

## **Supporting Information-II**

### **(NMR Spectral Data)**

### **Direct Organocatalytic Chemoselective Synthesis of Pharmaceutically Active Benzothiazole/Benzoxazole-Triazoles**

Badaraita Gorachand, Pandhiti R. Lakshmi, and Dhevalapally B. Ramachary\*

*Catalysis Laboratory, School of Chemistry, University of Hyderabad, Central University (P.O.),  
Prof. CR Rao Road, Gachibowli, Hyderabad-500 046, Telangana, India  
E-mail: [ramsc@uohyd.ac.in](mailto:ramsc@uohyd.ac.in) and [ramchary.db@gmail.com](mailto:ramchary.db@gmail.com)*

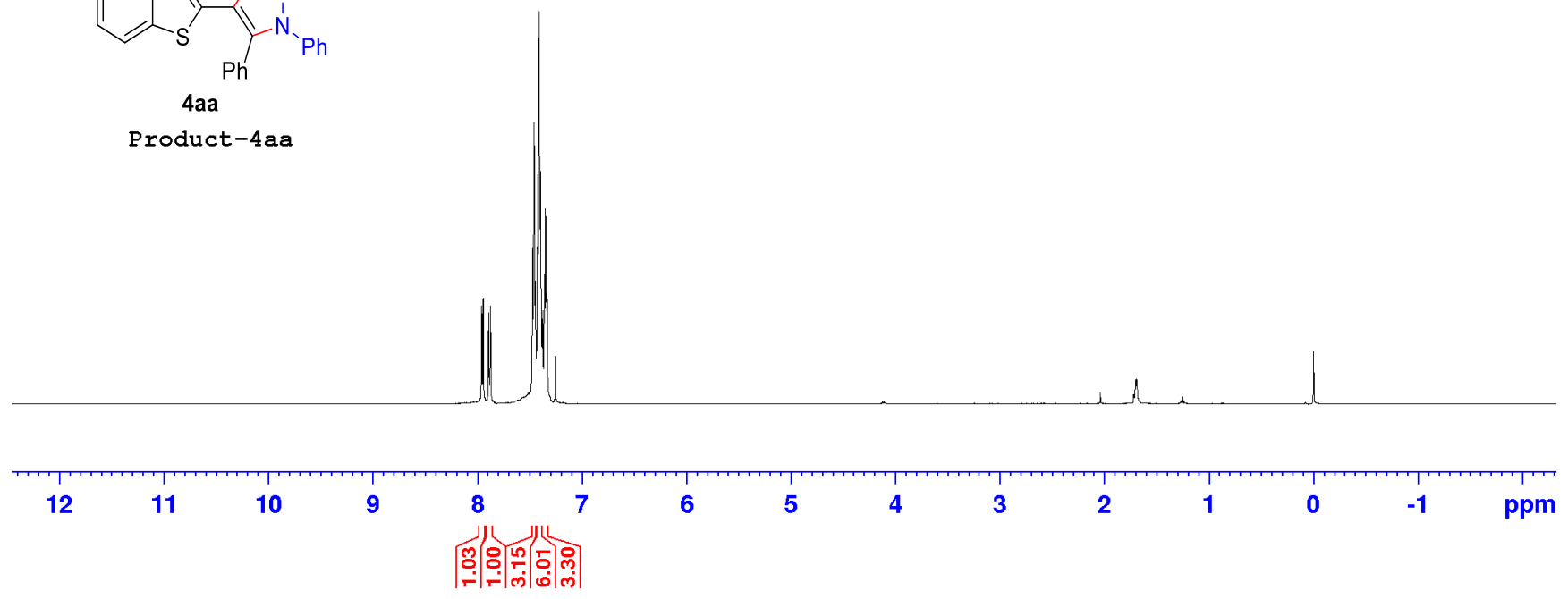
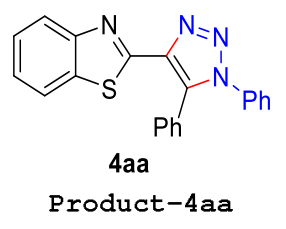
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$^1\text{H}$  NMR 500 MHz  $\text{CDCl}_3$



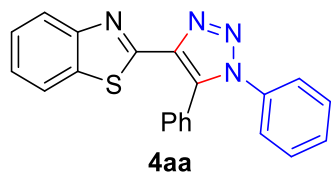
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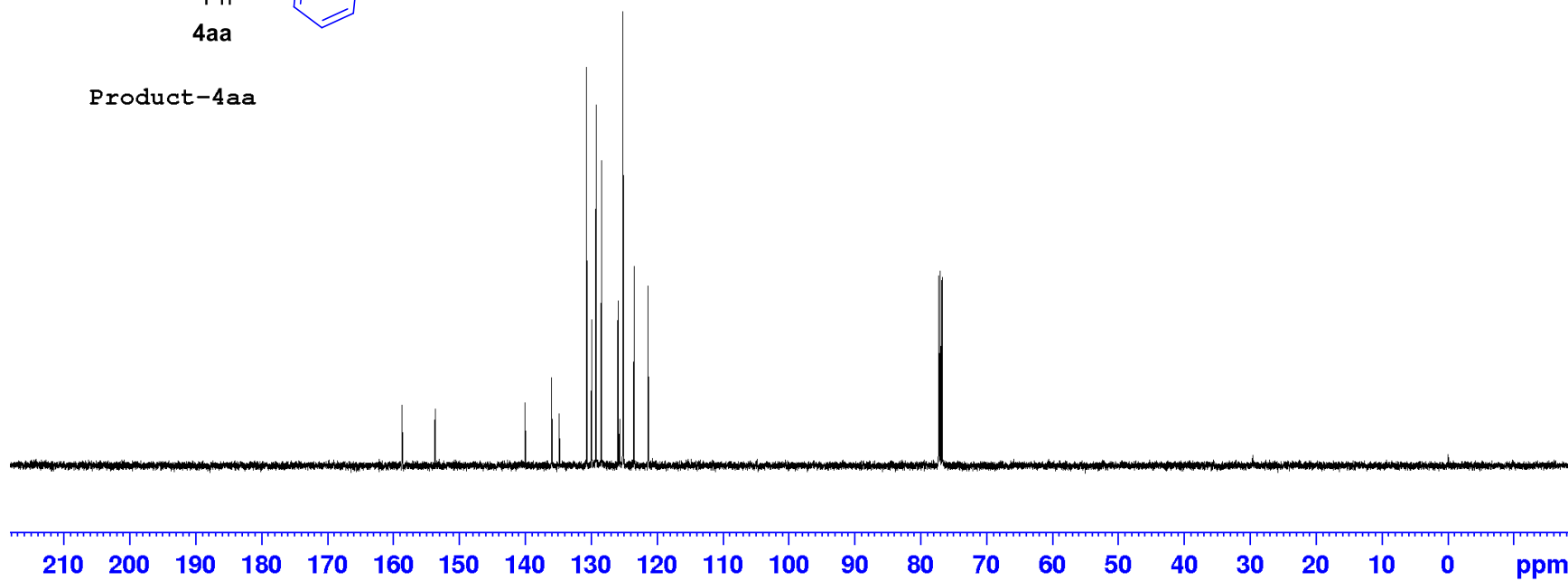
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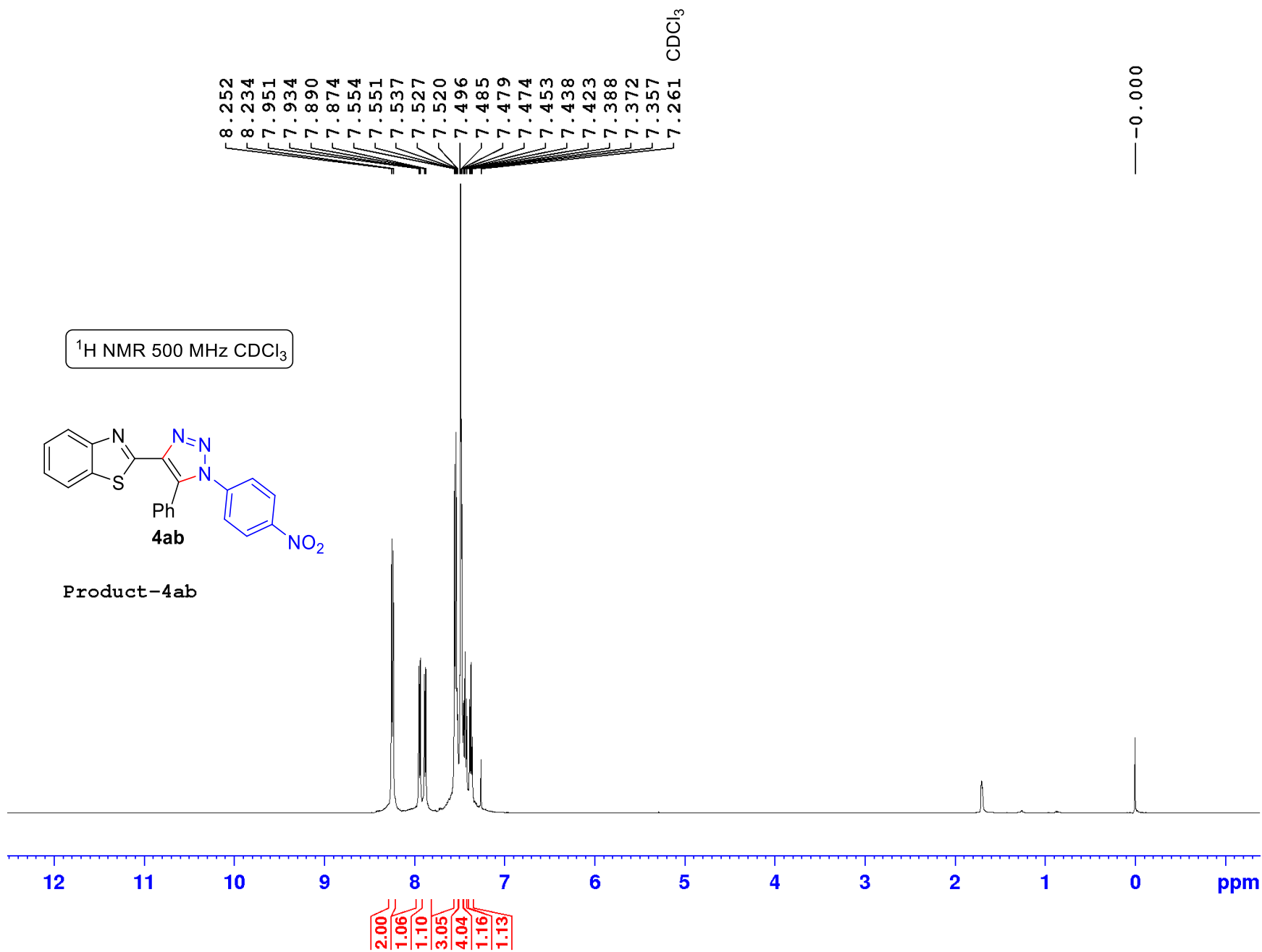
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77.00 CDCl<sub>3</sub>  
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<sup>13</sup>C{<sup>1</sup>H} NMR 125 MHz CDCl<sub>3</sub>



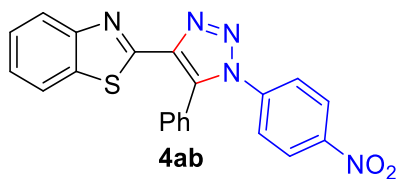
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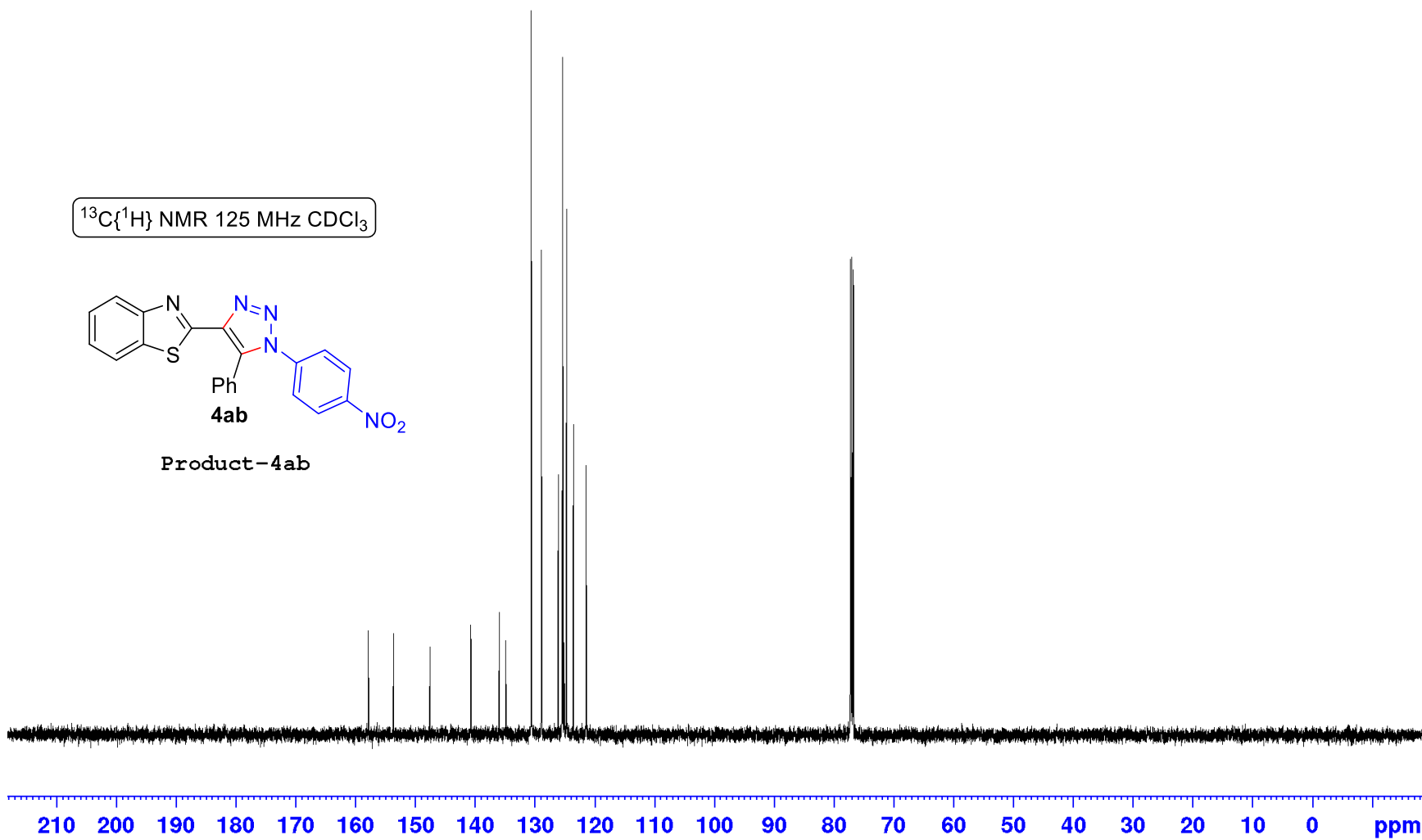
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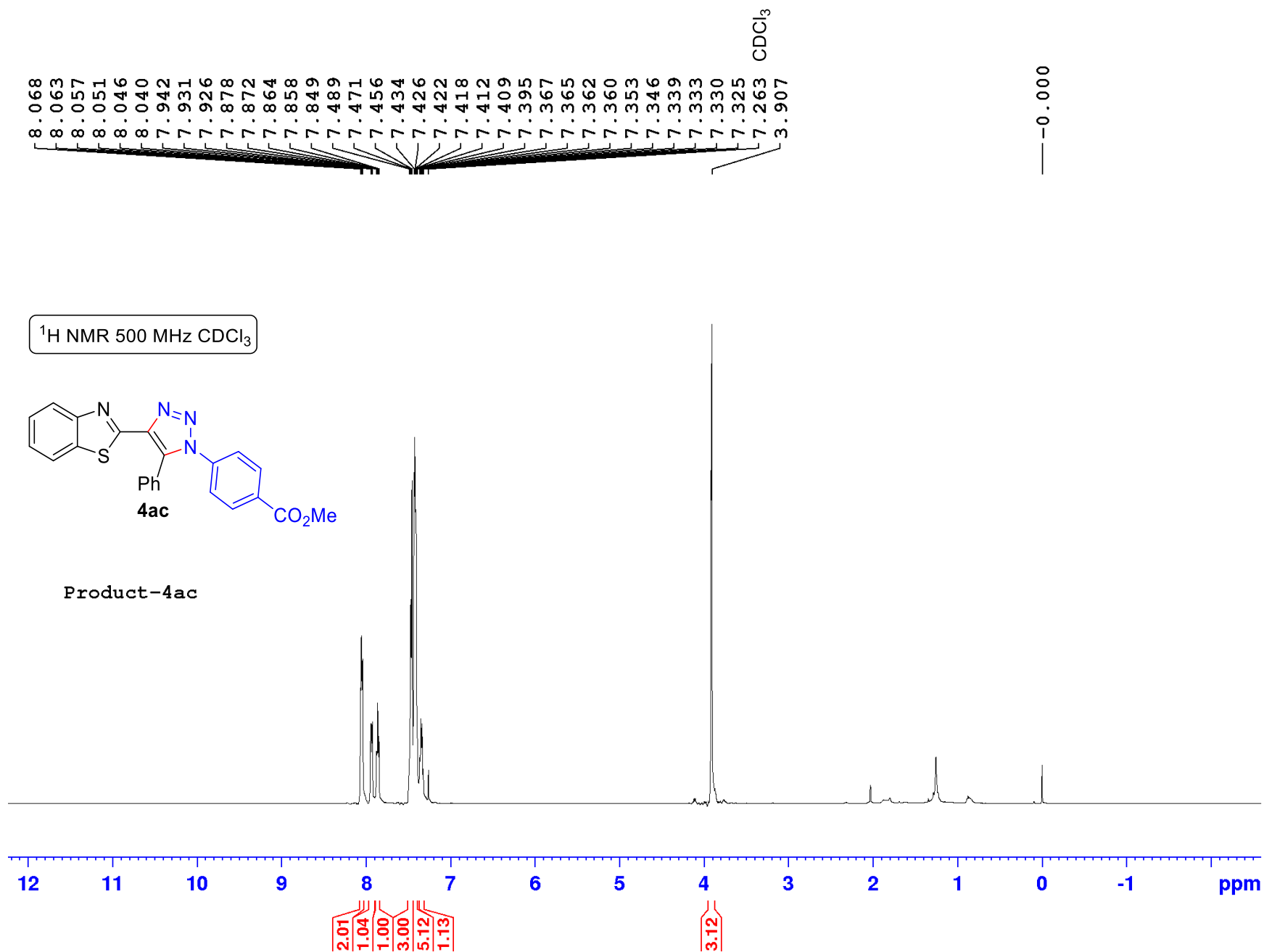


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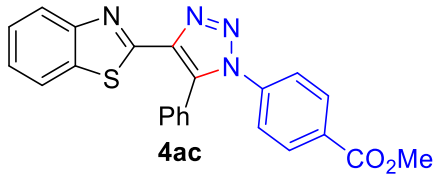
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77.25  
76.99  $\text{CDCl}_3$   
76.74

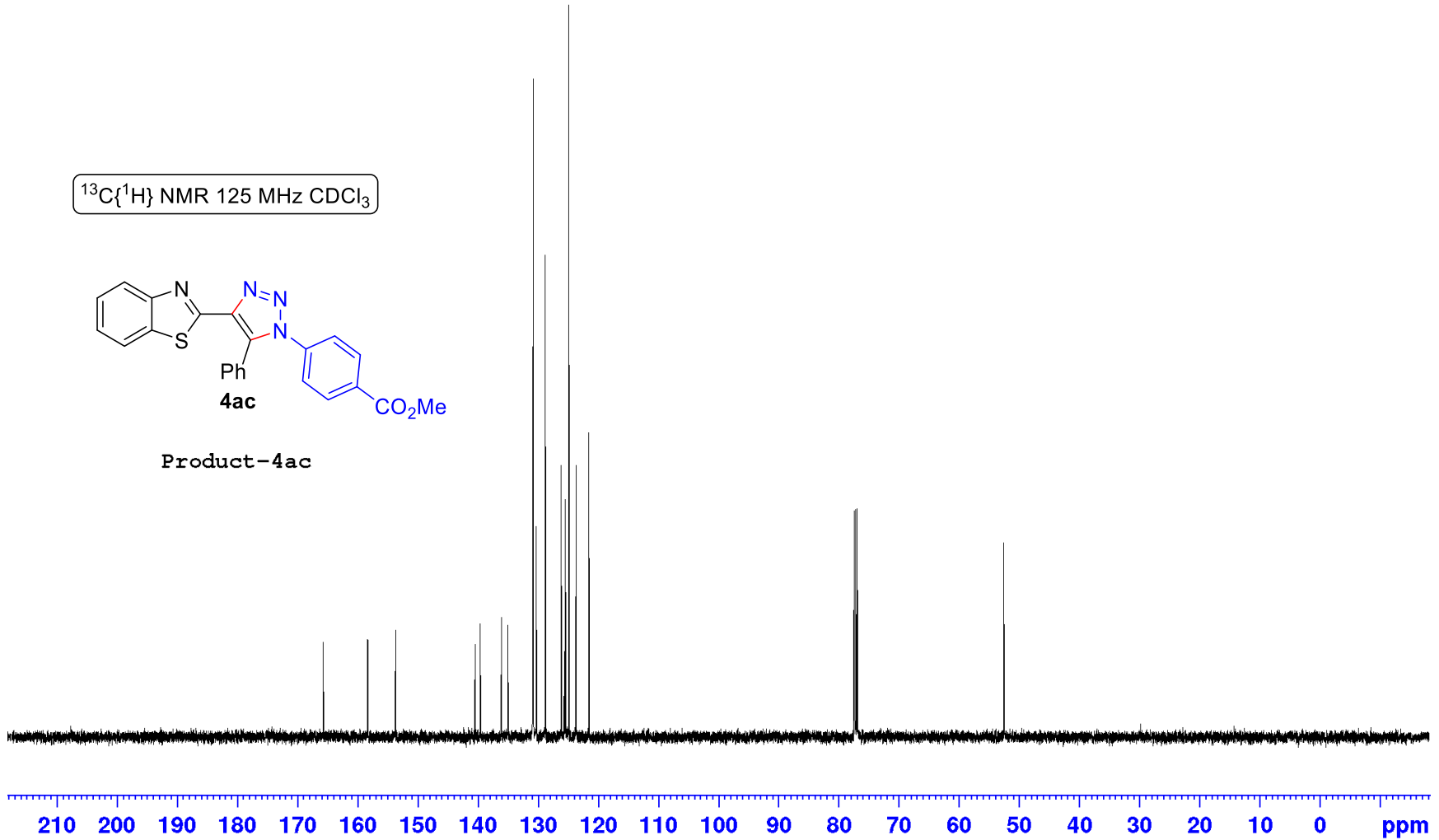




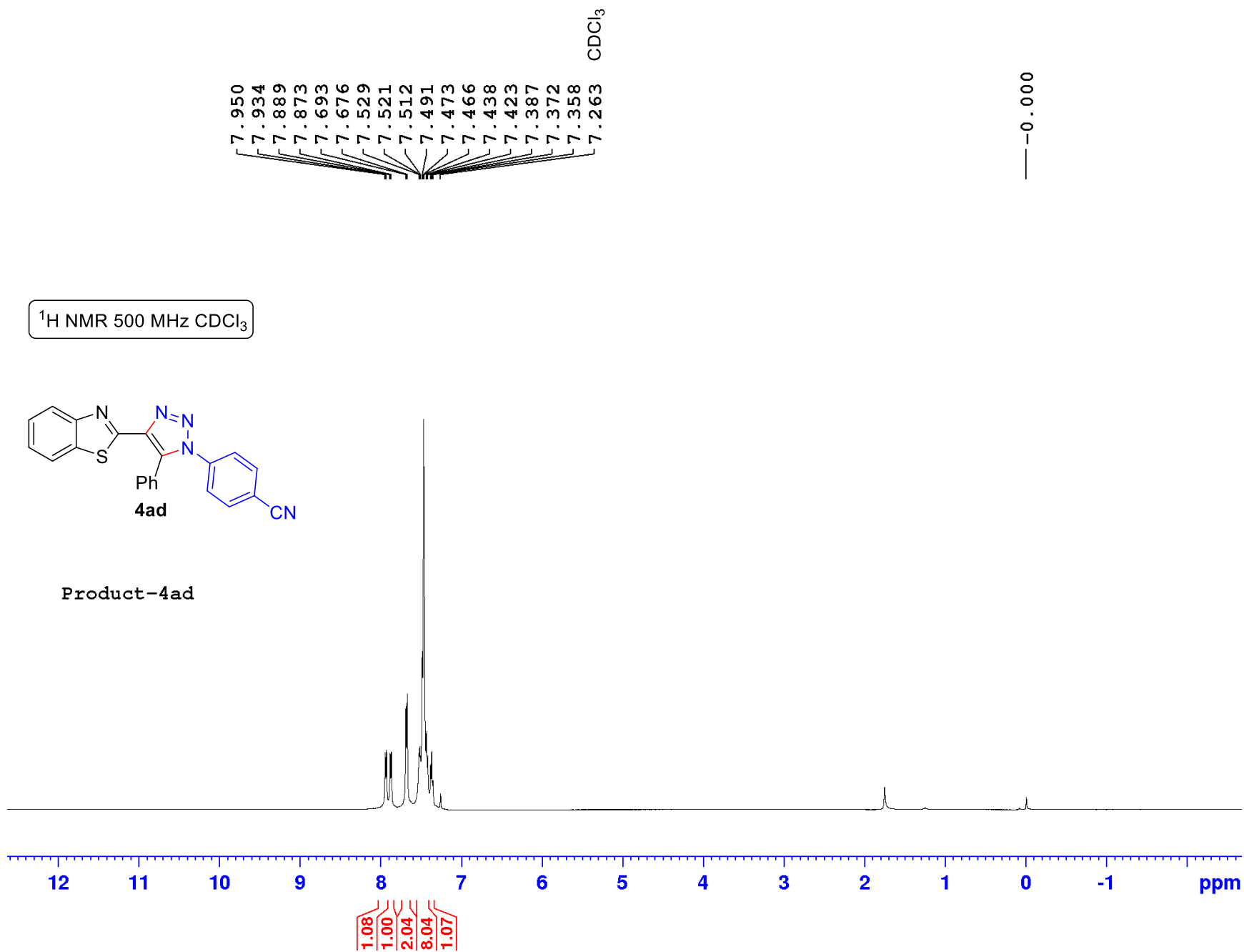
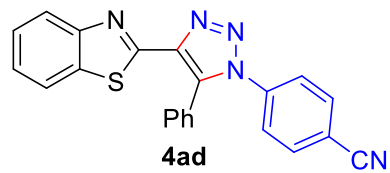
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



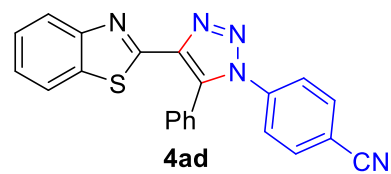
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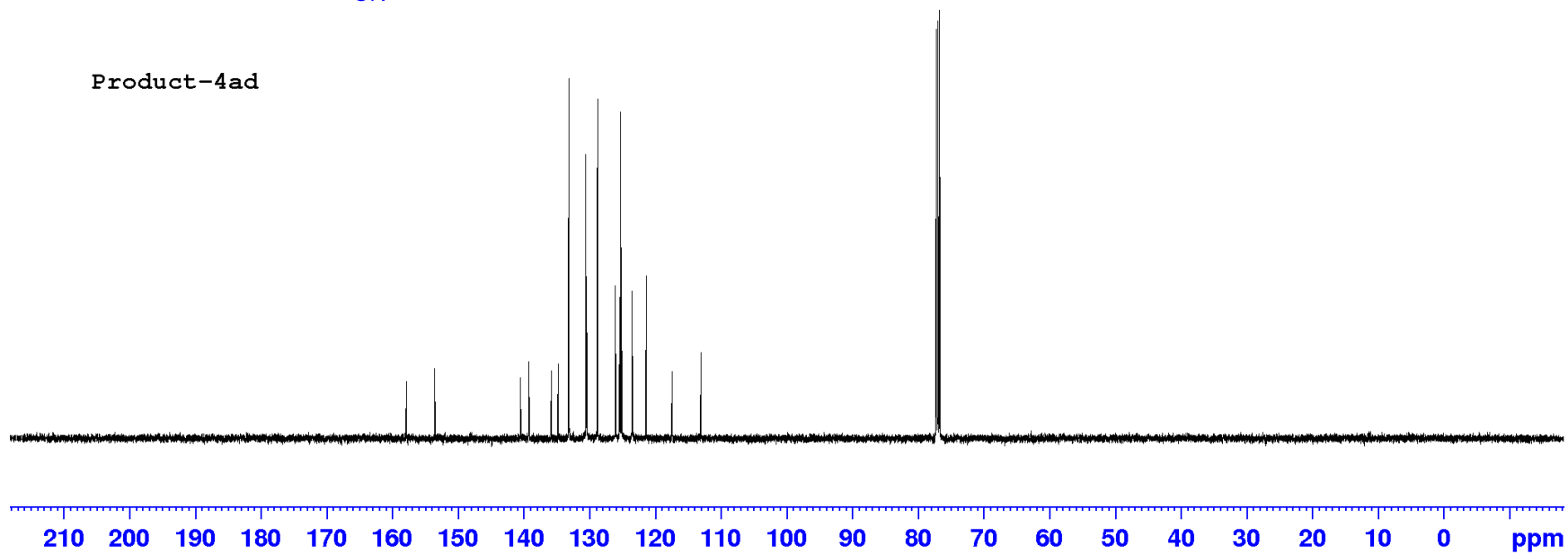
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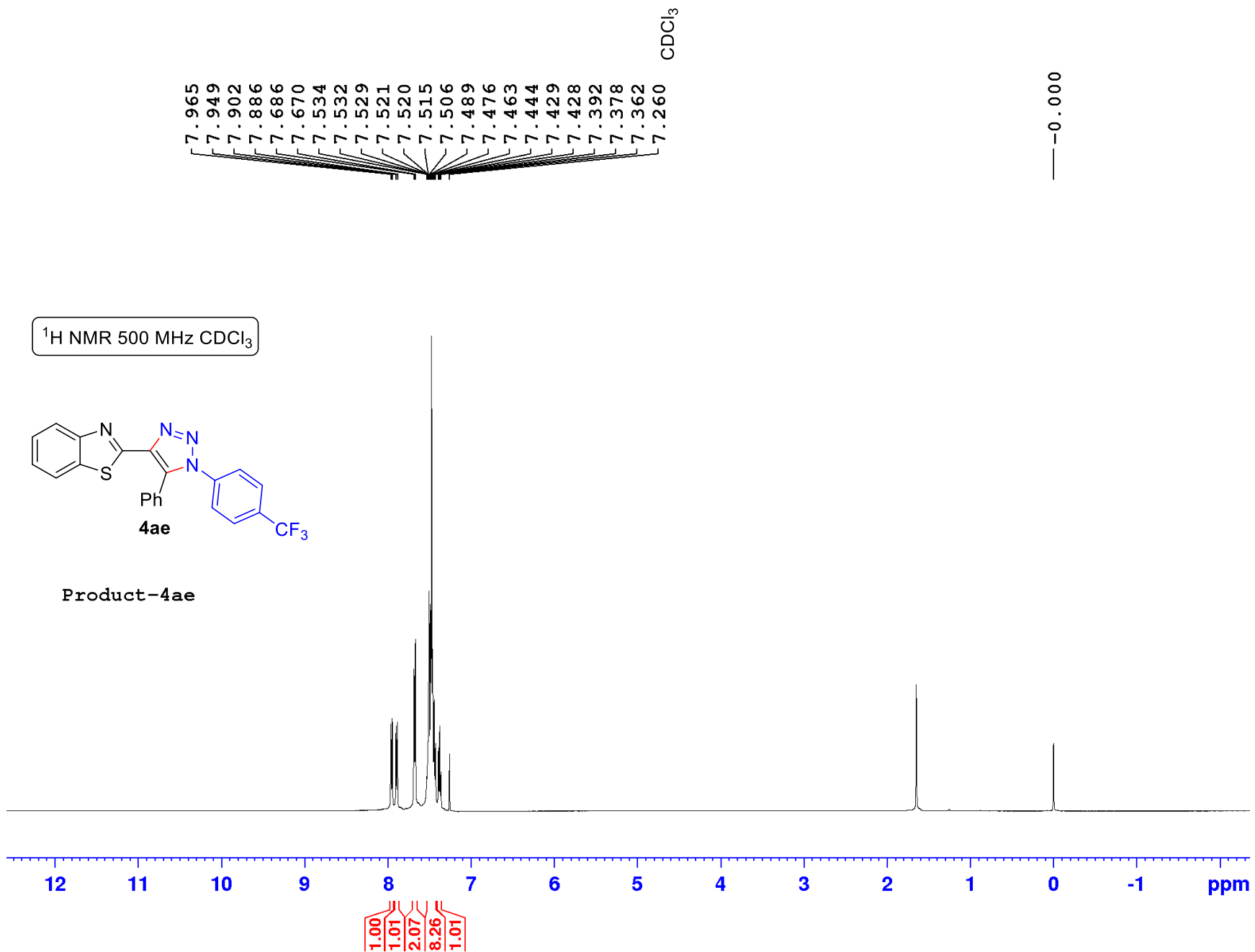


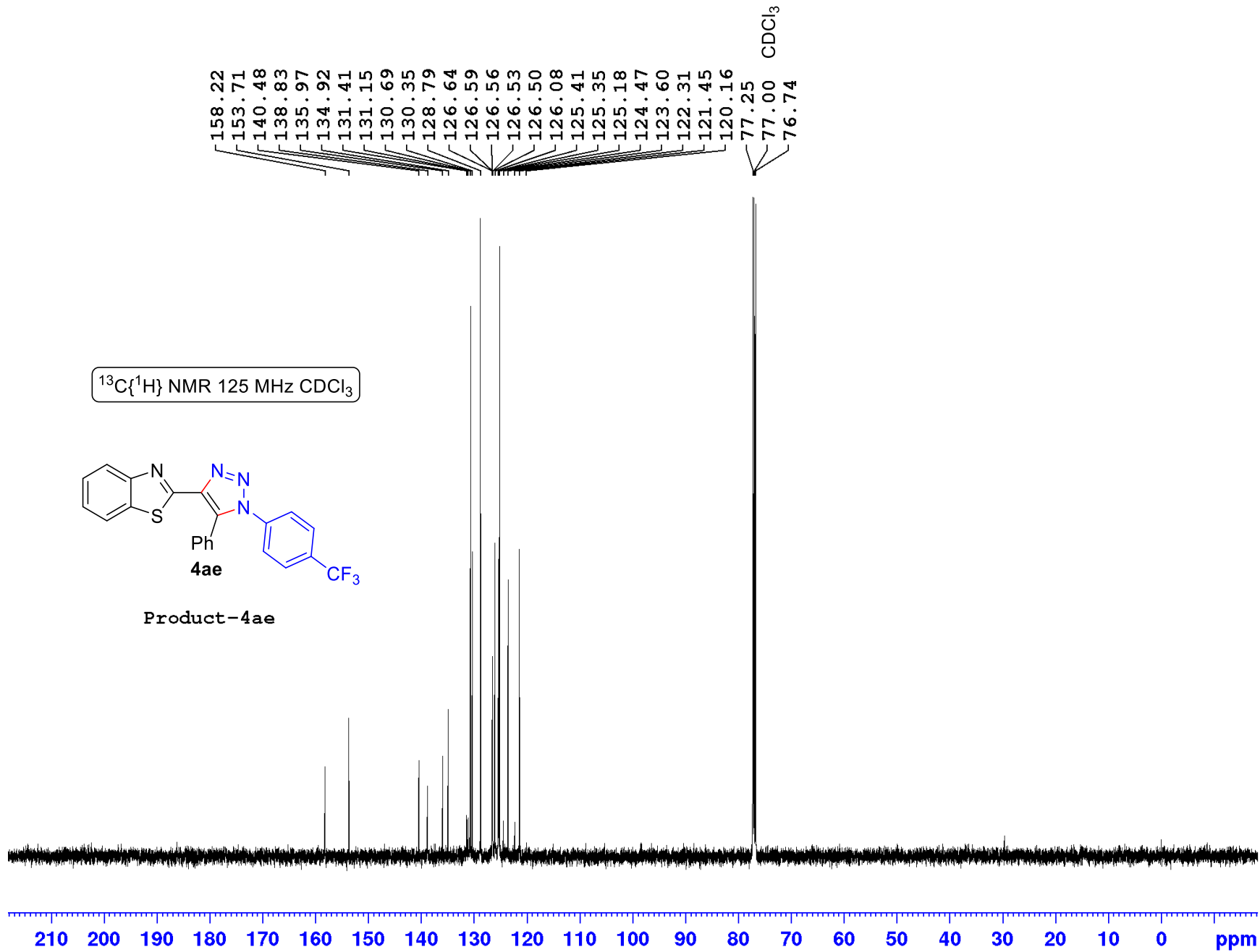
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



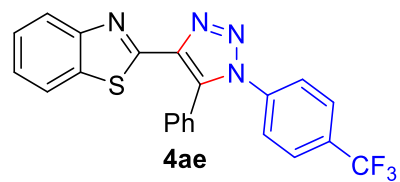
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<sup>19</sup>F NMR (470 MHz, CDCl<sub>3</sub>)

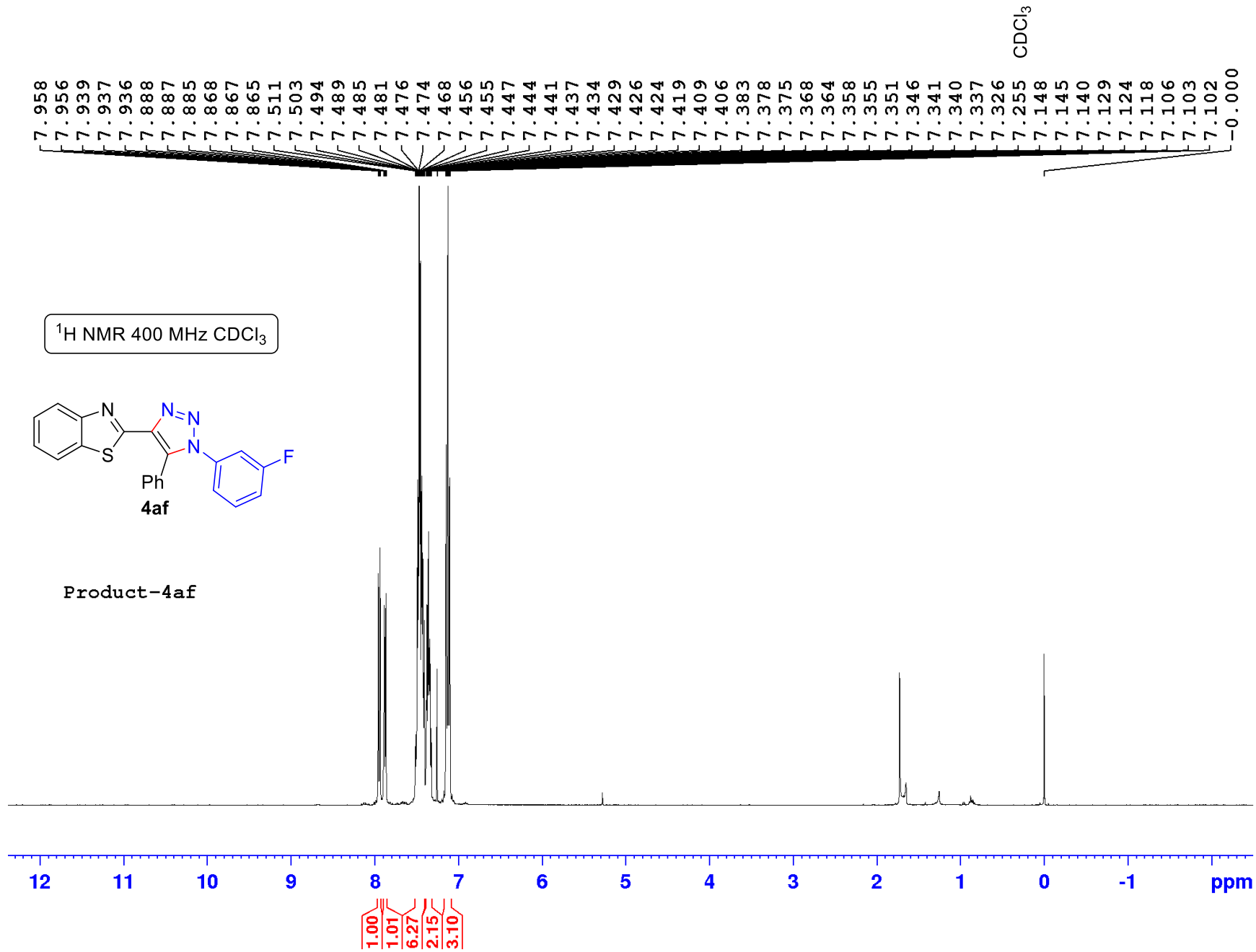


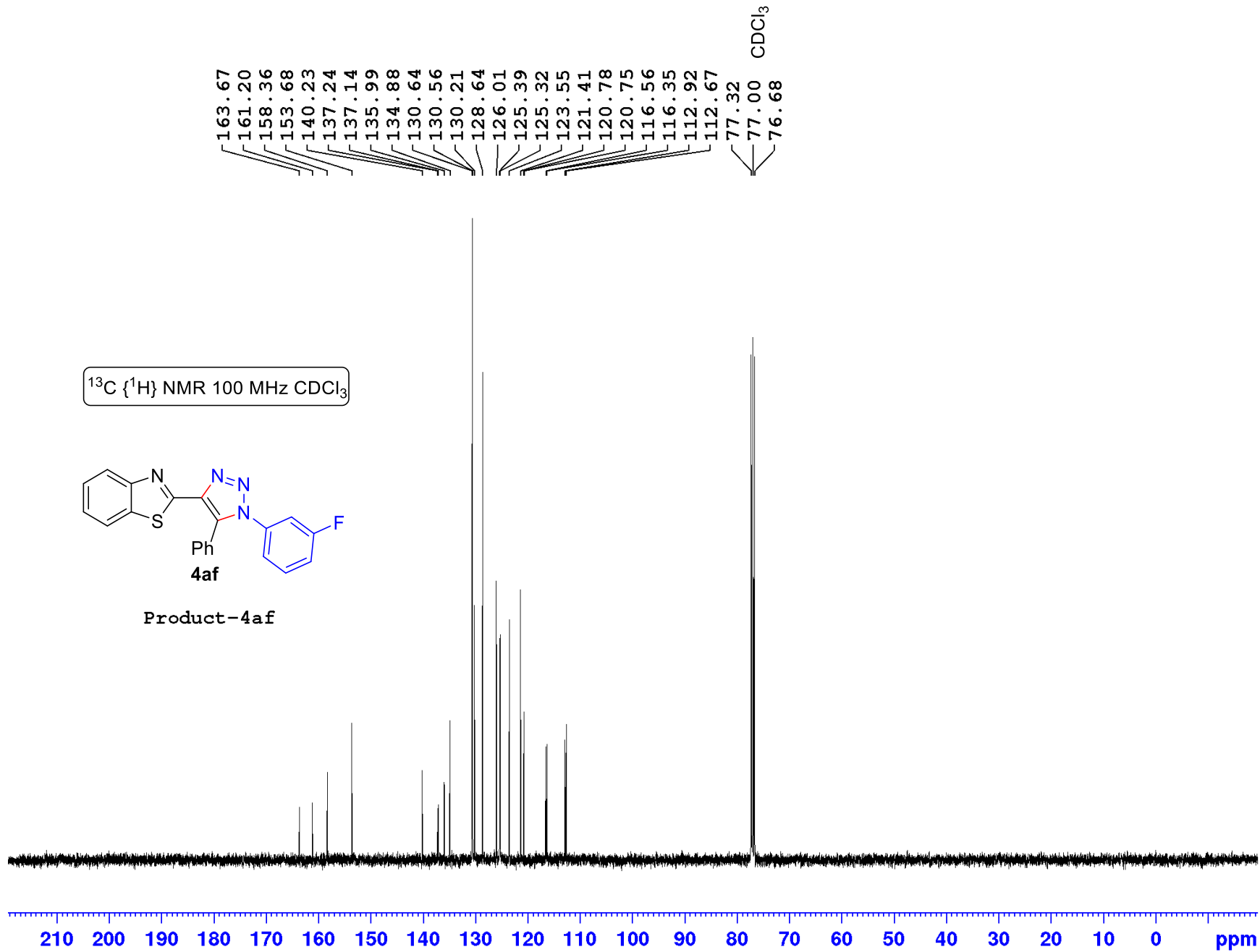
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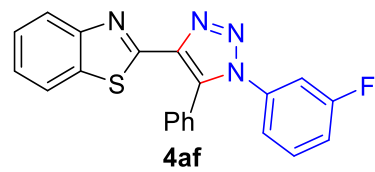






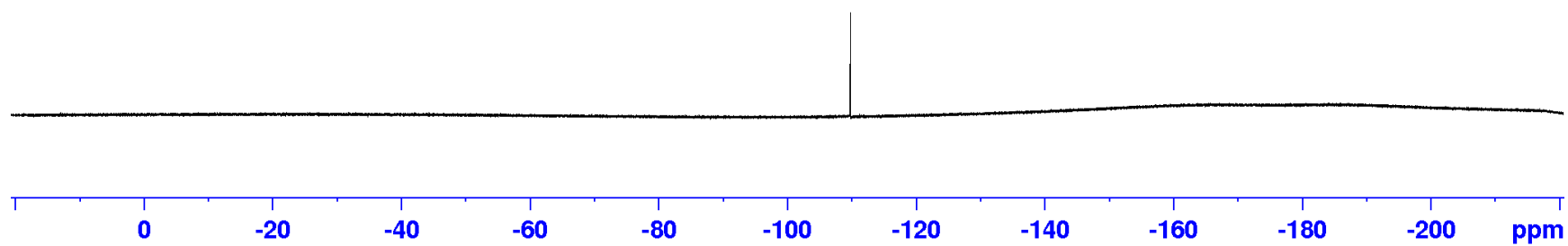


<sup>19</sup>F NMR (470 MHz, CDCl<sub>3</sub>)

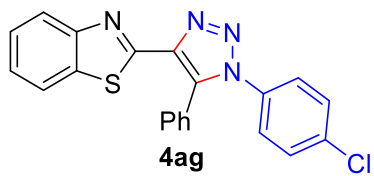


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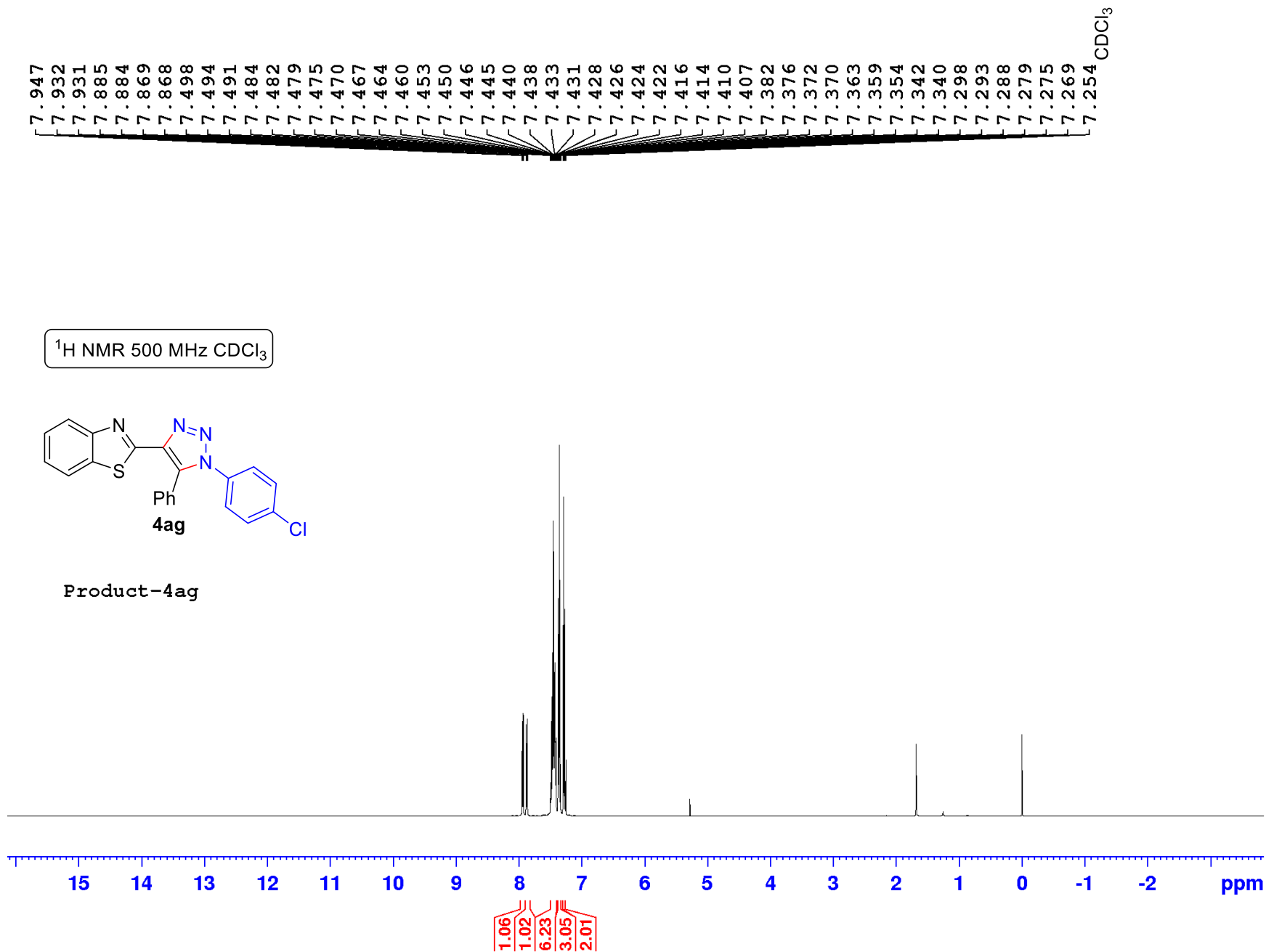
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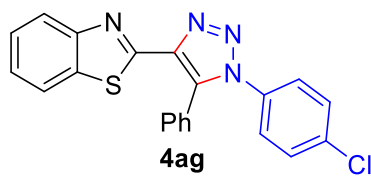
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Product-4ag



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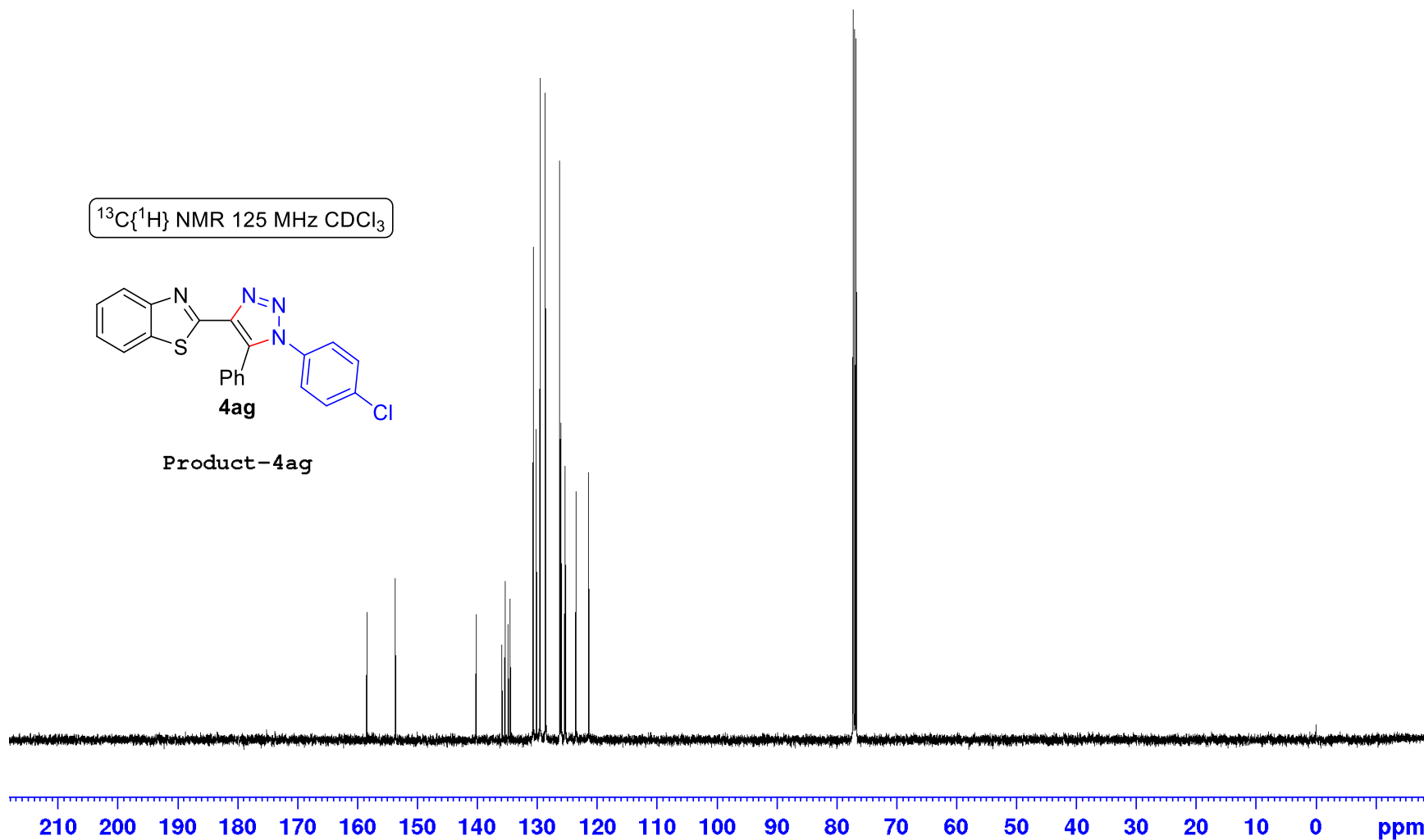


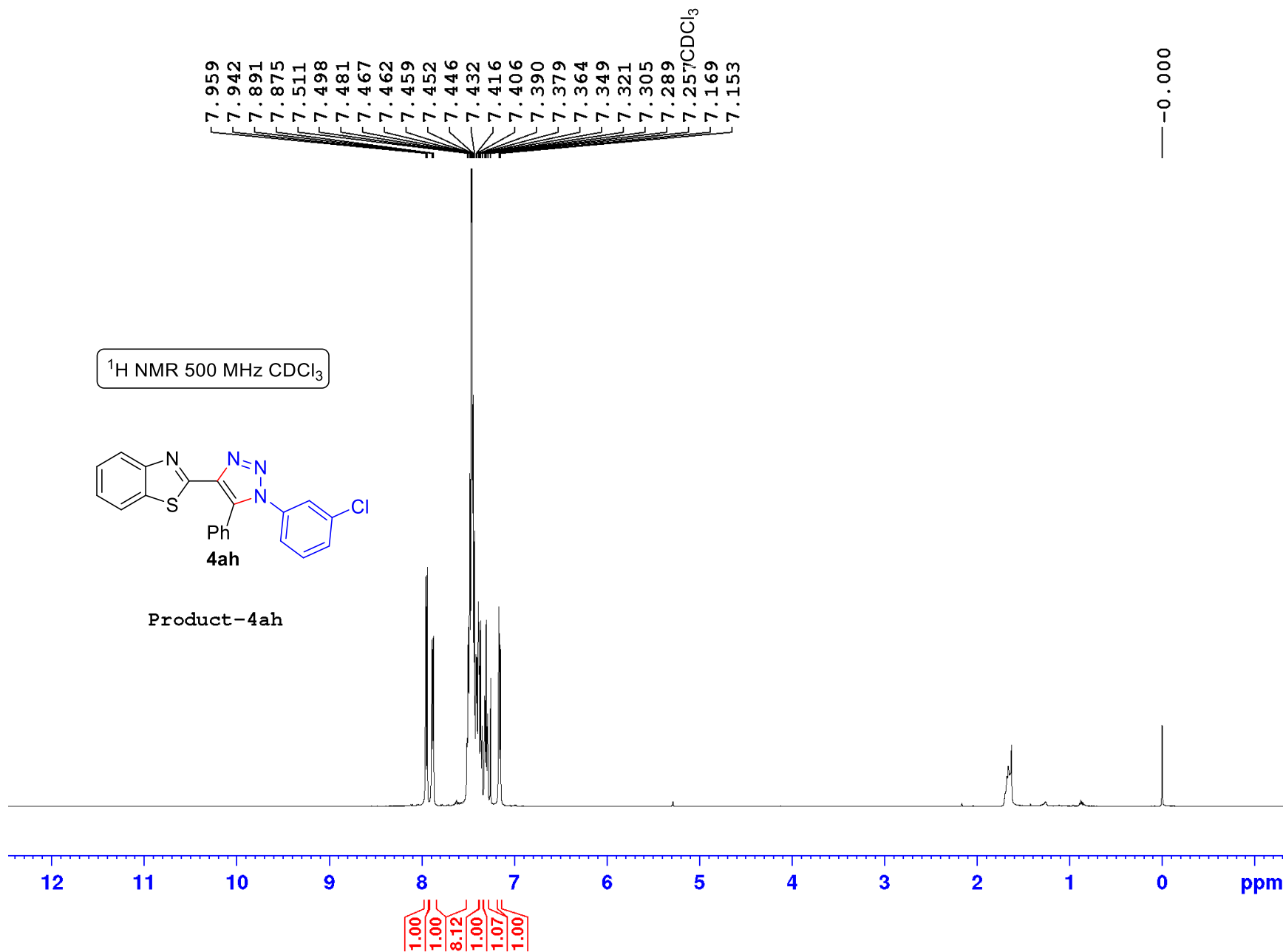
Product-4ag

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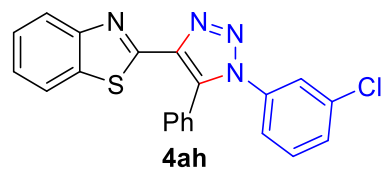
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76.74

$\text{CDCl}_3$

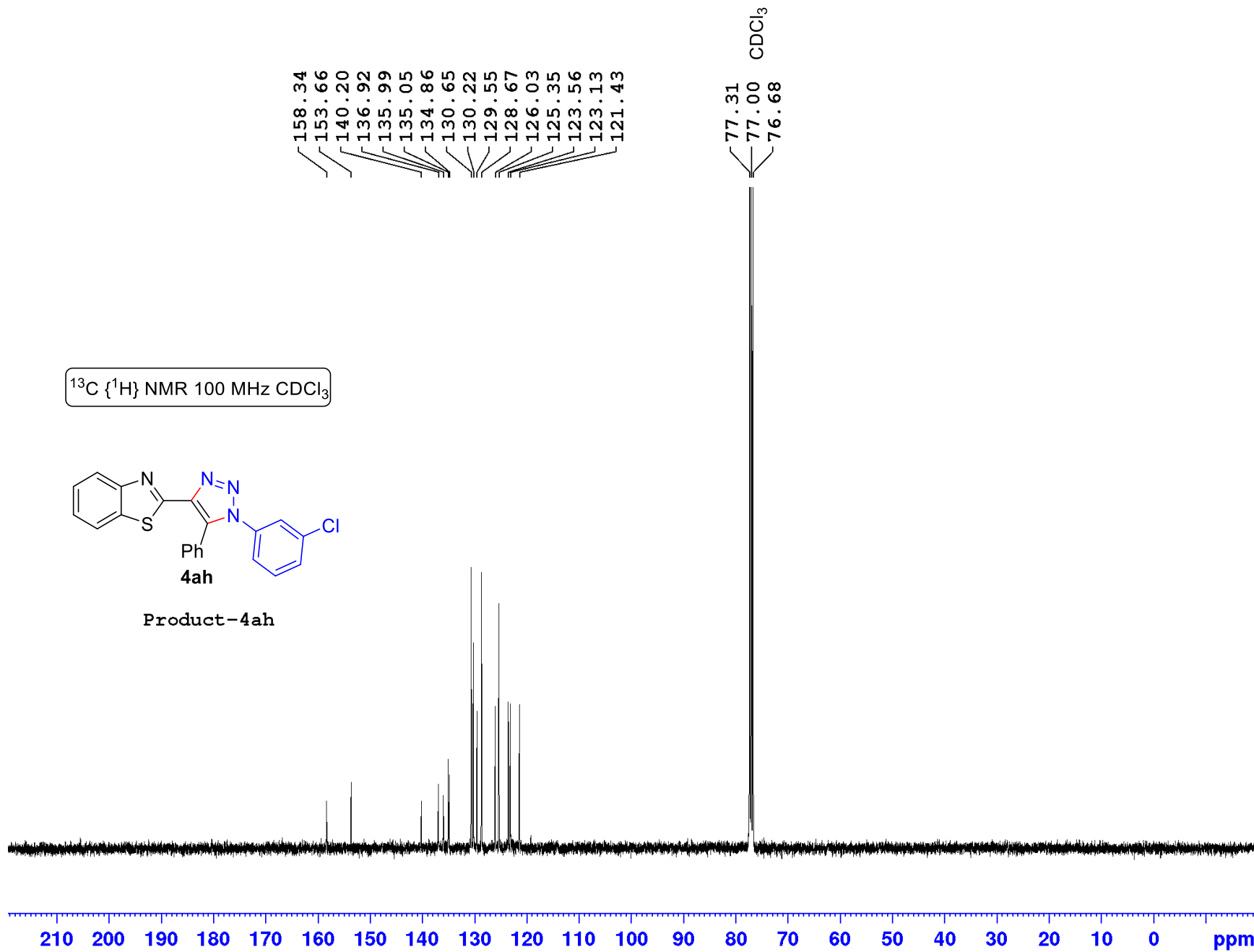




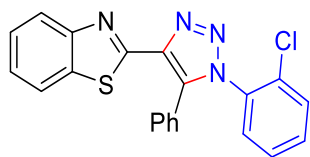
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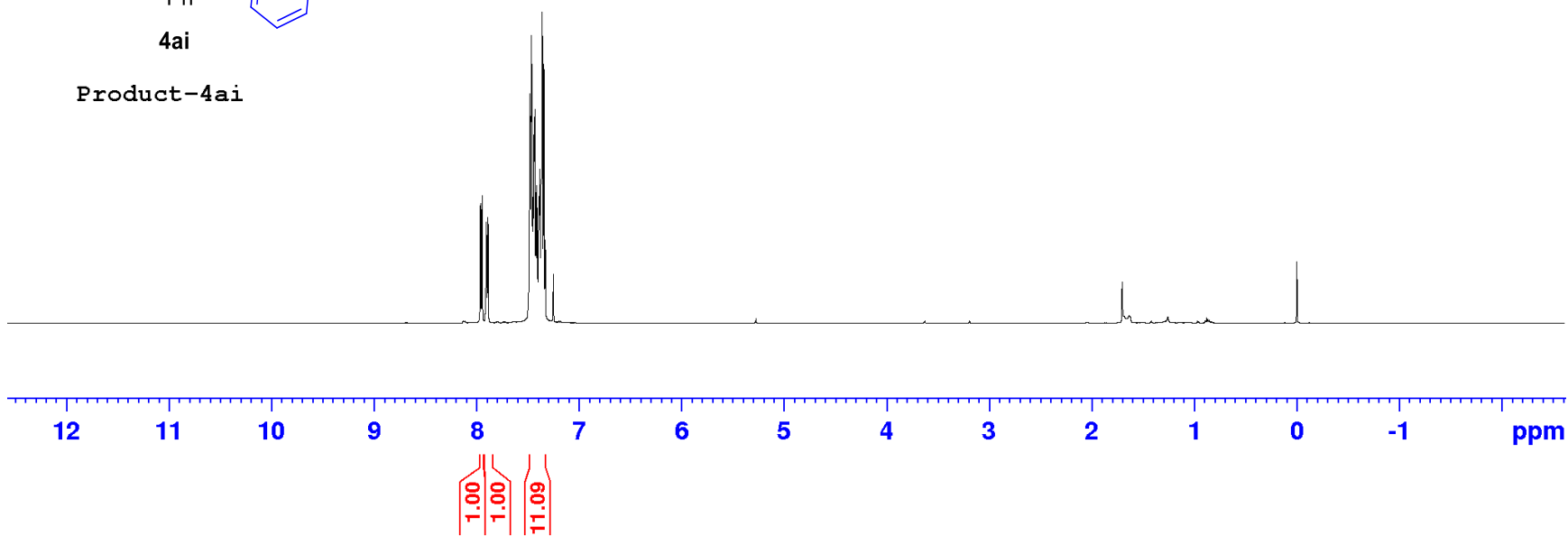
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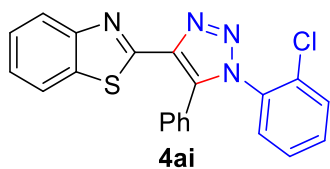


Product-4ai

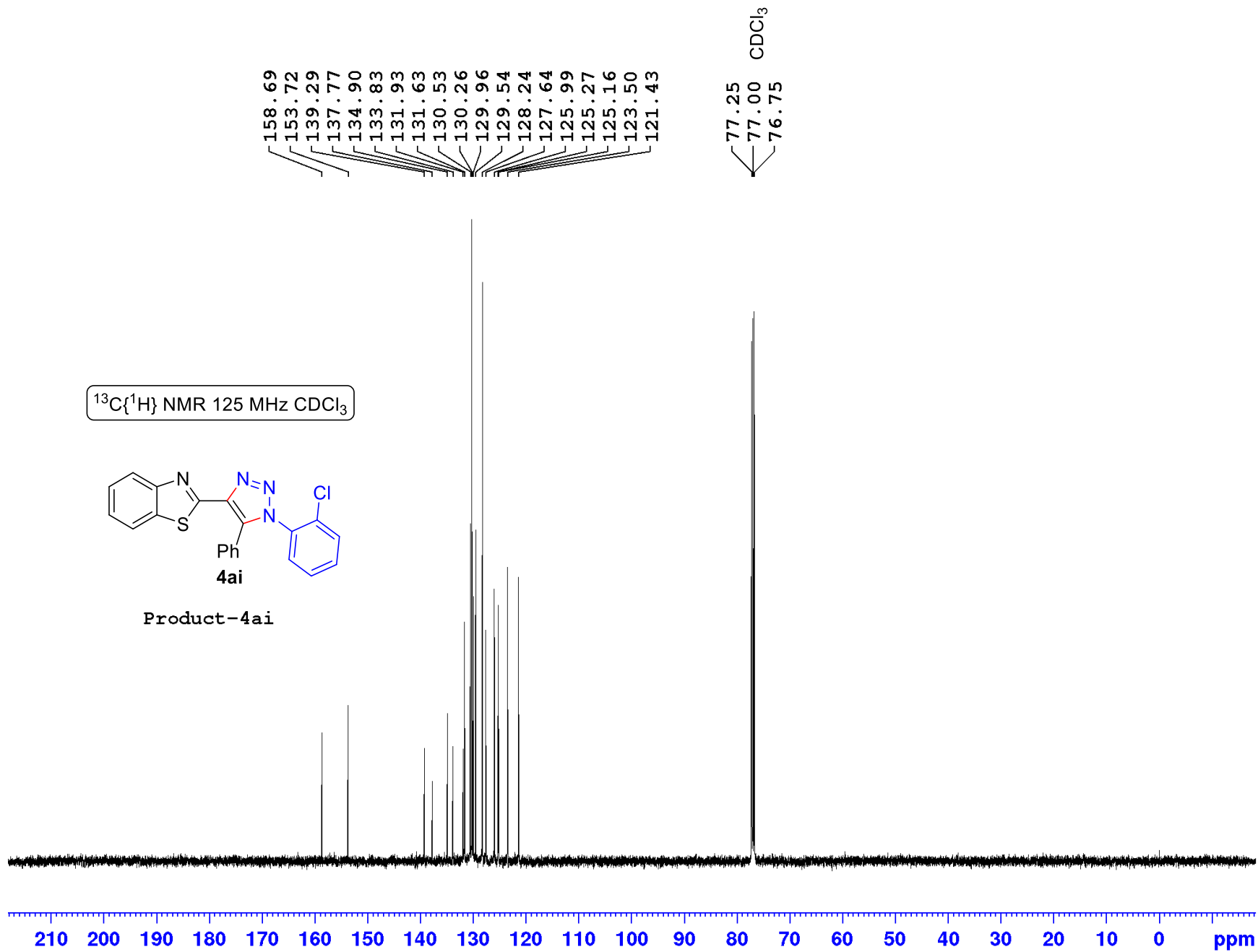


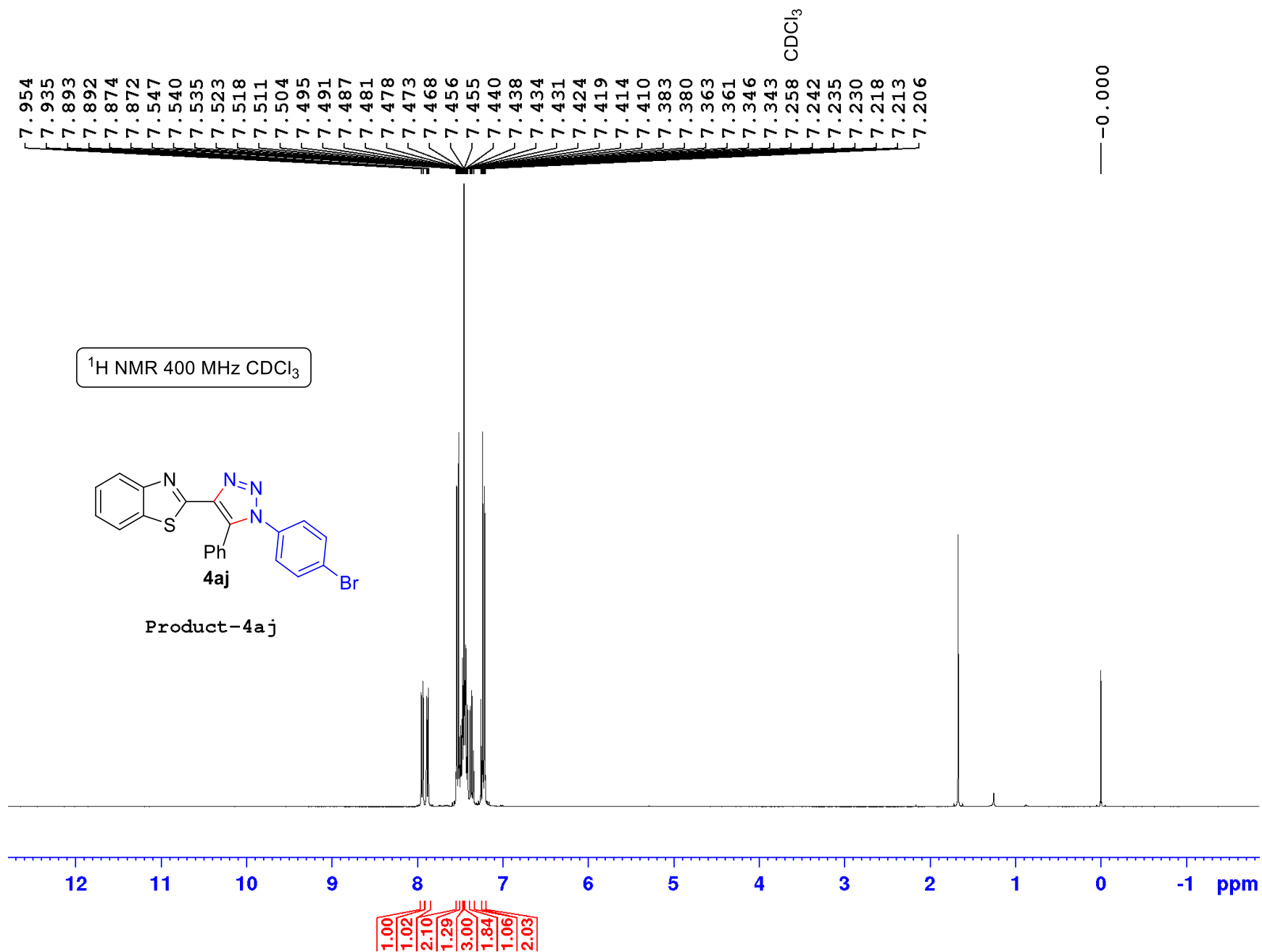


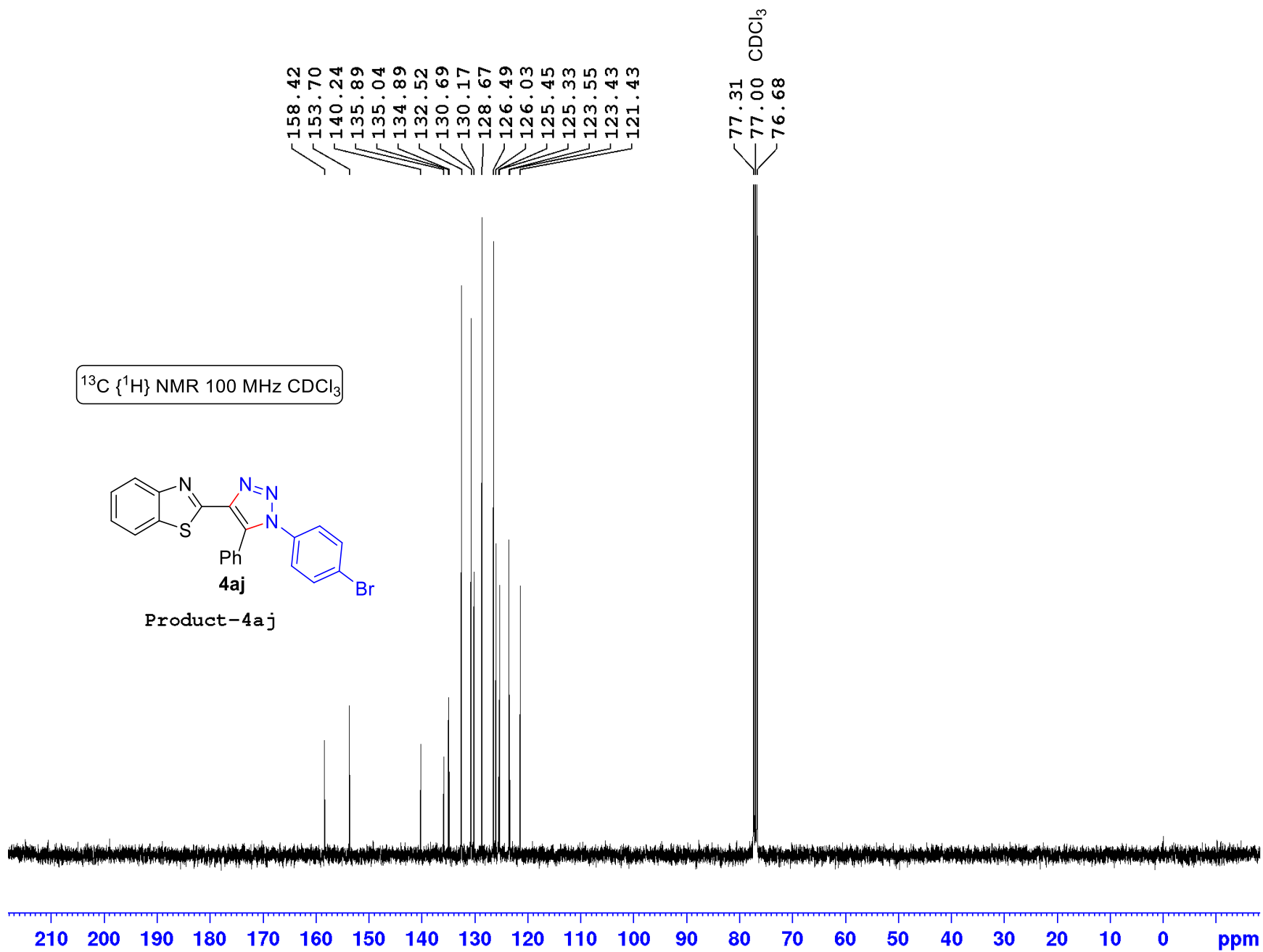
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



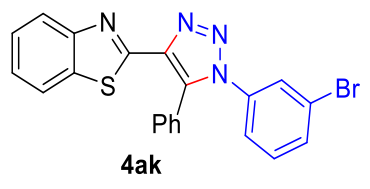
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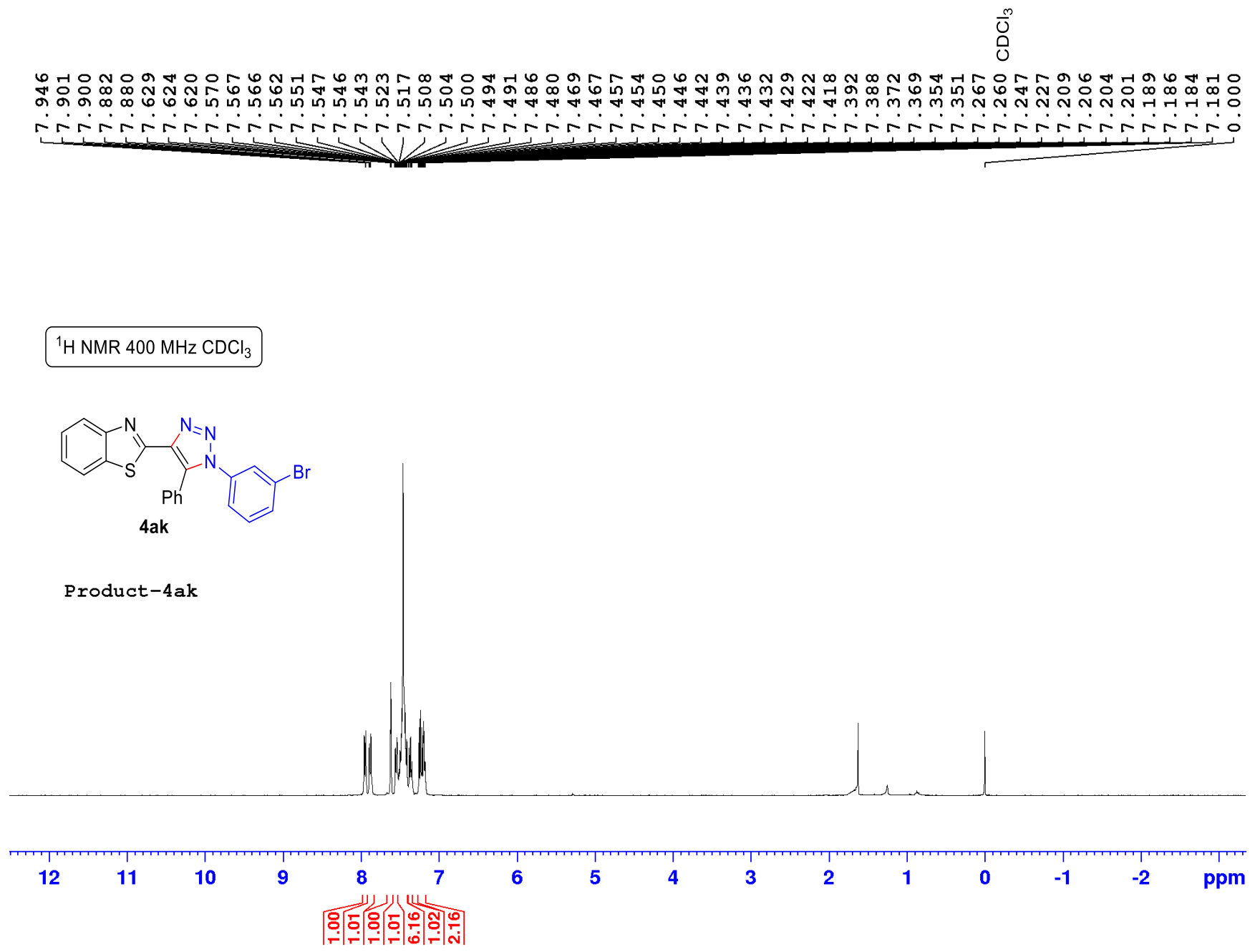




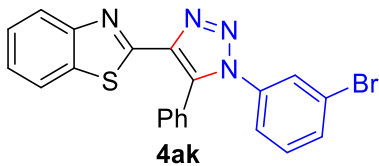
<sup>1</sup>H NMR 400 MHz CDCl<sub>3</sub>



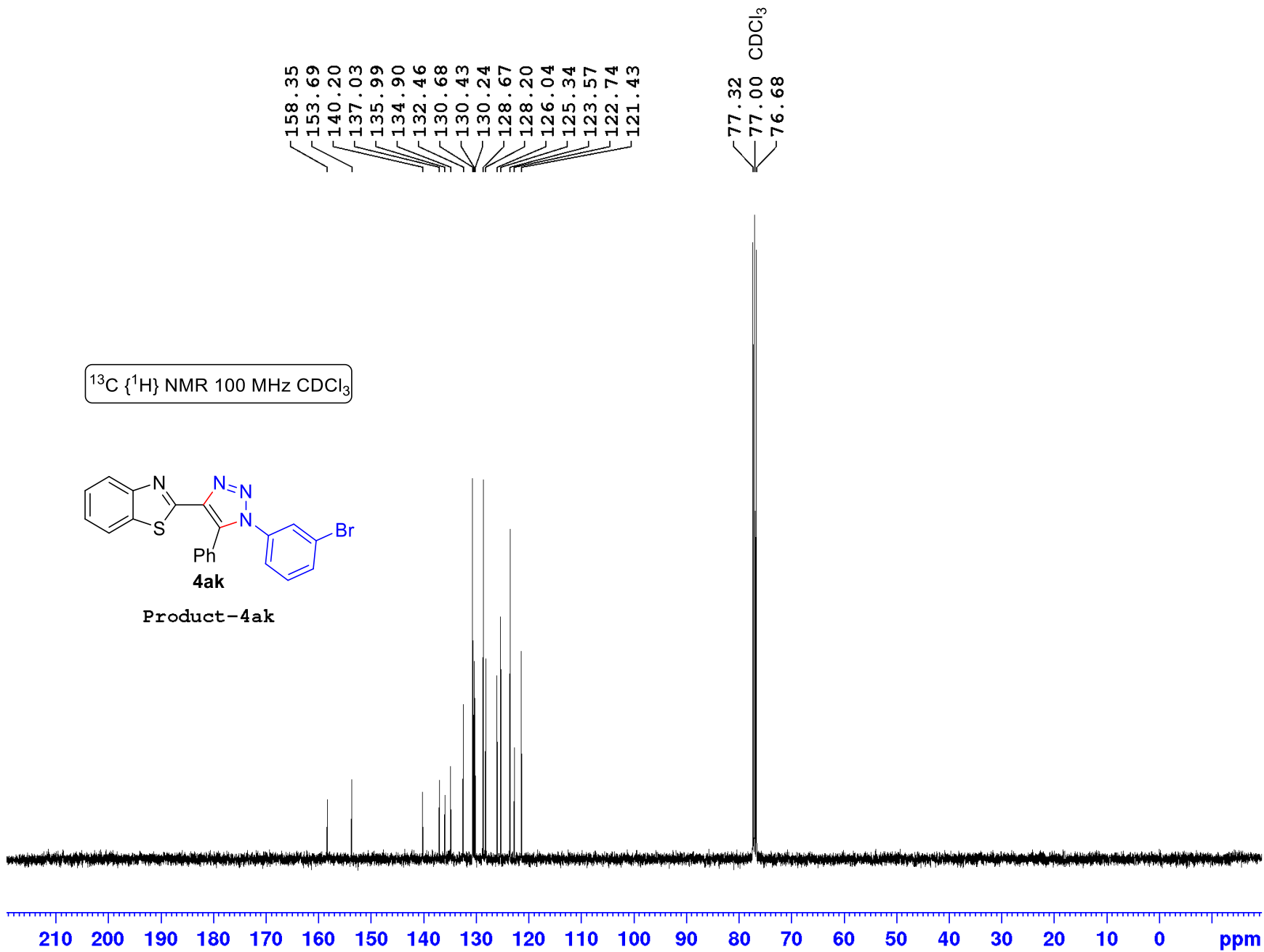
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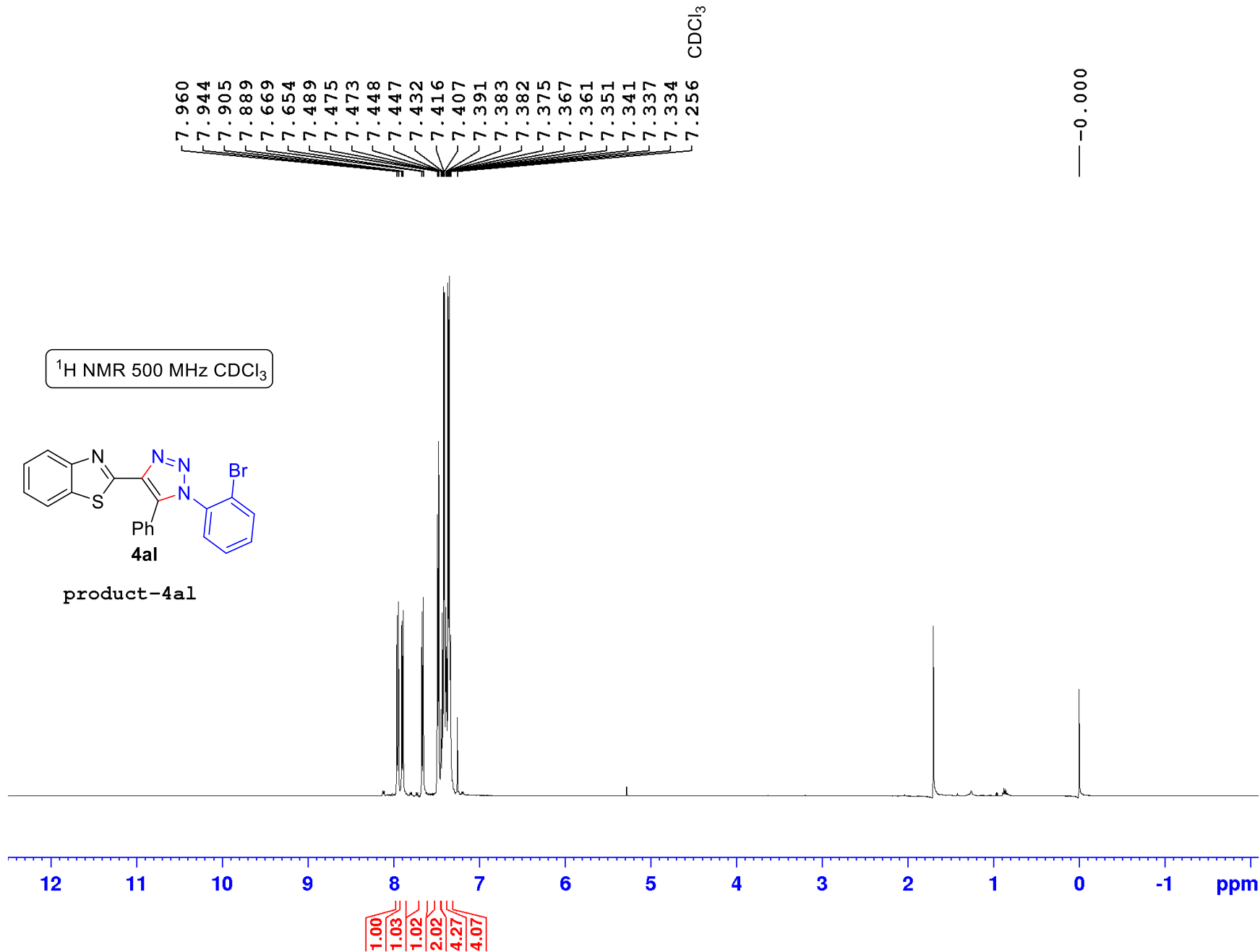


$^{13}\text{C}$  { $^1\text{H}$ } NMR 100 MHz  $\text{CDCl}_3$

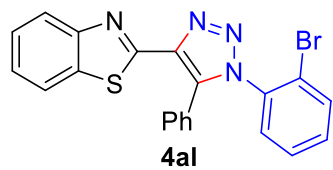


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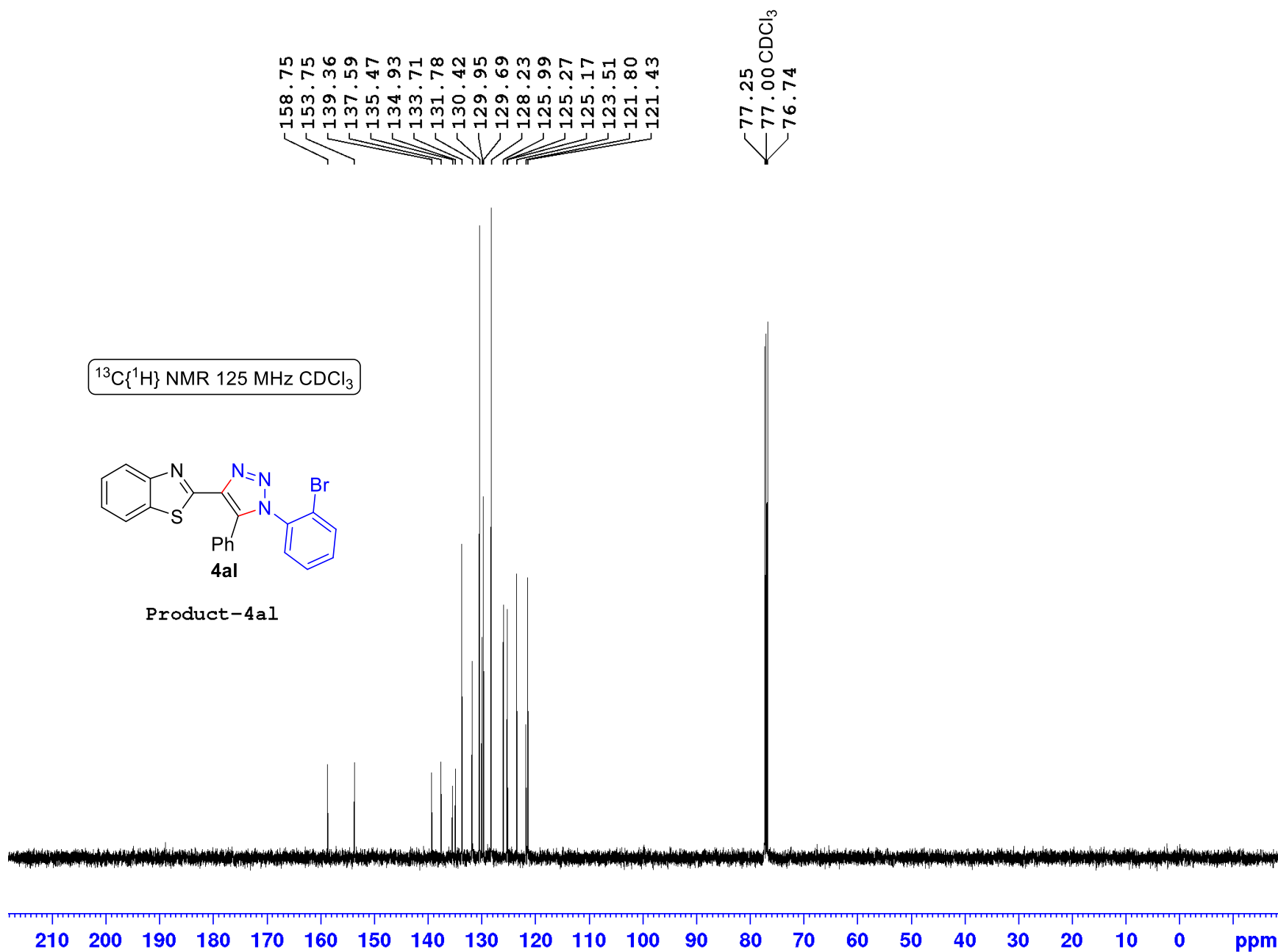


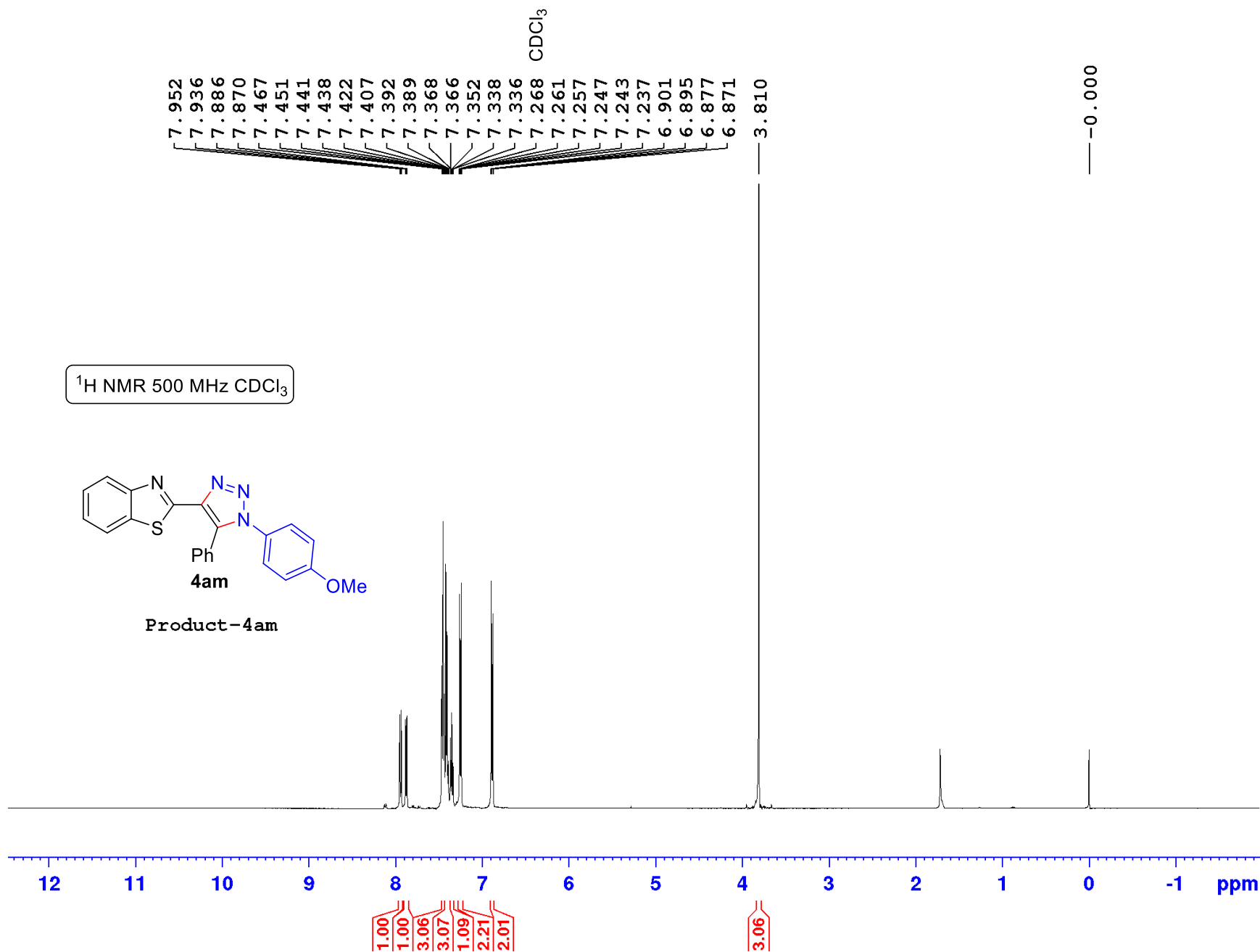


$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



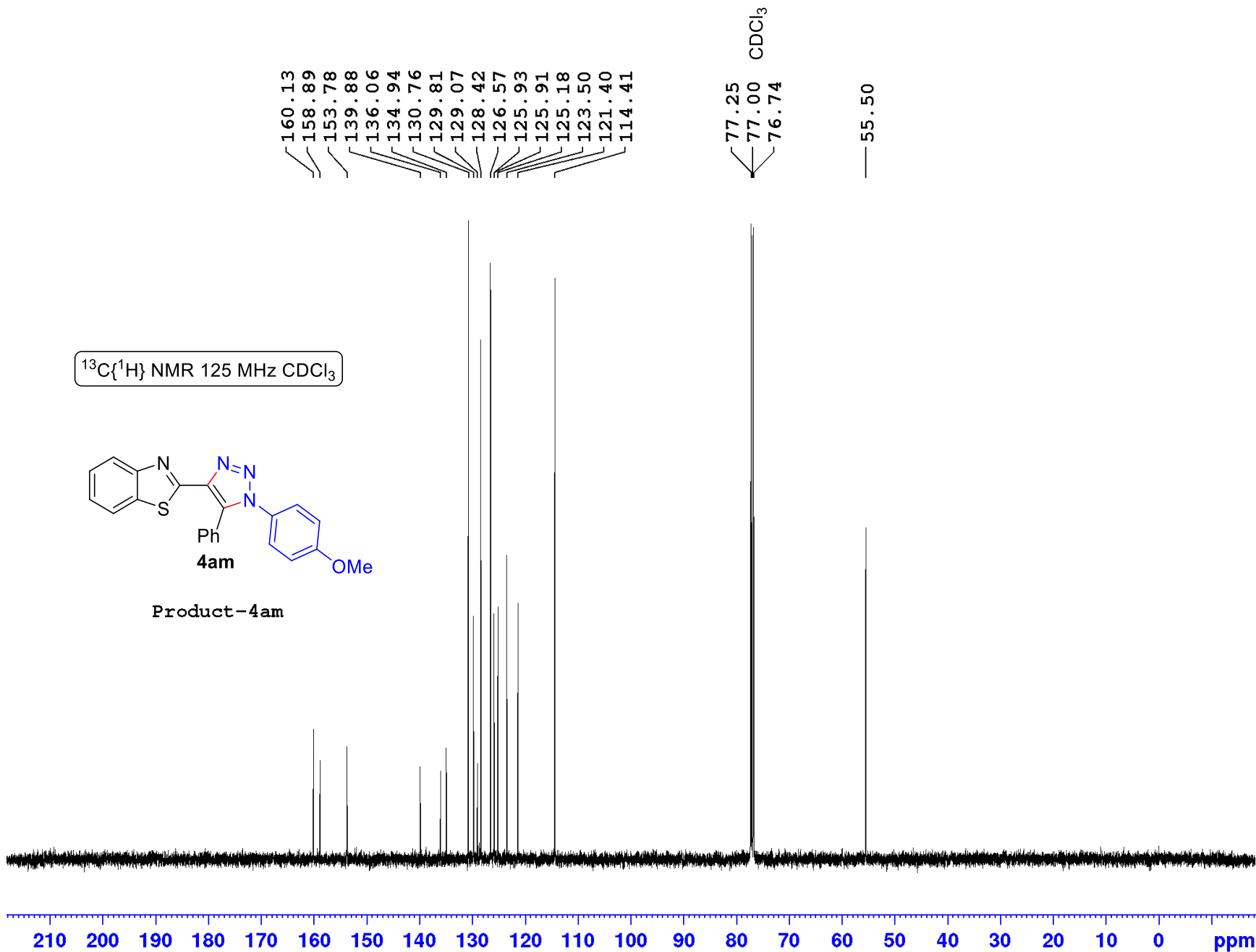
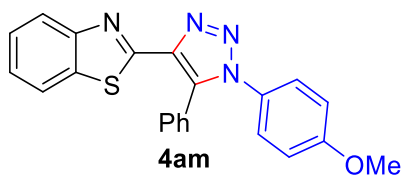
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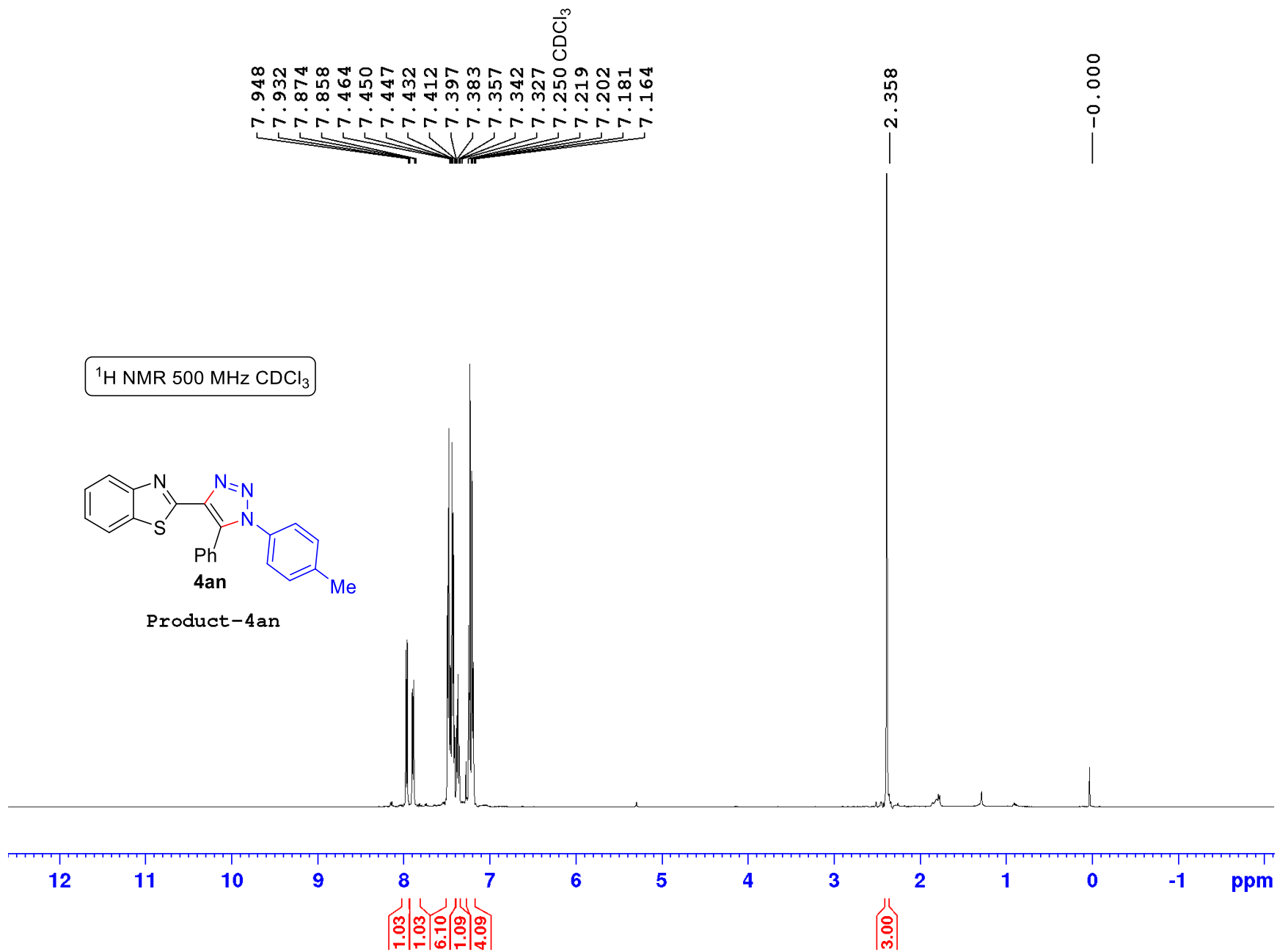




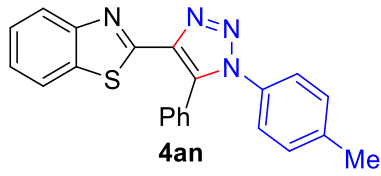


$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$





$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$

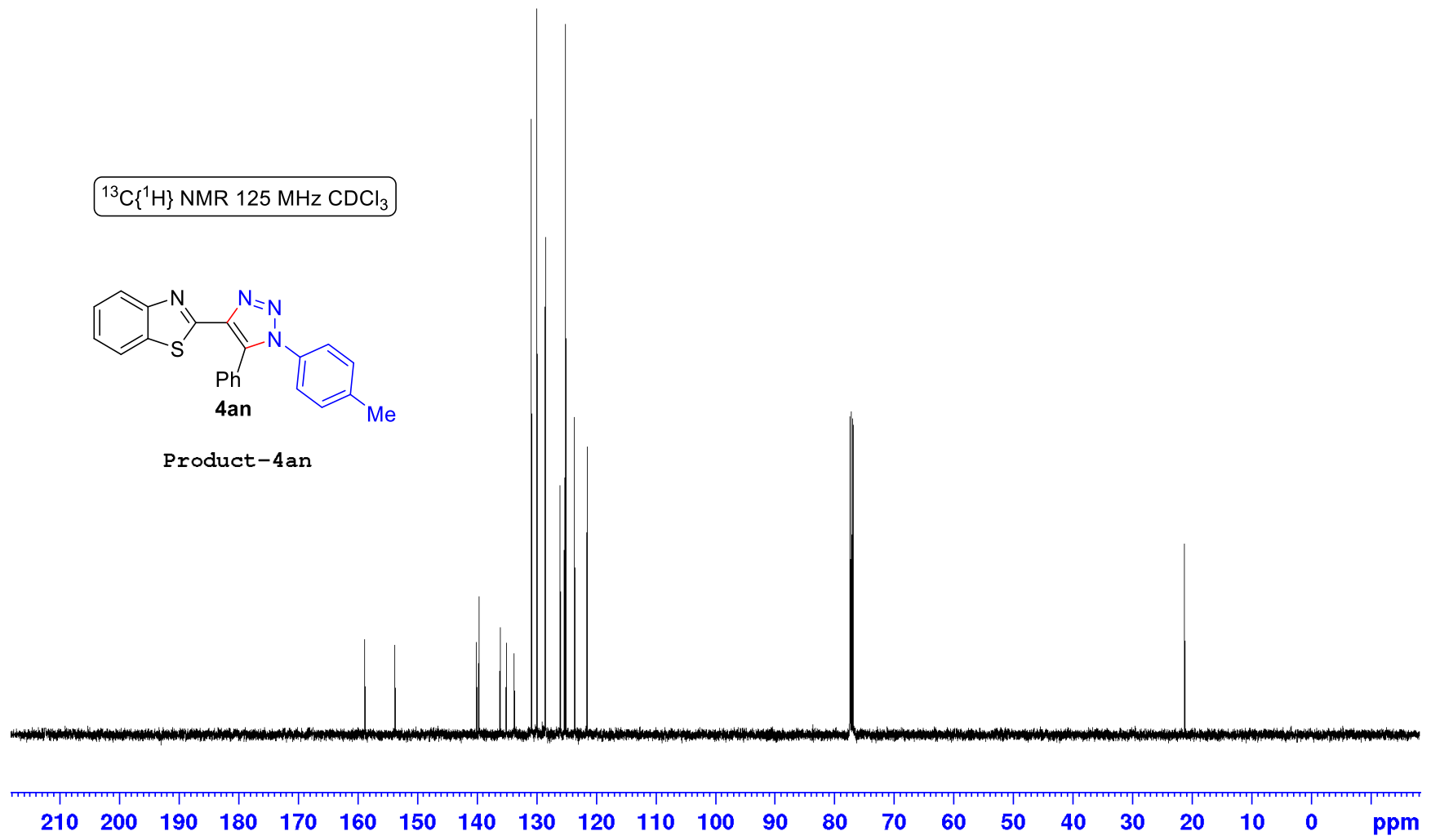


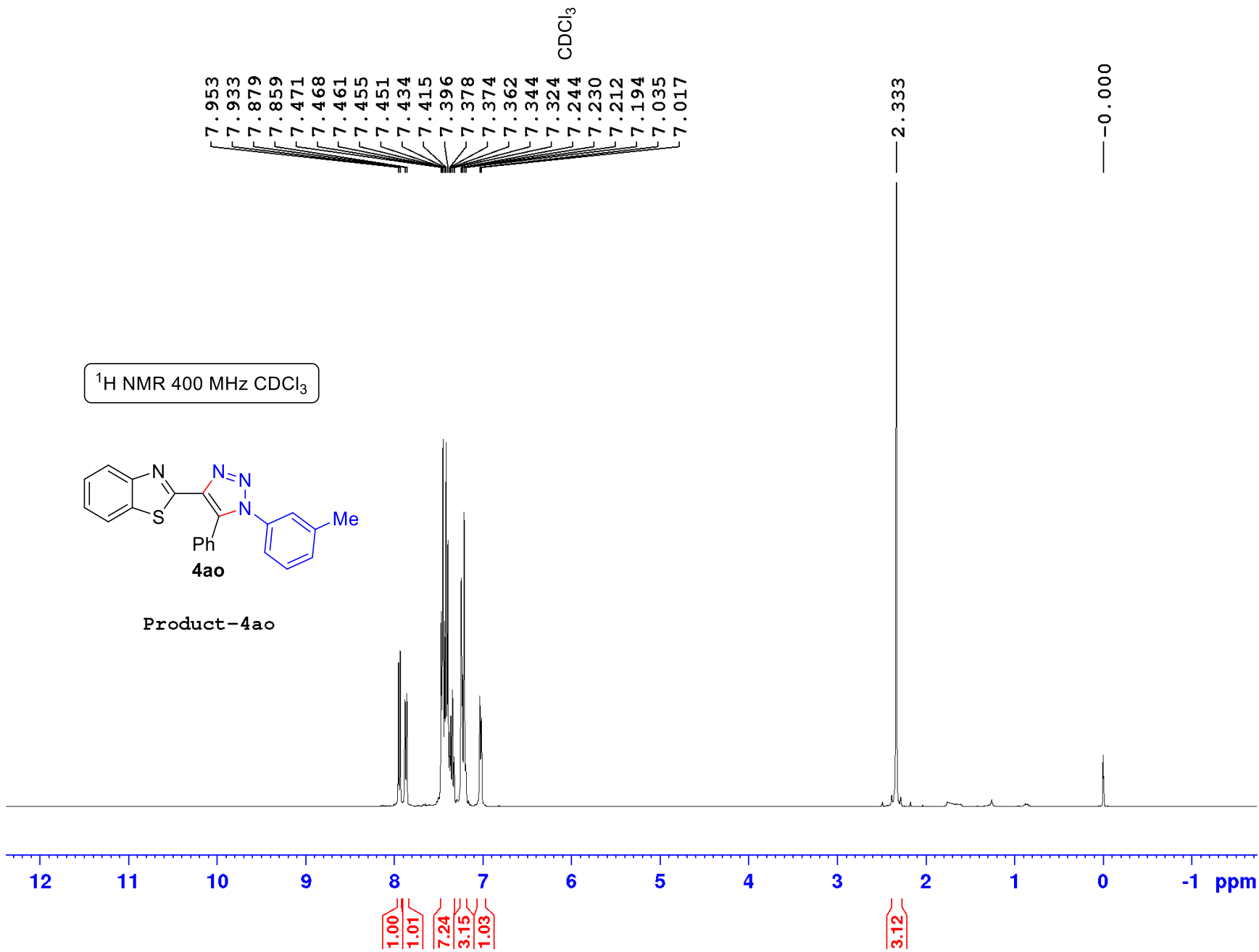
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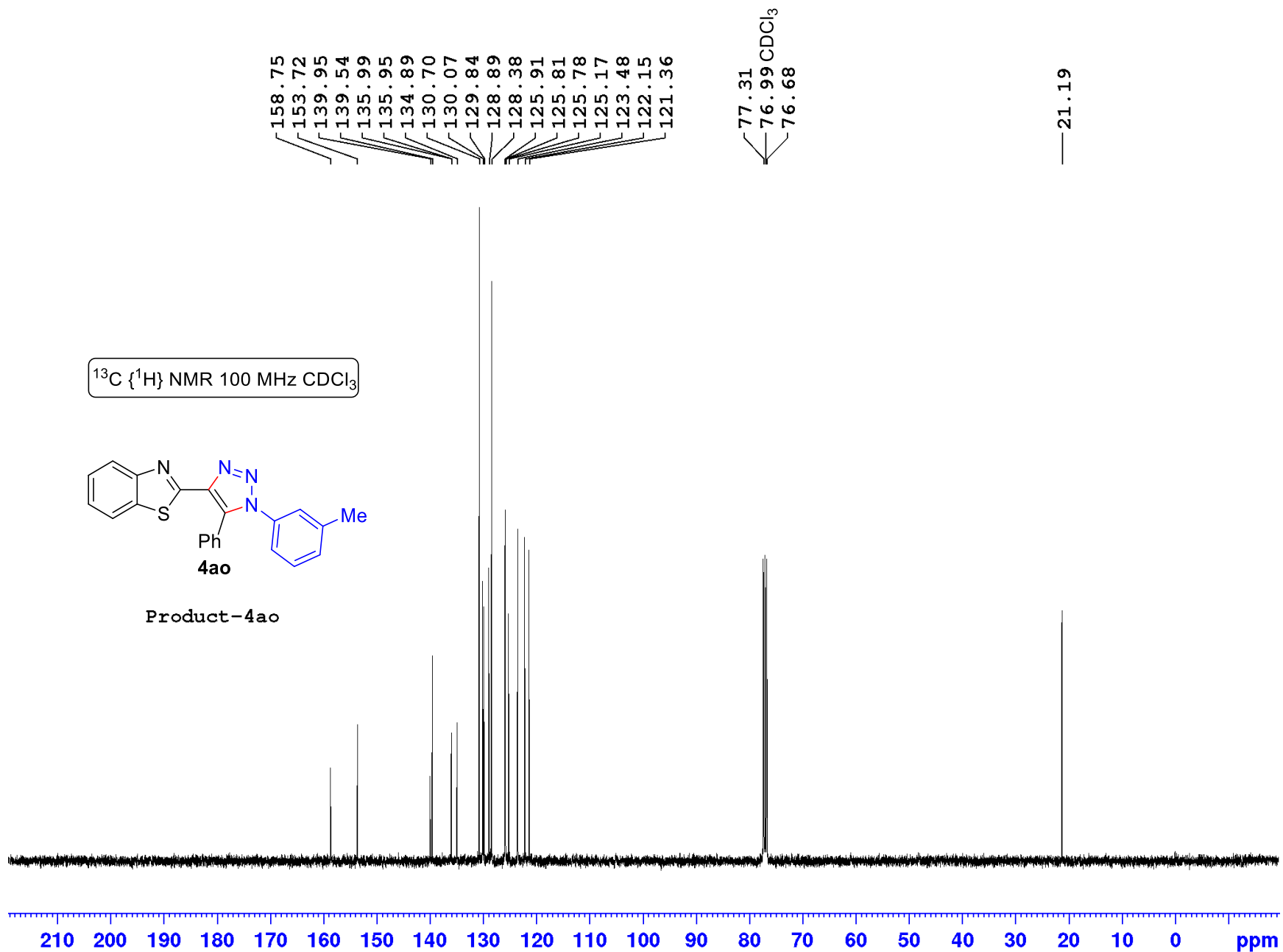
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121.37

77.25  
77.00  $\text{CDCl}_3$   
76.74

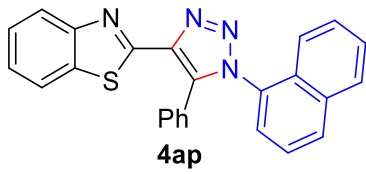
21.11



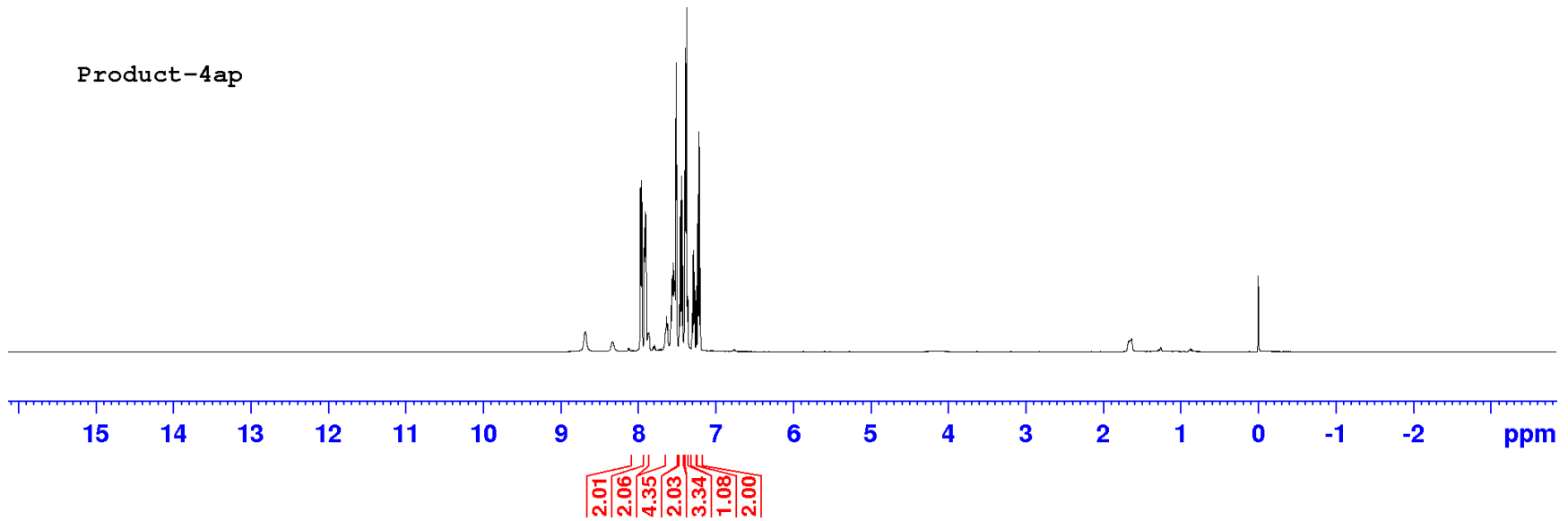




<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



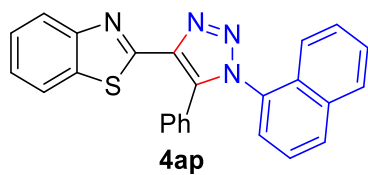
Product-4ap



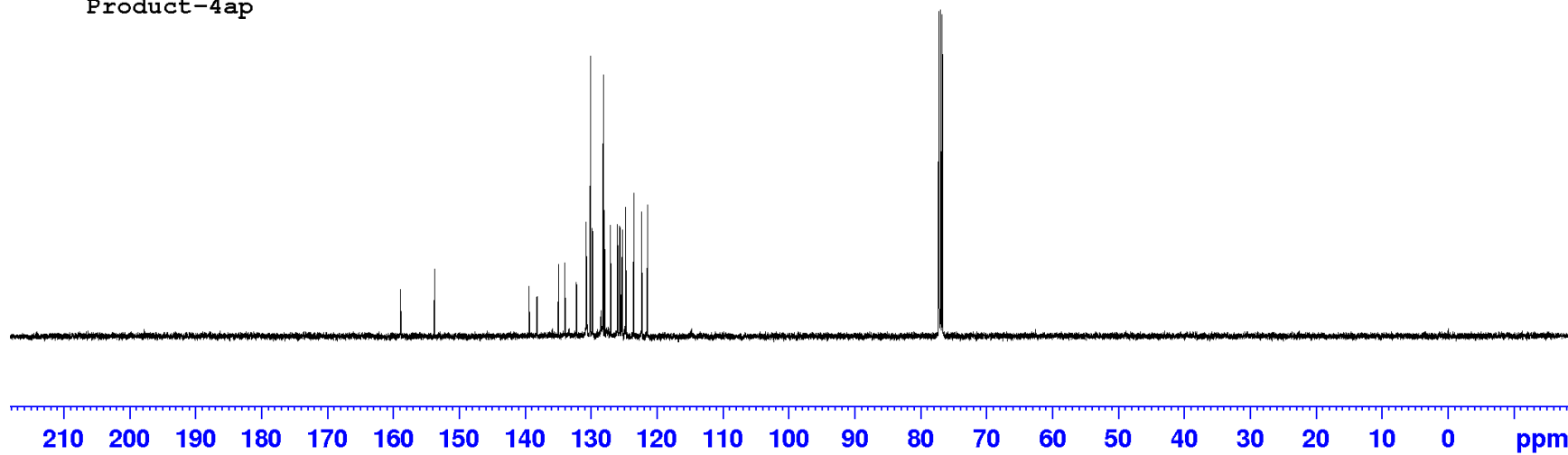
7.973  
7.957  
7.922  
7.907  
7.898  
7.651  
7.637  
7.623  
7.578  
7.563  
7.549  
7.543  
7.533  
7.527  
7.513  
7.504  
7.470  
7.455  
7.441  
7.425  
7.400  
7.391  
7.376  
7.361  
7.306  
7.290  
7.276  
7.250 CDCl<sub>3</sub>  
7.230  
7.216  
7.200

— — 0.000

$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



Product-4ap



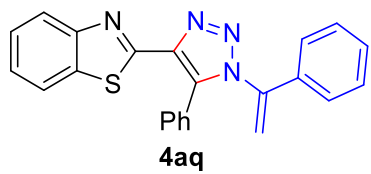
158.93  
153.78  
139.42  
138.24  
134.96  
133.98  
132.24  
130.75  
130.13  
129.81  
129.73  
128.21  
128.18  
127.97  
127.05  
126.01  
125.66  
125.39  
125.28  
124.78  
123.53  
122.35  
121.46  
77.25  
76.99  $\text{CDCl}_3$   
76.74

7.944  
7.928  
7.877  
7.861  
7.448  
7.433  
7.431  
7.416  
7.401  
7.364  
7.352  
7.348  
7.338  
7.335  
7.320  
7.305  
7.291  
7.278  
7.263  
7.257  
7.250  
7.246  
7.231  
7.222  
7.218  
7.214  
7.127  
7.125  
7.112  
7.110  
5.873  
5.598

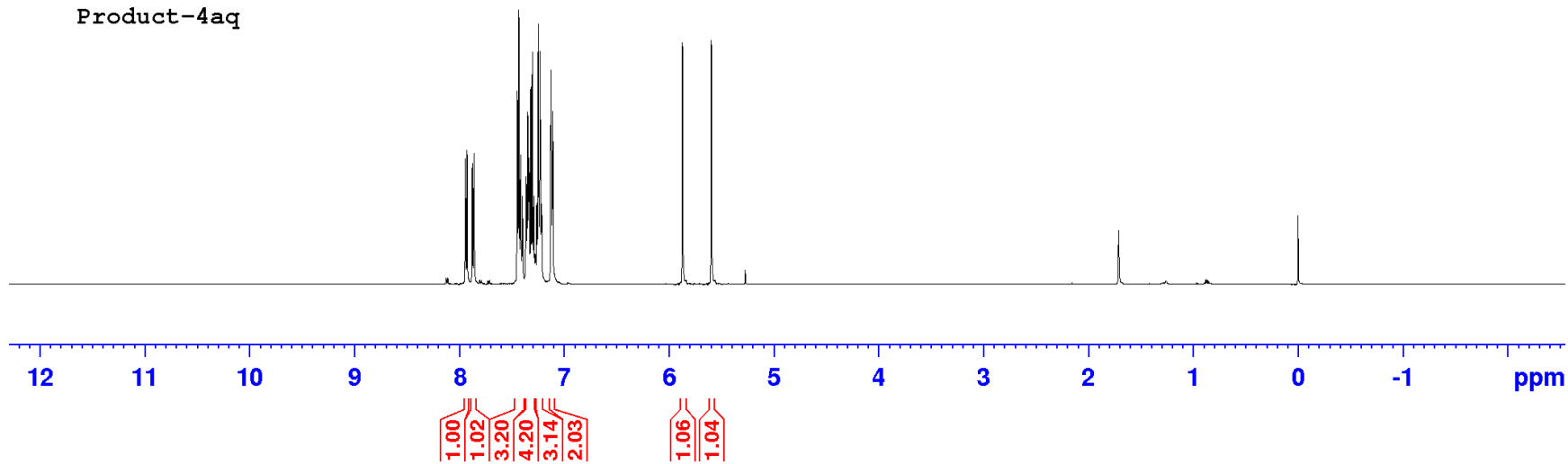
CDCl<sub>3</sub>

— — 0.000

<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>

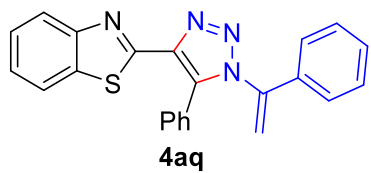


Product-4aq





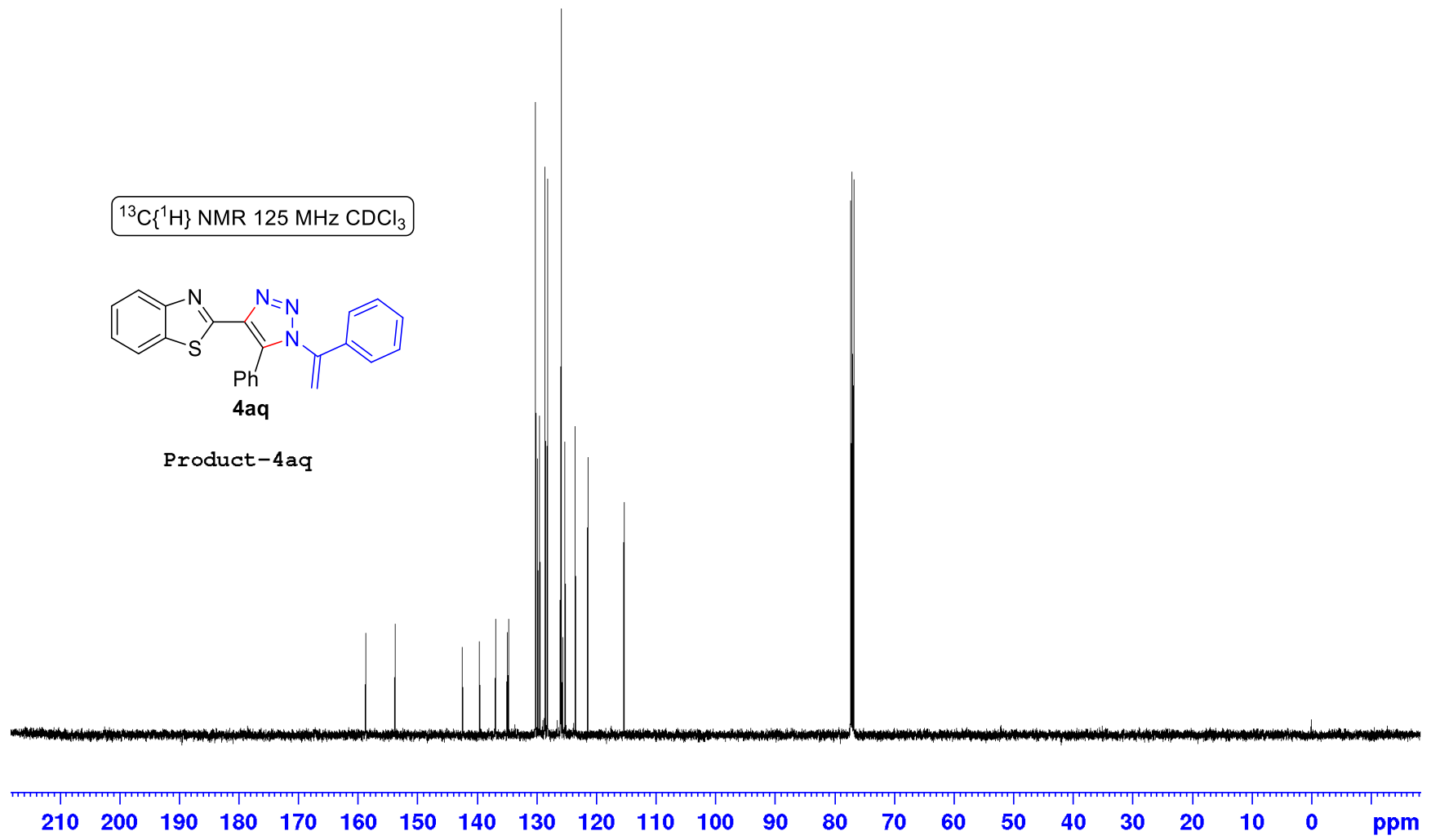
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$

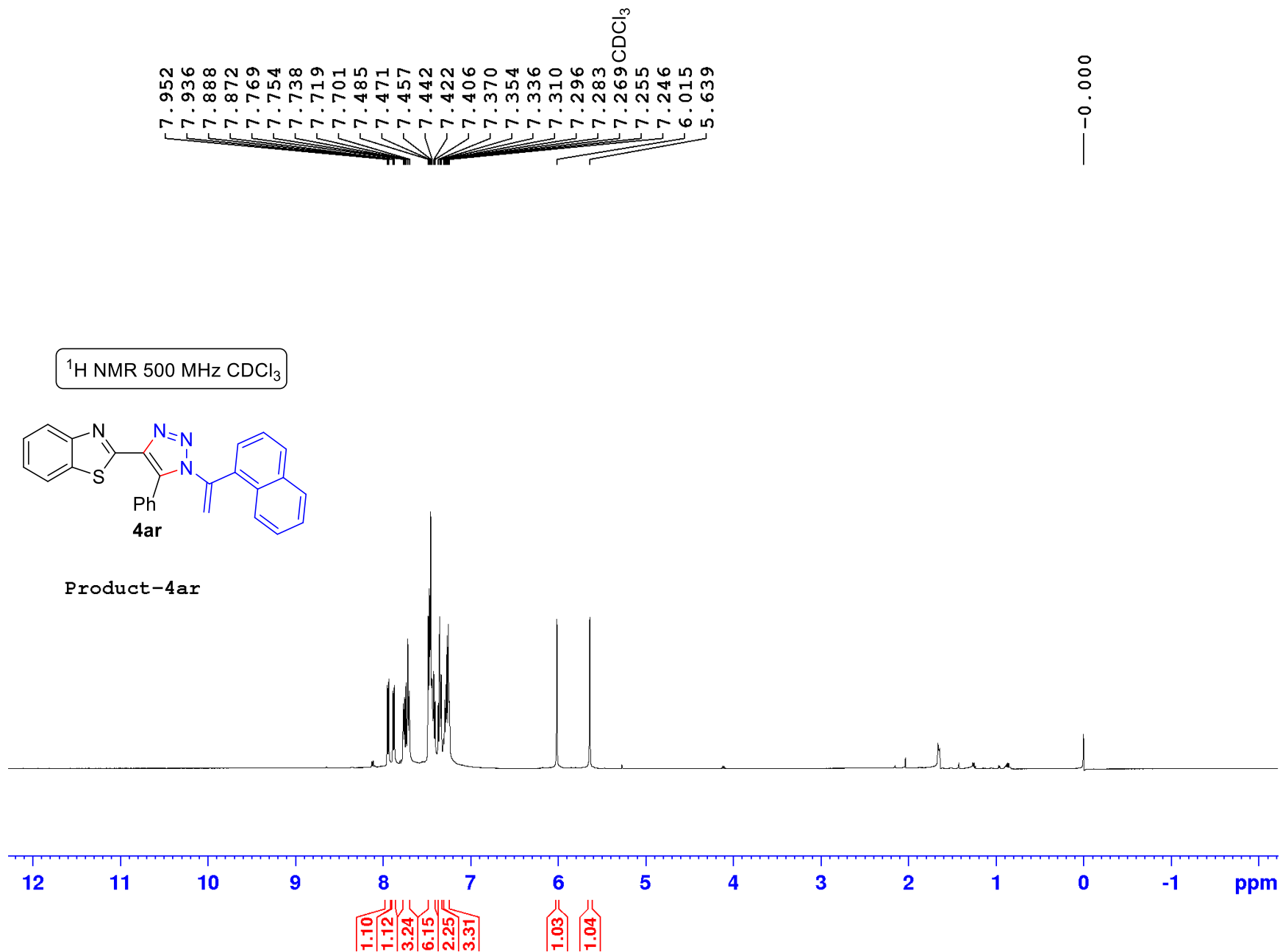


Product-4aq

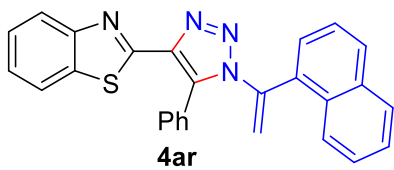
- 158.66
- 153.72
- 142.45
- 139.59
- 136.84
- 134.91
- 134.68
- 130.17
- 129.79
- 129.45
- 128.55
- 128.13
- 125.96
- 125.86
- 125.62
- 125.23
- 123.51
- 121.39
- 115.31

- 77.25
- 77.00  $\text{CDCl}_3$
- 76.74

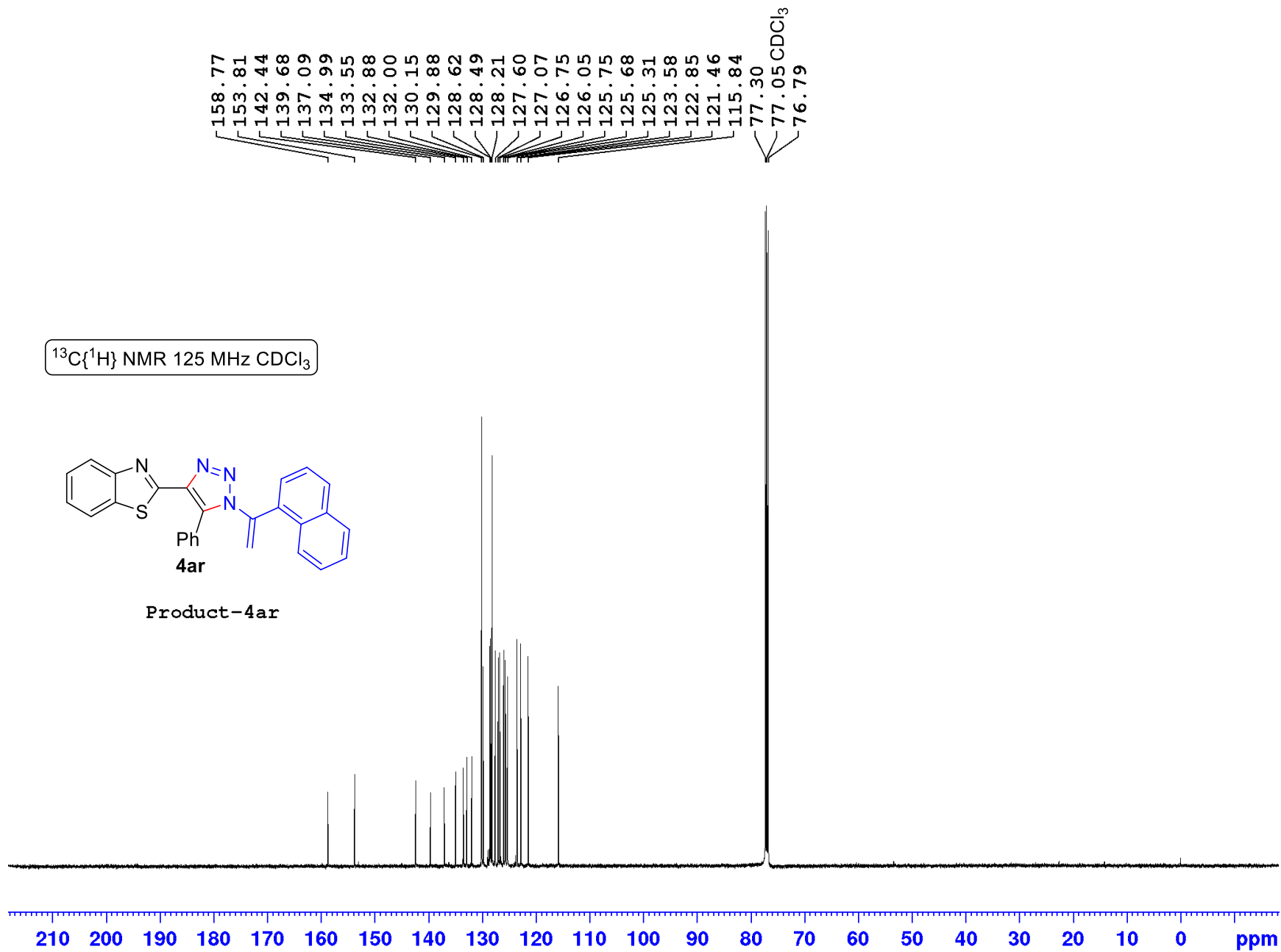


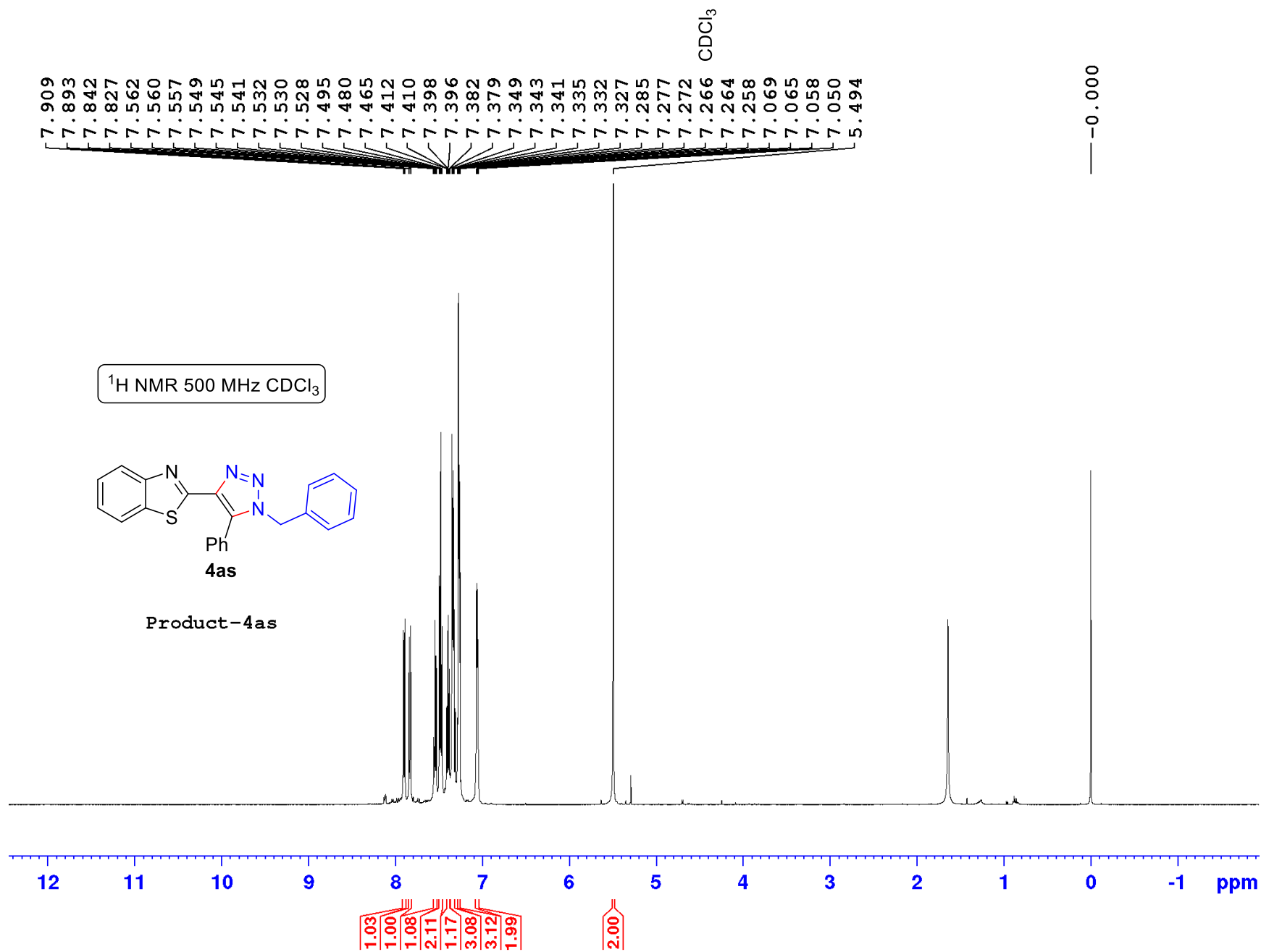


$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$

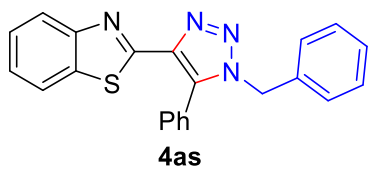


Product-4ar



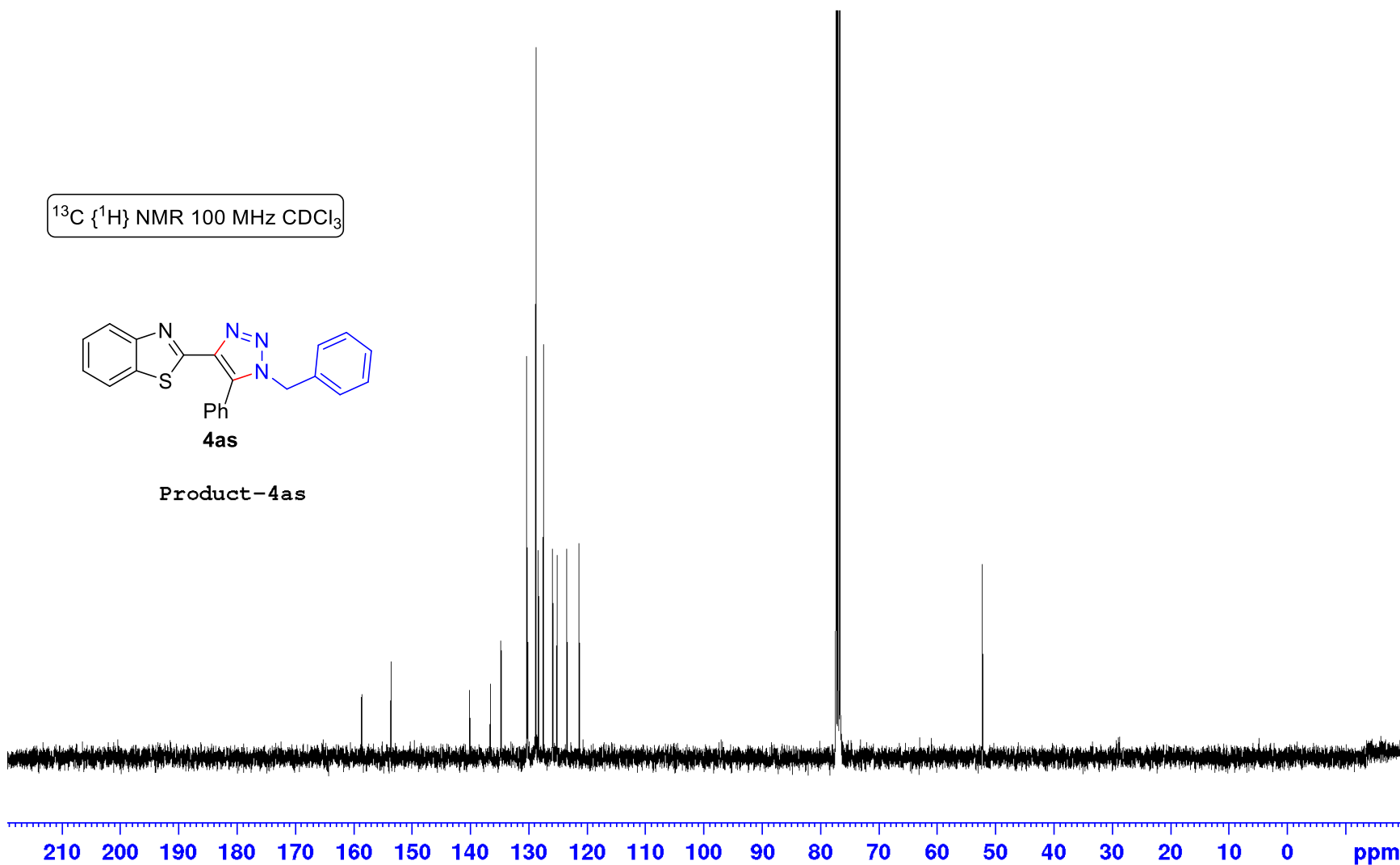


$^{13}\text{C} \{^1\text{H}\}$  NMR 100 MHz  $\text{CDCl}_3$



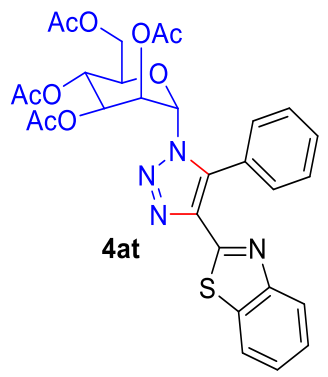
Product-4as

158.65  
153.62  
140.15  
136.57  
134.80  
134.70  
130.34  
130.23  
128.78  
128.35  
127.48  
125.94  
125.87  
125.15  
123.46  
121.37  
77.32  
77.01  $\text{CDCl}_3$   
76.69  
52.23

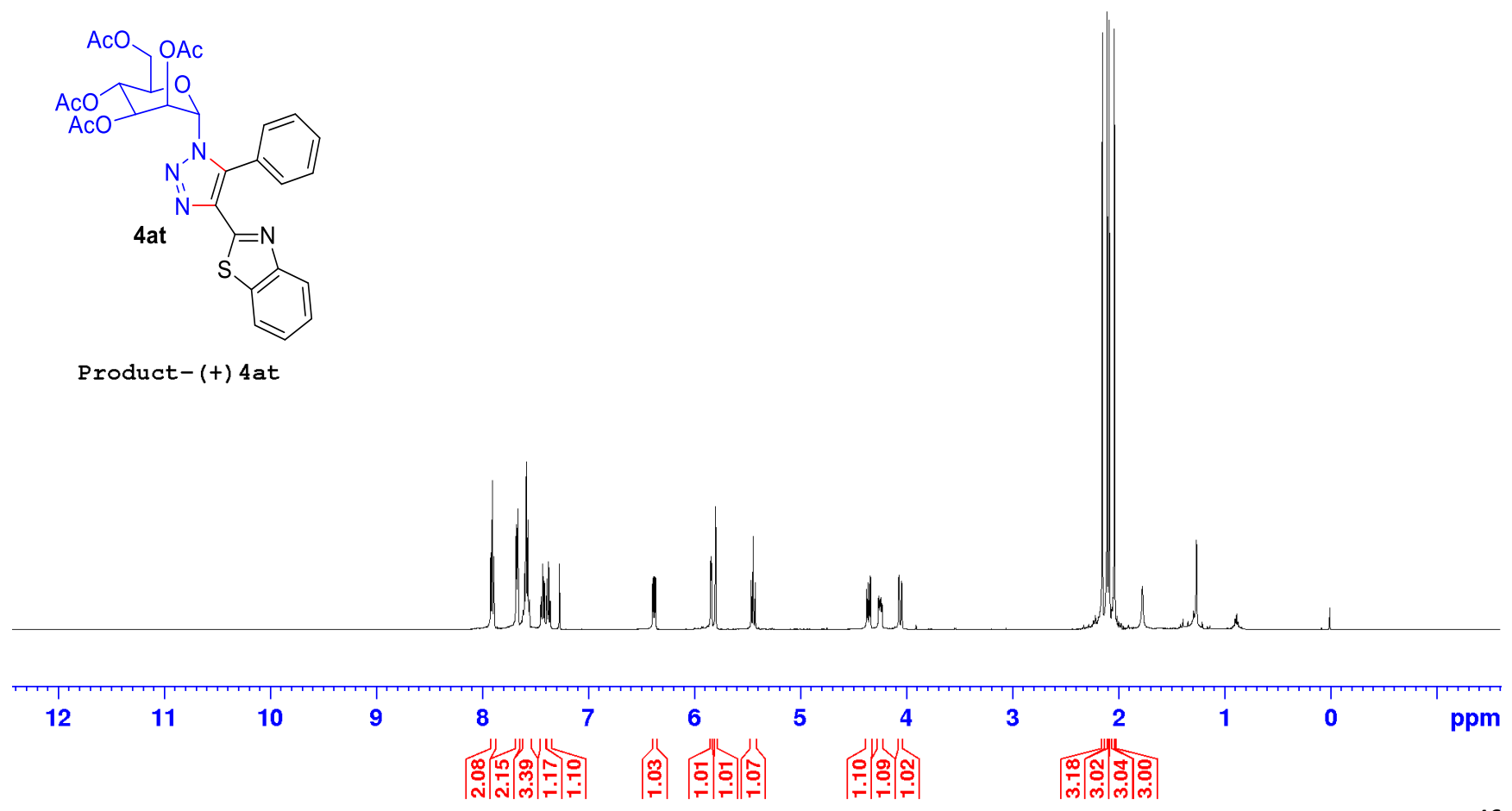


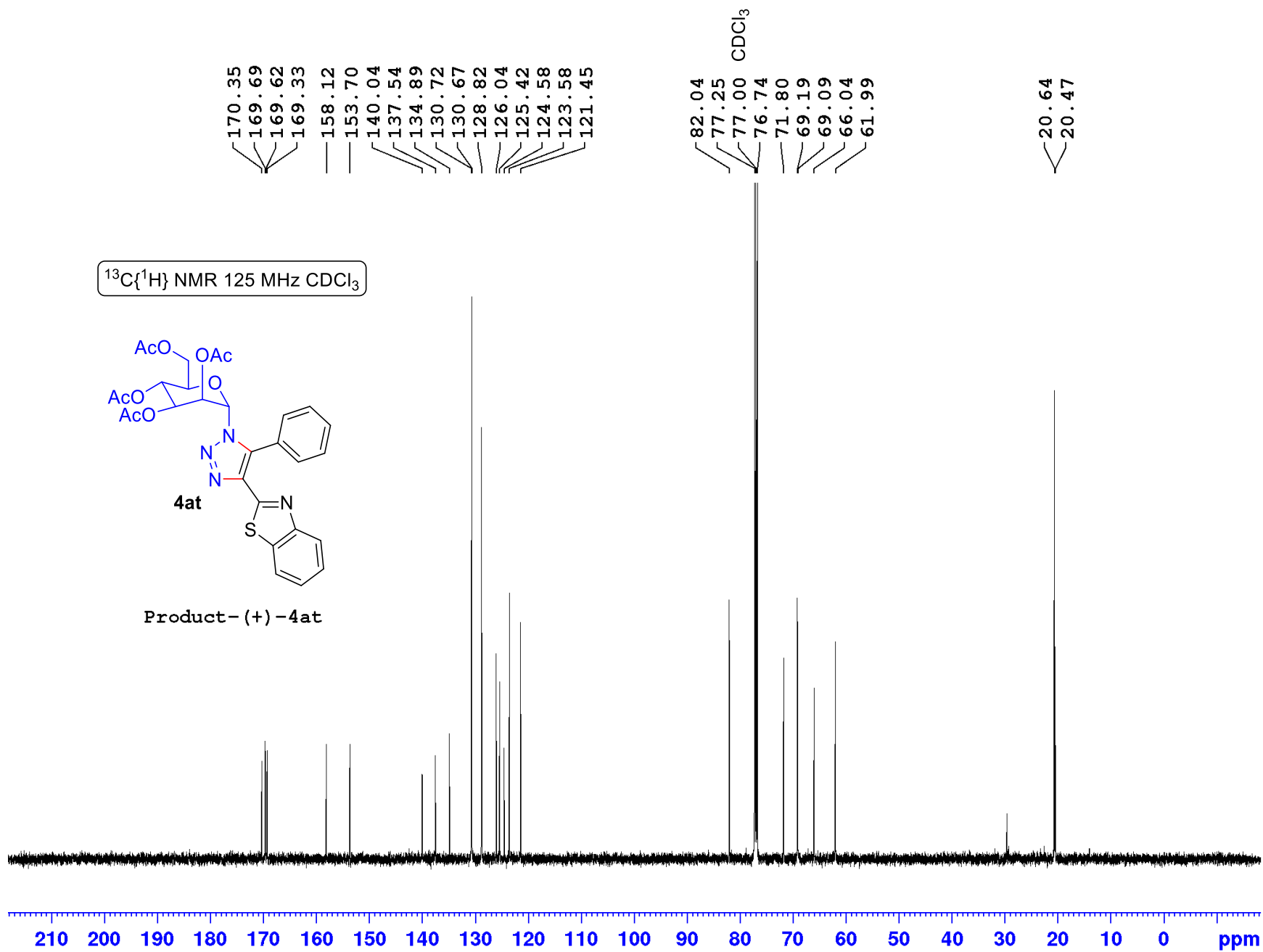
7.916  
7.901  
7.887  
7.677  
7.675  
7.662  
7.659  
7.613  
7.610  
7.607  
7.598  
7.584  
7.581  
7.566  
7.556  
7.553  
7.549  
7.443  
7.427  
7.412  
7.410  
7.387  
7.385  
7.371  
7.356  
7.269 CDCl<sub>3</sub>  
6.389  
6.381  
6.370  
6.362  
5.850  
5.846  
5.842  
5.838  
5.804  
5.801  
5.466  
5.447  
5.427  
4.376  
4.365  
4.351  
4.341  
4.265  
4.261  
4.255  
4.250  
4.245  
4.241  
4.235  
4.230  
4.073  
4.068  
4.048  
4.043  
2.146  
2.101  
2.081  
2.032  
-0.000

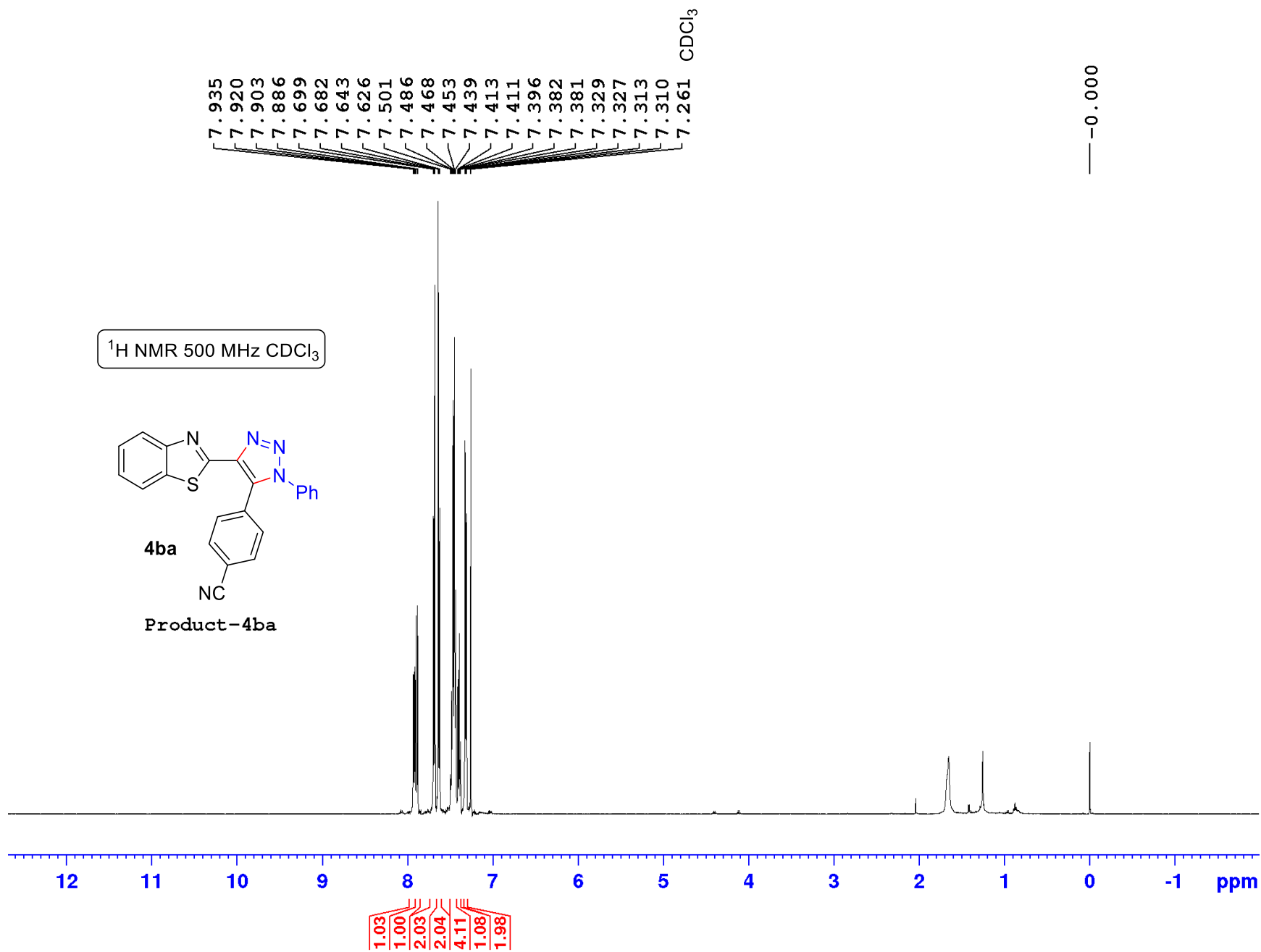
<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



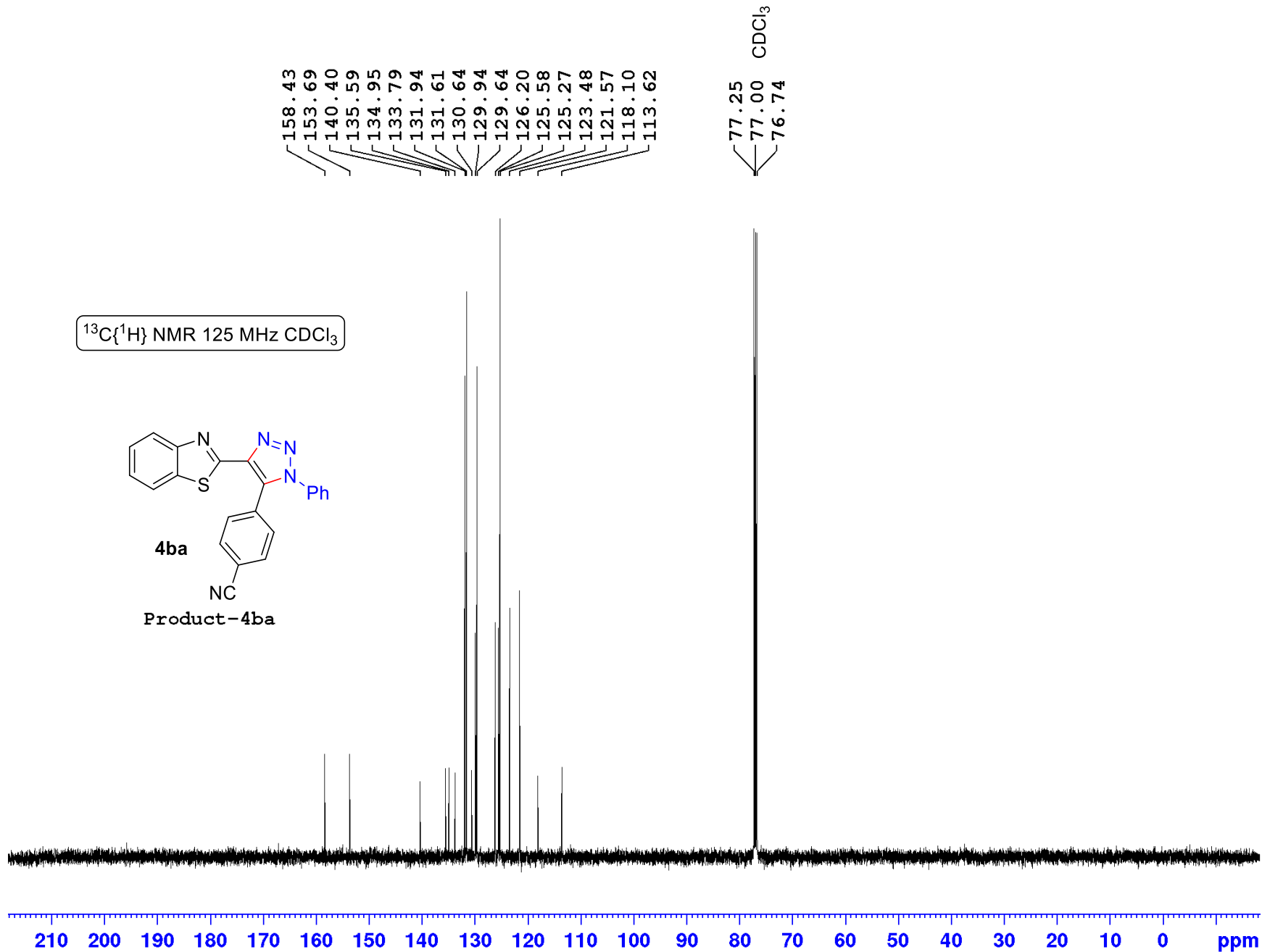
Product-(+) 4at

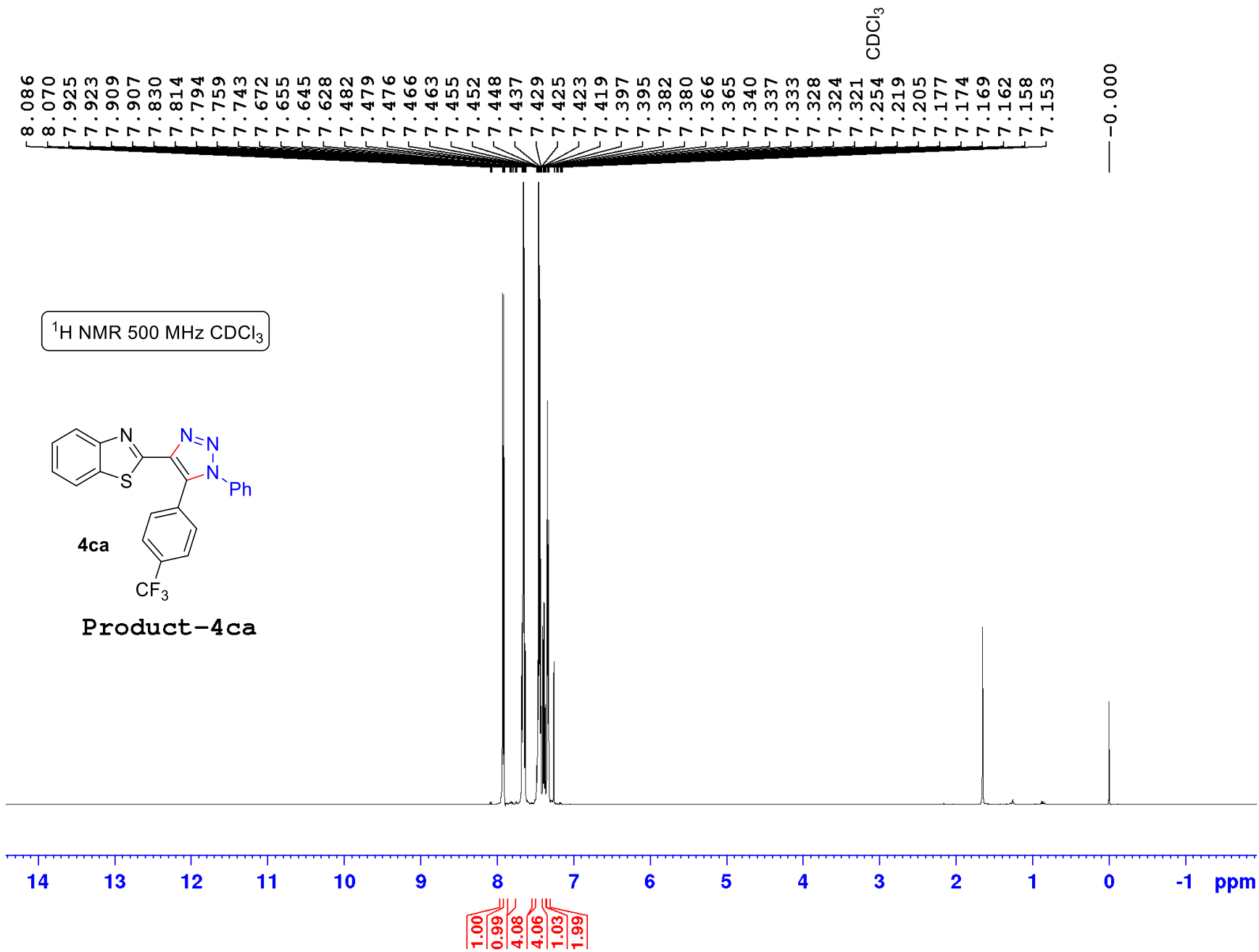


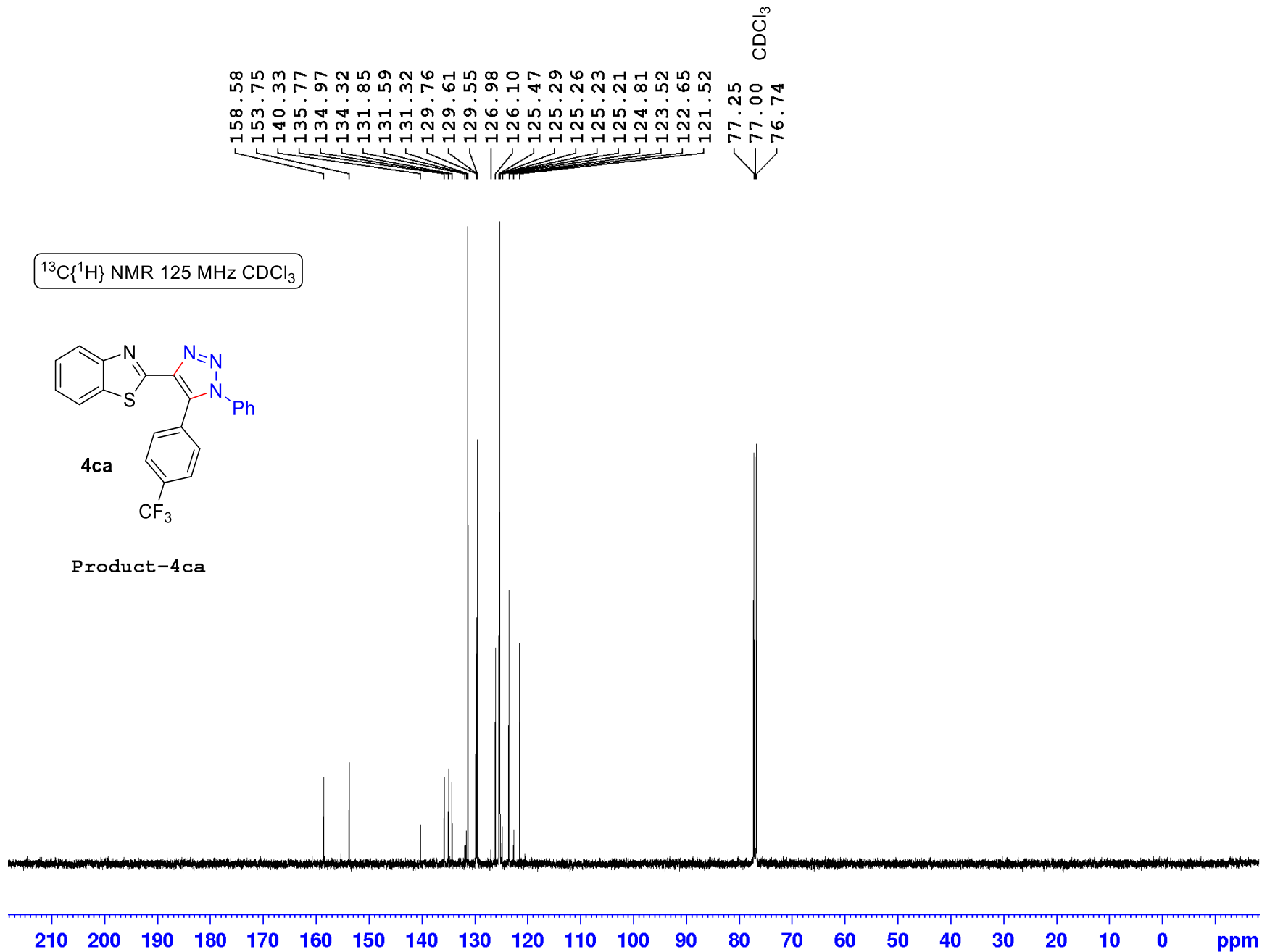




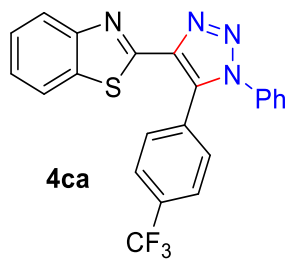








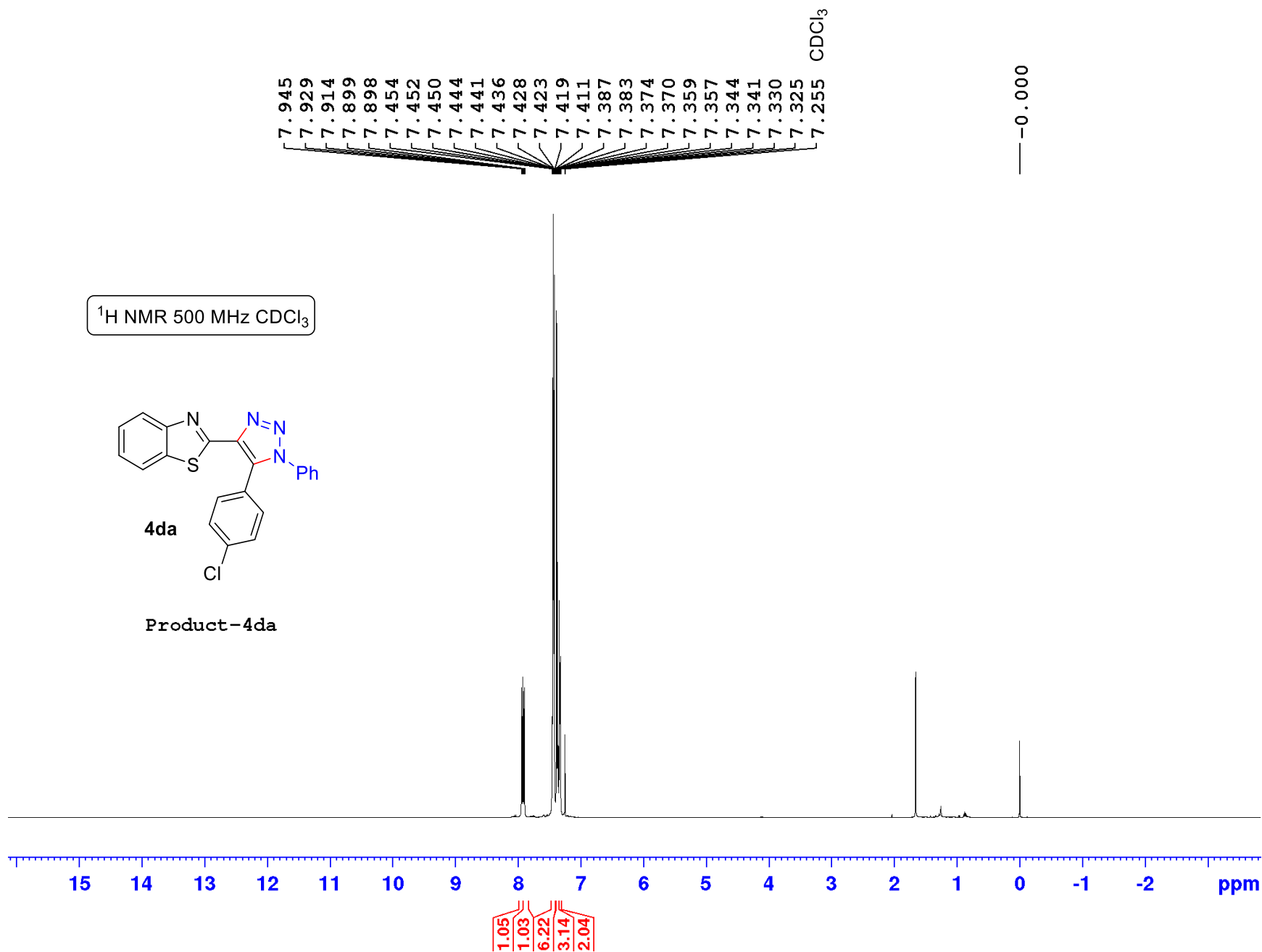
$^{19}\text{F}$  NMR (376 MHz,  $\text{CDCl}_3$ )

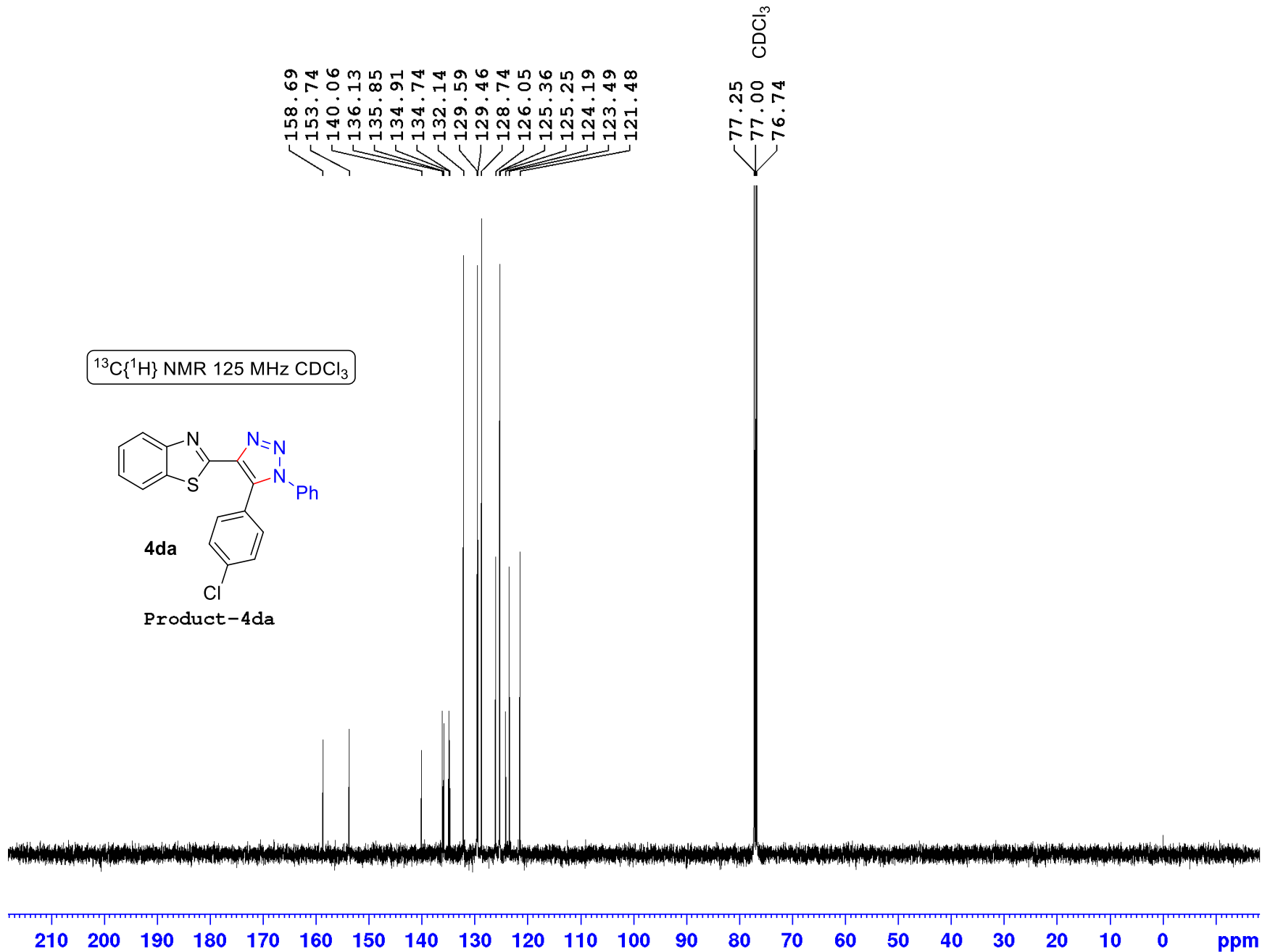


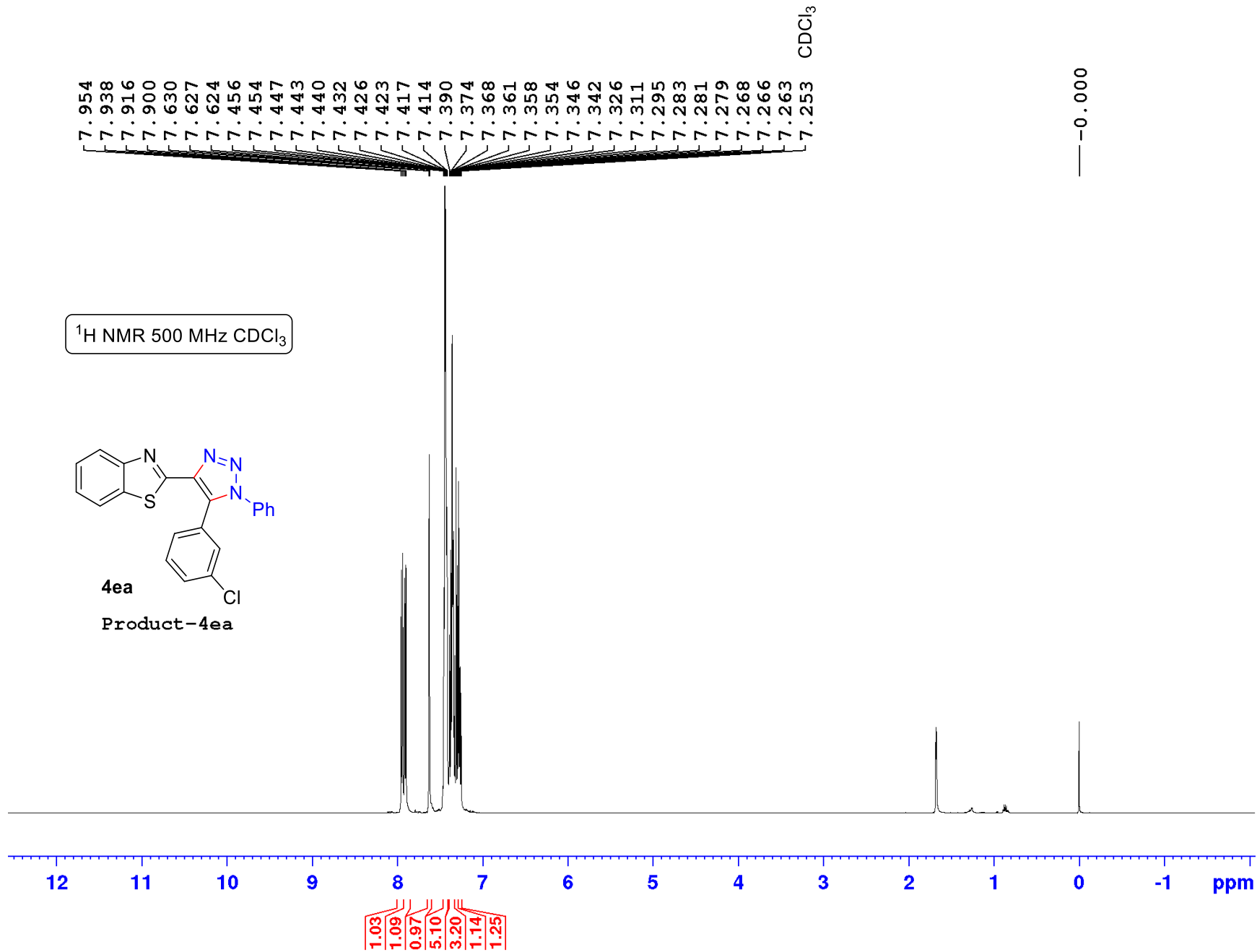
Product-4ca

— -62.86

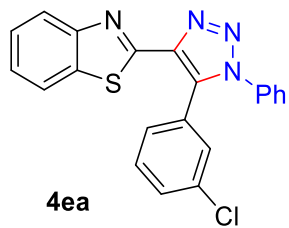
0 -20 -40 -60 -80 -100 -120 -140 -160 -180 -200 ppm







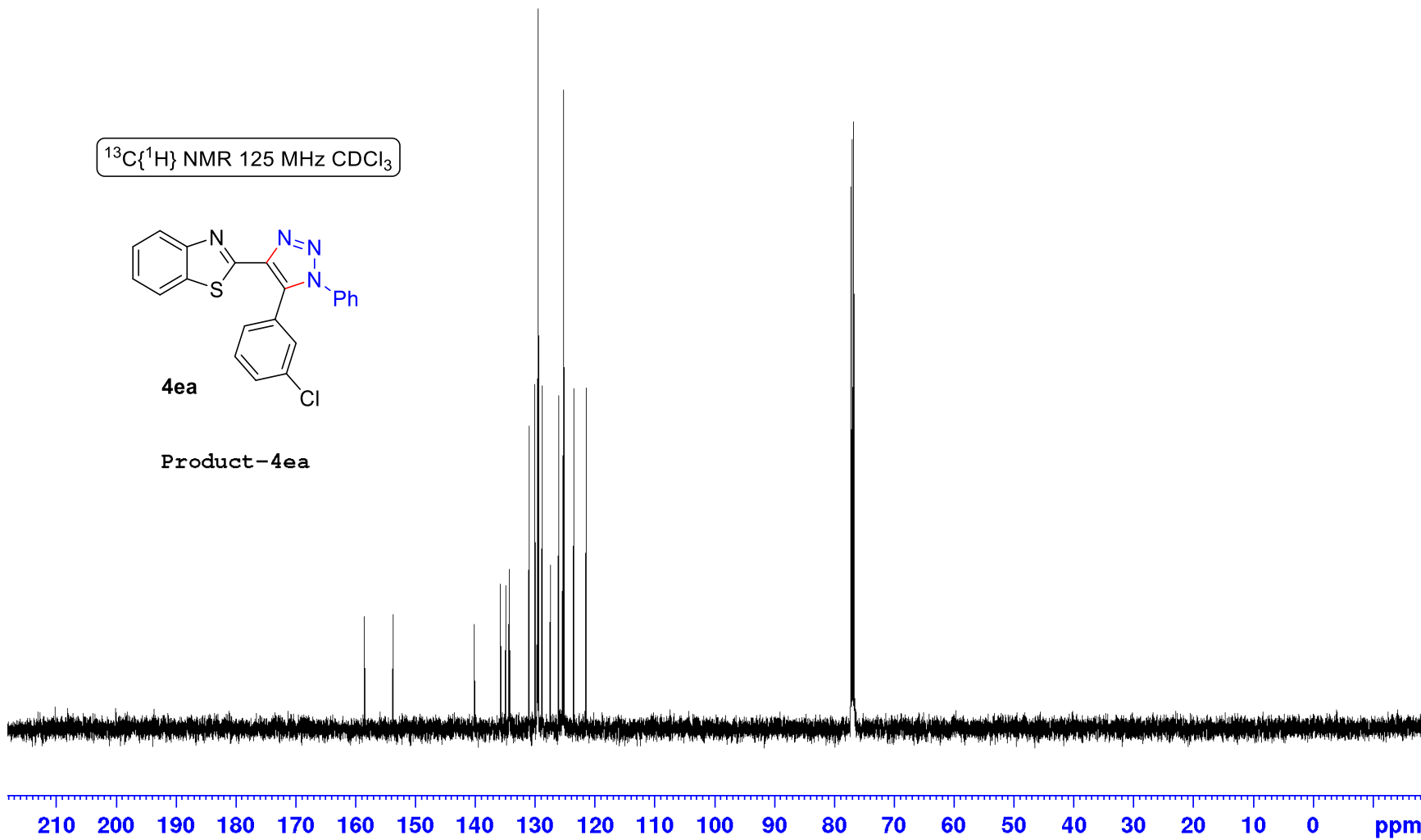
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



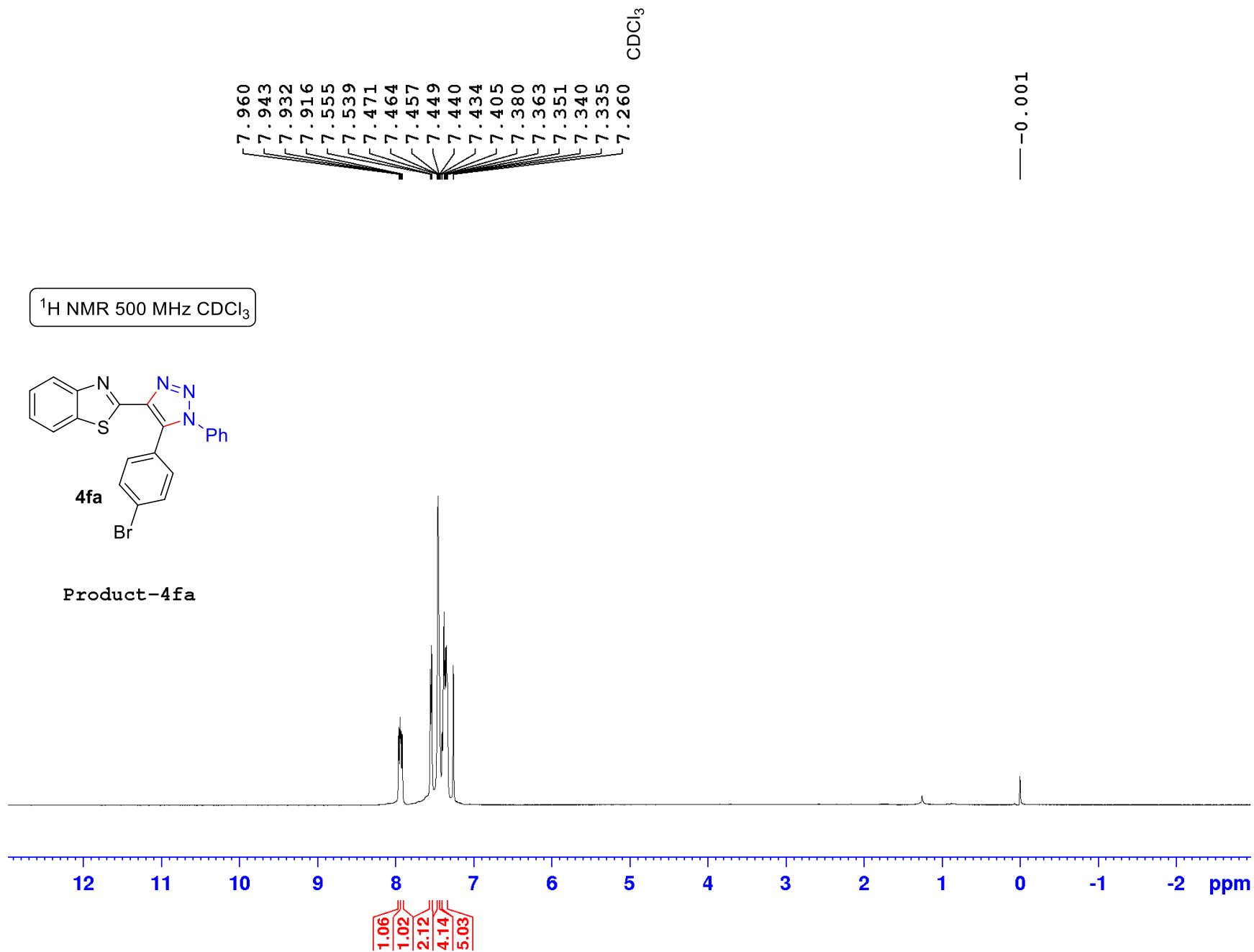
Product-4ea

158.51  
153.72  
140.19  
135.77  
134.91  
134.39  
134.31  
130.99  
130.03  
129.66  
129.58  
128.84  
127.48  
126.07  
125.39  
125.20  
123.57  
121.47

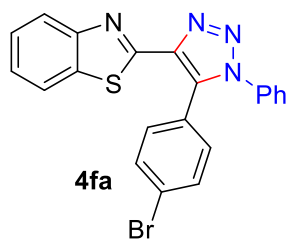
77.25  
77.00  $\text{CDCl}_3$   
76.74







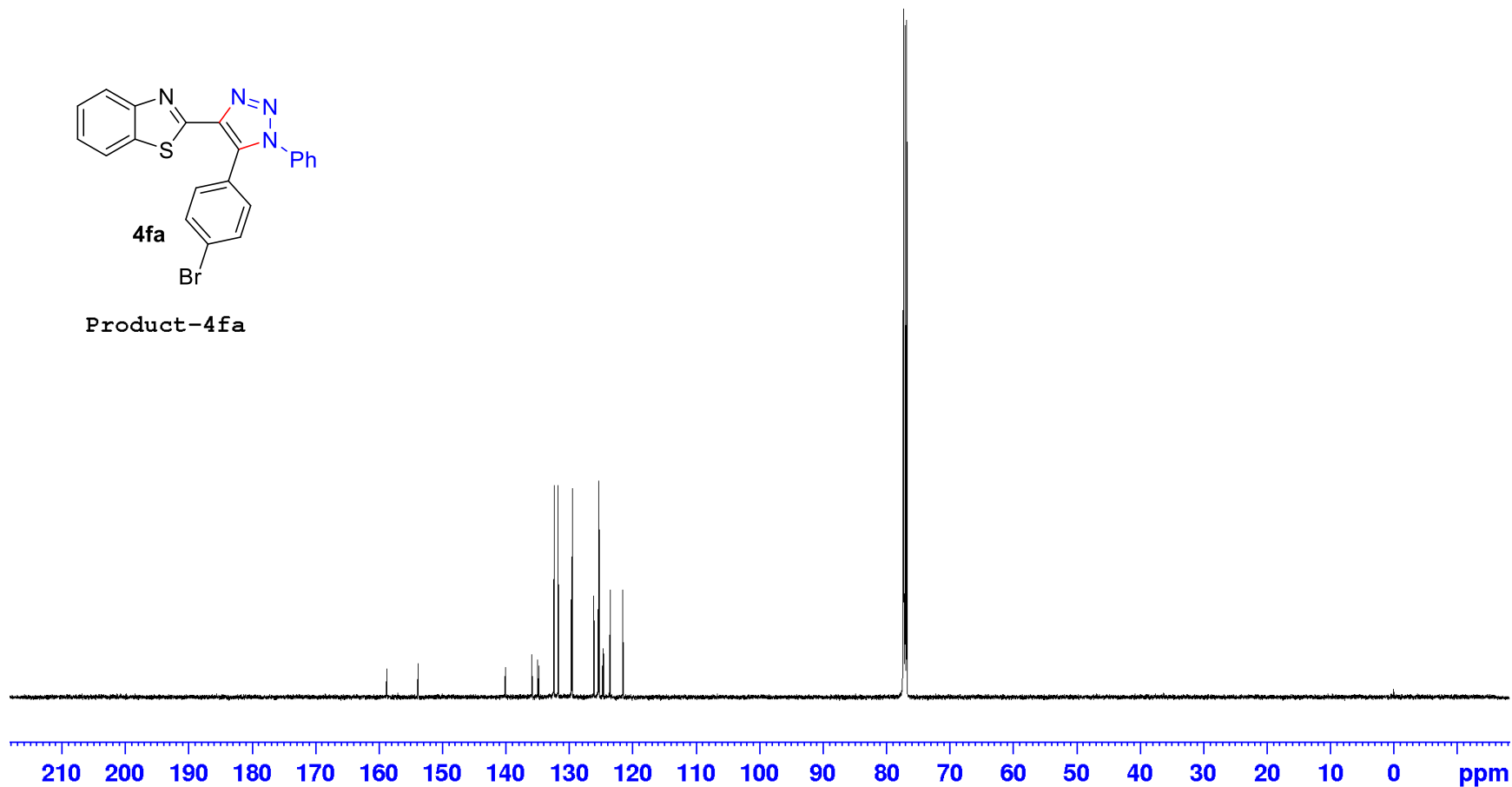
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$

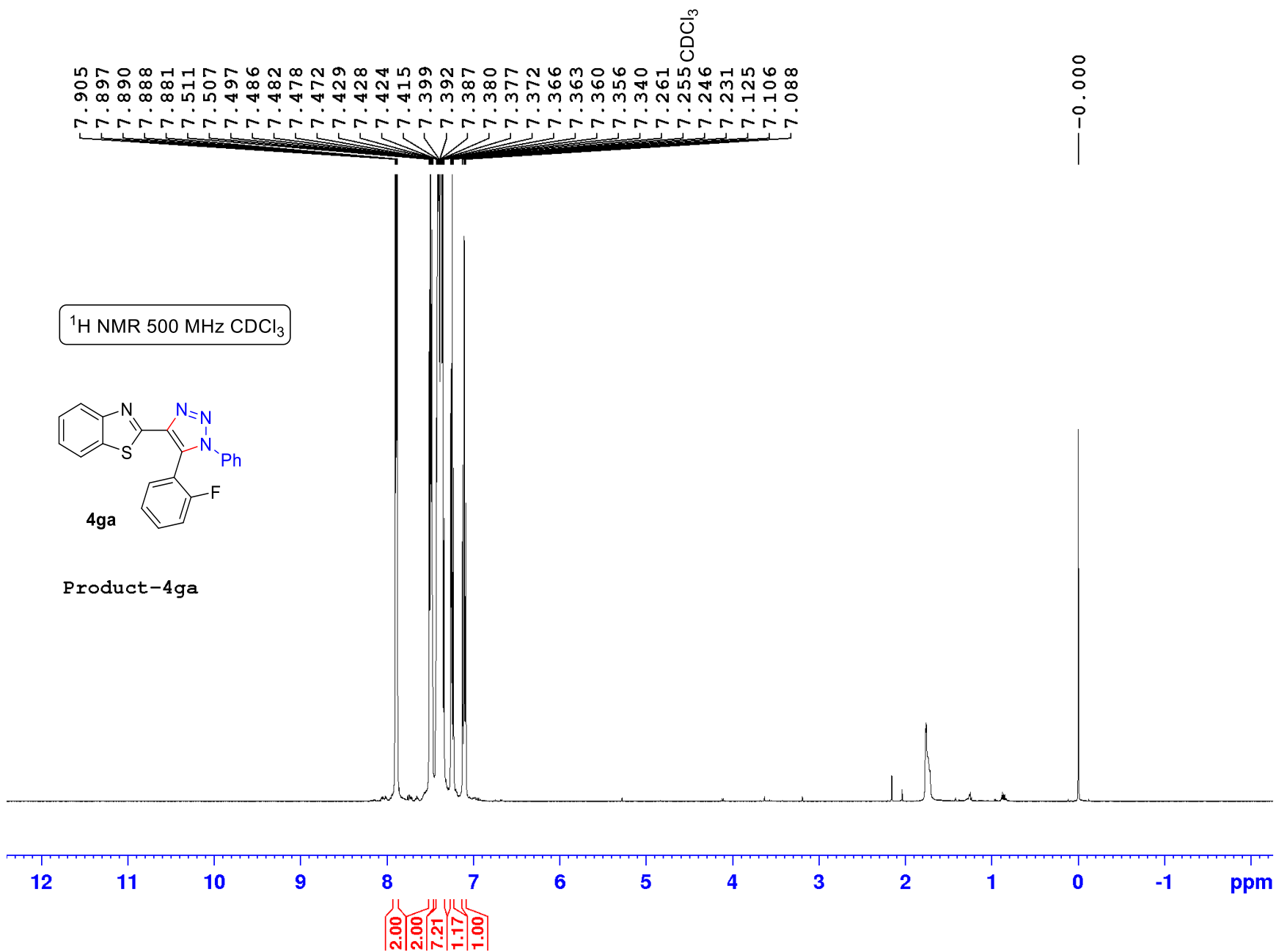


Product-4fa

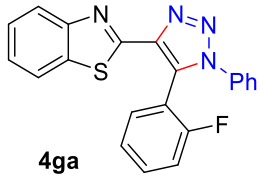
158.74  
153.80  
140.11  
135.90  
134.98  
134.81  
132.40  
131.75  
129.67  
129.54  
126.11  
125.43  
125.31  
124.73  
124.57  
123.57  
121.55

77.28  
77.02  
76.77  
 $\text{CDCl}_3$

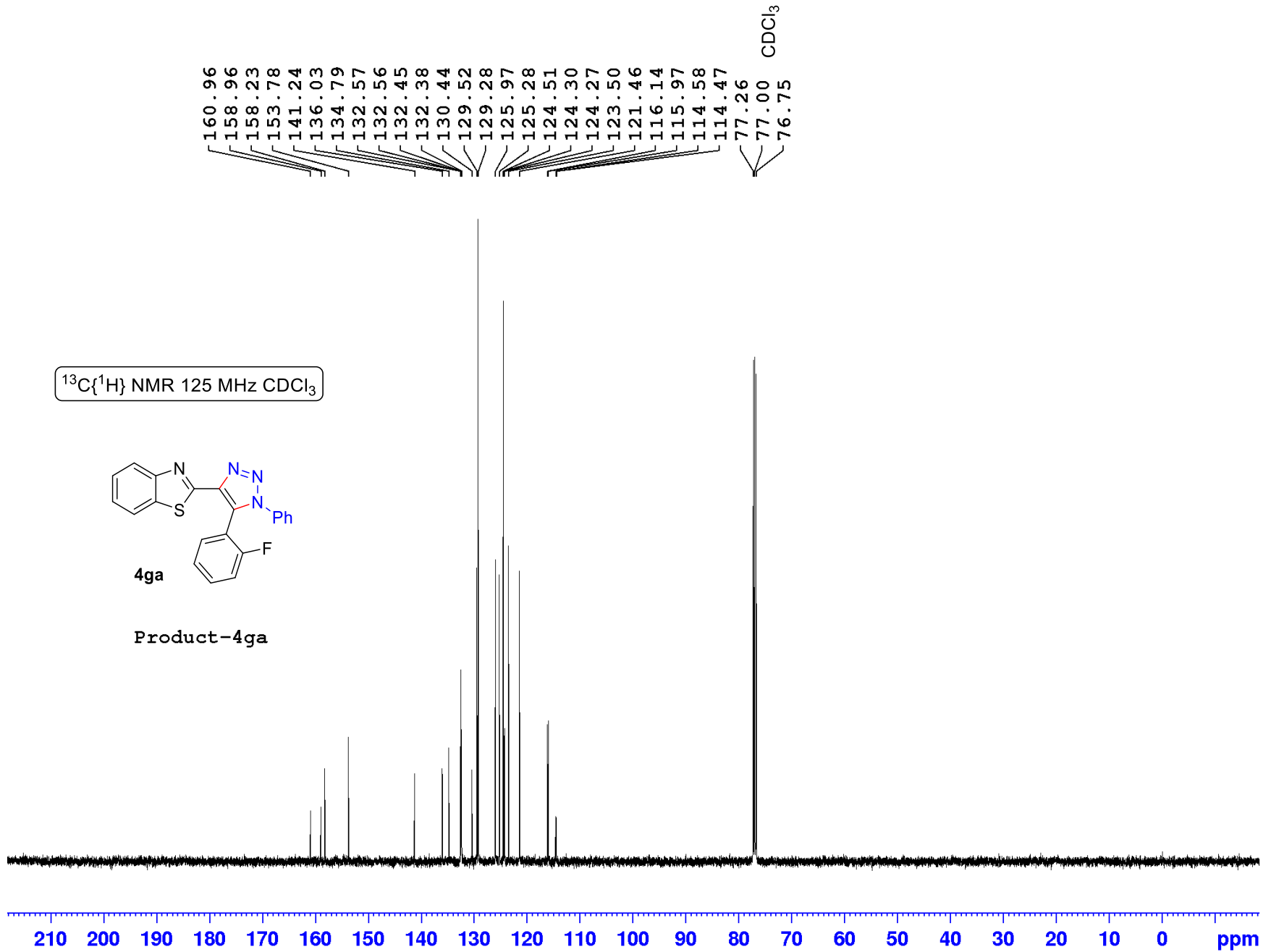




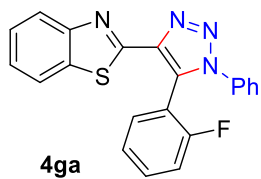
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



Product-4ga



<sup>19</sup>F NMR (470 MHz, CDCl<sub>3</sub>)

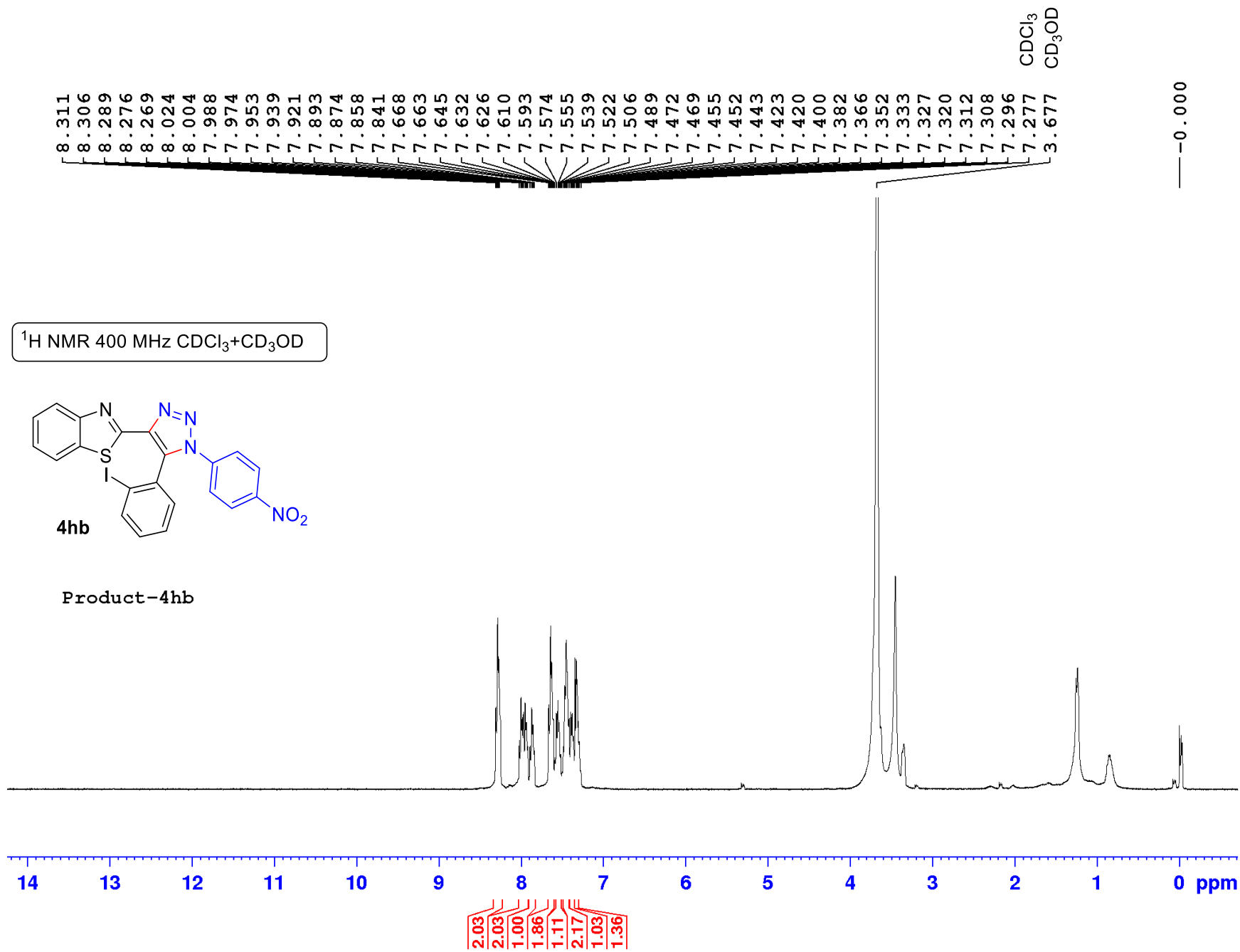


**4ga**

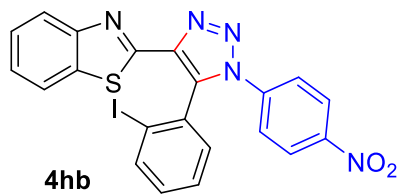
**Product-4ga**

— -110.31

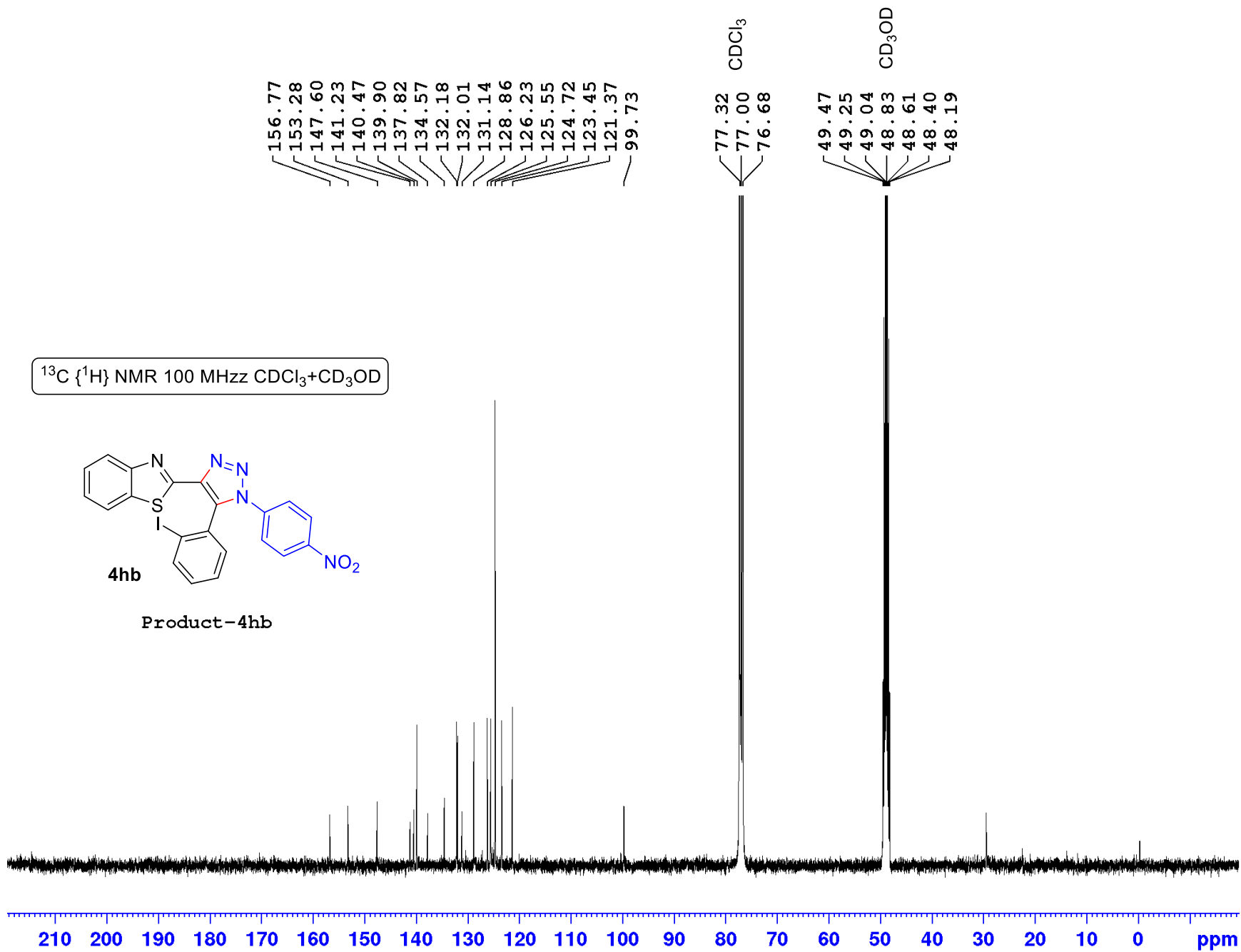
0 -20 -40 -60 -80 -100 -120 -140 -160 -180 -200 ppm

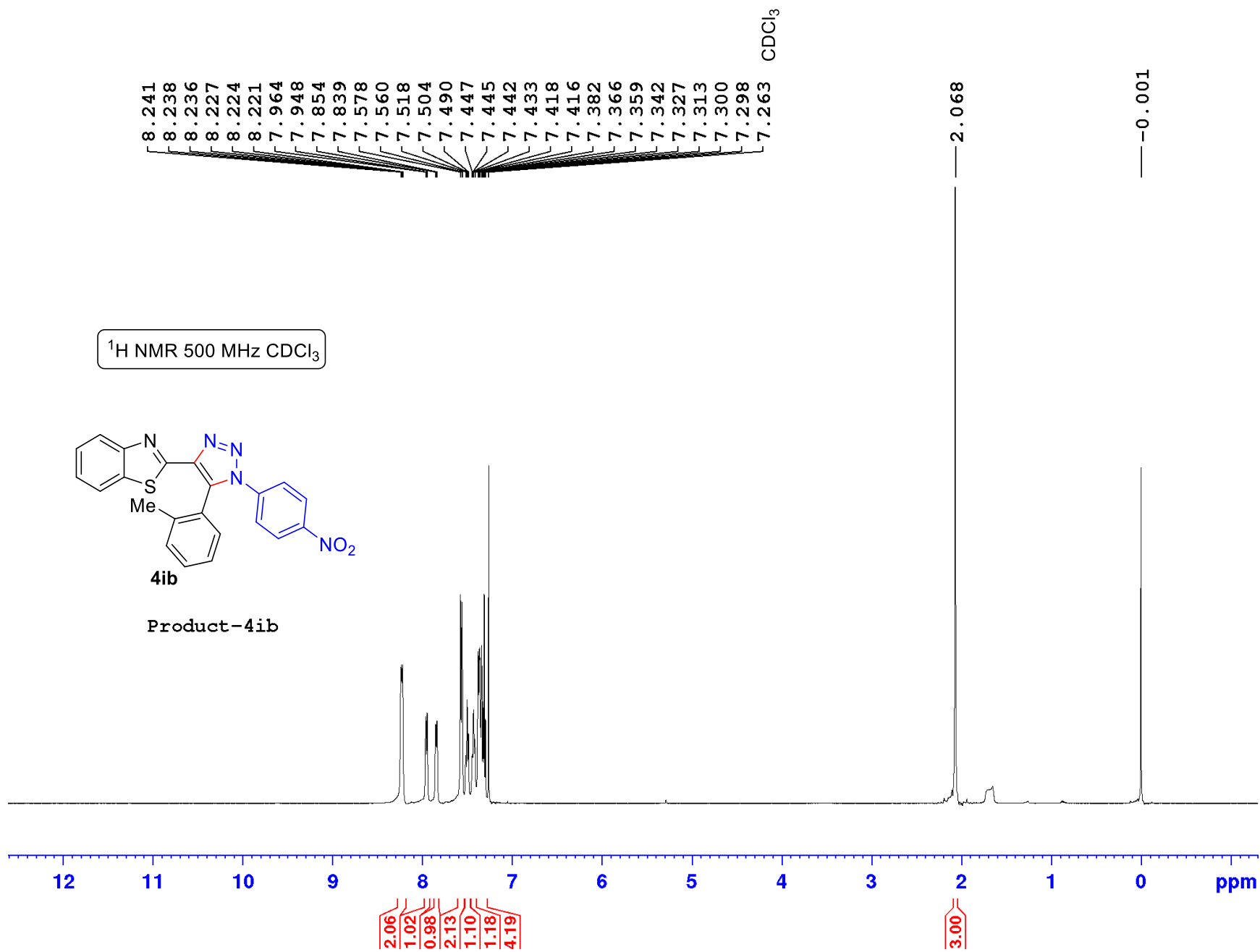


$^{13}\text{C} \{^1\text{H}\}$  NMR 100 MHz  $\text{CDCl}_3 + \text{CD}_3\text{OD}$



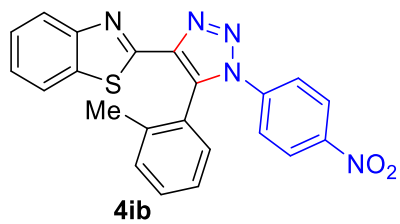
Product-4hb



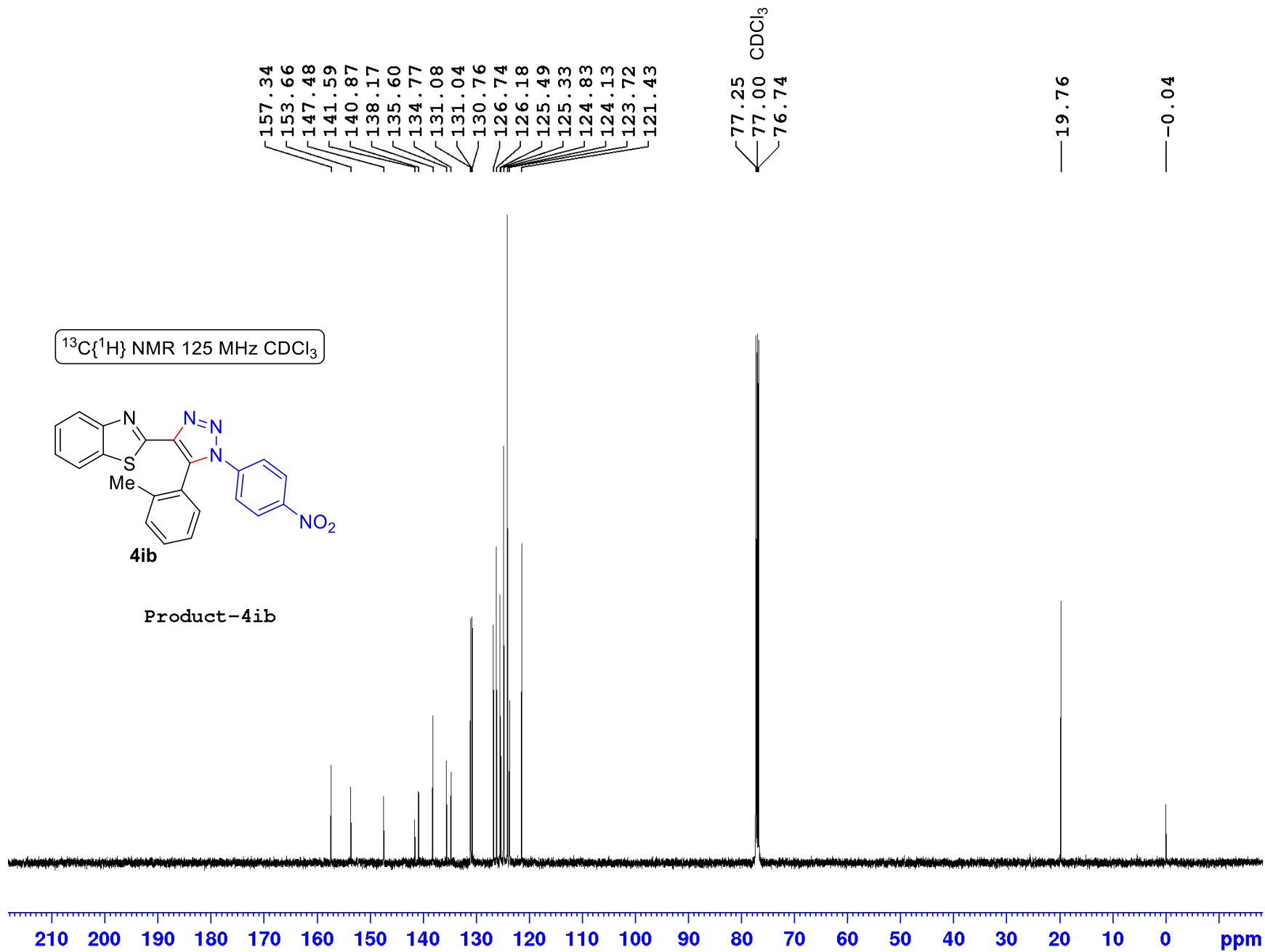


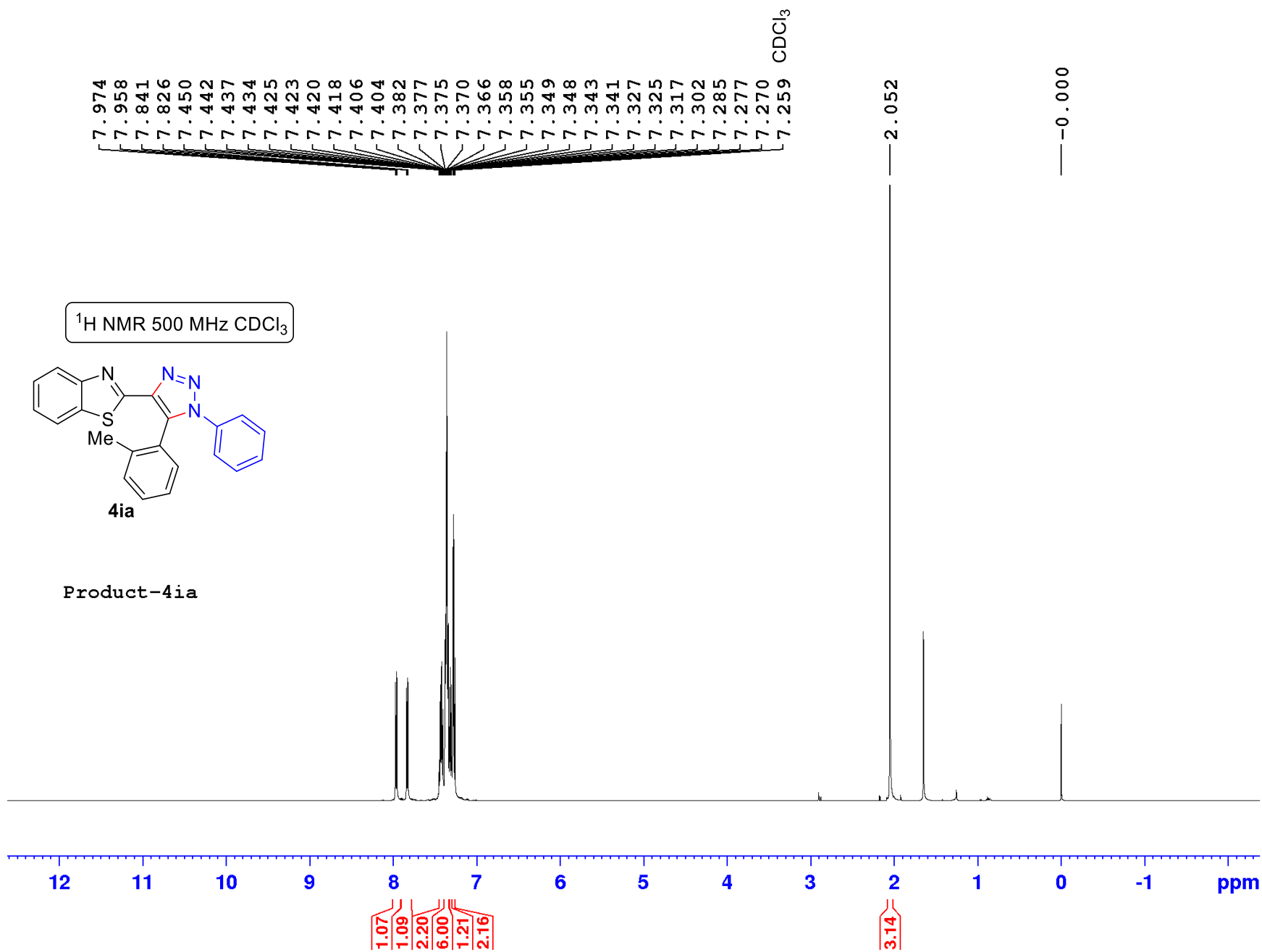


$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$

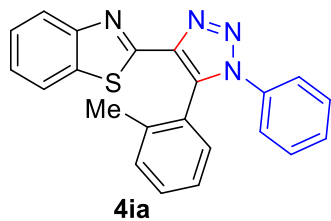


Product-4ib

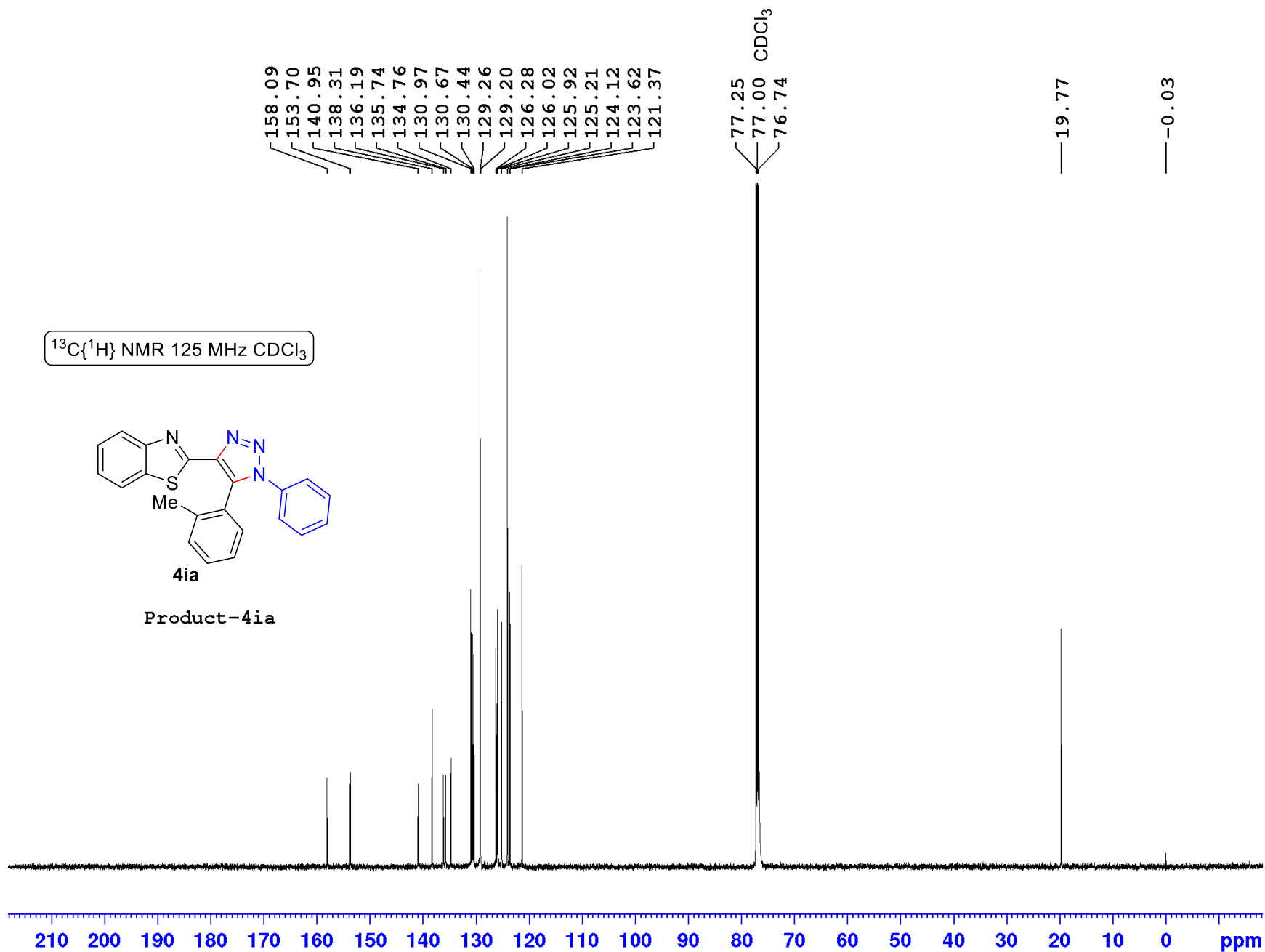




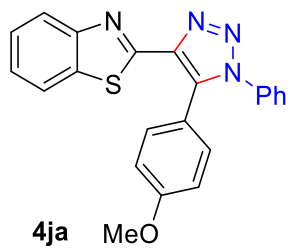
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



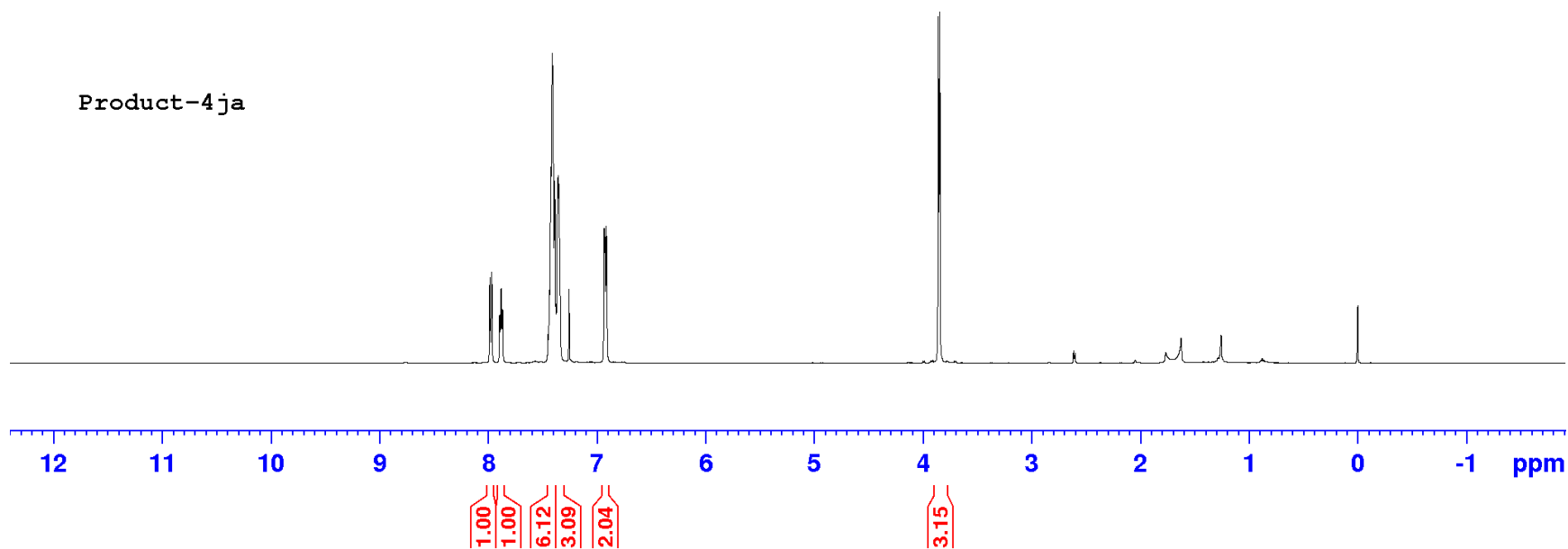
Product-4ia



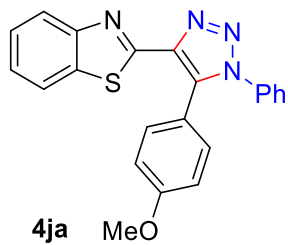
<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



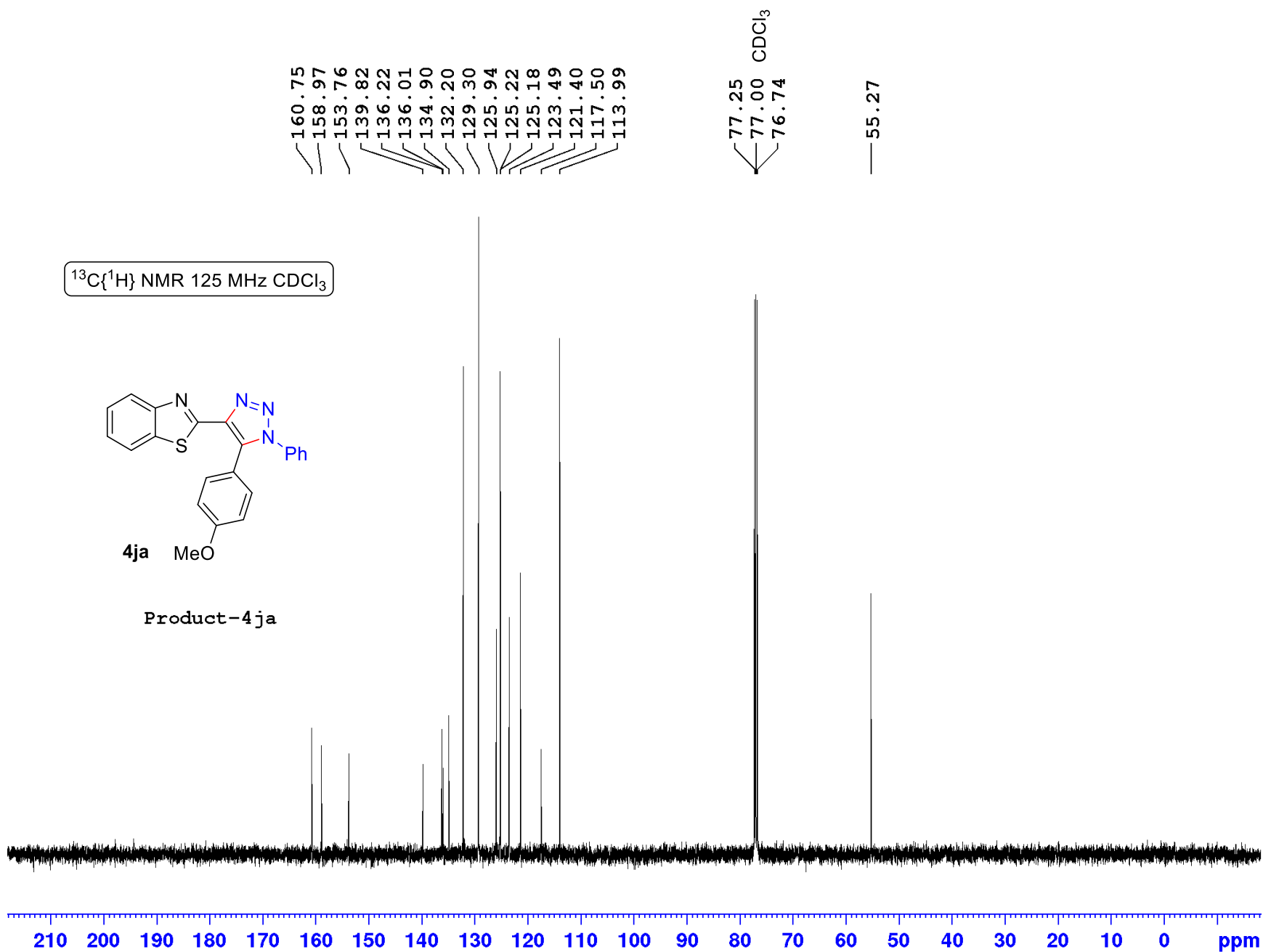
Product-4ja



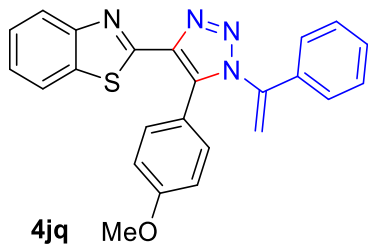
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



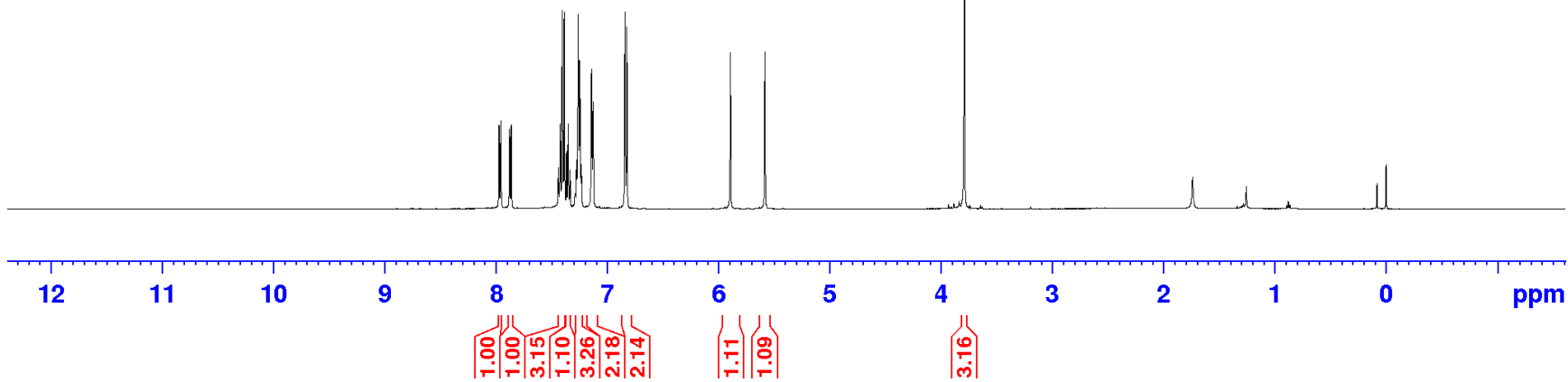
Product-4ja



<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



Product-4jq

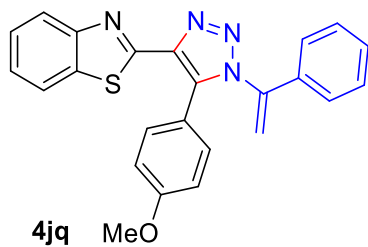


7.973  
7.957  
7.880  
7.864  
7.441  
7.439  
7.424  
7.410  
7.405  
7.391  
7.388  
7.382  
7.367  
7.366  
7.351  
7.337  
7.335  
7.276  
7.263  
7.256  
7.248  
7.239  
7.236  
7.230  
7.144  
7.141  
7.128  
7.125  
6.842  
6.825  
5.895  
5.894  
5.584  
5.582  
3.792

CDCl<sub>3</sub>

— 0.000

$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$

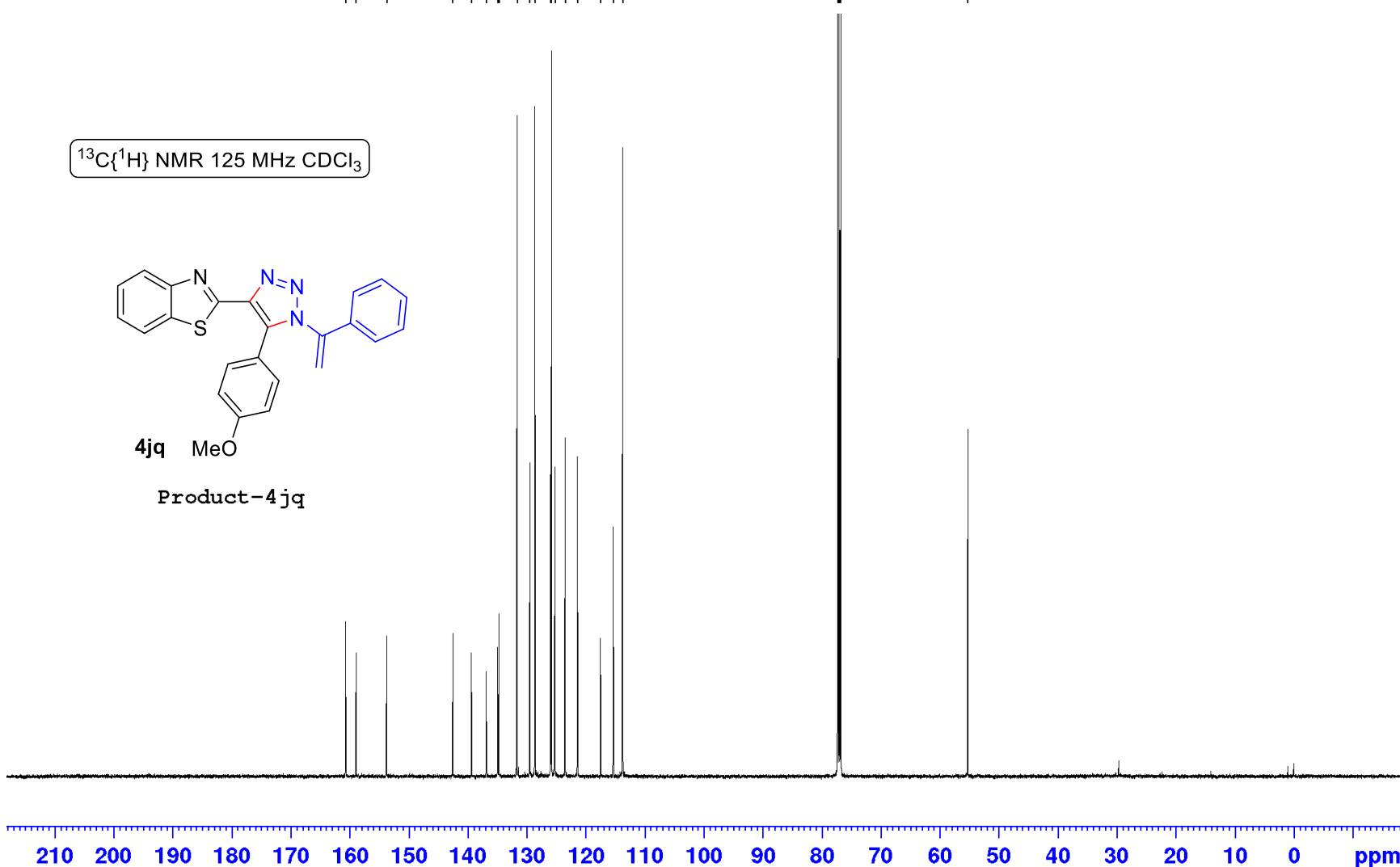


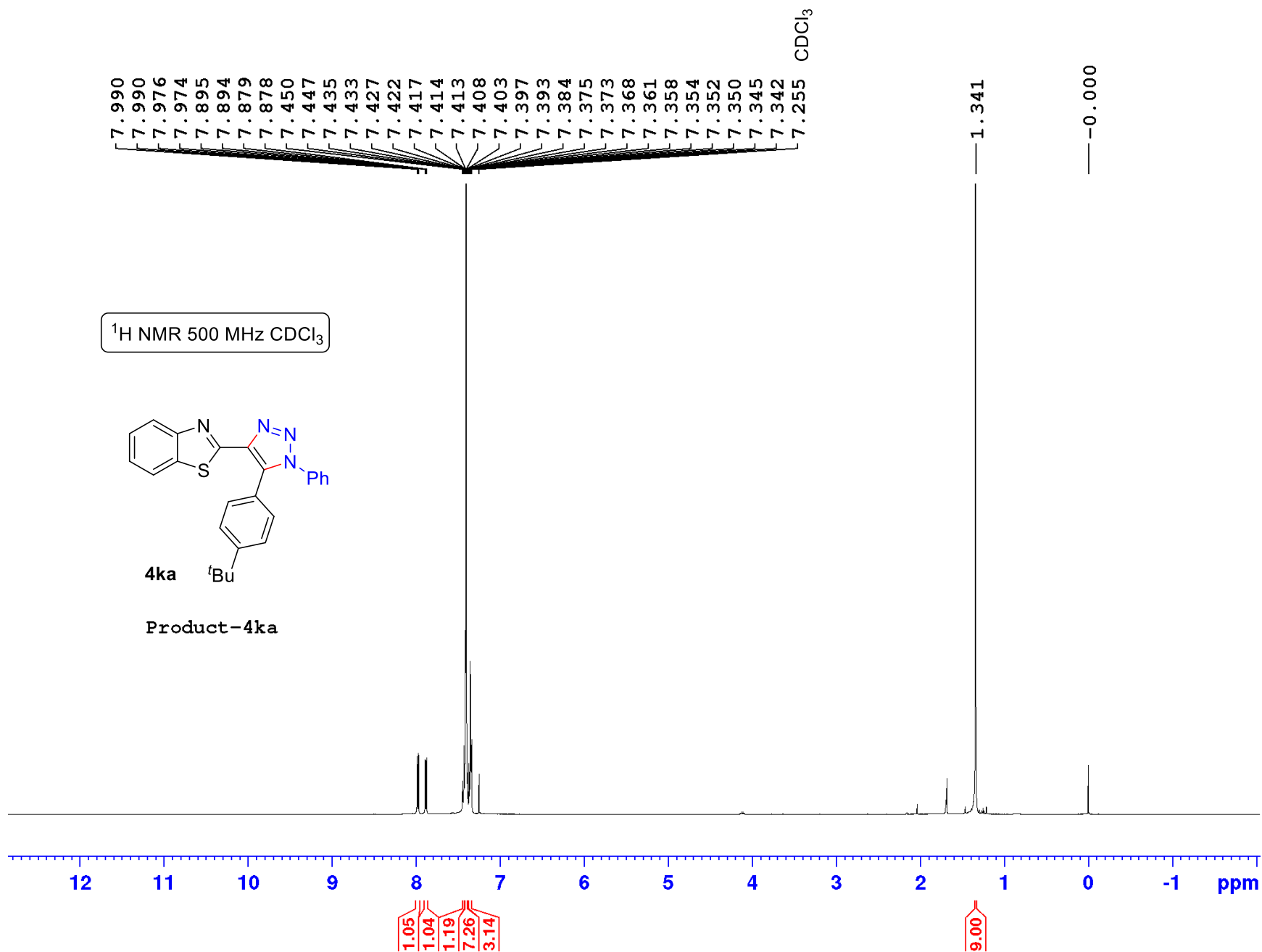
Product-4jq

160.75  
158.99  
153.79  
142.57  
139.40  
136.90  
134.95  
134.77  
131.68  
129.52  
128.65  
126.01  
125.86  
125.24  
123.54  
121.45  
117.51  
115.37  
113.77

77.32  
77.07  $\text{CDCl}_3$   
76.81

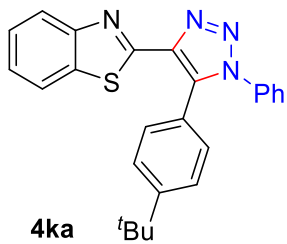
55.28



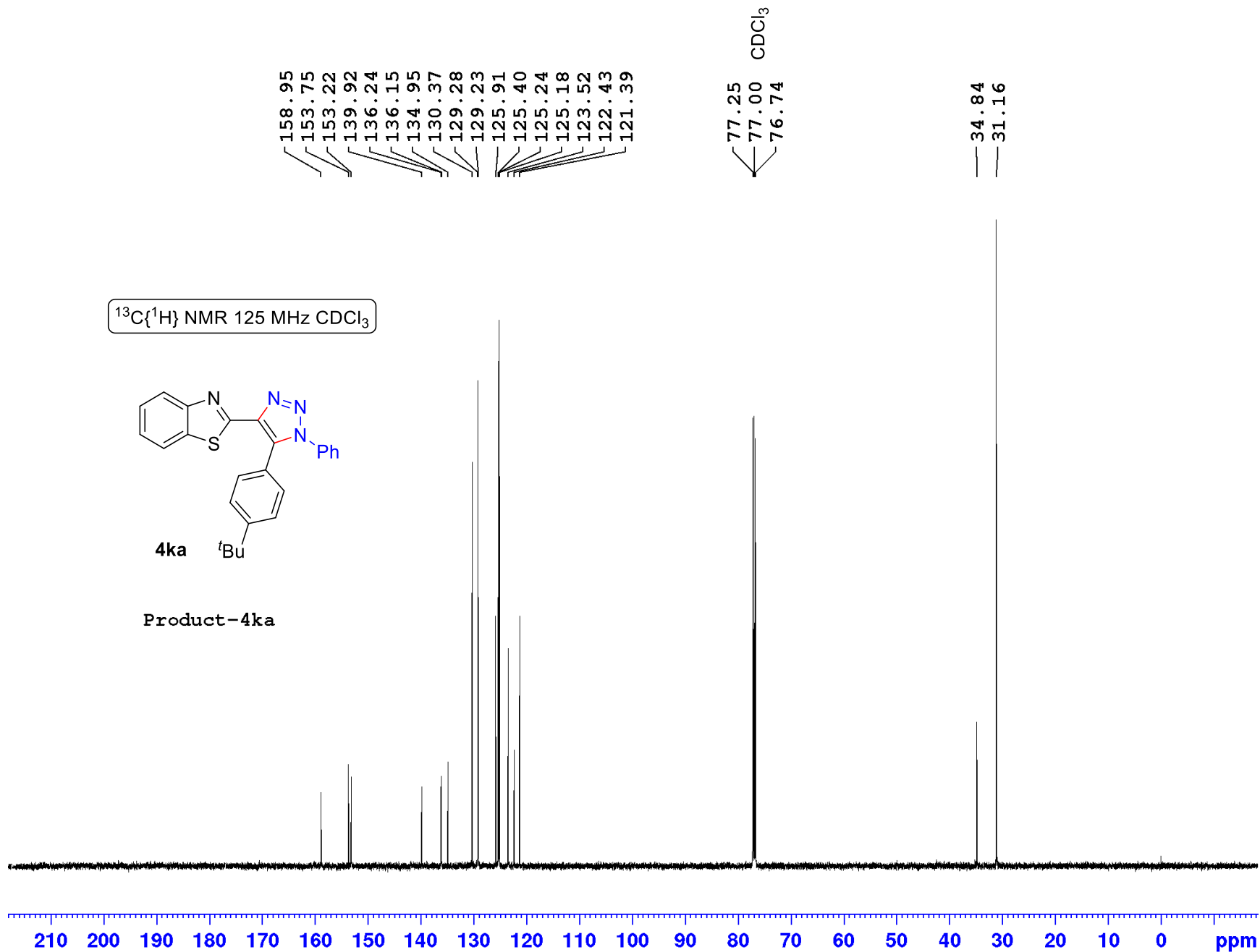


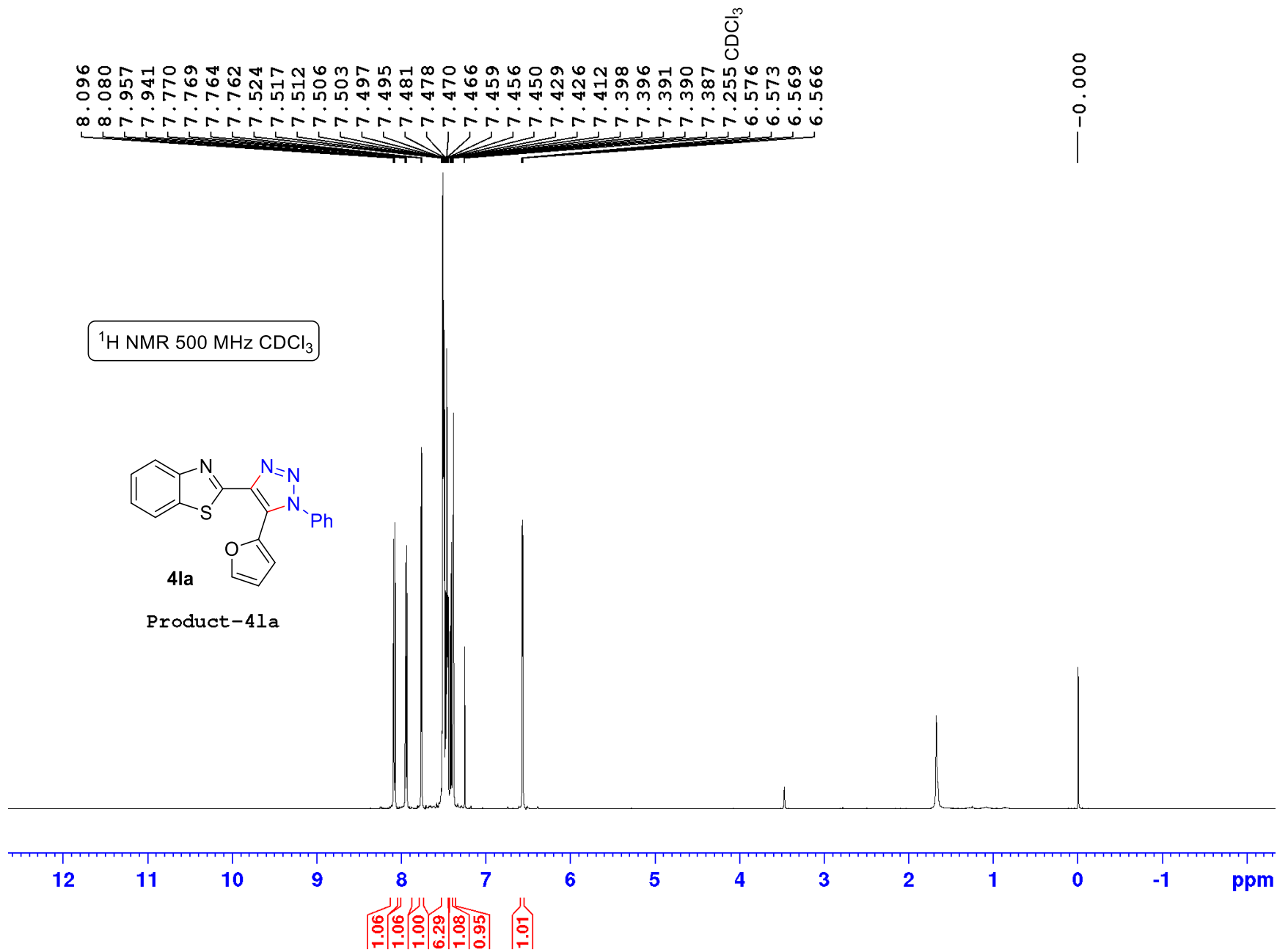


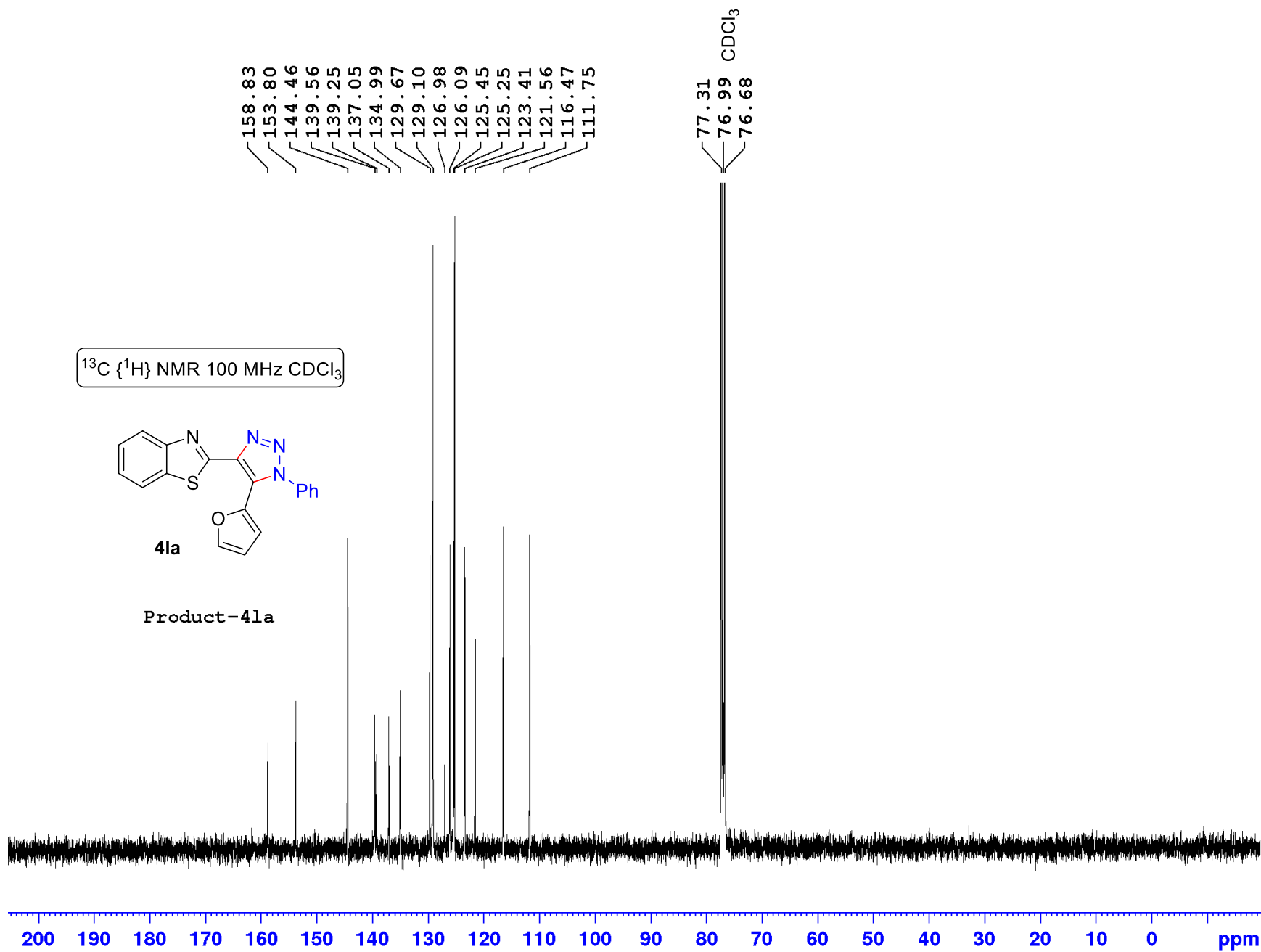
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



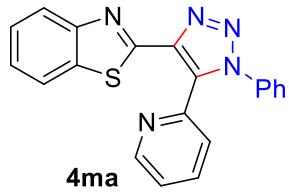
Product-4ka



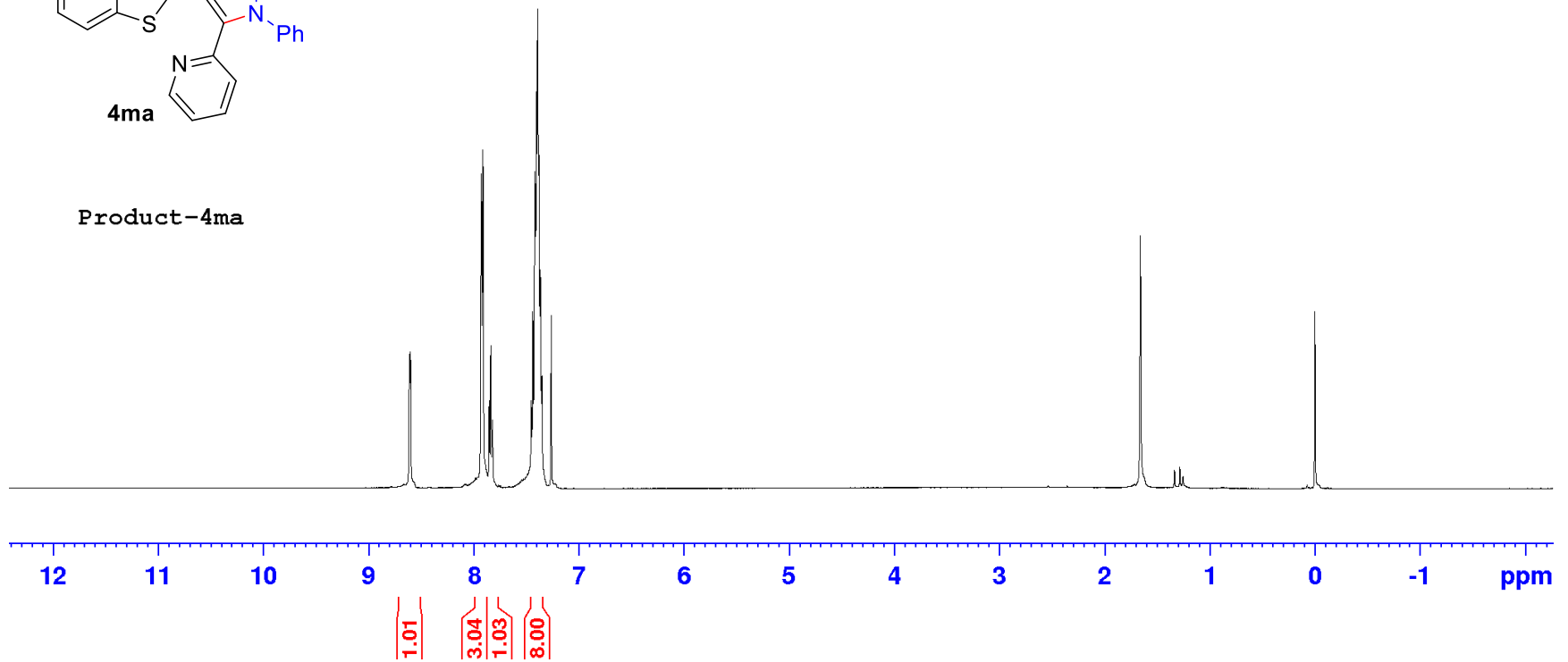




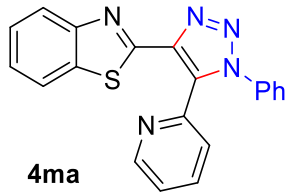
<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



Product-4ma



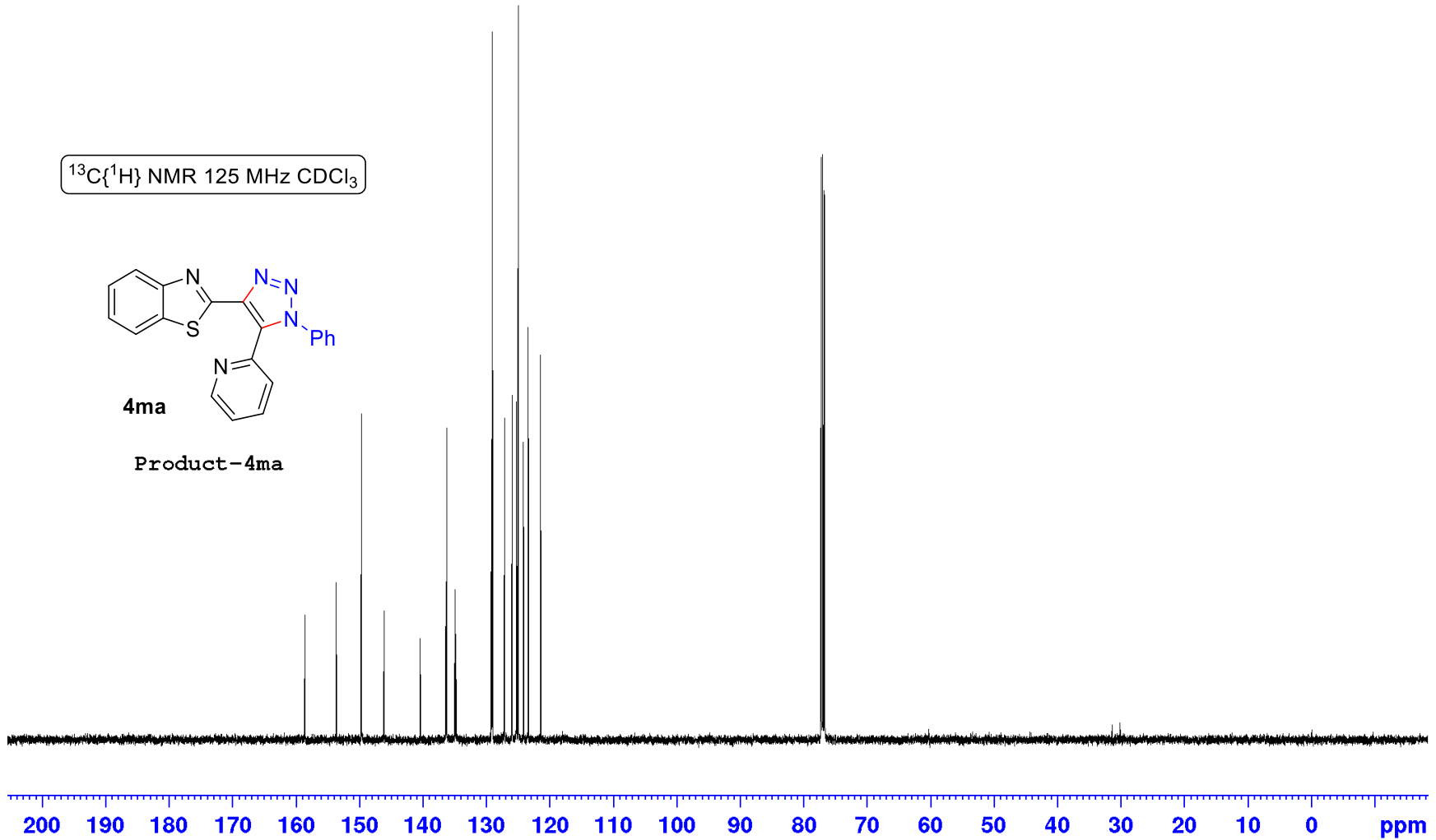
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



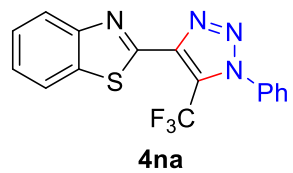
Product-4ma

158.61  
153.68  
149.69  
146.15  
140.43  
136.42  
136.26  
134.93  
134.80  
129.23  
129.06  
127.15  
125.95  
125.29  
125.01  
124.16  
123.40  
121.45

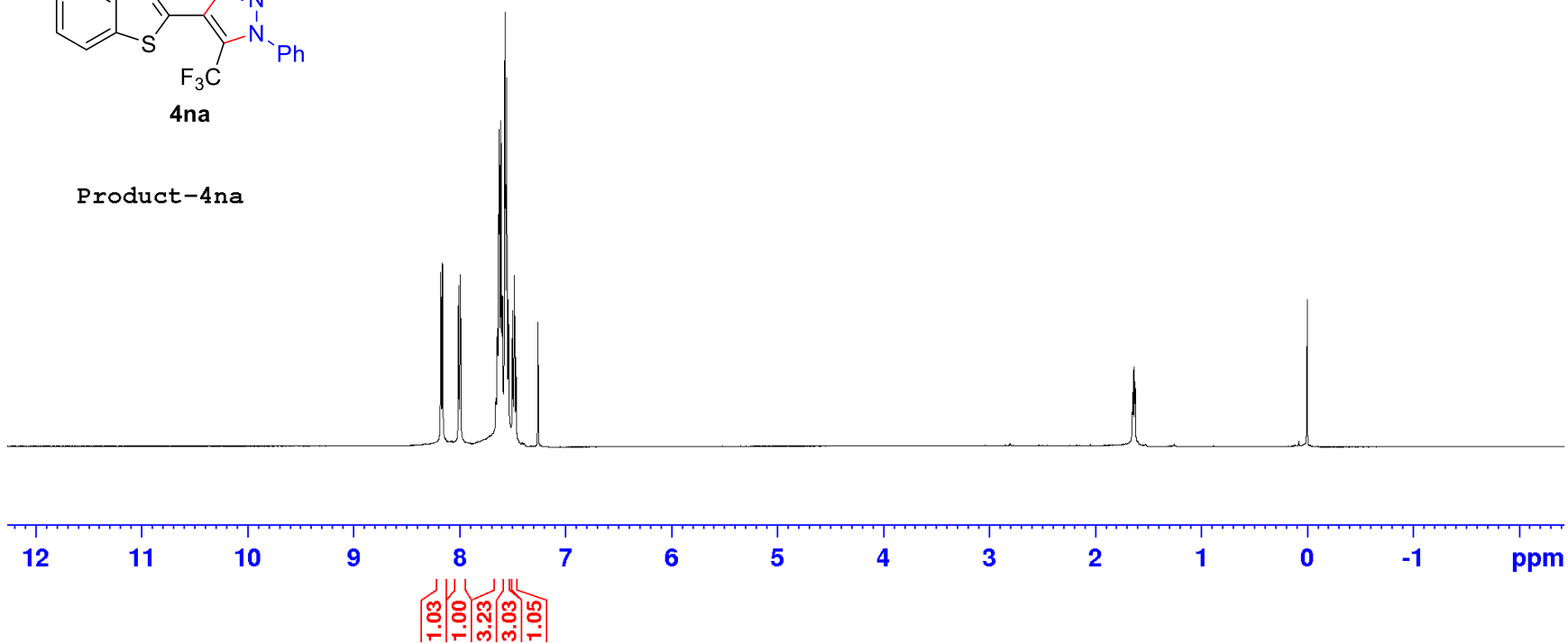
77.25  
76.99  $\text{CDCl}_3$   
76.74



$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



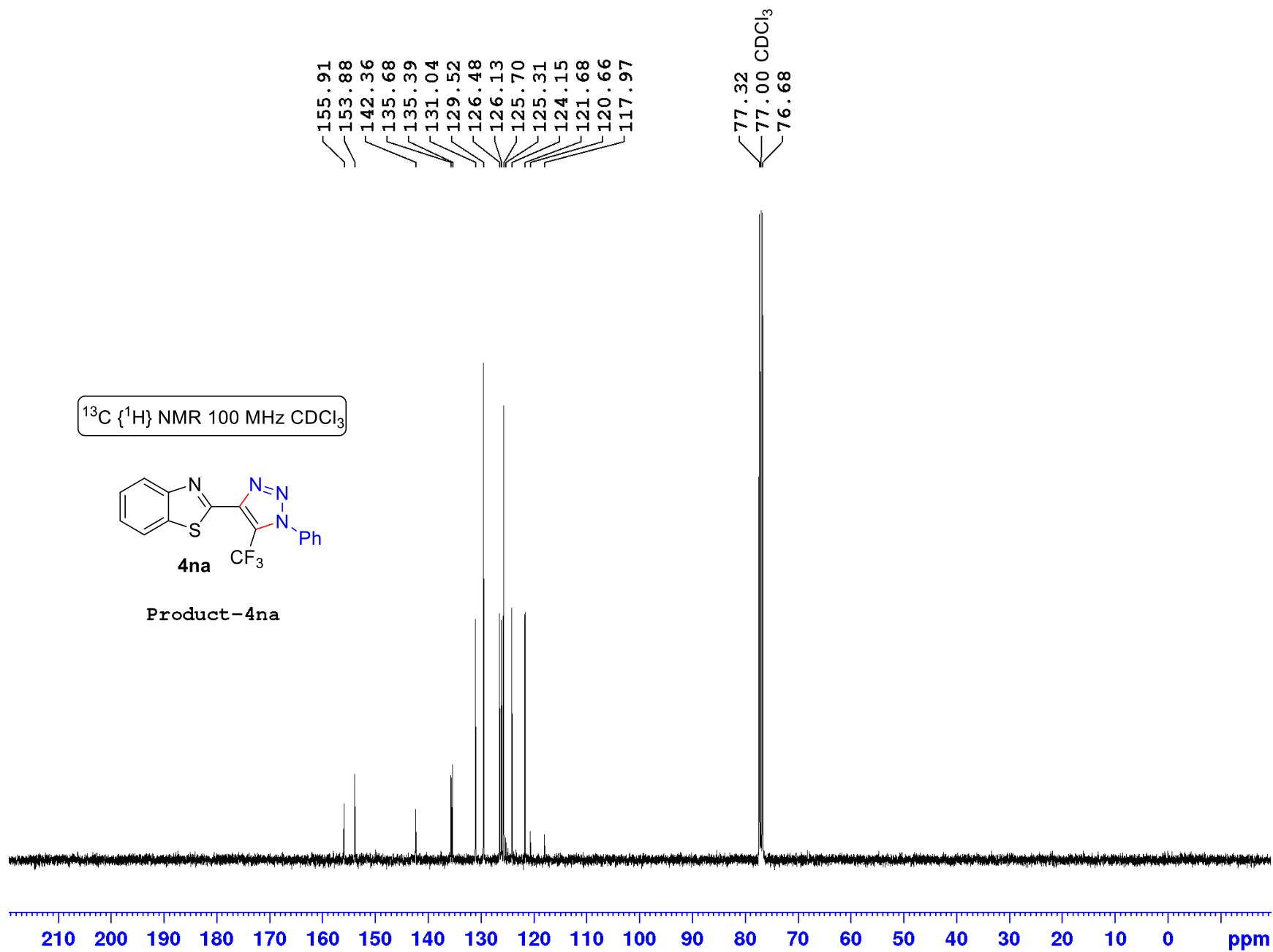
Product-4na



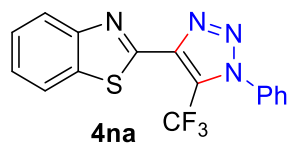
8.178  
8.162  
8.010  
7.994  
7.660  
7.657  
7.653  
7.644  
7.639  
7.635  
7.632  
7.628  
7.612  
7.611  
7.604  
7.600  
7.598  
7.595  
7.571  
7.556  
7.542  
7.540  
7.502  
7.499  
7.485  
7.484  
7.471  
7.469  
7.261

$\text{CDCl}_3$

— — 0.000



<sup>19</sup>F NMR (376 MHz, CDCl<sub>3</sub>)

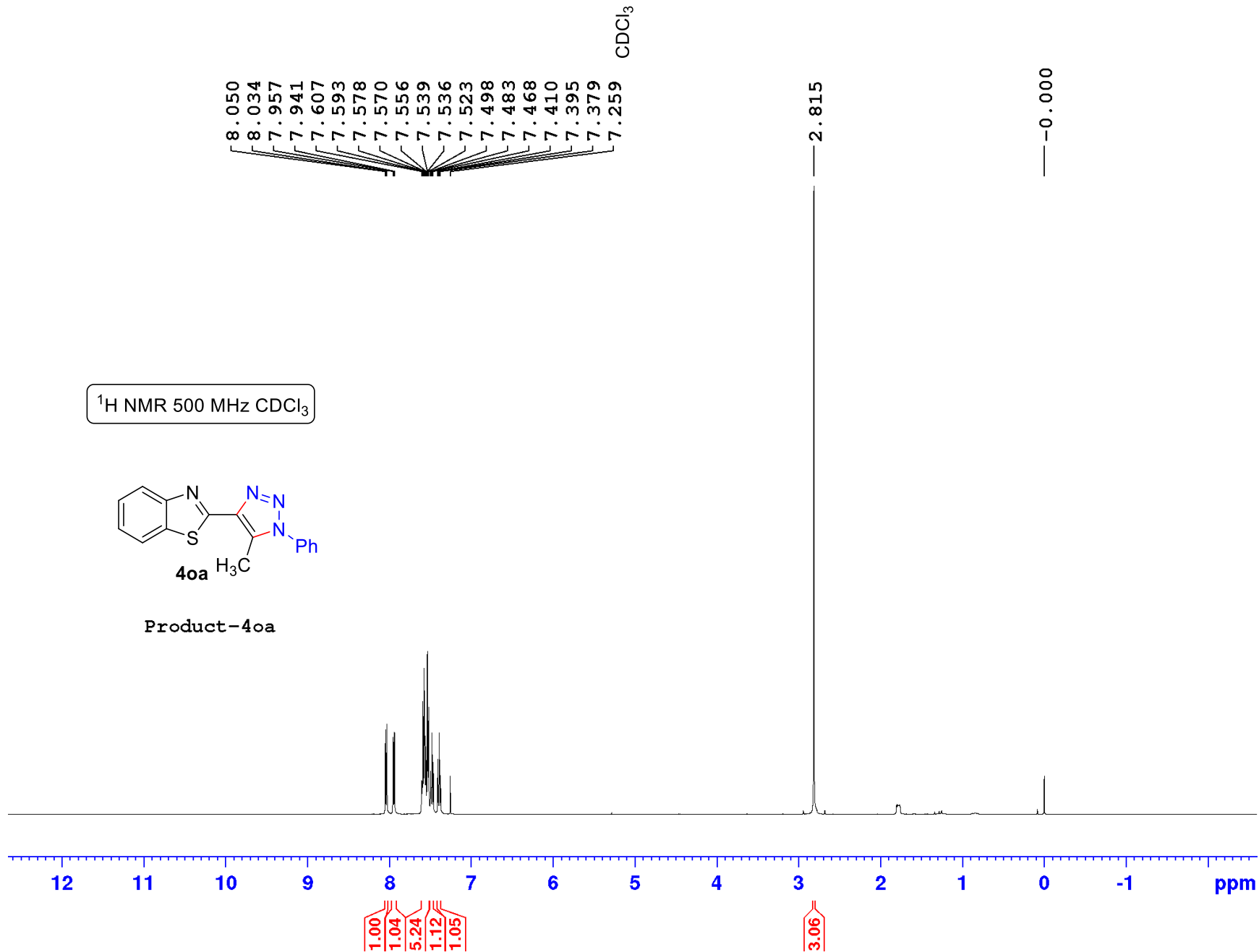


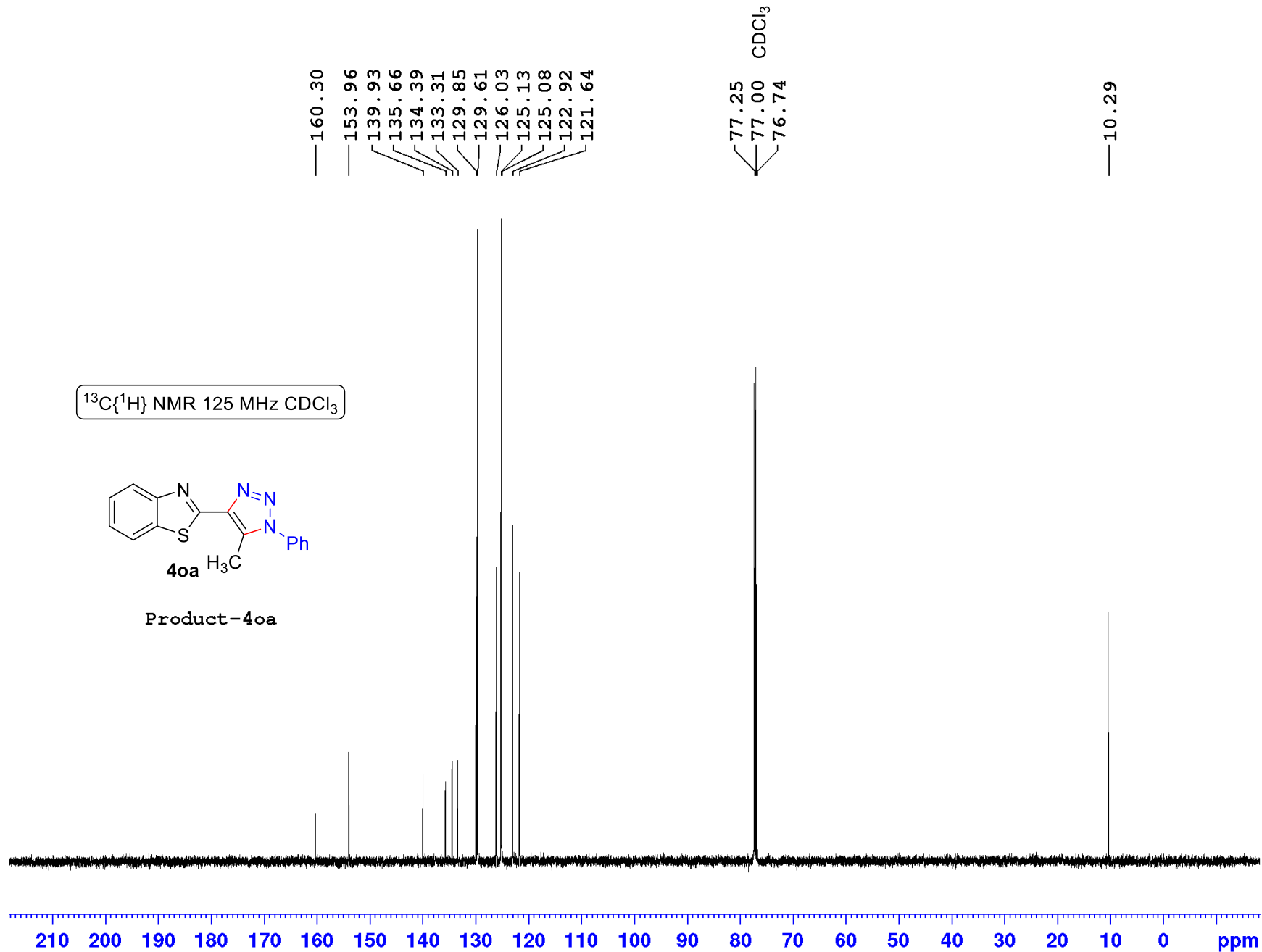
Product-4na

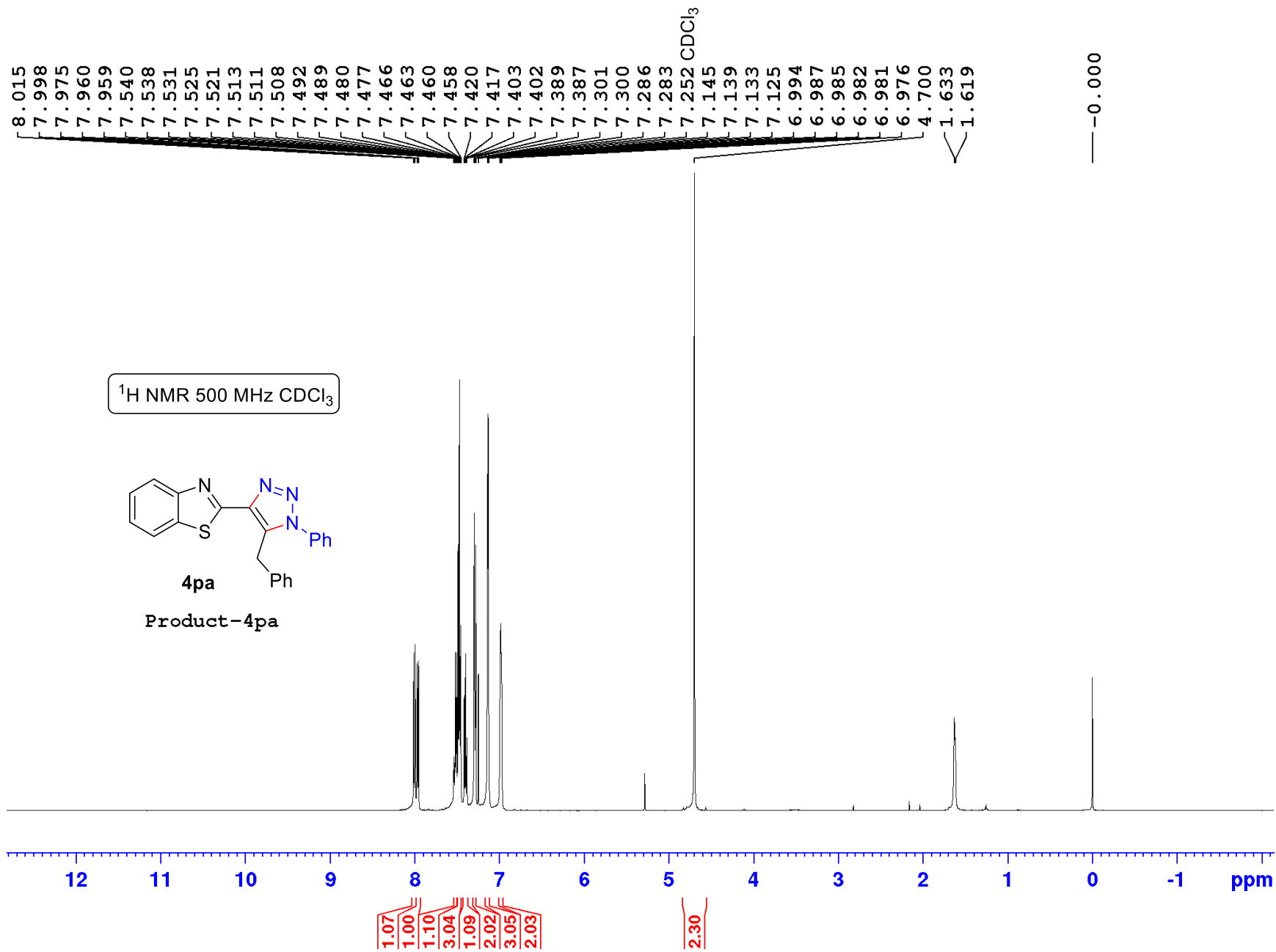
—55.38

0 -20 -40 -60 -80 -100 -120 -140 -160 -180 -200 ppm

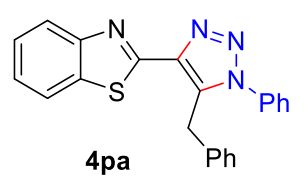








$^{13}\text{C} \{^1\text{H}\}$  NMR 100 MHz  $\text{CDCl}_3$

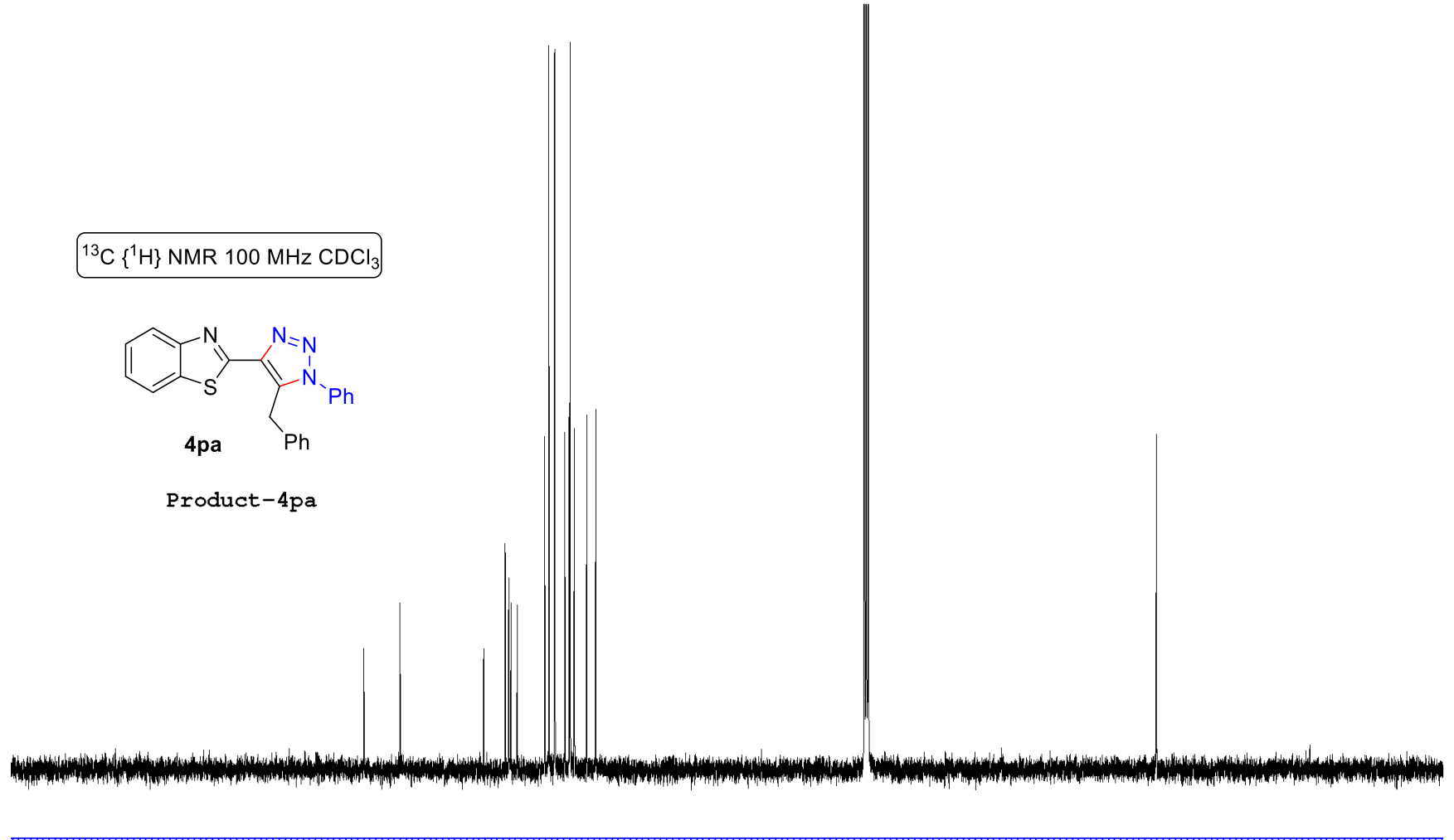


Product-4pa

159.98  
154.02  
140.19  
136.64  
136.05  
135.69  
134.63  
130.13  
129.43  
128.52  
128.42  
126.79  
126.08  
125.90  
125.21  
123.17  
121.68

77.32  
77.00  $\text{CDCl}_3$   
76.68

29.05



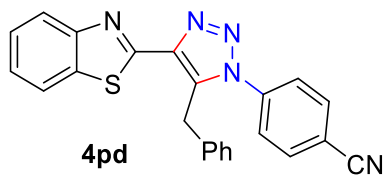
210 200 190 180 170 160 150 140 130 120 110 100 90 80 70 60 50 40 30 20 10 0 ppm

7.998  
7.982  
7.977  
7.961  
7.765  
7.748  
7.493  
7.491  
7.477  
7.468  
7.464  
7.451  
7.430  
7.428  
7.414  
7.400  
7.398  
7.254  
7.184  
7.182  
7.176  
7.171  
6.996  
6.989  
6.981  
6.977  
4.764

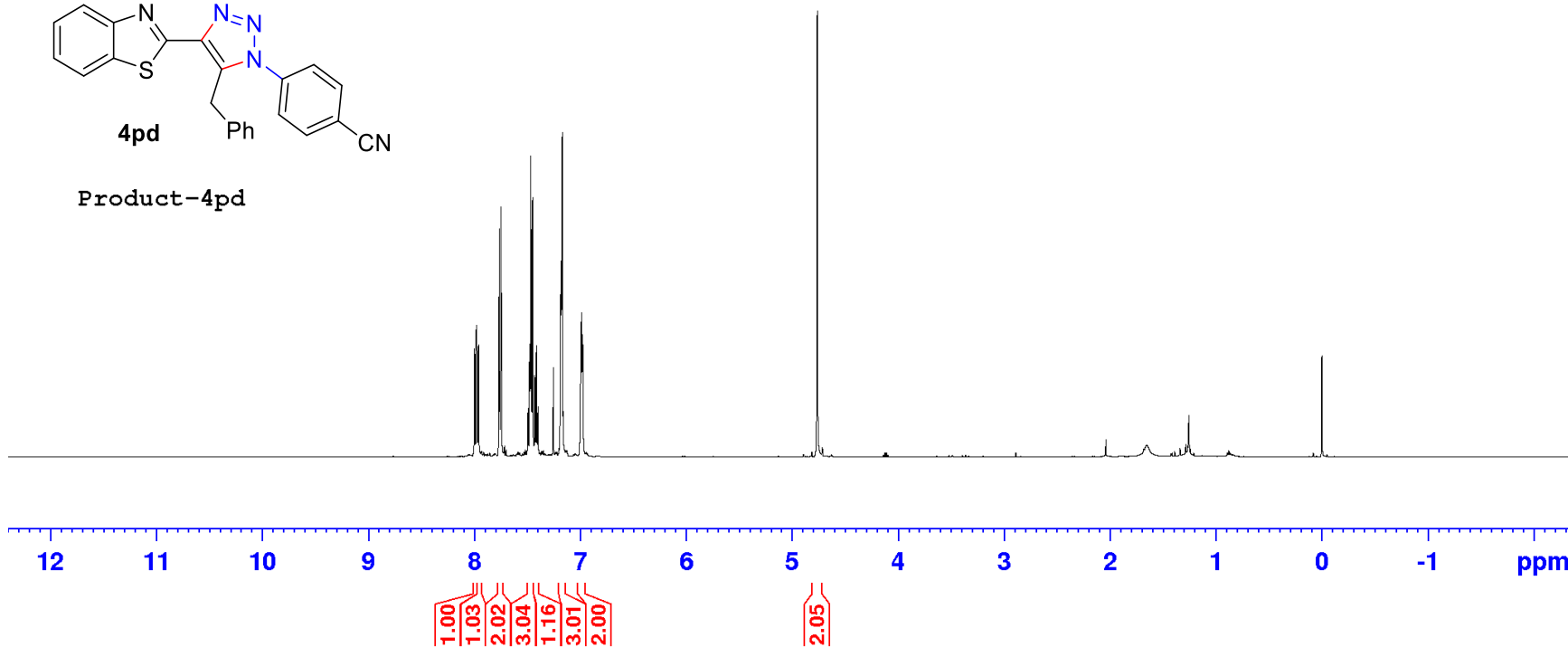
CDCl<sub>3</sub>

— — 0.000

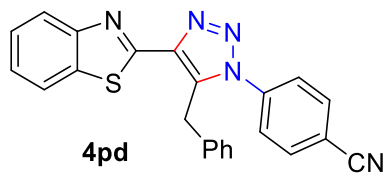
<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



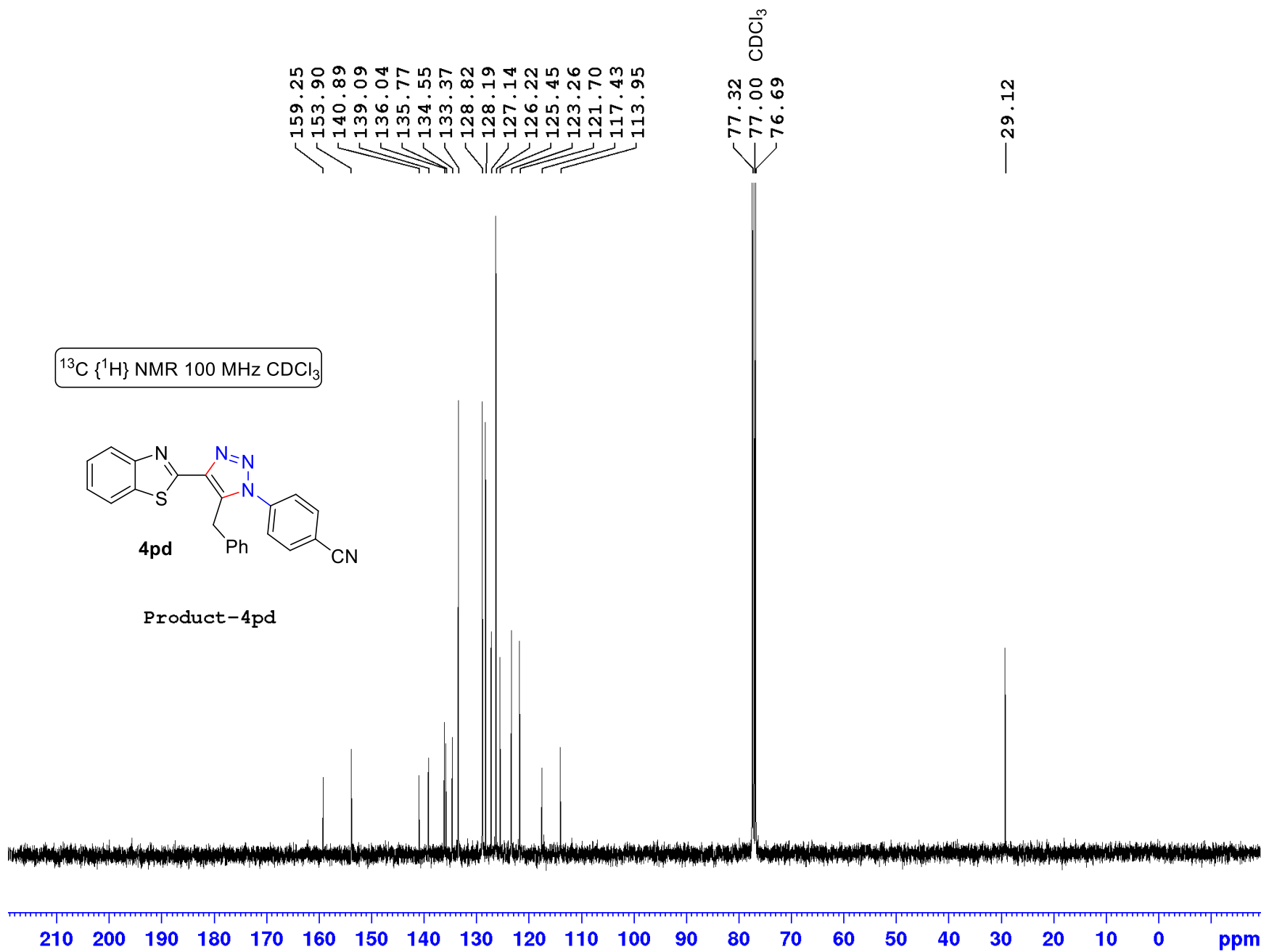
Product-4pd

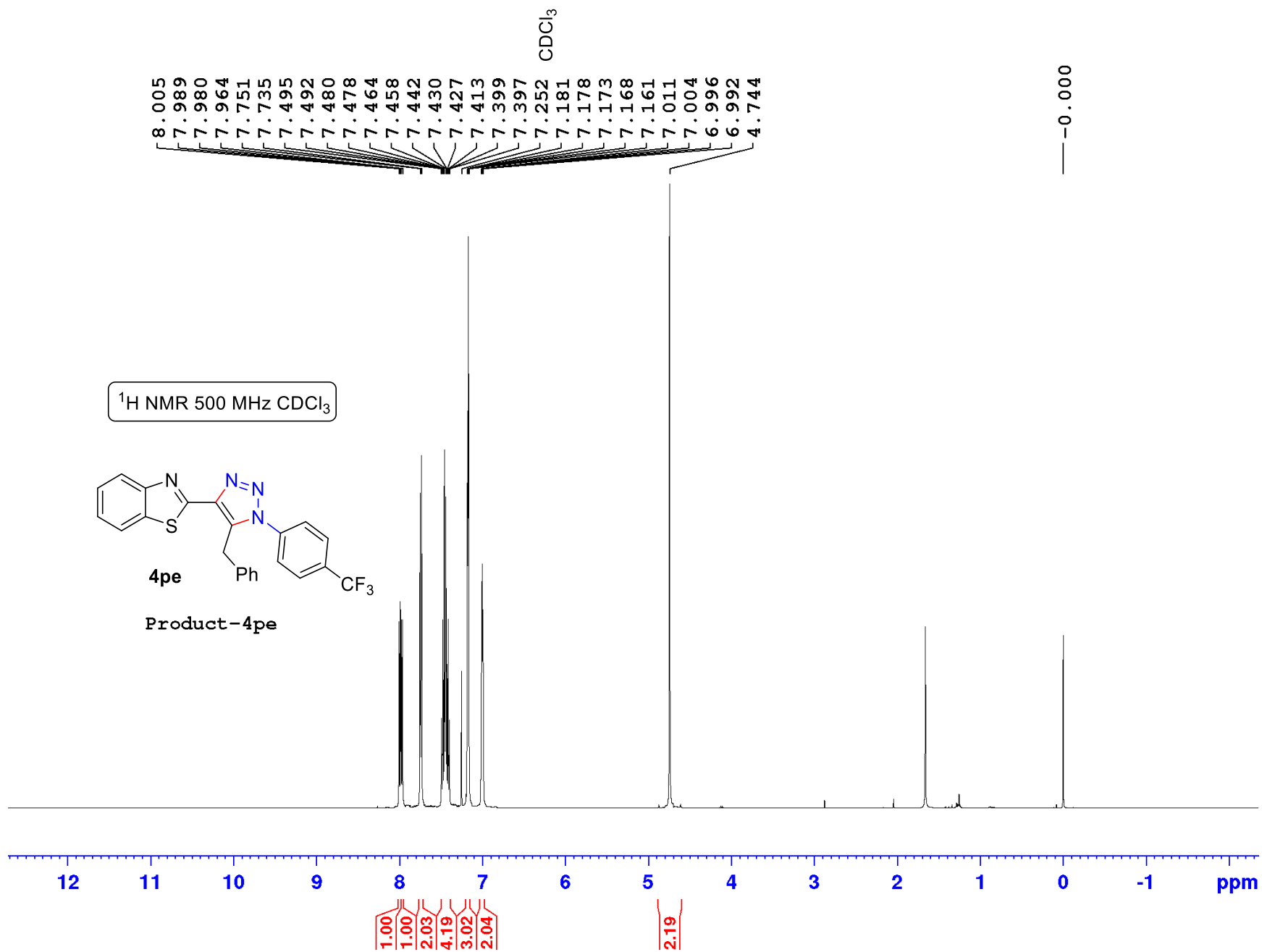


$^{13}\text{C} \{^1\text{H}\}$  NMR 100 MHz  $\text{CDCl}_3$

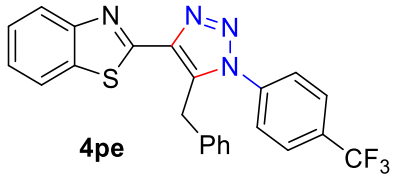


Product-4pd

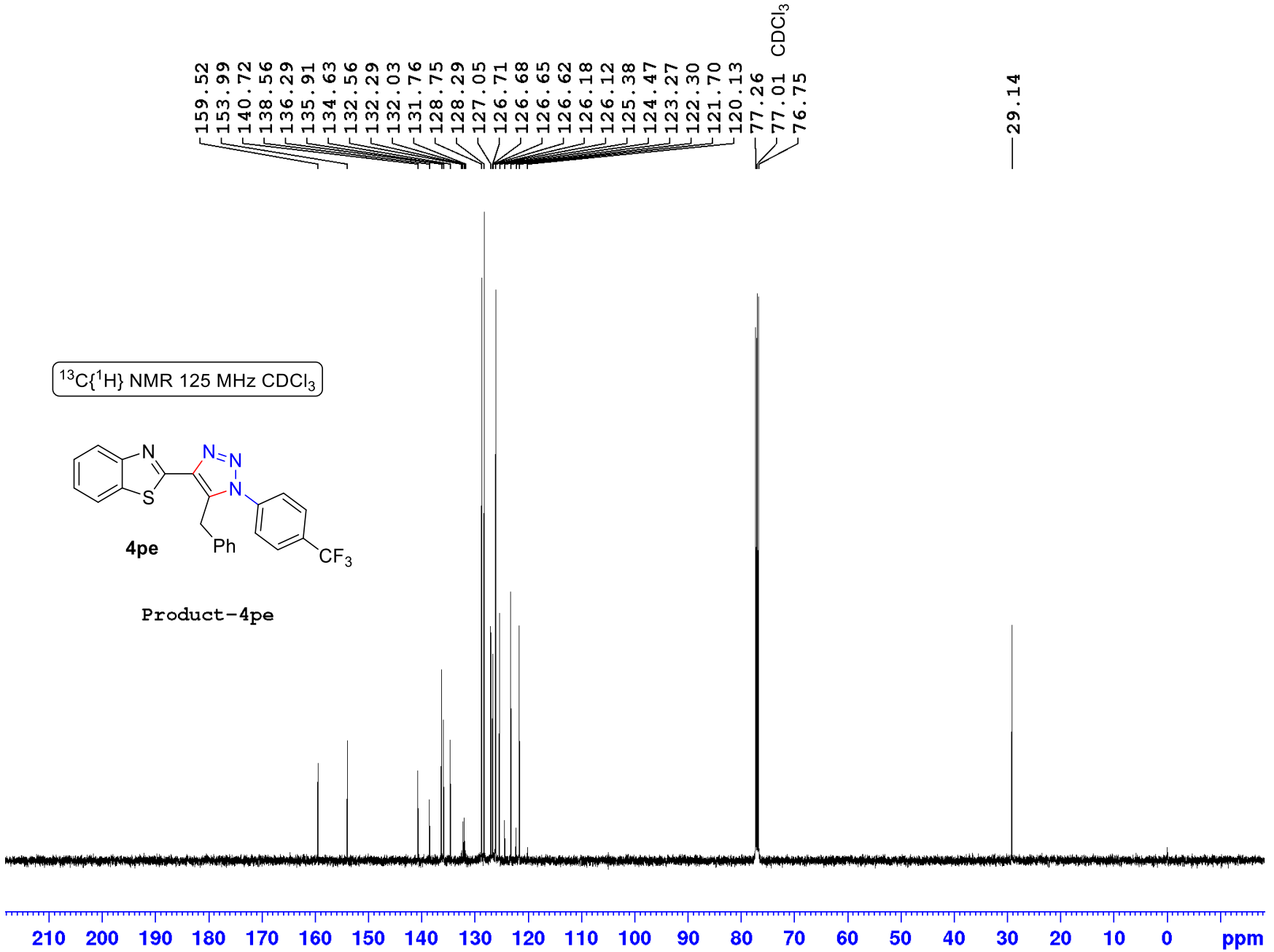




$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



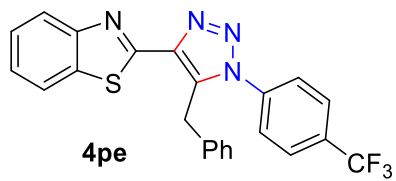
Product-4pe



— 29.14



<sup>19</sup>F NMR (470 MHz, CDCl<sub>3</sub>)

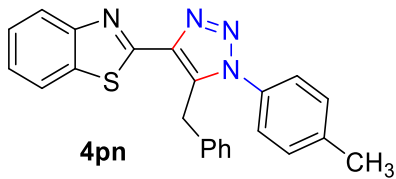


Product-4pe

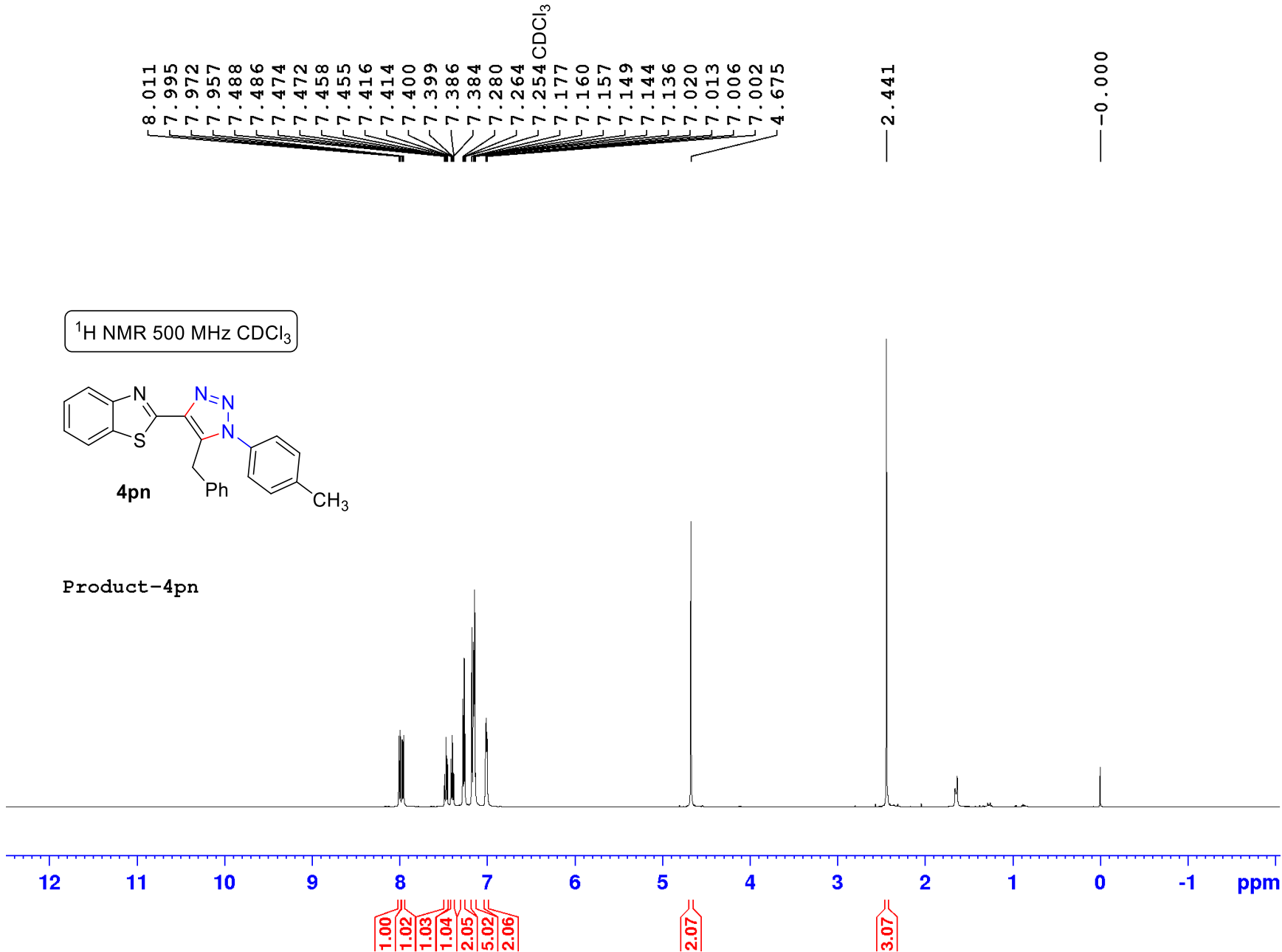
— -62.77

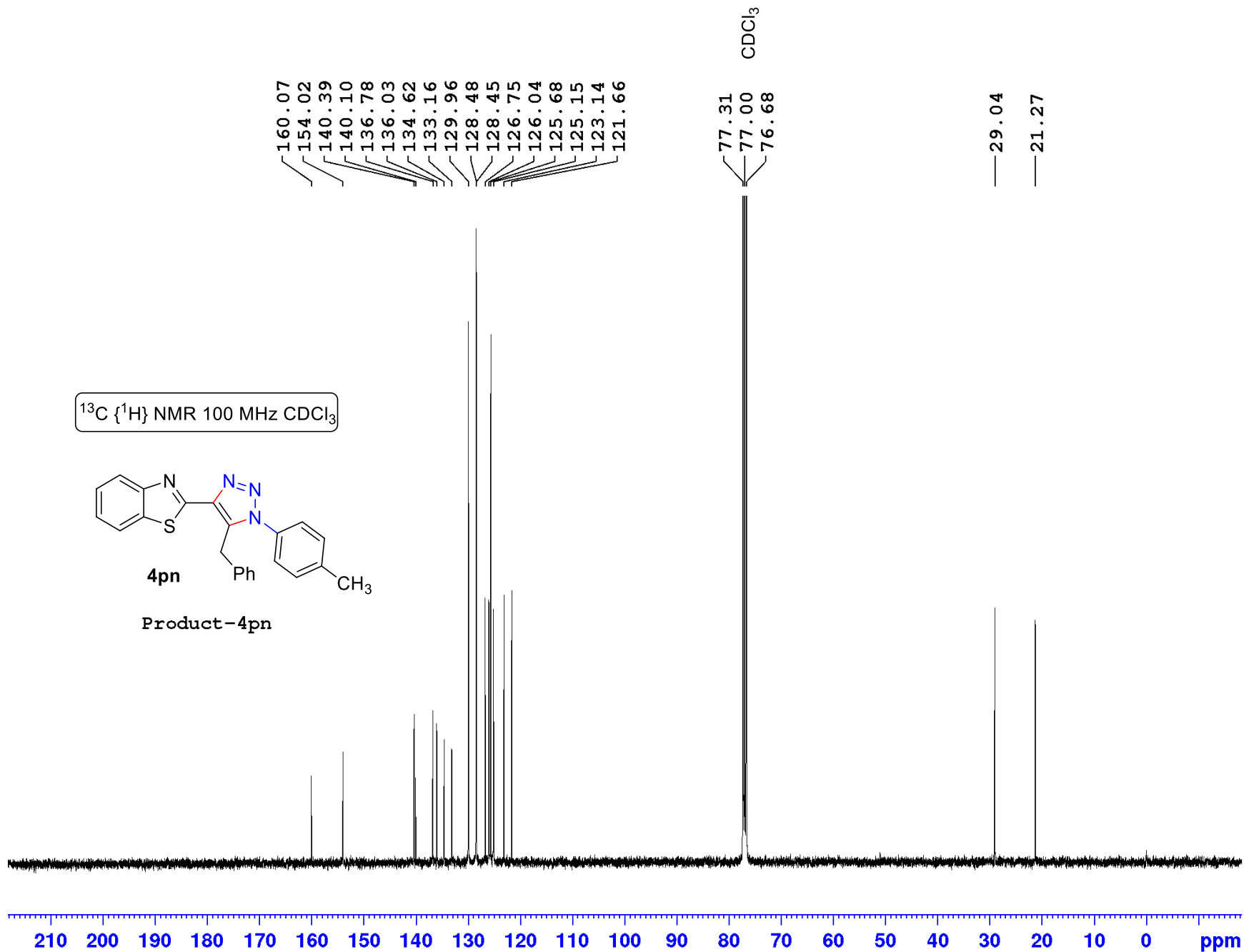


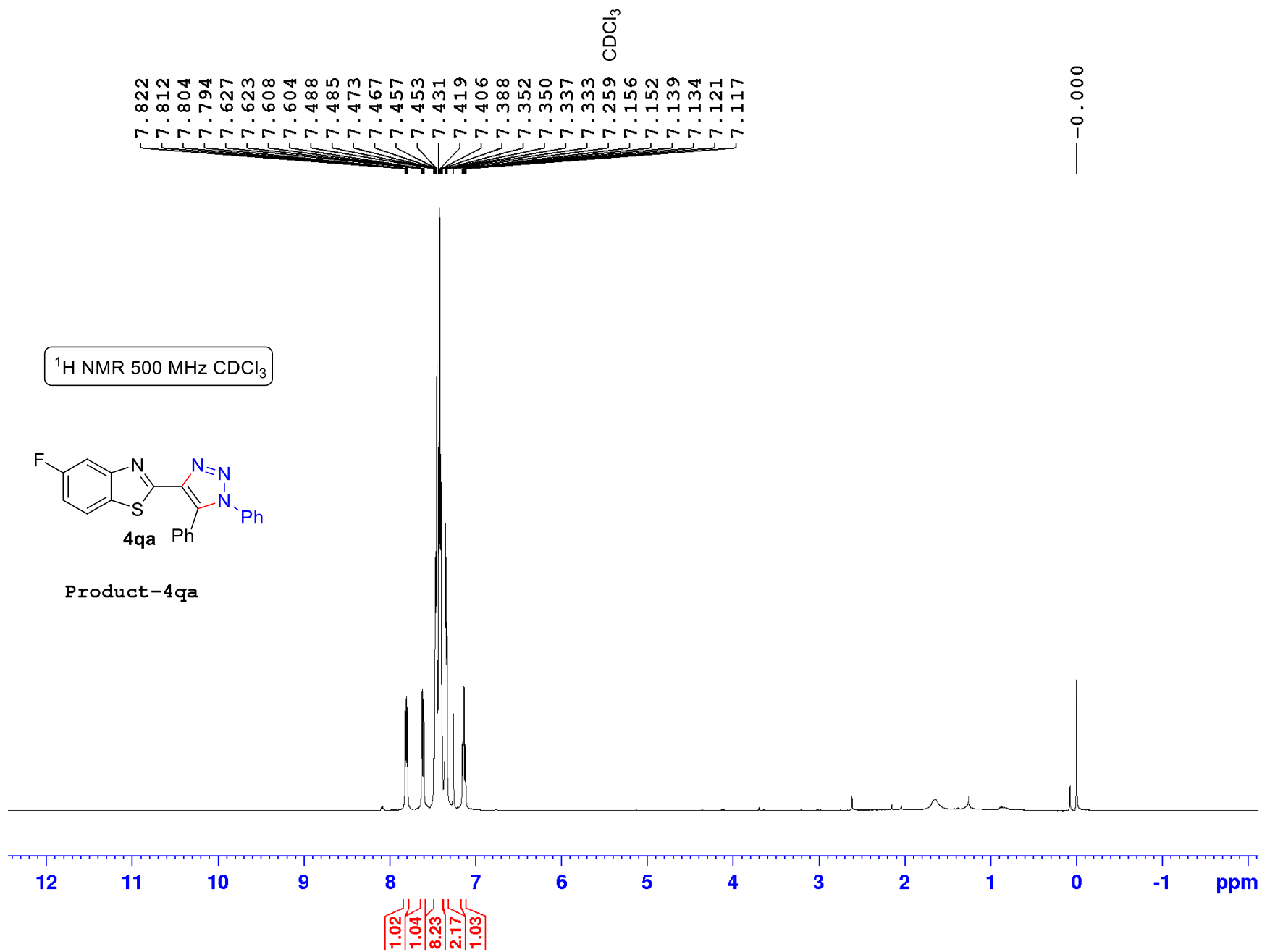
<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



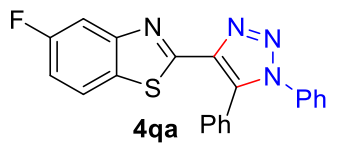
Product-4pn



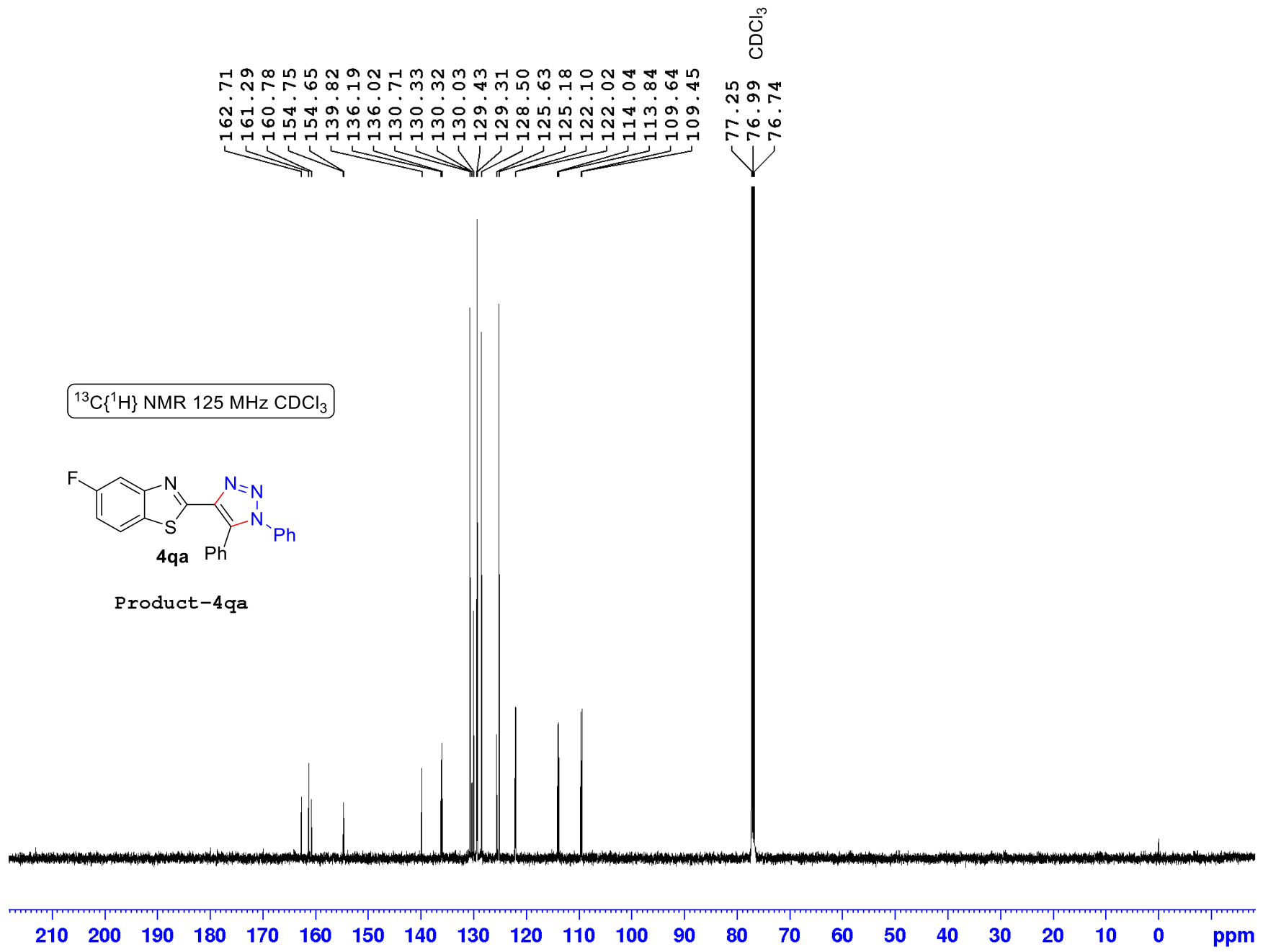




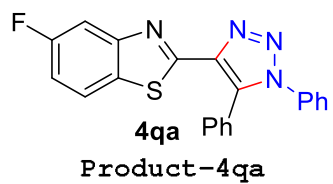
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



Product-4qa



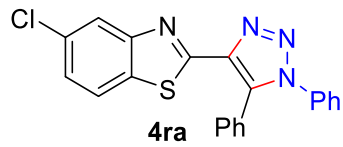
<sup>19</sup>F NMR (376 MHz, CDCl<sub>3</sub>)



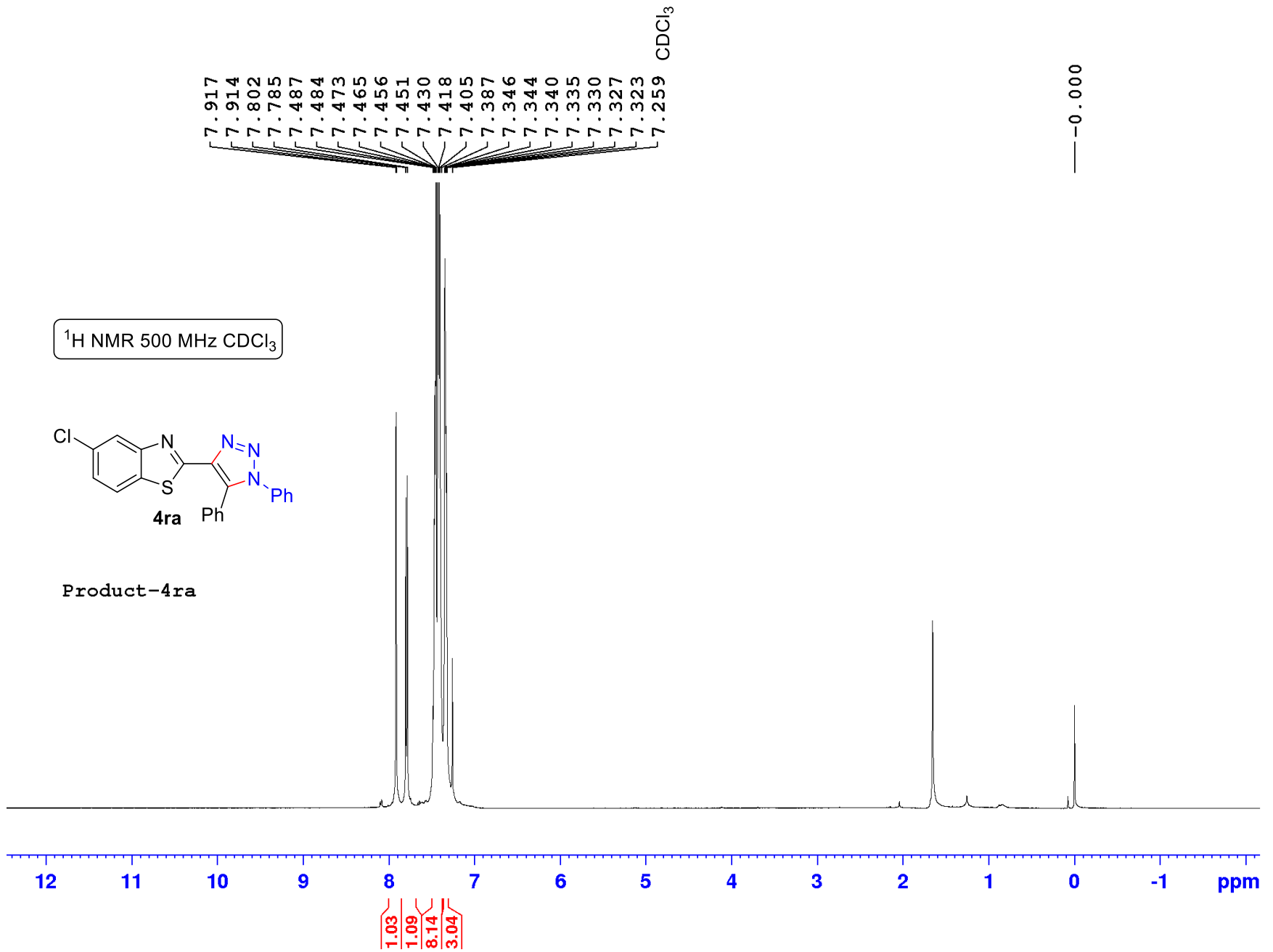
— -116.23

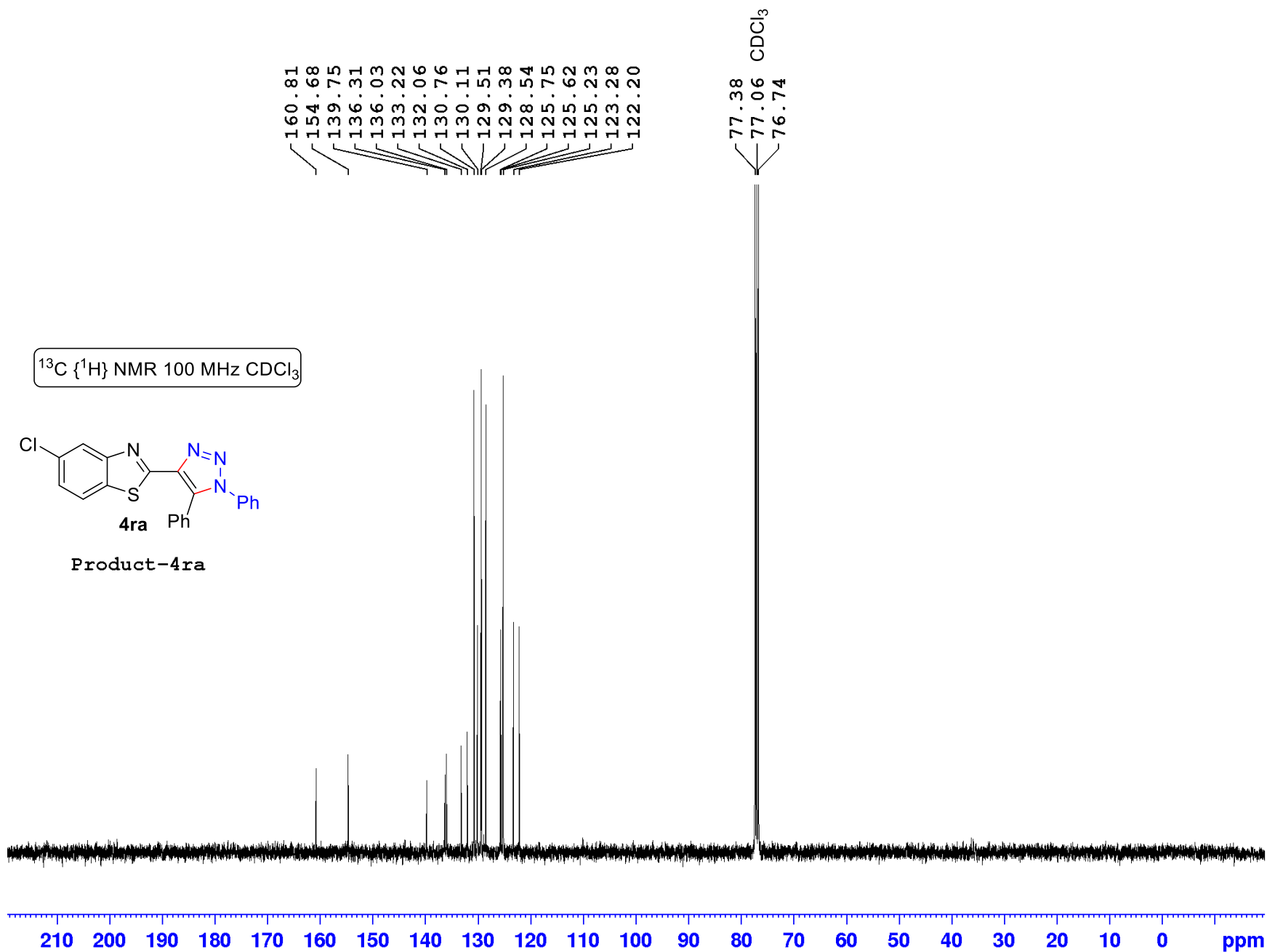
0 -20 -40 -60 -80 -100 -120 -140 -160 -180 -200 ppm

<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



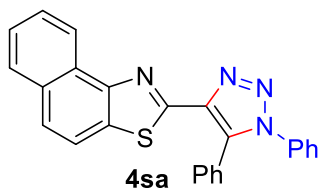
Product-4ra



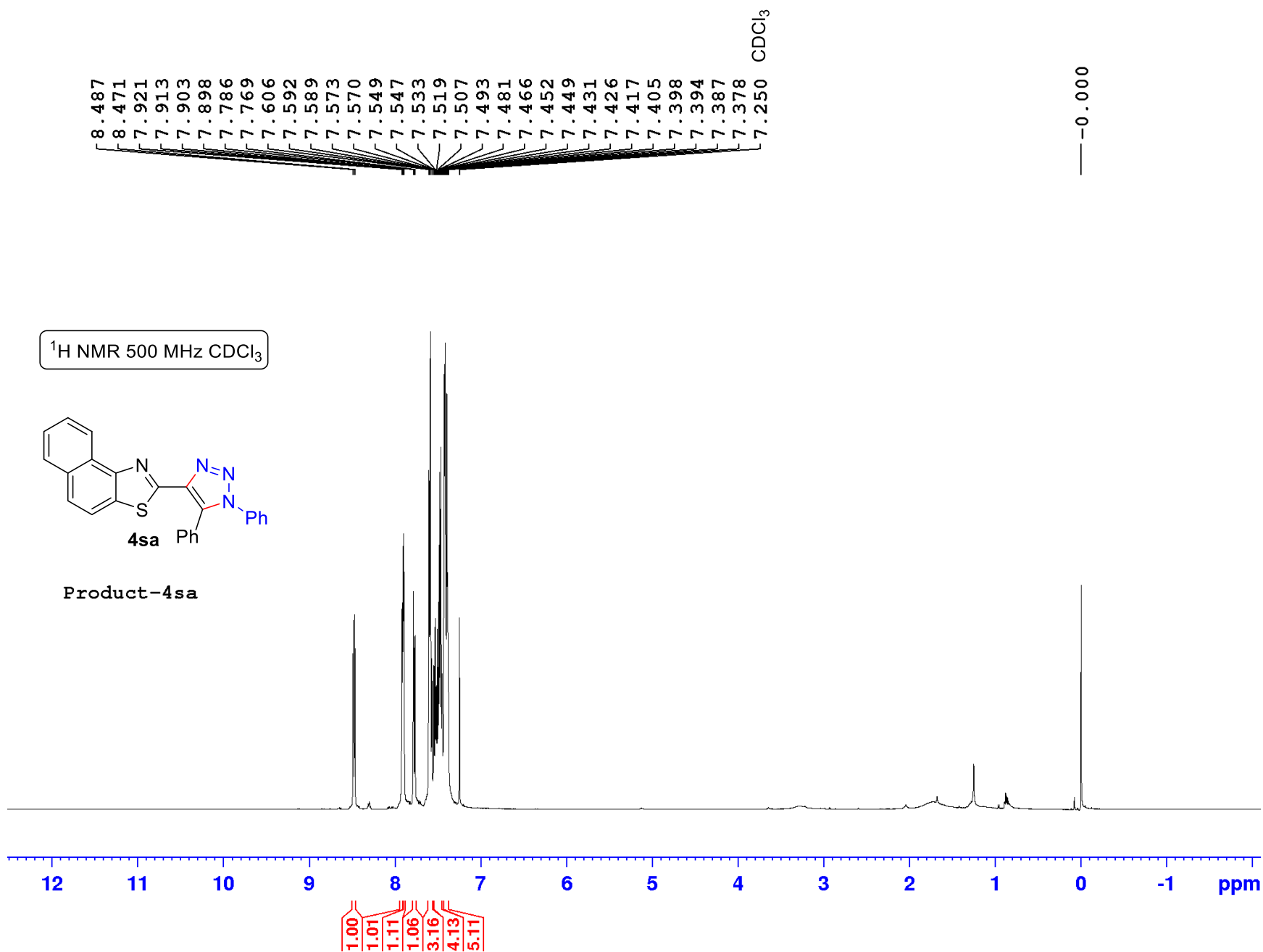


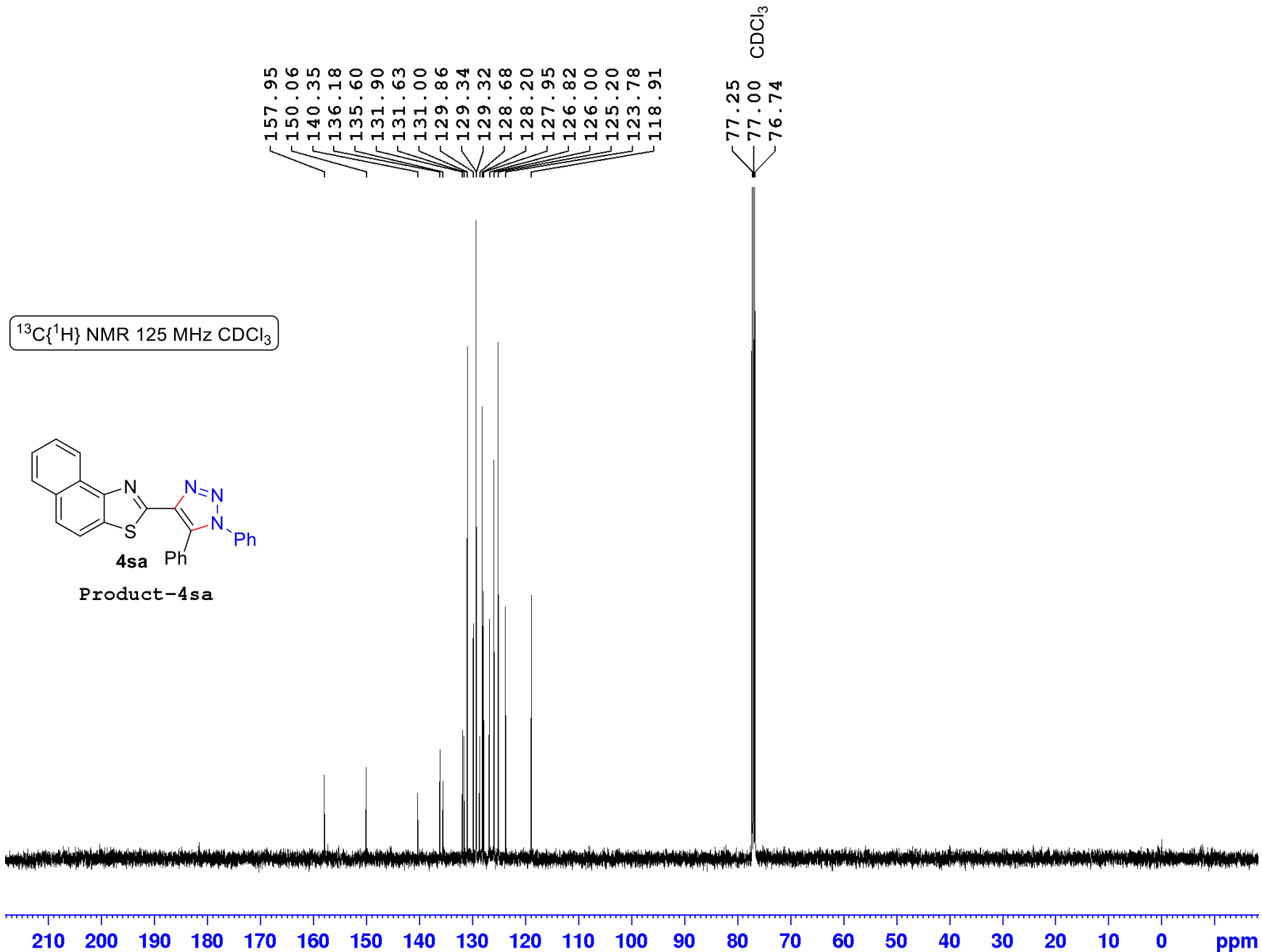


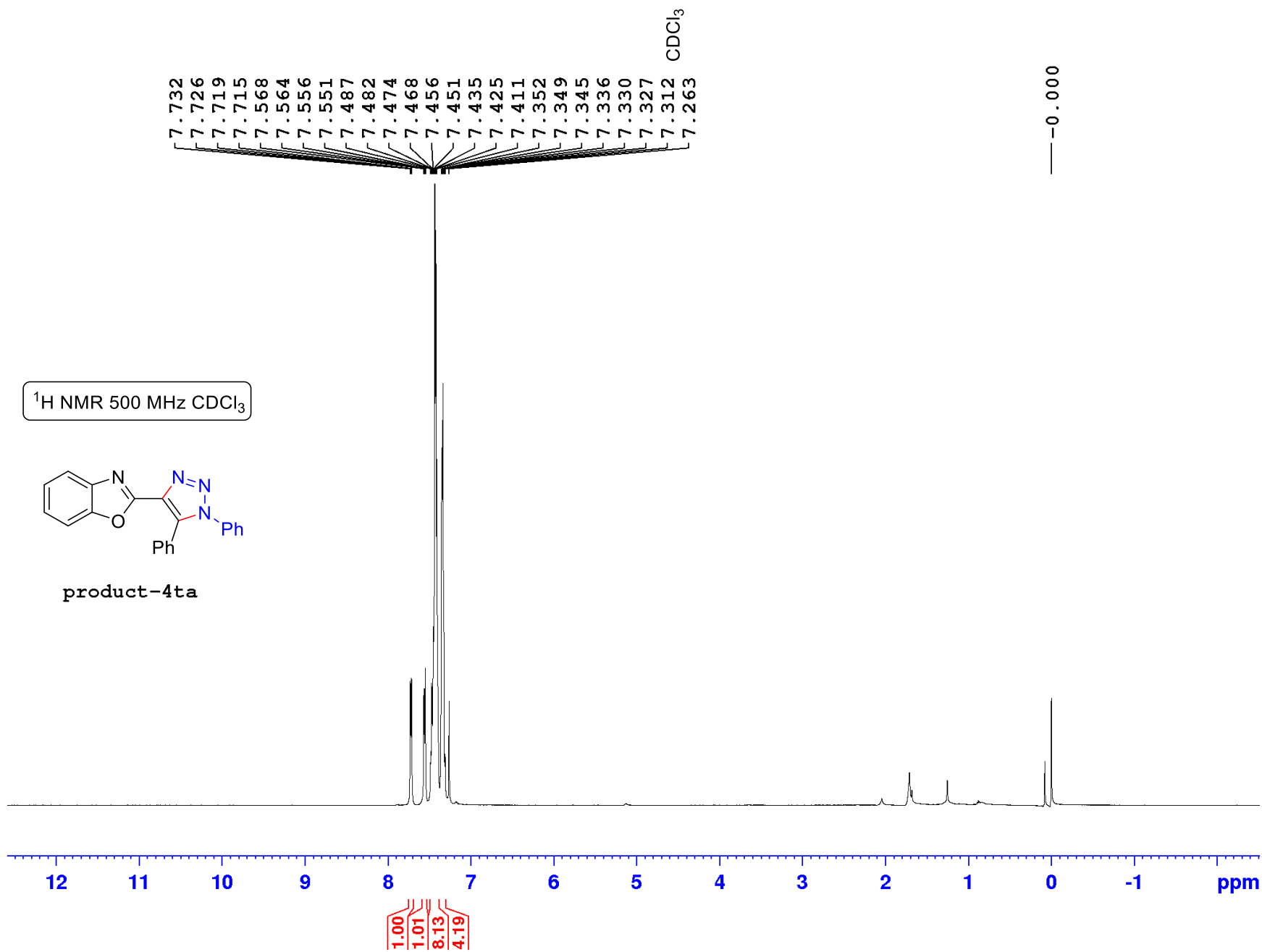
<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



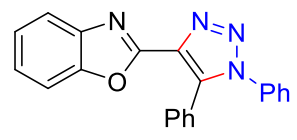
Product-4sa



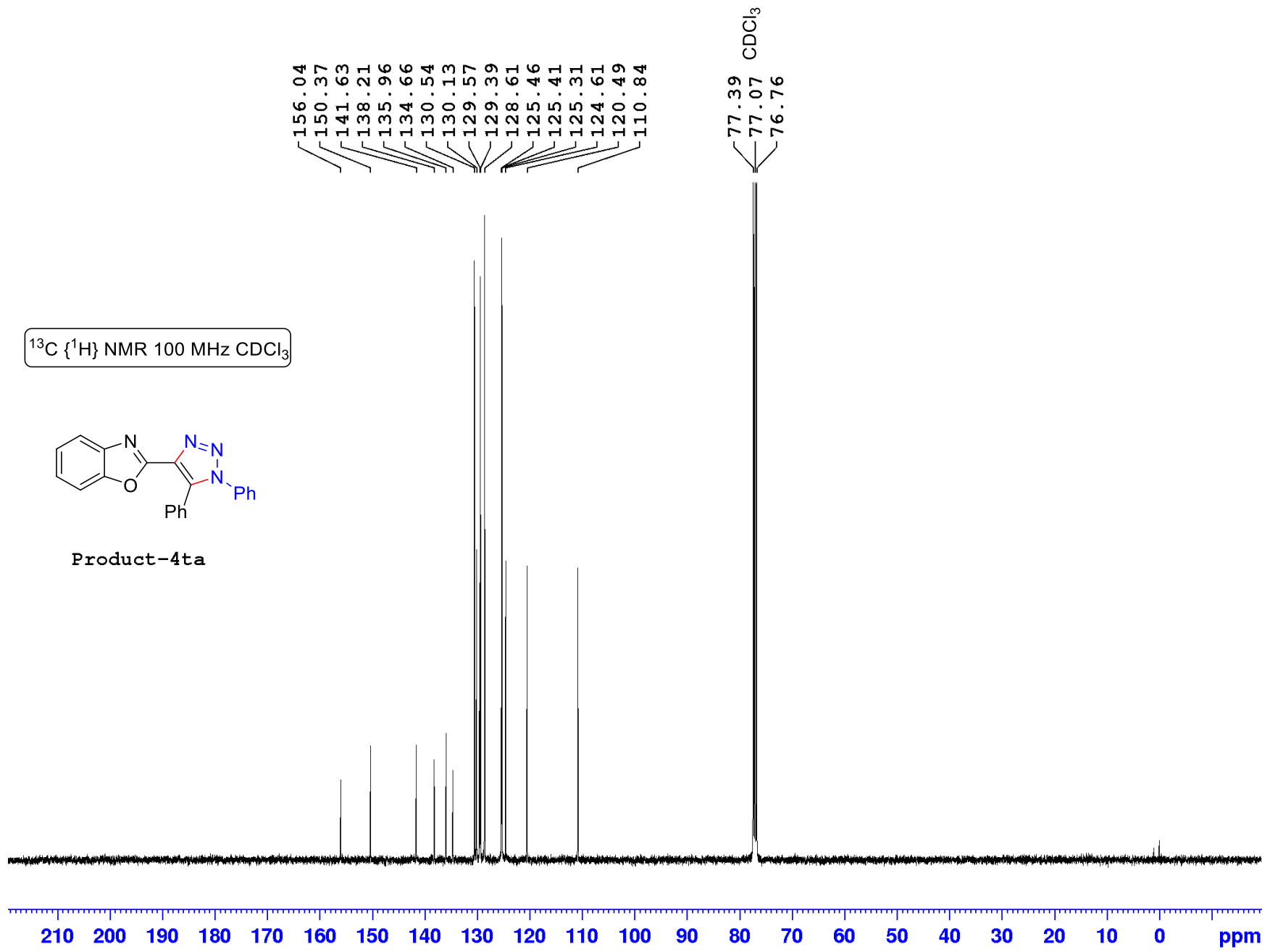




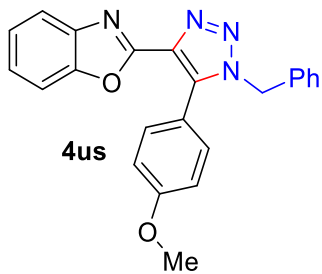
$^{13}\text{C} \{^1\text{H}\}$  NMR 100 MHz  $\text{CDCl}_3$



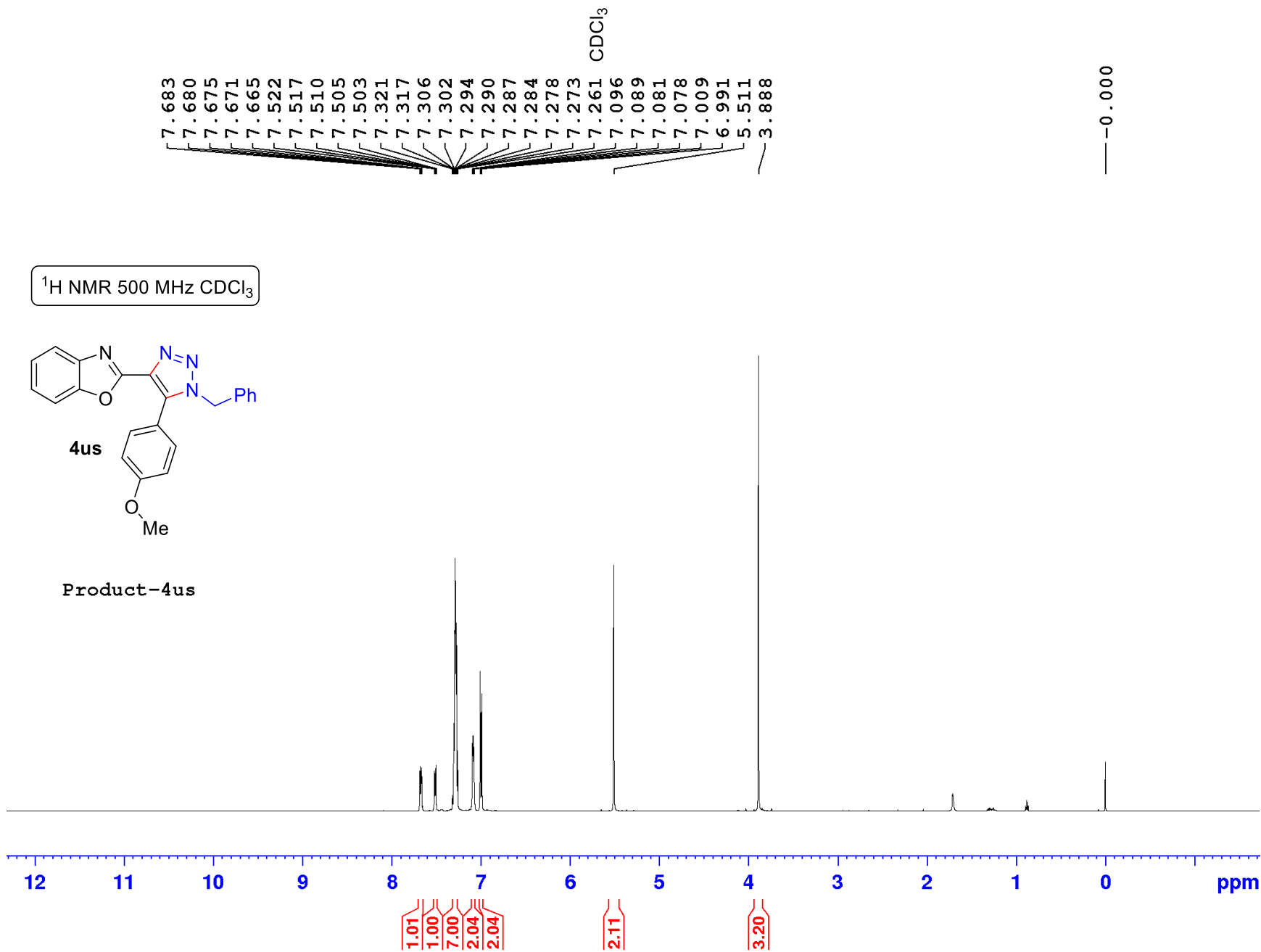
Product-4ta



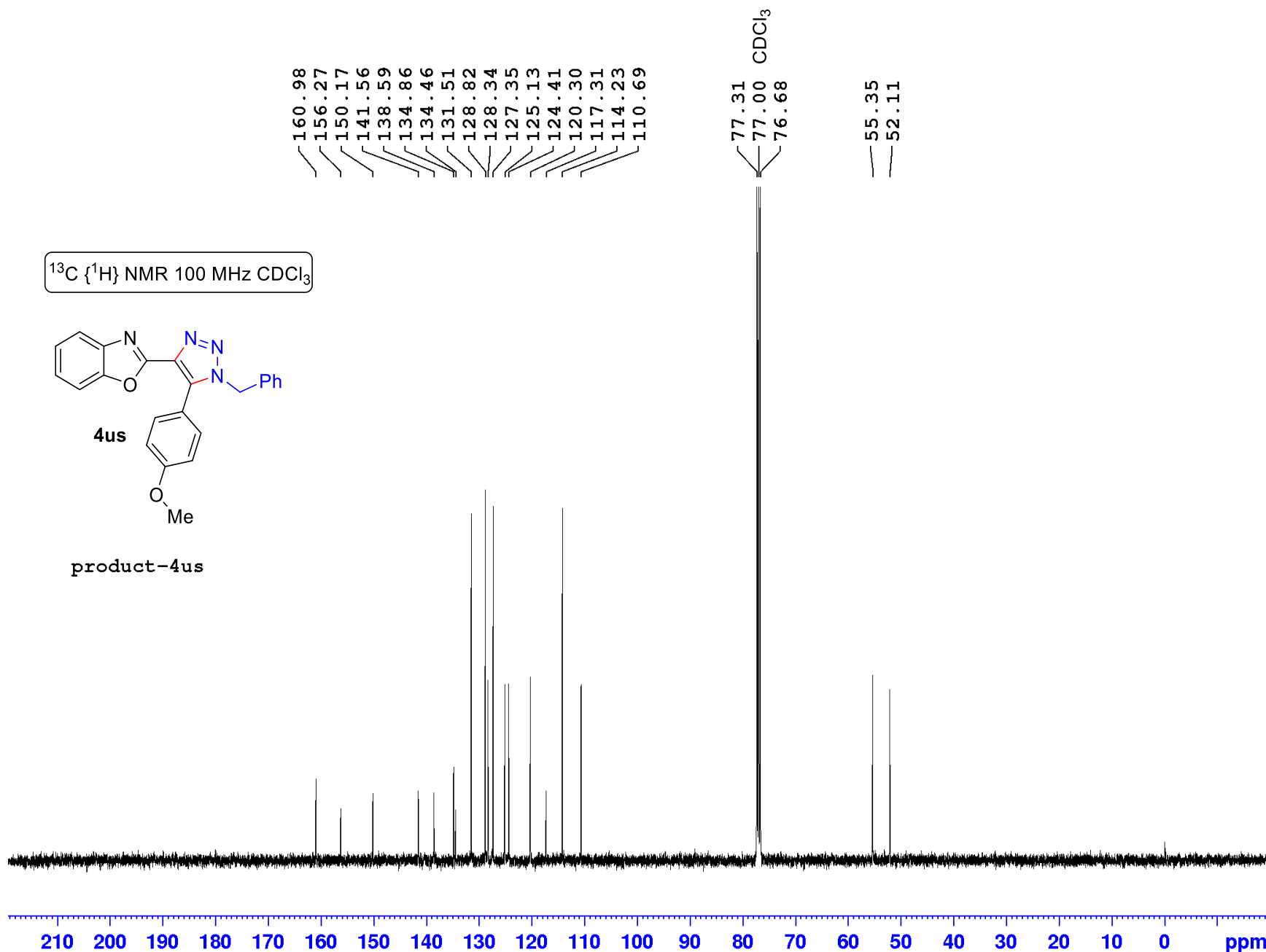
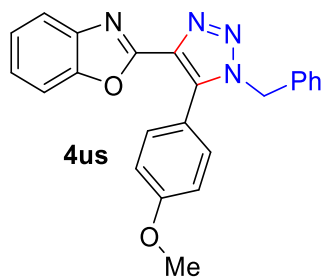
<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>

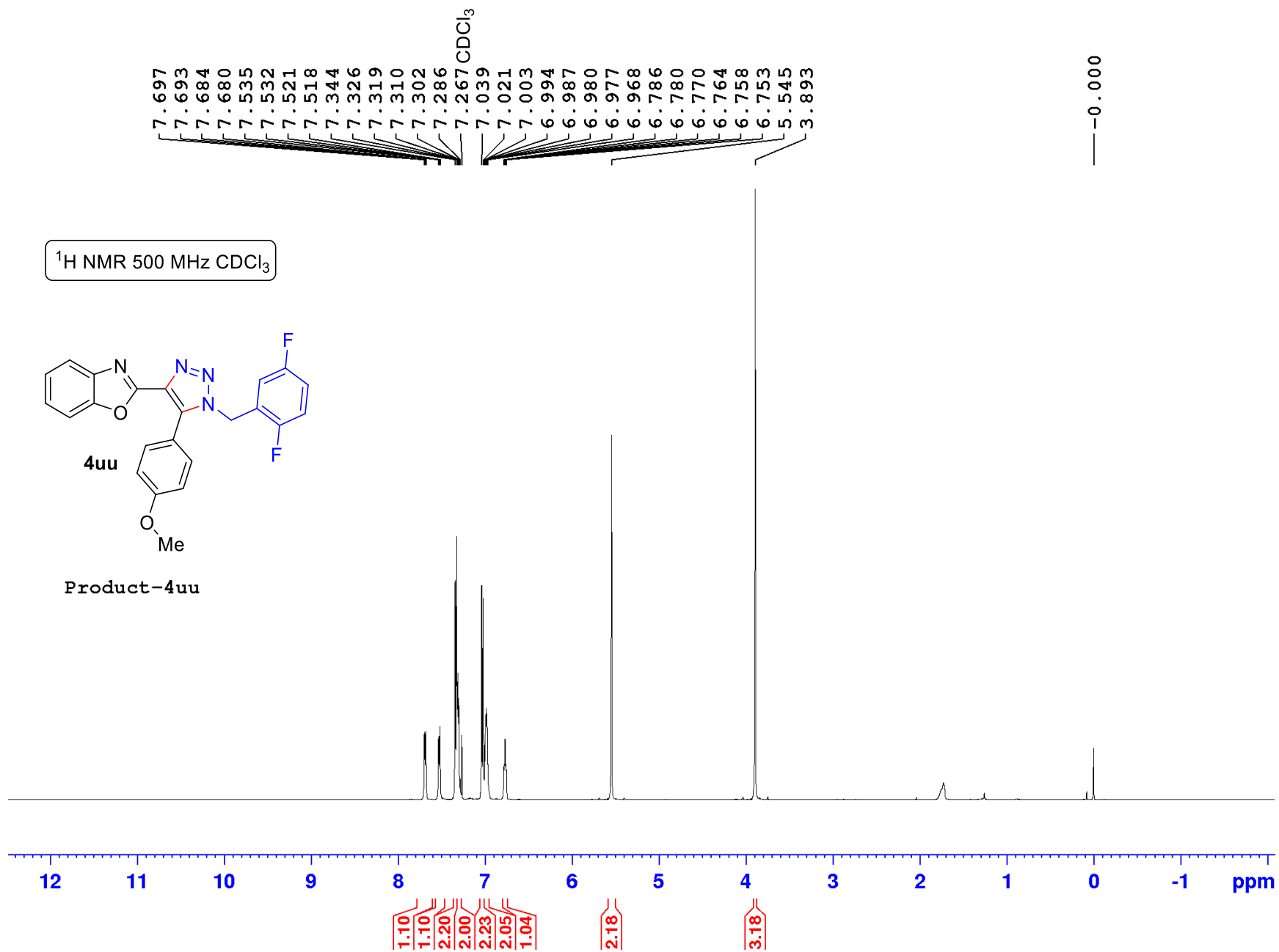


Product-4us

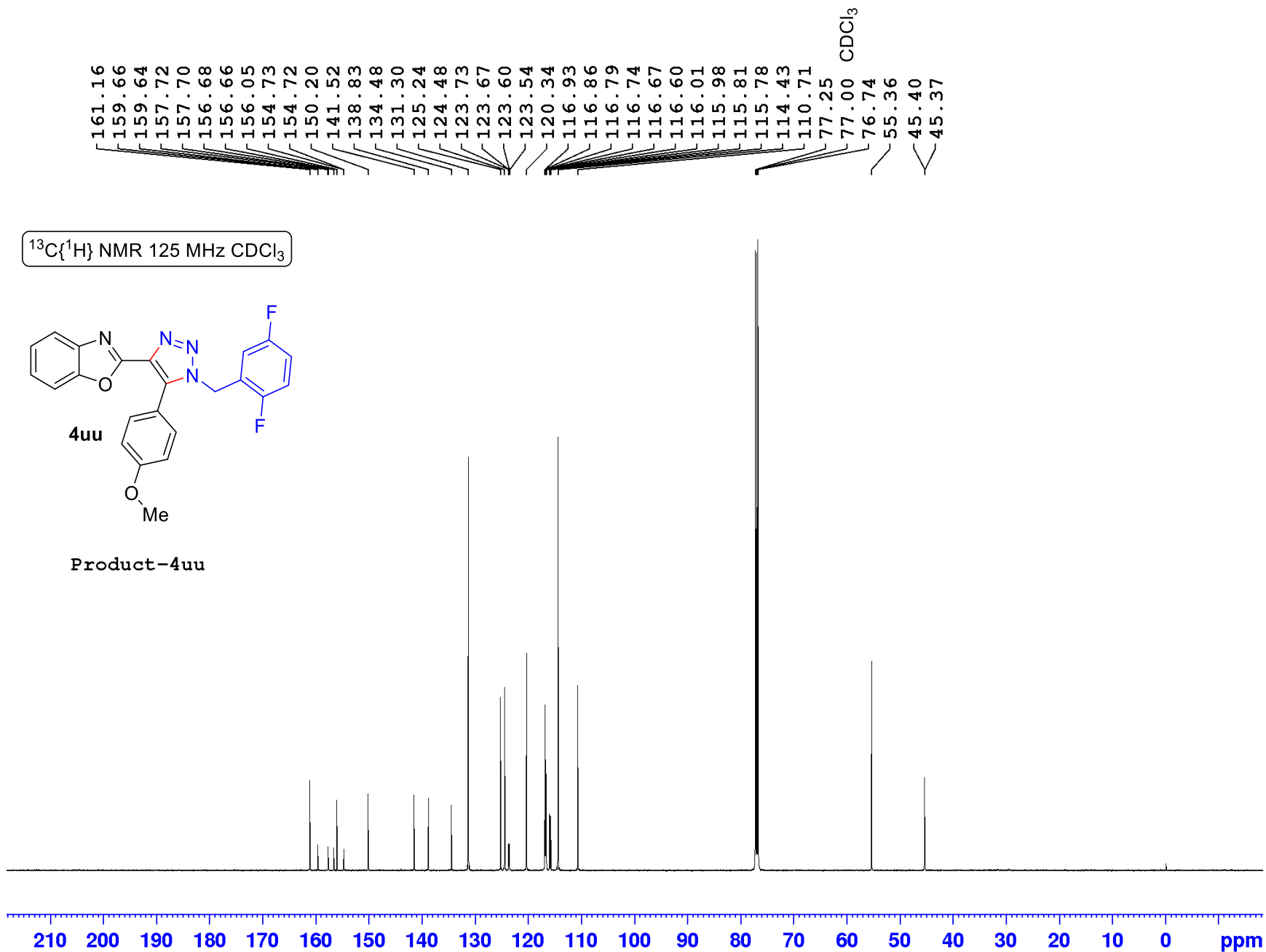
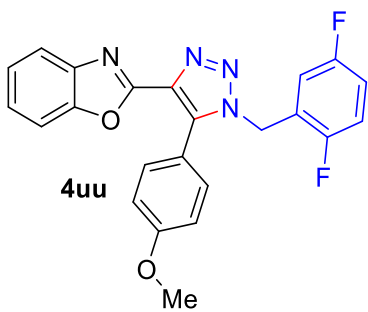


$^{13}\text{C} \{^1\text{H}\}$  NMR 100 MHz  $\text{CDCl}_3$



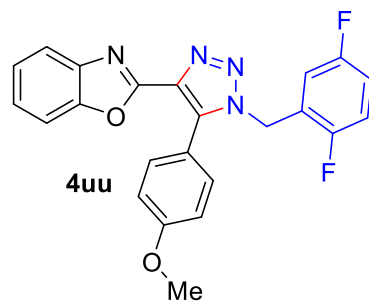


$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$

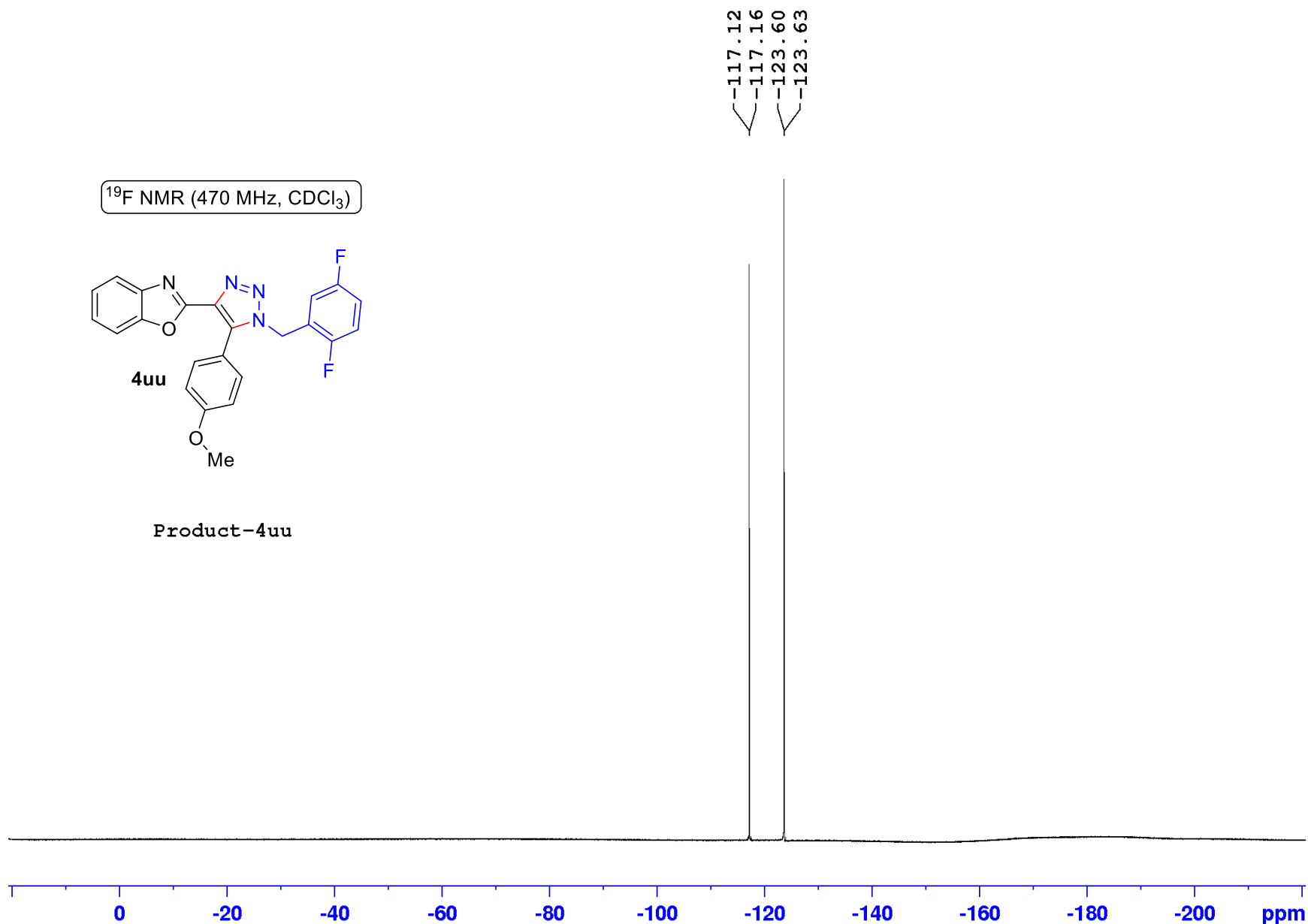


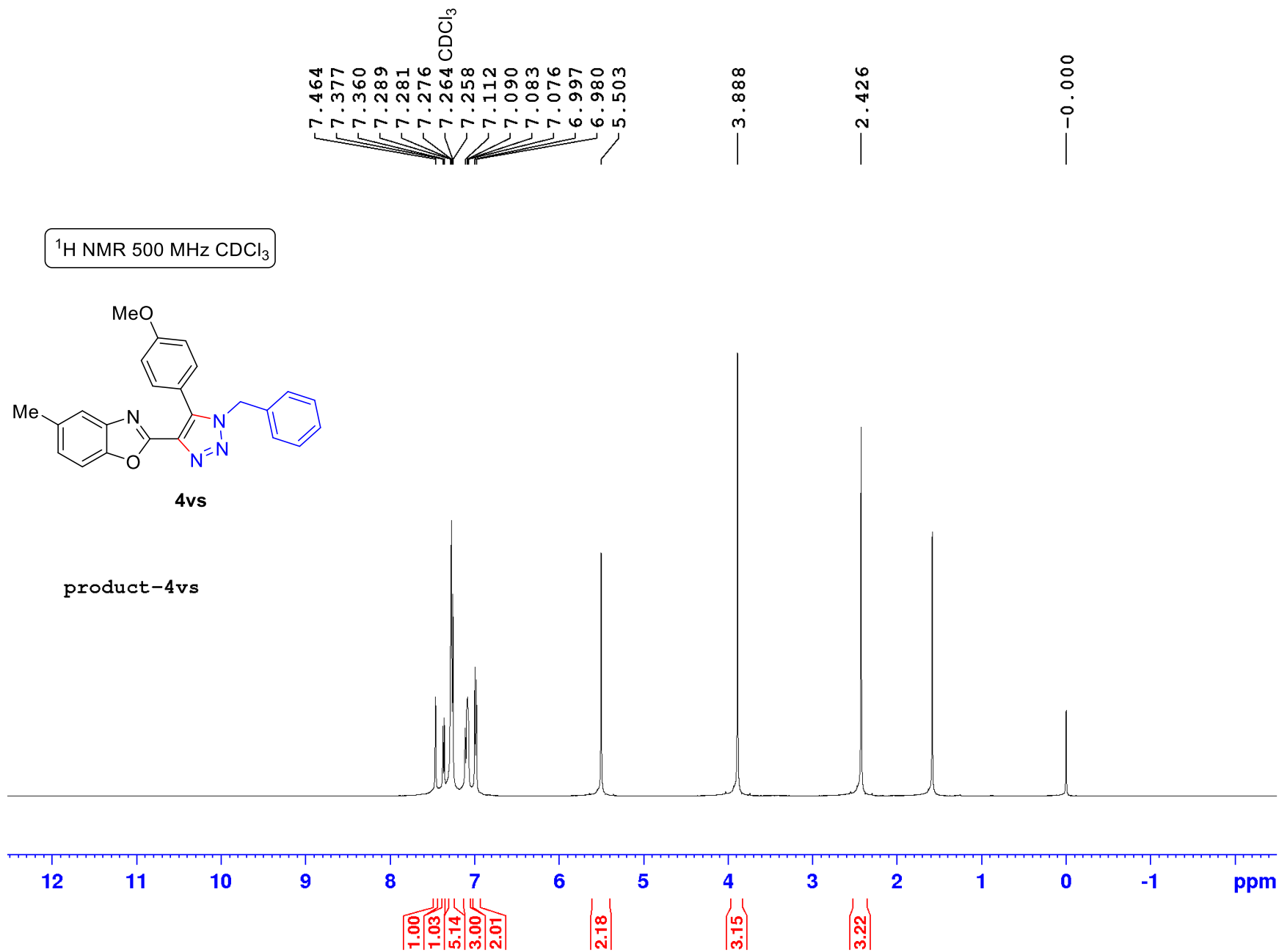


<sup>19</sup>F NMR (470 MHz, CDCl<sub>3</sub>)

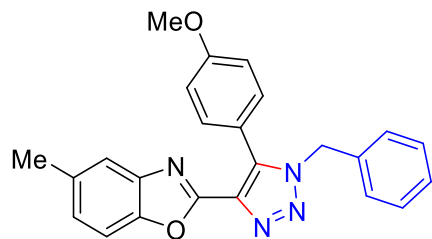


Product-4uu





$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



4vs

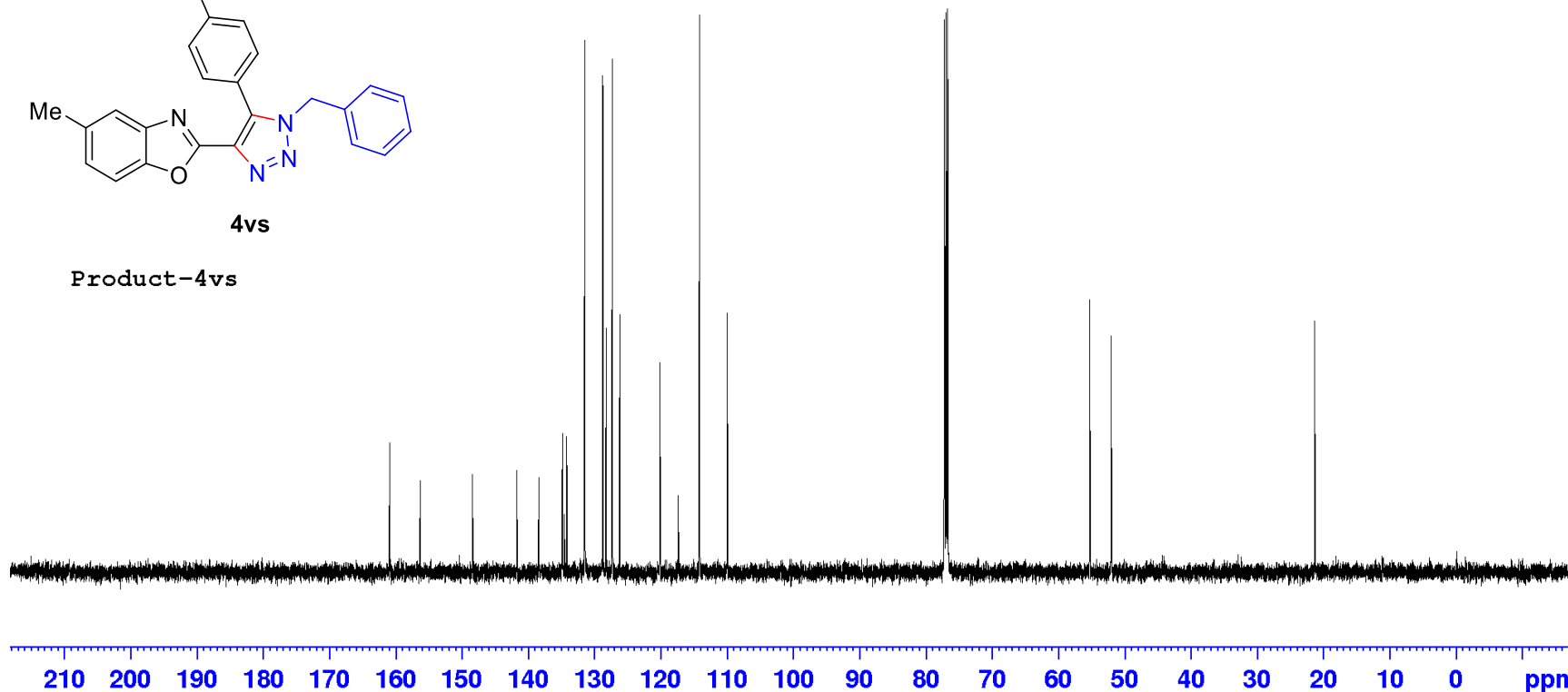
Product-4vs

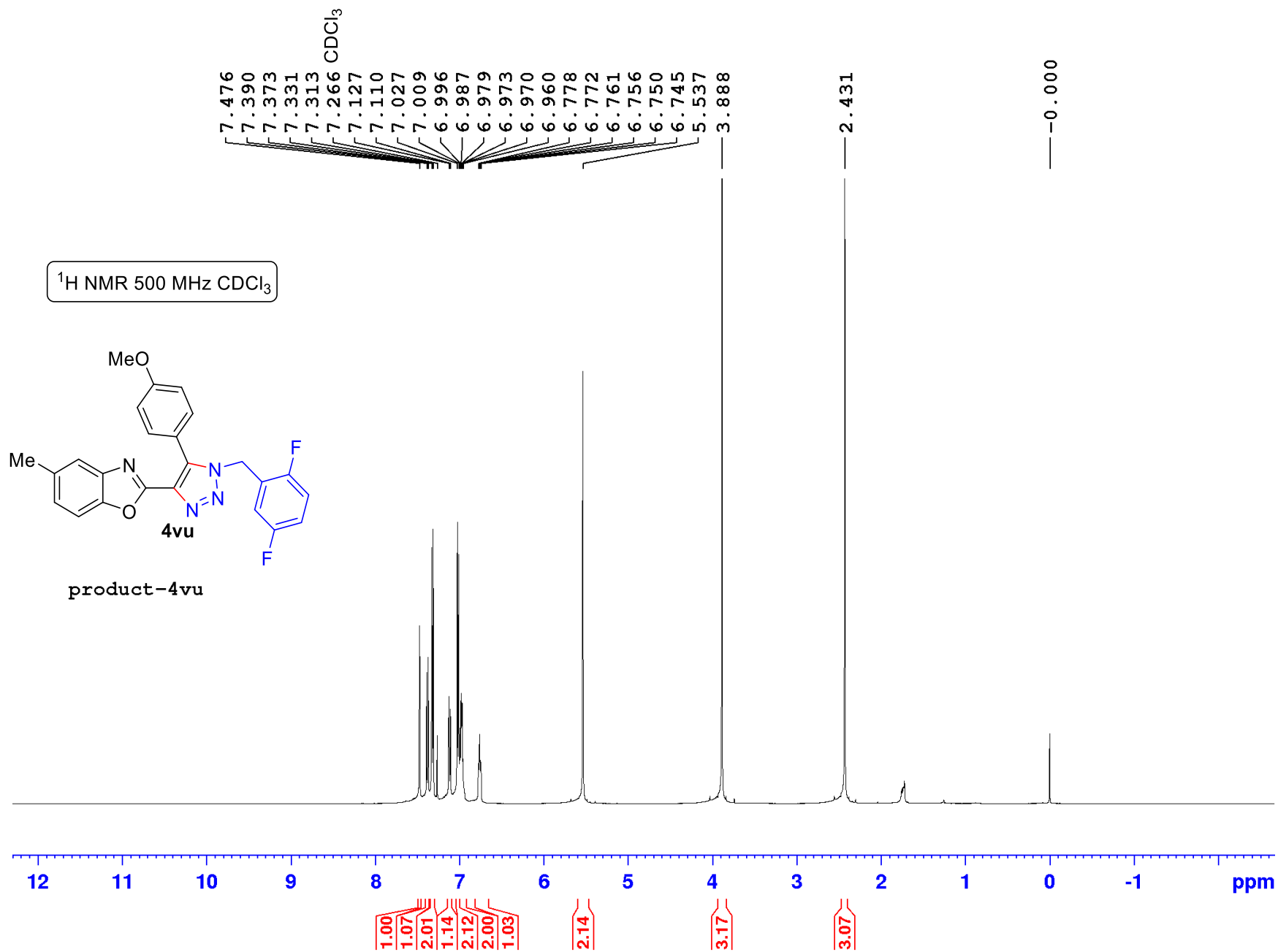
160.95  
156.33  
148.43  
141.75  
138.43  
134.89  
134.59  
134.21  
131.50  
128.78  
128.30  
127.33  
126.23  
120.16  
117.39  
114.19  
109.99

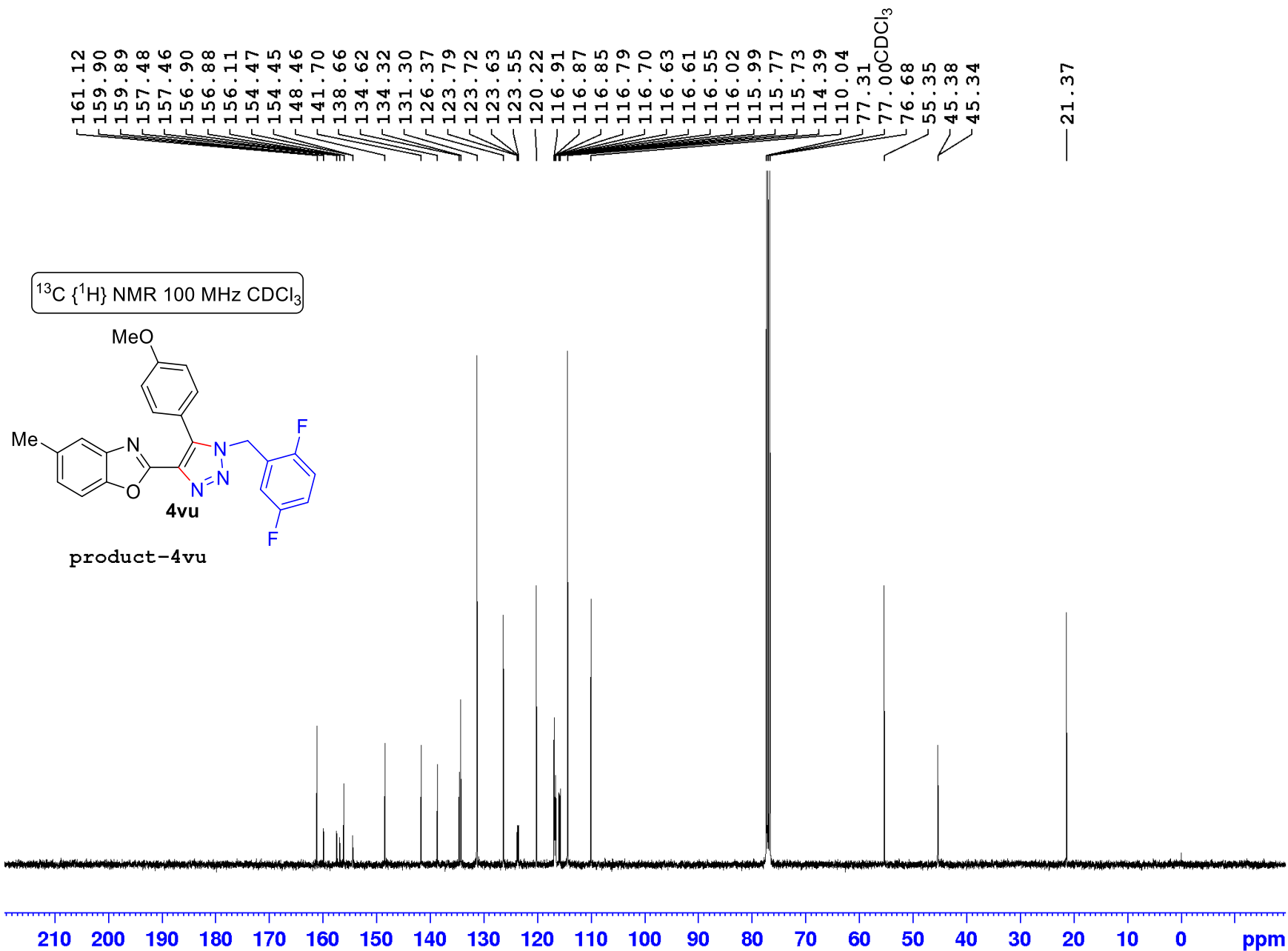
77.25  
77.00  $\text{CDCl}_3$   
76.74

55.32  
52.08

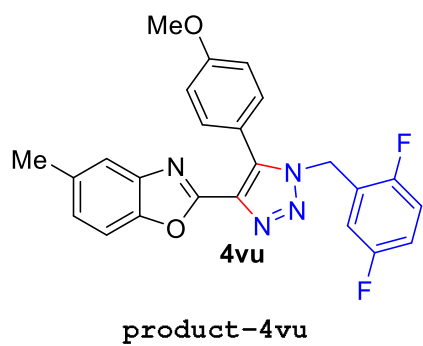
21.35



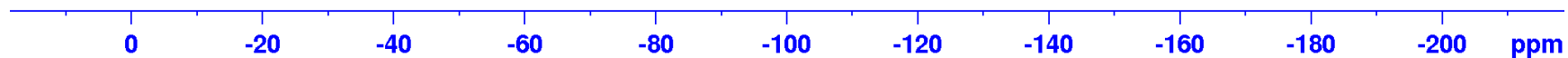


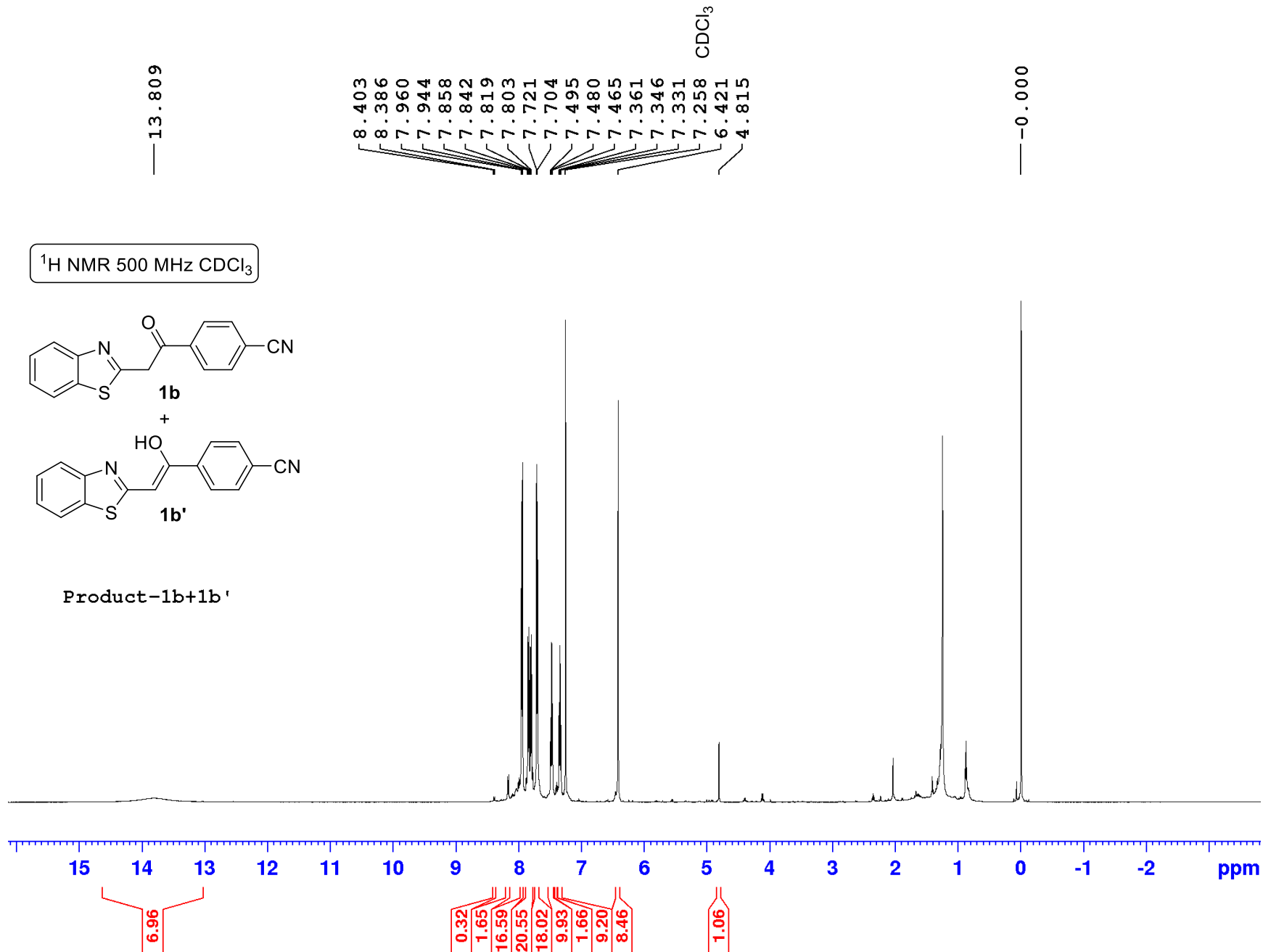


<sup>19</sup>F NMR (376 MHz, CDCl<sub>3</sub>)

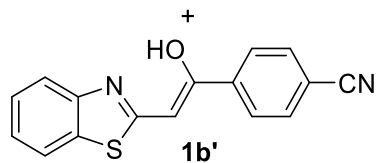
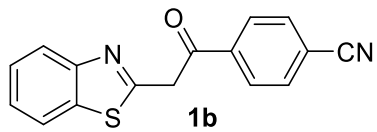


--117.14  
--117.18  
--123.62  
--123.66

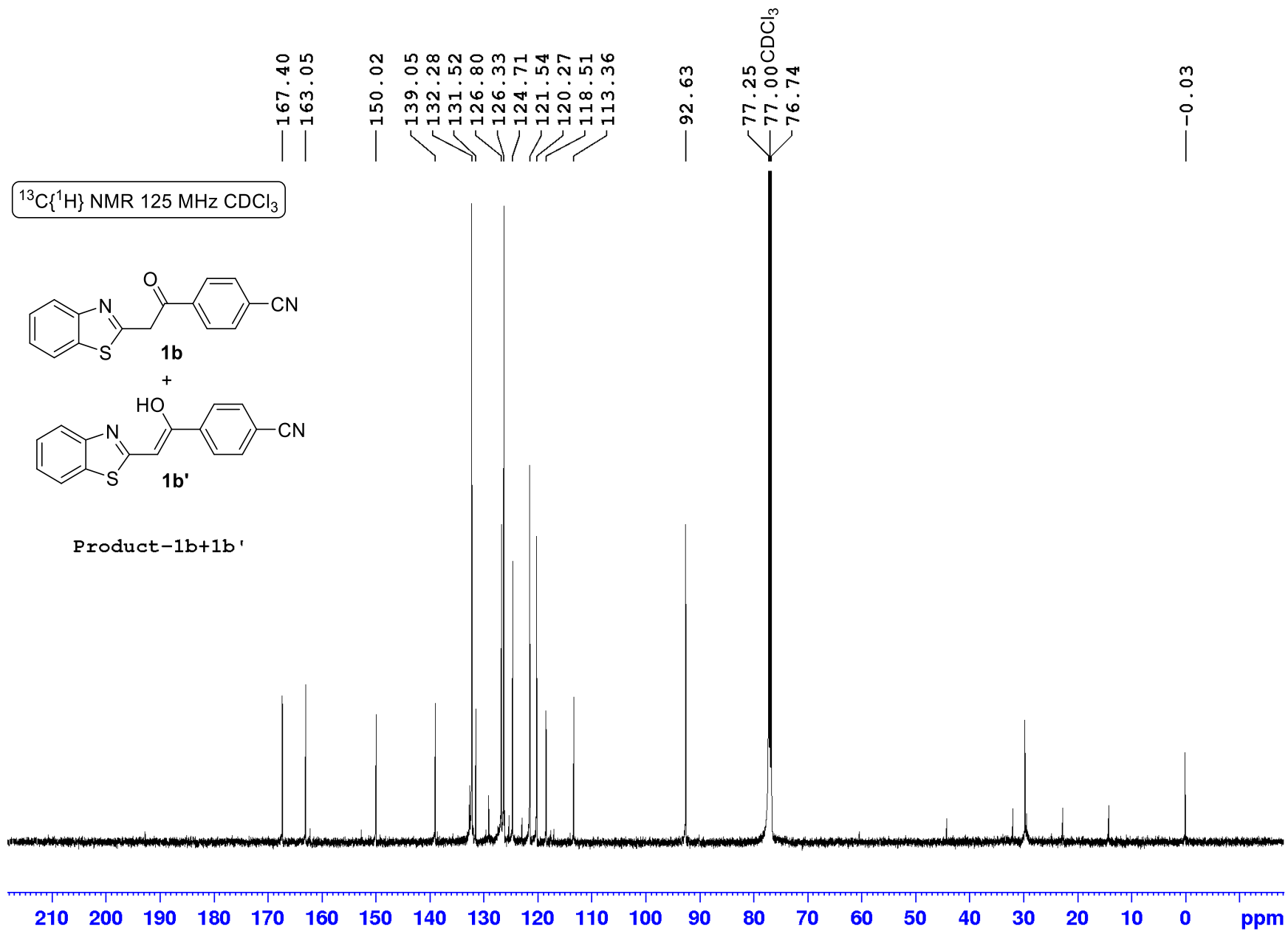




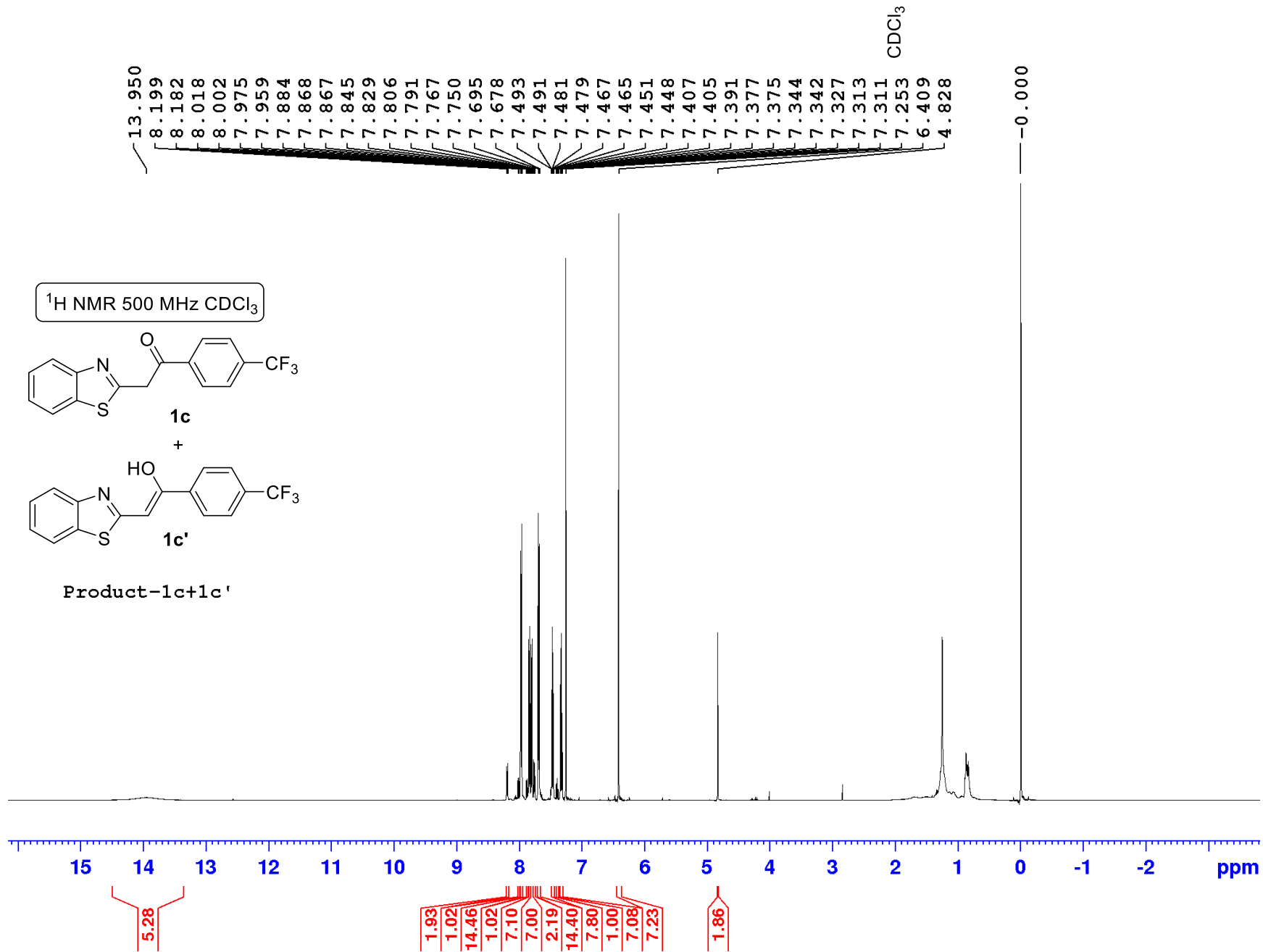
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$

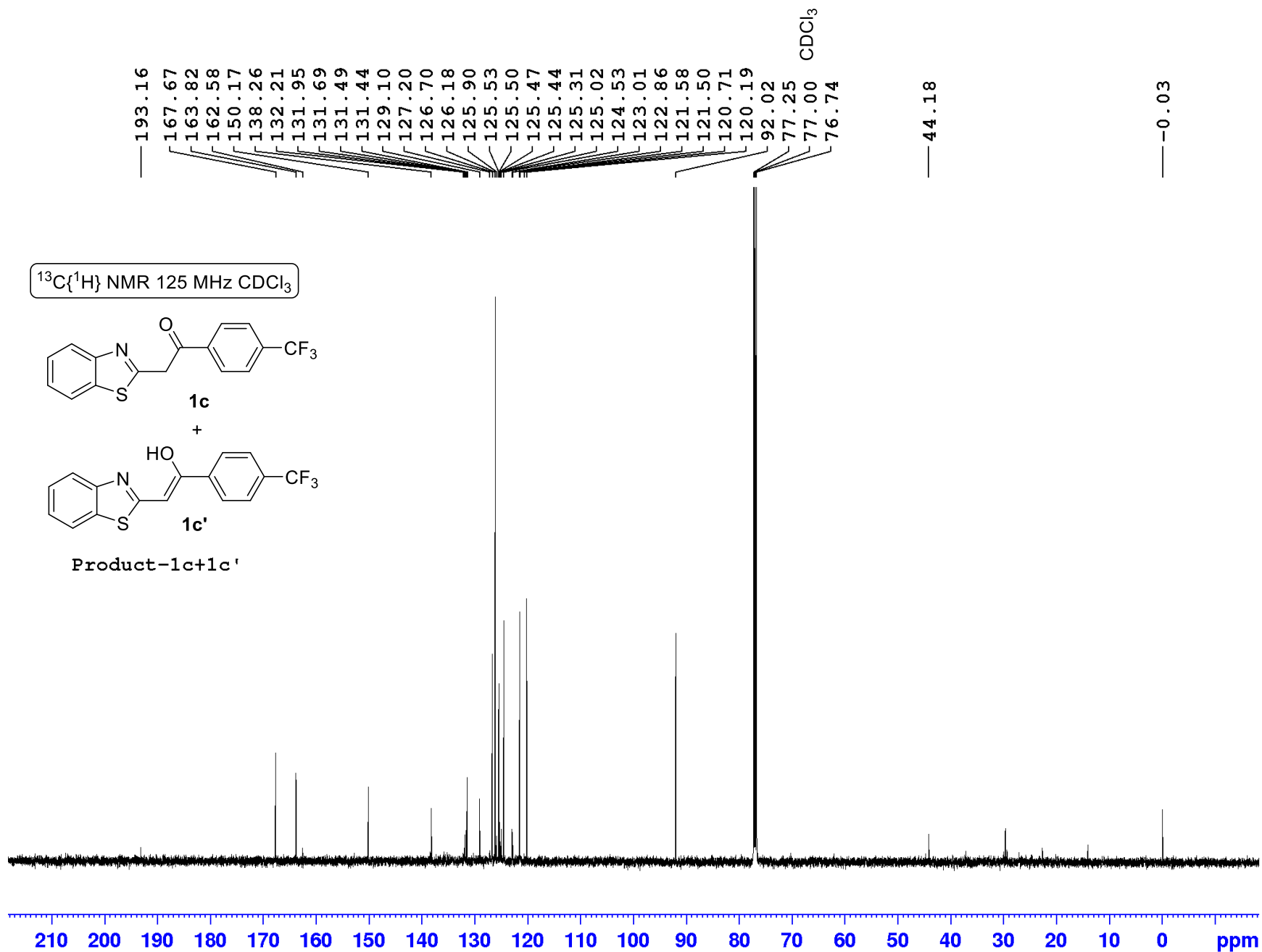


Product-1b+1b'

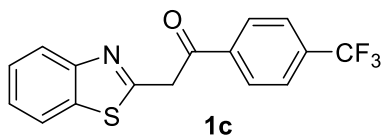




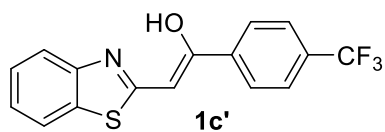




$^{19}\text{F}$  NMR (376 MHz,  $\text{CDCl}_3$ )

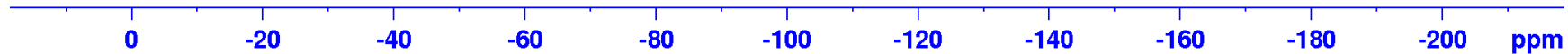


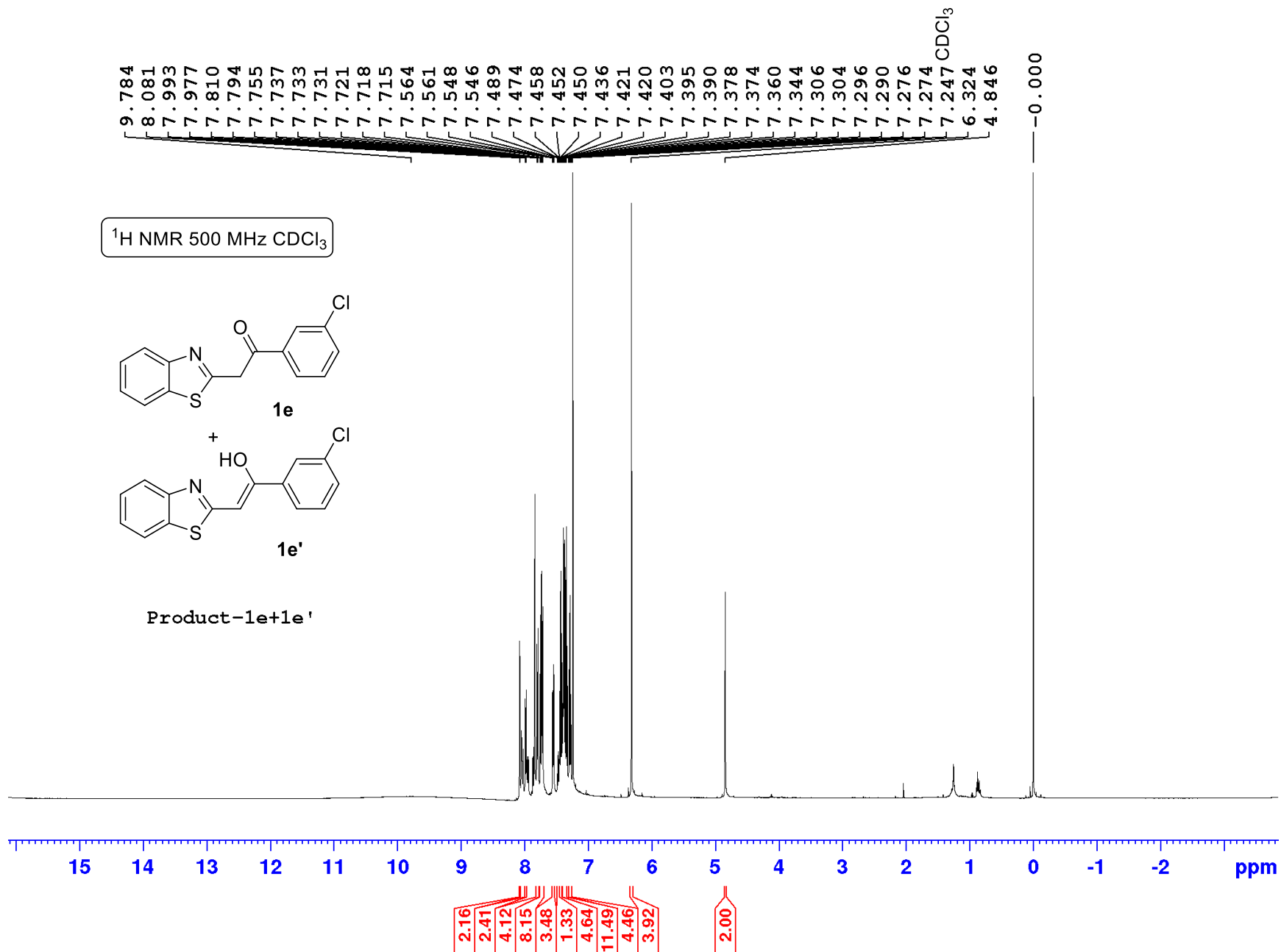
+

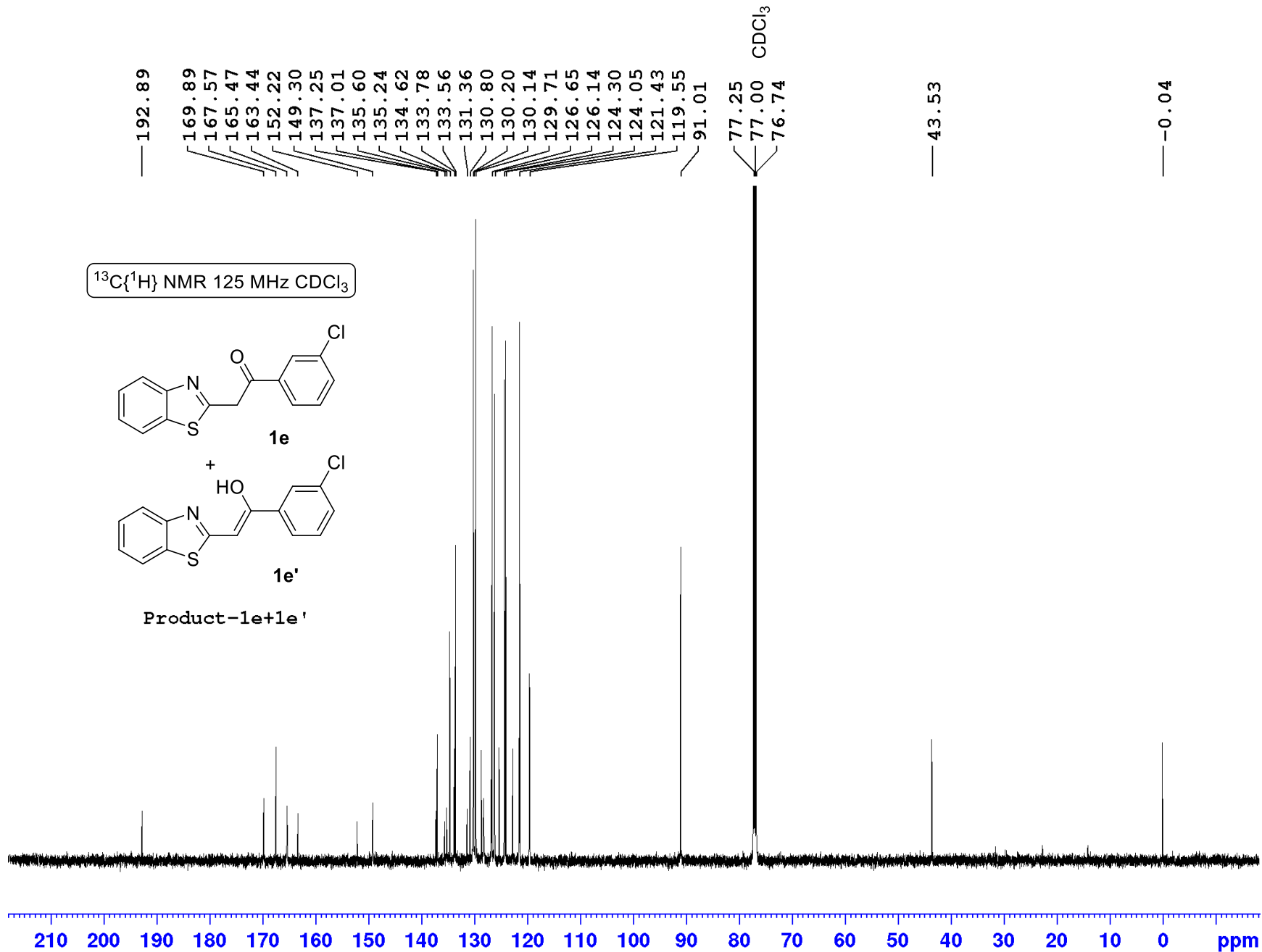


Product-1c+1c'

-62.75  
-63.23

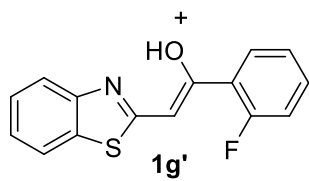
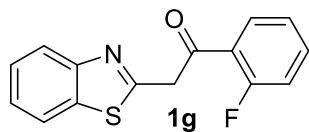




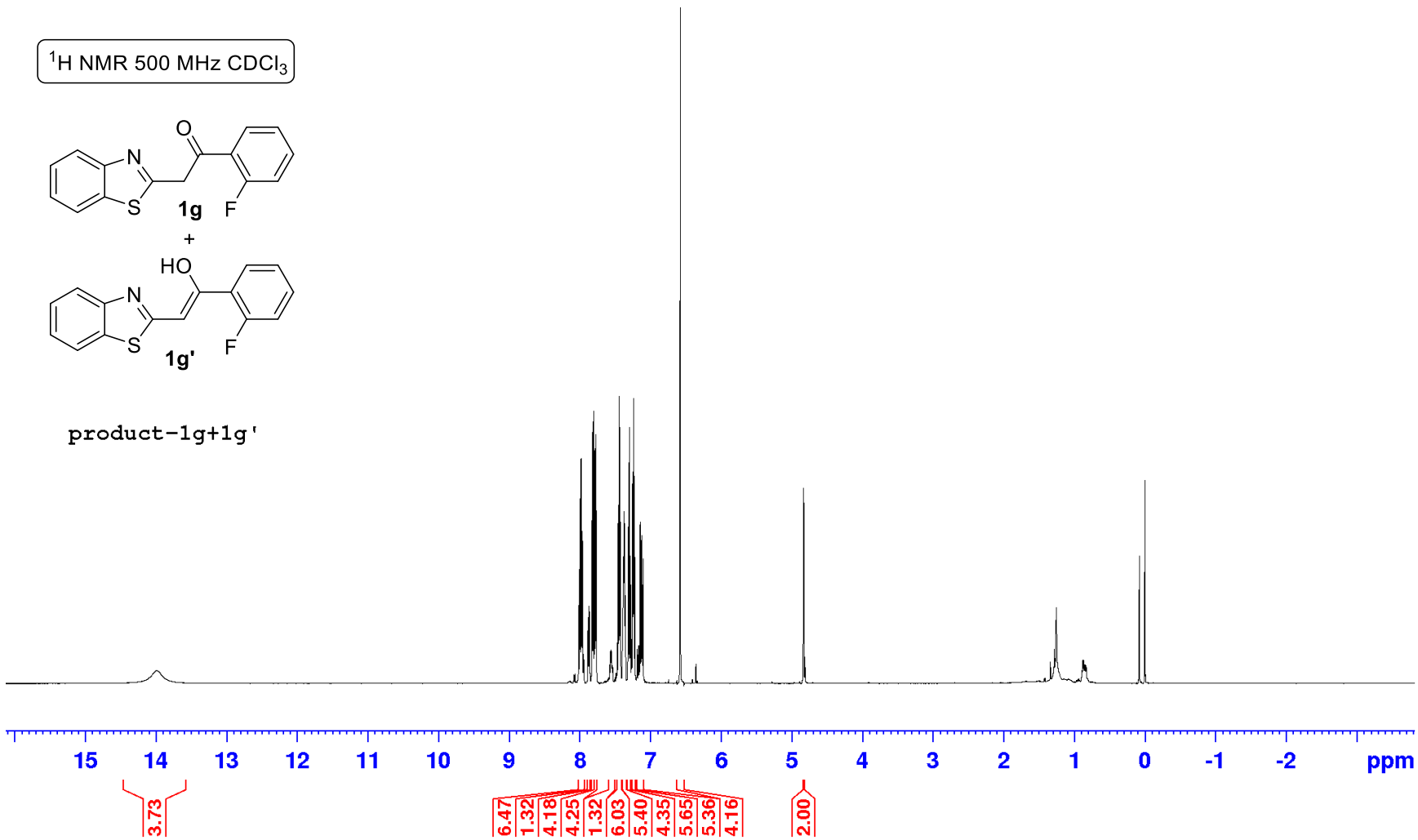


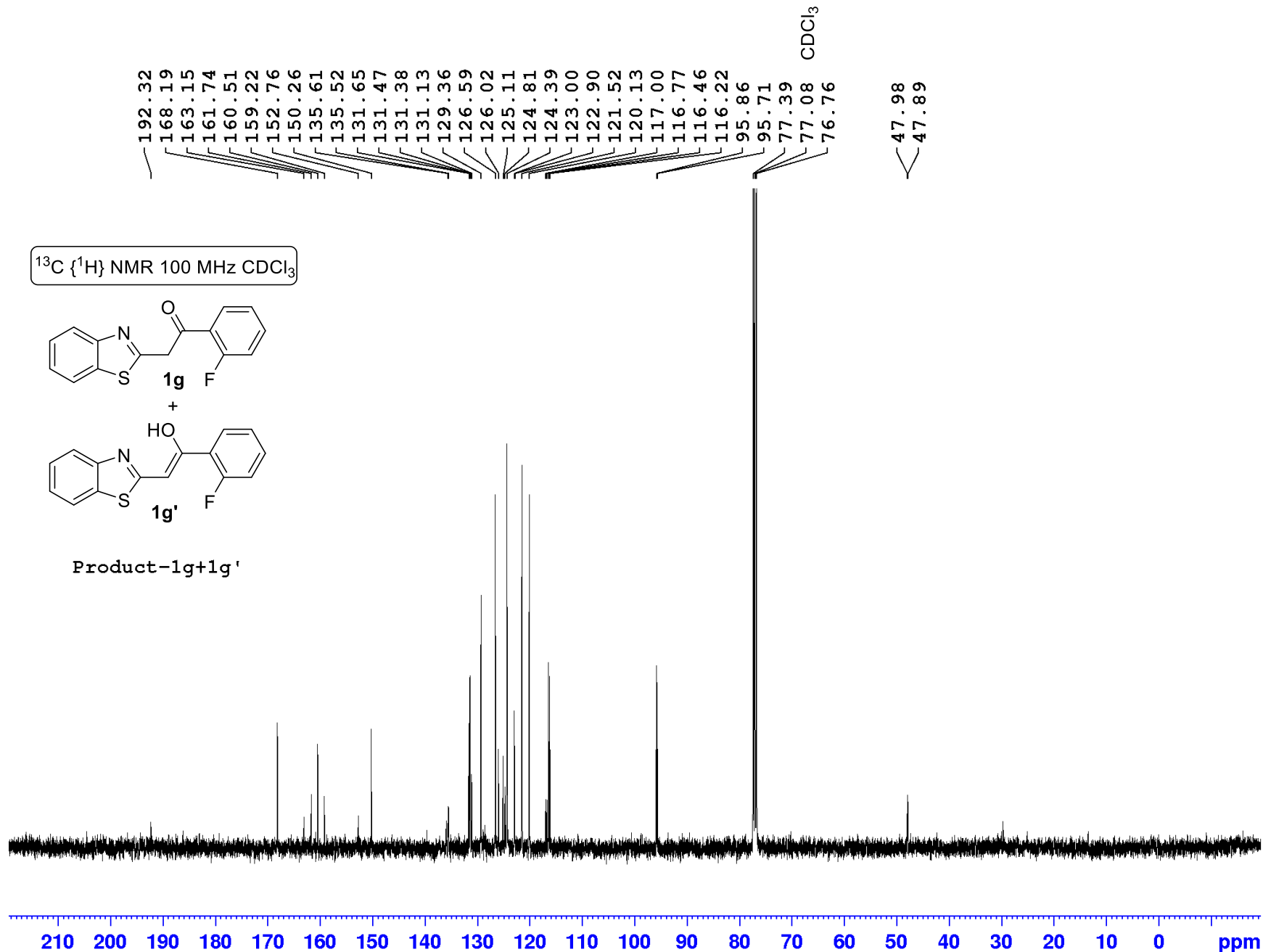
8.015  
8.000  
7.997  
7.984  
7.981  
7.968  
7.965  
7.949  
7.946  
7.884  
7.868  
7.824  
7.808  
7.789  
7.773  
7.579  
7.564  
7.558  
7.554  
7.552  
7.537  
7.473  
7.456  
7.440  
7.425  
7.396  
7.394  
7.388  
7.386  
7.382  
7.380  
7.372  
7.357  
7.315  
7.301  
7.285  
7.269 CDCl<sub>3</sub>  
7.252  
7.245  
7.237  
7.222  
7.187  
7.170  
7.165  
7.146  
7.129  
7.122  
7.105  
6.578  
4.836  
4.831  
-0.000

<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>

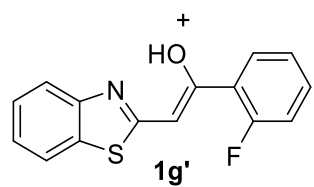
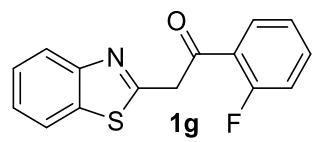


product-1g+1g'



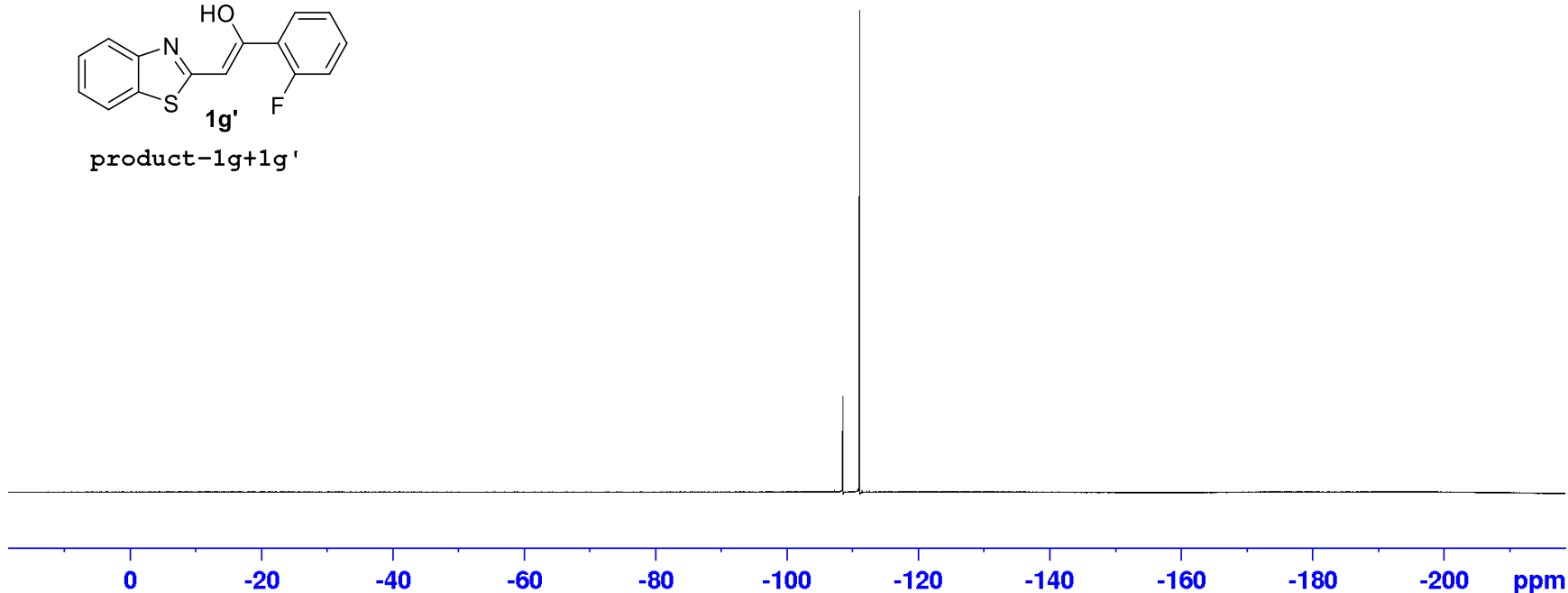


$^{19}\text{F}$  NMR (376 MHz,  $\text{CDCl}_3$ )

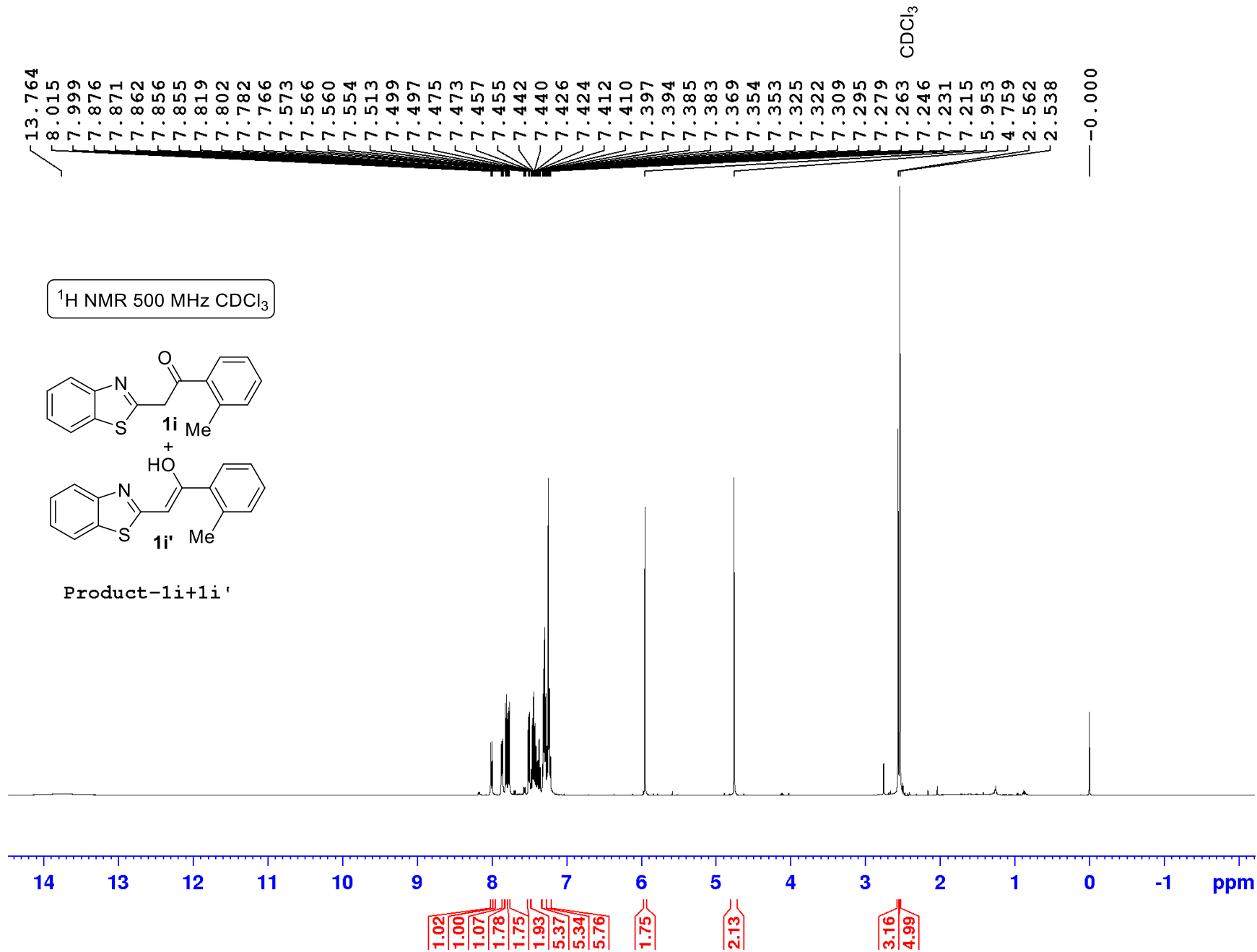


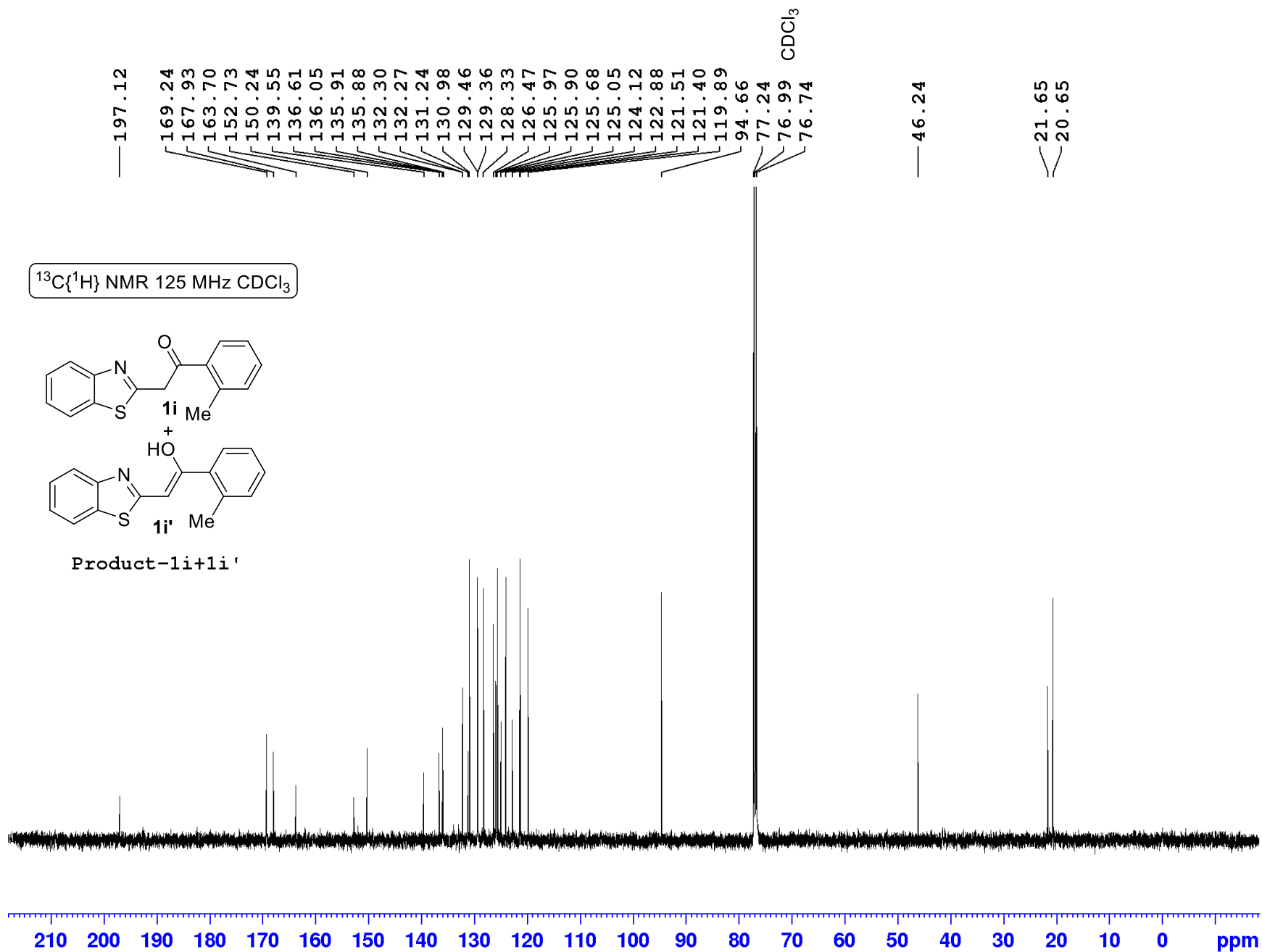
product-1g+1g'

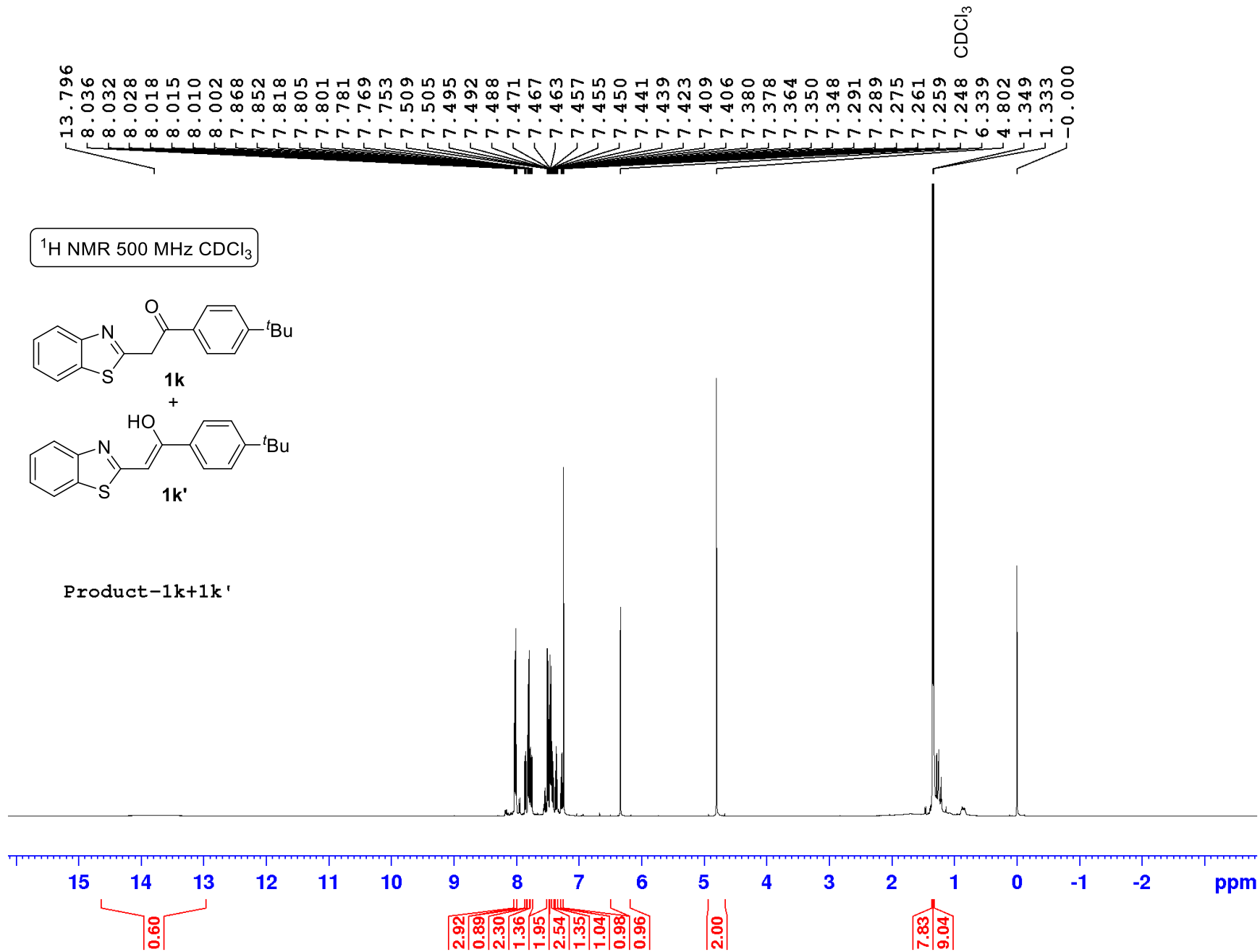
--108.50  
--111.05



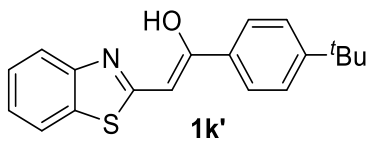
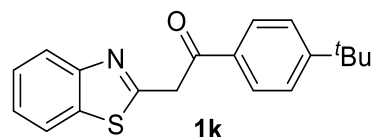




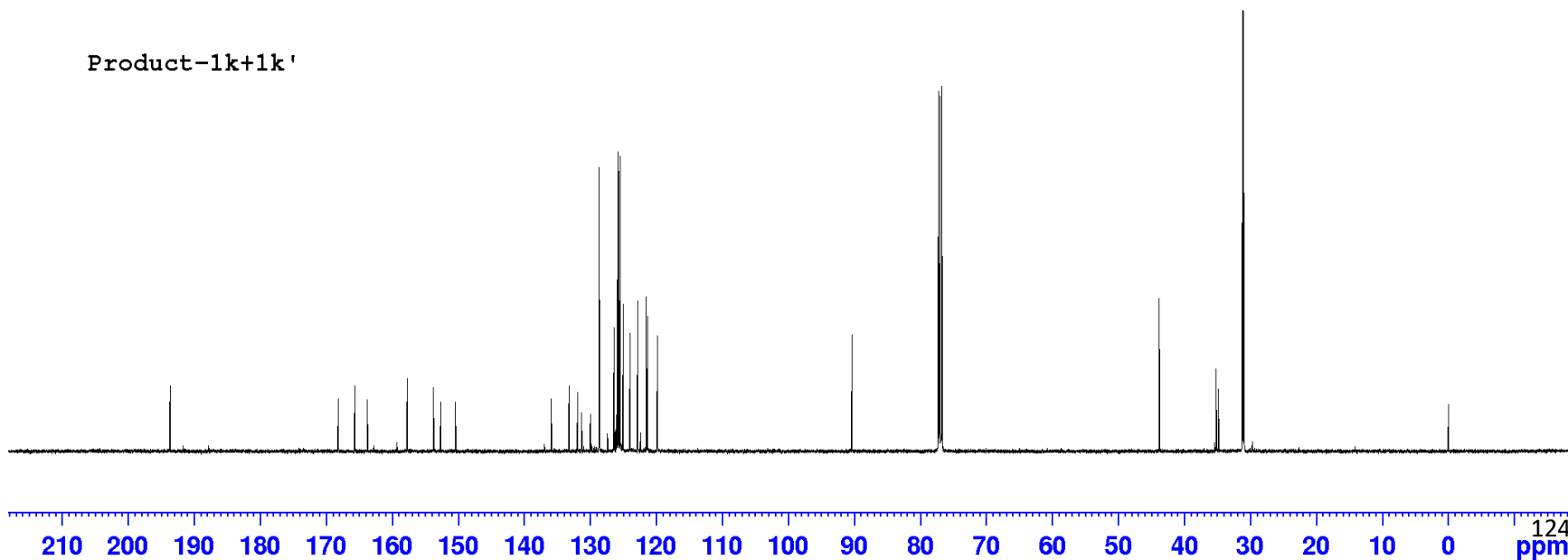




$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



Product-1k+1k'



— 193.69

168.20

165.70

163.80

157.76

153.79

152.66

150.44

135.90

133.24

131.93

131.32

128.68

126.43

125.94

125.81

125.73

125.47

125.03

124.00

122.83

121.51

121.35

119.84

90.37

77.25

77.00

76.74

$\text{CDCl}_3$

— 43.77

35.19

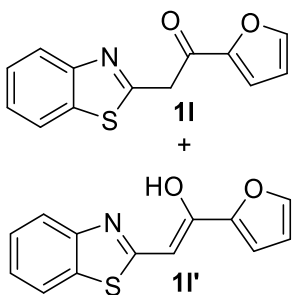
34.84

31.17

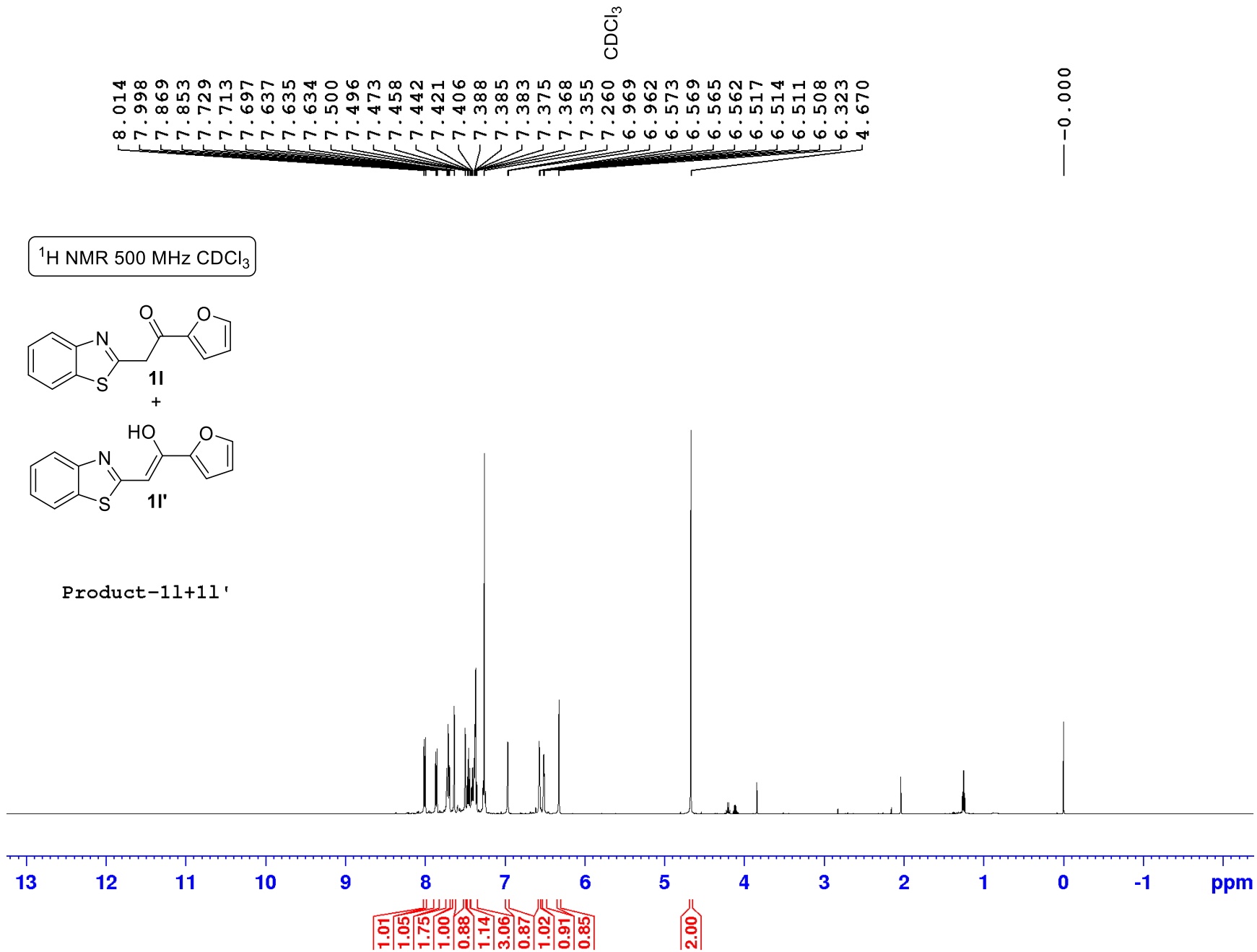
30.99

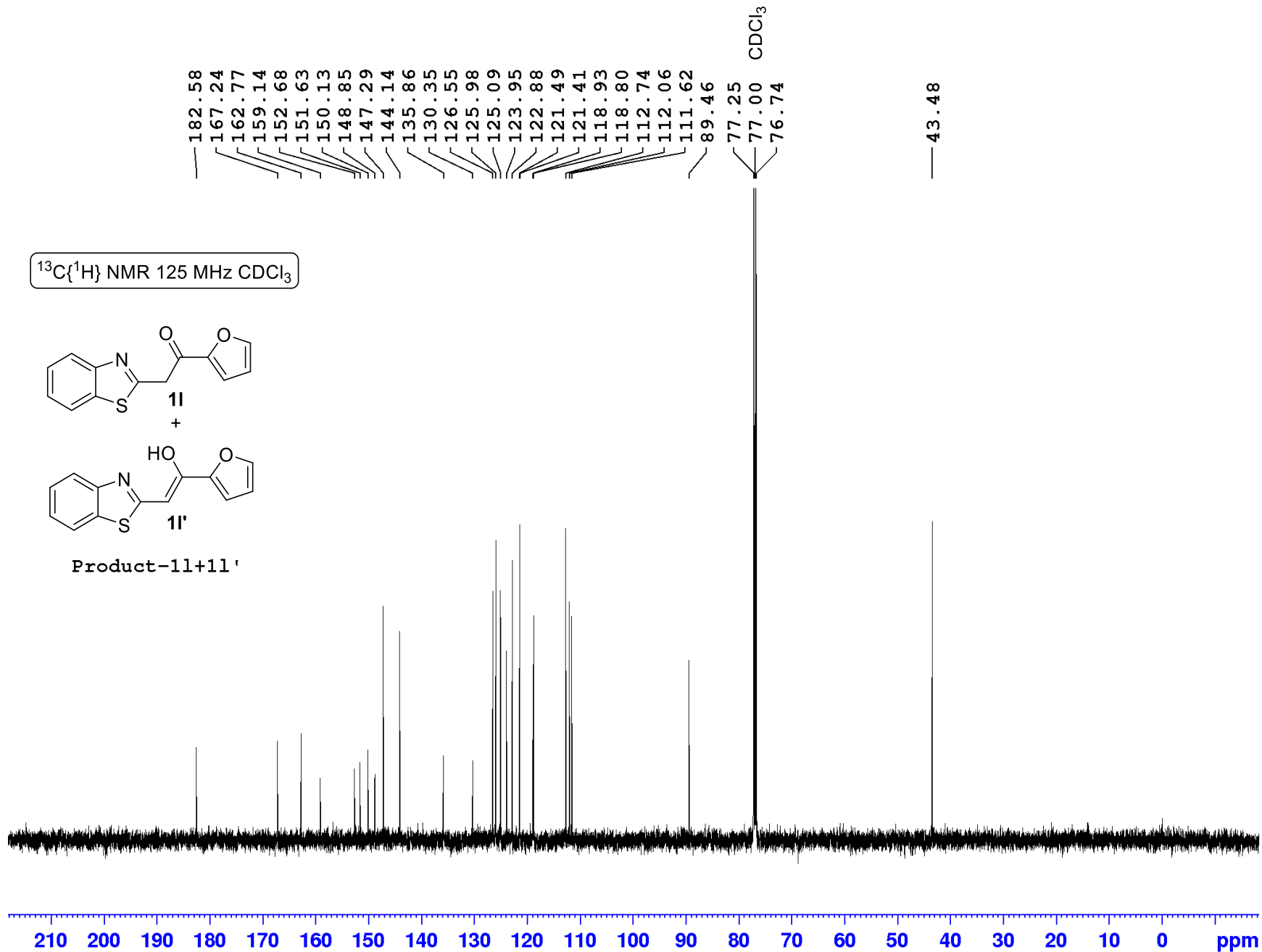
— 0.03

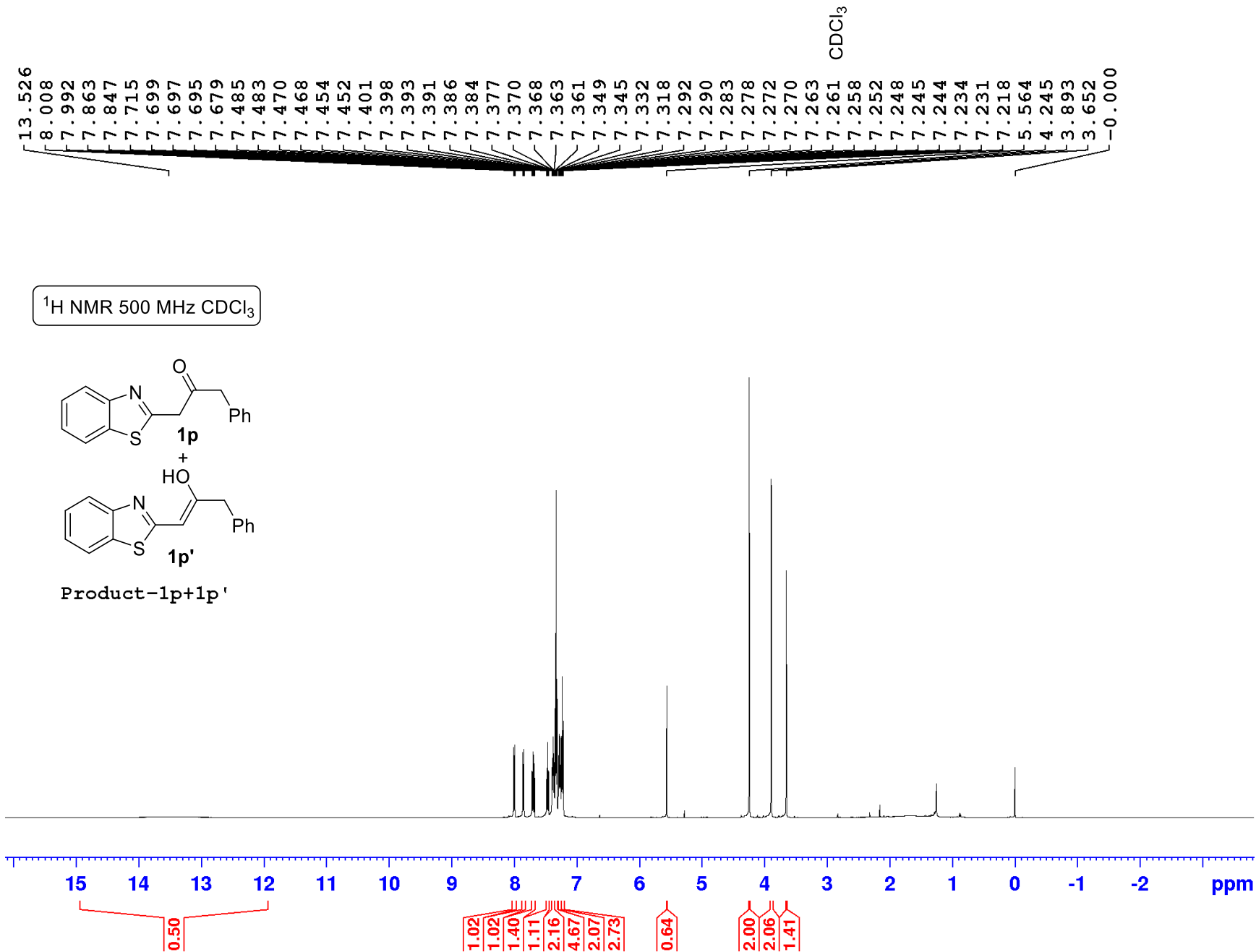
<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>

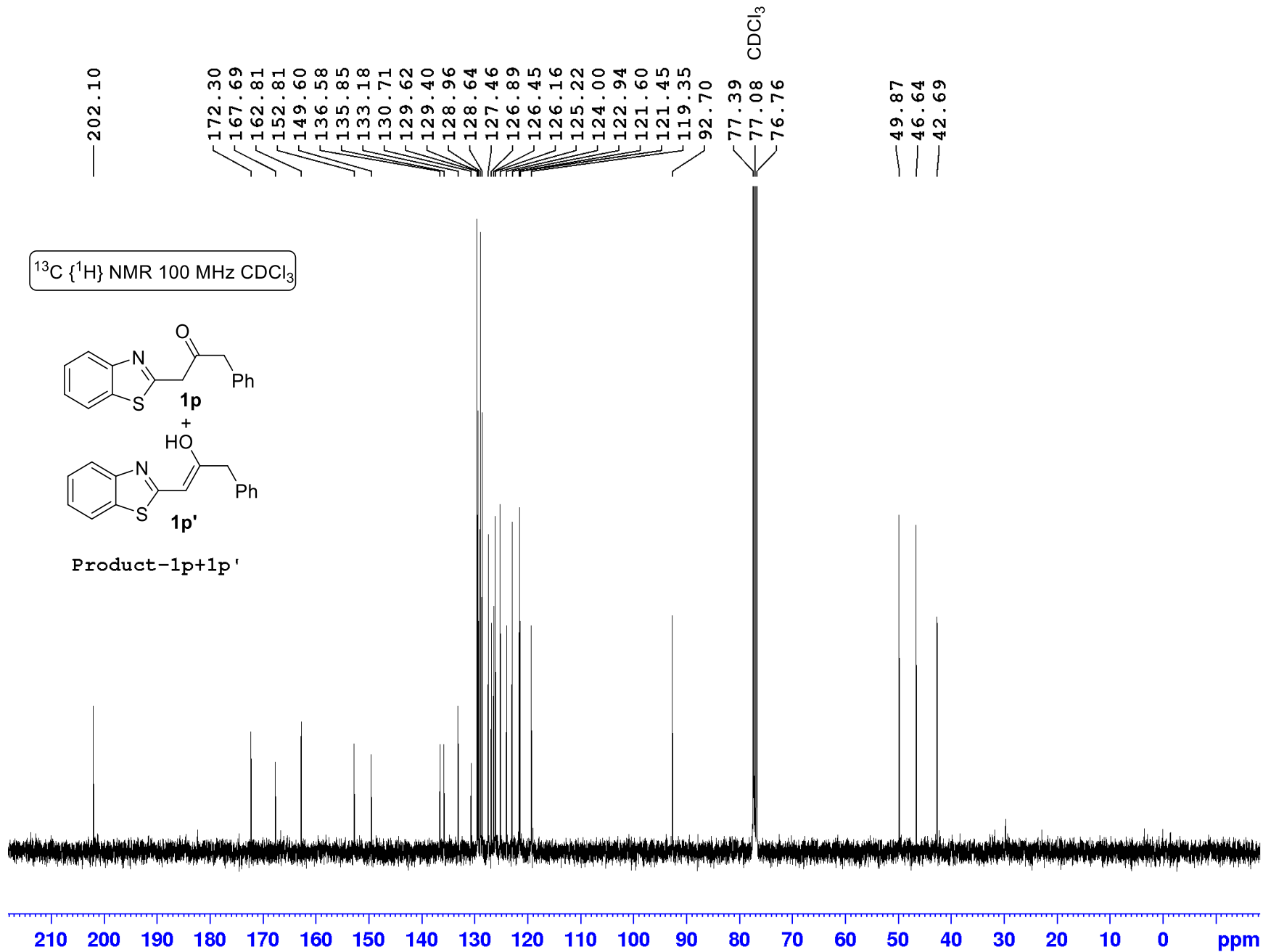


Product-1I+1I'

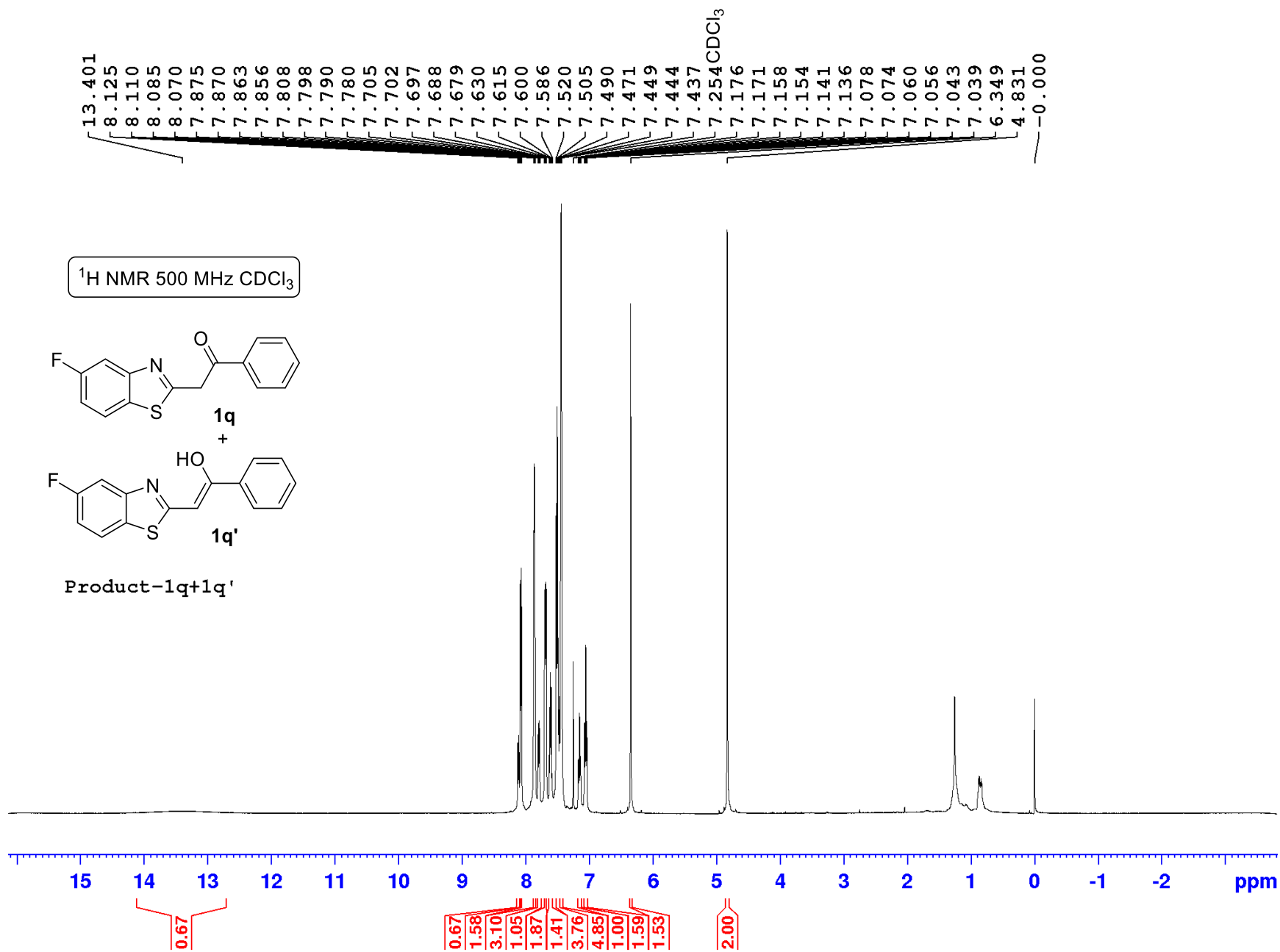


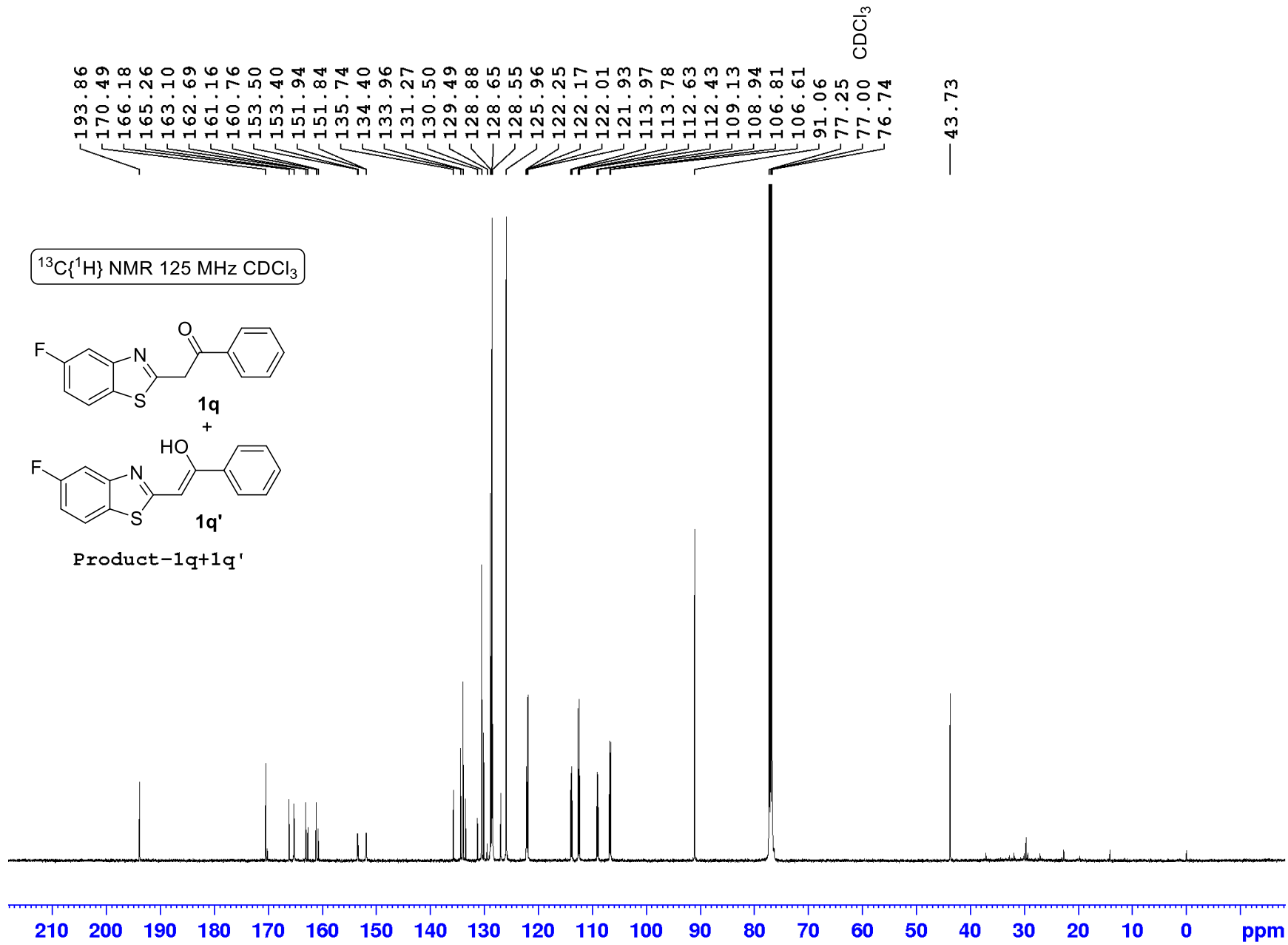


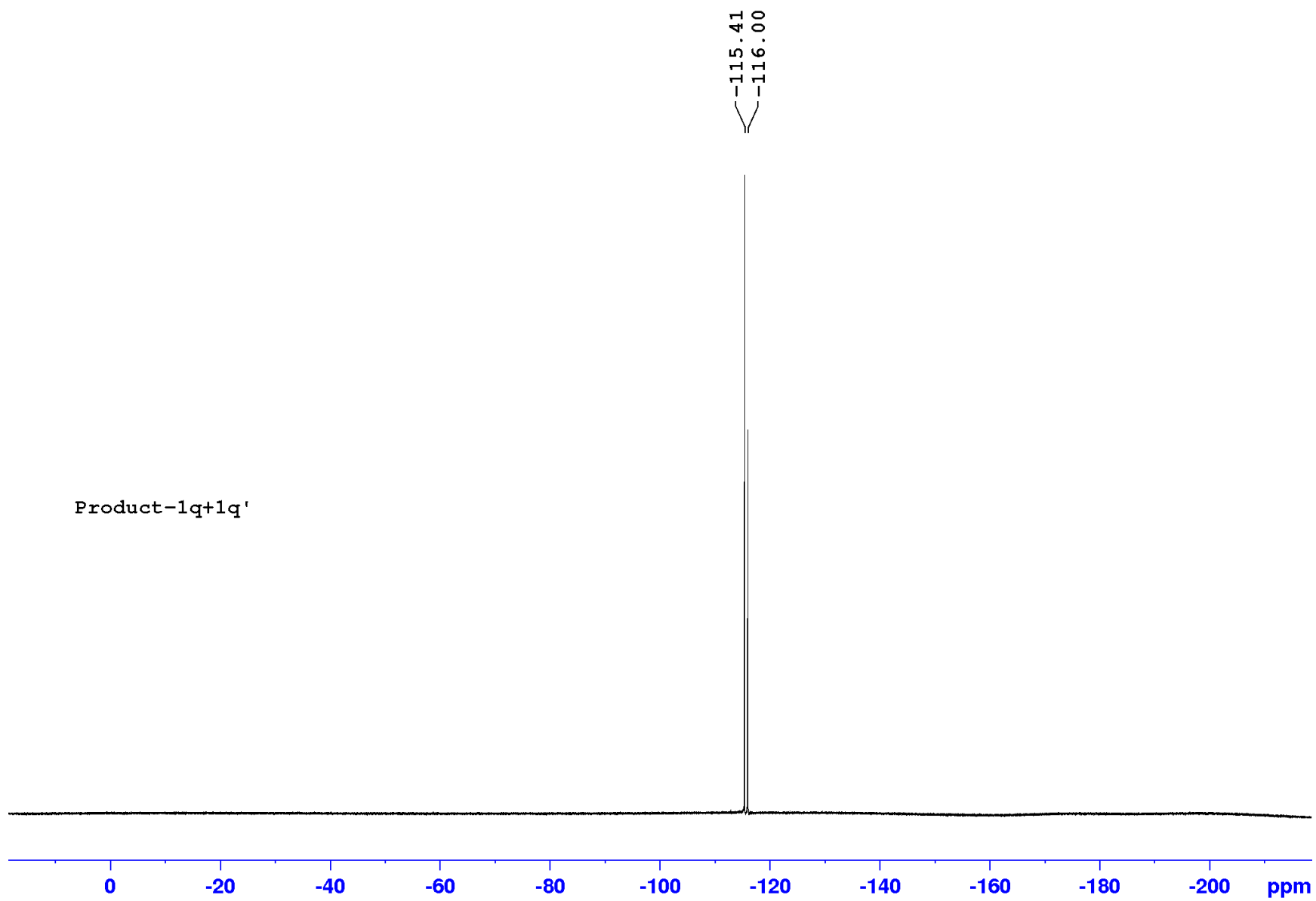


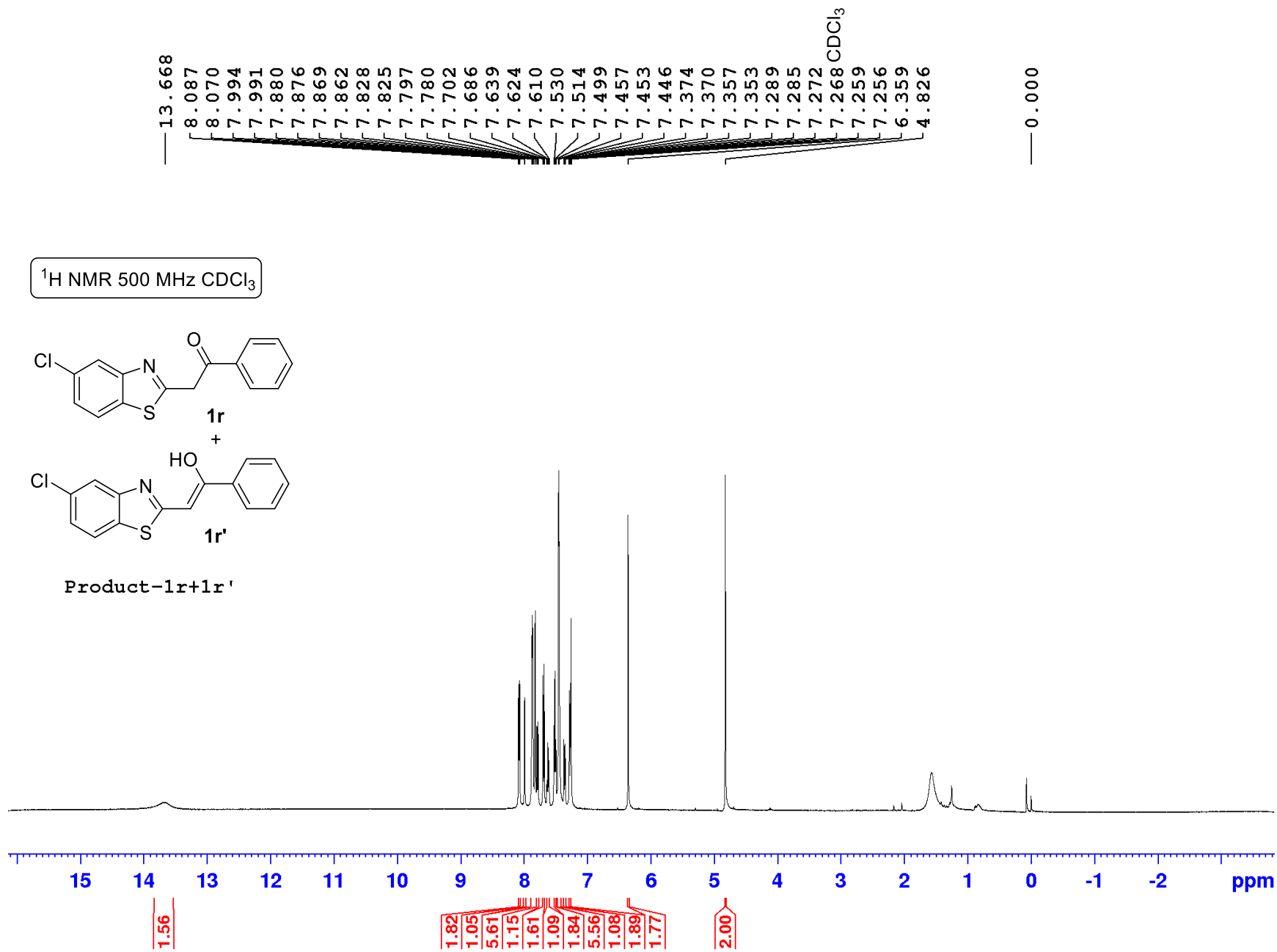


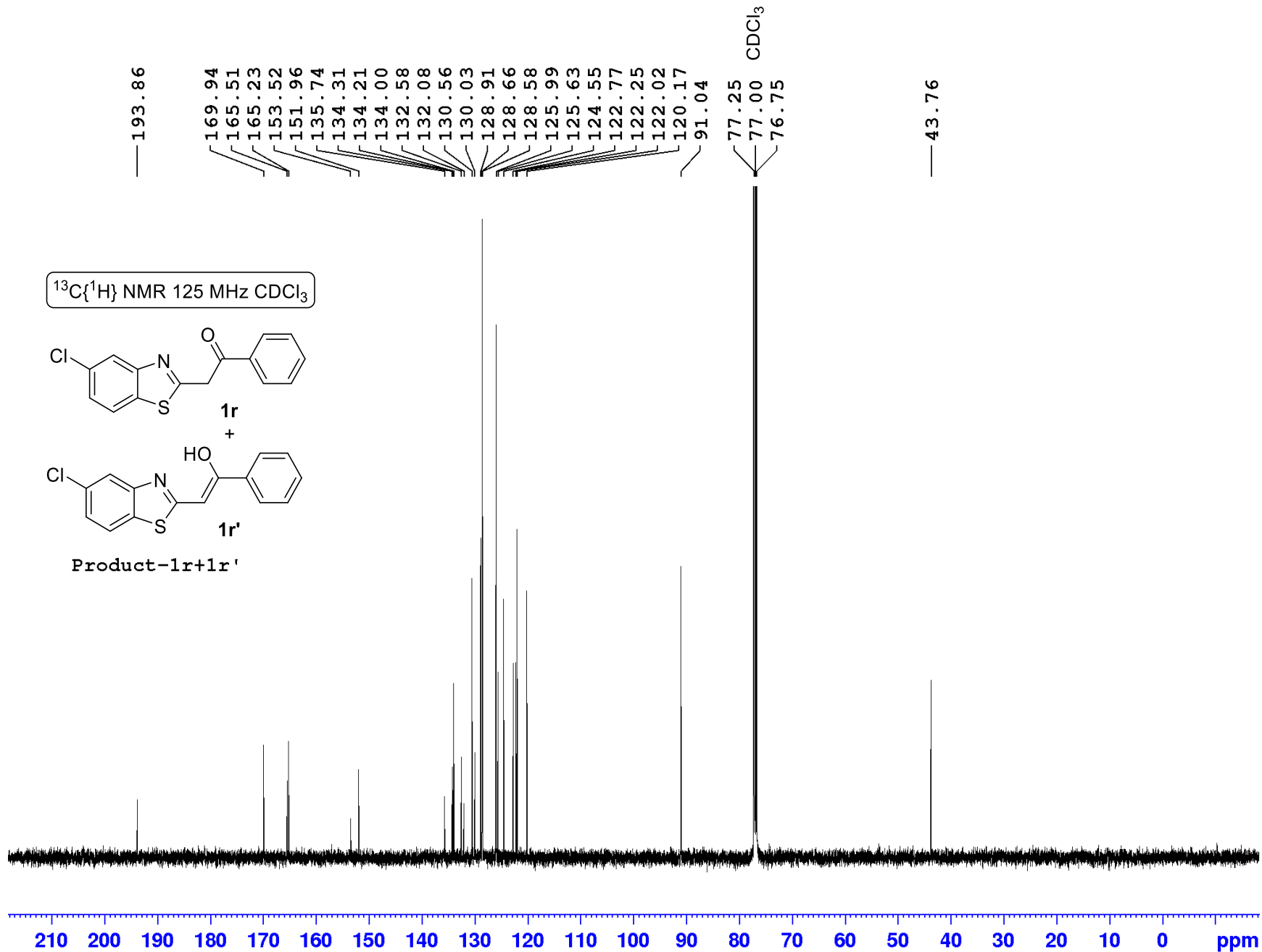


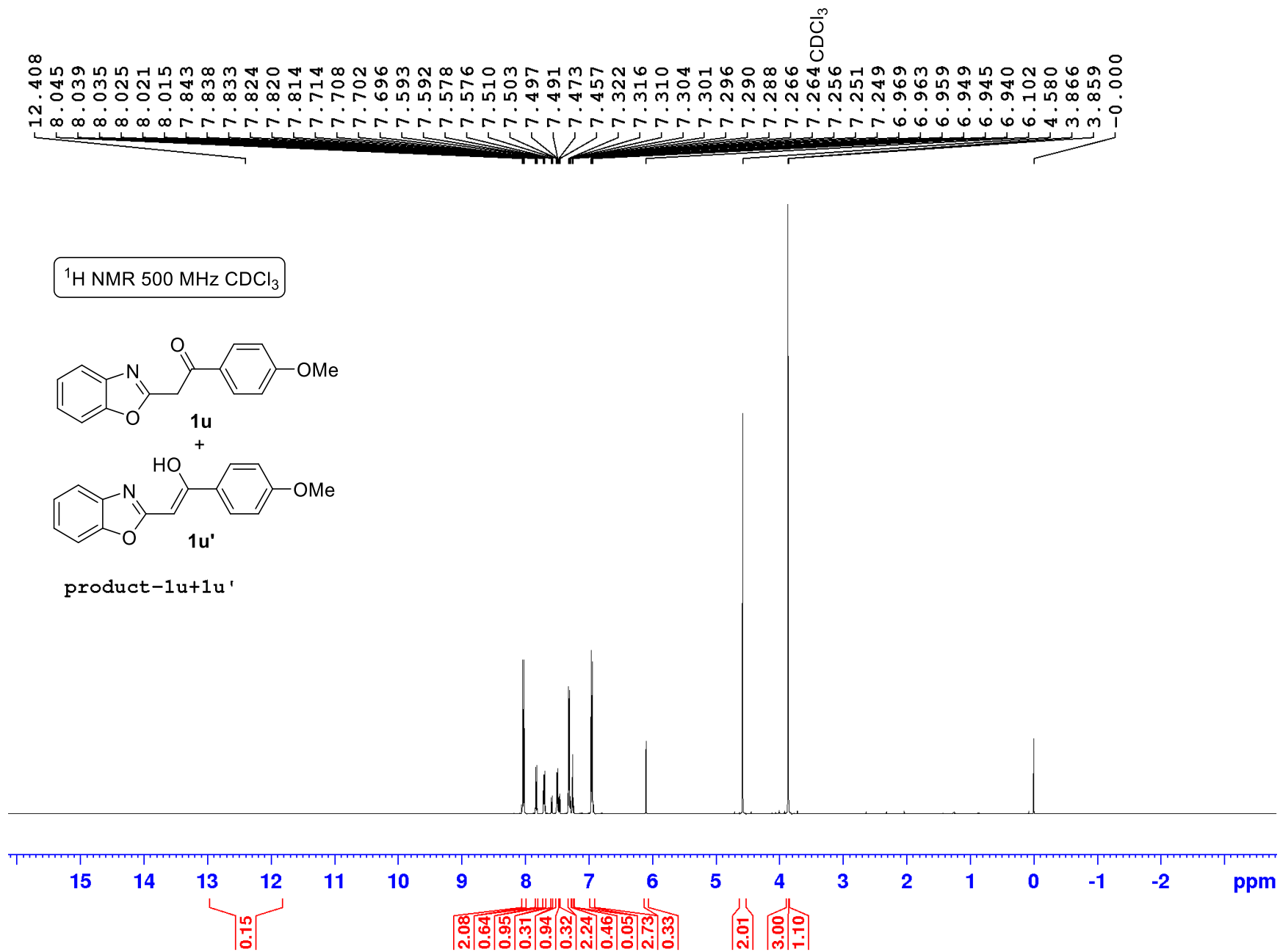


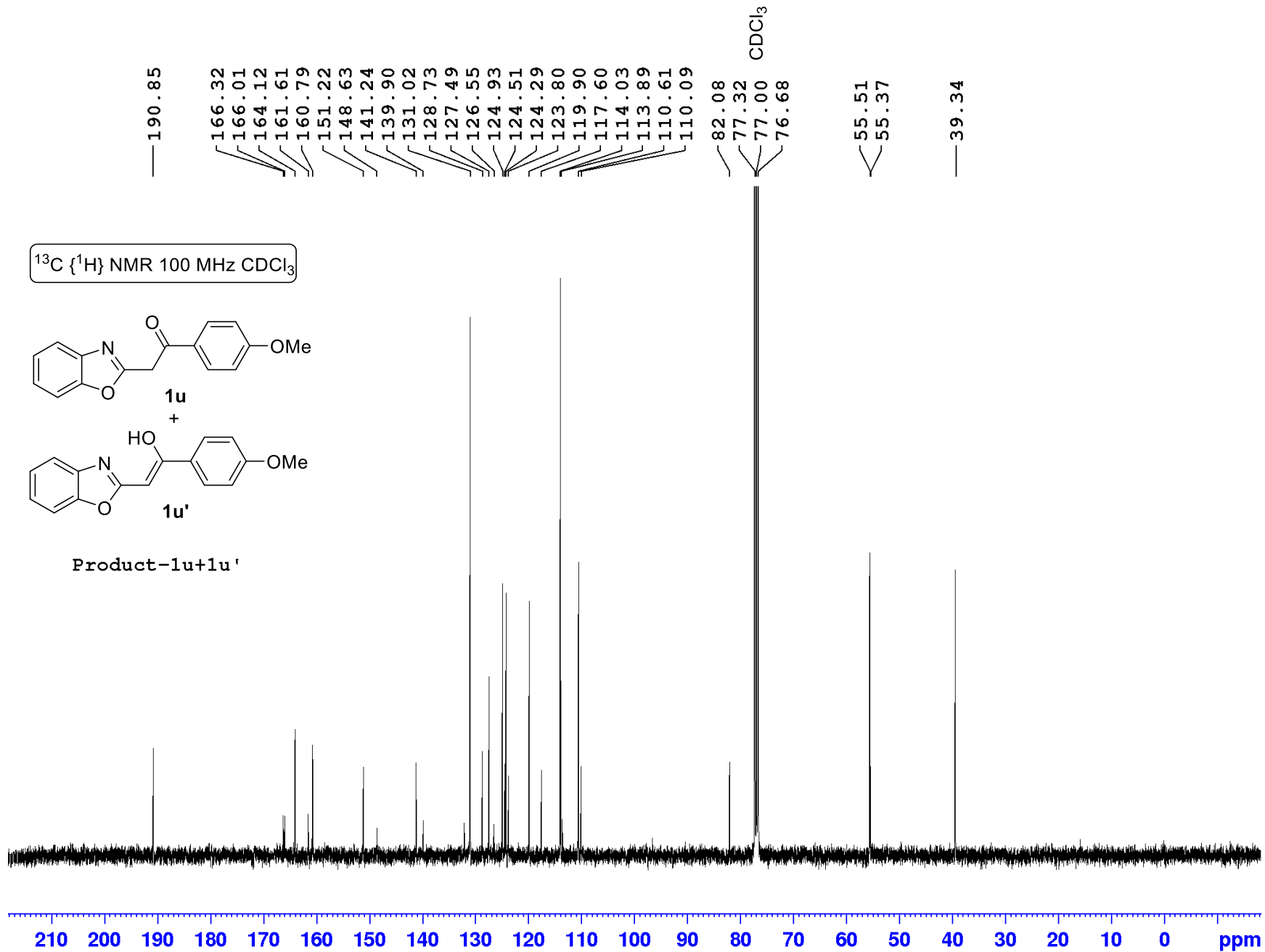


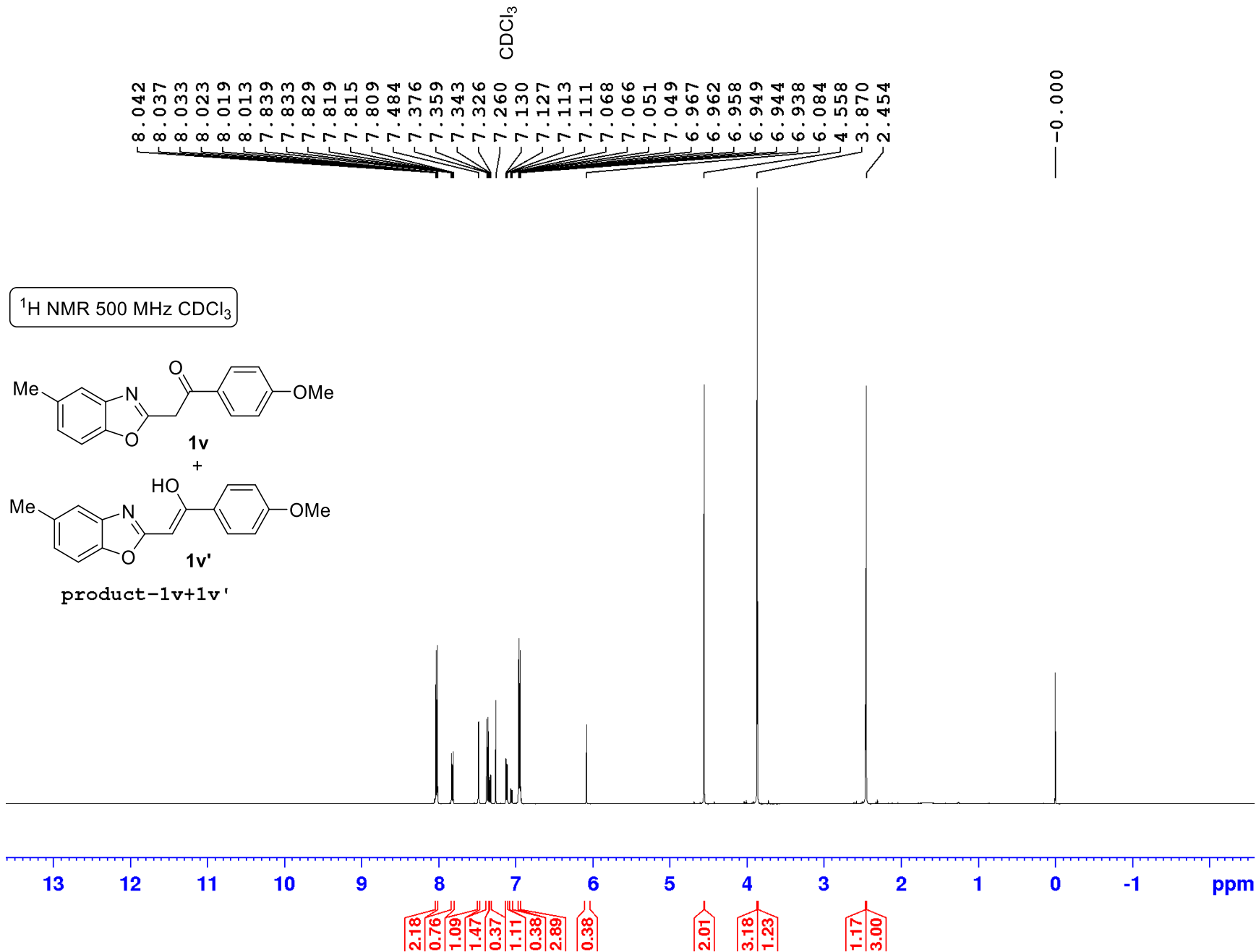




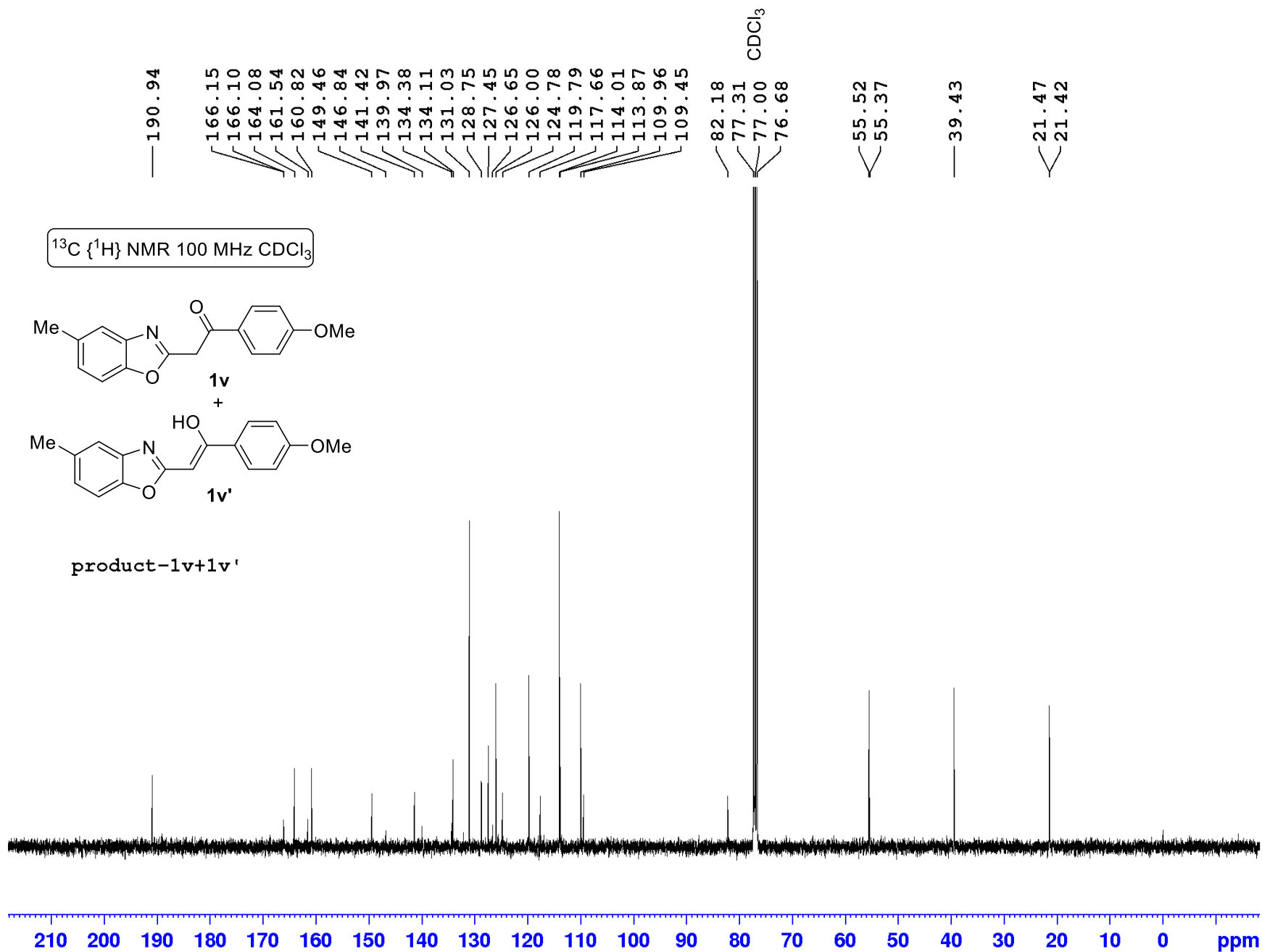




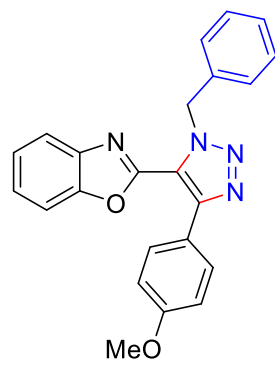






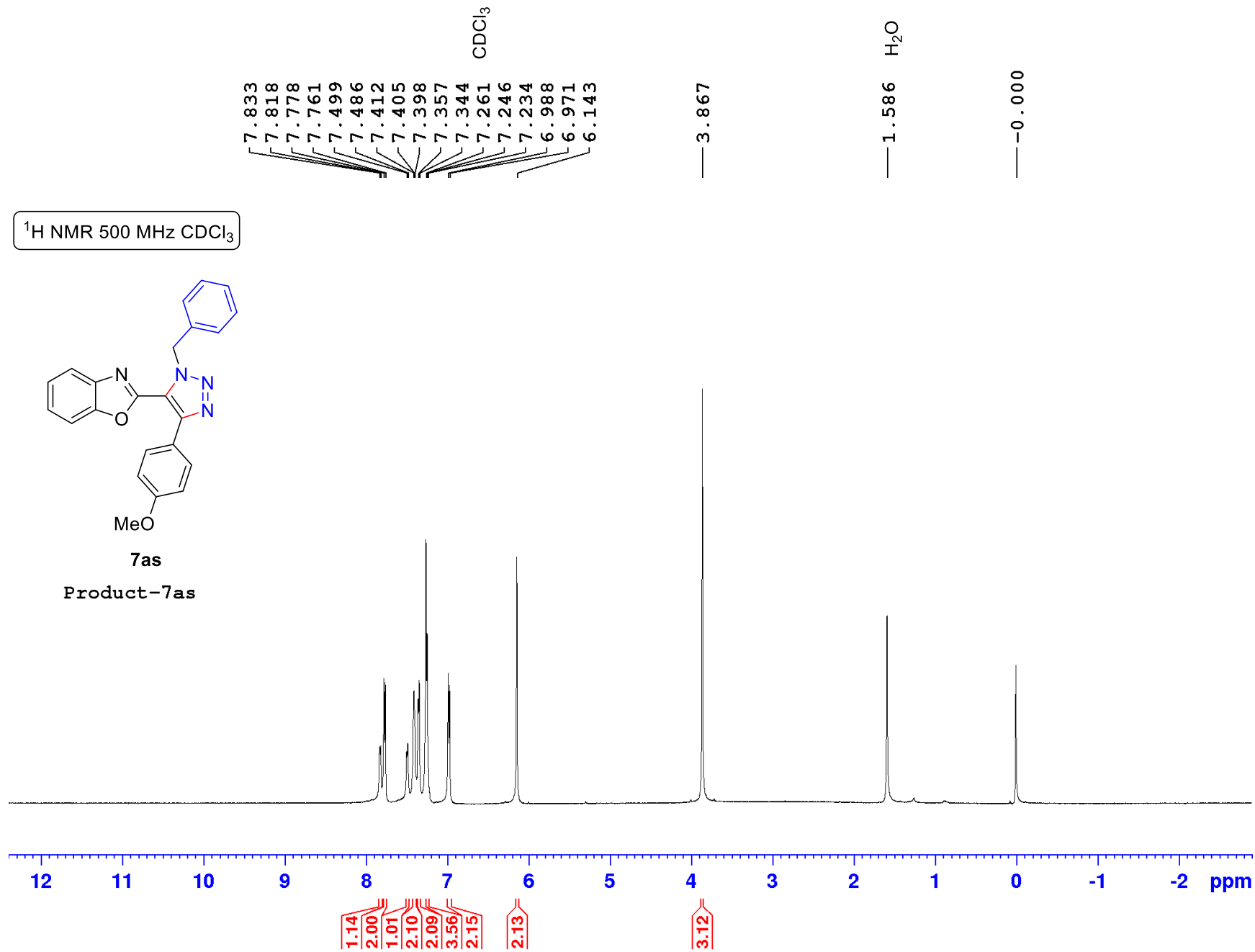


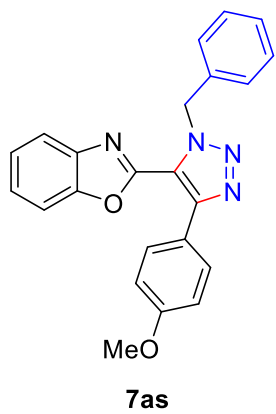
<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



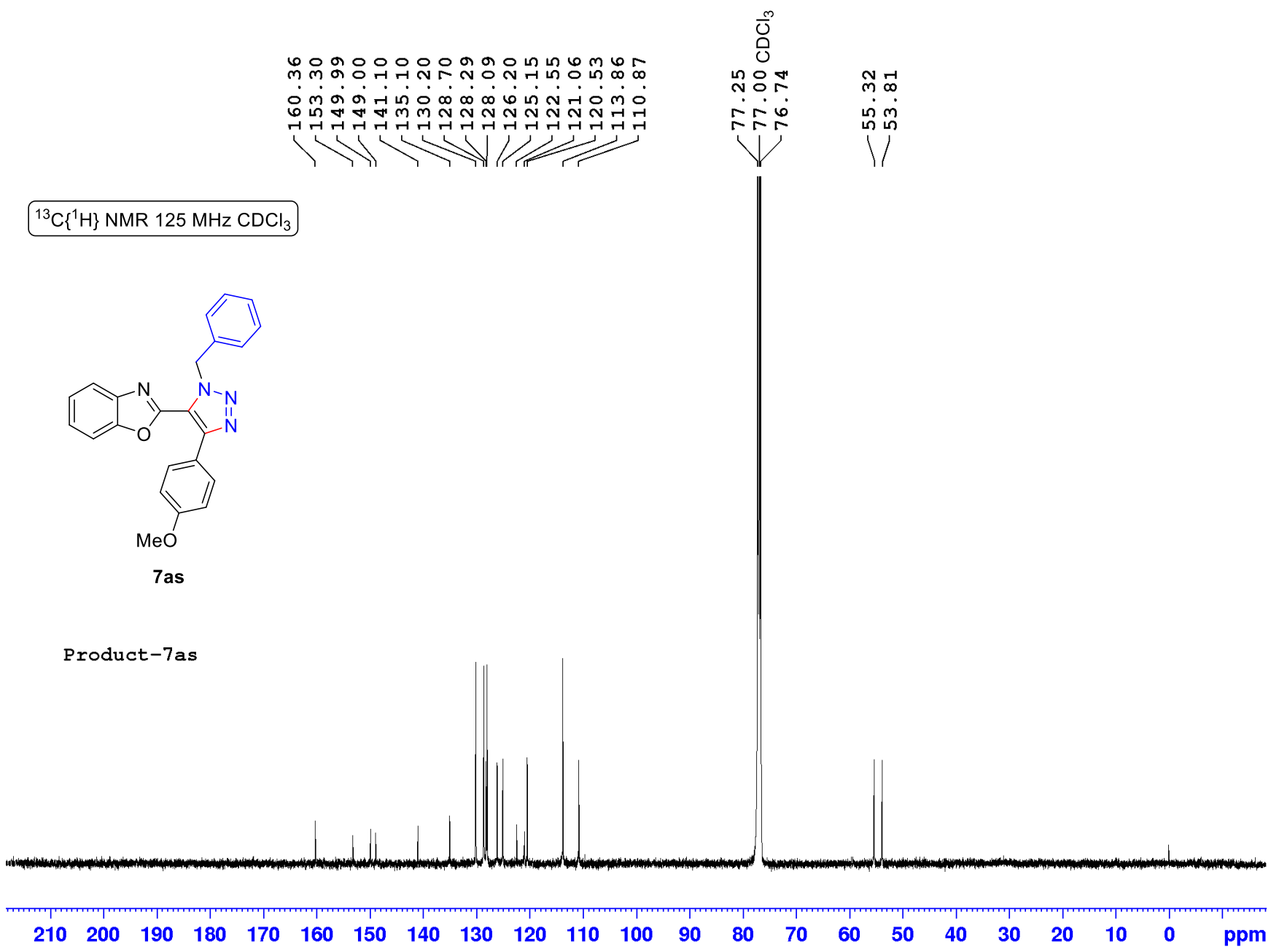
7as

Product-7as

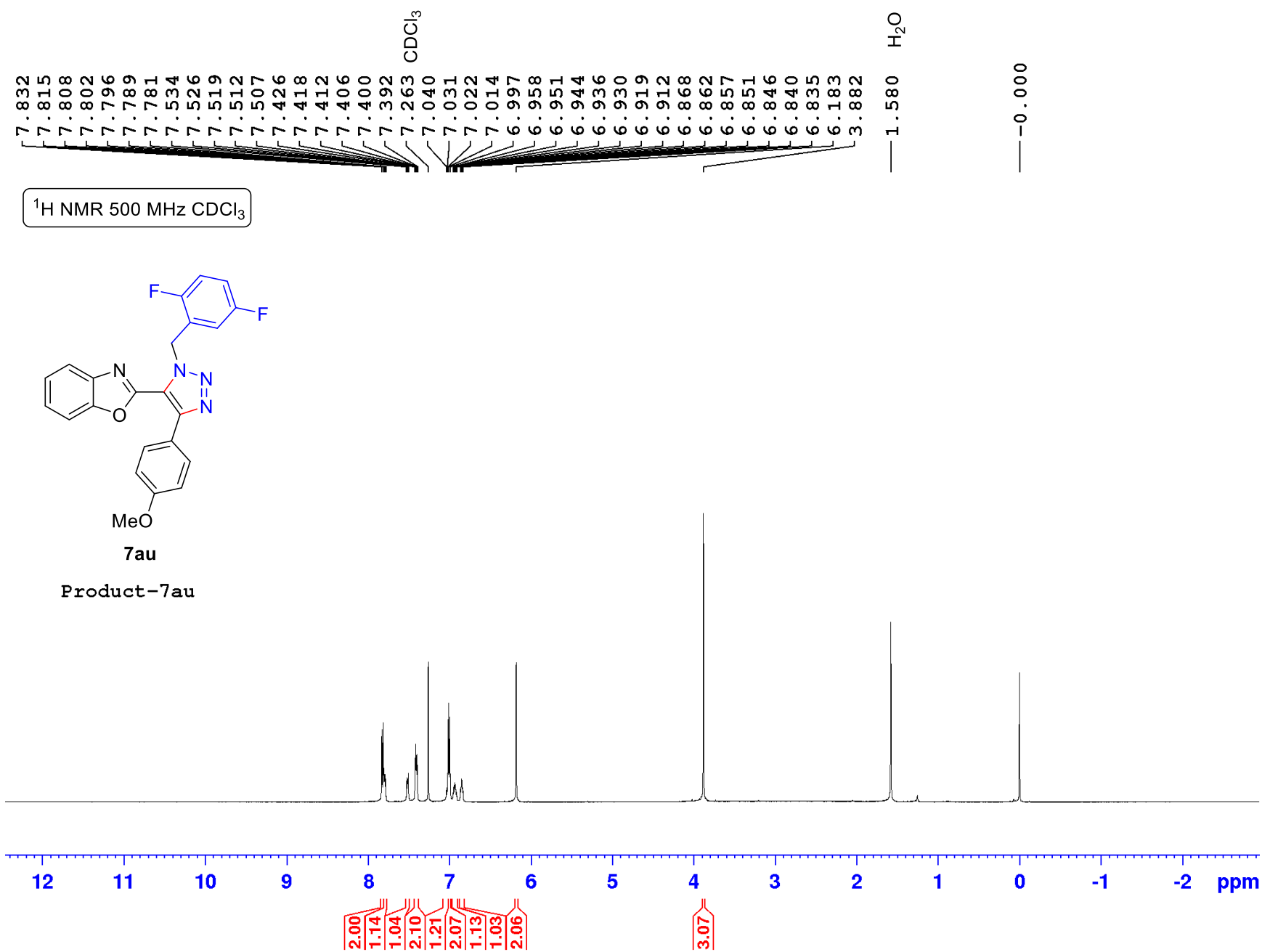


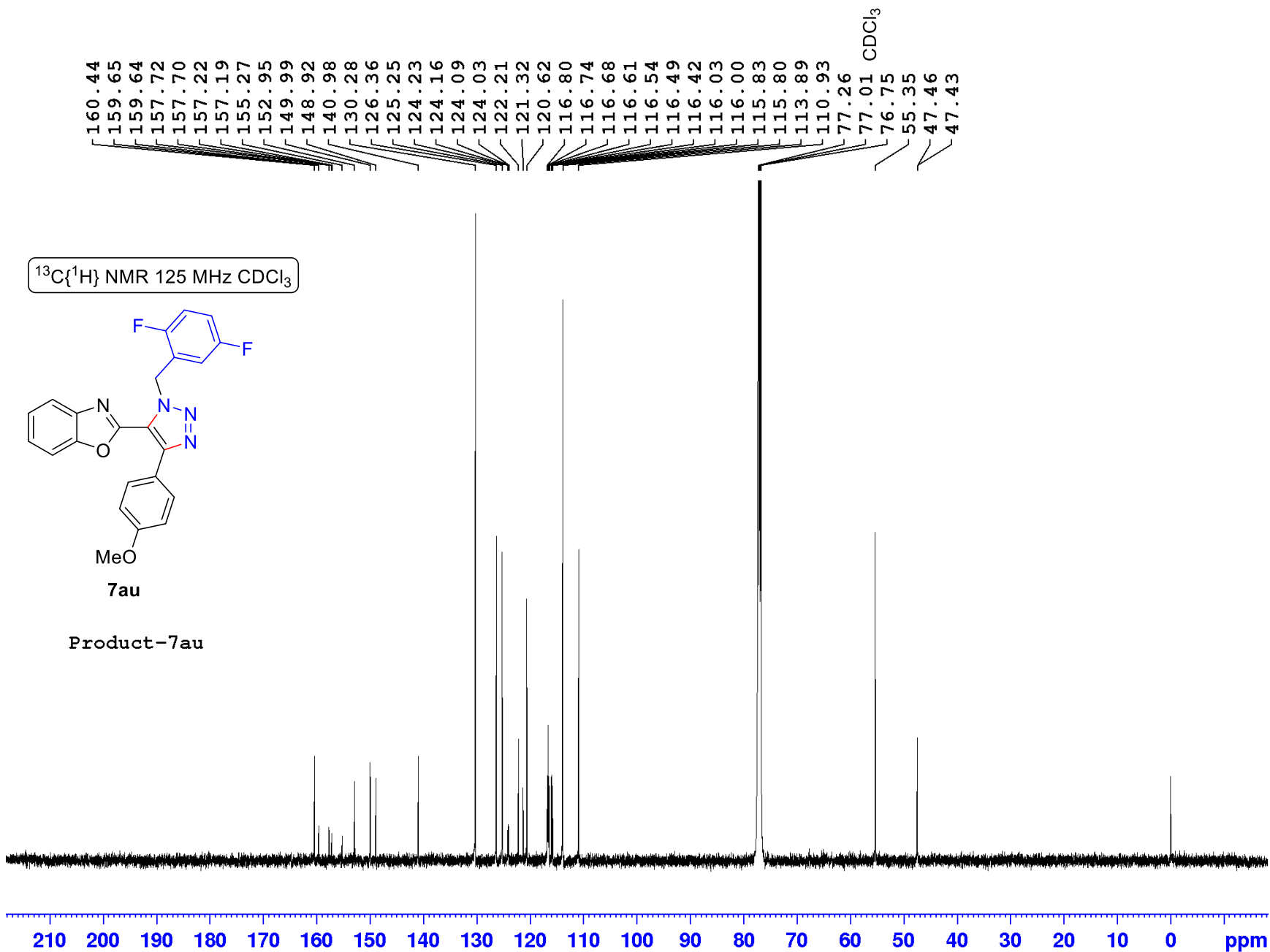


$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$

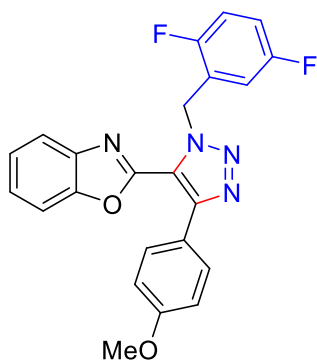


Product-7as





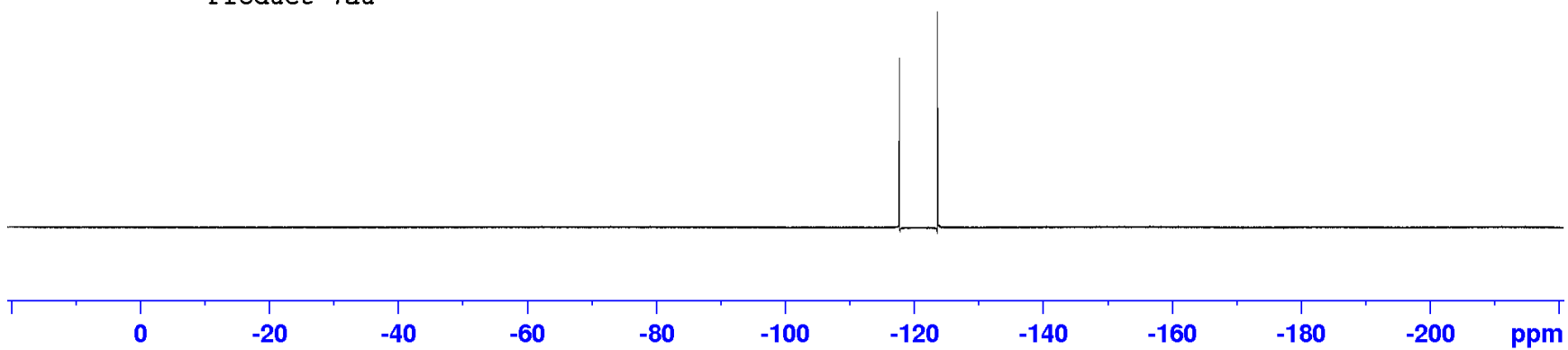
<sup>19</sup>F NMR (470 MHz, CDCl<sub>3</sub>)



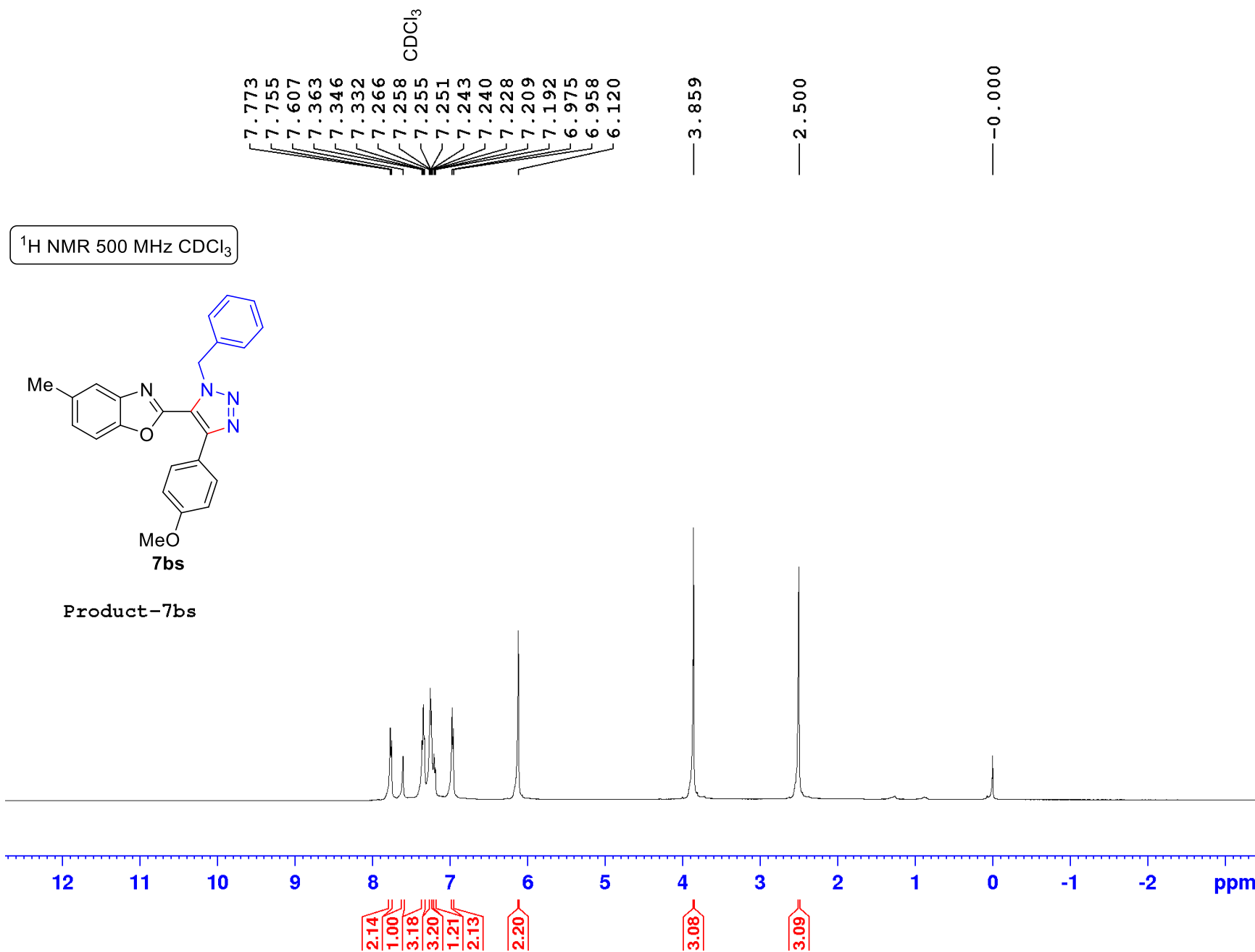
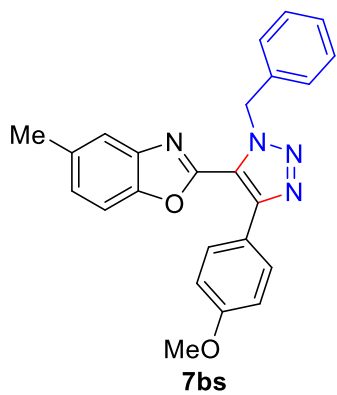
**7au**

**Product-7au**

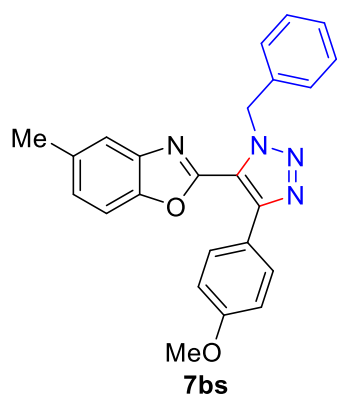
-117.70  
-117.74  
-123.58  
-123.62



<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>



$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



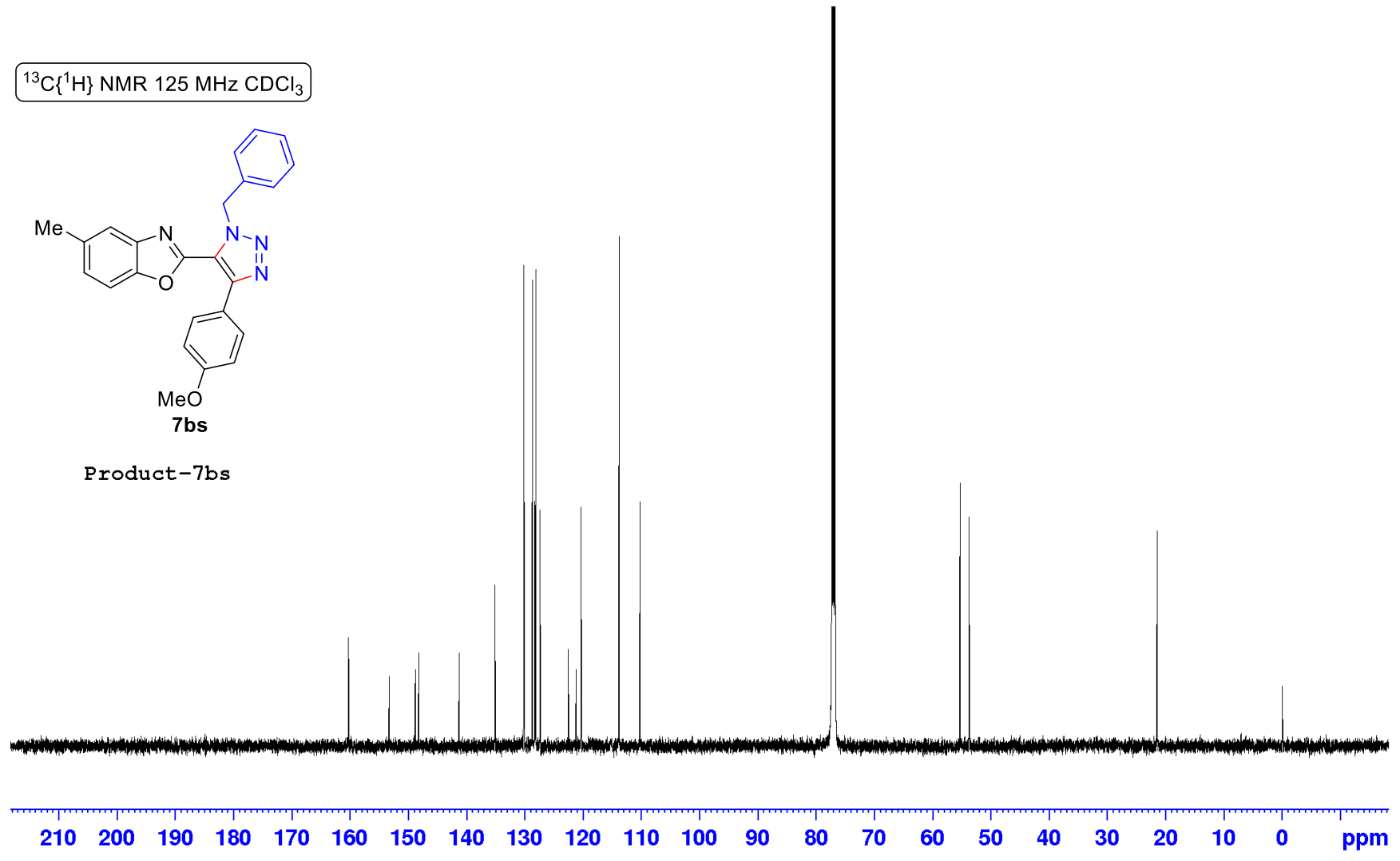
Product-7bs

160.26  
153.27  
148.82  
148.22  
141.26  
135.13  
130.17  
128.69  
128.28  
128.11  
127.39  
122.54  
121.17  
120.34  
113.81  
110.24

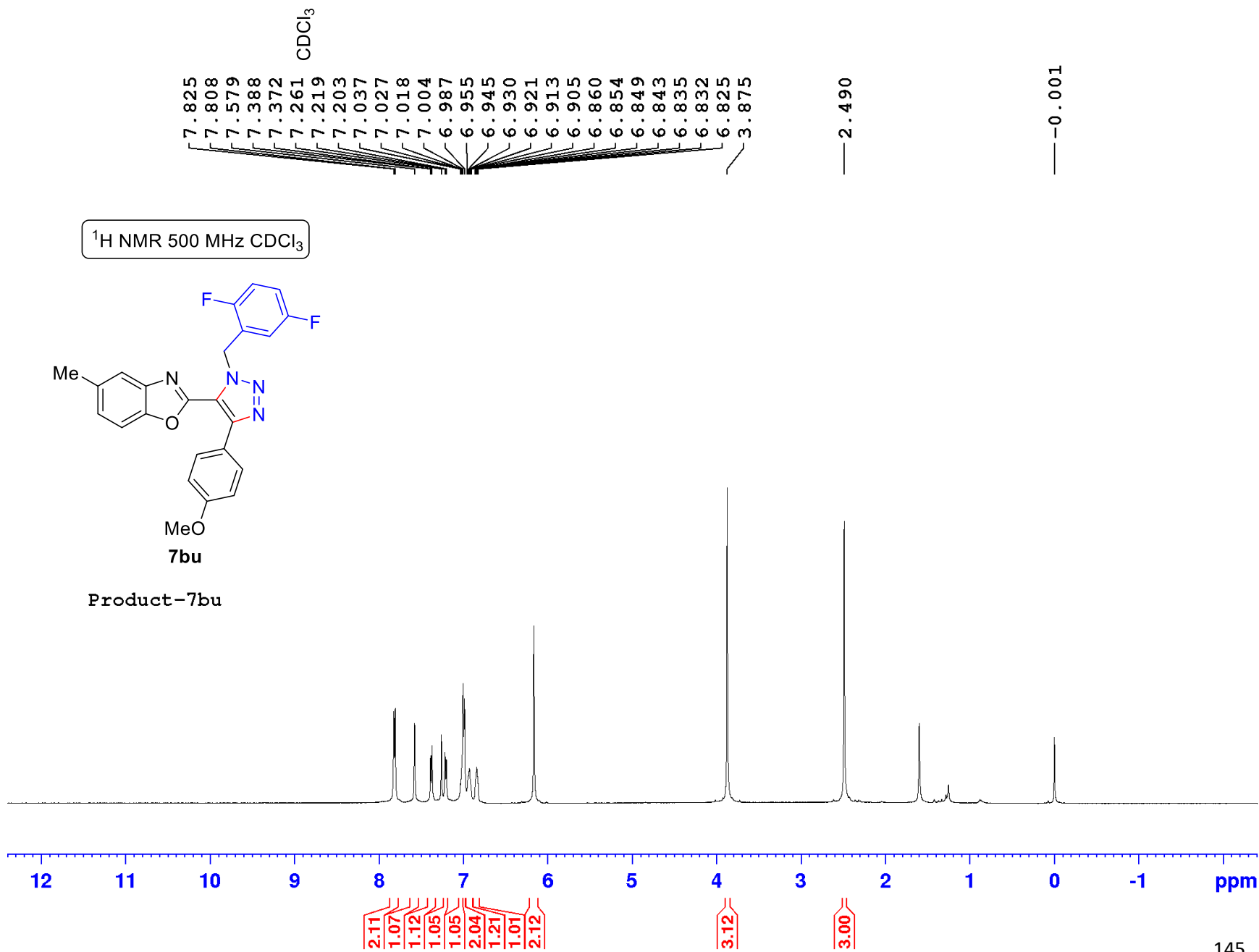
77.26  
77.01  
76.76  
CDCl<sub>3</sub>

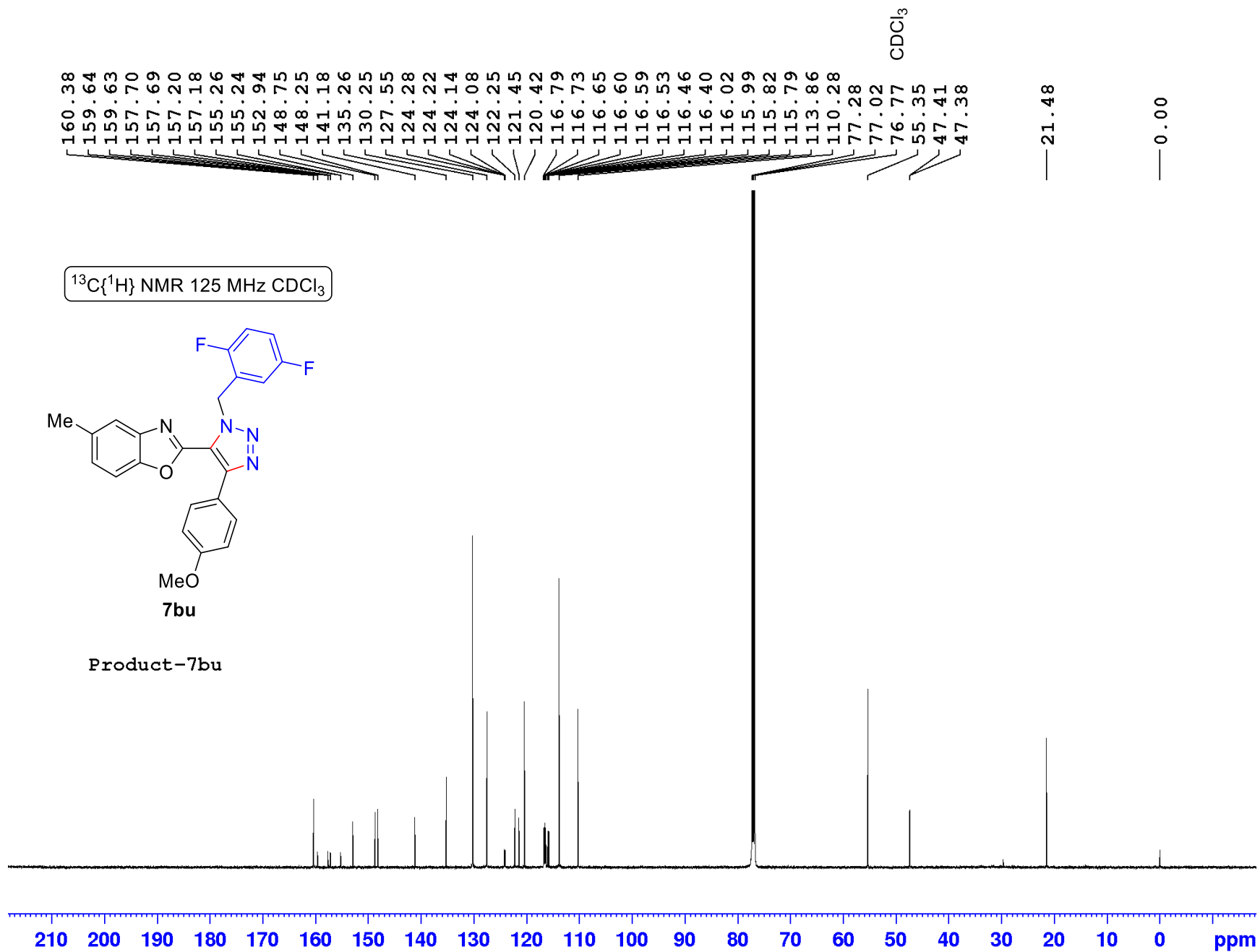
55.32  
53.75

21.48

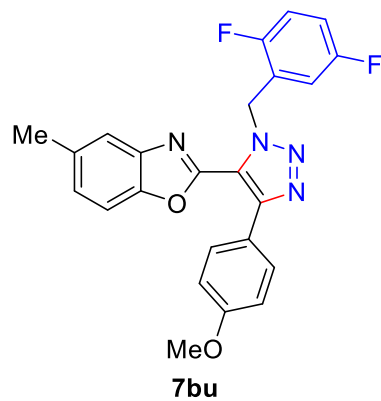






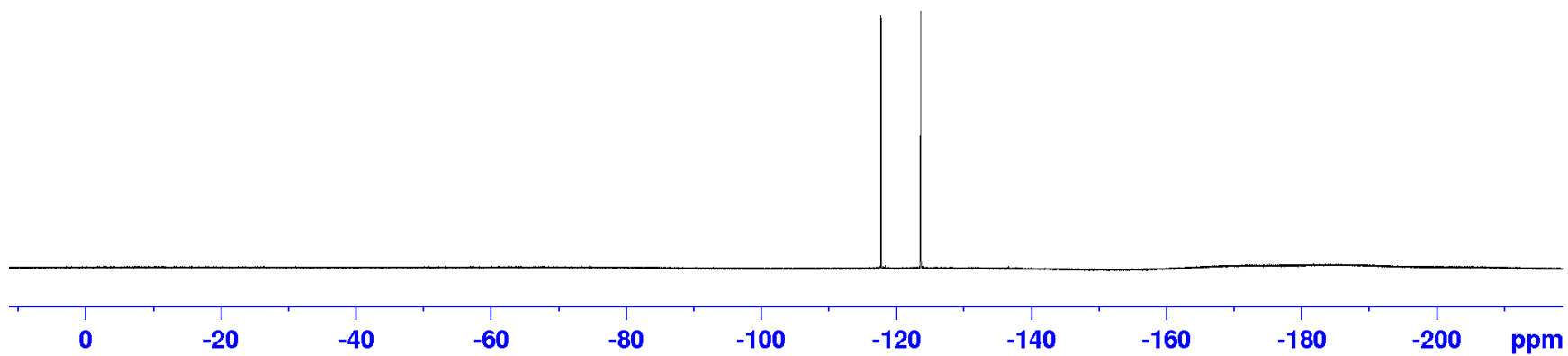


$^{19}\text{F}$  NMR (470 MHz,  $\text{CDCl}_3$ )

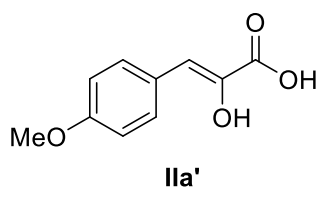


Product-7bu

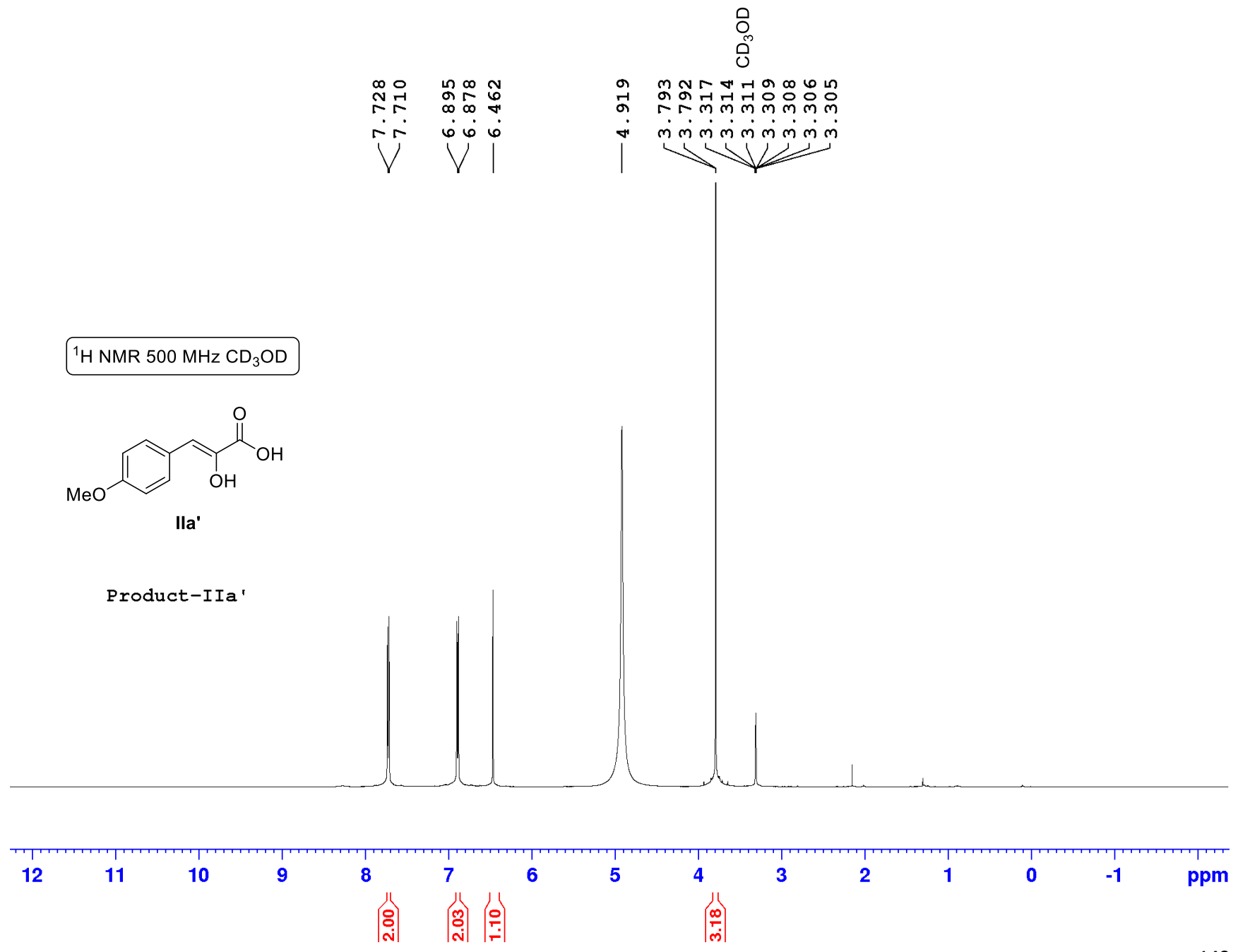
-117.73  
-117.76  
-123.60  
-123.64

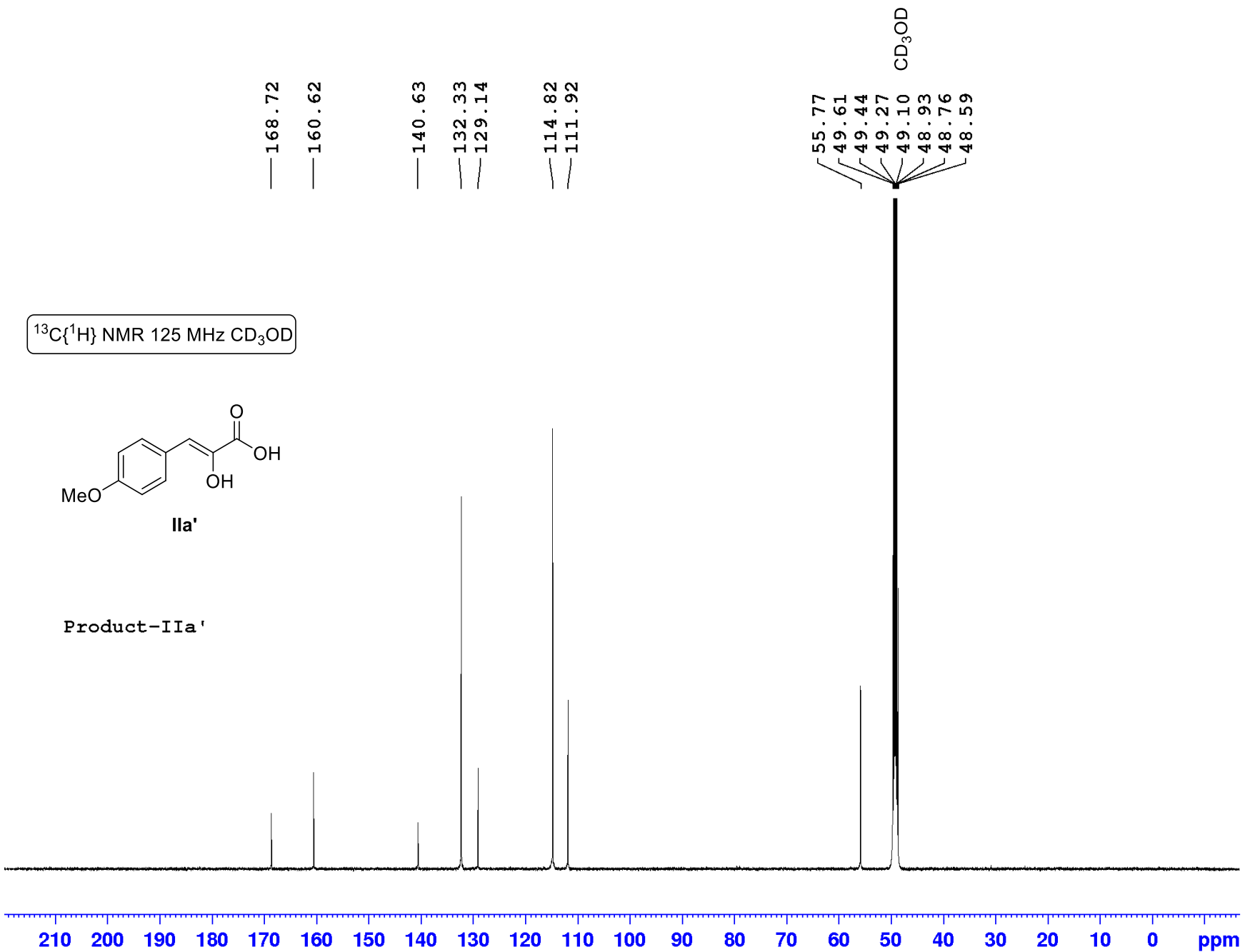


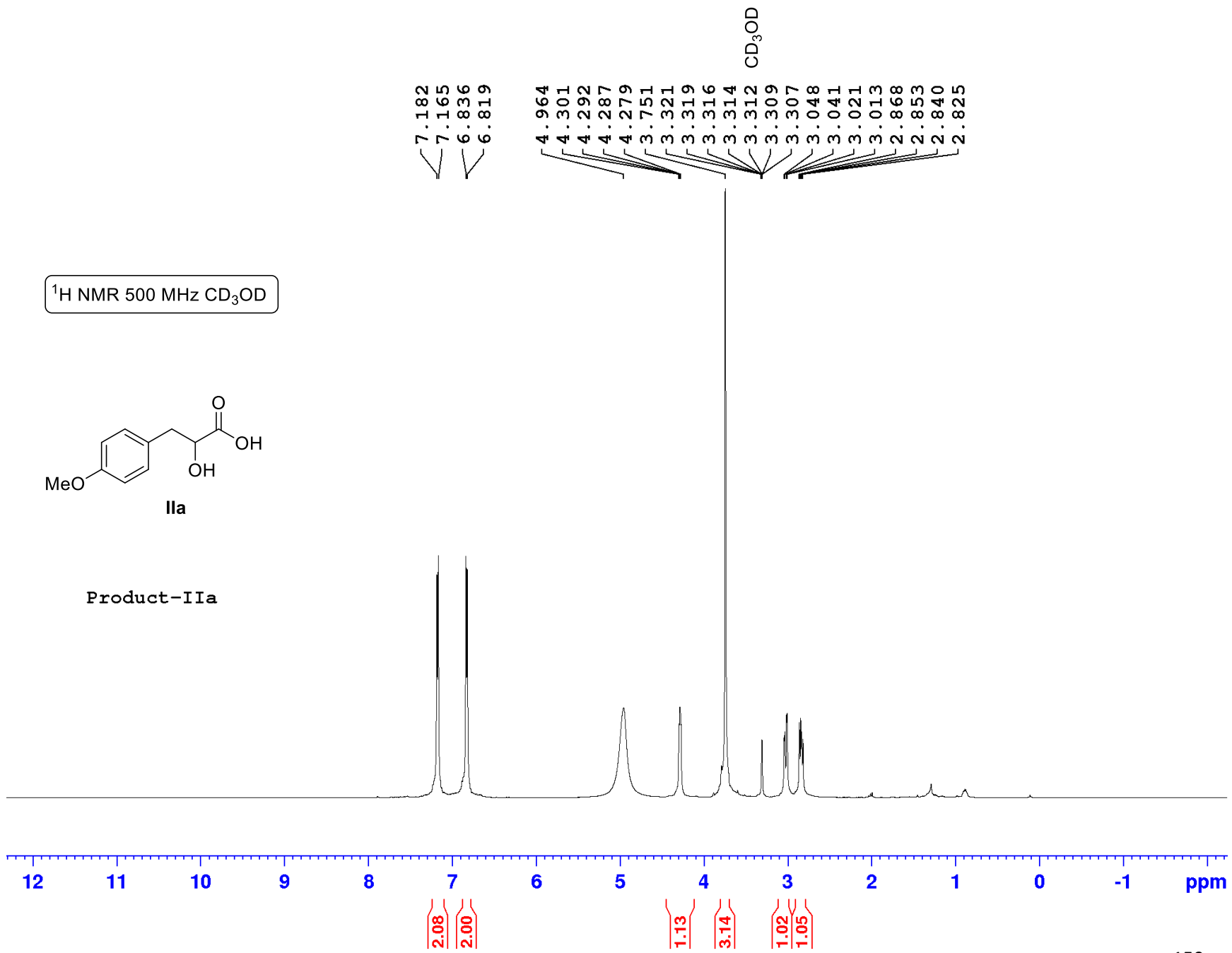
<sup>1</sup>H NMR 500 MHz CD<sub>3</sub>OD



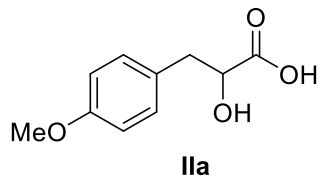
Product-IIa'



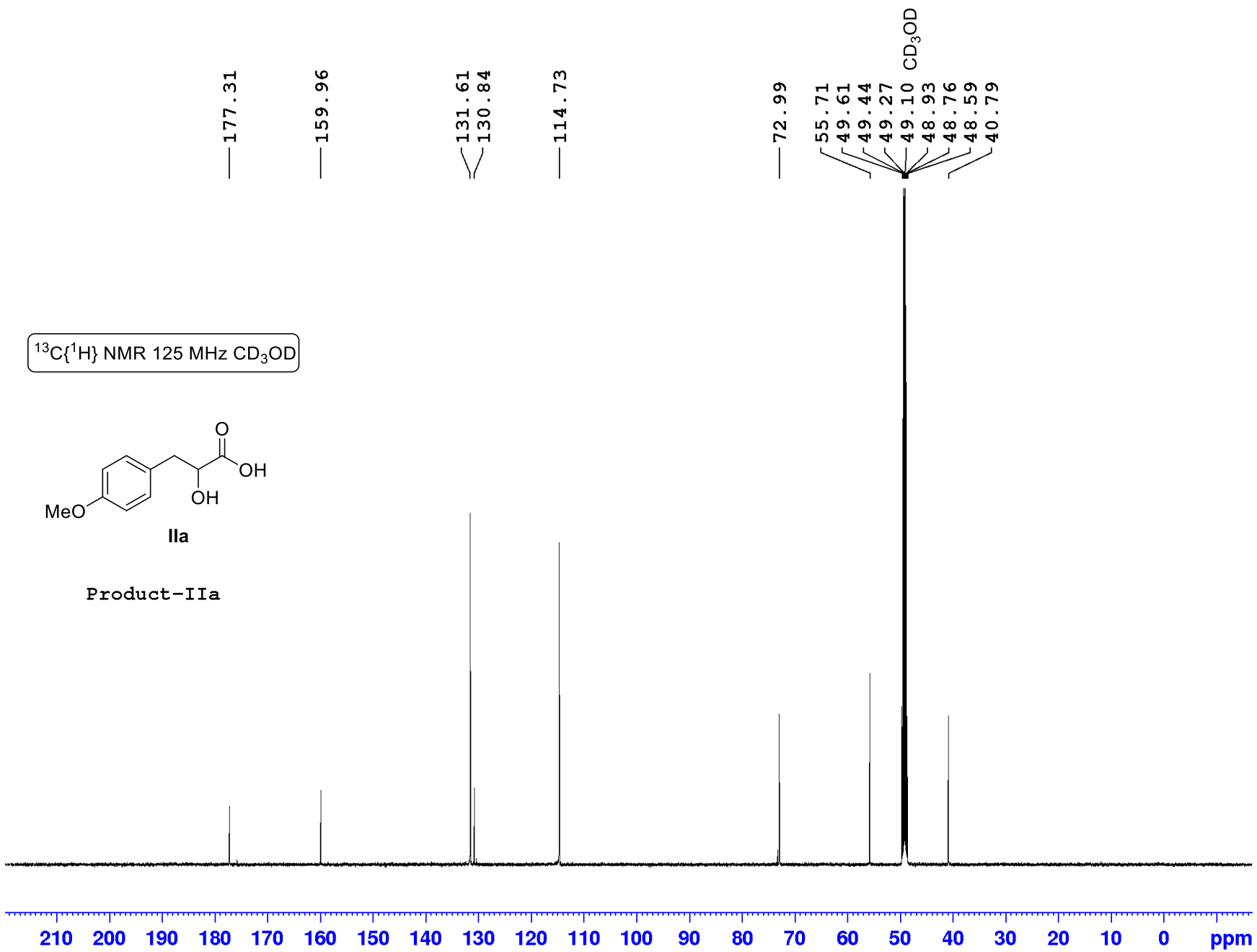


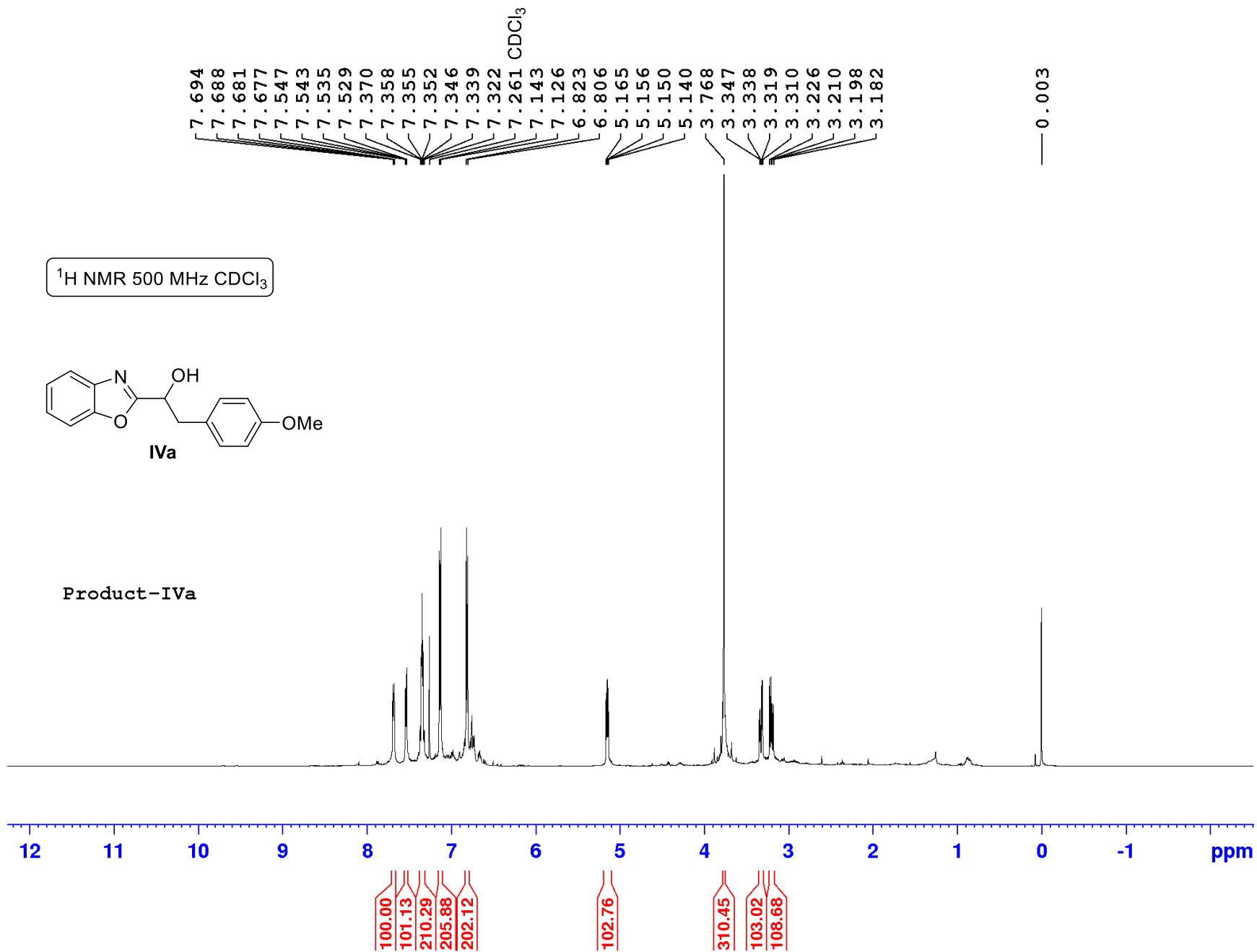


$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CD}_3\text{OD}$

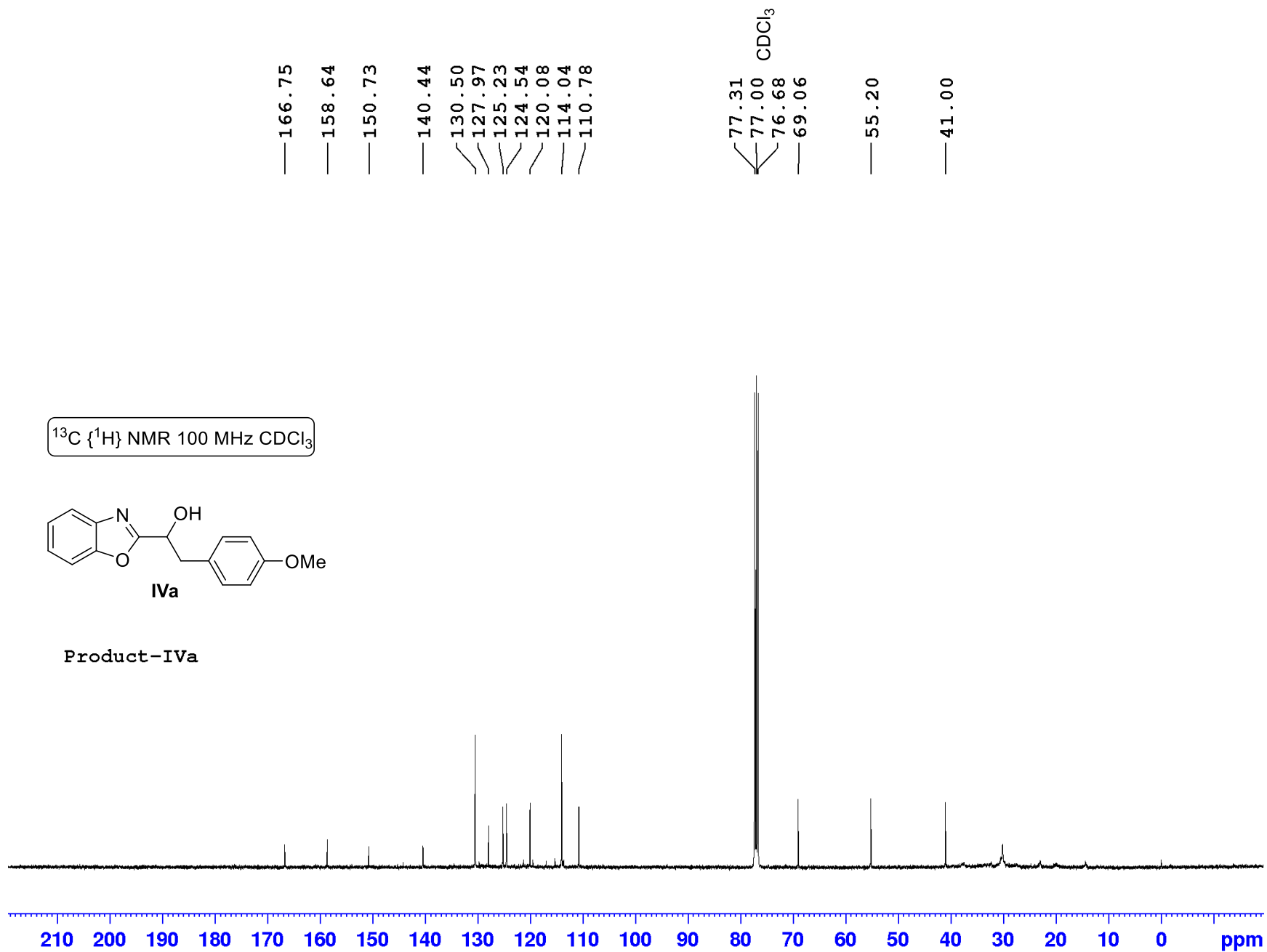


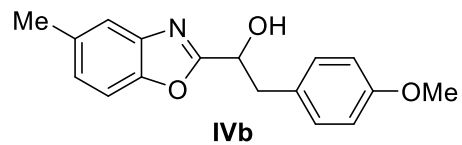
Product-IIa





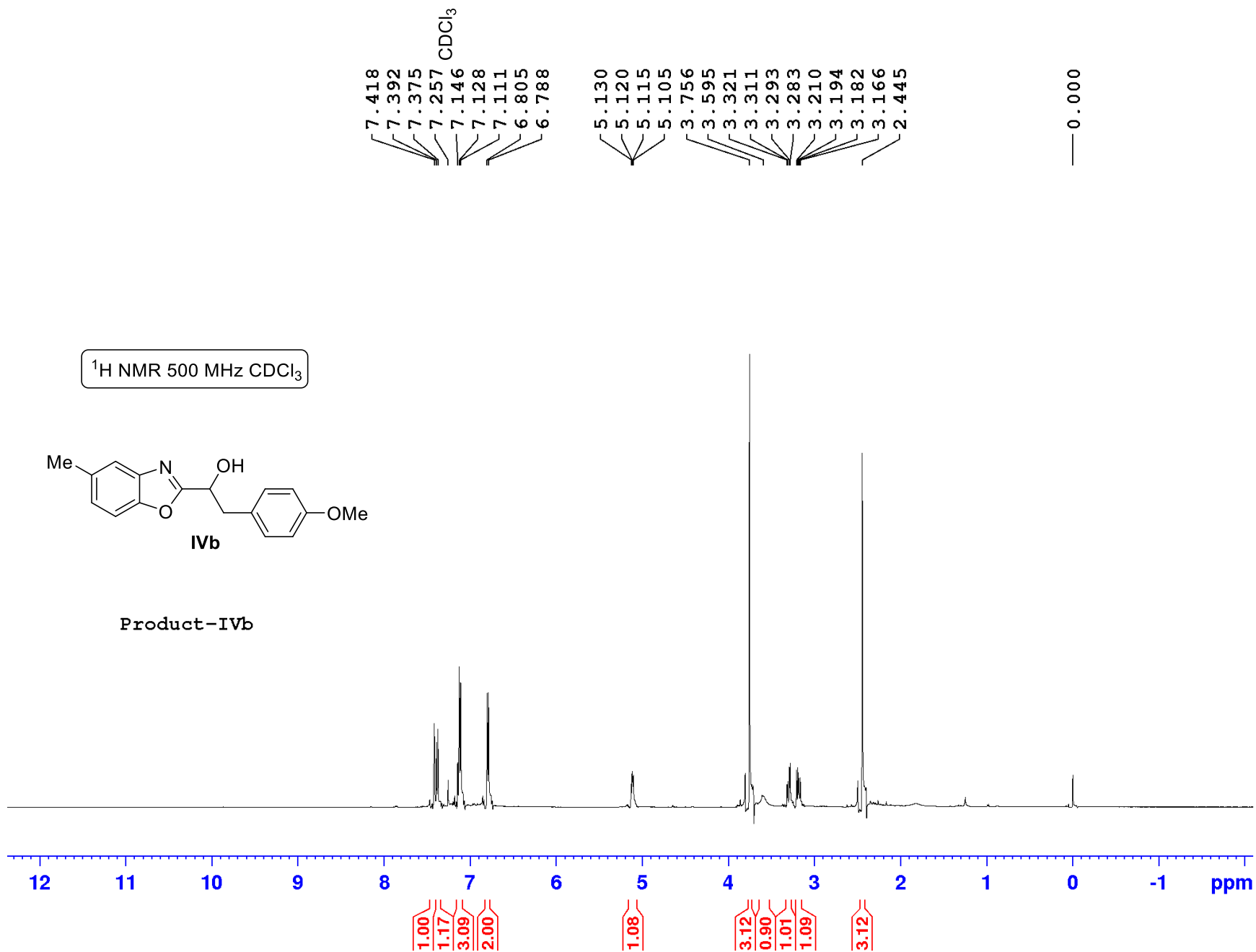


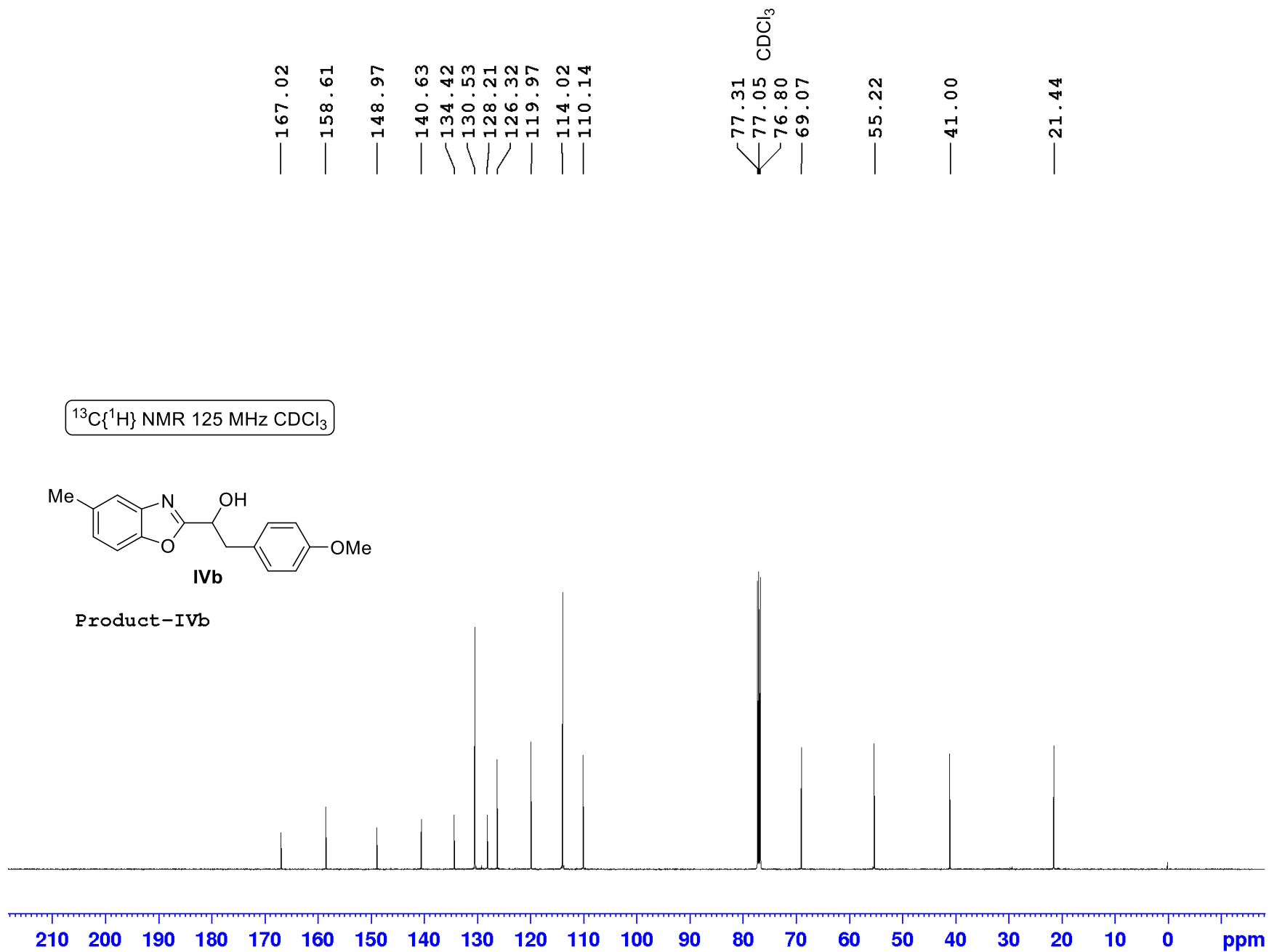


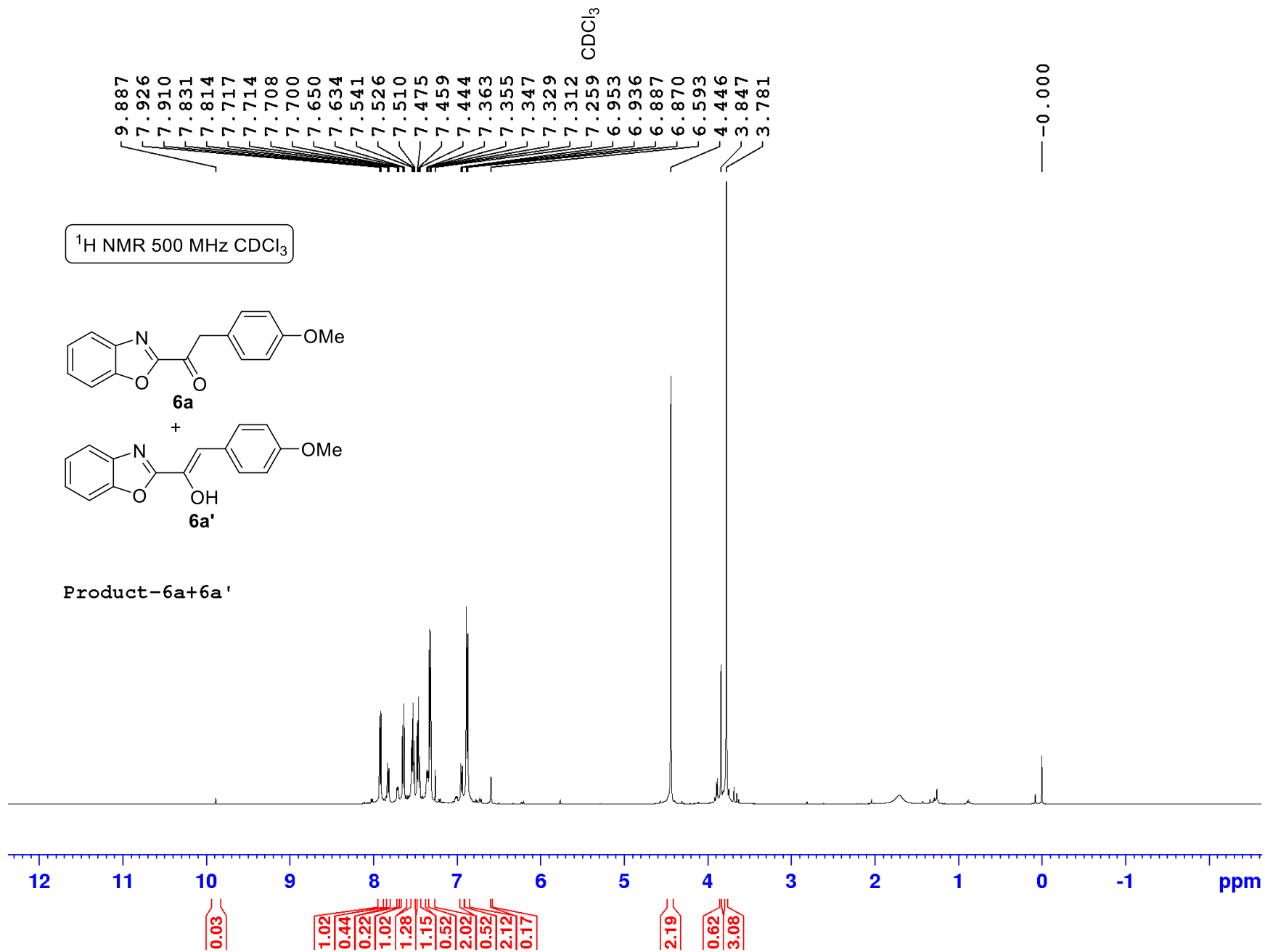


<sup>1</sup>H NMR 500 MHz CDCl<sub>3</sub>

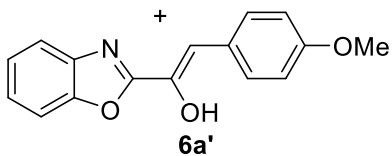
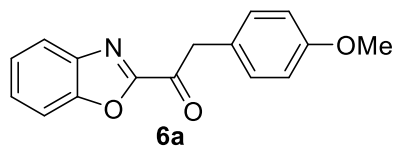
Product-IVb



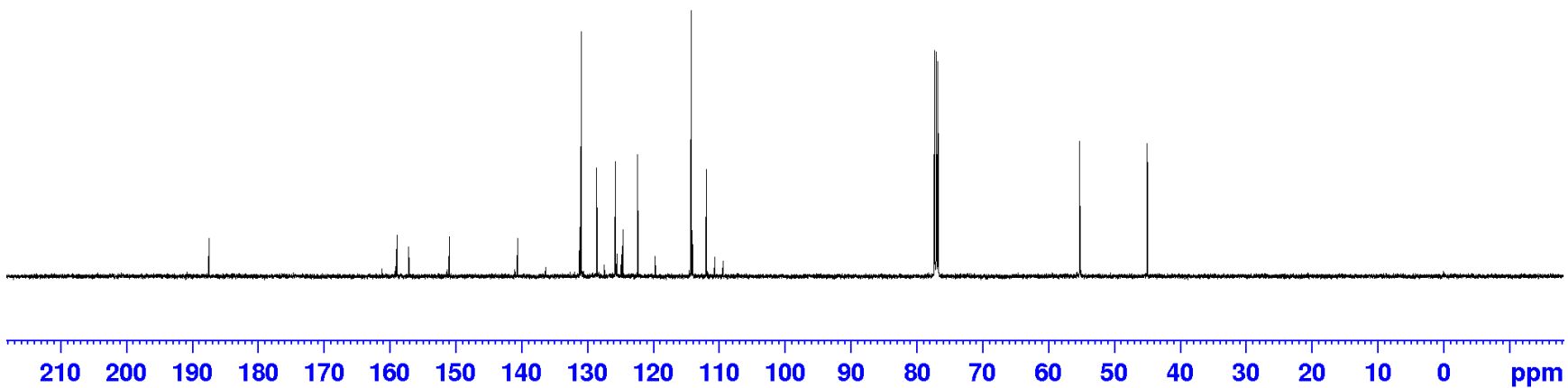




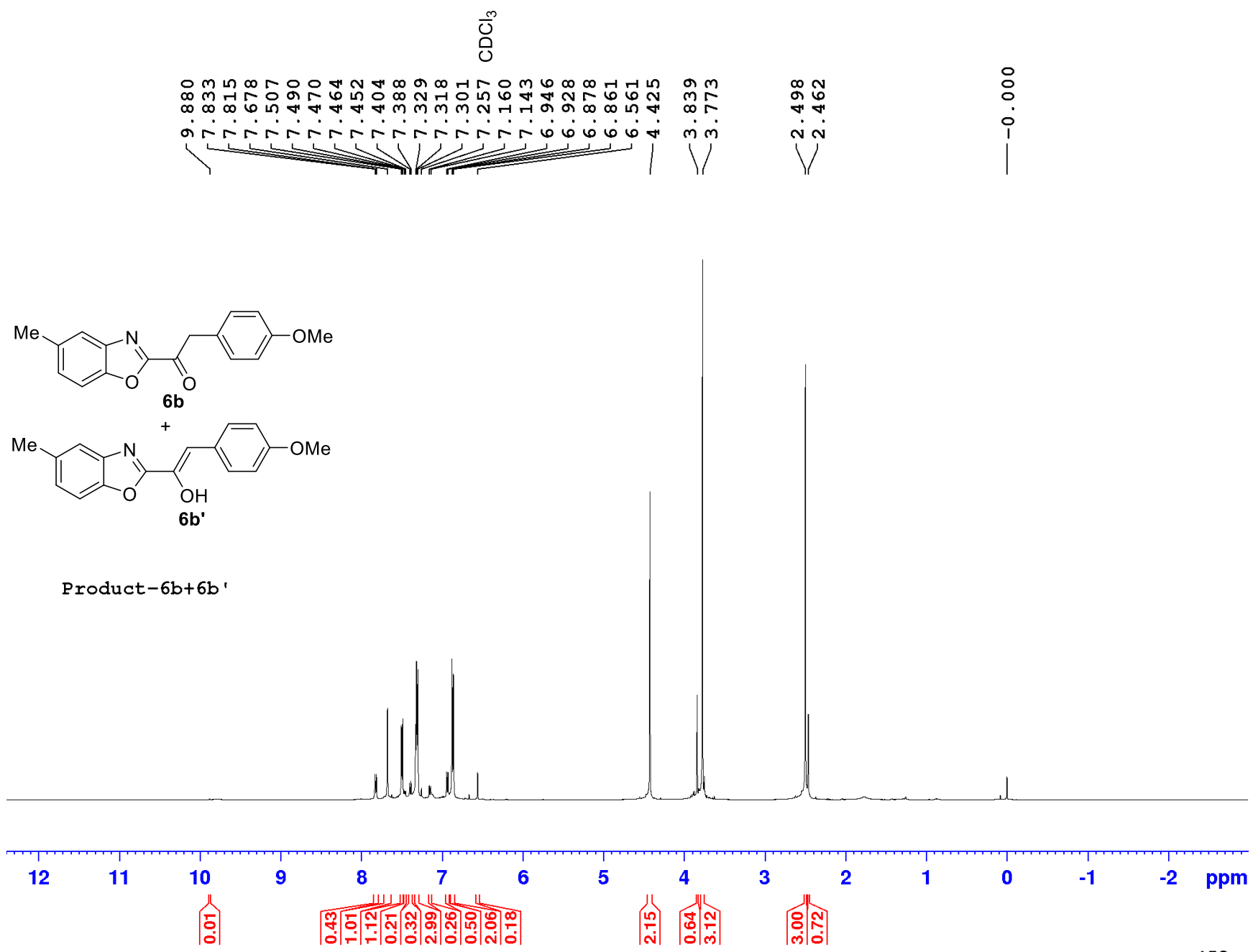
$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



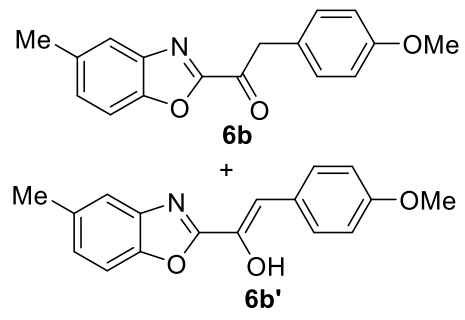
Product-6a+6a'



187.50  
161.22  
159.17  
158.97  
157.13  
151.37  
150.98  
141.01  
140.64  
136.38  
131.17  
130.95  
128.57  
127.43  
125.75  
125.51  
124.84  
124.65  
122.37  
119.72  
114.24  
114.06  
111.96  
110.66  
109.42  
77.27  
77.02  $\text{CDCl}_3$   
76.76  
55.25  
44.97



$^{13}\text{C}\{^1\text{H}\}$  NMR 125 MHz  $\text{CDCl}_3$



Product-6b+6b'

