

Supporting Information

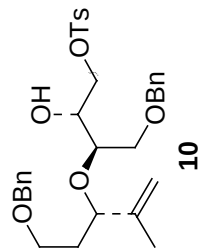
**Enantioselective Total Synthesis of Macrolide Antitumor Agent (-)-
Lasonolide A**

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West Lafayette, IN 47907*

Copies of ^1H and ^{13}C NMR spectrum of key compounds **1**, **3**, **3a**, **4**, **5**, **10**, **11**, **12a**, **14**, **15**, **19**, **21**, **25**, **26**, **30**, **31**, **32**,
and **33**

H1 standard parameters, TXI_HCN_XYZ probe.



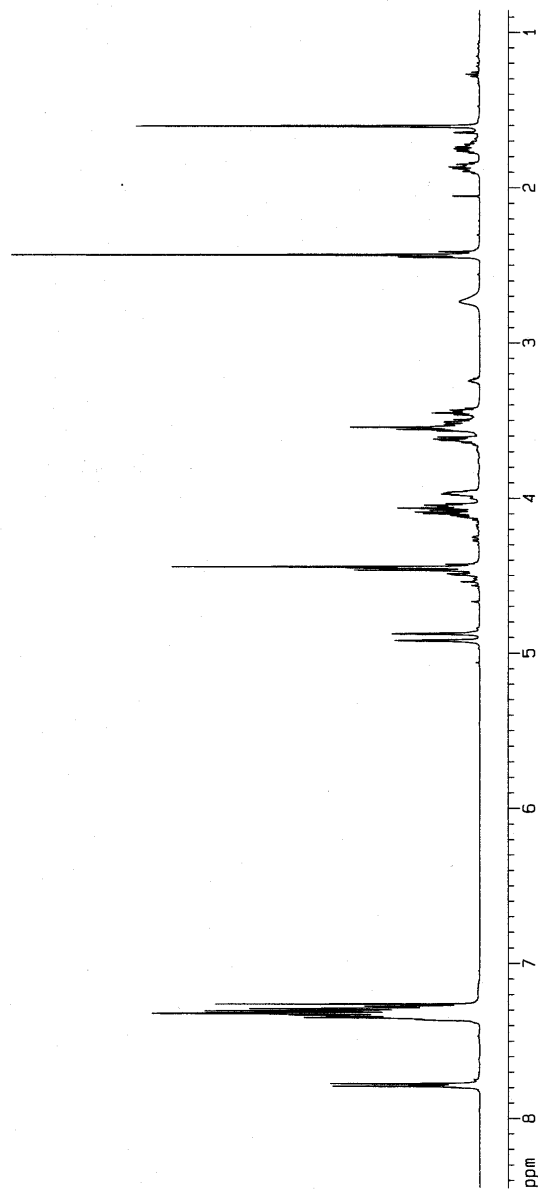
Current Data Parameters
NAME 050503
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20060505
Time 18.38
INSTRUM spect
PROBHD 5 mm TXI HCN X
PULPROG zg30
TD 32768
SOLVENT CDCl3
NS 8
DS 2
SWH 7002.801 Hz
FIDRES 0.213709 Hz
AQ 2.3397565 sec
RG 114
DM 71.400 usec
DE 6.00 usec
TE 294.2 K
D1 2.00000000 sec
MORST 0.00000000 sec
MORPK 0.01500000 sec

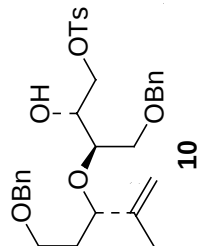
***** CHANNEL f1 *****
NUC1 1H
P1 12.00 usec
PL1 0.00 dB
SF01 499.8732500 MHz

F2 - Processing parameters
SI 16384
SF 499.8700317 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 8.00 cm
FIP 8.448 ppm
F1 4223.15 Hz
F2P 0.856 ppm
F2 428.03 Hz
PPMCM 0.37951 ppm/cm
HZCM 189.75583 Hz/cm



C13 standard parameters, TXI_HCN_XYZ probe.



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Current Data Parameters
NAME      050503
EXPNO     2
PROCNO    1

F2 - Acquisition Parameters
Date_     20060505
Time      18.44
INSTRUM   spect
PROBHD    5 mm TXI HCN X
PULPROG   zgpg30
TD         32768
SOLVENT   CDCl3
NS         256
DS         4
SWH        30030.029 Hz
FIDRES     0.916444 Hz
AQ         0.5456539 sec
RG         11585.2
DM         16.650 usec
DE         6.00 usec
TE         294.3 K
D1         2.00000000 sec
d11        0.03000000 sec
MCREST    0.00000000 sec
MCMRK     0.01500000 sec

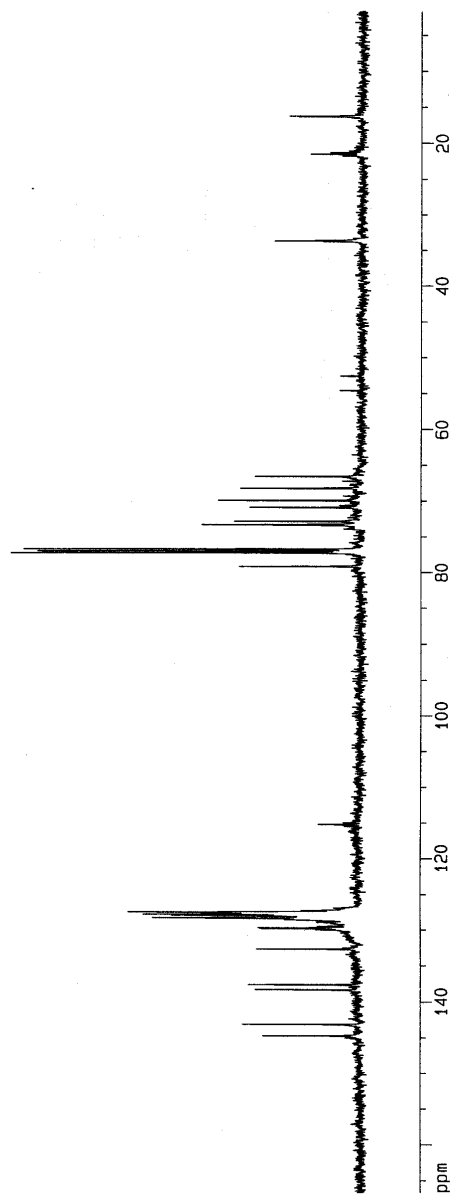
===== CHANNEL f1 =====
NUC1       13C
P1         15.00 usec
PL1        -3.00 dB
SF01       125.7061610 MHz

===== CHANNEL f2 =====
CPDPRG2    waltz16
NUC2       1H
PCPD2      74.00 usec
PL2        0.00 dB
PL12       16.00 dB
PL13       19.00 dB
SF02       499.8725000 MHz

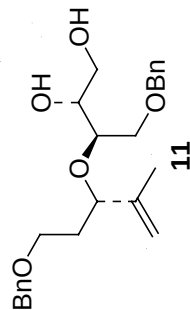
F2 - Processing parameters
SI         16384
SF         125.6924320 MHz
WDW        EM
SSB        0
LB         3.00 Hz
GB         0
PC         1.00

1D NMR plot parameters
CX         20.00 cm
CY         6.00 cm
F1P        166.715 ppm
F1         20954.77 Hz
F2P        1.635 ppm
F2         205.54 Hz
PPMCH      8.25397 ppm/cm
HZCM       1037.46130 Hz/cm

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PROTON

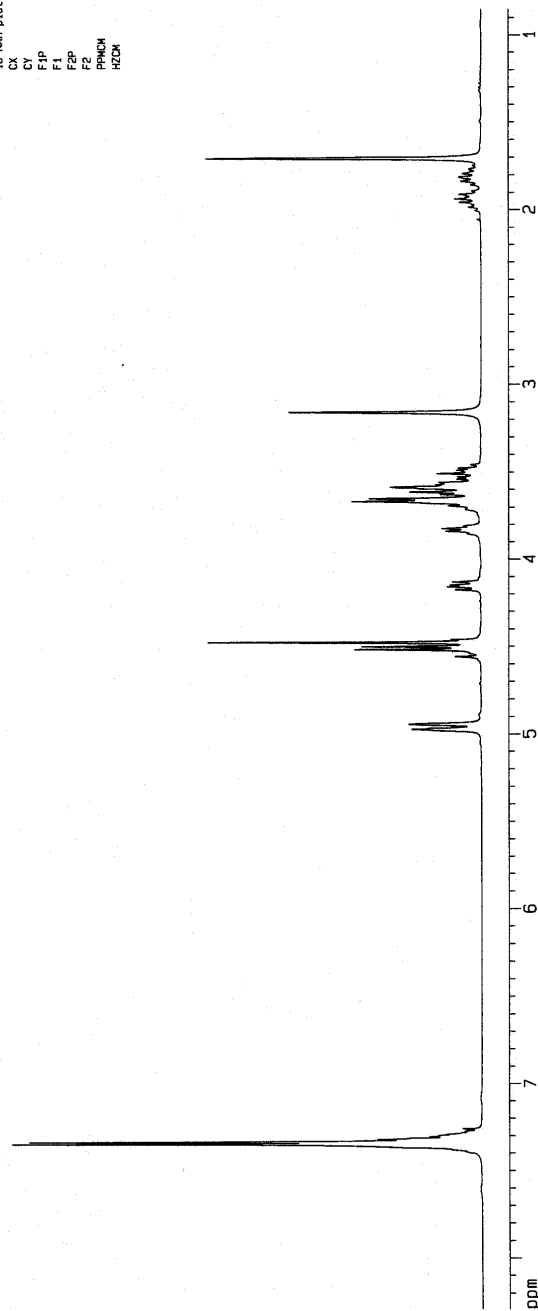


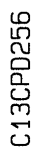
Current Data Parameters
 NAME 051101
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20050511
 Time 15:46
 INSTRUM spect
 PROBRD 5 mm QNP 1H
 PULPROG zg30
 TO 15624
 SOLVENT CDCl3
 NS 16
 DS 0
 SWH 4504.504 Hz
 FIDRES 0.286307 Hz
 AQ 1.7343140 sec
 RG 128
 DW 111.000 usec
 DE 1550.000 usec
 TE 300.0 K
 D1 1.00000000 sec
 P1 11.25 usec
 SF01 300.1343785 MHz
 NUCLEUS 1H

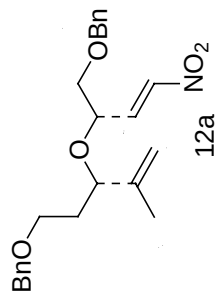
F2 - Processing parameters
 SI 32768
 SF 300.1333669 MHz
 WDW EN
 SSB 0
 GB 0.30 Hz
 BR 0
 PC 1.00

1D NMR plot parameters
 CX 22.00 cm
 CY 8.00 cm
 FIP 8.290 ppm
 F1 2488.25 Hz
 F2P 0.853 ppm
 F2 255.89 Hz
 PPM0H 0.35809 ppm/cm
 HZ0H 101.47112 Hz/cm

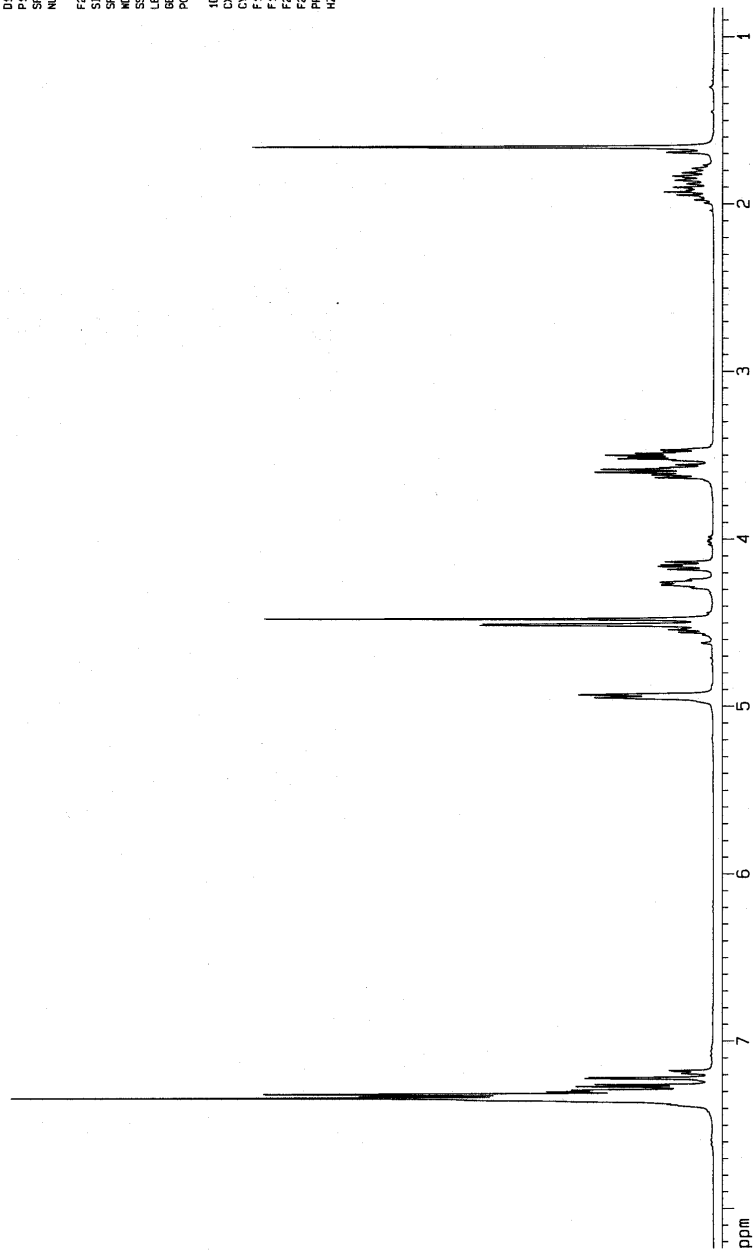




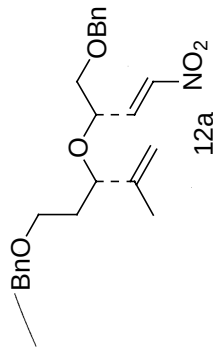
¹H standard parameters, CDCl₃, QNP probe.



Current Data Parameters
 NAME 051501
 EXPNO 1
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20060515
 Time 19.36
 INSTRUM spect
 PROBHD 5 mm QNP 1H
 PULPROG zg
 TD 16384
 SOLVENT CDCl₃
 NS 2
 DS 2
 SWH 3006.250 Hz
 FIDRES 0.238419 Hz
 AQ 2.0972021 sec
 RG 128
 DM 128.000 usec
 DE 182.86 usec
 TE 300.0 K
 D1 2.00000000 sec
 F1 5.00 usec
 SFO1 300.1350100 MHz
 NUC1 1H
 F2 - Processing parameters
 SI 8192
 SF 300.1333823 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00
 F2 - NMR plot parameters
 CX 21.00 cm
 CY 21.00 cm
 F1 8.233 cm
 F2 2472.80 Hz
 F3 0.826 ppm
 F4 246.05 Hz
 F5 0.35298 ppm/cm
 HZCM 105.94056 Hz/cm



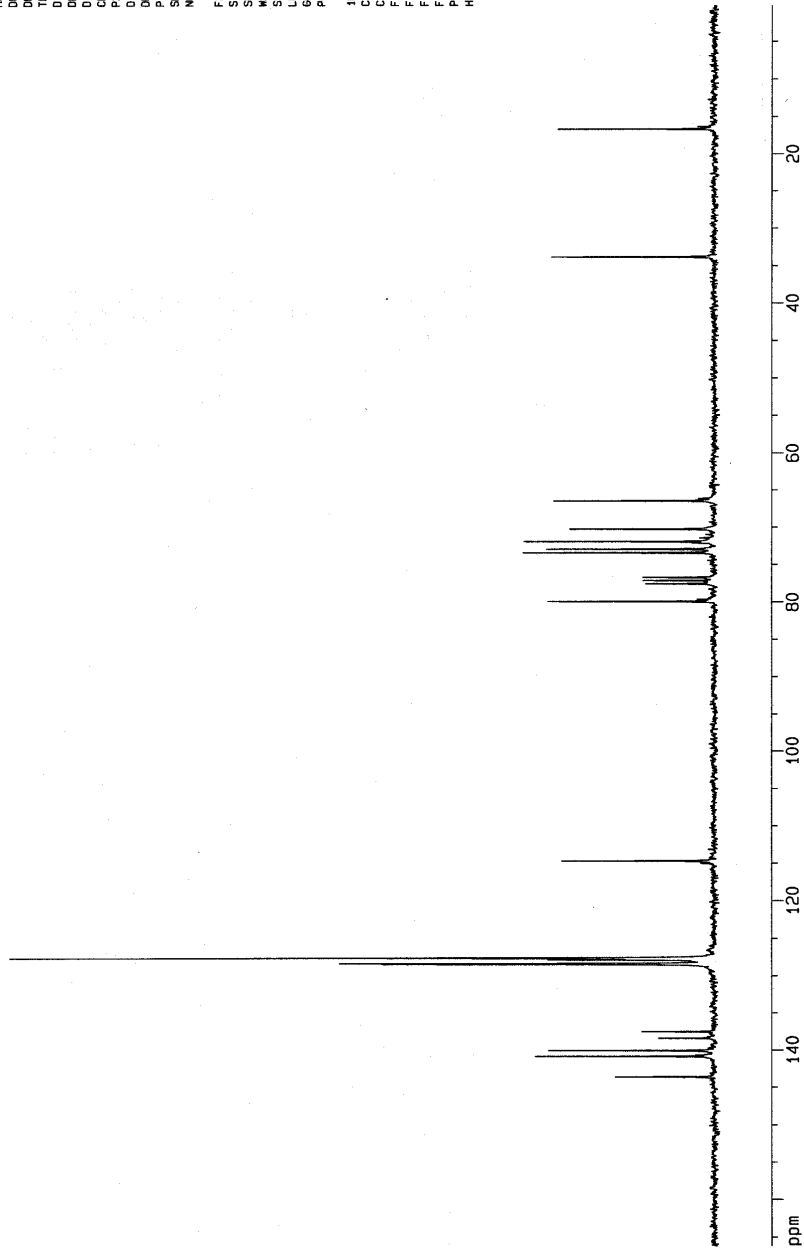
¹³C standard parameters, CDCl₃, QNP probe.



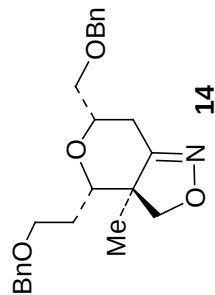
Current Data Parameters
 Name: 051501
 Date: 20060515
 Time: 19:39
 INSTRUM: spect
 PROBHD: 5 mm QNP 1H
 PULPROG: zgpg
 TO: 16384
 SOLVENT: CDCl₃
 NS: 47
 DS: 4
 SWH: 18518.518 Hz
 FIDRES: 1.130281 Hz
 AQ: 0.4424180 sec
 RG: 45500
 DM: 27.000 usec
 DE: 38.57 usec
 TE: 298.0 K
 D12: 0.0002000 sec
 DL6: 19.00 dB
 D1: 2.00000000 sec
 CPOPG: wait218
 F31: 85.00 usec
 F11: 0.03000000 sec
 DL5: 15.00 dB
 P1: 4.00 usec
 SF01: 75.4762000 MHz
 NUCLEUS: ¹³C

F2 - Processing parameters
 SI: 8192
 SF: 75.4686030 MHz
 MDW: EN
 SSB: 0
 LB: 3.00 Hz
 GB: 0
 PC: 1.00

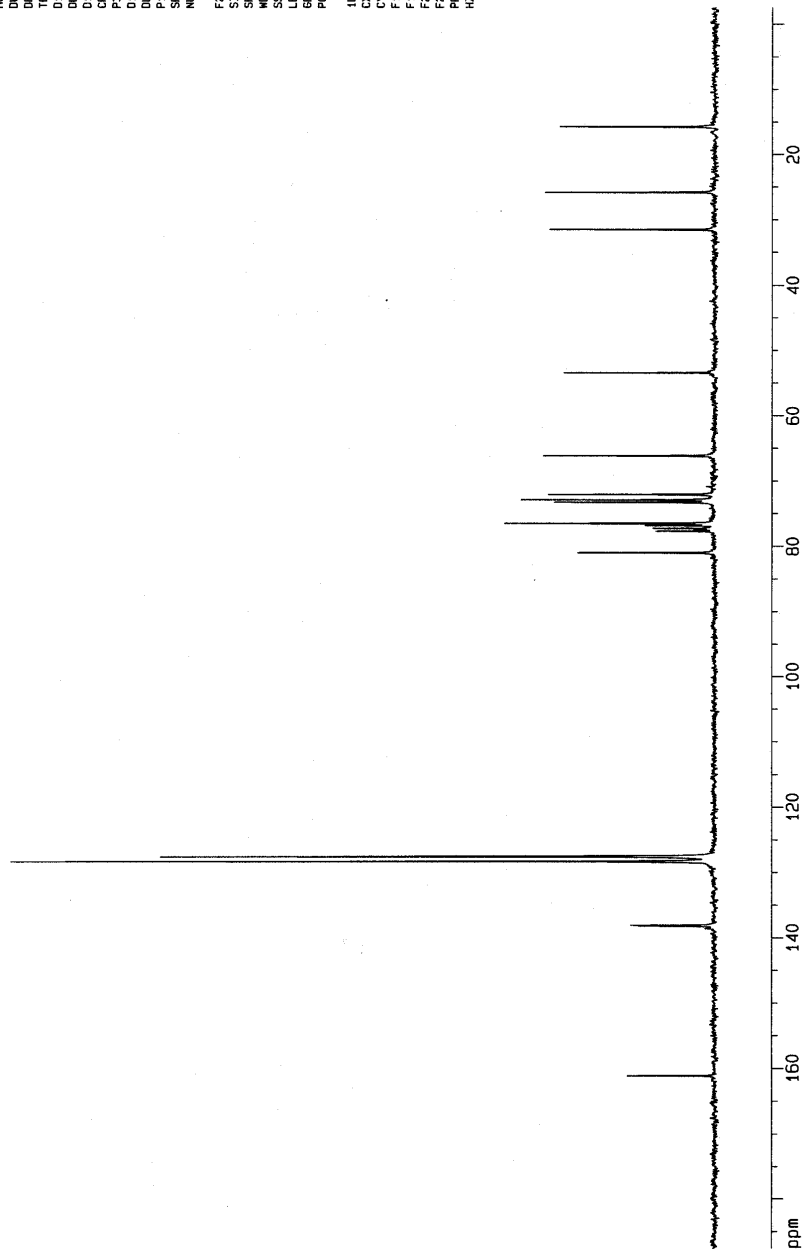
1D NMR plot parameters
 CX: 21.00 cm
 CY: 12.00 cm
 FIP: 166.207 ppm
 F1: 12543.45 Hz
 F2P: 0.183 ppm
 F2: 13.81 Hz
 PPMCN: 7.90553 ppm/cm
 HZCN: 596.64948 Hz/cm



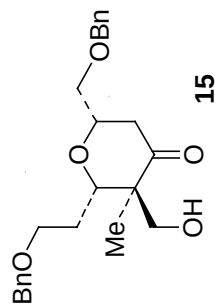
¹³C standard parameters, CDCl₃, QNP probe.



Current Data Parameters
 NAME 051701
 EXPNO 2
 PROCNO 1
 F2 - Acquisition Parameters
 Date_ 20060517
 Time 16.26
 INSTRUM spect
 PROBHD 5 mm QNP 1H
 PULPROG zgpg
 TO 16364
 SOLVENT CDCl₃
 NS 54
 DS 4
 SWH 19518.518 Hz
 FIDRES 1.130281 Hz
 AQ 0.442489 sec
 RG 45500
 DM 27.000 usec
 DE 38.57 usec
 TE 298.0 K
 D12 0.0002200 sec
 DL6 19.00 dB
 D1 2.00000000 sec
 CPDPRG waltz16
 P31 85.00 usec
 PL1 0.0360000 sec
 PL2 16.00 usec
 PL3 4.00 usec
 SF01 75.476200 MHz
 NUCLEUS ¹³C
 F2 - Processing parameters
 SI 8192
 SF 75.466030 MHz
 WDW EM
 SSB 0
 LB 3.00 Hz
 GB 0
 PC 1.00
 1D NMR plot parameters
 CX 21.00 cm
 CY 12.00 cm
 FIP 187.604 ppm
 F1 14158.20 Hz
 F2P -2.525 ppm
 F2 -190.59 Hz
 PPMCN 9.05377 ppm/cm
 HZCN 683.27951 Hz/cm



H1 standard parameters, TXI_HCN_XYZ probe.



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Current Data Parameters
NAME          051801
EXPNO         1
PROCNO        1

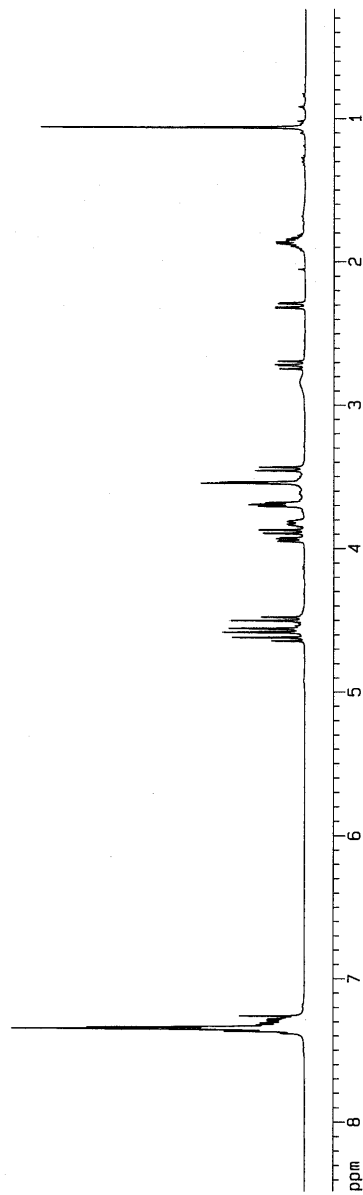
F2 - Acquisition Parameters
Date_         20060518
Time          15.43
INSTRUM       spect
PROBHD        5 mm TXI HCN X
PULPROG       zg30
TD            32768
SOLVENT       CDCl3
NS            8
DS            2
SWH           7002.801 Hz
FIDRES        0.213709 Hz
AQ            2.3397565 sec
RG            12.7
DM            71.400 usec
DE            6.00 usec
TE            294.1 K
D1            2.00000000 sec
MCREST        0.00000000 sec
MCWRK         0.01500000 sec

===== CHANNEL f1 =====
NUC1          1H
P1            12.00 usec
PL1           0.00 dB
SF01          499.8732500 MHz

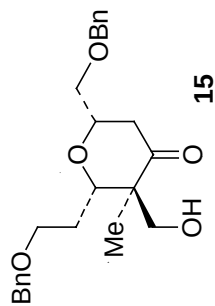
F2 - Processing parameters
SI            16384
SF            499.8700317 MHz
WDW           EM
SSB           0
LB            0.10 Hz
GB            0
PC            1.00

1D NMR plot parameters
CX            20.00 cm
CY            5.00 cm
F1P           8.479 ppm
F1            4238.60 Hz
F2P           0.238 ppm
F2            118.85 Hz
PPMCM         0.41208 ppm/cm
HZCM          205.98749 Hz/cm

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C13 standard parameters, TXI_HCN_XYZ probe.



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Current Data Parameters
NAME      051801
EXPNO     2
PROCNO    1

F2 - Acquisition Parameters
Date_     20060518
Time      15.45
INSTRUM   spect
PROBHD    5 mm TXI HCN X
PULPROG   zgpg30
TD         32768
SOLVENT   CDCl3
NS         42
DS         4
SWH        30030.029 Hz
FIDRES     0.916444 Hz
AQ         0.3456539 sec
RG         3201
DM         16.650 usec
DE         6.00 usec
TE         294.2 K
D1         2.00000000 sec
d11        0.03000000 sec
MCREST    0.00000000 sec
MCMRK     0.01500000 sec

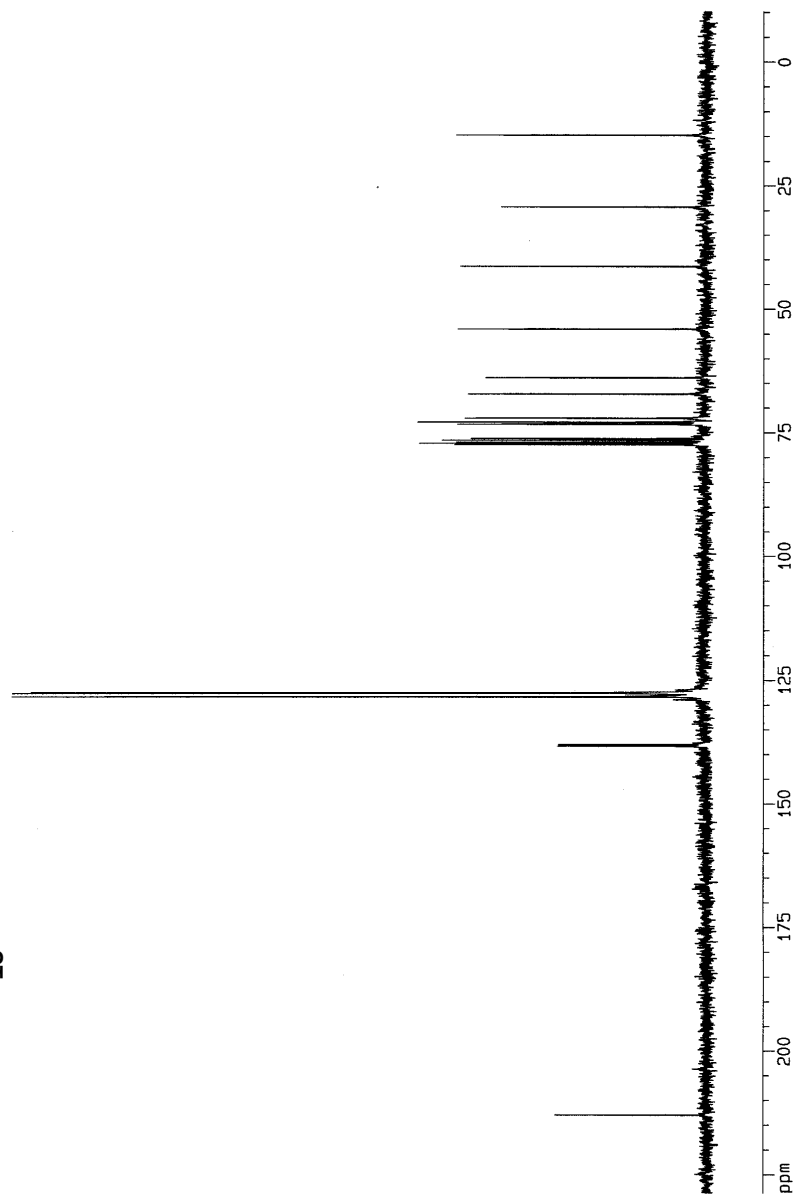
===== CHANNEL f1 =====
NUC1       13C
P1         15.00 usec
PL1        -3.00 dB
SF01       125.7061610 MHz

===== CHANNEL f2 =====
CPDPRG2    waltz16
NUC2       1H
PCPD2      74.00 usec
PL2         0.00 dB
PL12       15.00 dB
PL13       19.00 dB
SF02       499.8725000 MHz

F2 - Processing parameters
SI         16384
SF         125.6924320 MHz
WDW        EM
SSB        0
LB         3.00 Hz
GB         0
PC         1.00

1D NMR plot parameters
CX         20.00 cm
CY         12.00 cm
F1P        228.685 ppm
F1         26744.01 Hz
F2P        -10.231 ppm
F2         -1286.02 Hz
PRCM       11.94584 ppm/cm
HZCM       1501.50146 Hz/cm

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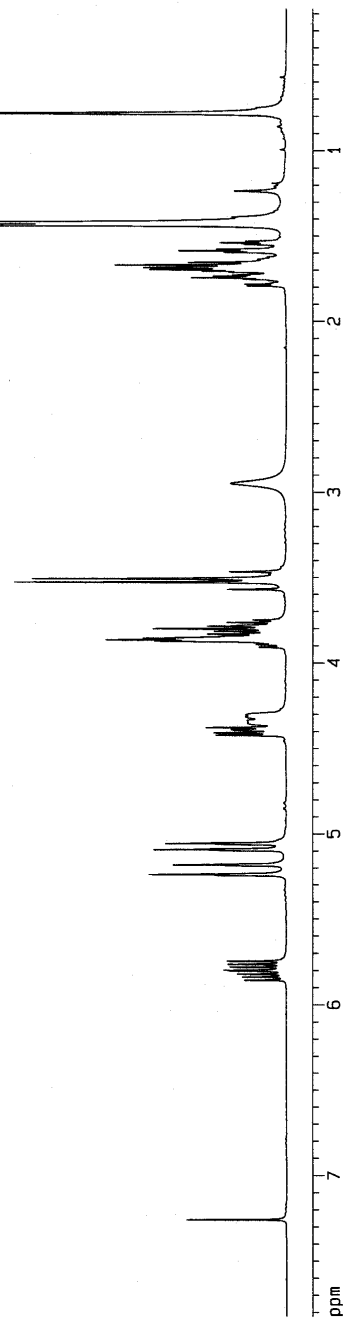
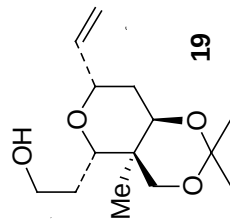
PROTON

Current Data Parameters
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 EXPNO 1
 PROCNO 1

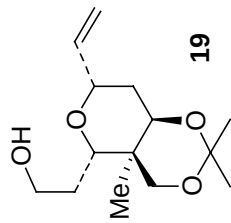
F2 - Acquisition Parameters
 Date_ 20060124
 Time 15:41
 INSTRUM spect
 PROCNM 1930
 PULPROG zgpg30
 TD 15624
 SOLVENT DMS
 NS 16
 DS 0
 SHH 4504.504 Hz
 FIDRES 0.288307 Hz
 AQ 1.7343140 sec
 RG 512
 DM 111.000 usec
 DE 198.57 usec
 TE 300.0 K
 D1 1.0000000 sec
 R1 11.55 usec
 R2 11.55 usec
 SFO1 300.1347765 MHz
 NUCLEUS ¹H

F2 - Processing parameters
 SI 32768
 SF 300.133676 MHz
 WDW EN
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

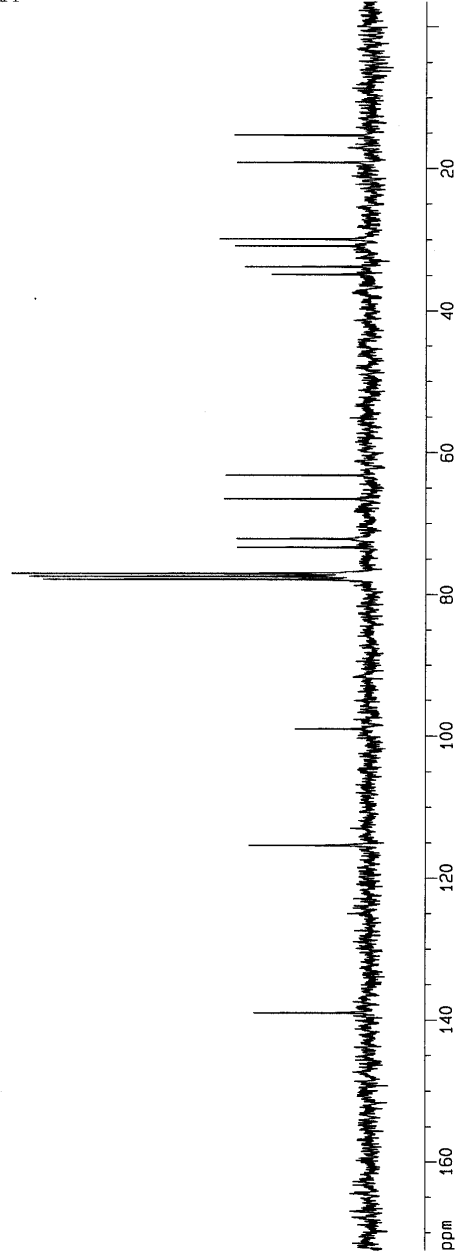
1D NMR plot parameters
 CY 25.00 cm
 CX 19.00 cm
 F1 7.824 ppm
 F2 2348.35 Hz
 F2P 0.171 ppm
 F2 51.35 Hz
 PPMCM 0.34788 ppm/cm
 HZCM 104.40904 Hz/cm



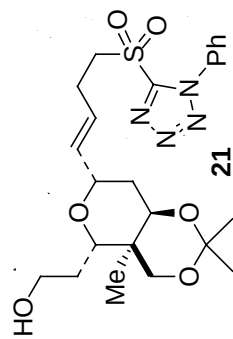
C13CPD256



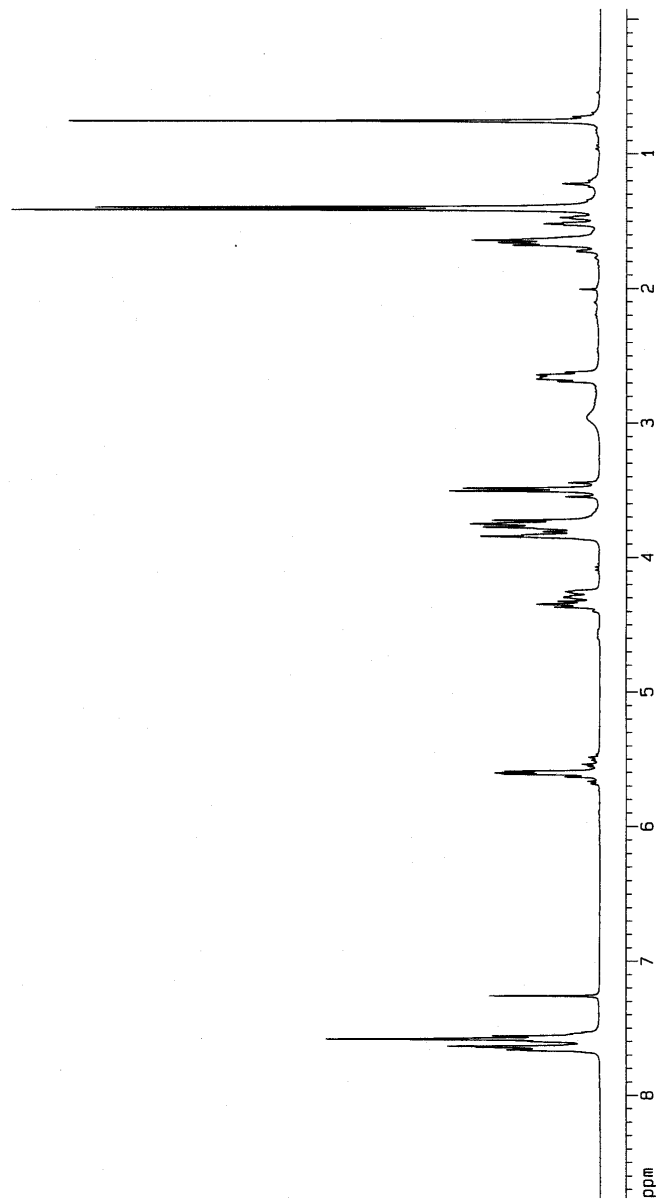
Current Data Parameters
Date_ 01/12/20
EXPNO 2
PROCNO 1
F2 - Acquisition Parameters
Date_ 20/05/24
Time 15.43
Date_ 20/05/24
Time 15.43
PULPROG zgpg30
PCPDPRG 5 mm zgpg30
TD 65536
FIDRES 0.000150
AQ 0.000150
RG 327.68
TE 300.2 K
D12 0.0000000 sec
D13 0.0000000 sec
D1 1.0000000 sec
CPDPRG waltz16
P21 0.0000000 sec
P22 0.0000000 sec
P23 0.0000000 sec
P1 5.50 usec
P2 75.476557 MHz
NUC1 13C
F2 - Processing parameters
SI 32768
SF 75.468016 MHz
WDW EM
SSB 0
GB 0
PC 1.40
1D NMR plot parameters
CX 21.00 cm
CY 5.00 cm
F1 13015.18 Hz
F2 -3.527 ppm
F3 -266.28 Hz
PCPDPRG 5 mm zgpg30
H2O 630.5666 Hz/cm



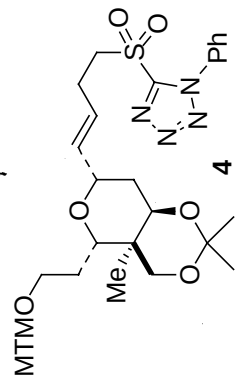
¹H standard parameters, CDCl₃, QNP probe.



Current Data Parameters
NAME 081401
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20080814
Time 13:10:10
INSTRUM spect
PROBHD 5 mm QNP
PULPROG zgpg30
TD 65536
SOLVENT CDCl₃
NS 8
DS 2
AQ 4.237286 Hz
FIDRES 0.254624 Hz
AQ 1.933800 sec
RG 320
RG2 118.245
DE 118.245 uspc
TE 300.2 K
TE 2.000000 sec
P1 11.200
SFO1 300.1350100 MHz
NUCLEUS 1H
F2 - Processing parameters
SI 8192
SF 300.133070 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
F2 - NMR plot parameters
CX 20.00 cm
F1 2625.83 Hz
F2 -0.072 ppm
F2 -21.95 Hz
PCPN 0.0414777/cm
H2CN 130.50664 Hz/cm



H1 standard parameters, TXI_HCN_XYZ probe.



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Current Data Parameters
NAME      081502
EXPNO     1
PROCNO    1

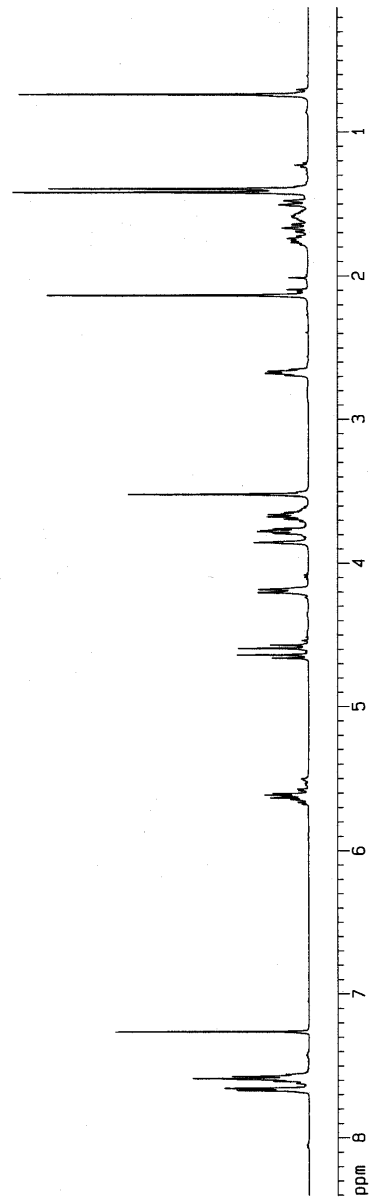
F2 - Acquisition Parameters
Date_     20060815
Time      21.58
INSTRUM   spect
PROBHD    5 mm TXI HCN X
PULPROG   zg30
TD         32768
SOLVENT   CDCl3
NS         8
DS         2
SWH        7002.801 Hz
FIDRES     0.213709 Hz
AQ         2.3397565 sec
RG         128
RW         71.400 usec
DE         6.00 usec
TE         298.0 K
D1         2.00000000 sec
MCREST     0.00000000 sec
MCHRG      0.01500000 sec

===== CHANNEL f1 =====
NUC1       1H
P1         12.00 usec
PL1        0.00 dB
SF01       499.8732500 MHz

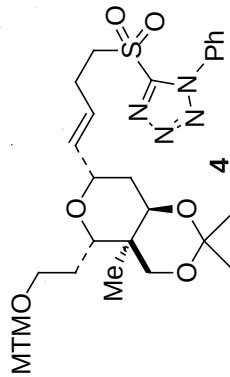
F2 - Processing parameters
SI          16384
SF          499.8700317 MHz
WDW         EM
SSB         0
LB          0.10 Hz
GB          0
PC          1.00

1D NMR plot parameters
CX          20.00 cm
CY          5.00 cm
F1P         8.402 ppm
F1          4199.96 Hz
F2P         0.130 ppm
F2          64.75 Hz
PPMCM       0.41363 ppm/cm
HZCM        206.75041 Hz/cm

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C13 standard parameters, TXI_HCN_XYZ probe.



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Current Data Parameters
NAME      081502
EXPNO     2
PROCNO    1

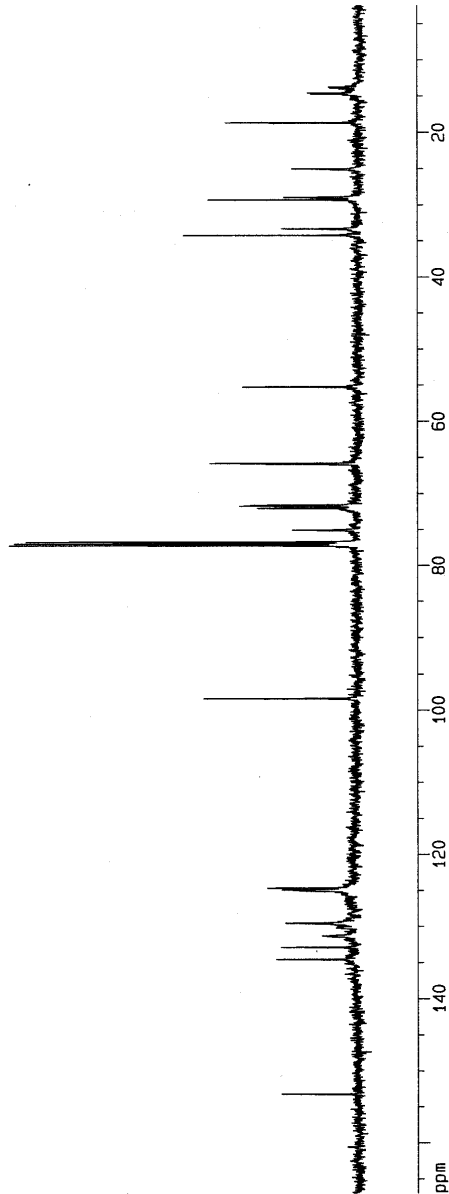
F2 - Acquisition Parameters
Date_     20060815
Time      22.06
INSTRUM   spect
PROBHD    5 mm TXI HCN X
PULPROG   zgpg30
TD         32768
SOLVENT   CDCl3
NS         162
DS         4
SWH        30030.029 Hz
FIDRES     0.916444 Hz
AQ          0.5456539 sec
RG          16384
DM          16.650 usec
DE          6.00 usec
TE          298.0 K
D1          2.00000000 sec
d11         0.03000000 sec
MCREST     0.00000000 sec
MCMRK      0.01500000 sec

===== CHANNEL f1 =====
NUC1       13C
P1          15.00 usec
PL1         -3.00 dB
SF01       125.7061610 MHz

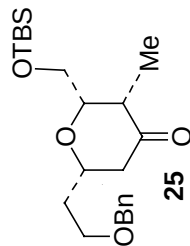
===== CHANNEL f2 =====
CPDPRG2    waltz16
NUC2        1H
PCPD2       74.00 usec
PL2          0.00 dB
PL12        16.00 dB
PL13        19.00 dB
SF02       499.8725000 MHz

F2 - Processing parameters
SI          16384
SF          125.6924320 MHz
WDW          EM
SSB          0
LB           3.00 Hz
GB           0
PC           1.00

1D NMR plot parameters
CX          20.00 cm
CY           6.00 cm
F1P         165.678 ppm
F1          20987.91 Hz
F2P          2.426 ppm
F2          304.97 Hz
PPHMC        8.22760 ppm/cm
HZCM        1034.14673 Hz/cm
  
```



H1 standard parameters, BBO probe.



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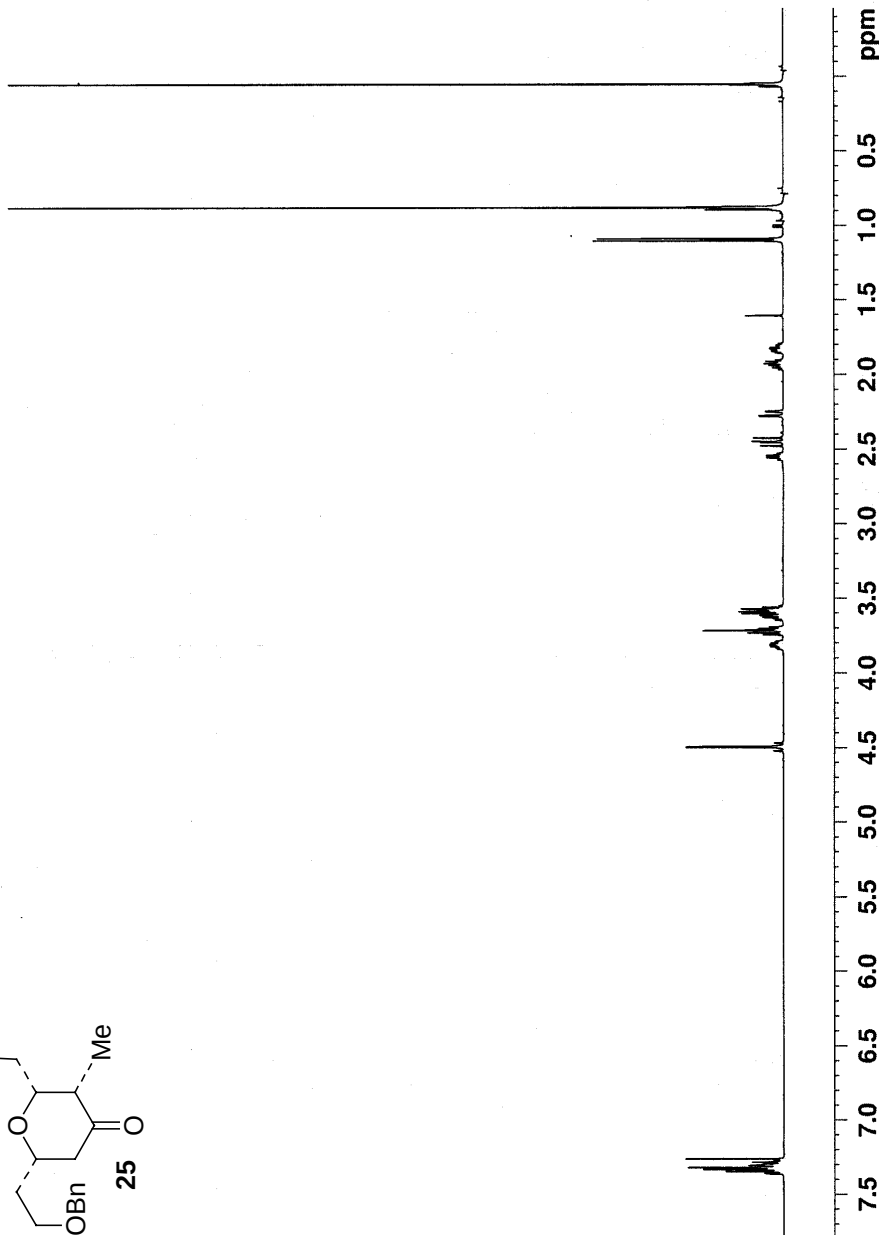
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Current Data Parameters
NAME      050513-1
EXPNO     1
PROCNO    1

F2 - Acquisition Parameters
Date_     20050513
Time      10.52
INSTRUM   spect
PROBHD    5 mm BBO BB-1H
PULPROG   zgpg30
TD         32768
SOLVENT   CDCl3
NS         8
DS         2
SWH        6009.615 Hz
FIDRES     0.183399 Hz
AQ         2.7264309 sec
RG         128
DE         83.200 use
TE         293.3 K
D1         1.00000000 sec
MCREST     0.00000000 sec
MCWRK     0.01500000 sec

===== CHANNEL f1 =====
NUC1       1H
P1         3.50 use
PL1        -2.00 dB
SFO1       500.6427535 MHz

F2 - Processing parameters
SI         32768
SF         500.6400128 MHz
WDW        EM
SSB        0
LB         0.30 Hz
GB         0
PC         1.00
  
```





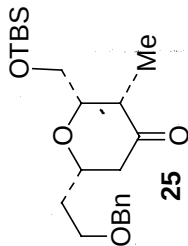
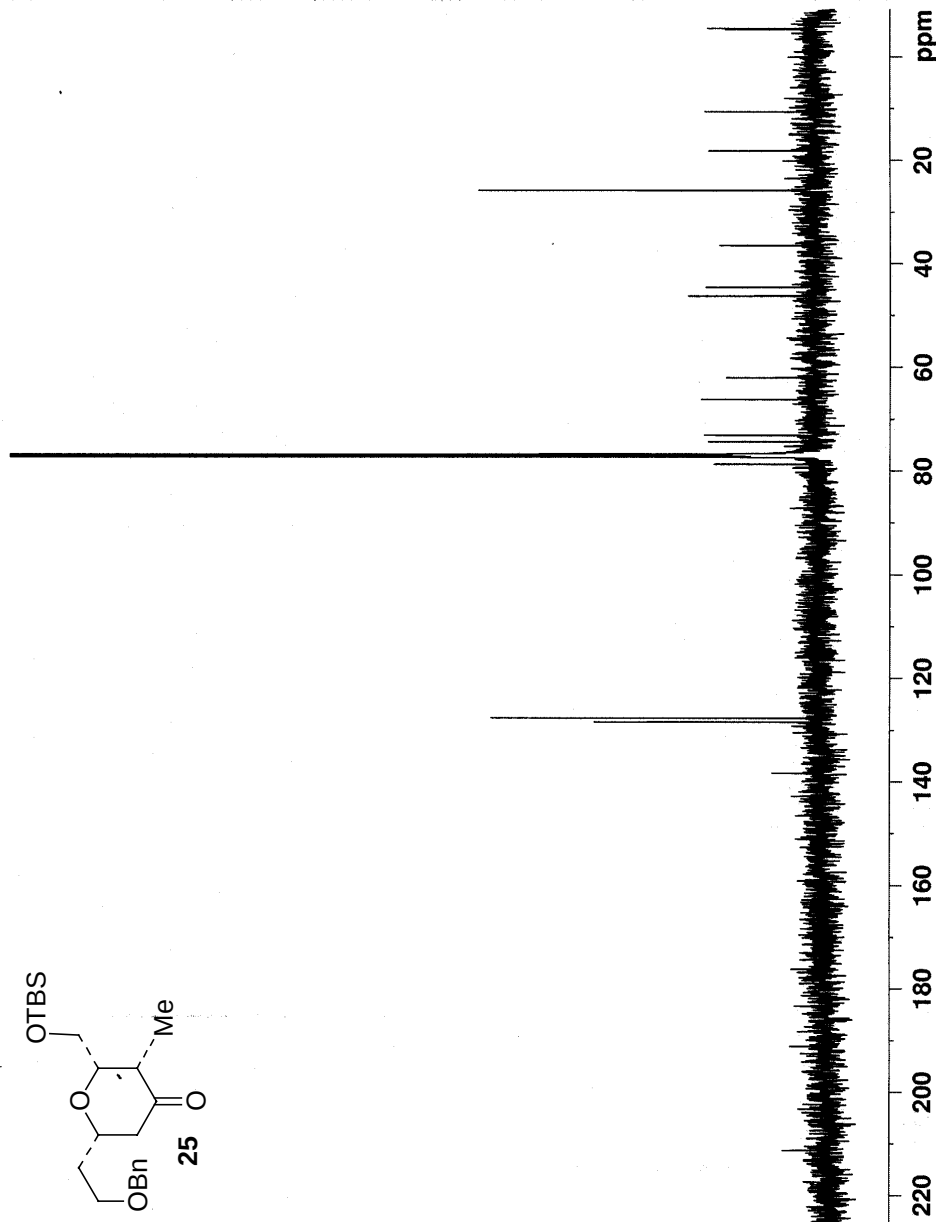
BRUKER

Current Data Parameters		F2 - Acquisition Parameters	
NAME	050513-1	Date_	20050513
EXPNO	2	Time	11.02
PROCNO	1	INSTRUM	spect
		PROBHD	5 mm BBO BB-1H
		PULPROG	zgpg
TD	32768		
SOLVENT	CDCl3		
NS	1000		
DS	2		
SWH	30303.031 Hz		
FIDRES	0.924775 Hz		
AQ	0.5407385 sec		
RG	16384		
DW	16.500 use		
DE	6.00 use		
TE	293.6 K		
dd1	2.0000000 sec		
dc1	0.0300000 sec		
MC1	0.0000000 sec		
MCWK	0.0150000 sec		

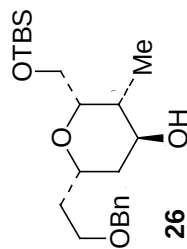
```
===== CHANNEL f1 =====
NUC1      13C
P1        2.70 use
PL1       1.00 dB
SF01     125.8998755 MHz
```

=====	CHANNEL f2	=====
CPDPRG2	waltz16	
NUC2	1H	
PCPD2	80.00 use	
PL2	-2.00 dB	
PL12	17.00 dB	
PL13	20.00 dB	
SFO2	500.6422529 MHz	

F2 - Processing parameters	
SI	16384
SF	125.8860280 MHz
WDW	EM
SSB	0
LB	3.00 Hz
GB	0
PC	1.00



H1 standard parameters, BBO probe.

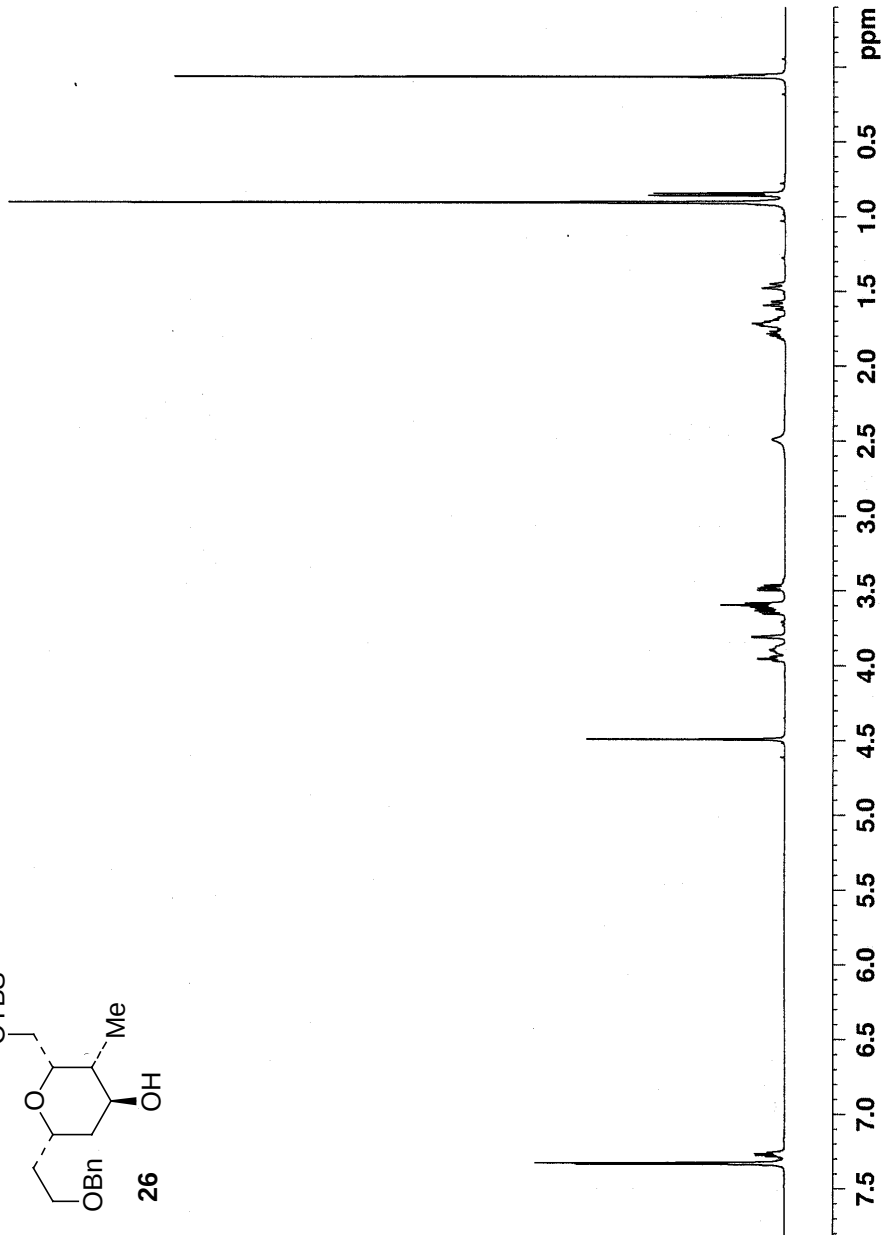


Current Data Parameters
NAME 050514-1
EXPNO 1
PROCNO 1

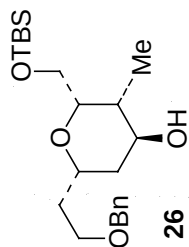
F2 - Acquisition Parameters
Date_ 20050514
Time 14.22
INSTRUM spect
PROBHD 5 mm BBO BB-1H
PULPROG zg
TD 32768
SOLVENT CDCl3
NS 8
DS 2
SWH 6009.615 Hz
FIDRES 0.183399 Hz
AQ 2.7264309 sec
RG 12.7
DW 83.200 use
DE 6.00 use
TE 293.0 K
D1 1.00000000 sec
MCREST 0.00000000 sec
MCWRK 0.01500000 sec

===== CHANNEL f1 =====
NUC1 1H
P1 3.50 use
PL1 -2.00 dB
SFO1 500.6427535 MHz

F2 - Processing parameters
SI 32768
SF 500.6400128 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00



C13 standard parameters, BBO probe.



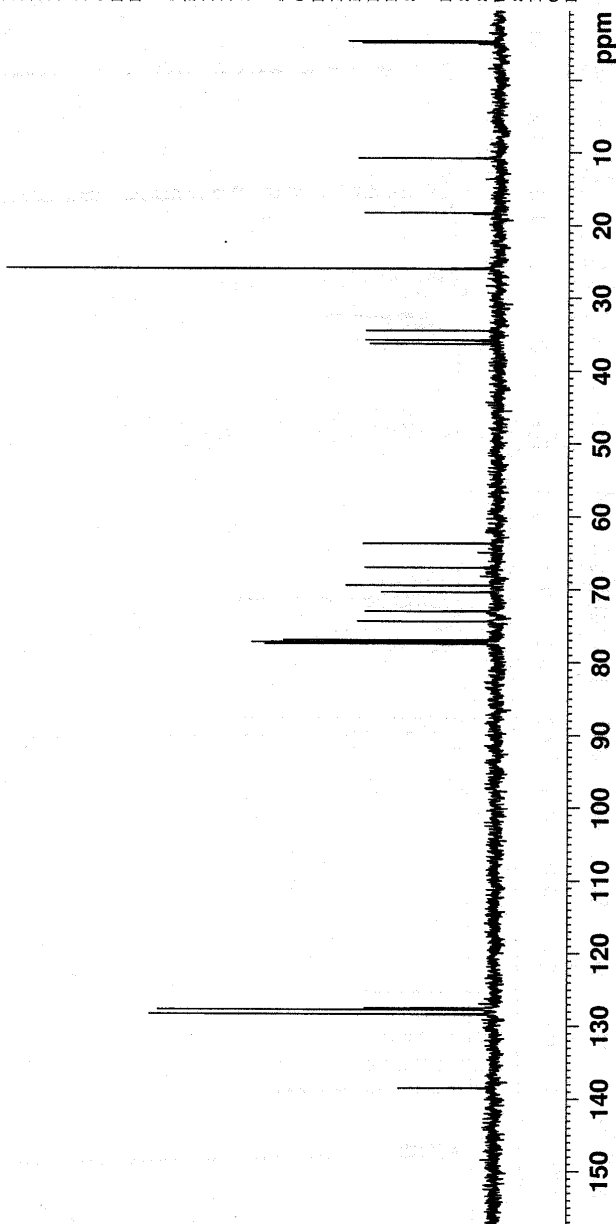
Current Data Parameters
 NAME 050514-1
 EXPNO 2
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20050514
 Time 14.29
 INSTRUM spect
 PROBHD 5 mm BBO BB-IH
 PULPROG zgpg
 TD 32768
 SOLVENT CDCl3
 NS 128
 DS 2
 SWH 30303.031 Hz
 FIDRES 0.924775 Hz
 AQ 0.5407385 sec
 RG 16384
 DW 16.500 use
 DE 6.00 use
 TE 293.2 K
 D1 2.00000000 sec
 d11 0.03000000 sec
 MCREST 0.00000000 sec
 MCWRK 0.01500000 sec

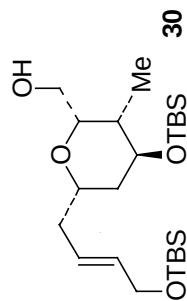
===== CHANNEL f1 =====
 NUC1 13C
 P1 2.70 use
 PL1 1.00 dB
 SF01 125.8998755 MHz

===== CHANNEL f2 =====
 CPDPRG2 waltz16
 NUC2 1H
 P2 80.00 use
 PL2 -2.00 dB
 PL12 17.00 dB
 PL13 20.00 dB
 SFO2 500.6422529 MHz

F2 - Processing parameters
 SI 16384
 SF 125.8860280 MHz
 WDW EM
 SSB 0
 LB 3.00 Hz
 GB 0
 PC 1.00



H1 standard parameters, BBO probe.



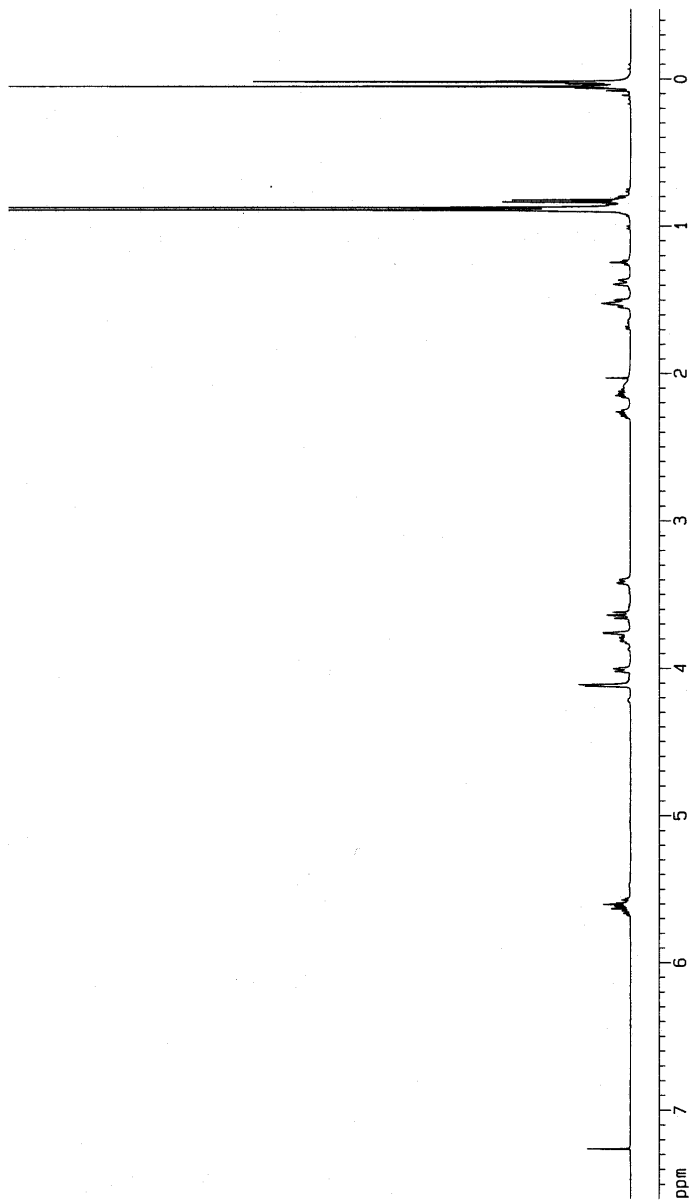
Current Data Parameters
 NAME 120101
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20051201
 Time 15.43
 INSTRUM spect
 PROBHD 5 mm TXI HCN X
 PULPROG zg
 TD 32768
 SOLVENT CDCl3
 NS 8
 DS 2
 SWH 7002.801 Hz
 FIDRES 0.213709 Hz
 AQ 2.3397565 sec
 RG 128
 DM 71.400 usec
 DE 6.00 usec
 TE 298.0 K
 D1 2.00000000 sec
 MCREST 0.00000000 sec
 MCWRR 0.01500000 sec

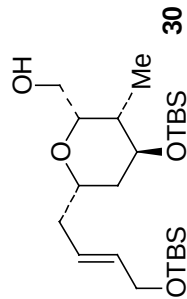
===== CHANNEL f1 =====
 NUC1 1H
 P1 5.00 usec
 PL1 0.00 dB
 SF01 499.8732500 MHz

F2 - Processing parameters
 SI 16384
 SF 499.8700317 MHz
 MDW EM
 SSB 0
 LB 0.10 Hz
 GB 0
 PC 1.00

1D NMR plot parameters
 CX 20.00 cm
 CY 15.00 cm
 F1P 7.598 ppm
 F1 3798.03 Hz
 F2P -0.474 ppm
 F2 -236.70 Hz
 PPMCM 0.40358 ppm/cm
 HZCM 201.73633 Hz/cm



C13 standard parameters, BBO probe.



```

Current Data Parameters
NAME      120101
EXPNO     2
PROCNO    1

F2 - Acquisition Parameters
Date_     20051201
Time      15.48
INSTRUM   spect
PROBHD    5 mm TXI HCN X
PULPROG   zgpg
TD         32768
SOLVENT   CDCl3
NS         64
DS         4
SWH        30030.029 Hz
FIDRES     0.916444 Hz
AQ          0.5456539 sec
RG          9195.2
DW          16.650 usec
DE          6.00 usec
TE         298.0 K
D1          2.00000000 sec
d11         0.03000000 sec
MCPRST     0.00000000 sec
MCMRK      0.01500000 sec

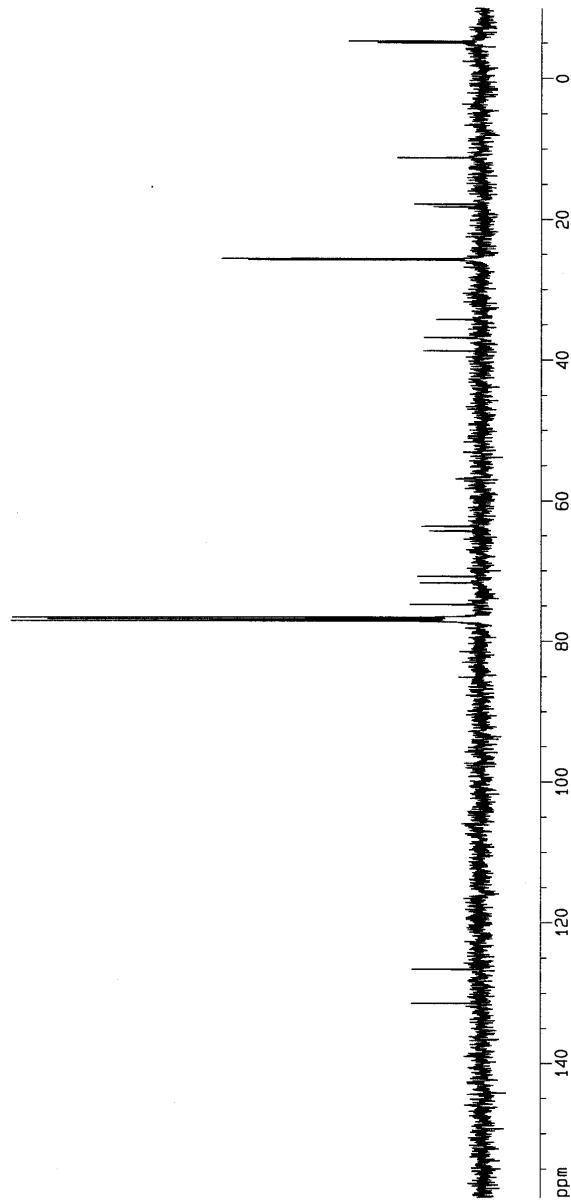
===== CHANNEL f1 =====
NUC1       13C
P1          2.00 usec
PL1         -3.00 dB
SFO1       125.7061610 MHz

===== CHANNEL f2 =====
CQPRG2     waltz16
NUC2        1H
PCPD2       80.00 usec
PL2         -3.00 dB
PL12        12.00 dB
PL13        15.00 dB
SFO2       499.8725000 MHz

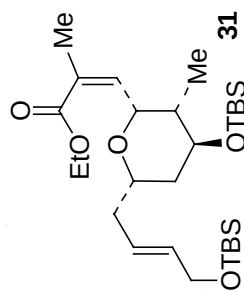
F2 - Processing parameters
SI         16384
SF         125.6924320 MHz
WDW         EM
SSB         0
LB          3.00 Hz
GB          0
PC          1.00

1D NMR plot parameters
CX          20.00 cm
CY           8.00 cm
F1P         159.067 ppm
F1          19993.54 Hz
F2P         -9.968 ppm
F2          -1252.87 Hz
PPHMC       8.45175 ppm/cm
HZCM       1062.32068 Hz/cm

```



H1 standard parameters, BBO probe.



```

Current Data Parameters
NAME      011301
EXPNO     1
PROCNO    1

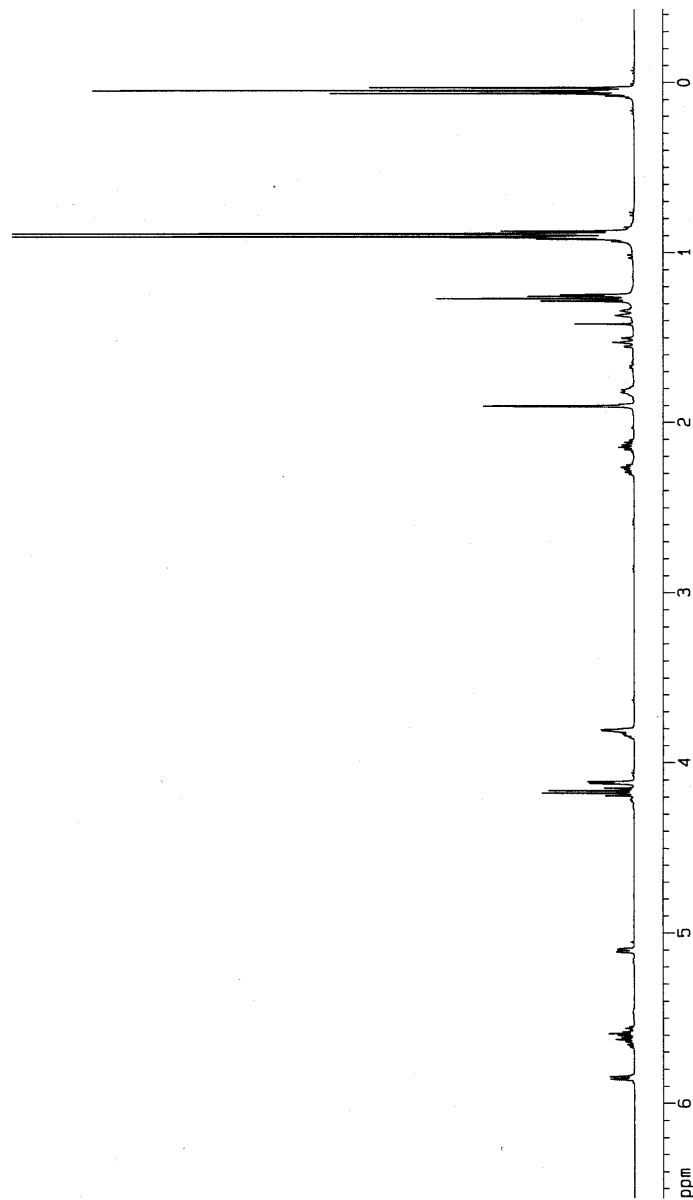
F2 - Acquisition Parameters
Date_     20060113
Time      19.45
INSTRUM   spect
PROBHD    5 mm TXI HCN X
PULPROG   zg
TD         32768
SOLVENT   CDCl3
NS         8
DS         2
SWH        7002.601 Hz
FIDRES     0.213709 Hz
AQ         2.3397565 sec
RG         11.3
RW         71.400 usec
DE         6.00 usec
TE         298.0 K
D1         2.00000000 sec
MCREST     0.00000000 sec
MORPH      0.01500000 sec

===== CHANNEL f1 =====
NUC1       1H
P1         5.00 usec
PL1        0.00 dB
SF01       499.8732500 MHz

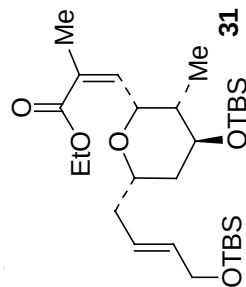
F2 - Processing parameters
SI         16384
SF         499.8700330 MHz
WDW        EM
SSB        0
LB         0.10 Hz
GB         0
PC         1.00

1D NMR plot parameters
CX         20.00 cm
CY         12.50 cm
F1P        6.556 ppm
F1         3276.97 Hz
F2P        -0.431 ppm
F2         -215.27 Hz
PPMCM      0.34931 ppm/cm
HZCM       174.61192 Hz/cm

```



C13 standard parameters, BBO probe.



```

Current Data Parameters
NAME_ 011301
EXPNO 2
PROCNO 1

F2 - Acquisition Parameters
Date_ 20060113
Time 19.50
INSTRUM spect
PROBHD 5 mm TXI HCN X
PULPROG zgpg
TO 32768
SOLVENT CDCl3
NS 128
DS 4
SWH 30030.029 Hz
FIDRES 0.516444 Hz
AQ 0.5465639 sec
RG 4096
DM 16.650 usec
DE 6.00 usec
TE 298.0 K
D1 2.00000000 sec
d11 0.03000000 sec
HOREST 0.00000000 sec
HOMRK 0.01500000 sec

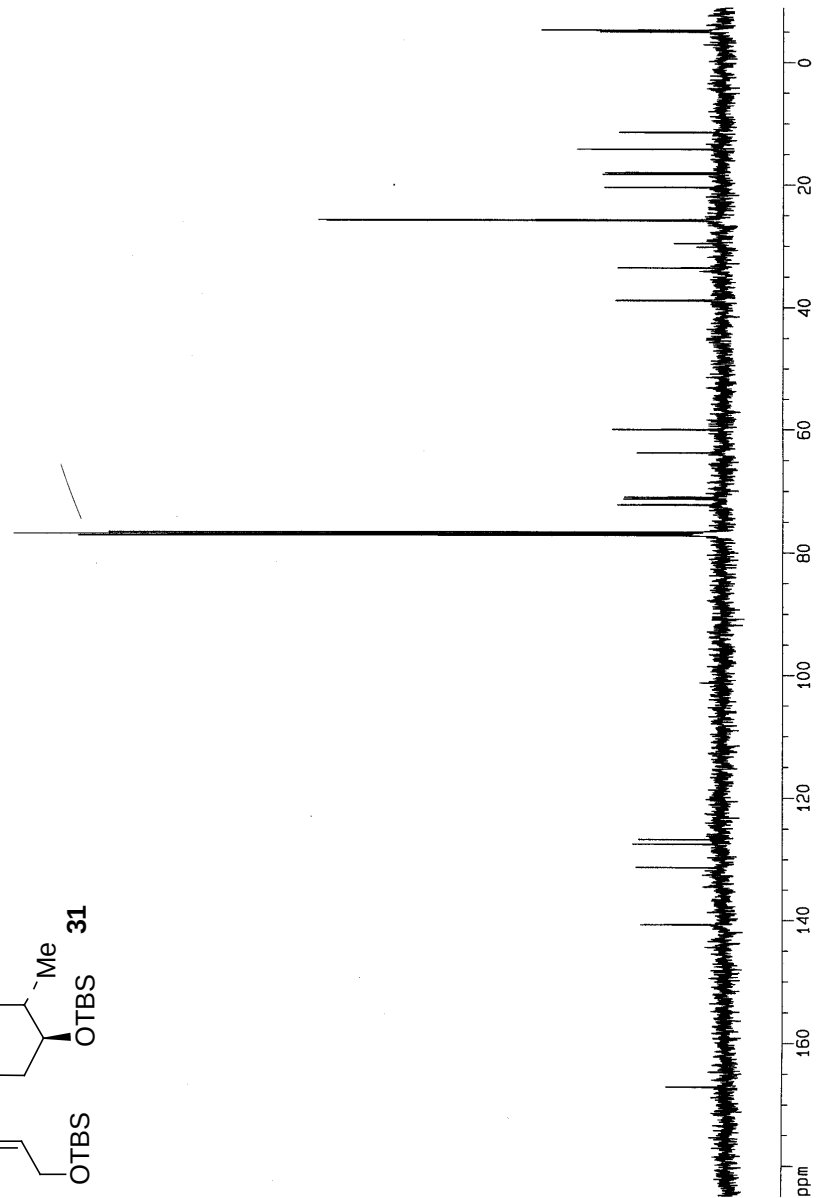
===== CHANNEL f1 =====
NUC1 13C
P1 2.00 usec
PL1 -3.00 dB
SFO1 125.7061610 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
PCPD2 80.00 usec
PL2 -3.00 dB
PL12 12.00 dB
PL13 15.00 dB
SFO2 499.8725000 MHz

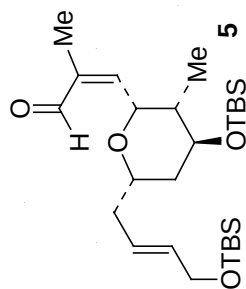
F2 - Processing parameters
SI 16384
SF 125.6924320 MHz
WDW EM
SSB 0
LB 3.00 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 12.00 cm
FIP 184.910 ppm
F1 23241.82 Hz
F2P -8.913 ppm
F2 -1120.29 Hz
PPHOM 9.69116 ppm/cm
HZOM 1218.10547 Hz/cm

```



H1 standard parameters, TXI_HCN_XYZ probe.



```

Current Data Parameters
NAME      081501
EXPNO     1
PROCNO    1

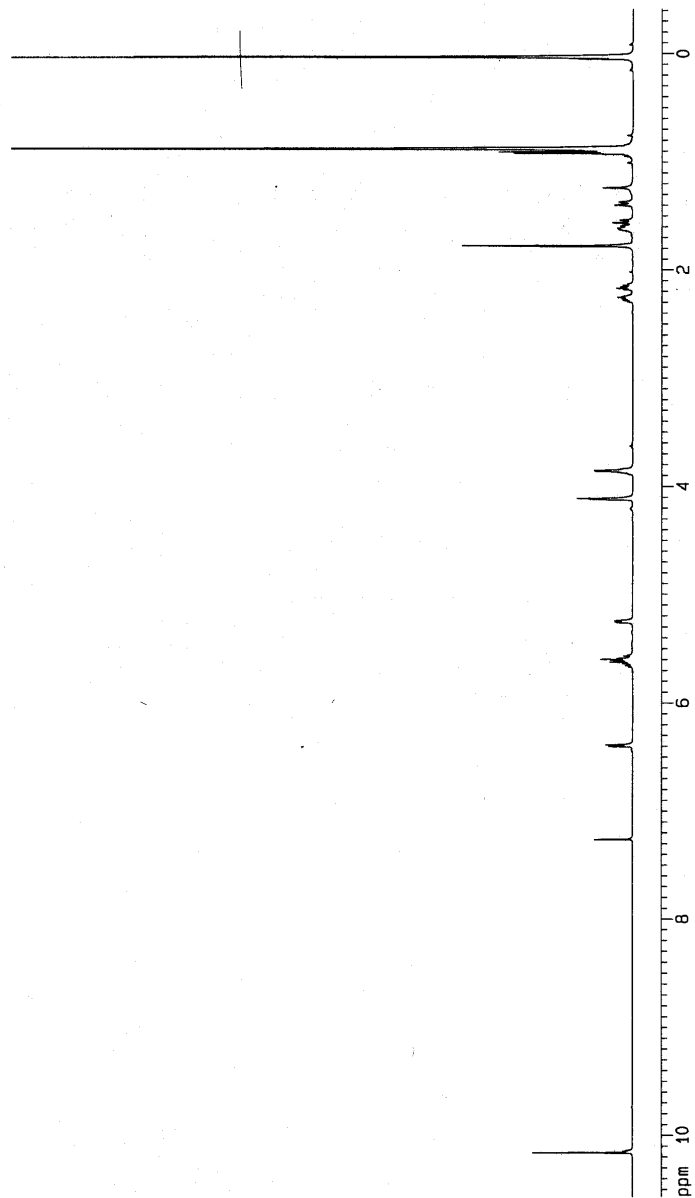
F2 - Acquisition Parameters
Date_     20060815
Time      21.43
INSTRUM   spect
PROBHD    5 mm TXI HCN X
PULPROG   zg30
TD         32768
SOLVENT   CDCl3
NS         8
DS         2
SWH        7002.801 Hz
FIDRES     0.213709 Hz
AQ          2.3397565 sec
RG          80.6
DM          71.400 usec
DE          6.00 usec
TE          298.0 K
D1          2.00000000 sec
MCREST     0.00000000 sec
MCMRG      0.01500000 sec

===== CHANNEL f1 =====
NUC1       1H
P1         12.00 usec
PL1        0.00 dB
SF01       499.8732500 MHz

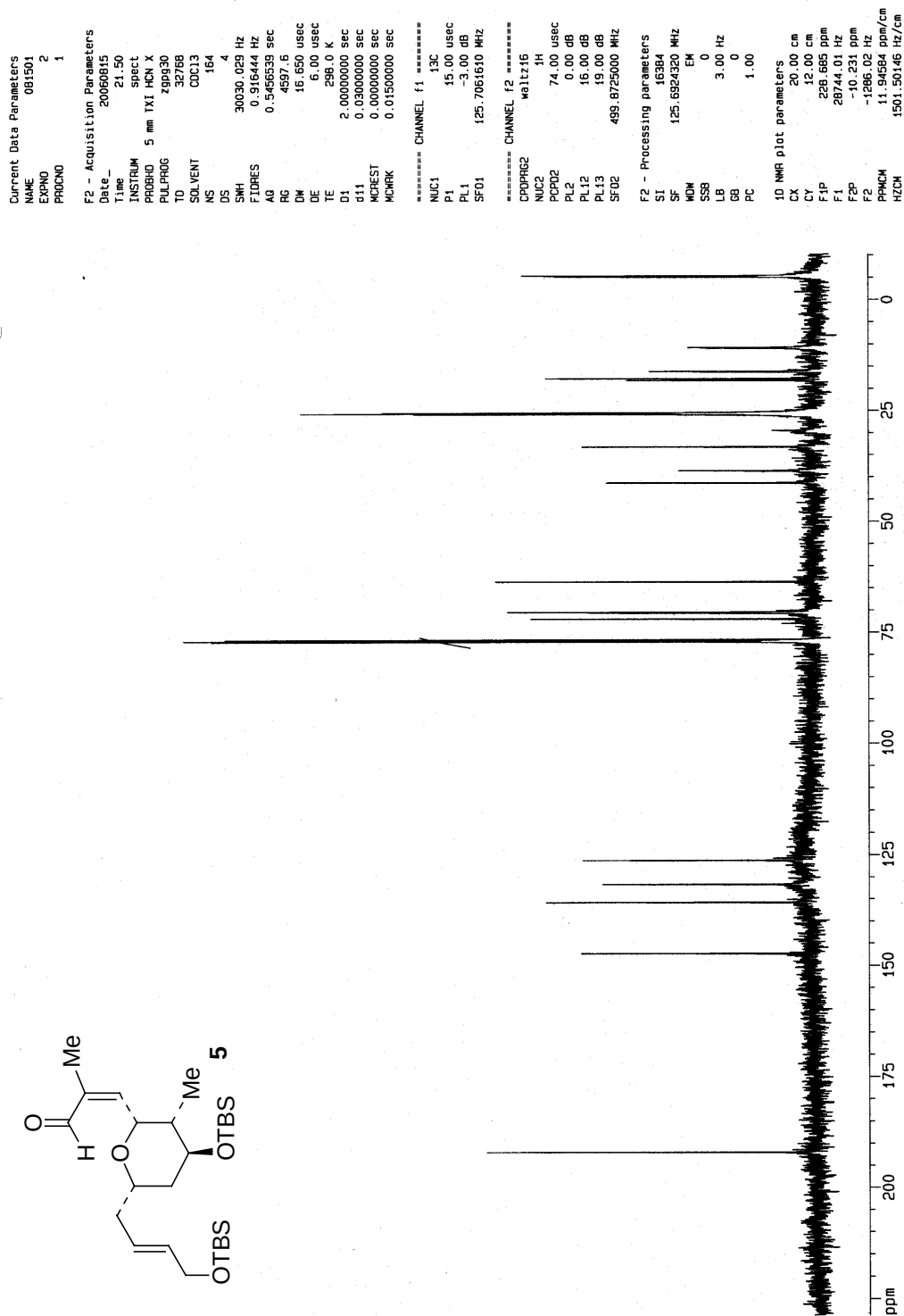
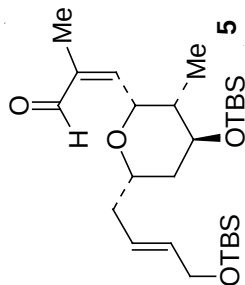
F2 - Processing parameters
SI          16384
SF          499.8700317 MHz
WDW         EM
SSB         0
LB          0.10 Hz
GB          0
PC          1.00

1D NMR plot parameters
CX          20.00 cm
CY          20.00 cm
F1P         10.567 ppm
F1          5282.07 Hz
F2P         -0.412 ppm
F2          -205.78 Hz
PPMCM       0.54893 ppm/cm
HZCM        274.39230 Hz/cm

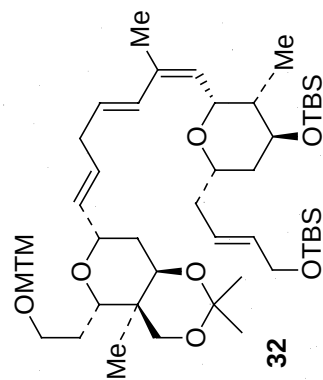
```



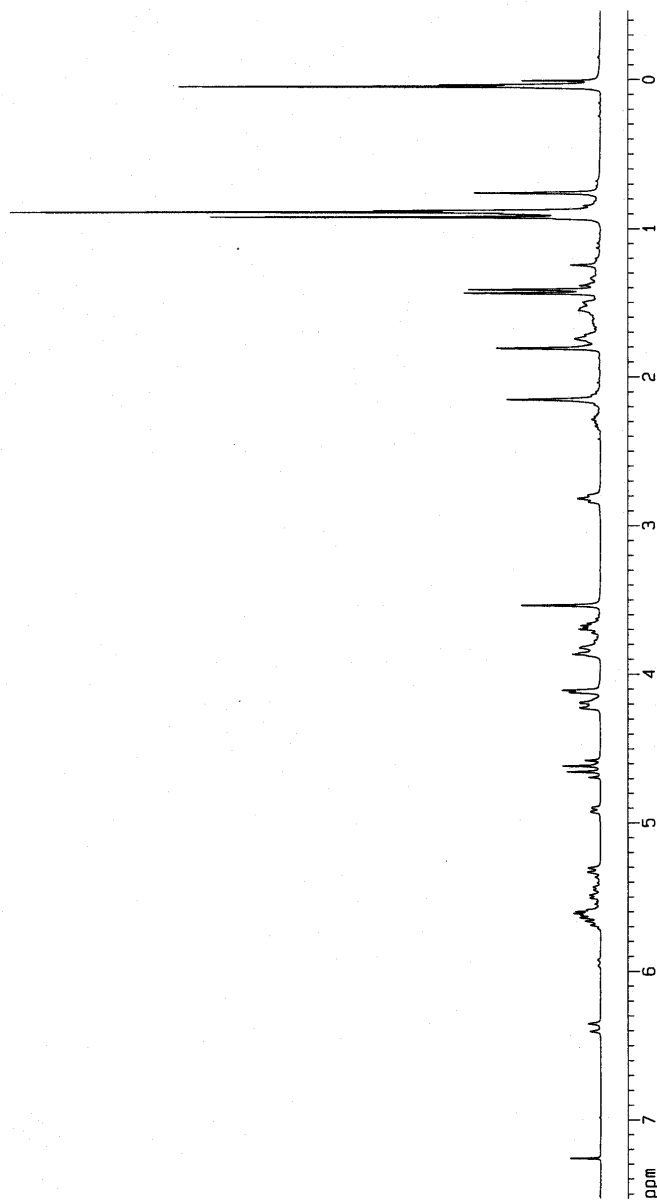
C13 standard parameters, TXI_HCN_XYZ probe.



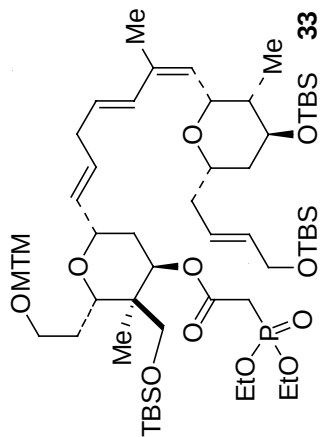
¹H standard parameters, CDCl₃, QNP probe.



Current Data Parameters
NAME DB1601
EXPNO 1
PROCNO 1
F2 - Acquisition Parameters
Date_ 20050515
Time 18:21
INSTRUM spect
PROBHD 5 mm QNP 1H
PULPROG zgpg30
TD 65536
SOLVENT CDCl₃
NS 8
DS 2
SWH 4237.268 Hz
FIDRES 0.256624 Hz
AQ 1.833500 sec
RG 327.5
WDW EM
SSB 0
LB 118.000 uspc
GB 0
DE 168.57 uspc
TE 300.2 K
D1 2.00000000 sec
P1 11.20 uspc
SFO1 300.1360100 MHz
NUC1 1H
F2 - Processing parameters
SI 8192
SF 300.133370 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
ID NMR plot parameters
CT 65536
CTF 7.500 cm
F2 300.133370 MHz
F1 22861.35 Hz
F2P -0.463 ppm
F1P -0.061 Hz
PQF00 0.36070 Hz/cm
H2O0 119.96595 Hz/cm



H1 standard parameters, BBO probe.



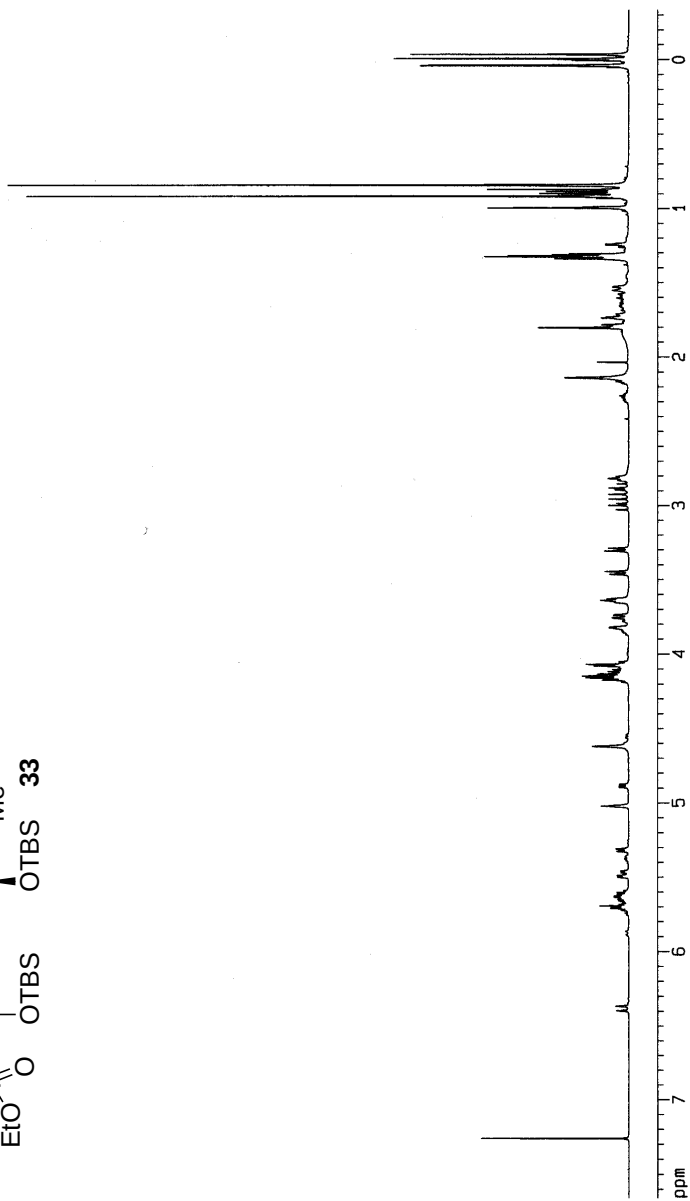
Current Data Parameters
NAME 081901
EXPNO 1
PROCNO 1

F2 - Acquisition Parameters
Date_ 20060819
Time 20.48
INSTRUM spect
PROBHD 5 mm BBO BBH
PULPROG zg30
TD 32768
SOLVENT CDCl3
NS 8
DS 2
SWH 7002.801 Hz
FIDRES 0.213709 Hz
AQ 2.3397565 sec
RG 90.5
DM 71.400 usec
DE 6.00 usec
TE 293.3 K
D1 2.00000000 sec
MCREST 0.00000000 sec
MCMRK 0.01500000 sec

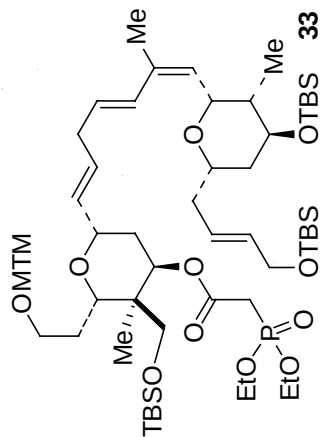
===== CHANNEL f1 =====
NUC1 1H
P1 14.00 usec
PL1 -2.00 dB
SFO1 499.8732500 MHz

F2 - Processing parameters
SI 16384
SF 499.8700317 MHz
WDW EM
SSB 0
LB 0.10 Hz
GB 0
PC 1.00

1D NMR plot parameters
CX 20.00 cm
CY 12.00 cm
F1P 7.660 ppm
F1 3828.95 Hz
F2P -0.334 ppm
F2 -167.13 Hz
PPMCM 0.35971 ppm/cm
HZCM 199.80357 Hz/cm



C13 standard parameters, 800 probe.



```

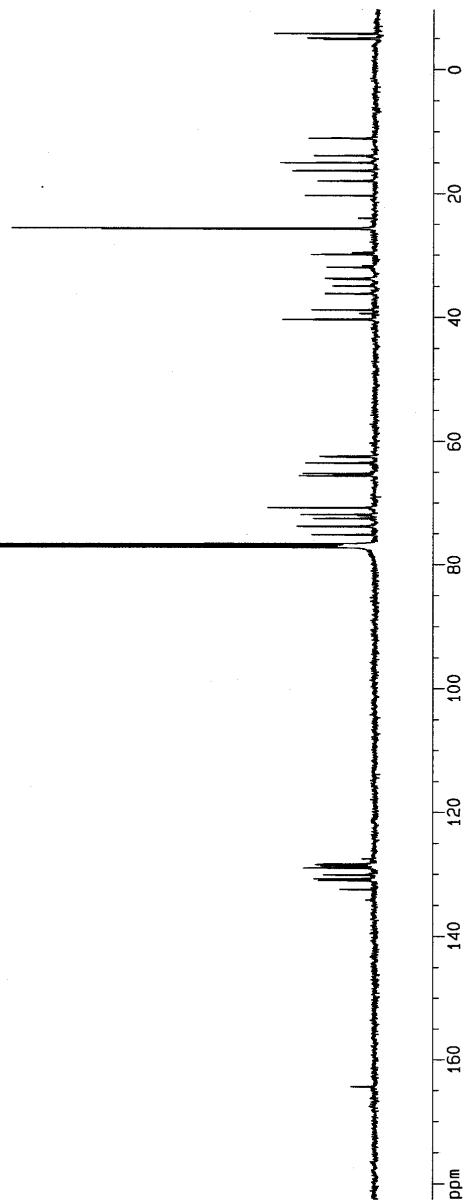
Current Data Parameters
NAME      081901
EXPNO     2
PROCNO    1

F2 - Acquisition Parameters
Date_     20060819
Time      23.14
INSTRUM   spect
PROBHD    5 mm BBO BBH
PULPROG   zgpg30
TD         32768
SOLVENT   CDCl3
NS         826
DS         4
SWH        30030.029 Hz
FIDRES     0.916444 Hz
AQ          0.5456539 sec
RG          2580.3
DM          16.650 usec
DE          6.00 usec
TE          293.6 K
D1          2.00000000 sec
d11         0.03000000 sec
RGREST     0.00000000 sec
NUC1        13C
NUC2        1H
===== CHANNEL f1 =====
NUC1        13C
P1          6.70 usec
PL1         -3.00 dB
SFO1        125.7061610 MHz

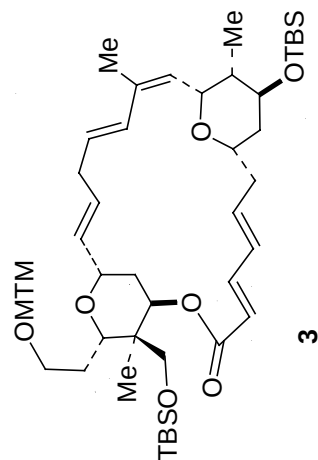
===== CHANNEL f2 =====
CPDPRG2    waltz16
NUC2        1H
PCPD2       80.00 usec
PL2         -2.00 dB
PL12        13.14 dB
PL13        16.00 dB
SFO2        499.8725000 MHz

F2 - Processing parameters
SI          16384
SF          125.6924320 MHz
WDW         EM
SSB         0
LB          3.00 Hz
GB          0
PC          1.00

1D NMR plot parameters
CX          20.00 cm
CY          12.00 cm
F1P         162.537 ppm
F1          22943.51 Hz
F2P         -9.704 ppm
F2          -1219.73 Hz
PPMCM       9.61205 ppm/cm
HZCM        1208.16174 Hz/cm
  
```



H1 standard parameters, BBO probe.



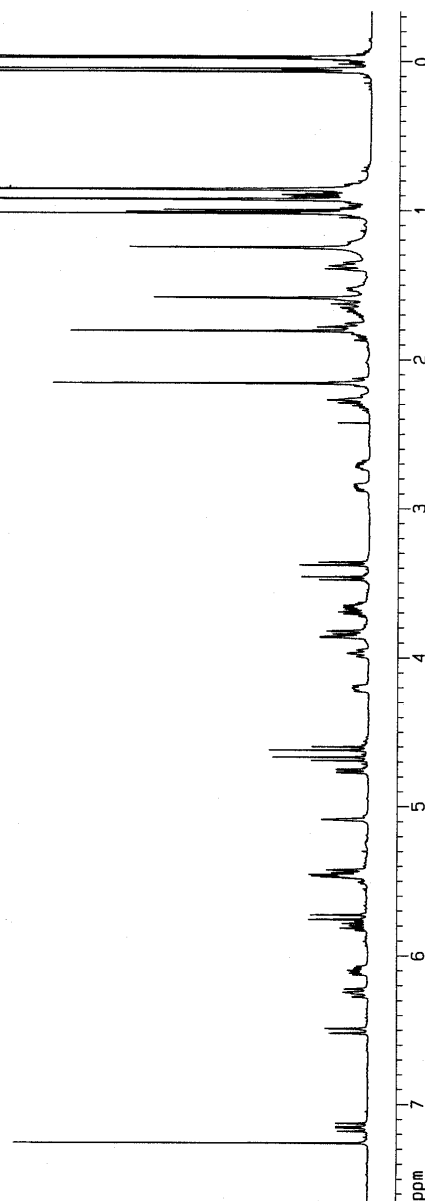
Current Data Parameters
 NAME 082101
 EXPNO 1
 PROCNO 1

F2 - Acquisition Parameters
 Date_ 20060821
 Time 22.20
 INSTRUM spect
 PROBHD 5 mm BBO BBH
 PULPROG zg30
 TD 32768
 SOLVENT CDCl3
 NS 8
 DS 2
 SWH 7002.801 Hz
 FIDRES 0.213709 Hz
 AQ 2.3397565 sec
 RG 128
 DM 71.400 usec
 DE 6.00 usec
 TE 293.1 K
 D1 2.00000000 sec
 MCREST 0.00000000 sec
 MCWRR 0.01500000 sec

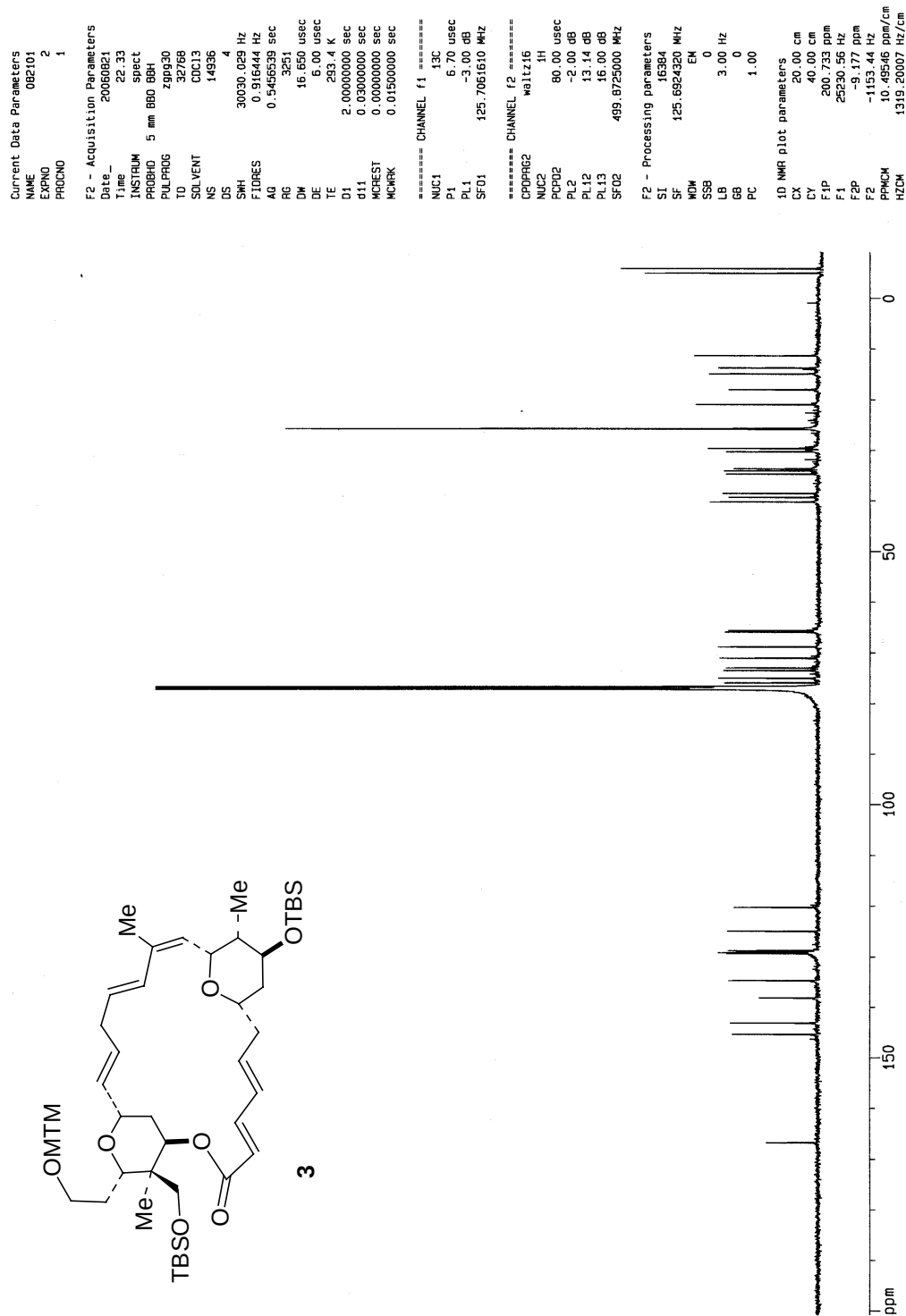
===== CHANNEL f1 =====
 NUC1 1H
 P1 14.00 usec
 PL1 -2.00 dB
 SFO1 499.8732500 MHz

F2 - Processing parameters
 SI 16384
 SF 499.8700317 MHz
 MDW EM
 SSB 0
 LB 0.10 Hz
 GB 0
 PC 1.00

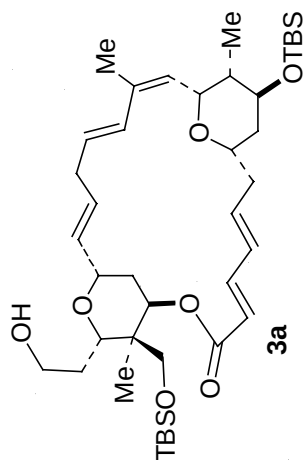
1D NMR plot parameters
 CX 20.00 cm
 CY 30.00 cm
 F1P 7.644 ppm
 F1 3821.22 Hz
 F2P -0.334 ppm
 F2 -167.13 Hz
 PPMCM 0.39894 ppm/cm
 HZCM 199.41753 Hz/cm



C13 standard parameters, BB0 probe.



H1 standard parameters, BBO probe.



```

Current Data Parameters
NAME          082202
EXPNO         1
PROCNO        1

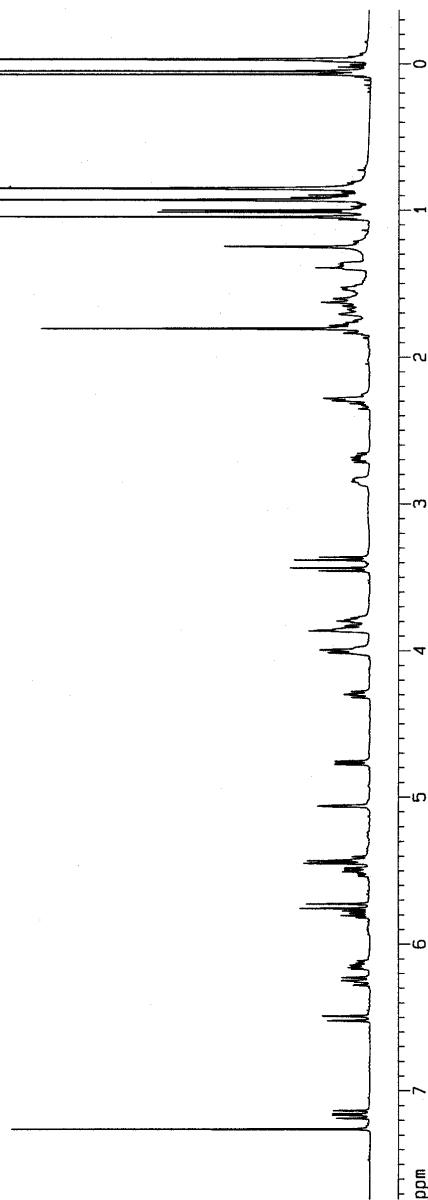
F2 - Acquisition Parameters
Date_         20060822
Time          22.17
INSTRUM       spect
PROBHD        5 mm BBO BBH
PULPROG       zg30
TD            32768
SOLVENT       CDCl3
NS            54
DS            2
SWH           7002.801 Hz
FIDRES       0.213709 Hz
AQ           2.3397555 sec
RG           128
DM           71.400 usec
DE           6.00 usec
TE           293.3 K
D1           2.00000000 sec
MCREST       0.00000000 sec
MCMRK        0.01500000 sec

===== CHANNEL f1 =====
NUC1          1H
P1           14.00 usec
PL1          -2.00 dB
SF01         499.8732500 MHz

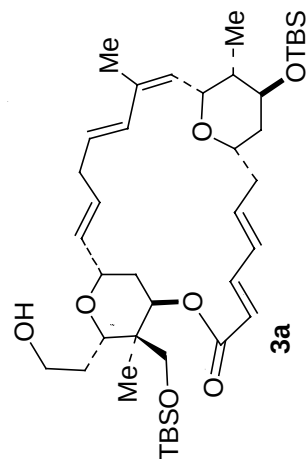
F2 - Processing parameters
SI           16384
SF           499.8700317 MHz
WDW          EM
SSB          0
LB           0.10 Hz
GB           0
PC           1.00

1D NMR plot parameters
CX           20.00 cm
CY           30.00 cm
F1P          7.737 ppm
F1           3667.59 Hz
F2P          -0.365 ppm
F2           -182.59 Hz
PPHQM        0.40512 ppm/cm
HZCM        202.50928 Hz/cm

```



C13 standard parameters, BBO probe.



```

Current Data Parameters
NAME      082202
EXPNO     2
PROCNO    1

F2 - Acquisition Parameters
Date_     20060822
Time      22.31
INSTRUM   spect
PROBHD    5 mm BBO BBH
PULPROG   zgpg30
TD         32768
SOLVENT   CDCl3
NS         14411
DS         4
SWH        30030.029 Hz
FIDRES     0.916444 Hz
AQ          0.5456539 sec
RG          2896.3
DM          16.650 usec
DE          6.00 usec
TE          293.6 K
D1          2.00000000 sec
d11         0.03000000 sec
MCREST     0.00000000 sec
MCMRK      0.01500000 sec

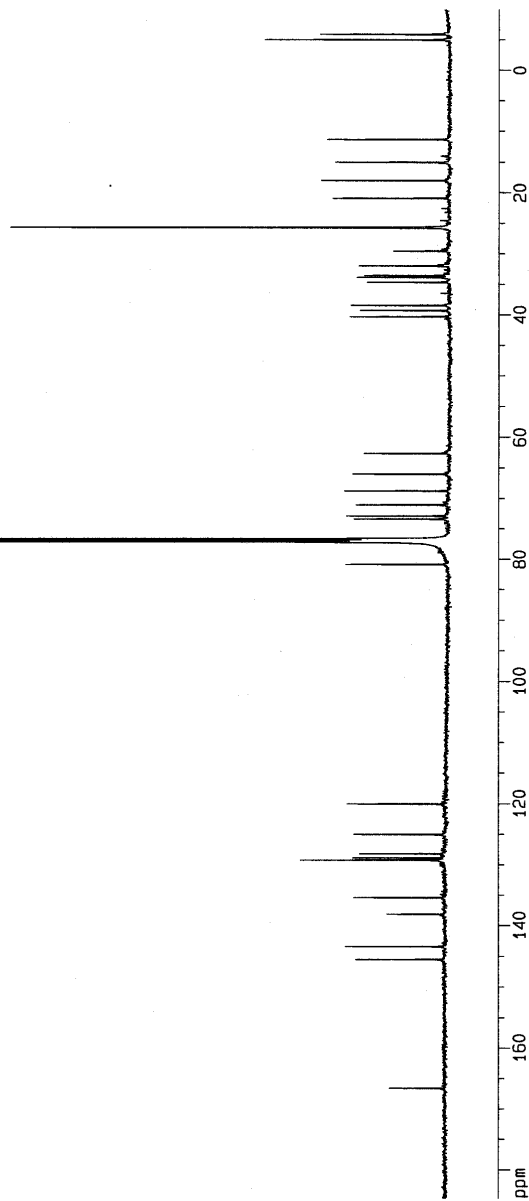
***** CHANNEL f1 *****
NUC1       13C
P1          6.70 usec
PL1         -3.00 dB
SFO1       125.7061610 MHz

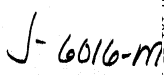
***** CHANNEL f2 *****
CPOPRG2    waltz16
NUC2        1H
P2          80.00 usec
PL2         -2.00 dB
PL12        13.14 dB
PL13        16.00 dB
SFO2       499.8725000 MHz

F2 - Processing parameters
SI          16384
SF         125.6524320 MHz
WDW         EM
SSB         0
LB          3.00 Hz
GB          0
PC          1.00

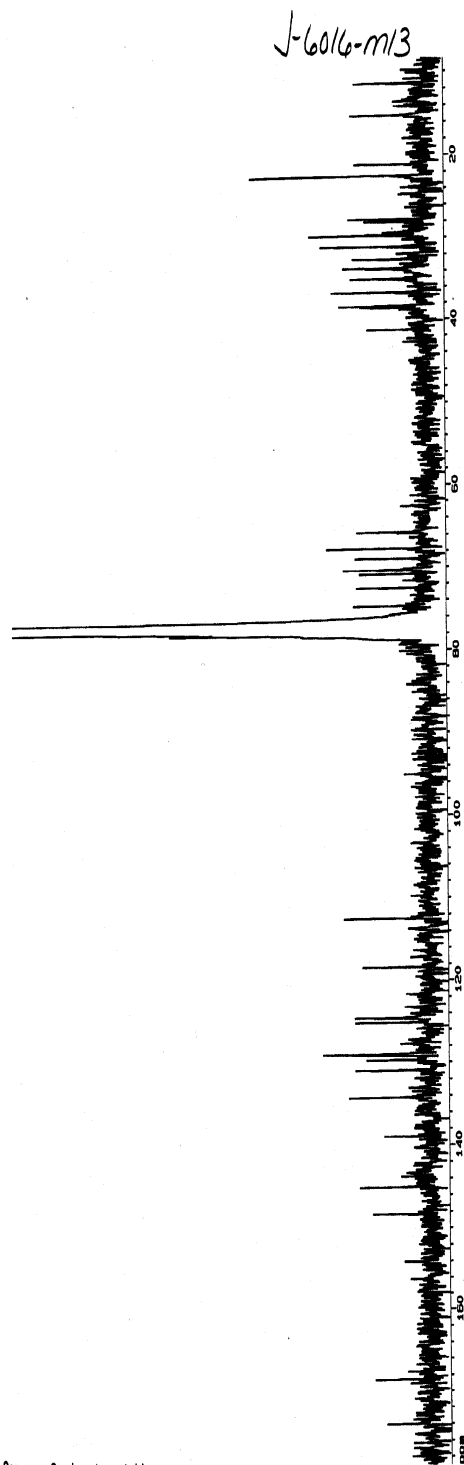
1D NMR plot parameters
CX          20.00 cm
CT          30.00 cm
F1P         184.647 ppm
F1          23208.67 Hz
F2P         -9.968 ppm
F2          -1252.88 Hz
PRMCM       9.73072 ppm/cm
HZCM        1223.07727 Hz/cm

```



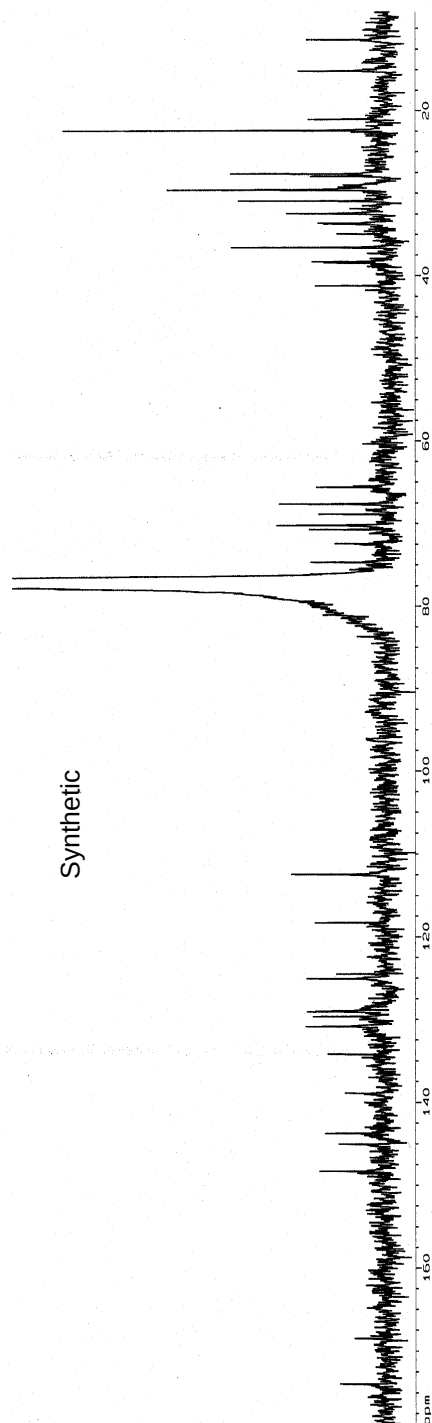


LASONOLIDE A
90 MHz CARBON SPECTRUM (CDCl₃)



Synthetic

C13 standard parameters, CDC13, BBO probe.



Synthetic