Electronic Supplementary Material (ESI) for Organic & Biomolecular Chemistry

A Concise Stereoselective Synthesis of (-)-Erycibelline

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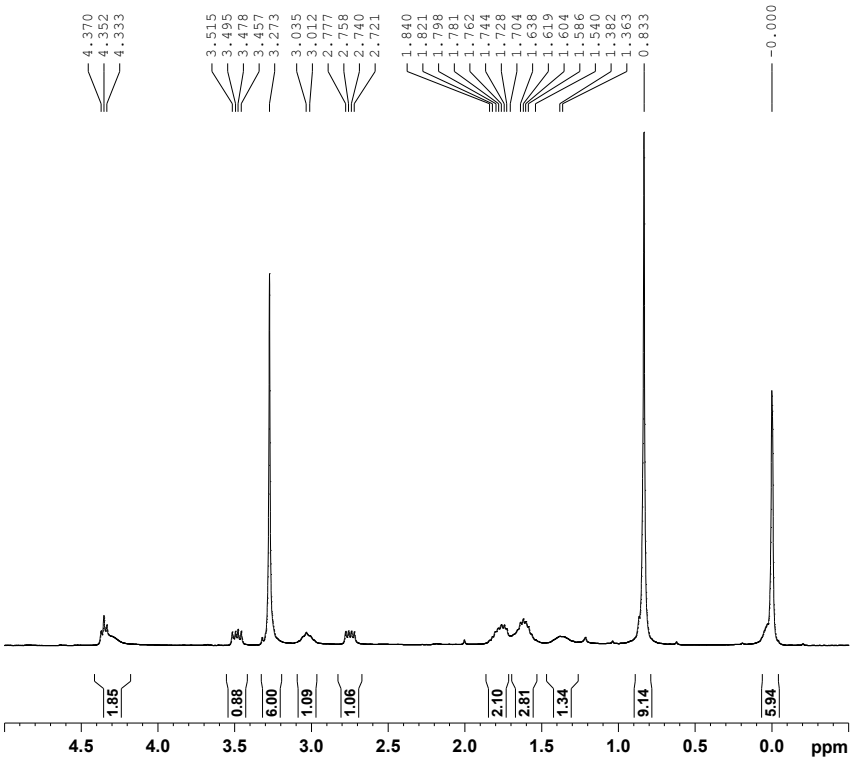
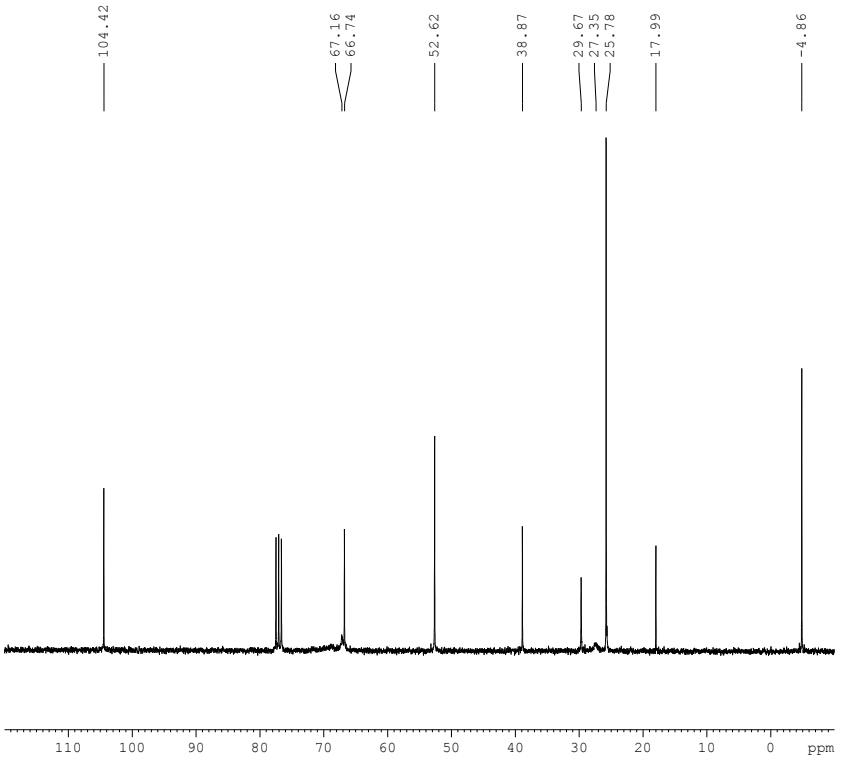
Supporting information

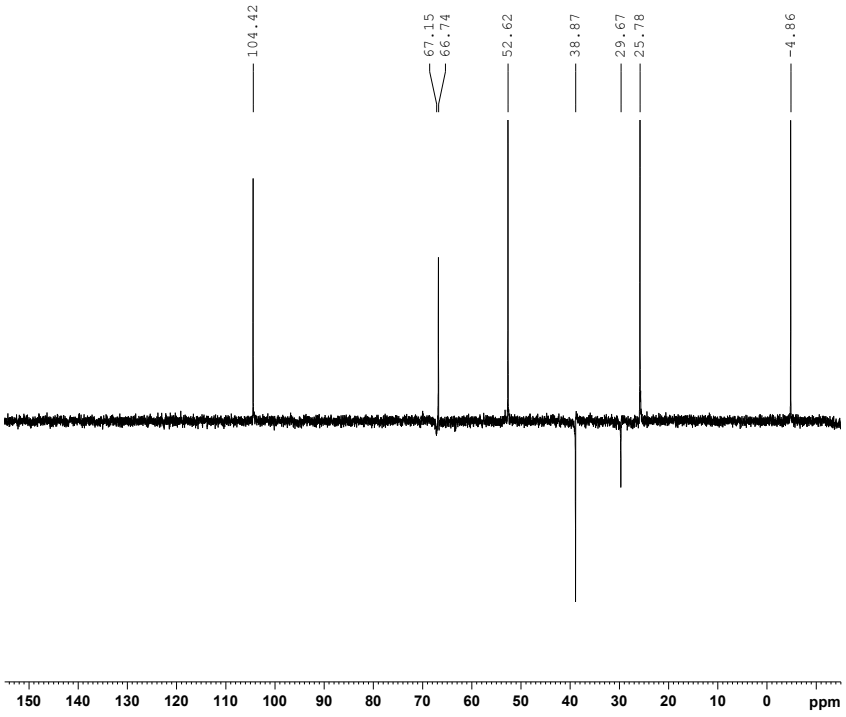
(^{1}H, ^{13}C and 2D NMR spectra)



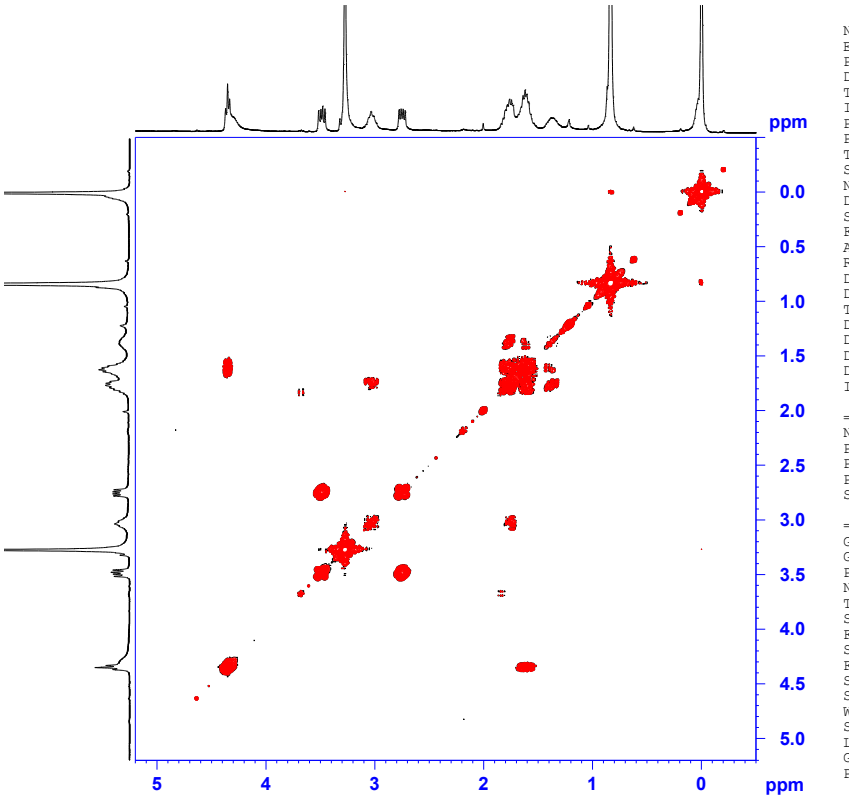

```
NAME           zzl-402-2
EXPNO                 20
PROCNO                 1
Date_           20101011
Time               12.43
INSTRUM            spect
PROBHD   5 mm DUL 13C-1
PULPROG            zg30
TD                65536
SOLVENT            CDCl3
NS                     4
DS                     0
SWH             8992.806 Hz
FIDRES          0.137219 Hz
AQ             3.6438515 sec
RG                  35.9
DW                55.600 usec
DE                 8.00 usec
TE                298.7 K
D1           1.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                 10.80 usec
PL1                 3.00 dB
SFO1         300.1324010 MHz
SI                 32768
SF           300.1300088 MHz
WDW                   EM
SSB                    0
LB                  0.30 Hz
GB                     0
PC                  1.00
```



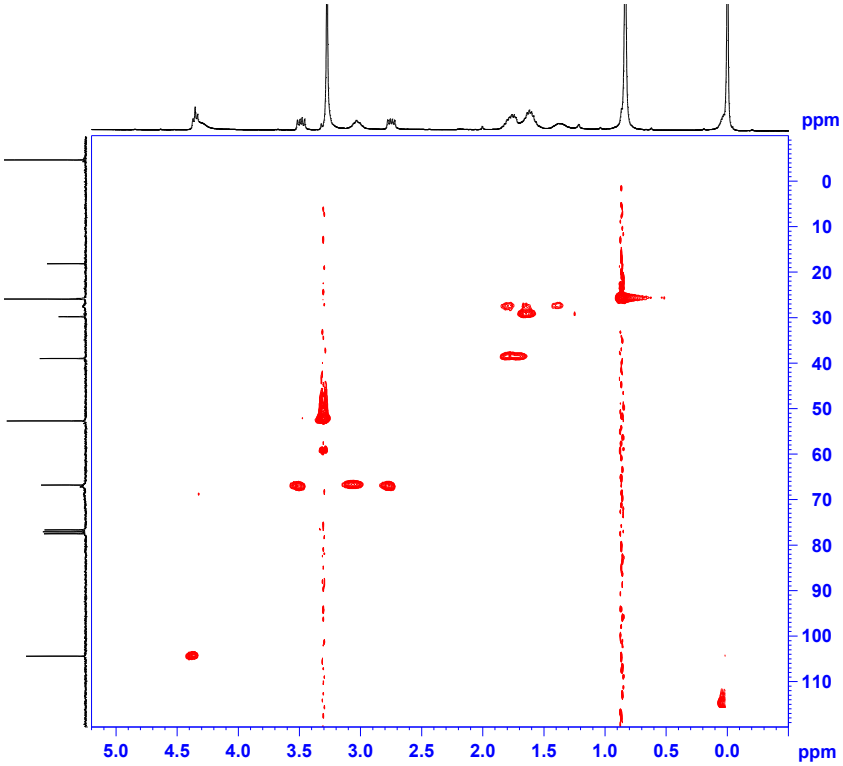

```
NAME           zzl-402-2
EXPNO                 21
PROCNO                 1
Date_           20101011
Time               12.48
INSTRUM            spect
PROBHD   5 mm DUL 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT            CDCl3
NS                   139
DS                     4
SWH            17985.611 Hz
FIDRES          0.274439 Hz
AQ             1.8219508 sec
RG                5792.6
DW                27.800 usec
DE                 8.00 usec
TE                299.0 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                 13C
P1                 12.50 usec
PL1                 2.00 dB
SFO1         75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                  1H
PCPD2             100.00 usec
PL2                 3.00 dB
PL12               22.33 dB
PL13               23.00 dB
SFO2         300.1312005 MHz
SI                 32768
SF           75.4677490 MHz
WDW                   EM
SSB                    0
LB                  1.00 Hz
GB                     0
PC                  1.40
```



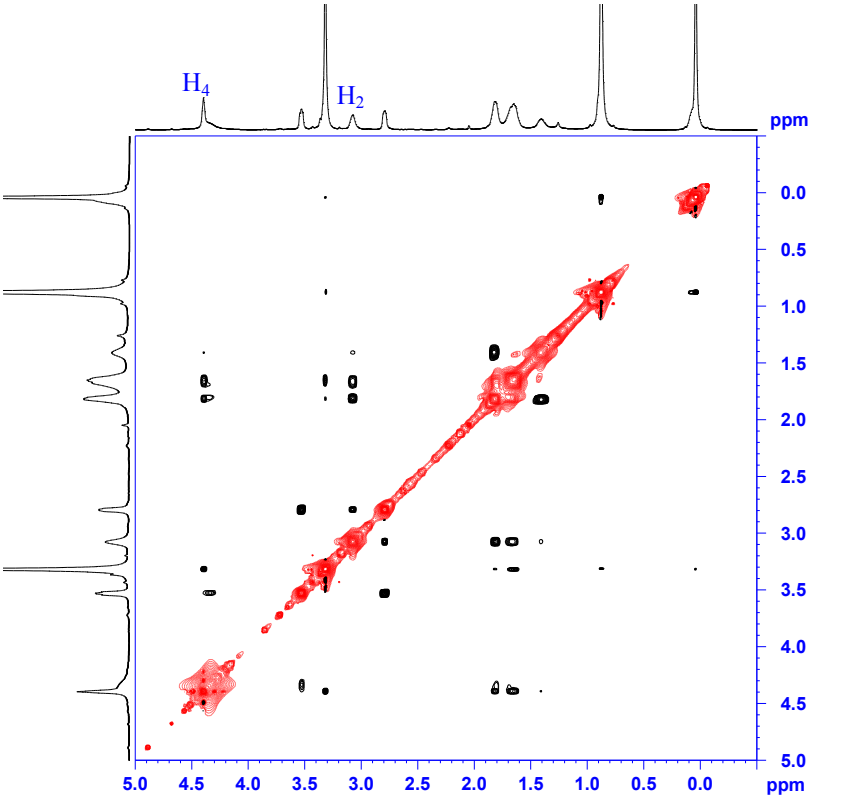

```
NAME           zz1-402-2
EXPNO                 22
PROCNO                 1
Date_           20101011
Time                12.56
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG          dept135
TD                 65536
SOLVENT            CDCl3
NS                    69
DS                     4
SWH           17985.611 Hz
FIDRES         0.274439 Hz
AQ             1.8219508 sec
RG                 16384
DW                27.800 usec
DE                 8.00 usec
TE                298.8 K
CNST2         145.0000000
D1              2.00000000 sec
D2              0.00344828 sec
D12             0.00002000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  13C
P1                  12.50 usec
P2                  25.00 usec
PL1                  2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                   1H
P3                  10.80 usec
P4                  21.60 usec
PCPD2              100.00 usec
PL2                  3.00 dB
```



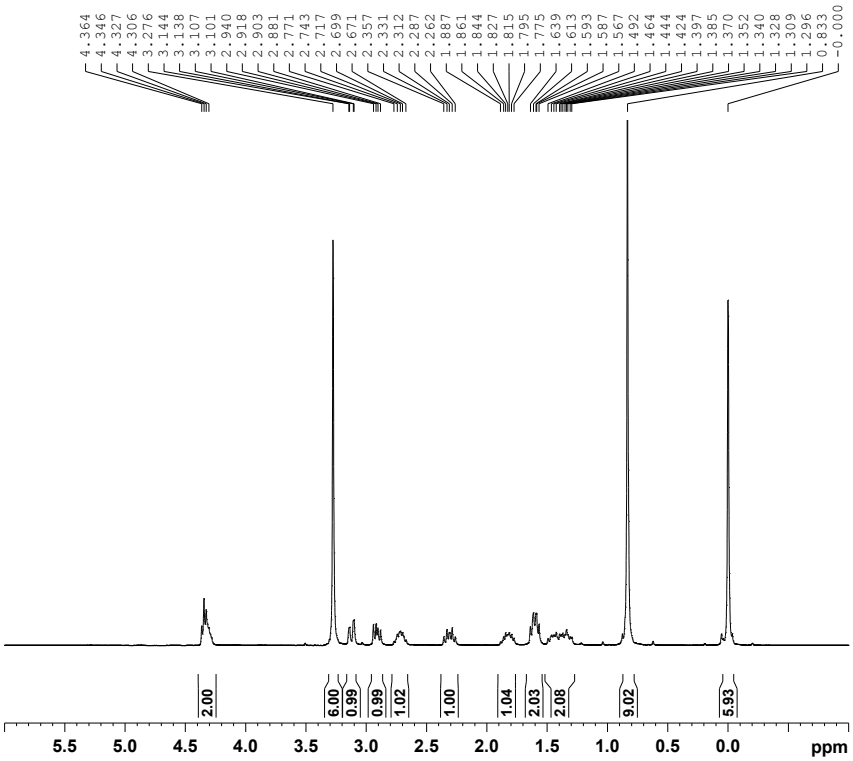

```
NAME           zz1-402-2
EXPNO                 27
PROCNO                 1
Date_           20101011
Time                13.33
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG          cosygpqf
TD                  2048
SOLVENT            CDCl3
NS                     1
DS                     8
SWH            2540.650 Hz
FIDRES         1.240552 Hz
AQ             0.4030964 sec
RG                  25.4
DW                196.800 usec
DE                 8.00 usec
TE                299.2 K
D0             0.00000300 sec
D1             1.39309299 sec
D13            0.00000400 sec
D16            0.00020000 sec
IN0            0.00039360 sec

======== CHANNEL f1 ========
NUC1                   1H
P0                  10.80 usec
P1                  10.80 usec
PL1                  3.00 dB
SFO1          300.1311030 MHz

====== GRADIENT CHANNEL =====
GPNAM1           SINE.100
GPZ1                10.00 %
P16               1000.00 usec
ND0                    1
TD                   128
SFO1            300.1311 MHz
FIDRES          19.848831 Hz
SW                  8.465 ppm
FnMODE                 QF
SI                  1024
SF            300.1300082 MHz
WDW                 SINE
SSB                    0
LB                  0.00 Hz
GB                     0
PC                  1.40
```



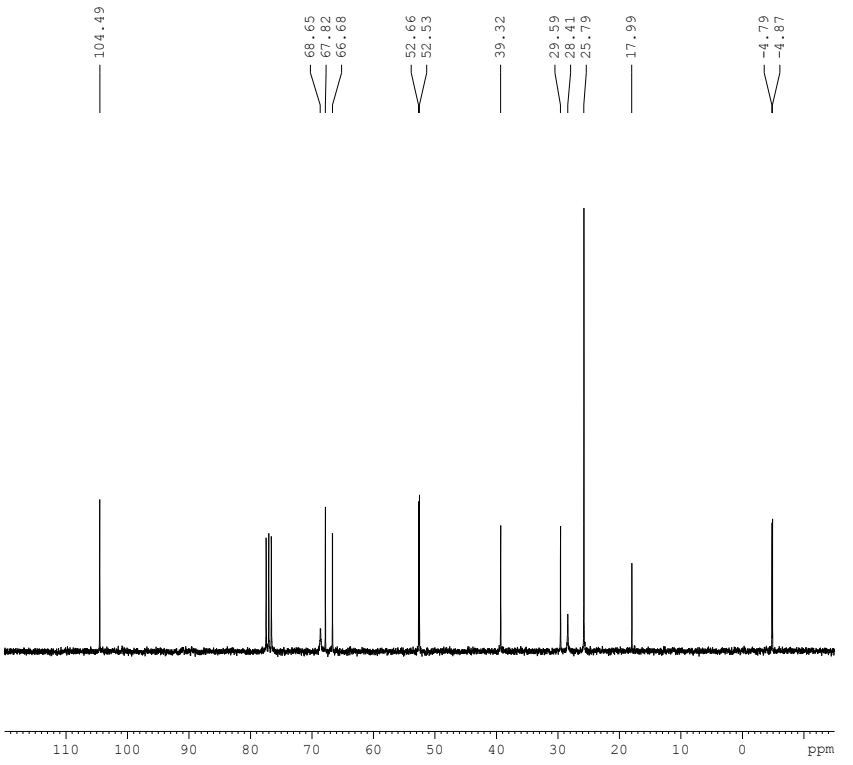
NAME	zz1-402-2-hsqc
EXPNO	1
PROCNO	1
Date_	20101011
Time	13.07
INSTRUM	spect
PROBHD	5 mm DUL 13C-1
PULPROG	hsqcetgp
TD	2048
SOLVENT	CDCl3
NS	4
DS	16
SWH	2394.636
FIDRES	1.169256
AQ	0.4276724
RG	9195.2
DW	208.800
DE	8.00
TE	298.9
CNST2	145.0000000
D0	0.00000300
D1	1.50000000
D4	0.00172414
D11	0.03000000
D13	0.00000400
D16	0.00020000
IN0	0.00005520
ZGOPTNS	
======== CHANNEL f1 =====	
NUC1	1H
P1	10.80
P2	21.60
P28	1000.00
PL1	3.00
SFO1	300.1312005
======== CHANNEL f2 =====	
CPDPRG2	garp
NUC2	13C
P3	12.50
P4	25.00
PCPD2	90.00
PL2	2.00
PL12	19.15
SFO2	75.4722771



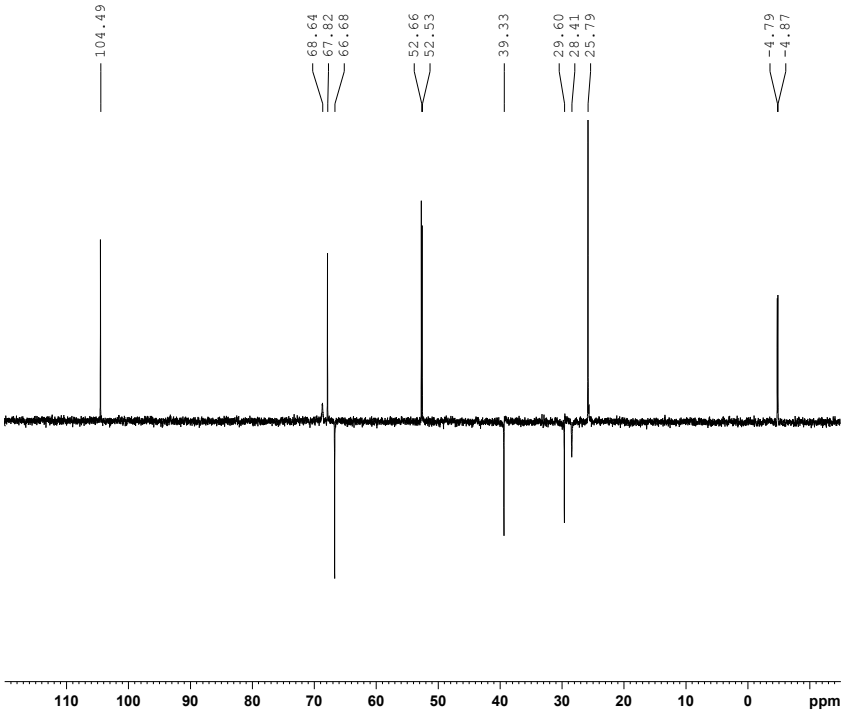
NAME	noesy
EXPNO	105
PROCNO	1
Date_	20101011
Time	16.39
INSTRUM	spect
PROBHD	5 mm PATXI 1H-
PULPROG	noesygpph
TD	2048
SOLVENT	CDCl3
NS	4
DS	16
SWH	6009.615
FIDRES	2.934382
AQ	0.1705268
RG	16
DW	83.200
DE	6.50
TE	298.0
D0	0.00007047
D1	1.50000000
D8	0.80000001
D16	0.00020000
IN0	0.00016640
======== CHANNEL f1 =====	
NUC1	1H
P1	10.00
P2	20.00
PL1	1.30
PL1W	18.62087250
SFO1	600.1324005
====== GRADIENT CHANNEL	
GPNAM1	SINE.100
GPNAM2	SINE.100
GPX1	0.00
GPX2	0.00
GPY1	0.00
GPY2	0.00
GPZ1	40.00
GPZ2	-40.00
P16	1000.00
ND0	1
TD	256
SFO1	600.1324
FIDRES	23.475023
SW	10.014
FnMODE	States-TPPI
SI	1024
SF	600.1300000



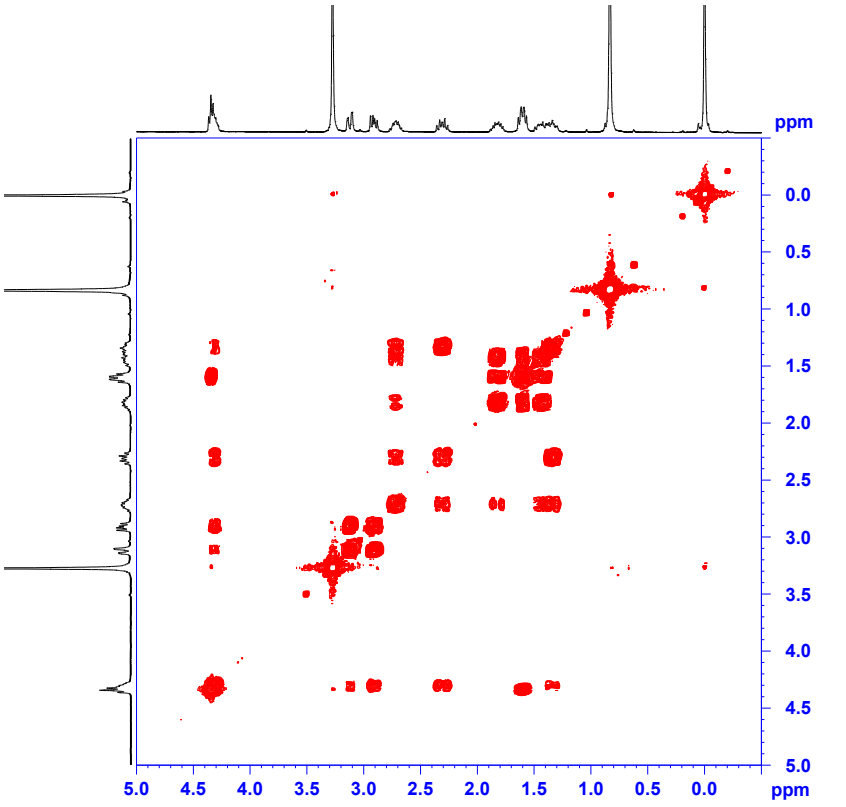

```
NAME           zzl-402-1
EXPNO                 20
PROCNO                 1
Date_           20101011
Time                12.04
INSTRUM            spect
PROBHD   5 mm DUL 13C-1
PULPROG             zg30
TD                 65536
SOLVENT            CDCl3
NS                     8
DS                     0
SWH             8992.806 Hz
FIDRES          0.137219 Hz
AQ              3.6438515 sec
RG                  40.3
DW                55.600 usec
DE                 8.00 usec
TE                298.8 K
D1             1.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.80 usec
PL1                3.00 dB
SFO1         300.1324010 MHz
SI                 32768
SF           300.1300085 MHz
WDW                   EM
SSB                    0
LB                 0.30 Hz
GB                     0
PC                 1.00
```



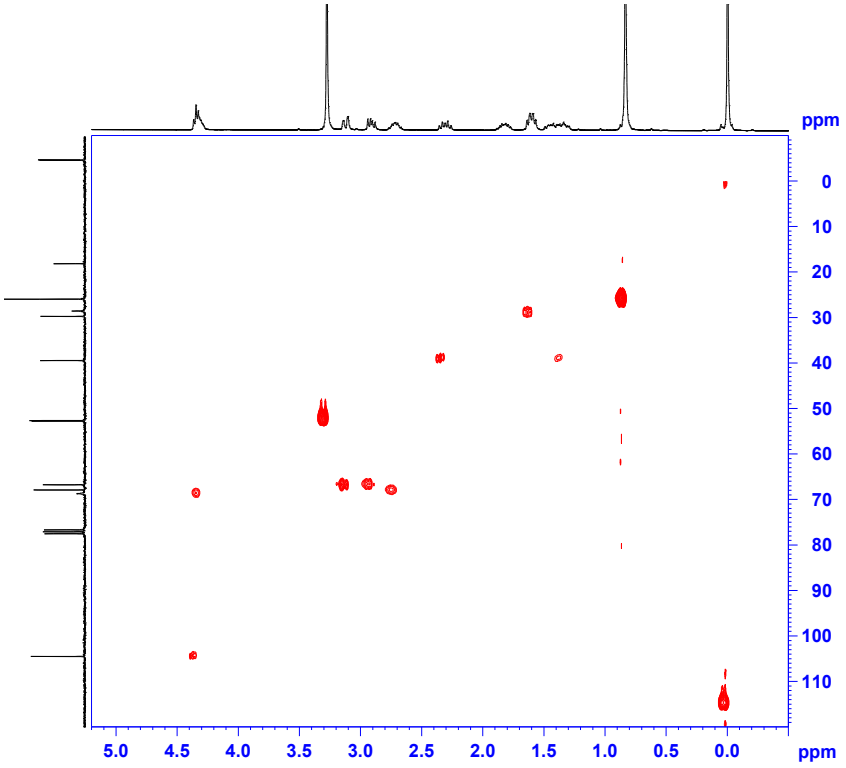

```
NAME           zzl-402-1
EXPNO                 21
PROCNO                 1
Date_           20101011
Time                12.08
INSTRUM            spect
PROBHD   5 mm DUL 13C-1
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                    71
DS                     4
SWH            17985.611 Hz
FIDRES          0.274439 Hz
AQ              1.8219508 sec
RG                  4096
DW                27.800 usec
DE                 8.00 usec
TE                299.1 K
D1             2.00000000 sec
D11            0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                 13C
P1                12.50 usec
PL1                2.00 dB
SFO1         75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                  1H
PCPD2            100.00 usec
PL2                3.00 dB
PL12              22.33 dB
PL13              23.00 dB
SFO2         300.1312005 MHz
SI                 32768
SF           75.4677490 MHz
WDW                   EM
SSB                    0
LB                 1.00 Hz
GB                     0
PC                 1.40
```



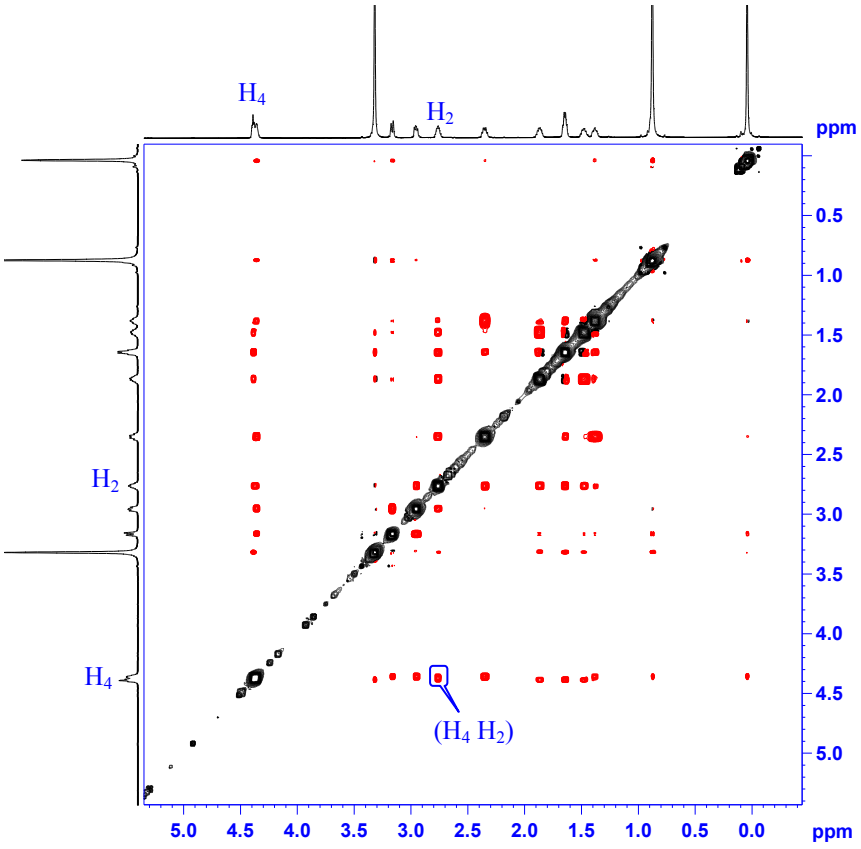

```
NAME            zzl-402-1
EXPNO                  22
PROCNO                  1
Date_            20101011
Time                12.12
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG          dept135
TD                 65536
SOLVENT            CDCl3
NS                    50
DS                     4
SWH            17985.611 Hz
FIDRES         0.274439 Hz
AQ             1.8219508 sec
RG                 16384
DW                27.800 usec
DE                 8.00 usec
TE                299.0 K
CNST2        145.0000000
D1             2.00000000 sec
D2             0.00344828 sec
D12            0.00002000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  13C
P1                 12.50 usec
P2                 25.00 usec
PL1                 2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                  1H
P3                 10.80 usec
P4                 21.60 usec
PCPD2             100.00 usec
PL2                 3.00 dB
```



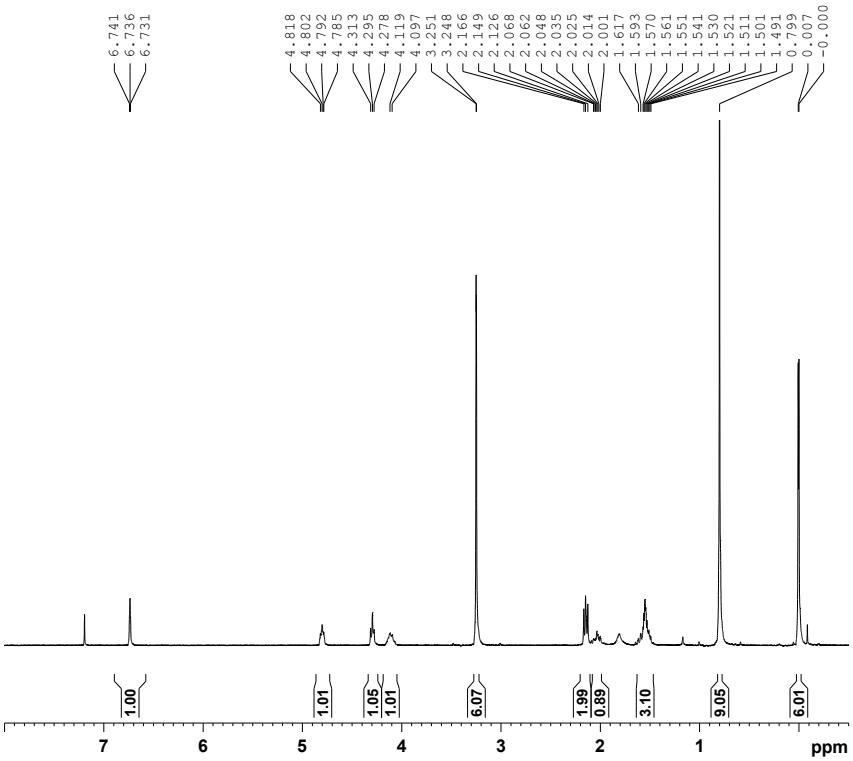

```
NAME            zzl-402-1
EXPNO                  24
PROCNO                  1
Date_            20101011
Time                12.16
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG          cosygpqf
TD                  2048
SOLVENT            CDCl3
NS                     1
DS                     8
SWH             2723.312 Hz
FIDRES          1.329742 Hz
AQ              0.3760628 sec
RG                  28.5
DW                183.600 usec
DE                  8.00 usec
TE                298.9 K
D0             0.00000300 sec
D1             1.41971695 sec
D13            0.00000400 sec
D16            0.00020000 sec
IN0            0.00036720 sec

======== CHANNEL f1 ========
NUC1                  1H
P0                 10.80 usec
P1                 10.80 usec
PL1                 3.00 dB
SFO1          300.1311880 MHz

====== GRADIENT CHANNEL ====
GPNAM1           SINE.100
GPZ1               10.00 %
P16              1000.00 usec
ND0                    1
TD                   128
SFO1           300.1312 MHz
FIDRES         21.275871 Hz
SW                 9.074 ppm
FnMODE                QF
SI                  1024
SF            300.1300087 MHz
WDW                 SINE
SSB                    0
LB                  0.00 Hz
GB                     0
PC                  1.40
```



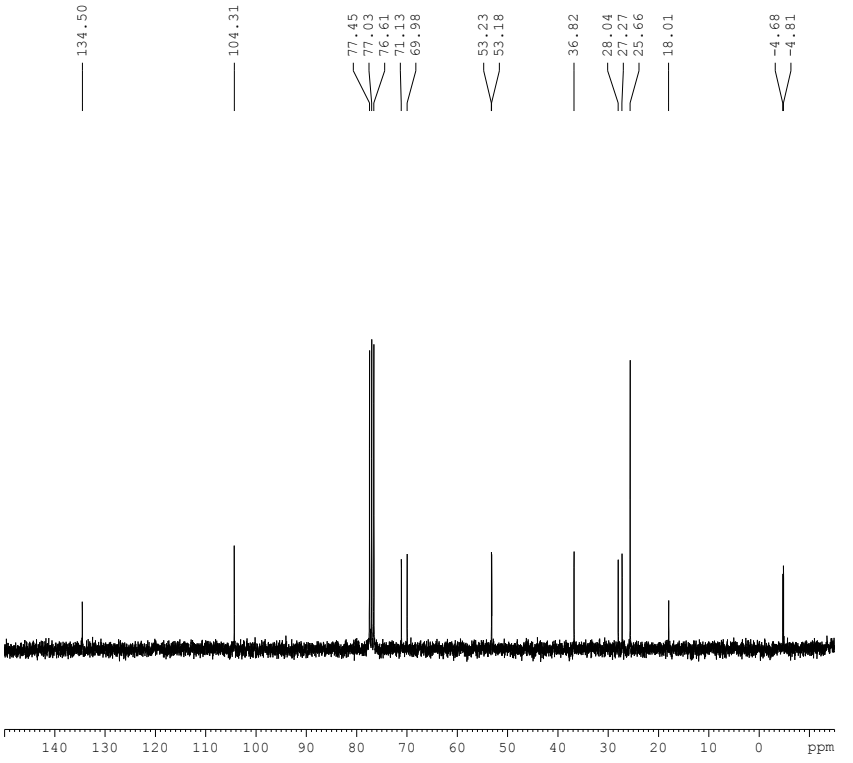

```
NAME      zz1-402-1-hsqc
EXPNO                  1
PROCNO                 1
Date_           20101011
Time              12.24
INSTRUM           spect
PROBHD   5 mm DUL 13C-1
PULPROG        hsqcetgp
TD                 2048
SOLVENT            CDCl3
NS                    4
DS                   16
SWH           2394.636
FIDRES        1.169256
AQ           0.4276724
RG              9195.2
DW              208.800
DE                 8.00
TE                299.0
CNST2        145.0000000
D0           0.00000300
D1           1.50000000
D4           0.00172414
D11          0.03000000
D13          0.00000400
D16          0.00020000
IN0          0.00005520
ZGOPTNS

======== CHANNEL f1 ===
NUC1                  1H
P1                 10.80
P2                 21.60
P28              1000.00
PL1                3.00
SFO1         300.1310505

======== CHANNEL f2 ===
CPDPRG2             garp
NUC2                 13C
P3                 12.50
P4                 25.00
PCPD2              90.00
PL2                 2.00
PL12               19.15
SFO2          75.4722771
```



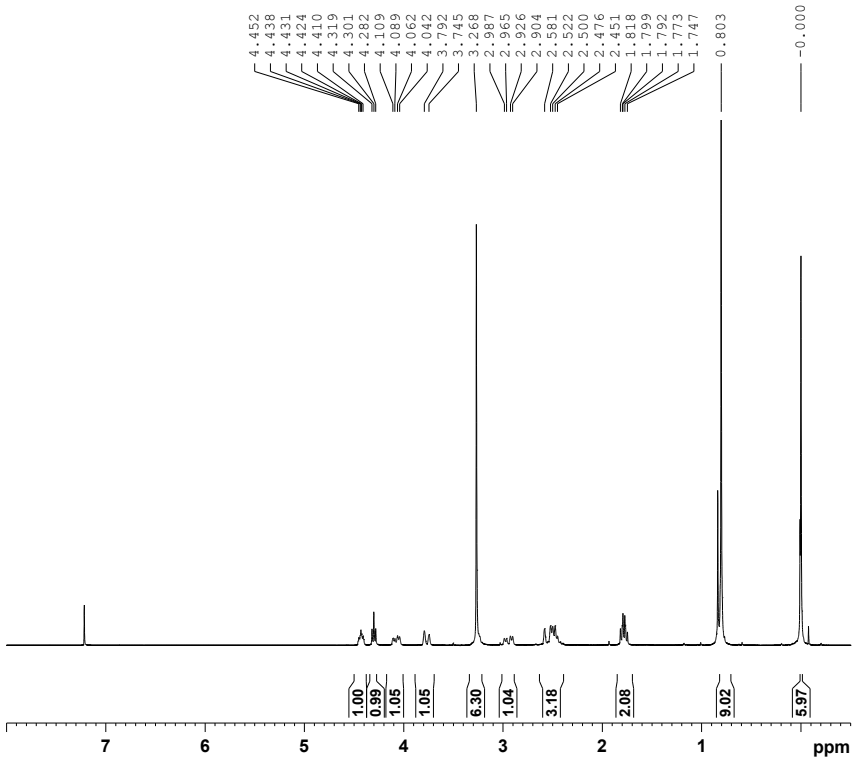

```
NAME               noesy
EXPNO                104
PROCNO                 1
Date_           20101011
Time              14.58
INSTRUM           spect
PROBHD   5 mm PATXI 1H-
PULPROG       noesygpph
TD                 2048
SOLVENT            CDCl3
NS                    8
DS                   16
SWH           6009.615 Hz
FIDRES        2.934382 Hz
AQ           0.1705268 sec
RG                   32
DW              83.200 usec
DE               6.50 usec
TE              298.0 K
D0           0.00007047 sec
D1           1.50000000 sec
D8           0.80000001 sec
D16          0.00020000 sec
IN0          0.00016640 sec

======== CHANNEL f1 ========
NUC1                  1H
P1                10.00 usec
P2                20.00 usec
PL1                1.30 dB
PL1W        18.62087250 W
SFO1         600.1324005 MHz

====== GRADIENT CHANNEL =====
GPNAM1          SINE.100
GPNAM2          SINE.100
GPX1                0.00 %
GPX2                0.00 %
GPY1                0.00 %
GPY2                0.00 %
GPZ1               40.00 %
GPZ2              -40.00 %
P16              1000.00 usec
ND0                    1
TD                   256
SFO1          600.1324 MHz
FIDRES        23.475023 Hz
SW              10.014 ppm
FnMODE       States-TPPI
SI                  1024
SF           600.1300000 MHz
WDW                QSINE
SSB                    2
LB                  0.00 Hz
GB                     0
PC                  1.40
SI                  1024
MC2          States-TPPI
SF           600.1300000 MHz
WDW                QSINE
SSB                    2
LB                  0.00 Hz
GB                     0
```



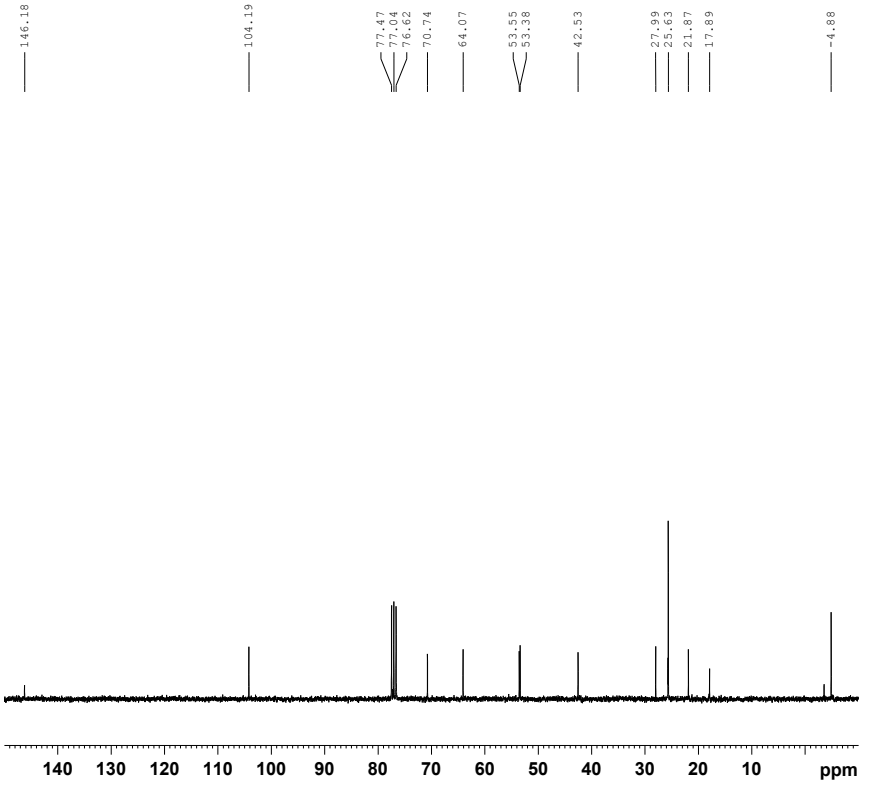

```
NAME              zz1-405
EXPNO                  10
PROCNO                  1
Date_            20101012
Time                9.42
INSTRUM            spect
PROBHD   5 mm DUL 13C-1
PULPROG             zg30
TD                 65536
SOLVENT            CDCl3
NS                     2
DS                     0
SWH             8992.806 Hz
FIDRES          0.137219 Hz
AQ              3.6438515 sec
RG                   128
DW                55.600 usec
DE                 8.00 usec
TE                296.9 K
D1           1.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                10.80 usec
PL1                3.00 dB
SFO1        300.1324010 MHz
SI                 32768
SF          300.1300263 MHz
WDW                   EM
SSB                    0
LB                 0.30 Hz
GB                     0
PC                 1.00
```



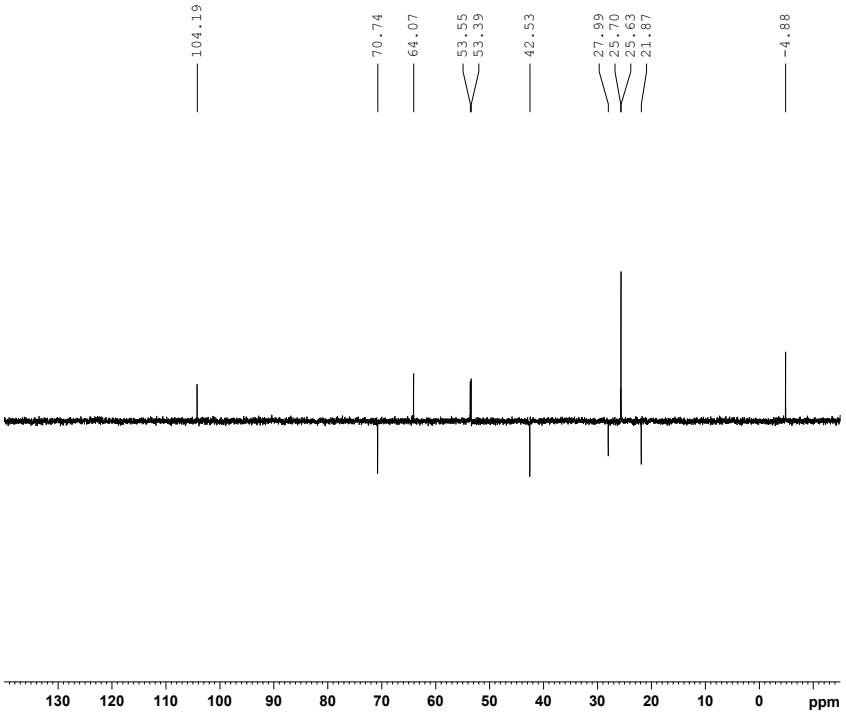

```
NAME              zz1-405
EXPNO                  12
PROCNO                  1
Date_            20101012
Time                9.49
INSTRUM            spect
PROBHD   5 mm DUL 13C-1
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                    75
DS                     4
SWH            17985.611 Hz
FIDRES          0.274439 Hz
AQ              1.8219508 sec
RG                 11585.2
DW                27.800 usec
DE                 8.00 usec
TE                297.3 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                 13C
P1                12.50 usec
PL1                2.00 dB
SFO1         75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                  1H
PCPD2            100.00 usec
PL2                3.00 dB
PL12              22.33 dB
PL13              23.00 dB
SFO2        300.1312005 MHz
SI                 32768
SF          75.4677490 MHz
WDW                   EM
SSB                    0
LB                 1.00 Hz
GB                     0
PC                 1.40
```



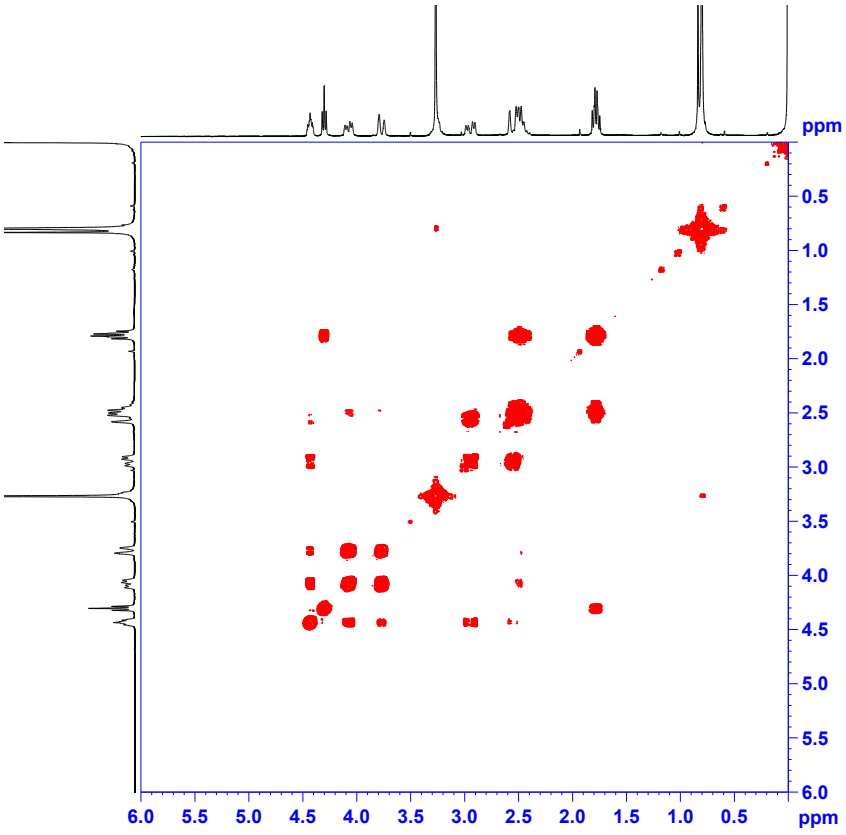

```
NAME            zz1-404-2
EXPNO                  20
PROCNO                  1
Date_            20110509
Time                15.19
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG              zg30
TD                  65536
SOLVENT             CDCl3
NS                     16
DS                      0
SWH              8992.806 Hz
FIDRES           0.137219 Hz
AQ               3.6438515 sec
RG                    128
DW                 55.600 usec
DE                  8.00 usec
TE                 300.0 K
D1            1.00000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                   1H
P1                 10.80 usec
PL1                 3.00 dB
SFO1         300.1324010 MHz
SI                  32768
SF           300.1300194 MHz
WDW                    EM
SSB                     0
LB                 0.30 Hz
GB                      0
PC                 1.00
```

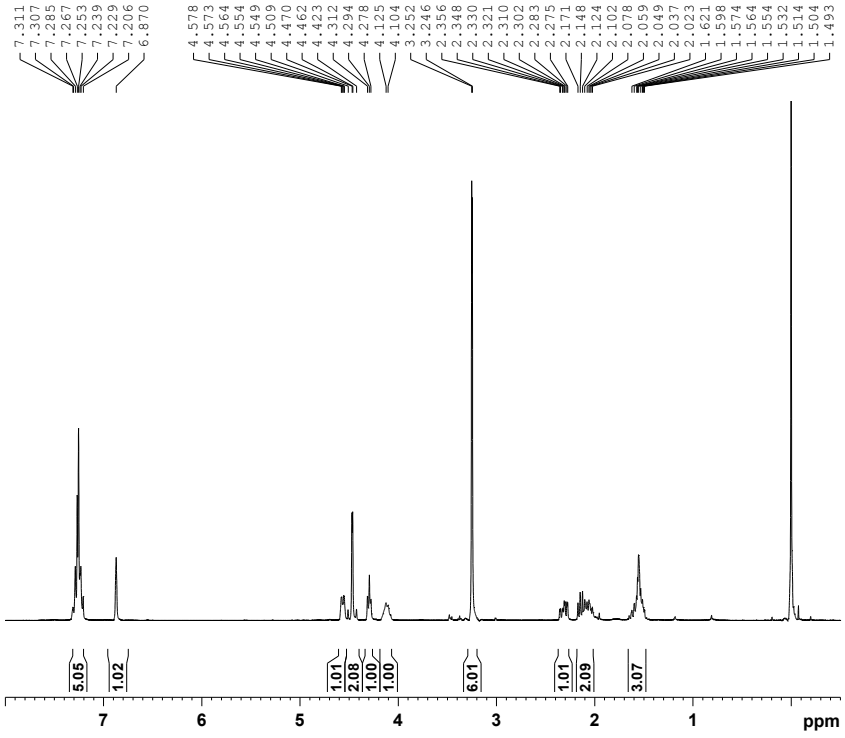



```
NAME            zz1-404-2
EXPNO                  21
PROCNO                  1
Date_            20110509
Time                15.25
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG            zgpg30
TD                  65536
SOLVENT             CDCl3
NS                     68
DS                      4
SWH             17985.611 Hz
FIDRES           0.274439 Hz
AQ               1.8219508 sec
RG                    512
DW                 27.800 usec
DE                  6.50 usec
TE                 300.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                  13C
P1                 12.50 usec
PL1                 2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                   1H
PCPD2             100.00 usec
PL2                 3.00 dB
PL12               22.33 dB
PL13               23.00 dB
SFO2         300.1312005 MHz
SI                  32768
SF           75.4677490 MHz
WDW                    EM
SSB                     0
LB                 1.00 Hz
GB                      0
PC                 1.40
```

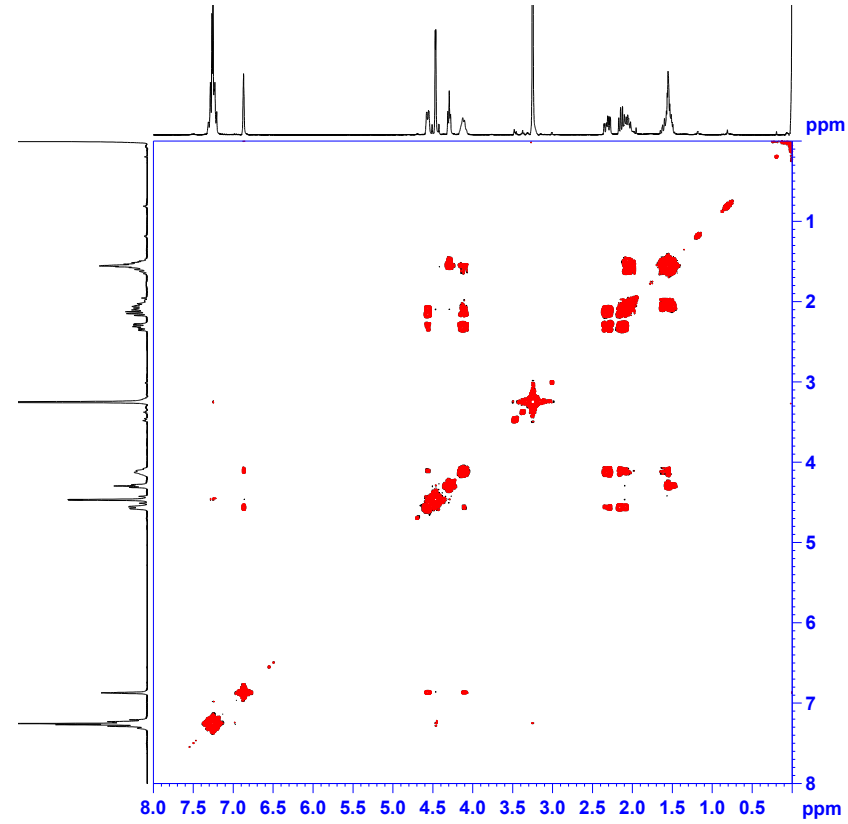



```
NAME            zz1-404-2
EXPNO                  22
PROCNO                  1
Date_            20110509
Time                15.27
INSTRUM             spect
PROBHD    5 mm DUL 13C-1
PULPROG           dept135
TD                  65536
SOLVENT             CDCl3
NS                     28
DS                      4
SWH             17985.611 Hz
FIDRES          0.274439 Hz
AQ              1.8219508 sec
RG                  16384
DW                27.800 usec
DE                 6.50 usec
TE                300.0 K
CNST2        145.0000000
D1            2.00000000 sec
D2            0.00344828 sec
D12           0.00002000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                  13C
P1                  12.50 usec
P2                  25.00 usec
PL1                  2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                  1H
P3                 10.80 usec
P4                 21.60 usec
PCPD2             100.00 usec
PL2                 3.00 dB
```

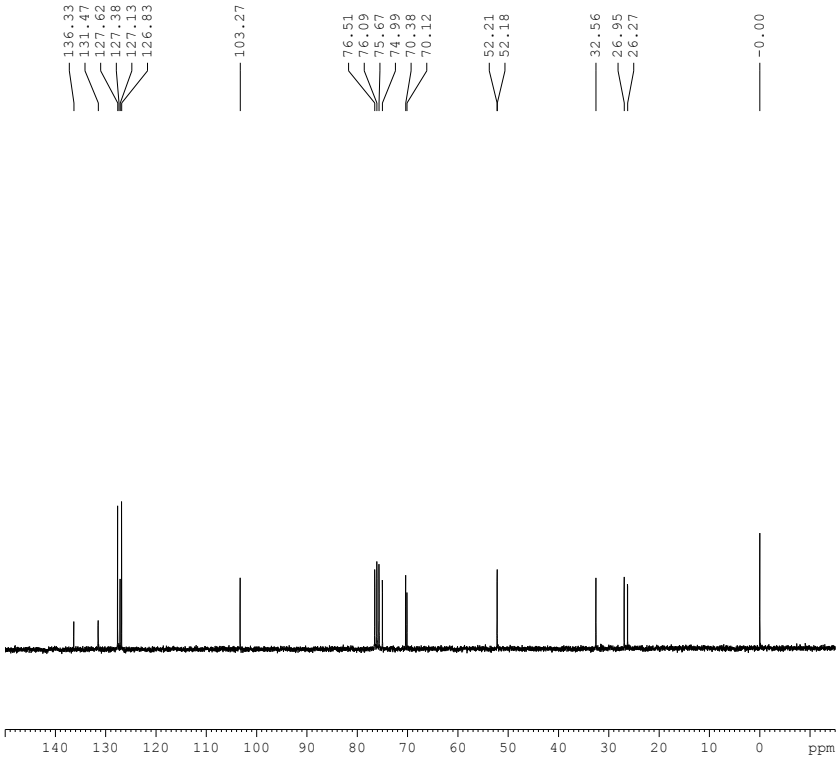




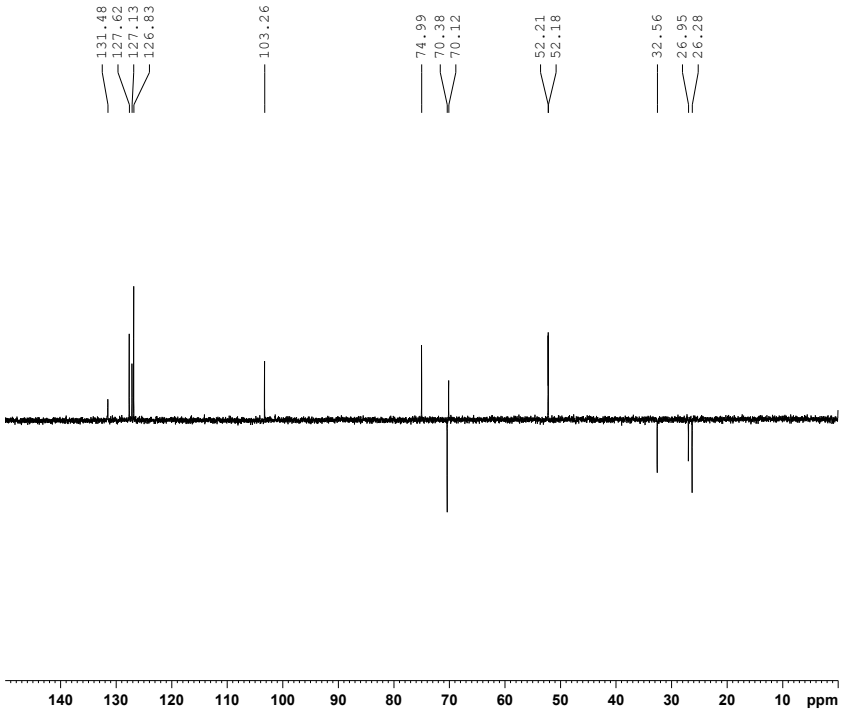

```
NAME              zz1-411
EXPNO                  30
PROCNO                  1
Date_            20101022
Time                13.28
INSTRUM             spect
PROBHD    5 mm DUL 13C-1
PULPROG              zg30
TD                  65536
SOLVENT             CDCl3
NS                      4
DS                      0
SWH              8992.806 Hz
FIDRES           0.137219 Hz
AQ               3.6438515 sec
RG                     64
DW                55.600 usec
DE                 8.00 usec
TE                298.6 K
D1             1.00000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                   1H
P1                 10.80 usec
PL1                 3.00 dB
SFO1         300.1324010 MHz
SI                  32768
SF           300.1300220 MHz
WDW                    EM
SSB                     0
LB                 0.30 Hz
GB                      0
PC                 1.00
```



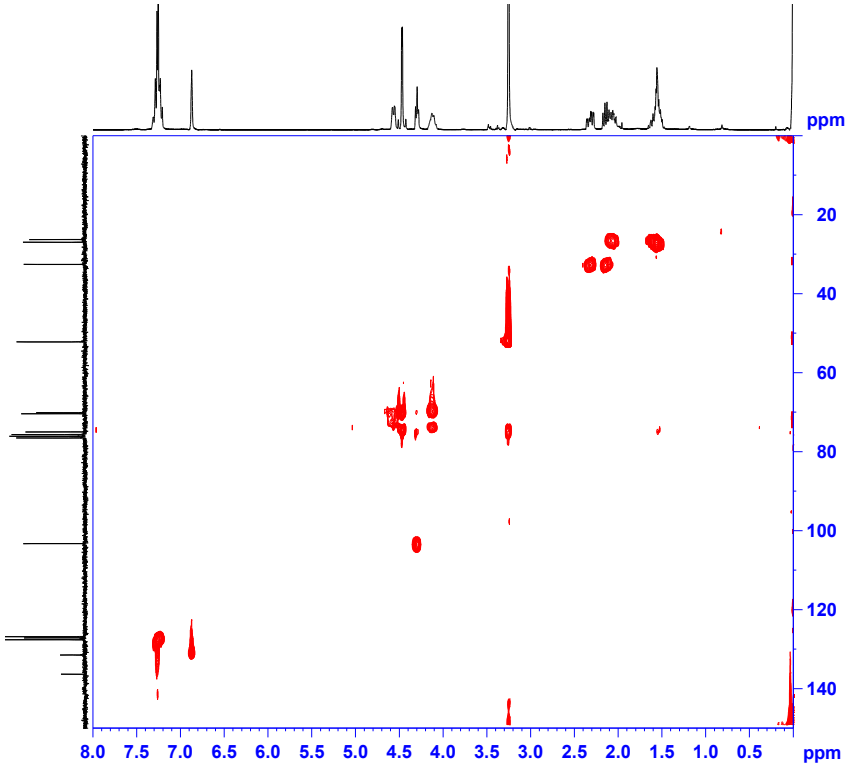

```
NAME              zz1-411
EXPNO                  31
PROCNO                  1
Date_            20101022
Time                13.29
INSTRUM             spect
PROBHD    5 mm DUL 13C-1
PULPROG          cosygpqf
TD                   2048
SOLVENT             CDCl3
NS                      1
DS                      8
SWH              2653.928 Hz
FIDRES           1.295863 Hz
AQ               0.3858932 sec
RG                   40.3
DW                188.400 usec
DE                 8.00 usec
TE                298.6 K
D0             0.00000300 sec
D1             1.41152501 sec
D13            0.00000400 sec
D16            0.00020000 sec
IN0            0.00037680 sec

======== CHANNEL f1 ========
NUC1                   1H
P0                 10.80 usec
P1                 10.80 usec
PL1                 3.00 dB
SFO1         300.1311255 MHz

====== GRADIENT CHANNEL =====
GPNAM1          SINE.100
GPZ1               10.00 %
P16              1000.00 usec
ND0                     1
TD                    128
SFO1           300.1311 MHz
FIDRES         20.733810 Hz
SW                 8.843 ppm
FnMODE                 QF
SI                   1024
SF           300.1300220 MHz
WDW                 SINE
SSB                     0
LB                 0.00 Hz
GB                      0
PC                 1.40
SI                   1024
MC2                    QF
SF           300.1300220 MHz
WDW                 SINE
SSB                     0
LB                 0.00 Hz
GB                      0
```



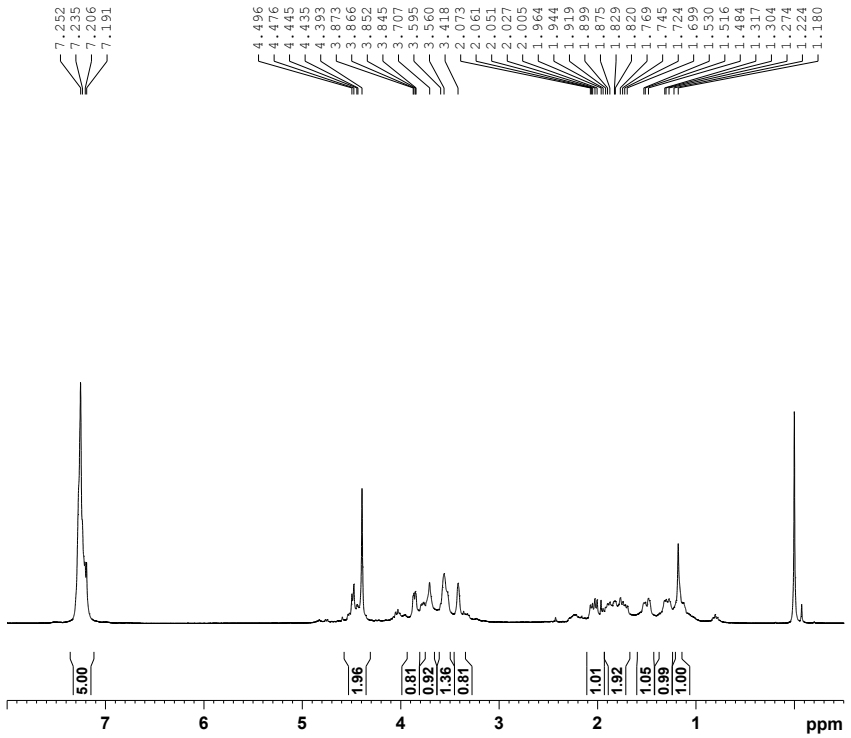

```
NAME              zz1-411
EXPNO                  32
PROCNO                  1
Date_            20101022
Time                13.35
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG           zgpg30
TD                  65536
SOLVENT             CDCl3
NS                     45
DS                      4
SWH             17985.611 Hz
FIDRES          0.274439 Hz
AQ              1.8219508 sec
RG                   4096
DW                27.800 usec
DE                 8.00 usec
TE                298.8 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                  13C
P1                  12.50 usec
PL1                  2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                  1H
PCPD2              100.00 usec
PL2                  3.00 dB
PL12                22.33 dB
PL13                23.00 dB
SFO2         300.1312005 MHz
SI                  32768
SF            75.4678249 MHz
WDW                   EM
SSB                    0
LB                  1.00 Hz
GB                     0
PC                  1.40
```



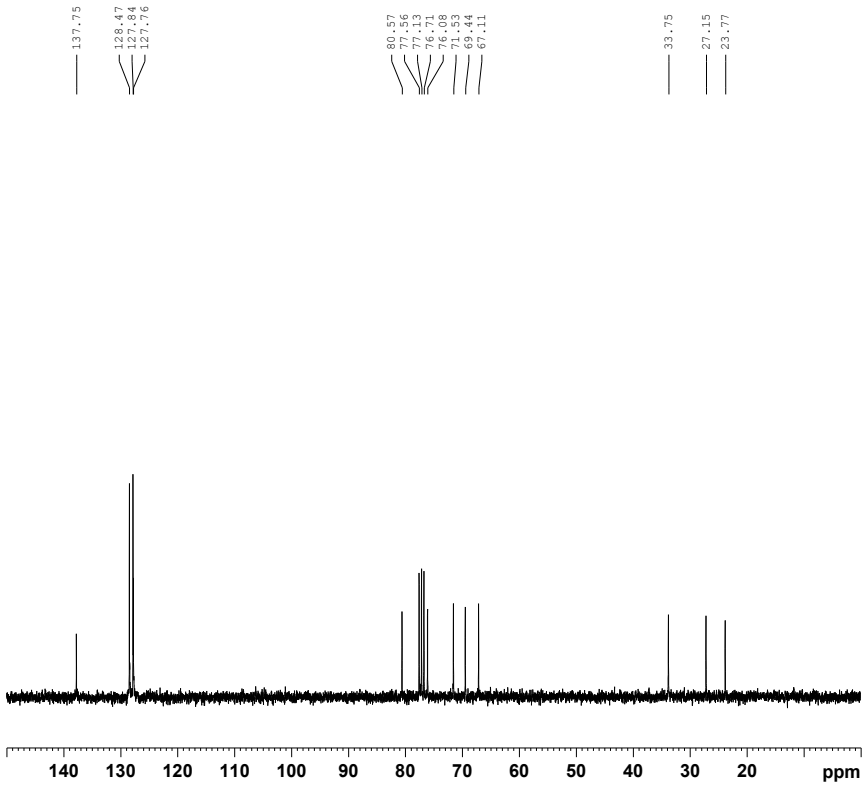

```
NAME              zz1-411
EXPNO                  33
PROCNO                  1
Date_            20101022
Time                13.39
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG           dept135
TD                  65536
SOLVENT             CDCl3
NS                     24
DS                      4
SWH             17985.611 Hz
FIDRES          0.274439 Hz
AQ              1.8219508 sec
RG                  16384
DW                27.800 usec
DE                 8.00 usec
TE                298.9 K
CNST2        145.0000000
D1           2.00000000 sec
D2           0.00344828 sec
D12          0.00002000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                  13C
P1                  12.50 usec
P2                  25.00 usec
PL1                  2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                  1H
P3                  10.80 usec
P4                  21.60 usec
PCPD2              100.00 usec
PL2                  3.00 dB
```



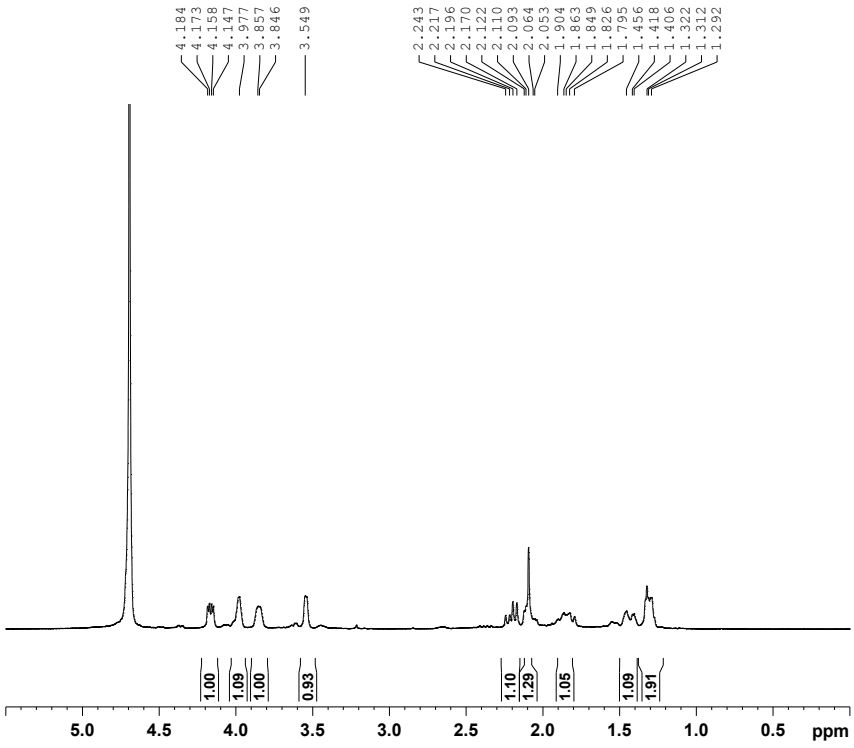

```
NAME          zzl-411-hsqc
EXPNO                    1
PROCNO                   1
Date_             20101022
Time                 13.42
INSTRUM              spect
PROBHD   5 mm DUL 13C-1
PULPROG          hsqcetgp
TD                    2048
SOLVENT              CDCl3
NS                       4
DS                      16
SWH                2997.602
FIDRES             1.463673
AQ                0.3416564
RG                  14596.5
DW                   166.800
DE                      8.00
TE                     298.9
CNST2             145.0000000
D0                 0.00000300
D1                 1.50000000
D4                 0.00172414
D11                0.03000000
D13                0.00000400
D16                0.00020000
IN0                0.00004415
ZGOPTNS

======== CHANNEL f1 ========
NUC1                     1H
P1                    10.80
P2                    21.60
P28                 1000.00
PL1                    3.00
SFO1           300.1315007

======== CHANNEL f2 ========
CPDPRG2                garp
NUC2                    13C
P3                    12.50
P4                    25.00
PCPD2                 90.00
PL2                    2.00
PL12                  19.15
SFO2           75.4734091
```



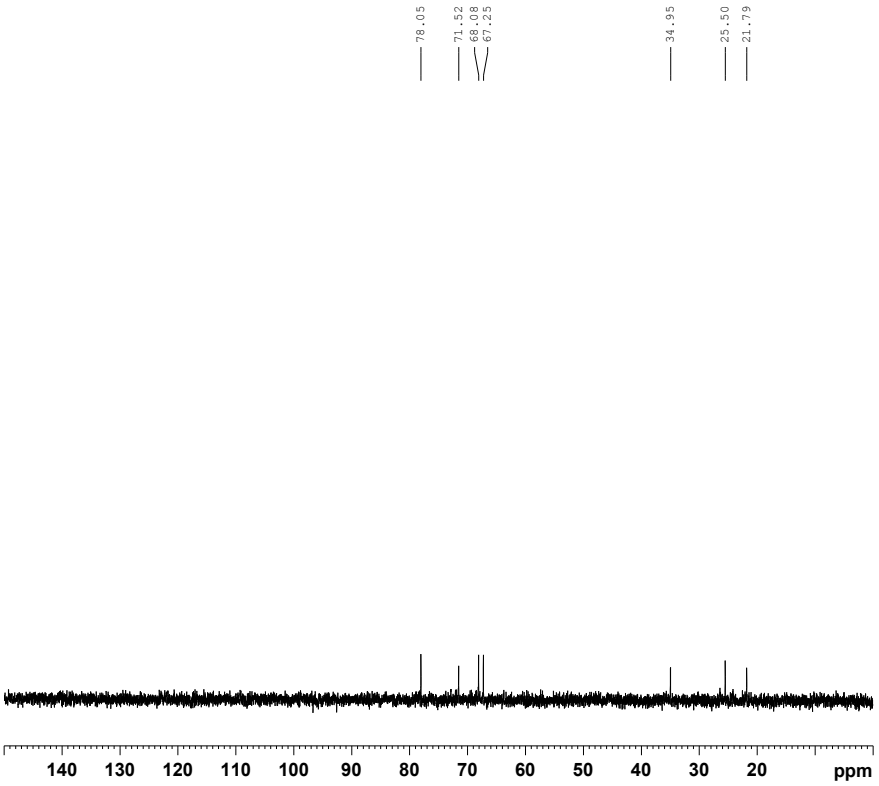

```
NAME             zzl-414
EXPNO                 60
PROCNO                 1
Date_           20101207
Time               8.58
INSTRUM           spect
PROBHD   5 mm DUL 13C-1
PULPROG             zg30
TD                 65536
SOLVENT            CDCl3
NS                    16
DS                     0
SWH             8992.806 Hz
FIDRES          0.137219 Hz
AQ              3.6438515 sec
RG                    64
DW                55.600 usec
DE                 8.00 usec
TE                295.5 K
D1             1.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                   1H
P1                10.80 usec
PL1                3.00 dB
SFO1         300.1324010 MHz
SI                 32768
SF           300.1300265 MHz
WDW                   EM
SSB                    0
LB                0.30 Hz
GB                     0
PC                1.00
```



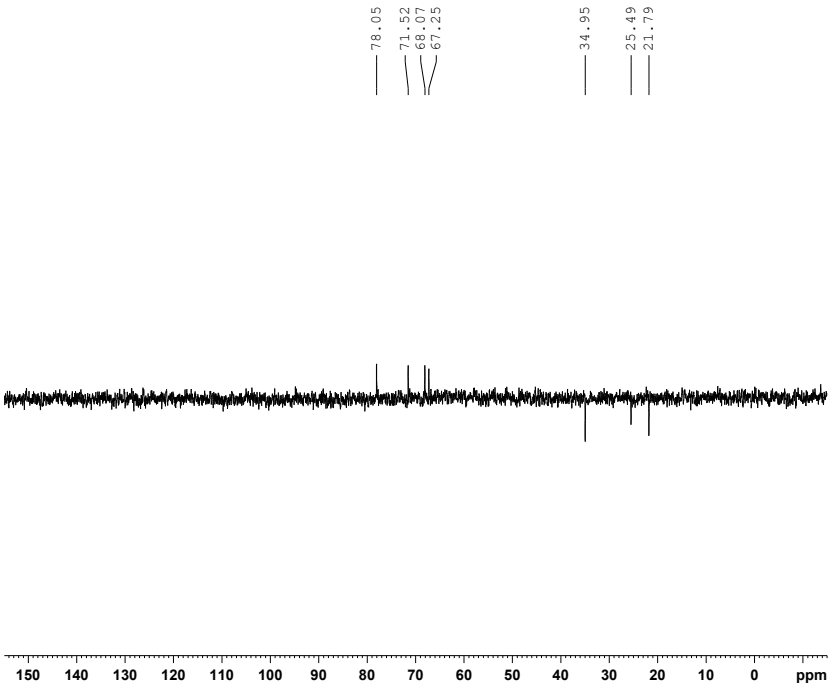

```
NAME              zz1-414
EXPNO                  91
PROCNO                  1
Date_            20110331
Time                15.08
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG            zgpg30
TD                  65536
SOLVENT             CDCl3
NS                     15
DS                      4
SWH             17985.611 Hz
FIDRES          0.274439 Hz
AQ              1.8219508 sec
RG                 1625.5
DW                27.800 usec
DE                 6.50 usec
TE                 299.0 K
D1            2.00000000 sec
D11           0.03000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                  13C
P1                 12.50 usec
PL1                 2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                   1H
PCPD2             100.00 usec
PL2                 3.00 dB
PL12               22.33 dB
PL13               23.00 dB
SFO2         300.1312005 MHz
SI                  32768
SF            75.4677490 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   1.40
```



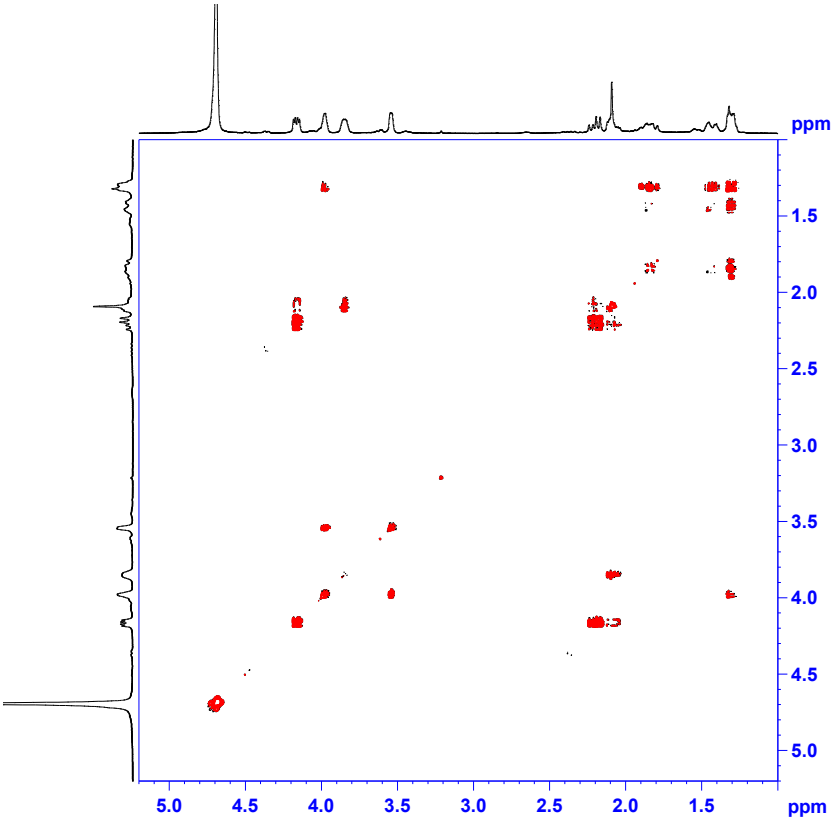

```
NAME          zz1-418-NOH
EXPNO                  30
PROCNO                  1
Date_            20110124
Time                9.07
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG             zg30
TD                  65536
SOLVENT               D2O
NS                     16
DS                      0
SWH              8992.806 Hz
FIDRES          0.137219 Hz
AQ              3.6438515 sec
RG                 322.5
DW                55.600 usec
DE                 8.00 usec
TE                 295.1 K
D1            1.00000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                   1H
P1                 10.80 usec
PL1                 3.00 dB
SFO1         300.1324010 MHz
SI                  32768
SF           300.1300000 MHz
WDW                    EM
SSB                     0
LB                   0.30 Hz
GB                      0
PC                   1.00
```



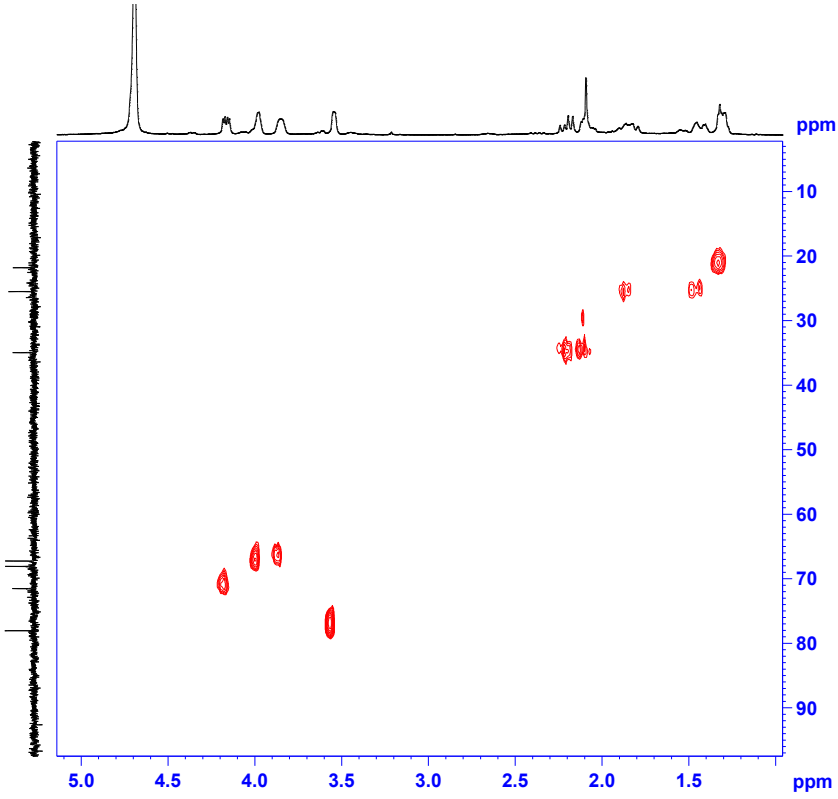

```
NAME          zzl-418-NOH
EXPNO                  31
PROCNO                  1
Date_           20110124
Time                9.11
INSTRUM            spect
PROBHD   5 mm DUL 13C-1
PULPROG          zgpg30
TD                 65536
SOLVENT              D2O
NS                   128
DS                     4
SWH           17985.611 Hz
FIDRES         0.274439 Hz
AQ             1.8219508 sec
RG                 16384
DW                27.800 usec
DE                 8.00 usec
TE                295.3 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  13C
P1                 12.50 usec
PL1                 2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                  1H
PCPD2             100.00 usec
PL2                 3.00 dB
PL12               22.33 dB
PL13               23.00 dB
SFO2         300.1312005 MHz
SI                 32768
SF            75.4677490 MHz
WDW                   EM
SSB                    0
LB                  1.00 Hz
GB                     0
PC                  1.40
```



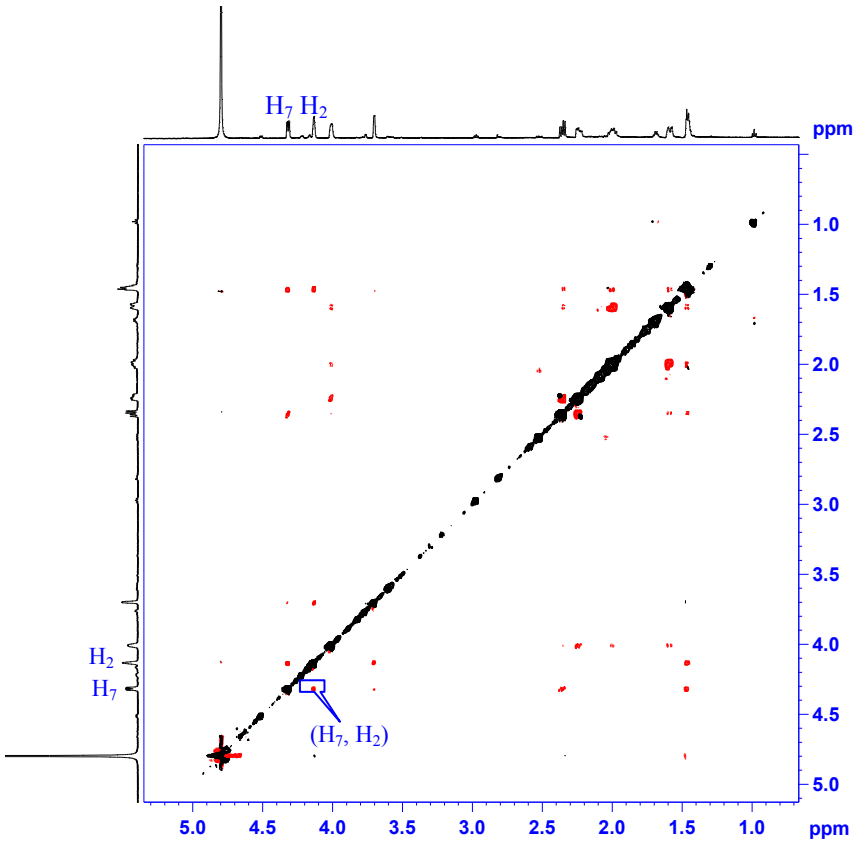

```
NAME          zzl-418-NOH
EXPNO                  32
PROCNO                  1
Date_           20110124
Time                9.18
INSTRUM            spect
PROBHD   5 mm DUL 13C-1
PULPROG          dept135
TD                 65536
SOLVENT              D2O
NS                    46
DS                     4
SWH           17985.611 Hz
FIDRES         0.274439 Hz
AQ             1.8219508 sec
RG                 16384
DW                27.800 usec
DE                 8.00 usec
TE                295.2 K
CNST2        145.0000000
D1            2.00000000 sec
D2            0.00344828 sec
D12           0.00002000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  13C
P1                 12.50 usec
P2                 25.00 usec
PL1                 2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                  1H
P3                 10.80 usec
P4                 21.60 usec
PCPD2             100.00 usec
PL2                 3.00 dB
PL12               22.33 dB
SFO2         300.1312005 MHz
SI                 32768
SF            75.4677490 MHz
WDW                   EM
```



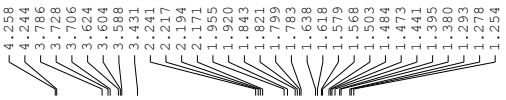

```
NAME          zz1-418-NOH
EXPNO                  34
PROCNO                  1
Date_            20110124
Time_                9.24
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG          cosygpqf
TD                   2048
SOLVENT               D2O
NS                      1
DS                      8
SWH              1477.541 Hz
FIDRES           0.721456 Hz
AQ              0.6930932 sec
RG                  228.1
DW                338.400 usec
DE                  8.00 usec
TE                294.8 K
D0              0.00000300 sec
D1              1.10432506 sec
D13             0.00000400 sec
D16             0.00020000 sec
IN0             0.00067680 sec

======== CHANNEL f1 ========
NUC1                   1H
P0                  10.80 usec
P1                  10.80 usec
PL1                  3.00 dB
SFO1          300.1309443 MHz

====== GRADIENT CHANNEL =====
GPNAM1            SINE.100
GPZ1                10.00 %
P16               1000.00 usec
ND0                     1
TD                    128
SFO1             300.1309 MHz
FIDRES          11.543292 Hz
SW                  4.923 ppm
FnMODE                 QF
SI                   1024
SF            300.1300000 MHz
WDW                 SINE
SSB                    0
LB                  0.00 Hz
GB                     0
PC                  1.40
SI                   1024
MC2                    QF
SF            300.1300000 MHz
WDW                 SINE
SSB                    0
LB                  0.00 Hz
GB                     0
```



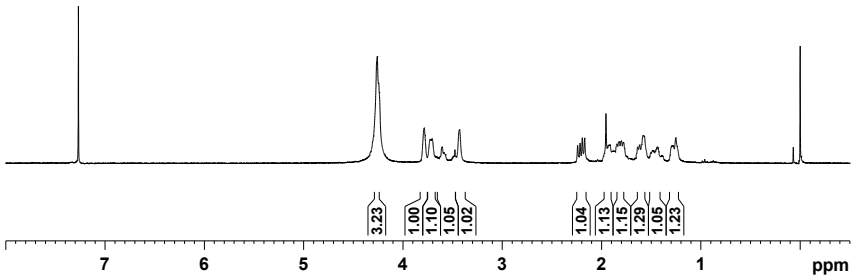

```
NAME          zz1-418-NOH-hsqc
EXPNO                     1
PROCNO                    1
Date_              20110124
Time_                 9.31
INSTRUM              spect
PROBHD    5 mm DUL 13C-1
PULPROG           hsqcetgp
TD                    2048
SOLVENT                D2O
NS                       4
DS                      16
SWH              2997.602 Hz
FIDRES           1.463673 Hz
AQ              0.3416564 sec
RG                14596.5
DW                166.800 usec
DE                  8.00 usec
TE                295.2 K
CNST2         145.0000000
D0              0.00000300 sec
D1              1.50000000 sec
D4              0.00172414 sec
D11             0.03000000 sec
D13             0.00000400 sec
D16             0.00020000 sec
IN0             0.00004415 sec
ZGOPTNS

======== CHANNEL f1 ========
NUC1                   1H
P1                  10.80 usec
P2                  21.60 usec
P28               1000.00 usec
PL1                  3.00 dB
SFO1          300.1315007 MHz

======== CHANNEL f2 ========
CPDPRG2              garp
NUC2                  13C
P3                  12.50 usec
P4                  25.00 usec
PCPD2               90.00 usec
PL2                  2.00 dB
PL12                19.15 dB
SFO2           75.4734091 MHz

====== GRADIENT CHANNEL =====
GPNAM1            SINE.100
GPNAM2            SINE.100
GPZ1                80.00 %
GPZ2                20.10 %
P16               1000.00 usec
ND0                     2
TD                     92
SFO1             75.47341 MHz
```

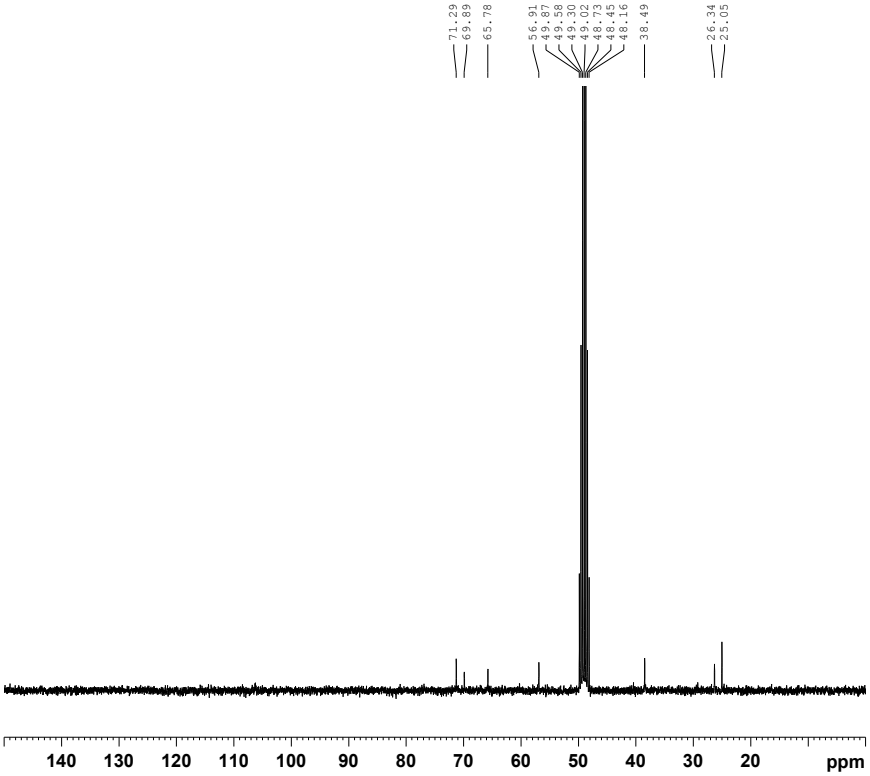



```
NAME                noesy
EXPNO                  30
PROCNO                  1
Date_            20110303
Time                 8.07
INSTRUM             spect
PROBHD    5 mm BBI 1H-BB
PULPROG        noesygpph
TD                   2048
SOLVENT               D2O
NS                      4
DS                     16
SWH             4807.692 Hz
FIDRES          2.347506 Hz
AQ              0.2131460 sec
RG                  812.7
DW                104.000 usec
DE                  6.50 usec
TE                298.0 K
D0              0.00008876 sec
D1              2.00000000 sec
D8              0.80000001 sec
D16             0.00020000 sec
IN0             0.00020800 sec

======== CHANNEL f1 ========
NUC1                   1H
P1                  11.97 usec
P2                  23.94 usec
PL1                  2.00 dB
PL1W         15.84893227 W
SFO1         600.1324005 MHz

====== GRADIENT CHANNEL =====
GPNAM1           SINE.100
GPNAM2           SINE.100
GPZ1                40.00 %
GPZ2               -40.00 %
P16               1000.00 usec
ND0                     1
TD                    256
SFO1            600.1324 MHz
FIDRES          18.779924 Hz
SW                  8.011 ppm
FnMODE        States-TPPI
SI                   4096
SF           600.1300000 MHz
WDW                 QSINE
SSB                     2
LB                   0.00 Hz
GB                      0
PC                   1.40
SI                   1024
MC2           States-TPPI
SF           600.1300000 MHz
WDW                 QSINE
SSB                     2
LB                   0.00 Hz
GB                      0
```

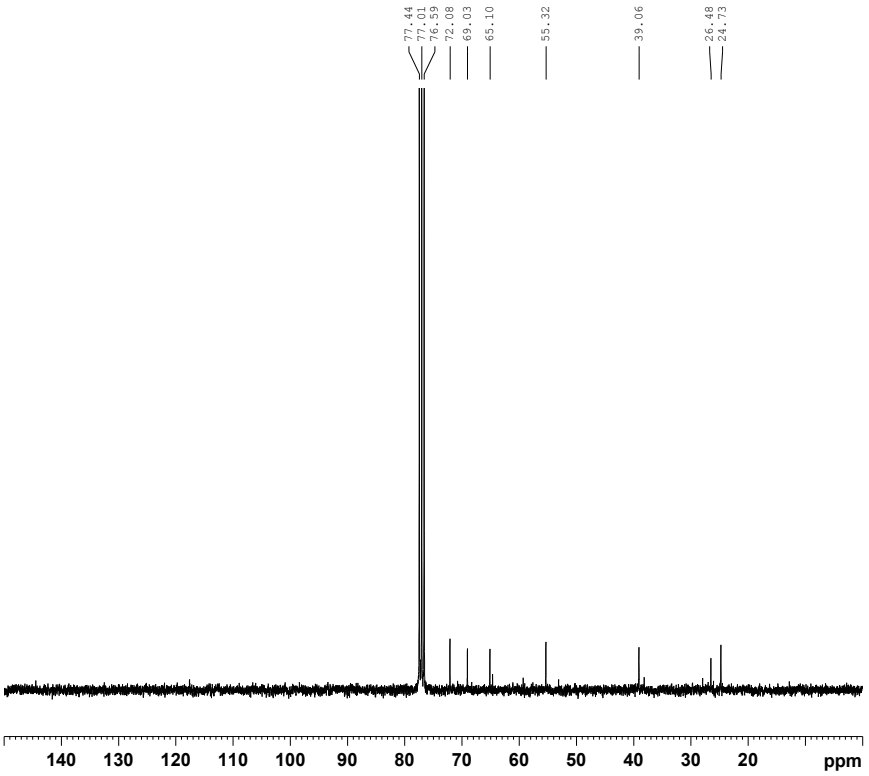



```
NAME            zz1-418-CDCl3
EXPNO                  14
PROCNO                  1
Date_            20110407
Time                15.45
INSTRUM             spect
PROBHD    5 mm DUL 13C-1
PULPROG              zg30
TD                  65536
SOLVENT             CDCl3
NS                      3
DS                      0
SWH              8992.806 Hz
FIDRES           0.137219 Hz
AQ               3.6438515 sec
RG                  456.1
DW                55.600 usec
DE                  8.00 usec
TE                298.2 K
D1           1.00000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                   1H
P1                 10.80 usec
PL1                 3.00 dB
SFO1         300.1324010 MHz
SI                  32768
SF           300.1300041 MHz
WDW                    EM
SSB                     0
LB                   0.30 Hz
GB                      0
PC                   1.00
```

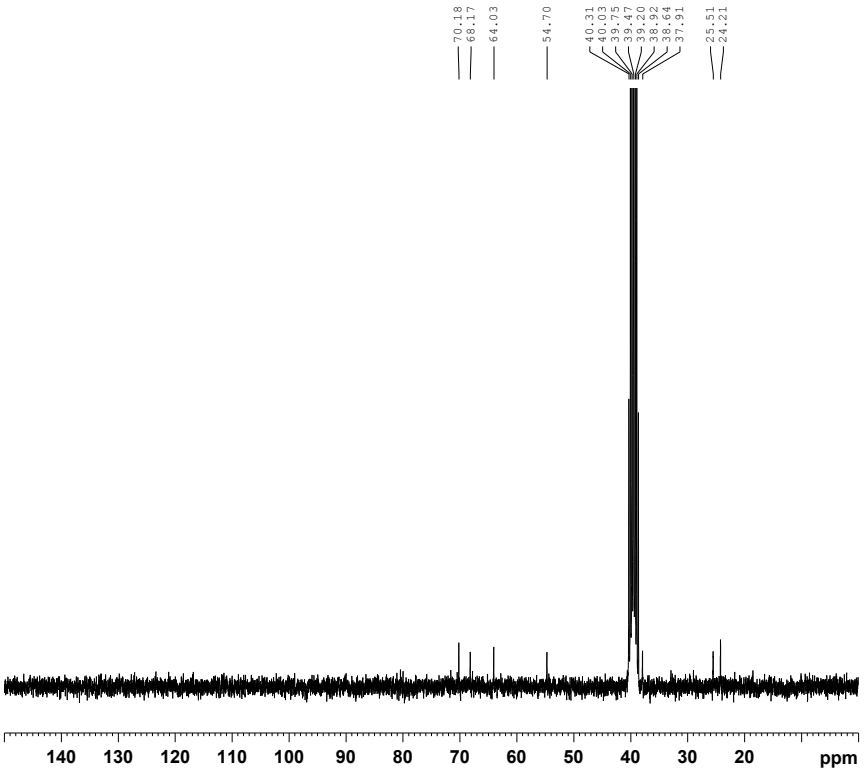




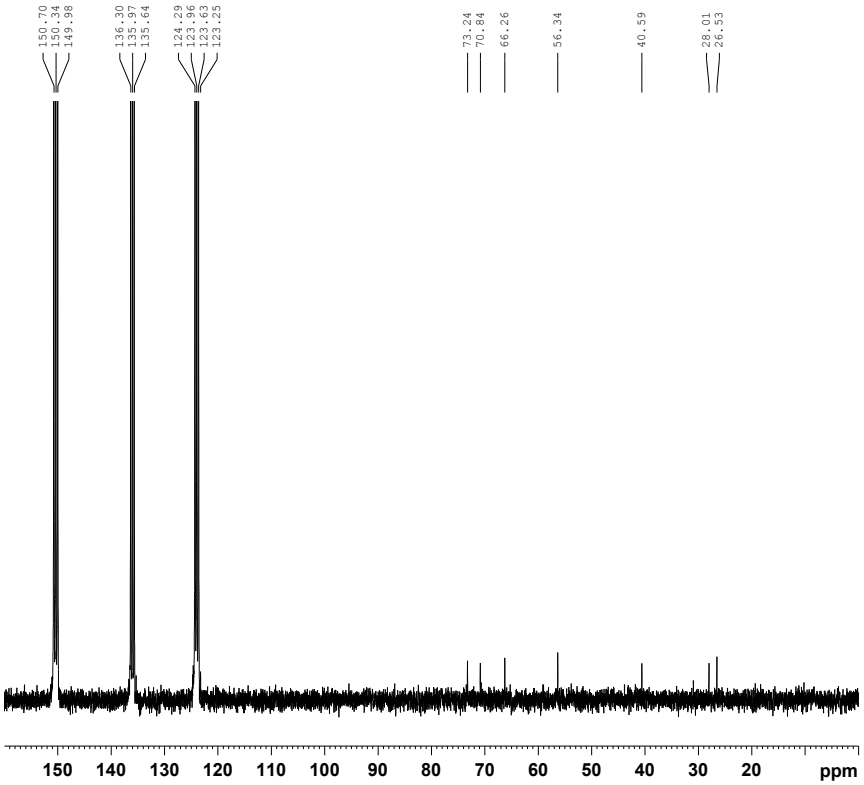

```
NAME          zz1-418-MeOH
EXPNO                   10
PROCNO                   1
Date_             20110406
Time                 14.38
INSTRUM              spect
PROBHD    5 mm DUL 13C-1
PULPROG           zgpg30
TD                  65536
SOLVENT               MeOD
NS                     155
DS                       4
SWH              17985.611 Hz
FIDRES            0.274439 Hz
AQ                1.8219508 sec
RG                   9195.2
DW                  27.800 usec
DE                   6.50 usec
TE                  297.1 K
D1              2.00000000 sec
D11             0.03000000 sec
TD0                      1

======== CHANNEL f1 ========
NUC1                   13C
P1                   12.50 usec
PL1                   2.00 dB
SFO1           75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                   1H
PCPD2              100.00 usec
PL2                  3.00 dB
PL12                22.33 dB
PL13                23.00 dB
SFO2          300.1312005 MHz
SI                  32768
SF             75.4676418 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   1.40
```



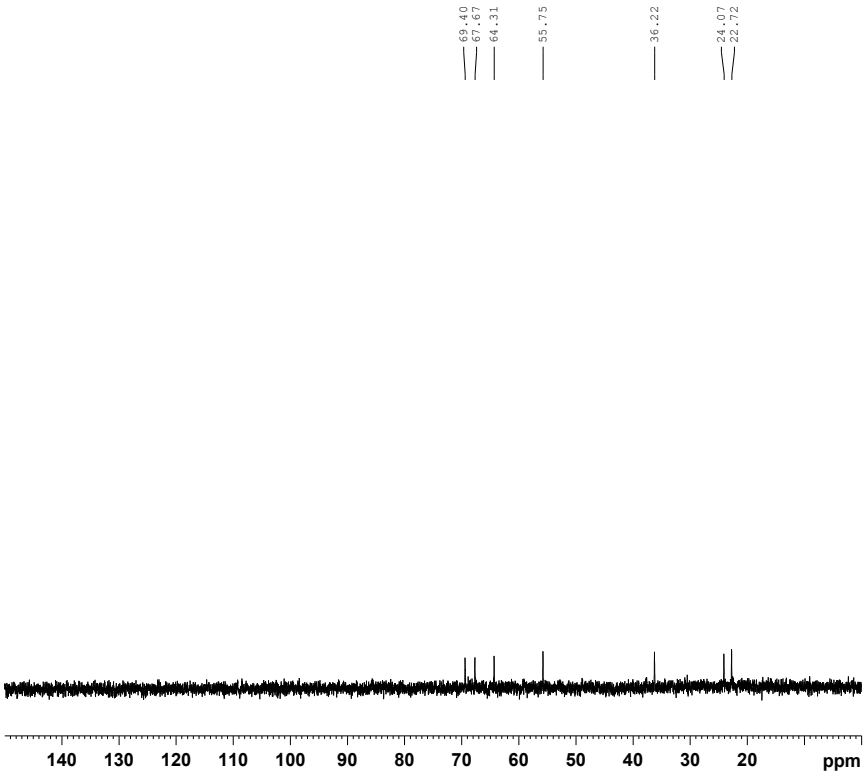

```
NAME          zz1-418-CDCl3
EXPNO                   12
PROCNO                   1
Date_             20110407
Time                 15.12
INSTRUM              spect
PROBHD    5 mm DUL 13C-1
PULPROG           zgpg30
TD                  65536
SOLVENT              CDCl3
NS                     453
DS                       4
SWH              17985.611 Hz
FIDRES            0.274439 Hz
AQ                1.8219508 sec
RG                   456.1
DW                  27.800 usec
DE                   6.50 usec
TE                  298.1 K
D1              2.00000000 sec
D11             0.03000000 sec
TD0                      1

======== CHANNEL f1 ========
NUC1                   13C
P1                   12.50 usec
PL1                   2.00 dB
SFO1           75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                   1H
PCPD2              100.00 usec
PL2                  3.00 dB
PL12                22.33 dB
PL13                23.00 dB
SFO2          300.1312005 MHz
SI                  32768
SF             75.4677490 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   1.40
```



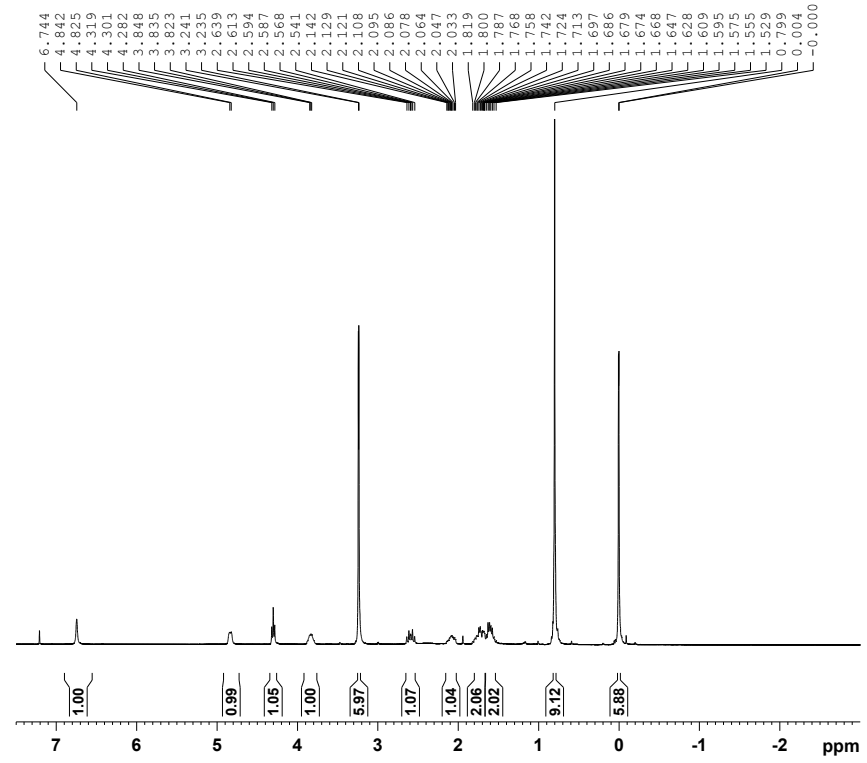

```
NAME        zz1-418-DMSO
EXPNO                 10
PROCNO                 1
Date_           20110405
Time              13.37
INSTRUM           spect
PROBHD    5 mm DUL 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT             DMSO
NS                  309
DS                    4
SWH           17985.611 Hz
FIDRES         0.274439 Hz
AQ             1.8219508 sec
RG                 4096
DW               27.800 usec
DE                6.50 usec
TE                296.8 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                 13C
P1                12.50 usec
PL1                2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2            100.00 usec
PL2                3.00 dB
PL12               22.33 dB
PL13               23.00 dB
SFO2         300.1312005 MHz
SI                 32768
SF            75.4677867 MHz
WDW                   EM
SSB                    0
LB                  1.00 Hz
GB                     0
PC                  1.40
```



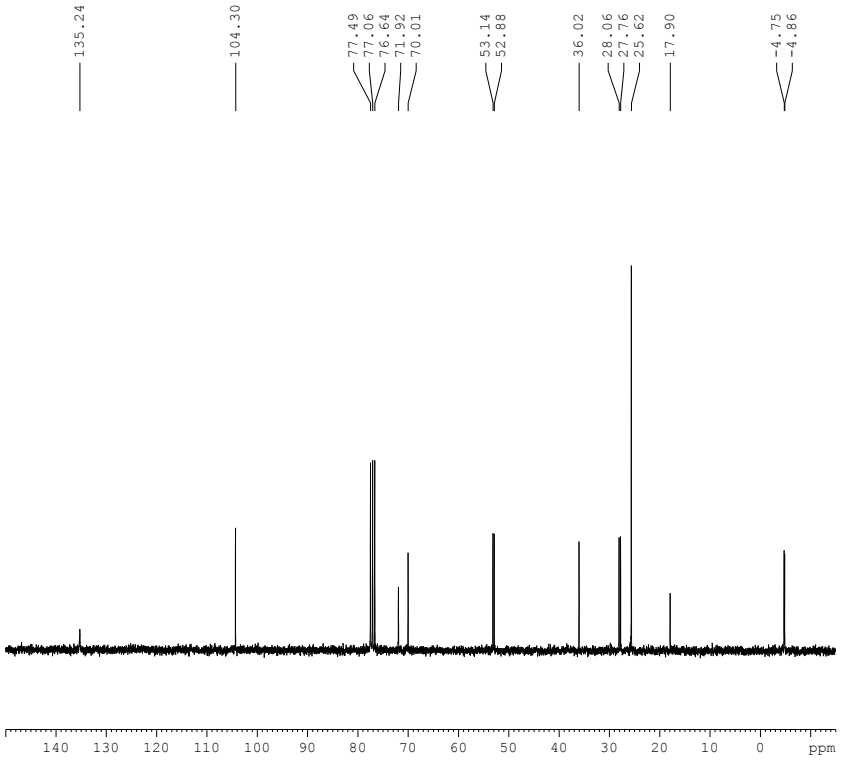

```
NAME      zz1-418-Pyridine
EXPNO                 10
PROCNO                 1
Date_           20110406
Time              17.18
INSTRUM           spect
PROBHD    5 mm DUL 13C-1
PULPROG          zgpg30
TD                65536
SOLVENT             Pyr
NS                  488
DS                    4
SWH           17985.611 Hz
FIDRES         0.274439 Hz
AQ             1.8219508 sec
RG                 2580.3
DW               27.800 usec
DE                6.50 usec
TE                297.9 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                 13C
P1                12.50 usec
PL1                2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2            100.00 usec
PL2                3.00 dB
PL12               22.33 dB
PL13               23.00 dB
SFO2         300.1312005 MHz
SI                 32768
SF            75.4676962 MHz
WDW                   EM
SSB                    0
LB                  1.00 Hz
GB                     0
PC                  1.40
```



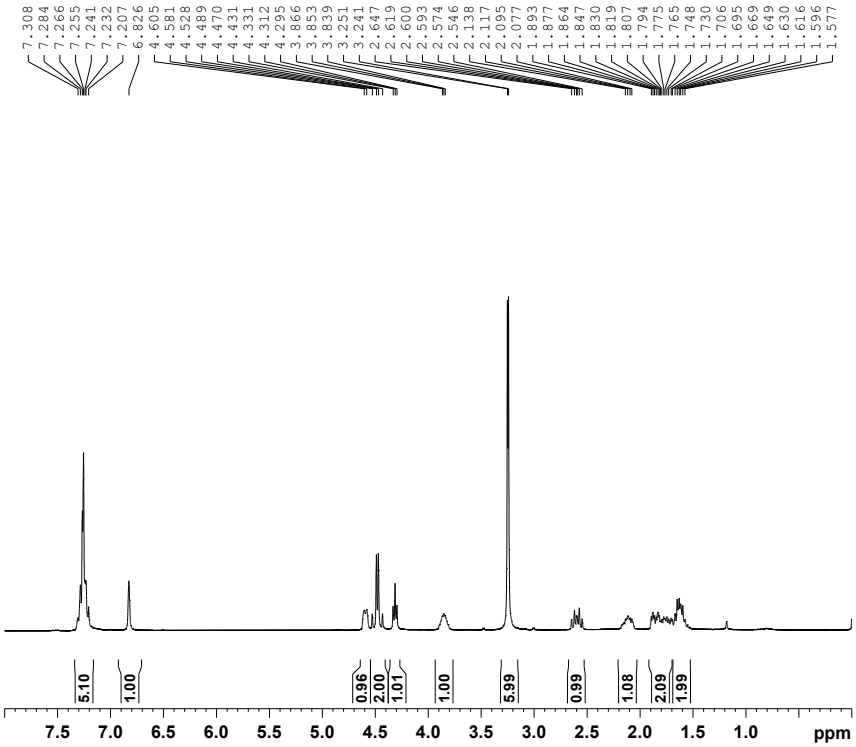

```
NAME              zz1-418
EXPNO                  30
PROCNO                  1
Date_            20110404
Time                17.06
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG            zgpg30
TD                  65536
SOLVENT               D2O
NS                    387
DS                      4
SWH             17985.611 Hz
FIDRES              0.274439 Hz
AQ                1.8219508 sec
RG                   5792.6
DW                  27.800 usec
DE                    6.50 usec
TE                  298.8 K
D1             2.00000000 sec
D11            0.03000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                  13C
P1                  12.50 usec
PL1                  2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                  1H
PCPD2              100.00 usec
PL2                  3.00 dB
PL12                22.33 dB
PL13                23.00 dB
SFO2          300.1312005 MHz
SI                  32768
SF            75.4677490 MHz
WDW                    EM
SSB                     0
LB                   1.00 Hz
GB                      0
PC                   1.40
```



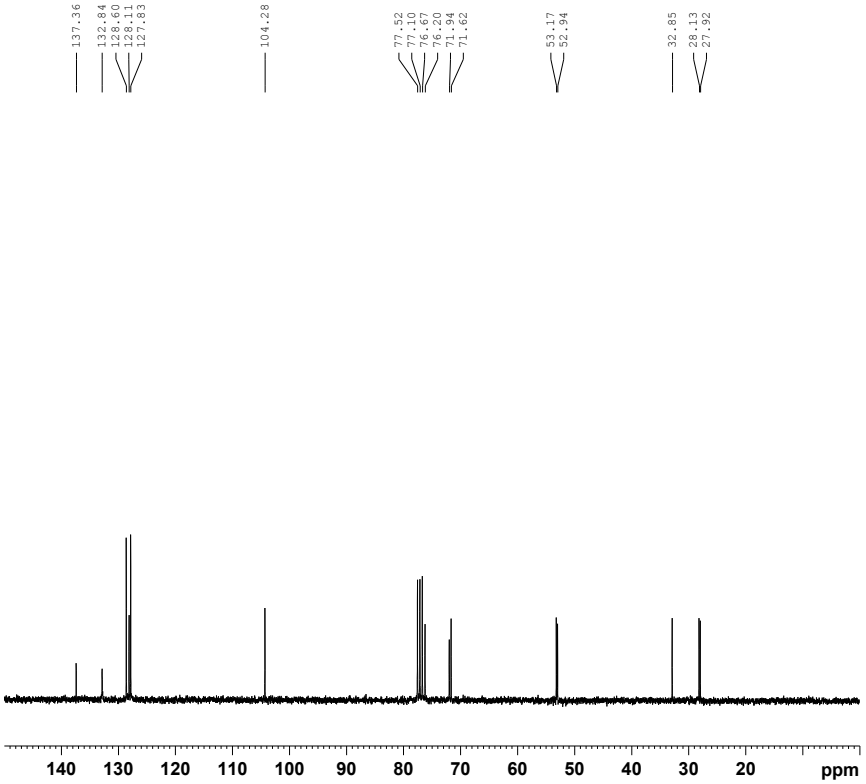

```
NAME              zz1-404
EXPNO                  10
PROCNO                  1
Date_            20101012
Time                 9.12
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG               zg30
TD                  65536
SOLVENT             CDCl3
NS                     12
DS                      0
SWH              8992.806 Hz
FIDRES              0.137219 Hz
AQ                3.6438515 sec
RG                     64
DW                  55.600 usec
DE                    8.00 usec
TE                  296.3 K
D1             1.00000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                   1H
P1                  10.80 usec
PL1                  3.00 dB
SFO1          300.1324010 MHz
SI                  32768
SF            300.1300218 MHz
WDW                    EM
SSB                     0
LB                   0.30 Hz
GB                      0
PC                   1.00
```



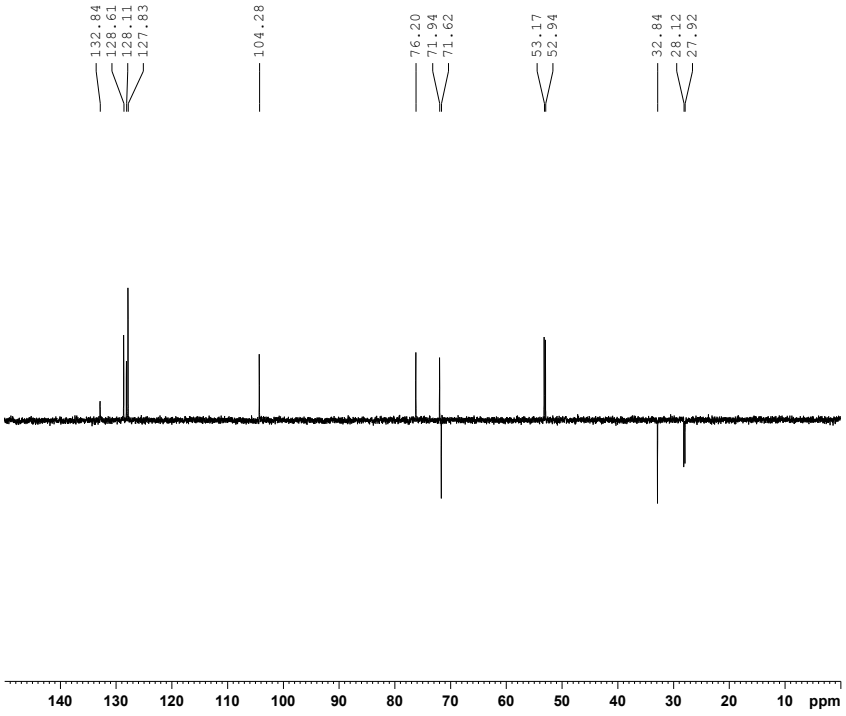

```
NAME              zz1-404
EXPNO                  12
PROCNO                  1
Date_            20101012
Time                 9.22
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                    74
DS                     4
SWH           17985.611 Hz
FIDRES         0.274439 Hz
AQ             1.8219508 sec
RG                 13004
DW                27.800 usec
DE                 8.00 usec
TE                296.9 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  13C
P1                  12.50 usec
PL1                  2.00 dB
SFO1         75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                  1H
PCPD2             100.00 usec
PL2                  3.00 dB
PL12                22.33 dB
PL13                23.00 dB
SFO2        300.1312005 MHz
SI                 32768
SF           75.4677490 MHz
WDW                   EM
SSB                    0
LB                  1.00 Hz
GB                     0
PC                  1.40
```



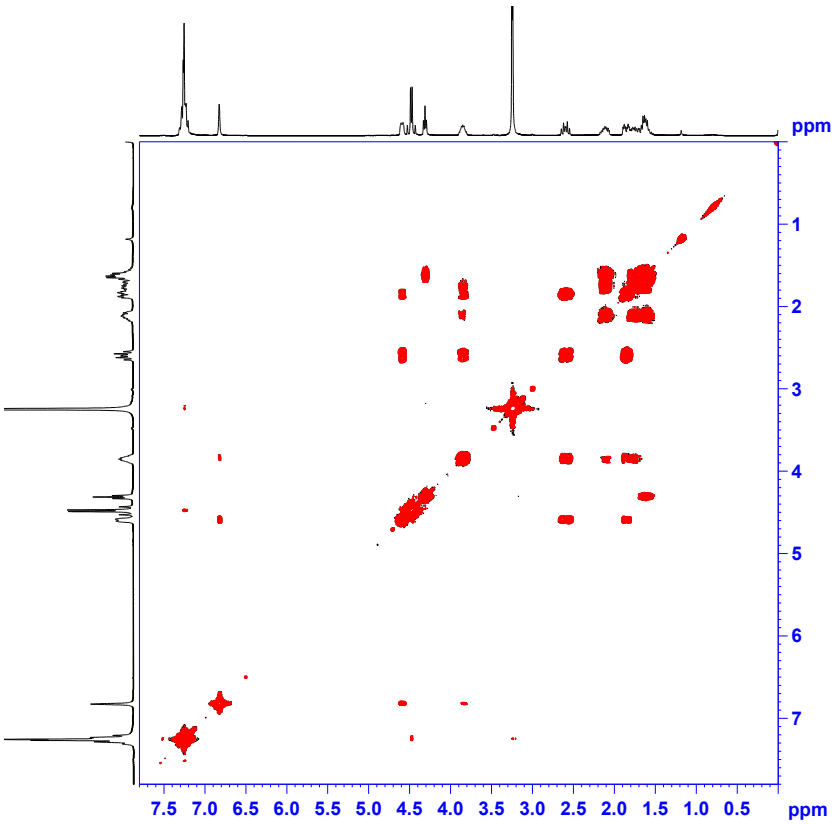

```
NAME              zz1-412
EXPNO                  30
PROCNO                  1
Date_            20101209
Time                15.44
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG              zg30
TD                 65536
SOLVENT            CDCl3
NS                    16
DS                     0
SWH            8992.806 Hz
FIDRES         0.137219 Hz
AQ             3.6438515 sec
RG                   128
DW                55.600 usec
DE                 8.00 usec
TE                297.4 K
D1           1.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                 10.80 usec
PL1                 3.00 dB
SFO1        300.1324010 MHz
SI                 32768
SF          300.1300220 MHz
WDW                   EM
SSB                    0
LB                  0.30 Hz
GB                     0
PC                  1.00
```



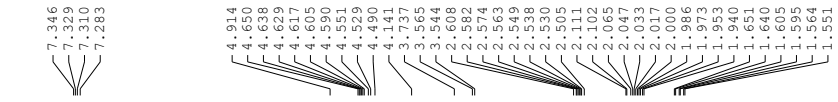

```
NAME              zz1-412
EXPNO                  31
PROCNO                  1
Date_            20101209
Time_               15.48
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG           zgpg30
TD                 65536
SOLVENT            CDCl3
NS                    47
DS                     4
SWH           17985.611 Hz
FIDRES         0.274439 Hz
AQ             1.8219508 sec
RG                 13004
DW                27.800 usec
DE                 8.00 usec
TE                297.8 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                 13C
P1                 12.50 usec
PL1                 2.00 dB
SFO1         75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
PCPD2             100.00 usec
PL2                 3.00 dB
PL12               22.33 dB
PL13               23.00 dB
SFO2        300.1312005 MHz
SI                 32768
SF           75.4677490 MHz
WDW                   EM
SSB                    0
LB                  1.00 Hz
GB                     0
PC                  1.40
```



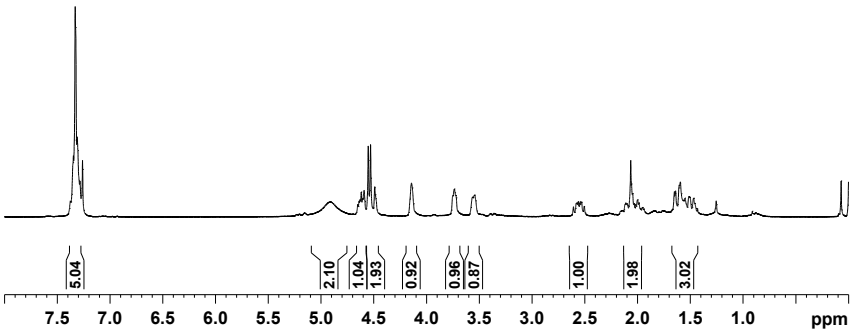

```
NAME              zz1-412
EXPNO                  32
PROCNO                  1
Date_            20101209
Time_               15.51
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG          dept135
TD                 65536
SOLVENT            CDCl3
NS                    26
DS                     4
SWH           17985.611 Hz
FIDRES         0.274439 Hz
AQ             1.8219508 sec
RG                 16384
DW                27.800 usec
DE                 8.00 usec
TE                297.7 K
CNST2        145.0000000
D1           2.00000000 sec
D2           0.00344828 sec
D12          0.00002000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                 13C
P1                 12.50 usec
P2                 25.00 usec
PL1                 2.00 dB
SFO1         75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                 1H
P3                 10.80 usec
P4                 21.60 usec
PCPD2             100.00 usec
PL2                 3.00 dB
```

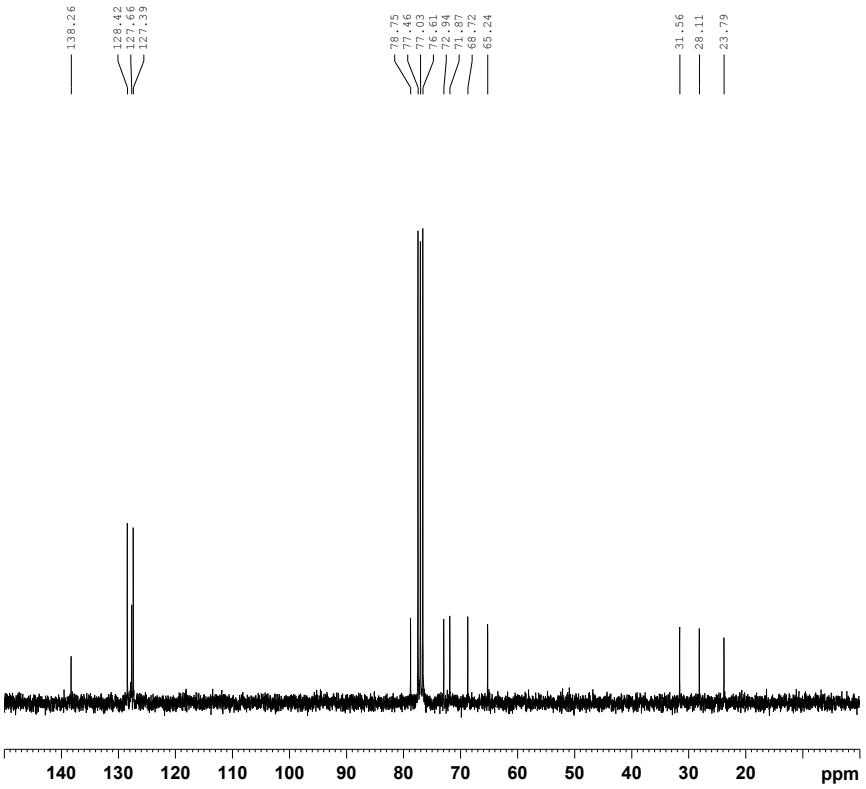



```
NAME              zz1-412
EXPNO                  34
PROCNO                  1
Date_            20101209
Time                15.53
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG          cosygpqf
TD                   2048
SOLVENT             CDCl3
NS                      1
DS                      8
SWH              2637.131 Hz
FIDRES           1.287662 Hz
AQ               0.3883508 sec
RG                   45.3
DW                189.600 usec
DE                  8.00 usec
TE                 297.4 K
D0              0.00000300 sec
D1              1.40742898 sec
D13             0.00000400 sec
D16             0.00020000 sec
IN0             0.00037920 sec

======== CHANNEL f1 ========
NUC1                   1H
P0                  10.80 usec
P1                  10.80 usec
PL1                  3.00 dB
SFO1          300.1311476 MHz

====== GRADIENT CHANNEL =====
GPNAM1            SINE.100
GPZ1                10.00 %
P16               1000.00 usec
ND0                     1
TD                    128
SFO1            300.1311 MHz
FIDRES         20.602585 Hz
SW                  8.787 ppm
FnMODE                 QF
SI                   1024
SF            300.1300219 MHz
WDW                 SINE
SSB                    0
LB                  0.00 Hz
GB                     0
PC                  1.40
SI                   1024
MC2                    QF
SF            300.1300219 MHz
WDW                 SINE
SSB                    0
LB                  0.00 Hz
GB                     0
```

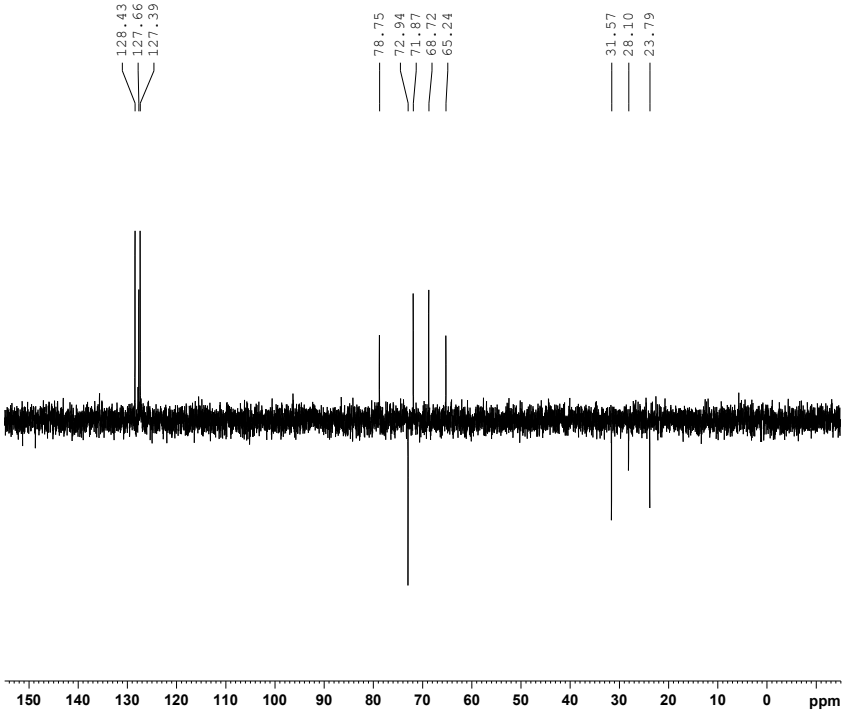



```
NAME              zz1-416
EXPNO                  13
PROCNO                  1
Date_            20101030
Time                 9.21
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG              zg30
TD                  65536
SOLVENT             CDCl3
NS                     16
DS                      0
SWH              8992.806 Hz
FIDRES           0.137219 Hz
AQ               3.6438515 sec
RG                   228.1
DW                55.600 usec
DE                  8.00 usec
TE                 296.6 K
D1              1.00000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                   1H
P1                  10.80 usec
PL1                  3.00 dB
SFO1          300.1324010 MHz
SI                  32768
SF            300.1300061 MHz
WDW                    EM
SSB                    0
LB                  0.30 Hz
GB                     0
PC                  1.00
```

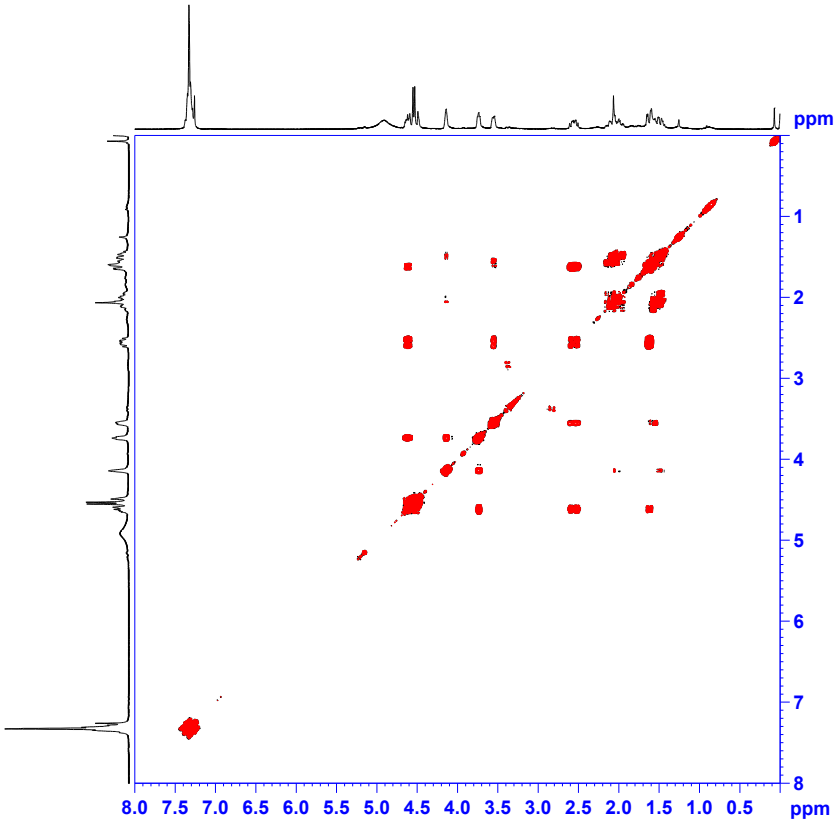




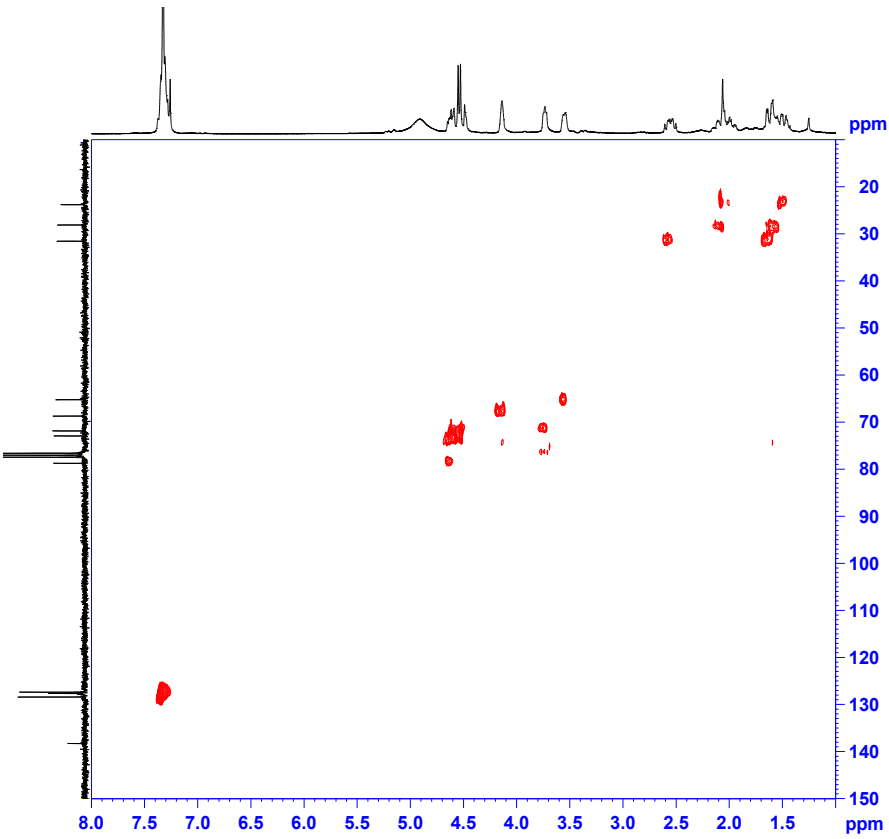

```
NAME              zz1-416
EXPNO                  11
PROCNO                  1
Date_            20101030
Time                 9.12
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG            zgpg30
TD                  65536
SOLVENT             CDCl3
NS                    126
DS                      4
SWH            17985.611 Hz
FIDRES          0.274439 Hz
AQ             1.8219508 sec
RG                 5160.6
DW                27.800 usec
DE                 8.00 usec
TE                296.7 K
D1           2.00000000 sec
D11          0.03000000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                  13C
P1                 12.50 usec
PL1                 2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                  1H
PCPD2             100.00 usec
PL2                 3.00 dB
PL12               22.33 dB
PL13               23.00 dB
SFO2         300.1312005 MHz
SI                  32768
SF            75.4677490 MHz
WDW                    EM
SSB                     0
LB                 1.00 Hz
GB                      0
PC                 1.40
```



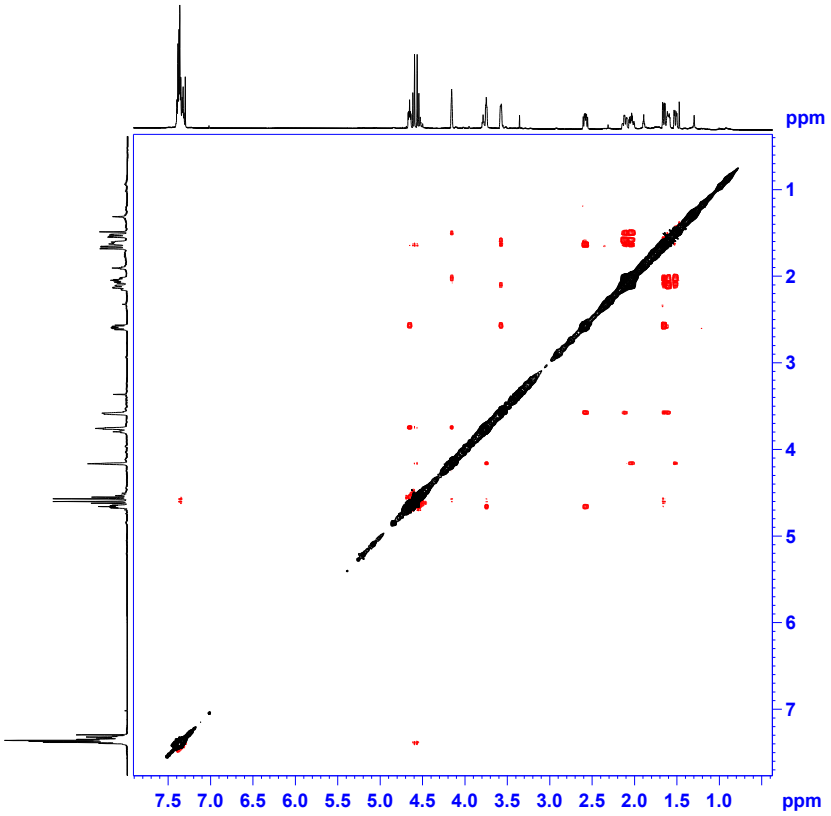

```
NAME              zz1-416
EXPNO                  15
PROCNO                  1
Date_            20101030
Time                 9.28
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG           dept135
TD                  65536
SOLVENT             CDCl3
NS                     83
DS                      4
SWH            17985.611 Hz
FIDRES          0.274439 Hz
AQ             1.8219508 sec
RG                 16384
DW                27.800 usec
DE                 8.00 usec
TE                296.3 K
CNST2        145.0000000
D1            2.00000000 sec
D2            0.00344828 sec
D12           0.00002000 sec
TD0                     1

======== CHANNEL f1 ========
NUC1                  13C
P1                 12.50 usec
P2                 25.00 usec
PL1                 2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2           waltz16
NUC2                  1H
P3                 10.80 usec
P4                 21.60 usec
PCPD2             100.00 usec
PL2                 3.00 dB
```



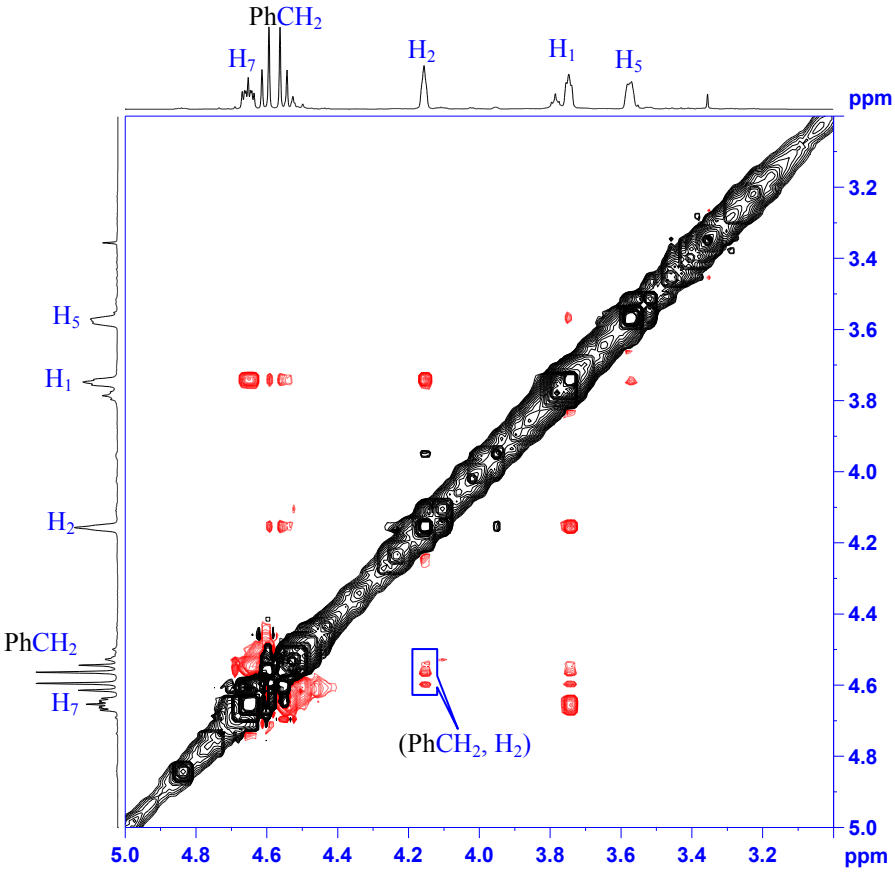

```
NAME                zz1-416
EXPNO                    14
PROCNO                    1
Date_              20101030
Time                   9.22
INSTRUM               spect
PROBHD   5 mm DUL 13C-1
PULPROG          cosygpqf
TD                     2048
SOLVENT             CDCl3
NS                        1
DS                        8
SWH                2670.940 Hz
FIDRES             1.304170 Hz
AQ                 0.3834356 sec
RG                      114
DW                  187.200 usec
DE                    8.00 usec
TE                   296.5 K
D0                 0.00000300 sec
D1                 1.41357303 sec
D13                0.00000400 sec
D16                0.00020000 sec
IN0                0.00037440 sec

======== CHANNEL f1 ========
NUC1                      1H
P0                     10.80 usec
P1                     10.80 usec
PL1                     3.00 dB
SFO1               300.1311413 MHz

====== GRADIENT CHANNEL =====
GPNAM1               SINE.100
GPZ1                    10.00 %
P16                   1000.00 usec
ND0                       1
TD                      128
SFO1                300.1311 MHz
FIDRES             20.866720 Hz
SW                      8.899 ppm
FnMODE                   QF
SI                      1024
SF                 300.1300061 MHz
WDW                     SINE
SSB                        0
LB                      0.00 Hz
GB                         0
PC                      1.40
SI                      1024
MC2                      QF
SF                 300.1300061 MHz
WDW                     SINE
SSB                        0
LB                      0.00 Hz
GB                         0
```



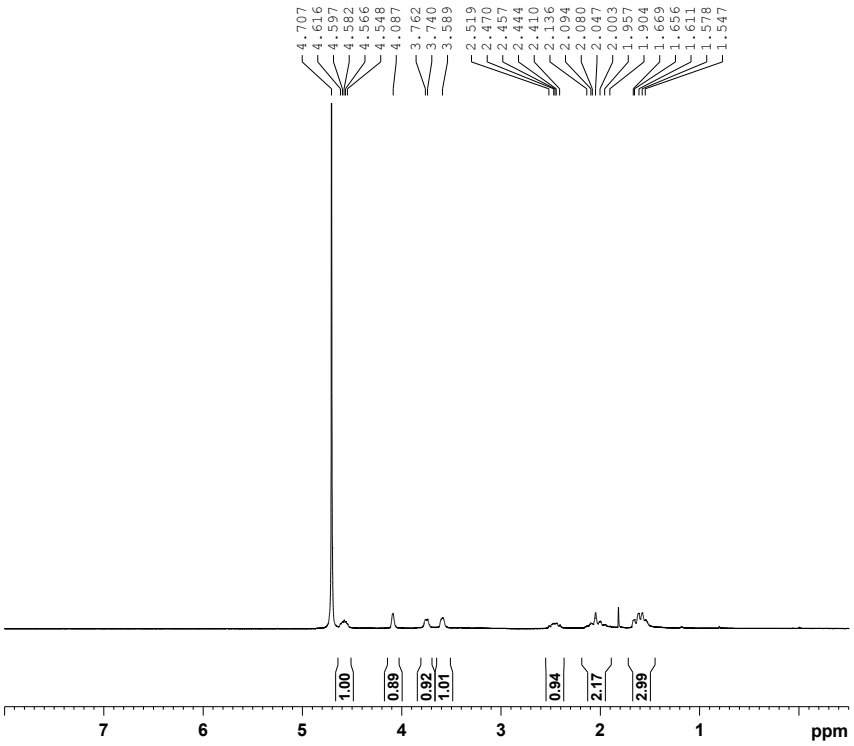

```
NAME            zz1-416-hsqc
EXPNO                      1
PROCNO                     1
Date_               20101030
Time                    9.36
INSTRUM                spect
PROBHD    5 mm DUL 13C-1
PULPROG          hsqcetgp
TD                      2048
SOLVENT              CDCl3
NS                         4
DS                        16
SWH                2997.602 Hz
FIDRES             1.463673 Hz
AQ                 0.3416564 sec
RG                   20642.5
DW                  166.800 usec
DE                    8.00 usec
TE                   296.7 K
CNST2            145.0000000
D0                 0.00000300 sec
D1                 1.50000000 sec
D4                 0.00172414 sec
D11                0.03000000 sec
D13                0.00000400 sec
D16                0.00020000 sec
IN0                0.00004415 sec
ZGOPTNS

======== CHANNEL f1 ========
NUC1                      1H
P1                     10.80 usec
P2                     21.60 usec
P28                  1000.00 usec
PL1                     3.00 dB
SFO1               300.1315007 MHz

======== CHANNEL f2 ========
CPDPRG2                 garp
NUC2                     13C
P3                     12.50 usec
P4                     25.00 usec
PCPD2                  90.00 usec
PL2                     2.00 dB
PL12                   19.15 dB
SFO2                75.4734091 MHz

====== GRADIENT CHANNEL =====
GPNAM1               SINE.100
GPNAM2               SINE.100
GPZ1                    80.00 %
GPZ2                    20.10 %
P16                   1000.00 usec
ND0                        2
TD                       115
```



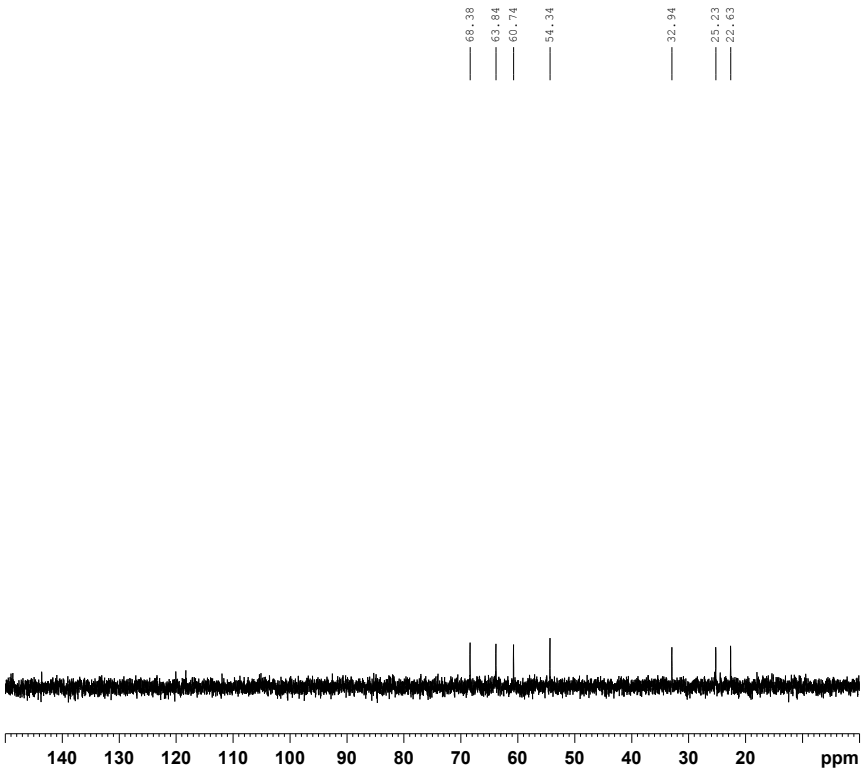

```
Current Data Parameters
NAME         zz1-416-noe
EXPNO                 17
PROCNO                 1

F2 - Acquisition Parameters
Date_           20110124
Time              11.31
INSTRUM           spect
PROBHD   5 mm BBI 1H-BB
PULPROG       noesygpph
TD                 2048
SOLVENT            CDCl3
NS                   16
DS                   16
SWH            6009.615 Hz
FIDRES         2.934382 Hz
AQ           0.1704436 sec
RG                35.9
DW              83.200 usec
DE               6.50 usec
TE              298.0 K
D0           0.00006722 sec
D1           1.50000000 sec
D8           0.80000001 sec
D16          0.00020000 sec
IN0          0.00016490 sec

======== CHANNEL f1 ========
NUC1                 1H
P1                11.97 usec
P2                23.94 usec
PL1                2.00 dB
PL1W        15.84893227 W
SFO1        600.1324005 MHz

====== GRADIENT CHANNEL =====
GPNAM1          SINE.100
GPNAM2          SINE.100
GPZ1             40.00 %
GPZ2            -40.00 %
P16            1000.00 usec

F1 - Acquisition parameters
ND0                  1
TD                 256
SFO1         600.1324 MHz
FIDRES      23.686007 Hz
SW            10.104 ppm
FnMODE      States-TPPI

F2 - Processing parameters
SI                1024
SF         600.1299999 MHz
WDW               QSINE
```



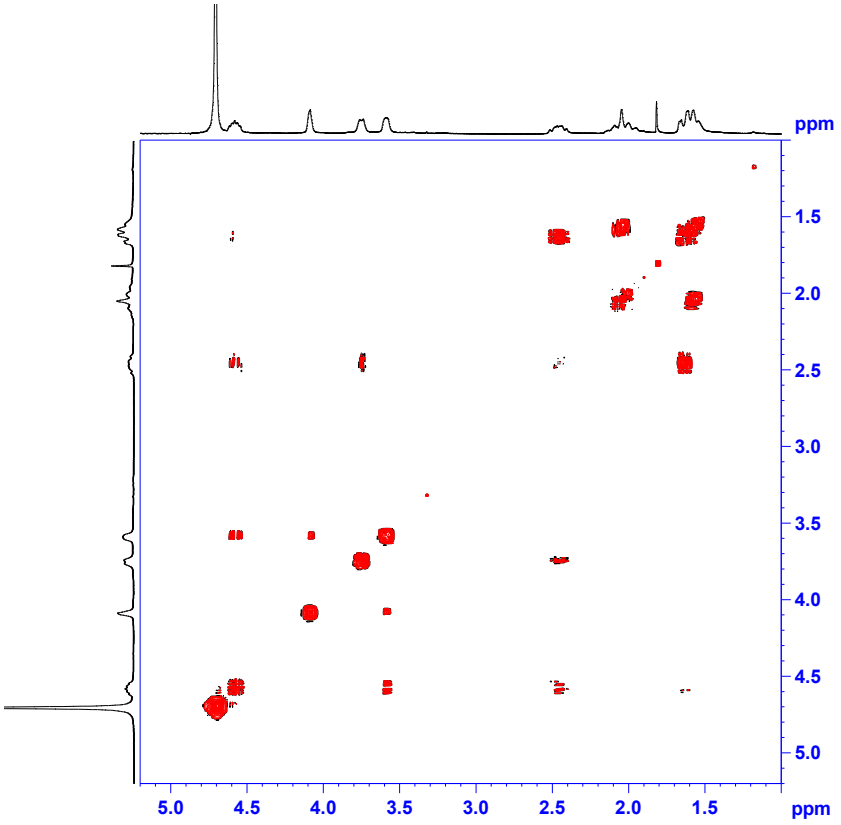

```
Current Data Parameters
NAME         zz1-416-noe
EXPNO                 17
PROCNO                 1

F2 - Acquisition Parameters
Date_           20110124
Time              11.31
INSTRUM           spect
PROBHD   5 mm BBI 1H-BB
PULPROG       noesygpph
TD                 2048
SOLVENT            CDCl3
NS                   16
DS                   16
SWH            6009.615 Hz
FIDRES         2.934382 Hz
AQ           0.1704436 sec
RG                35.9
DW              83.200 usec
DE               6.50 usec
TE              298.0 K
D0           0.00006722 sec
D1           1.50000000 sec
D8           0.80000001 sec
D16          0.00020000 sec
IN0          0.00016490 sec

======== CHANNEL f1 ========
NUC1                 1H
P1                11.97 usec
P2                23.94 usec
PL1                2.00 dB
PL1W        15.84893227 W
SFO1        600.1324005 MHz

====== GRADIENT CHANNEL =====
GPNAM1          SINE.100
GPNAM2          SINE.100
GPZ1             40.00 %
GPZ2            -40.00 %
P16            1000.00 usec

F1 - Acquisition parameters
ND0                  1
TD                 256
SFO1         600.1324 MHz
FIDRES      23.686007 Hz
SW            10.104 ppm
FnMODE      States-TPPI

F2 - Processing parameters
SI                1024
SF         600.1300000 MHz
WDW               QSINE
SSB                   2
LB                 0.00 Hz
GB                    0
PC                 1.40

F1 - Processing parameters
SI                1024
MC2         States-TPPI
SF         600.1300000 MHz
WDW               QSINE
SSB                   2
LB                 0.00 Hz
GB                    0
```



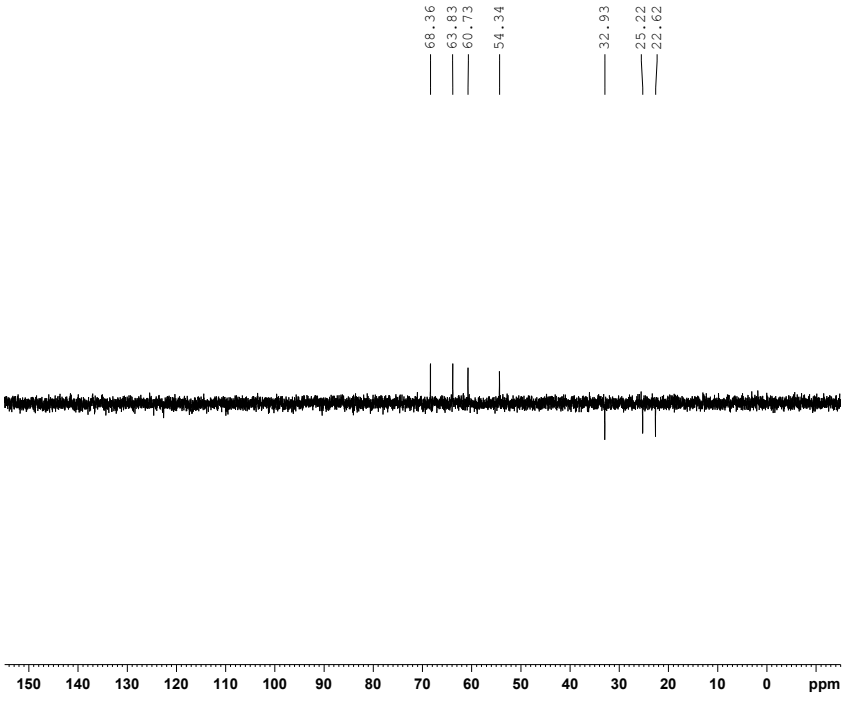

```
NAME             zz1-419
EXPNO                 31
PROCNO                 1
Date_           20110402
Time                15.50
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG              zg30
TD                  65536
SOLVENT               D2O
NS                     16
DS                      0
SWH              8992.806 Hz
FIDRES           0.137219 Hz
AQ               3.6438515 sec
RG                    362
DW                55.600 usec
DE                 8.00 usec
TE                296.7 K
D1             1.00000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                  1H
P1                 10.80 usec
PL1                 3.00 dB
SFO1         300.1324010 MHz
SI                 32768
SF           300.1299967 MHz
WDW                   EM
SSB                    0
LB                 0.30 Hz
GB                     0
PC                 1.00
```



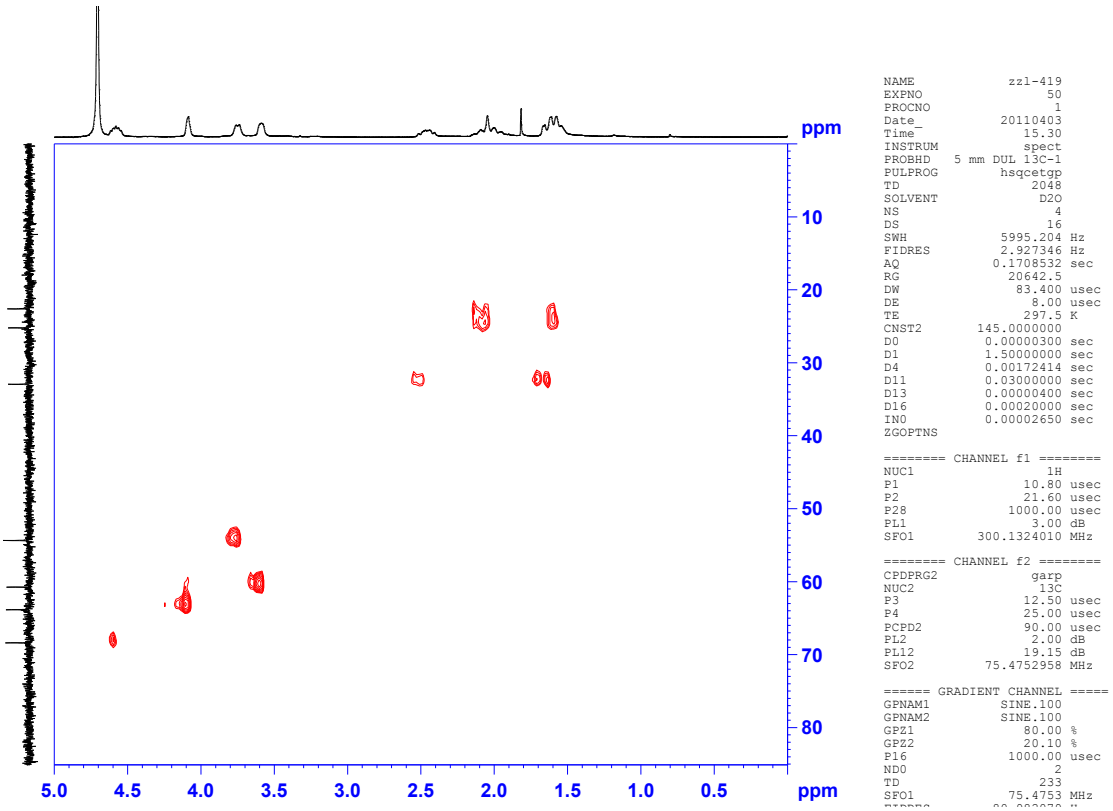

```
NAME             zz1-419
EXPNO                 30
PROCNO                 1
Date_           20110402
Time                15.40
INSTRUM             spect
PROBHD   5 mm DUL 13C-1
PULPROG            zgpg30
TD                  65536
SOLVENT               D2O
NS                    161
DS                      4
SWH             17985.611 Hz
FIDRES           0.274439 Hz
AQ               1.8219508 sec
RG                  9195.2
DW                27.800 usec
DE                 6.50 usec
TE                296.7 K
D1             2.00000000 sec
D11            0.03000000 sec
TD0                    1

======== CHANNEL f1 ========
NUC1                 13C
P1                 12.50 usec
PL1                 2.00 dB
SFO1          75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                  1H
PCPD2             100.00 usec
PL2                 3.00 dB
PL12               22.33 dB
PL13               23.00 dB
SFO2         300.1312005 MHz
SI                 32768
SF            75.4677490 MHz
WDW                   EM
SSB                    0
LB                 1.00 Hz
GB                     0
PC                 1.40
```




```
NAME            zz1-419
EXPNO                34
PROCNO                1
Date_          20110403
Time_             16.01
INSTRUM           spect
PROBHD   5 mm DUL 13C-1
PULPROG       cosygpqf
TD                2048
SOLVENT            D2O
NS                   4
DS                   8
SWH           1318.565 Hz
FIDRES        0.643831 Hz
AQ            0.7766516 sec
RG                 256
DW             379.200 usec
DE               8.00 usec
TE              297.5 K
D0            0.00000300 sec
D1            1.01830900 sec
D13           0.00000400 sec
D16           0.00020000 sec
IN0           0.00075840 sec

======== CHANNEL f1 ========
NUC1                1H
P0               10.80 usec
P1               10.80 usec
PL1               3.00 dB
SFO1        300.1308927 MHz

====== GRADIENT CHANNEL =====
GPNAM1          SINE.100
GPZ1               10.00 %
P16              1000.00 usec
ND0                   1
TD                   39
SFO1            300.1309 MHz
FIDRES         33.809368 Hz
SW                4.393 ppm
FnMODE               QF
SI                 1024
SF          300.1299988 MHz
WDW                SINE
SSB                   0
LB                 0.00 Hz
GB                    0
PC                 1.40
SI                 1024
MC2                  QF
SF          300.1299988 MHz
WDW                SINE
SSB                   0
LB                 0.00 Hz
GB                    0
```




```
NAME            zz1-419
EXPNO                32
PROCNO                1
Date_          20110402
Time_             15.53
INSTRUM           spect
PROBHD   5 mm DUL 13C-1
PULPROG         dept135
TD                65536
SOLVENT            D2O
NS                 129
DS                   4
SWH          17985.611 Hz
FIDRES         0.274439 Hz
AQ            1.8219508 sec
RG                16384
DW              27.800 usec
DE               6.50 usec
TE              296.5 K
CNST2       145.0000000
D1            2.00000000 sec
D2            0.00344828 sec
D12           0.00002000 sec
TD0                   1

======== CHANNEL f1 ========
NUC1                13C
P1               12.50 usec
P2               25.00 usec
PL1               2.00 dB
SFO1         75.4752953 MHz

======== CHANNEL f2 ========
CPDPRG2          waltz16
NUC2                1H
P3               10.80 usec
P4               21.60 usec
PCPD2           100.00 usec
PL2               3.00 dB
```




```
NAME              zzl-419
EXPNO                  50
PROCNO                  1
Date_            20110403
Time_               15.30
INSTRUM             spect
PROBHD    5 mm DUL 13C-1
PULPROG          hsqcetgp
TD                   2048
SOLVENT               D2O
NS                      4
DS                     16
SWH              5995.204 Hz
FIDRES           2.927346 Hz
AQ               0.1708532 sec
RG                 20642.5
DW                  83.400 usec
DE                   8.00 usec
TE                  297.5 K
CNST2          145.0000000
D0               0.00000300 sec
D1               1.50000000 sec
D4               0.00172414 sec
D11              0.03000000 sec
D13              0.00000400 sec
D16              0.00020000 sec
IN0              0.00002650 sec
ZGOPTNS

======== CHANNEL f1 ========
NUC1                    1H
P1                   10.80 usec
P2                   21.60 usec
P28                1000.00 usec
PL1                   3.00 dB
SFO1          300.1324010 MHz

======== CHANNEL f2 ========
CPDPRG2                garp
NUC2                    13C
P3                   12.50 usec
P4                   25.00 usec
PCPD2                90.00 usec
PL2                   2.00 dB
PL12                 19.15 dB
SFO2           75.4752958 MHz

====== GRADIENT CHANNEL =====
GPNAM1             SINE.100
GPNAM2             SINE.100
GPZ1                 80.00 %
GPZ2                 20.10 %
P16                1000.00 usec
ND0                     2
TD                    233
SFO1             75.4753 MHz
```

Table. ^{13}C-NMR comparison of compound with that of (-)-erycibelline

(-)-erycibelline Isolated by Lu (unknown solvent)	67.7	67.5	62.2	54.3	35.5	22.8	22.3
DMSO-d_6	70.2	68.2	64.0	54.7	37.9	25.5	24.2
Δδ	2.5	0.7	1.8	0.4	2.4	2.7	1.9
MeOD	71.3	69.9	65.8	56.9	38.5	26.3	25.1
Δδ	**3.6**	**2.4**	**3.6**	**2.6**	**3.0**	**3.5**	**2.8**
D_2O	69.4	67.7	64.3	55.8	36.2	24.1	22.7
Δδ	1.7	0.2	2.1	1.5	0.7	1.3	0.4
$CDCl_3$	72.1	69.0	65.1	55.3	39.1	26.5	24.7
Δδ	4.4	1.5	2.9	1.0	3.6	3.7	2.4
Pyridine-d_5	73.2	70.8	66.3	56.3	40.6	28.0	26.5
Δδ	5.5	3.3	4.1	2.0	5.1	5.2	4.2