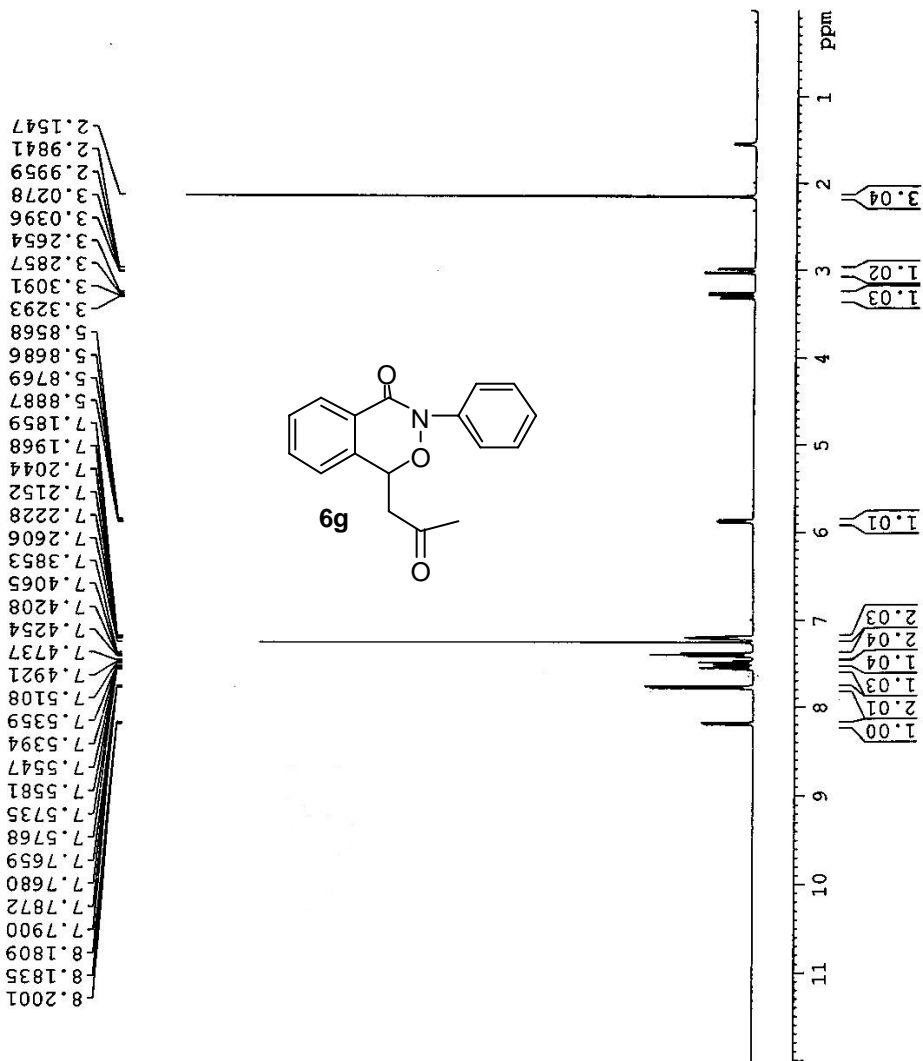
===== CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1          -2.00 dB
PL1W         57.32743073 W
SFO1         100.6328888 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2          -1.00 dB
PL12         14.02 dB
PL13         14.46 dB
PL1W         13.18569796 W
PL12W        0.41508406 W
PL13W        0.37509048 W
SFO2         400.1716009 MHz
SI            32568
SF           100.6226248 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
    
```





NAME SZX13-34a
 EXPNO 1
 PROCNO 1
 Date_ 20110402
 Time 14.44
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9846387 sec
 RG 203
 DW 60.800 usec
 DE 6.50 usec
 TE 296.0 K
 D1 1.00000000 sec
 TDO 1
 ===== CHANNEL f1 =====
 NUC1 1H
 P1 14.20 usec
 PL1 -1.00 dB
 ELW 13.18669796 W
 SF01 400.1724712 MHz
 SI 32768
 SF 400.1700032 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

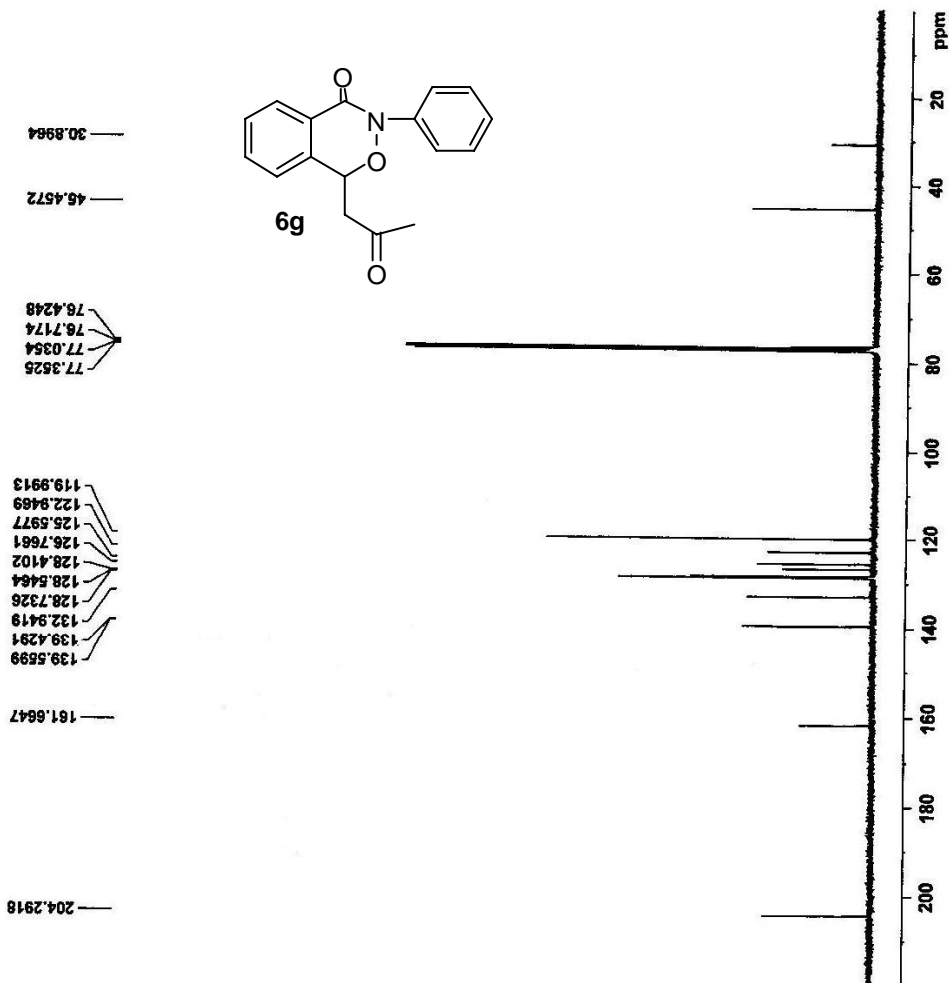




NAME SZX13-34a-C13
 EXPNO 1
 PROCNO 1
 Date_ 20110403
 Time 17.34
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1004
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631988 sec
 RG 203
 DW 20.800 usec
 DE 6.50 usec
 TE 297.5 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 TDO 1

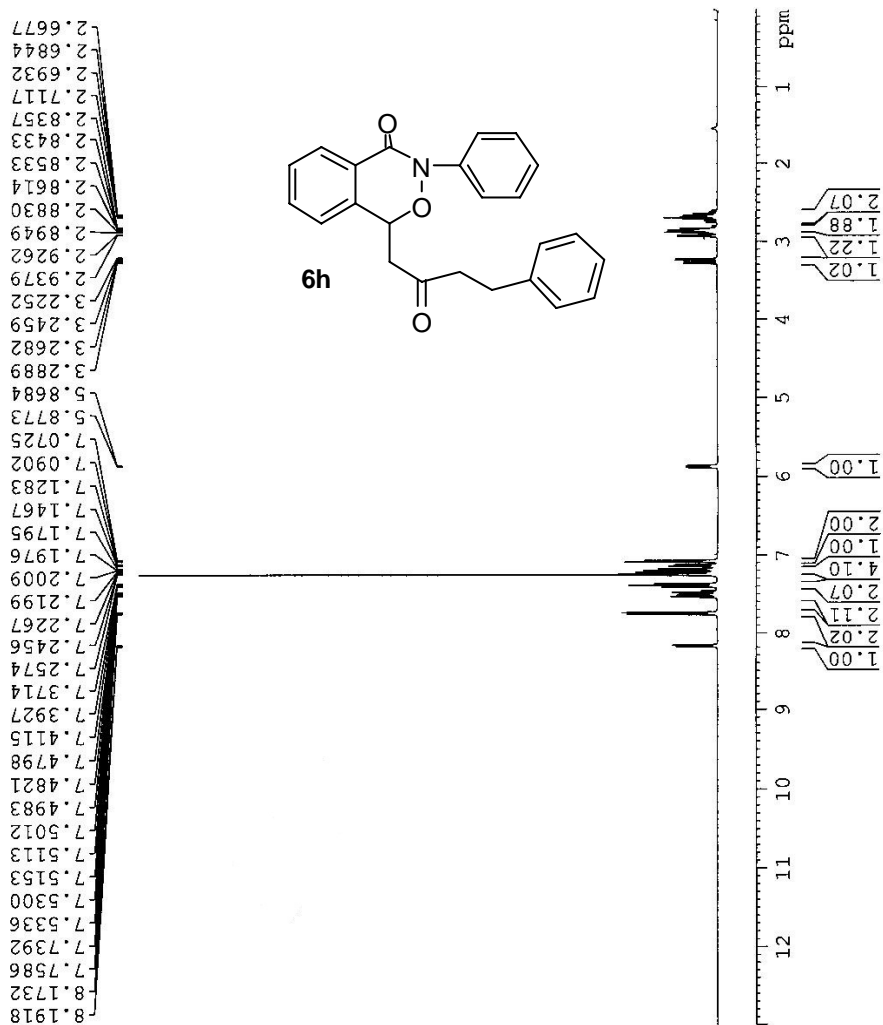
===== CHANNEL f1 =====
 NUC1 13C
 P1 8.70 usec
 PL1 -2.00 dB
 PL1W 57.32743073 W
 SFO1 100.628888 MHz

===== CHANNEL f2 =====
 CPDPRG2 wait-16
 NUC2 1H
 PCPD2 80.00 usec
 PL2 -1.00 dB
 PL12 14.02 dB
 PL13 14.46 dB
 PL2W 13.18669796 W
 F1L2W 0.41508400 W
 F1L3W 0.37509048 W
 SFO2 400.1716007 MHz
 SI 32768
 SF 100.628260 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40





```
NAME          SZX13-62
EXPNO         1
PROCNO        1
Date_         20110422
Time_         10.07
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES       0.125483 Hz
AQ           3.9846387 sec
RG           3203
DW           60.800 usec
DE           6.50 usec
TE           295.7 K
D1           1.00000000 sec
TD0          1
===== CHANNEL f1 =====
NUC1          1H
P1           14.20 usec
PL1          -1.70 dB
SFO1         13.18669796 MHz
SF01         400.1724712 MHz
SI           32768
WDW          EM
SSB          0
GB           0.30 Hz
PC           1.00
```



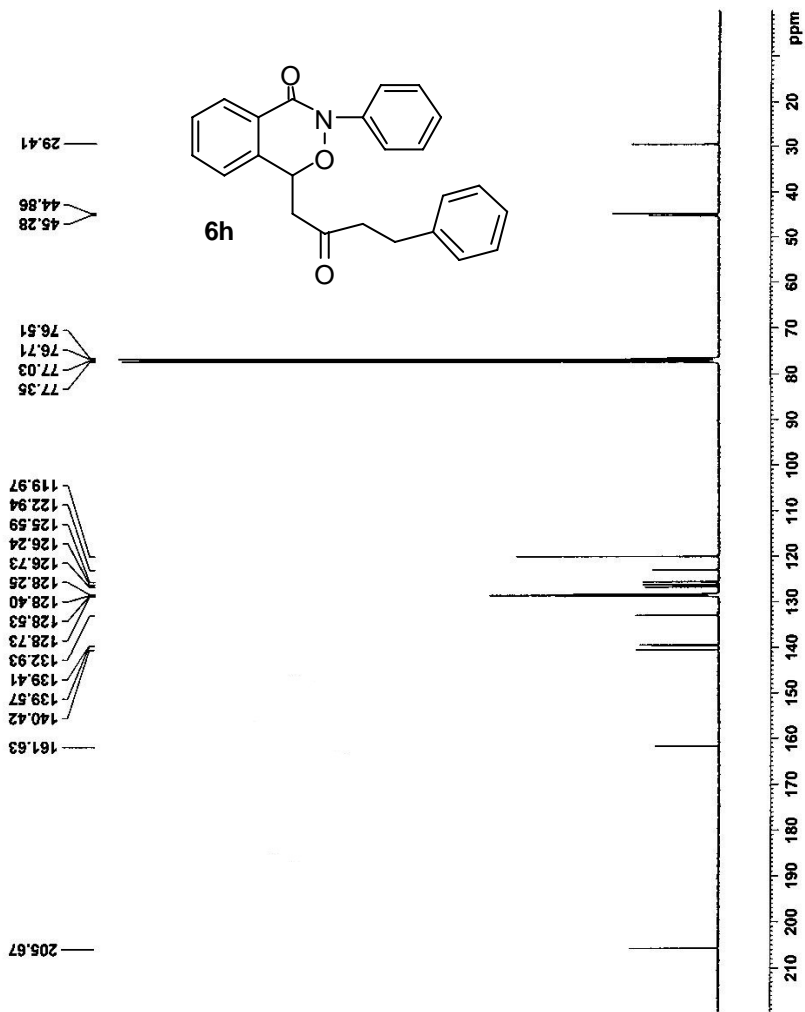


```

NAME          SZX13-62-C13
EXPNO         1
PROCNO        1
Date_         20110423
Time_         16.56
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            3815
DS            4
SWH           24038.461 Hz
FIDRES        0.366798 Hz
AQ            1.3631988 sec
RG            203
DW            20.600 usec
DE            6.50 usec
TE            299.7 K
D1            2.0000000 sec
D11           0.0300000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1           -2.00 dB
PL1W          57.32743073 W
SFO1          100.628888 MHz

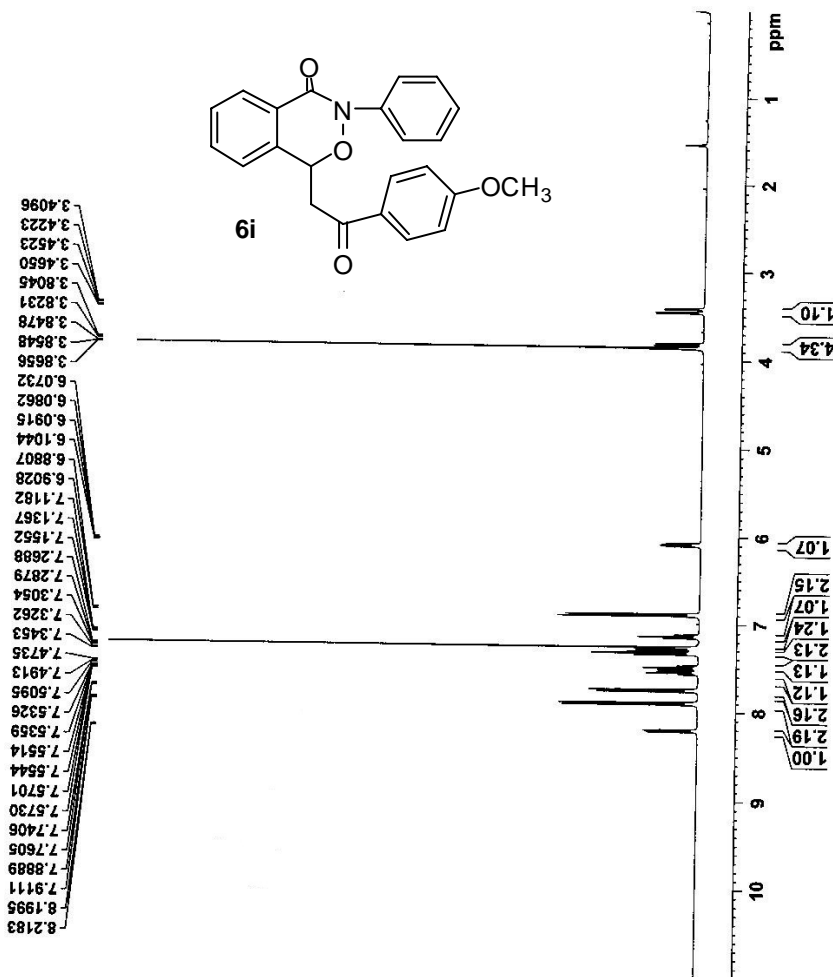
===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPDZ         80.00 usec
PL2           -1.00 dB
PL12          14.02 dB
PL13          14.46 dB
PL2W          13.18669796 W
PL12W         0.41508400 W
PL13W         0.37509048 W
SFO2          400.1716007 MHz
SI            32768
SF            100.6228269 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
    
```





```

NAME          SZX13-50
EXPNO         1
PROCNO        1
Date_         20110414
Time_         16.04
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.135483 Hz
AQ            3.9846387 sec
RG            203
DW            60.800 usec
DE            6.50 usec
TE            300.4 K
D1            1.00000000 sec
TD0           1
===== CHANNEL f1 =====
NUC1          1H
P1            14.20 usec
PL1          -1.00 dB
PL1W         13.18663796 W
SF01         400.1724712 MHz
SI           32768
SF           400.1700042 MHz
WDW          EM
SSB          0
LB           0.30 Hz
GB           0
PC           1.00
    
```



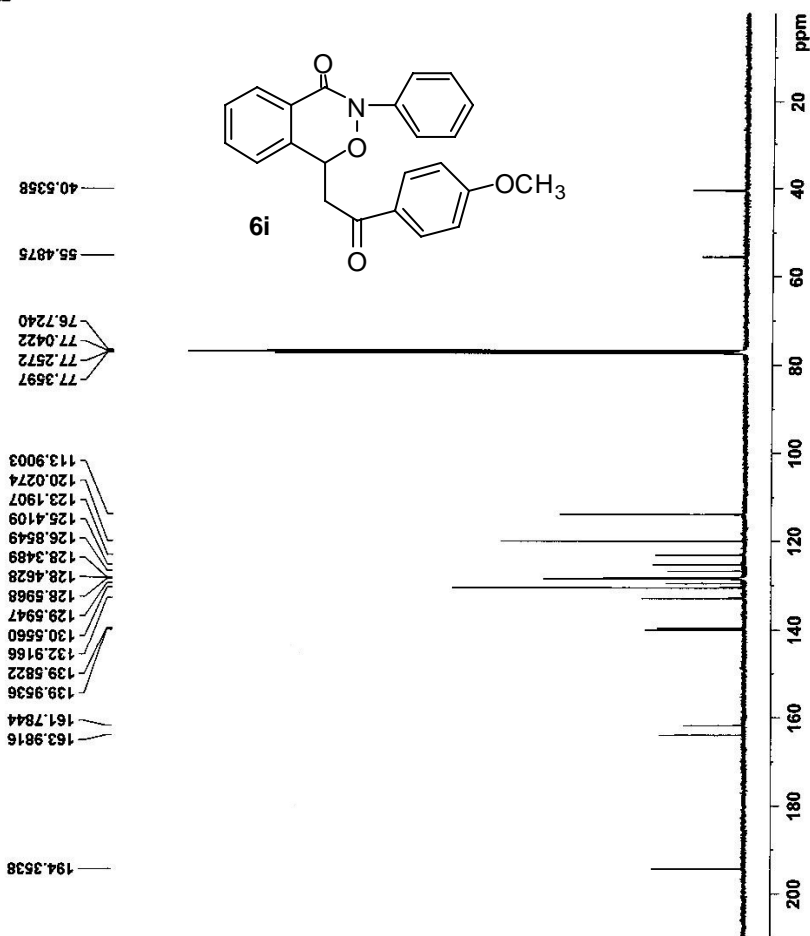


```

NAME          SXZ13-50-C13
EXPNO         1
PROCNO        1
Date_         20110415
Time_         21.48
INSTRUM       spect
PROBHD        5 mm FAPBBO BB-
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            1128
DS            4
SWH           24038.461 Hz
FIDRES        0.366798 Hz
AQ            1.3631988 sec
RG            203
DM            20.800 usec
DE            6.50 usec
TE            300.8 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1           -2.00 dB
PL1W          57.32743073 W
SFO1          100.628253 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
P2            1.00 dB
PL2           14.02 dB
PL12          14.46 dB
PL13          13.16669796 W
PL2W          0.41508400 W
PL12W         0.37509048 W
PL13W         400.1716007 MHz
SFO2          400.1716007 MHz
SI            32768
SF            100.628253 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
    
```

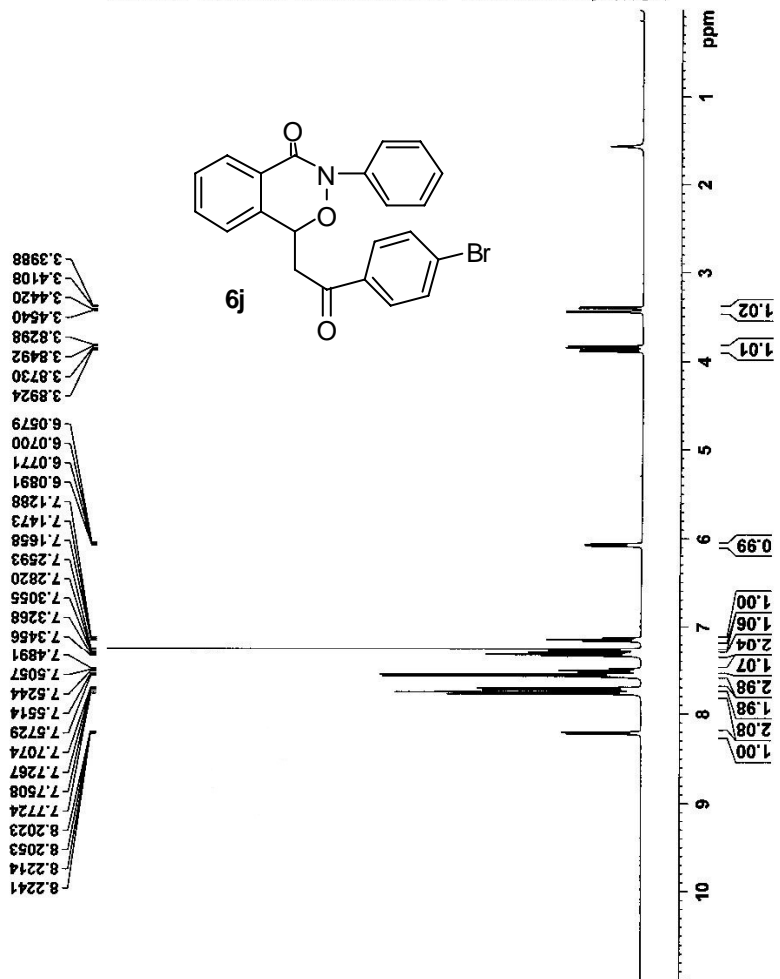




```

NAME          SZX13-89
EXPNO         1
PROCNO        1
Date_         20110518
Time          16.50
INSTRUM       spect
PROBHD        5 mm FAPBO BB-
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.125483 Hz
AQ            3.9846387 sec
RG            203
DW            60.800 usec
DE            6.50 usec
TE            296.2 K
D1            1.00000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          1H
P1            14.20 usec
PL1           -1.00 dB
PL12          13.18669796 W
SFO1          400.1724712 MHz
SI            32768
SF            400.1700037 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
    
```



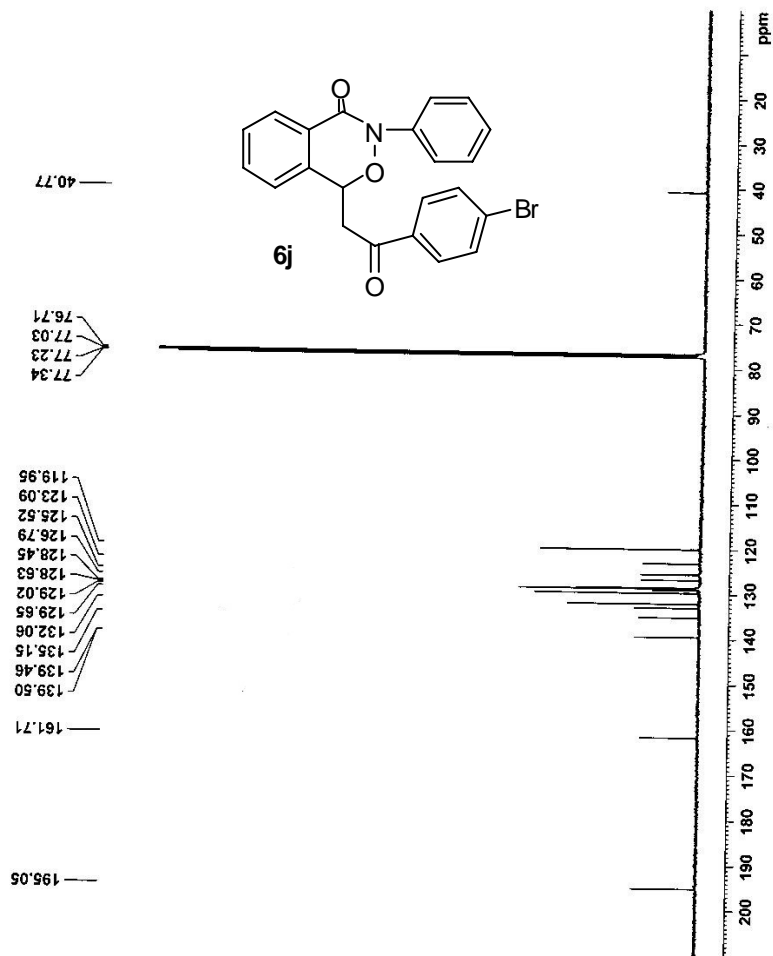


```

NAME          SX13-86-Cl3
EXPNO         1
PROCNO        1
Date_         20110519
Time          14.28
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            1210
DS            4
SWH           24038.461 Hz
FIDRES        0.366788 Hz
AQ            1.3631988 sec
RG            203
DW            20.800 usec
DE            6.50 usec
TE            297.5 K
D1            2.0000000 sec
D11           0.0300000 sec
TD0           1

=====
CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1           -2.00 dB
PL1W          57.32743073 W
SFO1          100.6328888 MHz

=====
CHANNEL f2 =====
CFPRG2        waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -1.00 dB
PL12          14.02 dB
PL13          14.46 dB
PL1W          13.18669796 W
PL12W         0.41508400 W
PL13W         0.37509048 W
SFO2          400.1716007 MHz
SI            32768
SF            100.628269 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
    
```

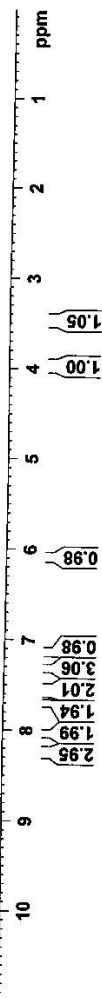
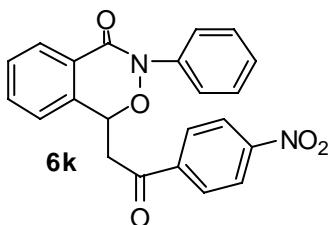




NAME SZX13-69
EXPNO 1
PROCNO 1
Date_ 20110525
Time_ 9.45
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8223.685 Hz
FIDRES 0.125483 Hz
AQ 3.9846387 sec
RG 203
DW 60.800 usec
DE 6.50 usec
TE 299.0 K
D1 1.00000000 sec
TD0 1

===== CHANNEL f1 =====
NUC1 1H
P1 14.20 usec
PL1 -1.00 dB
PL12 13.18669796 W
SFO1 400.1724712 MHz
SI 32768
SF 400.1700037 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

8.2532
8.2315
8.2163
8.0395
8.0175
7.6992
7.6792
7.6787
7.6067
7.5910
7.5880
7.5723
7.5692
7.5441
7.5254
7.5068
7.3301
7.3103
7.2592
7.1484
7.1298
7.1114
6.0968
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3.4411



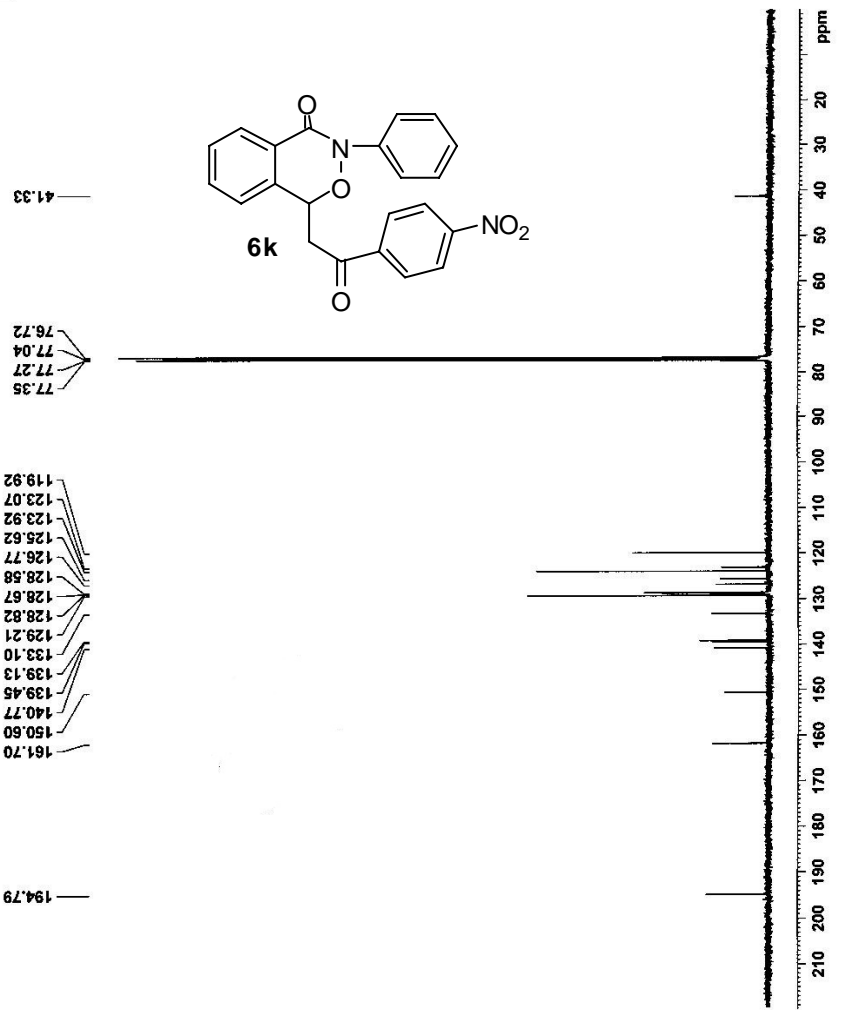


```

NAME          SXX13-69-C13
EXPNO         1
PROCNO        1
Date_         20110526
Time_         8.30
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            469
DS            4
SWH           24038.461 Hz
FIDRES        0.366798 Hz
AQ            1.3631988 sec
RG            203
DW            20.800 usec
DE            65.50 usec
TE            301.2 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          13C
P1            8.70 usec
PL1           -9.70 dB
PL1W          57.32743073 W
SF01          100.6328688 MHz

===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -1.00 dB
PL12          14.02 dB
PL13          14.46 dB
PL1W          13.18669796 W
PL12W         0.41508400 W
PL13W         0.37509048 W
SF02          400.1716007 MHz
SI            32768
SF            100.6228241 MHz
WDW           EM
SSB           0
LB            1.00 Hz
GB            0
PC            1.40
    
```

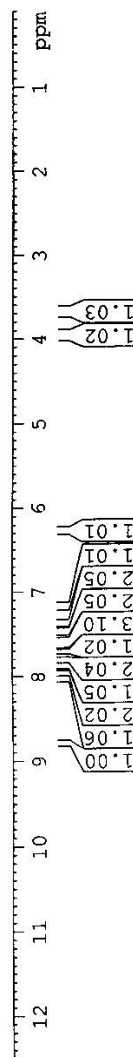
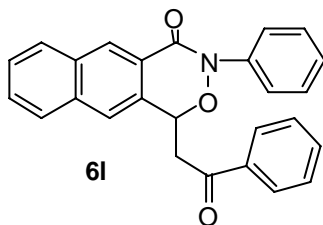




```

NAME          SZX12-89
EXPNO         1
PROCNO        1
Date_         20110314
Time_         10.00
INSTRUM       spect
PROBHD        5 mm PABBO BB
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES       0.125483 Hz
AQ           3.9846387 sec
RG           203
DM           60.800 usec
DE           6.50 usec
TE           293.7 K
D1           1.00000000 sec
TDO          1
===== CHANNEL f1 =====
NUC1          1H
P1           14.20 usec
PL1          -1.00 dB
PL1W         13.18669796 W
SF01         400.1724712 MHz
SI           32768
SF           400.1700035 MHz
WDW          EM
SSB          0
LB           0.30 Hz
GB           0
PC           1.00
    
```

8.7825
8.0390
8.0191
7.9768
7.9585
7.8827
7.8626
7.8176
7.7980
7.7043
7.6391
7.6221
7.6043
7.5890
7.5854
7.5697
7.5552
7.4793
7.4597
7.4408
7.3822
7.3632
7.3423
7.2593
7.1856
7.1671
7.1486
6.2778
6.2646
6.2604
6.2471
3.9785
3.9599
3.9351
3.9165
3.6983
3.6858
3.6548
3.6423

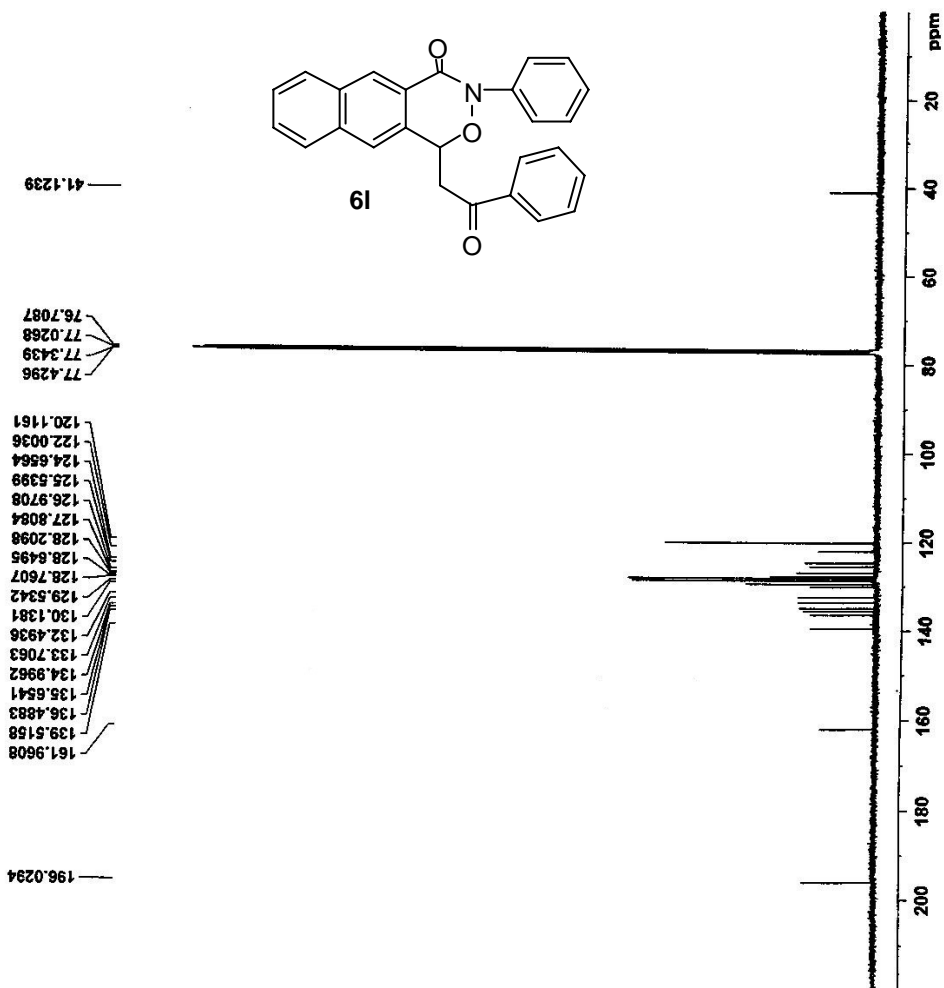




NAME SZX12-89-C13
EXPNO 1
PROCNO 1
Date_ 20110314
Time_ 21.33
INSTRUM spect
PROBHD 5 mm PABEO BB-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 570
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 203
DW 20.800 usec
DE 6.50 usec
TE 294.9 K
D1 2.0000000 sec
D11 0.0300000 sec
TDO 1

==== CHANNEL f1 =====
NUC1 13C
P1 8.70 usec
PL1 -2.00 dB
PL1W 57.32743073 K
SF01 100.628888 MHz

==== CHANNEL f2 =====
CFPRG2 waitz16
NUC2 1H
PCPDZ 80.00 usec
PLZ -1.00 dB
PL12 14.02 dB
PL13 14.46 dB
PL2W 13.18669796 W
PL12W 0.41508400 W
PL13W 0.37509048 W
SFO2 400.1716007 MHz
SI 32768
SF 100.6282883 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

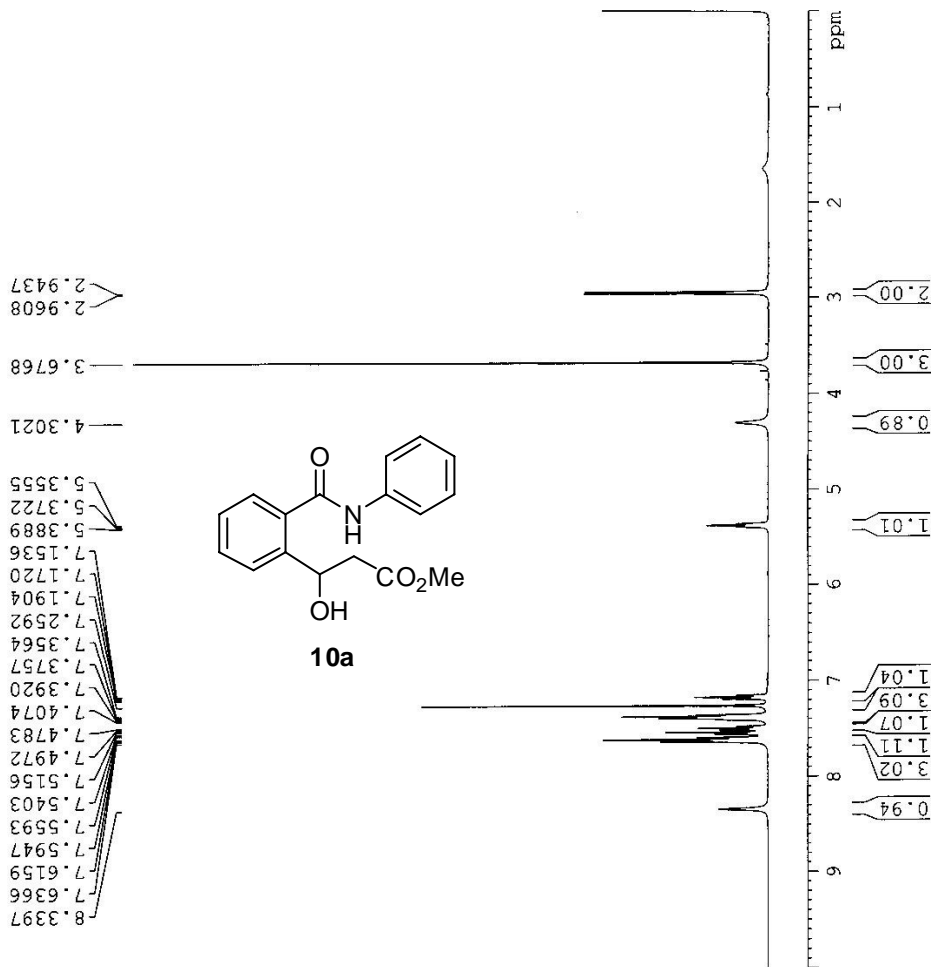




```

NAME          SX15-1.2
EXPNO        1
PROCNO       1
Date_        20111118
Time         9.25
INSTRUM      spect
PROBHD       5 mm PABBO BB-
PULPROG      zg30
TD           65536
SOLVENT      CDCl3
NS           16
DS           1
SWH          8223.685 Hz
FIDRES       0.123483 Hz
AQ           3.9846387 sec
RG           181
DW           60.800 usec
DE           6.50 usec
TE           296.3 K
D1           1.00000000 sec
TD0          1

===== CHANNEL f1 =====
NUC1         1H
PI           13.80 usec
PL1         -1.00 dB
PL1W        13.18669796 W
SFO1         400.1724712 MHz
SI           32768
SF           400.1700040 MHz
WDW          EM
SSB          0
LB           0.30 Hz
GB           0
PC           1.00
    
```

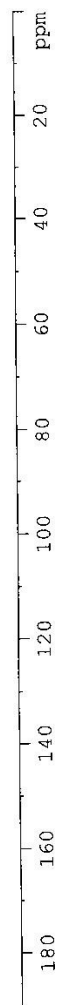
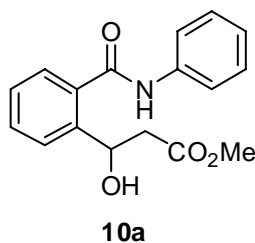




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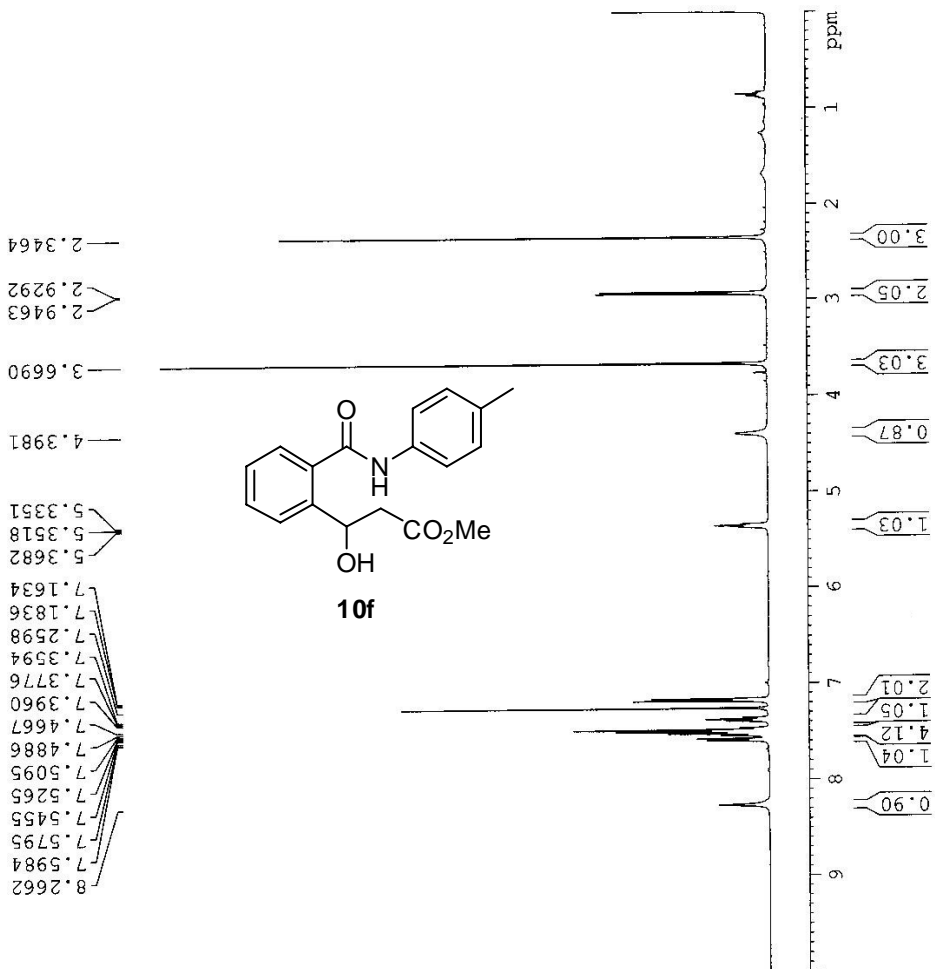
NAME          szzx15-1.3-cl3
EXPNO         1
PROCNO        1
Date_         20111123
Time_         16.16
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zgpg30
TD            65536
SOLVENT       CDCl3
NS            150
DS            4
SWH           24038.461 Hz
FIDRES        0.366798 Hz
AQ            1.3631888 sec
RG            203
DW            20.800 usec
DE            6.50 usec
TE            296.8 K
D1            2.0000000 sec
d11           0.0300000 sec
TD0           1
===== CHANNEL f1 =====
NUC1          13C
P1            8.50 usec
PL1           -2.00 dB
PL1W          57.32743073 W
SF01          100.628888 MHz
===== CHANNEL f2 =====
CPDPRG2       waltz16
NUC2          1H
PCPD2         80.00 usec
PL2           -1.00 dB
PL2W          14.26 dB
PL12         14.46 dB
PL13         14.46 dB
PL2W         13.18669736 W
PL12W        0.39276794 W
PL13W        0.37509088 W
SF02          400.176088 MHz
SI            31
SFO2          100.6226250 MHz
SSB           0
GB            0
PC            1.40
    
```

172.56
 168.29
 140.61
 137.97
 135.29
 130.96
 128.99
 128.05
 127.25
 124.73
 120.47
 77.54
 77.22
 76.90
 68.30
 51.86
 41.44





NAME SZX15-2.2
 EXPNO 1
 PROCNO 1
 Date_ 20111121
 Time_ 10.49
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zg30
 TD 65436
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.175463 Hz
 AQ 3.9846367 sec
 RG 161
 DW 60.500 usec
 DE 6.50 usec
 TE 293.5 K
 D1 1.00000000 sec
 TD0 1
 ===== CHANNEL f1 =====
 NUC1 1H
 P1 13.80 usec
 PL1 -1.00 dB
 PL1W 13.18669796 W
 SF01 400.1724712 MHz
 SI 32768
 SF 400.1700036 MHz
 EM
 WDW 0
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

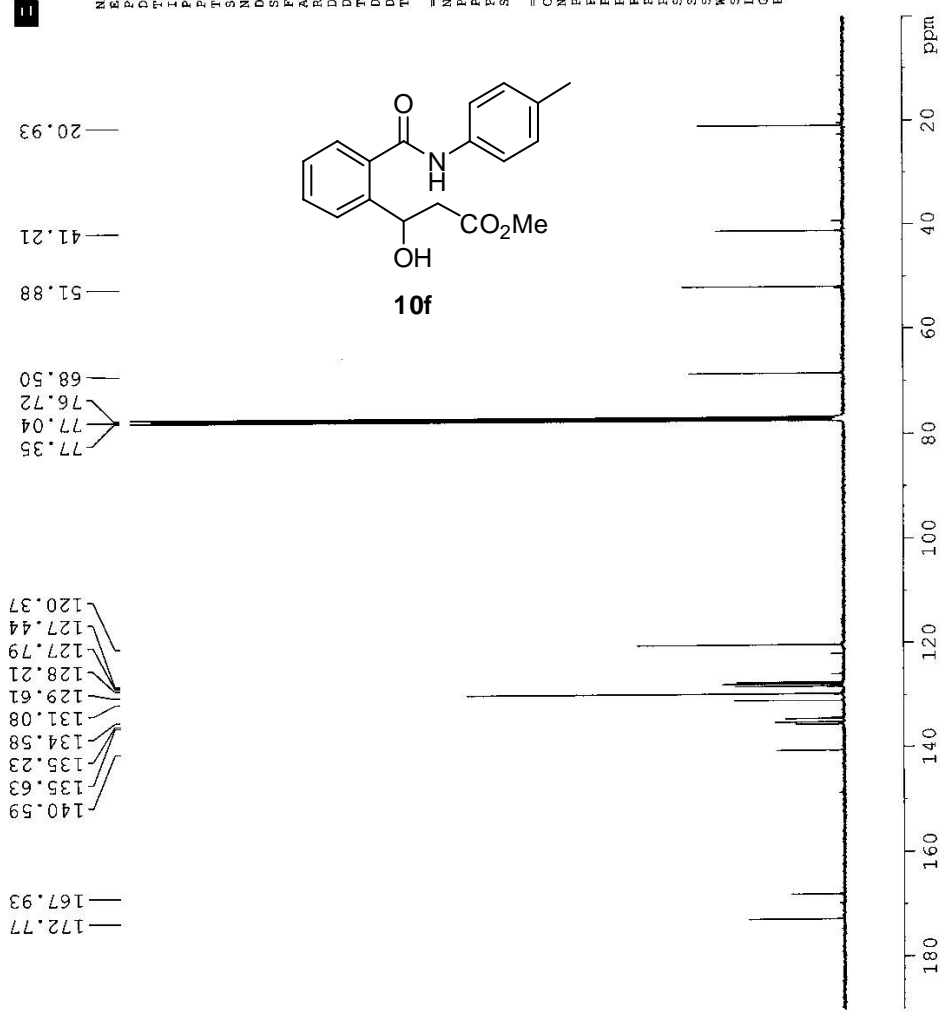




NAME SZX15-2-c13
EXPNO 1
PROCNO 1
Date_ 20111121
Time 20.19
INSTRUM spect
PROBHD 5 mm PABBO BB-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 2982
DS 4
SWH 24038.461 Hz
FIDRES 0.36698 Hz
AQ 1.561928 sec
RG 203
DE 20.800 usec
TE 6.50 usec
DE 297.9 K
D1 2.00000000 sec
D11 0.03000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 13C
P1 8.150 usec
PL1 -2.00 dB
SFO1 57.32743073 MHz
100.6328888 MHz

===== CHANNEL f2 =====
CFDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 1.00 dB
PL12 14.46 dB
PL13 14.46 dB
PL12W 13.18669796 W
PL12W 0.33276794 W
PL13W 0.37509048 W
SFO2 400.1716007 MHz
SI 32768
SF 100.6228248 MHz
EM
WDW 0
SSB 0
LB 1.00 Hz
GC
PC 1.40

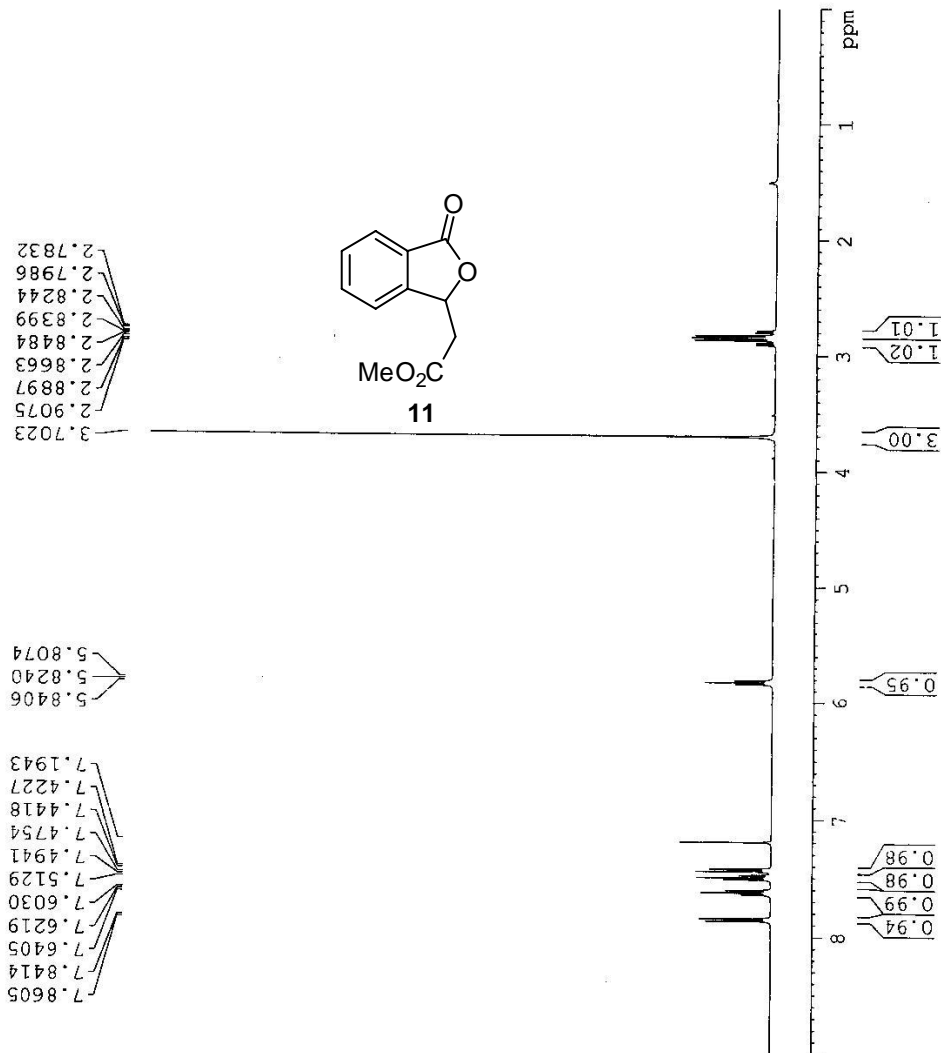




```

NAME          szx14-24-1
EXPNO         1
PROCNO        1
Date_         20111017
Time_         9:27
INSTRUM       spect
PROBHD        5 mm PABBO BB-
PULPROG       zg30
TD            65536
SOLVENT       CDCl3
NS            16
DS            2
SWH           8223.685 Hz
FIDRES        0.125483 Hz
AQ            3.9846387 sec
RG            203
DW            60.800 usec
DE            6.50 usec
TE            298.0 K
D1            1.00000000 sec
TD0           1

===== CHANNEL f1 =====
NUC1          1H
P1            13.80 usec
PL1           -1.00 dB
PL1W          13.186669796 W
SFO1          400.1724712 MHz
SI            32768
SF            400.1700298 MHz
WDW           EM
SSB           0
LB            0.30 Hz
GB            0
PC            1.00
    
```





NAME SZX14-24-C13
 EXNO 2
 PROCNO 1
 Date_ 20110930
 Time_ 21.49
 INSTRUM spect
 PROBHD 5 mm PABBO BB-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 347
 DS 4
 SWH 24038.461 Hz
 FIDRES 0.366798 Hz
 AQ 1.3631988 sec
 RG 203
 DW 20.800 usec
 DE 6.50 usec
 TE 297.2 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 D12 0.0300000 sec
 D13 0.0300000 sec
 D14 0.0300000 sec
 D15 0.0300000 sec
 D16 0.0300000 sec
 D17 0.0300000 sec
 D18 0.0300000 sec
 D19 0.0300000 sec
 D20 0.0300000 sec
 D21 0.0300000 sec
 D22 0.0300000 sec
 D23 0.0300000 sec
 D24 0.0300000 sec
 D25 0.0300000 sec
 D26 0.0300000 sec
 D27 0.0300000 sec
 D28 0.0300000 sec
 D29 0.0300000 sec
 D30 0.0300000 sec
 D31 0.0300000 sec
 D32 0.0300000 sec
 D33 0.0300000 sec
 D34 0.0300000 sec
 D35 0.0300000 sec
 D36 0.0300000 sec
 D37 0.0300000 sec
 D38 0.0300000 sec
 D39 0.0300000 sec
 D40 0.0300000 sec
 D41 0.0300000 sec
 D42 0.0300000 sec
 D43 0.0300000 sec
 D44 0.0300000 sec
 D45 0.0300000 sec
 D46 0.0300000 sec
 D47 0.0300000 sec
 D48 0.0300000 sec
 D49 0.0300000 sec
 D50 0.0300000 sec
 D51 0.0300000 sec
 D52 0.0300000 sec
 D53 0.0300000 sec
 D54 0.0300000 sec
 D55 0.0300000 sec
 D56 0.0300000 sec
 D57 0.0300000 sec
 D58 0.0300000 sec
 D59 0.0300000 sec
 D60 0.0300000 sec
 D61 0.0300000 sec
 D62 0.0300000 sec
 D63 0.0300000 sec
 D64 0.0300000 sec
 D65 0.0300000 sec
 D66 0.0300000 sec
 D67 0.0300000 sec
 D68 0.0300000 sec
 D69 0.0300000 sec
 D70 0.0300000 sec
 D71 0.0300000 sec
 D72 0.0300000 sec
 D73 0.0300000 sec
 D74 0.0300000 sec
 D75 0.0300000 sec
 D76 0.0300000 sec
 D77 0.0300000 sec
 D78 0.0300000 sec
 D79 0.0300000 sec
 D80 0.0300000 sec
 D81 0.0300000 sec
 D82 0.0300000 sec
 D83 0.0300000 sec
 D84 0.0300000 sec
 D85 0.0300000 sec
 D86 0.0300000 sec
 D87 0.0300000 sec
 D88 0.0300000 sec
 D89 0.0300000 sec
 D90 0.0300000 sec
 D91 0.0300000 sec
 D92 0.0300000 sec
 D93 0.0300000 sec
 D94 0.0300000 sec
 D95 0.0300000 sec
 D96 0.0300000 sec
 D97 0.0300000 sec
 D98 0.0300000 sec
 D99 0.0300000 sec
 D100 0.0300000 sec
 CHANNEL f1 13C
 FI 8.50 usec
 PL1 -2.00 dB
 PL1W 57.32743073 W
 SFO1 100.6328888 MHz
 CHANNEL f2 waltz16
 CPDPRG2
 NUC2 1H
 PCPD2 80.00 usec
 PL2 -1.00 dB
 PL12 14.26 dB
 PL13 14.46 dB
 PL14 13.18665796 W
 PL15 0.39276794 W
 PL16 0.37509048 W
 PL17 400.1716007 MHz
 SFO2 32768
 SF 100.6228230 MHz
 EM 0
 WDW 0
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

