

# *Supplementary Information*

## **Easy Accesses to Various CF<sub>2</sub>-containing Molecules Based on the Reaction of 2,2,3,3-Tetrafluorooxetane with Various Nucleophiles**

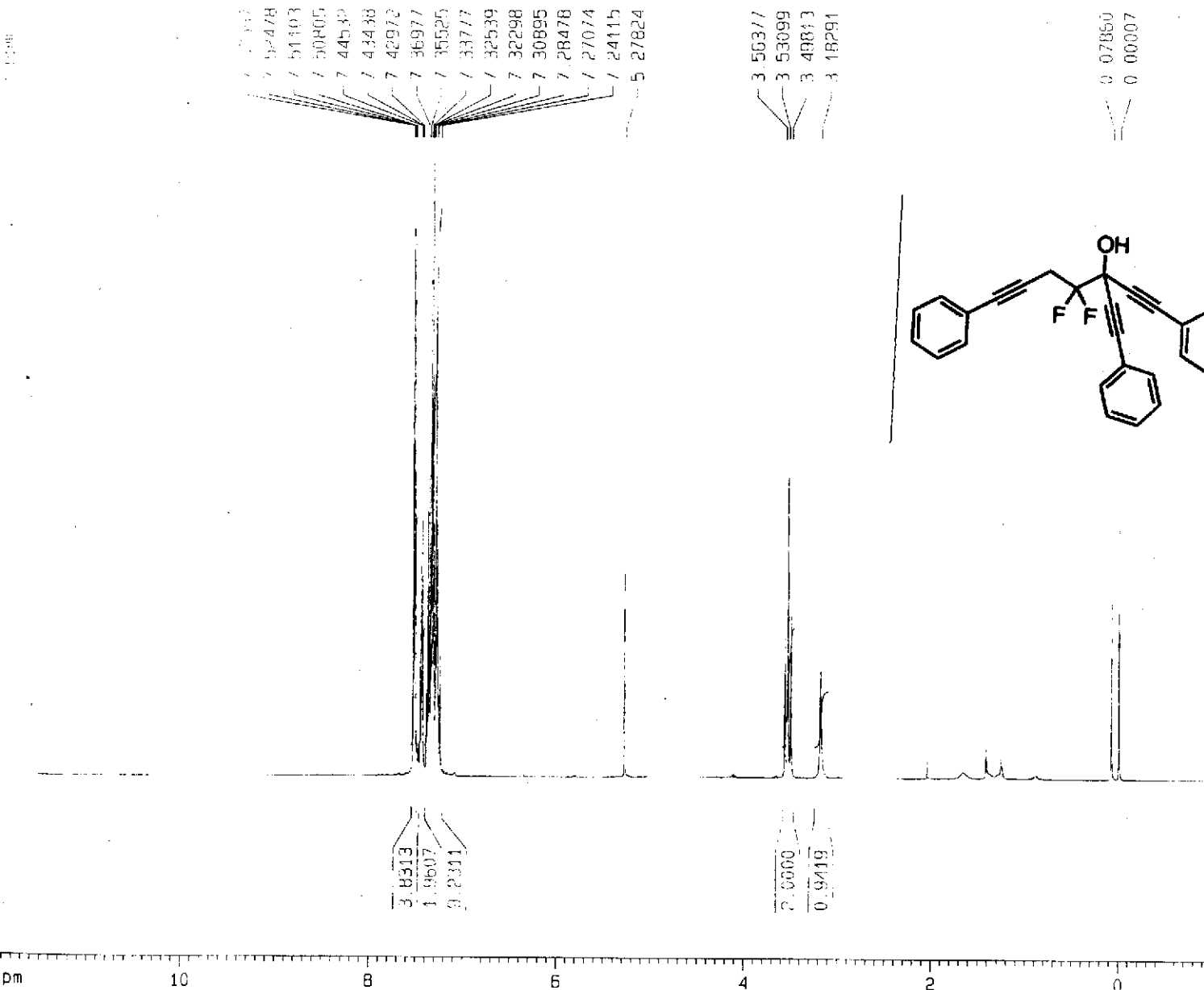
Shigeyuki Yamada, Masahiro Kato, Yudai Komori,

Tsutomu Konno and Takashi Ishihara\*

*Department of Chemistry and Materials Technology, Kyoto Institute of Technology,  
Matsugasaki, Sakyo-ku, Kyoto 606-8585, Japan,  
Tel: +81-75-724-7504; Fax: +81-75-724-7580*

E-mail: [ishihara@kit.ac.jp](mailto:ishihara@kit.ac.jp)

sample



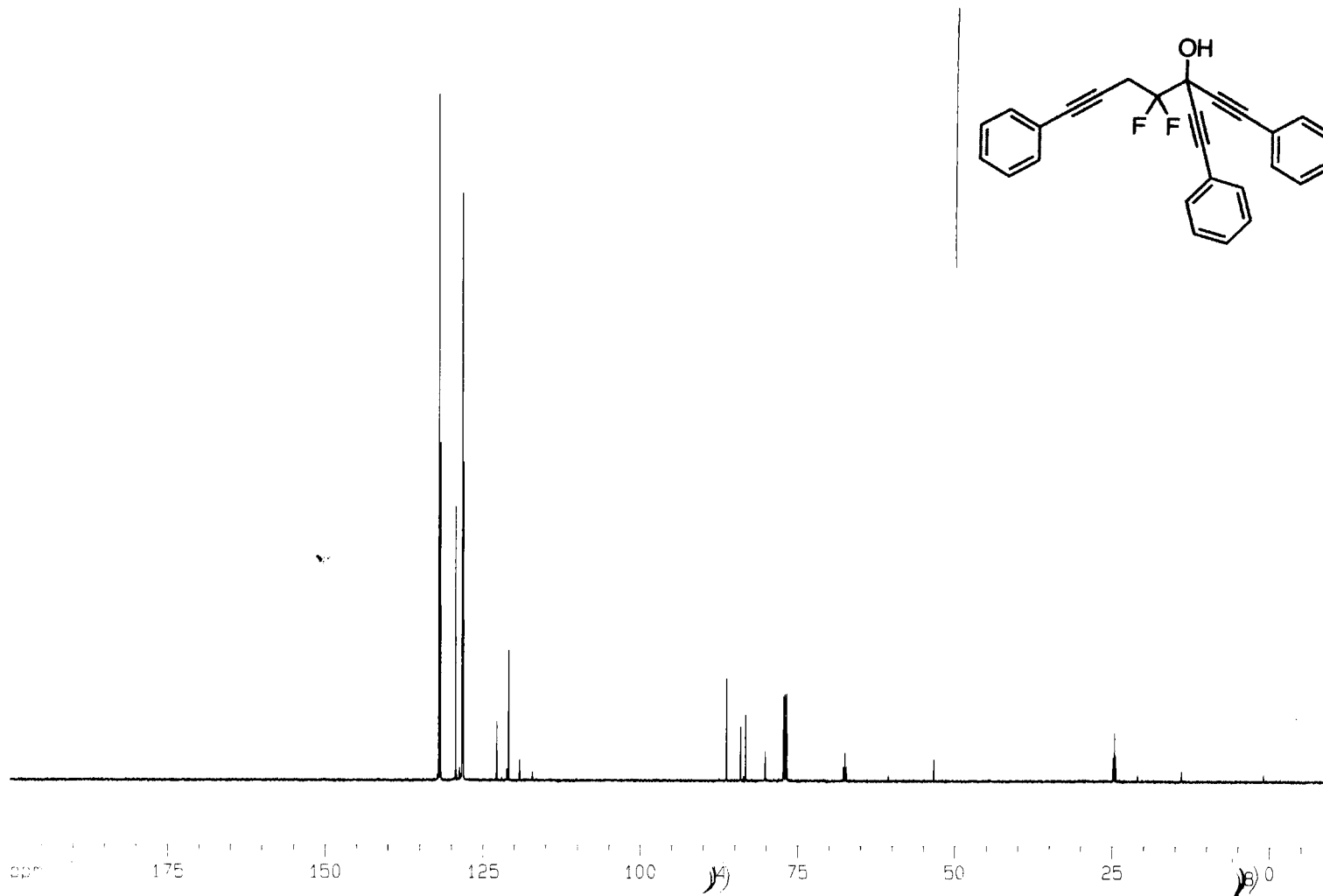
Current Data Parameters  
 NAME: c4m104 5.3  
 EXPNO: 1  
 PROCNO: 1

F2 - Acquisition Parameters  
 Date\_: 2.04.2008  
 Time: 19.09  
 INSTRUM: spect  
 PROBHD: 5 mm VNP101  
 PULPROG: zgpg30  
 TD: 65536  
 SOLVENT: CDCl3  
 NS: 15  
 DS: 2  
 SWH: 10590.878 Hz  
 FIDRES: 0.157632 Hz  
 AQ: 0.1719923 sec  
 RG: 128  
 DW: 49.400 nsec  
 DE: 6.00 nsec  
 TE: 300.2 K  
 D1: 1.00000000 sec  
 dREST: 0.00000000 sec  
 dCARX: 0.02500000 sec

===== CHANNEL f1 =====  
 NUC1: 1H  
 P1: 12.00 nsec  
 PL1: -8.00 dB  
 SFO1: 500.1361935 MHz

F2 - Processing parameters  
 SI: 32768  
 SF: 500.1300228 MHz  
 wDW: EM  
 SSB: 0  
 LB: 1.00 Hz  
 GB: 0  
 PC: 1.00

1D NMR plot parameters  
 CX: 20.00 Hz  
 CY: 10.00 Hz  
 FXP: 10.000 Hz  
 F1: 500.1361935 Hz  
 F2P: -1.000 Hz  
 F2: -500.1361935 Hz  
 PR4CM: 0.60000 pulse  
 HZCM: 525.18430 Hz/cycle



Current Data Parameters  
NAME kato-04.6.8  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20040608  
Time 15.46  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDC13  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 298.2 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

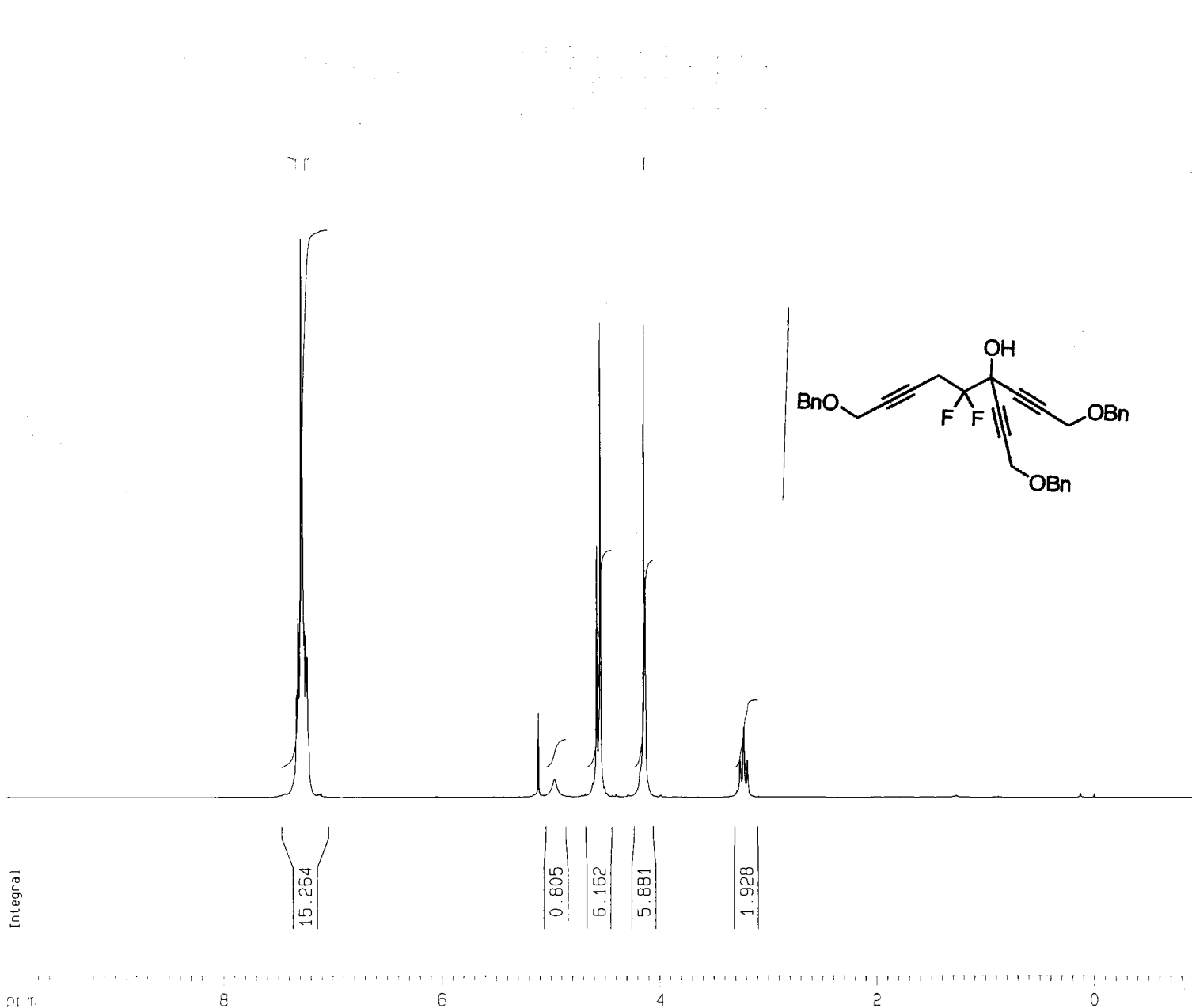
=====  
CHANNEL f1  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SFO1 125.7703643 MHz

=====  
CHANNEL f2  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SFO2 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7578097 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.41 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45703 Hz/cm

sample



Current Data Parameters

NAME kato-04.7.14  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20040714  
Time 19.06  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 18  
DW 48.400 usec  
DE 6.00 usec  
TE 298.5 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

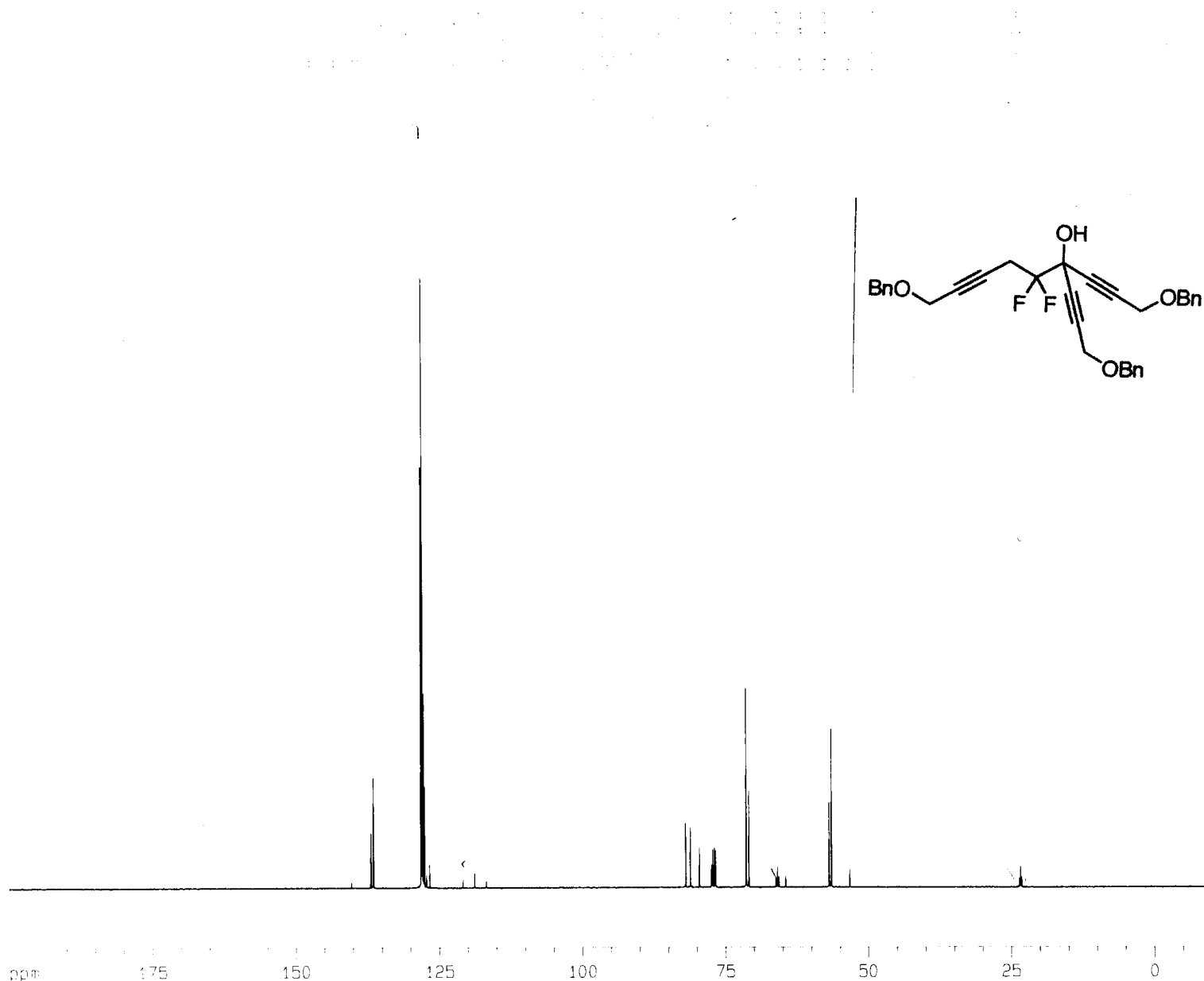
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300891 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 9.36 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07153 Hz/cm



Current Data Parameters

NAME kato-04.7.14  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20040714  
Time 19.14  
INSTRUM drx500  
PROBHD 5 mm Multinuc1  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 299.5 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

=====  
CHANNEL f1  
=====  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

=====  
CHANNEL f2  
=====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

F2 - Processing parameters

SI 32768  
SF 125.7578482 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 10.31 cm  
F1P 200.000 ppm  
F1 25151.57 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45740 Hz/cm

sample

Current Data Parameters

NAME kato-04.7.16  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20040716  
Time 15.45  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 16  
DW 48.400 usec  
DE 6.00 usec  
TE 299.3 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

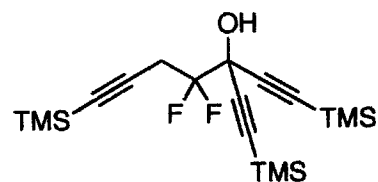
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300137 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 9.97 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Integral

1.051  
2.259

18.000  
10.100

ppm

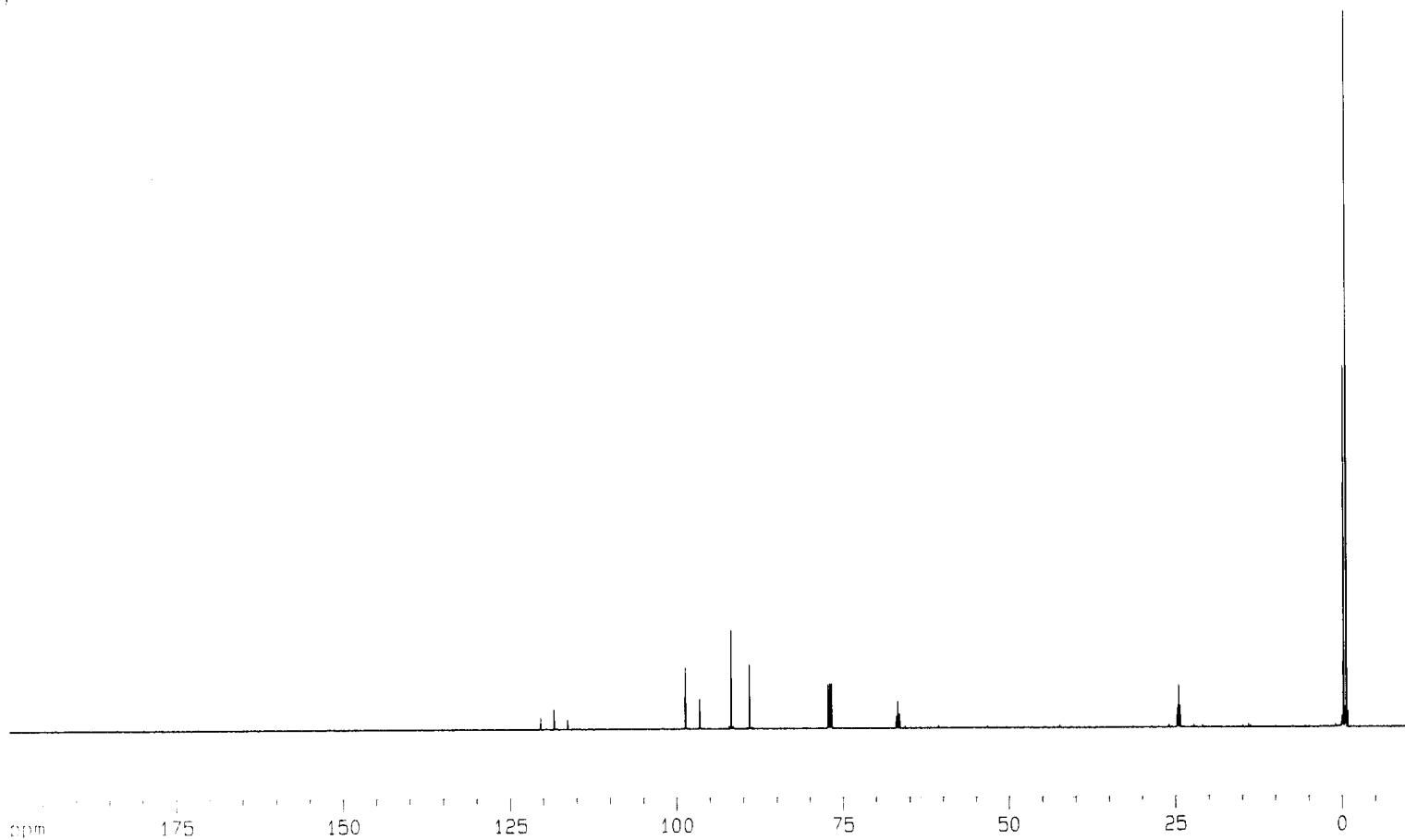
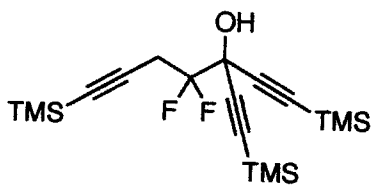
8

6

4

2

0



Current Data Parameters

NAME kato-04.7.16  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20040716  
Time 15.53  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDC13  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 2580.3  
DW 16.650 usec  
DE 6.00 usec  
TE 300.1 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWPK 0.01500000 sec

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

NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

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

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

F2 - Processing parameters

SI 32768  
SF 125.7577914 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 10.62 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45679 Hz/cm

sample

Current Data Parameters

NAME kato-04.7.15  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20040715  
Time 18.10  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 12.7  
DW 48.400 usec  
DE 6.00 usec  
TE 298.8 K  
D1 1.0000000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

==== CHANNEL f1 =====

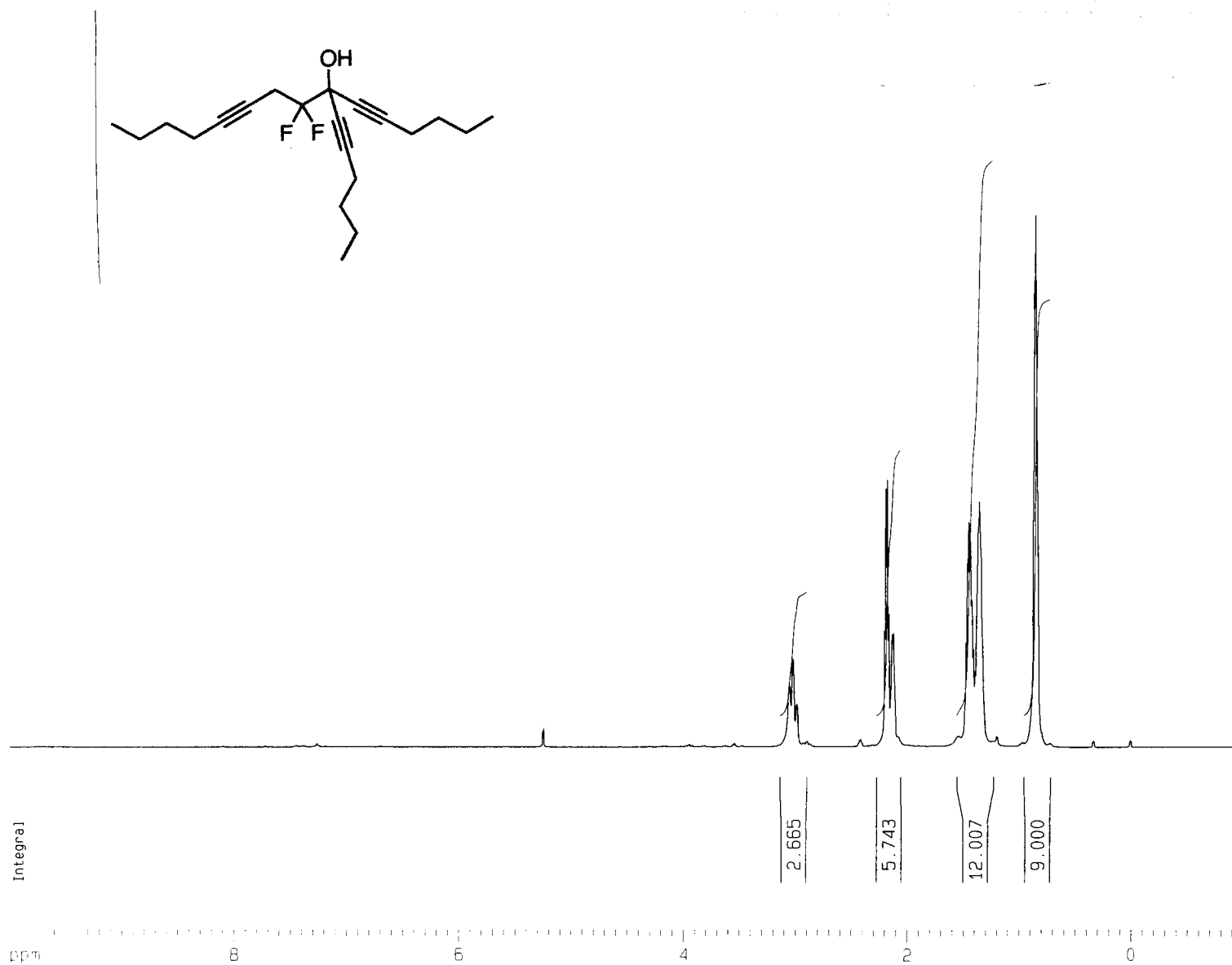
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SFO1 500.1330885 MHz

F2 - Processing parameters

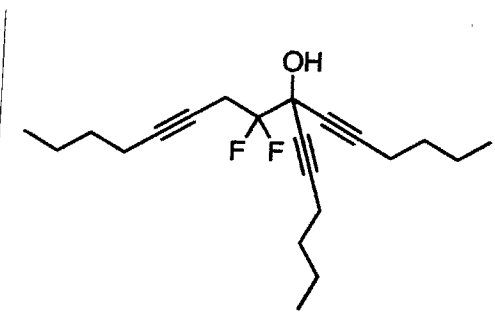
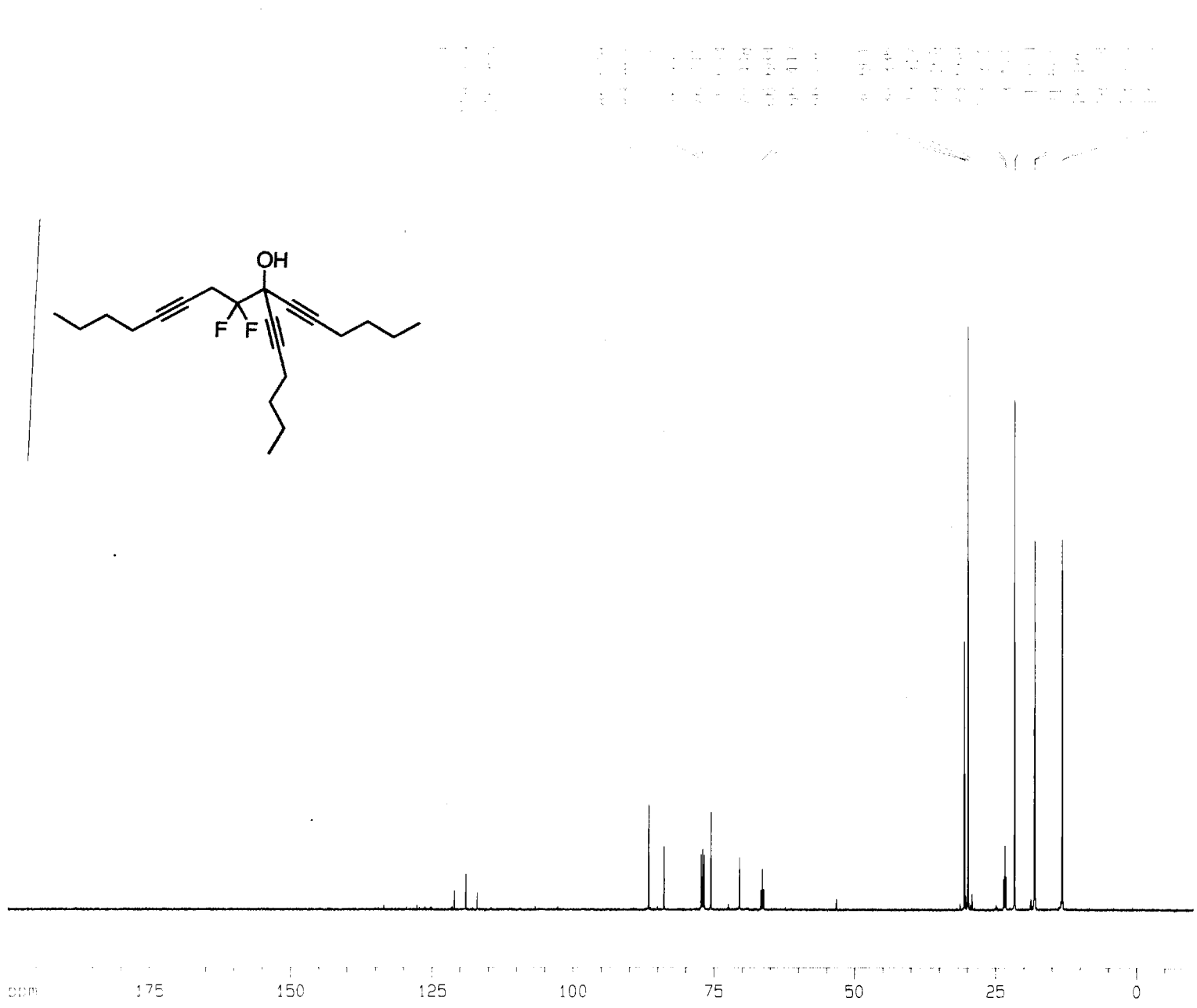
SI 32768  
SF 500.1300134 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 8.61 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm







Current Data Parameters

NAME kato-04.7.15  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20040715  
Time 18.18  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 15.650 usec  
DE 6.00 usec  
TE 299.8 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

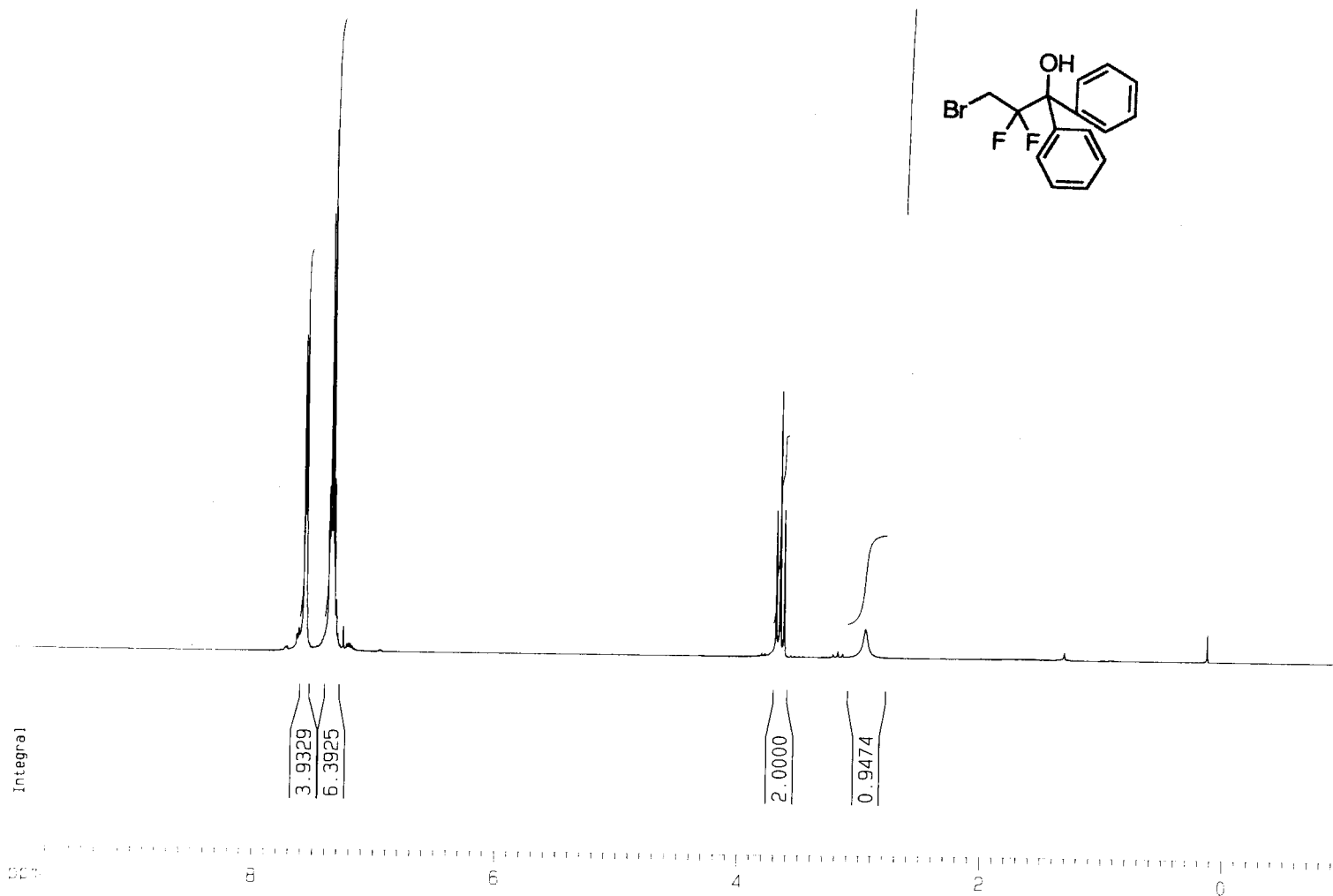
F2 - Processing parameters

SI 32768  
SF 125.7578070 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 9.93 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45691 Hz/cm

sample



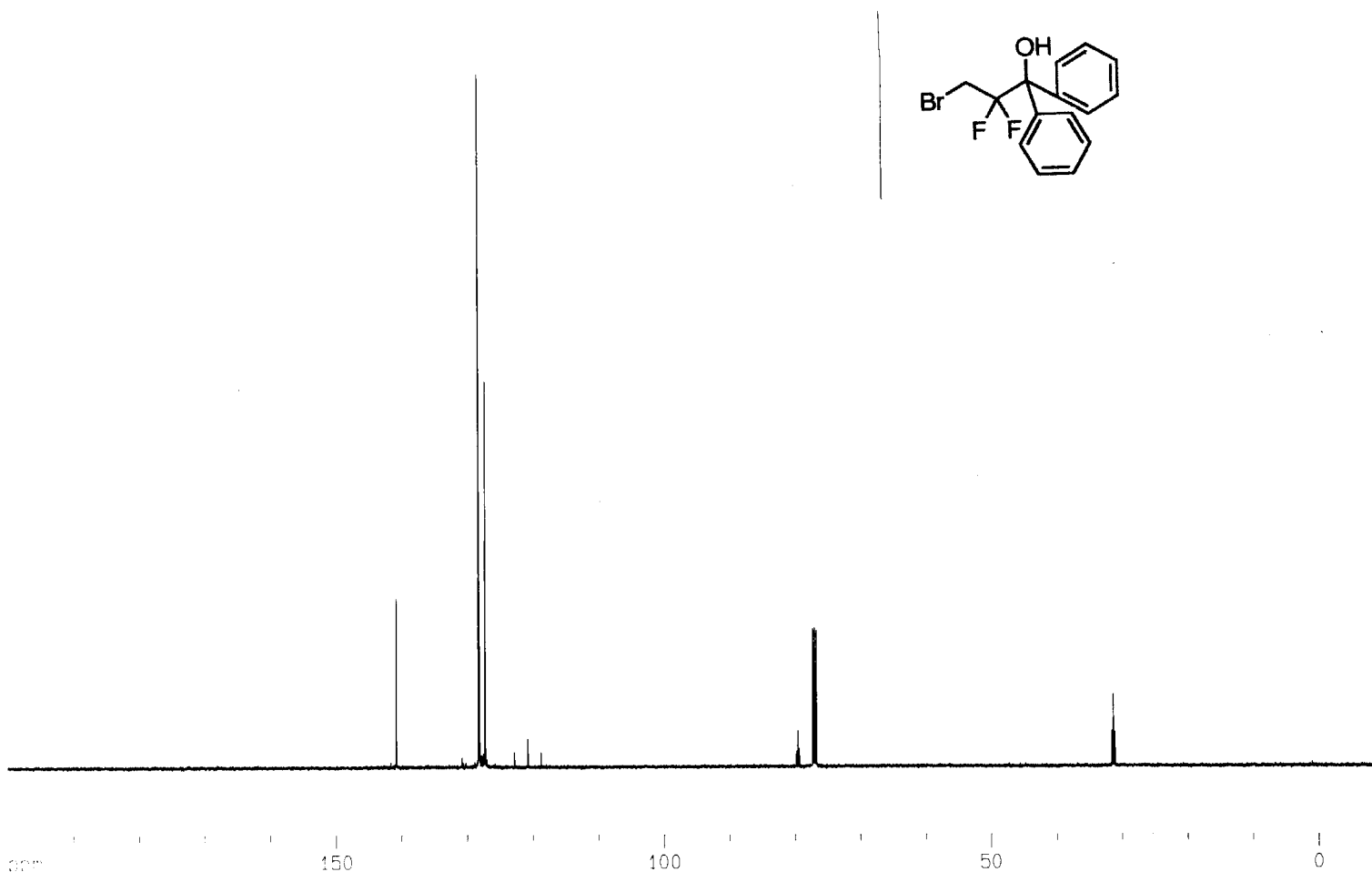
Current Data Parameters  
NAME kato-04.10.22  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20041022  
Time 15.45  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 57  
DW 48.400 usec  
DE 6.00 usec  
TE 296.9 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====  
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300134 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters  
CX 20.00 cm  
CY 7.84 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters

NAME kato-04.10.22  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20041022  
Time 15.53  
INSTRUM drx500  
PROBHD 5 mm Multinuc1  
PULPROG zgpg30  
TD 65536  
SOLVENT CDC13  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 297.9 K  
D1 0.5000000 sec  
d11 0.0300000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

==== CHANNEL f1 =====

NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

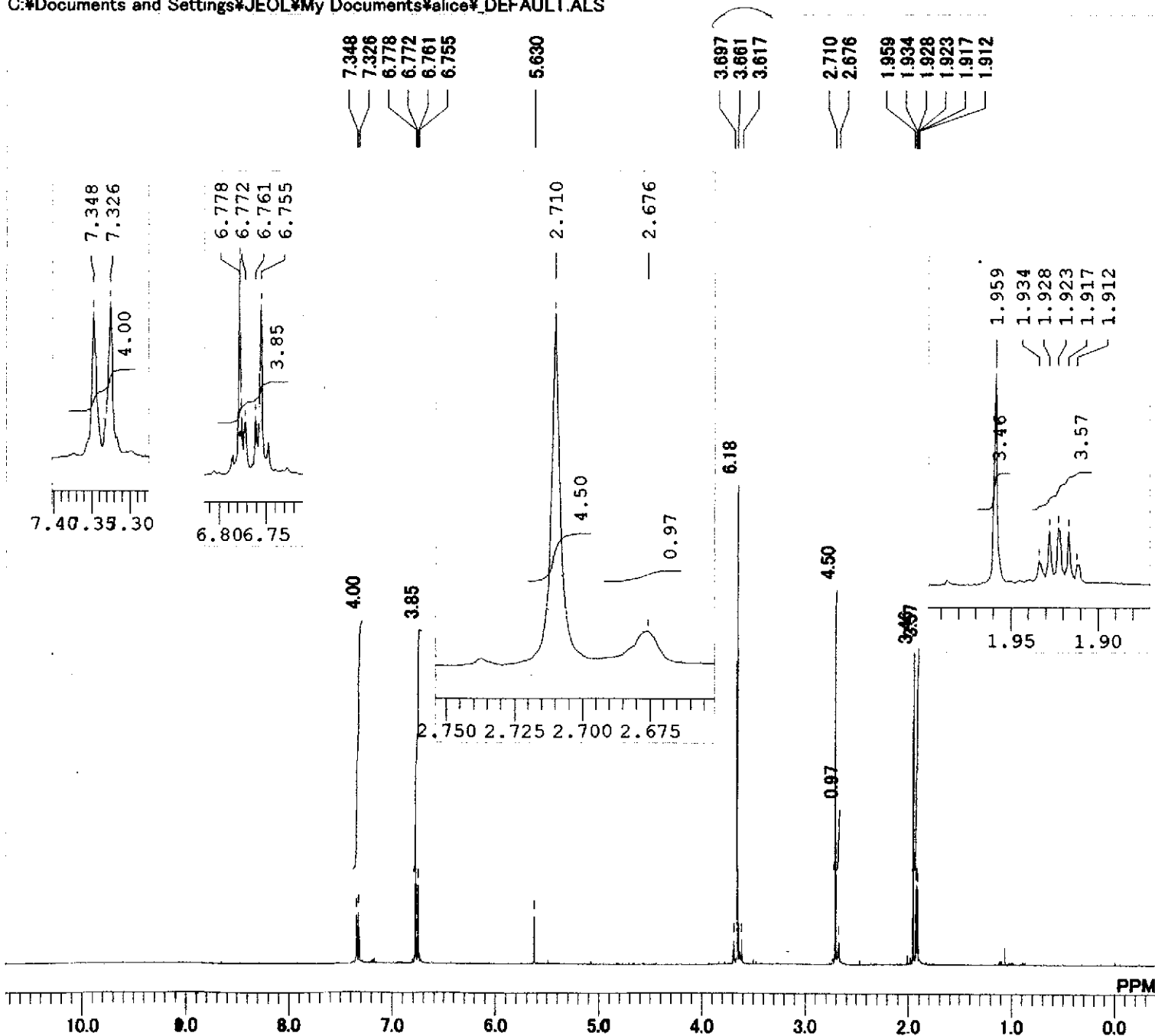
F2 - Processing parameters

SF 125.7578015 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

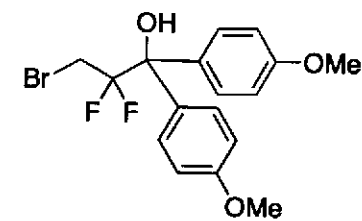
1D NMR plot parameters

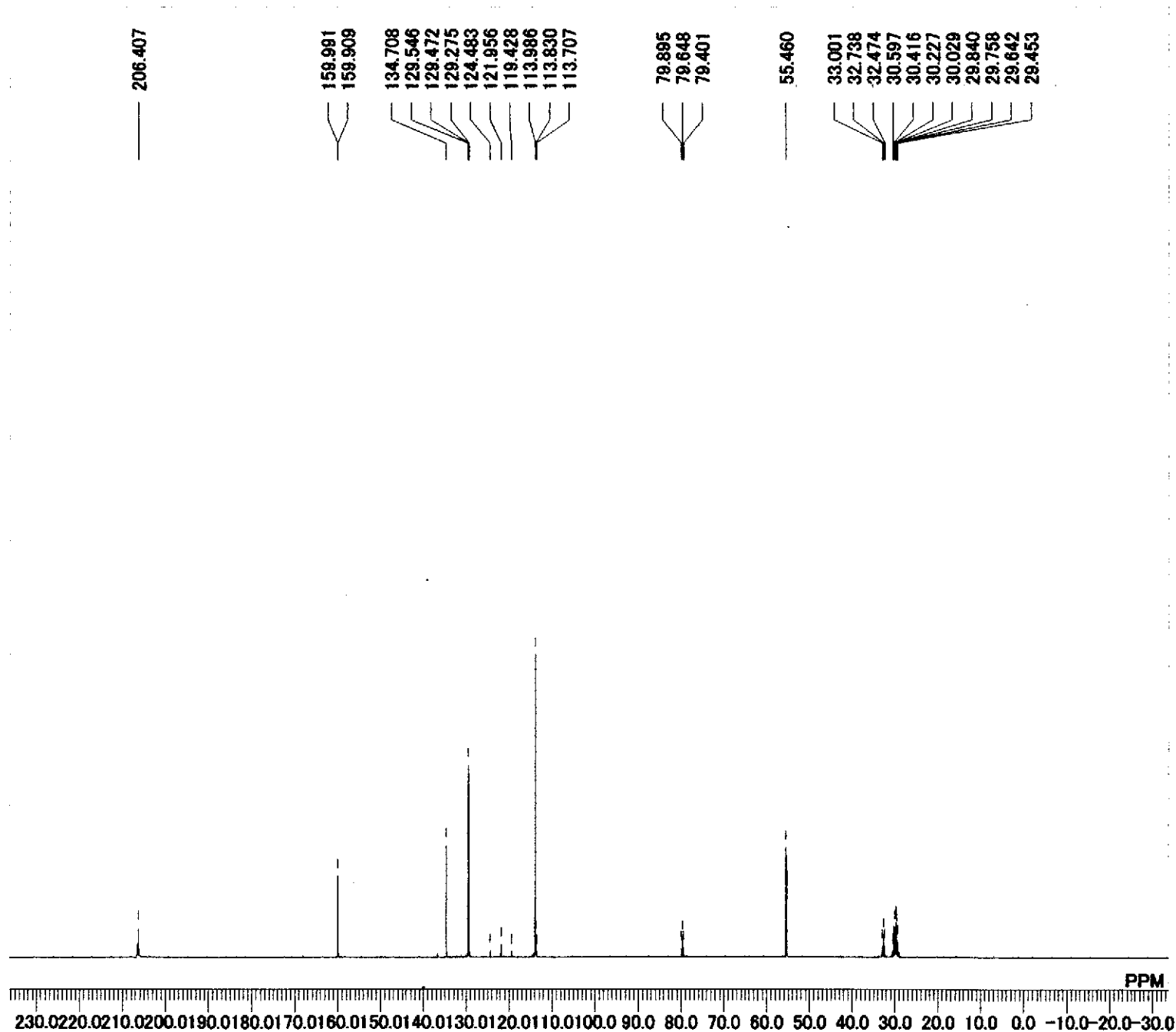
CX 20.00 cm  
CY 10.11 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45691 Hz/cm

C:\Documents and Settings\JEOL\My Documents\alice\DEFAULT.ALS

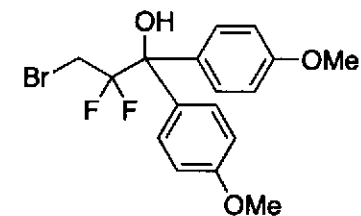


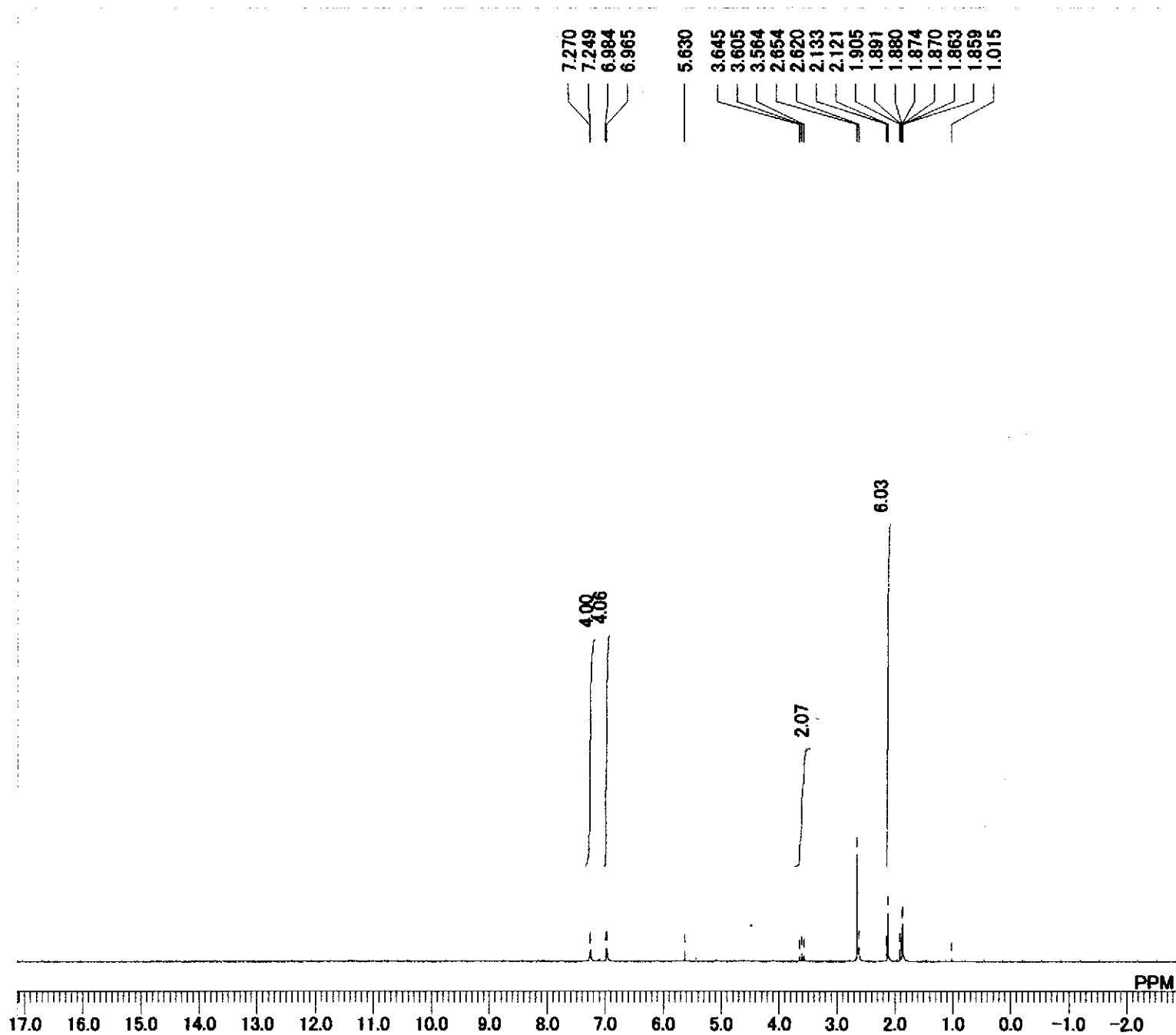
MENUF	1H
OBNUC	1H
OFR	399.65 MHz
OBSSET	135.40 KHz
OBFIN	24.90 Hz
PW1	5.50 usec
DEADT	72.20 usec
PREDL	0.20000 msec
IWT	1.0000 msec
POINT	16384
SPO	16384
TIMES	8
DUMMY	1
FREQU	7992.01 Hz
FLT	4000 Hz
DELAY	50.00 usec
ACQTM	2.0501 sec
PD	4.9500 sec
ADBIT	16
RGAIN	17
BF	0.10 Hz
T1	0.00
T2	0.00
T3	90.00
T4	100.00
EXMOD	NON
EXPCM	NON:Single.coupled:PW1_ACQTM_PI
IRNUC	1H
IFR	399.65 MHz
IRSET	136.90 KHz
IRFIN	97.50 Hz
IRFPW	45 usec
IRATN	511
DFILE	DEFAULT.ALS
SF	TH5ATFG2
LKSET	61.30 KHz
LKFIN	60.0 Hz
LKLEV	120
LGAIN	21
LKPHS	240
LKSIG	2231
CSPED	11 Hz
FILDC	
FILDF	



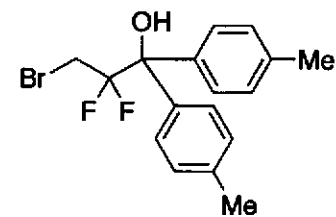


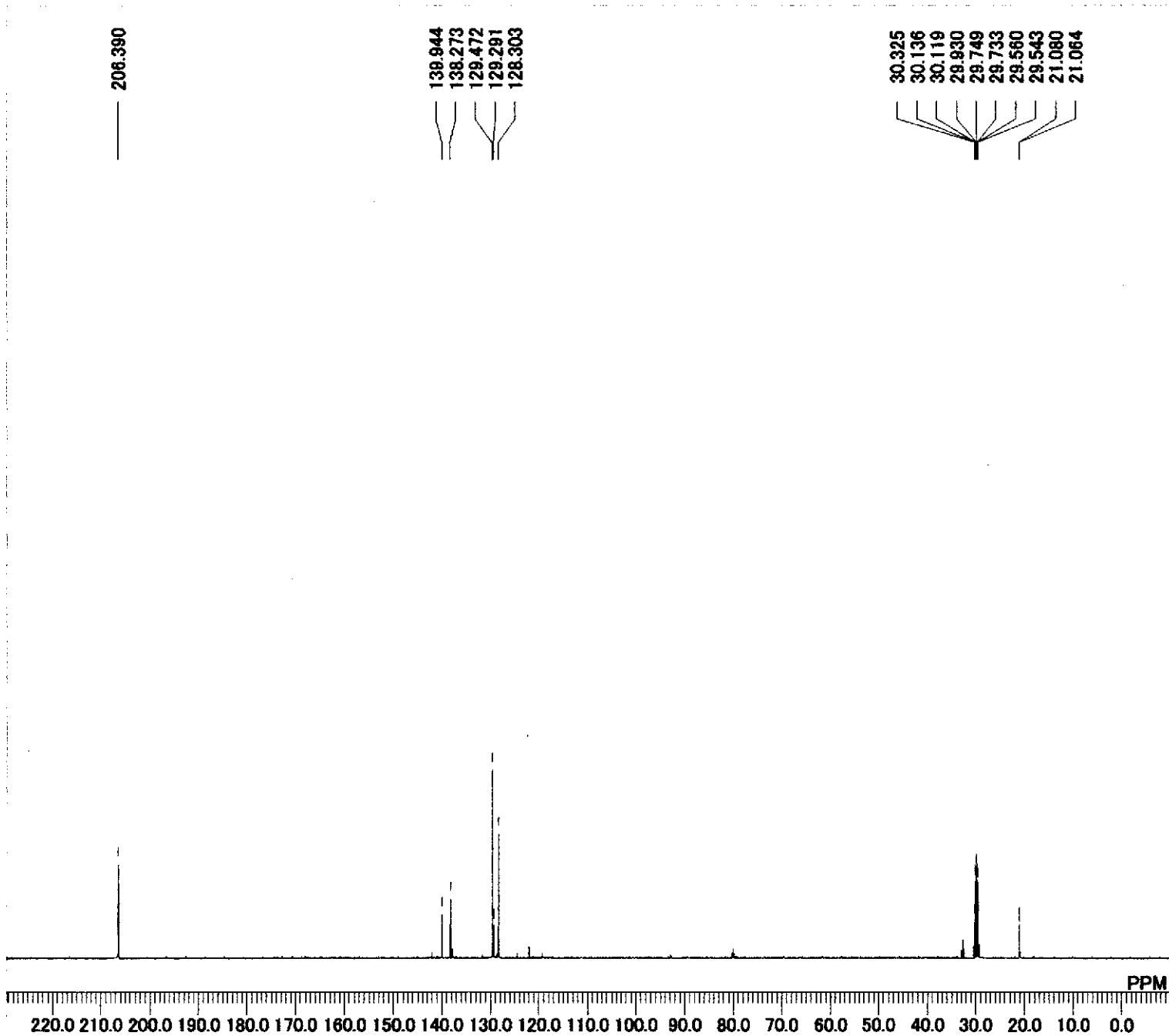
MENUF 13C  
OBNUC 13C  
OFR 100.40 MHz  
OBSET 125.00 KHz  
OBFIN 10500.00 Hz  
PW1 6.20 usec  
DEADT 19.00 usec  
PREDL 0.20000 msec  
IWT 1.0000 msec  
POINT 32768  
SPO 32768  
TIMES 20000  
DUMMY 1  
FREQU 27118.64 Hz  
FLT 13550 Hz  
DELAY 14.80 usec  
ACQTM 1.2083 sec  
PD 1.7920 sec  
ADBIT 16  
RGAIN 23  
BF 0.10 Hz  
T1 0.00  
T2 0.00  
T3 90.00  
T4 100.00  
EXMOD BCM  
EXPCM Bilevel.complete.decoupling: Set\_IRRF  
IRNUC 1H  
IFR 399.65 MHz  
IRSET 124.00 KHz  
IRFIN 10500.00 Hz  
IRRPW 45 usec  
IRATN 511  
DFILE TFO-AnisMgBr-13C(20100302).als  
SF TH5ATFG2  
LKSET 61.30 KHz  
LKFIN 60.0 Hz  
LKLEV 120  
LGAIN 23  
LKPHS 240  
LKSIG 627  
CSPED 14 Hz  
FILDC  
FILDF



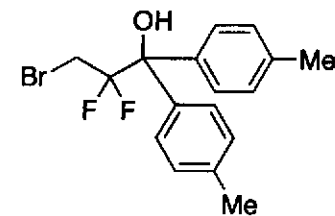


MENUF 1H  
OBNUC 1H  
OFR 399.65 MHz  
OBSET 135.40 KHz  
OBFIN 24.90 Hz  
PW1 5.50 usec  
DEADT 72.20 usec  
PREDL 0.20000 msec  
IWT 1.0000 msec  
POINT 16384  
SPO 16384  
TIMES 8  
DUMMY 1  
FREQU 7992.01 Hz  
FLT 4000 Hz  
DELAY 50.00 usec  
ACQTM 2.0501 sec  
PD 4.9500 sec  
ADBIT 16  
RGAIN 18  
BF 0.10 Hz  
T1 0.00  
T2 0.00  
T3 90.00  
T4 100.00  
EXMOD NON  
EXPCM NON:Single.coupled:PW1\_ACQTM\_PL  
IRNUC 1H  
IFR 399.65 MHz  
IRSET 136.90 KHz  
IRFIN 97.50 Hz  
IRRPW 45 usec  
IRATN 511  
DFILE TFO+TolMgBr-1H.als  
SF TH5ATFG2  
LKSET 61.30 KHz  
LKFIN 60.0 Hz  
LKLEV 120  
LGAIN 23  
LKPHS 240  
LKSIG 2349  
CSPED 13 Hz  
FILDC  
FILDF

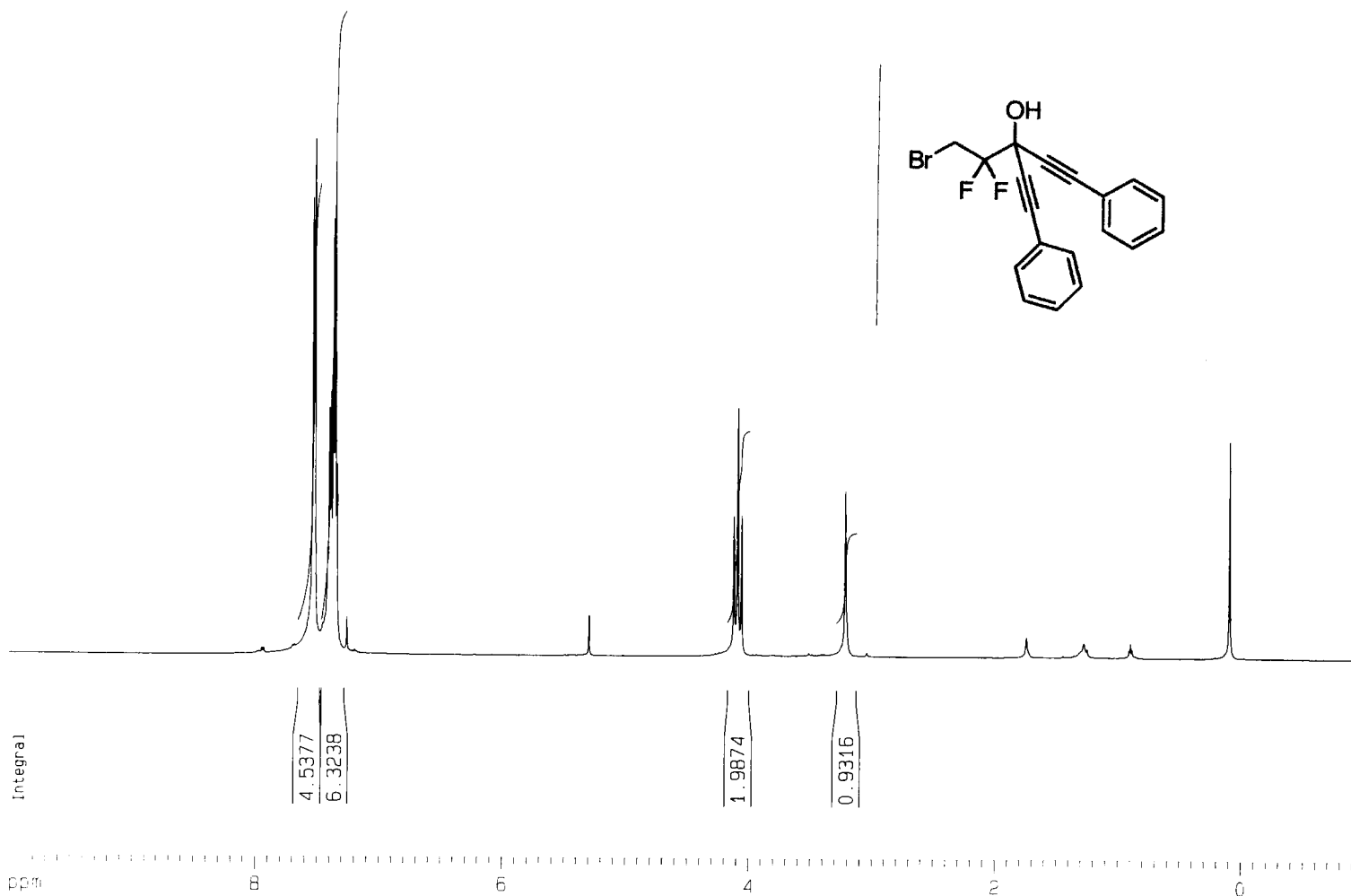
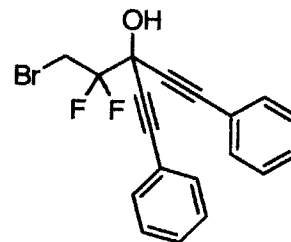




MENUF 13C  
OBNUC 13C  
OFR 100.40 MHz  
OBSET 125.00 KHz  
OBFIN 10500.00 Hz  
PW1 6.20 usec  
DEADT 19.00 usec  
PREDL 0.20000 msec  
IWT 1.0000 msec  
POINT 32768  
SPO 32768  
TIMES 20000  
DUMMY 1  
FREQU 27118.64 Hz  
FLT 13550 Hz  
DELAY 14.80 usec  
ACQTM 1.2083 sec  
PD 1.7920 sec  
ADBIT 16  
RGAIN 24  
BF 0.10 Hz  
T1 0.00  
T2 0.00  
T3 90.00  
T4 100.00  
EXMOD BCM  
EXPCM Bilevel.complete.decoupling:Set\_IRRF  
IRNUC 1H  
IFR 399.65 MHz  
IRSET 124.00 KHz  
IRFIN 10500.00 Hz  
IRRPW 45 usec  
IRATN 511  
DFILE TFO+TolMgBr-13C.als  
SF TH5ATFG2  
LKSET 61.30 KHz  
LKFIN 60.0 Hz  
LKLEV 120  
LGAIN 23  
LKPHS 240  
LKSIG 1132  
CSPED 13 Hz  
FILDC  
FILDF



sample



Current Data Parameters  
NAME kato-05.2.17  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20050217  
Time 17.31  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 128  
DW 48.400 usec  
DE 6.00 usec  
TE 295.7 K  
D1 1.00000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

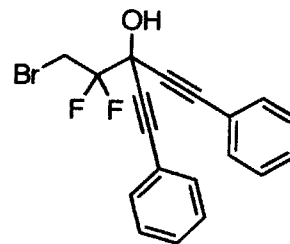
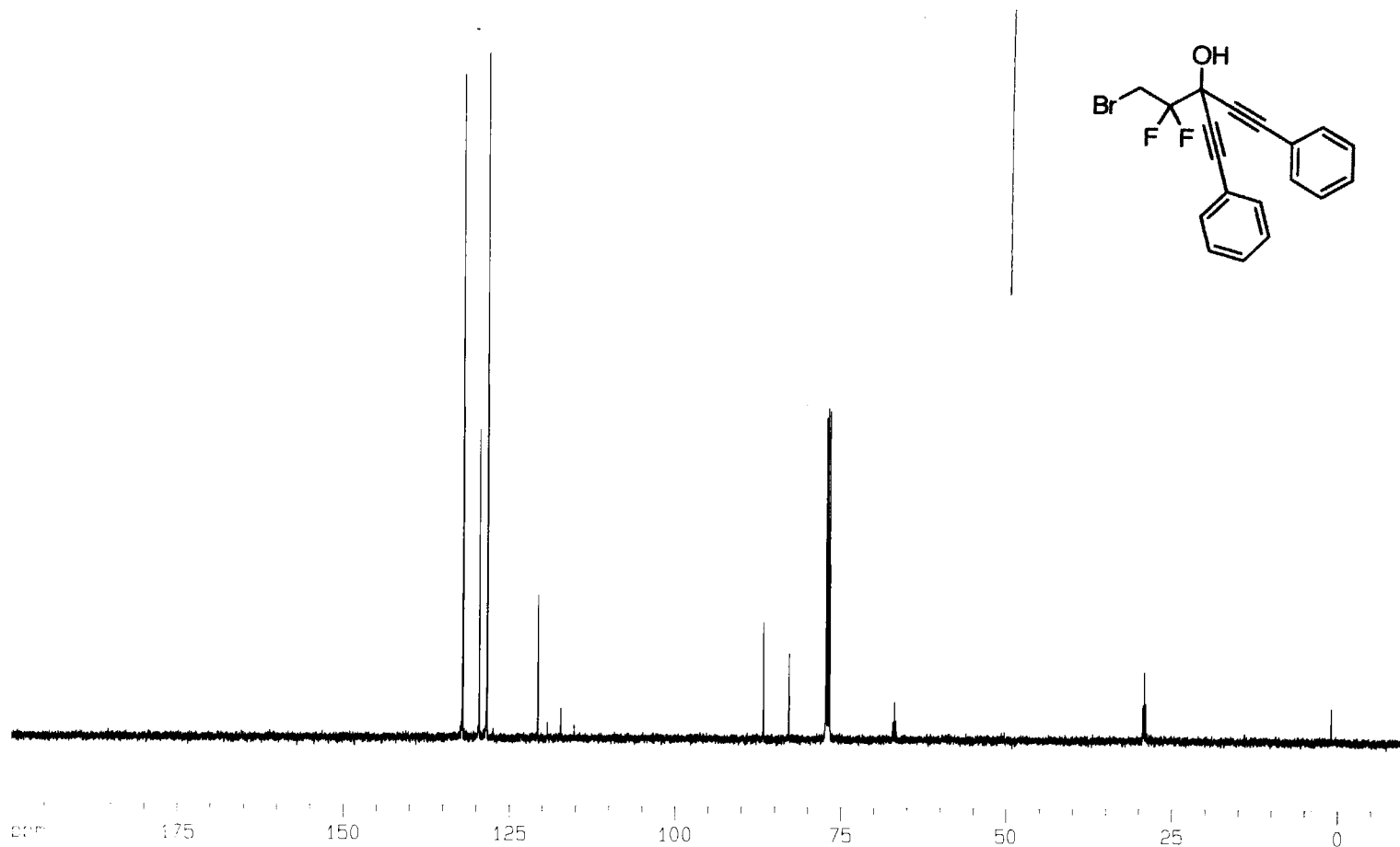
=====  
CHANNEL f1  
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

=====  
CHANNEL f2  
CPDPRG2  
NUC2 off  
PCPD2 100.00 usec  
PL2 120.00 dB  
PL12 120.00 dB  
PL13 120.00 dB  
SF02 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300129 MHz  
WDW EM  
SSB 0  
\_B 1.00 Hz  
GB 0  
PC 1.00

1D NMR plot parameters  
CX 20.00 cm  
CY 7.63 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm





Current Data Parameters  
NAME kato-05.2.17  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20050217  
Time 17.41  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 296.8 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

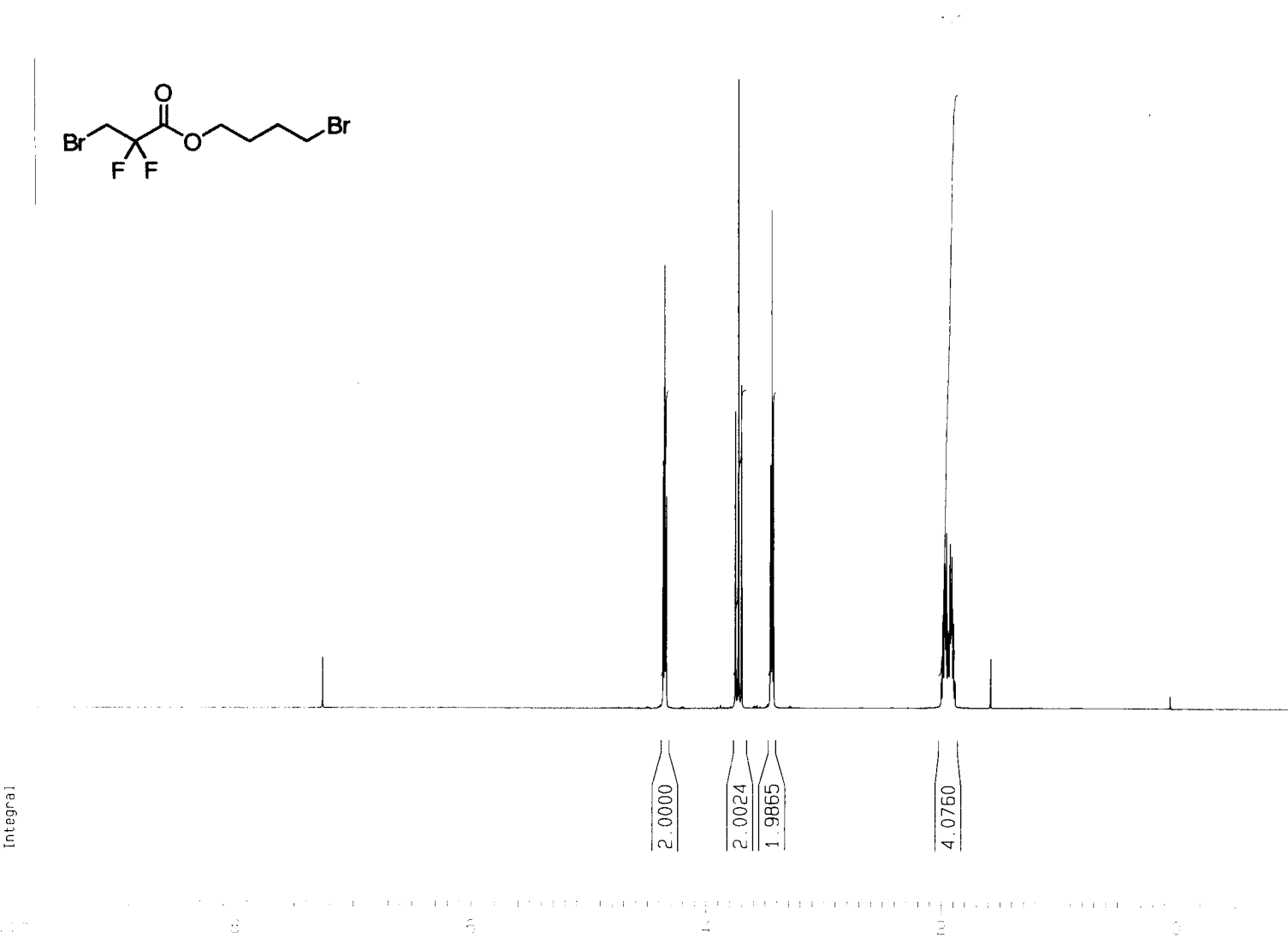
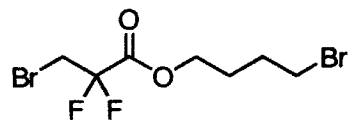
=====  
CHANNEL f1  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

=====  
CHANNEL f2  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7577987 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.21 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45679 Hz/cm

sample



Current Data Parameters

NAME kato-06.1.11  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20060111  
Time 16.36  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 128  
DW 48.400 usec  
DE 6.00 usec  
TE 293.5 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

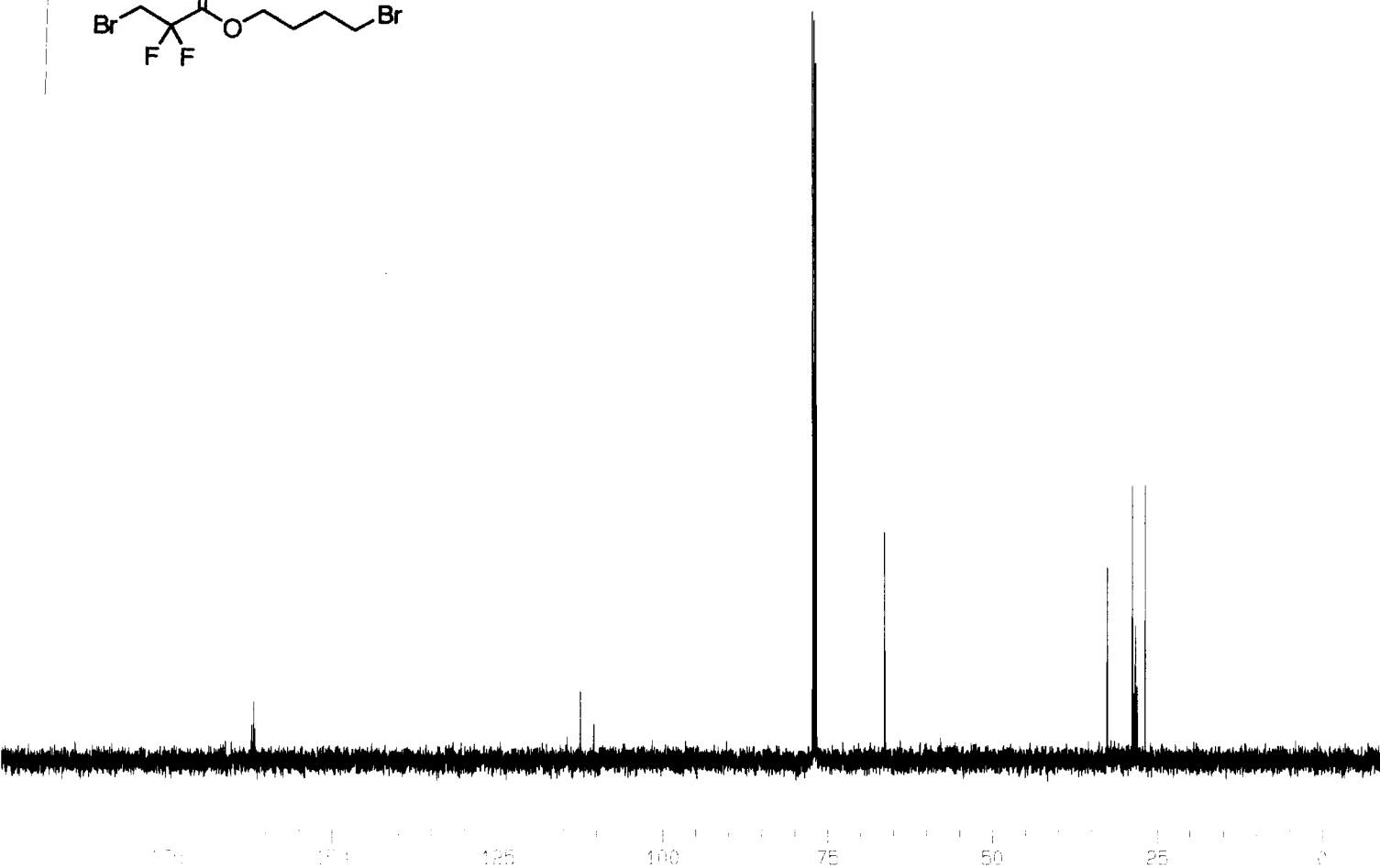
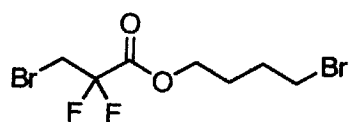
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300131 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 9.78 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters  
NAME kato-06.1.11  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20060111  
Time 16.44  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 294.2 K  
D1 0.5000000 sec  
d11 0.0300000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

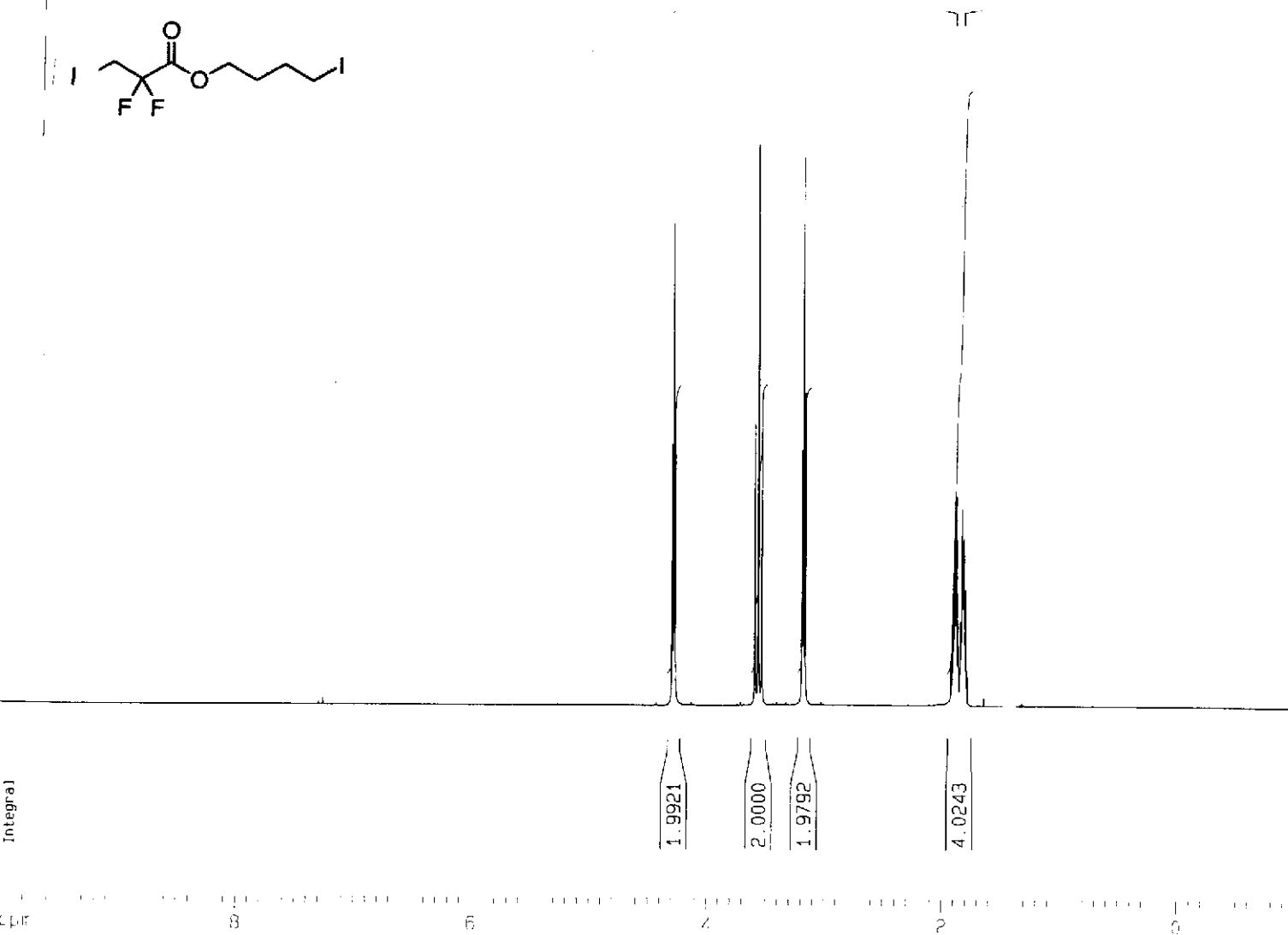
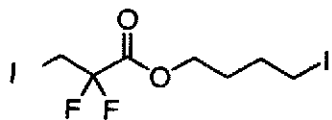
\*\*\*\*\* CHANNEL f1 \*\*\*\*\*  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SFO1 125.7703643 MHz

\*\*\*\*\* CHANNEL f2 \*\*\*\*\*  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SFO2 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7577969 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.92 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45679 Hz/cm

sample



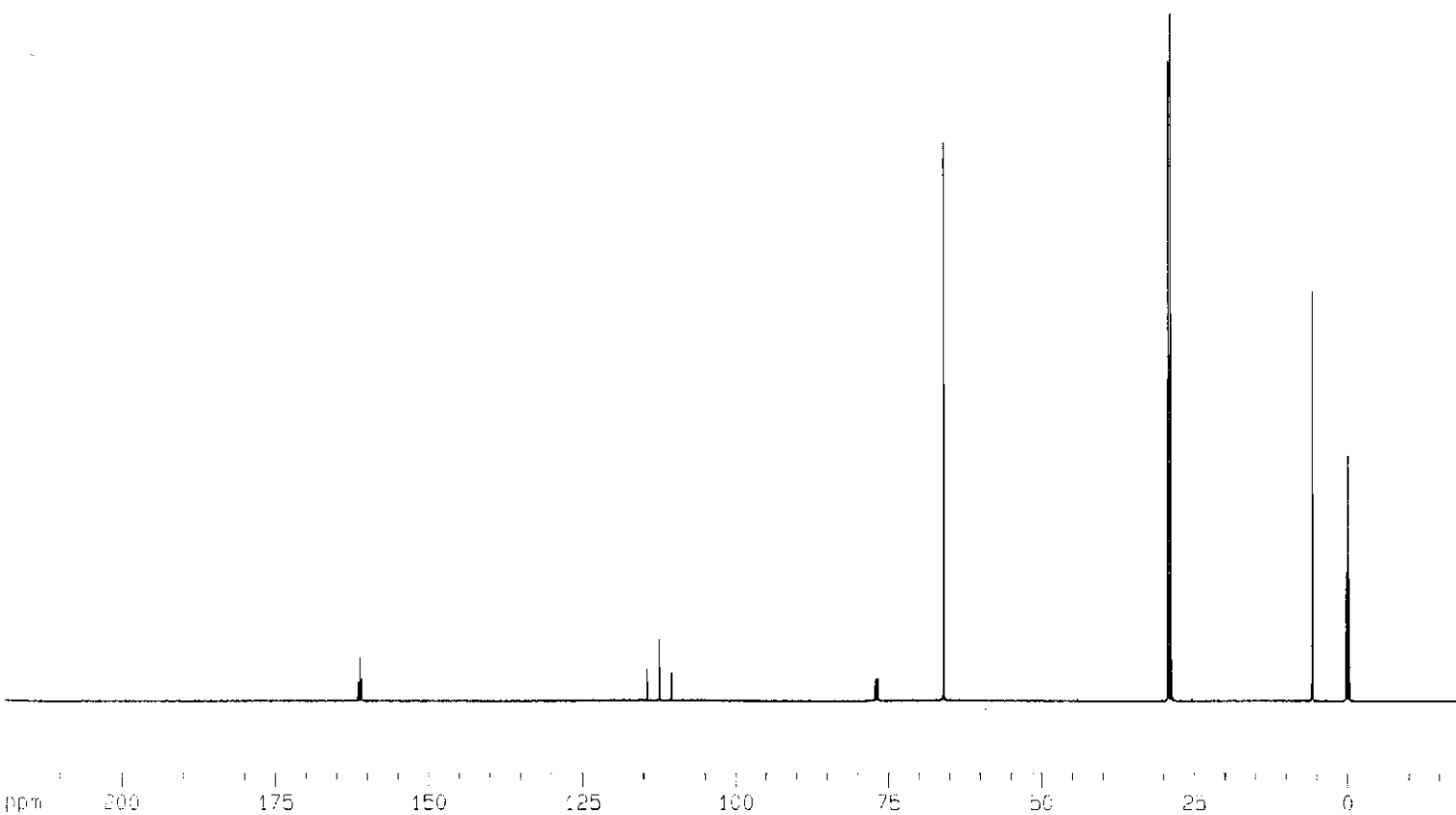
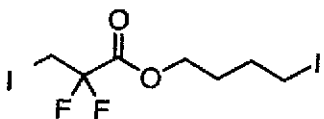
Current Data Parameters  
NAME kato-07.1.12  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20070112  
Time 20.50  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 25.4  
DW 48.400 usec  
DE 6.00 usec  
TE 294.1 K  
D1 1.0000000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

==== CHANNEL f1 =====  
NUC1 1H  
P1 10.00 usec  
PL1 -6.00 dB  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300129 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters  
CX 20.00 cm  
CY 8.87 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters  
NAME kato-07.1.12  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20070112  
Time 20.58  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 1448.2  
DW 16.650 usec  
DE 6.00 usec  
TE 294.5 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

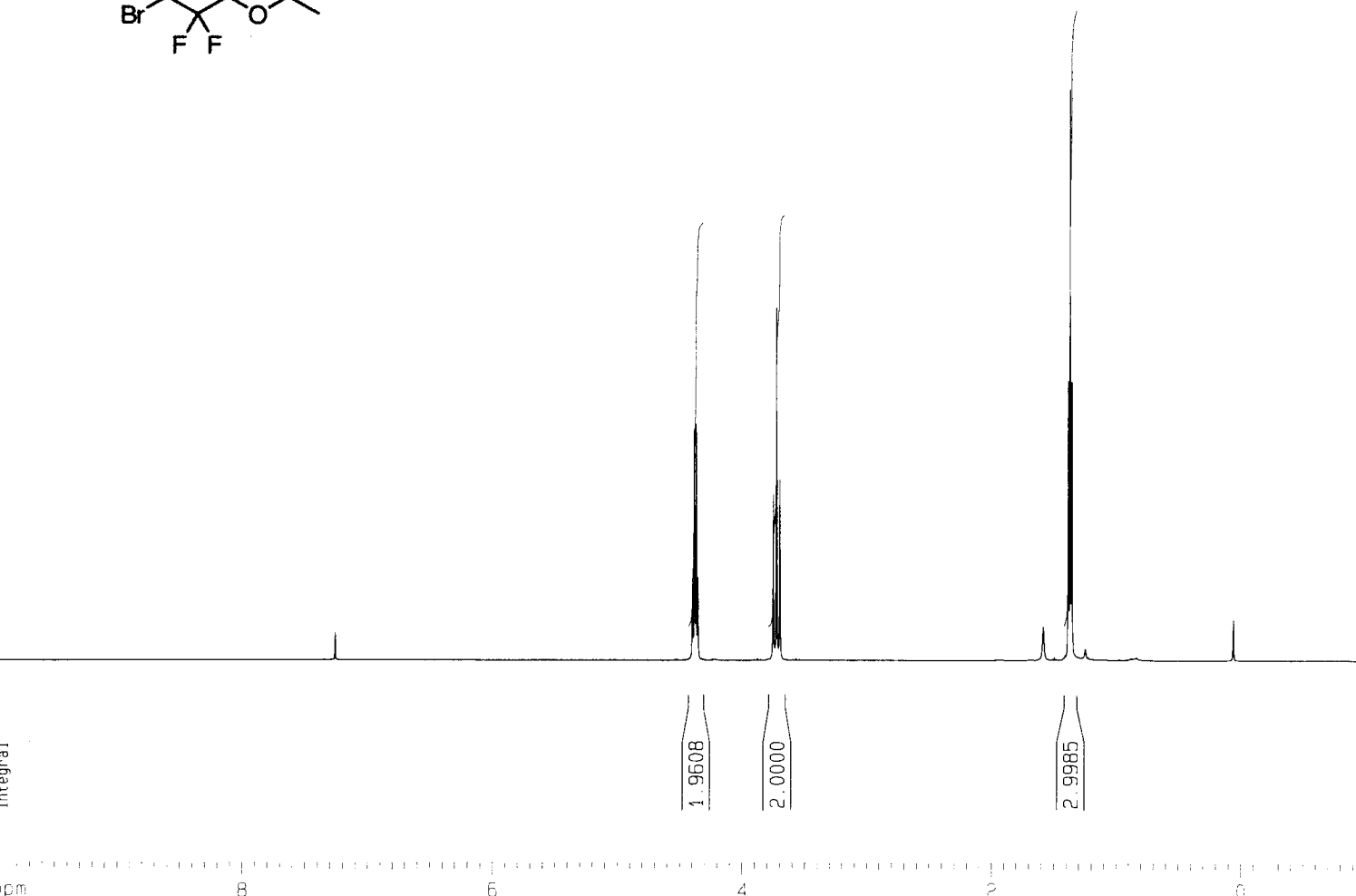
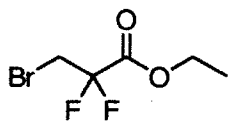
==== CHANNEL f1 =====  
NUC1 13C  
P1 11.00 usec  
PL1 -3.00 dB  
SFO1 125.7703643 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 17.00 dB  
PL13 19.00 dB  
SFO2 500.1320005 MHz

F2 - Processing parameters  
S1 32768  
SF 125.7578271 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 9.44 cm  
F1P 219.089 ppm  
F1 27552.18 Hz  
F2P -19.703 ppm  
F2 -2477.85 Hz  
PPMCM 11.93963 ppm/cm  
HZCM 1501.50159 Hz/cm

sample



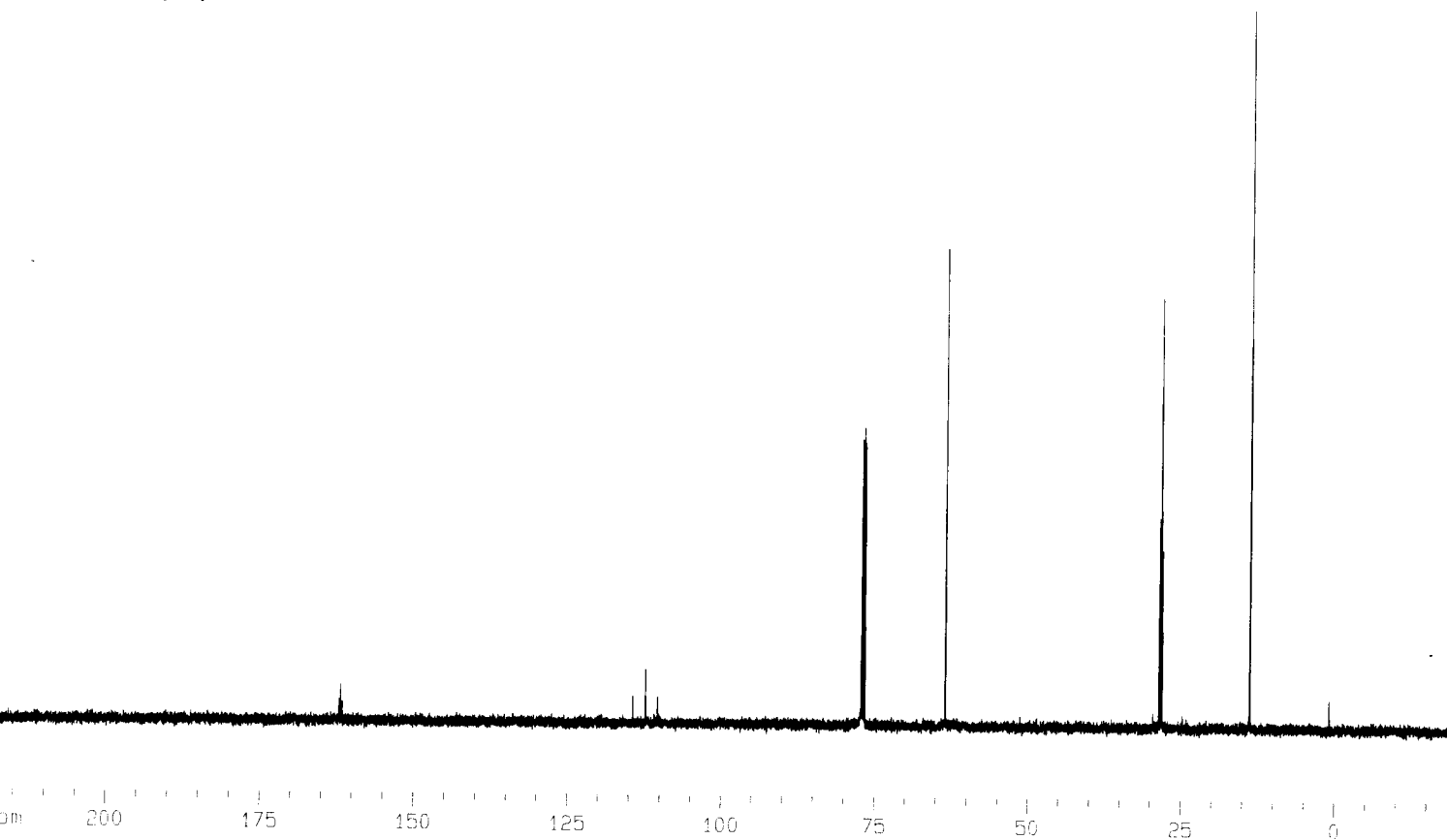
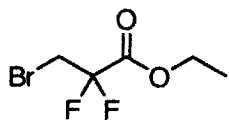
Current Data Parameters  
NAME kato-06.8.7  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20060807  
Time 20.21  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 228.1  
DW 48.400 usec  
DE 6.00 usec  
TE 300.9 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====  
NUC1 1H  
P1 10.00 usec  
PL1 -6.00 dB  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300127 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters  
CX 20.00 cm  
CY 8.34 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters

NAME kato-06.8.7  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20060807  
Time 20.38  
INSTRUM drx500  
PROBHD 5 mm Multinuc1  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 512  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 2048  
DW 16.650 usec  
DE 6.00 usec  
TE 301.2 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

NUC1 13C  
P1 11.00 usec  
PL1 -3.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 17.00 dB  
PL13 19.00 dB  
SF02 500.1320005 MHz

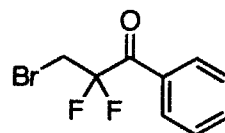
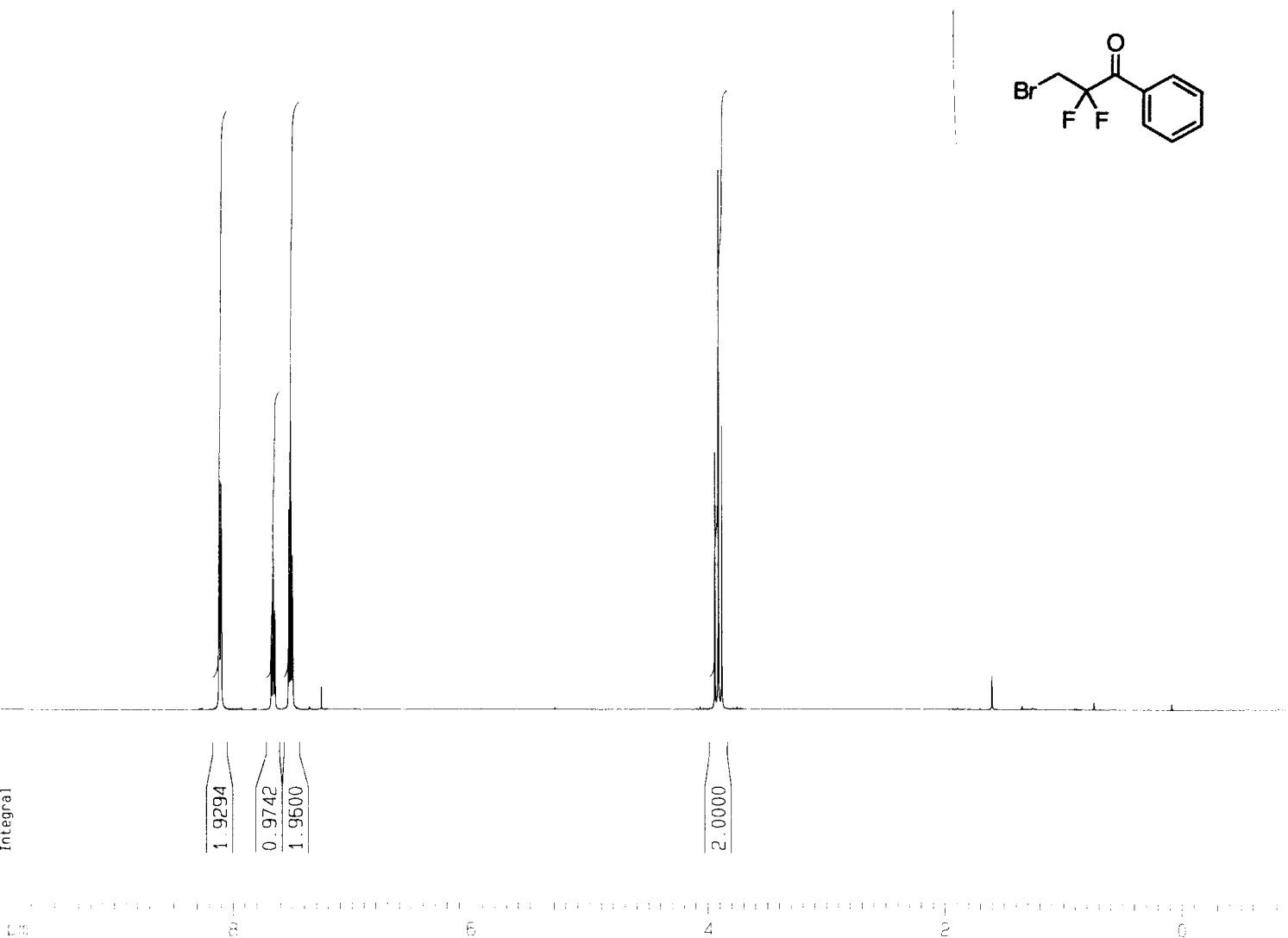
F2 - Processing parameters

SI 32768  
SF 125.7577905 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 9.89 cm  
F1P 219.381 ppm  
F1 27588.83 Hz  
F2P -19.412 ppm  
F2 -2441.20 Hz  
PPMCM 11.93963 ppm/cm

sample



Current Data Parameters

NAME kato-06.10.24  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20061024  
Time 23.05  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 128  
DW 48.400 usec  
DE 6.00 usec  
TE 296.8 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

NUC1 1H  
P1 10.00 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

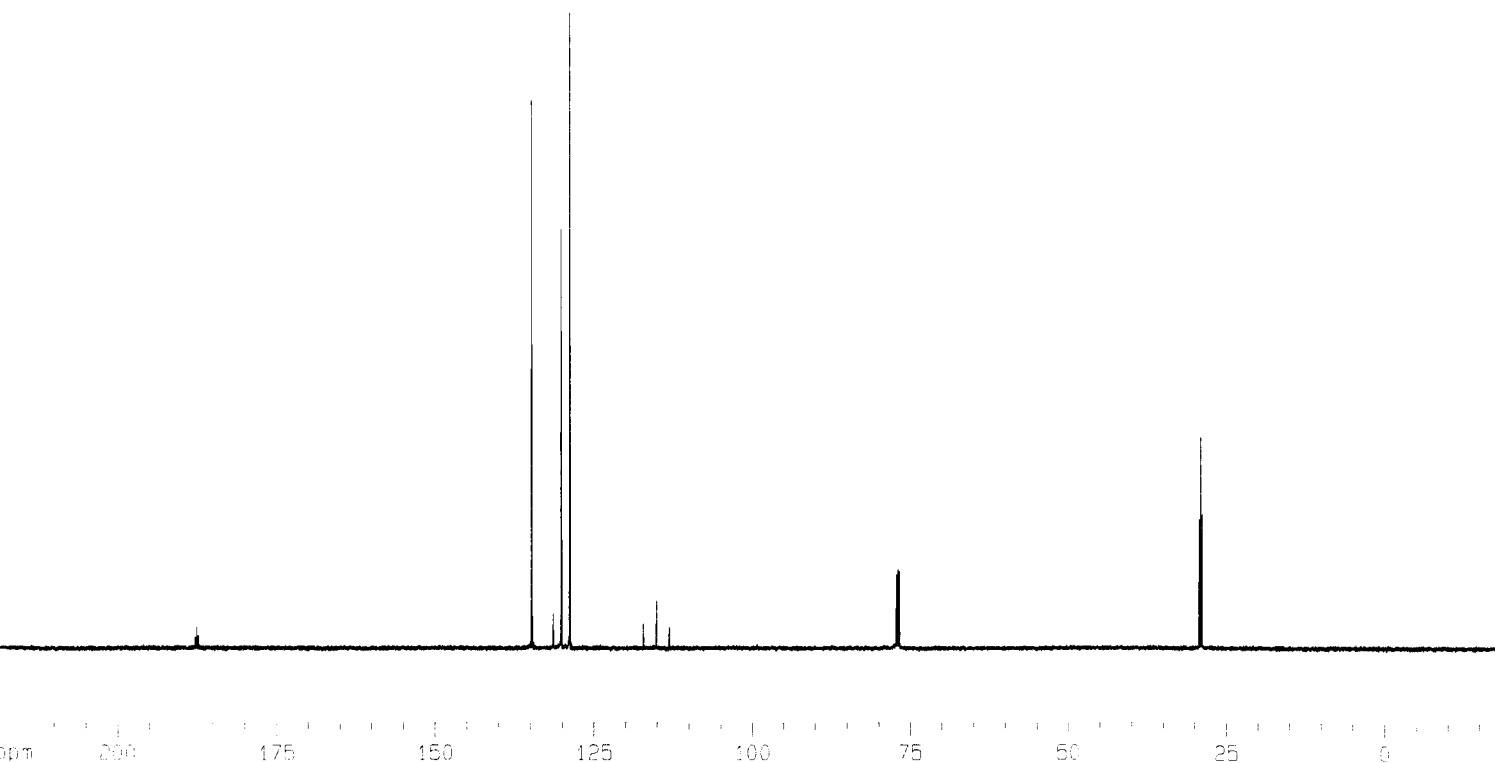
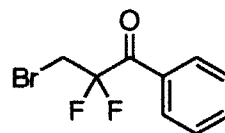
F2 - Processing parameters

SI 32768  
SF 500.1300129 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 8.37 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm





Current Data Parameters

NAME kato-06.10.24  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20061024  
Time 23.13  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 1625.5  
DW 16.650 usec  
DE 6.00 usec  
TE 297.1 K  
D1 0.5000000 sec  
d11 0.0300000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

==== CHANNEL f1 =====

NUC1 13C  
P1 11.00 usec  
PL1 -3.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 17.00 dB  
PL13 19.00 dB  
SF02 500.1320005 MHz

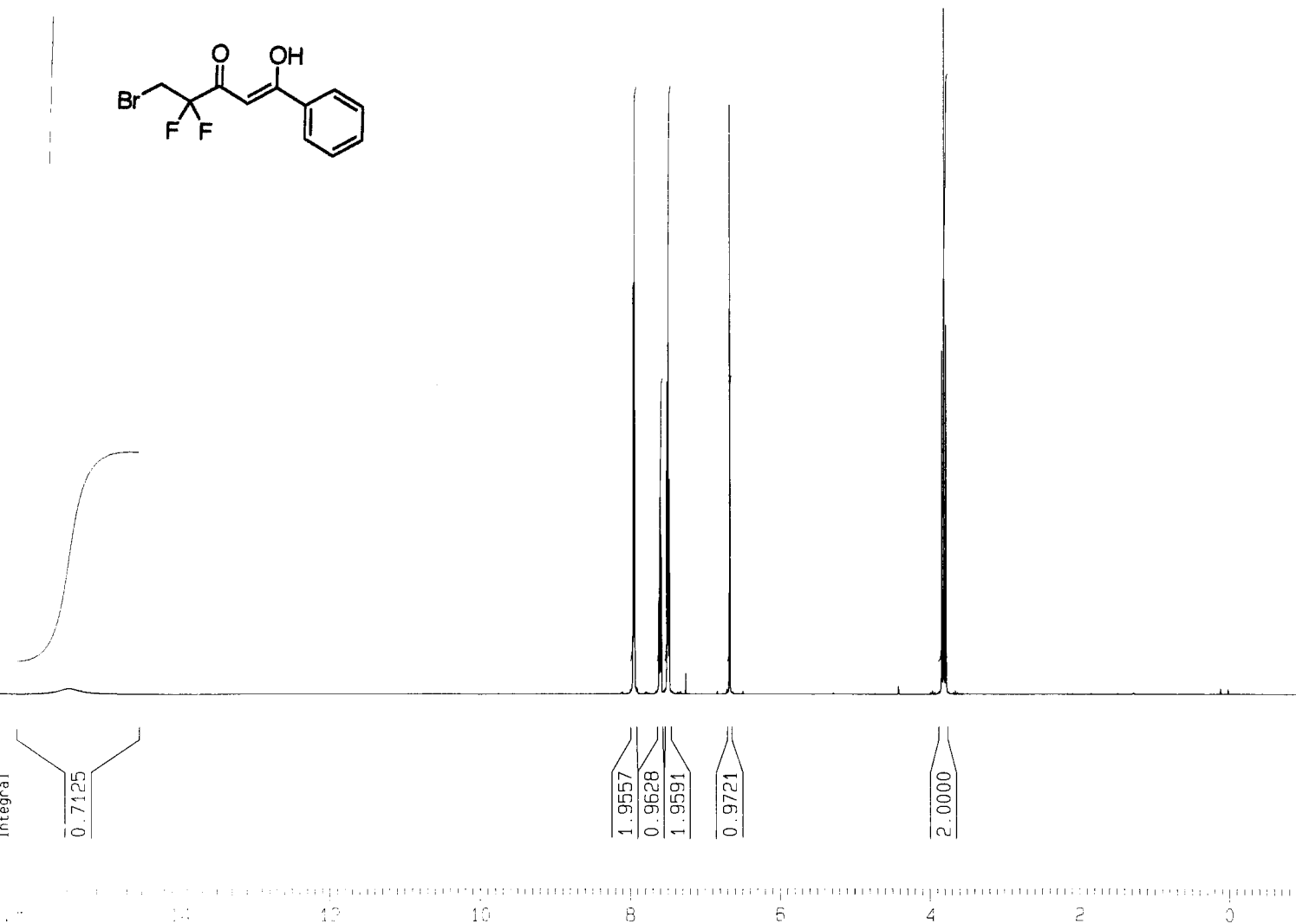
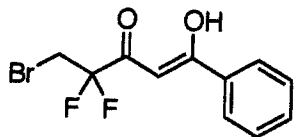
F2 - Processing parameters

SI 32768  
SF 125.7577932 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 8.95 cm  
F1P 219.359 ppm  
F1 27586.10 Hz  
F2P -19.434 ppm  
F2 -2443.93 Hz  
PPMCM 11.93963 ppm/cm  
HZCM 1501.50146 Hz/cm

sample



Current Data Parameters

NAME komori-5-9-28  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050928  
Time 10.23  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 45.3  
DW 48.400 usec  
DE 6.00 usec  
TE 299.2 K  
D1 1.0000000 sec  
MCREST 0.0000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

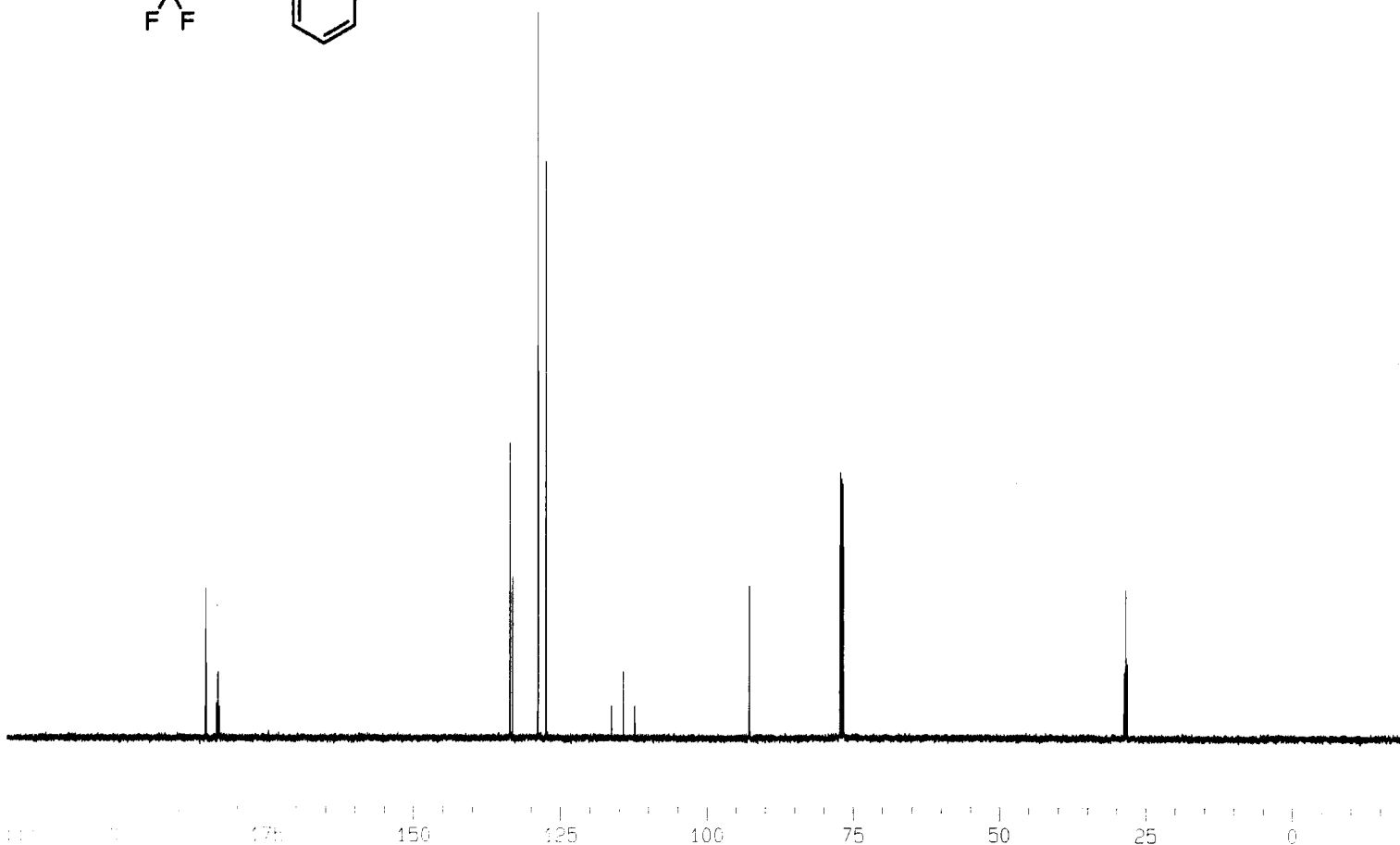
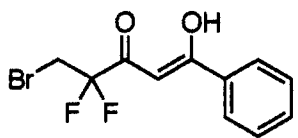
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SFO1 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300131 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 10.98 cm  
F1P 16.477 ppm  
F1 8240.74 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.87386 ppm/cm  
HZCM 437.04333 Hz/cm



Current Data Parameters  
NAME komori-5-9-28  
EXPNO 3  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20050928  
Time 10.35  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 299.9 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

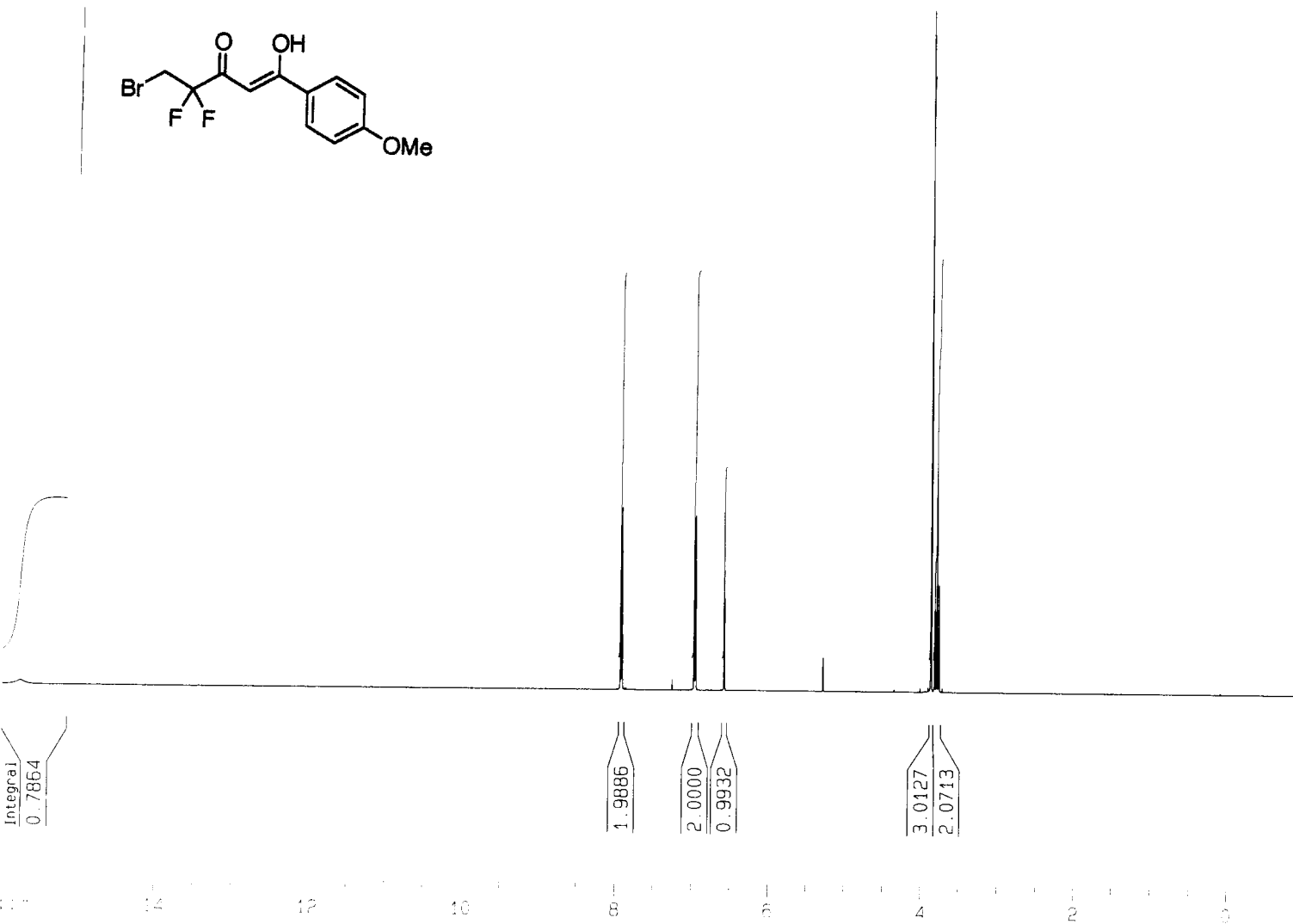
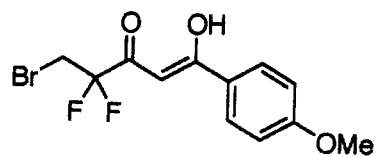
==== CHANNEL f1 =====  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7578024 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.41 cm  
F1P 219.286 ppm  
F1 27576.91 Hz  
F2P -19.507 ppm  
F2 -2453.12 Hz  
PPMCM 11.93963 ppm/cm  
HZCM 1501.50159 Hz/cm

sample



Current Data Parameters

NAME komori-05.11.17  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20051117  
Time 21.41  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 57  
DW 48.400 usec  
DE 6.00 usec  
TE 296.3 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

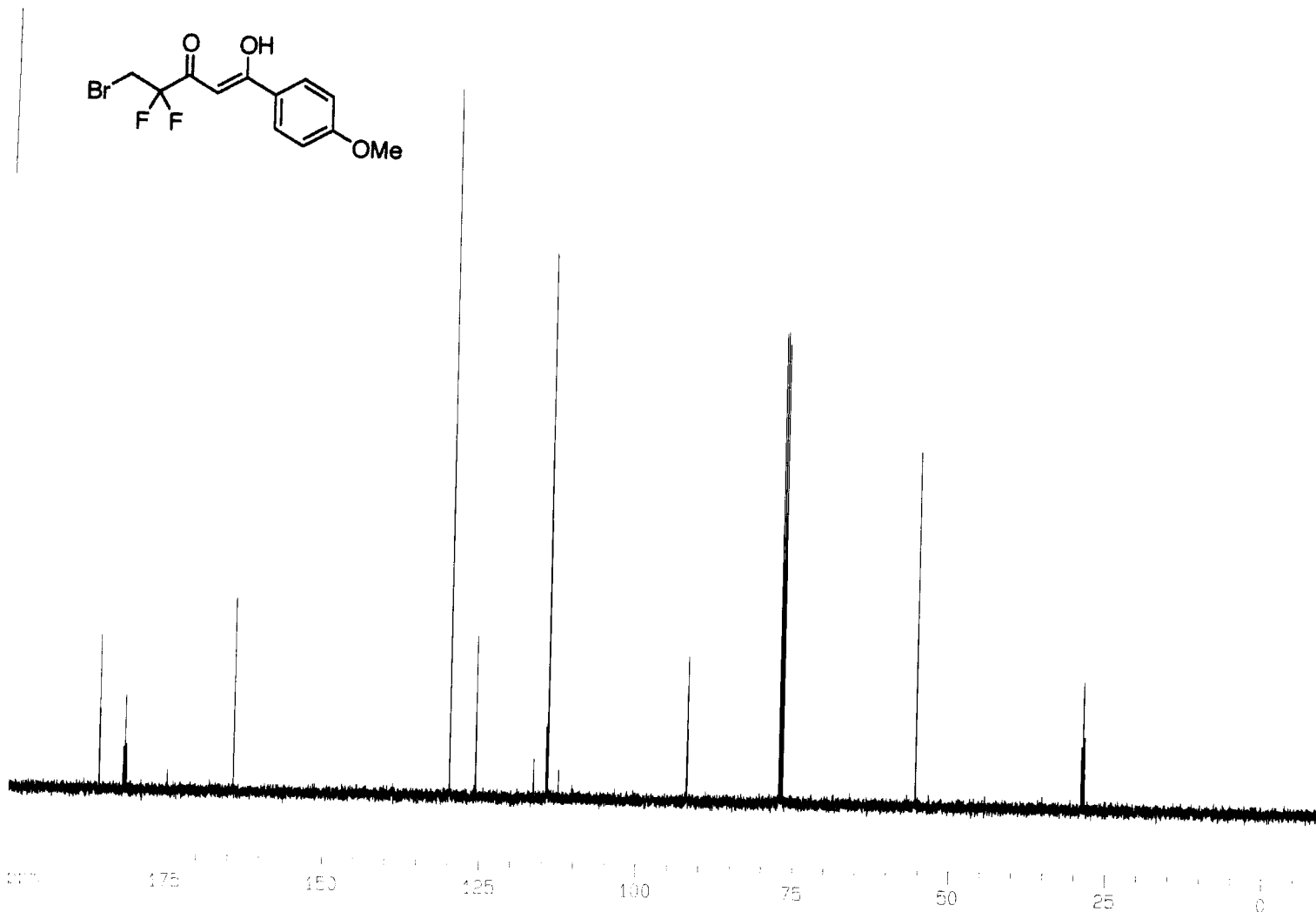
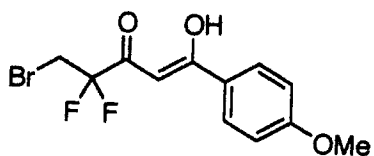
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300131 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 11.02 cm  
F1P 16.000 ppm  
F1 8002.08 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.85000 ppm/cm  
HZCM 425.11047 Hz/cm



Current Data Parameters  
NAME komori-05.11.17  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20051117  
Time 21.49  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 4096  
DW 16.650 usec  
DE 6.00 usec  
TE 297.1 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

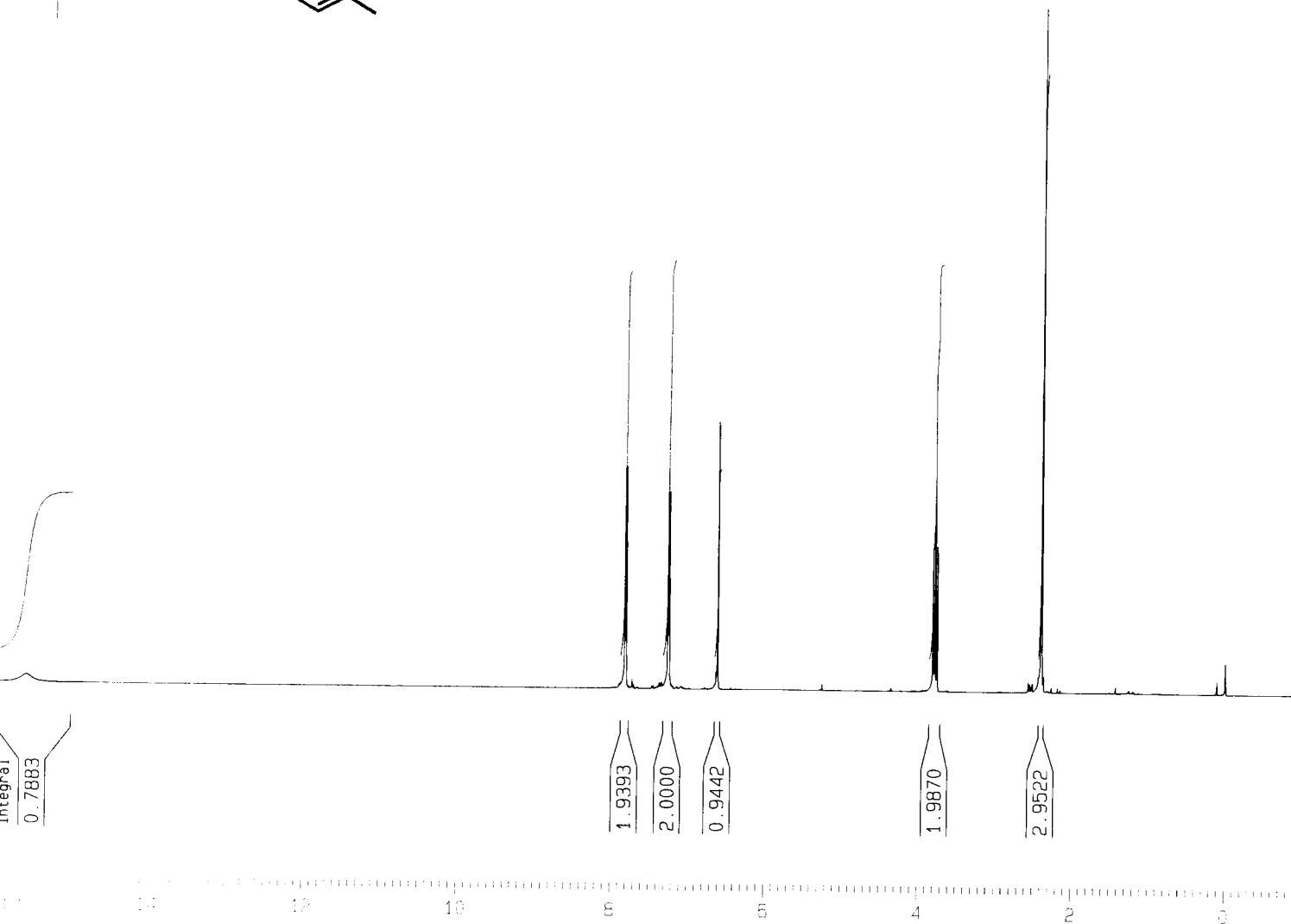
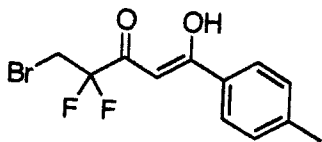
===== CHANNEL f1 =====  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SFO1 125.7703643 MHz

===== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SFO2 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7578006 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.79 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45679 Hz/cm

sample



Current Data Parameters

NAME komori-05.11.16  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20051116  
Time 21.09  
INSTRUM drx500  
PROBHD 5 mm Multinuc1  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 32  
DW 48.400 usec  
DE 6.00 usec  
TE 296.4 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

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

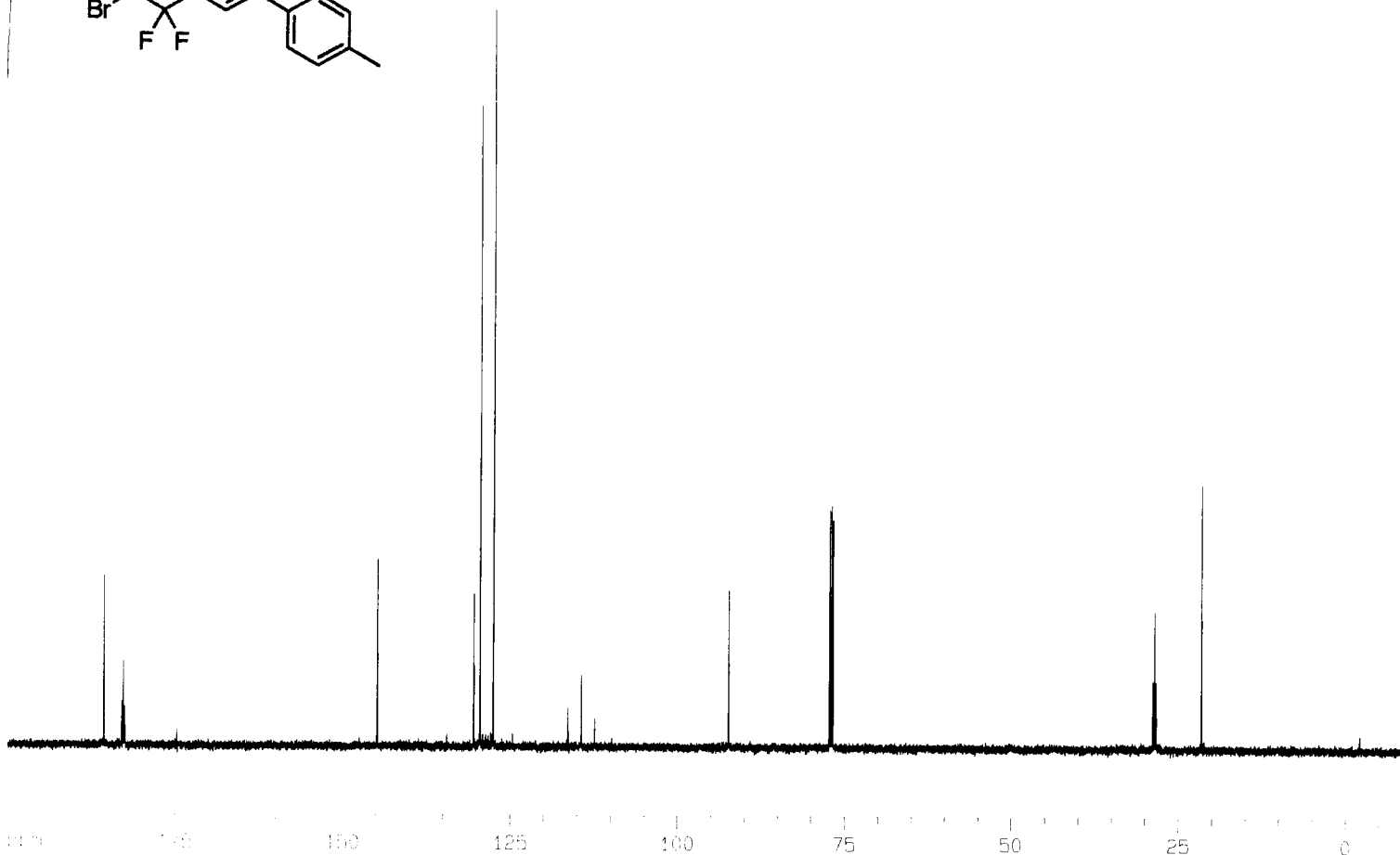
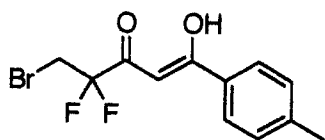
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300270 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 10.57 cm  
F1P 16.000 ppm  
F1 8002.08 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.85000 ppm/cm  
HZCM 425.11050 Hz/cm



Current Data Parameters  
NAME komor1-05.11.16  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20051116  
Time 21.19  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 9195.2  
DW 16.650 usec  
DE 6.00 usec  
TE 297.2 K  
D1 0.5000000 sec  
d11 0.0300000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

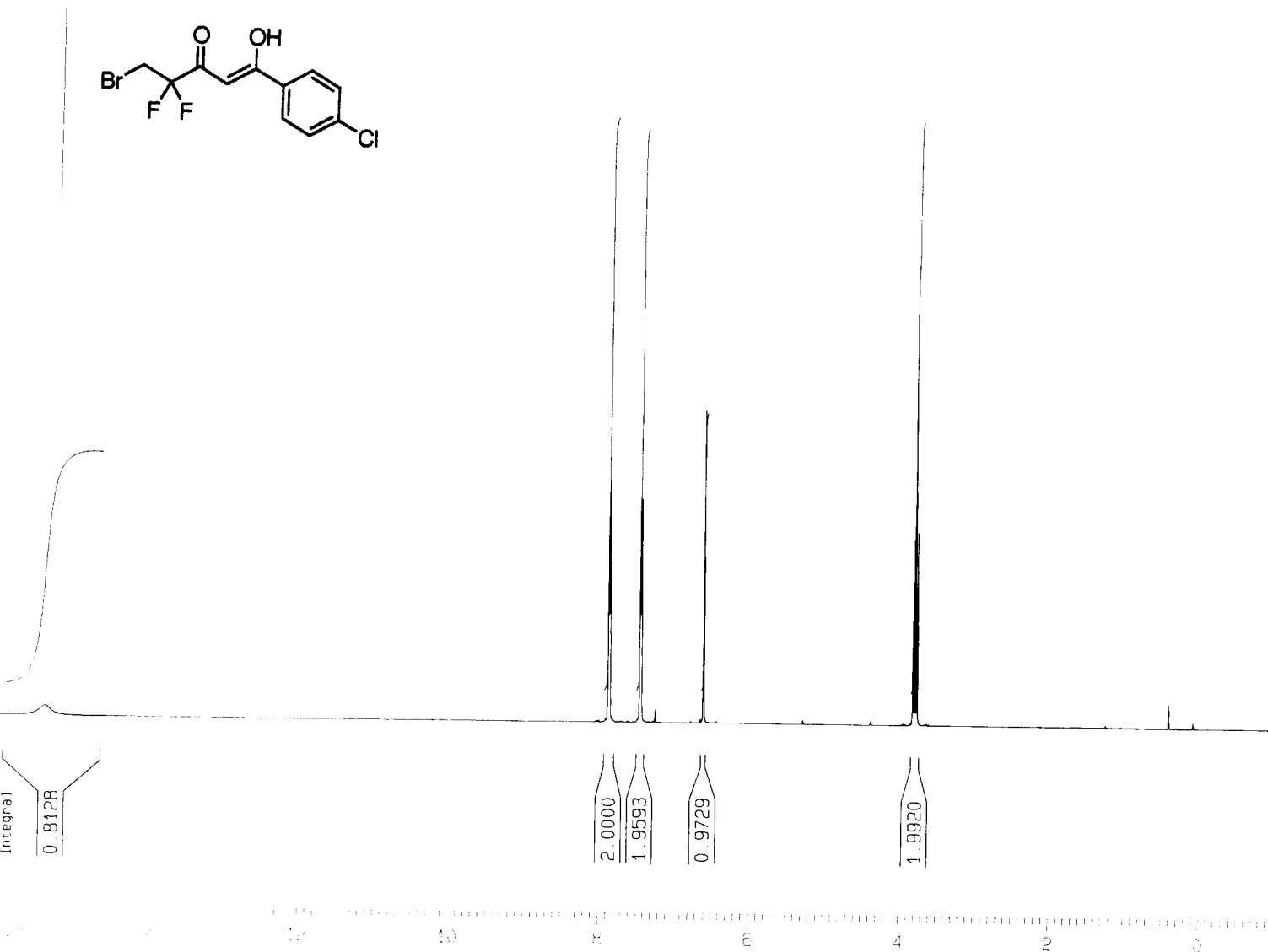
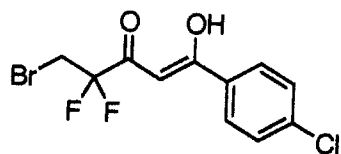
==== CHANNEL f1 =====  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7578088 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.58 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45702 Hz/cm

sample



Current Data Parameters

NAME komori-05.11.30  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20051130  
Time 20.49  
INSTRUM drx500  
PROBHD 5 mm Multinuc1  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 80.6  
DW 48.400 usec  
DE 6.00 usec  
TE 297.1 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SFO1 500.1330885 MHz

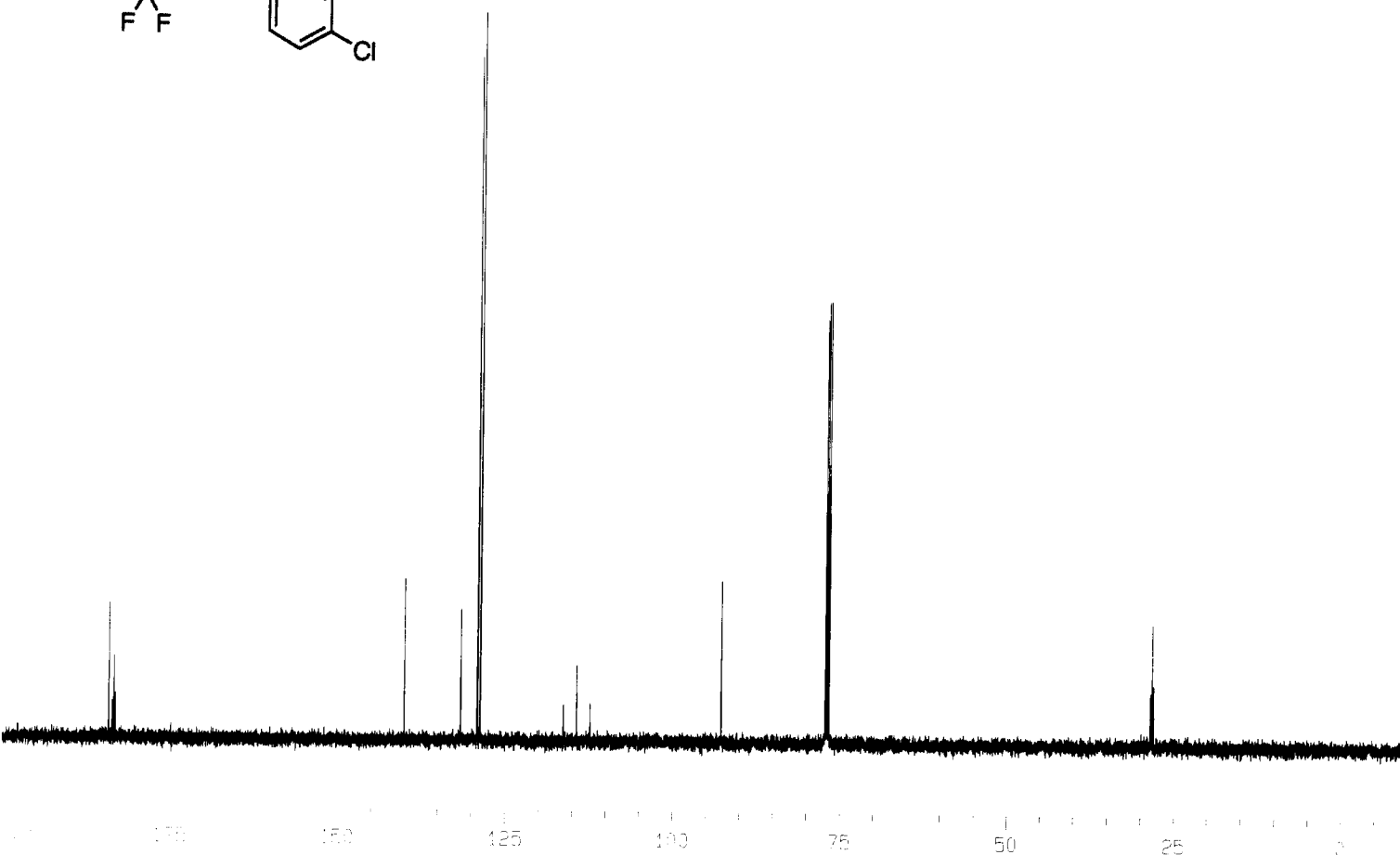
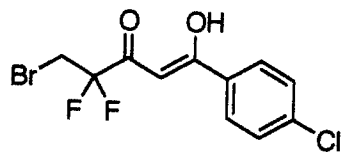
F2 - Processing parameters

SI 32768  
SF 500.1300131 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 5.90 cm  
F1P 16.000 ppm  
F1 8002.08 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.85000 ppm/cm  
HZCM 425.11047 Hz/cm





Current Data Parameters  
NAME komor1-05.11.30  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20051130  
Time 20.58  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDC13  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 4597.6  
DW 16.650 usec  
DE 6.00 usec  
TE 297.8 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

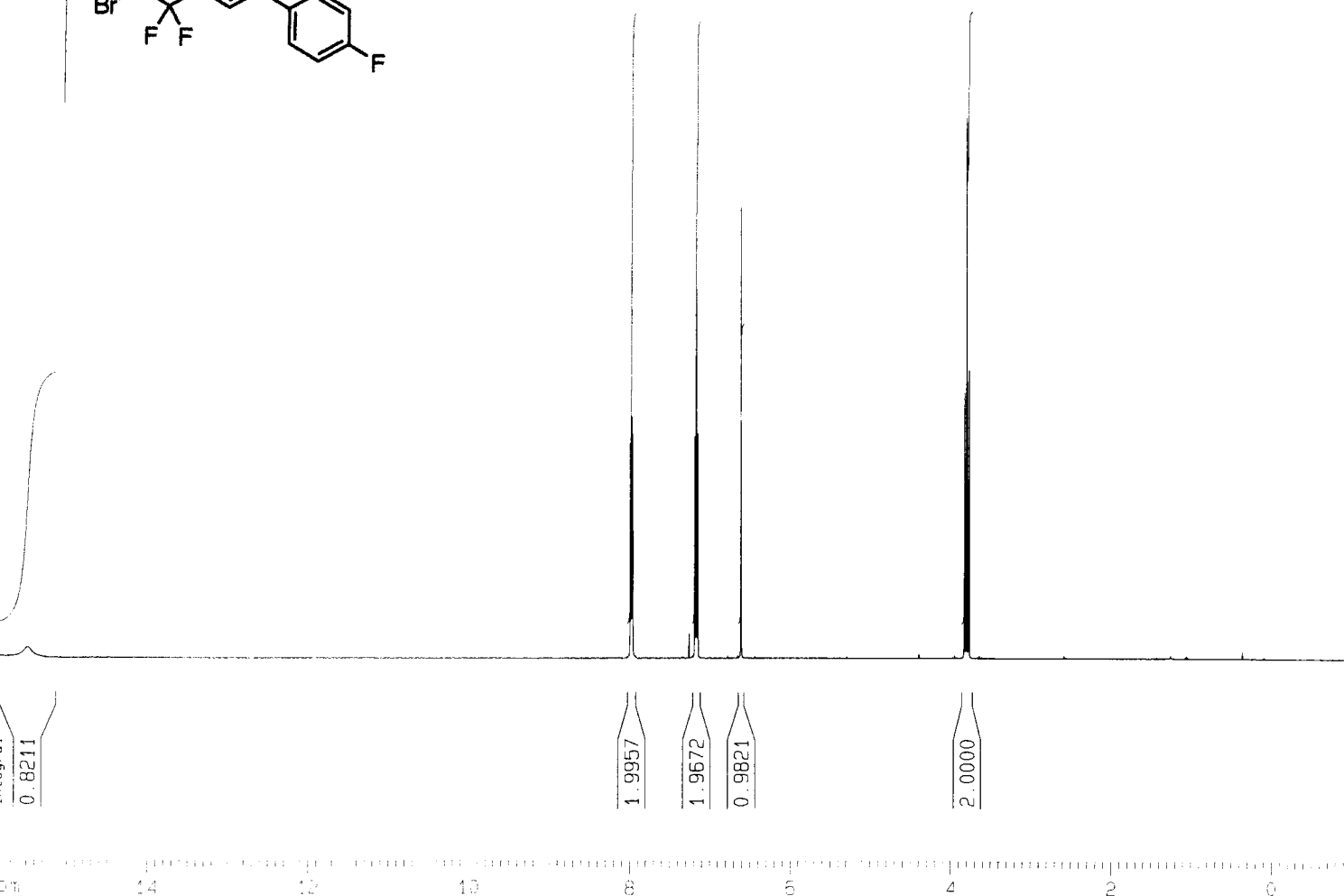
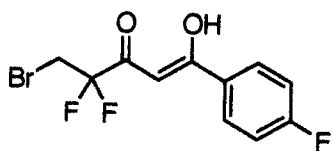
==== CHANNEL f1 =====  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7577987 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.55 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45679 Hz/cm

sample



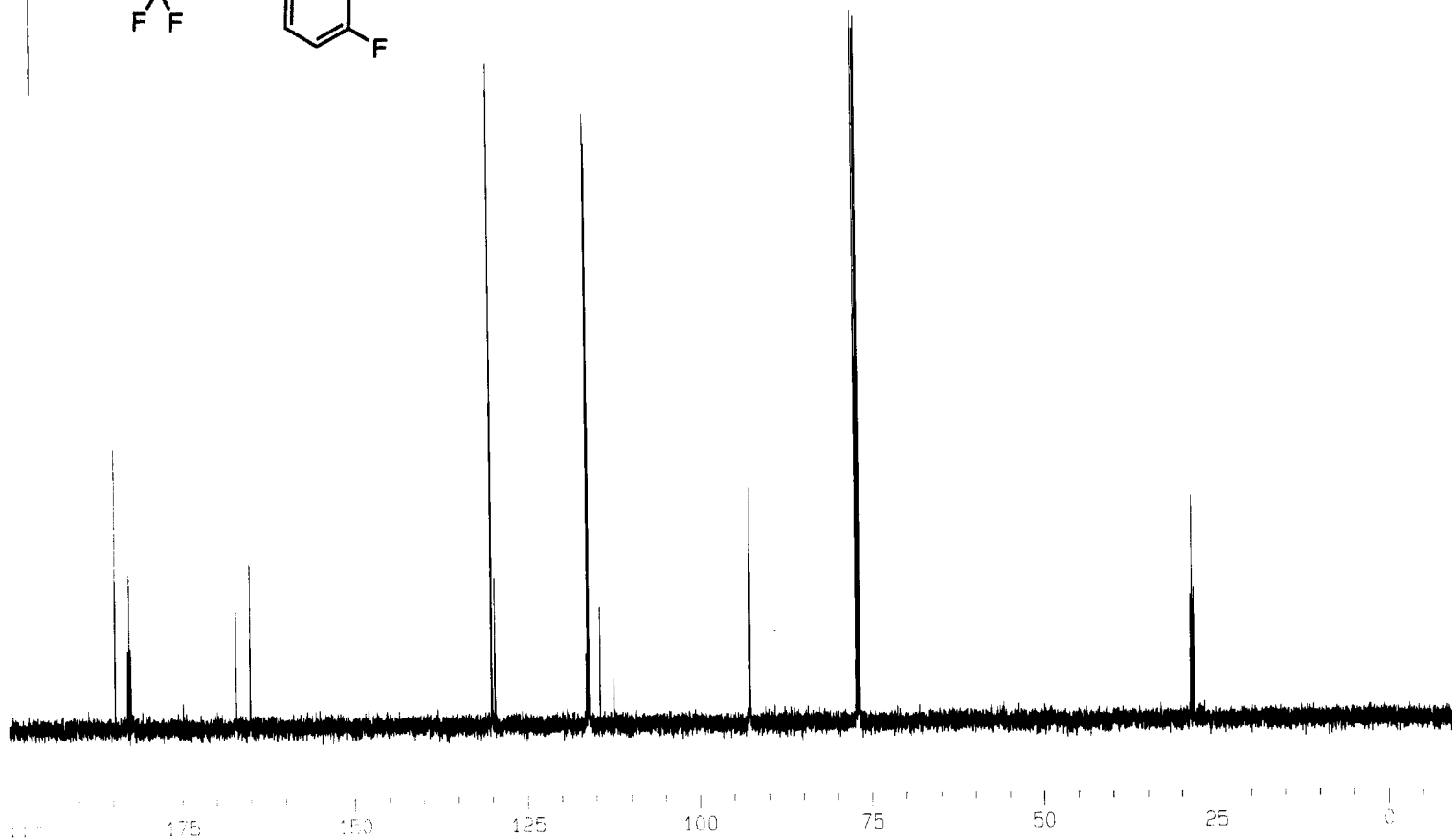
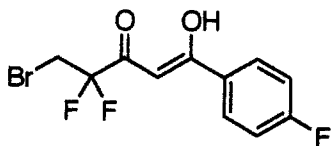
Current Data Parameters  
NAME komori-05.11.21  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20051121  
Time 20.36  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 71.8  
DW 48.400 usec  
DE 6.00 usec  
TE 296.2 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

===== CHANNEL f1 =====  
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SFO1 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300131 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters  
CX 20.00 cm  
CY 8.23 cm  
F1P 16.000 ppm  
F1 8002.08 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.85000 ppm/cm  
HZCM 425.11047 Hz/cm



Current Data Parameters  
NAME komori-05.11.21  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20051121  
Time 20.44  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 296.9 K  
D1 0.5000000 sec  
d11 0.0300000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

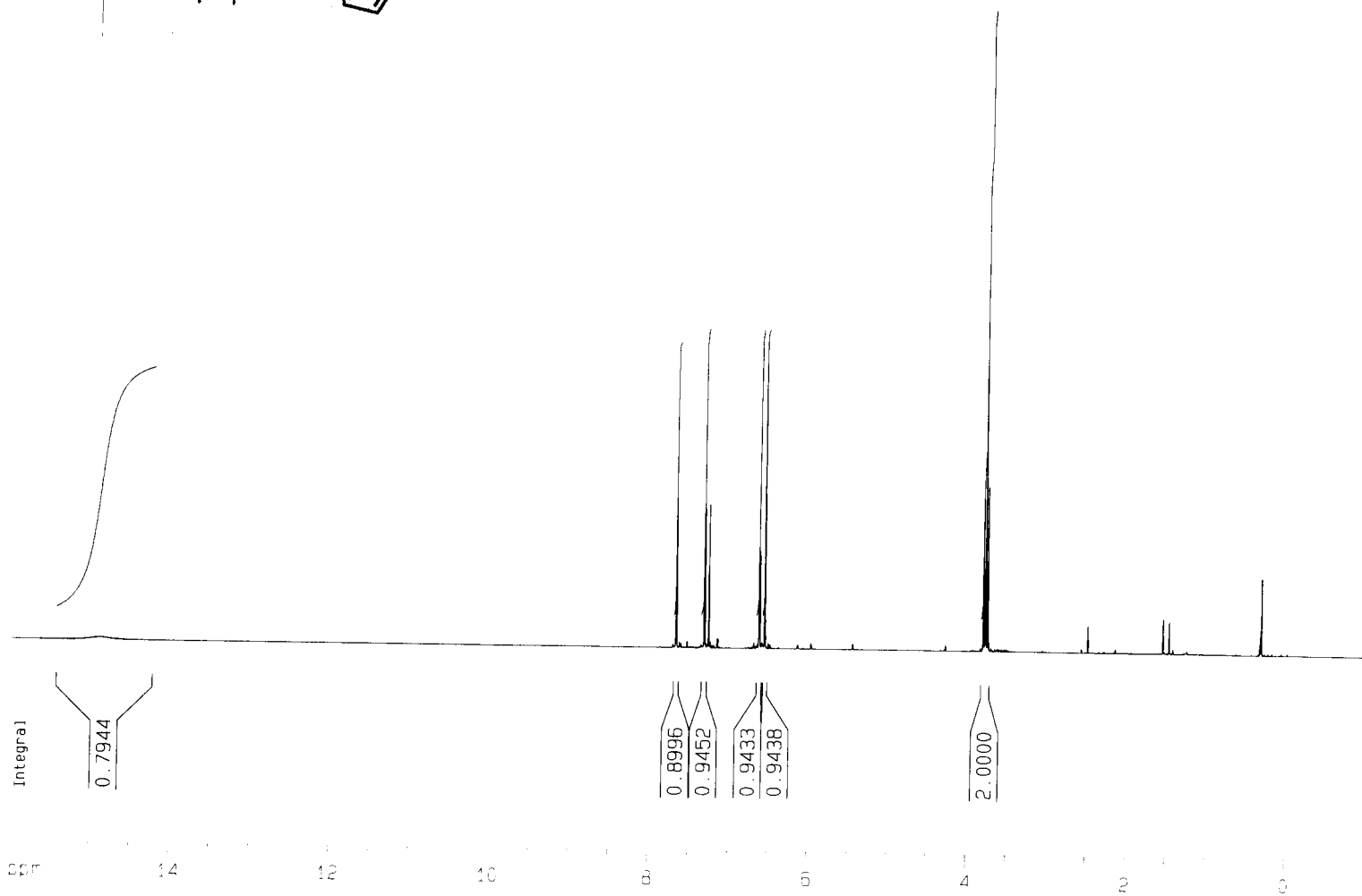
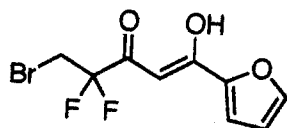
==== CHANNEL f1 =====  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.757978 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.19 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45679 Hz/cm

sample



Current Data Parameters  
NAME komori-06.3.2(G)  
EXPNO 1  
PROCNO 1

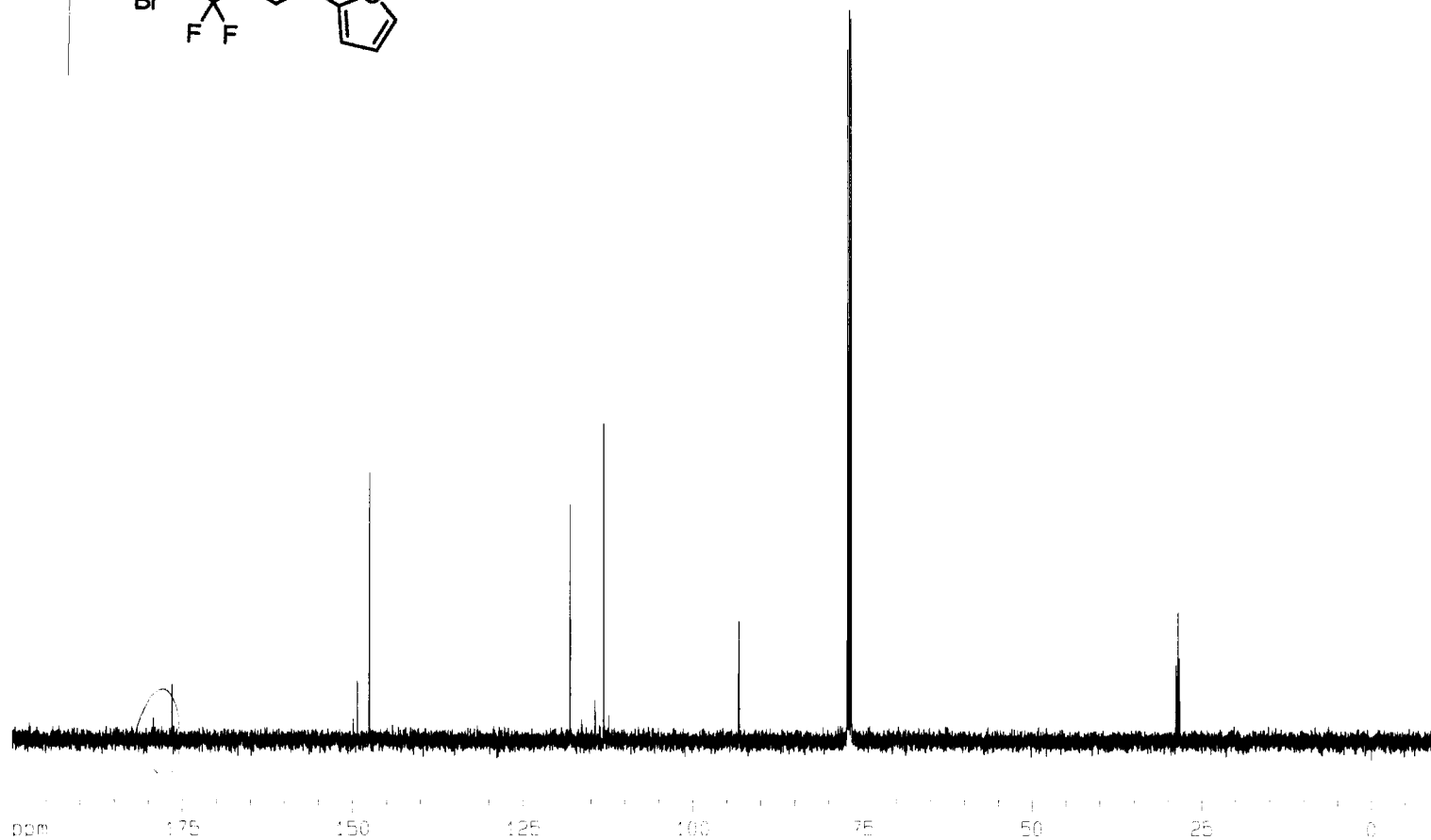
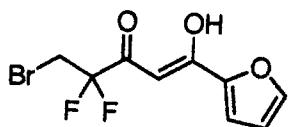
F2 - Acquisition Parameters  
Date\_ 20060302  
Time 18.32  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
JS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 574.7  
DW 48.400 usec  
DE 6.00 usec  
TE 295.6 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

===== CHANNEL f1 =====  
NUC1 1H  
P1 10.50 usec  
PL1 -1.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300131 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters  
CX 20.00 cm  
CY 4.92 cm  
F1P 16.000 ppm  
F1 8002.08 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.85000 ppm/cm  
HZCM 425.11047 Hz/cm

C



Current Data Parameters

NAME komor1-06.3.11-6  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20060311  
Time 13.10  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 2580.3  
DQ 16.650 usec  
DE 6.00 usec  
TE 298.0 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

NUC1 13C  
P1 9.00 usec  
PL1 -1.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 18.58 dB  
PL13 19.00 dB  
SF02 500.1320005 MHz

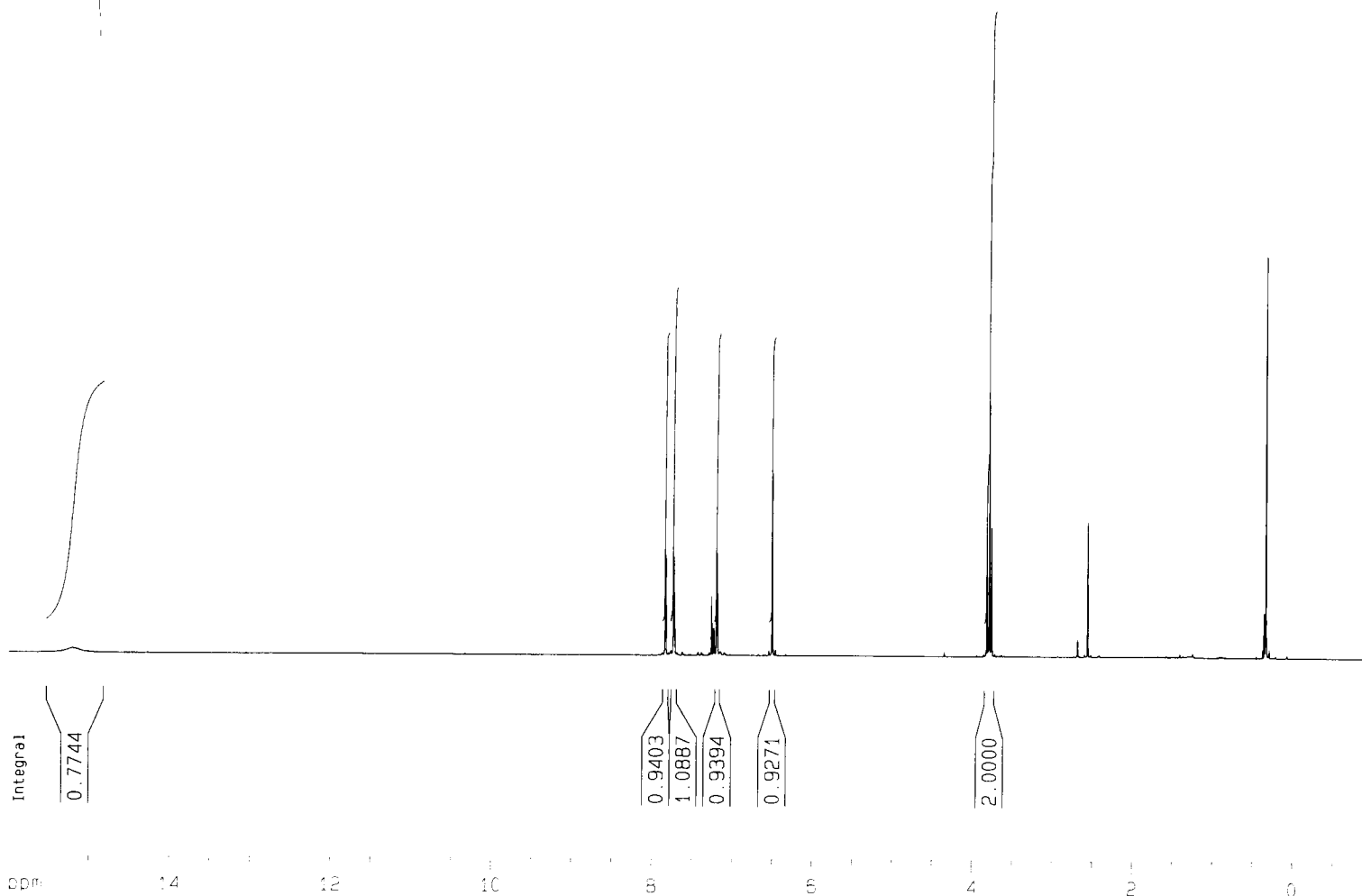
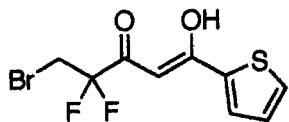
F2 - Processing parameters

SI 32768  
SF 125.7577923 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 10.17 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45679 Hz/cm

sample



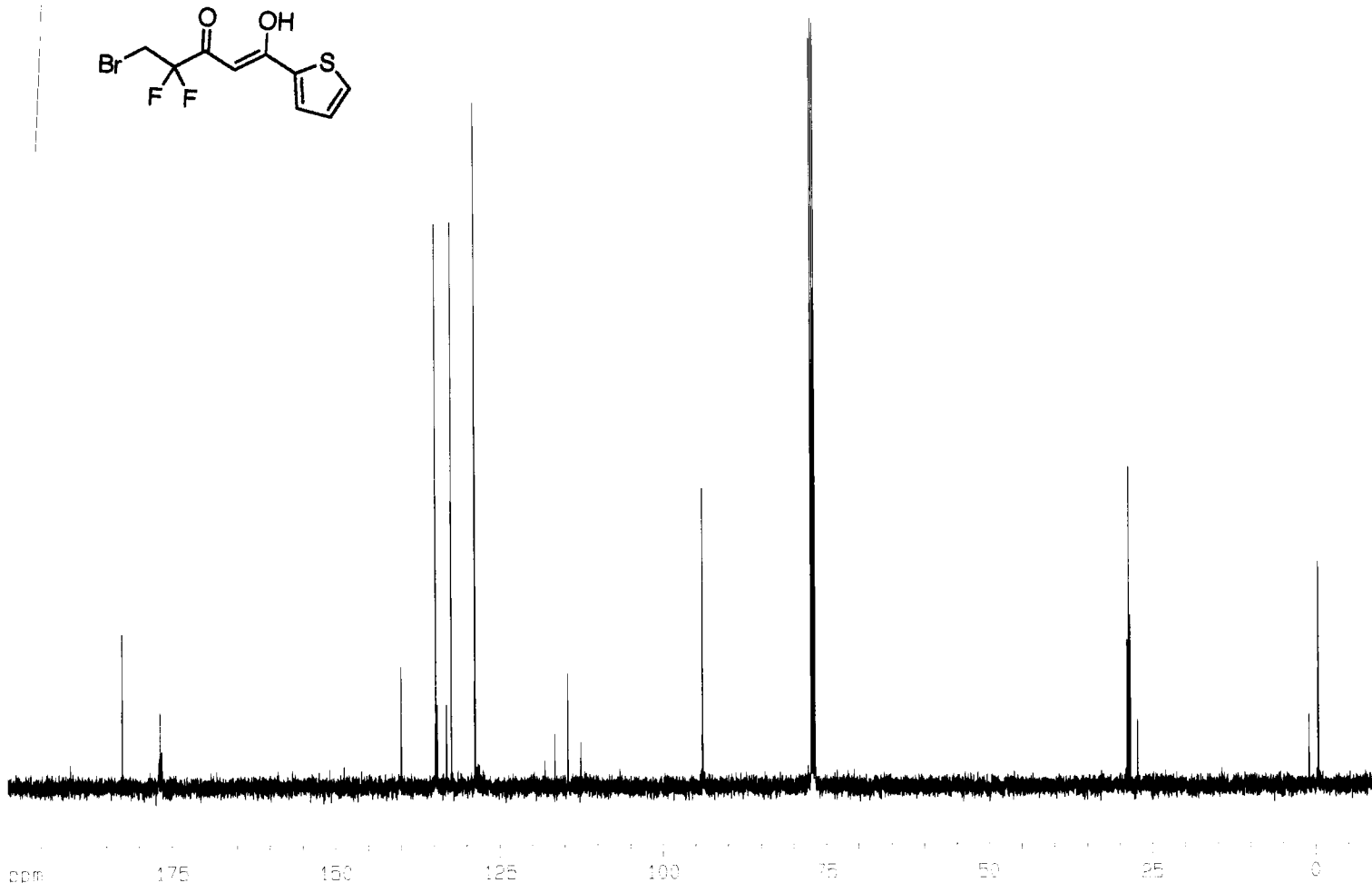
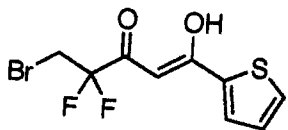
Current Data Parameters  
NAME komori-06.3.2(Y)  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20060302  
Time 18.28  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 287.4  
DW 48.400 usec  
DE 6.00 usec  
TE 295.6 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWAK 0.01500000 sec

==== CHANNEL f1 =====  
NUC1 1H  
P1 10.50 usec  
PL1 -1.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters  
SI 32768  
SF 500.1300134 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters  
CX 20.00 cm  
CY 5.90 cm  
F1P 16.000 ppm  
F1 8002.08 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.85000 ppm/cm  
HZCM 425.11047 Hz/cm



Current Data Parameters  
NAME komor1-06.3.11-Y  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20060311  
Time 13.20  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDC13  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DQ 16.650 usec  
DE 6.00 usec  
TE 298.1 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

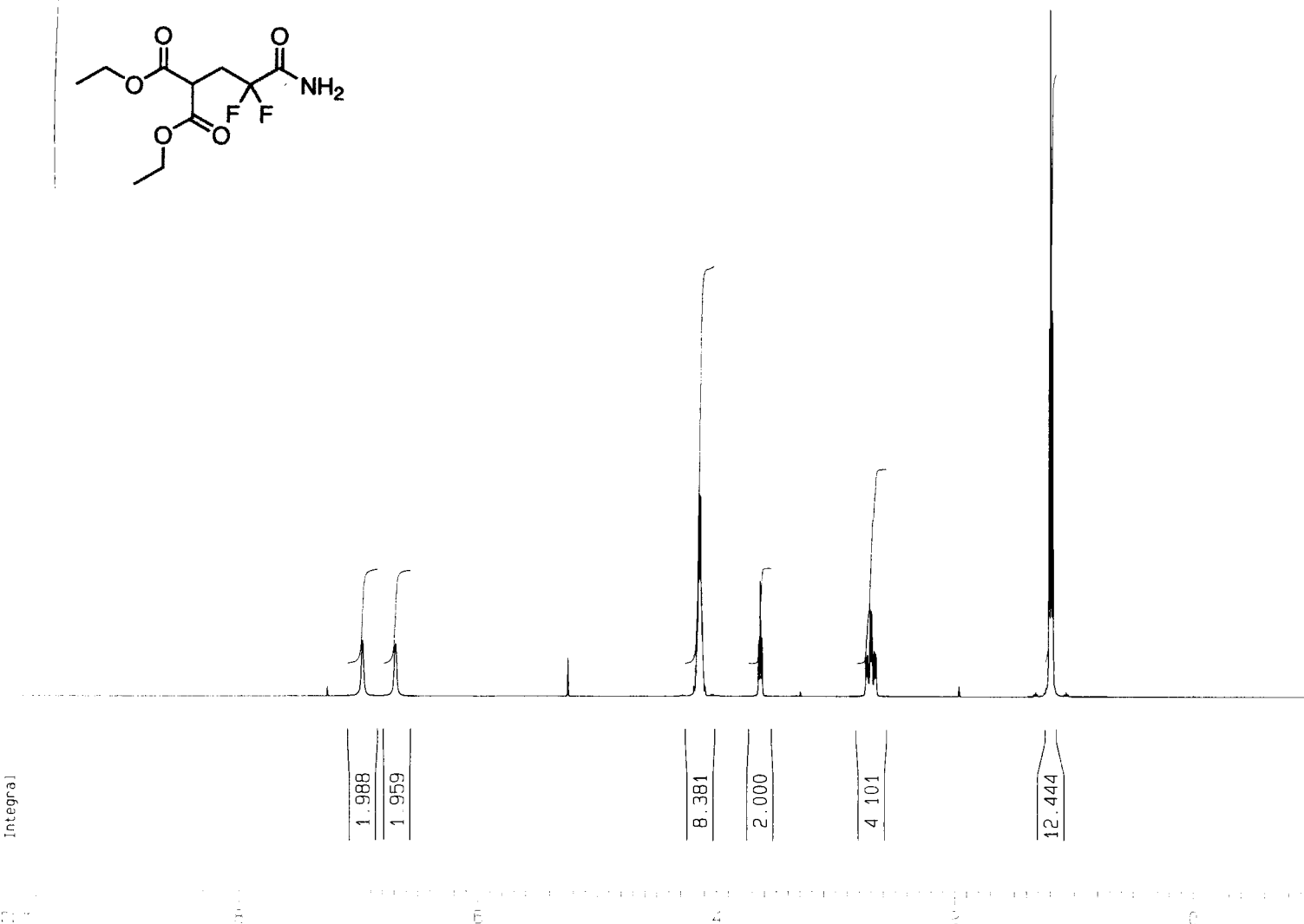
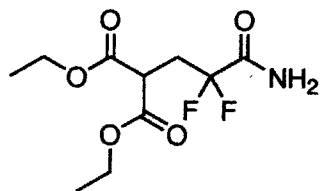
=====  
CHANNEL f1  
NUC1 13C  
P1 9.00 usec  
PL1 -1.00 dB  
SF01 125.7703643 MHz

=====  
CHANNEL f2  
CPOPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 18.58 dB  
PL13 19.00 dB  
SF02 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7577951 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 11.10 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45679 Hz/cm

sample



Current Data Parameters

NAME komori-06.1.7  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20060107  
Time 18.57  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 25.4  
DW 48.400 usec  
DE 6.00 usec  
TE 292.5 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

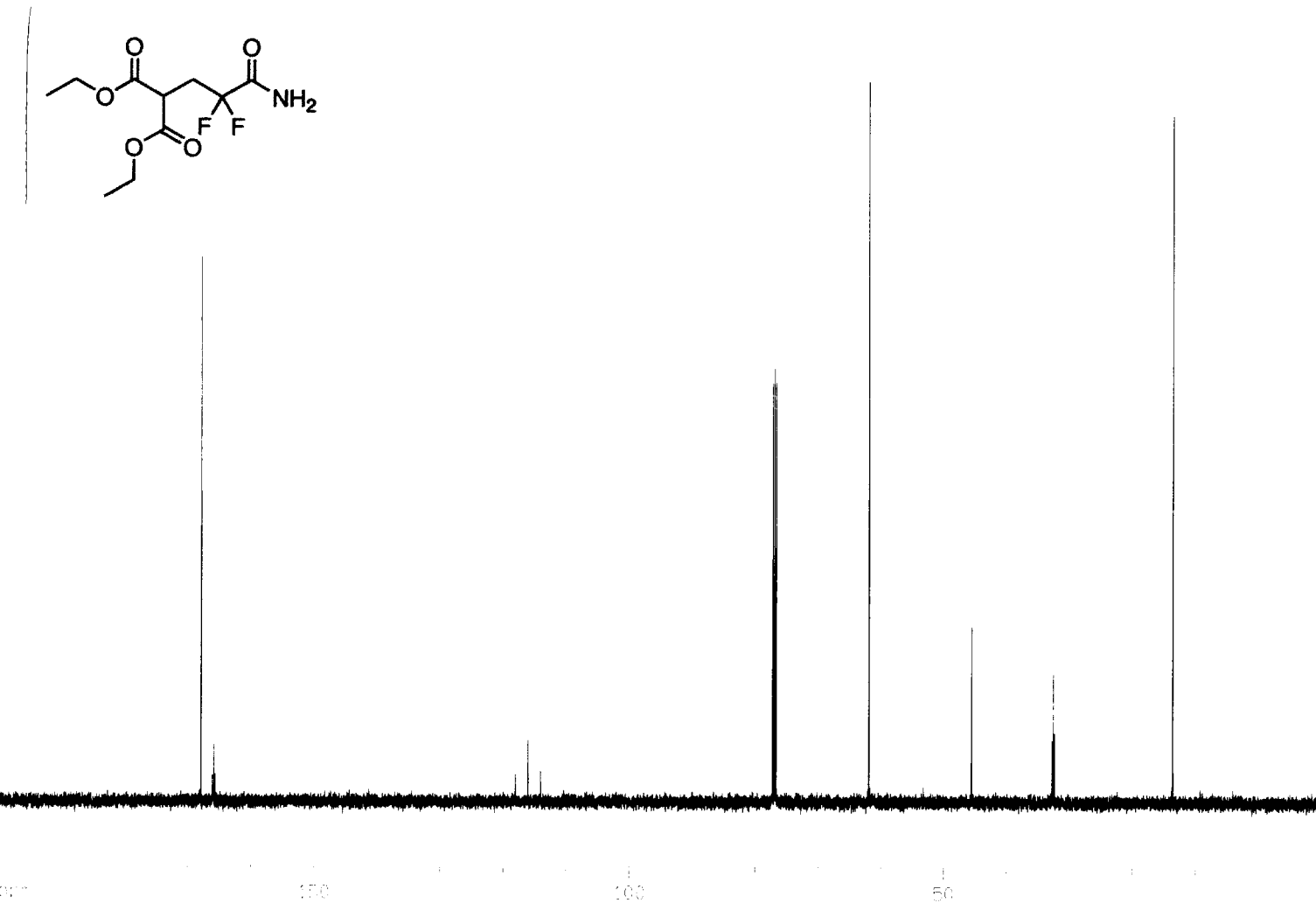
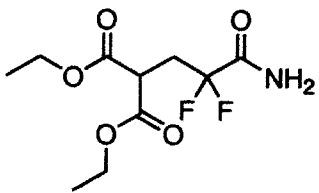
F2 - Processing parameters

SF 500.1300121 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 10.98 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm





Current Data Parameters

NAME komori-06.1.7  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20060107  
Time 19.05  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 293.2 K  
D1 0.5000000 sec  
d11 0.0300000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

==== CHANNEL f1 =====

NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SFO1 125.7703643 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SFO2 500.1320005 MHz

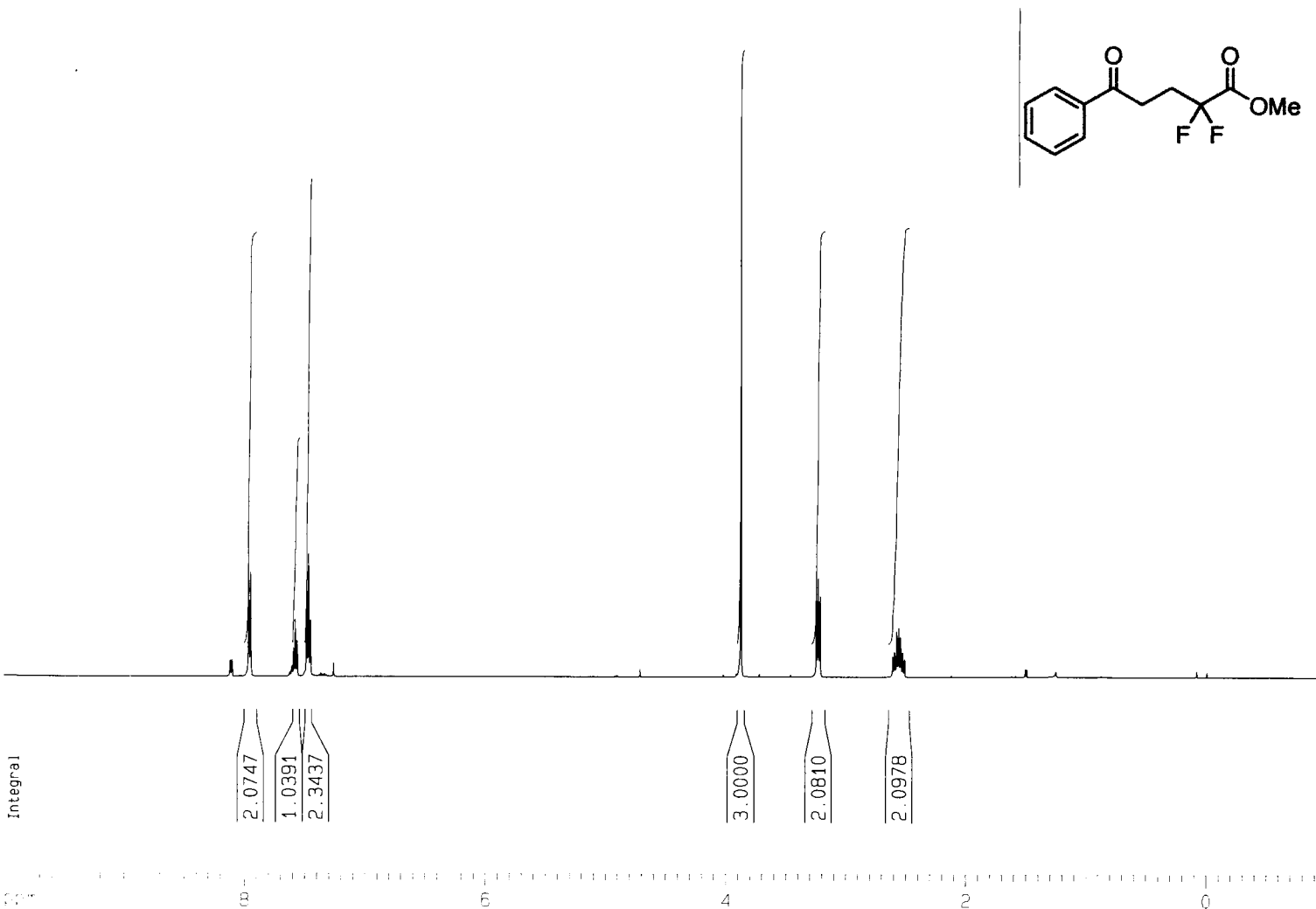
F2 - Processing parameters

SI 32768  
SF 125.7578070 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 0.10

1D NMR plot parameters

CX 20.00 cm  
CY 10.93 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45691 Hz/cm

sample



Current Data Parameters

NAME yamada-05.3.1  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050301  
Time 18.42  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 128  
DW 48.400 usec  
DE 6.00 usec  
TE 295.4 K  
D1 1.0000000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

==== CHANNEL f1 =====

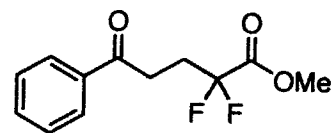
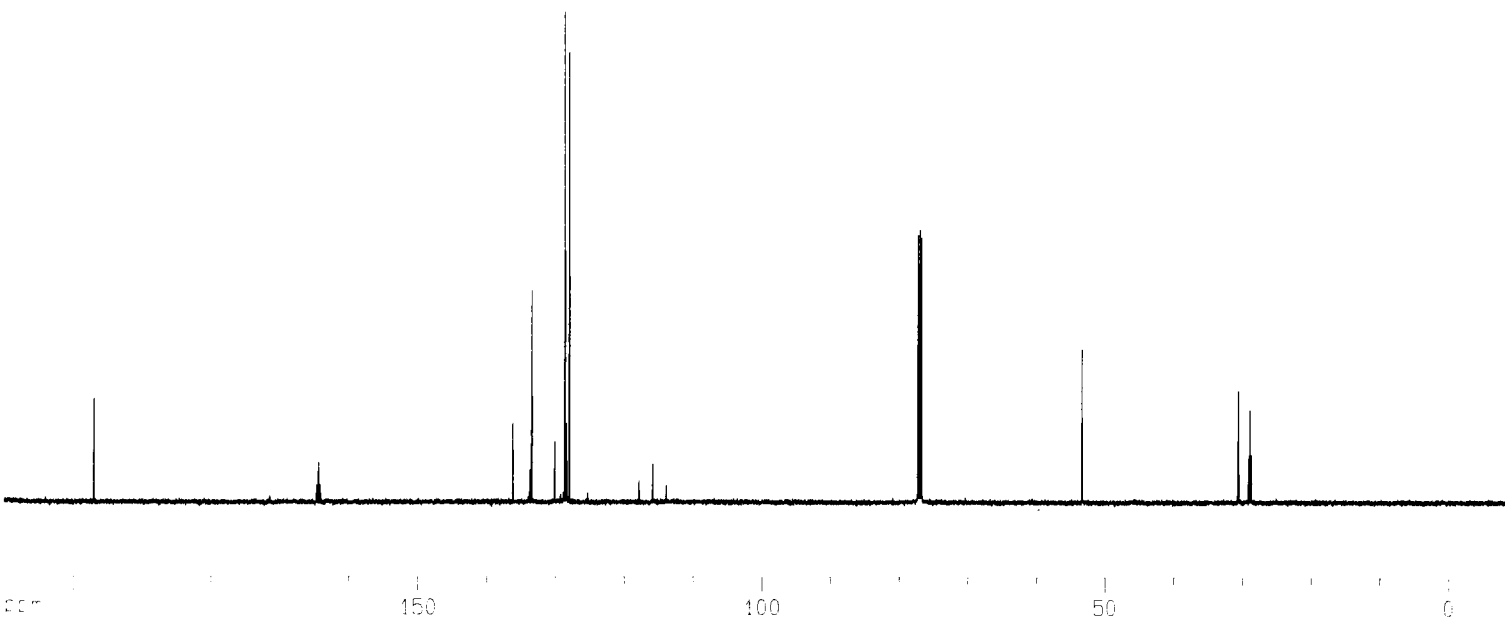
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300131 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 7.69 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters  
NAME yamada-05.3.1  
EXPNO 3  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20050301  
Time 18.51  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDC13  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 296.4 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

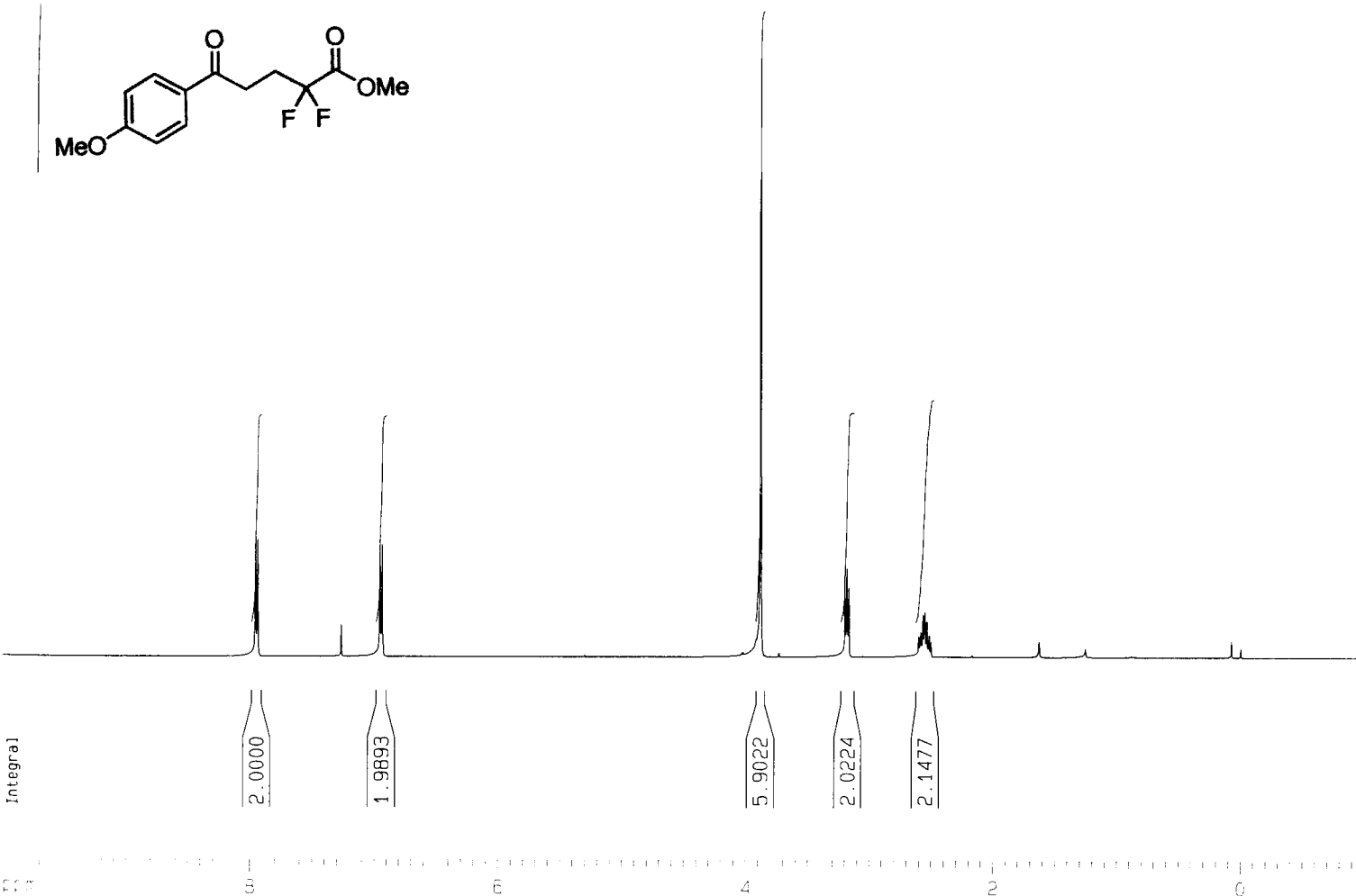
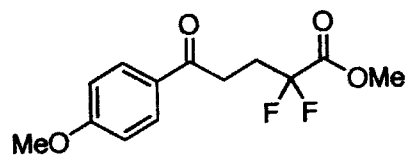
=====  
CHANNEL f1  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

=====  
CHANNEL f2  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7577987 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 6.51 cm  
F1P 210.000 ppm  
F1 26409.14 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 11.00000 ppm/cm  
HZCM 1383.33569 Hz/cm

sample



Current Data Parameters

NAME yamada-05.3.2  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050302  
Time 15.15  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 228.1  
DW 48.400 usec  
DE 6.00 usec  
TE 295.5 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

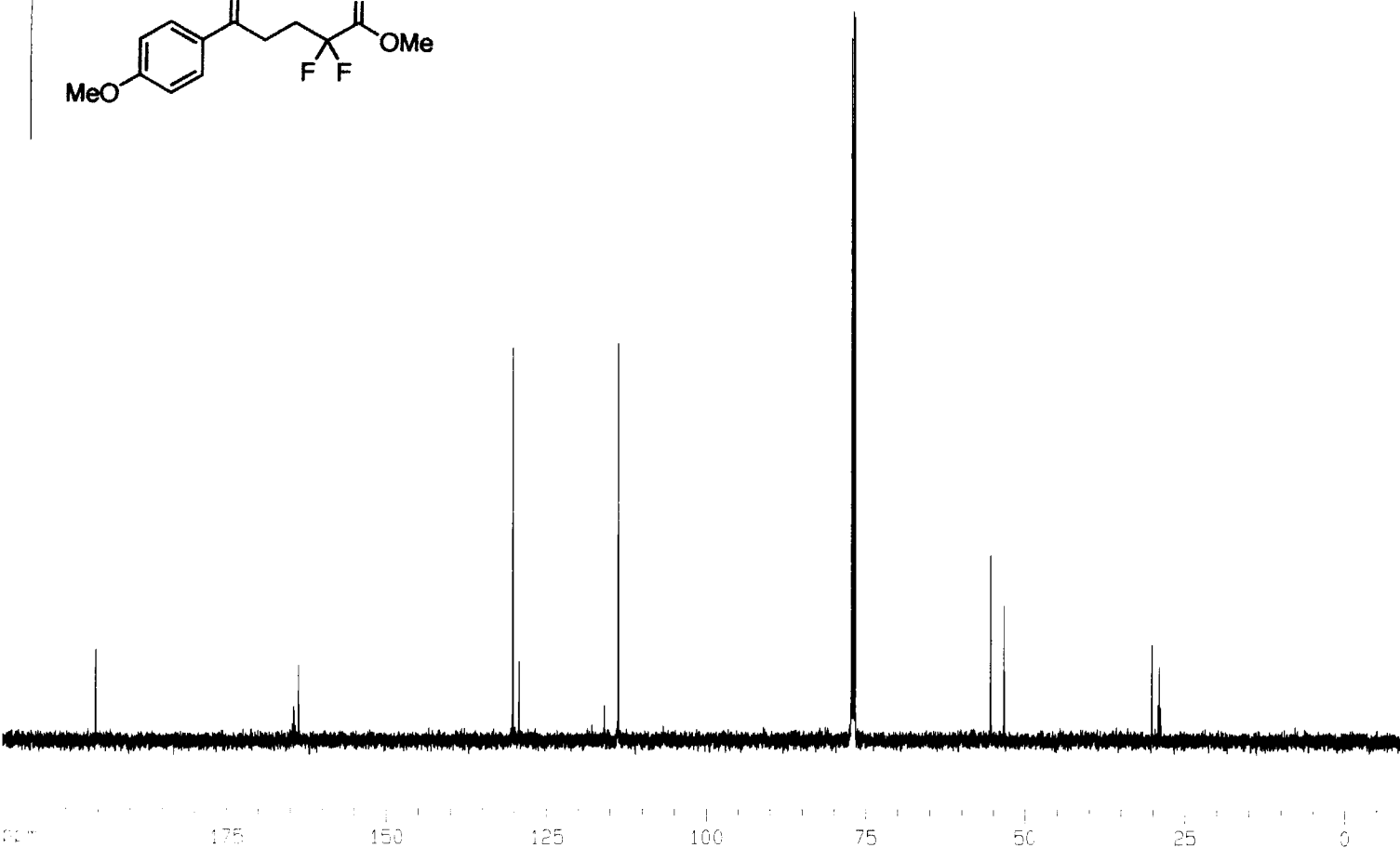
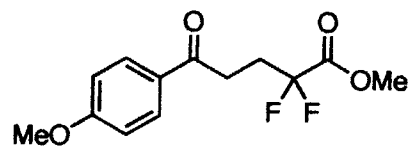
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300106 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 7.17 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters  
NAME yamada-05.3.2  
EXPNO 3  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20050302  
Time 15.23  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 296.5 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

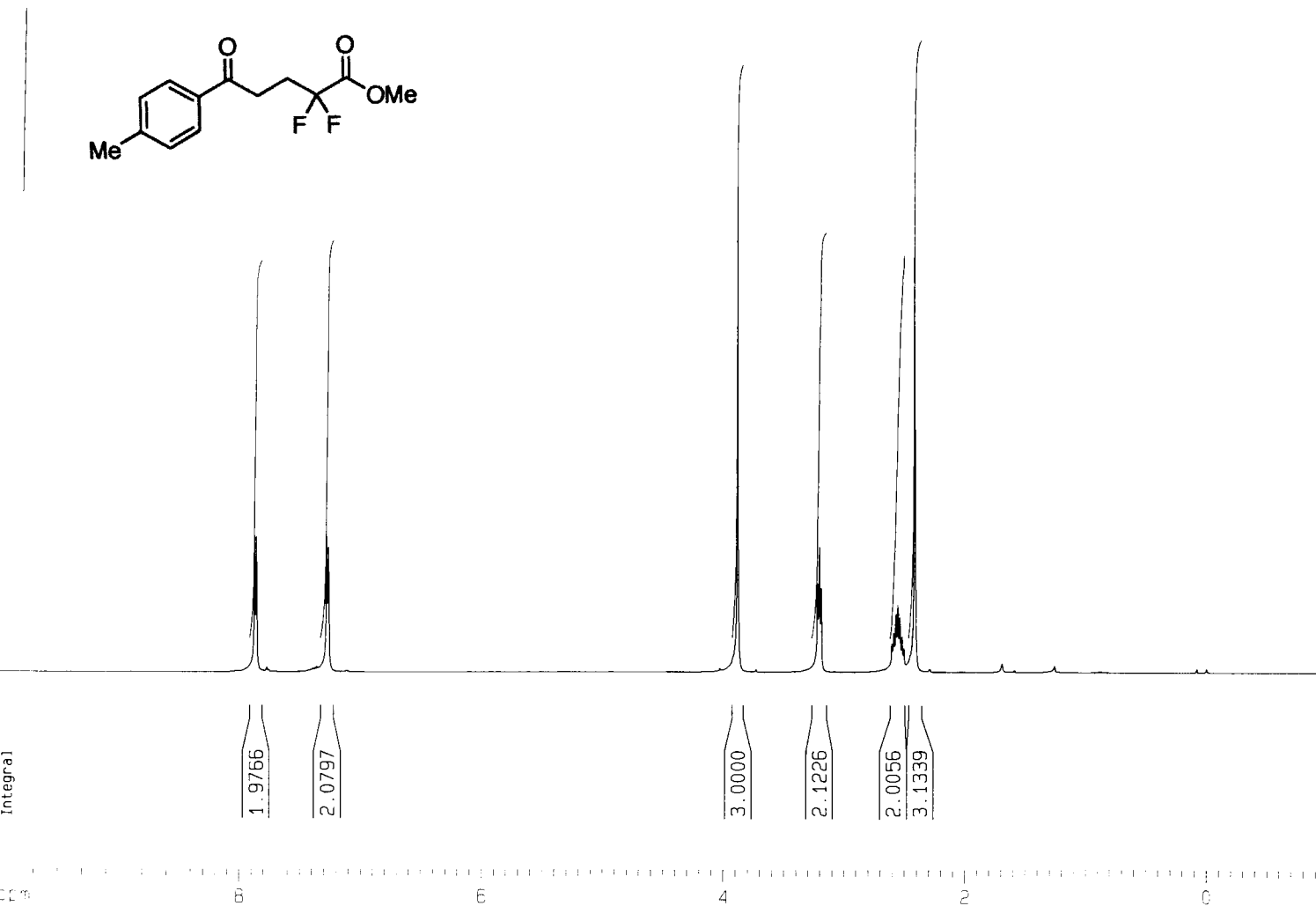
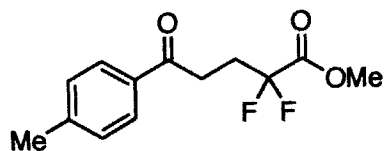
==== CHANNEL f1 =====  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7577942 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.44 cm  
F1P 210.000 ppm  
F1 26409.14 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 11.00000 ppm/cm  
HZCM 1383.33569 Hz/cm

sample



Current Data Parameters

NAME yamada-05.3.9  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050309  
Time 18.26  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 128  
DW 48.400 usec  
DE 6.00 usec  
TE 295.9 K  
D1 1.0000000 sec  
MCREST 0.0000000 sec  
MCWAK 0.01500000 sec

==== CHANNEL f1 =====

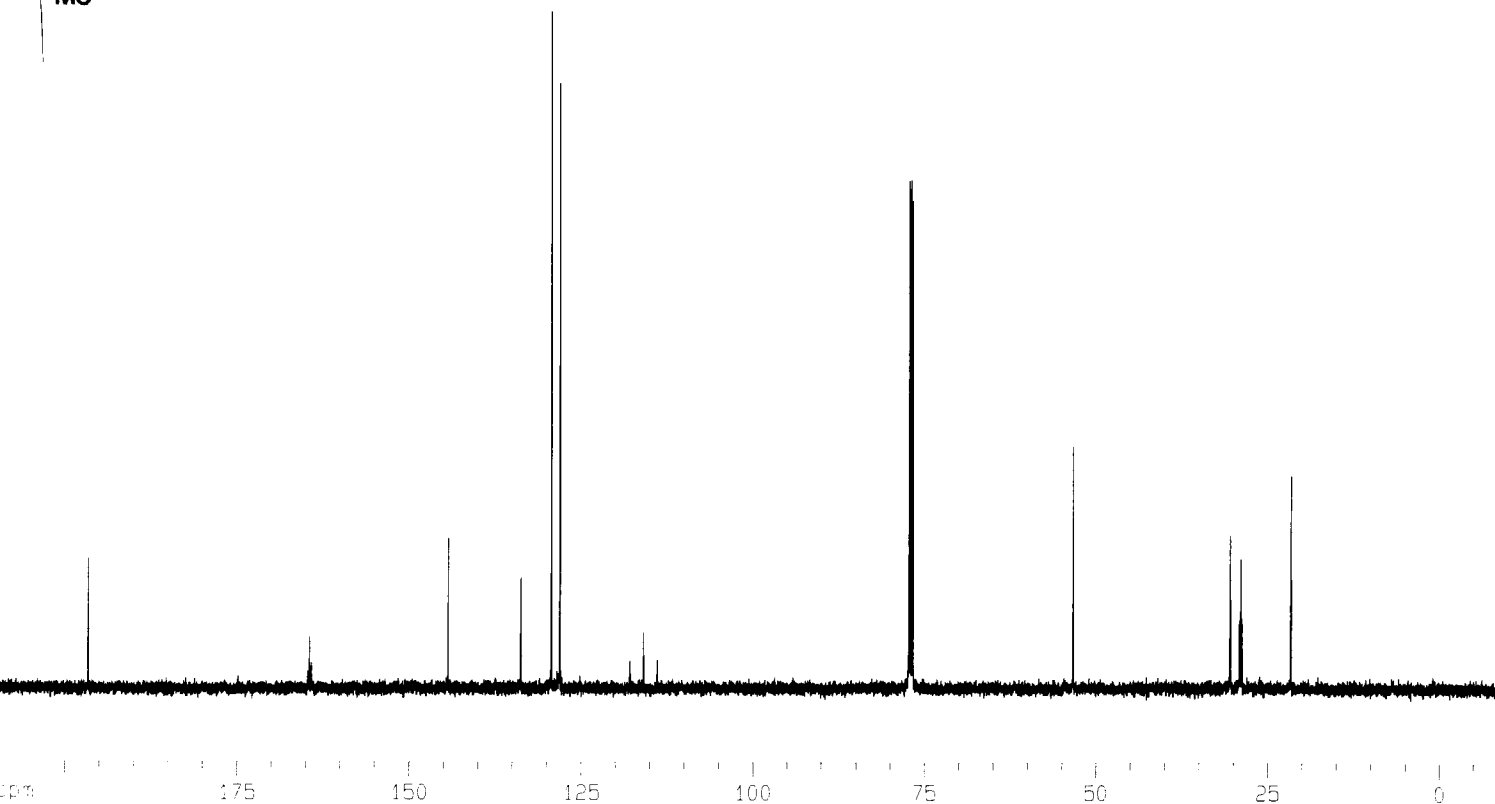
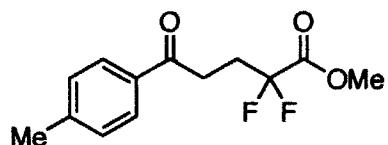
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SFO1 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300096 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 6.77 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters

NAME yamada-05 3.9  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050309  
Time 18.34  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT COC13  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 5160.6  
DW 16.650 usec  
DE 6.00 usec  
TE 297.0 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

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

NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

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

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

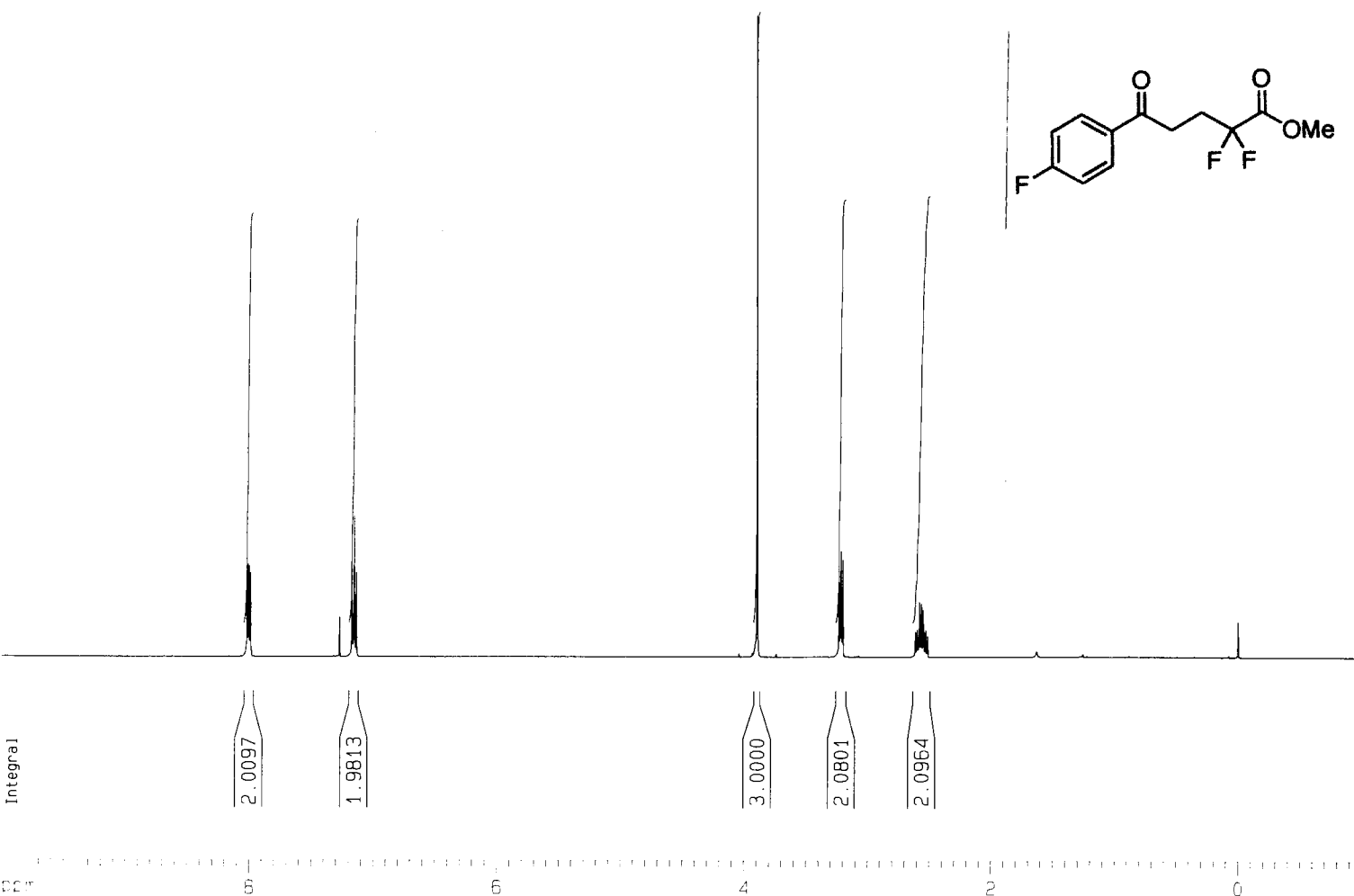
F2 - Processing parameters

SI 32768  
SF 125.7577960 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 8.95 cm  
F1P 210.000 ppm  
F1 26409.14 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 11.00000 ppm/cm  
HZCM 1383.33569 Hz/cm

sample



Current Data Parameters

NAME yamada-05.3.4-G  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050304  
Time 19.35  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 203.2  
DW 48.400 usec  
DE 6.00 usec  
TE 295.6 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

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

NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SFO1 500.1330885 MHz

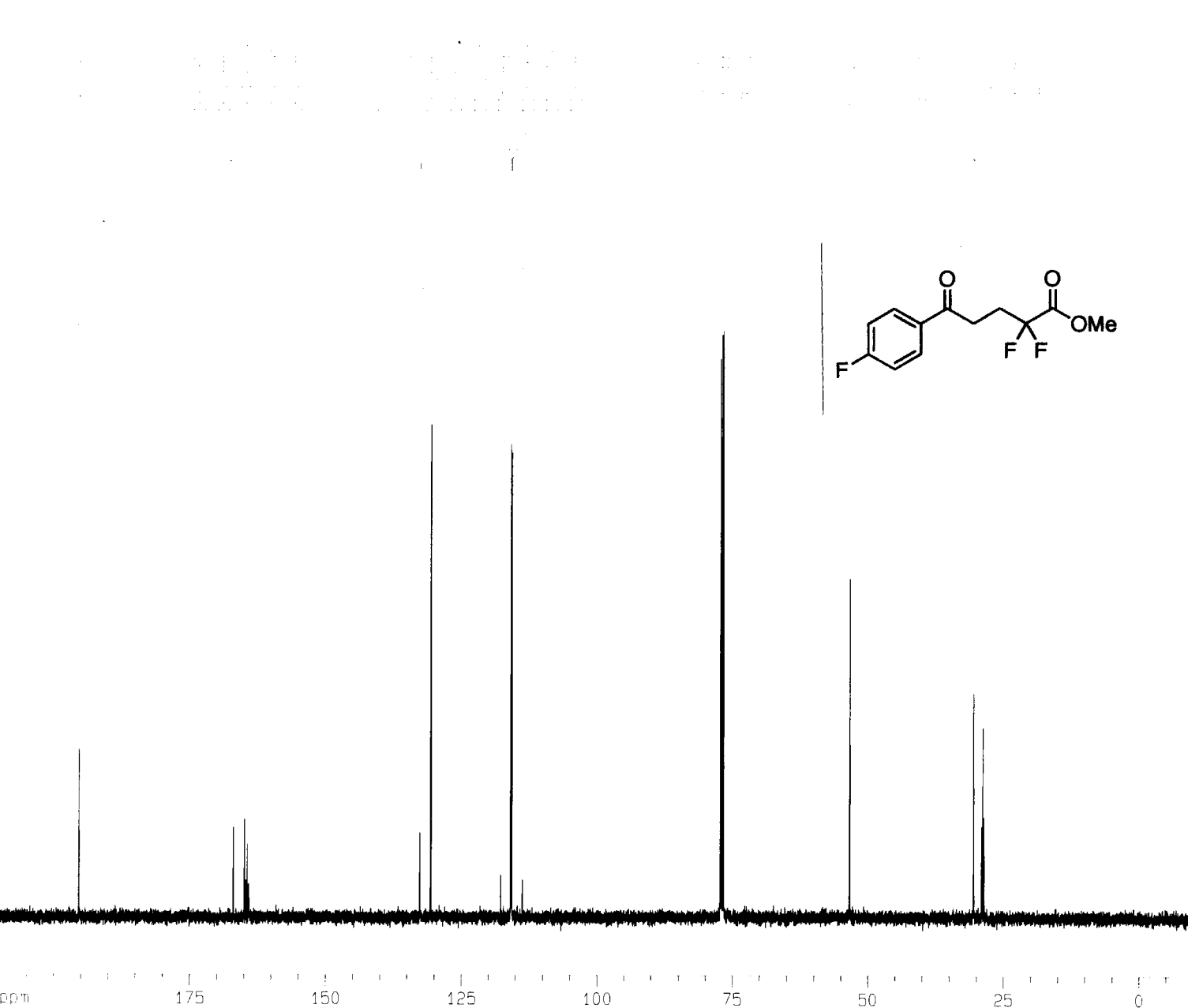
F2 - Processing parameters

SI 32768  
SF 500.1300087 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 9.57 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm





Current Data Parameters

NAME yamada-05.3.7  
EXPNO 3  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050307  
Time 19.13  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDC13  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 6502  
DW 16.650 usec  
DE 6.00 usec  
TE 296.8 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

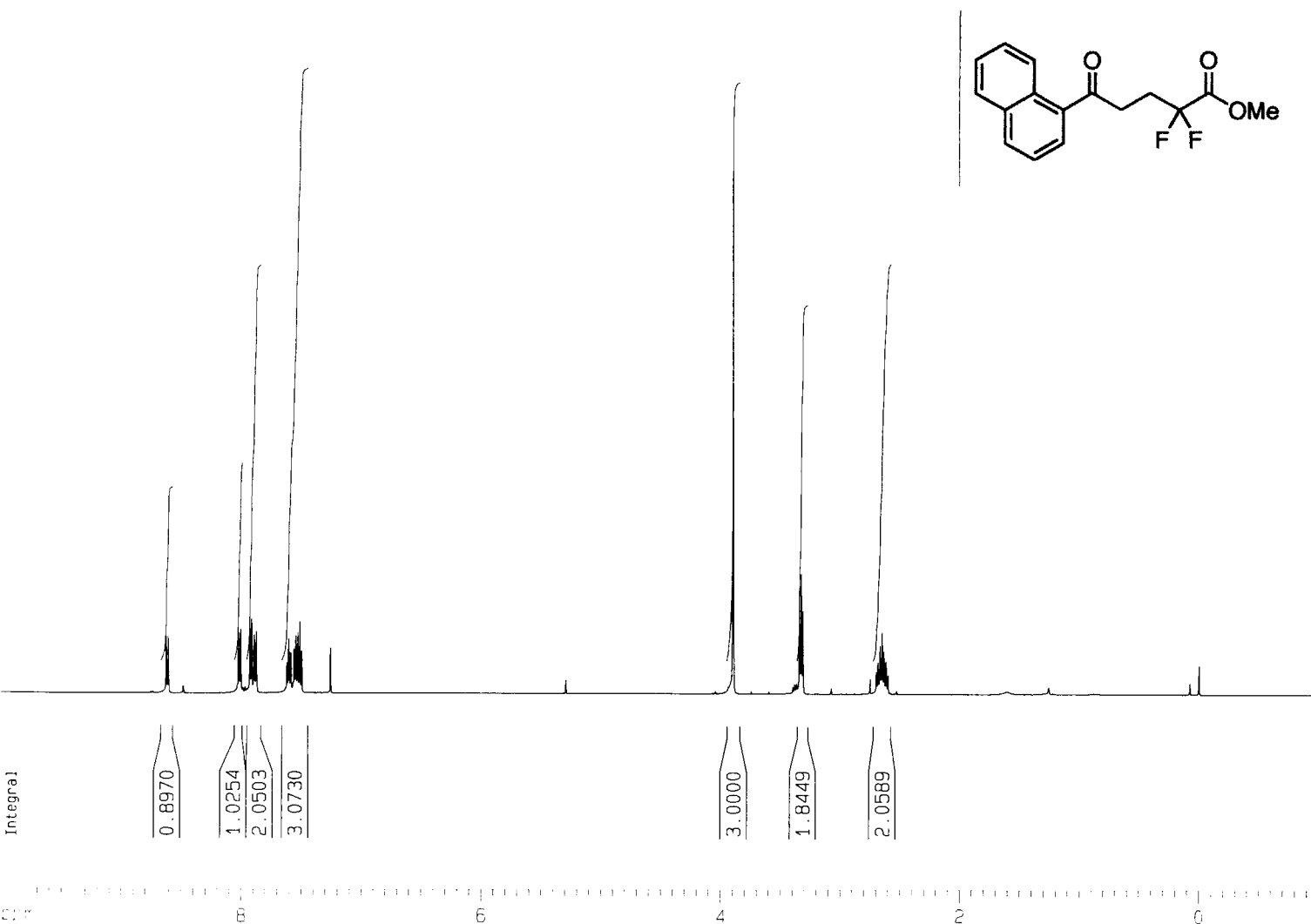
F2 - Processing parameters

SI 32768  
SF 125.7577951 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 9.99 cm  
F1P 210.000 ppm  
F1 26409.14 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 11.00000 ppm/cm  
HZCM 1383.33569 Hz/cm

sample



Current Data Parameters

NAME yamada-05.3.3-G  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050303  
Time 21.37  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 287.4  
DW 48.400 usec  
DE 6.00 usec  
TE 295.6 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

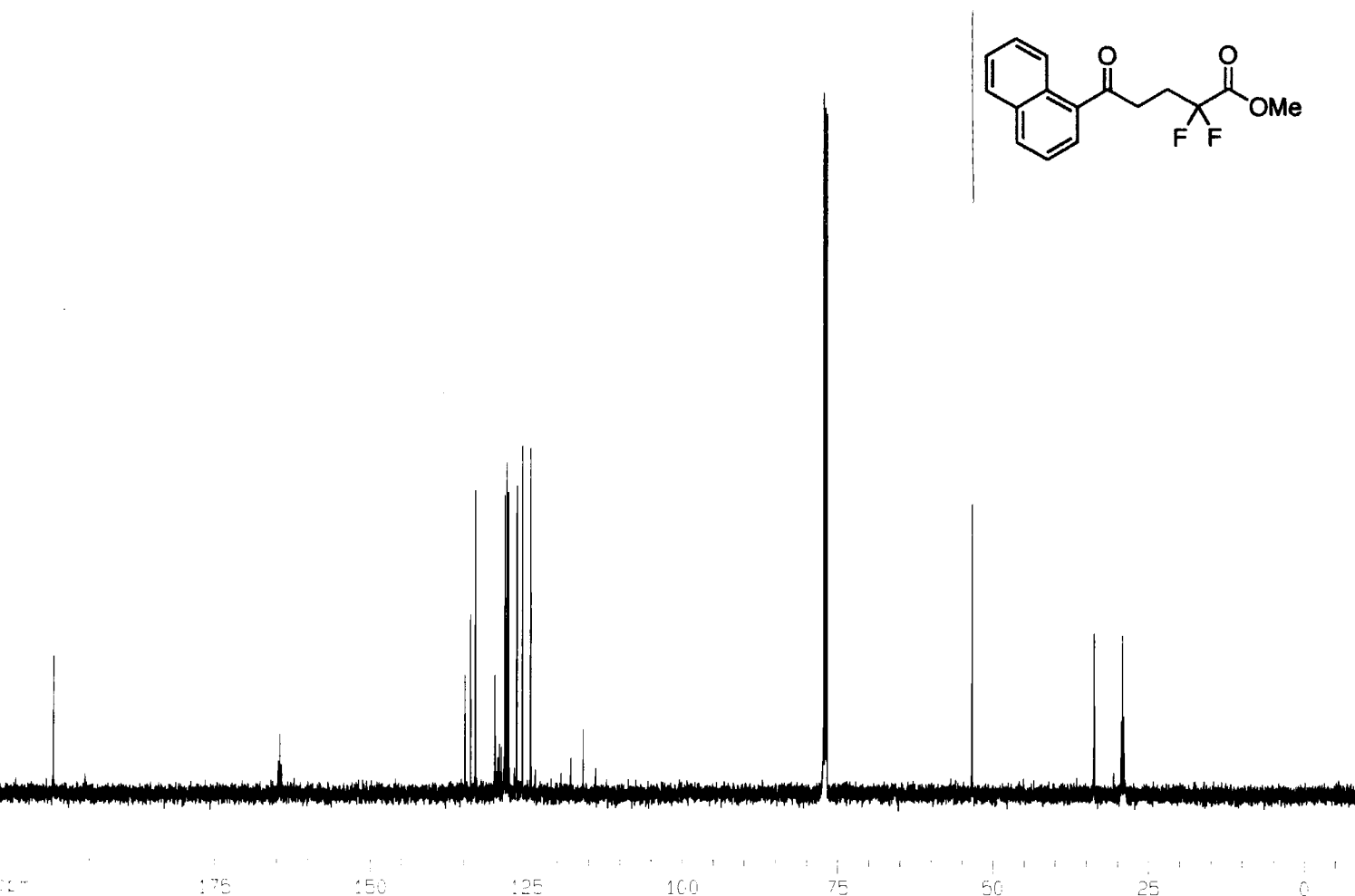
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SFO1 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300153 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 7.95 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters

NAME yamada-05.3.9  
EXPNO 3  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050309  
Time 18.45  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 297.1 K  
D1 0.5000000 sec  
d11 0.0300000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

==== CHANNEL f1 =====

NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

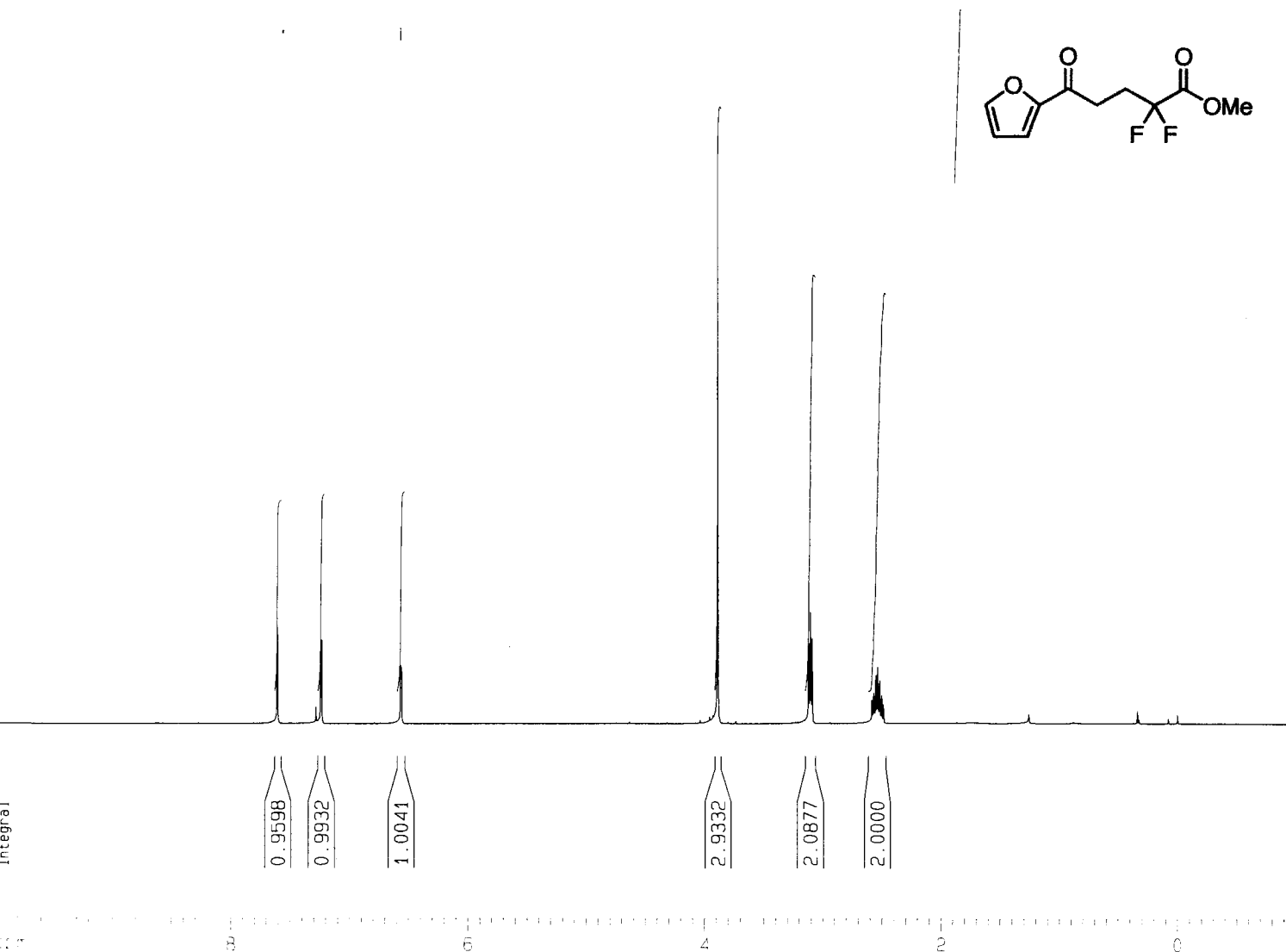
F2 - Processing parameters

SI 32768  
SF 125.7577969 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 10.52 cm  
F1P 210.000 ppm  
F1 26409.14 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 11.00000 ppm/cm  
HZCM 1383.33569 Hz/cm

sample



Current Data Parameters

NAME yamada-05.3.20  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050320  
Time 11.56  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 128  
DW 48.400 usec  
DE 6.00 usec  
TE 295.7 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

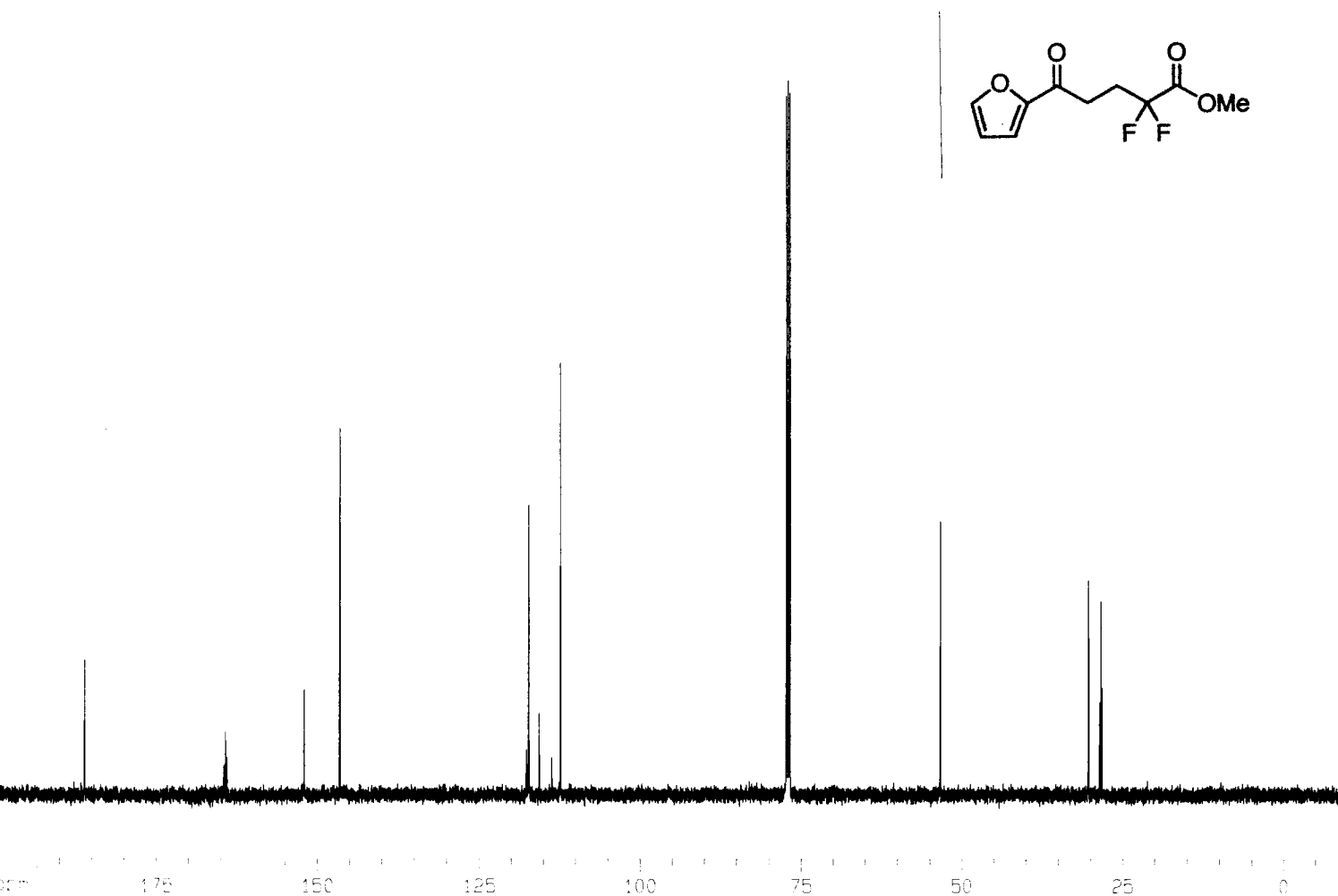
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300027 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 7.69 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters

NAME yamada-05.3.20  
EXPNO 3  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050320  
Time 12.04  
INSTRUM drx500  
PROBHD 5 mm Multinuc1  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 9195.2  
DW 16.650 usec  
DE 6.00 usec  
TE 296.8 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCHWK 0.01500000 sec

==== CHANNEL f1 =====

NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

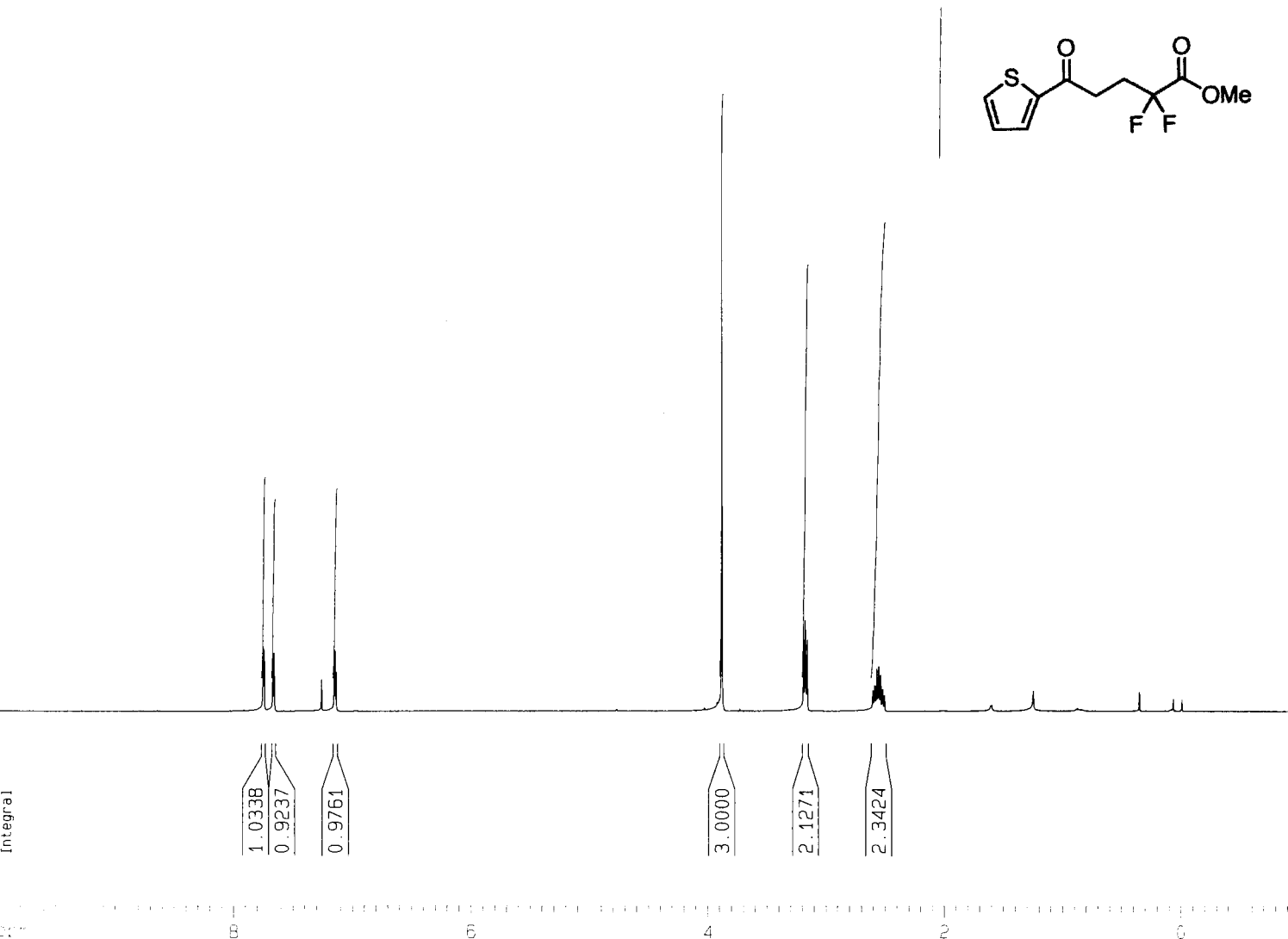
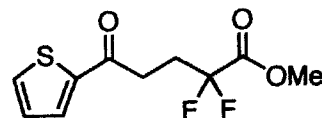
F2 - Processing parameters

SI 32768  
SF 125.7577960 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 10.58 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45679 Hz/cm

sample



Current Data Parameters

NAME yamada-05.3.21  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050321  
Time 16.43  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 287.4  
OW 48.400 usec  
DE 6.00 usec  
TE 295.9 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

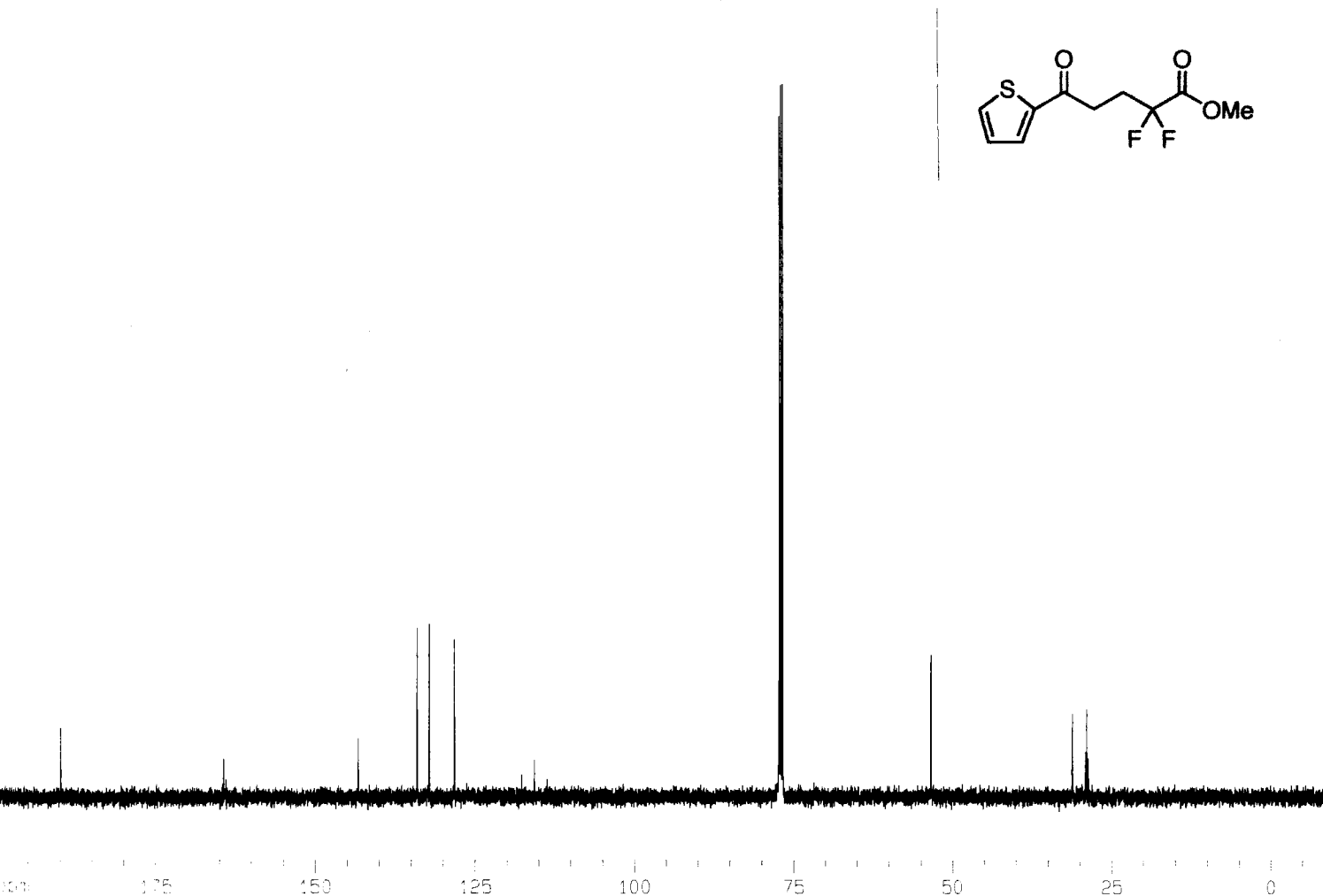
NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300137 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 6.61 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters  
NAME yamada-05.3.21  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20050321  
Time 16.51  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT COC13  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 5160.6  
DW 16.650 usec  
DE 6.00 usec  
TE 297.0 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

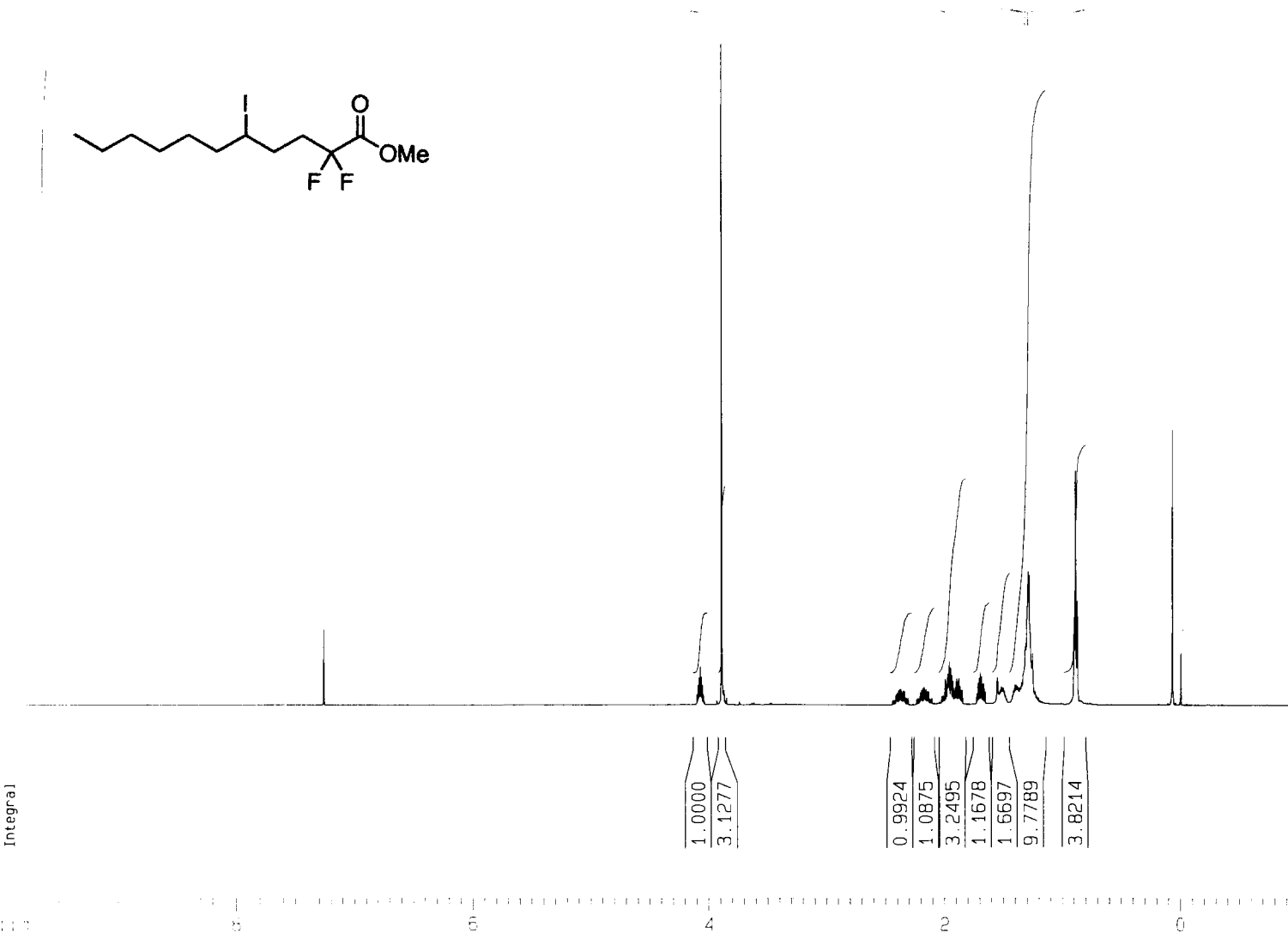
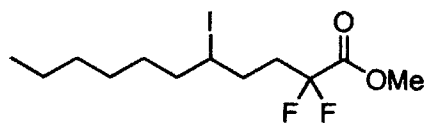
==== CHANNEL f1 =====  
NUC1 13C  
P1 5.70 usec  
PL1 -2.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 13.74 dB  
PL13 13.74 dB  
SF02 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7577942 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.83 cm  
F1P 200.000 ppm  
F1 25151.56 Hz  
F2P -10.000 ppm  
F2 -1257.58 Hz  
PPMCM 10.50000 ppm/cm  
HZCM 1320.45679 Hz/cm

sample



Current Data Parameters

NAME kato-05.9.17-r  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20050917  
Time 16.01  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 203.2  
DW 48.400 usec  
DE 6.00 usec  
TE 299.7 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

NUC1 1H  
P1 10.30 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

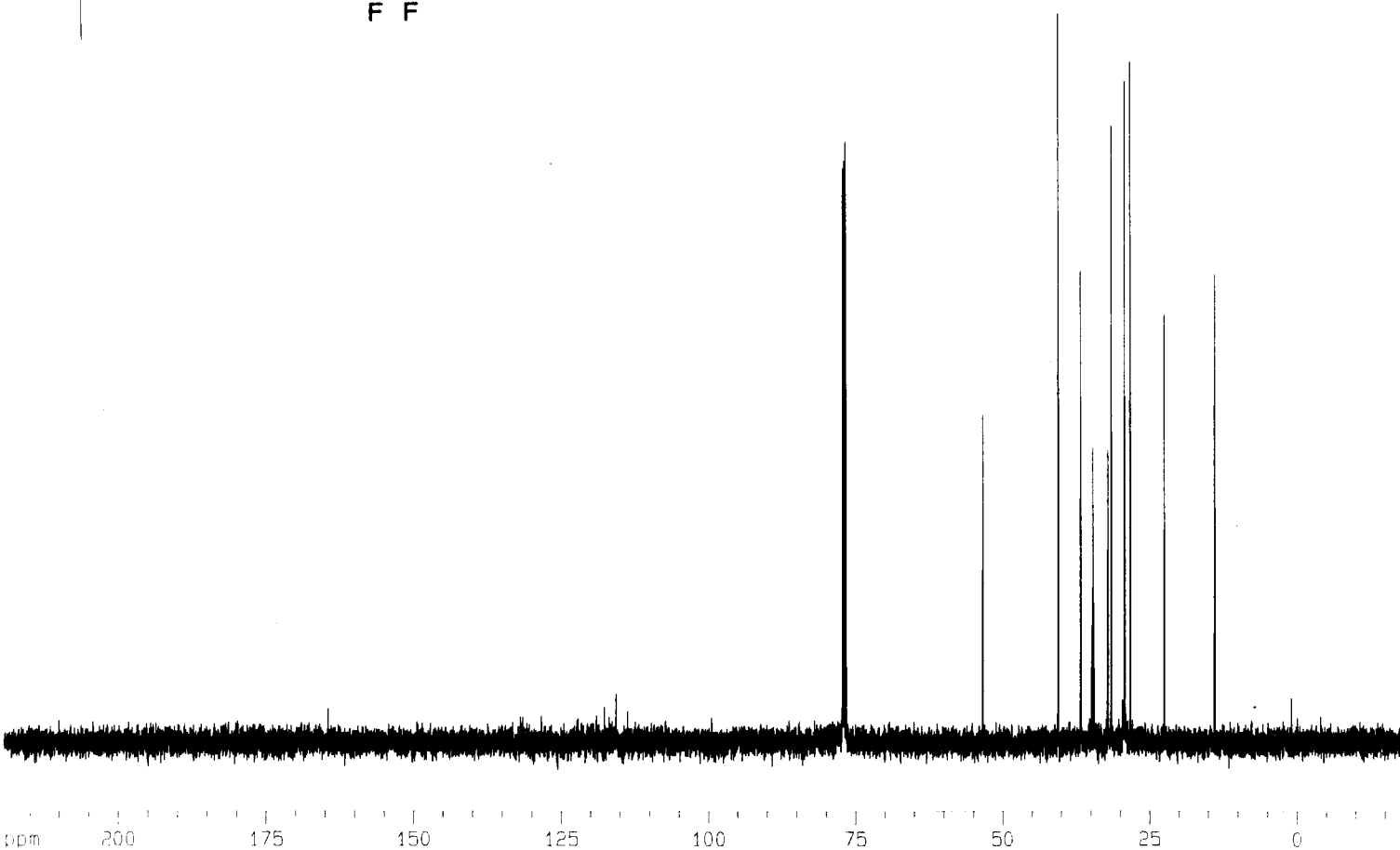
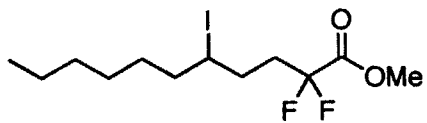
F2 - Processing parameters

SI 32768  
SF 500.1300134 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 10.22 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm





Current Data Parameters

NAME kato-06.12.25  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20061225  
Time 16.04  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 5160.6  
DW 16.650 usec  
DE 6.00 usec  
TE 296.2 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

NUC1 13C  
P1 11.00 usec  
PL1 -3.00 dB  
SF01 125.7703643 MHz

==== CHANNEL f2 =====

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 17.00 dB  
PL13 19.00 dB  
SF02 500.1320005 MHz

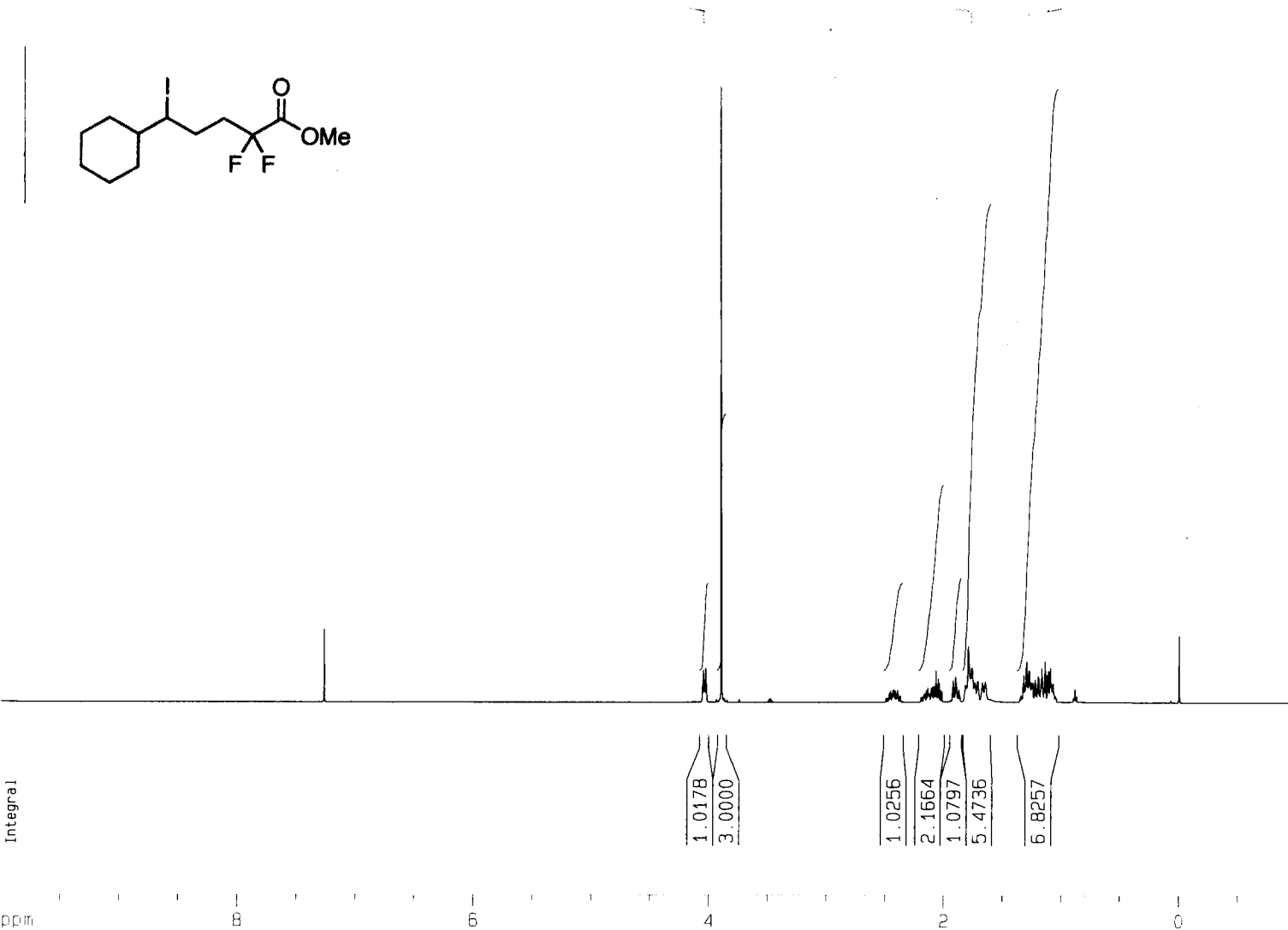
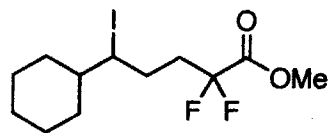
F2 - Processing parameters

SI 32768  
SF 125.7577932 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 10.38 cm  
F1P 219.359 ppm  
F1 27586.10 Hz  
F2P -19.434 ppm  
F2 -2443.93 Hz  
PPMCM 11.93963 ppm/cm  
HZCM 1501.50134 Hz/cm

sample



Current Data Parameters

NAME kato-06.12.25  
EXPNO 3  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20061225  
Time 16.10  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 32  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 256  
DW 48.400 usec  
DE 6.00 usec  
TE 295.9 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

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

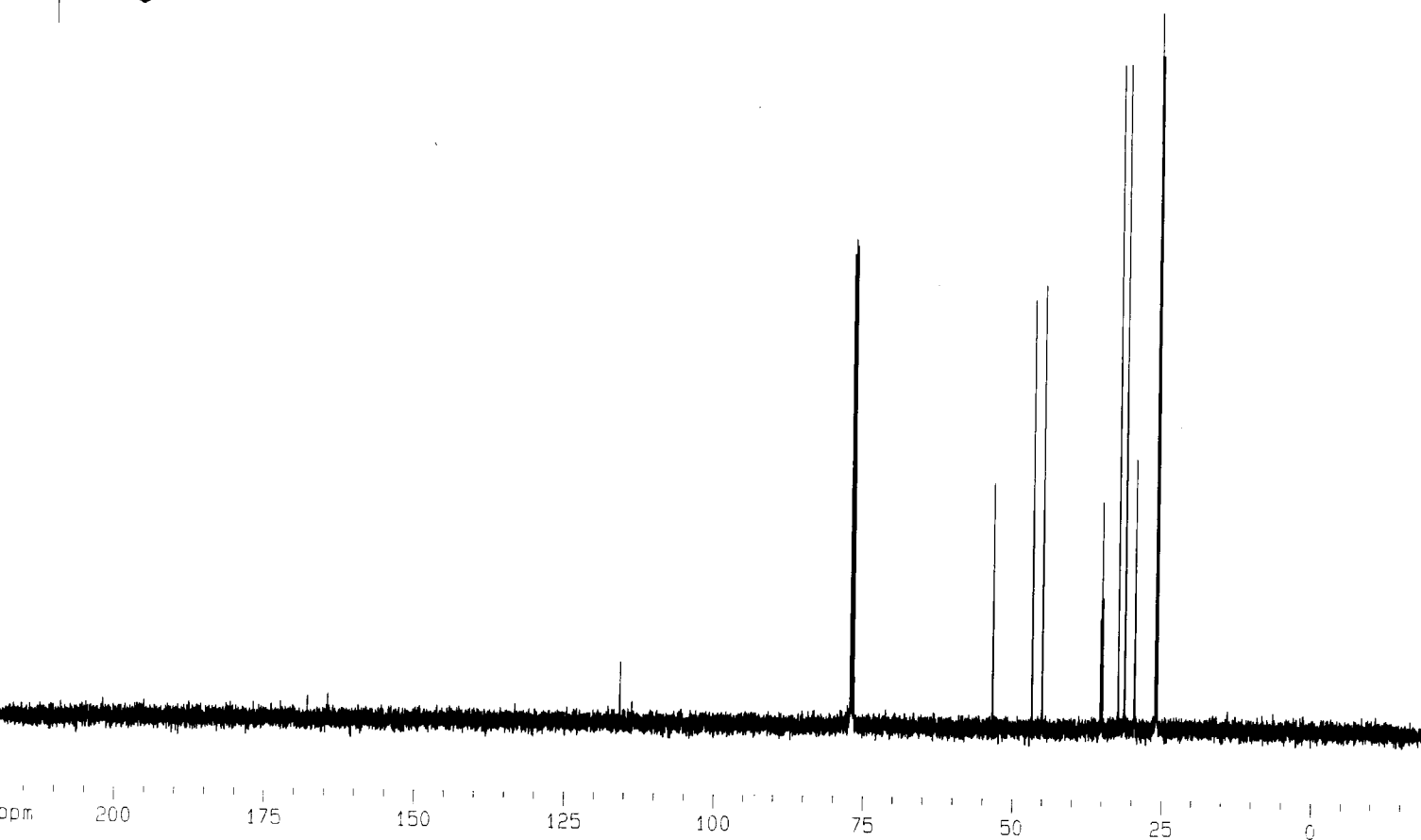
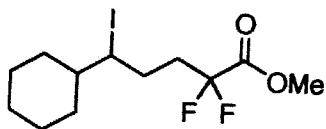
NUC1 1H  
P1 10.00 usec  
PL1 -6.00 dB  
SFO1 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300129 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 9.70 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters  
NAME kato-06.12.25  
EXPNO 4  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20061225  
Time 16.23  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zgpg30  
TD 65536  
SOLVENT CDC13  
NS 300  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 2896.3  
DW 16.650 usec  
DE 6.00 usec  
TE 296.3 K  
D1 0.5000000 sec  
d11 0.0300000 sec  
MCREST 0.0000000 sec  
MCWRK 0.0150000 sec

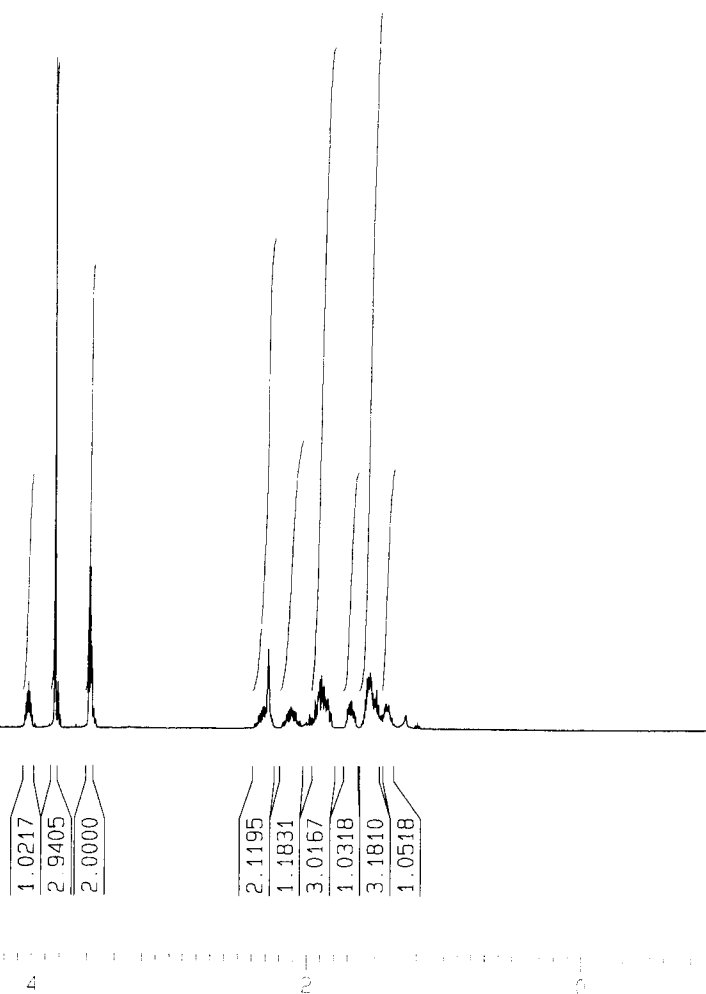
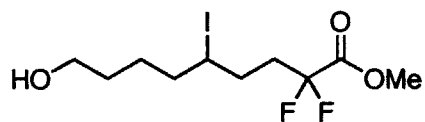
=====  
CHANNEL f1  
NUC1 13C  
P1 11.00 usec  
PL1 -3.00 dB  
SF01 125.7703643 MHz

=====  
CHANNEL f2  
CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 17.00 dB  
PL13 19.00 dB  
SF02 500.1320005 MHz

F2 - Processing parameters  
SI 32768  
SF 125.7577932 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters  
CX 20.00 cm  
CY 10.06 cm  
F1P 219.359 ppm  
F1 27586.10 Hz  
F2P -19.434 ppm  
F2 -2443.93 Hz  
PPMCM 11.93963 ppm/cm  
HZCM 1501.50134 Hz/cm

sample



Current Data Parameters

NAME kato-06.12.11  
EXPNO 2  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20061211  
Time 21.03  
INSTRUM drx500  
PROBHD 5 mm Multinucl  
PULPROG zg30  
TD 65536  
SOLVENT CDC13  
NS 32  
DS 2  
SWH 10330.578 Hz  
FIDRES 0.157632 Hz  
AQ 3.1719923 sec  
RG 28.5  
DW 48.400 usec  
DE 6.00 usec  
TE 295.4 K  
D1 1.00000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

==== CHANNEL f1 =====

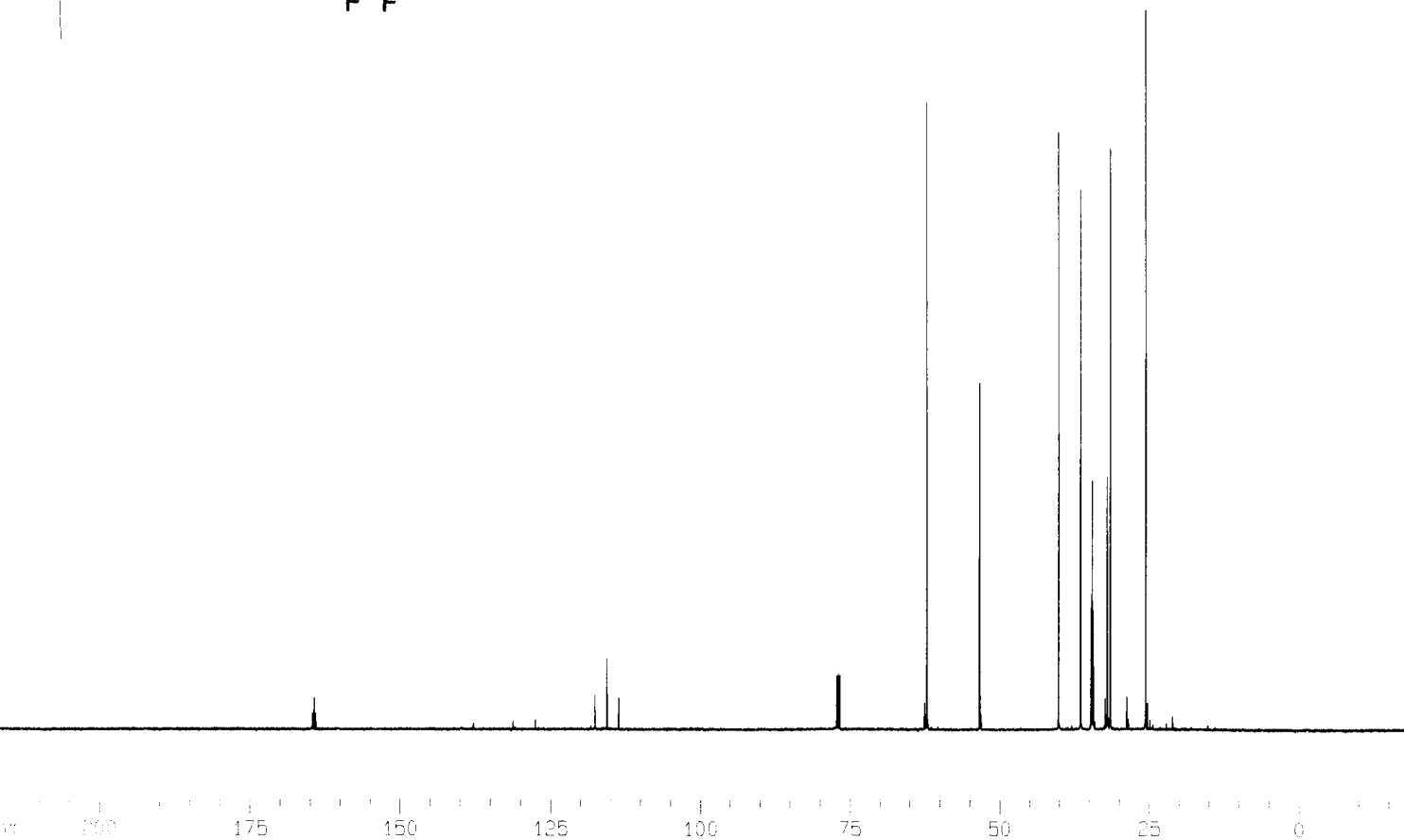
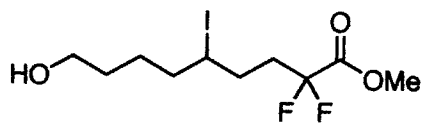
NUC1 1H  
P1 10.00 usec  
PL1 -6.00 dB  
SF01 500.1330885 MHz

F2 - Processing parameters

SI 32768  
SF 500.1300129 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00

1D NMR plot parameters

CX 20.00 cm  
CY 8.90 cm  
F1P 10.000 ppm  
F1 5001.30 Hz  
F2P -1.000 ppm  
F2 -500.13 Hz  
PPMCM 0.55000 ppm/cm  
HZCM 275.07150 Hz/cm



Current Data Parameters

NAME kato-06.12.11  
EXPNO 3  
PROCNO 1

F2 - Acquisition Parameters

Date\_ 20061211  
Time 21.11  
INSTRUM drx500  
PROBHD 5 mm Multinuc1  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 256  
DS 2  
SWH 30030.029 Hz  
FIDRES 0.458222 Hz  
AQ 1.0912244 sec  
RG 3649.1  
DW 16.650 usec  
DE 6.00 usec  
TE 295.7 K  
D1 0.50000000 sec  
d11 0.03000000 sec  
MCREST 0.00000000 sec  
MCWRK 0.01500000 sec

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

NUC1 13C  
P1 11.00 usec  
PL1 -3.00 dB  
SF01 125.7703643 MHz

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

CPDPRG2 waltz16  
NUC2 1H  
PCPD2 100.00 usec  
PL2 -6.00 dB  
PL12 17.00 dB  
PL13 19.00 dB  
SF02 500.1320005 MHz

F2 - Processing parameters

SI 32768  
SF 125.7578079 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

1D NMR plot parameters

CX 20.00 cm  
CY 10.09 cm  
F1P 219.242 ppm  
F1 27571.42 Hz  
F2P -19.550 ppm  
F2 -2458.61 Hz  
PPMCM 11.93963 ppm/cm  
HZCM 1501.50159 Hz/cm