

# Supporting Information

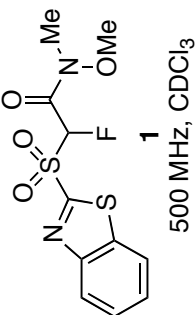
## Synthesis of Regiospecifically Fluorinated 1,3-Dienamides

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1231-CM-02-78-pure

Pulse Sequence: s2pul

Solvent: CDCl<sub>3</sub>

Ambient temperature

Operator: barbara

File: 1231-CM-02-78-pure

INOVA-500 "riga"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

48 repetitions

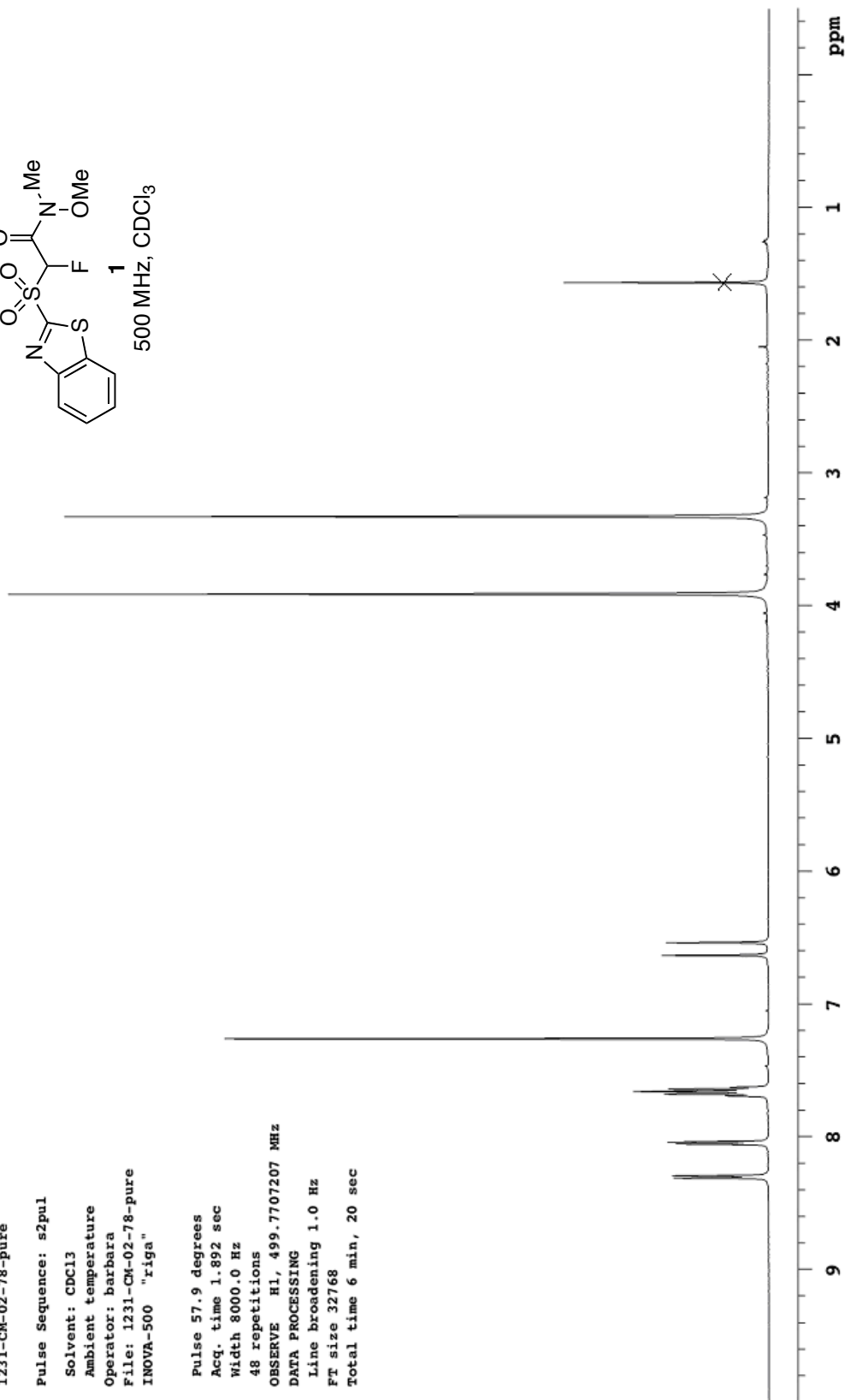
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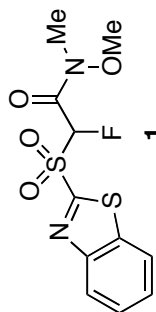
DATA PROCESSING

Line broadening 1.0 Hz

FT size 32768

Total time 6 min, 20 sec

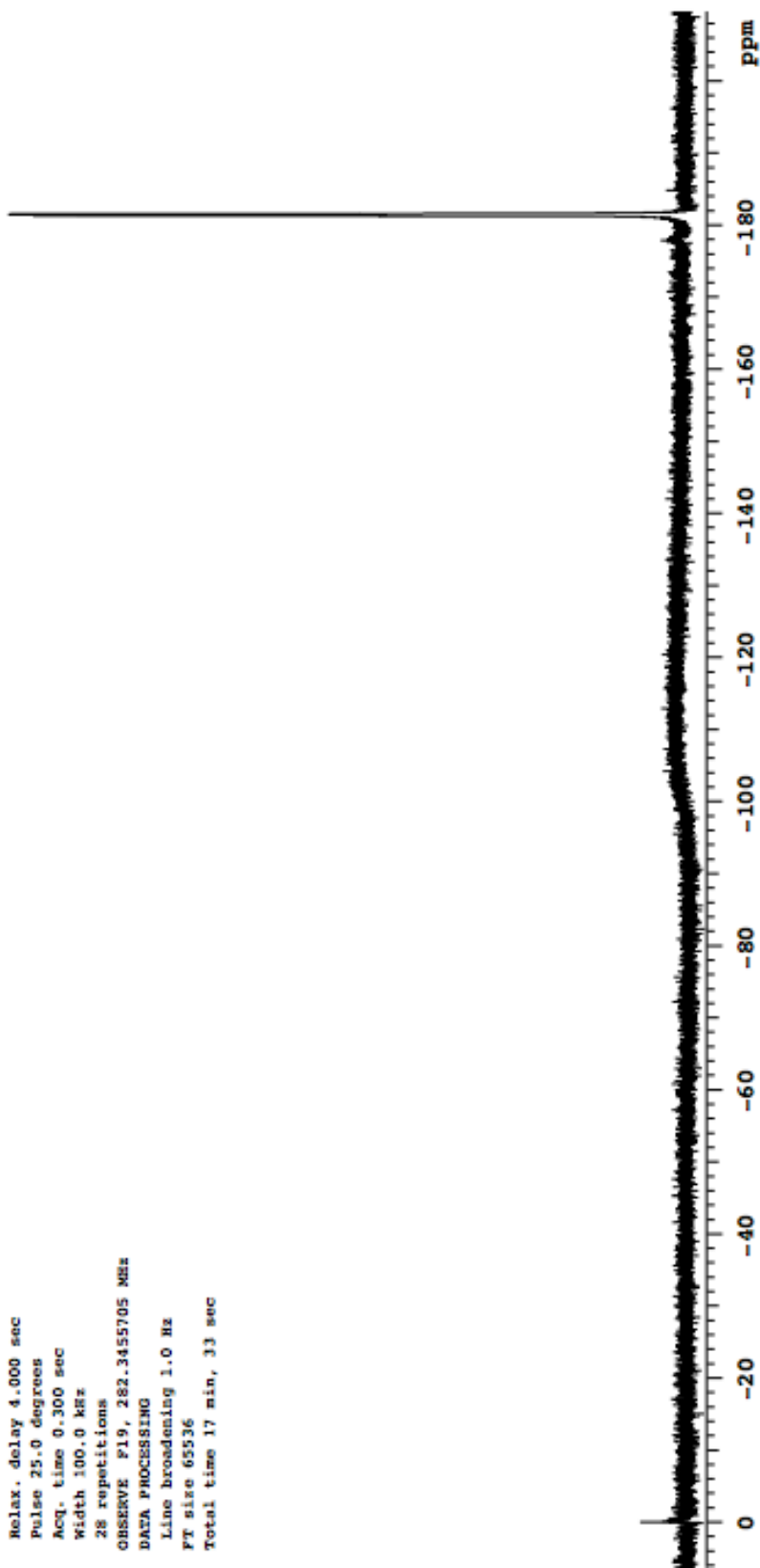




1

282 MHz, CDCl<sub>3</sub>

Pulse Sequence: s2pul  
 Solvent: CDCl<sub>3</sub>  
 Ambient temperature  
 File: 1231-cm-02-112  
 Mercury-300HS "vega300"  
 Relax. delay 4.000 sec  
 Pulse 25.0 degrees  
 Acq. time 0.300 sec  
 Width 100.0 kHz  
 28 repetitions  
 OBSERVE F19, 282.3455705 MHz  
 DATA PROCESSING  
 Line broadening 1.0 Hz  
 FT size 65536  
 Total time 17 min, 33 sec



1231-CM-02-dimetoxy-ft

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: Barbara

File: 1231-CM-02-dimetoxy-ft

INOVA-500 "riga"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

56 repetitions

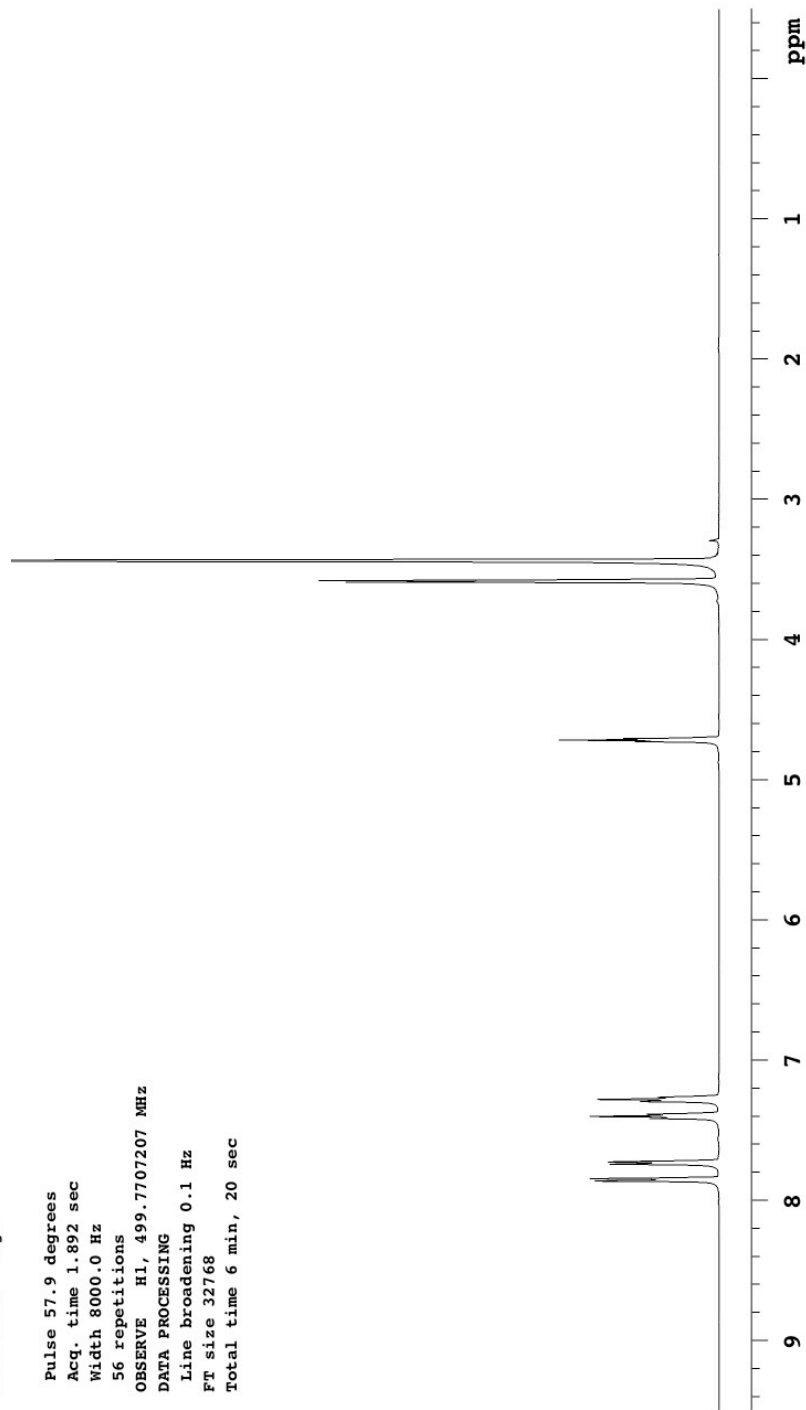
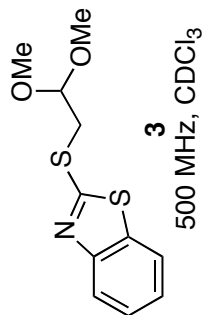
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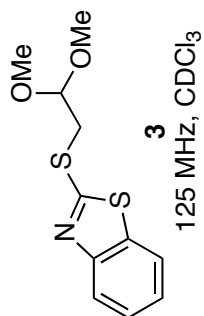
DATA PROCESSING

Line broadening 0.1 Hz

FT size 32768

Total time 6 min, 20 sec





1231-CM-02-dimethoxy-sulfide-13C

Pulse Sequence: s2pul

Solvent: CDCl<sub>3</sub>

Temp. 25.0 C / 298.1 K

Operator: Barbara

File: 1231-CM-02-dimethoxy-sulfide-13C

INOVA-500 "riga"

Relax. delay 4.000 sec

Pulse 52.1 degrees

Acq. time 1.300 sec

Width 29996.3 Hz

44 repetitions

OBSERVE C13, 125.6674328 MHz

DECOUPLE H1, 499.7732084 MHz

Power 42 dB

on during acquisition

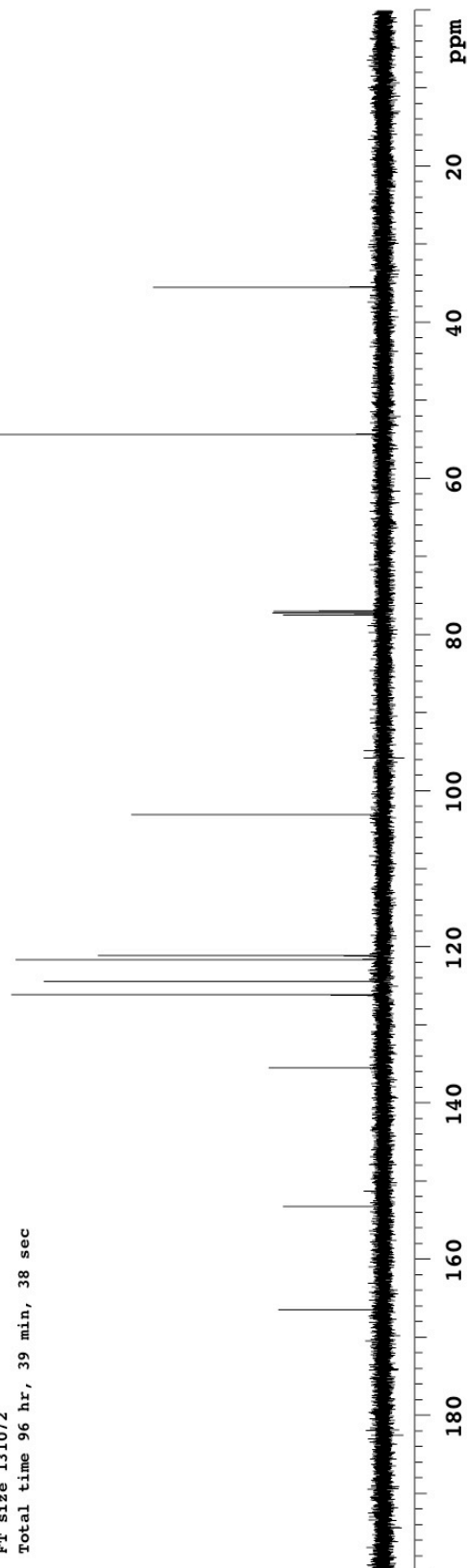
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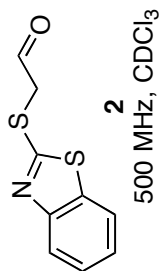
DATA PROCESSING

Line broadening 0.0 Hz

FT size 131072

Total time 96 hr, 39 min, 38 sec



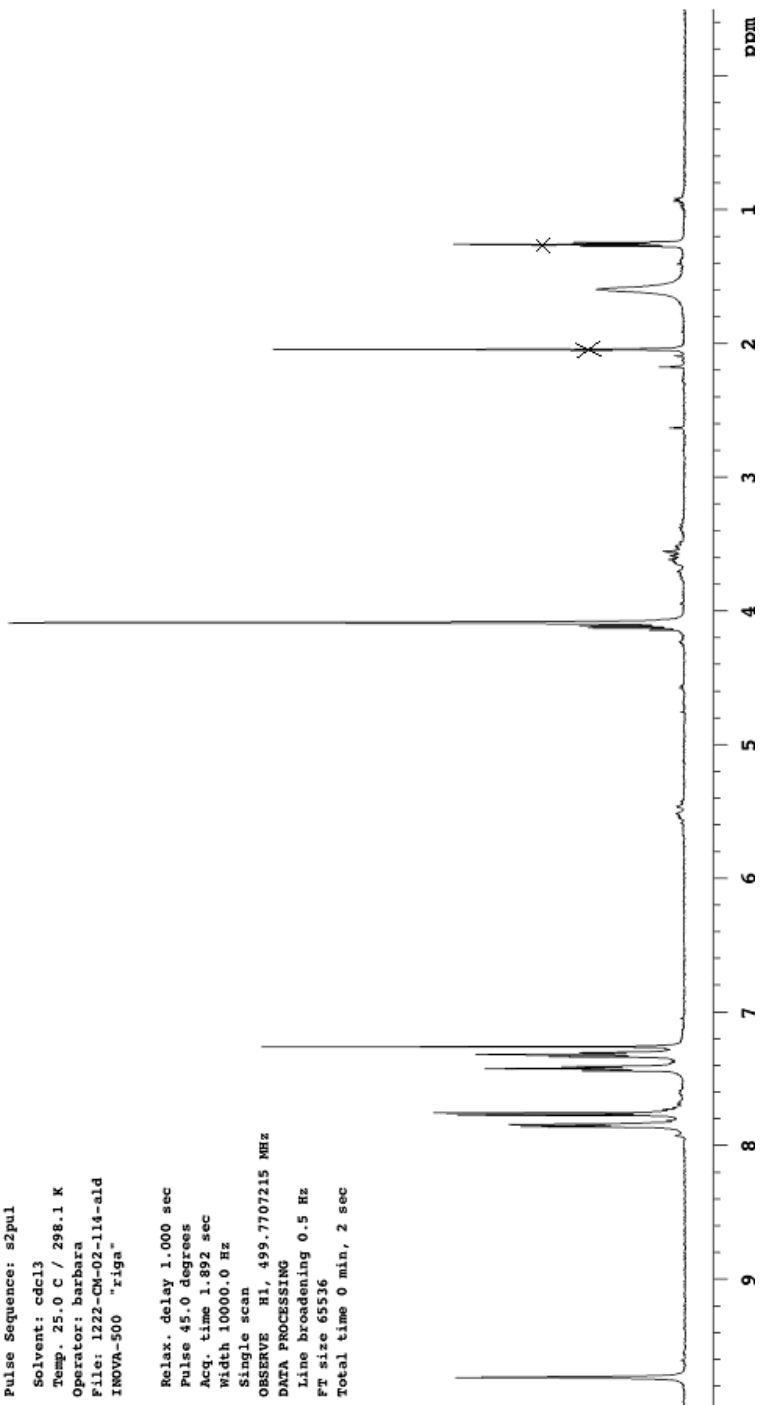


1222-CM-02-114-ald

Archive directory: /export/home/mkl/vnmrSYS/data  
Sample directory: auto\_13Dec2004

Pulse Sequence: s2pul  
Solvent: cdcl3  
Temp. 25.0 C / 298.1 K  
Operator: Barbara  
File: 1222-CM-02-114-ald  
INOVA-500 "riga"

Relax. delay 1.000 sec  
Pulse 45.0 degrees  
Acq. time 1.892 sec  
Width 10000.0 Hz  
Single scan  
OBSERVE H1, 499.7707215 MHz  
DATA PROCESSING  
Line broadening 0.5 Hz  
FT size 65536  
Total time 0 min, 2 sec



1231-cm-02-154-pure

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: Barbara

File: 1231-cm-02-154-pure

INOVA-500 "riga"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

92 repetitions

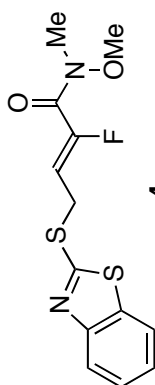
OBSERVE H1, 499.7707202 MHz

DATA PROCESSING

Line broadening 0.1 Hz

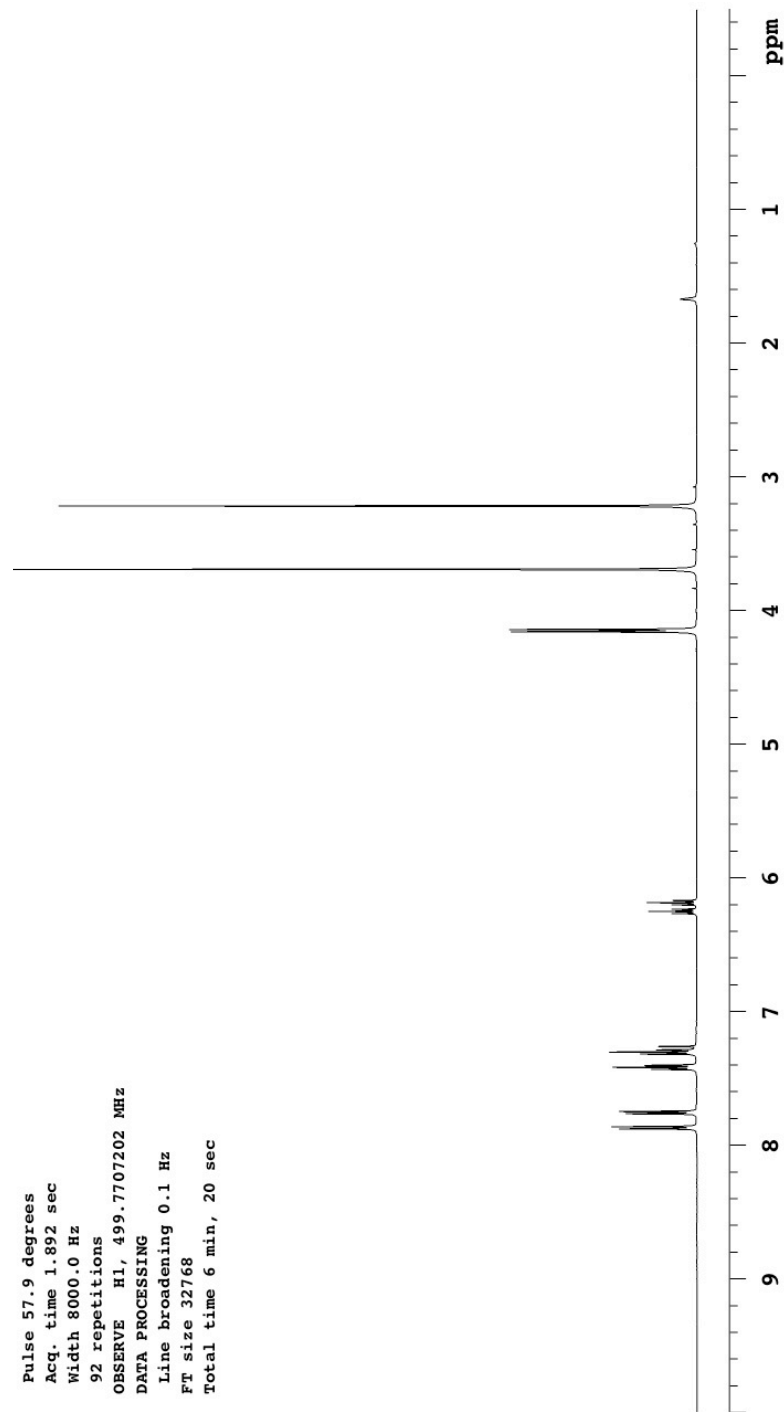
FT size 32768

Total time 6 min, 20 sec



4

500 MHz, CDCl<sub>3</sub>



1231-CM-02-116-13c

Pulse Sequence: s2pul

Solvent: CDCl<sub>3</sub>

Temp. 25.0 C / 298.1 K

Operator: Barbara

File: 1231-CM-02-116-13c

INOVA-500 "riga"

Relax. delay 4.000 sec

Pulse 52.1 degrees

Acq. time 1.300 sec

Width 29996.3 Hz

1176 repetitions

OBSERVE C13, 125.6674302 MHz

DECOUPLE H1, 499.7732084 MHz

Power 42 dB

on during acquisition

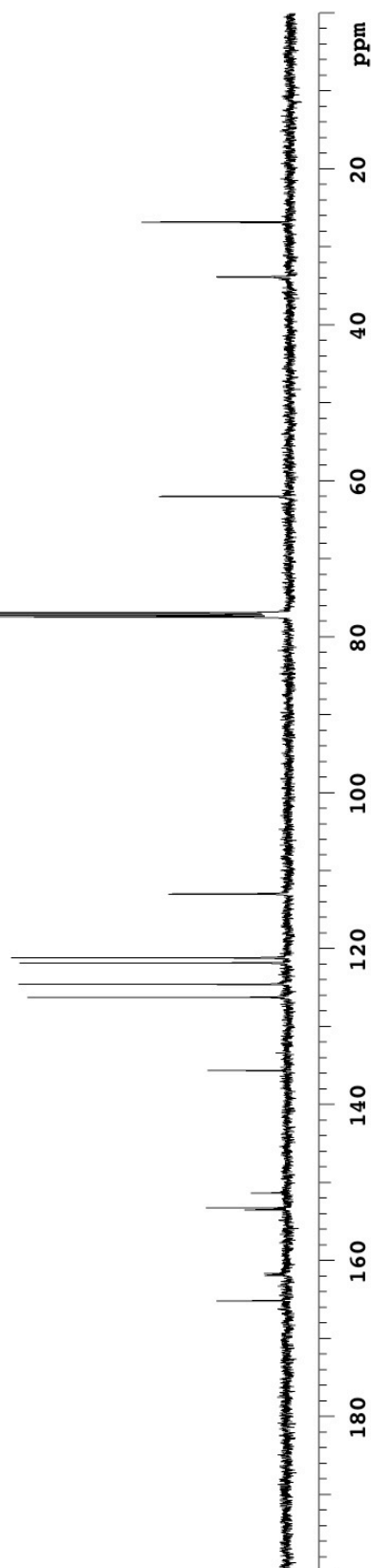
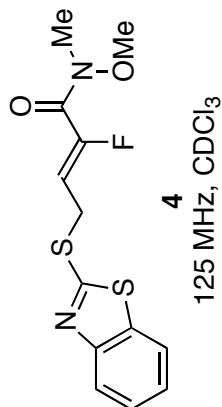
WALTZ-16 modulated

DATA PROCESSING

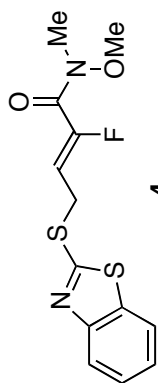
Line broadening 2.0 Hz

FT size 131072

Total time 96 hr, 39 min, 38 sec



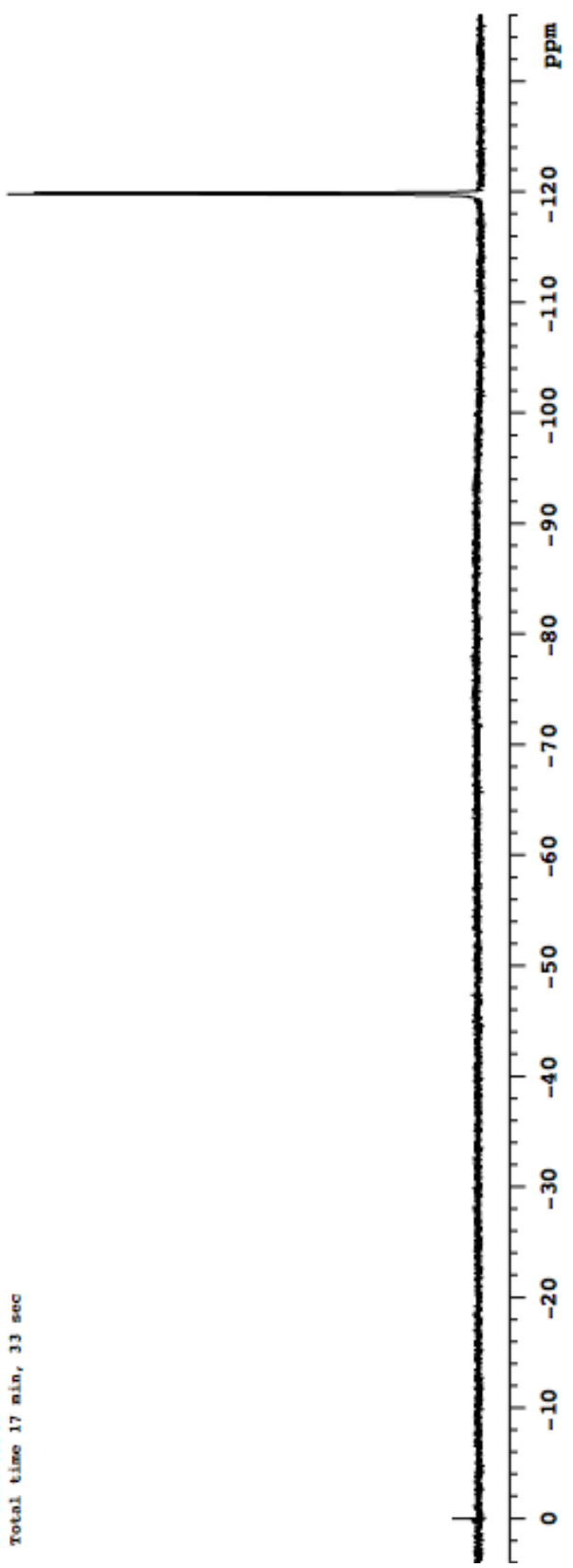




4

282 MHz, CDCl<sub>3</sub>

Pulse Sequence: s2pul  
Solvent: CDCl3  
Ambient temperature  
File: 1231-cm-OJ-154-pure  
Mercury-300HB "vega300"  
Relax. delay 4.000 sec  
Pulse 25.0 degrees  
Acq. time 0.300 sec  
Width 100.0 kHz  
48 repetitions  
OBSERVE F19, 282.3455614 MHz  
DATA PROCESSING  
Line broadening 1.0 Hz  
FT size 65536  
Total time 17 min, 33 sec



1231-CM-02-117-ft

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: barbara

File: 1231-CM-02-117-ft

INOVA-500 "riga"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

88 repetitions

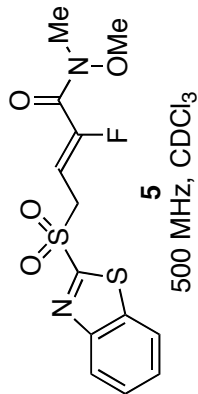
OBSERVE H1, 499.7707212 MHz

DATA PROCESSING

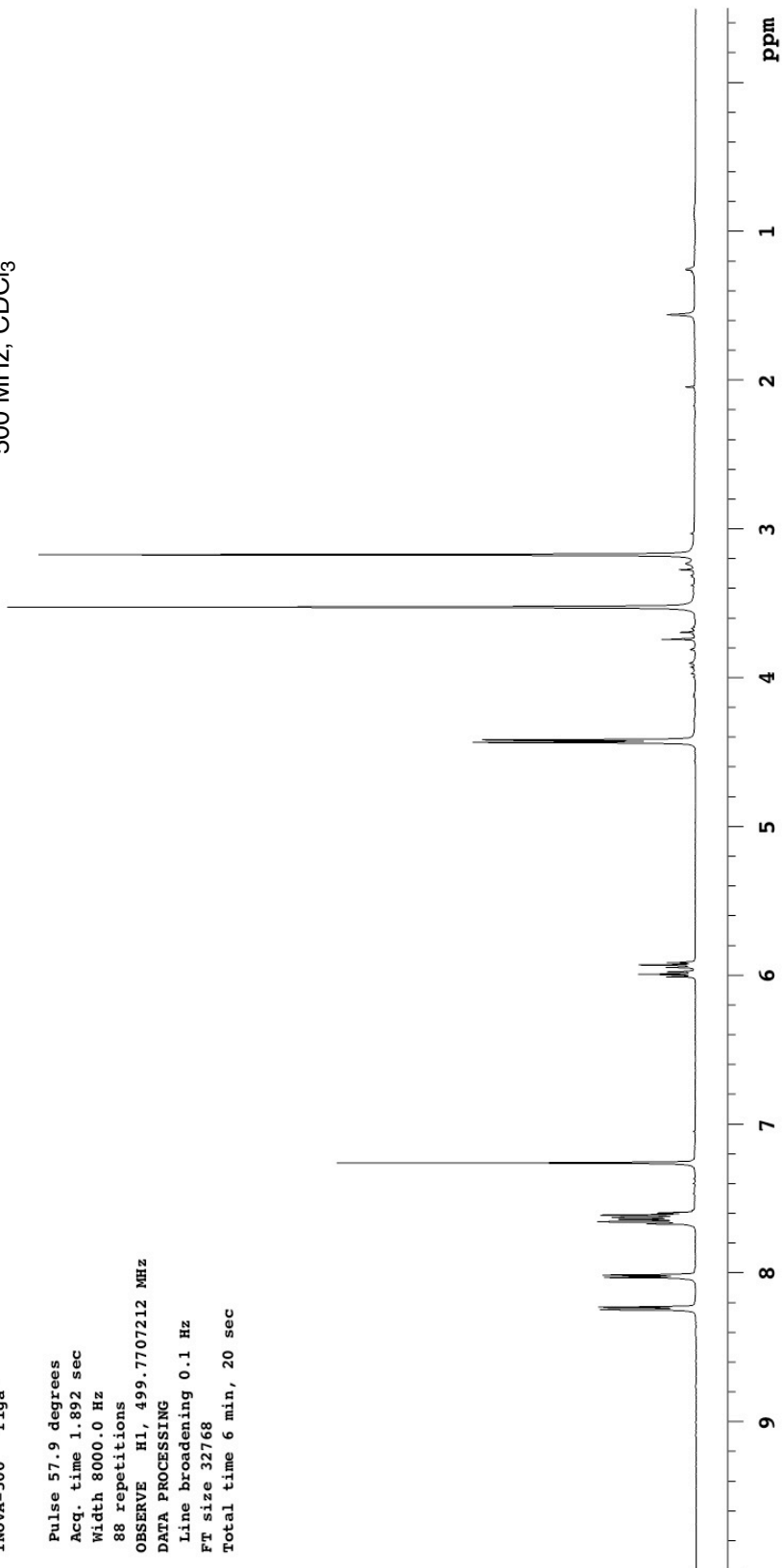
Line broadening 0.1 Hz

FT size 32768

Total time 6 min, 20 sec



500 MHz, CDCl<sub>3</sub>



1231-CM-02-117-13C

Pulse Sequence: s2pul

Solvent: CDCl<sub>3</sub>

Temp. 25.0 C / 298.1 K

Operator: barbara

File: 1231-CM-02-117-13C

INOVA-500 "riga"

Relax. delay 4.000 sec

Pulse 52.1 degrees

Acq. time 1.300 sec

Width 29996.3 Hz

1440 repetitions

OBSERVE C13, 125.6674218 MHz

DECOUPLE H1, 499.7732084 MHz

Power 42 dB

on during acquisition

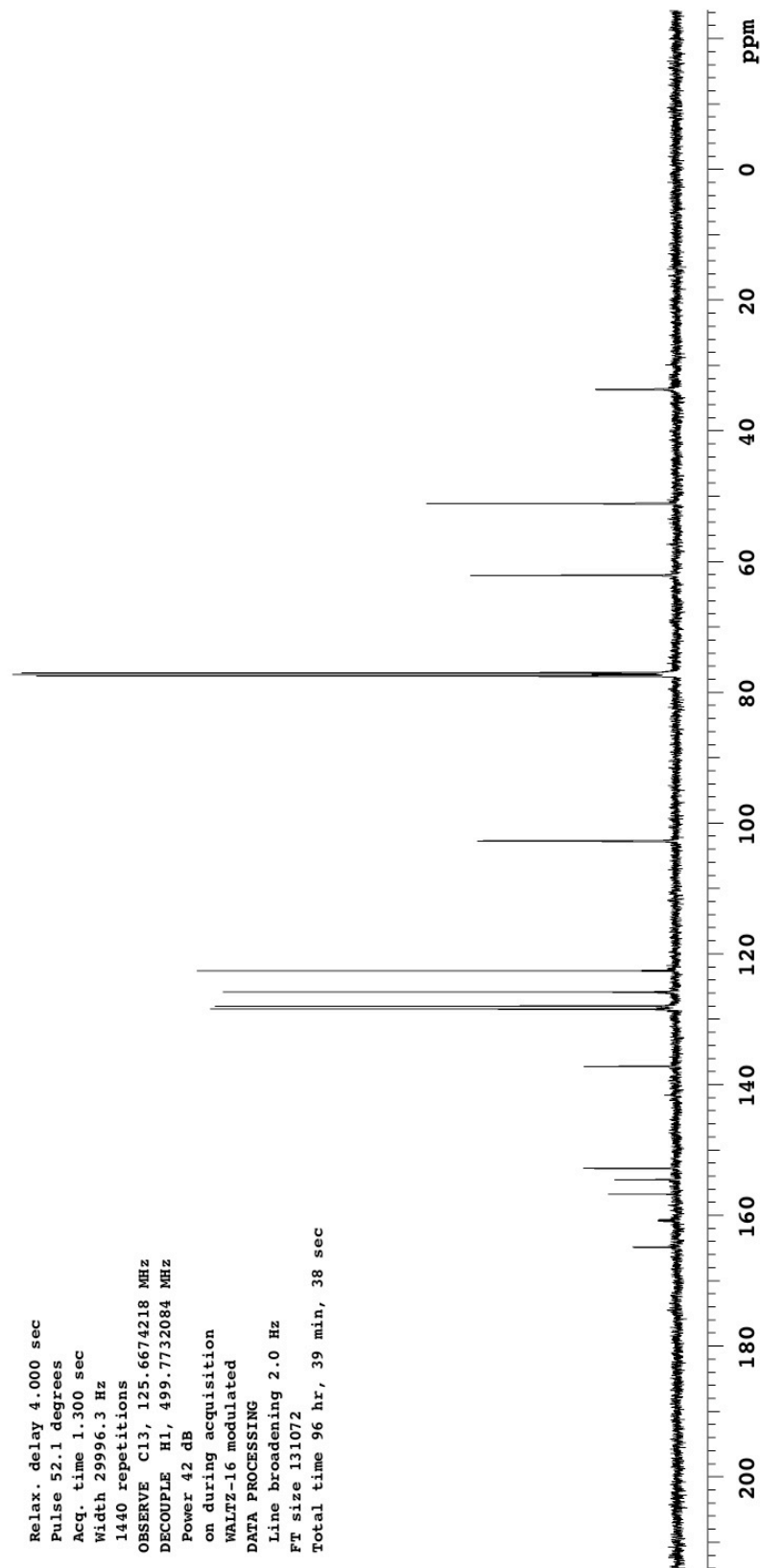
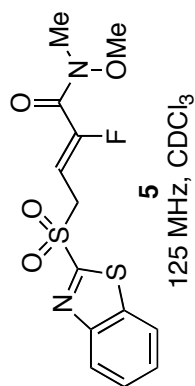
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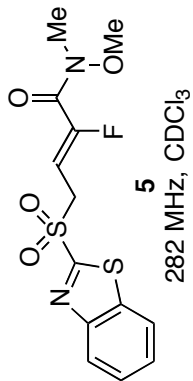
DATA PROCESSING

Line broadening 2.0 Hz

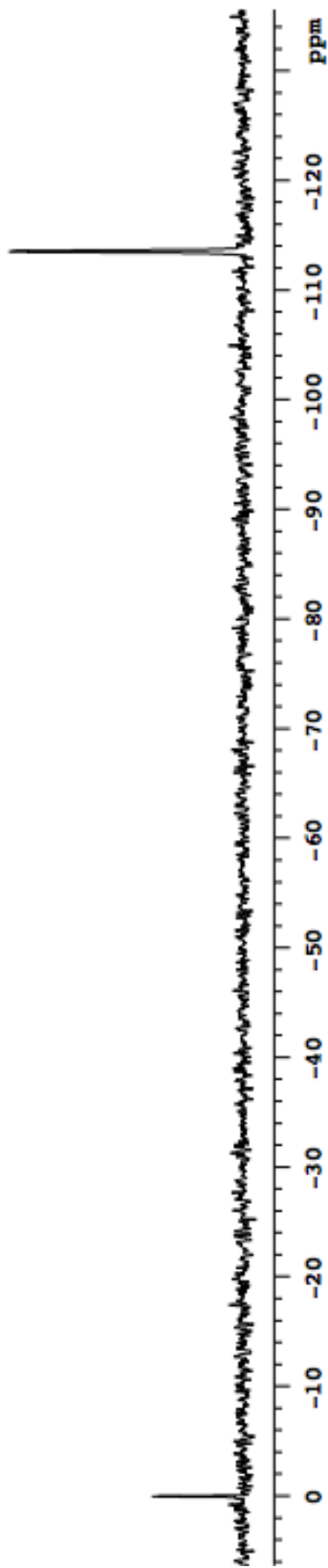
FT size 131072

Total time 96 hr, 39 min, 38 sec





Pulse Sequence: w2pul  
 Solvent: CDCl3  
 Ambient temperature  
 File: 1231-ca-02-136-afcolunn  
 Mercury-300HB "vega300"  
 Relax. delay 4.000 sec  
 Pulse 25.0 degrees  
 Acq. time 0.300 sec  
 Width 100.0 kHz  
 16 repetitions  
 OBSERVE F19, 282.345552 MHz  
 DATA PROCESSING  
 Line broadening 1.0 Hz  
 Gauss apodization 0.020 sec  
 FT size 65536  
 Total time 17 min, 33 sec



1231-cm-02-162-pure

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: barbara

File: 1231-cm-02-162-pure

INOVA-500 "r1ga"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

40 repetitions

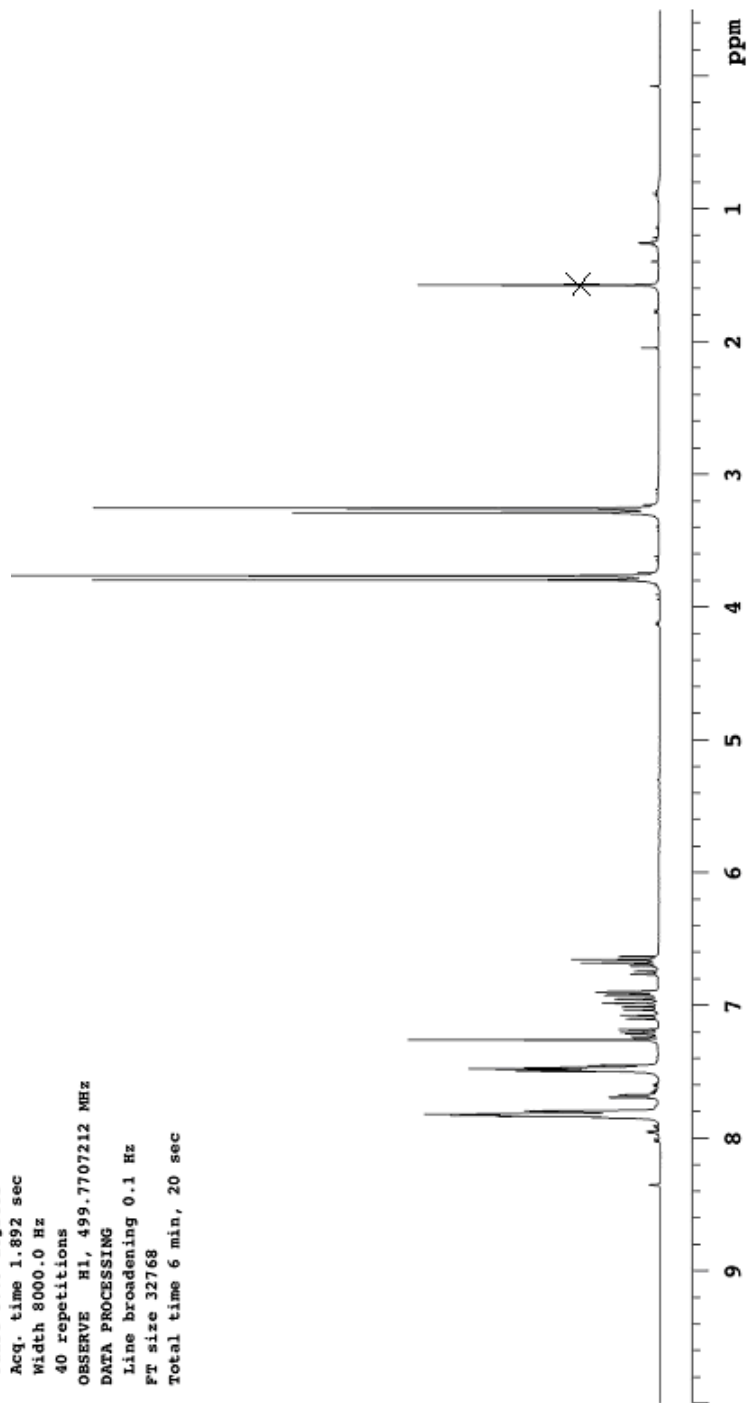
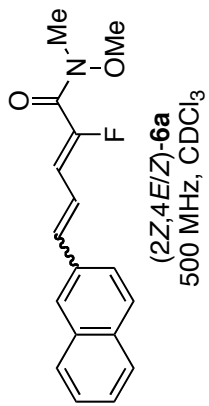
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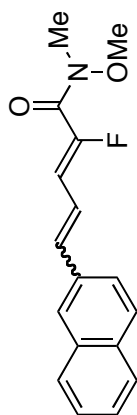
DATA PROCESSING

Line broadening 0.1 Hz

FT size 32768

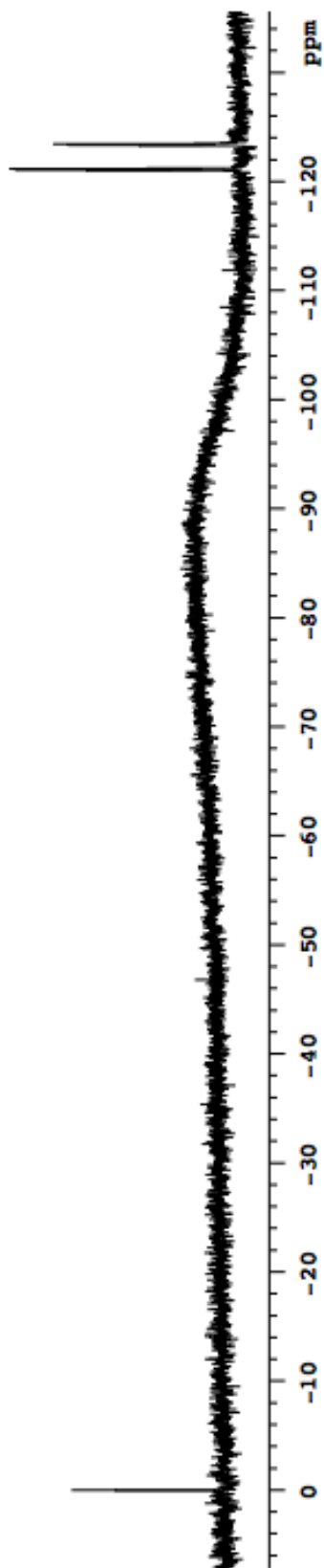
Total time 6 min, 20 sec





(2Z,4E/Z)-6a  
282 MHz, CDCl<sub>3</sub>

Pulse Sequence: s2pul  
Solvent: CDCl<sub>3</sub>  
Ambient temperature  
File: 1231-CH-02-93-crude  
Mercury-300HB "vega300"  
Relax. delay 4.000 sec  
Pulse 25.0 degrees  
Acq. time 0.300 sec  
Width 100.0 kHz  
72 repetitions  
OBSERVE F19, 282.345583 MHz  
DATA PROCESSING  
Line broadening 4.0 Hz  
FT size 65536  
Total time 17 min, 33 sec



1231-cm-02-160-pm-pure

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: barbara

File: 1231-cm-02-160-pm-pure

INOVA-500 "rigs"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

64 repetitions

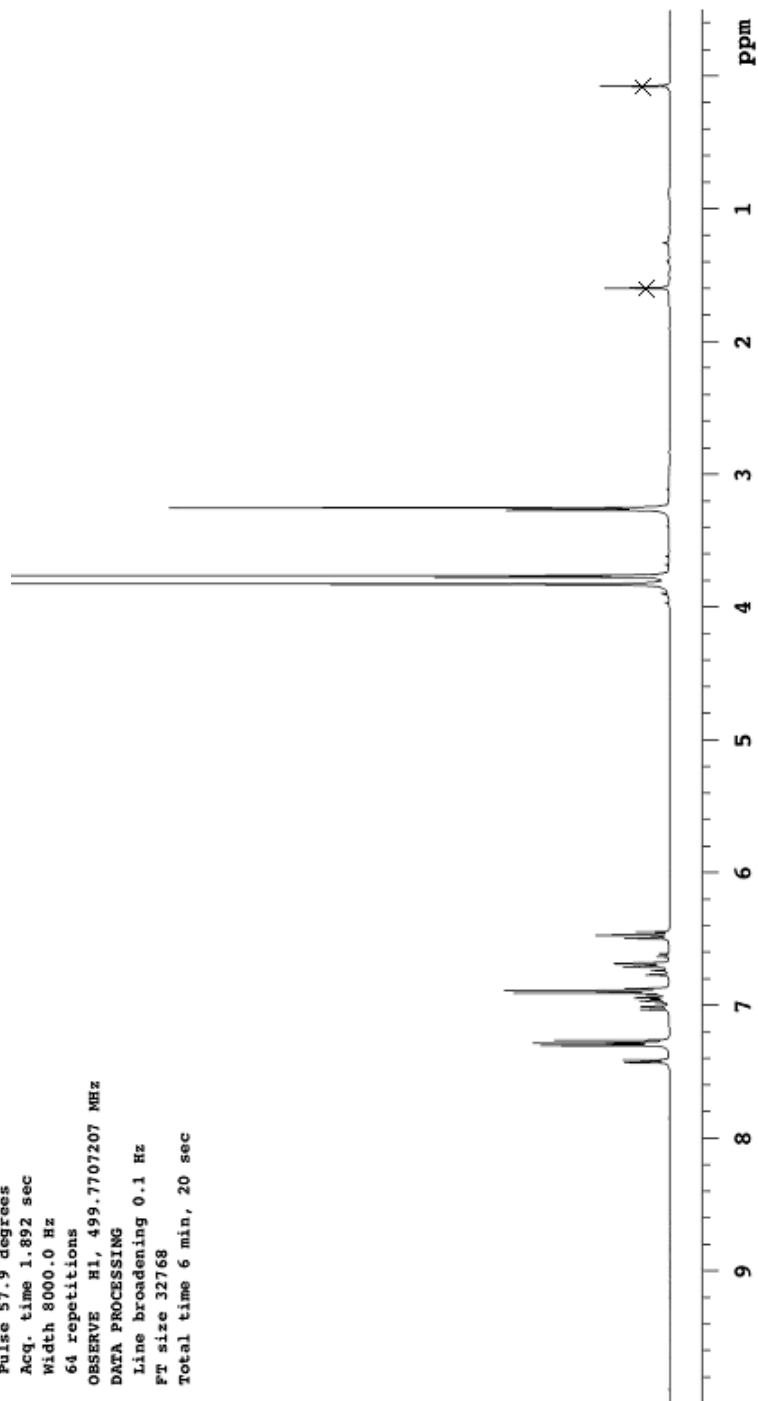
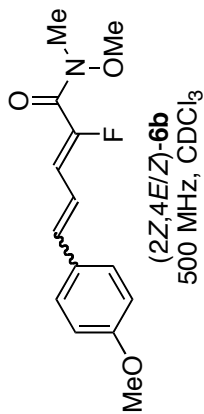
OBSERVE H1, 499.7707207 MHz

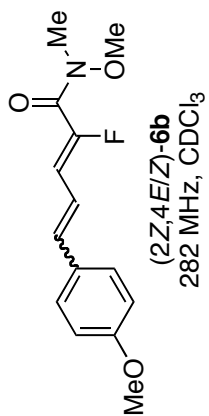
DATA PROCESSING

Line broadening 0.1 Hz

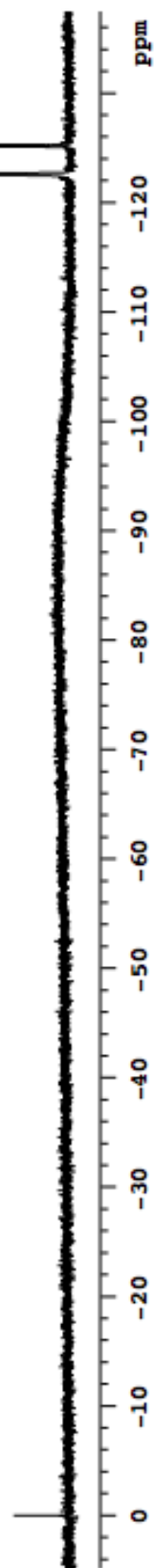
FT size 32768

Total time 6 min, 20 sec





Pulse Sequence: s2pul  
 Solvent: CDCl<sub>3</sub>  
 Ambient temperature  
 File: 1231-ca-03-160-pure-19f  
 Mercury-300HB "vega300"  
 Relax. delay 4.000 sec  
 Pulse 25.0 degrees  
 Acq. time 0.300 sec  
 Width 100.0 MHz  
 64 repetitions  
 OBSERVE F19, 282.3455583 MHz  
 DATA PROCESSING  
 Line broadening 1.0 Hz  
 FT size 65536  
 Total time 17 min, 33 sec





1231-CM-03-158-1stcollection

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: barbara

File: 1231-CM-03-158-1stcollection

INOVA-500 "rjga"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

36 repetitions

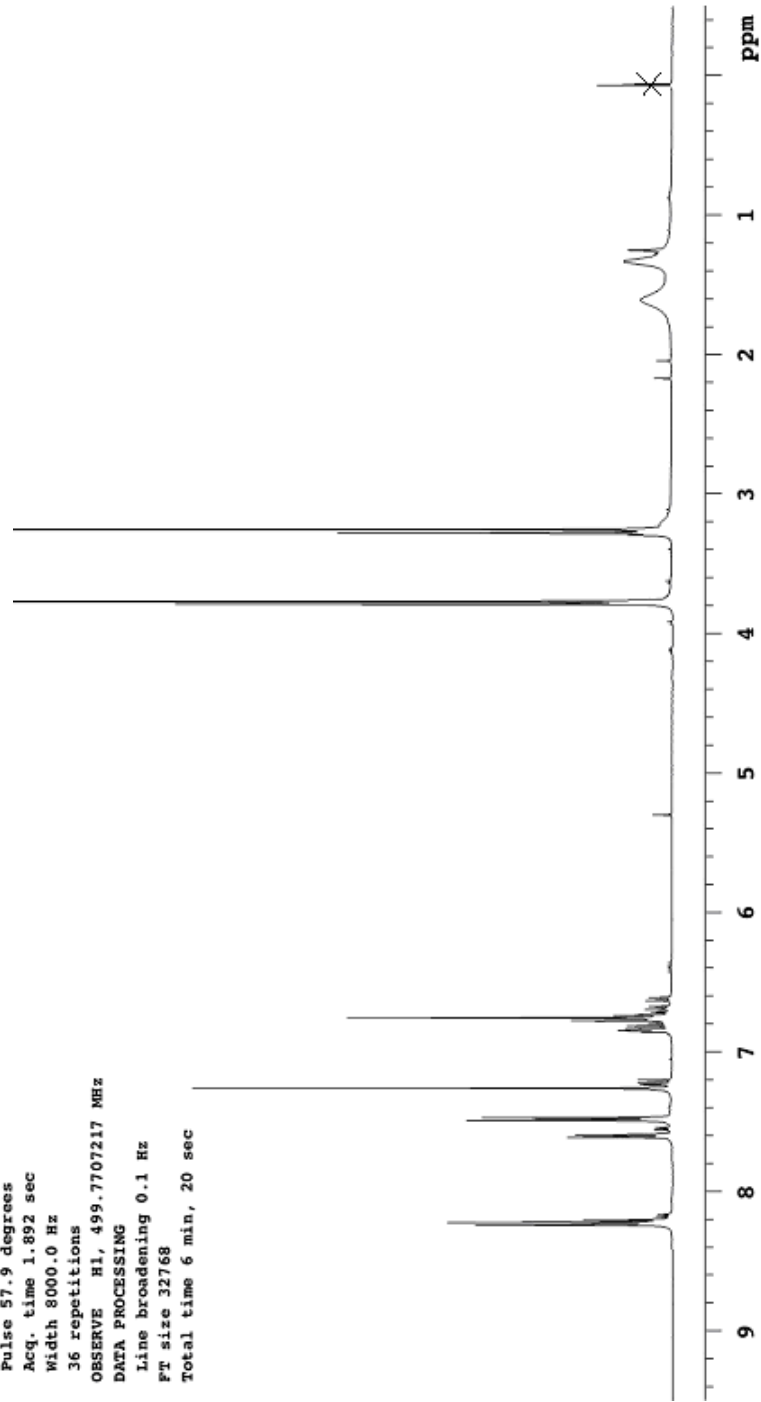
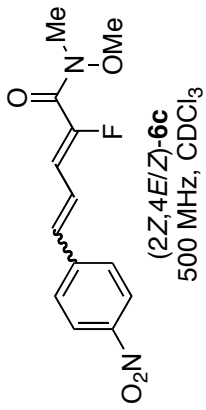
OBSERVE H1, 499.7707217 MHz

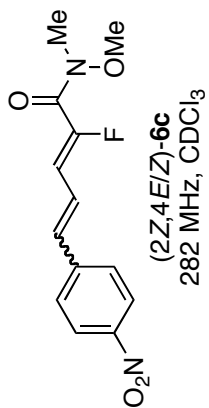
DATA PROCESSING

Line broadening 0.1 Hz

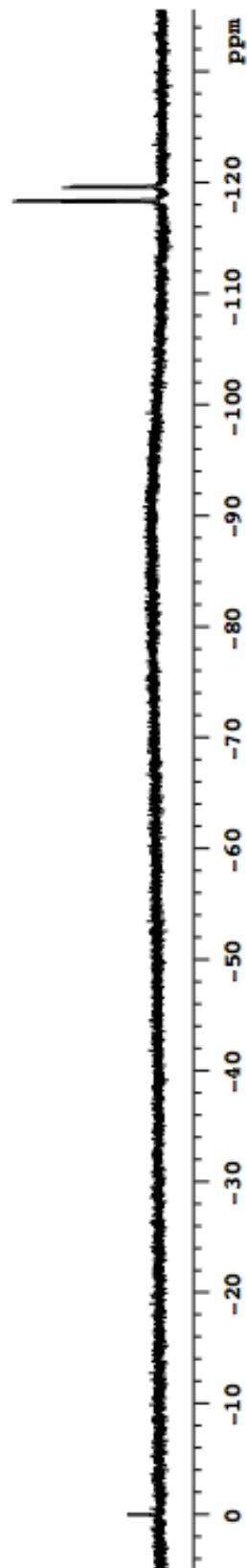
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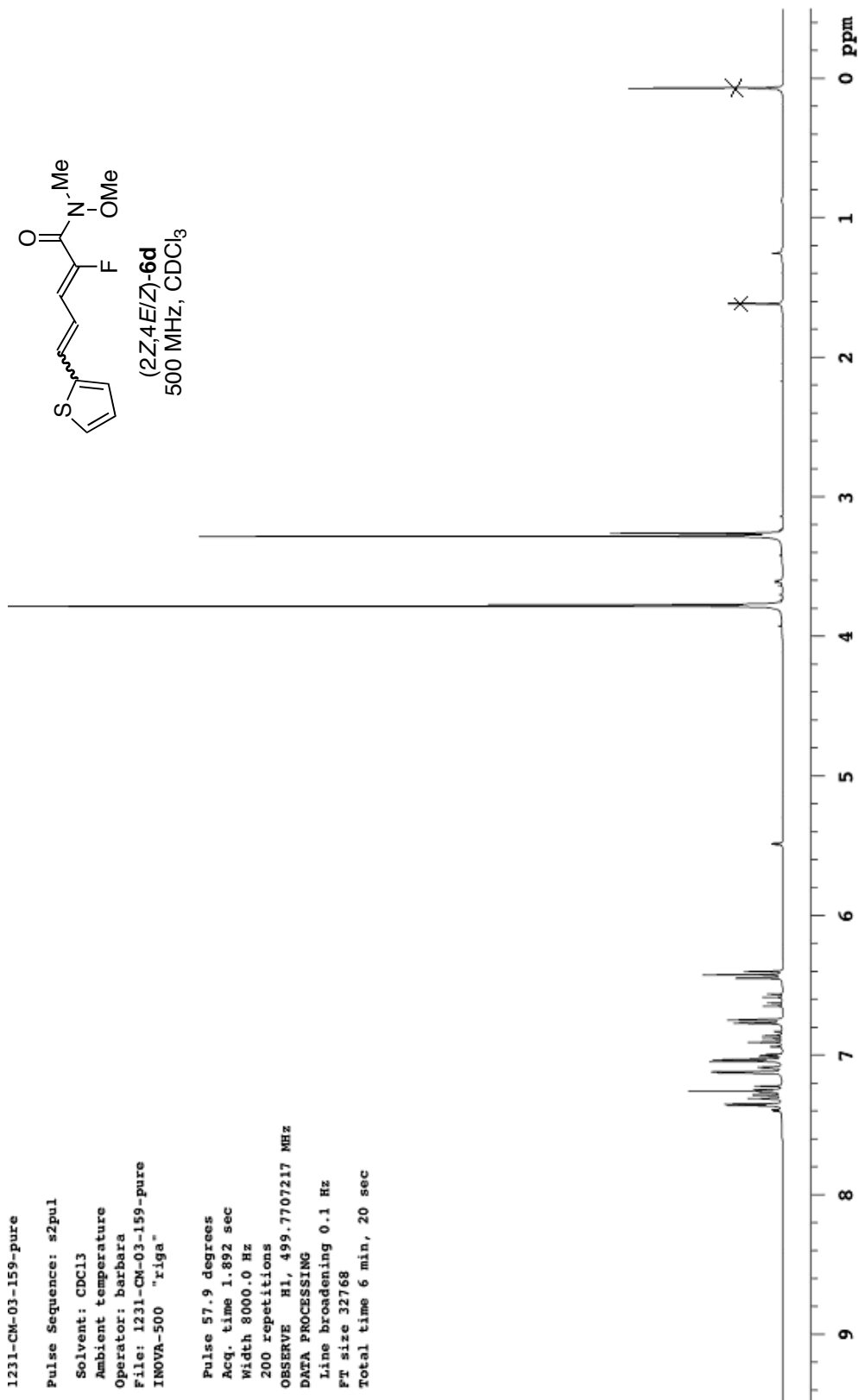
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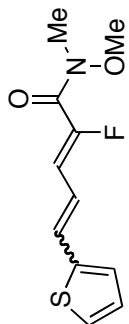




Pulse Sequence: s2pul  
 Solvent: CDCl<sub>3</sub>  
 Ambient temperature  
 File: 1231-cm-03-158-1stcollection-afPPTLC  
 Mercury-300HS "vega300"  
 Relax. delay 4.000 sec  
 Pulse 25.0 degrees  
 Acq. time 0.300 sec  
 Width 100.0 kHz  
 44 repetitions  
 OBSERVE F19, 282.3455583 MHz  
 DATA PROCESSING  
 Line broadening 1.0 Hz  
 FT size 65536  
 Total time 17 min, 33 sec

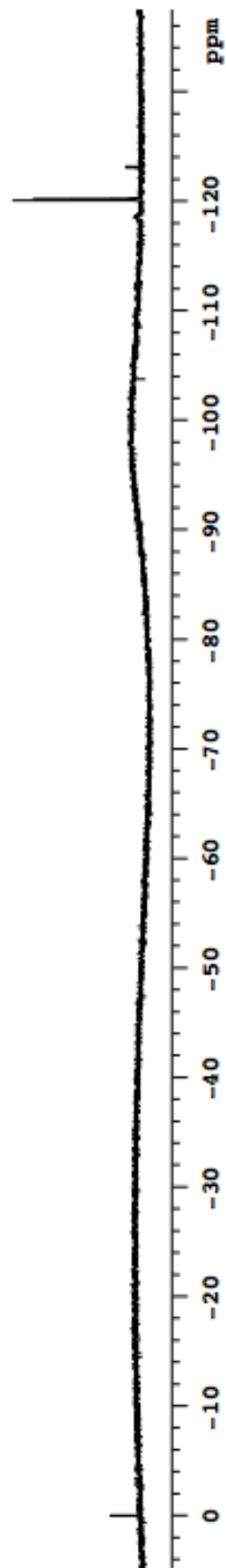






Crude mixture of  
(2Z,4E/Z)-6d  
282 MHz, CDCl<sub>3</sub>

Pulse Sequence: s2pul  
Solvent: CDCl<sub>3</sub>  
Ambient temperature  
File: 1231-cm-03-159-rm  
Mercury-300HB "vega300"  
  
Relax. delay 4.000 sec  
Pulse 25.0 degrees  
Acq. time 0.300 sec  
Width 100.0 kHz  
188 repetitions  
CONSERVE F19, 282.3454332 MHz  
DATA PROCESSING  
Line broadening 1.0 Hz  
FT size 65536  
Total time 17 min, 33 sec



1231-cm-03-161-pure

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: barbara

File: 1231-cm-03-161-pure

INOVA-500 "r1ga"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

200 repetitions

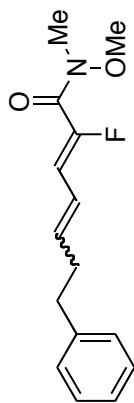
OBSERVE H1, 499.7707212 MHz

DATA PROCESSING

Line broadening 0.1 Hz

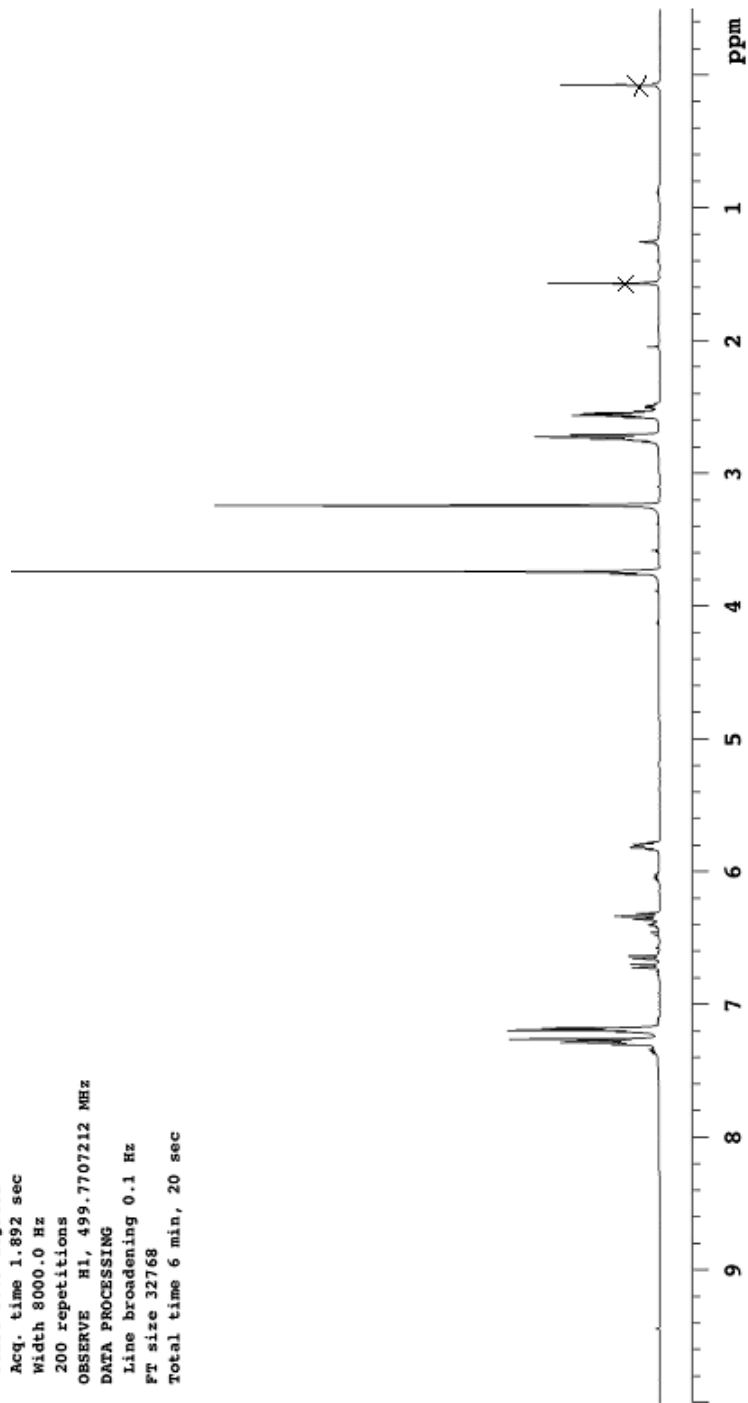
FT size 32768

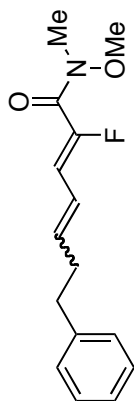
Total time 6 min, 20 sec



(2Z,4E/Z)-6e

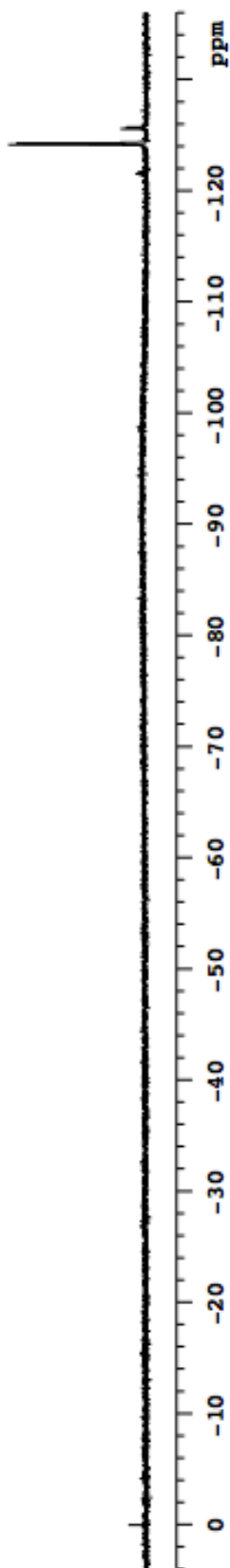
500 MHz, CDCl<sub>3</sub>





Crude mixture of  
(2Z,4E/Z)-6e  
282 MHz, CDCl<sub>3</sub>

Pulse Sequence: s2pul  
Solvent: CDCl<sub>3</sub>  
Ambient temperature  
File: 1231-cm-03-161-rm  
Mercury-3000B8 "vega300"  
  
Relax. delay 4.000 sec  
Pulse 25.0 degrees  
Acq. time 0.300 sec  
Width 100.0 MHz  
24 repetitions  
OBSERVE F19, 282.3455552 MHz  
DATA PROCESSING  
Line broadening 1.0 Hz  
FT size 65536  
Total time 17 min, 33 sec



1231-cm-03-162-eenapfterPEPTlc

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: barbara

File: 1231-cm-03-162-eenapfterPEPTlc  
INOVA-500 "r1ga"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

176 repetitions

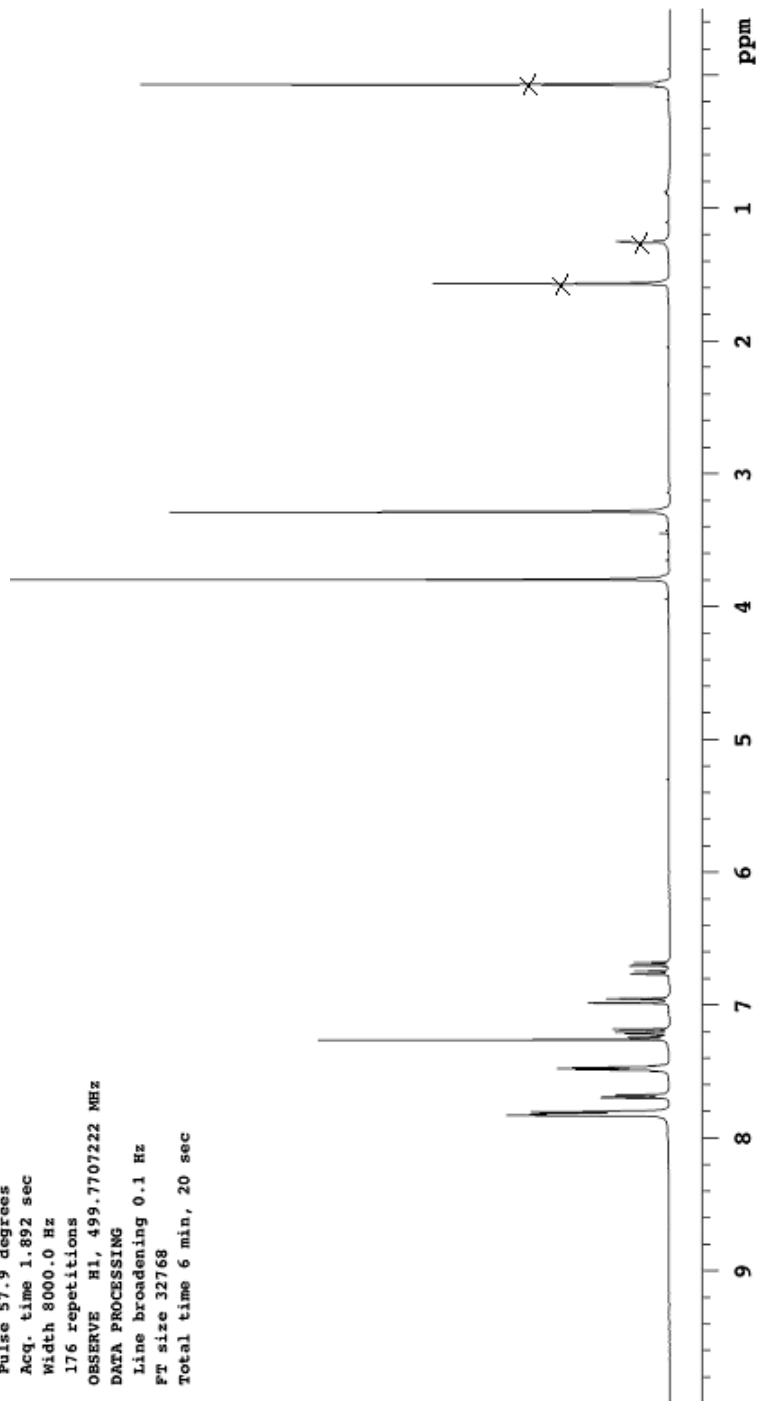
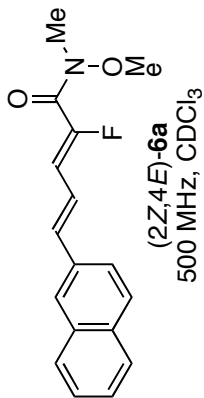
OBSERVE H1, 499.7707222 MHz

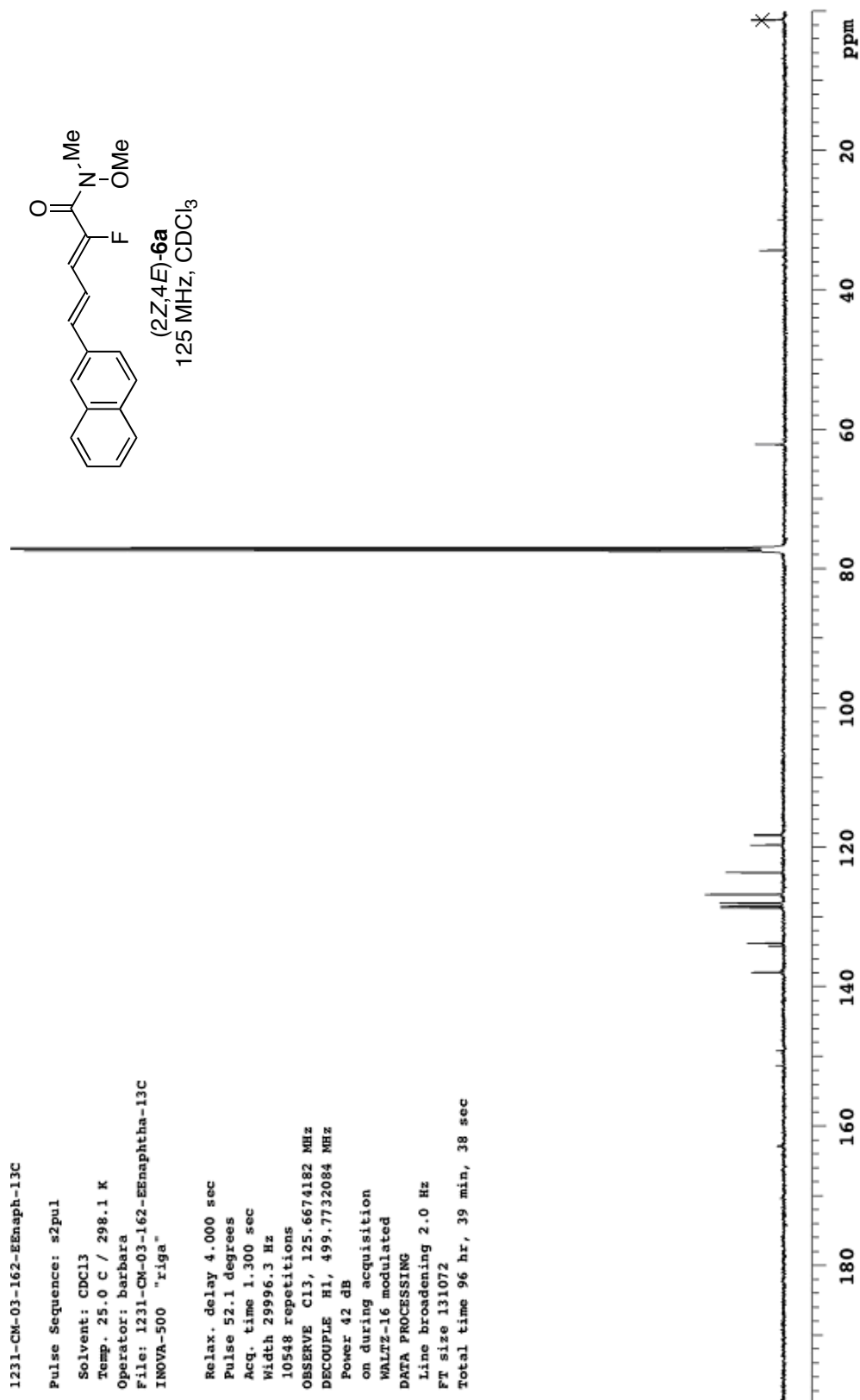
DATA PROCESSING

Line broadening 0.1 Hz

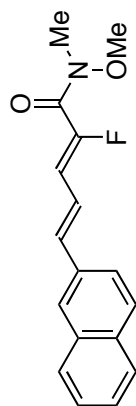
FT size 32768

Total time 6 min, 20 sec



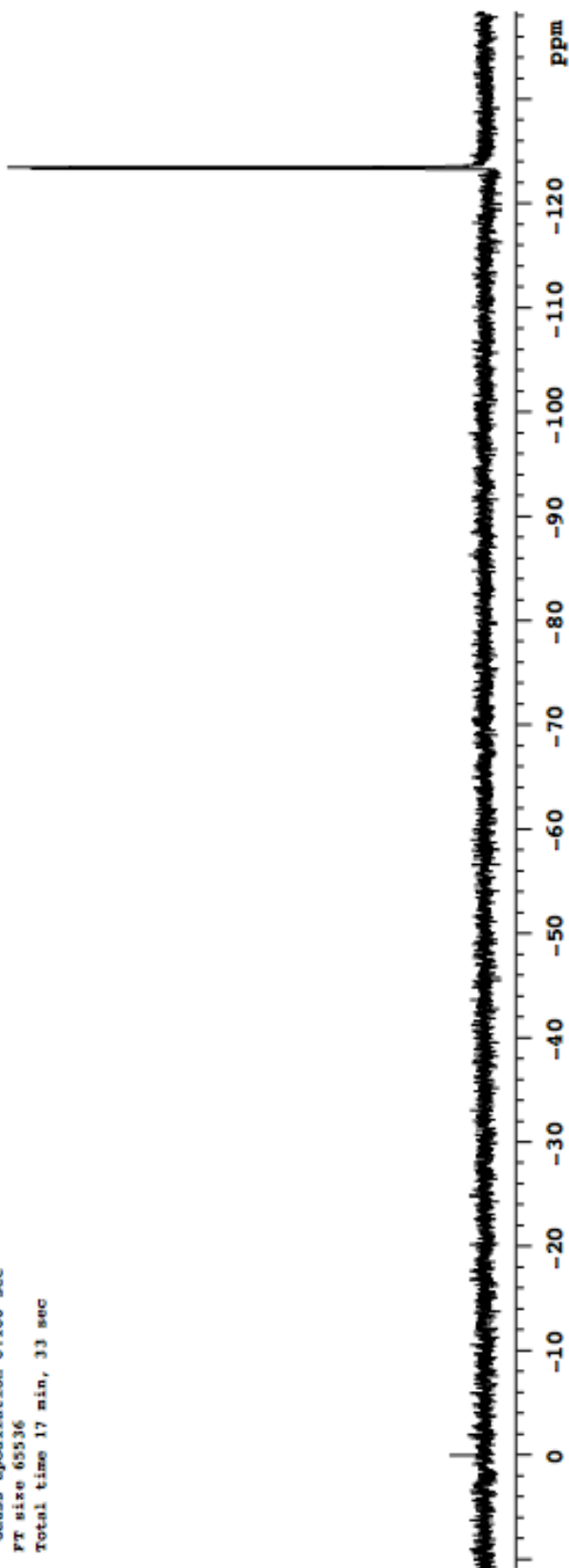






(2Z,4E)-6a  
282 MHz, CDCl<sub>3</sub>

Pulse Sequence: s2pul  
 Solvent: CDCl<sub>3</sub>  
 Ambient temperature  
 File: 1231-cm-03-162-pure-after12stirred-june03  
 Mercury-300HB "vega300"  
 Relax. delay 4.000 sec  
 Pulse 25.0 degrees  
 Acq. time 0.300 sec  
 Width 100.0 kHz  
 64 repetitions  
 OBSERVE F19, 282.3455614 MHz  
 DATA PROCESSING  
 Line broadening 1.0 Hz  
 Gauss apodization 0.100 sec  
 FT size 65536  
 Total time 17 min, 33 sec



1231-cm-03-160-I2-stirred-3hrs

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: barbara

File: 1231-cm-03-160-I2-stirred-3hrs

INOVA-500 "rigs"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

96 repetitions

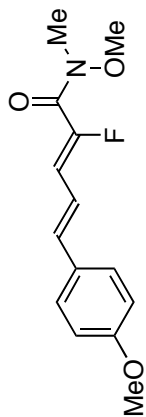
OBSERVE H1, 499.7707207 MHz

DATA PROCESSING

Line broadening 0.1 Hz

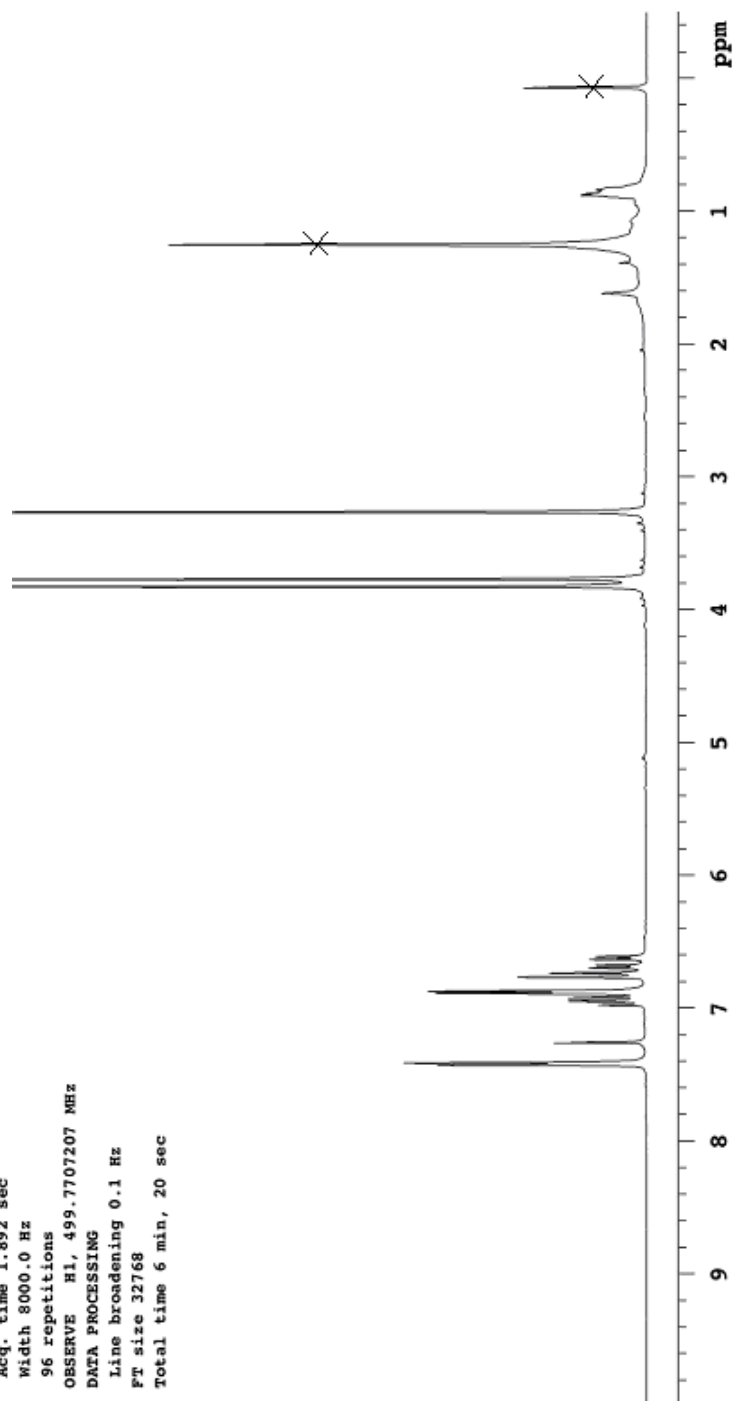
FT size 32768

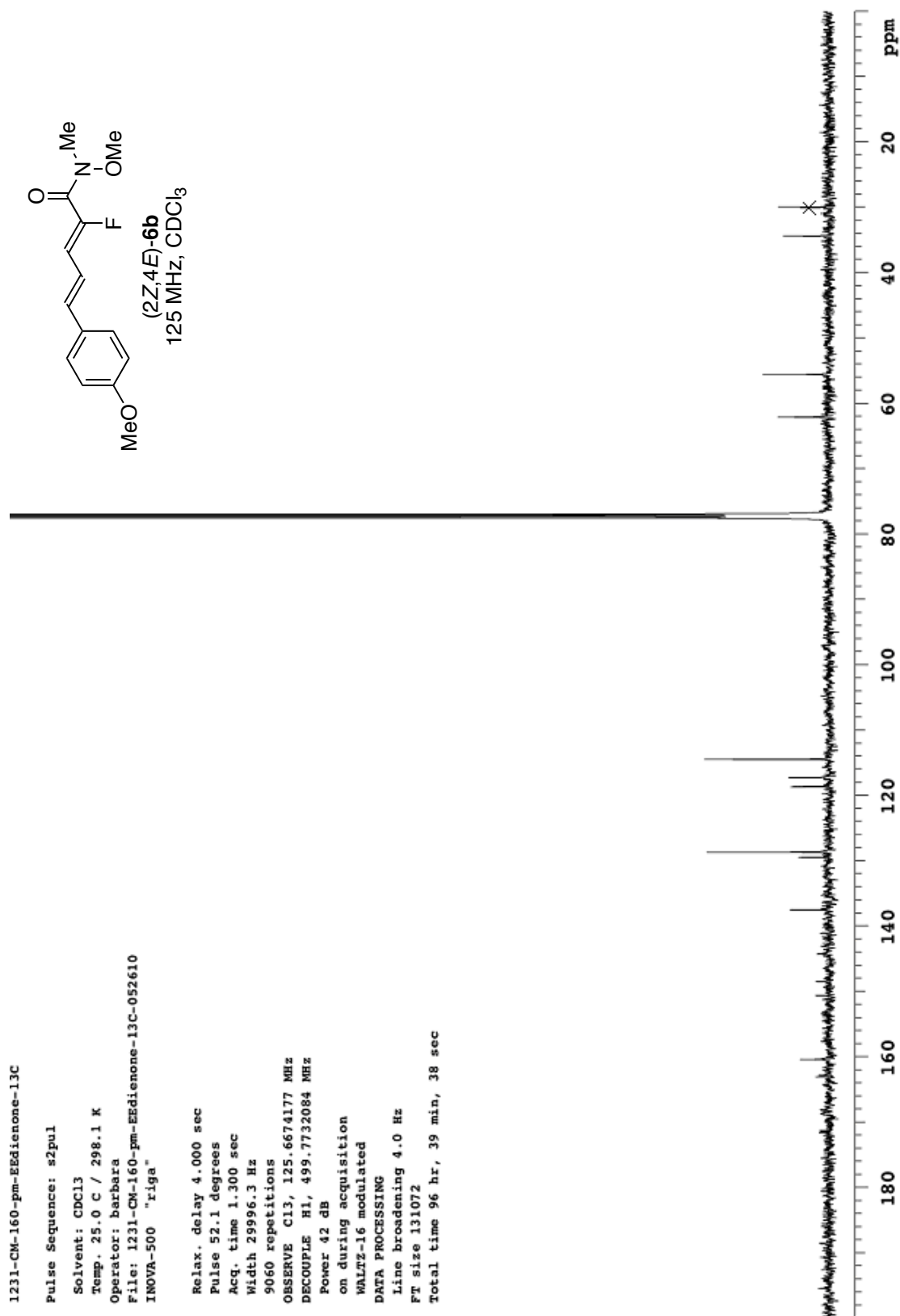
Total time 6 min, 20 sec

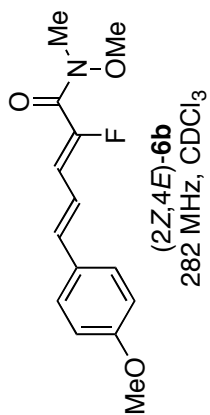


(2Z,4E)-6b

500 MHz, CDCl<sub>3</sub>

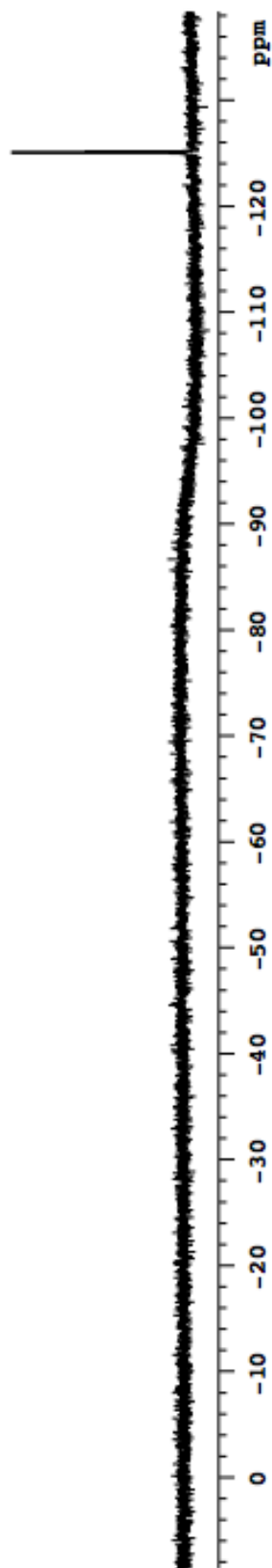






Pulse Sequence: s2pul  
 Solvent: CDCl<sub>3</sub>  
 Ambient temperature  
 File: 1231-cm-03-160-12-stirred-after3hrs  
 Mercury-300HS "vega300"

Relax. delay 4.000 sec  
 Pulse 25.0 degrees  
 Acq. time 0.300 sec  
 Width 100.0 MHz  
 40 repetitions  
 OBSERVE F19, 282.345552 MHz  
 DATA PROCESSING  
 Line broadening 1.0 Hz  
 Gauss apodization 0.200 sec  
 FT size 65536  
 Total time 17 min, 33 sec



1231-cm-03-158-2ndspot-pure

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: barbara

File: 1231-cm-03-158-2ndspot-pure

INOVA-500 "riga"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

200 repetitions

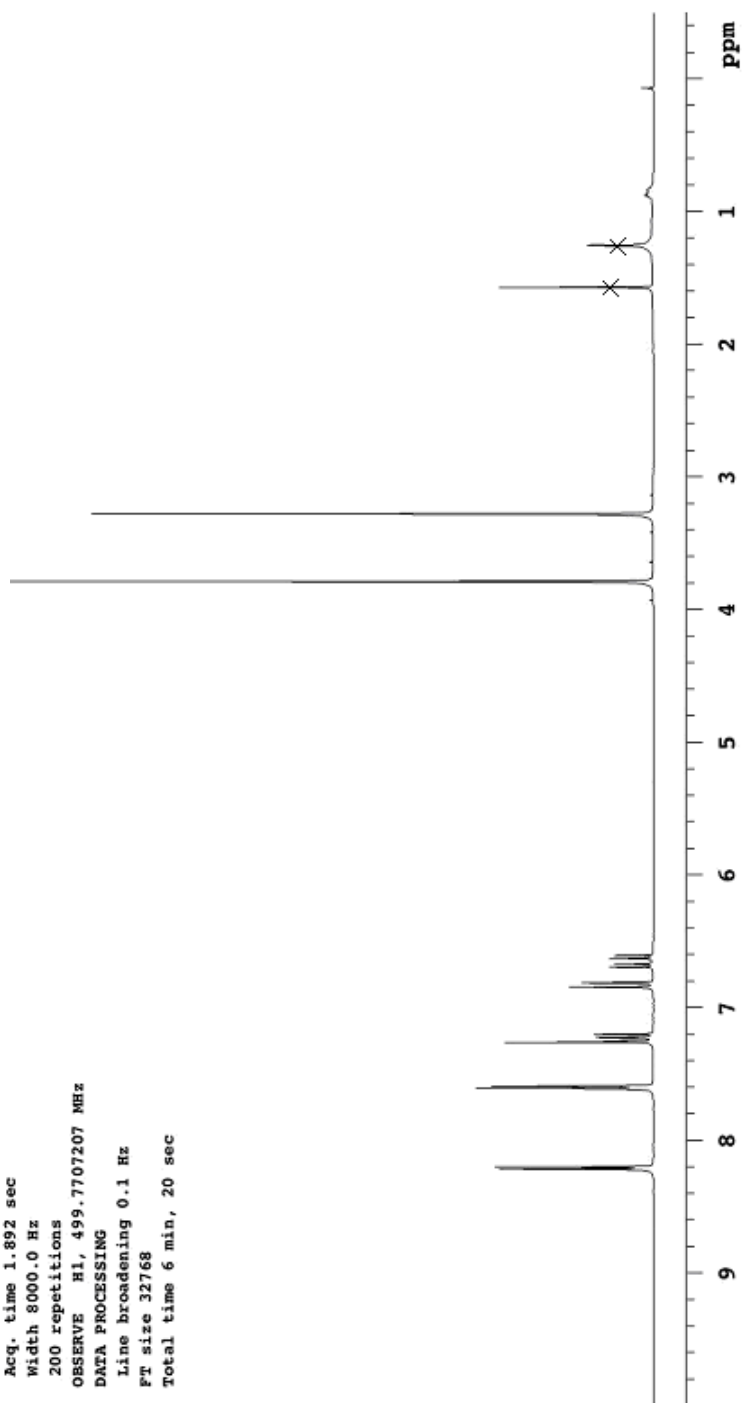
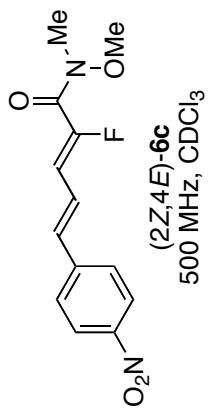
OBSERVE H1, 499.7707207 MHz

DATA PROCESSING

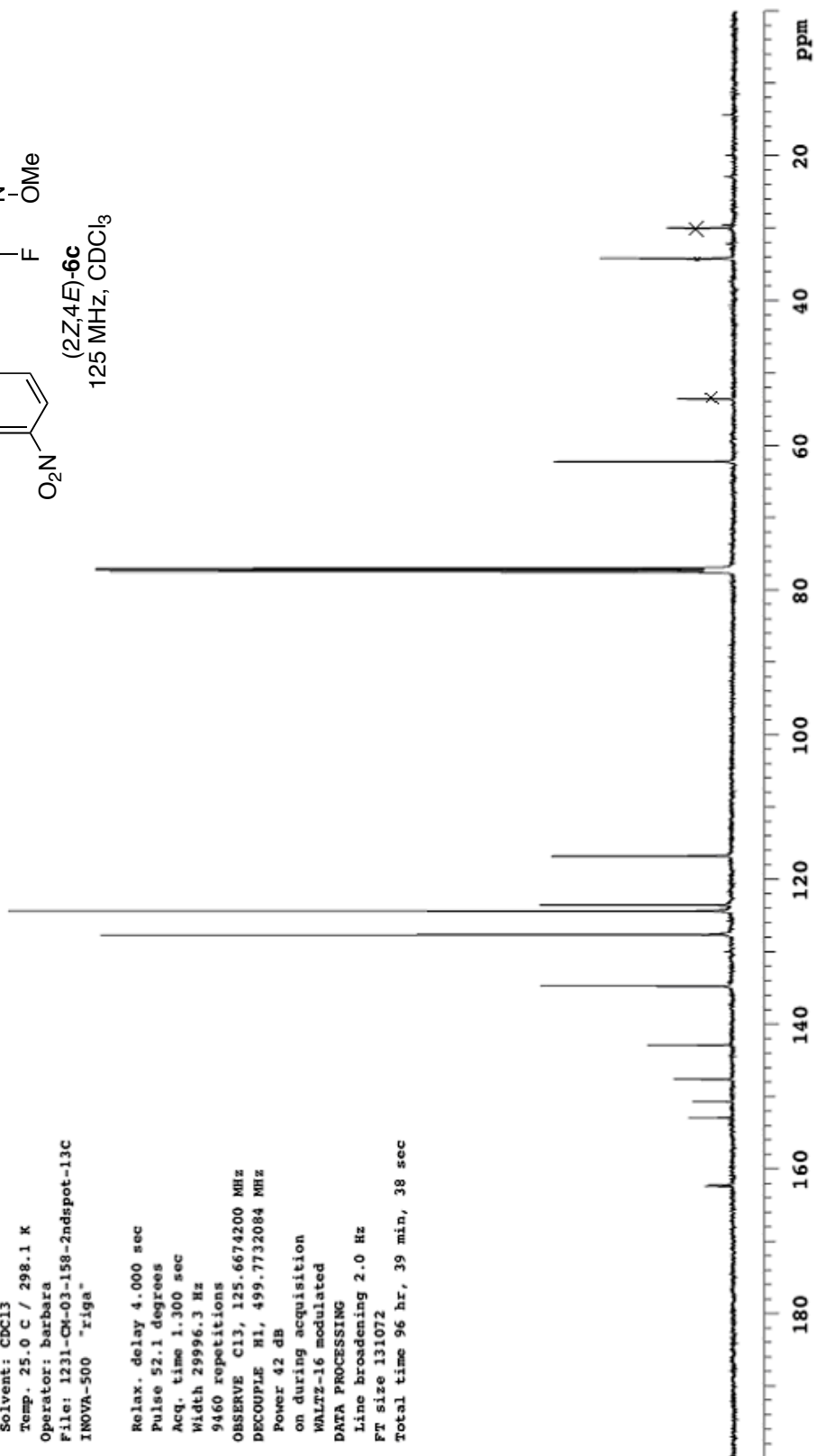
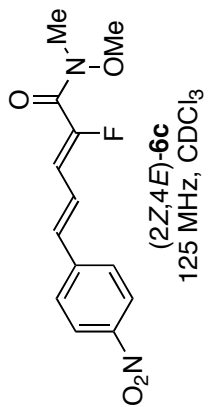
Line broadening 0.1 Hz

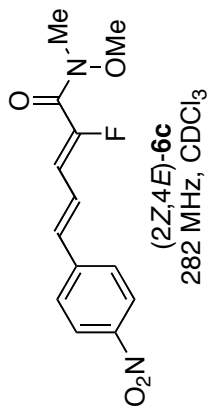
FT size 32768

Total time 6 min, 20 sec

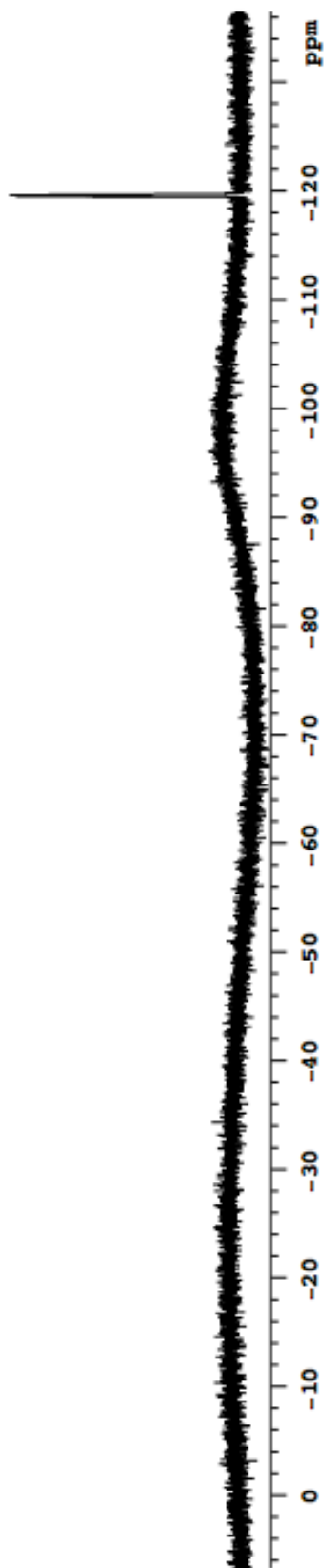


1231-CM-03-158-2ndspot-13C  
 Pulse Sequence: s2pul  
 Solvent: CDCl3  
 Temp. 25.0 C / 298.1 K  
 Operator: barbara  
 File: 1231-CM-03-158-2ndspot-13C  
 INOVA-500 "riga"  
 Relax. delay 4.000 sec  
 Pulse 52.1 degrees  
 Acq. time 1.300 sec  
 Width 29996.3 Hz  
 9460 repetitions  
 OBSERVE C13, 125.6674200 MHz  
 DECOUPLE H1, 499.7732084 MHz  
 Power 42 dB  
 on during acquisition  
 WALTZ-16 modulated  
 DATA PROCESSING  
 Line broadening 2.0 Hz  
 FT size 131072  
 Total time 96 hr, 39 min, 38 sec





Pulse Sequence: s2pul  
 Solvent: CDCl<sub>3</sub>  
 Ambient temperature  
 File: 1231-cm-03-158-after12-stirring  
 Mercury-300NB "vega300"  
 Relax. delay 4.000 sec  
 Pulse 25.0 degrees  
 Acq. time 0.300 sec  
 Width 100.0 kHz  
 52 repetitions  
 OBSERVE F19, 282.3455552 MHz  
 DATA PROCESSING  
 Line broadening 1.0 Hz  
 FT size 65536  
 Total time 17 min, 33 sec



1231-cm-03-159-Eethiophene-I2stirred-overnight

Pulse Sequence: s2pul

Solvent: CDCl3

Ambient temperature

Operator: barbara

File: 1231-cm-03-159-Eethiophene-I2stirred-overnight  
INOVA-500 "r1ga"

Pulse 57.9 degrees

Acq. time 1.892 sec

Width 8000.0 Hz

200 repetitions

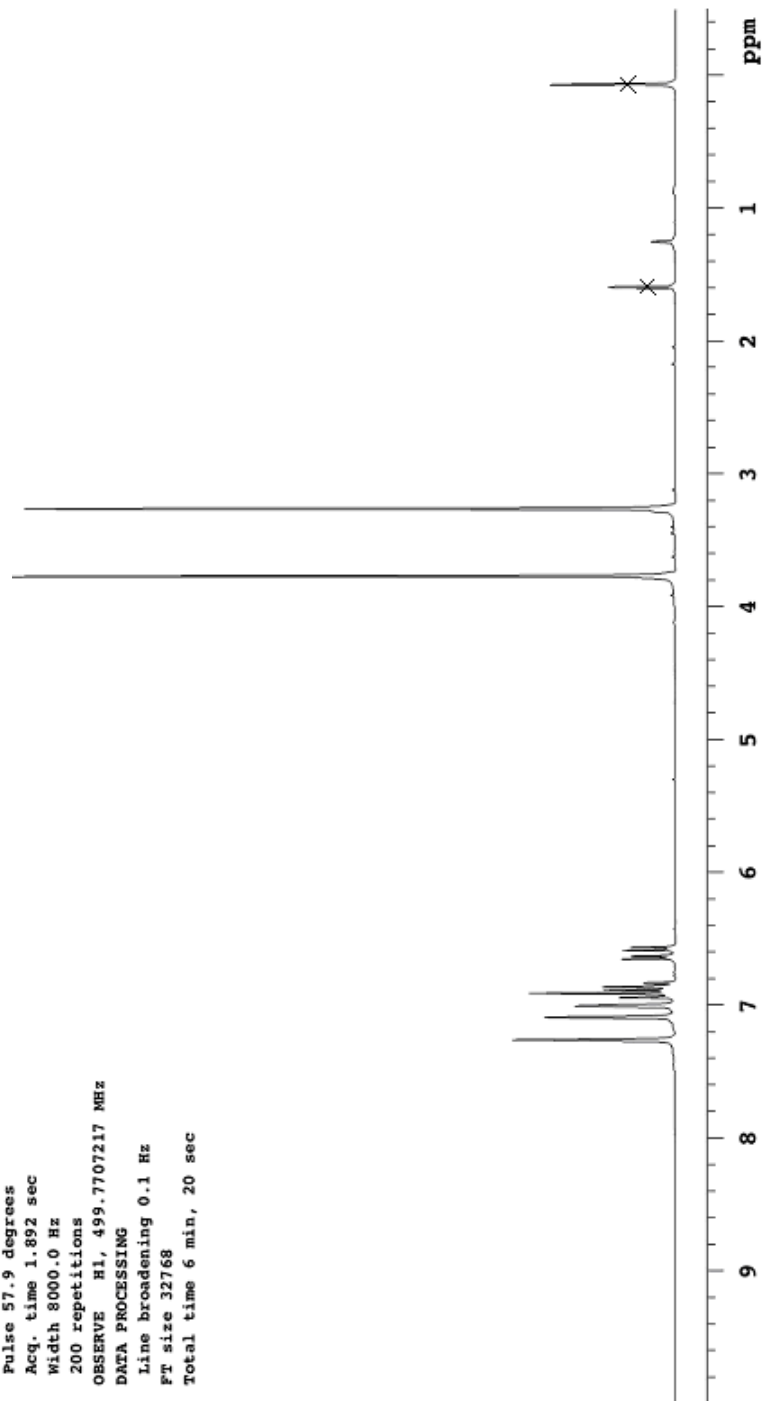
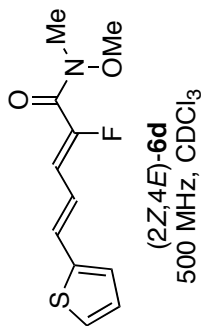
OBSERVE H1, 499.7707217 MHz

DATA PROCESSING

Line broadening 0.1 Hz

FT size 32768

Total time 6 min, 20 sec





1231-CM-03-159-EEthiophene-13C

Pulse Sequence: s2pul

Solvent: CDCl3

Temp. 25.0 C / 298.1 K

Operator: barbara

File: 1231-CM-03-159-EEthiophene-13C

INOVA-500 "riga"

Relax. delay 4.000 sec

Pulse 52.1 degrees

Acq. time 1.300 sec

Width 28996.3 Hz

10536 repetitions

OBSERVE C13, 125.6674191 MHz

DECOUPLE H1, 499.7732084 MHz

Power 42 dB

on during acquisition

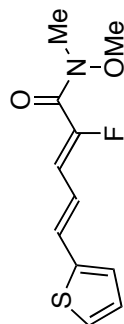
WALTZ-16 modulated

DATA PROCESSING

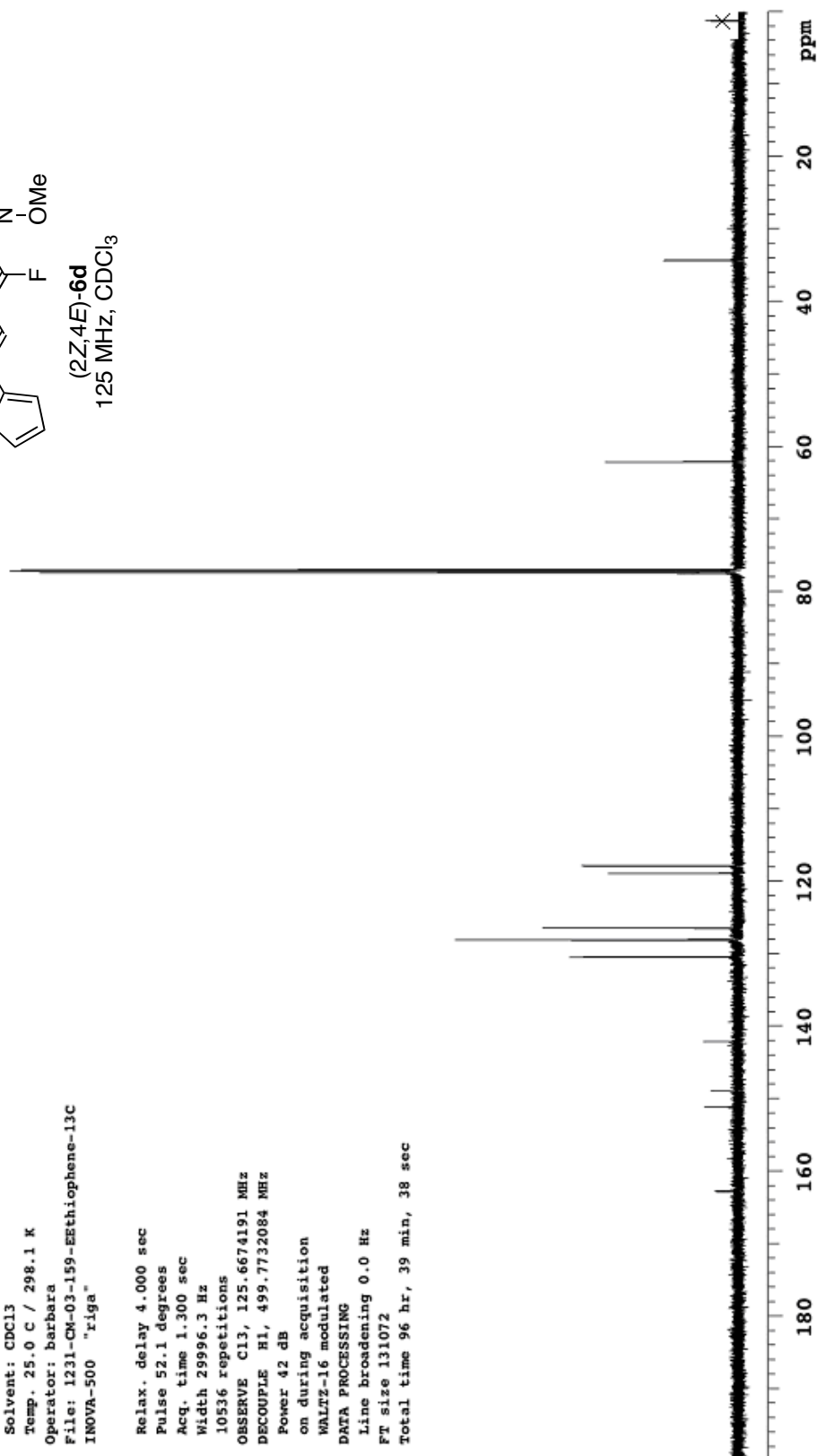
Line broadening 0.0 Hz

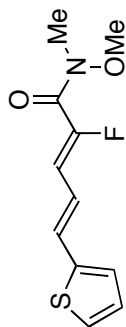
FT size 131072

Total time 96 hr, 39 min, 38 sec



(2Z,4E)-6d  
125 MHz, CDCl<sub>3</sub>





(2Z,4E)-6d  
282 MHz, CDCl<sub>3</sub>

Pulse Sequence: s2pul  
 Solvent: CDCl<sub>3</sub>  
 Ambient temperature  
 File: 1231-cm-03-159-methiophene-12stirred  
 Mercury-300NB "vega300"  
 Relax. delay 4.000 sec  
 Pulse 25.0 degrees  
 Acq. time 0.300 sec  
 Width 100.0 kHz  
 116 repetitions  
 OBSERVE F19, 282.3455644 MHz  
 DATA PROCESSING  
 Line broadening 2.0 Hz  
 FT size 65536  
 Total time 17 min, 33 sec

