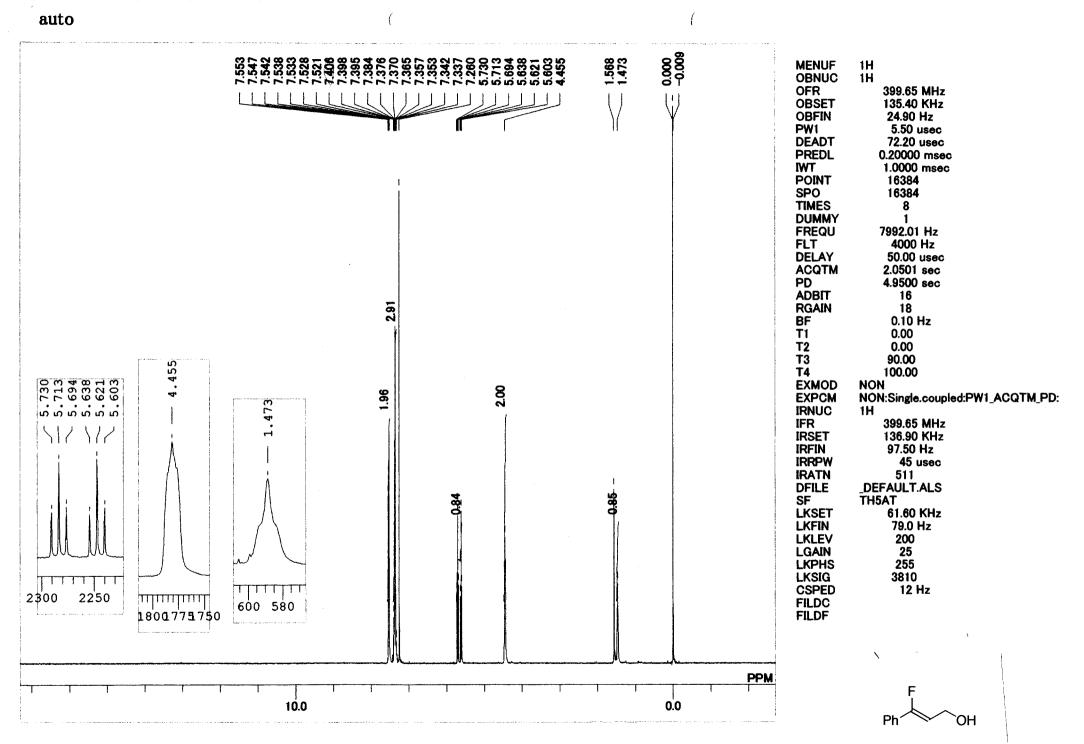
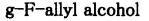
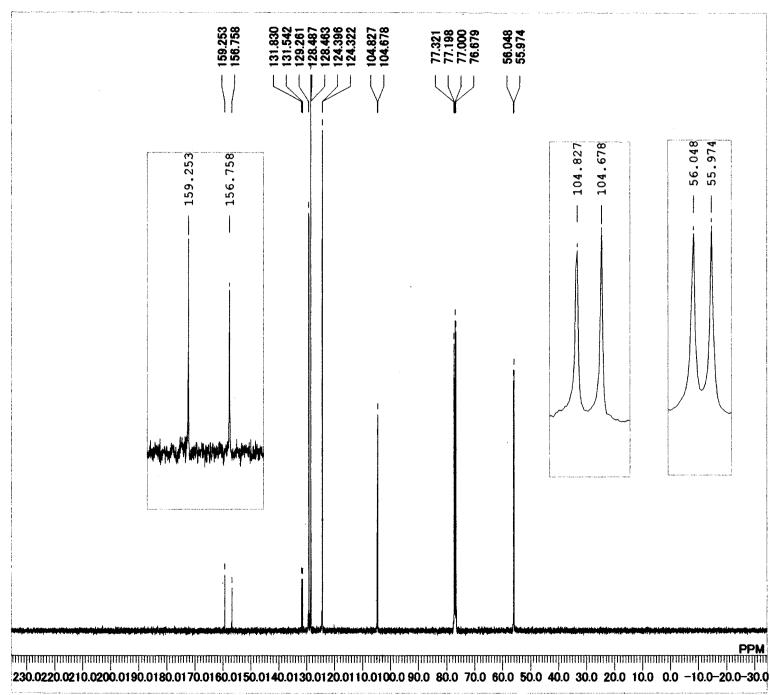
## Supporting Information

A New Entry to the Construction of a Quaternary Carbon Center Having a Fluorine Atom  $-S_N 2$ ' Reaction of  $\gamma$ -Fluoroallylic Alcohol Derivatives with Various Cyanocuprates—

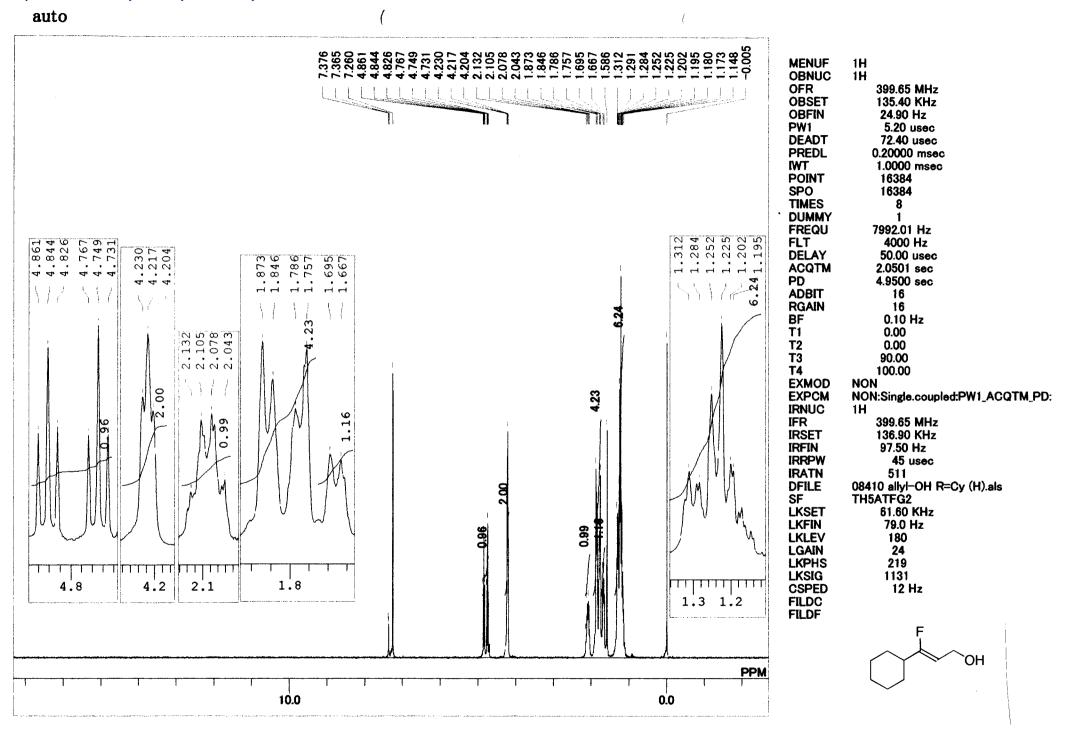
Tsutomu Konno, \* Atsushi Ikemoto, and Takashi Ishihara

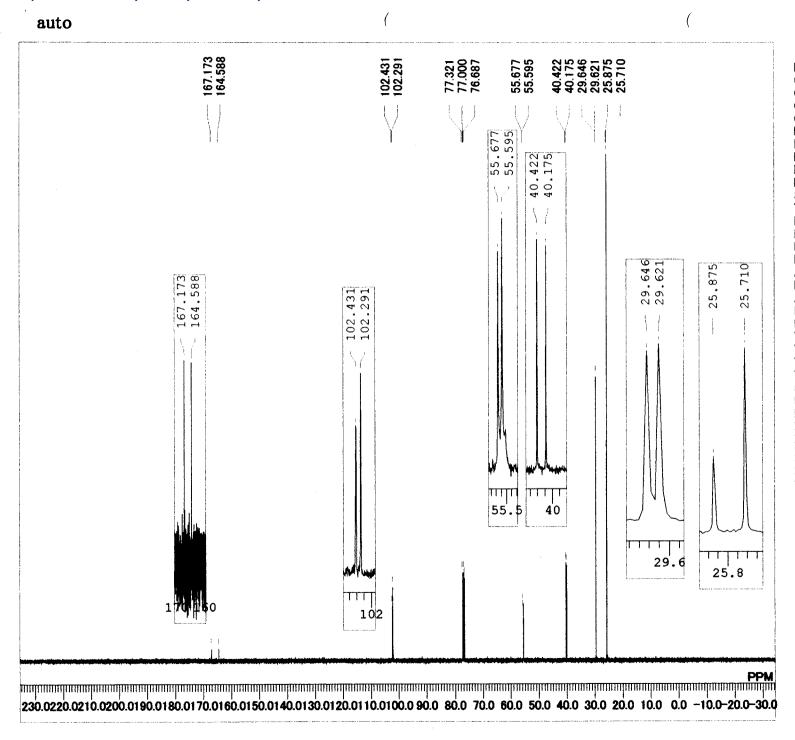




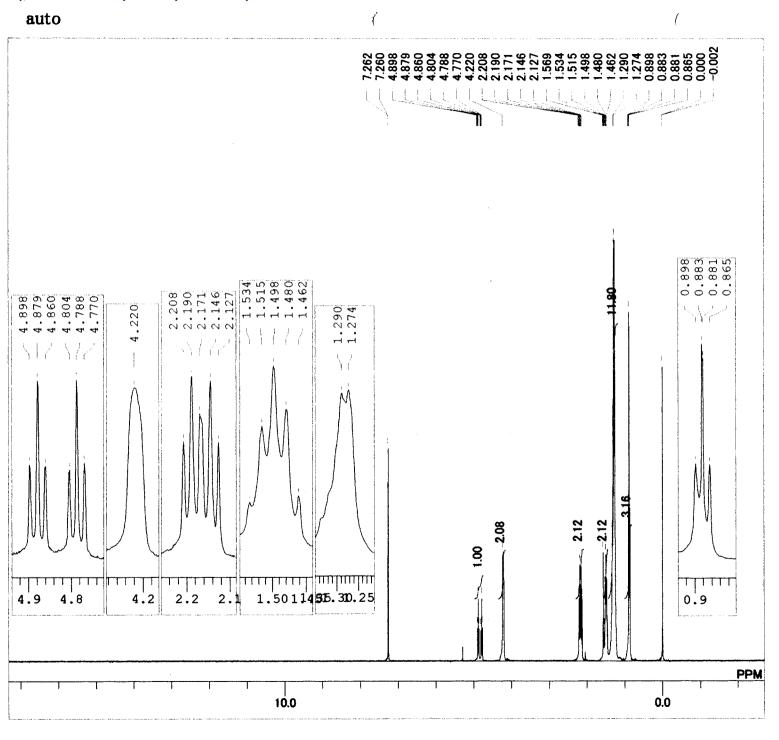


```
MENUF
          13C
          13C
OBNUC
OFR
              100.40 MHz
OBSET
              125.00 KHz
OBFIN
             10500.00 Hz
PW1
               5.70 usec
DEADT
               19.30 usec
PREDL
             0.20000 msec
              1.0000 msec
IWT
               32768
POINT
               32768
SPO
TIMES
               10000
DUMMY
             27118.64 Hz
FREQU
               13550 Hz
FLT
DELAY
               14.80 usec
              1.2083 sec
ACQTM
PD
              1.7920 sec
ADBIT
                16
RGAIN
                25
               1.00 Hz
BF
T1
               0.00
T2
               0.00
T3
               90.00
T4
              100.00
EXMOD
          BCM
EXPCM
          Bilevel.complete.decoupling:Set_IRRP\
IRNUC
          1H
IFR
              399.65 MHz
IRSET
              124.00 KHz
IRFIN
             10500.00 Hz
IRRPW
                45 usec
IRATN
                511
DFILE
          g-F-allyl alcohol(C).als
          TH5AT
SF
LKSET
               61.60 KHz
LKFIN
               79.0 Hz
LKLEV
                200
LGAIN
                24
LKPHS
                255
               2055
LKSIG
CSPED
                12 Hz
FILDC
FILDF
```

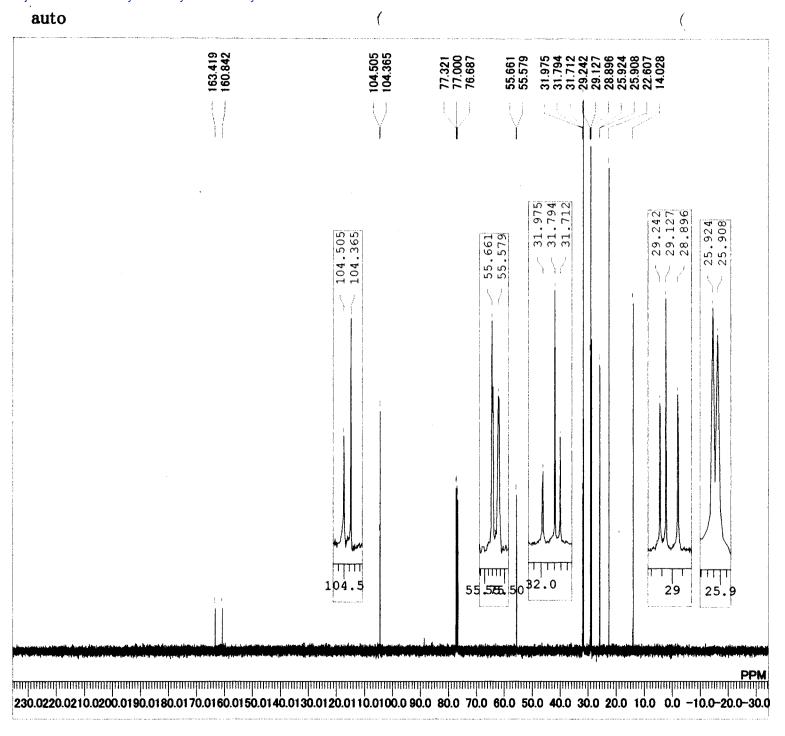




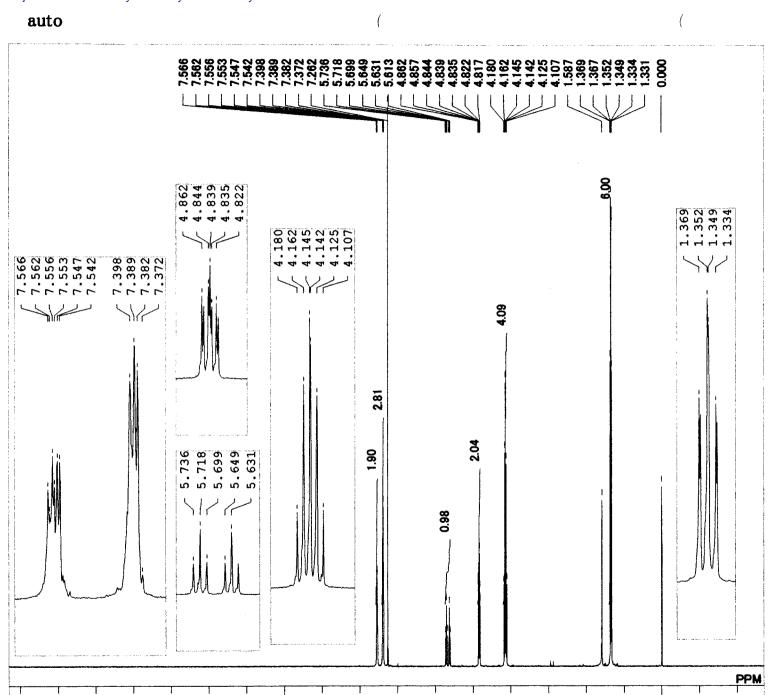
MENUF OBR OBSET OBSET OBSEIN PWI DEADL IWT POINT SPO STIMES STIMES SPO STIMES SPO STIMES STIMES SPO STIMES STIMES SPO STIMES STI	13C 100.40 MHz 125.00 KHz 10500.00 Hz 6.00 usec 19.10 usec 0.20000 msec 1.0000 msec 32768 32768 256 1 27118.64 Hz 13550 Hz 14.80 usec 1.2083 sec 1.7920 sec 16 25 0.10 Hz 0.00 0.00 90.00 100.00 BCM Bilevel.complete.decoupling:Set_IRRP1 1H 399.65 MHz 124.00 KHz 10500.00 Hz 45 usec 511 08410 allyl-OH R=Cy (C).als TH5ATFG2 61.60 KHz 79.0 Hz 180 23 219 1013 14 Hz
LGAIN	
	<del>-</del>
CSPED FILDC FILDF	1013 14 Hz
	F L
	ОН



```
MENUF
          1H
OBNUC
          1H
OFR
              399.65 MHz
OBSET
              135.40 KHz
OBFIN
               24.90 Hz
PW1
               5.20 usec
DEADT
               72.40 usec
PREDL
              0.20000 msec
              1.0000 msec
IWT
POINT
               16384
SPO
               16384
TIMES
                 8
DUMMY
              7992.01 Hz
FREQU
FLT
                4000 Hz
               50.00 usec
DELAY
ACQTM
              2.0501 sec
              4.9500 sec
PD
ADBIT
                 16
RGAIN
                 17
BF
               0.10 Hz
T1
               0.00
               0.00
T2
T3
               90.00
               100.00
T4
EXMOD
          NON
EXPCM
          NON:Single.coupled:PW1_ACQTM_PD:
IRNUC
           1H
IFR
              399.65 MHz
IRSET
              136.90 KHz
IRFIN
               97.50 Hz
IRRPW
                 45 usec
IRATN
                511
DFILE
           08310 allyl-OH R=Oc (H).als
SF
           TH5ATFG2
LKSET
               61.60 KHz
                79.0 Hz
LKFIN
LKLEV
                180
                 24
LGAIN
LKPHS
                219
                888
LKSIG
CSPED
                 11 Hz
FILDC
FILDF
             n-C<sub>8</sub>H<sub>17</sub>
```



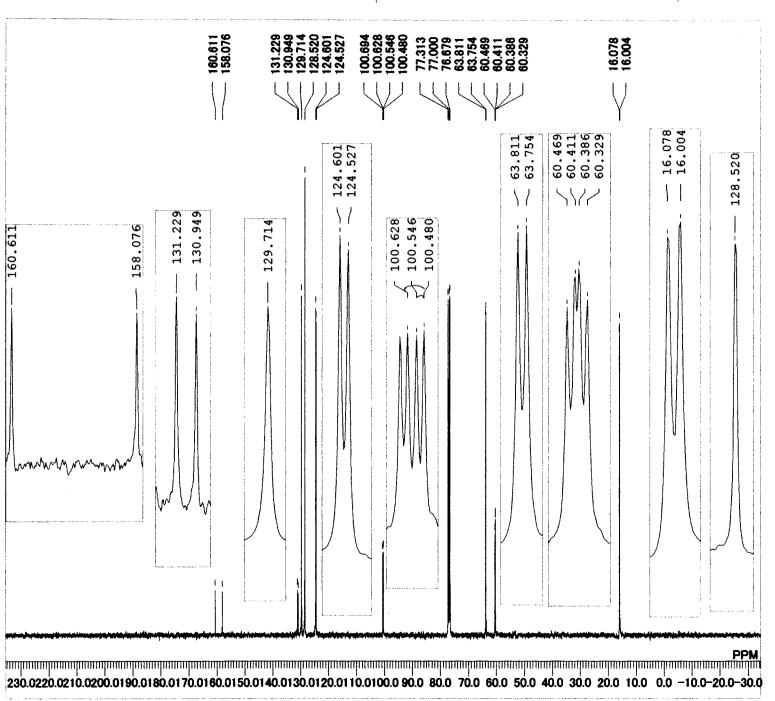
OFR OBSET OBFIN PW1 DEADT PREDL IWT POINT SPO STIMMS FREQU FLT ACQTM PD ACQ	10500.00 Hz 6.00 usec 19.10 usec 0.20000 msec 1.0000 msec 32768 32768 32768 256 1 27118.64 Hz 13550 Hz 14.80 usec 1.2083 sec 1.7920 sec 16 25 0.10 Hz 0.00 0.00 90.00 100.00 BCM Bilevel.complete.decoupling:Set_IRRP 1H 399.65 MHz 124.00 KHz 10500.00 Hz 45 usec 511 08311 allyl-OH R=Oc (C) 2回目.als TH5ATFG2 61.60 KHz 79.0 Hz 180 23 219 514 12 Hz
	<i>n</i> -C <sub>8</sub> H <sub>17</sub> OH



10.0

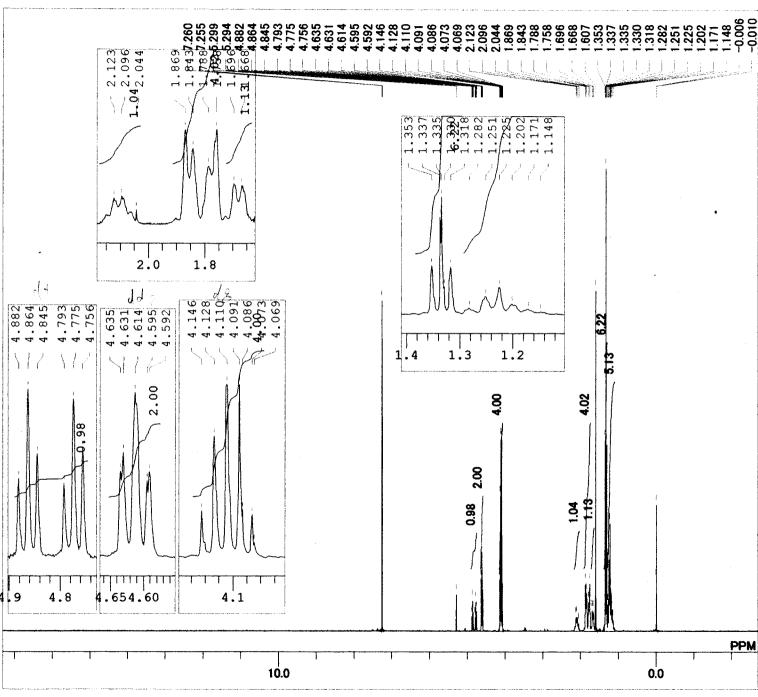
**MENUF** 1H 1H **OBNUC OFR** 399.65 MHz **OBSET** 135.40 KHz **OBFIN** 24.90 Hz PW1 5.50 usec DEADT 72.20 usec 0.20000 msec PREDL **IWT** 1.0000 msec **POINT** 16384 16384 SPO TIMES **DUMMY FREQU** 7992.01 Hz FLT 4000 Hz **DELAY** 50.00 usec **ACQTM** 2.0501 sec PD 4.9500 sec **ADBIT** 16 **RGAIN** 18 0.10 Hz BF T1 0.00 T2 0.00 **T3** 90.00 **T4** 100.00 **EXMOD** NON **EXPCM** NON:Single.coupled:PW1\_ACQTM\_PD: IRNUC 1H **IFR** 399.65 MHz 136.90 KHz IRSET **IRFIN** 97.50 Hz 45 usec IRRPW **IRATN** 511 DFILE **DEFAULT.ALS** SF TH5AT **LKSET** 61.60 KHz **LKFIN** 79.0 Hz **LKLEV** 200 **LGAIN** 20 **LKPHS** 255 1029 LKSIG **CSPED** 13 Hz **FILDC FILDF** `OP(O)(OEt)<sub>2</sub>

0.0

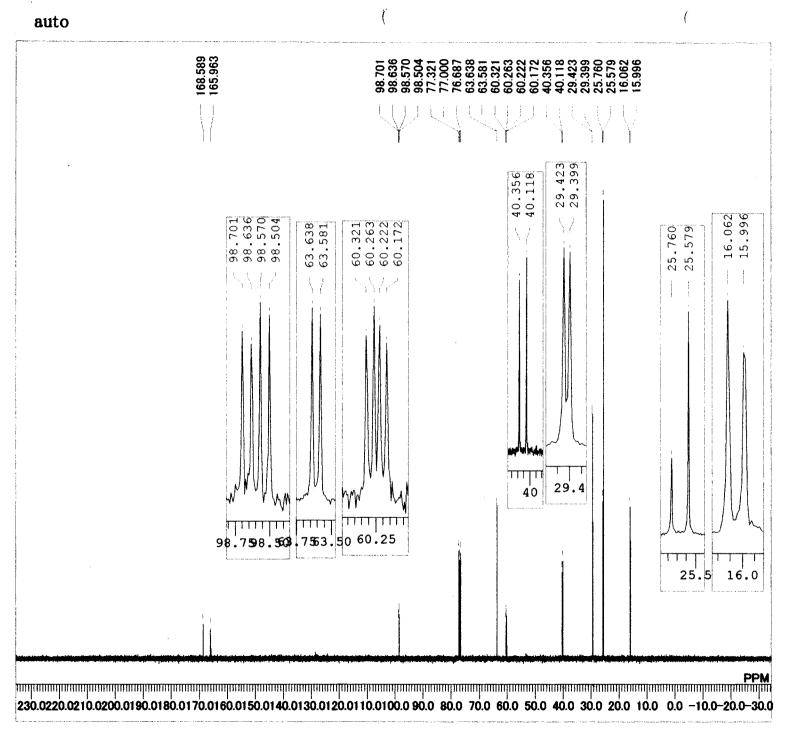


MENUF OBSUC OFFIN OBSET OBSIN PW1 DEADL IWT SPO TIMES DUMMY FRED DUMMY FRED DUMMY FRED DUMMY FRED DUMMY FRED DUMMY FRED TIMES PADBIT ACQTM PADBIT ACQTM PADBIT TO EXPON IRSET IRSET IRSEN	13C 13C 100.40 MHz 125.00 KHz 10500.00 Hz 5.70 usec 19.30 usec 0.20000 msec 1.0000 msec 32768 32768 32768 10000 1 27118.64 Hz 13550 Hz 14.80 usec 1.2083 sec 1.7920 sec 16 24 2.90 Hz 0.00 0.00 90.00 100.00 BCM Bilevel.complete.decoupling:Set_1H 399.65 MHz 124.00 KHz 10500.00 Hz 45 usec 511 _DEFAULT.ALS TH5AT 61.60 KHz 79.0 Hz 200 19 255 723 10 Hz	IRRP
	Ph OP(O)(OEt) <sub>2</sub>	

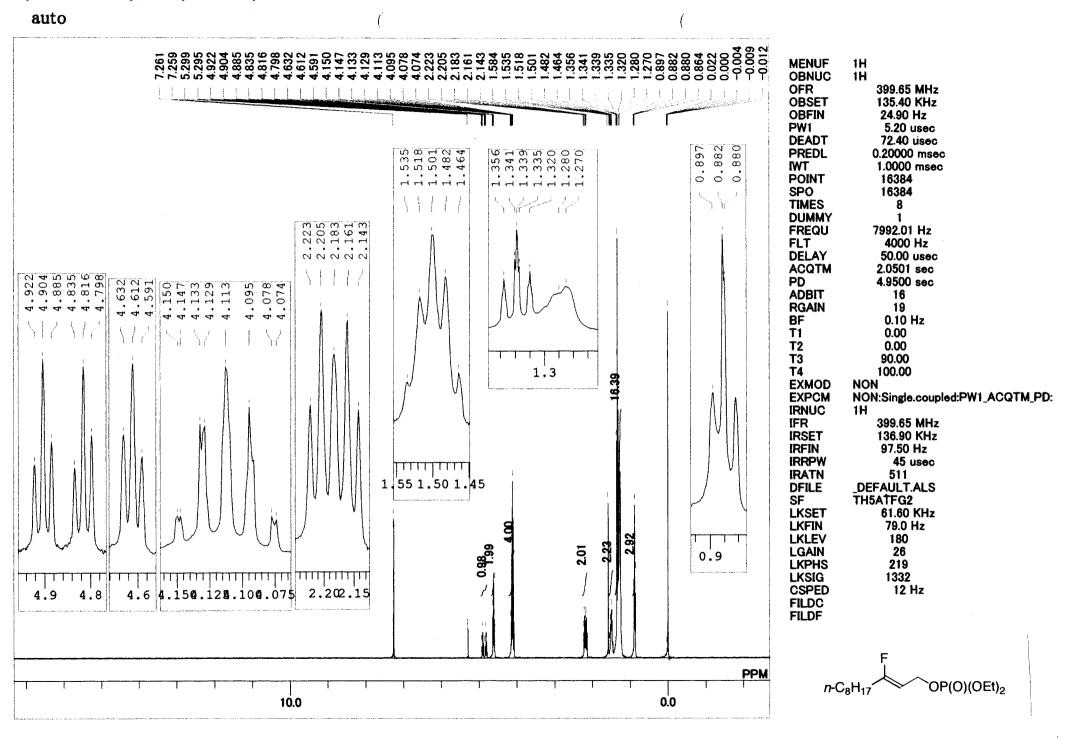


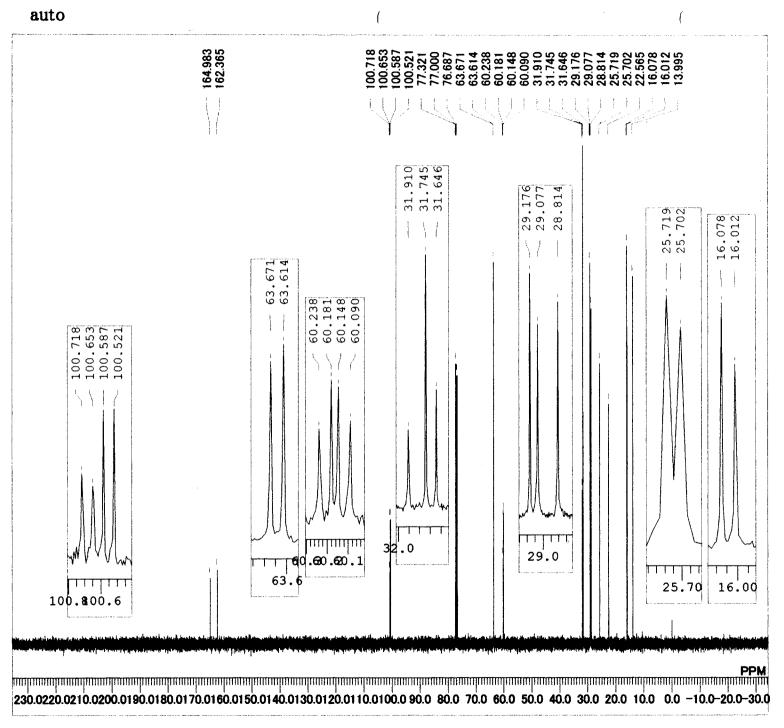


```
MENUF
          1H
OBNUC
          1H
OFR
              399.65 MHz
OBSET
              135.40 KHz
OBFIN
              24.90 Hz
PW1
               5.20 usec
              72.40 usec
DEADT
PREDL
             0.20000 msec
IWT
              1.0000 msec
POINT
               16384
              16384
SPO
TIMES
                 8
DUMMY
FREQU
             7992.01 Hz
FLT
               4000 Hz
              50.00 usec
DELAY
ACQTM
              2.0501 sec
PD
              4.9500 sec
ADBIT
                16
RGAIN
                17
BF
               0.10 Hz
T1
               0.00
               0.00
T2
T3
               90.00
              100.00
T4
EXMOD
EXPCM
          NON:Single.coupled:PW1_ACQTM_PD:
IRNUC
          1H
IFR
              399.65 MHz
              136.90 KHz
IRSET
IRFIN
              97.50 Hz
IRRPW
                45 usec
IRATN
          08415 allyI-OP R=Cy (H).als
DFILE
SF
          TH5ATFG2
LKSET
              61.60 KHz
LKFIN
               79.0 Hz
LKLEV
                180
                25
LGAIN
LKPHS
                219
LKSIG
               1948
CSPED
                13 Hz
FILDC
FILDF
                       OP(O)(OEt)_2
```



```
MENUF
           13C
OBNUC
          13C
OFR
              100.40 MHz
              125.00 KHz
OBSET
OBFIN
             10500.00 Hz
PW1
                6.00 usec
DEADT
               19.10 usec
PREDL
              0.20000 msec
IWT
              1.0000 msec
POINT
               32768
               32768
SPO
TIMES
                256
DUMMY
FREQU
             27118.64 Hz
FLT
               13550 Hz
DELAY
               14.80 usec
ACQTM
              1.2083 sec
PD
              1.7920 sec
ADBIT
                 16
RGAIN
                 25
BF
                0.10 Hz
T1
                0.00
                0.00
T2
T3
               90.00
T4
              100.00
EXMOD
EXPCM
          Bilevel.complete.decoupling:Set_IRRP1
IRNUC
           1H
IFR
              399.65 MHz
              124.00 KHz
IRSET
IRFIN
             10500.00 Hz
IRRPW
                 45 usec
IRATN
                511
DFILE
           08415 allyl-OP R=Cy (C).als
SF
          TH5ATFG2
LKSET
               61.60 KHz
LKFIN
                79.0 Hz
LKLEV
                180
LGAIN
                 25
LKPHS
                219
LKSIG
                1252
CSPED
                 10 Hz
FILDC
FILDF
                        `OP(O)(OEt)<sub>2</sub>
```

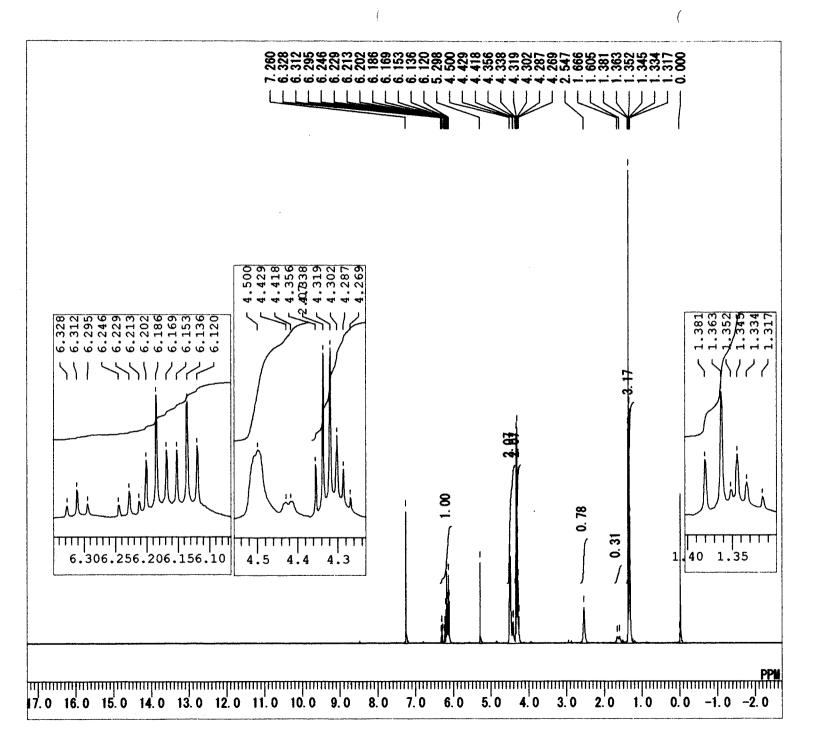




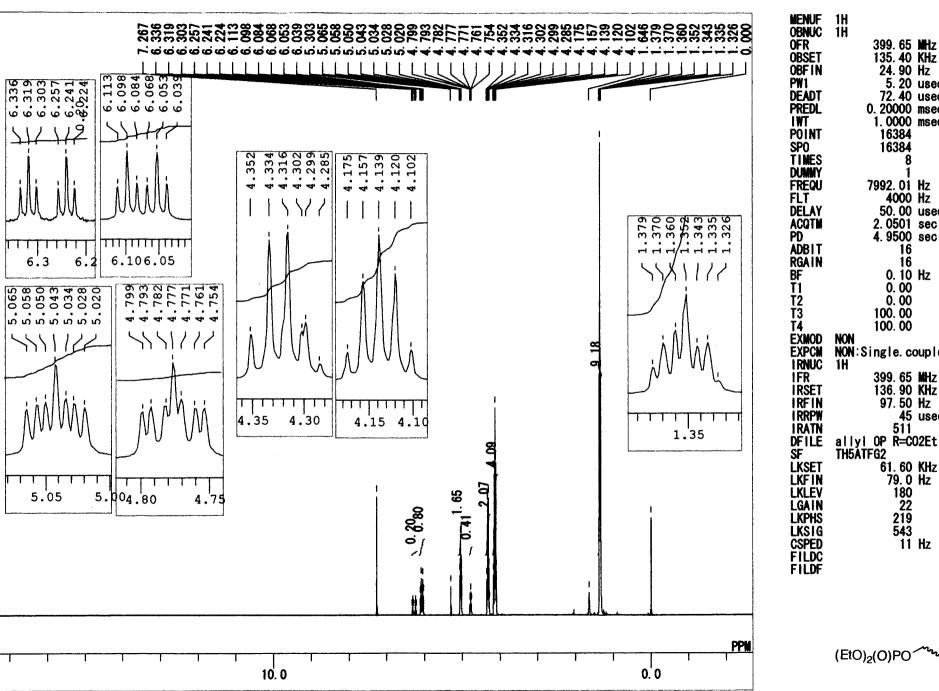
MENUC OFR TOBSET O	13C 13C 100.40 MHz 125.00 KHz 10500.00 Hz 6.00 usec 19.10 usec 0.20000 msec 1.0000 msec 32768 32768 256 1 27118.64 Hz 13550 Hz 14.80 usec 1.2083 sec 1.7920 sec 16 25 0.10 Hz 0.00 0.00 90.00 100.00 BCM Bilevel.complete.decoupling:Set 1H 399.65 MHz 124.00 KHz 10500.00 Hz 45 usec 511 08311 allyl-OP R=Oc (C).als TH5ATFG2 61.60 KHz 79.0 Hz 180 26 219 1526 13 Hz	t_IRRP
	F	

 $OP(O)(OEt)_2$ 

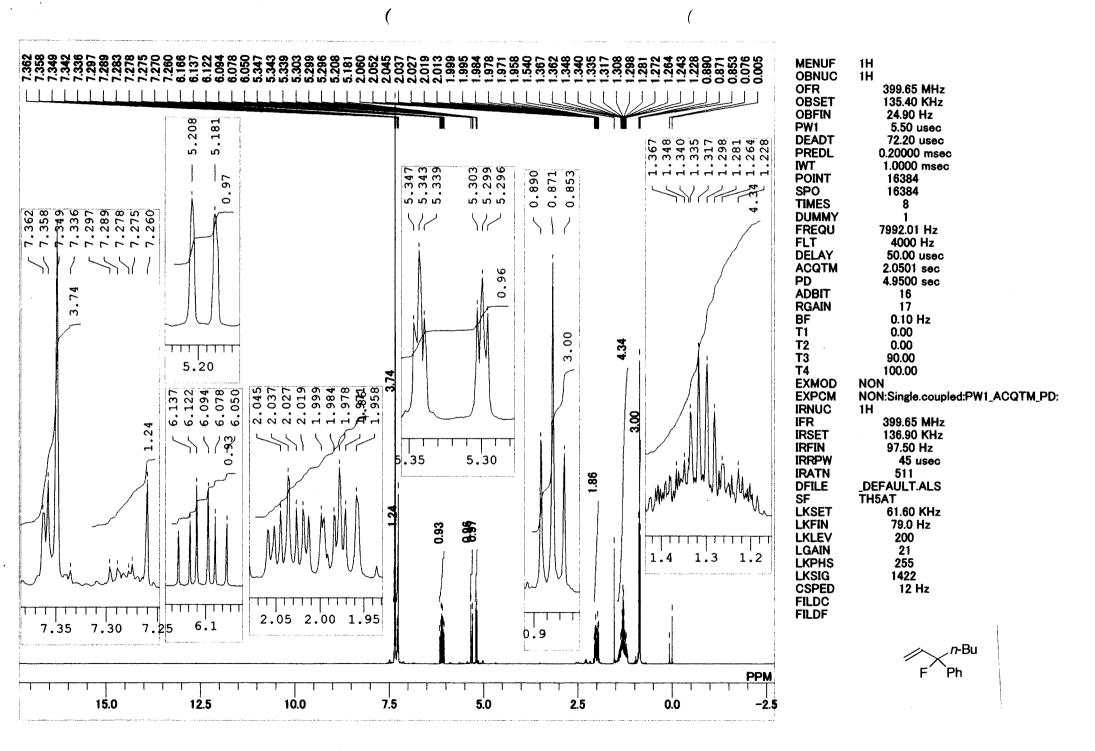
n-C<sub>8</sub>H<sub>17</sub>

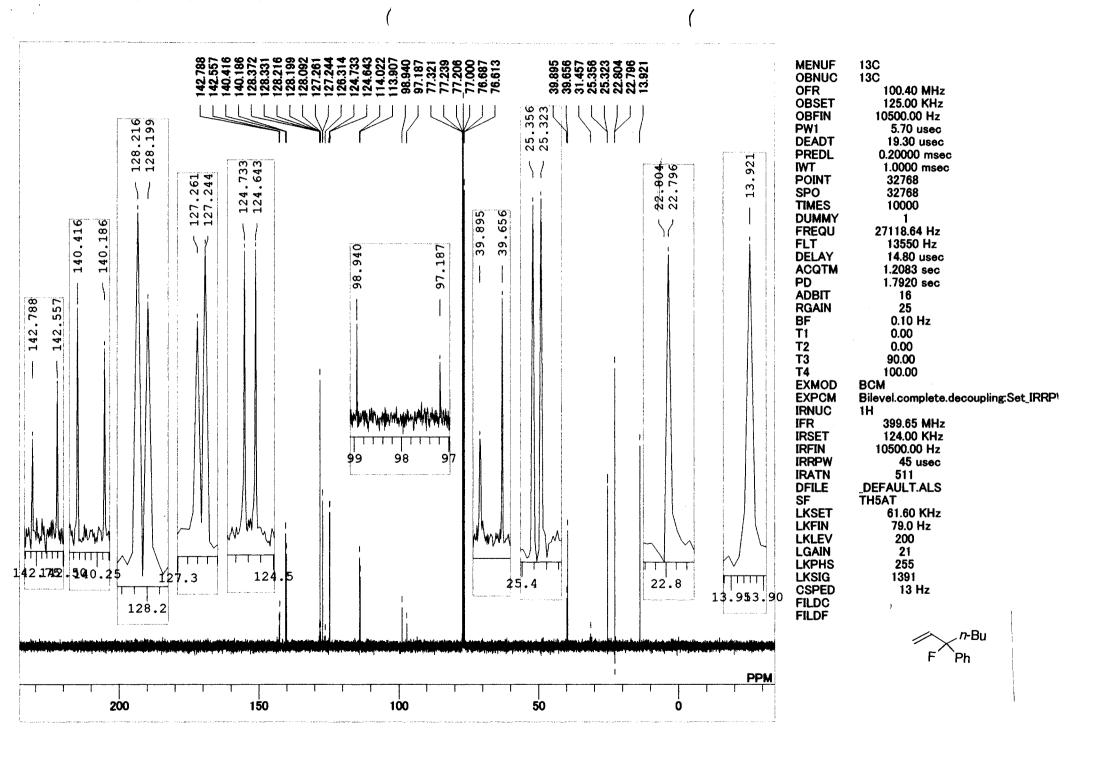


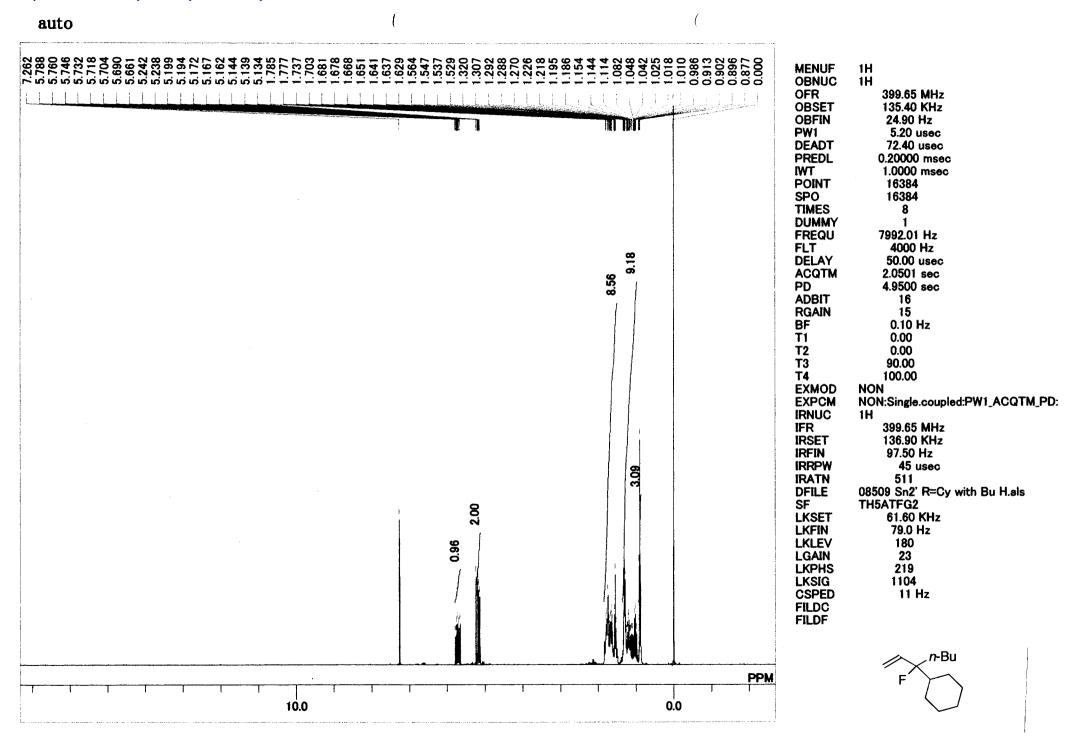
MENUFOBRUC OFFIN OBSTIN	1H 1H 399. 65 MHz 135. 40 KHz 24. 90 Hz 5. 20 usec 72. 40 usec 0. 20000 msec 1. 0000 msec 16384 16384 8 1 7992. 01 Hz 4000 Hz 50. 00 usec 2. 0501 sec 4. 9500 sec 16 17 0. 10 Hz 0. 00 0. 00 100. 00 100. 00 NON NON: Single. coupled: PW1_ACQTM_ 1H 399. 65 MHz 136. 90 KHz 97. 50 Hz 45 usec 511 allyl OH R=C02Et (H). als TH5ATFG2 61. 60 KHz 79. 0 Hz 180 23 219 753 11 Hz
Н	CO <sub>2</sub> Et

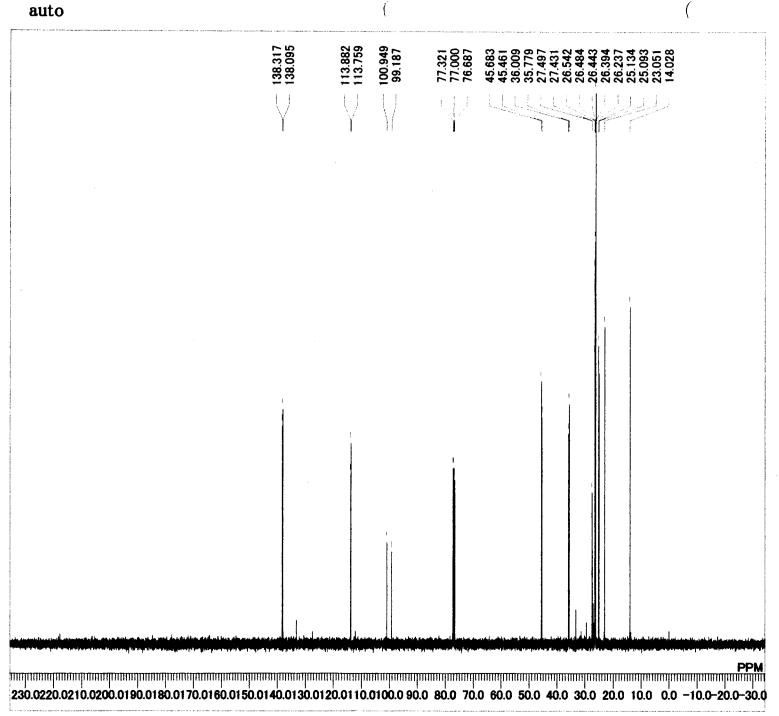


MENUF OBNUC OFR OBSET OB	1H 1H 399. 65 MHz 135. 40 KHz 24. 90 Hz 5. 20 usec 72. 40 usec 0. 20000 msec 1. 0000 msec 1. 0000 msec 16384 16384 8 1 7992. 01 Hz 4000 Hz 50. 00 usec 2. 0501 sec 4. 9500 sec 16 0. 10 Hz 0. 00 100. 00 100. 00 100. 00 100. 00 100. 00 NON NON: Single. coupled: PW1_ACQTM_IH 399. 65 MHz 136. 90 KHz 97. 50 Hz 45 usec 511 allyl OP R=C02Et (H). als TH5ATFG2 61. 60 KHz 79. 0 Hz 180 22 219 543 11 Hz
	(EtO) <sub>2</sub> (O)PO F

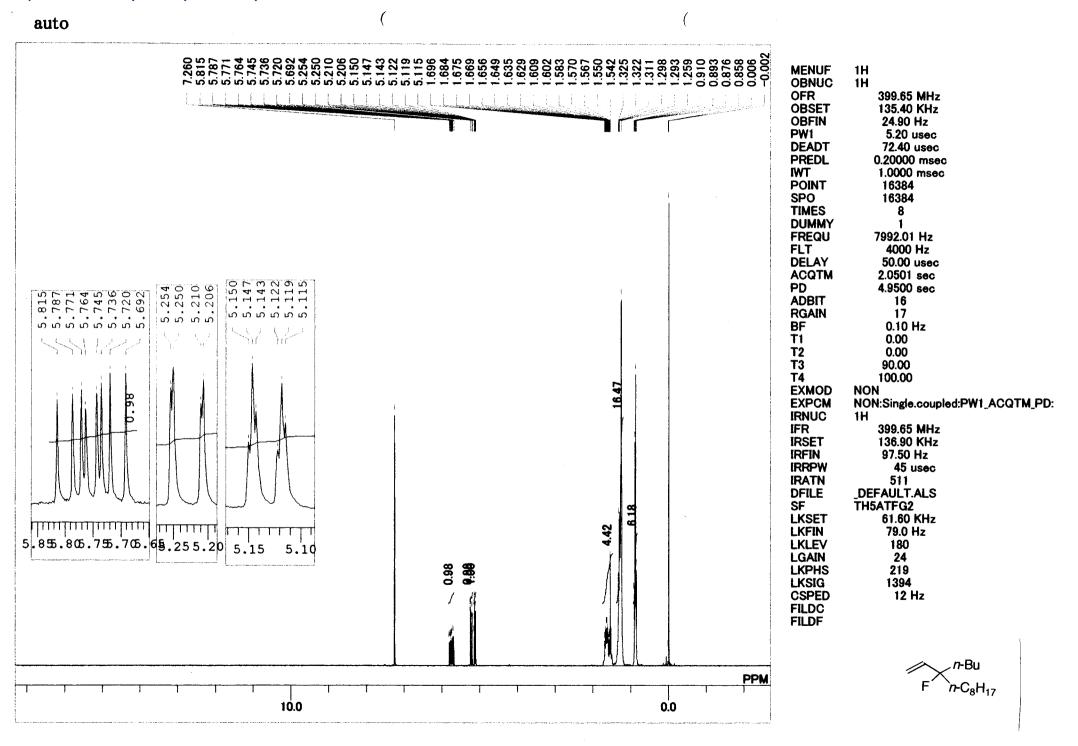


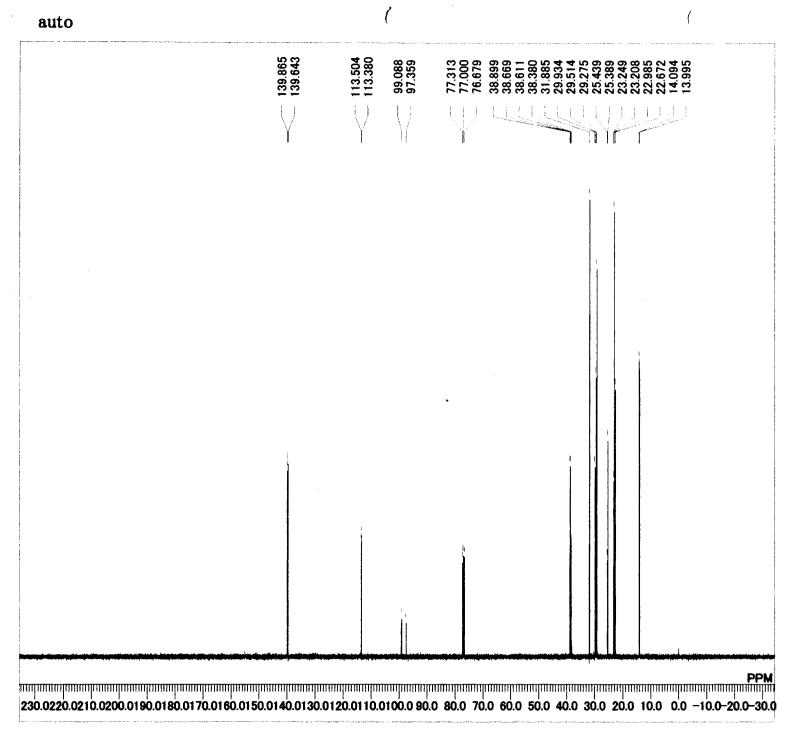




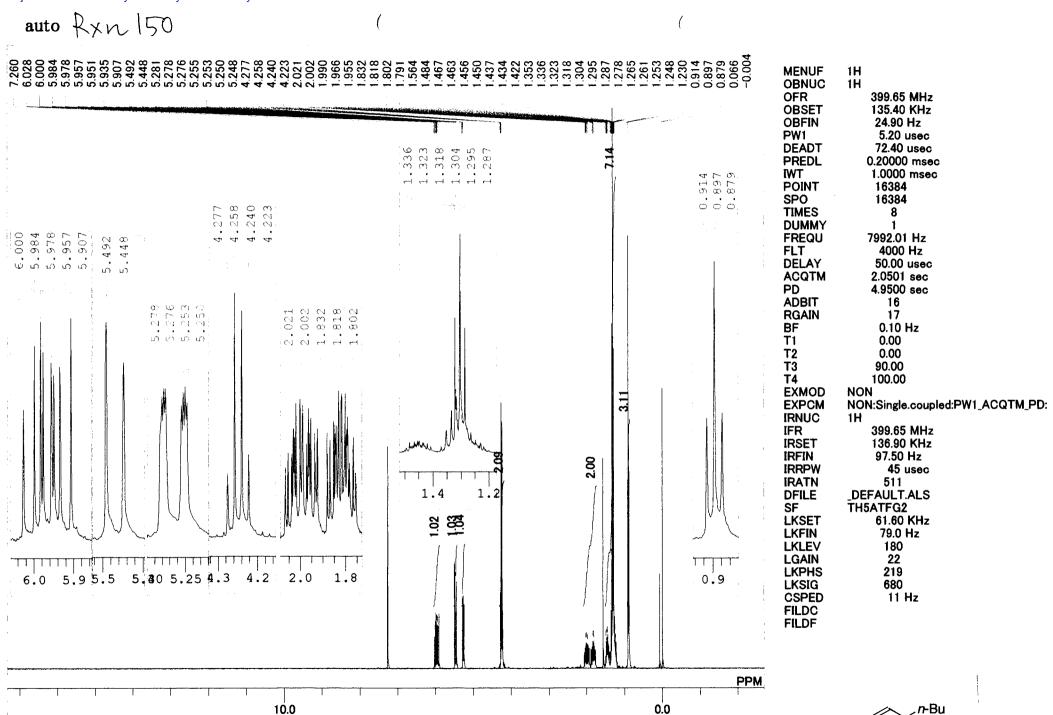


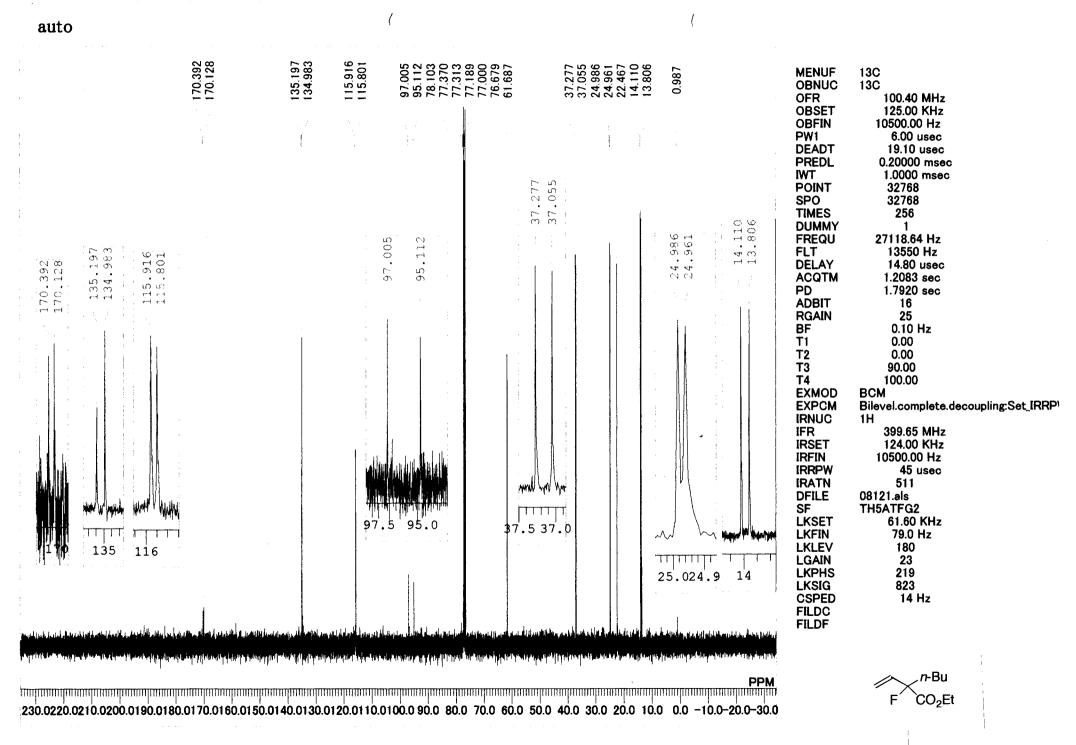
MENUF 13C OBNUC 13C OFR 100.40 MHz OBSET 125.00 KHz OBSIN 10500.00 Hz PW1 6.00 usec DEADT 19.10 usec PREDL 0.20000 msec IWT 1.0000 msec IWT 1.0000 msec POINT 32768 SPO 32768 TIMES 256 DUMMY 1 FREQU 27118.64 Hz FLT 13550 Hz DELAY 14.80 usec ACQTM 1.2083 sec PD 1.7920 sec ADBIT 16 RGAIN 25 BF 0.10 Hz T1 0.00 T2 0.00 T3 90.00 T4 100.00 EXMOD BCM EXPCM Bilevel.complete.decoupling:Set_IRRP IRSET 124.00 KHz IRRPW 45 usec IRATN 511 DFILE 08509 Sn2' R=Cy with Bu C.als SF TH5ATFG2 LKSET 79.0 Hz LKLEV 180 LGAIN 25 LKPHS 219 LKSIG 1776 CSPED 12 Hz FILDC FILDC FILDC		
	OBNUC OFR OBSET OB	13C  100.40 MHz 125.00 KHz 10500.00 Hz 6.00 usec 19.10 usec 0.20000 msec 1.0000 msec 32768 32768 32768 32768 256 1 27118.64 Hz 13550 Hz 14.80 usec 1.2083 sec 1.7920 sec 16 25 0.10 Hz 0.00 0.00 90.00 100.00 BCM Bilevel.complete.decoupling:Set_IRRP 1H 399.65 MHz 124.00 KHz 10500.00 Hz 45 usec 511 08509 Sn2' R=Cy with Bu C.als TH5ATFG2 61.60 KHz 79.0 Hz 180 25 219 1776
FILDC		
FILDF		12 Hz

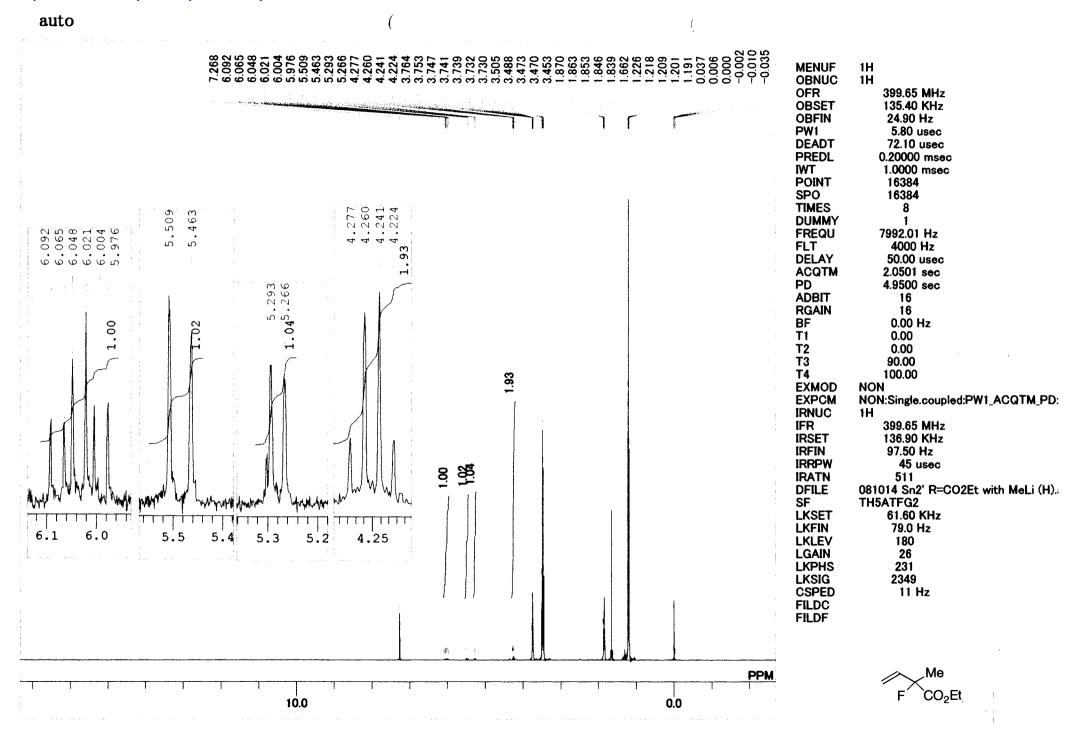




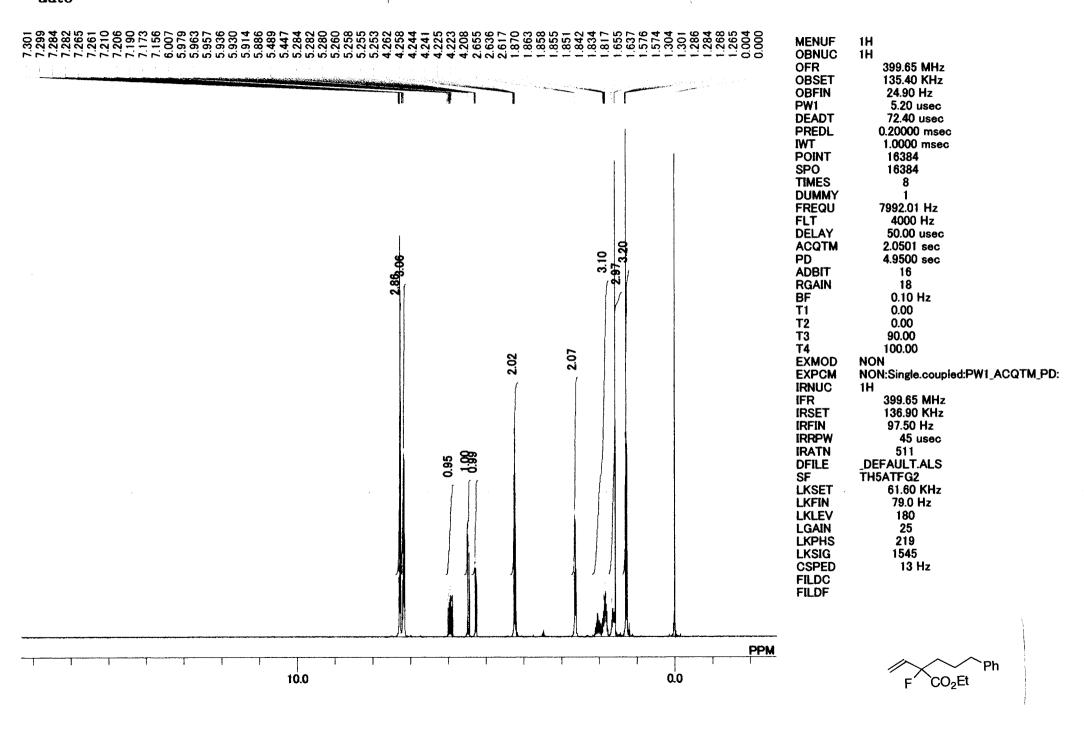
MENUF OBNUC OFR OBSET OBSET OBSET OBSET OBSET PREDL INT PREDL INT POINT SPO STIMES OUMMY FREQUE FILAT ADD IT ADD I	13C 100.40 MHz 125.00 KHz 10500.00 Hz 6.00 usec 19.10 usec 0.20000 msec 1.0000 msec 32768 32768 256 1 27118.64 Hz 13550 Hz 14.80 usec 1.2083 sec 1.7920 sec 16 25 0.10 Hz 0.00 0.00 90.00 100.00 BCM Bilevel.complete.decoupling:Set_IRRP* 1H 399.65 MHz 124.00 KHz 10500.00 Hz 45 usec 511 DEFAULT.ALS TH5ATFG2 61.60 KHz 79.0 Hz 180 23 219 935 10 Hz
	F n-C <sub>8</sub> H <sub>17</sub>

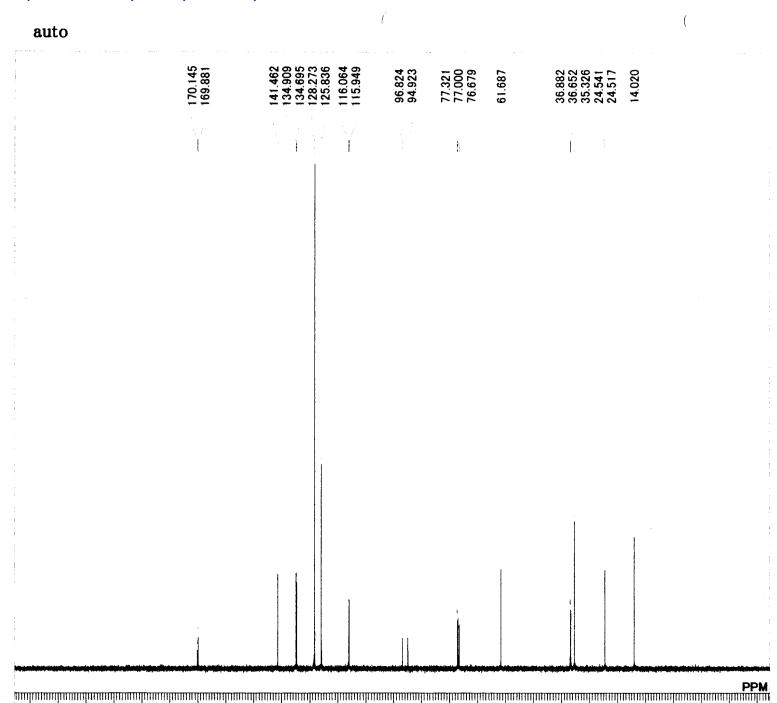










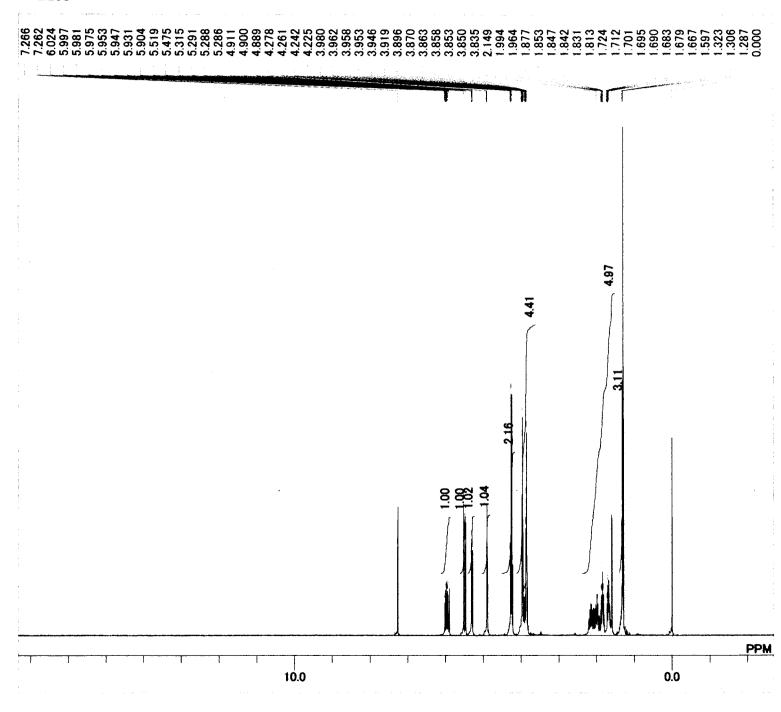


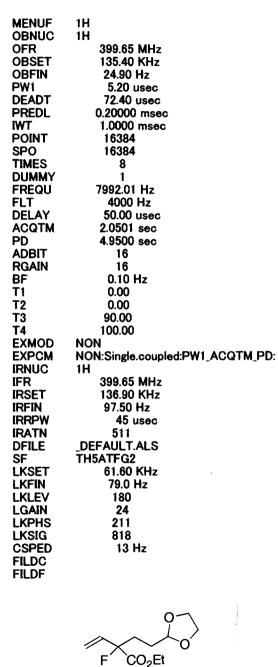
230.0220.0210.0200.0190.0180.0170.0160.0150.0140.0130.0120.0110.0100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 -10.0-20.0-30.0

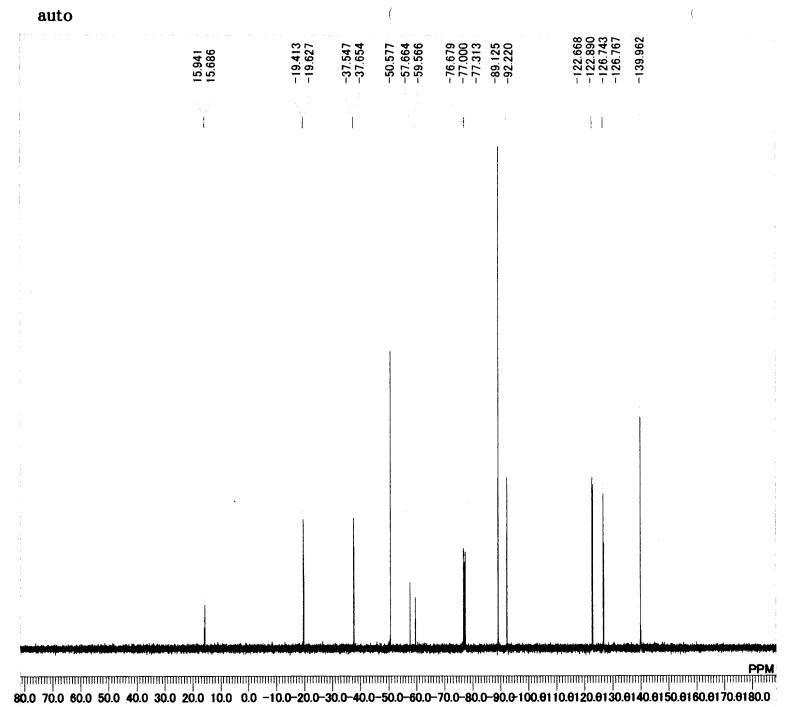
13C **MENUF OBNUC** 13C **OFR** 100.40 MHz **OBSET** 125.00 KHz **OBFIN** 10500.00 Hz PW1 6.00 usec DEADT 19.10 usec PREDL 0.20000 msec IWT 1.0000 msec 32768 **POINT** 32768 SPO TIMES 256 DUMMY **FREQU** 27118.64 Hz 13550 Hz FLT DELAY 14.80 usec **ACQTM** 1.2083 sec PD 1.7920 sec **ADBIT** 16 **RGAIN** 25 BF 0.10 Hz **T1** 0.00 T2 0.00 T3 90.00 **T4** 100.00 **EXMOD BCM EXPCM** Bilevel.complete.decoupling:Set\_IRRP1 **IRNUC** 1H **IFR** 399.65 MHz **IRSET** 124.00 KHz **IRFIN** 10500.00 Hz IRRPW 45 usec **IRATN** 511 08925 Sn2' R=CO2Et with phenylprop **DFILE** TH5ATFG2 SF LKSET 61.60 KHz **LKFIN** 79.0 Hz LKLEV 180 **LGAIN** 26 **LKPHS** 211 **LKSIG** 886 **CSPED** 13 Hz **FILDC** FILDF

CO<sub>2</sub>Et



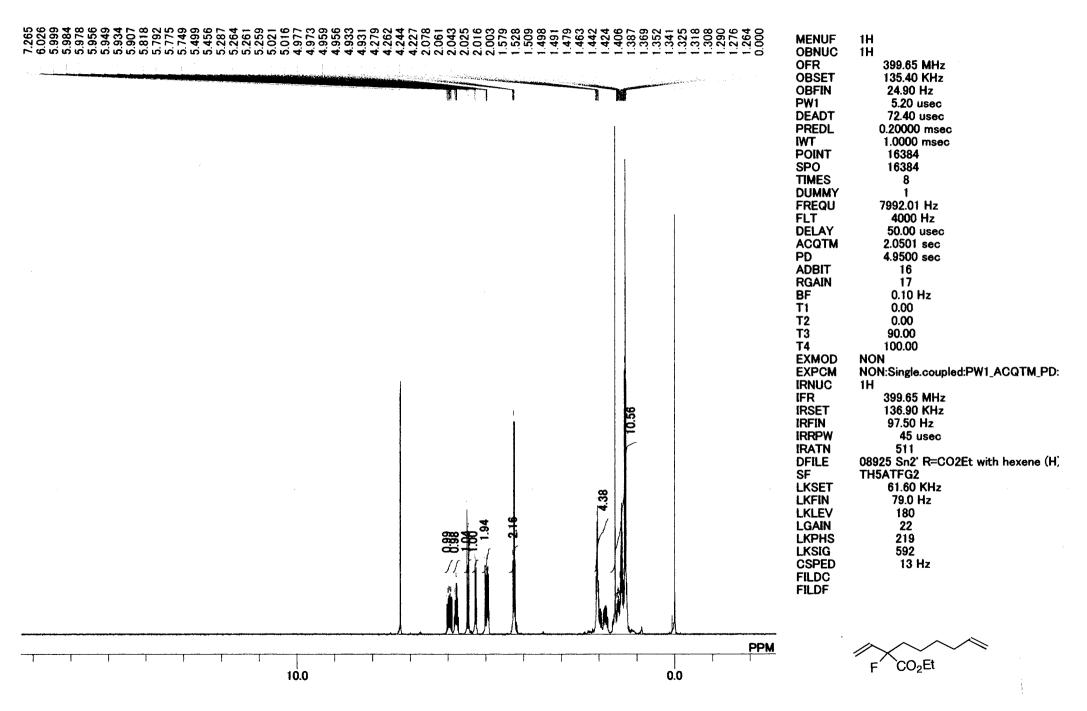


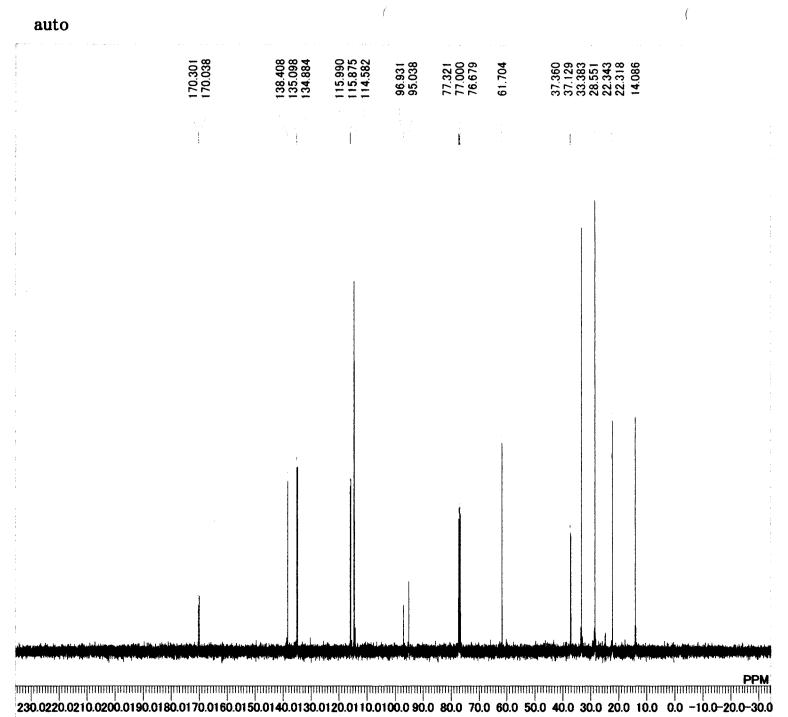




**MENUF** 13C **OBNUC** 13C 100.40 MHz **OFR OBSET** 125.00 KHz **OBFIN** 10500.00 Hz PW1 6.00 usec DEADT 19.10 usec PREDL 0.20000 msec 1.0000 msec **IWT POINT** 32768 SPO 32768 TIMES 256 **DUMMY** 27118.64 Hz FREQU FLT 13550 Hz 14.80 usec **DELAY ACQTM** 1.2083 sec 1.7920 sec PD **ADBIT** 16 25 **RGAIN** 0.10 Hz BF T1 0.00 T2 0.00 **T3** 90.00 100.00 **T4 EXMOD BCM EXPCM** Bilevel.complete.decoupling.Set\_IRRP1 1H IRNUC **IFR** 399.65 MHz **IRSET** 124.00 KHz **IRFIN** 10500.00 Hz IRRPW 45 usec **IRATN** 511 **DFILE DEFAULT.ALS** SF TH5ATFG2 LKSET 61.60 KHz **LKFIN** 79.0 Hz **LKLEV** 180 **LGAIN** 24 **LKPHS** 211 **LKSIG** 646 **CSPED** 14 Hz **FILDC** FILDF

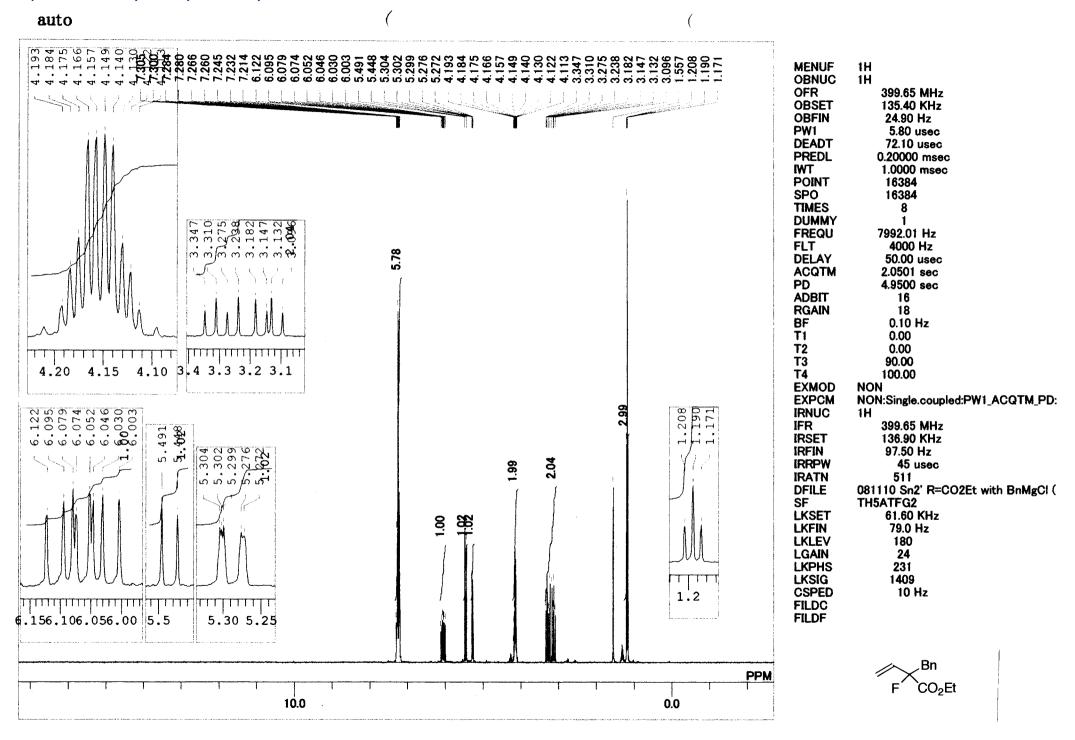


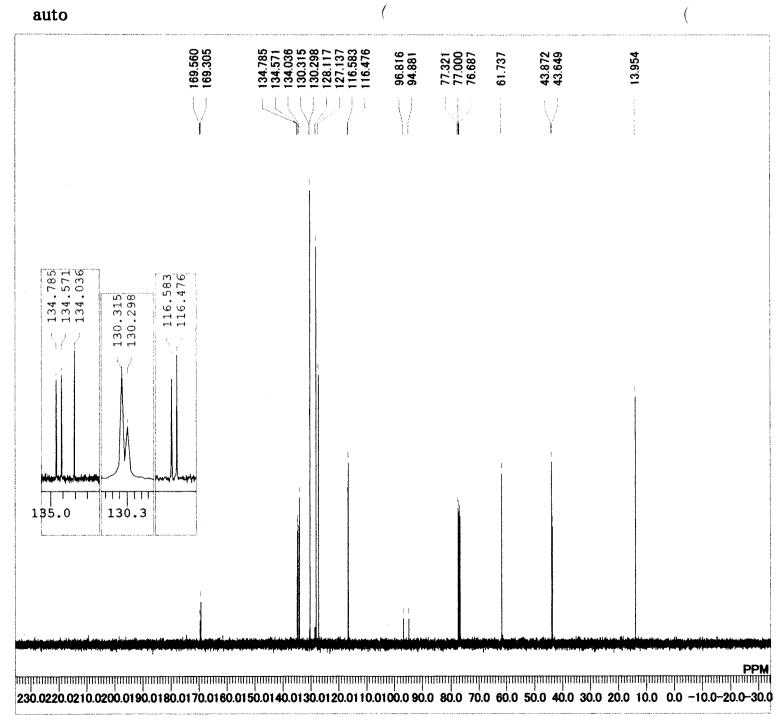




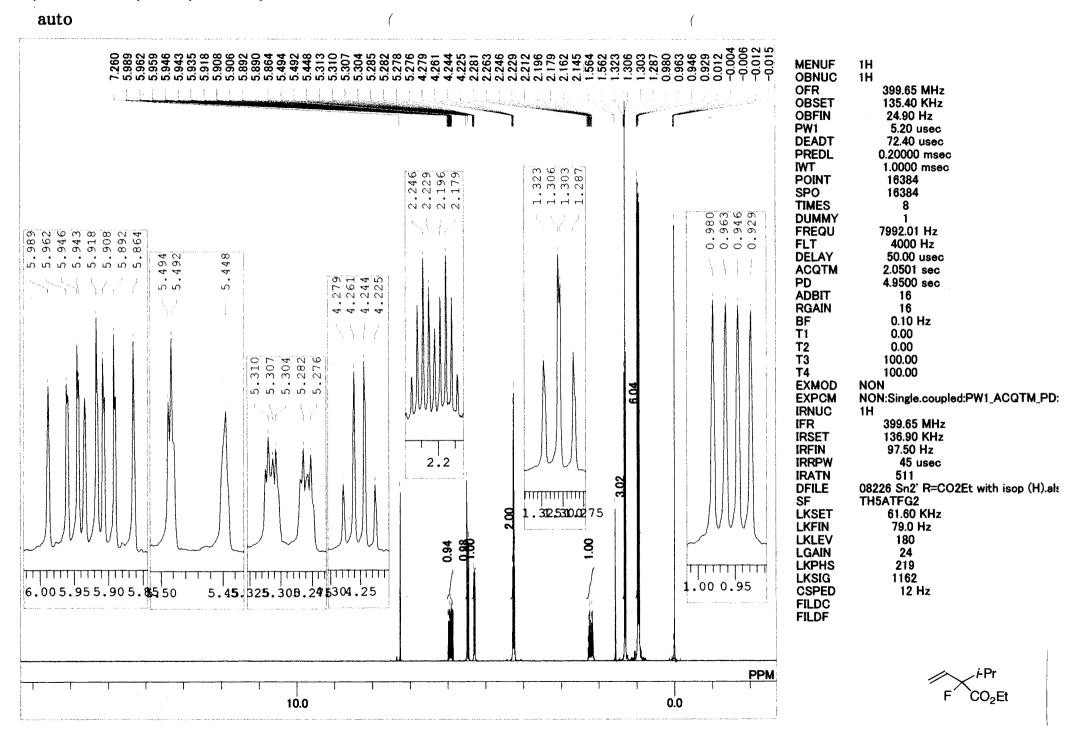
**MENUF** 13C **OBNUC** 13C **OFR** 100.40 MHz OBSET 125.00 KHz OBFIN 10500.00 Hz PW1 6.00 usec DEADT 19.10 usec PREDL 0.20000 msec 1.0000 msec IWT 32768 **POINT** SPO 32768 TIMES 256 DUMMY **FREQU** 27118.64 Hz FLT 13550 Hz 14.80 usec DELAY **ACQTM** 1.2083 sec 1.7920 sec PD **ADBIT** 16 **RGAIN** 25 0.10 Hz BF T1 0.00 T2 0.00 **T3** 90.00 **T4** 100.00 **EXMOD BCM EXPCM** Bilevel.complete.decoupling:Set\_IRRP\ 1H **IRNUC** IFR 399.65 MHz **IRSET** 124.00 KHz **IRFIN** 10500.00 Hz **IRRPW** 45 usec **IRATN** 511 DFILE DEFAULT.ALS TH5ATFG2 SF LKSET 61.60 KHz **LKFIN** 79.0 Hz **LKLEV** 180 **LGAIN** 23 **LKPHS** 211 **LKSIG** 503 CSPED 12 Hz FILDC FILDF

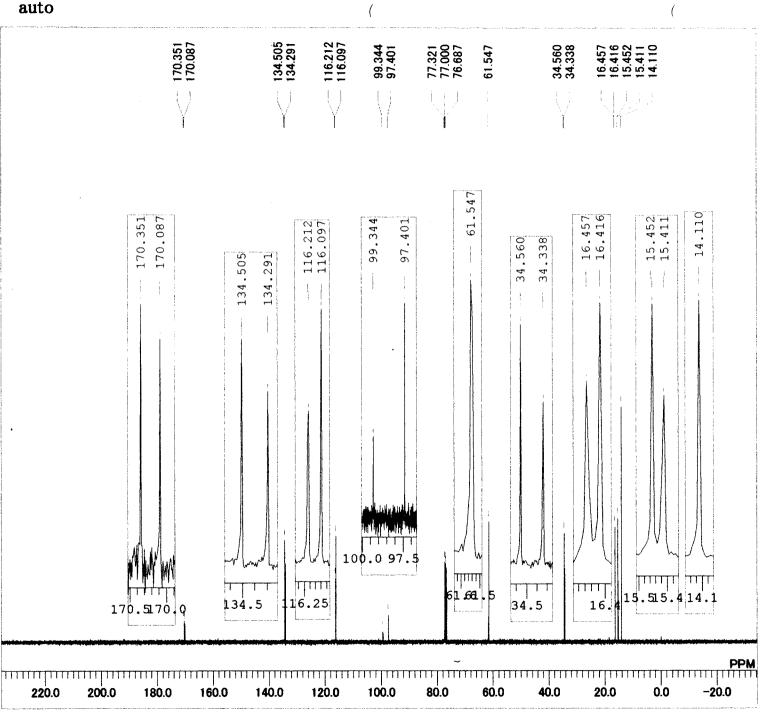
CO<sub>2</sub>Et



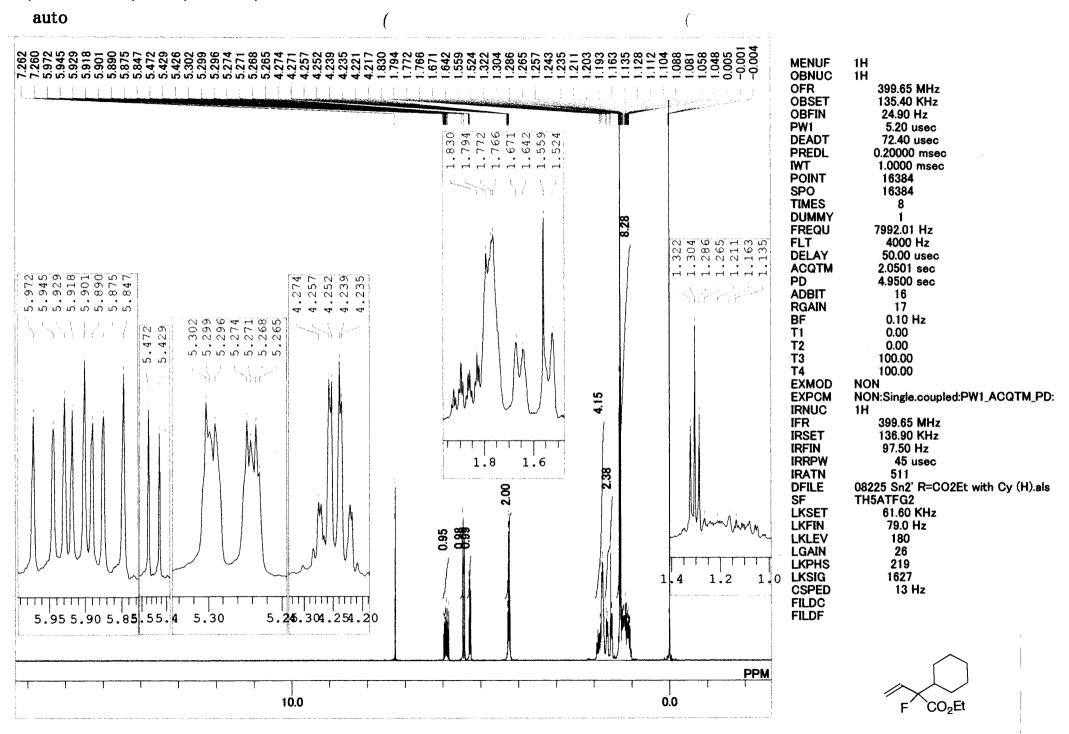


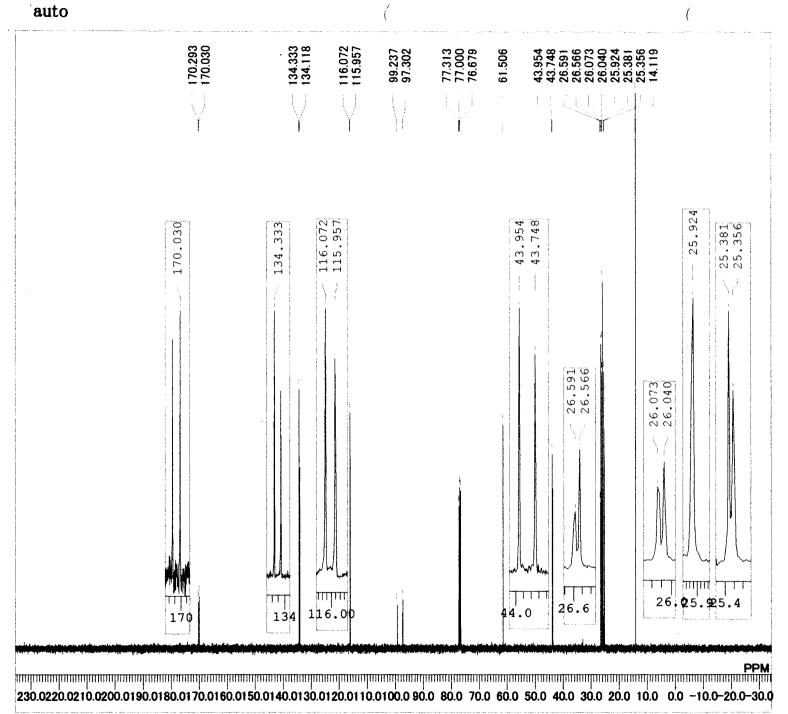
```
MENUF
          13C
OBNUC
          13C
              100.40 MHz
OFR
OBSET
              125.00 KHz
OBFIN
             10500.00 Hz
PW1
               6.00 usec
DEADT
              19.10 usec
PREDL
             0.20000 msec
IWT
              1.0000 msec
POINT
              32768
SPO
              32768
TIMES
               256
DUMMY
            27118.64 Hz
FREQU
              13550 Hz
FLT
DELAY
              14.80 usec
ACQTM
              1.2083 sec
PD
              1.7920 sec
ADBIT
                16
RGAIN
                25
               0.10 Hz
BF
T1
               0.00
T2
               0.00
T3
               90.00
T4
              100.00
EXMOD
          BCM
EXPCM
          Bilevel.complete.decoupling:Set_IRRP1
IRNUC
          1H
IFR
              399.65 MHz
IRSET
              124.00 KHz
IRFIN
             10500.00 Hz
IRRPW
                45 usec
                511
IRATN
DFILE
          081110 Sn2' R=CO2Et with BnMgCl (
SF
          TH5ATFG2
LKSET
              61.60 KHz
LKFIN
               79.0 Hz
LKLEV
                180
LGAIN
                24
                231
LKPHS
LKSIG
               1282
CSPED
                12 Hz
FILDC
FILDF
```

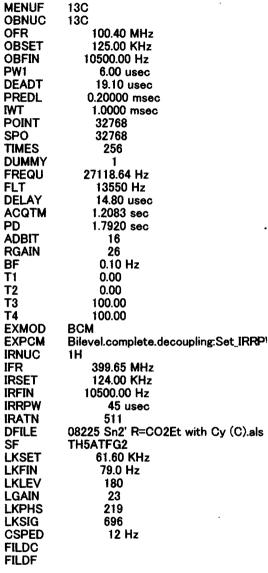




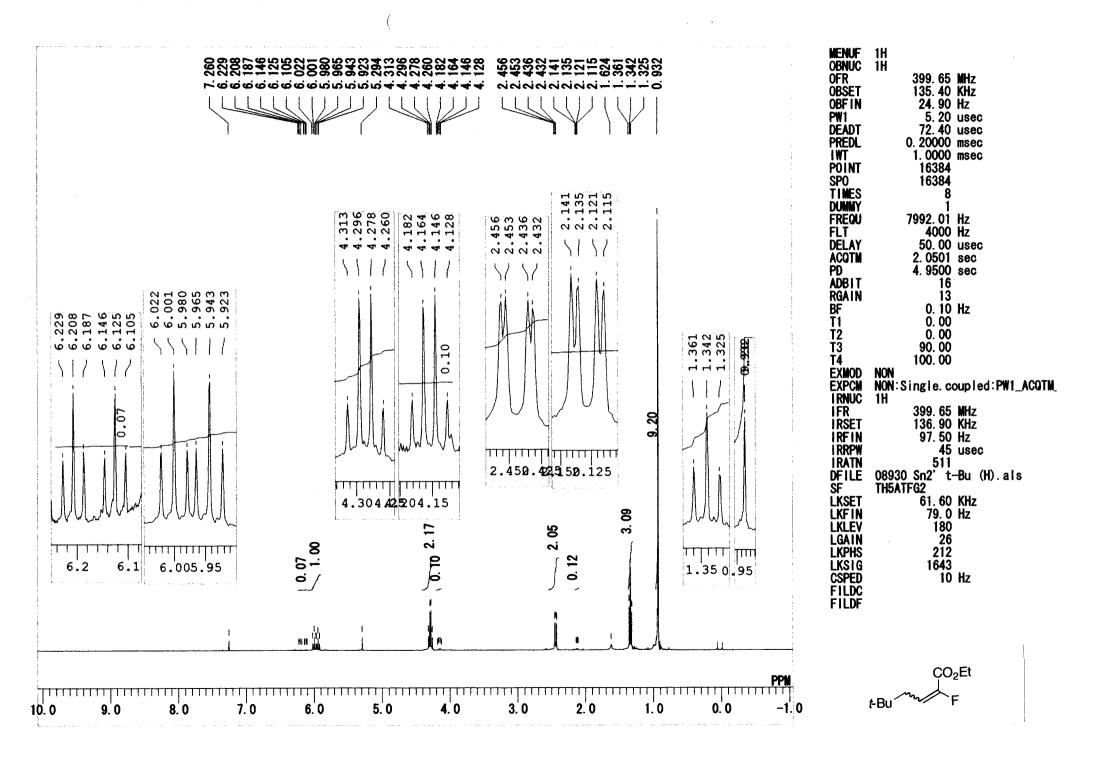
```
MENUF
          13C
OBNUC
          13C
OFR
              100.40 MHz
OBSET
              125.00 KHz
             10500.00 Hz
OBFIN
PW1
               6.00 usec
DEADT
               19.10 usec
PREDL
             0.20000 msec
IWT
              1.0000 msec
POINT
               32768
               32768
SPO
TIMES
                256
DUMMY
FREQU
             27118.64 Hz
               13550 Hz
FLT
DELAY
               14.80 usec
ACQTM
              1.2083 sec
PD
              1.7920 sec
ADBIT
                 16
RGAIN
                 26
BF
               0.10 Hz
T1
               0.00
T2
               0.00
T3
              100.00
T4
              100.00
EXMOD
          BCM
EXPCM
          Bilevel.complete.decoupling:Set_IRRP\
IRNUC
          1H
              399.65 MHz
IFR
IRSET
              124.00 KHz
             10500.00 Hz
IRFIN
IRRPW
                 45 usec
IRATN
                511
          08226 Sn2' R=CO2Et with isop (C).als
DFILE
          TH5ATFG2
SF
               61.60 KHz
LKSET
LKFIN
               79.0 Hz
LKLEV
                180
LGAIN
                 23
LKPHS
                219
                667
LKSIG
CSPED
                 11 Hz
FILDC
FILDF
```

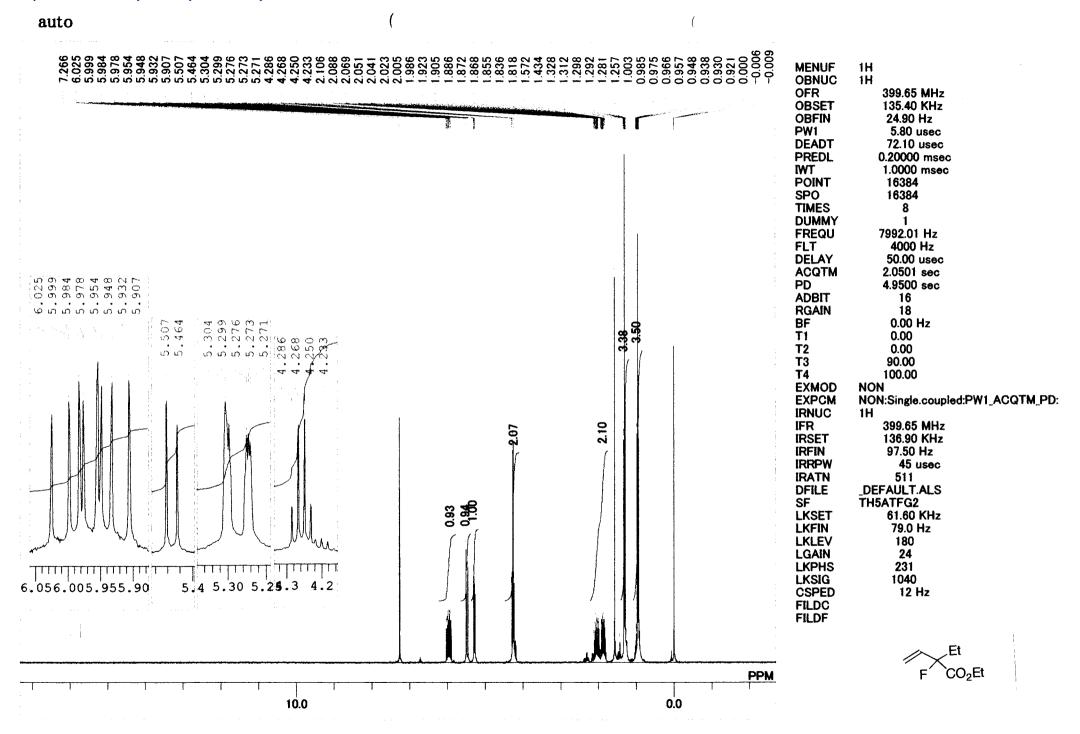


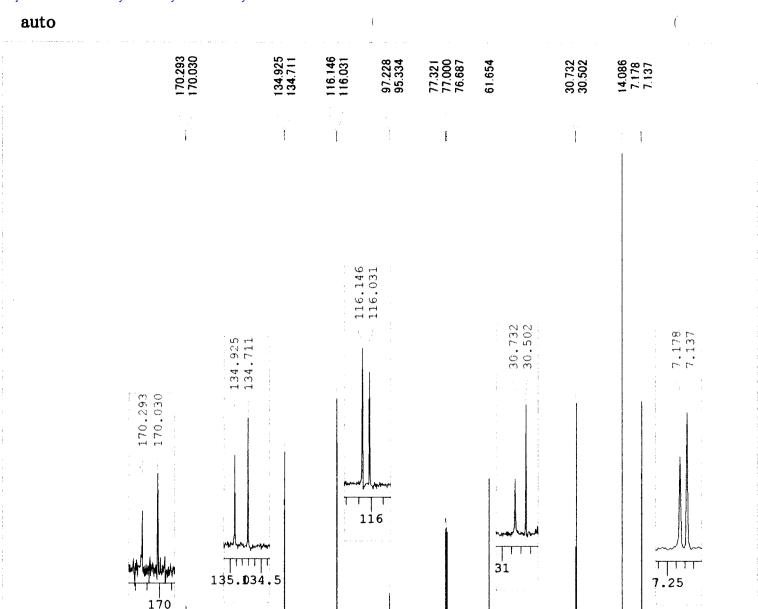








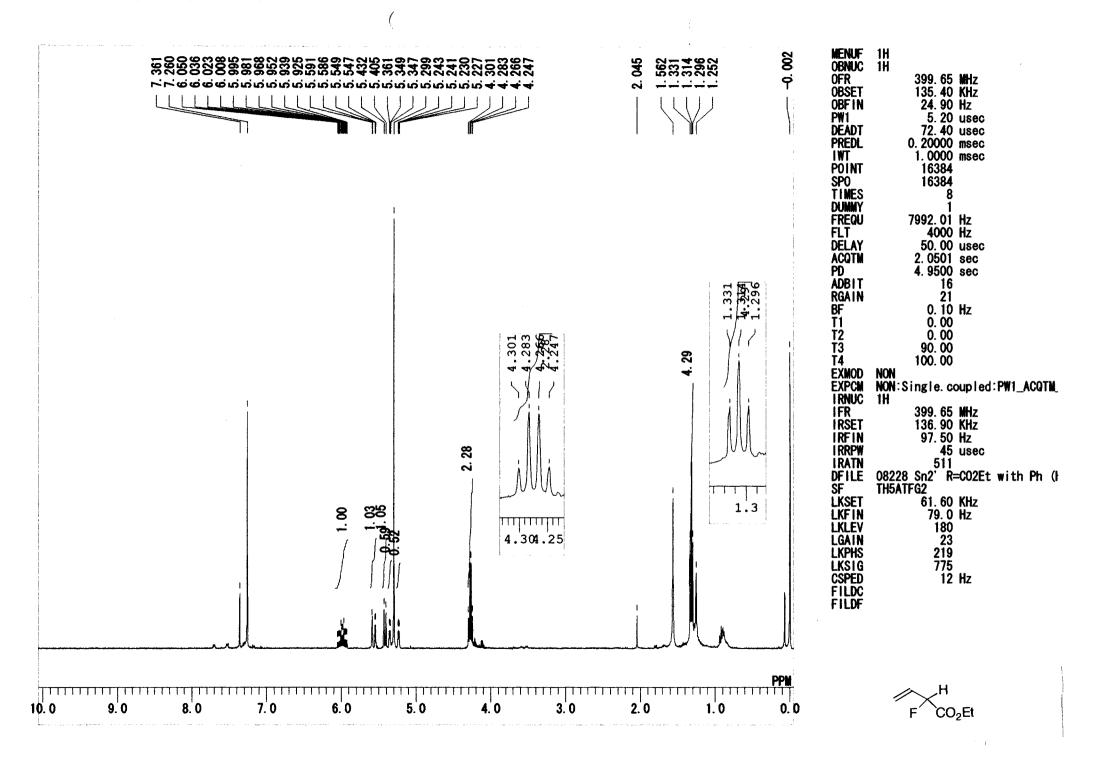


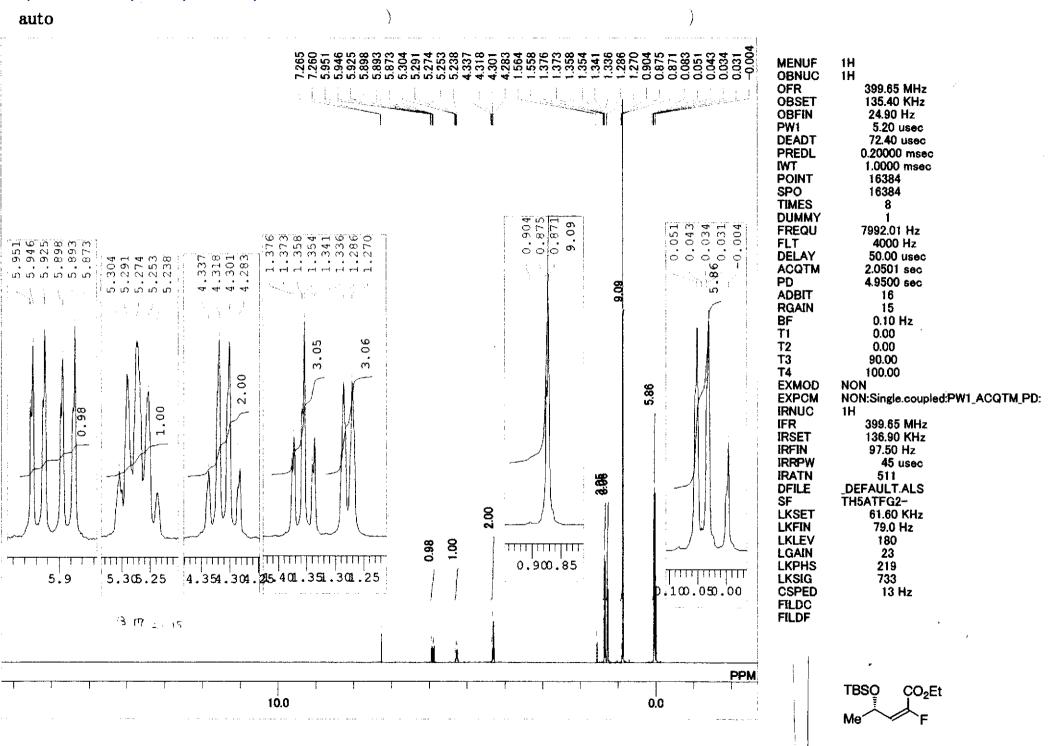


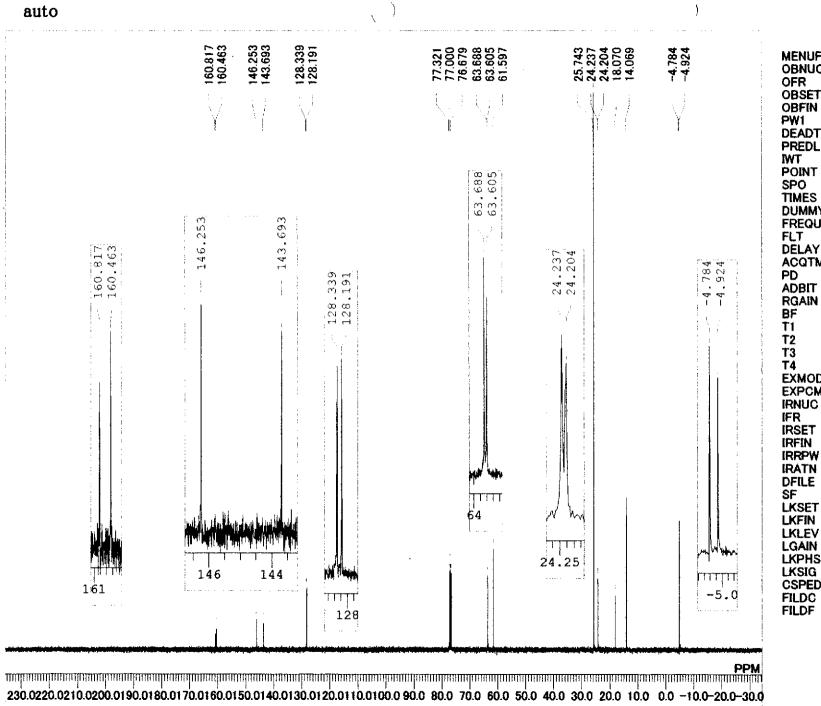
**MENUF** 13C **OBNUC** 13C **OFR** 100.40 MHz **OBSET** 125.00 KHz **OBFIN** 10500.00 Hz PW1 6.00 usec 19.10 usec DEADT PREDL 0.20000 msec **IWT** 1.0000 msec 32768 **POINT** SPO 32768 TIMES 10000 DUMMY 27118.64 Hz FREQU 13550 Hz FLT DELAY 14.80 usec **ACQTM** 1.2083 sec PD 1.7920 sec **ADBIT** 16 **RGAIN** 25 0.00 Hz BF T1 0.00 0.00 T2 **T3** 90.00 **T4** 100.00 **EXMOD BCM EXPCM** Bilevel.complete.decoupling:Set\_IRRP1 IRNUC 1H **IFR** 399.65 MHz IRSET 124.00 KHz **IRFIN** 10500.00 Hz IRRPW 45 usec **IRATN** 511 **DFILE** 081017 Sn2' R=CO2Et with Et2Zn (C) TH5ATFG2 SF LKSET 61.60 KHz LKFIN 79.0 Hz **LKLEV** 180 **LGAIN** 24 **LKPHS** 231 **LKSIG** 1268 CSPED 14 Hz FILDC **FILDF** 

Et CO.

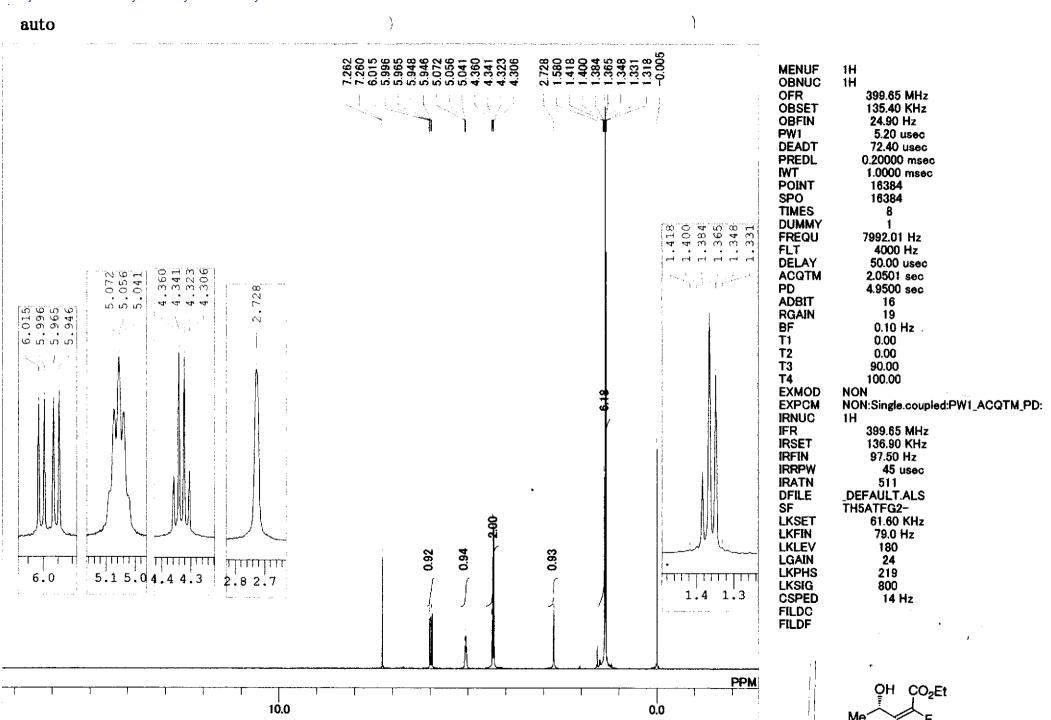
230.0220.0210.0200.0190.0180.0170.0160.0150.0140.0130.0120.0110.0100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 -10.0-20.0-30.0

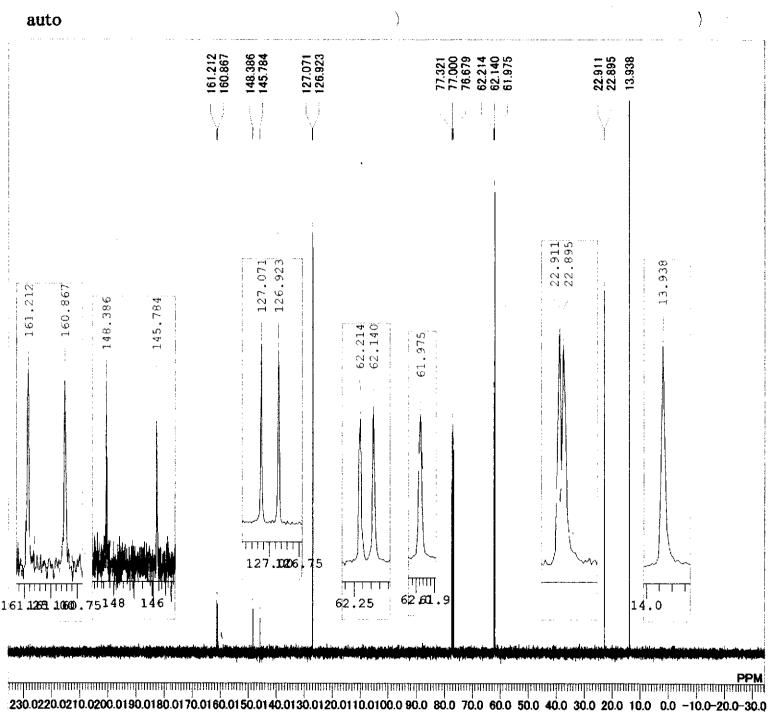






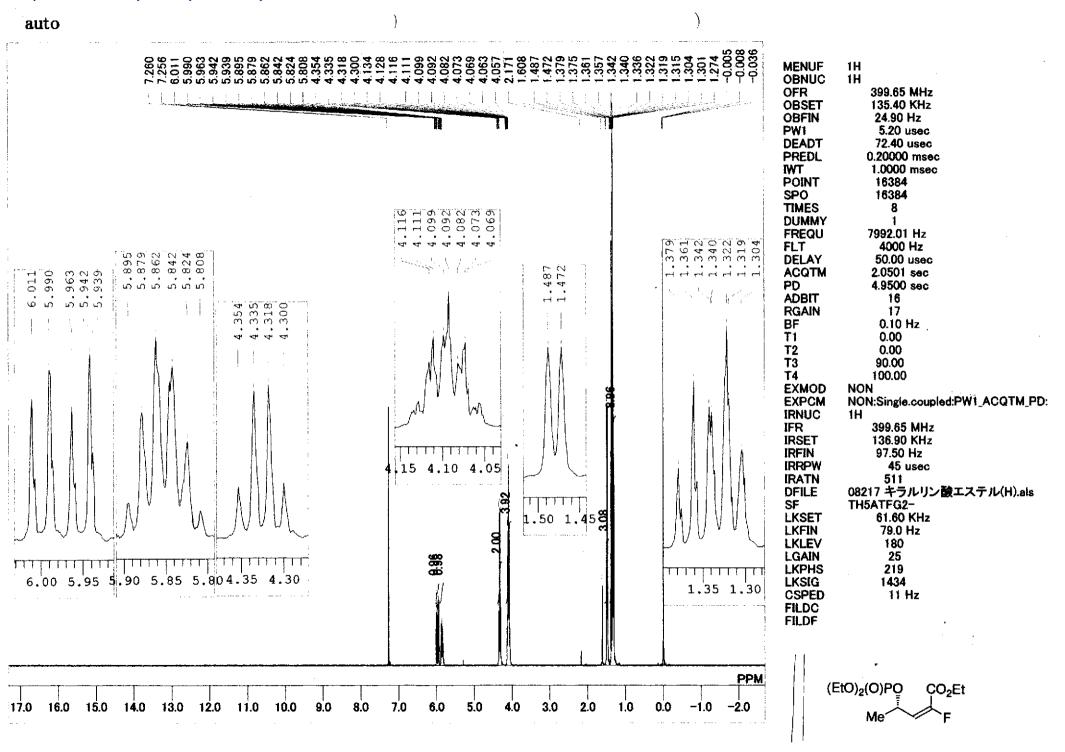
MENUF	13C
OBNUC	13C
OFR	100.40 MHz
OBSET	125.00 KHz
OBFIN	10500.00 Hz
PW1	6.00 usec
DEADT PREDL	19.10 usec
IWT	0.20000 msec 1.0000 msec
POINT	32768
SPO	32768
TIMES	256
DUMMY	07110 0411
FREQU FLT	27118.64 Hz 13550 Hz
DELAY	14.80 usec
ACQTM	1.2083 sec
PD	1.7920 sec
ADBIT	16
RGAIN	25
BF T1	0.10 Hz 0.00
T2	0.00
Ť3	90.00
T4	100.00
EXMOD	BCM
EXPCM	Bilevel.complete.decoupling:Set_IRRP
IRNUC IFR	1H 399.65 MHz
IRSET	124.00 KHz
IRFIN	10500.00 Hz
IRRPW	45 usec
IRATN	511
DFILE	08219 キラルアリルエステル(C).als
SF LKSET	TH5ATFG2- 61.60 KHz
LKFIN	79.0 Hz
LKLEV	180
LGAIN	25
LKPHS	219
LKSIG CSPED	1004 13 Hz
FILDC	19 112
FILDF	
ľ	•
	TBSQ CO₂Et

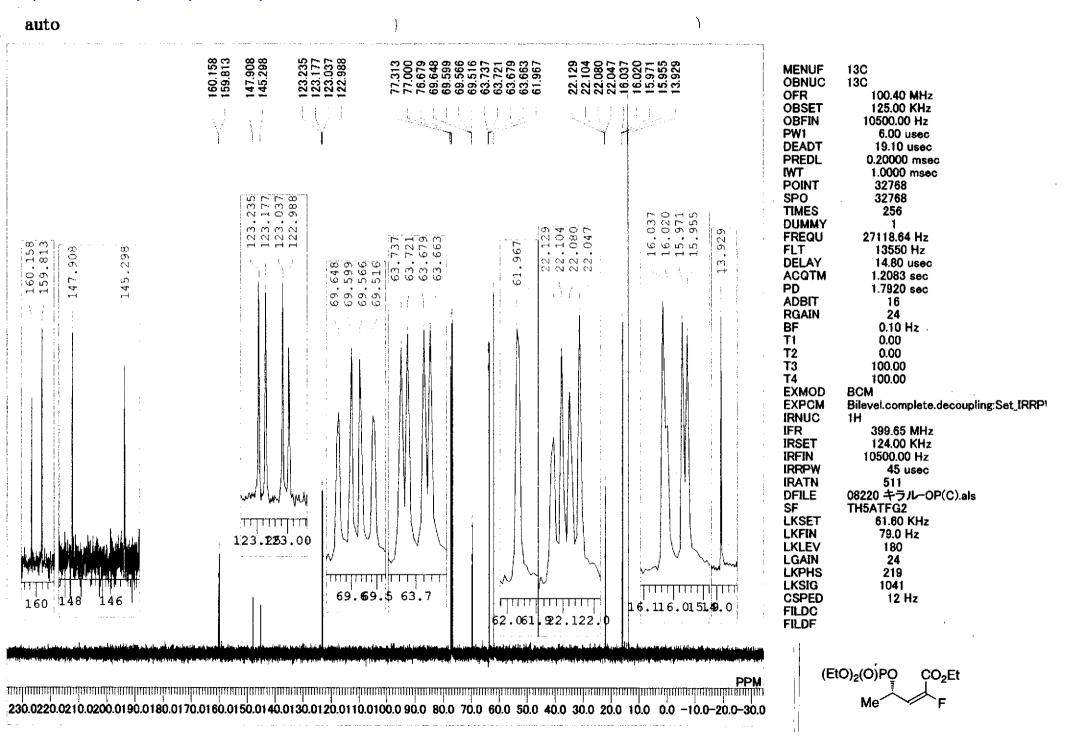




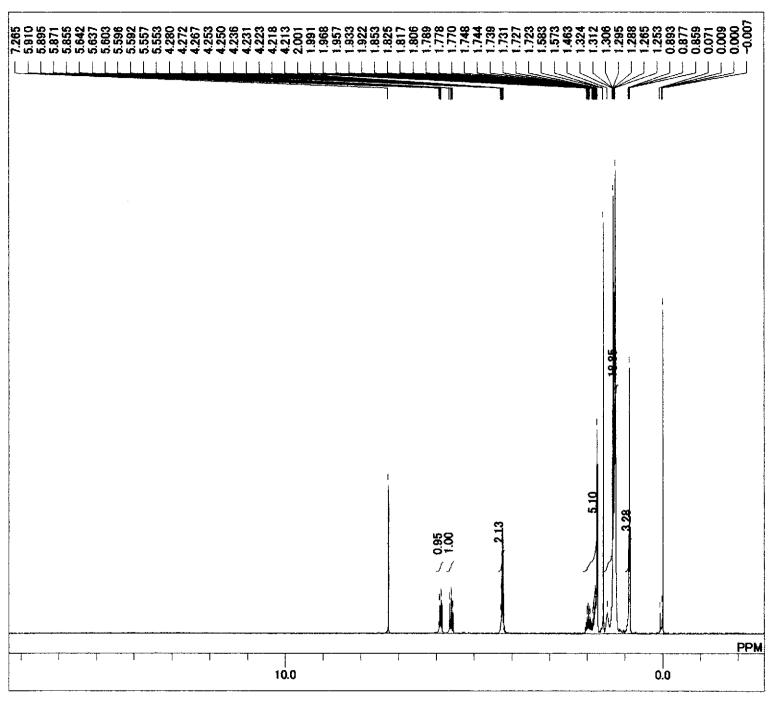
MENUF 13C 13C OBNUC OFR. 100.40 MHz OBSET 125.00 KHz OBFIN: 10500.00 Hz PW1 6.00 usec DEADT 19.10 usec PREDL 0.20000 msec 1.0000 msec **IWT** POINT 32768 SPO 32768 256 TIMES **DUMMY** 1 FREQU 27118:64 Hz 13550 Hz FLT 14.80 usec DELAY ACOTM 1.2083 sec PD 1.7920 sec **ADBIT** 16 25 **RGAIN** BF 0.10 Hz T1 0.00 **T2** 0.00 T3 90.00 **T4** 100.00 **EXMOD BCM EXPCM** Bilevellcomplete.decoupling:Set IRRP IRNUC: ĮFR 399.65 MHz 124.00 KHz IRSET IRFIN 10500000 Hz IRRPW: 45 usec **IRATN** 511 DFILE DEFAULT.ALS TH5ATFG2-SF LKSET 61.60 KHz **LKFIN** 79.0 Hz **FKFEA** 180 23 219 575 **LGAIN LKPHS** LKSIG **CSPED** 0 Hz **FILDC FILDF** 

> OH CO₂Et Me F



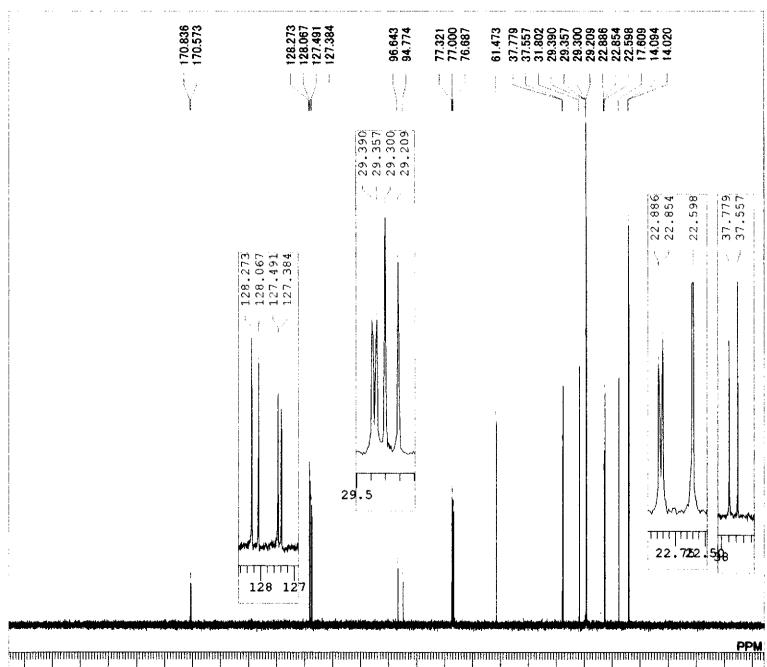






```
MENUF
         1H
OBNUC
         1H
OFR
             399.65 MHz
OBSET
             135.40 KHz
OBFIN
              24.90 Hz
PW1
              5.20 usec
              72.40 usec
DEADT
PREDL
            0.20000 msec
IWT
             1.0000 msec
POINT
             16384
SPO
              18384
TIMES
                8
DUMMY
FREQU
             7992.01 Hz
FLT
              4000 Hz
DELAY
              50.00 usec
ACQTM
             2.0501 sec
             4.9500 sec
PD
ADBIT
                16
RGAIN
                16
              0.10 Hz
BF
T1
              0.00
T2
              0.00
              90.00
T3
T4
             100.00
EXMOD
          NON
EXPCM
         NON:Single.coupled:PW1_ACQTM_PD:
IRNUC
          1H
IFR
             399.65 MHz
IRSET
             136.90 KHz
IRFIN
              97.50 Hz
IRRPW
                45 usec
IRATN
               511
DFILE
         08820 キラル Sn2' with n-C9H19 (H
         TH5ATFG2
SF
LKSET
              61.80 KHz
LKFIN
              79.0 Hz
LKLEV
               180
LGAIN
               26
LKPHS
               221
              1862
LKSIG
CSPED
                11 Hz
FILDC
FILDF
```





230.0220.0210.0200.0190.0180.0170.0160.0150.0140.0130.0120.0110.0100.0 90.0 80.0 70.0 60.0 50.0 40.0 30.0 20.0 10.0 0.0 -10.0-20.0-30.0

```
MENUF
          13C
OBNUC
          13C
OFR
              100.40 MHz
              125.00 KHz
OBSET
OBFIN
             10500.00 Hz
PW1
               6.00 usec
DEADT
              19.10 usec
PREDL
             0.20000 msec
             1.0000 msec
IWT
              32768
POINT
              32768
SPO
TIMES
              50000
DUMMY
FREQU
            27118.64 Hz
              13550 Hz
FLT
DELAY
              14.80 usec
ACQTM
              1.2083 sec
             1.7920 sec
PD
ADBIT
                16
                24
RGAIN
BF
               0.10 Hz
T1
               0.00
               0.00
T2
T3
              90.00
T4
              100.00
EXMOD
          BCM
EXPCM
          Bilevel.complete.decoupling:Set_IRRP1
IRNUC
IFR
              399.65 MHz
             124.00 KHz
IRSET
IRFIN
             10500.00 Hz
IRRPW
                45 usec
IRATN
          08820 キラル Sn2' with n-C9H19 (C
DFILE
SF
          TH5ATFG2
              61.60 KHz
LKSET
LKFIN
               79.0 Hz
LKLEV
                180
LGAIN
                24
LKPHS
               221
LKSIG
               1163
CSPED
                13 Hz
FILDC
FILDF
```