

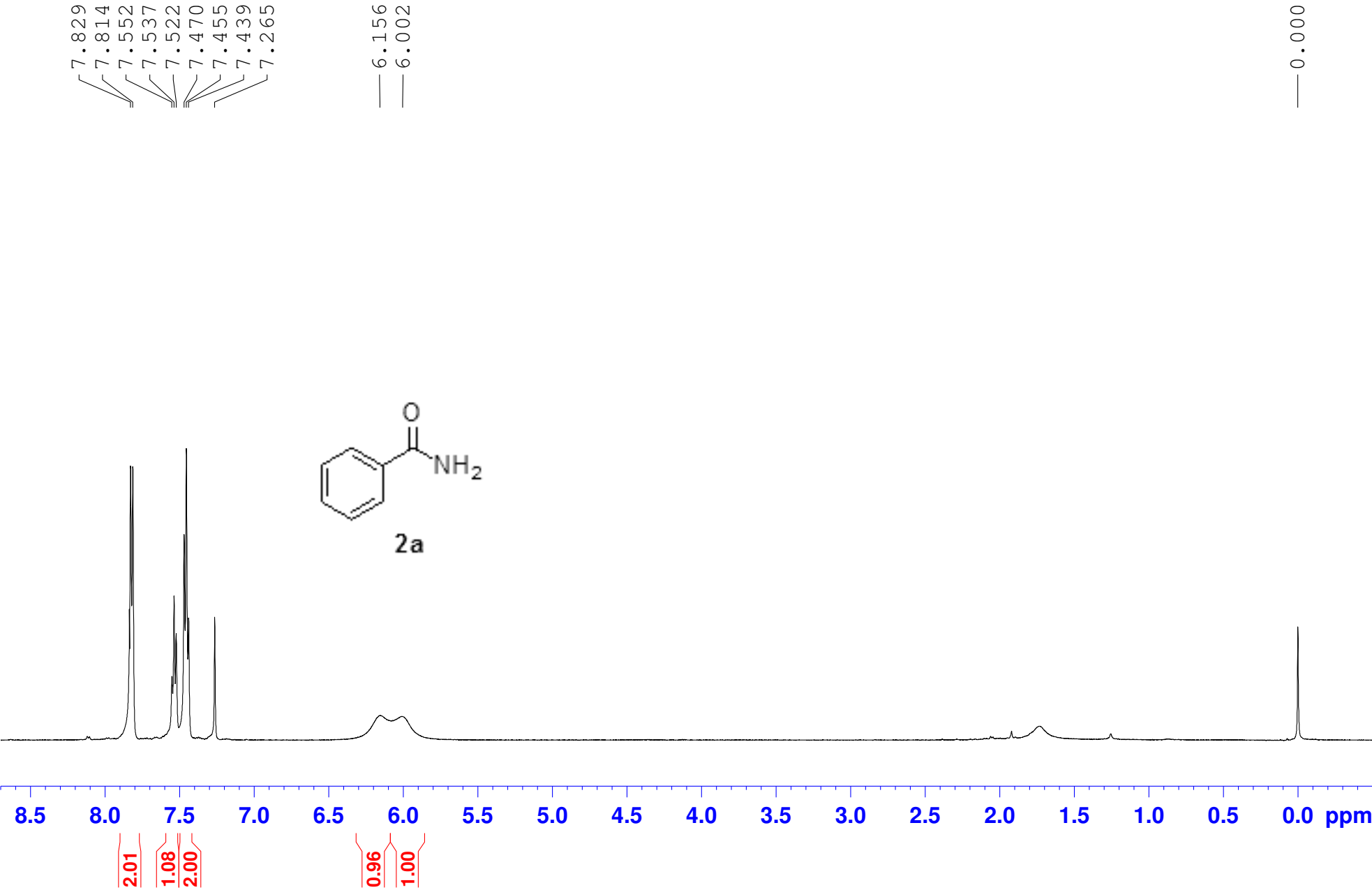
Electronic Supplementary Information (ESI) for

**Rearrangement of aldoximes to amides in water under air atmosphere catalyzed  
by water-soluble iridium complex  $[\text{Cp}^*\text{Ir}(\text{H}_2\text{O})_3][\text{OTf}]_2$**

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University of Science and Technology, Nanjing 210094, P. R. China

benzamide  
Proton CDCl3



benzamide  
C13CPD CDC13

169.684

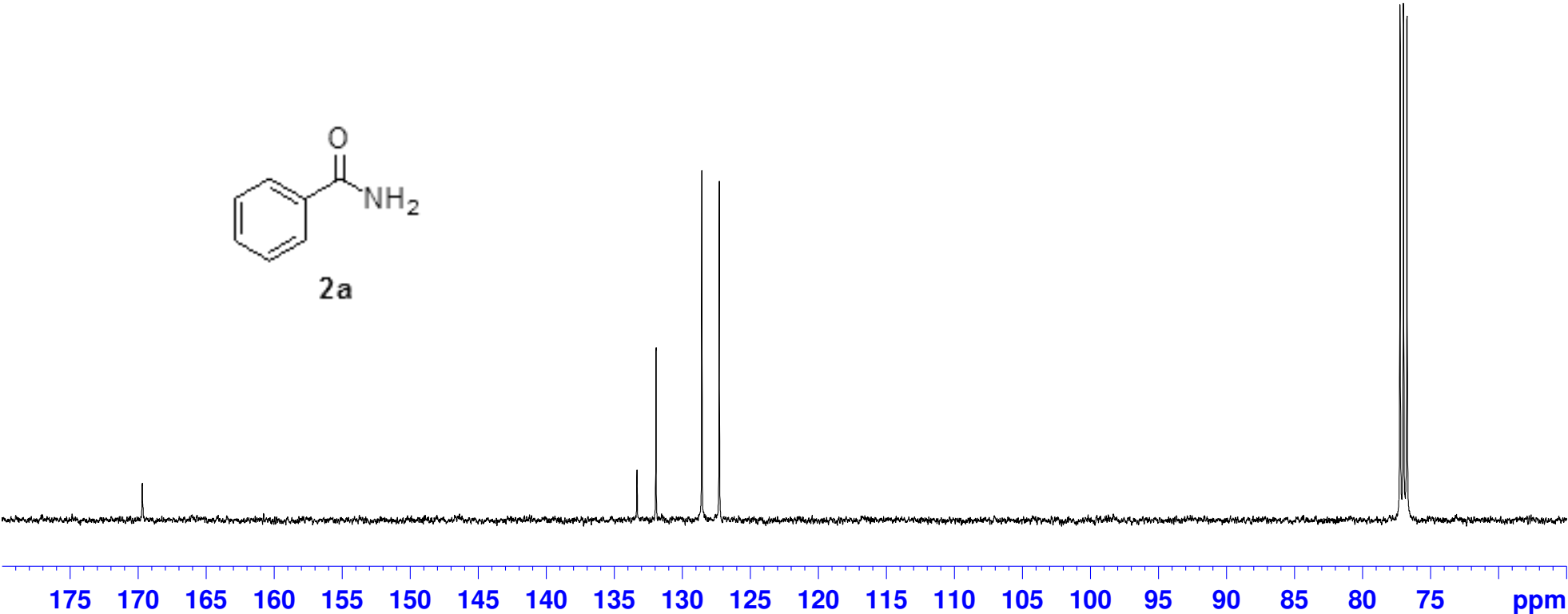
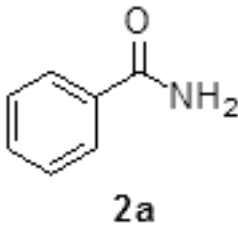
133.348

131.950

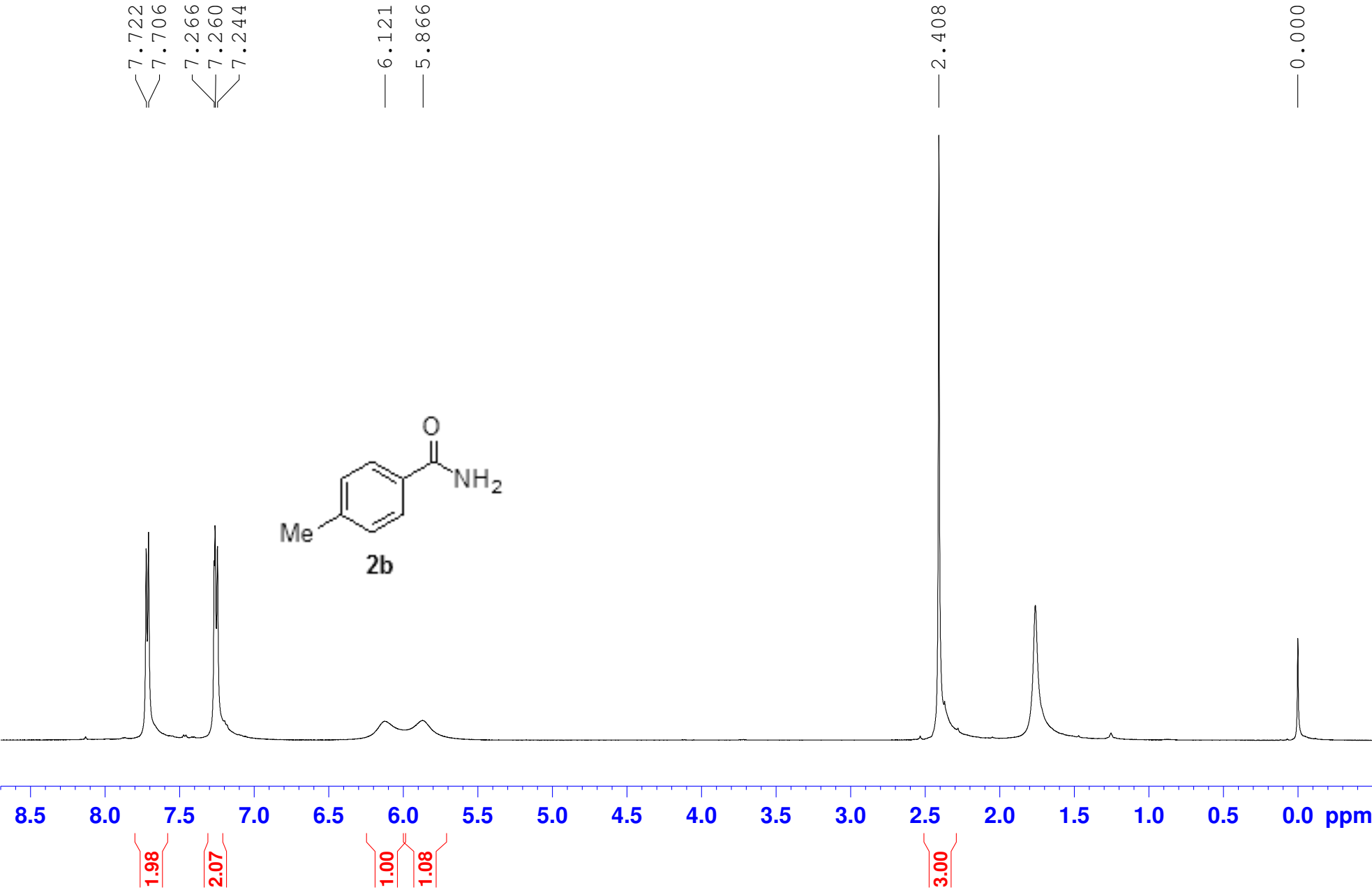
128.577

127.298

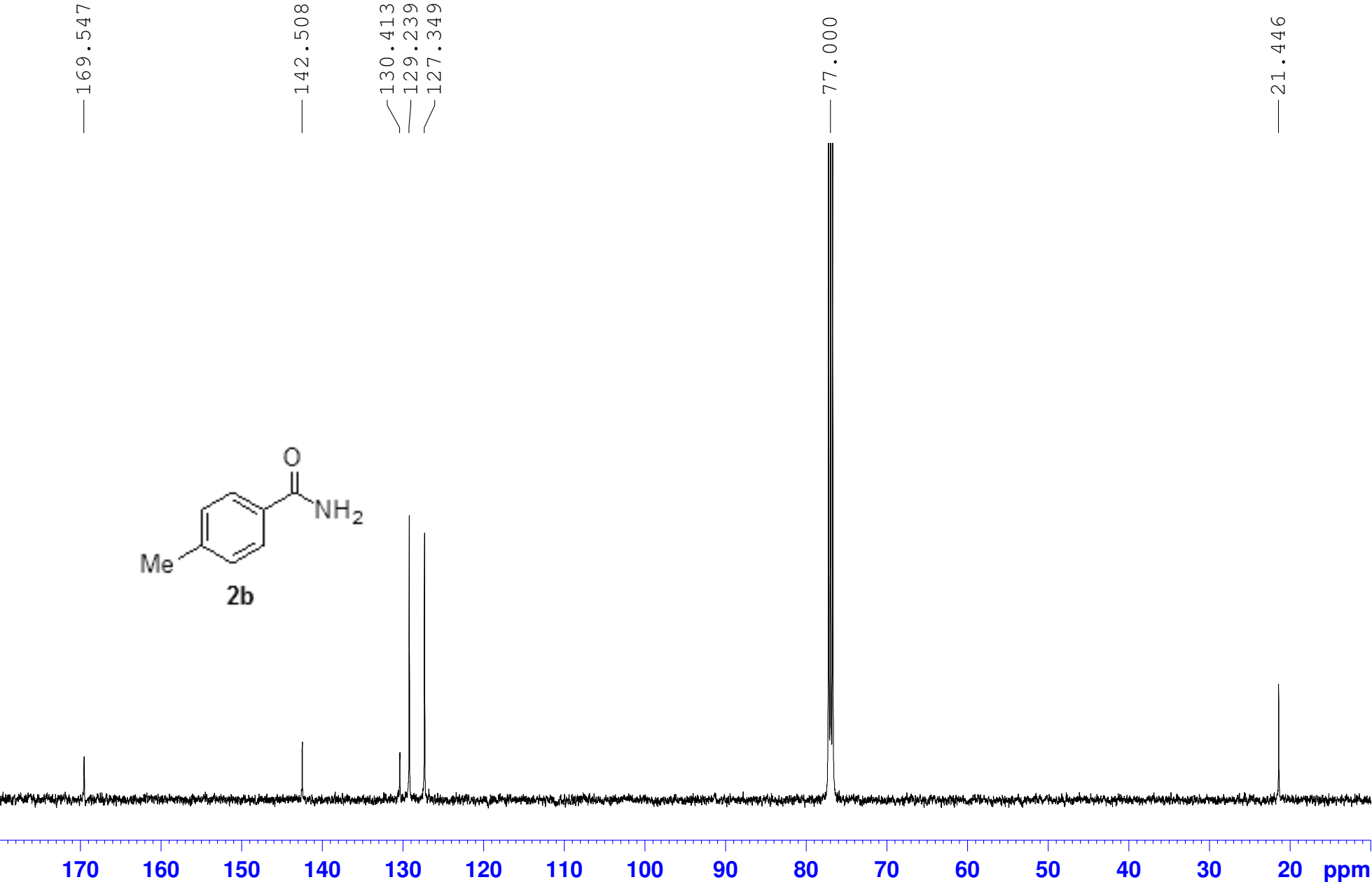
77.000



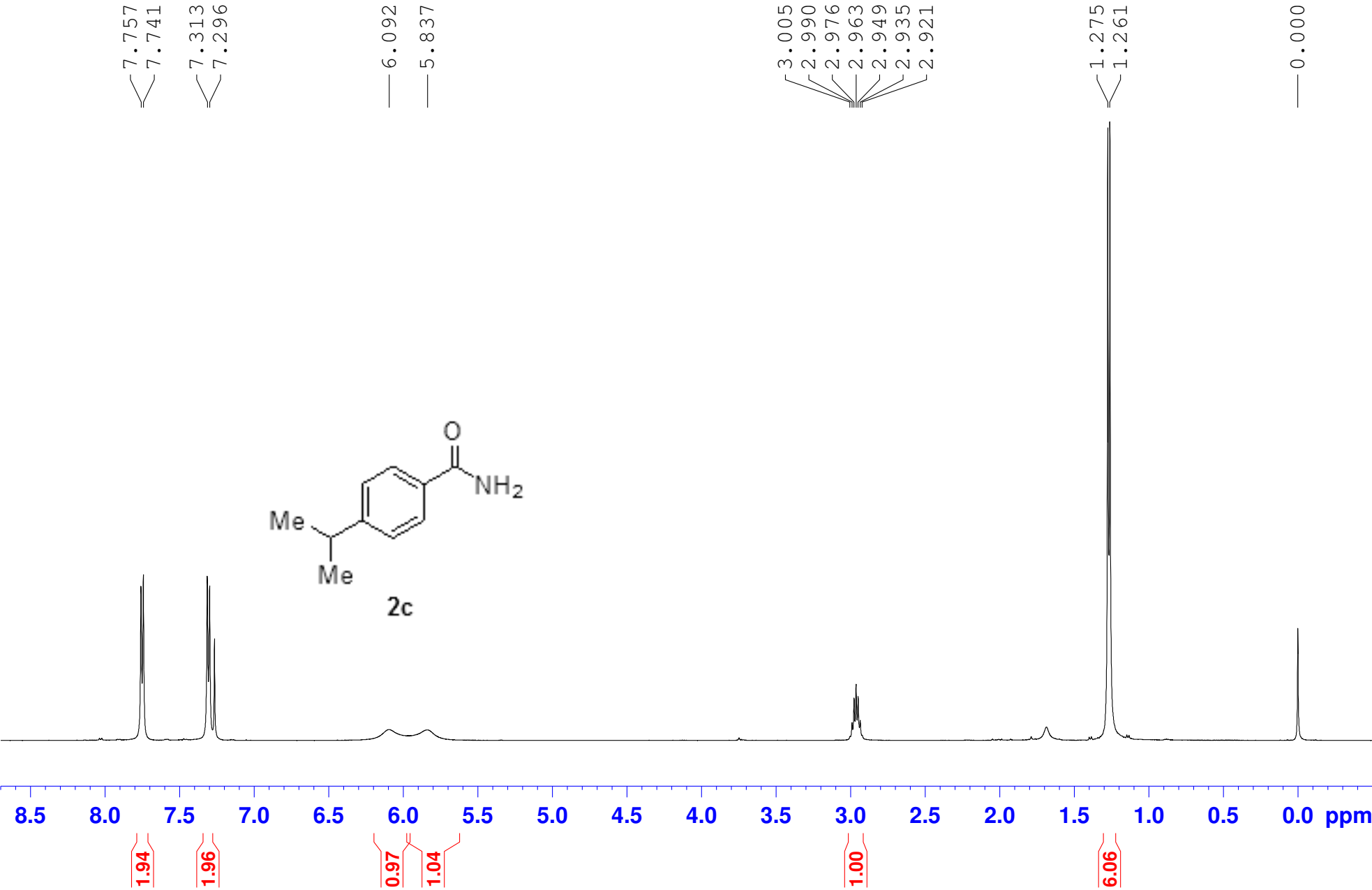
4-methylbenzamide  
Proton CDCl3



4-methylbenzamide  
C13CPD CDC13



4-isopropylbenzamide  
Proton CDCl3



4-isopropylbenzamide  
C13CPD CDC13

—169.754

—153.232

—130.831

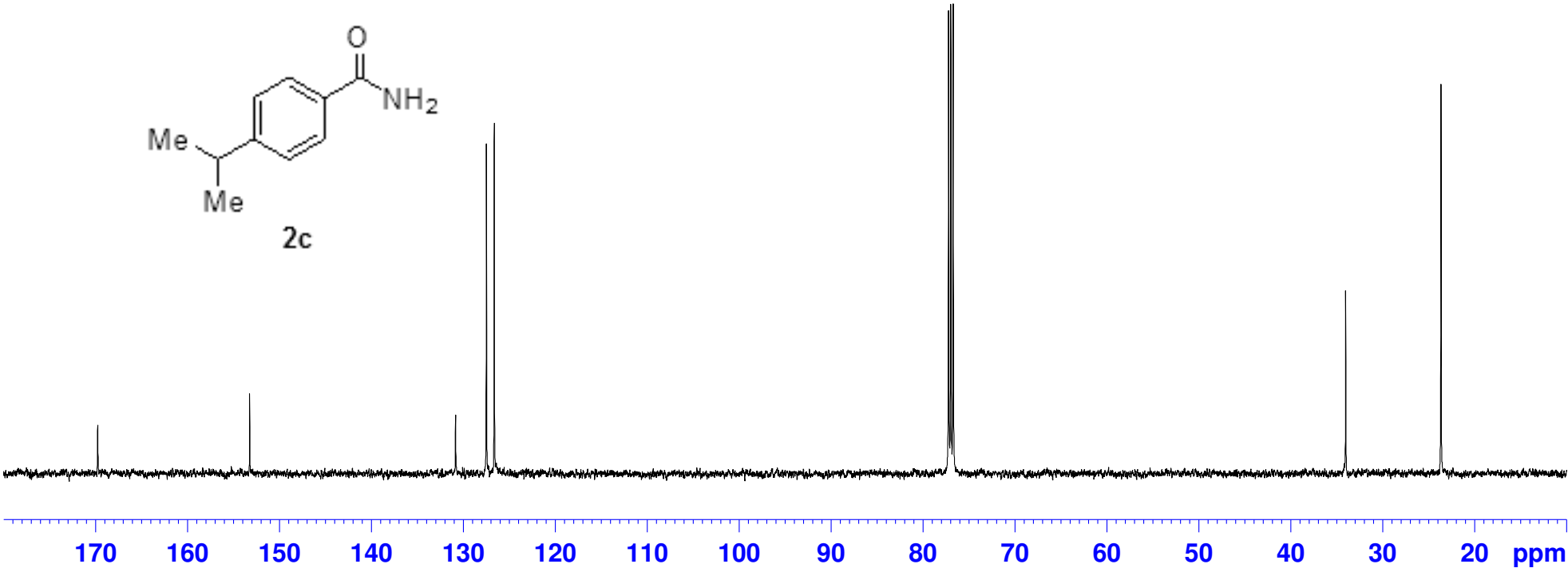
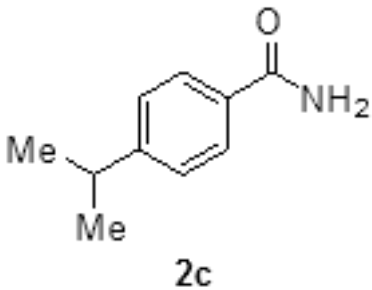
—127.479

—126.620

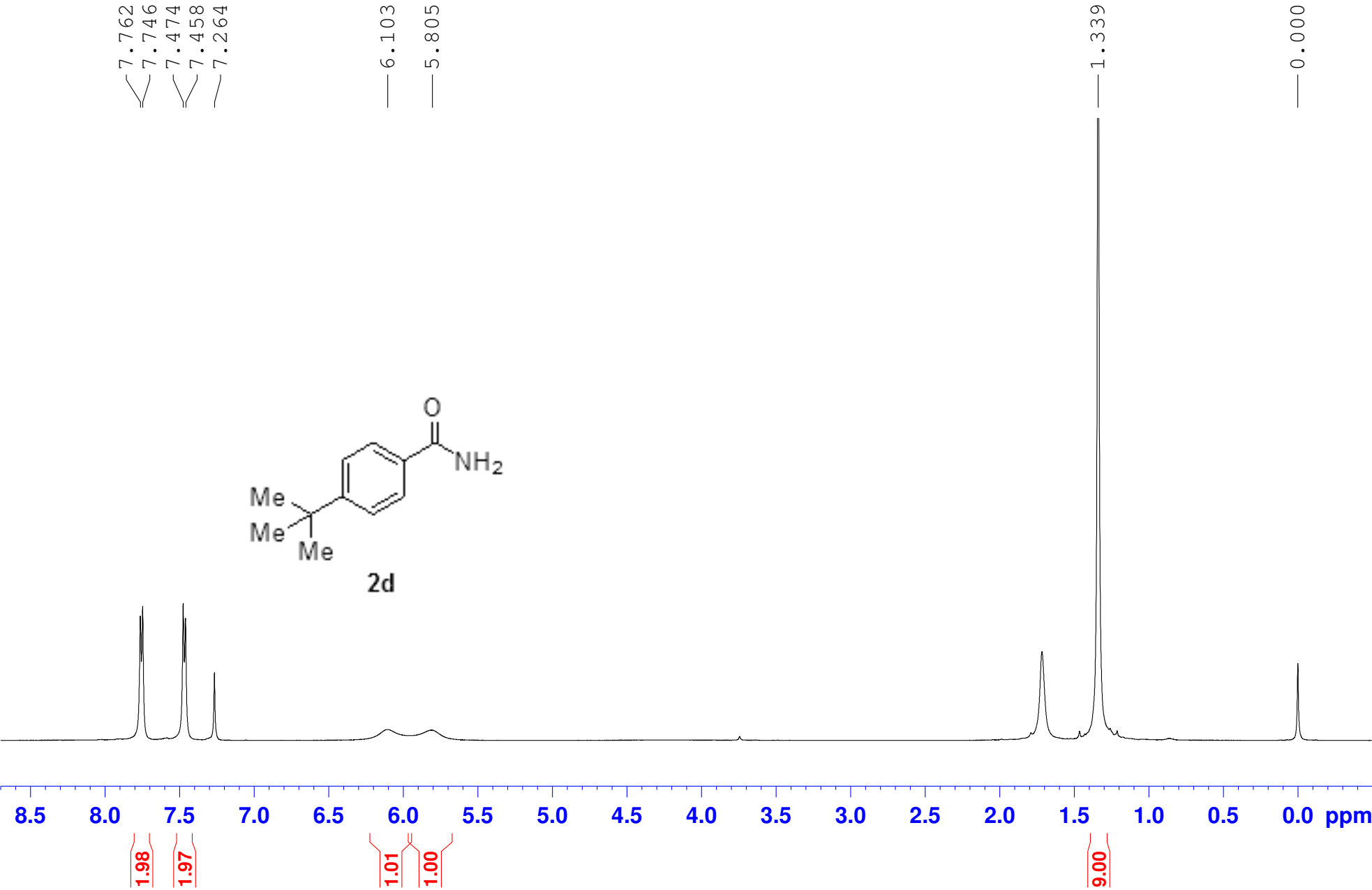
—77.000

—34.055

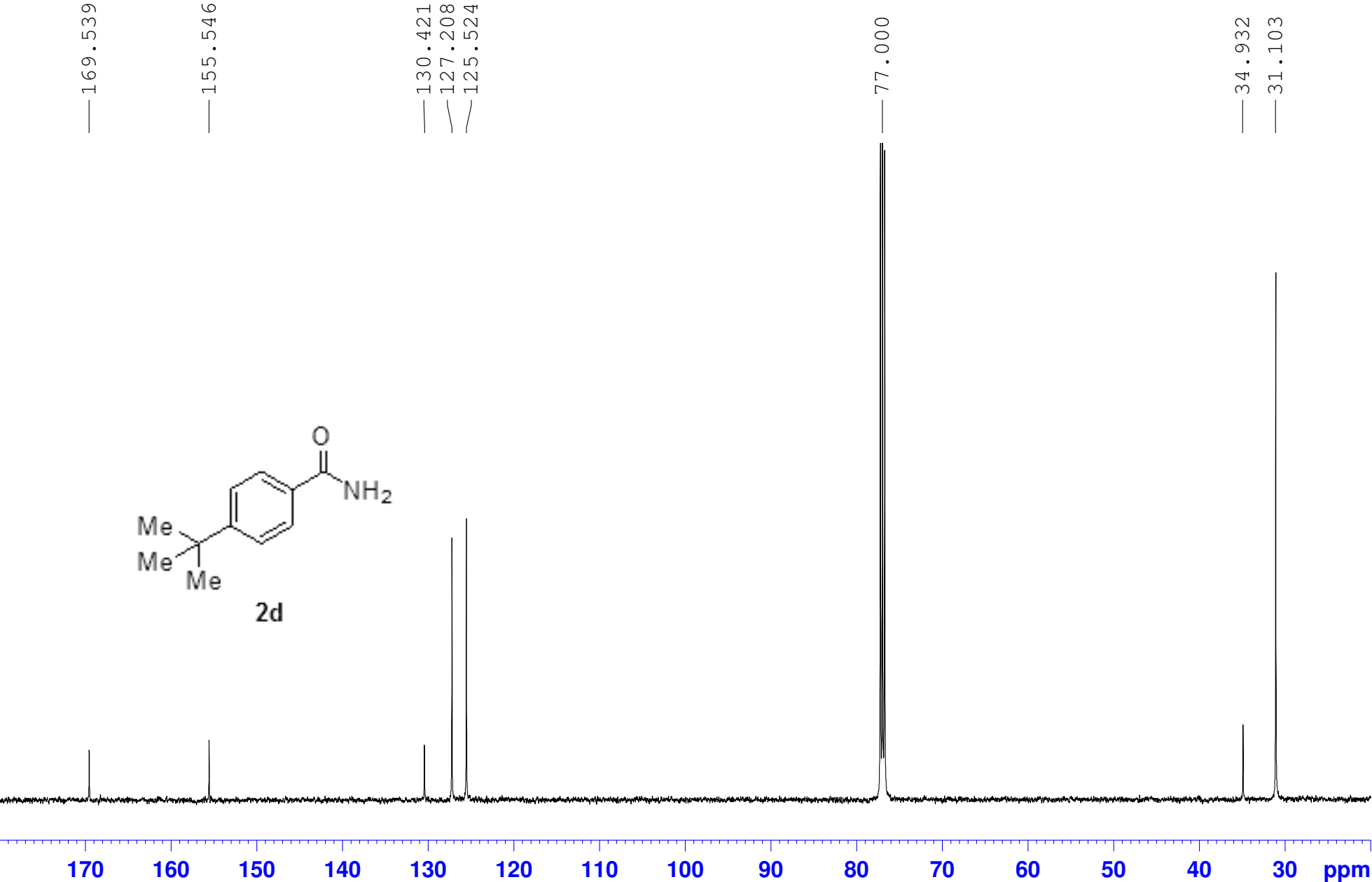
—23.685



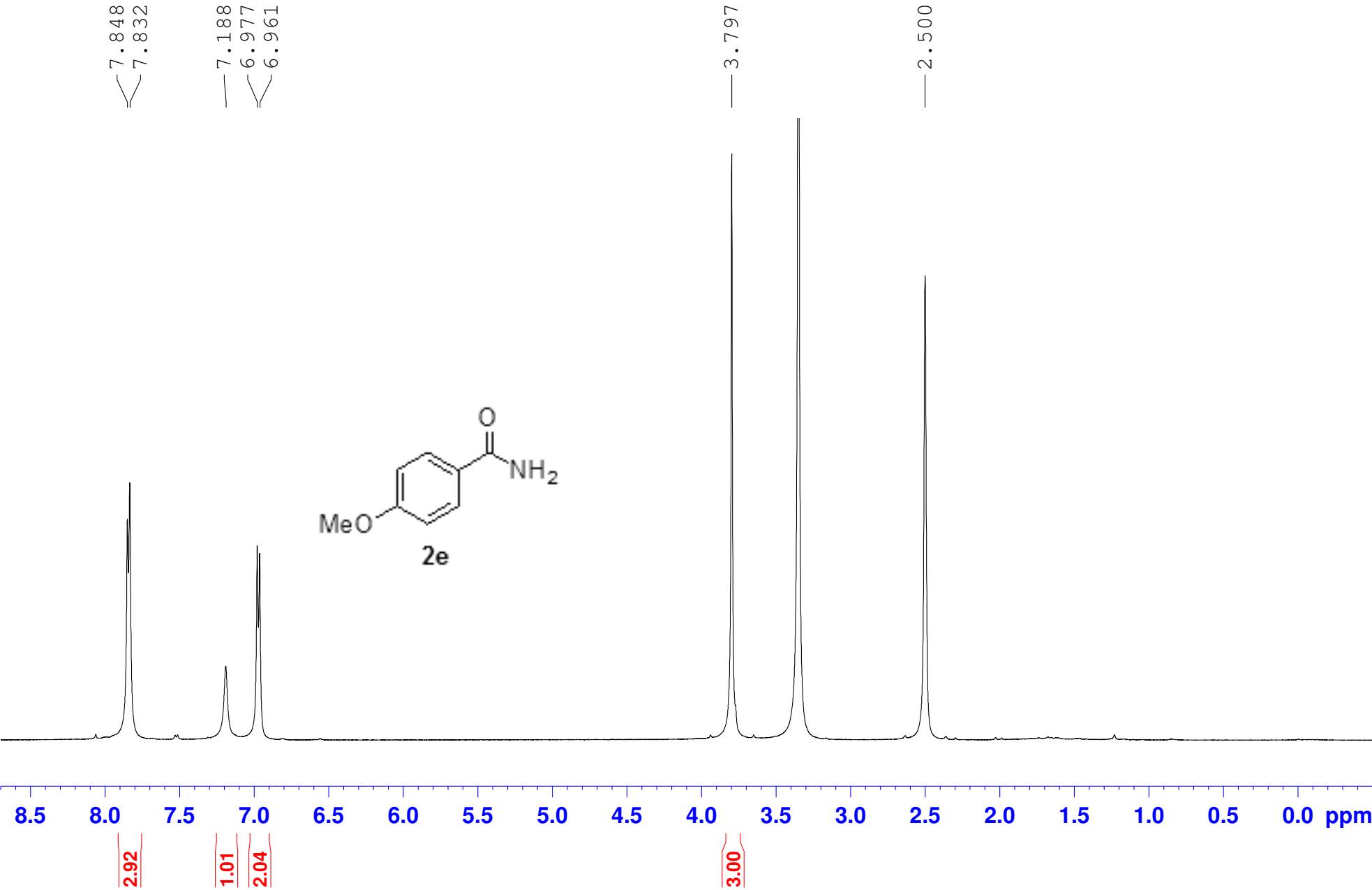
4-(tert-butyl)benzamide  
Proton CDCl3



4-(tert-butyl)benzamide  
C13CPD CDC13



4-methoxybenzamide  
Proton DMSO-d6



4-methoxybenzamide  
C13CPD DMSO-d6

—167.408

—161.545

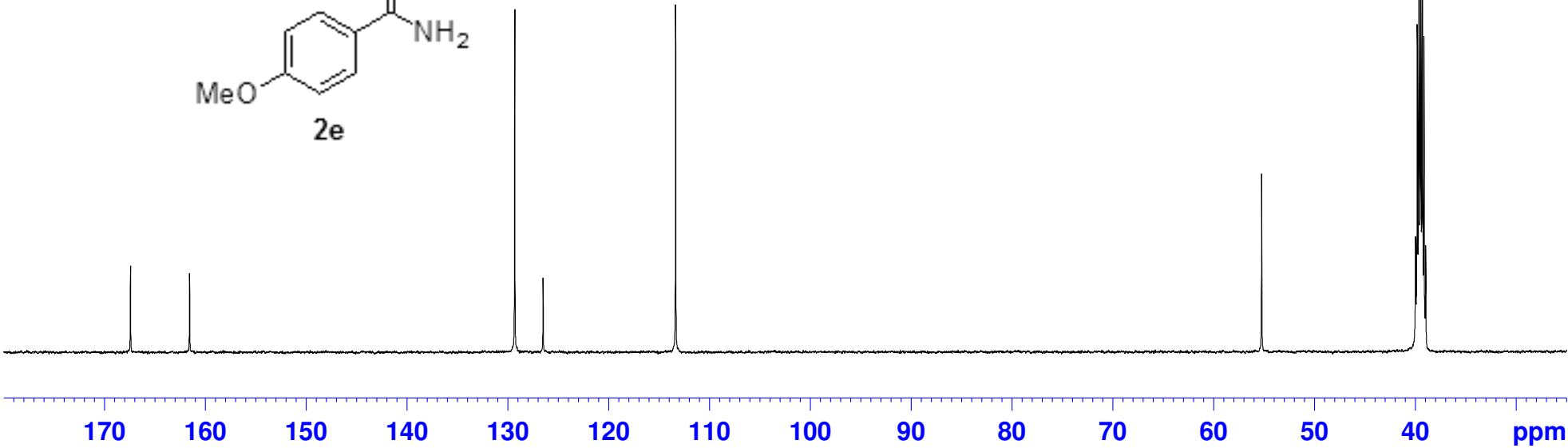
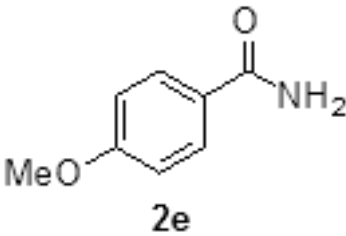
—129.299

—126.489

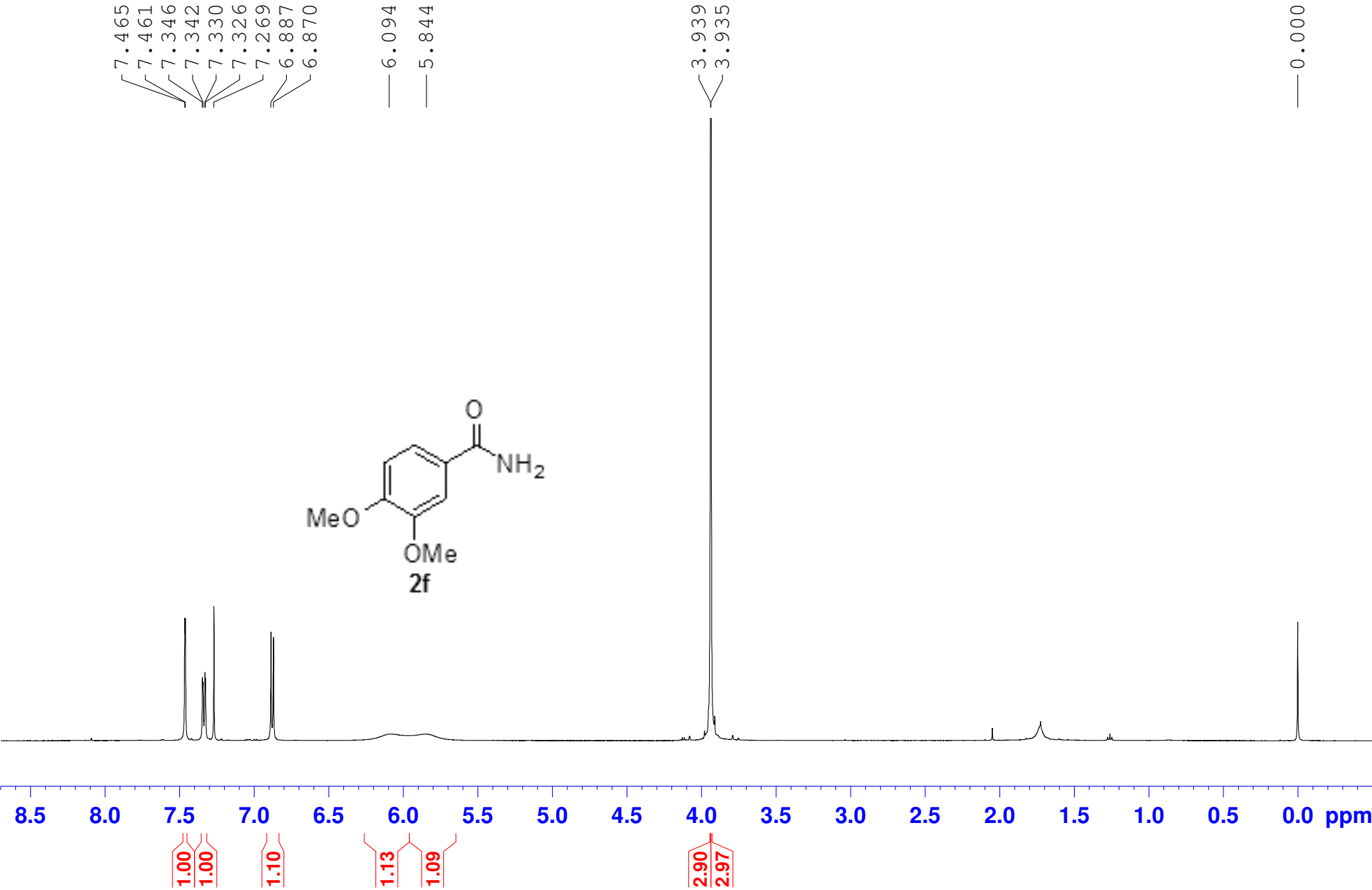
—113.341

—55.263

—39.500



3,4-dimethoxybenzamide  
Proton CDCl3



3,4-dimethoxybenzamide  
C13CPD CDC13

169.179

152.097

148.909

125.843

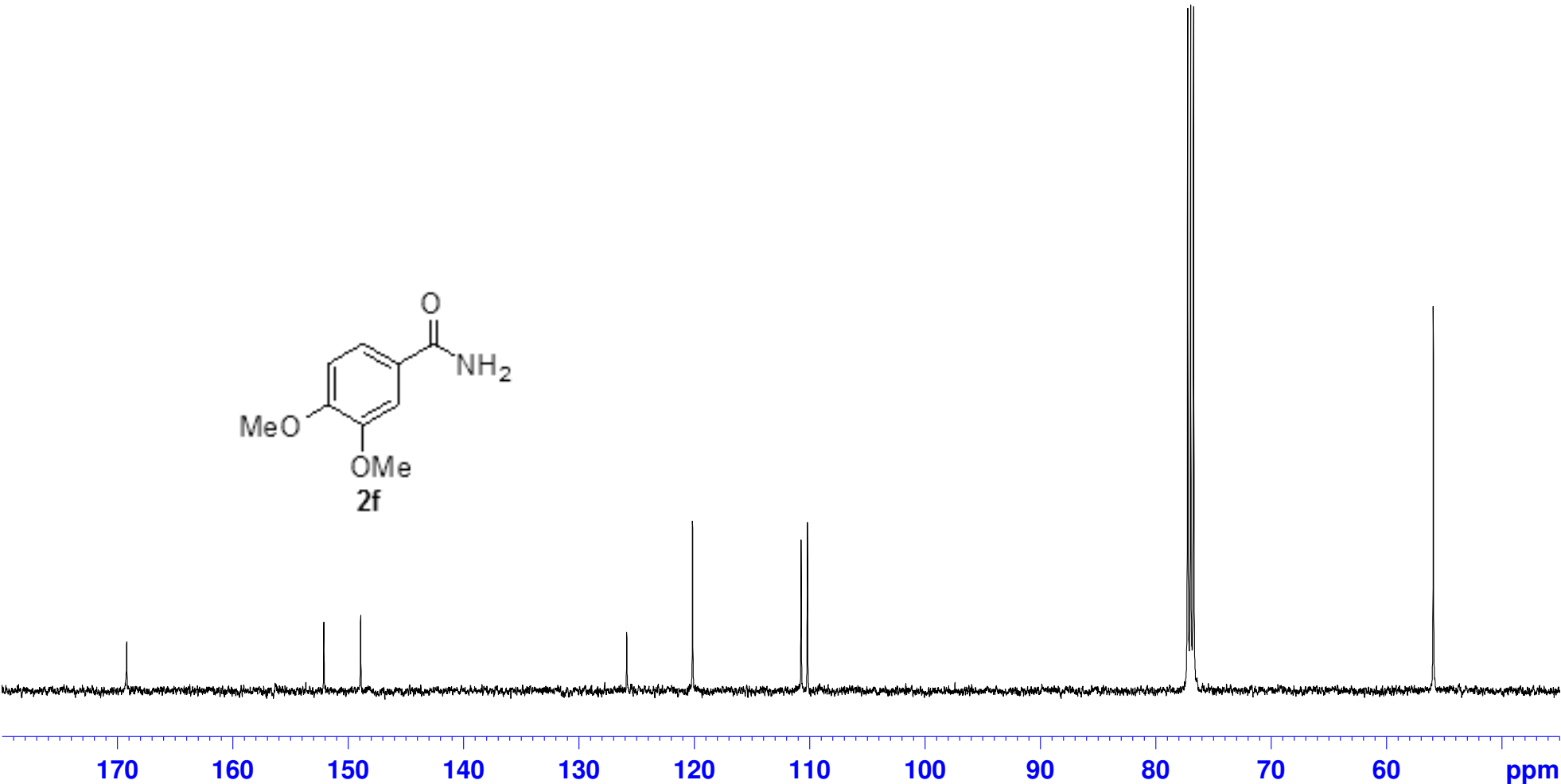
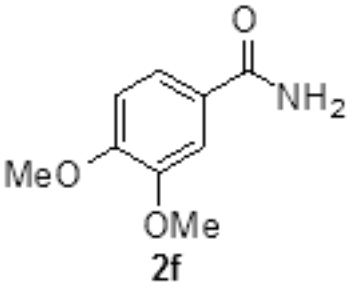
120.133

110.731

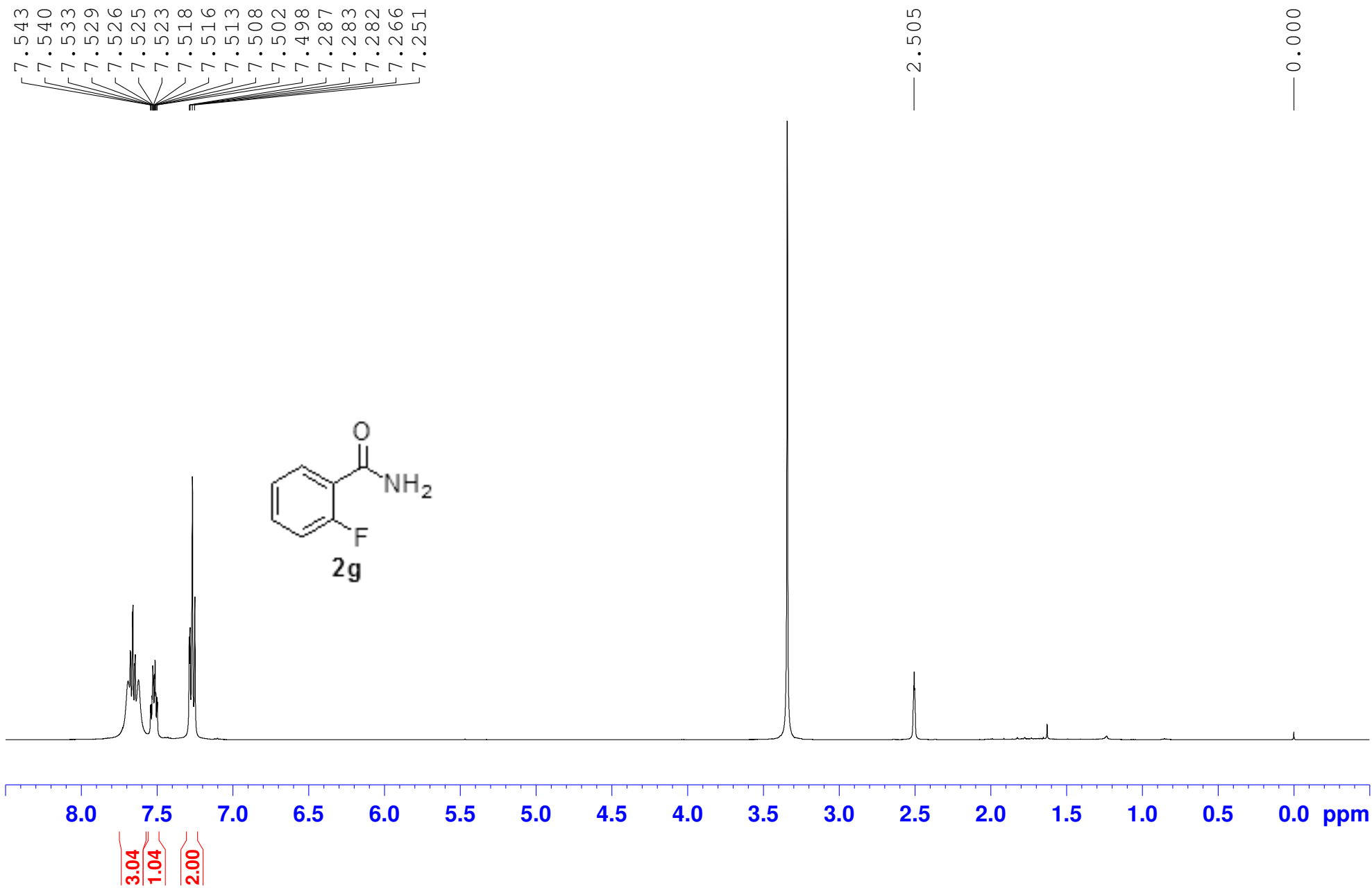
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77.000

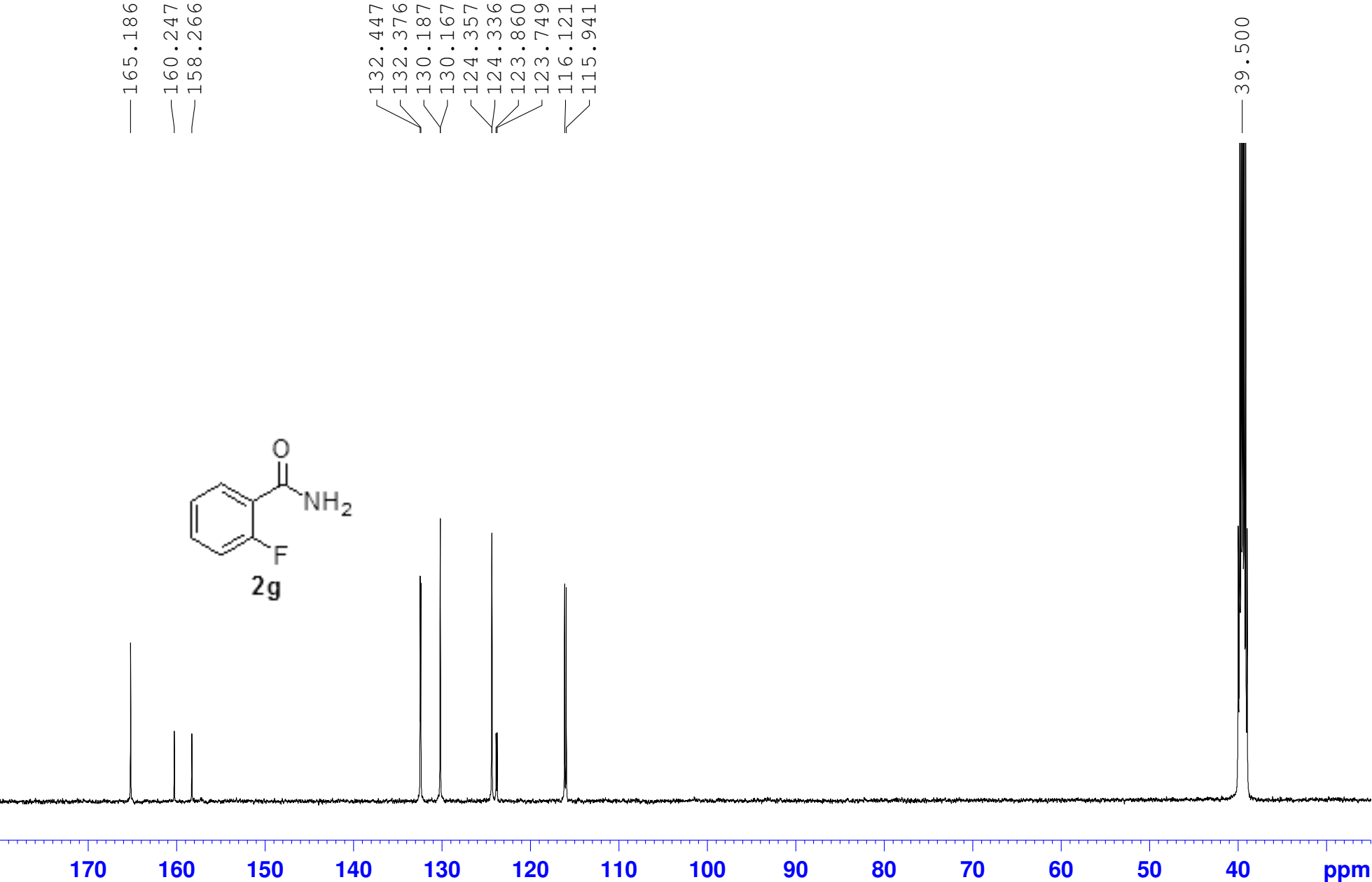
55.968



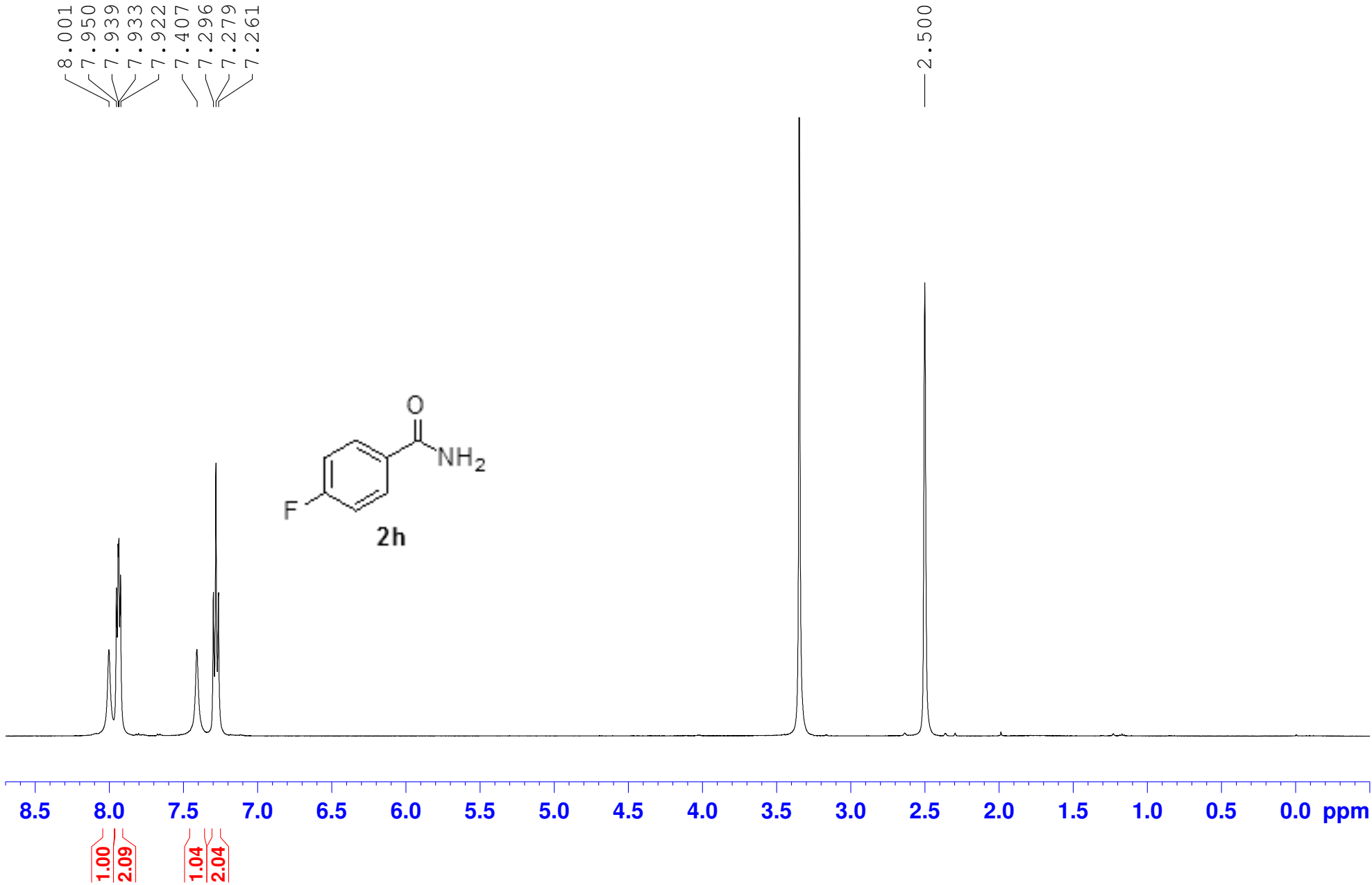
2-fluorobenzamide  
Proton DMSO-d6



2-fluorobenzamide  
C13CPD DMSO-d6



4-fluorobenzamide  
Proton DMSO-d6



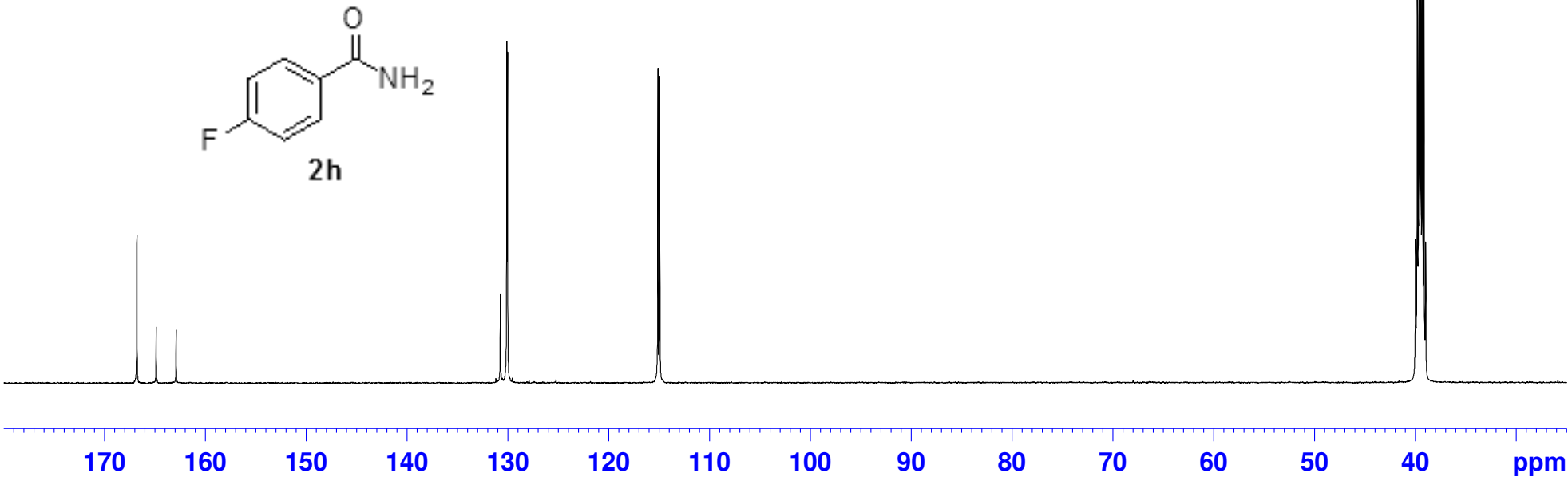
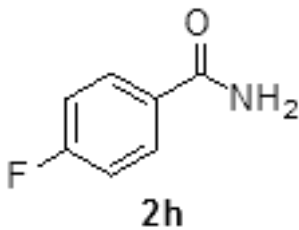
4-fluorobenzamide  
C13CPD DMSO-d6

166.775  
164.854  
162.880

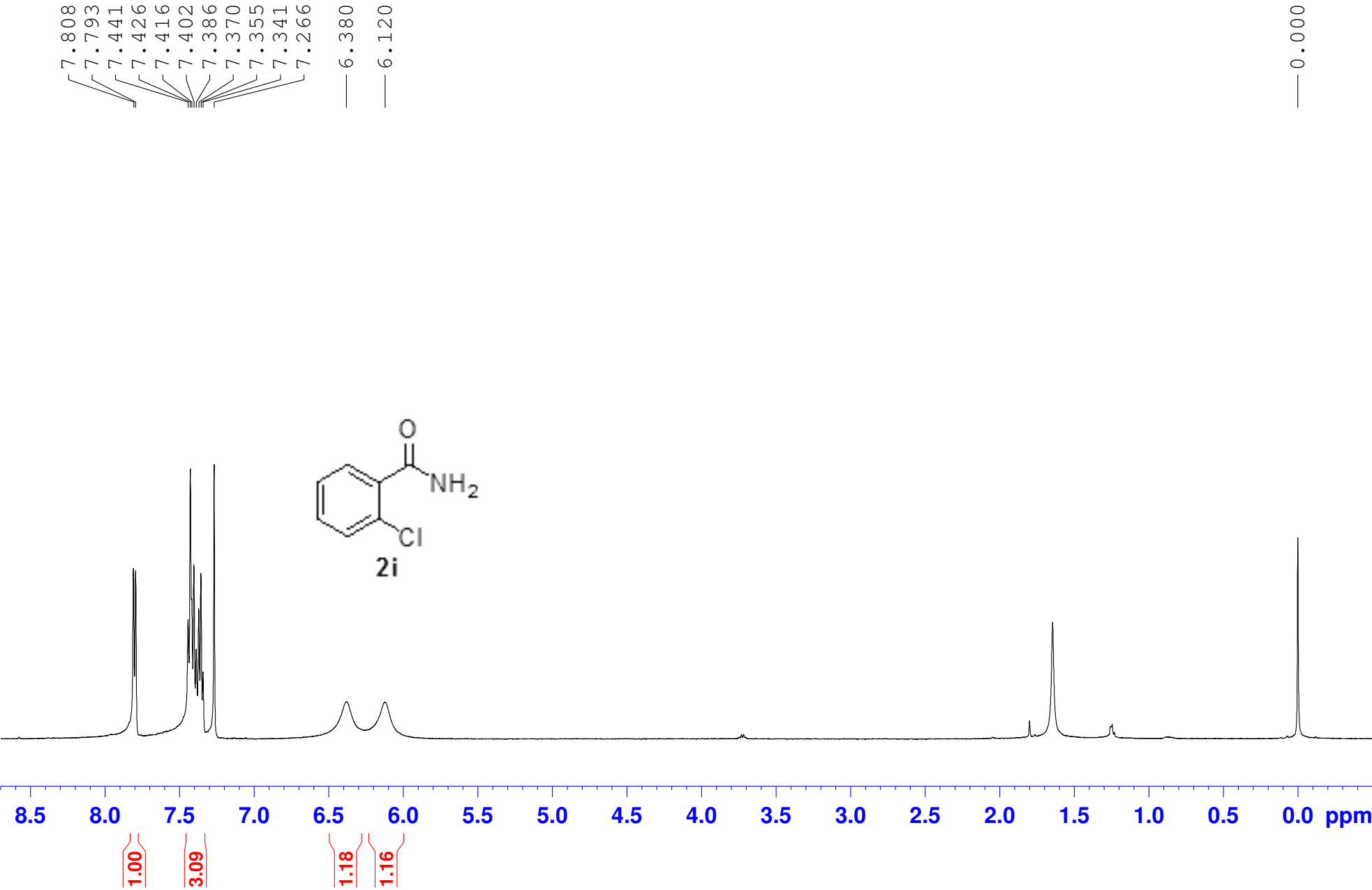
130.728  
130.713  
130.084  
130.012

115.095  
114.924

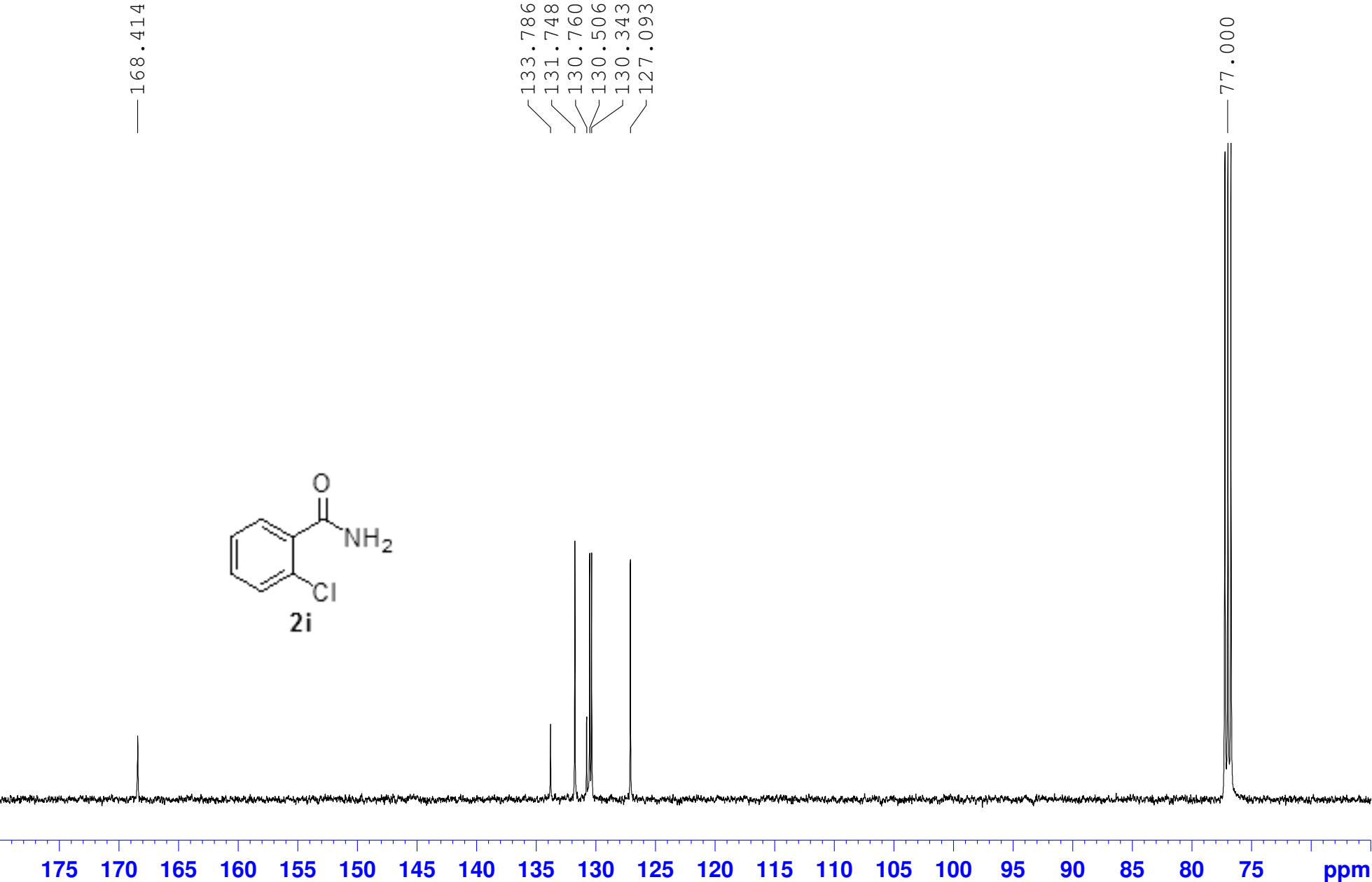
39.500



2-chlorobenzamide  
Proton CDCl3



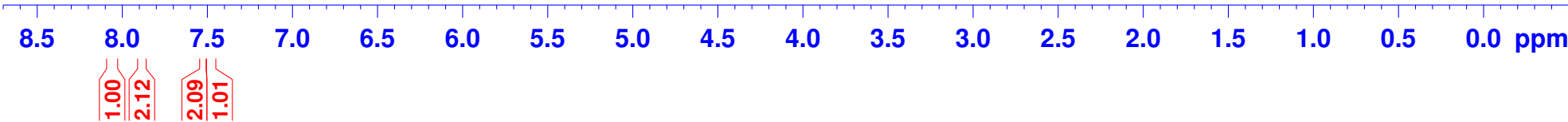
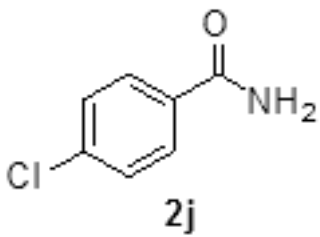
2-chlorobenzamide  
C13CPD CDC13



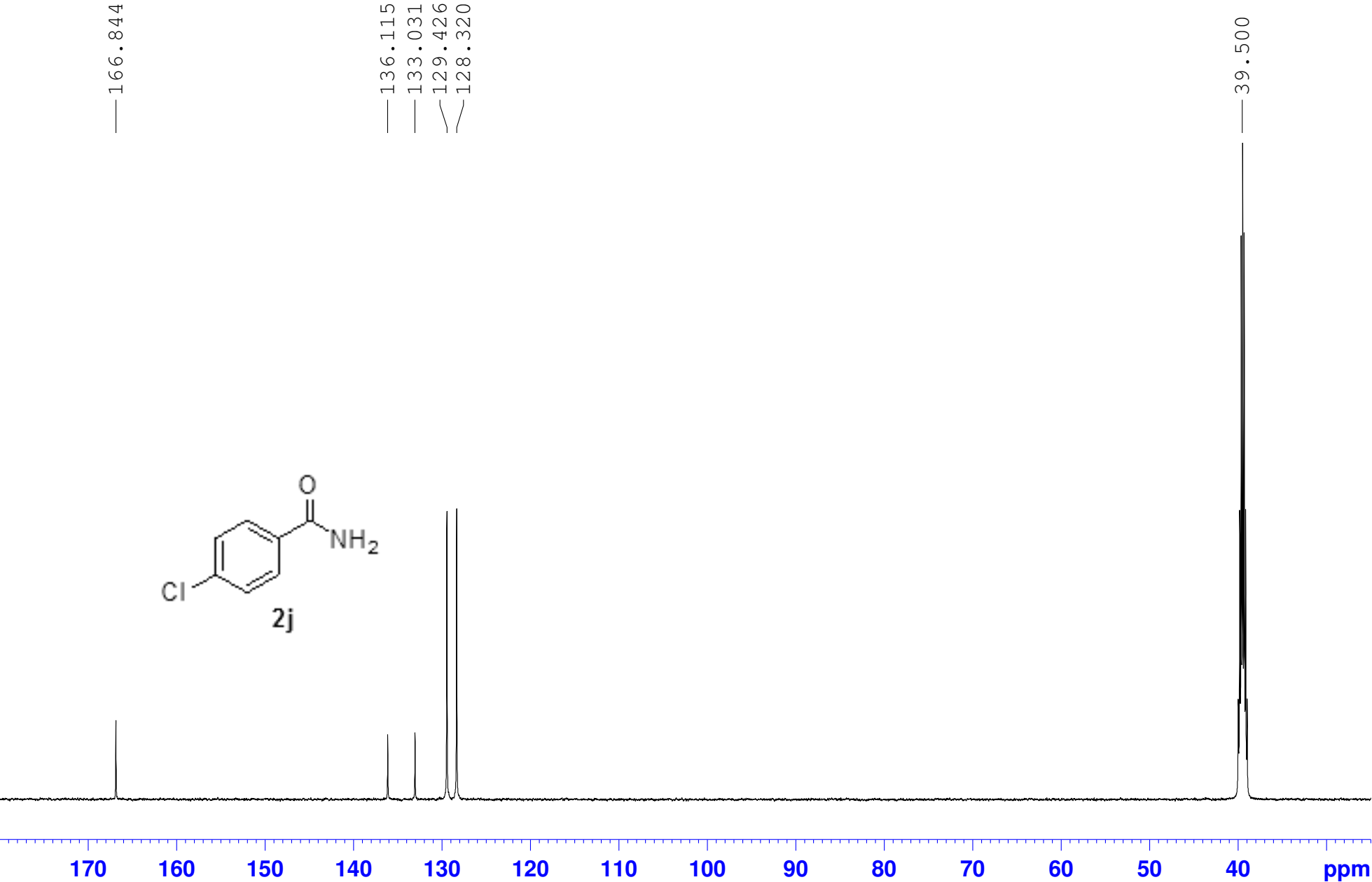
4-chlorobenzamide  
Proton DMSO-d6

8.056  
7.891  
7.874  
7.533  
7.516  
7.480

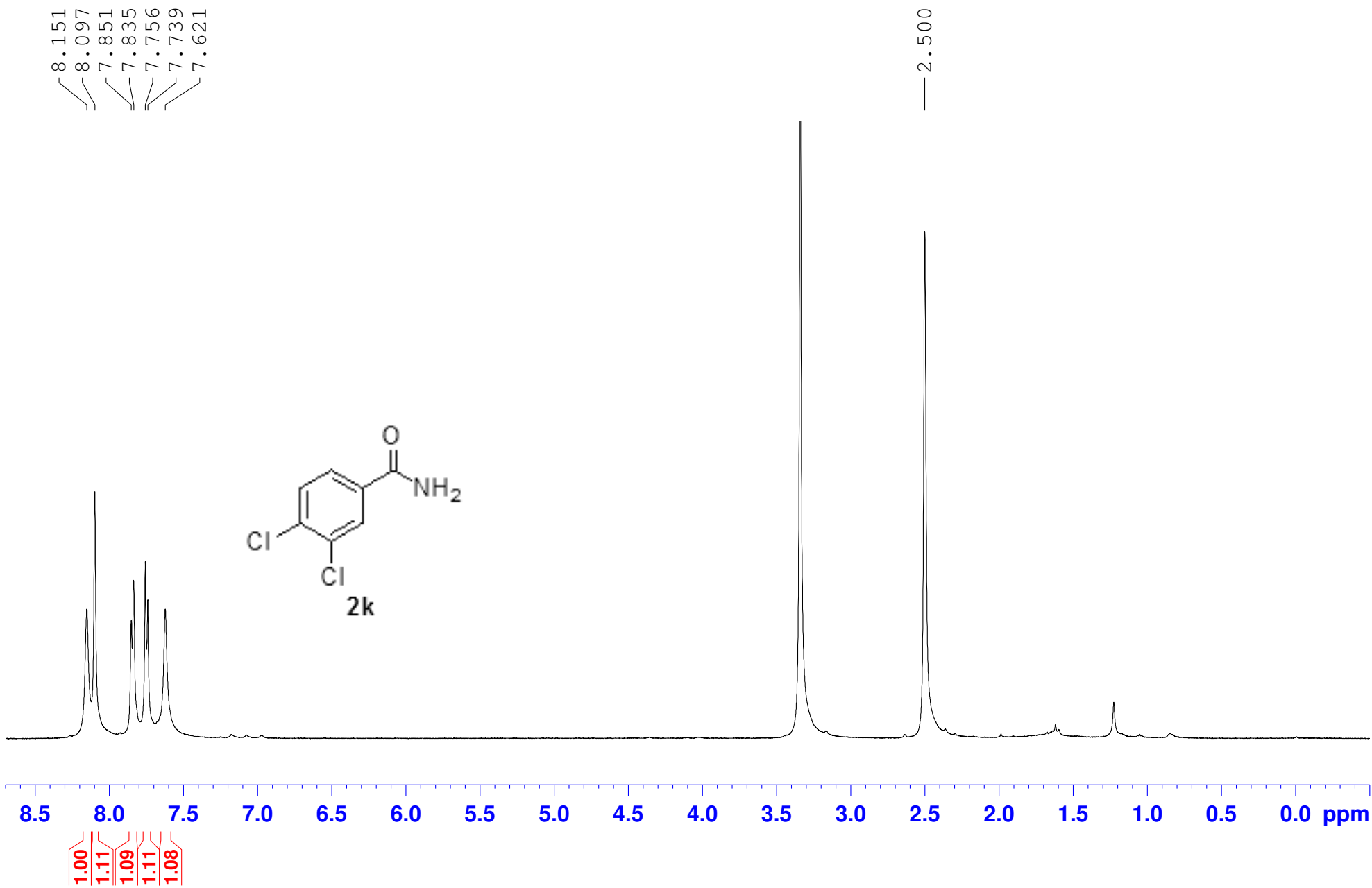
2.500



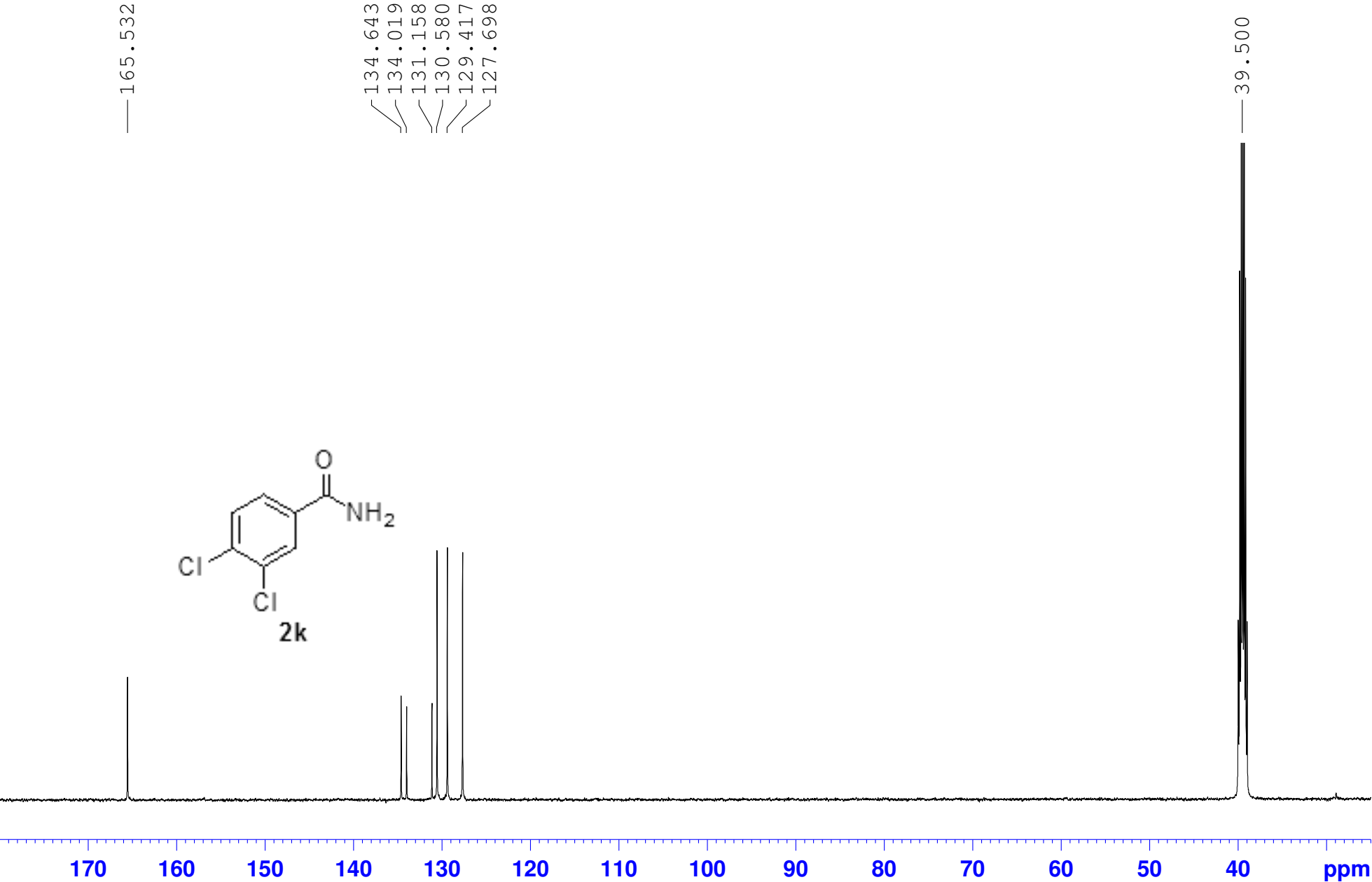
4-chlorobenzamide  
C13CPD DMSO-d6



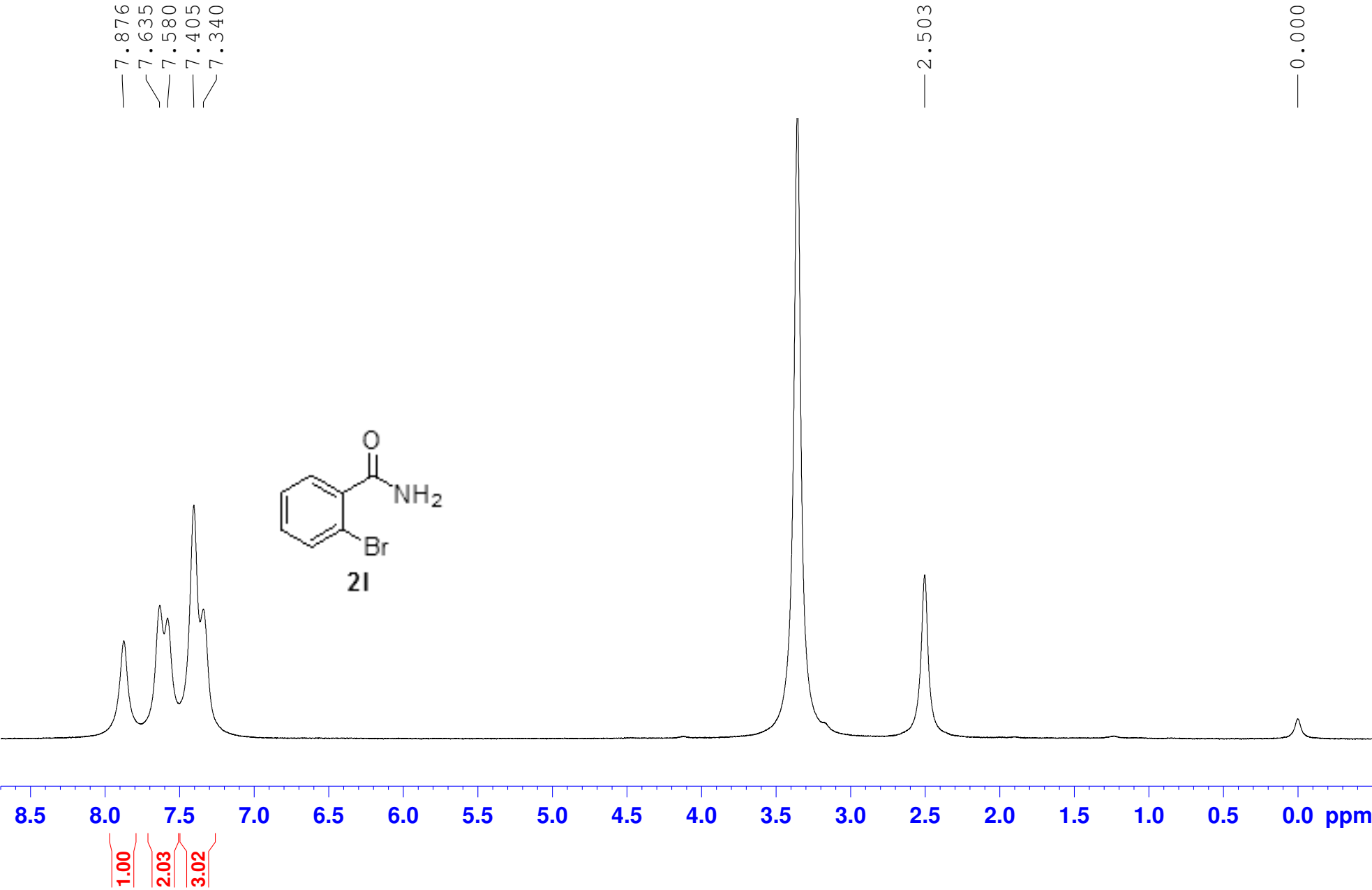
3,4-dichlorobenzamide  
Proton DMSO-d6



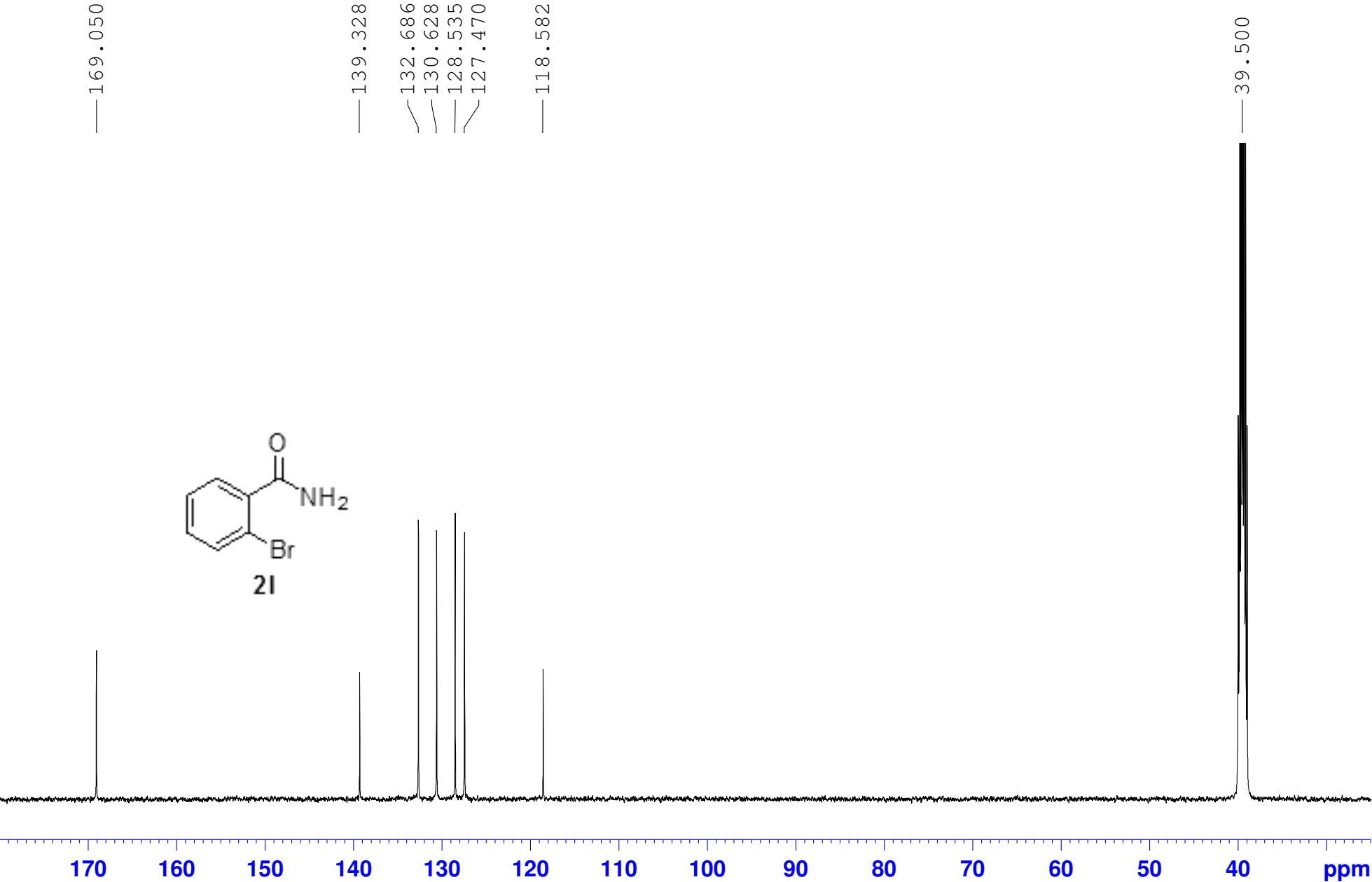
3,4-dichlorobenzamide  
C13CPD DMSO-d6



2-bromobenzamide  
Proton DMSO-d6



2-bromobenzamide  
C13CPD DMSO-d6

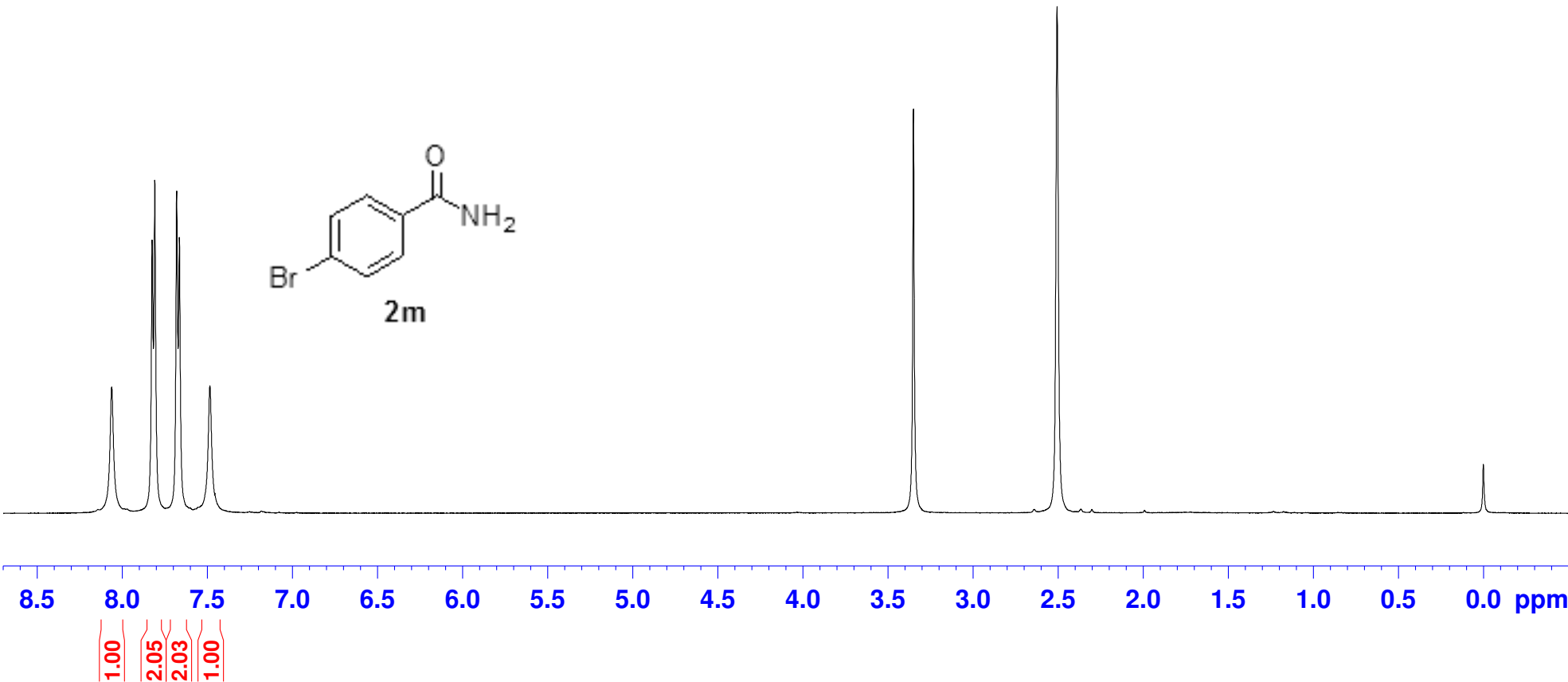
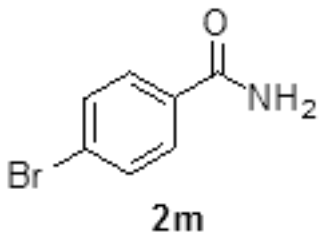


4-bromobenzamide  
Proton DMSO-d6

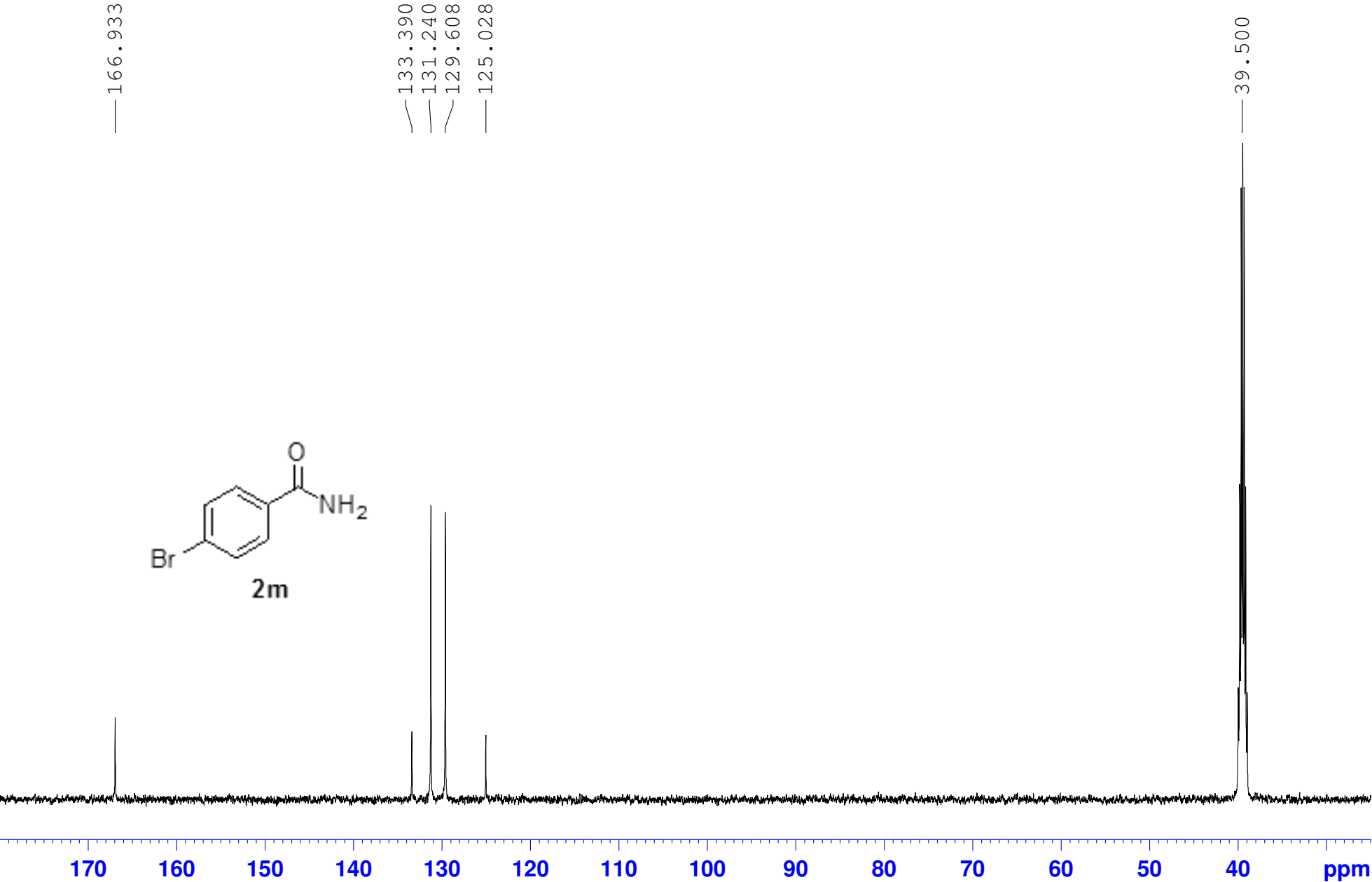
8.061  
7.823  
7.806  
7.678  
7.662  
7.483

2.505

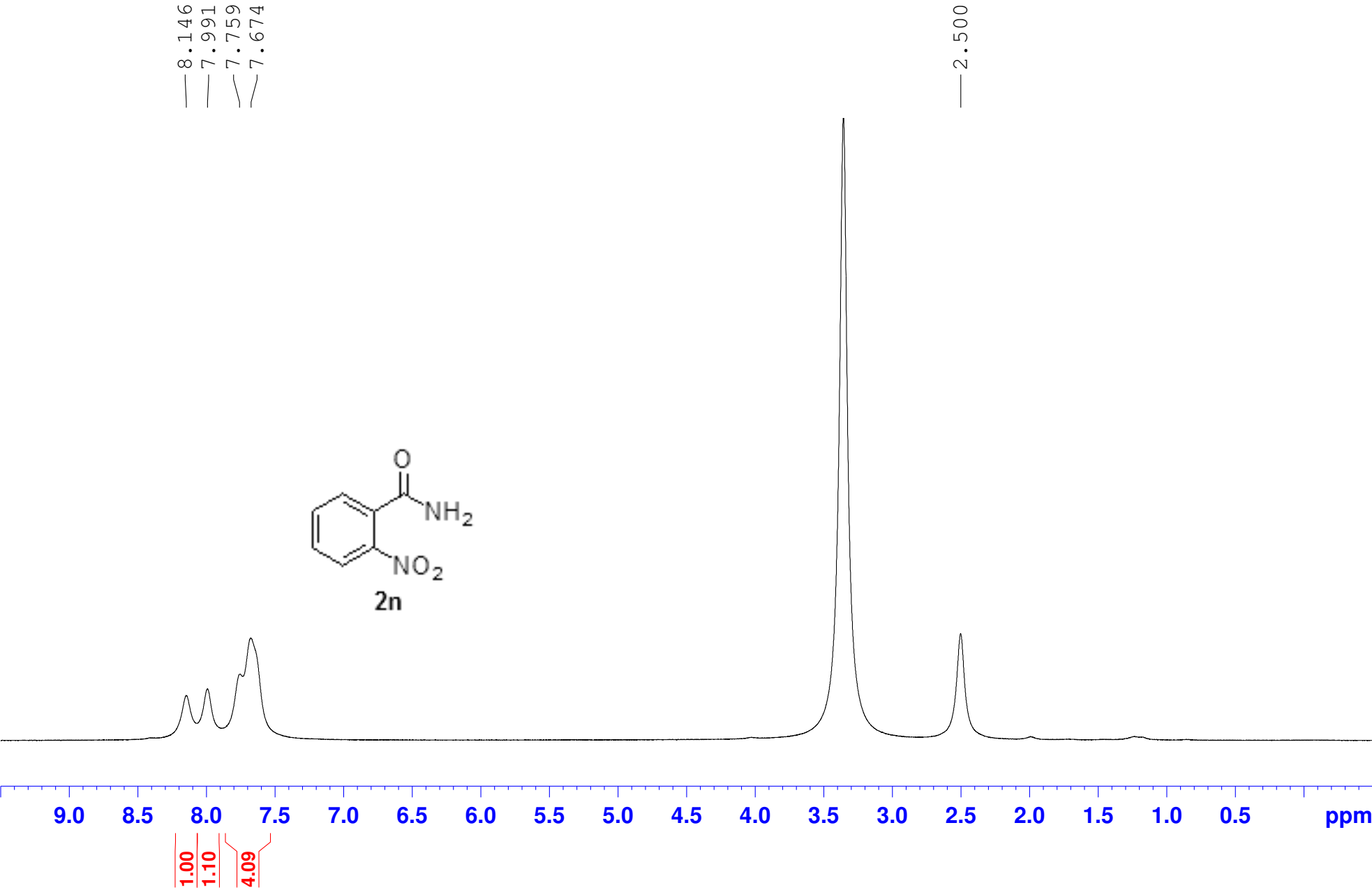
0.000



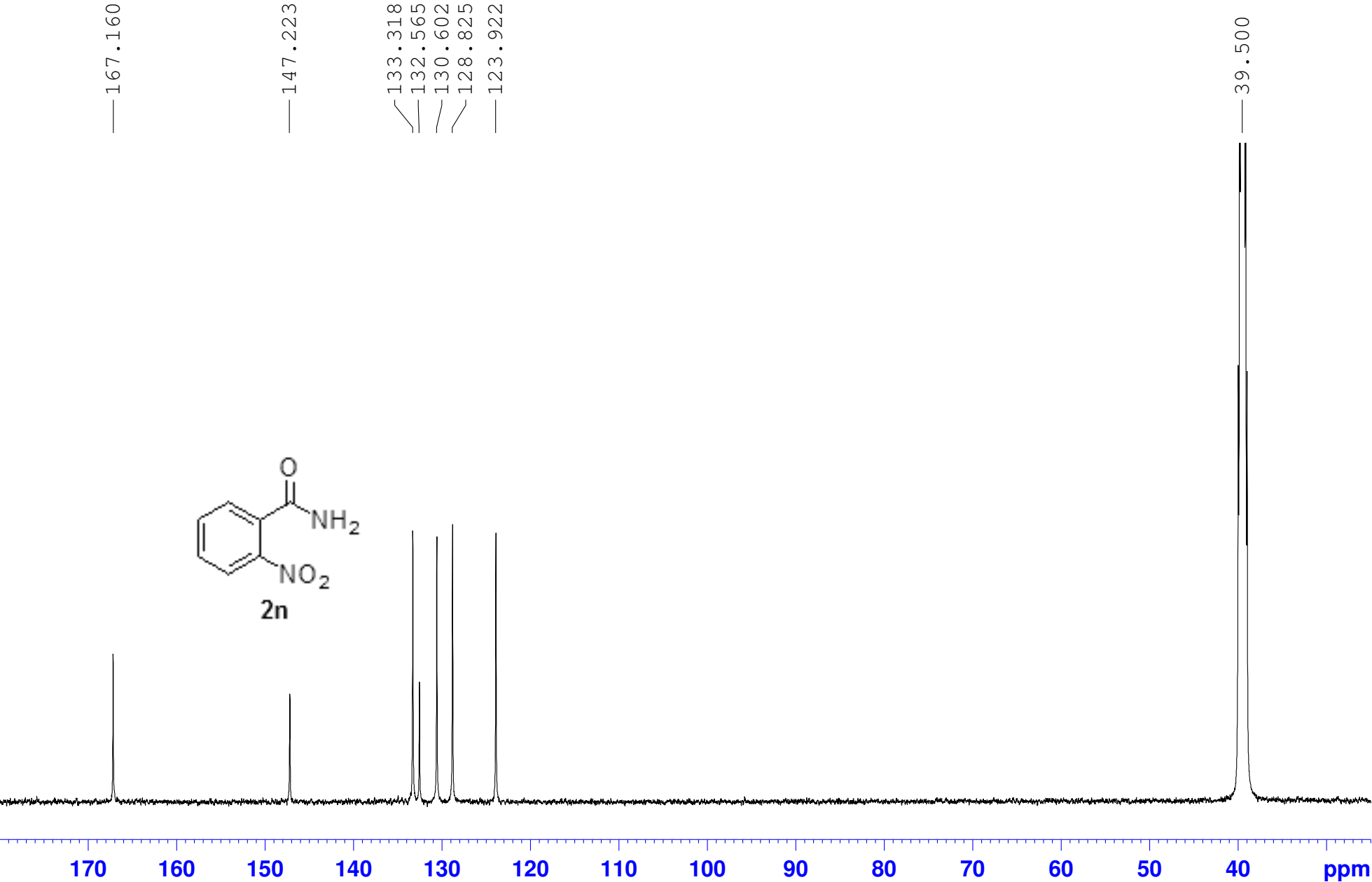
4-bromobenzamide  
C13CPD DMSO-d6



2-nitrobenzamide  
Proton DMSO-d6



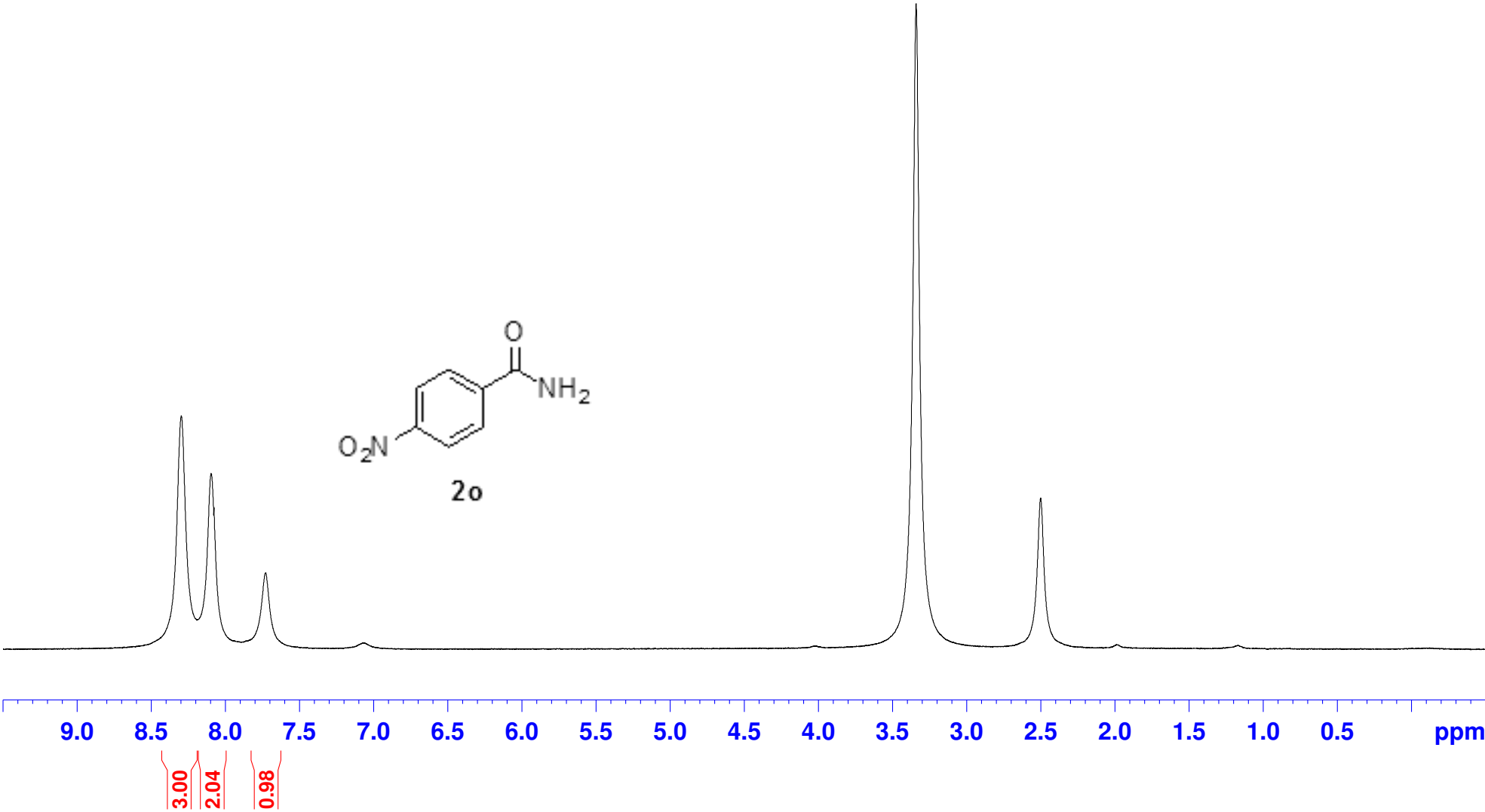
2-nitrobenzamide  
C13CPD DMSO-d6



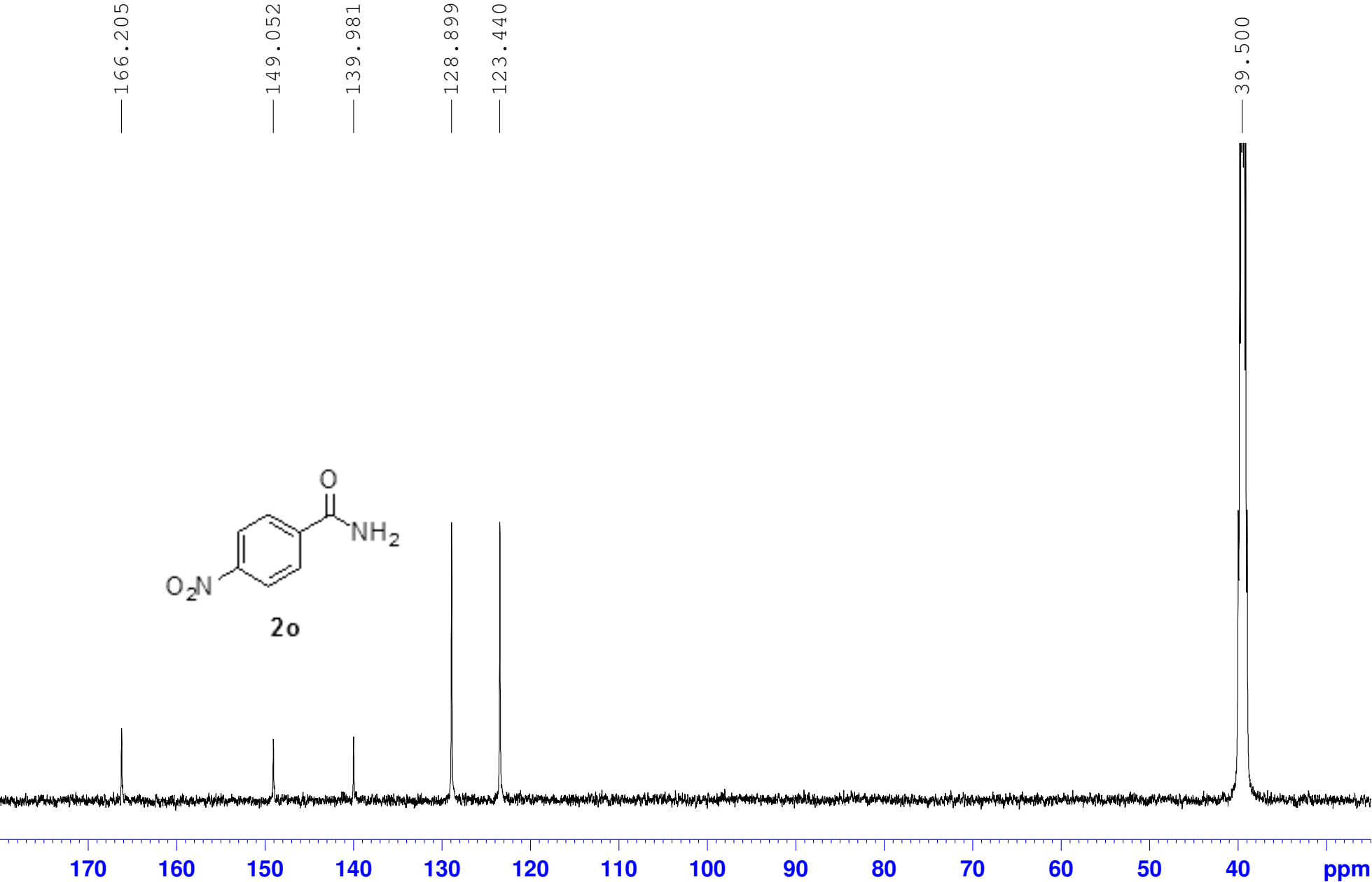
4-nitrobenzamide  
Proton DMSO-d6

8.295  
8.094  
7.730

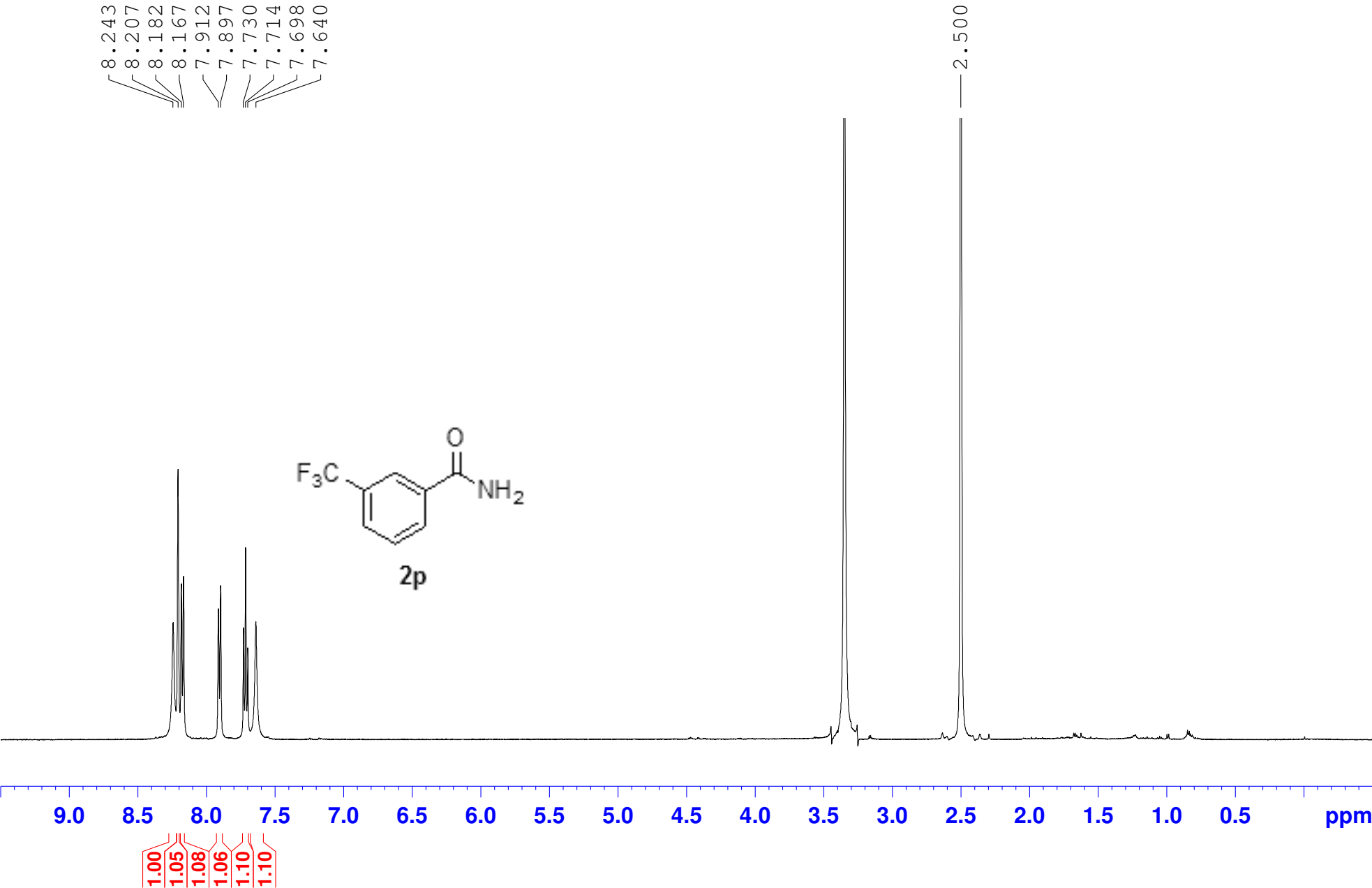
2.500



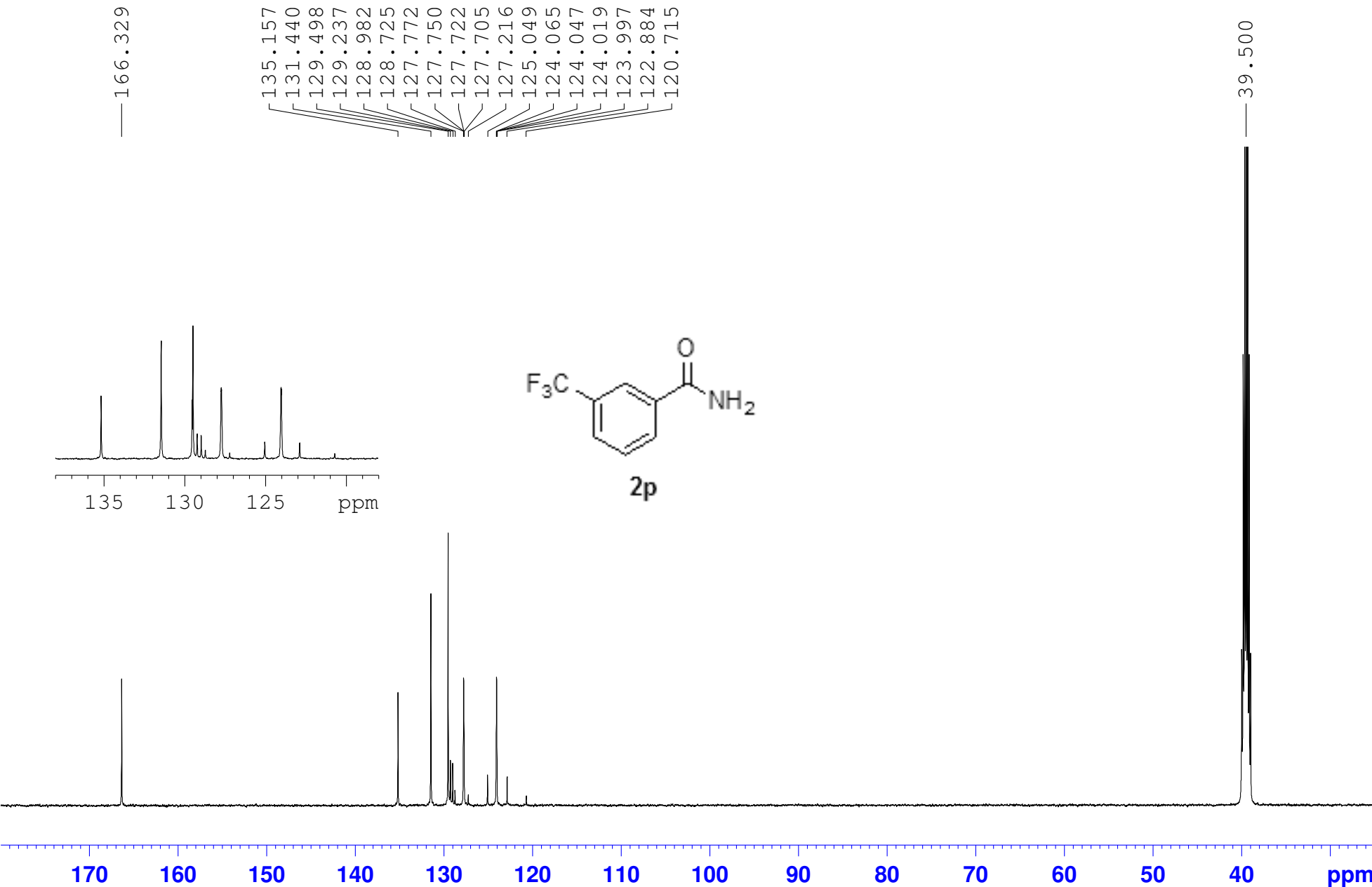
4-nitrobenzamide  
C13CPD DMSO-d6



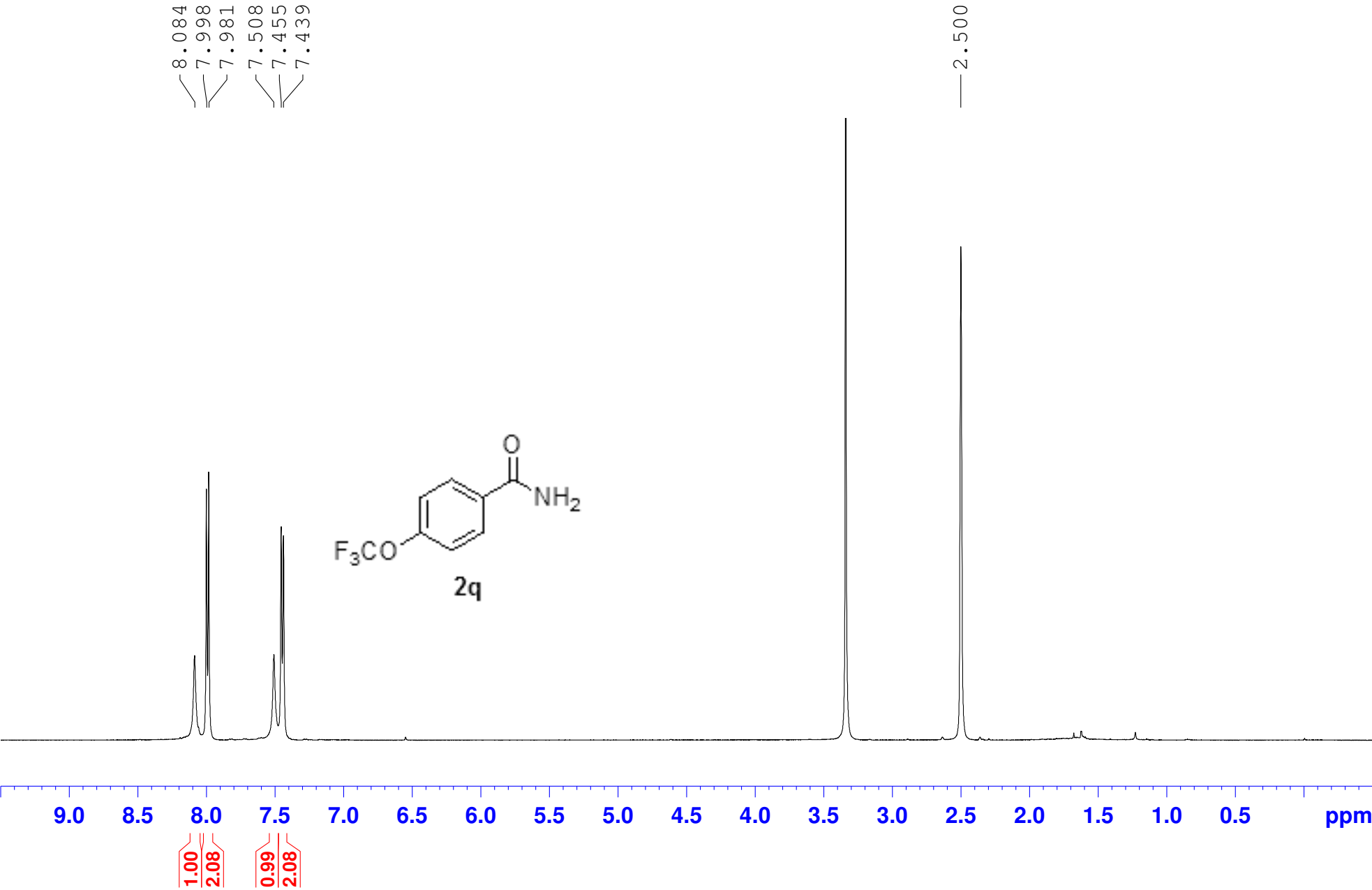
3-(trifluoromethyl)benzamide  
Proton DMSO-d6



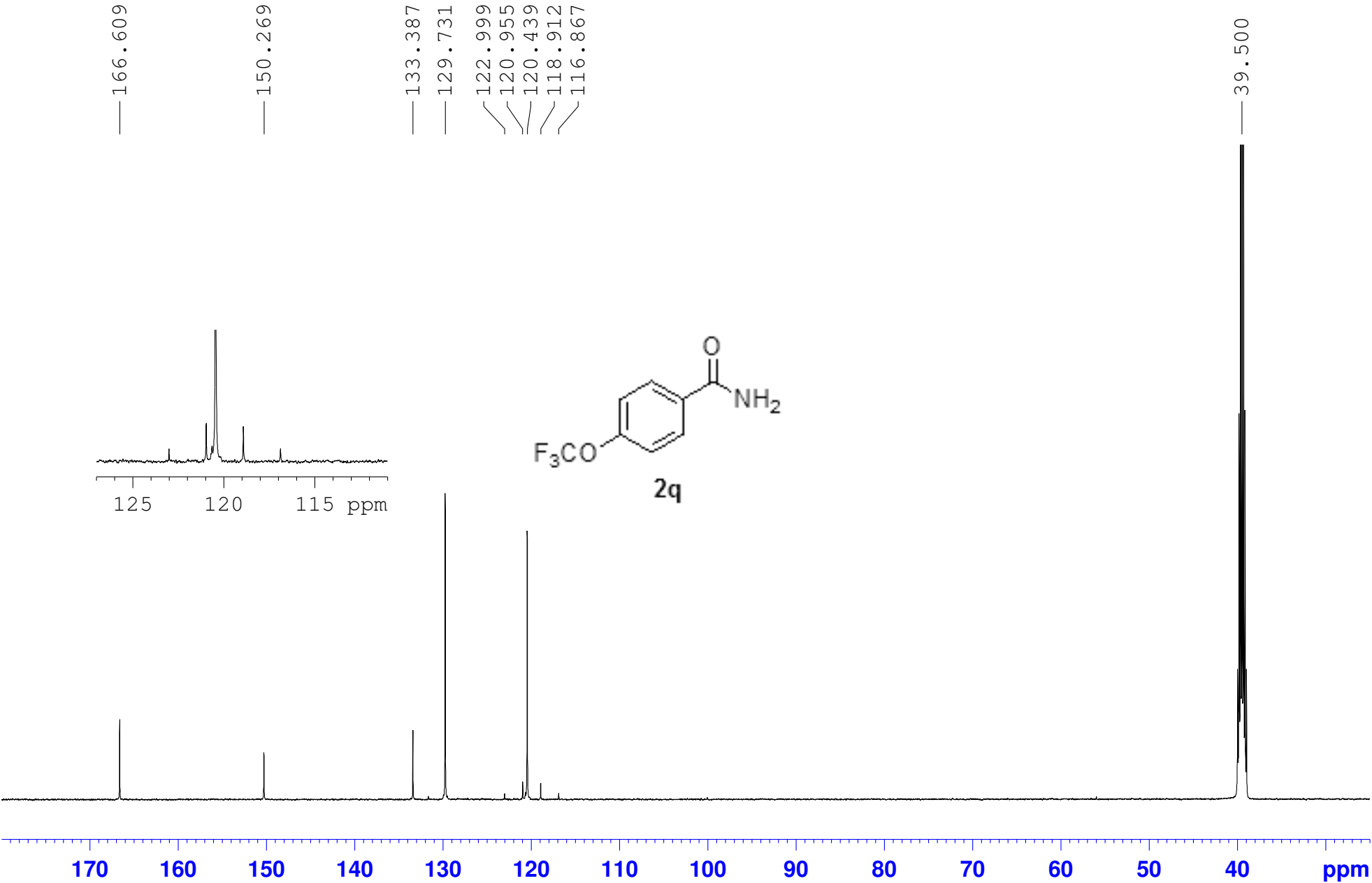
3-(trifluoromethyl)benzamide  
C13CPD DMSO-d6



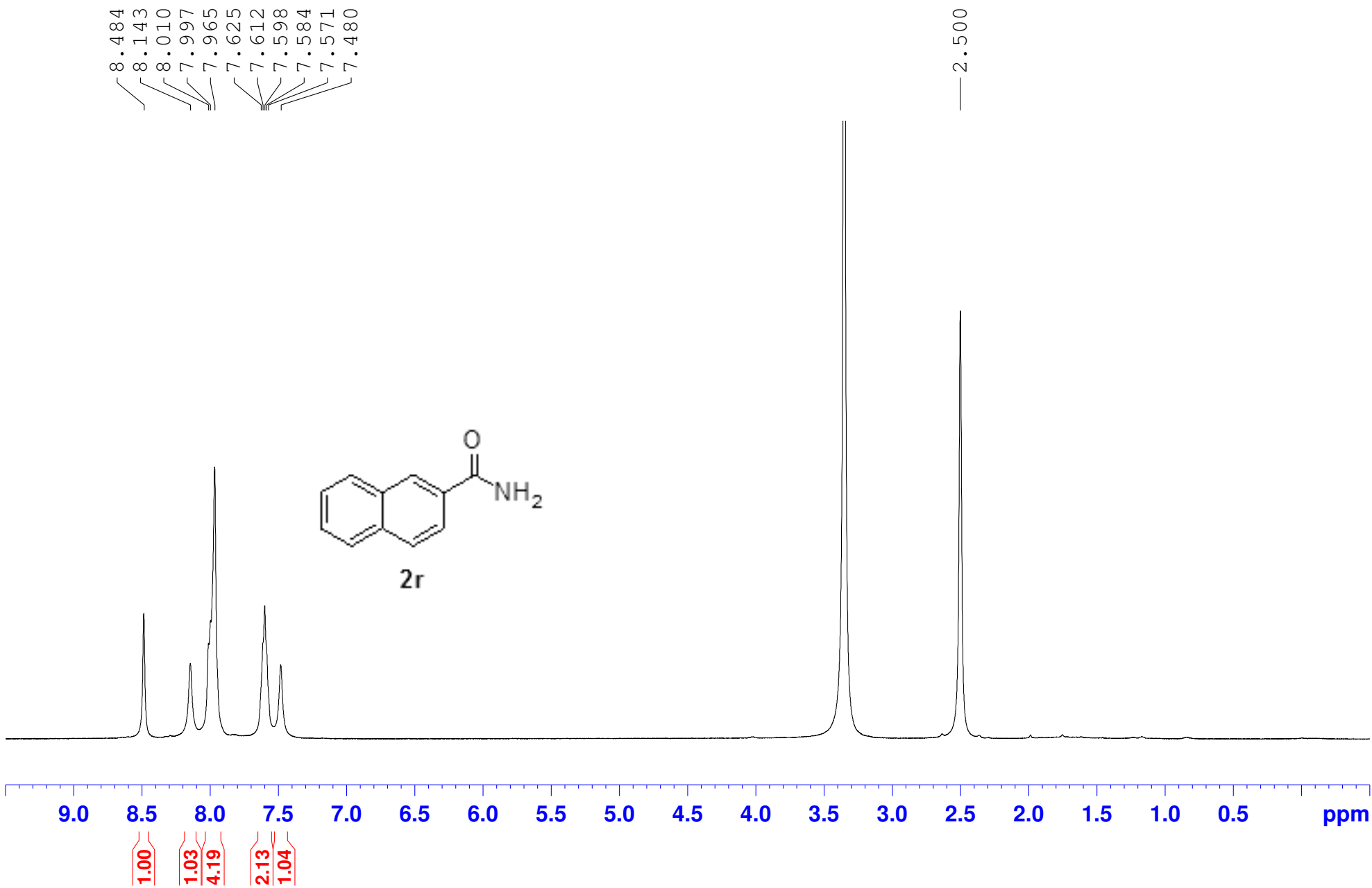
4-(trifluoromethoxy)benzamide  
Proton DMSO



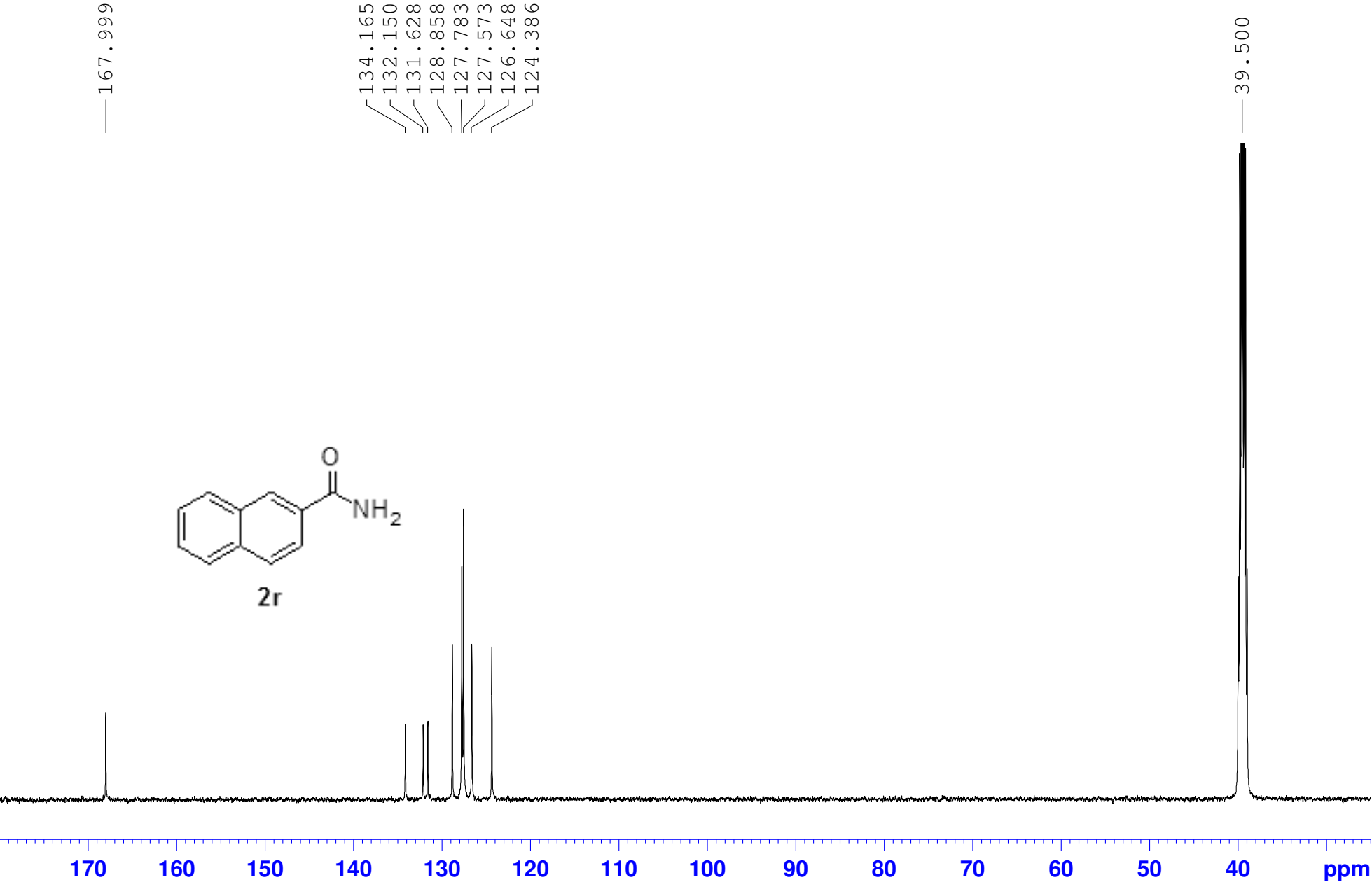
4-(trifluoromethoxy)benzamide  
C13CPD DMSO-d6



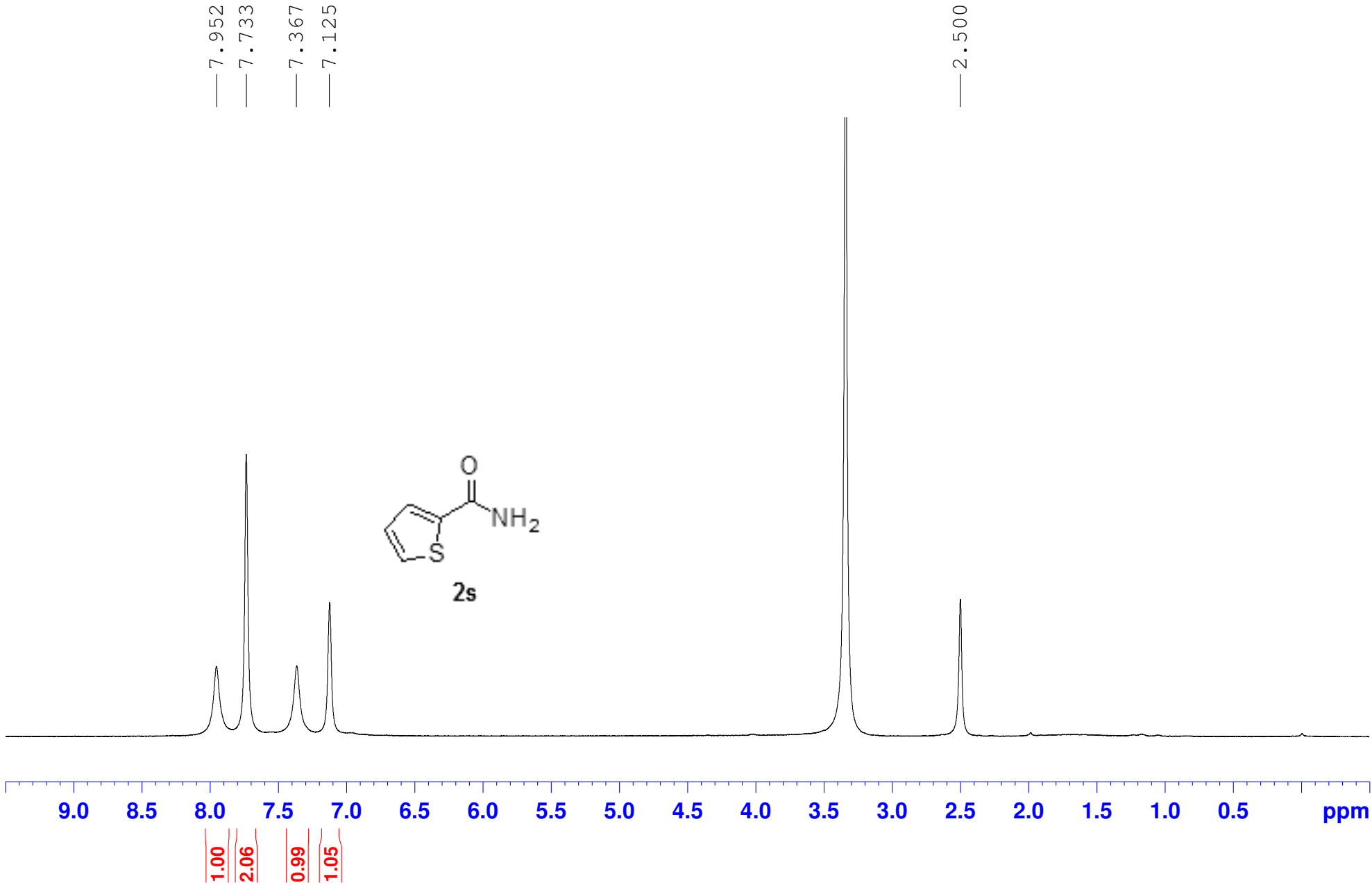
2-naphthamide  
Proton DMSO-d6



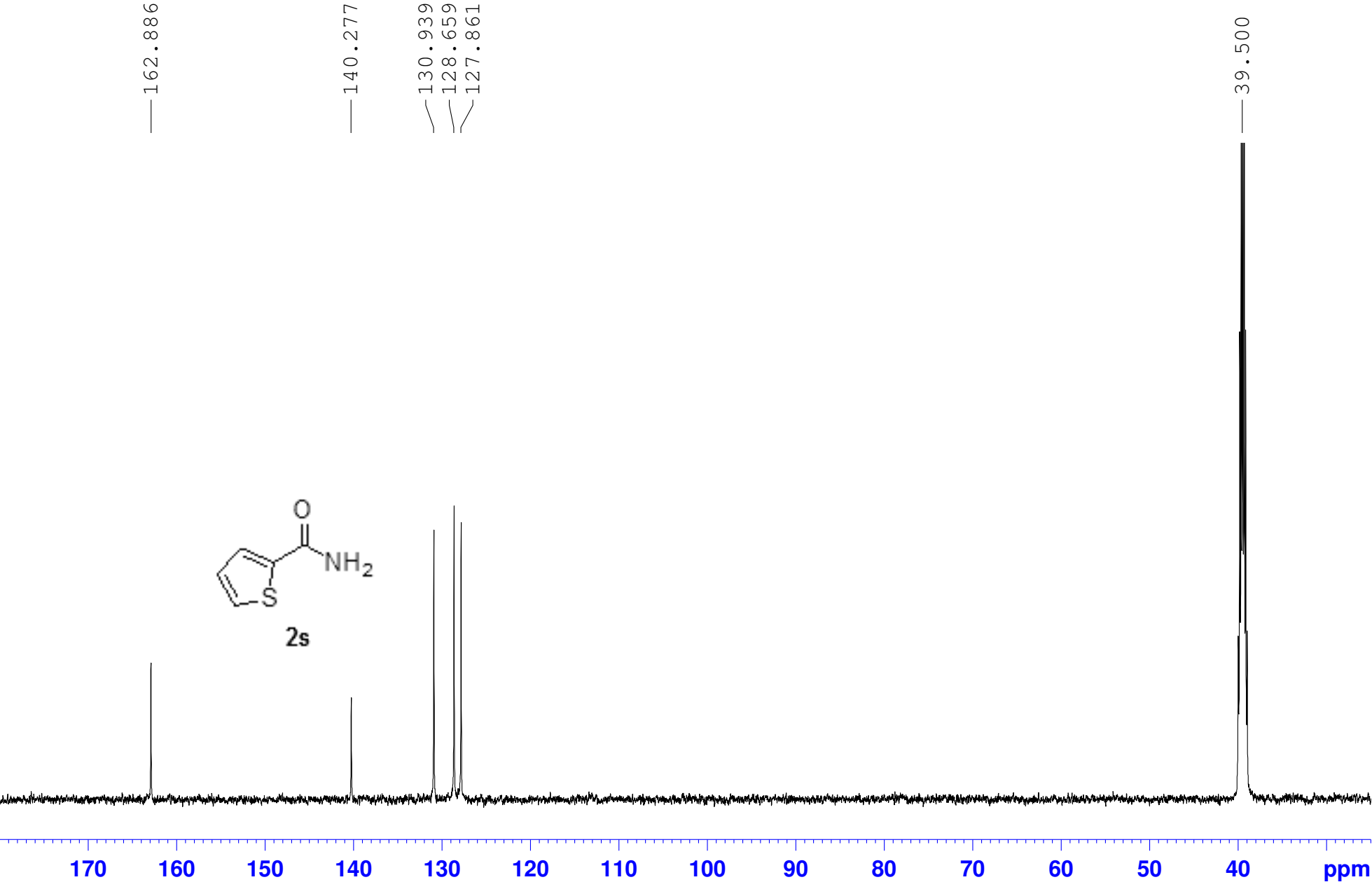
2-naphthamide  
C13CPD DMSO-d6



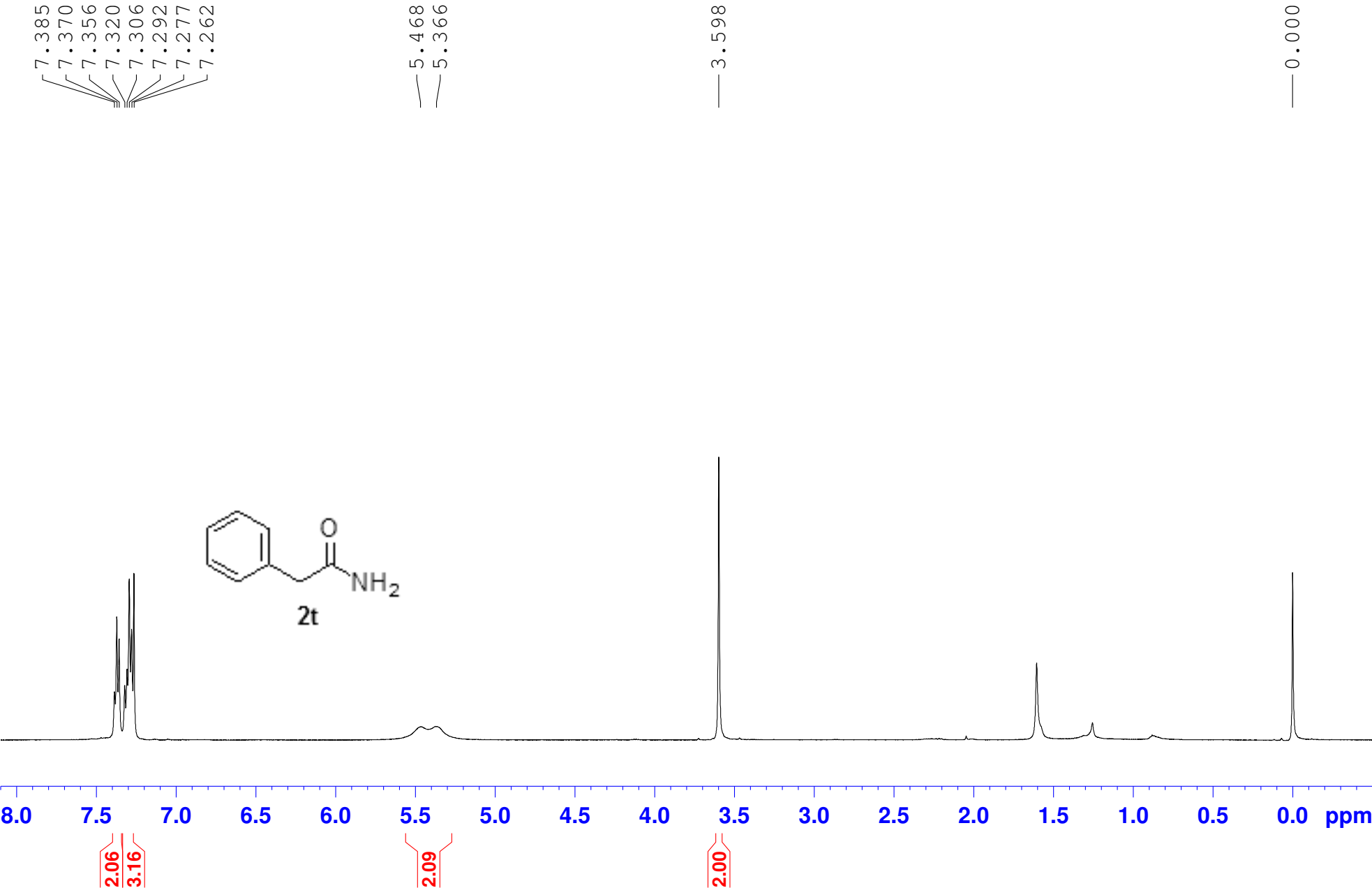
thiophene-2-carboxamide  
Proton DMSO-d6



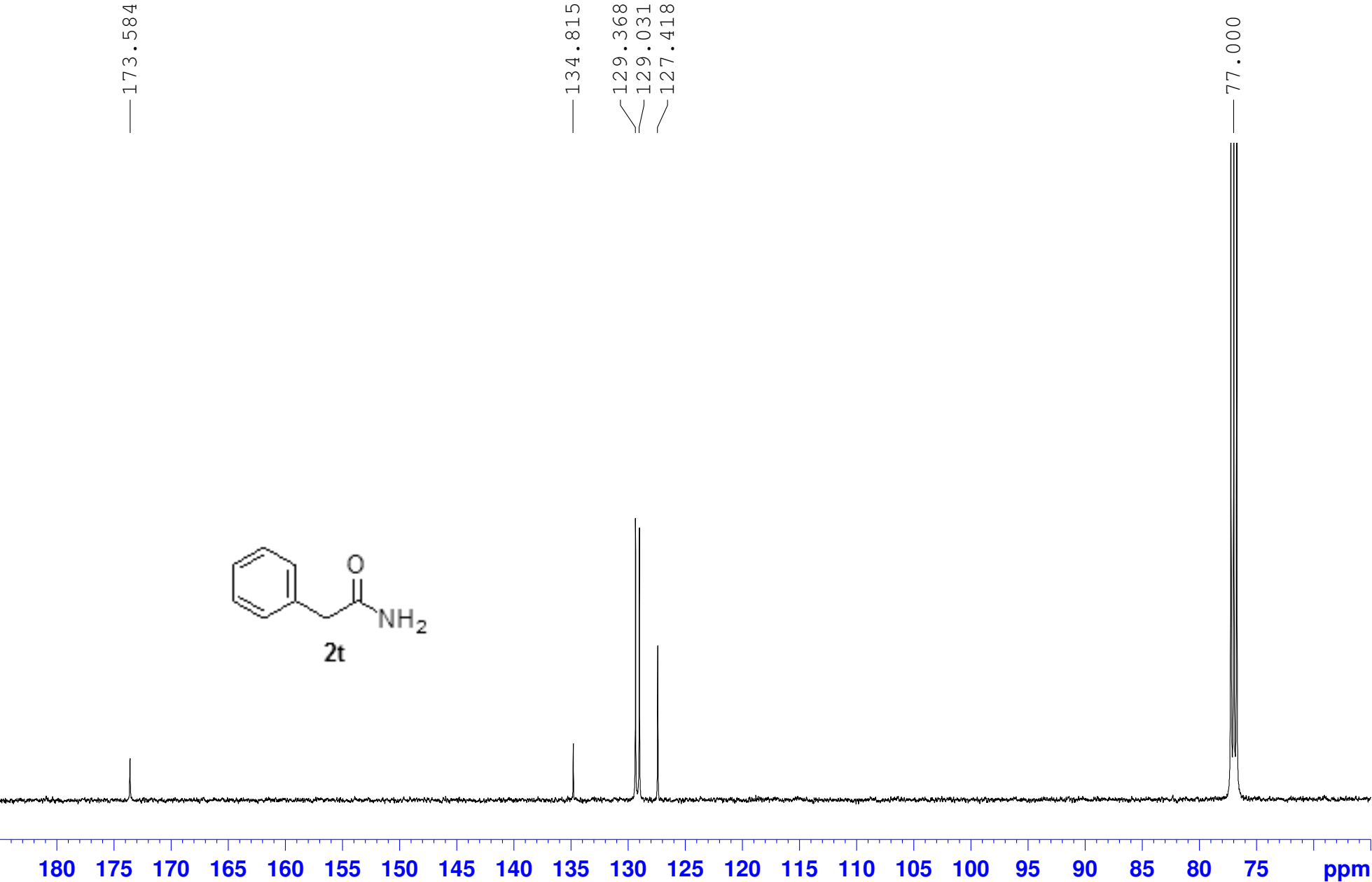
thiophene-2-carboxamide  
C13CPD DMSO-d6



2-phenylacetamide  
Proton CDCl3



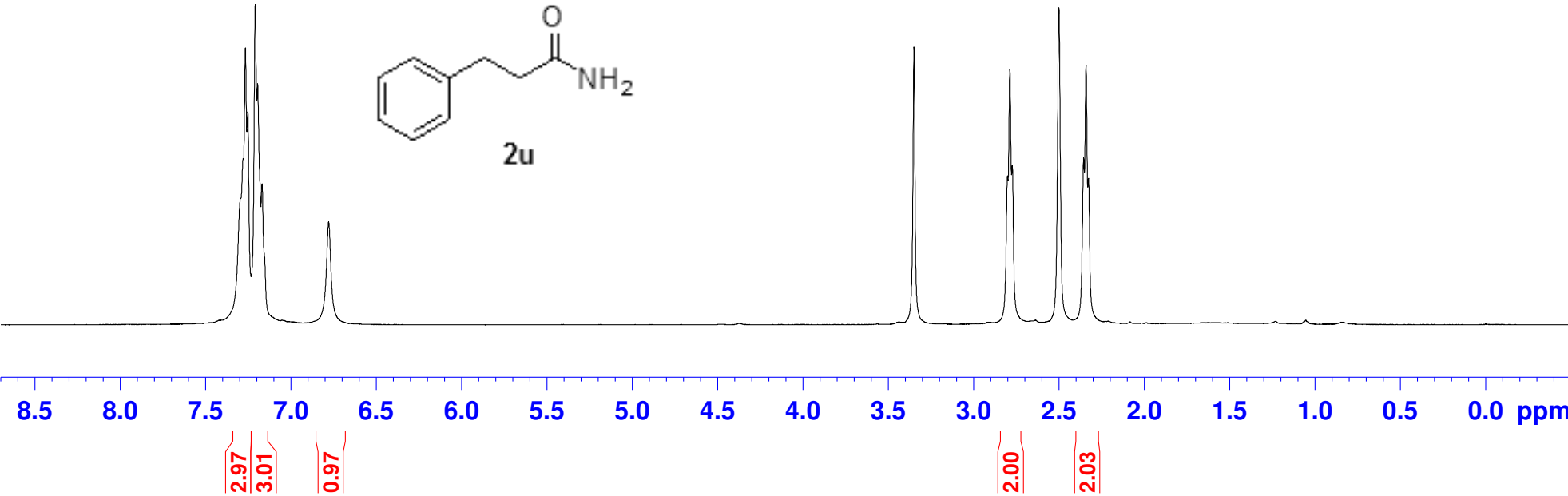
2-phenylacetamide  
C13CPD CDC13



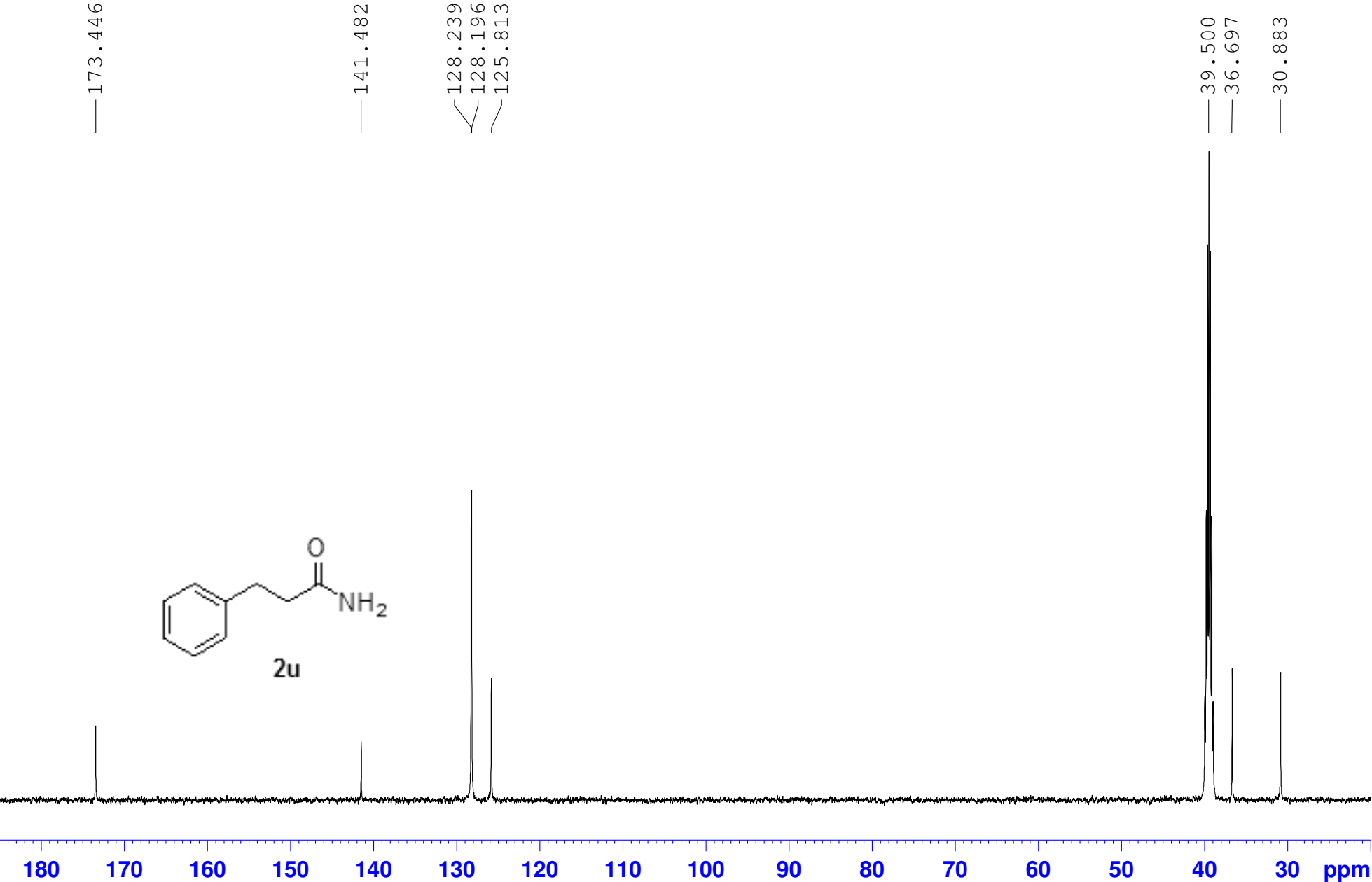
3-phenylpropanamide  
Proton DMSO-d6

7.296  
7.279  
7.264  
7.250  
7.207  
7.193  
7.167  
7.152  
6.777

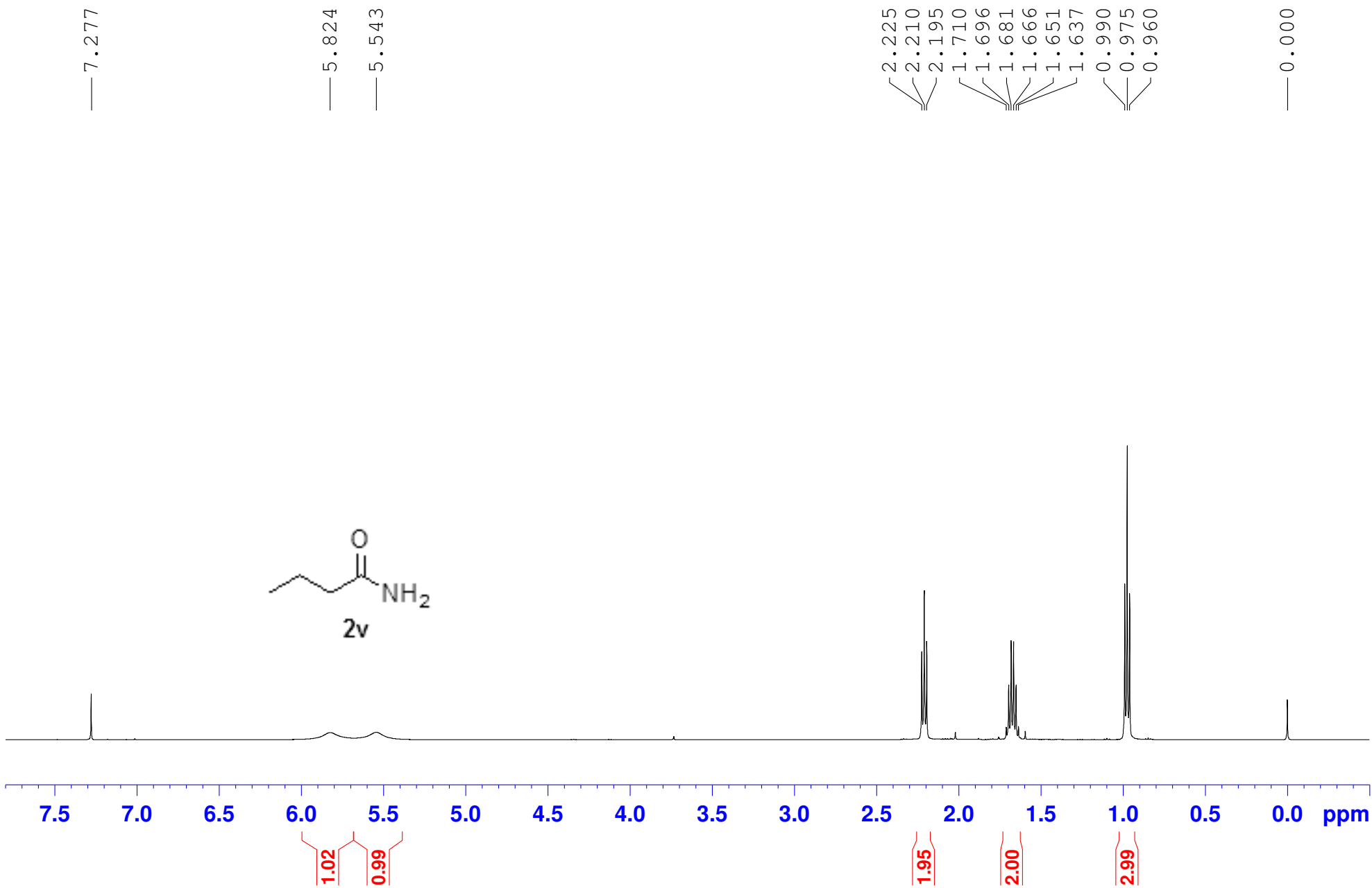
2.803  
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2.772  
2.500  
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2.341  
2.325



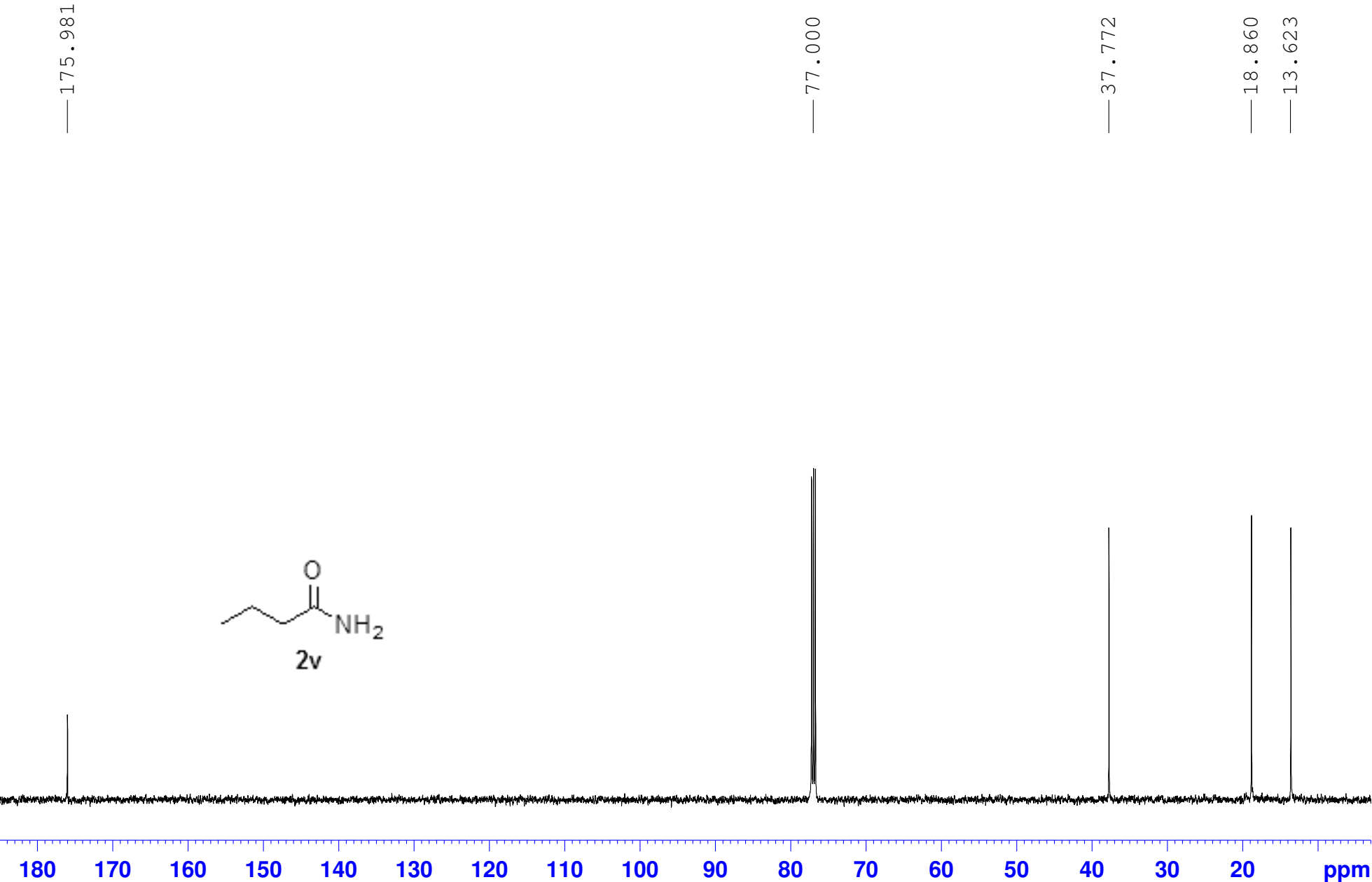
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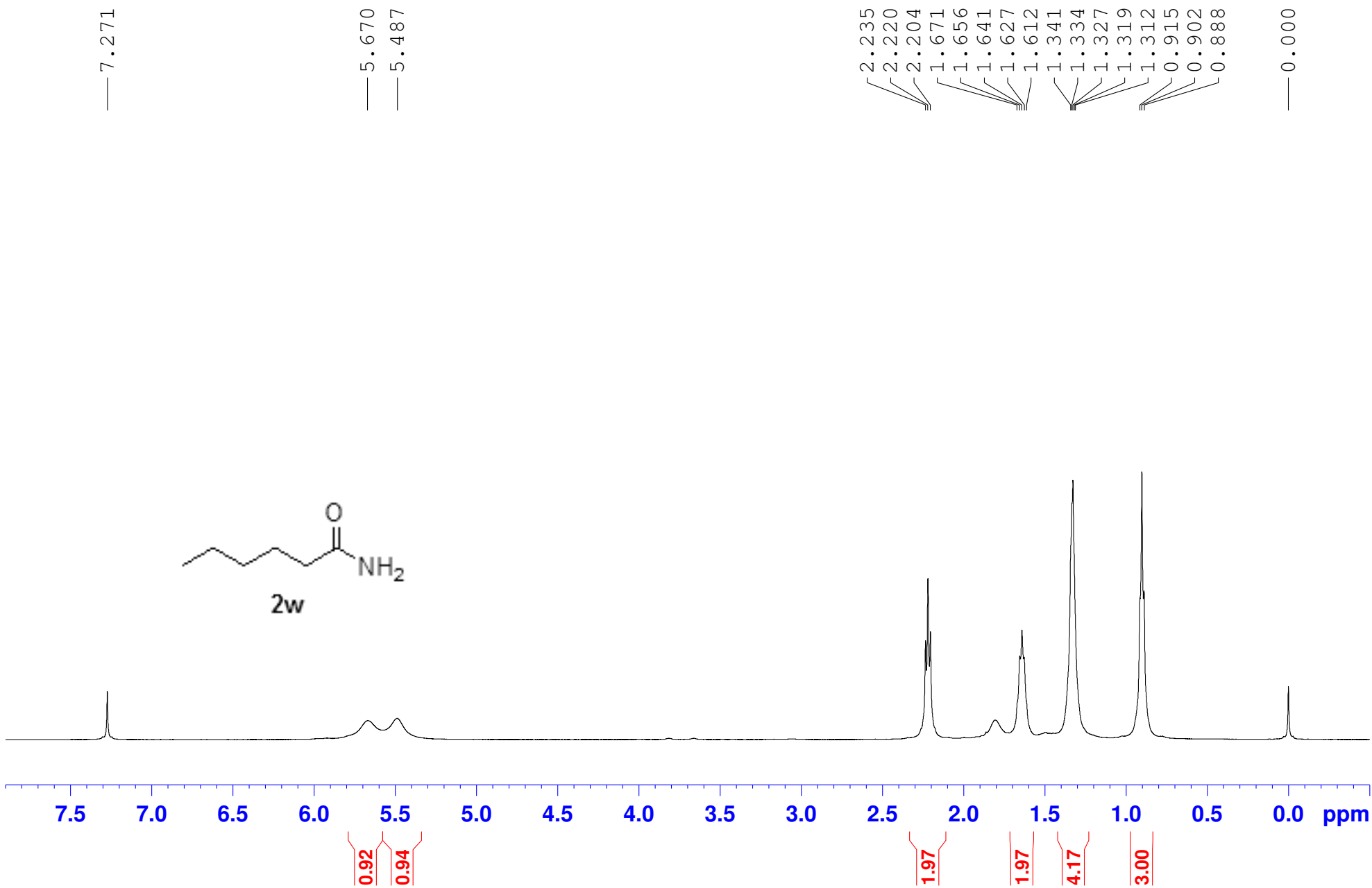
butyramide  
Proton CDCl3



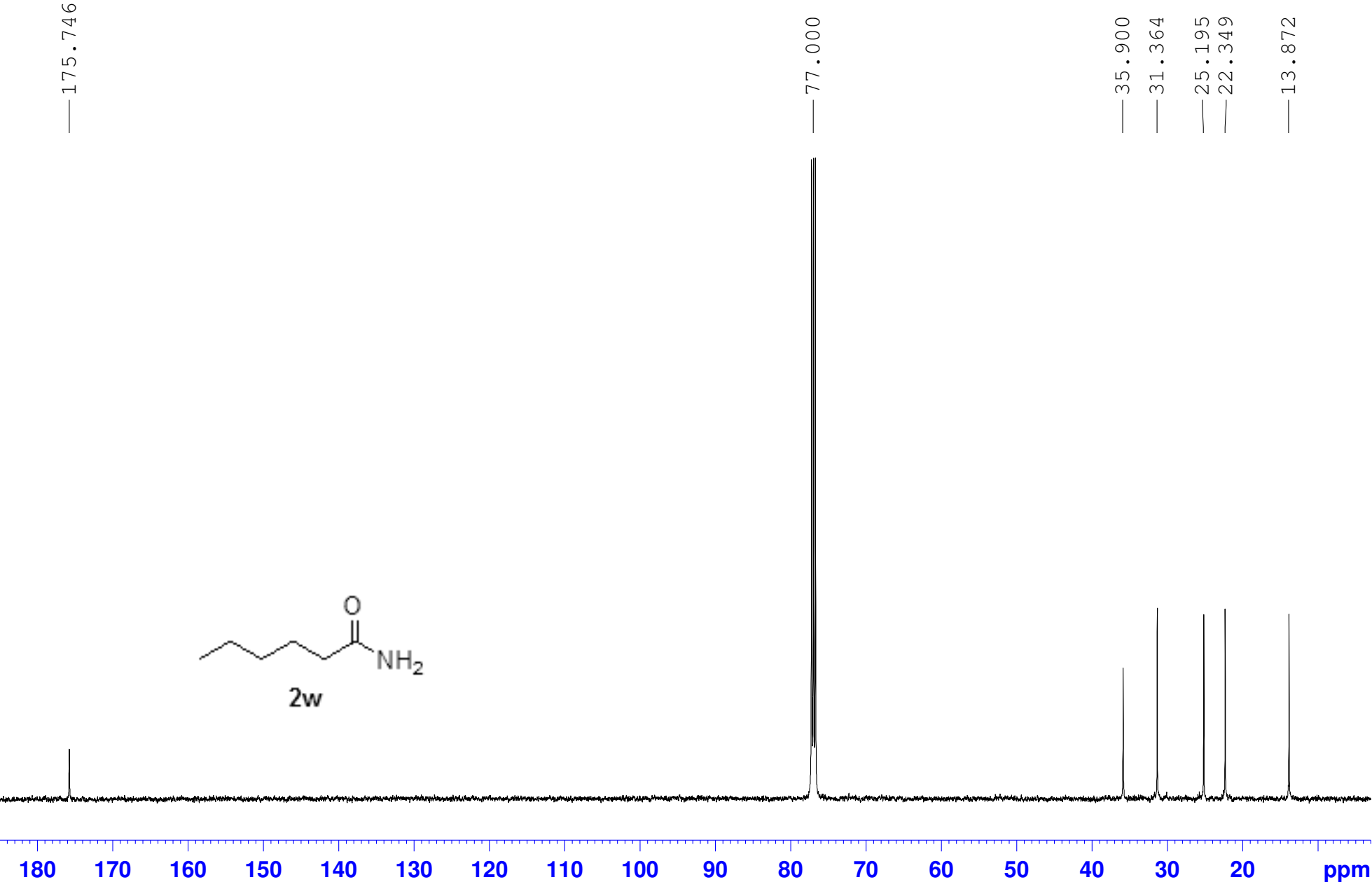
butyramide  
C13CPD CDC13



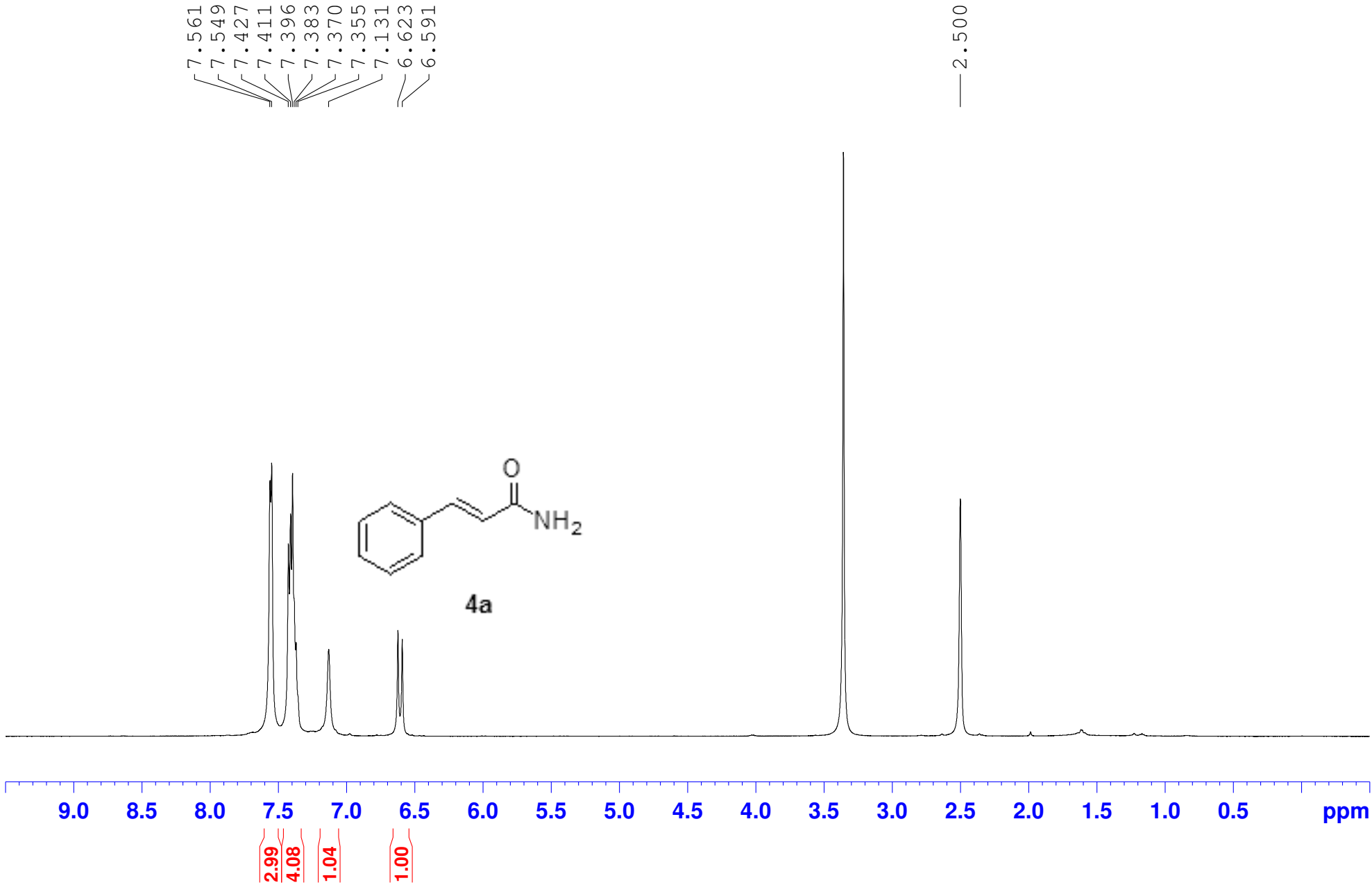
hexanamide  
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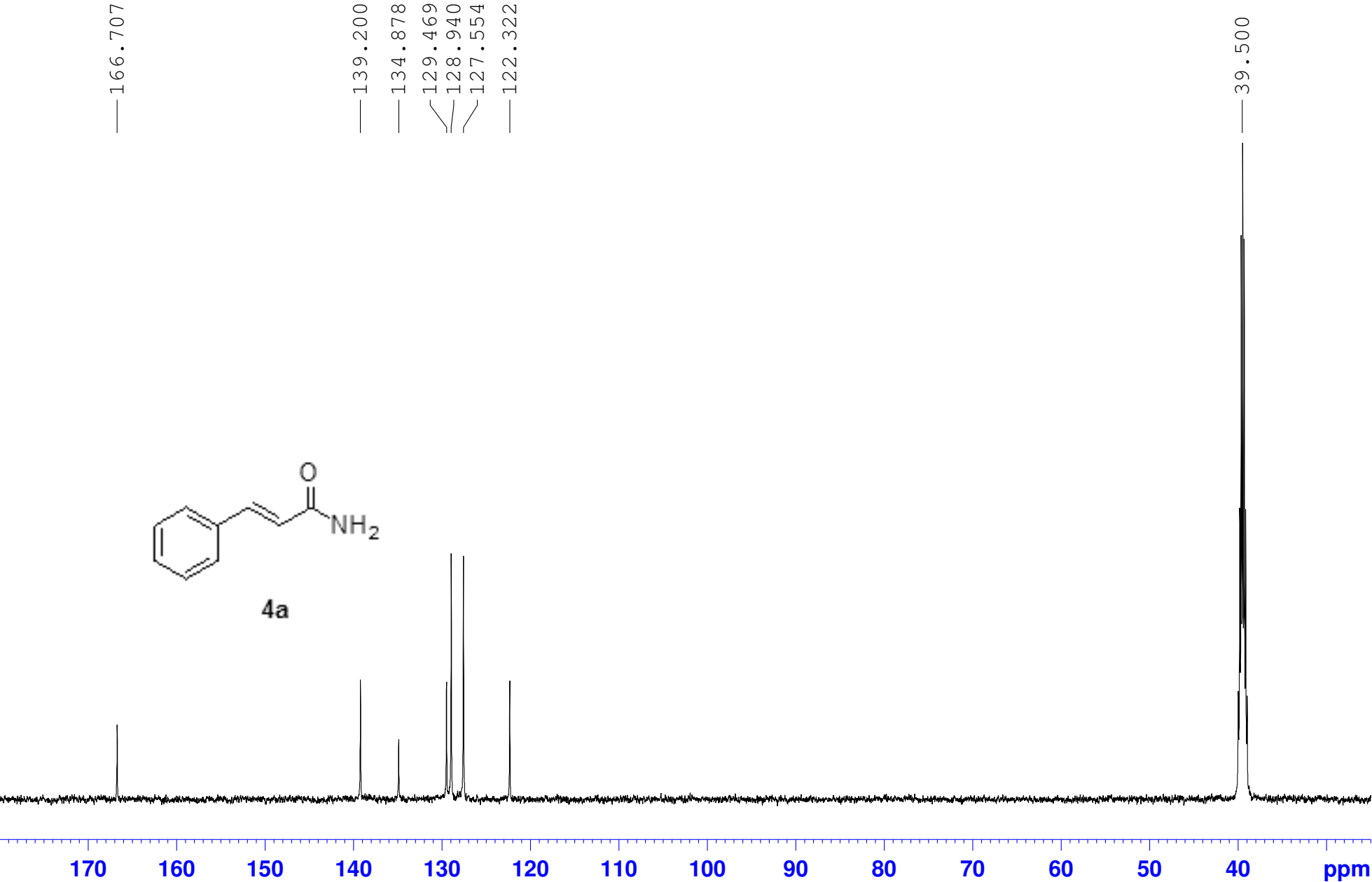
hexanamide  
C13CPD CDC13



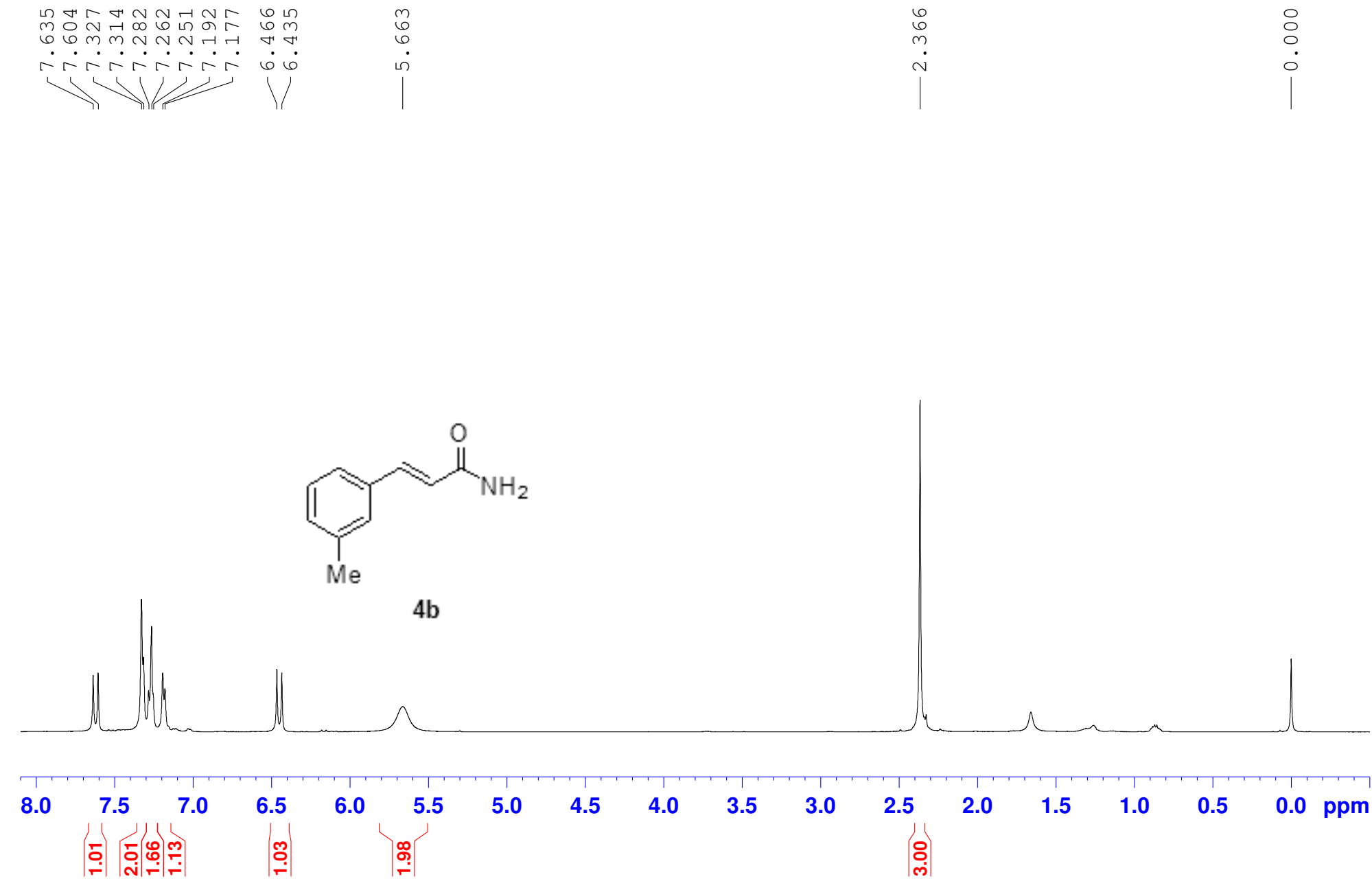
cinnamamide  
Proton DMSO-d6



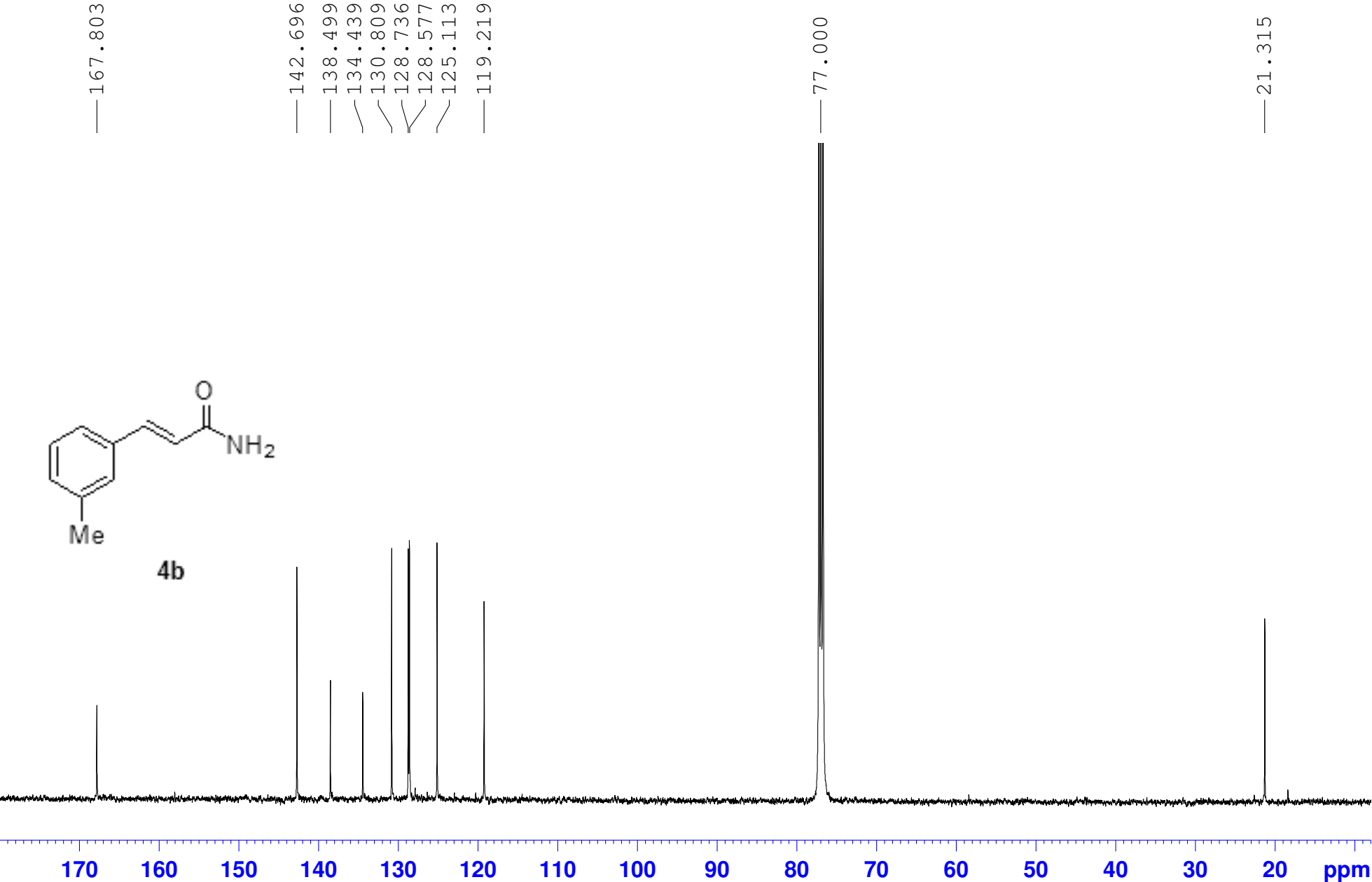
cinnamamide  
C13CPD DMSO-d6



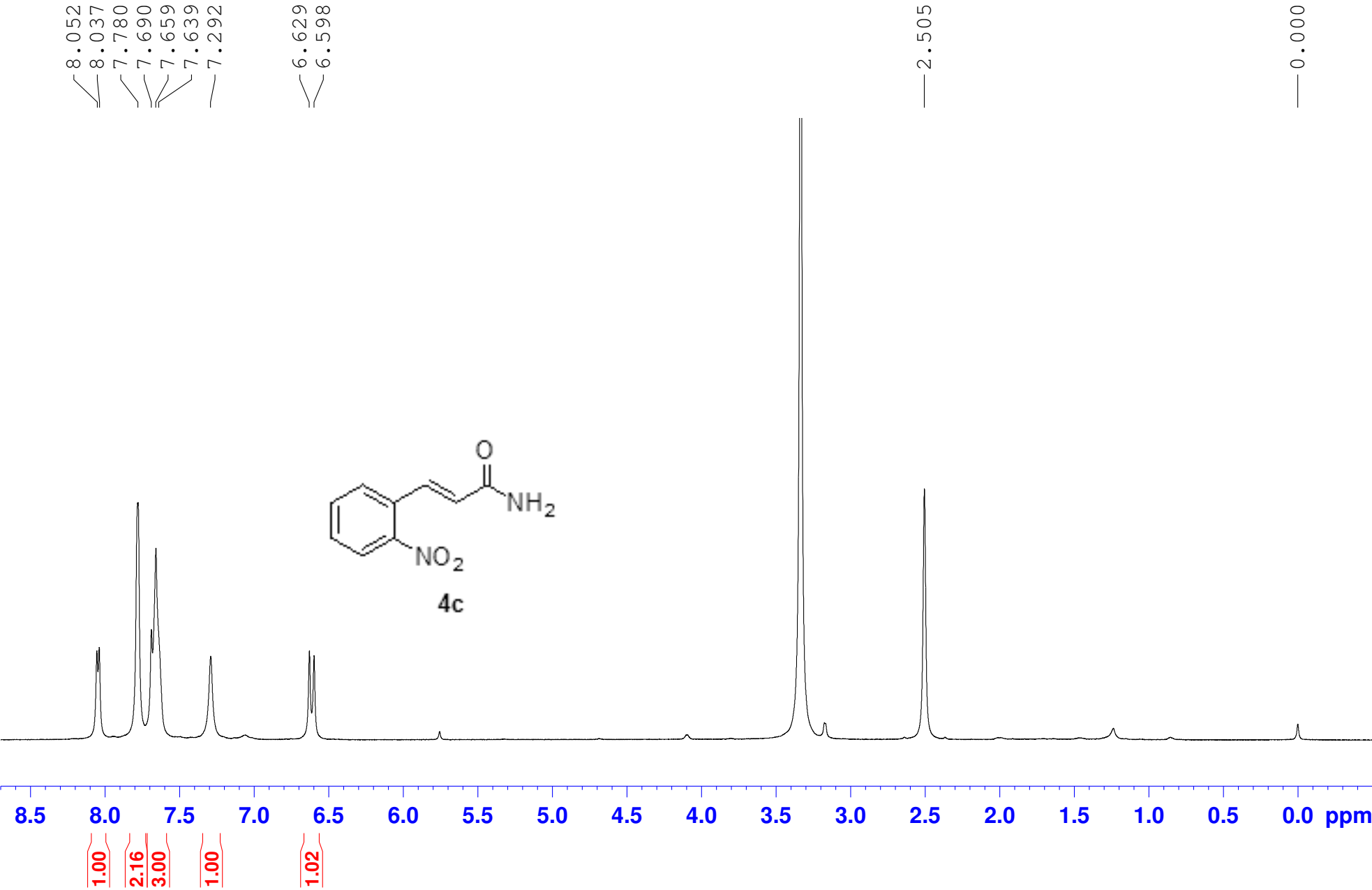
(E)-3-(m-tolyl)acrylamide  
Proton CDCl3



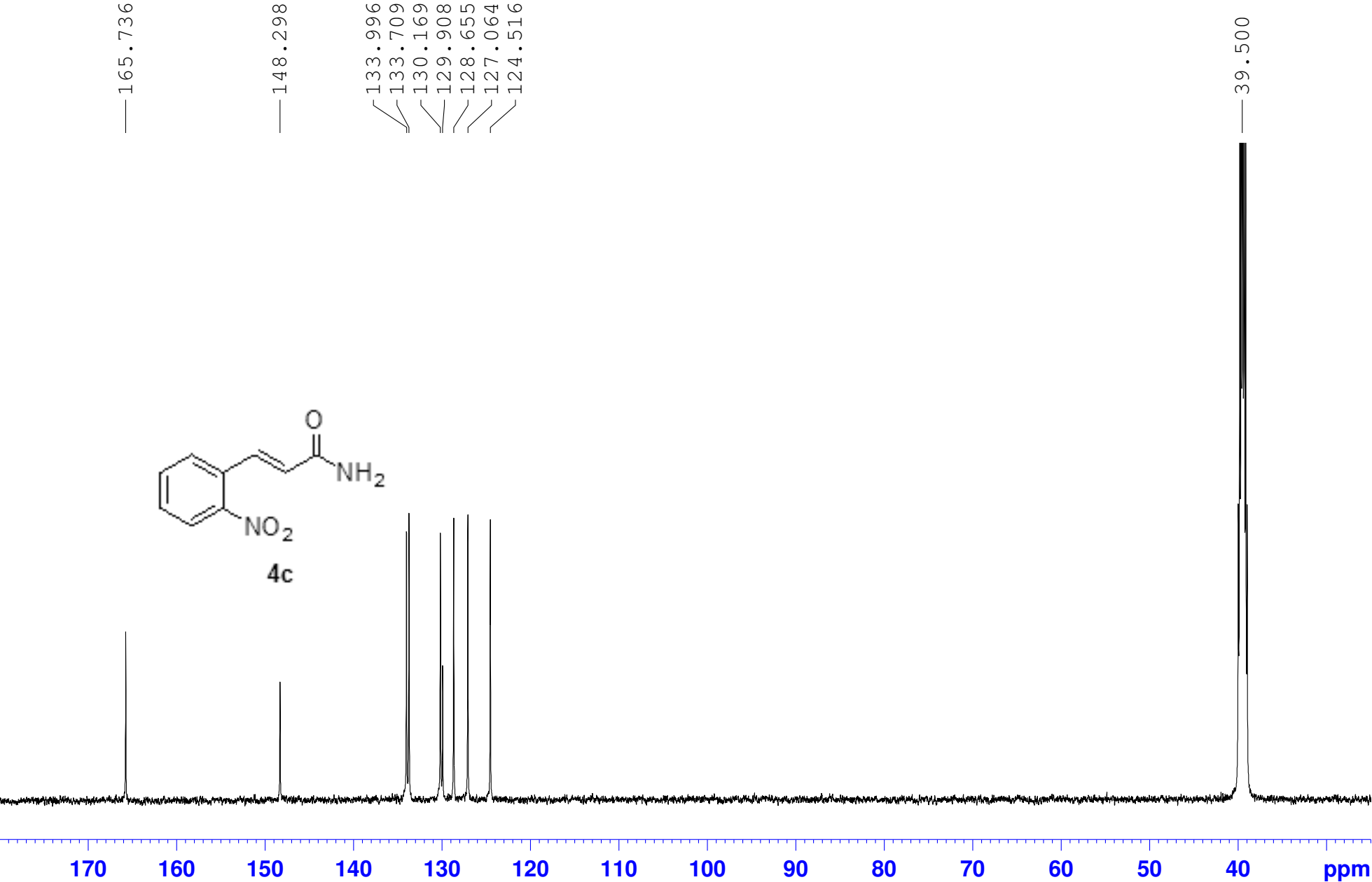
(E)-3-(m-tolyl)acrylamide  
C13CPD CDC13



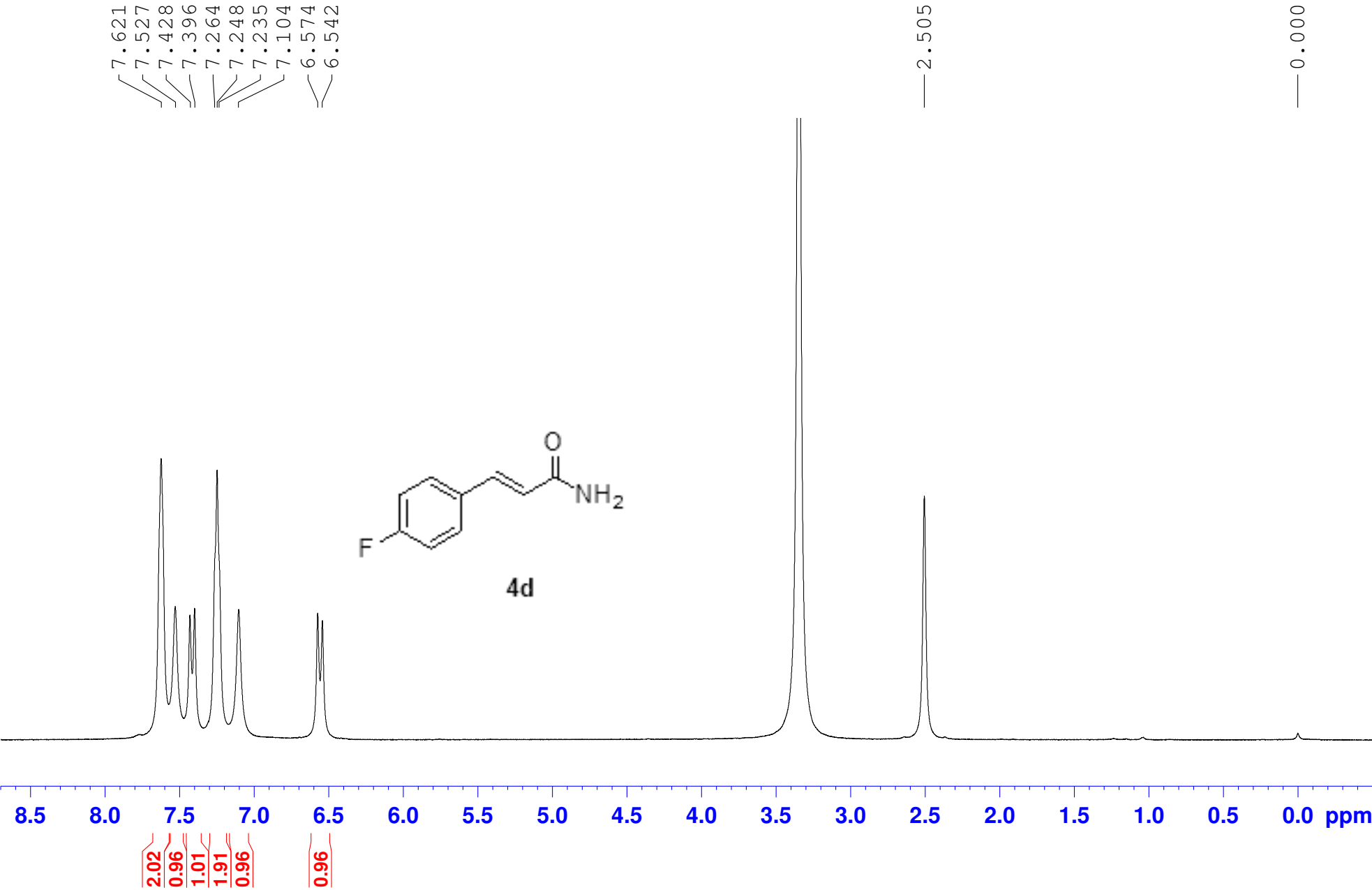
(E)-3-(2-nitrophenyl)acrylamide  
Proton DMSO-d6



(E)-3-(2-nitrophenyl)acrylamide  
C13CPD DMSO-d6



(E)-3-(4-fluorophenyl)acrylamide  
Proton DMSO-d6



(E)-3-(4-fluorophenyl)acrylamide  
C13CPD DMSO-d6

166.592  
163.632  
161.666

137.946

131.490

129.687

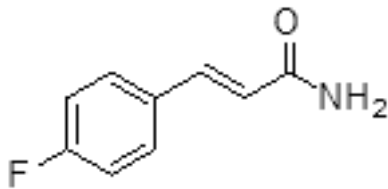
129.620

122.221

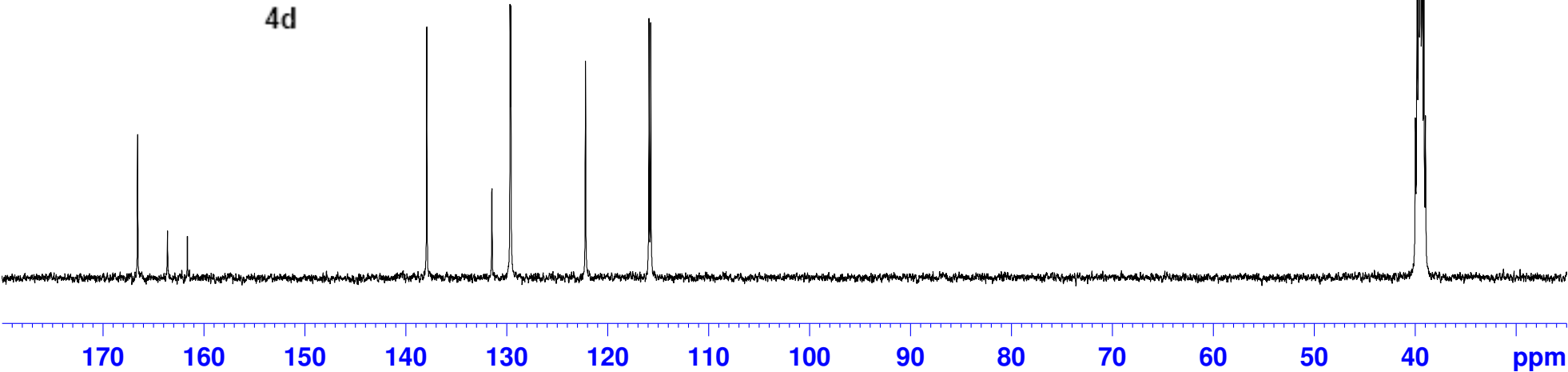
115.929

115.755

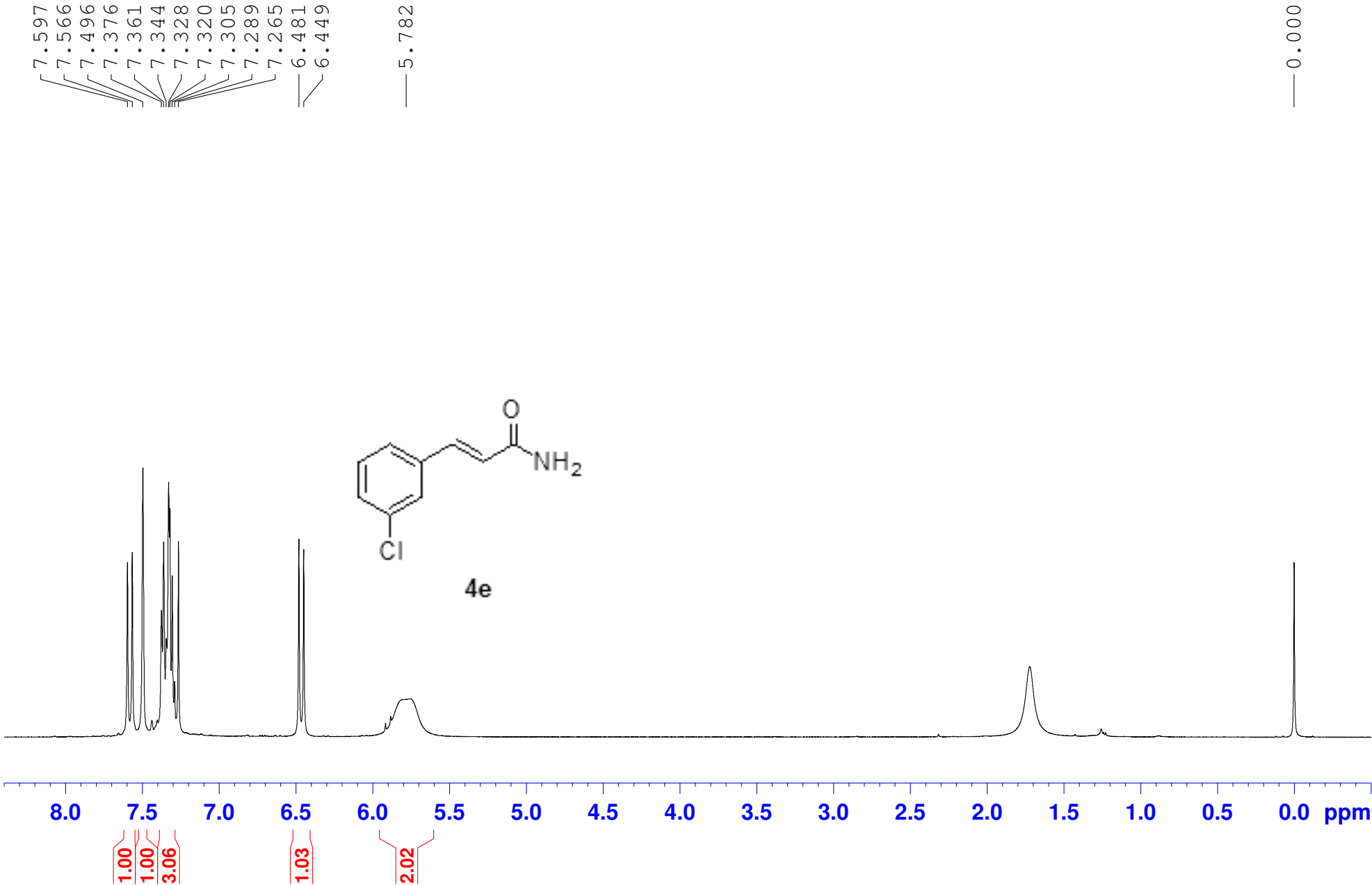
39.500



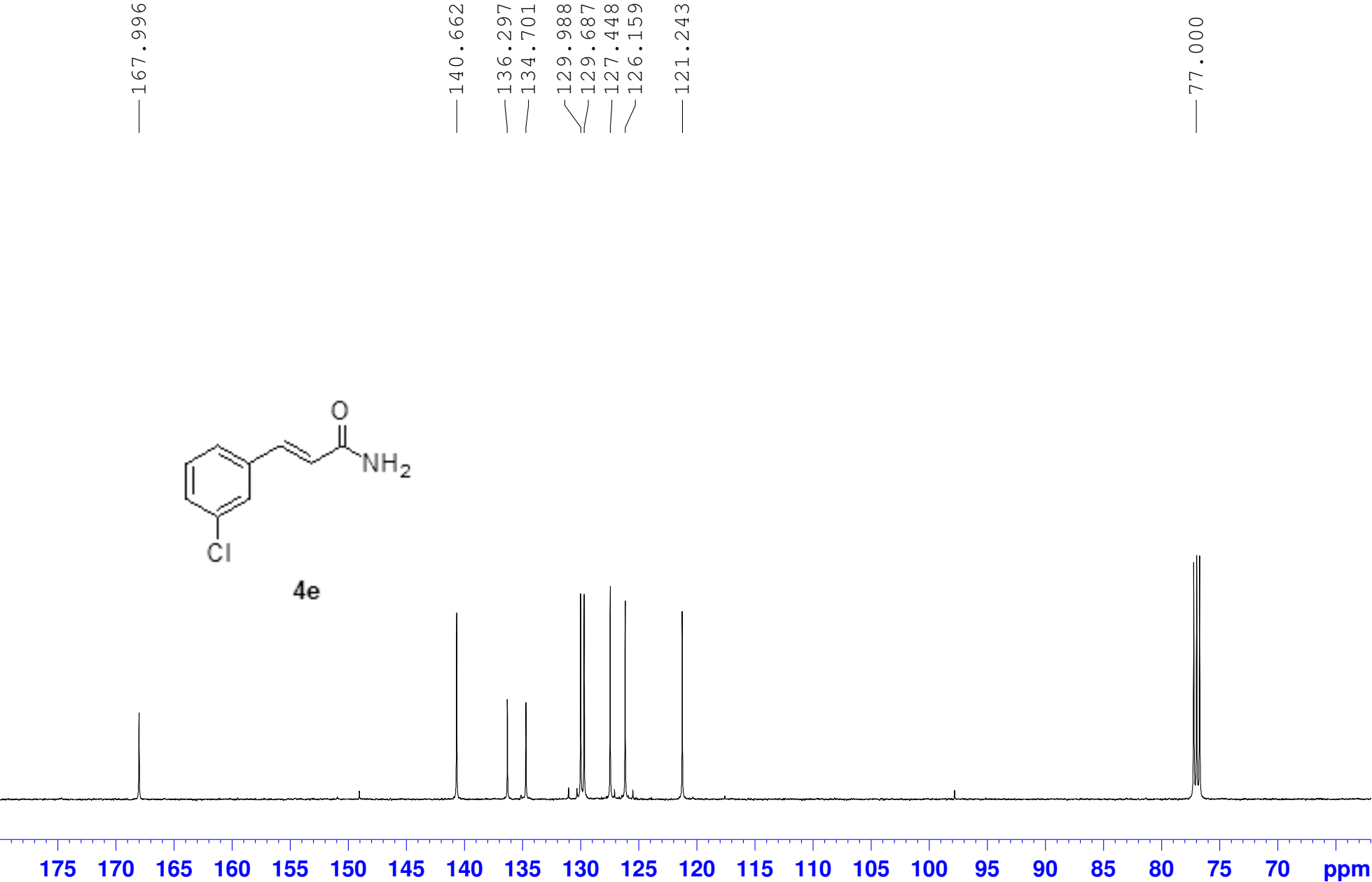
4d



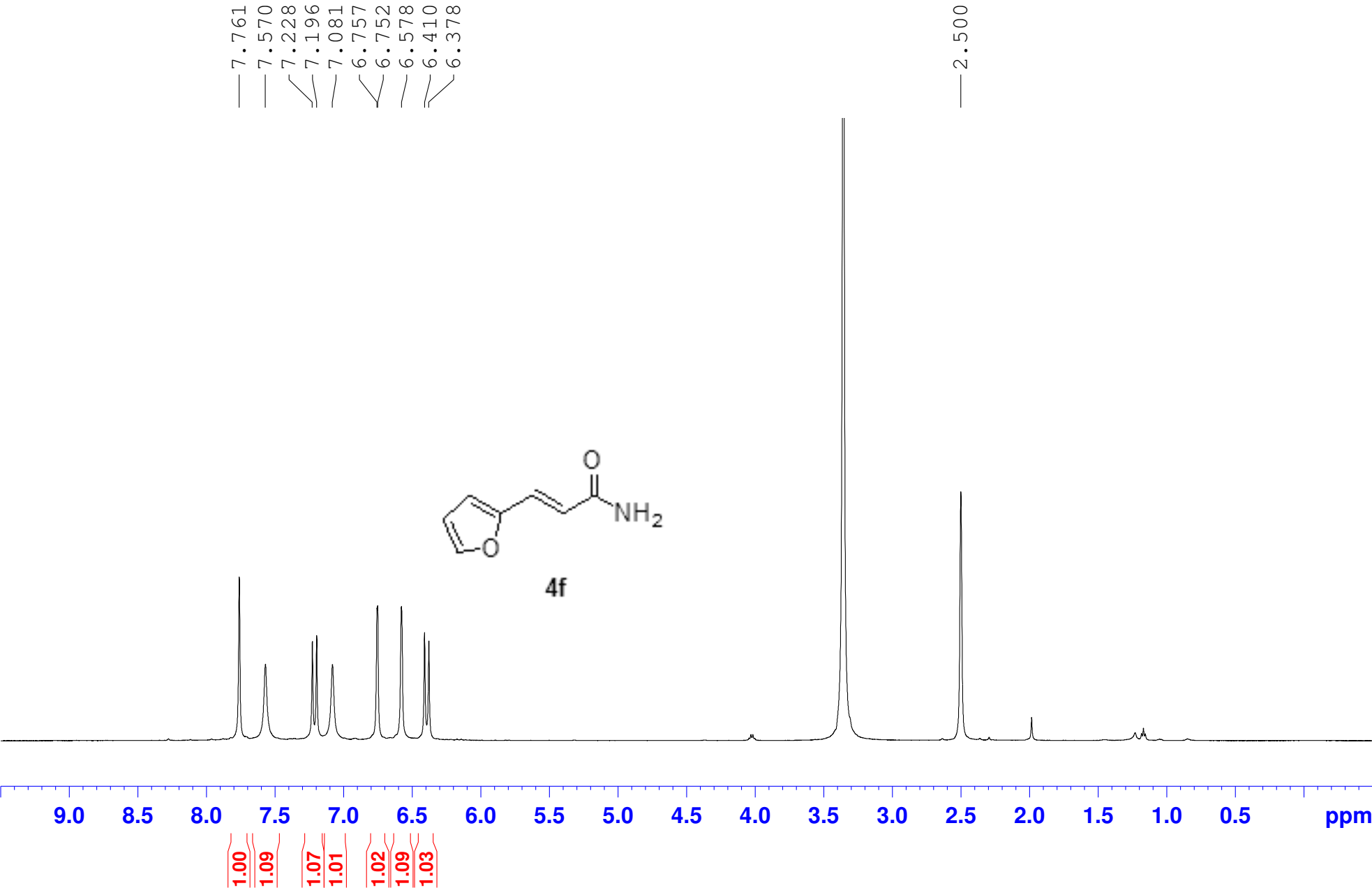
(E)-3-(3-chlorophenyl)acrylamide  
Proton CDCl3



(E)-3-(3-chlorophenyl)acrylamide  
C13CPD CDCl3

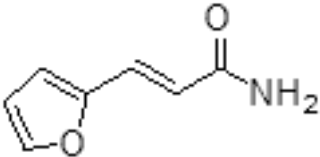


(E)-3-(furan-2-yl)acrylamide  
Proton DMSO-d6

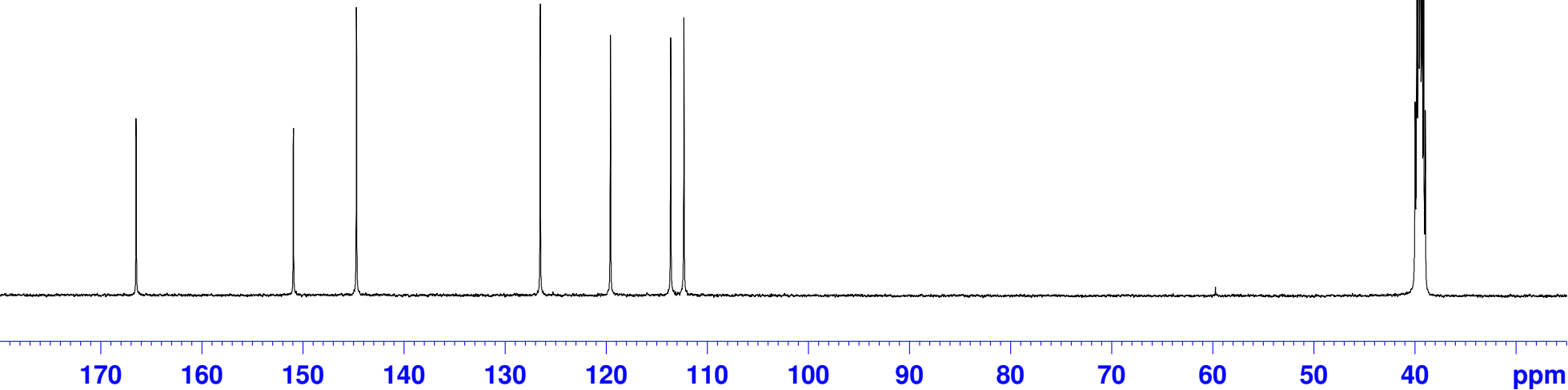


(E)-3-(furan-2-yl)acrylamide  
C13CPD DMSO-d6

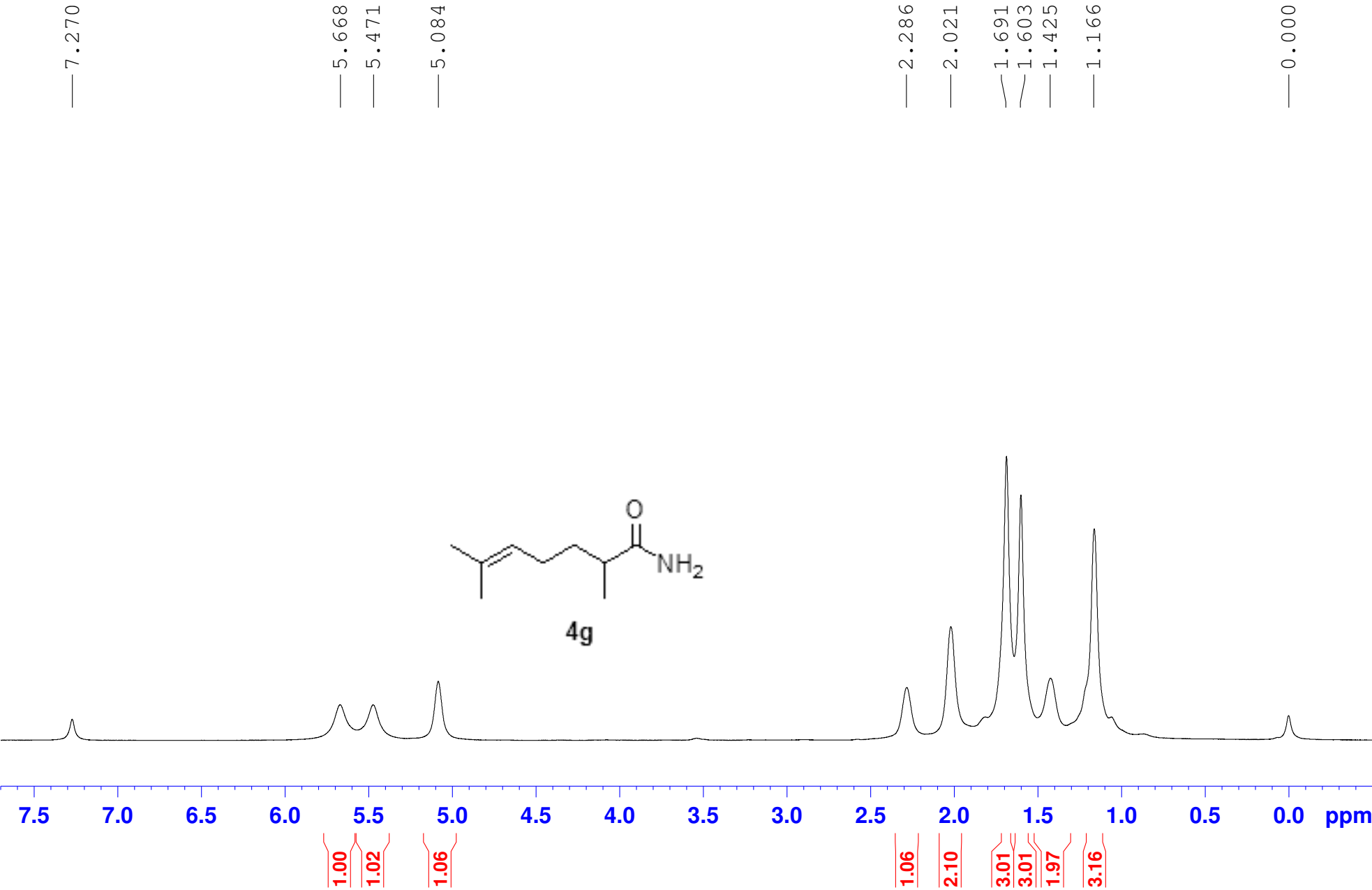
— 166.482                      — 150.930                      — 144.689  
  
— 126.553                      — 119.610                      — 113.636  
                                         — 112.336



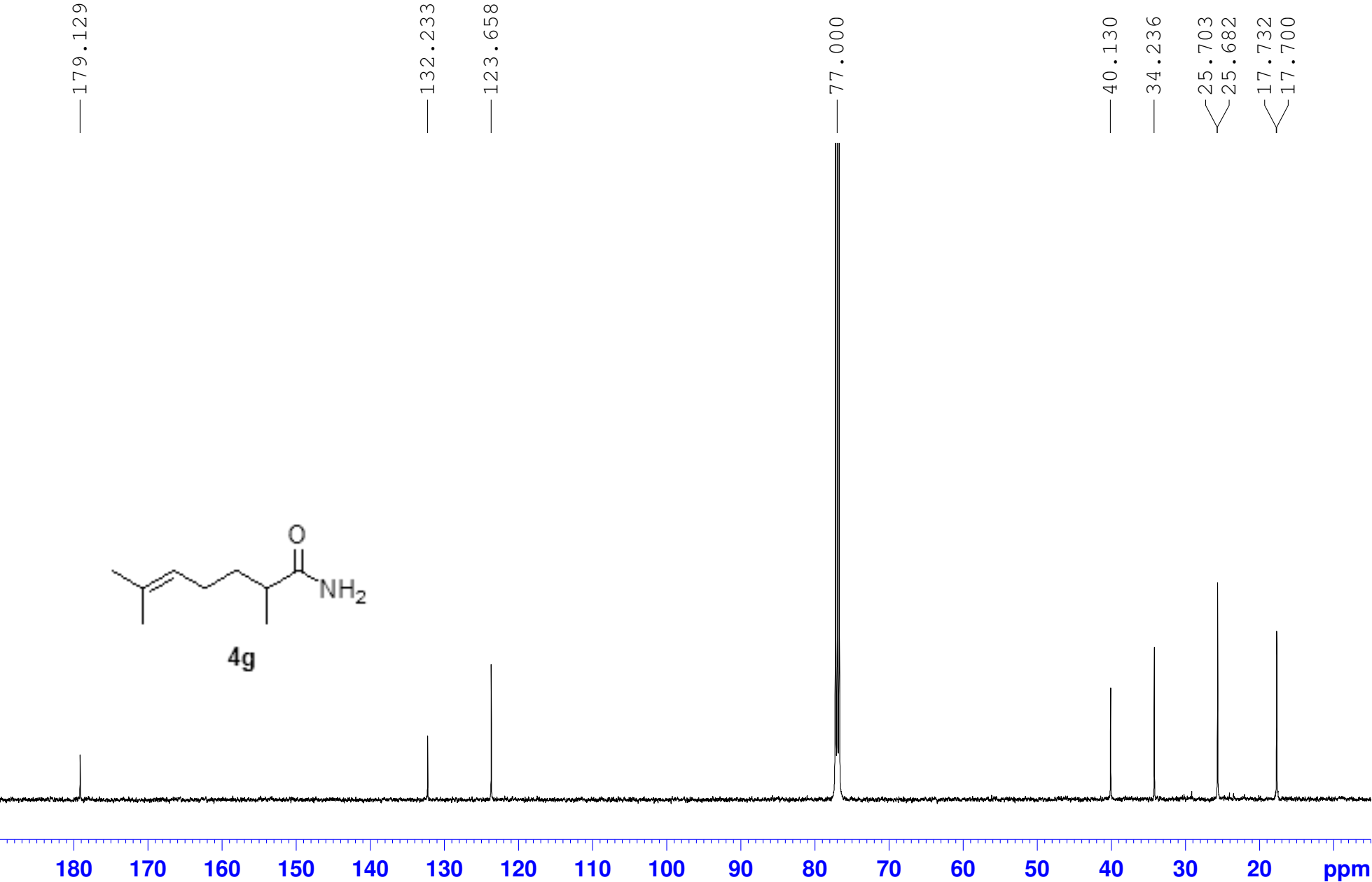
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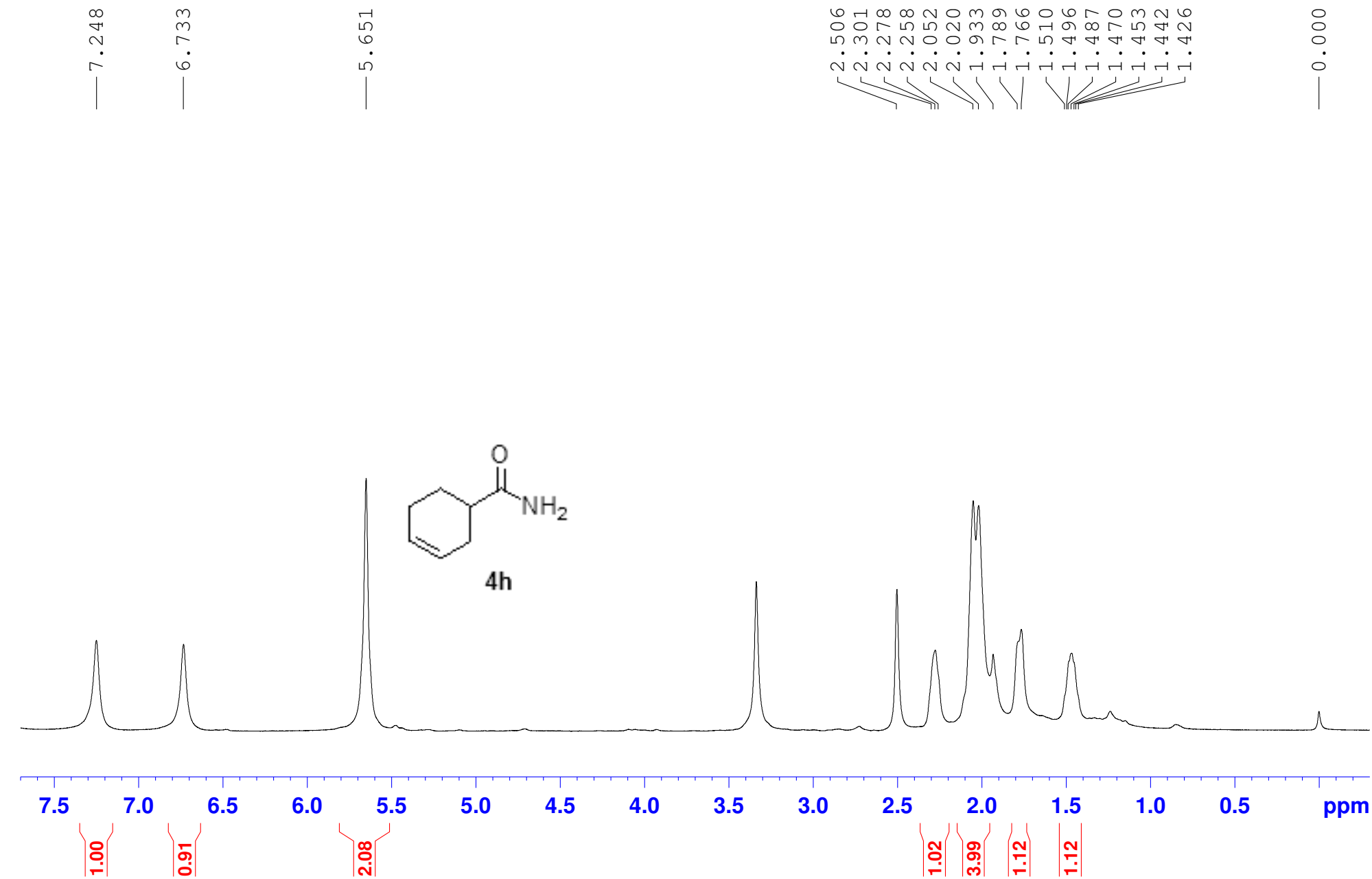
2,5-dimethylhex-4-enamide  
Proton CDCl3



2,5-dimethylhex-4-enamide  
C13CPD CDCl3



cyclohex-3-enecarboxamide  
Proton DMSO-d6



cyclohex-3-enecarboxamide  
C13CPD DMSO-d6

