

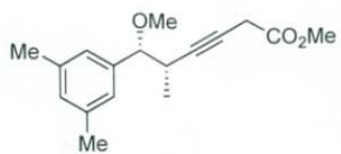
Supporting Information 2:

Rhodium(II)-Catalyzed Alkyne Amination of Homopropargylic Sulfamate Esters: Stereoselective Synthesis of Functionalized Norcaradienes by Arene Cyclopropanation

Ryan A. Brawn, Kaicheng Zhu and James S. Panek*

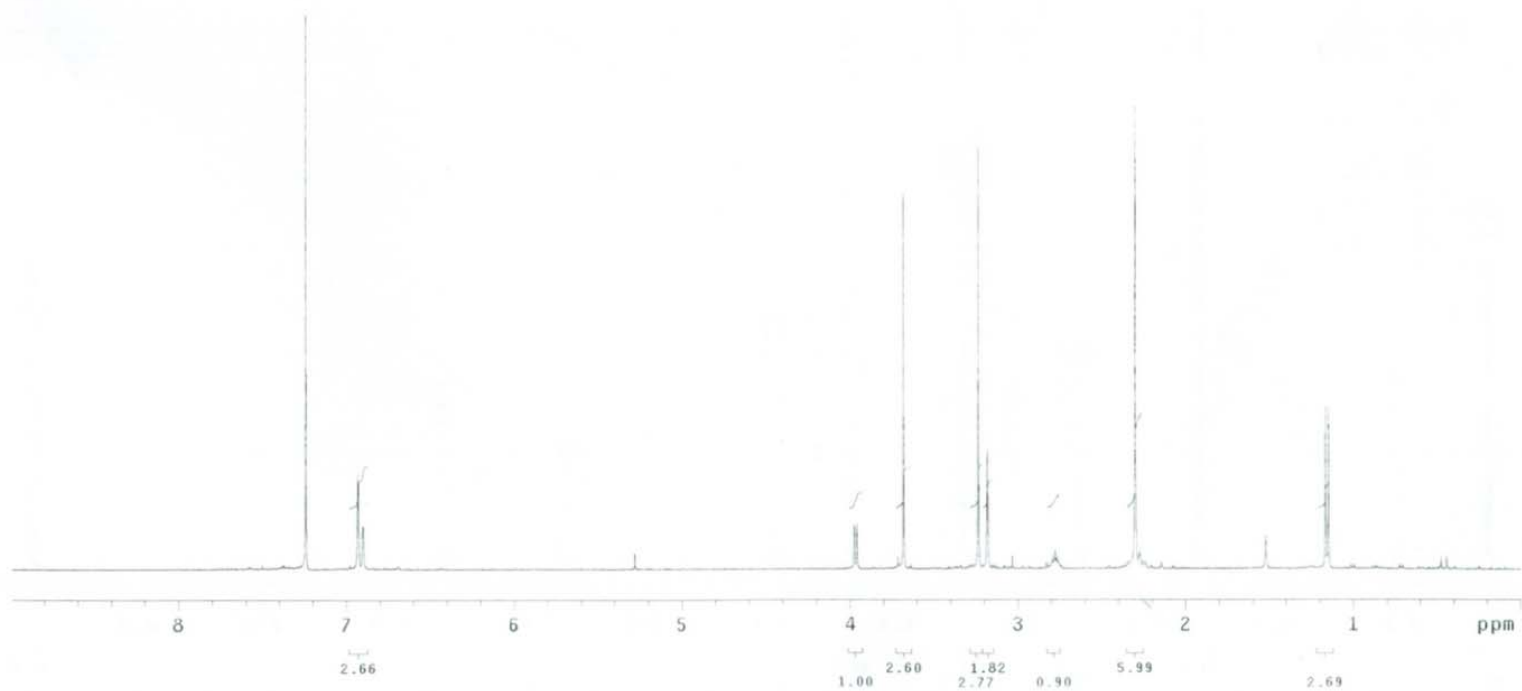
Department of Chemistry and Center for Chemical Methodology and Library Development, Metcalf Center for Science and Engineering, 590
Commonwealth Avenue, Boston University, Boston, Massachusetts 02215

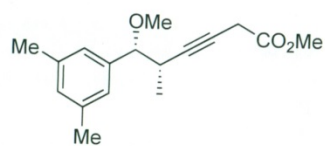
5. ^1H and ^{13}C NMR Spectra



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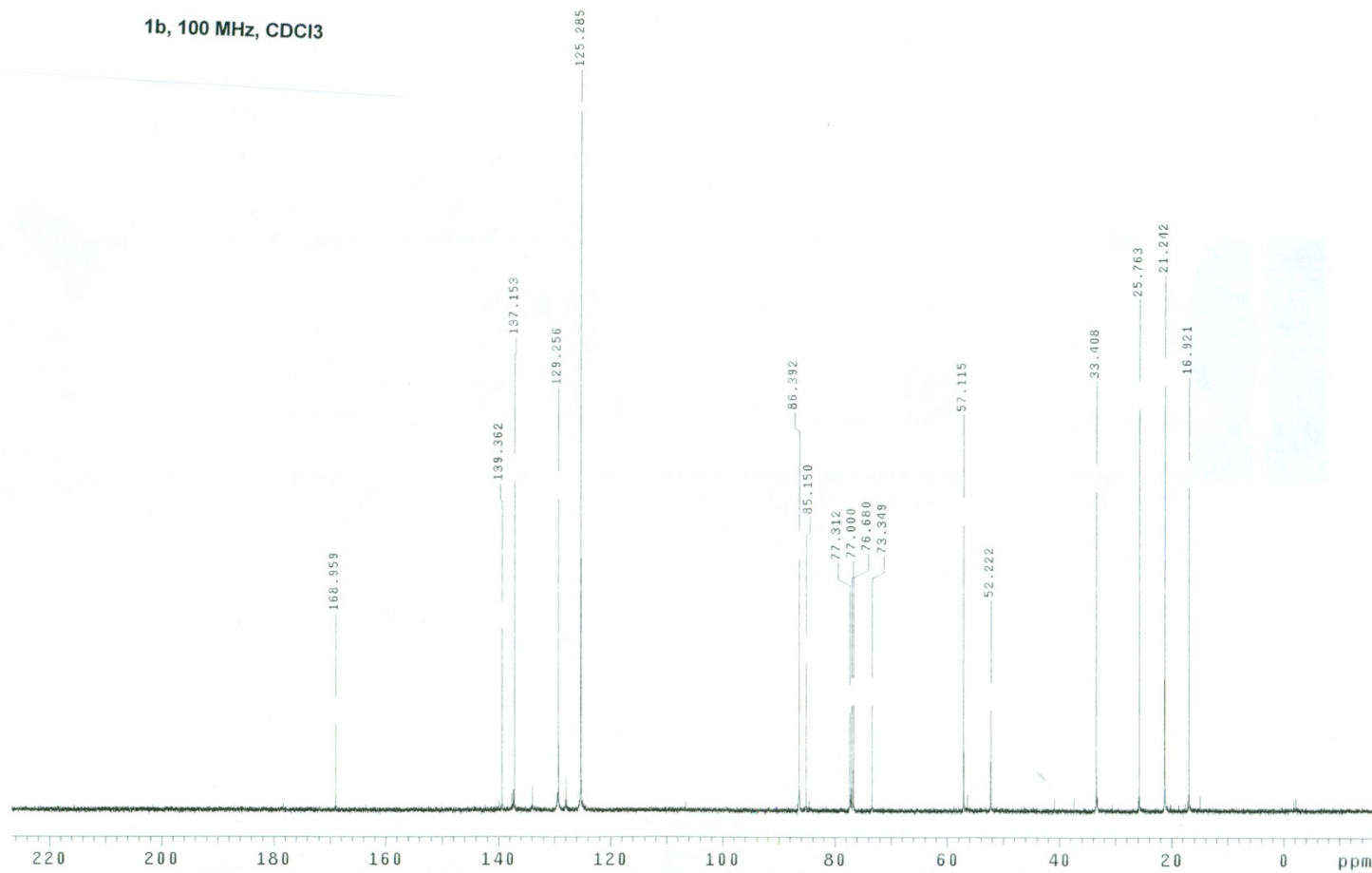
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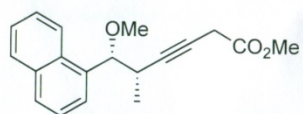




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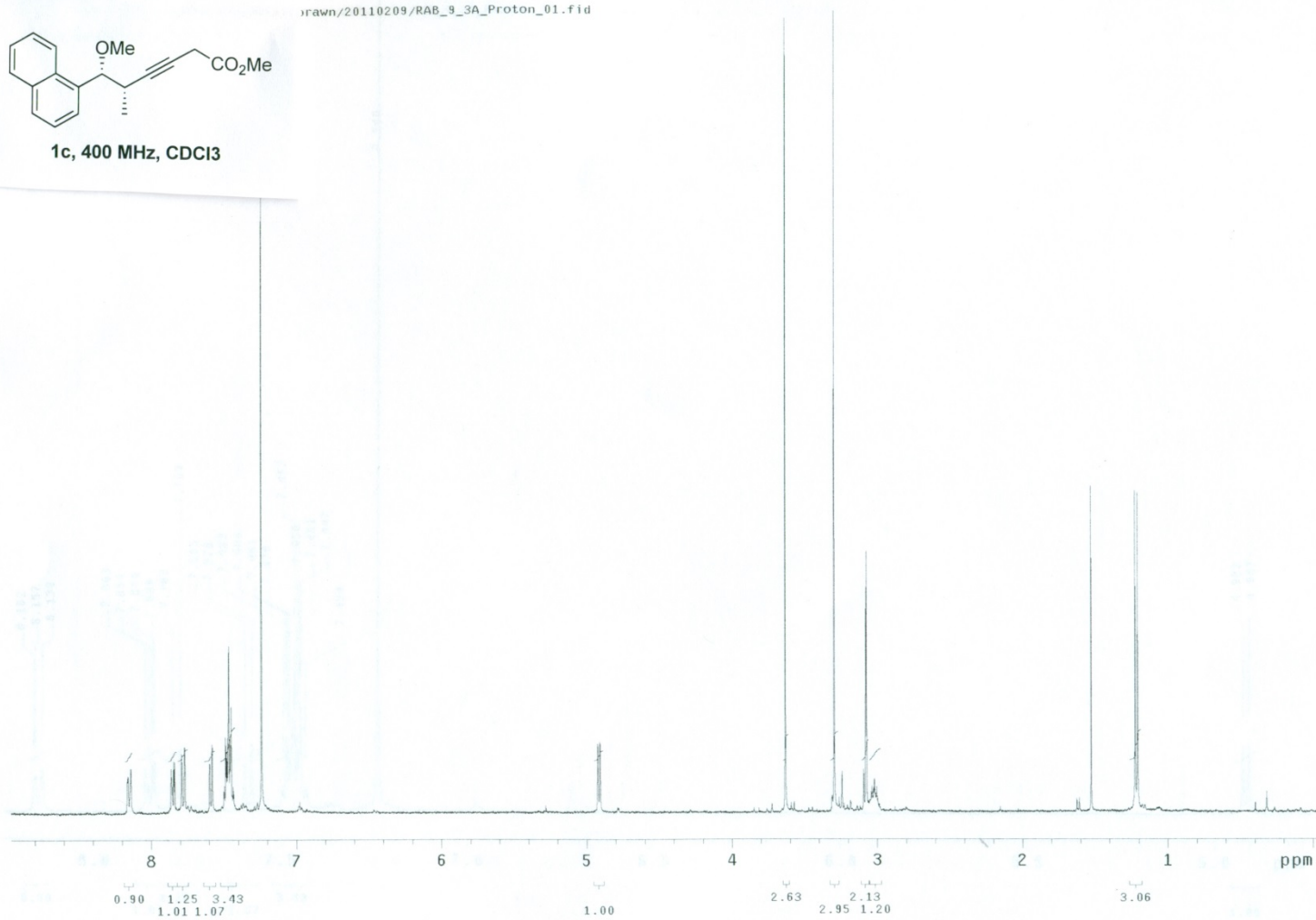
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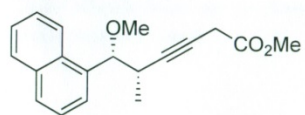




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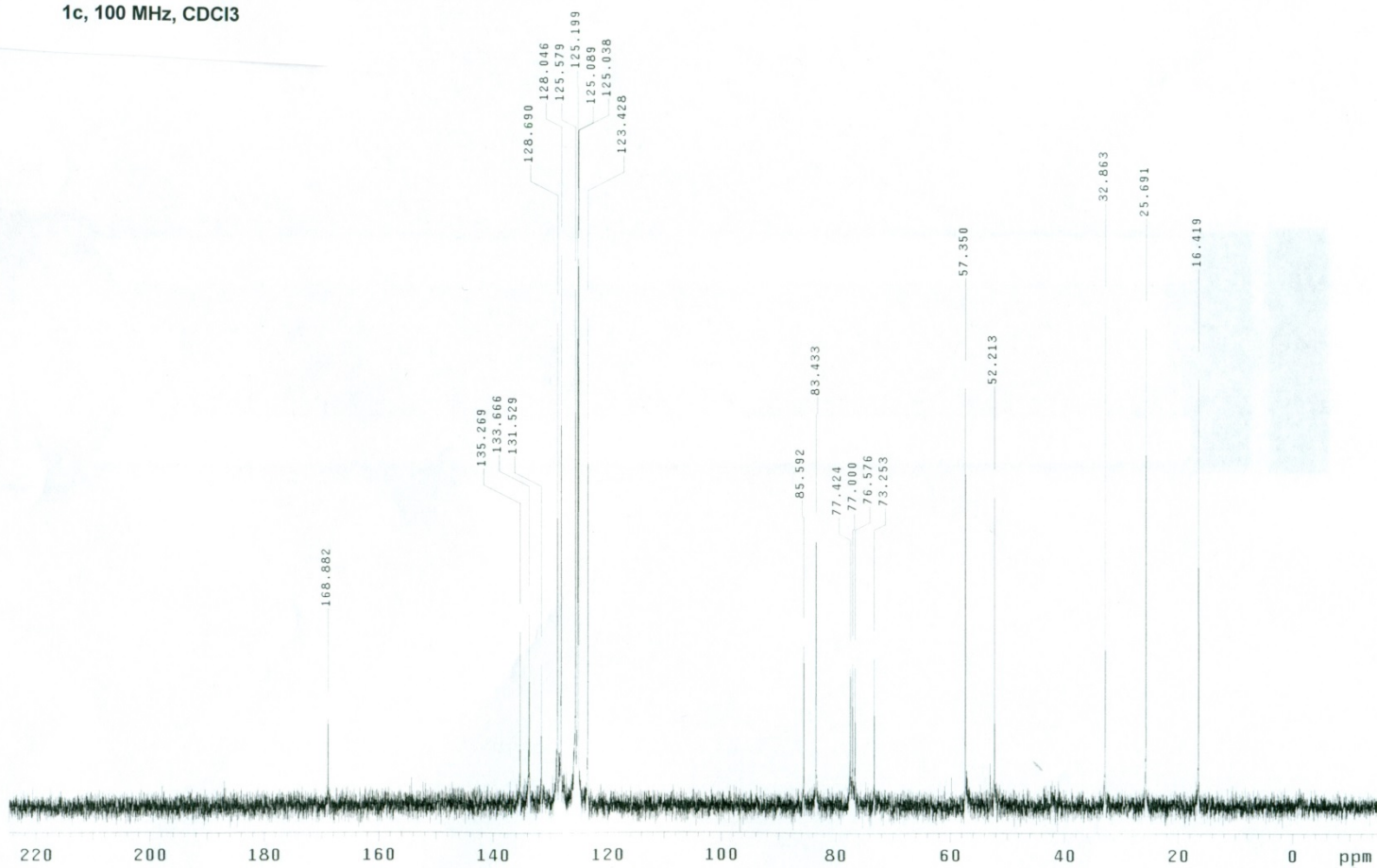
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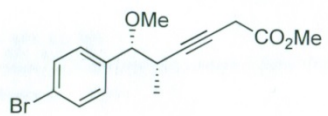




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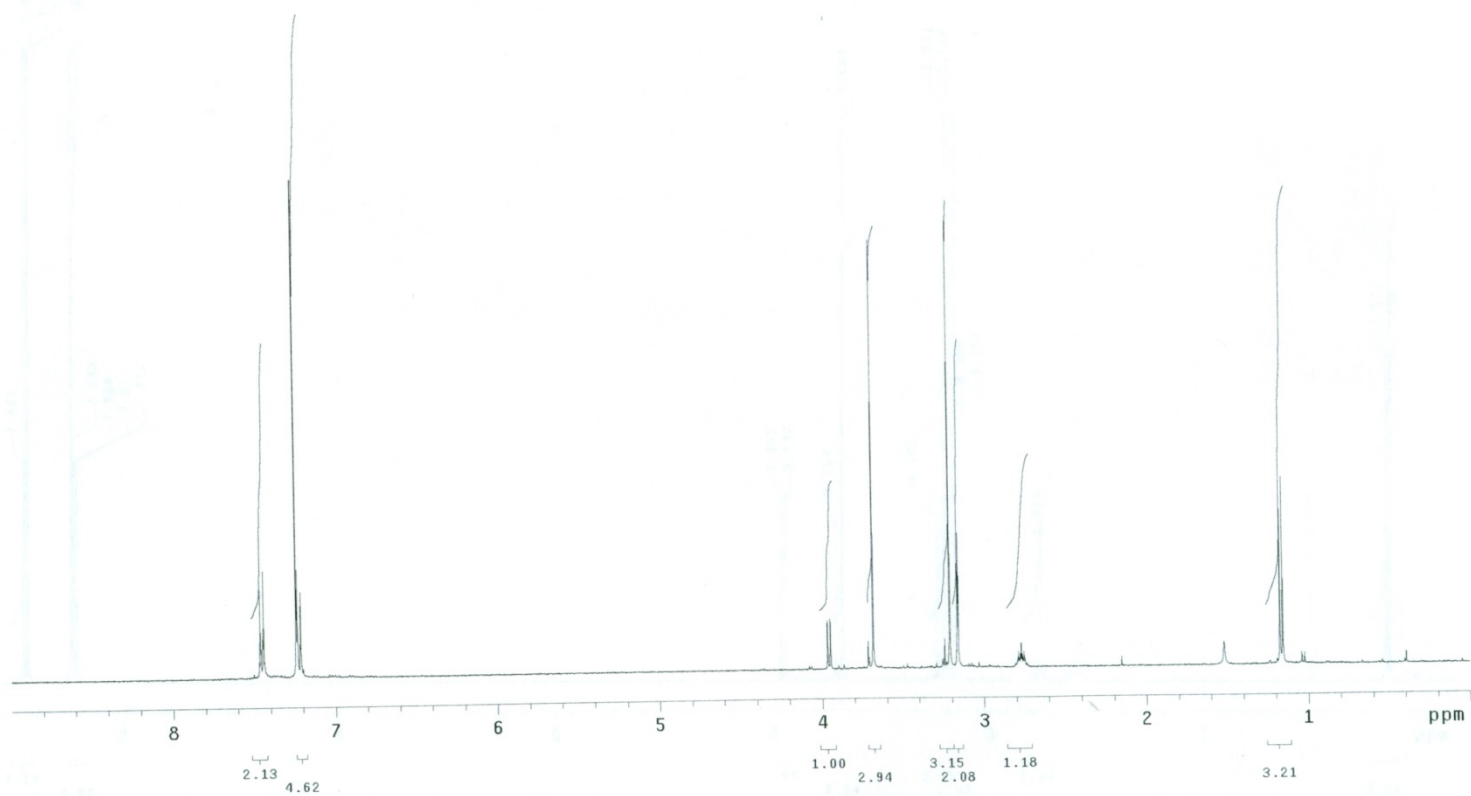
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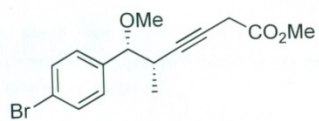




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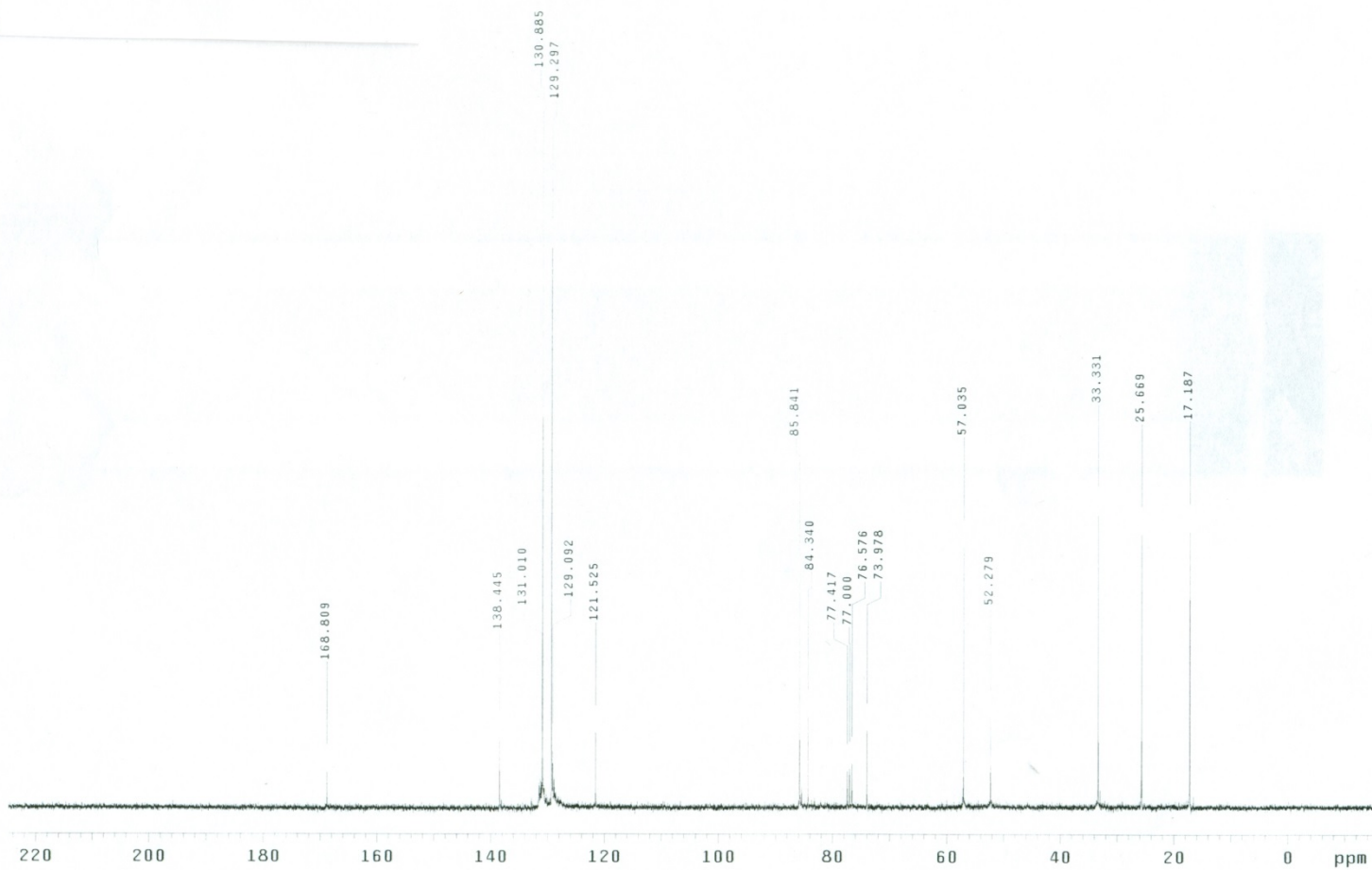
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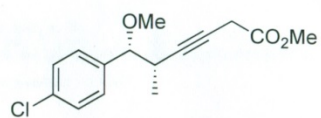




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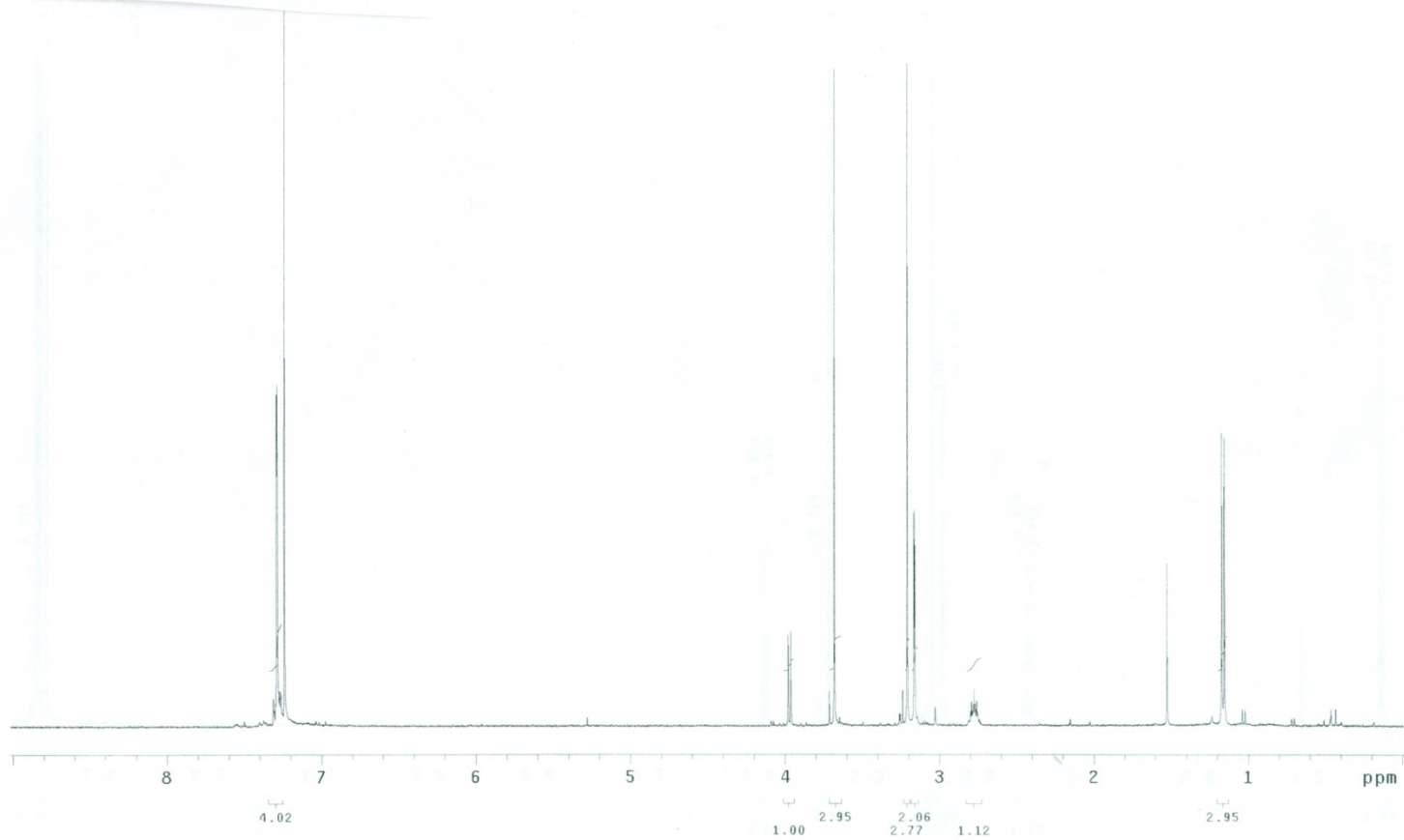
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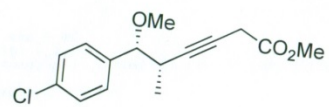




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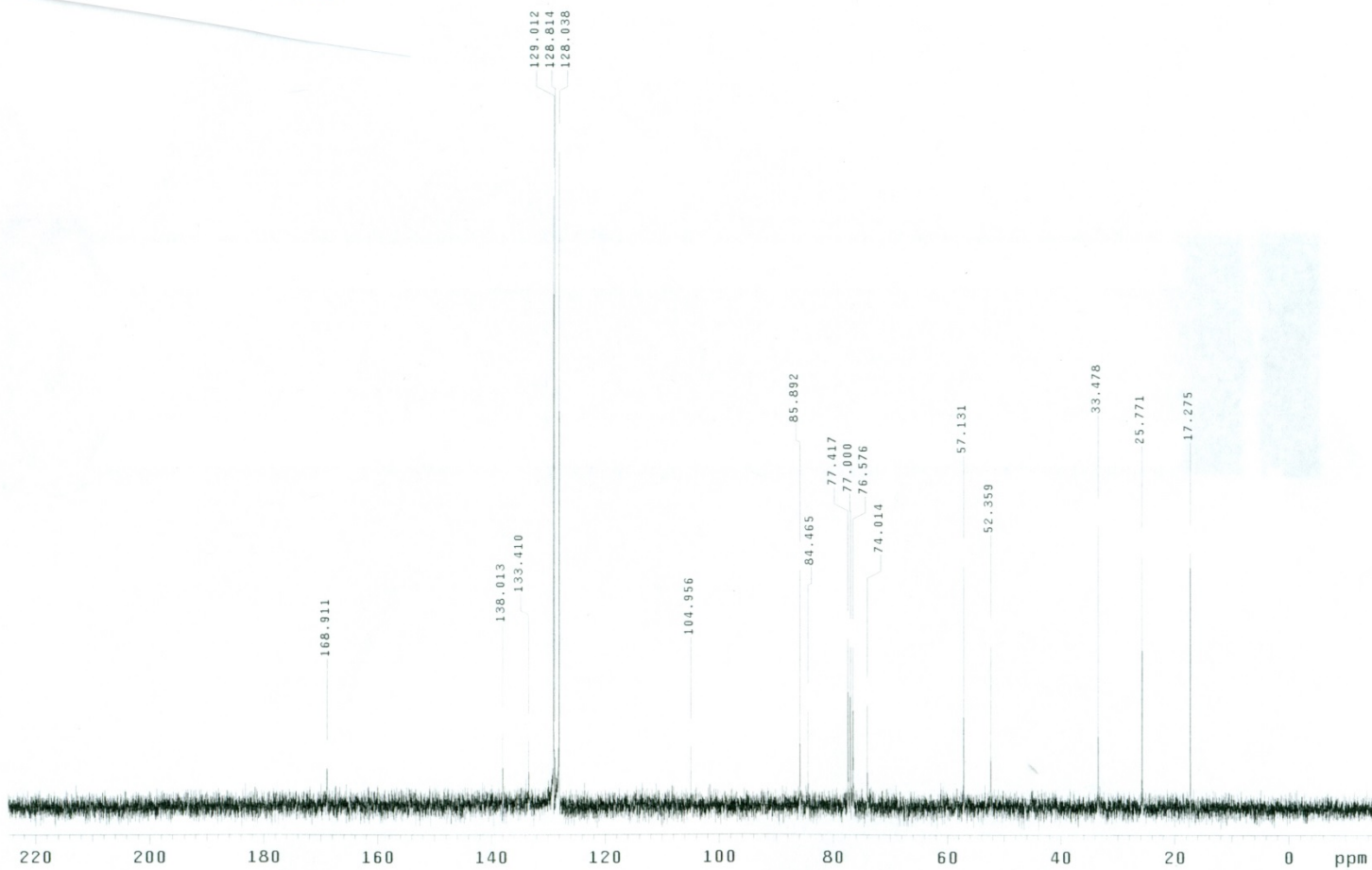
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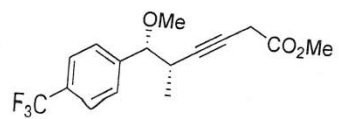




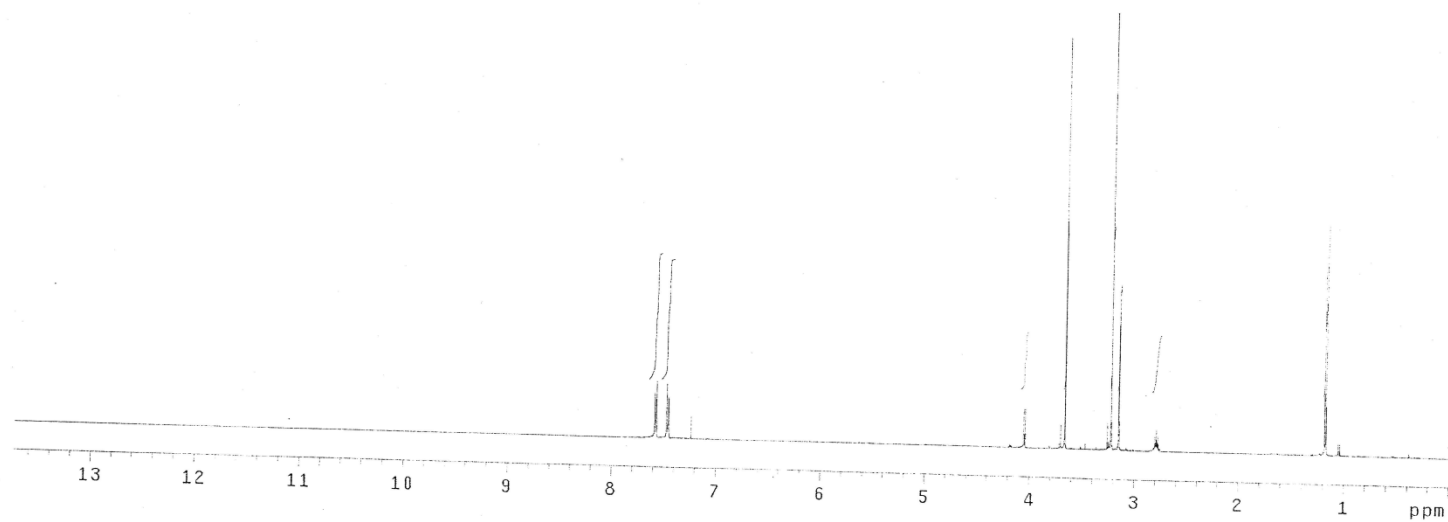
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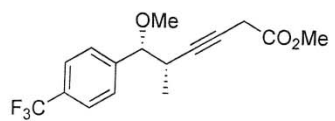
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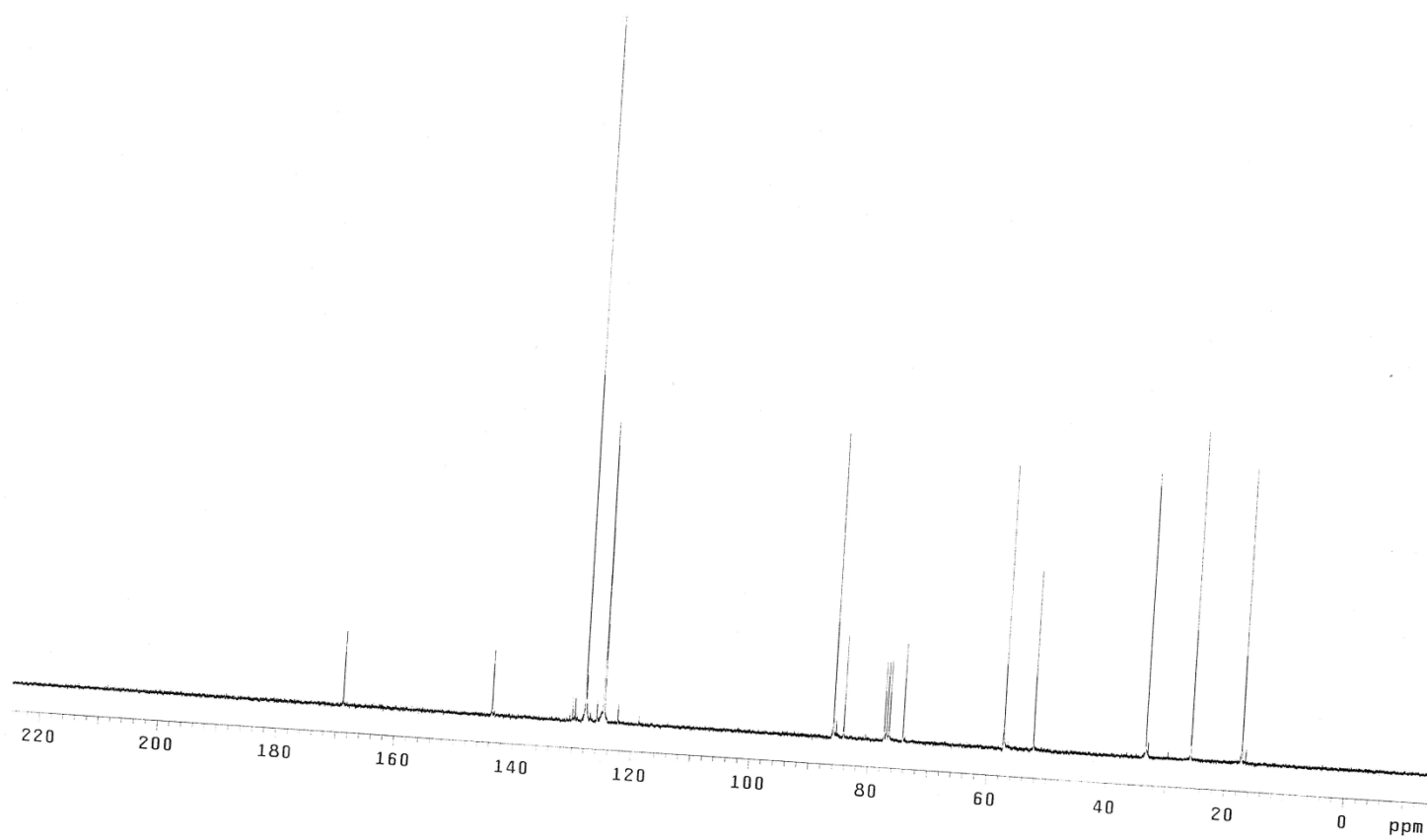


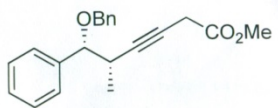
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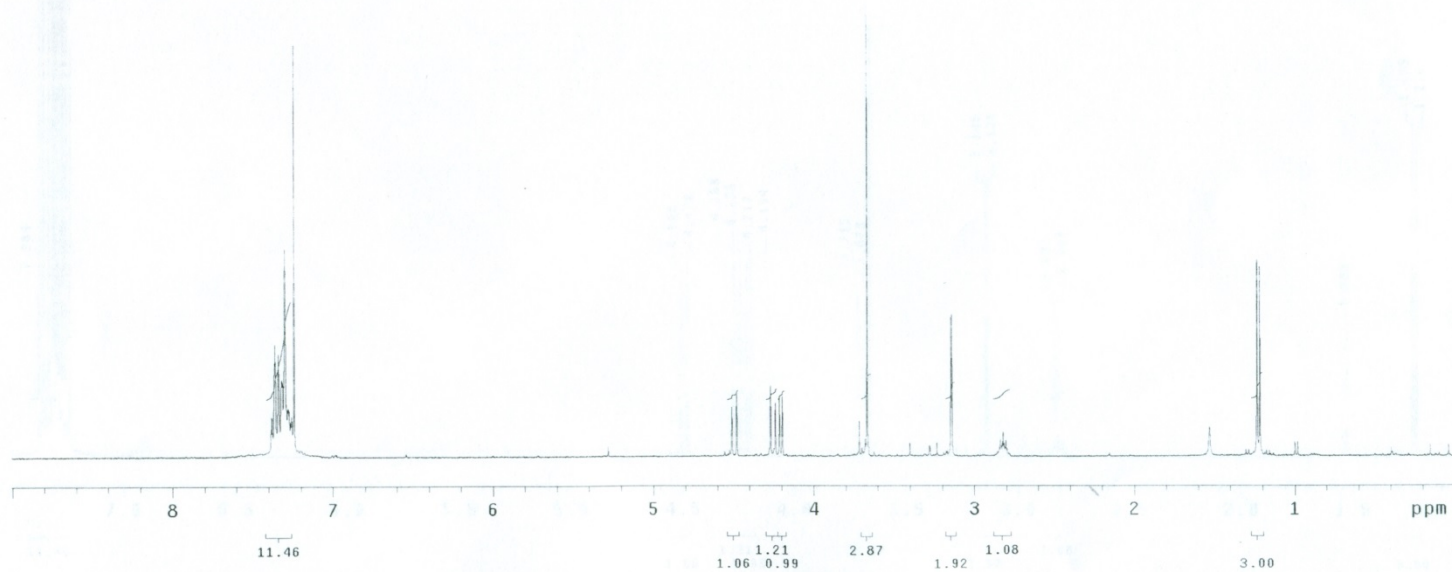
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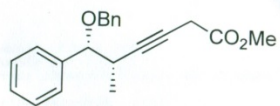




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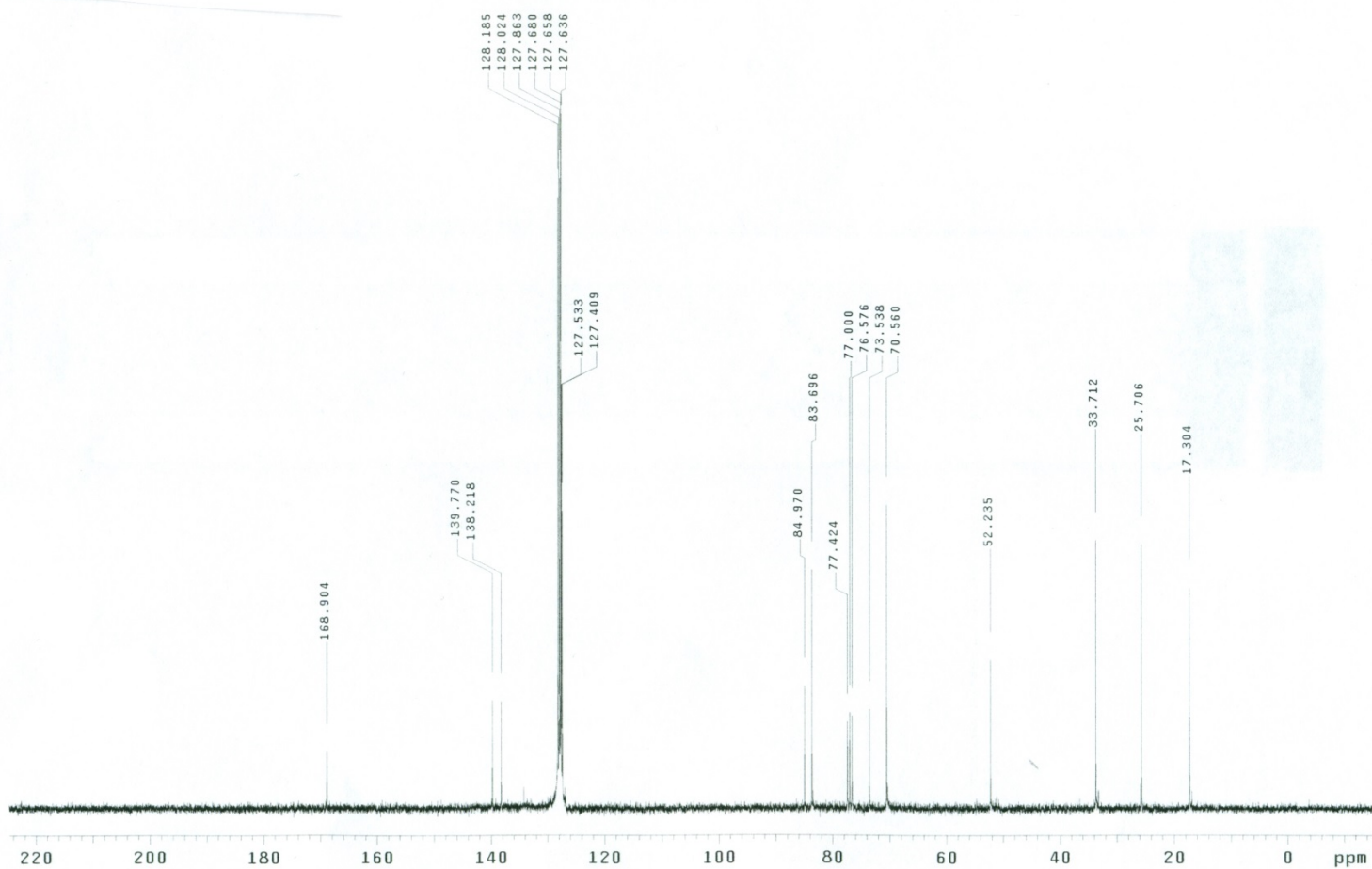
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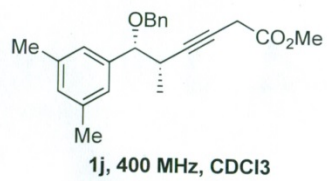




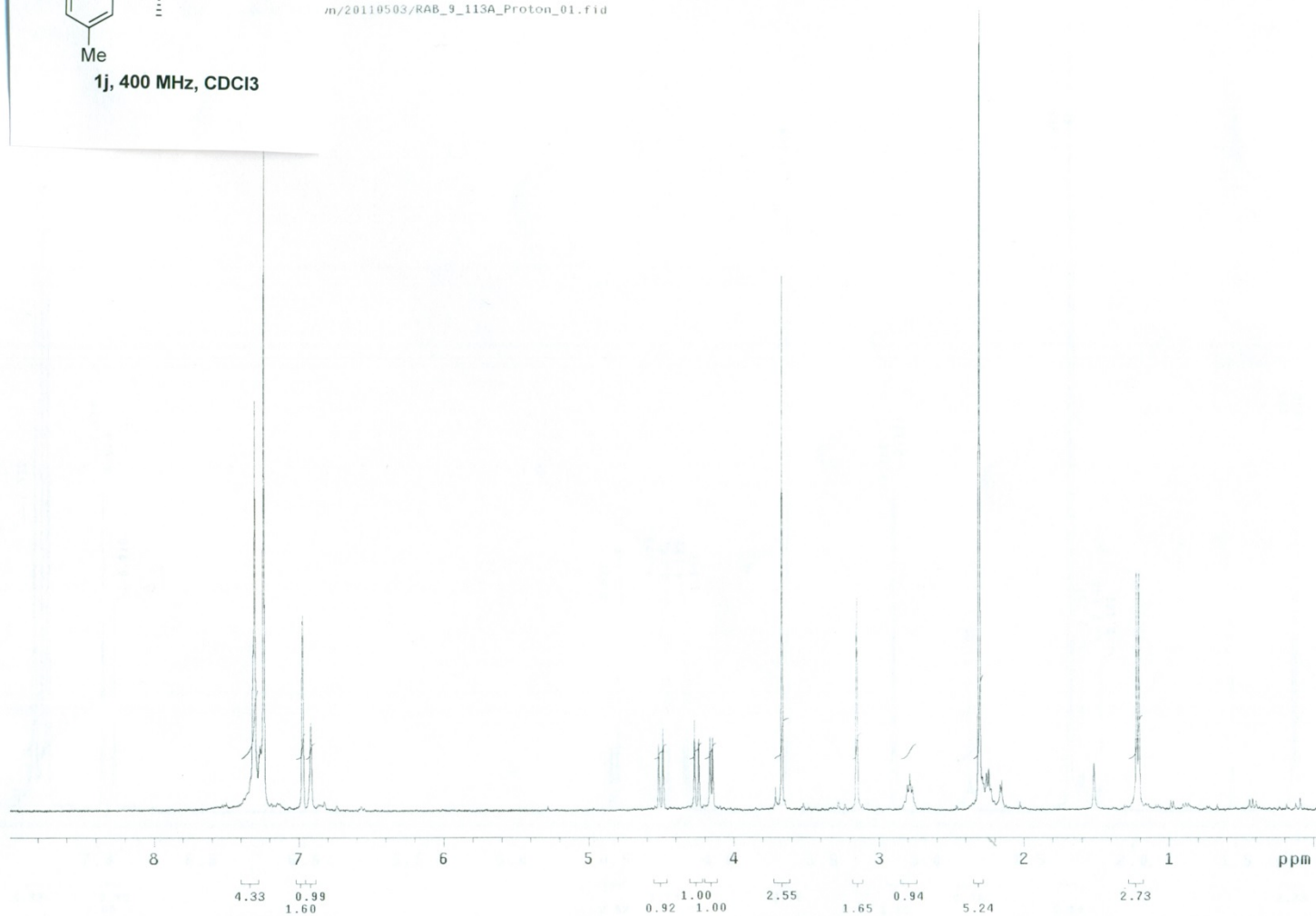
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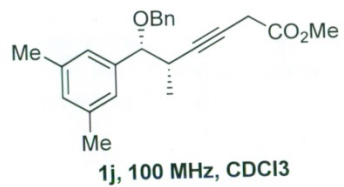
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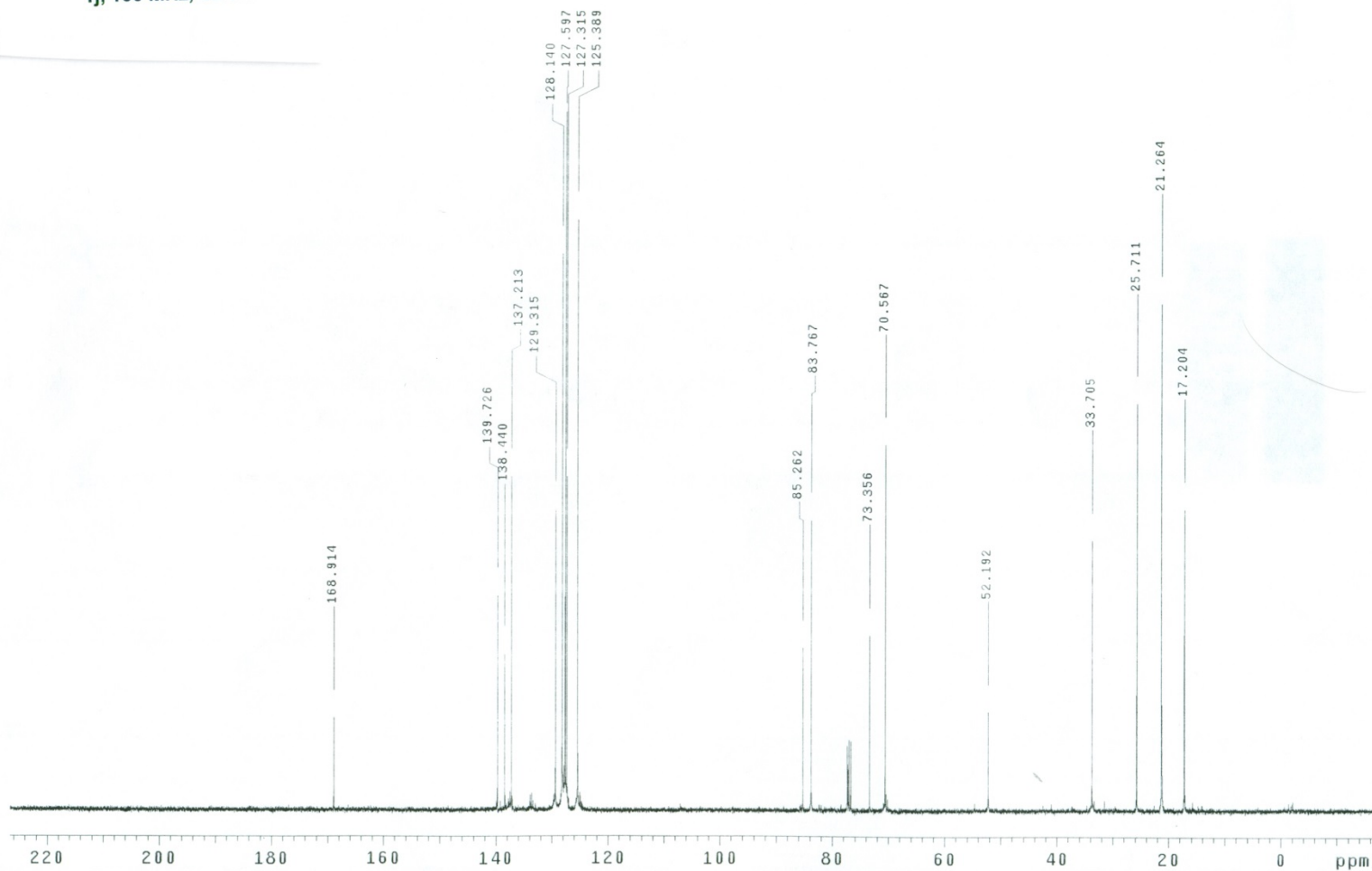


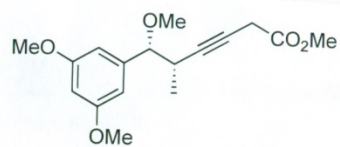
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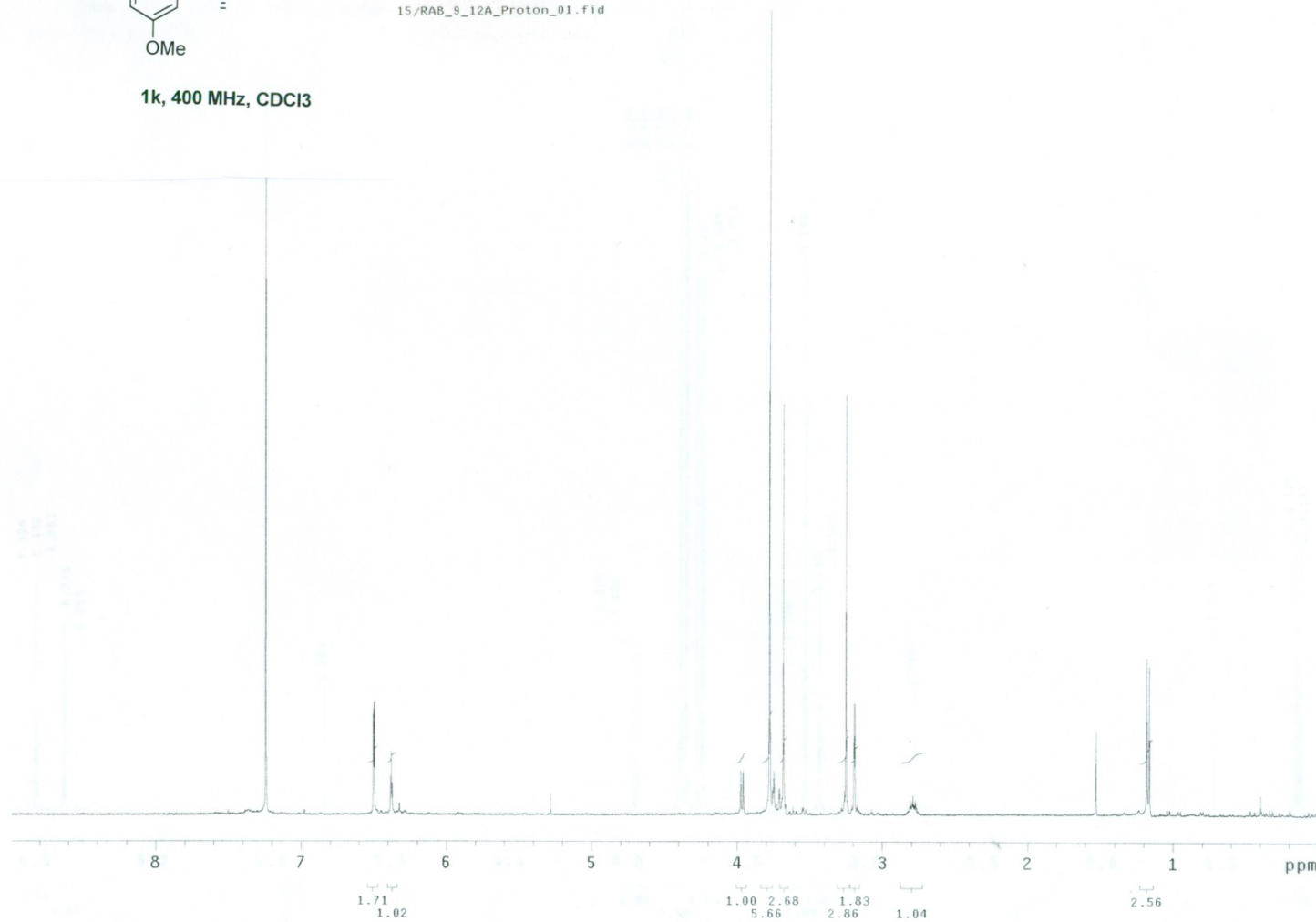
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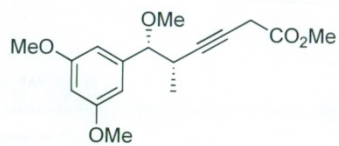




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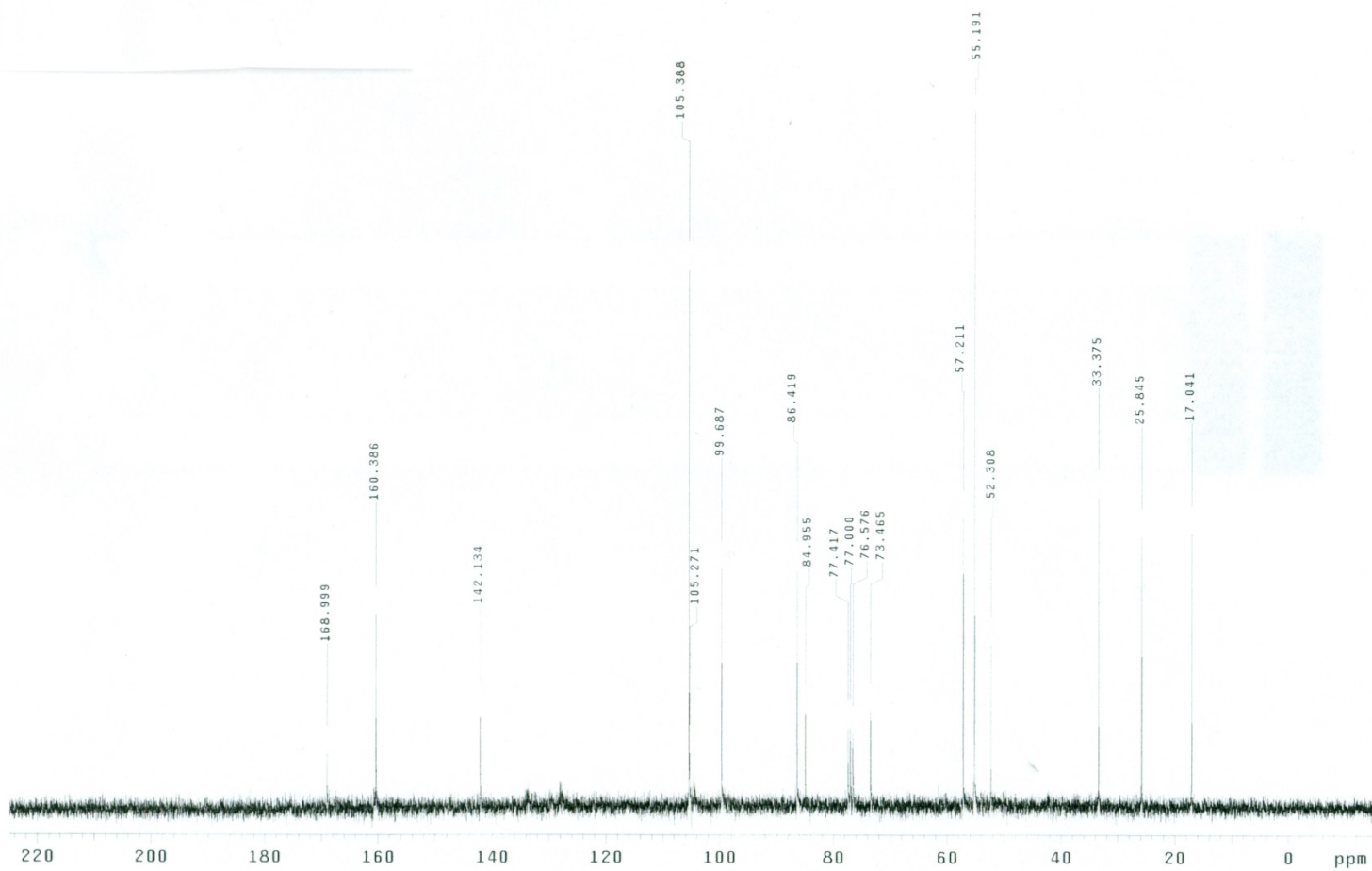
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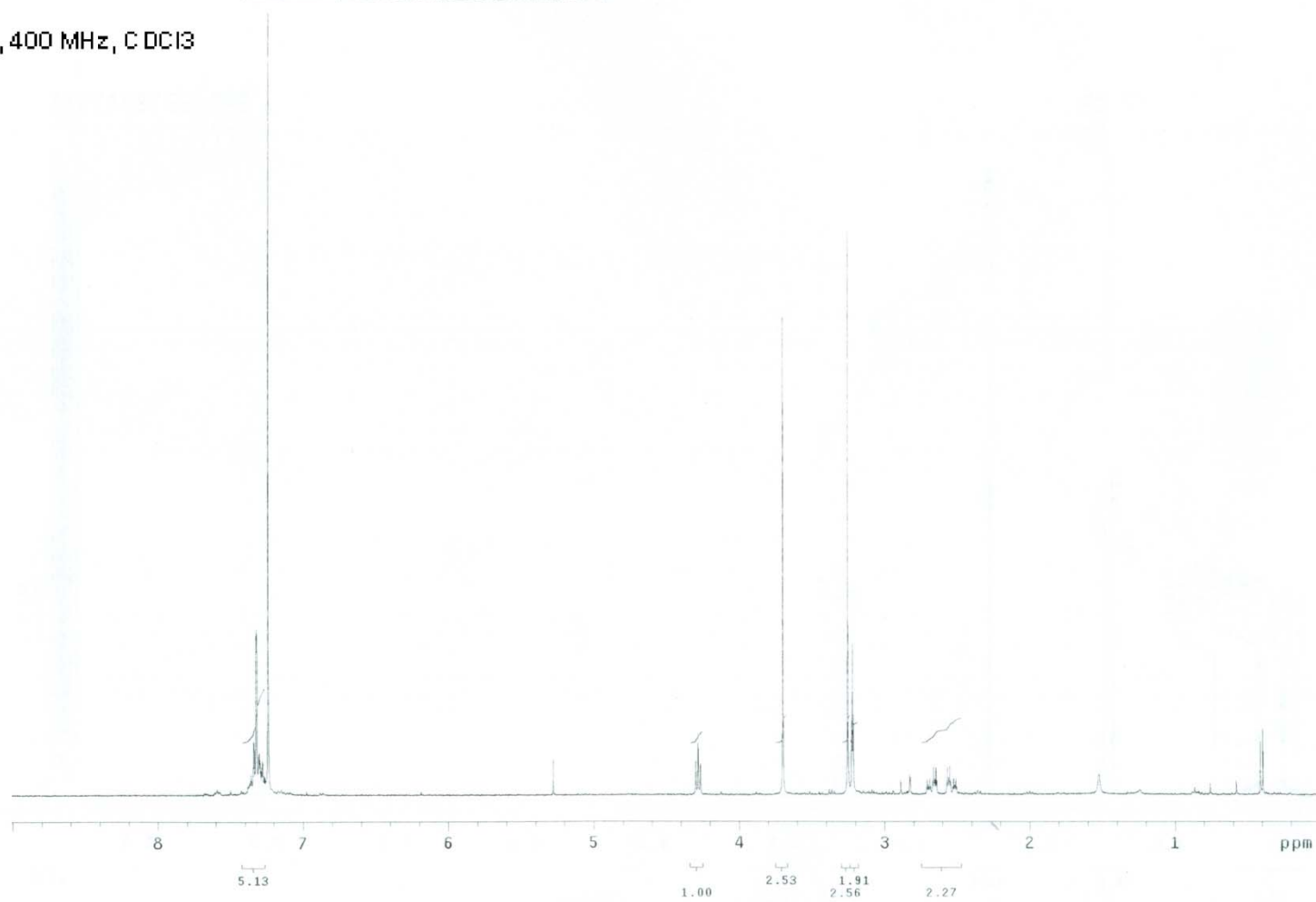
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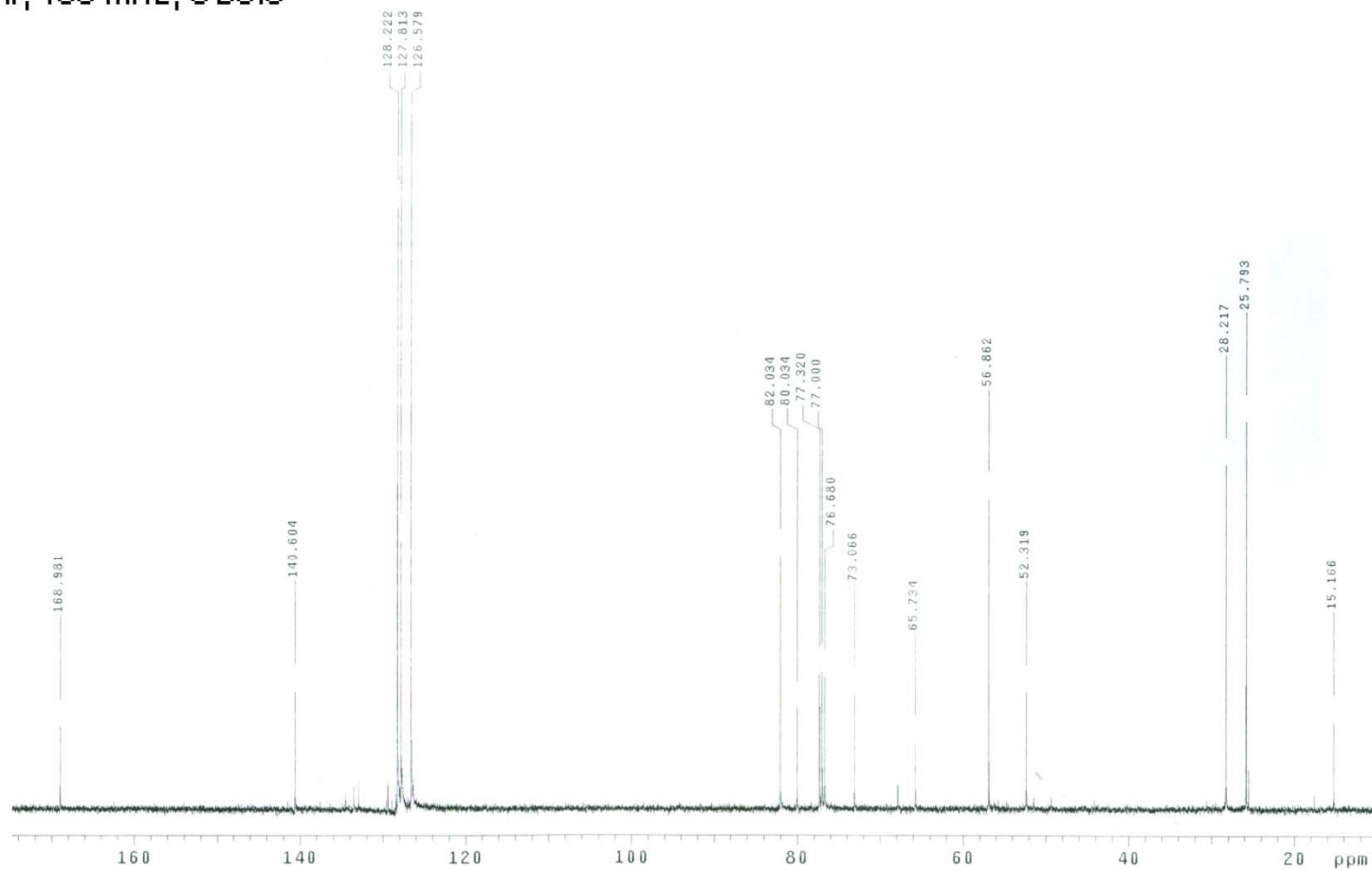
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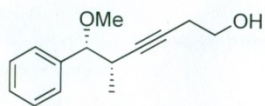




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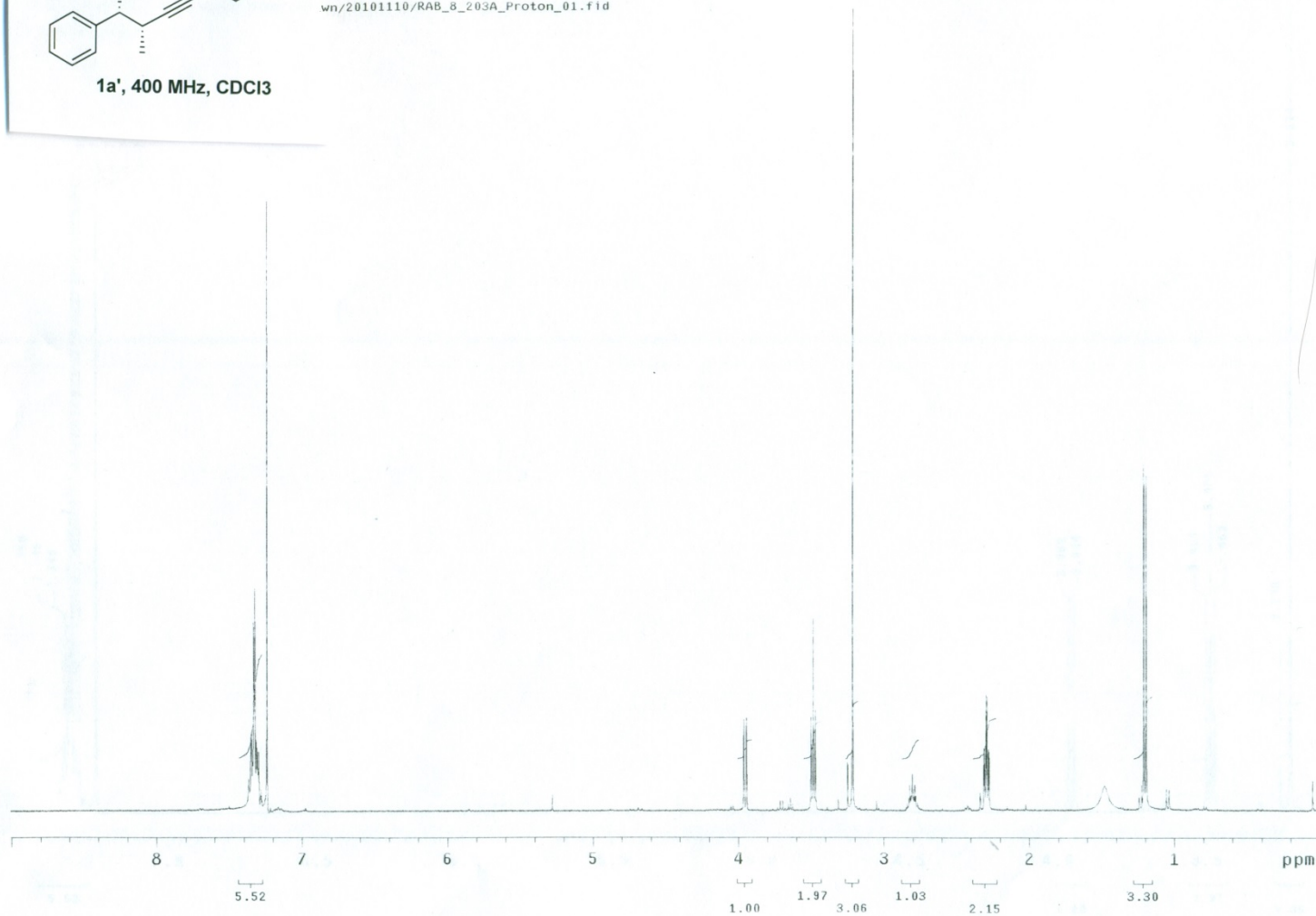
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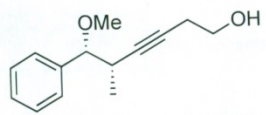




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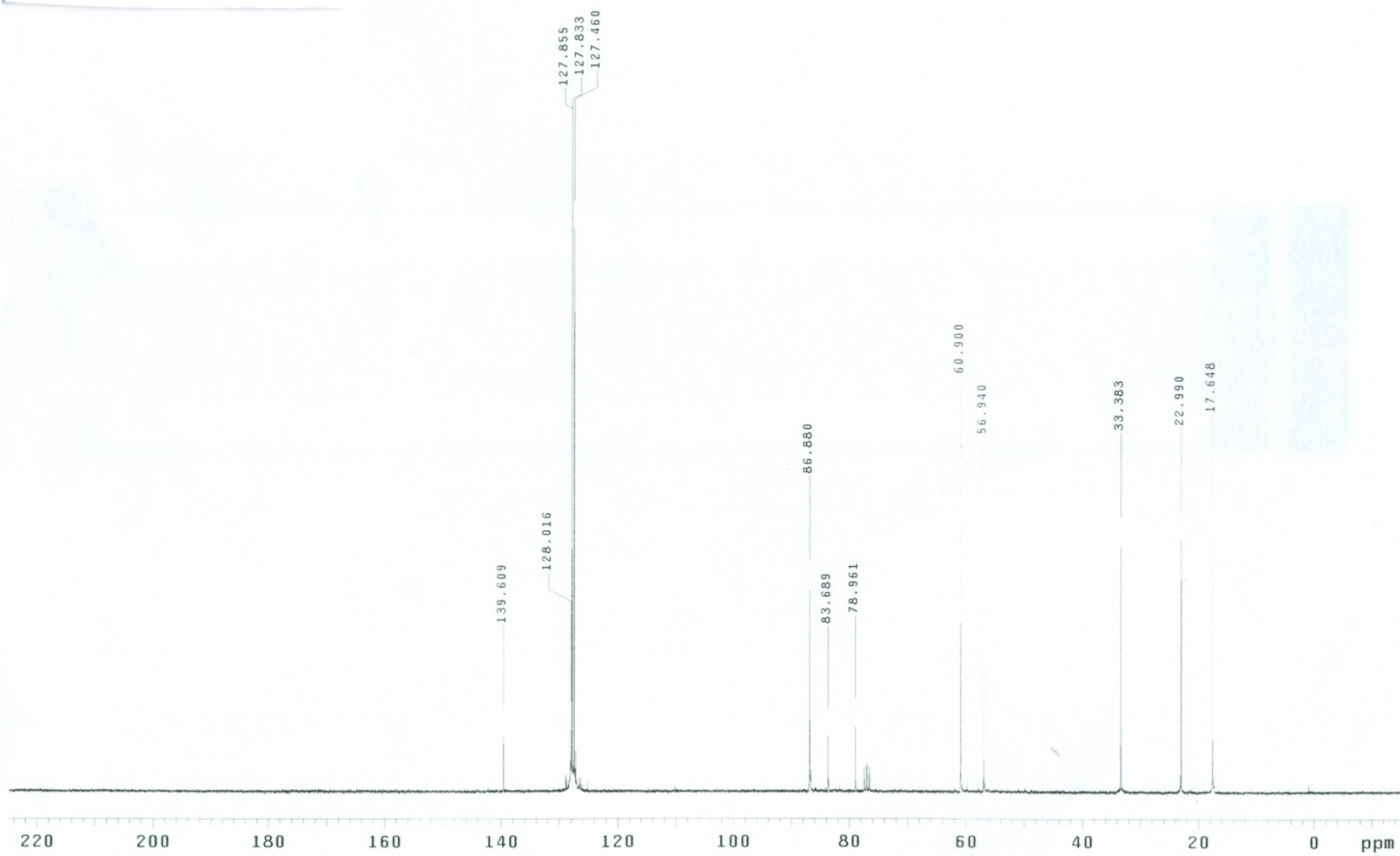
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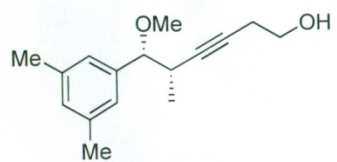




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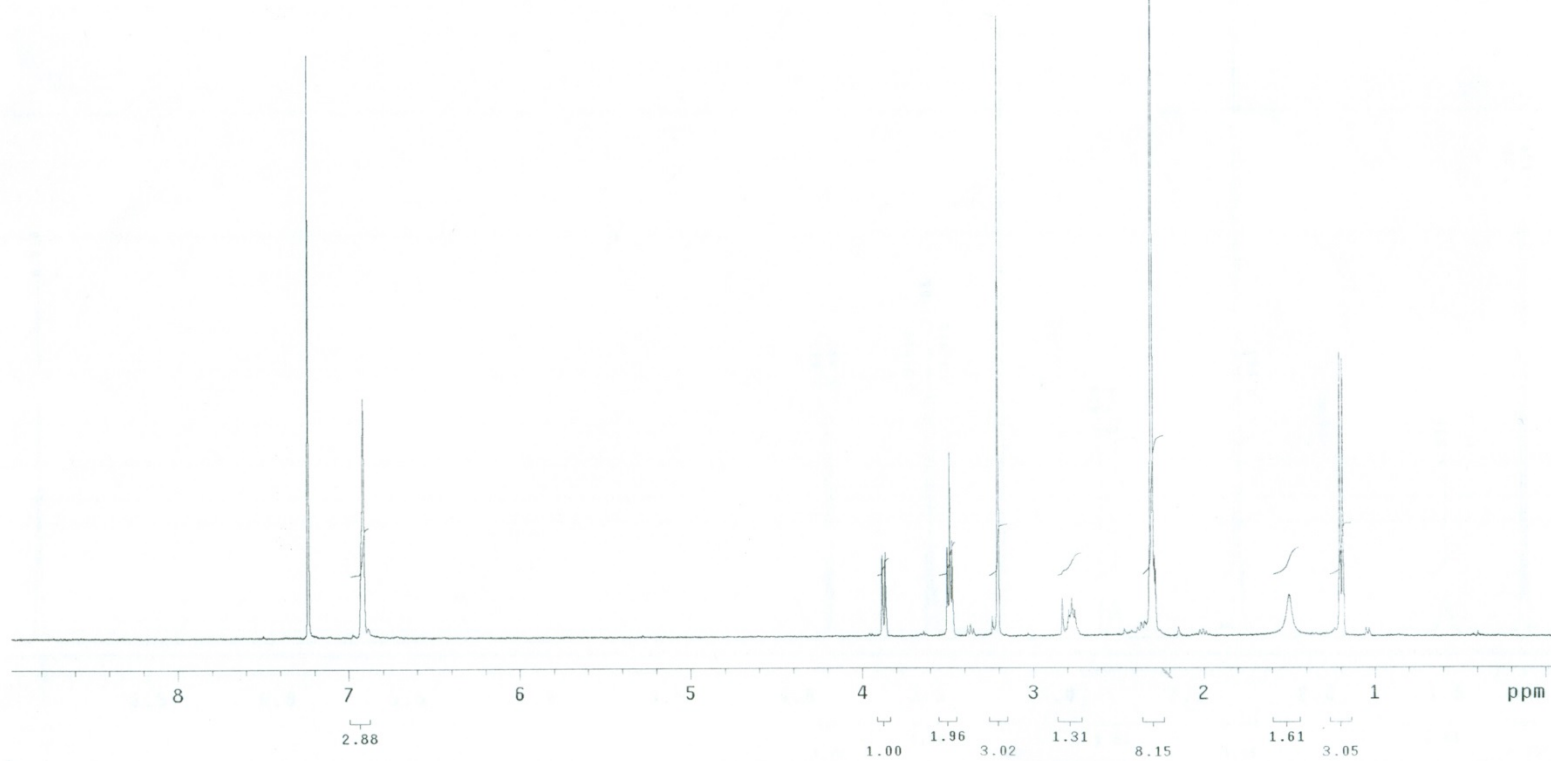
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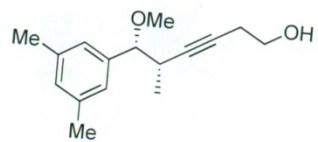




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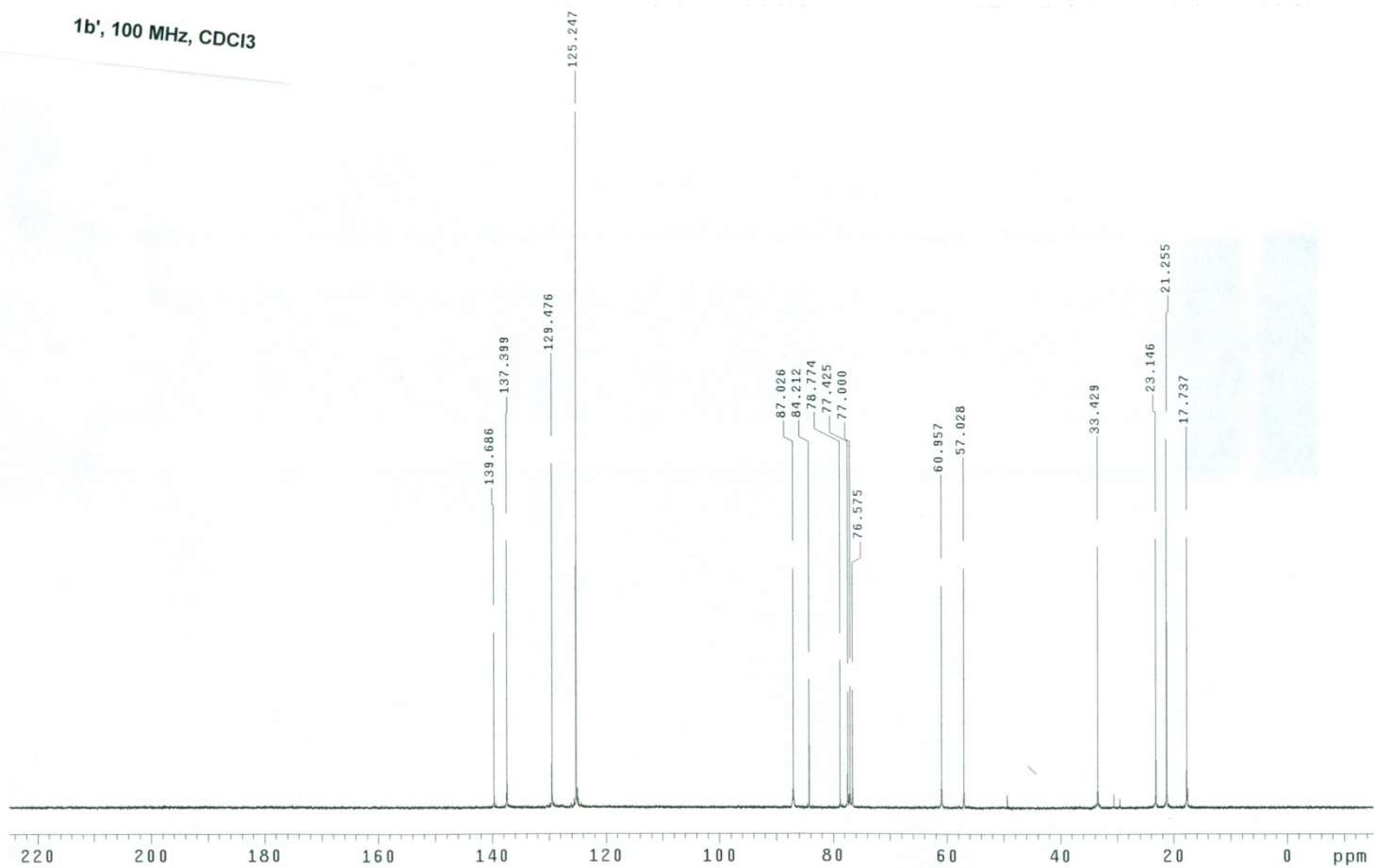
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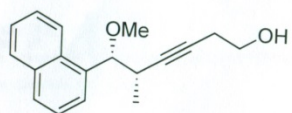




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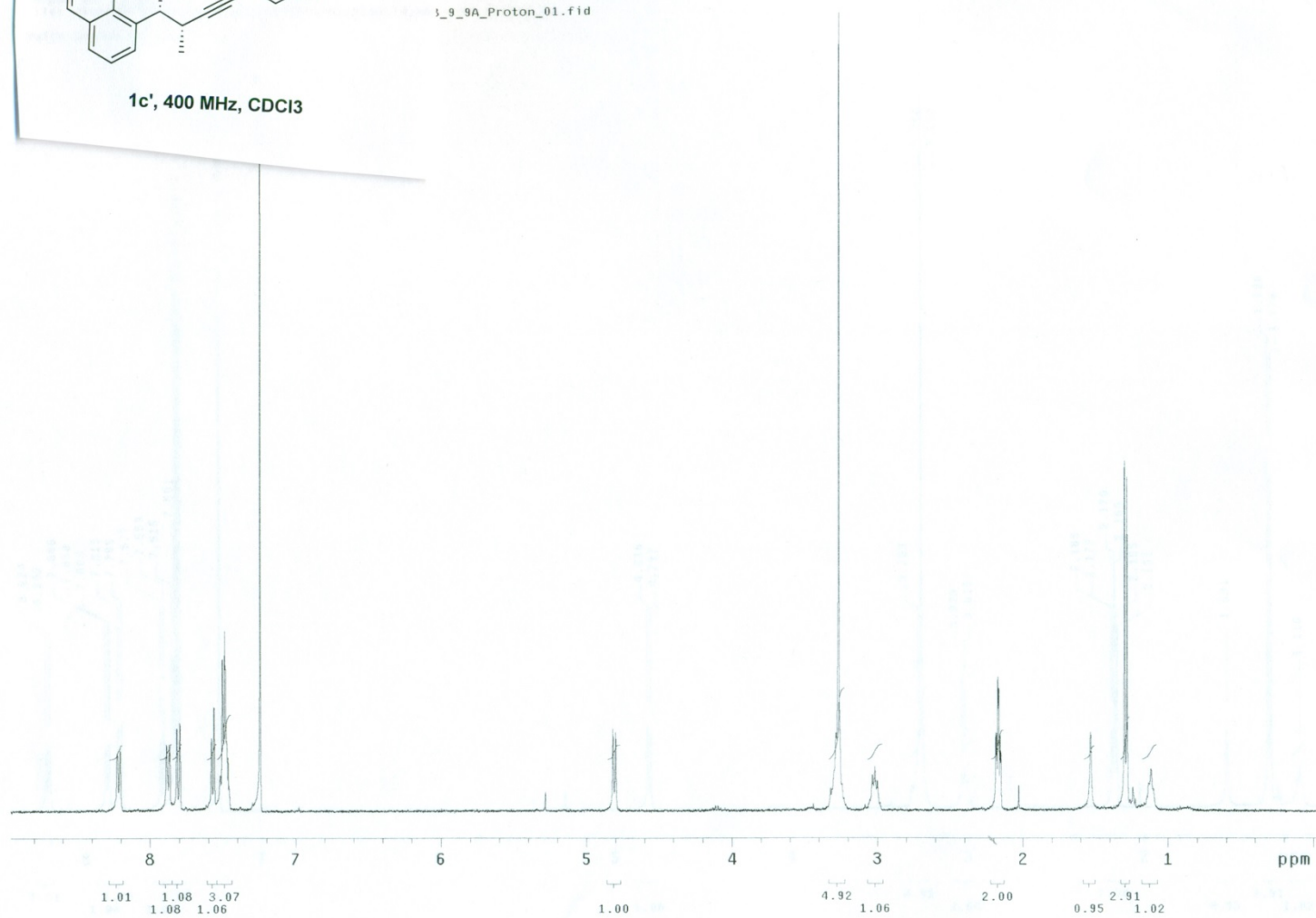
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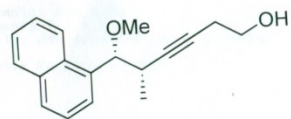




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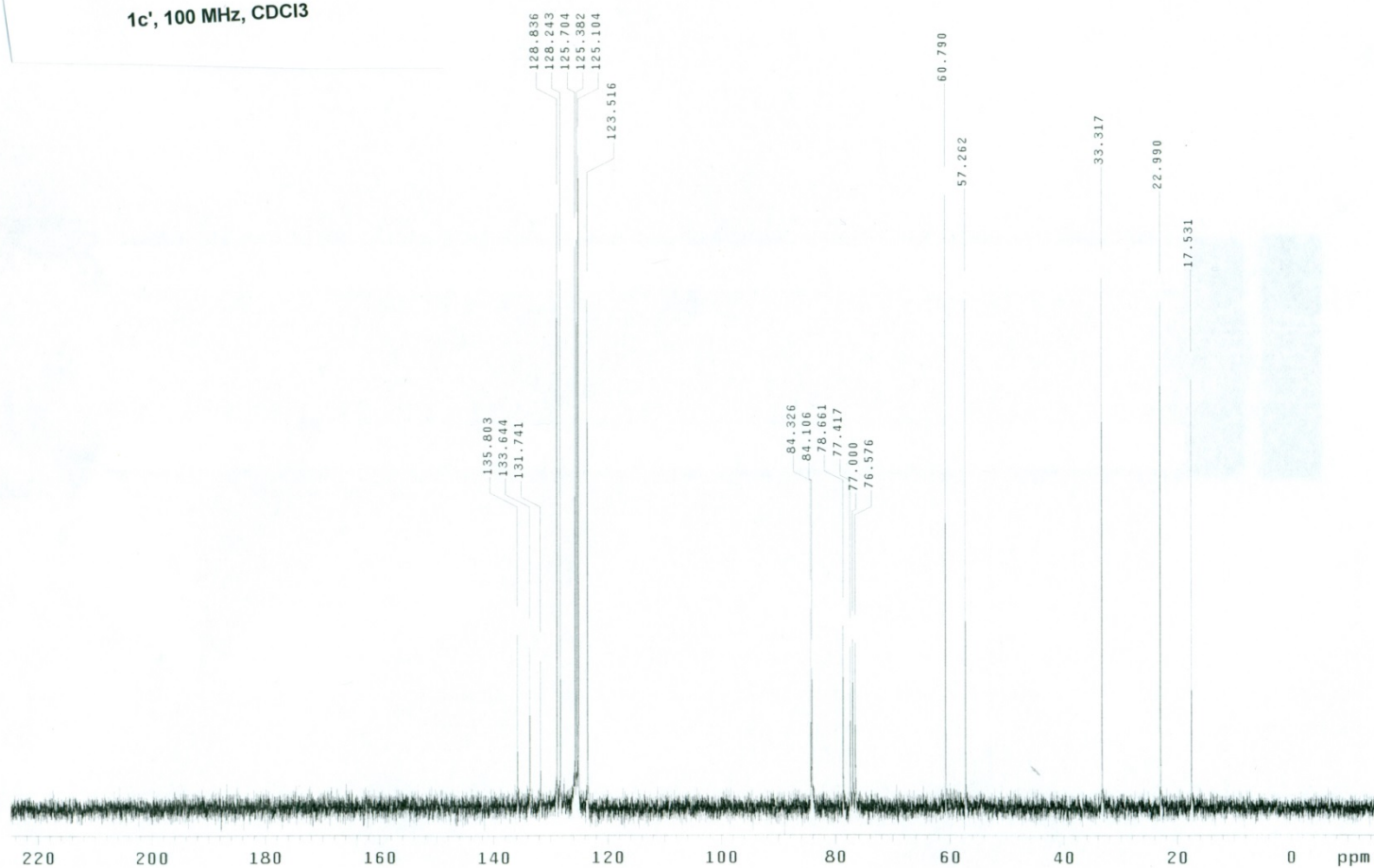
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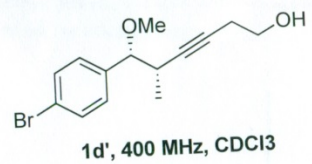




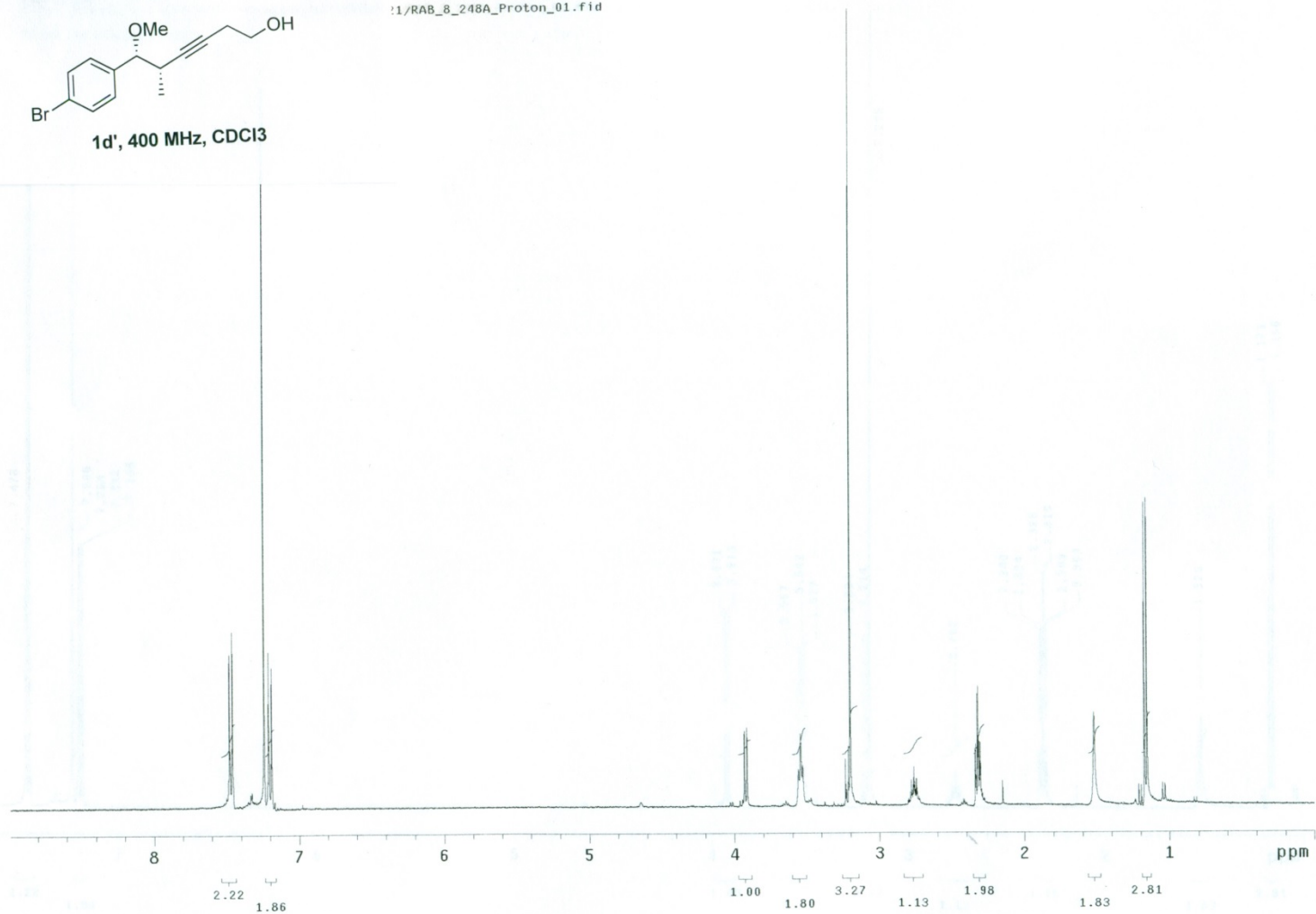
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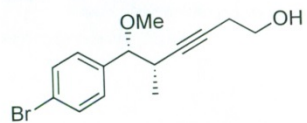
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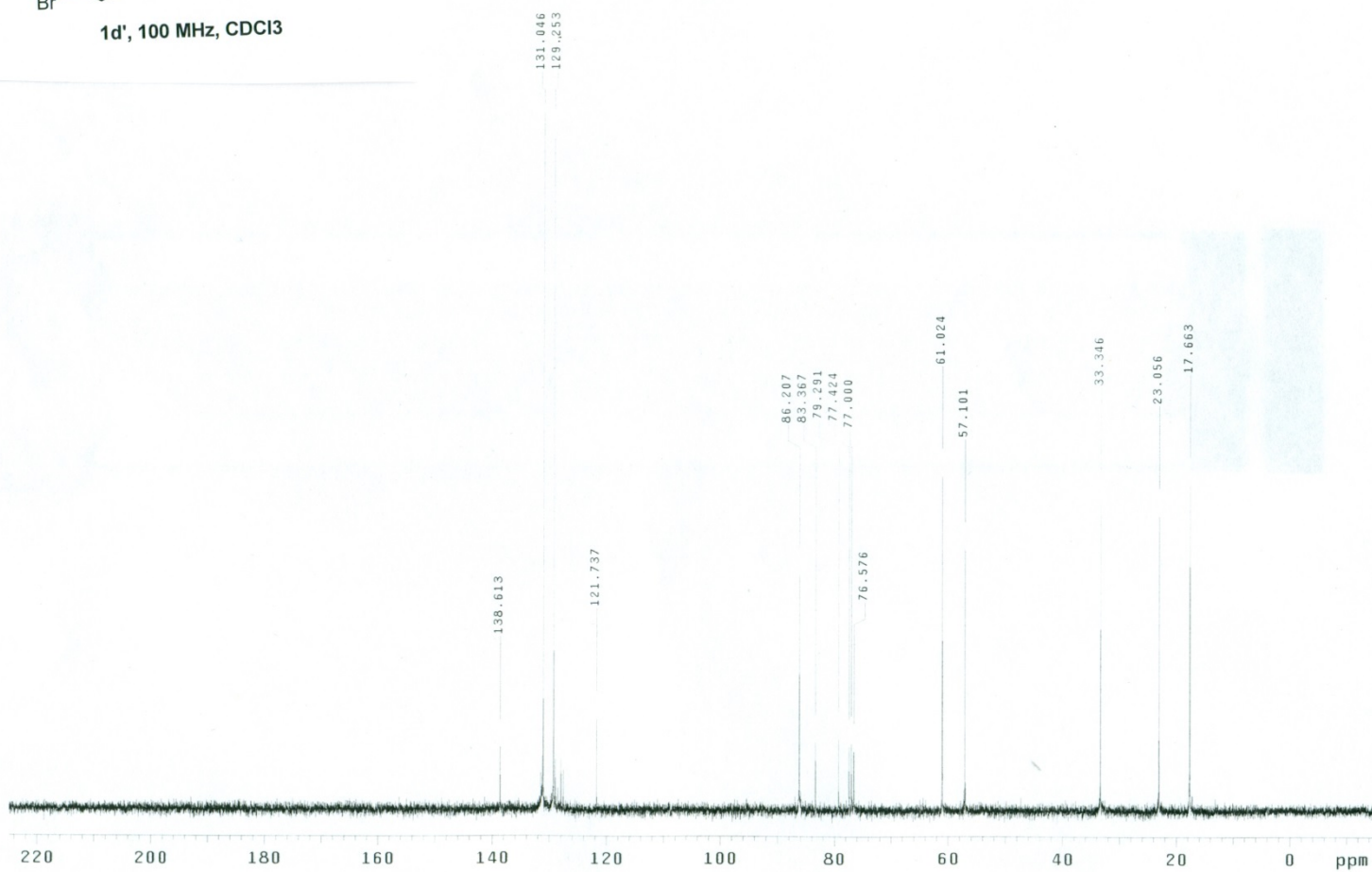
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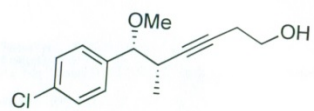




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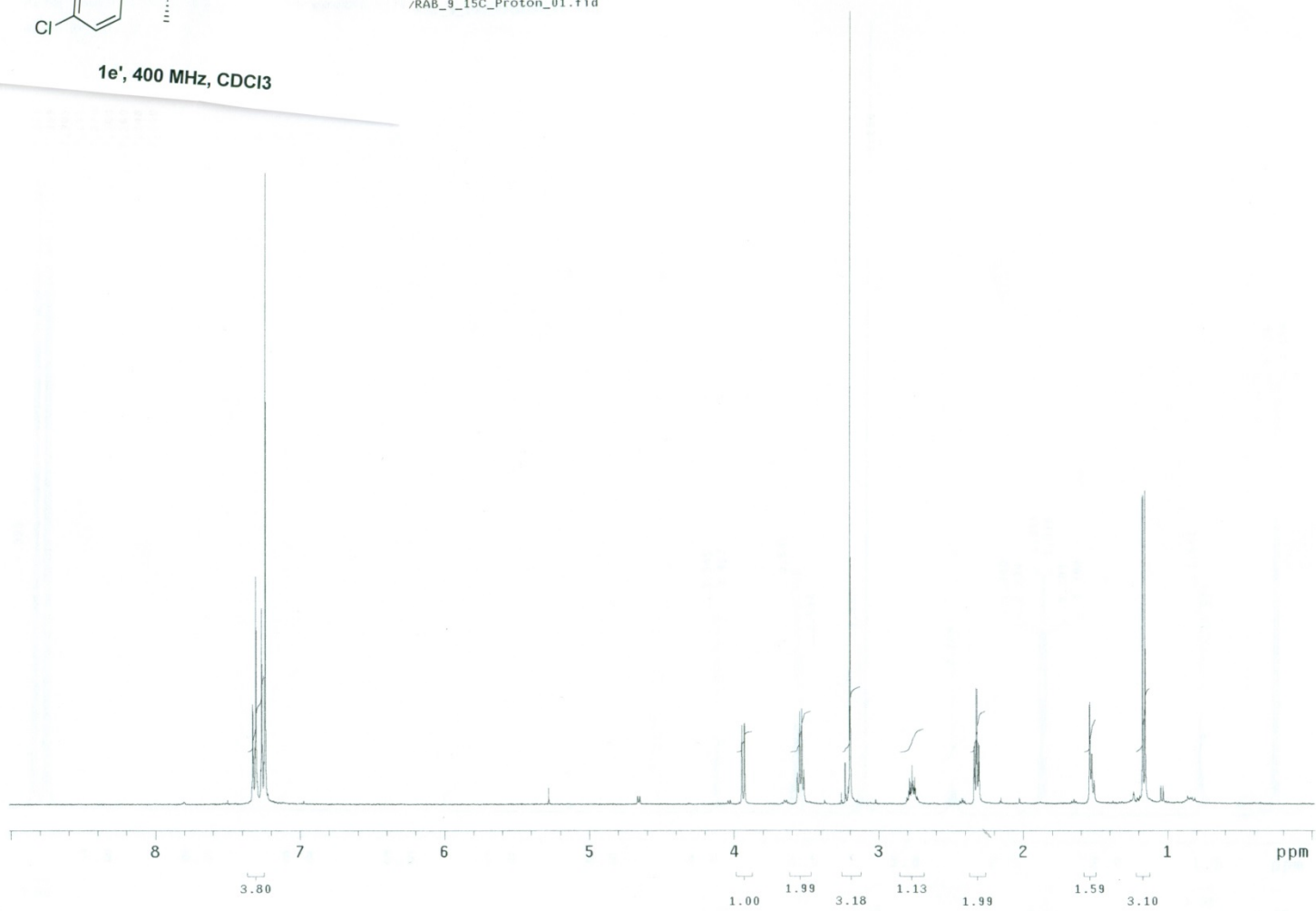
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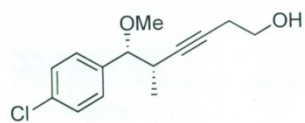




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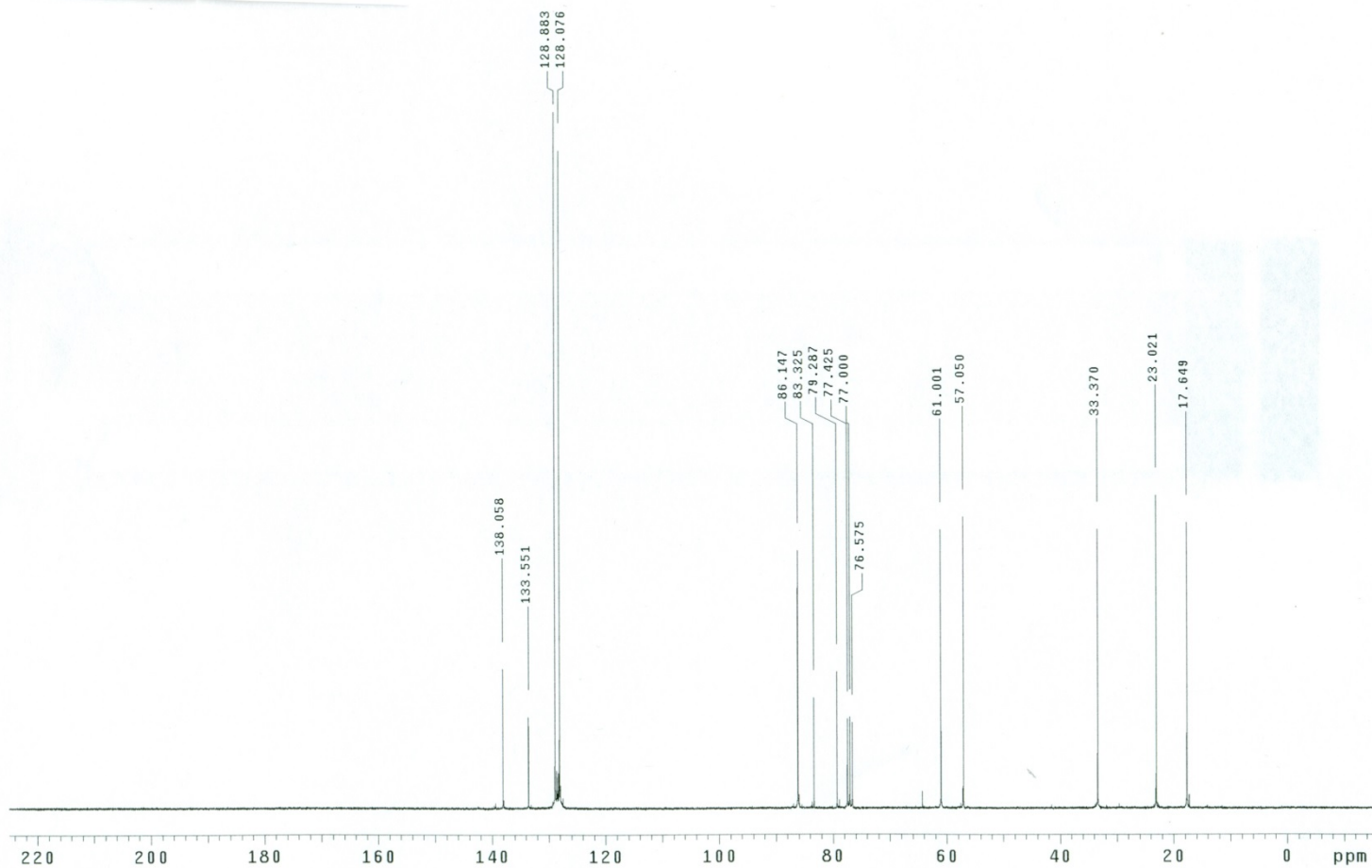
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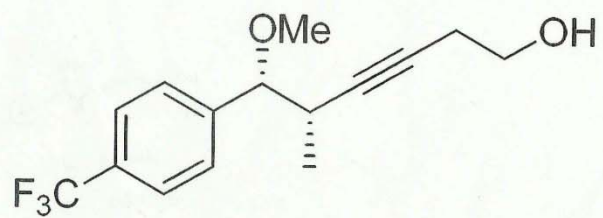




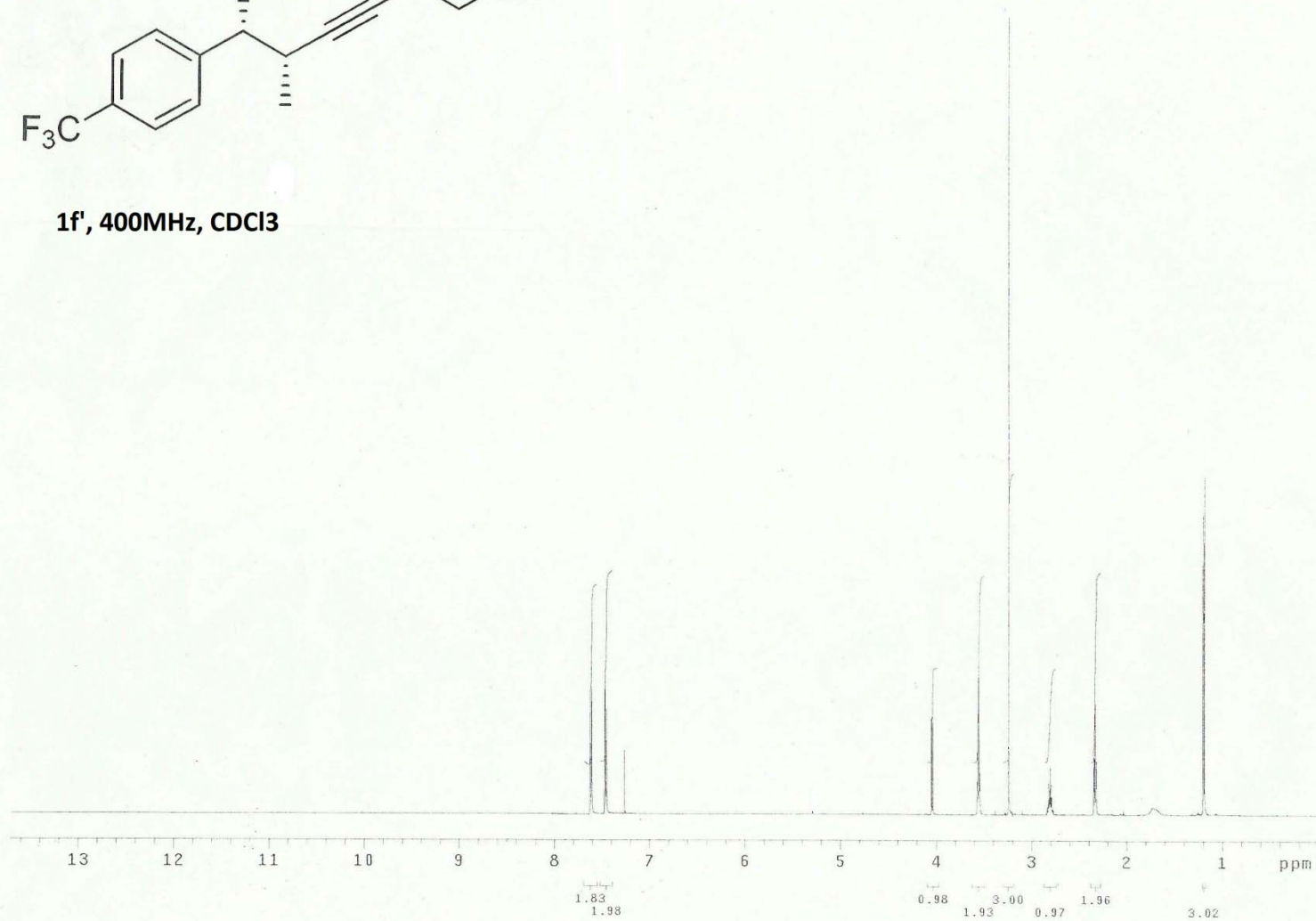
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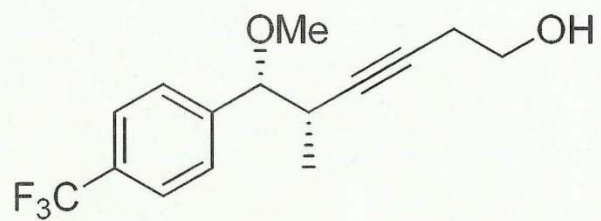
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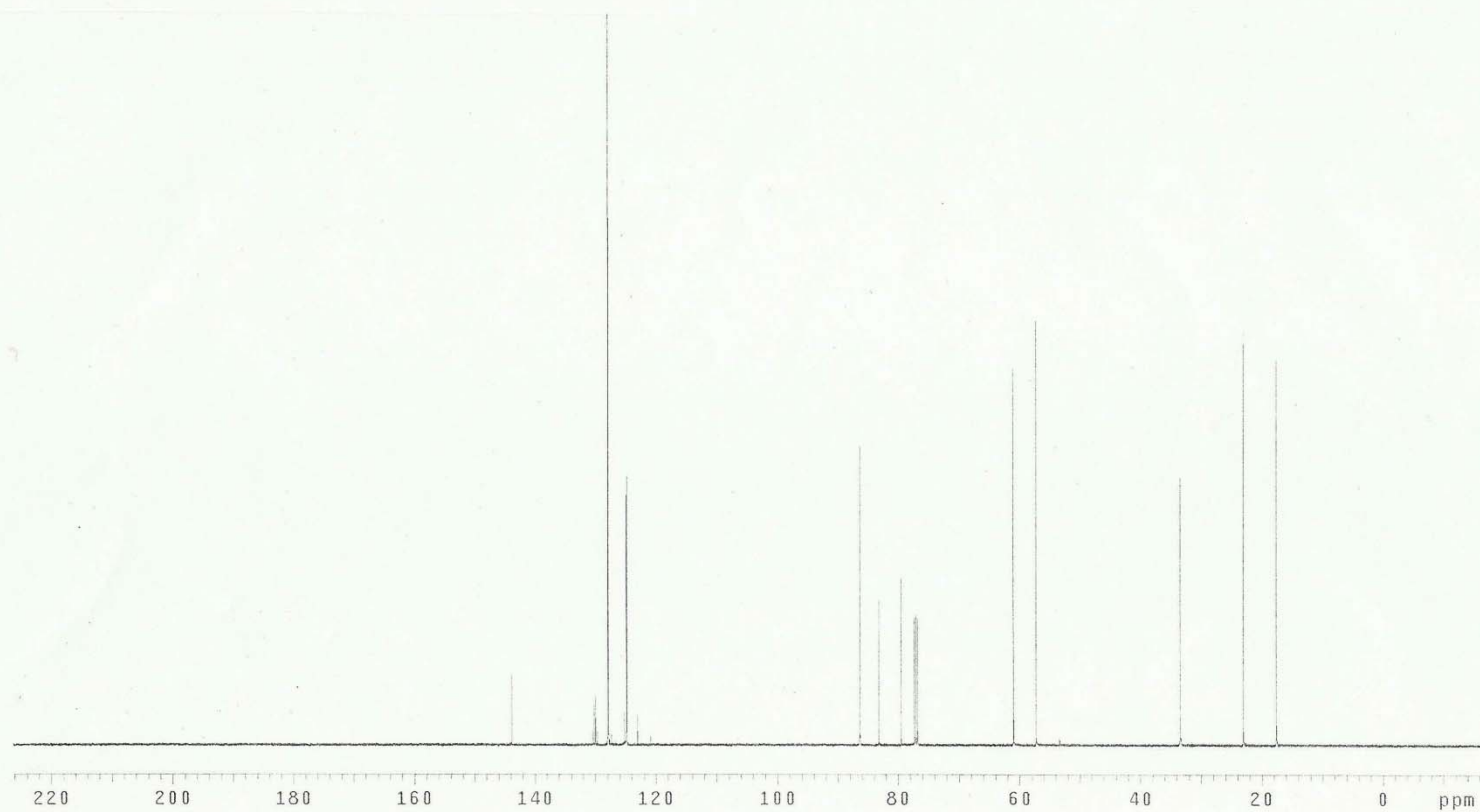


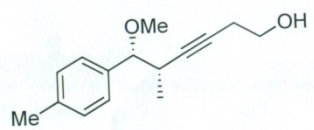
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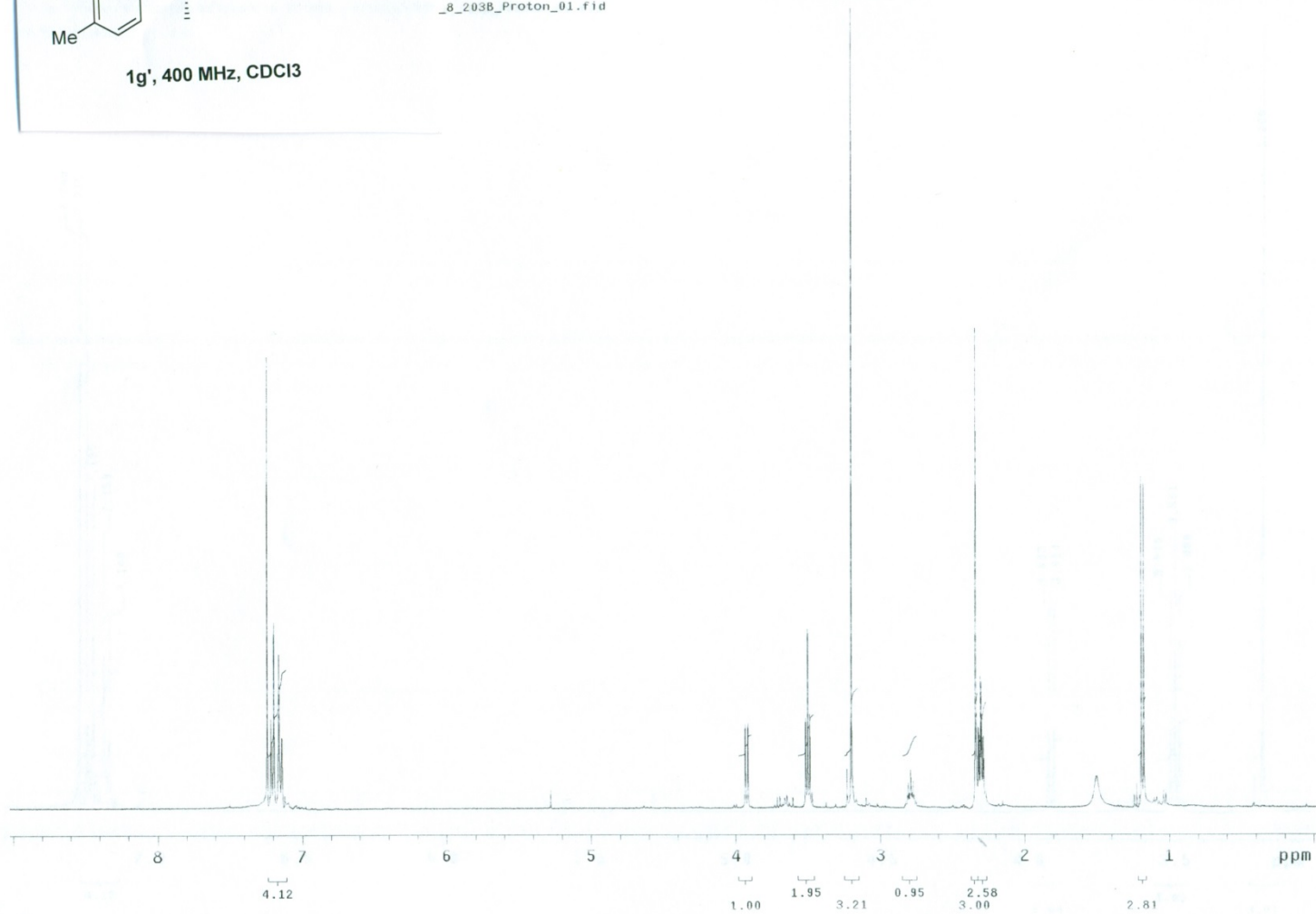
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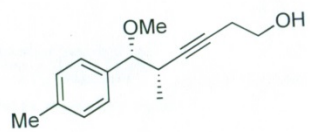




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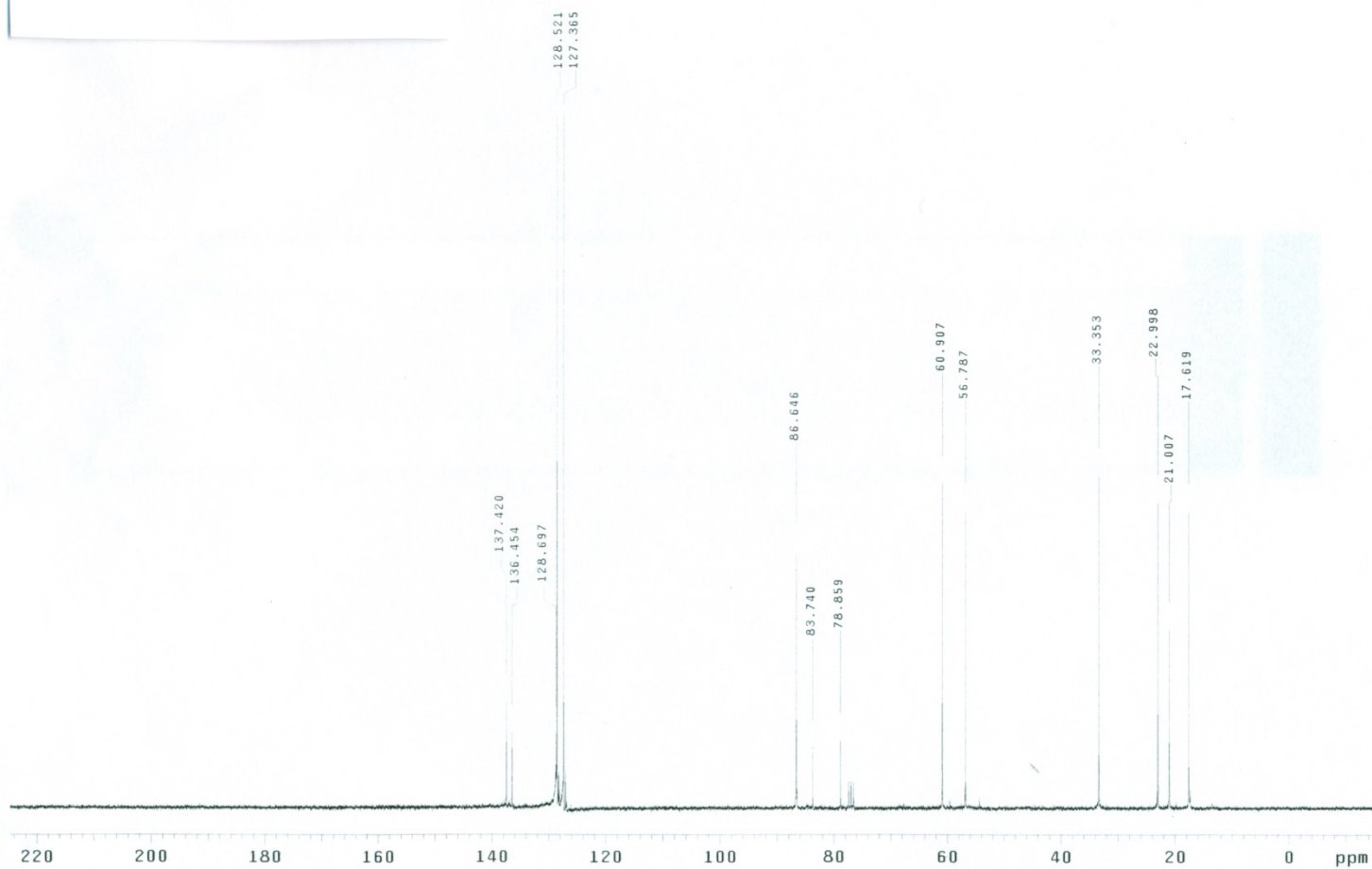
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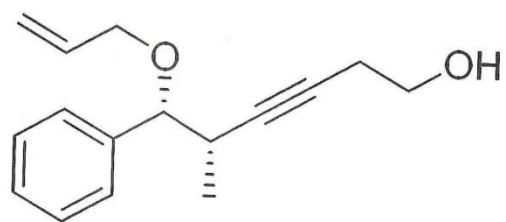




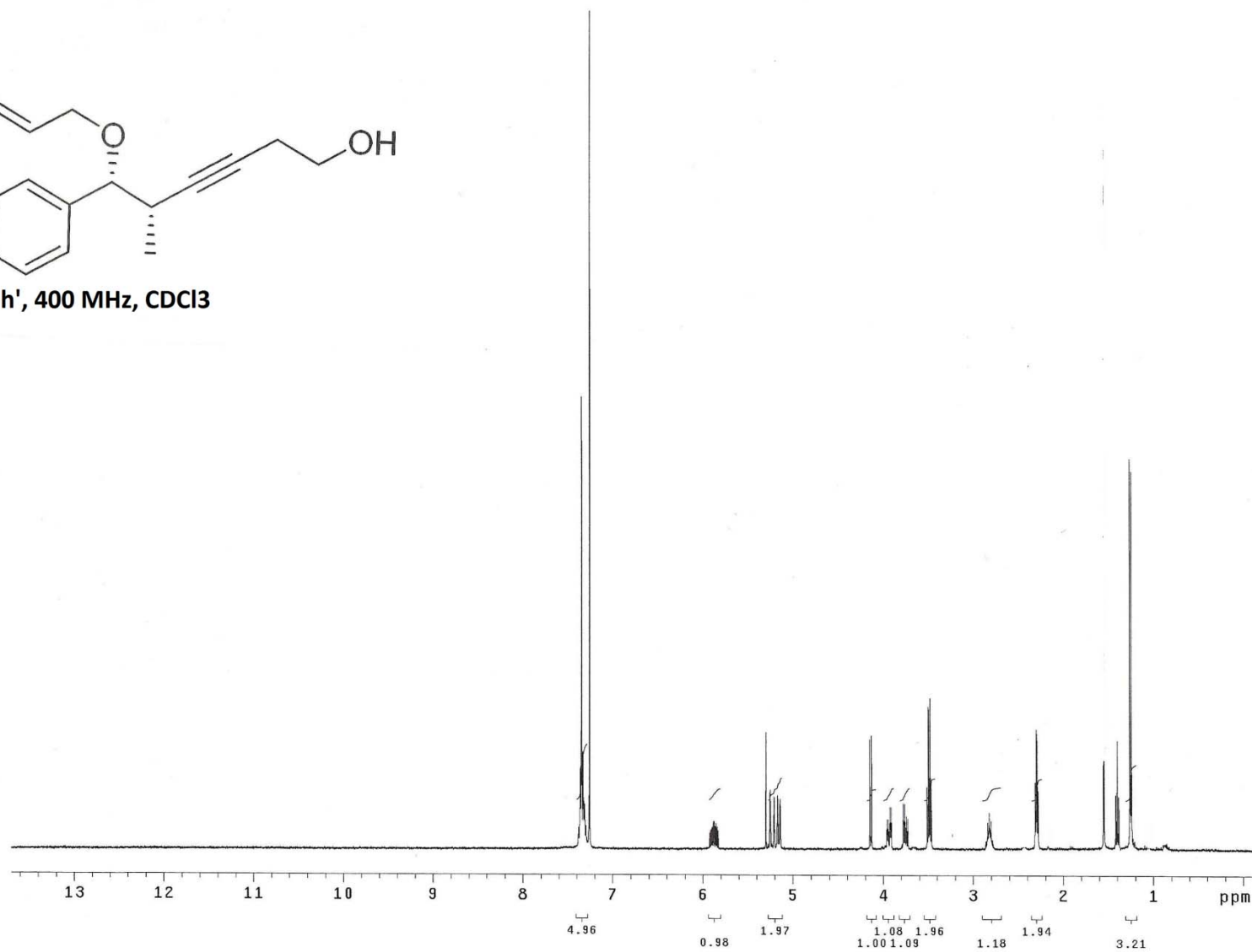
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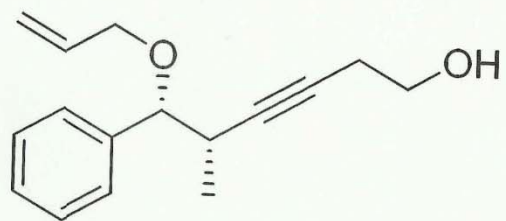
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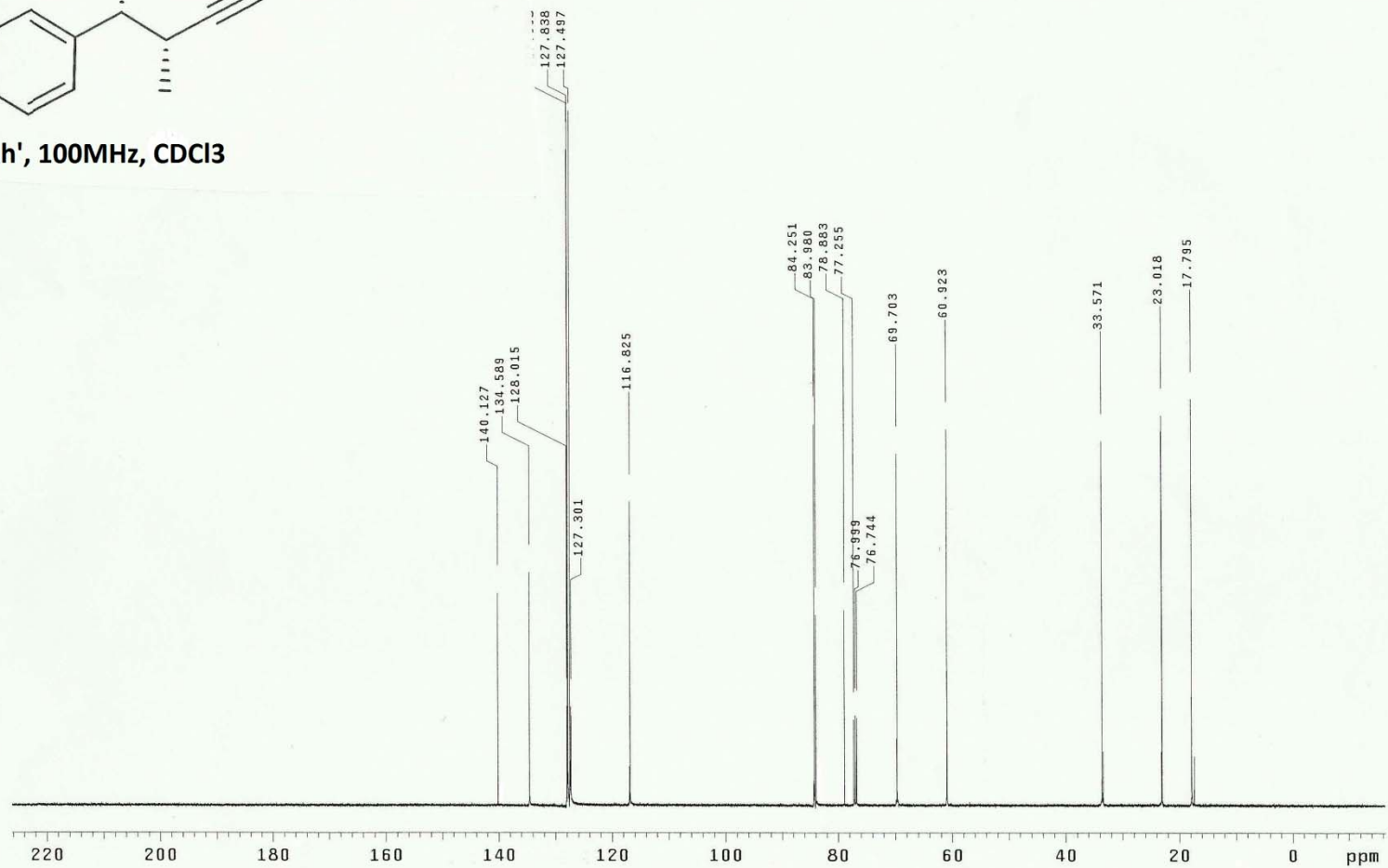


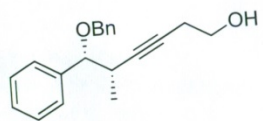
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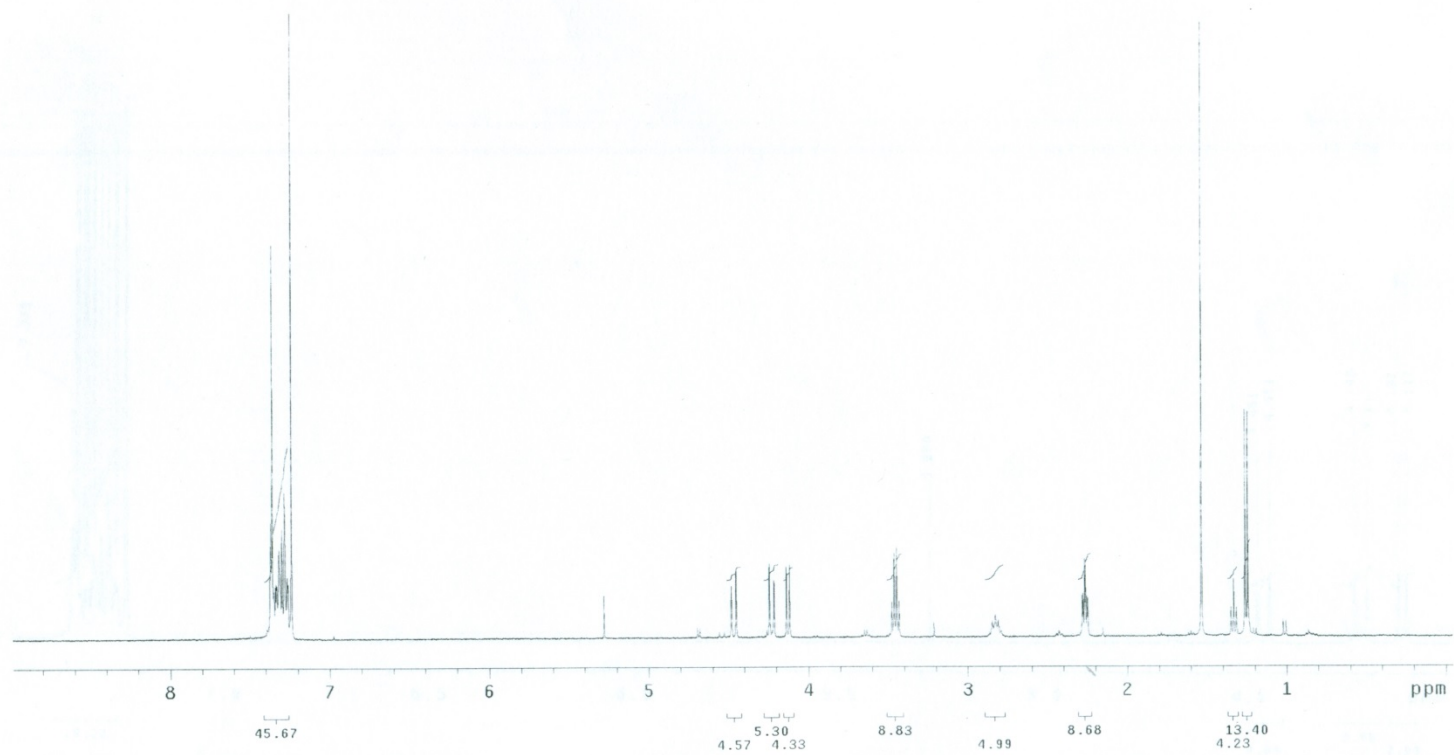
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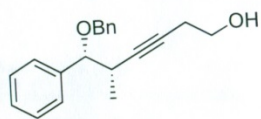




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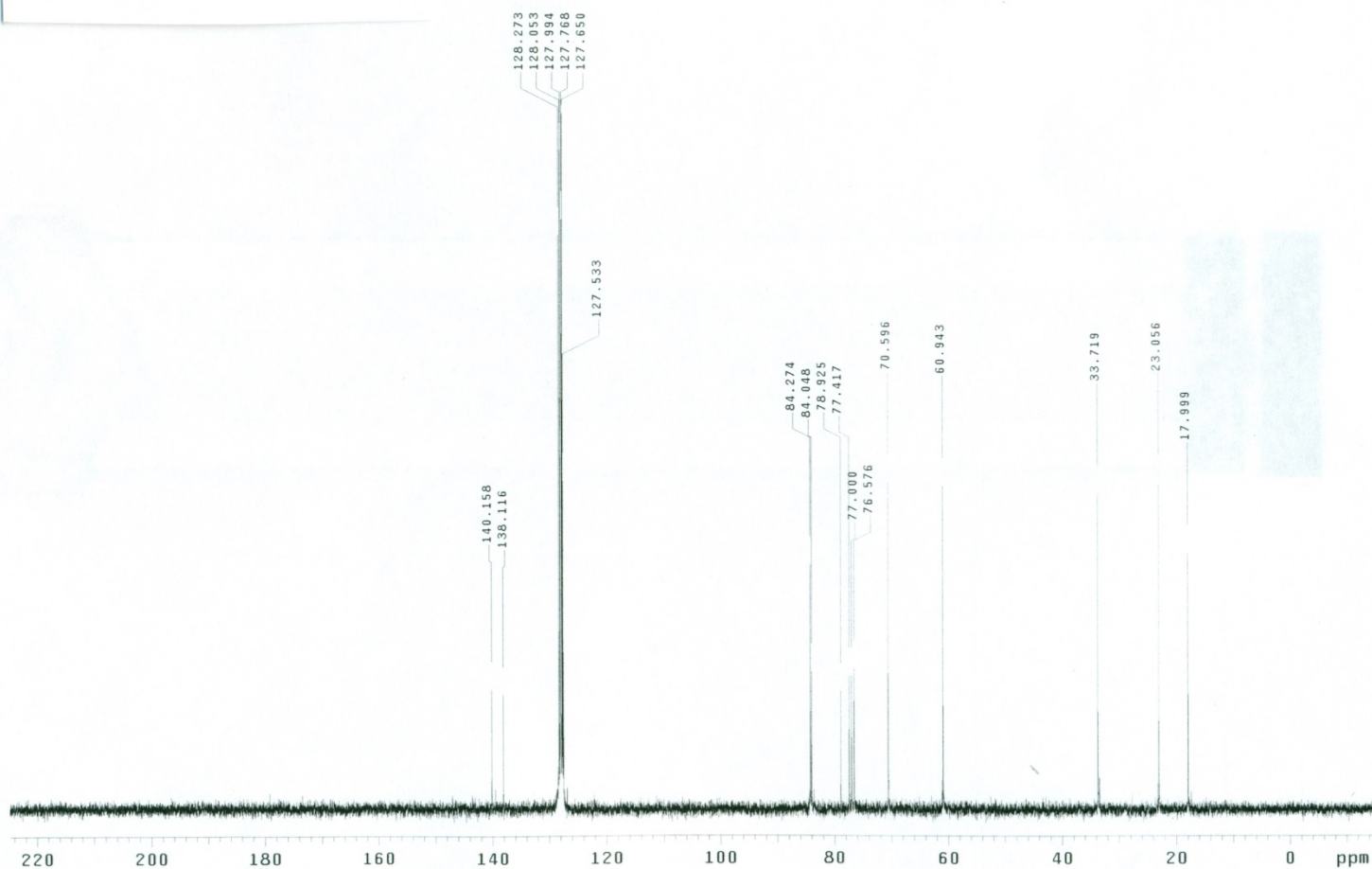
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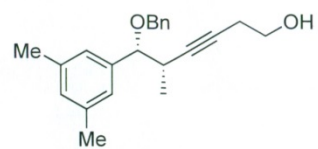




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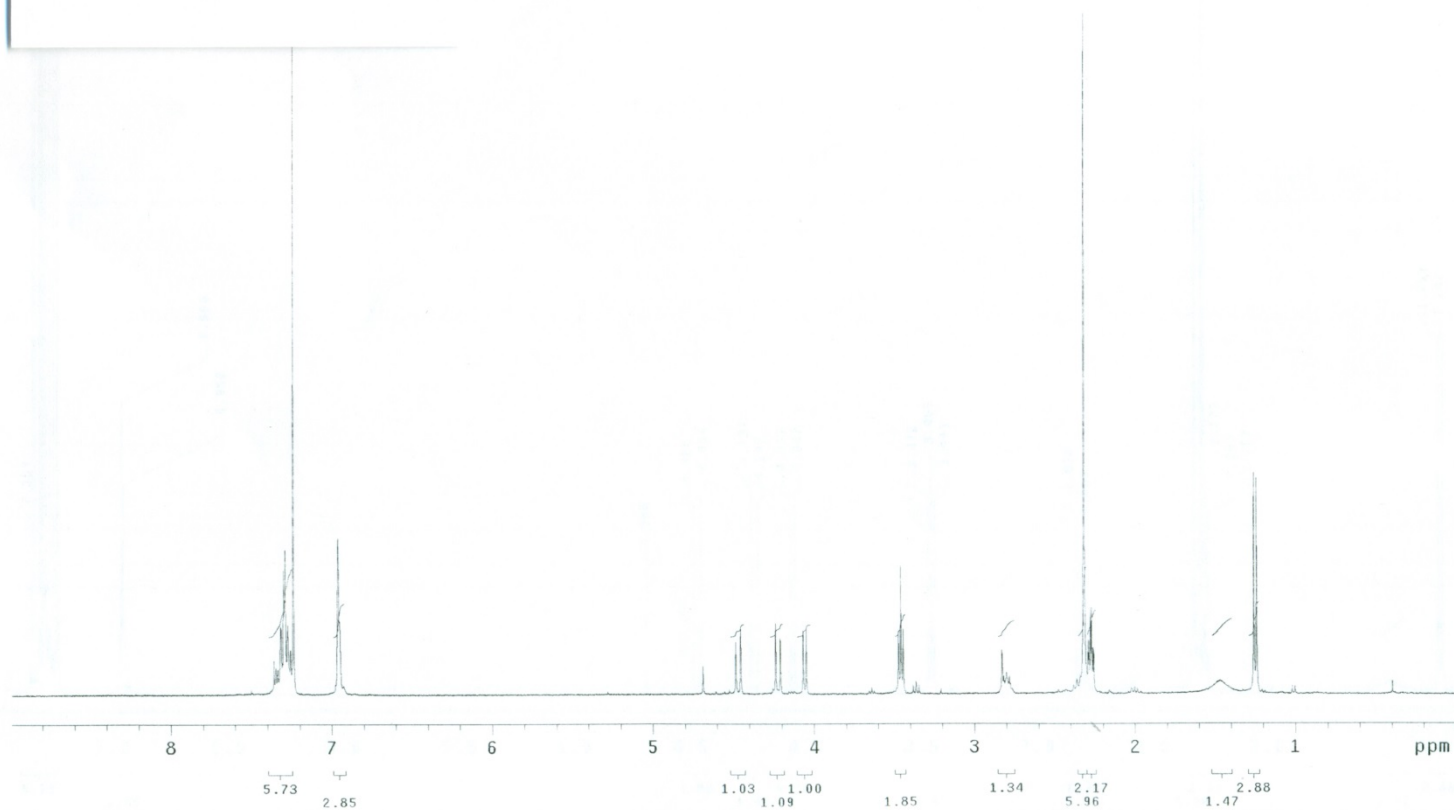
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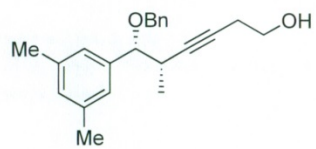




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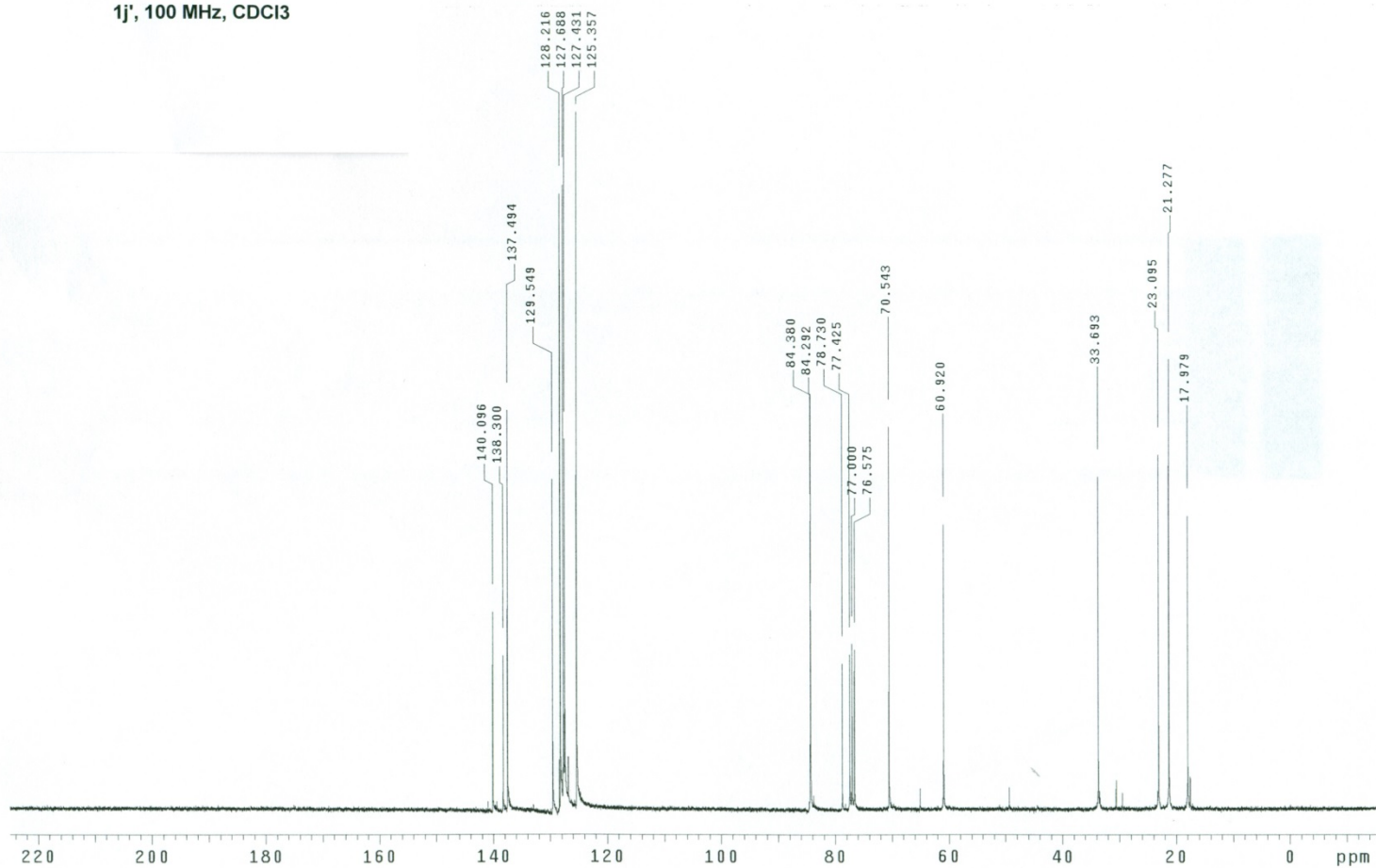
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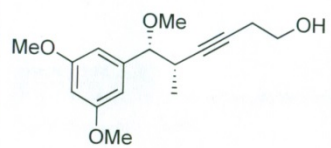




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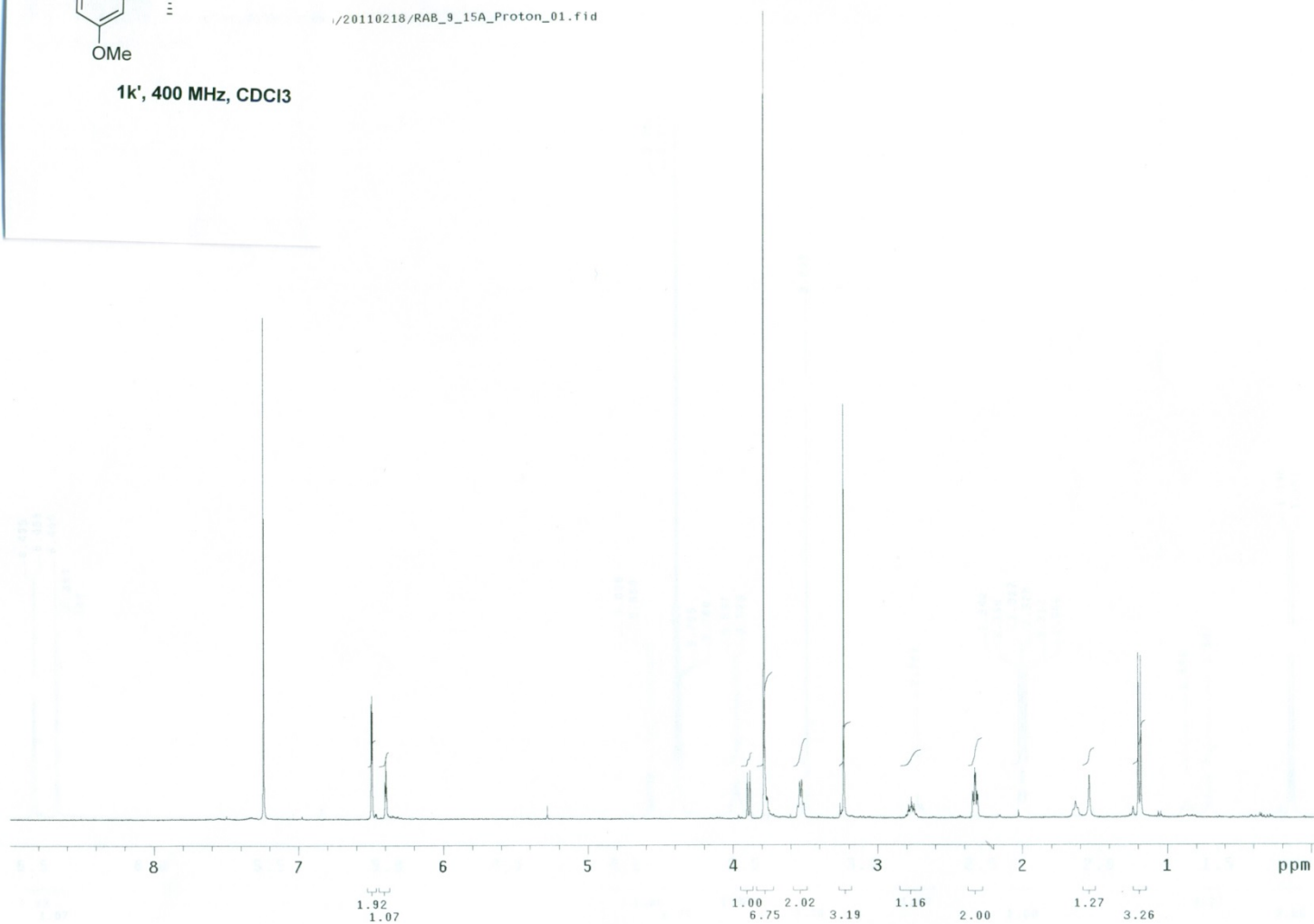
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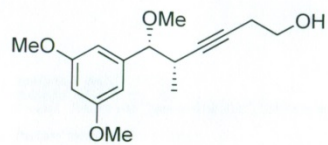




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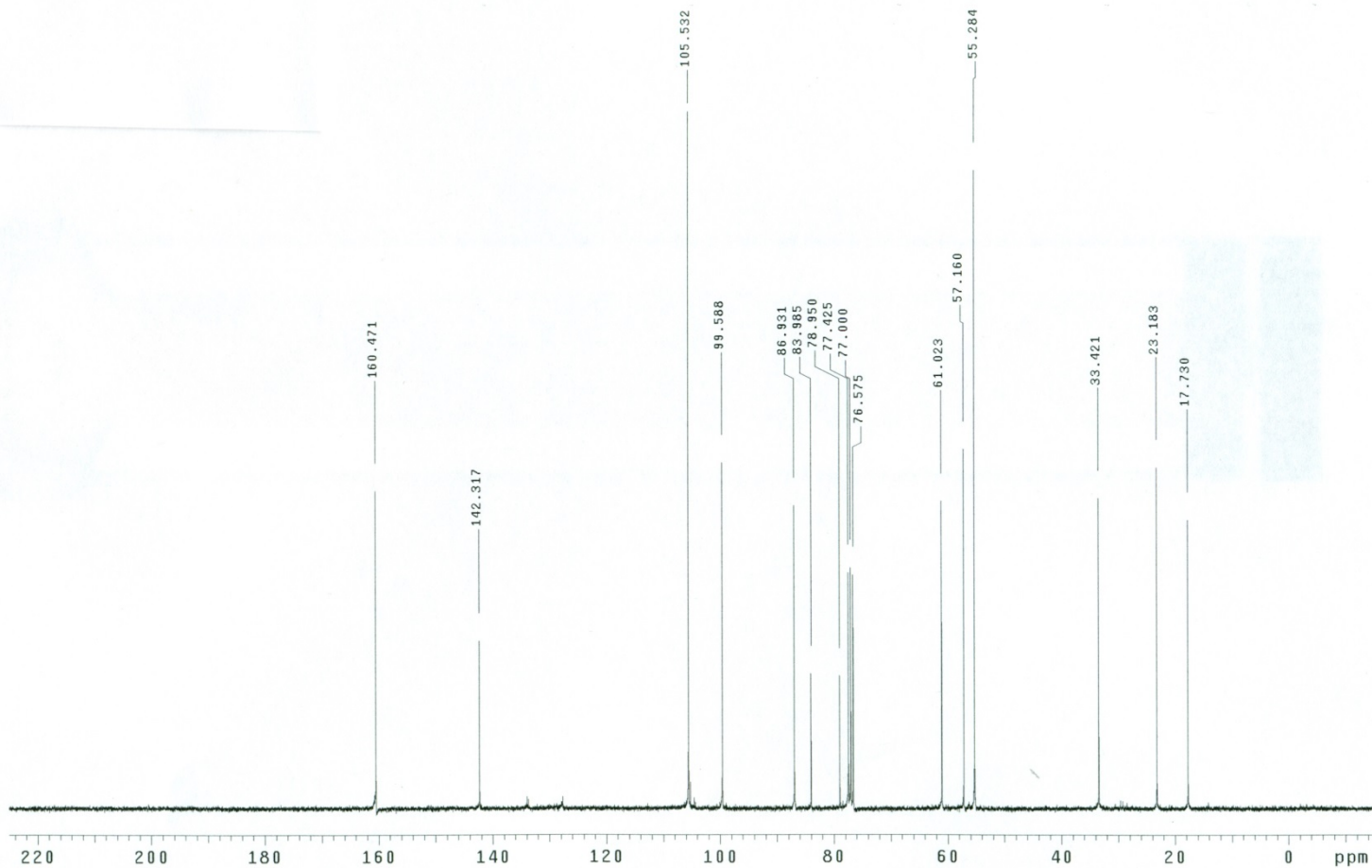
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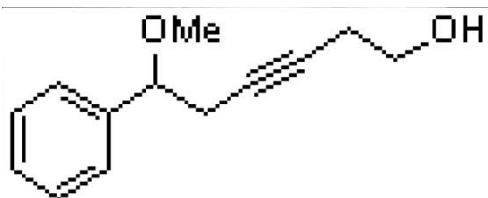




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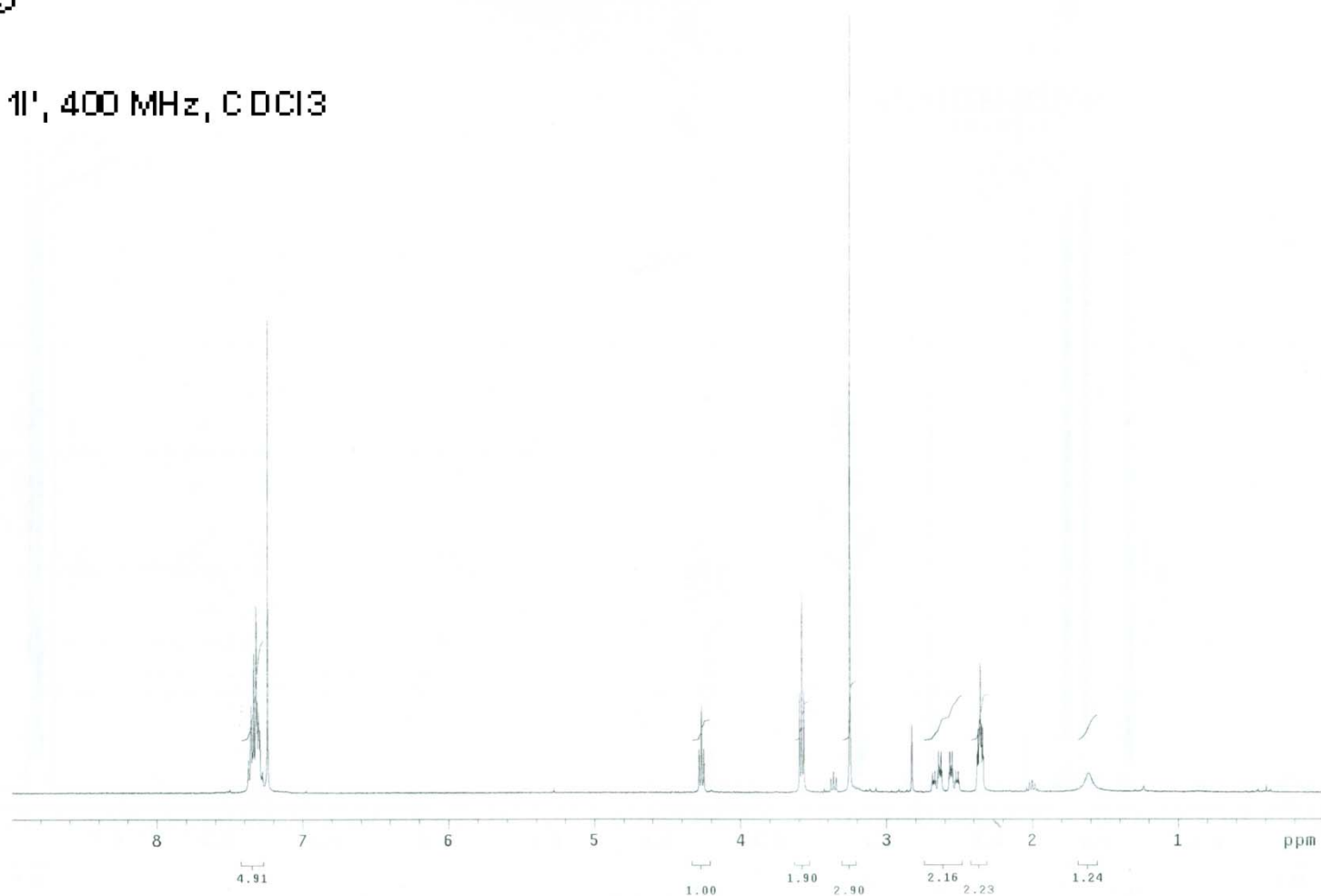
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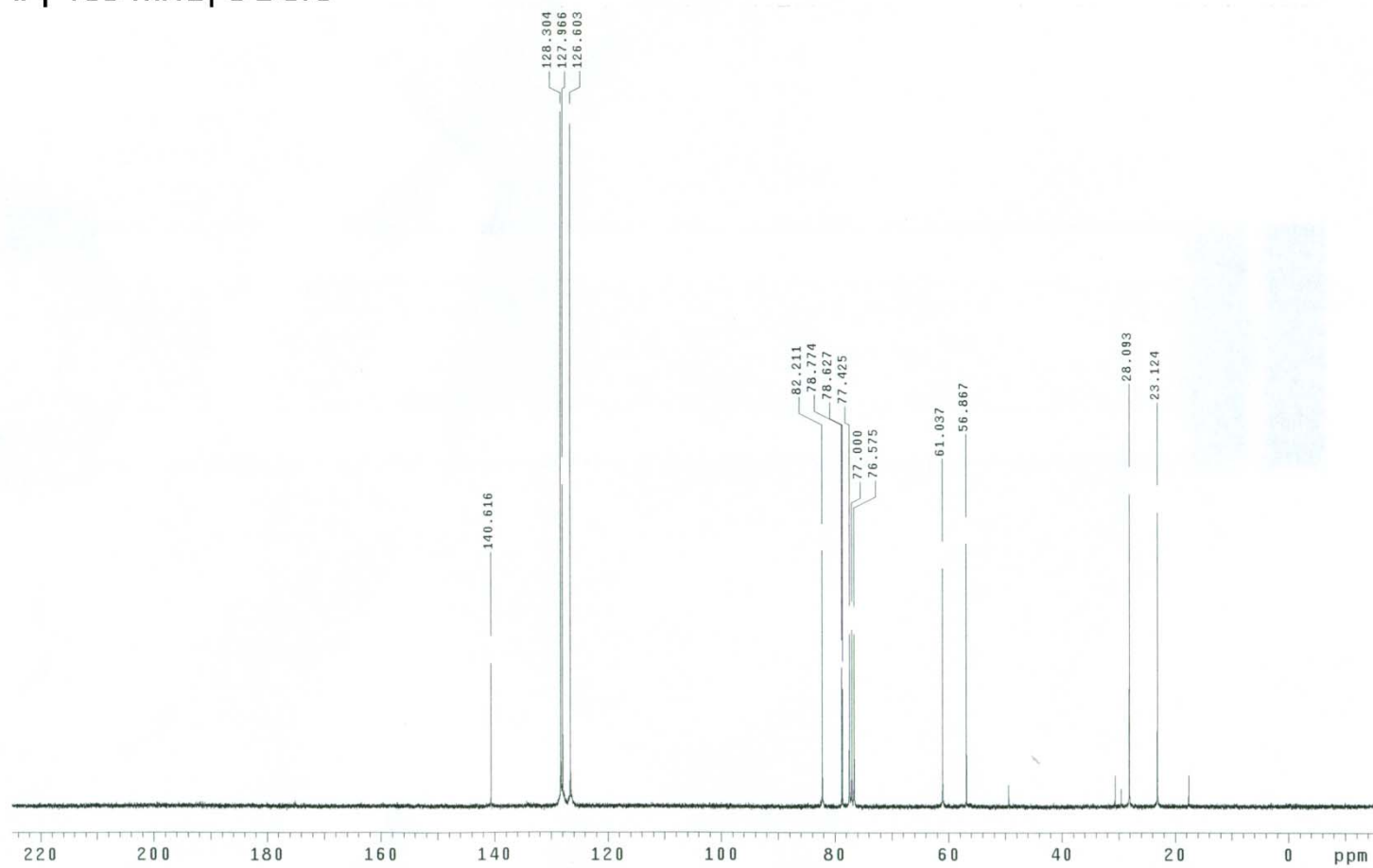
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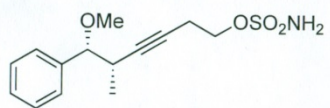




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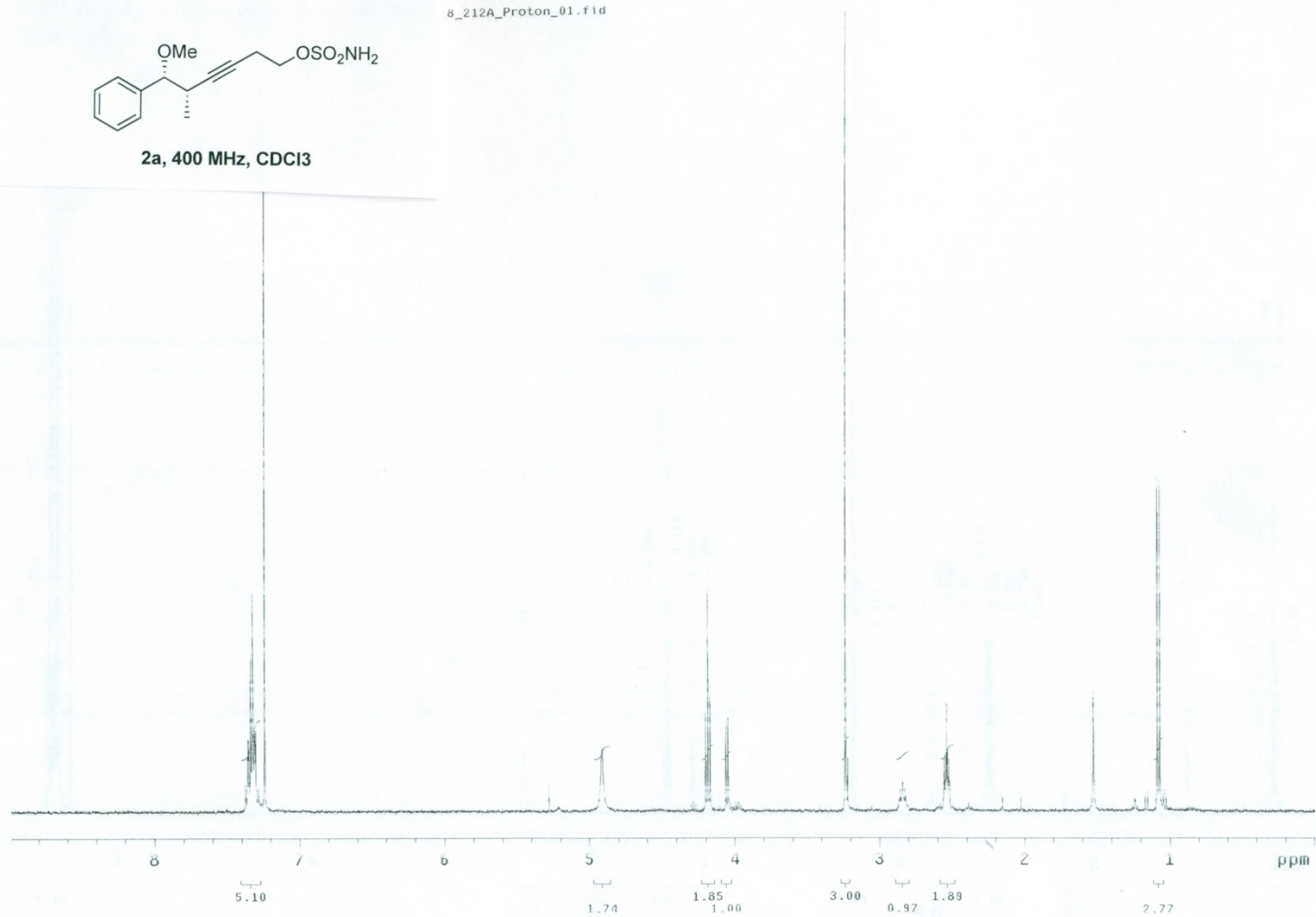
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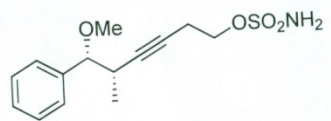




2a, 400 MHz, CDCl₃

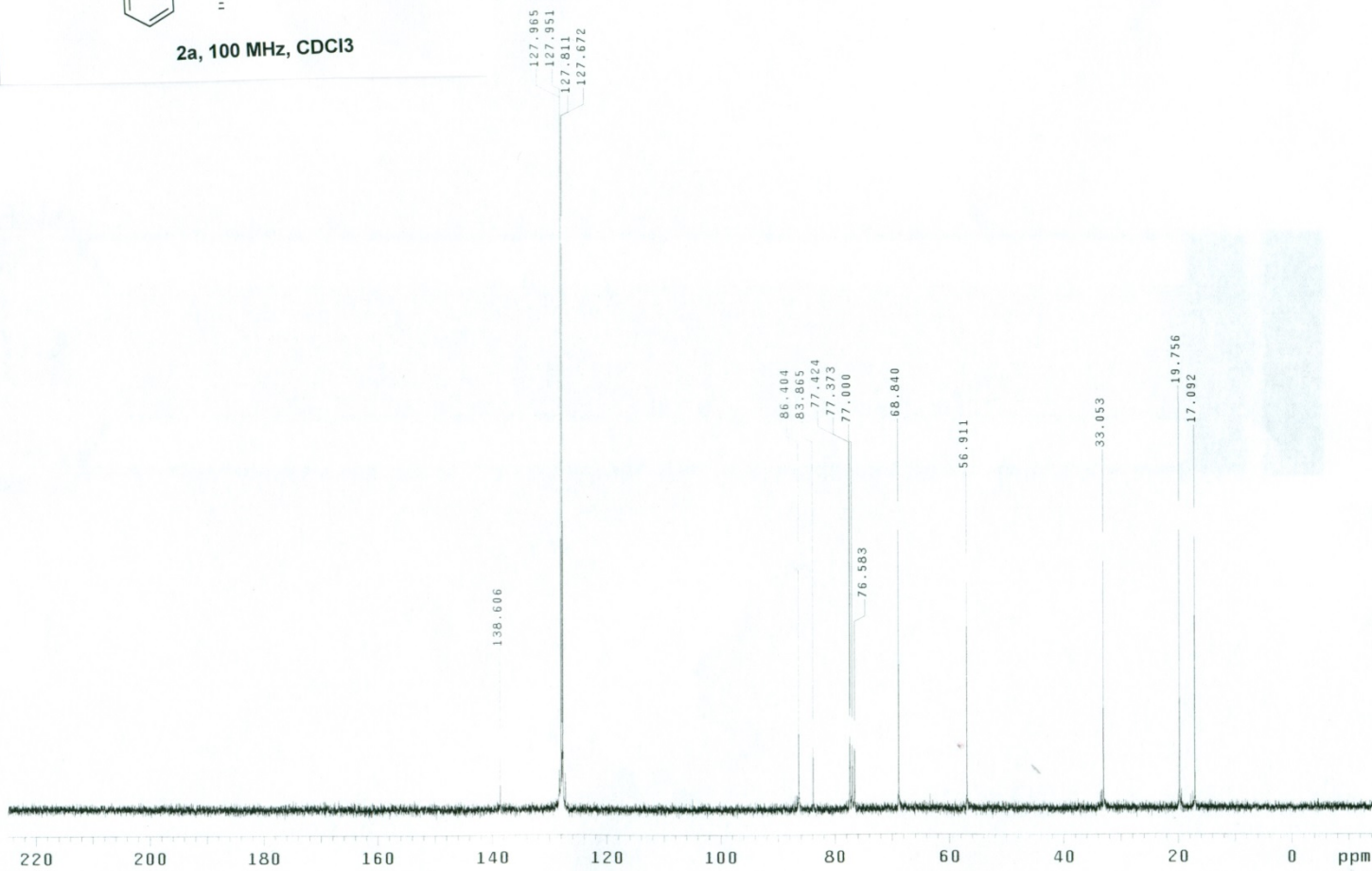
8_212A_Proton_01.fid

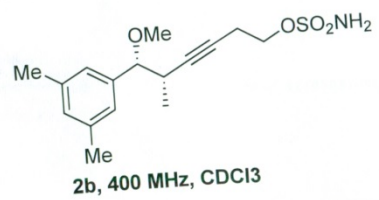




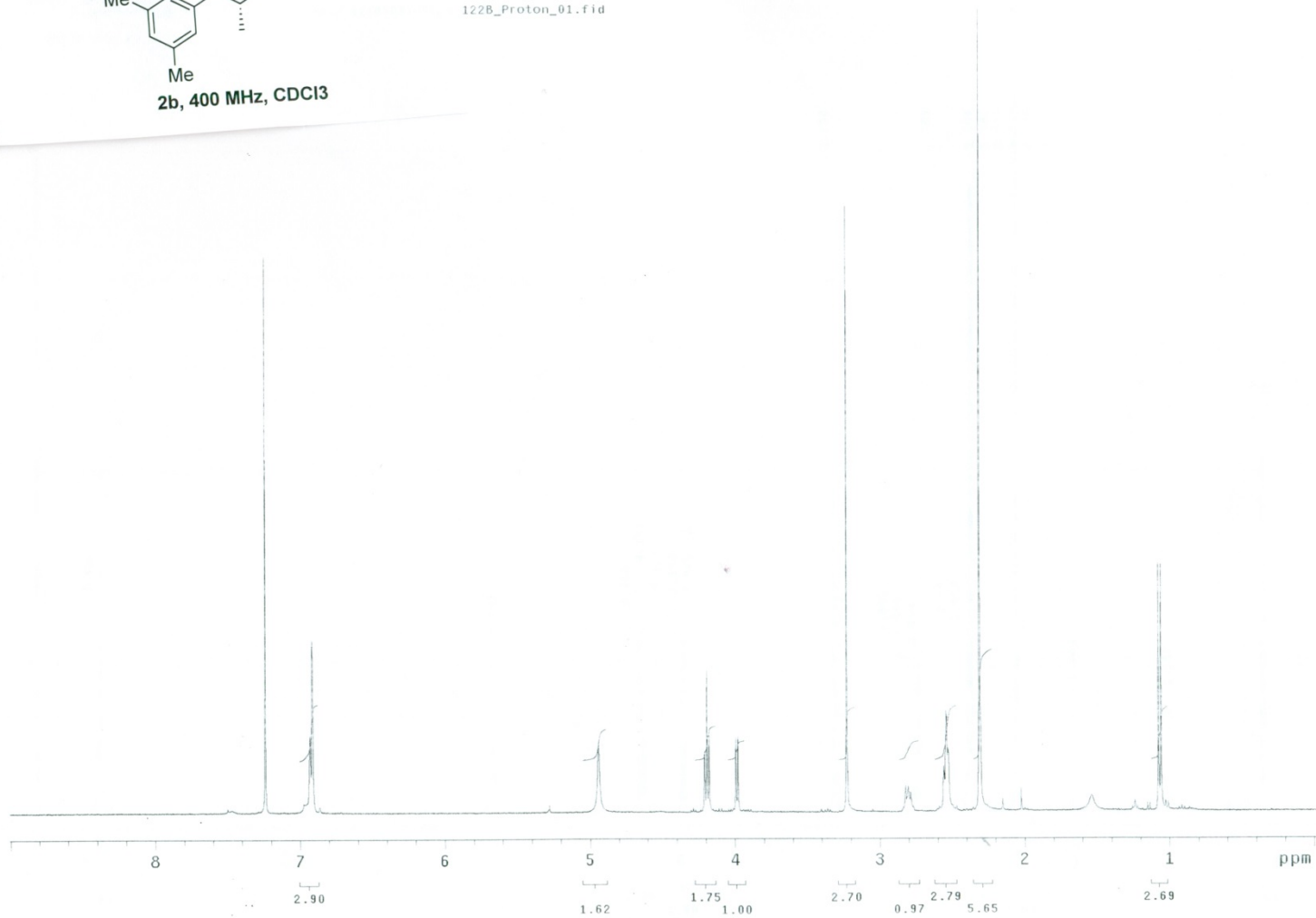
2a, 100 MHz, CDCl₃

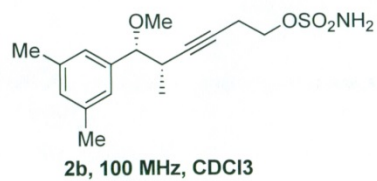
212A_Carbon_01.fid



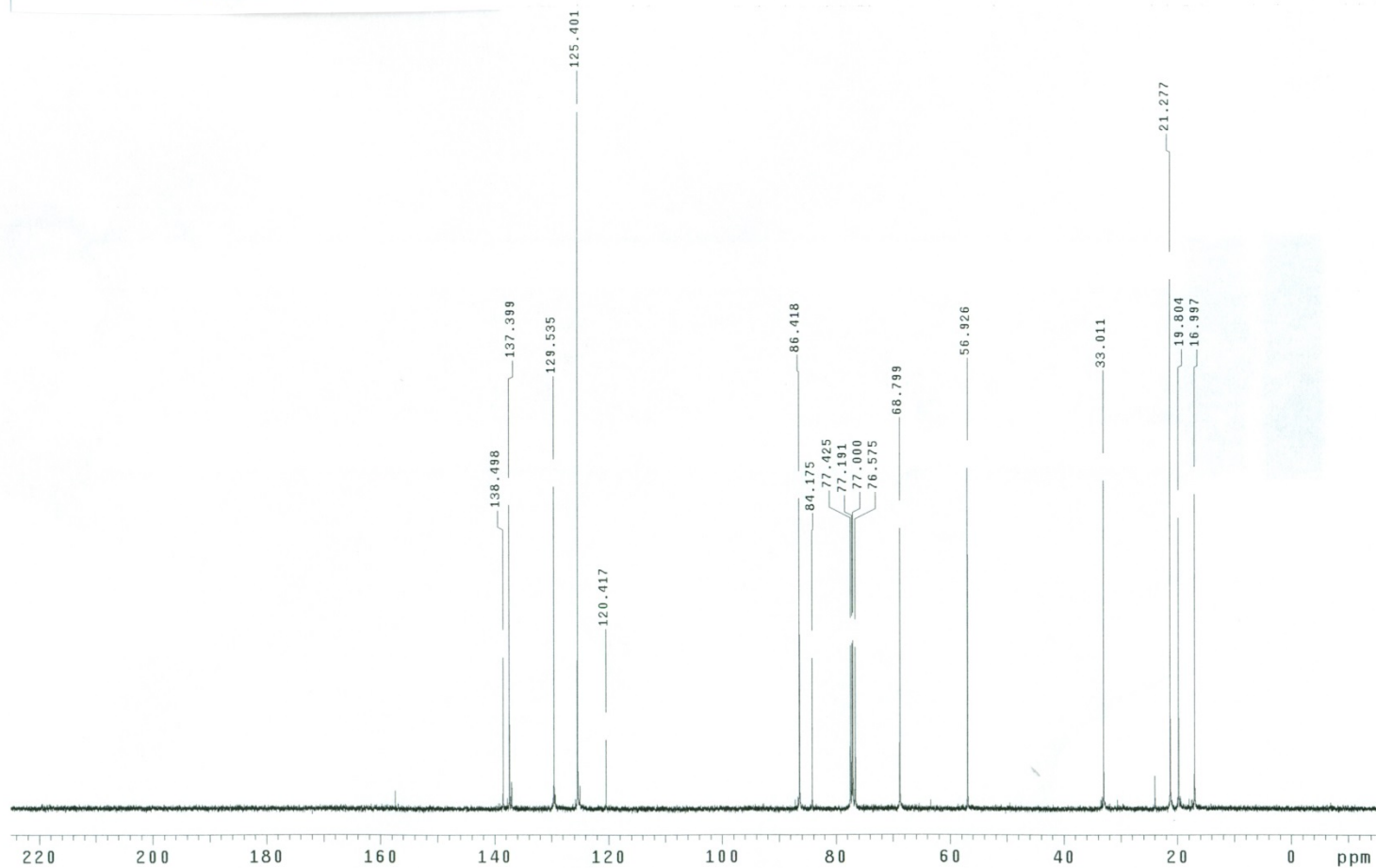


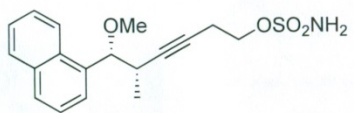
122B_Proton_01.fid





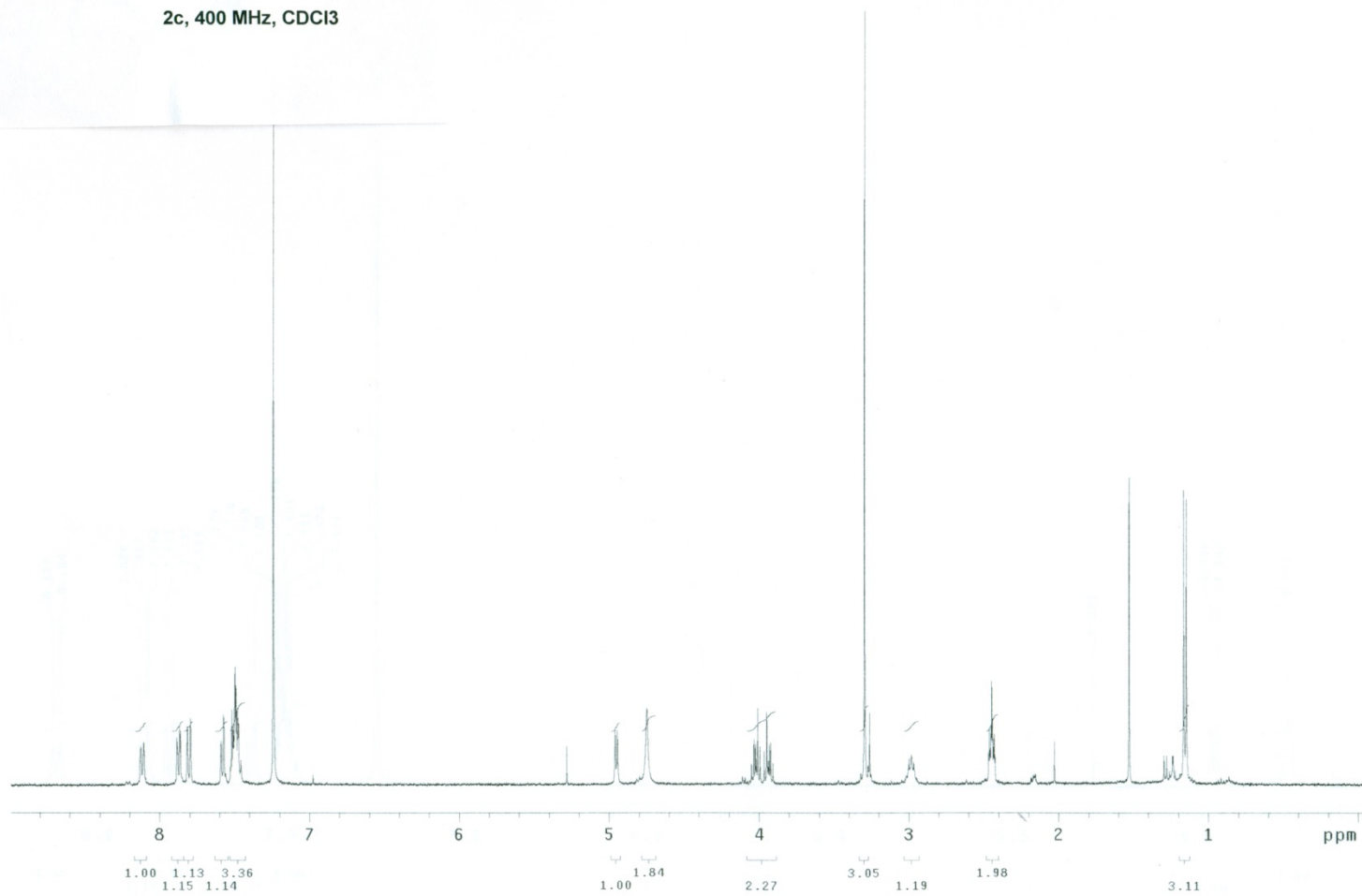
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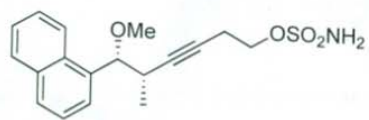




B_9_14A_Proton_01.fid

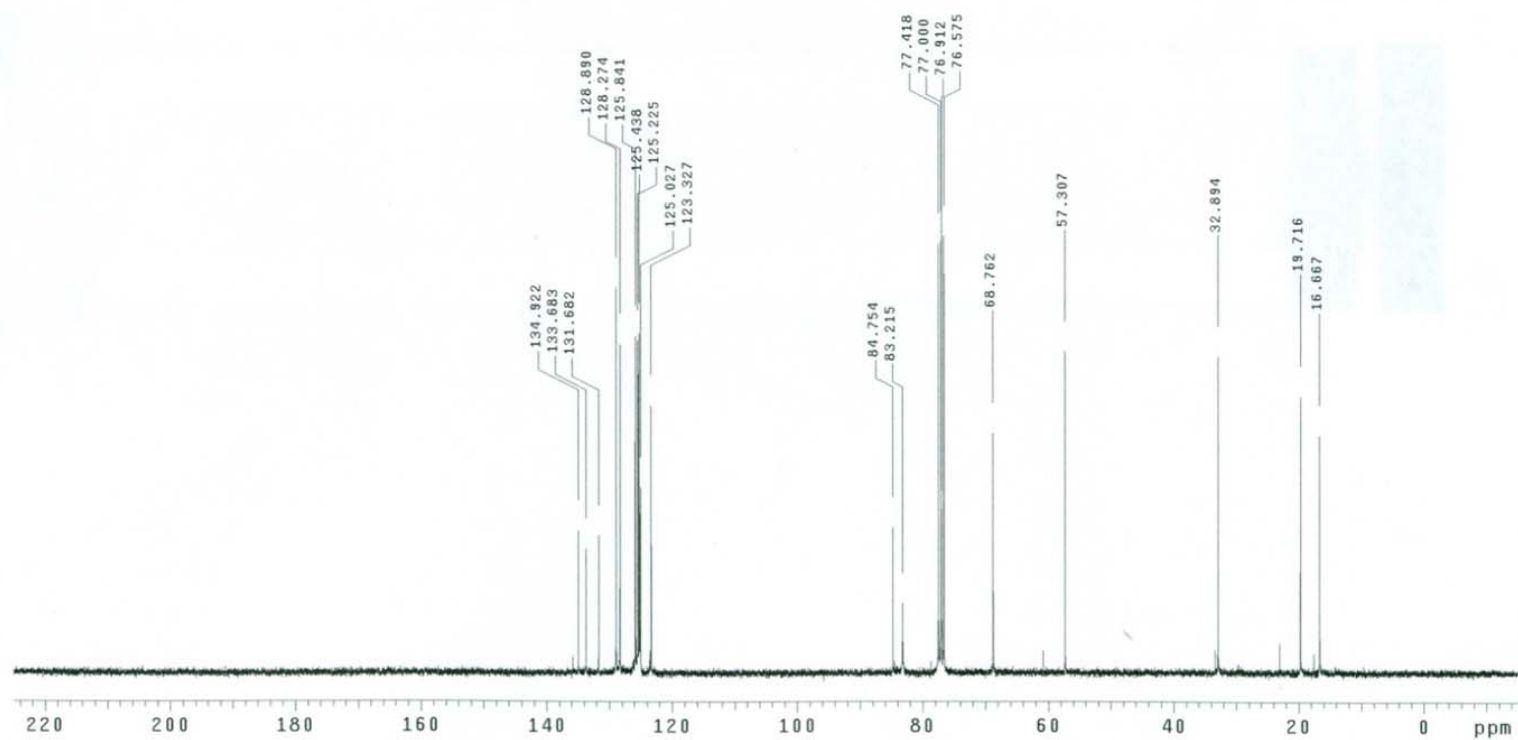
2c, 400 MHz, CDCl₃

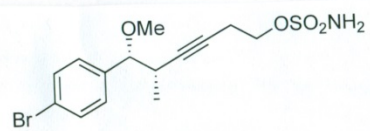




_14A_Carbon_01.fid

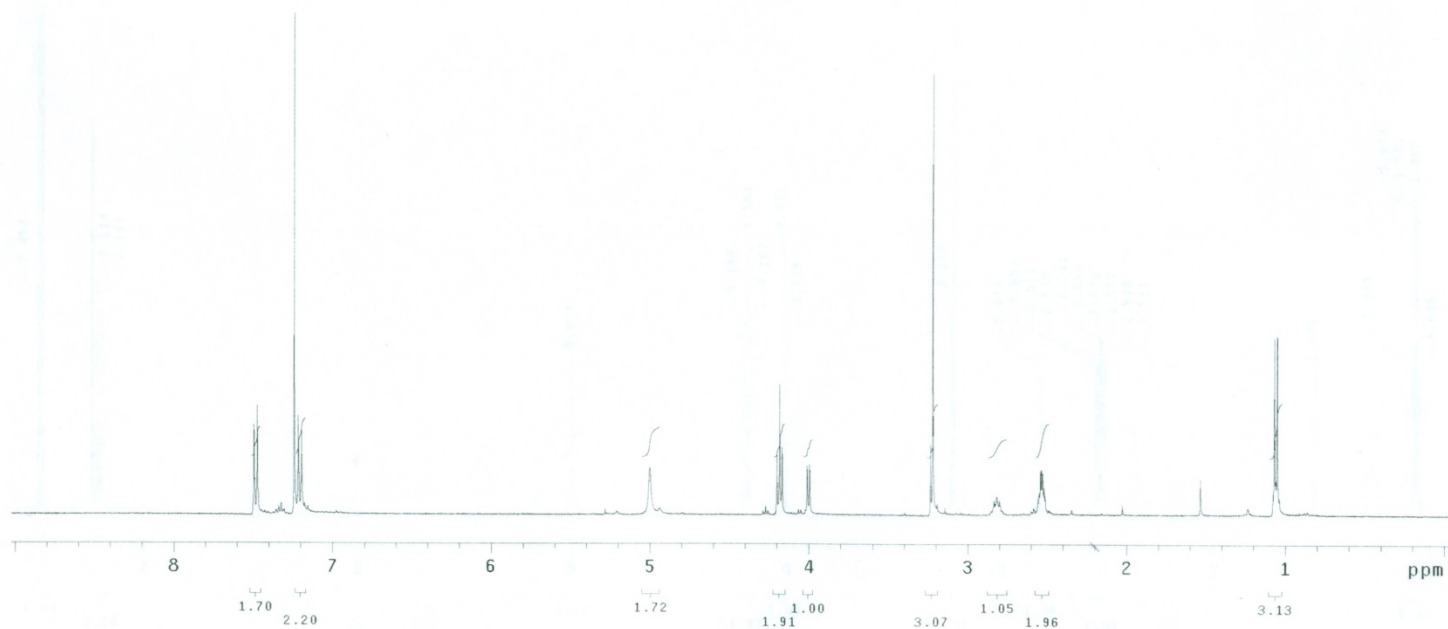
2c, 100 MHz, CDCl₃

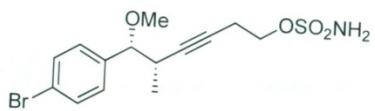




0C_Proton_01.fid

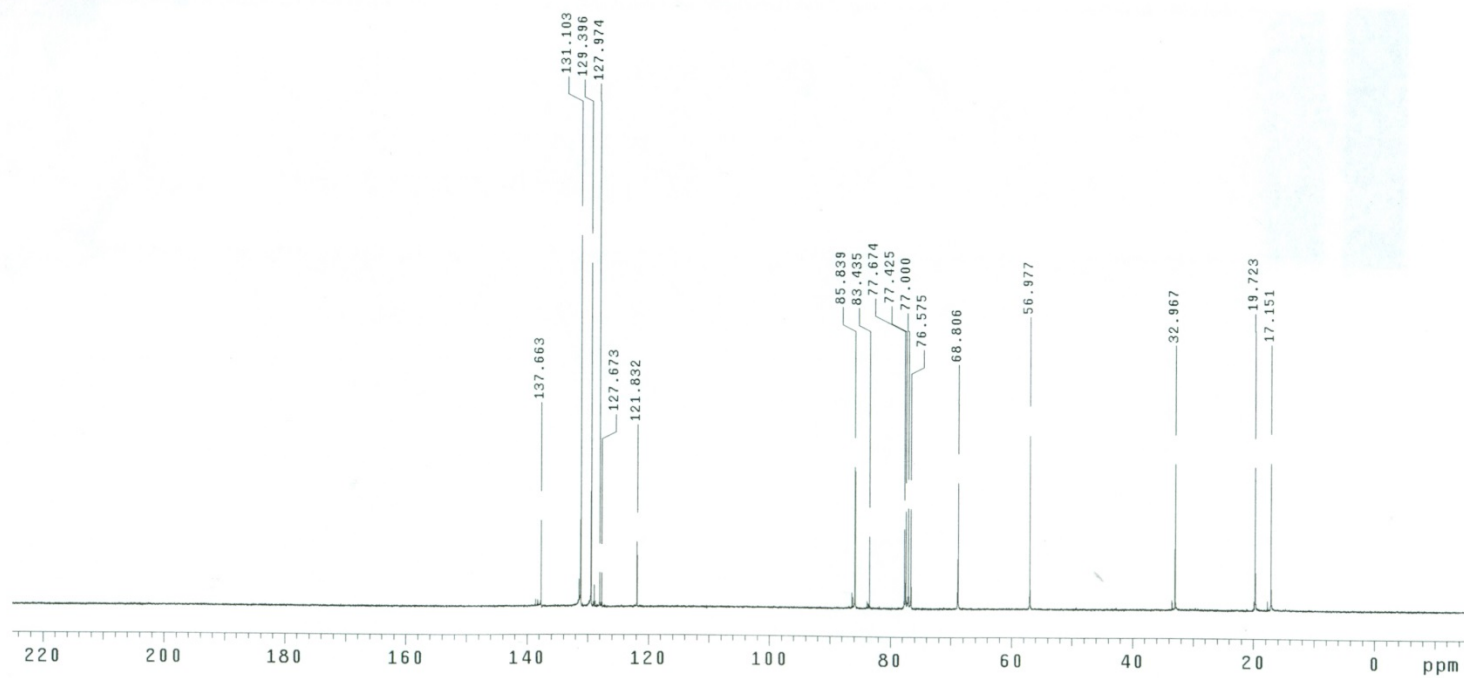
2d, 400 MHz, CDCl₃

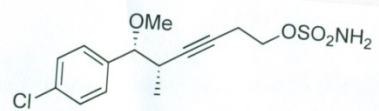




0C_Carbon_01.fid

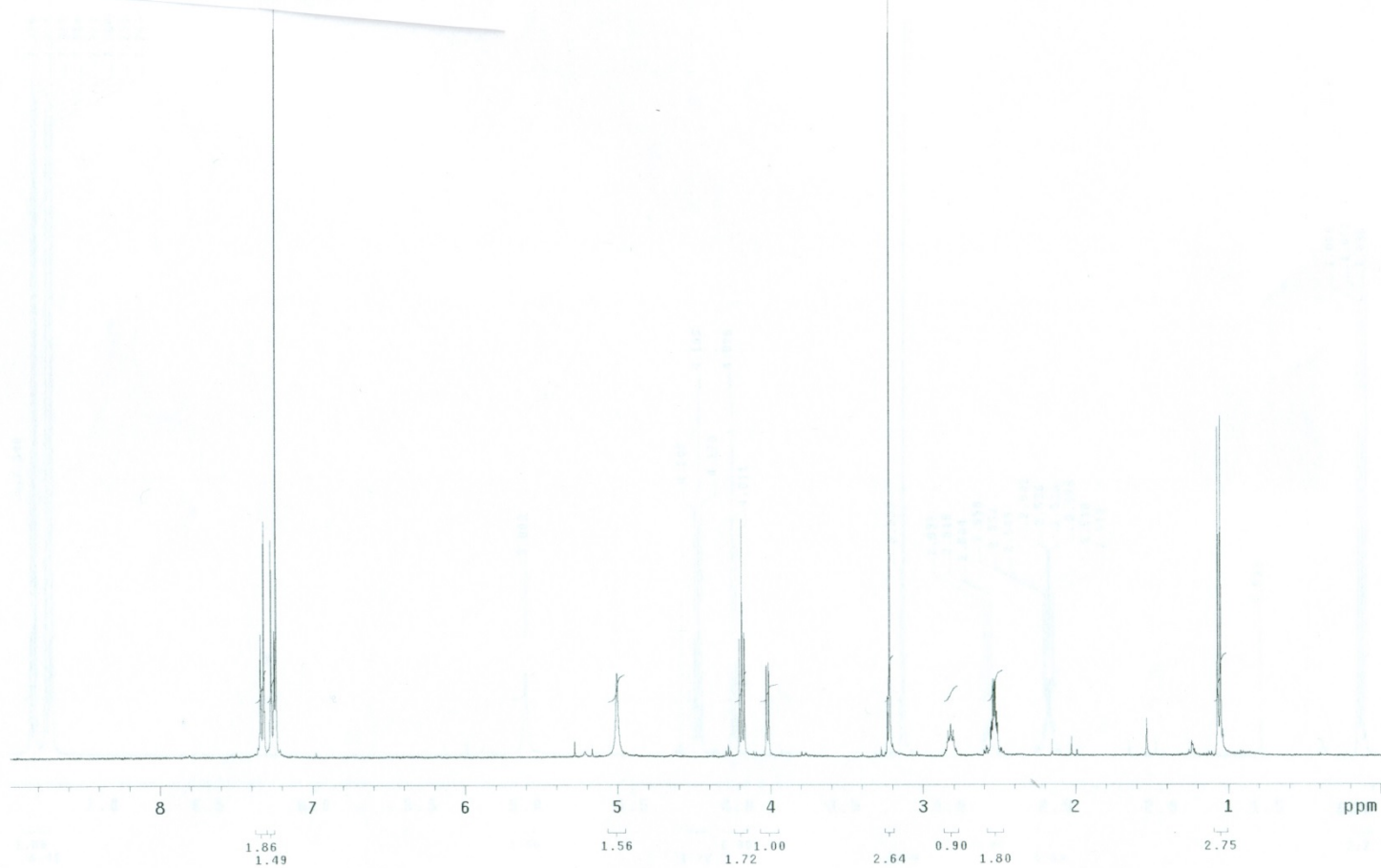
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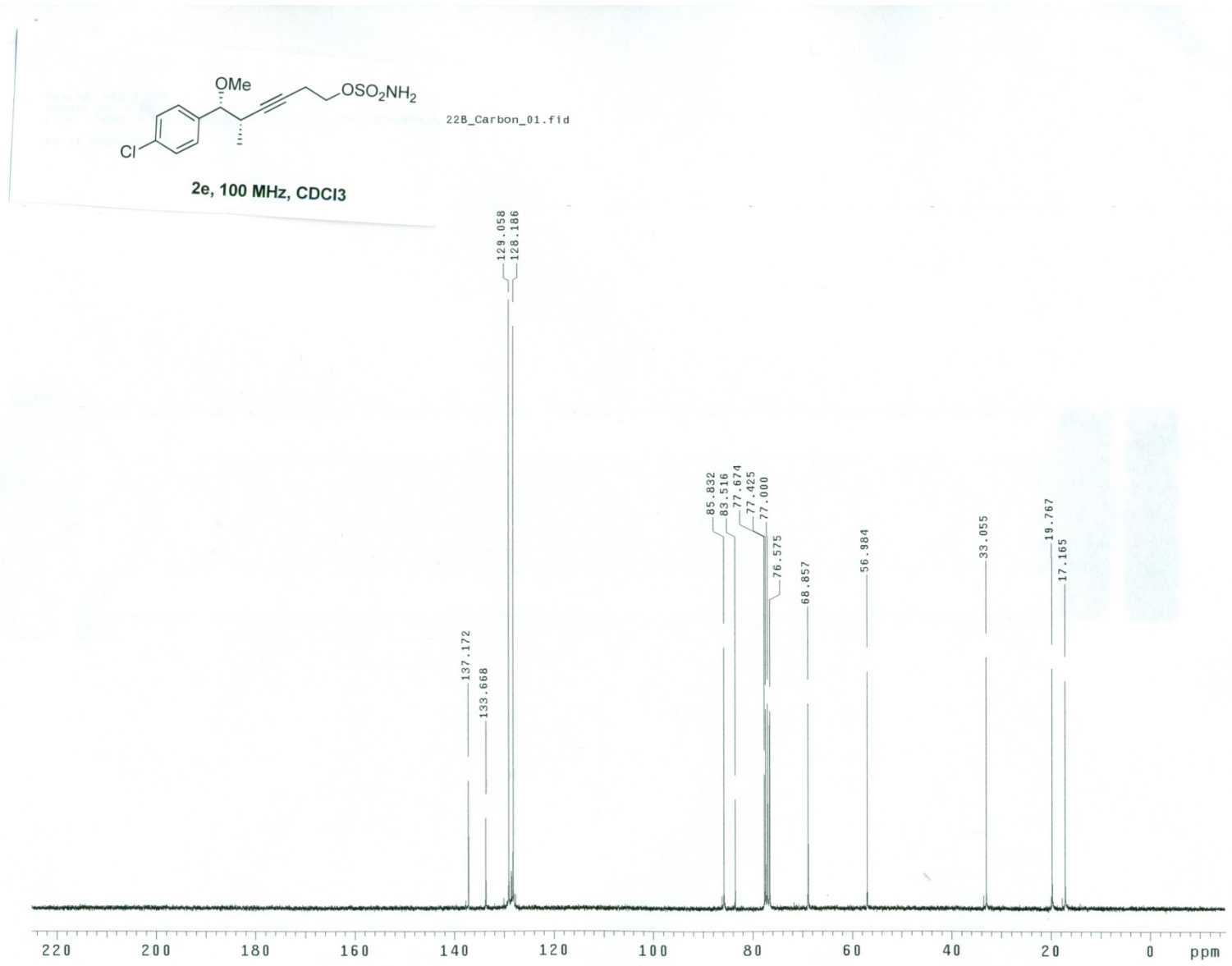


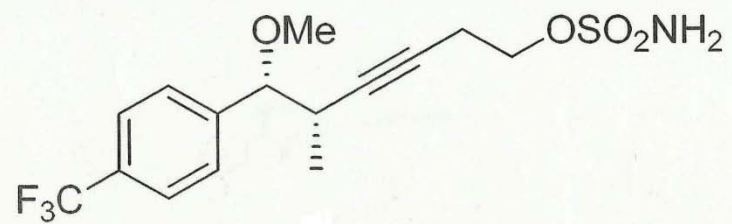


Proton_01.fid

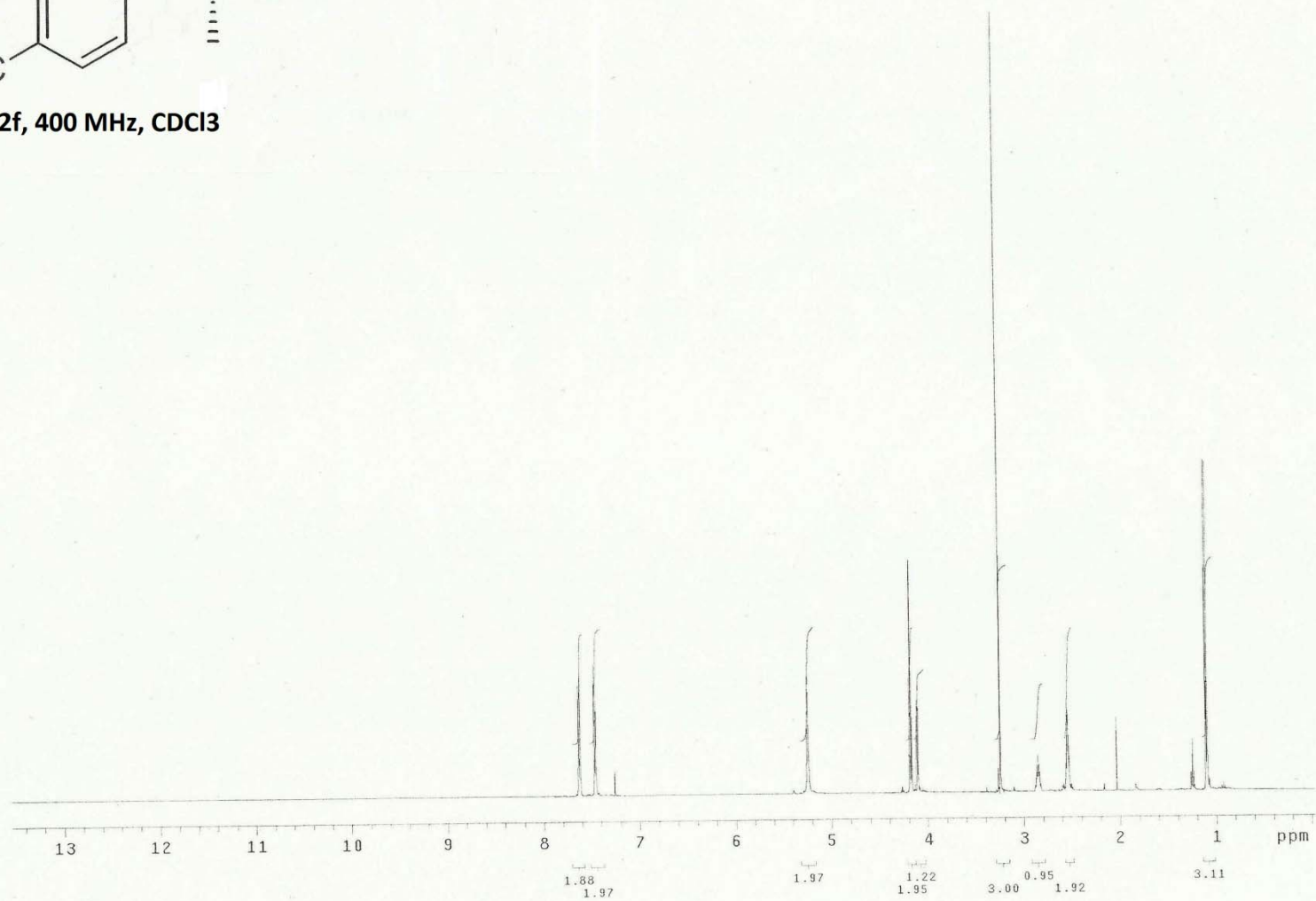
2e, 400 MHz, CDCl₃

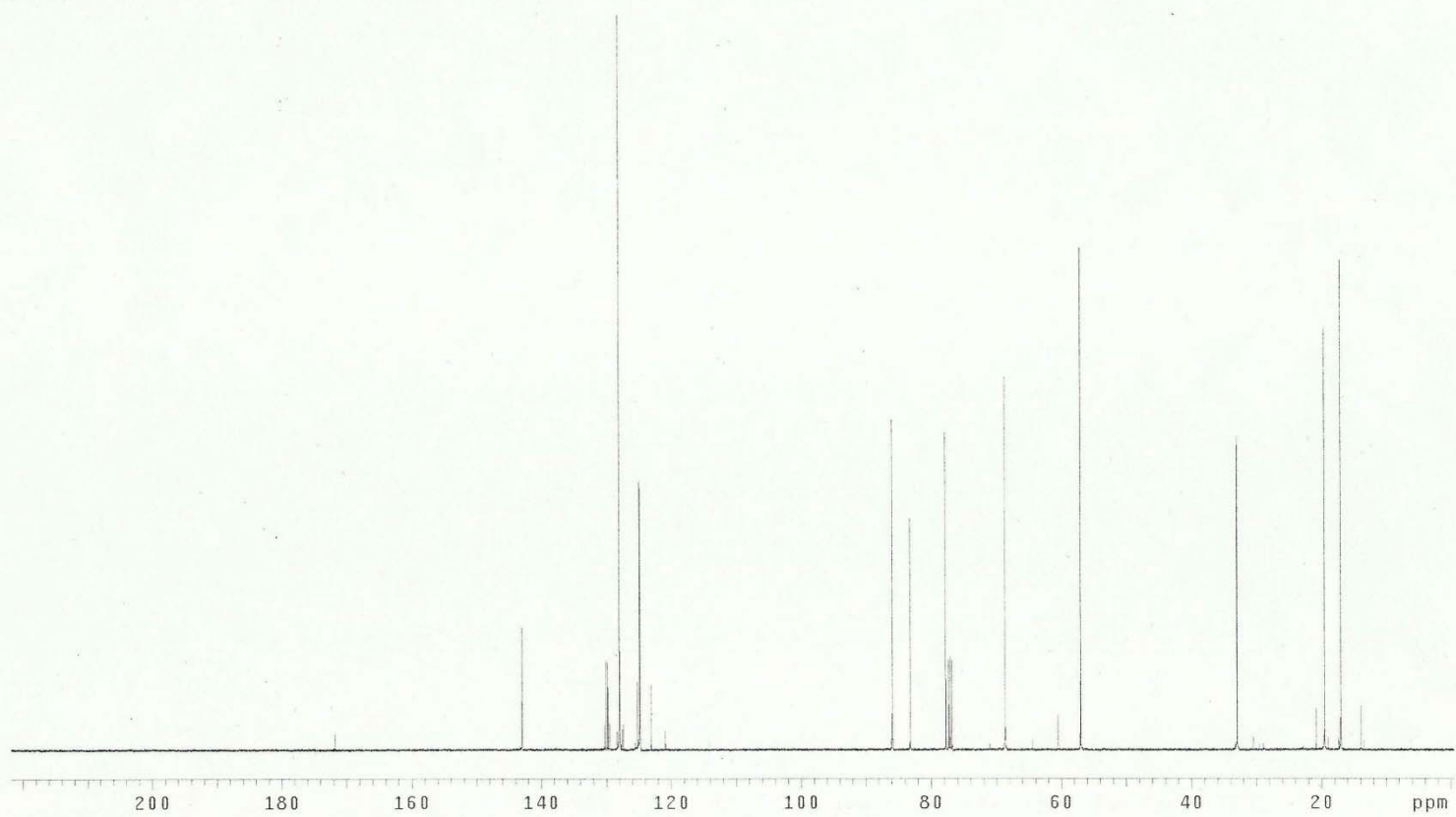
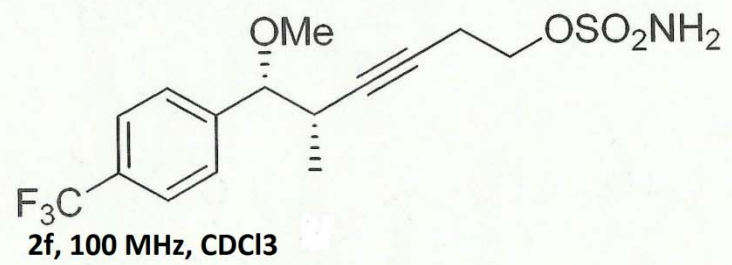


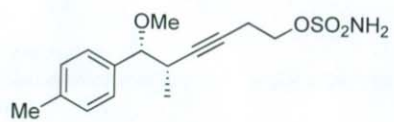




2f, 400 MHz, CDCl₃

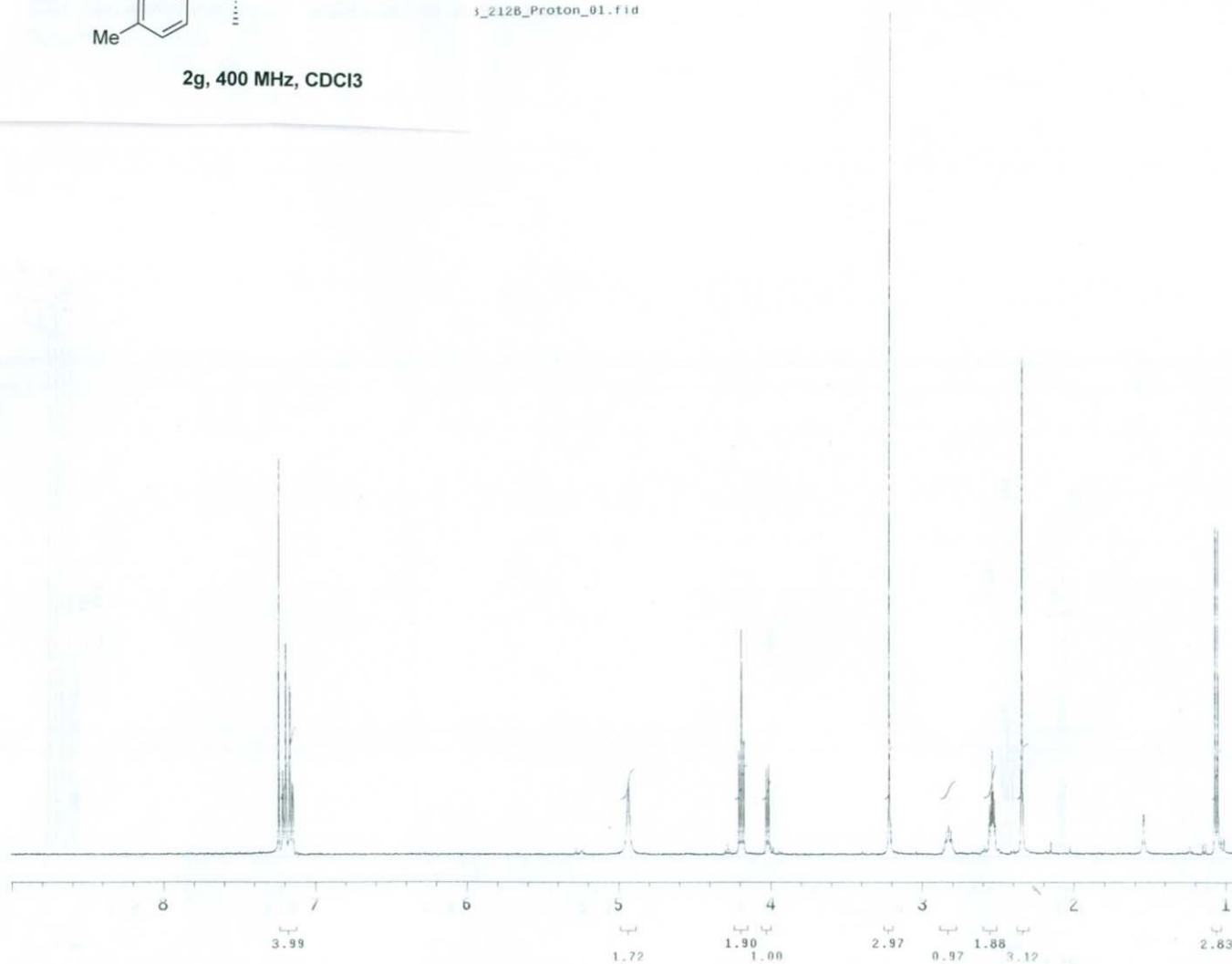


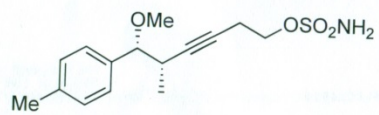




3_212B_Proton_01.fid

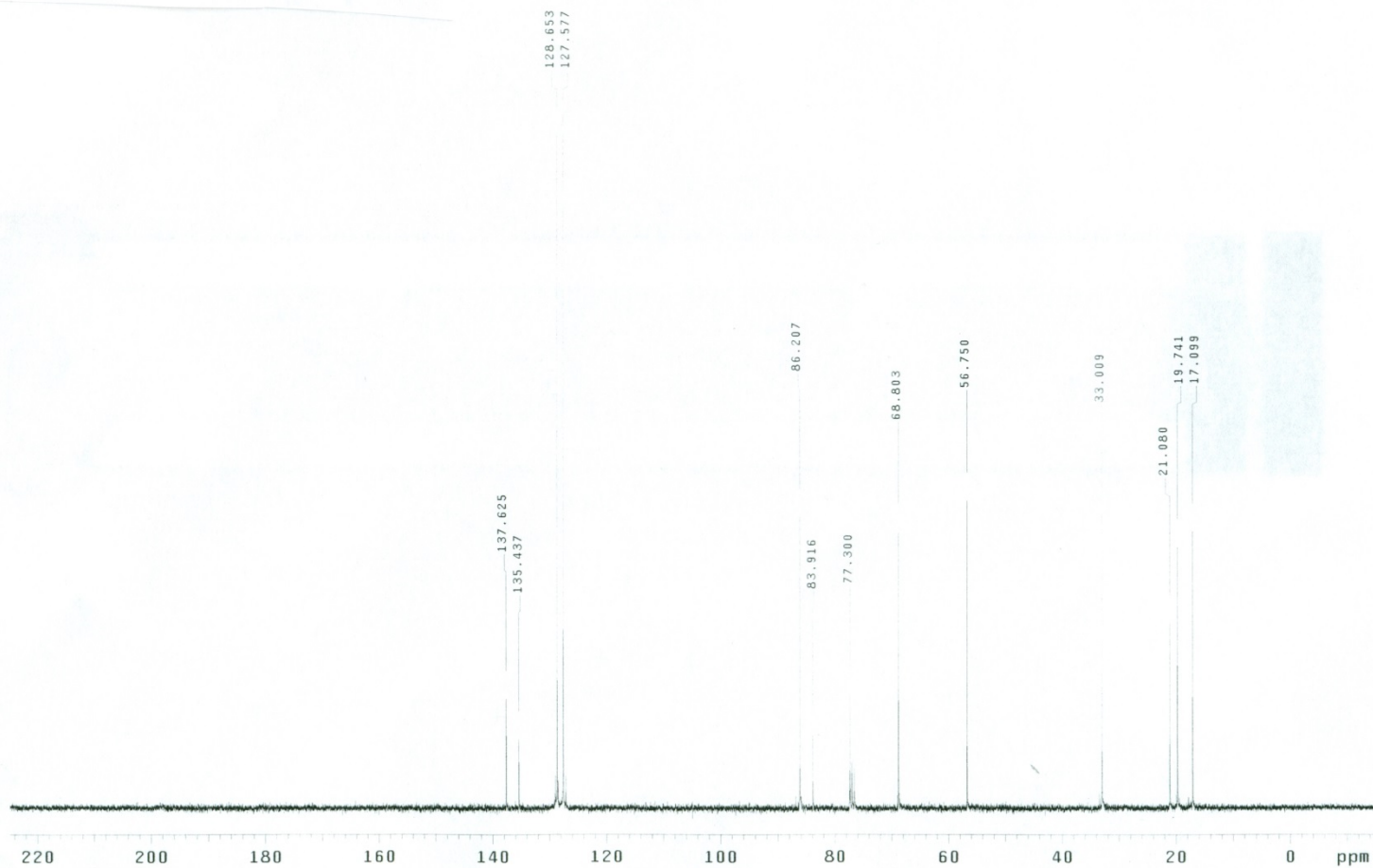
2g, 400 MHz, CDCl₃

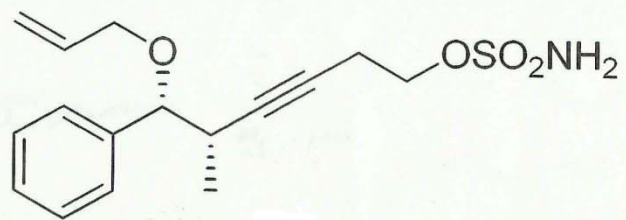




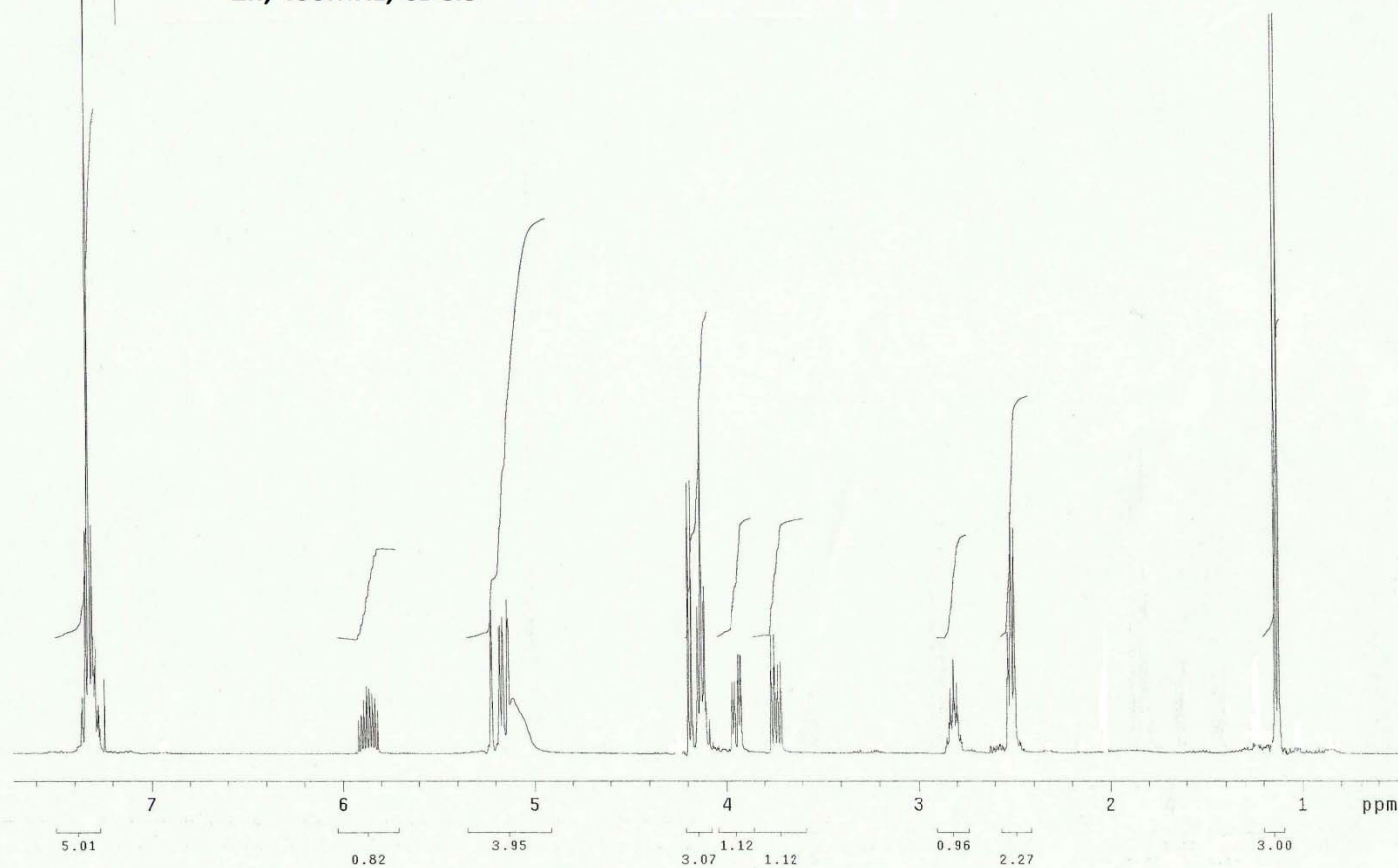
_8_212B_Carbon_03.fid

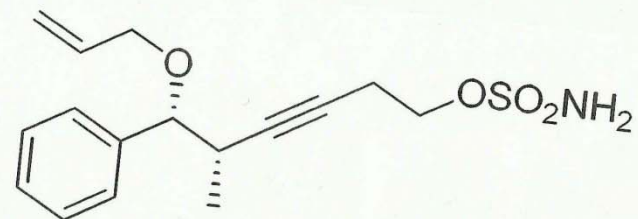
2g, 100 MHz, CDCl₃



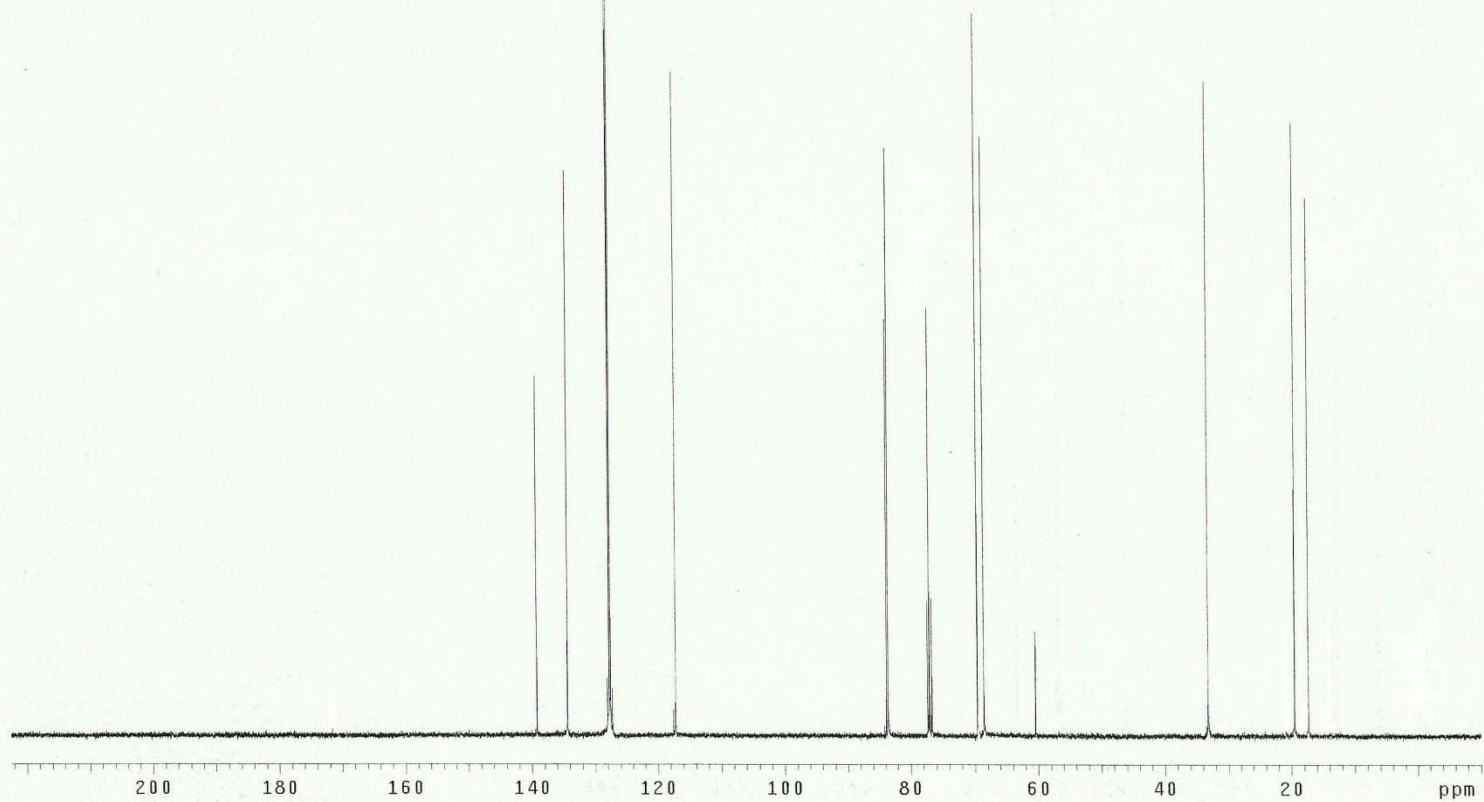


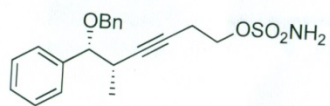
2h, 400MHz, CDCl₃





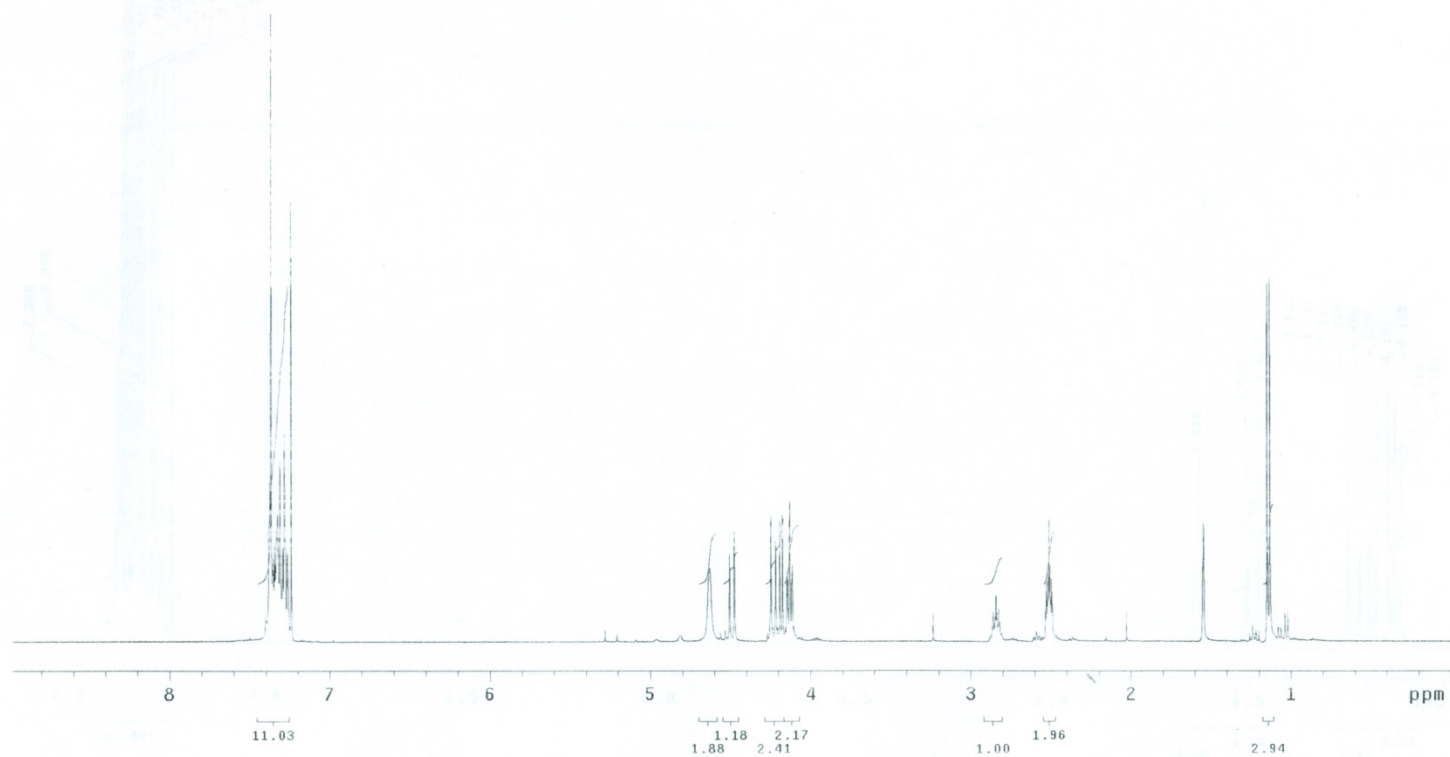
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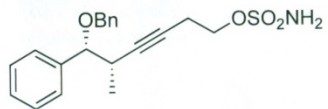




wn/20101029/RAB_8_190A_Proton_01.fid

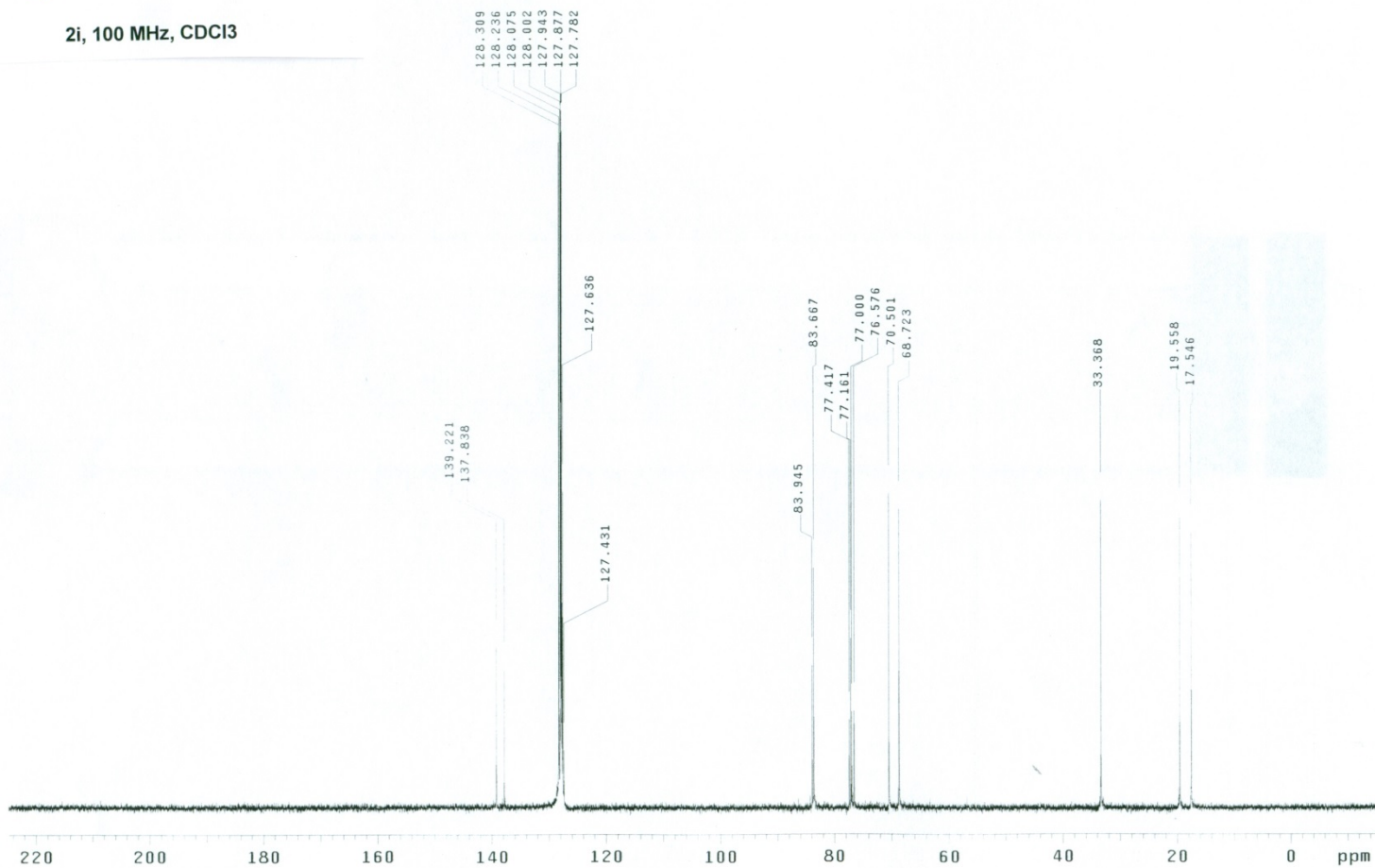
2i, 400 MHz, CDCl₃

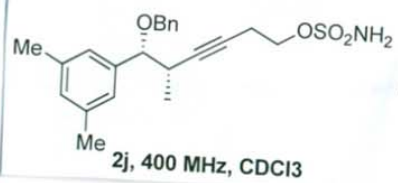




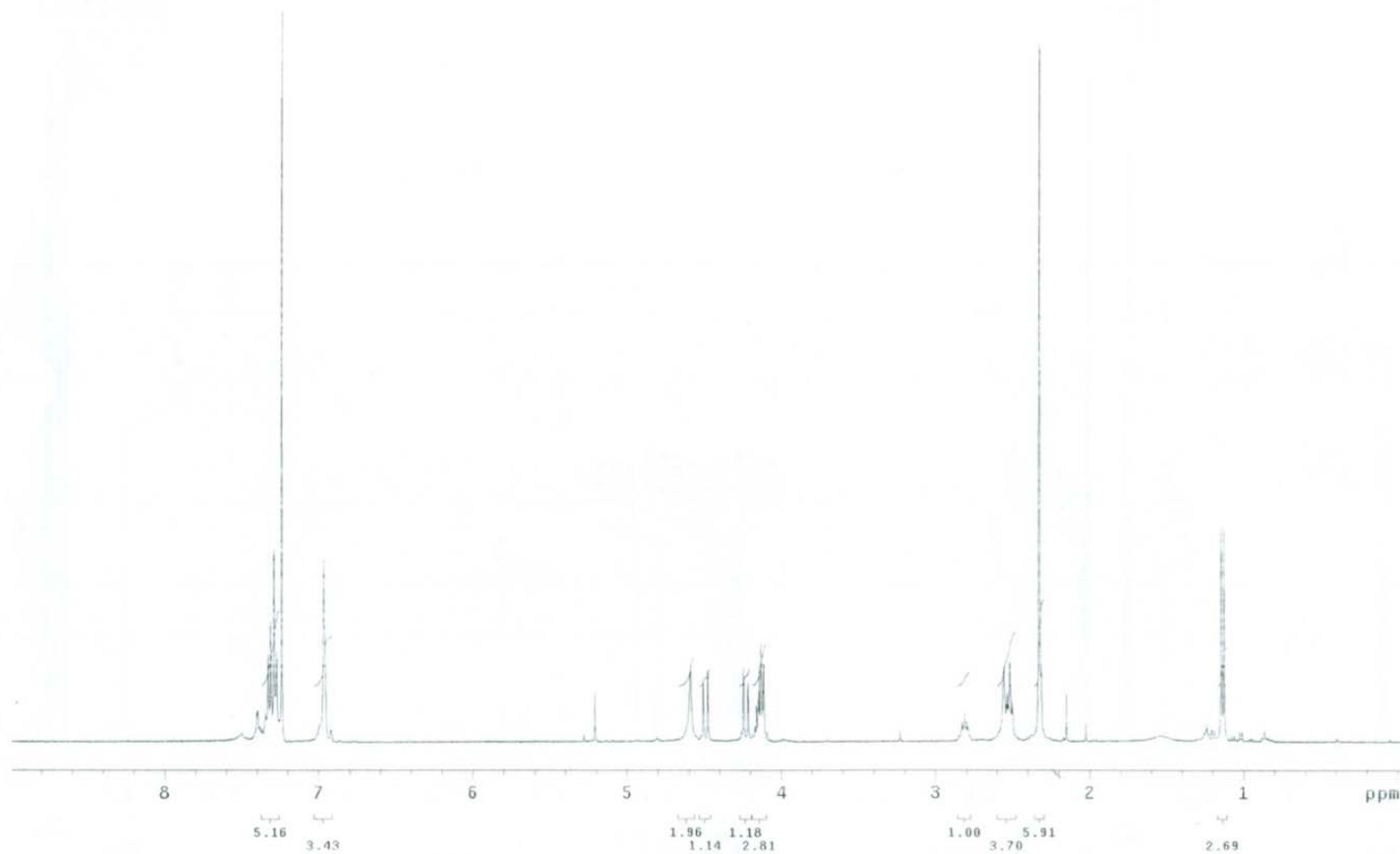
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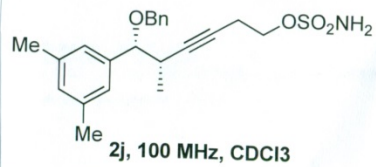
2i, 100 MHz, CDCl₃



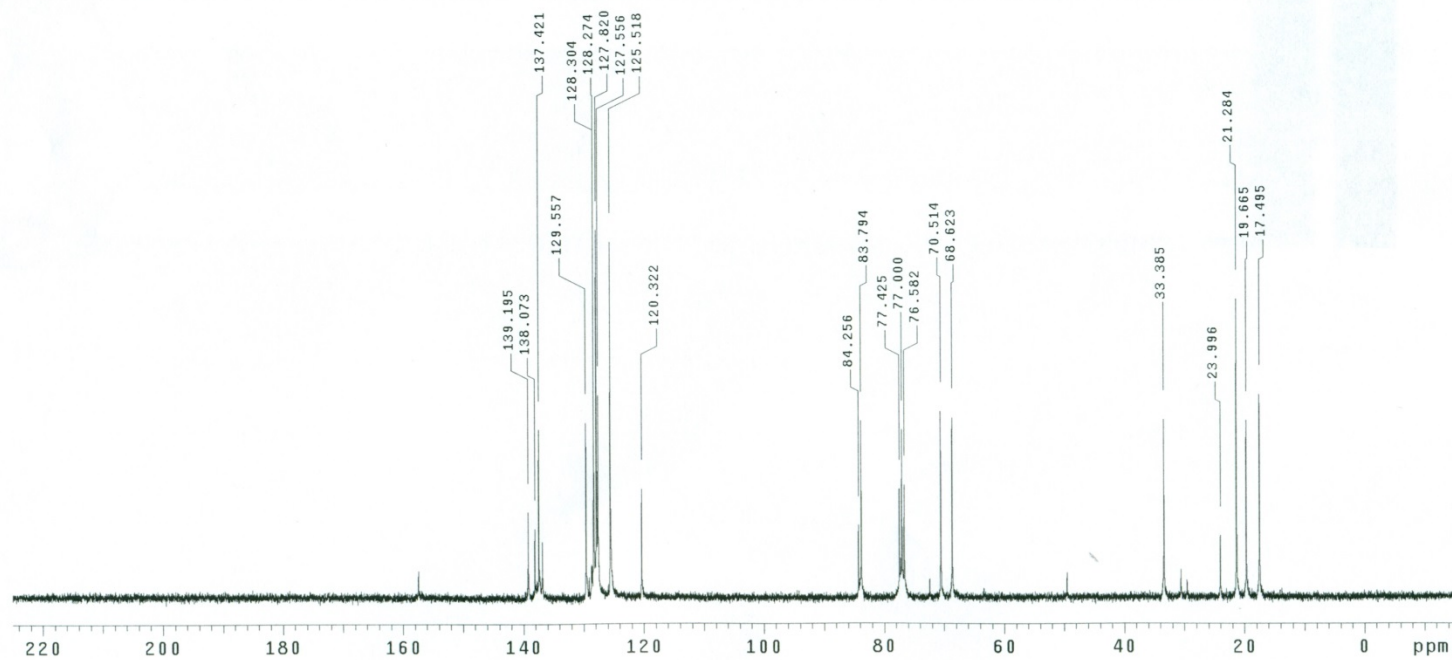


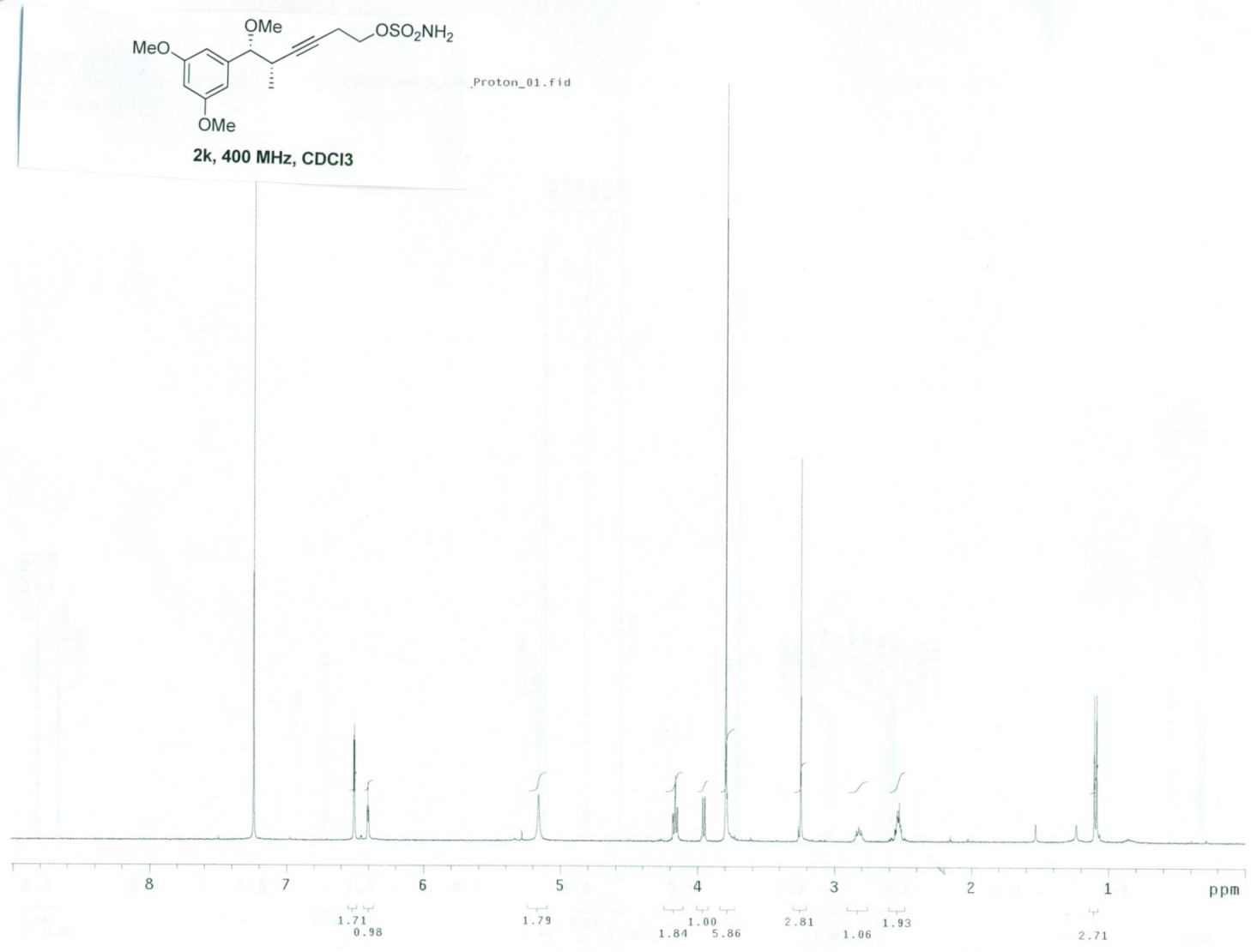
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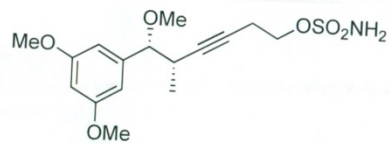




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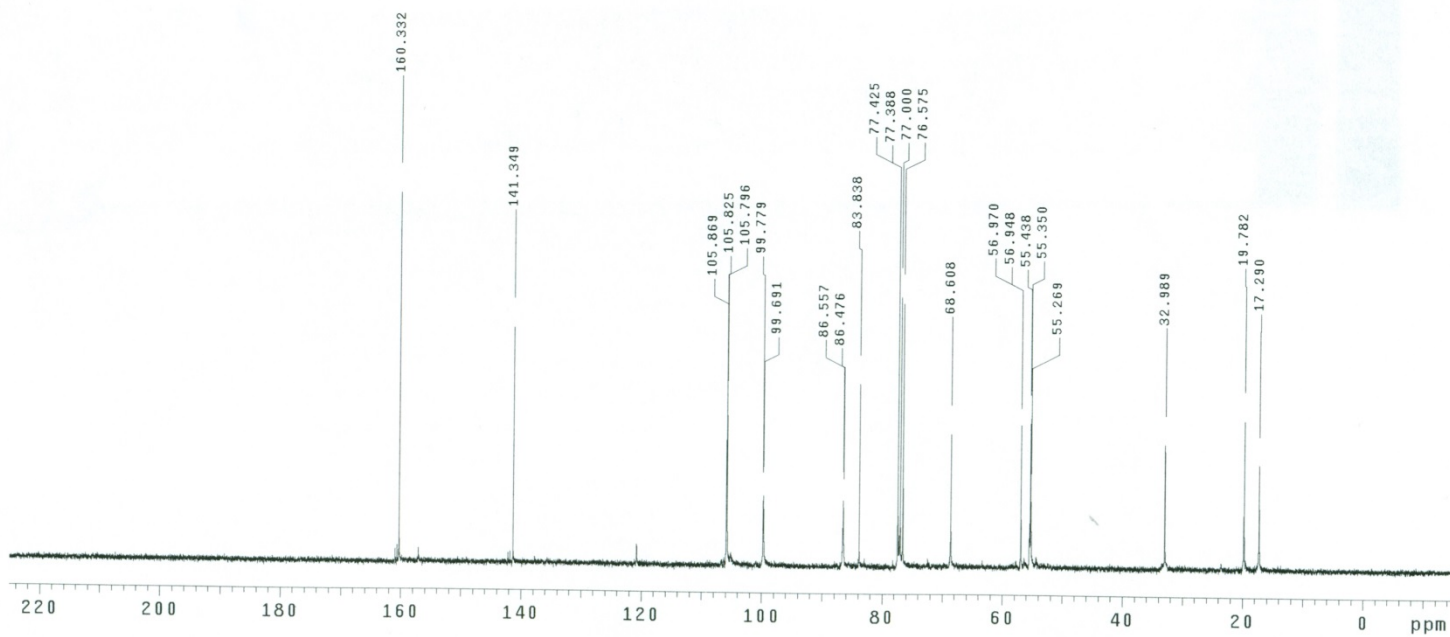






129A_Carbon_01.fid

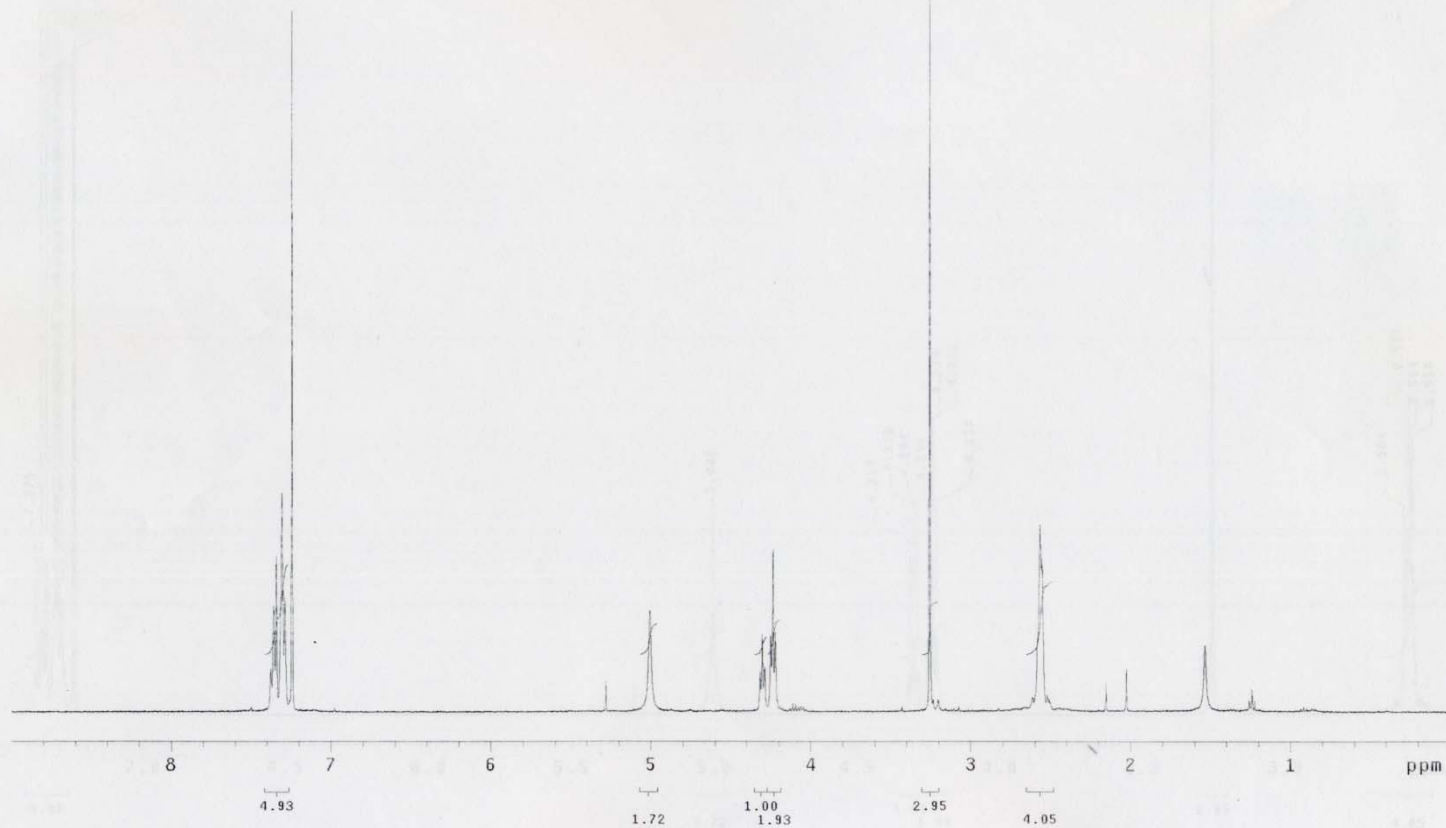
2k, 100 MHz, CDCl₃

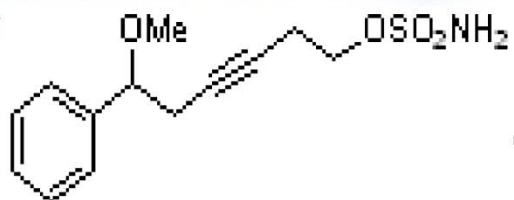




131B_Proton_01.fid

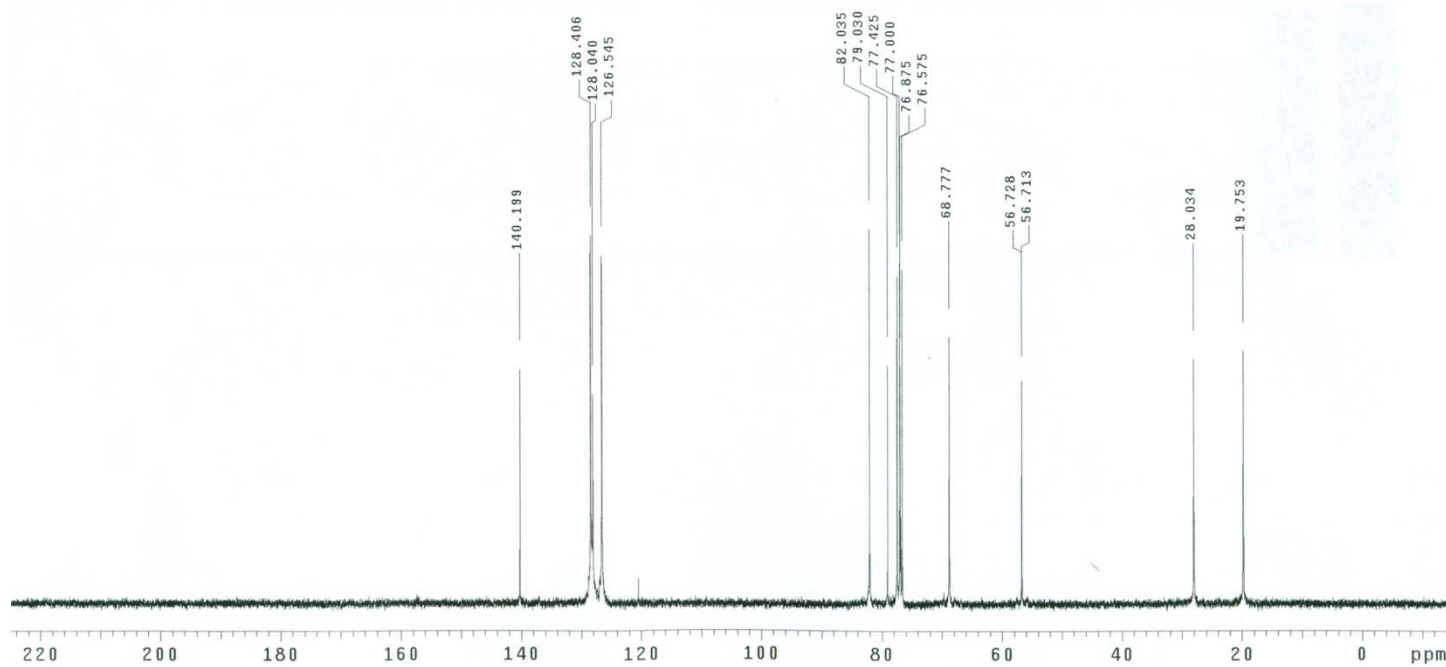
2, 400 MHz, CDCl₃

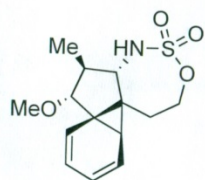




lB_Carbon_01.fid

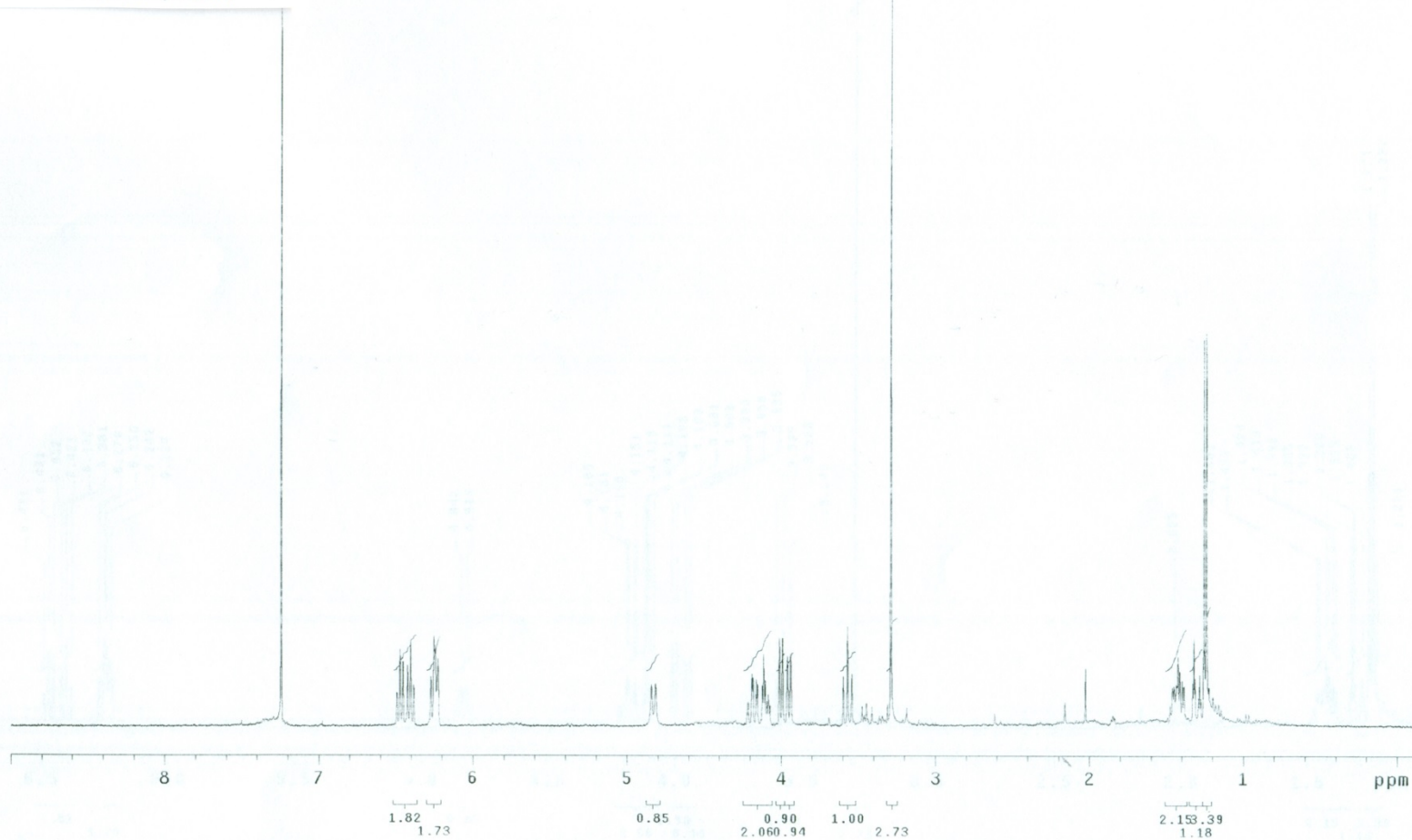
2, 100 MHz, CDCl₃

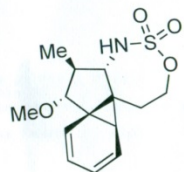




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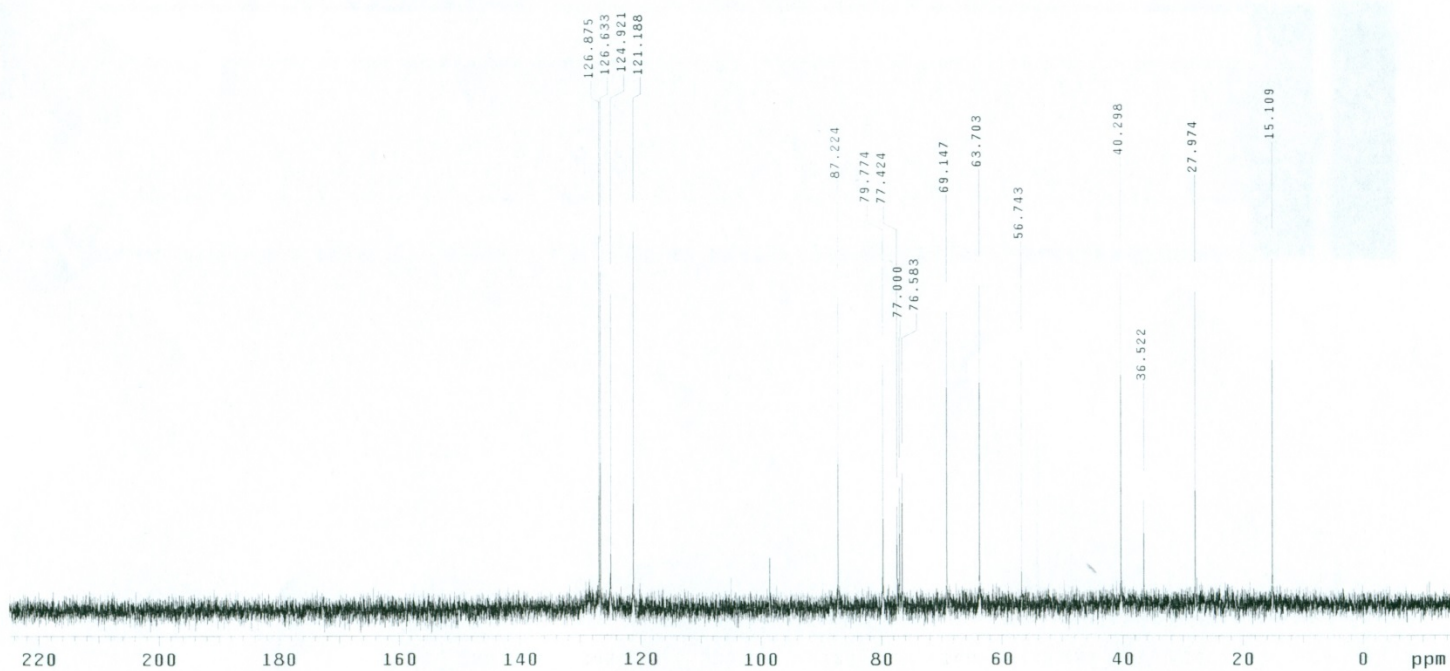
3a
400 MHz, CDCl₃

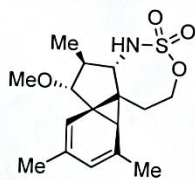




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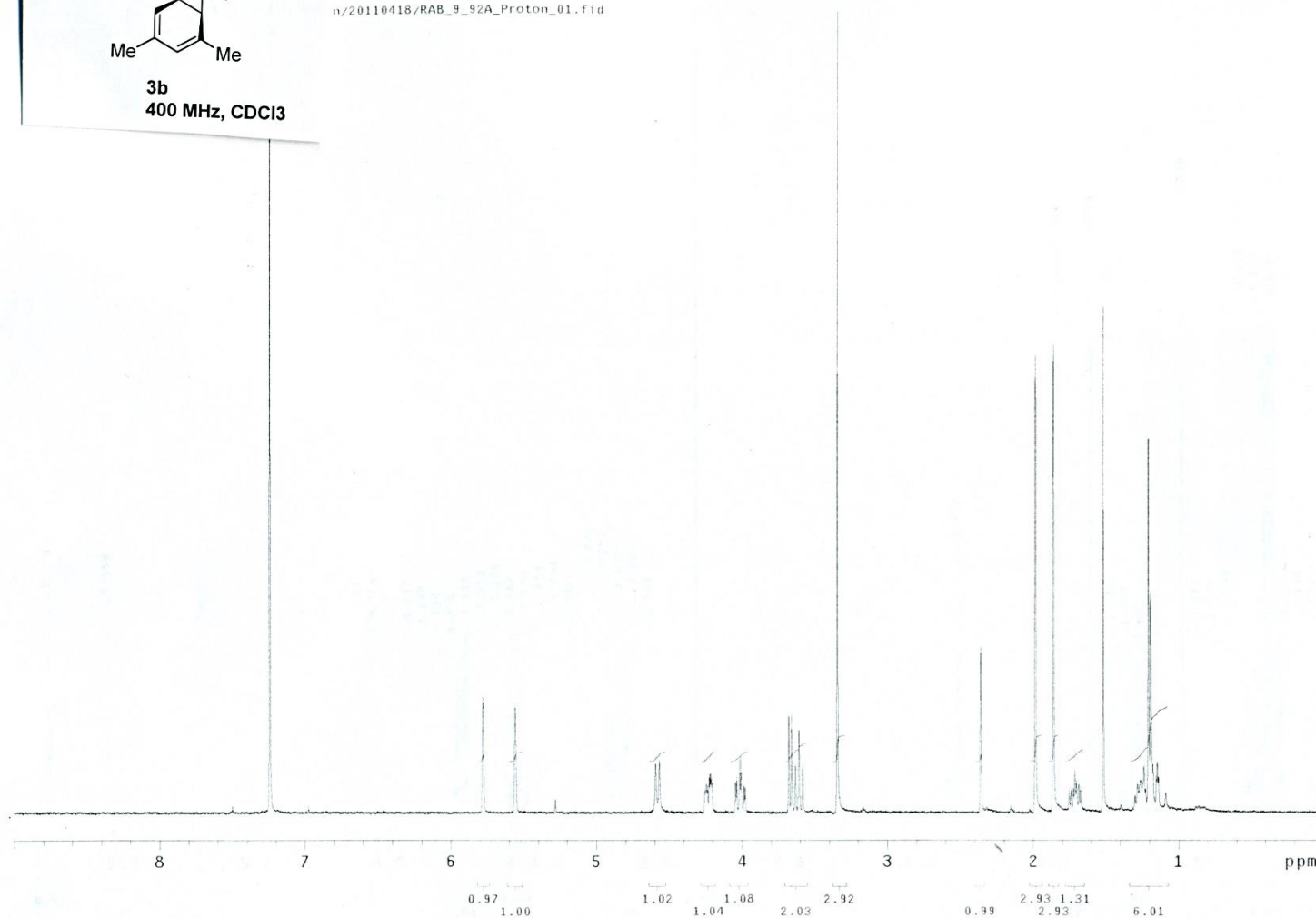
3a
100 MHz, CDCl₃

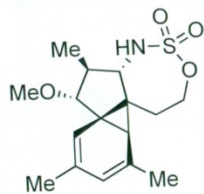




3b
400 MHz, CDCl₃

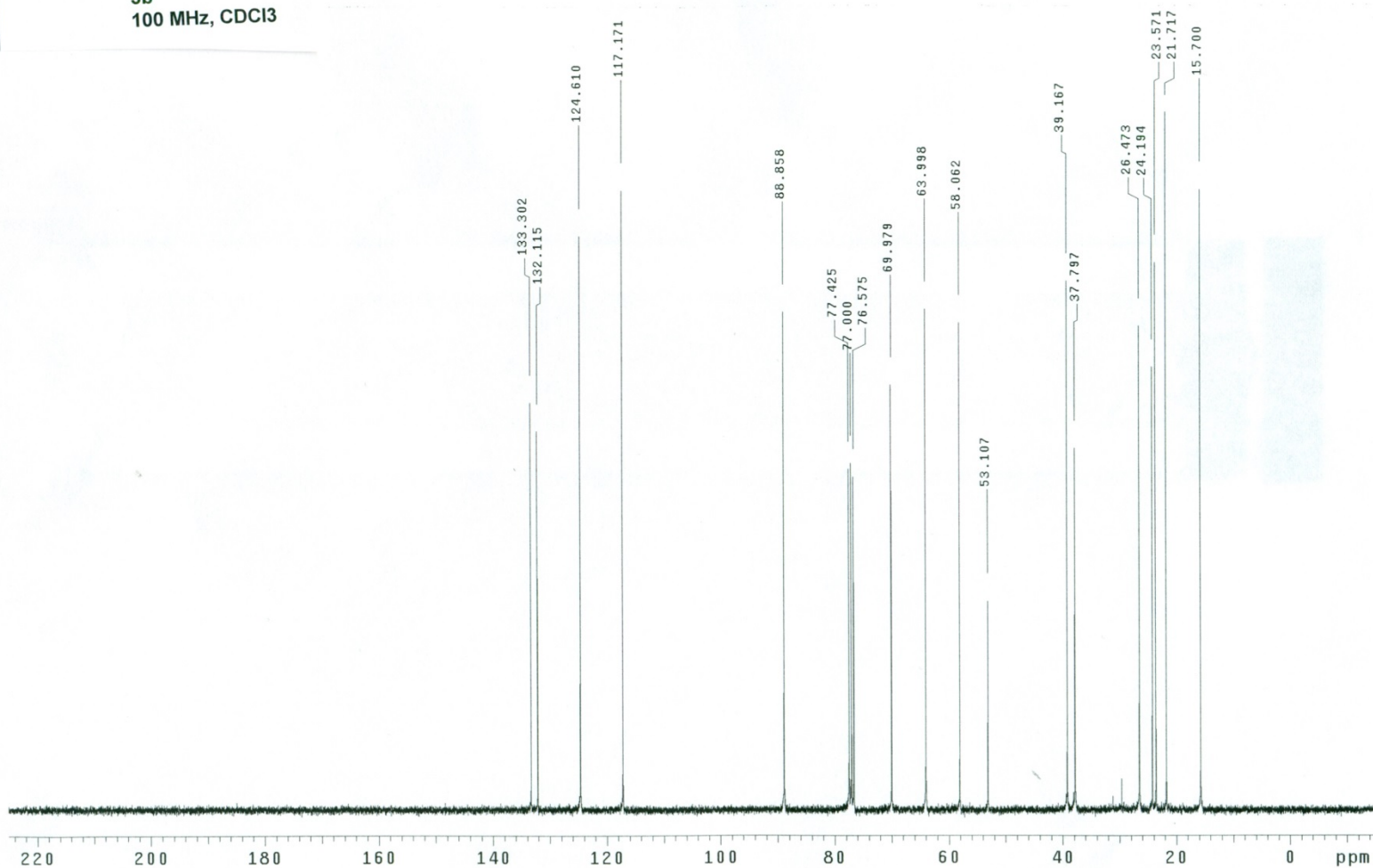
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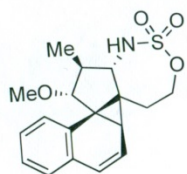




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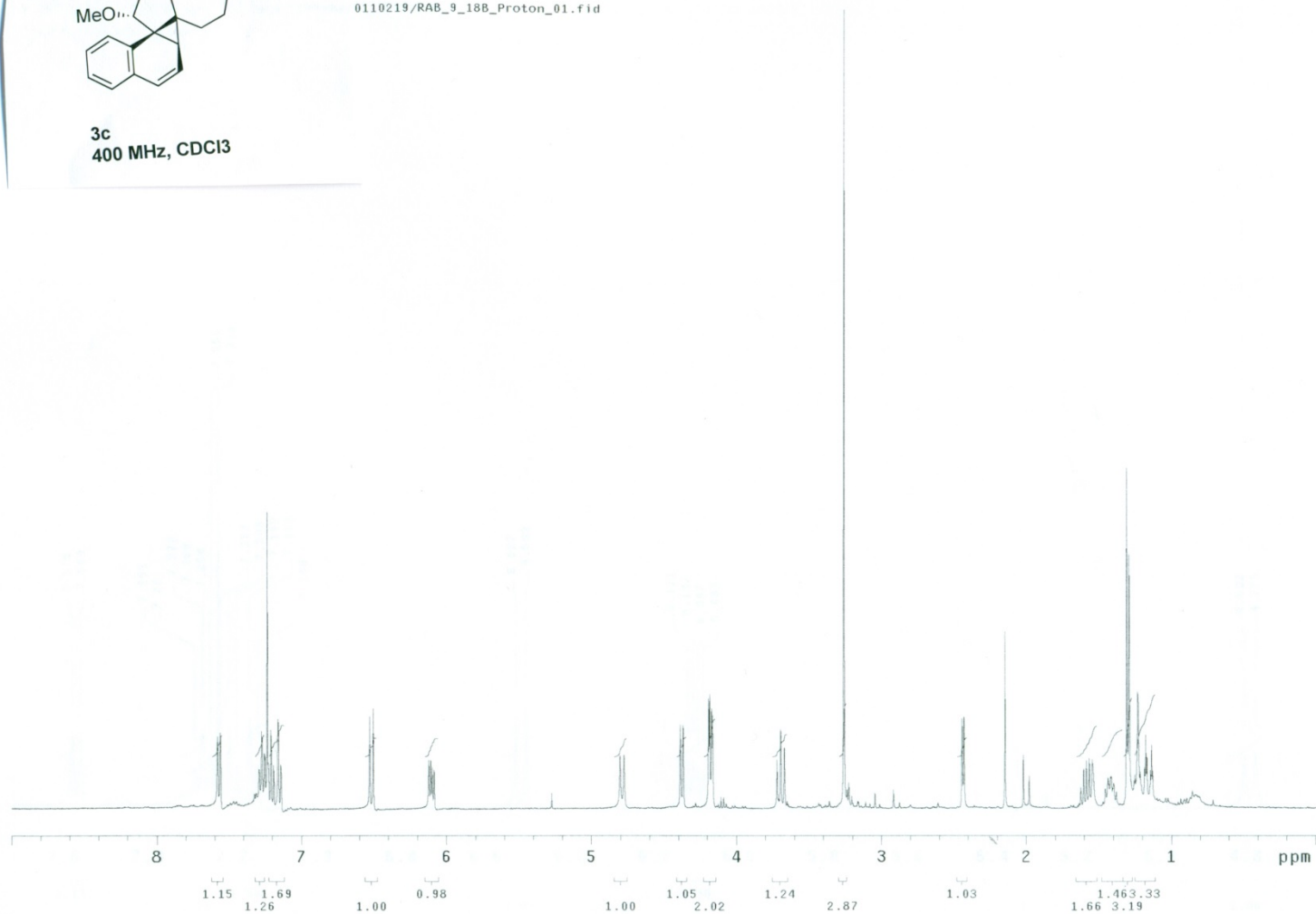
3b
100 MHz, CDCl₃

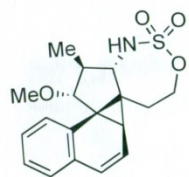




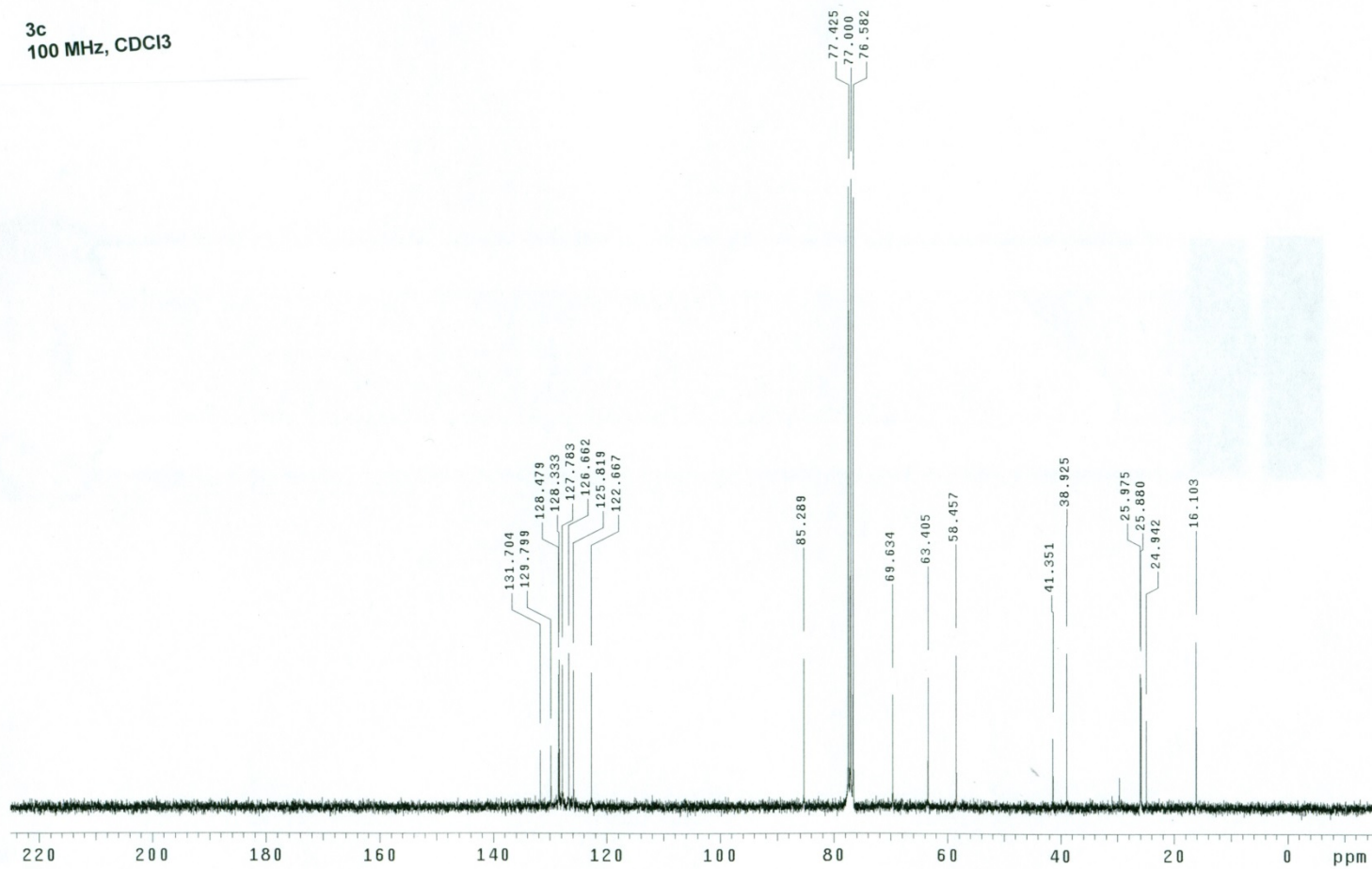
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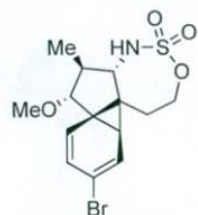
3c
400 MHz, CDCl₃





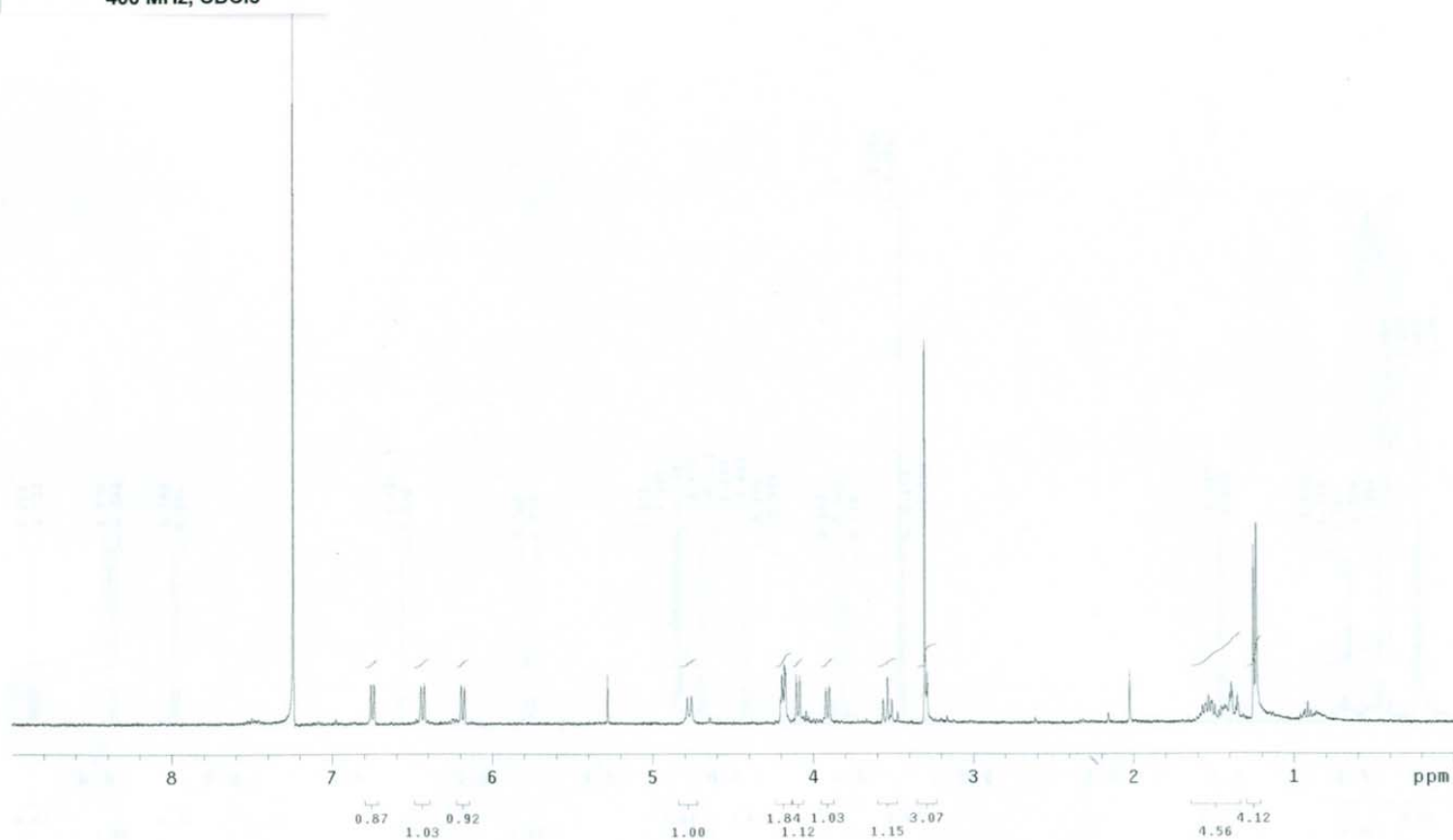
3c
100 MHz, CDCl₃

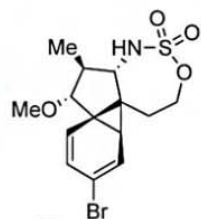




3d
400 MHz, CDCl₃

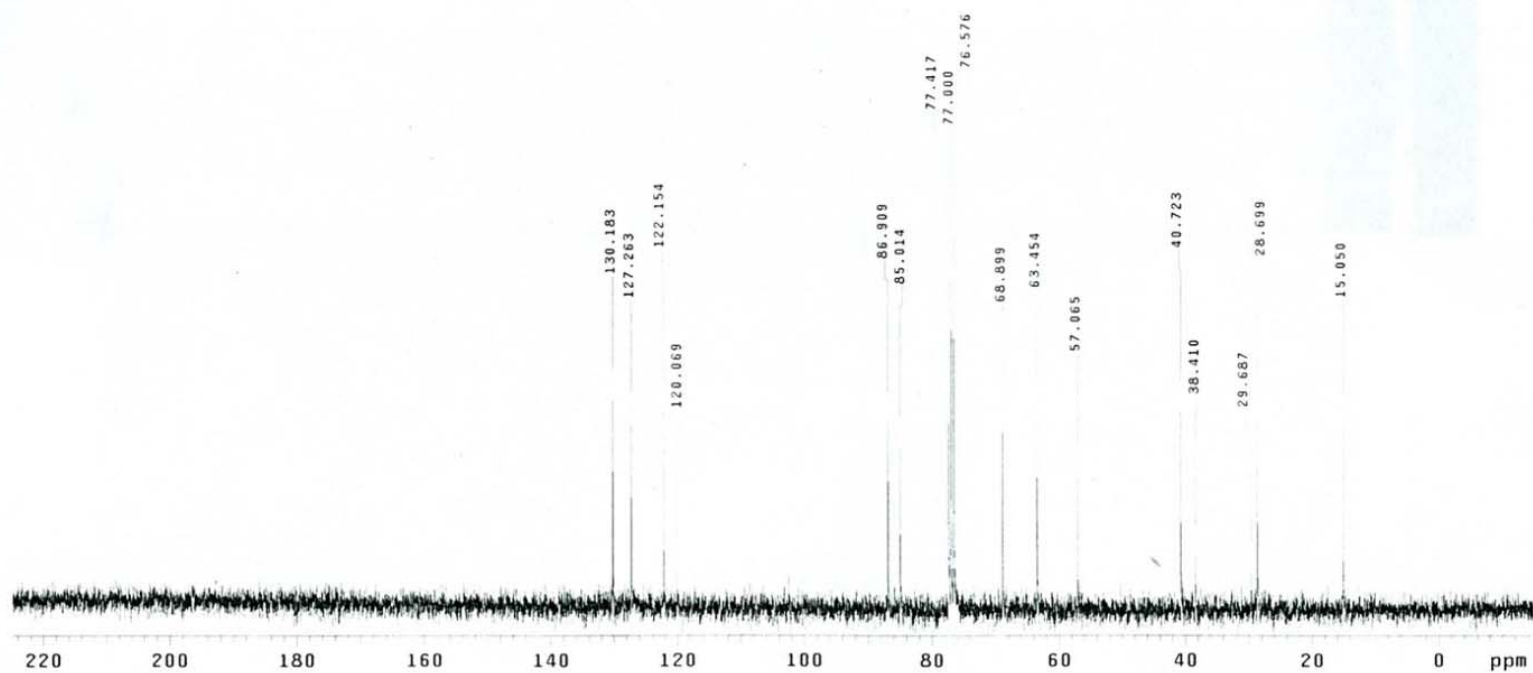
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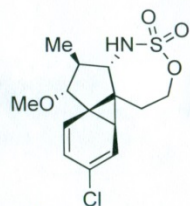




3d
100 MHz, CDCl₃

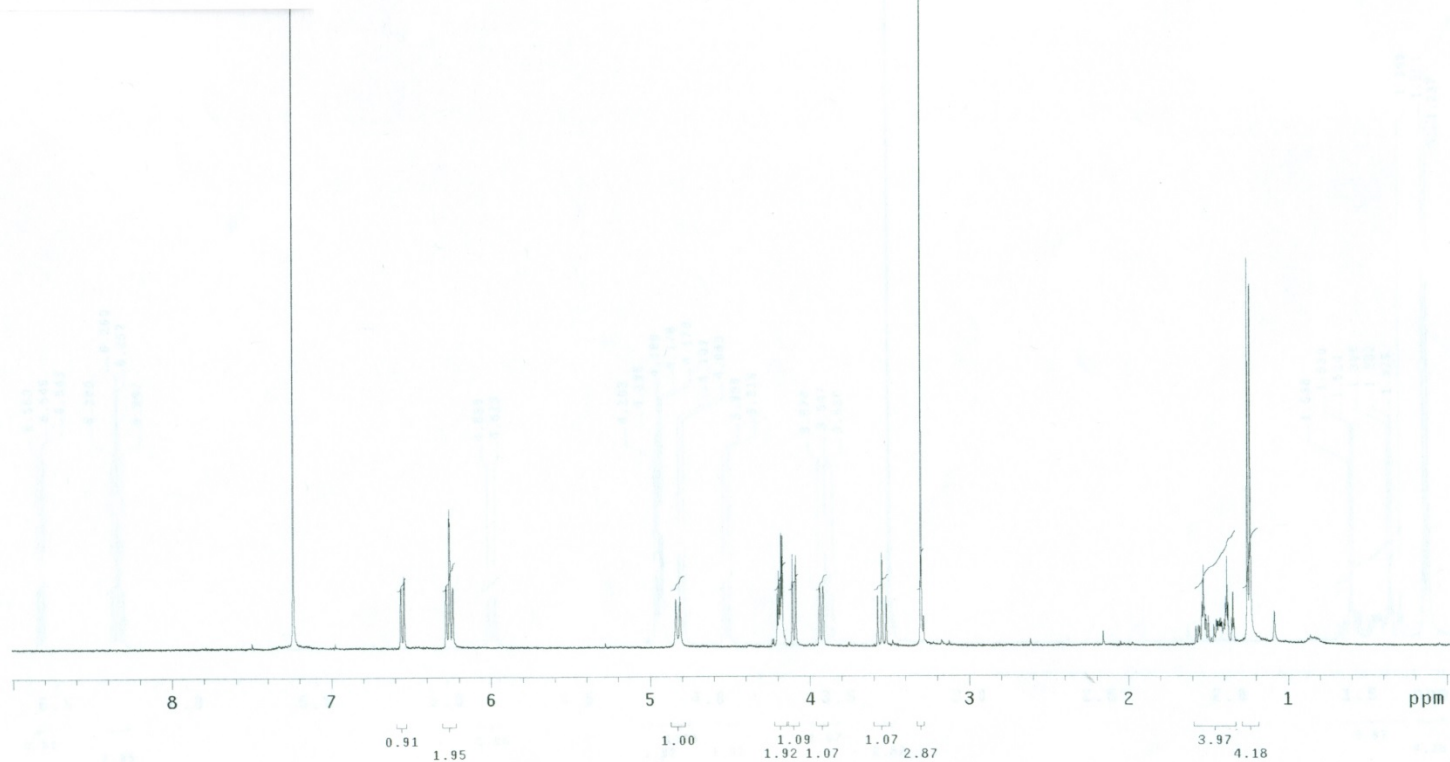
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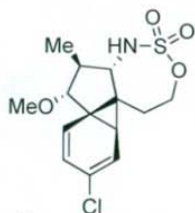




brawn/20110214/RAB_9_8C_Proton_01.fid

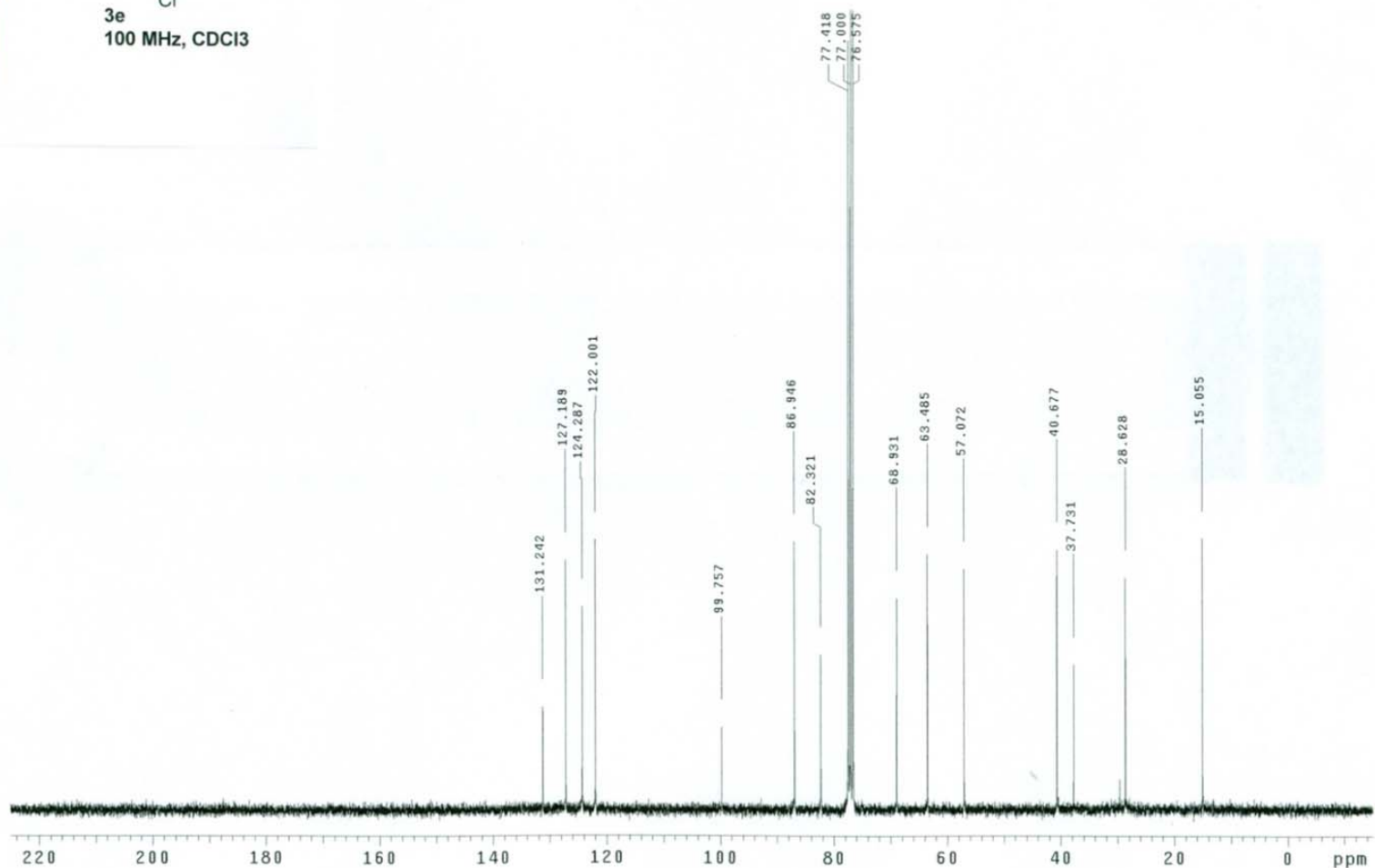
3e
400 MHz, CDCl₃

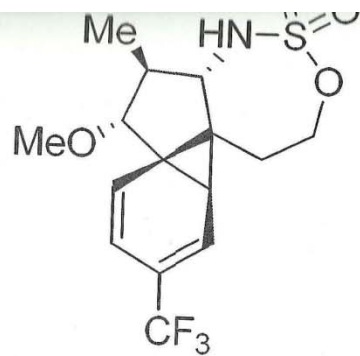




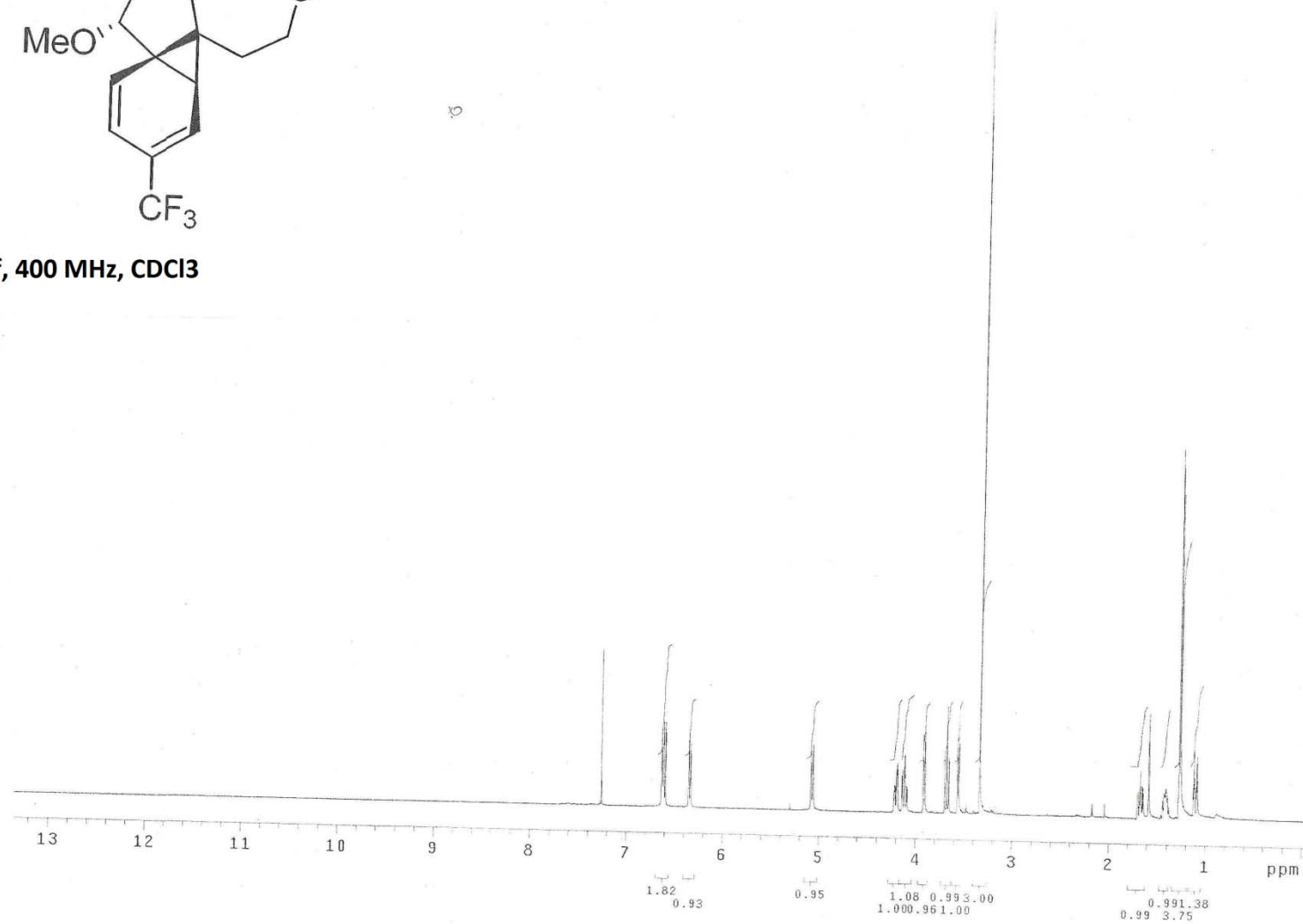
3e
100 MHz, CDCl₃

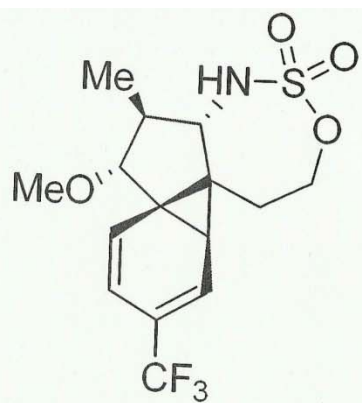
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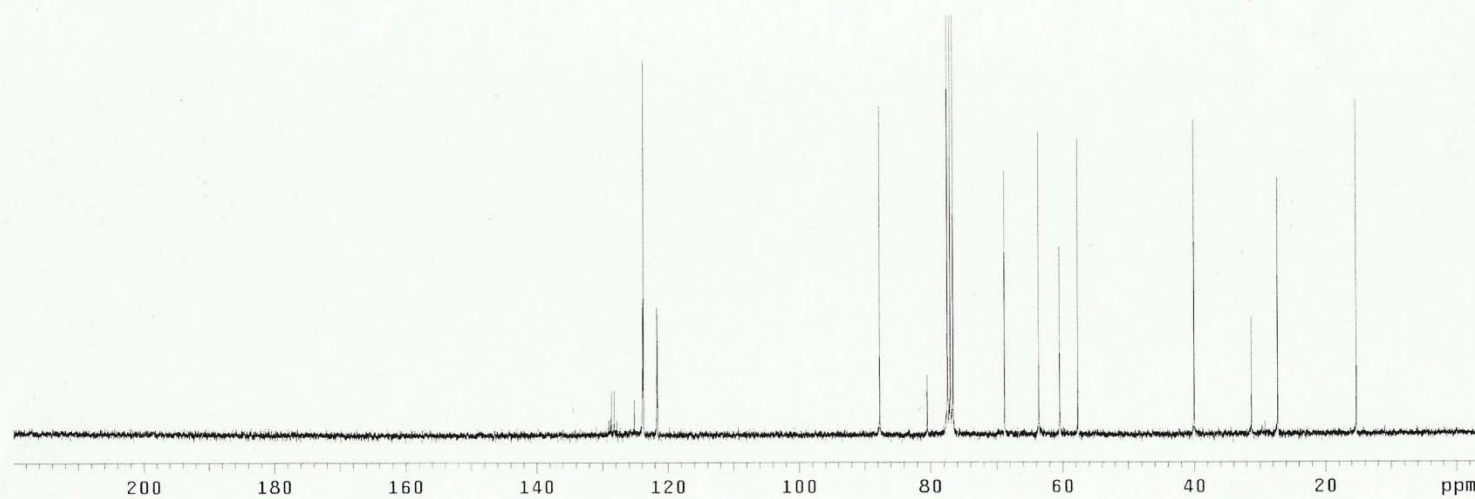


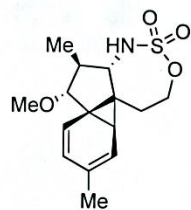
3f, 400 MHz, CDCl₃





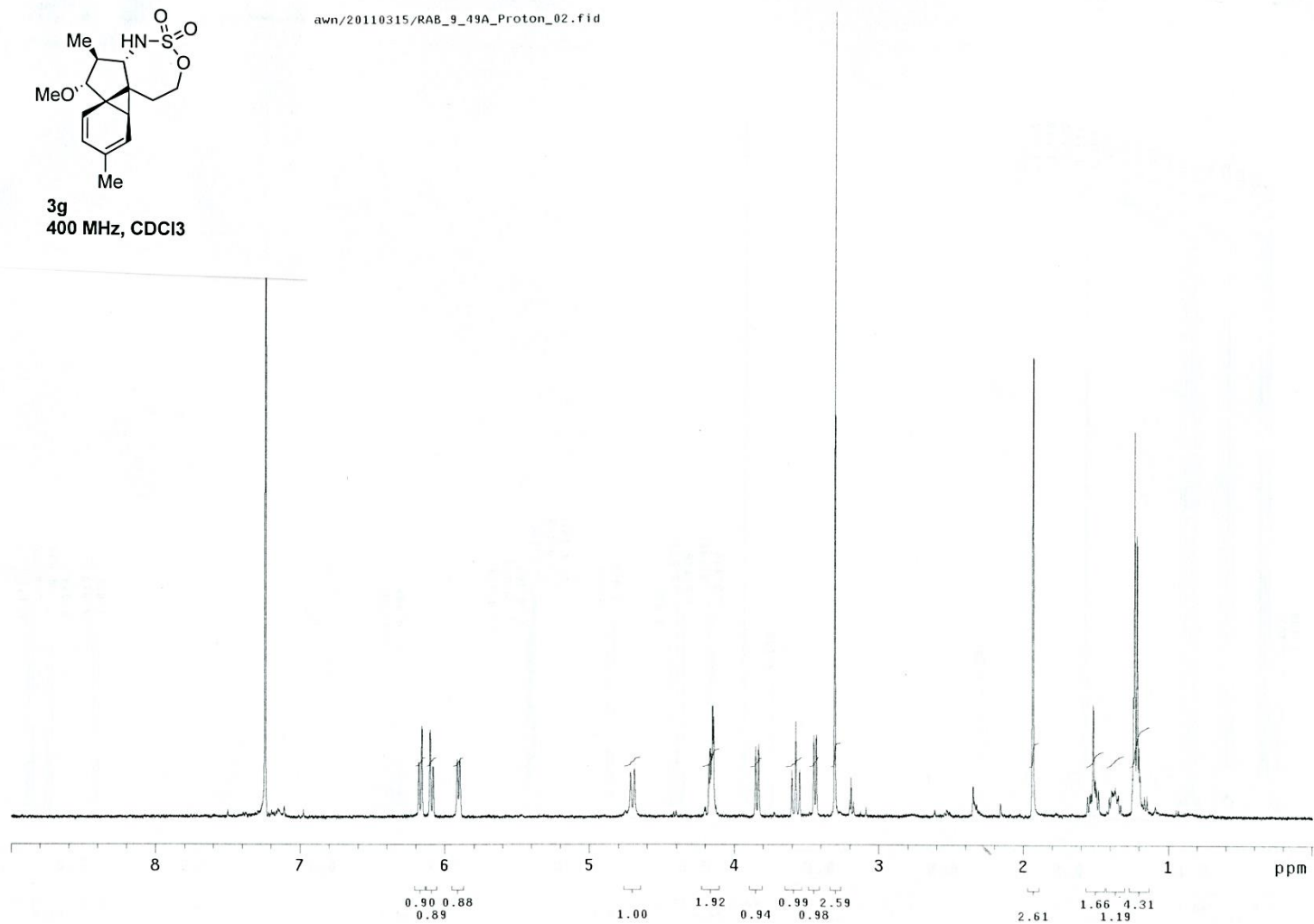
3f, 100 MHz, CDCl₃

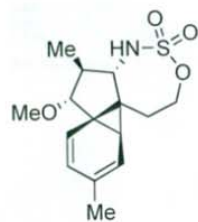




3g
400 MHz, CDCl₃

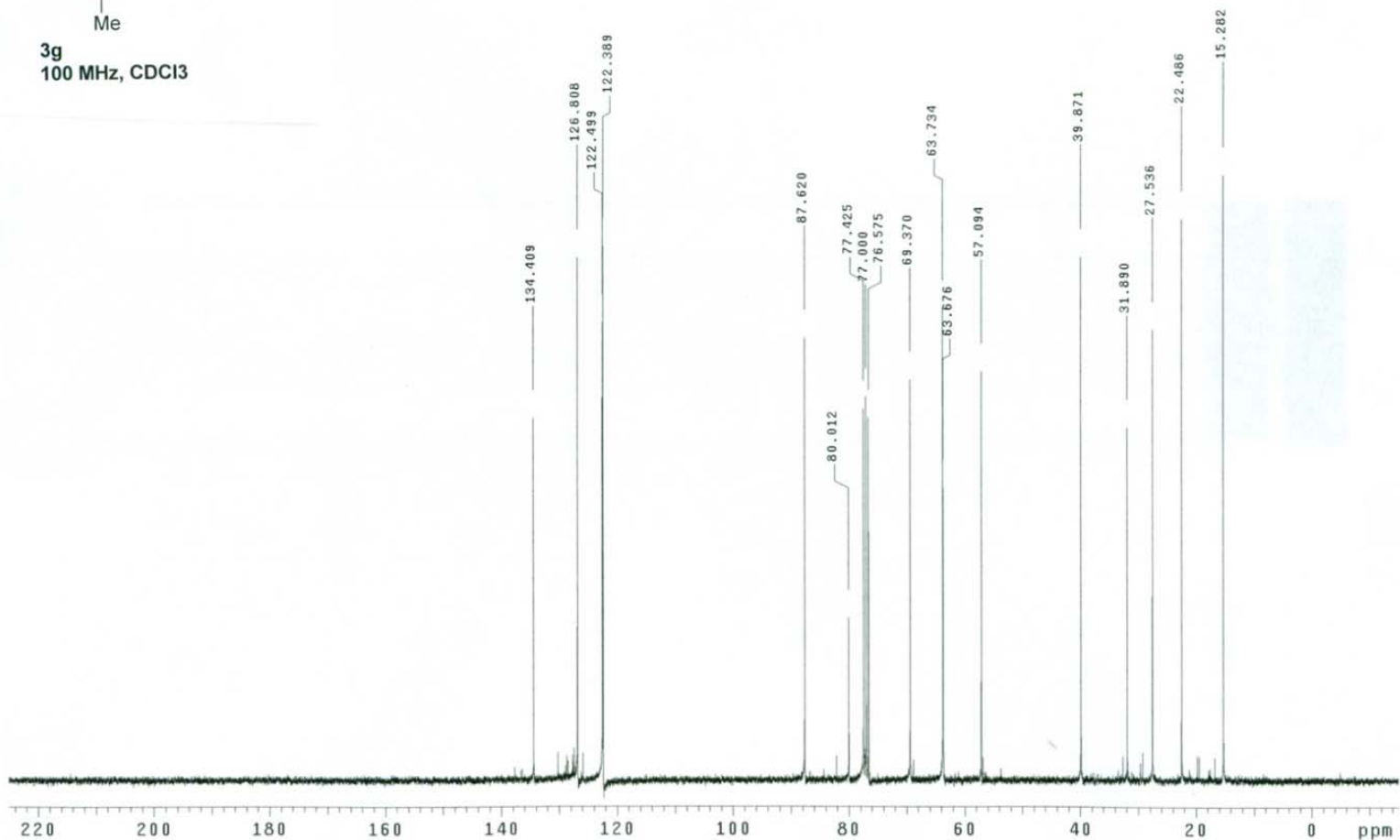
awn/20110315/RAB_9_49A_Proton_02.fid

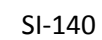


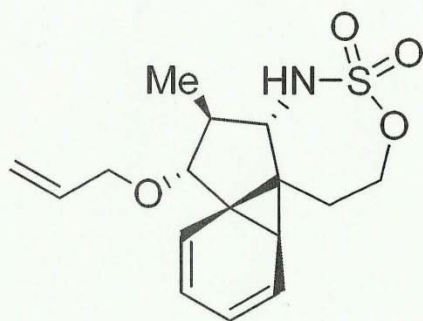


3g
100 MHz, CDCl₃

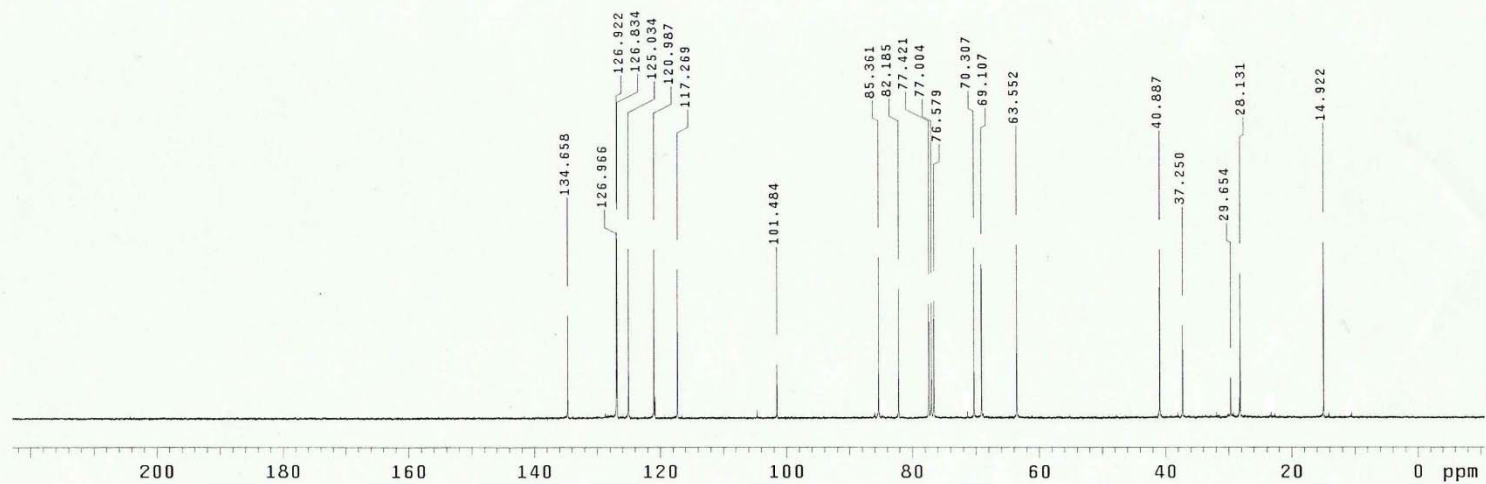
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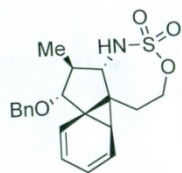






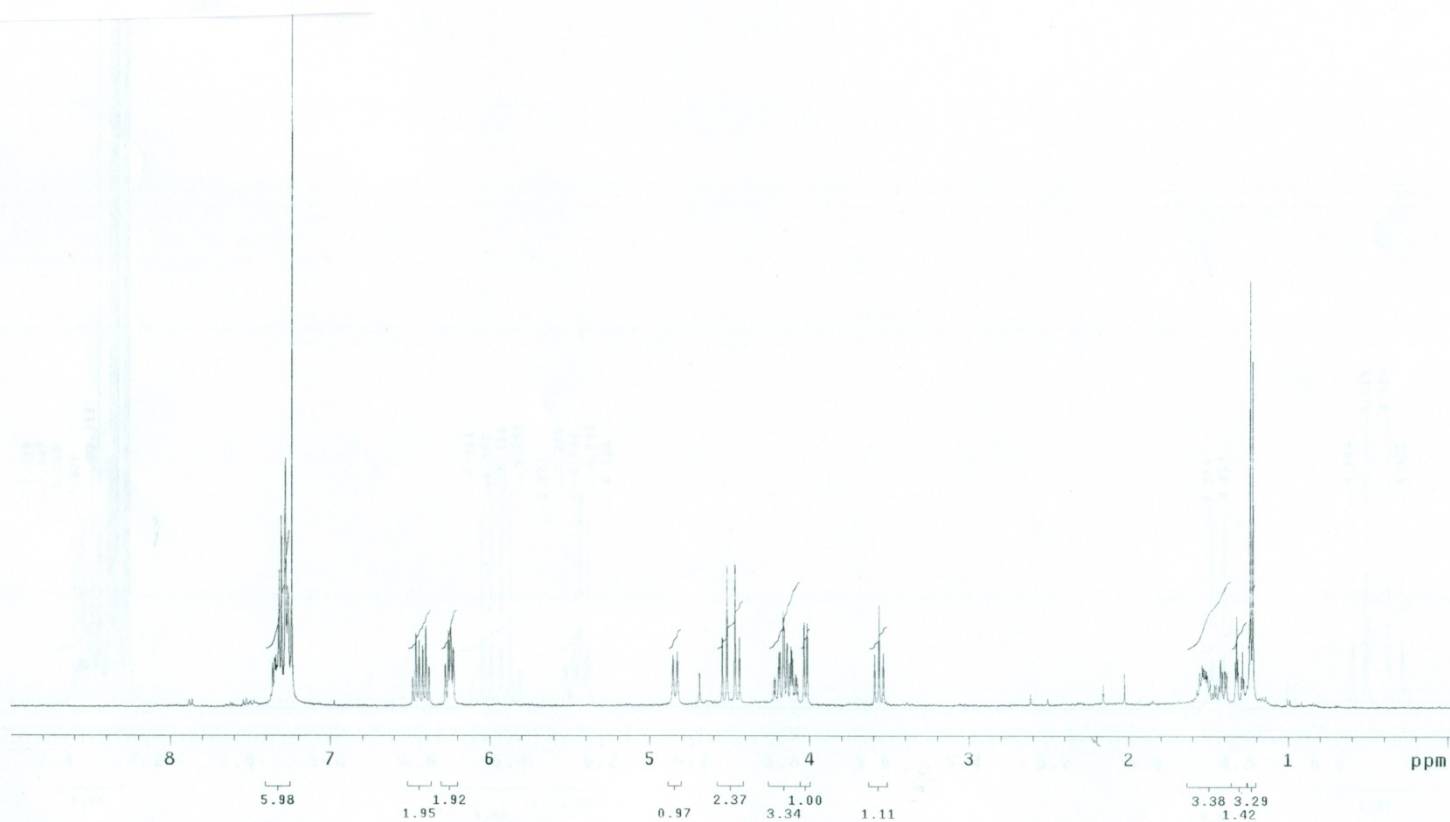
3h, 100 MHz, CDCl₃

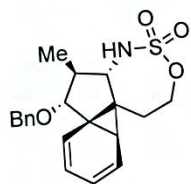




1/20101129/RAB_8_196A_Proton_01.fid

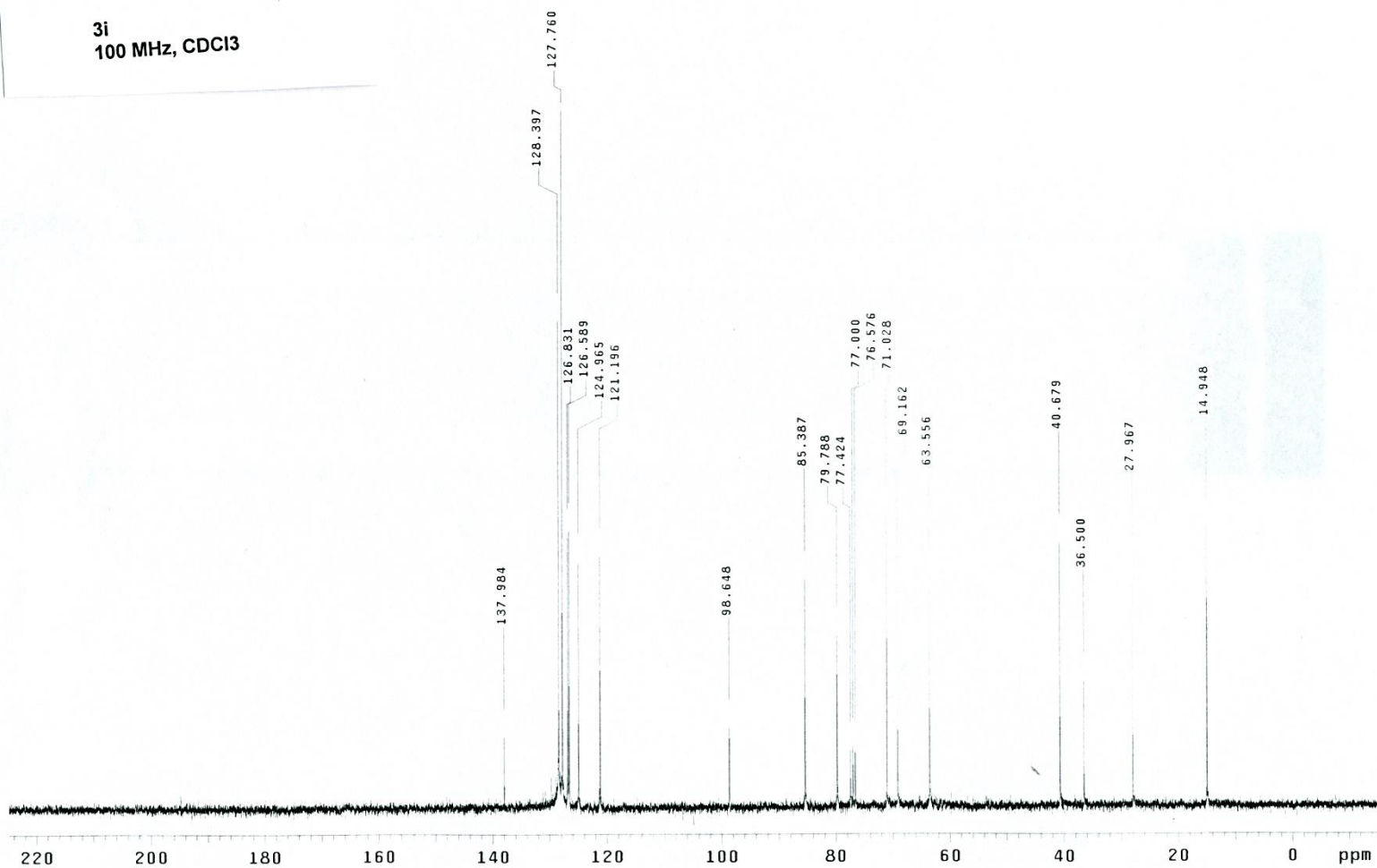
3i
400 MHz, CDCl₃

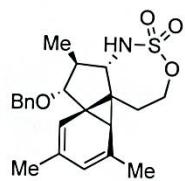




1101204/RAB_8_196A_Carbon_01.fid

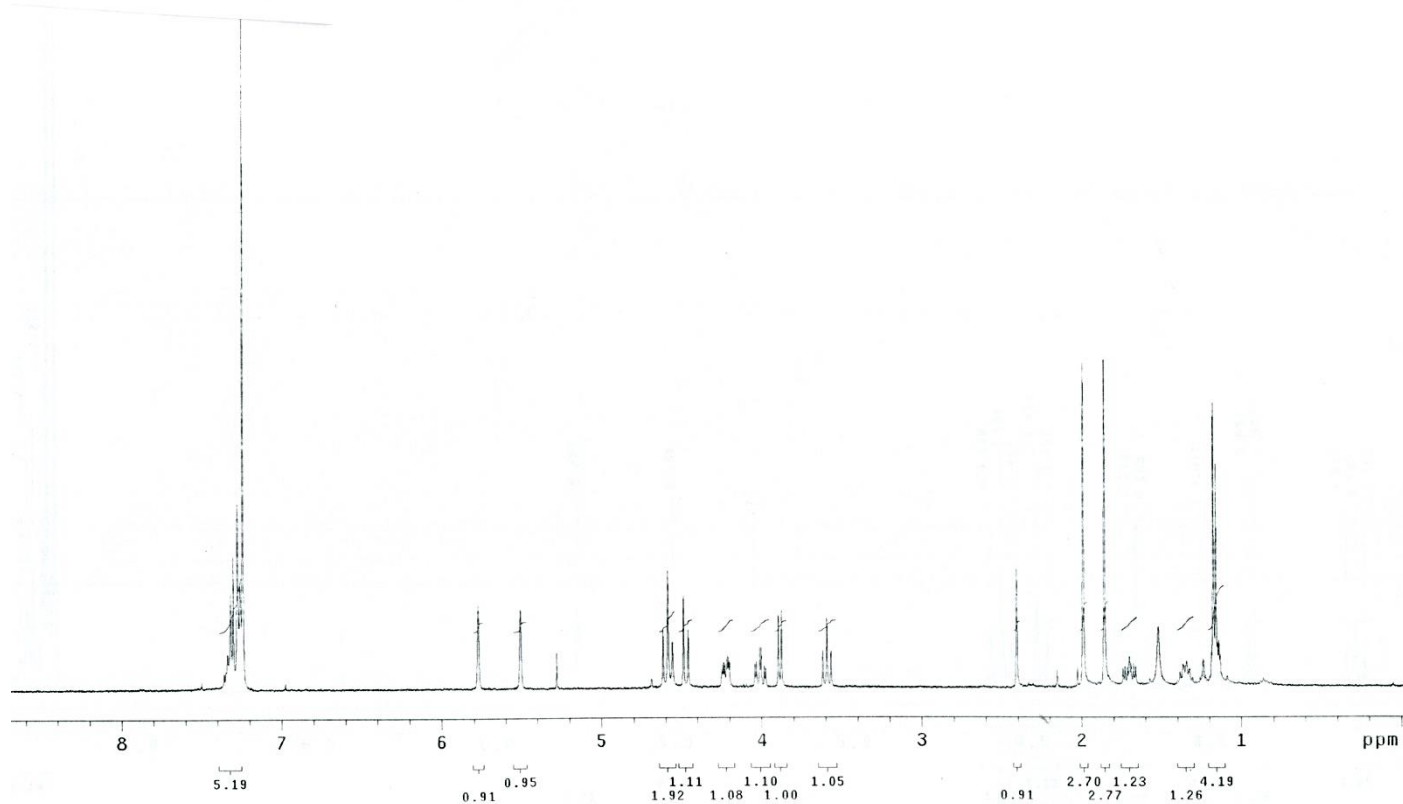
3i
100 MHz, CDCl₃

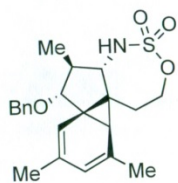




0110514/RAB_9_126B_Proton_02.fid

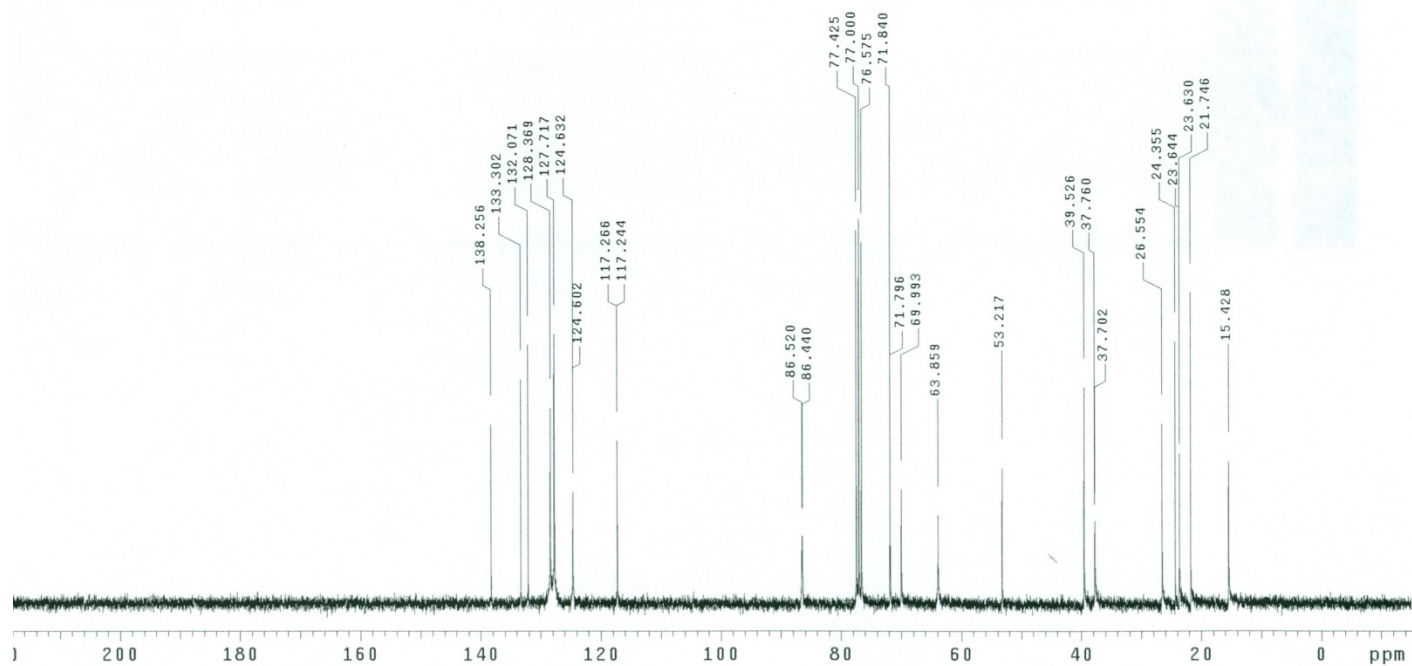
3j
400 MHz, CDCl₃

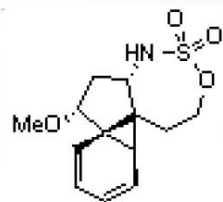




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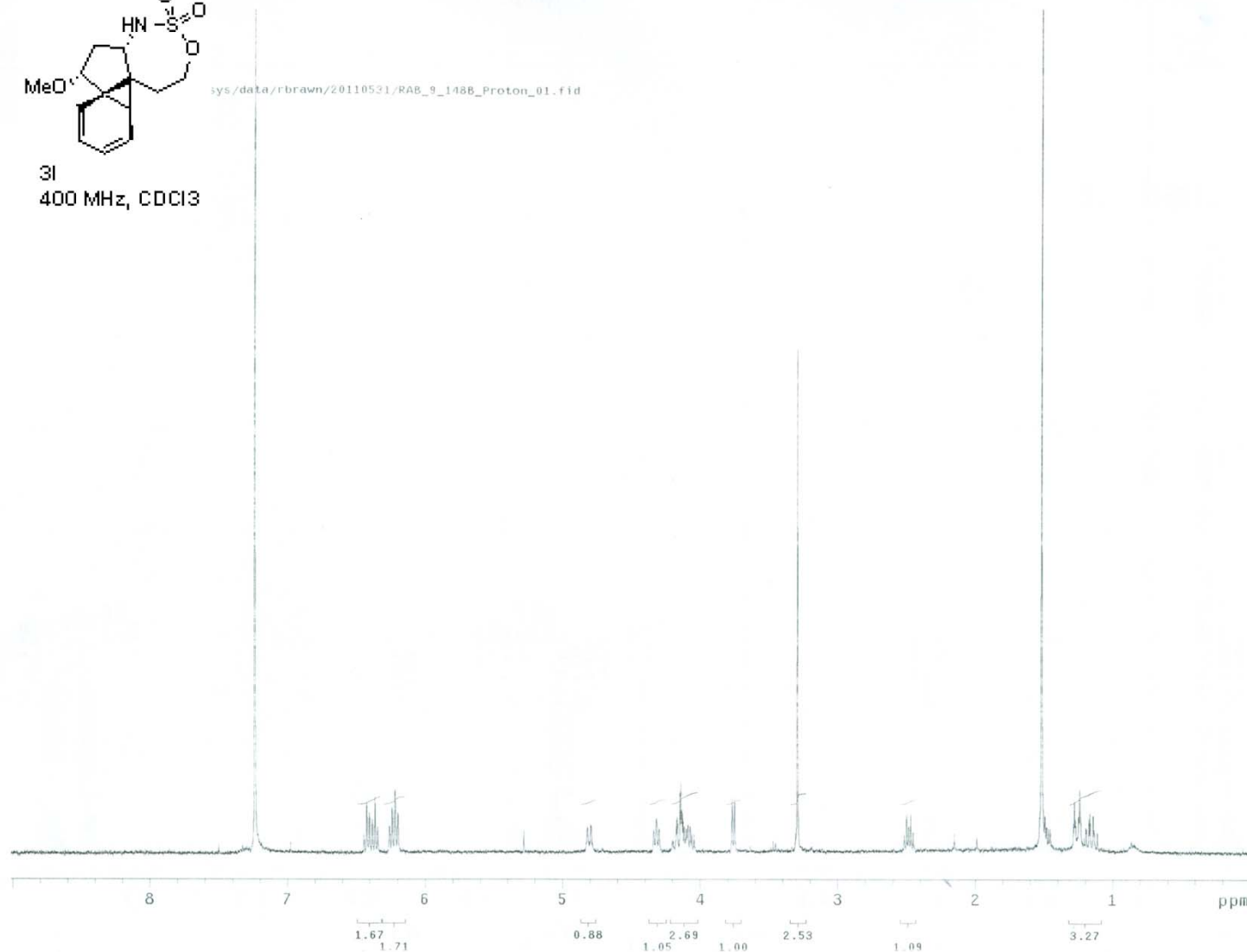
3j
100 MHz, CDCl₃

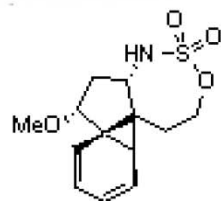




3l
400 MHz, CDCl₃

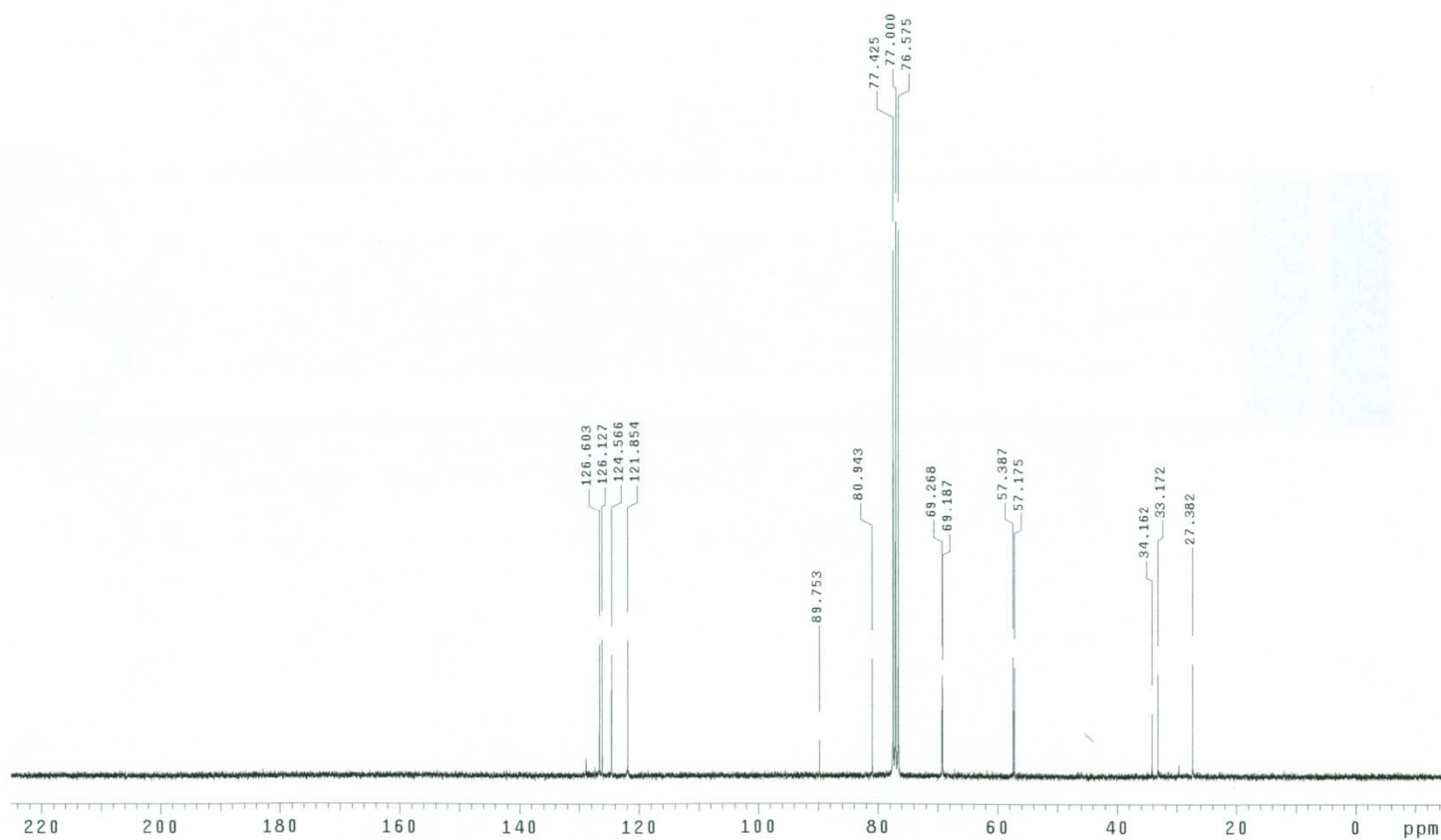
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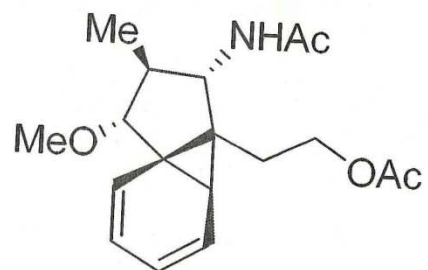




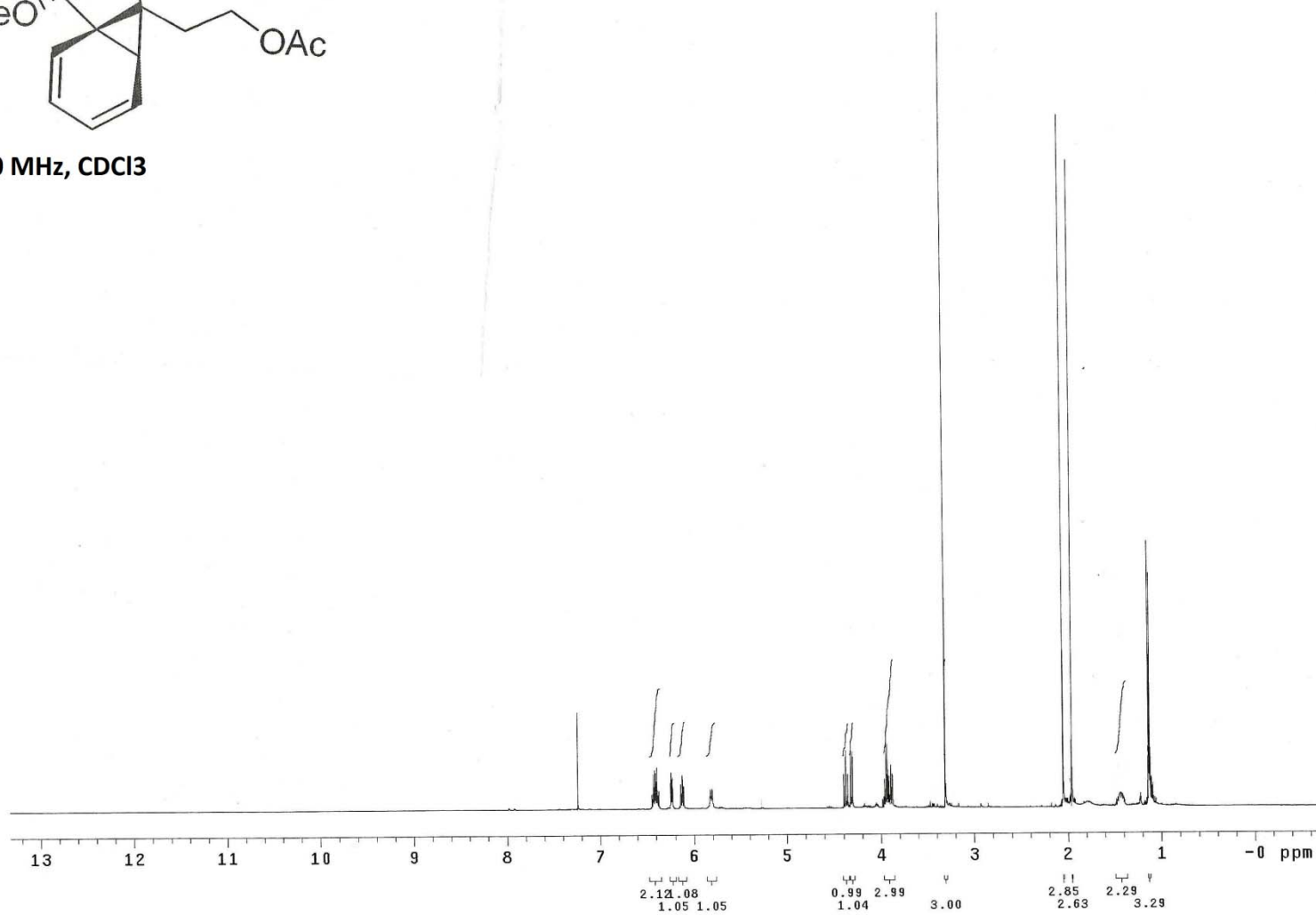
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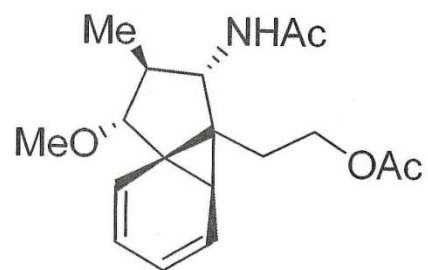
31
100 MHz, CDCl₃



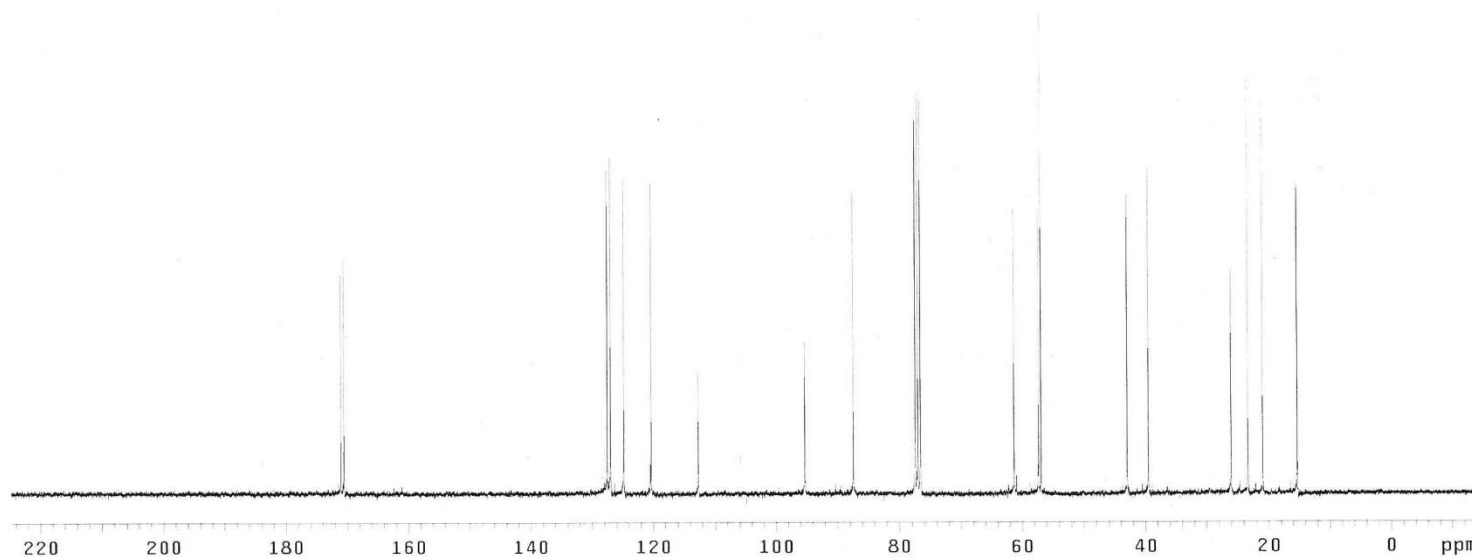


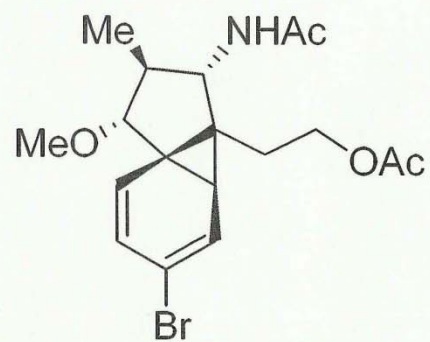
5a, 400 MHz, CDCl₃



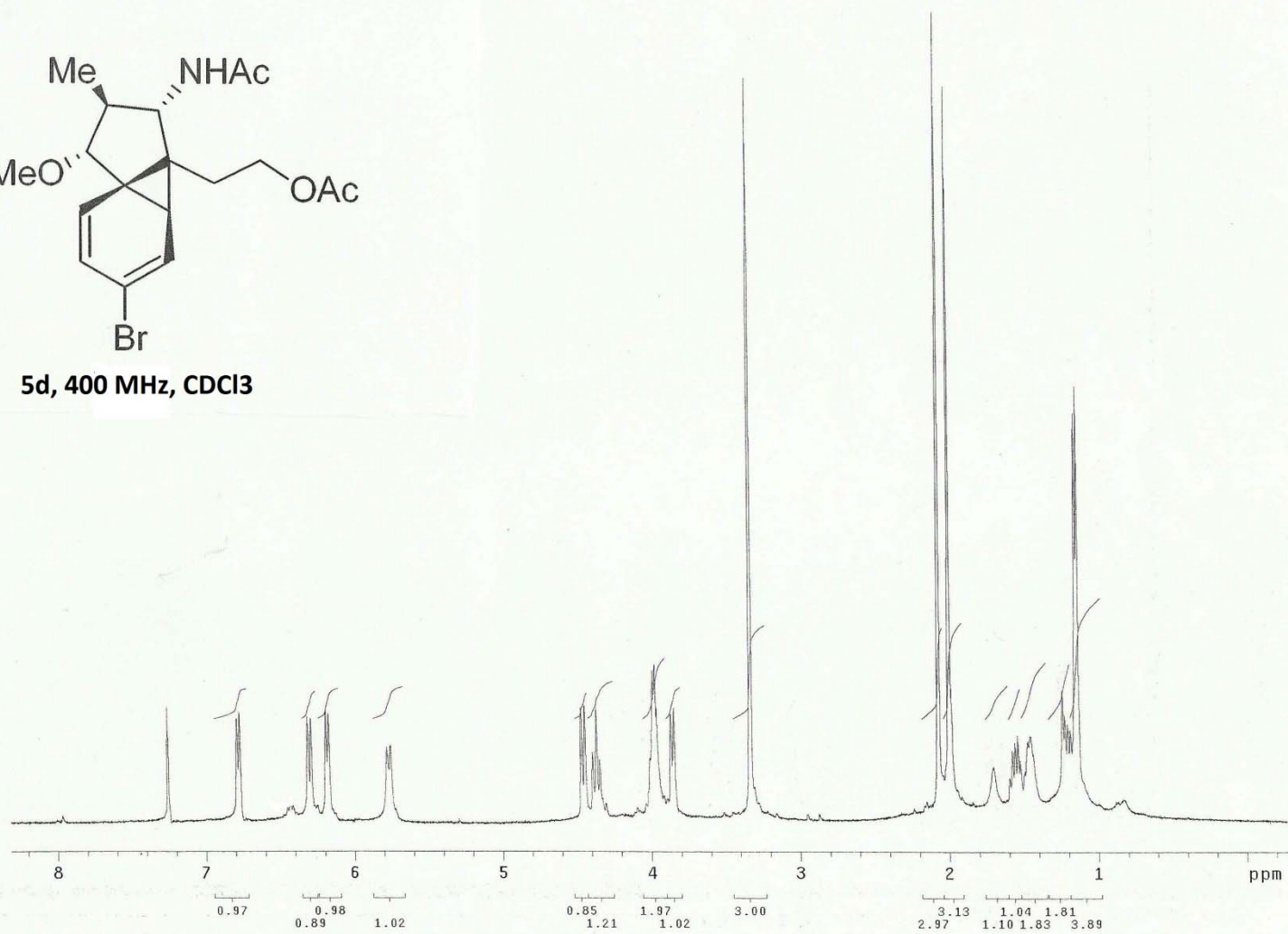


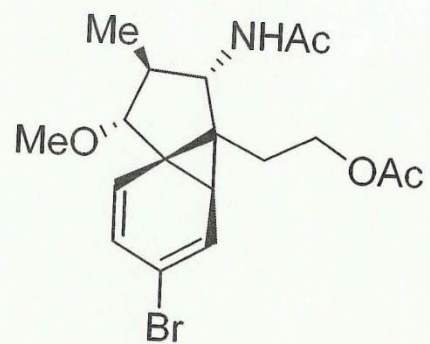
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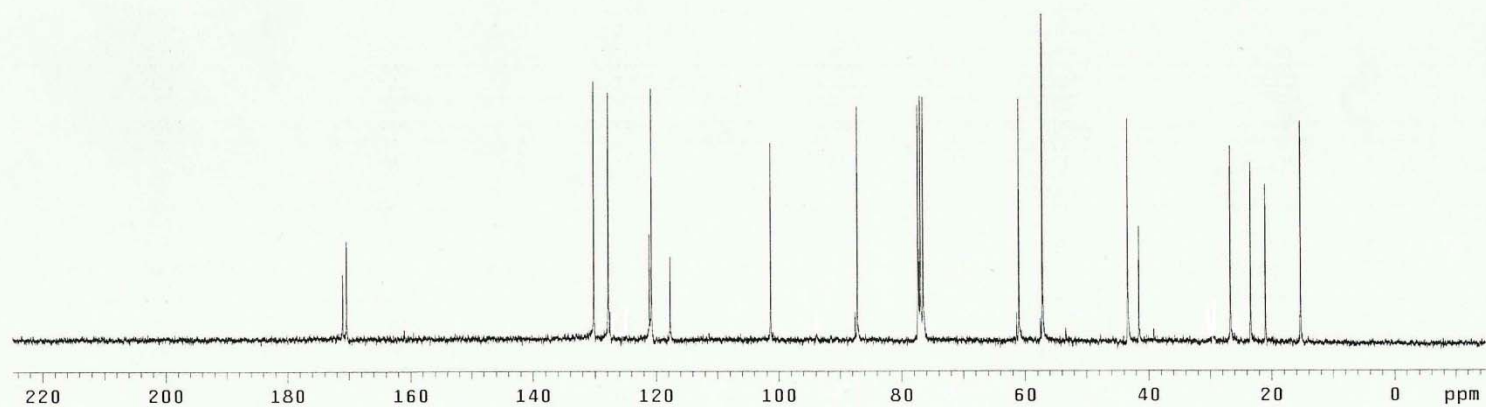


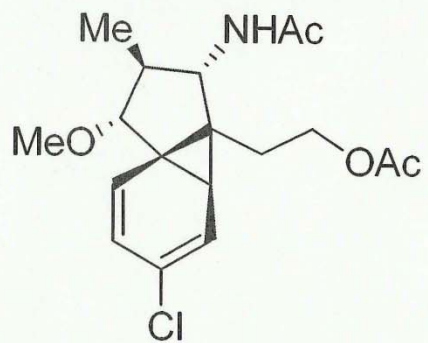
5d, 400 MHz, CDCl₃



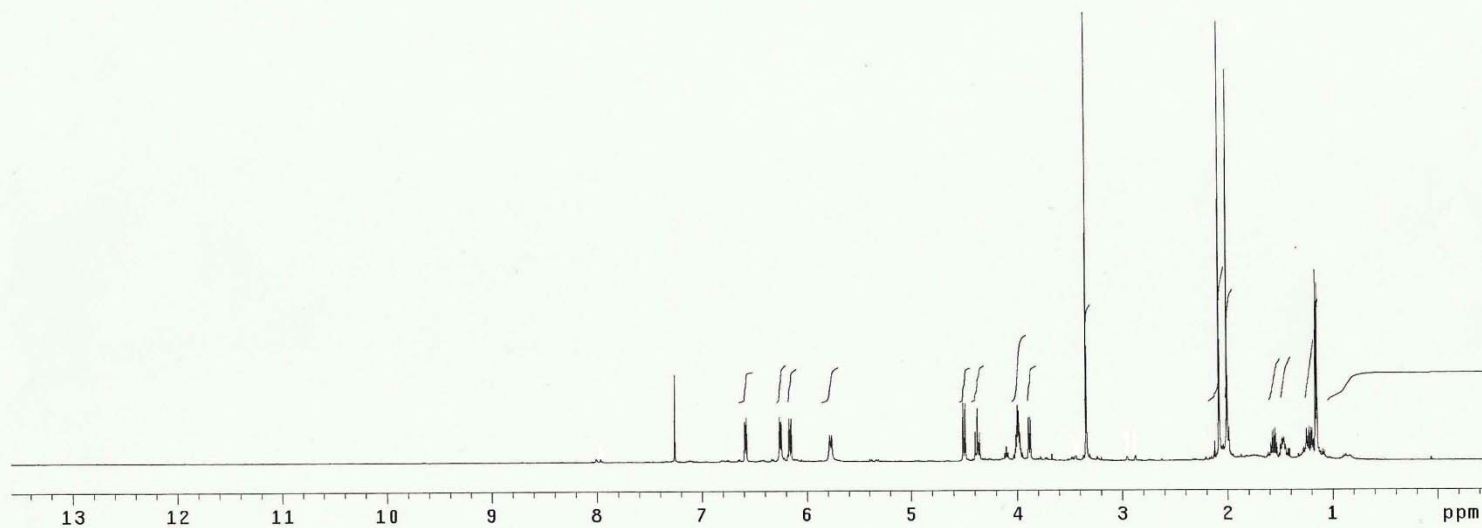


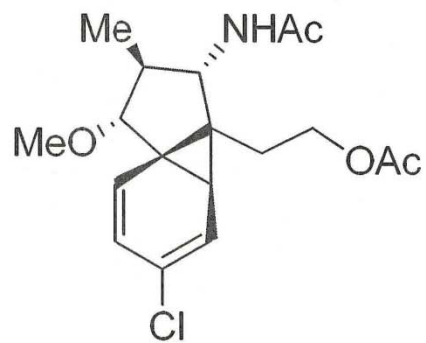
5d, 100 MHz, CDCl₃



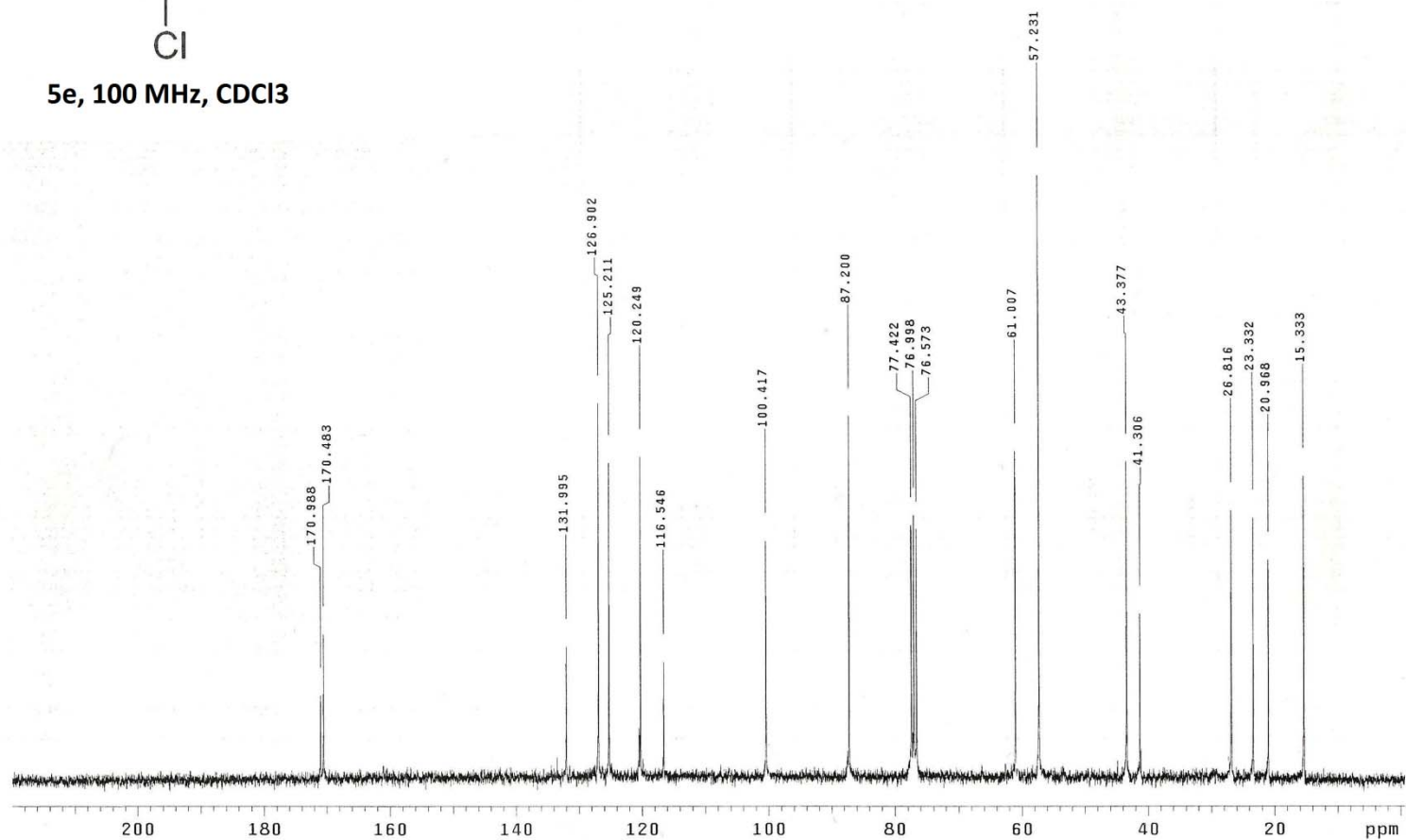


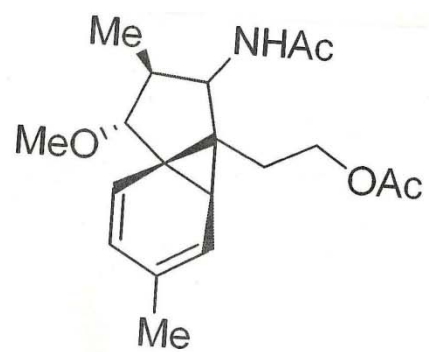
5e, 400 MHz, CDCl₃



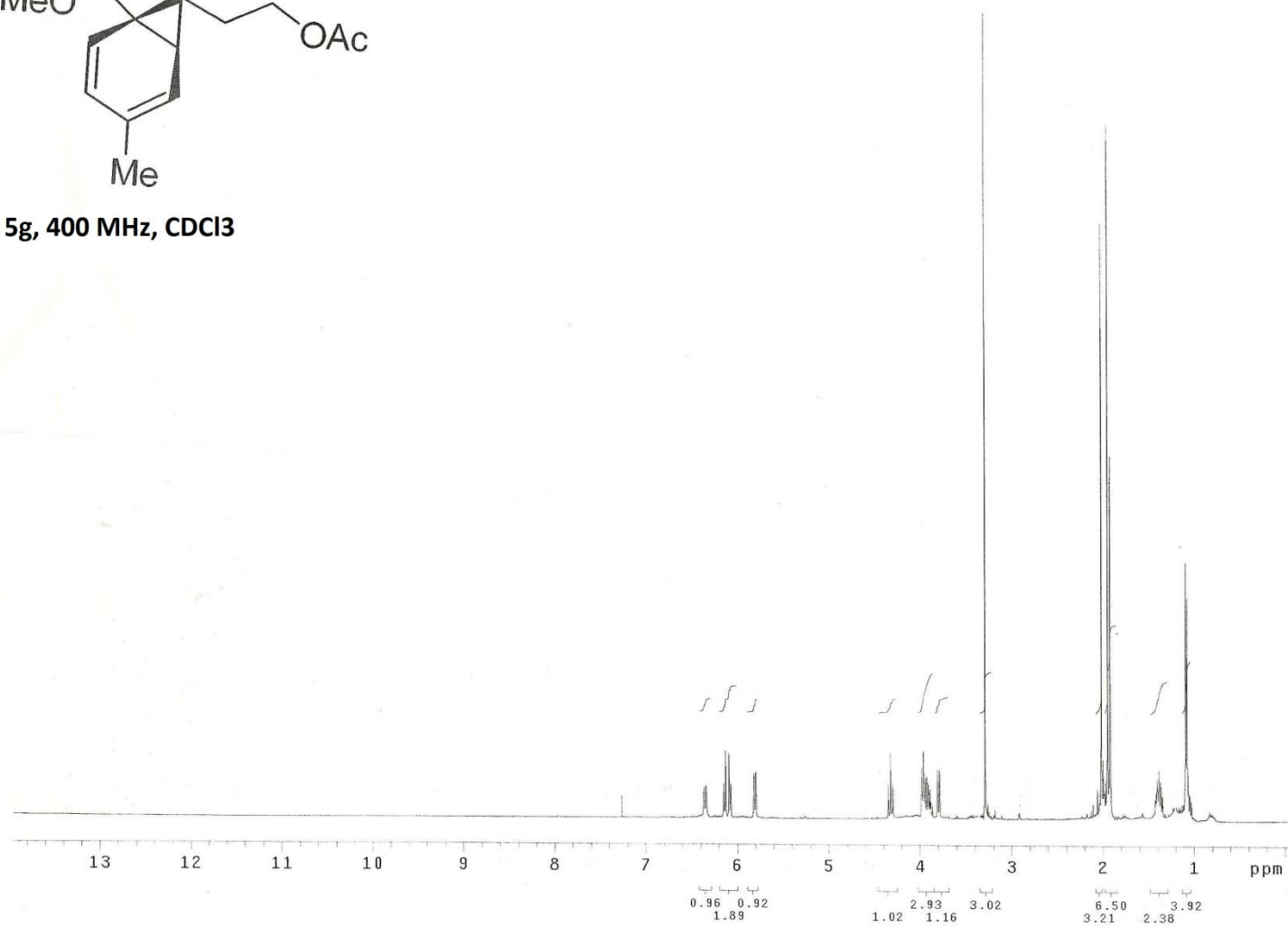


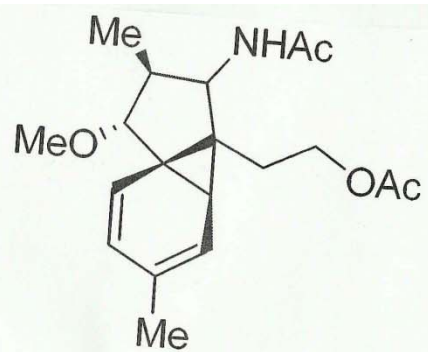
5e, 100 MHz, CDCl₃



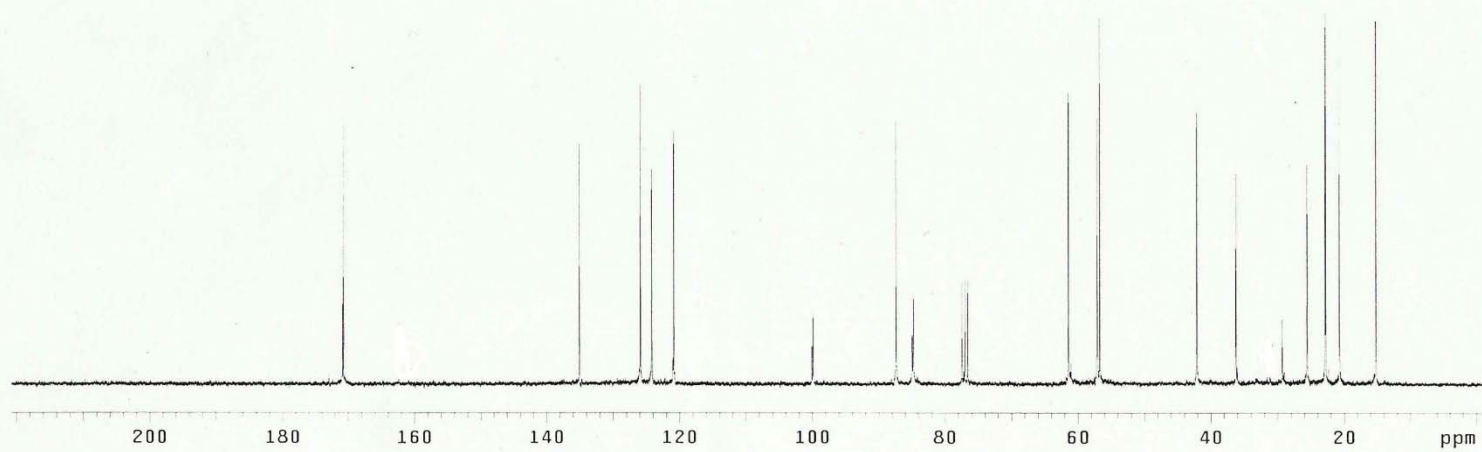


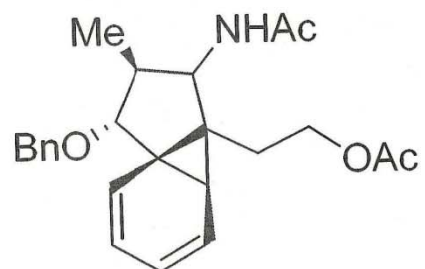
5g, 400 MHz, CDCl₃



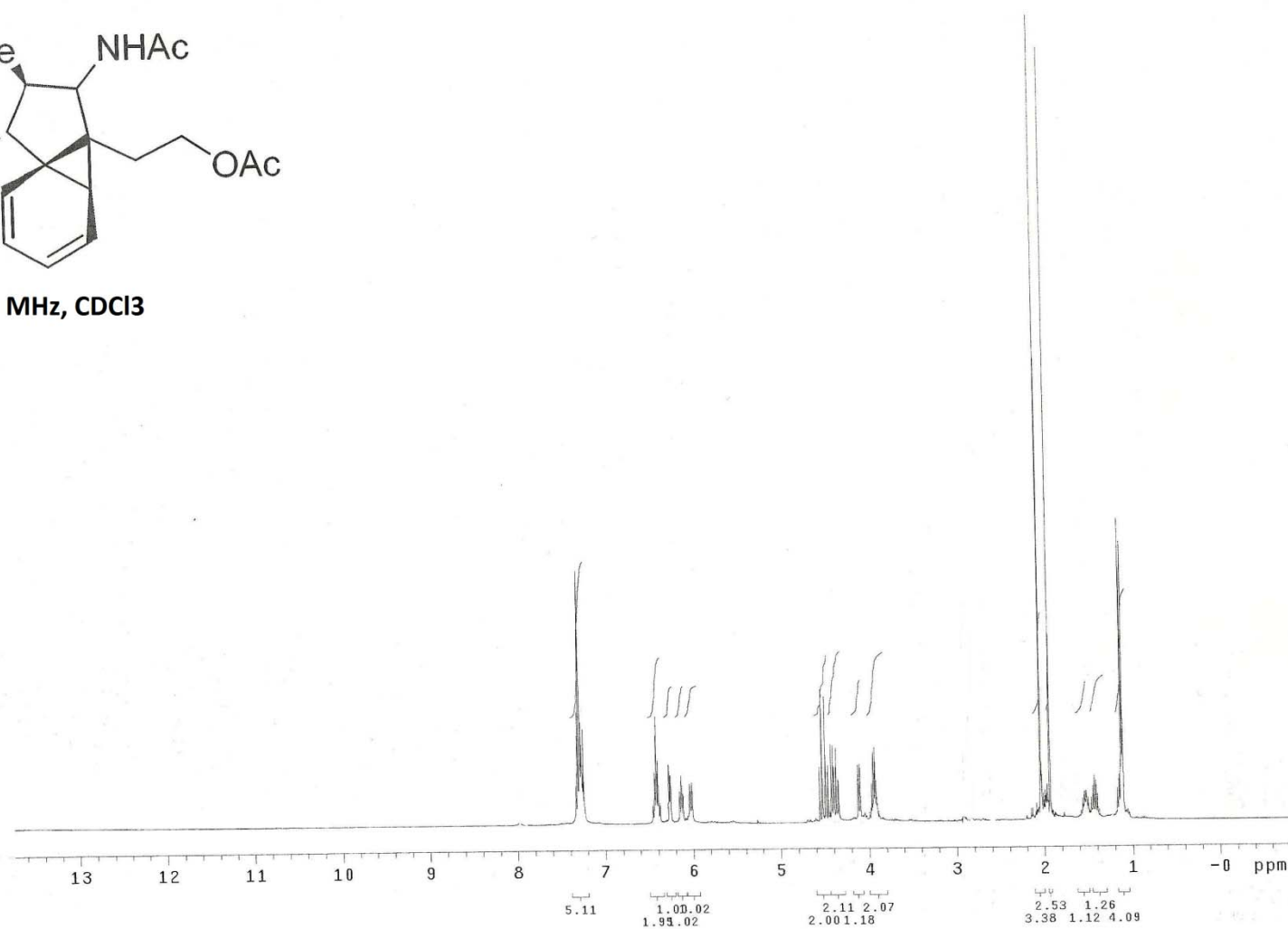


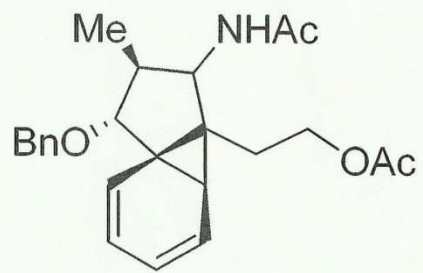
5g, 100 MHz, CDCl₃



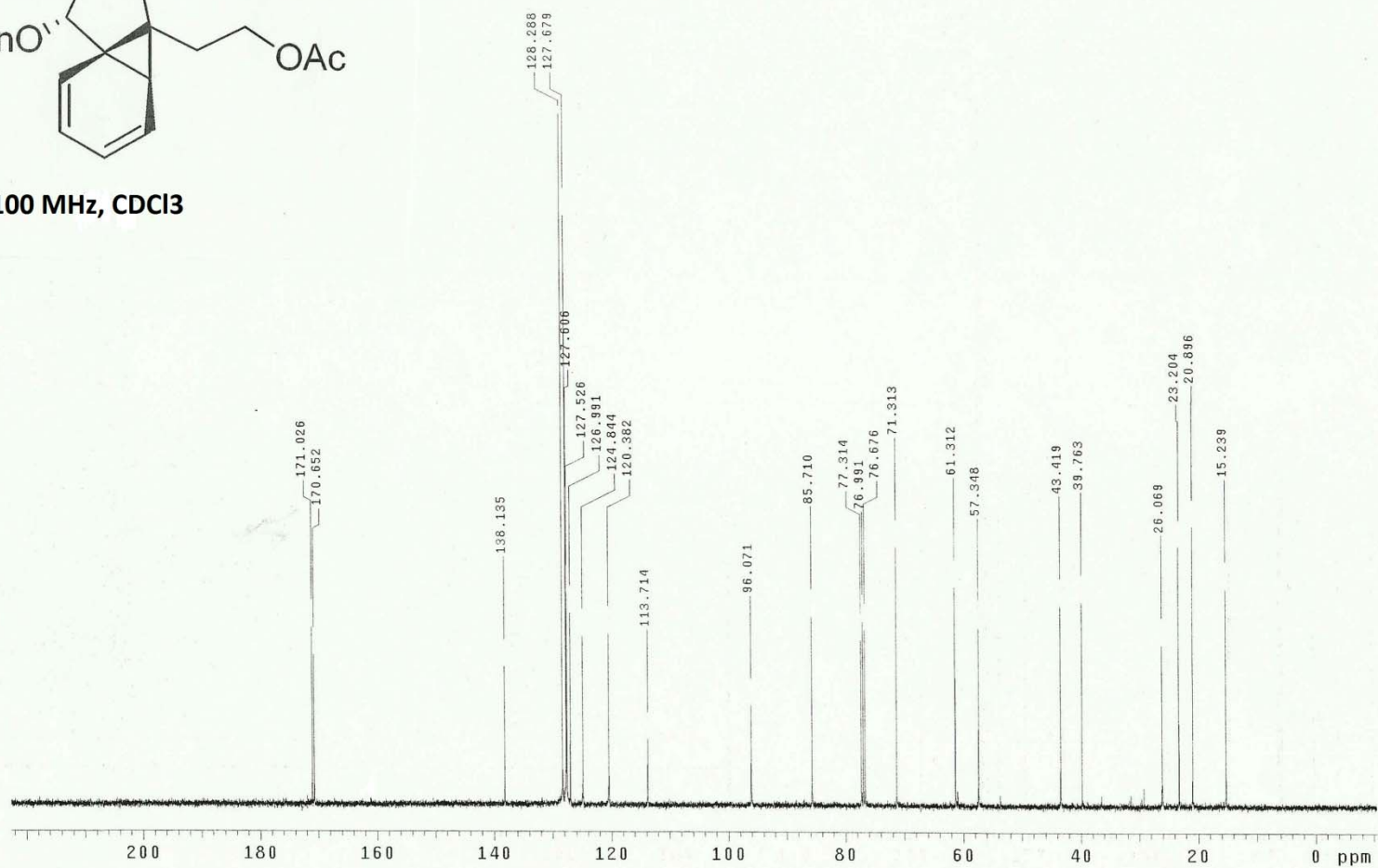


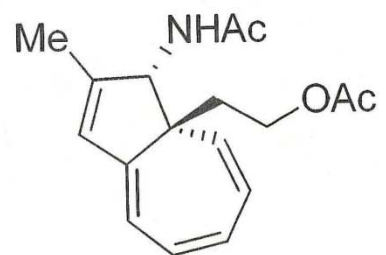
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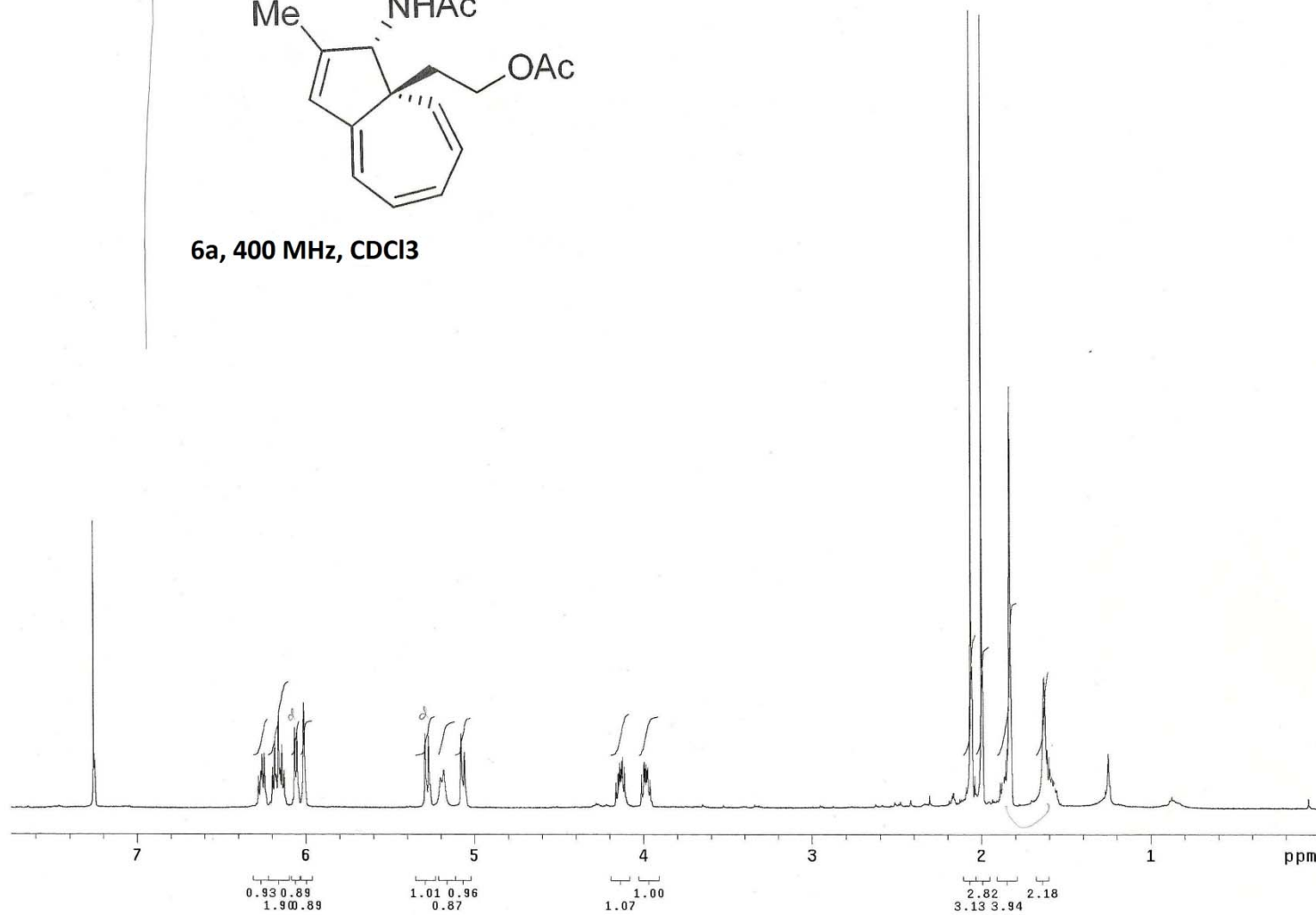


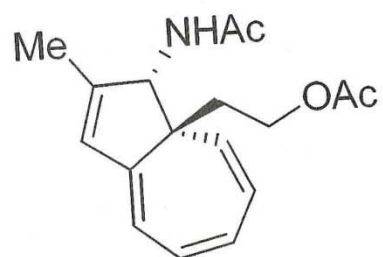
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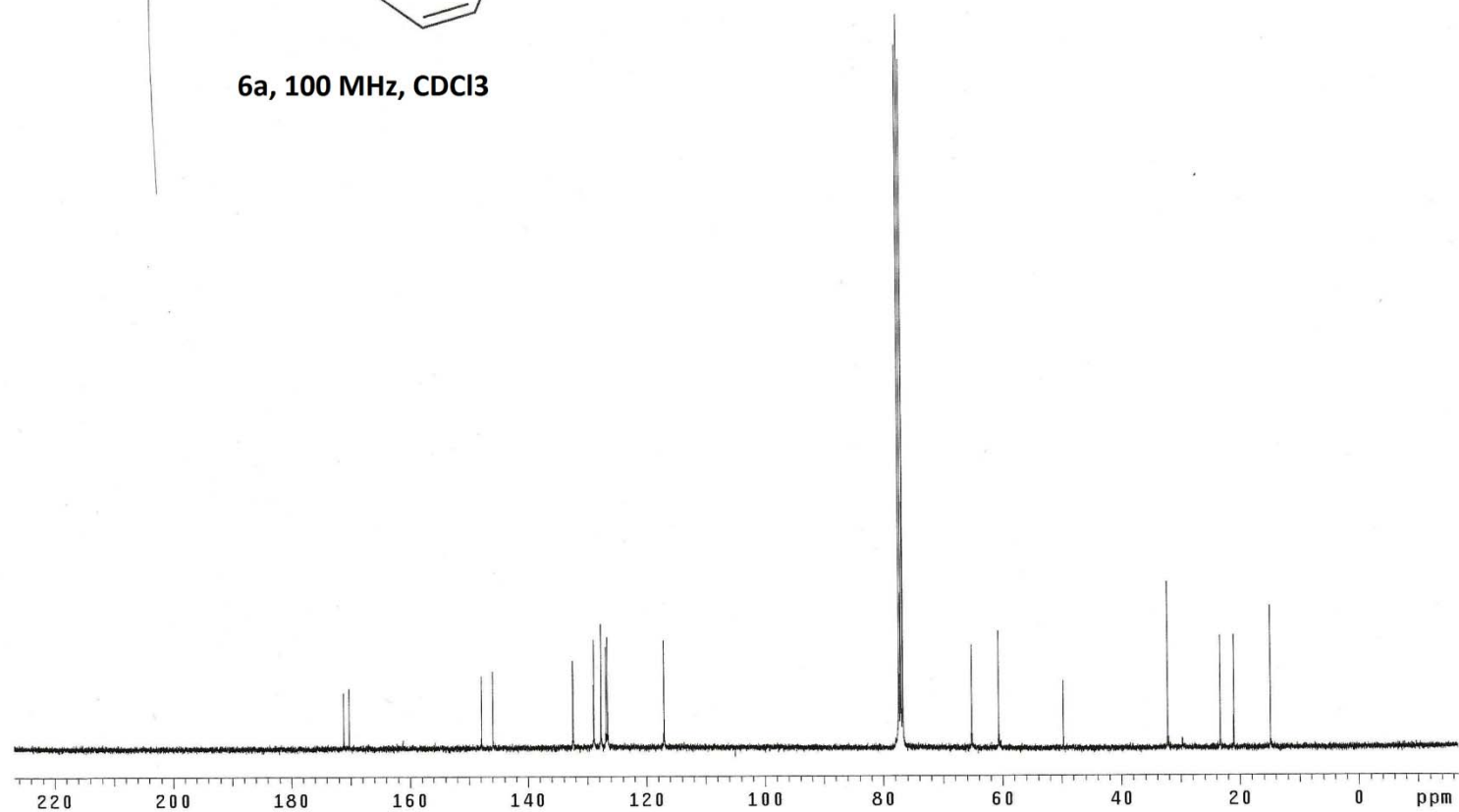


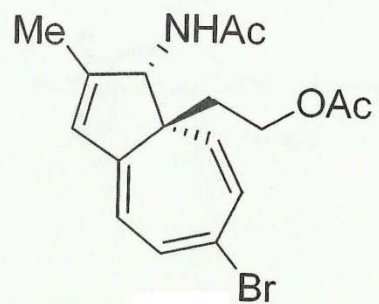
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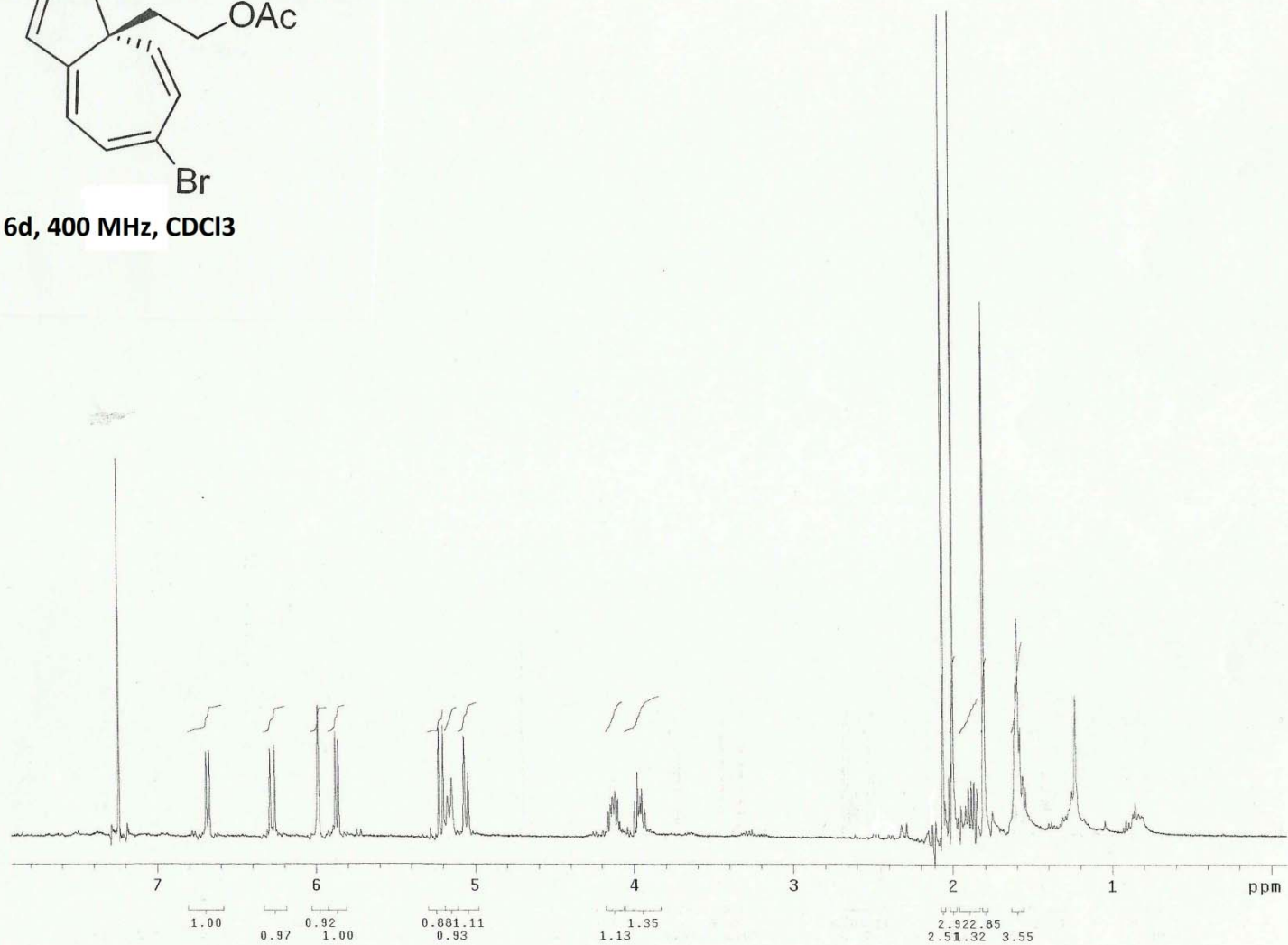


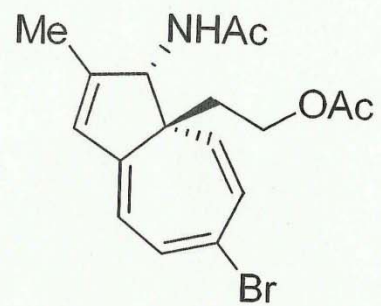
6a, 100 MHz, CDCl₃



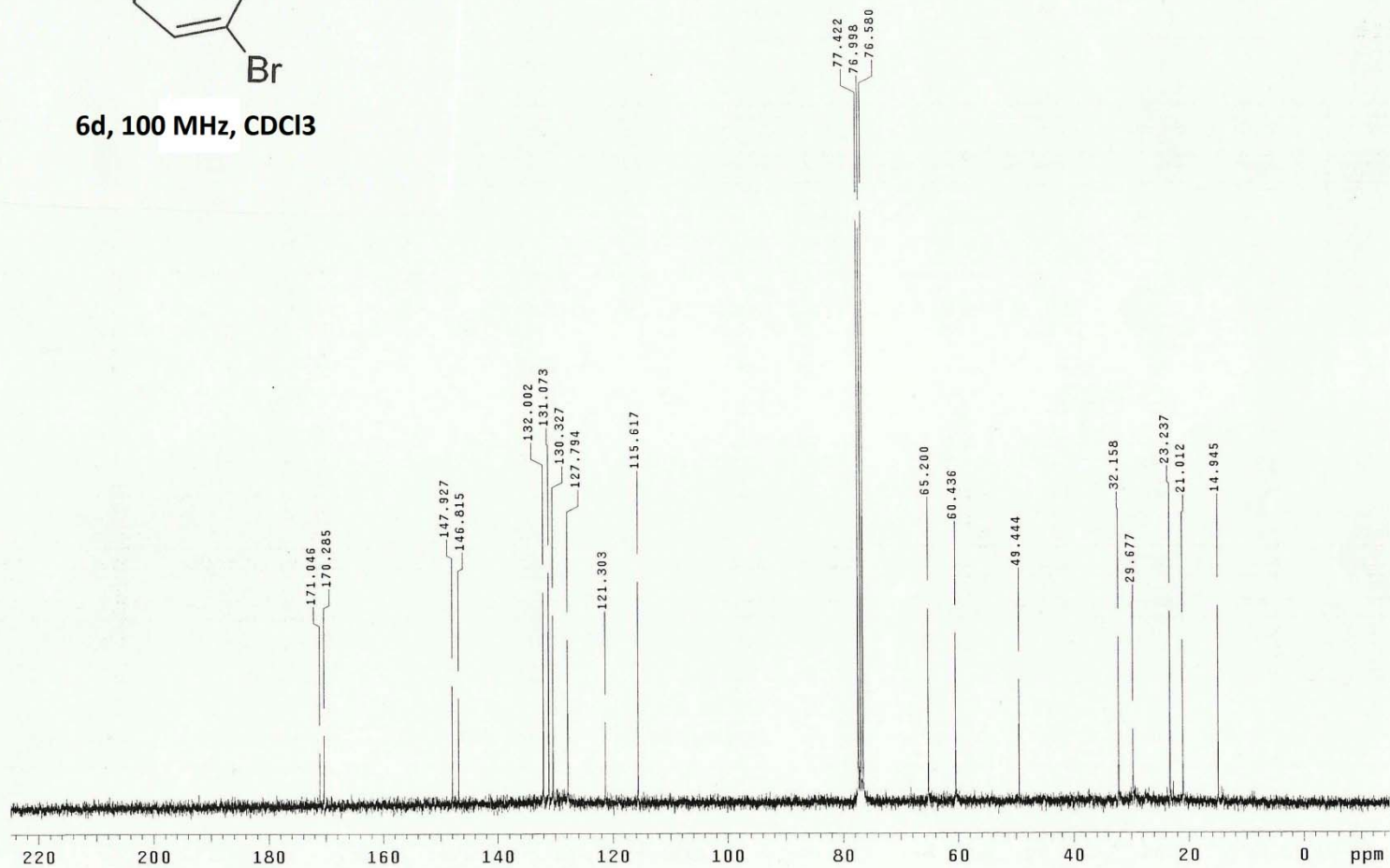


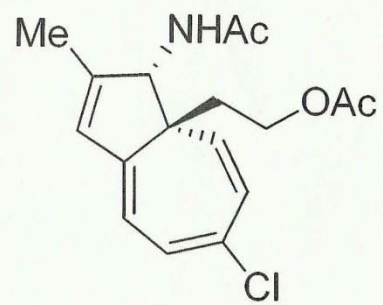
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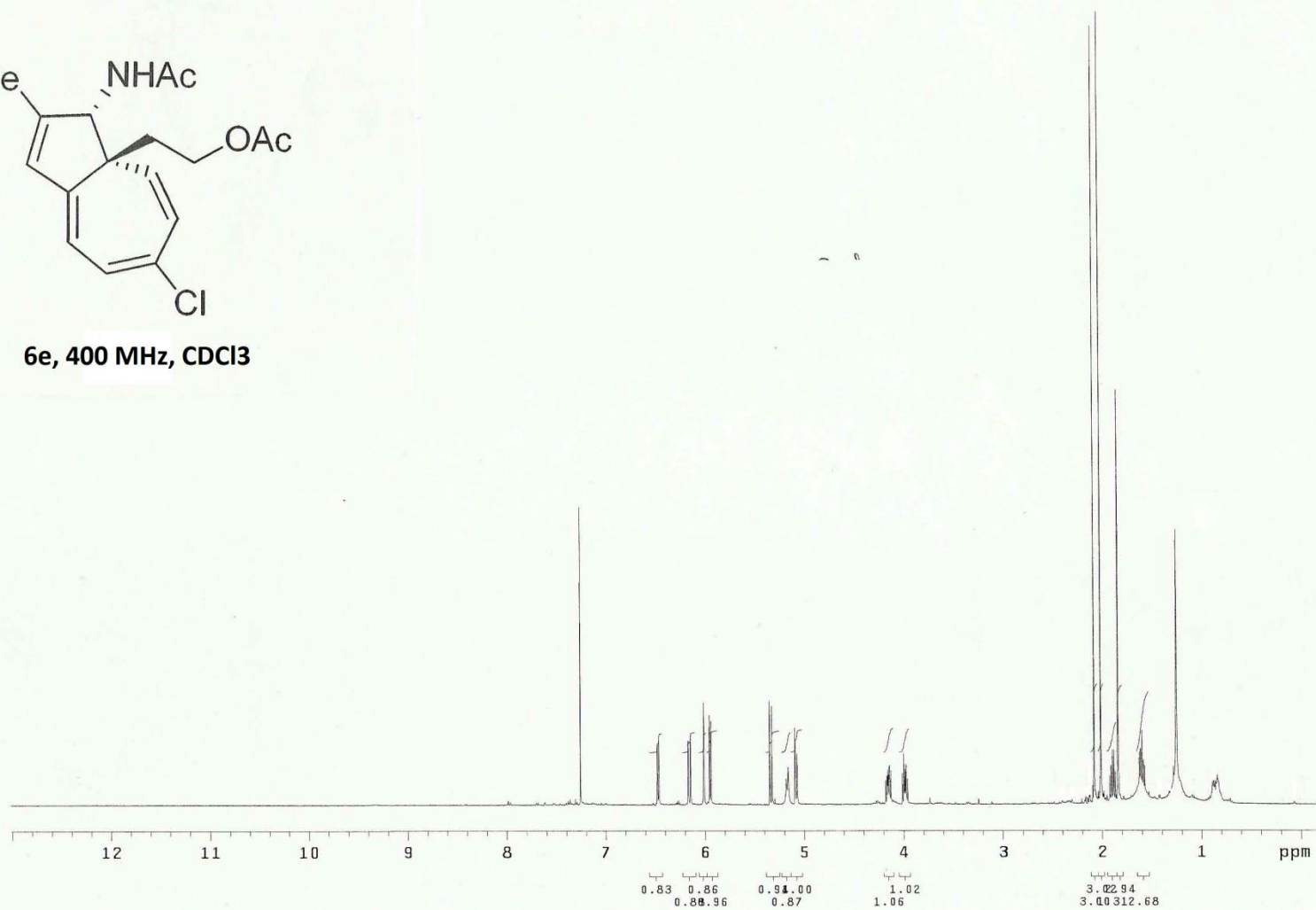


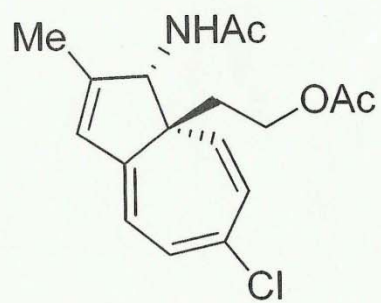
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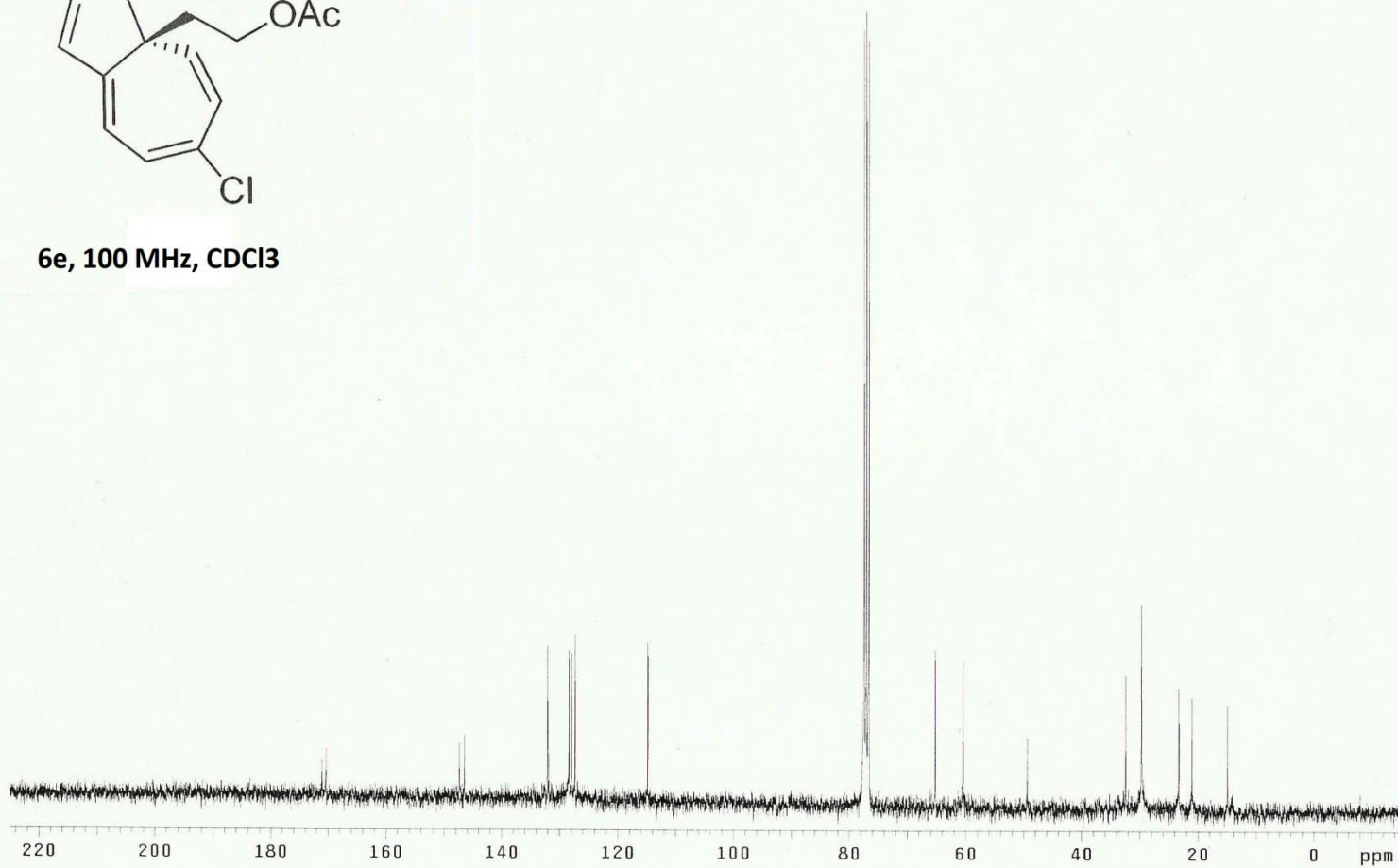


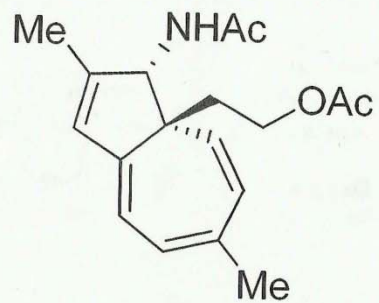
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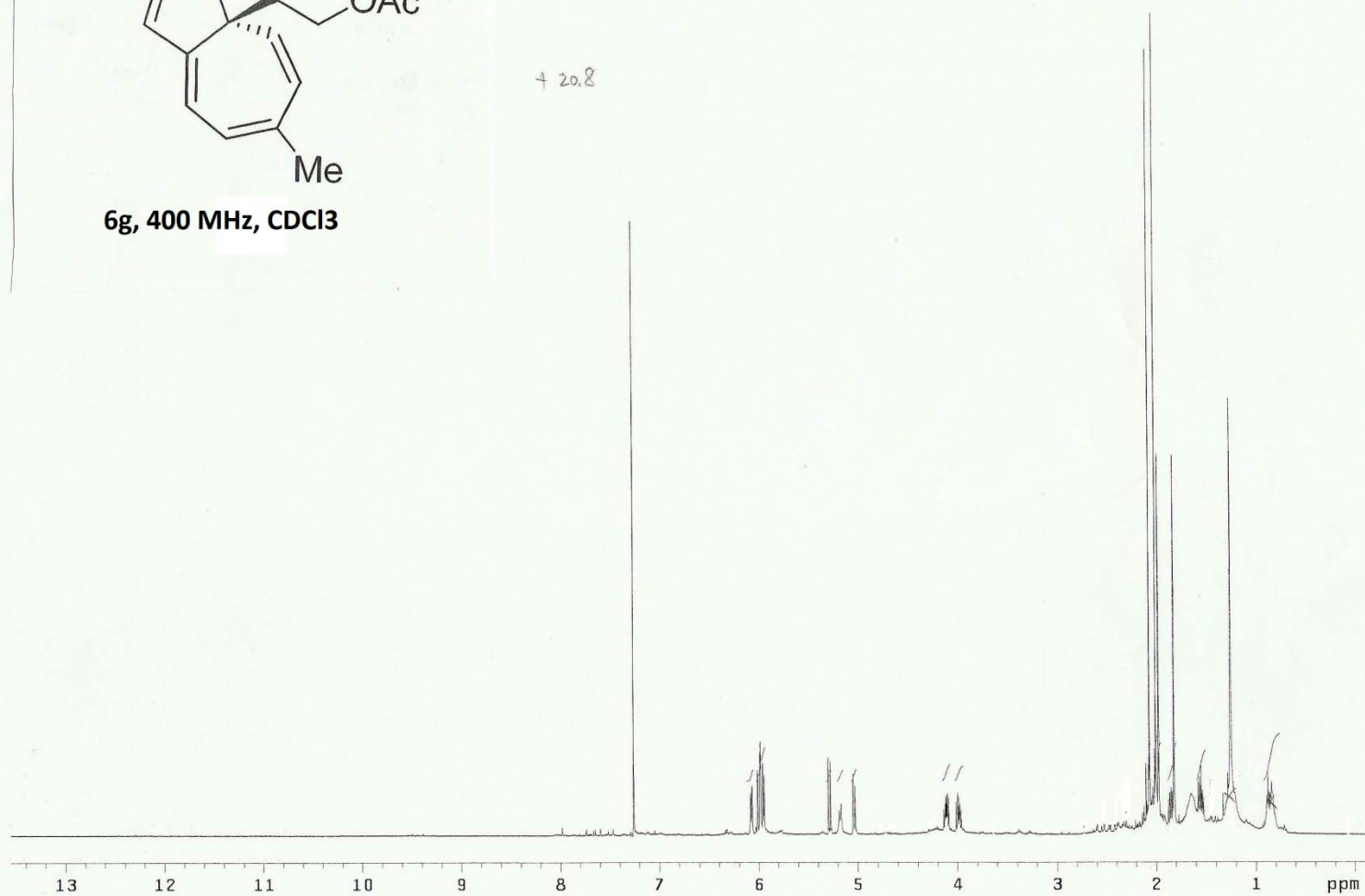
6e, 100 MHz, CDCl₃

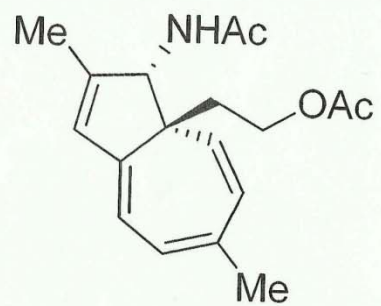




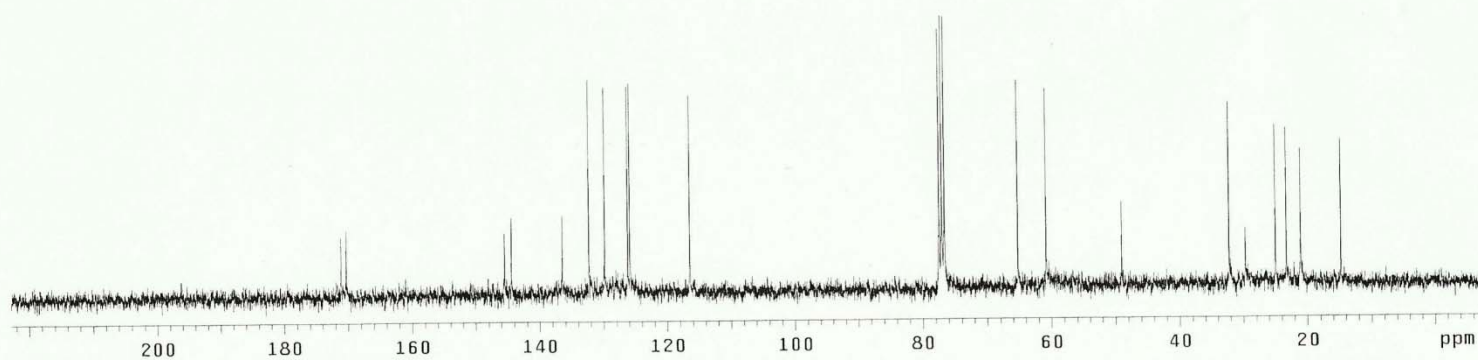
6g, 400 MHz, CDCl₃

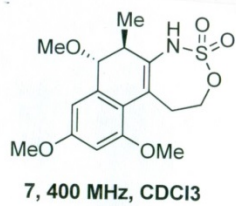
+ 20.8



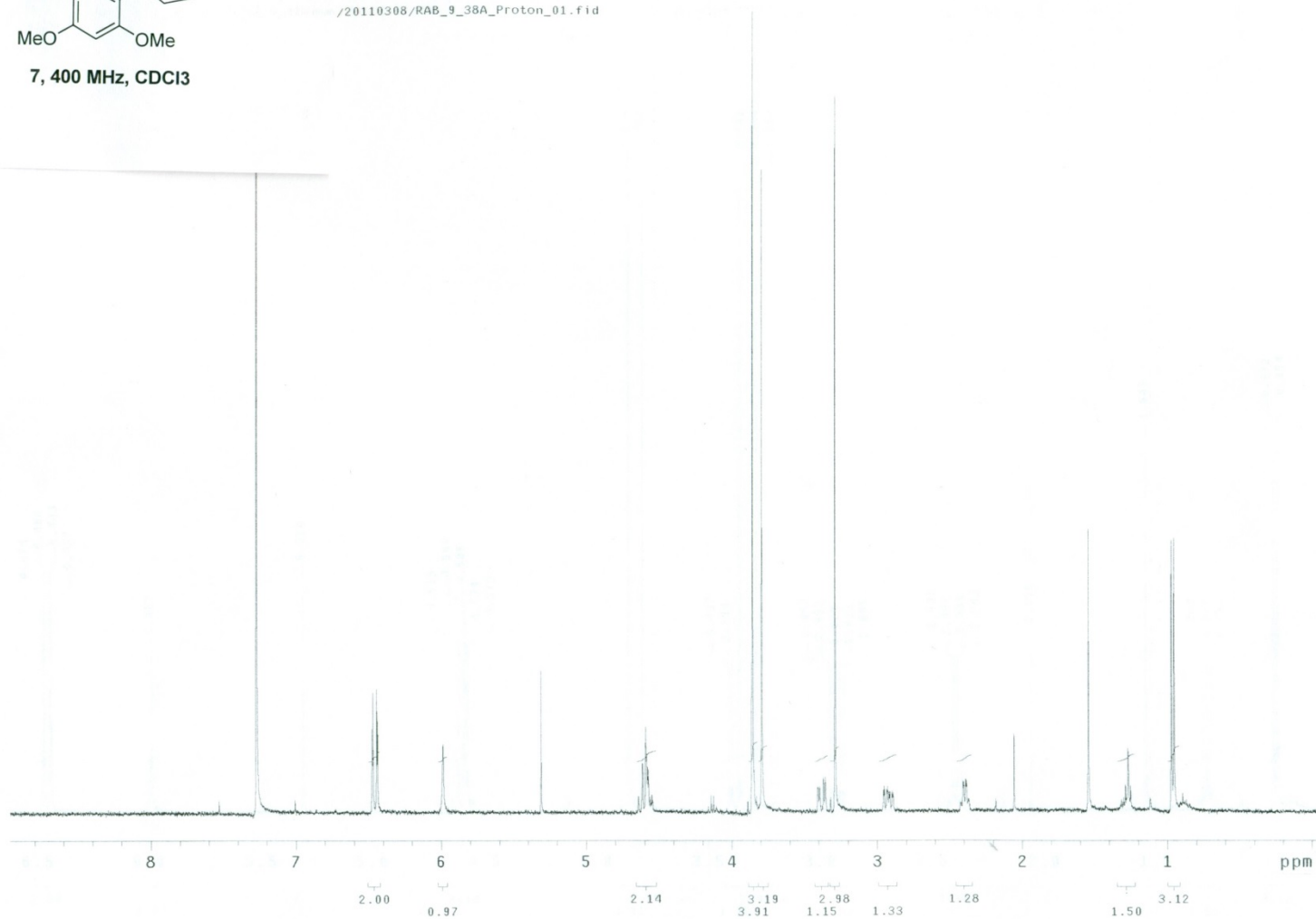


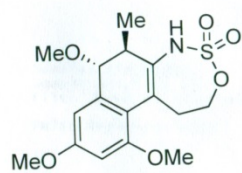
6g, 100 MHz, CDCl₃





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vn/20110312/RAB_9_38A_Carbon_01.fid

7, 100 MHz, CDCl₃

