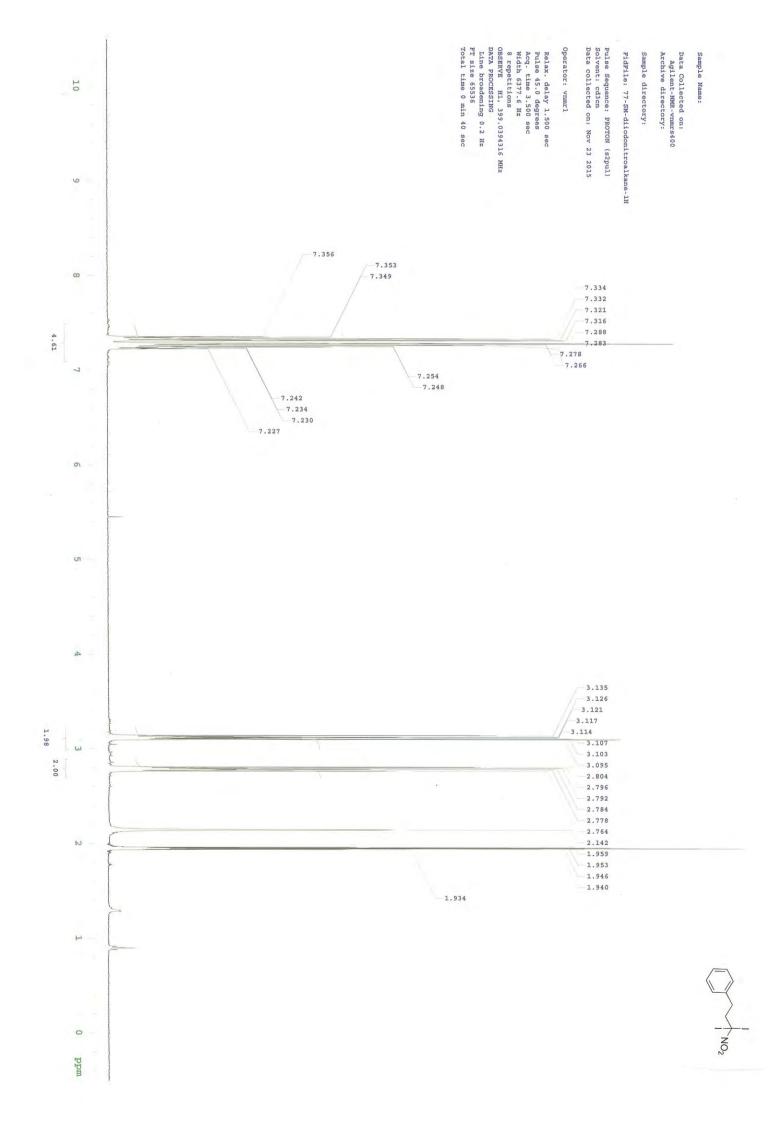
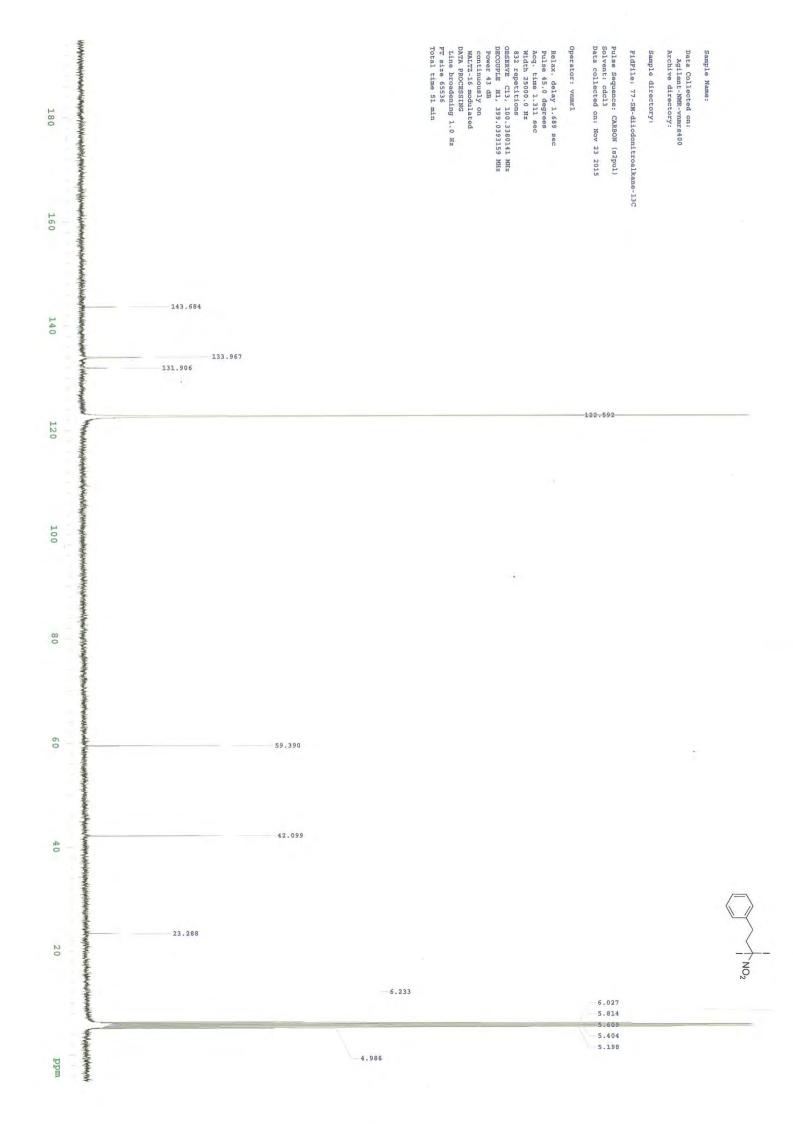
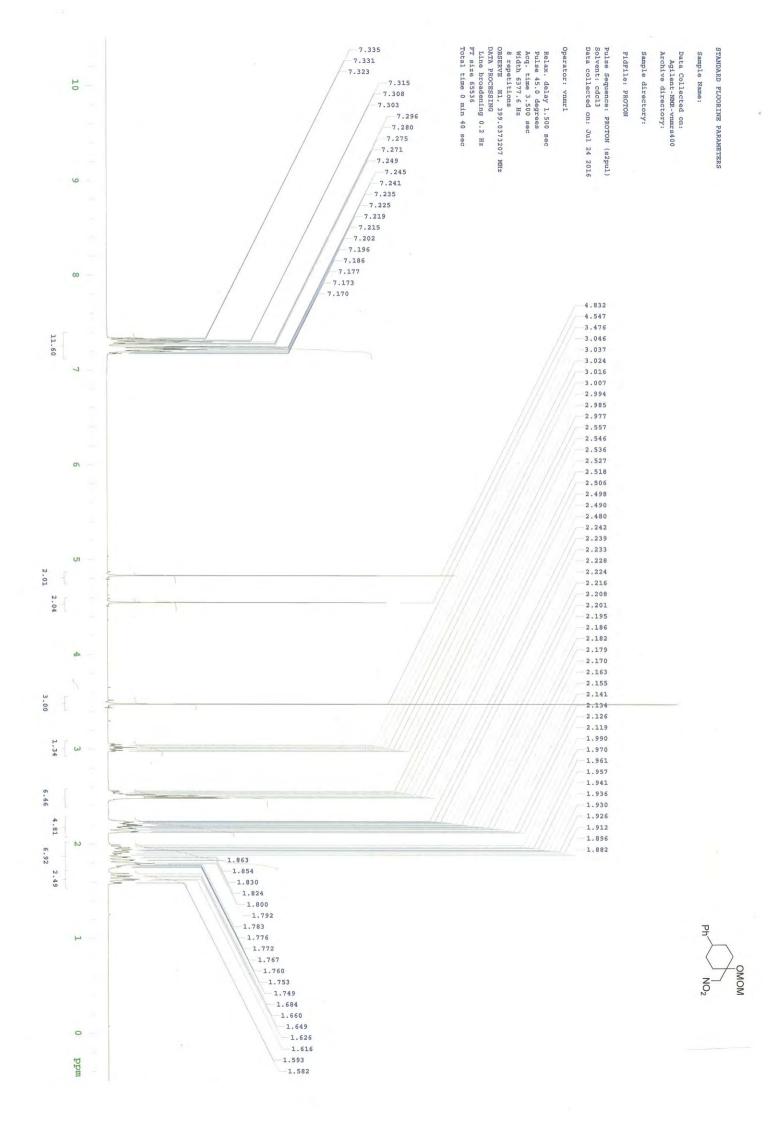
Electronic Supplementary Material (ESI) for ChemComm. This journal is © The Royal Society of Chemistry 2018 Relax. delay 1.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 6377.6 Hz
8 repetitions
0DSERVE H1, 399.0373207 MHz
DATA PROCESSING
Line broadening 0.2 Hz
FT size 65536
Total time 0 min 40 sec Pulse Sequence: PROTON (s2pul) Solvent: cdcl3 Data collected on: Jul 23 2016 Operator: vnmrl Data Collected on:
Agilent-NMR-vnmrs400
Archive directory: FidFile: PROTON Sample directory: 10 7.319 7.315 7.301 7.286 7.282 7.241 7.237 5.04 7.234 7.224 7.218 7.213 7.203 7.200 7.197 7.178 7.175 7.170 7.158 U 4.371 2.00 4.353 4.336 2.729 2.03 2.711 2.692 2.354 2.04 2.336 2.317 2.299 2.282 2.028 1.553 1.243 0 mdd

```
Relax. delay 1.689 sec
pulse 45.0 degrees
Acq. time 1.311 sec
Width 25000.0 Hz
64 repetitions
OBSERVE C13, 100.3380141 MHz
DECOUPLE H1, 399.0393159 MHz
POWORX 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
Total time 51 min
                                                                                                                                                                                                                                                                                                                                                                                                                                                       Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Jul 23 2016
                                                                                                                                                                                                                                                                                                                                                                                                                                     Operator: vmmrl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                  Data Collected on:
Agilent-NMR-vnmrs400
Archive directory:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                      FidFile: CARBON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                     Sample directory:
160
140
                                                                                                            139.442
                                                                                                                                                                                                                                                                                        128.698
                                                                                                                                                                                                                                                                           128.424
                                                                                                                                                                              126.584
120
100
80
                                                                                                                                                                                                                                                                                                                                         77.319
                                                                                                                                                                                                                                                                                                                                             77.000
                                                                                                                                                                                                                                                                                                                                       76.681
                                                                                                                                                 74.643
                                                                                                                                                                                                         32.214
                                                                                                                                                                                              28.816
```

NO₂







Relax. delay 1.689 sec
Pulse 45.0 degrees
Acq. time 1.311 sec
Width 25000.0 Hz
64 repetitions
OBSERVE C13, 100.3380141 MHz
DECOUPLE H1, 399.0393159 MHz
DROWAT 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
Total time 51 min

Pulse Sequence: CARBON (s2pul) Solvent: cdcl3 Data collected on: Jul 24 2016

Sample directory: FidFile: CARBON Data Collected on:
Agilent-NMR-vnmrs400
Archive directory:

Sample Name:

Operator: vnmr1

n OMOM NO

ppn



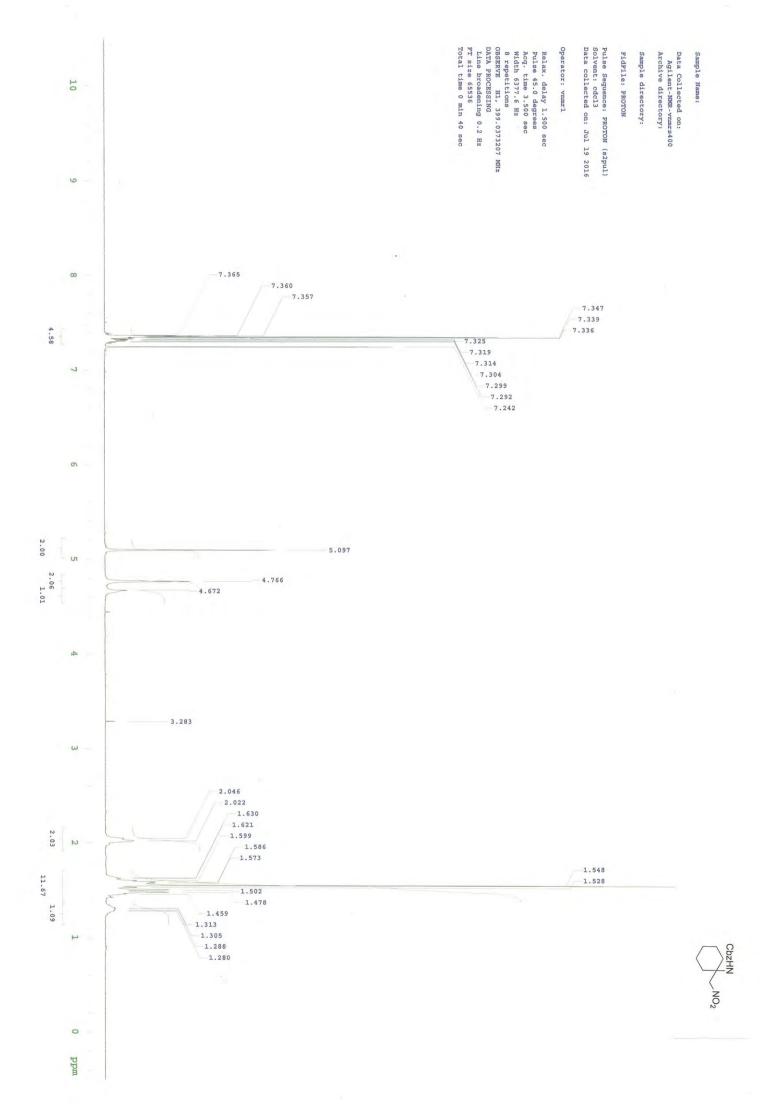
CbzHN NO₂

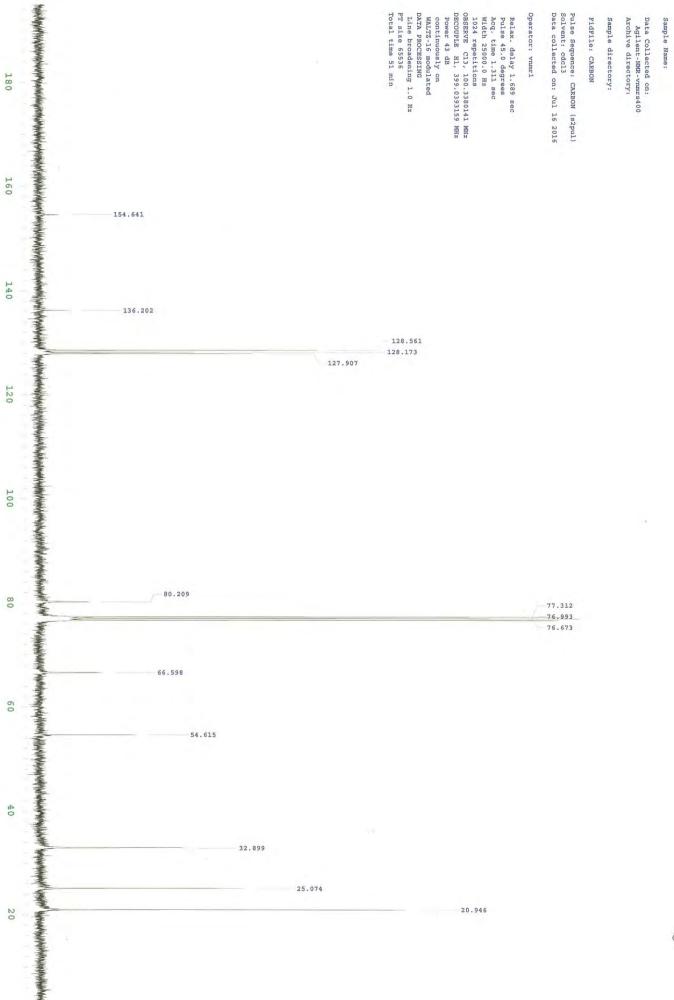
ppm

0

Relax. delay 1.689 sec
Pulse 45.0 degrees
Acq. time 1.311 sec
Width 25000.0 Hz
192 repetitions
OBSERVE C13, 100.3380141 MHz
DECOUPLE H1, 399.0393159 MHz
POWAR 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
Total time 51 min Pulse Sequence: CARBON (s2pul) Solvent: cdcl3 Data collected on: Jul 15 2016 Operator: vnmrl Data Collected on:
Agilent-NMR-vnmrs400
Archive directory: FidFile: CARBON Sample directory: Sample Name: 180 160 154.641 140 136.119 128.561 128.196 127.968 120 100 80.779 80 /77.312 76.993 76.673 66.629 60 52.250 40 25.561 20

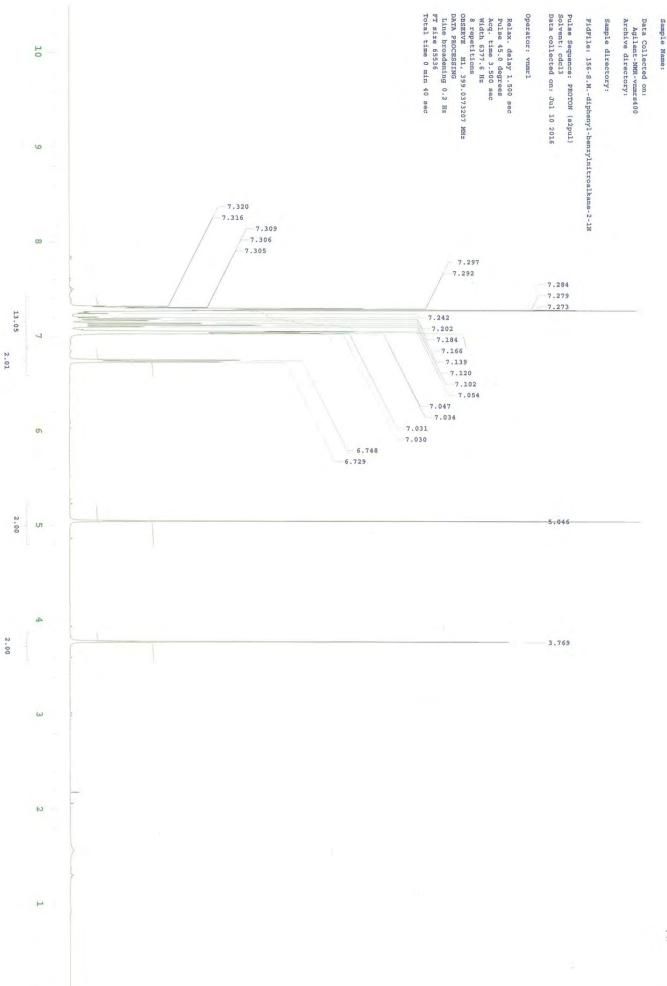
ppm





ppm

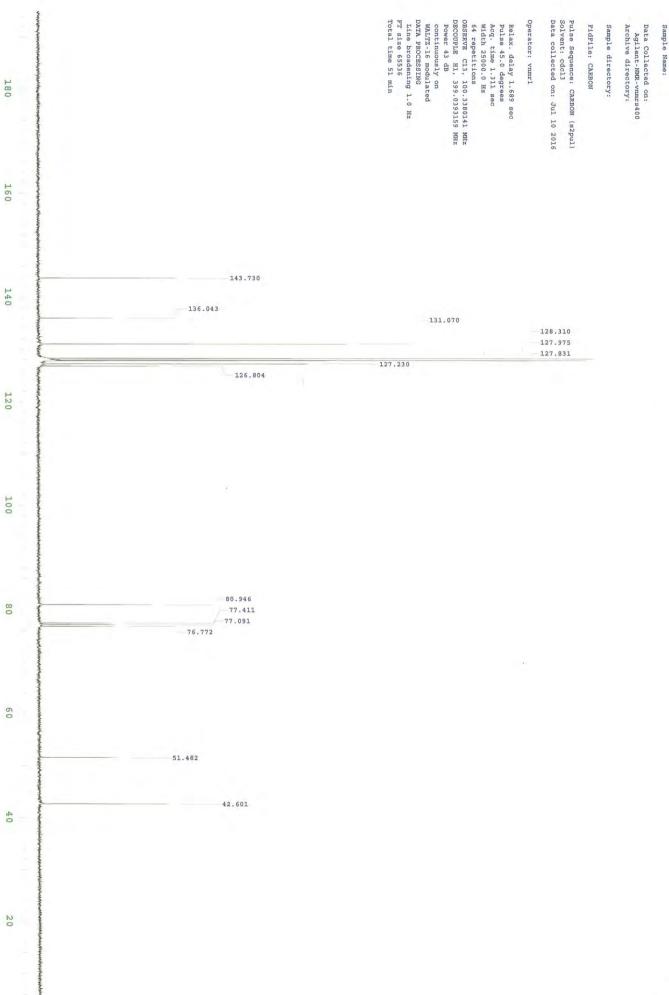
NO₂



Ph Ph NO₂

ppm

0



Ph NO

ppm

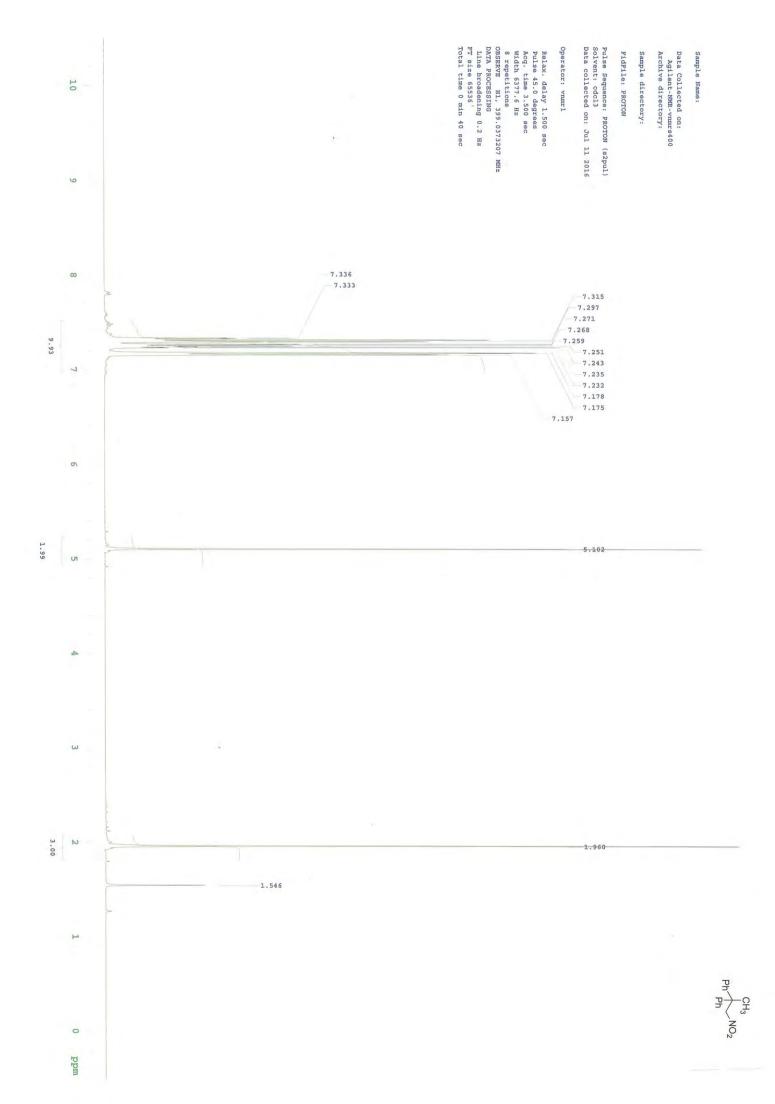
Relax. delay 1.689 sec
Pulse 45.0 degrees
Acq. time 1.311 sec
Width 25000.0 Hz
64 repetitions
OBSERVE C13, 100.3380141 MHz
DECOUPLE H1, 39.0333159 MHz
DECOUPLE H1, 39.033159 MHz
DECOUPLE H1, 39.03515 MHz
DECOUPLE H1, 39.03515 MHz
DECOUPLE H1, 39.03515 MHz
DECOUPLE Temp. 24.0 C / 297.1 K Operator: vnmrl Pulse Sequence: CARBON (s2pul) Solvent: cdc13 Data collected on: Jul 11 2016 FidFile: CARBON 180 160 144.574 140 128.530 127.078 126.979 120 100 85.128 80 77.350 76.711 60 47.346 40 26.808 20

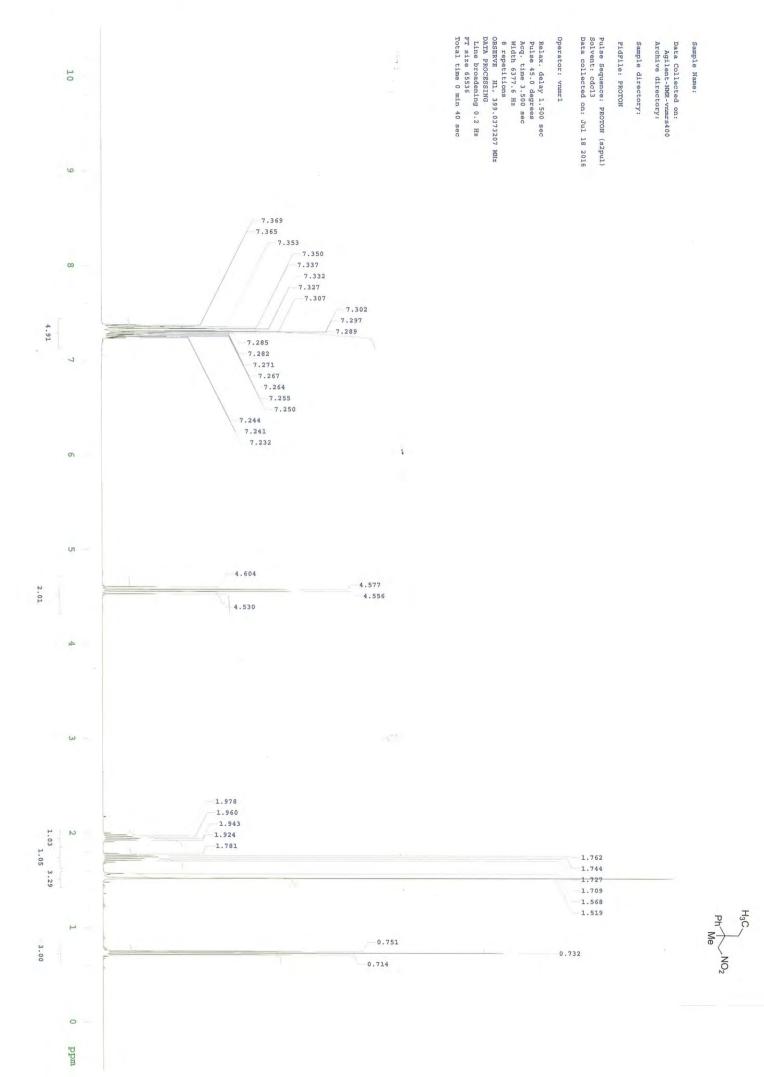
Ph CH₃

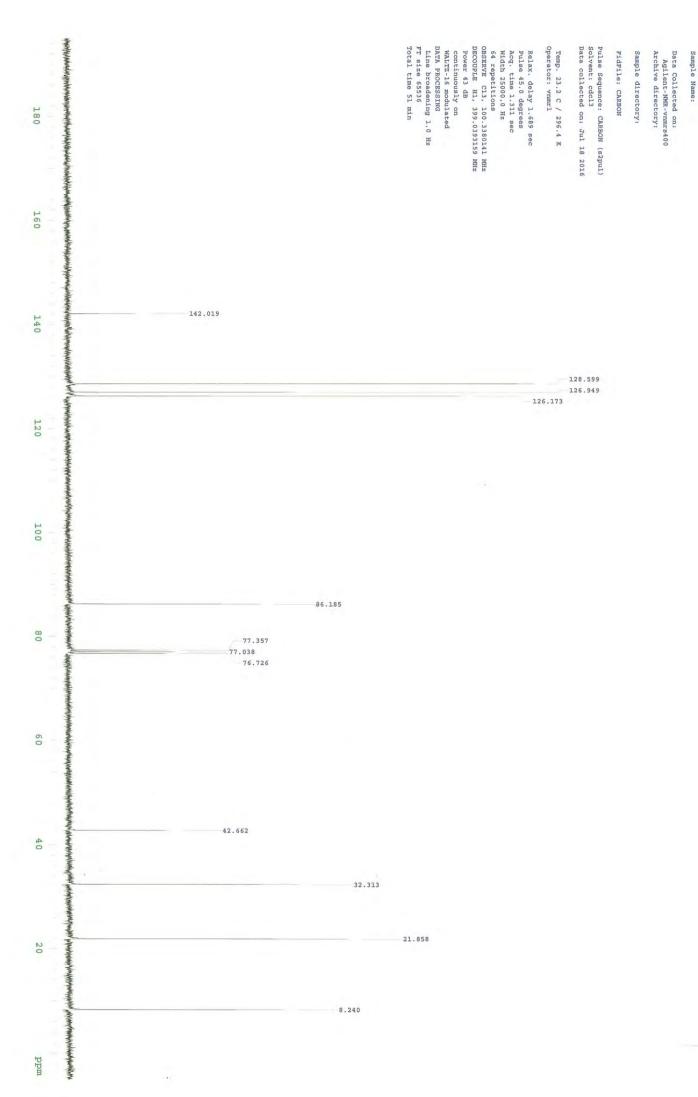
Data Collected on:
Agilent-NMR-vnmrs400
Archive directory:

Sample Name:

Sample directory:







Ph No₂ No₂

0

ppm

Ph Me

Relax. delay 1.689 sec

Pulse 45.0 degrees

Acq. time 1.311 sec

Width 25000.0 Hz

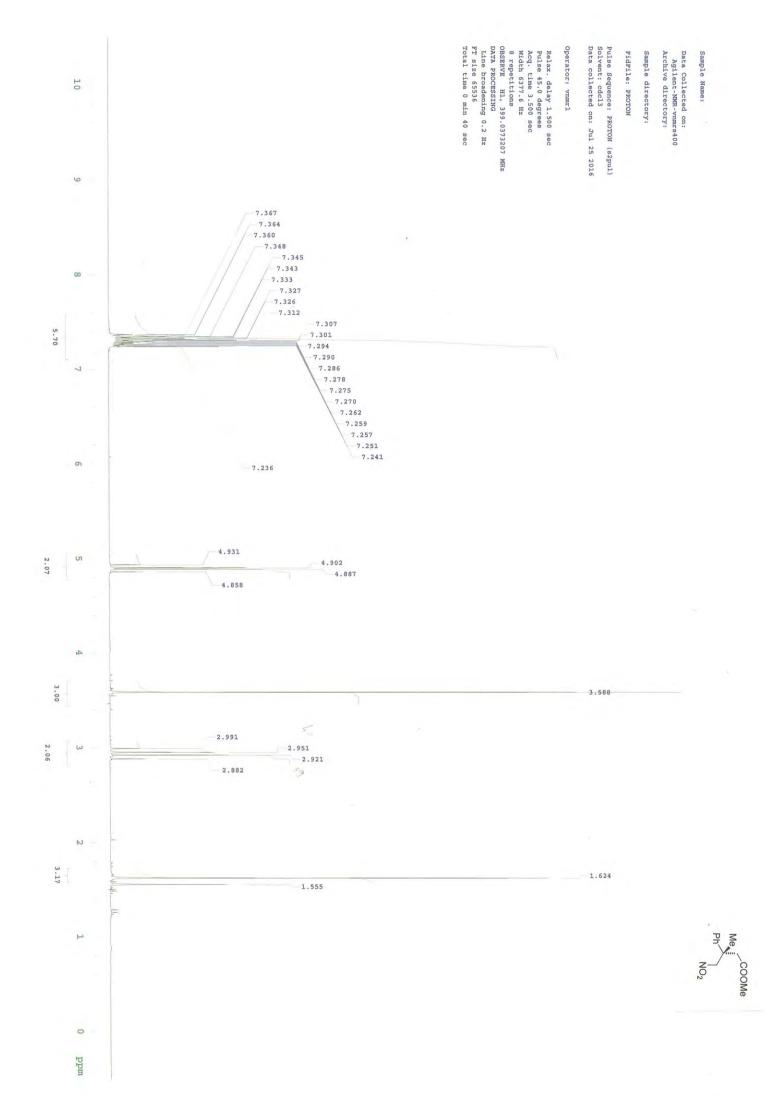
64 repetitions
OBSERVE C13, 100.3380141 MHz
DECOUPLE H1, 399.0393159 MHz
Power 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
Total time 51 min Temp. 23.2 C / 296.4 K Operator: vnmrl Pulse Sequence: CARBON (s2pul) Solvent: cdc13 Data collected on: Jul 23 2016 FidFile: CARBON Sample directory: 180 160 140 140.856 128.956 127.557 126.888 120 100 81.851 80 77.319 77.008 76.688 40 38.632

Ph Me

Data Collected on: Agilent-NMR-vnmrs400 Archive directory:

Sample Name:

nde



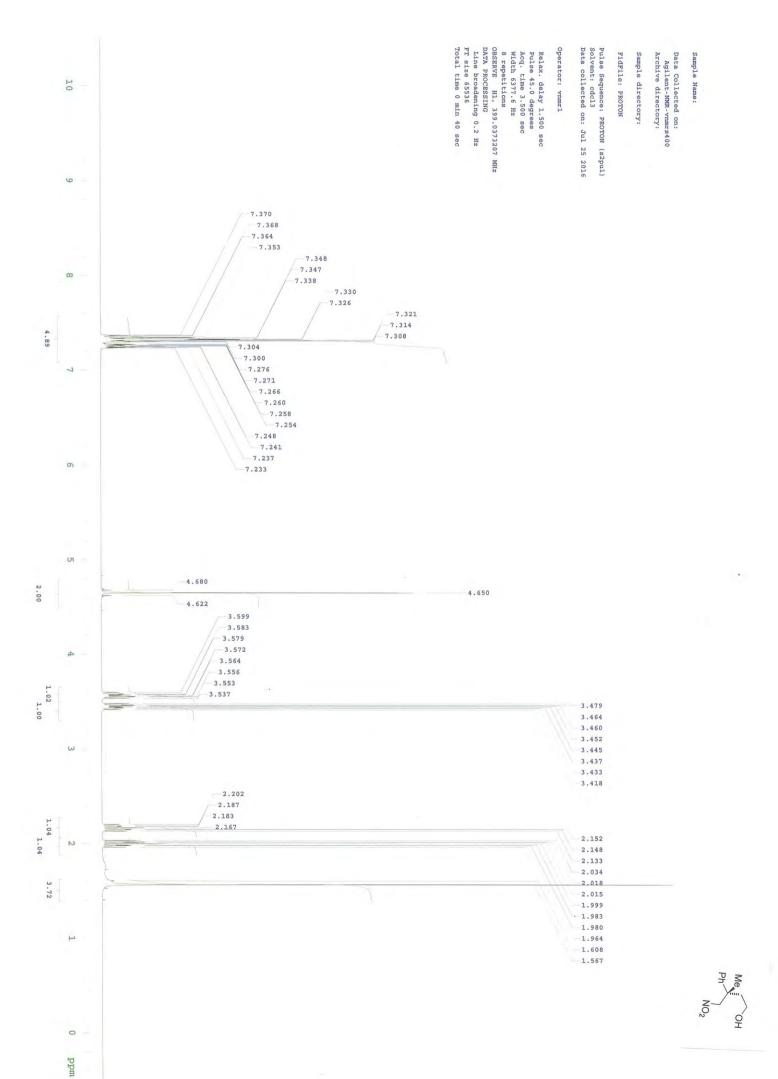
```
Relax. delay 1.689 sec
pulse 45.0 degrees
Acq. time 1.311 sec
Width 25000.0 Hz
128 repetitions
OBSERVE C13, 100.3380141 MHz
BECOUPLE H1, 399.0393159 MHz
POWSET 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
FT tal time 51 min
                                                                                                                                                                                                                                                                                                                                                                                                                       Pulse Sequence: CARBON (s2pul)
Solvent: cdc13
Data collected on: Jul 25 2016
                                                                                                                                                                                                                                                                                                                                                                                                       Operator: vnmrl
                                                                                                                                                                                                                                                                                                                                                                                                                                                    FidFile: CARBON
180
                                                                                                             170.959
160
                                                                                                  141.837
 140
                                                                                                                                                                                                                                                                                                            128.781
                                                                                                                                                                                                                                         127.451
120
 100
                                                                                                                                                               83.707
 80
                                                                                                                                                                                                                                                                                                                                         77.312
                                                                                                                                                                                                                                                                                                                             76.993
                                                                                                                                                                                                                                                                                                                                 76.673
 60
                                                                                                                                                      51.642
                                                                                                                                                                         42.814
                                                                                                                        40.708
  40
  20
```

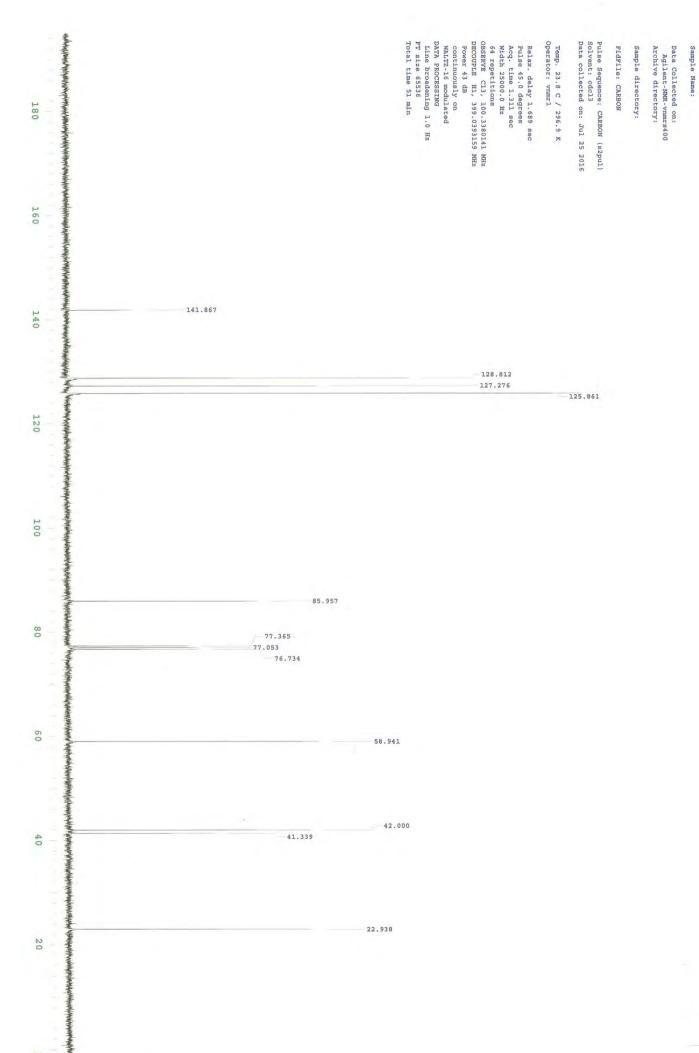
Me COOMe

Data Collected on:
Agilent-NMR-vnmrs400
Archive directory:

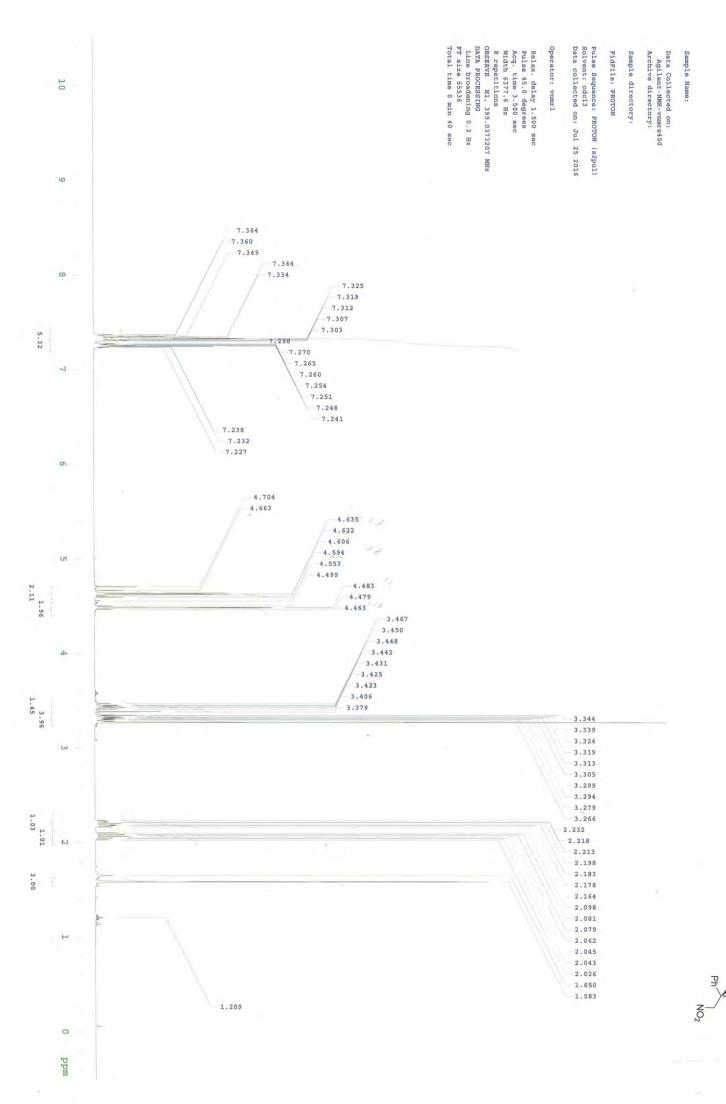
Sample Name:

Sample directory:





Ph NO₂



```
Relax. delay 1.689 sec
Pulse 45.0 degrees
Acq. time 1.311 sec
Width 25000.0 Hz
64 repetitions
OBSERVE C13, 100.3380141 MHz
DECOUPLE H1, 399.0333159 MHz
PROWAR 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
Total time 51 min
                                                                                                                                                                                                                                                                                                                                                                                                                                  Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Jul 25 2016
                                                                                                                                                                                                                                                                                                                                                                                                                 Operator: vnmrl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                           Data Collected on:
Agilent-NMR-vnmrs400
Archive directory:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                FidFile: CARBON
                                                                                                                                                                                                                                                                                                                                                                                                                                                                              Sample directory:
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         Sample Name:
180
160
                                                                                                                         141.822
140
                                                                                                                                                                                                                                                                                                                                                                                  128.736
                                                                                                                                                                                                                                                                                                                                                                                  127.215
                                                                                                                                                                                                                                                                                                                                                                                              125.892
120
100
                                                                                                                                                                                                                                                  96.382
                                                                                                                                                                                                          86.026
 08
                                                                                                                                                                               77.350
                                                                                                                                                                    77.031
                                                                                                                                                                                                                            63.808
 60
                                                                                                                                                                55.231
                                                                                                                                                               41.369
  40
                                                                                                                                                                                                                                                       39.400
                                                                                                                                                                                                                                     22.786
  20
```

Me OMOM NO₂

Relax. delay 1.500 sec
pulse 45.0 degrees
Acq. time 3.500 sec
Width 6377.6 Hz
8 repetitions
0BSERVE H1, 339.0373207 MHz
DATA PROCESSING
Line broadening 0.2 Hz
FT size 65536
Total time 0 min 40 sec Pulse Sequence: PROTON (s2pul) Solvent: cdc13 Data collected on: Nov 27 2015 Operator: vnmrl Data Collected on:
Agilent-NMR-vnmrs400
Archive directory: FidFile: 78-Pure-ester-13C Sample directory: Sample Name: Selective band center: 3.92 (ppm); width: 47.9 (Hz) 10 6 ∞ 7.296 7.278 7.259 7.244 5.45 7.210 7.198 7.195 7.179 7.178 3.00 3.662 3.659 2.944 2.924 2.644 -2.631 -2.627 -2.624 2.07 w 2.03 2.605 N

0

ppm

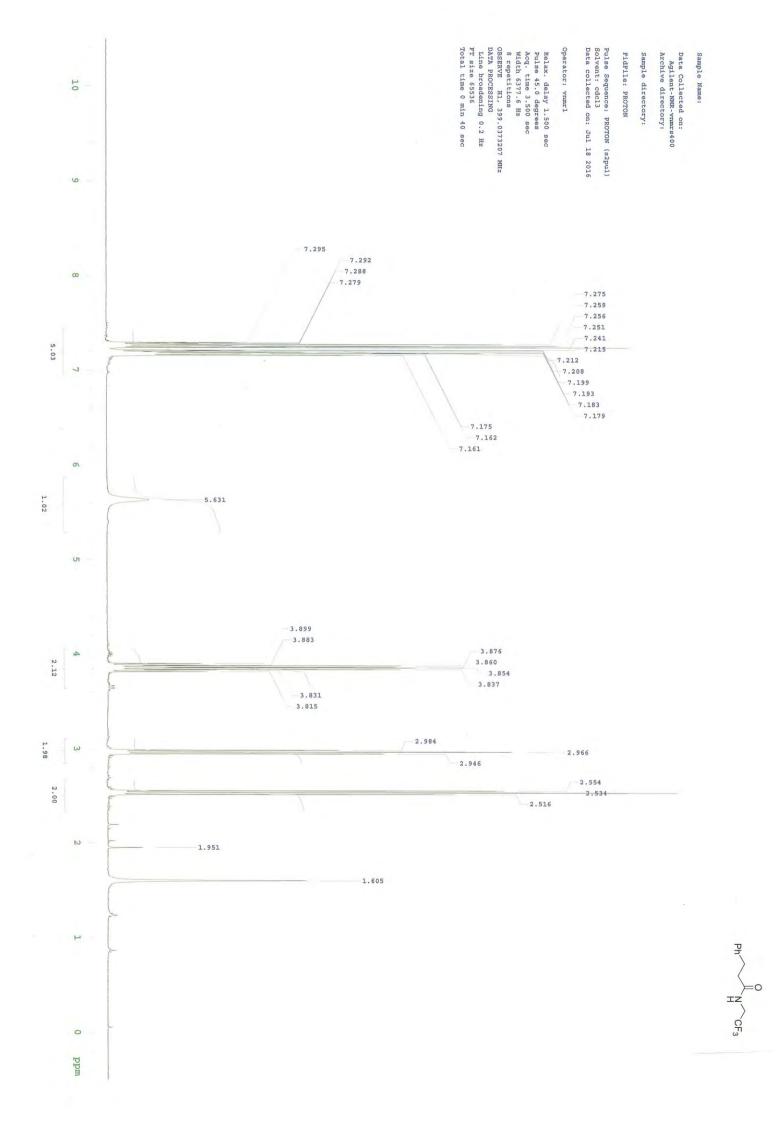
oMe

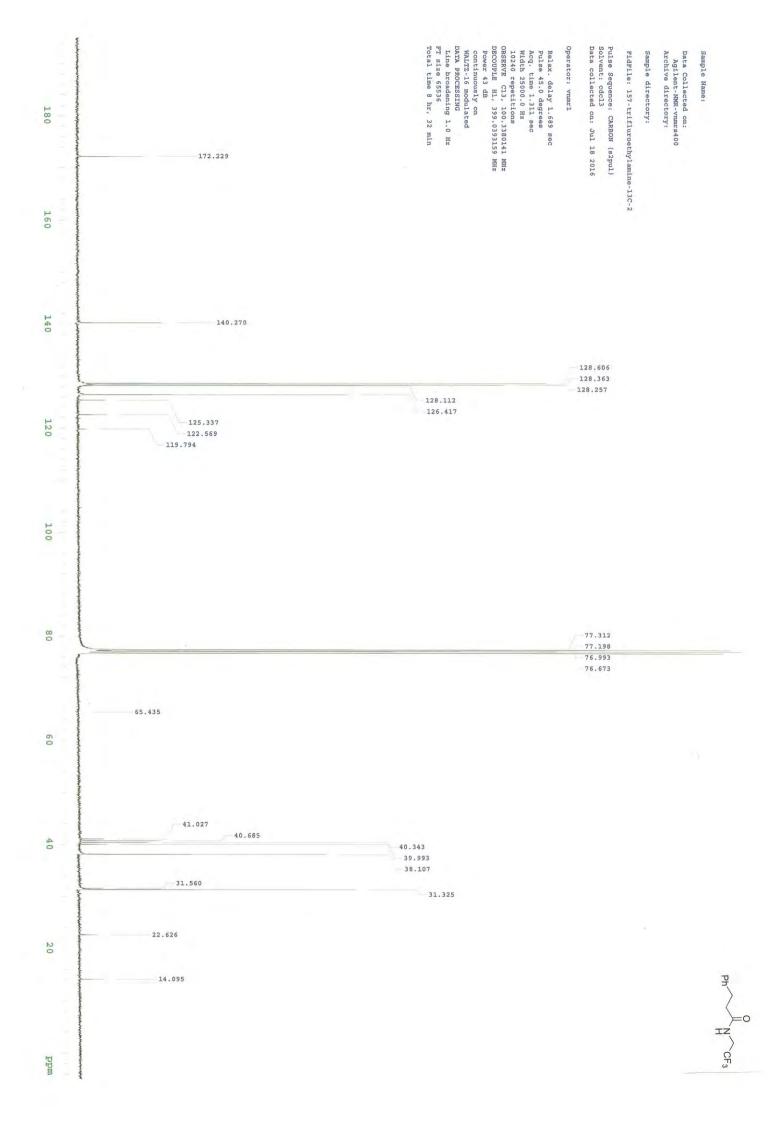
Relax. delay 1.689 sec
Pulse 45.0 degrees
Acq. time 1.311 sec
Width 25000.0 Hz
64 repatitions
OBSERVE C13, 100.3380141 MHz
DECOUPLE H1, 399.0393159 MHz
POWNET 43 dB Line broadening 1.0 Hz FT size 65536 Total time 51 min continuously on WALTZ-16 modulated DATA PROCESSING Pulse Sequence: CARBON (s2pul) Solvent: cdc13 Data collected on: Nov 27 2015 Operator: vmmrl FidFile: 78-Pure-ester-13-2C Agilent-NMR-vnmrs400 Archive directory: Sample directory: 180 173.331 160 140.491 128.485 128.249 126.249 120 77.319 77.000 76.681 51.596 35.682 30.922

OMe

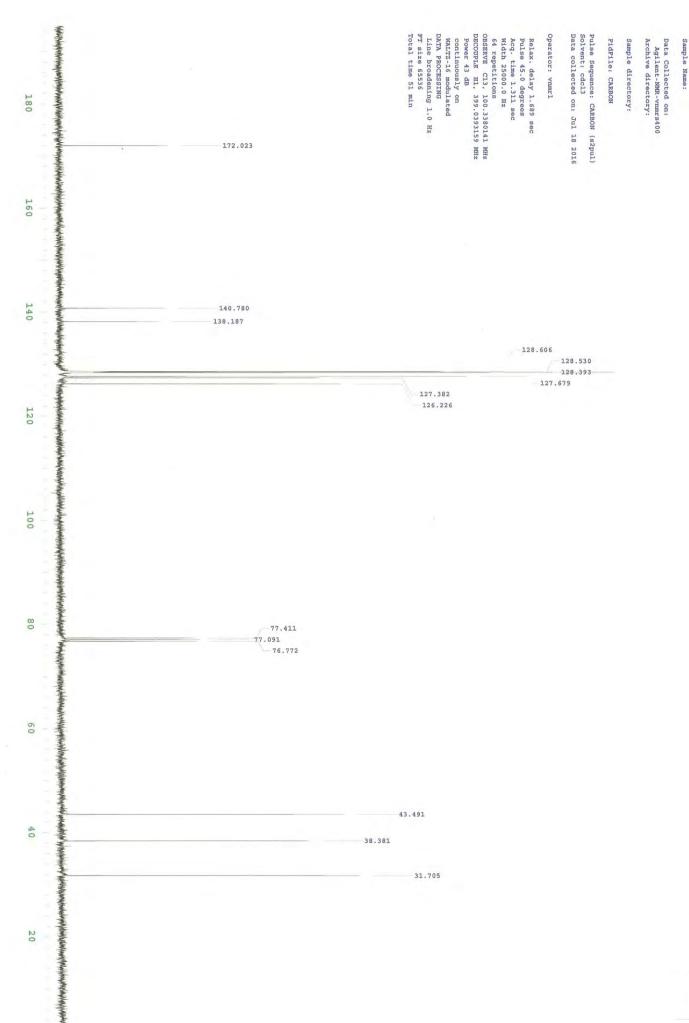
Selective band center: 3.92 (ppm); width: 47.9 (Hz)

To Page



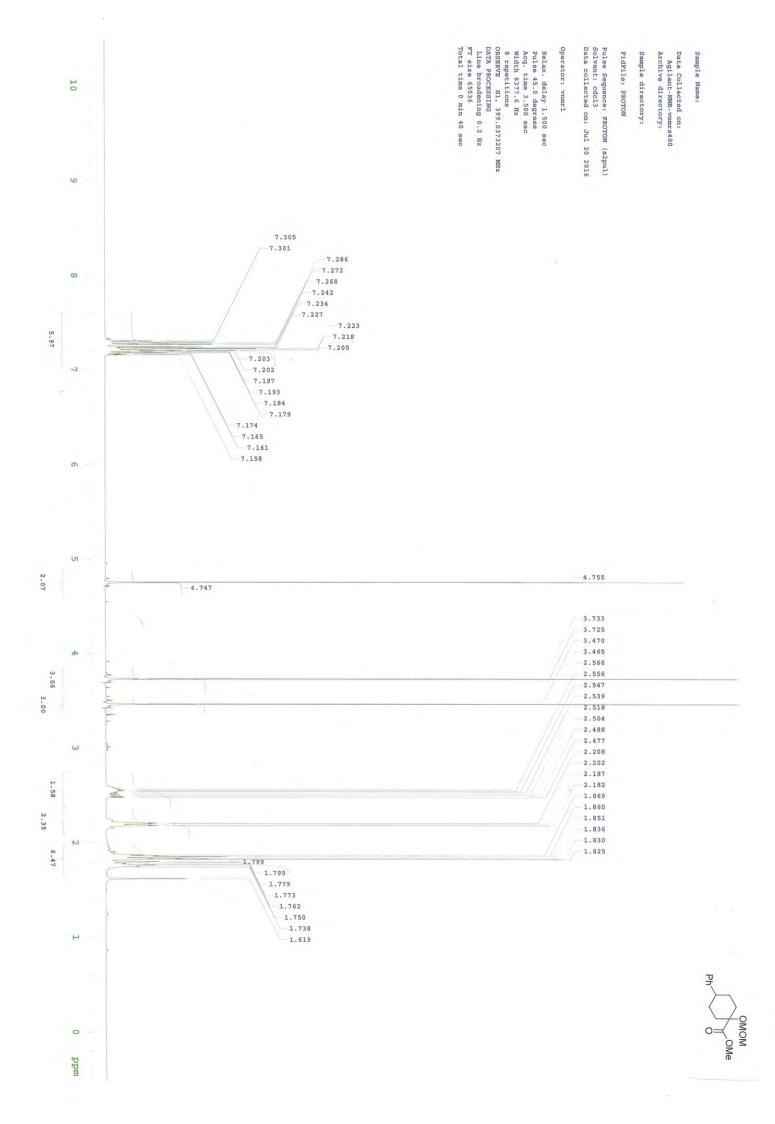


Ph O HN Ph



ppm

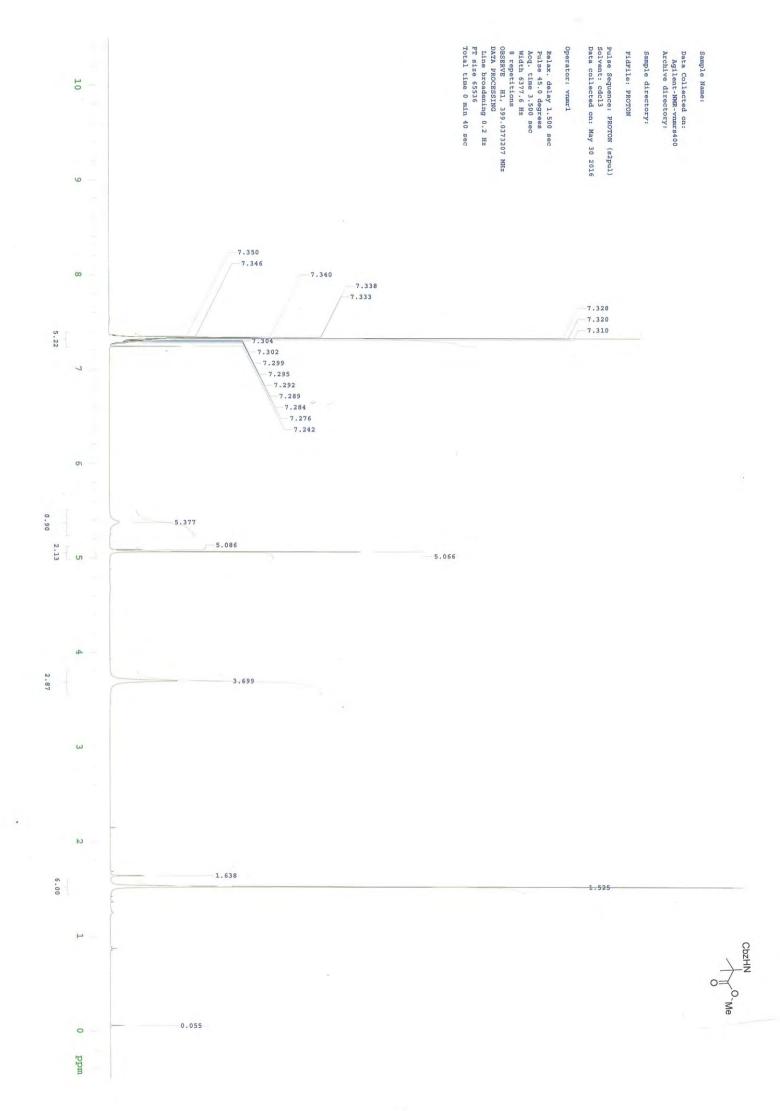
IN Ph

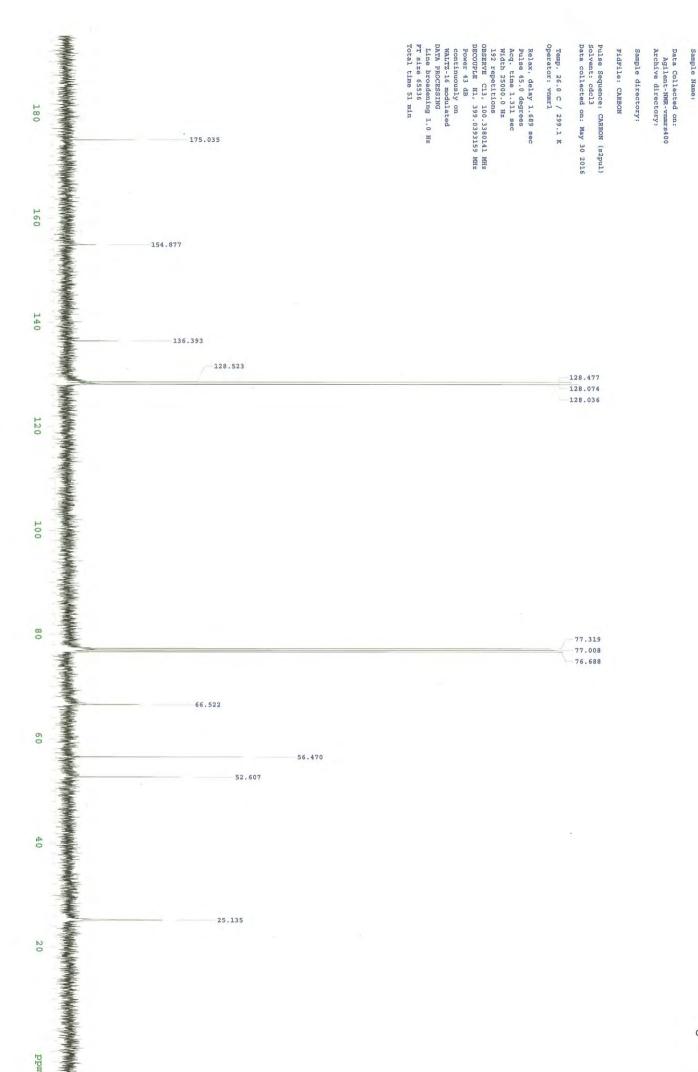


ppm

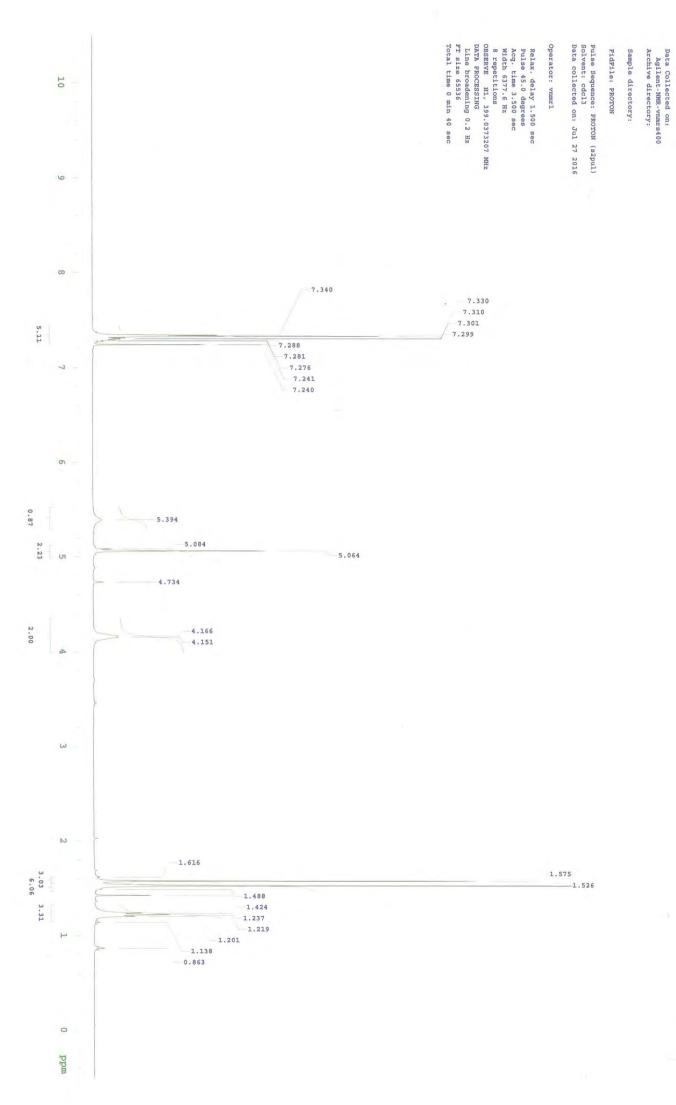
OMOM OMe

Data Collected on:
Agilent-NMR-vnmrs400
Archive directory:

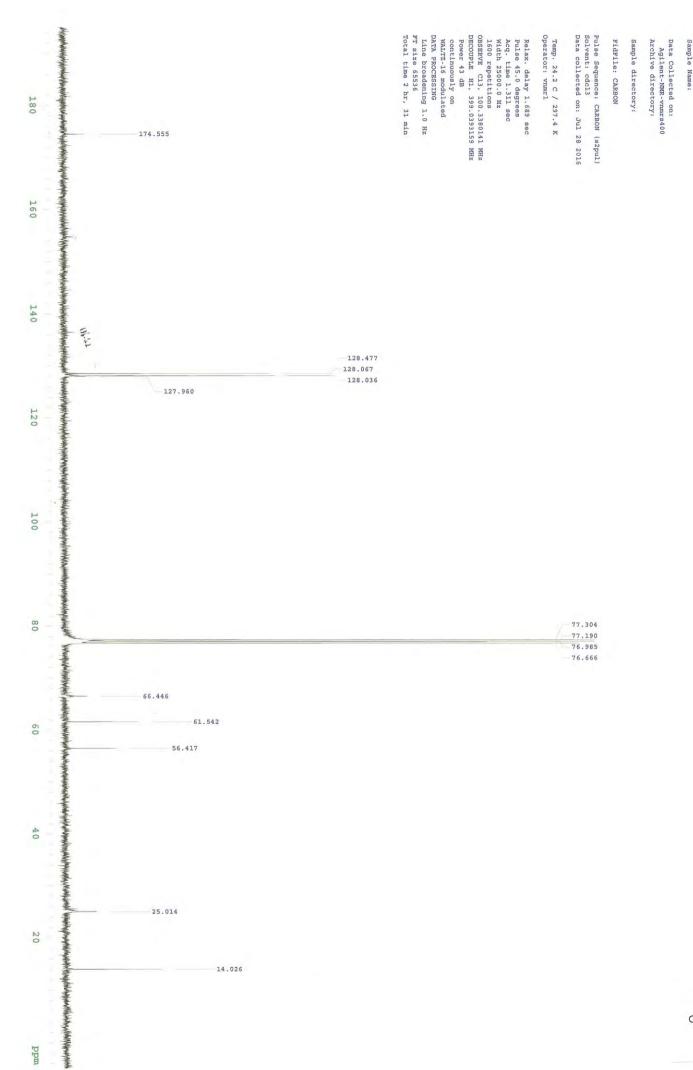




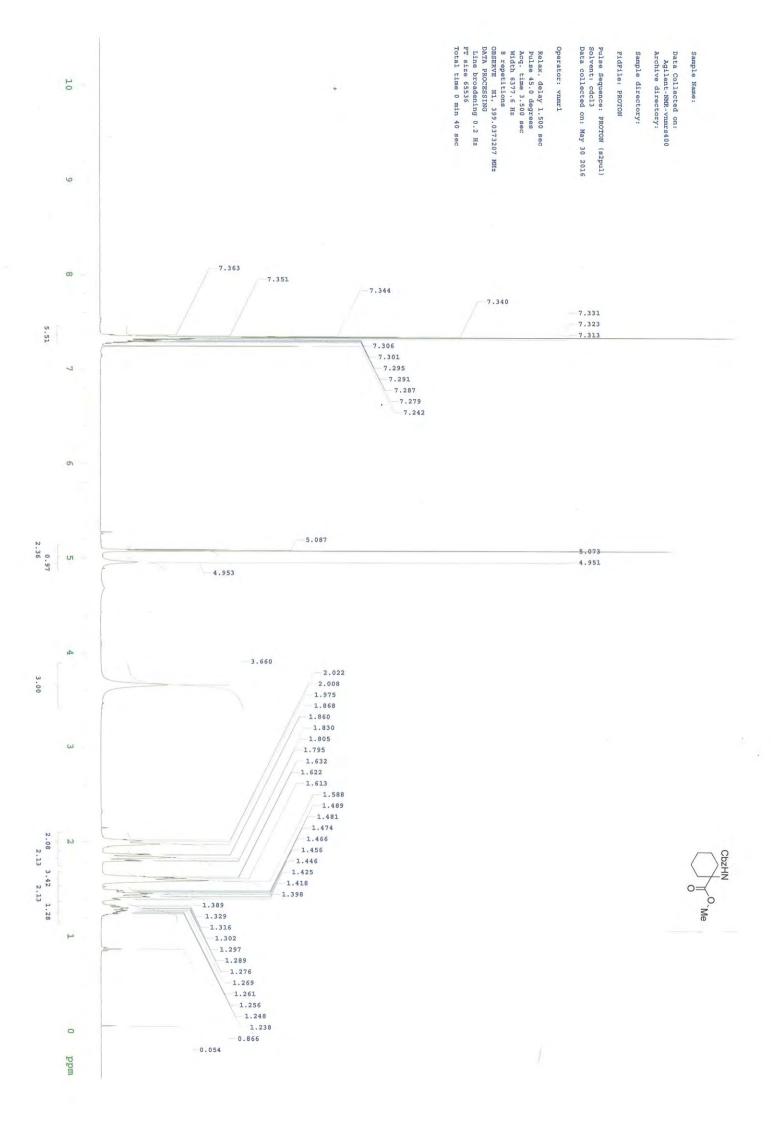
O M



We NHCbz



Me NHCbz



CbzHN O Me

Data Collected on:
Agilent-NMR-vnmrs400
Archive directory:

Sample Name:

Sample Name:

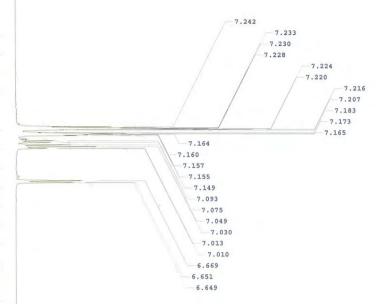
Data Collected on:
Agilent-NMR-vnmrs400
Archive directory:

Operator: vnmrl

FidFile: PROTON Sample directory:

Pulse Sequence: PROTON (s2pul) Solvent: cdc13 Data collected on: May 30 2016

Relax. delay 1.500 sec
Pulse 45.0 degrees
Acq. time 3.500 sec
Width 6377.6 Hz
8 repetitions
0BSERVE H1, 399.0373207 MHz
DATA PROCESSING
Line broadening 0.2 Hz
FT size 65536
Total time 0 min 40 sec



3.712

3.688

ppm

0

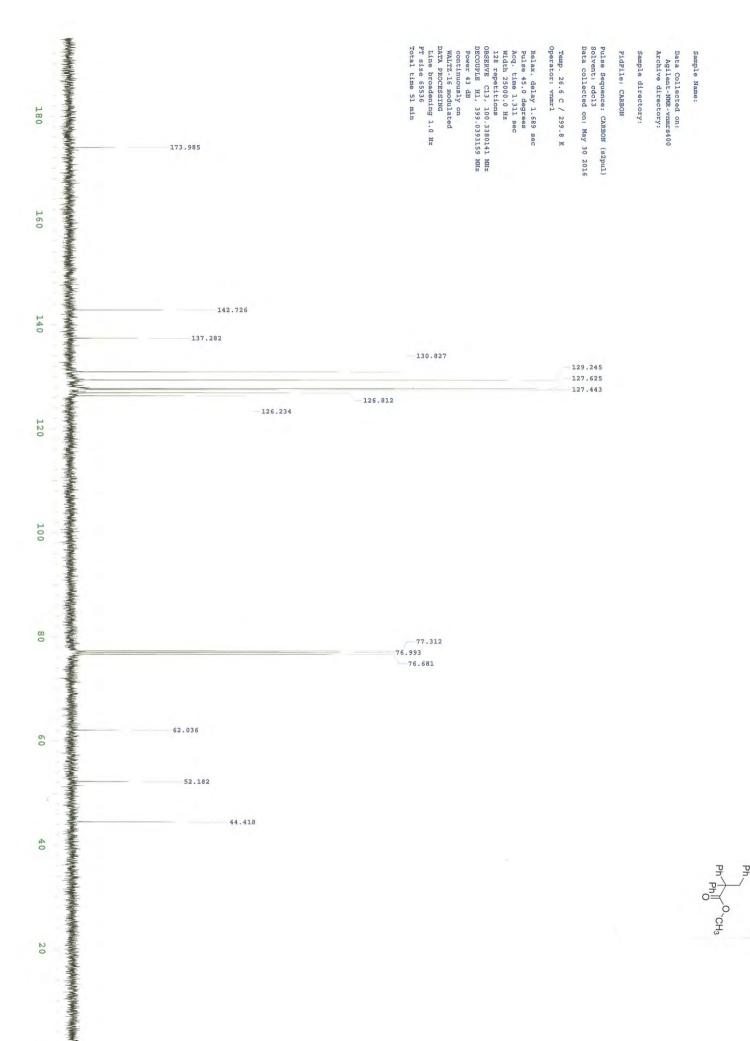
N

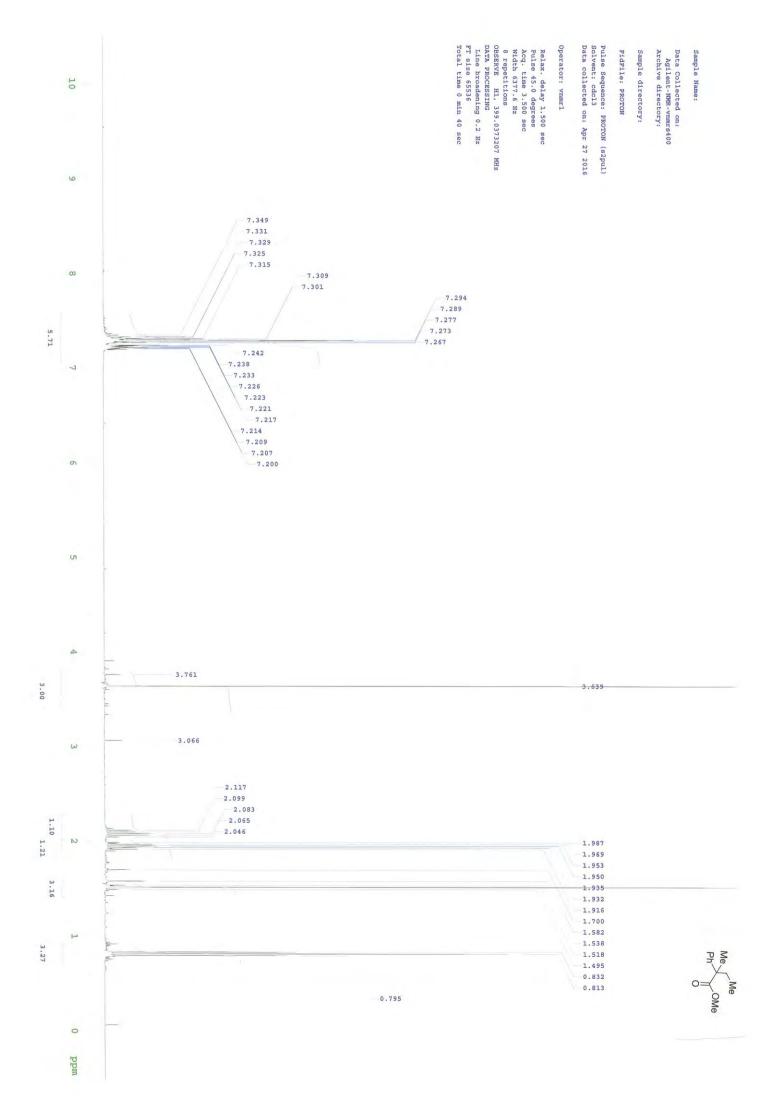
10

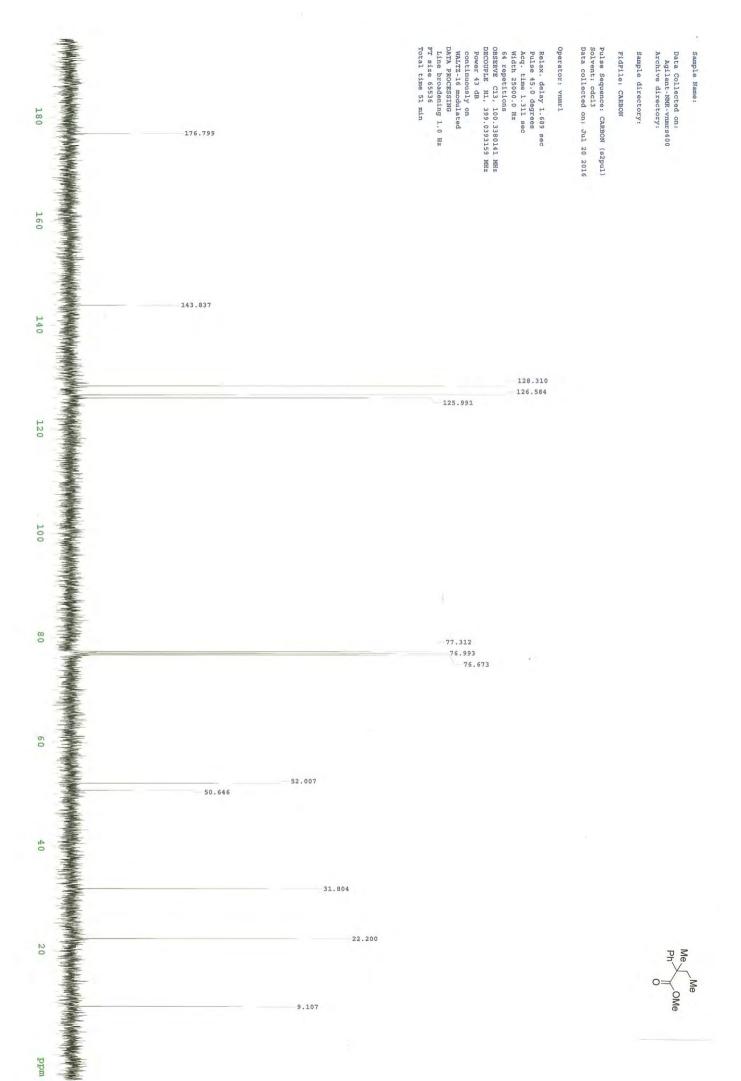
7

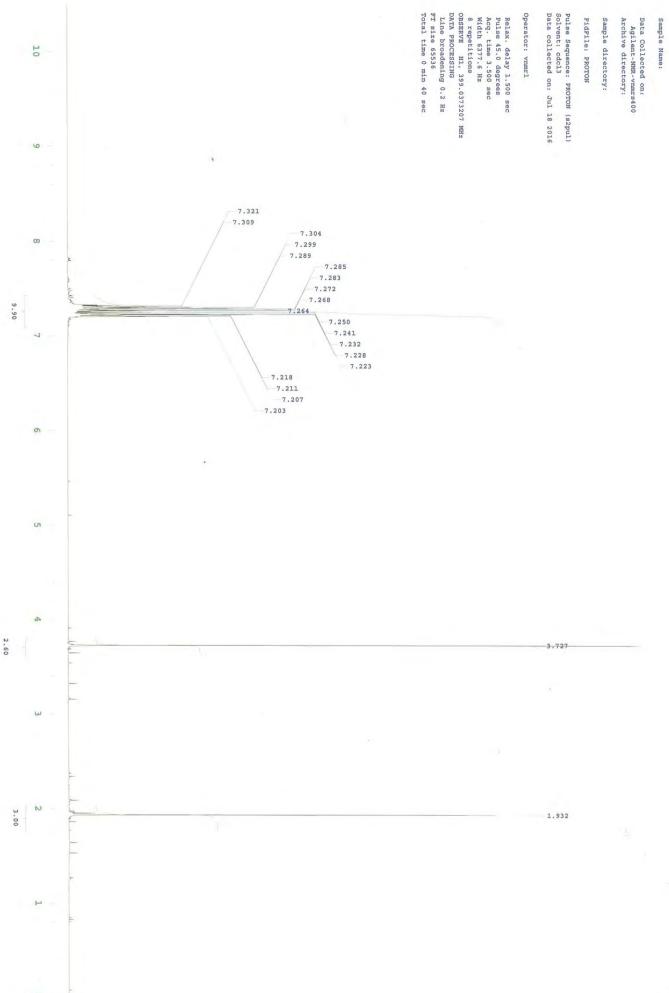
0

UT



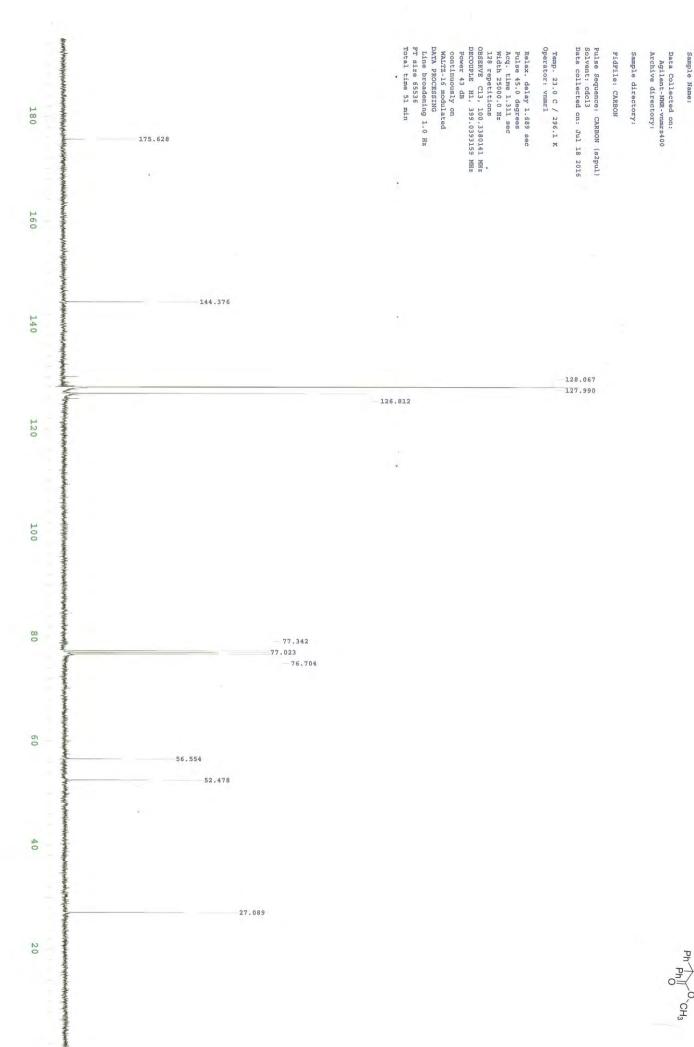






mdd

Ph Ph O CH₃



COOMe

3.224

2.678

Sample Name:

dd

0

10

co

2.96

0.48

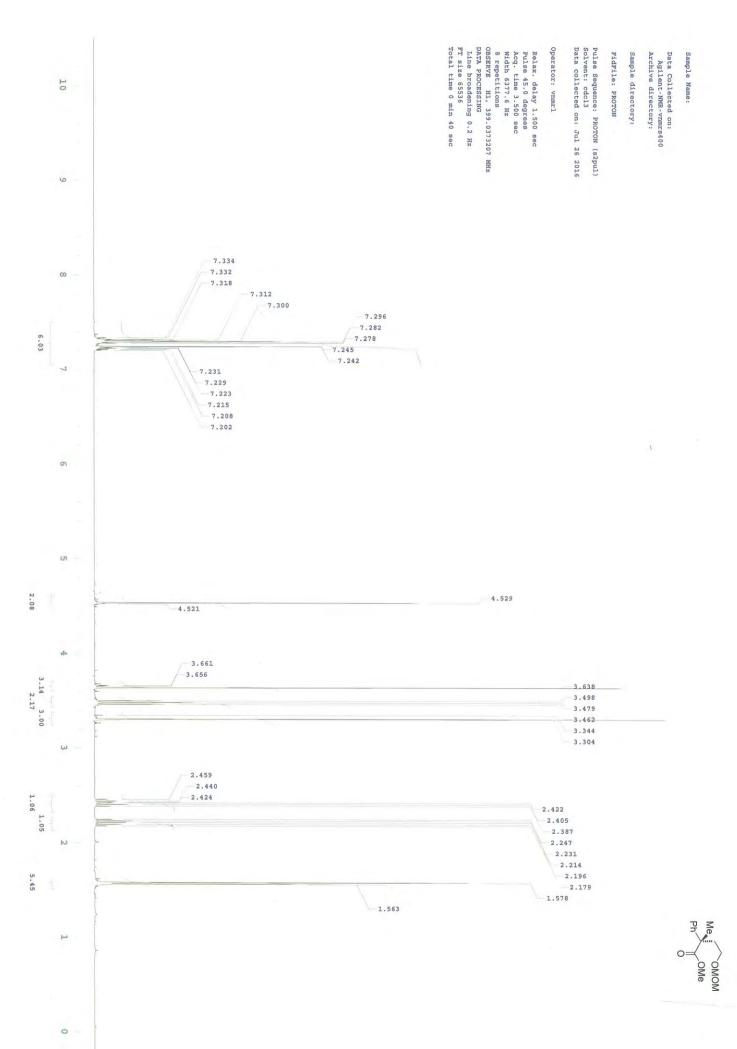
0.54

0.51

-3.199 -3.182 2f -3.157 2f

2.664 -2.635 -2.622

3.00



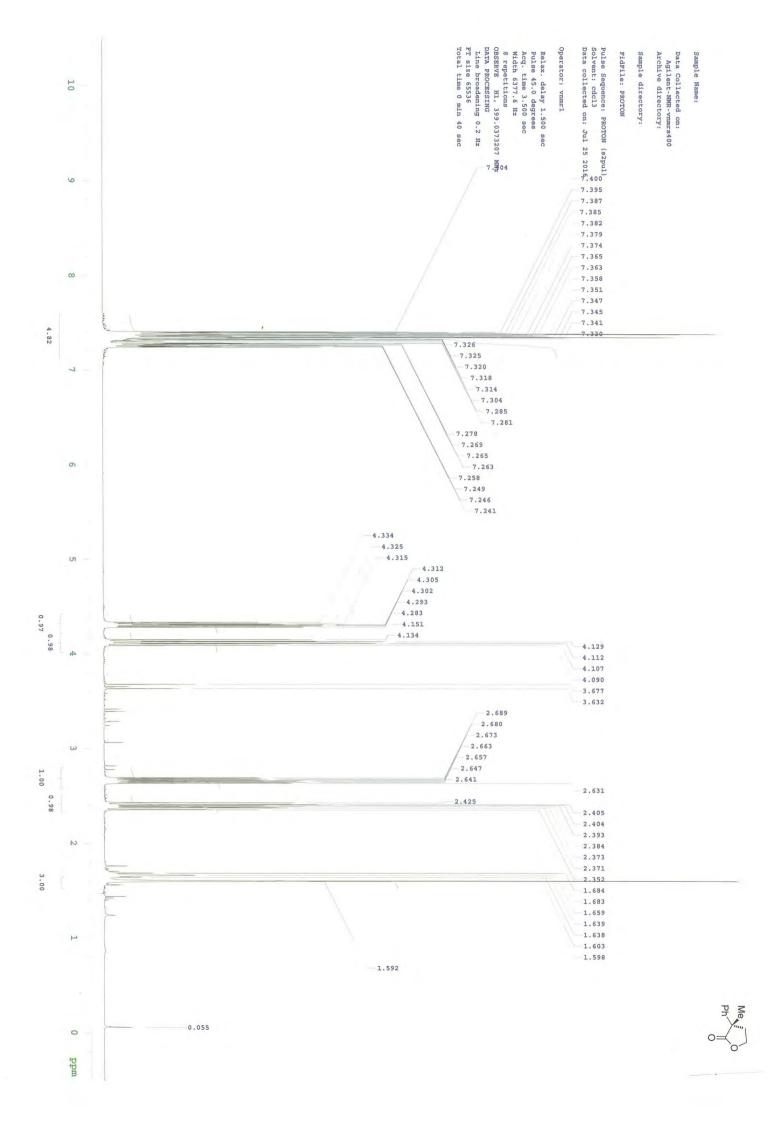
```
Relax. delay 1.689 sec
pulse 45.0 degrees
Acq. time 1.311 sec
Width 25000.0 Hz
192 repetitions
OBSERVE C13, 100.3380141 MHz
DECOUPLE H1, 399.0393159 MHz
Power 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
Total time 51 min
                                                                                                                                                                                                                                                                                                                                                                      Temp. 23.8 C / 296.9 K
Operator: vnmrl
                                                                                                                                                                                                                                                                                                                                                                                             Pulse Sequence: CARBON (s2pul)
Solvent: cdc13
Data collected on: Jul 26 2016
                                                                                                                                                                                                                                                                                                                                                                                                                        FidFile: CARBON
180
                                                                           176.350
 160
                                                                                      143.335
 140
                                                                                                                                                                                    128.470
126.842
                                                                                                                                                                         125.778
 120
 100
                                                                                                                               96.367
  80
                                                                                                                                                                                                                                                                                                                                                                               77.304
                                                                                                                                                                                                                                                                                                                                                                          76.985
                                                                                                                                                                                                                                                                                                                                                                            76.666
                                                                                                                  64.401
   60
                                                                                                          55.200
                                                                                                          52.151
                                                                                              48.760
   40
                                                                                                                     38.465
                                                                                                                    23.105
  20
```

OMON

Data Collected on:
Agilent-NMR-vnmrs400
Archive directory:

Sample Name:

Sample directory:



```
Relax. delay 1.689 sec
Pulse 45.0 degrees
Acq. time 1.311 sec
Width 25000.0 Hz
64 repetitions
OBSERVE C13, 100.3380141 MHz
DECOUPLE H1, 399.0393159 MHz
Power 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
FT size 65536
Total time 51 min
                                                                                                                                                                                                                                                                                                                                                                                                                                                          Pulse Sequence: CARBON (s2pul)
Solvent: cdcl3
Data collected on: Jul 25 2016
                                                                                                                                                                                                                                                                                                                                                                                                                                        Operator: vnmrl
                                                                                                                                                                                                                                                                                                                                                                                                                                                                                          FidFile: CARBON
180
                                                                                                                                             180.015
160
140
                                                                                                       141.008
                                                                                                                                                                                                                                                                                                                                                                                                                                                   128.834
127.390
125.839
120
100
  80
                                                                                                                                                                                                                                                 77.350
                                                                                                                                                                                                                                      77.031
                                                                                                                                                                                                                                              76.711
                                                                                                                                                                                                                                                                             65.001
 60
                                                                                                                                                        47.490
  40
                                                                                                                                                                                                                                                                       38.046
                                                                                                                                                                                                                                                                                             25.447
 20
```

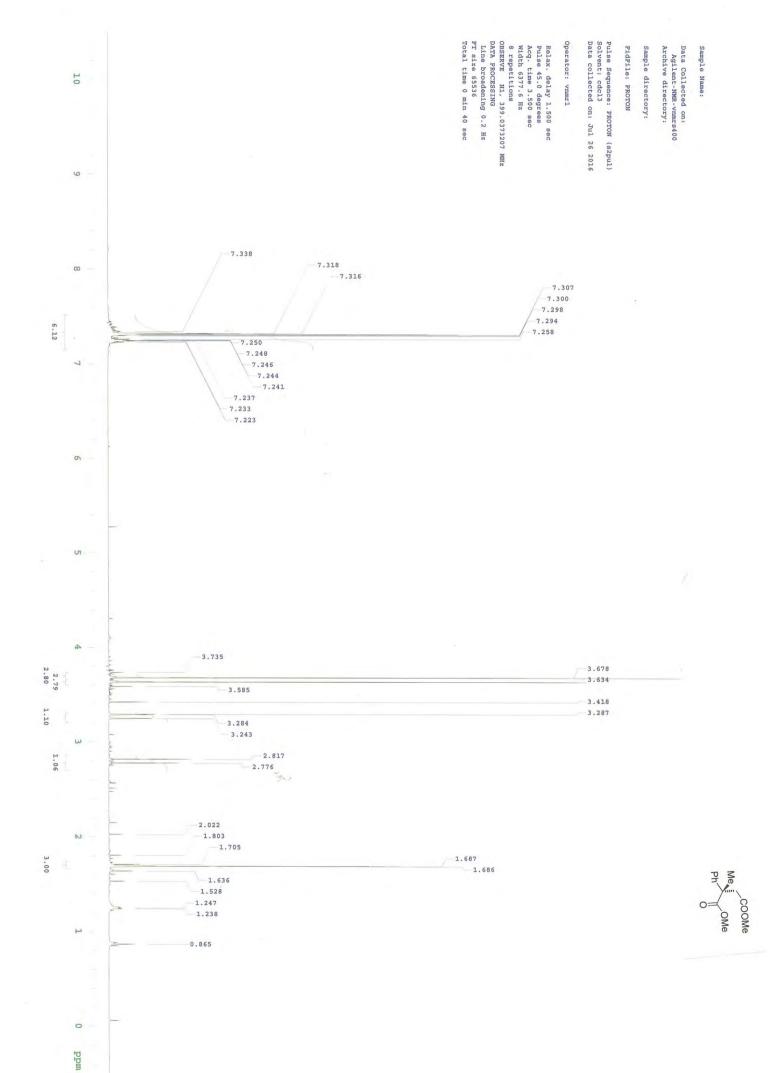
o Me

Data Collected on:
Agilent-NMR-vnmrs400
Archive directory:

Sample Name:

Sample directory:

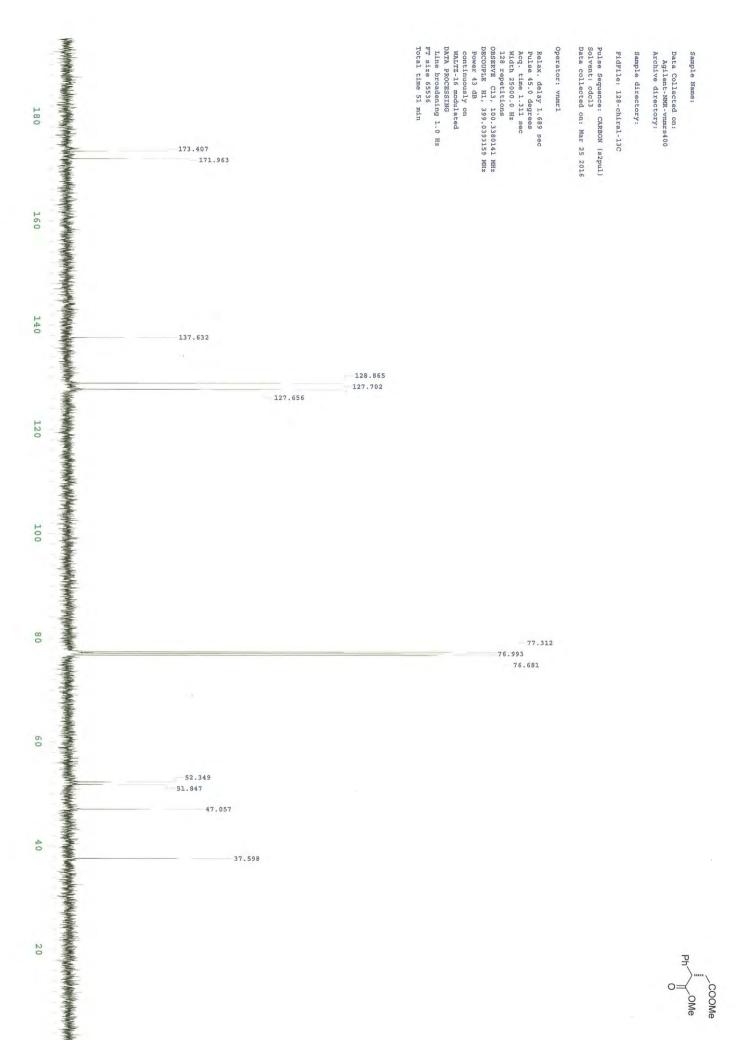
bbm

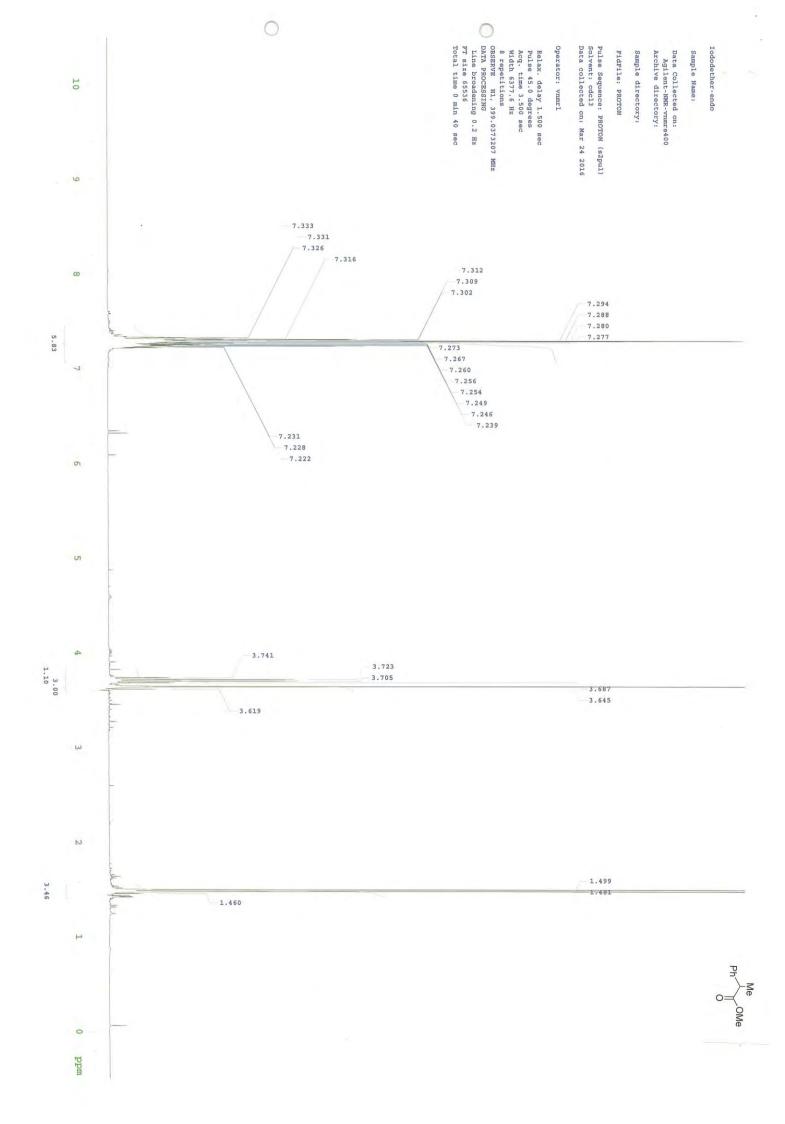


Relax. delay 1.689 sec
Pulse 45.0 degrees
Acq. time 1.311 sec
Width 25000.0 Hz
64 repetitions
OBSERVE C13, 100.3380141 MHz
DECOUPLE H1, 399.0393159 MHz
POWMAY 43 dB
continuously on
WALTZ-16 modulated
DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
Total time 51 min Data Collected on:
Agilent-NMR-vnmrs400
Archive directory: Pulse Sequence: CARBON (s2pul) Solvent: cdcl3 Data collected on: Jul 26 2016 Operator: vnmrl FidFile: CARBON Sample directory: 180 175.293 171.491 160 142.536 140 128.614 127.184 125.550 120 100 77.335 77.015 76.696 52.387 51.611 48.228 43.415 40 23.348

OMe

Sample Name:





Relax. delay 1.689 sec
pulse 45.0 degrees
Acq. time 1.311 sec
width 25000.0 Hz
64 repetitions
08SERVE C13, 100.3380141 MHz
DECOUPLE H1, 399.0393159 MHz
Power 43 dB
continuously on
WALTZ-16 modulated
name benorestry DATA PROCESSING
Line broadening 1.0 Hz
FT size 65536
Total time 51 min Pulse Sequence: CARBON (s2pul) Solvent: cdc13 Data collected on: Mar 24 2016 Operator: vmmrl Data Collected on:
Agilent-NMR-vnmrs400
Archive directory: FidFile: CARBON Sample directory: 180 174.989 160 140 140.529 128.614 127.443 127.108 120 100 80 77.319 76.688 60 51.992 45.392 40 20 18.573

Me OMe

Sample Name:

PP