

Electronic Supplementary Information

***O,O*-Dimethylthiophosphonosulfonyl Bromide-Silver Triflate: A New Powerful Promoter System for the Preactivation of Thioglycosides**

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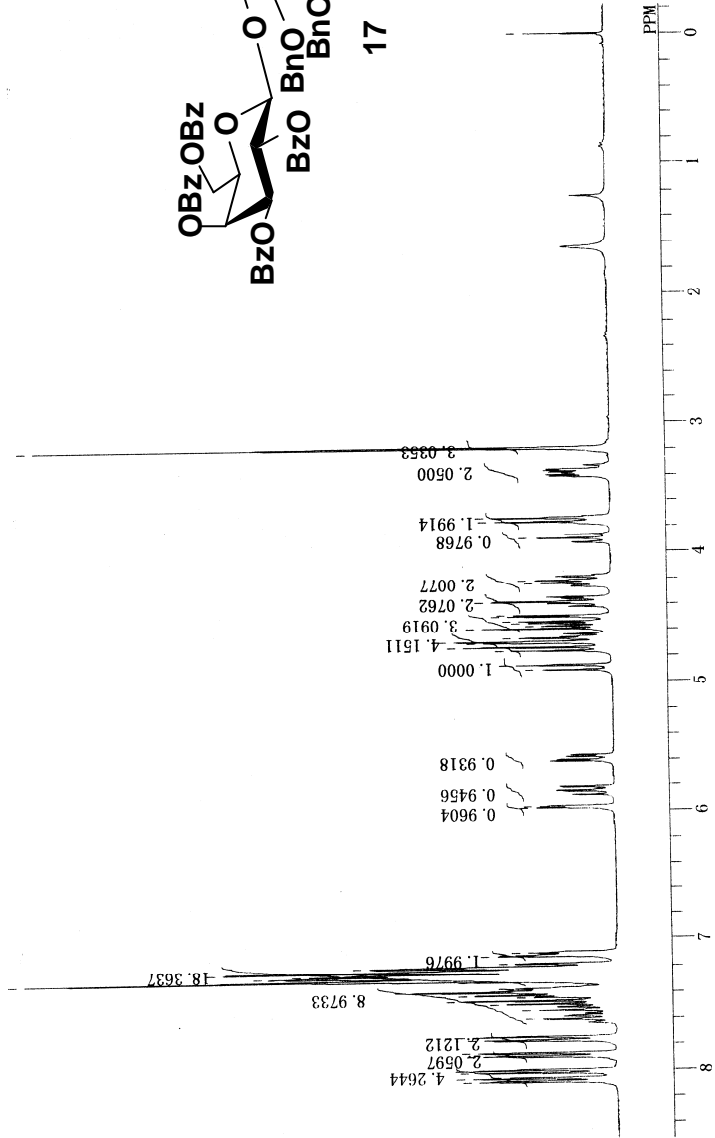
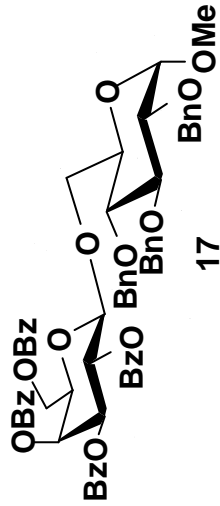
Table of Contents:

¹ H NMR Spectrum of Compound 17	S2
¹ H, COSY, ¹³ C, and HSQC NMR Spectra of Compound 18	S3-S6
¹ H NMR Spectrum of Compound 19	S7
¹ H NMR Spectrum of Compound 20	S8
¹ H NMR Spectrum of Compound 21	S9
¹ H NMR Spectrum of Compound 22	S10
¹ H NMR Spectrum of Compound 23	S11
¹ H NMR Spectra of Compounds 24α and 24β	S12-S13
¹ H, COSY, ¹³ C, and HSQC NMR Spectra of Compound 25	S14-S17
¹ H NMR Spectrum of Compound 26	S18
¹ H, COSY, ¹³ C, and HSQC NMR Spectra of Compound 27	S19-S22
¹ H, COSY, ¹³ C, and HSQC NMR Spectra of Compound 28	S23-S26
¹ H, COSY, ¹³ C, and HSQC NMR Spectra of Compound 29	S27-S30
¹ H, COSY, ¹³ C, and HSQC NMR Spectra of Compound 30	S31-S34

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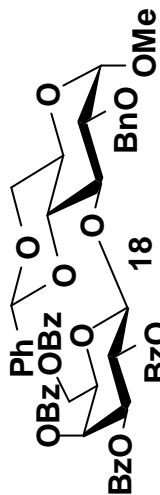
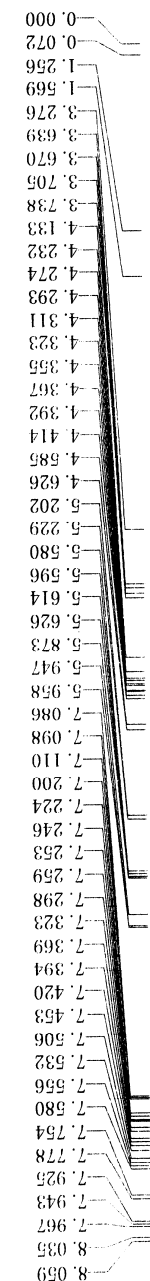
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 QBFIN 1150.0 Hz
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 FREQU 8000.0 Hz
 SCANS 8
 ACQTM 4.096 sec
 PD 1.551 sec
 PW1 6.1 us
 IRN
 CTEMP 22.3 c
 SLVNT CDCL3
 EXREF 0.00 ppm
 BF 0.12 Hz
 RGAIN 15

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 4.244
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 4.493
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 4.540
 4.557
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 8.069
 8.093



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DFTL1
 OBNUC 1H
 EXMOD NON
 OFR 300.40 MHz
 OBSET 130.00 KHz
 OFBIN 1150.0 Hz
 POINT 32768
 FREQU 8000.0 Hz
 SCANS 8
 ACQTM 4.096 sec
 PD 1.551 sec
 PW1 6.1 us
 IRN 22.1 c
 CTEMP CDCL3
 SLVNT 0.00 ppm
 EXREF 0.12 Hz
 BF 20
 RGAIN



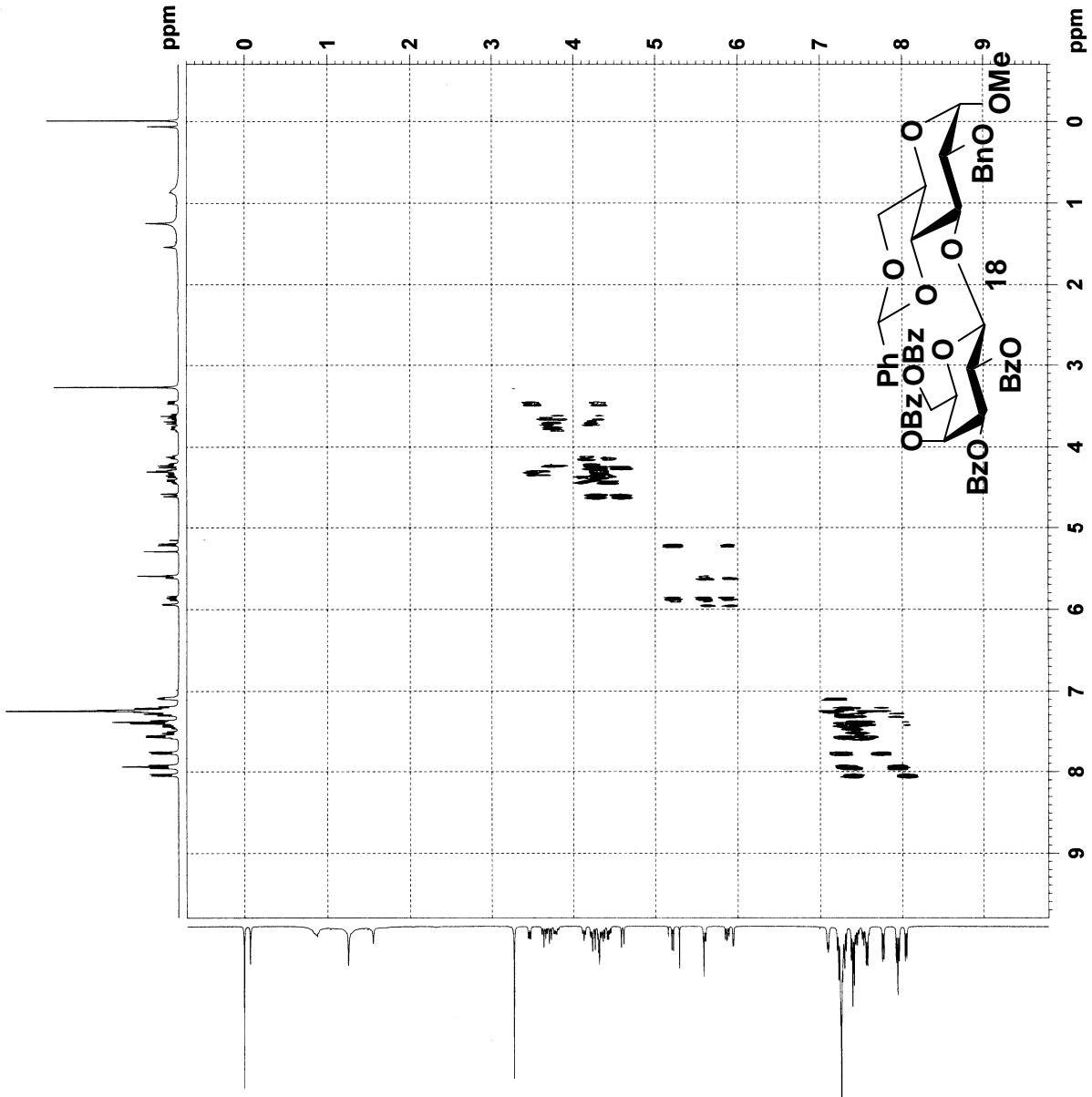


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EXPNO 1
PROCNO 4
Date_ 20100412
Time_ 15.46
INSTRUM spect
PROBHD 5 mm PADUL 13C
PULPROG cosygmfzf
TD 2048
SOLVENT CDCl3
NS 4
DS 8
SWH 4201.681 Hz
FIDRES 2.051602 Hz
AQ 0.2437620 sec
RG 2050
DW 119.000 usec
DE 6.50 usec
TE 291.7 K
D0 0.00000300 sec
D1 1.00000000 sec
D13 0.00000400 sec
D16 0.00020000 sec
IN0 0.00023800 sec

===== CHANNEL f1 =====
NUC1 1H
P1 14.16 usec
PL1 0.00 dB
PL1W 9.46981144 W
SF01 400.1518200 MHz

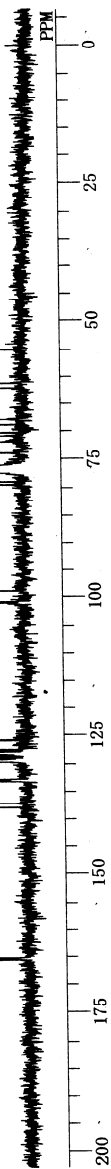
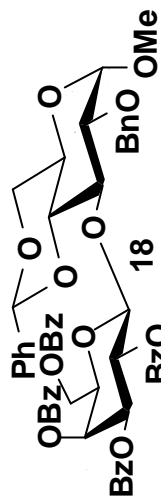
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GPNAM2 SINE.100
GPNAM3 SINE.100
GPZ1 16.00 %
GPZ2 12.00 %
GPZ3 40.00 %
F16 1000.00 usec
ND0 1
TD 128
SF01 400.1518 MHz
FIDRES 32.824955 Hz
SW 10.500 ppm
FMODE OF
SI 1024
SF 400.1500000 MHz
SINE SINE
WDW 0
SSB 0
LB 0.00 Hz
GB 0
PC 1.40
SI 1024
MC2 OF
SF 400.1500000 MHz
WDW SINE
SSB 0
LB 0.00 Hz
GB 0
  
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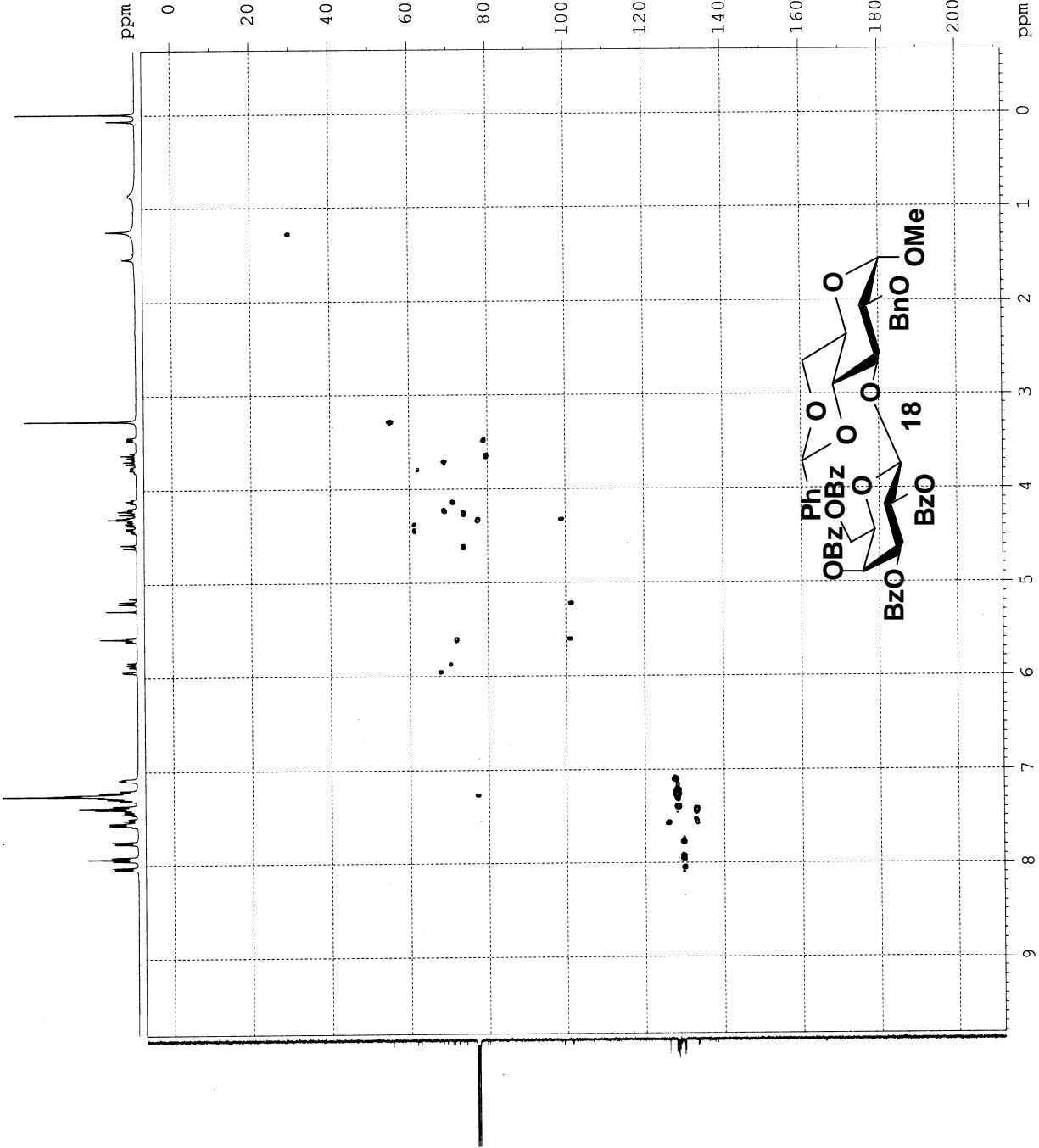


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OBNUC 13C
EXMOD BCM
OBFRQ 75.45 MHz
OBSET 124.00 KHz
OBTIN 1840.0 Hz
POINT 32768
FREQU 20408.1 Hz
SCANS 4060
ACQTM 1.606 sec
PD 1.394 sec
PWL 4.2 us
IRATN 511
CTEMP 23.0 c
SLVNT CDCL3
EXREF 77.00 ppm
RF 2.00 Hz
RGAIN 25

165.779
165.598
165.474
165.392
138.128
137.362
133.406
133.183
129.952
129.763
129.392
129.145
128.914
128.807
128.568
128.354
128.238
128.172
127.843
127.711
125.947
101.354
101.090
99.005
79.786
79.242
77.420
77.206
77.000
76.580
73.992
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70.909
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67.992
62.289
61.423
55.242





NAME DBZPM1120100412

EXPNO 5

PROCNO 1

Date_ 20100412

Time 6:23

Time Sect 5

INSTRUM 5 mm PADUL 13C

PROBHD hscqtcp

PULPROG hscqtcp

TD 1024

SOLVENT CDCl3

NS 12

DS 2

SWH 4201.681 Hz

FIDRES 4.103204 Hz

AQ 0.11219060 sec

RG 2050

DW 119.000 usec

DE 6.50 usec

TE 300.2 K

TD0 145.0000000

INST2 0.00000300 sec

DD1 1.50000000 sec

D1 0.00172414 sec

D11 0.03000000 sec

D13 0.00000400 sec

D15 0.00000000 sec

DELTA 0.00000000 sec

TH0 0.00000000 sec

TH1 0.00000000 sec

ZCQTPNS

CHANEL F1

NUC1 ¹H

P1 14.12 usec

P2 24.12 usec

P28 2500.00 usec

PL1 0.00 dB

PL1W 9.46981144 W

SFO1 400.1518285 MHz

CHANEL F2

CPDPRG2 gard

NUC2 ¹³C

P3 10.36 usec

P4 20.72 usec

PCPD2 65.00 usec

PL2 0.00 dB

PL2W 11.43 usec

PL2W 35.66878891 W

PL12W 0.90633416 W

SFO2 100.6280849 MHz

GRADIENT CHANNEL

GPMW1 SINE, 100

GPMW2 SINE, 100

GPZ1 20.10

GPZ2 20.10

P16 1000.00 usec

ND0 2

TD 256

SFO1 100.6281 MHz

SFO2 100.6281 MHz

SM 219.000 Ppm

F2MODE Echo-AntiECHO

SI 1024

SF 400.1500000 MHz

WDW OSINE

LSB 0.00 Hz

GB 0

PC 1.40

SI 1024

MC2 echo-antiecho

SF 100.617980 MHz

WDW OSINE

SSB 0

LB 0.00 Hz

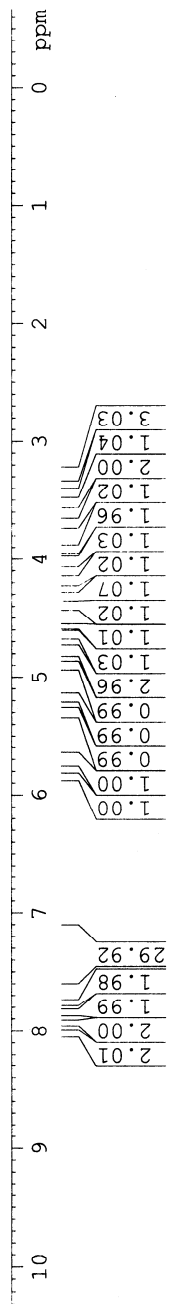
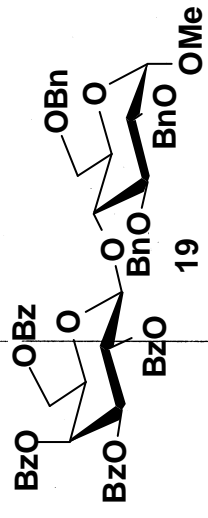
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PROBHD 5 mm PADUL13C
PULPROG zg30
TD 65536
SOLVENT CDCl3
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DS 0
SWH 8223.685 Hz
FIDRES 0.125483 Hz
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RG 64
DW 60.800 usec
DE 6.50 usec
TE 293.2 K
D1 1.00000000 sec
TD0 1

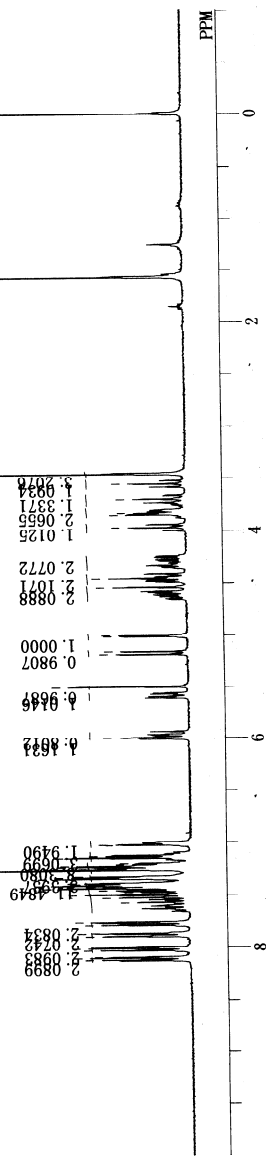
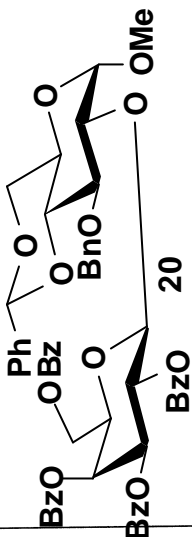
===== CHANNEL f1 =====
NUC1 1H
P1 14.16 usec
PL1 0.00 dB
PL1W 9.46981144 W
SF01 400.1524711 MHz
SI 32768
SF 400.1500075 MHz
WDW EM
SSB 0
LB 0.30 Hz
GB 0
PC 1.00
  
```



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DFILE 1H
 OBNUC NON
 EXMOD
 OBFRQ 300.40 MHz
 OBSSET 130.00 KHz
 OBFIN 1150.0 Hz
 POINT 32768
 FREQU 8000.0 Hz
 SCANS 16
 ACQTM 4.096 sec
 PD 1.551 sec
 PW1 6.1 us
 IRATN 51.7
 CTEMP 22.7 c
 SLVNT CDCl3
 EXREF 0.00 ppm
 BF 0.12 Hz
 RGAIN 21

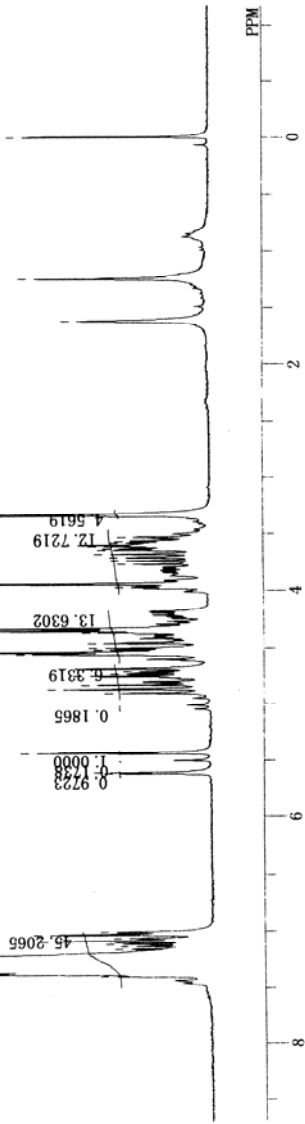
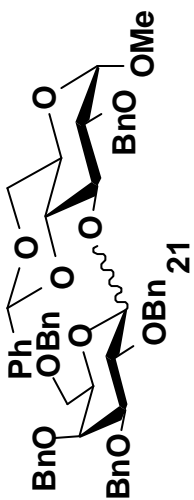
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 7.247
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 7.394
 7.399
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 8.098
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DFILE IH
 CBNLC NON
 EXMOD NON
 OFR 300.40 MHz
 OBSSET 130.00 KHz
 OBFIN 1150.0 Hz
 POINT 32768
 FREQU 8000.0 Hz
 SCANS 8
 ACQTM 4.096 sec
 PD 1.551 sec
 PW1 6.1 us
 IRN 19.1 c
 CTEMP CDCL3
 SLVNT 0.00 ppm
 EXREF 0.12 Hz
 BF 15
 RGAIN

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 3.605
 3.625
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 3.674
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 3.765
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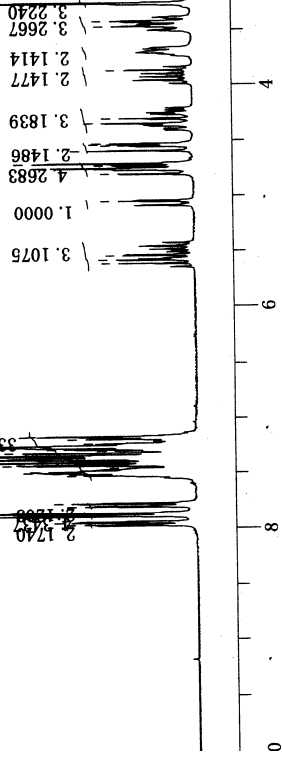
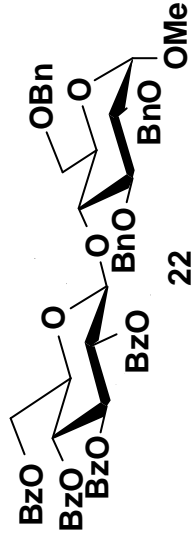


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DRFILE IH
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 OBRQ
 OBSSET
 OBFIN
 POINT
 FREQU
 SCANS
 ACQTM
 PD
 PWI
 IRATN
 CTEMP
 SLVNT
 EXREF
 BF
 RGAIN

300.40 MHz
 130.00 KHz
 1150.0 Hz
 32768
 8000.0 Hz
 8
 4.096 sec
 1.551 sec
 6.1 us
 511
 21.9 c
 0.00 ppm
 0.12 Hz
 16

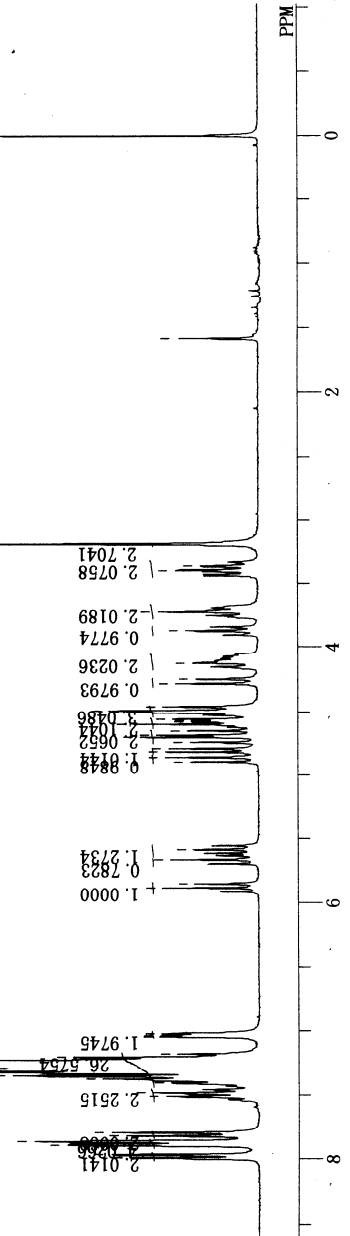
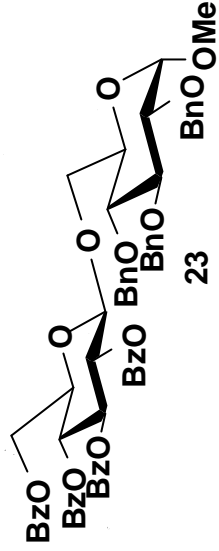
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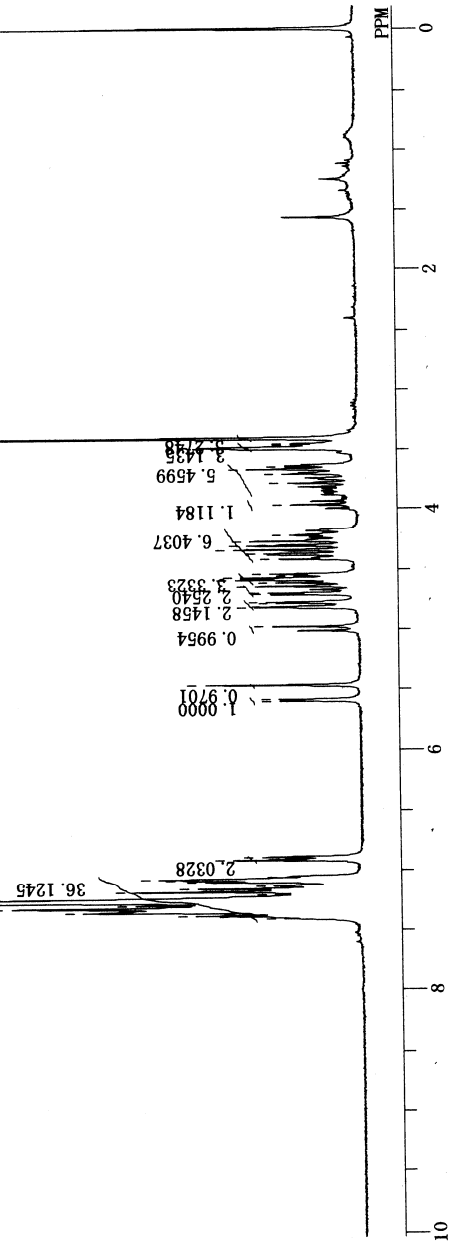
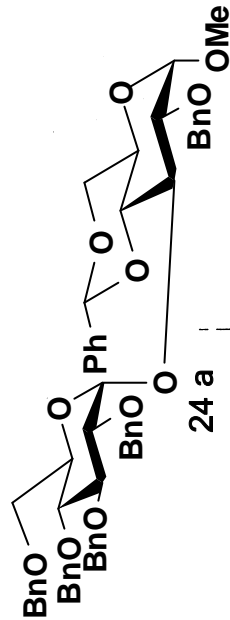
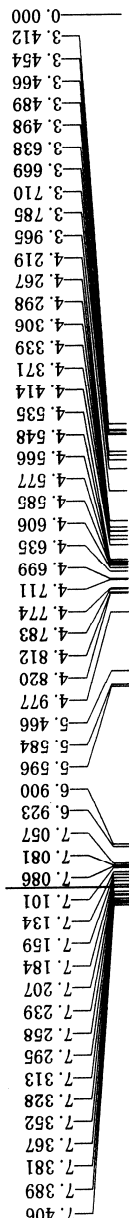
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 OBFIN 1150.0 Hz
 POINT 32768
 FREQU 8000.0 Hz
 SCANS 8
 ACQTM 4.096 sec
 PD 1.551 sec
 PW1 6.1 us
 IRATN 511
 CTEMP 19.6 c
 SLVNT CDCL3
 EXREF 0.00 ppm
 BF 0.12 Hz
 RGAIN 17

0.000
 1.587
 3.204
 3.372
 3.402
 3.729
 3.877
 4.130
 4.254
 4.292
 4.469
 4.502
 4.514
 4.569
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 4.592
 4.609
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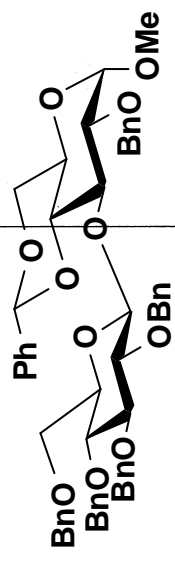
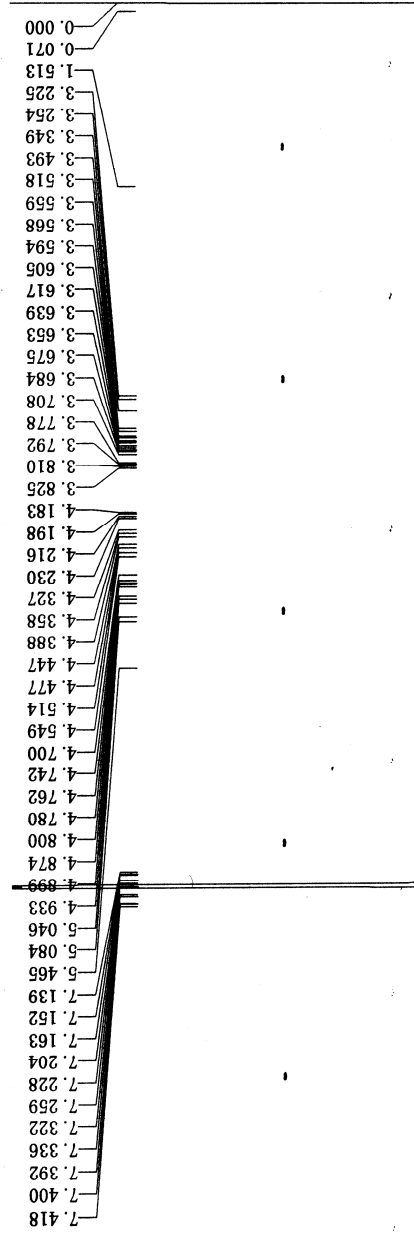
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DFILE OBNUC IH
 EXMOD NON
 OBFREQ 300.40 MHz
 OBSET 130.00 KHz
 OBFIN 1150.0 Hz
 POINT 32768
 FREQU 8000.0 Hz
 SCANS 8
 ACQTM 4.096 sec
 PD 1.551 sec
 PWI 6.1 us
 IRATN 511
 CTEMP 18.5 c
 SLVNT CDCL3
 EXREF 0.00 ppm
 RF 0.12 Hz
 RGAIN 18



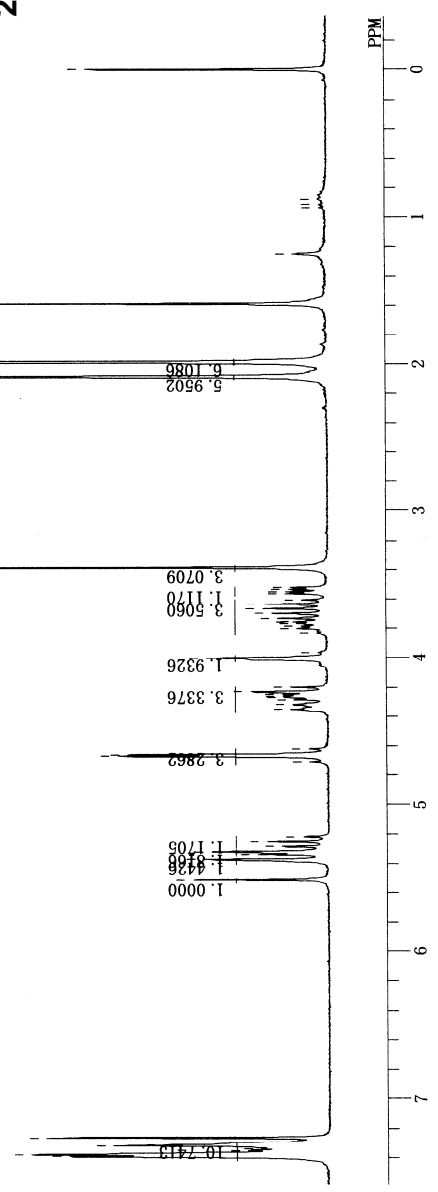
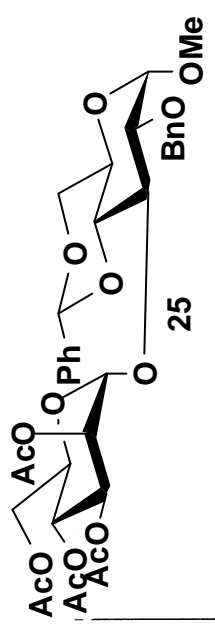
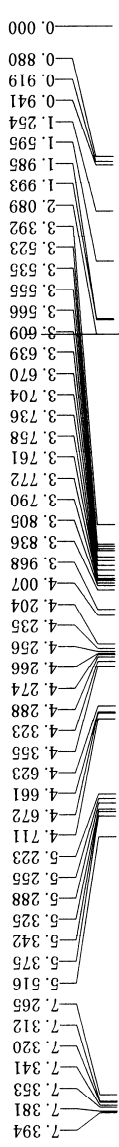
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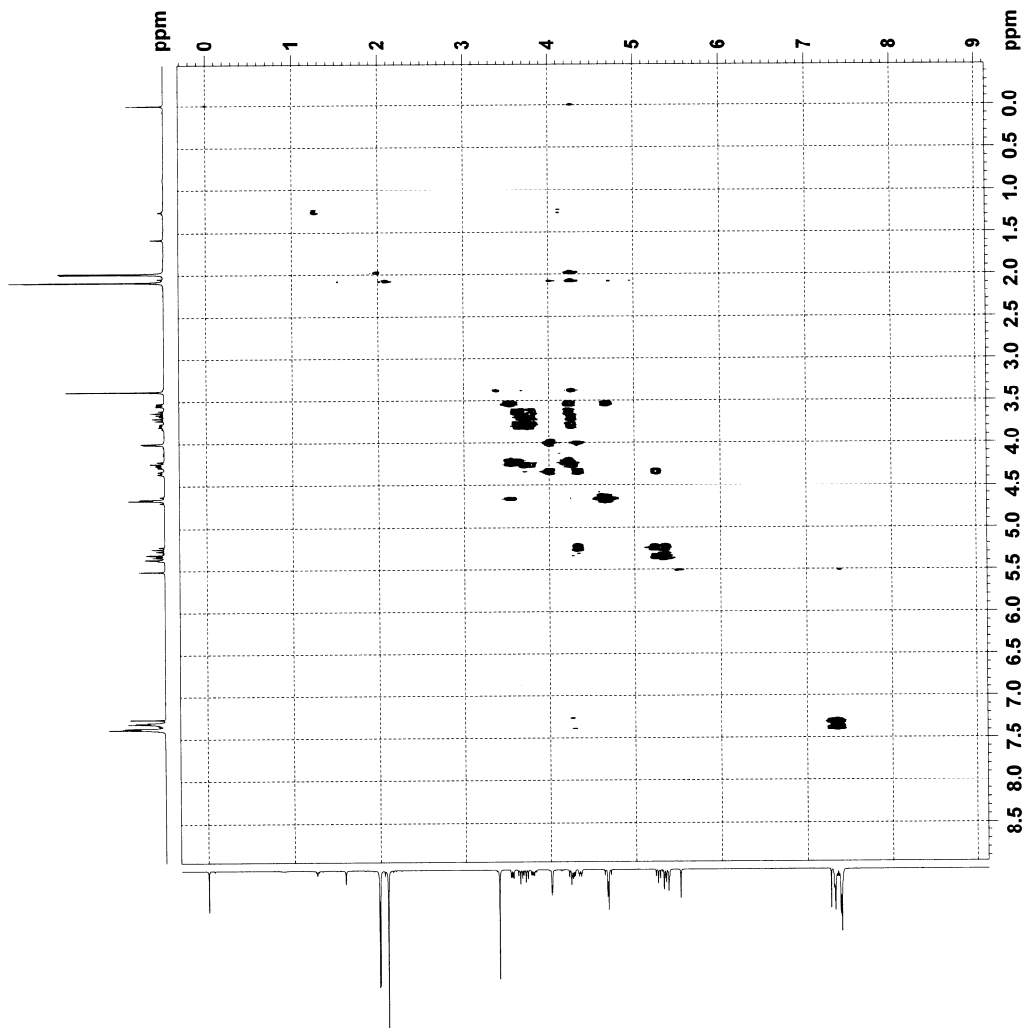
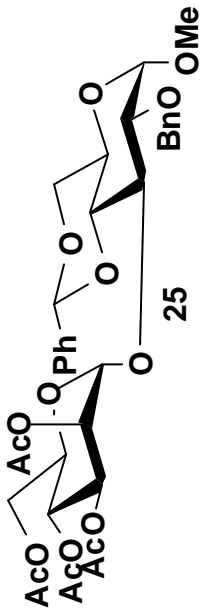
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OBNUC	NON
EXMOD	
OBFRQ	300.40 MHz
OBSET	130.00 KHz
OBFIN	1150.0 Hz
POINT	32768
FREQU	8000.0 Hz
SCANS	48
ACQTM	4.096 sec
PD	1.551 sec
PWI	6.1 us
IRATN	511
CTEMP	22.5 c
SLVNT	CDCL3
EXREF	0.00 ppm
BF	0.12 Hz
RGAIN	21



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DFILE IH
 OBNUC NON
 EXMOD NON
 OBFRQ 300.40 MHz
 OBSSET 130.00 KHz
 OBFIN 1150.0 Hz
 POINT 32768
 FREQU 8000.0 Hz
 SCANS 8
 ACQTM 4.096 sec
 PD 1.551 sec
 PWI 6.1 us
 IRATN 511
 CTEMP 18.0 c
 SLYNT CDCL3
 EXREF 0.00 ppm
 BF 0.12 Hz
 RGAIN 18





```

NAME          ppm21em11-2
EXENO        1
PROCNO       4
Date_        20090305
Time         13.36
INSTRUM      spect
PROBHD       5 mm PADUL 13C
PULPROG      cosygmrcqi
TD           2048
SOLVENT      CDCl3
NS           16
DS           16
SWH          3780.242 Hz
FIDRES      1.845821 Hz
AQ           0.2709321 sec
RG           2050
DM           132.267 usec
DE           6.50 usec
TE           295.0 K
D0           0.00000300 sec
D1           1.00000000 sec
D13          0.00000400 sec
D16          0.00020000 sec
IN0          0.00026455 sec

===== CHANNEL f1 =====
NUC1         1H
P1           14.16 usec
PL1          0.00 dB
FLLW        9.46981484 MHz
SF01         400.1517089 MHz

===== GRADIENT CHANNEL =====
GPNAM1      SINE 100
GPNAM2      SINE 100
GPNAM3      SINE 100
GPZ1        16.00 %
GPZ2        12.00 %
GPZ3        40.00 %
P16         1000.00 usec
ND0         1
TD          128
SF01        400.1517 MHz
FIDRES      29.530258 Hz
SW          9.446 ppm
F1M0DE      QF
SI          1024
SF          400.1500031 MHz
WDW         SINE
SSB         0
LB          0.00 Hz
GB          0
PC          1.40
SC          1024
MC2         OF
SF2         400.1500031 MHz
WDW         SINE
SSB         0
LB          0.00 Hz
GB          0
  
```

D:\叶新山\PP\PM2\PM1-C.als

DFILE 13C
OBNUC 13C
EXMOD BCM
OBFREQ 75.45 MHz
OBSSET 124.00 KHz
OBFIN 1840.0 Hz
POINT 32768
FREQU 20408.1 Hz
SCANS 801
ACQTM 1.606 sec
PD 1.394 sec
PW1 4.2 us
IRATN 511
CTEMP 23.1 c
SLVNT CDCL3
EXREF 77.00 ppm
BF 2.00 Hz
RGAIN 25

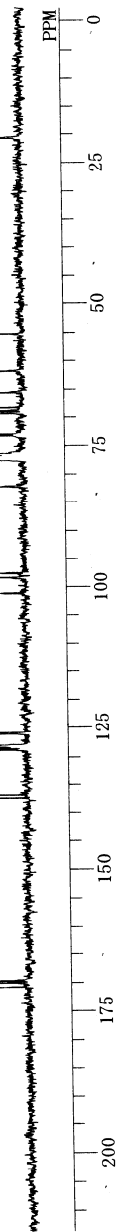
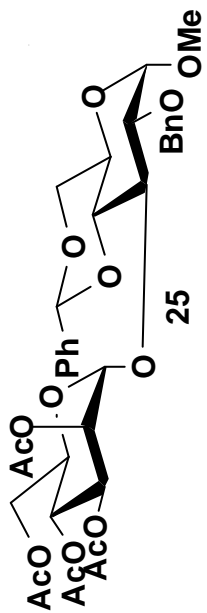
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20.701

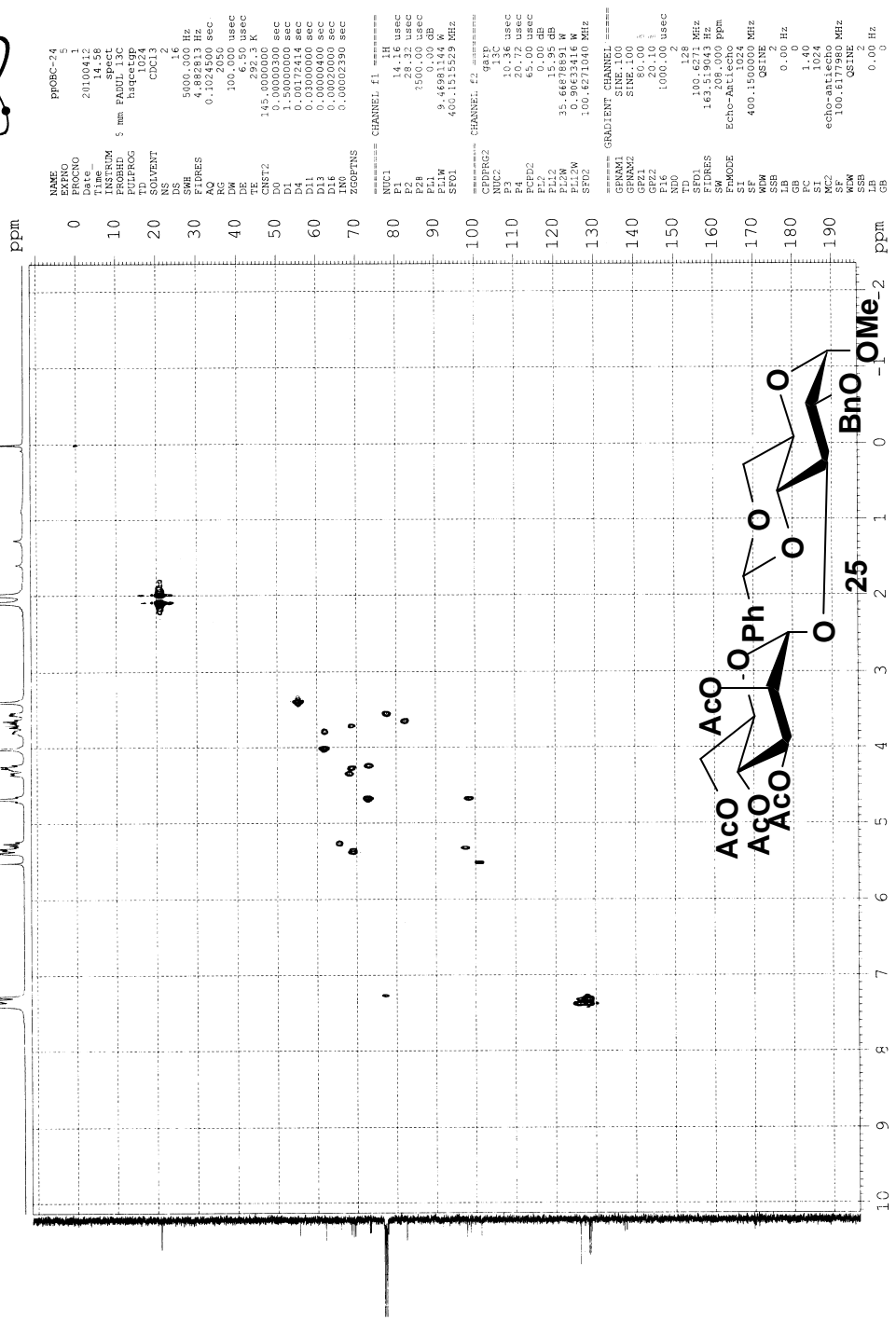
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61.835
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68.313
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69.228
69.278
72.912
73.184

76.571
77.000
77.173
77.420
77.602
82.308
97.546
98.395
101.115

125.955
128.040
128.131
128.263
128.543
128.832
136.908
137.494

169.628
169.793
170.040
170.790

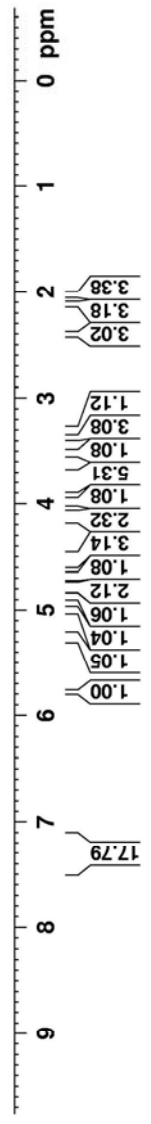
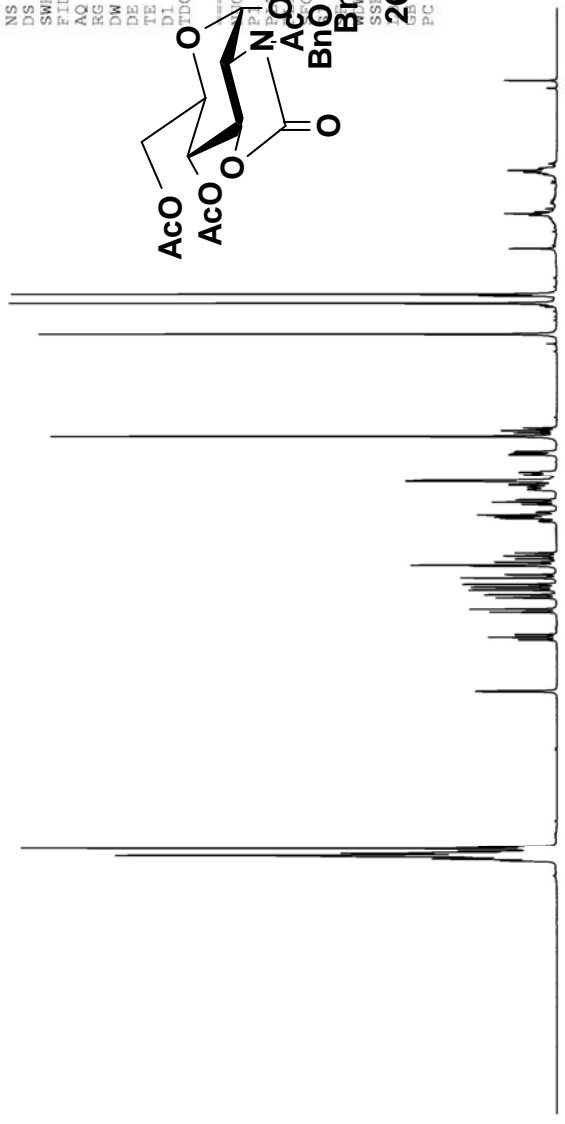
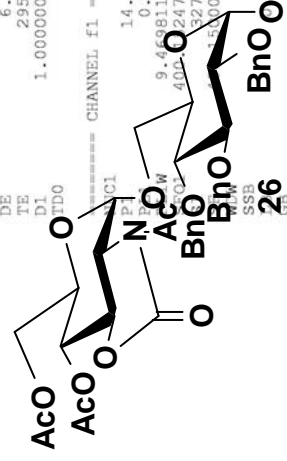






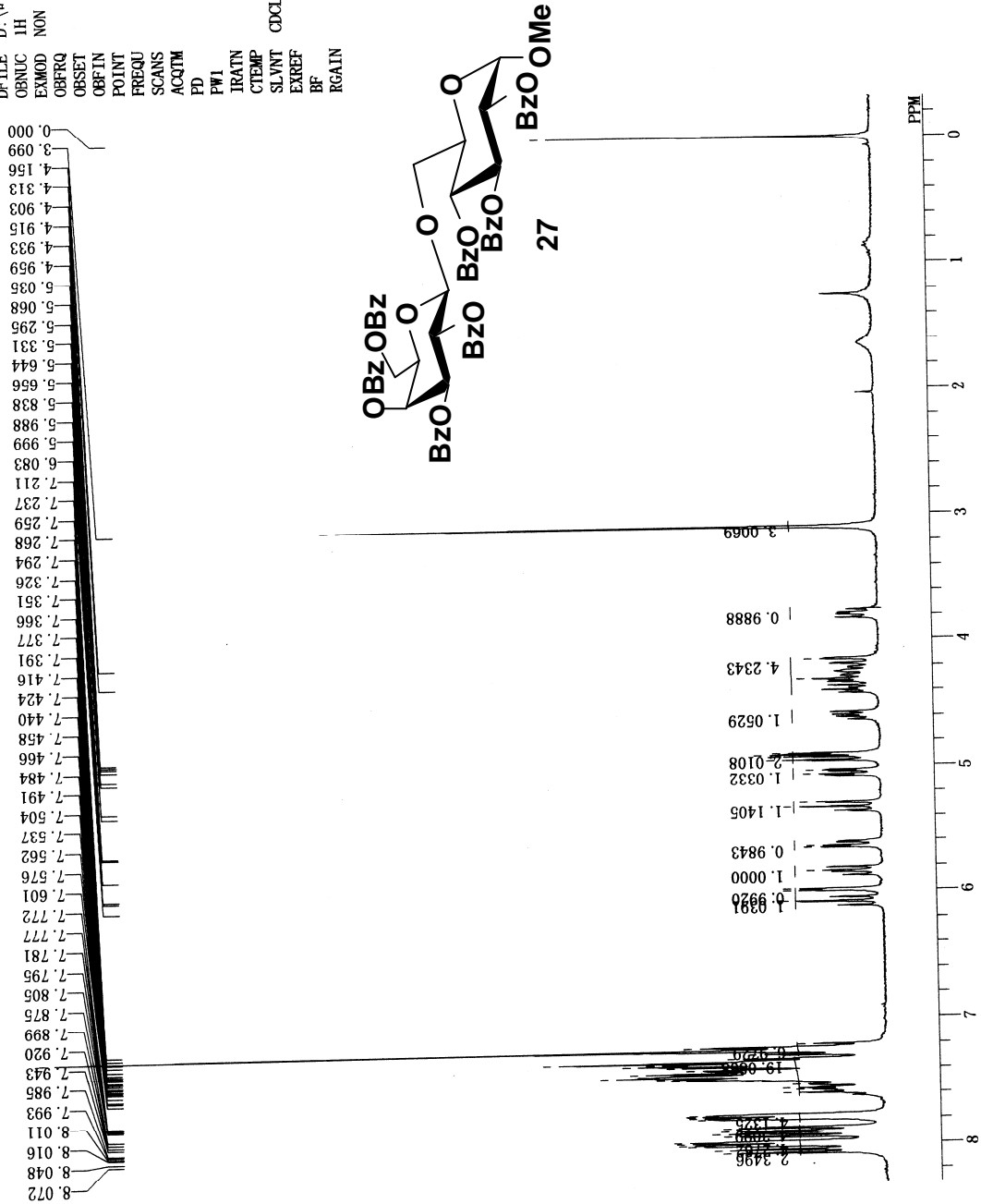
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 2.042
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 2.403
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 3.783
 3.791
 3.827
 3.989
 4.111
 4.117
 4.132
 4.143
 4.495
 4.499
 4.556
 4.584
 4.592
 4.668
 4.698
 4.759
 4.786
 4.813
 4.857
 4.886
 4.993
 5.020
 5.258
 5.772
 5.779
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 7.285
 7.298
 7.306
 7.312
 7.326
 7.336
 7.347
 7.357
 7.375

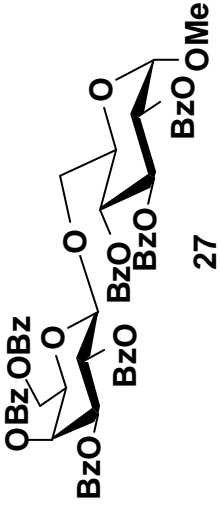
NAME ppgd6OH-1
 EXPNO 1
 PROCNO 1
 Date_ 20100206
 Time 20.07
 INSTRUM spect
 PROBHD 5 mm PADUL13C
 PULPROG zg30
 TD 65536
 SOLVENT CDCl3
 NS 8
 DS 2
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQ 3.9846387 sec
 RG 114
 DW 60.800 usec
 DE 6.50 usec
 TE 295.2 K
 D1 1.00000000 sec
 D11
 D12
 D13
 CHANNEL f1
 P1 14.16 usec
 PL 0.00 dB
 FREQ 9.4501144 W
 ACQ 400.124711 MHz
 PRG 52768
 SSB 0
 EM 0
 26 BnO OMe
 PC 1.00



D:\叶新山\PP\ppdglabza6ohg1ubz-1-ome-h

DF1LE
 OBNUC 1H
 EXMOD NON
 OBRQ 300.40 MHz
 OBSSET 130.00 KHz
 OBFIN 1150.0 Hz
 POINT 32768
 FREQU 8000.0 Hz
 SCANS 12
 ACQTM 4.096 sec
 PD 1.551 sec
 PWI 6.1 us
 IRATN 511
 CTEMP 21.9 c
 SLVNT CDCL3
 EXREF 0.00 ppm
 BF 0.12 Hz
 RGAIN 20



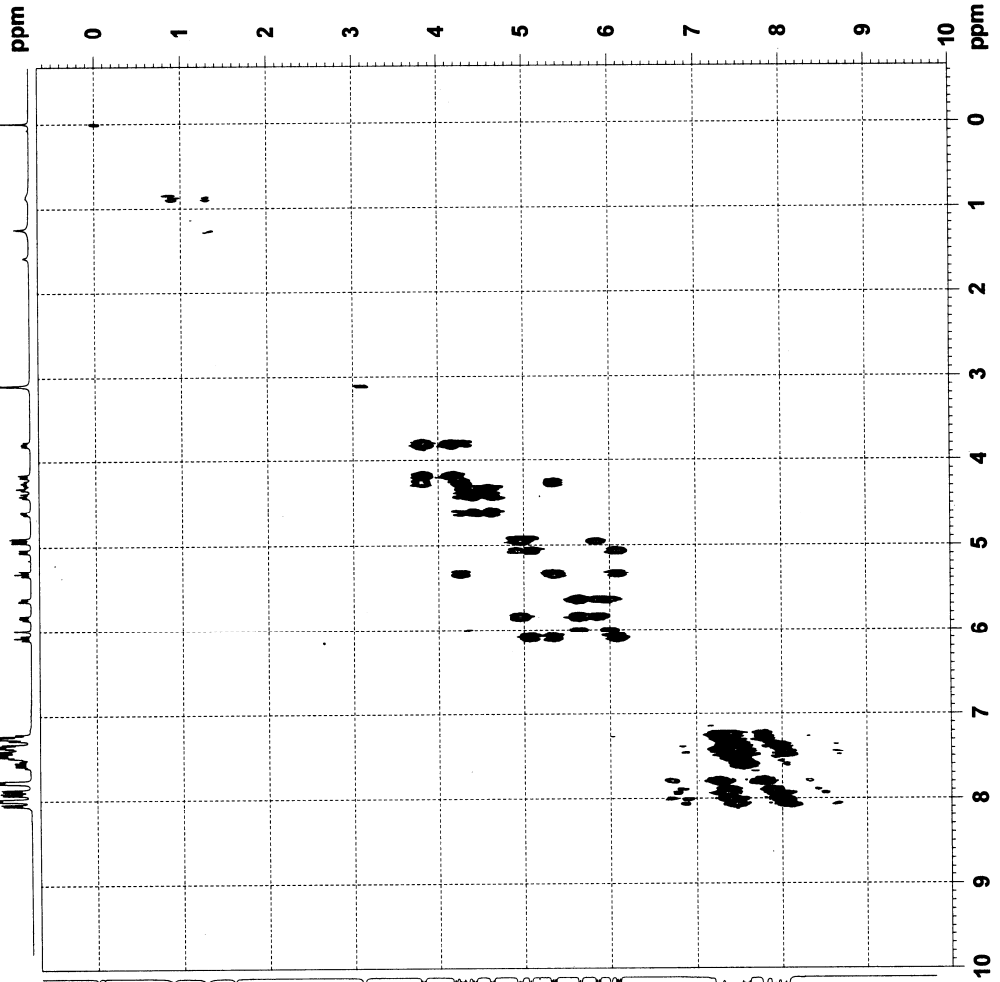


```

NAME DBzaallbzglu6_OH-2
EXPNO 1
PROCNO 1
Date_ 20100412
Time_ 14.33
INSTRUM spect
PROBHD 5 mm PADUL 13C
PULPROG cosygmfzf
TD 2048
SOLVENT CDC13
NS 4
DS 16
SWH 5341.860 Hz
FIDRES 2.606340 Hz
AQ 0.1917428 sec
RG 2050
DW 93.600 usec
DE 6.50 usec
TE 291.6 K
D0 0.00000300 sec
D1 1.00000000 sec
D13 0.00000400 sec
D16 0.00020000 sec
IN0 0.00018720 sec

===== CHANNEL f1 =====
NUC1 1H
P1 14.16 usec
PL1 0.00 dB
PL1W 9.46981144 W
SFO1 400.1524058 MHz

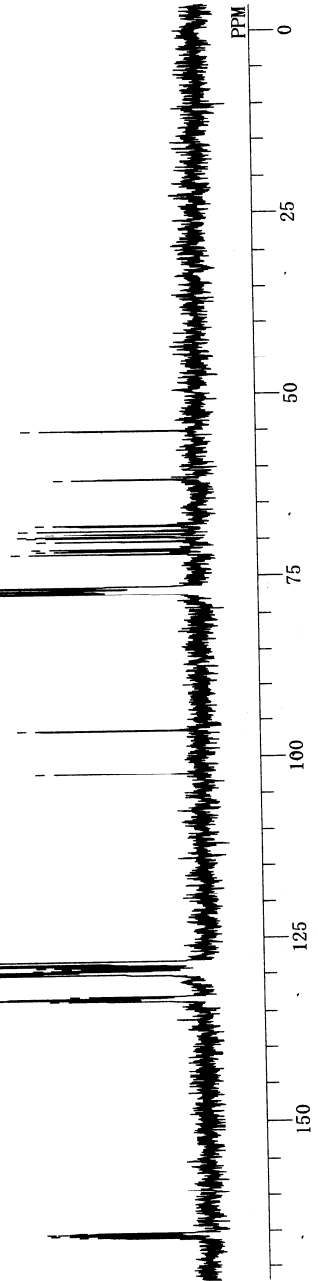
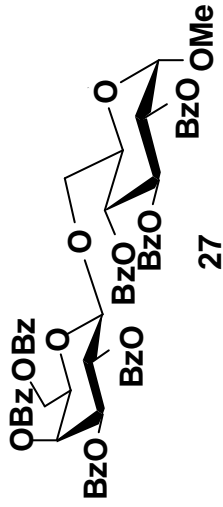
===== GRADIENT CHANNEL =====
GPNAM1 SINE.100
GPNAM2 SINE.100
GPNAM3 SINE.100
GPZ1 16.00 %
GPZ2 12.00 %
GPZ3 40.00 %
P16 1000.00 usec
ND0 1
TD 128
SFO1 400.1524 MHz
FIDRES 41.735527 Hz
SW 13.350 ppm
FMODE QF
SI 1024
SF 400.1500000 MHz
WDW SINE
SSB 0
LB 0.00 Hz
GB 0
PC 1.40
SI 1024
MC2 QF
SF 400.1500000 MHz
WDW SINE
SSB 0
TR 0.00 Hz
  
```



D:\中新山\PP\PPDBEA17-C.als

DFILE
 OBNUC 13C
 EXMOD BCM
 OBFREQ 75.45 MHz
 OBSSET 124.00 KHz
 OBFIN 1840.0 Hz
 POINT 32768
 FREQU 20408.1 Hz
 SCANS 1577
 ACQTM 1.606 sec
 PD 1.394 sec
 PW1 4.2 us
 IRATN 511
 CTEMP 23.2 c
 SLYNT CDCL3
 EXREF 77.00 ppm
 BF 2.00 Hz
 RGAIN 25

166.977
 166.647
 165.540
 165.490
 165.449
 165.334
 133.538
 133.463
 133.257
 133.036
 129.986
 129.854
 129.779
 129.606
 129.384
 129.186
 129.013
 128.733
 128.576
 128.494
 128.354
 128.263
 102.244
 96.393
 77.420
 77.000
 76.580
 71.956
 71.552
 71.348
 70.283
 69.723
 69.574
 69.170
 68.676
 68.008
 61.794
 55.003



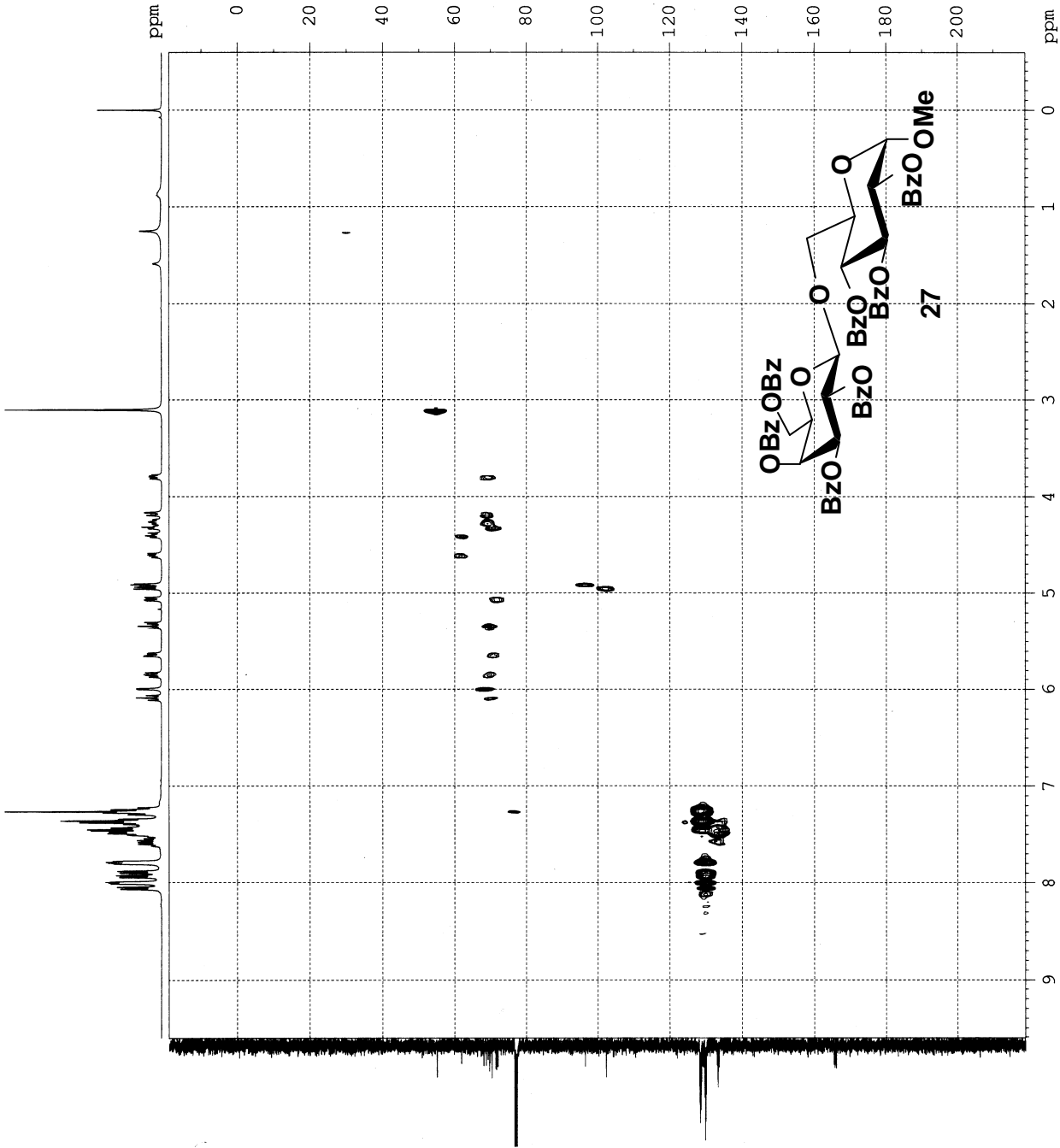


NAME DBZaallBzglus_OH
 EXPNO 1
 PROCNO 1
 Date_ 20100412
 Time_ 15:31
 INSTRUM spect
 PULPROG zgpg30
 TD 1024
 SOLVENT CDCl3
 NS 2
 DS 16
 SWH 4084.671 H
 FIDRES 3.989226 H
 AQ 0.1253876 S
 RG 2050
 DW 122.400 u
 DE 6.50 u
 TE 292.5 K
 DWT2 145.000000 S
 D1 0.0000300 S
 D4 1.50000000 S
 D11 0.00172414 S
 D13 0.03000000 S
 D15 0.0000400 S
 TAC 0.000000 S
 TAC 0.000000 S
 ZGPGTNS

===== CHANNEL f1 =====
 NUC1 1H
 P1 14.15 u
 P2 38.35 u
 P3 2500.00 u
 P4 2500.00 u
 PL1 0.00 d
 PL2 9.46981144 W
 PLW 400.1518034 M
 SFO1

===== CHANNEL f2 =====
 CPDPRG2 gbrp
 NUC2 13C
 P3 10.36 u
 P4 20.72 u
 P5 65.00 u
 PL2 0.00 d
 PL3 15.95 d
 PL4 35.66878891 W
 PL12W 0.90533416 W
 SFO2 100.6278593 M

===== GRADIENT CHANNEL =====
 CH1M1
 GSNM2 SINE 100
 GZ1 80.00 S
 GZ2 20.10 S
 P16 1000.00 u
 NDO 12
 SFO1 100.6379 M
 SFO2 187.104919 H
 FIDRES 187.104919 H
 SW 238.000 P
 FMODE Echo-Am=echo
 SI 1024
 SF 400.1500000 M
 SSB OSINE 2
 LB 0.00 H
 GB 0
 PC 1.40
 AC 1.024
 NC2
 SF 100.6177980 M
 WDW OSINE 2
 SSB 2
 LB 0.00 H
 GB



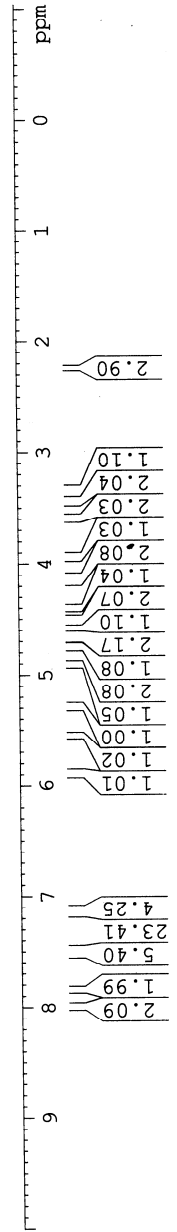
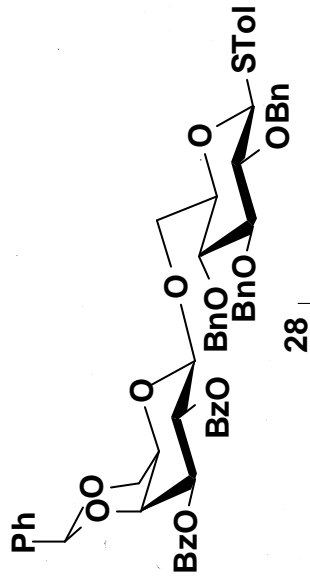


PM3A001-1

NAME ~~PM3A001-1~~
 EXPNO 2
 PROCNO 1
 Date 20090311
 Time 11.59
 INSTRUM spect
 PROBHD 5 mm PADUL 13C
 PULPROG zg30
 TD 65536
 SOLVENT CDC13
 NS 8
 DS 0
 SWH 8223.685 Hz
 FIDRES 0.125483 Hz
 AQC 3.9816387 sec
 RG 161
 DW 60.800 usec
 DE 6.50 usec
 TE 295.5 K
 DI 1.0000000 sec
 TDO 1

===== CHANNEL f1 =====
 NUC1 1H
 P1 14.16 usec
 PL1 0.00 dB
 PL1W 9.46981144 W
 SFO1 400.1524711 MHz
 SI 32768
 SF 400.1500076 MHz
 WDW EM
 SSB 0
 LB 0.30 Hz
 GB 0
 PC 1.00

2.245
 3.437
 3.441
 3.601
 4.140
 4.509
 4.533
 4.633
 4.648
 4.674
 4.763
 4.807
 4.832
 4.900
 4.920
 5.547
 7.117
 7.136
 7.145
 7.154
 7.223
 7.228
 7.233
 7.238
 7.242
 7.250
 7.262
 7.270
 7.274
 7.279
 7.292
 7.297
 7.303
 7.326
 7.333
 7.342
 7.361
 7.381
 7.385
 7.408
 7.467
 7.471
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 7.516
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 7.852
 7.984
 7.988
 8.005





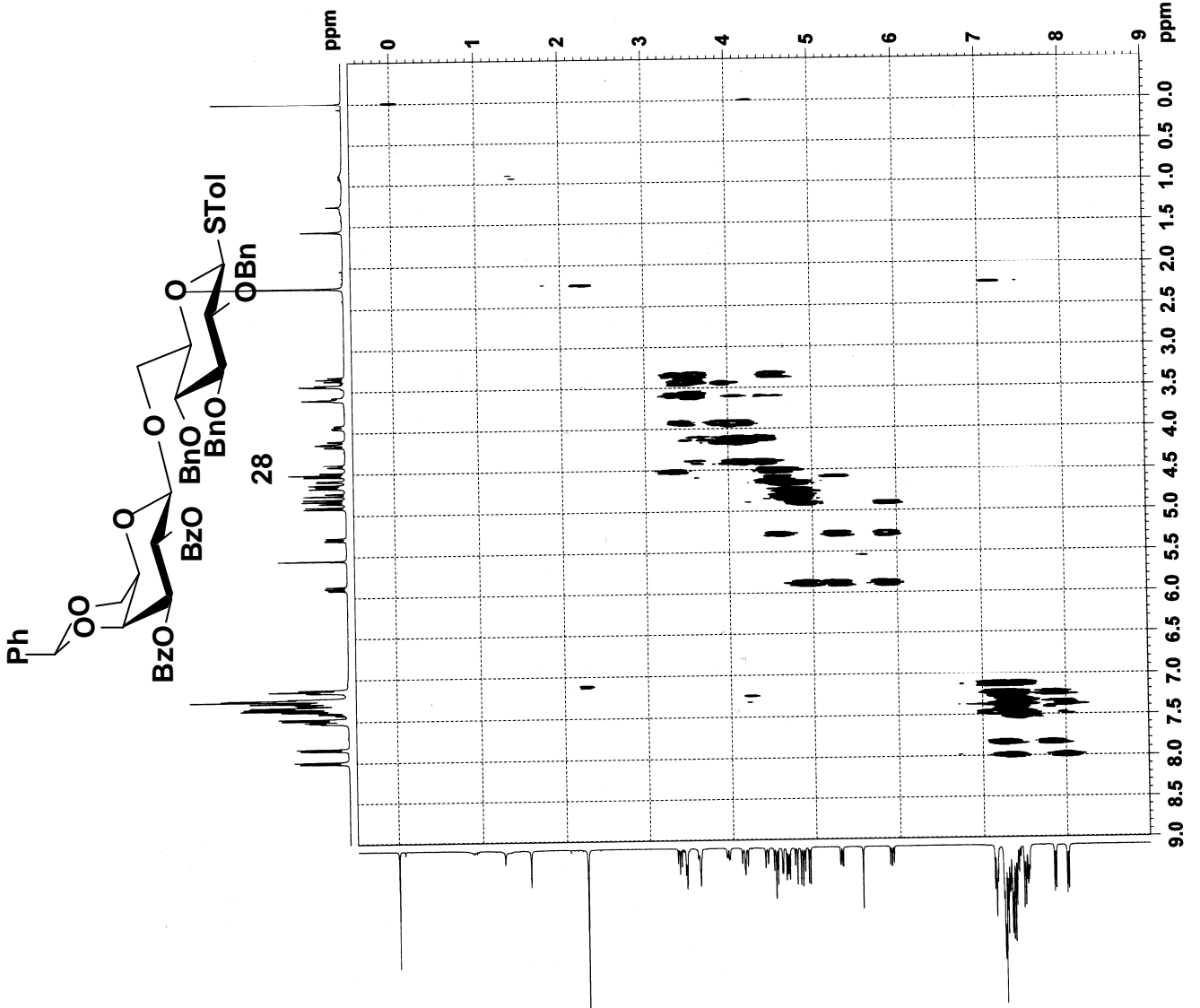
PM3A601-1

```

===== CHANNEL f1 =====
NAME EXPNO 4
PROCNO 1
Date_ 20090311
Time 13.00
INSTRUM Spect
PROBHD 5 mm FADUL13C
PULPROG cosygpmzcf
TD 2048
SOLVENT CDCl3
NS 4
DS 16
SWH 3803.245 Hz
FIDRES 1.857053 Hz
AQ 0.2692937 sec
RG 2050
DW 131.467 usec
DE 6.50 usec
TE 295.1 K
D0 0.00000300 sec
D1 1.00000000 sec
D13 0.00000400 sec
D16 0.00020000 sec
IN0 0.00026305 sec

===== CHANNEL f1 =====
NUC1 1H
P1 14.16 usec
PL1 0.00 dB
PL12 9.46981144 W
SFO1 400.1517089 MHz

===== GRADIENT CHANNEL =====
GPNAM1 SINE.100
GPNAM2 SINE.100
GPNAM3 SINE.100
GPZ1 16.00 %
GPZ2 12.00 %
GPZ3 40.00 %
P16 1000.00 usec
ND0 1
TD 128
SFO1 400.1517 MHz
SW 29.698759 Hz
SF 9.500 ppm
FAMODE QF
SI 1024
SF 400.1500076 MHz
SINE SINE
SSB 0
LB 0.00 Hz
GB 0
PC 1.40
SI 1024
MC2 QF
SF 400.1500076 MHz
SINE SINE
SSB 0
LB 0.00 Hz
GB 0
  
```



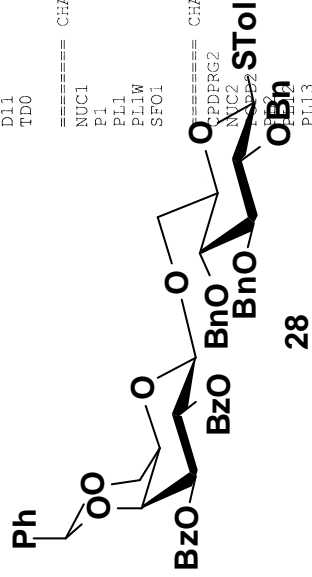


166.20
165.14
138.37
138.09
137.97
137.84
137.55
133.31
132.90
129.93
129.87
129.64
129.33
129.16
128.87
128.37
128.23
128.18
128.08
127.86
127.79
127.73
127.68
127.60
126.29
100.88
87.55
86.55
80.40
79.26
77.48
77.32
77.20
77.00
76.68
75.61
75.28
74.90
73.60
72.98
69.05
68.92
67.28
66.58
21.02

NAME PM3A60H-1
EXPNO 2
PROCNO 1
Date_ 20100621
Time_ 15.31
INSTRUM spect
PROBHD 5 mm PADUL 13C
PULPROG zgpg30
TD 65536
SOLVENT CDCl3
NS 216
DS 4
SWH 24038.461 Hz
FIDRES 0.366798 Hz
AQ 1.3631988 sec
RG 2050
DW 20.800 usec
DE 6.50 usec
TE 295.8 K
D1 1.00000000 sec
D11 0.03000000 sec
TDO 1

===== CHANNEL f1 =====
NUC1 13C
P1 10.36 usec
PL1 0.00 dB
PL1W 35.66878891 W
SFO1 100.6278593 MHz

===== CHANNEL f2 =====
CPDPRG2 waltz16
NUC2 1H
P2 60.00 usec
PL2 0.00 dB
PL2W 12.54 dB
PL13 13.05 dB
PL1W 9.46981144 W
PL12W 0.52764440 W
PL13W 0.46918198 W
SFO2 400.1516006 MHz
SI 32768
SF 100.6178013 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.40

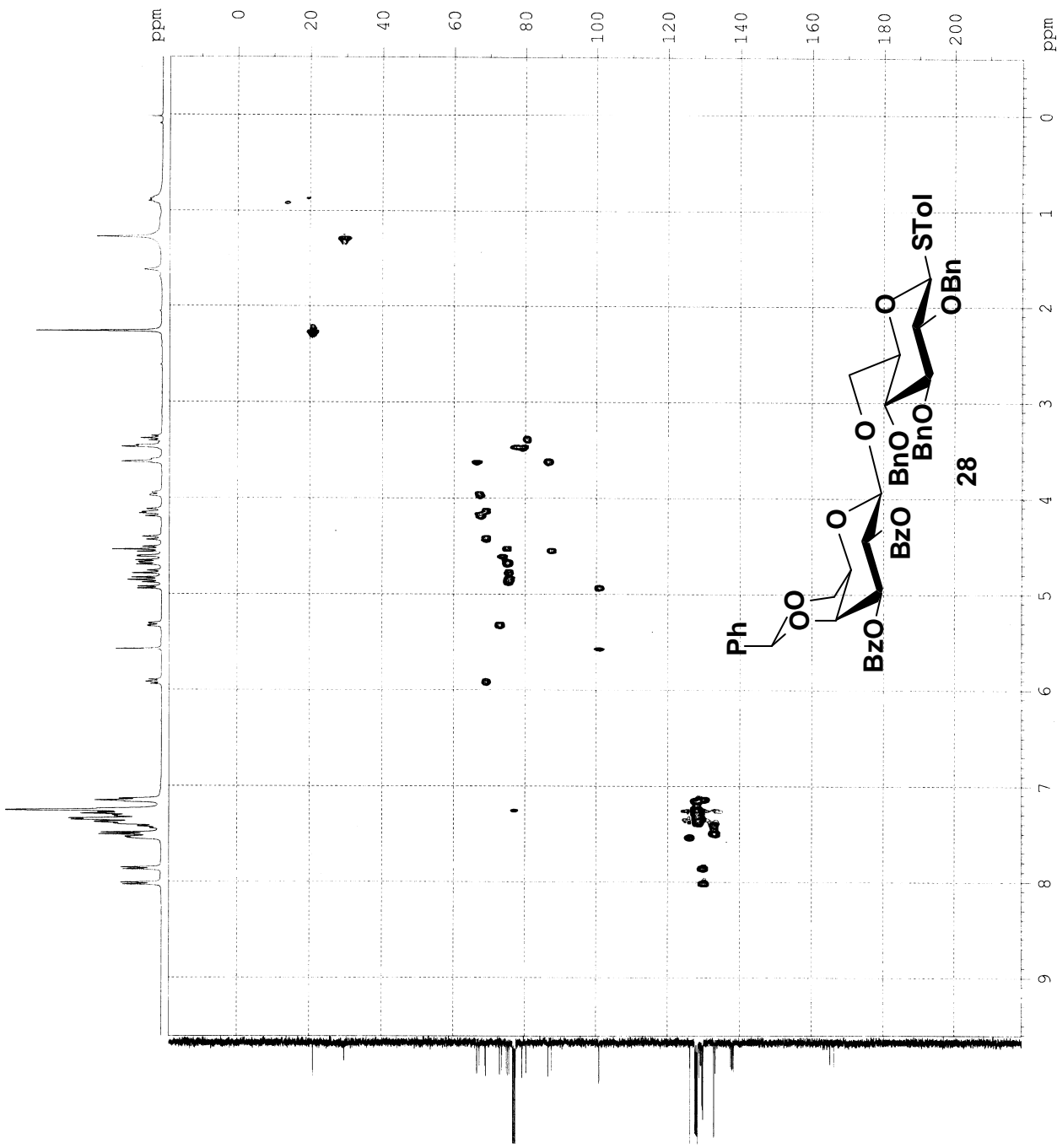


200 180 160 140 120 100 80 60 40 20 0 ppm



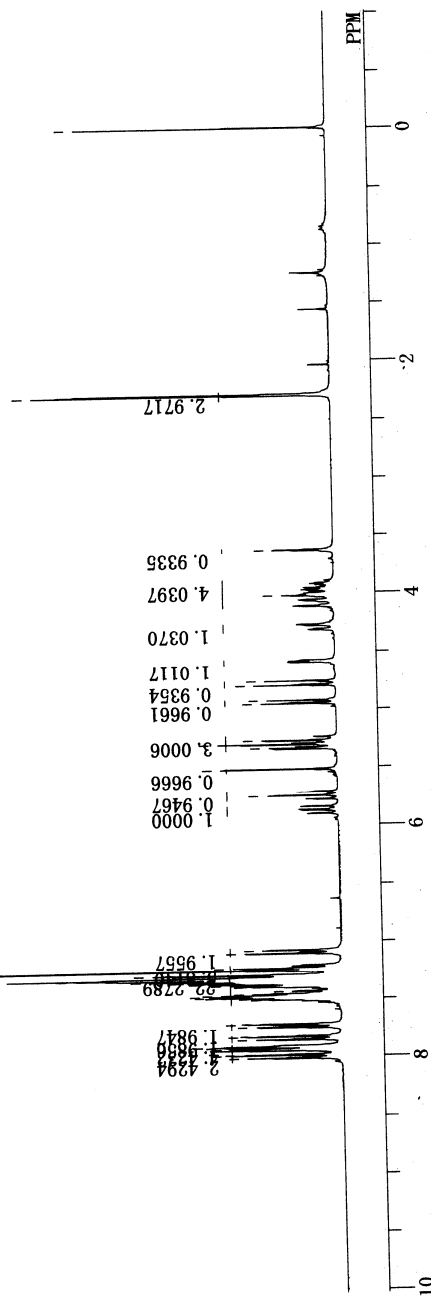
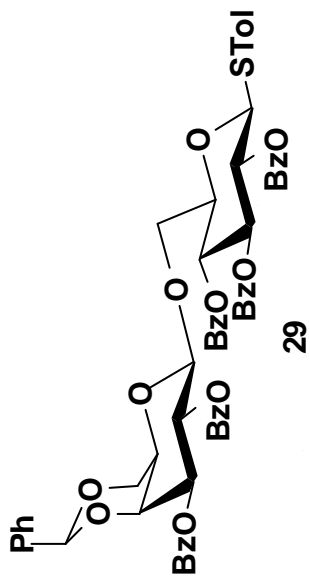
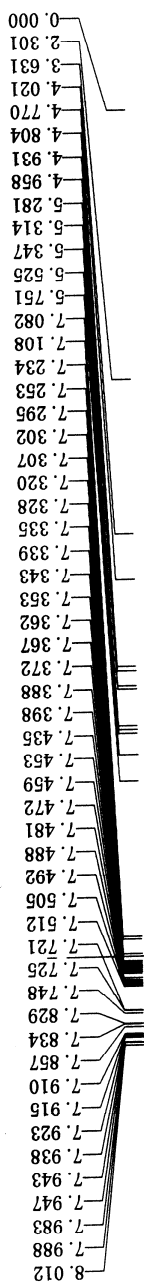
```

NAME          FM3AGCH-1
EXPNO         1
PROCNO        1
Date_         20100601
Time          15.36
INSTRUM       spect
PROBHD        5 mm PAULI 13C
PULPROG       zgpg30
SOLVENT       CDCl3
NS            16
DS            1
SWH           4084.967 Hz
FIDRES        3.989226 Hz
AQ            0.1253876 sec
RG            655
AQ            0.1253876 sec
DE            6.50 usec
TE            295.2 K
CNSTZ         145.0000000
DO            0.0000300 sec
D1            1.5000000 sec
d11           0.0300000 sec
D13           0.0000100 sec
D16           0.0020000 sec
IN0           0.0000200 sec
ZGPGTNS
===== CHANNEL f1 =====
NUC1          13C
P1            14.16 usec
P2            28.32 usec
PL1           0.00 dB
PL2           0.00 dB
SFO1          400.1418334 MHz
===== CHANNEL f2 =====
CPDPRG2       gddp
NUC2          13C
P3            0.00 usec
P4            0.00 usec
PCPD2         65.00 usec
PL2           0.00 dB
PL12          15.95 dB
PL1W          35.66878891 W
PL1W          0.9063346 W
SFO2          100.6279992 MHz
===== GRADIENT CHANNEL =====
GPNAM1        SINE.100
GPNAM2        SINE.100
GPZ1          90.00
GPZ2          20.00
NUC3          13C
NUC4          13C
TD            128
SFO1          100.6279 MHz
SFO2          100.6279 MHz
FIDRES        187.104319 Hz
SW            239.000 ppm
===== ECHO-ANTI-ECHO =====
ECHO-ANTI-ECHO
SF            400.1400000 MHz
WDW           COSINE
SSB           0
GB            0
SI            1024
MC2           echo-antiesco
SF            100.6177983 MHz
WDW           COSINE
SSB           0
GB            0
  
```



D:\叶新山\PP\PM3.21-H.als

DFILE D:\叶新山\PP\PM3.21-H.als
 OBNUC 1H
 EXMOD NON
 OBFREQ 300.40 MHz
 OBSSET 130.00 KHz
 OBFIN 1150.0 Hz
 POINT 32768
 FREQU 8000.0 Hz
 SCANS 8
 ACQTM 4.096 sec
 PD 1.551 sec
 PW 6.1 us
 IRATN 511
 CTEMP 25.5 c
 SLVNT CDCL3
 EXREF 0.00 ppm
 BF 0.12 Hz
 RGAIN 16





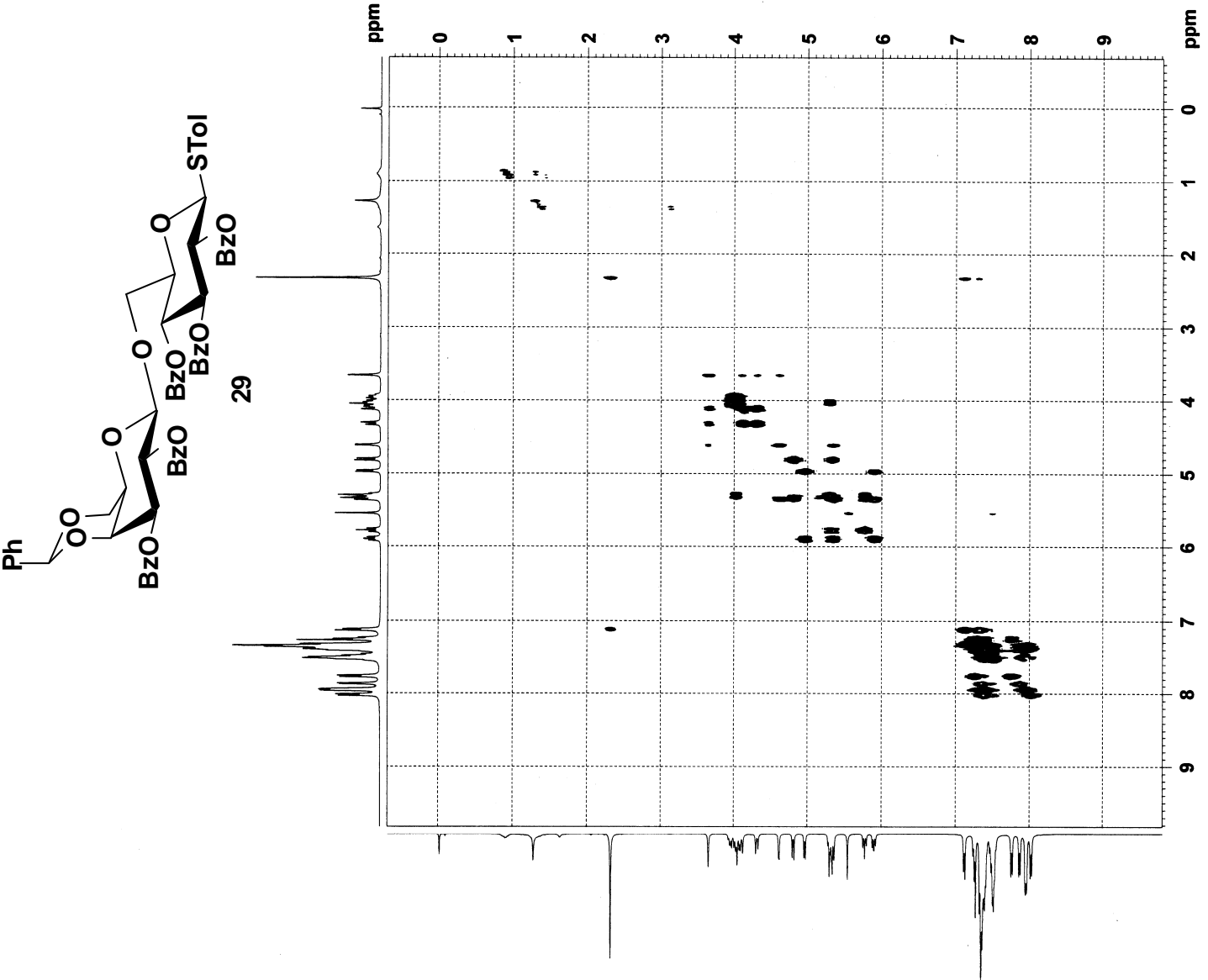
```

NAME          PM3PM20
EXPNO         4
PROCNO        1
Date_         20:100412
Time_         12.44
INSTRUM       spect
PROBHD        5 mm PADUL 13C
PULPROG       cosygmfqr
TD            2048
SOLVENT       CDCl3
NS            4
DS            16
SMH           4201.681 Hz
FIDRES        2.051602 Hz
AQ            0.2437620 sec
RG            64
DW            119.000 usec
DE            6.50 usec
TE            291.8 K
D0            0.00000300 sec
D1            2.00000000 sec
D13           0.00000400 sec
D16           0.00020000 sec
IN0           0.00023800 sec

===== CHANNEL f1 =====
NUC1          1H
P1            14.16 usec
PL1           0.00 dB
PL1W          9.46981144 W
SF01          400.1518285 MHz

===== GRADIENT CHANNEL =====
GFNAM1        SINE.100
GFNAM2        SINE.100
GFNAM3        SINE.100
GPZ1          16.00 %
GPZ2          12.00 %
GPZ3          40.00 %
P16           1000.00 usec
ND0           1
TD            128
SF01          400.1518 MHz
FIDRES        32.624955 Hz
SW            10.500 ppm
FmMODE        QF
SI            1024
SF            400.1500000 MHz
WDW           SINE
SSB           0
LB            0.00 Hz
GB            0
PC            1.40
SI            1024
MC2           QF
SF            400.1500000 MHz
WDW           SINE
SSB           0

```

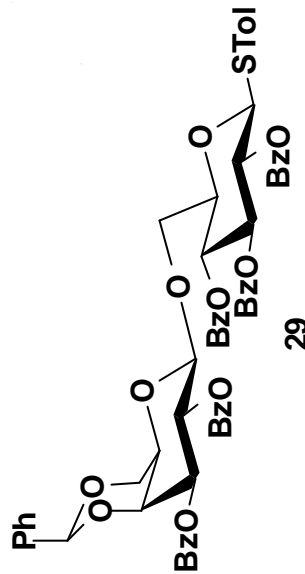


D:\叶新山\PP\pppm3pm20-2-C.als

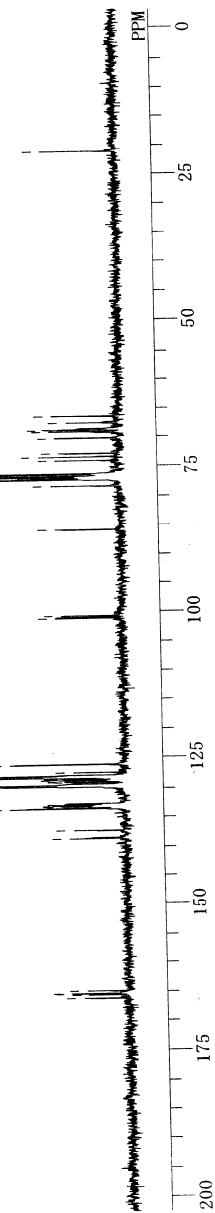
DFILE 13C
 EXMOD BCM
 OBFRQ 75.45 MHz
 OBSSET 124.00 KHz
 OBFIN 1840.0 Hz
 POINT 32768
 FREQU 20408.1 Hz
 SCANS 1408
 ACQTM 1.606 sec
 PD 1.394 sec
 PW1 4.2 us
 TRATN 511
 CTEMP 19.2 c
 SOLV CDCL3
 EXREF 77.00 ppm
 BF 2.00 Hz
 RGAIN 25

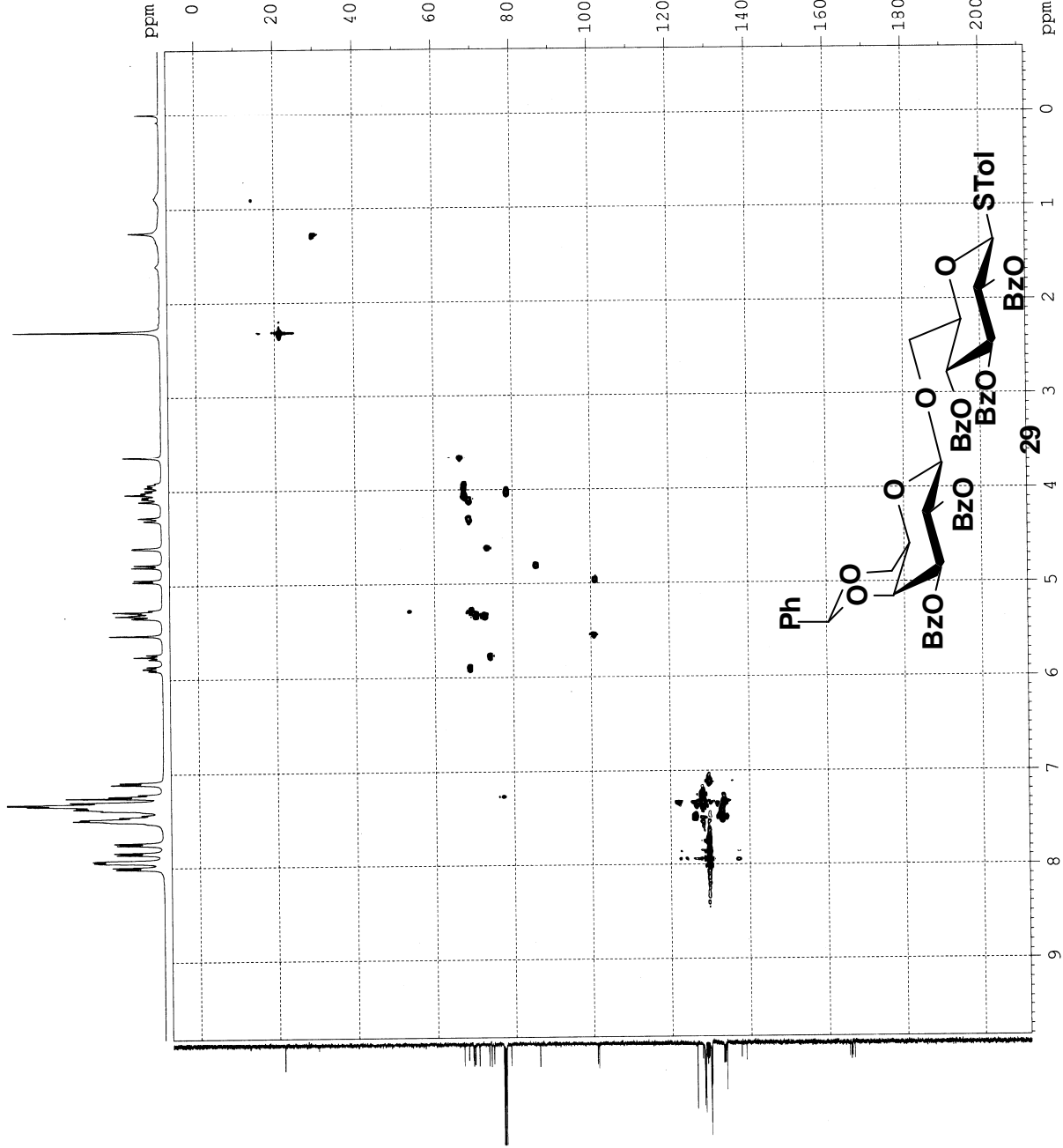
21.163

66.550
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 68.833
 68.923
 69.286
 70.349
 72.912
 73.481
 74.115
 76.580
 77.000
 77.181
 77.429
 78.541
 85.967
 100.761
 101.099
 126.194
 127.604
 128.073
 128.189
 128.255
 128.378
 128.601
 128.774
 128.873
 129.087
 129.244
 129.779
 132.977
 133.109
 133.216
 133.348
 133.447
 133.711
 137.386
 138.647
 164.938
 165.359
 165.400
 165.631
 166.191



29





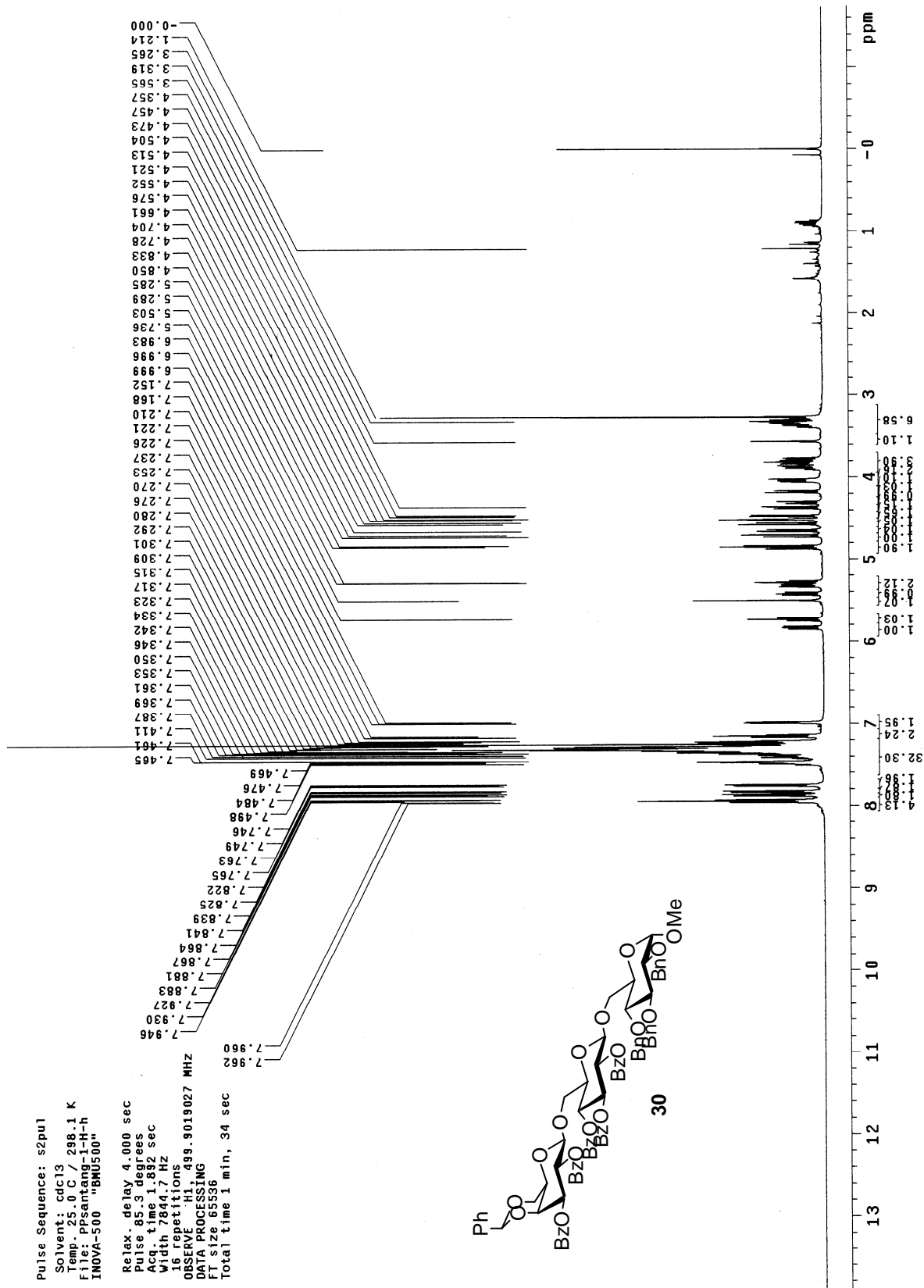
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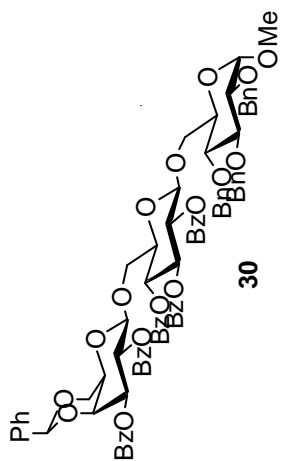
NAME          243PM20
EXPNO         5
PROCNO        1
Date_         20100412
Time          13.34
PROBHD        5 mm PABUL13C
PULPROG       hsqcetgp
TD            1024
SOLVENT       CDCl3
NS            2
DS            4
AQ            0.1219060 sec
RG            2050
DM            119.000 usec
DE            2.00 usec
TE            292.0 K
CNST2        145.0000000
D0            0.0000300 sec
D1            1.5000000 sec
D2            0.0000000 sec
D3            0.0300000 sec
D4            0.0000000 sec
D5            0.0000000 sec
D6            0.0002000 sec
IN0           0.0002270 sec
ZEOPTNS
===== CHANNEL f1 =====
NUC1          1H
P1            14.16 usec
P2            28.32 usec
PCPD2        250.000 dB
PZ3           0.00 dB
PZ4           0.00 dB
PL1W         9.46981144 W
SFO1         400.1518285 MHz
===== CHANNEL f2 =====
CPDPRG2      3TC
NUC2          13C
P3            10.36 usec
P4            20.72 usec
PCPD2        65.00 usec
PZ1           0.00 dB
PZ2           0.00 dB
PZ3           0.00 dB
PZ4           0.00 dB
PL1W        35.66878891 W
PL1Z         0.9063416 W
SFO2        100.6280849 MHz
===== GRADIENT CHANNEL =====
GENDM1       SINE 100
GENAM2       SINE 100
GEP1         80.00 Hz
GEP2         20.10 Hz
GEP3         1000.00 usec
GEP4         256
SFO1         100.6281 MHz
FIDRES       86.084183 Hz
SW           219.5000 ppm
STANODE      Echo-Antiecho
SF           400.1500000 MHz
WDW          QSINE
SSB          0.00 Hz
LB           0.00 Hz
GB           1.40
PC           1024
SI           1024
MC2          echo-antiecho
SF           100.6177980 MHz
WDW          QSINE
SSB          0.00 Hz
LB           0.00 Hz
GB           0
  
```

PPsantang-1-H

Pulse Sequence: s2pu1
Solvent: cdcl3
Temp: 25.0 C / 298.1 K
File: ppsantang-1-H-h
INOVA-500 "BNU500"

Relax. delay 4.000 sec
Pulse 85.3 degrees
Acq. time 1.892 sec
Width 7844.7 Hz
16 repetitions
OBSERVE H1, 499.9019027 MHz
DATA PROCESSING
FT size 65536
Total time 1 min, 34 sec





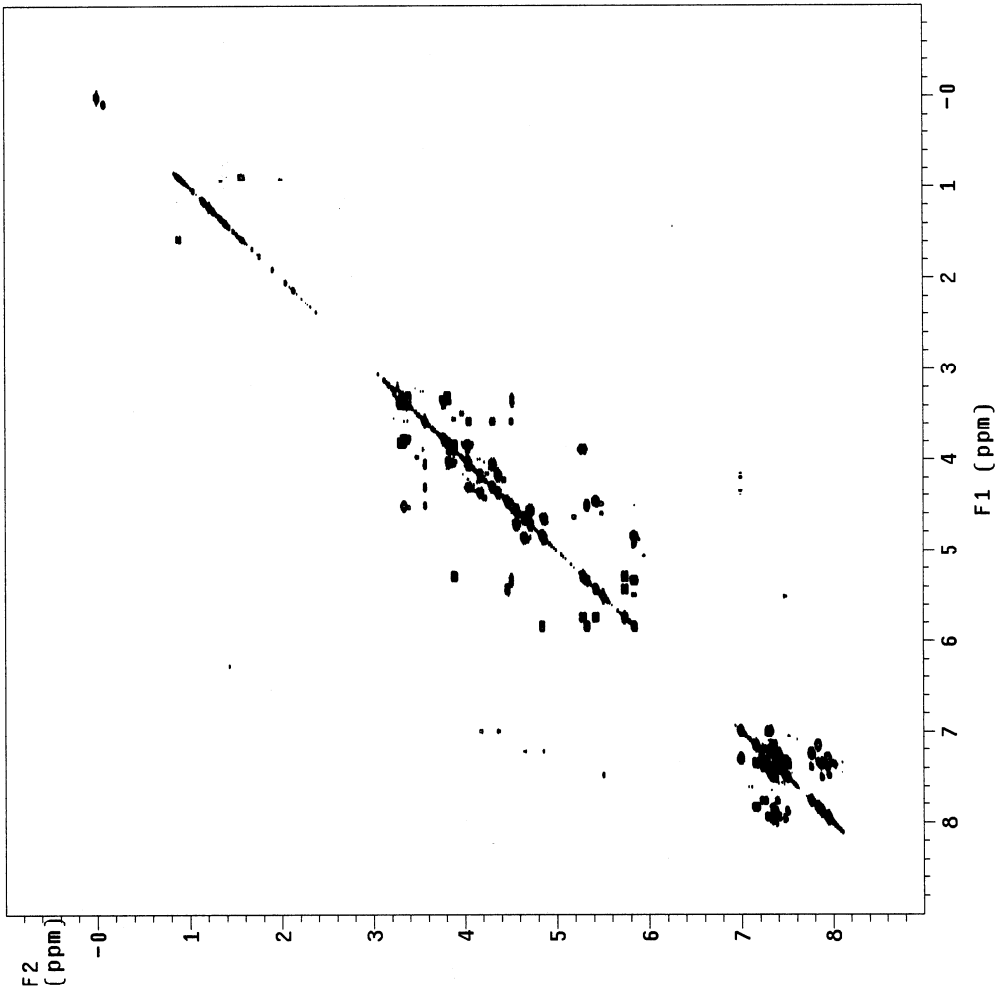
PPsantang-1-H

File: PROTON

Pulse Sequence: gCOSY

Solvent: cdcl3
 Temp. 25.0 C./ 298.1 K
 INOVA-500 "BHU500"

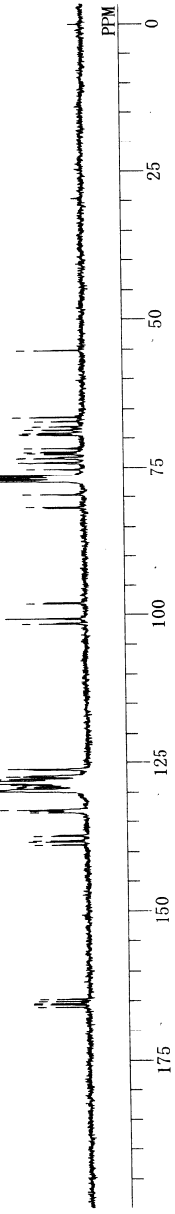
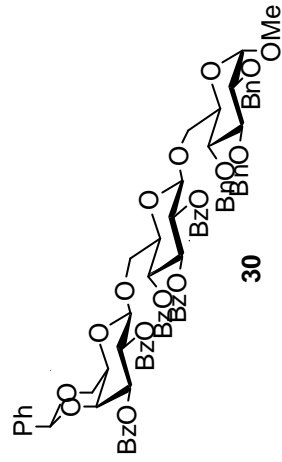
Relax. delay 1.000 sec
 Acq. time 0.205 sec
 Width 4996.6 Hz
 2D Width 4996.6 Hz
 20 repetitions
 400 increments
 OBSERVE H1, 499.9019035 MHZ
 DATA PROCESSING
 Sq. sine bell 0.102 sec
 F1 DATA PROCESSING
 Sq. sine bell 0.044 sec
 FT size 4096 X 4096
 Total time 2 hr, 48 min, 2 sec

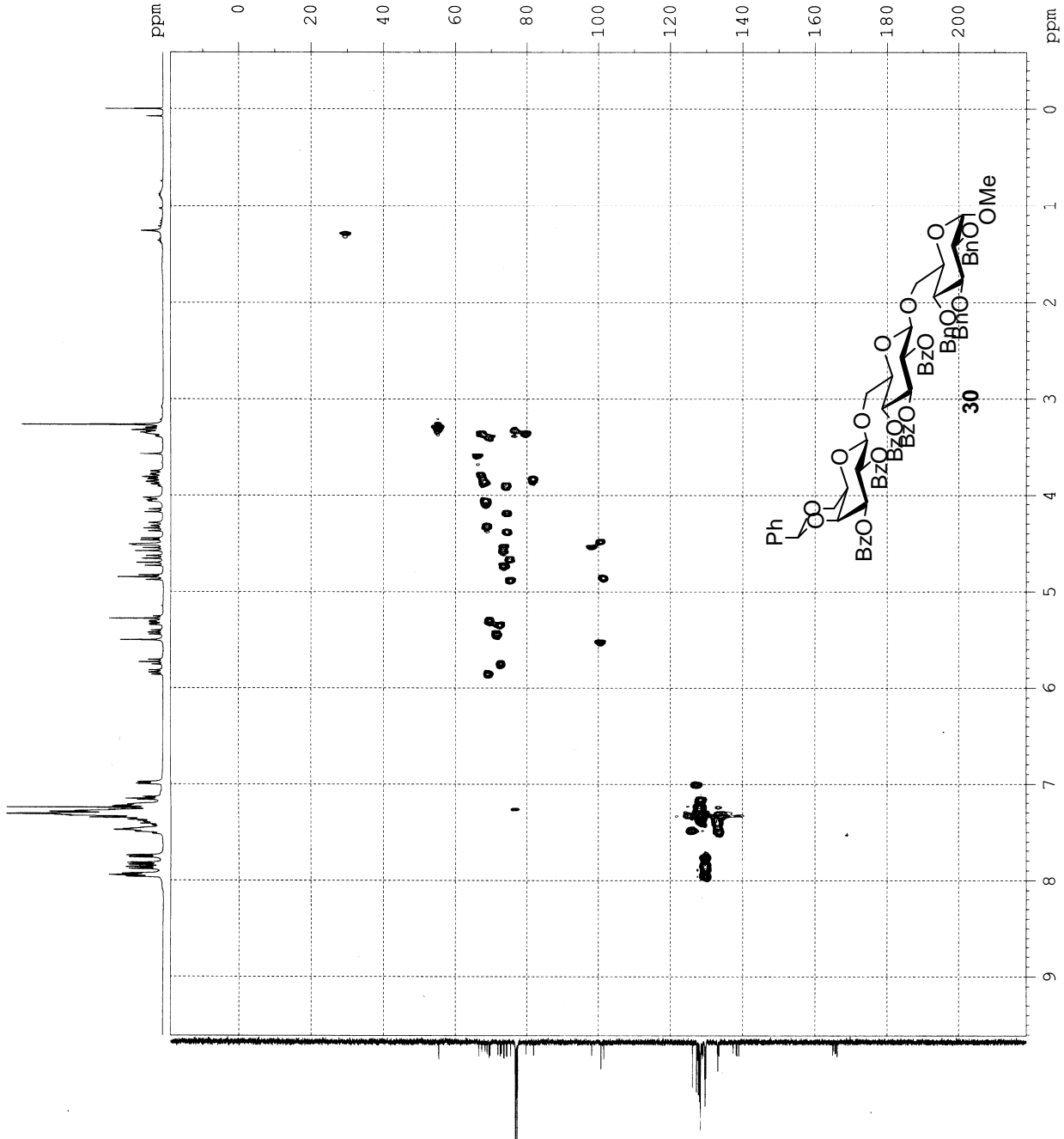


C:\WINMR95\COMMON\DEFAULT.ALS

DEFILE 13C
 EXMOD BCM
 OBRFQ 75.45 MHz
 OBSET 124.00 KHz
 OBFIN 1840.0 Hz
 POINT 32768
 FREQU 20408.1 Hz
 SCANS 16576
 ACQTM 1.606 sec
 PD 1.394 sec
 PWI 4.2 us
 IRATN 511
 CTEMP 22.5 c
 SLVNT CDCL3
 EXREF 77.00 ppm
 BF 2.00 Hz
 RGAIN 25

56.275
 66.451
 67.283
 68.198
 68.767
 69.294
 69.393
 69.574
 71.783
 72.451
 72.747
 73.390
 73.522
 74.181
 74.330
 75.368
 76.571
 77.000
 77.420
 79.646
 81.797
 98.082
 100.662
 101.461
 126.128
 127.282
 127.365
 127.793
 128.106
 128.197
 128.395
 128.749
 128.865
 129.021
 129.104
 129.540
 129.656
 129.829
 133.134
 133.365
 133.488
 137.353
 138.178
 138.367
 138.878
 164.823
 165.144
 165.474
 165.688
 166.084





```

NAME PM3FM20AG-OH-2
EXPNO 5
PROCNO 1
Date_ 20100412
Time_ 14.16
INSTRUM spect
PROBHD 5 mm PABUL 13C
PULPROG hsqecgpp
AQ 0.05
SOLVENT CDCl3
NS 16
DS 16
SWH 4084.567 Hz
FIDRES 3.989226 Hz
AQ 0.1253876 sec
RG 655
DE 122.400 usec
TE 292.6 K
CNS12 145.0000000
DO 0.0000300 sec
PC 1.0000000
DA 0.0317214 sec
D1 0.030000000 sec
D11 0.030000000 sec
D13 0.0000400 sec
D16 0.0002000 sec
IN0 0.0002090 sec
ZGPG1NS

===== CHANNEL f1 =====
NUC1 1H
P1 14.16 usec
P2 28.32 usec
P3 280.00 usec
PL1 0.00 dB
PL2 0.00 dB
PL1W 9.46981144 W
SFO1 400.1518034 MHz

===== CHANNEL f2 =====
NUC2 13C
P1 9.51 usec
P2 10.36 usec
P3 20.72 usec
P4 65.00 usec
PCPD2 0.00 dB
PL1 0.00 dB
PL2 35.66875295 dB
PL1W 10.96538416 W
SFO2 100.6278593 MHz

===== GRADIENT CHANNEL =====
GENMI SINE.100
SINE.100
SIN1 80.00
GP21 20.10
GP22 20.10
P16 1000.00 usec
NDO 2
TD 128
SFOL 100.6278593 MHz
SMDRES 1970.6213 Hz
SM 238.000 ppm
PnMODE Echo-Antiecho
SI 1024
SF 400.1500000 MHz
WDW QSINE
SSB 0
GB 0
PC 1.40
SI 1024
MC2 echo-antiecho
WDW QSINE
SSB 2
LB 0.00 Hz
GB 0
  
```