

Total Syntheses of the Monoterpene Indole Alkaloids

(±)-Alstilobanine A and E, and (±)-Angustilodine

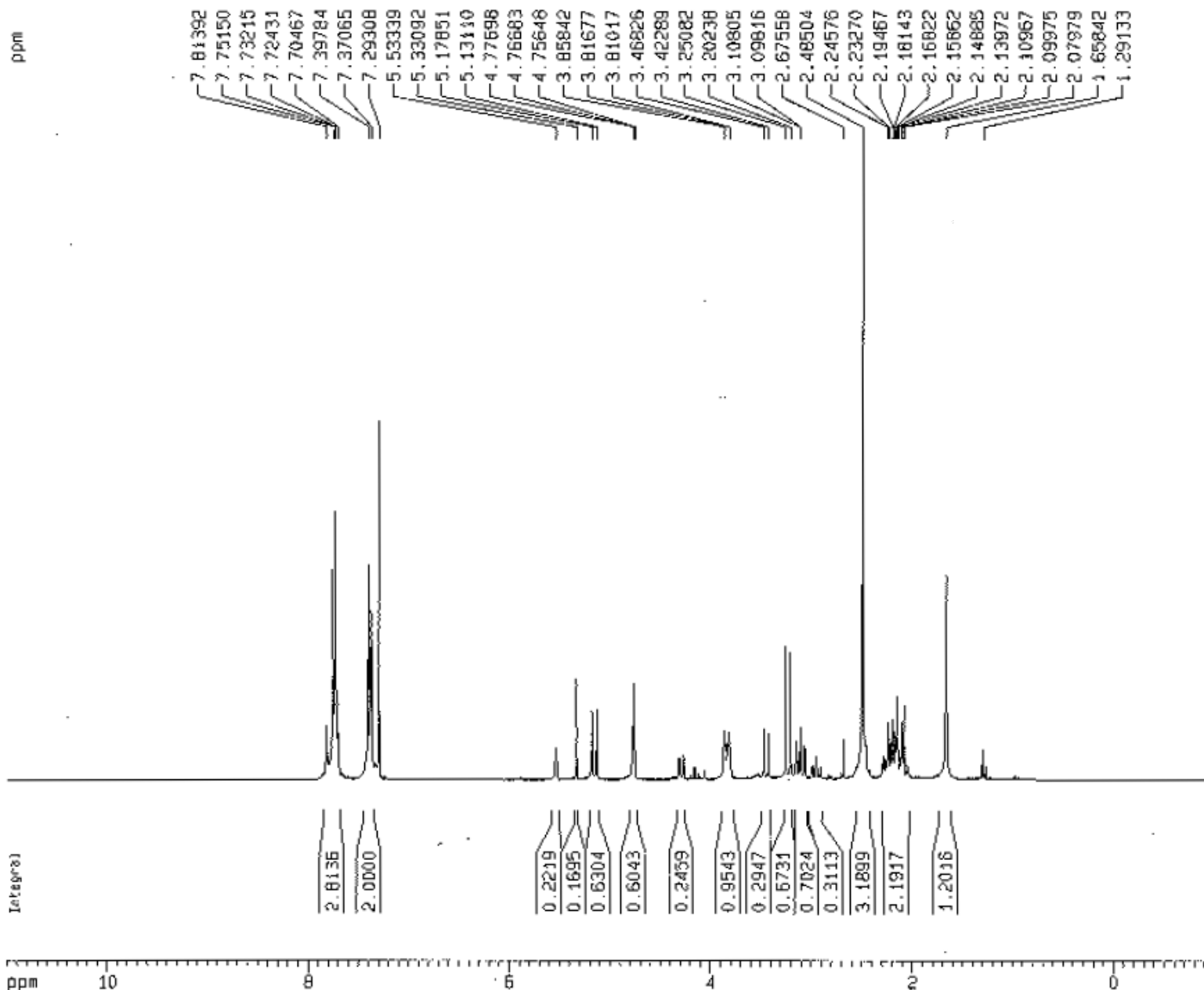
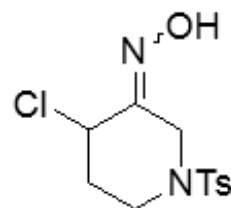
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*except the pages listed above for 2D spectrums



Current Data Parameters

NAME 061610
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20100618
Time 14.20
INSTRUM spect
PROBHD 5 mm GNP 1H/1
PULPROG zg30
TD 24690
SOLVENT CDCl3
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.250014 Hz
AQ 1.9999400 sec
RG 645.1
DM 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

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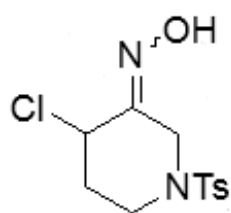
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F2 - Processing parameters

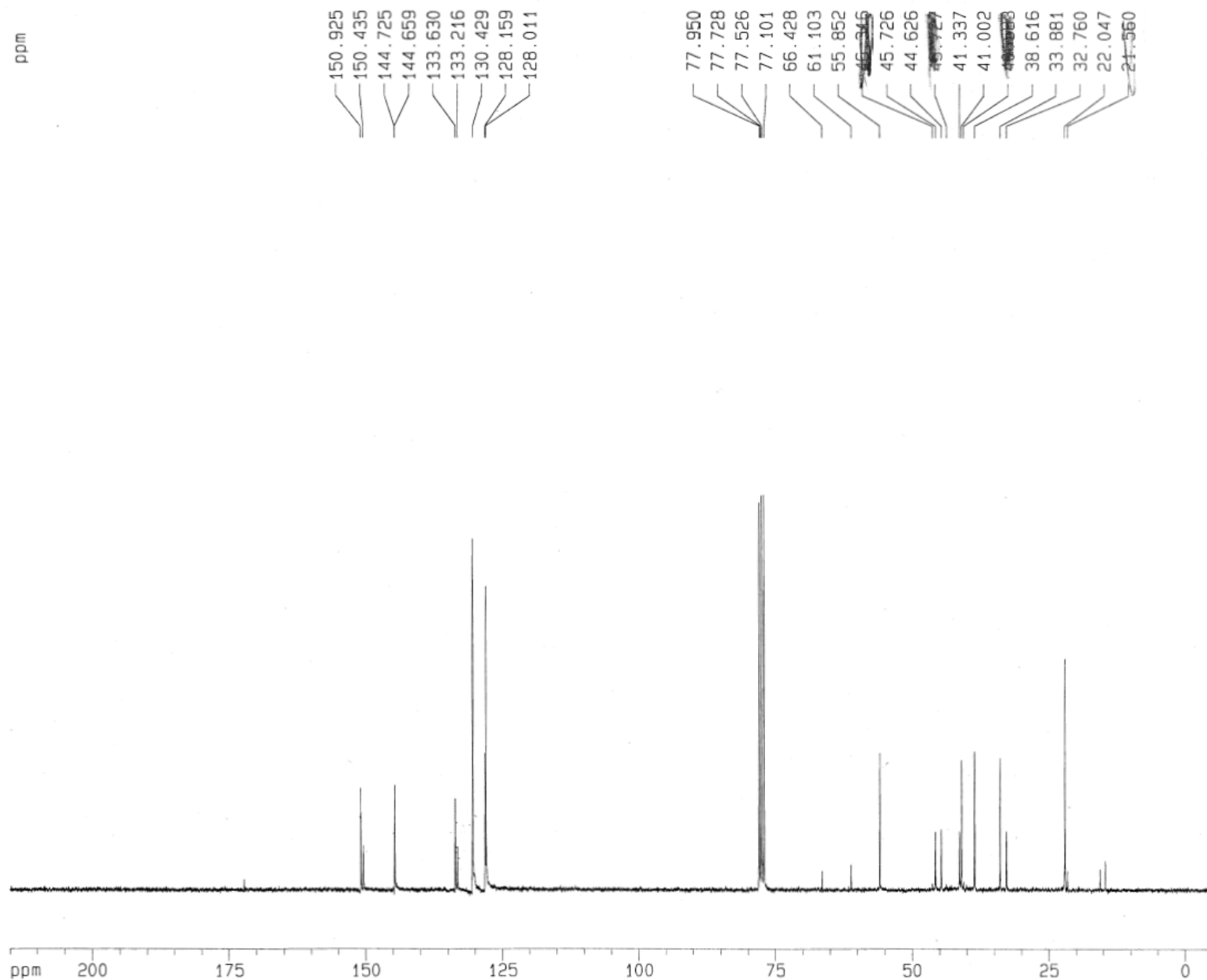
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SF 299.8700000 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 20.00 cm
FJP 11.000 ppm
F1 3298.57 Hz
F2P -1.000 ppm
F2 -299.87 Hz
PPMCM 0.60000 ppm/cm
HZCM 179.92200 Hz/cm



15



Current Data Parameters

NAME 092613FJV-C10x
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters

Date_ 20130926
Time 17.33
INSTRUM spect
PROBHD 5 mm GNP 1H/1
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 1781
DS 4
SWH 18796.992 Hz
FIDRES 0.286819 Hz
AQ 1.7433076 sec
RG 1024
DW 26.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.0000000 sec
D11 0.0300000 sec
D12 0.0000200 sec

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NUC1 13C
P1 5.25 usec
PL1 -6.00 dB
SFO1 75.4106357 MHz

===== CHANNEL f2 =====

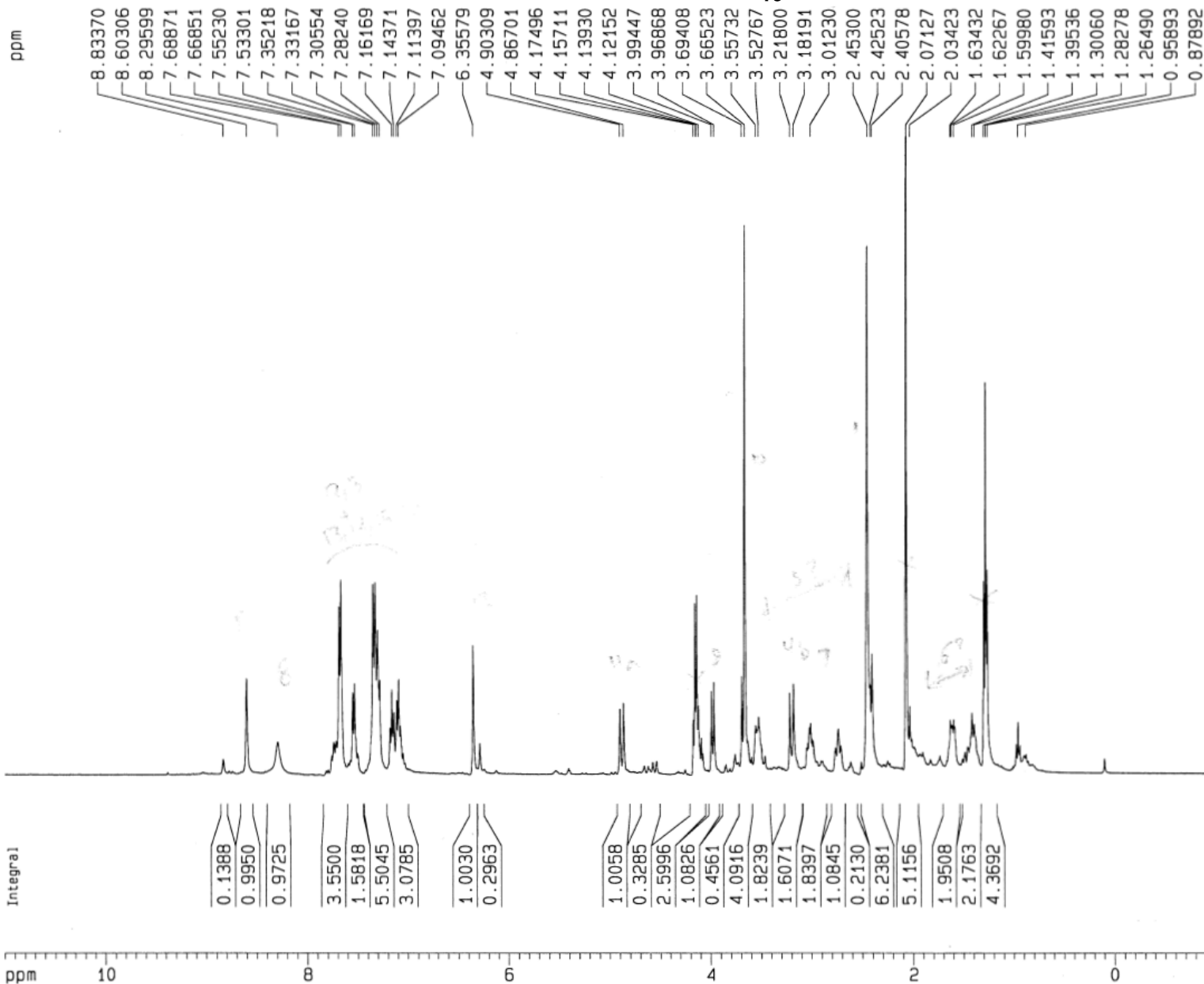
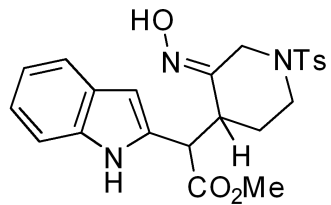
CPDPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 19.70 dB
PL13 19.70 dB
SFO2 299.8711995 MHz

F2 - Processing parameters

SI 32768
SF 75.4023410 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters

CX 20.00 cm
F1P 215.000 ppm
F1 16211.50 Hz
F2P -5.000 ppm
F2 -377.01 Hz
PPMCM 11.00000 ppm/cm
HZCM 829.42578 Hz/cm



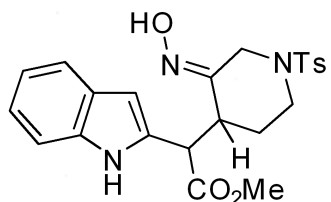
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EXPNO 2
PROCNO 1

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PULPROG zg30
TD 33110
SOLVENT CDCl3
NS 16
DS 2
SWH 8278.146 Hz
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AQ 1.9998940 sec
RG 71.8
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DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

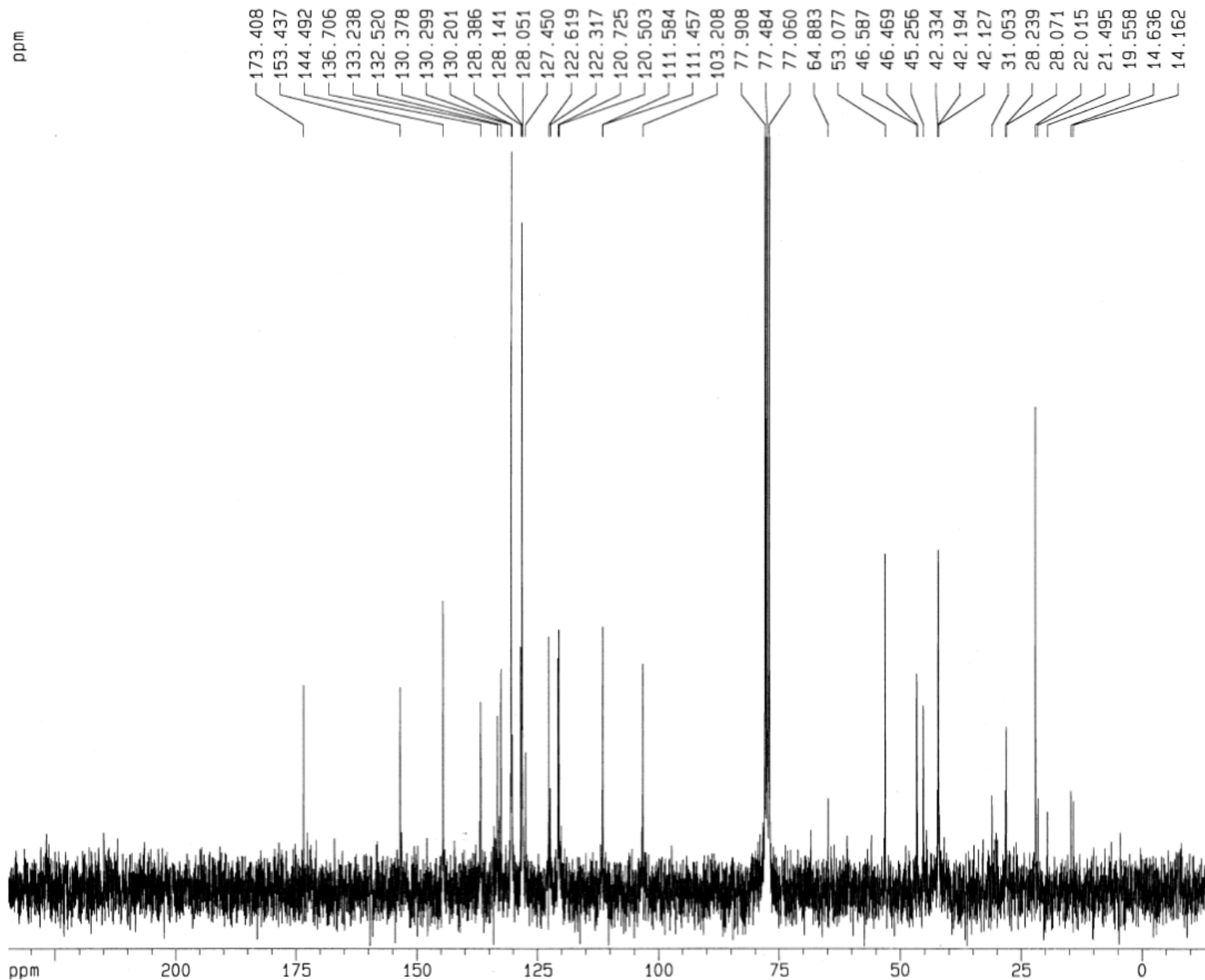
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F2 - Processing parameters
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WDW nc
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm



19



Current Data Parameters

NAME mm5053 4053
EXPNO 11
PROCNO 1

F2 - Acquisition Parameters

Date_ 20090529
Time 10.08
INSTRUM spect
PROBHD 5 mm GNP 1H/1
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 1024
DS 4
SWH 18796.992 Hz
FIDRES 0.286819 Hz
AQ 1.7433076 sec
RG 4096
DW 26.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec

===== CHANNEL f1 =====

NUC1 13C
P1 5.40 usec
PL1 -6.00 dB
SF01 75.4106357 MHz

===== CHANNEL f2 =====

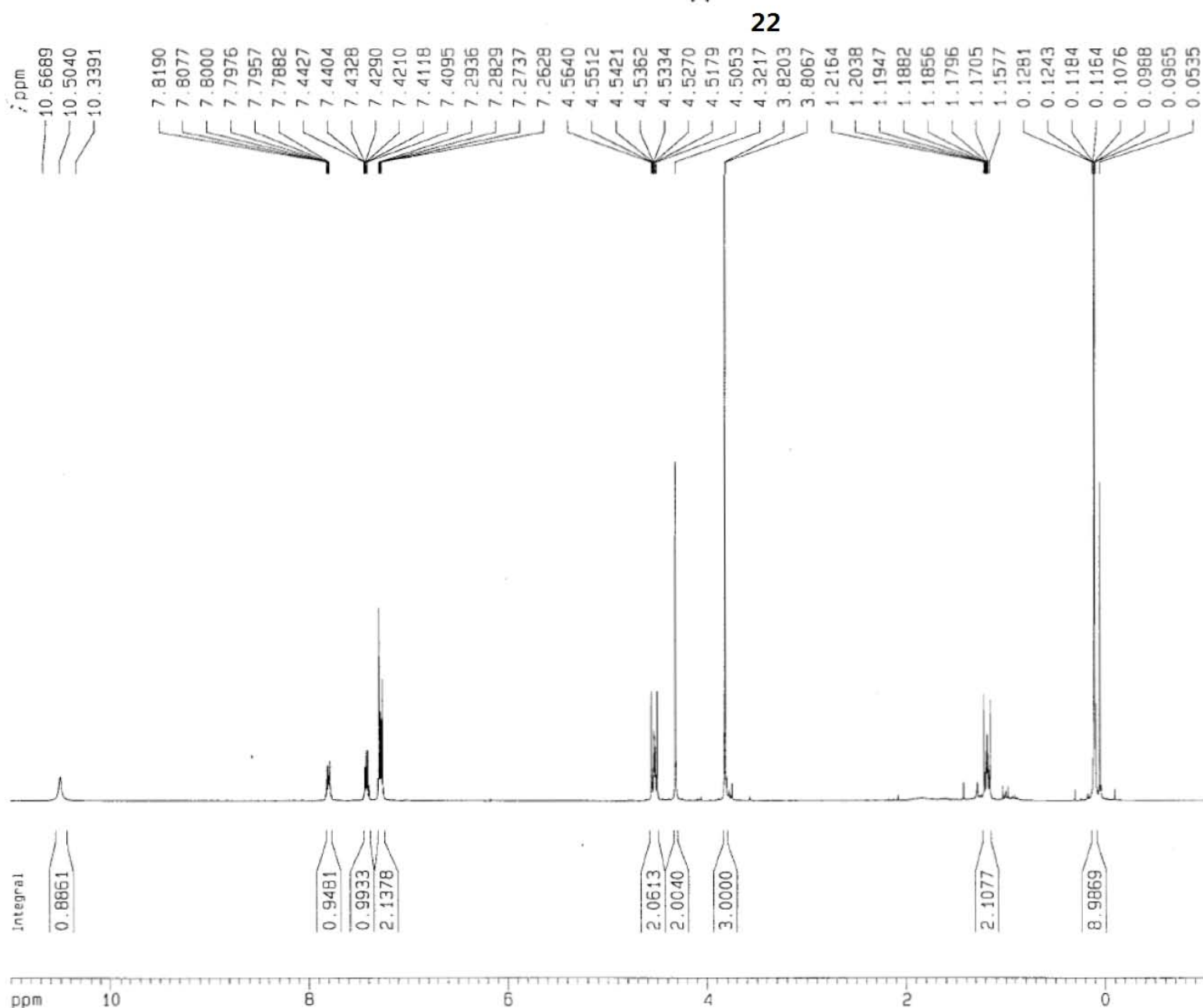
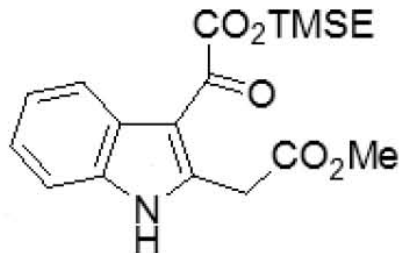
CPOPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 20.00 dB
PL13 20.00 dB
SF02 299.8711995 MHz

F2 - Processing parameters

SI 32768
SF 75.4023410 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters

CX 20.00 cm
F1P 234.651 ppm
F1 17693.24 Hz
F2P -14.638 ppm
F2 -1103.75 Hz
PPMCM 12.46446 ppm/cm
HZCM 939.84955 Hz/cm



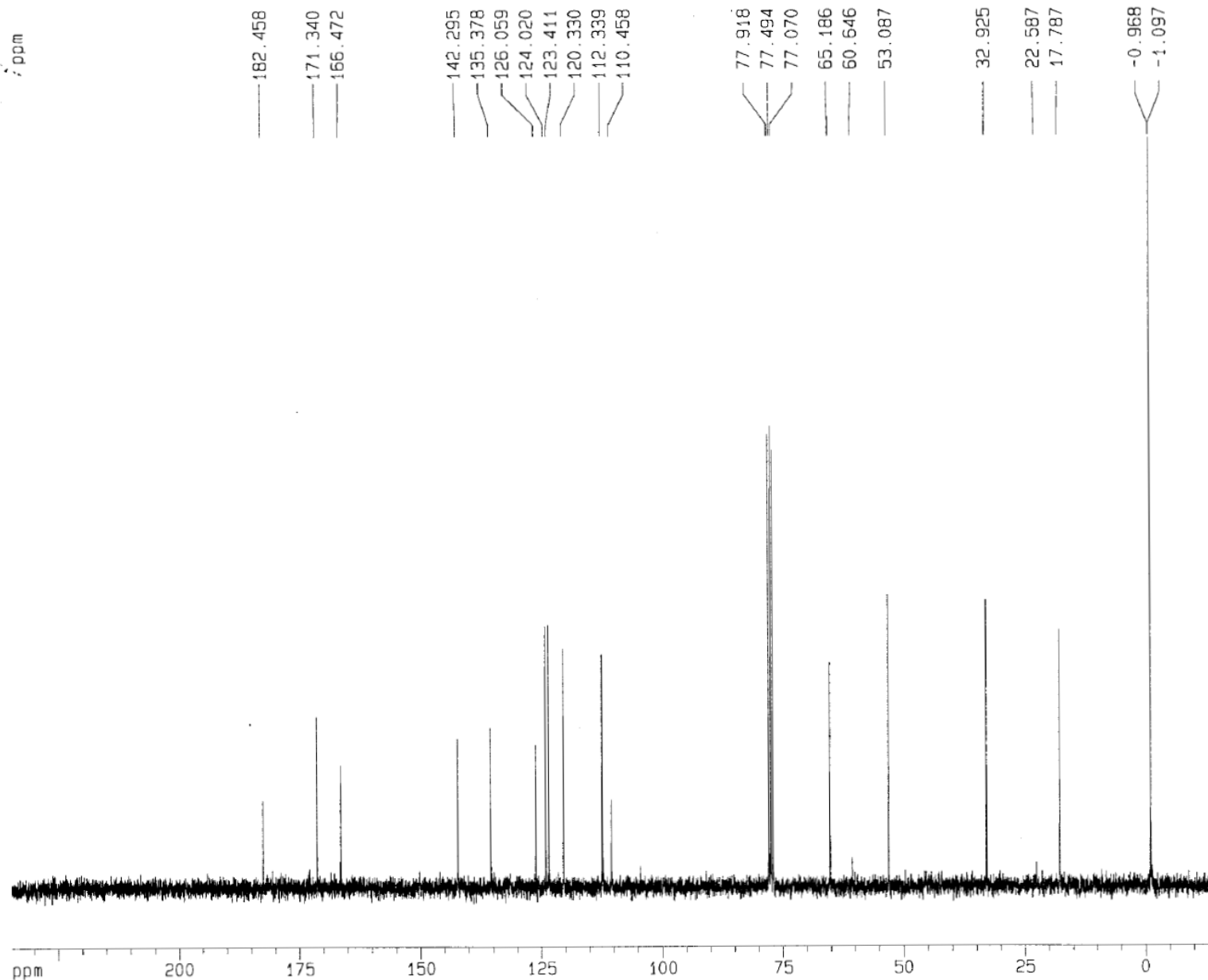
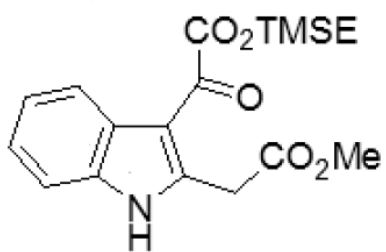
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 PROCNO 1

F2 - Acquisition Parameters
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 PULPROG zg30
 TO 24690
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6172.839 Hz
 FIDRES 0.250014 Hz
 AQ 1.9999400 sec
 RG 143.7
 OW 81.000 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----
 NUC1 1H
 P1 11.70 usec
 PL1 0.00 dB
 SFO1 299.8718518 MHz

F2 - Processing parameters
 SI 32768
 SF 299.8700000 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 3298.57 Hz
 F2P -1.000 ppm
 F2 -299.87 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 179.92200 Hz/cm



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 EXPNO 2
 PROCNO 1

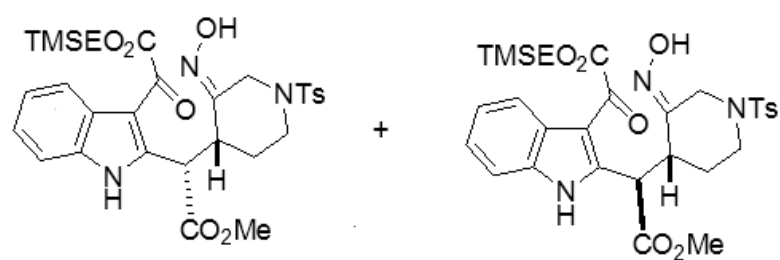
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 Time 16.44
 INSTRUM spect
 PROBHD 5 mm QNP 1H/1
 PULPROG zgpg30
 TD 32768
 SOLVENT CDC13
 NS 172
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.573639 Hz
 AQ 0.8716788 sec
 RG 2048
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 D12 0.0000200 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 5.40 usec
 PL1 -6.00 dB
 SF01 75.4106357 MHz

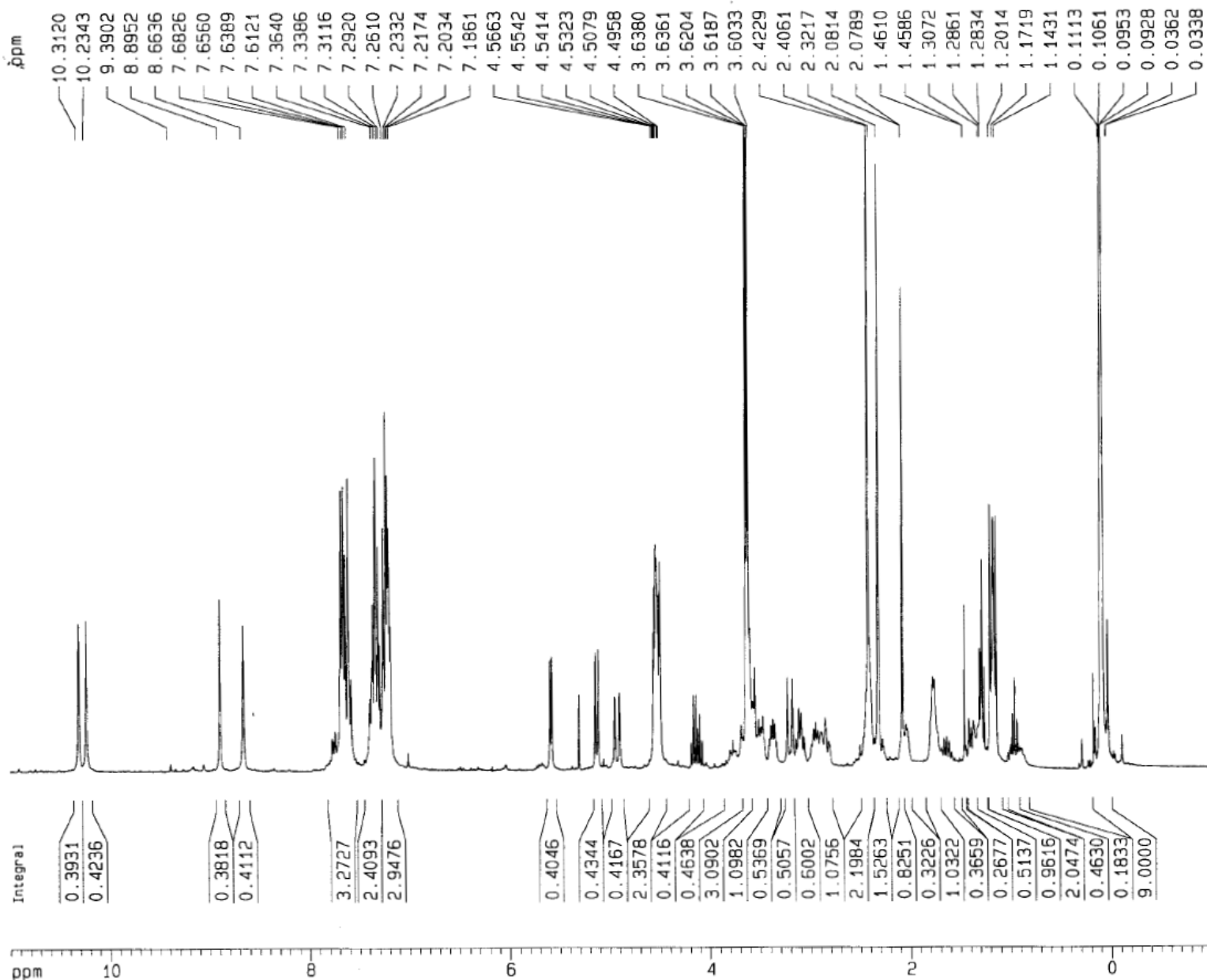
===== CHANNEL f2 =====
 CPOPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 20.00 dB
 PL13 20.00 dB
 SF02 299.8711995 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4023410 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 234.651 ppm
 F1 17693.24 Hz
 F2P -14.638 ppm
 F2 -1103.75 Hz
 PPMCM 12.46446 ppm/cm
 HZCM 939.84955 Hz/cm



Unseparated diastereomeric products of Nitroso Alkene Michael Addition



Current Data Parameters

NAME 012610mm4281
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20100126
Time 8.51
INSTRUM spect
PROBHD 5 mm GNP 1H/1
PULPROG zg30
TD 24690
SOLVENT CDCl3
NS 8
DS 2
SWH 6172.839 Hz
FIDRES 0.250014 Hz
AQ 1.9999400 sec
RG 80.6
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

----- CHANNEL f1 -----

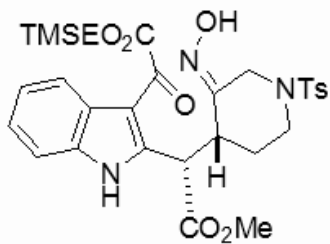
NUC1 1H
P1 11.70 usec
PL1 0.00 dB
SFO1 299.8718518 MHz

F2 - Processing parameters

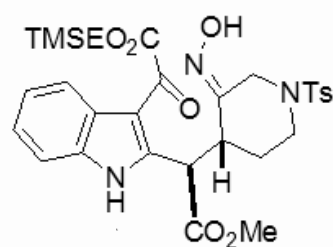
SI 32768
SF 299.8700000 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 20.00 cm
F1P 11.000 ppm
F1 3298.57 Hz
F2P -1.000 ppm
F2 -299.87 Hz
PPMCM 0.60000 ppm/cm
HZCM 179.92200 Hz/cm



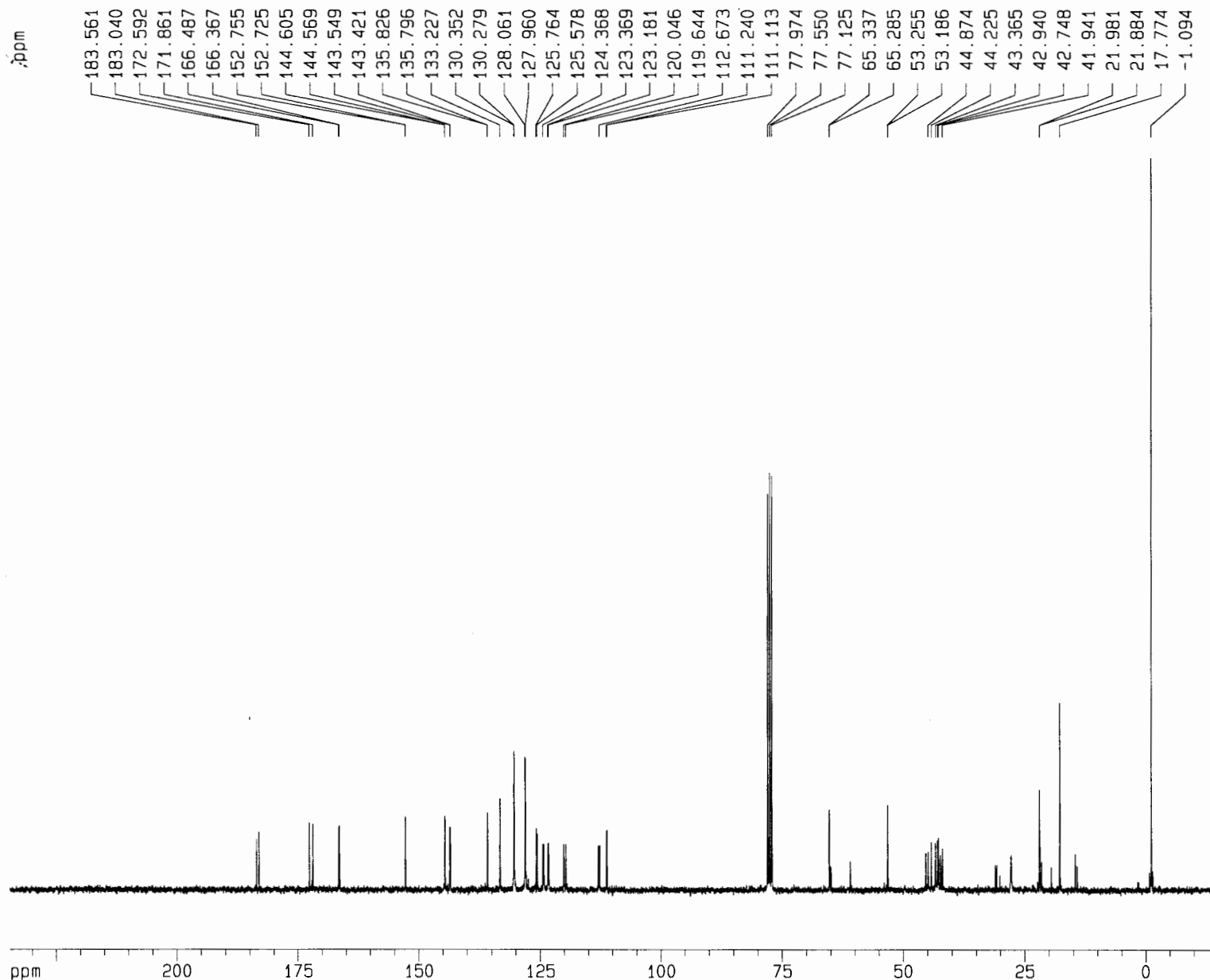
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Unseparated diastereomeric products of Nitroso Alkene Michael Addition

24a

24b



Current Data Parameters
NAME 012610mm42B1
EXPNO 2
PROCNO 1

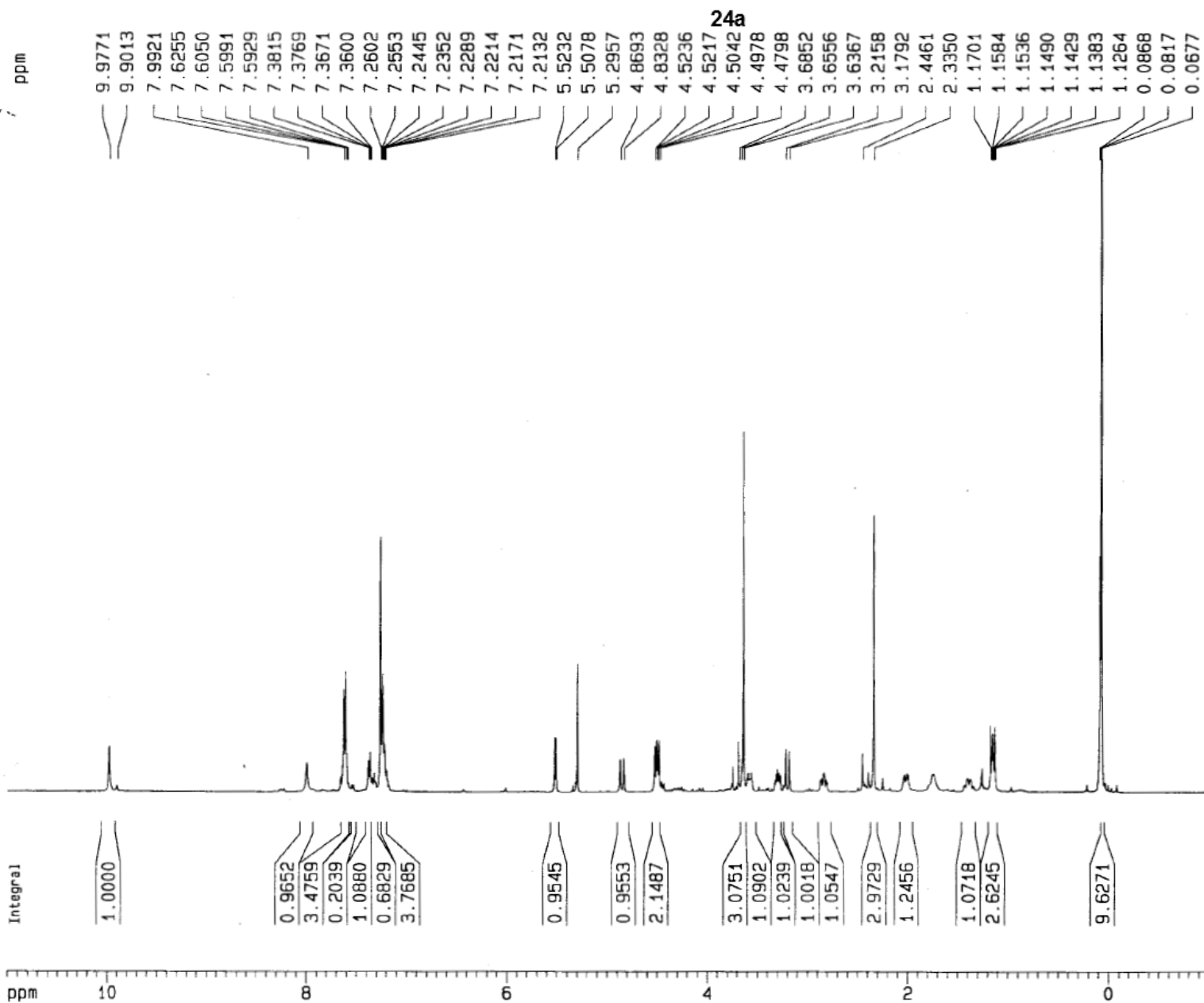
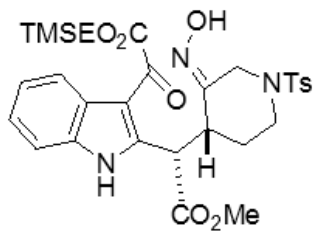
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Date_ 20100126
Time 9.40
INSTRUM spect
PROBHD 5 mm GNP 1H/1
PULPROG zgpg30
TD 32768
SOLVENT CDCl3
NS 1024
DS 4
SWH 18796.992 Hz
FIDRES 0.573639 Hz
AQ 0.8716788 sec
RG 512
DW 26.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.0000000 sec
D11 0.0300000 sec
D12 0.0002000 sec

===== CHANNEL f1 =====
NUC1 13C
P1 5.40 usec
PL1 -6.00 dB
SF01 75.4106357 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 20.00 dB
PL13 20.00 dB
SF02 299.8711995 MHz

F2 - Processing parameters
SI 32768
SF 75.4023410 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
CX 20.00 cm
F1P 234.651 ppm
F1 17693.24 Hz
F2P -14.638 ppm
F2 -1103.75 Hz
PPMCM 12.46446 ppm/cm
HZCM 939.84967 Hz/cm



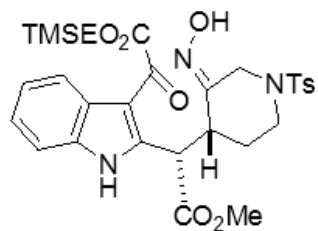
Current Data Parameters
 NAME 092612FYG-11a
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120926
 Time 9.02
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 322.5
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

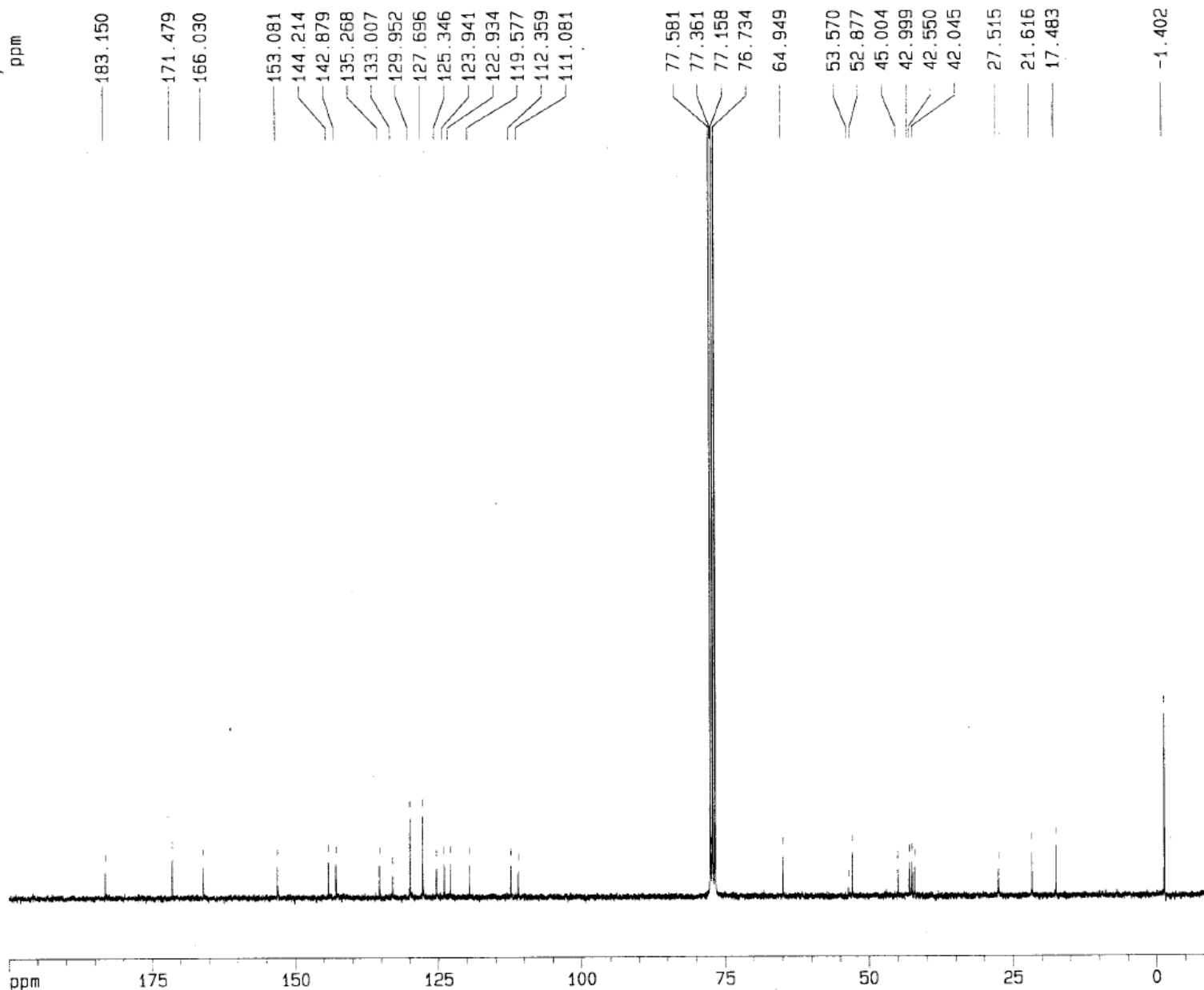
===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300089 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



24a



Current Data Parameters

NAME 092512FYG-11a
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters

Date_ 20120925
Time 18.45
INSTRUM spect
PROBHD 5 mm Multinu
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 3930
DS 4
SWH 18832.393 Hz
FIDRES 0.287360 Hz
AQ 1.7400308 sec
RG 16384
DW 26.550 usec
DE 6.00 usec
TE 300.0 K
D1 2.0000000 sec
d11 0.0300000 sec
d12 0.0002000 sec

===== CHANNEL f1 =====
NUC1 13C
P1 9.75 usec
PL1 0.00 dB
SF01 75.4760200 MHz

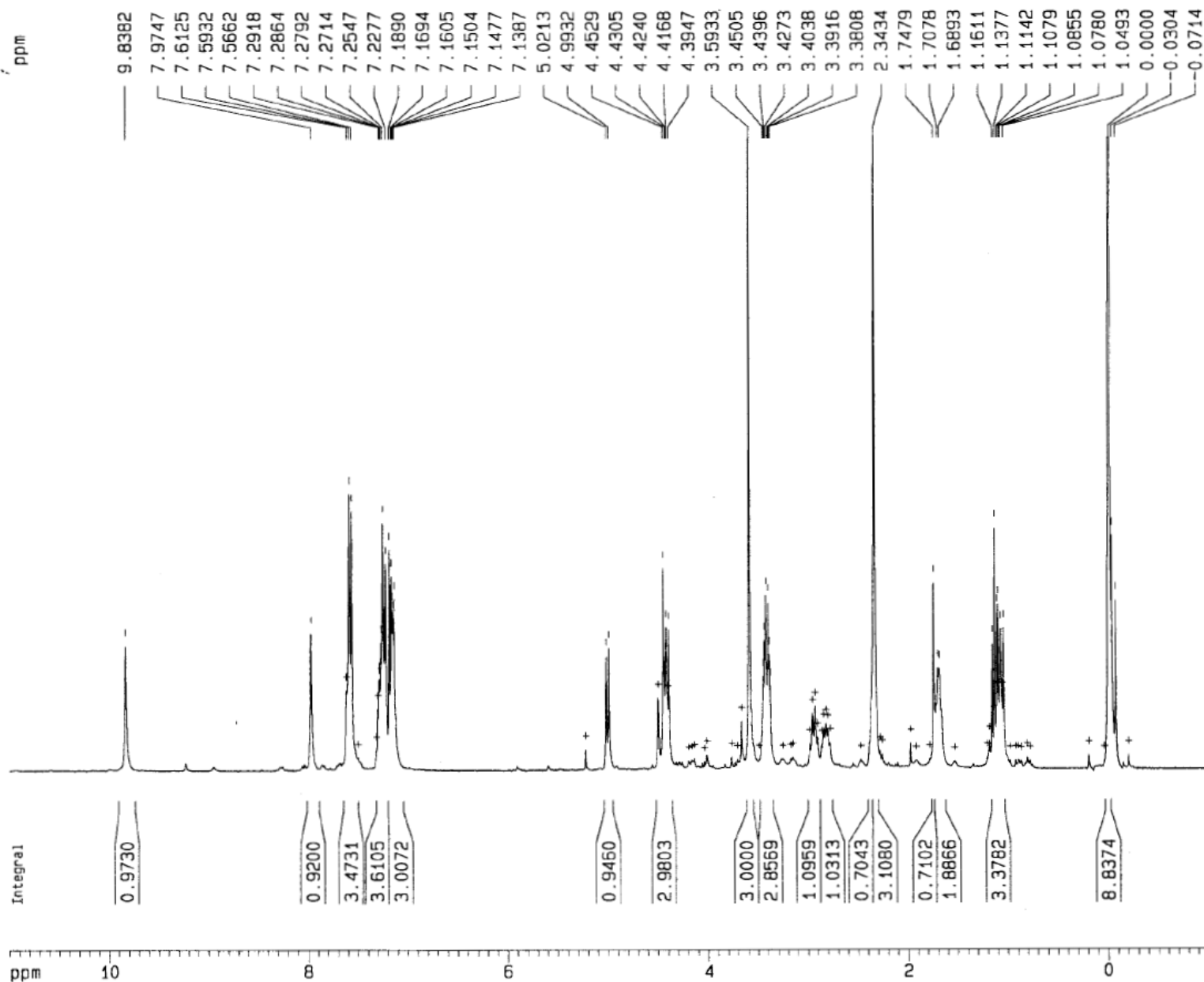
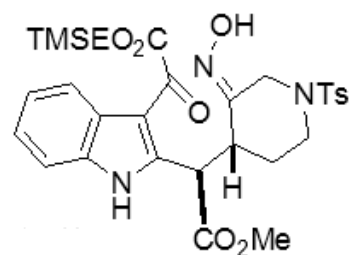
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CPDPRG2 waltz16
NUC2 1H
PCPD2 110.00 usec
PL2 0.00 dB
PL12 17.50 dB
PL13 17.50 dB
SF02 300.1312005 MHz

F2 - Processing parameters

S1 32768
SF 75.4677399 MHz
WDM EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters

CX 20.00 cm
F1P 200.000 ppm
F1 15093.55 Hz
F2P -10.000 ppm
F2 -754.68 Hz
PPMCM 10.50000 ppm/cm
HZCM 792.41132 Hz/cm



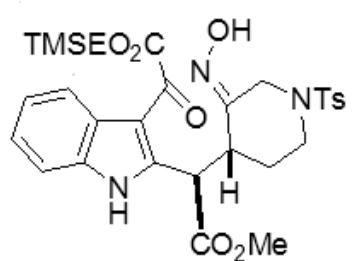
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EXPNO 2
PROCNO 1

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Time 15.24
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PROBHD 5 mm Multinu
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.094190 Hz
AQ 5.3084660 sec
RG 322.5
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

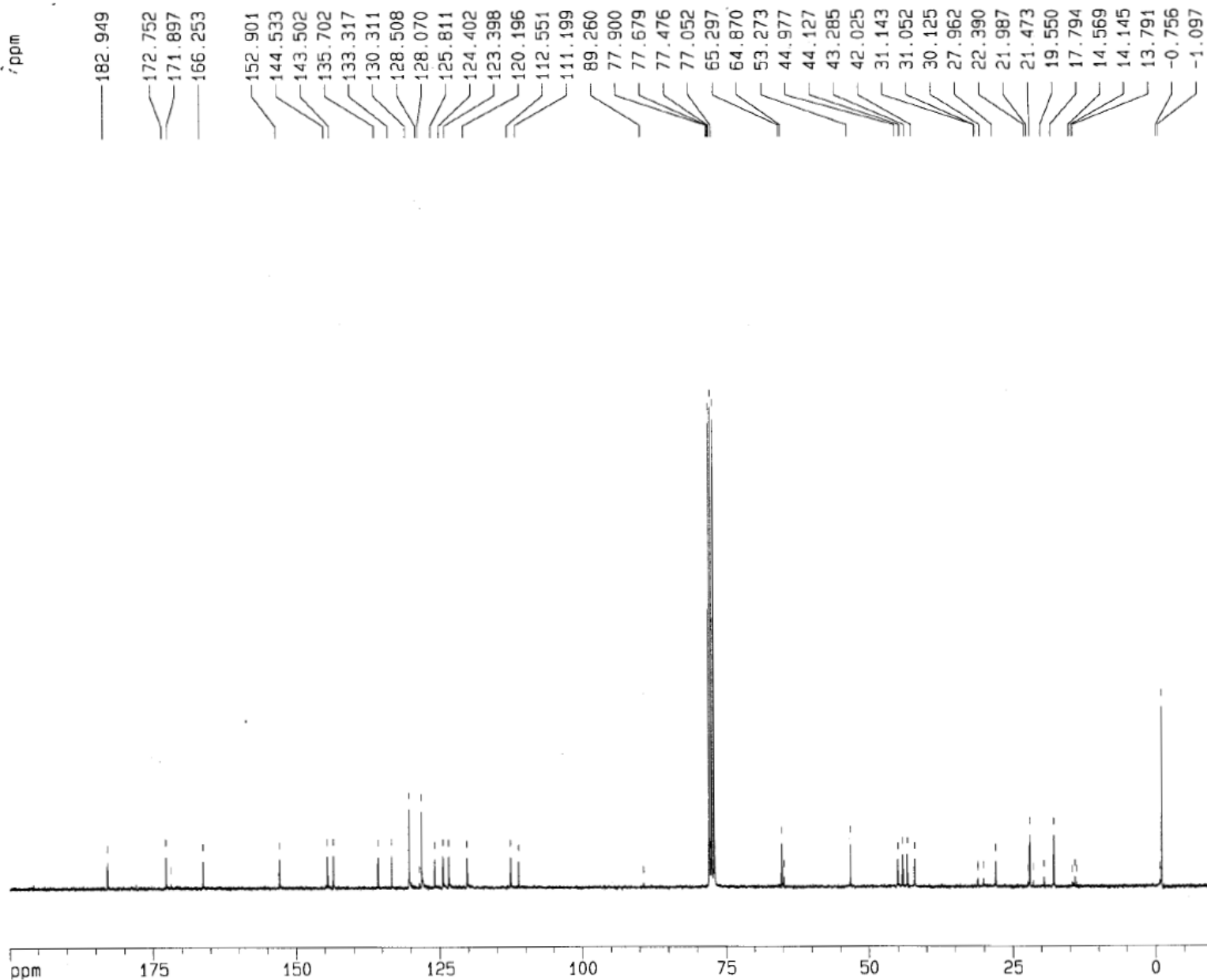
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NUC1 1H
P1 9.60 usec
PL1 -6.00 dB
SF01 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1300277 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
F1P 11.000 ppm
F1 3301.43 Hz
F2P -1.000 ppm
F2 -300.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 180.07802 Hz/cm



24b



Current Data Parameters

NAME 092412FYG-11b
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters

Date_ 20120924
Time 23.14
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 3584
DS 4
SWH 18796.992 Hz
FIDRES 0.286819 Hz
AQ 1.7433076 sec
RG 2048
DW 26.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec

===== CHANNEL f1 =====
NUC1 13C
P1 5.25 usec
PL1 -6.00 dB
SF01 75.4106357 MHz

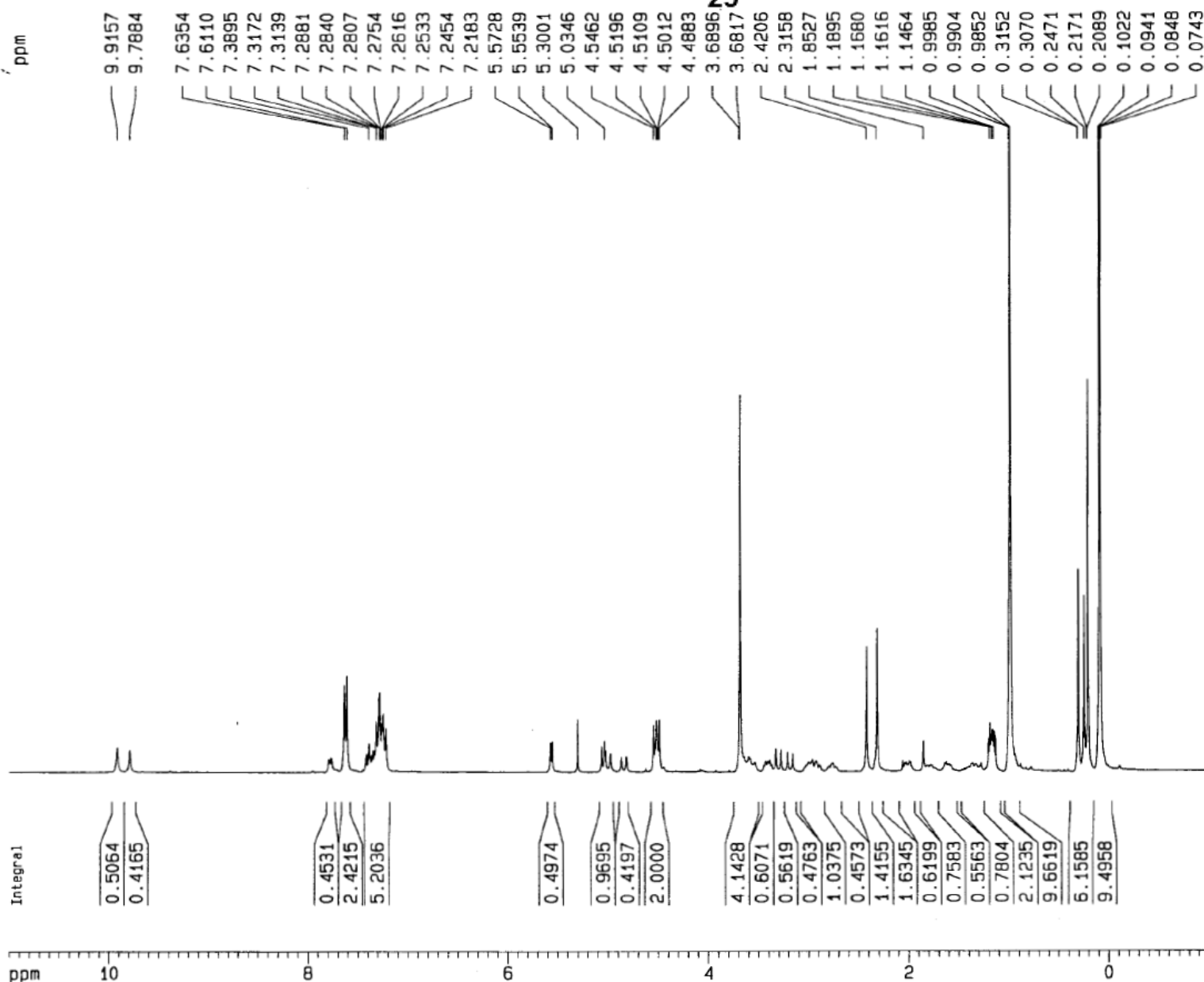
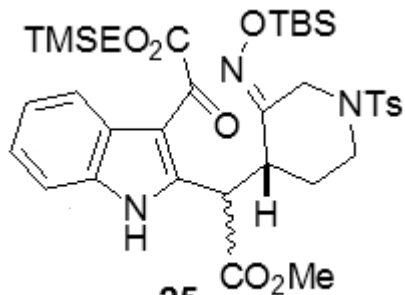
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 19.70 dB
PL13 19.70 dB
SF02 299.8711995 MHz

F2 - Processing parameters

SI 32768
SF 75.4023410 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters

CX 20.00 cm
F1P 200.000 ppm
F1 15080.47 Hz
F2P -10.000 ppm
F2 -754.02 Hz
PPMCM 10.50000 ppm/cm
HZCM 791.72461 Hz/cm



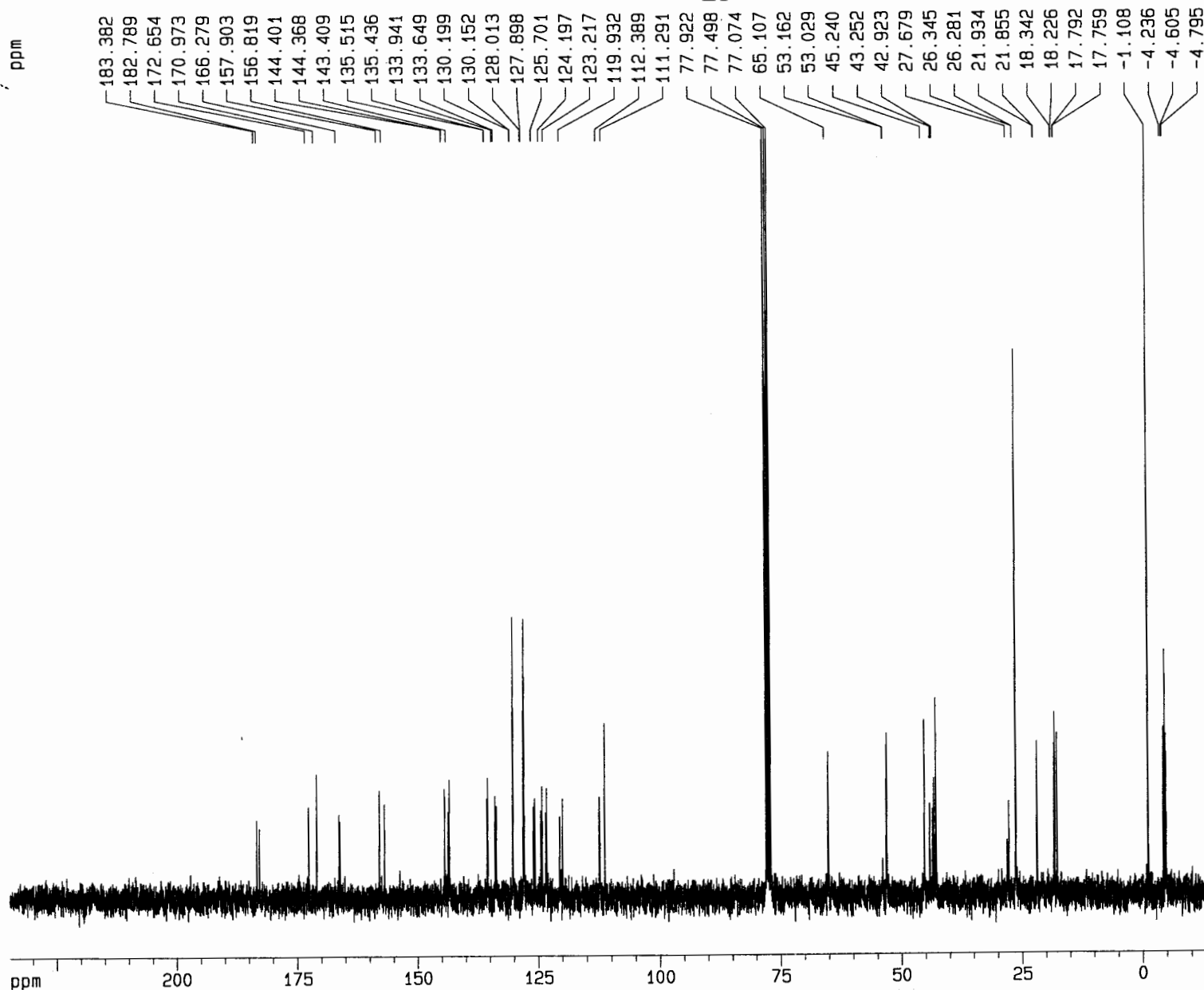
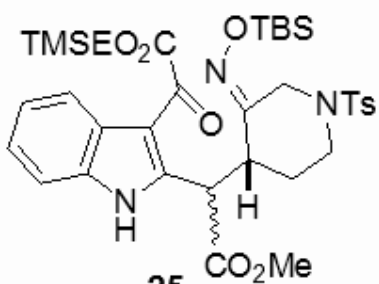
Current Data Parameters
 NAME 043010
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20100430
 Time 15.47
 INSTRUM spect
 PROBHD 5 mm Multinu
 PULPROG zg30
 TD 24590
 SOLVENT CDC13
 NS 8
 DS 2
 SWH 6172.839 Hz
 FIDRES 0.250014 Hz
 AQ 1.9999400 sec
 RG 114
 DW 81.000 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 9.50 usec
 PL1 -6.00 dB
 SFO1 300.1318534 MHz

F2 - Processing parameters
 SI 32768
 SF 300.1300000 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 3301.43 Hz
 F2P -1.000 ppm
 F2 -300.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 180.07800 Hz/cm



Current Data Parameters
 NAME 043010
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20100430
 Time 15.56
 INSTRUM spect
 PROBHD 5 mm Multinu
 PULPROG zgpg30
 TD 32768
 SOLVENT CDCl3
 NS 500
 DS 4
 SMH 18832.393 Hz
 FIDRES 0.574719 Hz
 AQ 0.8700404 sec
 RG 16384
 DW 26.550 usec
 DE 6.00 usec
 TE 300.0 K
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 d11 0.03000000 sec
 d12 0.00002000 sec

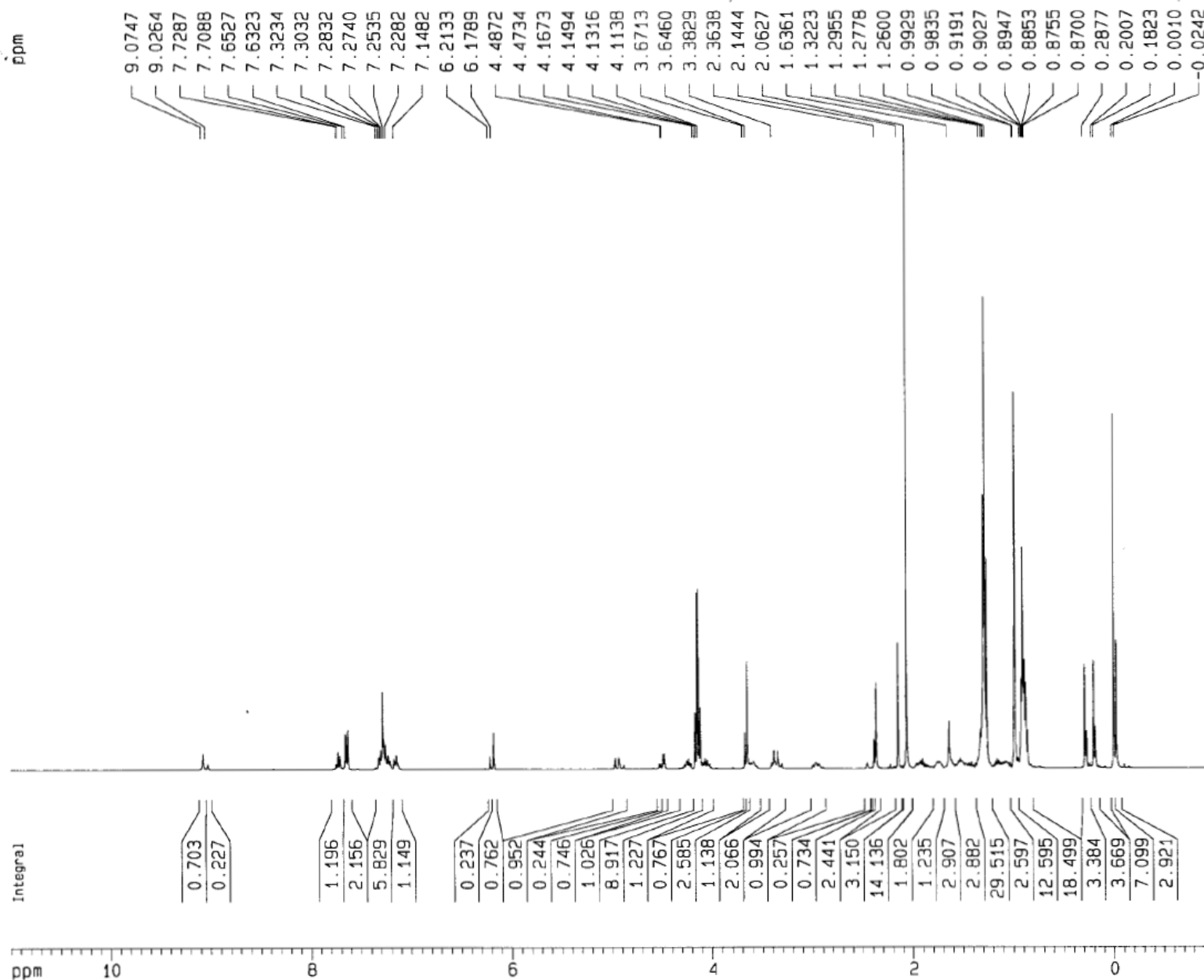
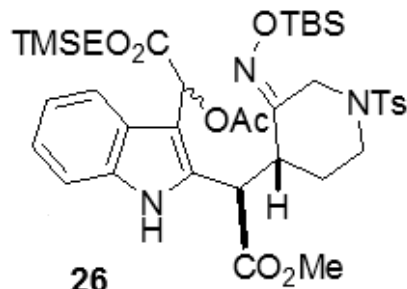
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 NUC1 13C
 P1 11.80 usec
 PL1 0.00 dB
 SF01 75.4760200 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 110.00 usec
 PL2 0.00 dB
 PL12 17.50 dB
 PL13 17.50 dB
 SF02 300.1312005 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4677190 MHz
 WDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters

CX 20.00 cm
 F1P 234.765 ppm
 F1 17717.16 Hz
 F2P -14.778 ppm
 F2 -1115.24 Hz
 PPMCM 12.47712 ppm/cm
 HZCM 941.61963 Hz/cm



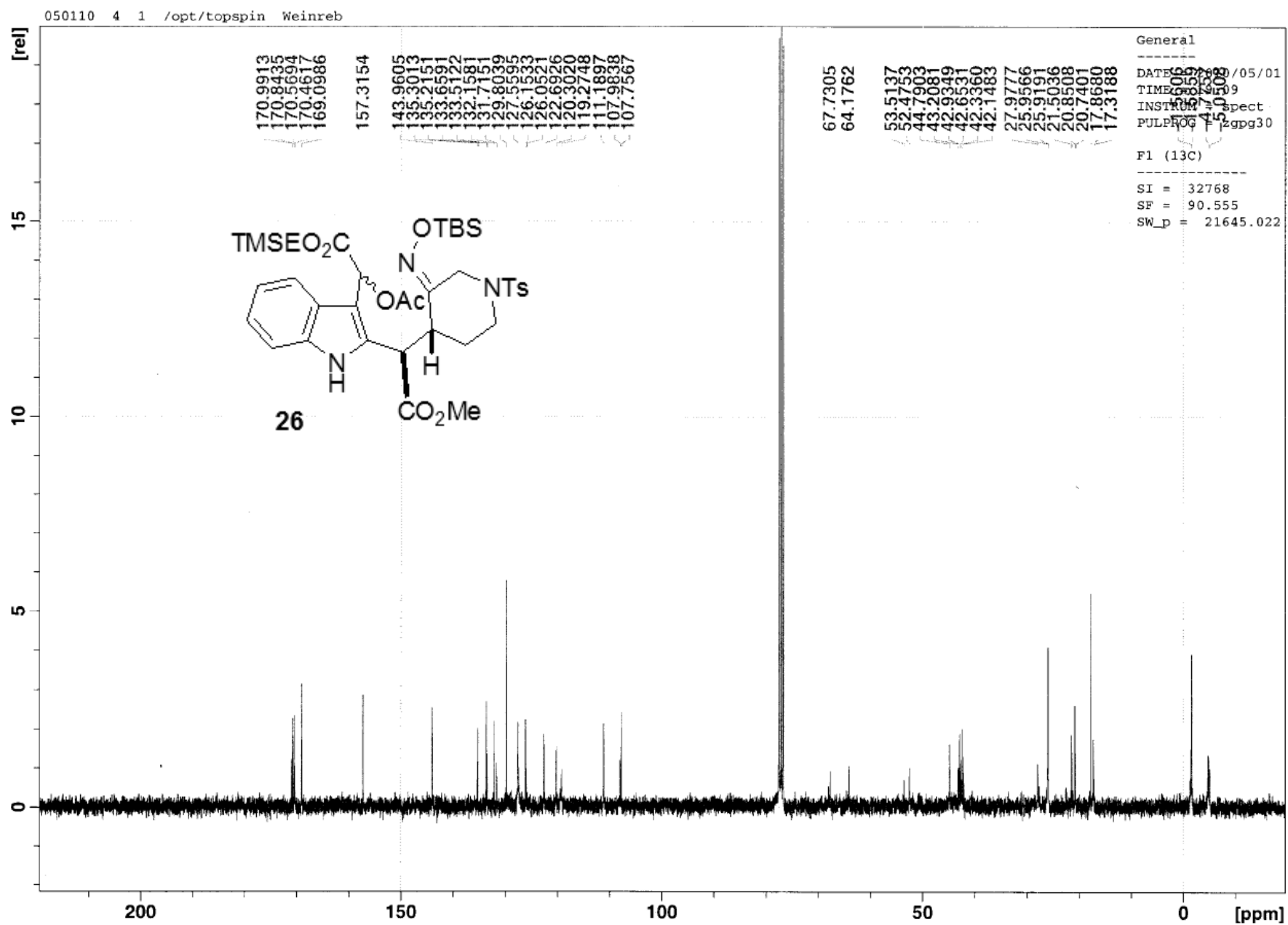
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 EXPNO 2
 PROCNO 1

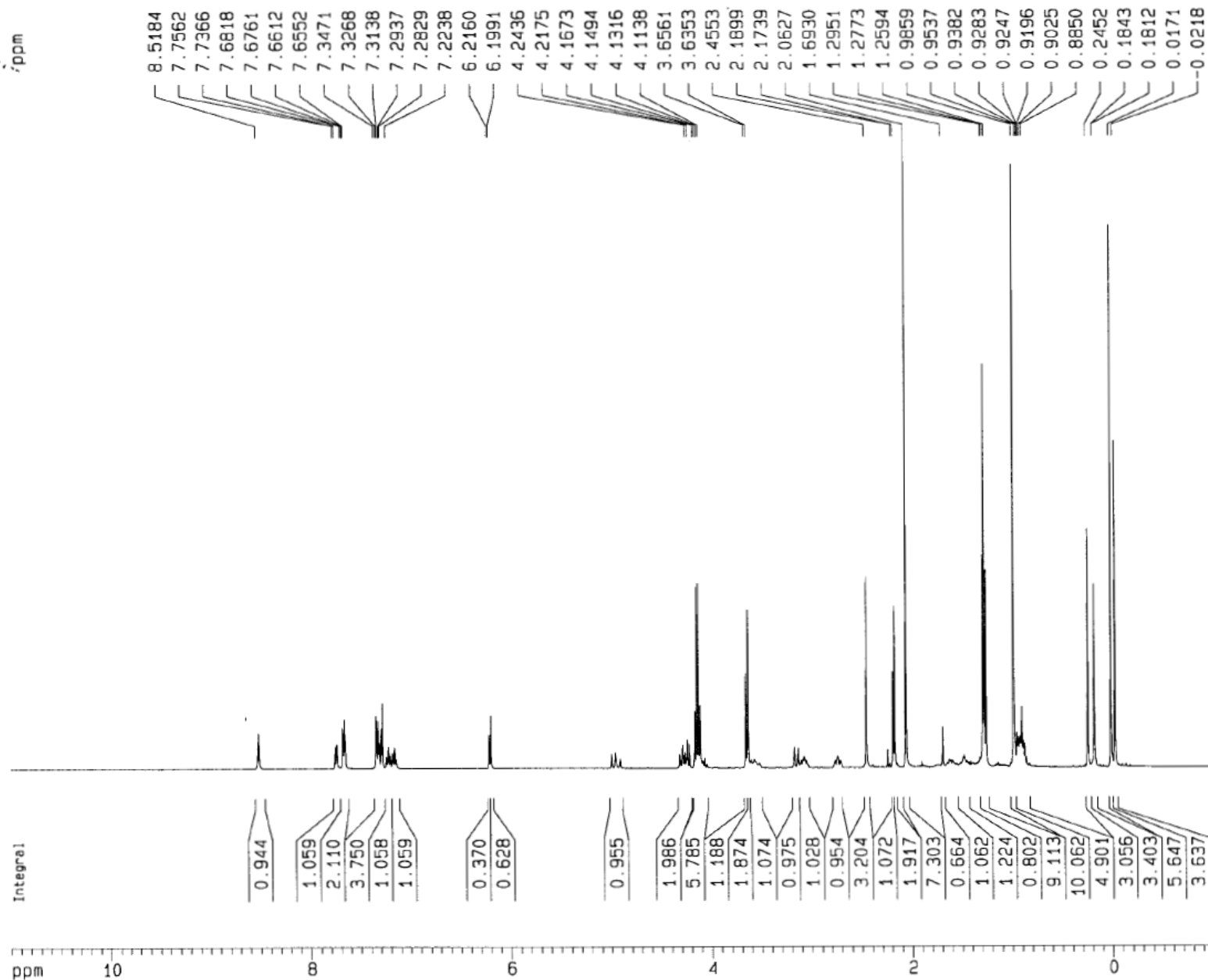
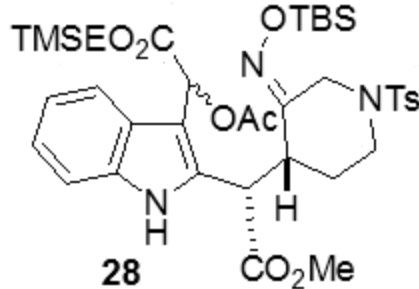
F2 - Acquisition Parameters
 Date_ 20100127
 Time 10.11
 INSTRUM spect
 PROBHD 5 mm BBI 1H-B
 PULPROG zg30
 TD 33110
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.250019 Hz
 AQ 1.9998940 sec
 RG 64
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300000 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm





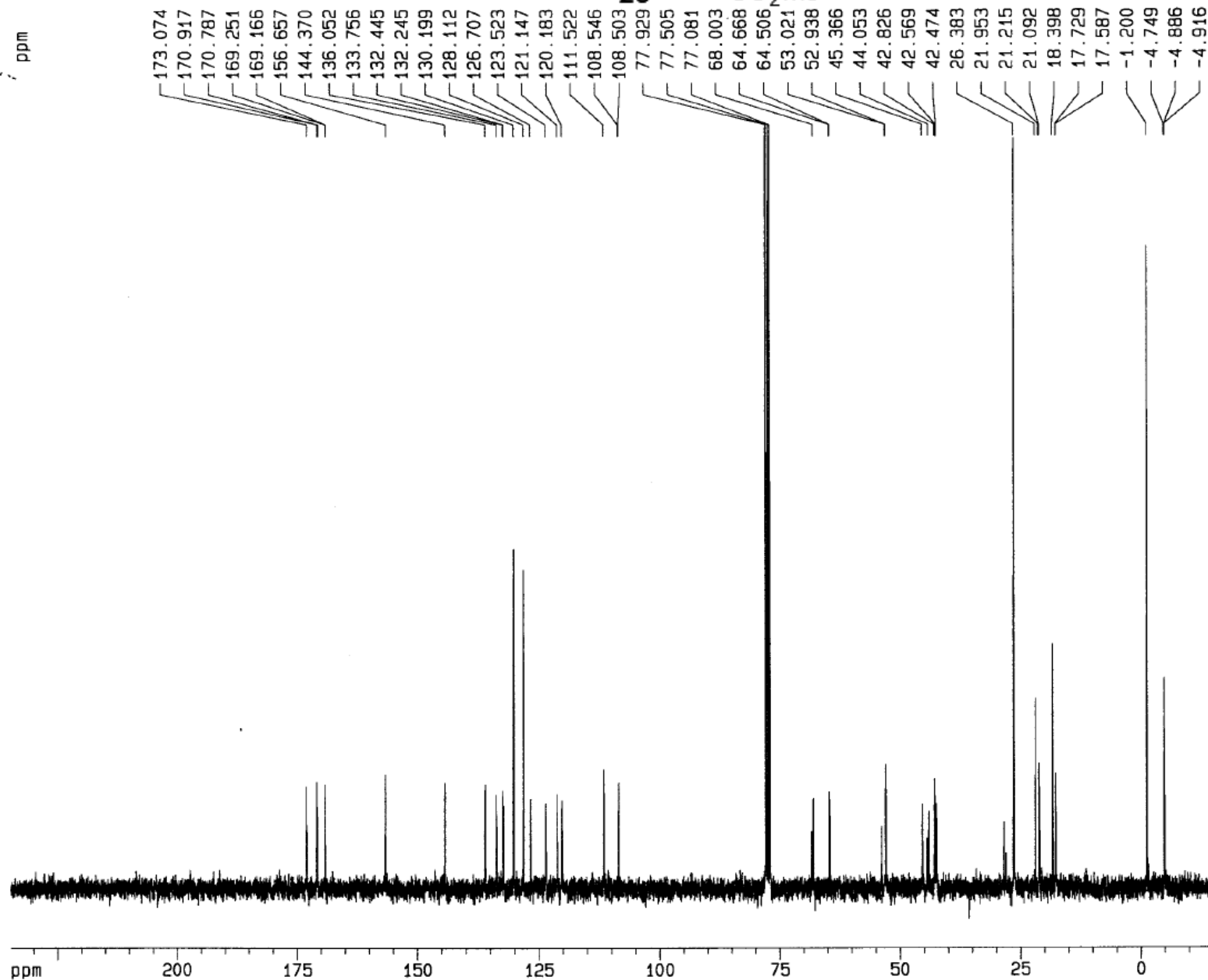
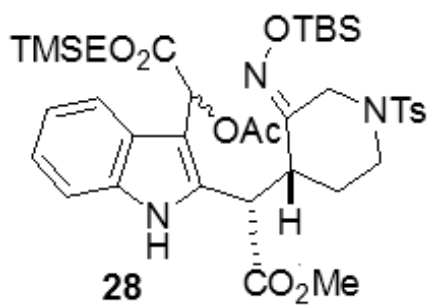
Current Data Parameters
 NAME 012710mm4284
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20100127
 Time 10.05
 INSTRUM spect
 PROBH0 5 mm BBI 1H-B
 PULPROG zg30
 TD 33110
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.250019 Hz
 AQ 1.9998940 sec
 RG 57
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300000 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
NAME 050110
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20100501
Time 17.37
INSTRUM spect
PROBHD 5 mm Multinu
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 599
DS 4
SWH 18832.393 Hz
FIDRES 0.287360 Hz
AQ 1.7400308 sec
RG 16384
DW 26.550 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
d11 0.03000000 sec
d12 0.00002000 sec

----- CHANNEL f1 -----
NUC1 13C
P1 11.80 usec
PL1 0.00 dB
SFO1 75.4760200 MHz

----- CHANNEL f2 -----
CPDPRG2 waltz16
NUC2 1H
PCPD2 110.00 usec
PL2 0.00 dB
PL12 17.50 dB
PL13 17.50 dB
SFO2 300.1312005 MHz

F2 - Processing parameters
SI 32768
SF 75.4677190 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
CX 20.00 cm
F1P 234.765 ppm
F1 17717.16 Hz
F2P -14.778 ppm
F2 -1115.23 Hz
PPMCM 12.47712 ppm/cm
HZCM 941.61951 Hz/cm

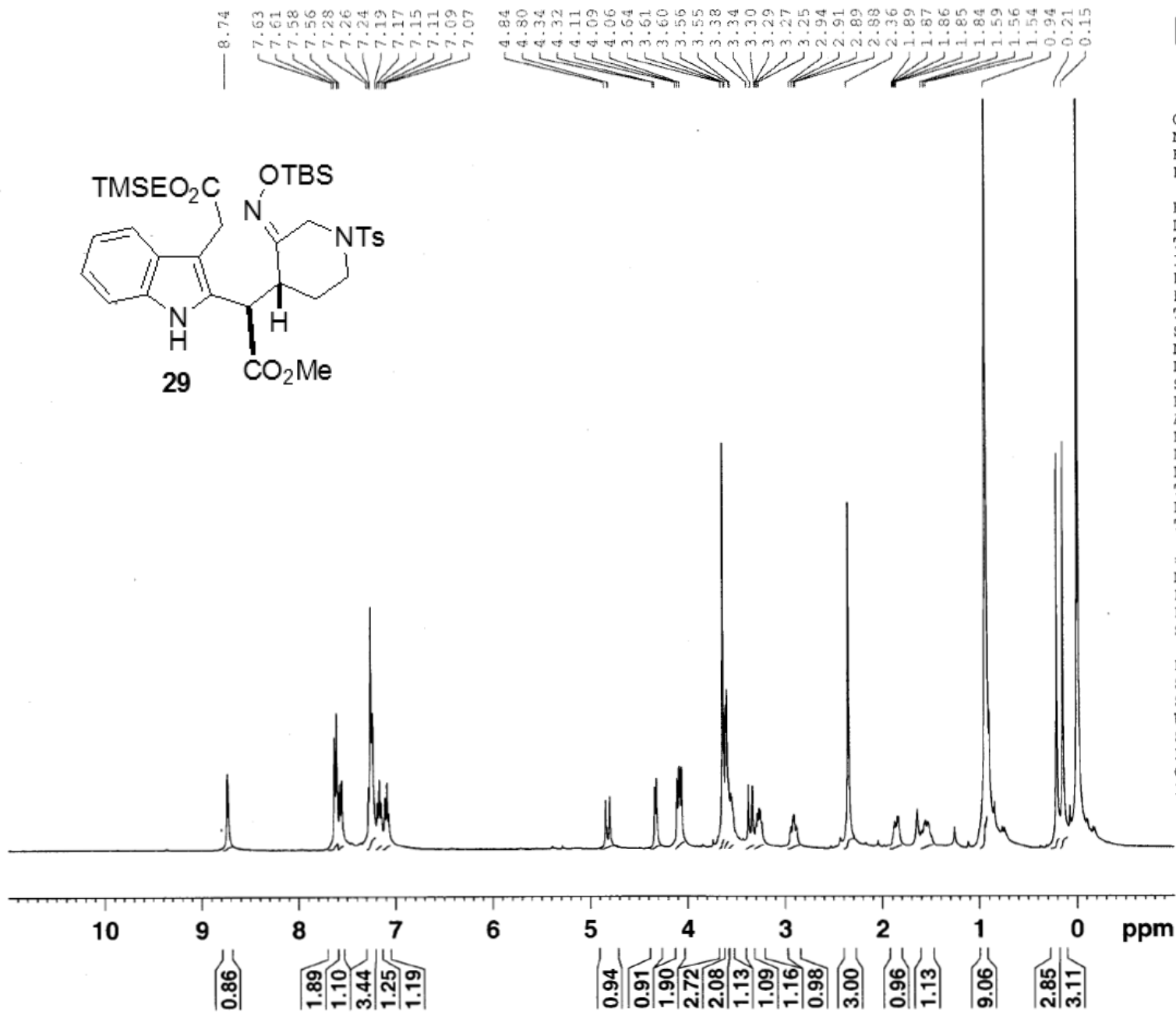


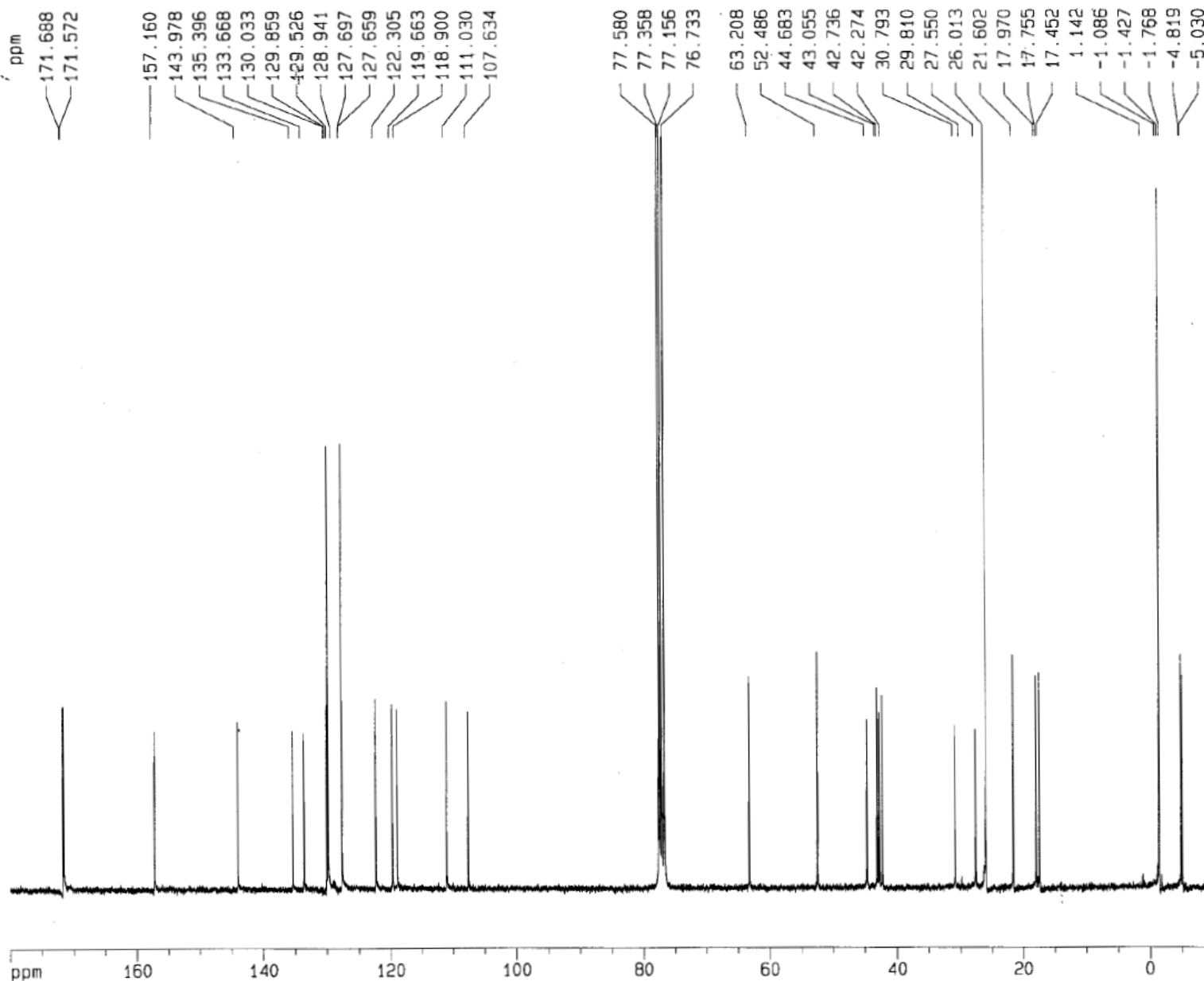
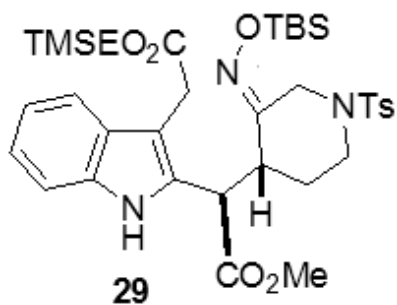
Current Data Parameters
 NAME 092212FYQ-Compound13
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120922
 Time 23.19
 INSTRUM spect
 PROBHD 5 mm QNP 1H/15
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 7440.476 Hz
 FIDRES 0.113533 Hz
 AQ 4.4040694 sec
 RG 181
 DW 67.200 usec
 DE 6.00 usec
 TE 295.7 K
 D1 1.0000000 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 14.93 usec
 PL1 -3.00 dB
 SFO1 360.1322240 MHz

F2 - Processing parameters
 SI 32768
 SF 360.1300145 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00





Current Data Parameters
NAME 092212FYQcpd13
EXPNO 2
PROCNO 1

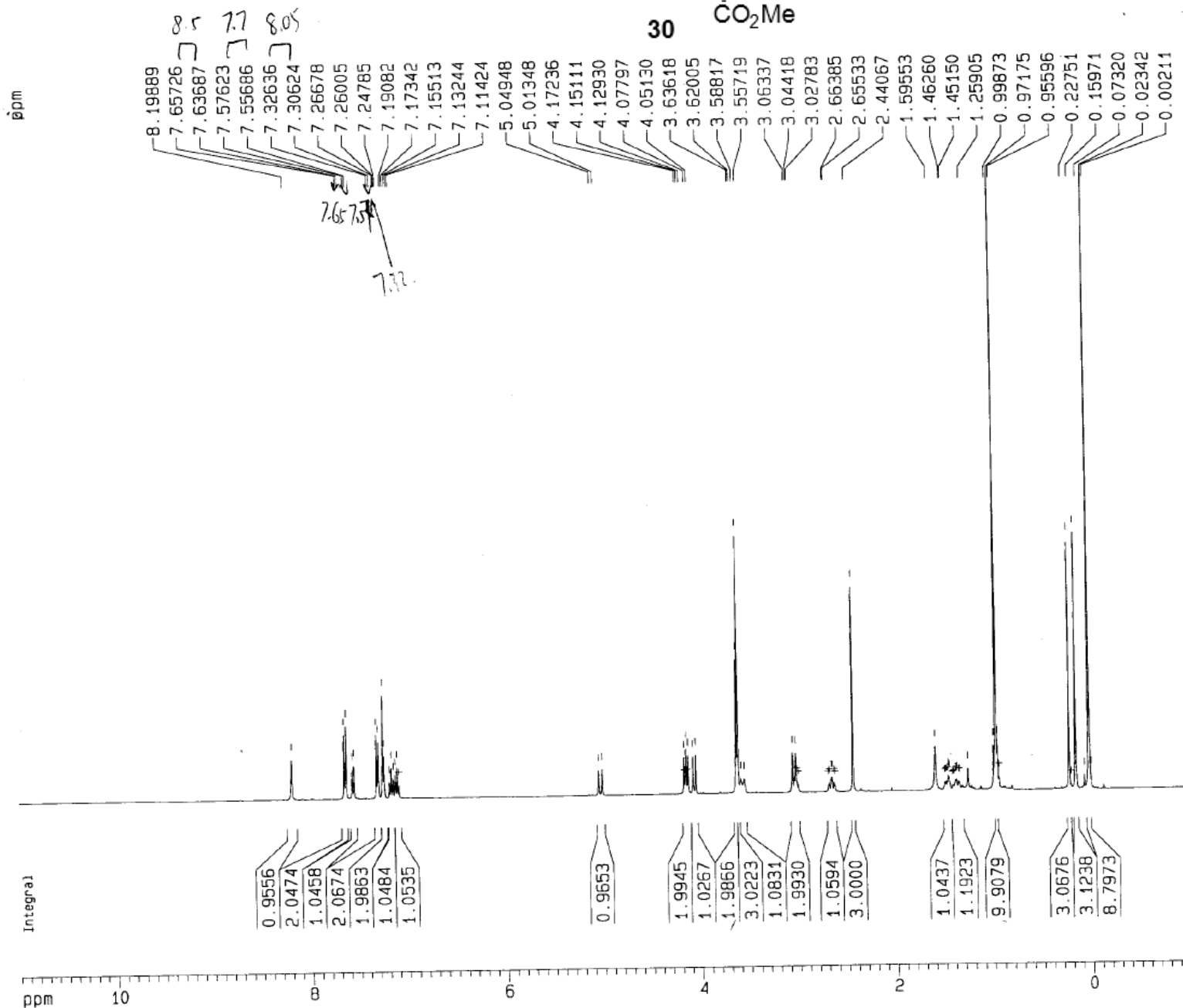
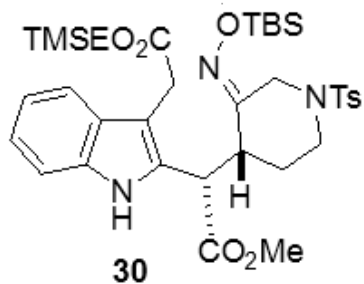
F2 - Acquisition Parameters
Date_ 20120922
Time 22.08
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 7168
DS 4
SWH 18796.992 Hz
FIDRES 0.286819 Hz
AQ 1.7433076 sec
RG 1024
DW 26.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec

===== CHANNEL f1 =====
NUC1 13C
P1 5.25 usec
PL1 -6.00 dB
SF01 75.4106357 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 19.70 dB
PL13 19.70 dB
SF02 299.8711995 MHz

F2 - Processing parameters
SI 32768
SF 75.4023654 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
CX 20.00 cm
F1P 180.000 ppm
F1 13572.43 Hz
F2P -10.000 ppm
F2 -754.02 Hz
PPMCM 9.50000 ppm/cm
HZCM 716.32251 Hz/cm



Current Data Parameters
 NAME 071911FJ11-019
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20110719
 Time 9.33
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 90.5
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

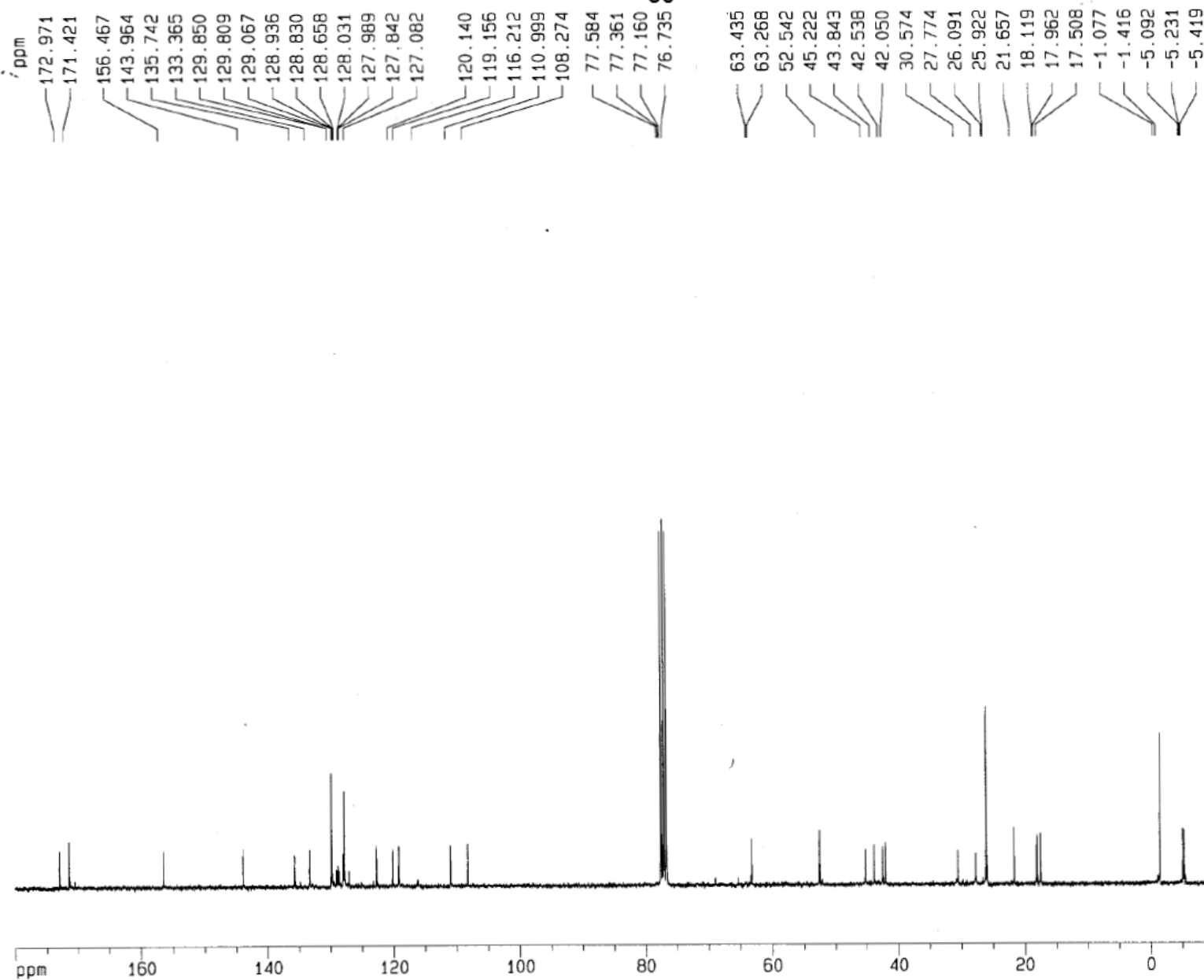
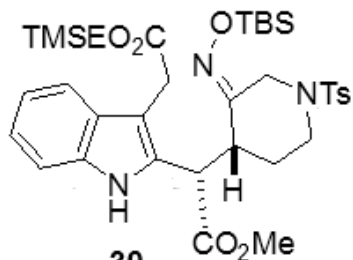
----- CHANNEL f1 -----
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SFO1 400.1324710 MHz

F2 - Processing parameters

SI 32768
 SF 400.1300086 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
 NAME 092212FYGcpd14
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20120922
 Time 23.19
 INSTRUM spect
 PROBHD 5 mm GNP 1H/1
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 1024
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 1024
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 D12 0.0000200 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SF01 75.4106357 MHz

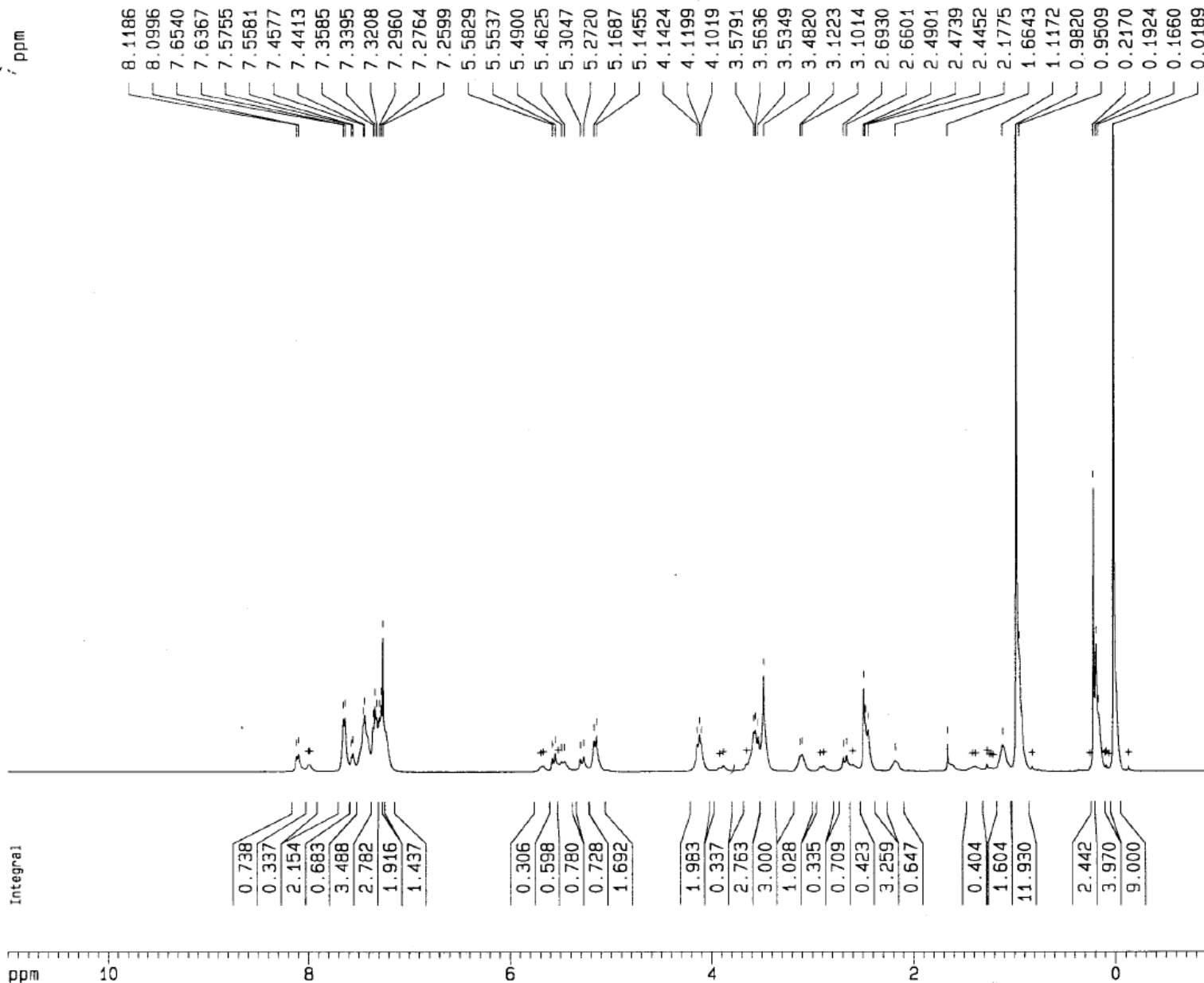
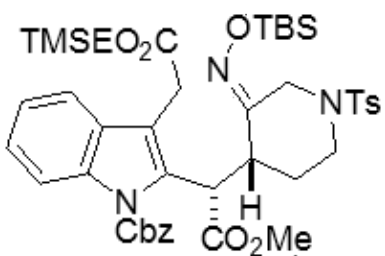
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SF02 299.8711995 MHz

F2 - Processing parameters

SI 32768
 SF 75.4023660 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters

CX 20.00 cm
 F1P 180.000 ppm
 F1 13572.43 Hz
 F2P -10.000 ppm
 F2 -754.02 Hz
 PPMCM 9.50000 ppm/cm
 HZCM 716.32251 Hz/cm



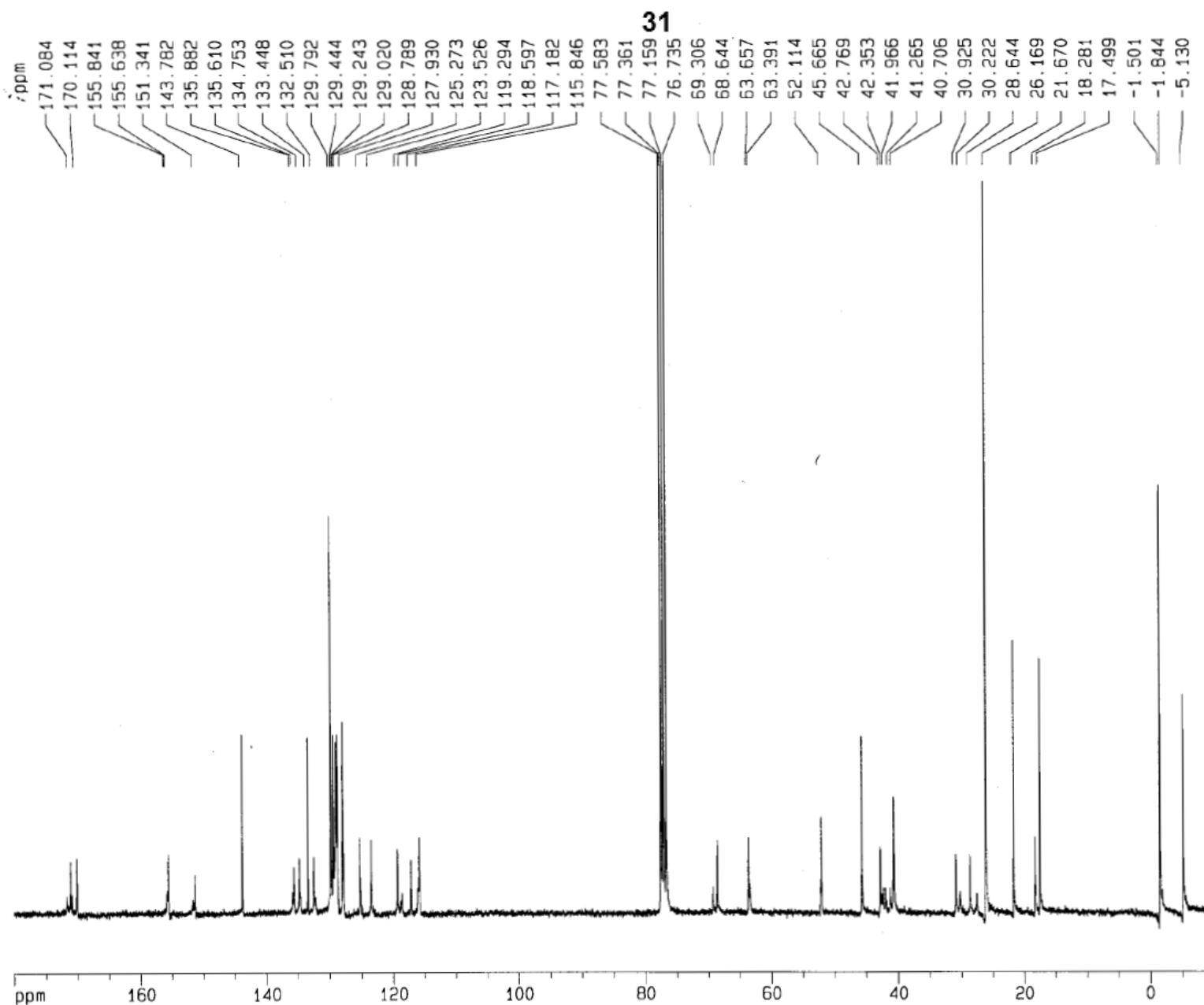
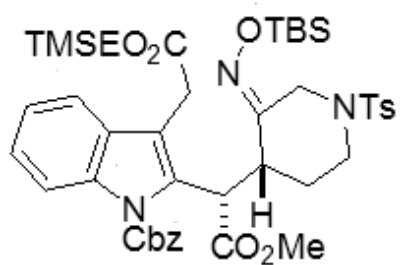
Current Data Parameters
 NAME 092512FYQ-15
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120925
 Time 18.02
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 57
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

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

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
NAME 092412FY0-15
EXPNO 1
PROCNO 1

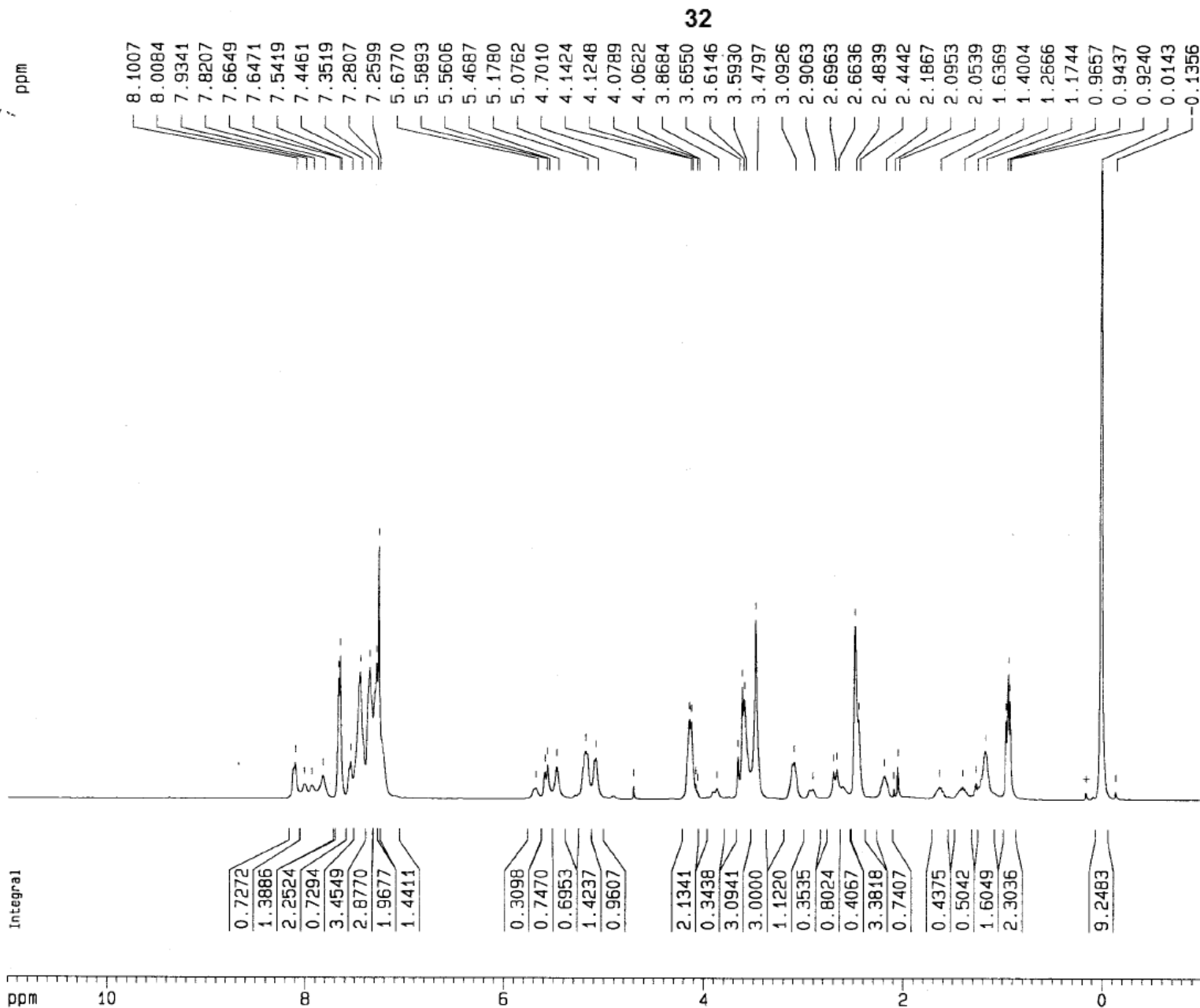
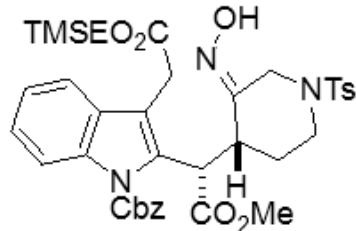
F2 - Acquisition Parameters
Date_ 20120925
Time 6.27
INSTRUM spect
PROBHD 5 mm GNP 1H/1
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 6656
DS 4
SWH 18796.992 Hz
FIDRES 0.286819 Hz
AQ 1.7433076 sec
RG 1024
DW 26.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.0000000 sec
D11 0.0300000 sec
D12 0.0000200 sec

===== CHANNEL f1 =====
NUC1 13C
P1 5.25 usec
PL1 -6.00 dB
SF01 75.4106357 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 19.70 dB
PL13 19.70 dB
SF02 299.8711995 MHz

F2 - Processing parameters
SI 32768
SF 75.4023671 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
CX 20.00 cm
F1P 180.000 ppm
F1 13572.43 Hz
F2P -10.000 ppm
F2 -754.02 Hz
PPMCM 9.50000 ppm/cm
HZCM 716.32251 Hz/cm



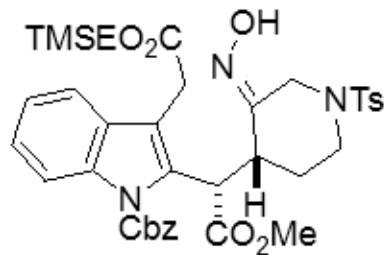
Current Data Parameters
 NAME 092512FYQ-16
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120925
 Time 18.29
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 50.8
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

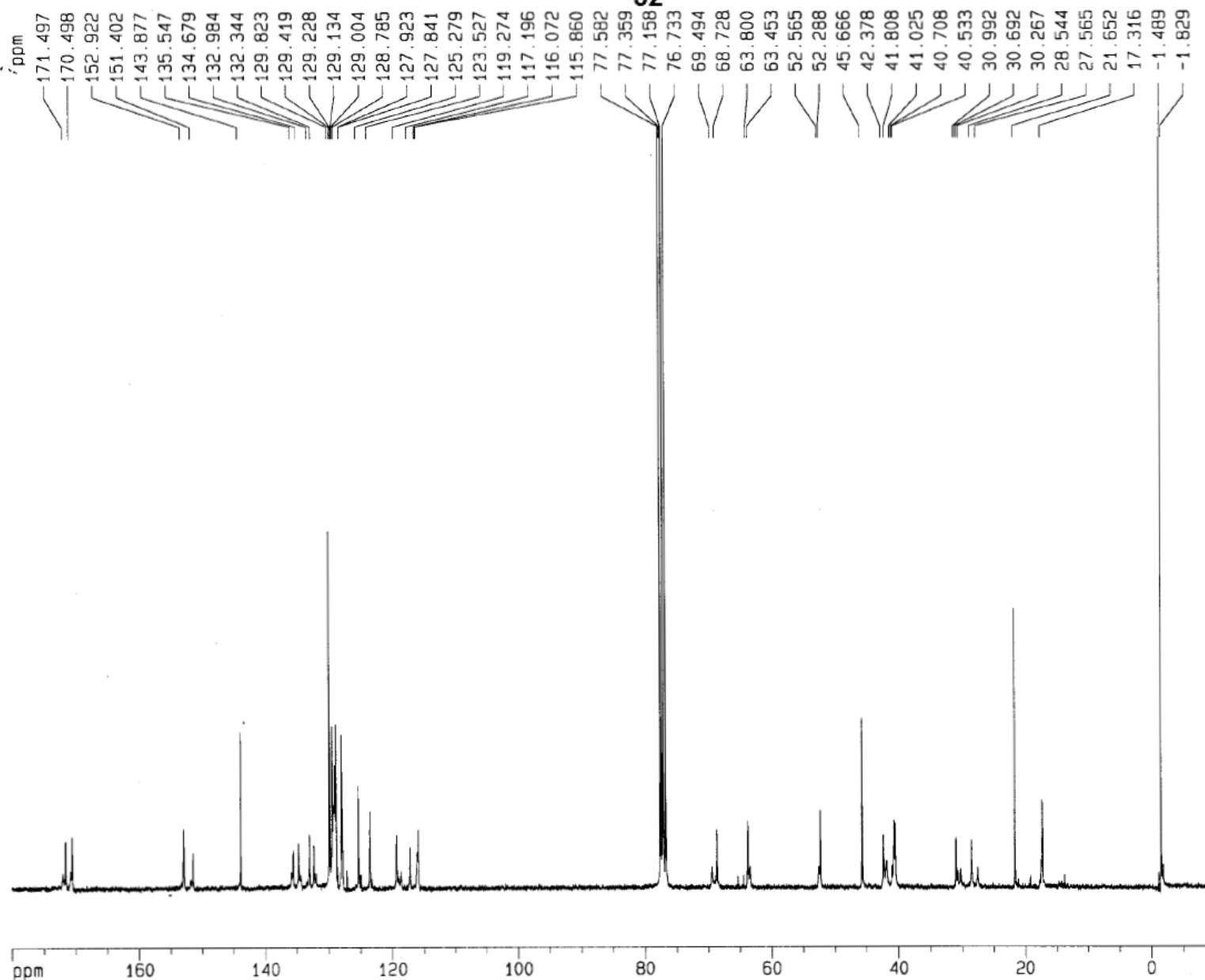
===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

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

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



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Current Data Parameters

NAME 092512FYQ-16
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20120926
 Time 7.49
 INSTRUM spect
 PROBHD 5 mm QNP 1H/1
 PULPROG zgpg30
 TO 65536
 SOLVENT CDCl3
 NS 8192
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 4096
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 D12 0.00002000 sec

----- CHANNEL f1 -----
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SFO1 75.4106357 MHz

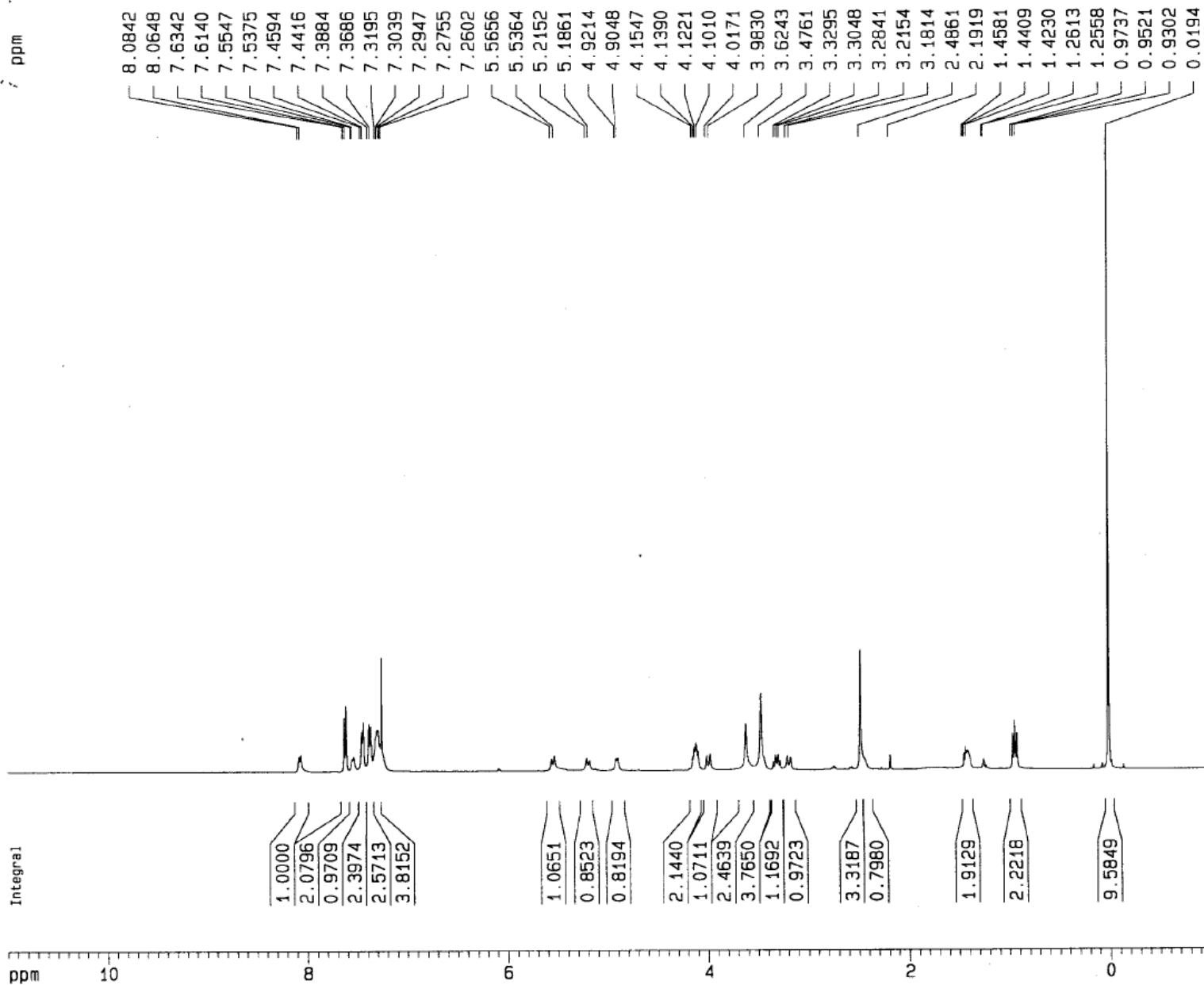
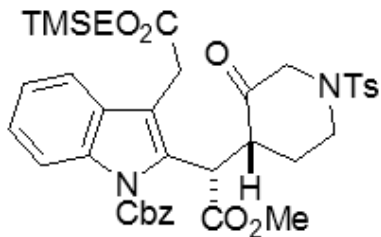
----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SFO2 299.8711995 MHz

F2 - Processing parameters

SI 32768
 SF 75.4023694 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters

CX 20.00 cm
 F1P 180.000 ppm
 F1 13572.43 Hz
 F2P -10.000 ppm
 F2 -754.02 Hz
 PPMCM 9.50000 ppm/cm
 HZCM 716.32251 Hz/cm



Current Data Parameters
NAME 092612FYQ-17
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20120926
Time 9.06
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 114
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.0000000 sec

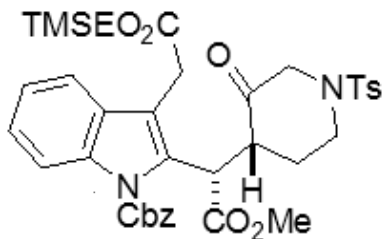
===== CHANNEL f1 =====
NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SF01 400.1324710 MHz

F2 - Processing parameters

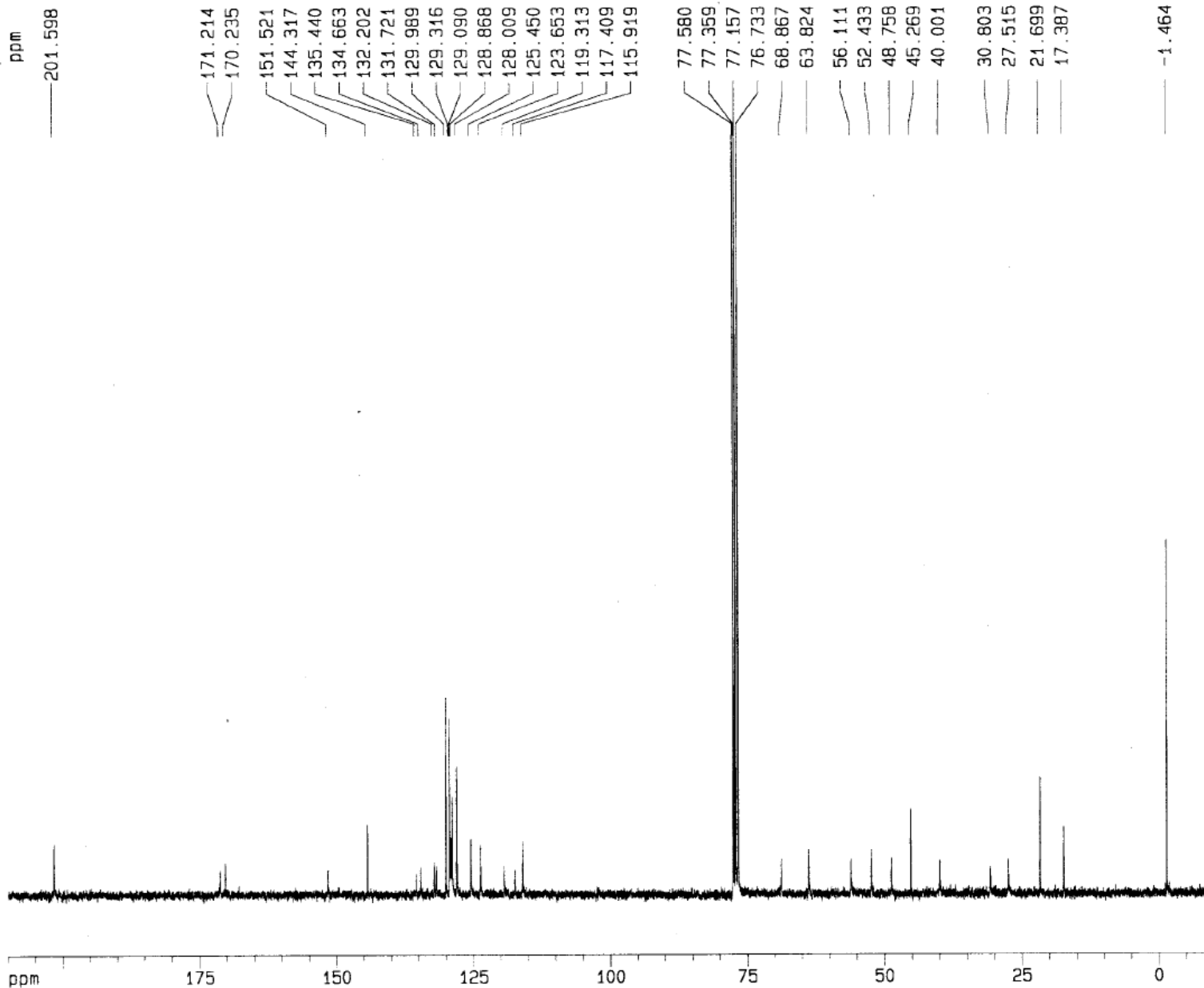
SI 32768
SF 400.1300091 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm



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Current Data Parameters
 NAME 092512FYG-17
 EXPNO 2
 PROCNO 1

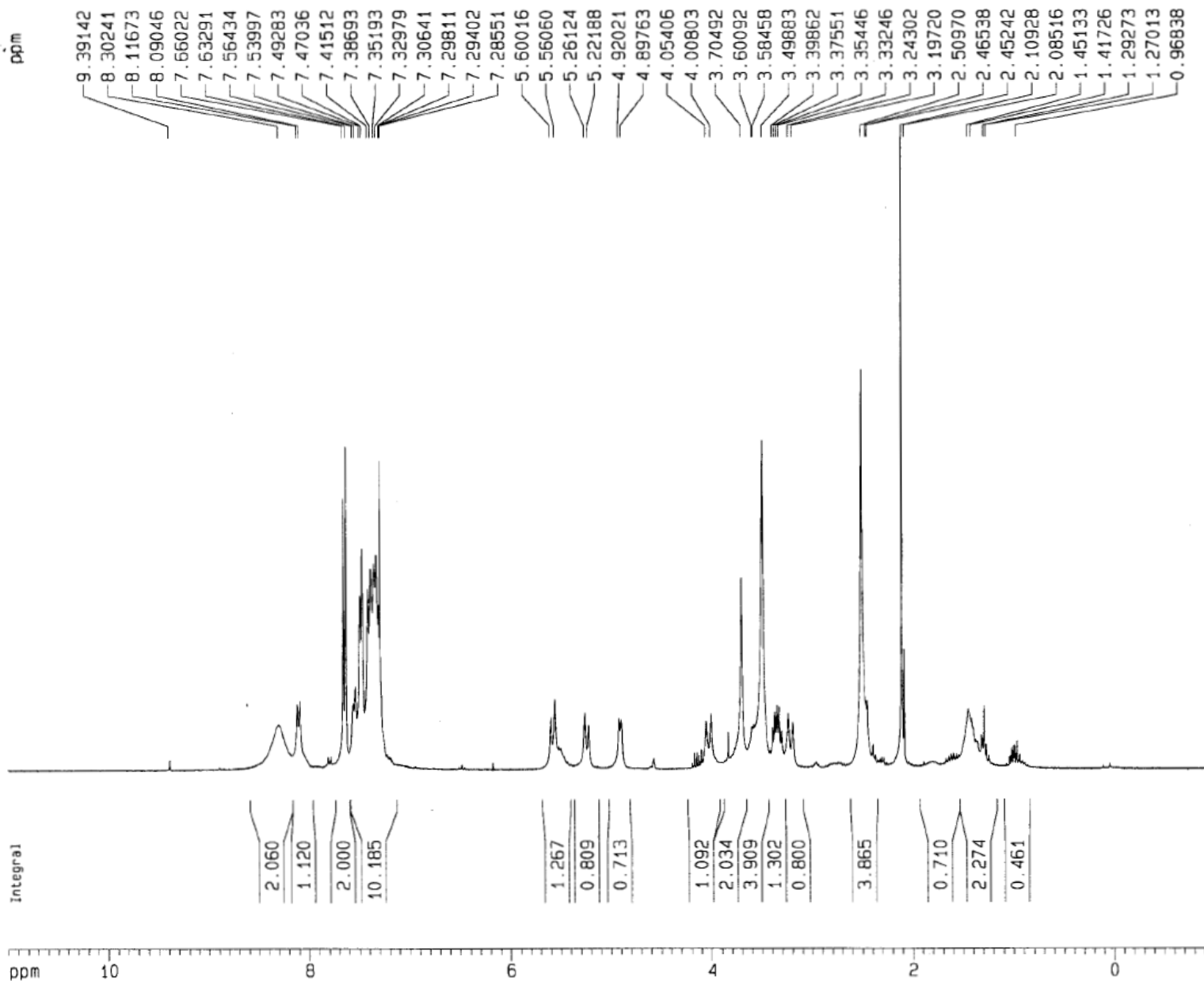
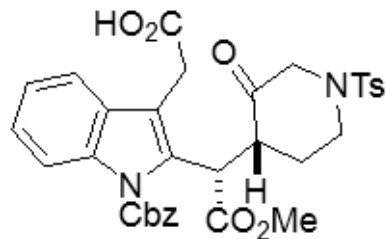
F2 - Acquisition Parameters
 Date_ 20120925
 Time 21.56
 INSTRUM spect
 PROBHD 5 mm Multinu
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 1024
 DS 4
 SWH 18832.393 Hz
 FIDRES 0.287360 Hz
 AQ 1.7400308 sec
 RG 13004
 DW 26.550 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 d12 0.0002000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 9.75 usec
 PL1 0.00 dB
 SF01 75.4760200 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 110.00 usec
 PL2 0.00 dB
 PL12 17.50 dB
 PL13 17.50 dB
 SF02 300.1312005 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4677428 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 210.000 ppm
 F1 15848.23 Hz
 F2P -10.000 ppm
 F2 -754.68 Hz
 PPMCM 11.00000 ppm/cm
 HZCM 830.14514 Hz/cm



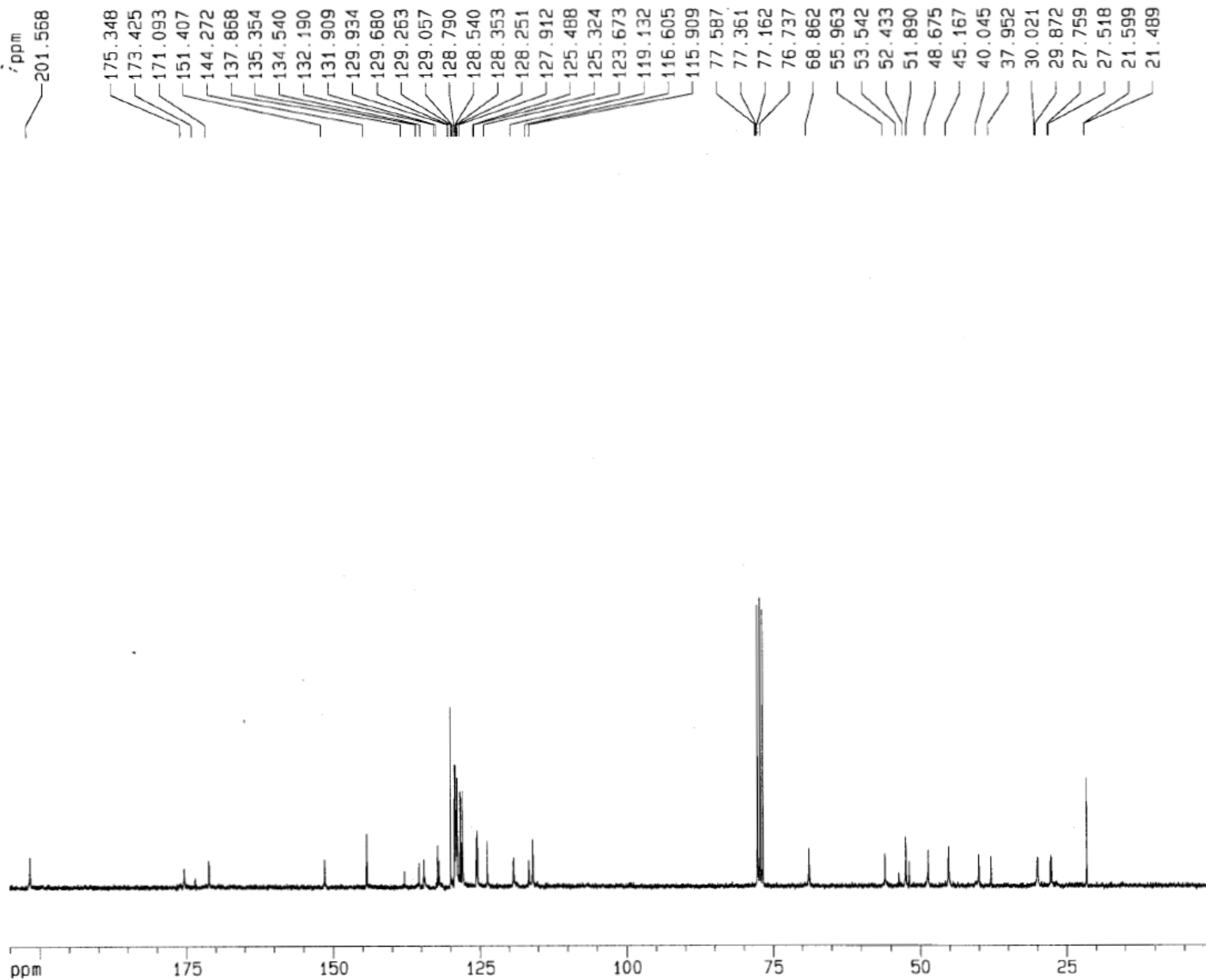
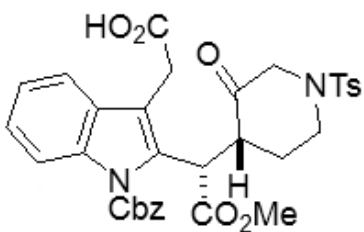
Current Data Parameters
 NAME 032310mm5085
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20100323
 Time 6.57
 INSTRUM spect
 PROBHD 5 mm QNP 1H/1
 PULPROG zg30
 TD 24690
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 6172.839 Hz
 FIDRES 0.250014 Hz
 AQ 1.9999400 sec
 RG 228.1
 DW 81.000 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 11.70 usec
 PL1 0.00 dB
 SFO1 299.8718518 MHz

F2 - Processing parameters
 SI 32768
 SF 299.8700000 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 3298.57 Hz
 F2P -1.000 ppm
 F2 -299.87 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 179.92200 Hz/cm



Current Data Parameters

NAME 092512FYQ-18
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20120925
Time 23.10
INSTRUM spect
PROBHD 5 mm GNP 1H/1
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 769
DS 4
SWH 18796.992 Hz
FIDRES 0.286819 Hz
AQ 1.7433076 sec
RG 4096
DW 26.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec

----- CHANNEL f1 -----
NUC1 13C
P1 5.25 usec
PL1 -6.00 dB
SFO1 75.4106357 MHz

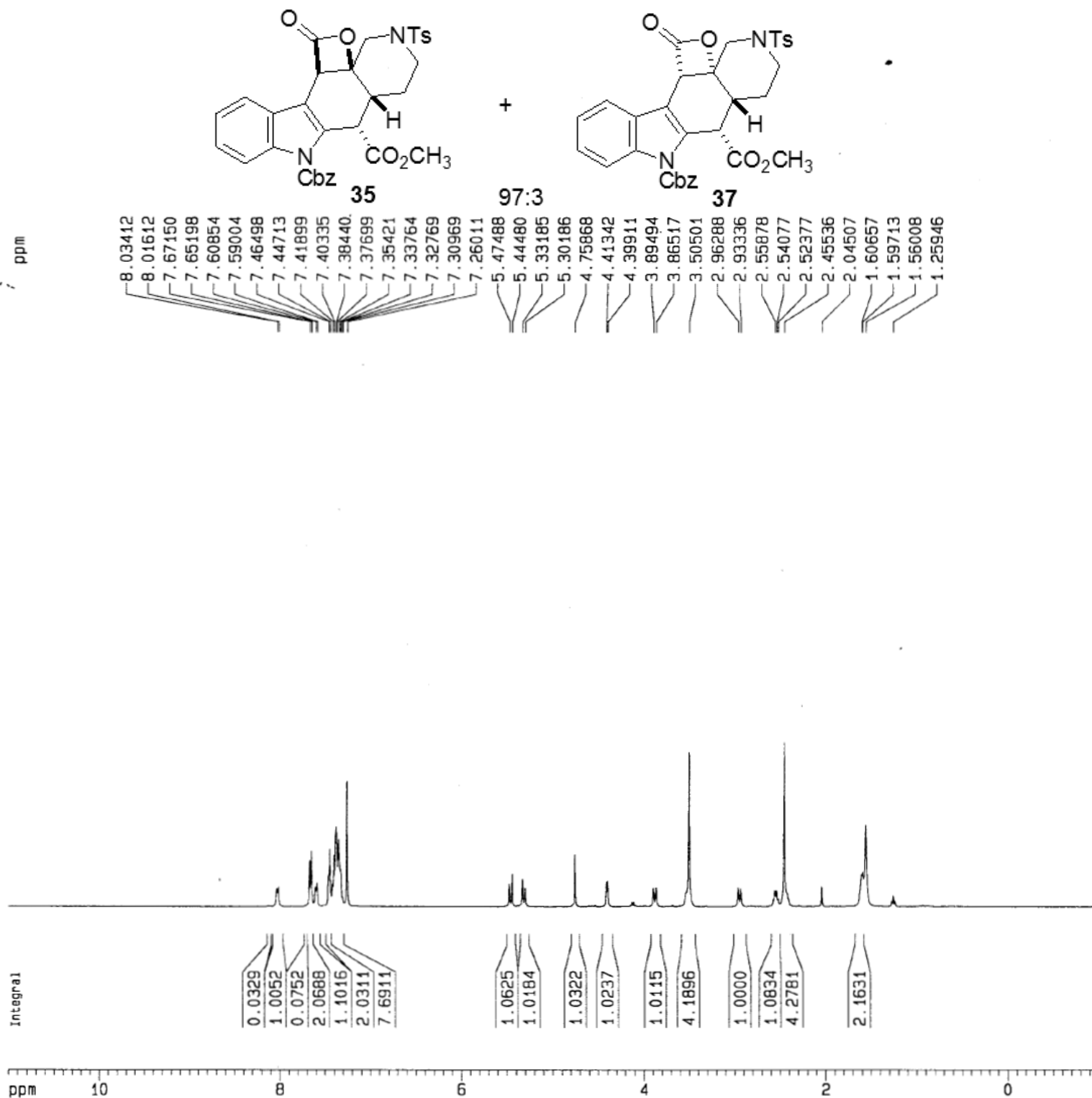
----- CHANNEL f2 -----
CPDPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 19.70 dB
PL13 19.70 dB
SFO2 299.8711995 MHz

F2 - Processing parameters

SI 32768
SF 75.4023746 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters

CX 20.00 cm
F1P 205.000 ppm
F1 15457.49 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.25000 ppm/cm
HZCM 772.87439 Hz/cm



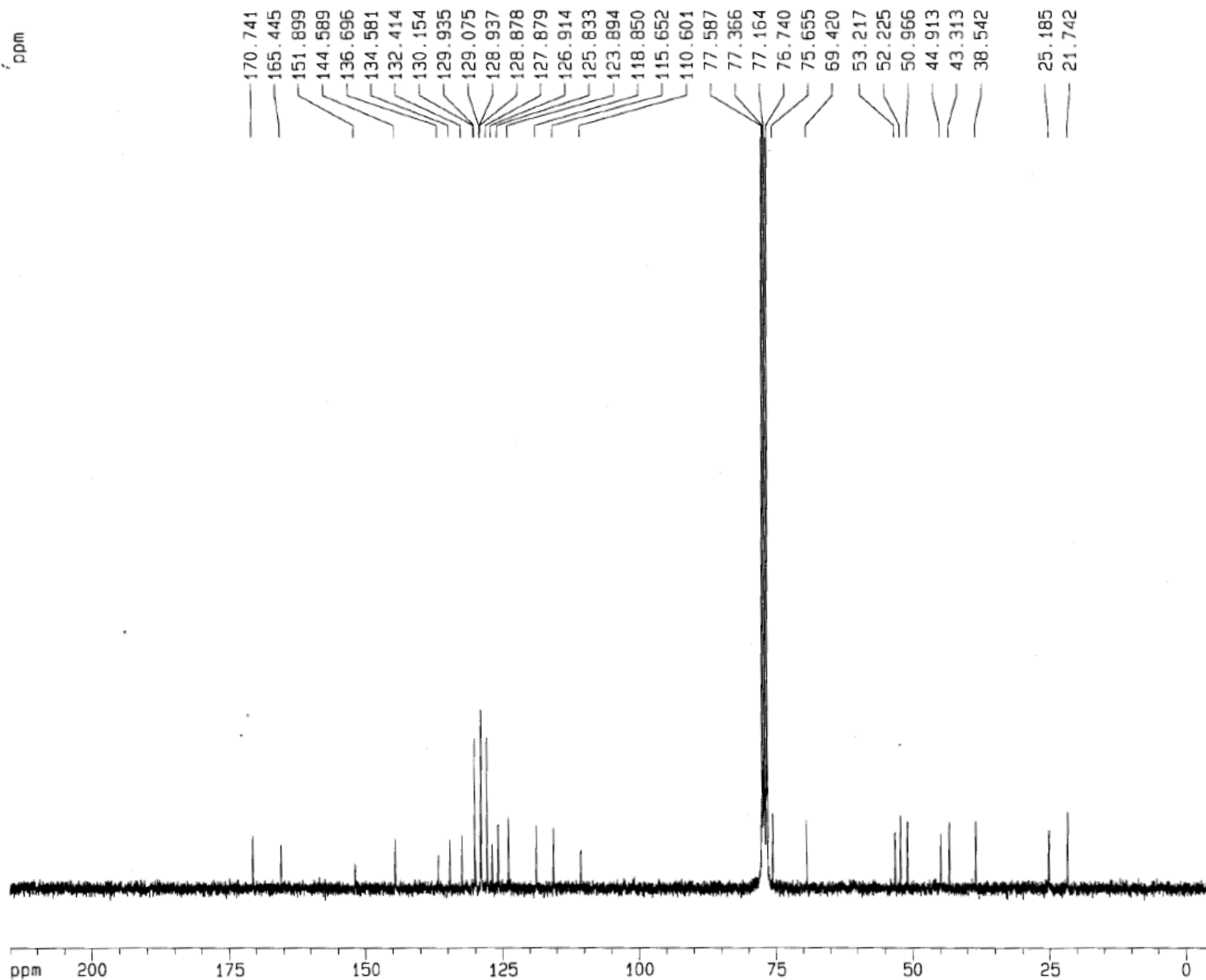
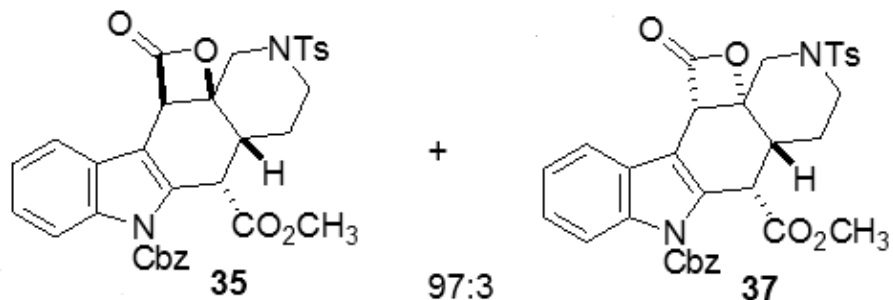
Current Data Parameters
 NAME 090112FJIV101
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120901
 Time 8.24
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 645.1
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300094 MHz
 WDN EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
 NAME 092612FY0-19C
 EXPNO 1
 PROCNO 1

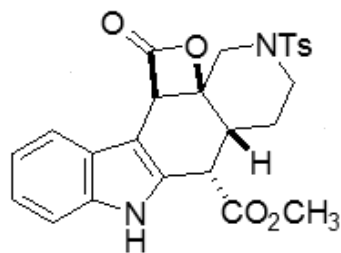
F2 - Acquisition Parameters
 Date_ 20120927
 Time 6.39
 INSTRUM spect
 PROBHD 5 mm QNP 1H/1
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 7168
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 812.7
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 D12 0.00002000 sec

----- CHANNEL f1 -----
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SF01 75.4106357 MHz

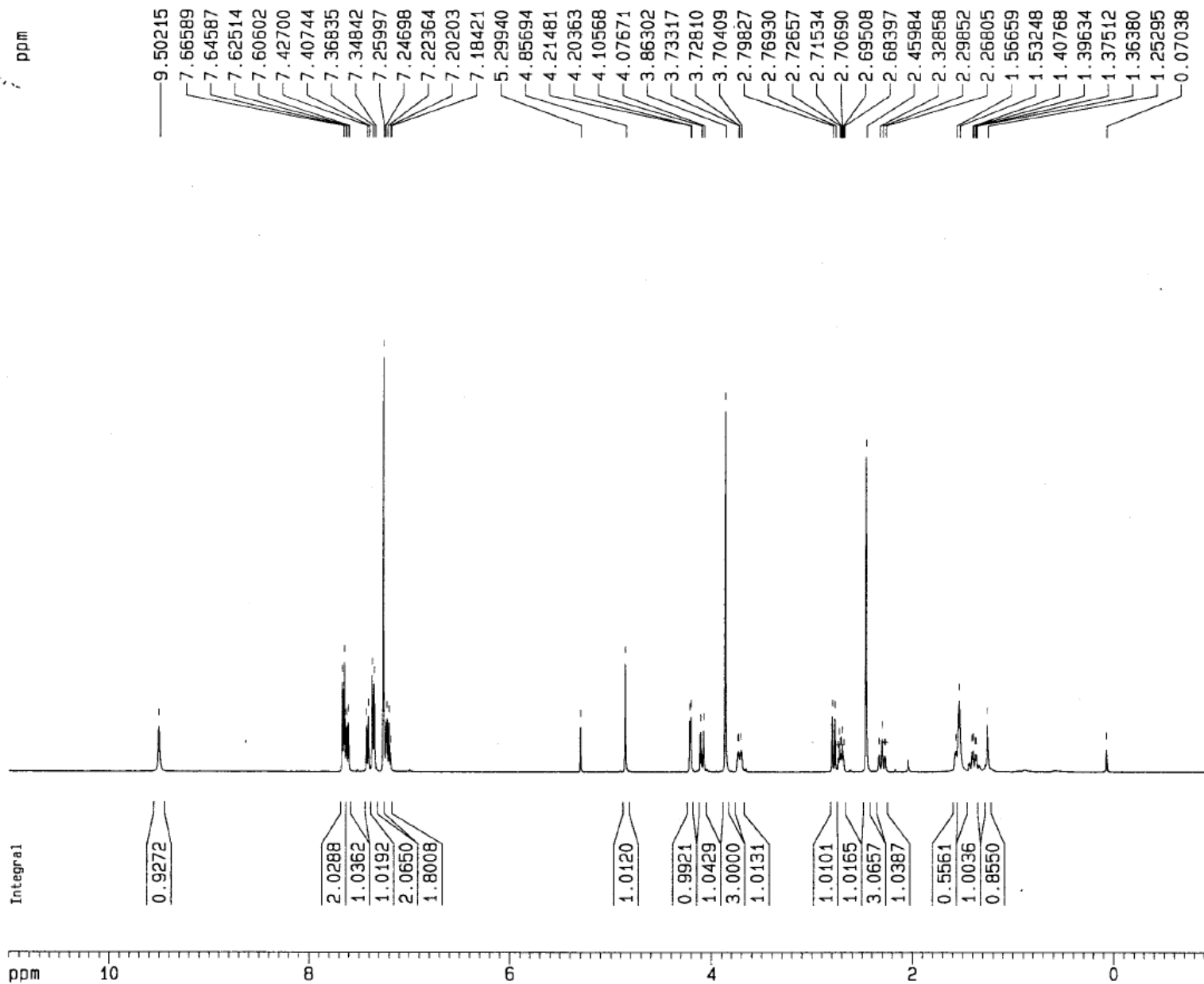
----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SF02 299.8711995 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4023625 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 215.000 ppm
 F1 16211.51 Hz
 F2P -5.000 ppm
 F2 -377.01 Hz
 PPMCM 11.00000 ppm/cm
 HZCM 829.42596 Hz/cm



36



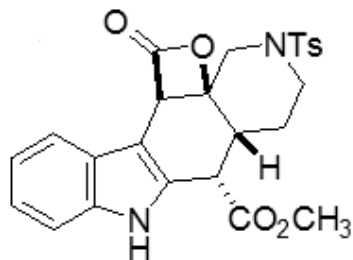
Current Data Parameters
 NAME 092612FY0-20
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120926
 Time 22.45
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 574.7
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

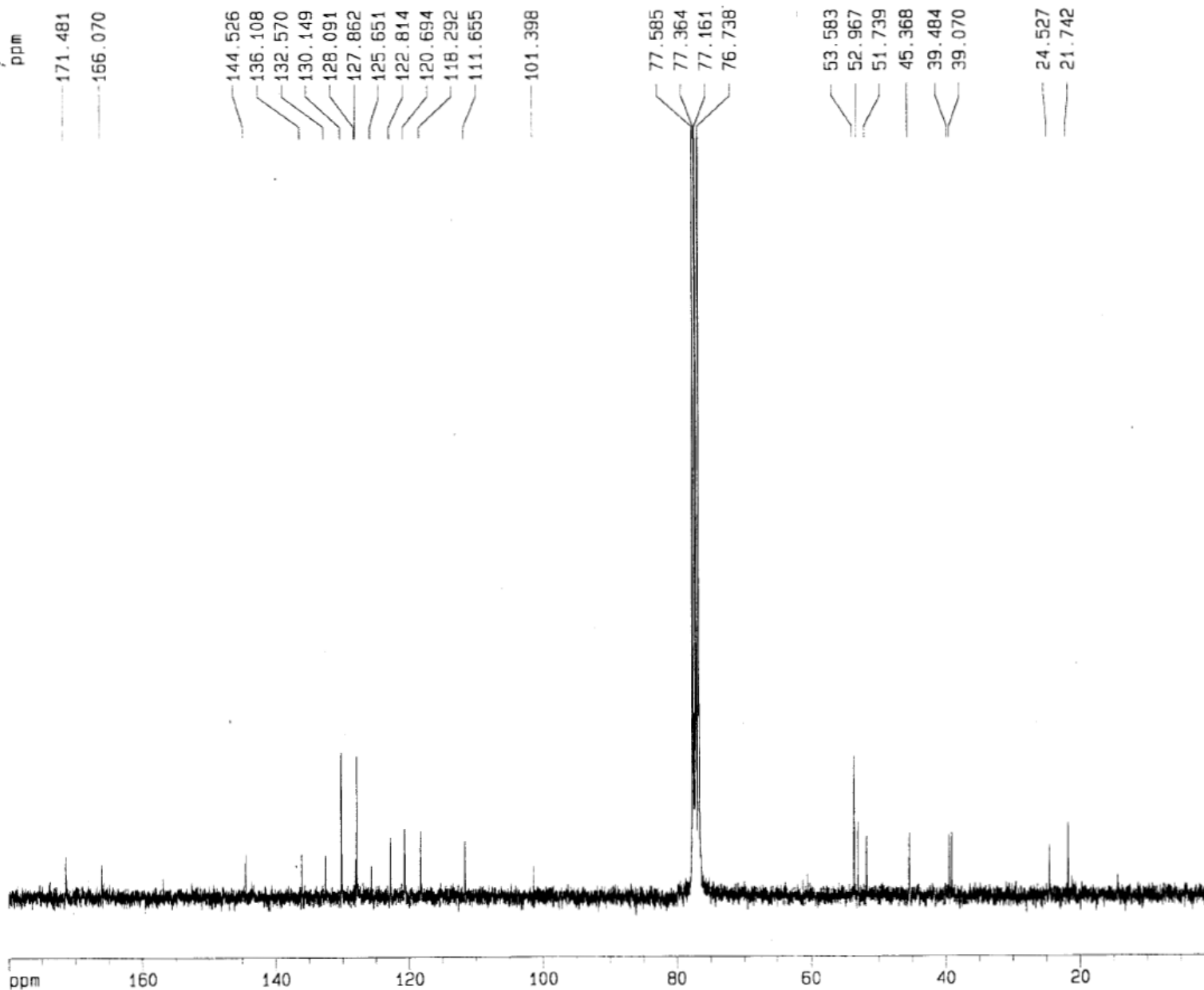
===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

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

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



36



Current Data Parameters
 NAME 092312FYGcpd20
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20120924
 Time 9.30
 INSTRUM spect
 PROBHD 5 mm Multinu
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 19456
 DS 4
 SWH 18832.393 Hz
 FIDRES 0.287360 Hz
 AQ 1.7400308 sec
 RG 11585.2
 DW 26.550 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 d12 0.0000200 sec

----- CHANNEL f1 -----
 NUC1 13C
 P1 9.75 usec
 PL1 0.00 dB
 SF01 75.4760200 MHz

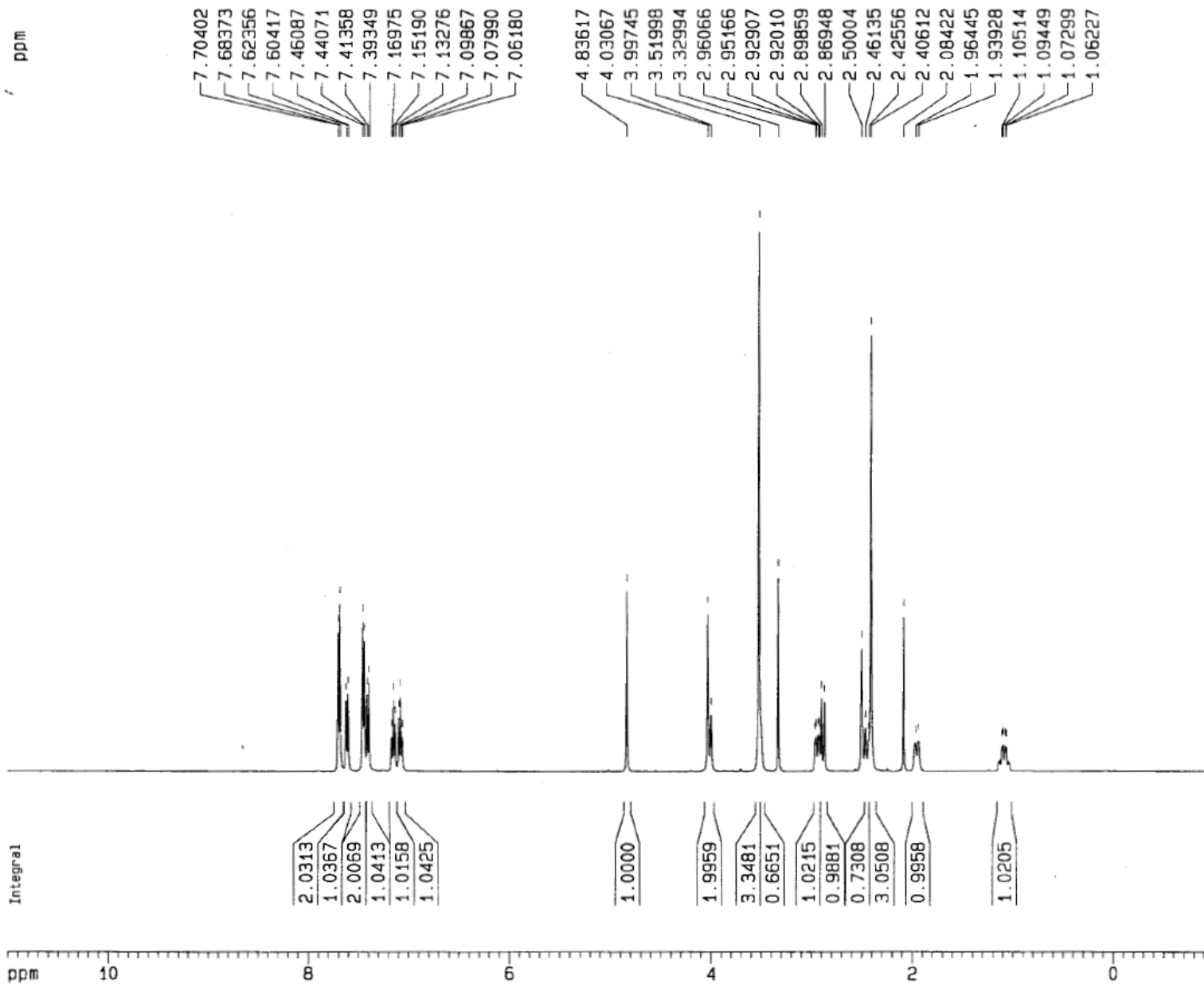
----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 110.00 usec
 PL2 0.00 dB
 PL12 17.50 dB
 PL13 17.50 dB
 SF02 300.1312005 MHz

F2 - Processing parameters

SI 32768
 SF 75.4677382 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters

CX 20.00 cm
 F1P 180.000 ppm
 F1 13584.19 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPNCM 9.00000 ppm/cm
 HZCM 679.20959 Hz/cm



Current Data Parameters

NAME 092612FYQ-21
EXPNO 5
PROCNO 1

F2 - Acquisition Parameters

Date_ 20120926
Time 23.04
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zg30
TD 65536
SOLVENT DMSO
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 362
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

----- CHANNEL f1 -----

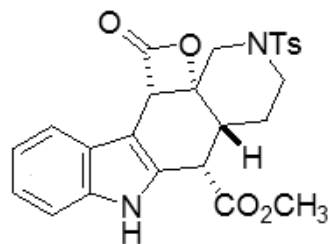
NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SF01 400.1324710 MHz

F2 - Processing parameters

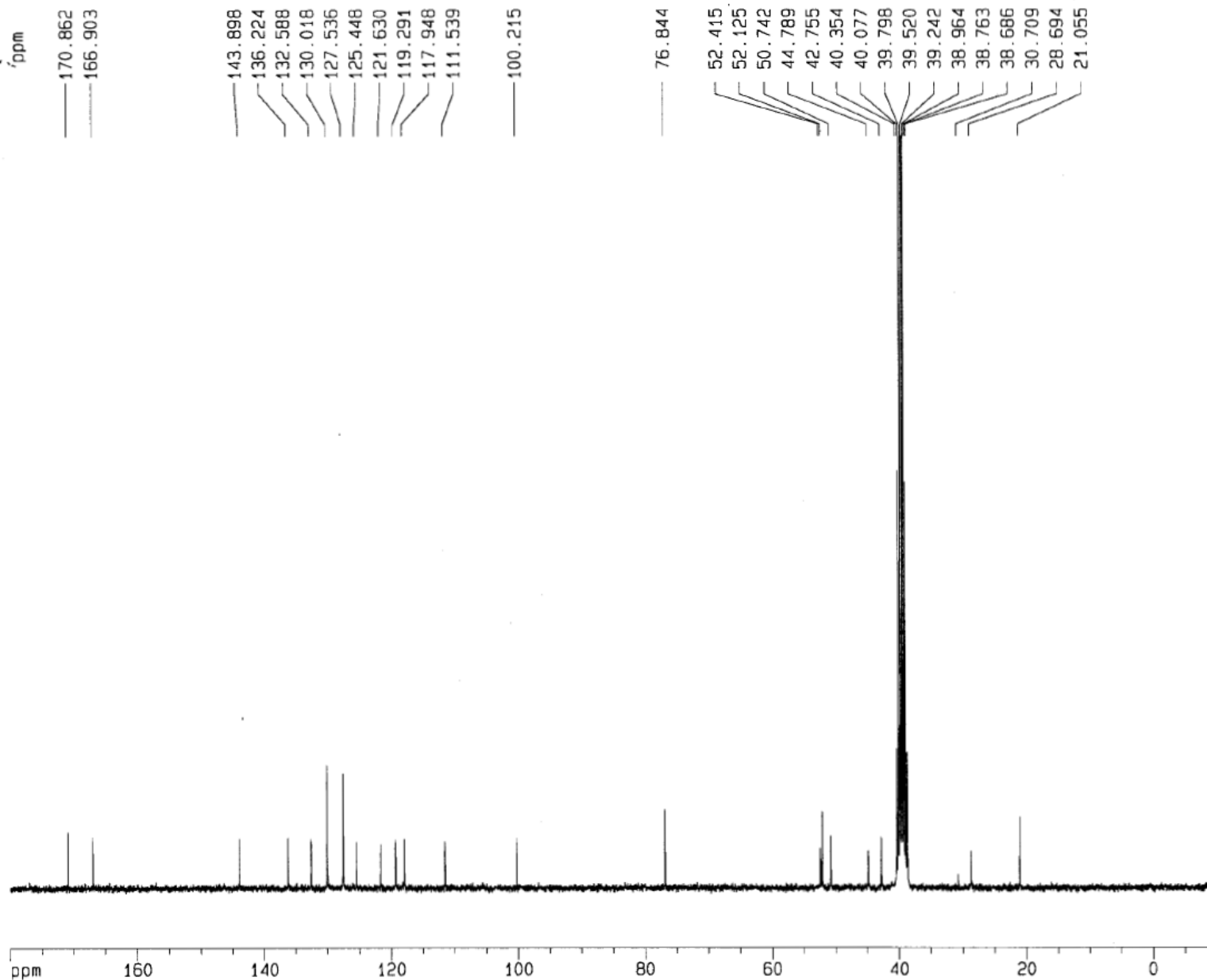
SI 32768
SF 400.1300029 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm



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Current Data Parameters

NAME 092612FYQ-21
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters

Date_ 20120926
Time 23.03
INSTRUM spect
PROBHD 5 mm GNP 1H/1
PULPROG zgpg30
TD 65536
SOLVENT DMSO
NS 1375
DS 4
SWH 18796.992 Hz
FIDRES 0.286819 Hz
AQ 1.7433076 sec
RG 512
DW 26.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.0000000 sec
D11 0.0300000 sec
D12 0.0000200 sec

===== CHANNEL f1 =====

NUC1 13C
P1 5.25 usec
PL1 -6.00 dB
SFO1 75.4106357 MHz

===== CHANNEL f2 =====

CPDPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 19.70 dB
PL13 19.70 dB
SFO2 299.8711995 MHz

F2 - Processing parameters

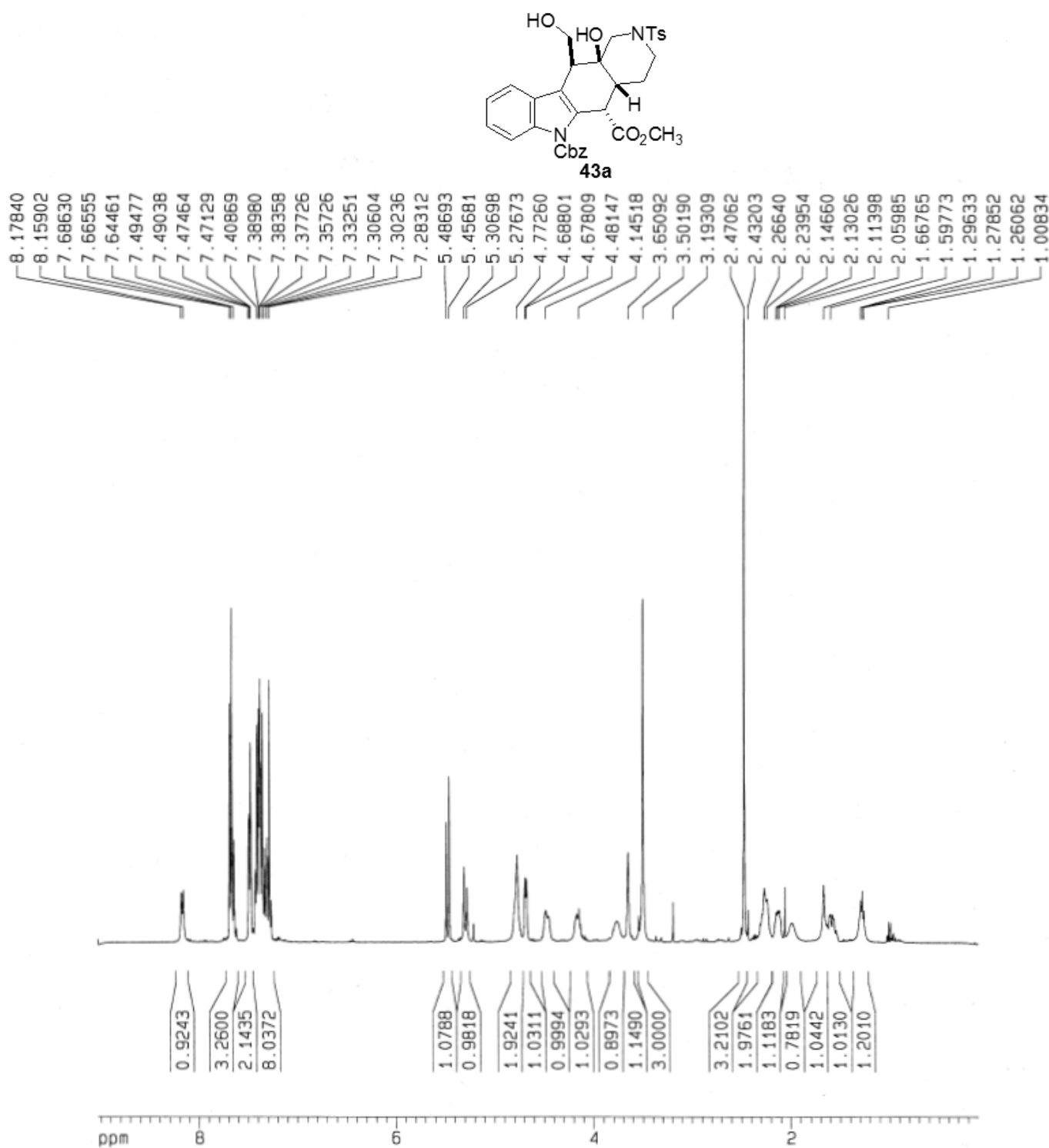
SI 32768
SF 75.4024070 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters

CX 20.00 cm
F1P 180.000 ppm
F1 13572.43 Hz
F2P -10.000 ppm
F2 -754.02 Hz
PPMCM 9.50000 ppm/cm
HZCM 716.32288 Hz/cm

ppm

Integral



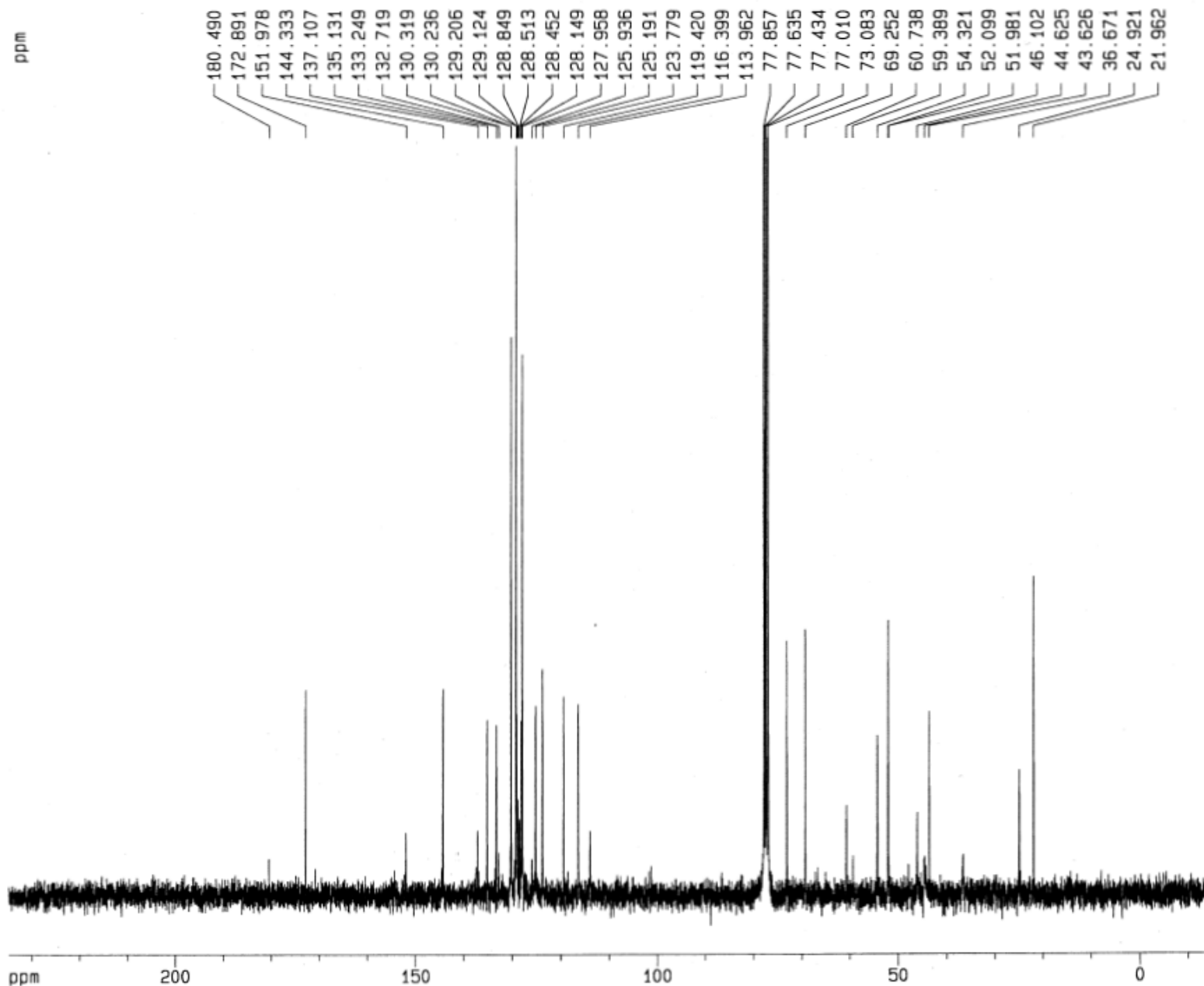
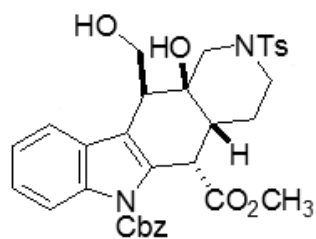
Current Data Parameters
 NAME 042110mmm5133
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20100421
 Time 19.57
 INSTRUM spect
 PROBHD 5 mm BBI 1H-B
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 3571.428 Hz
 FIDRES 0.054496 Hz
 AQ 9.1750898 sec
 RG 35.9
 DW 140.000 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 29.70 usec
 PL1 0.00 dB
 SF01 400.1318266 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300000 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
 NAME 042010d01
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20100420
 Time 19.29
 INSTRUM spect
 PROBHD 5 mm Multinu
 PULPROG zgpg30
 TD 32768
 SOLVENT CDC13
 NS 3650
 DS 4
 SWH 18832.393 Hz
 FIDRES 0.574719 Hz
 AQ 0.8700404 sec
 RG 11585.2
 DW 26.550 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 d12 0.00002000 sec

----- CHANNEL f1 -----
 NUC1 13C
 P1 11.80 usec
 PL1 0.00 dB
 SF01 75.4760200 MHz

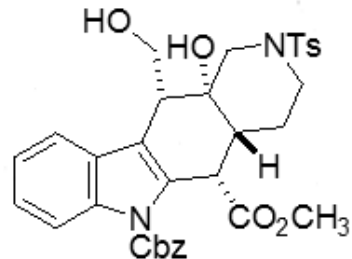
----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 110.00 usec
 PL2 0.00 dB
 PL12 17.50 dB
 PL13 17.50 dB
 SF02 300.1312005 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4677190 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

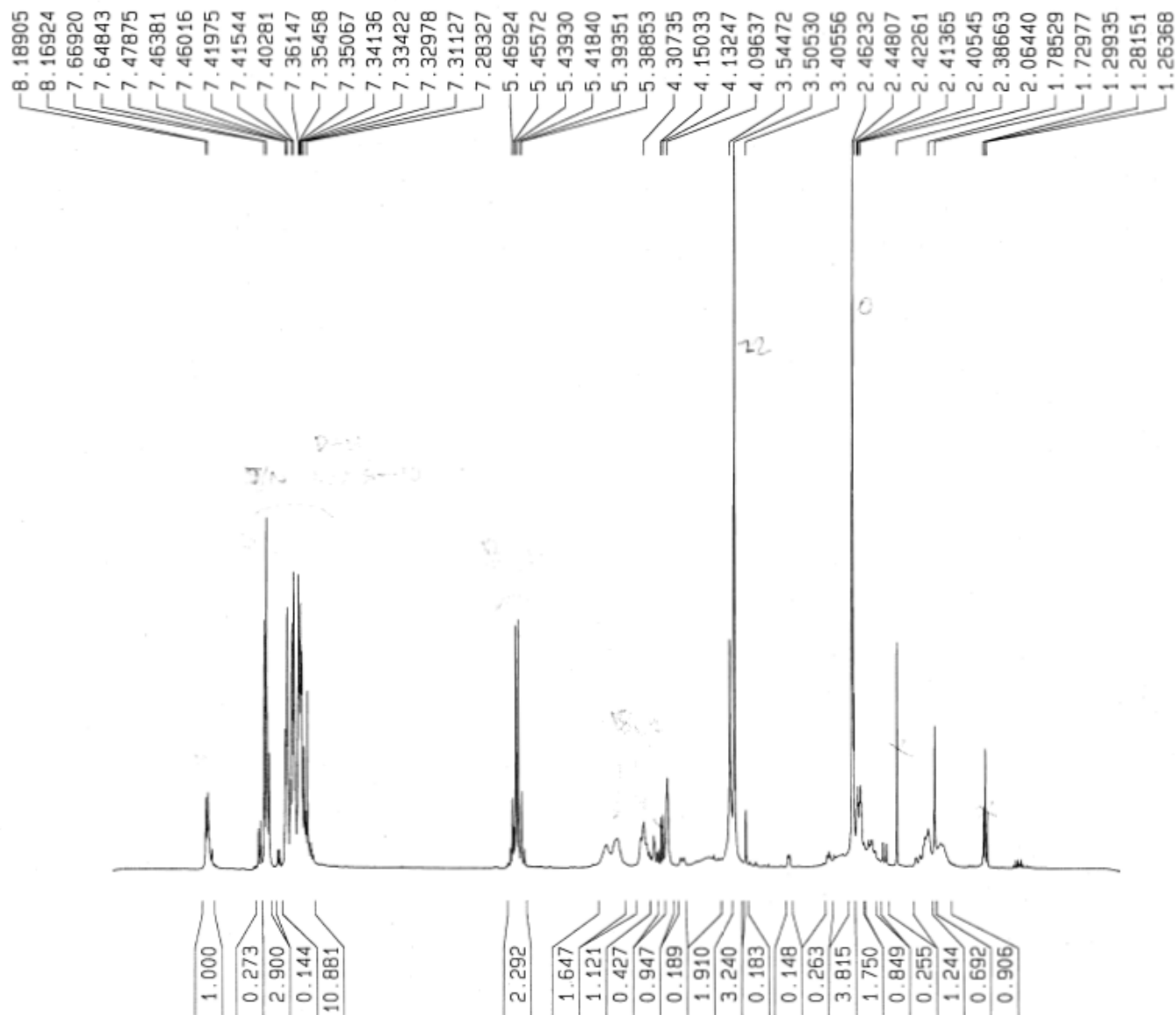
1D NMR plot parameters
 CX 20.00 cm
 F1P 234.765 ppm
 F1 17717.15 Hz
 F2P -14.778 ppm
 F2 -1115.24 Hz
 PPMCM 12.47712 ppm/cm
 HZCM 941.61951 Hz/cm

S32

minor diol



ppm



Current Data Parameters

NAME 092910mndiol
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20100929
Time 18.26
INSTRUM spect
PROBHD 5 mm BBI 1H-B
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 3571.428 Hz
FIDRES 0.054496 Hz
AQ 9.1750998 sec
RG 35.9
DW 140.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

----- CHANNEL f1 -----

NUC1 1H
P1 30.15 usec
PL1 0.00 dB
SF01 400.1318217 MHz

F2 - Processing parameters

SI 32768
SF 400.1300000 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm

Integral

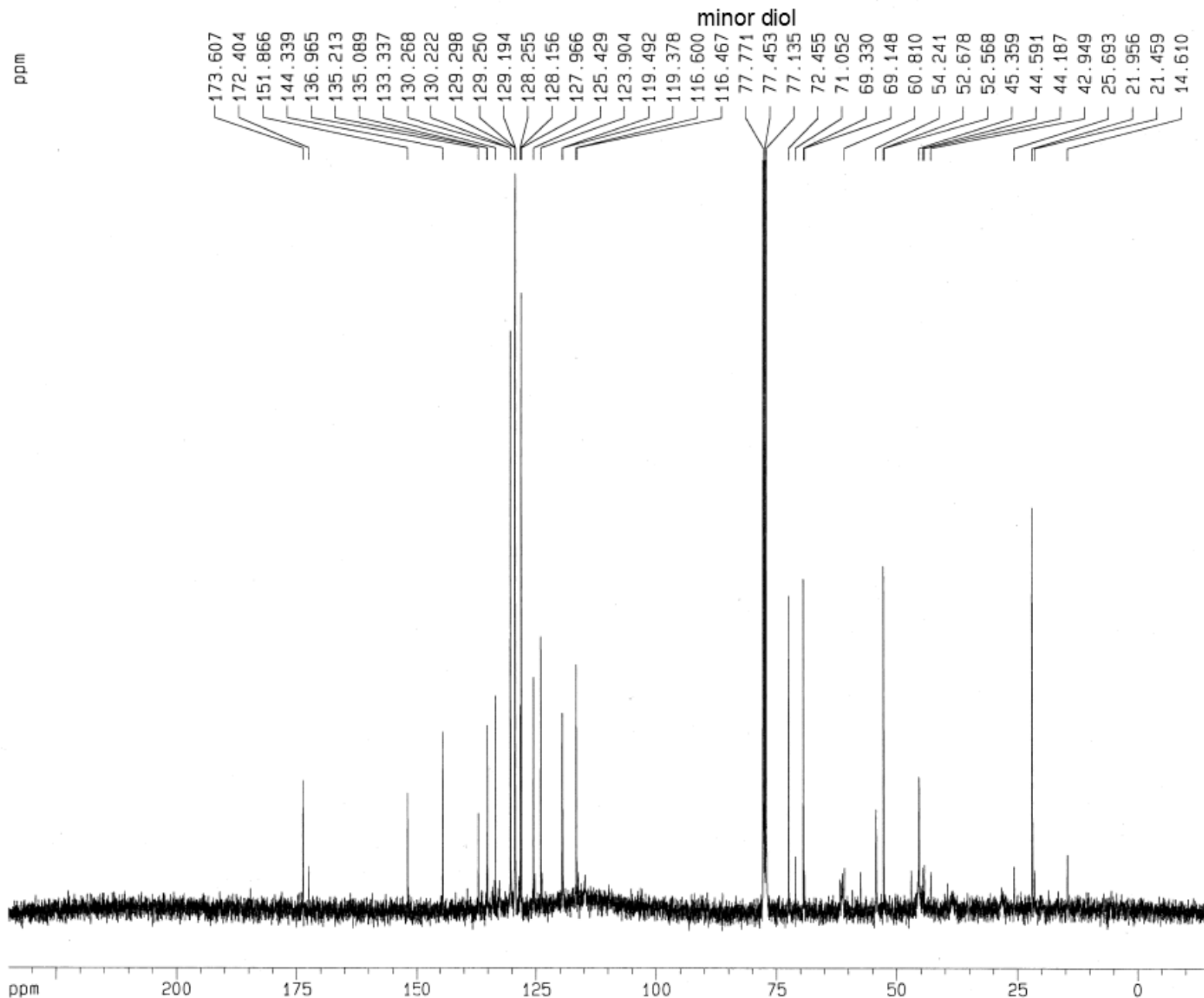
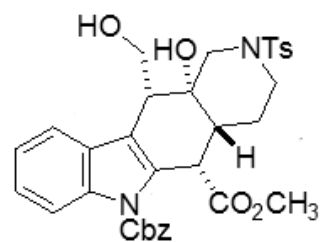
ppm

8

6

4

2



Current Data Parameters
NAME 092910mndiol
EXPNO 2
PROCNO 1

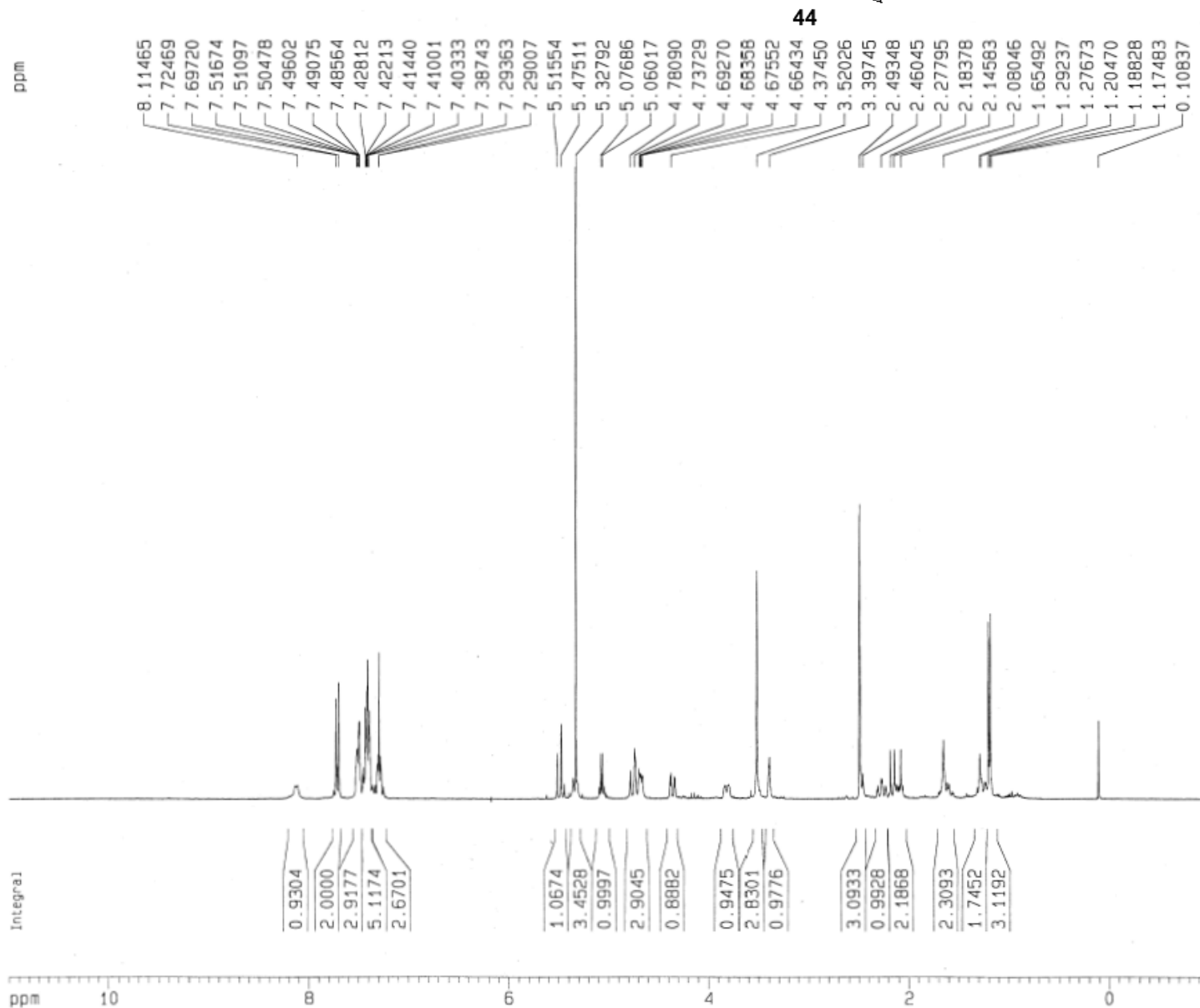
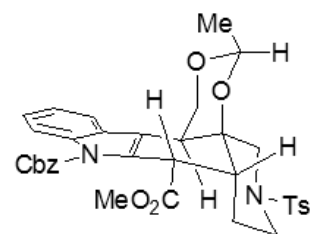
F2 - Acquisition Parameters
Date_ 20100929
Time 21.16
INSTRUM spect
PROBHD 5 mm BBI 1H-B
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 3072
DS 4
SWH 25125.629 Hz
FIDRES 0.383387 Hz
AQ 1.3042164 sec
RG 16384
DW 19.900 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
d11 0.03000000 sec
d12 0.00002000 sec

----- CHANNEL f1 -----
NUC1 13C
P1 16.35 usec
PL1 -6.00 dB
SFO1 100.6237959 MHz

----- CHANNEL f2 -----
CPDPRG2 waltz16
NUC2 1H
PCPD2 114.00 usec
PL2 0.00 dB
PL12 24.00 dB
PL13 24.00 dB
SFO2 400.1316005 MHz

F2 - Processing parameters
SI 32768
SF 100.6127290 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plo: parameters
CX 20.00 cm
F1P 234.858 ppm
F1 23629.72 Hz
F2P -14.868 ppm
F2 -1495.91 Hz
PPMCM 12.48631 ppm/cm
HZCM 1256.28149 Hz/cm



Current Data Parameters

NAME 081710mm5261
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20100817
Time 15.19
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zg30
TD 24690
SOLVENT CDCl3
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.250014 Hz
AQ 1.9999400 sec
RG 512
DK 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

----- CHANNEL f1 -----

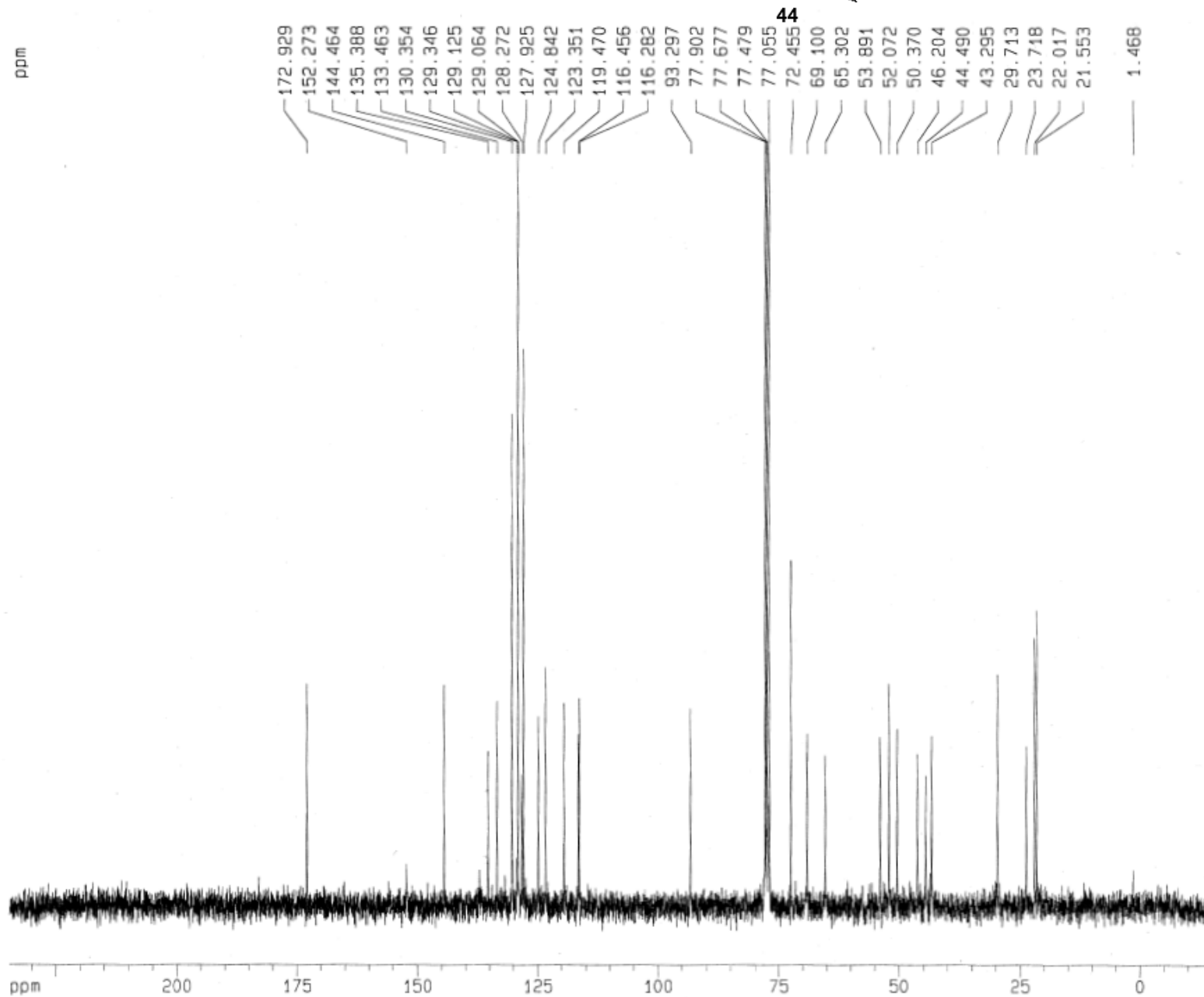
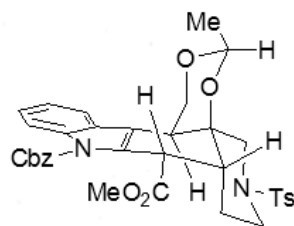
NUC1 1H
P1 11.70 usec
PL1 0.00 dB
SFO1 299.8718518 MHz

F2 - Processing parameters

SI 32768
SF 299.8700000 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 20.00 cm
F1P 11.000 ppm
F1 3298.57 Hz
F2P -1.000 ppm
F2 -299.87 Hz
PPMCM 0.60000 ppm/cm
HZCM 179.92200 Hz/cm



Current Data Parameters
NAME 081710mm5261
EXPNO 2
PROCNO 1

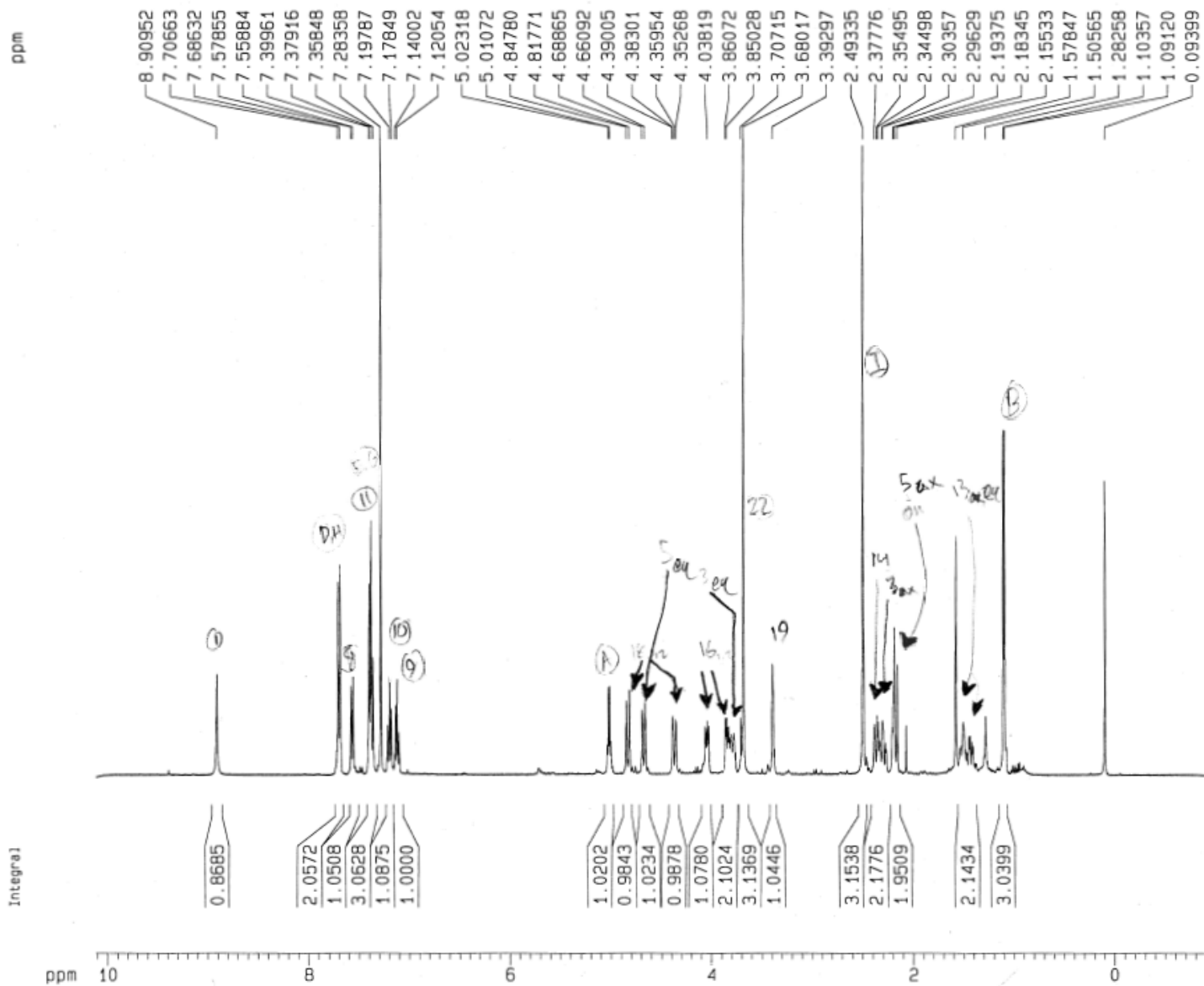
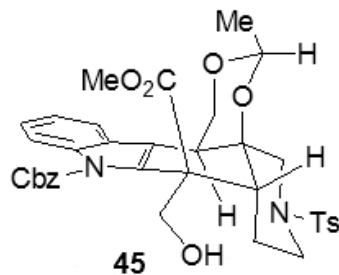
F2 - Acquisition Parameters
Date_ 20100817
Time 15.06
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg30
TD 32768
SOLVENT CDCl3
NS 972
DS 4
SMH 18796.992 Hz
FIDRES 0.573639 Hz
AQ 0.8716788 sec
RG 1024
DW 25.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.0000000 sec
D11 0.0300000 sec
D12 0.0000200 sec

----- CHANNEL f1 -----
NUC1 13C
P1 5.40 usec
PL1 -6.00 dB
SF01 75.4106357 MHz

----- CHANNEL f2 -----
CPDPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 20.00 dB
PL13 20.00 dB
SF02 299.8711995 MHz

F2 - Processing parameters
S1 32768
SF 75.4023410 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
CX 20.00 cm
F1P 234.651 ppm
F1 17693.24 Hz
F2P -14.638 ppm
F2 -1103.75 Hz
PPMCM 12.46446 ppm/cm
HZCM 939.84955 Hz/cm



Current Data Parameters
 NAME OB1910mm5i62
 EXPNO 1
 PROCNO 1

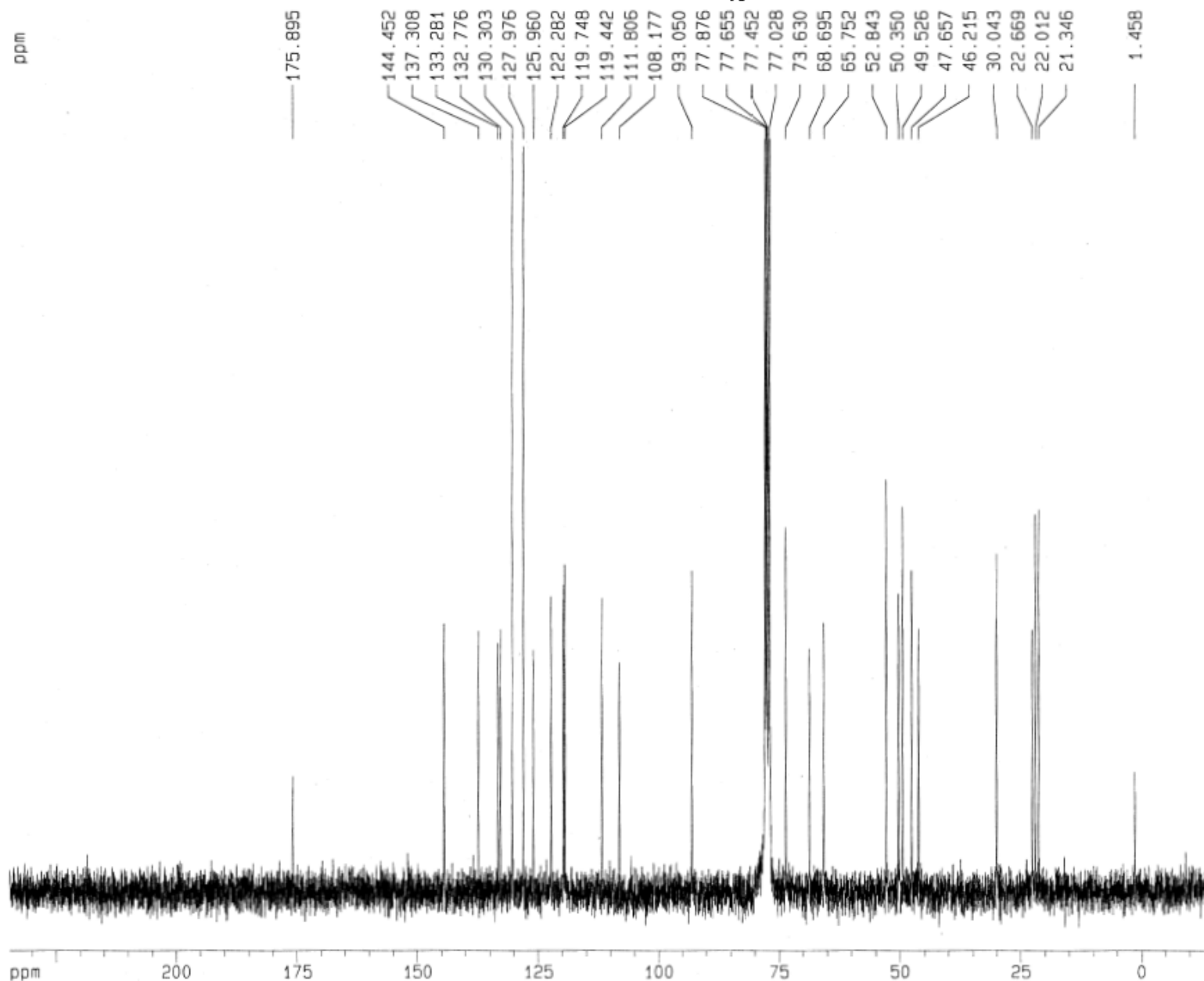
F2 - Acquisition Parameters
 Date_ 20100819
 Time 12.49
 INSTRUM spect
 PROBHD 5 mm BBI 1H-B
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 80
 DS 2
 SWH 4432.624 Hz
 FIDRES 0.067636 Hz
 AQ 7.3925109 sec
 RG 362
 DW 112.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----
 NUC1 1H
 P1 6.85 usec
 PL1 0.00 dB
 SFO1 400.1318315 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300000 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm

ppm



Current Data Parameters
 NAME maxx
 EXPNO 1
 PROCNO 1

5764

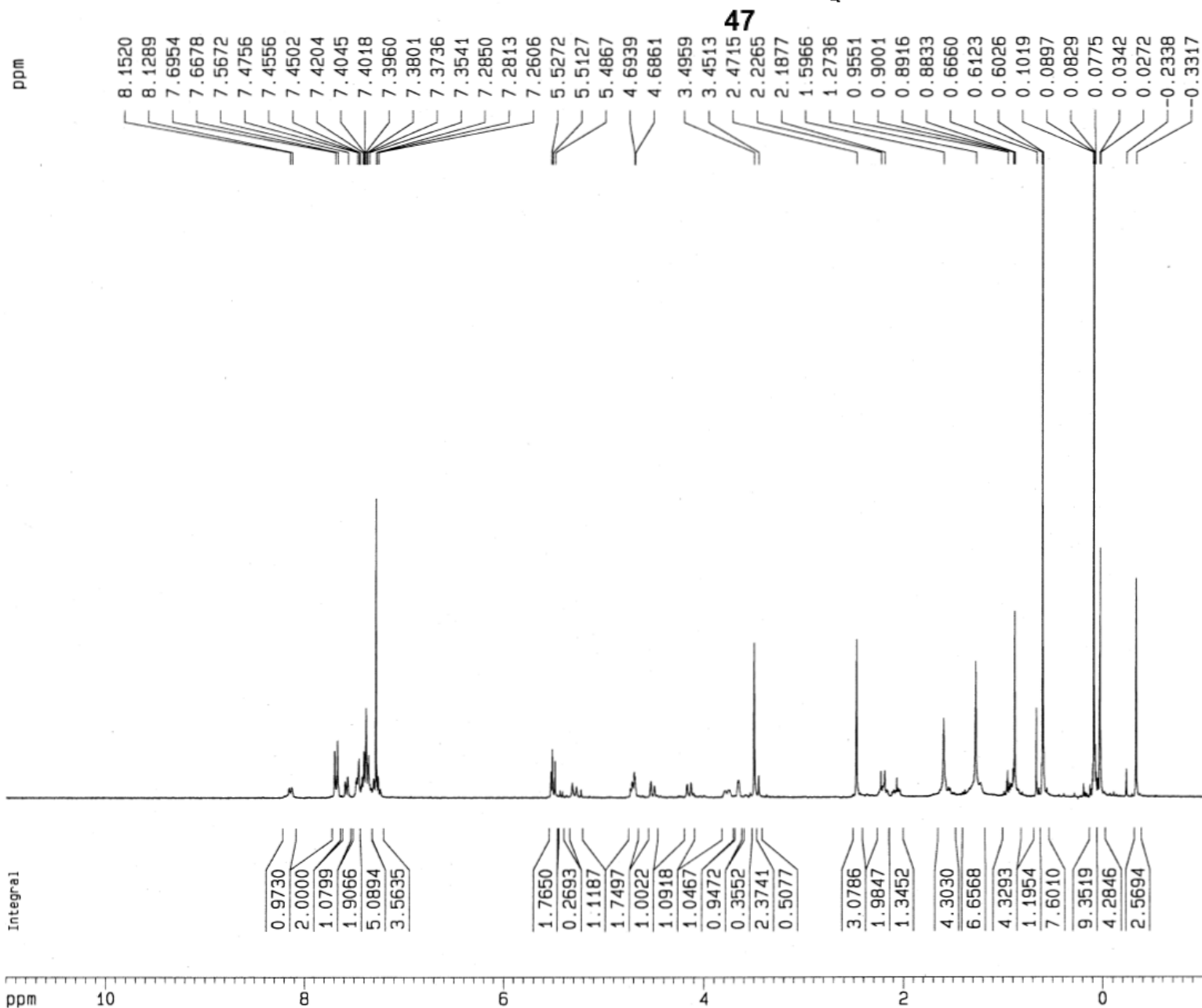
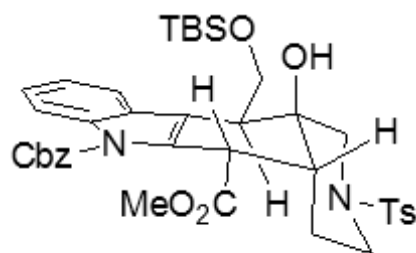
F2 - Acquisition Parameters
 Date_ 20100822
 Time 7.47
 INSTRUM spect
 PROBHD 5 mm GNP 1H/1
 PULPROG zgpg30
 TD 32768
 SOLVENT CDC13
 NS 11952
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.573639 Hz
 AQ 0.8716788 sec
 RG 4096
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.03000000 sec
 D12 0.00002000 sec

----- CHANNEL f1 -----
 NUC1 13C
 P1 5.40 usec
 PL1 -6.00 dB
 SF01 75.4106357 MHz

----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 20.00 dB
 PL13 20.00 dB
 SF02 299.8711995 MHz

F2 - Processing parameters
 S1 32768
 SF 75.4023410 MHz
 NDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 234.651 ppm
 F1 17693.24 Hz
 F2P -14.638 ppm
 F2 -1103.75 Hz
 PPMCM 12.46446 ppm/cm
 HZCM 939.84955 Hz/cm



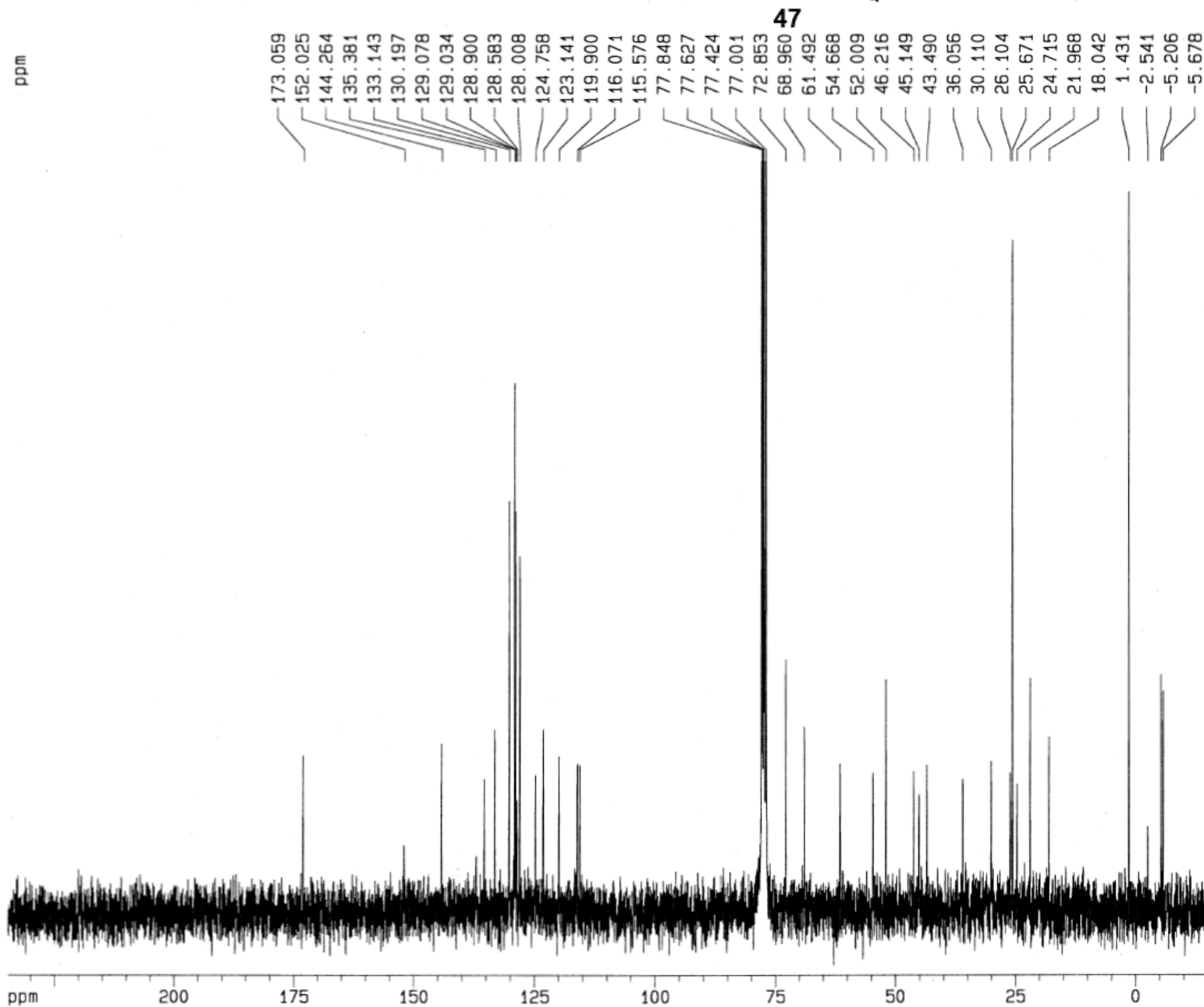
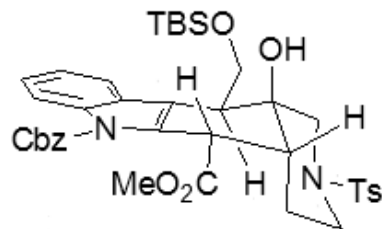
Current Data Parameters
NAME 082310mm5274
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20100823
Time 20.42
INSTRUM spect
PROBHD 5 mm Multinu
PULPROG zg30
TD 24690
SOLVENT CDCl3
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.250014 Hz
AQ 1.9999400 sec
RG 456.1
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.0000000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 9.60 usec
PL1 -6.00 dB
SF01 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1300000 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
F1P 11.000 ppm
F1 3301.43 Hz
F2P -1.000 ppm
F2 -300.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 180.07800 Hz/cm



Current Data Parameters
 NAME 082310mm5274
 EXPNO 2
 PROCNO 1

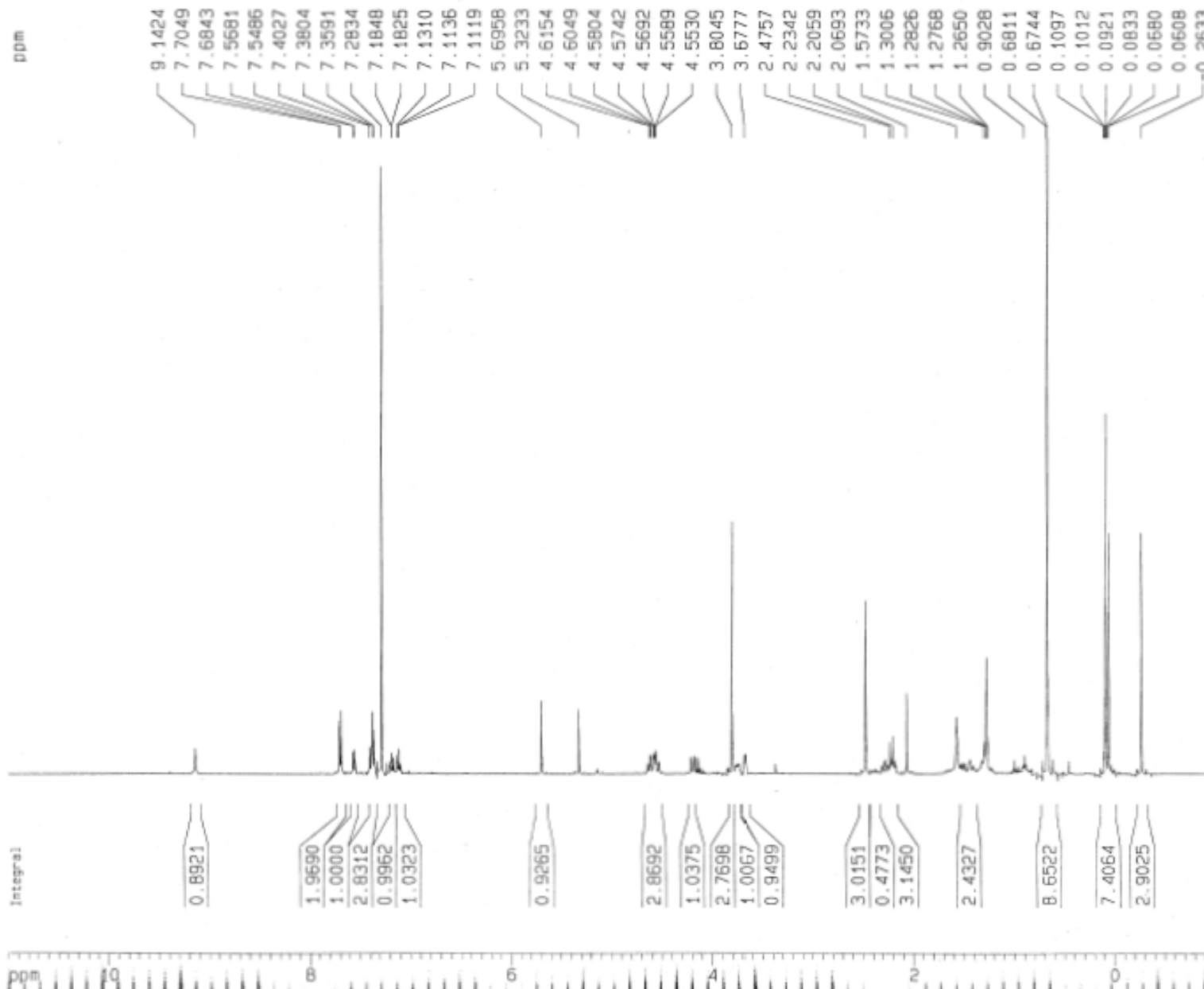
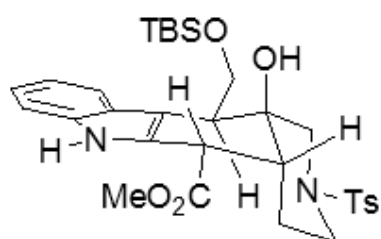
F2 - Acquisition Parameters
 Date_ 20100824
 Time 8.14
 INSTRUM spect
 PROBHD 5 mm Multinu
 PULPROG zgpg30
 TD 32768
 SOLVENT CDCl₃
 NS 14336
 DS 4
 SWH 18832.393 Hz
 FIDRES 0.574719 Hz
 AQ 0.8700404 sec
 RG 13004
 DW 26.550 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 d12 0.00002000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 11.80 usec
 PL1 0.00 dB
 SF01 75.4760200 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 110.00 usec
 PL2 0.00 dB
 PL12 17.50 dB
 PL13 17.50 dB
 SF02 300.1312005 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4677190 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 234.765 ppm
 F1 17717.16 Hz
 F2P -14.778 ppm
 F2 -1115.24 Hz
 PPMCM 12.47712 ppm/cm
 HZCM 941.61963 Hz/cm



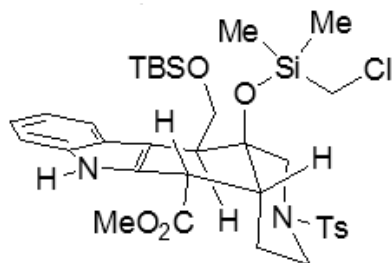
Current Data Parameters
 NAME 111110ann6107
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20101111
 Time 12.08
 INSTRUM spect
 PROBHD 5 mm BBI 1H-B
 PULPROG zg30
 TO 33110
 SOLVENT CDCl3
 NS 57
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.250019 Hz
 AQ 1.9998940 sec
 RG 512
 DM 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

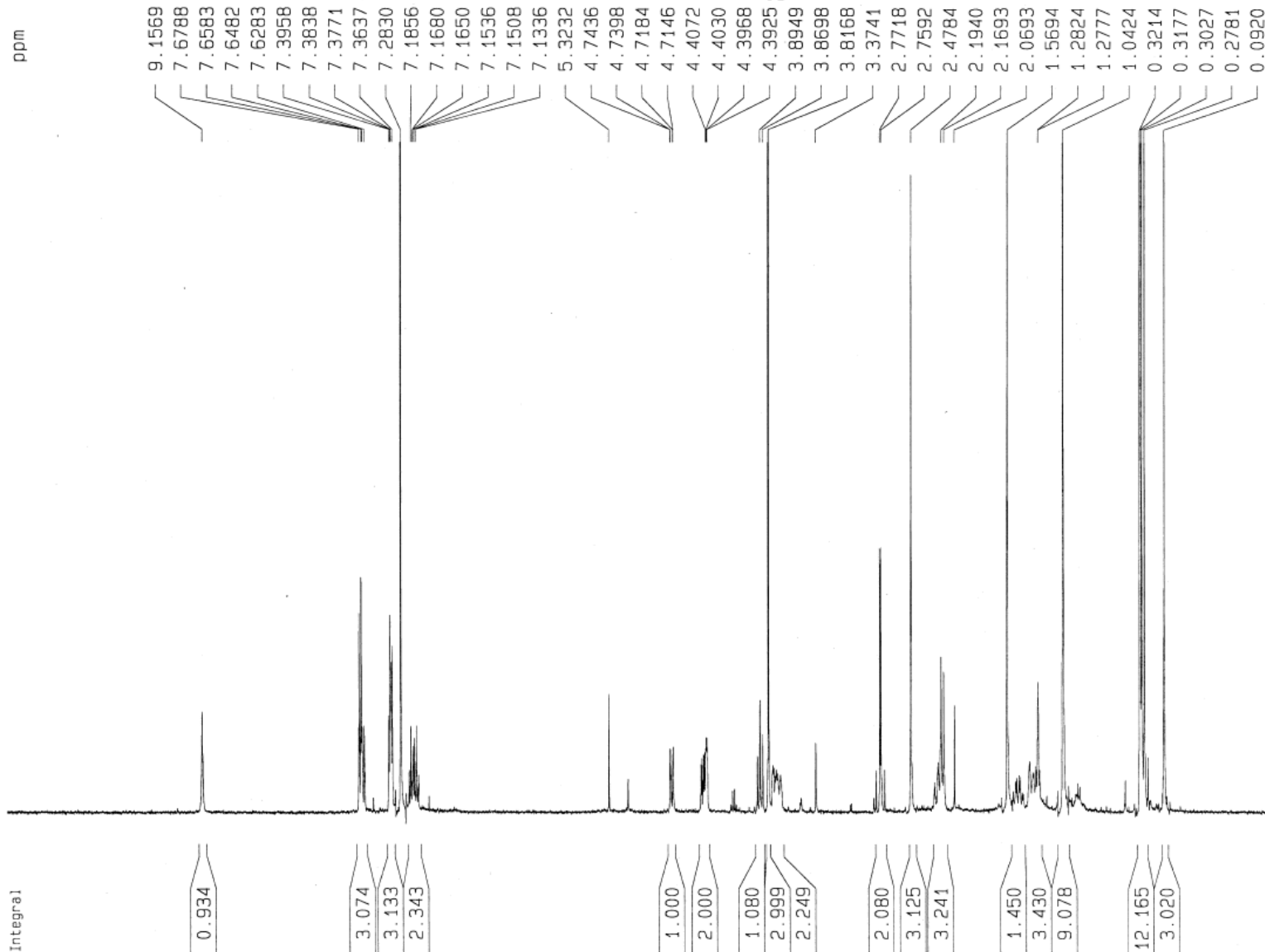
----- CHANNEL f1 -----
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300000 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCH 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



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Current Data Parameters

NAME 111110
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20101111
Time 19.26
INSTRUM spect
PROBHD 5 mm BBI 1H-B
PULPROG zg30
TD 33110
SOLVENT CDC13
NS 83
DS 2
SWH 8278.146 Hz
FIDRES 0.250019 Hz
AQ 1.9998940 sec
RG 2896.3
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

===== CHANNEL f1 =====

NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SF01 400.1324710 MHz

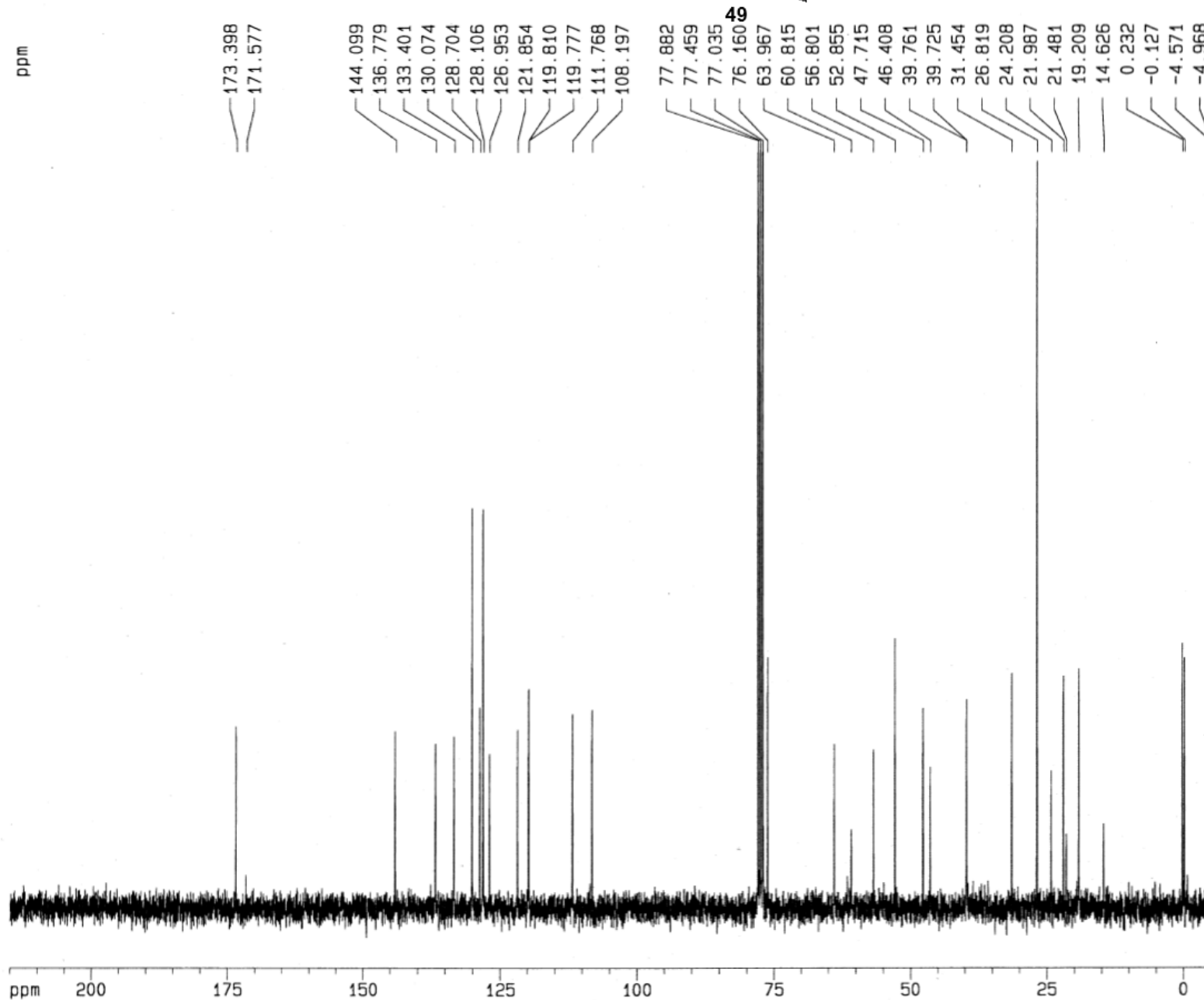
F2 - Processing parameters

SI 32768
SF 400.1300000 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm

ppm



Current Data Parameters
 NAME 121210mm6155
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20101212
 Time 15.17
 INSTRUM spect
 PROBHD 5 mm Multinu
 PULPROG zgpg30
 TD 32768
 SOLVENT CDC13
 NS 595
 DS 4
 SWH 18832.393 Hz
 FIDRES 0.574719 Hz
 AQ 0.8700404 sec
 RG 13004
 DW 26.550 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 d12 0.00002000 sec

----- CHANNEL f1 -----
 NUC1 13C
 P1 11.80 usec
 PL1 0.00 dB
 SFO1 75.4760200 MHz

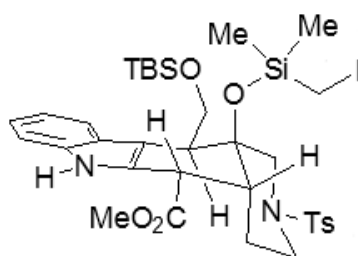
----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 110.00 usec
 PL2 0.00 dB
 PL12 17.50 dB
 PL13 17.50 dB
 SFO2 300.1312005 MHz

F2 - Processing parameters

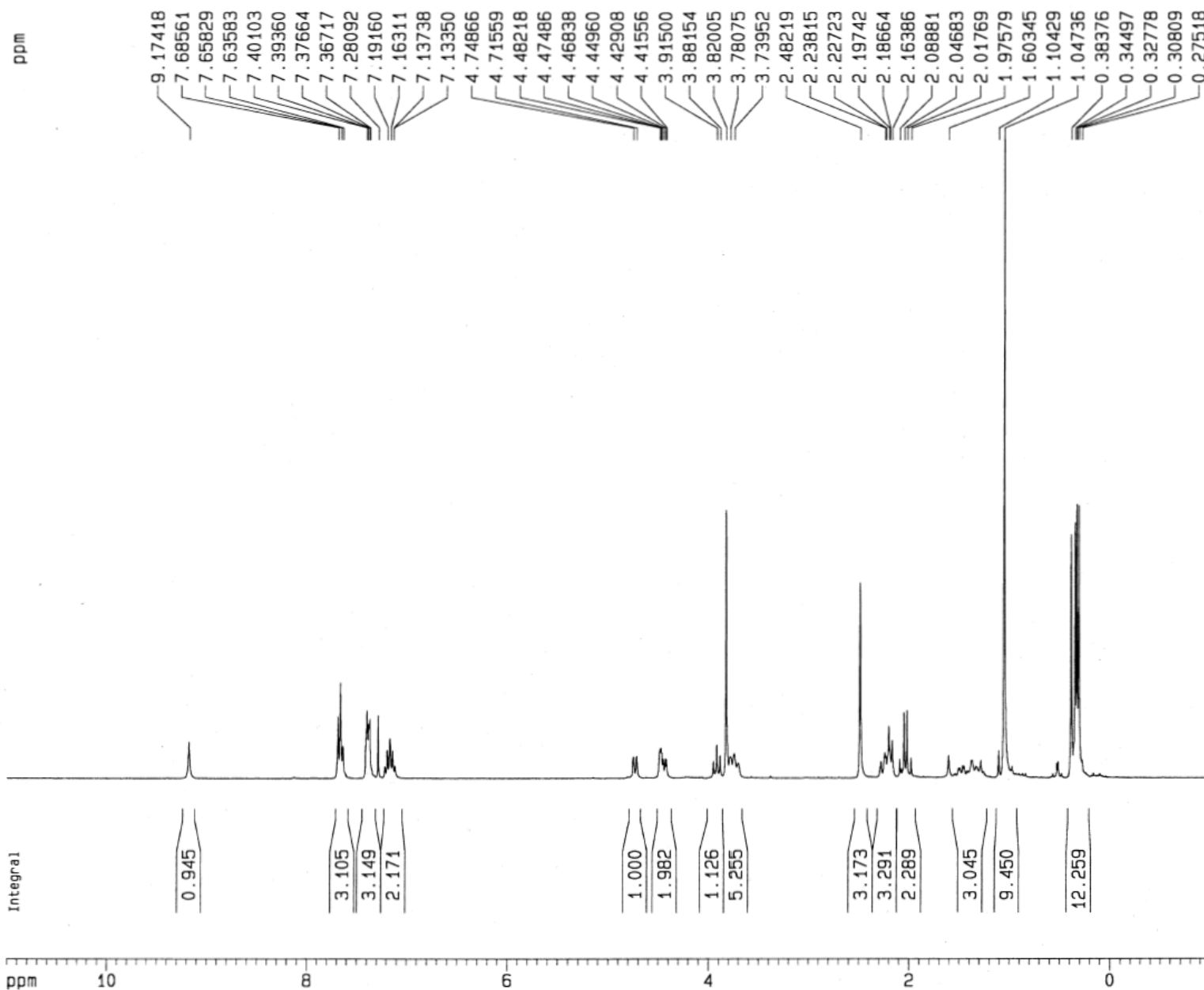
SI 32768
 SF 75.4677190 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters

CX 20.00 cm
 F1P 215.000 ppm
 F1 16225.56 Hz
 F2P -5.000 ppm
 F2 -377.34 Hz
 PPMCM 11.00000 ppm/cm
 HZCM 830.14490 Hz/cm



50



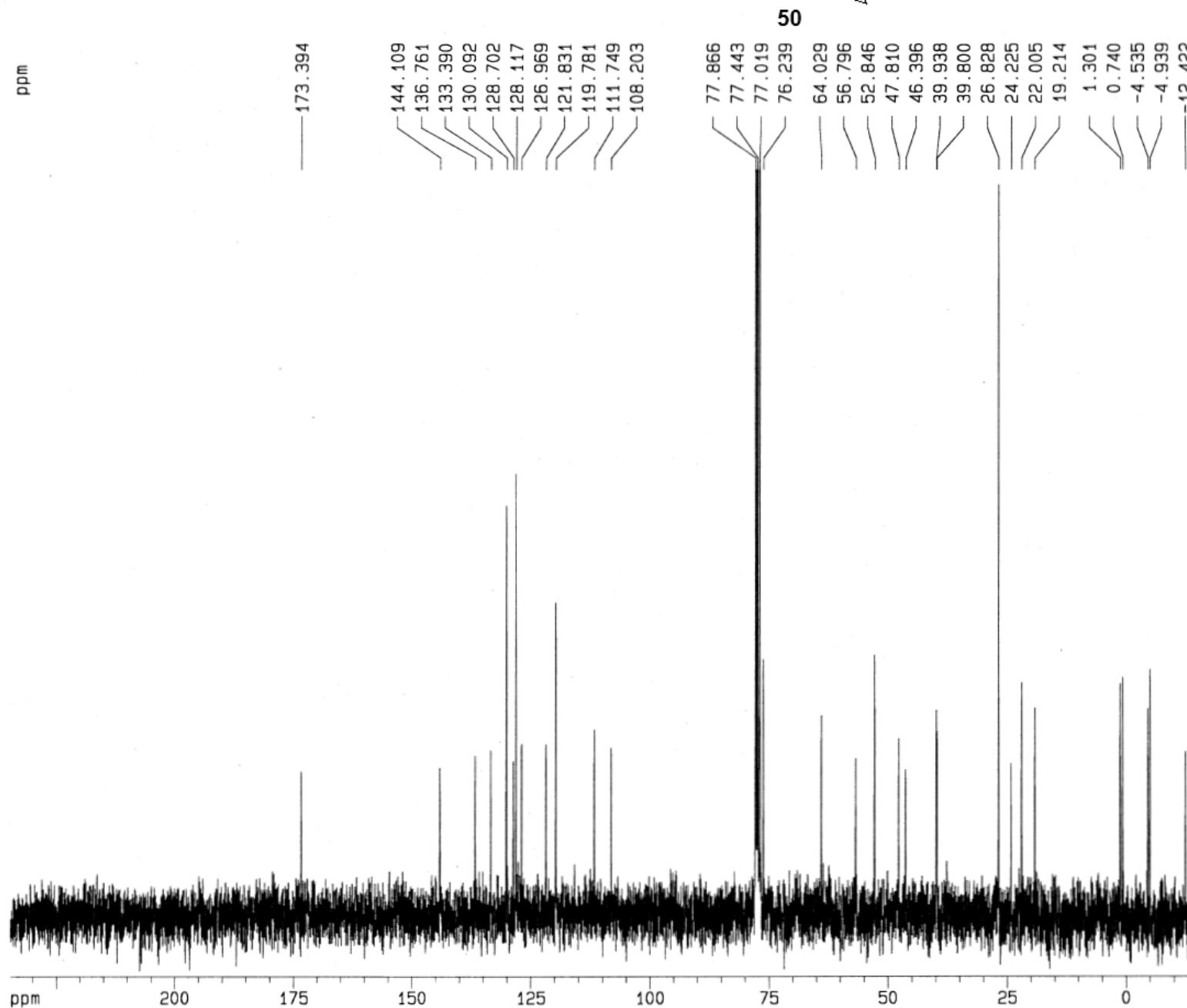
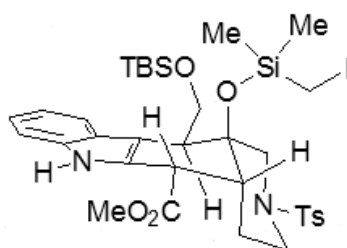
Current Data Parameters
NAME 113010
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20101130
Time 12.26
INSTRUM spect
PROBHD 5 mm Multinu
PULPROG zg30
TD 24690
SOLVENT CDC13
NS 16
DS 2
SWH 6172.839 Hz
FIDRES 0.250014 Hz
AQ 1.9999400 sec
RG 322.5
DW 81.000 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 9.60 usec
PL1 -6.00 dB
SF01 300.1318534 MHz

F2 - Processing parameters
SI 32768
SF 300.1300000 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm



Current Data Parameters
NAME 113010
EXPNO 2
PROCNO 1

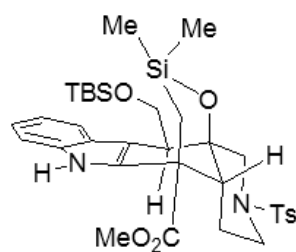
F2 - Acquisition Parameters
Date_ 20101130
Time 13.16
INSTRUM spect
PROBHD 5 mm Multinu
PULPROG zgpg30
TD 32768
SOLVENT CDC13
NS 1024
DS 4
SWH 18832.393 Hz
FIDRES 0.574719 Hz
AQ 0.8700404 sec
RG 16384
DM 26.550 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
d11 0.03000000 sec
d12 0.00002000 sec

===== CHANNEL f1 =====
NUC1 13C
P1 11.80 usec
PL1 0.00 dB
SF01 75.4760200 MHz

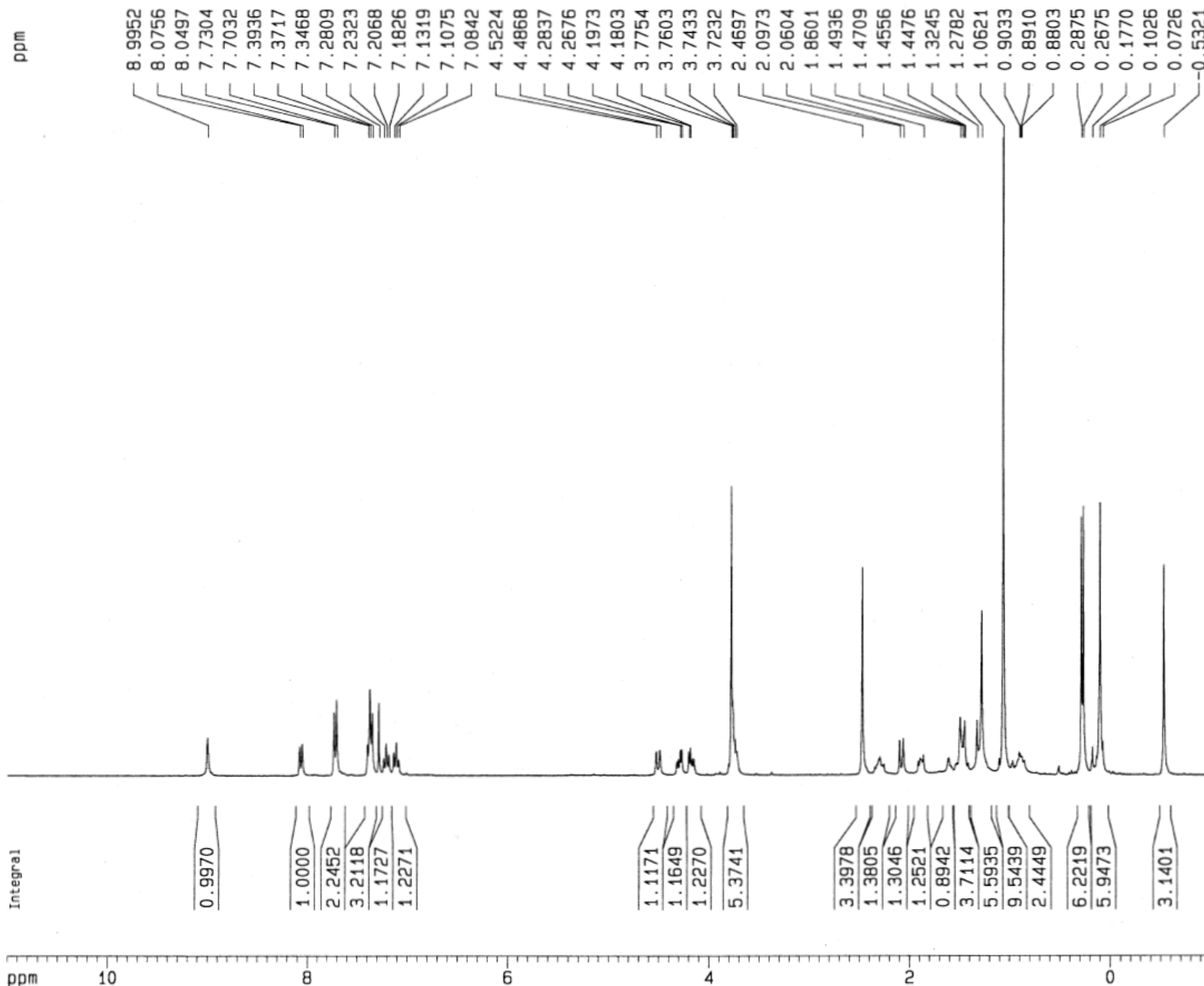
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 110.00 usec
PL2 0.00 dB
PL12 17.50 dB
PL13 17.50 dB
SF02 300.1312005 MHz

F2 - Processing parameters
SI 32768
SF 75.4677190 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
CX 20.00 cm
F1P 234.765 ppm
F1 17717.15 Hz
F2P -14.778 ppm
F2 -1115.24 Hz
PPMCM 12.47712 ppm/cm
HZCM 941.61951 Hz/cm



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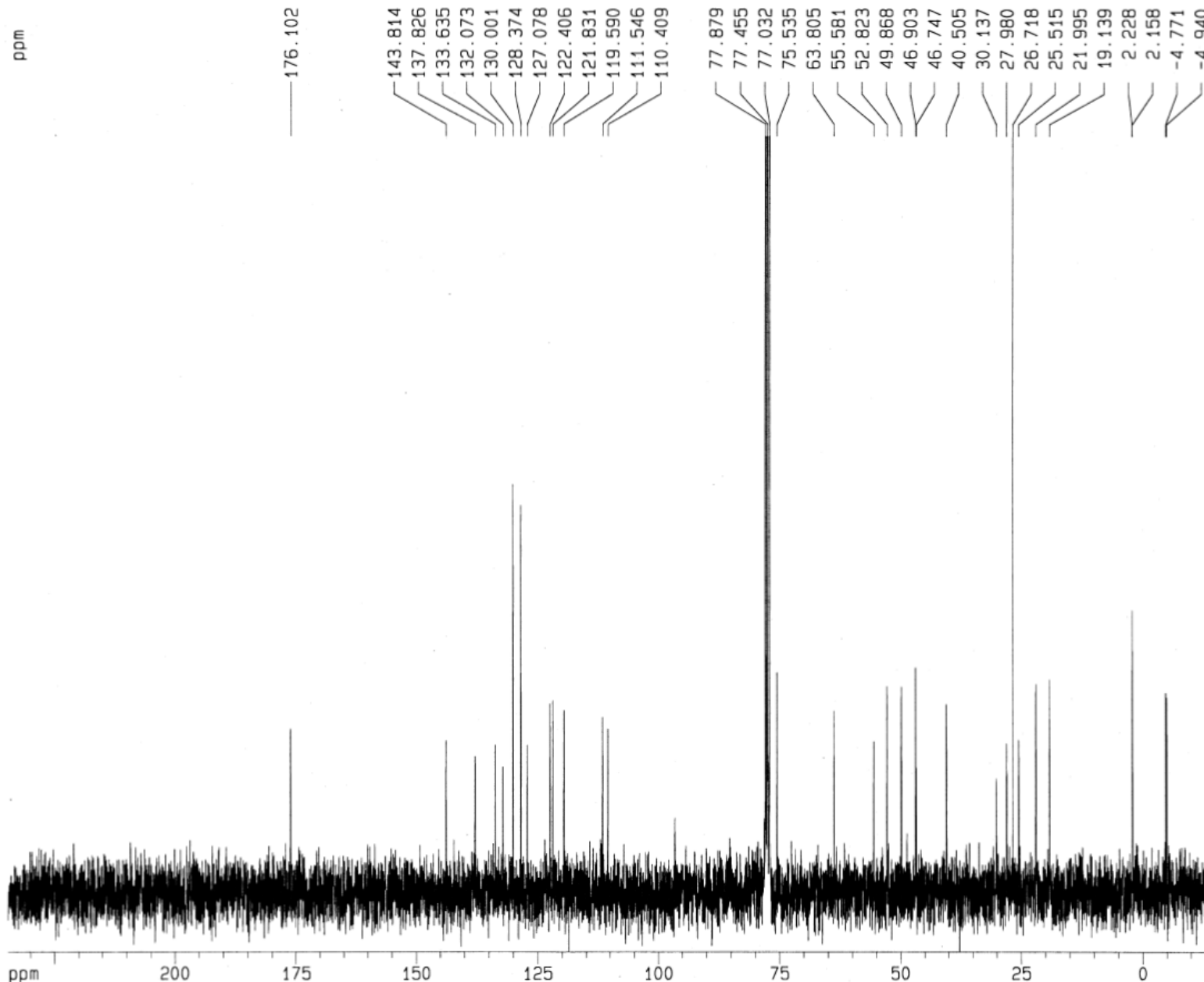
Current Data Parameters
 NAME 120110
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20101201
 Time 9.43
 INSTRUM spect
 PROBHD 5 mm Multinu
 PULPROG zg30
 TD 24690
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6172.839 Hz
 FIDRES 0.250014 Hz
 AQ 1.9999400 sec
 RG 362
 DW 81.000 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 9.60 usec
 PL1 -6.00 dB
 SFO1 300.1318534 MHz

F2 - Processing parameters
 SI 32768
 SF 300.1300000 MHz
 WDW no
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 3301.43 Hz
 F2P -1.000 ppm
 F2 -300.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 180.07800 Hz/cm



Current Data Parameters
NAME 120110
EXPNO 2
PROCNO 1

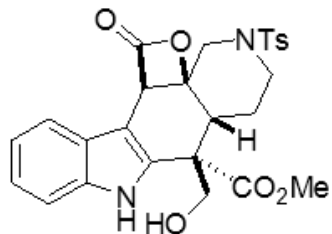
F2 - Acquisition Parameters
Date_ 20101201
Time 10.10
INSTRUM spect
PROBHD 5 mm GNP 1H/1
PULPROG zgpg30
TD 32768
SOLVENT CDCl3
NS 1024
DS 4
SWH 18796.992 Hz
FIDRES 0.573639 Hz
AQ 0.8716788 sec
RG 16384
DW 26.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec

===== CHANNEL f1 =====
NUC1 13C
P1 5.40 usec
PL1 -6.00 dB
SF01 75.4106357 MHz

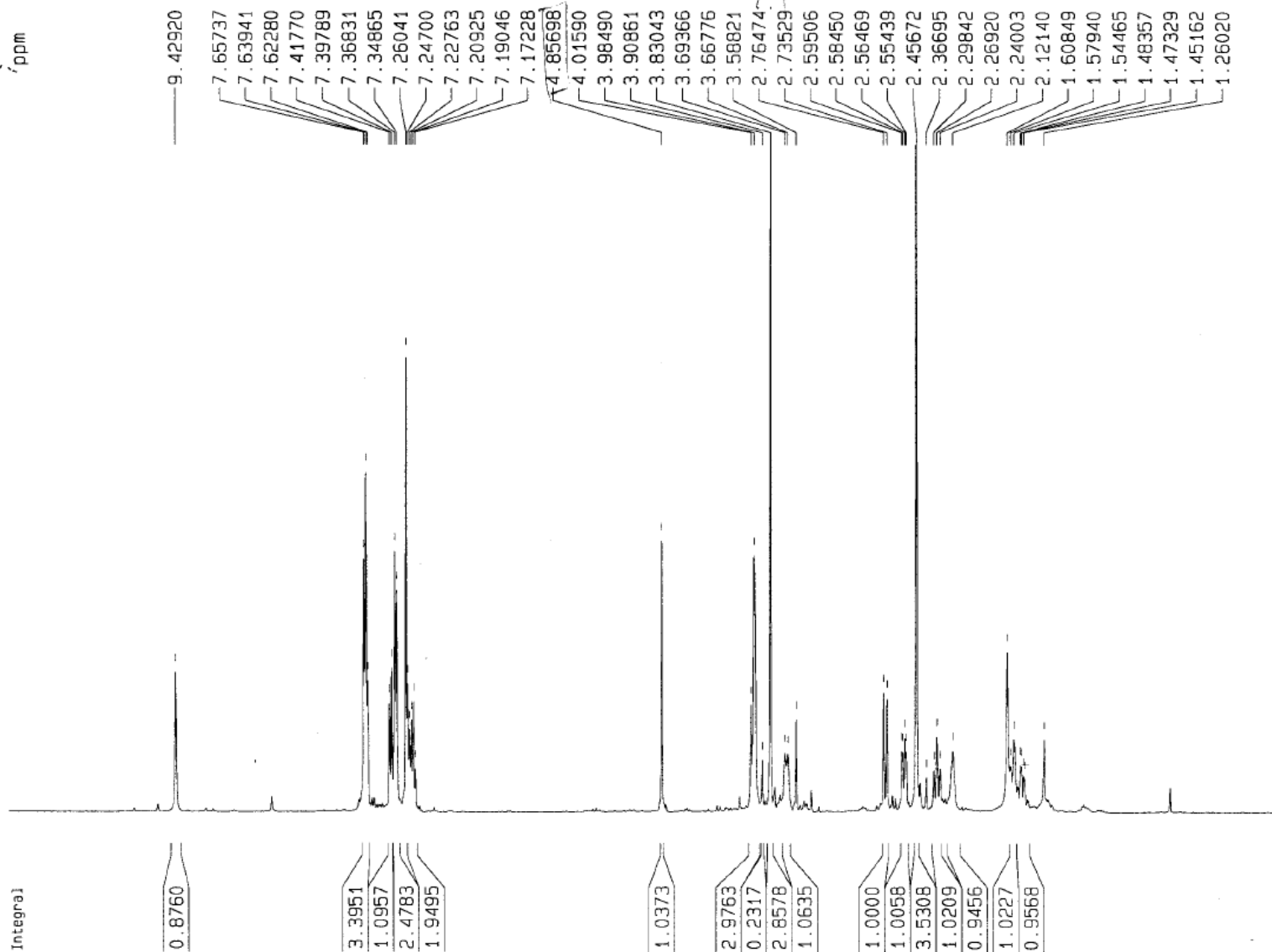
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 20.00 dB
PL13 20.00 dB
SF02 299.8711995 MHz

F2 - Processing parameters
SI 32768
SF 75.4023410 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
CX 20.00 cm
F1P 234.651 ppm
F1 17693.24 Hz
F2P -14.638 ppm
F2 -1103.75 Hz
PPMCM 12.46446 ppm/cm
HZCM 939.84955 Hz/cm



55



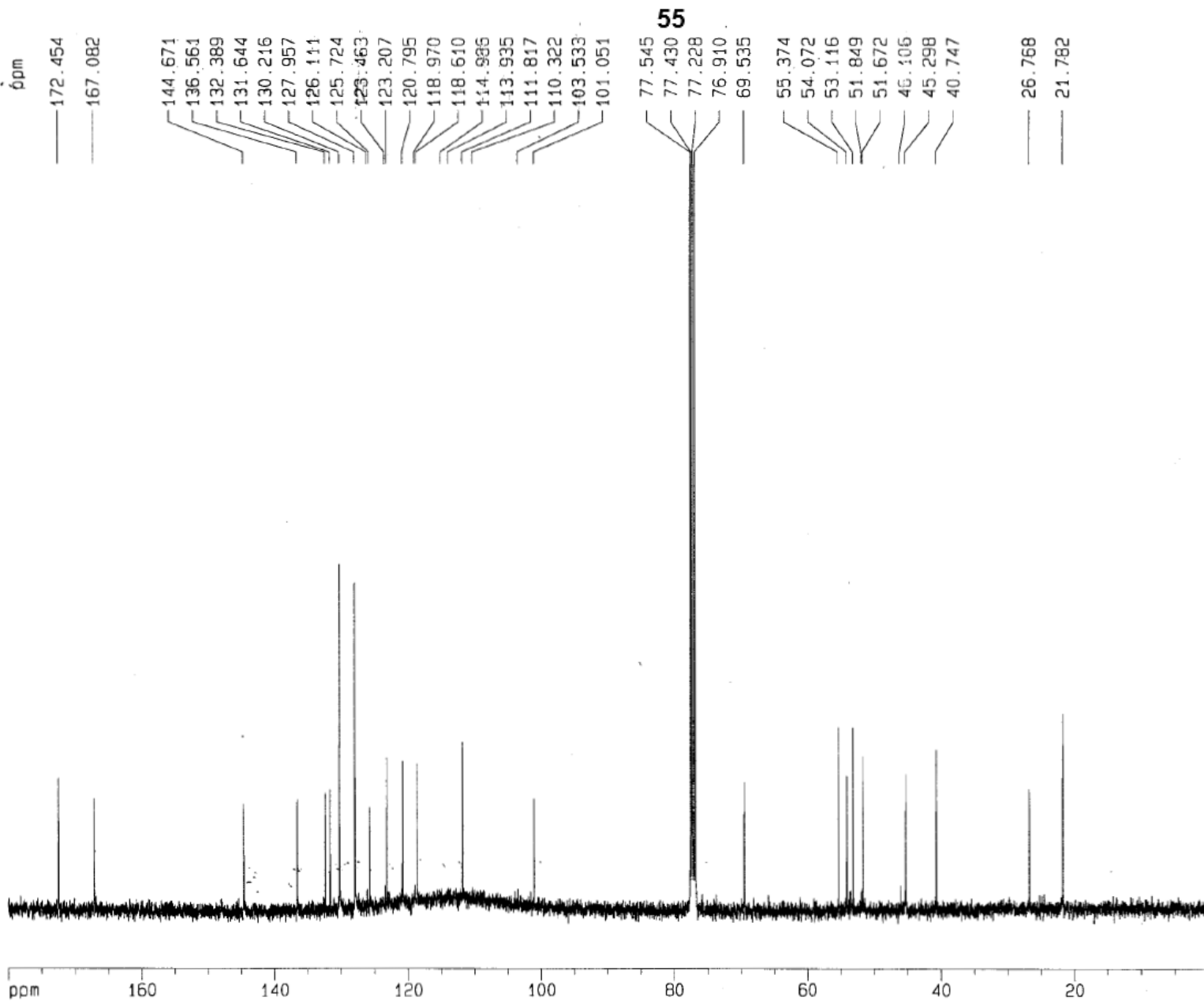
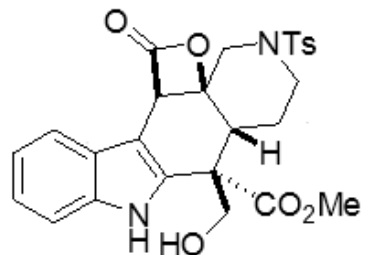
Current Data Parameters
 NAME 080111FJII-052
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20110801
 Time 17.58
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 161.3
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300089 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters

NAME 080111FJII-052
 EXPNO 7
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20110802
 Time 2.55
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 5120
 DS 4
 SWH 25125.629 Hz
 FIDRES 0.383387 Hz
 AQ 1.3042164 sec
 RG 16384
 DW 19.900 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 d12 0.0000200 sec

----- CHANNEL f1 -----

NUC1 13C
 P1 16.35 usec
 PL1 -6.00 dB
 SF01 100.6237959 MHz

----- CHANNEL f2 -----

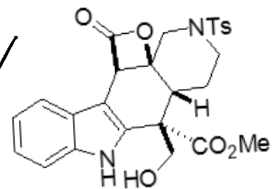
CPDPRG2 waltz16
 NUC2 1H
 PCPD2 114.00 usec
 PL2 0.00 dB
 PL12 24.00 dB
 PL13 24.00 dB
 SF02 400.1316005 MHz

F2 - Processing parameters

SI 32768
 SF 100.5127499 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters

CX 20.00 cm
 F1P 180.000 ppm
 F1 18110.29 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 9.00000 ppm/cm
 HZCM 905.51471 Hz/cm

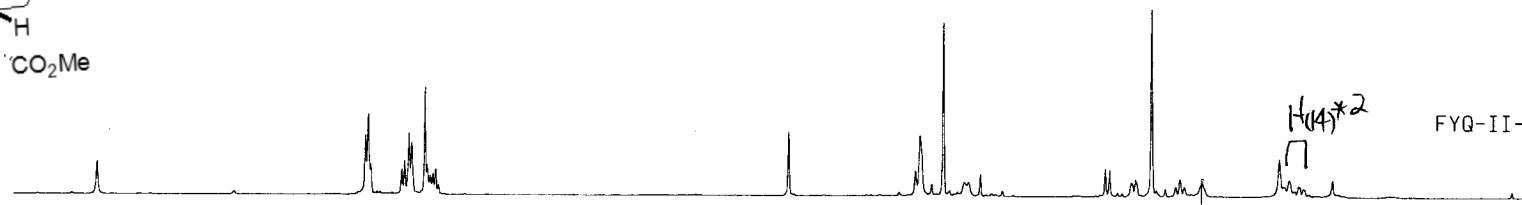


55

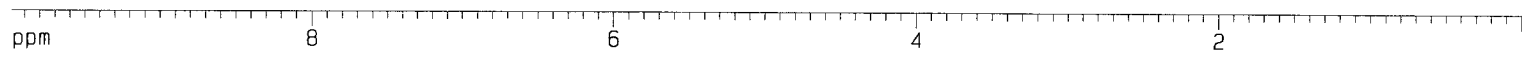
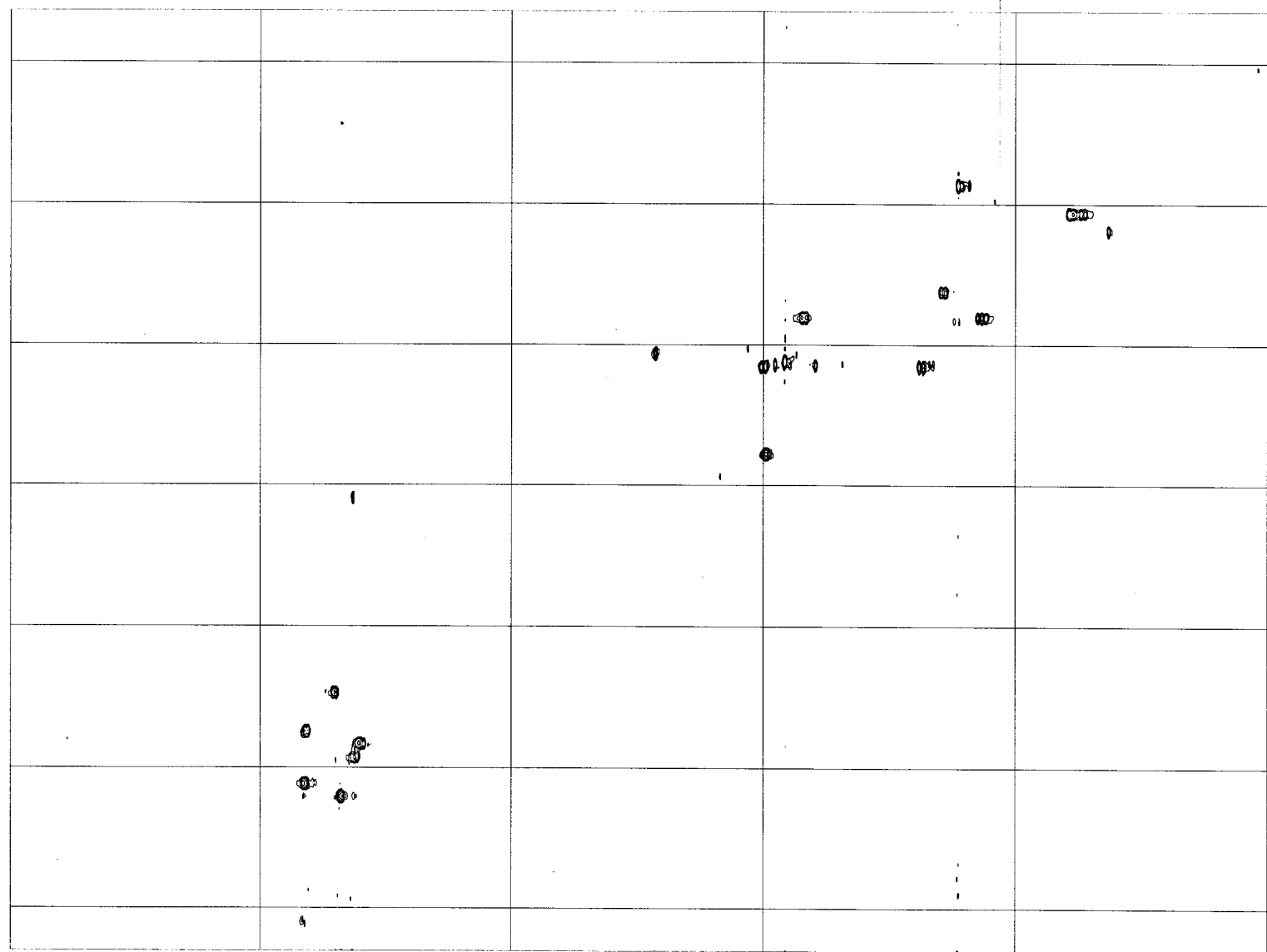
FYQ-II-052053P HMQC

H(4)*2

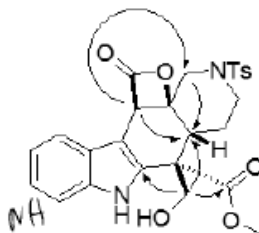
(all)



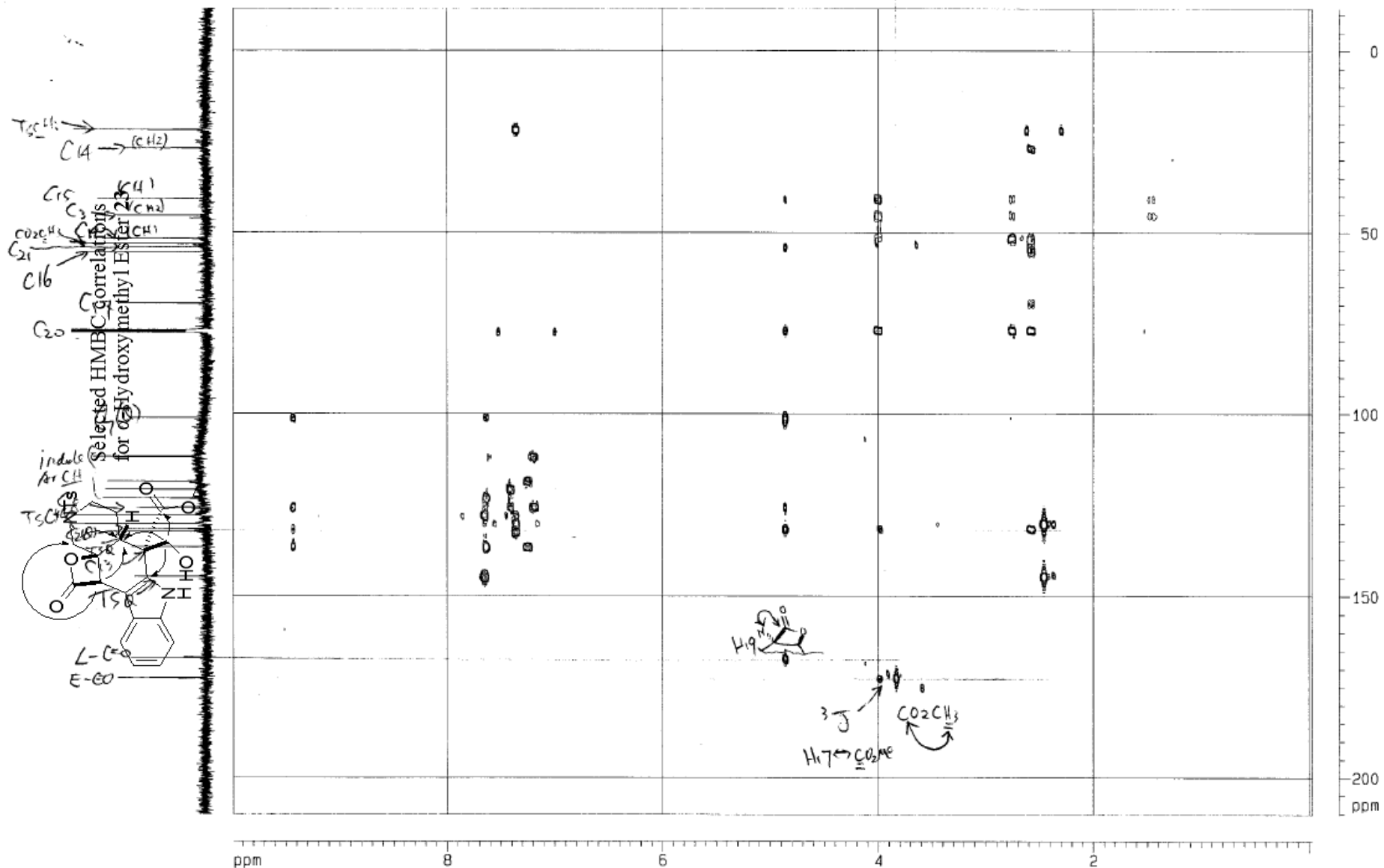
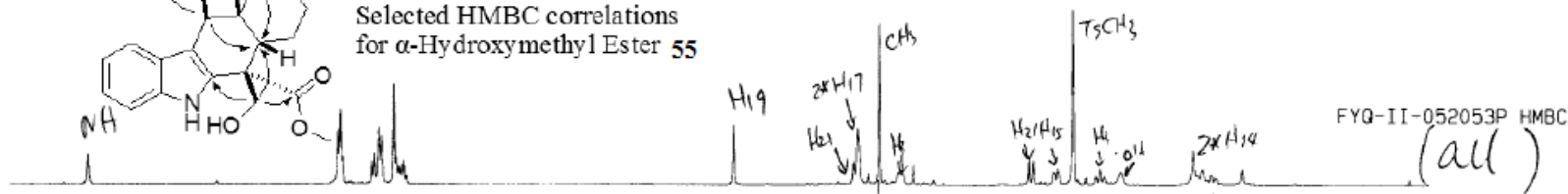
$Ts(CH_2) \rightarrow CH_2$
 $C_{14} \rightarrow CH_2$
 $C_{15}(CH) \rightarrow (CH)$
 $C_3 \rightarrow CH_2$
 $C_{19} \rightarrow (CH)$
 $CO_2Me(C_4) \rightarrow (CH)$
 $C_2(OH) \rightarrow C_{16}$
 $CH_2 - C_{17}$
 $C_7(O_6)$
 $Ar-CH \rightarrow C_{10}/C_{12}$
 $C_8(O_5) \rightarrow C_9/C_{11}$
 $Ts(C_1) \rightarrow C_2$
 $Ts(O_4) \rightarrow C_3$
 $Ts(O_2) \rightarrow C_2$
 $Ts(O_1) \rightarrow$

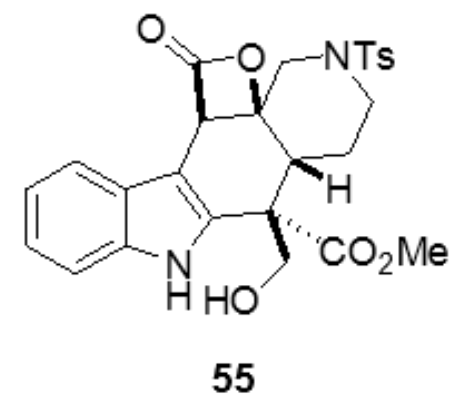
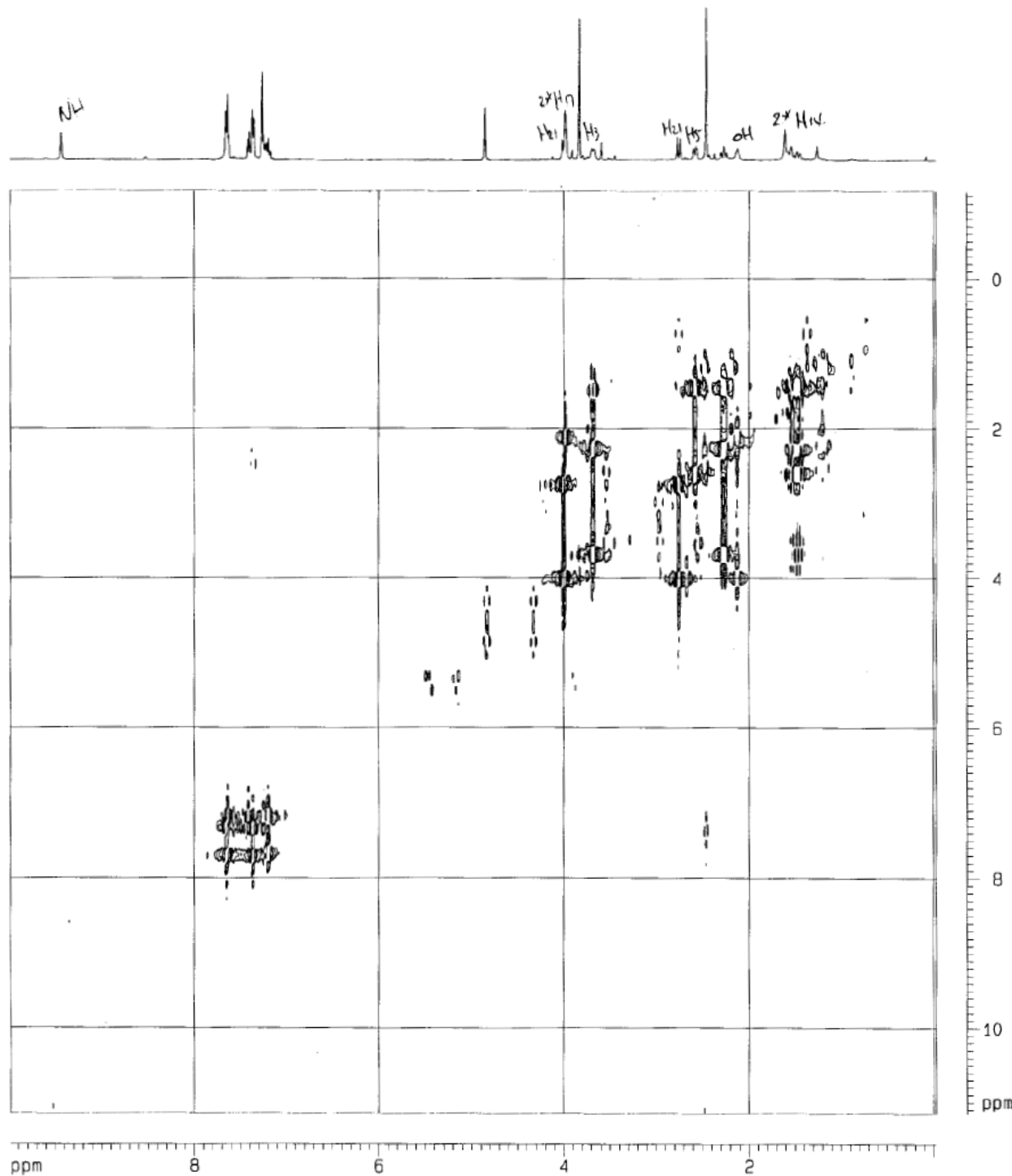


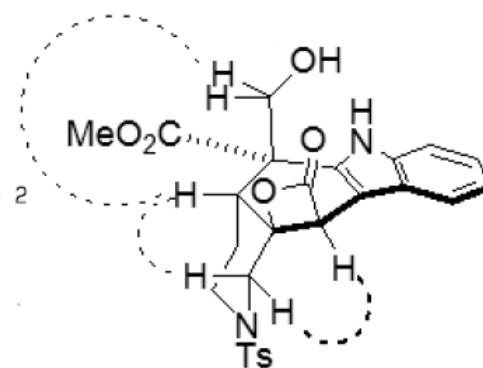
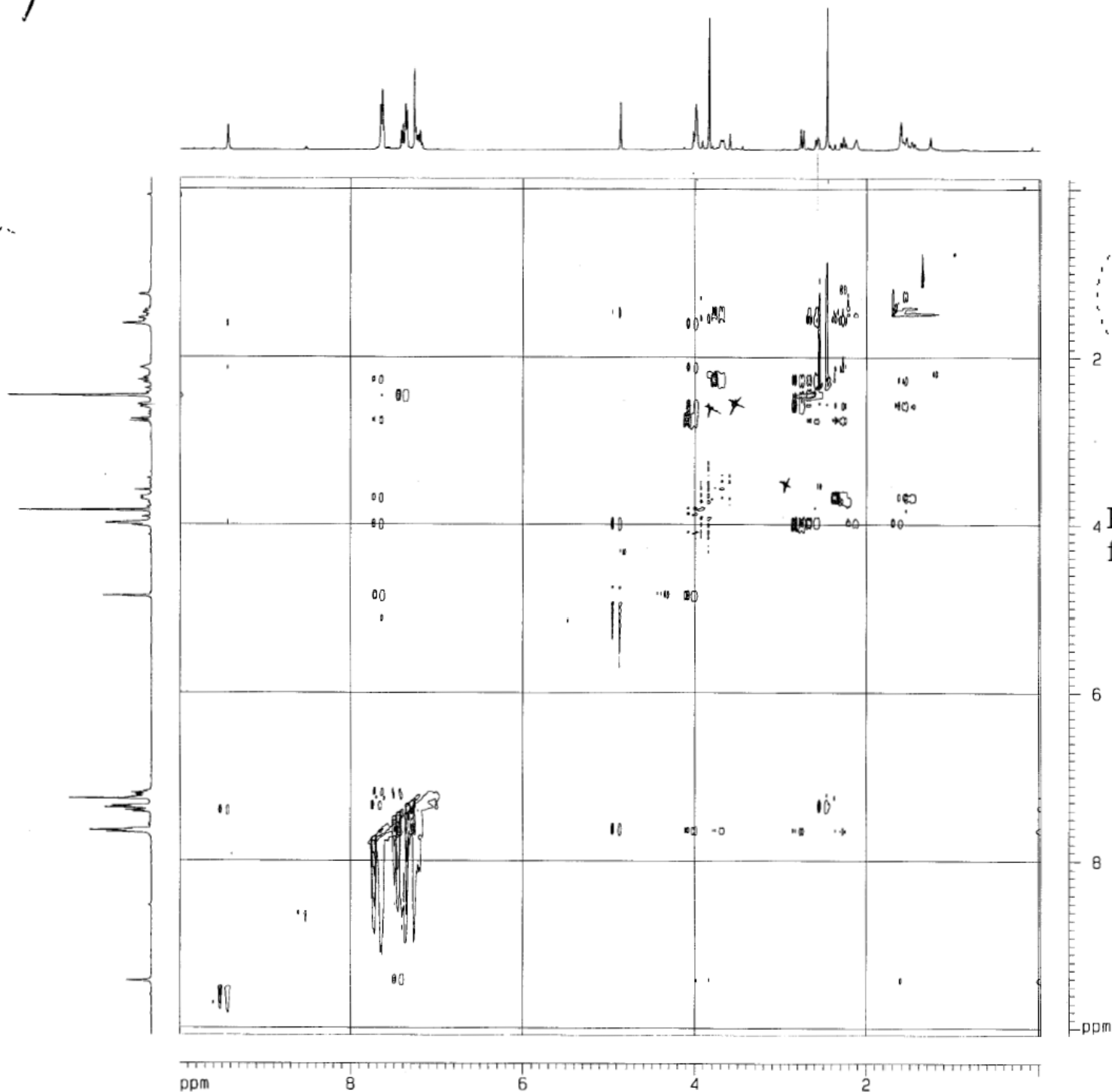
0
25
50
75
100
125
150
ppm



Selected HMBC correlations for α -Hydroxymethyl Ester 55







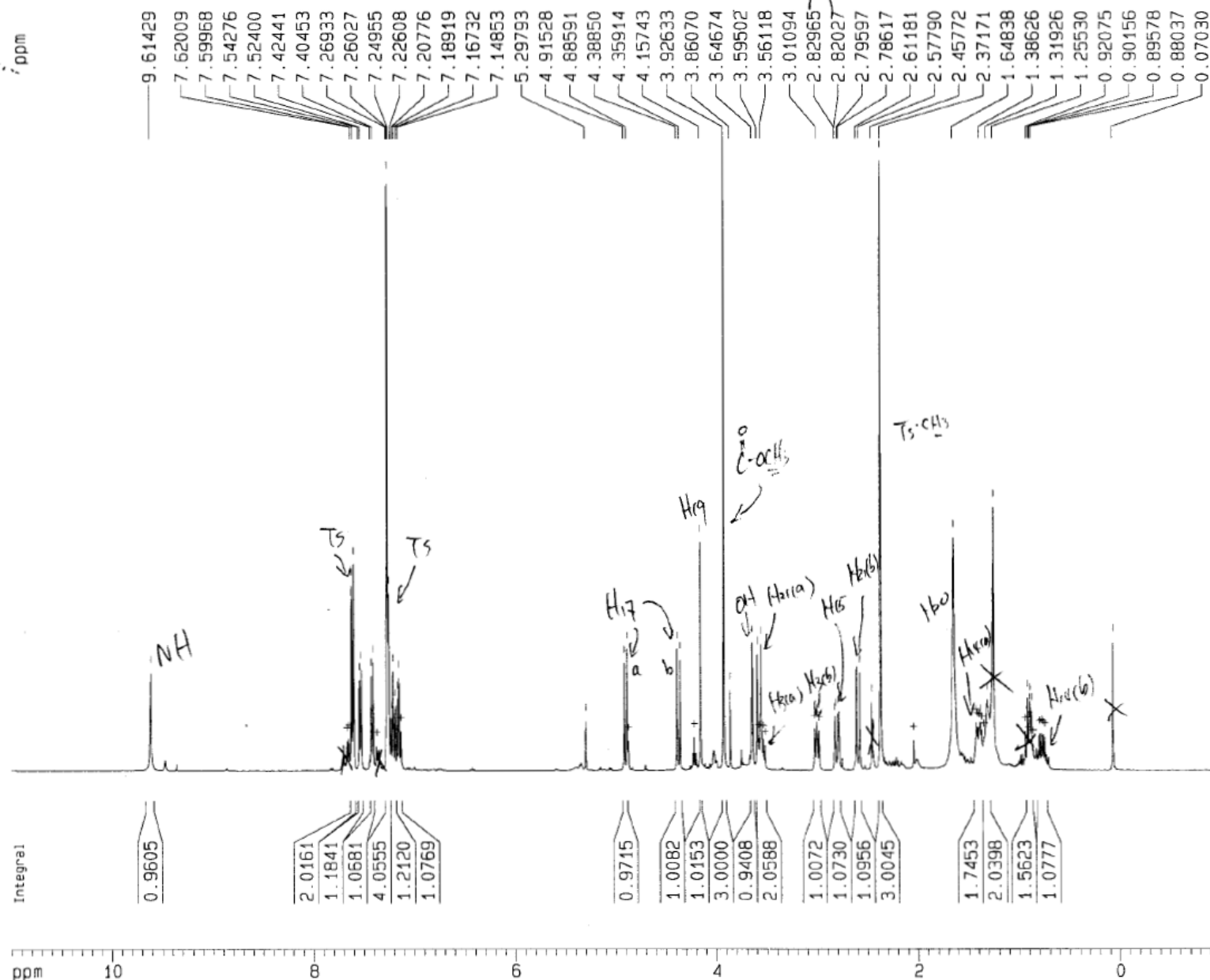
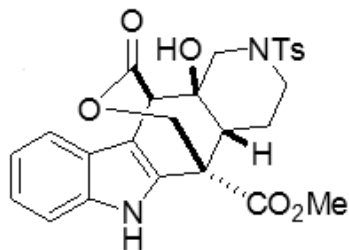
4 Key nOe correlations
for α -Hydroxymethyl Ester **55**

--- = nOe correlation

6

8

ppm



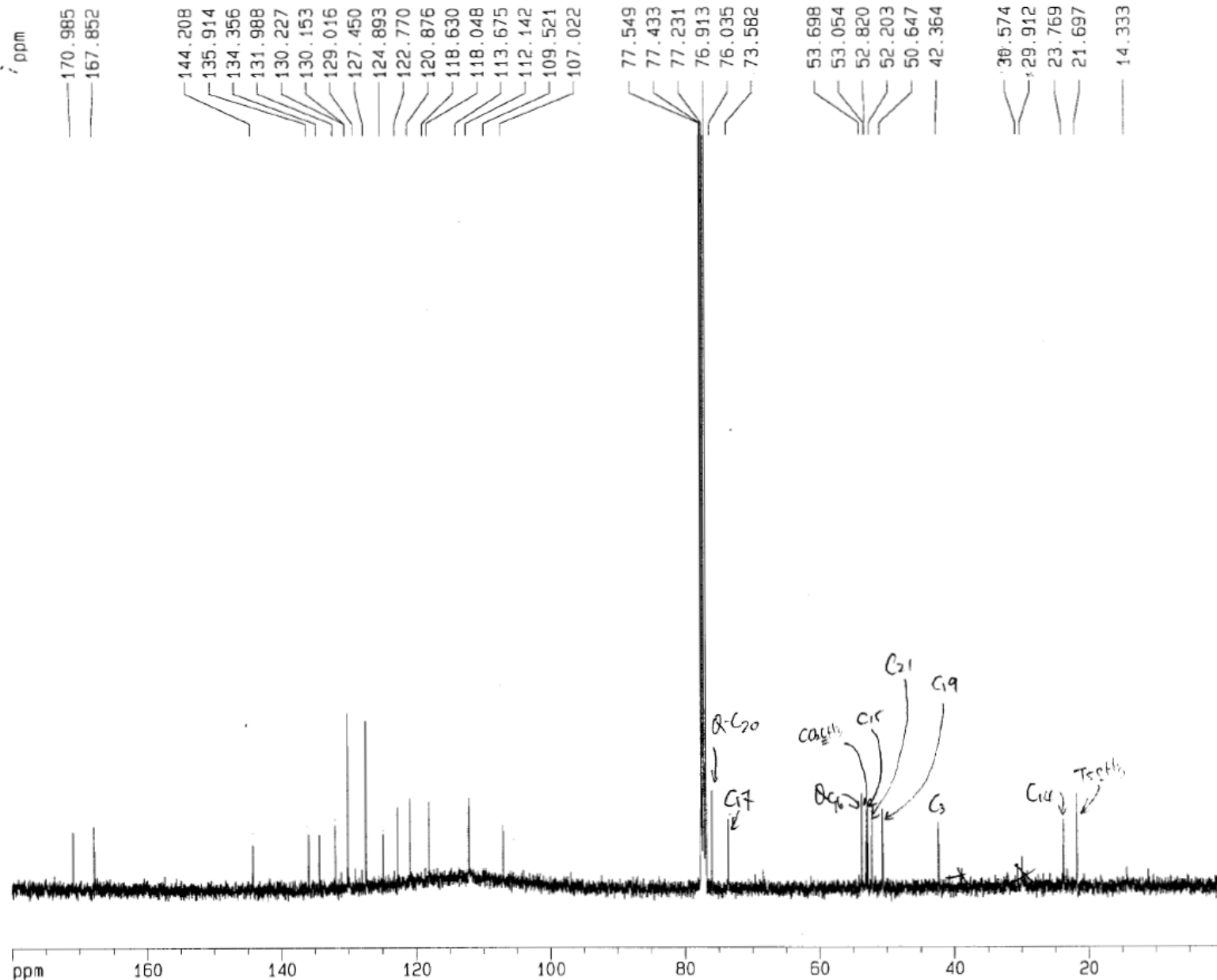
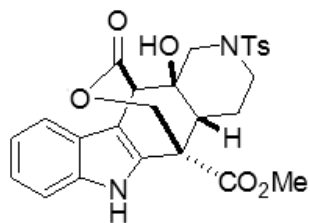
Current Data Parameters
 NAME 080811FJII-064
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20110808
 Time 18.57
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 203.2
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300091 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
NAME 080811FJ11-064
EXPNO 7
PROCNO 1

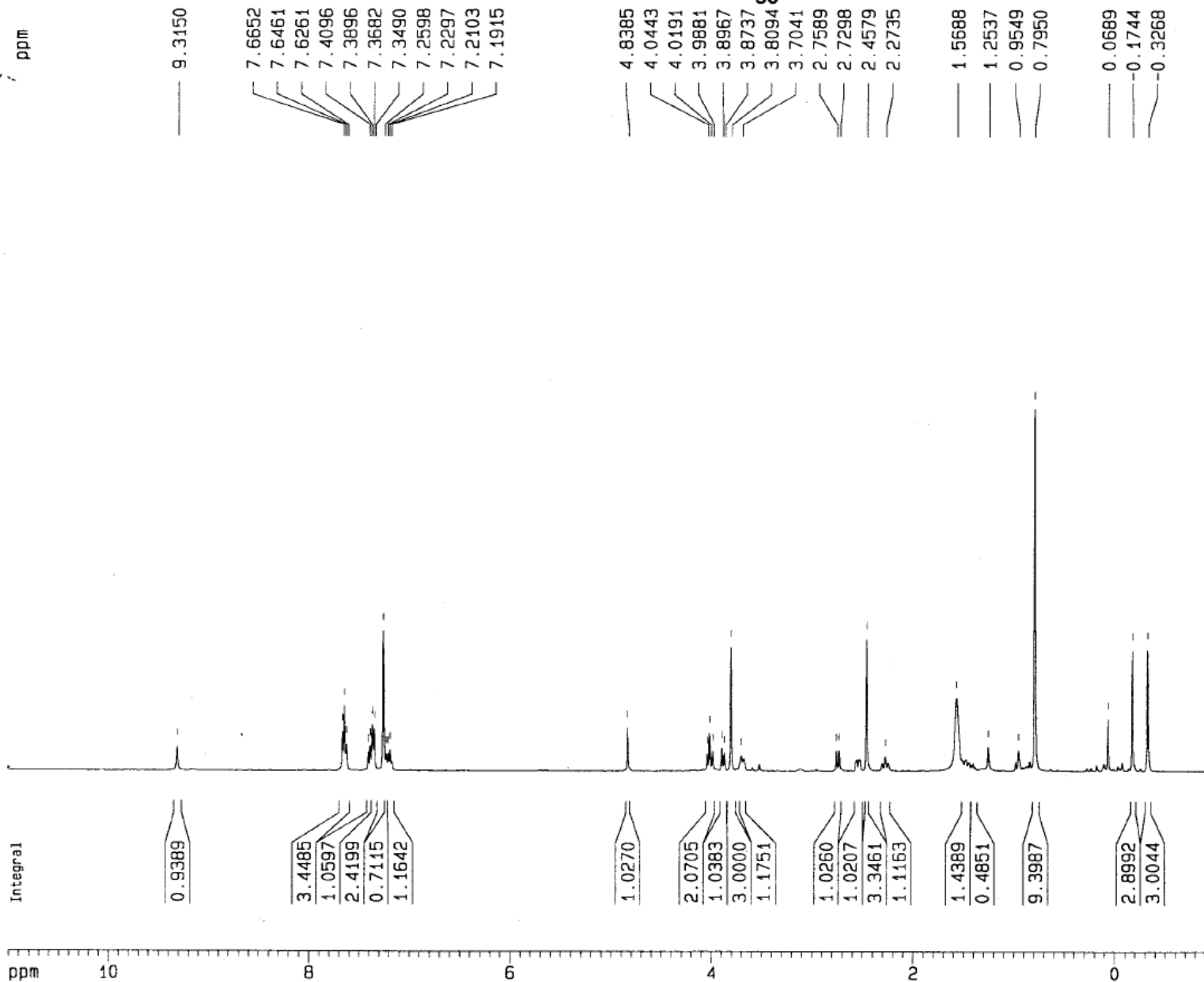
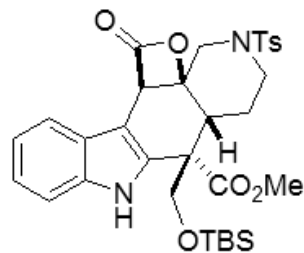
F2 - Acquisition Parameters
Date_ 20110809
Time 4.49
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 6144
DS 4
SWH 25125.629 Hz
FIDRES 0.383387 Hz
AQ 1.3042164 sec
RG 16384
DW 19.900 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
d11 0.03000000 sec
d12 0.00002000 sec

===== CHANNEL f1 =====
NUC1 13C
P1 16.35 usec
PL1 -6.00 dB
SFO1 100.6237959 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 114.00 usec
PL2 0.00 dB
PL12 24.00 dB
PL13 24.00 dB
SFO2 400.1316005 MHz

F2 - Processing parameters
SI 32768
SF 100.6127484 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
CX 20.00 cm
F1P 180.000 ppm
F1 18110.29 Hz
F2P 0.000 ppm
F2 0.00 Hz
PRMCM 9.00000 ppm/cm
HZCM 905.51471 Hz/cm



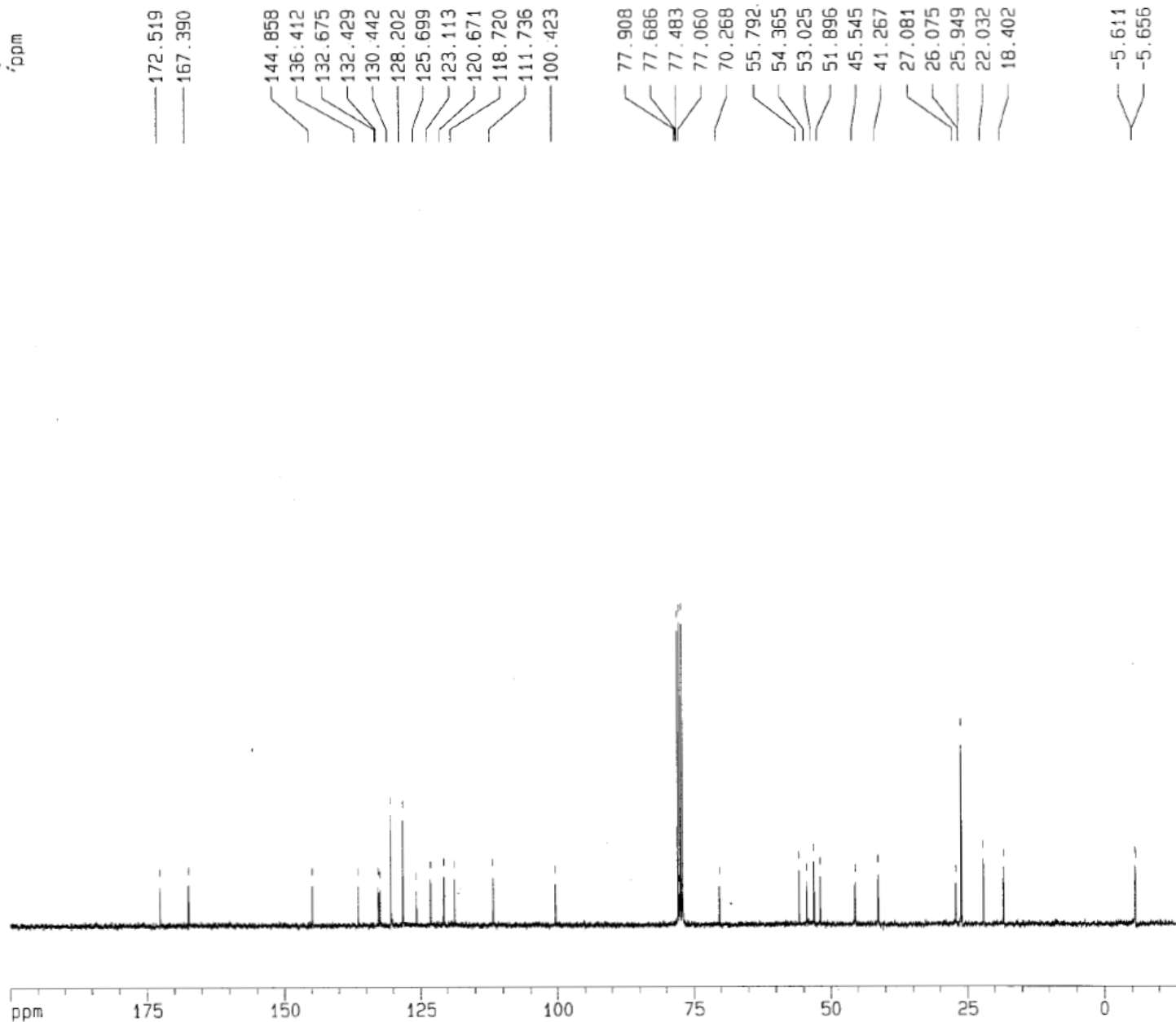
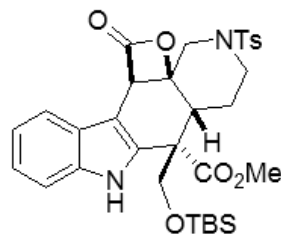
Current Data Parameters
 NAME 090712FJII291
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120907
 Time 11.52
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 32
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 322.5
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

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

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
 NAME 090512FJIII290
 EXPNO 2
 PROCNO 1

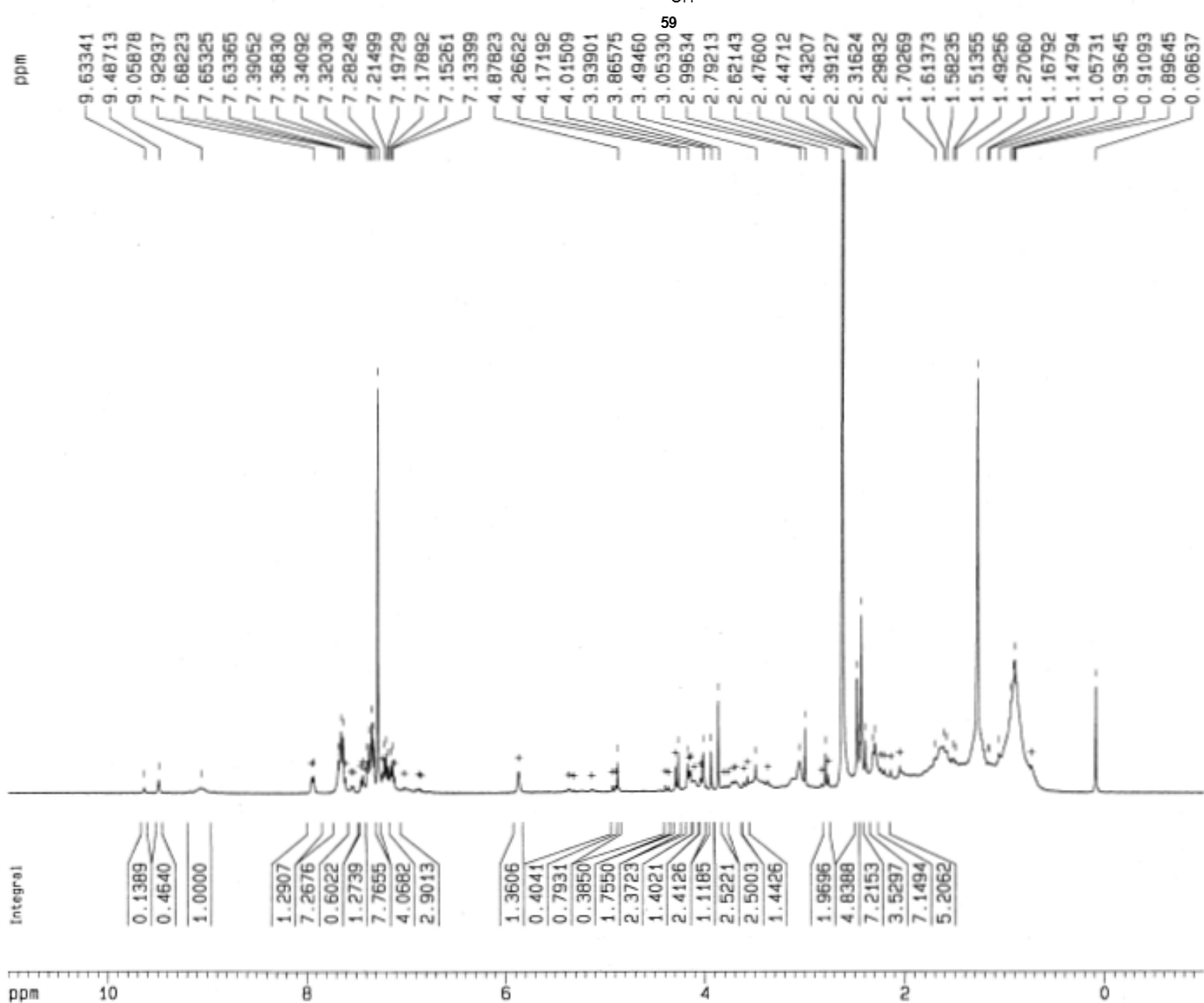
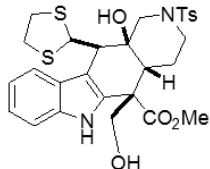
F2 - Acquisition Parameters
 Date_ 20120905
 Time 17.10
 INSTRUM spect
 PROBHD 5 mm GNP 1H/1
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 830
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 512
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 D12 0.0000200 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SF01 75.4106357 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SF02 299.8711995 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4023410 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 200.000 ppm
 F1 15080.47 Hz
 F2P -30.000 ppm
 F2 -2262.07 Hz
 PPMCM 11.50000 ppm/cm
 HZCM 867.12695 Hz/cm



Current Data Parameters

NAME 060112FJIII175
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20120602
Time 1.07
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 114
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

----- CHANNEL f1 -----

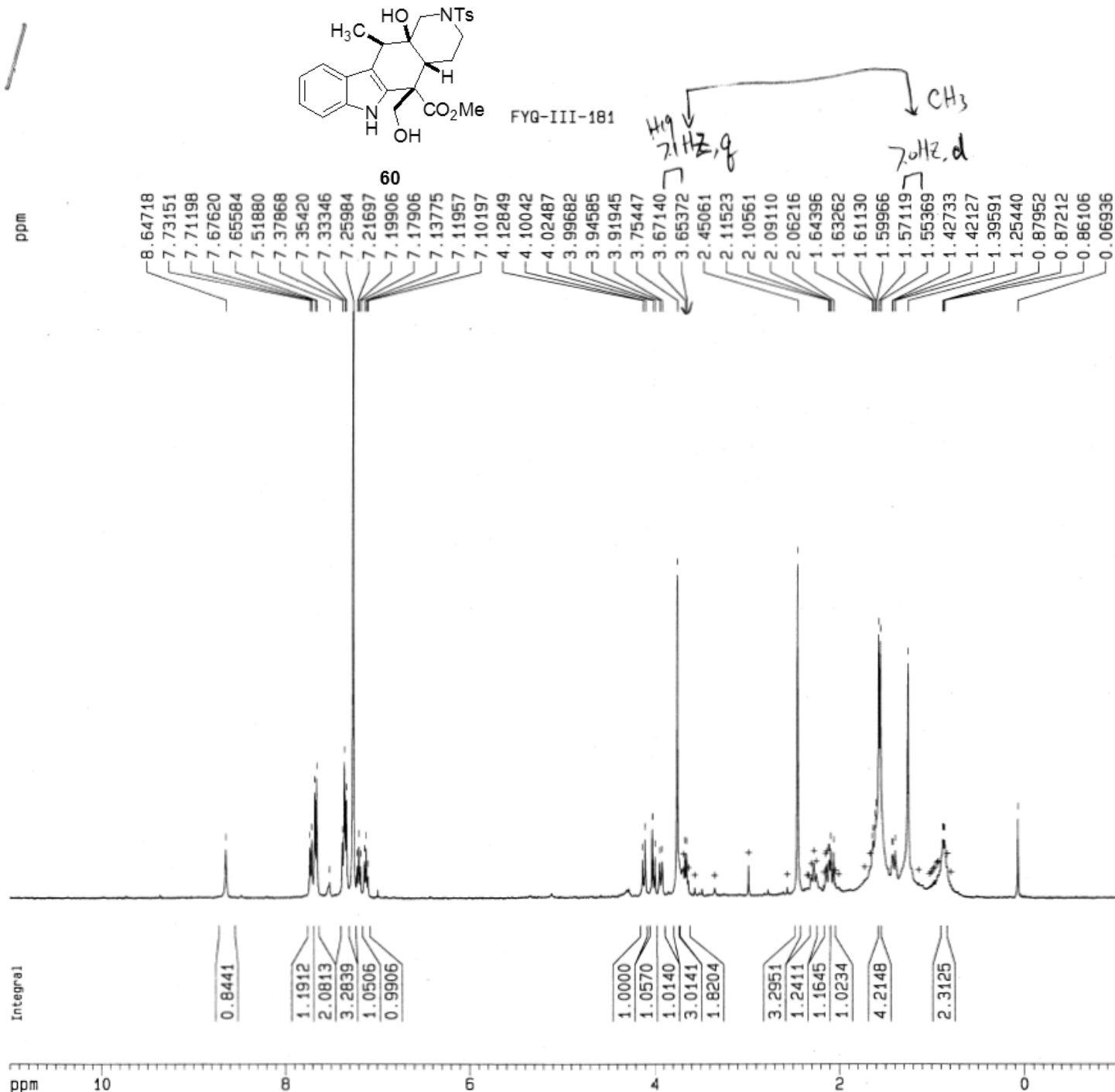
NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SFO1 400.1324710 MHz

F2 - Processing parameters

SI 32768
SF 400.1300000 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm



Current Data Parameters

NAME 060512FJIII181
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20120605
Time 13.52
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 256
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 4597.6
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

----- CHANNEL f1 -----

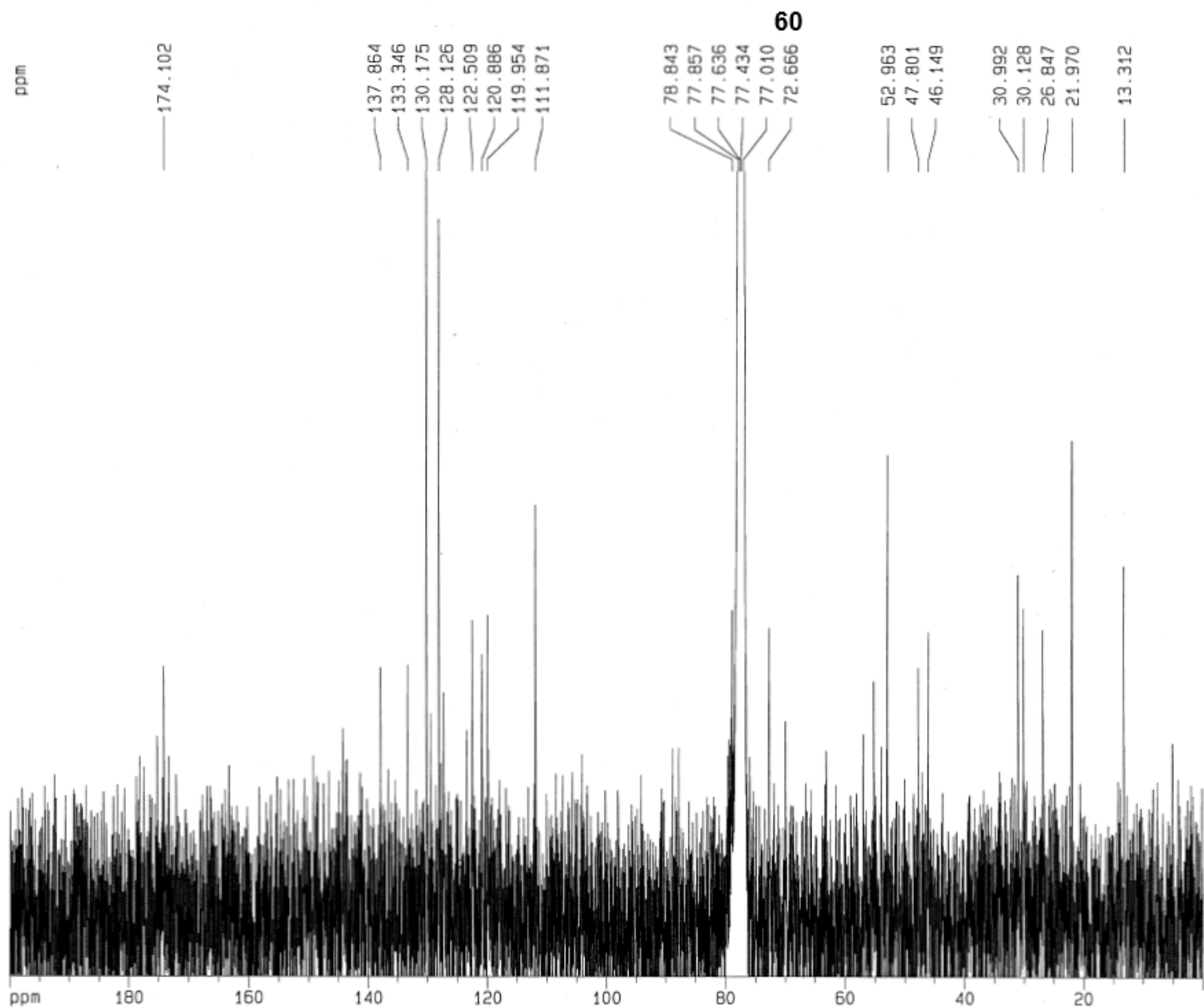
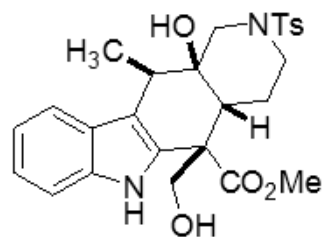
NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SFO1 400.1324710 MHz

F2 - Processing parameters

SI 32768
SF 400.1300089 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.50000 ppm/cm
HZCM 240.07800 Hz/cm



Current Data Parameters
NAME 060512FJ11181
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120606
Time 6.40
INSTRUM spect
PROBHD 5 mm QNP 1H/1
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 13107
DS 4
SWH 18796.992 Hz
FIDRES 0.286819 Hz
AQ 1.7433076 sec
RG 1024
DM 26.600 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
D11 0.03000000 sec
D12 0.00002000 sec

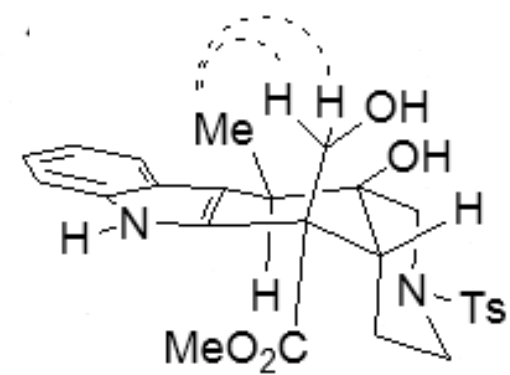
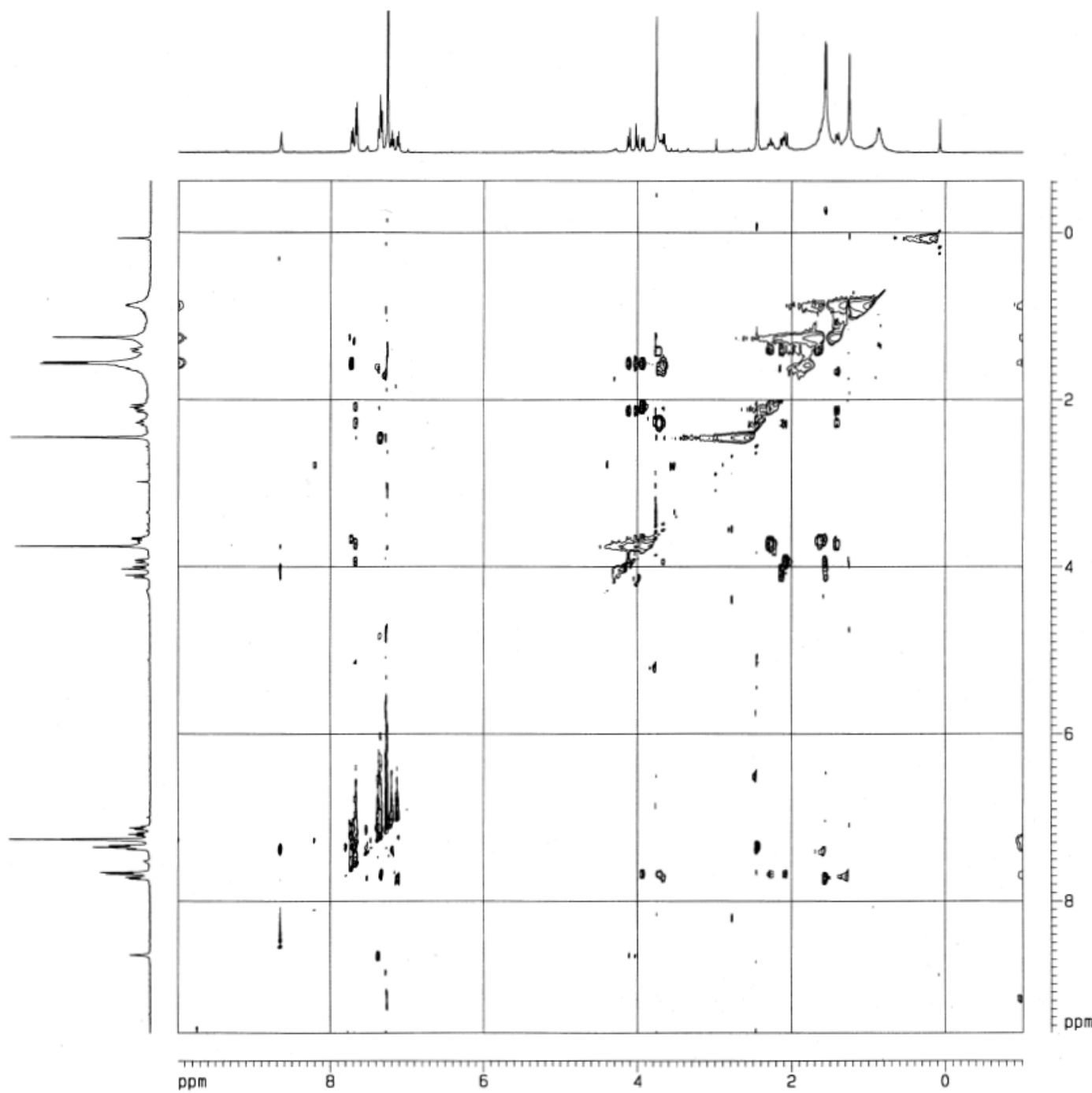
----- CHANNEL f1 -----
NUC1 13C
P1 5.25 usec
PL1 -6.00 dB
SF01 75.4106357 MHz

----- CHANNEL f2 -----
CPDPRG2 waltz16
NUC2 1H
PCPD2 115.00 usec
PL2 0.00 dB
PL12 19.70 dB
PL13 19.70 dB
SF02 299.8711995 MHz

F2 - Processing parameters
SI 32768
SF 75.4023410 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

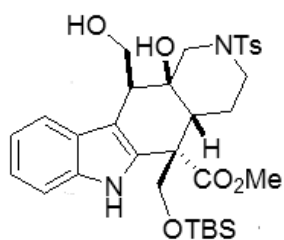
1D NMR plot parameters
CX 20.00 cm
F1P 200.000 ppm
F1 15080.47 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 10.00000 ppm/cm
HZCM 754.02344 Hz/cm

FYQ-III-181 NOESY

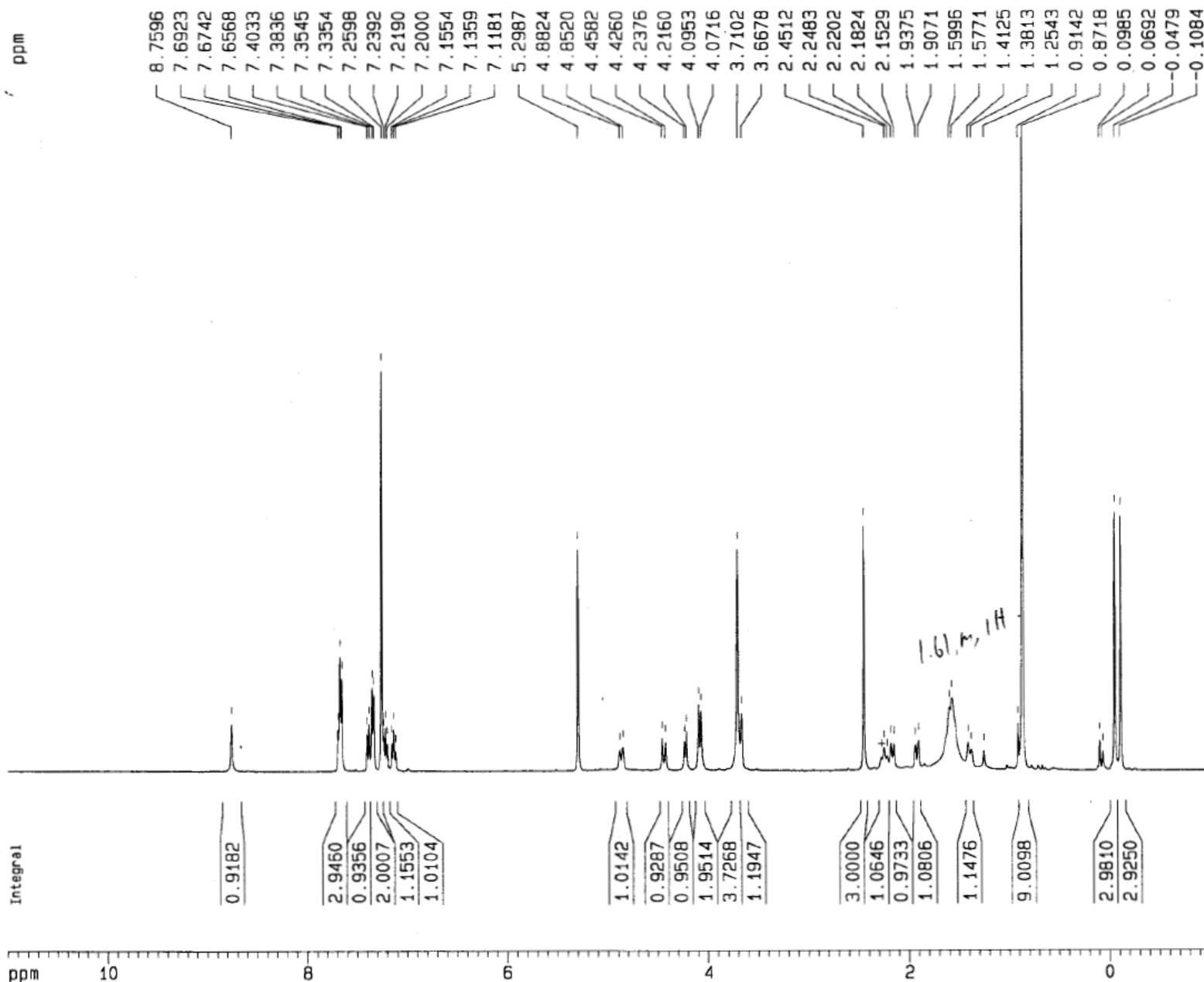


60

selected nOe: ----



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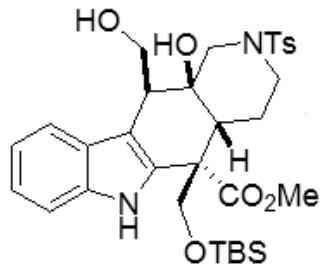
Current Data Parameters
 NAME 090712FJIII292
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120907
 Time 11.45
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 456.1
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.0000000 sec

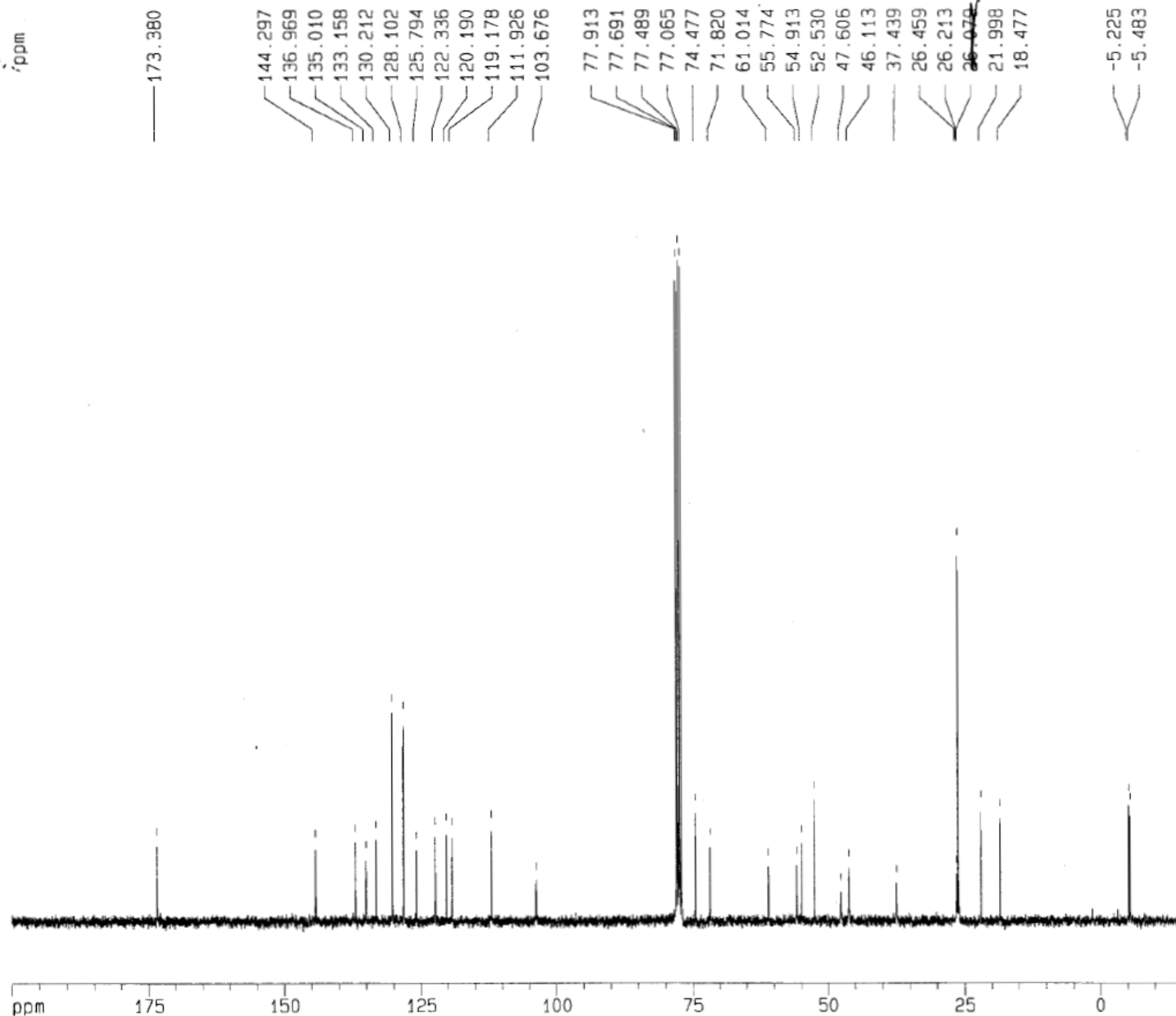
----- CHANNEL f1 -----
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SFO1 400.1324710 MHz

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

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



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Current Data Parameters
 NAME 090612FJII1292
 EXPNO 2
 PROCNO 1

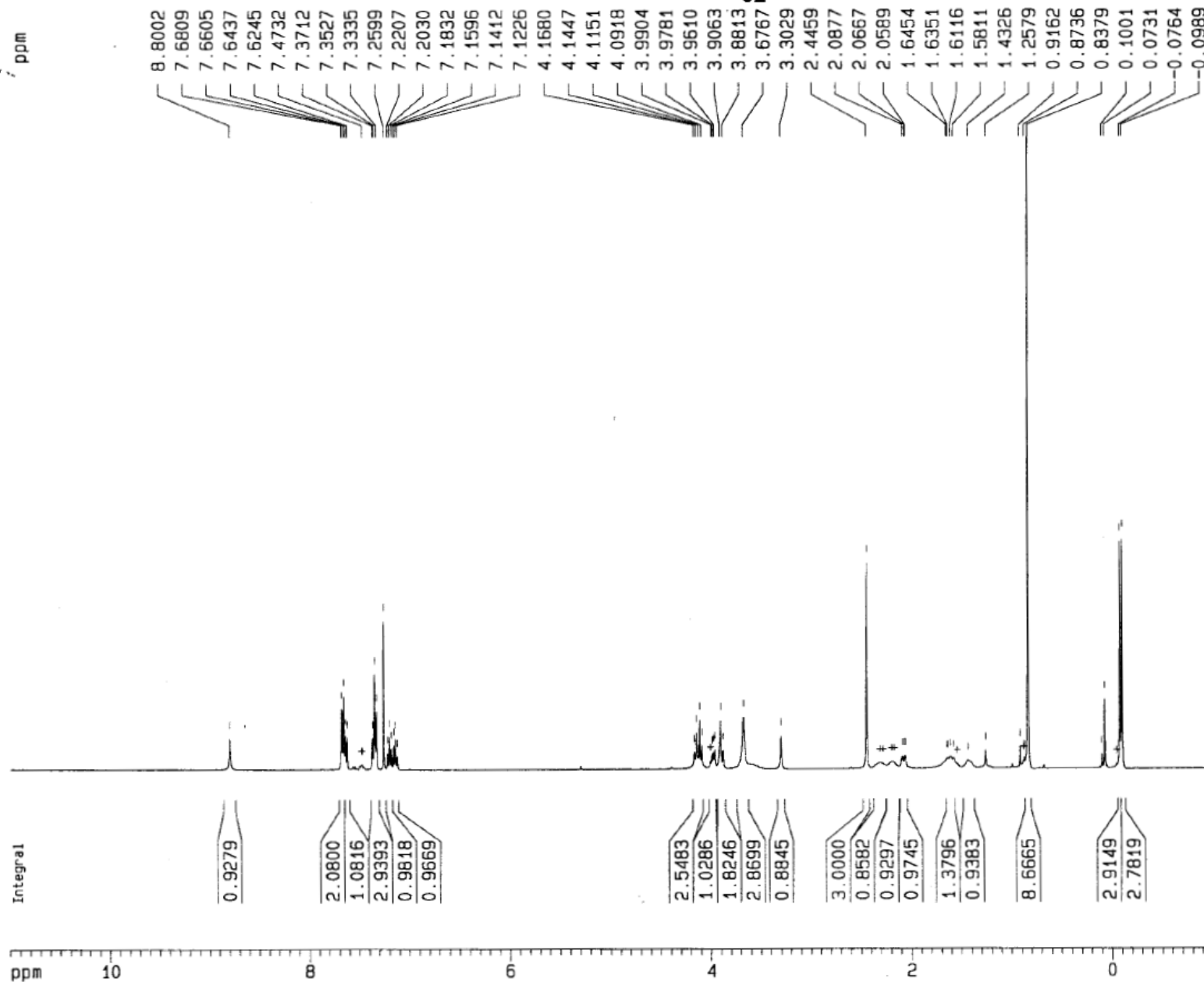
F2 - Acquisition Parameters
 Date_ 20120906
 Time 16.43
 INSTRUM spect
 PROBHD 5 mm QNP 1H/1
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 567
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 1024
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 D12 0.0002000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SFO1 75.4106357 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SFO2 299.8711995 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4023410 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 200.000 ppm
 F1 15080.47 Hz
 F2P -30.000 ppm
 F2 -2262.07 Hz
 PPMCM 11.50000 ppm/cm
 HZCM 867.12695 Hz/cm



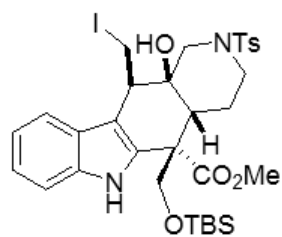
Current Data Parameters
 NAME 090712FJIII294
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120907
 Time 19.09
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 574.7
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

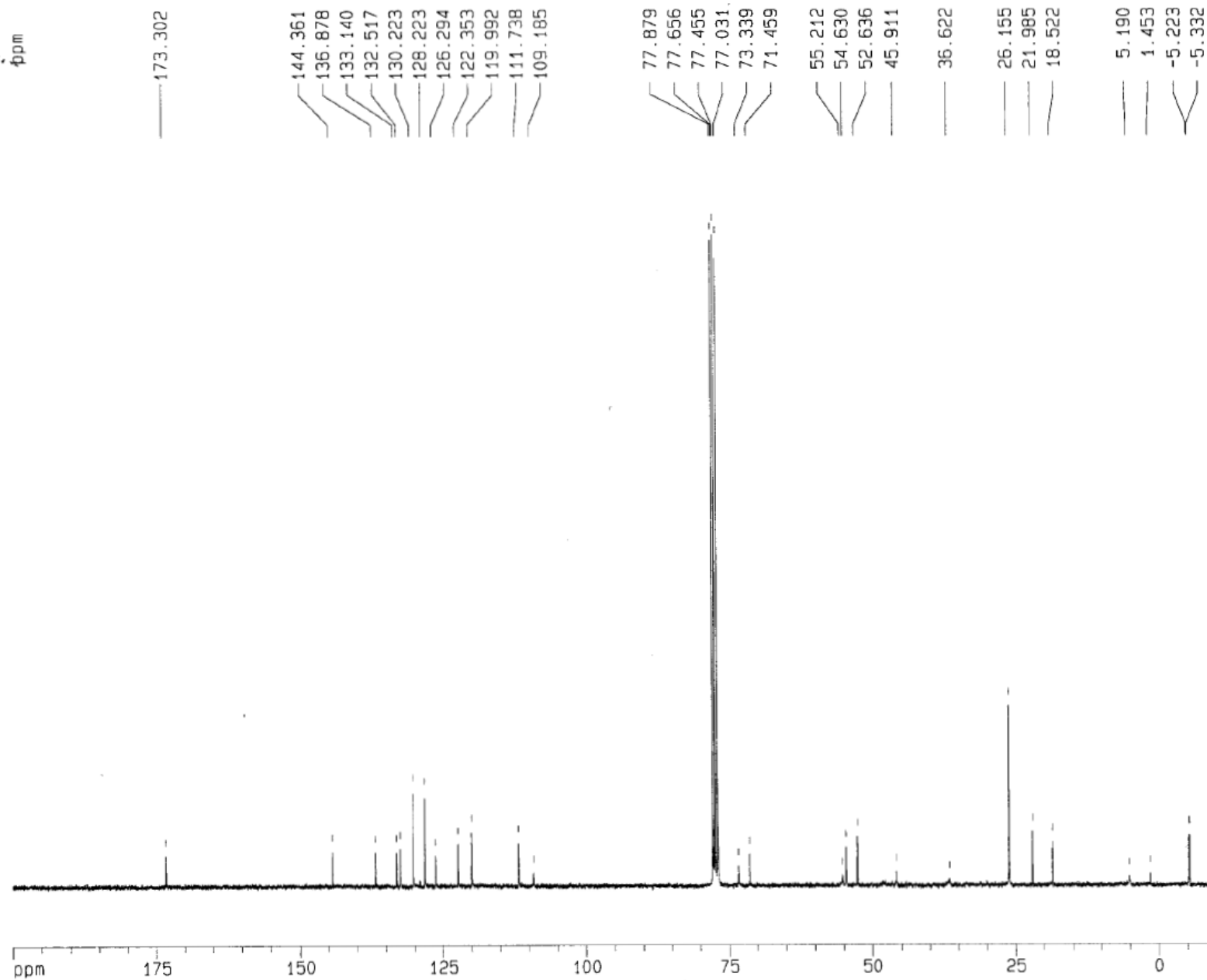
----- CHANNEL f1 -----
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300091 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



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Current Data Parameters
 NAME 090812FJII1294
 EXPNO 2
 PROCNO 1

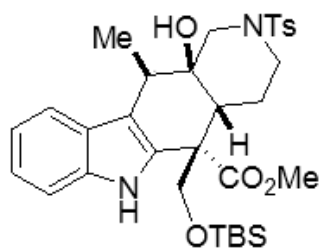
F2 - Acquisition Parameters
 Date_ 20120908
 Time 14.13
 INSTRUM spect
 PROBHD 5 mm GNP 1H/1
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 2848
 DS 4
 SMH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 1625.5
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 D12 0.0002000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SF01 75.4106357 MHz

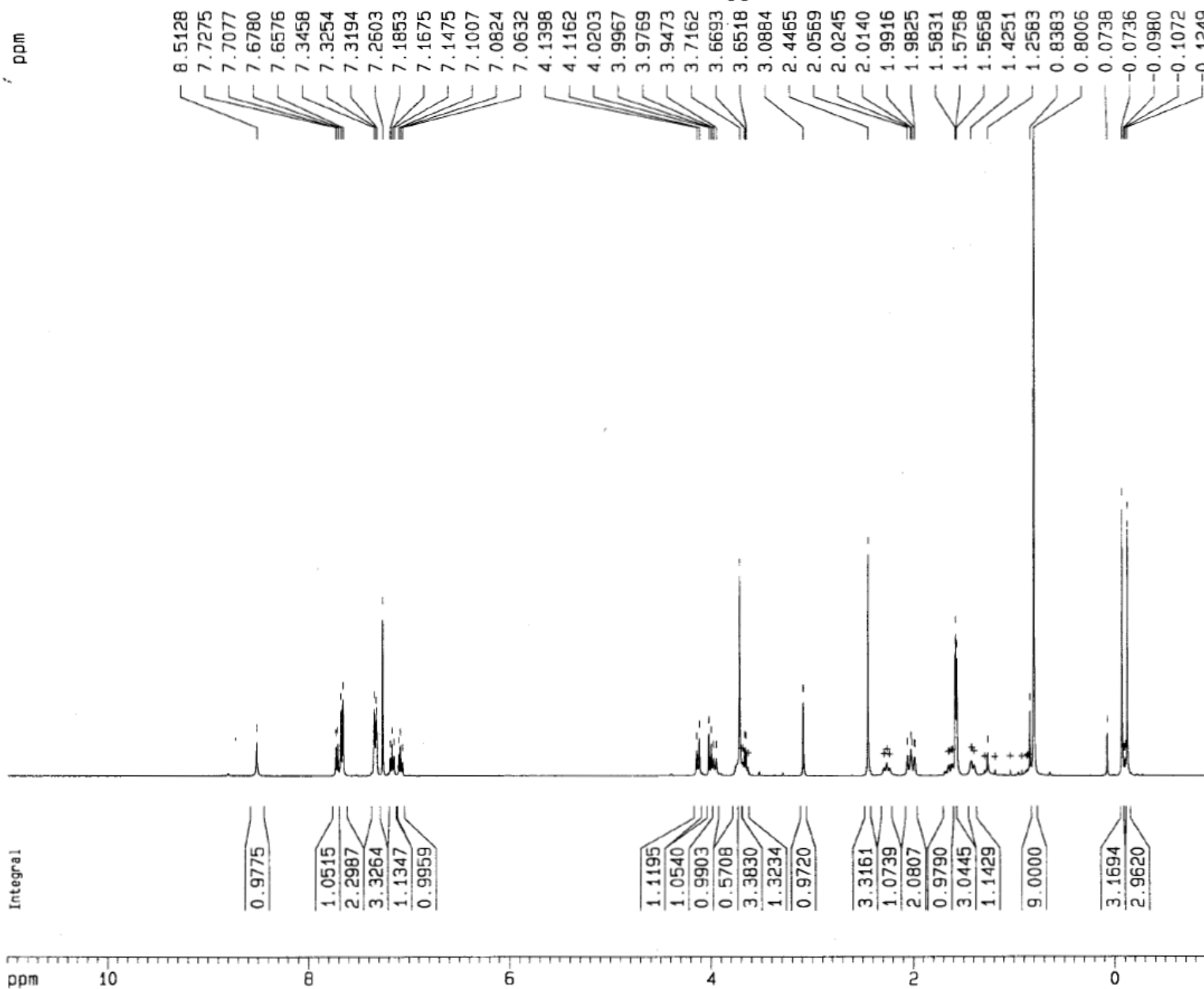
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SF02 299.8711995 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4023410 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 200.000 ppm
 F1 15080.47 Hz
 F2P -10.000 ppm
 F2 -754.02 Hz
 PPMCM 10.50000 ppm/cm
 HZCM 791.72461 Hz/cm



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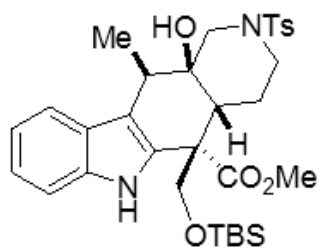
Current Data Parameters
NAME 090912FJIII296
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20120909
Time 22.57
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 724.1
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

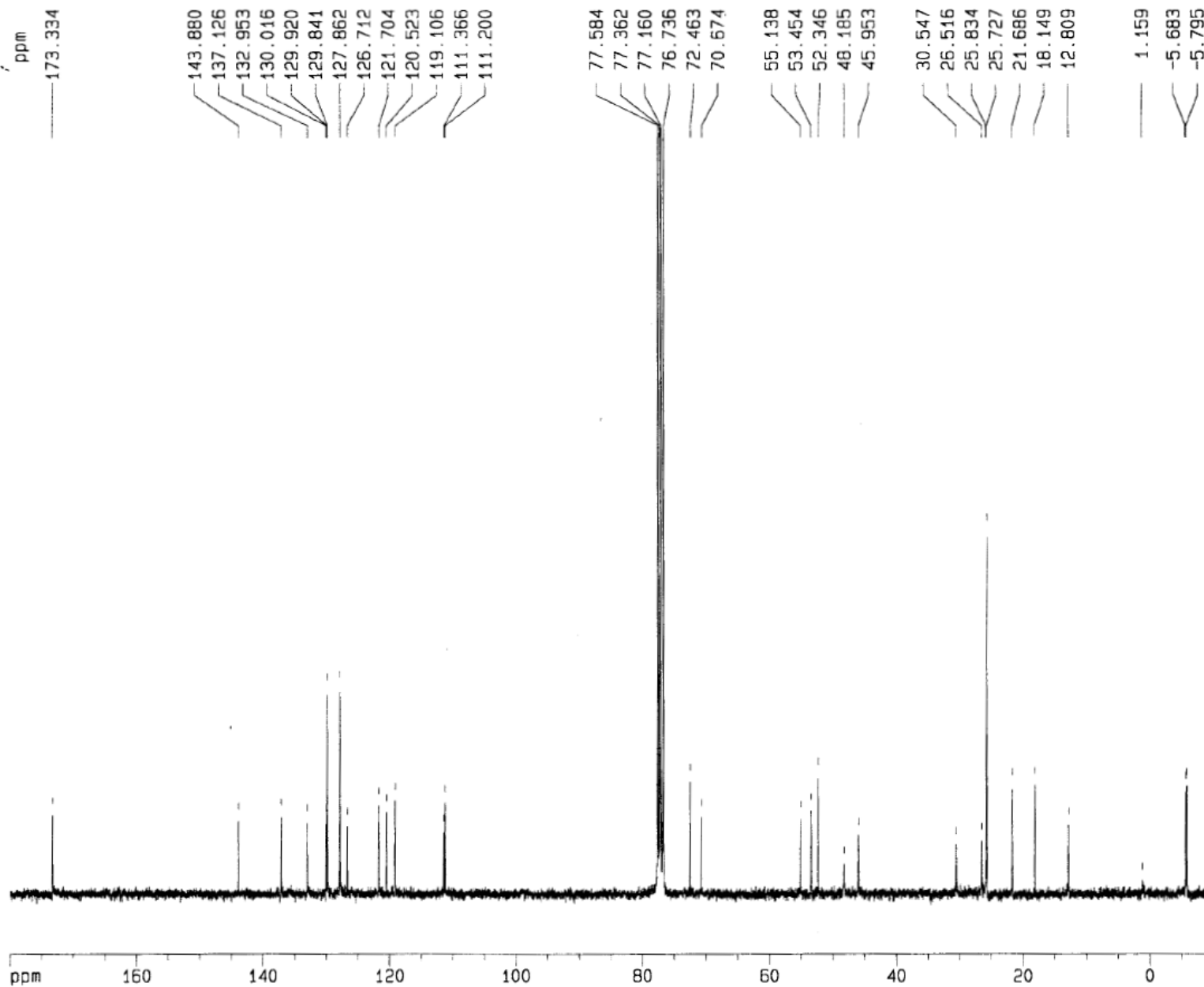
===== CHANNEL f1 =====
NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SF01 400.1324710 MHz

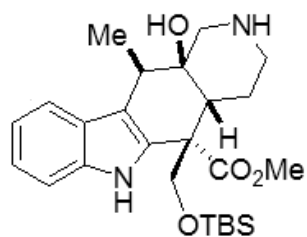
F2 - Processing parameters
SI 32768
SF 400.1300091 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm

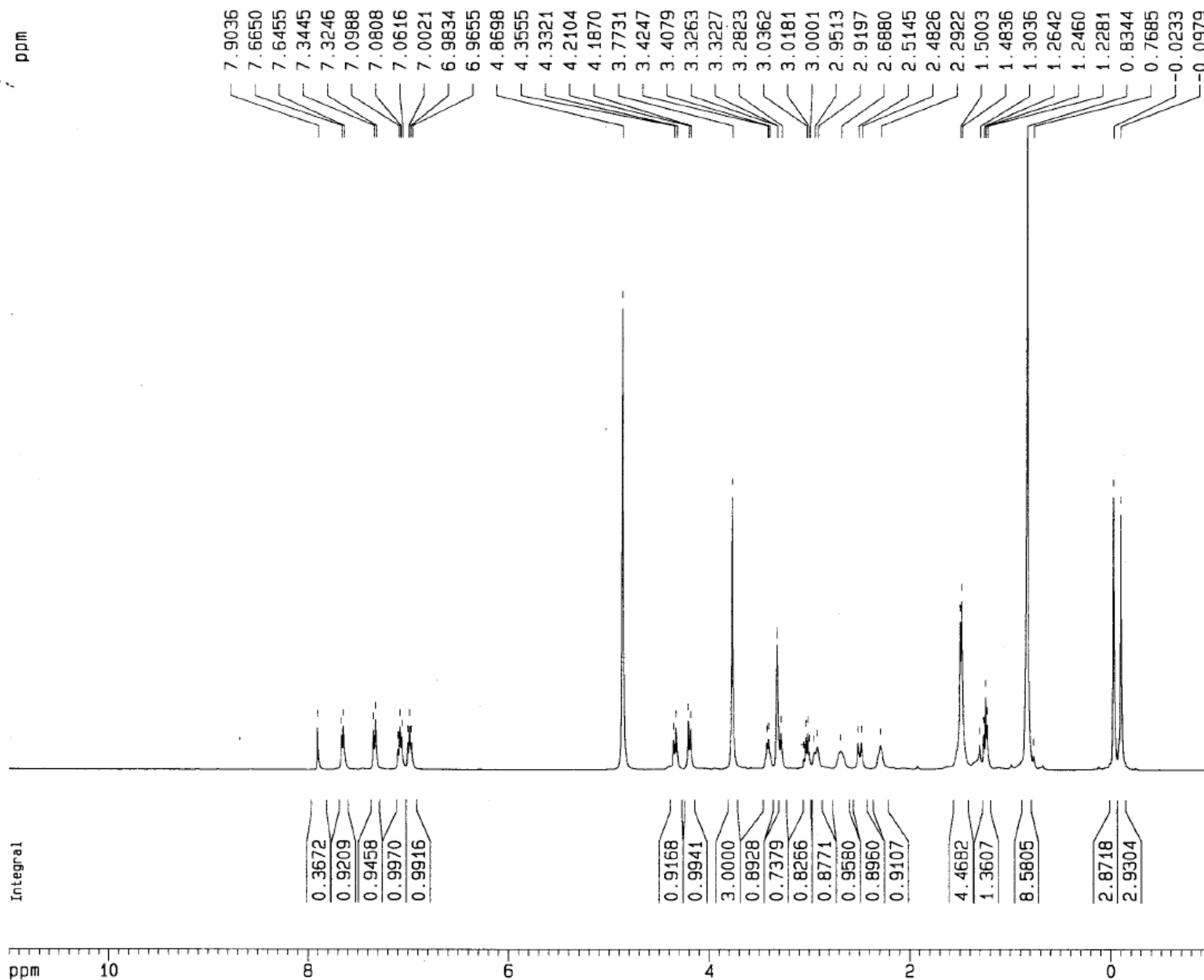
**63**

Current Data Parameters
NAME 090912FJ111296
EXPNO 1





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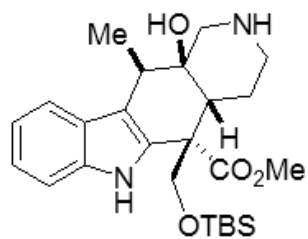
Current Data Parameters
 NAME 091212FJIII299
 EXPNO 3
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120912
 Time 20.11
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT MeOH
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 101.6
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

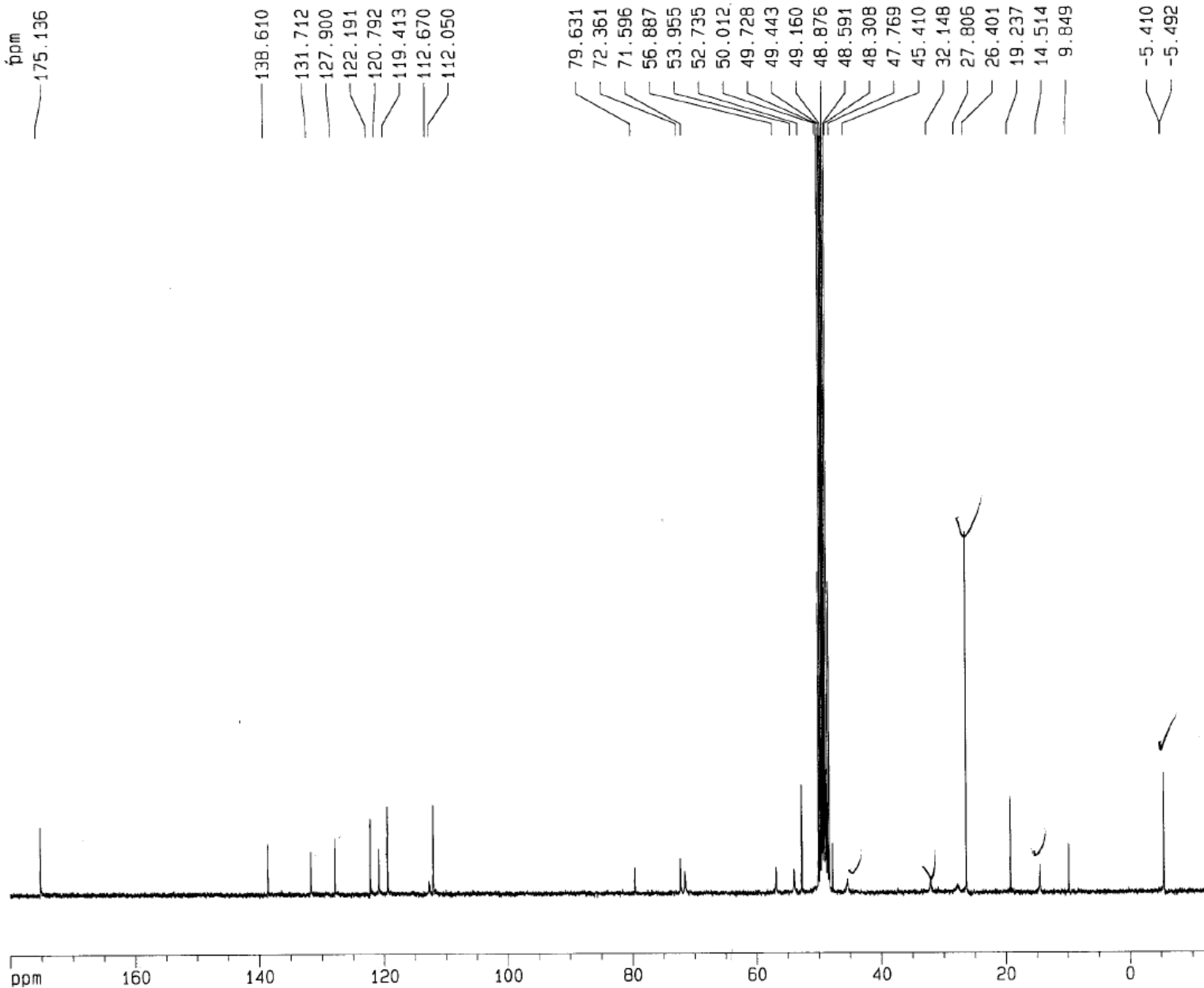
===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300009 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



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Current Data Parameters
 NAME 091312FJII299
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120913
 Time 20.19
 INSTRUM spect
 PROBHD 5 mm GNP 1H/1
 PULPROG zgpg30
 TD 65536
 SOLVENT MeOH
 NS 5720
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 512
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 D12 0.00002000 sec

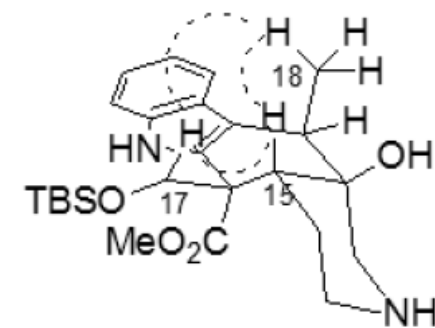
----- CHANNEL f1 -----
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SFO1 75.4106357 MHz

----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SFO2 299.8711995 MHz

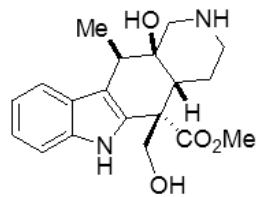
F2 - Processing parameters
 SI 32768
 SF 75.4022561 MHz
 HDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 180.000 ppm
 F1 13572.41 Hz
 F2P -15.000 ppm
 F2 -1131.03 Hz
 PPMCM 9.75000 ppm/cm
 HZCM 735.17212 Hz/cm

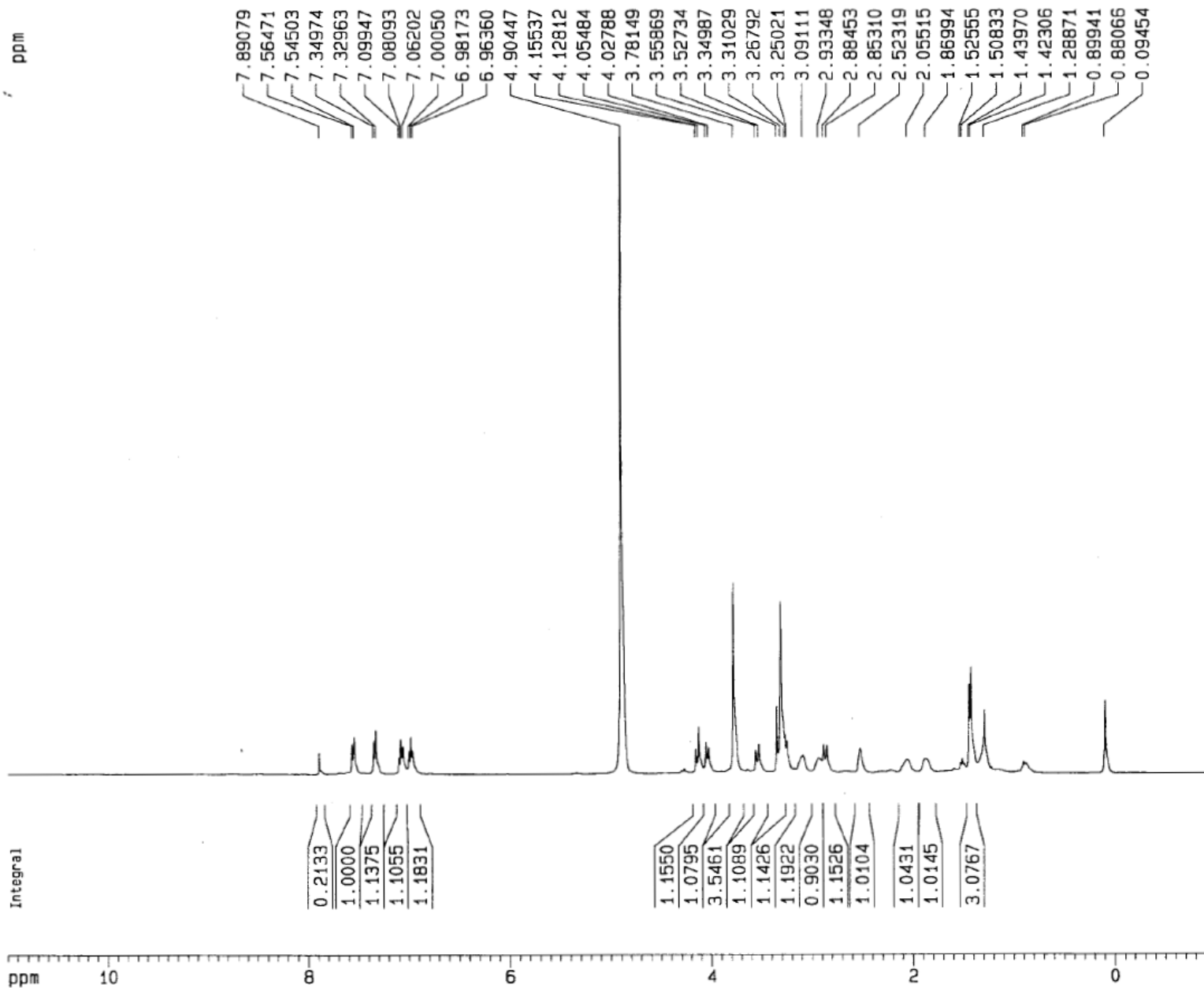
FYQ-III-299 NOESY



Key nOe correlations
for piperidine **64**



(+)-3



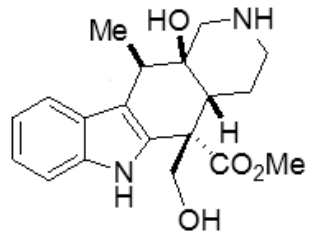
Current Data Parameters
 NAME 092012FJV015
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20120920
 Time 20.21
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT MeOH
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 143.7
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

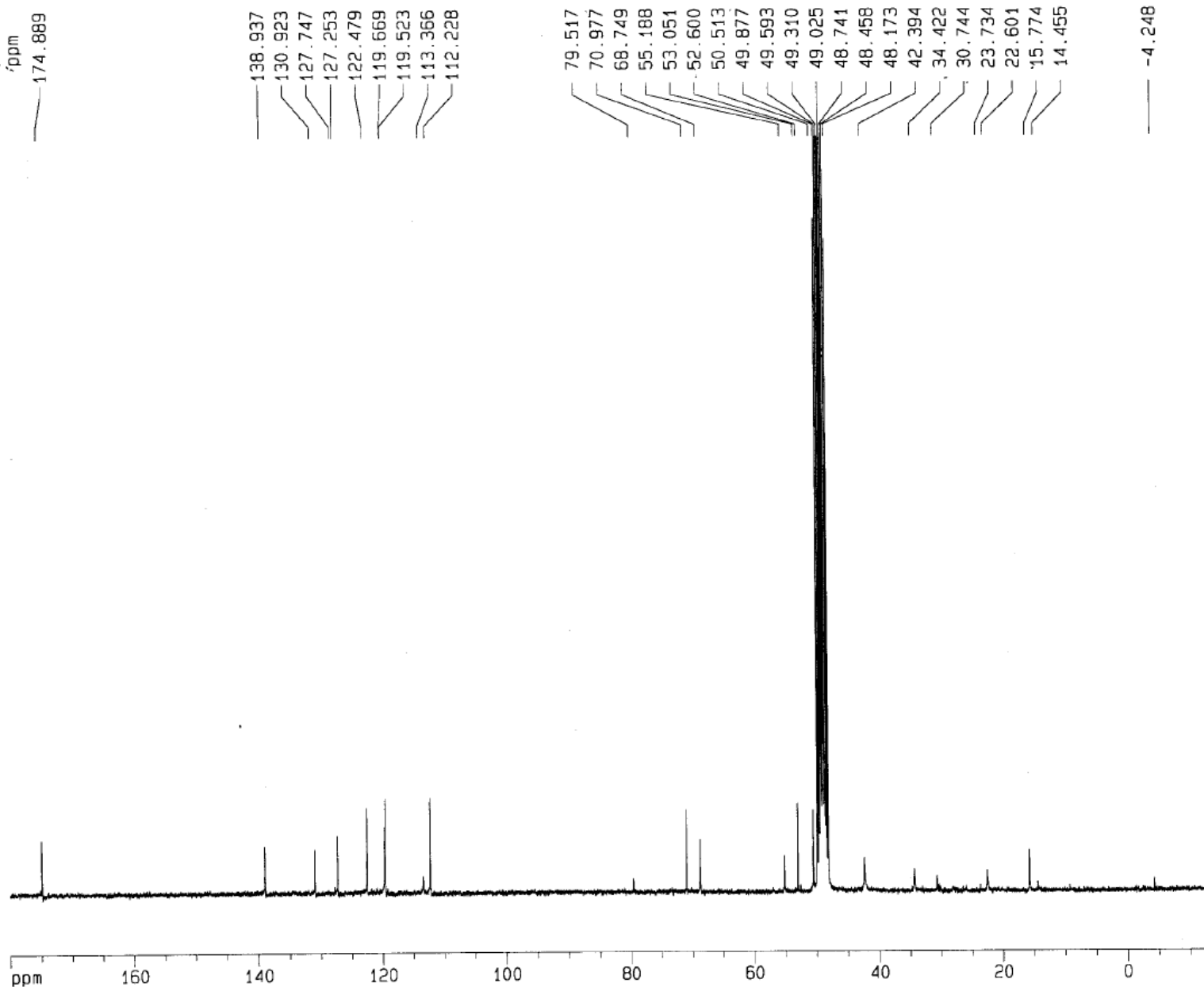
===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300067 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



(+)-3



Current Data Parameters
 NAME 092112FJV015
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20120922
 Time 3.55
 INSTRUM spect
 PROBHD 5 mm QNP 1H/1
 PULPROG zgpg30
 TD 65536
 SOLVENT MeOH
 NS 11264
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 8192
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 D12 0.00002000 sec

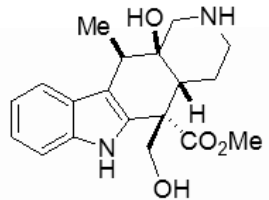
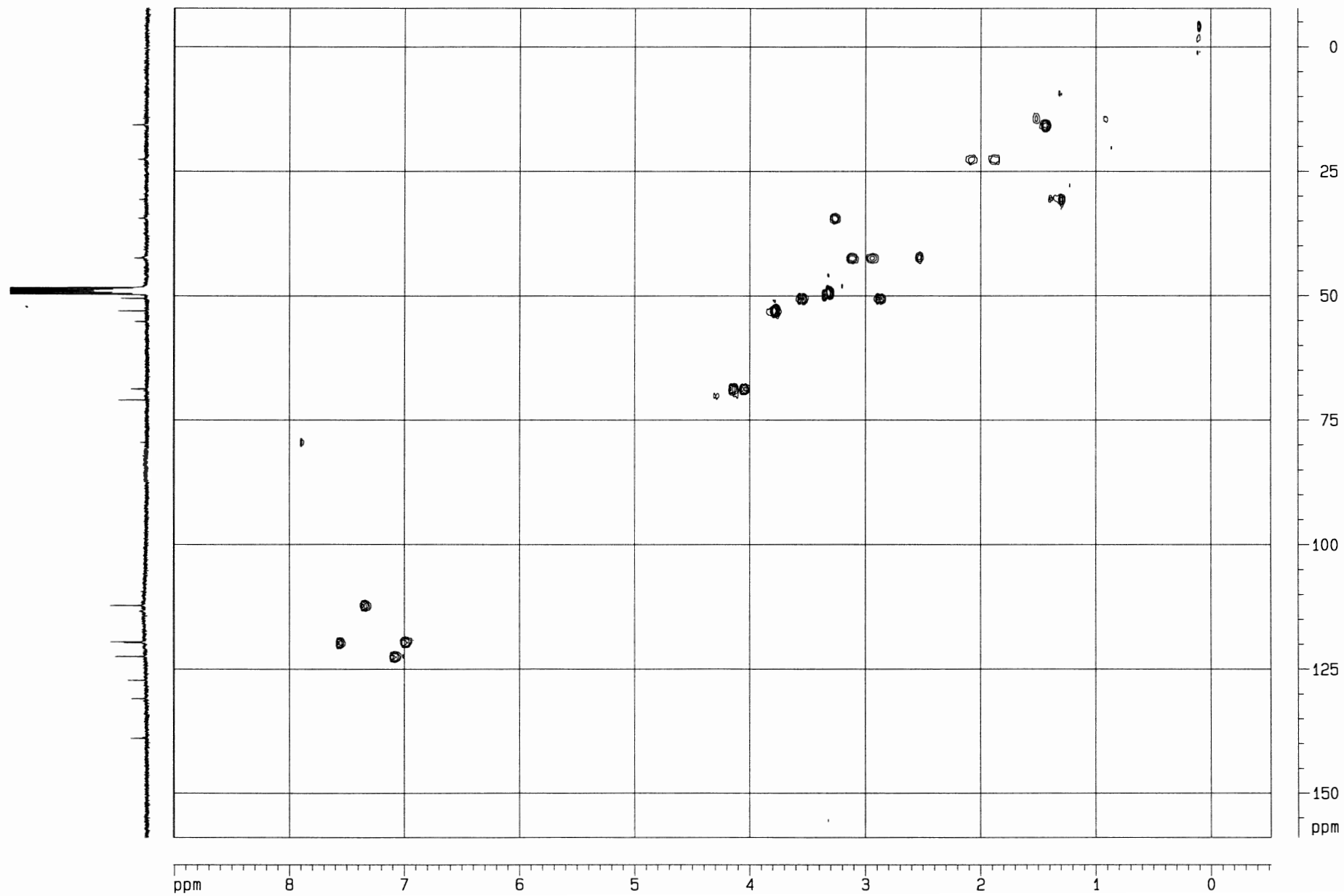
----- CHANNEL f1 -----
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SF01 75.4106357 MHz

----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SF02 299.8711995 MHz

F2 - Processing parameters

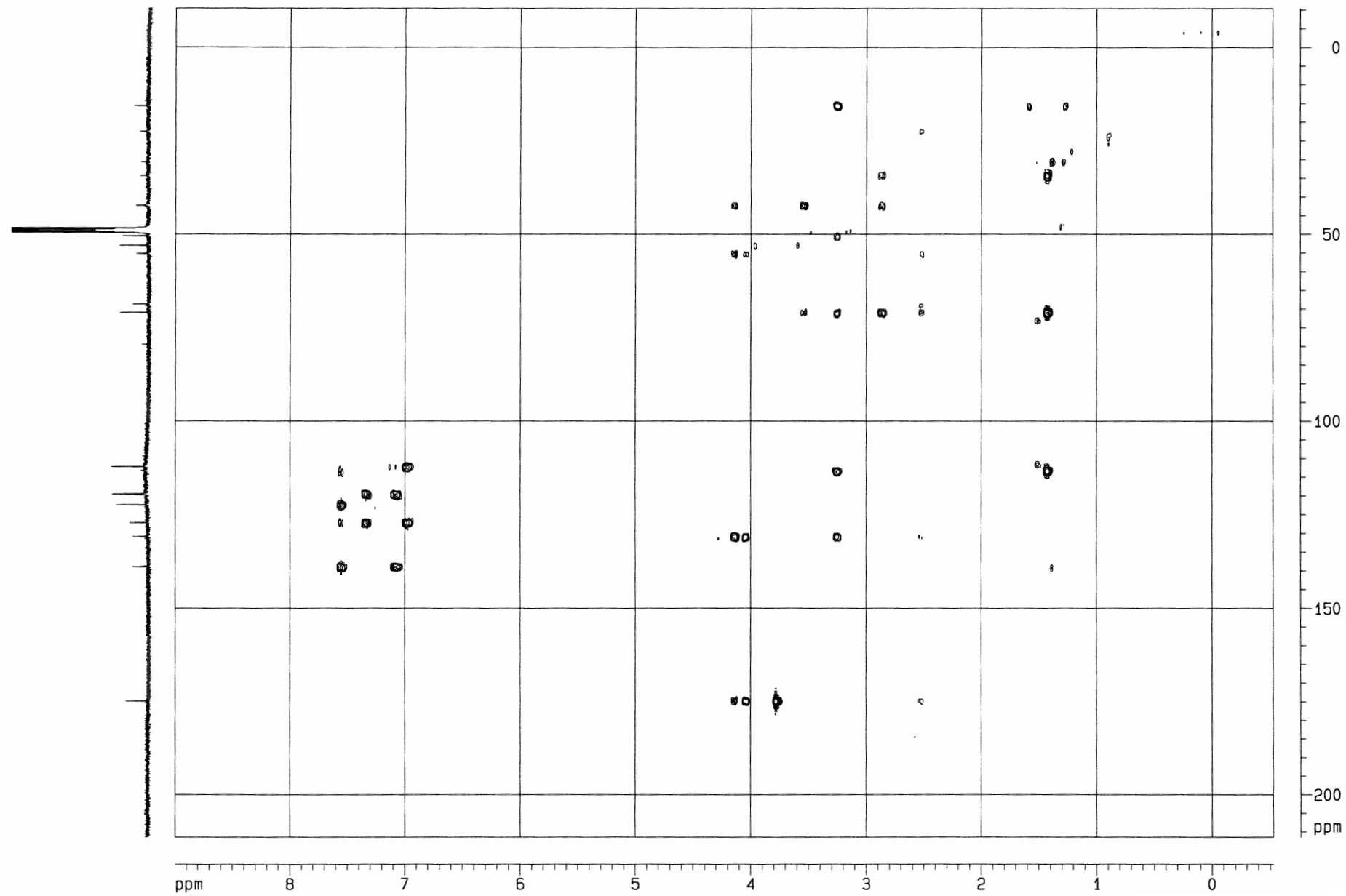
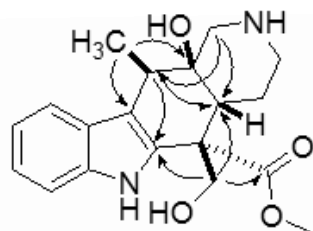
SI 32768
 SF 75.4022676 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 180.000 ppm
 F1 13572.41 Hz
 F2P -15.000 ppm
 F2 -1131.03 Hz
 PPMCM 9.75000 ppm/cm
 HZCM 735.17218 Hz/cm

**(±)-3**

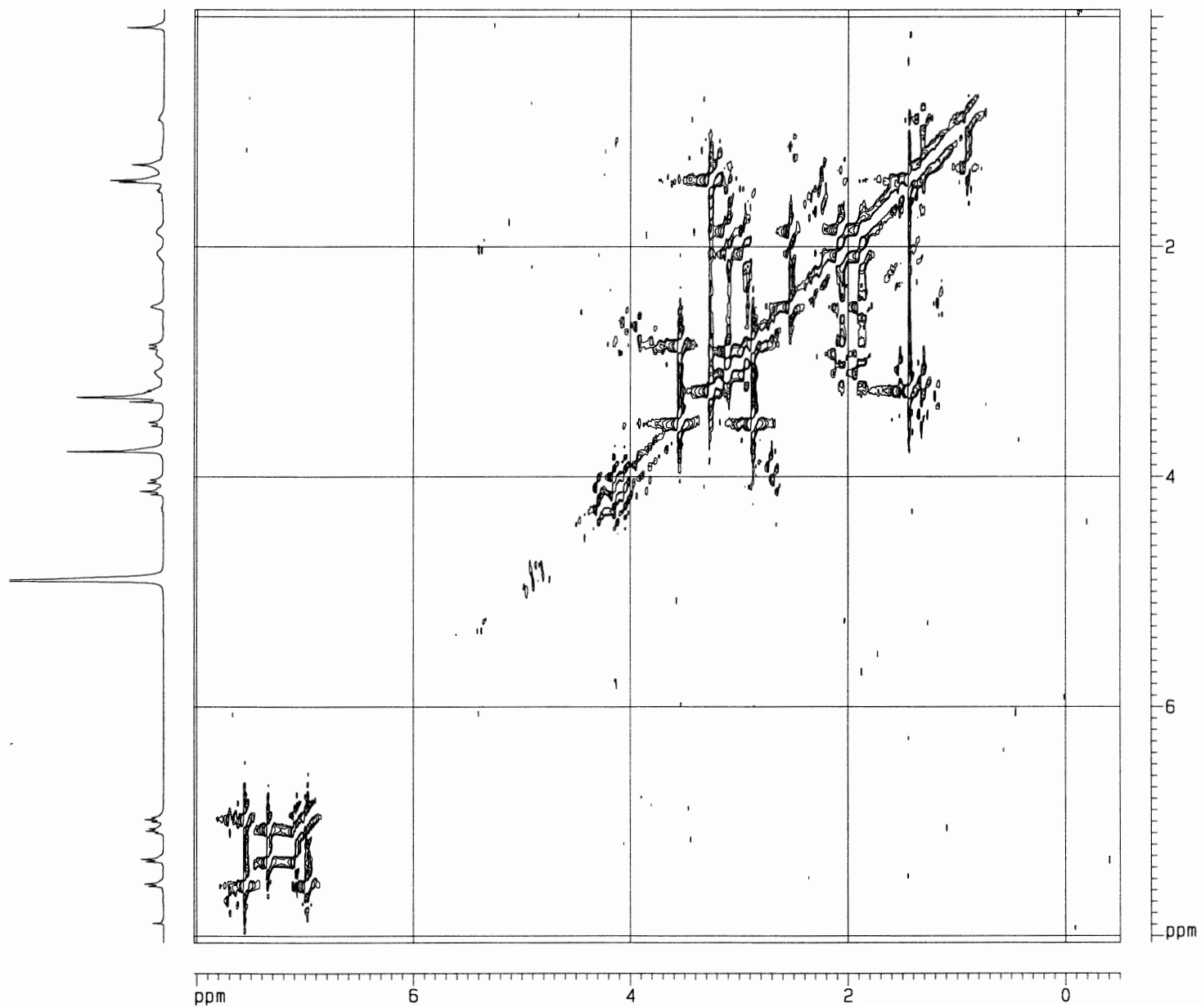
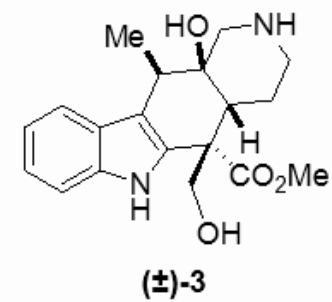
Selected HMBC correlations
for alstilobanine A ((±)-3)

FYQ-V-015 HMBC d4-MeOD

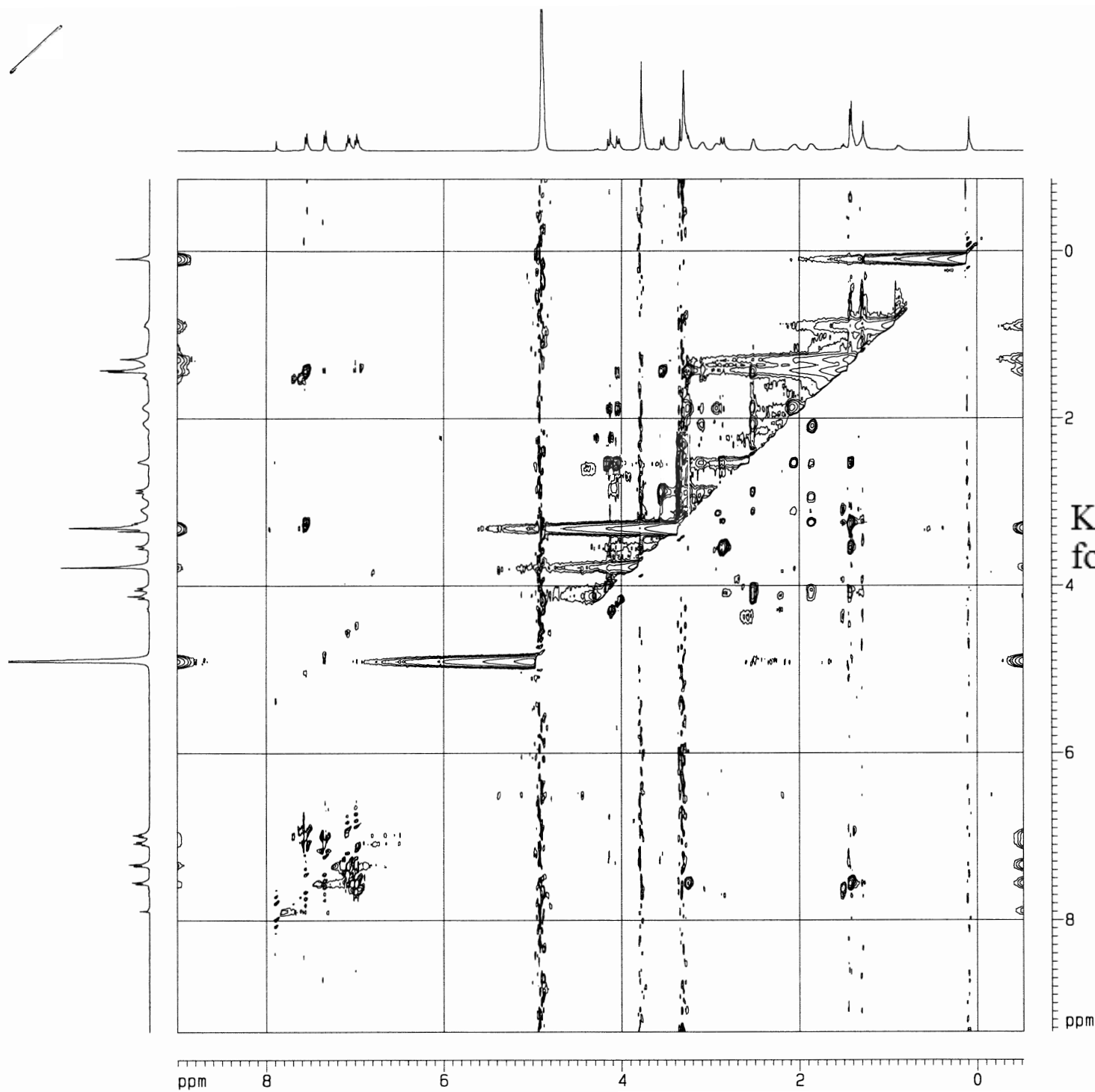


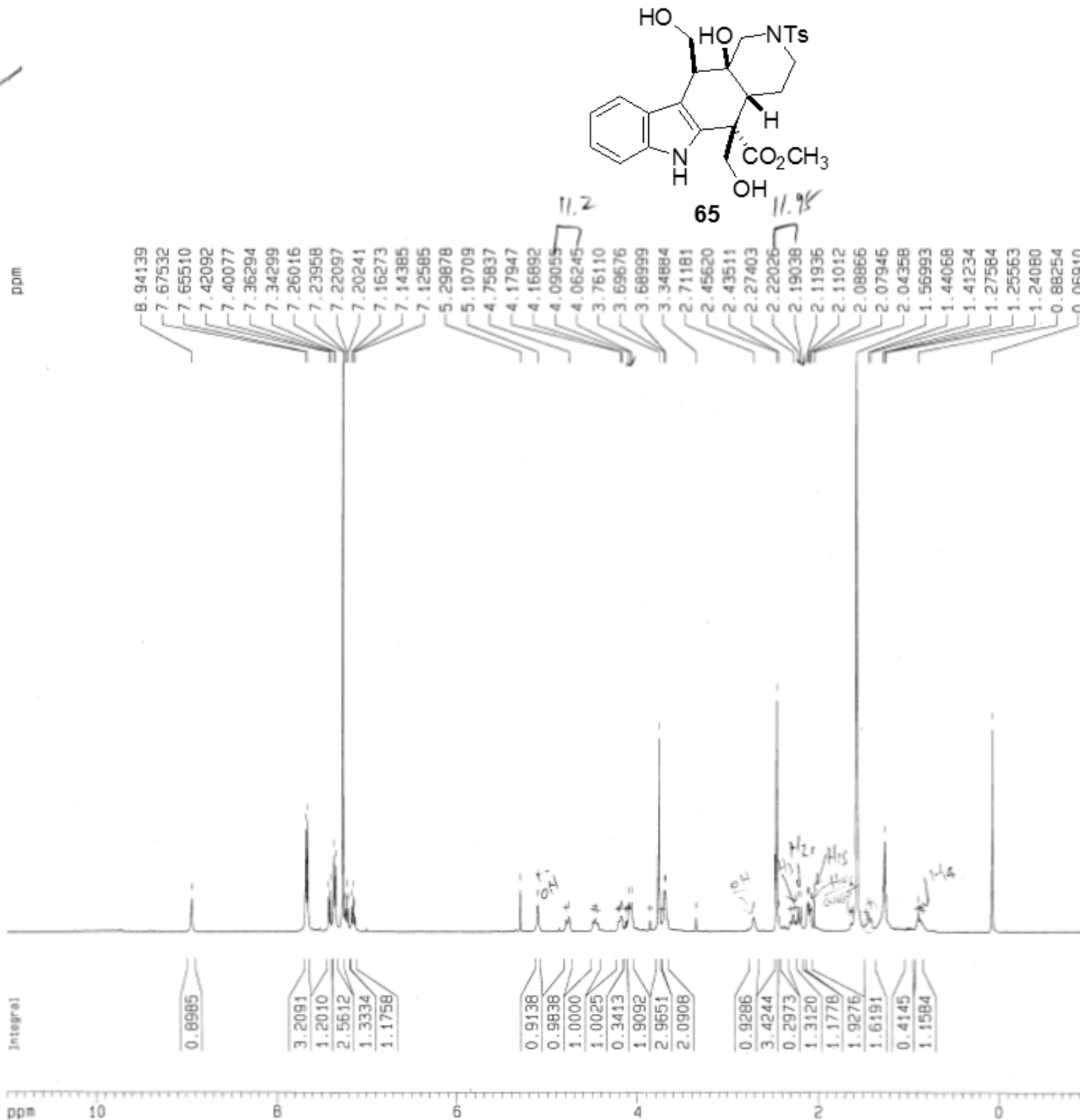
S81

FYQ-V-015 COSY d4-MeOD



FYQ-V-015 NOESY d4-MeOD





Current Data Parameters

NAME 081011FJ11-071
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters

Date_ 20110610
 Time 23.44
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 512
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----

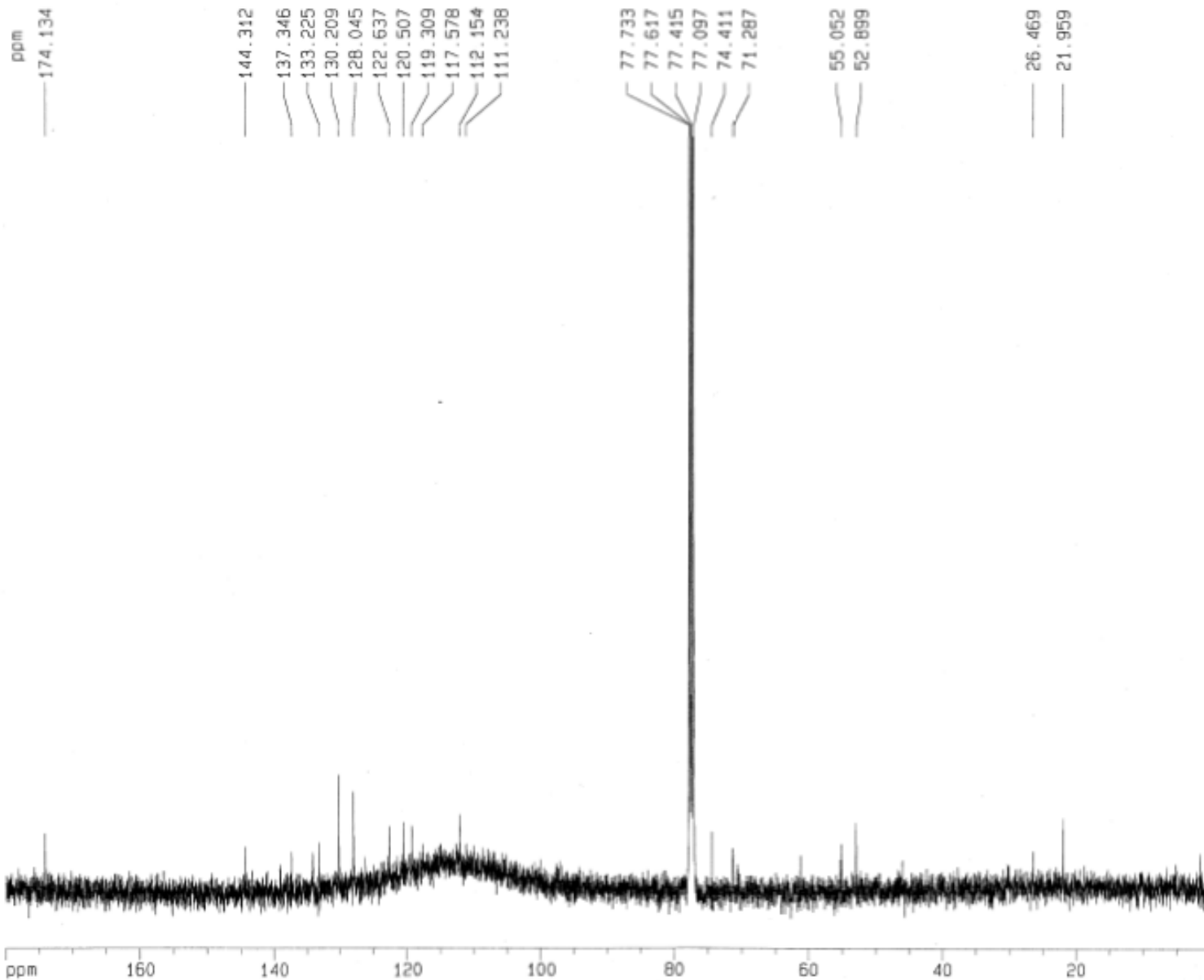
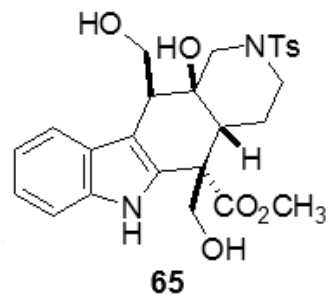
NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters

SI 32768
 SF 400.1300091 MHz
 MDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters

CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
 NAME 081011FJ11-071
 EXPNO 2
 PROCNO 1

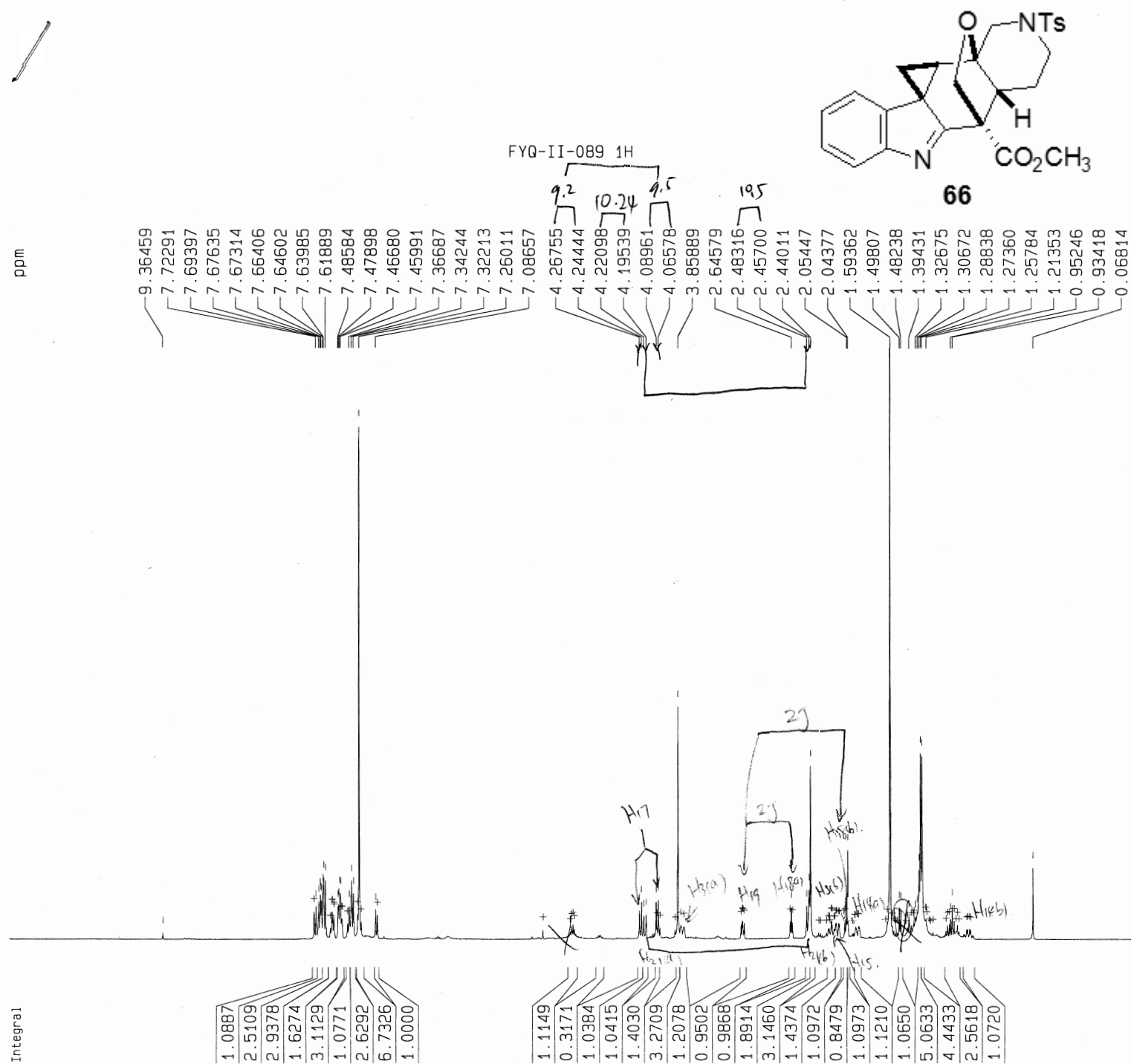
F2 - Acquisition Parameters
 Date_ 20110811
 Time 7.23
 INSTRUM spect
 PROBHD 5 mm BBI 5H-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 8192
 DS 4
 SMH 25125.629 Hz
 FIDRES 0.383387 Hz
 AQ 1.3042164 sec
 RG 6502
 DM 19.900 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 d12 0.00002000 sec

***** CHANNEL f1 *****
 NUC1 13C
 P1 16.35 usec
 PL1 -6.00 dB
 SF01 100.6237959 MHz

***** CHANNEL f2 *****
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 114.00 usec
 PL2 0.00 dB
 PL12 24.00 dB
 PL13 24.00 dB
 SF02 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127290 MHz
 WDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 180.000 ppm
 F1 18110.29 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PRMCH 9.00000 ppm/cm
 HZCM 905.51459 Hz/cm



Current Data Parameters
 NAME 081811FJII-089
 EXPNO 2
 PROCNO 1

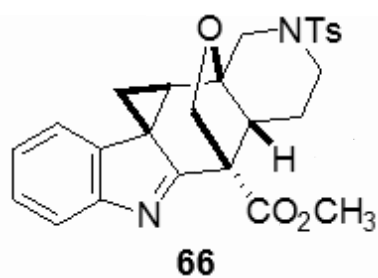
F2 - Acquisition Parameters
 Date_ 20110818
 Time 22.19
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 456.1
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300091 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm

FYQ-II-089 C13



ppm

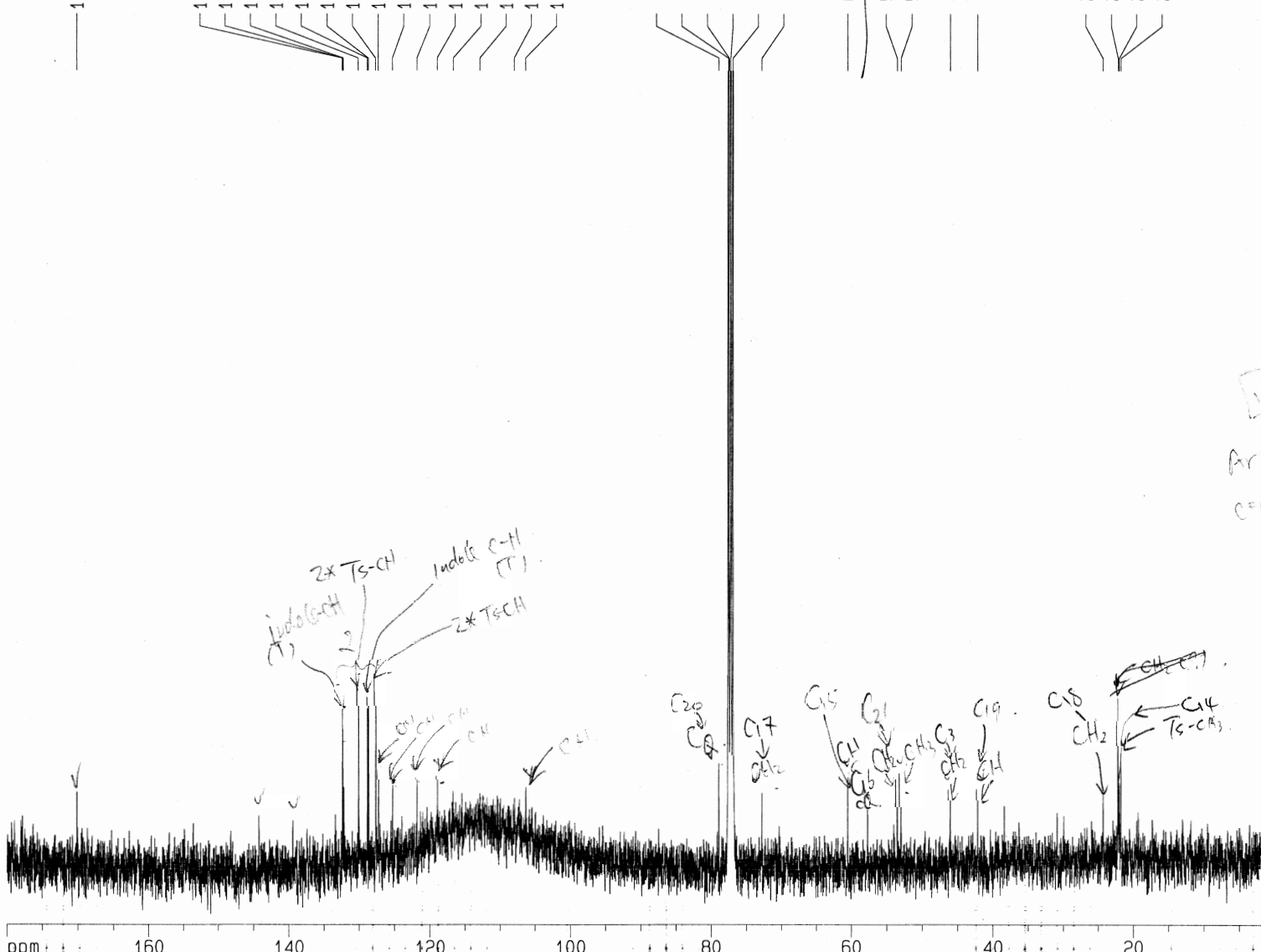
170.150

132.369
132.270
132.170
130.073
128.782
128.661
127.652
127.254
125.247
121.782
118.936
116.644
112.848
107.943
106.306

78.916
77.547
77.434
77.230
76.912
72.808

60.512
53.489
52.951
46.007
42.161

24.313
22.166
22.022
21.760



Current Data Parameters
NAME 081811FJII-089
EXPNO 7
PROCNO 1

F2 - Acquisition Parameters
Date_ 20110819
Time 8.49
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 6849
DS 4
SWH 25125.629 Hz
FIDRES 0.383387 Hz
AQ 1.3042164 sec
RG 16384
DW 19.900 usec
DE 6.00 usec
TE 300.0 K
D1 2.00000000 sec
d11 0.03000000 sec
d12 0.00002000 sec

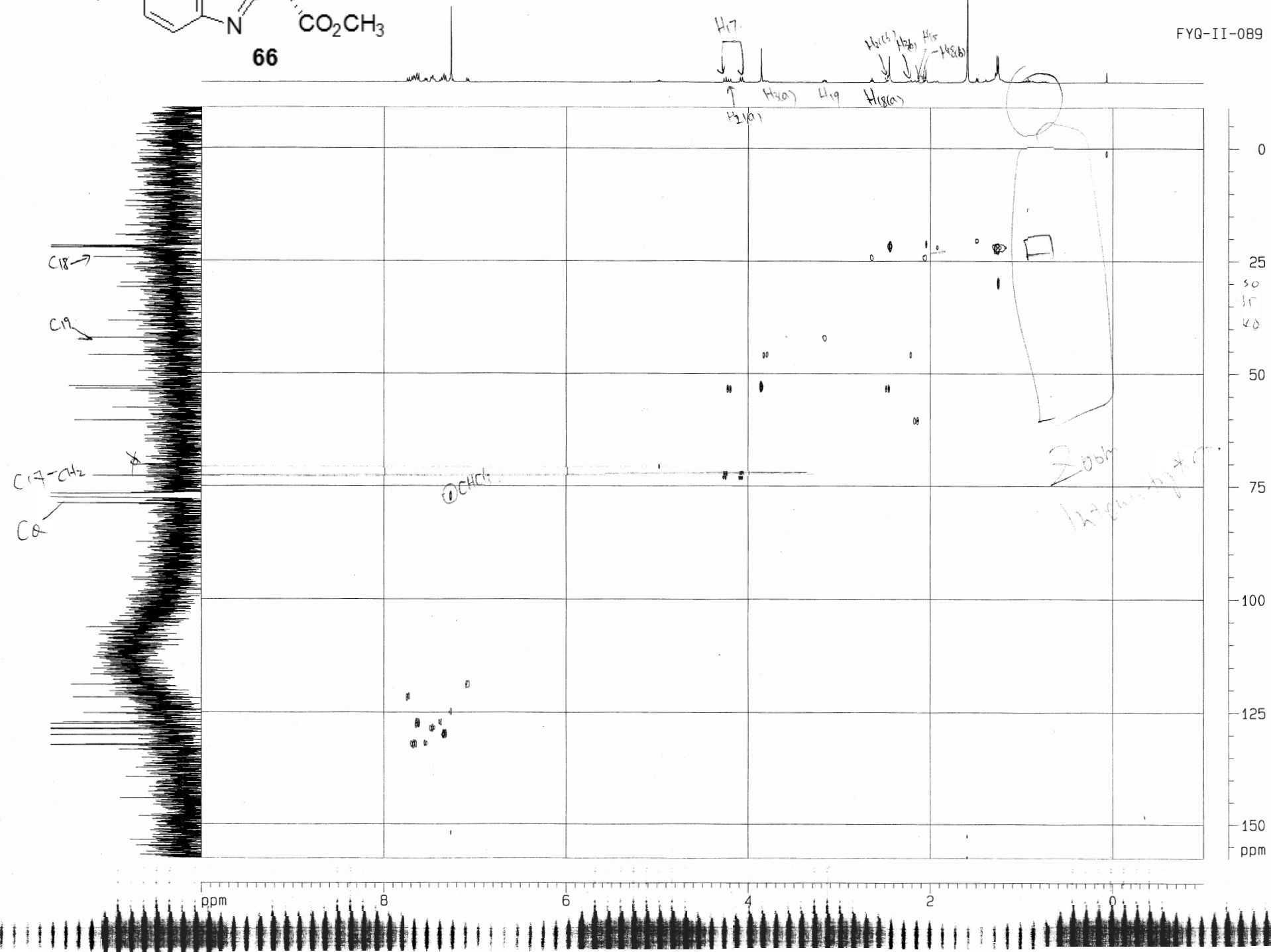
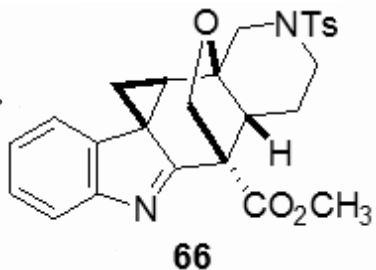
===== CHANNEL f1 =====
NUC1 13C
P1 16.35 usec
PL1 -6.00 dB
SF01 100.6237959 MHz

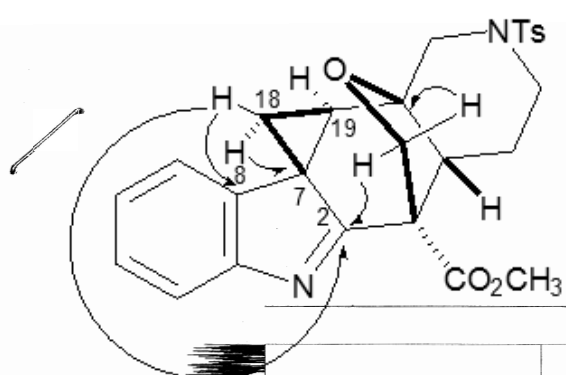
===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 114.00 usec
PL2 0.00 dB
PL12 24.00 dB
PL13 24.00 dB
SF02 400.1316005 MHz

F2 - Processing parameters
SI 32768
SF 100.6127476 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

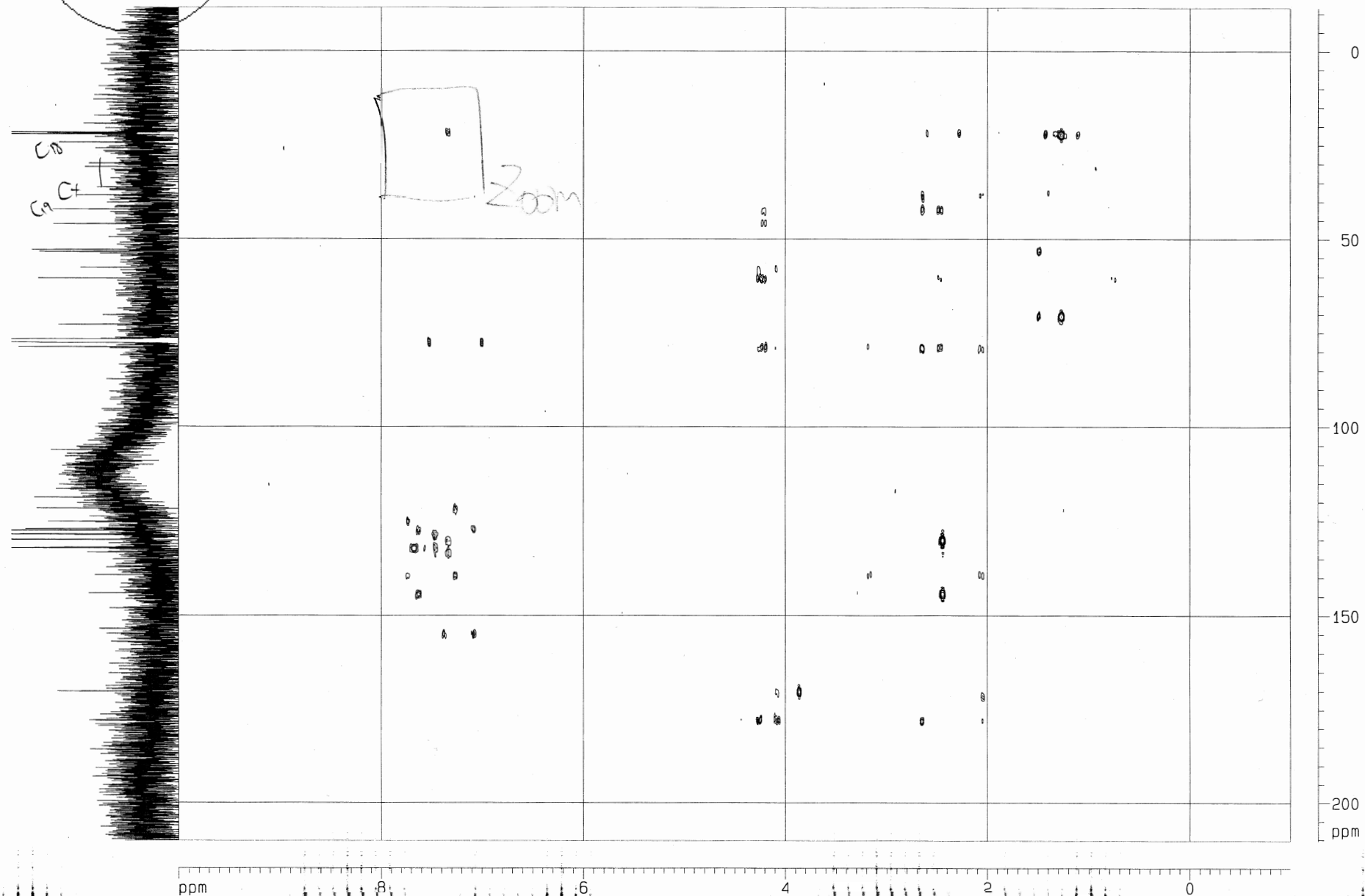
1D NMR plot parameters
CX 20.00 cm
F1P 180.000 ppm
F1 18110.29 Hz
F2P 0.000 ppm
F2 0.00 Hz
PPMCM 9.00000 ppm/cm
HZCM 905.51471 Hz/cm

111
Ar. 12
C=O

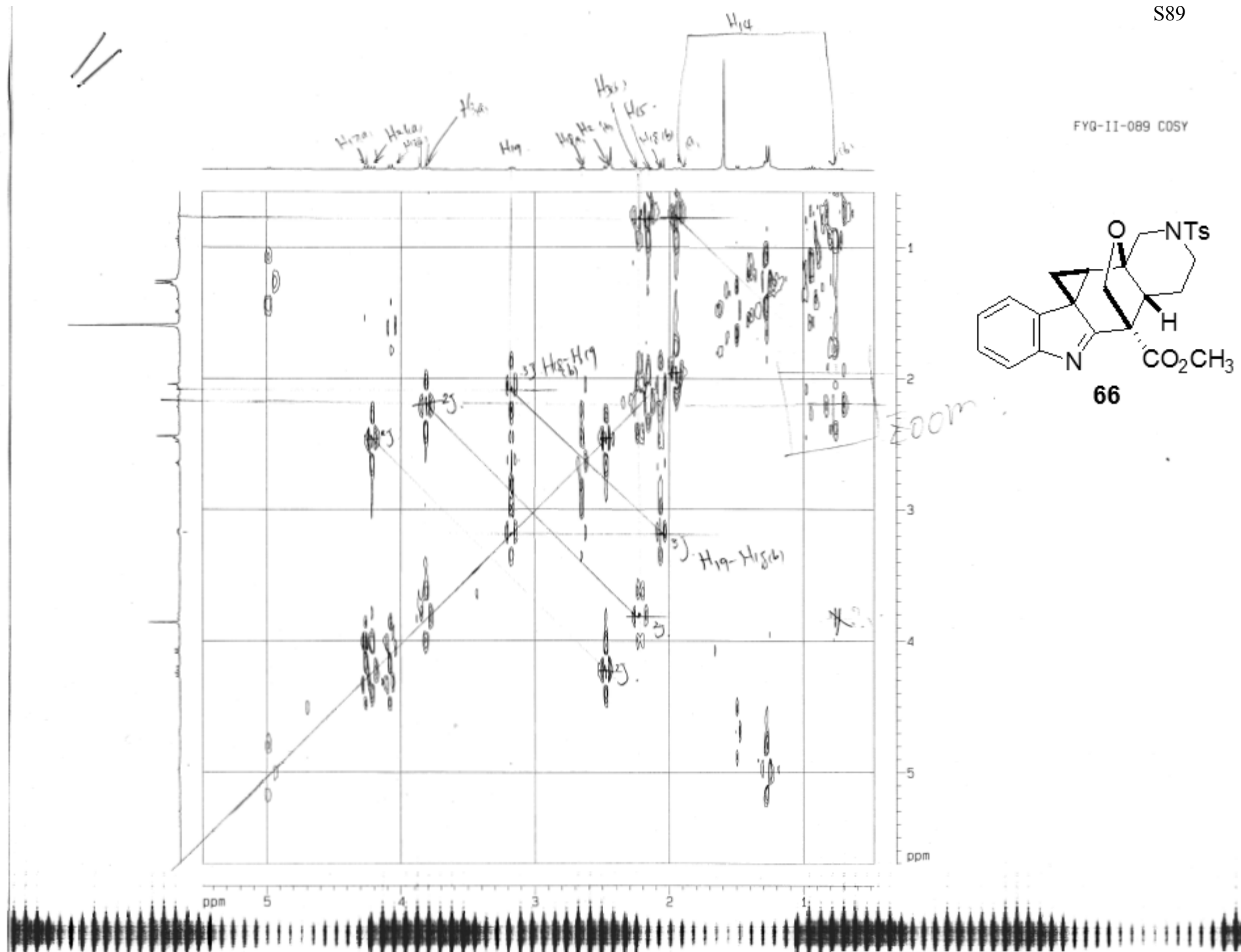




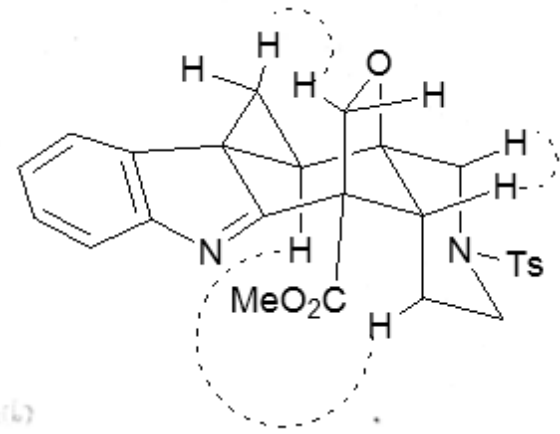
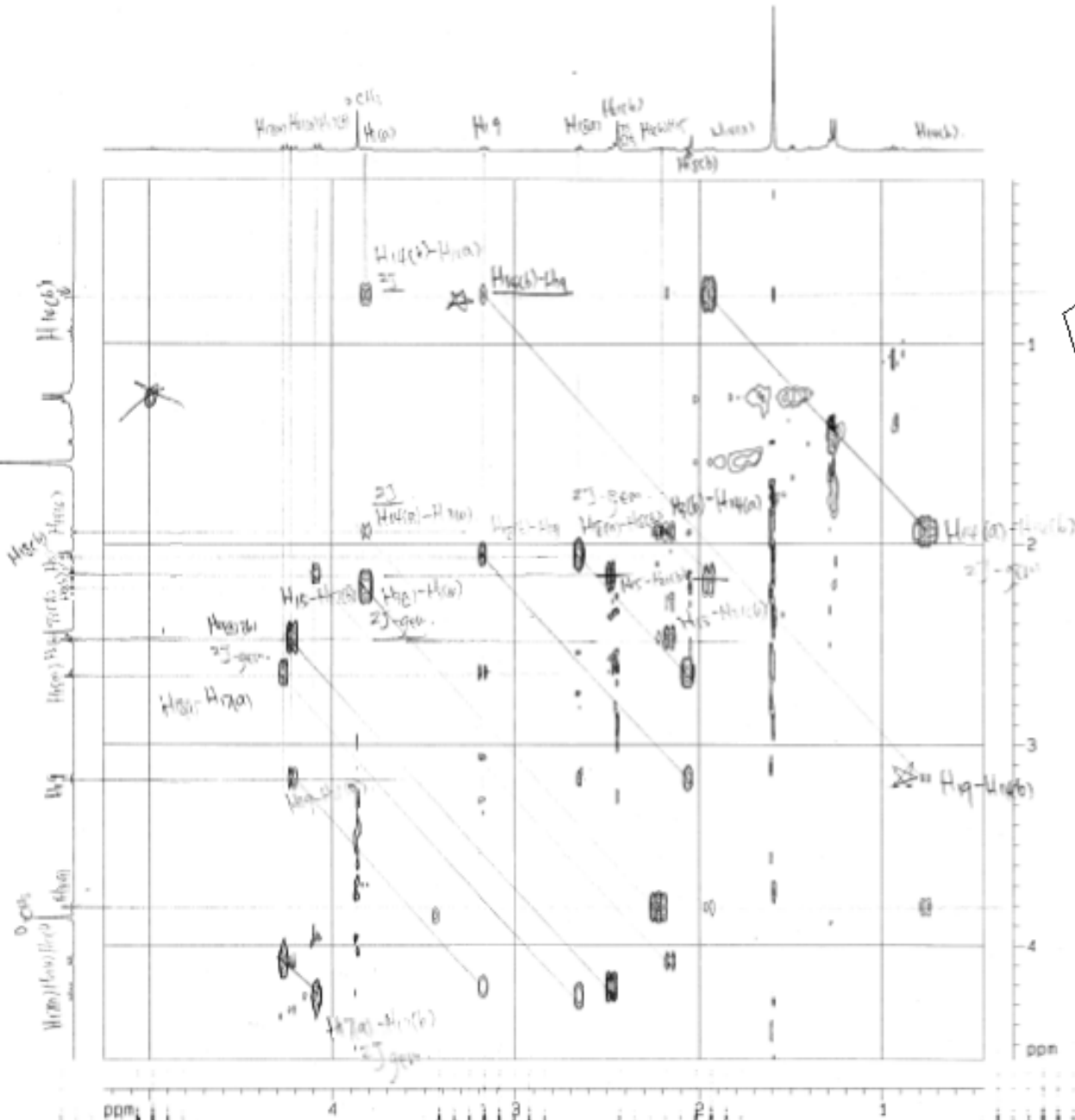
Key HMBC Correlations
for cyclopropane 66



FYQ-II-089 COSY

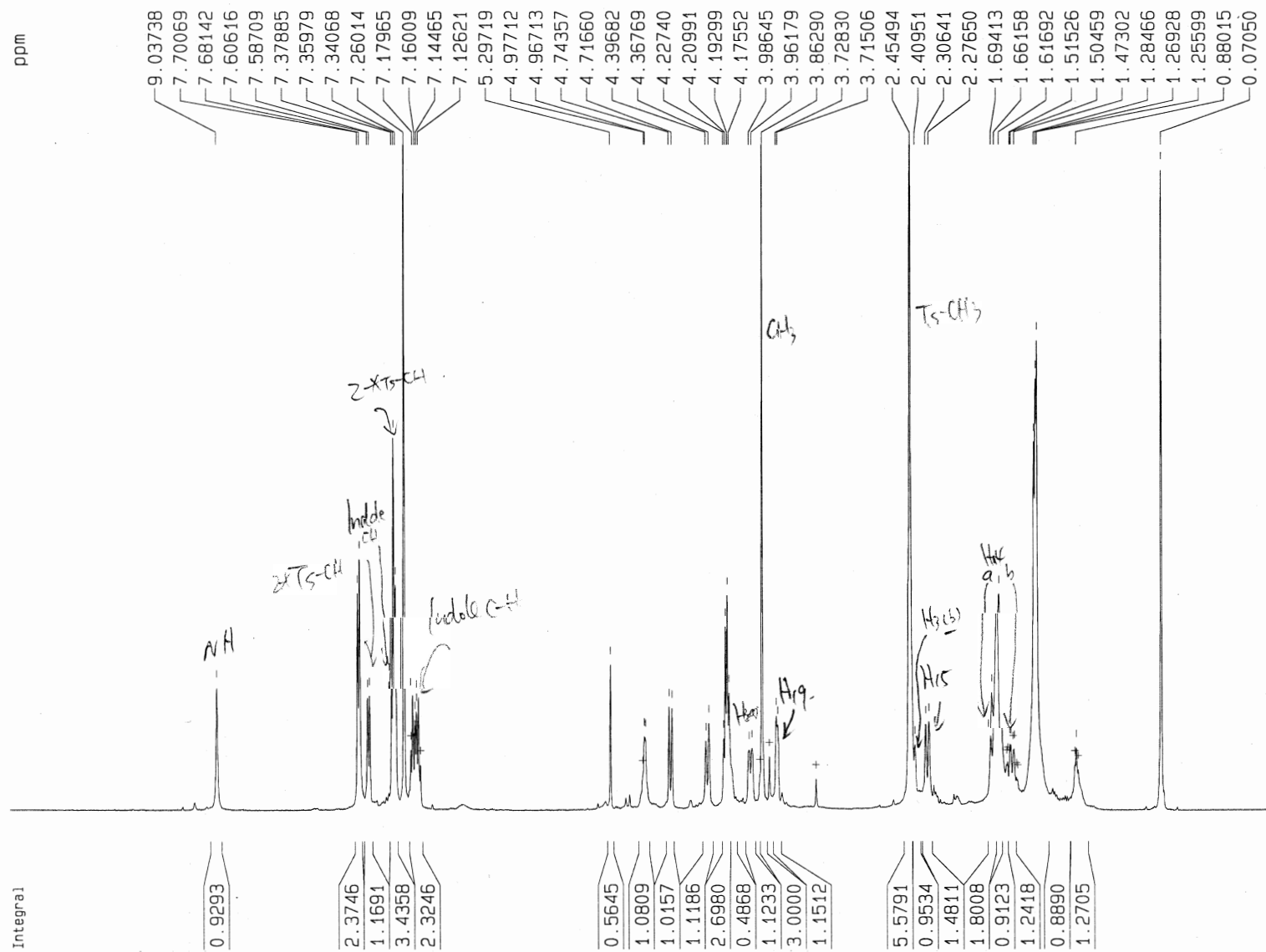
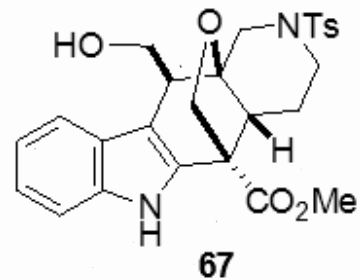


FYQ-II-089 NOESY



----- :Key nOe
Correlations for 66
double chair

FYQ-II-096100101 1H



Current Data Parameters
NAME 082411FJII-096
EXPNO 2
PROCNO 1

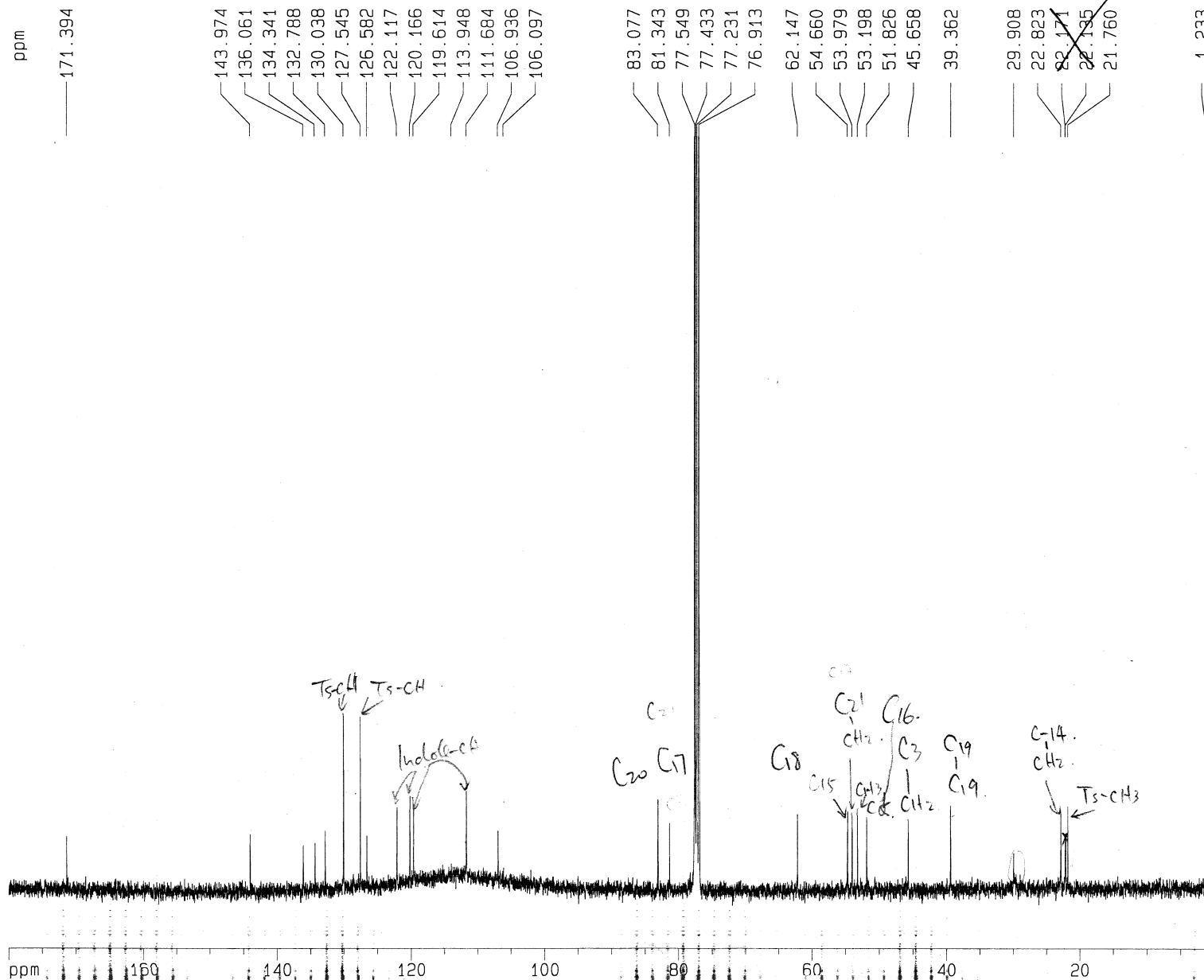
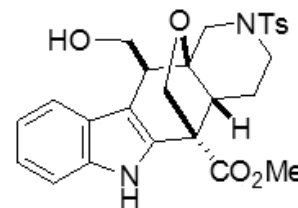
F2 - Acquisition Parameters
Date_ 20110824
Time 19.08
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 203.2
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SFO1 400.1324710 MHz

F2 - Processing parameters
SI 32768
SF 400.1300091 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm

FYQ-II-096100101 C13 8k



Current Data Parameters
 NAME 082411FJII-096
 EXPNO 7
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20110825
 Time 6.53
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 8192
 DS 4
 SWH 25125.629 Hz
 FIDRES 0.383387 Hz
 AQ 1.3042164 sec
 RG 16384
 DW 19.900 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 d12 0.00002000 sec

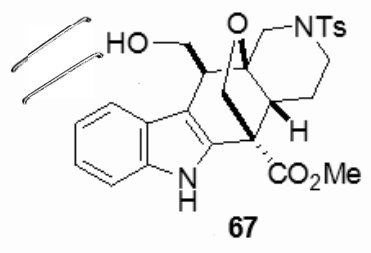
===== CHANNEL f1 =====
 NUC1 13C
 P1 16.35 usec
 PL1 -6.00 dB
 SF01 100.6237959 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 114.00 usec
 PL2 0.00 dB
 PL12 24.00 dB
 PL13 24.00 dB
 SF02 400.1316005 MHz

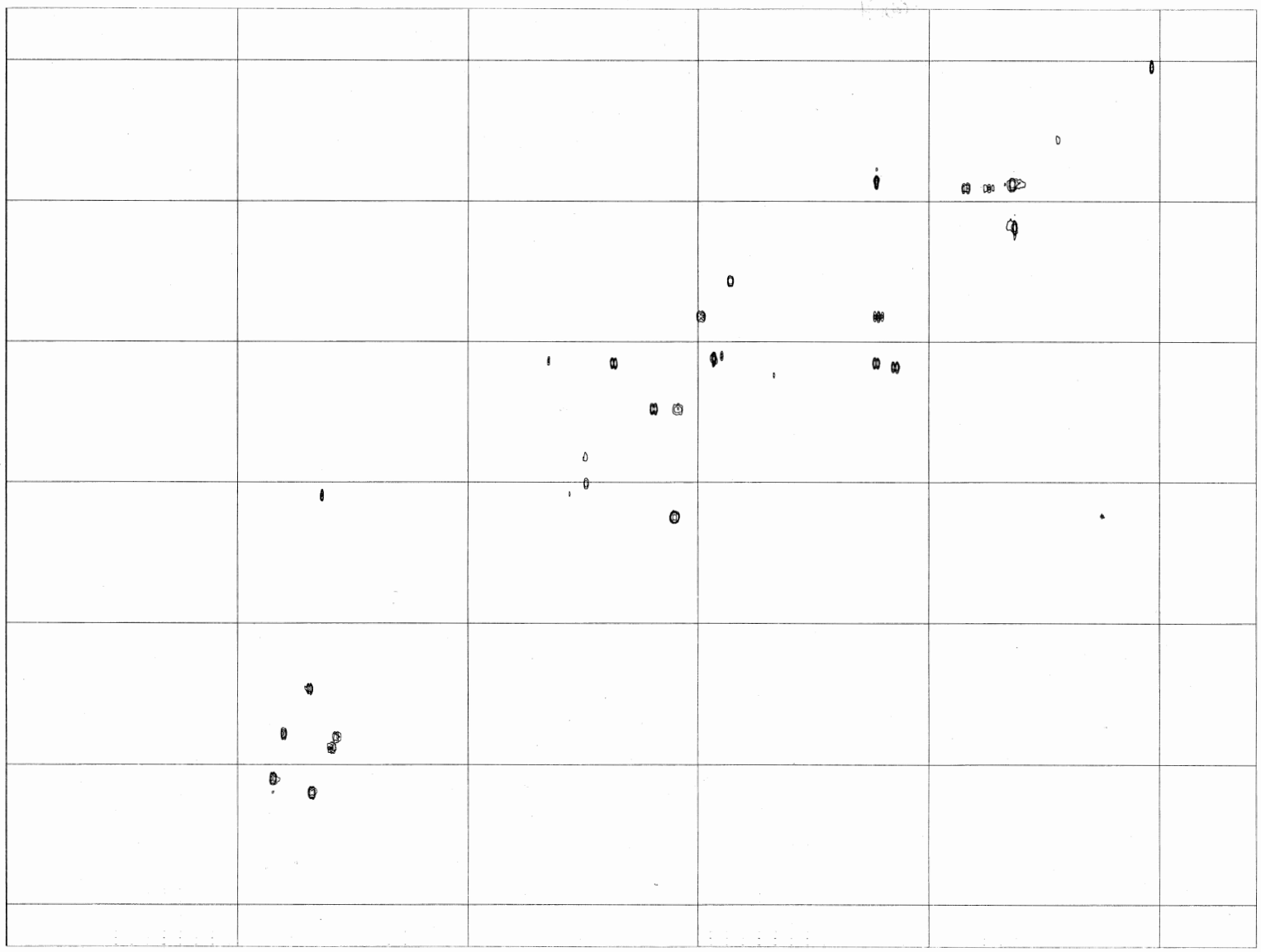
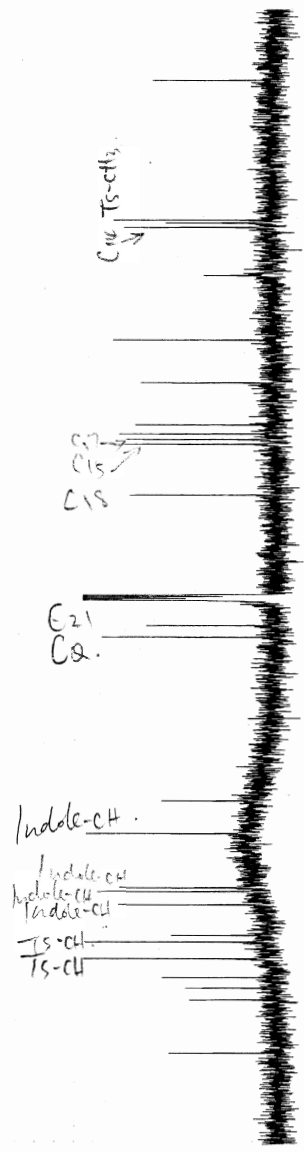
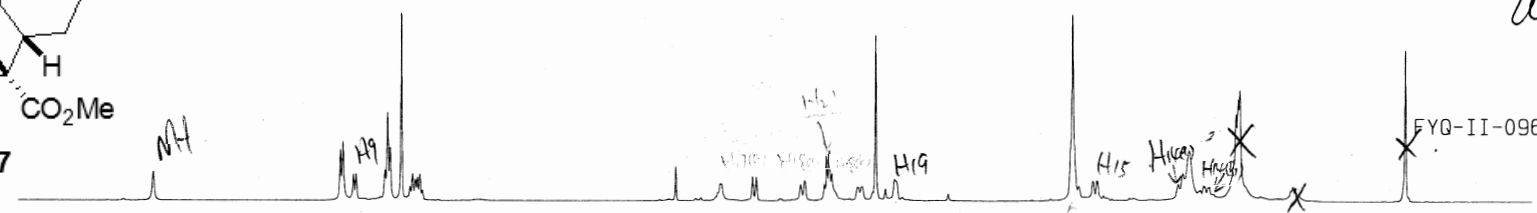
F2 - Processing parameters
 SI 32768
 SF 100.6127484 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 180.000 ppm
 F1 18110.29 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 9.00000 ppm/cm
 HZCM 805.51272 Hz/cm

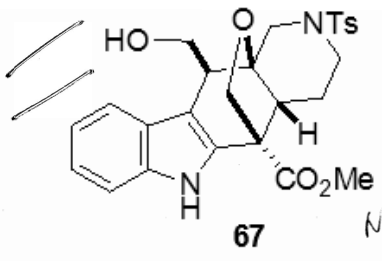
at 93



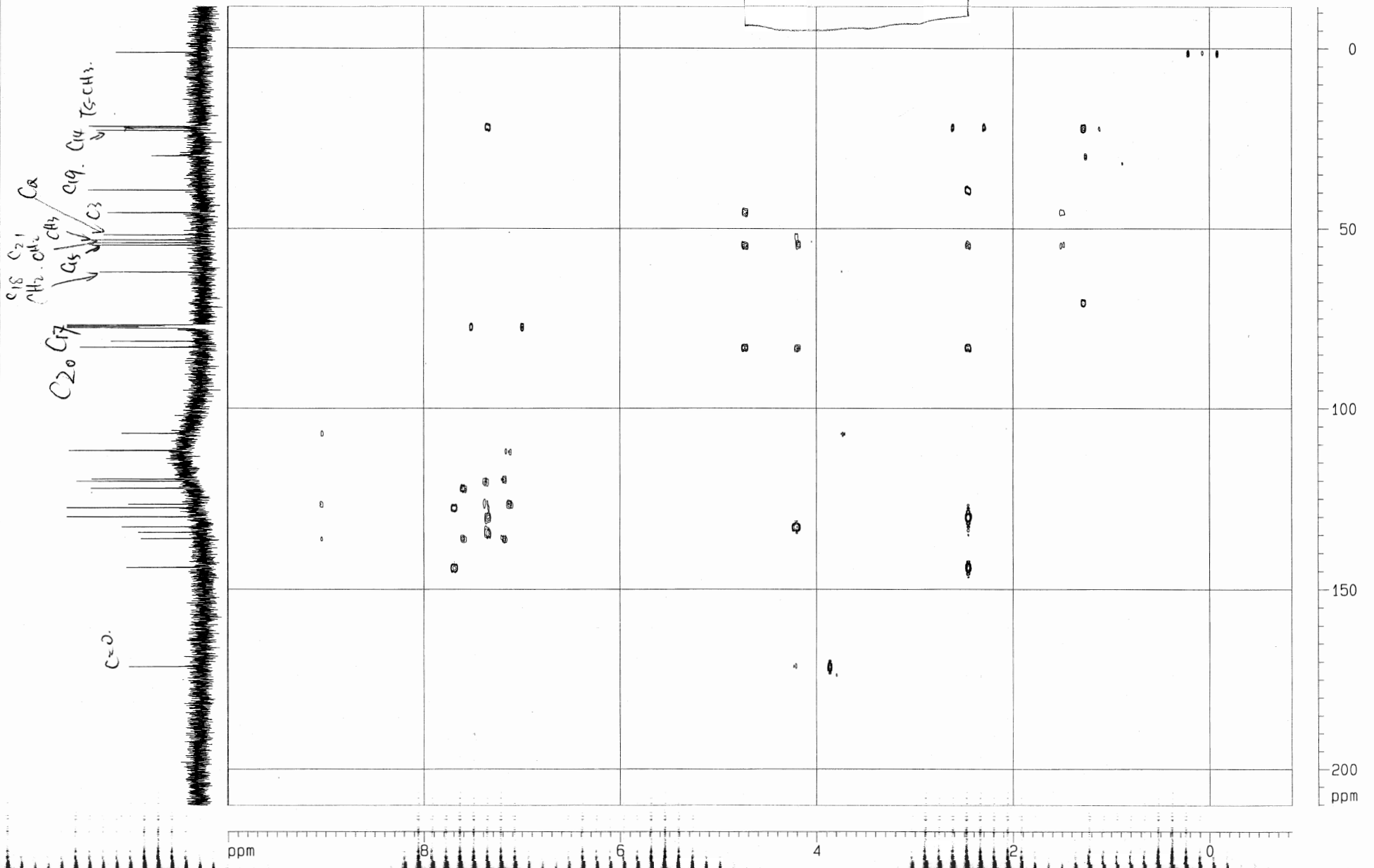
FYQ-II-096100101 HMQC



alt 894



FYQ-II-096100101 HMBC

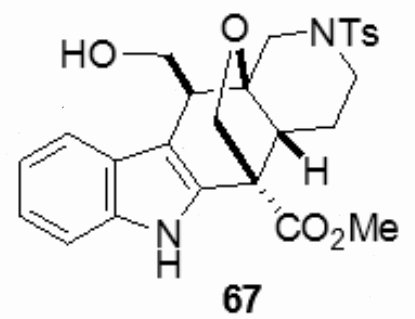
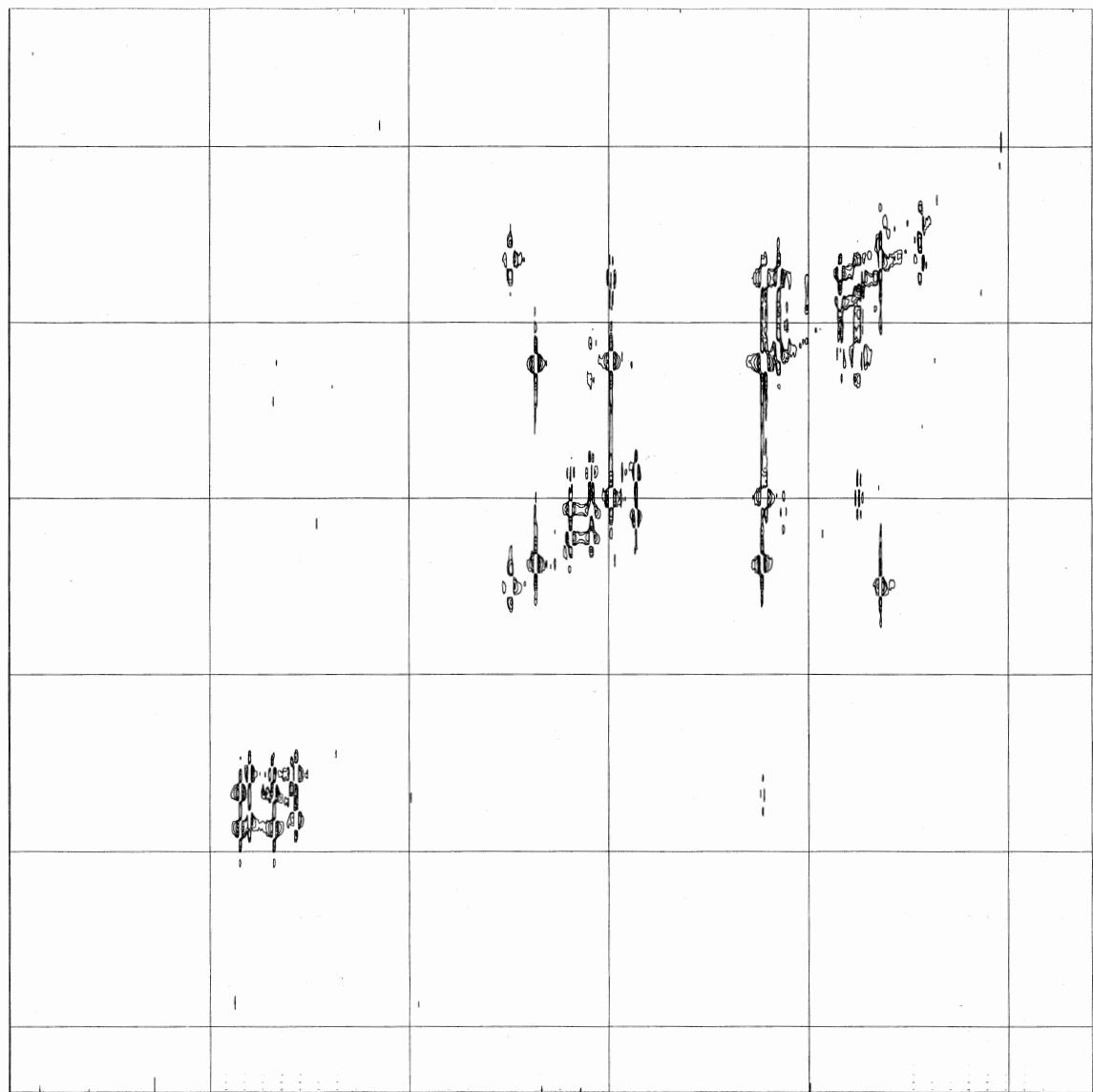
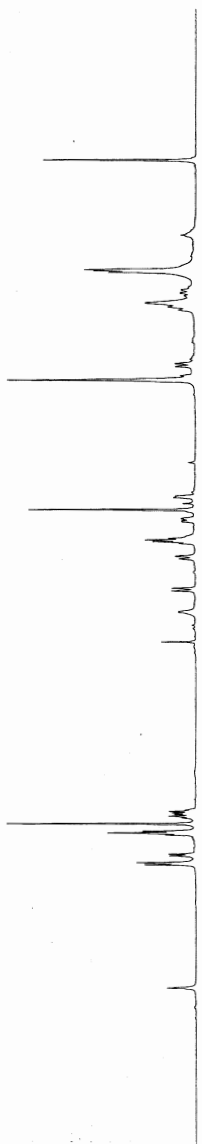
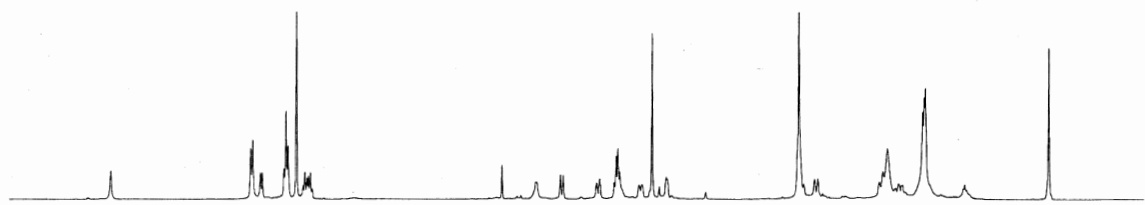


ppm 8 6 4 2 0

COSY (+)
all.

S95

FYQ-II-096100101 COSY

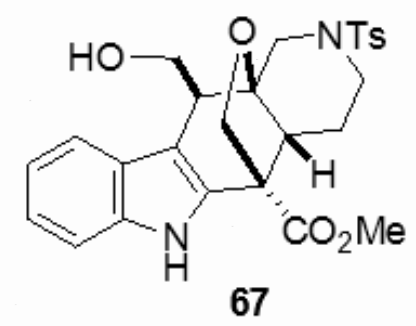
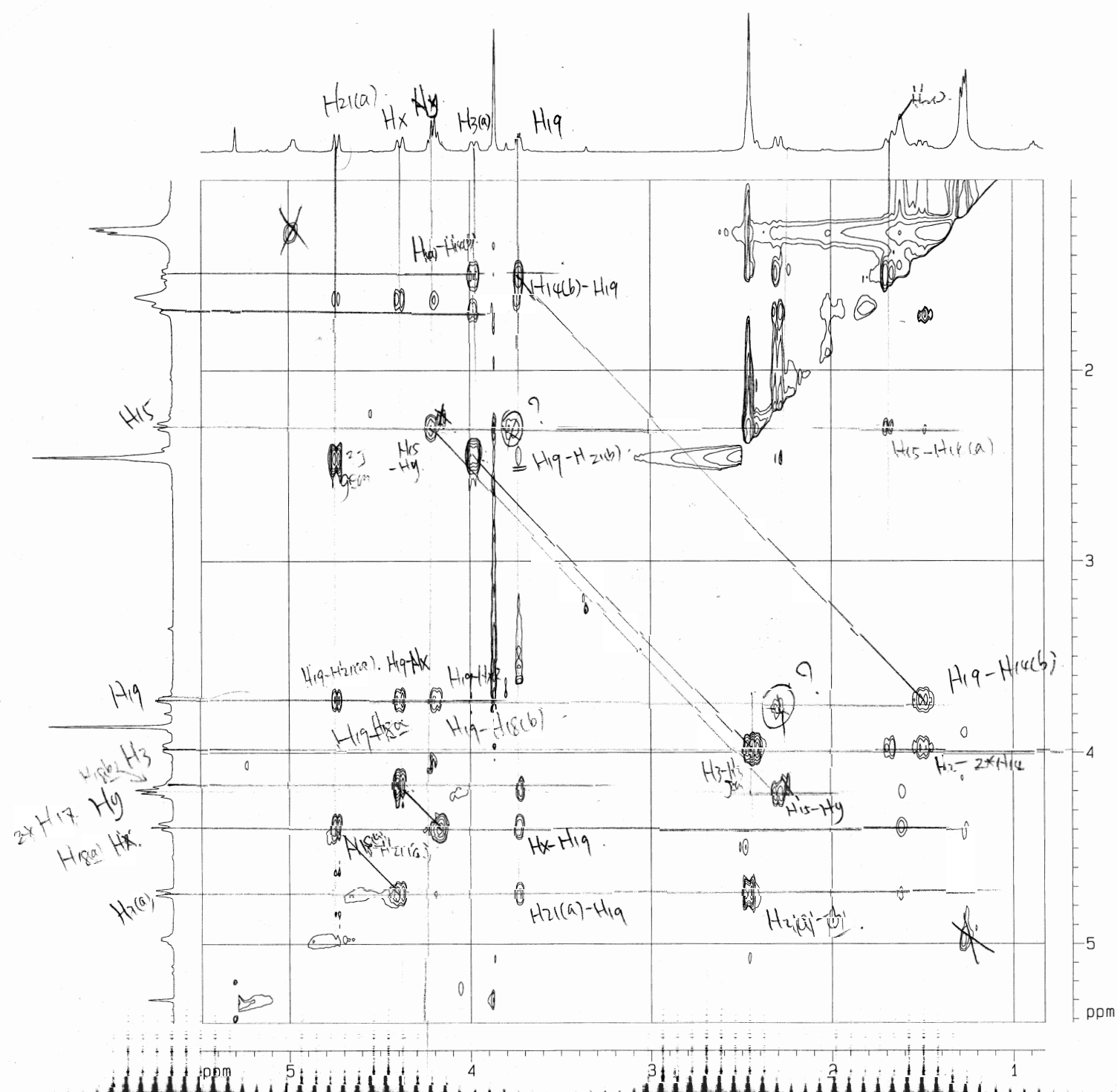


ppm 8 6 4 2 0

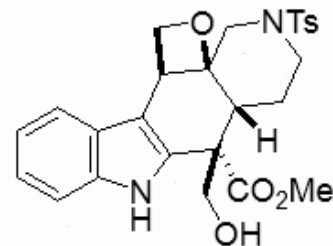
0 2 4 6 8 10 ppm

Zoom
15 ppm

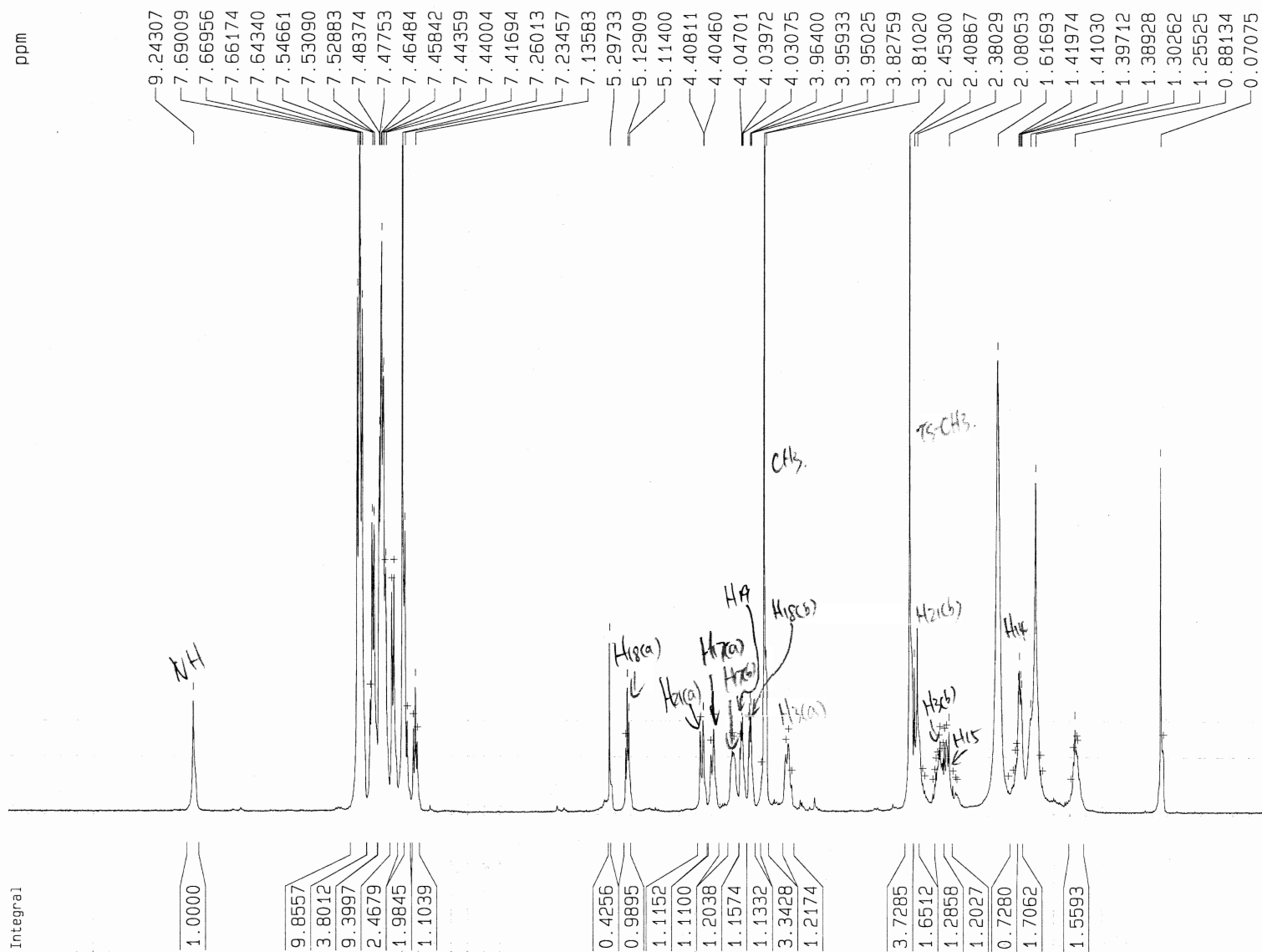
FYQ-II-096100101 NOESY



FYQ-II-106107 1H ns32



68



Current Data Parameters
NAME 082911FJII-106
EXPNO 2
PROCNO 1

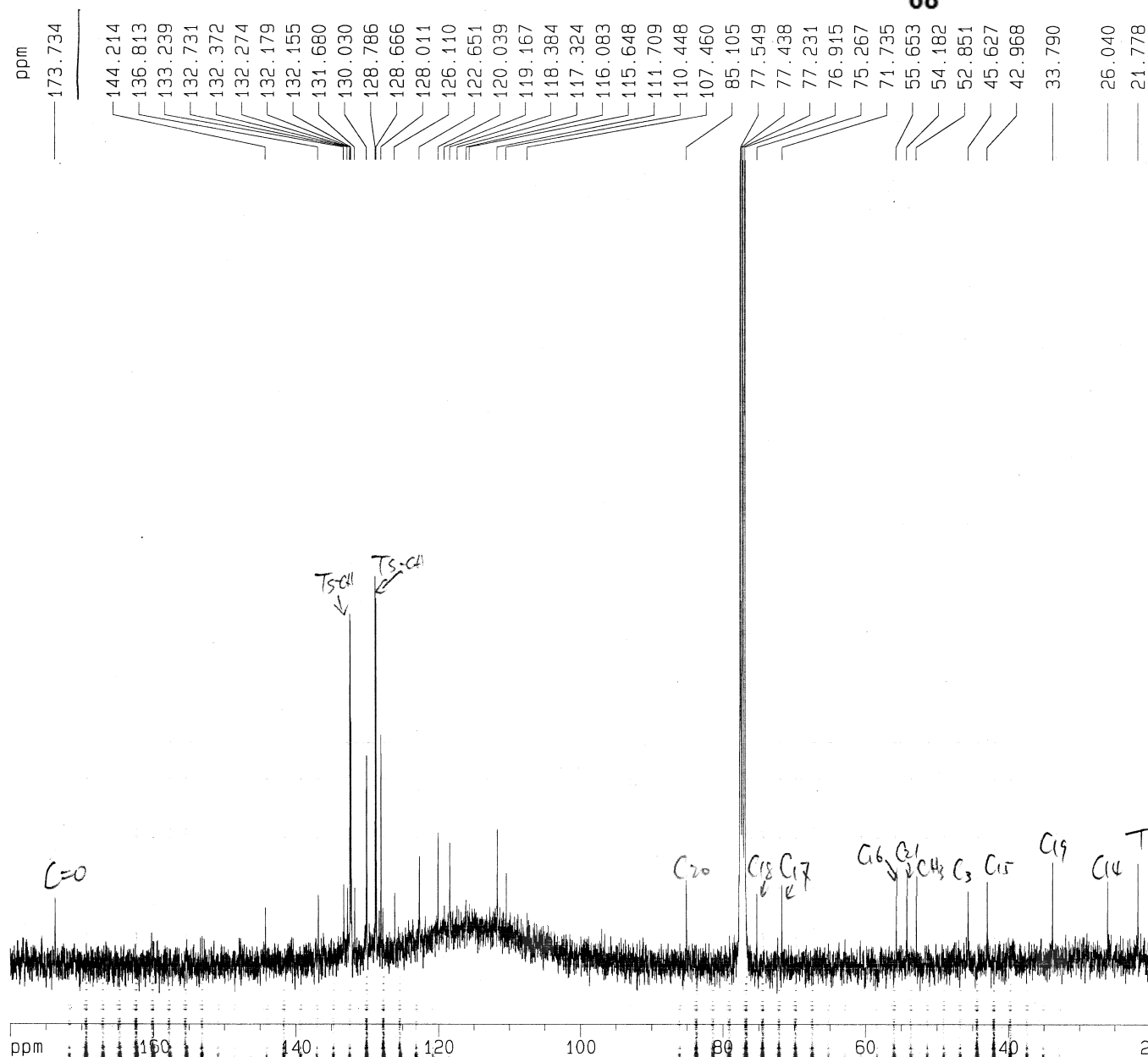
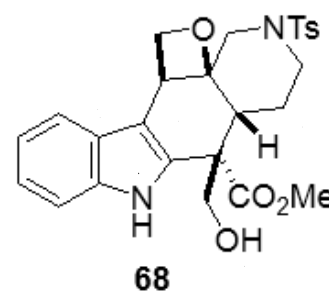
F2 - Acquisition Parameters
Date_ 20110829
Time 18.38
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 32
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 322.5
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SFO1 400.1324710 MHz

F2 - Processing parameters
SI 32768
SF 400.1300094 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm

FYQ-II-106107 C13 ns11k



Current Data Parameters
 NAME 082911FJII-106
 EXPNO 7
 PROCNO 1

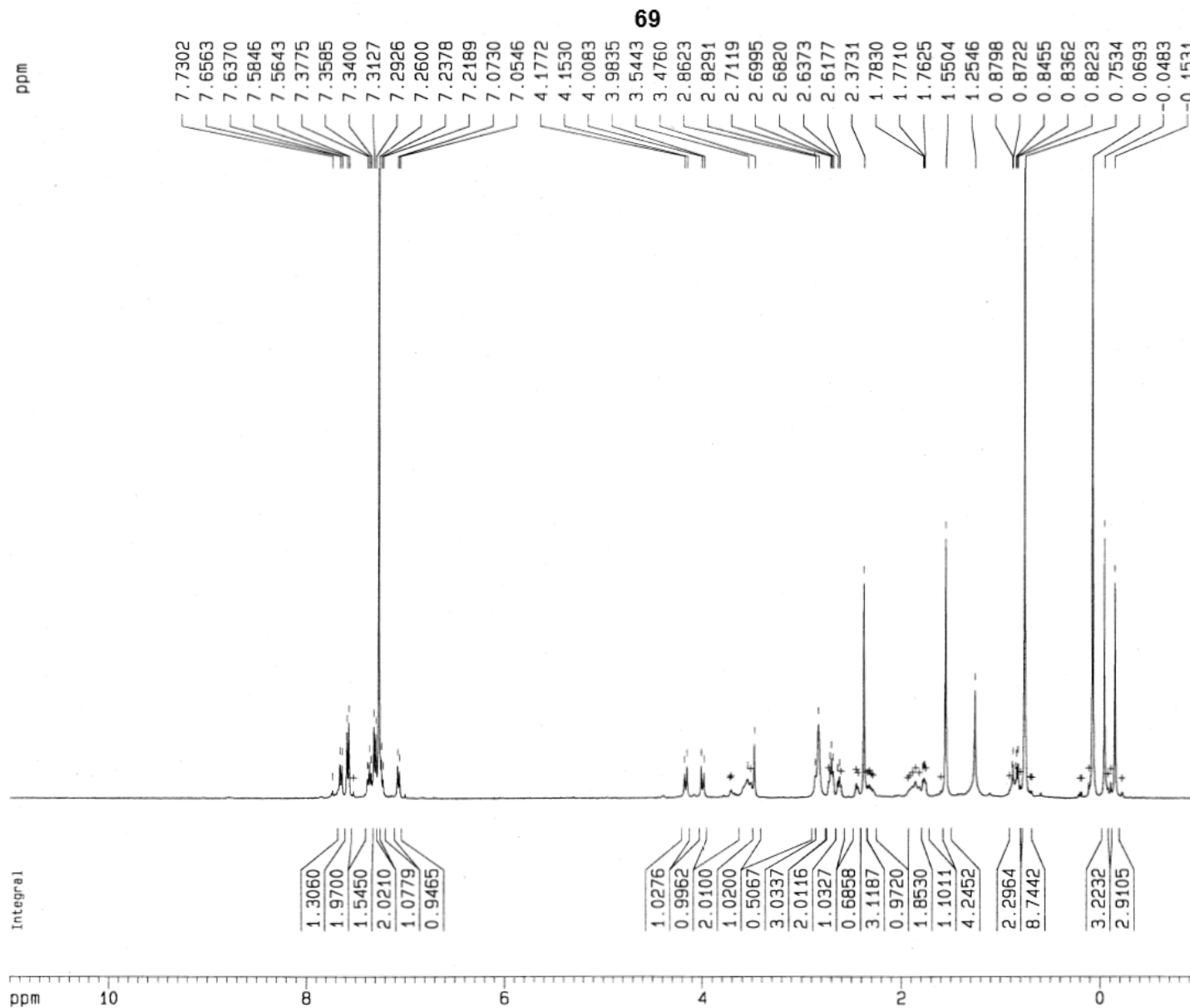
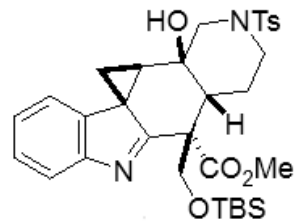
F2 - Acquisition Parameters
 Date_ 20110830
 Time 9.48
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 11264
 DS 4
 SWH 25125.629 Hz
 FIDRES 0.383387 Hz
 AQ 1.3042164 sec
 RG 8192
 DW 19.900 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 d11 0.0300000 sec
 d12 0.0000200 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 16.35 usec
 PL1 -6.00 dB
 SF01 100.6237959 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 114.00 usec
 PL2 0.00 dB
 PL12 24.00 dB
 PL13 24.00 dB
 SF02 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127476 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 180.000 ppm
 F1 18110.29 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 9.00000 ppm/cm
 IZCM 805.51171 Hz/cm



Current Data Parameters

NAME 101312FJ-AgBF4
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters

Date_ 20121013
Time 12.31
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zg30
TD 65536
SOLVENT CDCl3
NS 24
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 812.7
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

===== CHANNEL f1 =====

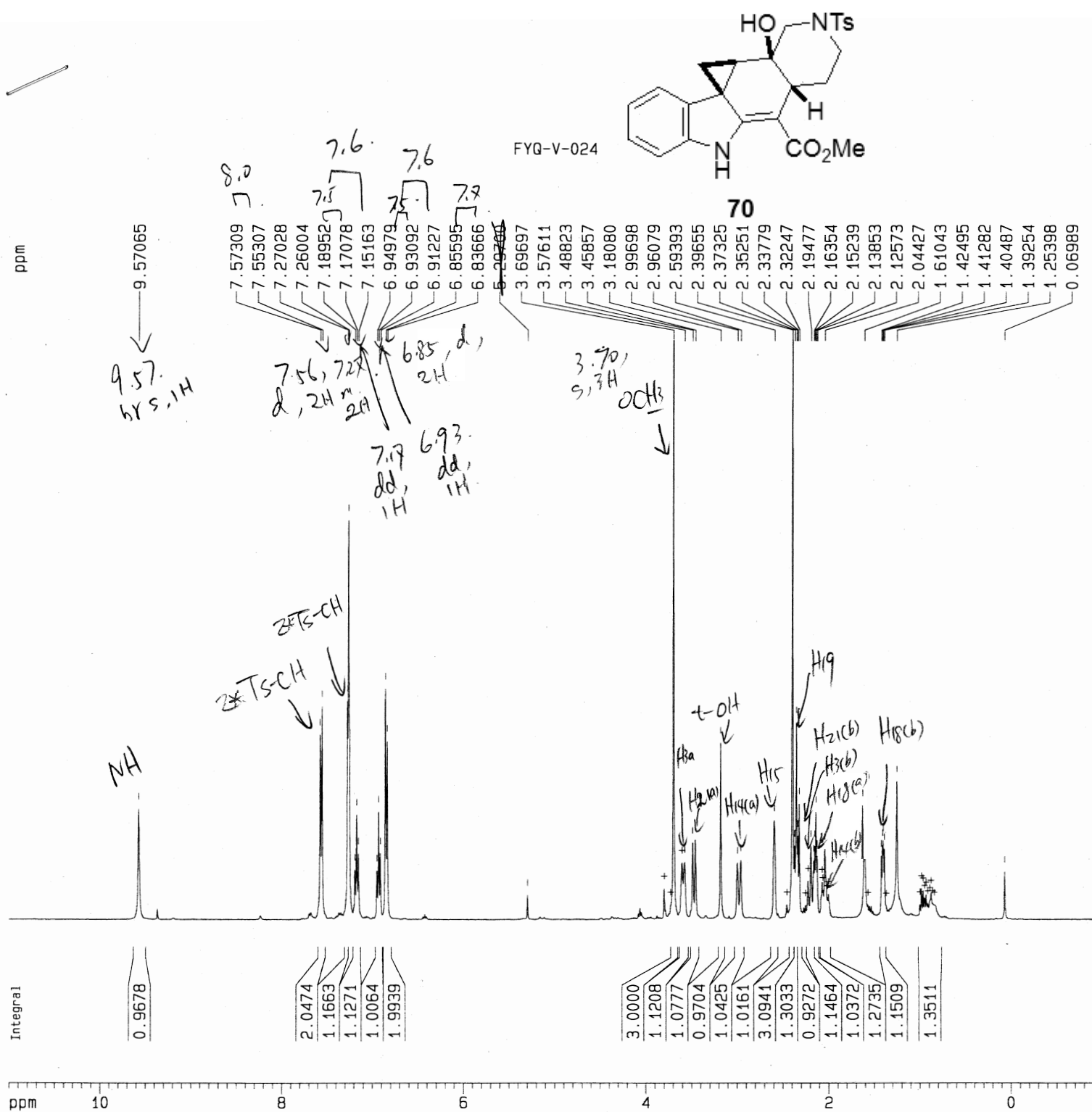
NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SF01 400.1324710 MHz

F2 - Processing parameters

SI 32768
SF 400.1300091 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters

CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm



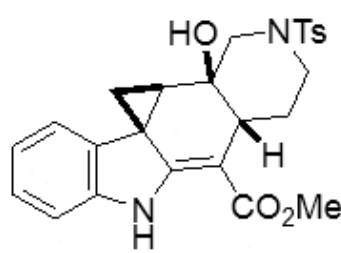
Current Data Parameters
 NAME 102112FJV-024
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20121021
 Time 13.41
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 203.2
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

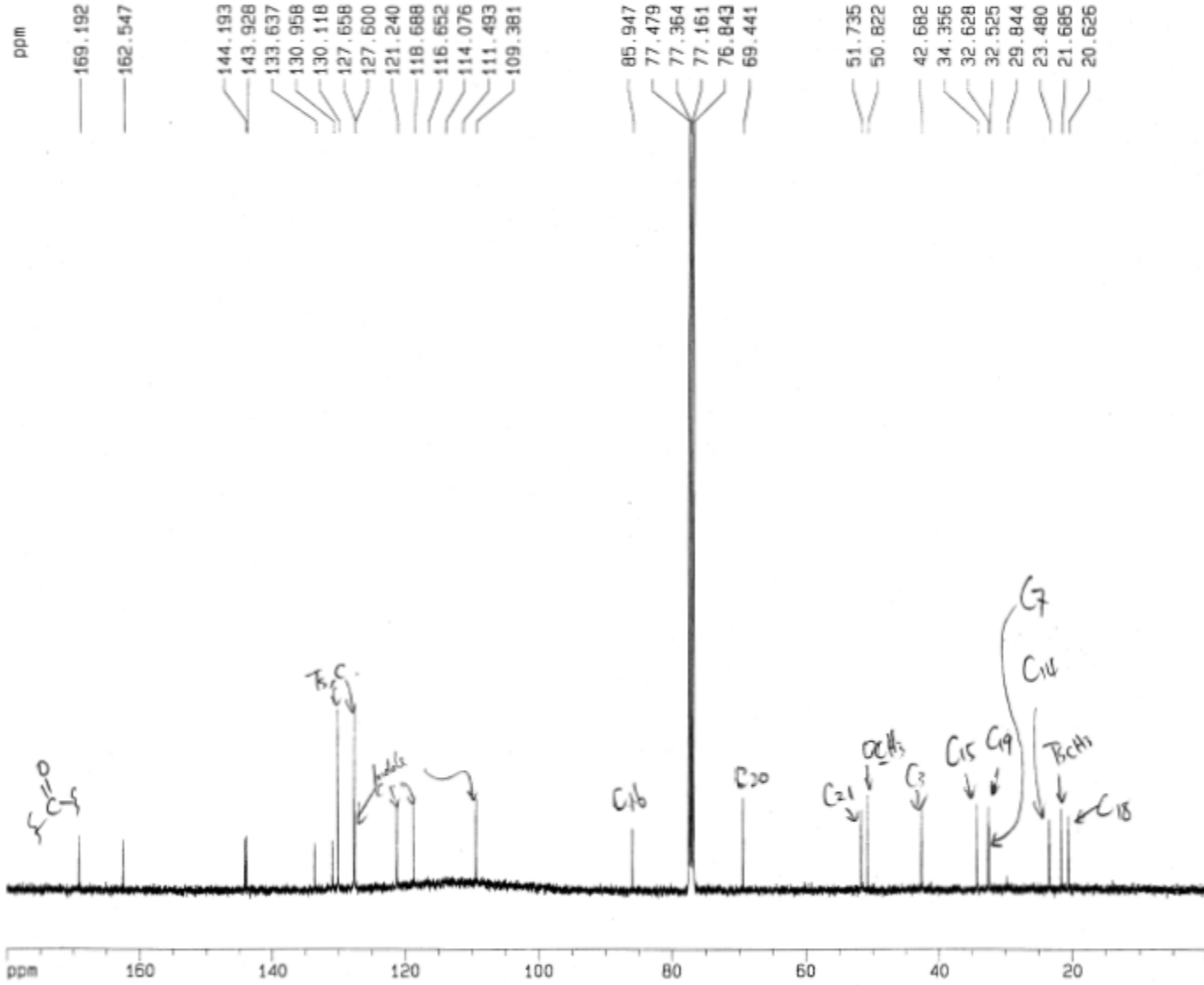
===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300091 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



70



Current Data Parameters
 NAME 102112FJV-024
 EXPNO 7
 PROCNO 1

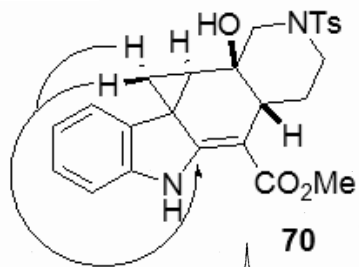
F2 - Acquisition Parameters
 Date_ 20121022
 Time 2.59
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 9216
 DS 4
 SMH 25125.629 Hz
 FIDRES 0.383387 Hz
 AQ 1.3042164 sec
 RG 16384
 DW 19.900 usec
 DE 6.00 usec
 TE 300.0 K
 O1 2.0000000 sec
 d11 0.0300000 sec
 d12 0.00002000 sec

----- CHANNEL f1 -----
 NUC1 13C
 P1 16.35 usec
 PL1 -6.00 dB
 SFO1 100.6237959 MHz

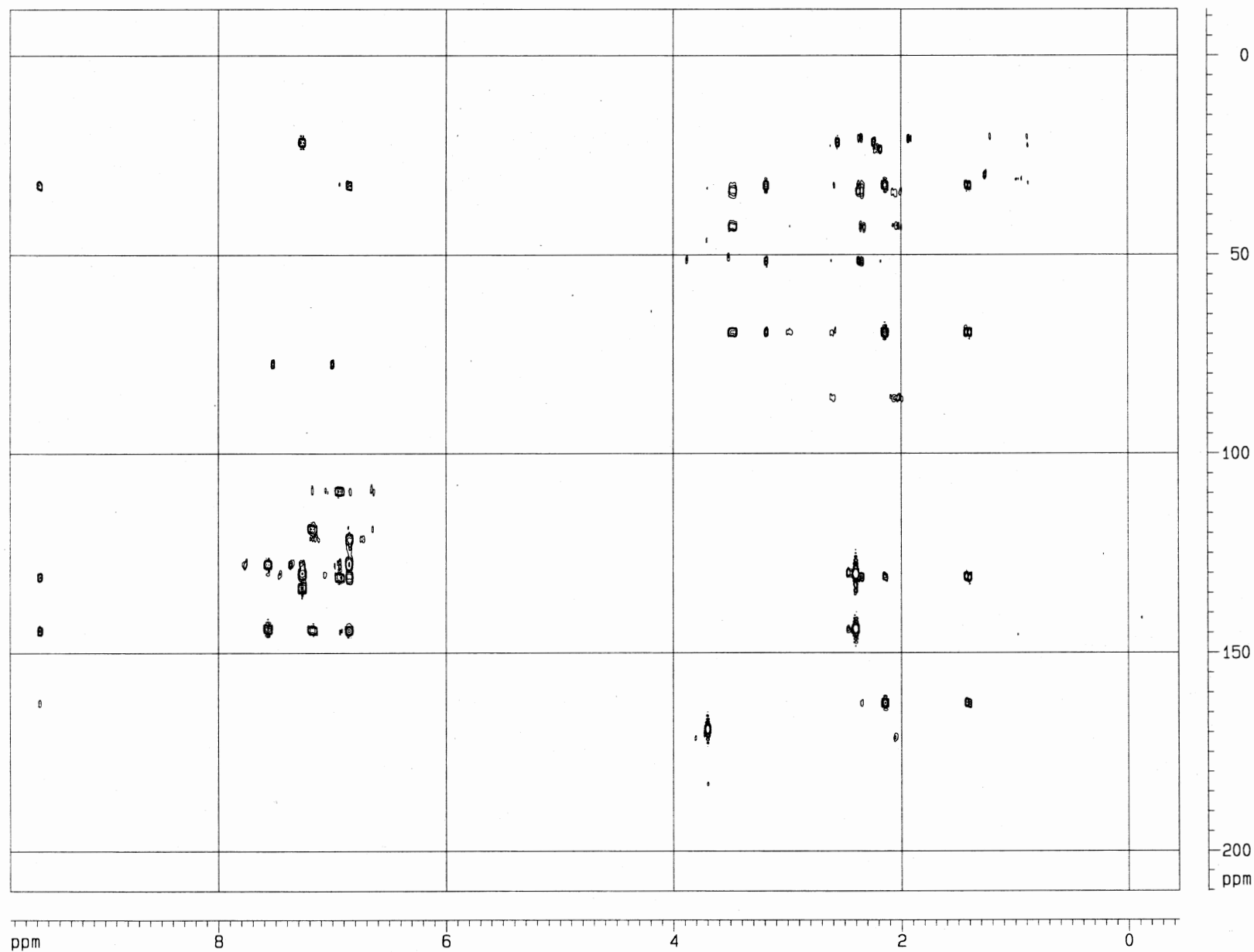
----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 114.00 usec
 PL2 0.00 dB
 PL12 24.00 dB
 PL13 24.00 dB
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127554 MHz
 MON EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

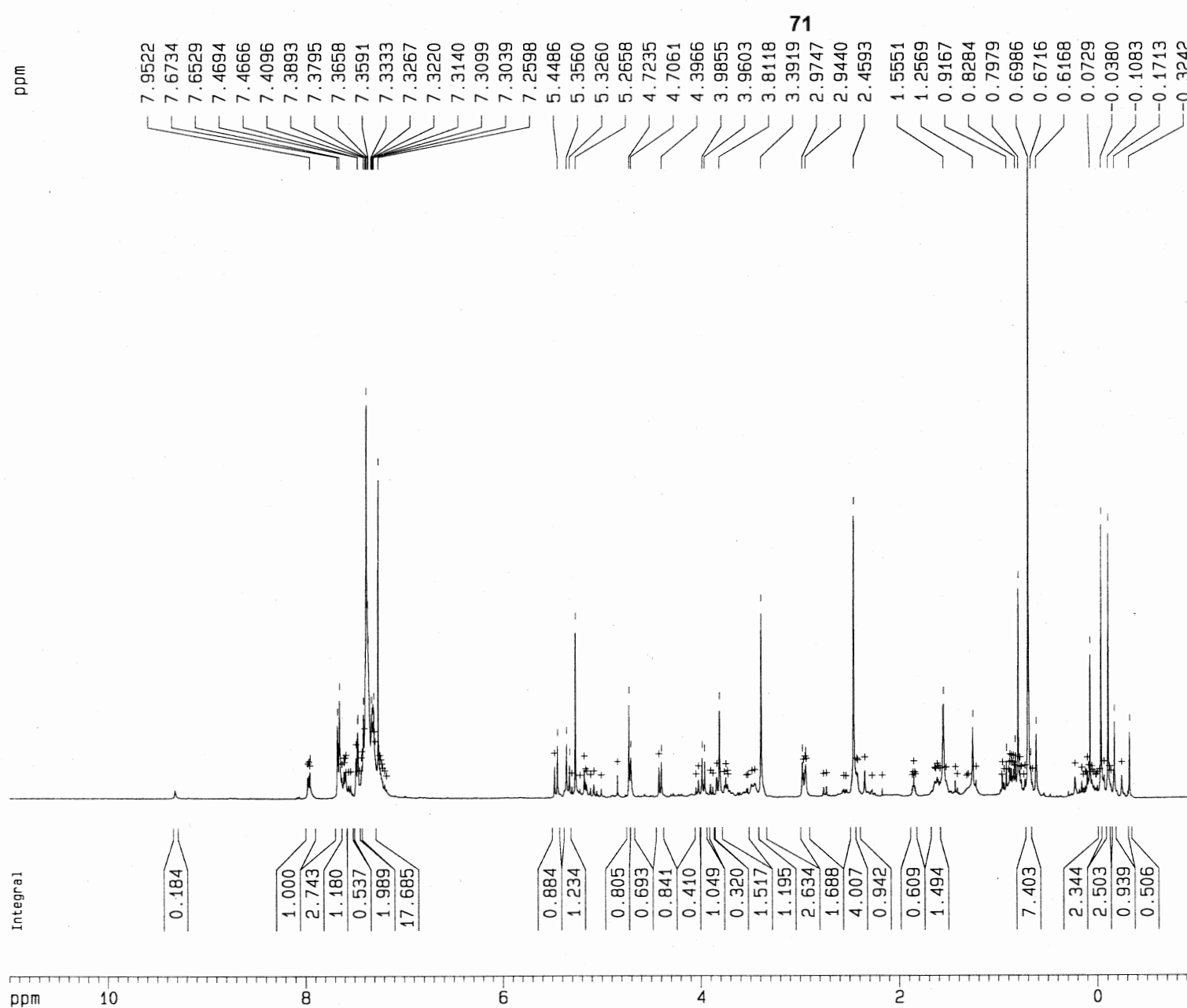
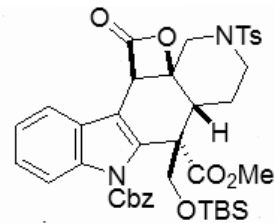
1D NMR plot parameters
 CX 20.00 cm
 F1P 180.000 ppm
 F1 18110.29 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 9.00000 ppm/cm
 HZCM 905.51477 Hz/cm



Key HMBC
correlations
for 70



FYQ-V-053



Current Data Parameters
NAME 111612FJV-053
EXPNO 1
PROCNO 1

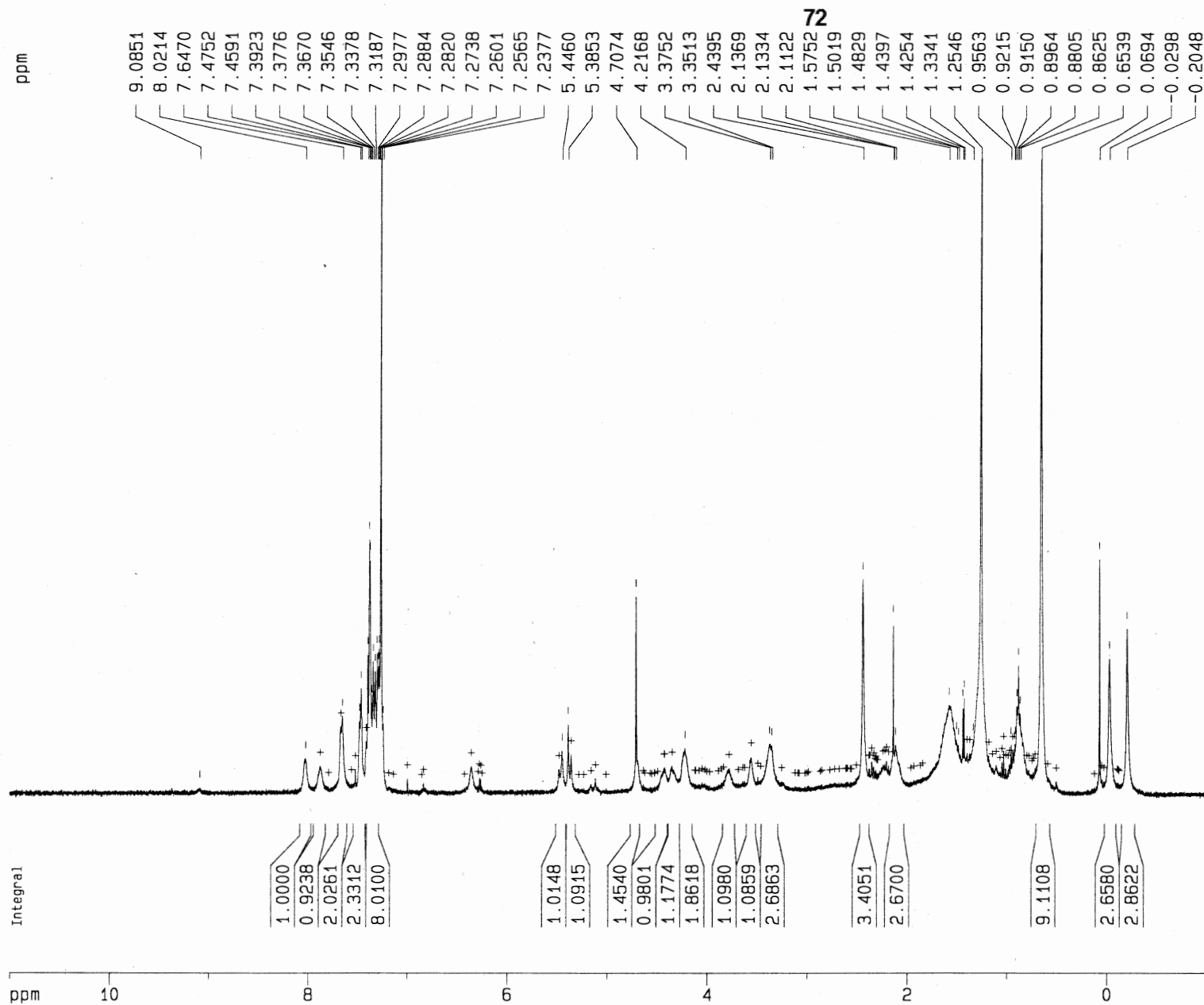
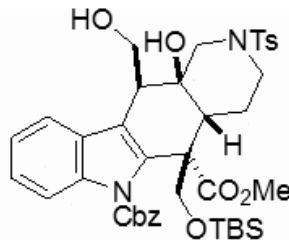
F2 - Acquisition Parameters
Date_ 20121116
Time 10.37
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 16
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 322.5
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SFO1 400.1324710 MHz

F2 - Processing parameters
SI 32768
SF 400.1300094 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07800 Hz/cm

FYQ-V-055 pure



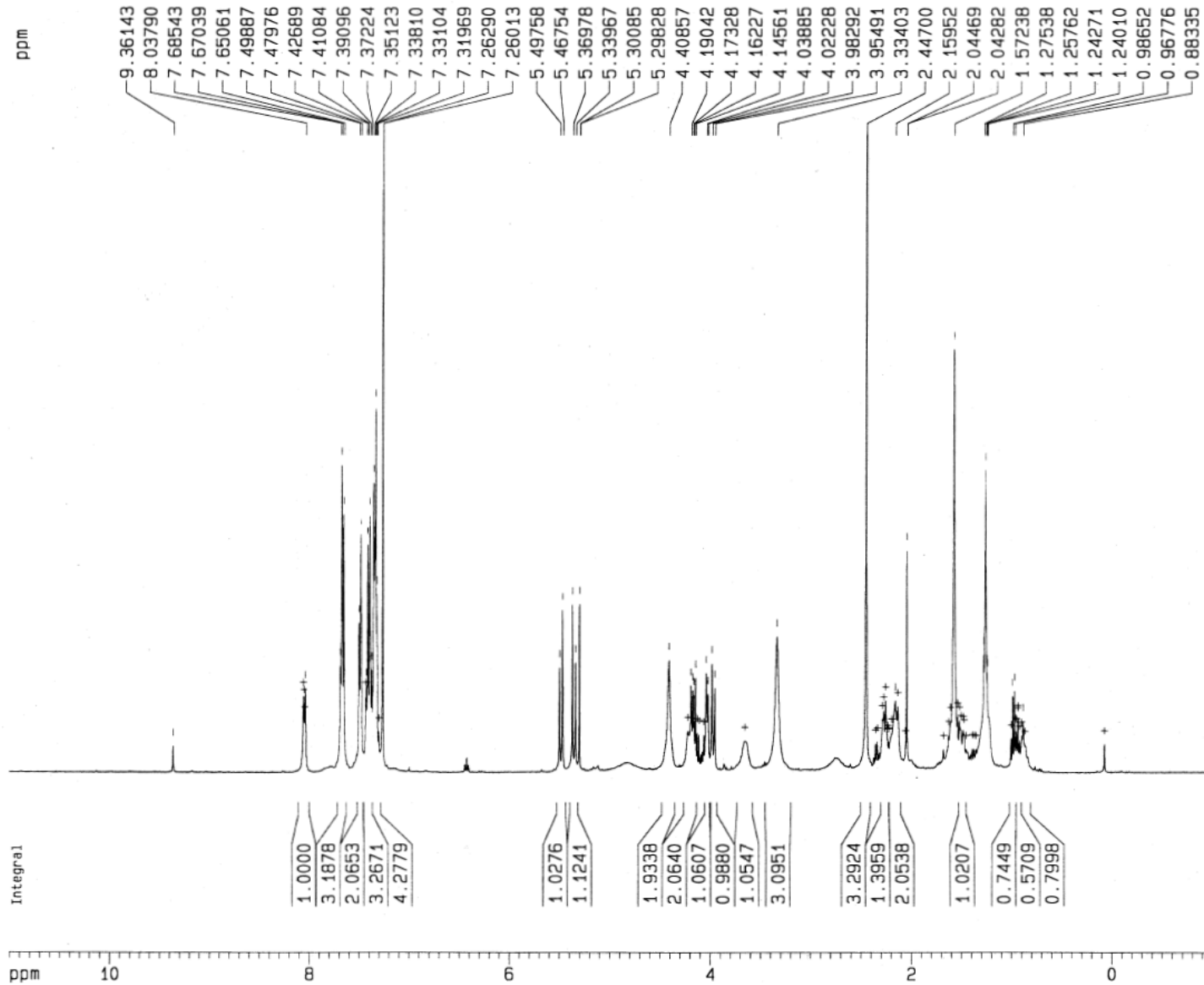
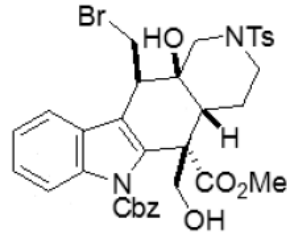
Current Data Parameters
NAME 111612FJV-055
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20121116
Time 14.24
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zg30
TD 65536
SOLVENT CDC13
NS 48
DS 2
SWH 8278.146 Hz
FIDRES 0.126314 Hz
AQ 3.9584243 sec
RG 645.1
DW 60.400 usec
DE 6.00 usec
TE 300.0 K
D1 1.00000000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 6.45 usec
PL1 0.00 dB
SF01 400.1324710 MHz

F2 - Processing parameters
SI 32768
SF 400.1300094 MHz
WDW no
SSB 0
LB 0.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
F1P 11.000 ppm
F1 4401.43 Hz
F2P -1.000 ppm
F2 -400.13 Hz
PPMCM 0.60000 ppm/cm
HZCM 240.07802 Hz/cm



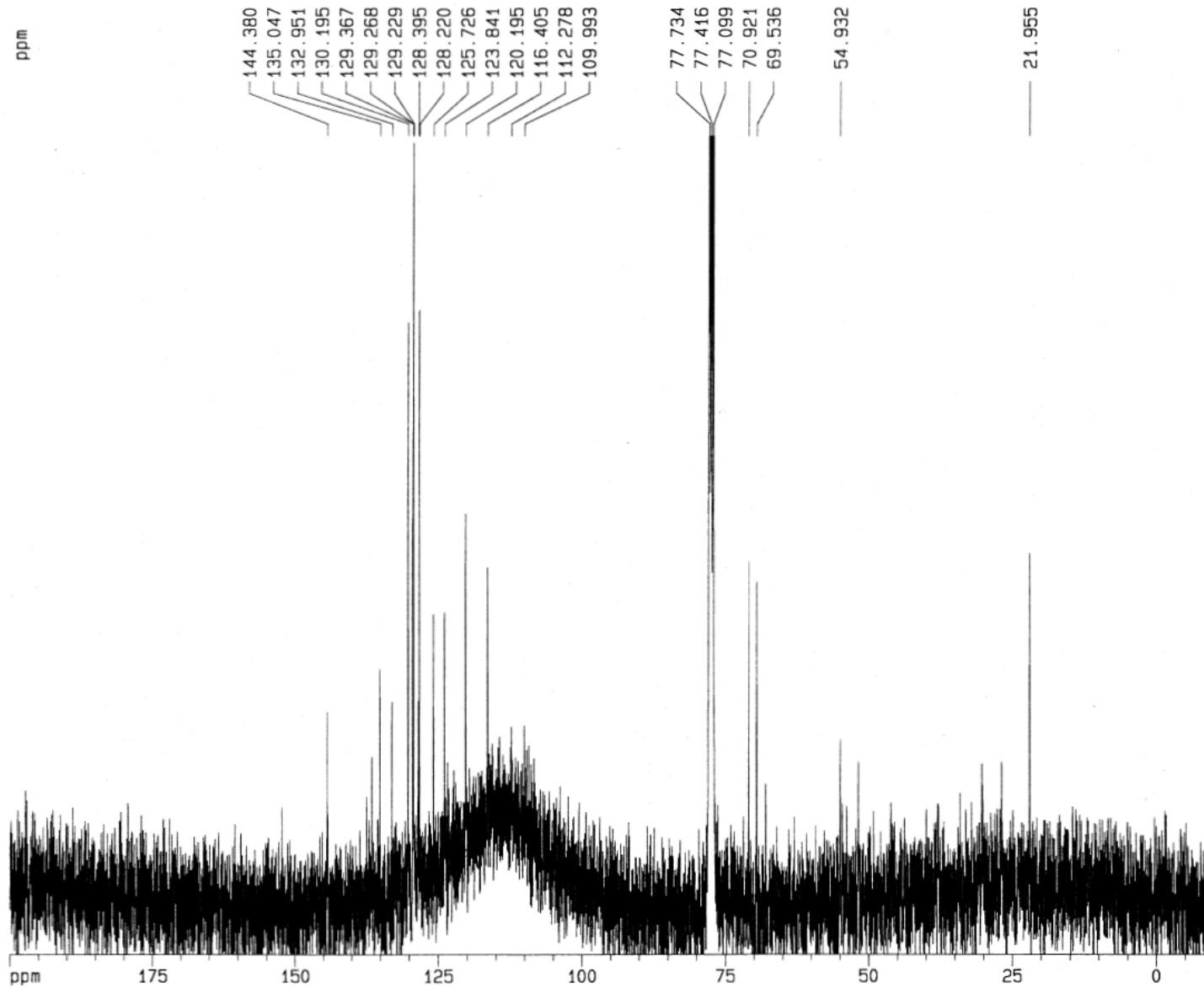
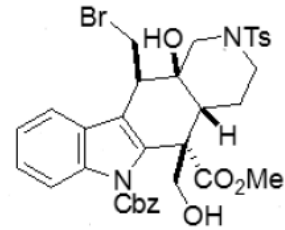
Current Data Parameters
 NAME 120812FJV-0698
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20121208
 Time 17.34
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 287.4
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SFO1 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300086 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
NAME 120812FJV-059B
EXPNO 7
PROCNO 1

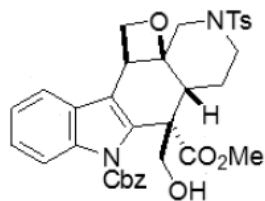
F2 - Acquisition Parameters
Date_ 20121209
Time 8.59
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG zgpg30
TD 65536
SOLVENT CDC13
NS 10240
DS 4
SWH 25125.629 Hz
FIDRES 0.383387 Hz
AQ 1.3042164 sec
RG 16384
DW 19.900 usec
DE 6.00 usec
TE 300.0 K
D1 2.0000000 sec
d11 0.0300000 sec
d12 0.00002000 sec

----- CHANNEL f1 -----
NUC1 13C
P1 16.35 usec
PL1 -6.00 dB
SF01 100.6237959 MHz

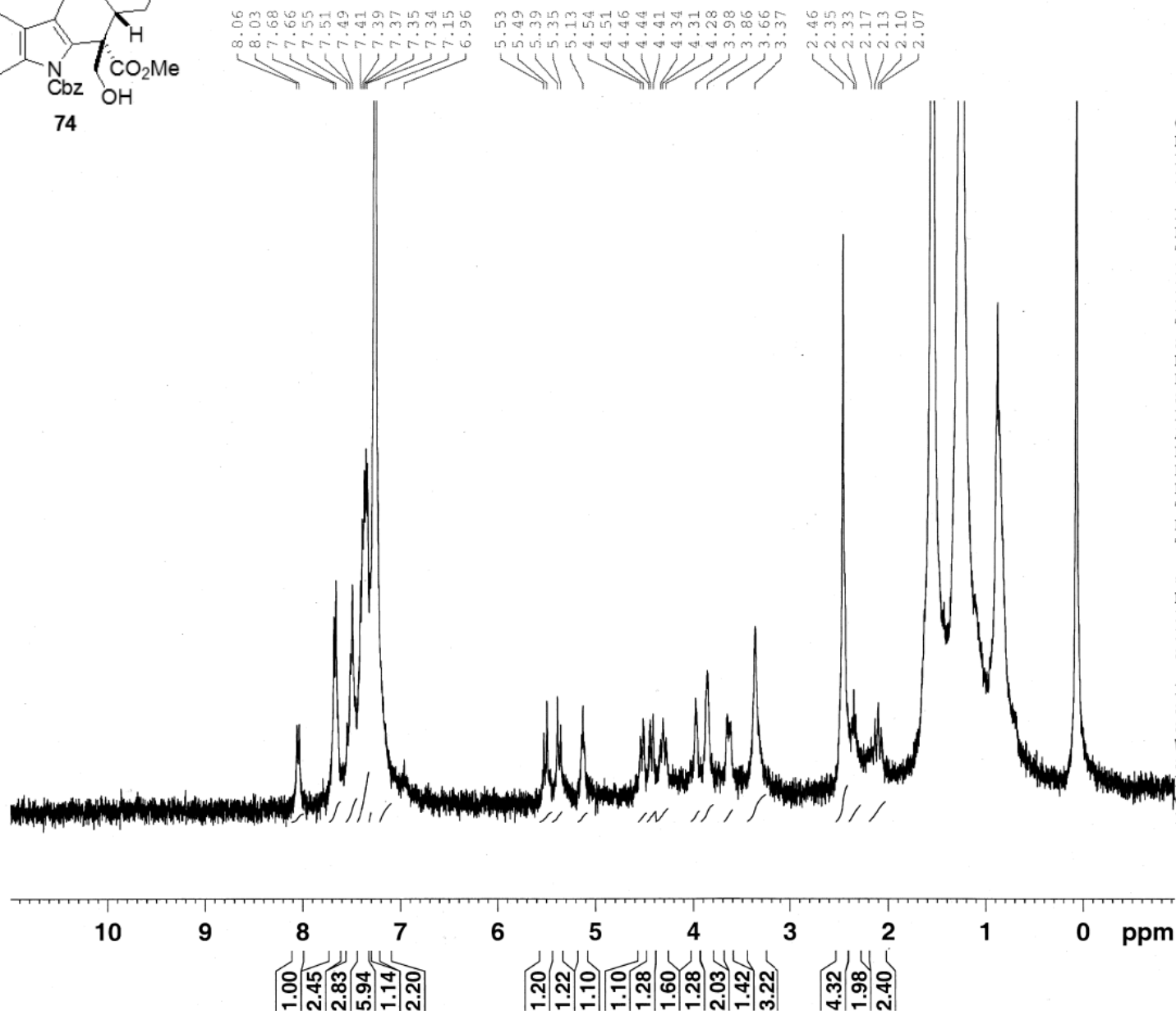
----- CHANNEL f2 -----
CPDPRG2 waltz16
NUC2 1H
PCPD2 114.00 usec
PL2 0.00 dB
PL12 24.00 dB
PL13 24.00 dB
SF02 400.1316005 MHz

F2 - Processing parameters
SI 32768
SF 100.6127290 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

1D NMR plot parameters
CX 20.00 cm
F1P 200.000 ppm
F1 20122.55 Hz
F2P -10.000 ppm
F2 -1006.13 Hz
PPMCM 10.50000 ppm/cm
HZCM 1056.43372 Hz/cm



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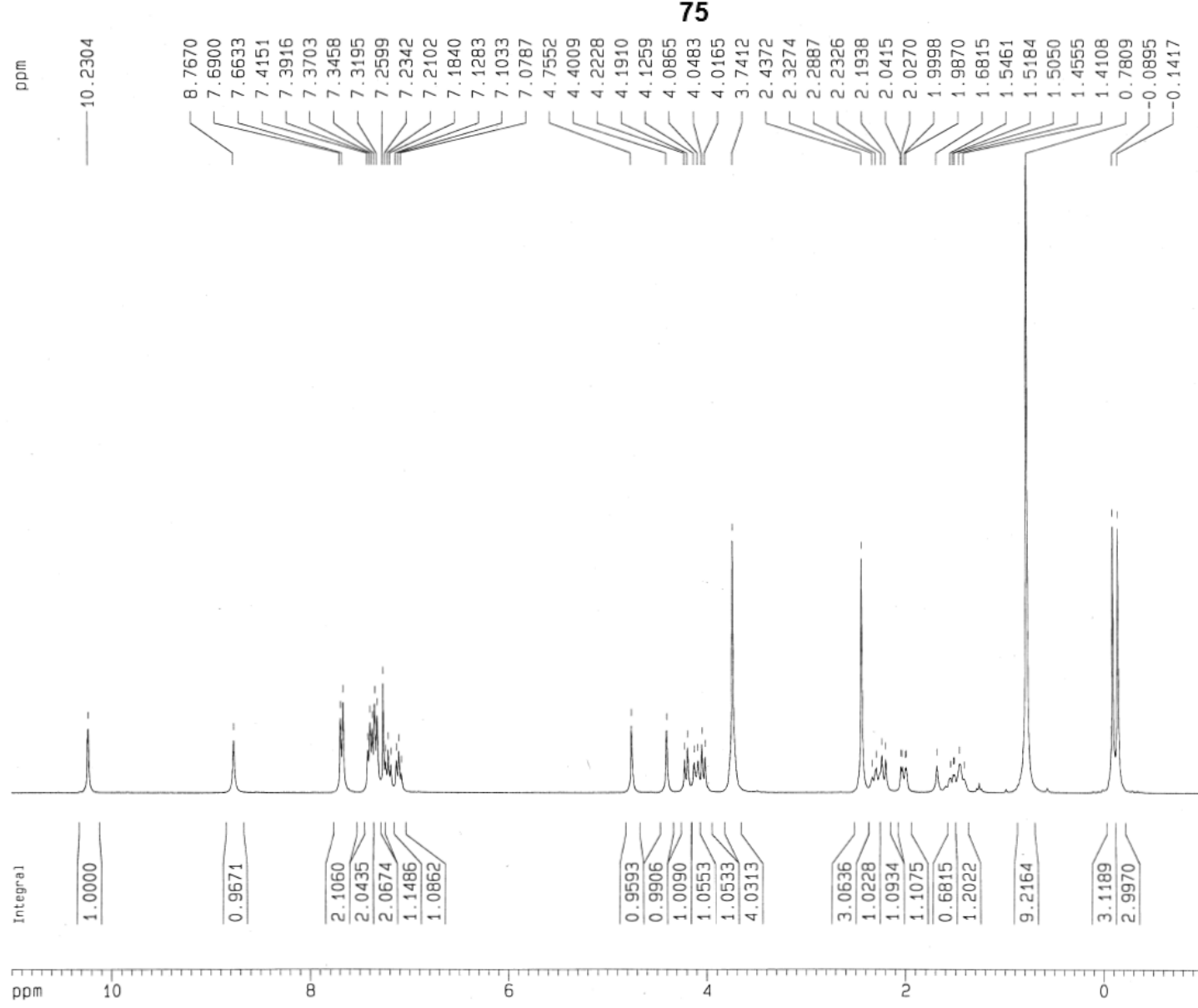
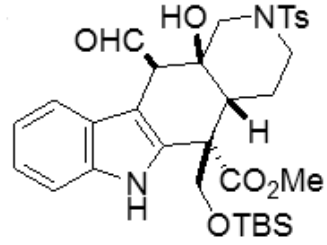


Current Data Parameters
 NAME 121812FJV-085 Crude
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20121218
 Time 16.46
 INSTRUM spect
 PROBHD 5 mm QNP 1H/15
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 96
 DS 2
 SWH 7440.476 Hz
 FIDRES 0.113533 Hz
 AQ 4.4040694 sec
 RG 2048
 DW 67.200 usec
 DE 6.00 usec
 TE 295.5 K
 D1 1.00000000 sec
 TDO 1

==== CHANNEL f1 =====
 NUC1 1H
 P1 14.93 usec
 PL1 -3.00 dB
 SFO1 360.1322240 MHz

F2 - Processing parameters
 SI 32768
 SF 360.1300143 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00



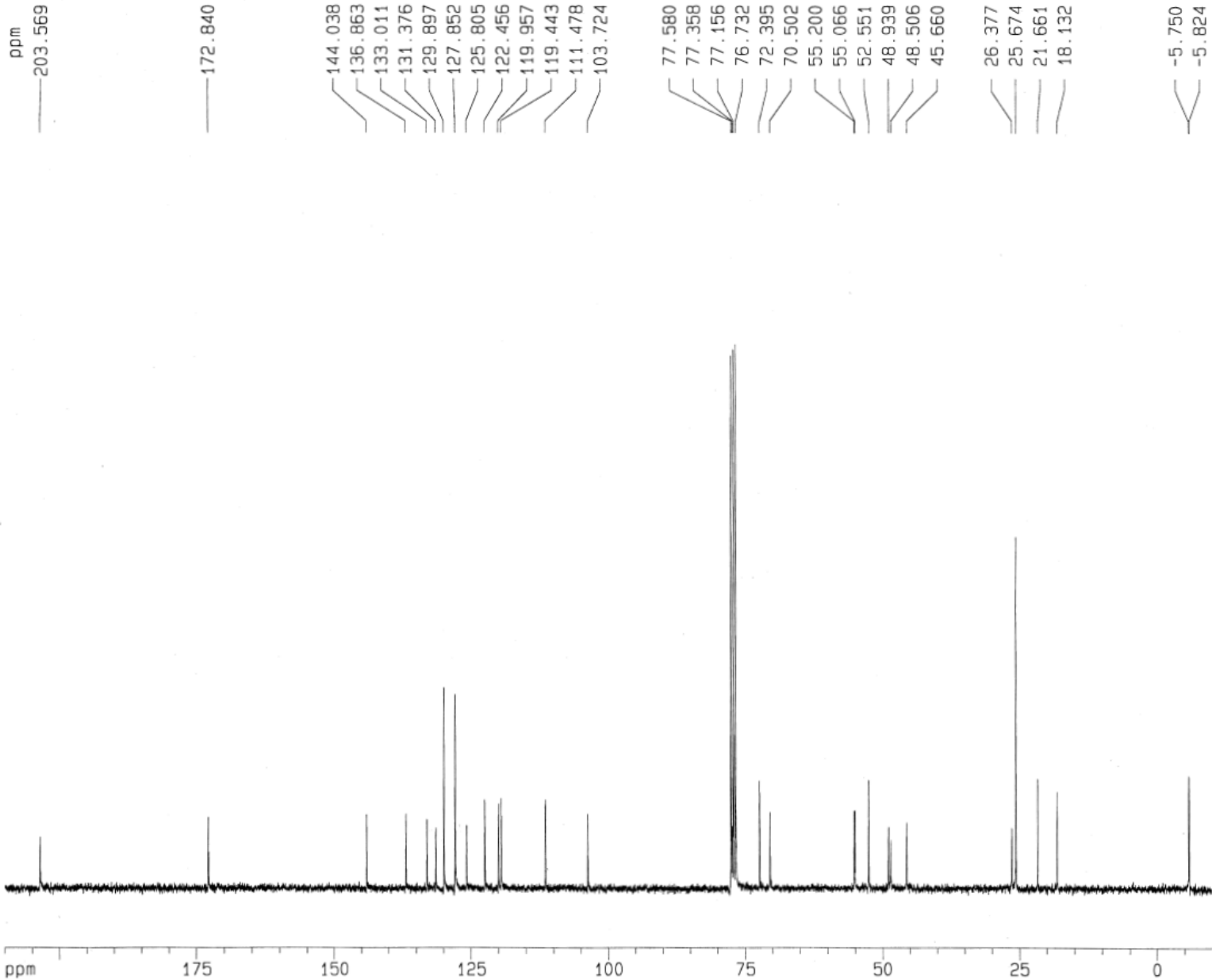
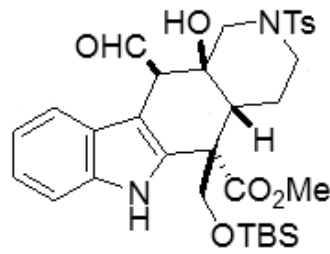
Current Data Parameters
 NAME 082713FJV-284
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130827
 Time 15.57
 INSTRUM spect
 PROBHD 5 mm GNP 1H/1
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 4
 DS 2
 SWH 6172.839 Hz
 FIDRES 0.094190 Hz
 AQ 5.3084660 sec
 RG 143.7
 DW 81.000 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.0000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 12.10 usec
 PL1 0.00 dB
 SF01 299.8718518 MHz

F2 - Processing parameters
 SI 32768
 SF 299.8700103 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 3298.57 Hz
 F2P -1.000 ppm
 F2 -299.87 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 179.92200 Hz/cm



Current Data Parameters
 NAME 082713FJV-284
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130827
 Time 17.03
 INSTRUM spect
 PROBHD 5 mm GNP 1H/1
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 1024
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 1024
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 D12 0.00002000 sec

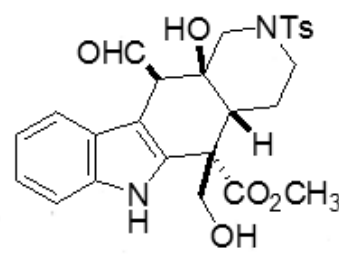
===== CHANNEL f1 =====
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SF01 75.4106357 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SF02 299.8711995 MHz

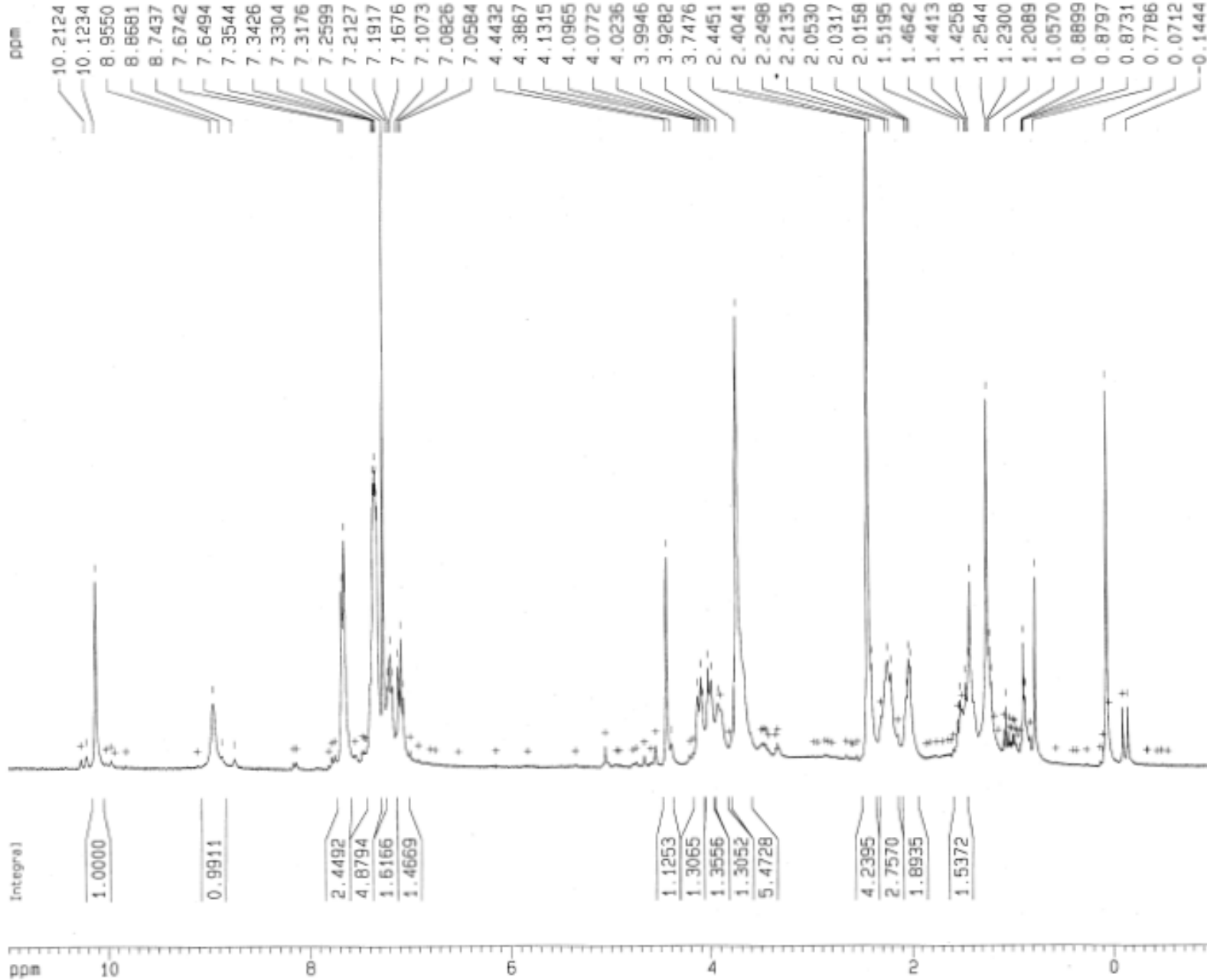
F2 - Processing parameters
 SI 32768
 SF 75.4023554 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 210.000 ppm
 F1 15834.50 Hz
 F2P -10.000 ppm
 F2 -754.02 Hz
 PPMCM 11.00000 ppm/cm
 HZCM 829.42603 Hz/cm

FYQ-V-190 1H



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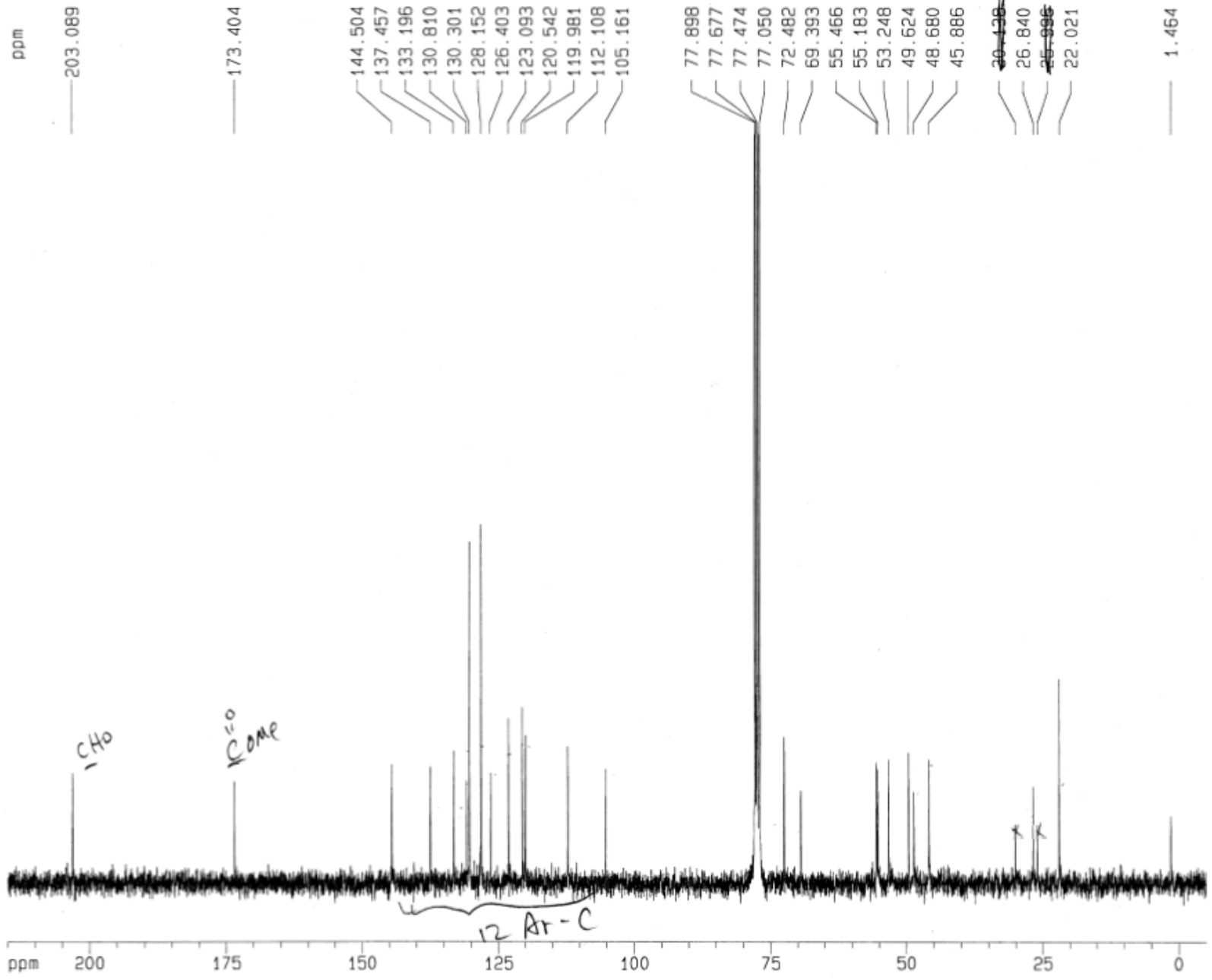
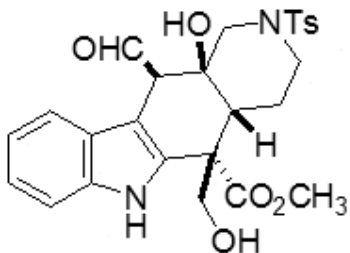
Current Data Parameters
 NAME 062913FJV-190
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130629
 Time 11.28
 INSTRUM spect
 PROBHD 5 mm QNP 1H/1
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SWH 6172.839 Hz
 FIDRES 0.094190 Hz
 AQ 5.3084660 sec
 RG 512
 DW 81.000 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----
 NUC1 1H
 P1 12.10 usec
 PL1 0.00 dB
 SFO1 299.8718518 MHz

F2 - Processing parameters
 SI 32768
 SF 299.8700103 MHz
 WDM EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 FtP 11.000 ppm
 F1 3298.57 Hz
 F2P -1.000 ppm
 F2 -299.87 Hz
 PPMCM 0.50000 ppm/cm
 HZCM 179.92200 Hz/cm



Current Data Parameters
 NAME 062913FJV-190
 EXPNO 2
 PROCNO 1

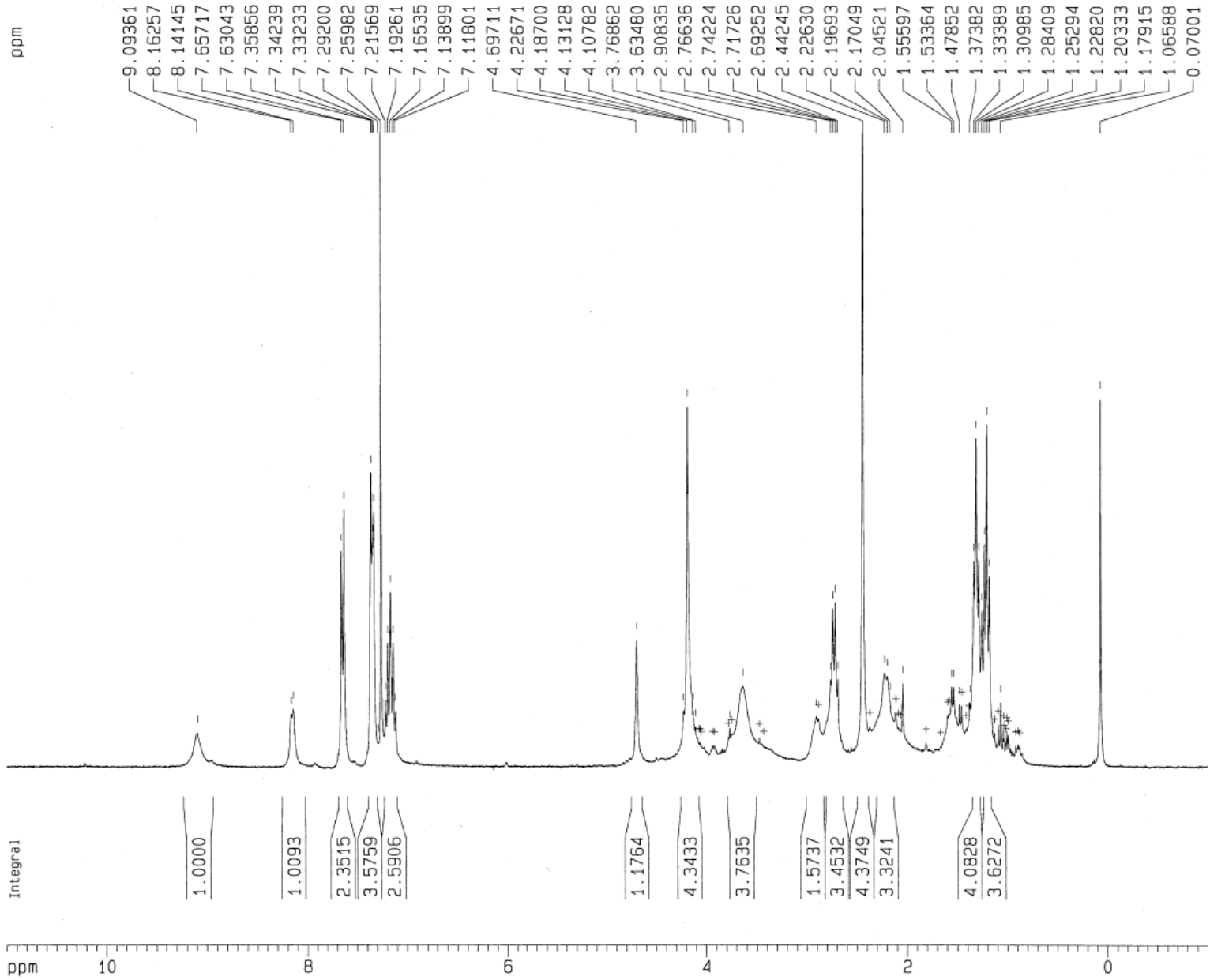
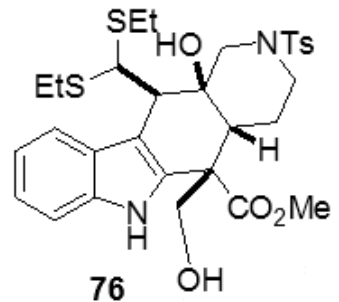
F2 - Acquisition Parameters
 Date_ 20130629
 Time 14.05
 INSTRUM spect
 PROBHD 5 mm QNP 1H/1
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 2452
 DS 4
 SMH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 1024
 DM 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 D12 0.00002000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SFO1 75.4106357 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SFO2 299.8711995 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4023410 MHz
 WDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 215.000 ppm
 F1 16211.50 Hz
 F2P -5.000 ppm
 F2 -377.01 Hz
 PPMCM 11.00000 ppm/cm
 HZCM 829.42578 Hz/cm



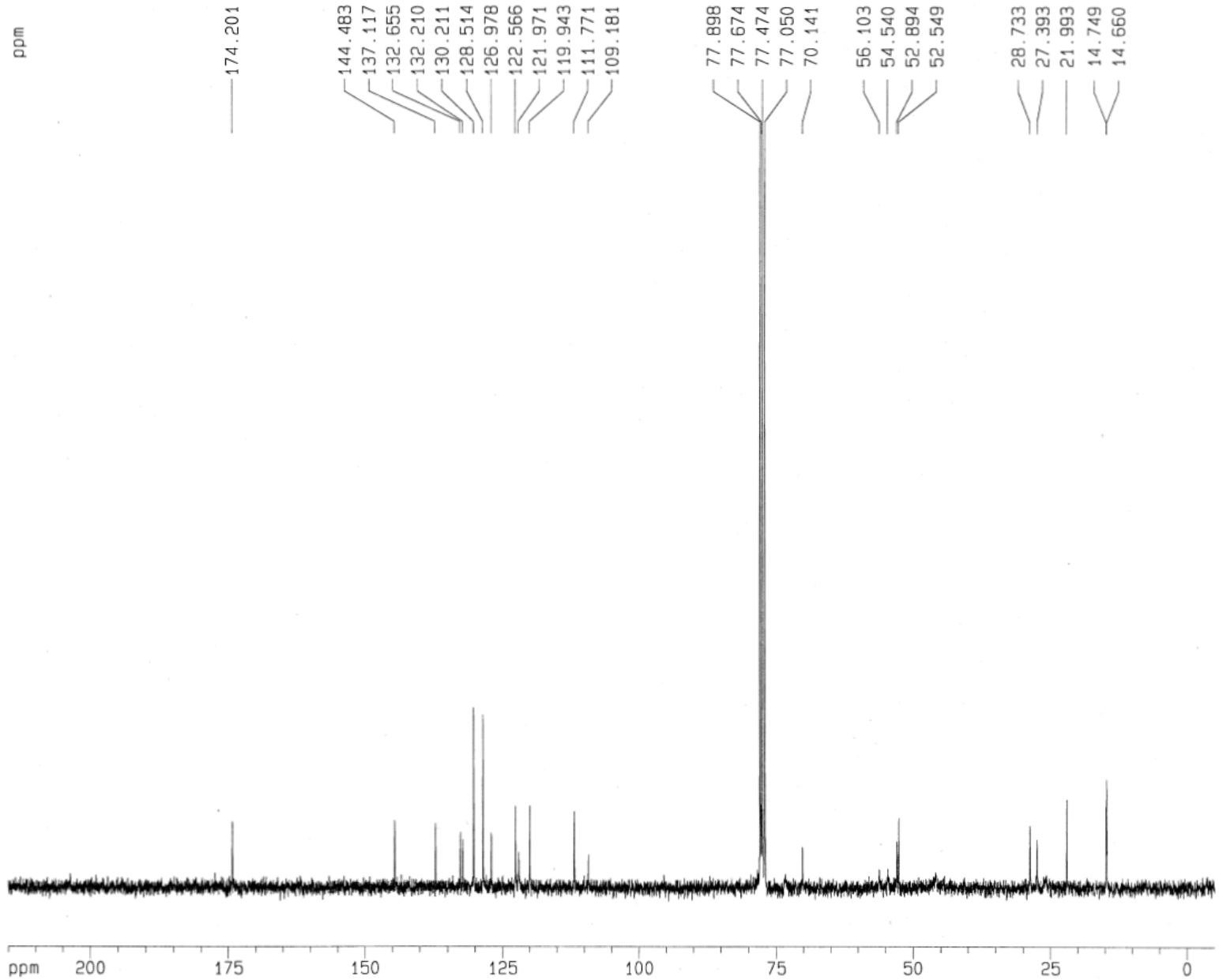
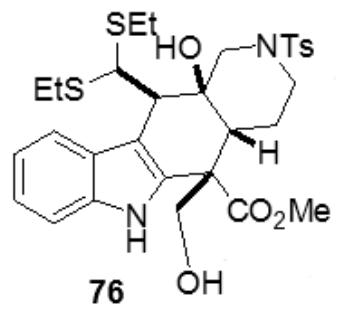
Current Data Parameters
 NAME 070113FJV-193
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130701
 Time 12.21
 INSTRUM spect
 PROBHD 5 mm GNP 1H/1
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 6172.839 Hz
 FIDRES 0.094190 Hz
 AQ 5.3084660 sec
 RG 574.7
 DW 81.000 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----
 NUC1 1H
 P1 12.10 usec
 PL1 0.00 dB
 SFO1 299.8718518 MHz

F2 - Processing parameters
 SI 32768
 SF 299.8700101 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 3298.57 Hz
 F2P -1.000 ppm
 F2 -299.87 Hz
 PPMCM 0.50000 ppm/cm
 HZCM 179.92200 Hz/cm



Current Data Parameters
 NAME 082813FJV-286
 EXPNO 2
 PROCNO 1

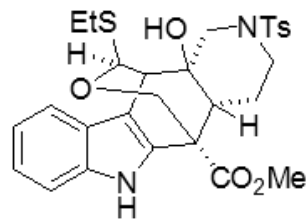
F2 - Acquisition Parameters
 Date_ 20130828
 Time 12.23
 INSTRUM spect
 PROBHD 5 mm QNP 1H/1
 PULPROG zgpg30
 TD 65536
 SOLVENT CDCl3
 NS 730
 DS 4
 SWH 18796.992 Hz
 FIDRES 0.286819 Hz
 AQ 1.7433076 sec
 RG 1024
 DW 26.600 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.0000000 sec
 D11 0.0300000 sec
 D12 0.00002000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 5.25 usec
 PL1 -6.00 dB
 SFO1 75.4106357 MHz

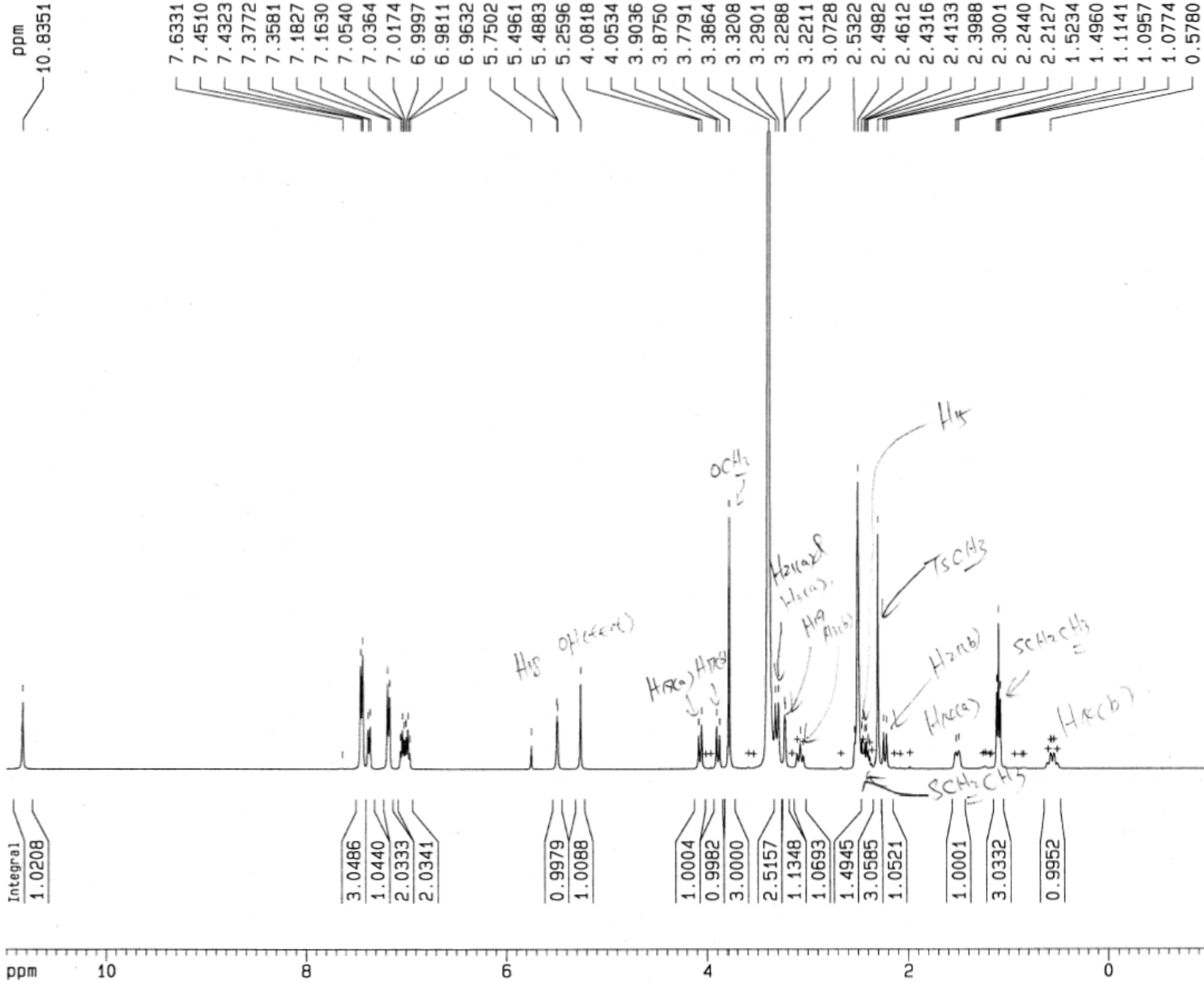
===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 115.00 usec
 PL2 0.00 dB
 PL12 19.70 dB
 PL13 19.70 dB
 SFO2 299.8711995 MHz

F2 - Processing parameters
 SI 32768
 SF 75.4023410 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 215.000 ppm
 F1 16211.50 Hz
 F2P -5.000 ppm
 F2 -377.01 Hz
 PPMCM 11.00000 ppm/cm
 HZCM 829.42578 Hz/cm



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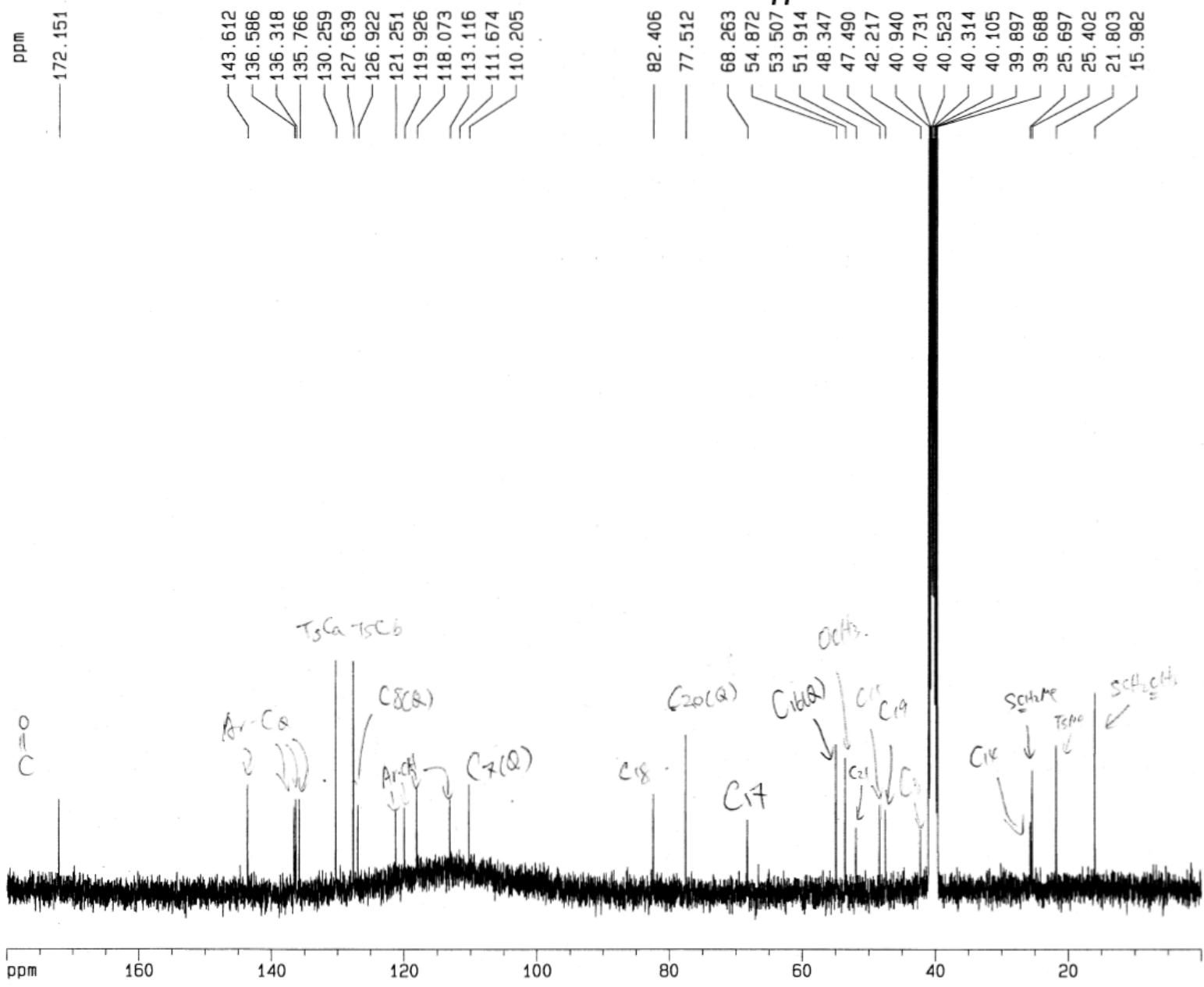
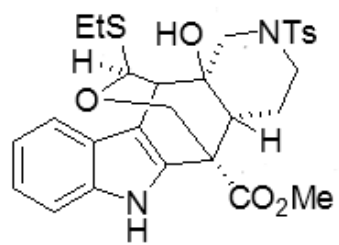
Current Data Parameters
 NAME 071213FJV-218L
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130712
 Time 19.23
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT DMSO
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 128
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300041 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
 NAME 071213FJV-218L
 EXPNO 7
 PROCNO 1

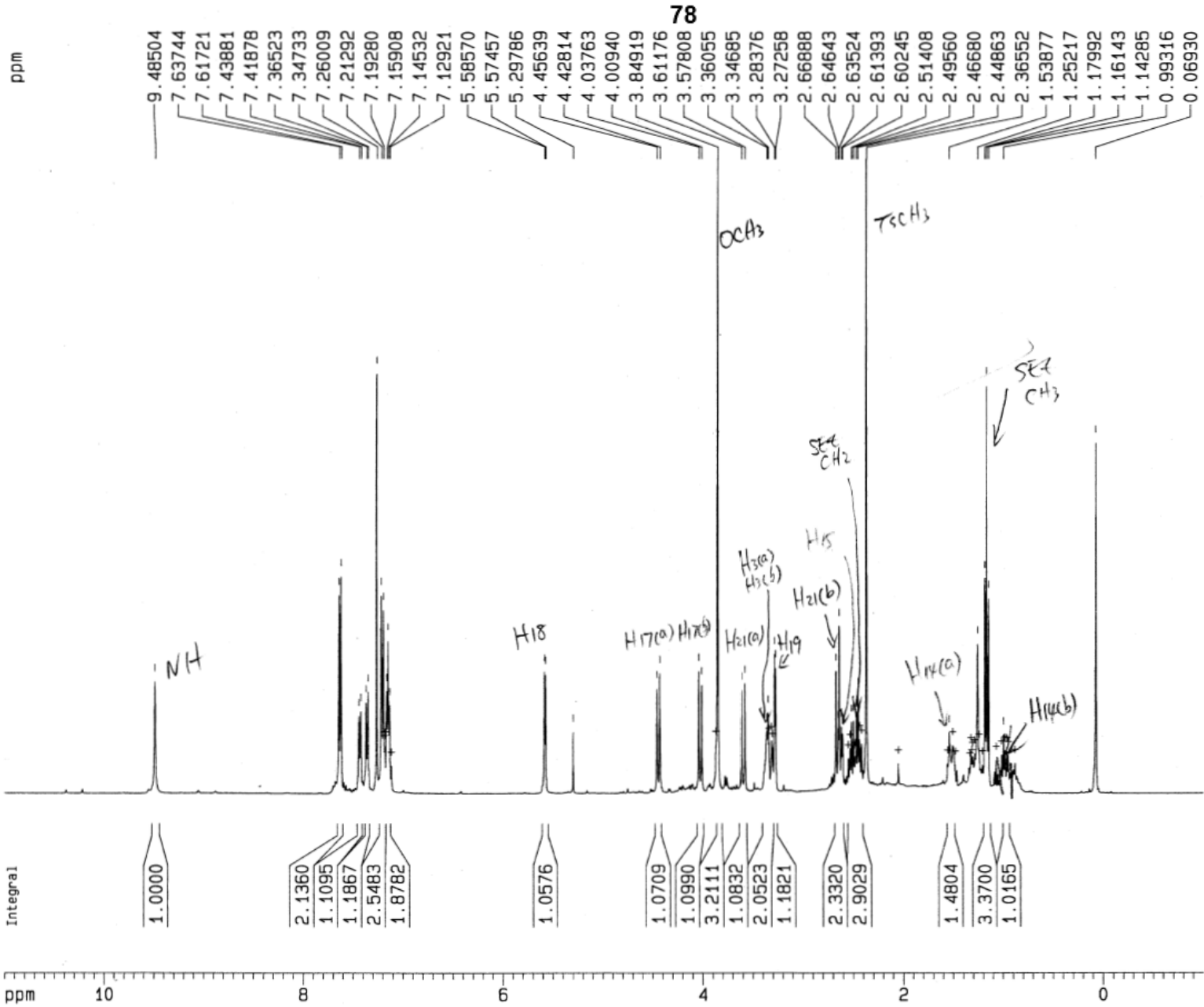
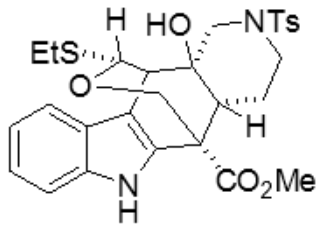
F2 - Acquisition Parameters
 Date_ 20130713
 Time 8.26
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zgpg30
 TD 65536
 SOLVENT DMSO
 NS 10240
 DS 4
 SWH 25125.629 Hz
 FIDRES 0.383387 Hz
 AQ 1.3042164 sec
 RG 16384
 DW 19.900 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 D12 0.00002000 sec

----- CHANNEL f1 -----
 NUC1 13C
 P1 16.35 usec
 PL1 -6.00 dB
 SFO1 100.6237959 MHz

----- CHANNEL f2 -----
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 114.00 usec
 PL2 0.00 dB
 PL12 24.00 dB
 PL13 24.00 dB
 SFO2 400.1316005 MHz

F2 - Processing parameters
 SI 32768
 SF 100.6127290 MHz
 NDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 180.000 ppm
 F1 18110.29 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 9.00000 ppm/cm
 HZCM 905.51459 Hz/cm



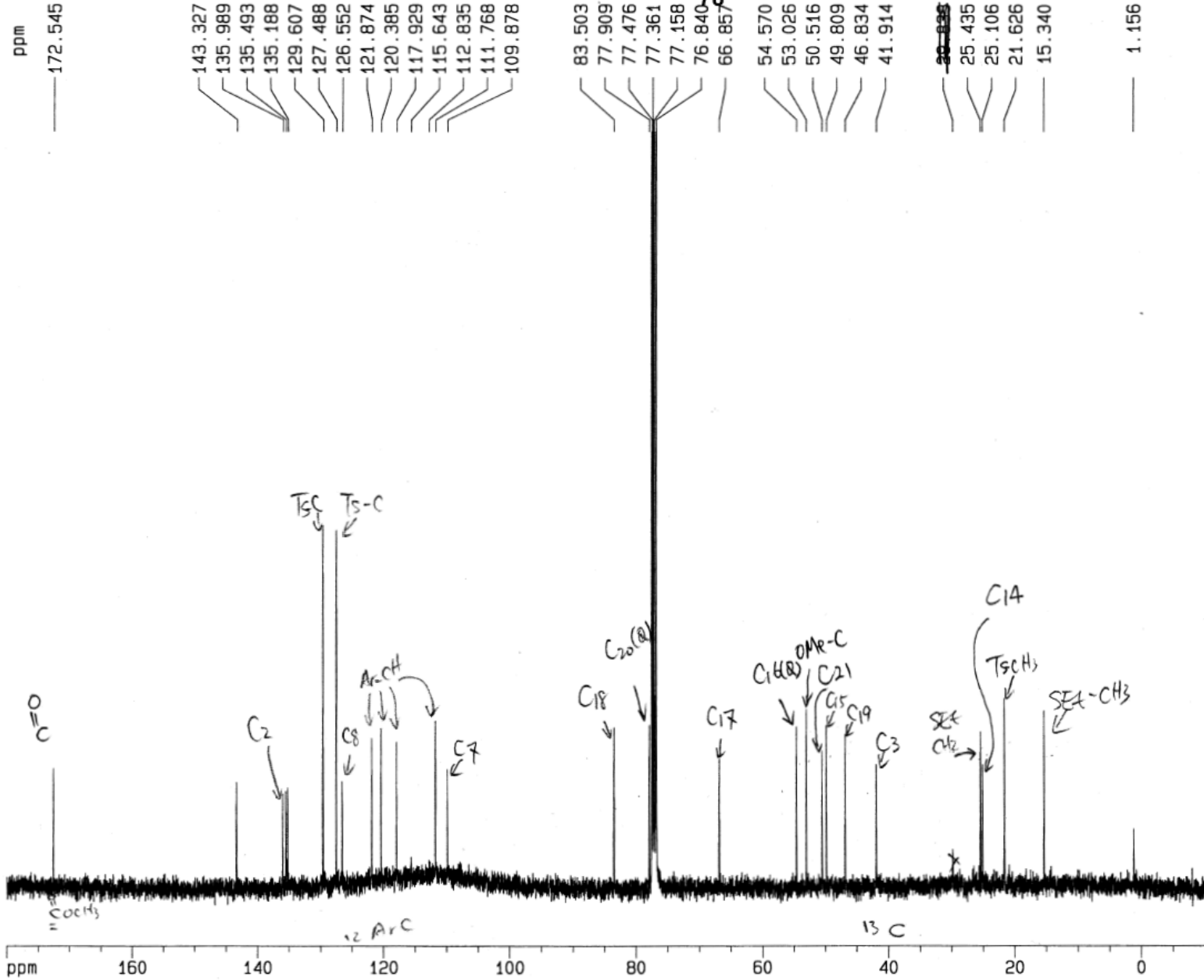
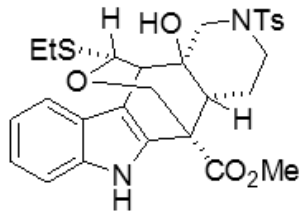
Current Data Parameters
 NAME 070313FJV-200P
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130703
 Time 17.22
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 16
 DS 2
 SNH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 181
 DW 60.400 usec
 DE 5.00 usec
 TE 300.0 K
 D1 1.00000000 sec

----- CHANNEL f1 -----
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300099 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



Current Data Parameters
 NAME 070313JV-200P
 EXPNO 7
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130704
 Time 6.14
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 8192
 DS 4
 SWH 25125.629 Hz
 FIDRES 0.383387 Hz
 AQ 1.3042164 sec
 RG 16384
 DW 19.900 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 D12 0.00002000 sec

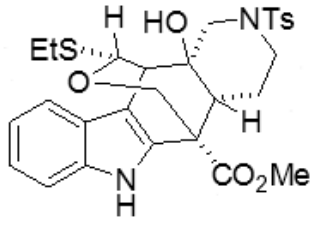
===== CHANNEL f1 =====
 NUC1 13C
 P1 16.35 usec
 PL1 -6.00 dB
 SF01 100.6237959 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 114.00 usec
 PL2 0.00 dB
 PL12 24.00 dB
 PL13 24.00 dB
 SF02 400.1316005 MHz

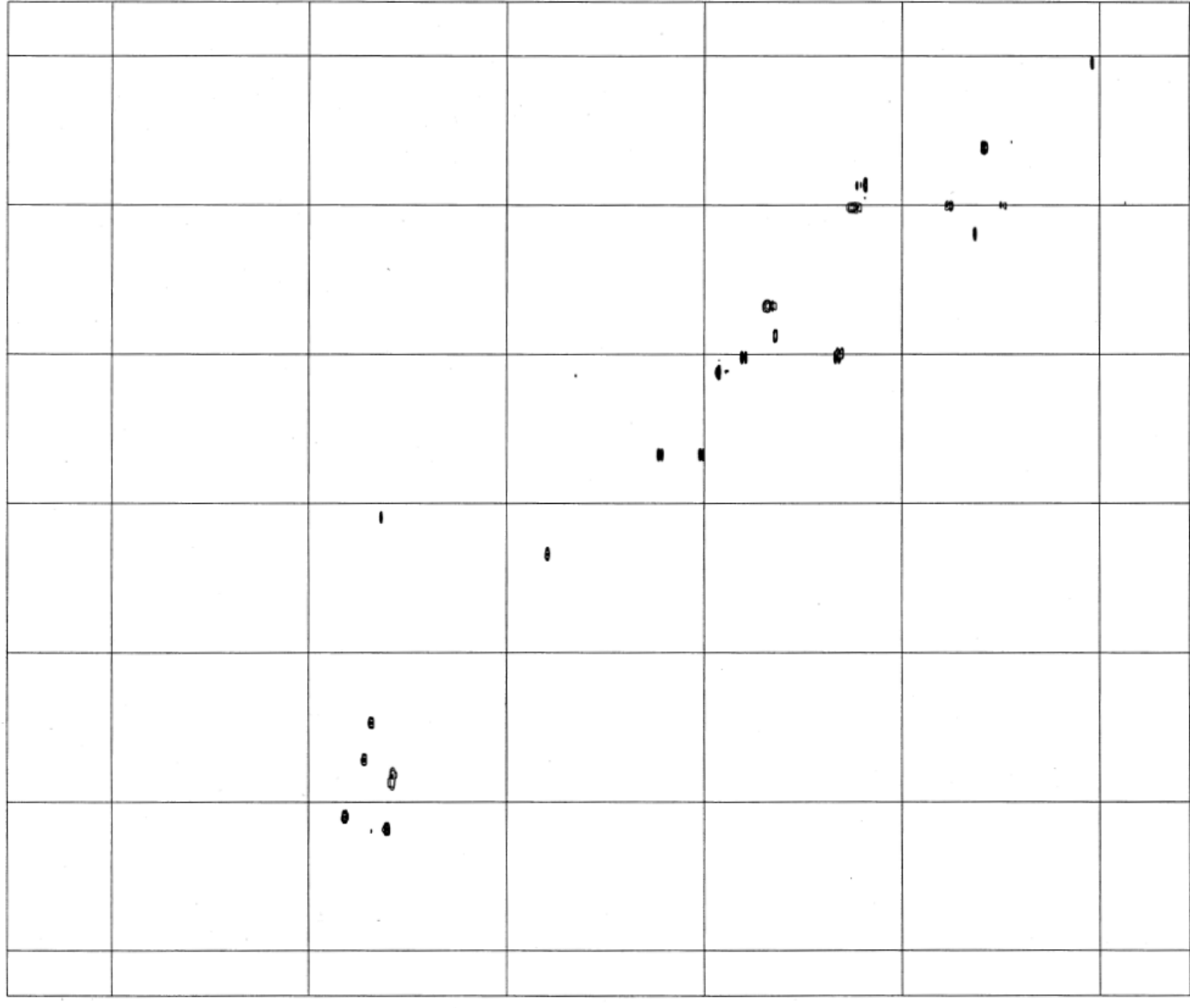
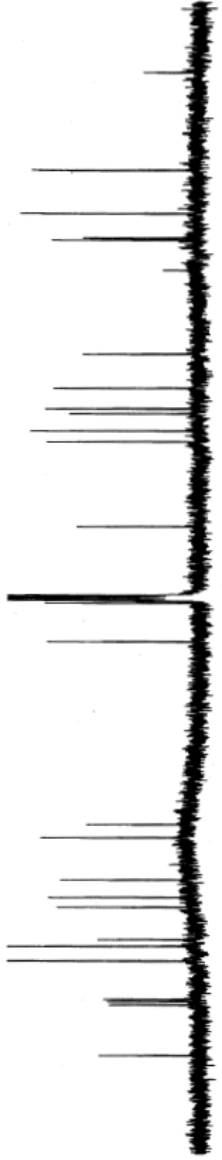
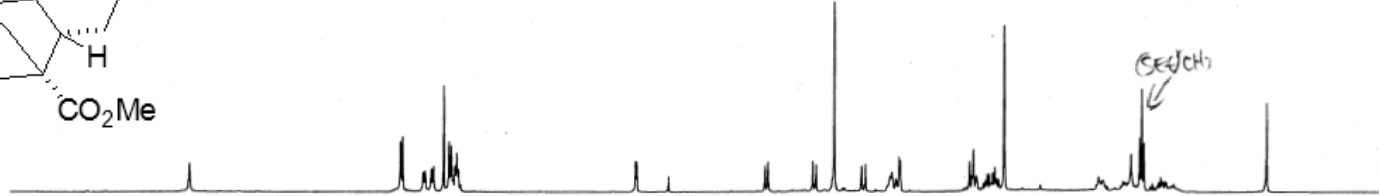
F2 - Processing parameters
 SI 32768
 SF 100.6127585 MHz
 WDM EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 180.000 ppm
 F1 18110.29 Hz
 F2P -10.000 ppm
 F2 -1006.13 Hz
 PPMCM 9.50000 ppm/cm
 HZCM 955.82117 Hz/cm

HMGC



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Current Data Parameters
Date_ 070319 JV-200P
EXPNO 3
PROCNO 1

F2 - Acquisition Parameters
Date_ 20190703
Time 17:22
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG InvAgg1p
TD 2648
SOLVENT CDCl3
NS 4
DS 8
SWH 4789.272 Hz
FIDRES 2.338612 Hz
AQ 0.2138612 sec
RG 14896.5
DN 104.400 usec
DE 5.00 usec
TE 300.0 K
D0 0.0000300 sec
D1 1.89631298 sec
D2 0.00346000 sec
d4 0.00172500 sec
D11 0.03000000 sec
D13 0.00000300 sec
D16 0.00020000 sec
d20 0.00052500 sec
d21 0.00224800 sec
D30 0.00001400 sec

----- CHANNEL f1 -----
NUC1 1H
P1 7.50 usec
P2 15.24 usec
PL1 0.00 dB
SFO1 400.1320391 MHz

----- CHANNEL f2 -----
CPDPRG2 gprg
NUC2 13C
P3 17.00 usec
P4 34.00 usec
PCPD2 64.00 usec
PL2 -6.00 dB
PL12 6.30 dB
SFO2 100.6202332 MHz

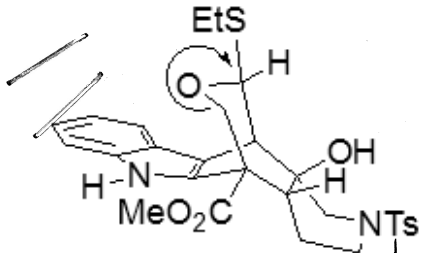
----- GRADIENT CHANNEL --
GPMAX1 SINE.100
GPMAX2 SINE.100
GPMAX3 SINE.100
GPK1 0.00 %
GPK2 0.00 %
GPK3 0.00 %
GPY1 0.00 %
GPY2 0.00 %
GPY3 0.00 %
GPE1 17.00 %
GPE2 20.00 %
GPE3 25.00 %
P16 1000.00 usec

F1 - Acquisition parameters
NUC 13C
TD 128
SFO1 100.6202 MHz
FIDRES 131.862214 Hz
DS 106.751 ppe

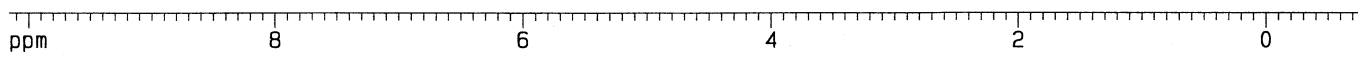
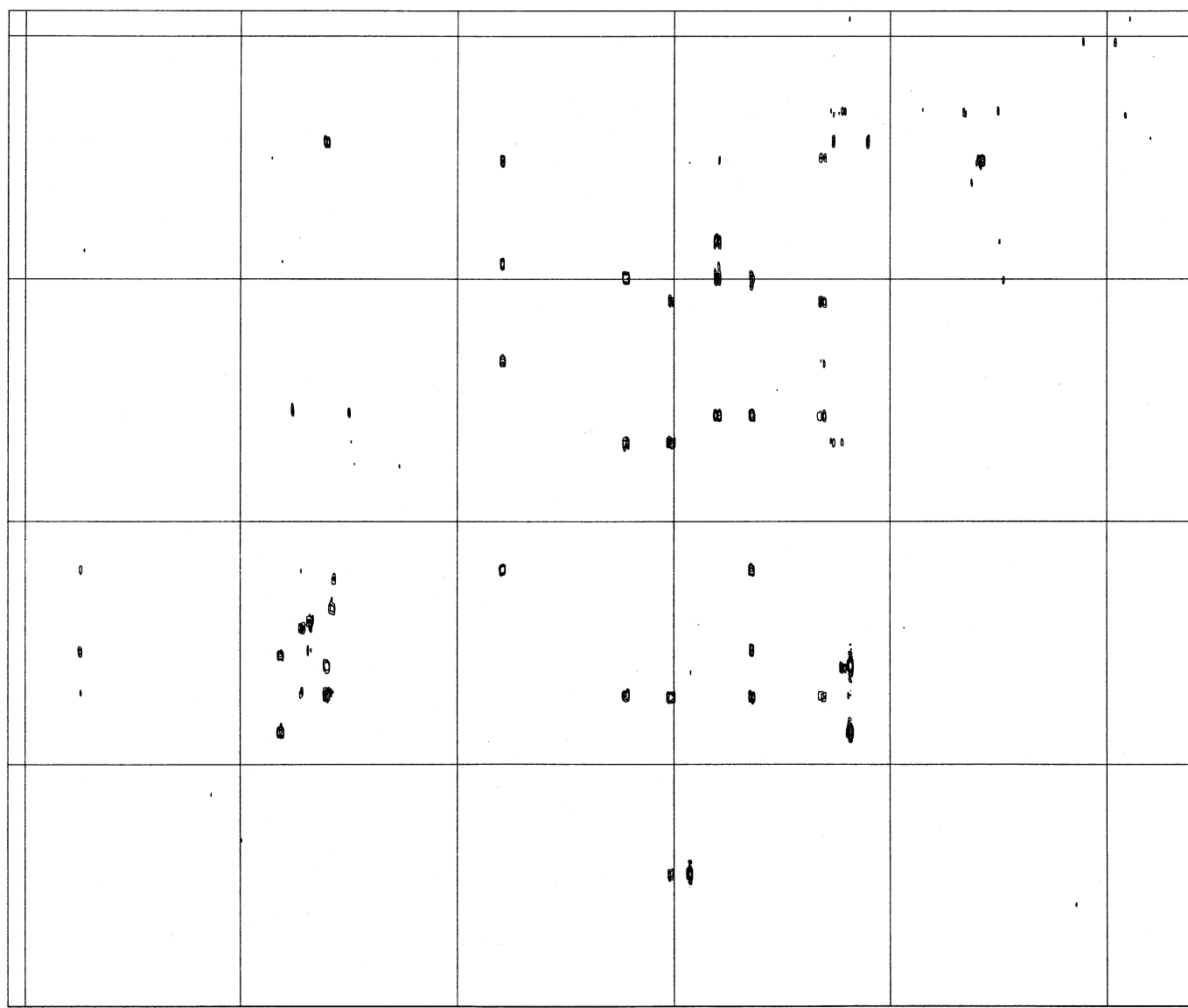
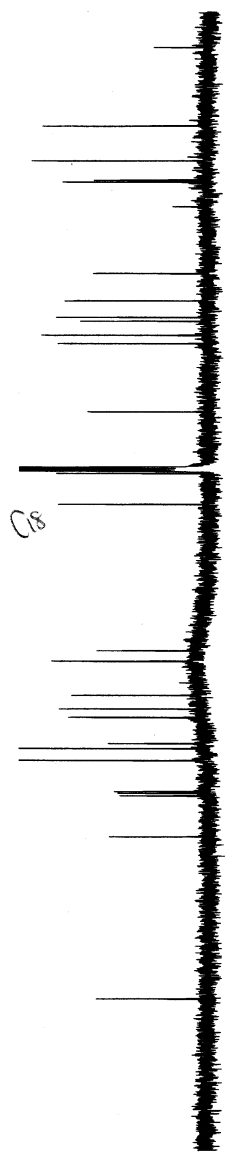
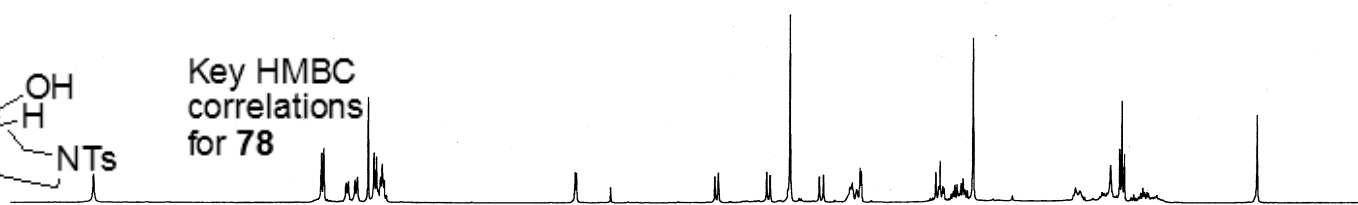
F2 - Processing parameters
SI 2048
SF 400.1320395 MHz
WDW 05SINE
SSB 2
LB 0.00 Hz
GB 0
PC 1.00

F1 - Processing parameters
SI 1024
TRF1
MC2
SF 100.6127577 MHz
WDW 05SINE
SSB 2
LB 0.00 Hz
GB 0

2D NMR plot parameters
CX2 18.00 cm
CX3 15.00 cm
F1P0 11.959 ppm
F2L0 4425.15 Hz
F2P0 -0.910 ppe
F2H0 -364.13 Hz
F1P10 157.581 ppm
F1L0 15654.76 Hz
F1P12 -9.082 ppe
F1H1 -913.76 Hz
F2P10CM 0.86486 ppm/cm
F1H2CM 265.07088 Hz/cm
F1P10CM 11.11756 ppm/cm
F1H2CM 1118.56824 Hz/cm



Key HMBC correlations for 78



Current Data Param
 NAME 070313FJV-200P
 EXPNO 4
 PROCNO 1

F2 - Acquisition Para
 Date_ 20130703
 Time 17.42
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG inv4gsiplrncd
 TD 2048
 SOLVENT CDCl3
 NS 8
 DS 16
 SMH 4789.272 Hz
 FIDRES 2.338512 Hz
 AQ 0.2138512 sec
 RG 16384
 DW 104.400 usec
 DE 6.00 usec
 TE 300.0 K
 D0 0.0000300 sec
 D1 1.5000000 sec
 D2 0.00345000 sec
 D6 0.06500000 sec
 D13 0.00003000 sec
 D16 0.00020000 sec
 INO 0.00002240 sec

----- CHANNEL f1 ----
 NUC1 1H
 P1 7.62 usec
 P2 15.24 usec
 PL1 0.00 dB
 SFO1 400.1320391 MHz

----- CHANNEL f2 ----
 NUC2 13C
 P3 17.00 usec
 PL2 -6.00 dB
 SFO2 100.6227351 MHz

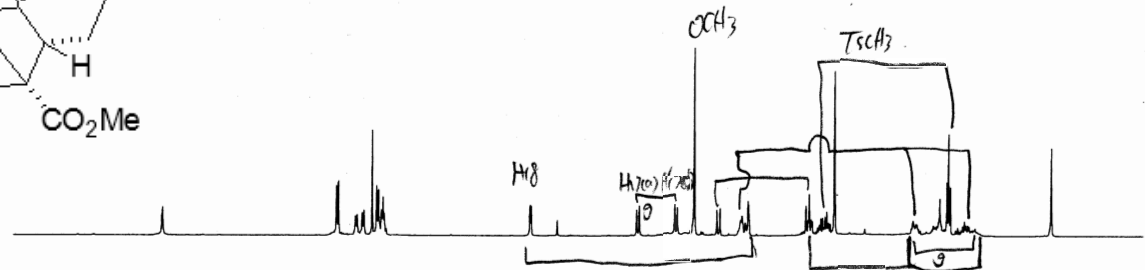
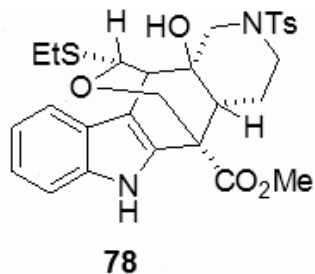
----- GRADIENT CHAN ----
 P16 1000.00 usec

F1 - Acquisition para
 ND0 2
 TD 128
 SFO1 100.6227 MHz
 FIDRES 174.386154 Hz
 SW 221.633 ppb

F2 - Processing para
 SI 2048
 SF 400.1300090 MHz
 WDM SINE
 SSB 0
 LB 0.00 Hz
 GB 0
 PC 1.40

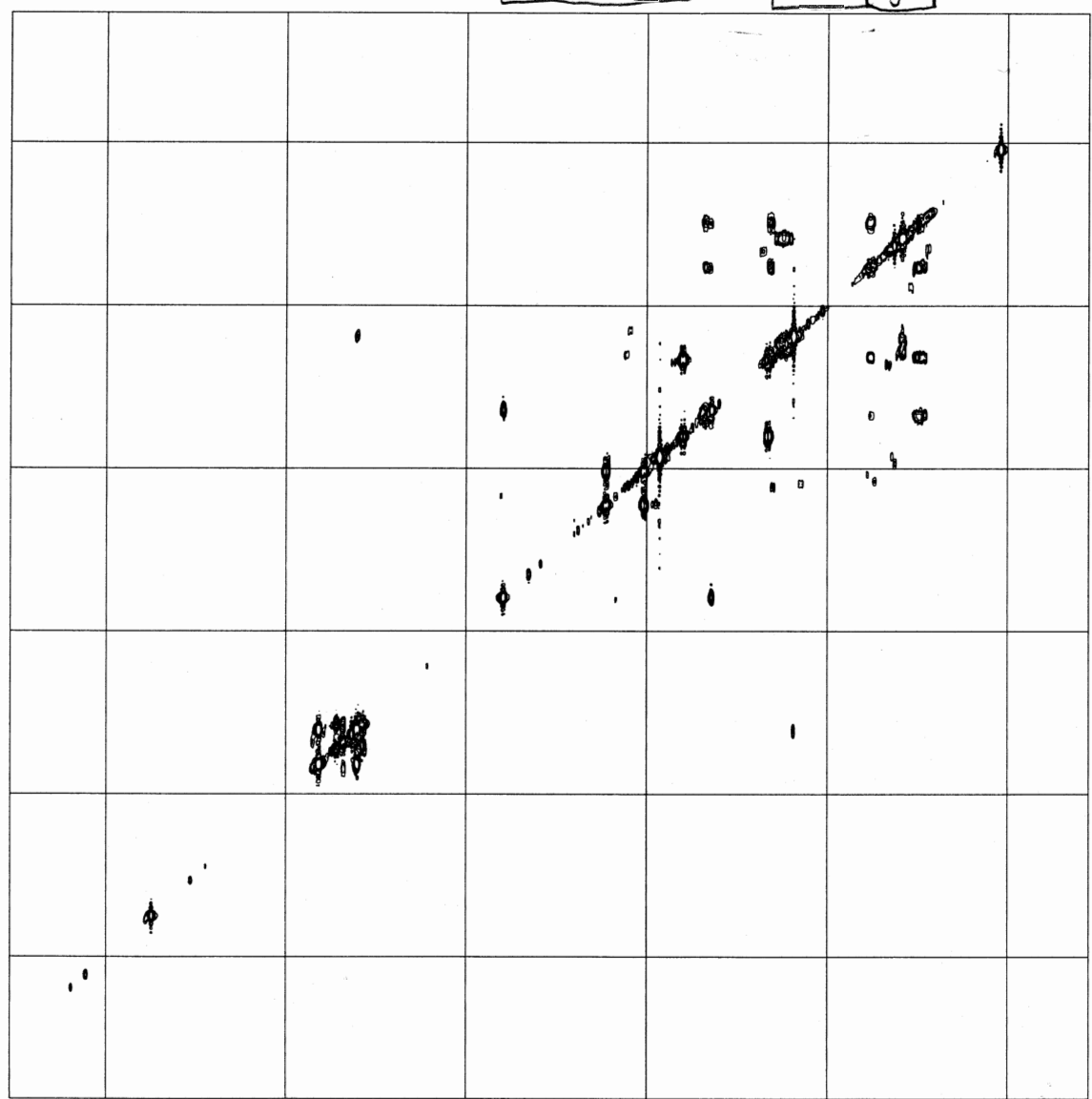
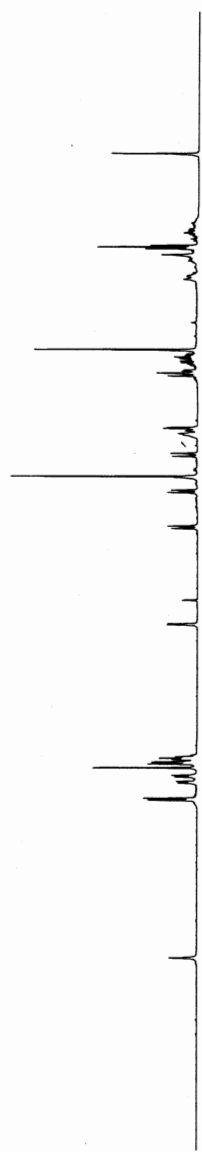
F1 - Processing para
 SI 1024
 MC2 GF
 SF 100.6127346 MHz
 WDM SINE
 SSB 0
 LB 0.00 Hz
 GB 0

2D NMR plot param
 CX2 18.00 cm
 CX1 15.00 cm
 F2PLO 10.158 ppb
 F2LO 4064.61 Hz
 F2PHI -0.812 ppb
 F2HI -324.78 Hz
 F1PLO 200.141 ppb
 F1LO 20136.68 Hz
 F1PHI -5.249 ppb
 F1HI -528.08 Hz
 F2PPMCM 0.60944 ppb
 F2HZCM 243.85481 Hz
 F1PPMCM 13.69261 ppb
 F1HZCM 1377.65076 Hz



*1/4 intensity
all*

FGY-V-200P gCOSY



```

Current Data Parameters
NAME 070313FJV-200P
EXPNO 8
PROCNO 1

F2 - Acquisition Parameters
Date_ 20130704
Time 8.25
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG cosypp
TD 2048
SOLVENT CDC13
NS 4
DS 8
SMH 4789.272 Hz
FIDRES 2.338512 Hz
AQ 0.2138612 sec
RG 203.2
DW 104.400 usec
DE 6.00 usec
TE 300.0 K
DO 0.00000300 sec
D1 1.50000000 sec
D13 0.00000300 sec
D16 0.00200000 sec
IN0 0.0018720 sec

----- CHANNEL f1 -----
NUC1 1H
P0 6.45 usec
P1 7.62 usec
PL1 0.00 dB
SFO1 400.1320391 MHz

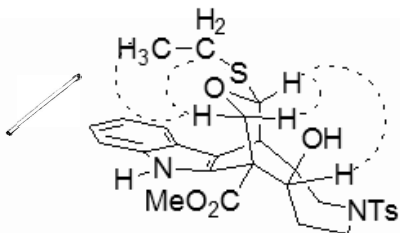
----- GRADIENT CHANNEL -----
GPNAM1 SINE.100
GPNAM2 SINE.100
GPX1 0.00 %
GPX2 0.00 %
GPY1 0.00 %
GPY2 0.00 %
GPZ1 10.00 %
GPZ2 10.00 %
P16 1000.00 usec

F1 - Acquisition parameters
ND0 1
TD 128
SFO1 400.132 MHz
FIDRES 41.733440 Hz
SW 13.350 ppm

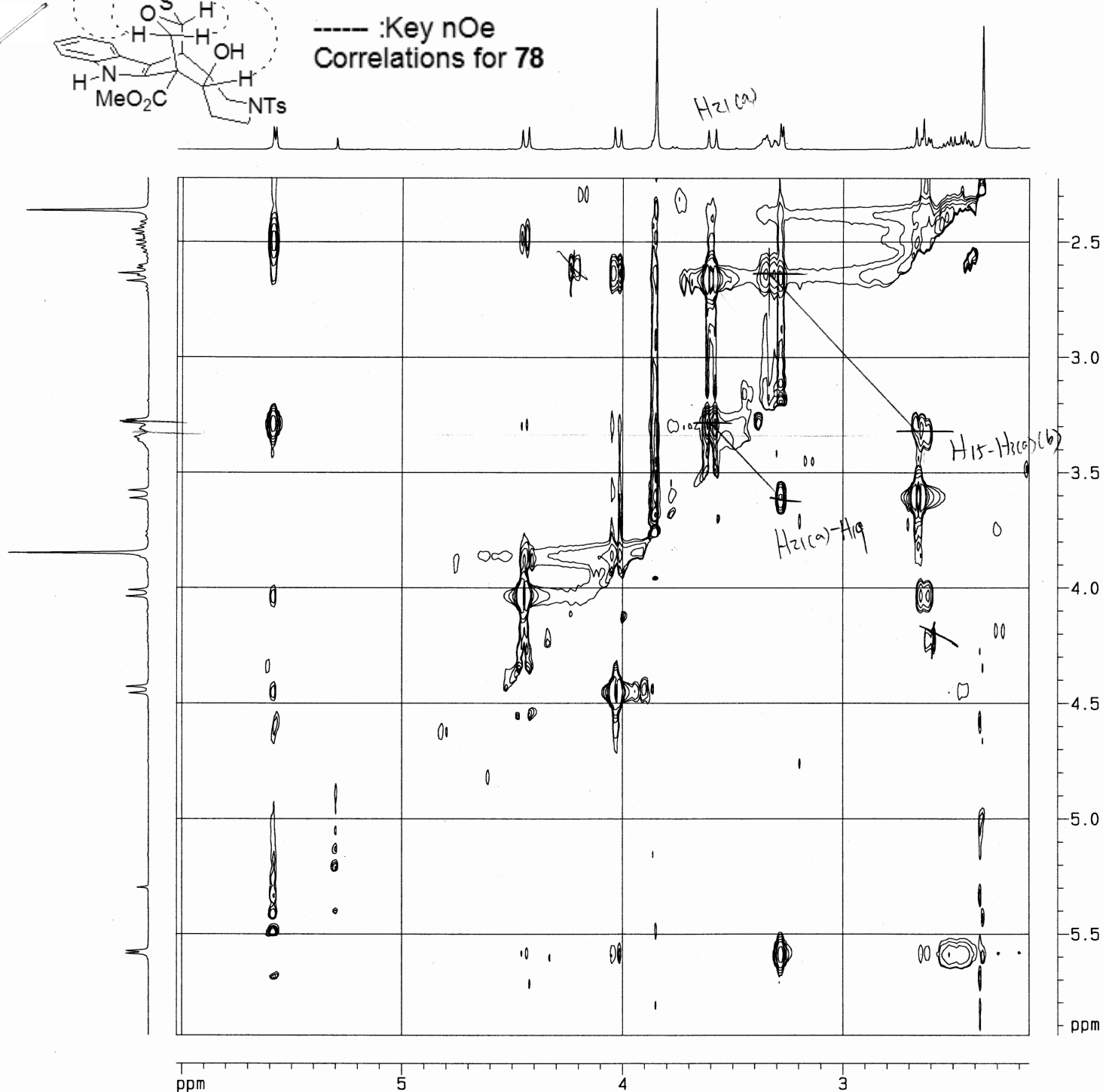
F2 - Processing parameters
SI 1024
SF 400.1300059 MHz
WDW SINE
SSB 0
LB 0.00 Hz
GB 0
PC 1.40

F1 - Processing parameters
SI 1024
WF 0F
SF 400.1300048 MHz
WDW SINE
SSB 0
LB 0.00 Hz
GB 0

2D NMR plot parameters
CX2 15.00 cm
CX1 15.00 cm
F2PLO 11.066 ppm
F2LO 4427.76 Hz
F2PHI -0.903 ppm
F2HI -361.51 Hz
F1PLO 11.759 ppm
F1LO 4705.22 Hz
F1PHI -1.551 ppm
F1HI -536.66 Hz
F2PRMCM 0.79795 ppm/cm
F2HZCM 319.28479 Hz/cm
F1PRMCM 0.89002 ppm/cm
F1HZCM 356.12537 Hz/cm
    
```



----- :Key nOe
Correlations for 78



Current Data Param
NAME 070313FJV-200P
EXPNO 6
PROCNO 1

F2 - Acquisition Param
Date_ 20130703
Time 20.01
INSTRUM spect
PROBHD 5 mm BBI 1H-
PULPROG noesygptp
TD 2048
SOLVENT CDC13
NS 8
DS 16
SMH 4789.272 Hz
FIDRES 2.338512 Hz
AQ 0.2138612 sec
RG 228.1
DW 104.400 use
DE 6.00 use
TE 300.0 K
D0 0.0000300 sec
D1 4.0000000 sec
D8 0.5000000 sec
D16 0.0002000 sec
d20 0.2487999 sec
INO 0.00012240 sec

----- CHANNEL f1 -----
NUC1 1H
P1 7.62 use
P2 15.24 use
PL1 0.00 dB
SF01 400.1320391 MHz

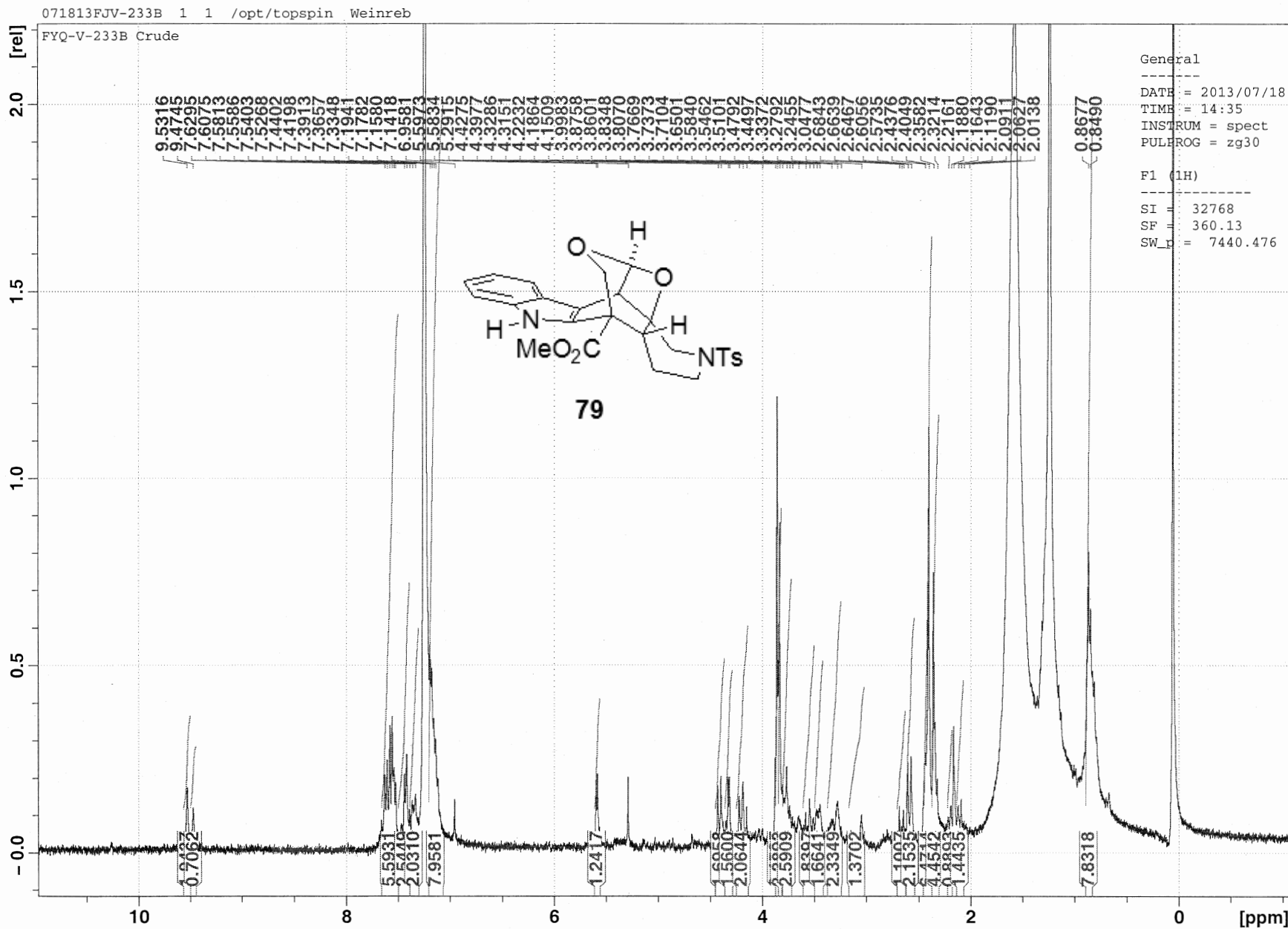
----- GRADIENT CHANN -----
GPNAM1 SINE.100
GPNAM2 SINE.100
GPX1 0.00 %
GPX2 0.00 %
GPY1 0.00 %
GPY2 0.00 %
GPZ1 40.00 %
GPZ2 -40.00 %
P16 1000.00 use

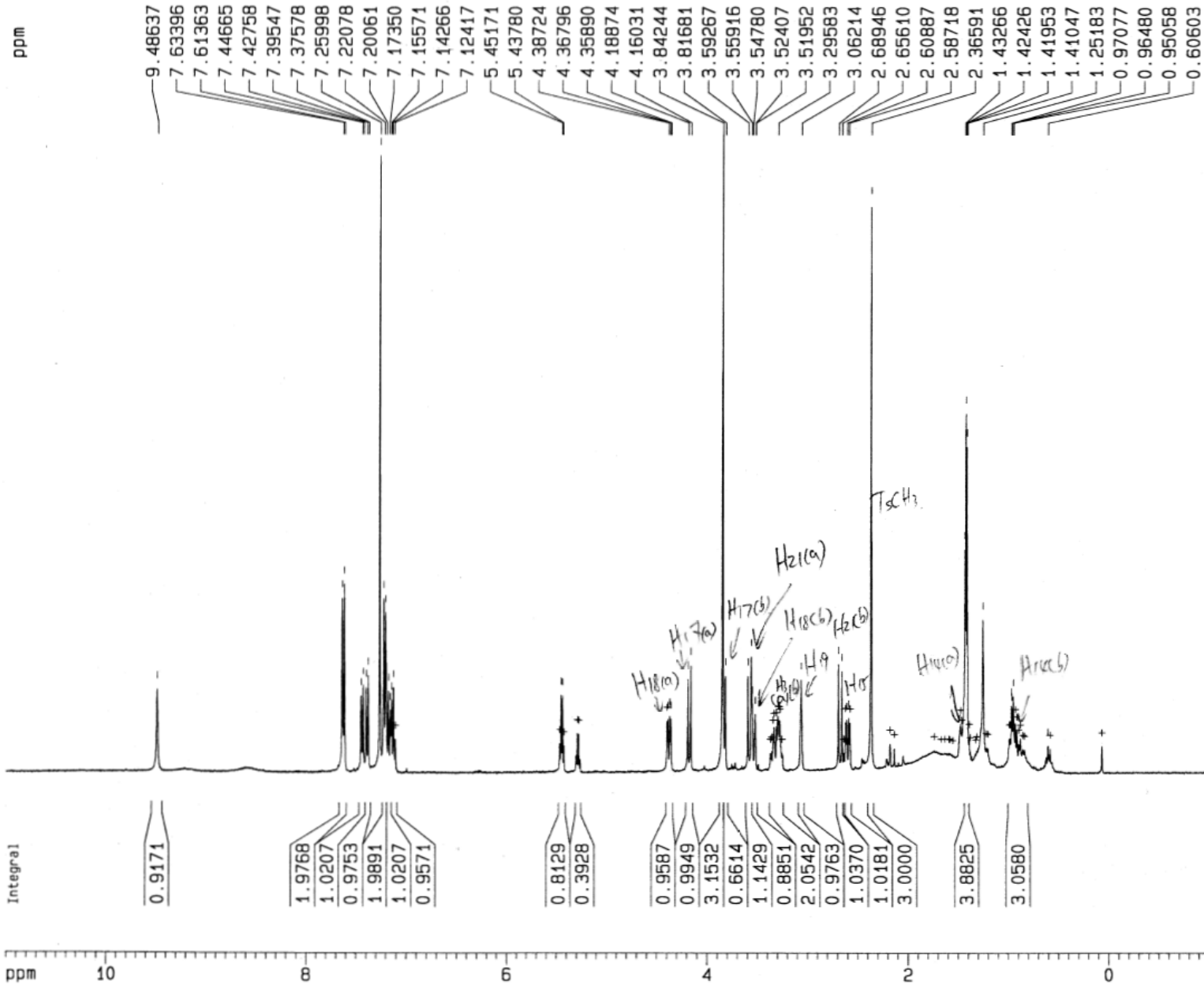
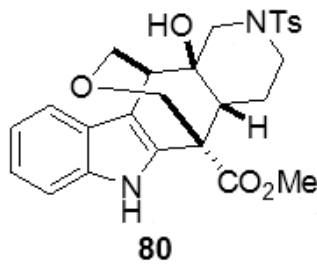
F1 - Acquisition param
ND0 2
TD 256
SF01 400.132 MHz
FIDRES 15.956803 Hz
SW 10.209 ppr

F2 - Processing param
SI 1024
SF 400.1300076 MHz
WDW QSINE
SSB 2
LB 0.00 Hz
GB 0
PC 1.40

F1 - Processing param
SI 1024
MC2 TRF1
SF 400.1300064 MHz
WDW QSINE
SSB 2
LB 0.00 Hz
GB 0

2D NMR plot param
CX2 15.00 cm
CX1 15.00 cm
F2PLO 6.024 ppr
F2L0 2410.35 Hz
F2PHI 2.155 ppr
F2H1 862.25 Hz
F1PLO 5.942 ppr
F1L0 2377.72 Hz
F1PHI 2.224 ppr
F1H1 889.74 Hz
F2PPMCM 0.25793 ppr
F2HZCM 103.20631 Hz/
F1PPMCM 0.24792 ppr
F1HZCM 99.19875 Hz/





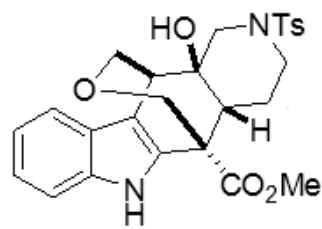
Current Data Parameters
 NAME 080713FJV-274
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130807
 Time 15.21
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 1024
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

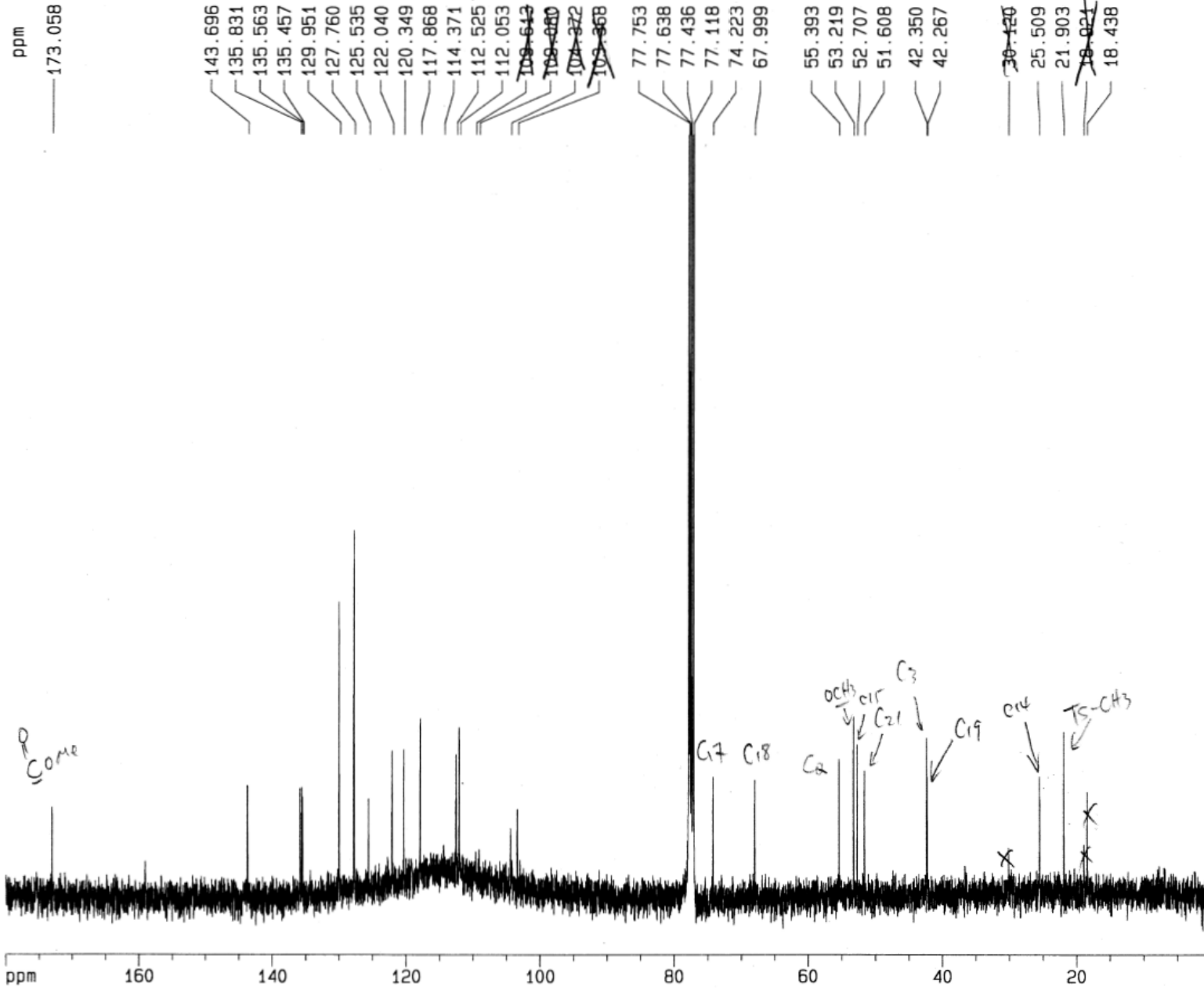
===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

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

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm



80



Current Data Parameters
 NAME 080713FJV-274T
 EXPNO 7
 PROCNO 1

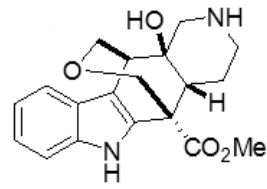
F2 - Acquisition Parameters
 Date_ 20130808
 Time 7.32
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zgpg30
 TD 65536
 SOLVENT CDC13
 NS 10240
 DS 4
 SWH 25125.629 Hz
 FIDRES 0.383387 Hz
 AQ 1.3042164 sec
 RG 16384
 DW 19.900 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 D12 0.00002000 sec

===== CHANNEL f1 =====
 NUC1 13C
 P1 16.35 usec
 PL1 -6.00 dB
 SF01 100.6237959 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 114.00 usec
 PL2 0.00 dB
 PL12 24.00 dB
 PL13 24.00 dB
 SF02 400.1316005 MHz

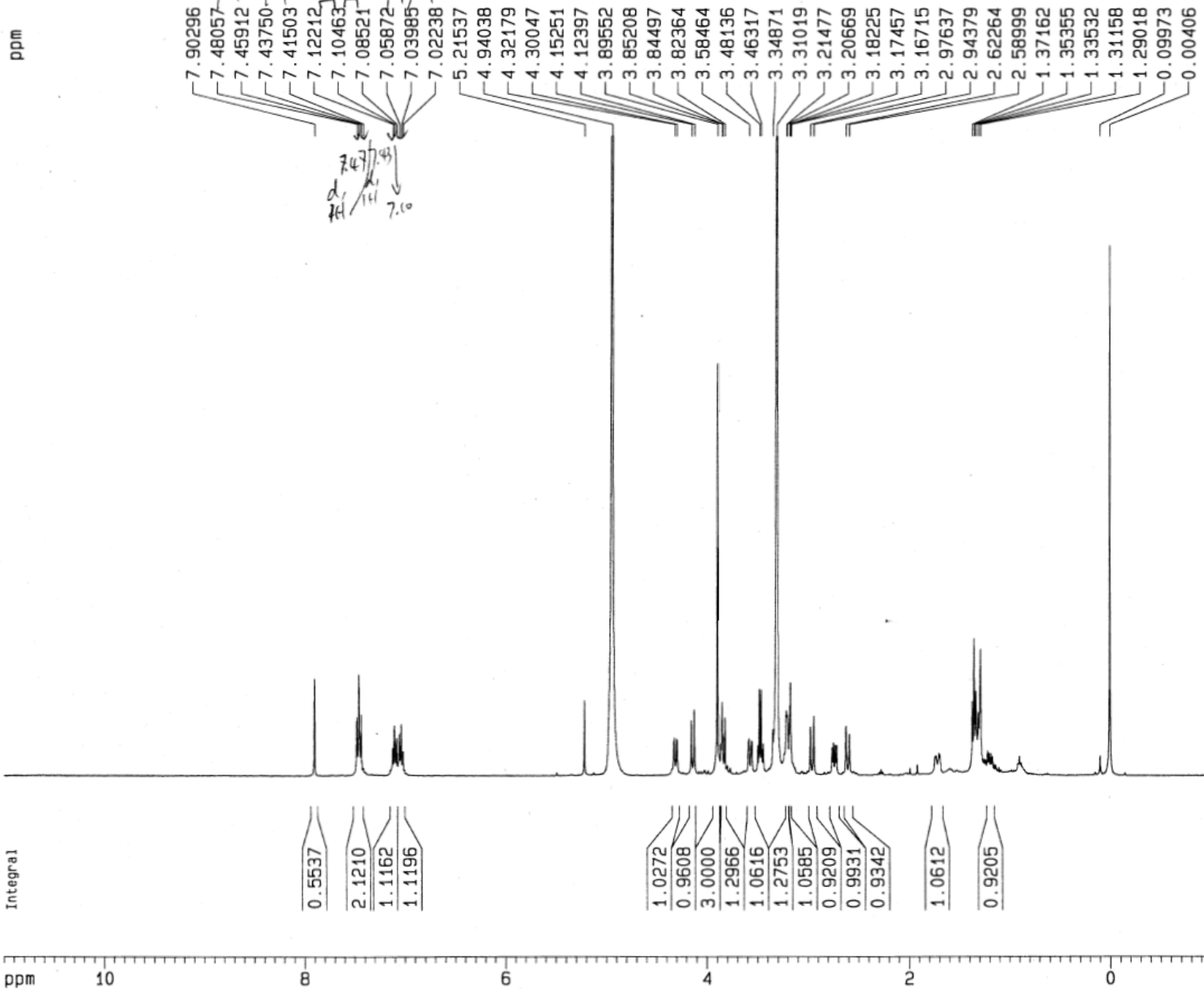
F2 - Processing parameters
 SI 32768
 SF 100.6127290 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 180.000 ppm
 F1 18110.29 Hz
 F2P 0.000 ppm
 F2 0.00 Hz
 PPMCM 9.00000 ppm/cm
 HZCM 905.51459 Hz/cm



FYQ-V-294 w/ TFA

(±)-alstilobanine E (2)



Current Data Parameters
 NAME 090513FJV-294
 EXPNO 1
 PROCNO 1

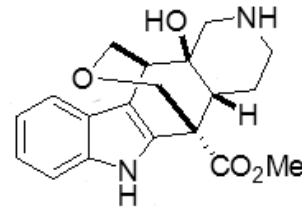
F2 - Acquisition Parameters
 Date_ 20130905
 Time 10.34
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT MeOH
 NS 32
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 456.1
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

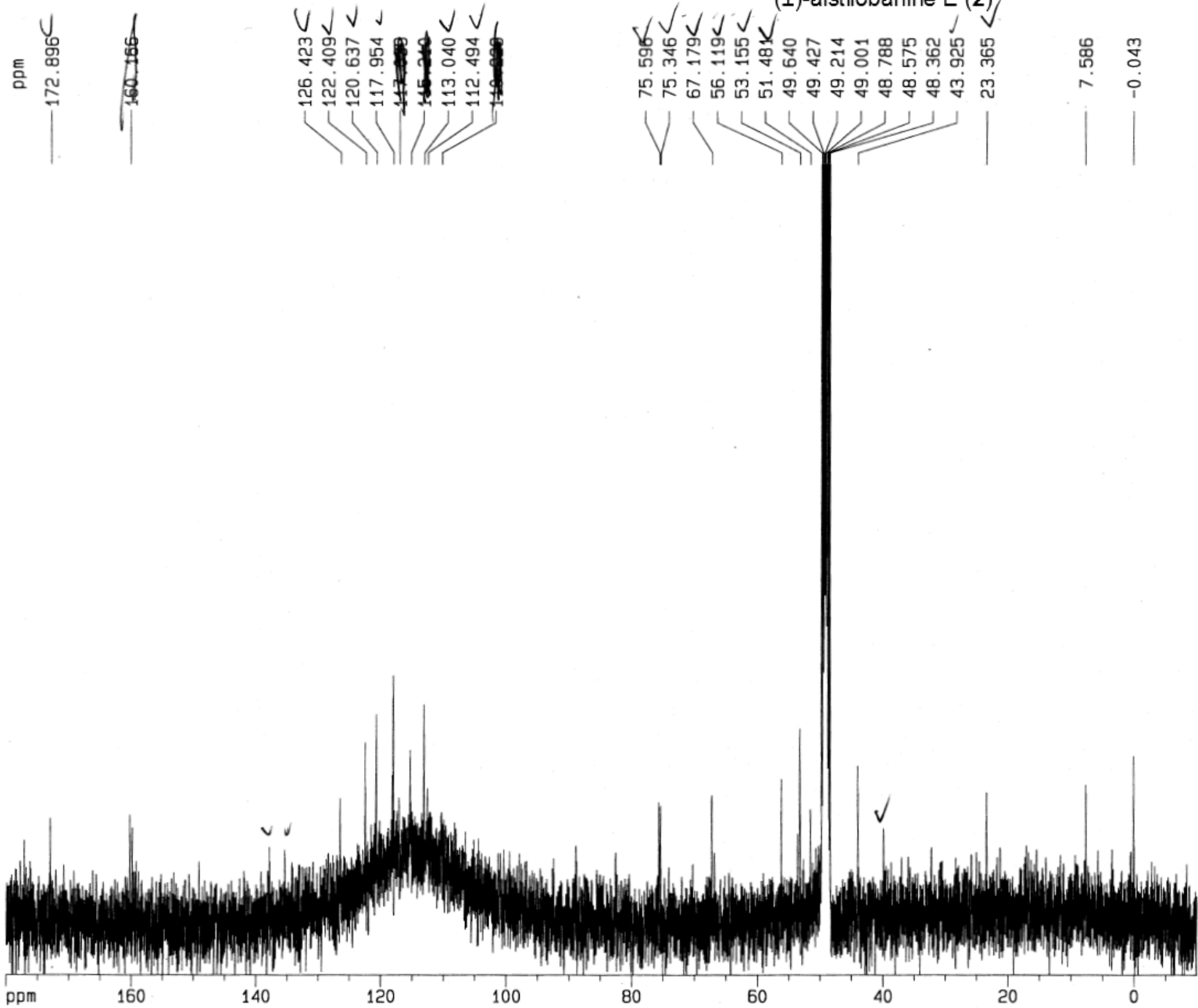
F2 - Processing parameters
 SI 32768
 SF 400.1300074 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm

FYG-V-294 w/TFA C13



(±)-alstilobanine E (2)



Current Data Parameters
 NAME 090513FJV-294
 EXPNO 4
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130906
 Time 8.00
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zgpg30
 TD 65536
 SOLVENT MeOH
 NS 16384
 DS 4
 SWH 25125.629 Hz
 FIDRES 0.383387 Hz
 AQ 1.3042164 sec
 RG 16384
 DW 19.900 usec
 DE 6.00 usec
 TE 300.0 K
 D1 2.00000000 sec
 D11 0.03000000 sec
 D12 0.00002000 sec

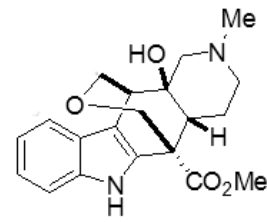
===== CHANNEL f1 =====
 NUC1 13C
 P1 16.35 usec
 PL1 -6.00 dB
 SF01 100.6237959 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 PCPD2 114.00 usec
 PL2 0.00 dB
 PL12 24.00 dB
 PL13 24.00 dB
 SF02 400.1316005 MHz

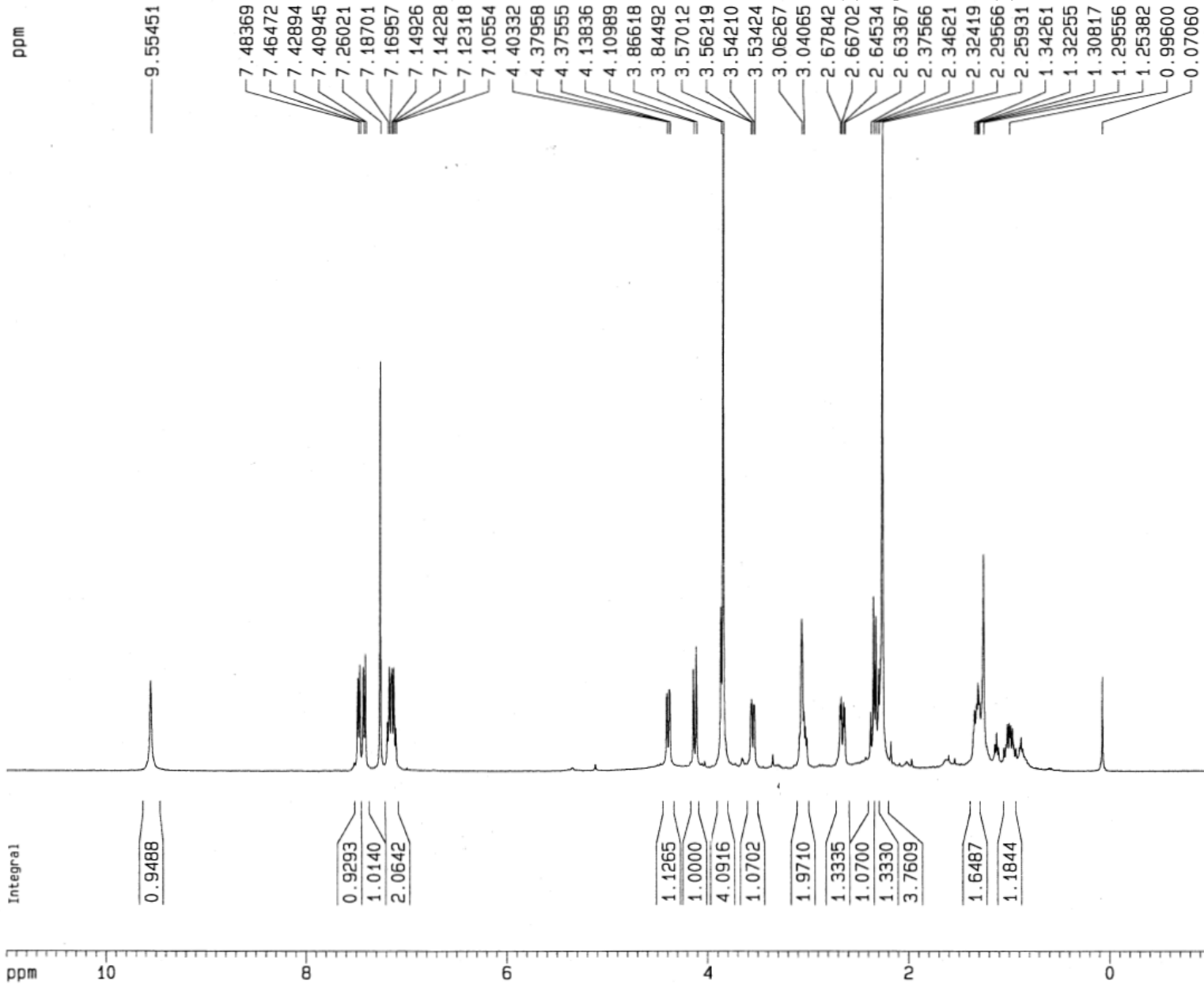
F2 - Processing parameters
 SI 32768
 SF 100.6126267 MHz
 WDW EM
 SSB 0
 LB 1.00 Hz
 GB 0
 PC 1.40

1D NMR plot parameters
 CX 20.00 cm
 F1P 180.000 ppm
 F1 18110.27 Hz
 F2P -10.000 ppm
 F2 -1006.13 Hz
 PPMCM 9.50000 ppm/cm
 HZCM 955.81995 Hz/cm

FYQ-V-Angustilodine



(±)-angustilodine (1)



Current Data Parameters
 NAME 091013FJV-295
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20130910
 Time 14.55
 INSTRUM spect
 PROBHD 5 mm BBI 1H-
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 16
 DS 2
 SWH 8278.146 Hz
 FIDRES 0.126314 Hz
 AQ 3.9584243 sec
 RG 362
 DW 60.400 usec
 DE 6.00 usec
 TE 300.0 K
 D1 1.00000000 sec

===== CHANNEL f1 =====
 NUC1 1H
 P1 6.45 usec
 PL1 0.00 dB
 SF01 400.1324710 MHz

F2 - Processing parameters
 SI 32768
 SF 400.1300094 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 F1P 11.000 ppm
 F1 4401.43 Hz
 F2P -1.000 ppm
 F2 -400.13 Hz
 PPMCM 0.60000 ppm/cm
 HZCM 240.07800 Hz/cm

