

## Supporting Information

### Design, Organocatalytic Synthesis, and Bioactivity Evaluation of Enantiopure Fluorinated LpxC Inhibitors

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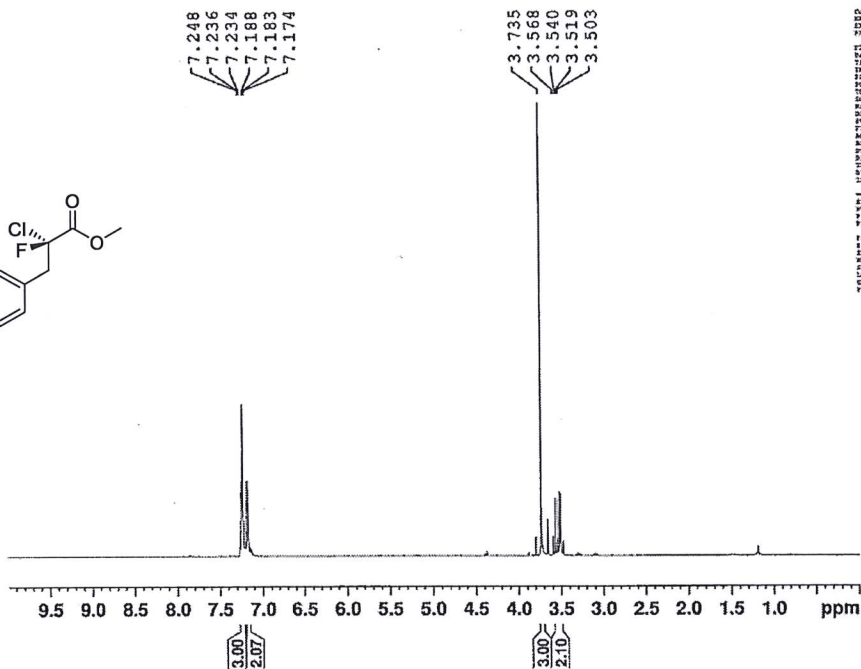
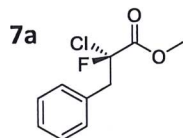
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<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

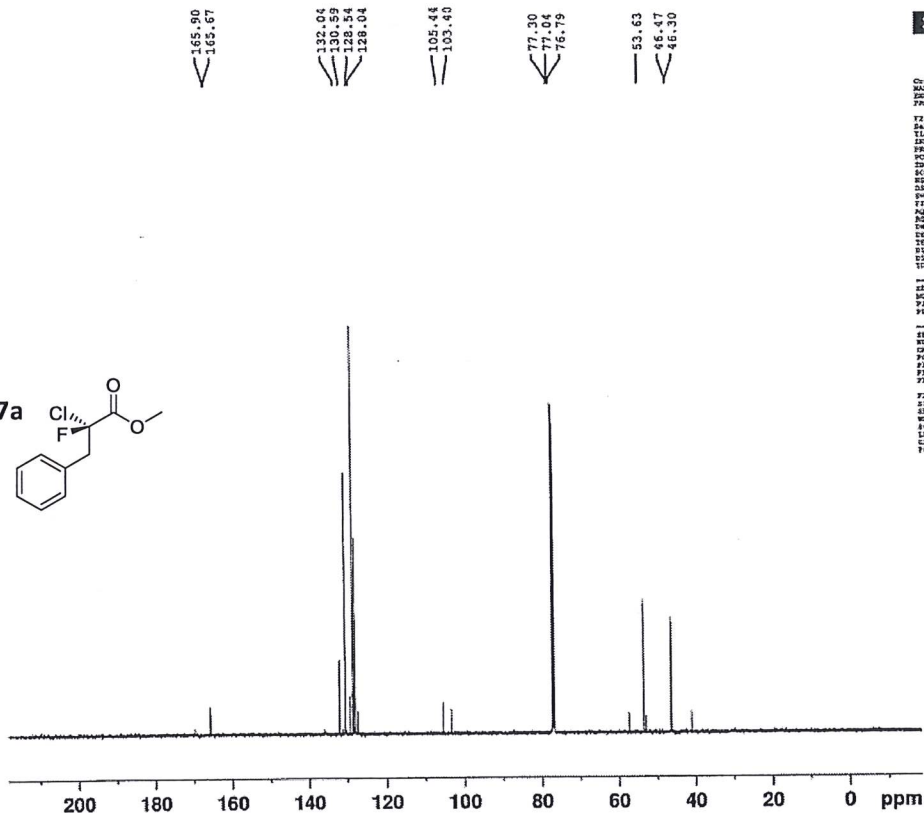
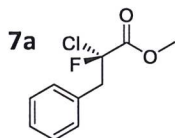


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EXPNO: 1  
PROCNO: 1

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PULPROG zgpg30  
TD 65536  
SOLVENT none  
NS 2  
DS 4  
SWH 36000.000 Hz  
FIDRES 0.233398 Hz  
AQ 0.779799 sec  
RG 327.2  
SQ 25.160 sec  
SFO 400.146 MHz  
PC 1.4500000 sec  
TD 65536

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PR1 19.3610019 W

F2 - Processing parameters  
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SF 100.6261250 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
NAME: 17-104-0001-000-ester-1aachhahaa\_ester  
EXPNO: 1  
PROCNO: 1

F2 - Acquisition Parameters  
Date\_ 20150113  
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TD 65536  
SOLVENT none  
NS 2  
DS 4  
SWH 37760.000 Hz  
FIDRES 0.451121 Hz  
AQ 1.7011048 sec  
RG 327.2  
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SFO 400.146 MHz  
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TD 65536

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P1 12.00  
PL1 0.0000019 W  
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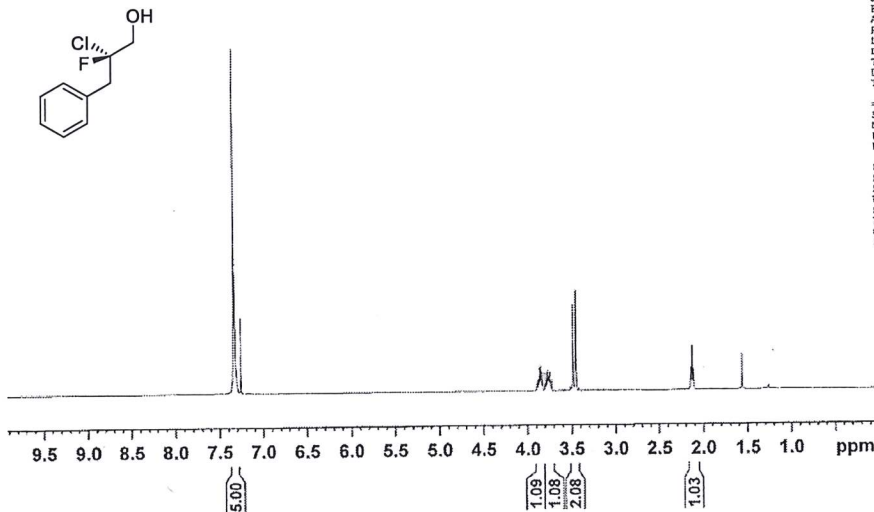
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LB 0.30 Hz  
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PC 1.40

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

7.360  
7.335  
7.326  
7.317  
7.309  
7.298  
7.260

3.887  
3.873  
3.862  
3.848  
3.839  
3.826  
3.794  
3.779  
3.769  
3.761  
3.754  
3.745  
3.736  
3.720  
3.485  
3.483  
3.449  
2.138  
2.123  
2.109

Corresponding alcohol to 7a



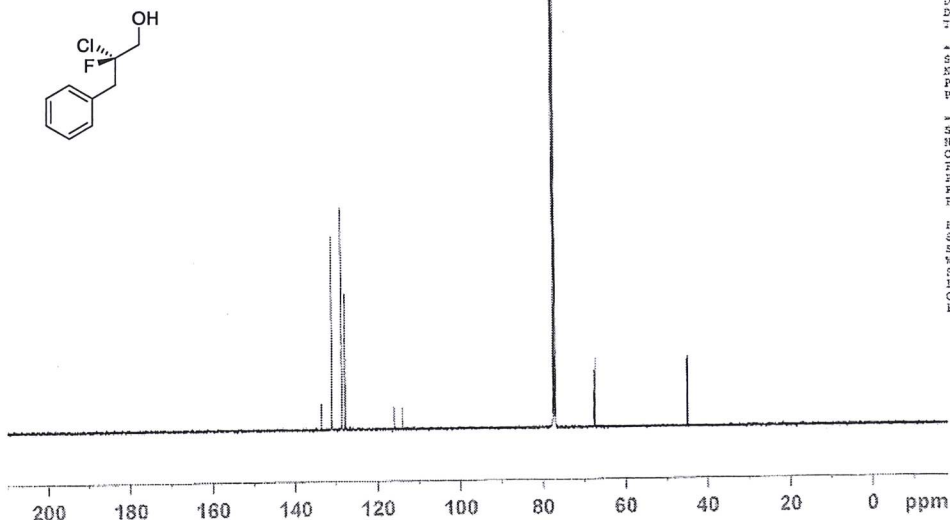
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PROCNO 1

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PULPROG zg30  
ID 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10000.000 Hz  
FIDRES 0.152588 Hz  
AQ 3.2767999 sec  
RG 147.4  
RW 50.000 usec  
DE 6.50 usec  
TE 298.2 K  
D1 1.00000000 sec  
TD 1

===== CHANNEL f1 =====  
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NUC1 1H  
P1 9.69 usec  
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F2 - Processing parameters  
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Corresponding alcohol to 7a



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EXPNO 3  
PROCNO 1

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PULPROG zgpg30  
ID 65536  
SOLVENT CDCl3  
NS 2048  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
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DE 6.50 usec  
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D1 2.00000000 sec  
D11 0.03000000 sec  
TD 1

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NUC1 13C  
P1 9.00 usec  
PLW1 90.00000000 W

===== CHANNEL f2 =====  
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NUC2 1H  
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PLW13 0.18740000 W

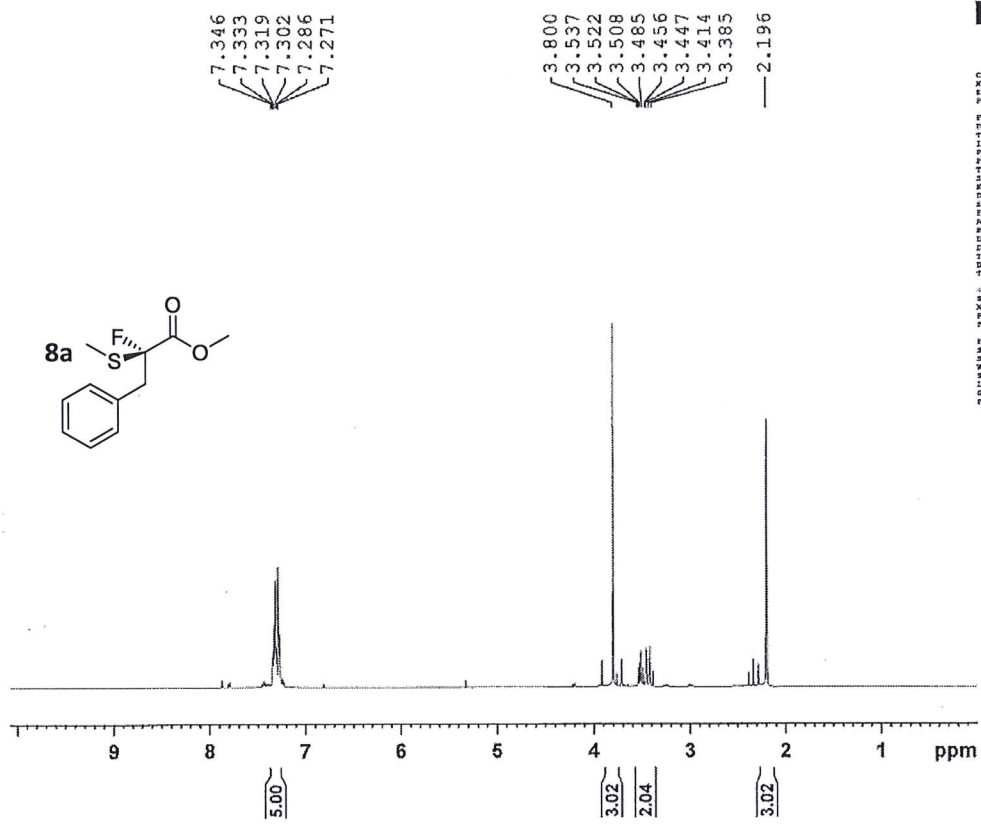
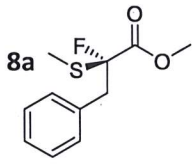
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<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds



Current Data Parameters  
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 FPROCNO 1  
 F1 - Acquisition Parameters  
 Date\_ 20191216  
 Time\_ 18.13  
 INSTRUM spect  
 PROBHD 5 mm PABSO BB/  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 512  
 DS 4  
 SWH 29761.904  
 FIDRES 0.454131  
 AQ 1.1010048  
 RG 187.7  
 DW 16.800  
 DE 6.50  
 TE 306.0  
 D1 2.0000000  
 D11 0.0300000  
 TDO 1

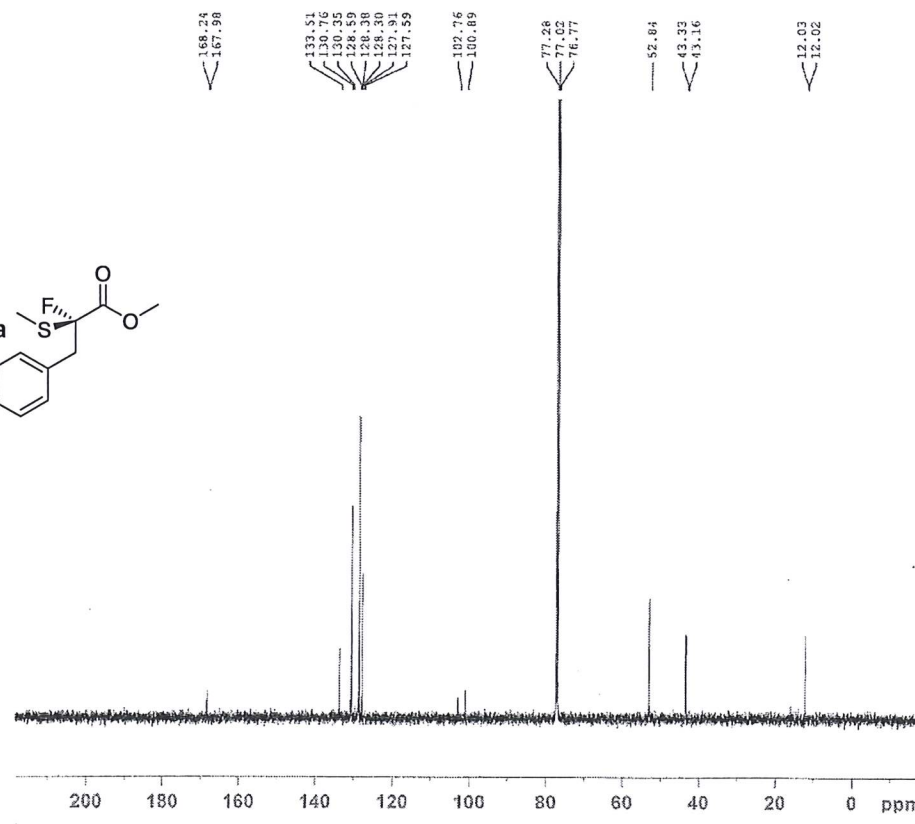
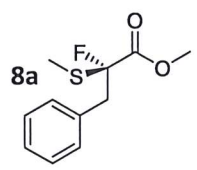
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 P1 9.00  
 PLW1 29.00000000 W  
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 SF 500.220000 MHz  
 WDW EM  
 SSB 0  
 LB 0.00 Hz  
 GB 0  
 PC 1.00



Current Data Parameters  
 NAME IV-MRA-Sn2-Chi  
 EXPNO 4  
 FPROCNO 1  
 F2 - Acquisition Param  
 Date\_ 20200123  
 Time\_ 15.53  
 INSTRUM spect  
 PROBHD 5 mm PABSO BB/  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 512  
 DS 4  
 SWH 29761.904  
 FIDRES 0.454131  
 AQ 1.1010048  
 RG 187.7  
 DW 16.800  
 DE 6.50  
 TE 306.0  
 D1 2.0000000  
 D11 0.0300000  
 TDO 1

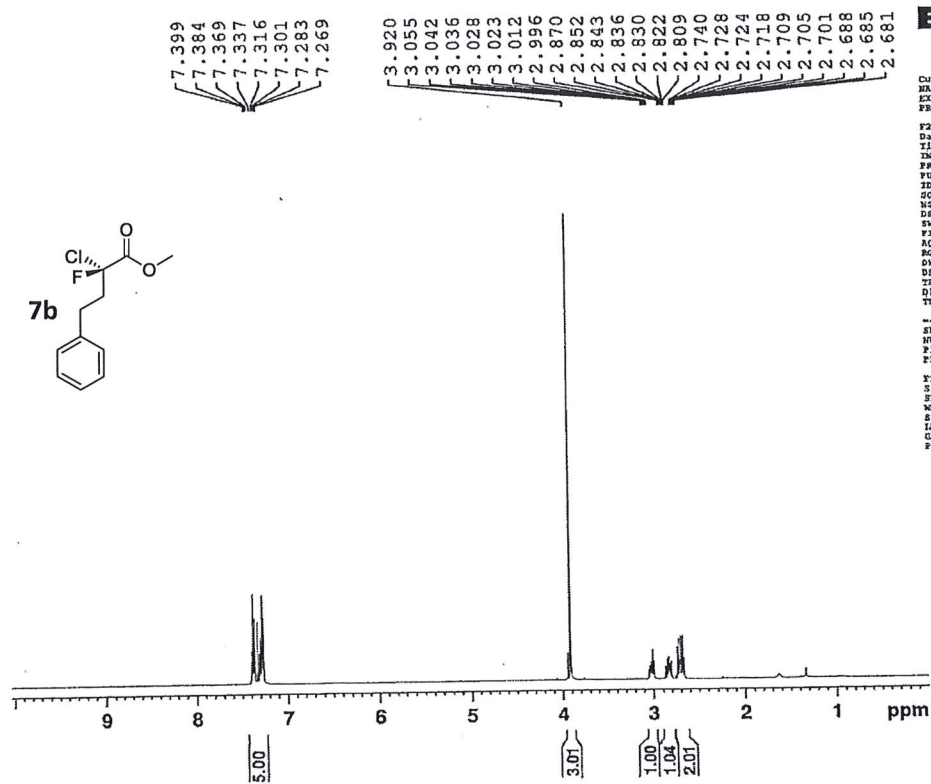
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 NUC2 1H  
 CPDPRG2 waltz16  
 PCPDZ 80.00  
 PLW2 20.00000000  
 PLW12 0.29282091  
 PLW13 9.18740000

F2 - Processing paramete  
 SI 32768  
 SF 125.7804190  
 WDW EM  
 SSB 0  
 LB 1.00  
 GB 0  
 PC 1.40





<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

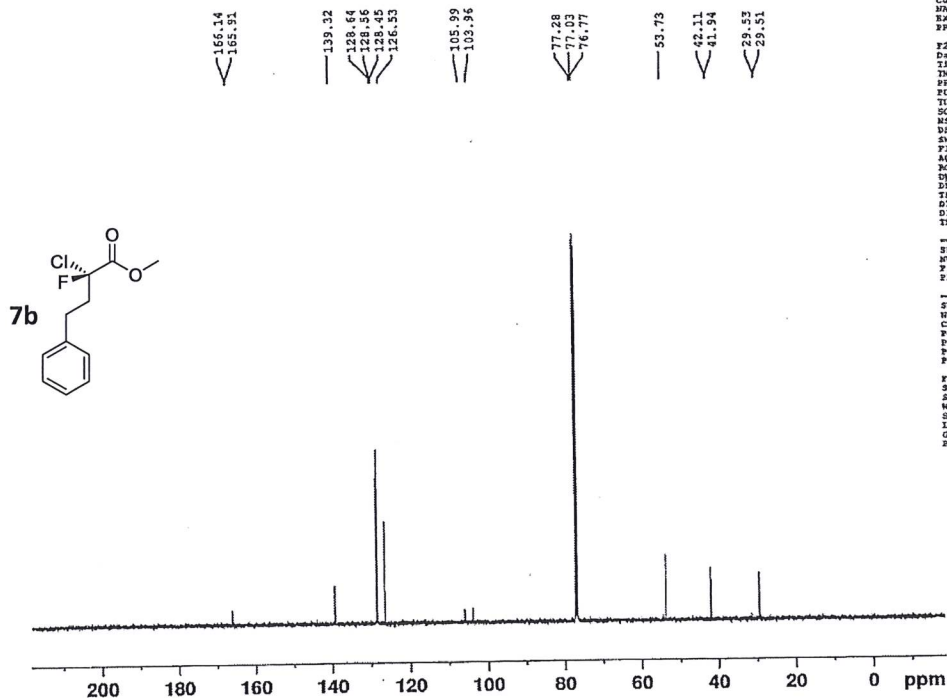


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EXPNO 1  
PROCNO 1

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PROBHD 5 mm F400 E8-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10000.800 Hz  
FDRMS 0.152588 Hz  
AQ 3.218789 sec  
RG 187.7  
DW 50.300 usec  
DE 5.50 usec  
TE 298.0 K  
D1 1.0000000 sec  
TDO 1

CHANNEL F1  
SFO1 500.2230891 MHz  
NUC1 1H  
P1 14.70 usec  
PL1 18.30000018 W

F2 - Processing parameters  
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SF 500.2199734 MHz  
WDW EM  
SSB 0  
IB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
NAME IV-10A-chiral-Cl-ester-H\_series  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20130314  
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INSTRUM spect  
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PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 4  
SWH 29761.304 Hz  
FDRMS 0.484131 Hz  
AQ 1.1010048 sec  
RG 187.7  
DW 16.400 usec  
DE 6.50 usec  
TE 298.0 K  
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D11 0.0300000 sec  
TDO 1

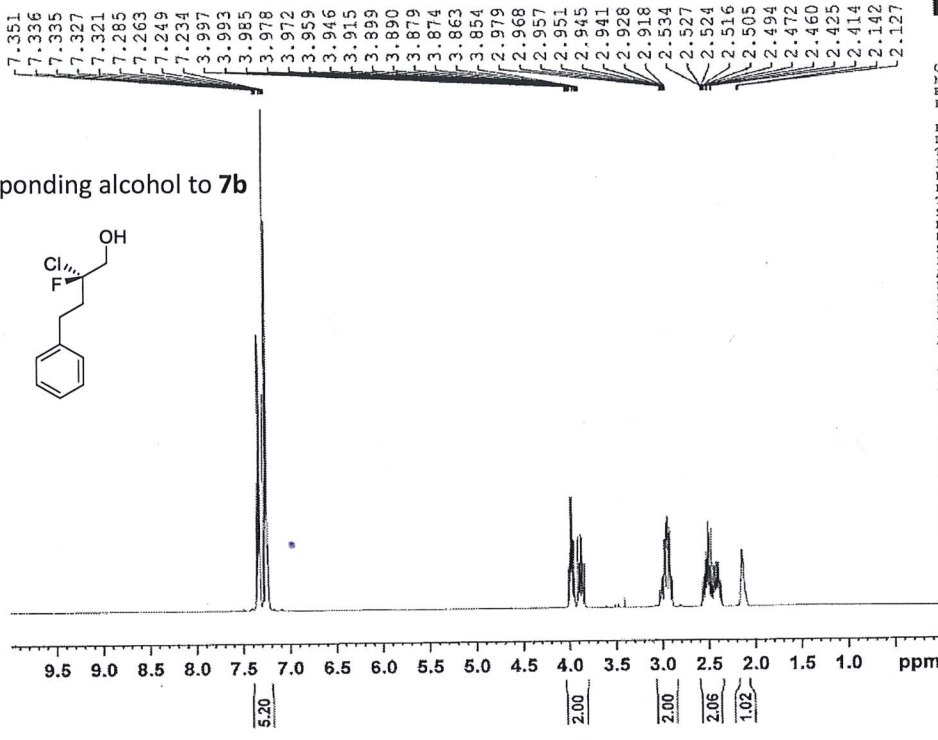
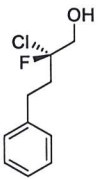
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P1 3.30 usec  
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CHANNEL F2  
SFO2 500.2230891 MHz  
NUC2 1H  
CPDPRG2 waltz16  
PCPD2 80.00 usec  
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PLM12 0.14777001 W  
PLM13 0.22257000 W

F2 - Processing parameters  
SI 32768  
SF 125.7804190 MHz  
WDW EM  
SSB 0  
IB 1.00 Hz  
GB 0  
PC 1.00

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

Corresponding alcohol to 7b



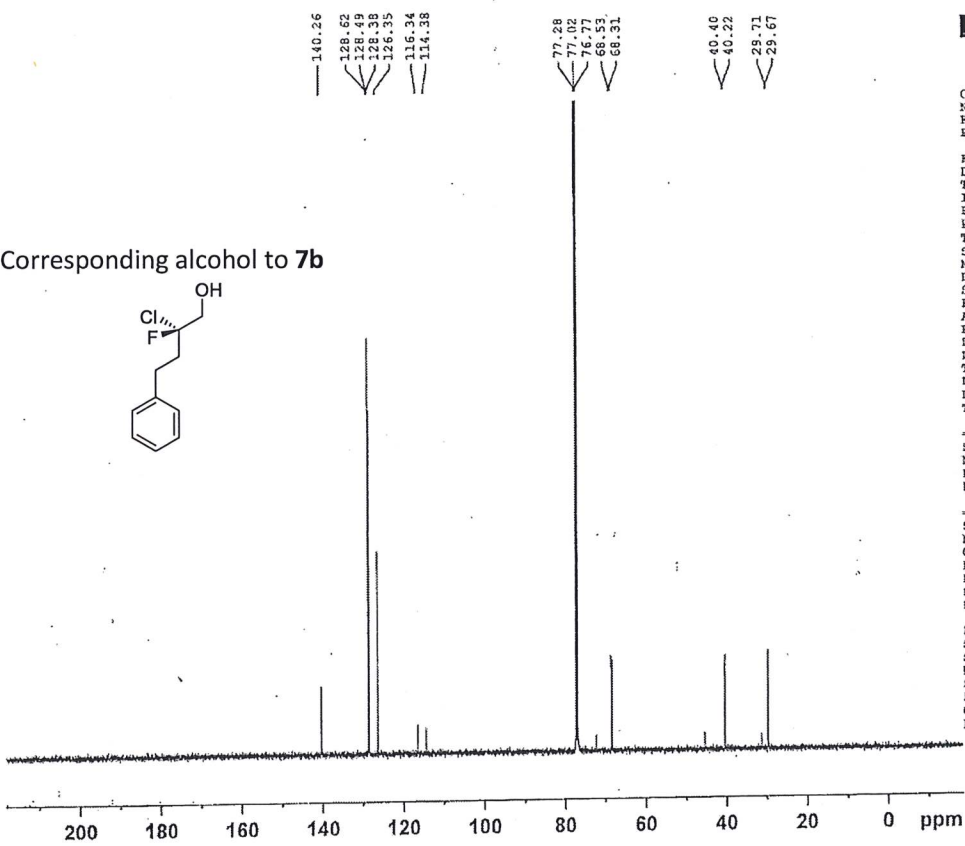
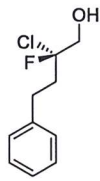
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 PROCNO 1

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 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 2  
 DS 2  
 SWH 10000.000 Hz  
 FIDRES 0.152588 Hz  
 AQ 3.2767939 sec  
 RG 187.29  
 DW 50.000 usec  
 DE 6.50 usec  
 TE 298.0 K  
 D1 1.00000000 sec  
 TDO 1

===== CHANNEL f1 =====  
 SF01 500.2230891 MHz  
 NUC1 1H  
 P1 9.68 usec  
 PLW1 20.00000000 W

F2 - Processing parameters  
 SI 65536  
 SF 500.2200000 MHz  
 WDW EM  
 SSB 0  
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 PC 1.00

Corresponding alcohol to 7b



Current Data Parameters  
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 EXPNO 4  
 PROCNO 1

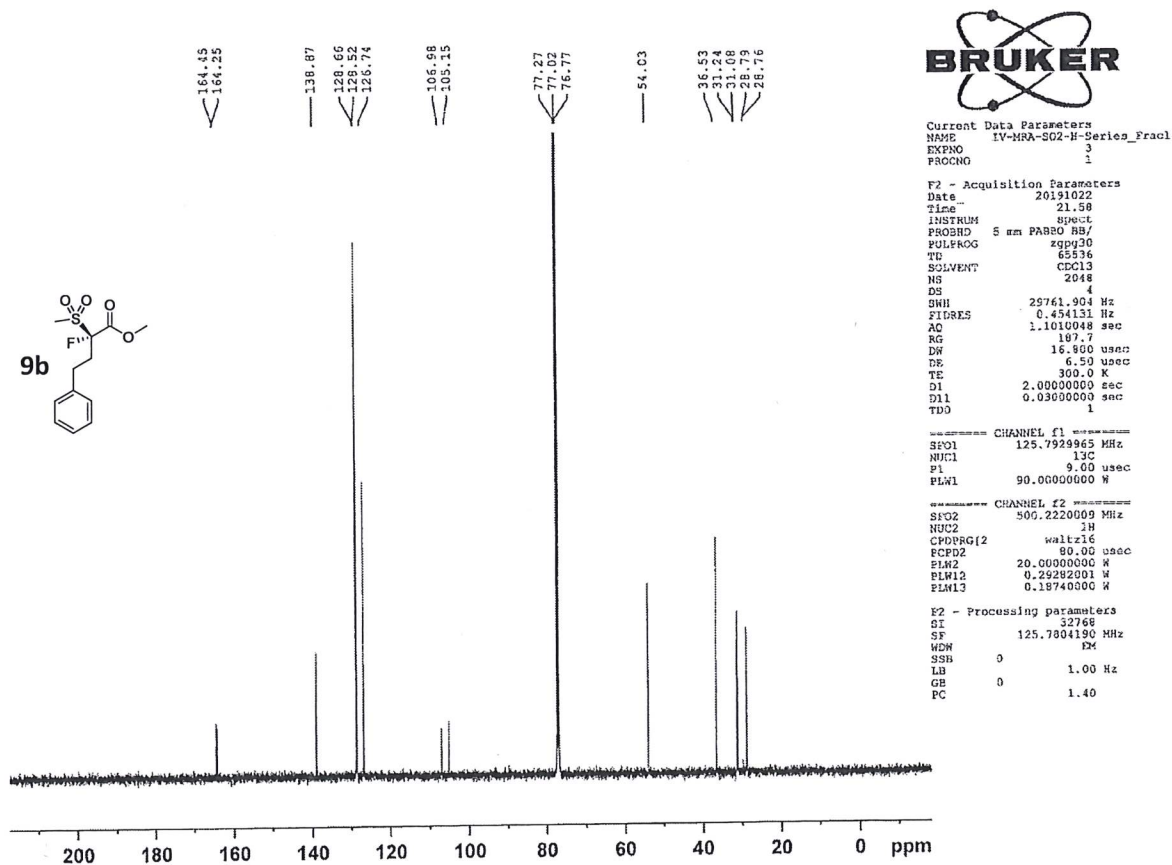
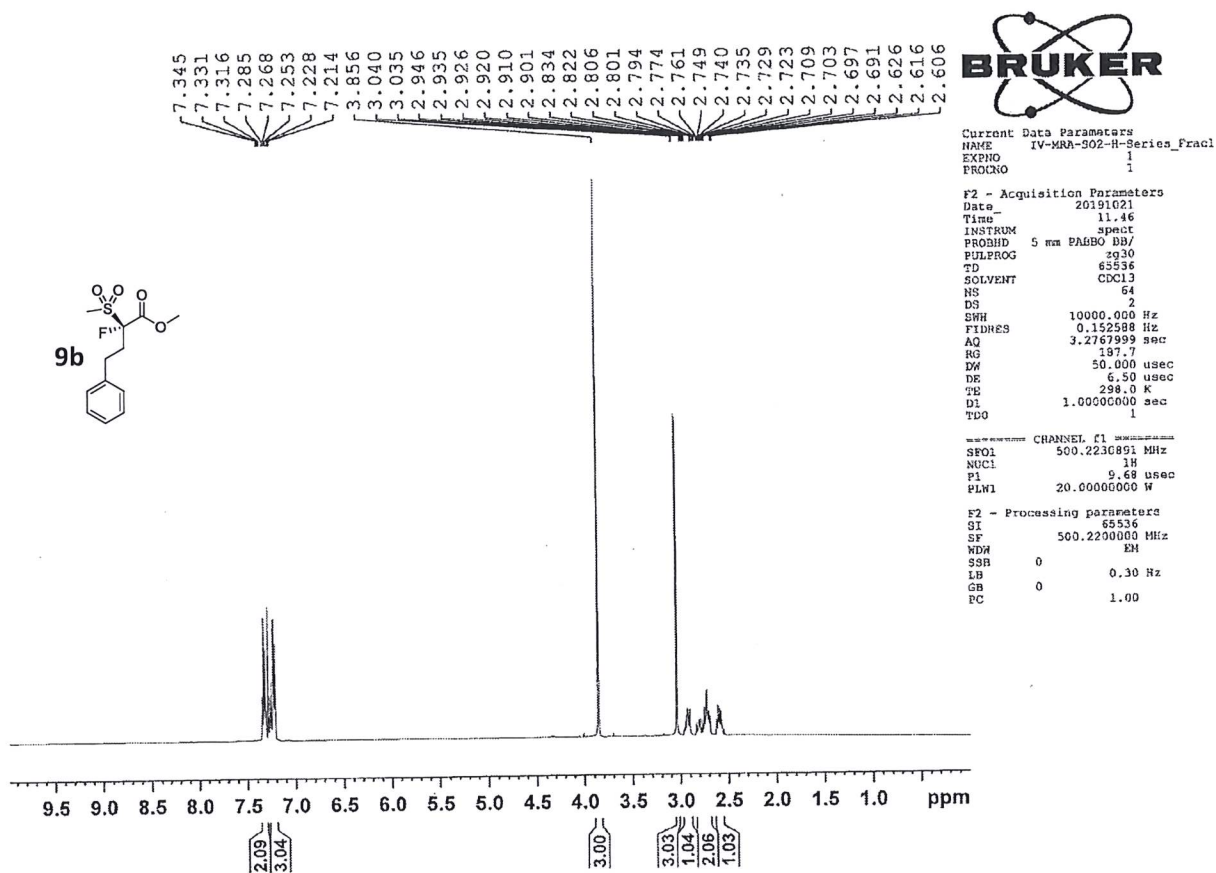
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 Time 0.35  
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 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 1024  
 DS 4  
 SWH 29761.904 Hz  
 FIDRES 0.454131 Hz  
 AQ 1.1010048 sec  
 RG 187.7  
 DW 16.800 usec  
 DE 6.50 usec  
 TE 300.0 K  
 D1 2.00000000 sec  
 D11 0.03000000 sec  
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 P1 9.00 usec  
 PLW1 90.00000000 W

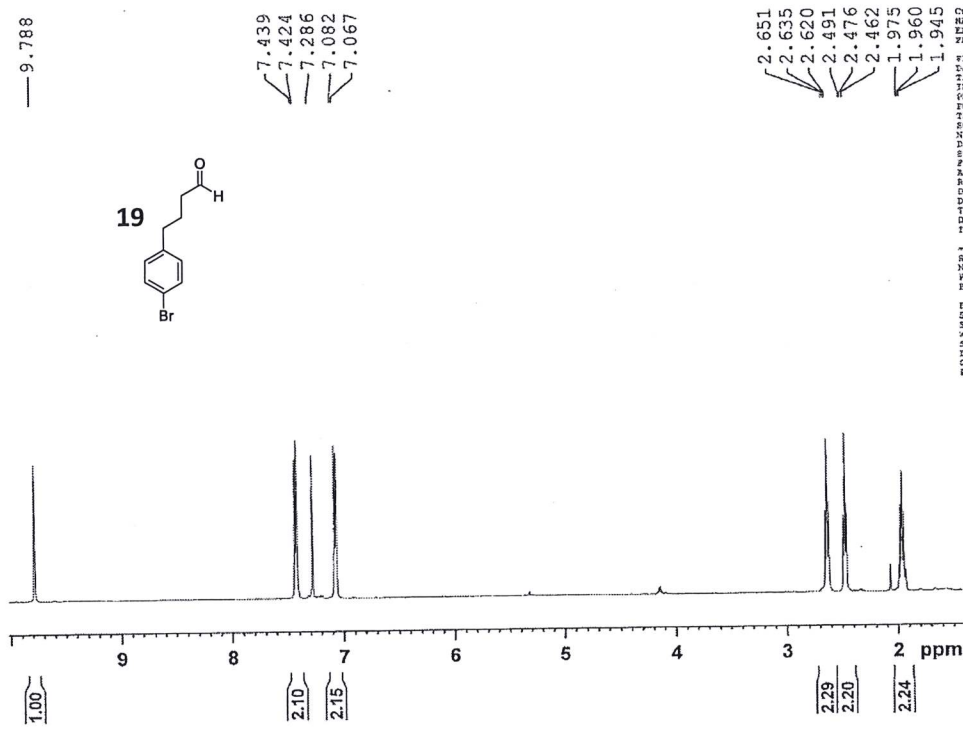
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 CPDPRG2 waltz16  
 PCPD2 80.00 usec  
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 PLW12 0.29282001 W  
 PLW13 0.18740000 W

F2 - Processing parameters  
 SI 32768  
 SF 125.7804190 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds



<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

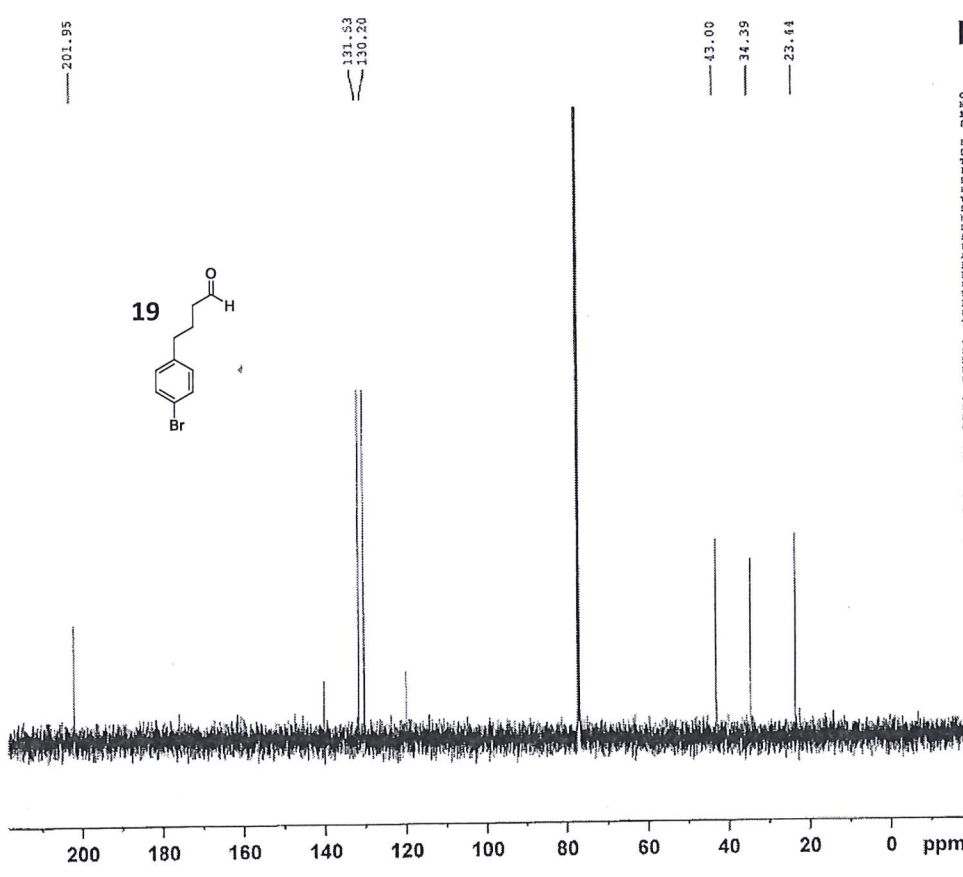


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PROCNO 1

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PULPROG zgpg30  
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SOLVENT CDCl3  
NS 4  
DS 2  
SWH 10000.000 Hz  
FIDRES 0.152080 Hz  
AQ 3.2767999 sec  
RG 651.25  
DW 59.000 usec  
DE 6.00 usec  
TE 298.2 K  
D1 1.00000000 sec  
TD0

CHANNEL f1  
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NUC1 1H  
P1 5.68 usec  
PLM1 20.00000000 M

F2 - Processing parameters  
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SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
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EXPNO 1  
PROCNO 1

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PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 4  
DS 2  
SWH 29761.904 Hz  
FIDRES 0.154131 Hz  
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RG 651.25  
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DE 6.00 usec  
TE 298.2 K  
D1 1.00000000 sec  
TD0 1

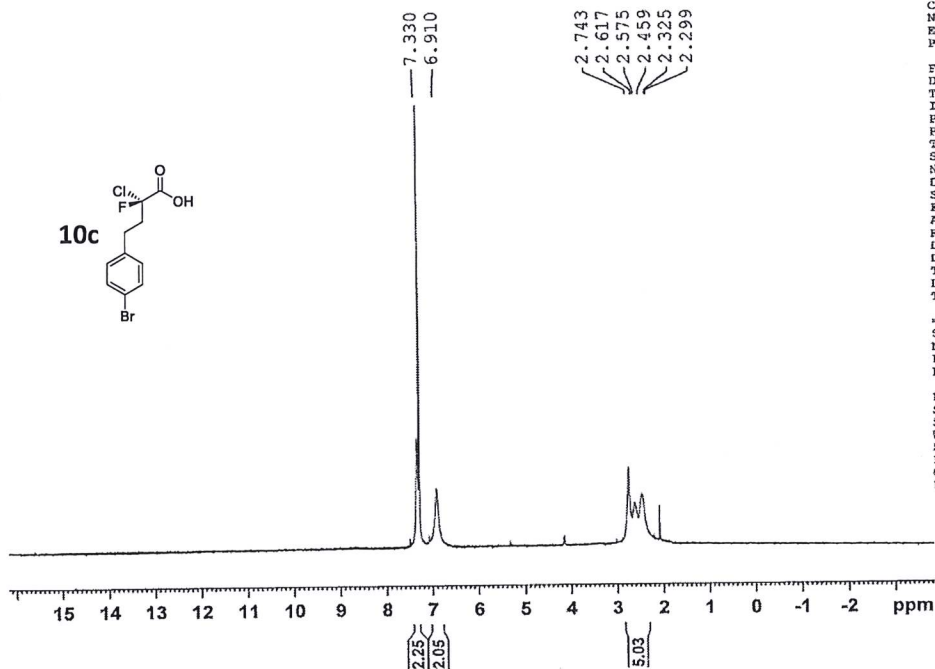
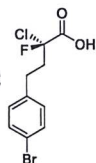
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NUC2 1H  
P2 5.68 usec  
PLM2 20.00000000 M  
SFO3 125.7629862 MHz  
NUC3 13C  
P3 9.00 usec  
PLM3 20.00000000 M

F2 - Processing parameters  
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SF 300.2220003 MHz  
WDW EM  
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LB 1.00 Hz  
GB 0  
PC 1.40

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

10c



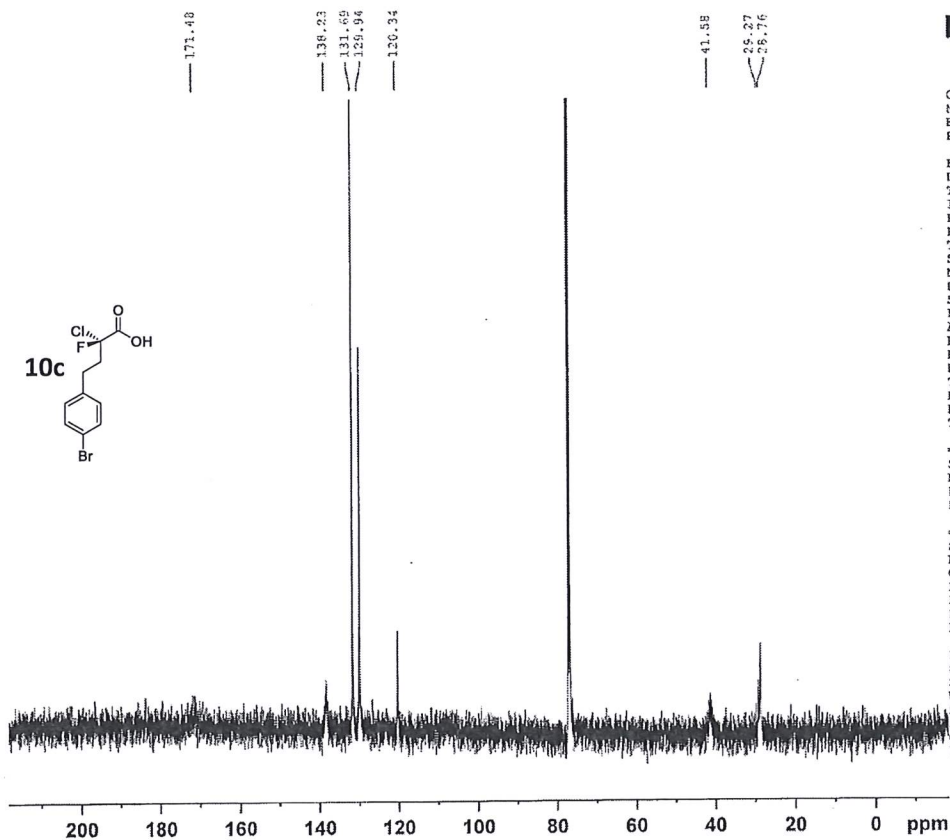
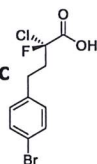
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 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
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 DS 2  
 SWH 10000.000 Hz  
 FIDRES 0.152588 Hz  
 AQ 3.2767999 sec  
 RG 187.7  
 DW 50.000 usec  
 DE 6.50 usec  
 TE 298.0 K  
 D1 1.00000000 sec  
 TDO 1

===== CHANNEL f1 =====  
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 NUC1 1H  
 P1 9.68 usec  
 PLW1 20.00000000 W

F2 - Processing parameters  
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 SF 500.2200000 MHz  
 WDN EM  
 SSB 0  
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10c



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 EXPNO 1  
 PROCNO 1

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 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 1024  
 DS 4  
 SWH 29761.904 Hz  
 FIDRES 0.454131 Hz  
 AQ 1.1010049 sec  
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 DE 6.50 usec  
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 D11 0.03000000 sec  
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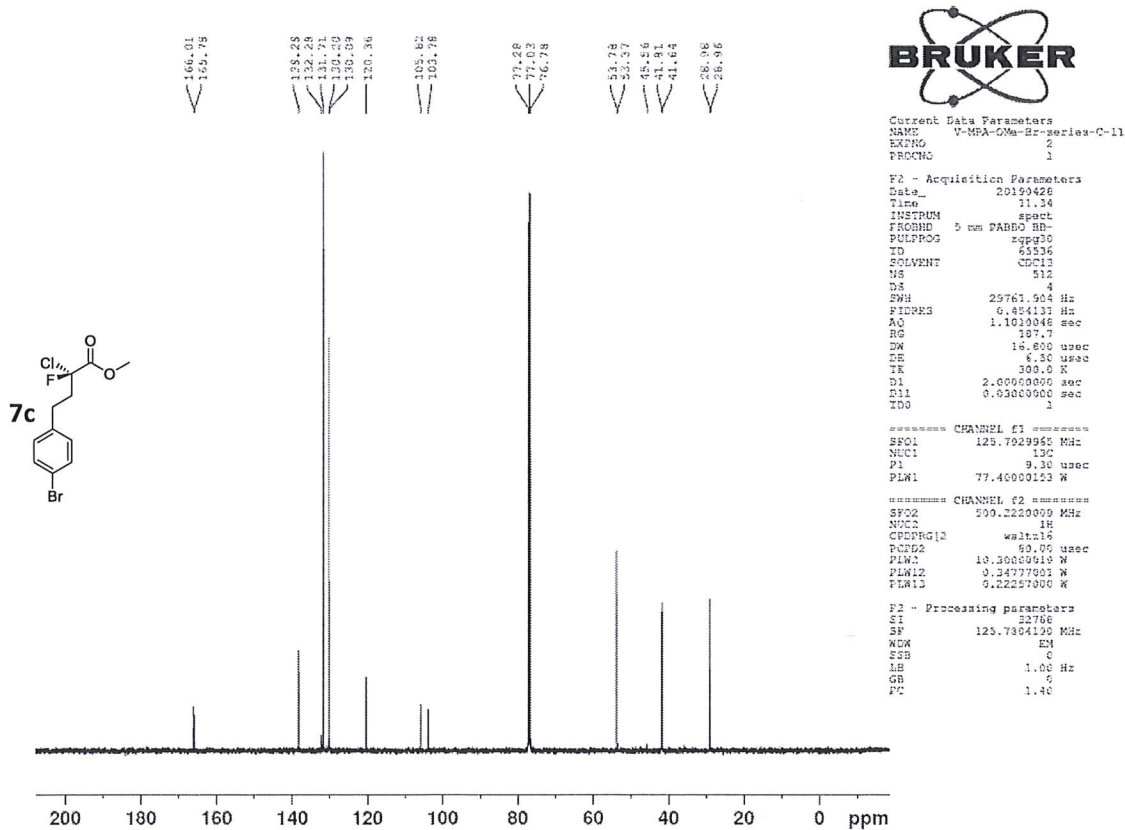
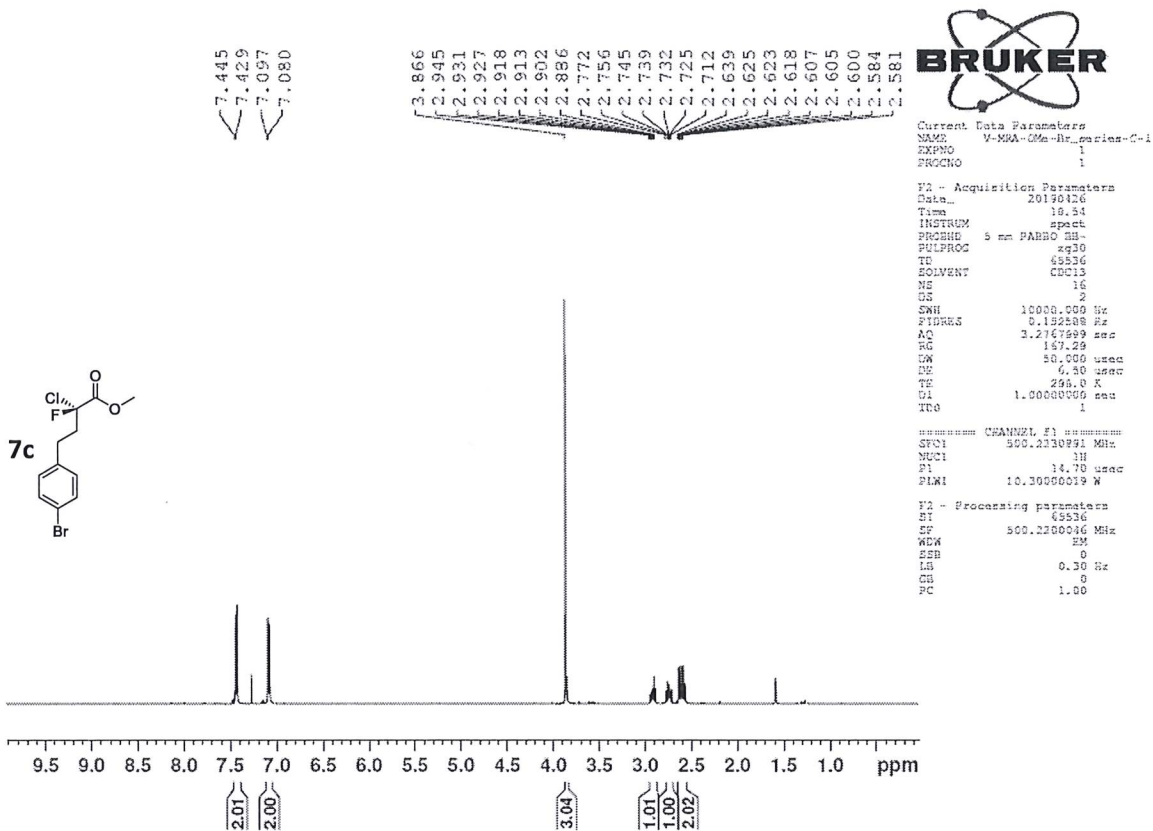
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 NUC2 1H  
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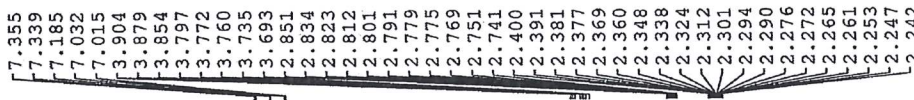
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<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds



<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds



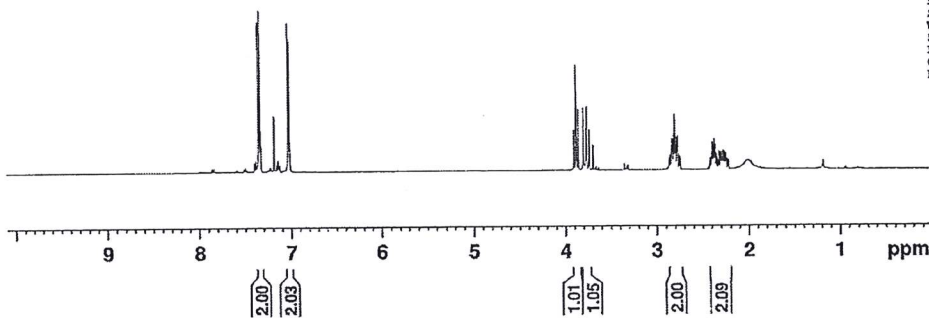
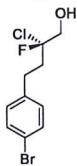
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 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 32  
 DS 2  
 SWH 10000.000 Hz  
 FIDRES 0.152588 Hz  
 AQ 3.2767999 sec  
 RG 92.95  
 DW 50.000 usec  
 DE 6.50 usec  
 TE 298.0 K  
 D1 1.00000000 sec  
 TD0 1

==== CHANNEL f1 =====  
 SF01 500.2230891 MHz  
 NUC1 1H  
 P1 9.68 usec  
 PLW1 20.00000000 W

F2 - Processing parameters  
 SI 6536  
 SF 500.2200502 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 FC 1.00

Corresponding alcohol of 7c



Current Data Parameters  
 NAME IV-MRA-Alcohol\_Br-series  
 EXPNO 3  
 PROCNO 1

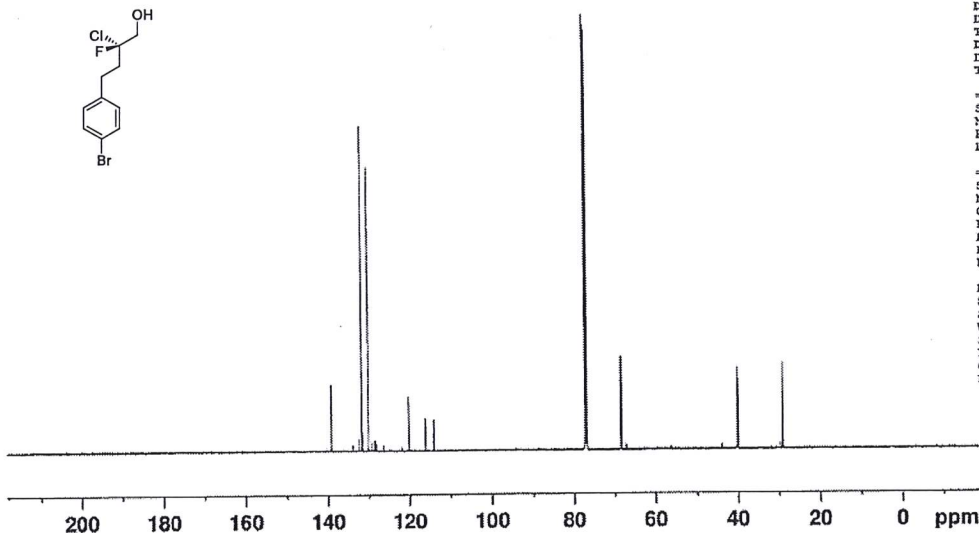
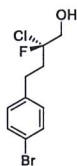
F2 - Acquisition Parameters  
 Date\_ 20191126  
 Time 23.36  
 INSTRUM spect  
 PROBHD 5 mm PABBO BB/  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT cdcl3  
 NS 2048  
 DS 4  
 SWH 29761.904 Hz  
 FIDRES 0.454131 Hz  
 AQ 1.1010048 sec  
 RG 187.7  
 DW 16.800 usec  
 DE 6.50 usec  
 TE 300.0 K  
 E1 2.00000000 sec  
 D11 0.03000000 sec  
 TD0 1

==== CHANNEL f1 =====  
 SF01 125.7929965 MHz  
 NUC1 13C  
 P1 9.00 usec  
 PLW1 90.00000000 W

==== CHANNEL f2 =====  
 SF02 500.2220009 MHz  
 NUC2 1H  
 CPDPRG[2] waltz16  
 PCPD2 80.00 usec  
 PLW2 20.00000000 W  
 PLW12 0.29282001 W  
 PLW13 0.15740000 W

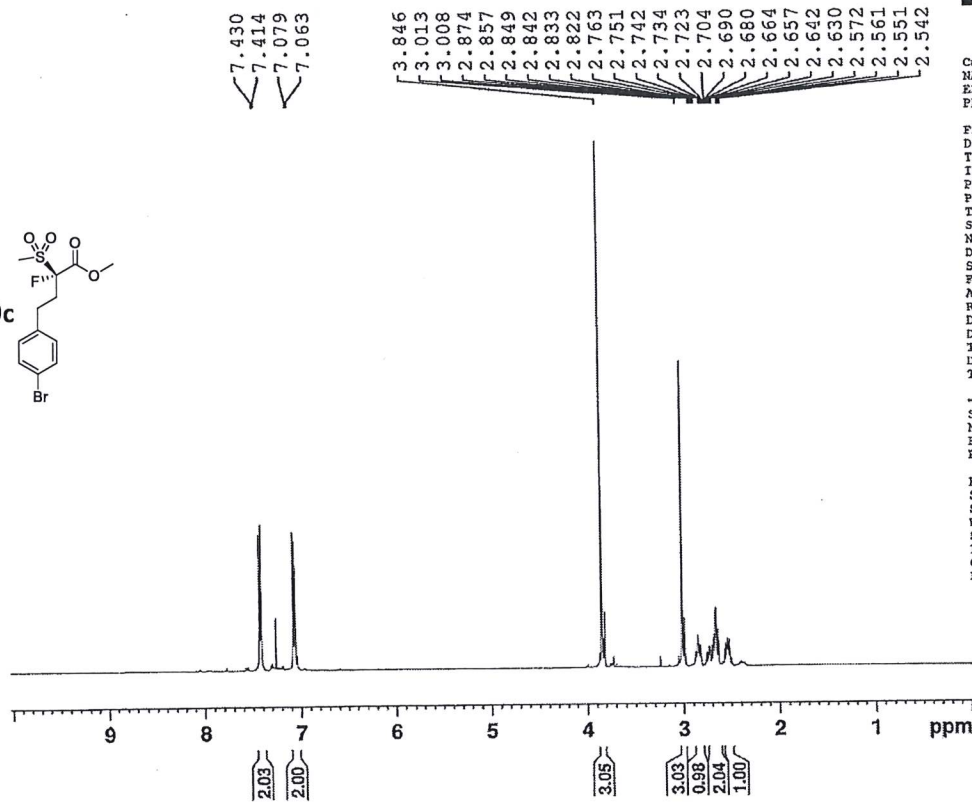
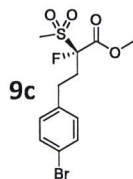
F2 - Processing parameters  
 SI 32768  
 SF 125.7804130 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 FC 1.40

Corresponding alcohol of 7c





<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

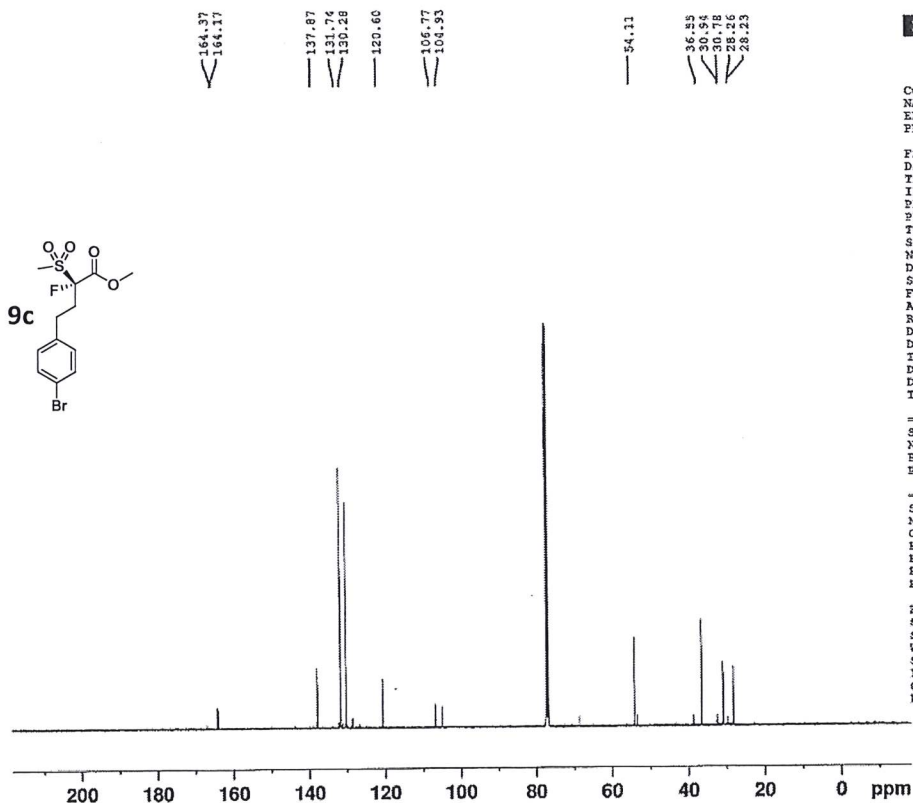
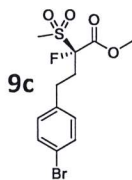


Current Data Parameters  
 NAME IV-MRA-OMe-SO2-Racemic  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20191214  
 Time 13.54  
 INSTRUM spect  
 PROBHD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 15  
 DS 2  
 SWH 10000.000 Hz  
 FIDRES 0.152588 Hz  
 AQ 3.2767999 sec  
 RG 120.01  
 DW 50.000 usec  
 DE 6.50 usec  
 TE 298.0 K  
 D1 1.0000000 sec  
 TD0 1

CHANNEL f1  
 SFO1 500.2230891 MHz  
 NUC1 1H  
 P1 9.68 usec  
 PLW1 20.0000000 W

F2 - Processing parameters  
 SI 65536  
 SF 500.2200127 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



Current Data Parameters  
 NAME IV-MRA-OMe-SO2-Racemic  
 EXPNO 4  
 PROCNO 1

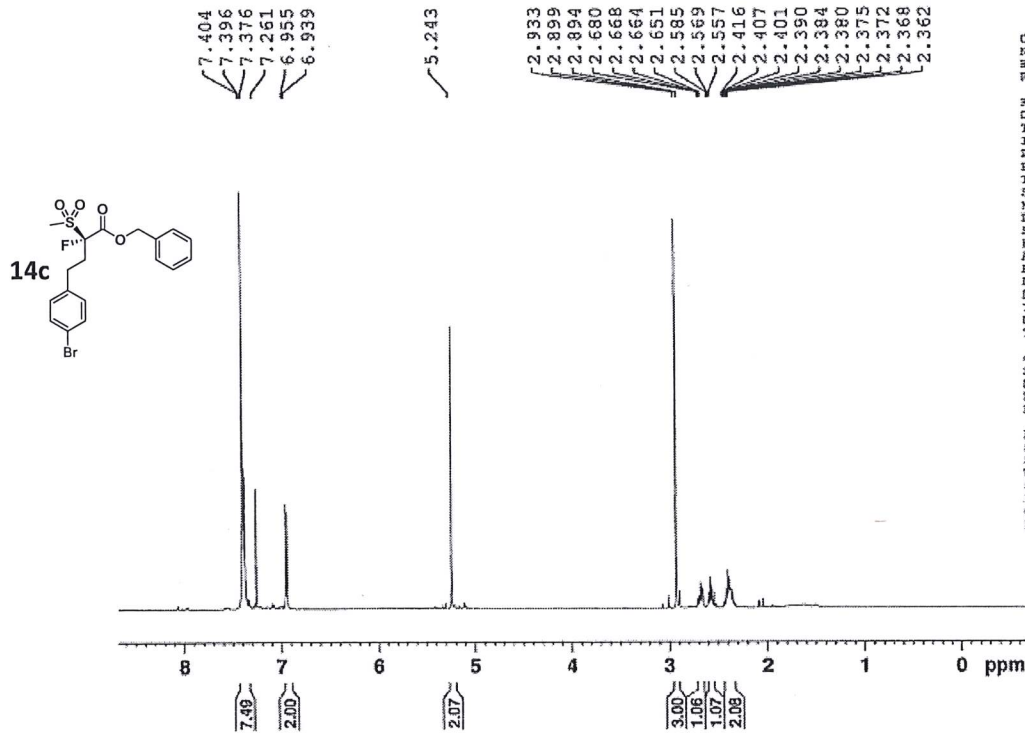
F2 - Acquisition Parameters  
 Date\_ 20191215  
 Time 2.12  
 INSTRUM spect  
 PROBHD 5 mm PABBO BB/  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 2048  
 DS 4  
 SWH 29761.904 Hz  
 FIDRES 0.454131 Hz  
 AQ 1.1010048 sec  
 RG 187.7  
 DW 16.800 usec  
 DE 6.50 usec  
 TE 300.0 K  
 D1 2.0000000 sec  
 D11 0.0300000 sec  
 TD0 1

CHANNEL f1  
 SFO1 125.7529965 MHz  
 NUC1 13C  
 P1 9.00 usec  
 PLW1 90.0000000 W

CHANNEL f2  
 SFO2 500.2220009 MHz  
 NUC2 1H  
 CPDPRG2 waltz16  
 F2D2 80.00 usec  
 PLN2 20.0000000 W  
 PLN12 0.29282001 W  
 PLN13 0.18740000 W

F2 - Processing parameters  
 SI 32768  
 SF 125.7804190 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

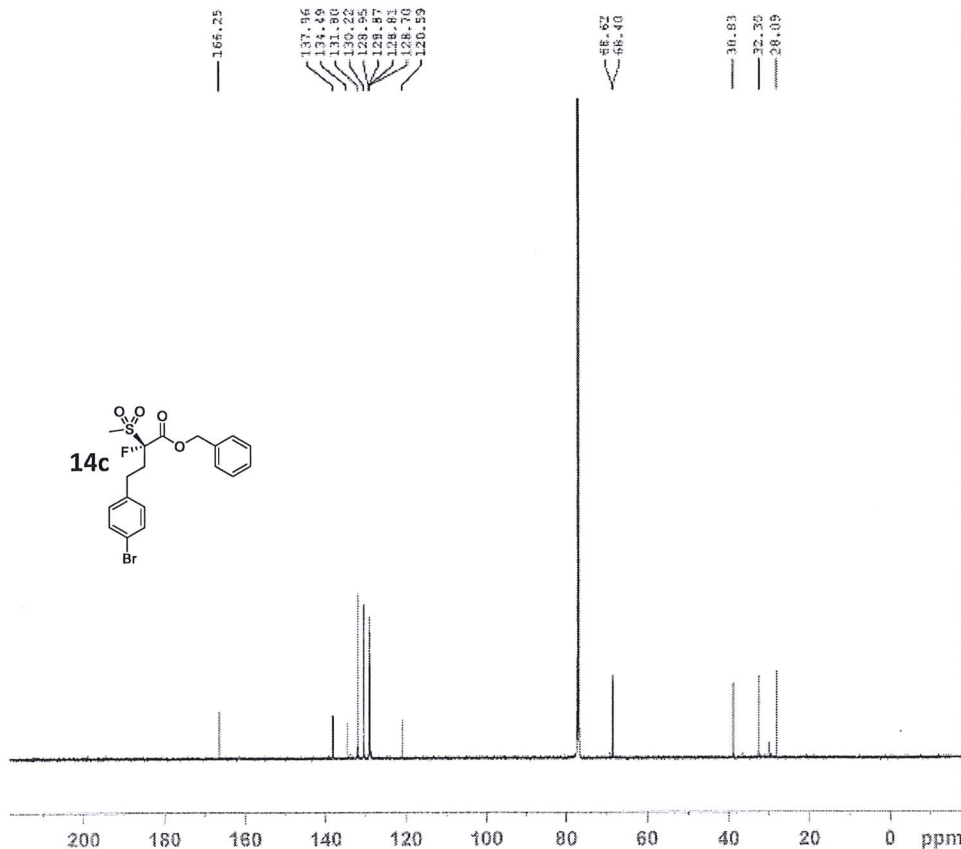


Current Data Parameters  
NAME IV-MR4-OBn-302-Racemic  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Data\_ 20191214  
Time 13.33  
INSTRUM spect  
PROBHD 5 mm PABBO B3/7  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10000.000 Hz  
FIDRES 0.152588 Hz  
AQ 3.2767999 sec  
RG 120.01  
DH 50.000 usec  
DE 6.50 usec  
TE 298.0 K  
D1 1.00000000 sec  
TD0 1

===== CHANNEL f1 =====  
SFO1 500.2210891 MHz  
NUC1 1H  
P1 9.68 usec  
PLW1 20.00000000 W

F2 - Processing parameters  
SI 65536  
SF 500.2200125 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
NAME IV-OBn-302-Br-coc  
EXPNO 3  
PROCNO 1

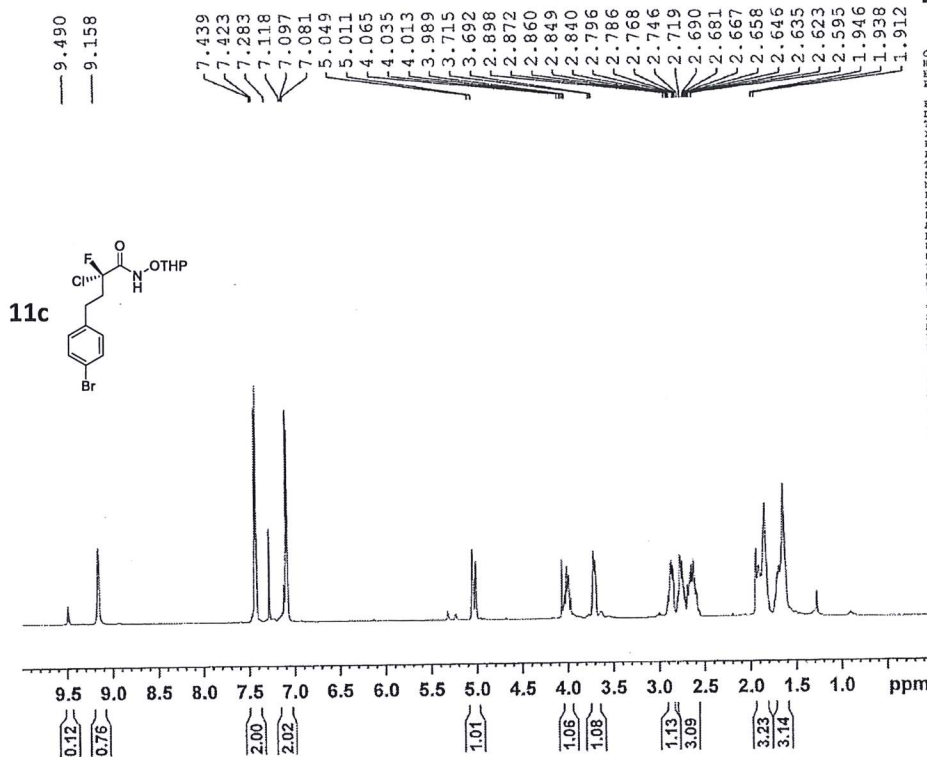
F2 - Acquisition Parameters  
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Time 5.56  
INSTRUM spect  
PROBHD 5 mm PABBO BB/7  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 4098  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 187.7  
DH 16.800 usec  
DE 6.50 usec  
TE 300.0 K  
D1 2.00000000 sec  
D11 0.03000000 sec  
TD0 1

===== CHANNEL f1 =====  
SFO1 125.7929965 MHz  
NUC1 13C  
P1 9.00 usec  
PLW1 90.00000000 W

===== CHANNEL f2 =====  
SFO2 500.2220009 MHz  
NUC2 1H  
CPDPRG[2] waltz16  
PCPD2 80.00 usec  
PLN2 20.00000000 W  
PLW12 0.29282001 W  
PLW13 0.18740000 W

F2 - Processing parameters  
SI 32768  
SF 125.7804190 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

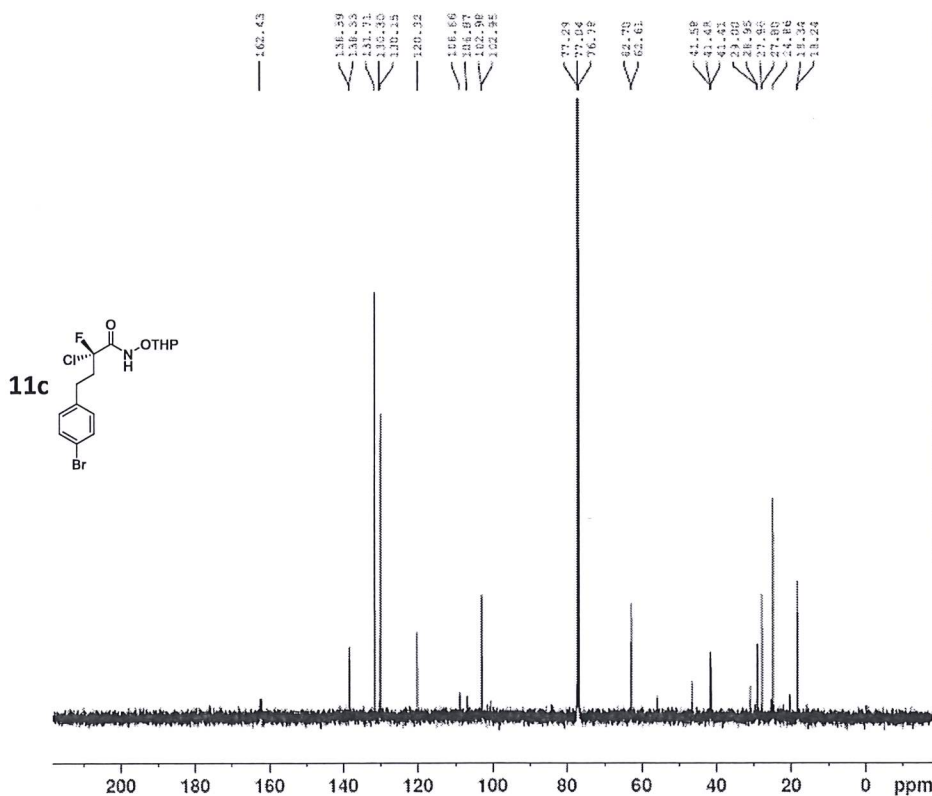


Current Data Parameters  
NAME 111-MAA-158-HalideCoupling-H(2)  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20160503  
Time 15:27  
INSTRUM spect  
PROBHD 5 mm PARRD 8B/A  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 2  
DS 2  
SWH 10000.000 Hz  
FIDRES 0.152588 Hz  
AQ 3.2167999 sec  
RG 105.63  
EM 50.000 usec  
EN 6.50 usec  
TE 298.0 K  
D1 1.0000000 sec  
TD 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 8.66 usec  
PLM1 20.0000000 W

F2 - Processing parameters  
SI 65536  
SF 500.2200000 MHz  
WFM 1M  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
NAME 111-MAA-158-HalideCoupling-C-01  
EXPNO 1  
PROCNO 1

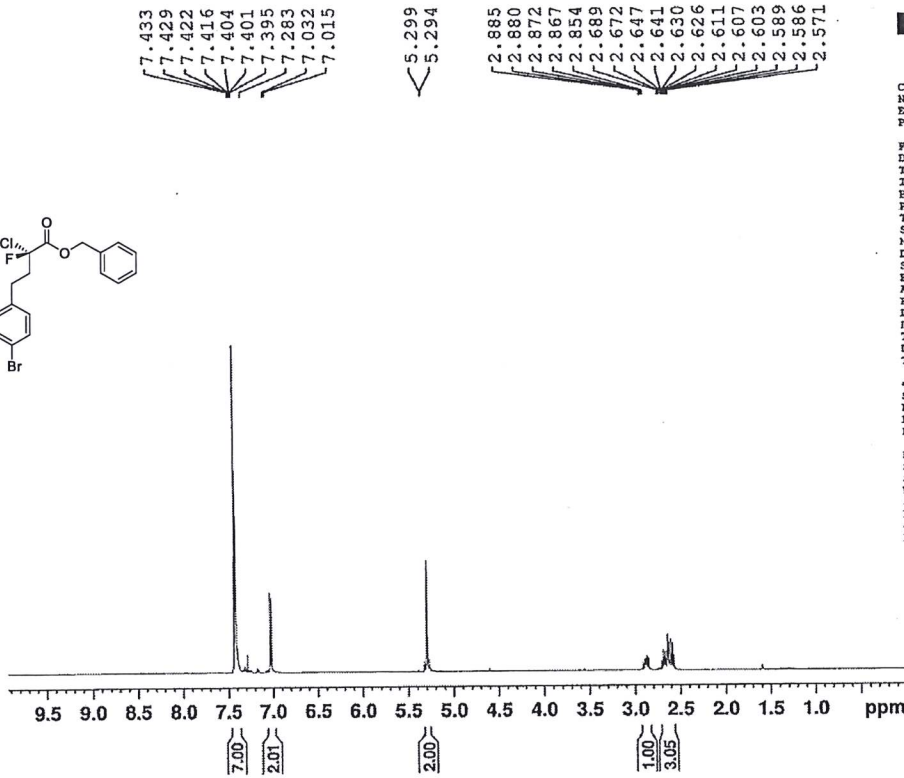
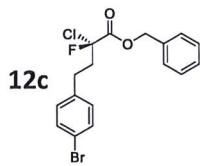
F2 - Acquisition Parameters  
Date\_ 20160503  
Time 15:30  
INSTRUM spect  
PROBHD 5 mm PARRD 8B/A  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 220  
DS 4  
SWH 29761.984 Hz  
FIDRES 0.484131 Hz  
AQ 1.1010000 sec  
RG 187.7  
EM 14.000 usec  
EN 4.50 usec  
TE 298.0 K  
D1 1.0000000 sec  
D11 0.0300000 sec  
TD 1

===== CHANNEL f1 =====  
NUC1 13C  
P1 9.50 usec  
PLM1 20.0000000 W

===== CHANNEL f2 =====  
NUC2 1H  
P2 18.00 usec  
PLM2 20.0000000 W

F2 - Processing parameters  
SI 65536  
SF 299.6260000 MHz  
WFM 1M  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

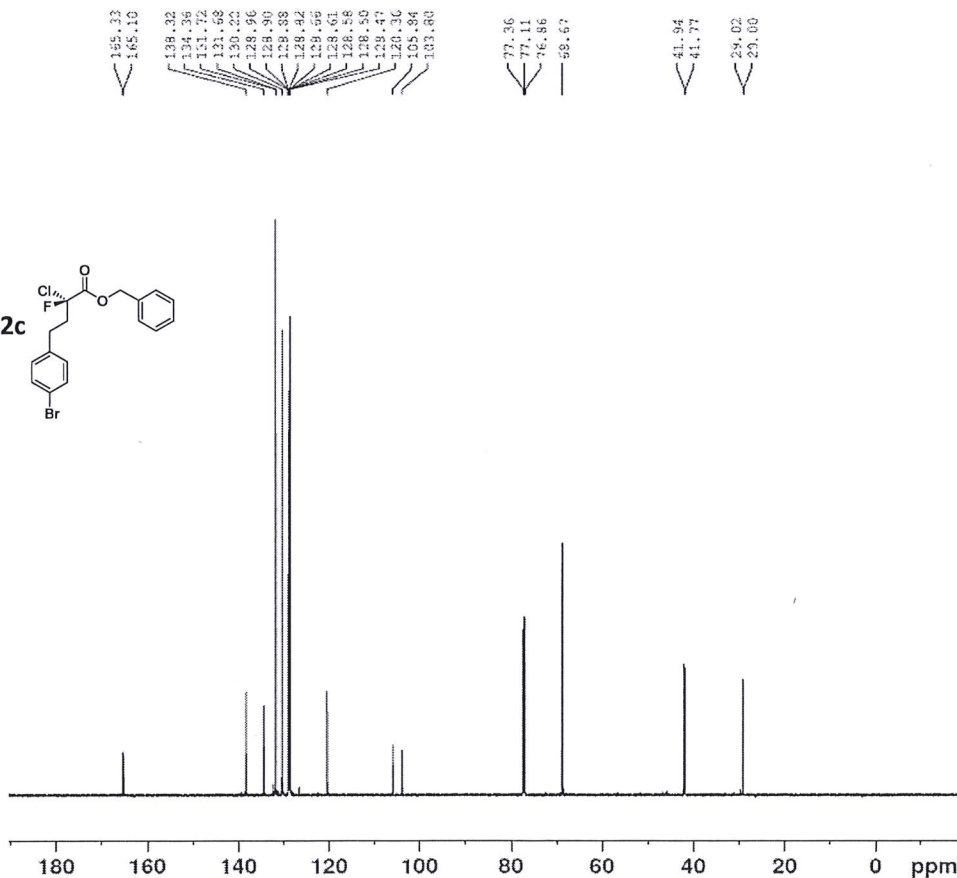
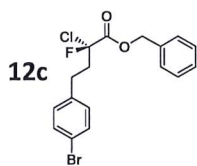


Current Data Parameters  
NAME V-MRA-08n-Br-Series-R-8  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20190426  
Time 19.34  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10000.000 Hz  
FIDRES 0.152588 Hz  
AQ 3.2767999 sec  
RG 92.95  
DW 50.000 usec  
DE 6.50 usec  
TE 298.0 K  
D1 1.00000000 sec  
TDO 1

----- CHANNEL f1 -----  
SF01 500.2230891 MHz  
NUC1 1H  
P1 14.70 usec  
PLM1 10.30000019 W

F2 - Processing parameters  
SI 65536  
SF 500.2200000 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
FC 1.00



Current Data Parameters  
NAME V-MRA-08n-Br-Series-Carbon-1  
EXPNO 1  
PROCNO 1

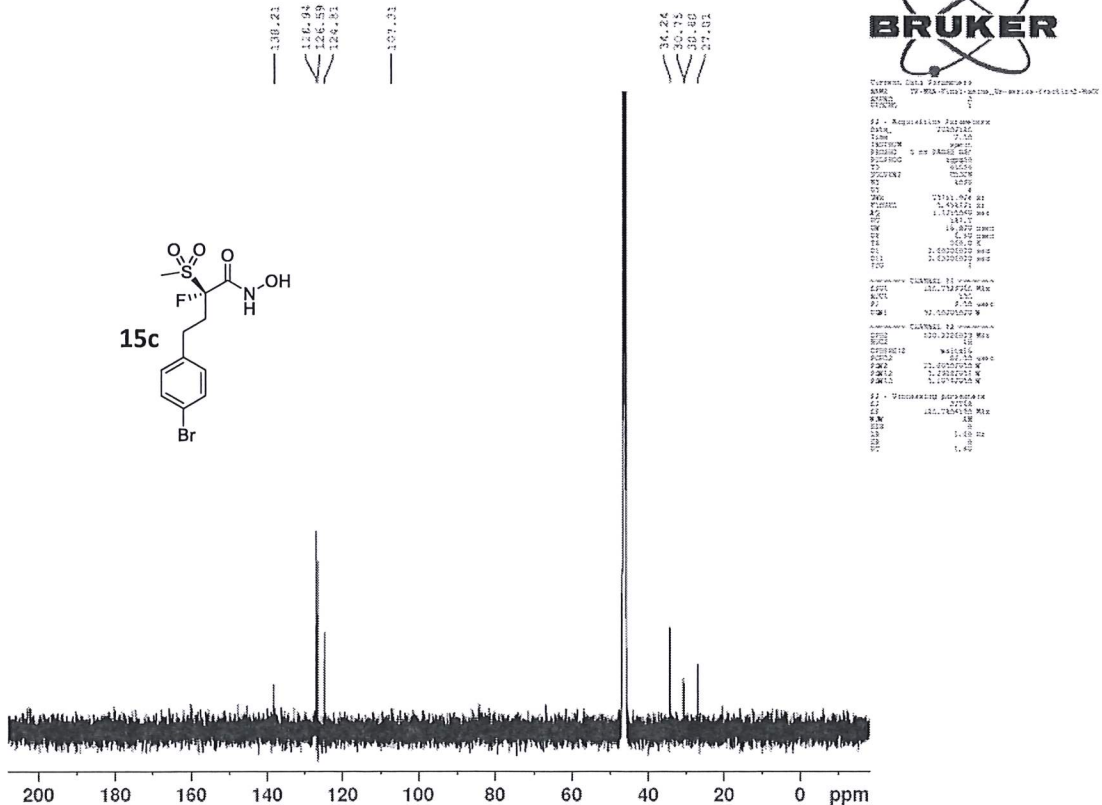
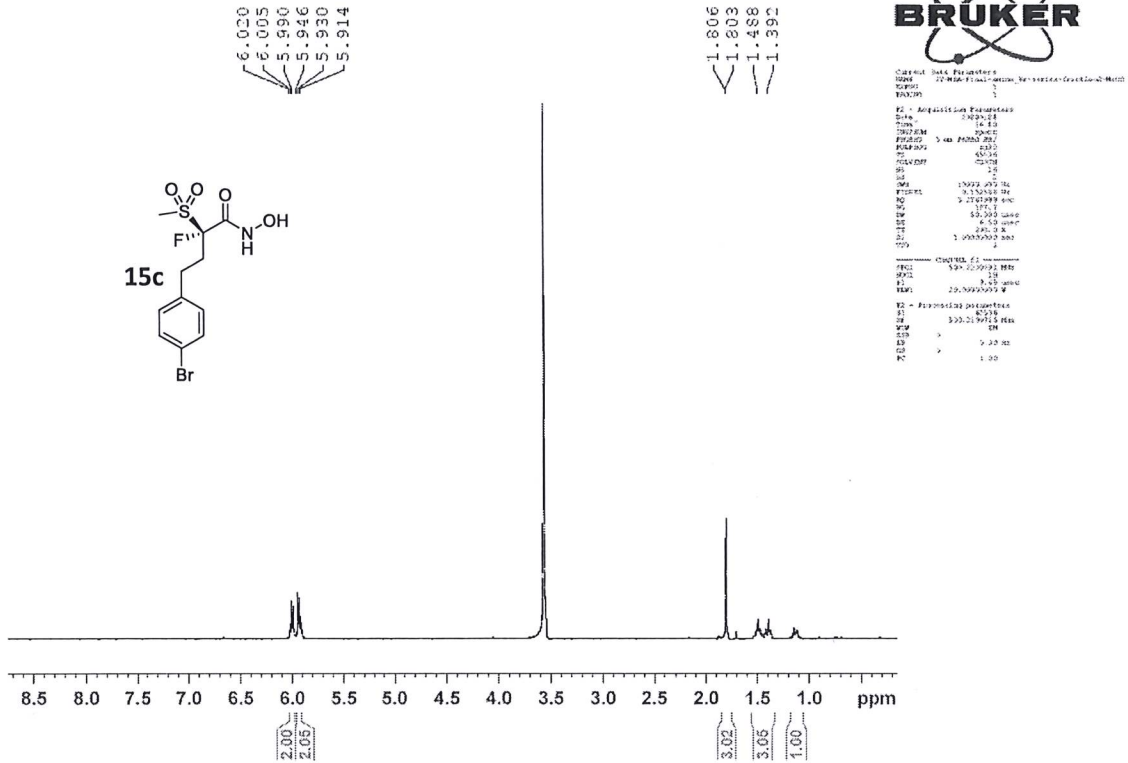
F2 - Acquisition Parameters  
Date\_ 20190426  
Time 12.19  
INSTRUM spect  
PROBHD 5 mm PABBO BB-  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 25761.900 Hz  
FIDRES 0.404131 Hz  
AQ 1.1020049 sec  
RG 181.7  
DW 18.302 usec  
DE 6.50 usec  
TE 298.0 K  
D1 0.20000000 sec  
TDO 1

----- CHANNEL f1 -----  
SF01 125.7699450 MHz  
NUC1 13C  
P1 8.15 usec  
PLM1 77.40200113 W

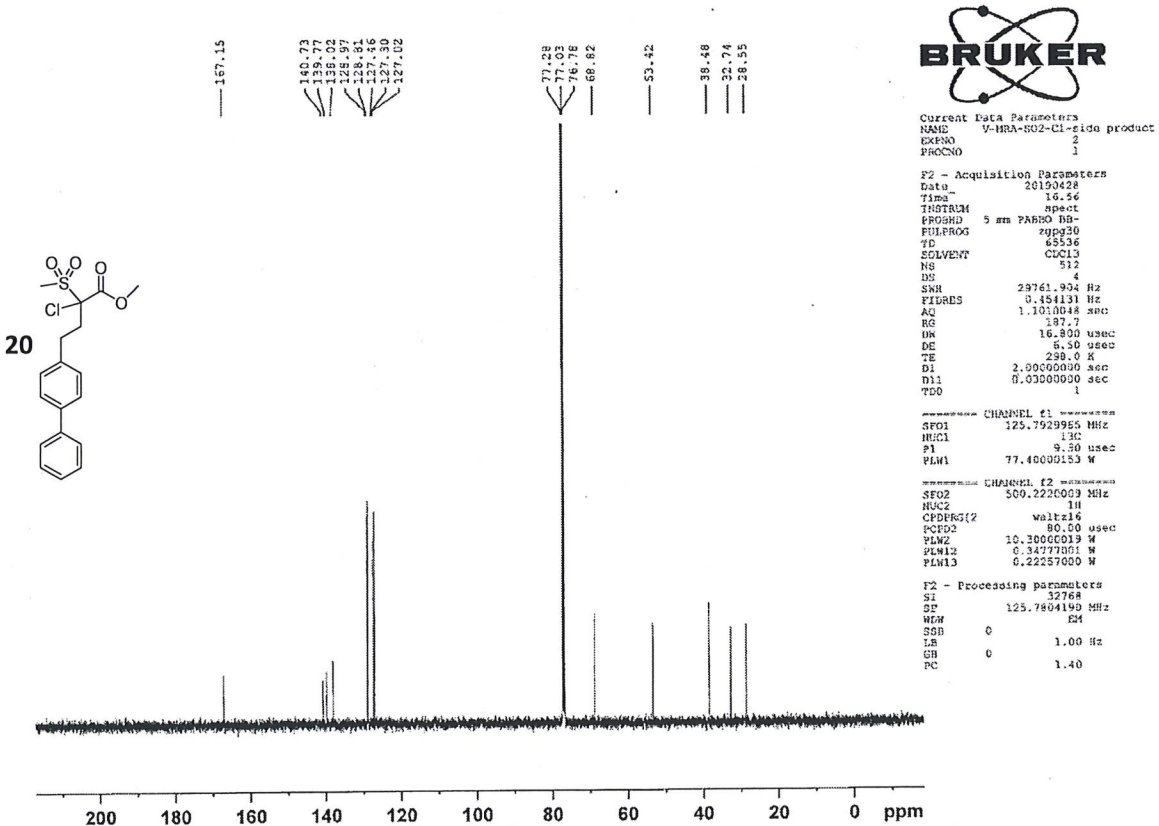
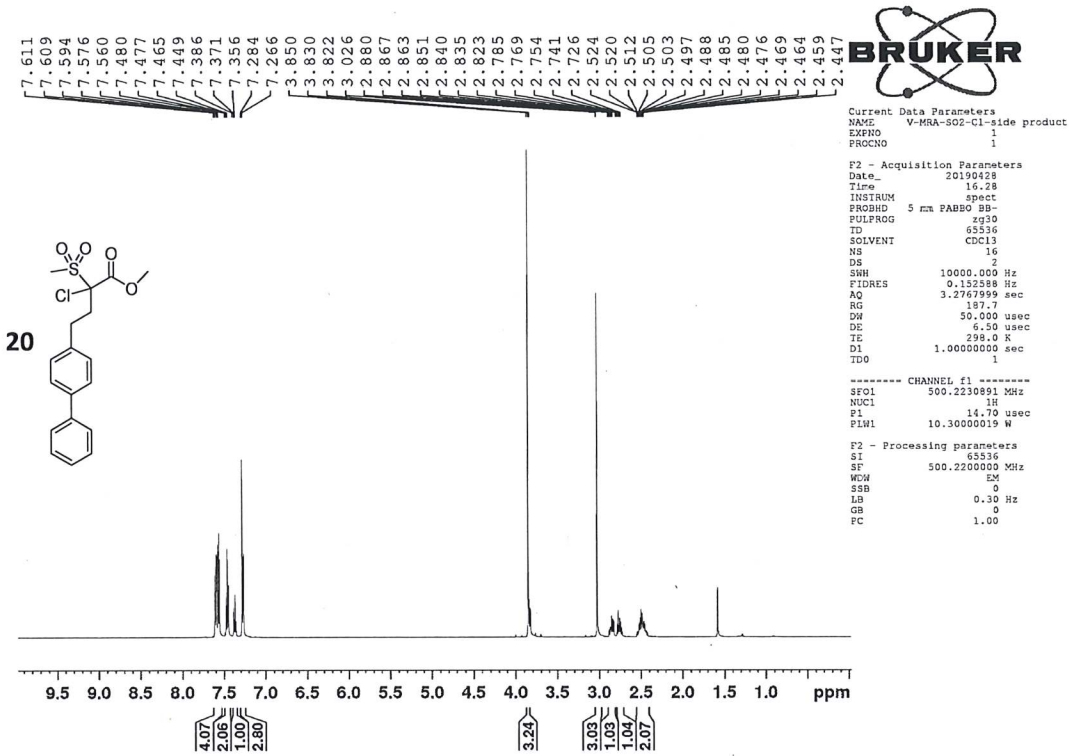
----- CHANNEL f2 -----  
SF02 100.2200000 MHz  
NUC2 1H  
CHRGPR2 whitep10  
P2M2 20.60 usec  
P2M2 10.30000019 W  
P2M12 0.38777001 W  
P2M17 0.22287000 W

F2 - Processing parameters  
SI 65536  
SF 125.7631190 MHz  
WDW HSB  
SSB 0  
LB 1.00 Hz  
GB 0  
FC 1.40

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

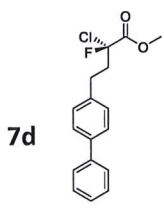
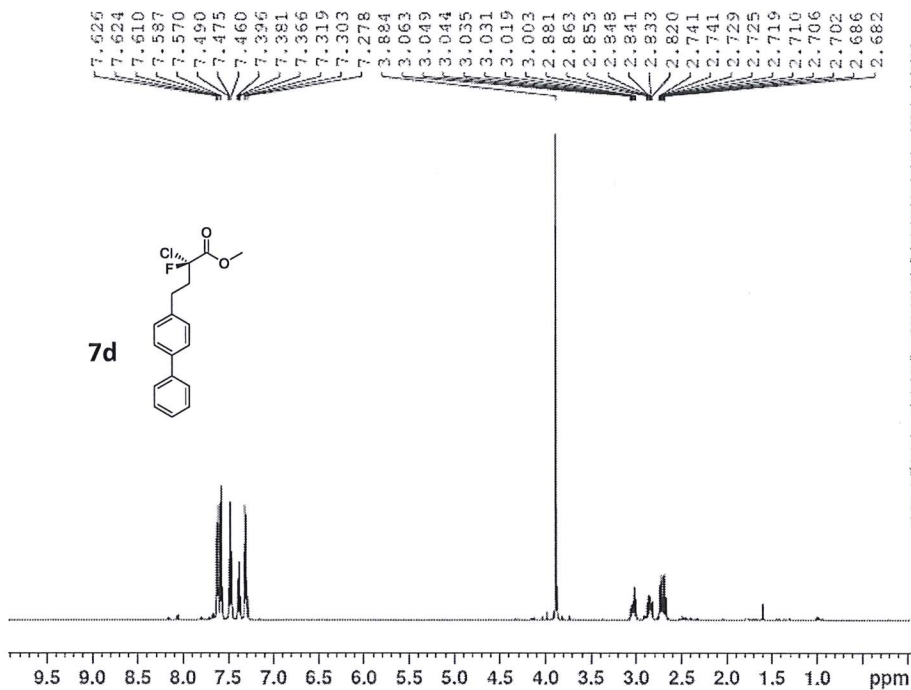


<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds





<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

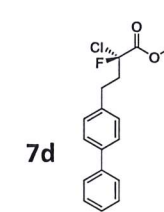
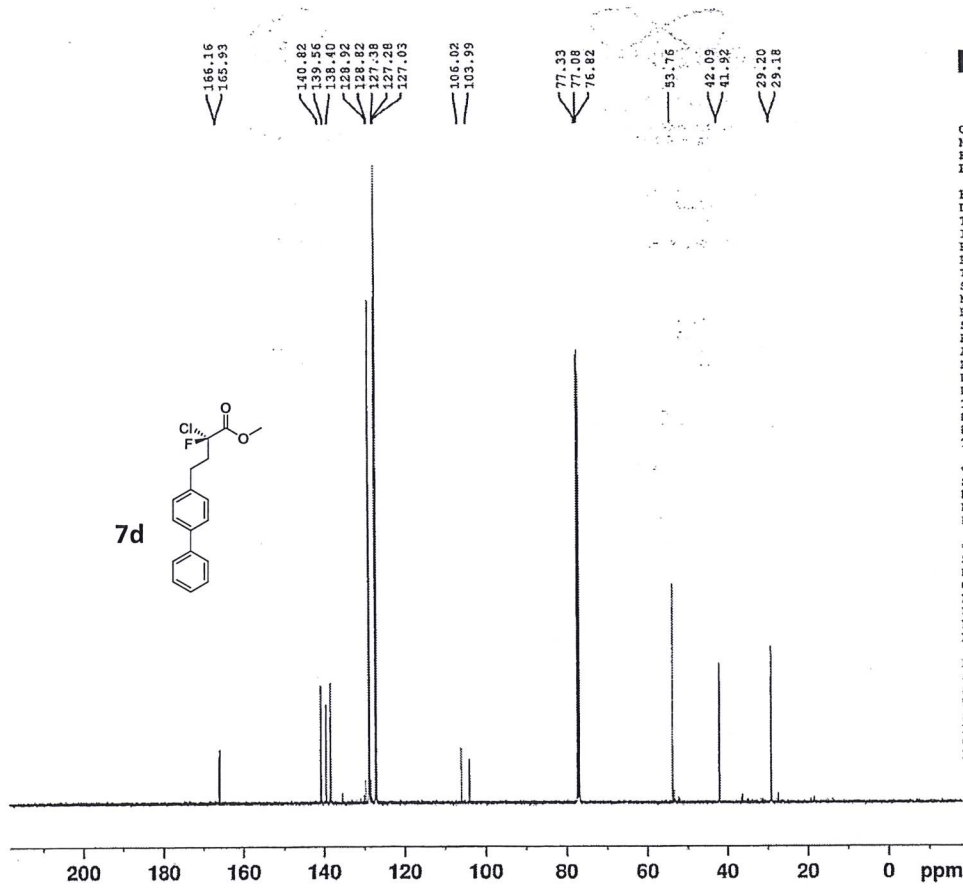


Current Data Parameters  
 NAME IV-MRA-Biphenyl-R\_enant  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20200113  
 Time 13.13  
 INSTRUM spect  
 PROBHD 5 mm PABBO HB/  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 1000.000 Hz  
 FIDRES 0.132598 Hz  
 AQ 3.279799 sec  
 RG 83.83  
 DW 80.000 usec  
 DE 6.50 usec  
 TE 298.0 K  
 D1 1.0000000 sec  
 TD0 1

===== CHANNEL f1 =====  
 SF01 500.229091 MHz  
 NUC1 1H  
 P1 9.60 usec  
 PLW1 20.0000000 W

F2 - Processing parameters  
 SI 65536  
 SF 500.229091 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



Current Data Parameters  
 NAME IV-MRA-Biphenyl-R\_enant  
 EXPNO 3  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20200113  
 Time 13.43  
 INSTRUM spect  
 PROBHD 5 mm PABBO HB/  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 512  
 DS 4  
 SWH 29761.904 Hz  
 FIDRES 0.454131 Hz  
 AQ 1.1010048 sec  
 RG 187.7  
 DW 16.800 usec  
 DE 6.50 usec  
 TE 298.0 K  
 D1 2.0000000 sec  
 D11 0.0300000 sec  
 TD0 1

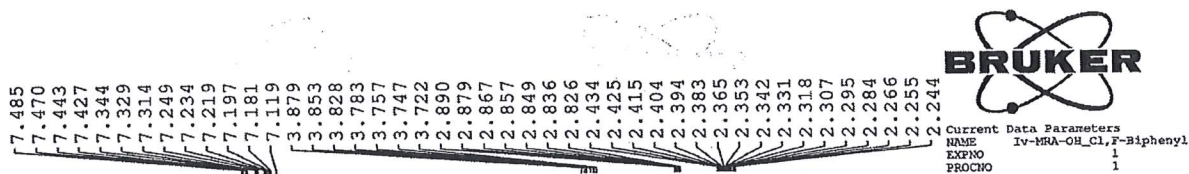
===== CHANNEL f1 =====  
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 NUC1 13C  
 P1 9.00 usec  
 PLW1 90.0000000 W

===== CHANNEL f2 =====  
 SF02 500.2220009 MHz  
 NUC2 1H  
 CPDPRG2 waltz16  
 PCDD2 80.00 usec  
 PLW2 20.0000000 W  
 PLW12 0.29282001 W  
 PLW13 0.18740000 W

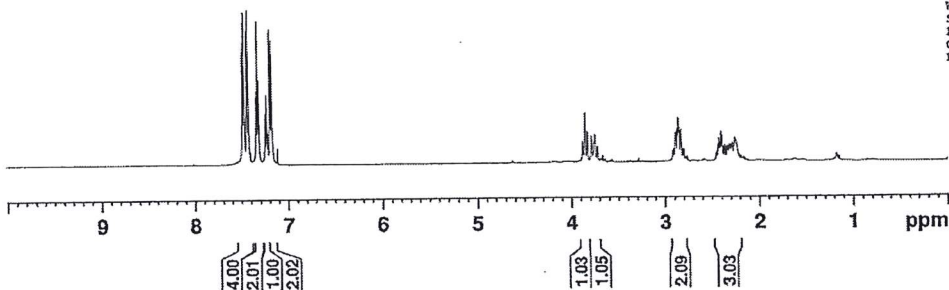
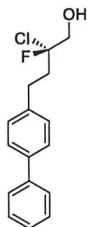
F2 - Processing parameters  
 SI 32768  
 SF 125.7804190 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.40



<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds



alcohol corresponding to 7d



Current Data Parameters  
NAME Iv-MRA-OH\_Cl,F-Biphenyl  
EXPNO 1  
PROCNO 1

F2 - Acquisition Parameters  
Date\_ 20200115  
Time 18.31  
INSTRUM spect  
PROBHD 5 mm PABBO BB/  
PULPROG zg30  
TD 65536  
SOLVENT CDCl3  
NS 16  
DS 2  
SWH 10000.000 Hz  
FIDRES 0.152588 Hz  
AQ 3.2767999 sec  
RG 30.74  
DW 50.000 usec  
DE 6.50 usec  
TE 298.0 K  
D1 1.00000000 sec  
TD0 1

CHANNEL f1  
SFO1 500.2230891 MHz  
NUC1 1H  
P1 9.68 usec  
PLW1 20.00000000 W

F2 - Processing parameters  
SI 65536  
SF 500.2200818 MHz  
WDW EM  
SSB 0  
LB 0.30 Hz  
GB 0  
PC 1.00



Current Data Parameters  
NAME Iv-MRA-OH\_Cl,F-Biphenyl  
EXPNO 3  
PROCNO 1

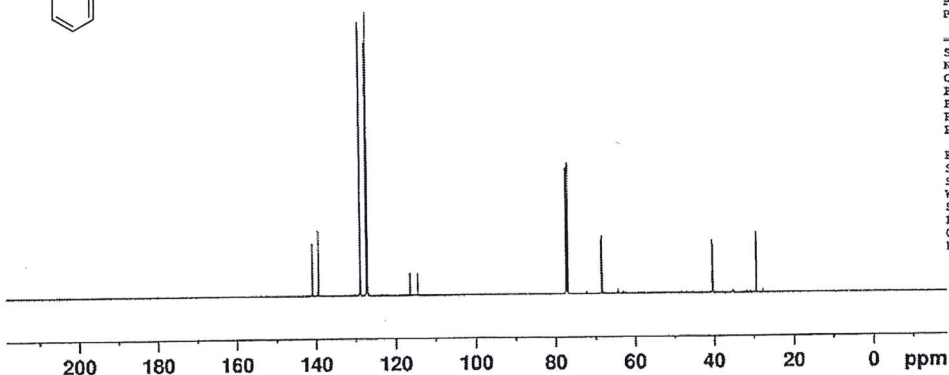
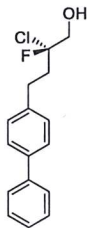
F2 - Acquisition Parameters  
Date\_ 20200115  
Time 19.01  
INSTRUM spect  
PROBHD 5 mm PABBO BB/  
PULPROG zgpg30  
TD 65536  
SOLVENT CDCl3  
NS 512  
DS 4  
SWH 29761.904 Hz  
FIDRES 0.454131 Hz  
AQ 1.1010048 sec  
RG 187.7  
DW 16.800 usec  
DE 6.50 usec  
TE 298.0 K  
D1 2.00000000 sec  
D11 0.03000000 sec  
TD0 1

CHANNEL f1  
SFO1 125.7929965 MHz  
NUC1 13C  
P1 9.00 usec  
PLW1 90.00000000 W

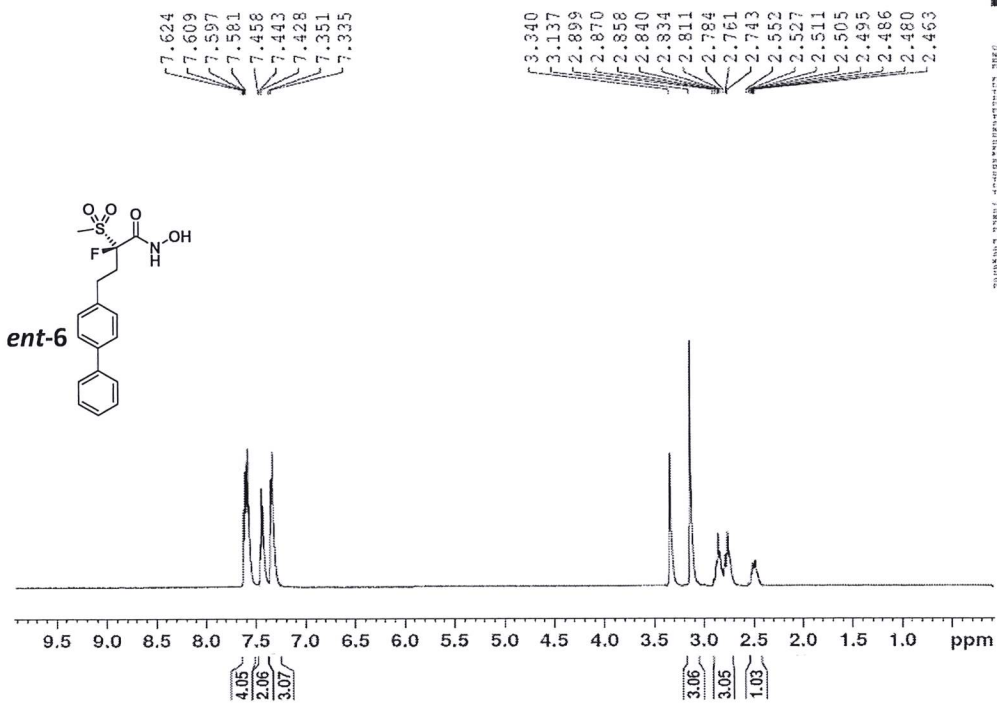
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SFO2 500.2220009 MHz  
NUC2 1H  
CPDPRG2 waltz16  
PCPD2 80.00 usec  
PLW2 20.00000000 W  
PLW12 0.29282001 W  
PLW13 0.18740000 W

F2 - Processing parameters  
SI 32768  
SF 125.7804190 MHz  
WDW EM  
SSB 0  
LB 1.00 Hz  
GB 0  
PC 1.40

alcohol corresponding to 7d

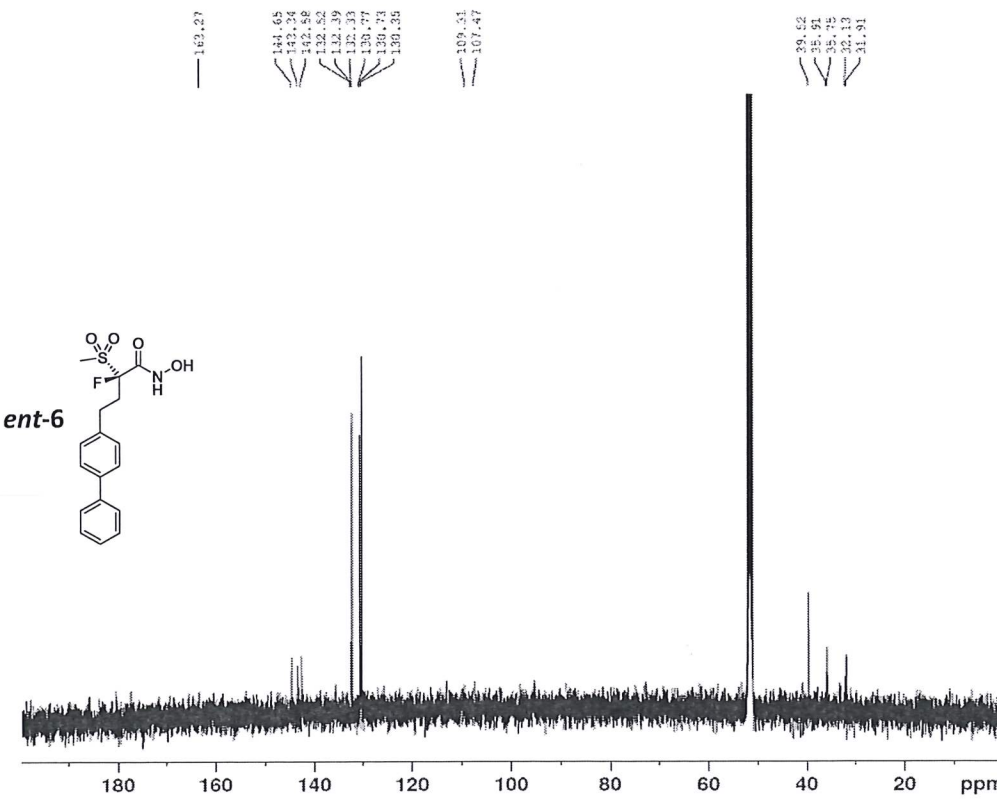


**<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds**



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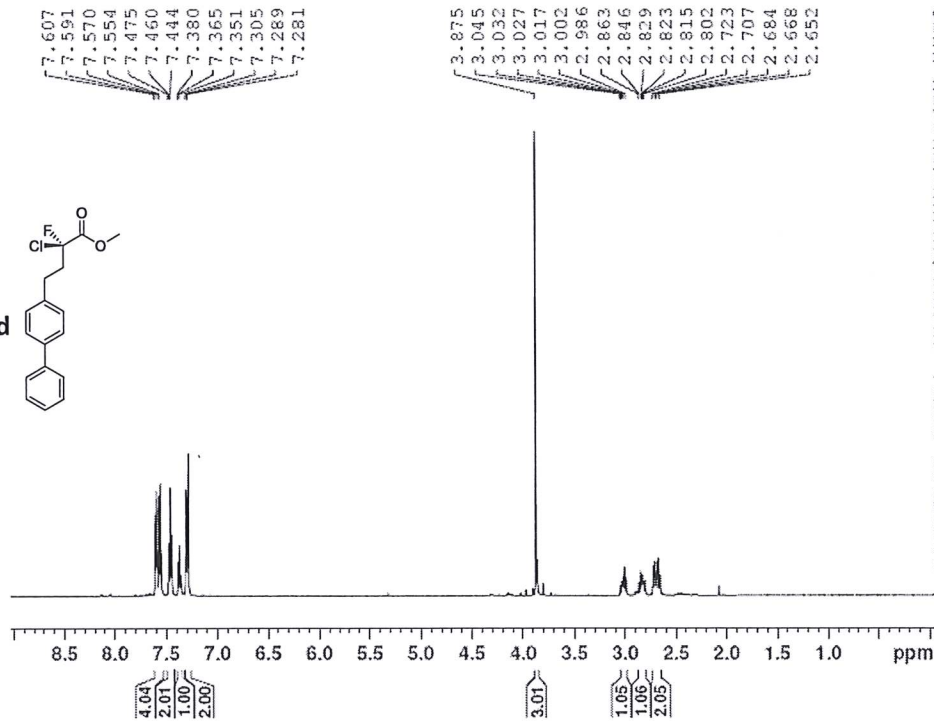
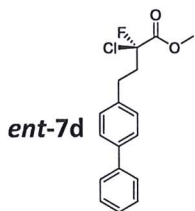
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EXPNO: 1
PROCNO: 1
PROCAM: 1
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Date_ 20180618
Time 09:14
INSTRUM spect
PROBHD 5 mm WALTZ16
PULPROG zgpg30
TD 65536
SFO 400.146
AQ 0.18720000
RG 1024
WDW EM
SSB 0
LB 3.00
GB 0
PC 1.00
SC 0
DC 0
B0 11.99999999
=====
===== CHANNEL f1 =====
NUC1 13C
NUC2 13C
P1 6.00
PL1 0.00000000
===== CHANNEL f2 =====
CPDPRG12 waltz16
PCPD1 86.00
P2 10.30
PL2 0.28772000
PLM1 0.28772000
PLM2 0.22237000
=====
F2 - Processing parameters
SI 32768
SF 125.7698200 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.60
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```



```

=====
NAME: ent-6
EXPNO: 1
PROCNO: 1
PROCAM: 1
F2 - Acquisition Parameters
Date_ 20180618
Time 09:28
INSTRUM spect
PROBHD 5 mm WALTZ16
PULPROG zgpg30
TD 65536
SFO 400.146
AQ 0.18720000
RG 1024
WDW EM
SSB 0
LB 3.00
GB 0
PC 1.00
SC 0
DC 0
B0 11.99999999
=====
===== CHANNEL f1 =====
NUC1 13C
NUC2 13C
P1 6.00
PL1 0.00000000
===== CHANNEL f2 =====
CPDPRG12 waltz16
PCPD1 86.00
P2 10.30
PL2 0.28772000
PLM1 0.28772000
PLM2 0.22237000
=====
F2 - Processing parameters
SI 32768
SF 125.7698200 MHz
WDW EM
SSB 0
LB 1.00 Hz
GB 0
PC 1.60
=====
  
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<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

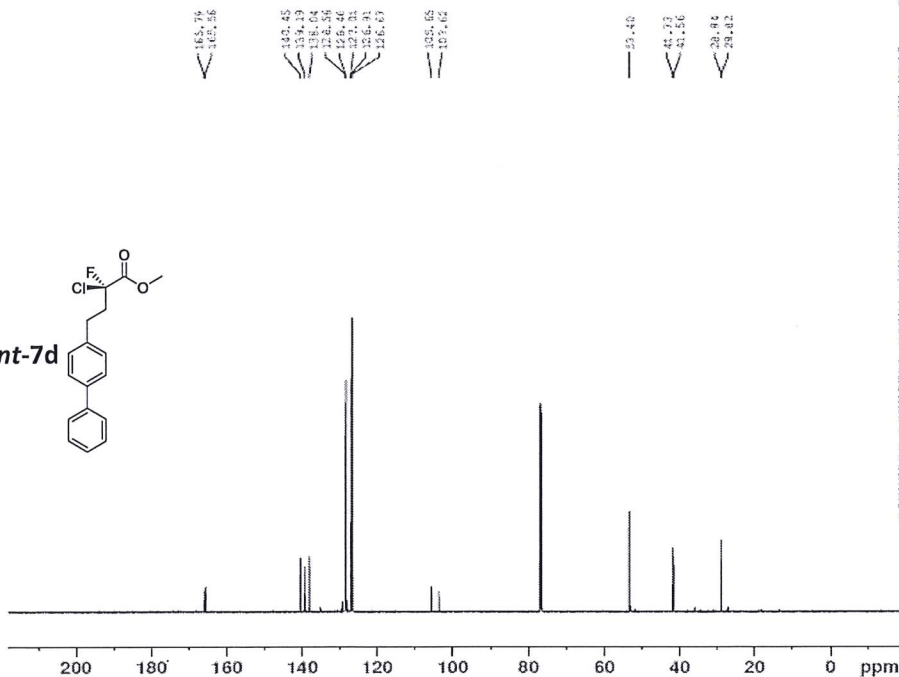
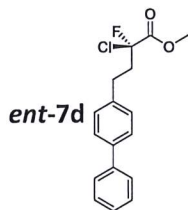


Current Data Parameters  
 NAME IV-MRA-*S*-*entant*-T9  
 EXPNO 1  
 PROCNO 1

F2 - Acquisition Parameters  
 Date\_ 20200113  
 Time 14.48  
 INSTRUM spect  
 PROBHD 5 mm PABBO BB/  
 PULPROG zg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 2  
 SWH 10000.000 Hz  
 FIDRES 0.152588 Hz  
 AQ 3.2767998 sec  
 RG 134.66  
 DW 50.000 usec  
 DE 6.50 usec  
 TE 298.0 K  
 D1 1.00000000 sec  
 TDO 1

----- CHANNEL f1 -----  
 SF01 500.2130891 MHz  
 NUC1 1H  
 P1 9.63 usec  
 PLW1 20.00000000 W

F2 - Processing parameters  
 SI 65536  
 SF 500.2190793 MHz  
 WDW EM  
 SSB 0  
 LB 0.30 Hz  
 GB 0  
 PC 1.00



Current Data Parameters  
 NAME IV-MRA-Biphenyl  
 EXPNO 3  
 PROCNO 1

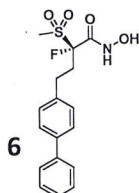
F1 - Acquisition Parameters  
 Date\_ 20200113  
 Time 13.43  
 INSTRUM spect  
 PROBHD 5 mm PABBO BB/  
 PULPROG zgpg30  
 TD 65536  
 SOLVENT CDCl3  
 NS 16  
 DS 4  
 SWH 10761.004 Hz  
 FIDRES 0.45419 Hz  
 AQ 1.1010046 sec  
 RG 157.7  
 DW 16.800 usec  
 DE 6.50 usec  
 TE 298.0 K  
 D1 1.00000000 sec  
 D11 0.03000000 sec  
 TDO 1

----- CHANNEL f1 -----  
 SF01 125.7604482 MHz  
 NUC1 13C  
 P1 2.00 usec  
 PLW1 20.00000000 W

----- CHANNEL f2 -----  
 SF02 500.2120000 MHz  
 NUC2 1H  
 COUPLING1 waltz16  
 PCREA 60.00 usec  
 PLM1 20.00000000 W  
 PLM2 2.10000000 W  
 PLM3 0.10740000 W

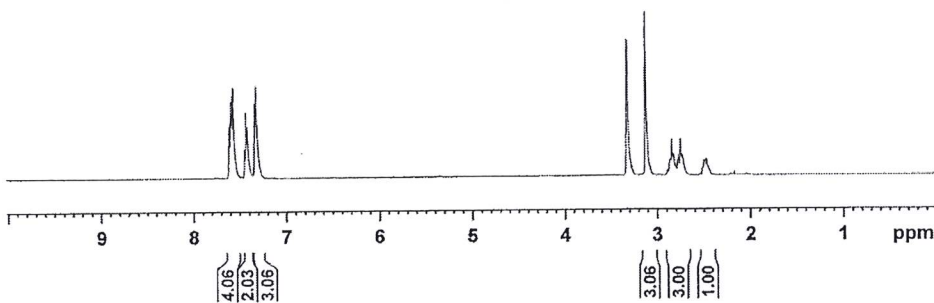
F2 - Processing parameters  
 SI 125760  
 SF 125.7604482 MHz  
 WDW EM  
 SSB 0  
 LB 1.00 Hz  
 GB 0  
 PC 1.20

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

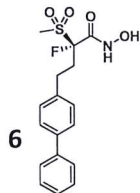


7.614  
7.599  
7.587  
7.571  
7.447  
7.432  
7.417  
7.341  
7.325

3.328  
3.125  
2.858  
2.847  
2.828  
2.822  
2.772  
2.750  
2.732  
2.499  
2.493  
2.483  
2.474  
2.469

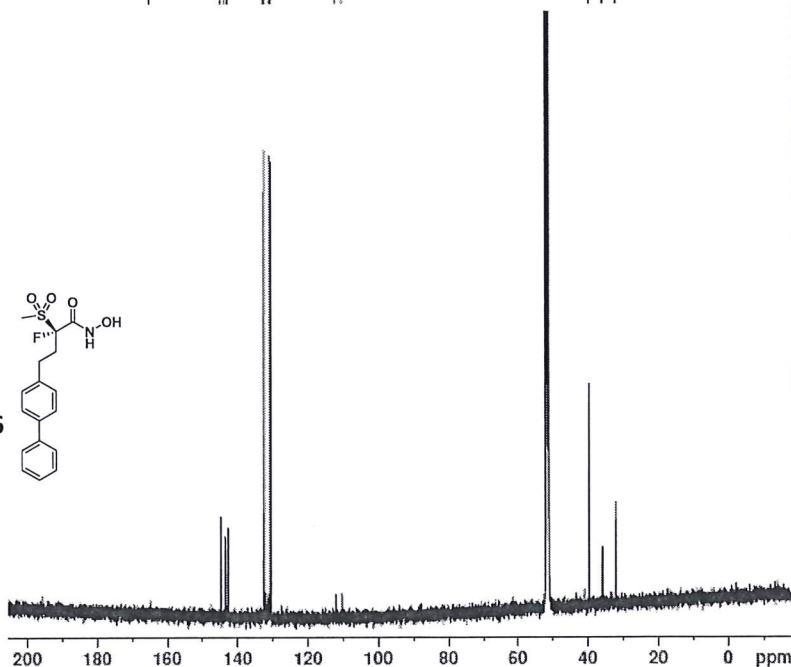


```
Current Data Parameters
NAME  1900-317-Final product 1900-HOPE-Dehydration 1
PROCNO 1
===== Acquisition Parameters =====
Date_  20160113
Time   14:04
INSTRUM  spect
PROBHD  5 mm JNMPS 500
PULPROG zgpg30
TD      65536
SOLVENT  CDCl3
NS      4000
DS      4
SWH     20761.964 Hz
FIDRES  0.394191 Hz
AQ      1.1810088 sec
RG      187.7
GB      0
BW      18.800 kHz
DE      6.30 kHz
TE      300.2 K
D1      1.20000000 sec
d11     0.03000000 sec
d12     0.03000000 sec
d13     0.03000000 sec
d14     0.03000000 sec
===== CHANNEL f1 =====
NUC1    13C
P1      1.00
PL1     0.00 dB
PC1     0.00 Hz
===== CHANNEL f2 =====
NUC2    1H
P2      0.50
PL2     0.00 dB
PC2     0.00 Hz
===== Processing parameters =====
SI      32768
SF      125.7601200 MHz
WDW     EM
SSB     0
LB      1.00 Hz
GB      0
PC      1.00
```



164.62  
148.46  
147.41  
142.43  
132.42  
128.27  
128.26  
128.25  
126.25  
111.38  
111.37

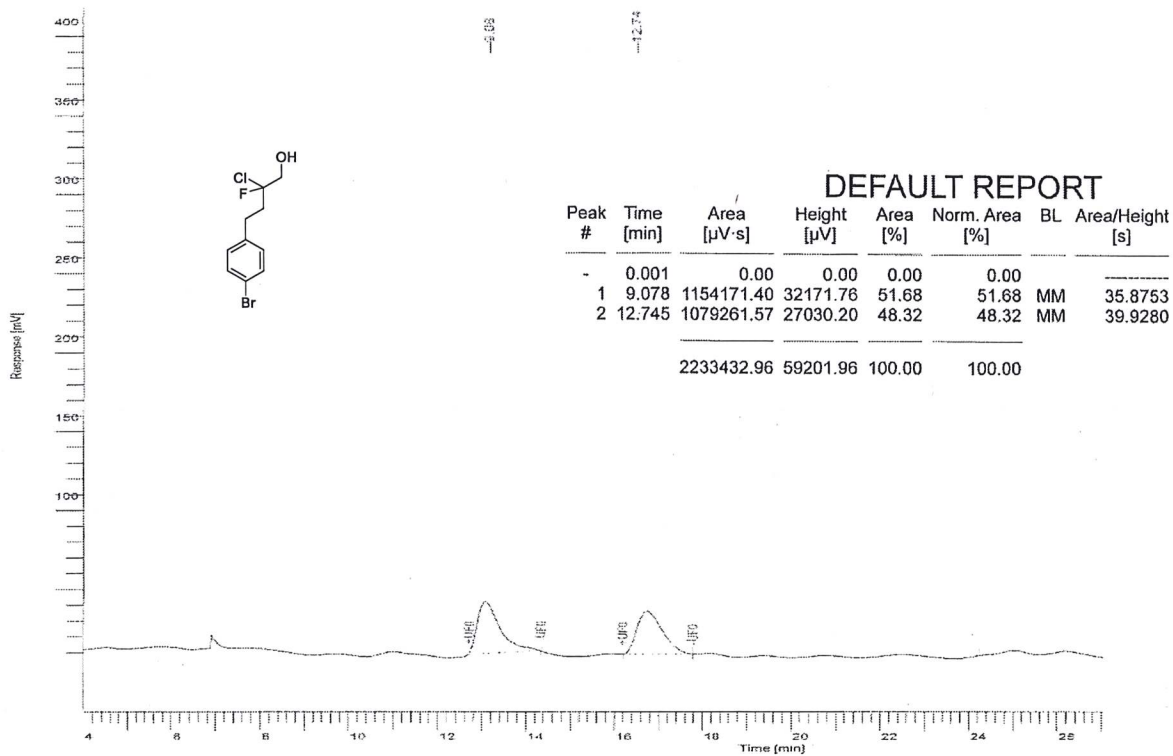
39.15  
35.31  
32.16  
31.07



```
Current Data Parameters
NAME  190-30A-317-Final 2-Analyz
EXPNO  1
PROCNO  1
===== Acquisition Parameters =====
Date_  20160403
Time   22:16
INSTRUM  spect
PROBHD  5 mm JNMPS 500
PULPROG  zgpg30
TD      65536
SOLVENT  CDCl3
NS      4000
DS      4
SWH     20761.964 Hz
FIDRES  0.394191 Hz
AQ      1.1810088 sec
RG      187.7
GB      0
BW      18.800 kHz
DE      6.30 kHz
TE      300.2 K
D1      1.20000000 sec
d11     0.03000000 sec
d12     0.03000000 sec
d13     0.03000000 sec
d14     0.03000000 sec
===== CHANNEL f1 =====
NUC1    13C
P1      1.00
PL1     0.00 dB
PC1     0.00 Hz
===== CHANNEL f2 =====
NAME  190-30A-317-Final 2-Analyz
EXPNO  1
PROCNO  1
===== Acquisition Parameters =====
Date_  20160403
Time   22:16
INSTRUM  spect
PROBHD  5 mm JNMPS 500
PULPROG  zgpg30
TD      65536
SOLVENT  CDCl3
NS      4000
DS      4
SWH     20761.964 Hz
FIDRES  0.394191 Hz
AQ      1.1810088 sec
RG      187.7
GB      0
BW      18.800 kHz
DE      6.30 kHz
TE      300.2 K
D1      1.20000000 sec
d11     0.03000000 sec
d12     0.03000000 sec
d13     0.03000000 sec
d14     0.03000000 sec
===== Processing parameters =====
SI      32768
SF      125.7601200 MHz
WDW     EM
SSB     0
LB      1.00 Hz
GB      0
PC      1.00
```

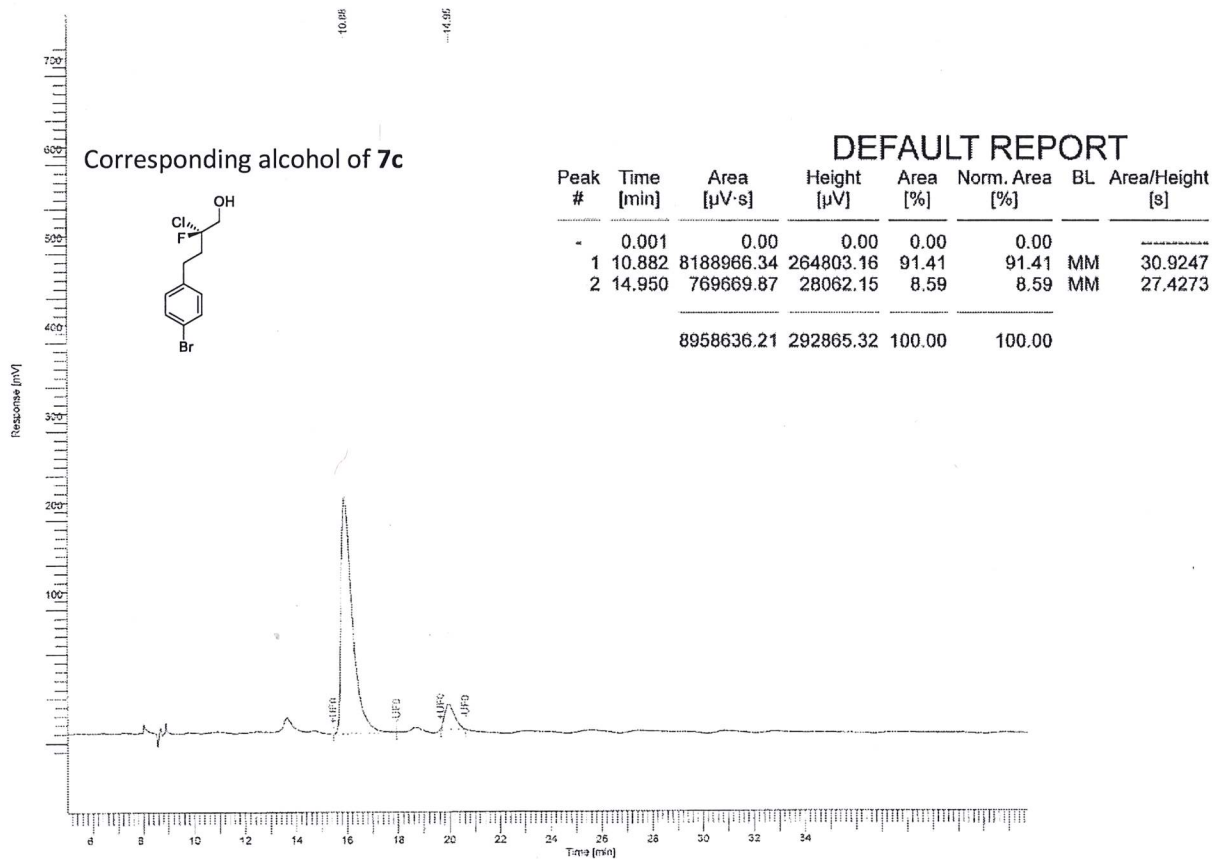
# <sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

Sample Name: C:\T\Labchrom Storage\Maine\Alcohol-Br\_Series\Recomb-7.raw  
 Date: 1/22/2020 2:51:15 PM  
 Method:   
 Start Time: 0.00 min  
 End Time: 30.00 min  
 Time of Injection: 1/22/2020 2:18:56 PM  
 Low Point: 54.43 mAU  
 High Point: 454.43 mAU  
 Plot Offset: 54.43 mAU  
 Pict Scale: 400.0 mAU



## Chromatogram

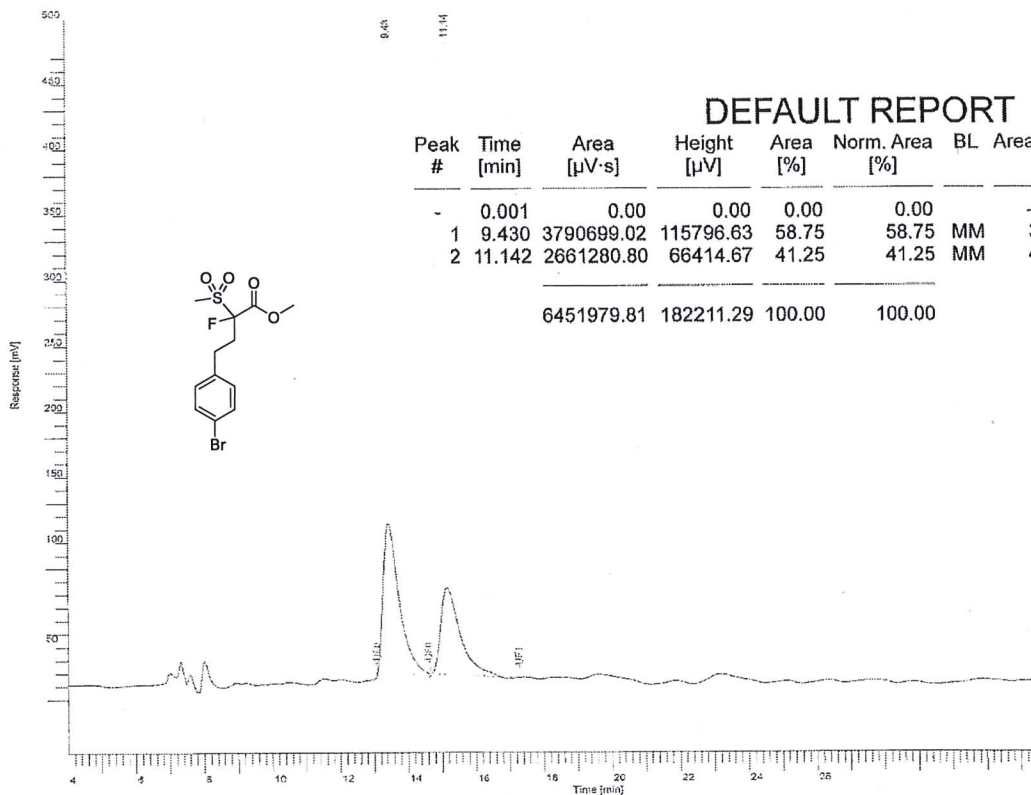
Sample Name: C:\T\Labchrom Storage\Maine\Alcohol-Br\_Series\Recomb-7.raw  
 Date: 1/22/2020 11:59:26 AM  
 Method:   
 Start Time: 0.00 min  
 End Time: 30.00 min  
 Time of Injection: 1/22/2020 11:59:26 AM  
 Low Point: 35.89 mAU  
 High Point: 855.89 mAU  
 Plot Offset: 35.89 mAU  
 Pict Scale: 900.0 mAU



# <sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

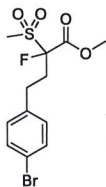
## Chromatogram

Sample Name: C:\Tandemrom Storage\Malware\AFSA-OMC-Rac.nw  
 File Name: C:\Tandemrom Storage\Malware\AFSA-OMC-Rac.nw  
 Date: 11/6/2020 4:07:58 PM  
 Method: 12172019 12:51:24 PM  
 Start Time: 0:00 min  
 End Time: 30:00 min  
 Plot Offset: 48.82 mAU  
 Plot Scale: 500.0 mAU  
 Time of Injection: 12172019 12:51:24 PM  
 Low Point: 48.82 mAU  
 High Point: 548.82 mAU



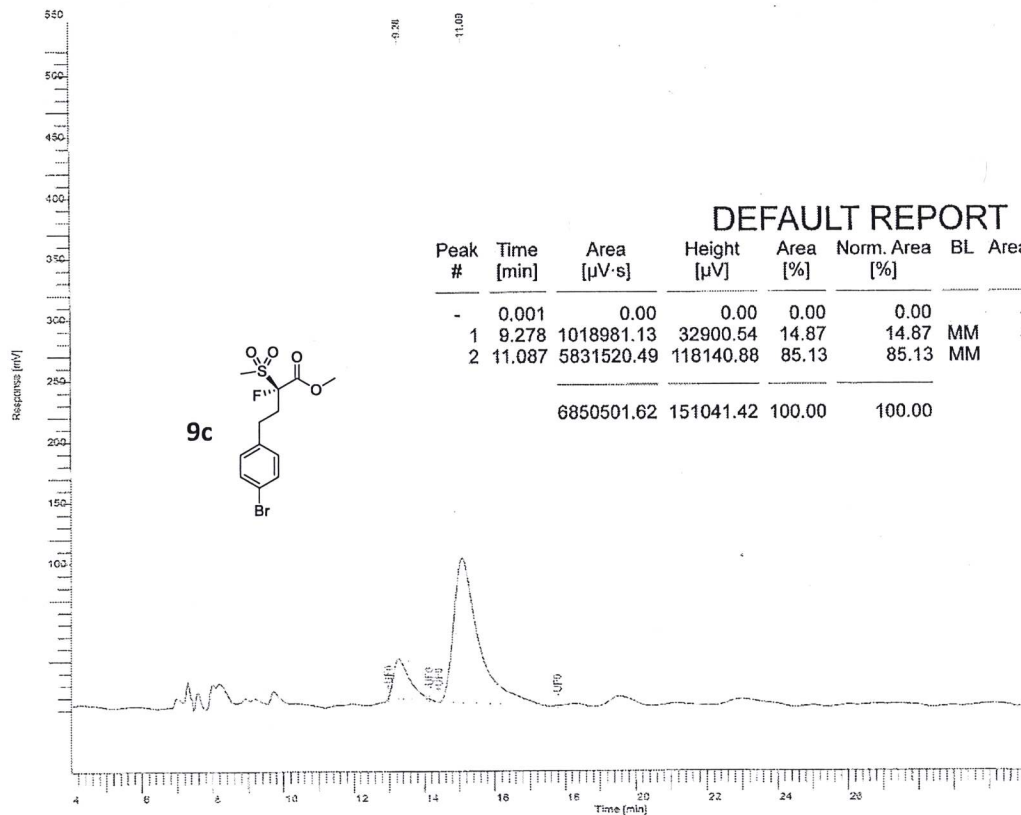
## DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	9.430	3790699.02	115796.63	58.75	58.75	MM	32.7358
2	11.142	2661280.80	66414.67	41.25	41.25	MM	40.0707
		6451979.81	182211.29	100.00	100.00		



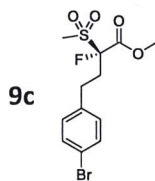
## Chromatogram

Sample Name: C:\Tandemrom Storage\Malware\AFSA-OMC-Rac.nw  
 File Name: C:\Tandemrom Storage\Malware\AFSA-OMC-Rac.nw  
 Date: 11/6/2020 4:04:14 PM  
 Method: 12172019 12:51:24 PM  
 Start Time: 0:00 min  
 End Time: 30:00 min  
 Plot Offset: 53.10 mAU  
 Plot Scale: 500.0 mAU  
 Time of Injection: 12172019 12:51:24 PM  
 Low Point: 53.10 mAU  
 High Point: 603.10 mAU



## DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	9.278	1018981.13	32900.54	14.87	14.87	MM	30.9716
2	11.087	5831520.49	118140.88	85.13	85.13	MM	49.3607
		6850501.62	151041.42	100.00	100.00		

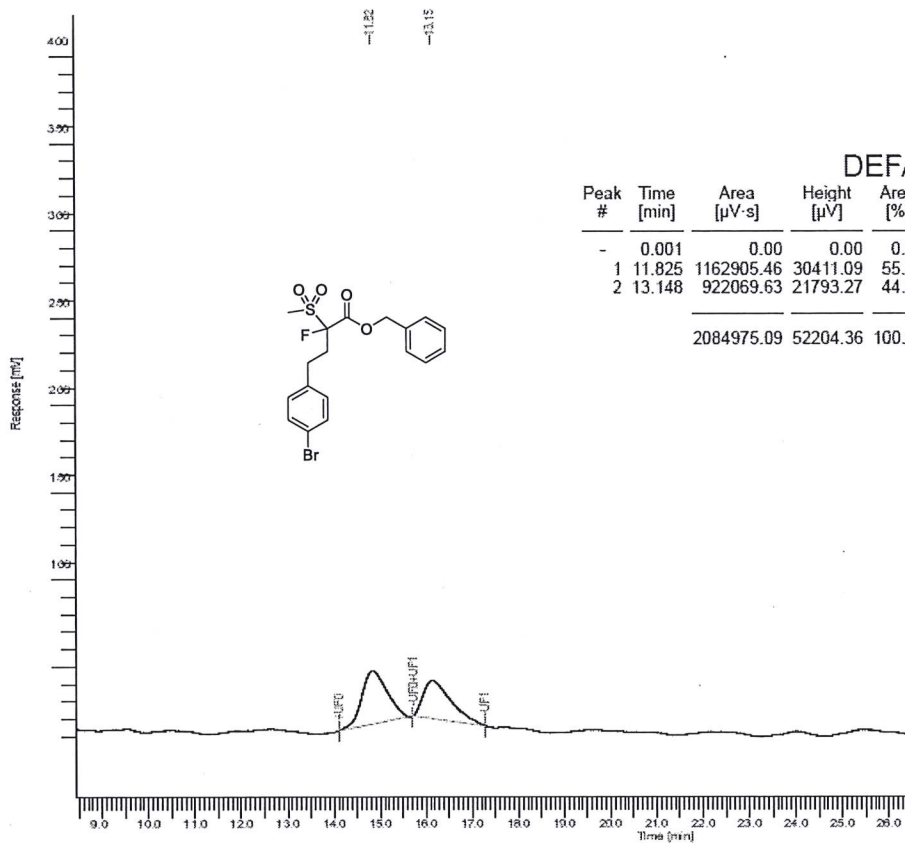




# <sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

## Chromatogram

Sample Name: C:\T1\chrom\Storge\Melanin\A18V-DBF-F2C18W  
 File Name: C:\T1\chrom\Storge\Melanin\A18V-DBF-F2C18W  
 Date: 1/25/2020 5:27:43 PM  
 Time of Injection: 12/17/2019 1:53:07 PM  
 Method: 1  
 Start Time: 5:45 min  
 End Time: 35:00 min  
 Low Point: 57.02 mAU  
 High Point: 457.02 mAU  
 PID Scale: 57.02 mAU  
 Plot Scale: 400.0 mAU

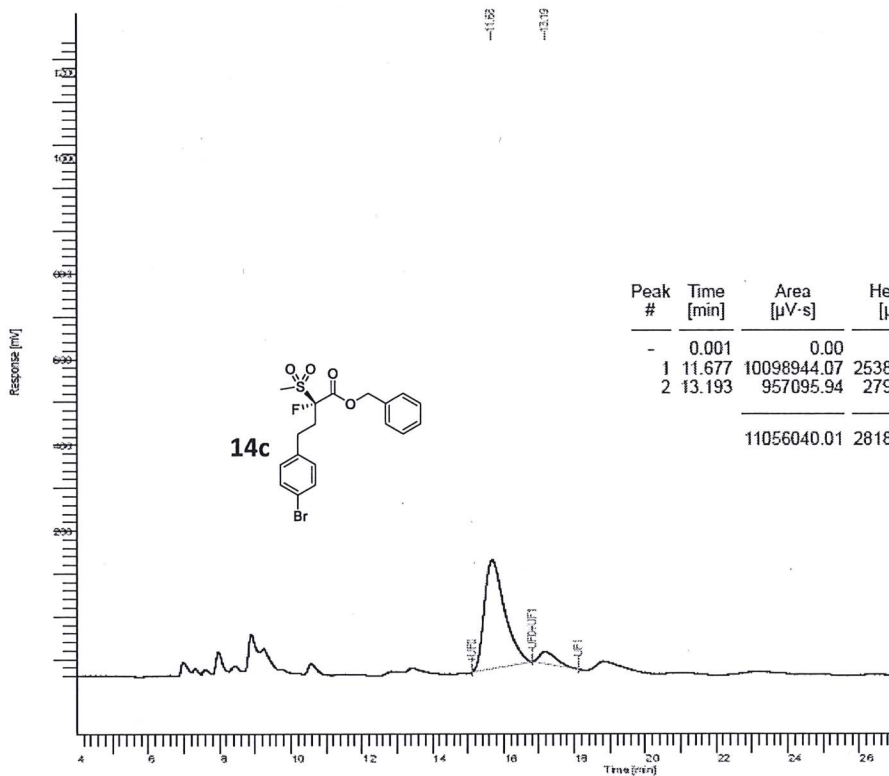


### DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	11.825	1162905.46	30411.09	55.78	55.78	MM	38.2395
2	13.148	922069.63	21793.27	44.22	44.22	MM	42.3098
		2084975.09	52204.36	100.00	100.00		

## Chromatogram

Sample Name: C:\T1\chrom\Storge\Melanin\A18V-DBF-F2C18W  
 File Name: C:\T1\chrom\Storge\Melanin\A18V-DBF-F2C18W  
 Date: 1/25/2020 5:27:43 PM  
 Time of Injection: 12/17/2019 2:24:00 PM  
 Method: 1  
 Start Time: 5:45 min  
 End Time: 35:00 min  
 Low Point: 44.71 mAU  
 High Point: 1544.71 mAU  
 PID Scale: 44.71 mAU  
 Plot Scale: 1000.0 mAU



### DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	11.677	10098944.07	253854.19	91.34	91.34	MM	39.7825
2	13.193	957095.94	27976.48	8.66	8.66	MM	34.2107
		11056040.01	281830.67	100.00	100.00		

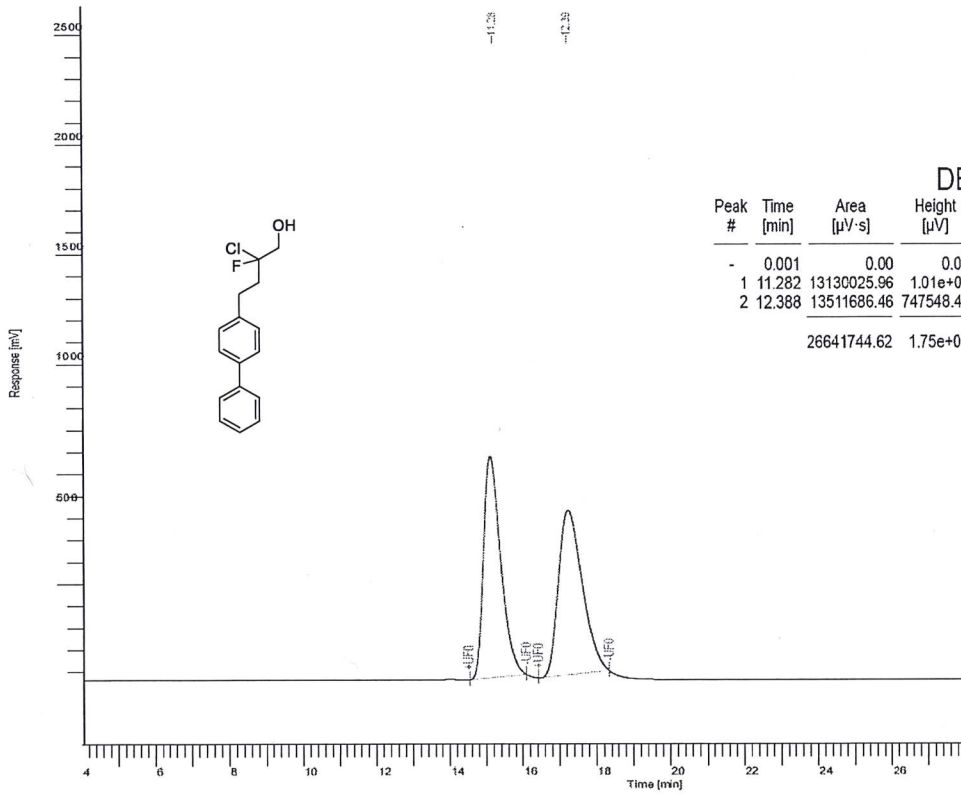




Chromatogram

Sample Name: C:\chromat\Shiraga\Melanoidin\OH-hiphenyl-Fluorocrow  
 File Name: 2171203 9:56:55 AM  
 Method: 1  
 Start Time: 10:00 min  
 End Time: 14:00 min  
 Time of Injection: 12/2/2020 1:38:25 PM  
 Plate: 31.05 mAU  
 Low Point: 31.05 mAU  
 High Point: 593.73 mAU  
 Plot Offset: 31.05 mAU  
 Plot Scale: 5627 mAU

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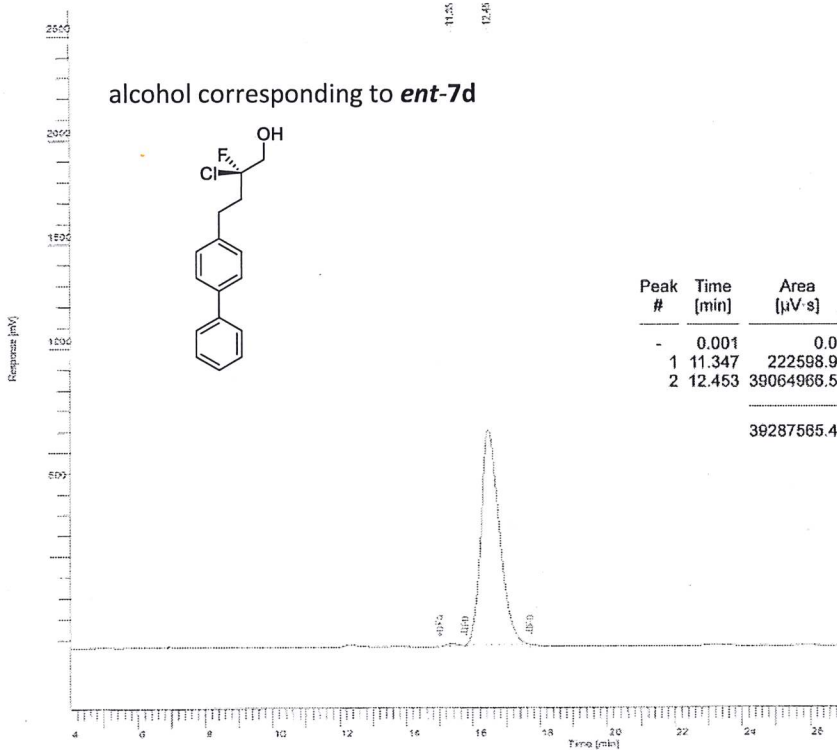
DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		-----
1	11.282	13130025.96	1.01e+06	49.28	49.28	MM	13.0410
2	12.388	13511686.46	747548.43	50.72	50.72	MM	18.0747
		26641744.62	1.75e+06	100.00	100.00		

Chromatogram

Sample Name: C:\chromat\Shiraga\Melanoidin\OH-hiphenyl-Fluorocrow  
 File Name: 2171203 9:56:55 AM  
 Method: 1  
 Start Time: 10:00 min  
 End Time: 14:00 min  
 Time of Injection: 12/2/2020 1:38:25 PM  
 Plate: 31.05 mAU  
 Low Point: 31.05 mAU  
 High Point: 593.73 mAU  
 Plot Offset: 31.05 mAU  
 Plot Scale: 5627 mAU

Page 1 of 1



alcohol corresponding to *ent*-7d

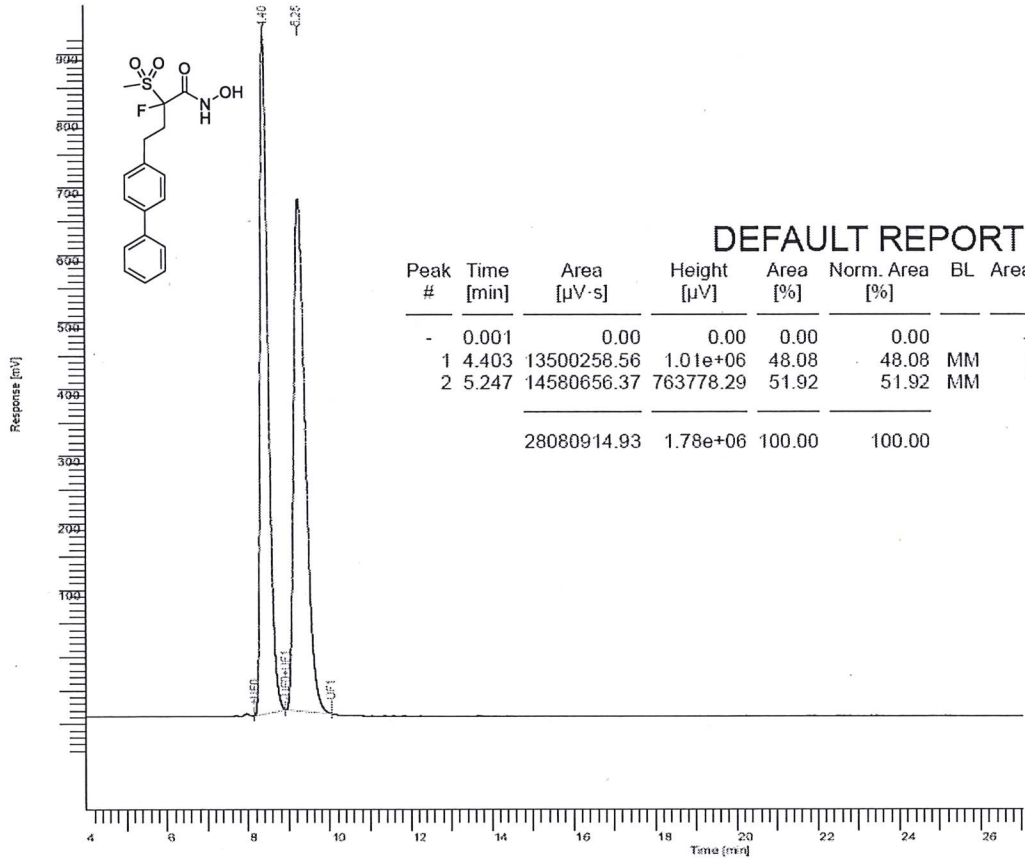
DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		-----
1	11.347	222598.97	10531.65	0.57	0.57	MM	21.1362
2	12.453	39064966.50	1.03e+06	99.43	99.43	MM	38.0594
		39287565.47	1.04e+06	100.00	100.00		

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

Chromatogram

Sample Name: C:\Tandemrom Storage\Melanie\ASH7058\IPA-40min\_25-4min\Initial\_Racemic-product\_final.raw  
 Date: 10/26/2020 5:08:11 PM  
 Method: FID  
 Start Time: 0:00 min  
 End Time: 30:00 min  
 PID Scale: 7.09 mAU  
 Time of Injection: 02/22/2018 10:09:59 AM  
 Low Point: 7.09 mAU  
 High Point: 1078.64 mAU  
 FID Scale: 1071.6 mAU

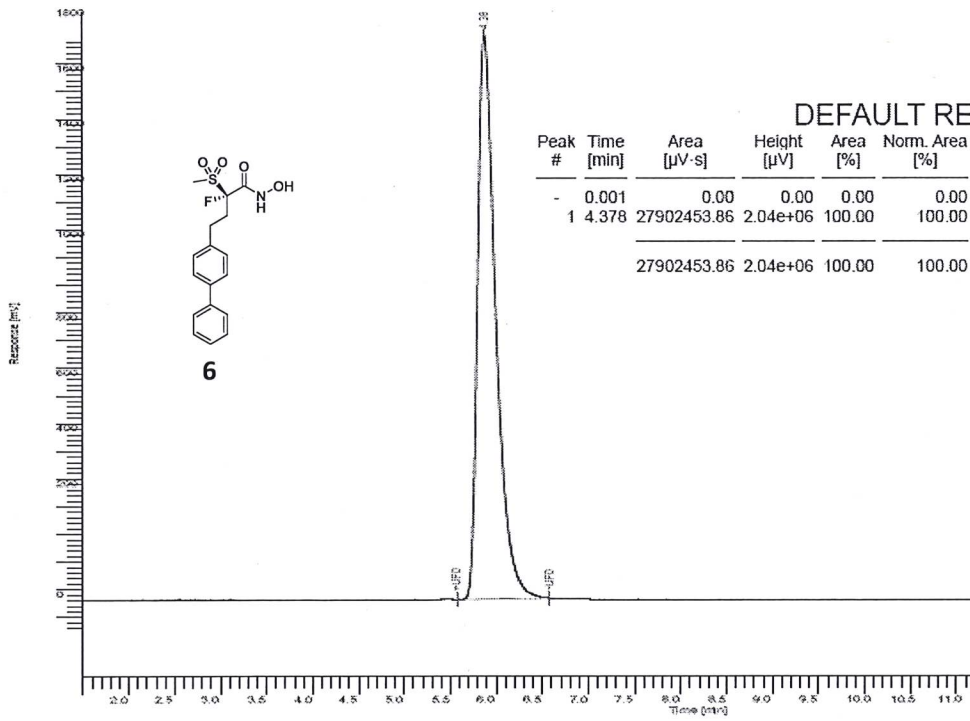


DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	4.403	13500258.56	1.01e+06	48.08	48.08	MM	13.3214
2	5.247	14580656.37	763778.29	51.92	51.92	MM	19.0902
		28080914.93	1.78e+06	100.00	100.00		

Chromatogram

Sample Name: C:\Tandemrom Storage\Melanie\ASH7058\IPA-40min\_25-4min\Initial\_Racemic-product\_final.raw  
 Date: 10/26/2020 4:52:18 PM  
 Method: FID  
 Start Time: 0:00 min  
 End Time: 10:33 min  
 PID Scale: 2162.5 mAU  
 Time of Injection: 02/22/2018 10:09:59 AM  
 Low Point: 46.38 mAU  
 High Point: 2059.83 mAU  
 FID Scale: 2162.5 mAU



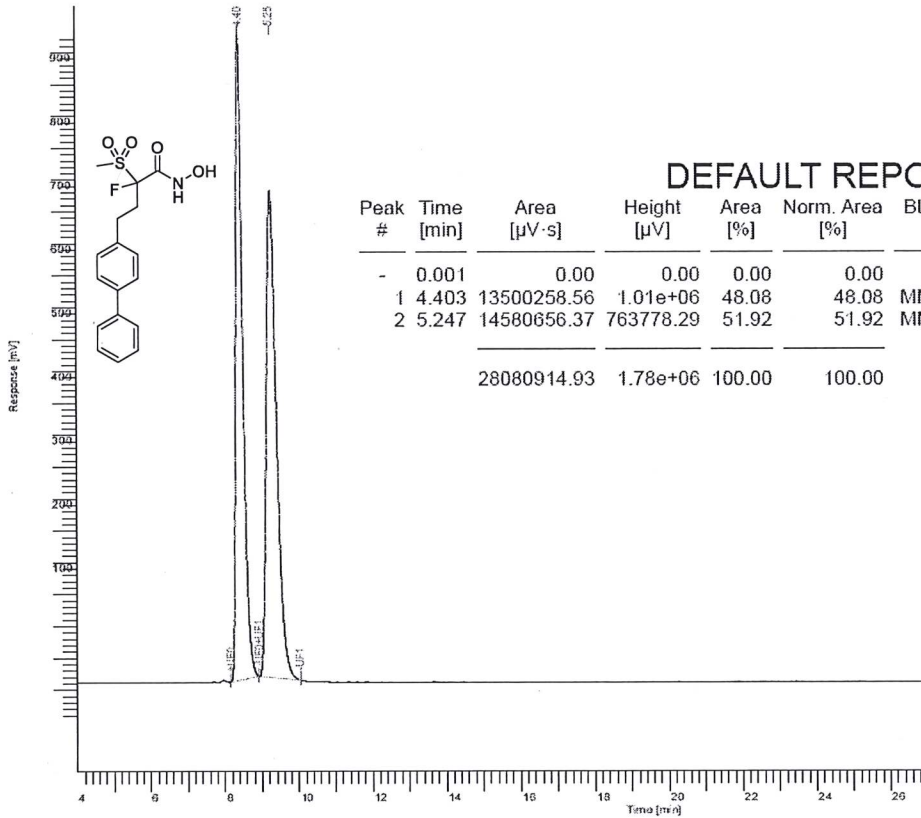
DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	4.378	27902453.86	2.04e+06	100.00	100.00	MM	13.7047
		27902453.86	2.04e+06	100.00	100.00		

<sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

Chromatogram

Sample Name: Sample# 001 Page 1 of 1  
 File Name: C:\Totalchrom Storage\Minine\ASH70\6\PA\_40min 25min\minin\_Ruemi-product final.raw  
 Date: 1/28/2020 5:08:11 PM  
 Method: C:\Totalchrom Storage\Methods\ash201\2515022-001345.raw  
 Start Time: 0.00 min End Time: 30.00 min Time of Injection: 0/2/2018 10:05:05 AM  
 Stop Time: 7.08 min P10 Scale: 101.0 mAU Low Point: 7.09 mAU High Point: 1078.64 mAU  
 P10 Offset: 7.08 mAU

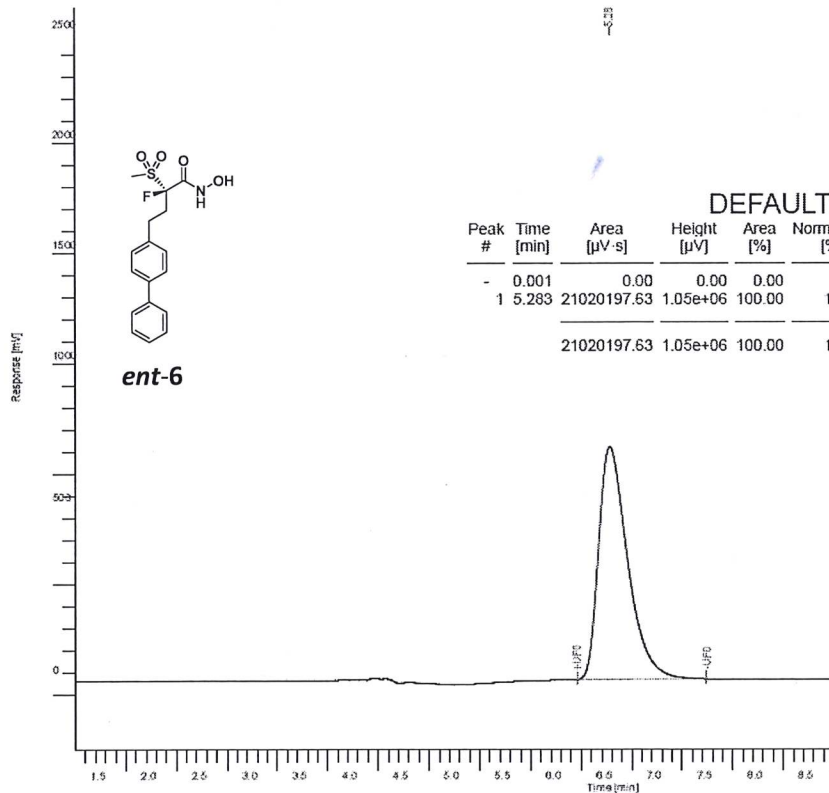


DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	4.403	13500258.56	1.01e+06	48.08	48.08	MM	13.3214
2	5.247	14580656.37	763778.29	51.92	51.92	MM	19.0902
		28080914.93	1.78e+06	100.00	100.00		

Chromatogram

Sample Name: Sample# 001 Page 1 of 1  
 File Name: C:\Totalchrom Storage\Methods\ash201\2515022-001345.raw  
 Date: 1/28/2020 5:08:11 PM  
 Method: C:\Totalchrom Storage\Methods\ash201\2515022-001345.raw  
 Start Time: 0.00 min End Time: 10.23 min Time of Injection: 6/2/2019 9:33:35 AM  
 Stop Time: 13.27 min P10 Scale: 300.0 mAU Low Point: -13.27 mAU High Point: 256.73 mAU  
 P10 Offset: -13.27 mAU



DEFAULT REPORT

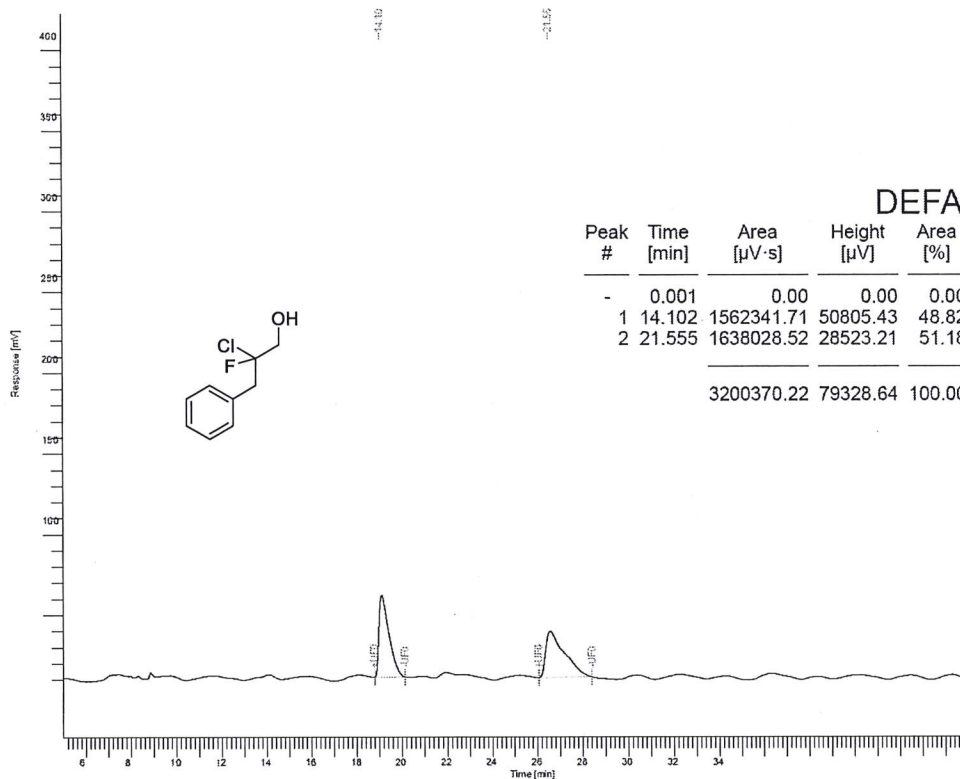
Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	5.283	21020197.63	1.05e+06	100.00	100.00	MM	19.9519
		21020197.63	1.05e+06	100.00	100.00		

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# <sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

## Chromatogram

Sample Name: C:\T\Kashim Storage\Gour\CC-H-Initiation-253mm-5NUP-A-D-3mm-B\AKC-20190224-161303.mw  
 File Name: C:\T\Kashim Storage\Gour\CC-H-Initiation-253mm-5NUP-A-D-3mm-B\AKC-20190224-161303.mw  
 Date: 1/17/2020 9:29:07 AM  
 Time of Injection: 45.00 min  
 Start Time: 0.00 min  
 End Time: 40.00 min  
 Plot Scale: 400.0 mAU  
 High Point: 456.07 mAU  
 Low Point: 55.07 mAU  
 Plot Offset: 55.07 mAU

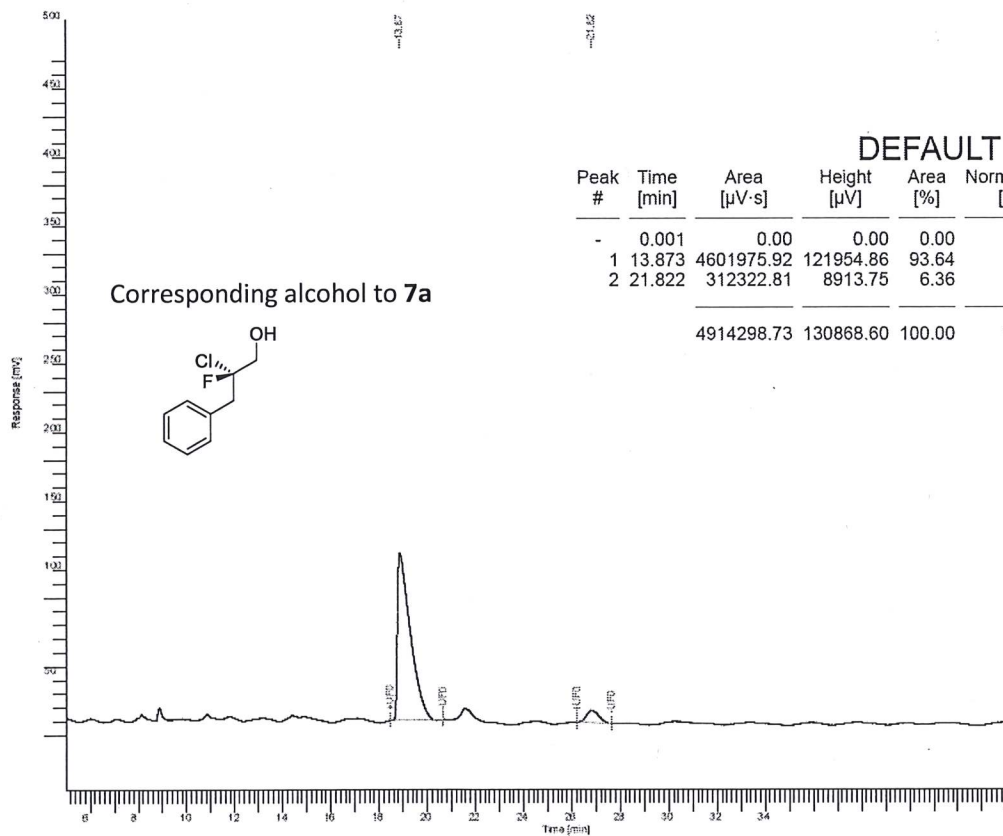


## DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		-----
1	14.102	1562341.71	50805.43	48.82	48.82	MM	30.7515
2	21.555	1638028.52	28523.21	51.18	51.18	MM	57.4279
		3200370.22	79328.64	100.00	100.00		

## Chromatogram

Sample Name: C:\T\Kashim Storage\Gour\CC-H-Initiation-253mm-5NUP-A-D-3mm-B\AKC-20190224-161303.mw  
 File Name: C:\T\Kashim Storage\Gour\CC-H-Initiation-253mm-5NUP-A-D-3mm-B\AKC-20190224-161303.mw  
 Date: 1/17/2020 9:29:07 AM  
 Time of Injection: 45.00 min  
 Start Time: 0.00 min  
 End Time: 40.00 min  
 Plot Scale: 500.0 mAU  
 High Point: 545.23 mAU  
 Low Point: 49.23 mAU  
 Plot Offset: 50.00 mAU



Corresponding alcohol to 7a

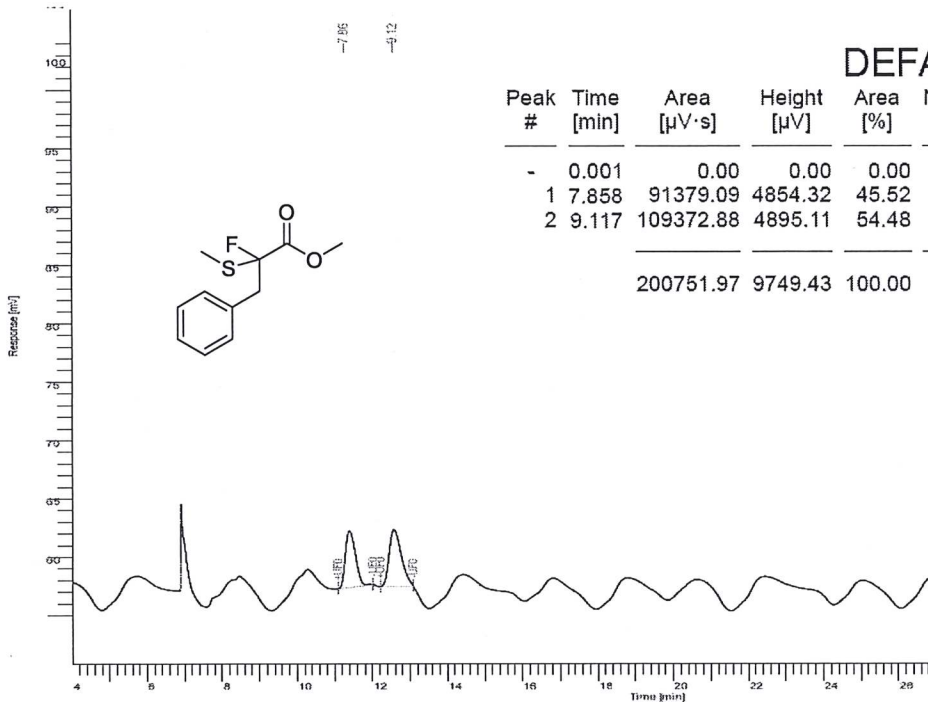
## DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		-----
1	13.873	4601975.92	121954.86	93.64	93.64	MM	37.7351
2	21.822	312322.81	8913.75	6.36	6.36	MM	35.0383
		4914298.73	130868.60	100.00	100.00		

# <sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

## Chromatogram

Sample Name: C:\104chrom\Storag\Melanid\dia07-20\00176-2\12127.raw  
 File Name: C:\104chrom\Storag\Melanid\dia07-20\00176-2\12127.raw  
 Date: 2/12/20 10:14:54 PM  
 Method: Time of Injection: 128.000 min  
 Start Time: 0.00 min  
 End Time: 30.00 min  
 Plot Offset: 50.00 mAU  
 Low Point: 58.82 mAU  
 High Point: 109.62 mAU  
 Plot Scale: 50.0 mAU

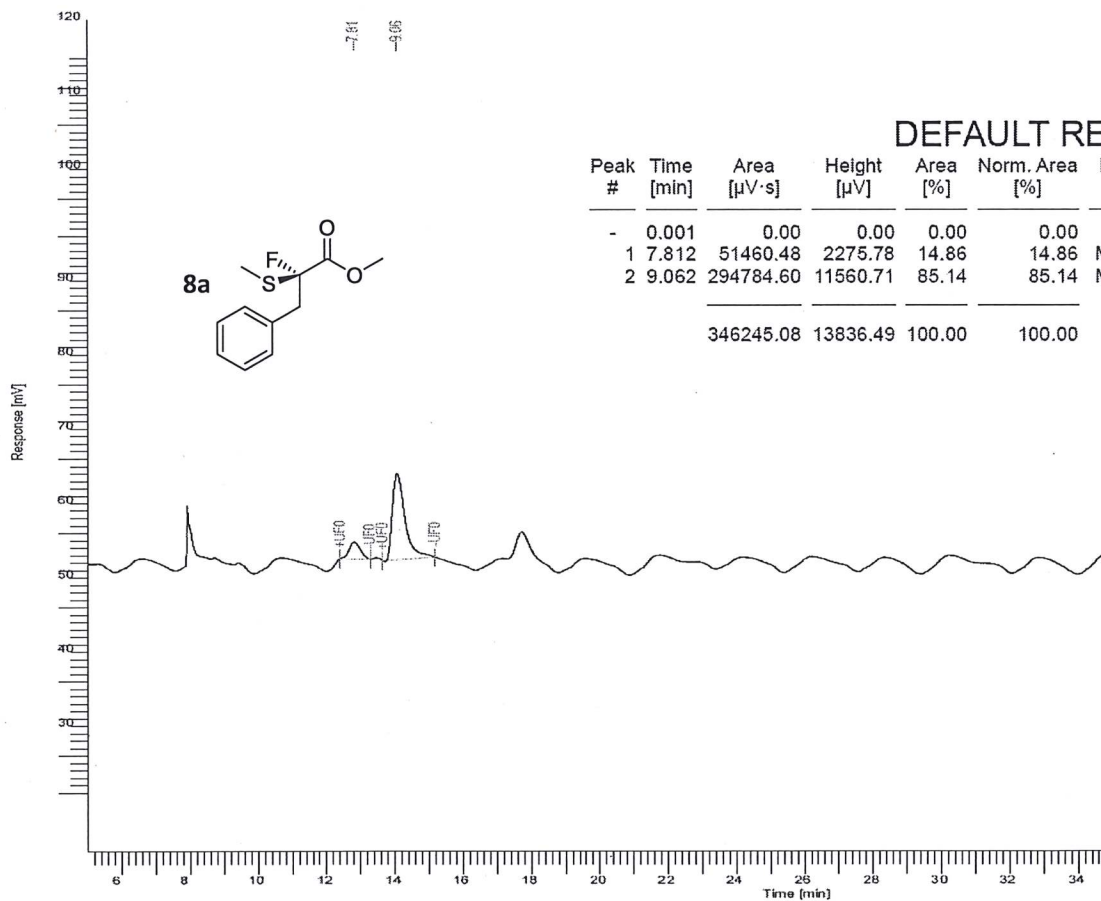


## DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		-----
1	7.858	91379.09	4854.32	45.52	45.52	MM	18.8243
2	9.117	109372.88	4895.11	54.48	54.48	MM	22.3433
		200751.97	9749.43	100.00	100.00		

## Chromatogram

Sample Name: C:\104chrom\Storag\Melanid\dia07-20\00176-2\12127.raw  
 File Name: C:\104chrom\Storag\Melanid\dia07-20\00176-2\12127.raw  
 Date: 2/12/20 12:56:24 PM  
 Method: Time of Injection: 128.000 min  
 Start Time: 0.00 min  
 End Time: 40.00 min  
 Plot Offset: 30.00 mAU  
 Low Point: 30.00 mAU  
 High Point: 130.00 mAU  
 Plot Scale: 100.0 mAU



## DEFAULT REPORT

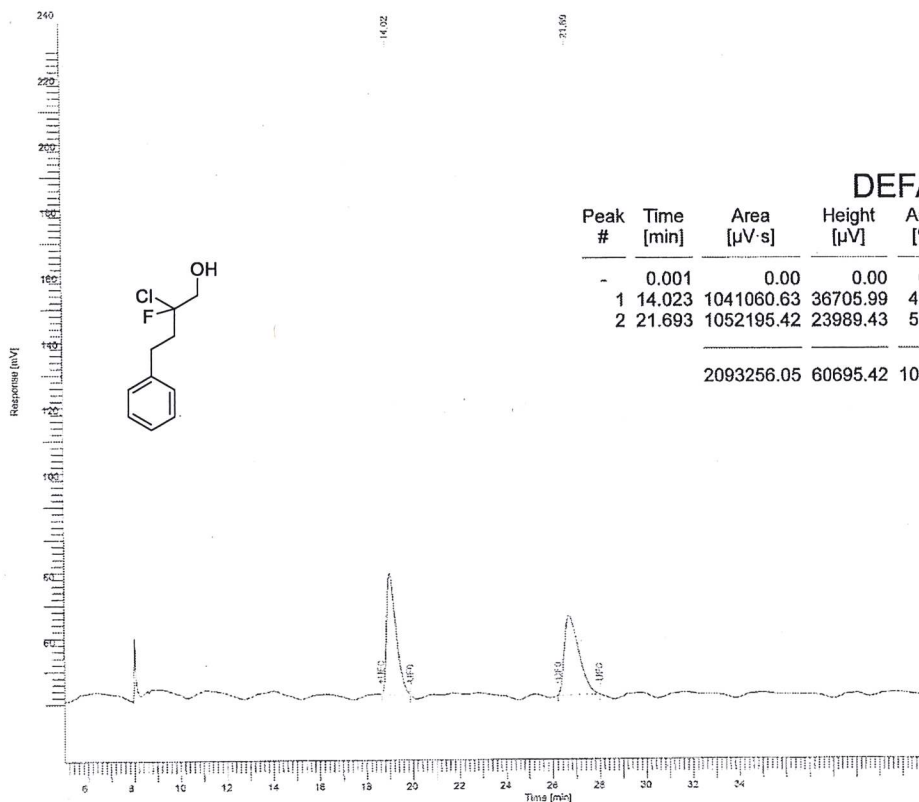
Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		-----
1	7.812	51460.48	2275.78	14.86	14.86	MM	22.6123
2	9.062	294784.60	11560.71	85.14	85.14	MM	25.4988
		346245.08	13836.49	100.00	100.00		



# <sup>1</sup>H NMR and <sup>13</sup>C NMR Spectra of Compounds

## Chromatogram

Sample Name: C:\Votchem\Storage\Measura\Alcohol\_H-Series-Ruo-5 raw  
 File Name: 11/20/2019 11:44:41 AM  
 Method: Time of Injection: 11/20/2019 11:01:22 AM  
 Start Time: 0.00 min End Time: 40.00 min Low Point: 89.44 mAU High Point: 256.44 mAU  
 Plot Offset: 58.44 mAU Plot Scale: 250.0 mAU

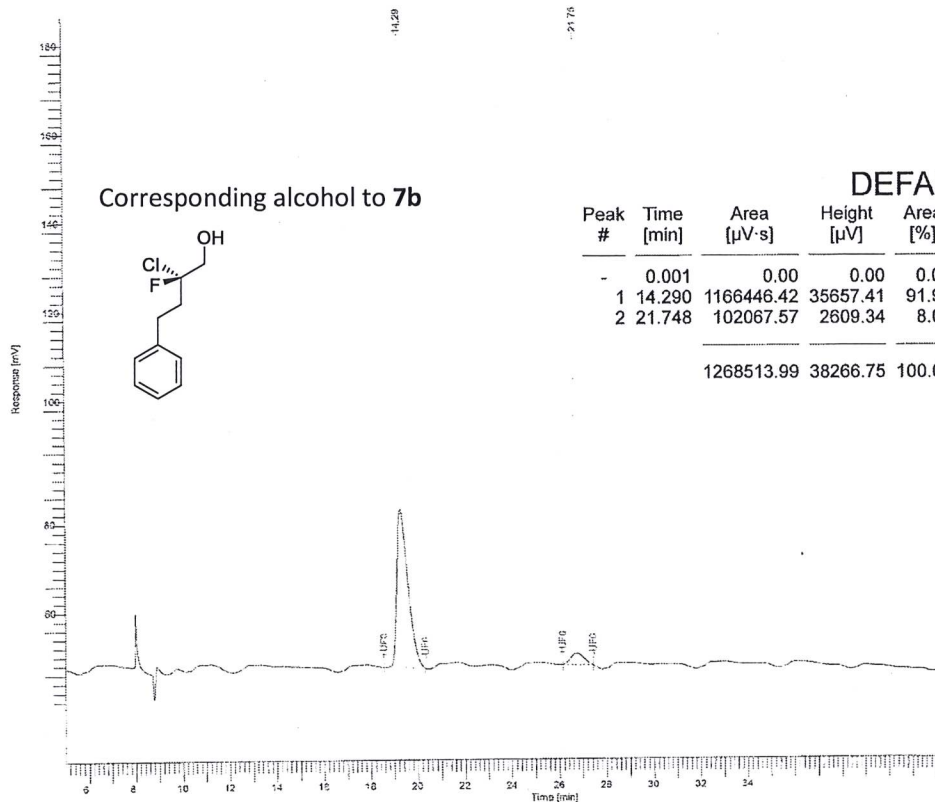


### DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	14.023	1041060.63	36705.99	49.73	49.73	MM	28.3621
2	21.693	1052195.42	23989.43	50.27	50.27	MM	43.8608
		2093256.05	60695.42	100.00	100.00		

## Chromatogram

Sample Name: C:\Votchem\Storage\Measura\Alcohol\_H-Series-Chl-5-comontrast02 raw  
 File Name: 11/20/2019 2:53:04 PM  
 Method: Time of Injection: 11/20/2019 1:38:38 PM  
 Start Time: 0.00 min End Time: 40.00 min Low Point: 52.38 mAU High Point: 202.38 mAU  
 Plot Offset: 52.38 mAU Plot Scale: 150.0 mAU



### Corresponding alcohol to 7b

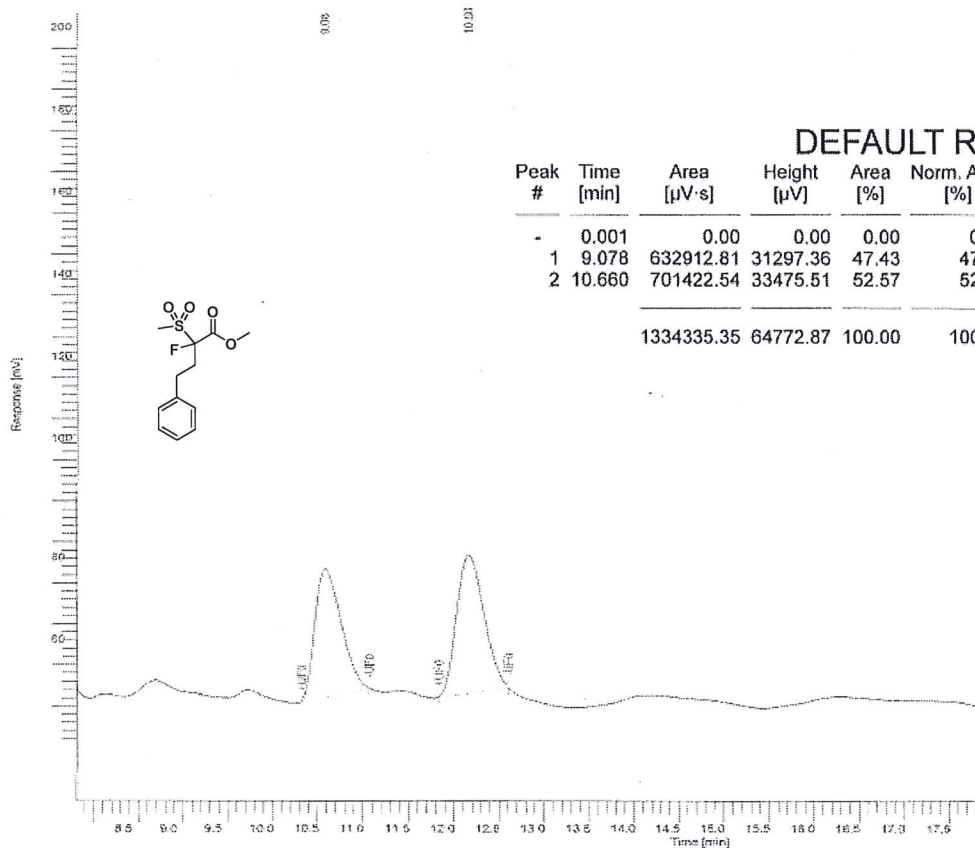
### DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	14.290	1166446.42	35657.41	91.95	91.95	MM	32.7126
2	21.748	102067.57	2609.34	8.05	8.05	MM	39.1163
		1268513.99	38266.75	100.00	100.00		



Chromatogram

Sample Name: C:\Instruments\Shimadzu\MS\Series\50300125-103742.msx Page 1 of 1  
 Pathname: C:\Instruments\Shimadzu\MS\Series\50300125-103742.msx  
 File: 17170207100.26.MK  
 Method: 17170207100.26.MK  
 Time of Injection: 17/02/2010 5:37:26 PM  
 Start Time: 6.31 min End Time: 18.65 min Low Point: 50.36 mAU High Point: 221.22 mAU  
 Plot Offset: 50.36 mAU Plot Scale: 170.9 mAU

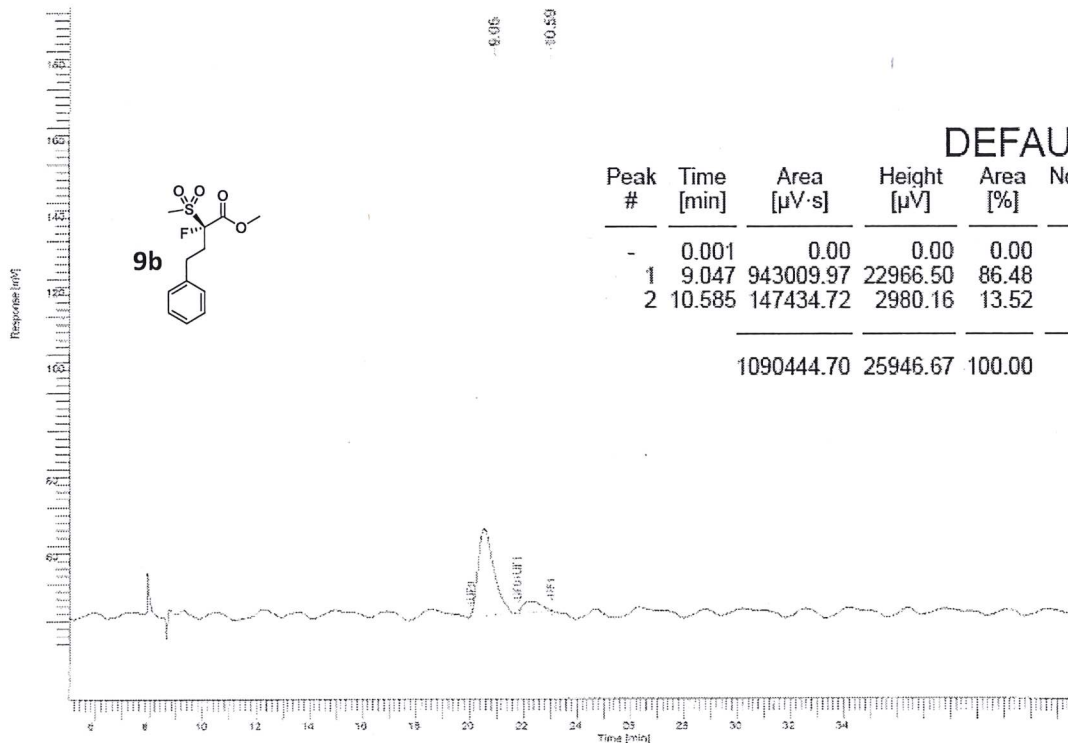


DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	9.078	632912.81	31297.36	47.43	47.43	MM	20.2226
2	10.660	701422.54	33475.51	52.57	52.57	MM	20.9533
		1334335.35	64772.87	100.00	100.00		

Chromatogram

Sample Name: C:\Instruments\Shimadzu\MS\Series\50300125-103742.msx Page 1 of 1  
 Pathname: C:\Instruments\Shimadzu\MS\Series\50300125-103742.msx  
 File: 17170207100.26.MK  
 Method: 17170207100.26.MK  
 Time of Injection: 17/02/2010 5:37:26 PM  
 Start Time: 6.31 min End Time: 18.65 min Low Point: 50.36 mAU High Point: 221.22 mAU  
 Plot Offset: 50.36 mAU Plot Scale: 170.9 mAU



DEFAULT REPORT

Peak #	Time [min]	Area [μV·s]	Height [μV]	Area [%]	Norm. Area [%]	BL	Area/Height [s]
-	0.001	0.00	0.00	0.00	0.00		
1	9.047	943009.97	22966.50	86.48	86.48	MM	41.0602
2	10.585	147434.72	2980.16	13.52	13.52	MM	49.4720
		1090444.70	25946.67	100.00	100.00		