Supporting Information

1-(2,4,6-Triisopropylphenyl)ethylamine: A New Chiral Auxiliary for the Asymmetric Synthesis of γ-Amino Acid Derivatives

Pascale Cividino, Sandrine Py*, Philippe Delair, and Andrew E. Greene*

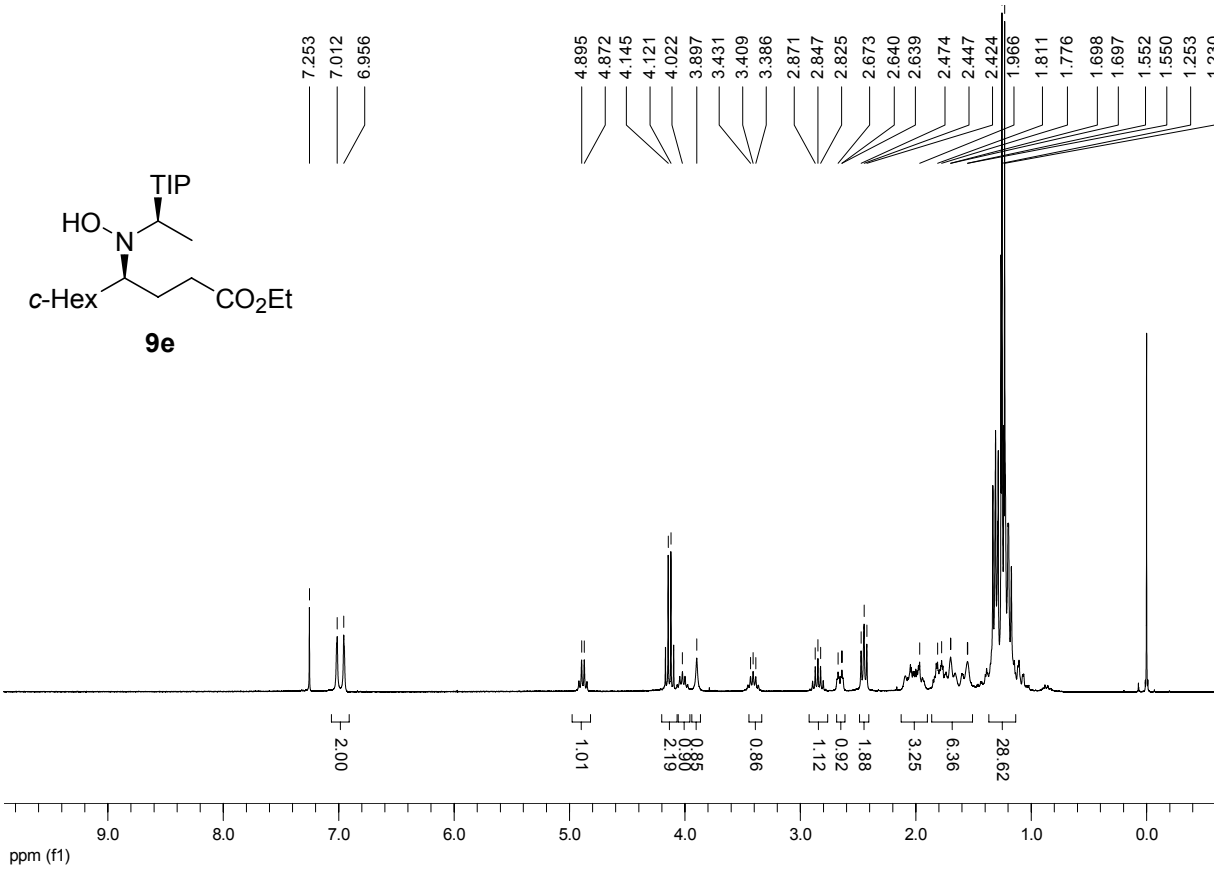
Chimie Recherche (LEDSS)
Université Joseph Fourier, B.P. 53, 38041 Grenoble, France

Sandrine.Py@ujf-grenoble.fr
Andrew.Greene@ujf-grenoble.fr

General Experimental Methods **S1**

Copies of ^{1}H and ^{13}C NMR spectra for compounds:
9e, **11b**, **12**, **14a**, **14d**, **14e**, **15b** **S2-S8**

General Experimental Methods. Reactions were performed under positive pressure of dry argon in oven-dried or flame-dried glassware equipped with a magnetic stirring bar. Standard inert atmosphere techniques were used in handling all air and moisture sensitive reagents. THF and ether were freshly distilled from sodium, and CH_2Cl_2 and pyridine from CaH_2. Purchased reagents were used without purification, except for aldehydes and acetic anhydride, which were distilled prior to use. Reactions were monitored by thin layer chromatography (TLC) using aluminum-backed silica gel plates. Product purification by gravity column chromatography was performed using silica gel (70-230 mesh). Infrared (IR) spectra were obtained with a Fourier transform infrared spectrometer (FTIR) as either neat films or thin films of CH_2Cl_2 solutions on sodium chloride plates. ^{1}H NMR (300 MHz), and ^{13}C NMR (75 MHz) spectra were recorded in $CDCl_3$ (unless otherwise stated). Chemical shifts δ are given in ppm, using tetramethylsilane as the reference. Mass spectra (MS) were obtained using DCI (ammonia/isobutane 63/37).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N
c-Hex
CO2Et
9e
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6.956
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4.022
3.897
3.431
3.409
3.386
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1.811
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1.253
2.00
1.01
2.19
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0.86
1.12
0.92
1.88
3.25
6.36
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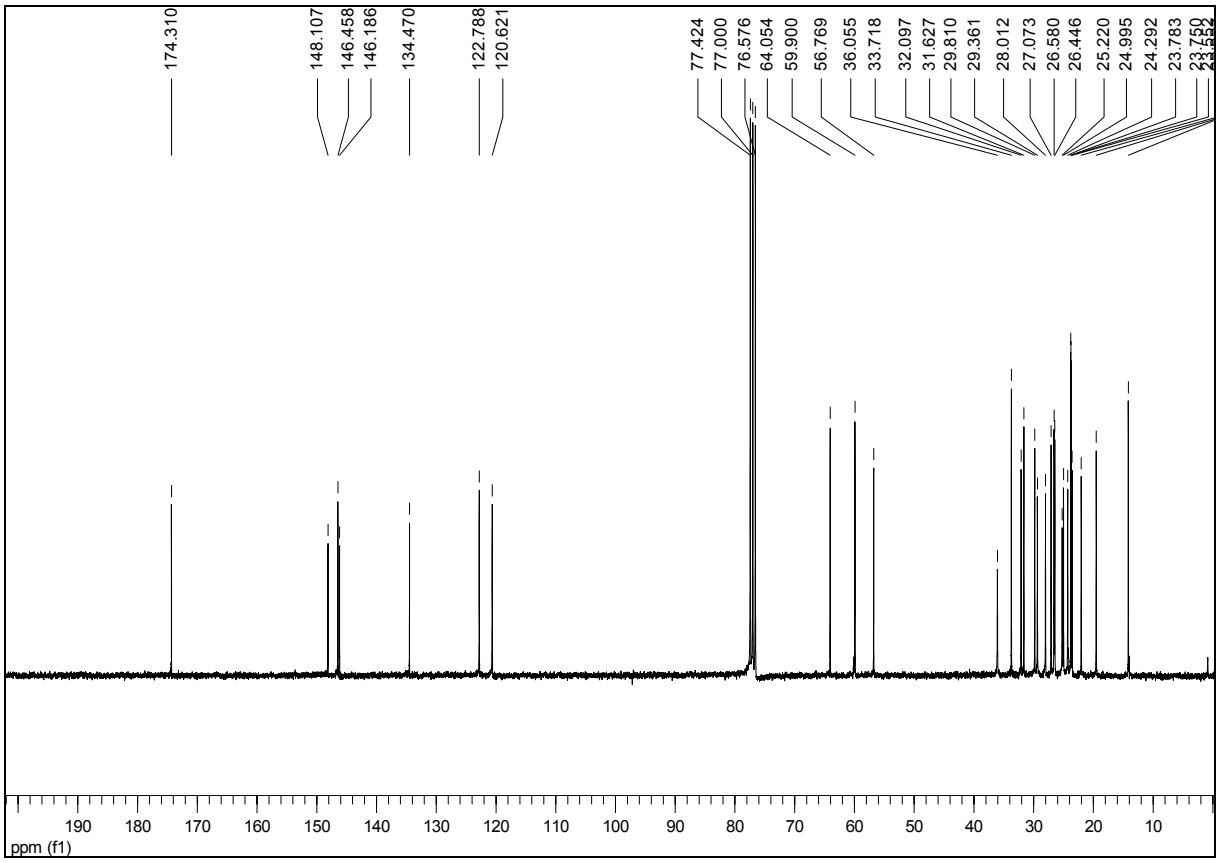
ppm (f1)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59.900
56.769
36.055
33.718
32.097
31.627
29.810
29.361
28.012
27.073
26.580
26.446
25.220
24.995
24.292
23.783
23.750
190
180
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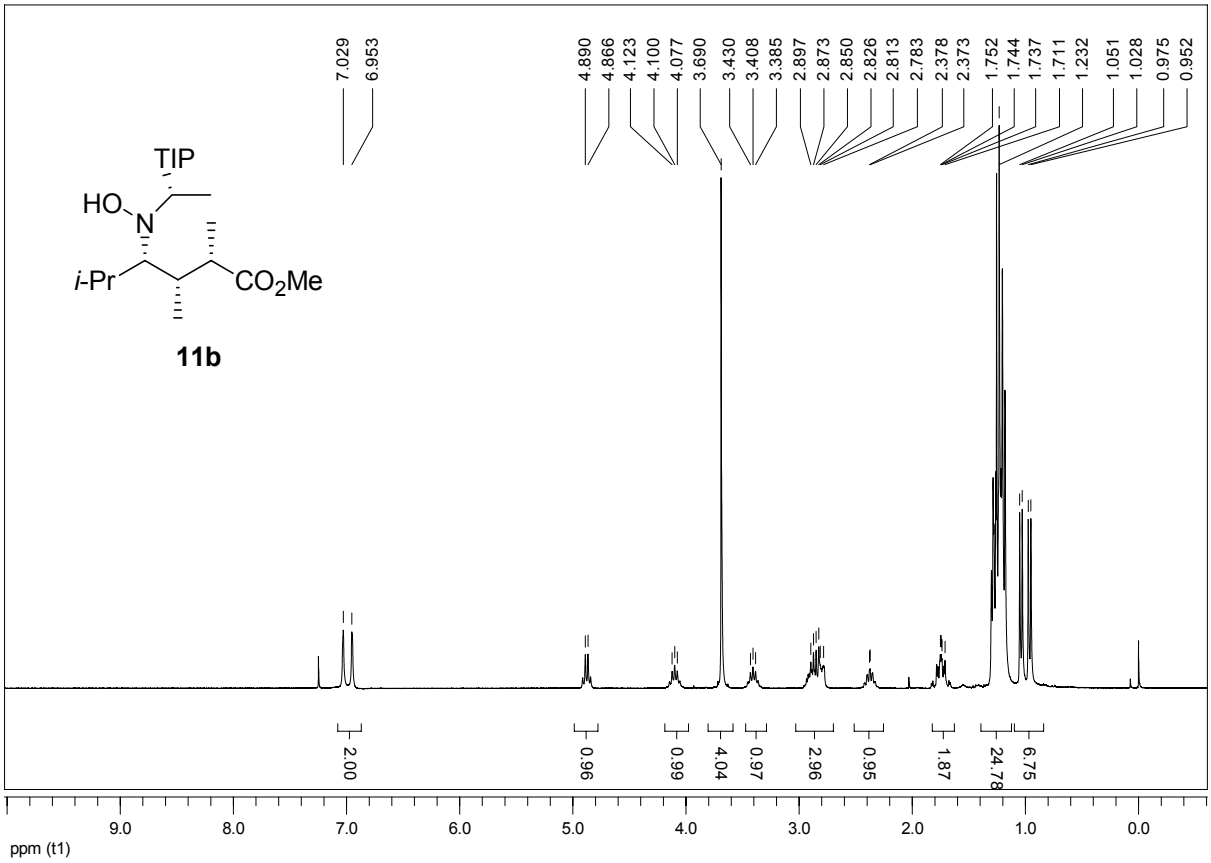
ppm (f1)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i-Pr
CO2Me
11b
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3.690
3.430
3.408
3.385
2.897
2.873
2.850
2.826
2.813
2.783
2.378
2.373
1.752
1.744
1.737
1.711
1.232
1.051
1.028
0.975
0.952
2.00
0.96
0.99
4.04
0.97
2.96
0.95
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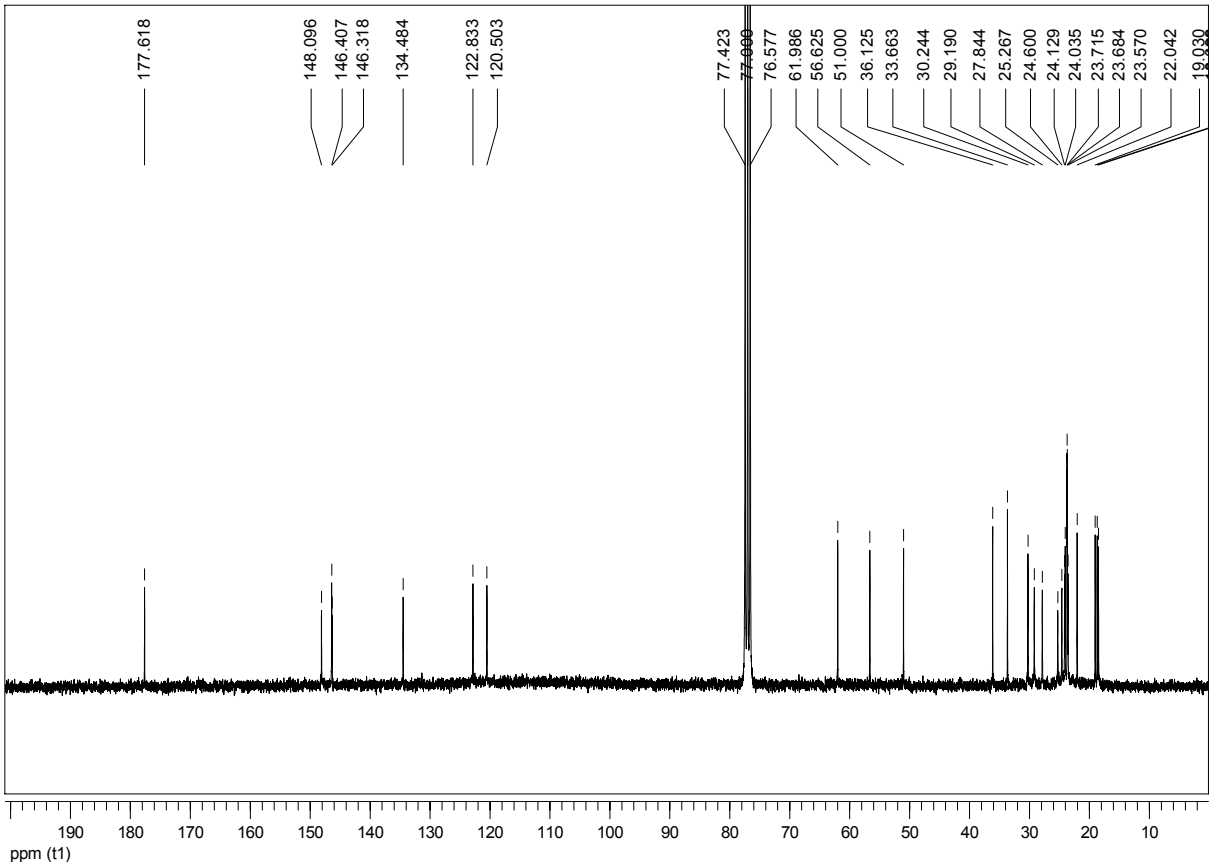
ppm (t1)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36.125
33.663
30.244
29.190
27.844
25.267
24.600
24.129
24.035
23.715
23.684
23.570
22.042
19.030
190
180
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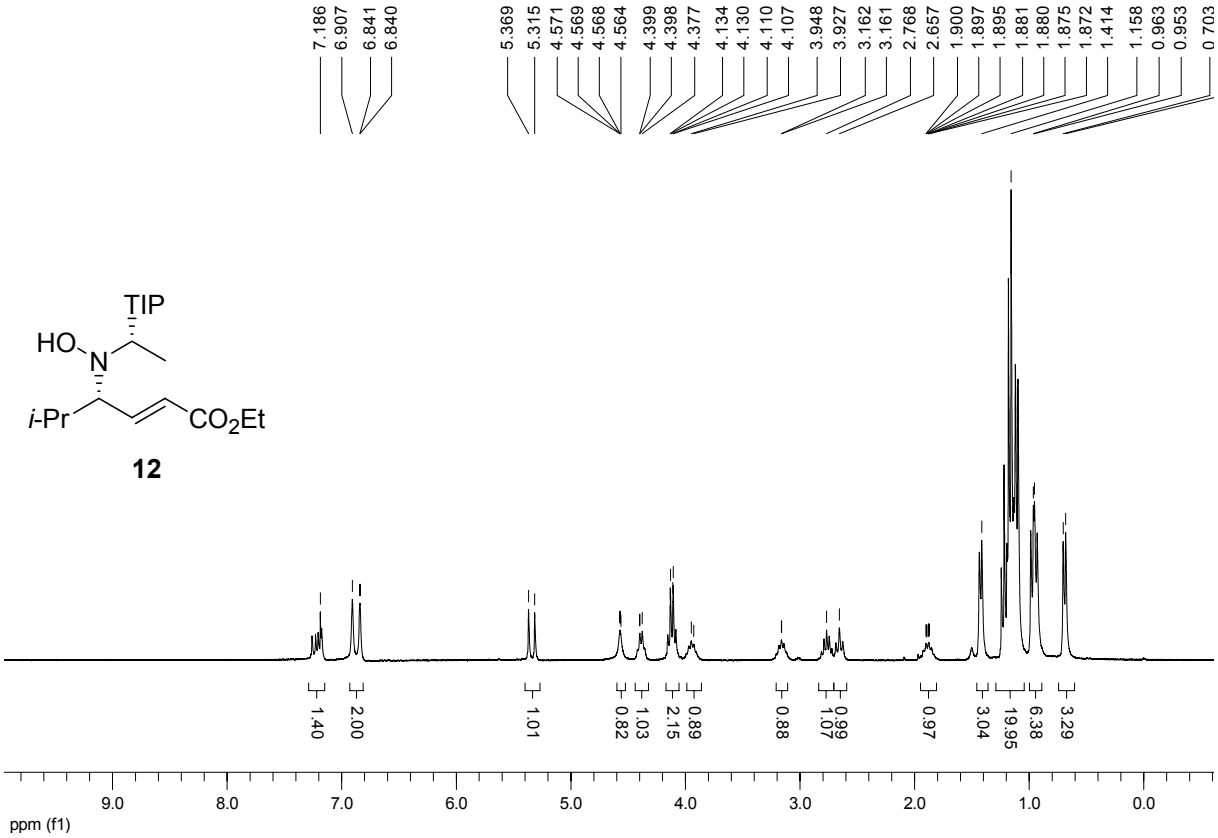
ppm (t1)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4.134
4.130
4.110
4.107
3.948
3.927
3.162
3.161
2.768
2.657
1.900
1.897
1.895
1.881
1.880
1.875
1.872
1.414
1.158
0.963
0.953
0.703
TIP
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N
i-Pr
CO2Et
12
1.40
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1.01
0.82
1.03
2.15
0.89
0.88
1.07
0.99
0.97
3.04
19.95
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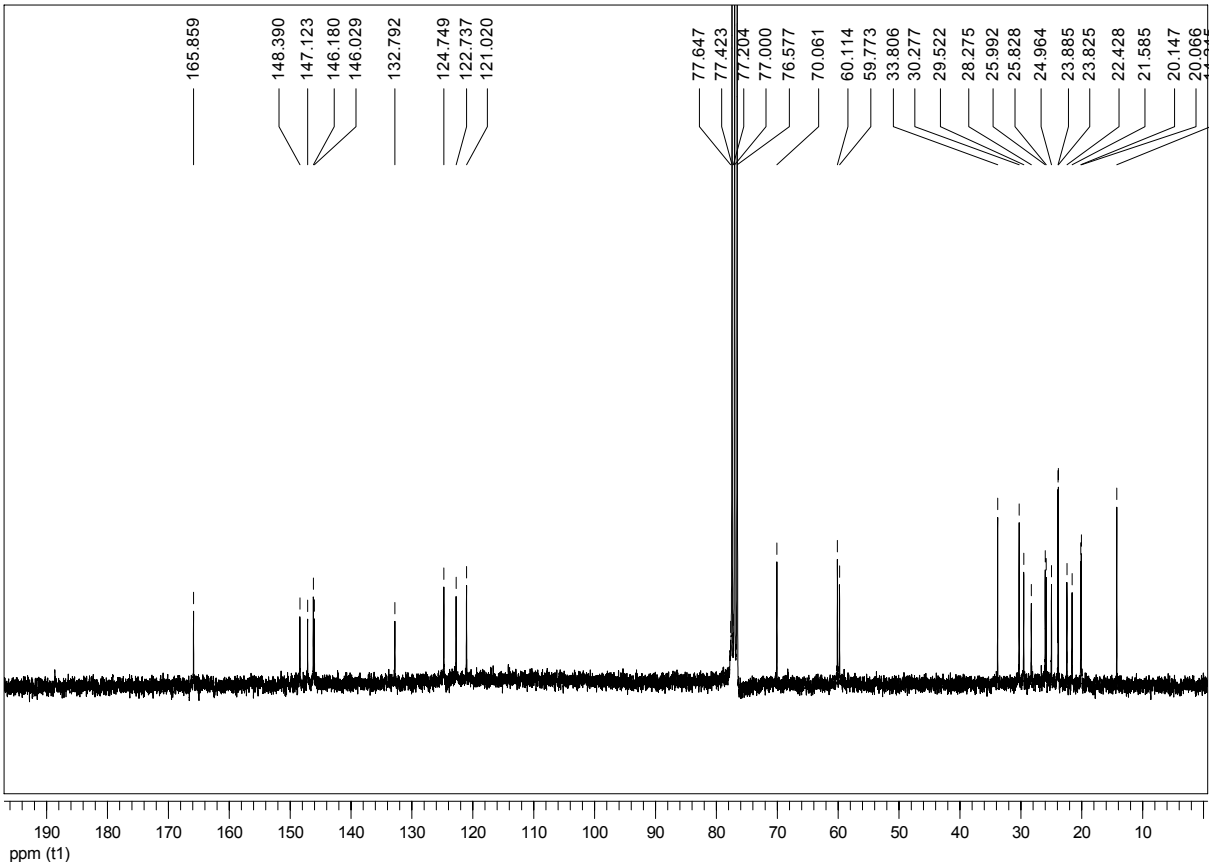
ppm (f1)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77.000
76.577
70.061
60.114
59.773
33.806
30.277
29.522
28.275
25.992
25.828
24.964
23.885
23.825
22.428
21.585
20.147
20.066
190
180
170
160
150
140
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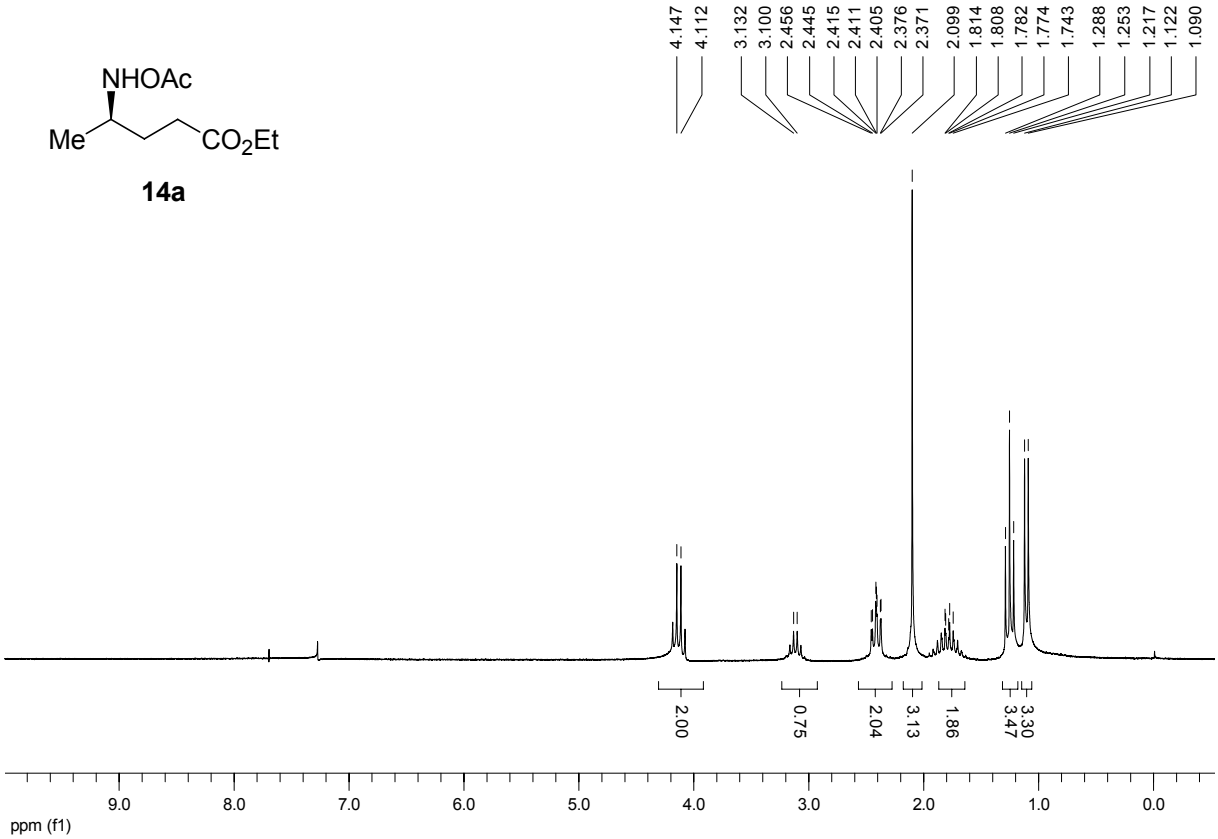
10
ppm (t1)

NHOAc
Me
CO2Et

14a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1.808
1.782
1.774
1.743
1.288
1.253
1.217
1.122
1.090
2.00
0.75
2.04
3.13
1.86
3.47
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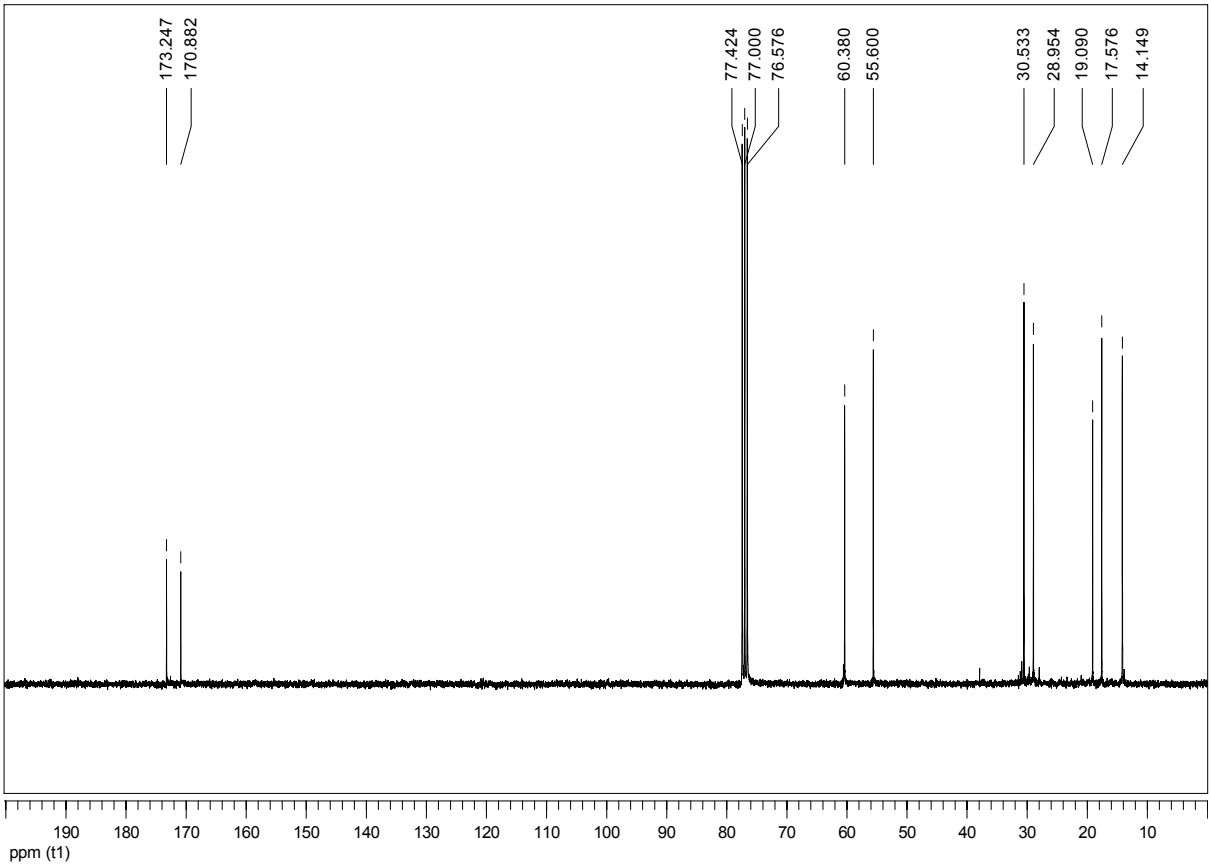
ppm (f1)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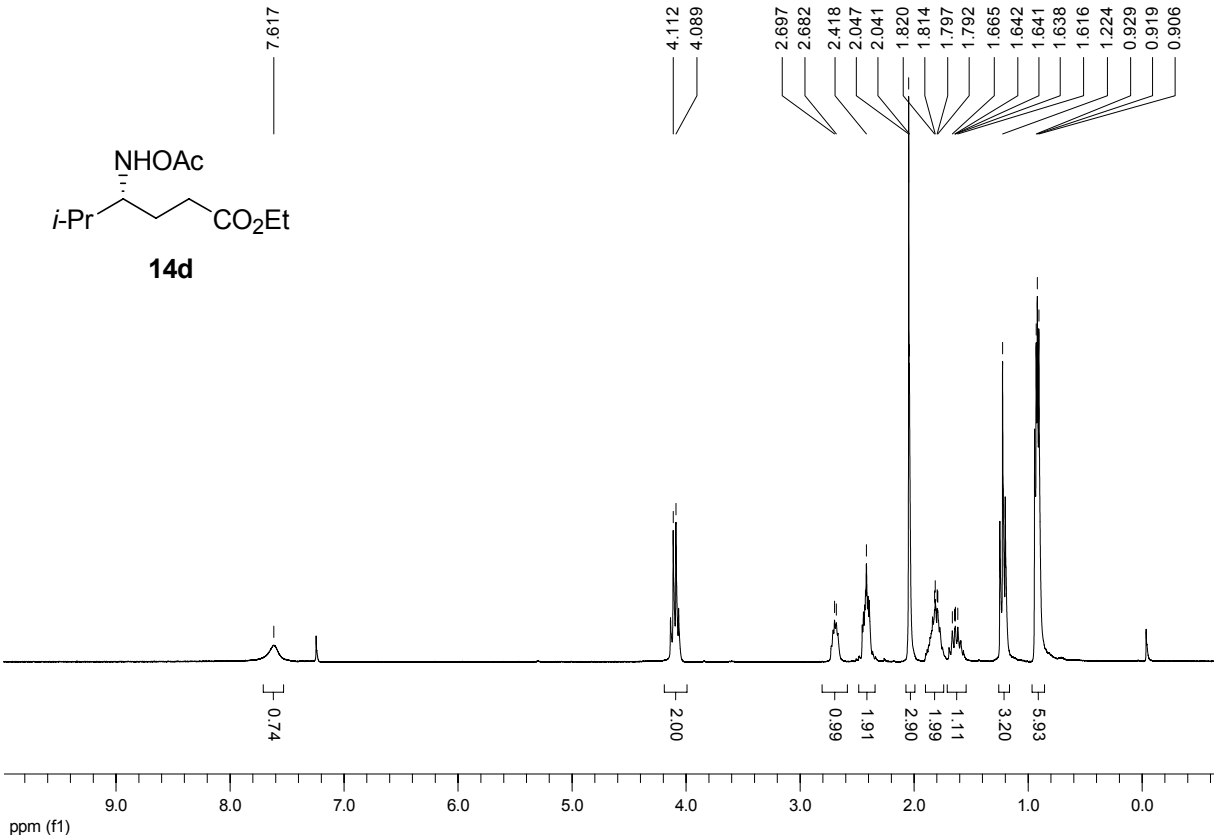
ppm (t1)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CO2Et
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1.814
1.797
1.792
1.665
1.642
1.641
1.638
1.616
1.224
0.929
0.919
0.906
0.74
2.00
0.99
1.91
2.00
1.99
1.11
3.20
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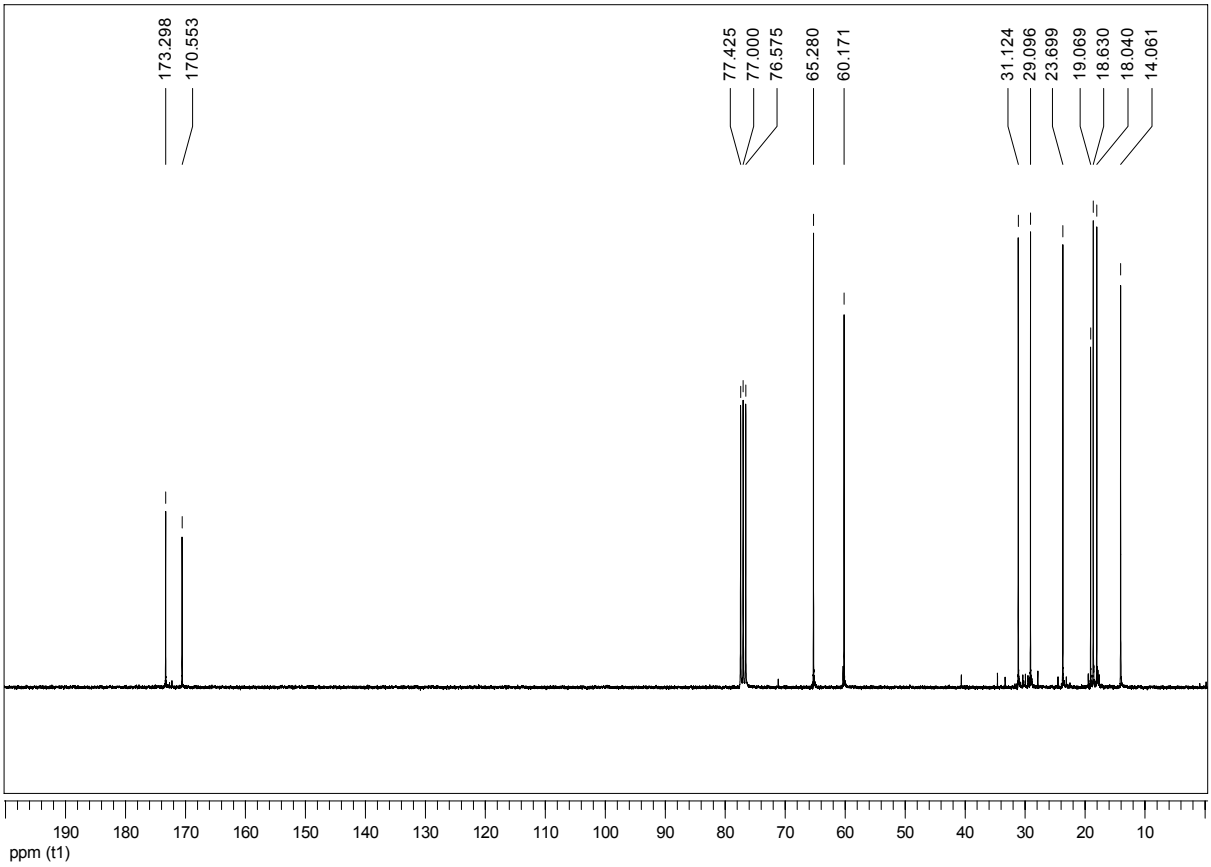
ppm (f1)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180
170
160
150
140
130
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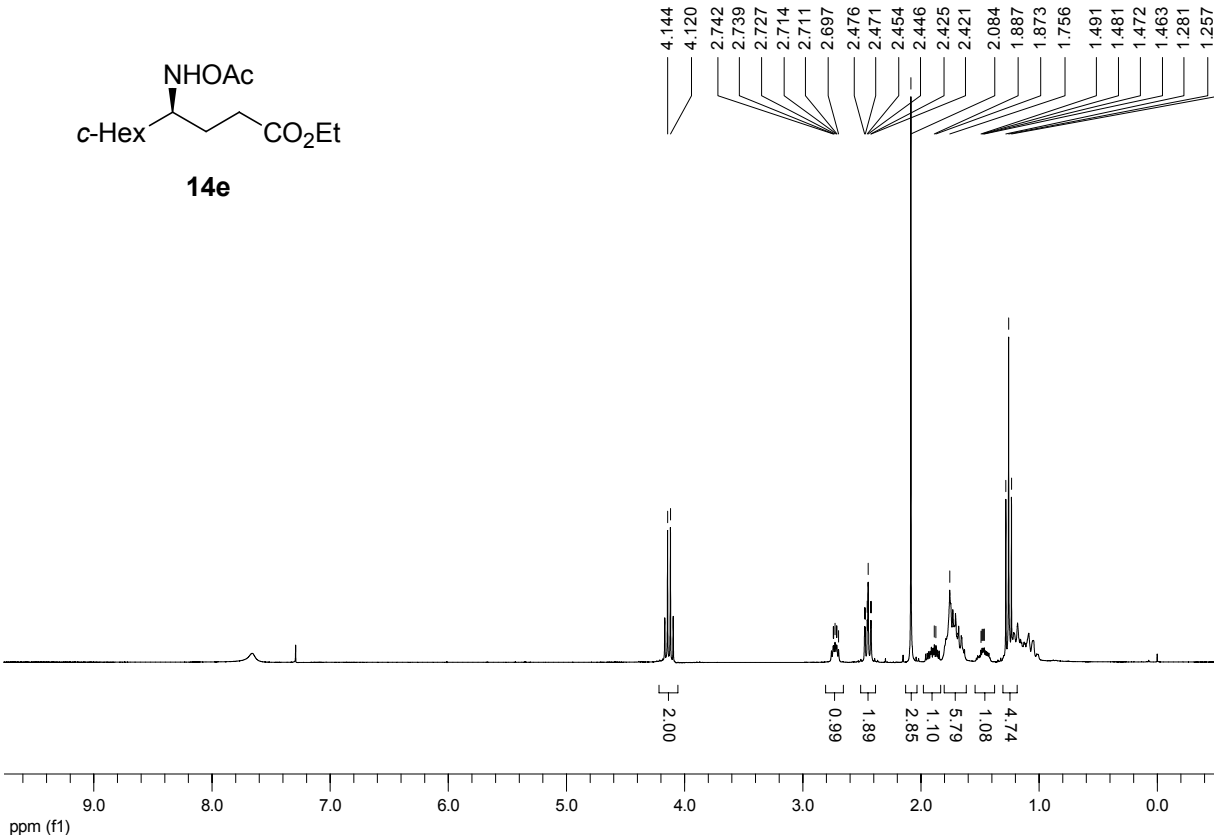
ppm (t1)

NHOAc
c-Hex
CO2Et

14e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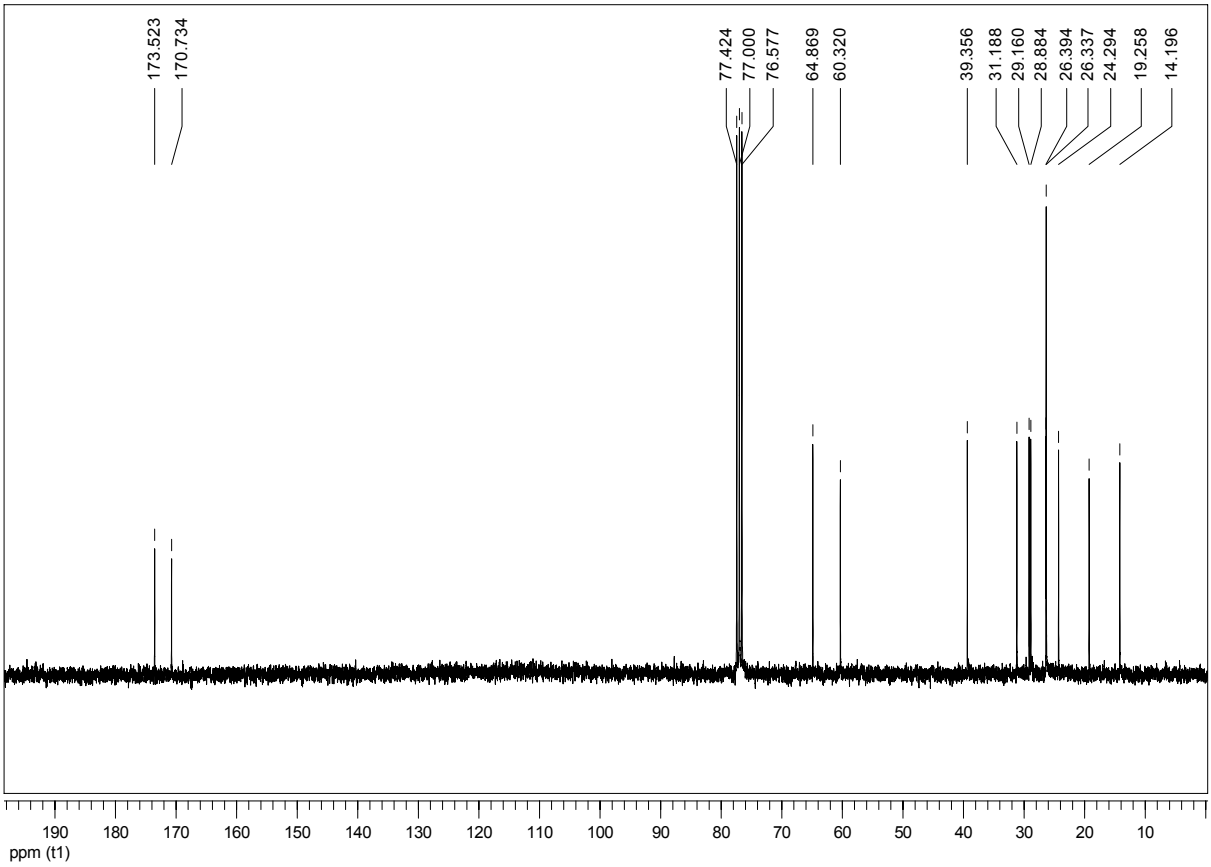
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24.294
19.258
14.196
190
180
170
160
150
140
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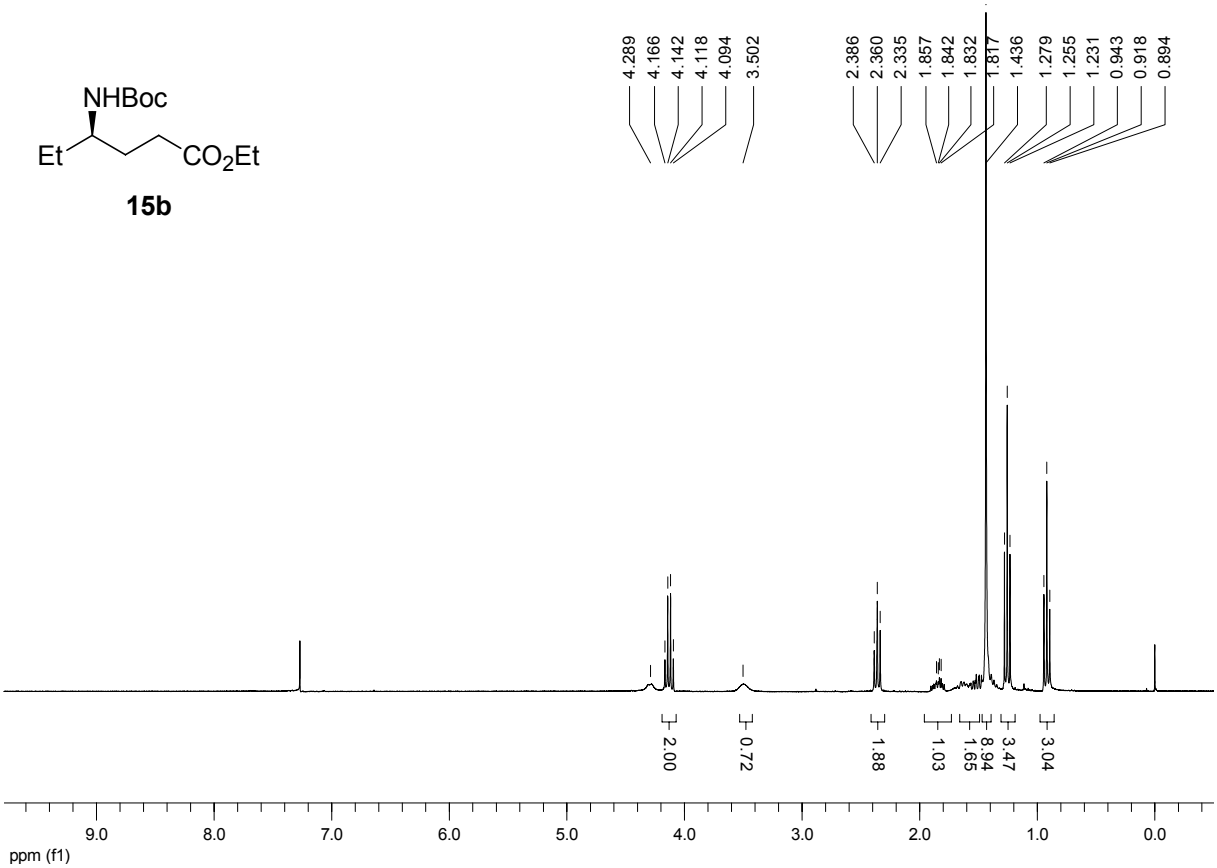
40
30
20
10
ppm (t1)

NHBoc
Et
CO2Et

15b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2.360
2.335
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1.832
1.817
1.436
1.279
1.255
1.231
0.943
0.918
0.894
2.00
0.72
1.88
1.03
1.95
8.94
3.47
3.04
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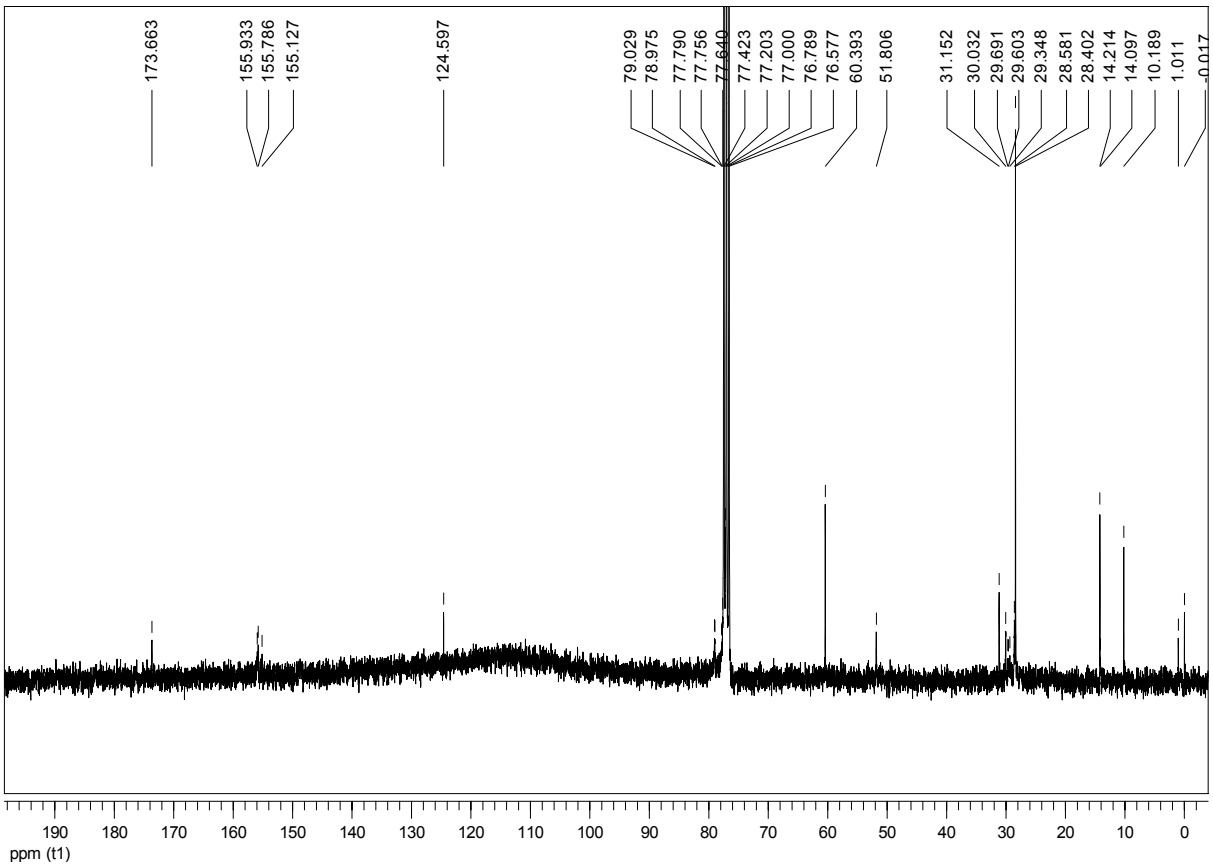
ppm (f1)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77.423
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77.000
76.789
76.577
60.393
51.806
31.152
30.032
29.691
29.603
29.348
28.581
28.402
14.214
14.097
10.189
1.011
-0.017
190
180
170
160
150
140
130
120
110
100
90
80
70
60
50
40
30
20
10
0
ppm (t1)