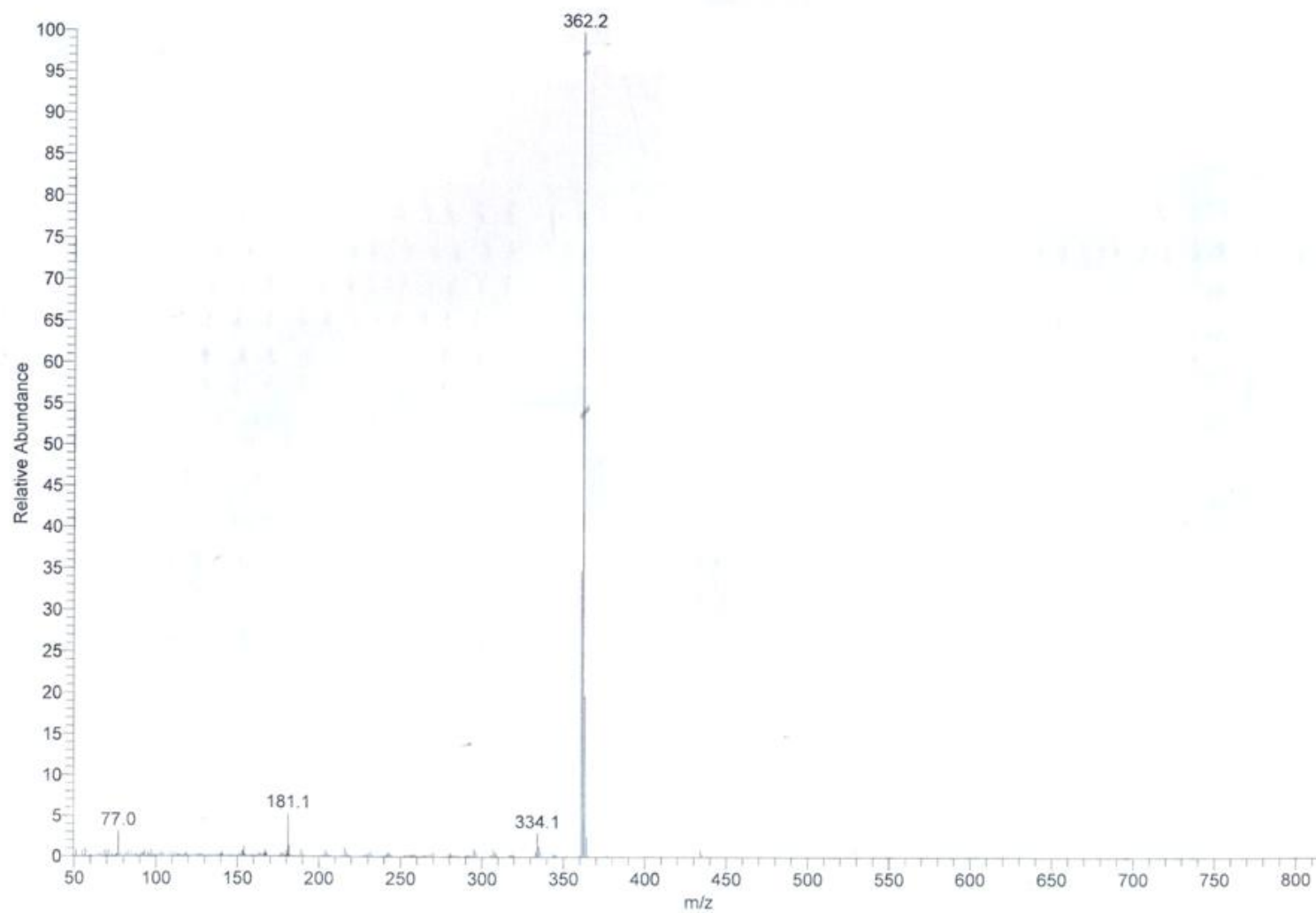


## **(Supplementary material)**

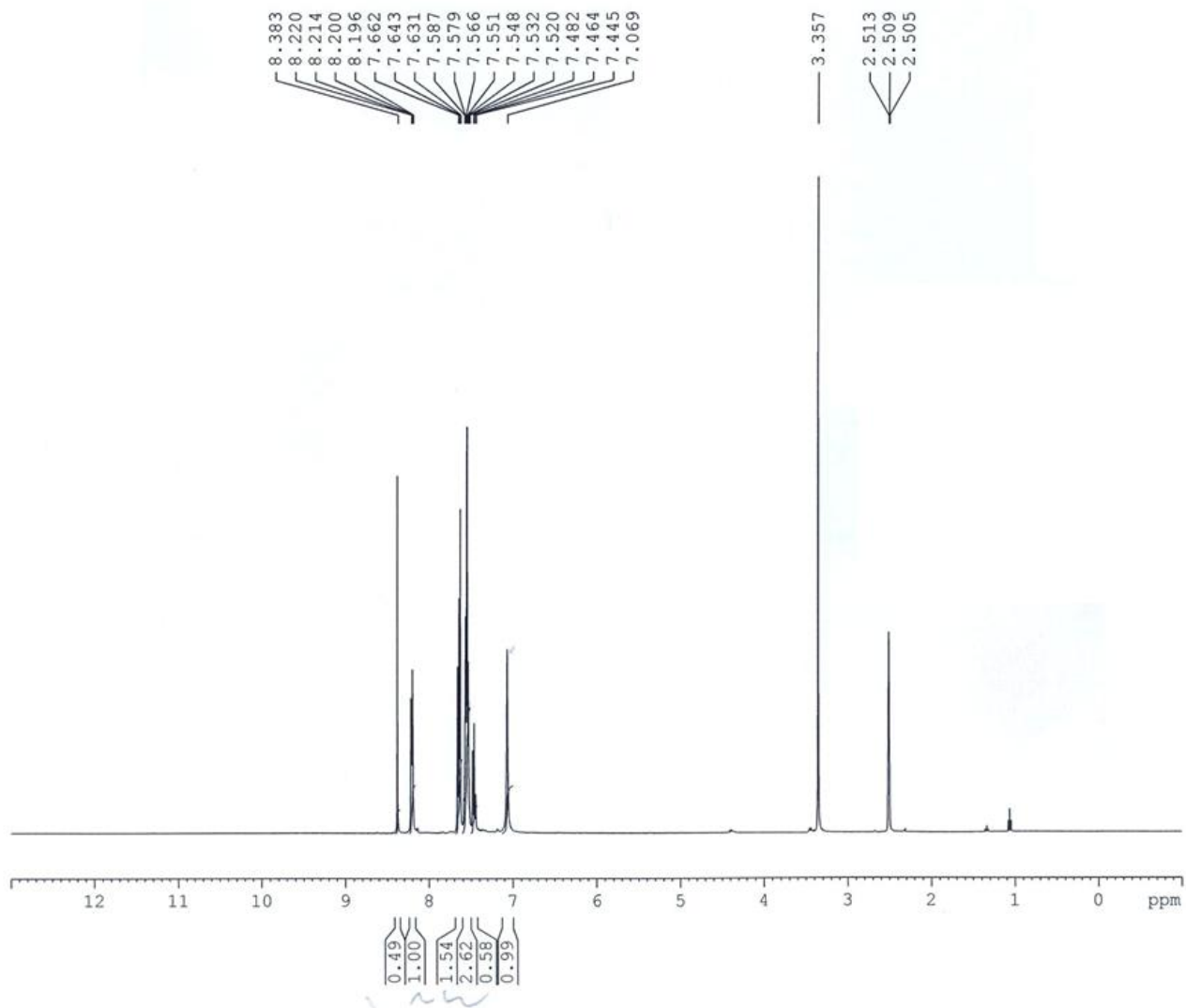
**Multi component reactions under increased pressure: On the mechanism of formation of pyridazino[5,4,3-de][1,6]naphthyridine derivatives from reaction of malononitrile, aldehyde and 2-oxoglyoxalarylhydrazones in Q-tubes**

**Majdah A. AL-Johani <sup>1</sup>, Khadijah M. Al-Zaydi <sup>1\*</sup>, Sameera M. Mousally <sup>1</sup>, Norah F. Alqahtani <sup>1</sup>, Noha Hilmy Elnagdi <sup>2</sup>, Mohamed H. Elnagdi <sup>3</sup>**

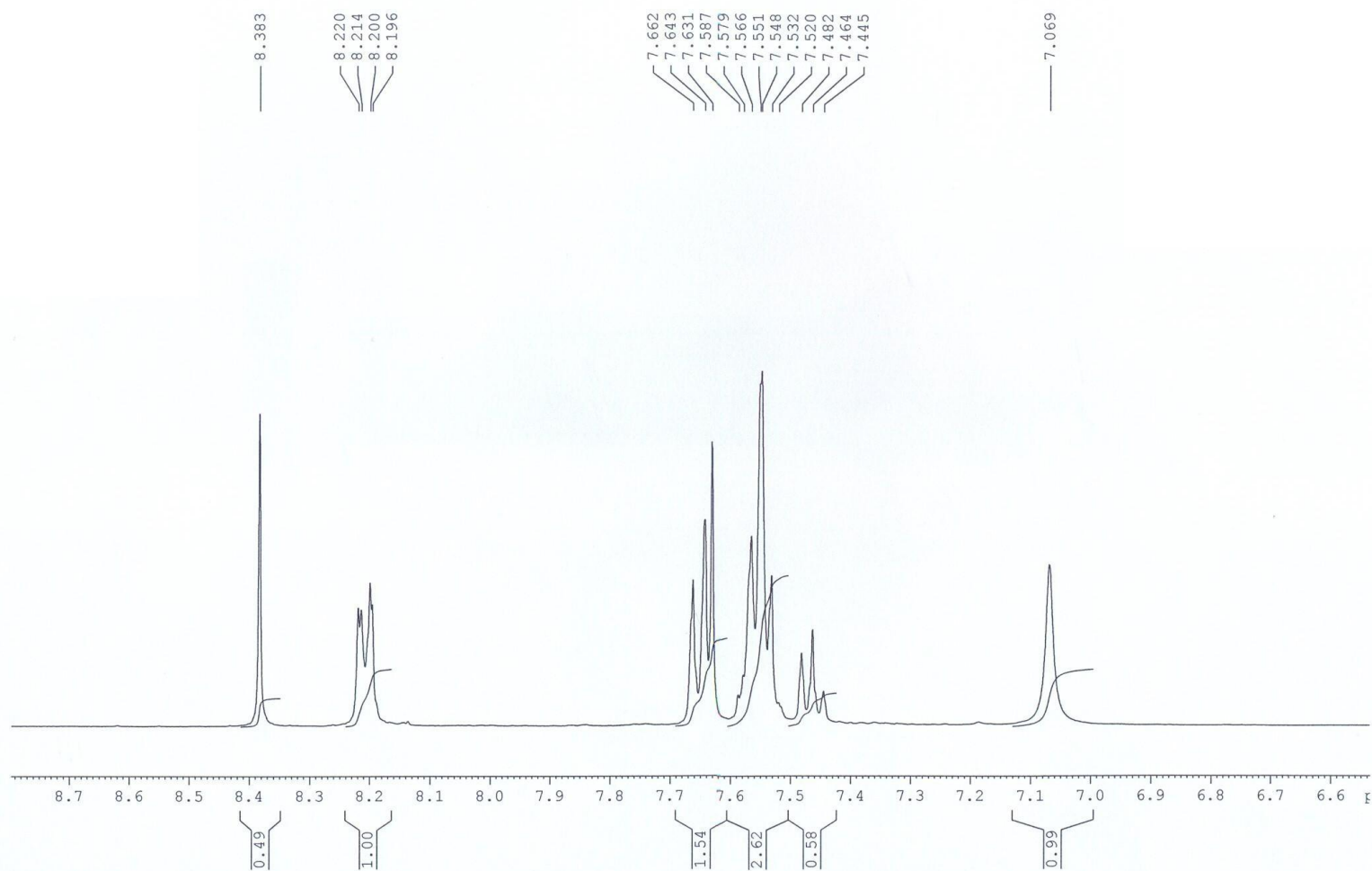
Compound 12a



Compound 12a

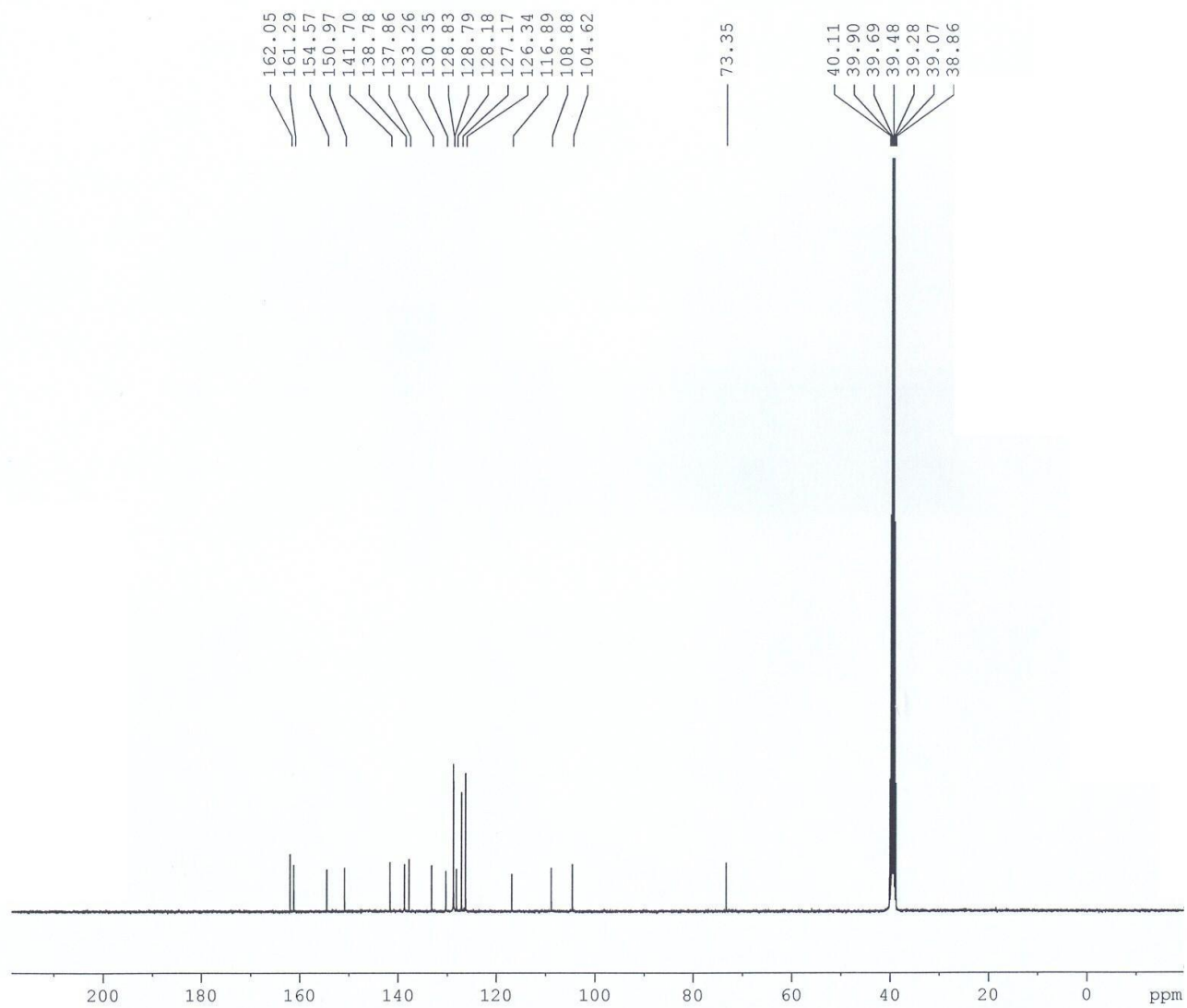


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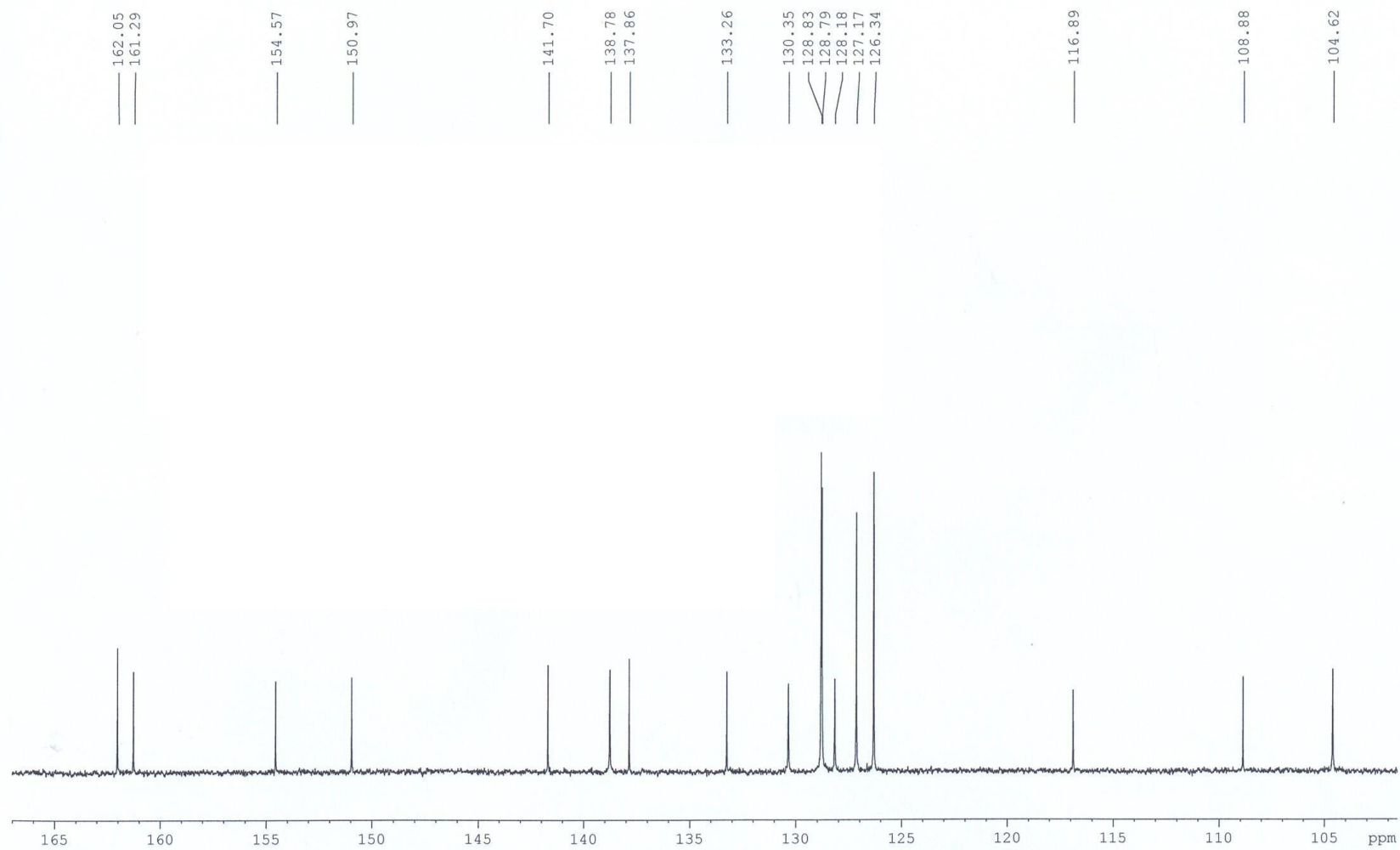




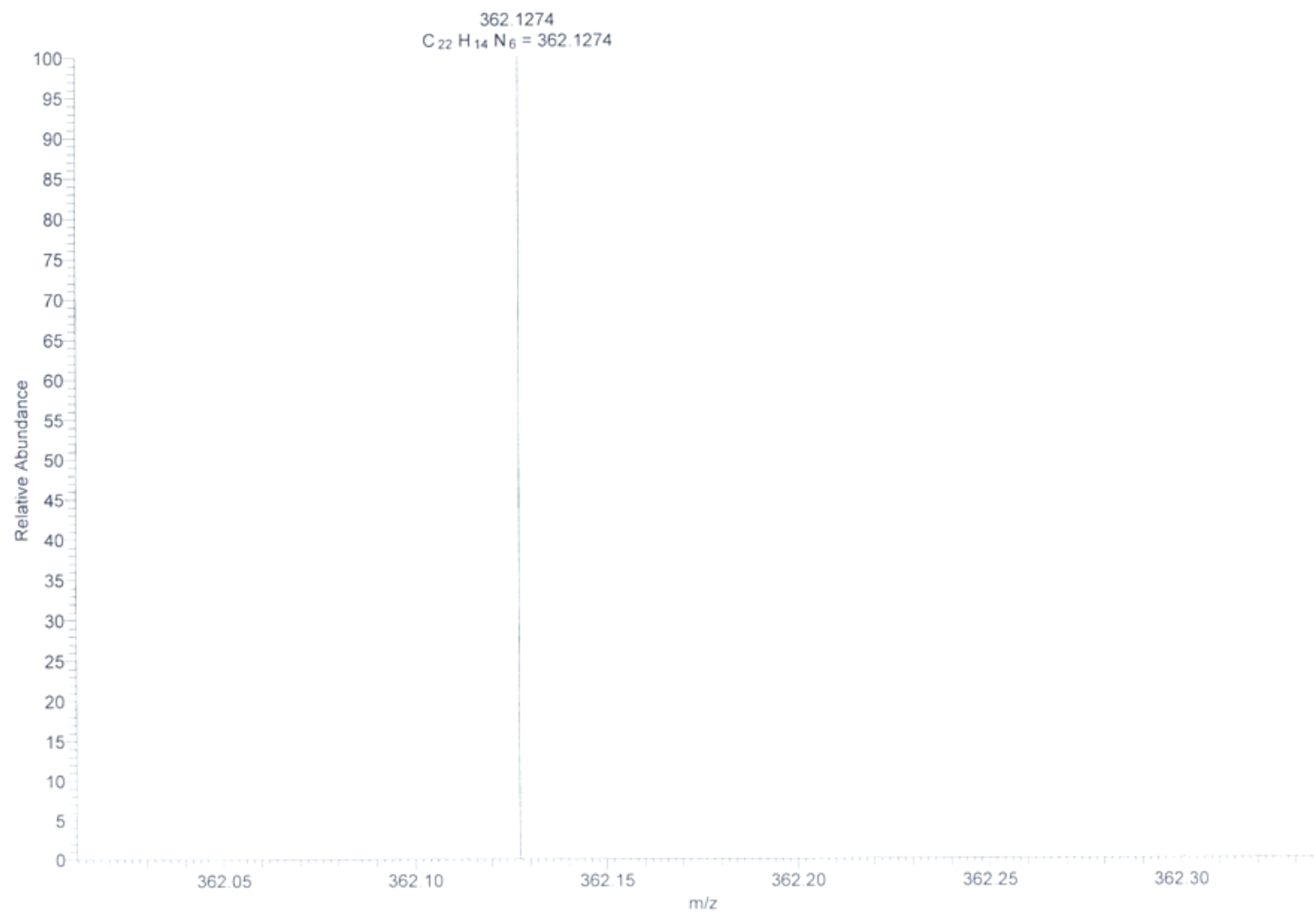
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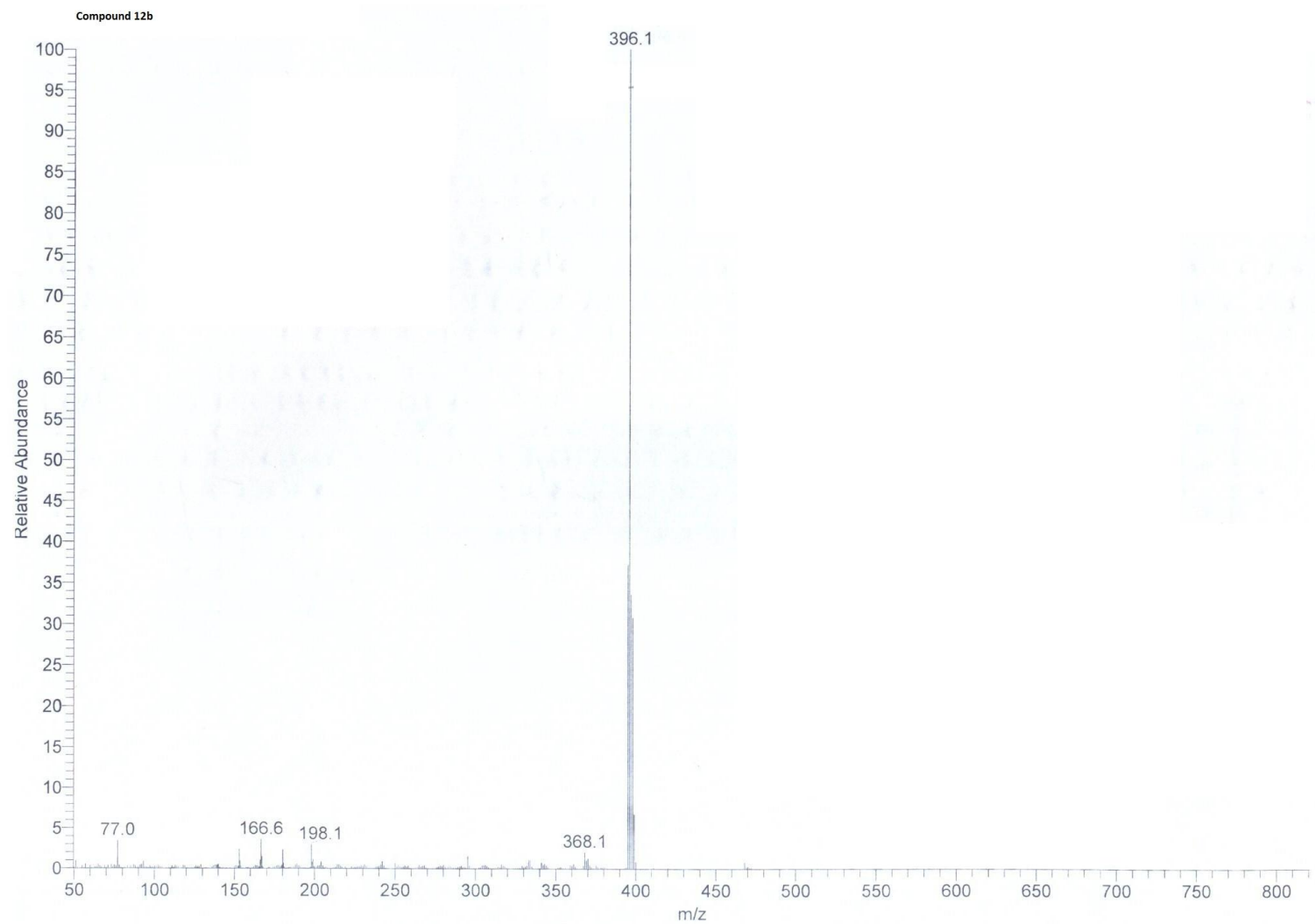


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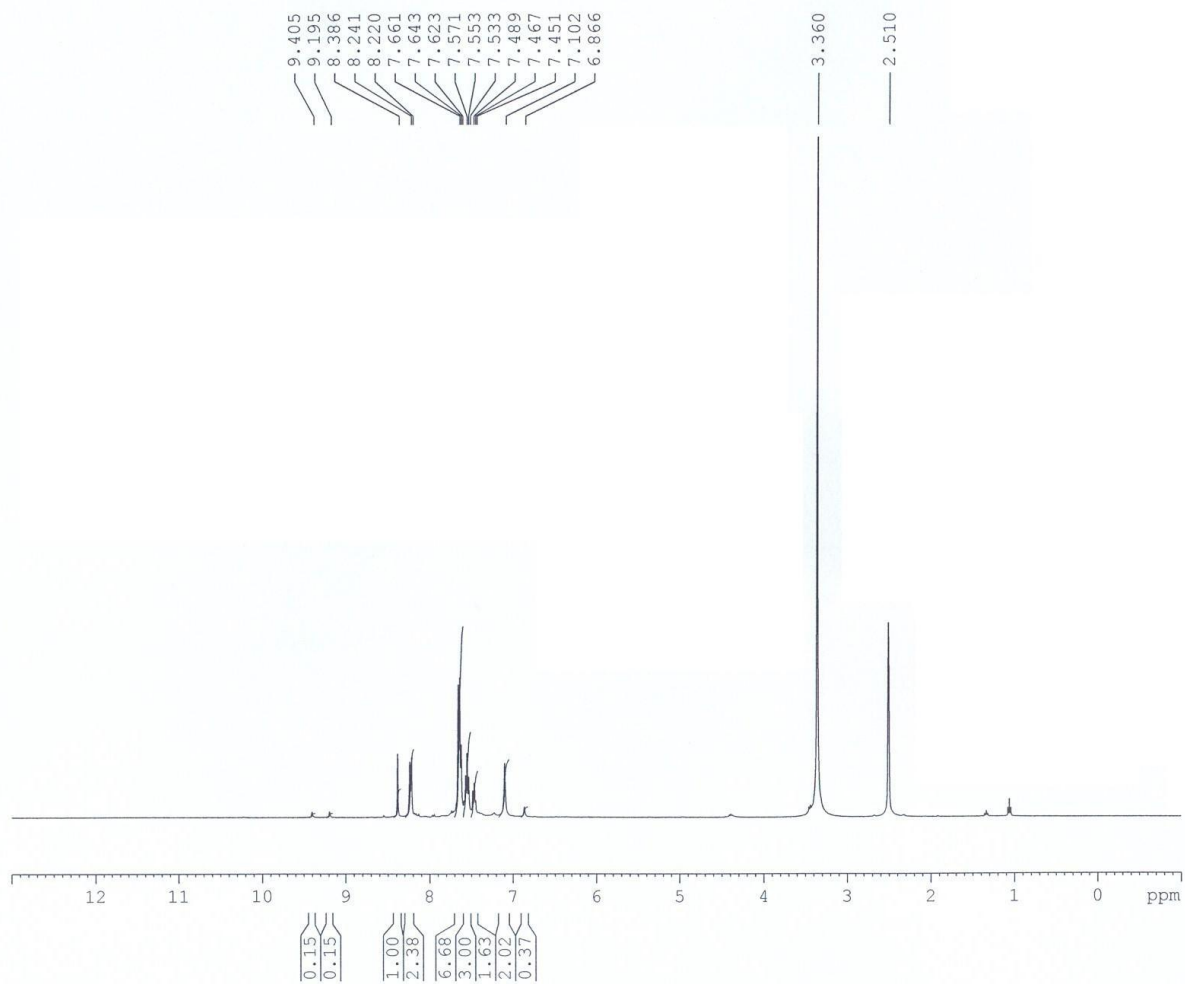


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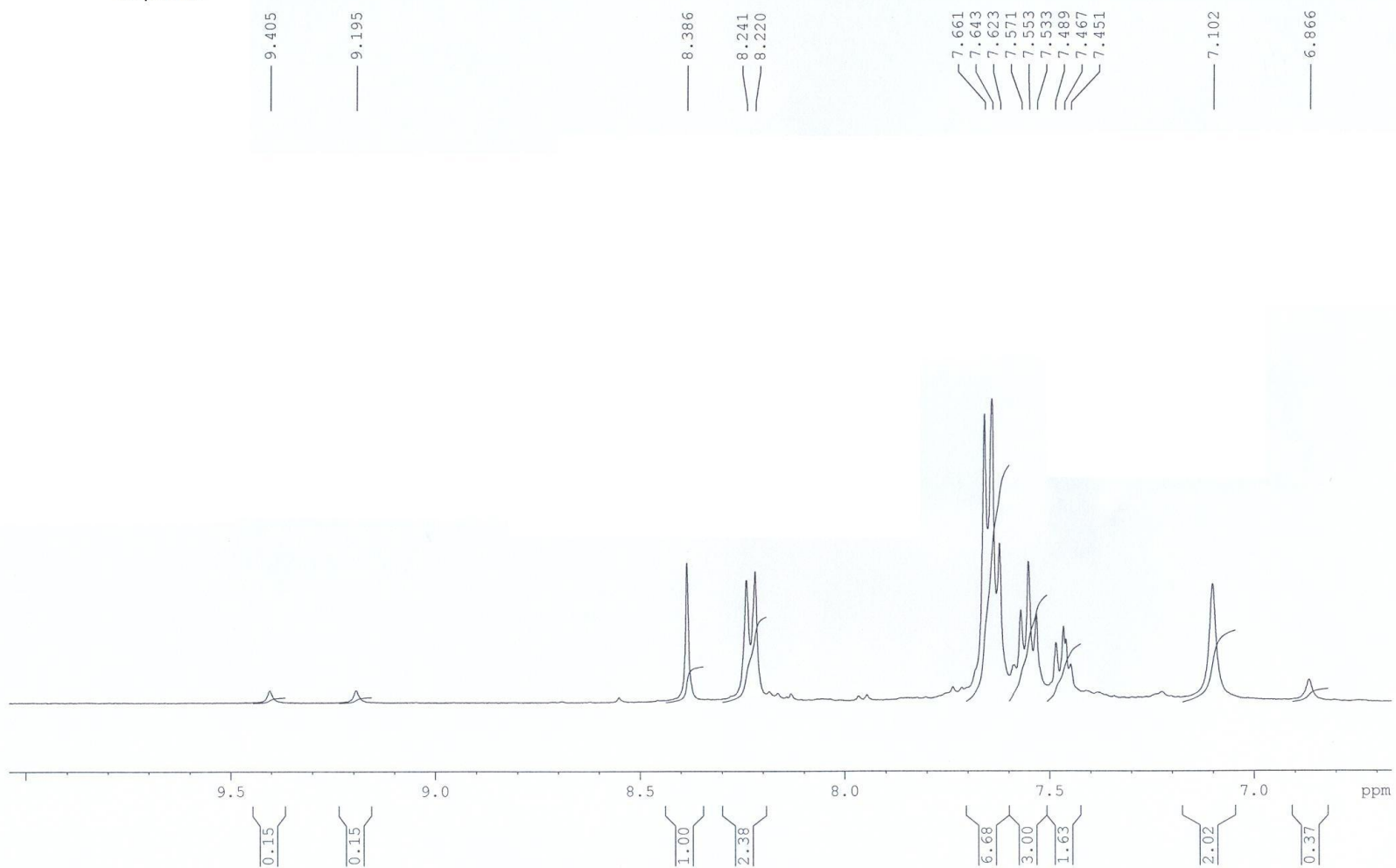




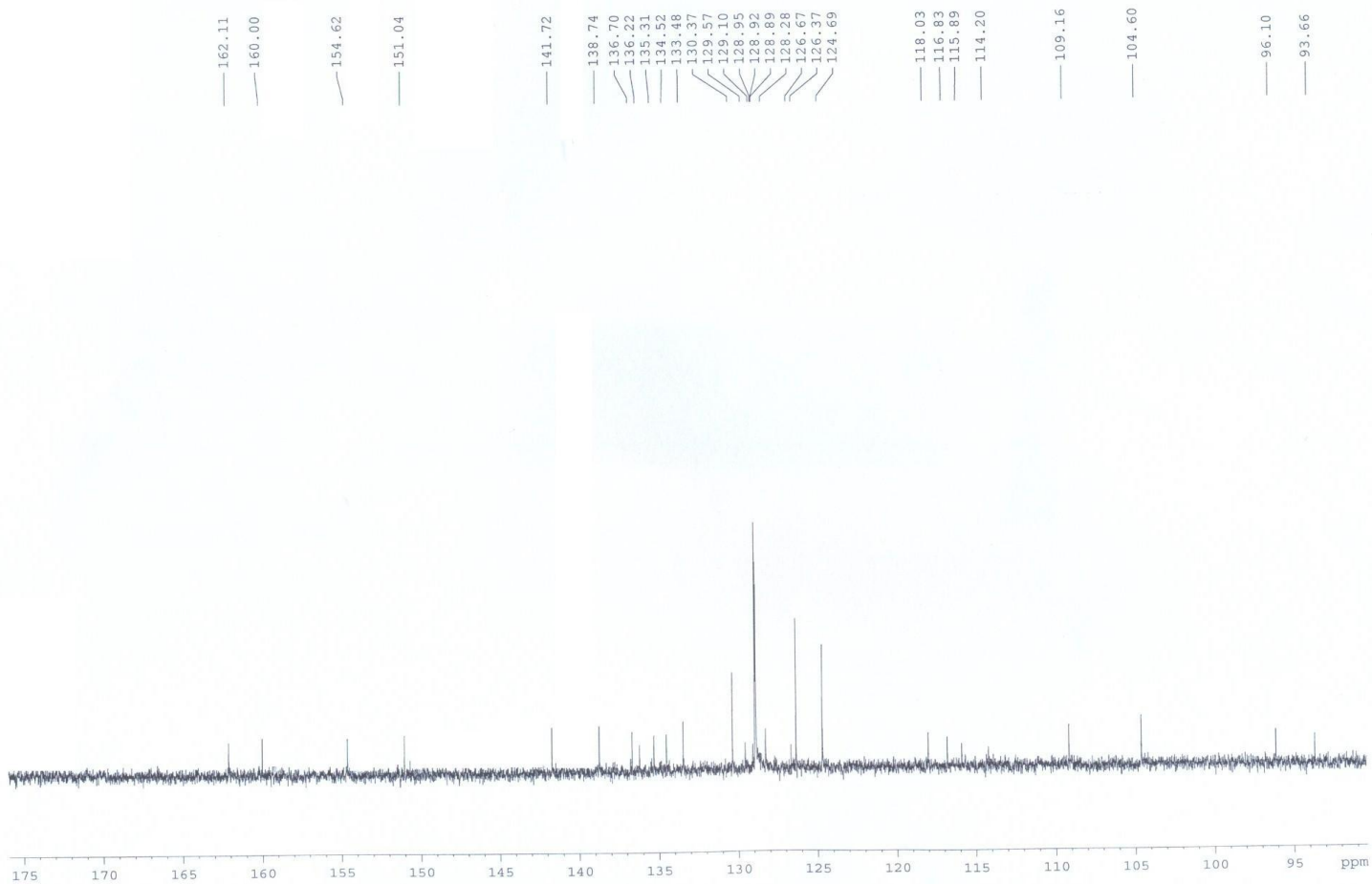
Compound 12b



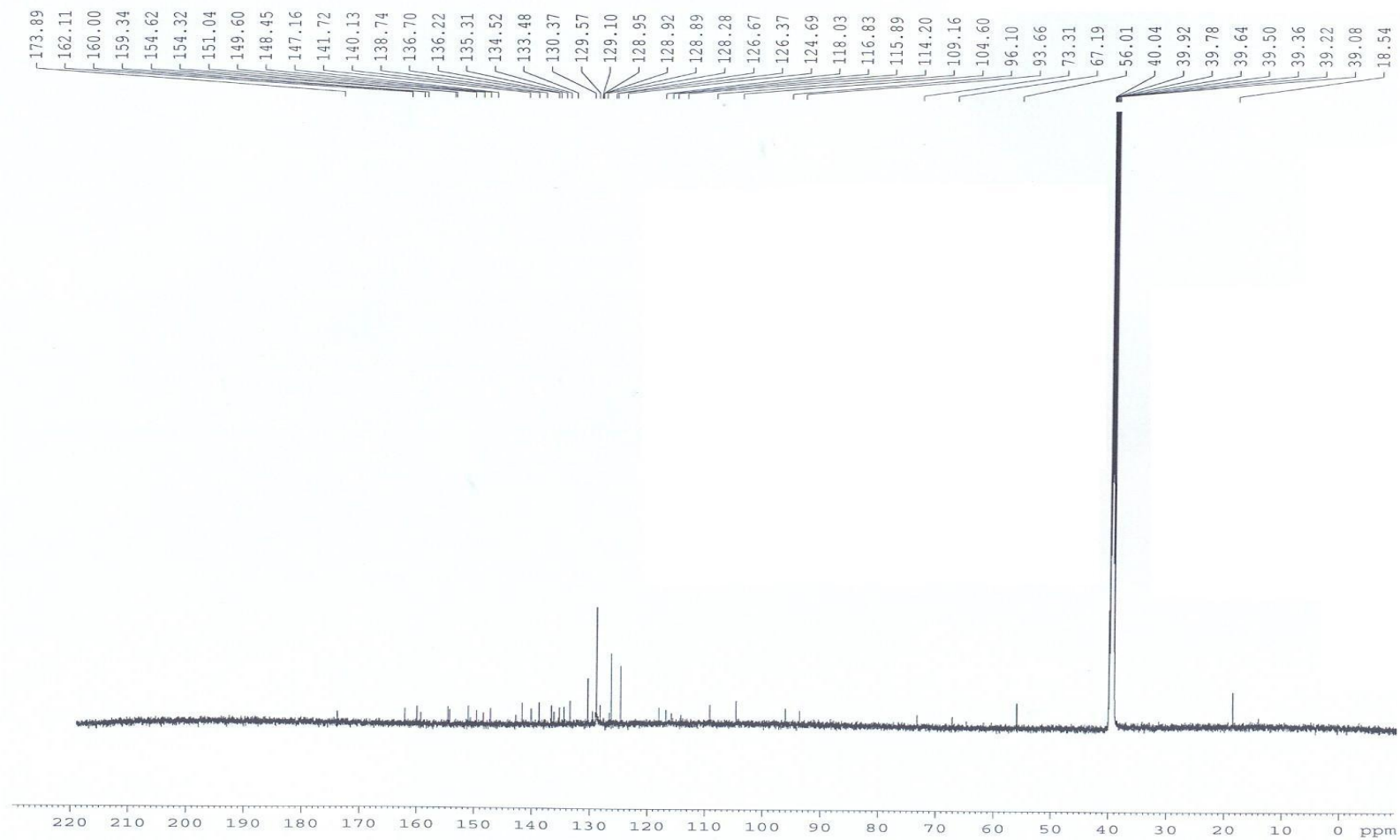
Compound 12b



Compound 12b

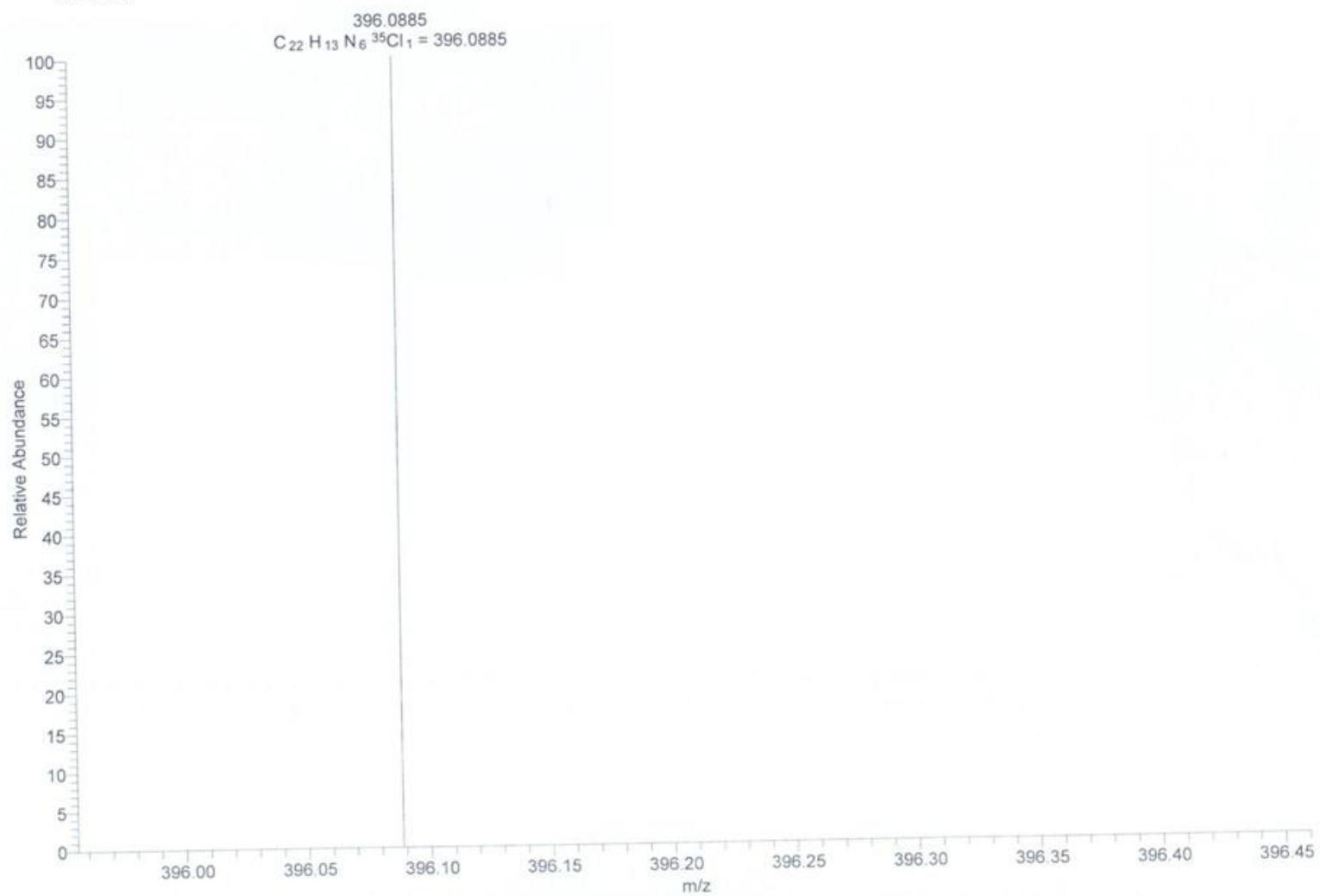


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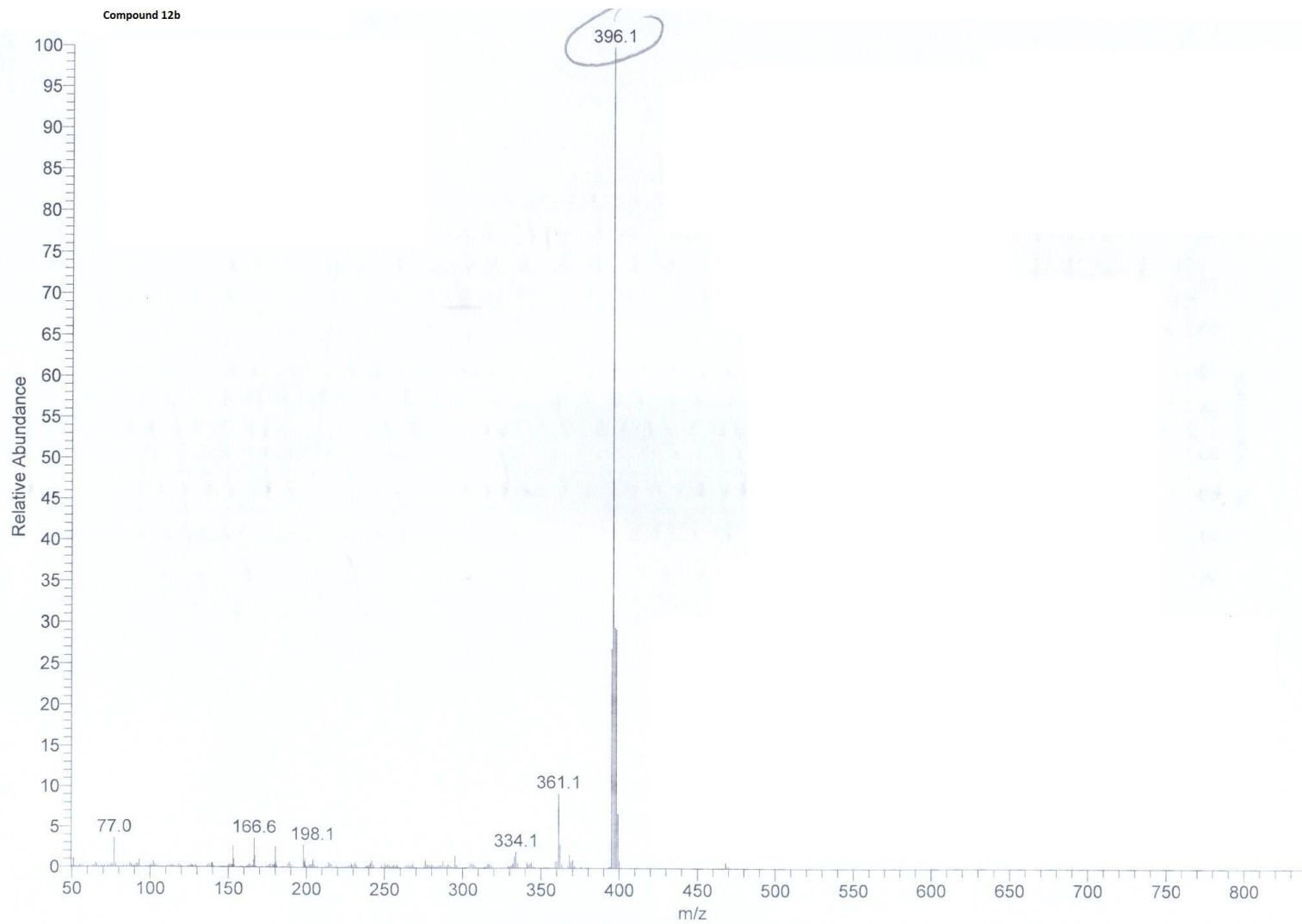




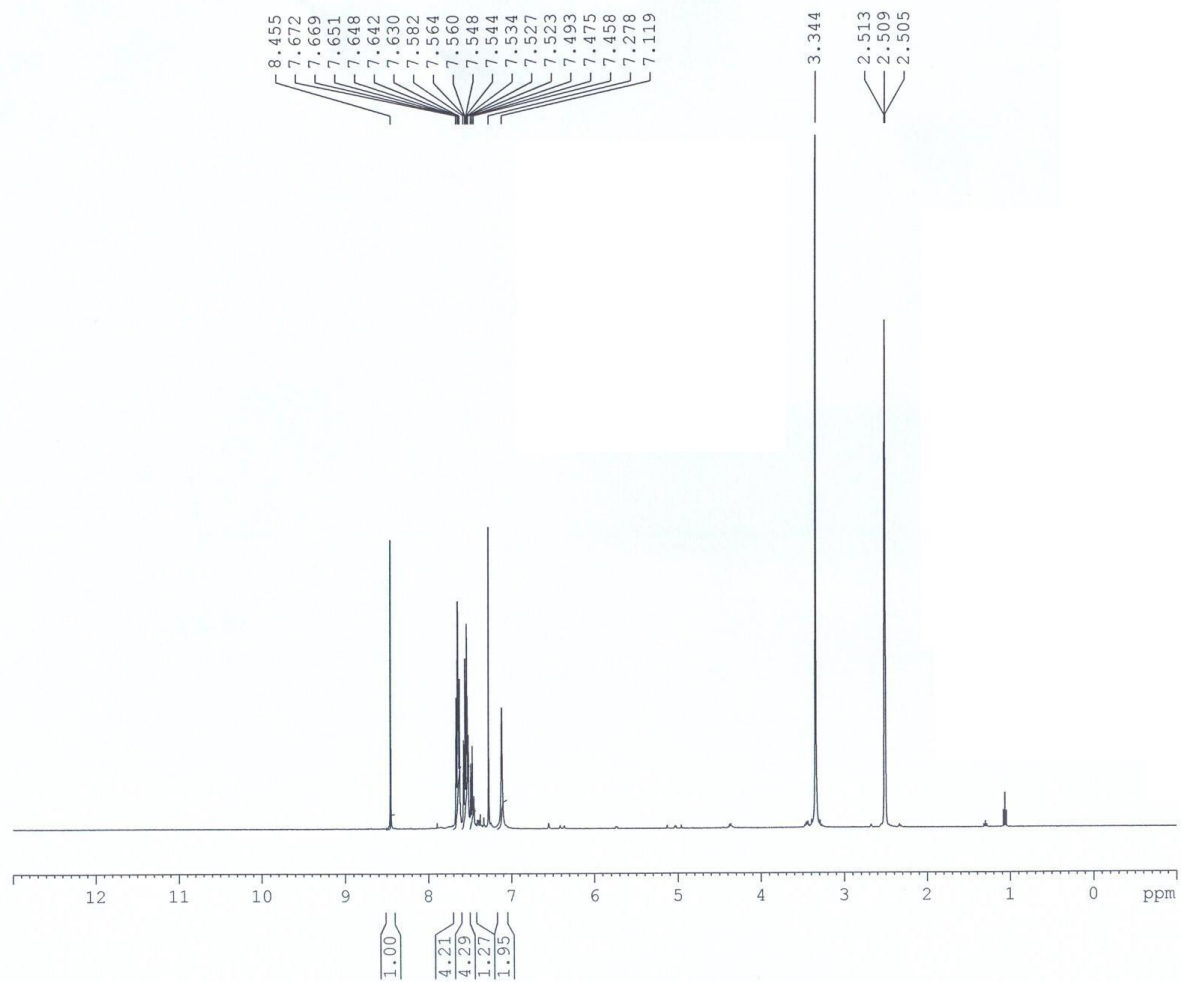
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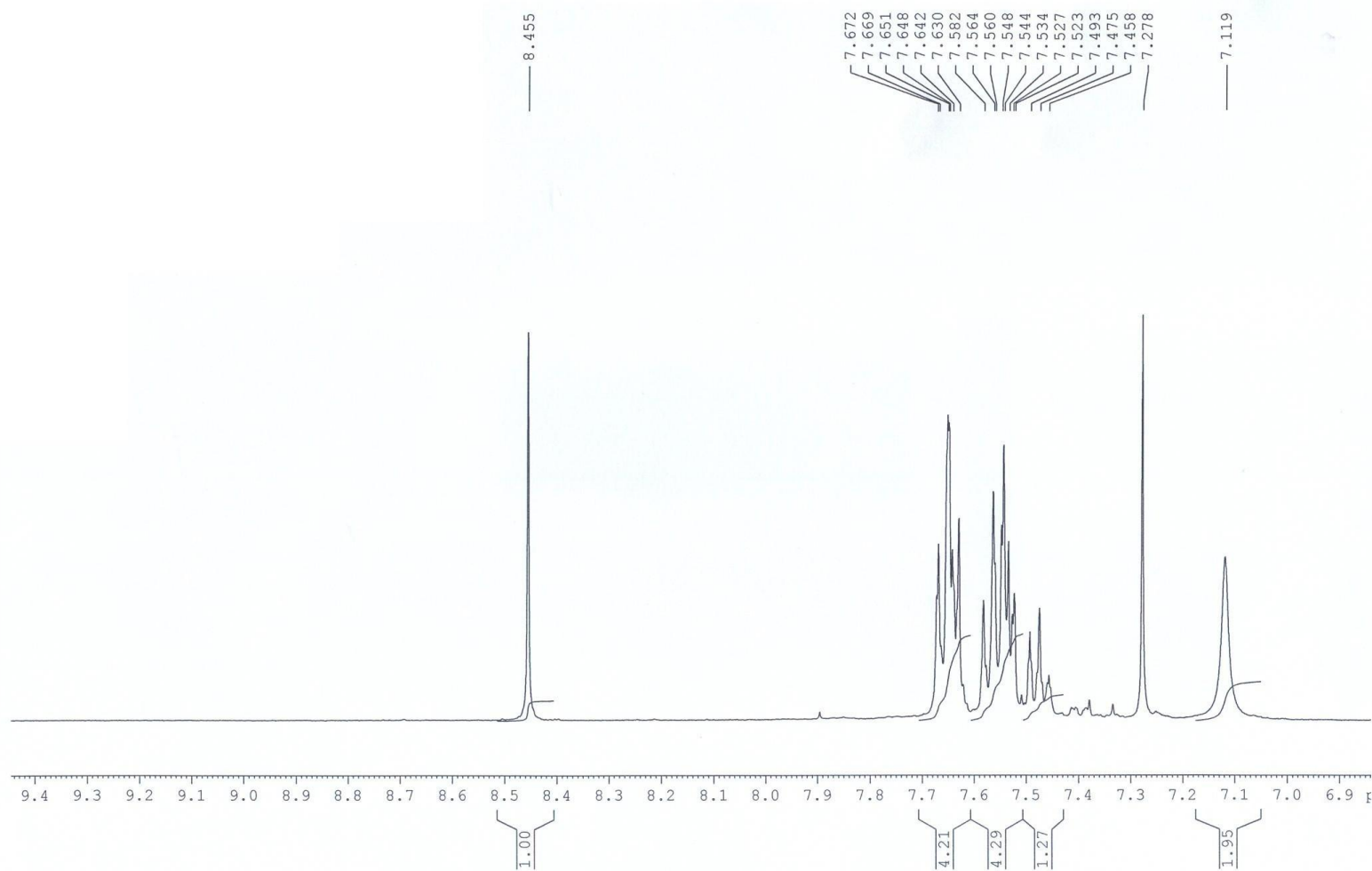
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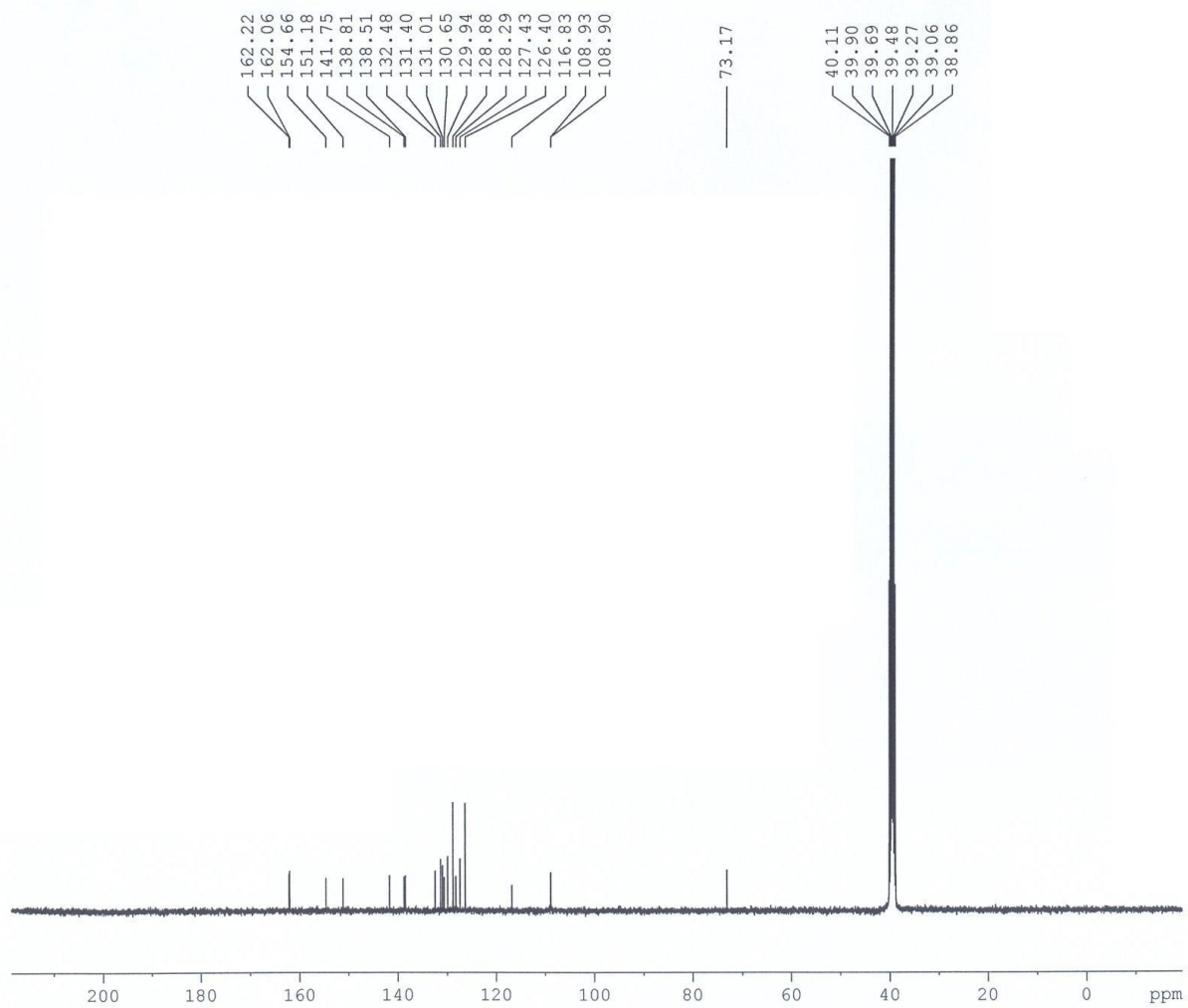
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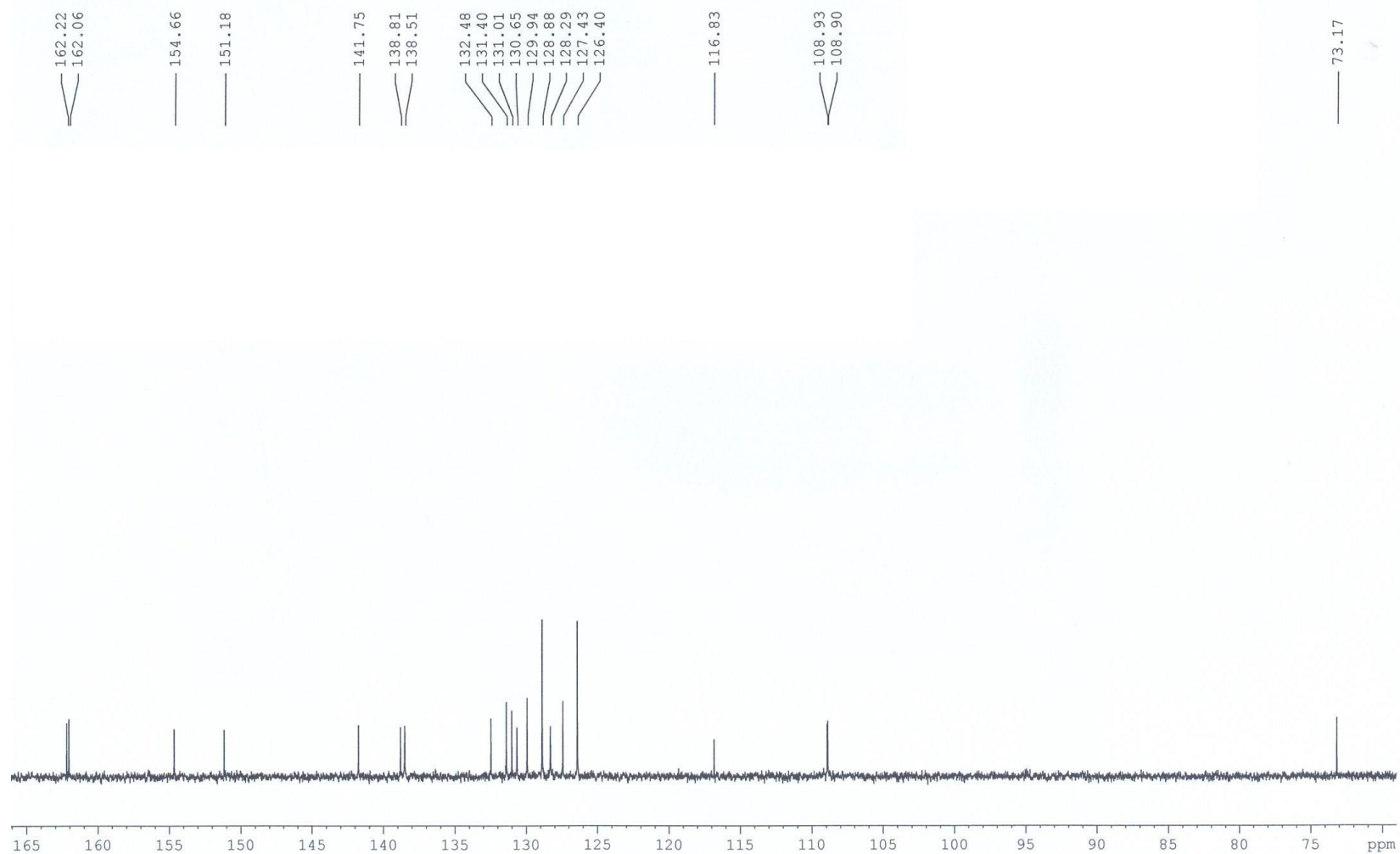
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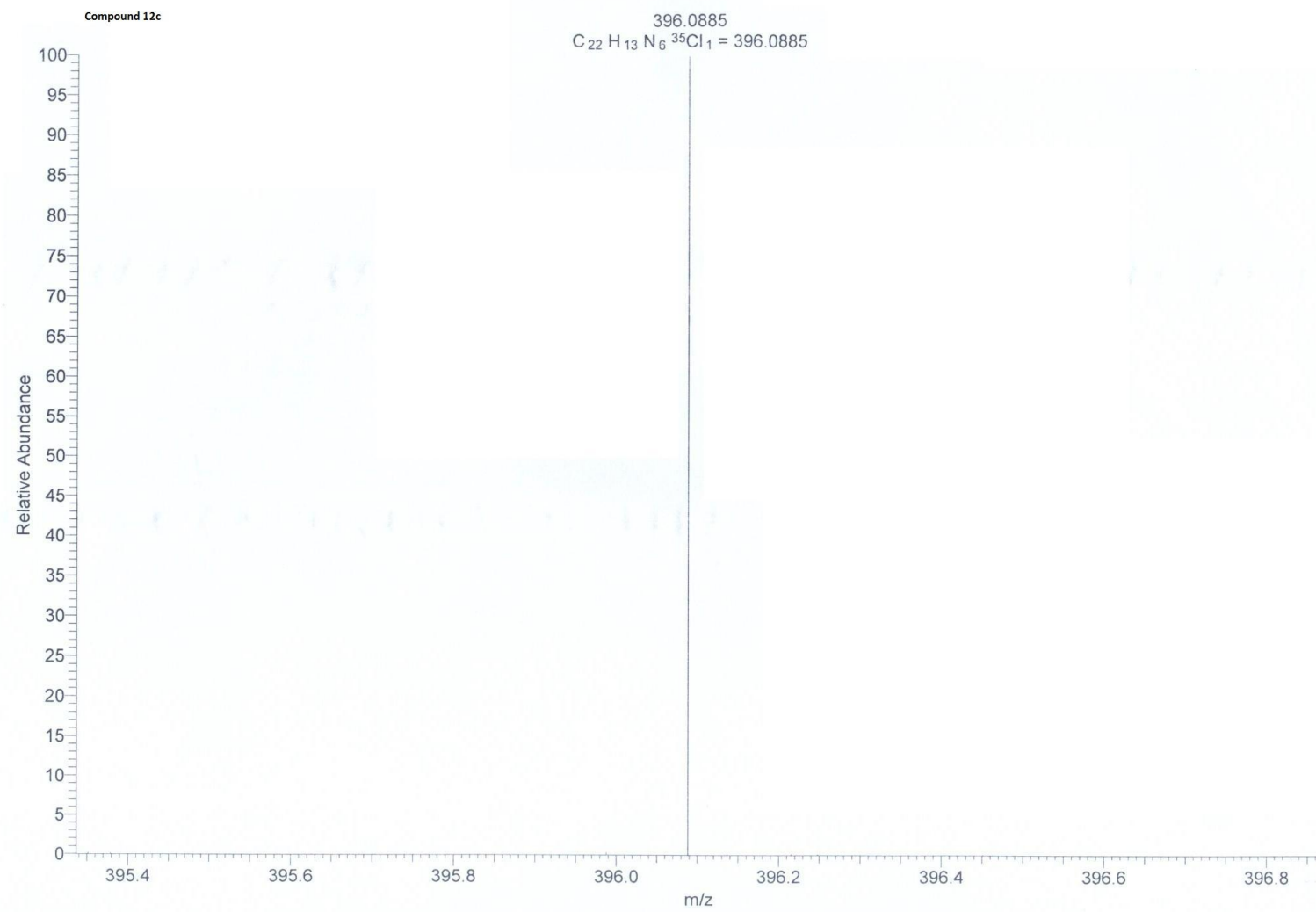


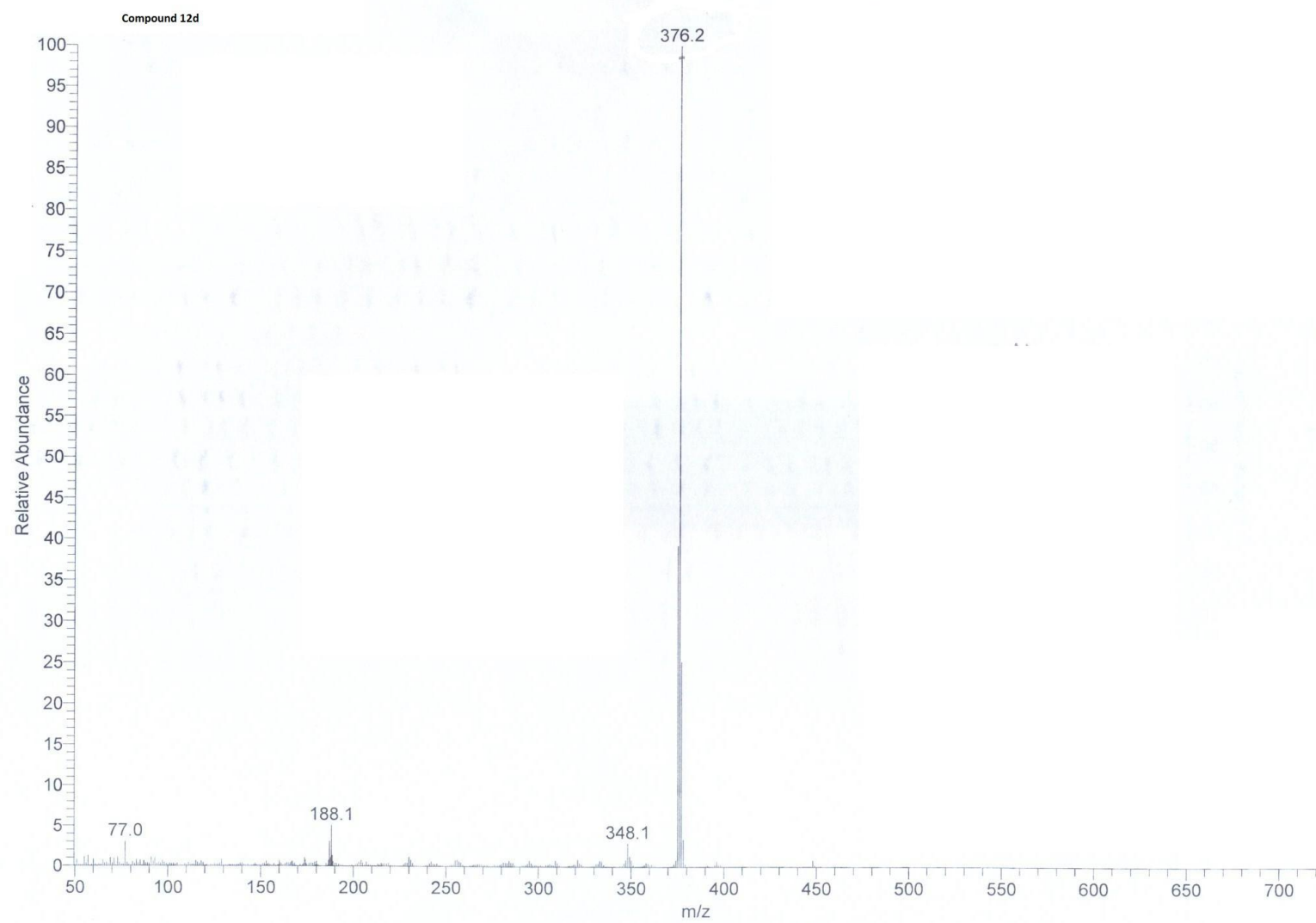
Compound 12b



Compound 12b

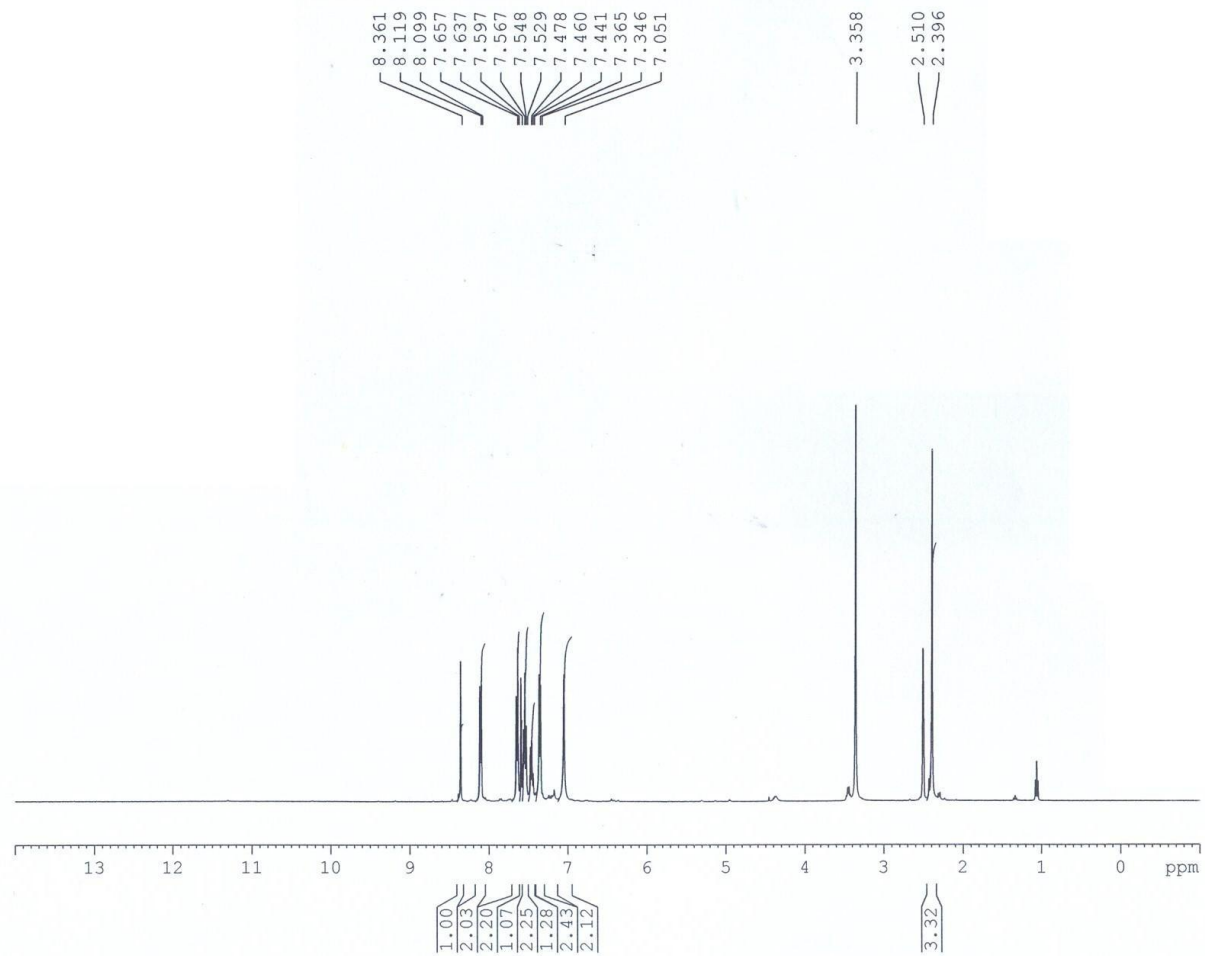




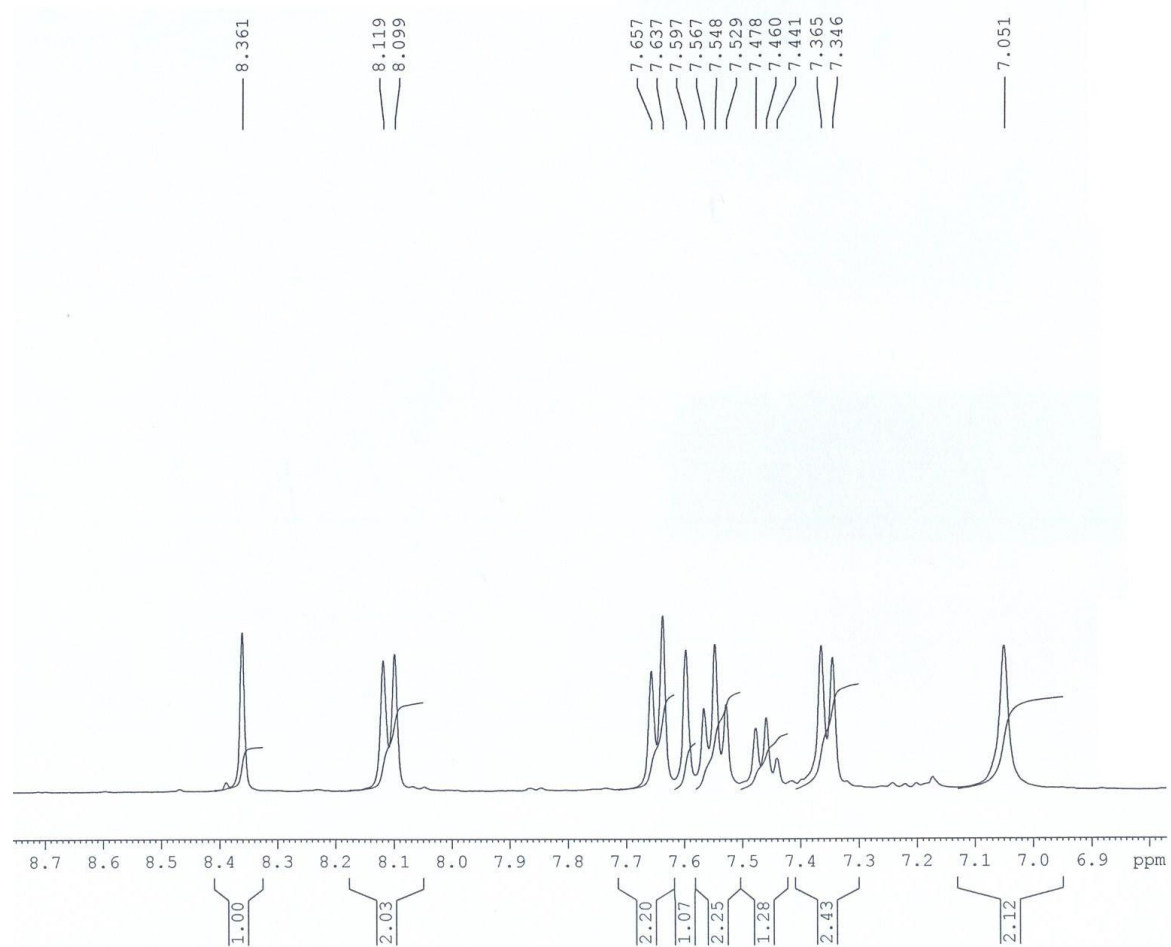




Compound 12d



Compound 12d



Compound 12d

— 162.06  
— 161.25

— 154.56

— 150.94

— 141.73

— 140.27

— 138.83

— 135.10

— 133.20

— 129.40

— 128.84

— 128.17

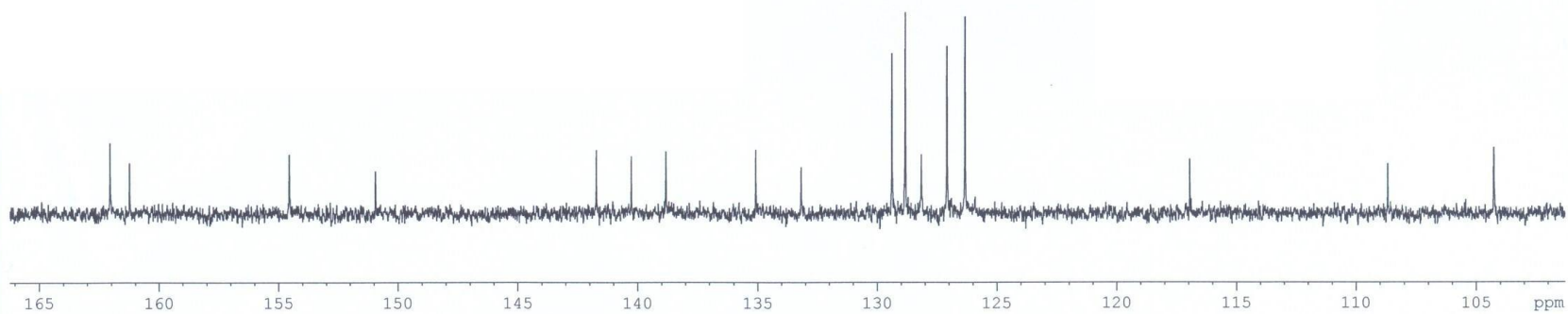
— 127.10

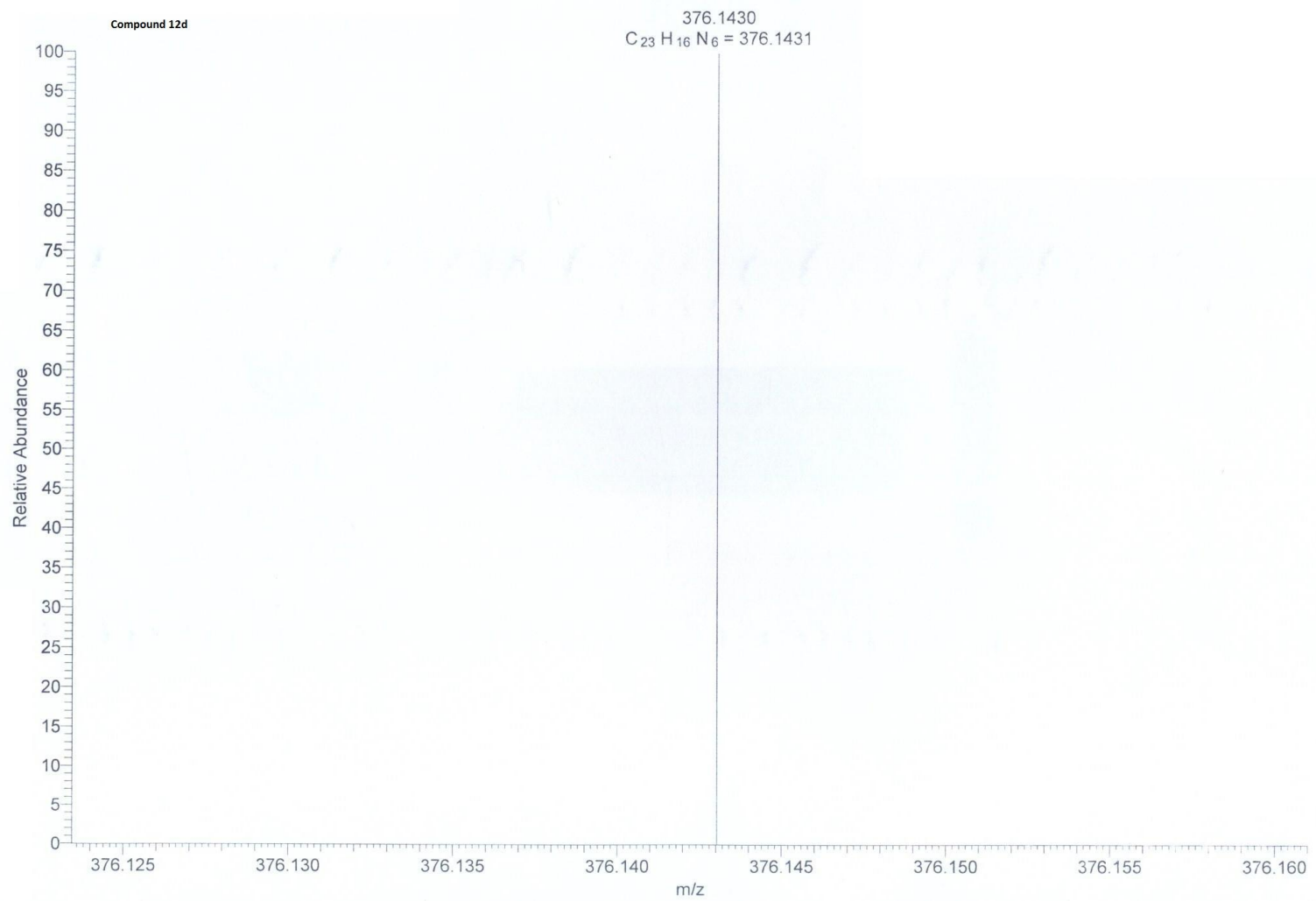
— 126.34

— 116.97

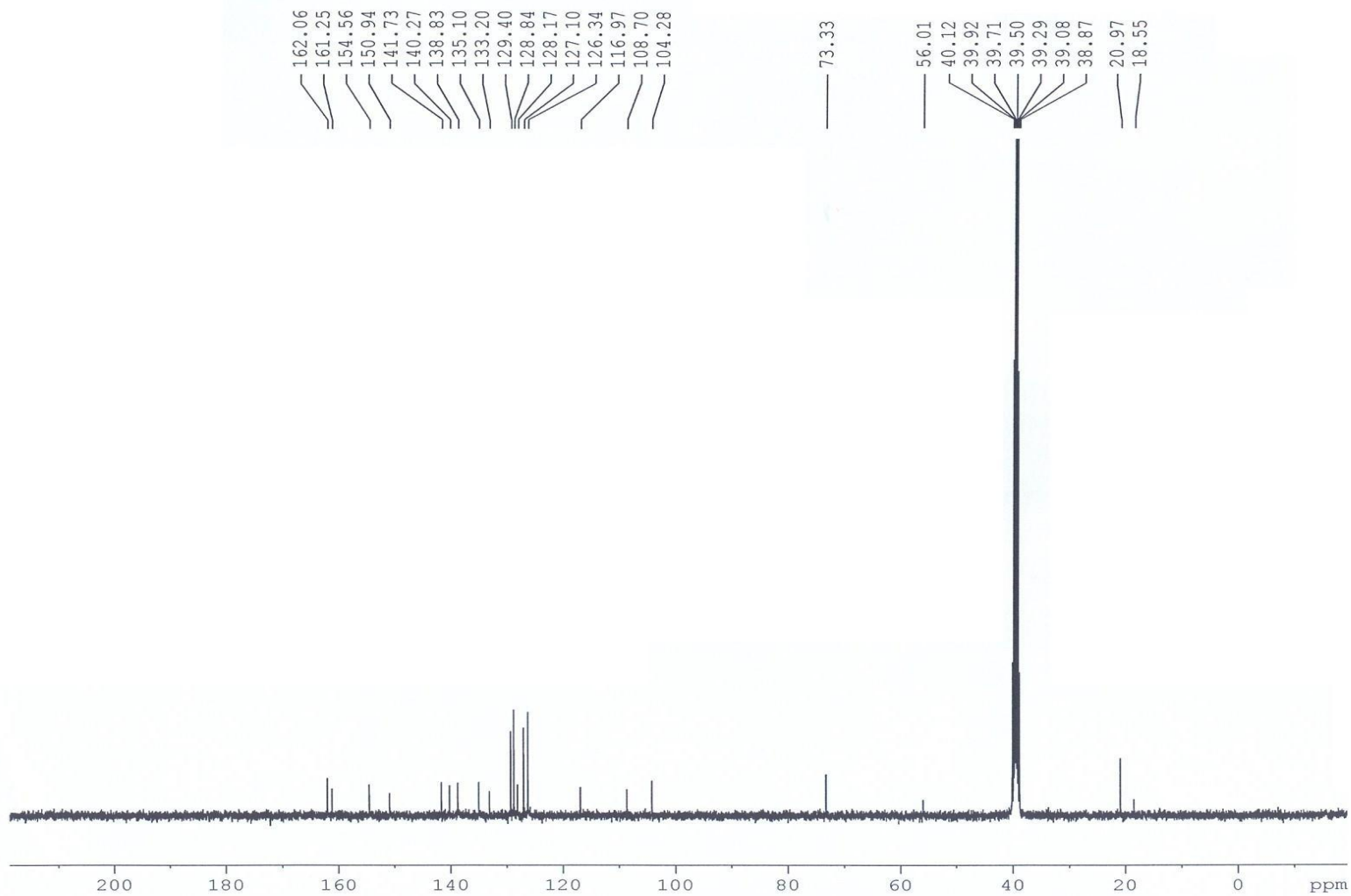
— 108.70

— 104.28

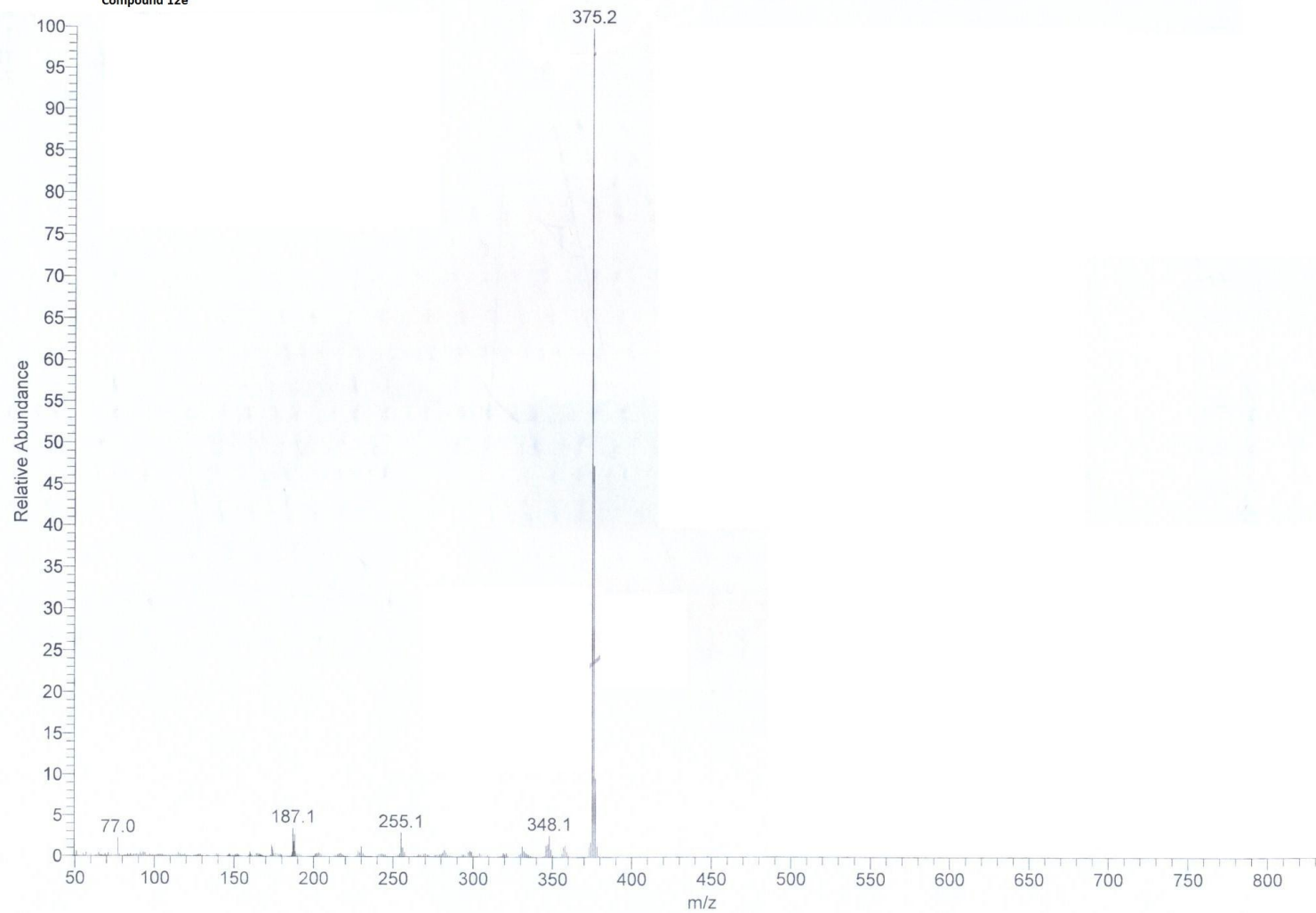




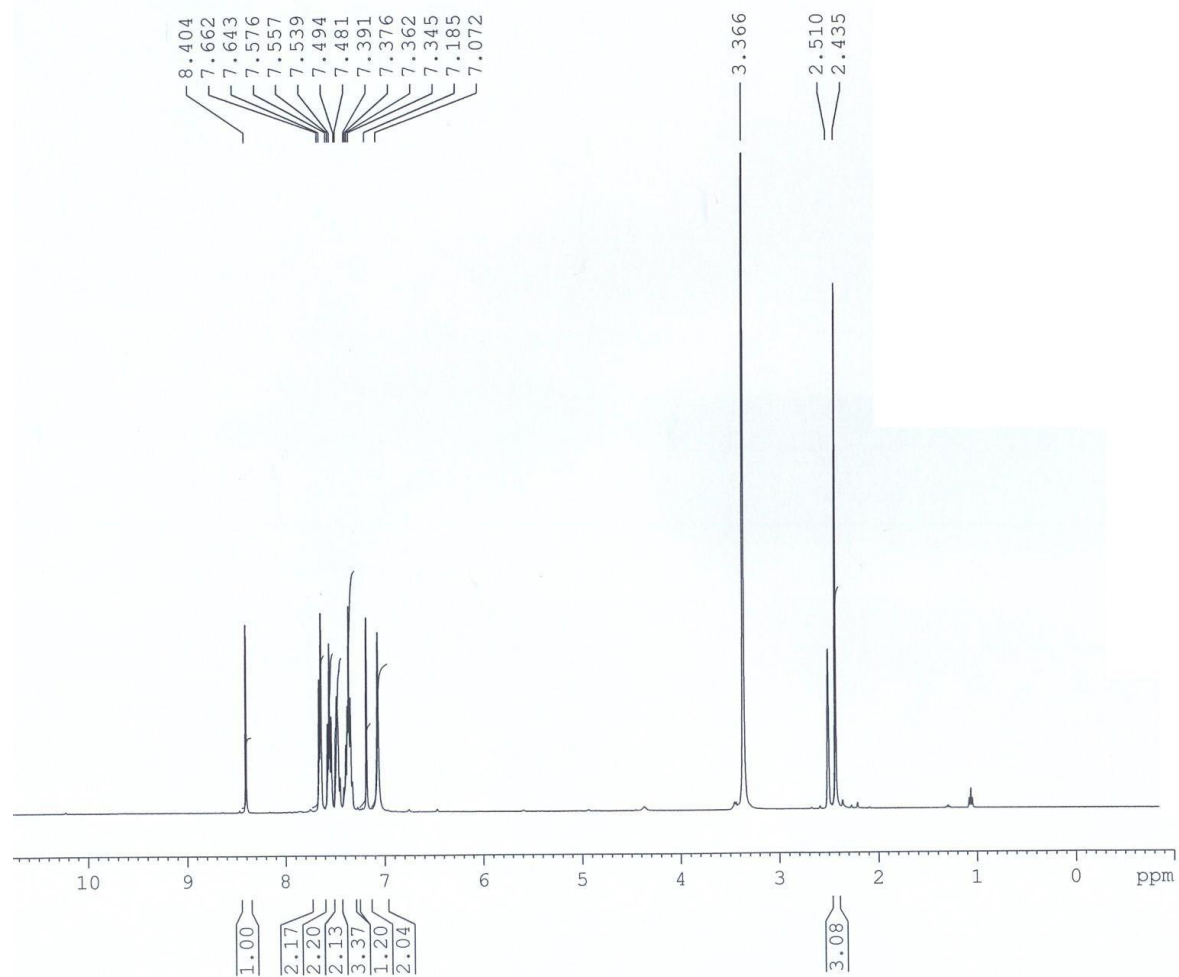
Compound 12d



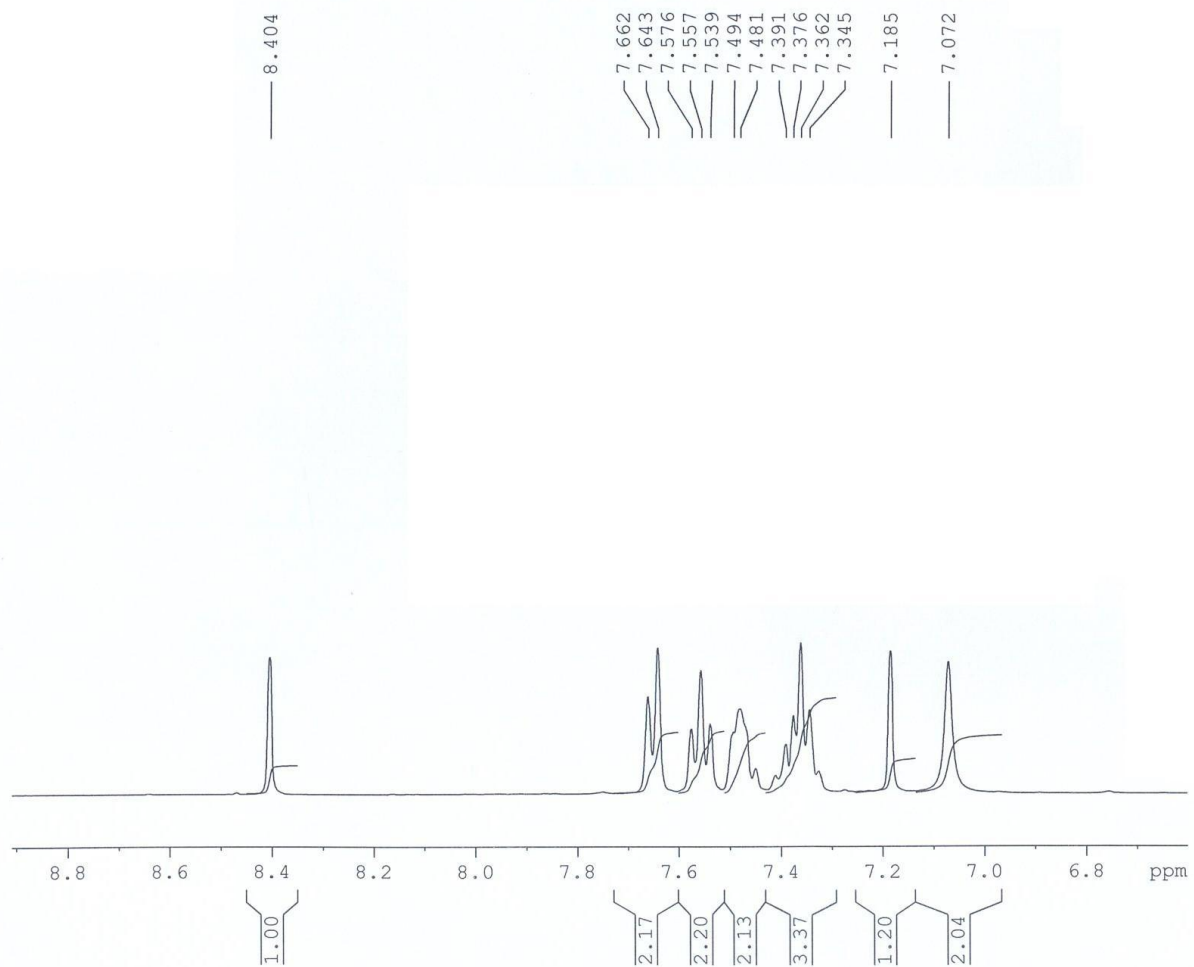
Compound 12e



Compound 12e

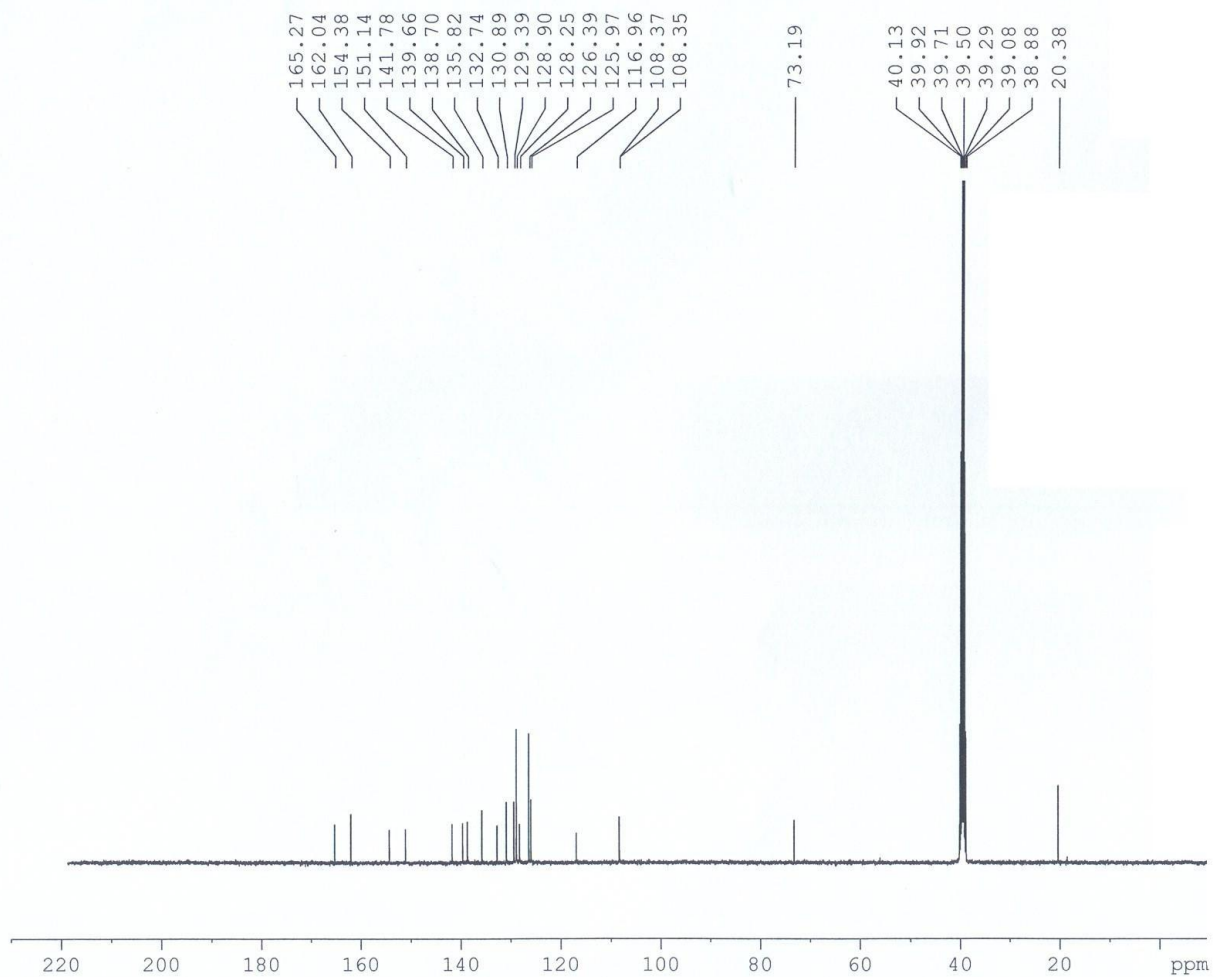


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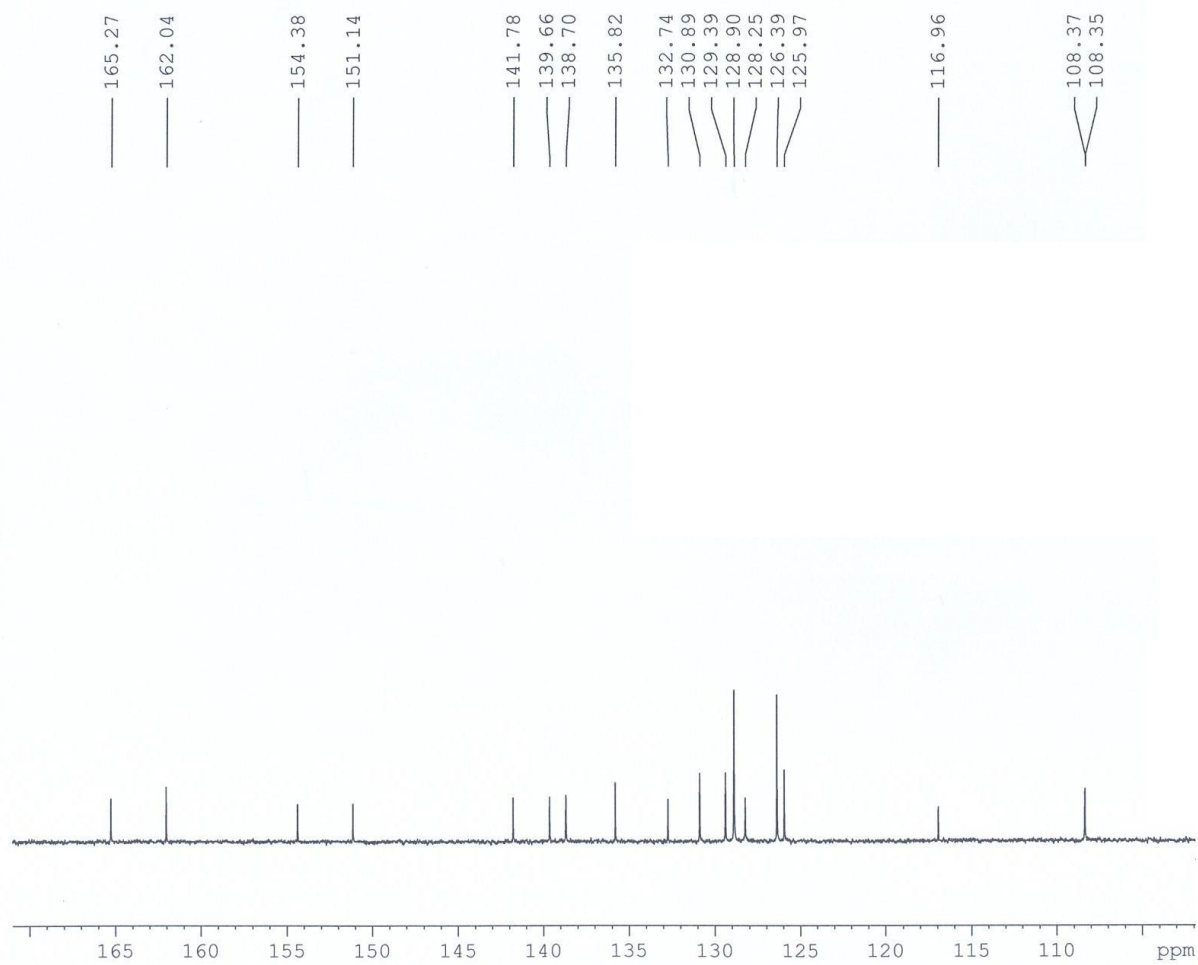


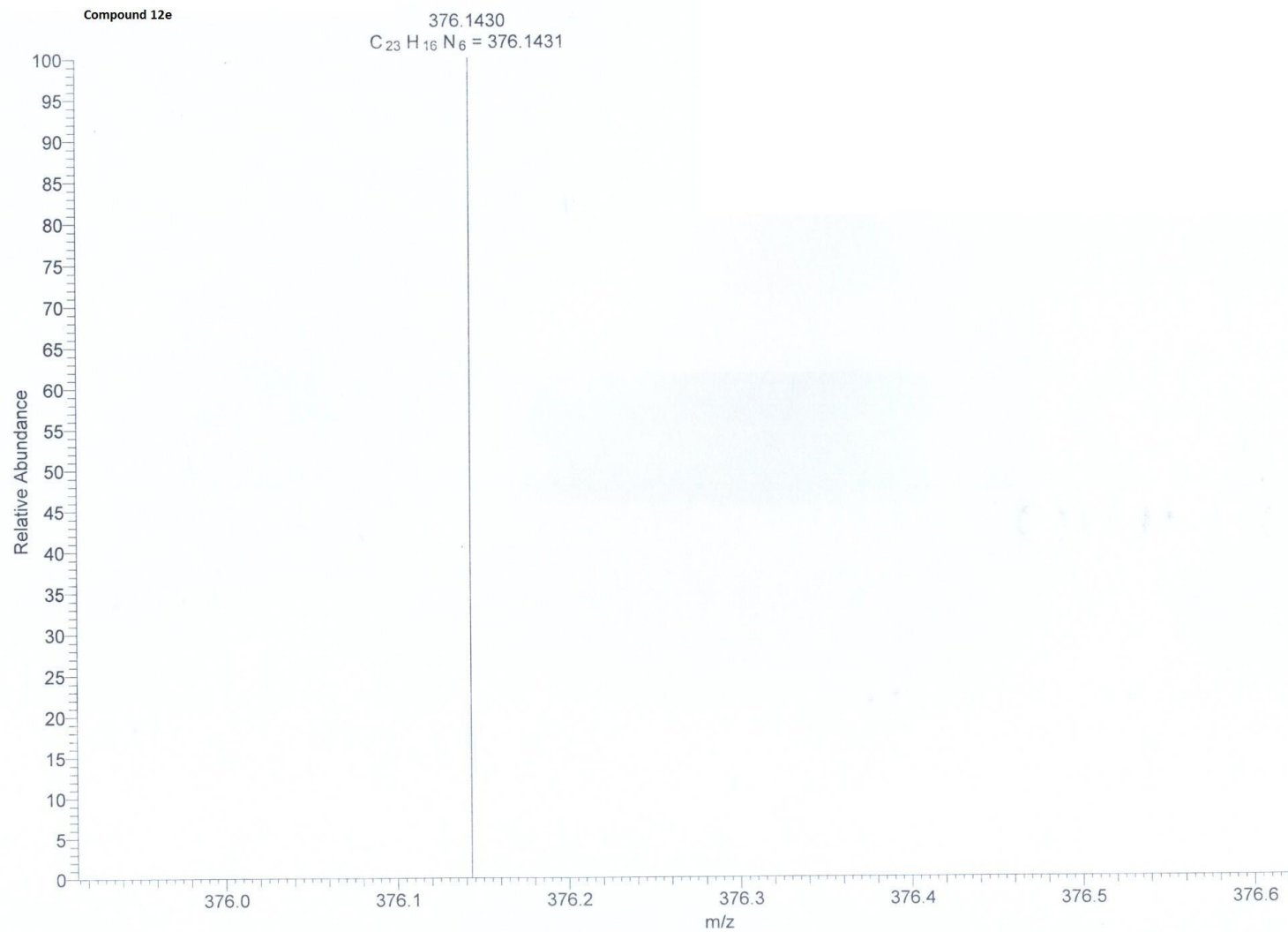


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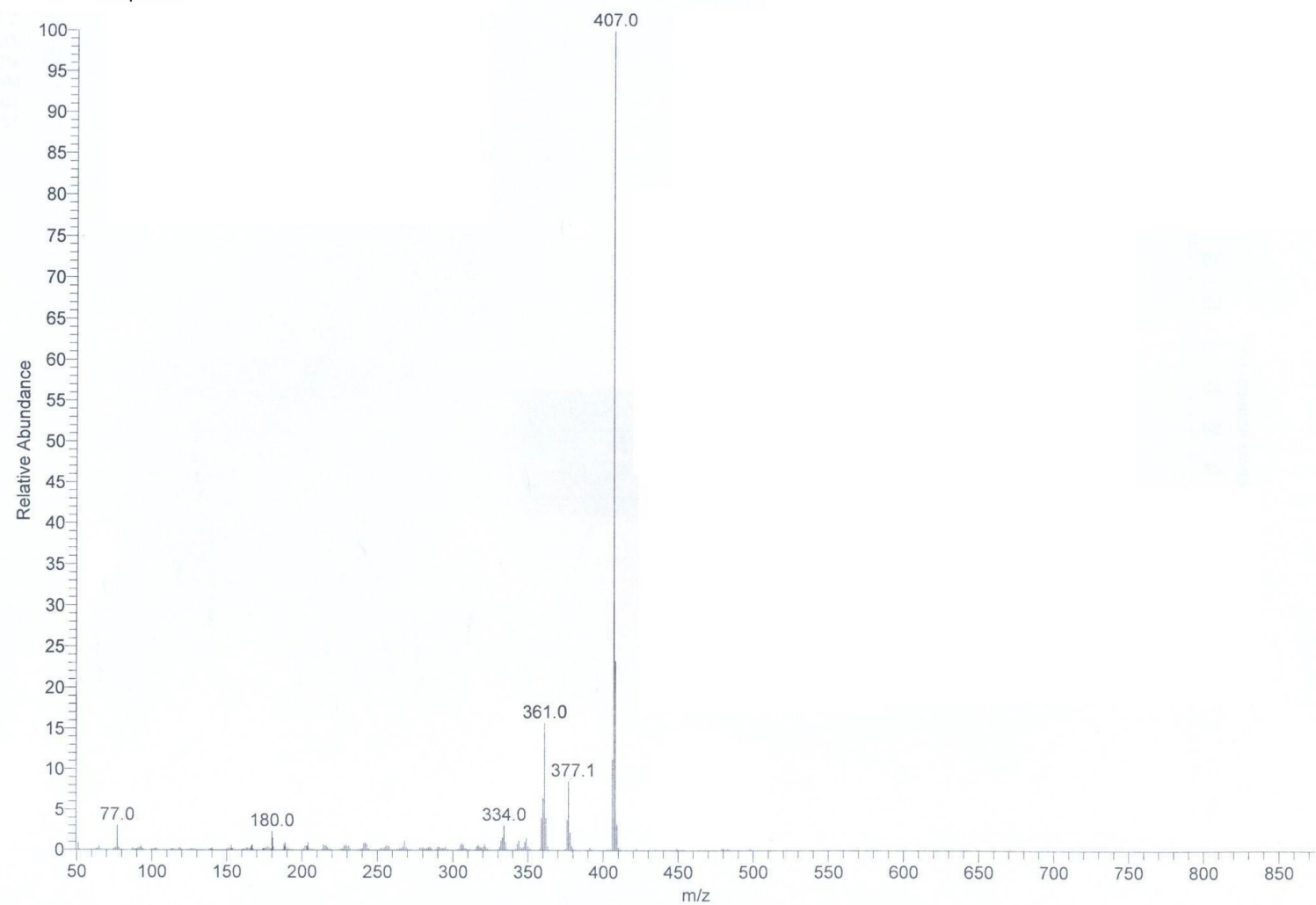


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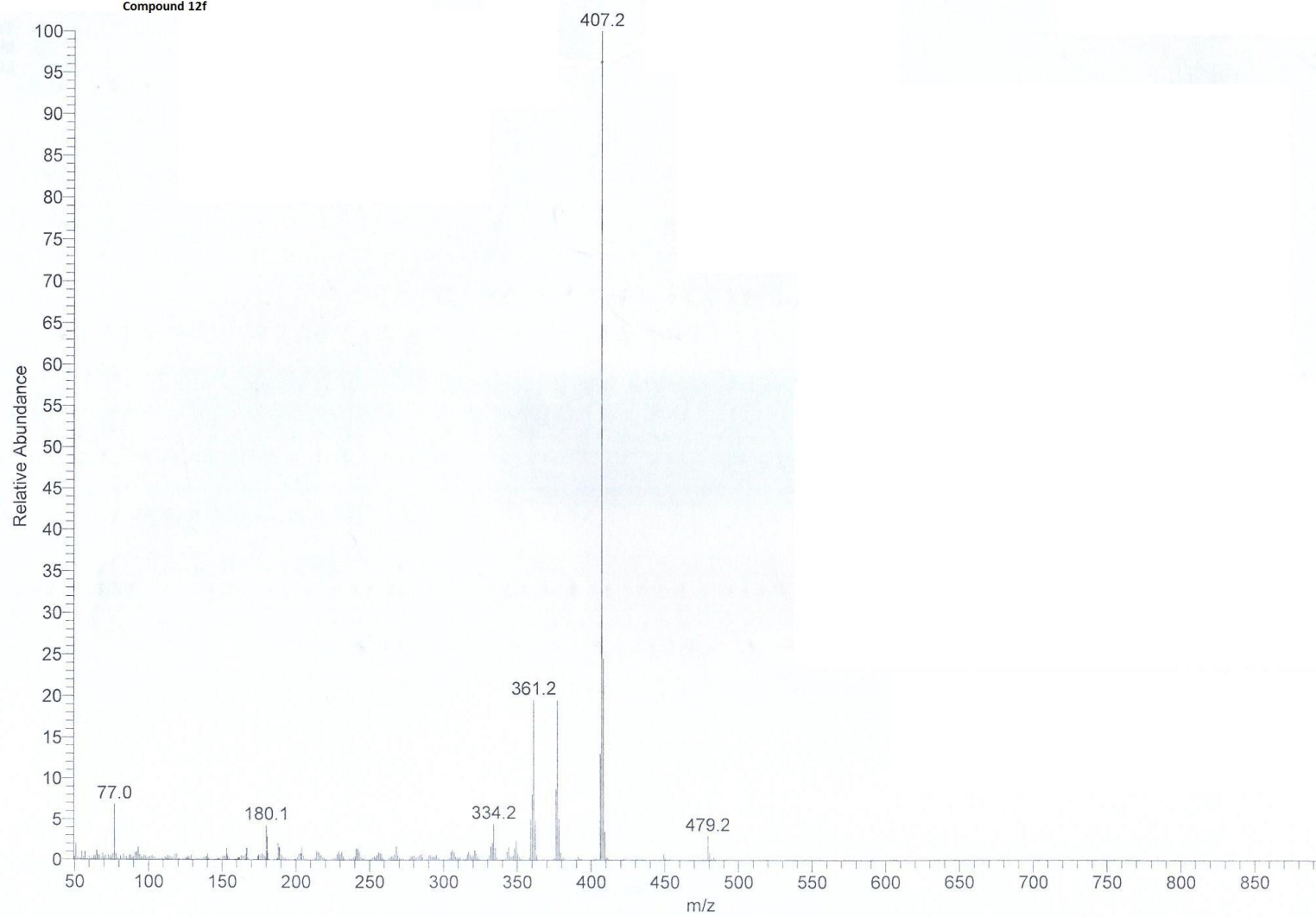




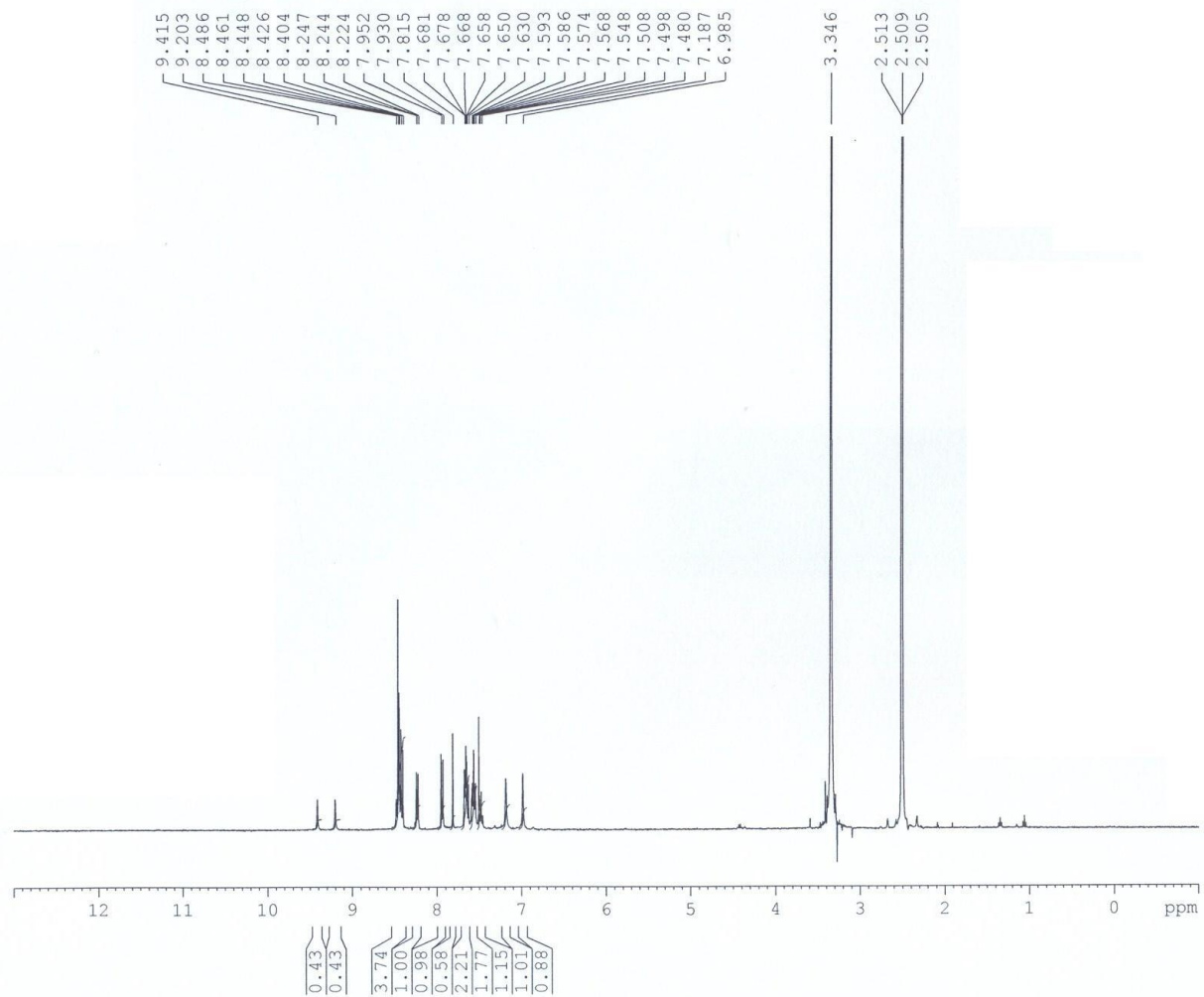
Compound 12f



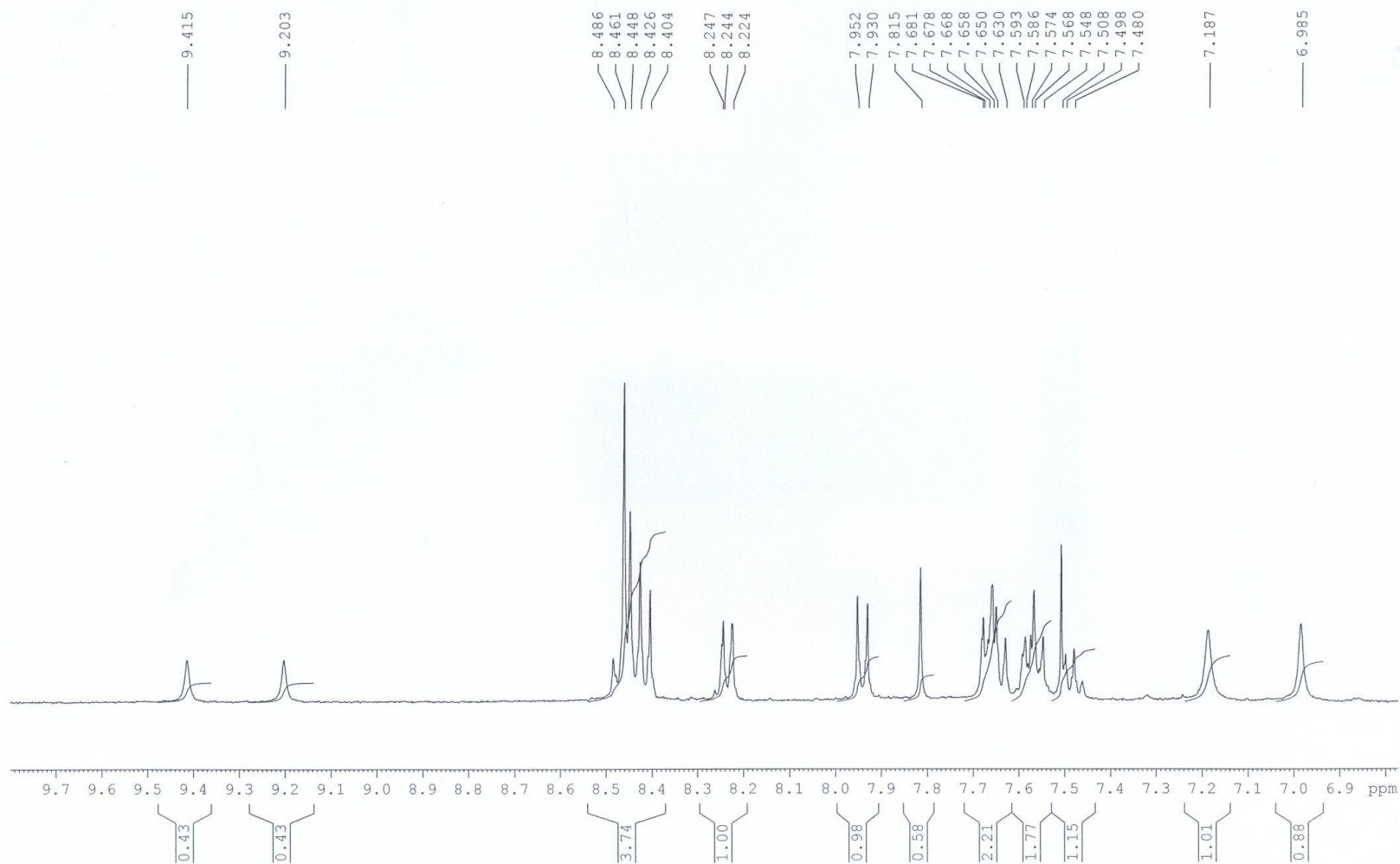
Compound 12f



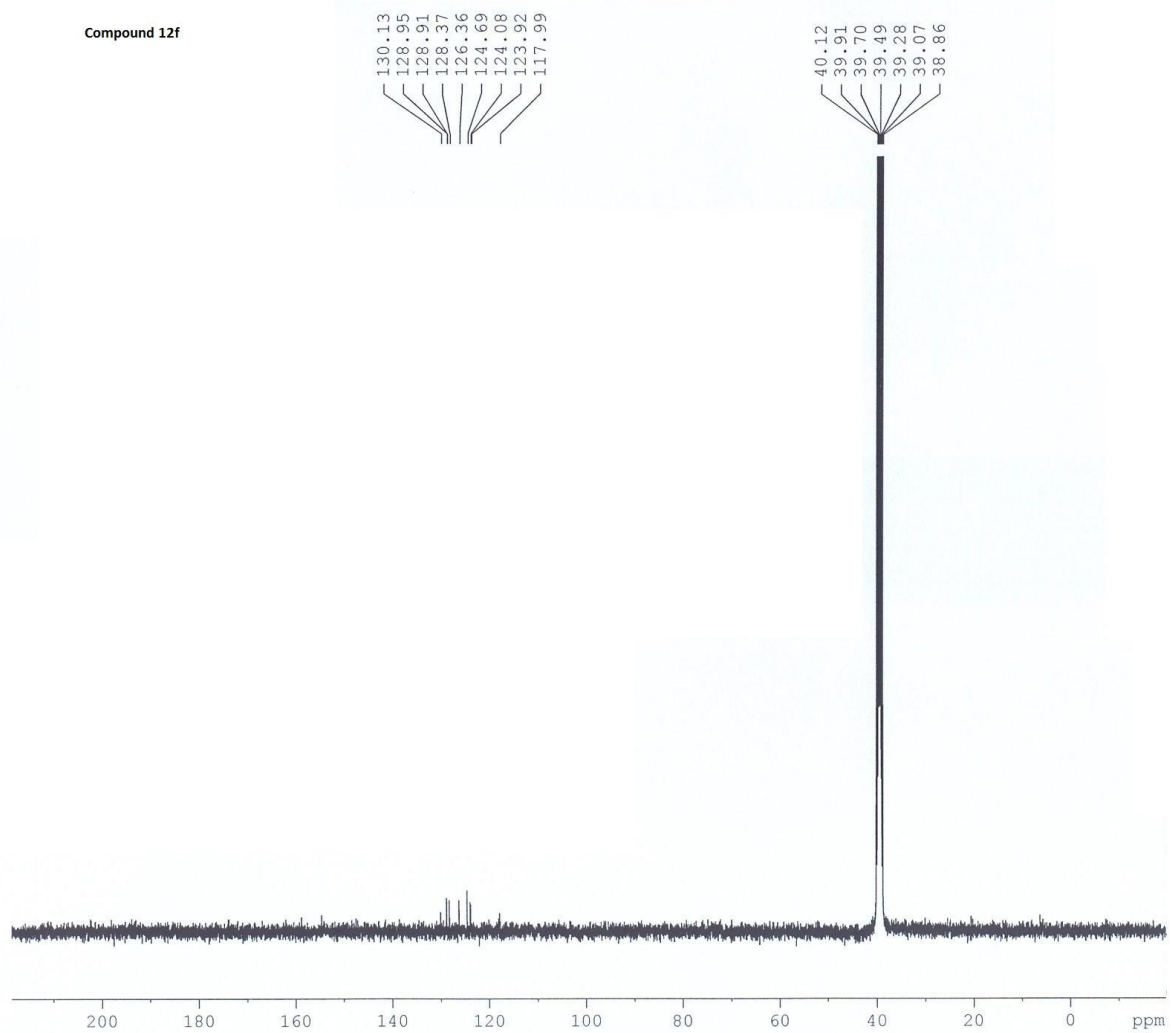
Compound 12f



Compound 12f



Compound 12f





Compound 12f

— 130.13

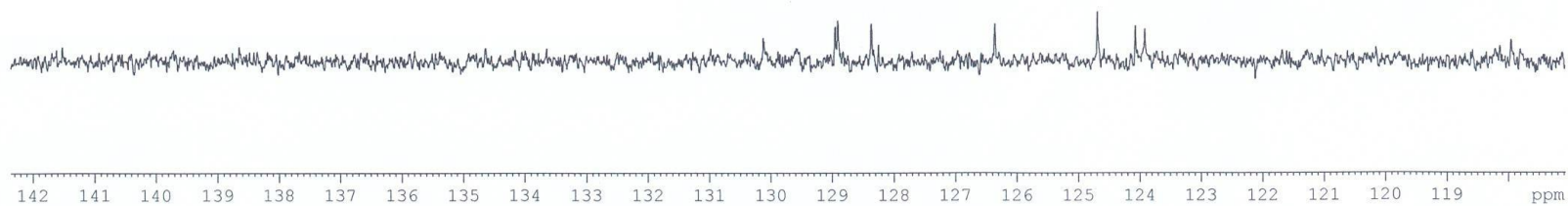
128.95  
128.91

— 128.37

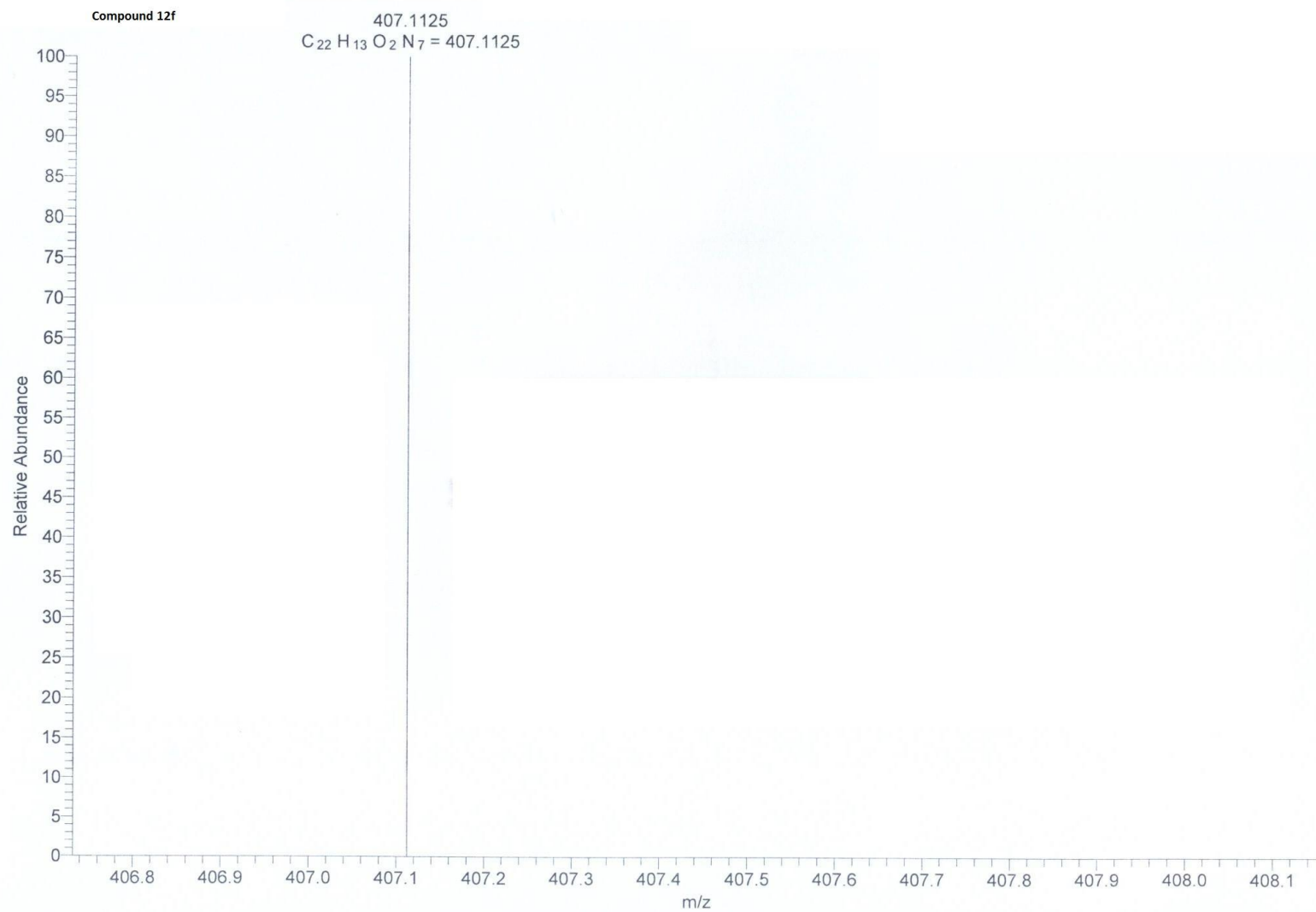
— 126.36

124.69  
124.08  
123.92

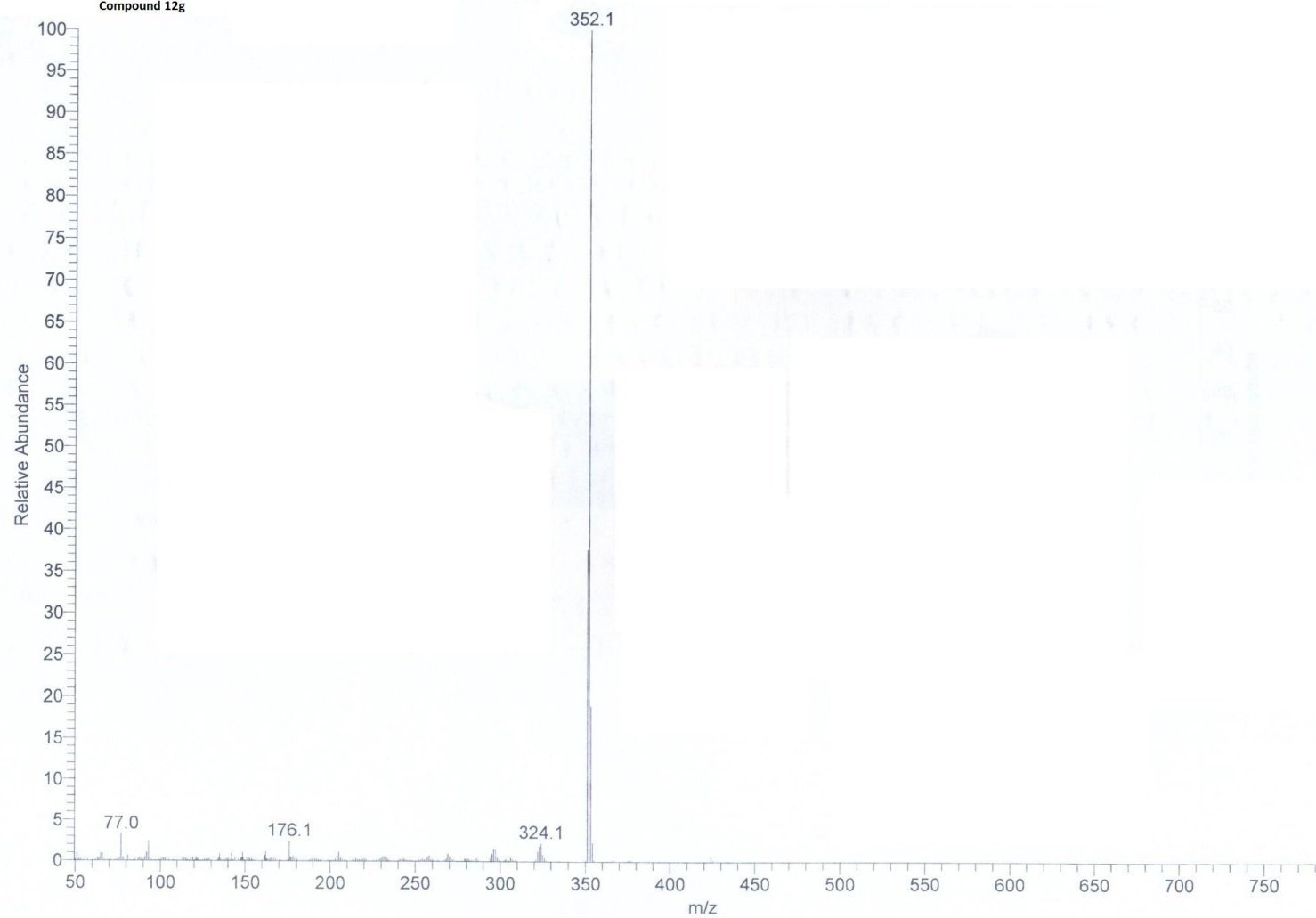
— 117.99



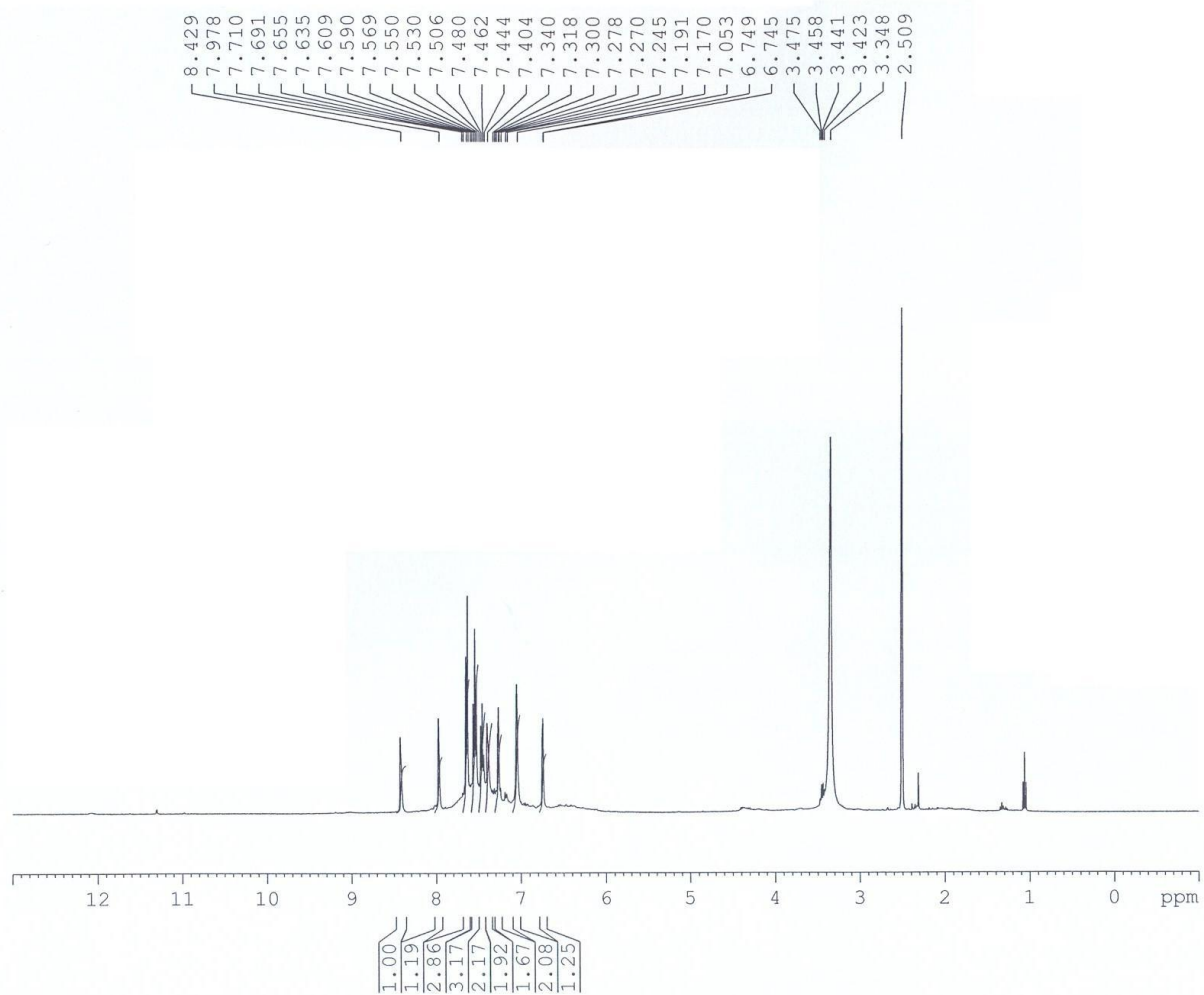
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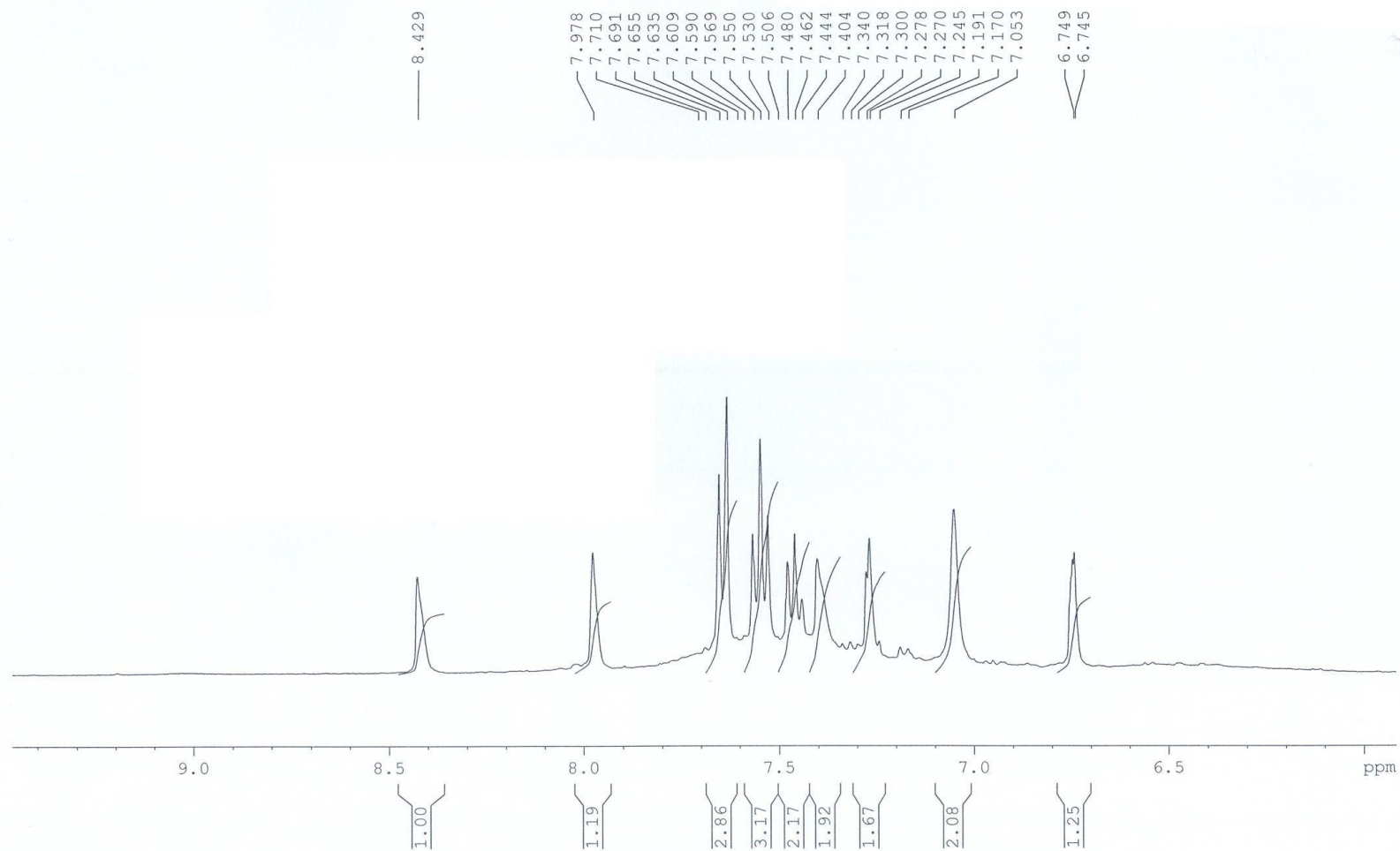
Compound 12g



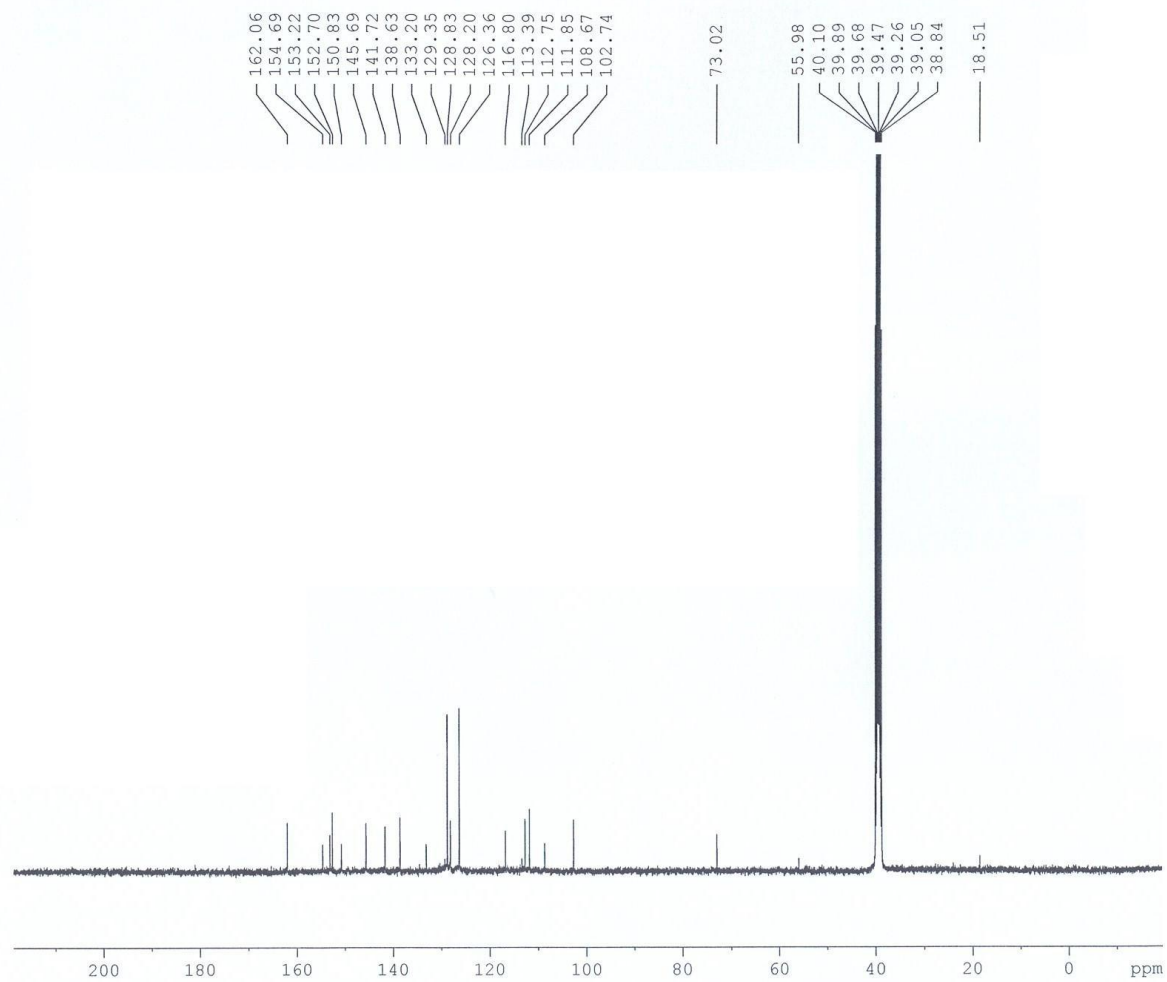
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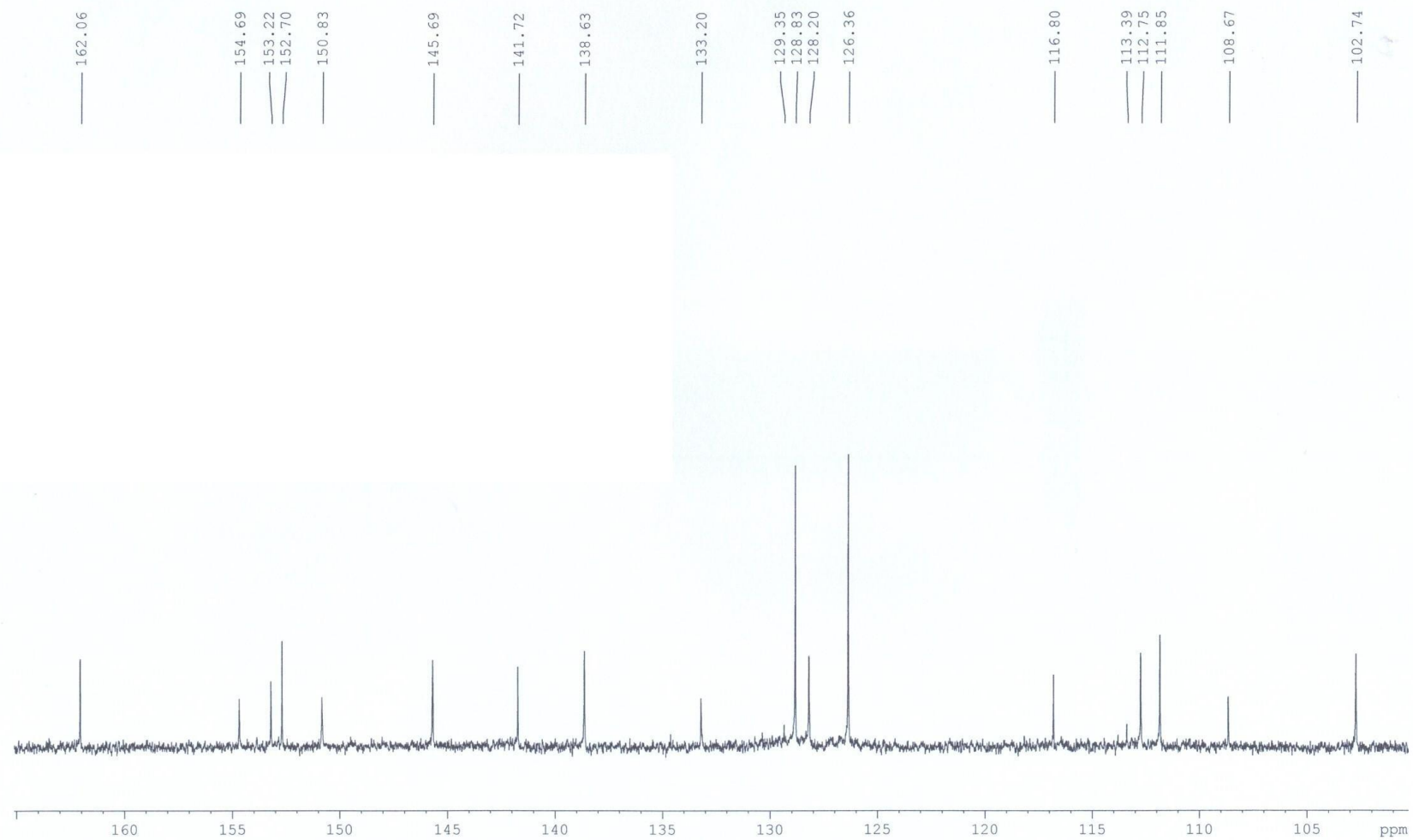
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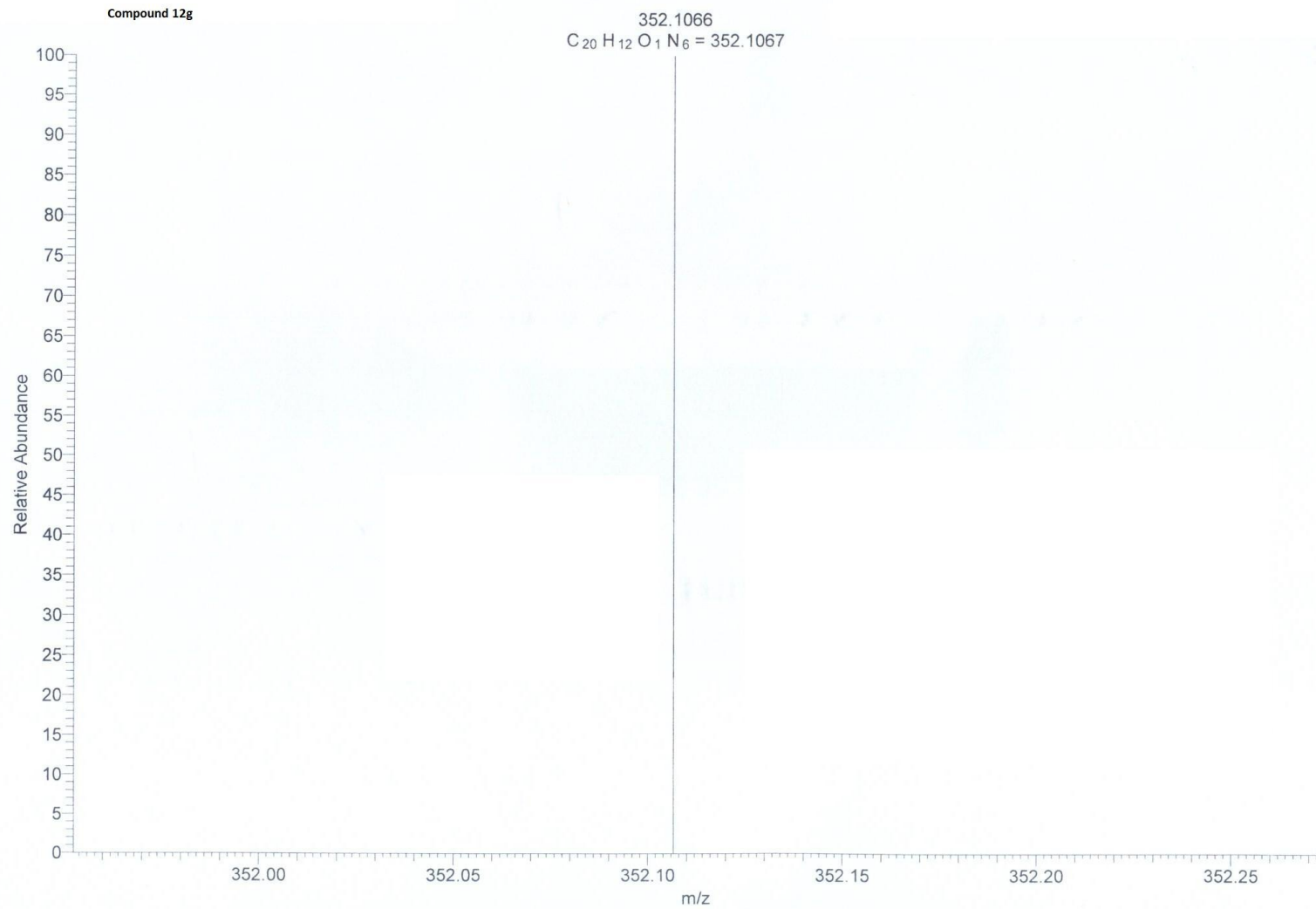
Compound 12g



Compound 12g

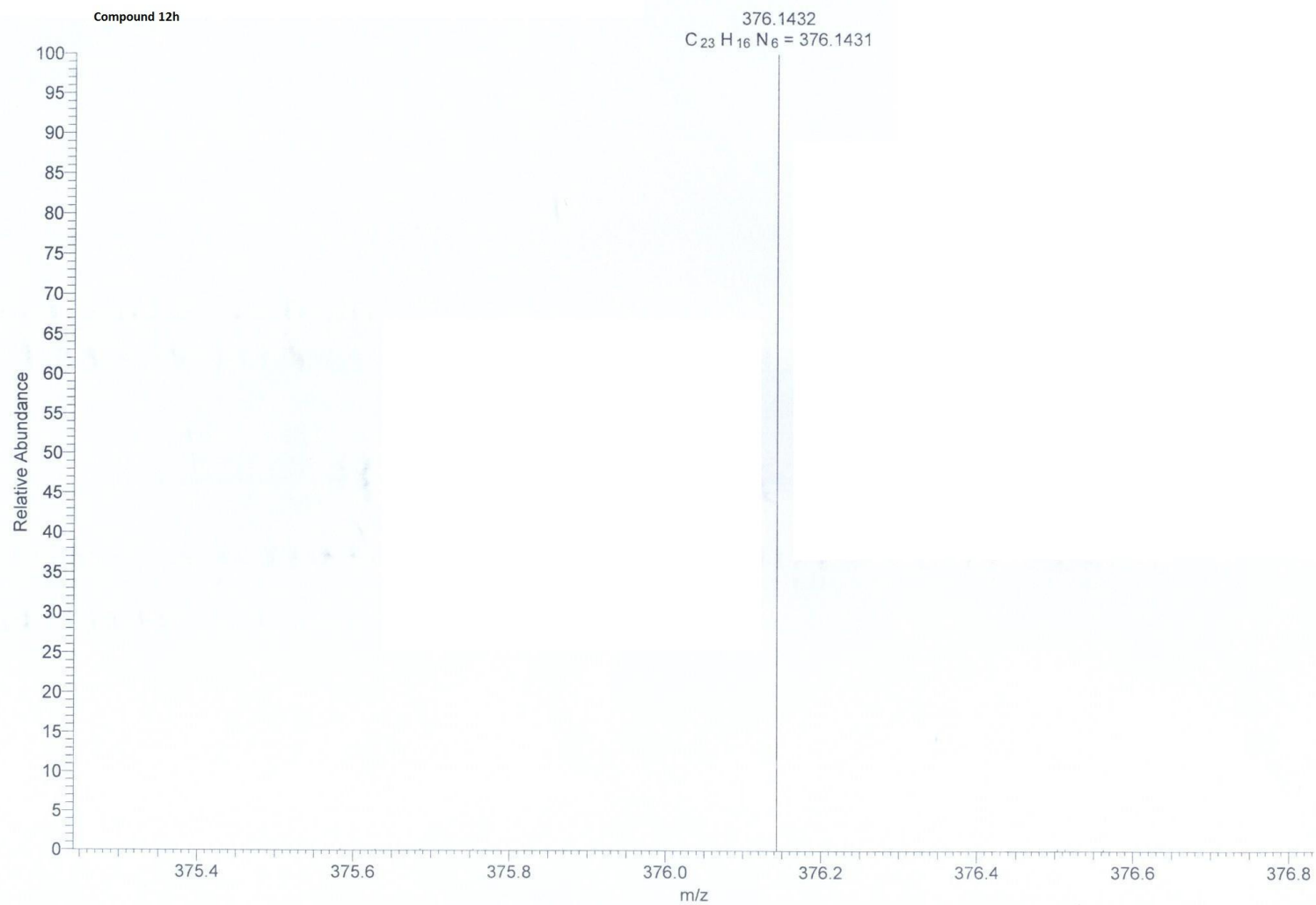


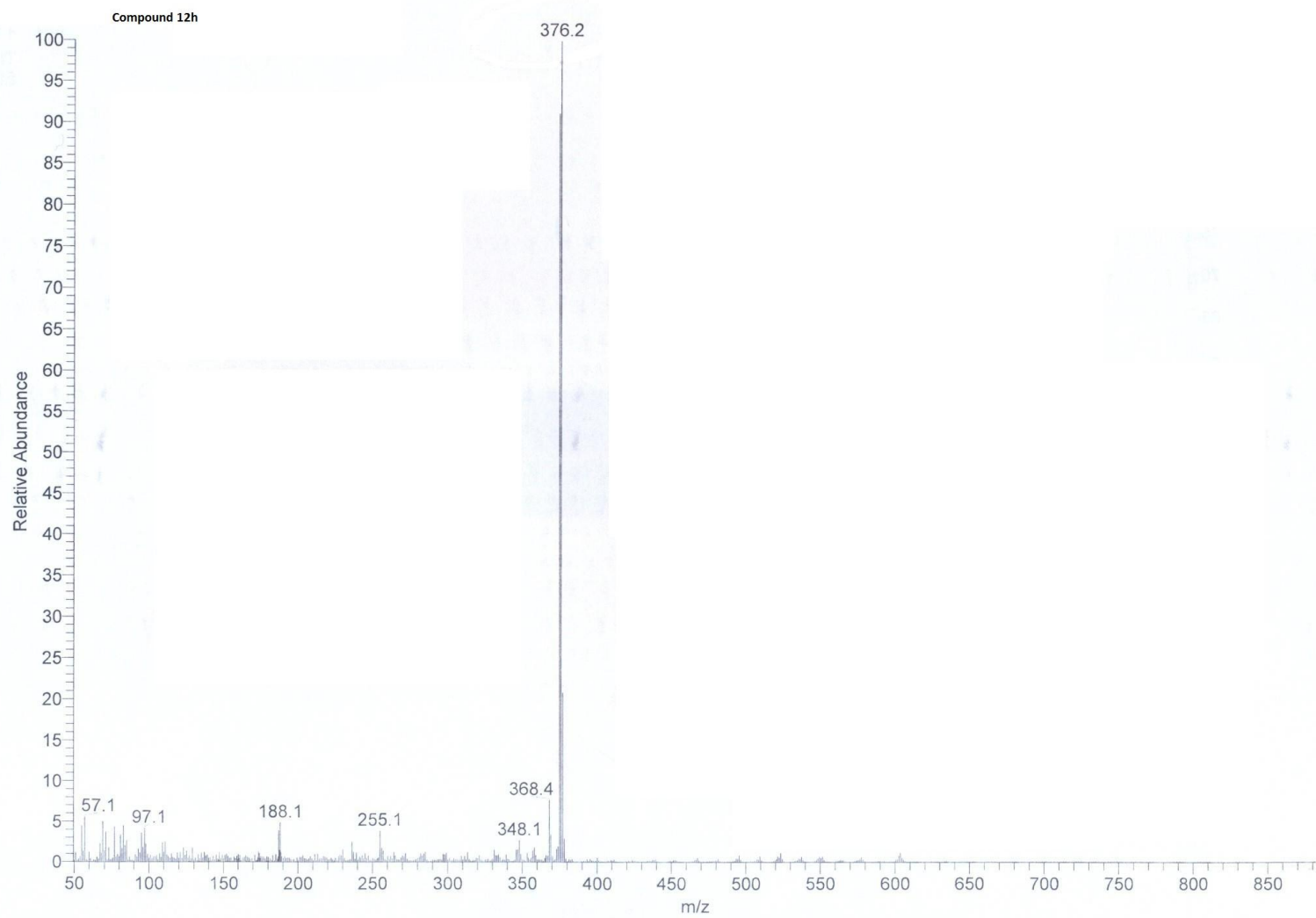
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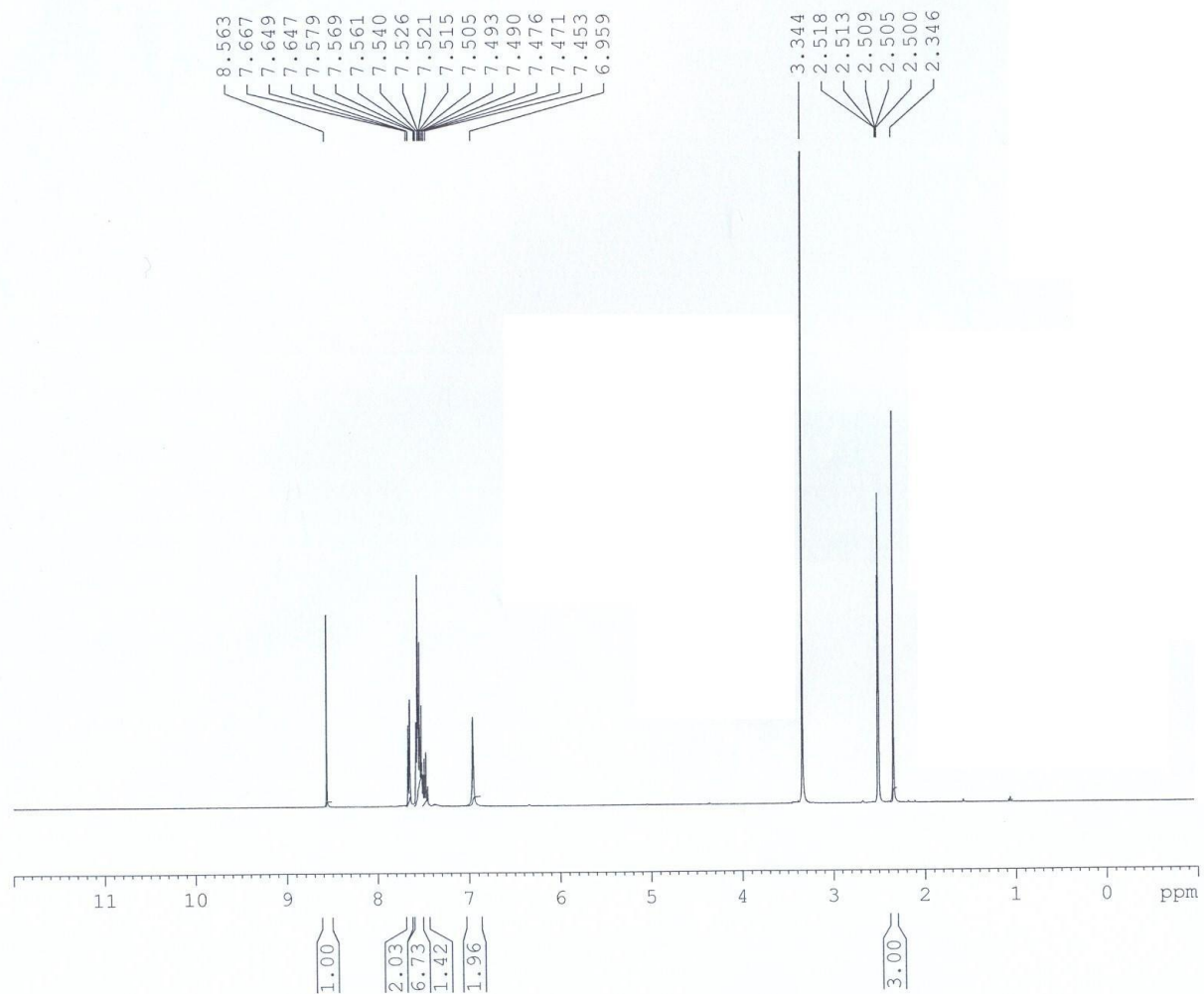


Compound 12h

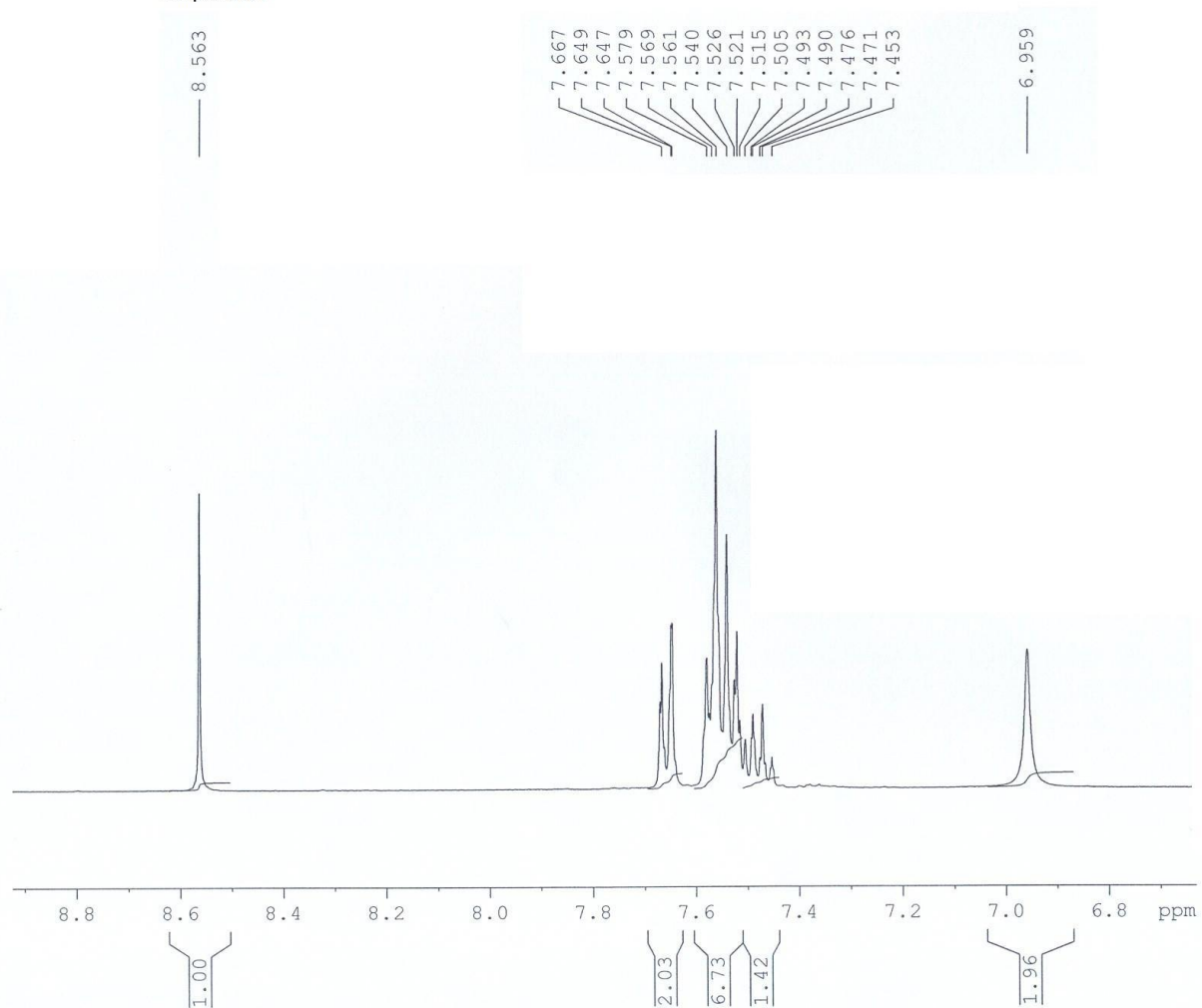




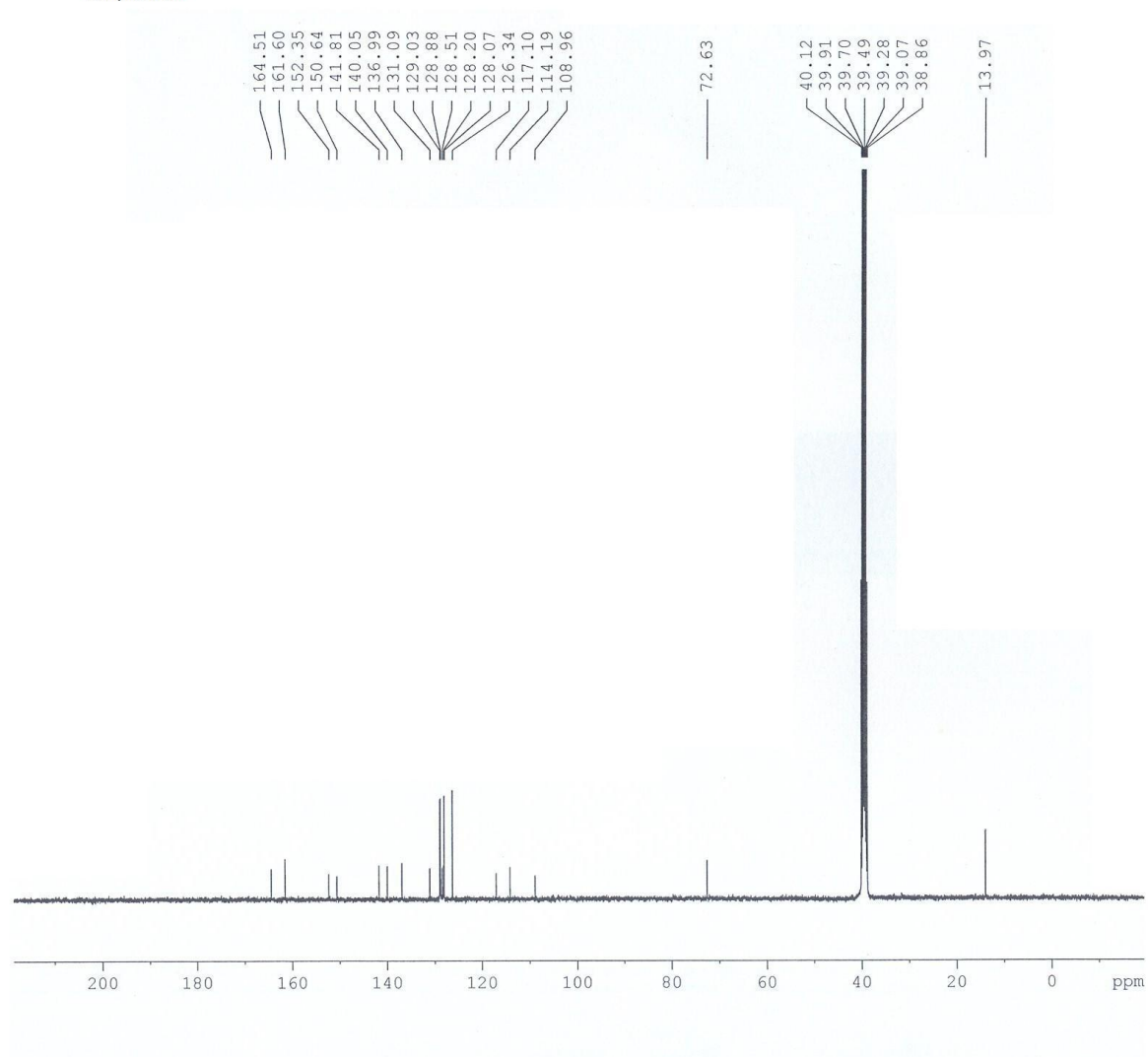
Compound 12h



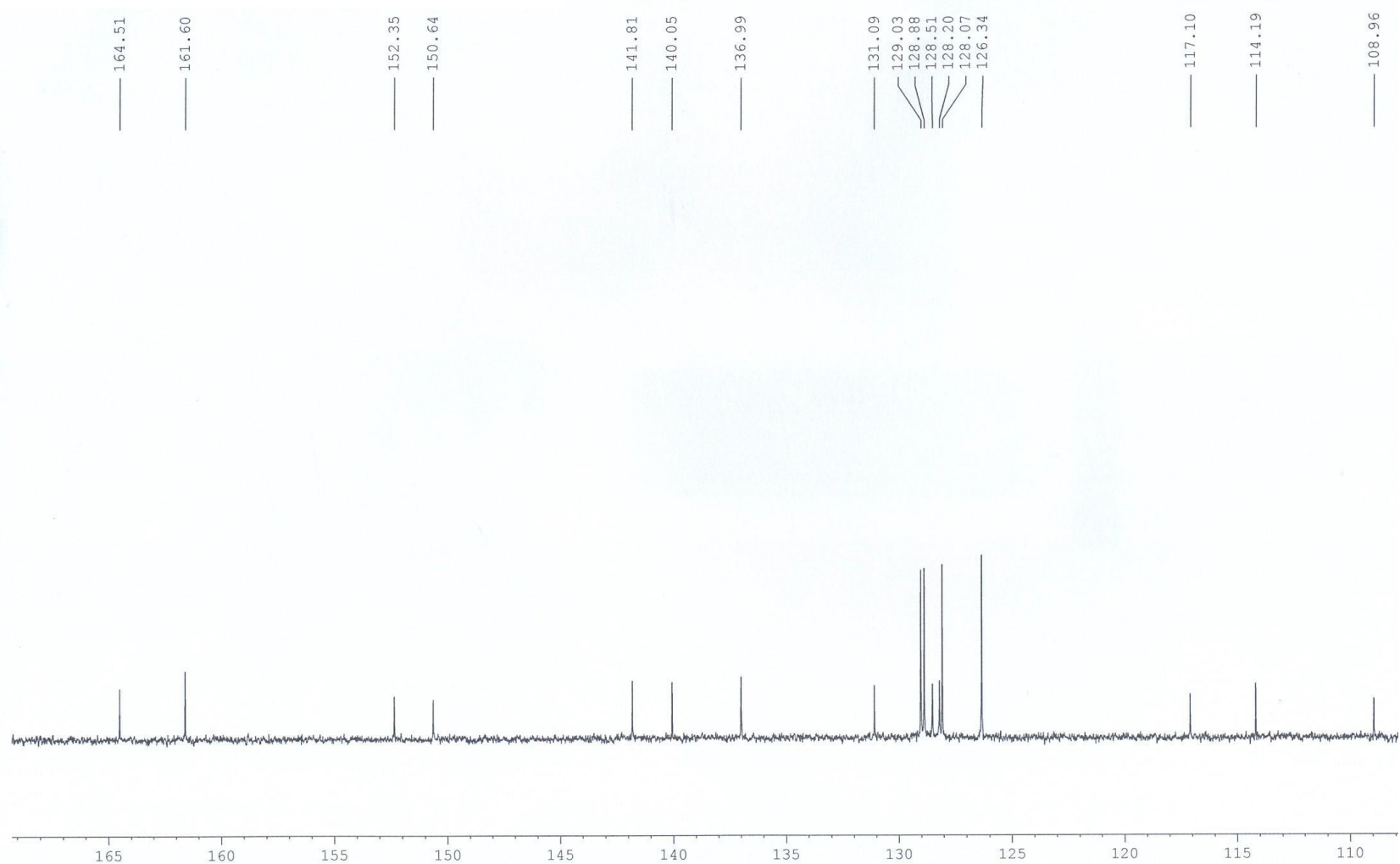
Compound 12h

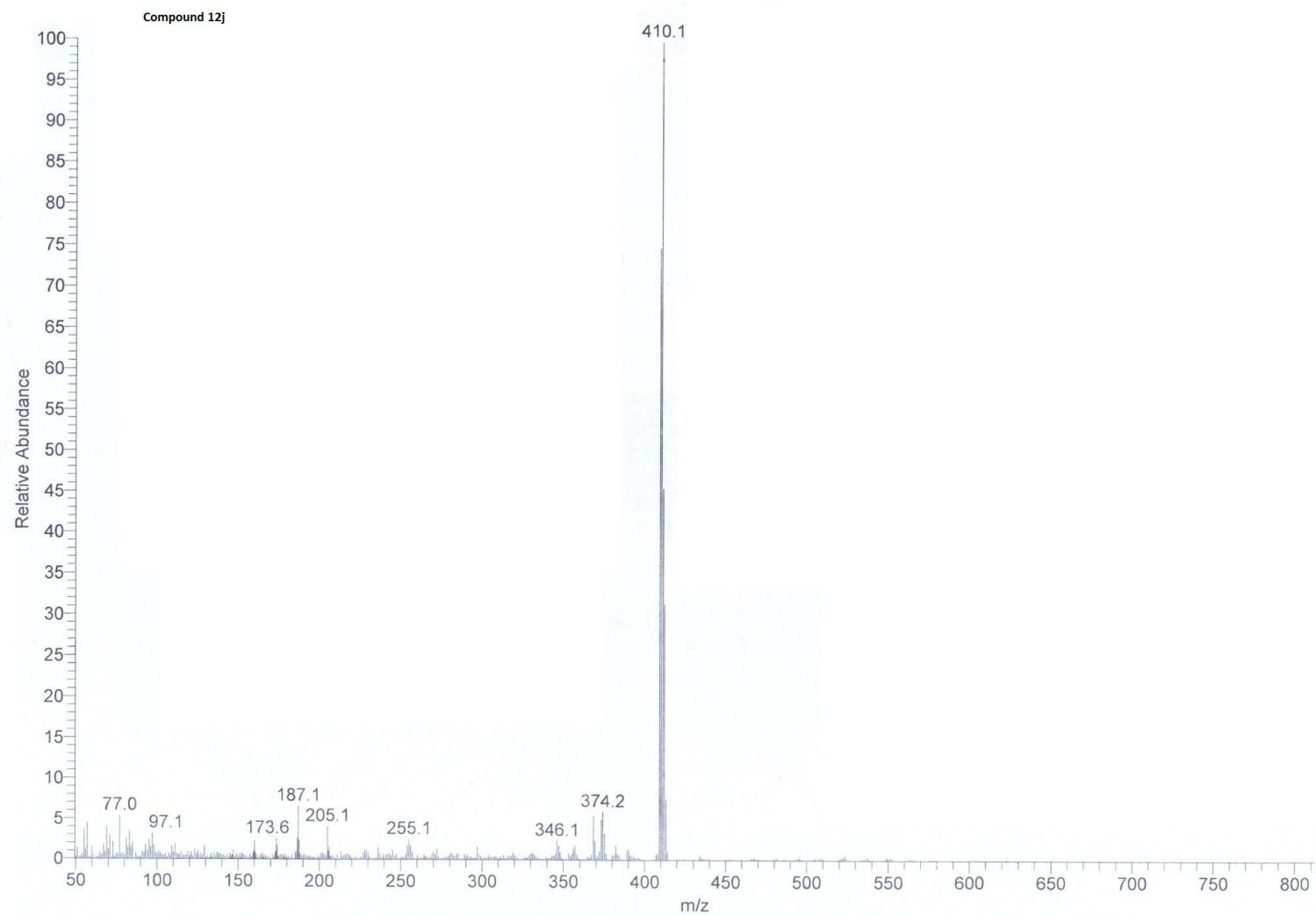


Compound 12h

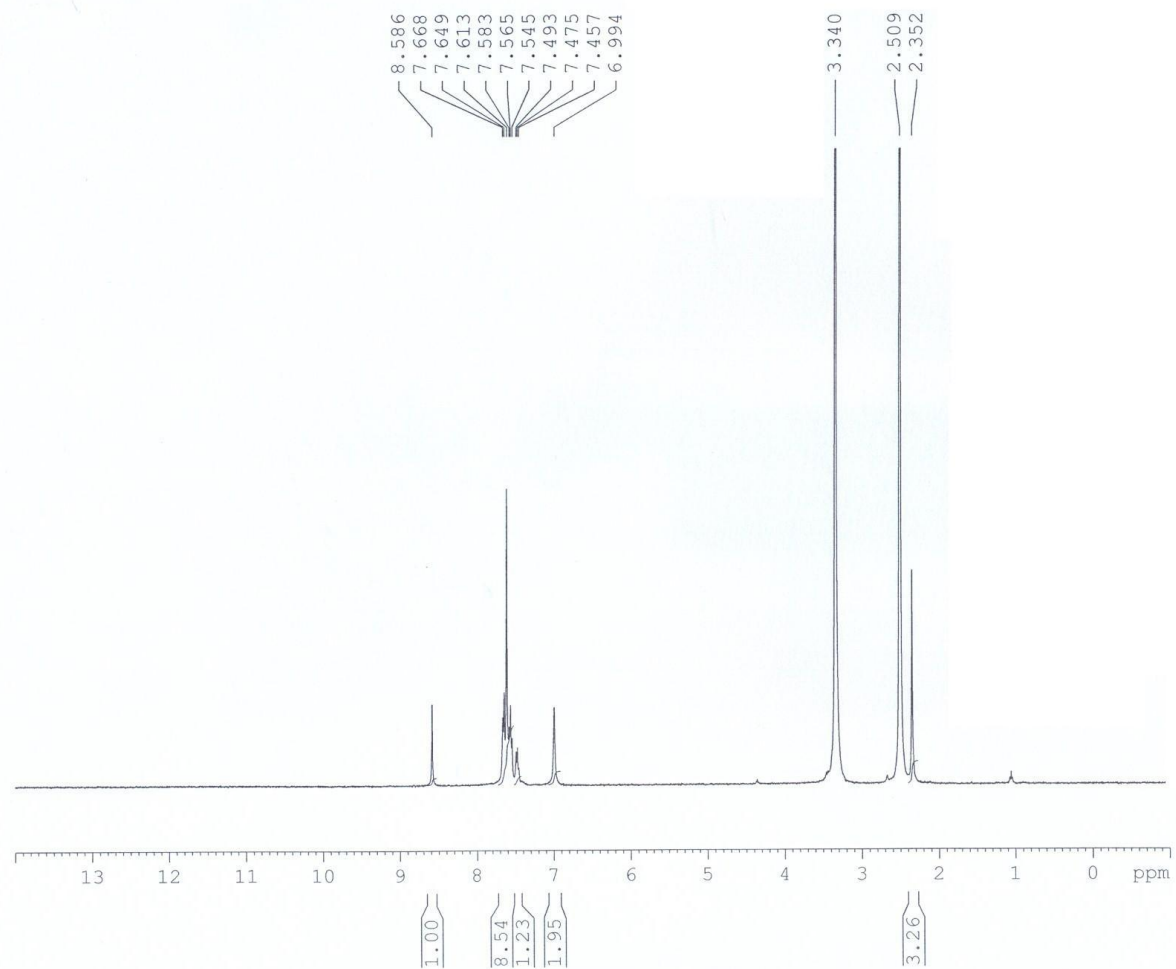


Compound 12h



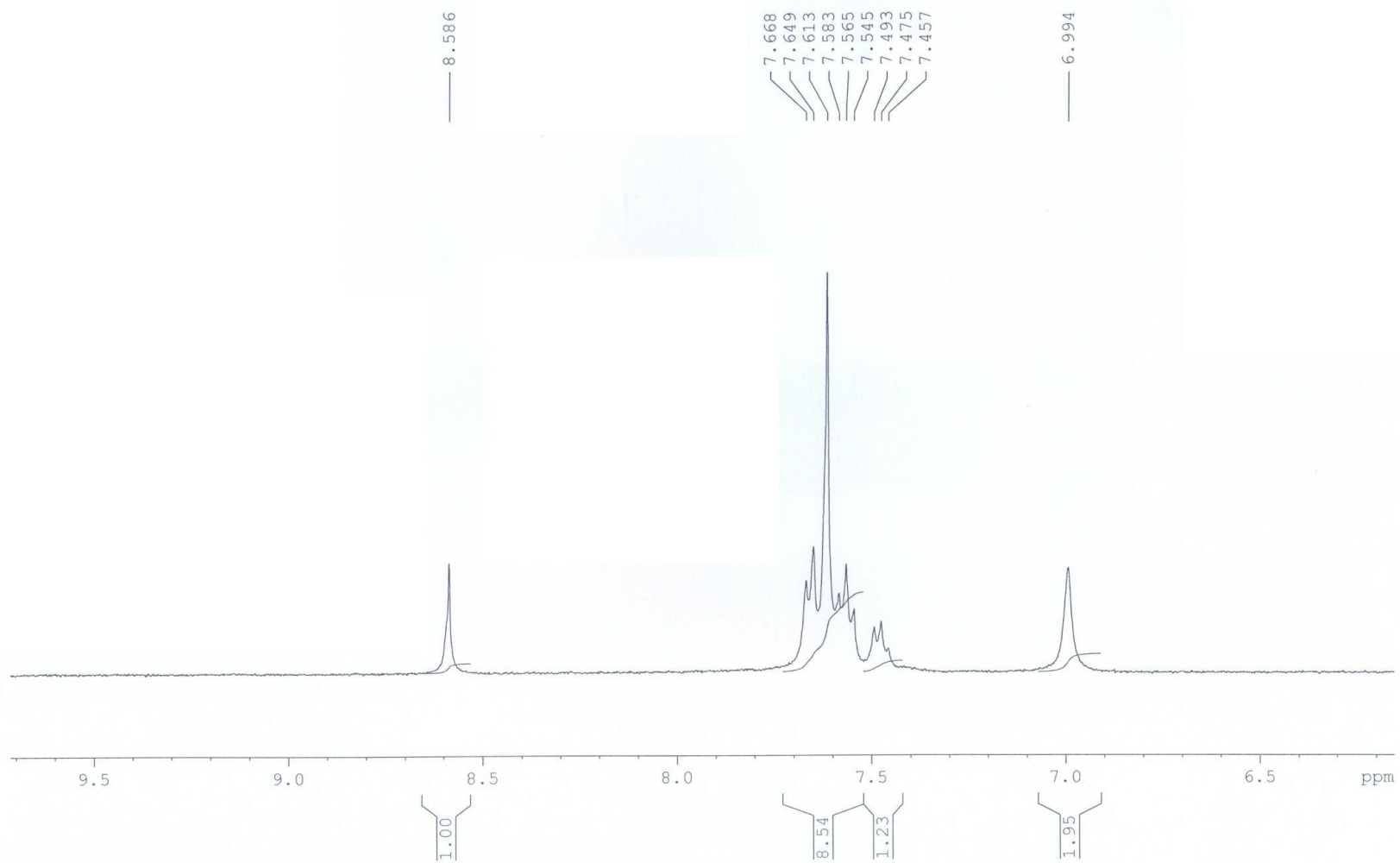


Compound 12j

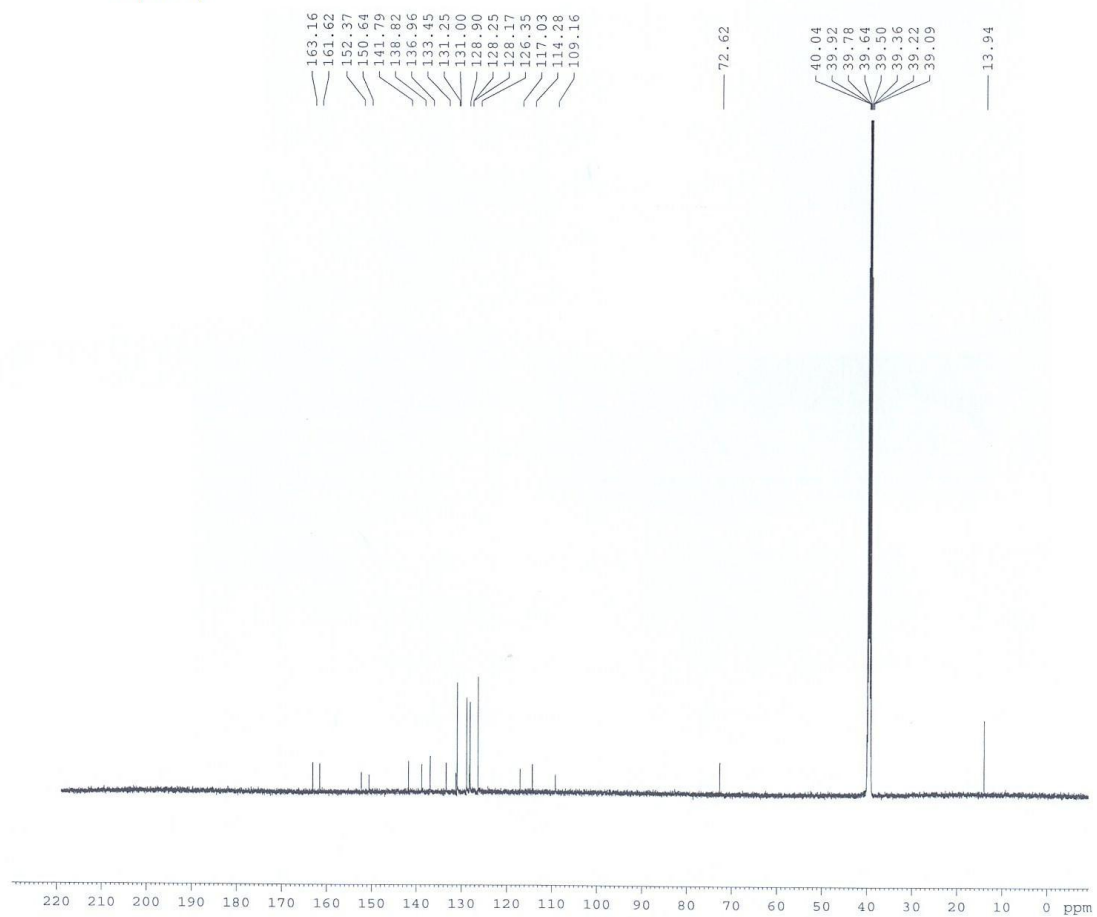




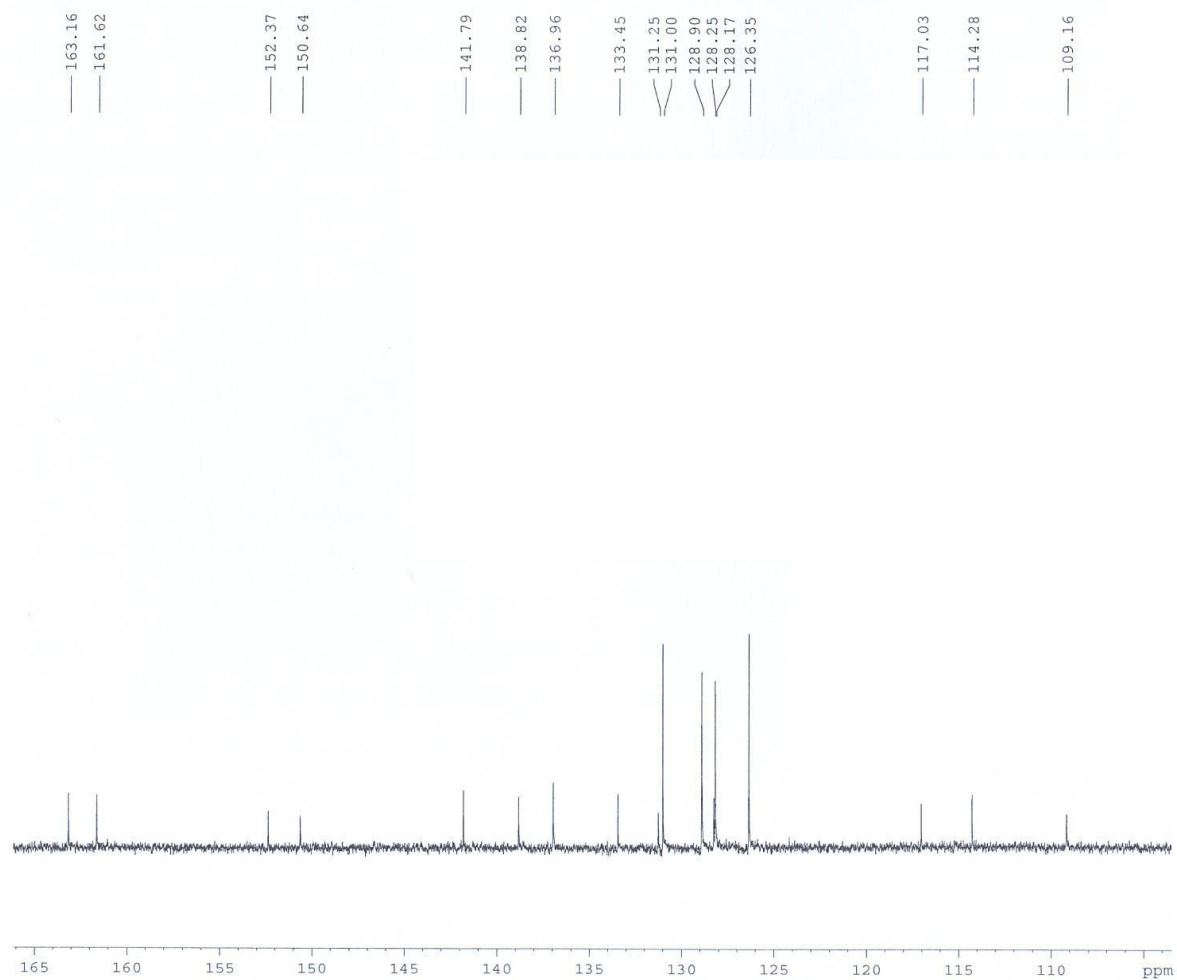
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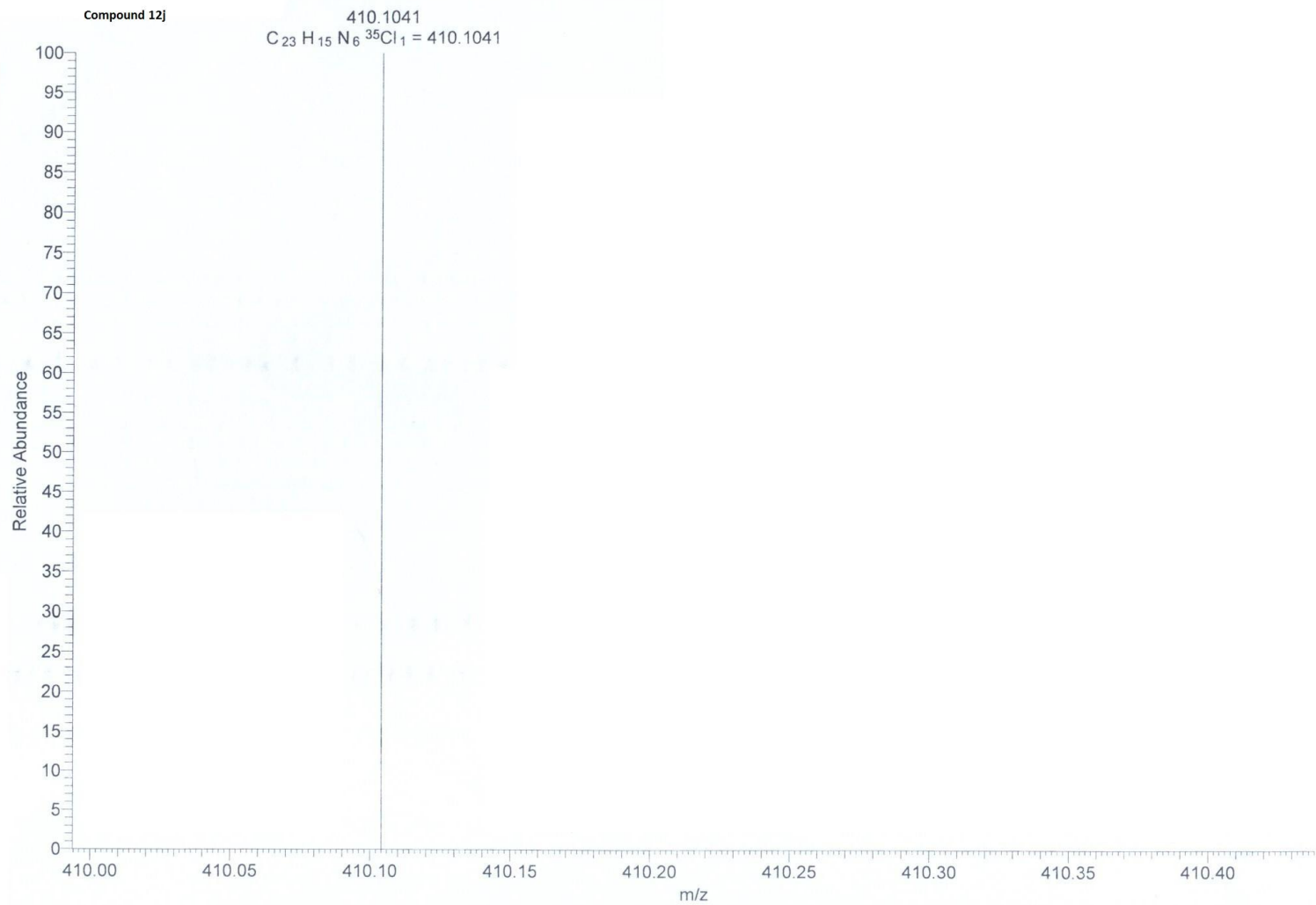


Compound 12j

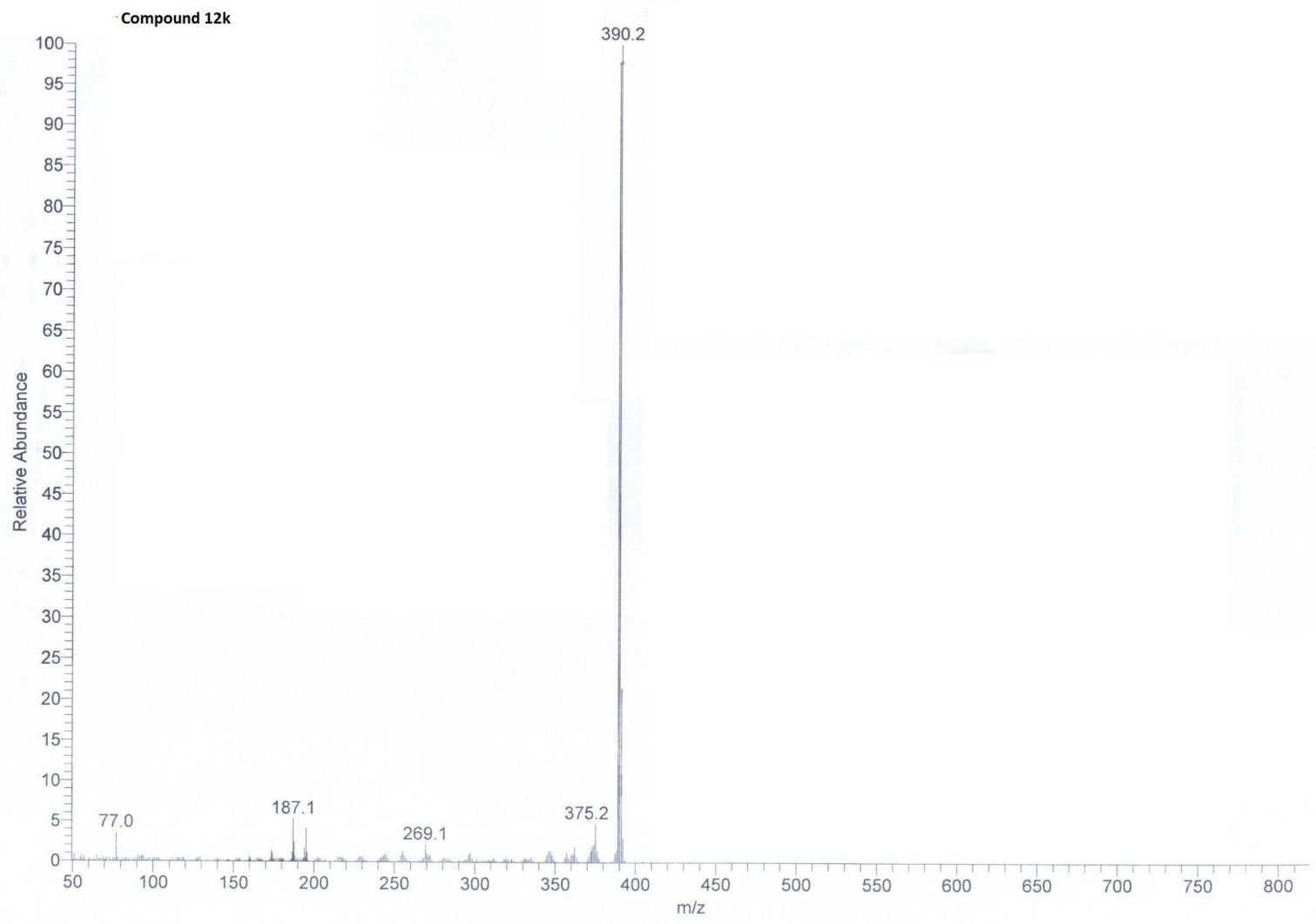


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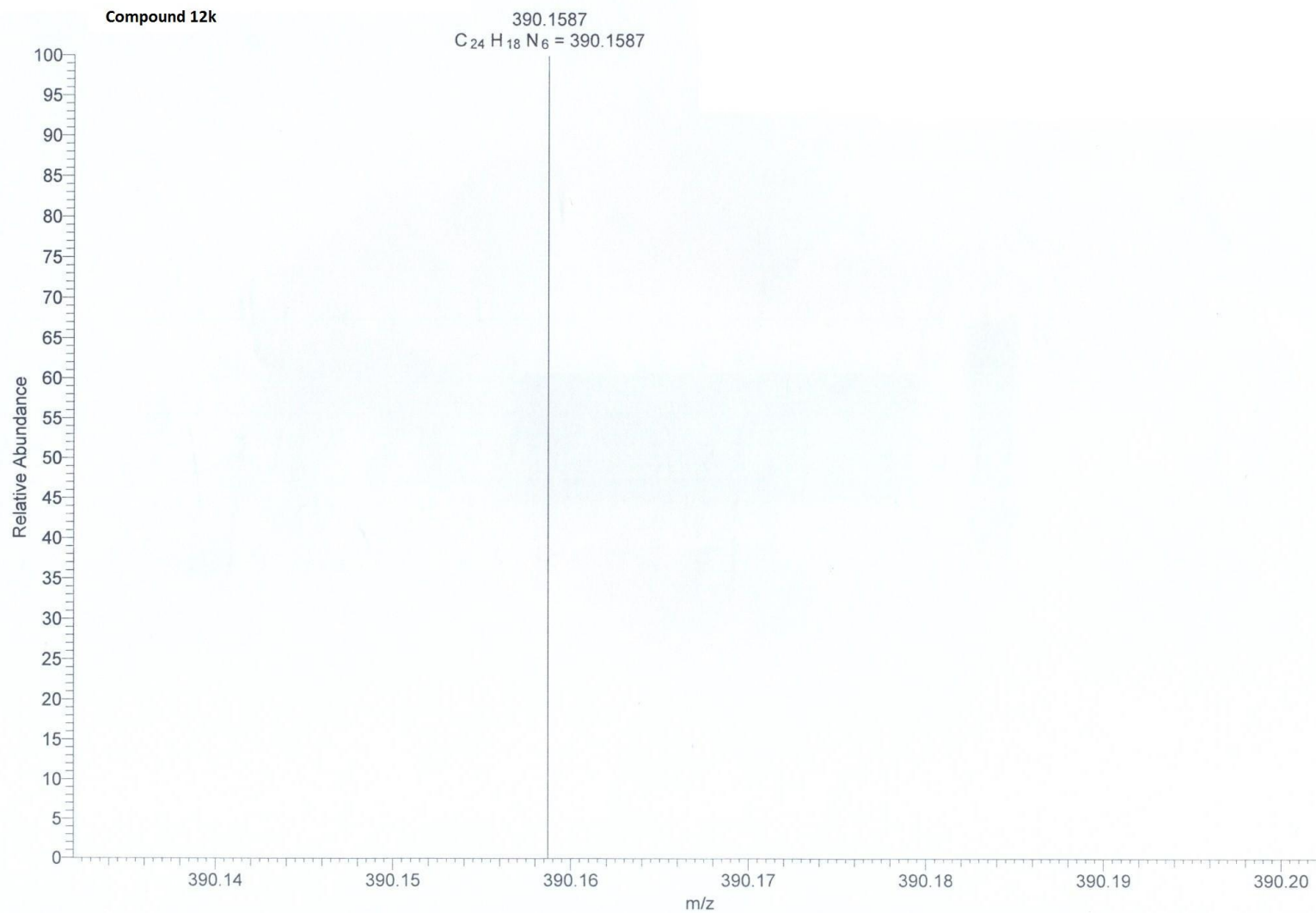




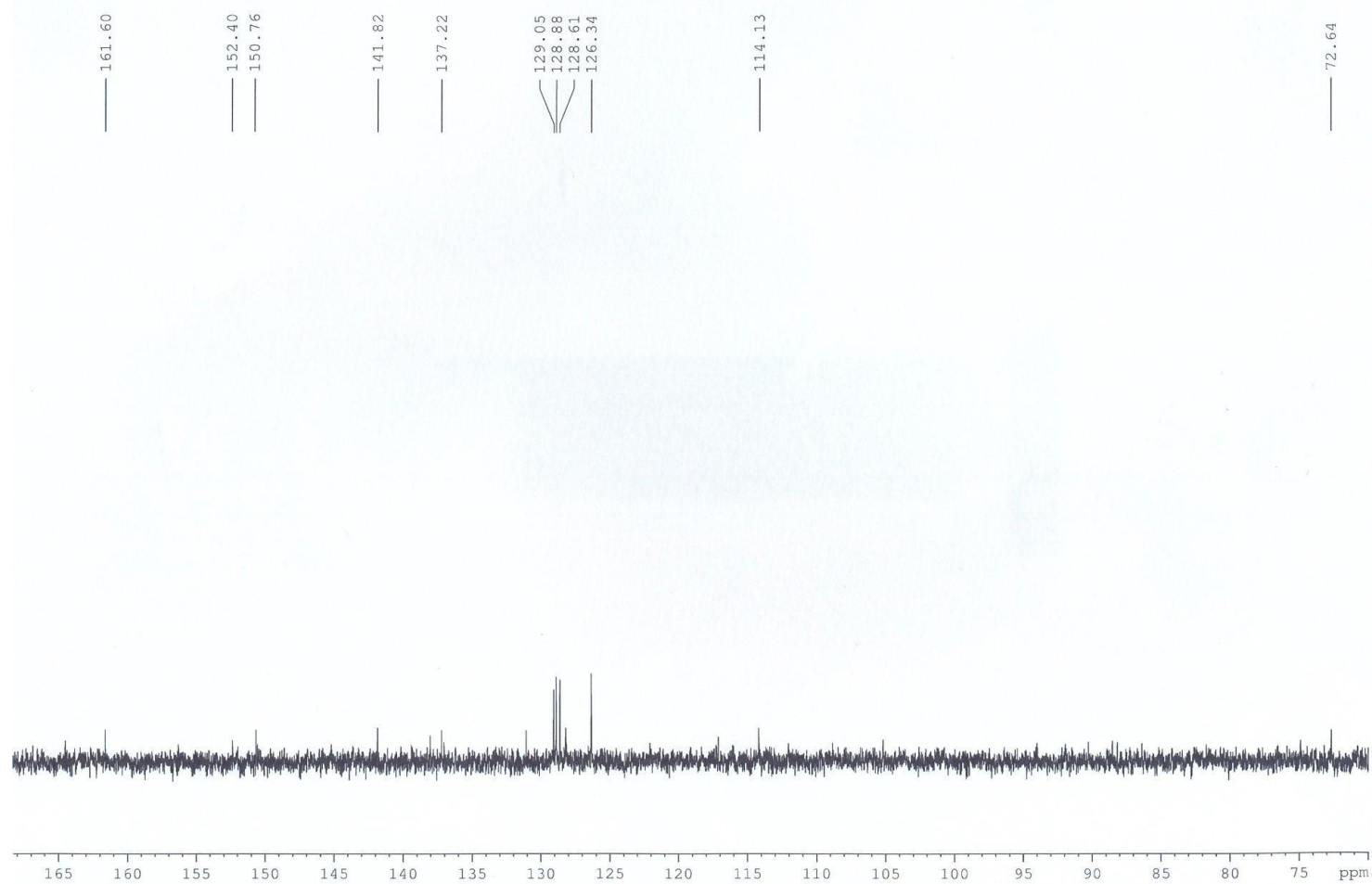




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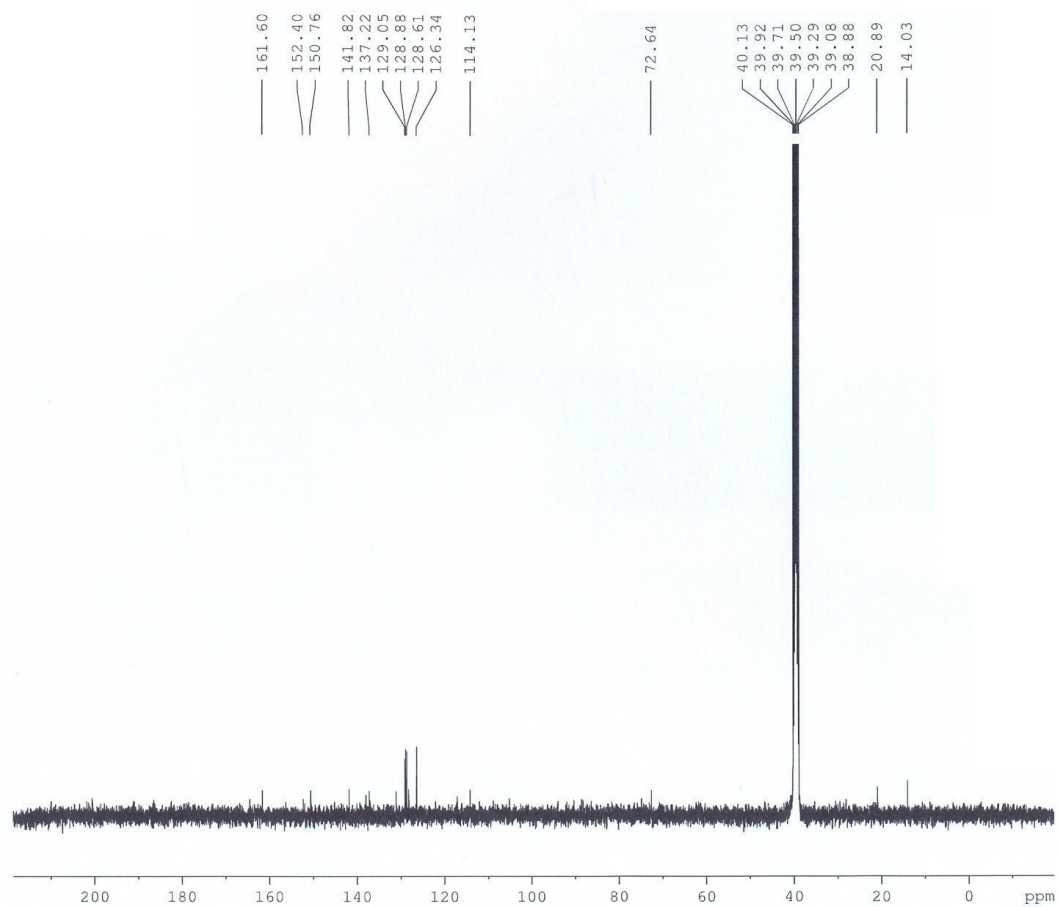


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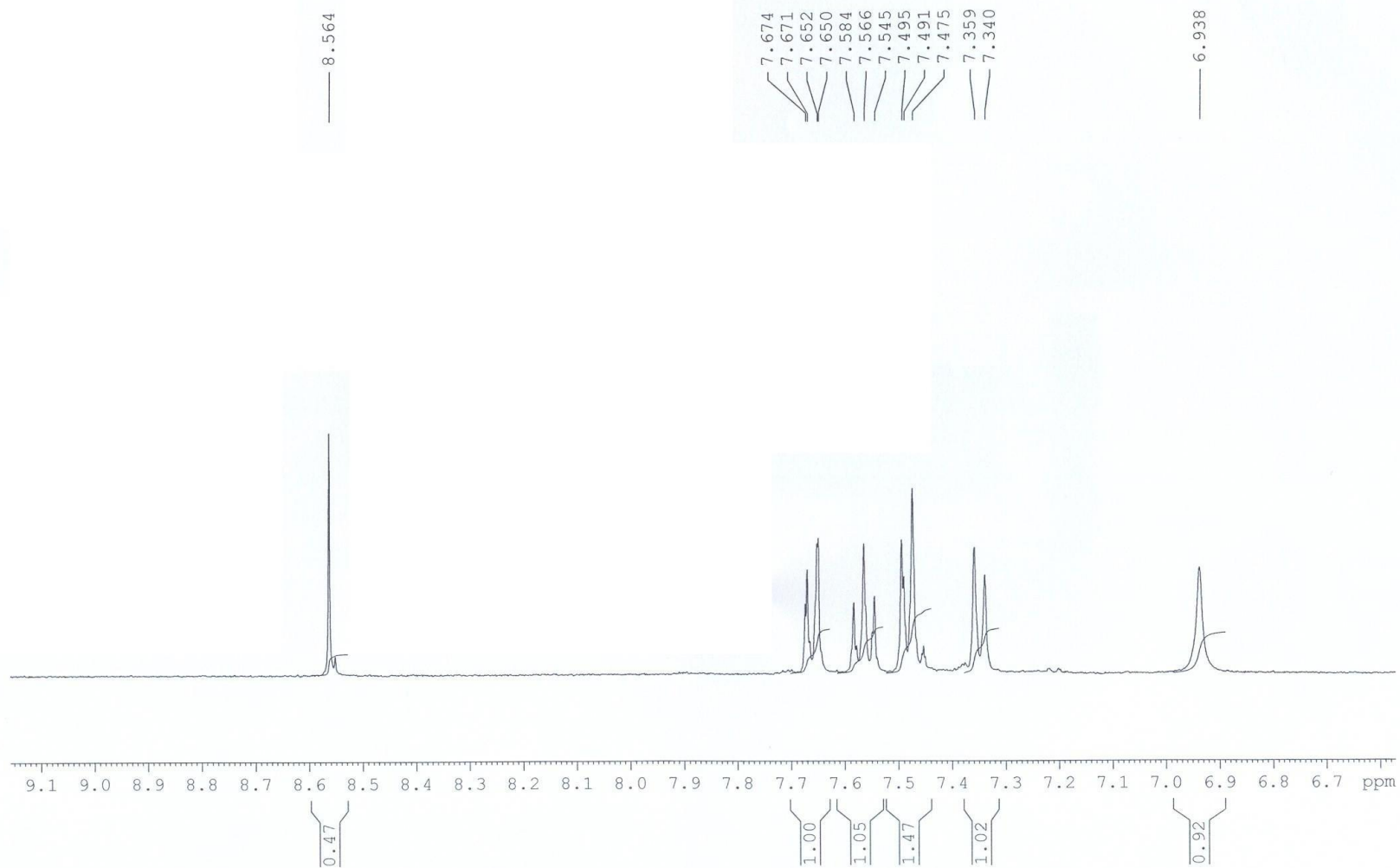




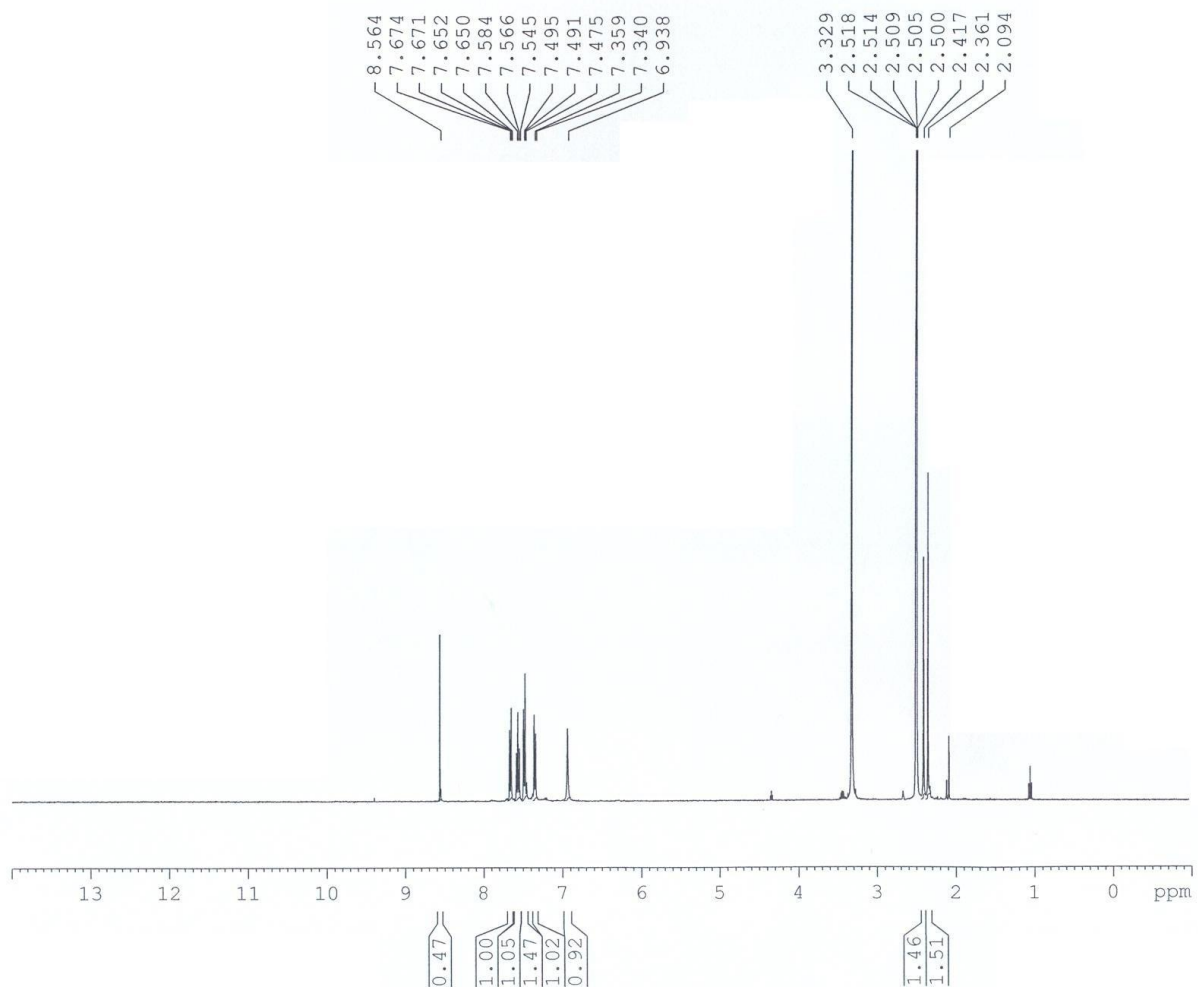
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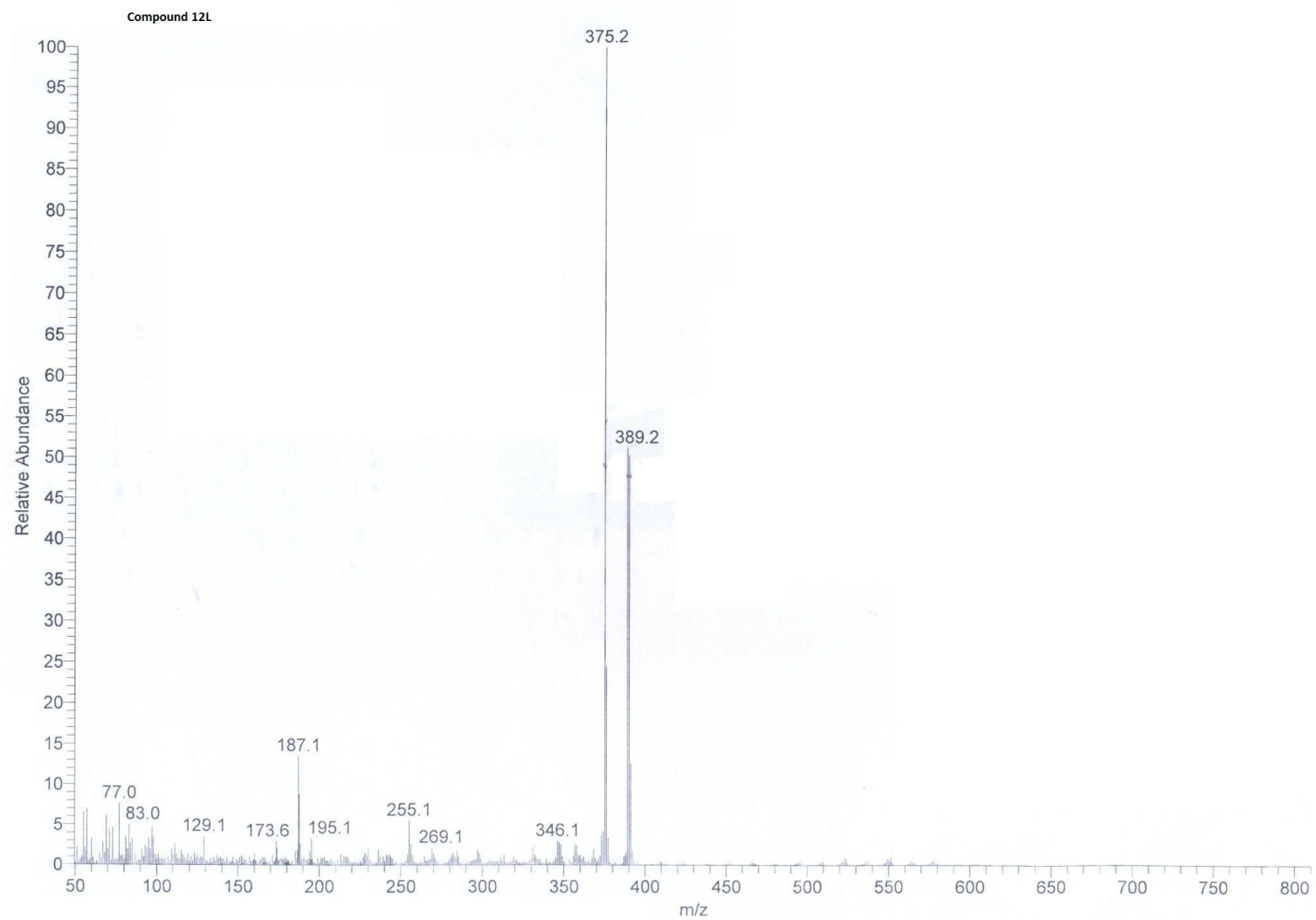


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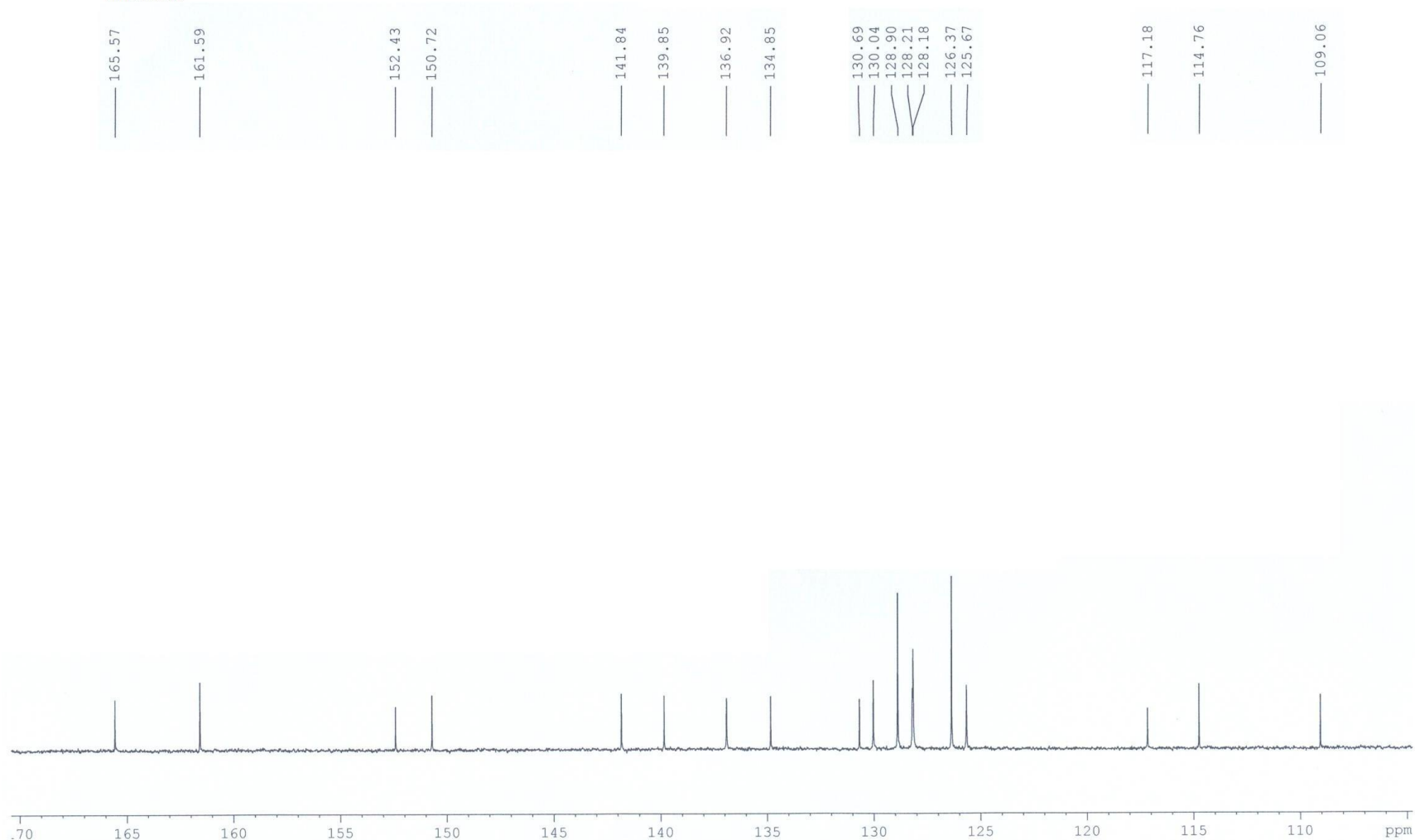


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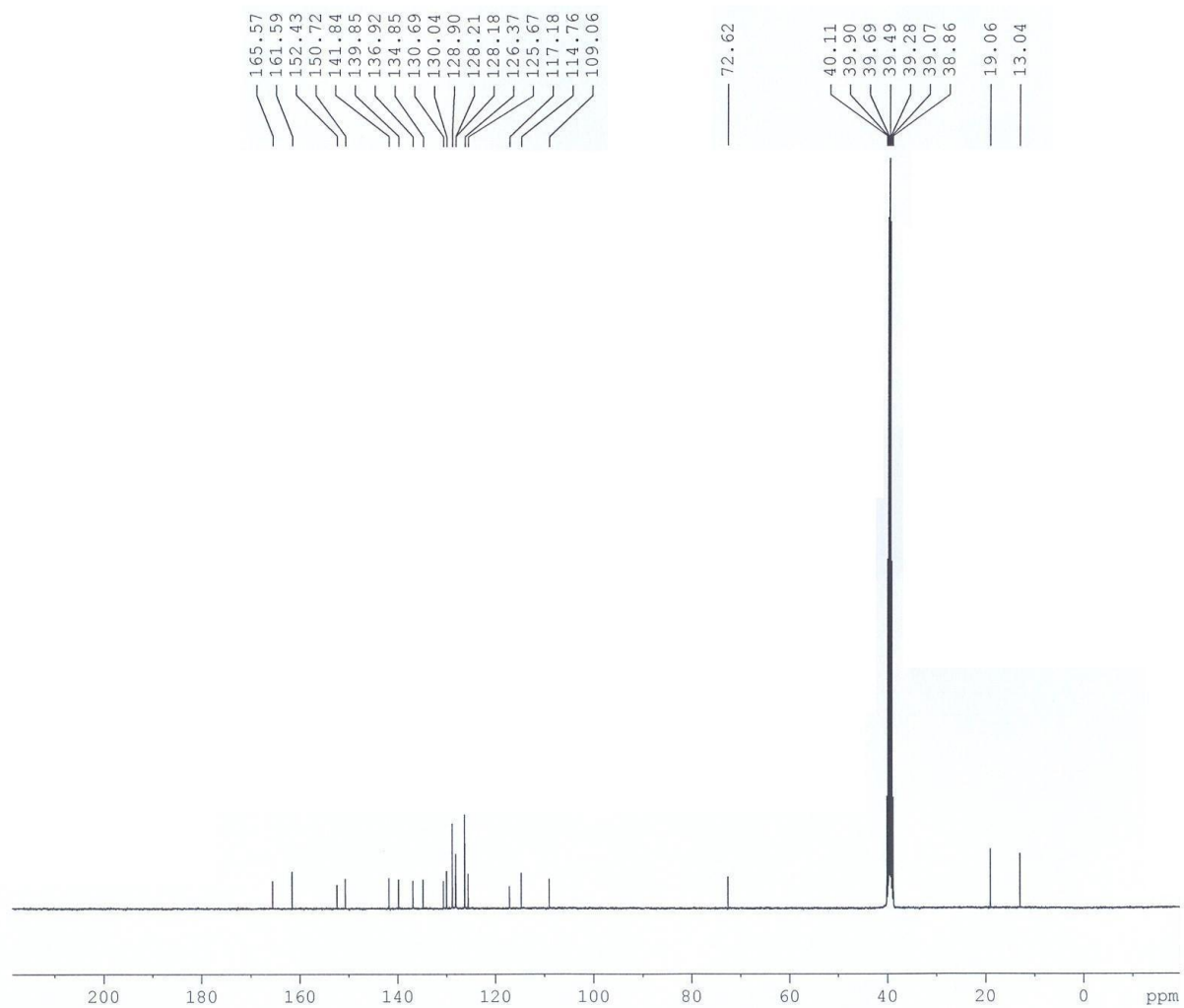


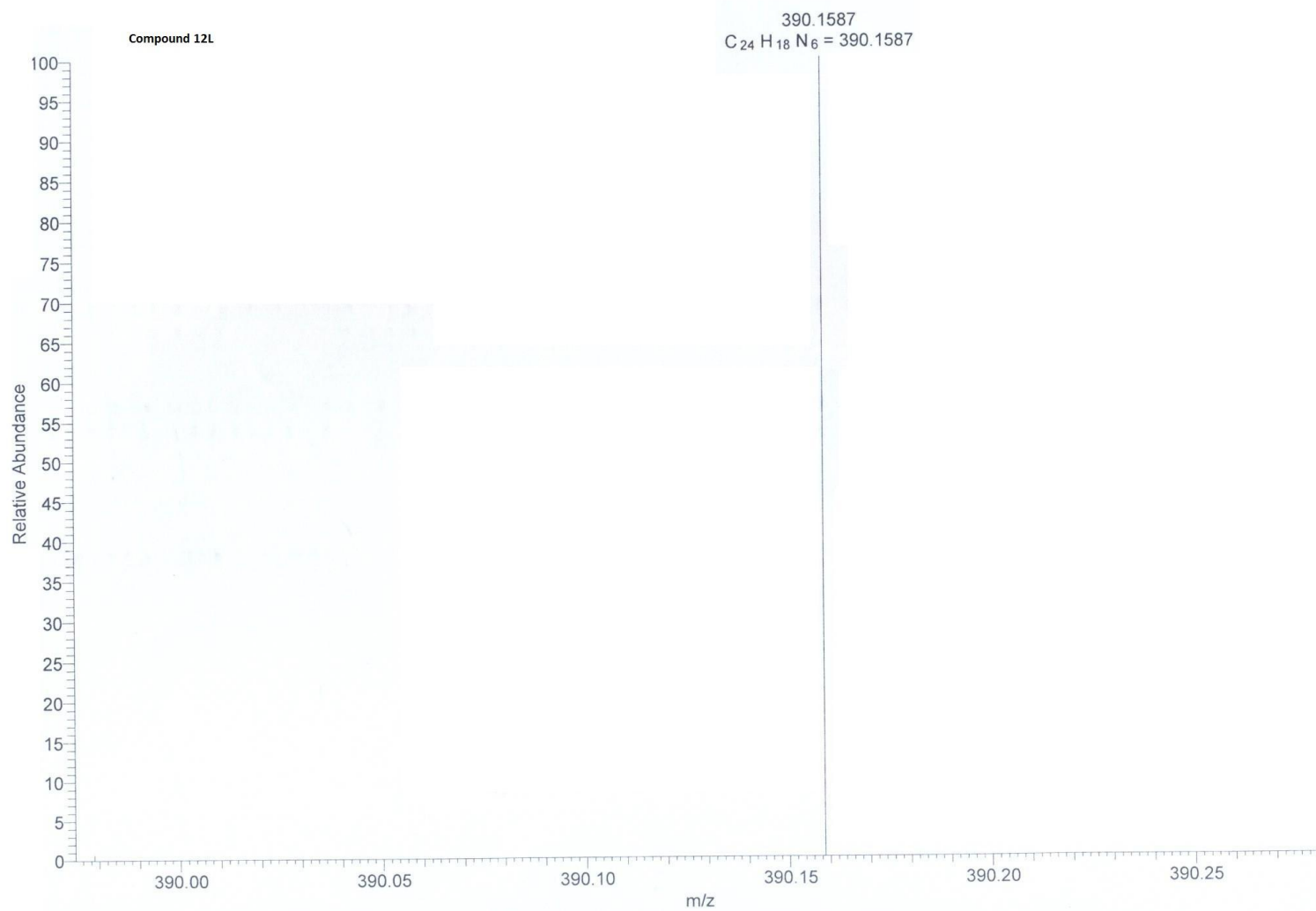


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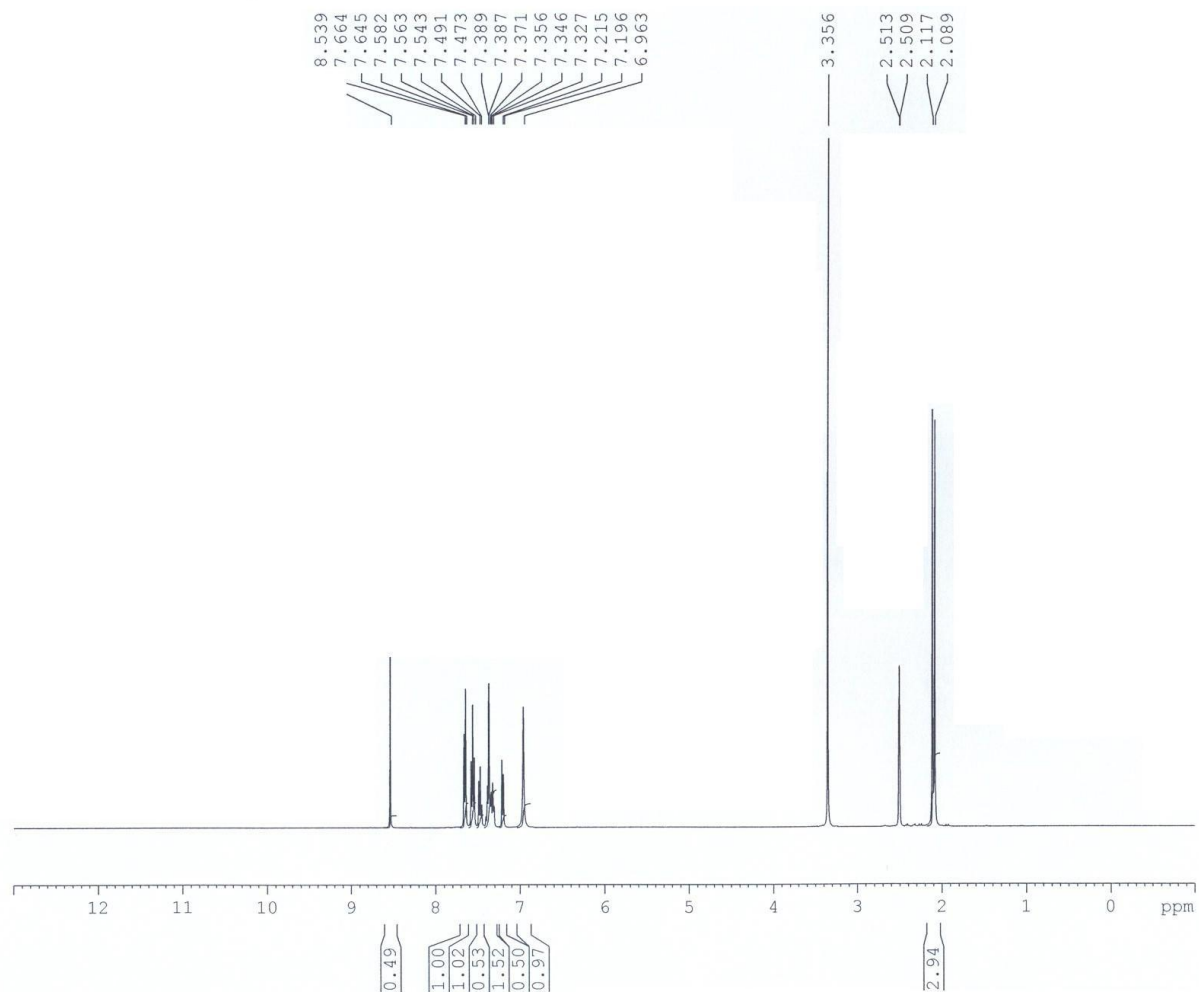


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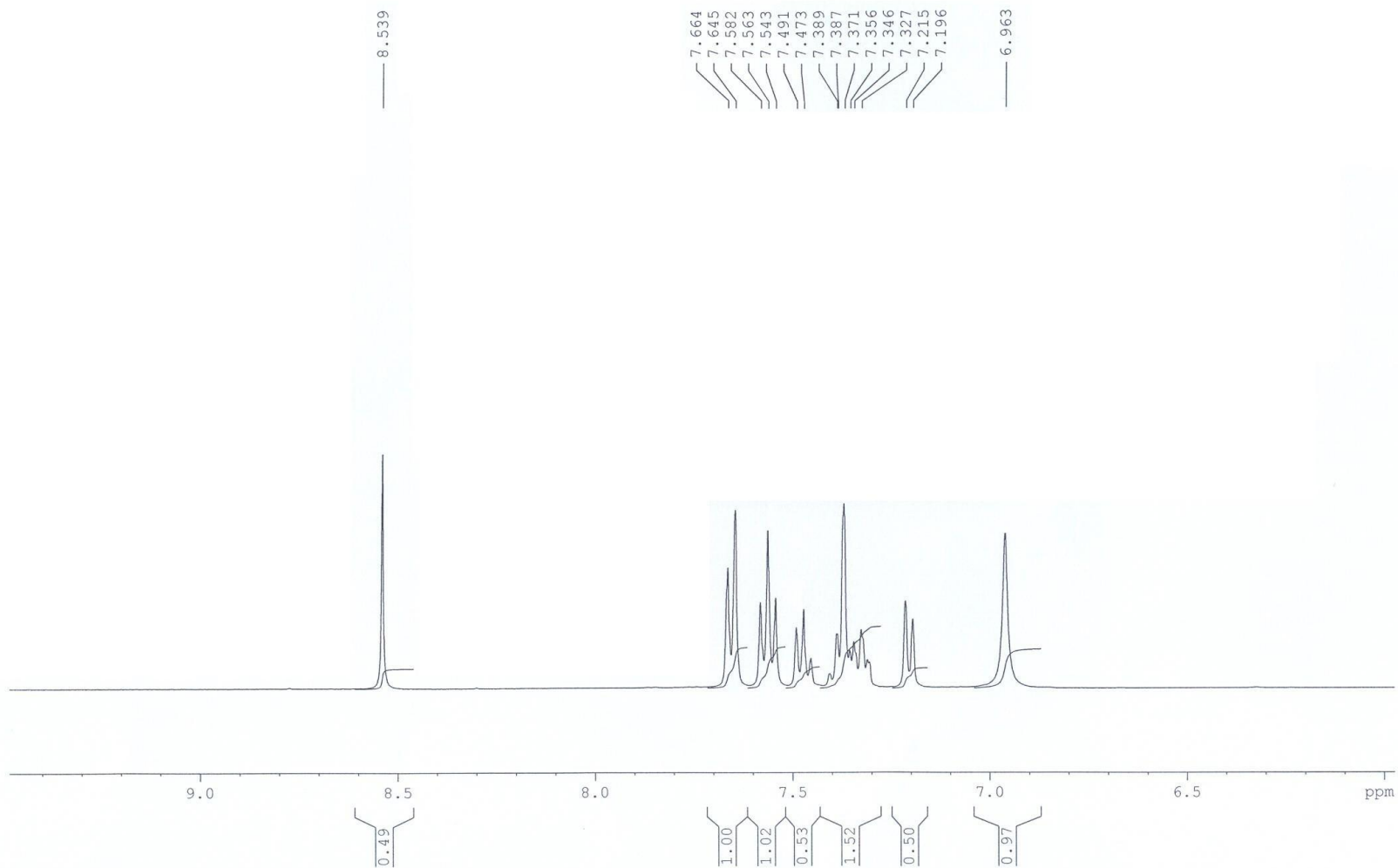


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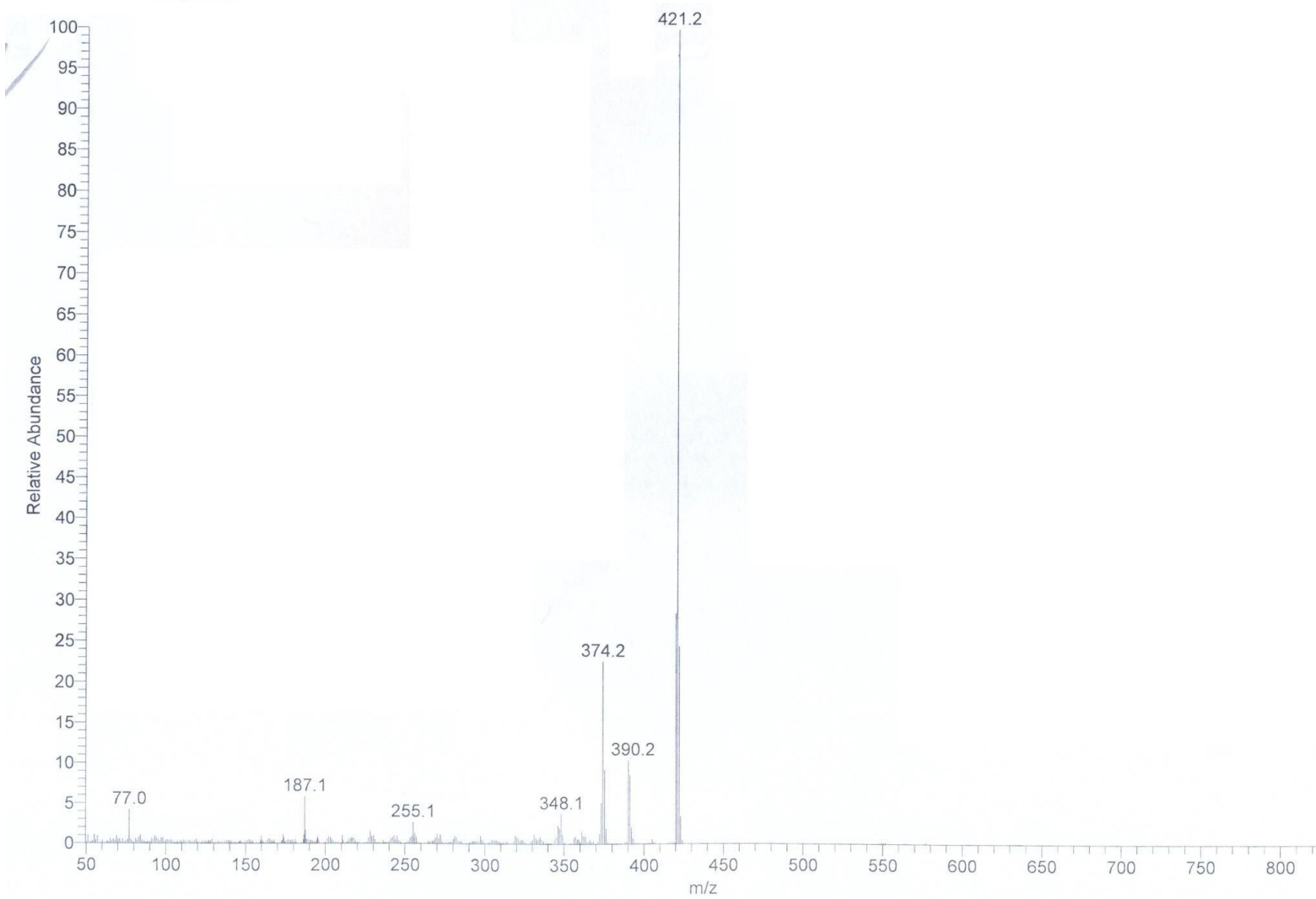




Compound 12L



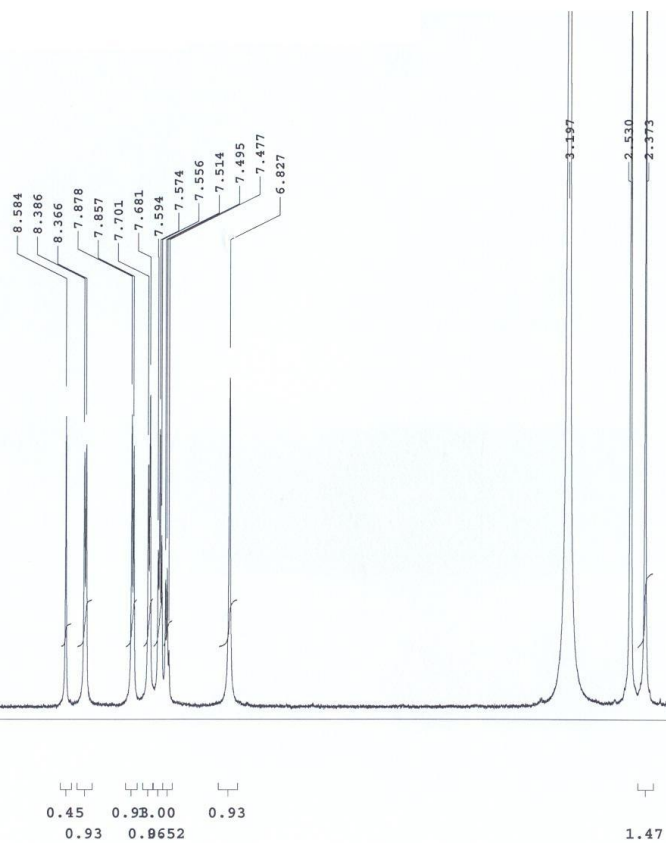
Compound 12m





Agilent Technologies

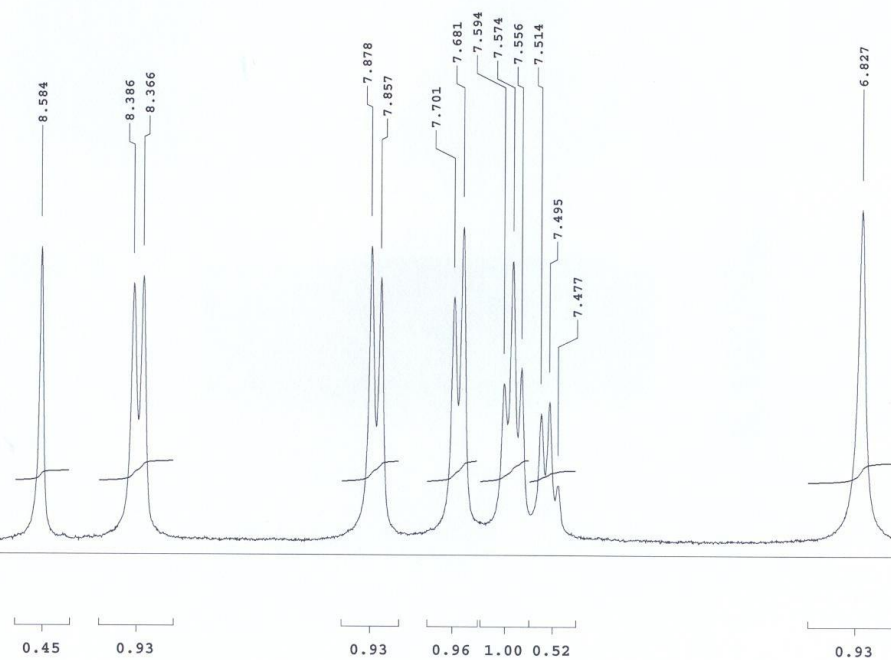
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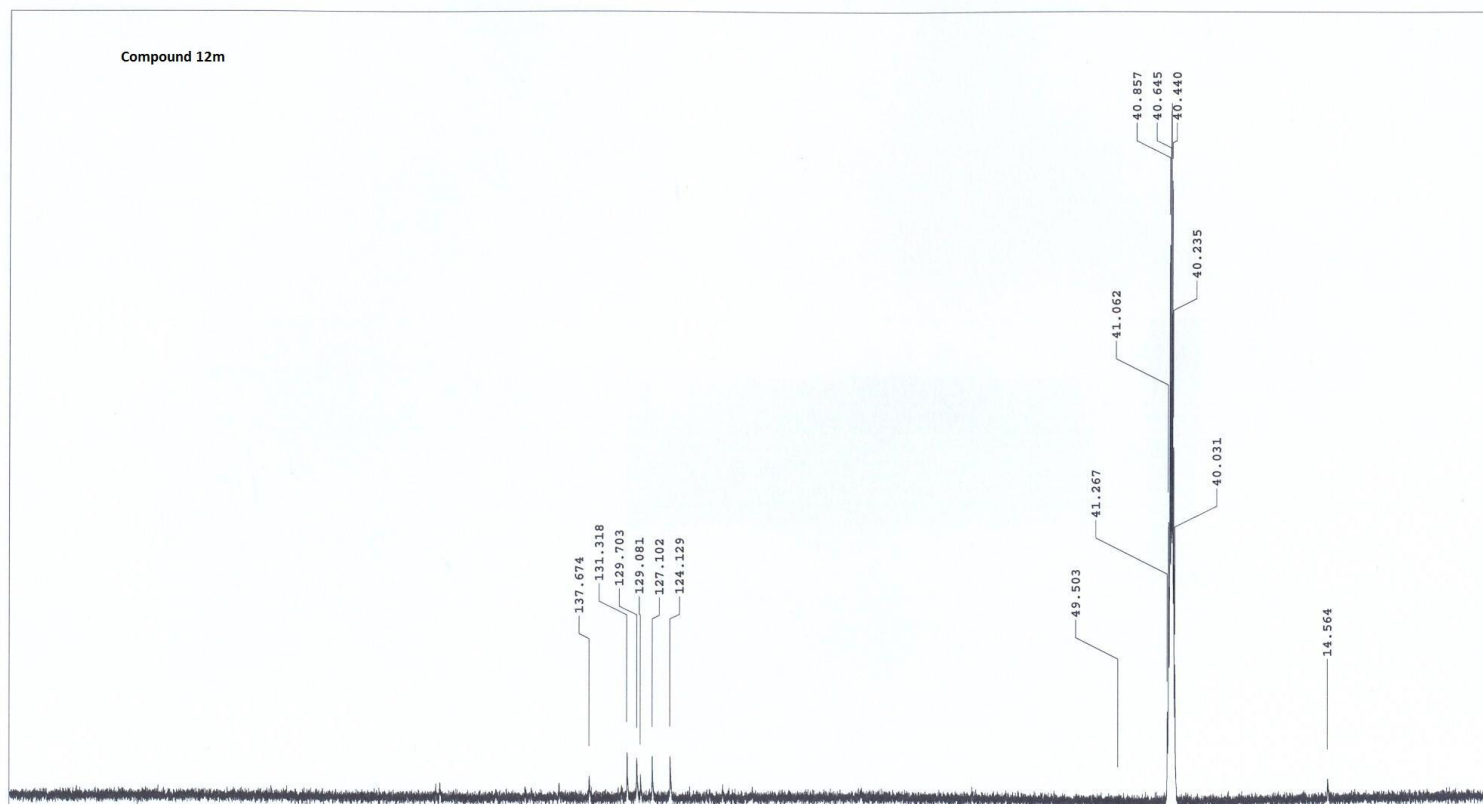




Agilent Technologies

Compound 12m

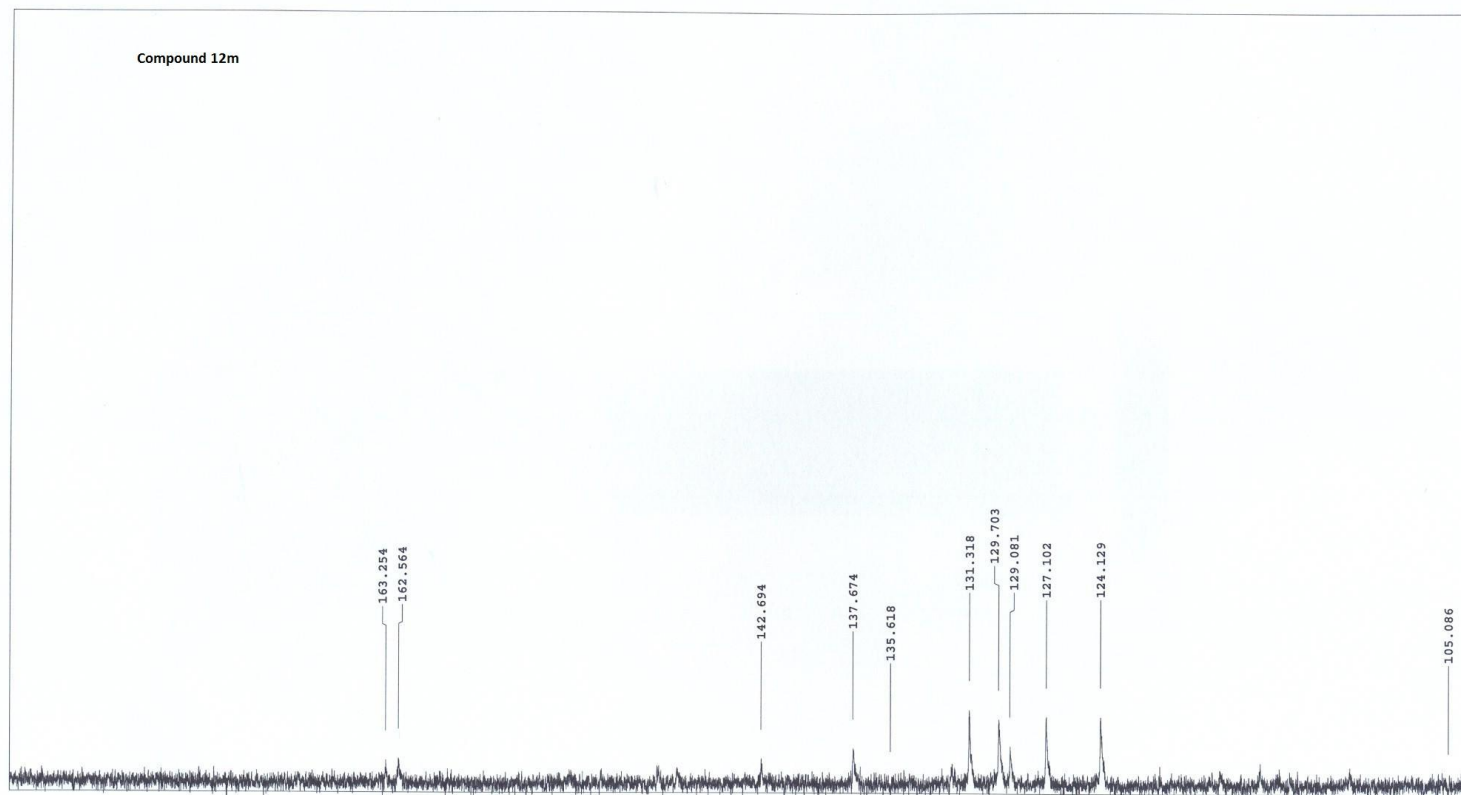






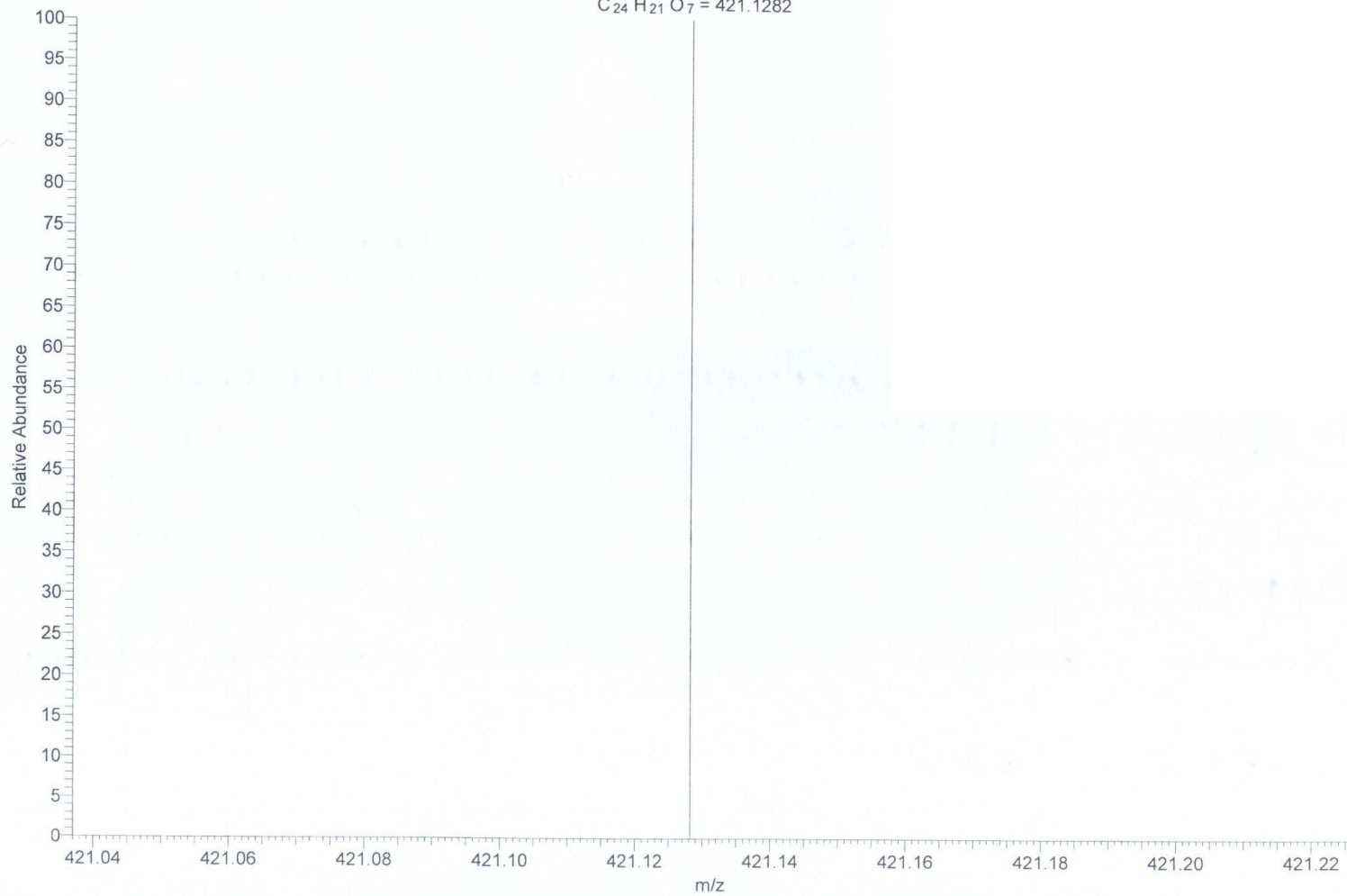
Agilent Technologies

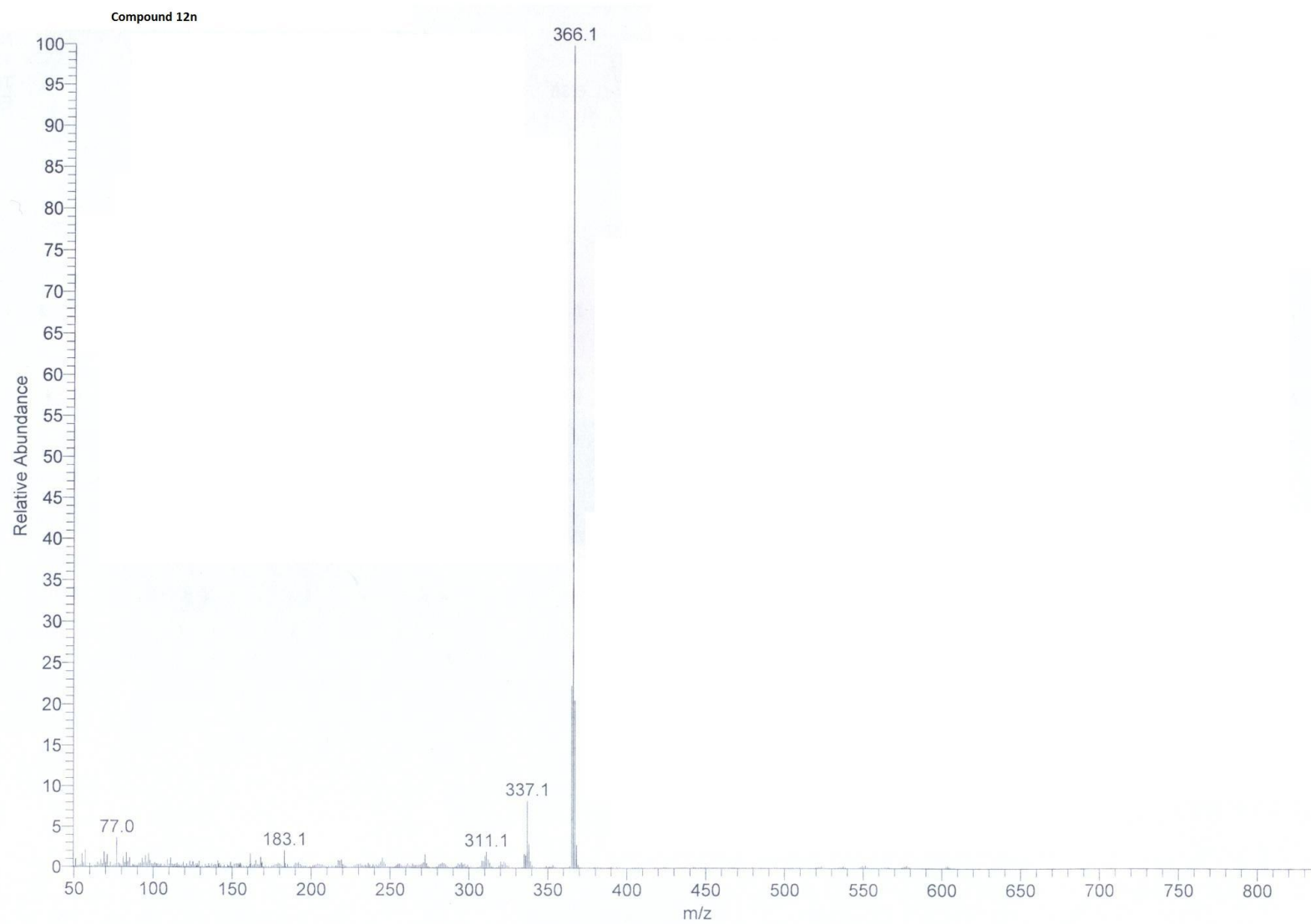
Compound 12m



Compound 12m

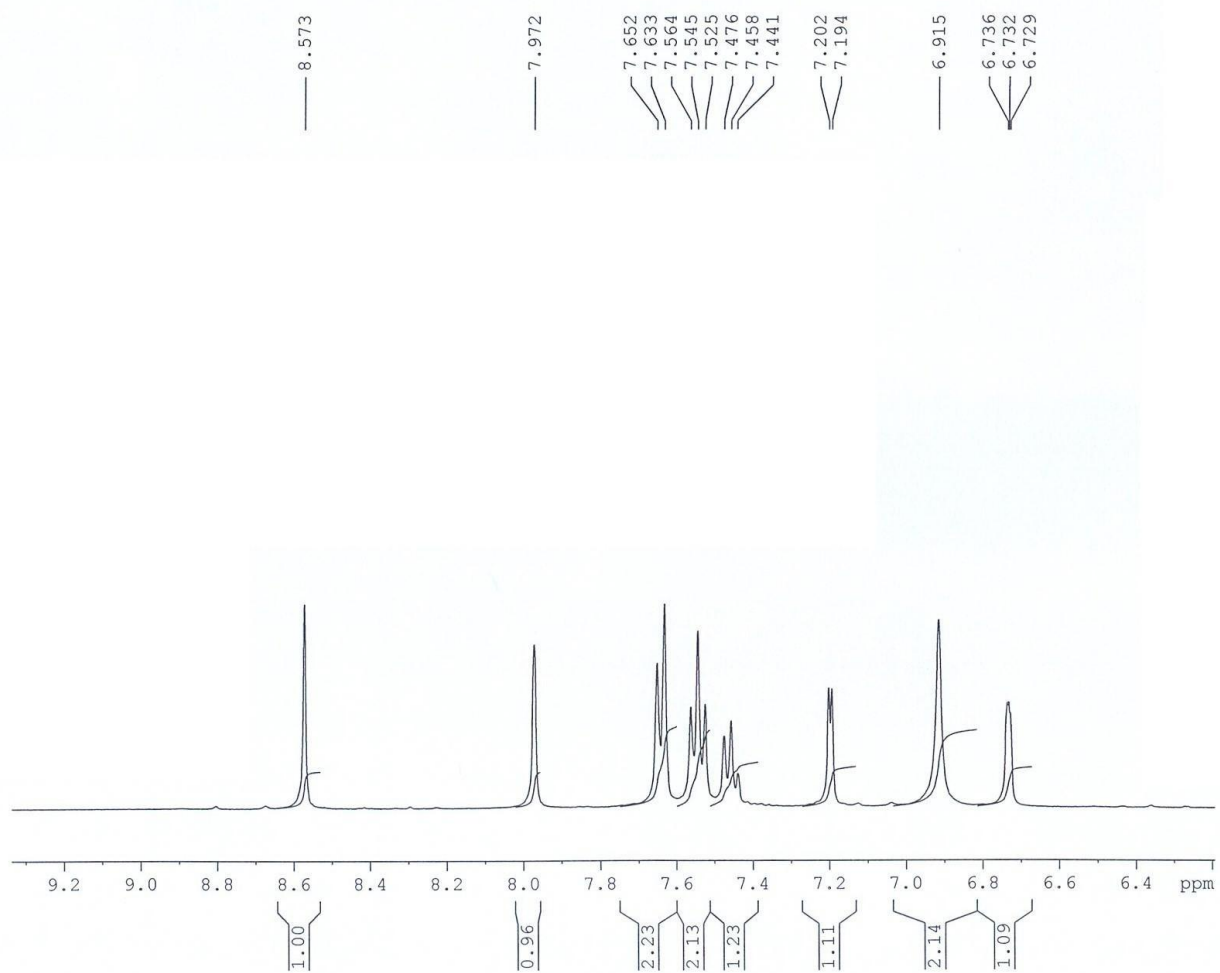
421.1282  
 $C_{24}H_{21}O_7 = 421.1282$



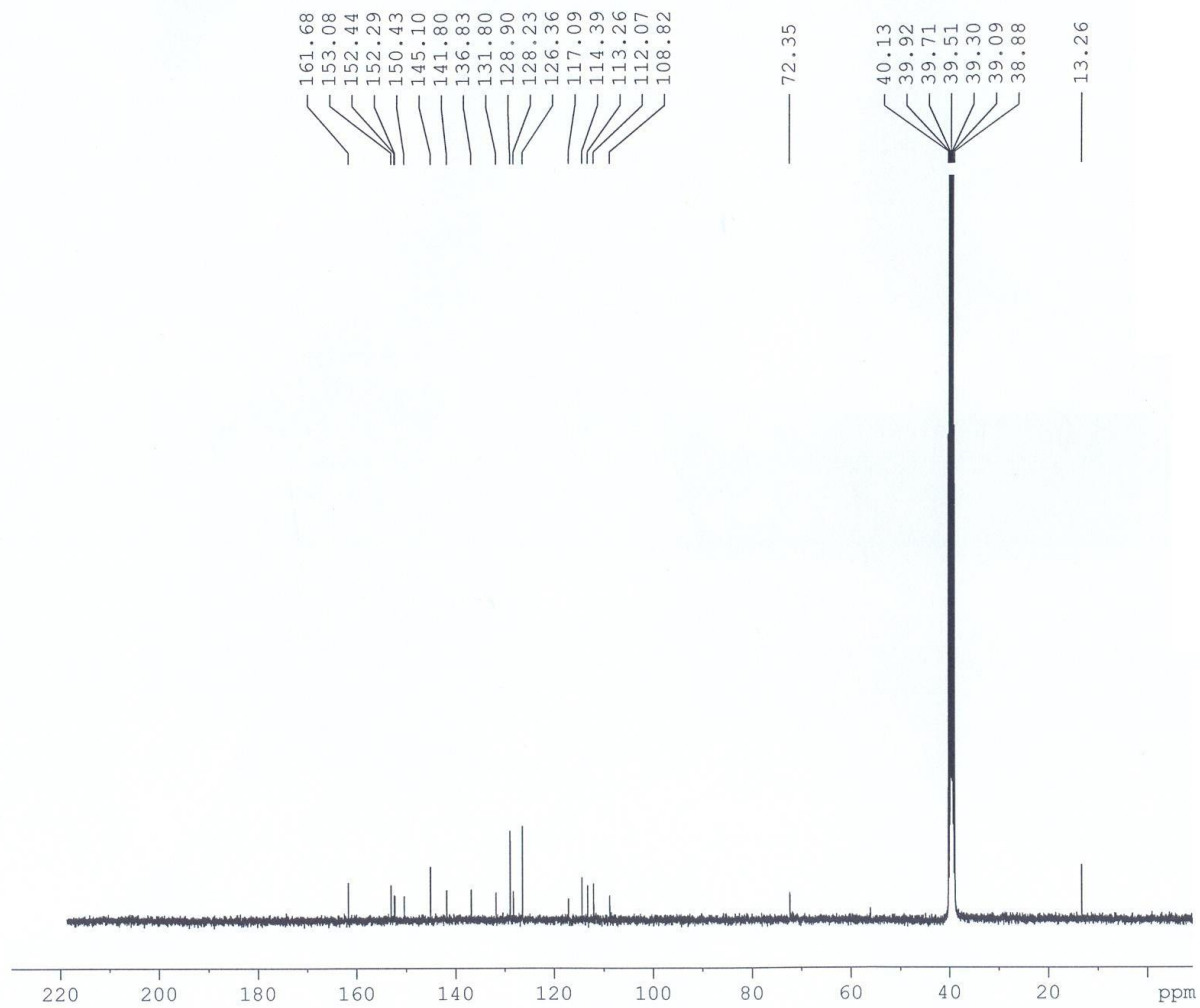




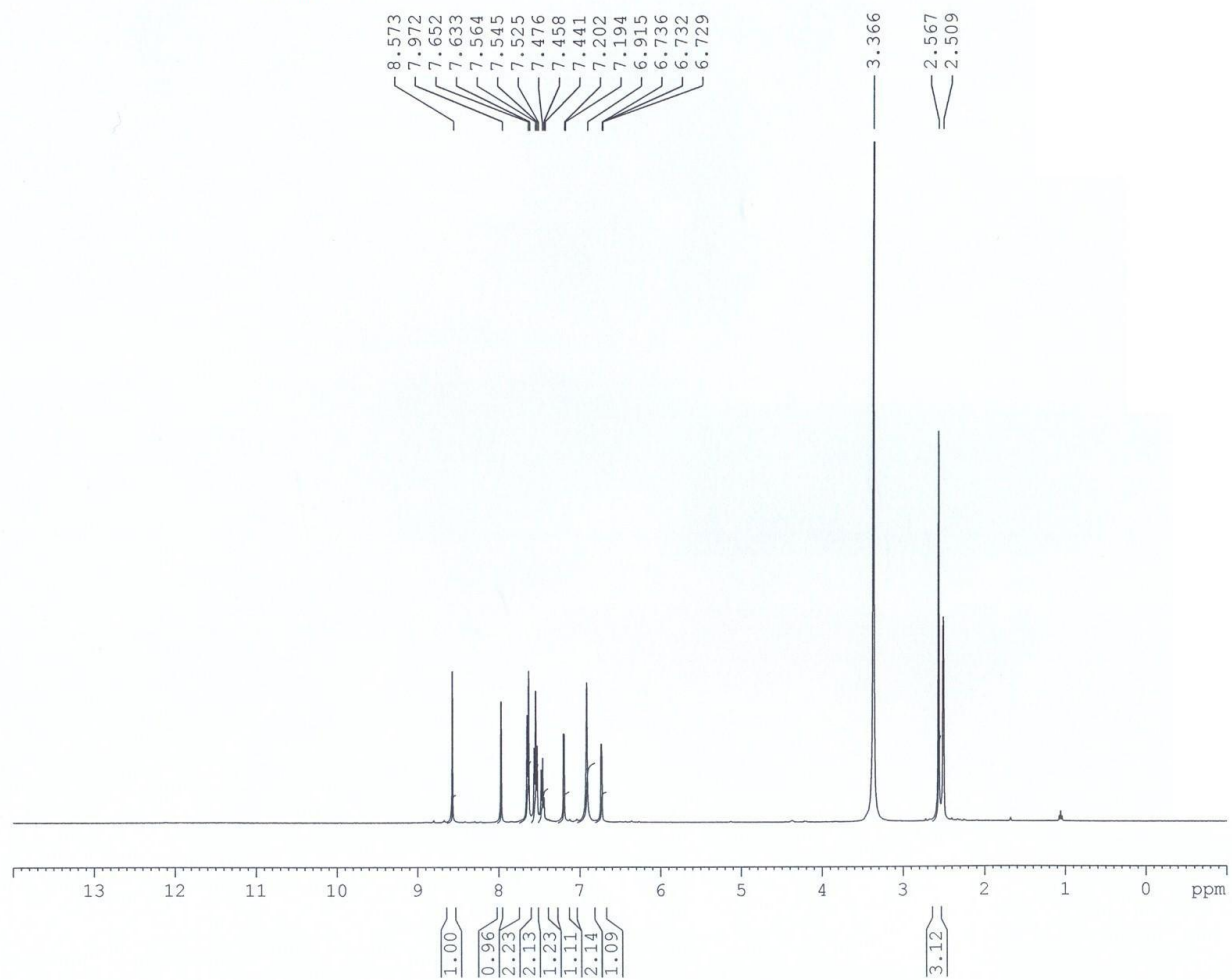
Compound 12n



Compound 12n



Compound 12n



Compound 12n

