

Electronic Supplementary Information

Preparation of oxocene terpenes. First enantiospecific synthesis of cytotoxic arenaran A

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and Enrique Alvarez-Manzaneda*^a

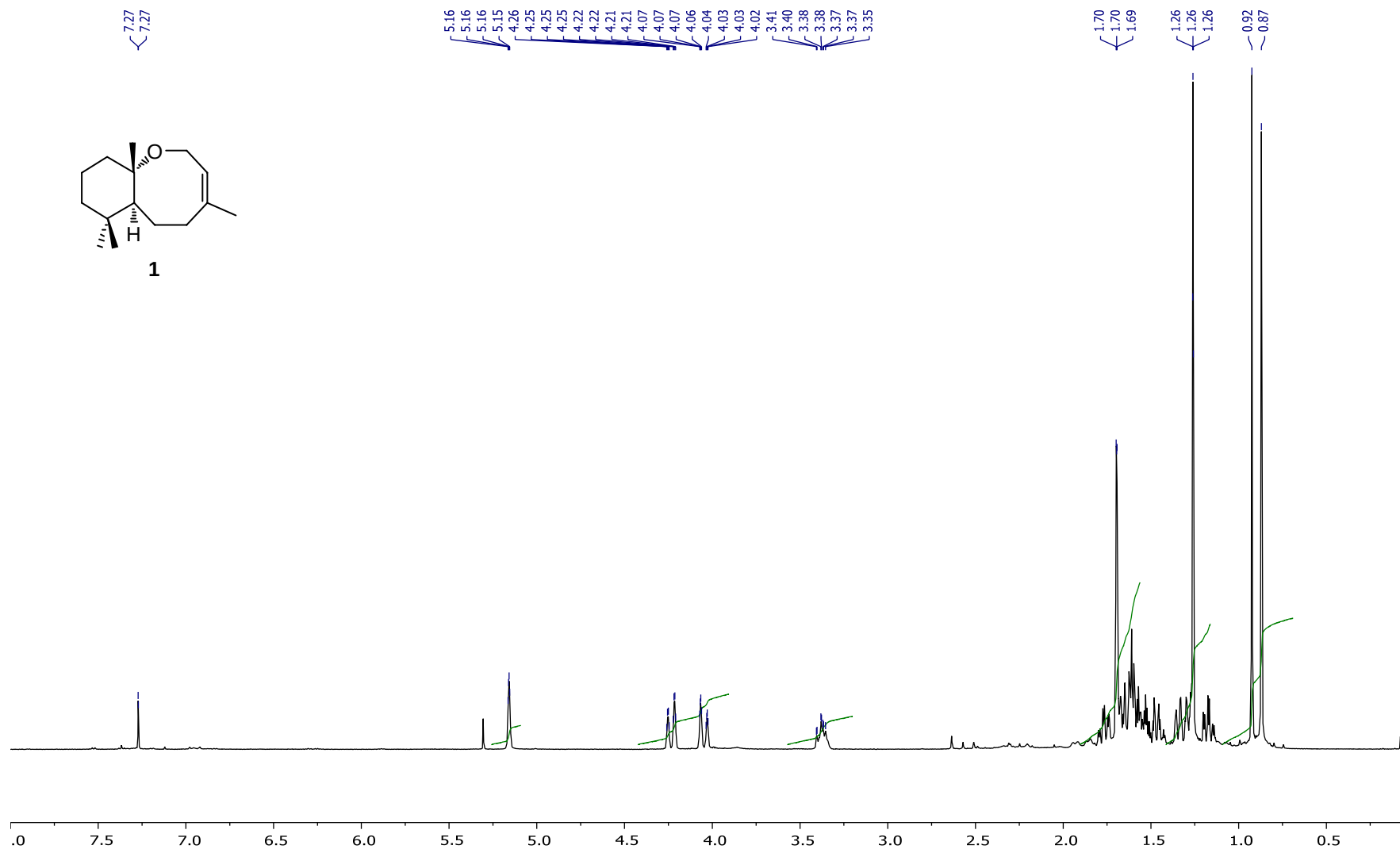
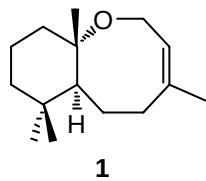
^a*Departamento de Química Orgánica, Facultad de Ciencias, Instituto de Biotecnología, Universidad de Granada, 18071 Granada, Spain.*

^b*Área de Química Orgánica, Departamento de Química y Física, Universidad de Almería, 04120 Almería, Spain.*

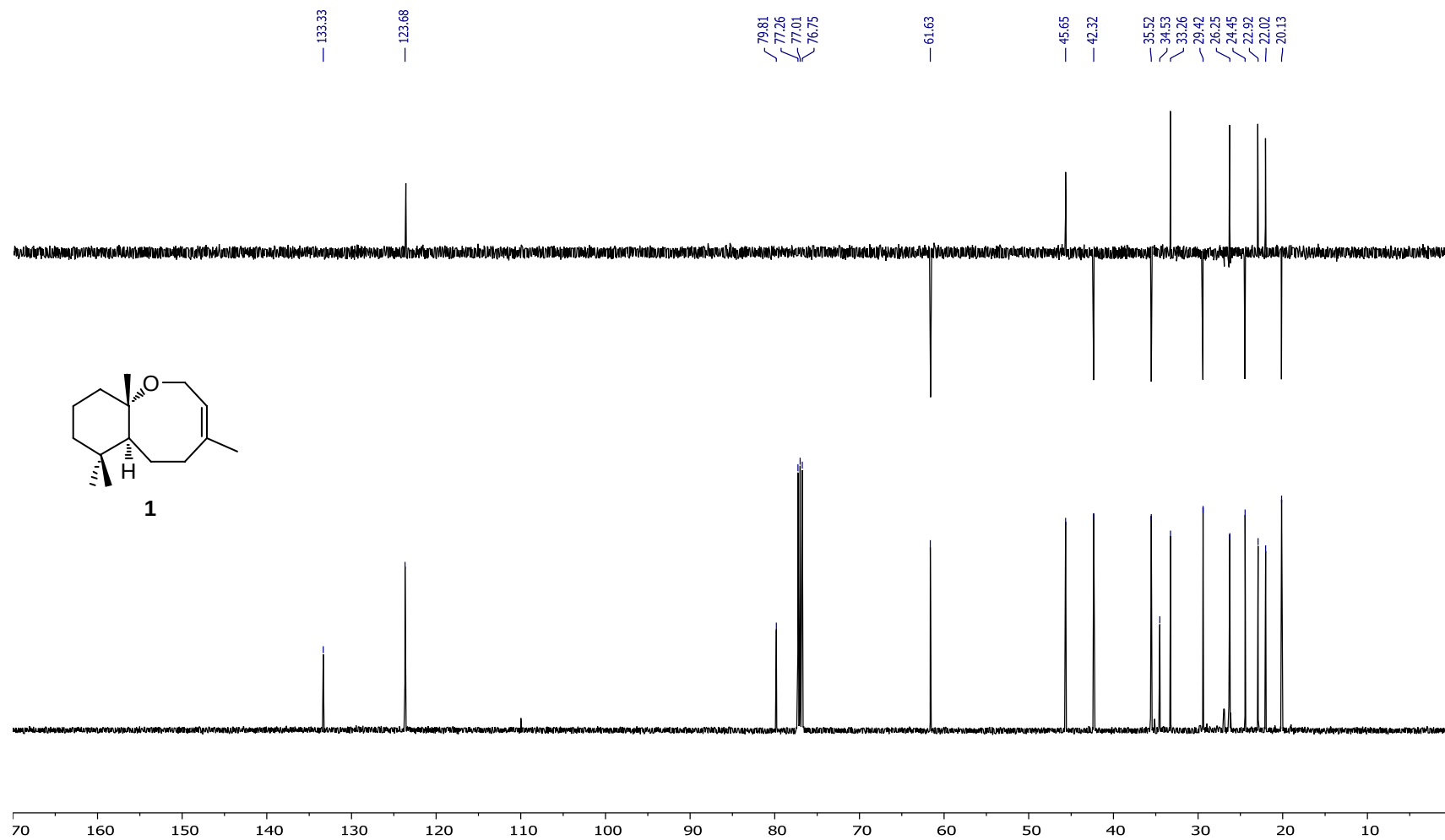
*E mail: rachid@ugr.es; eamr@ugr.es

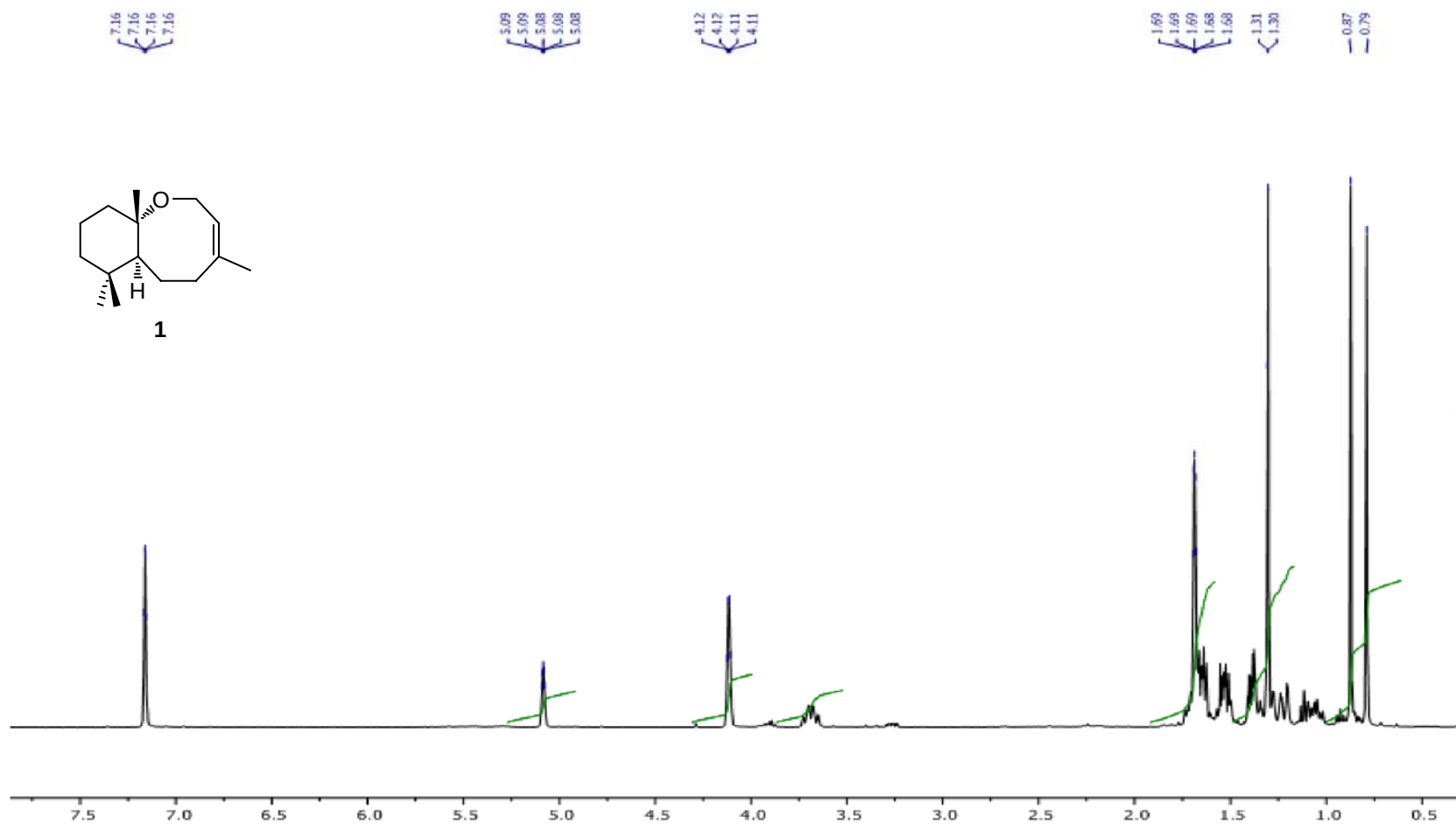
Contents

¹H and ¹³C NMR Spectra for all new compounds, 1D NOESY for compound **1**, and 1D TOCSY, COSY, HSQC, HMBC and 1D NOESY for compound **2**

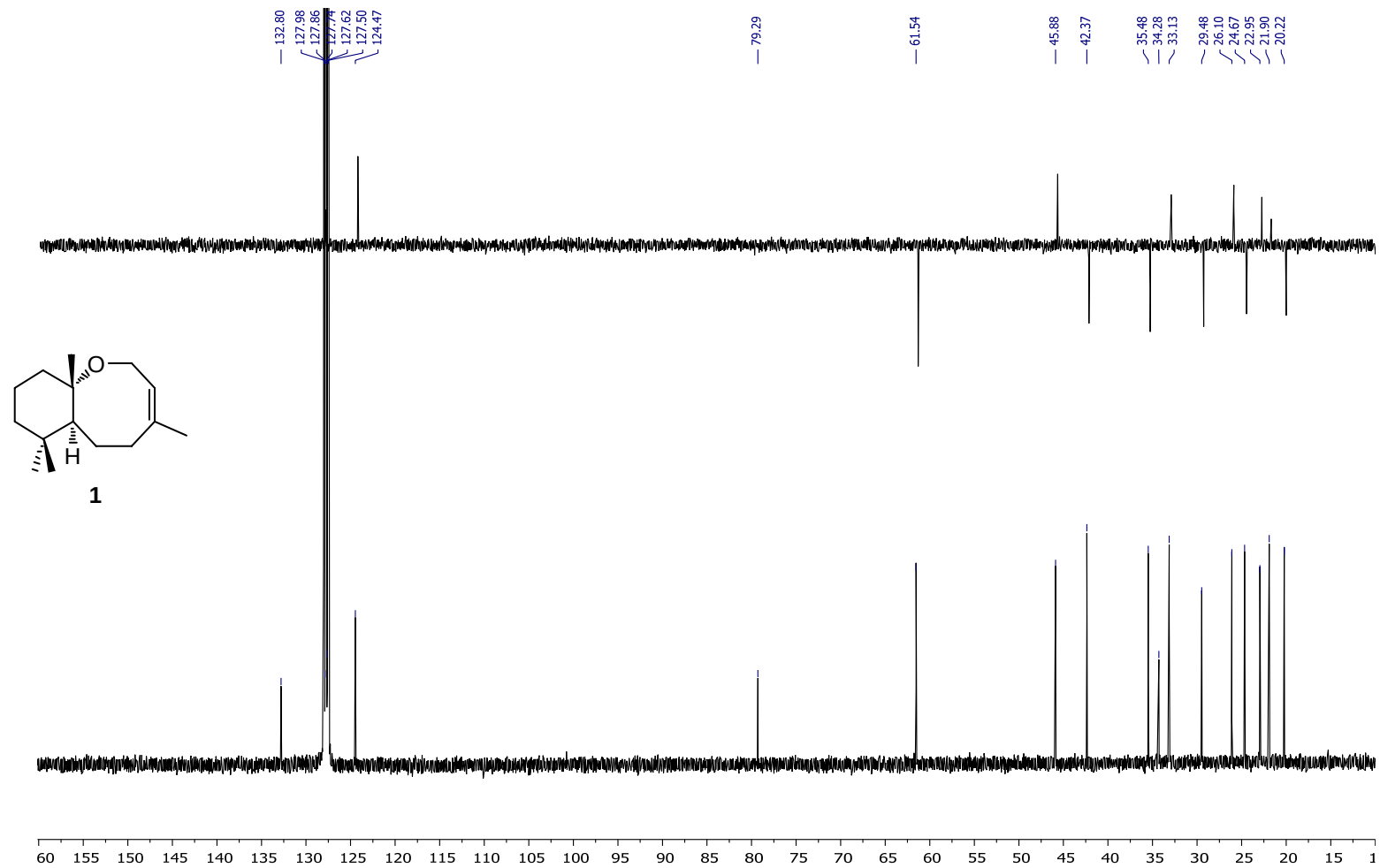


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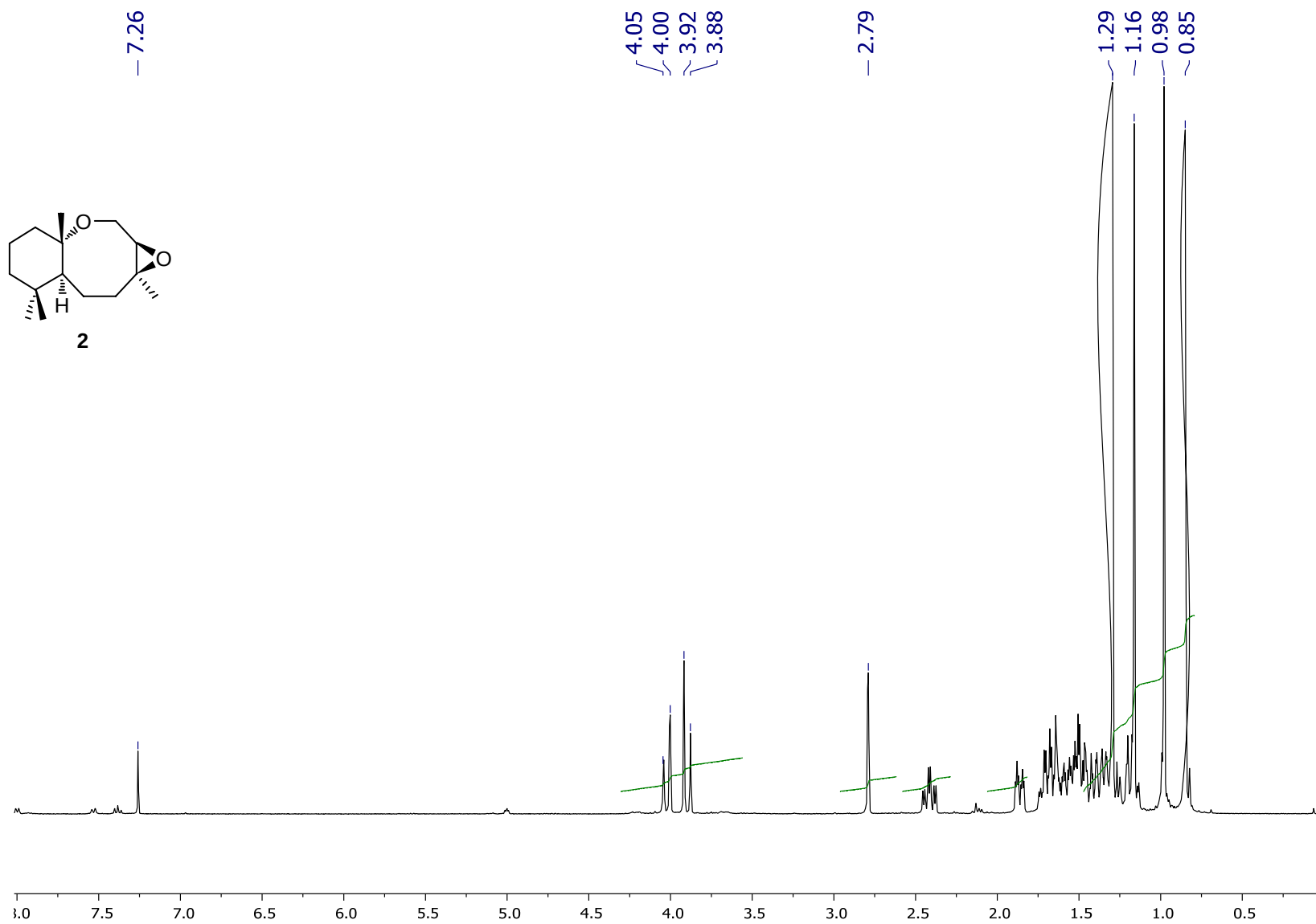


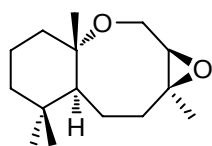


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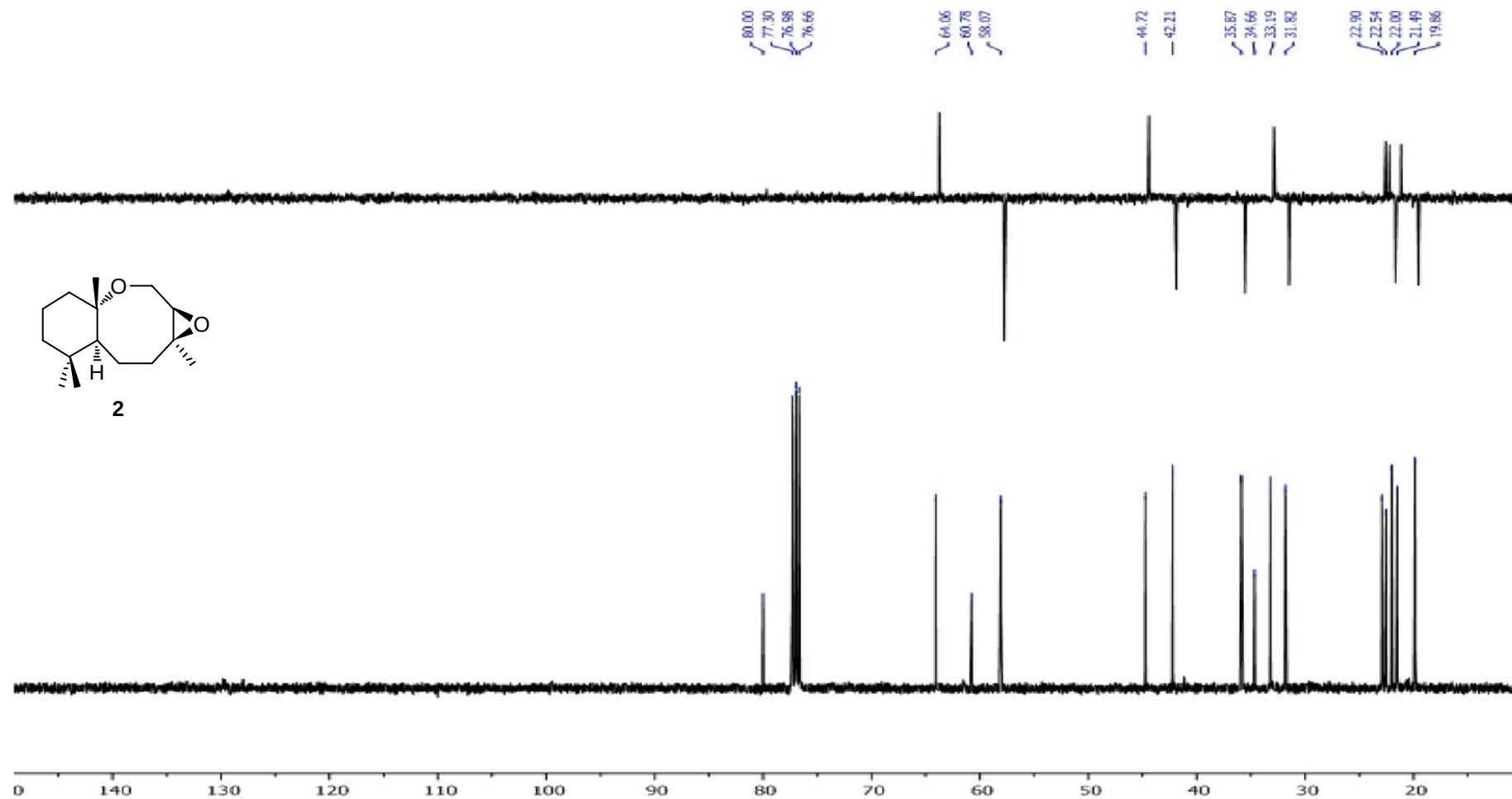


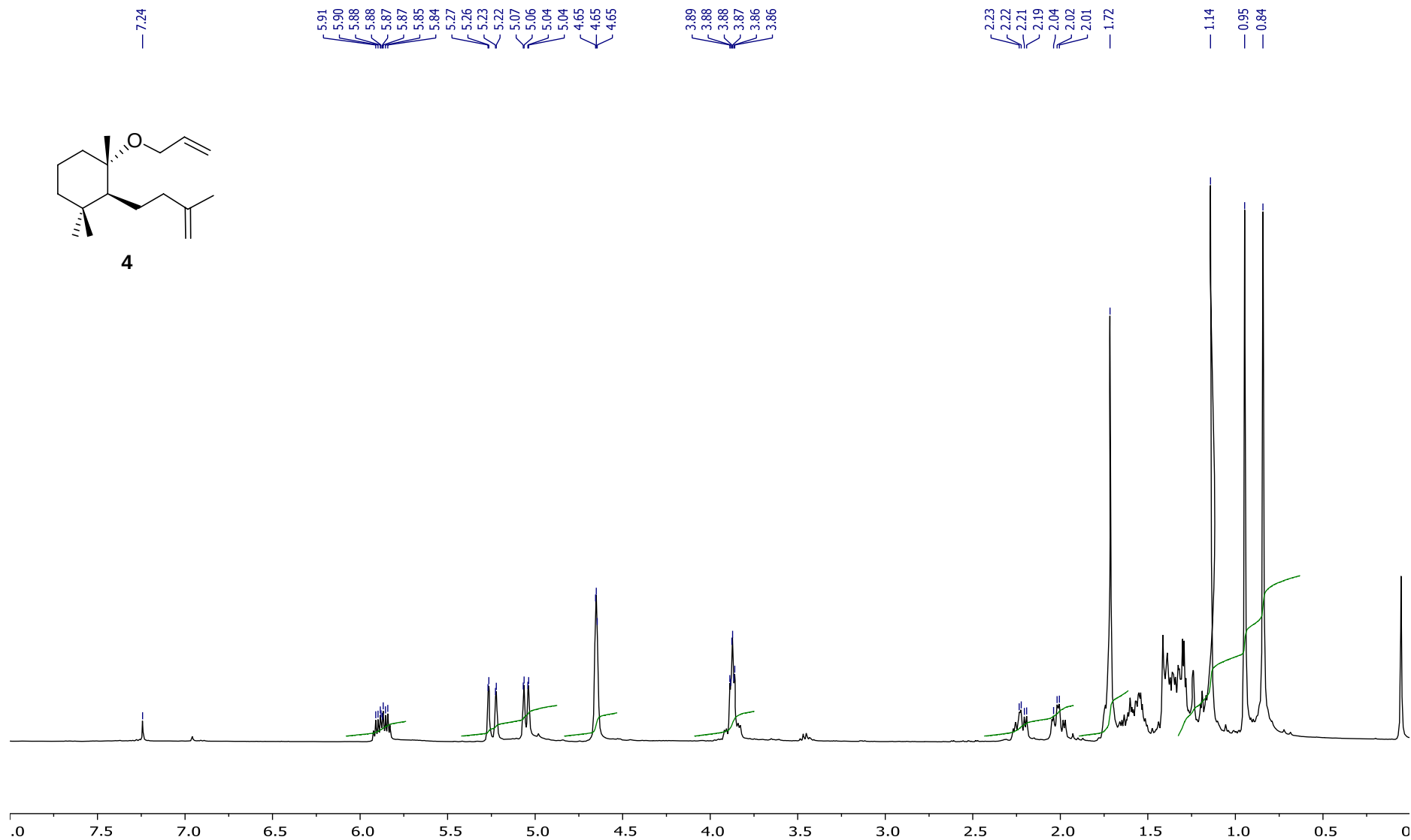
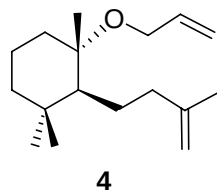
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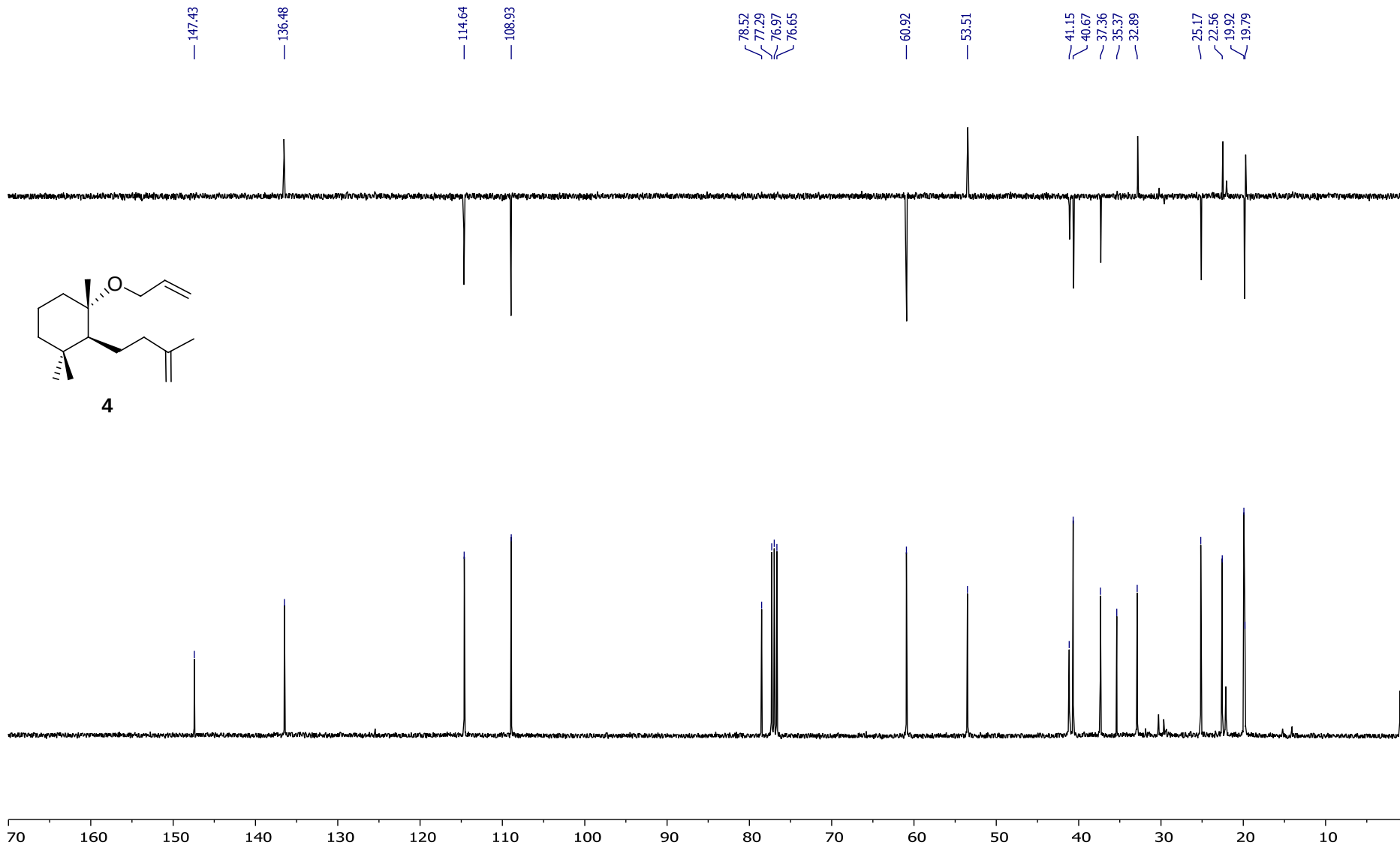


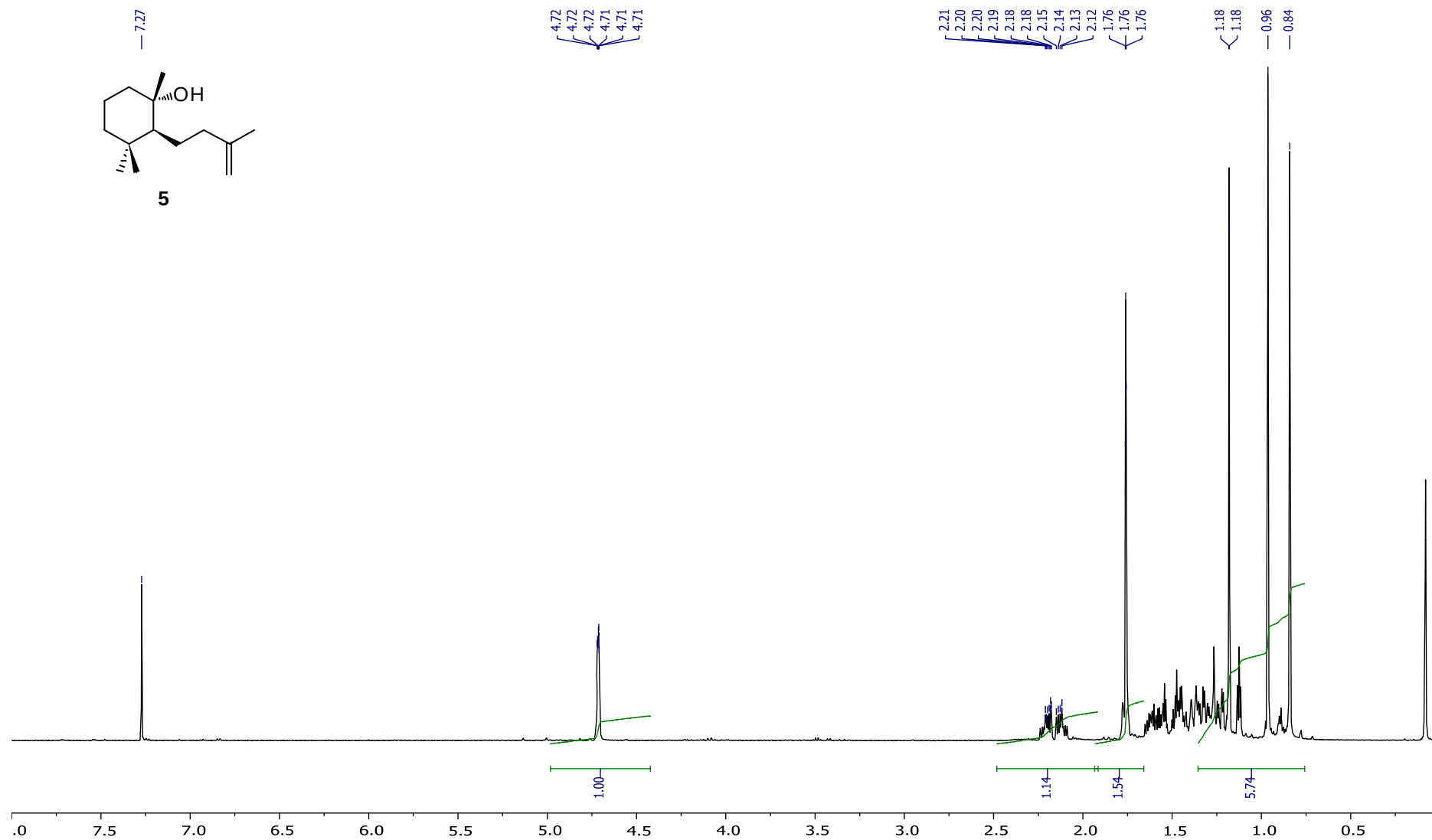
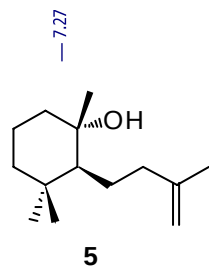


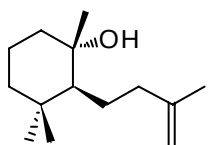
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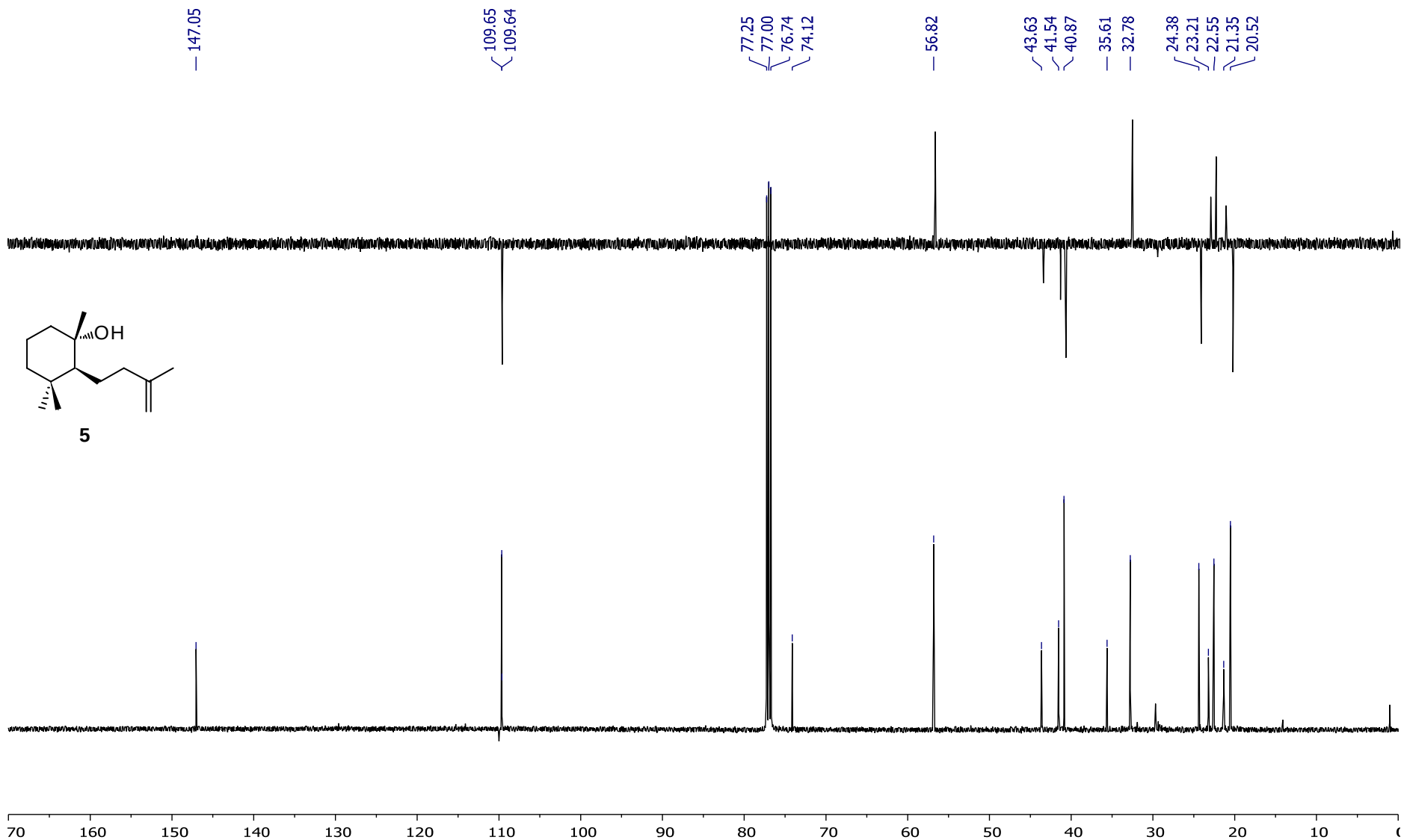




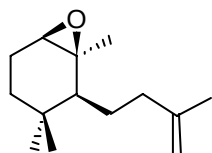




5



proton



9

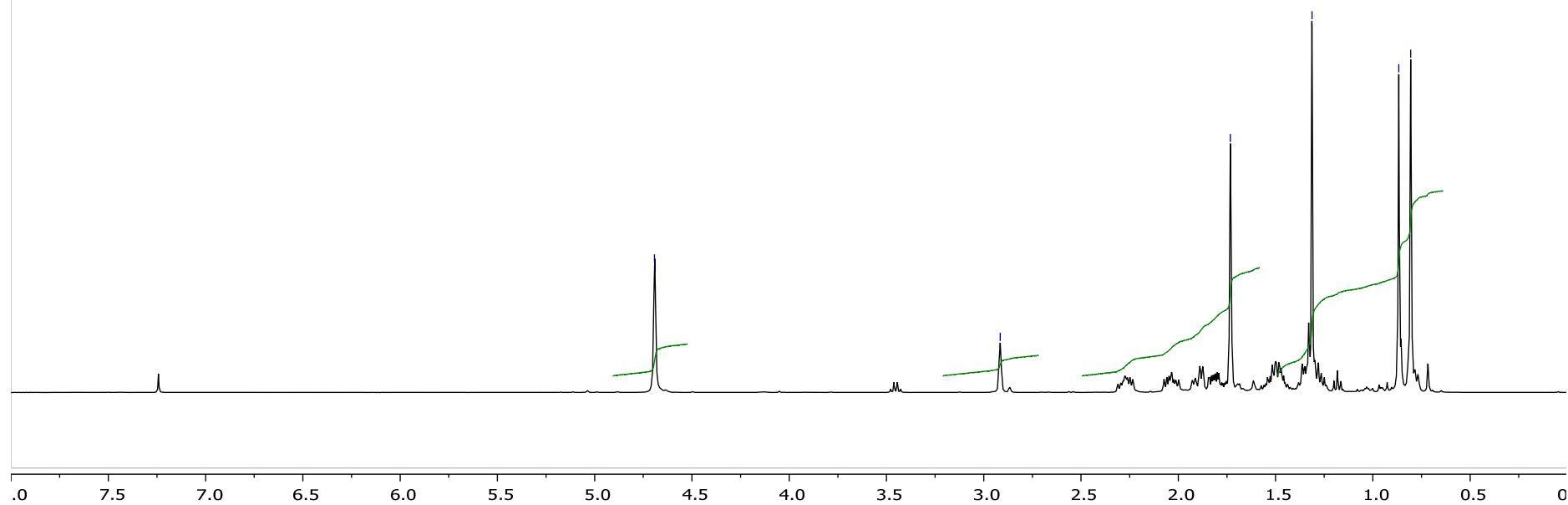
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4.69

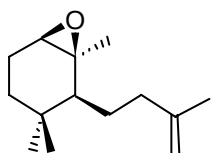
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1.73

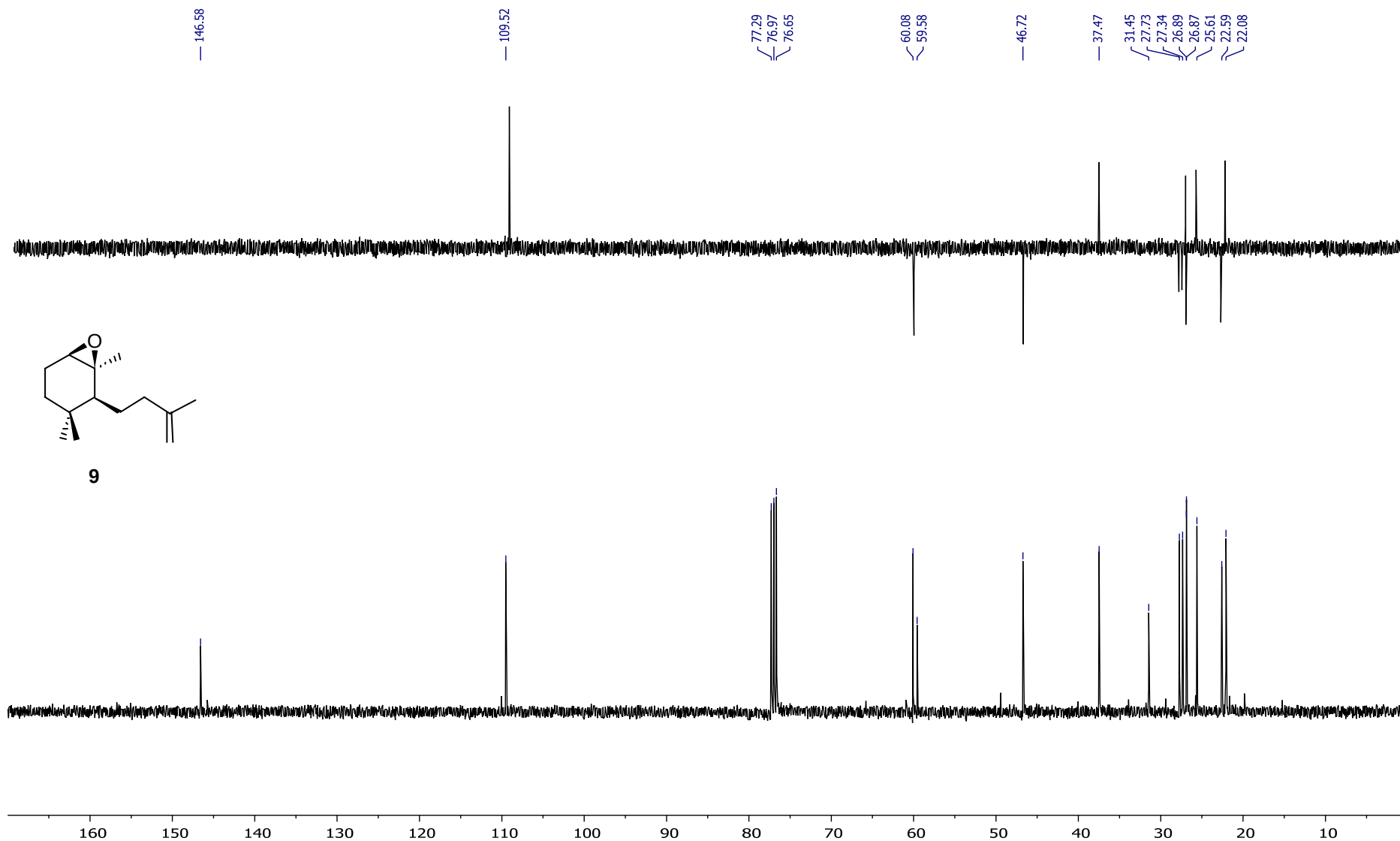
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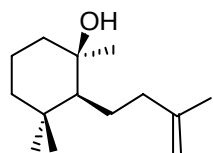
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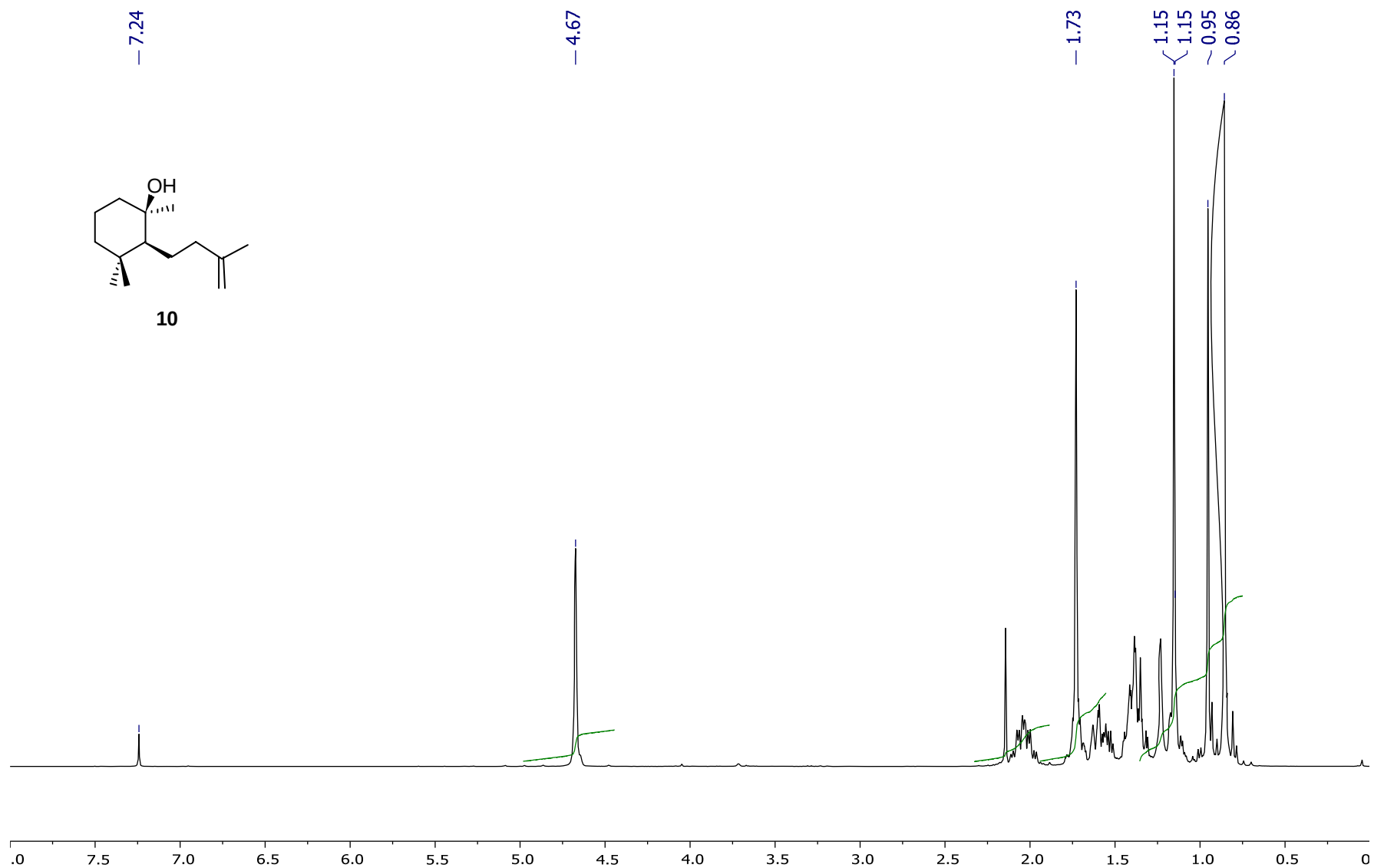


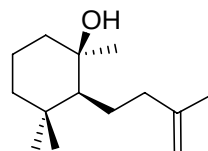
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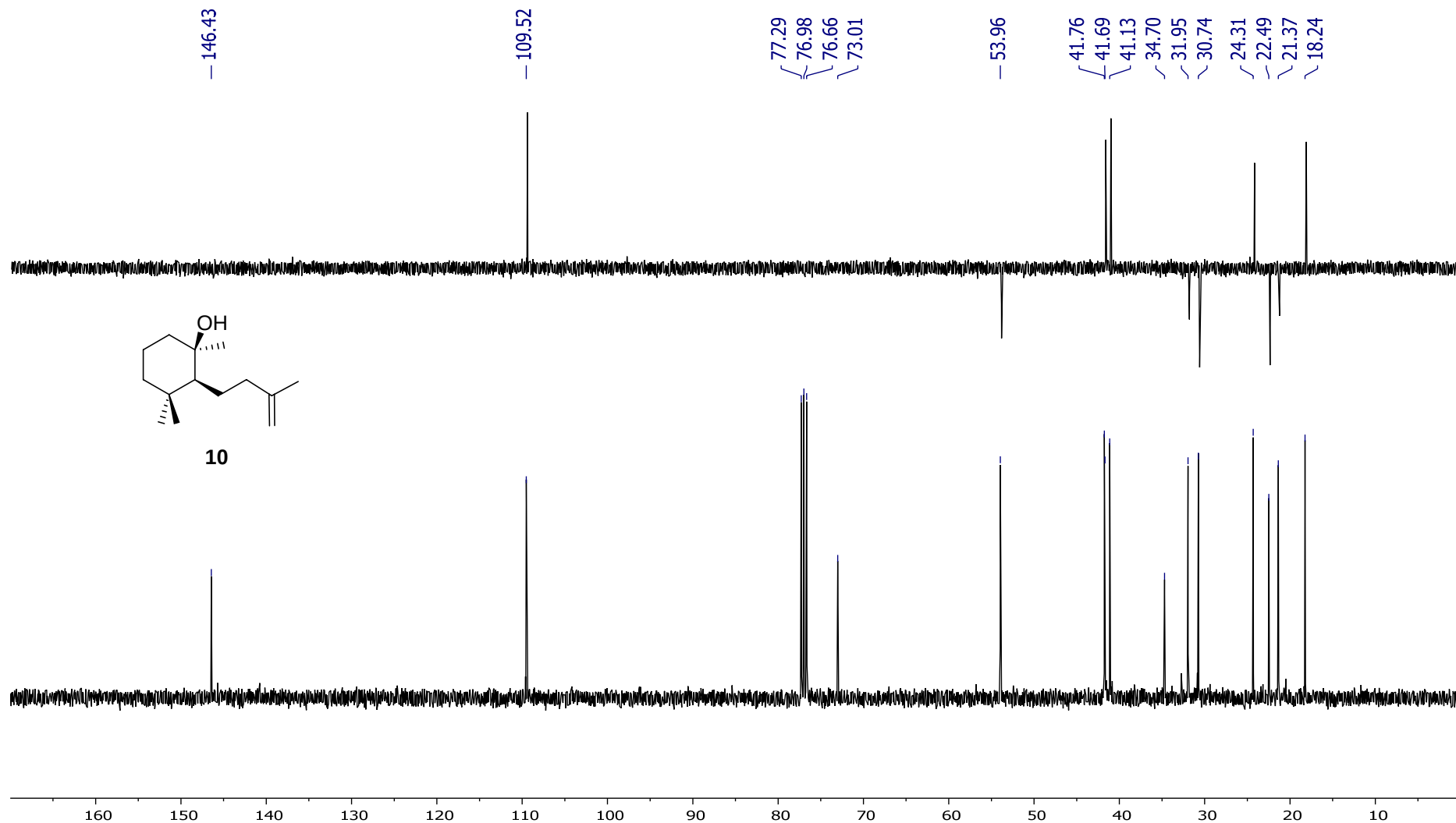


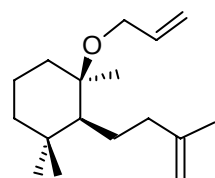
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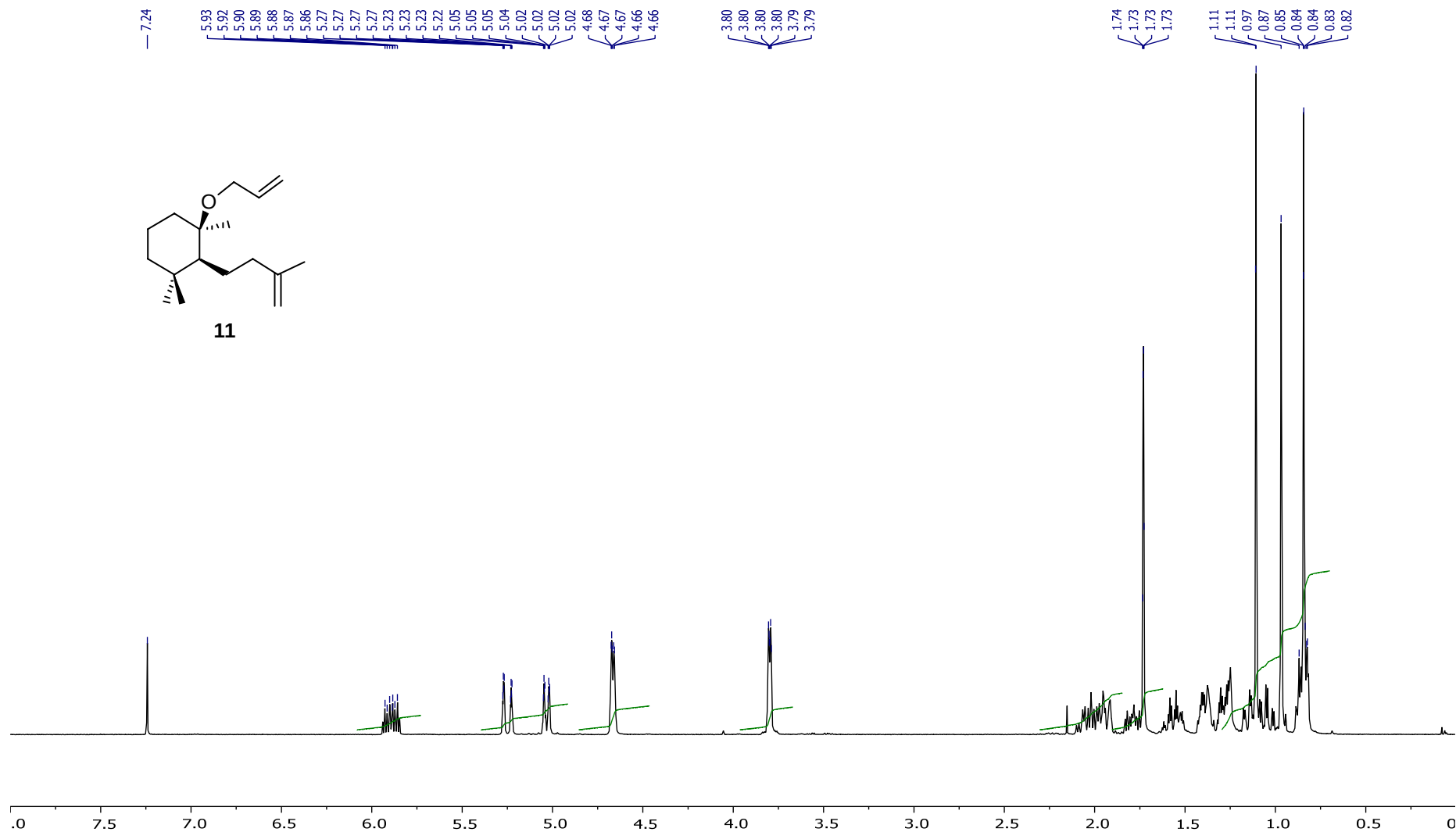


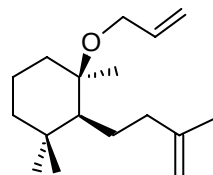
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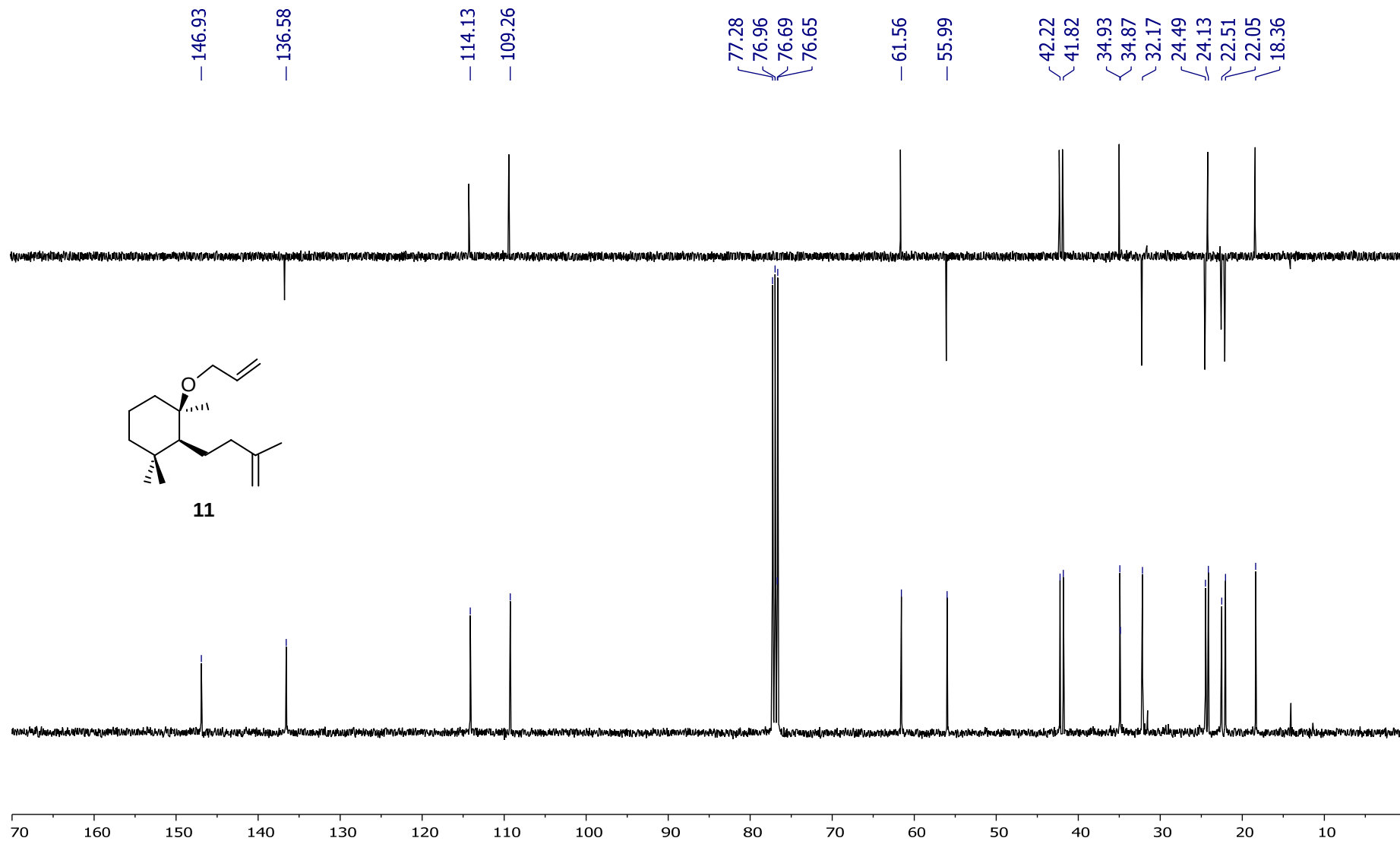


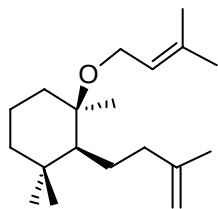
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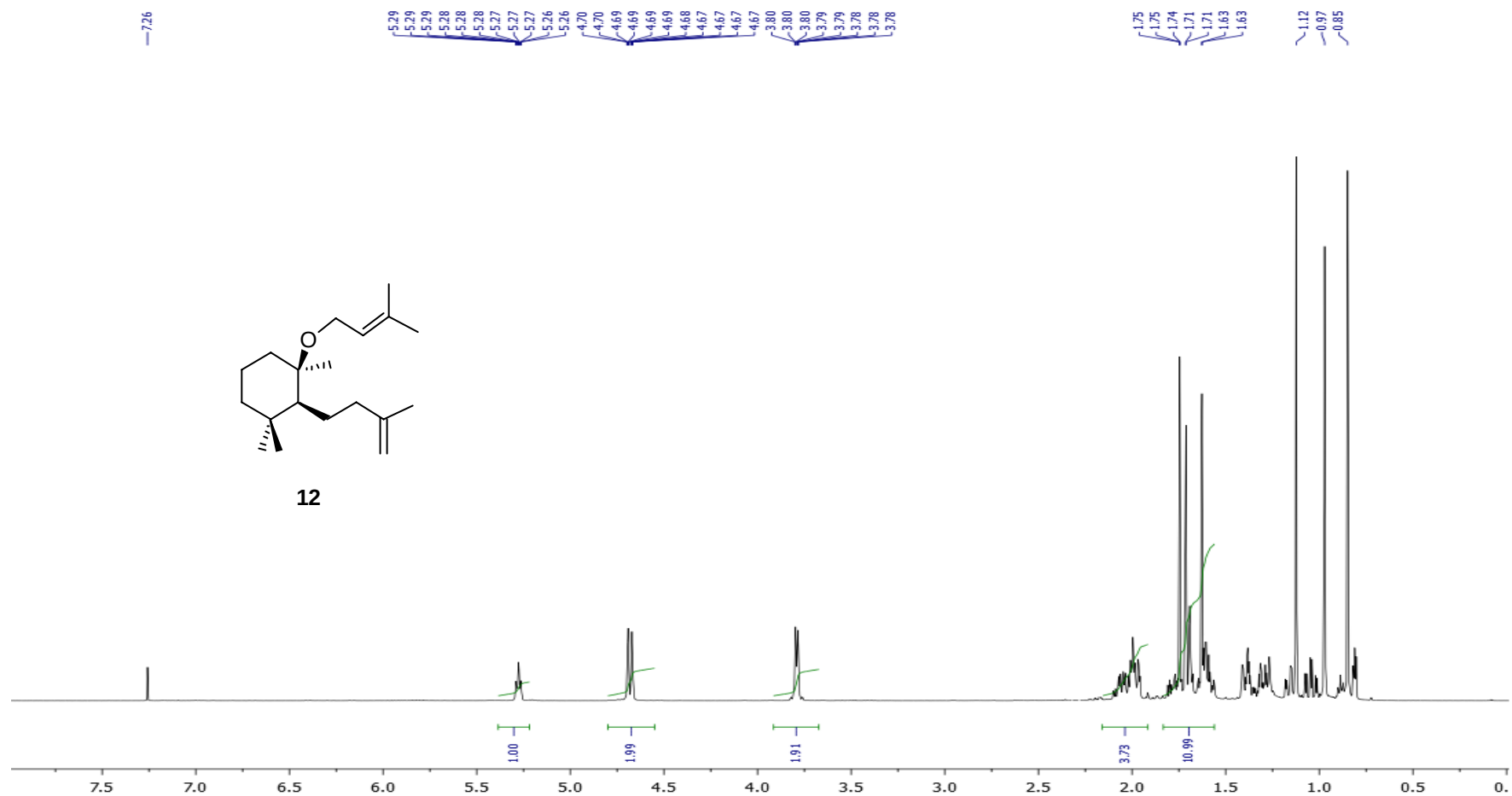


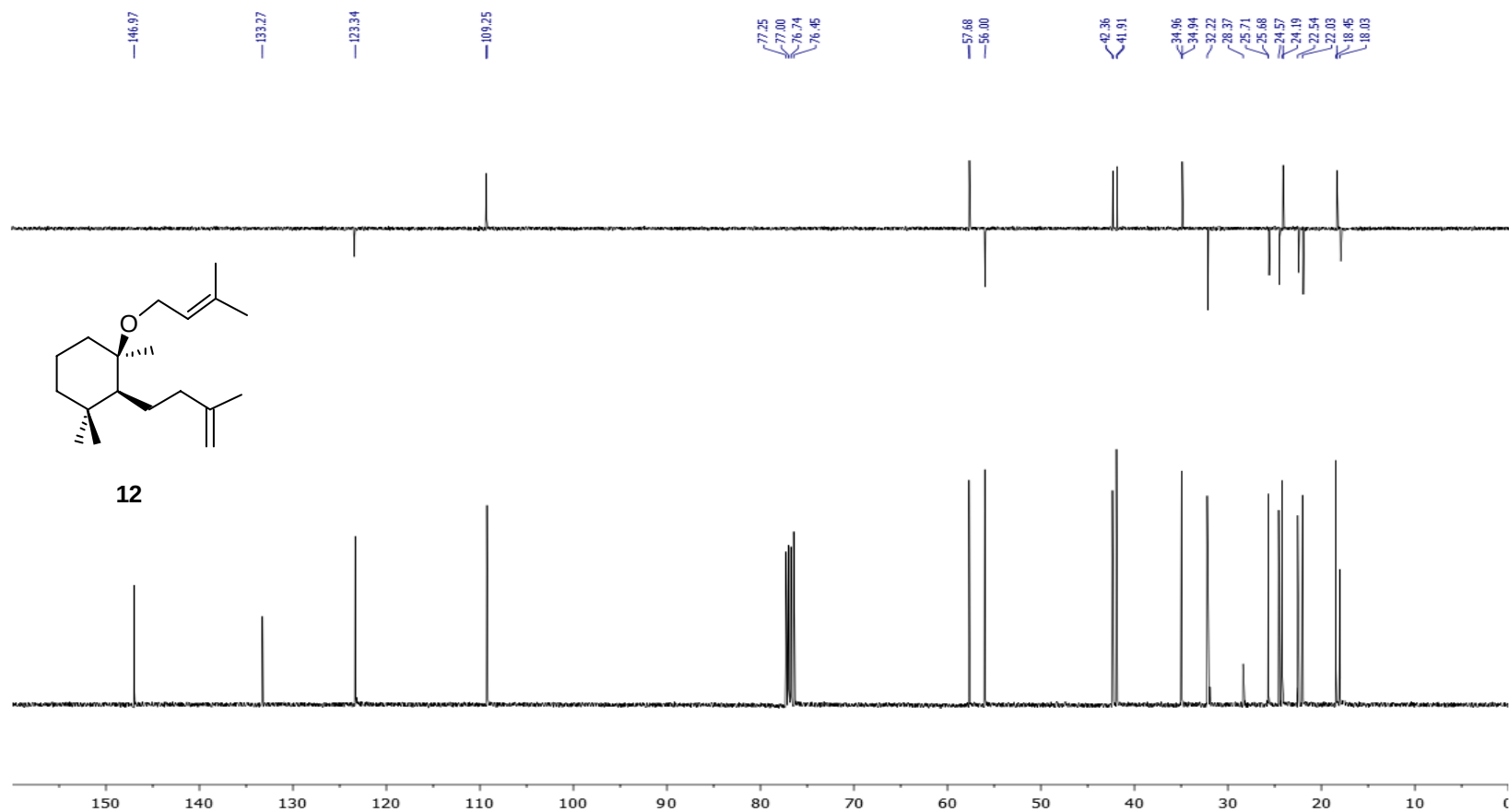
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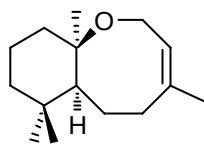




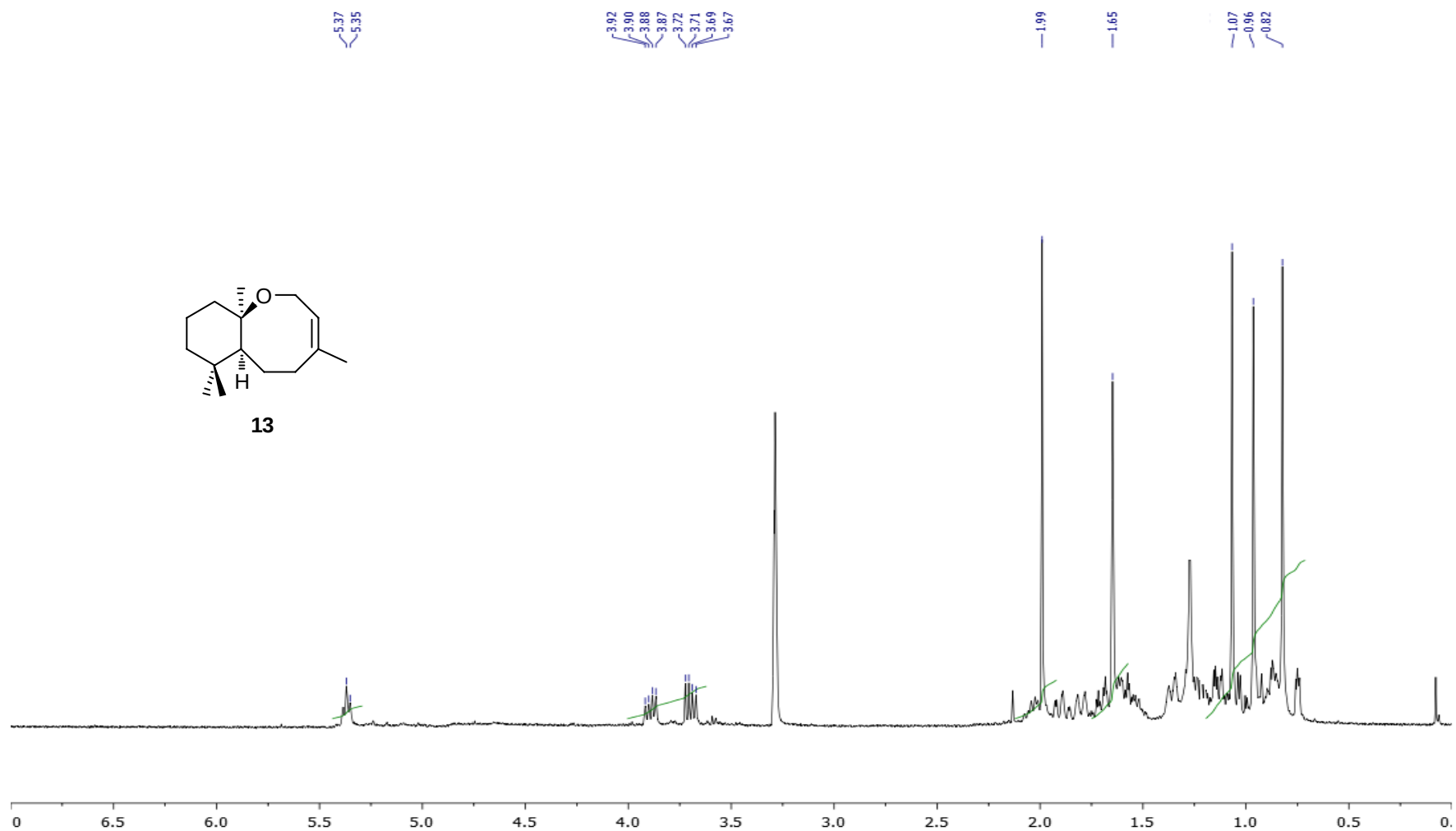
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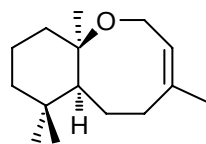




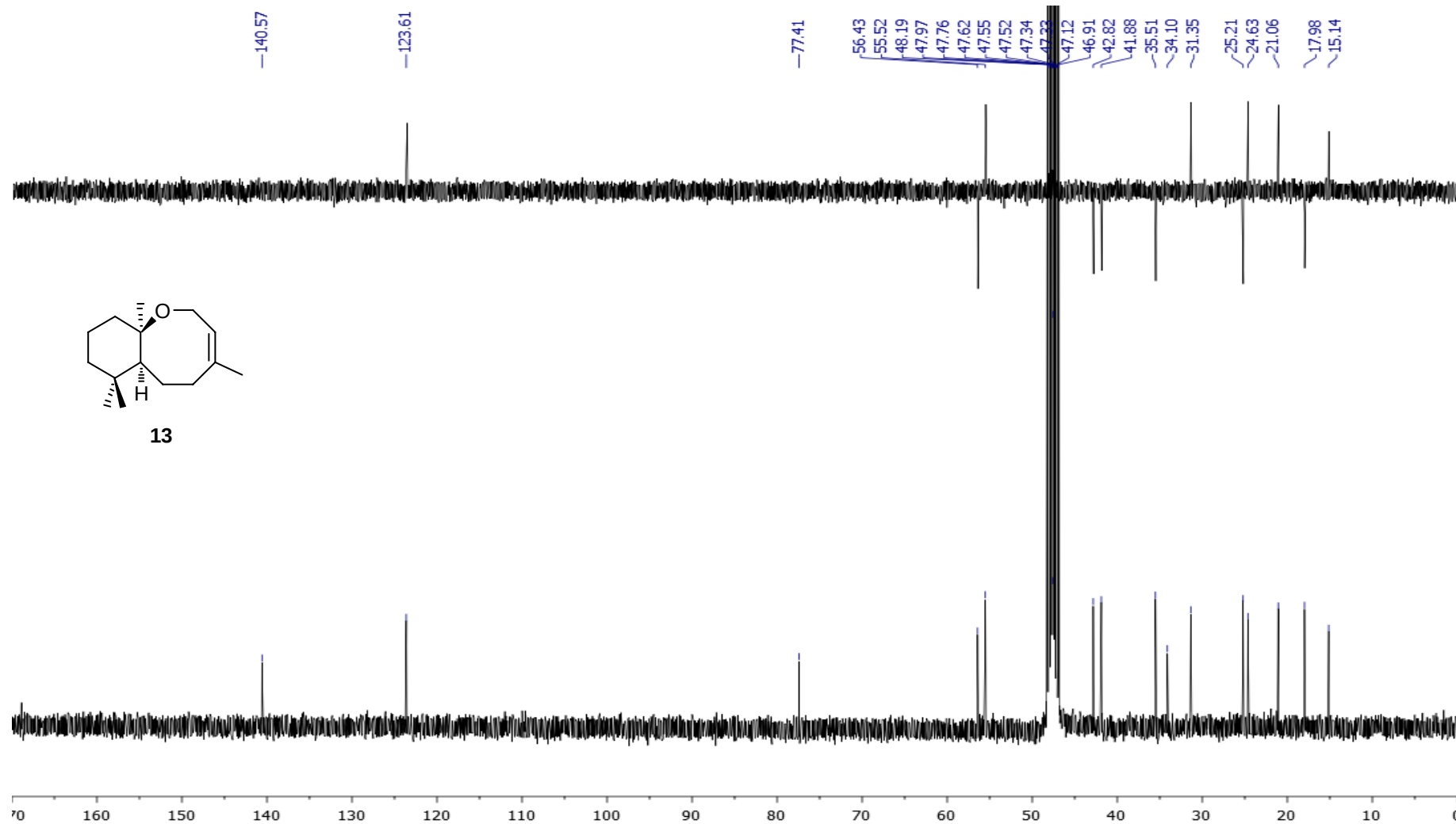


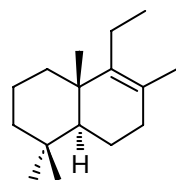
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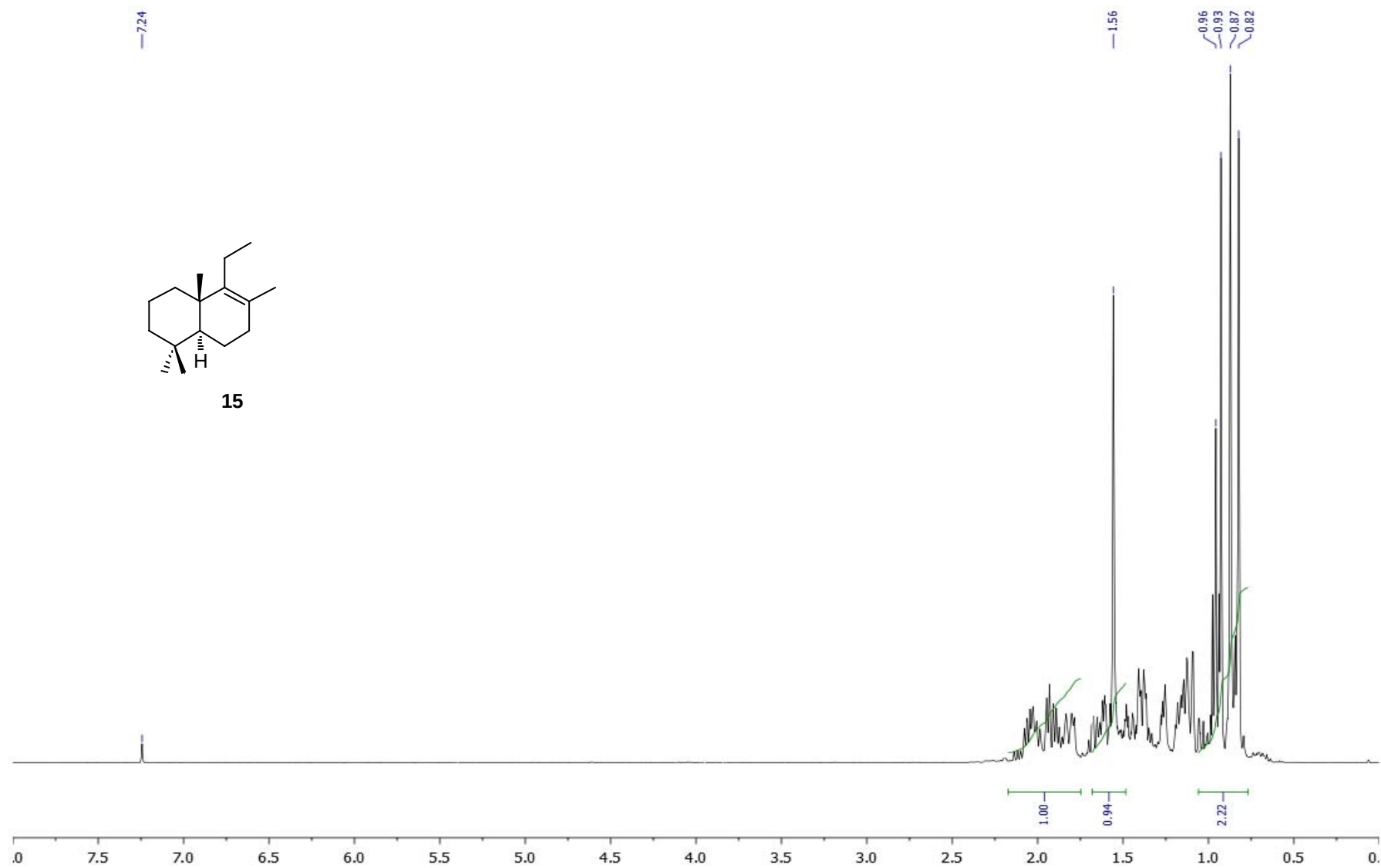


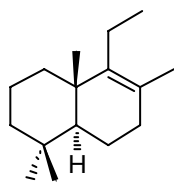
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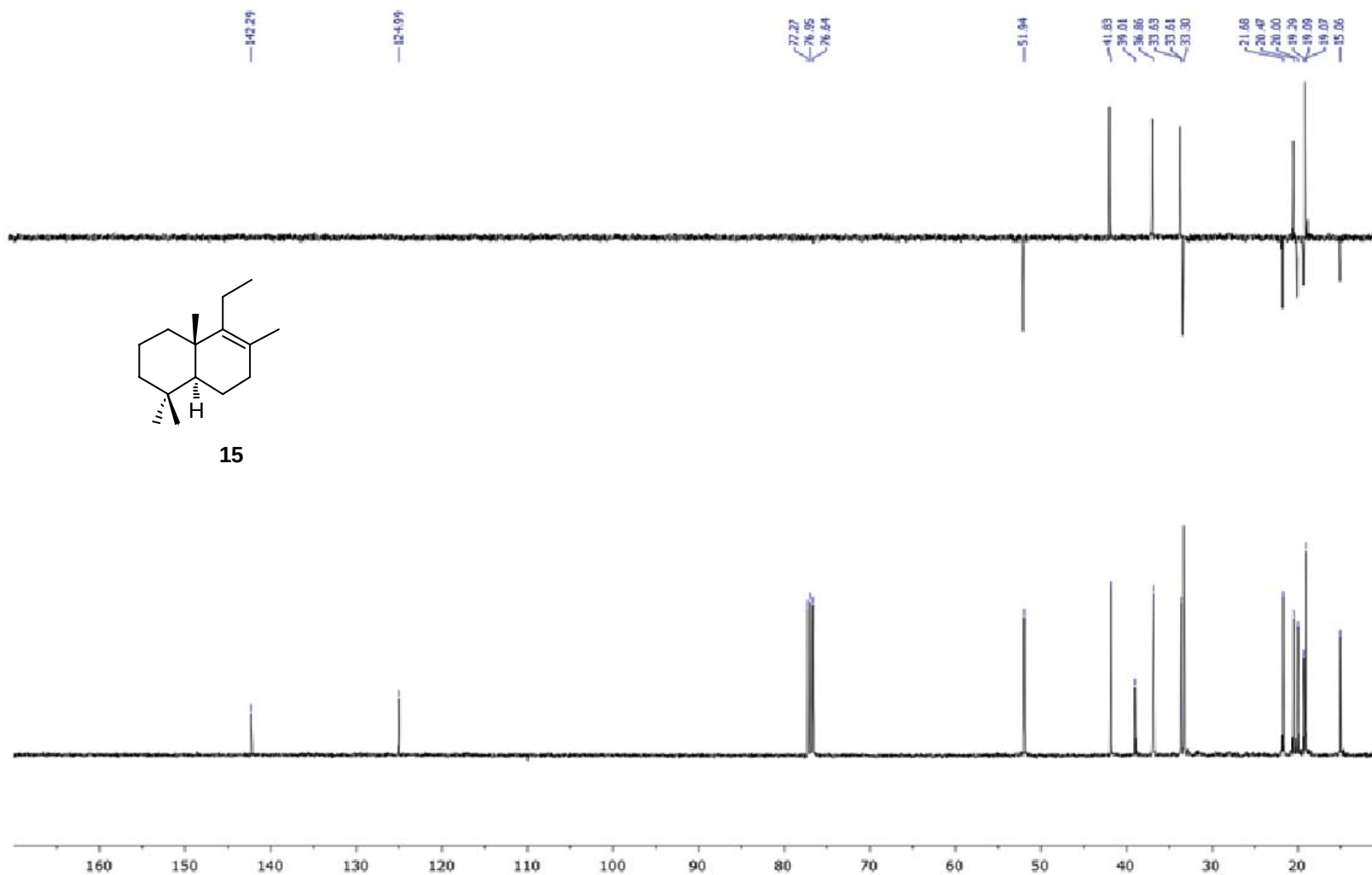


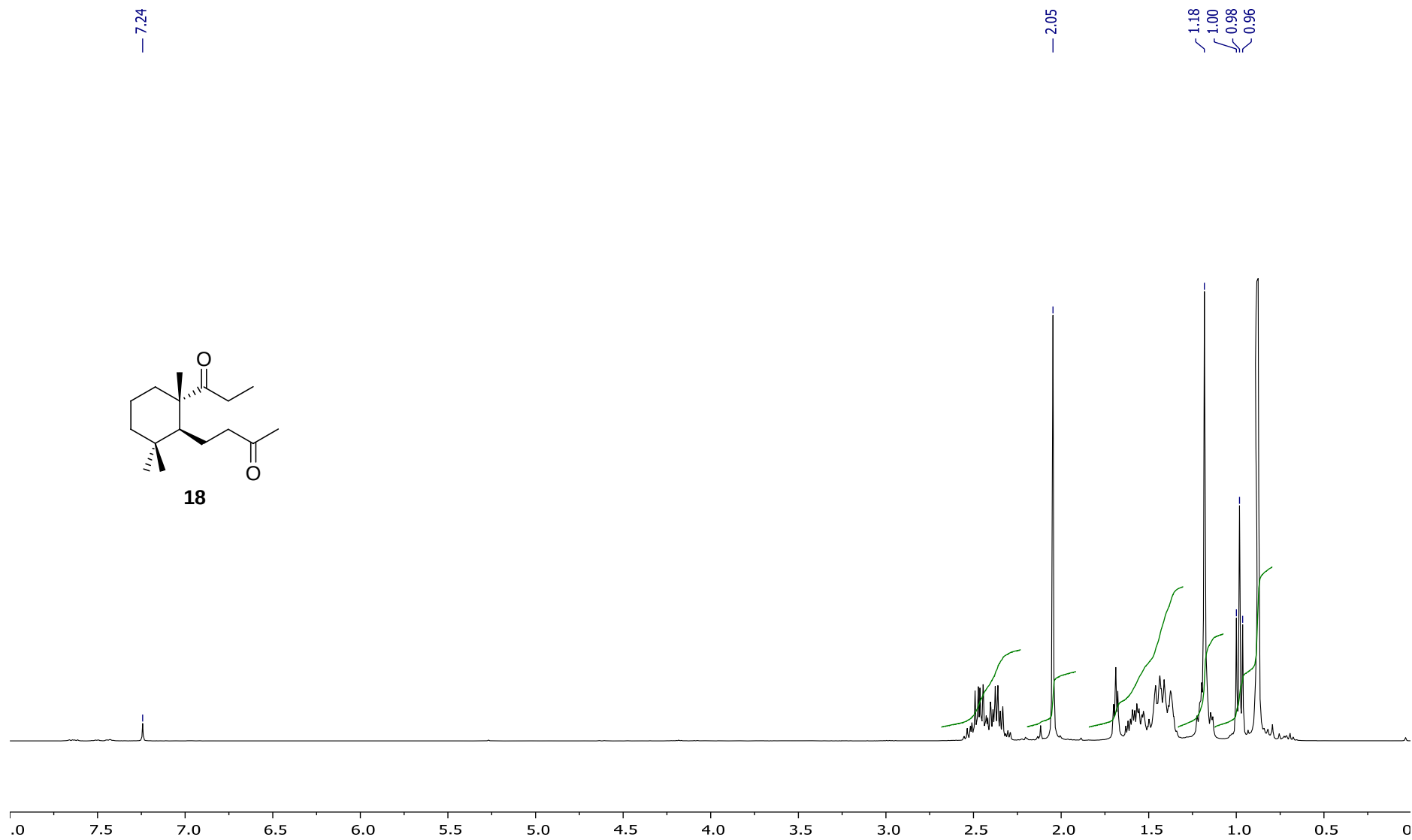
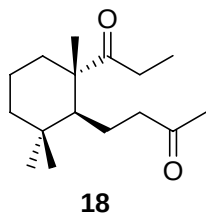
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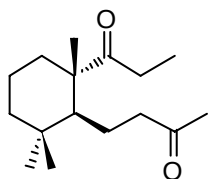




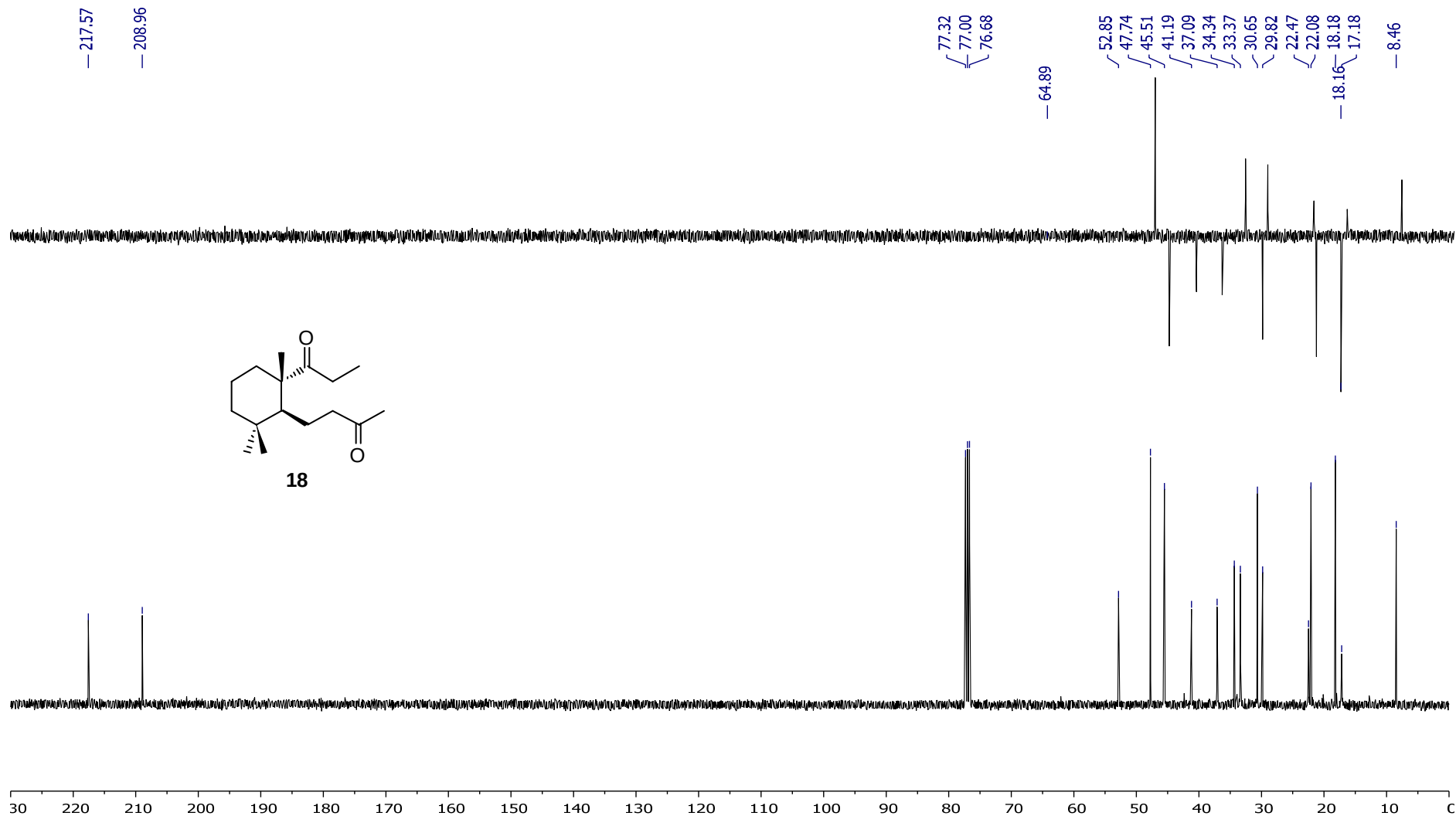
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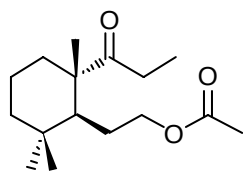




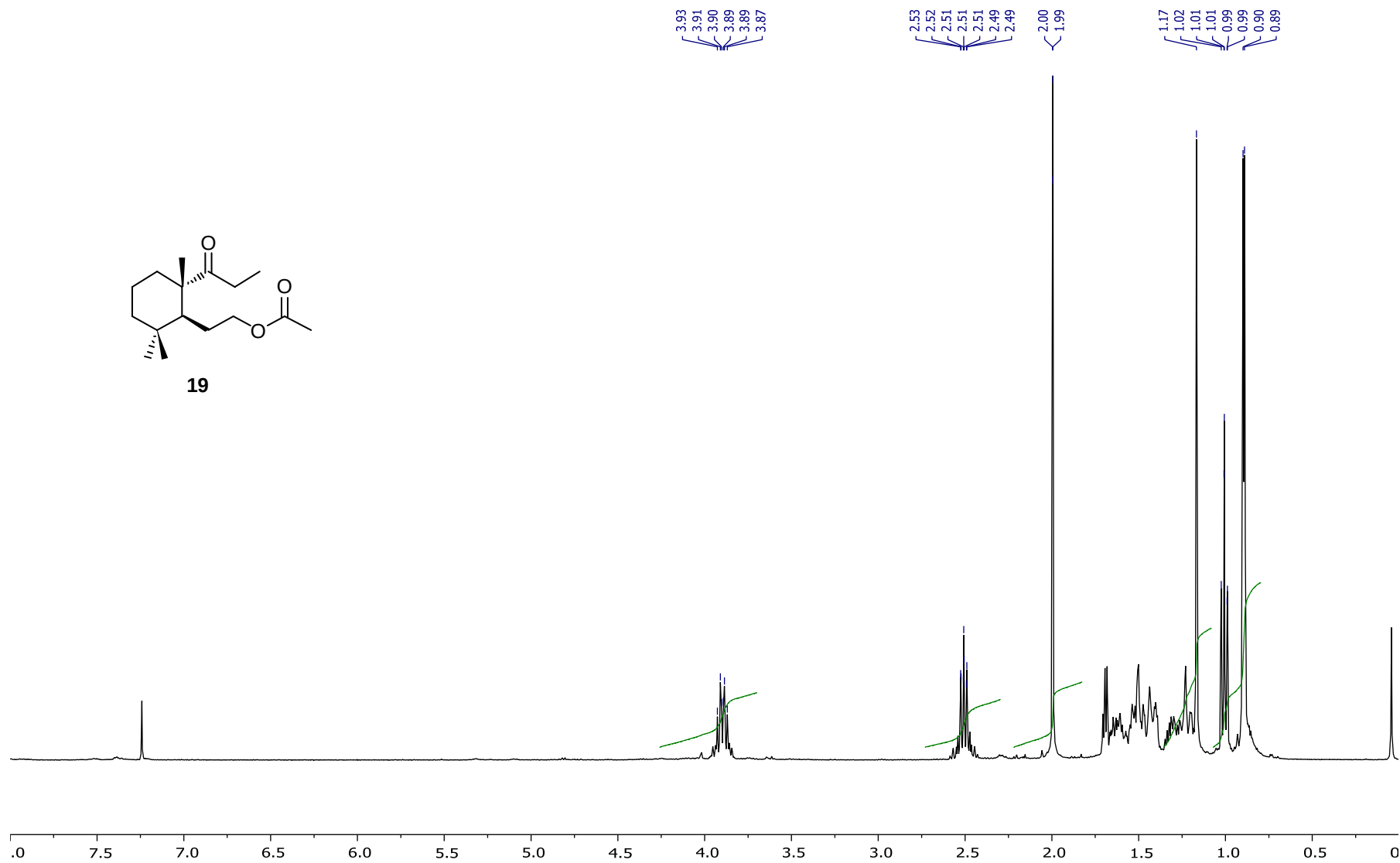


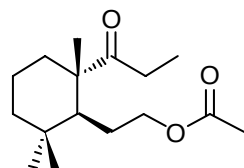
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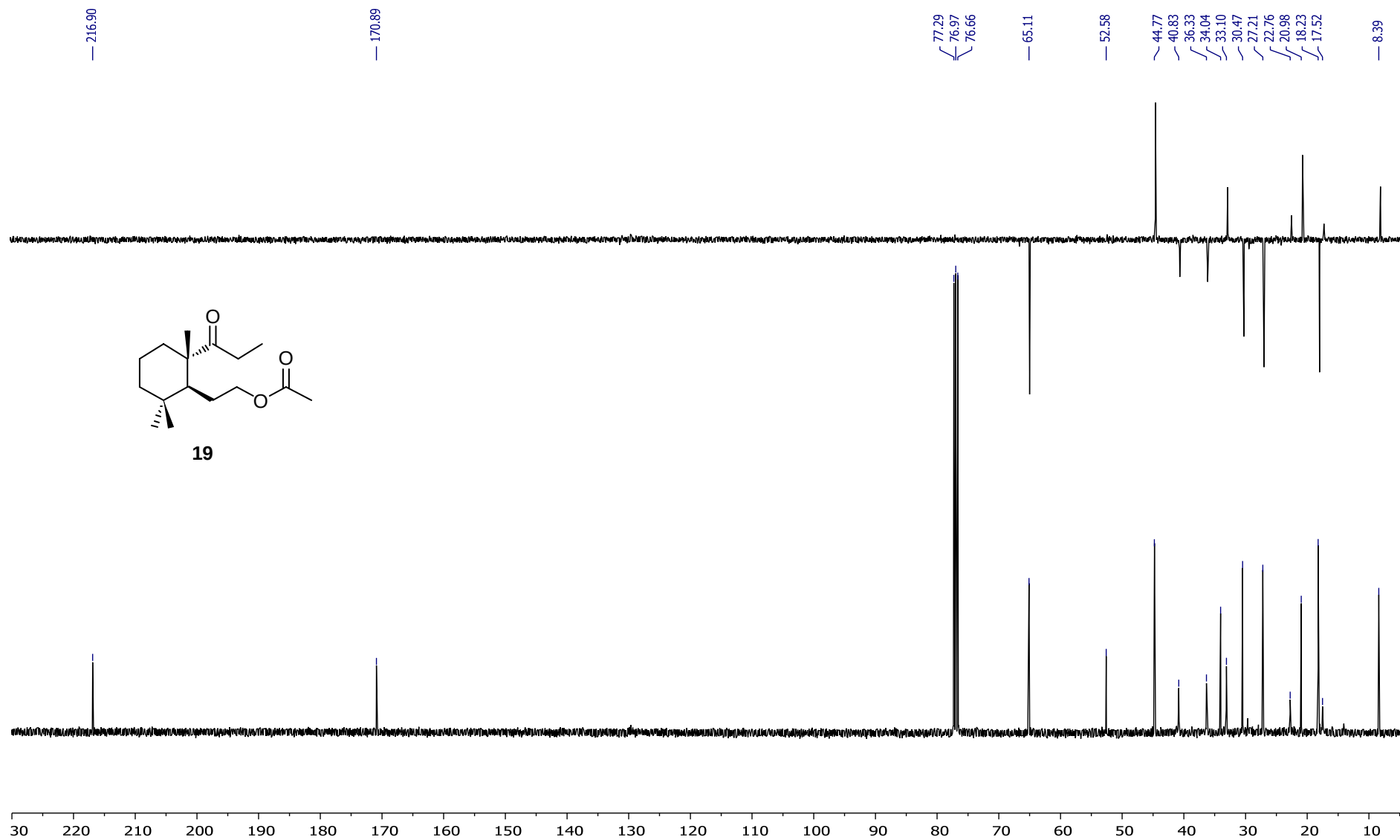


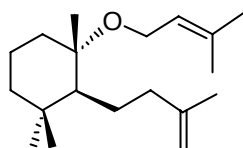
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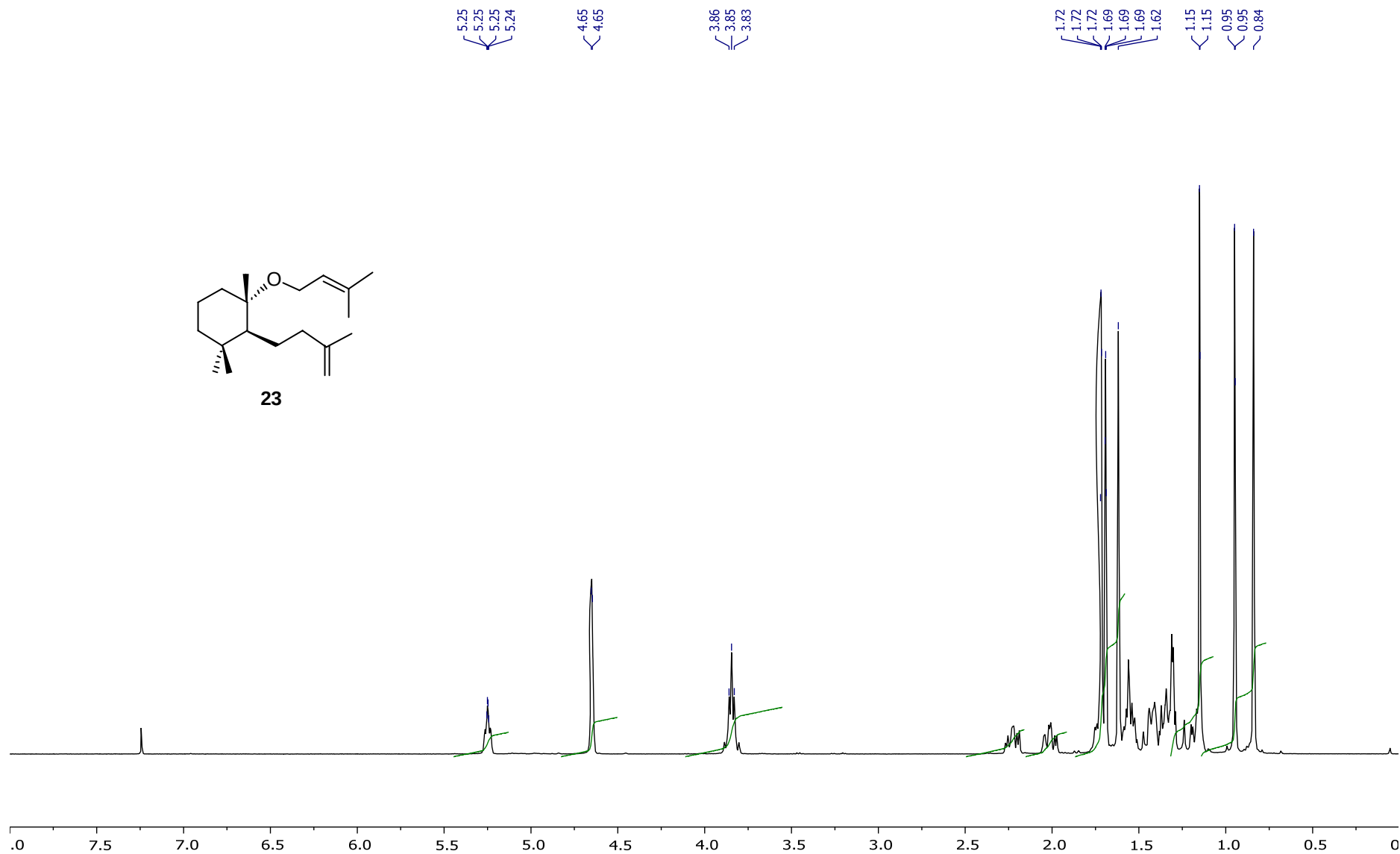


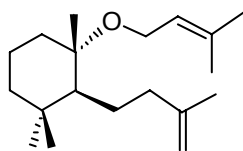
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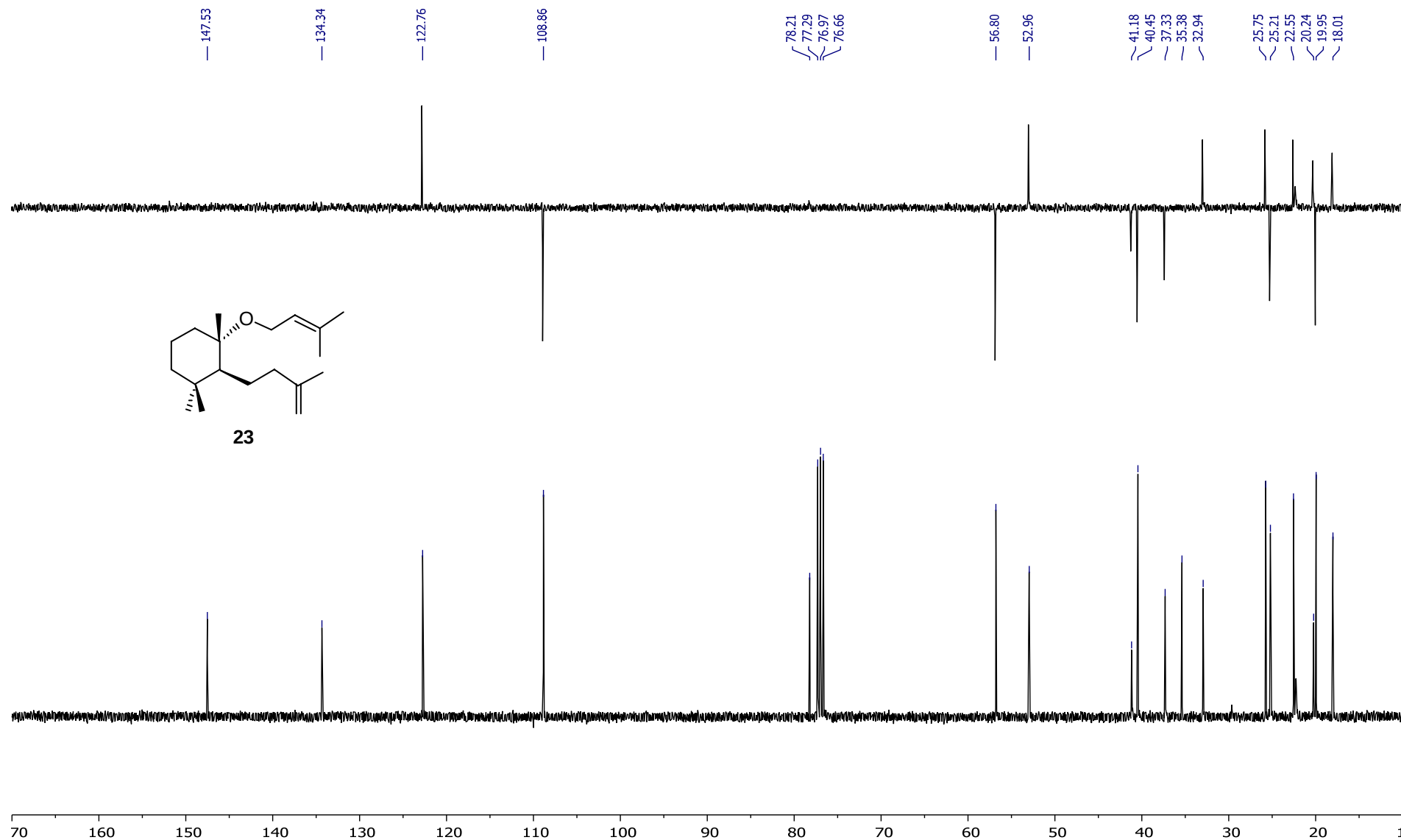


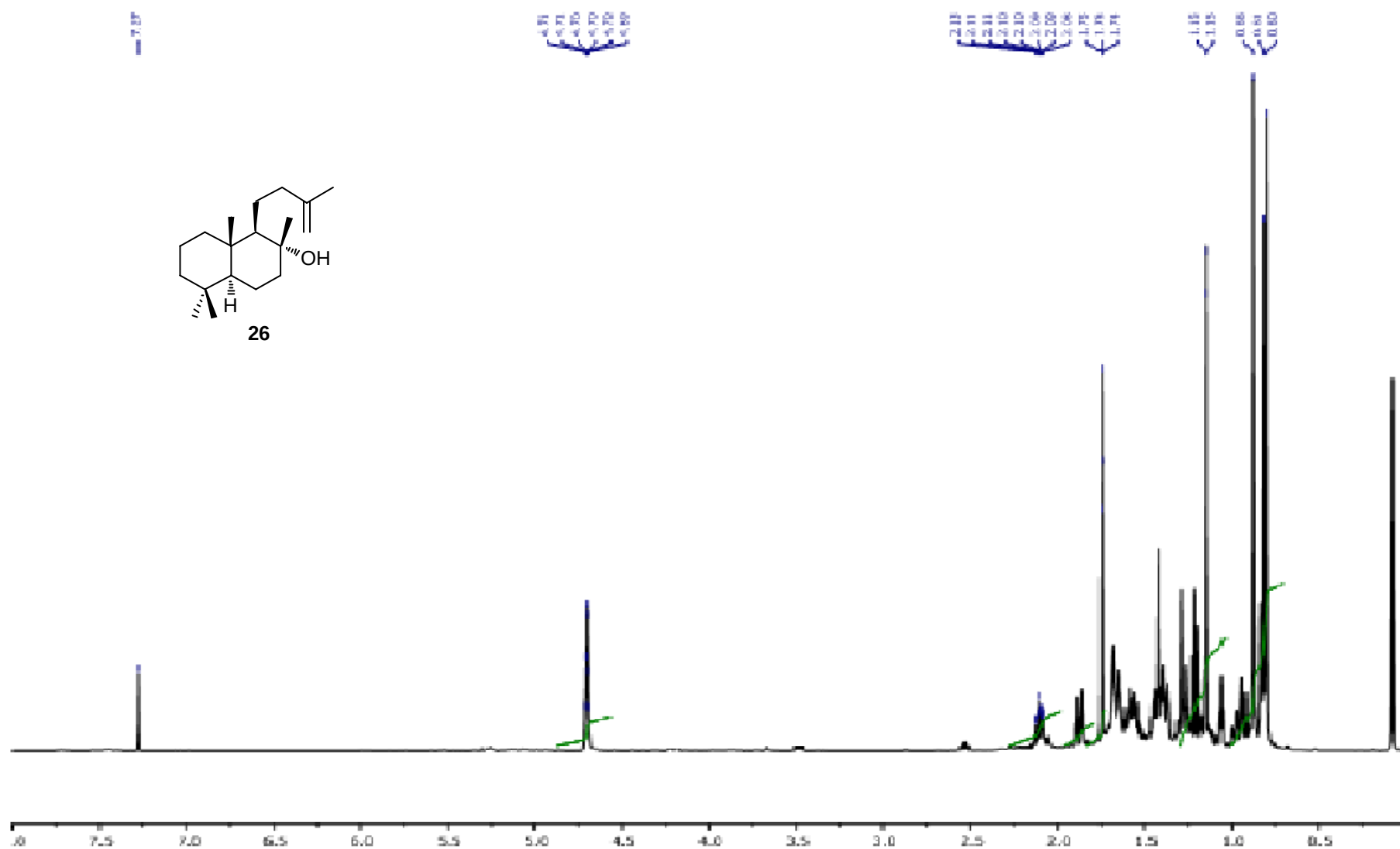
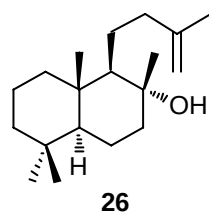
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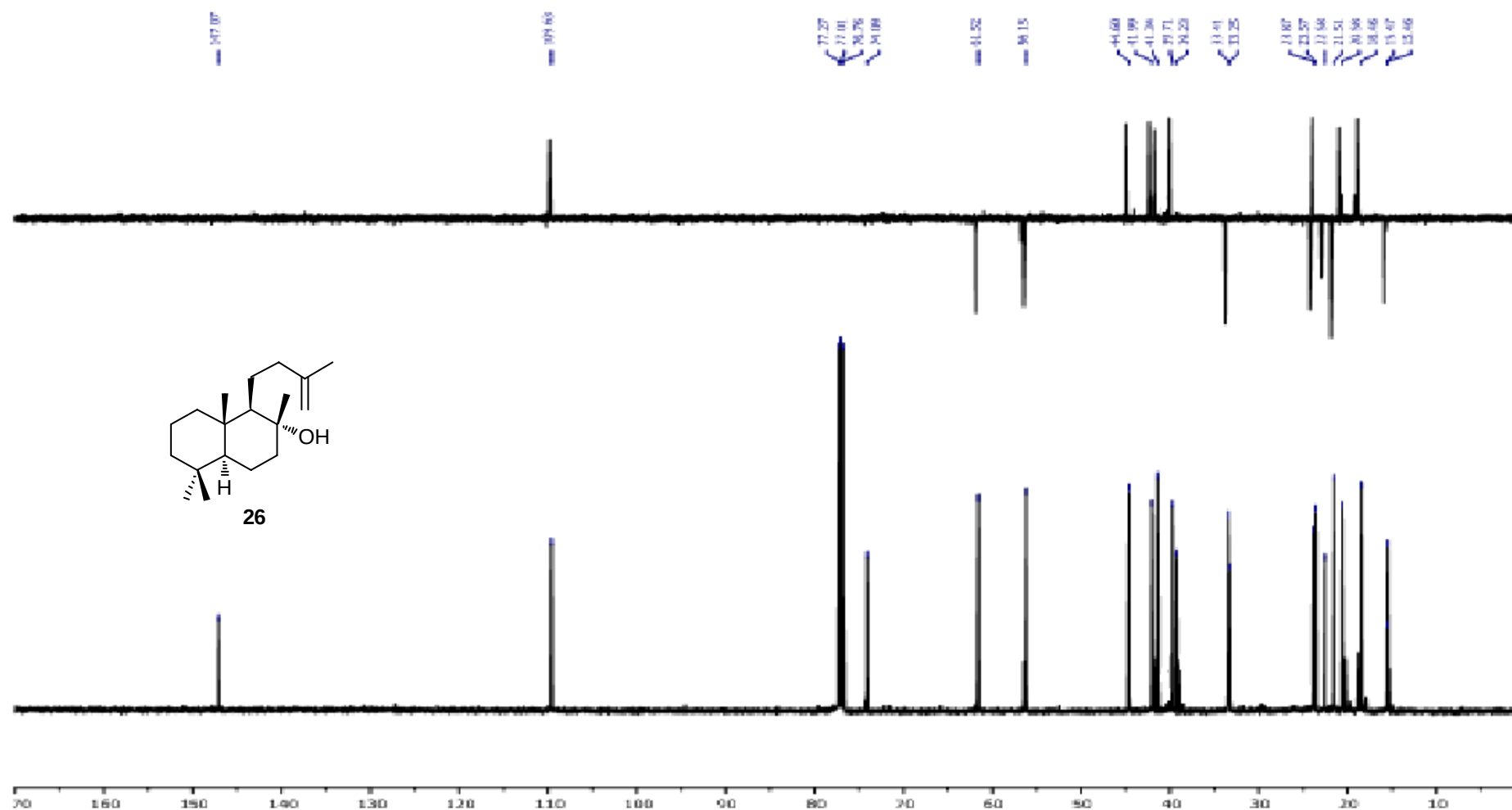
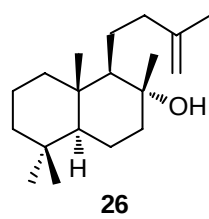


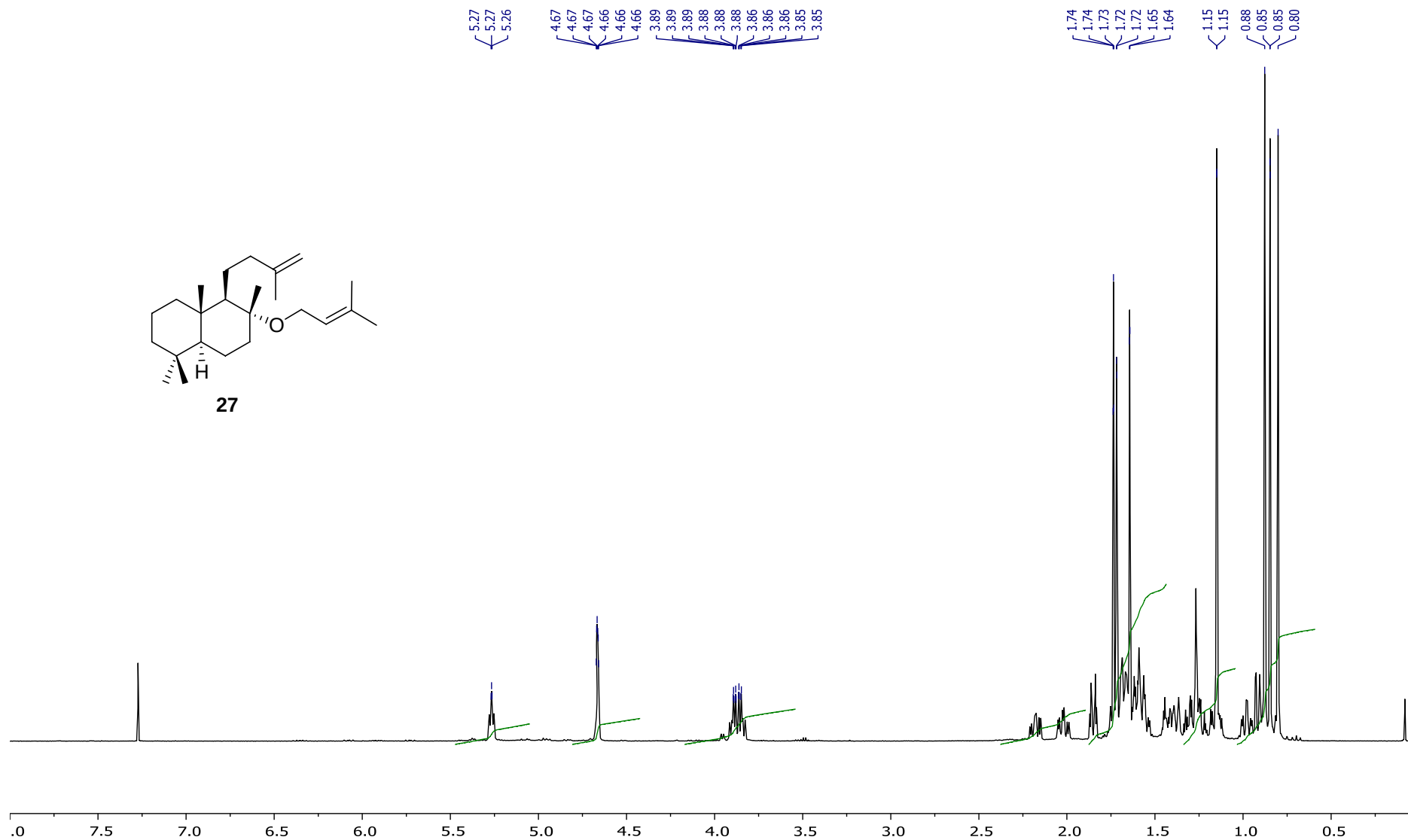
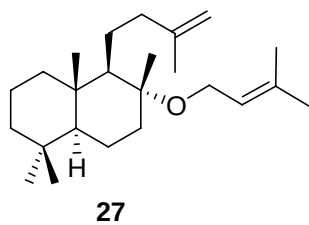


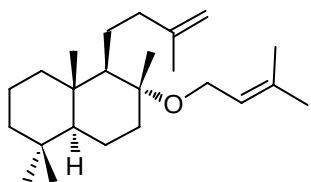
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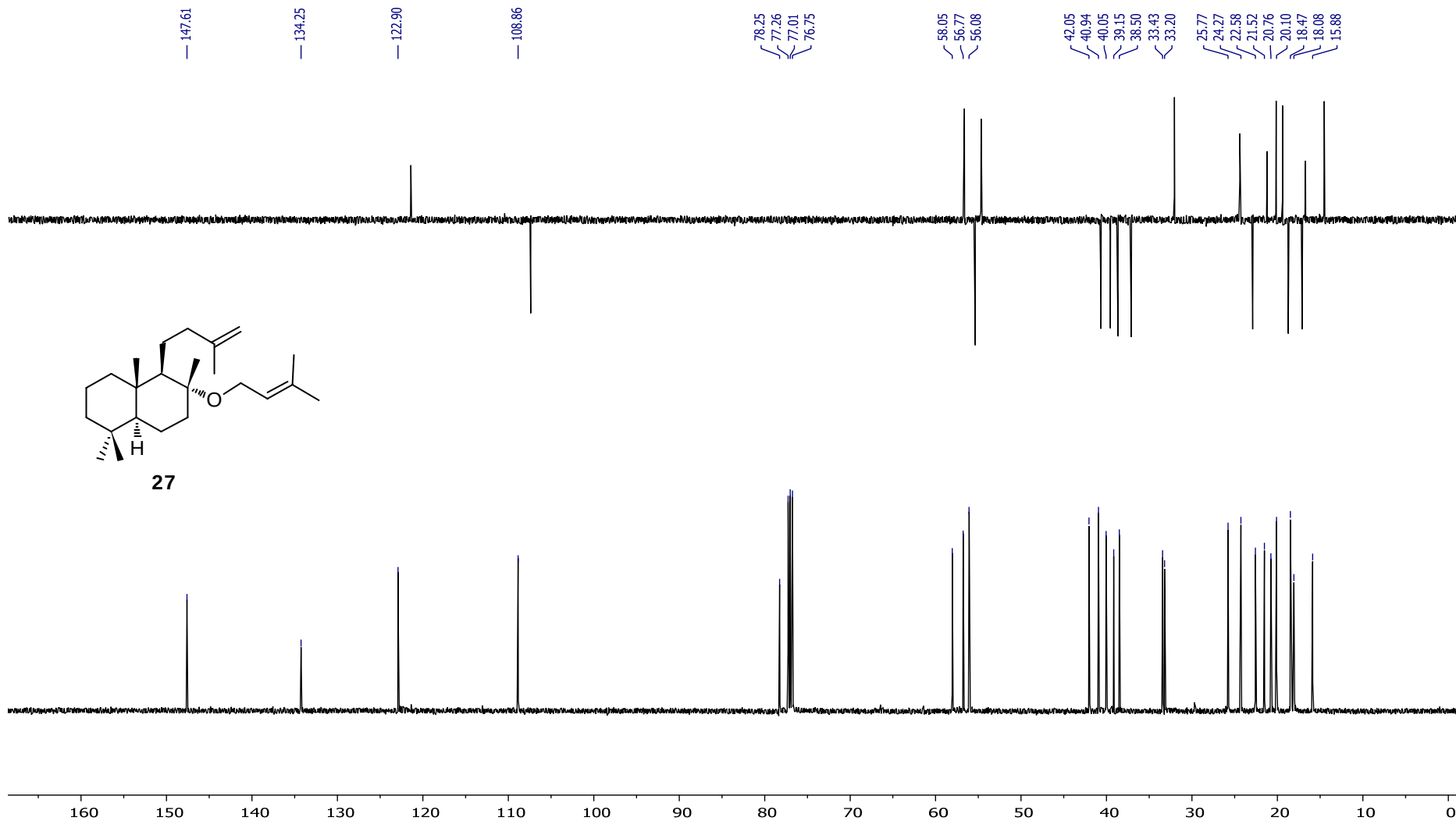


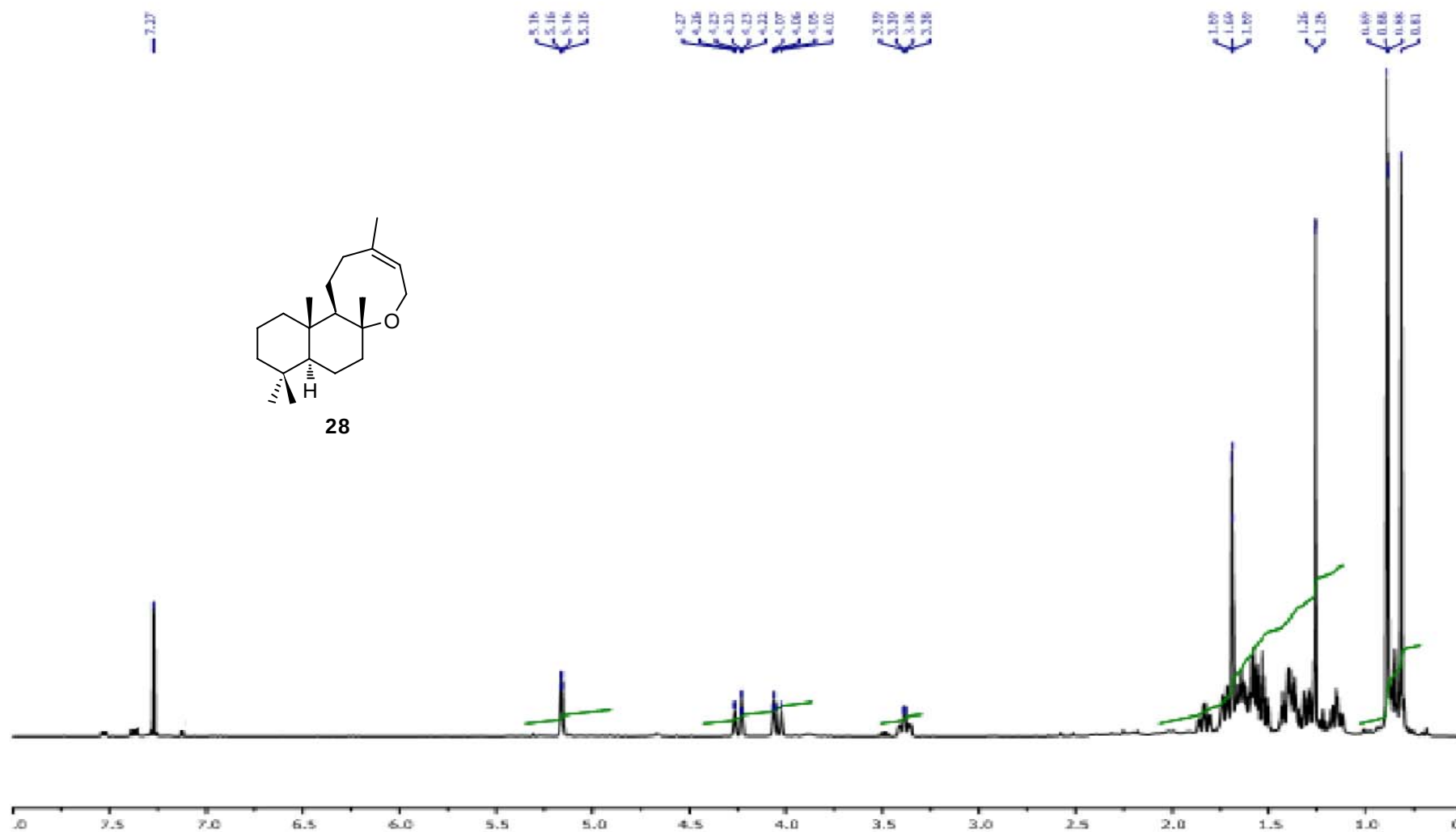
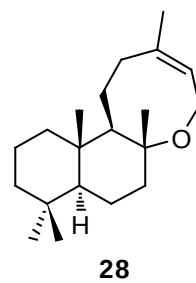


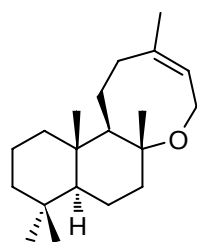




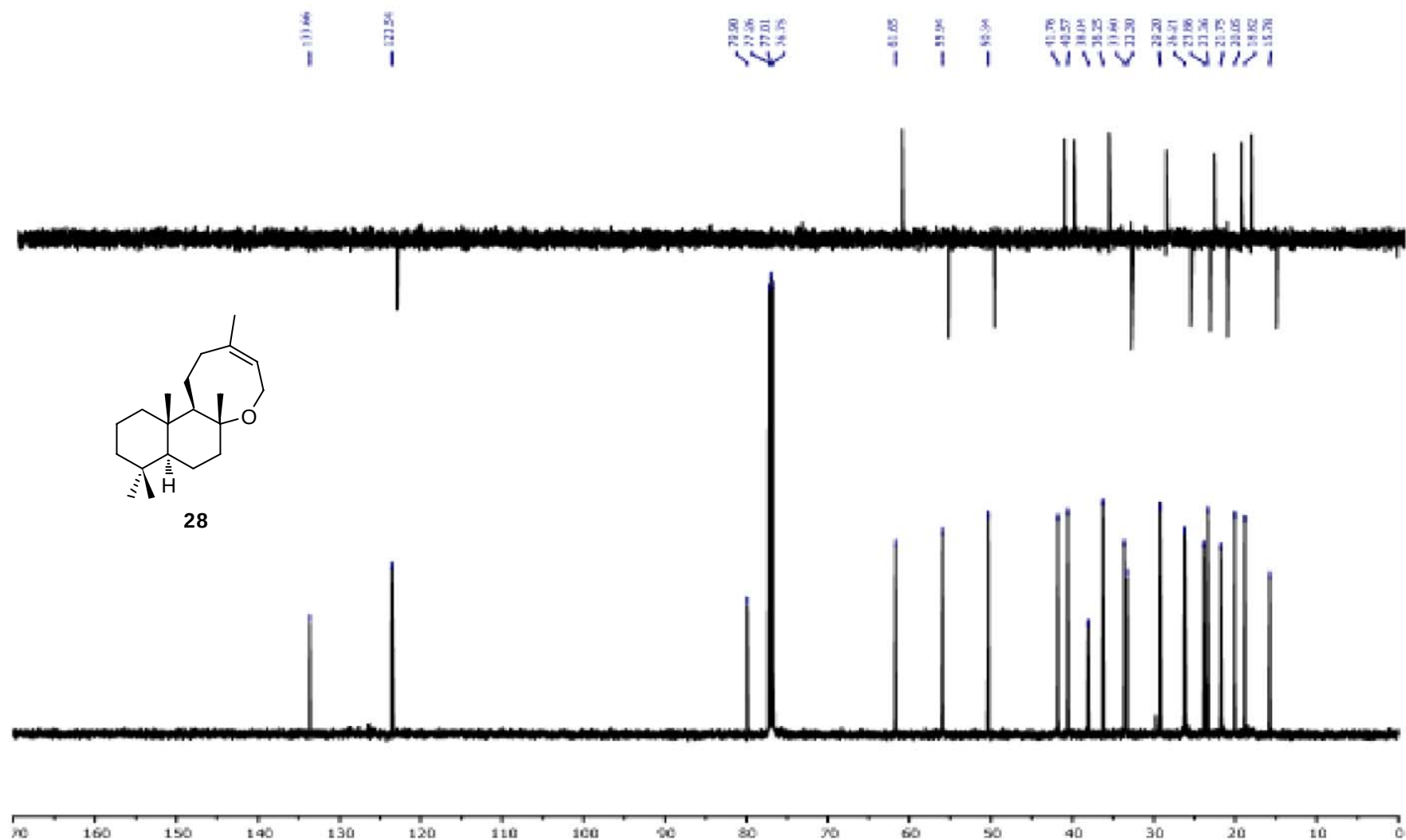
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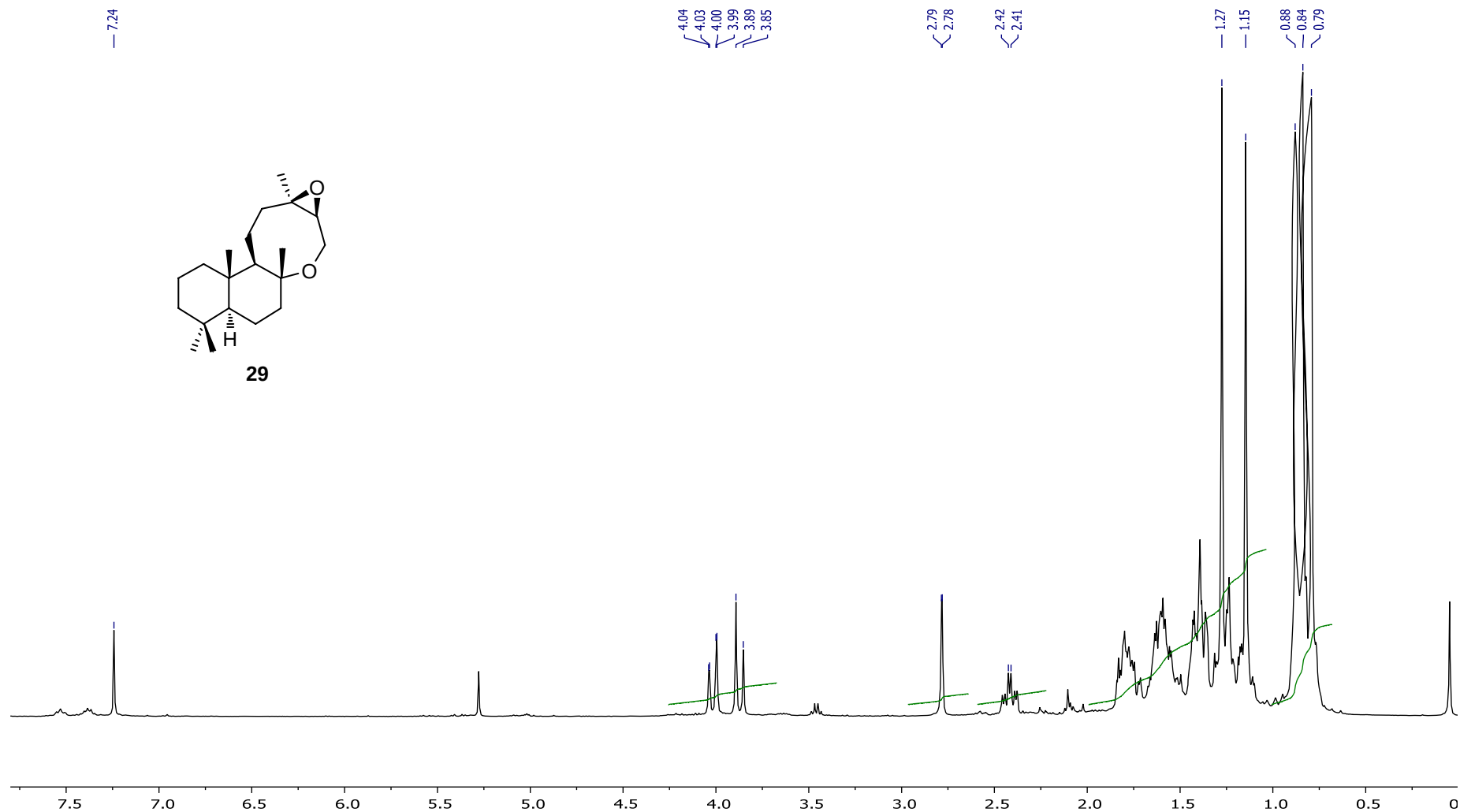
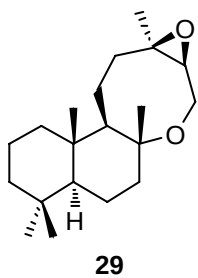


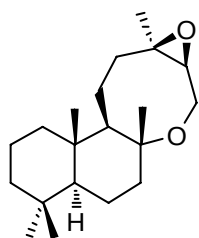




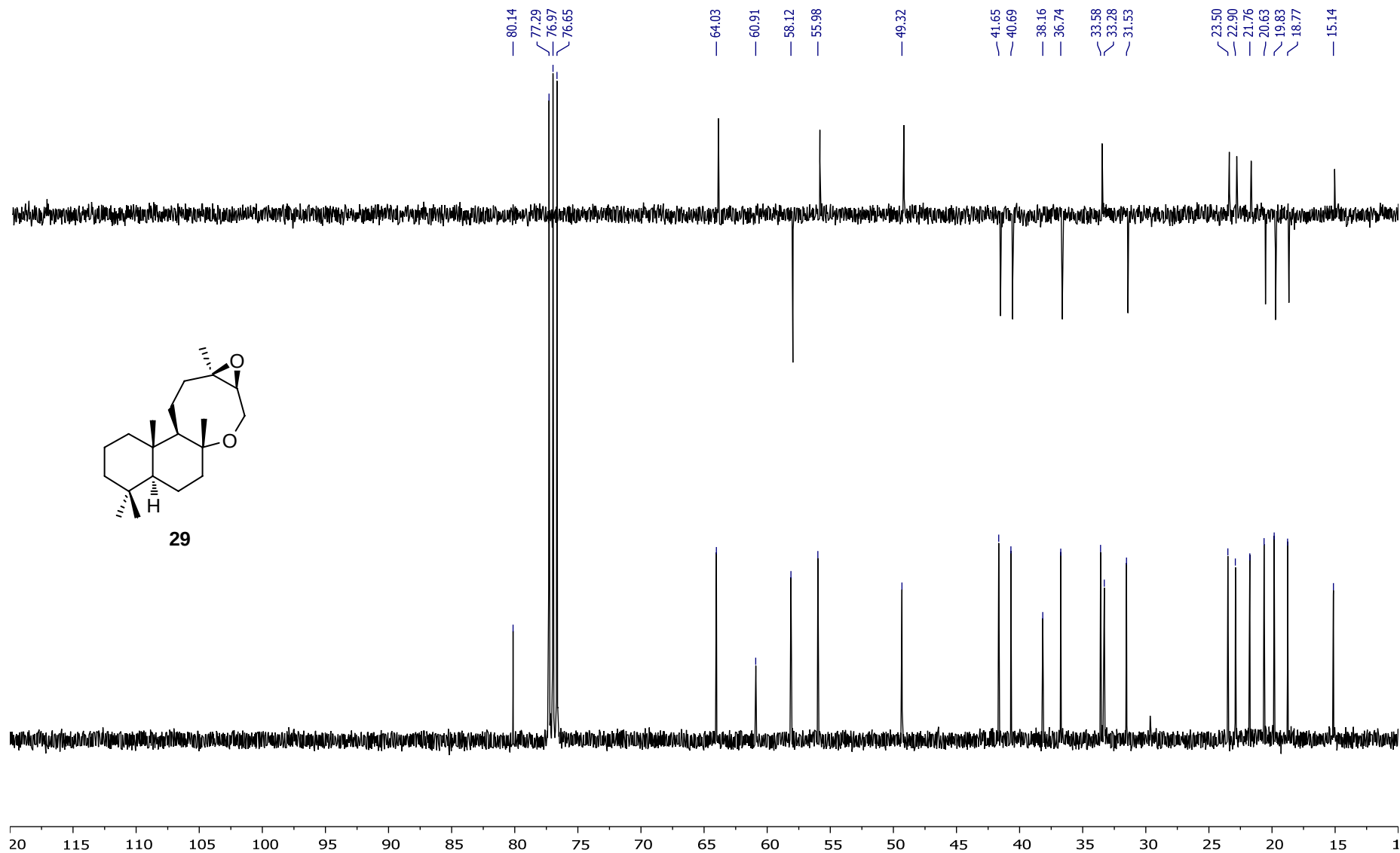
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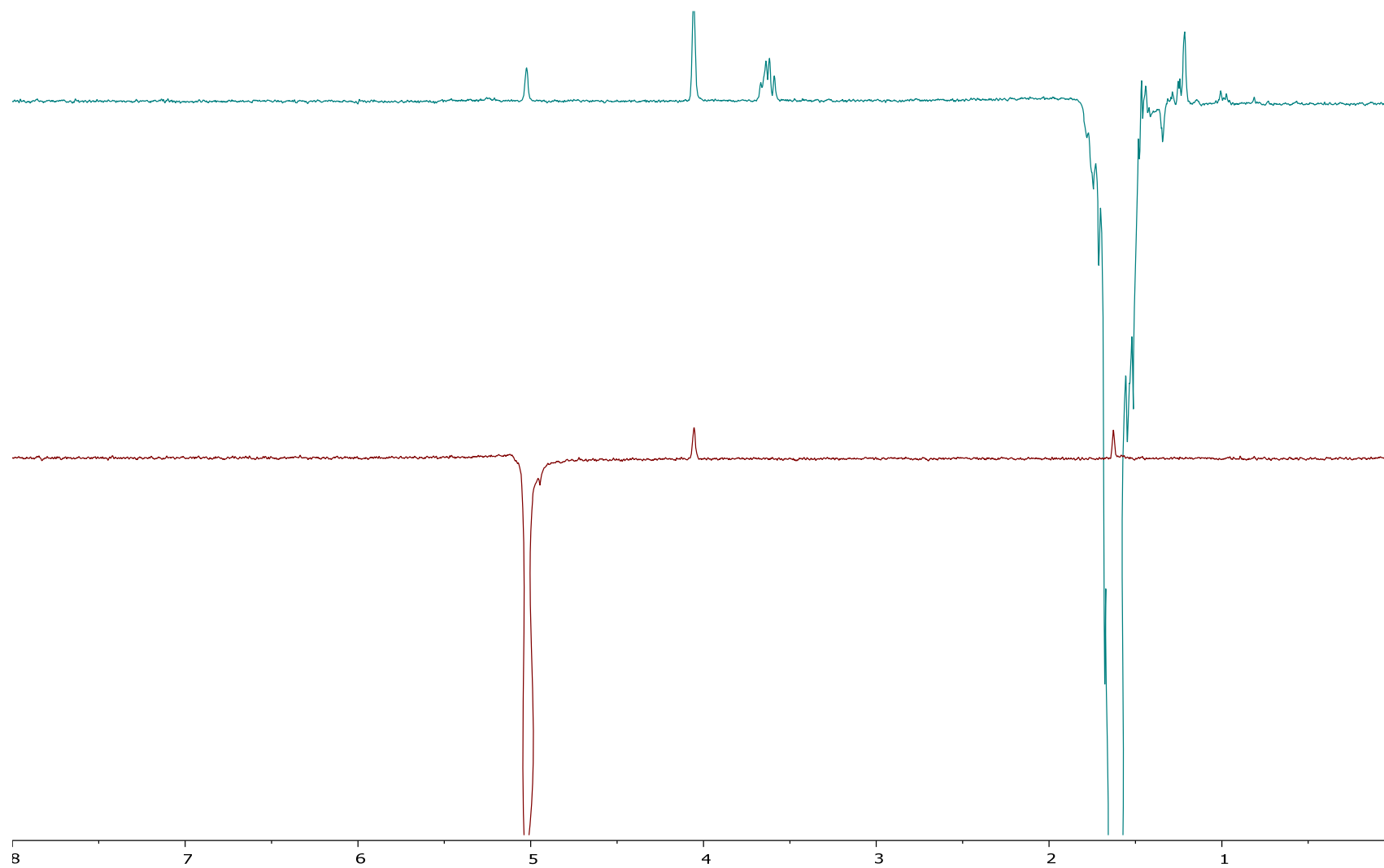






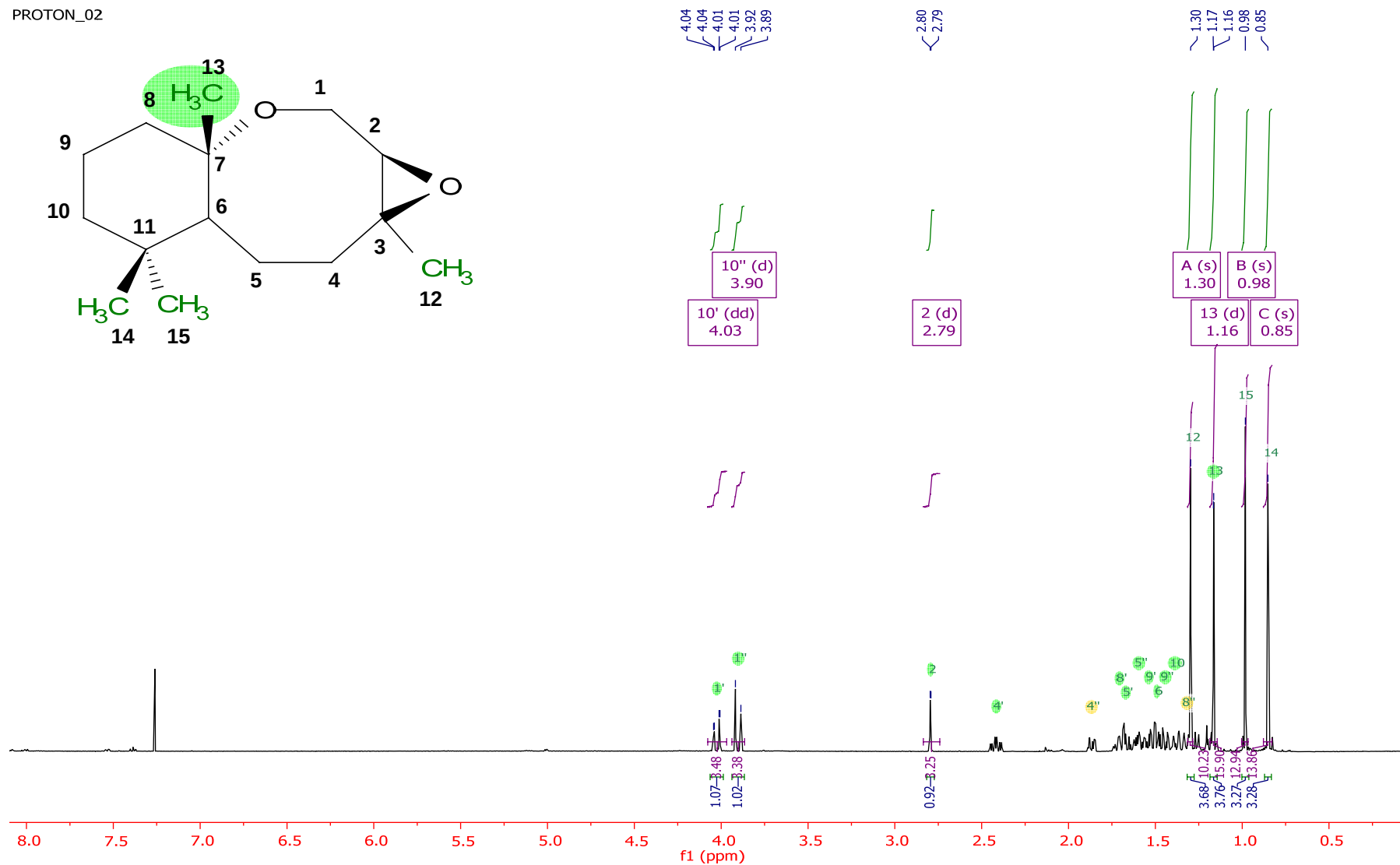
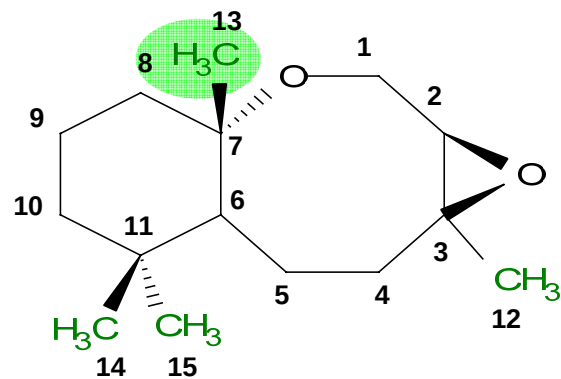
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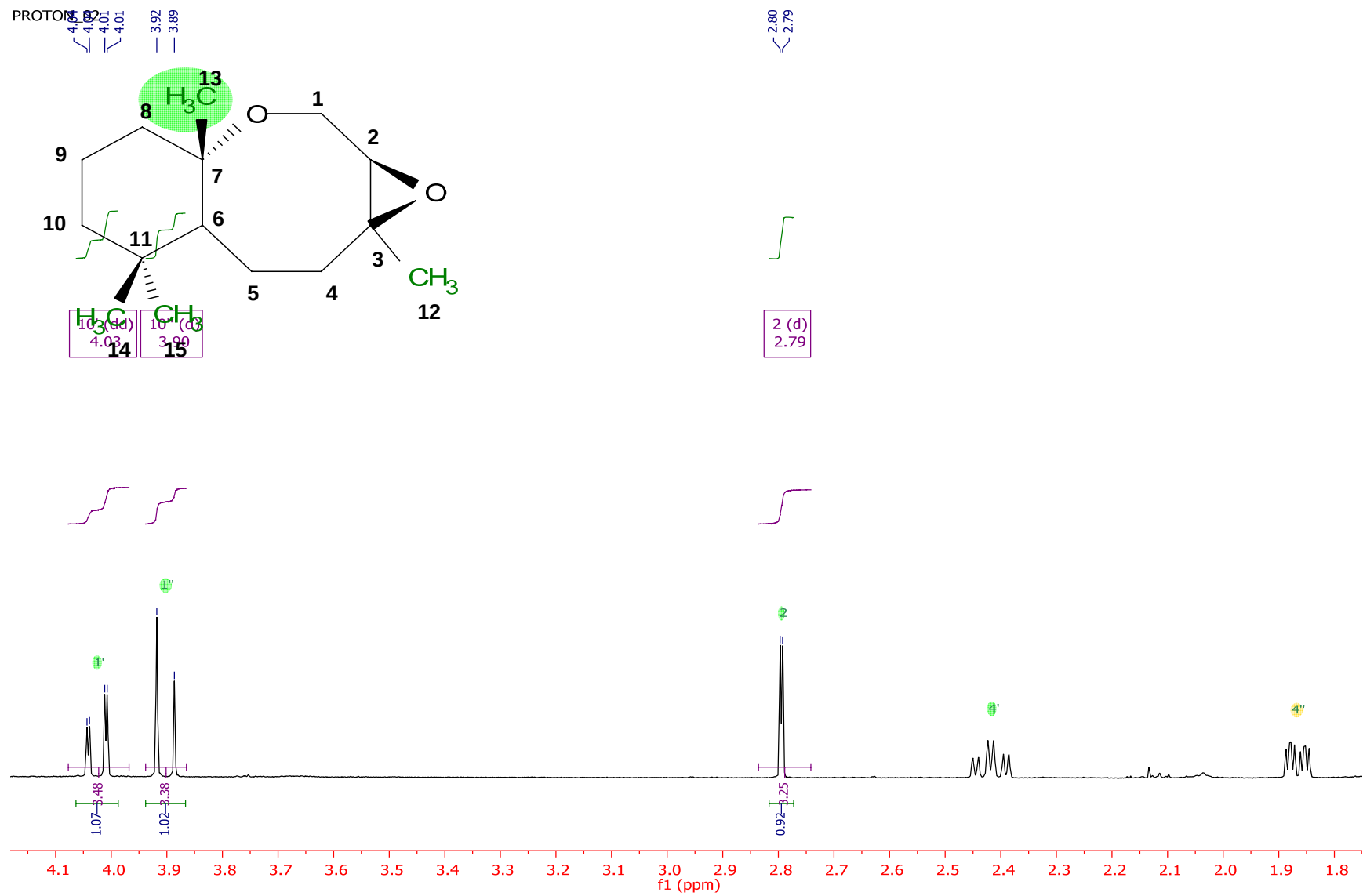




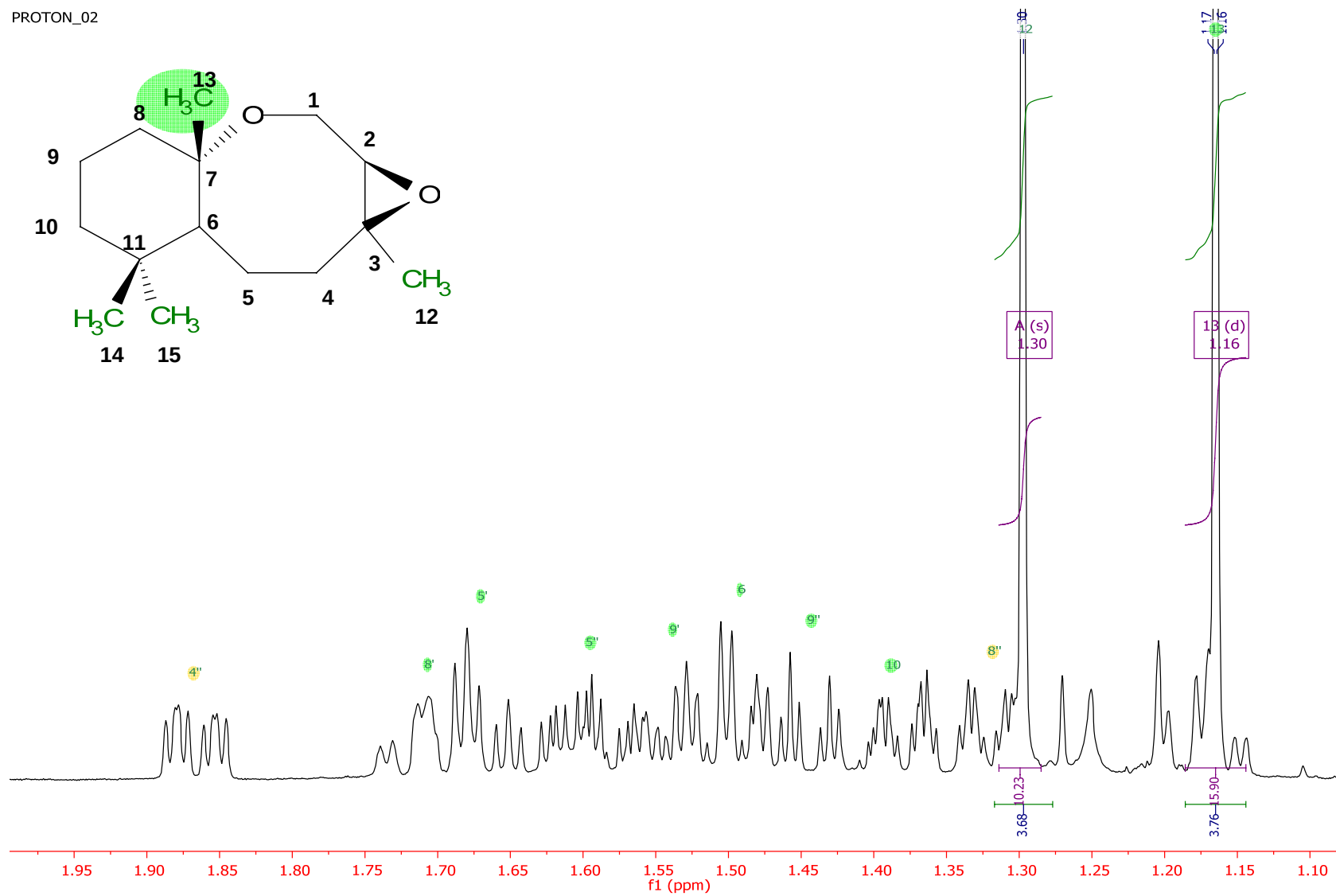
Select NOE of compound **1**

PROTON_02

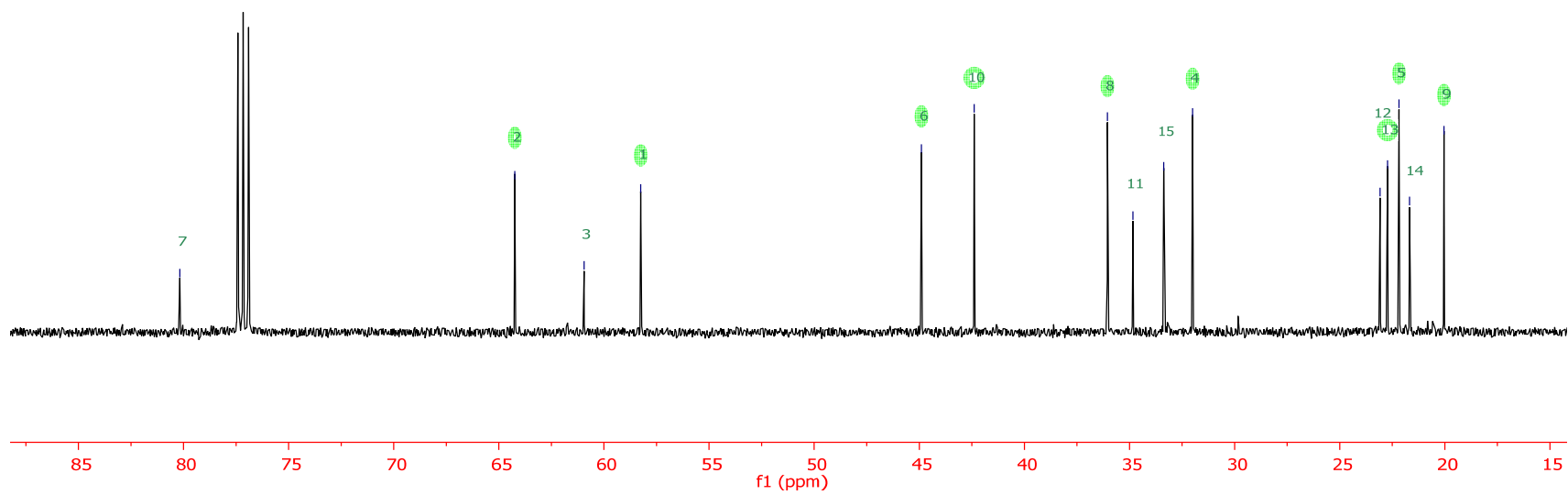
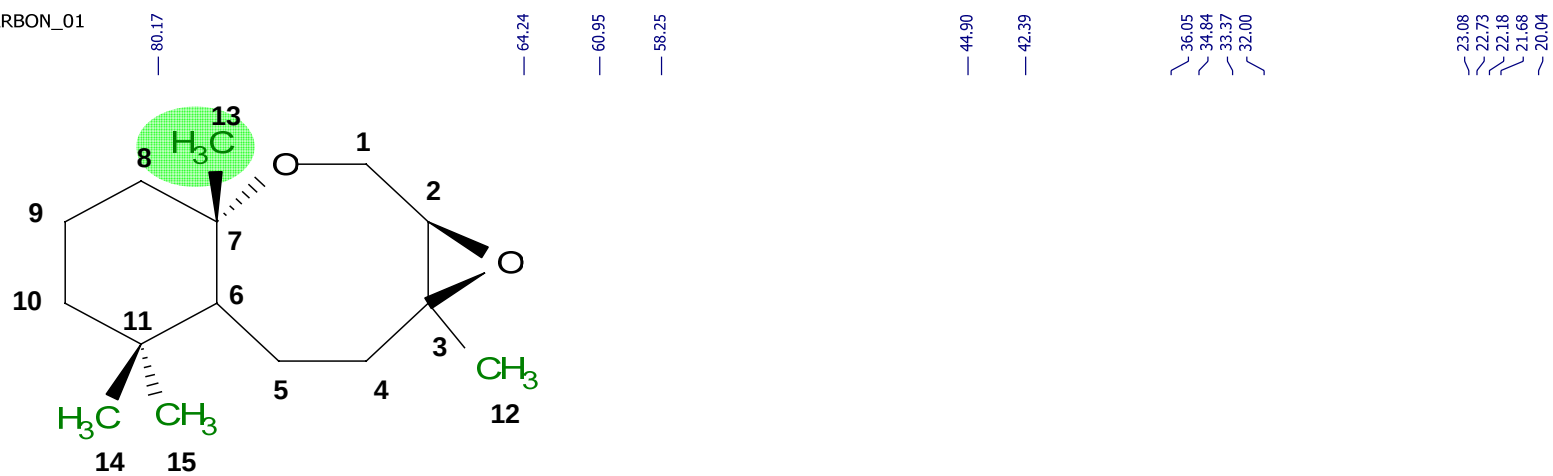




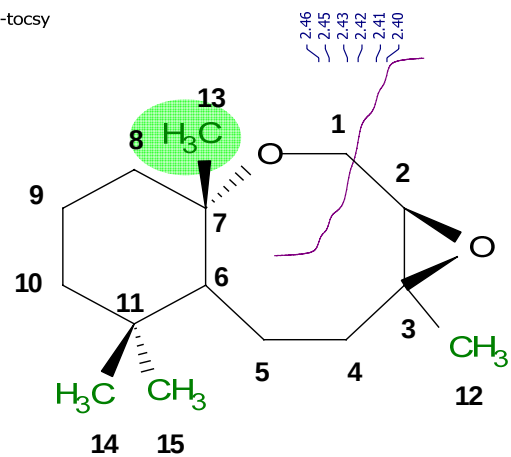
PROTON_02



CARBON_01



1d-tocsy



7' (td)
2.43

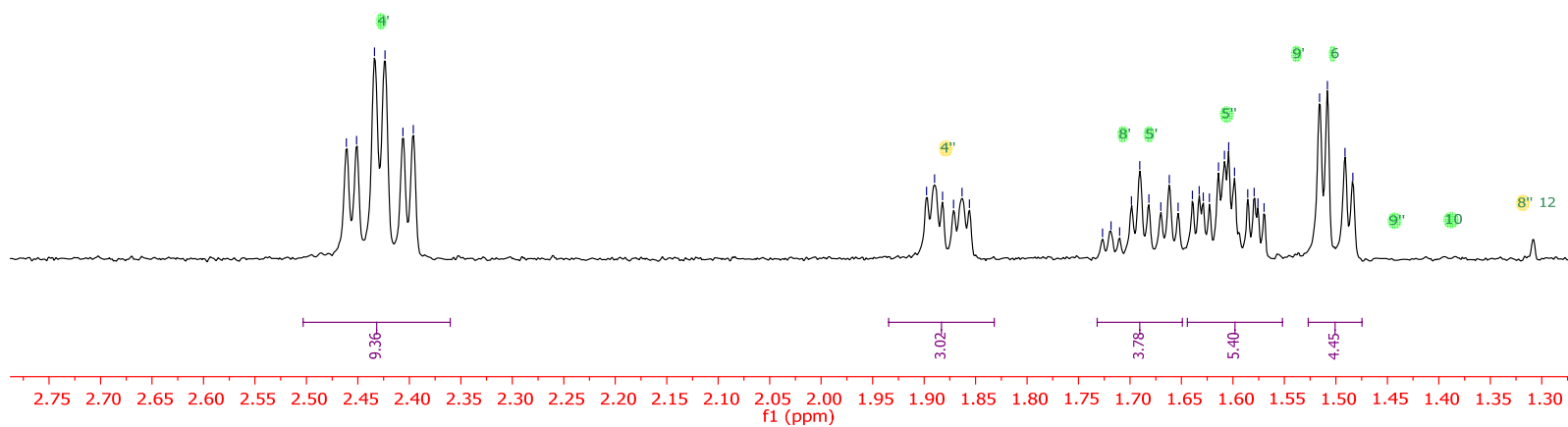


7'' (dt)
1.88

6' (tt)
1.68

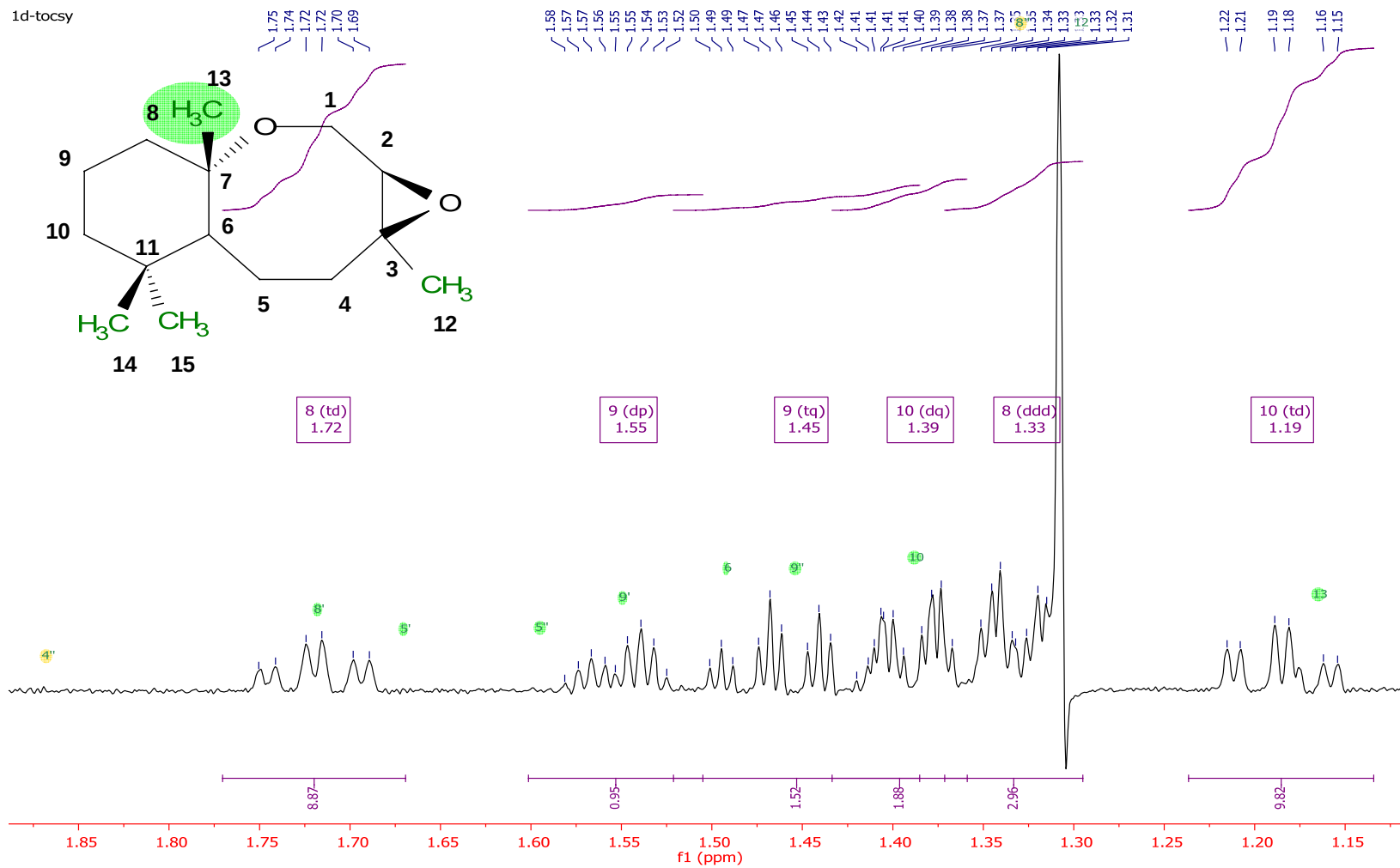
6'' (tdd)
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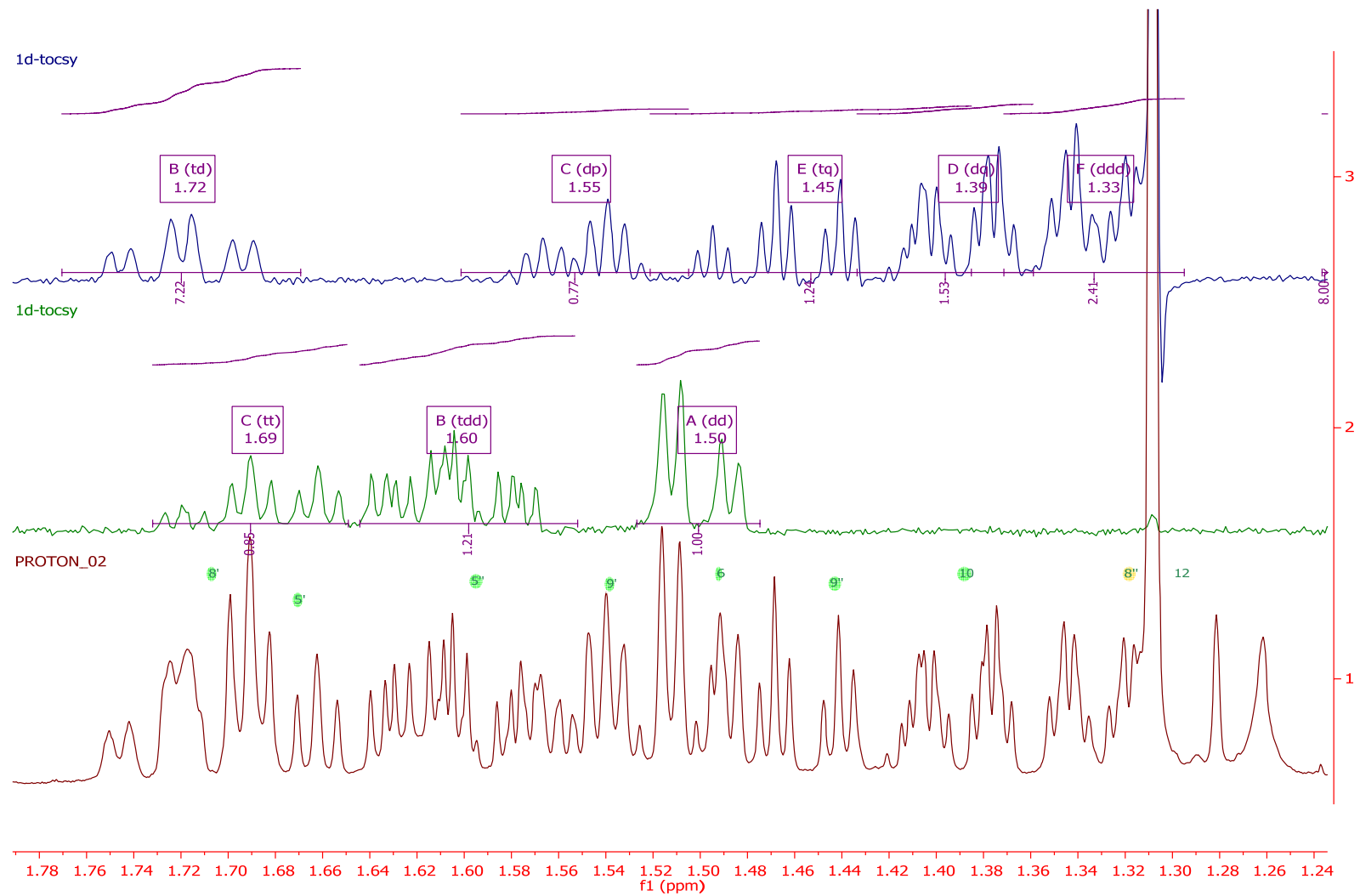
6 (dd)
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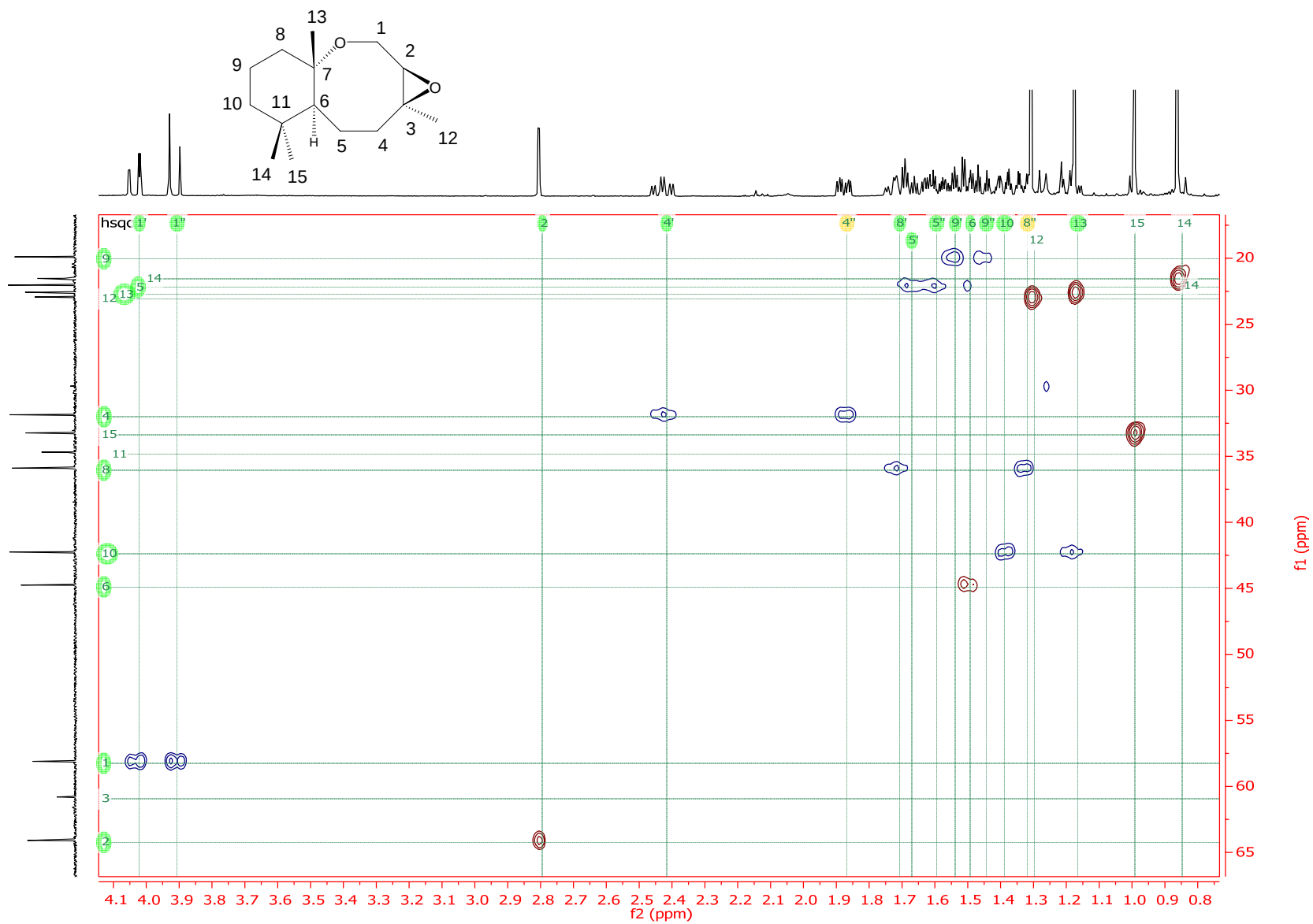
1D TOCSY

1d-tocsy

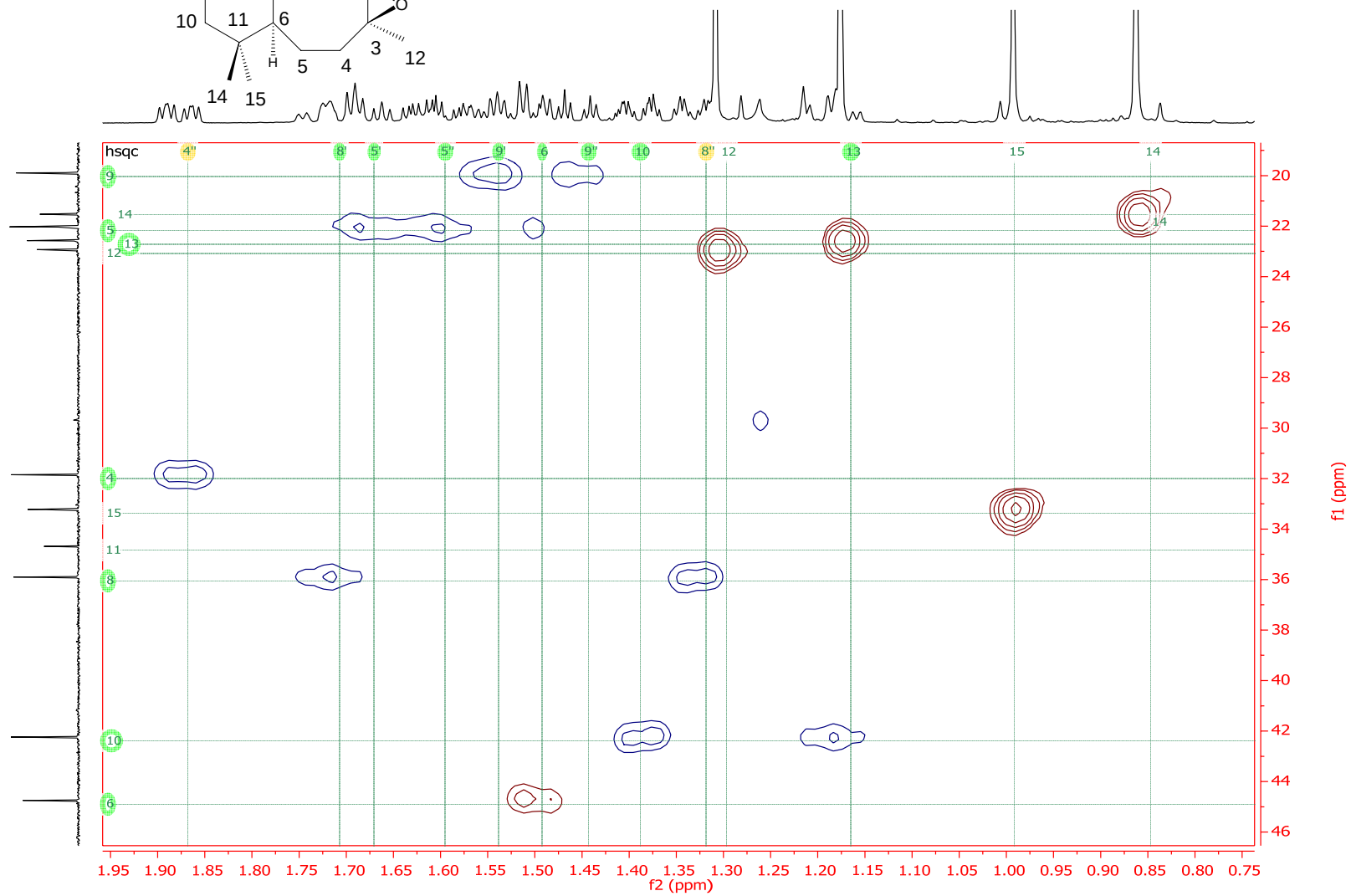
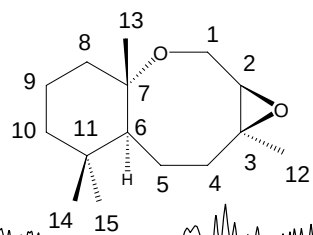




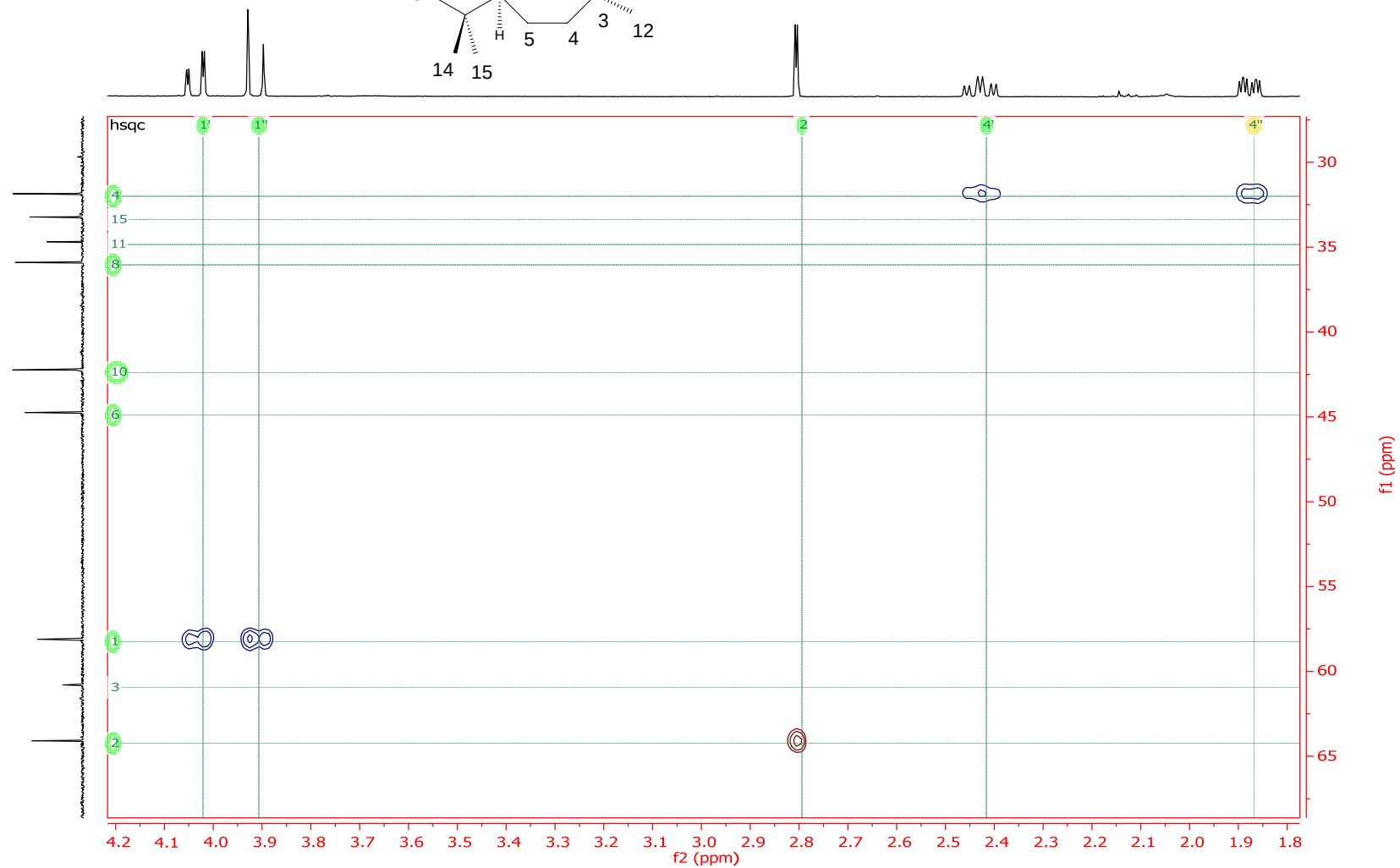
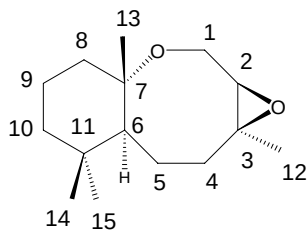
Stacked Proton and 1D TOCSY



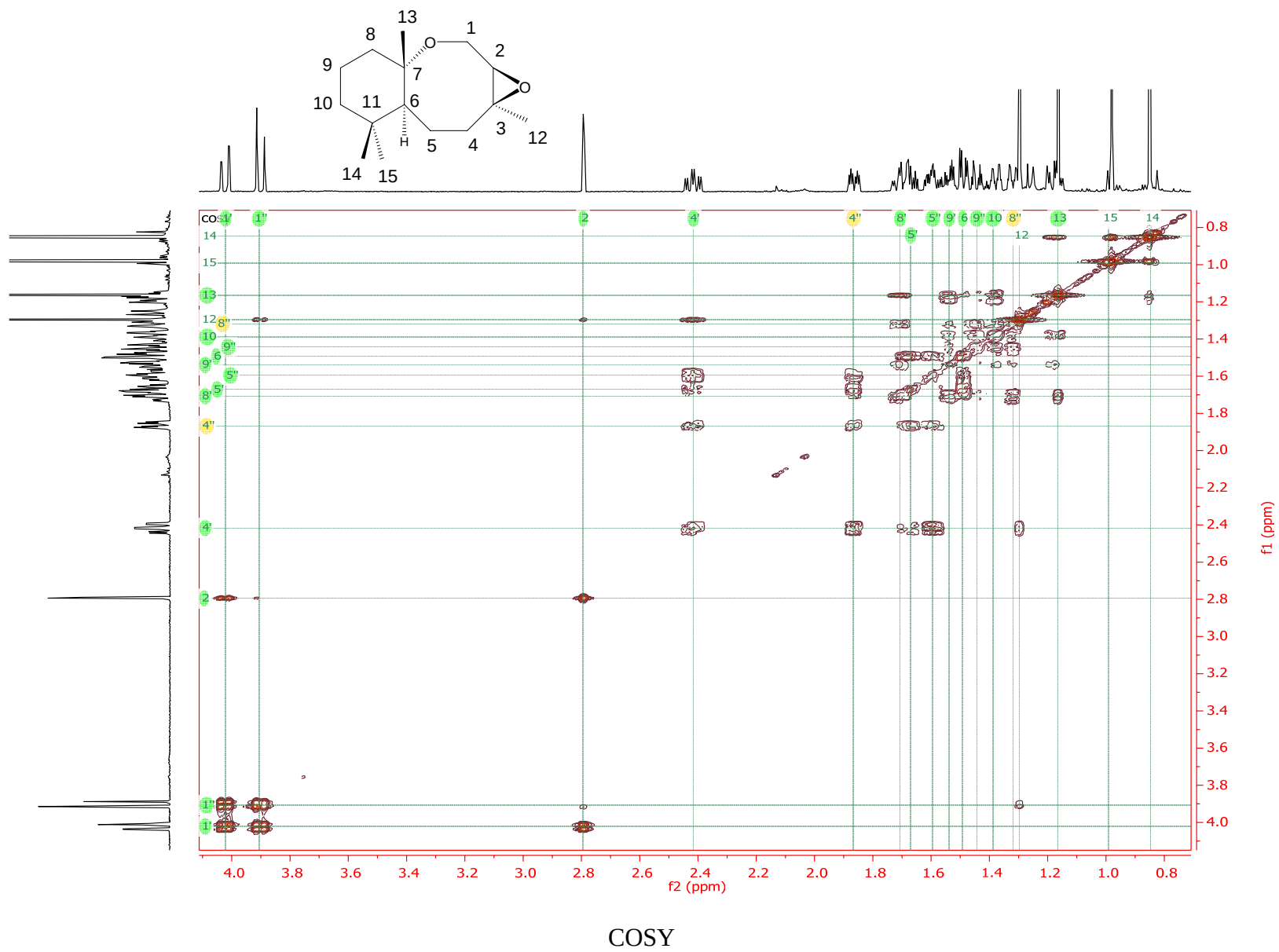
Edited HSQC

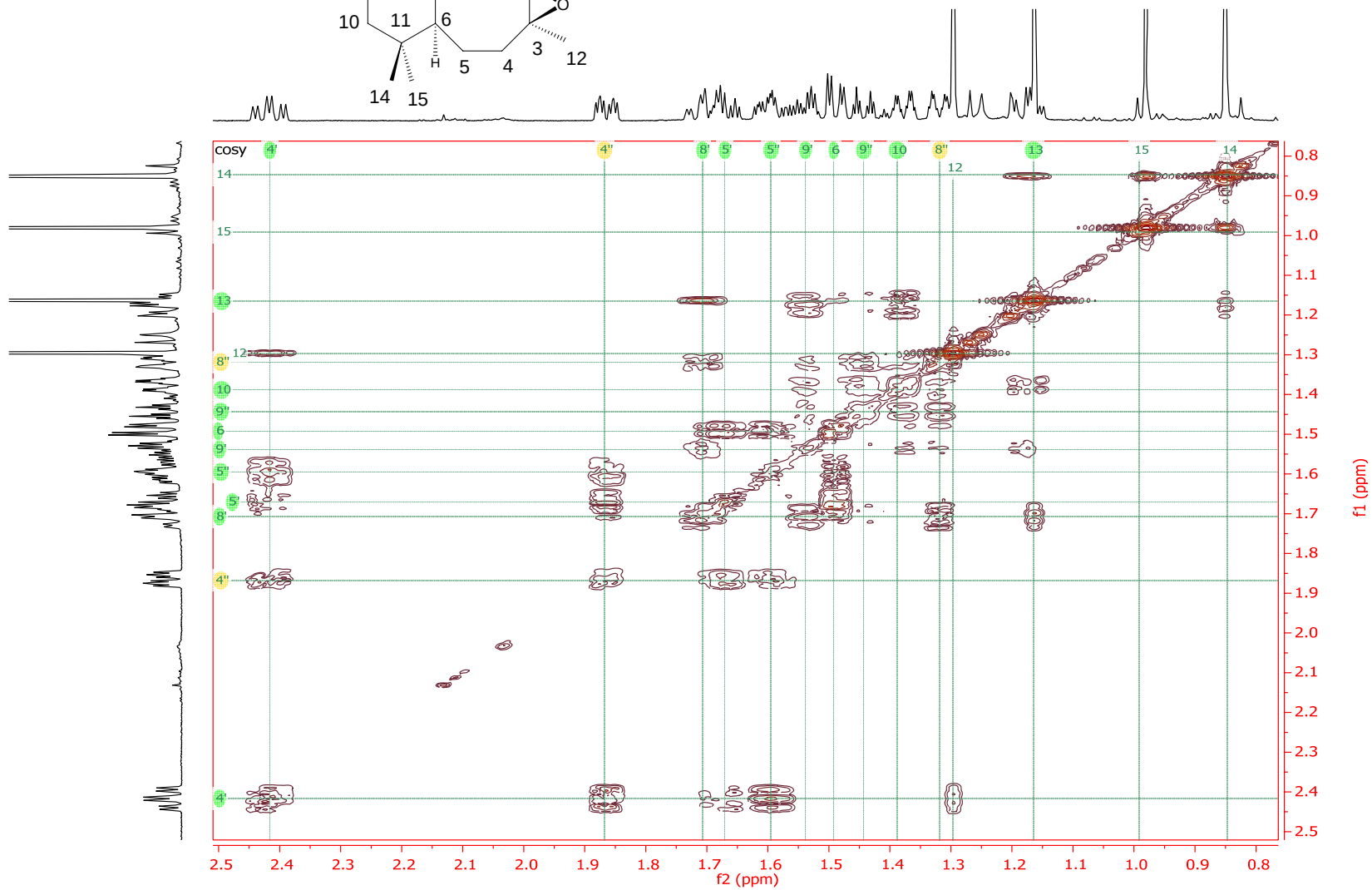
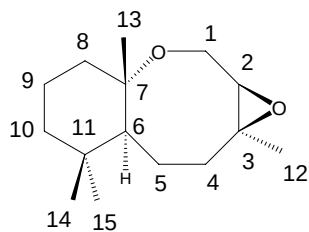


Edited HSQC

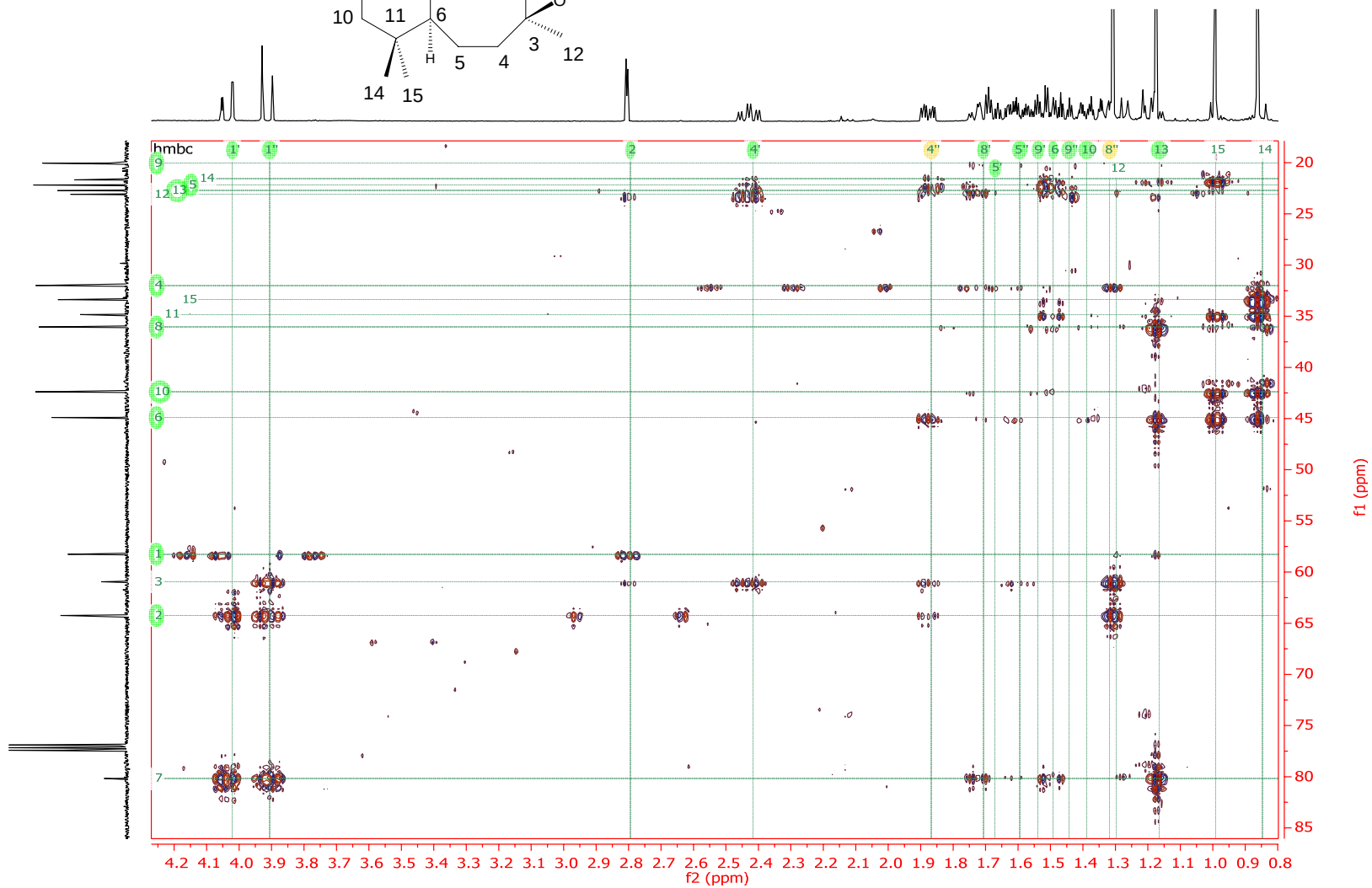
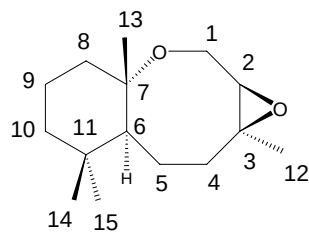


Edited HSQC

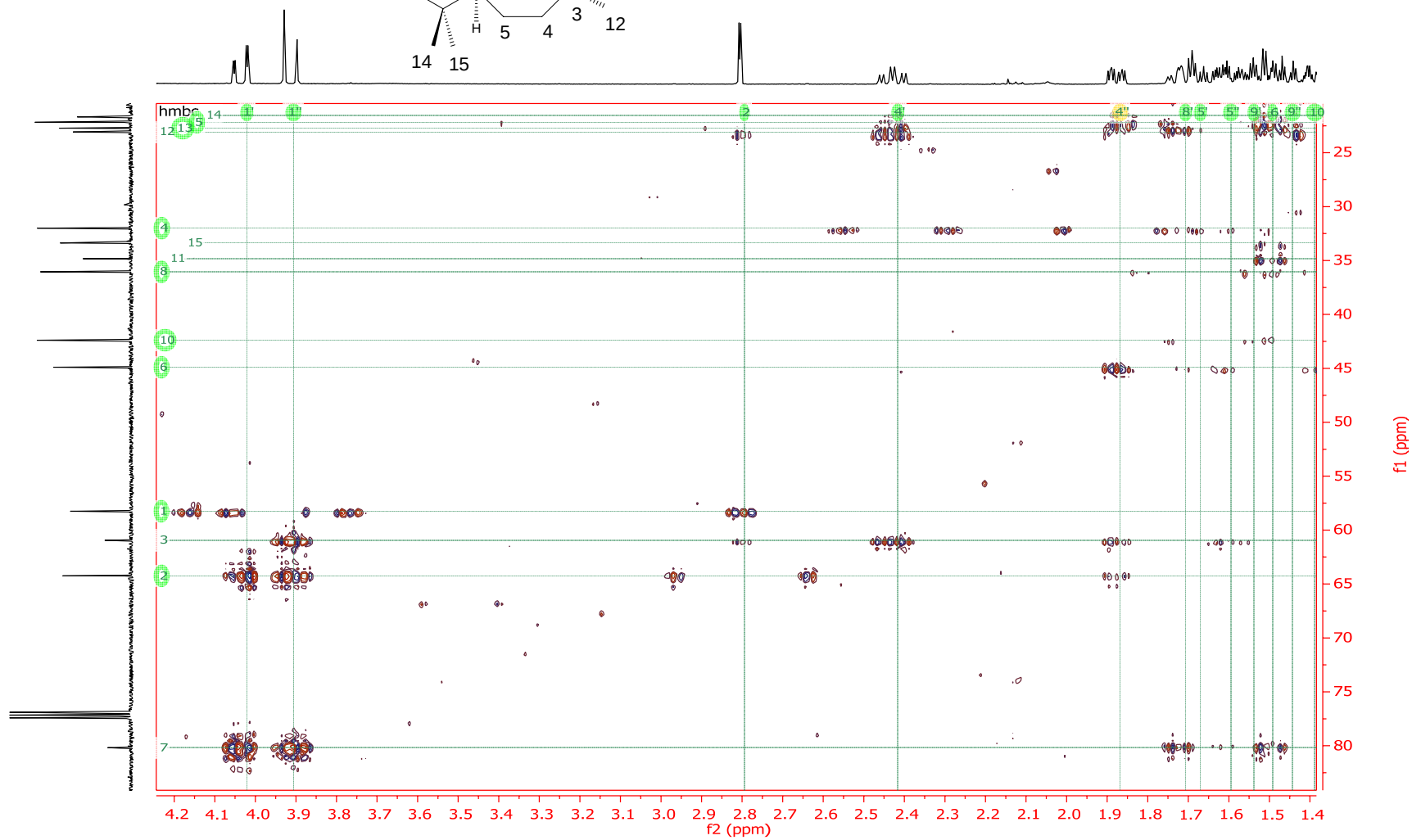
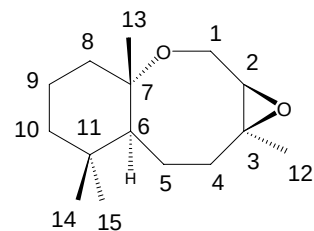




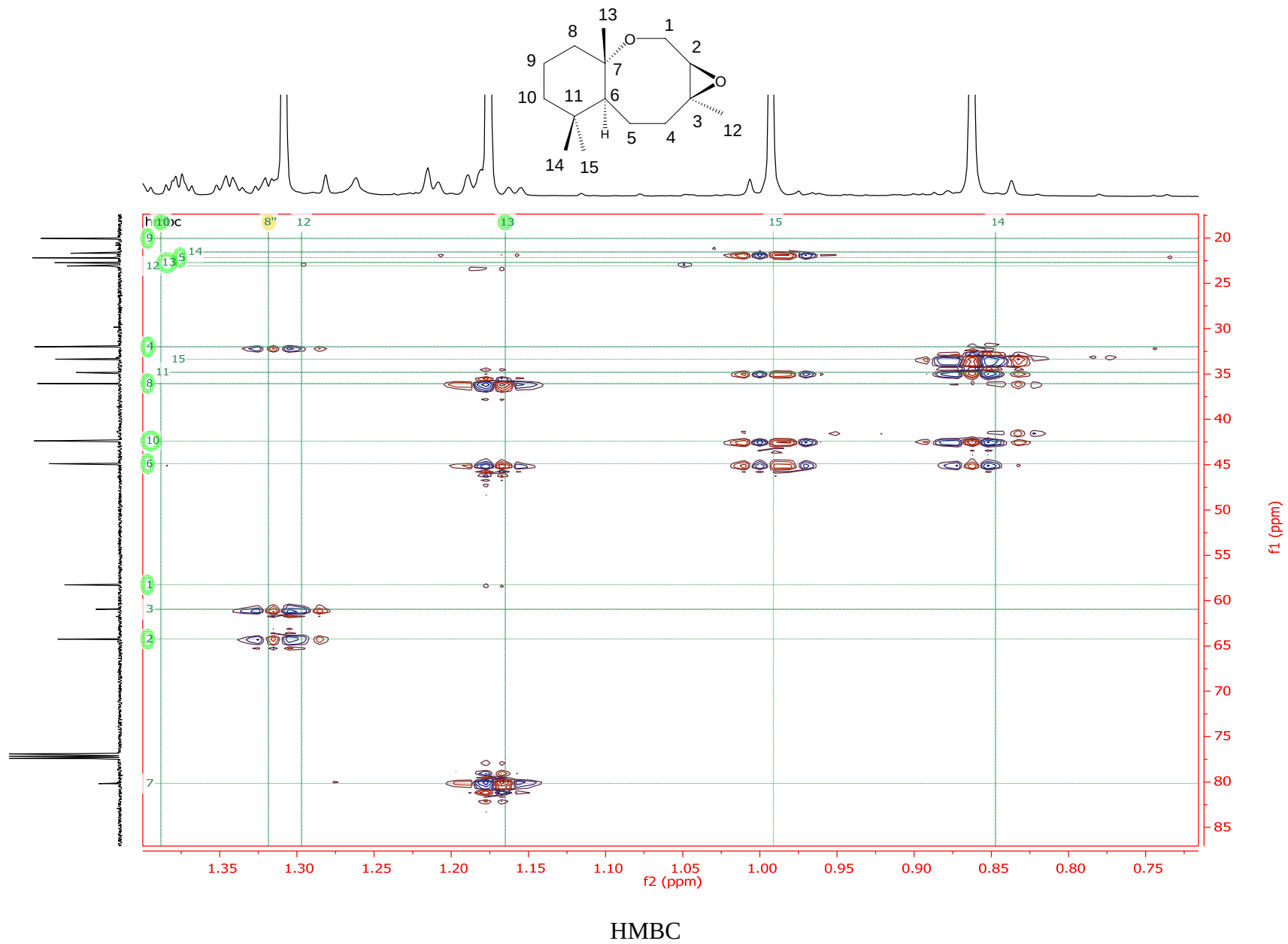
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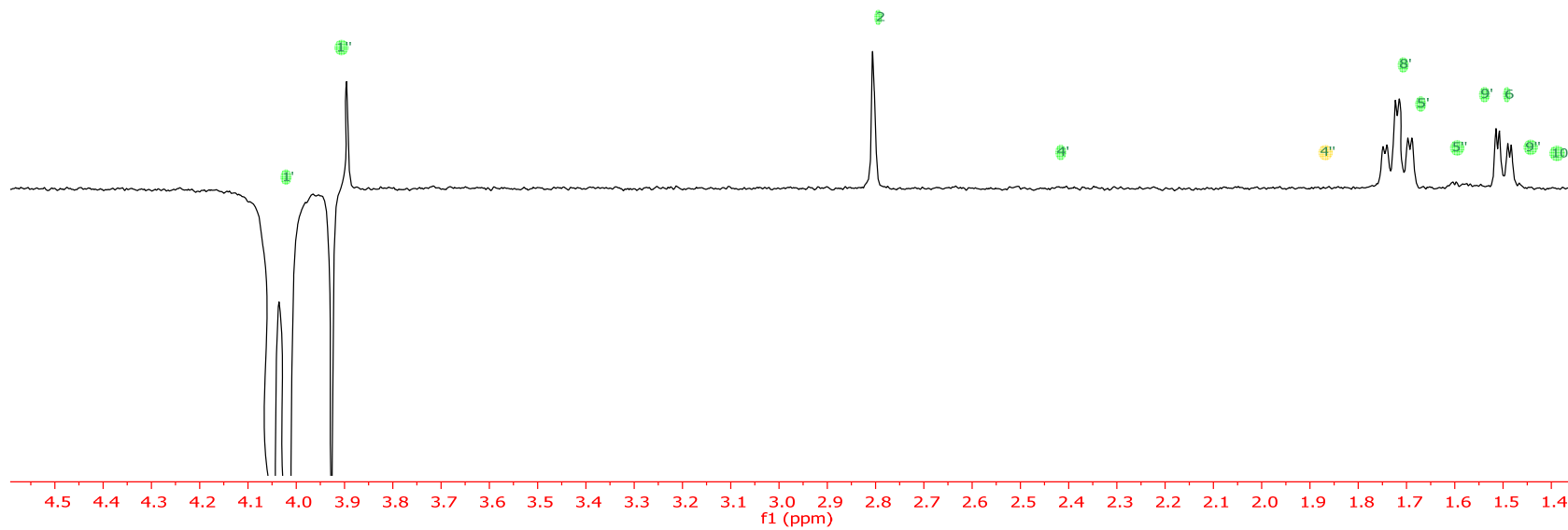
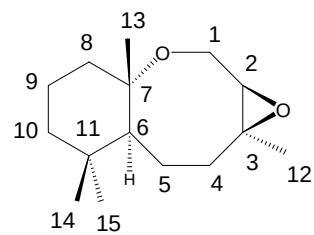
HMBC



HMBC

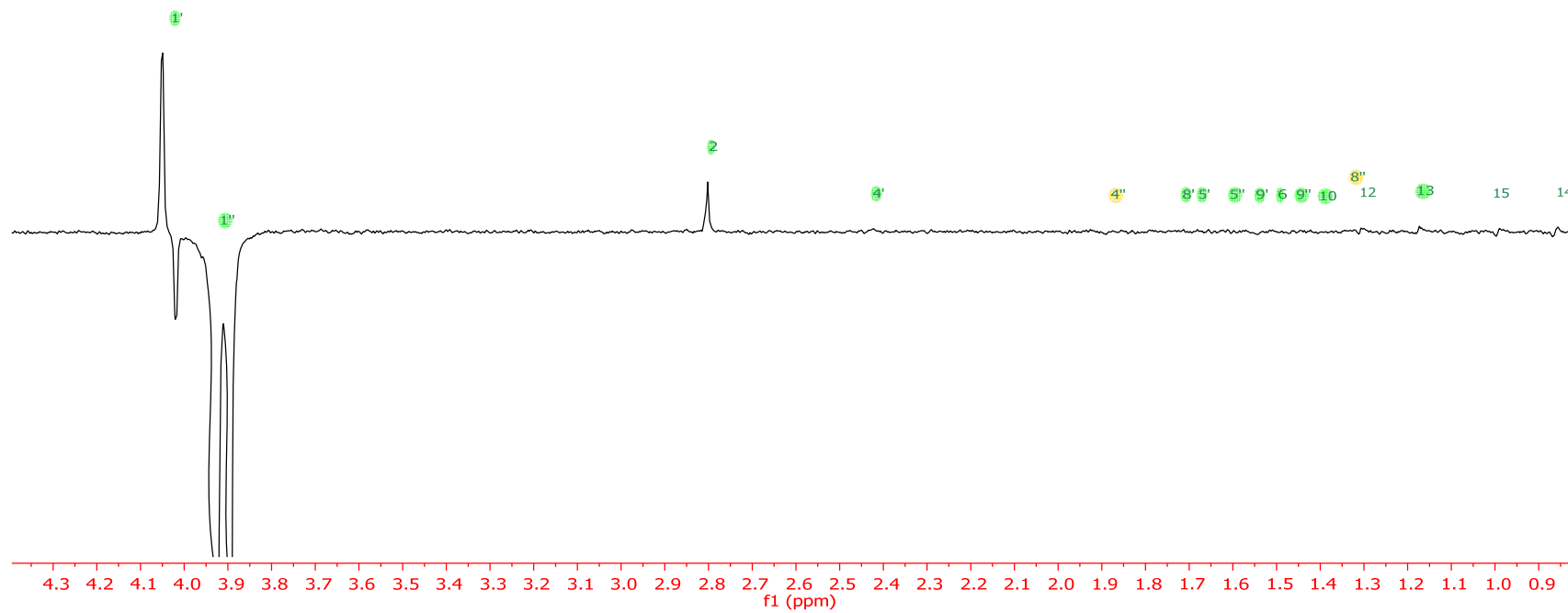
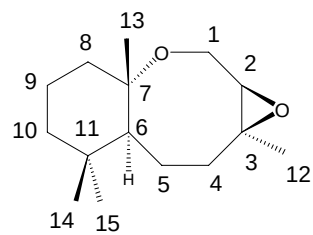


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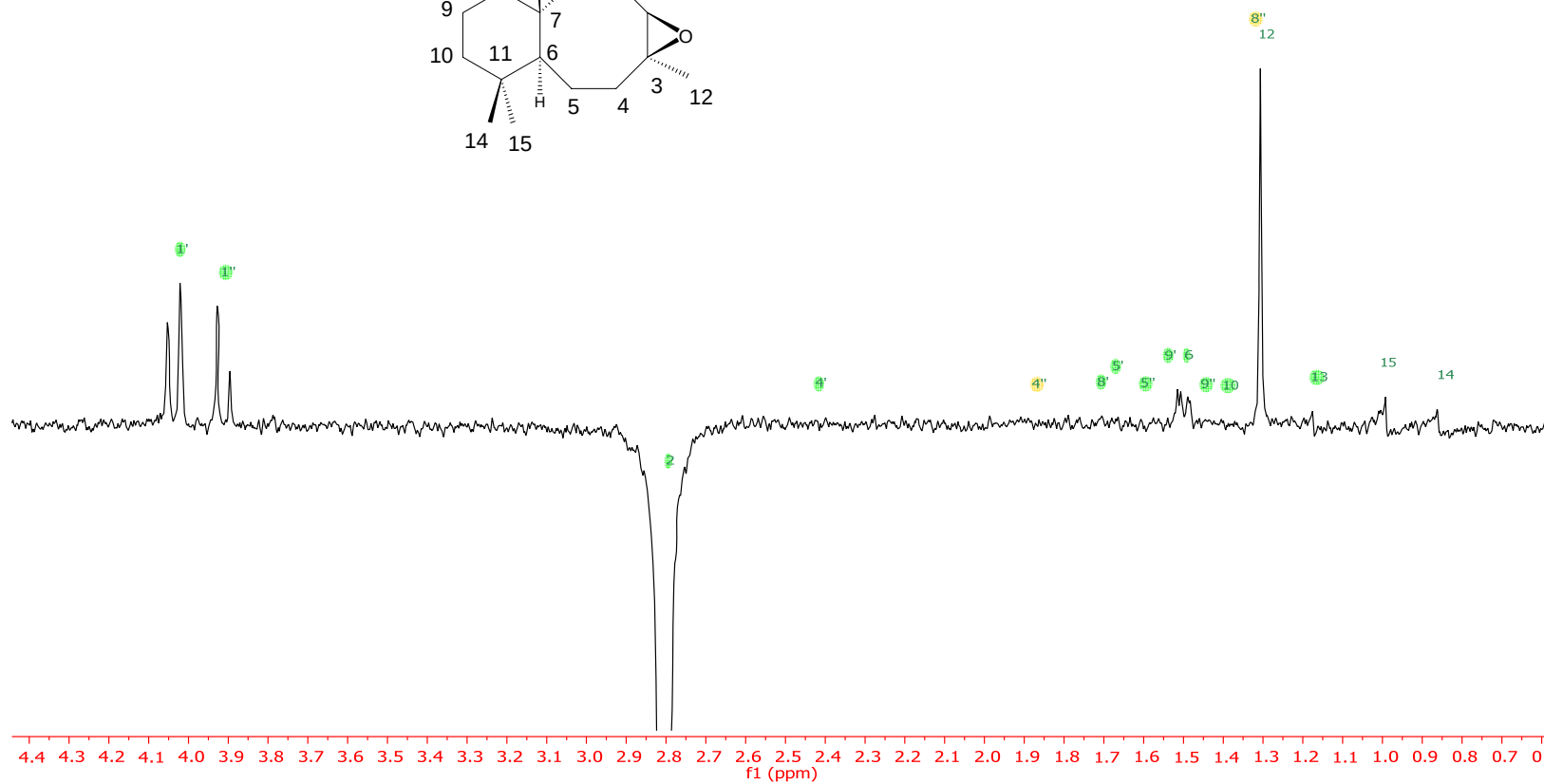
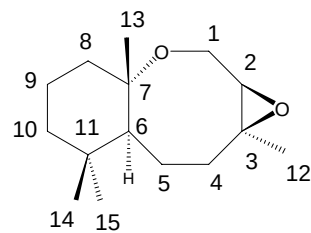
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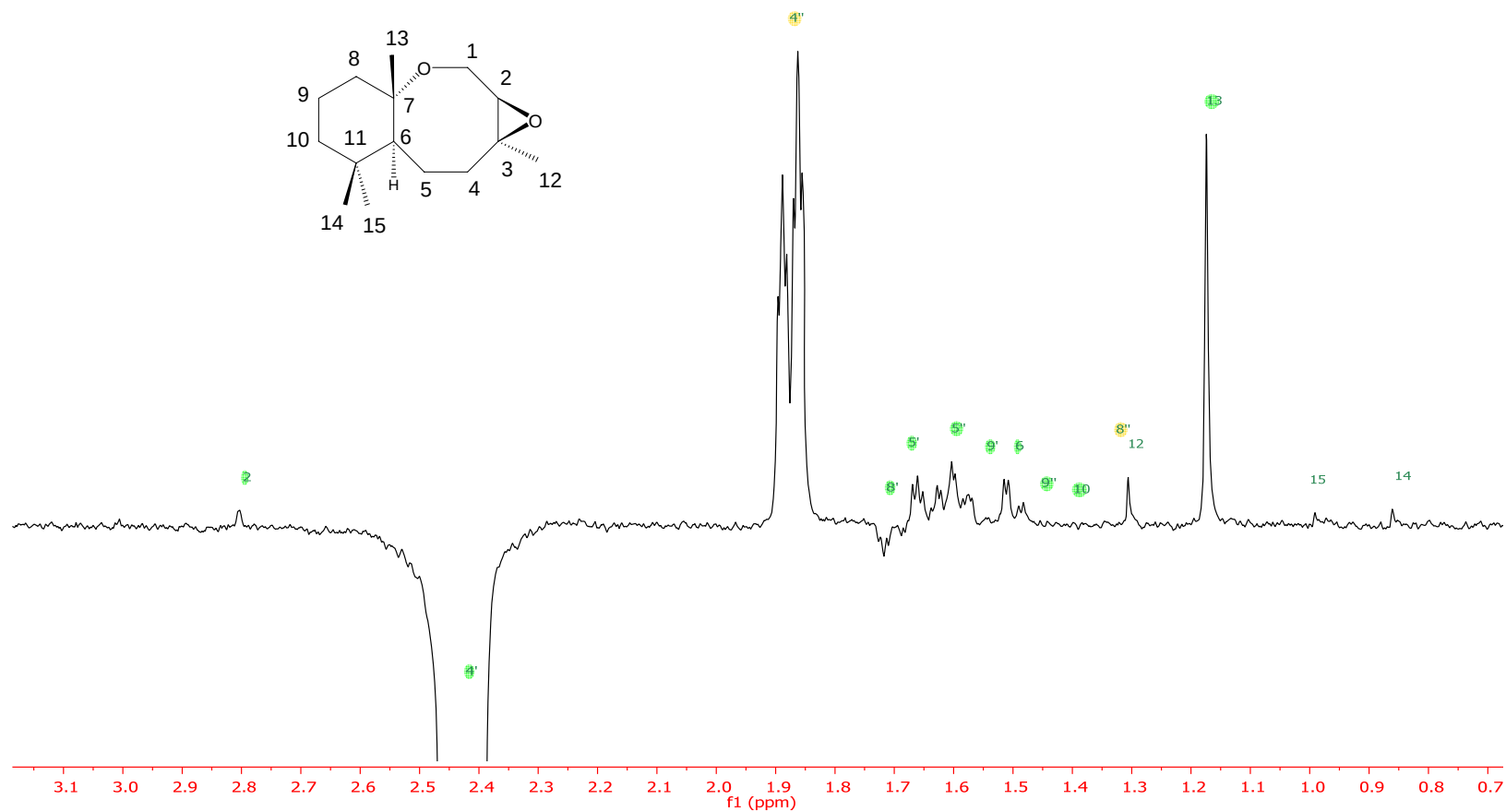
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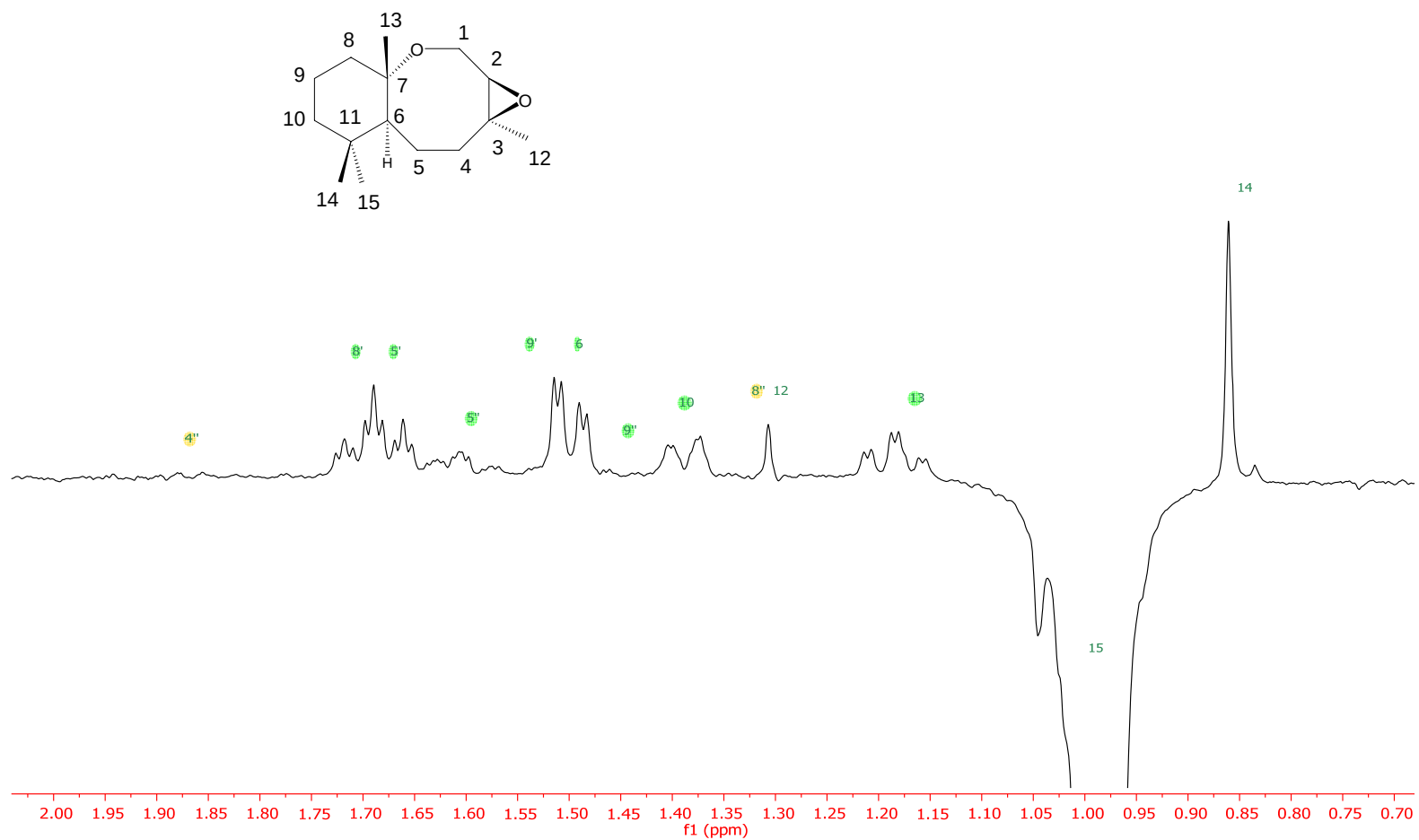
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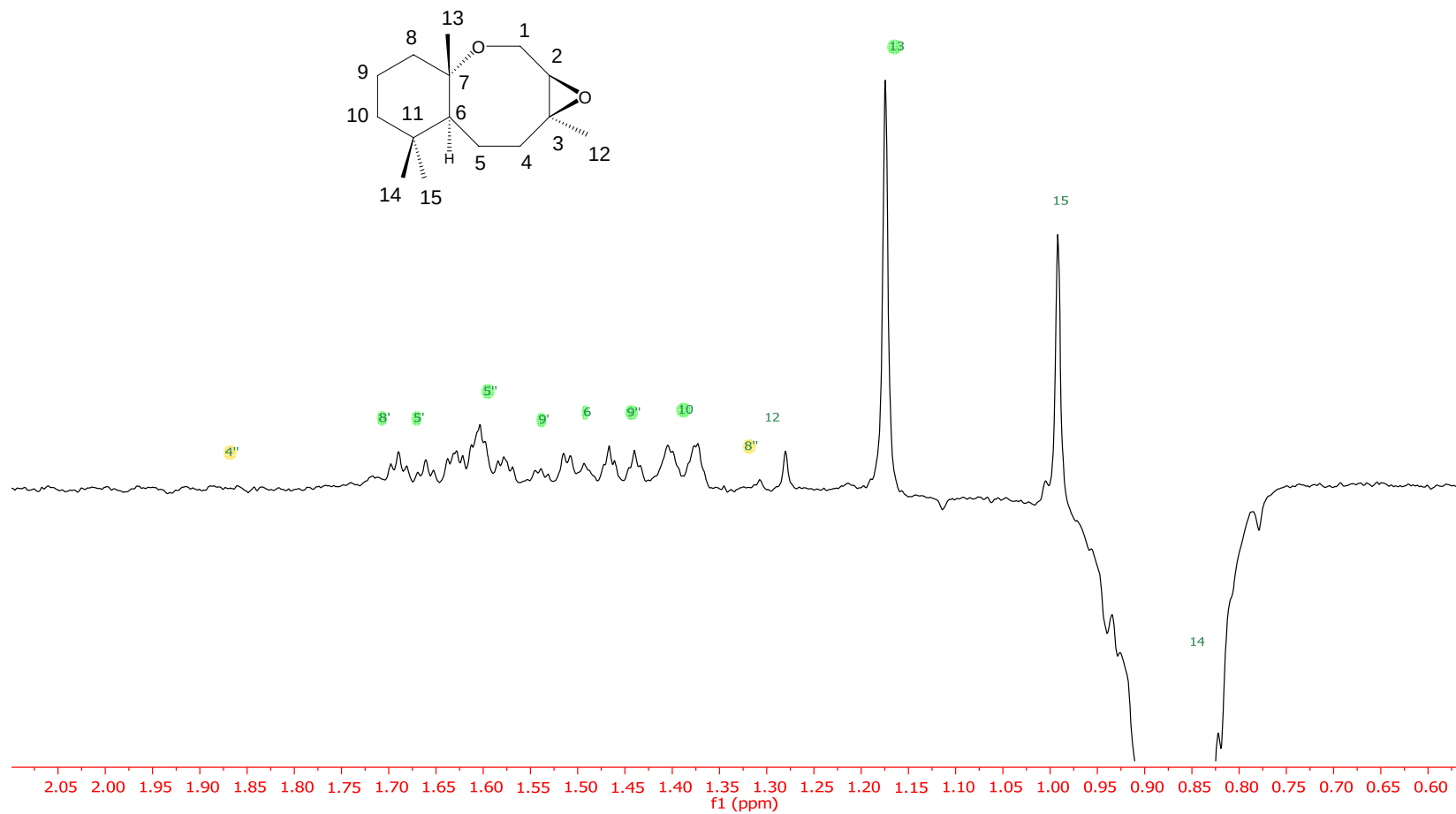
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1d-noesy



1D NOESY

1d-noesy



1D NOESY