

# **Antroquinonol A: Scalable Synthesis and Biology of a Phase-2 Drug Candidate**

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Johnston,<sup>†</sup> Haiying Zhang,<sup>†</sup> Mark P. Fereshteh,<sup>†</sup> T. G. Murali Dhar<sup>\*†</sup> and Phil S. Baran<sup>\*‡</sup>

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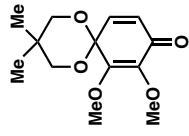
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*Optimization, Bristol-Myers Squibb Co., Route 206 and Province Line Road, Princeton, New Jersey 08543,*

*United States*

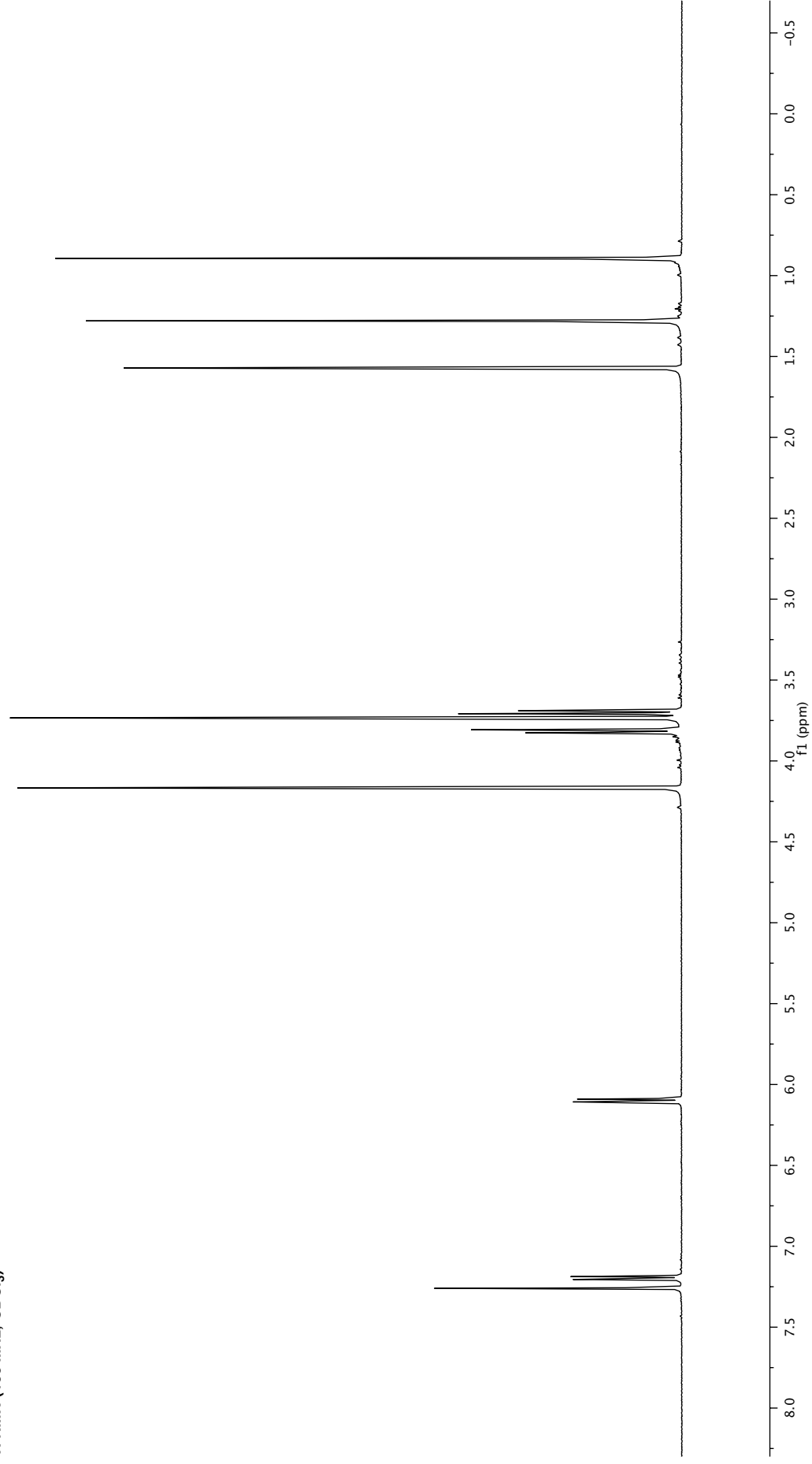
## **SUPPORTING INFORMATION**

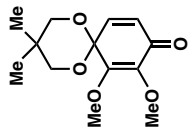
### **Part 2: Copies of NMR Spectra**



12

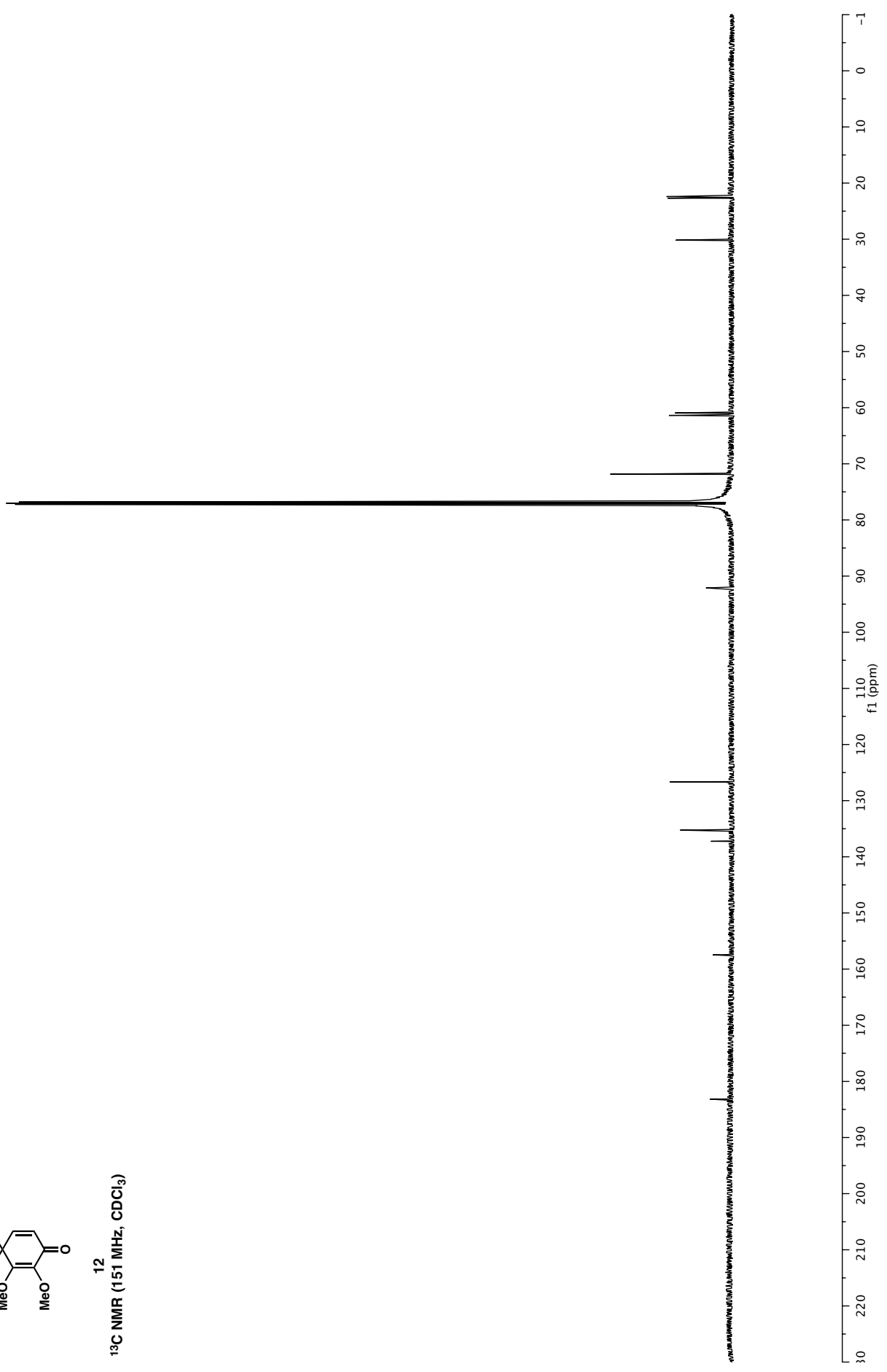
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)

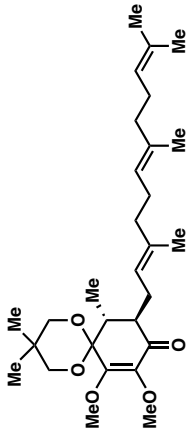




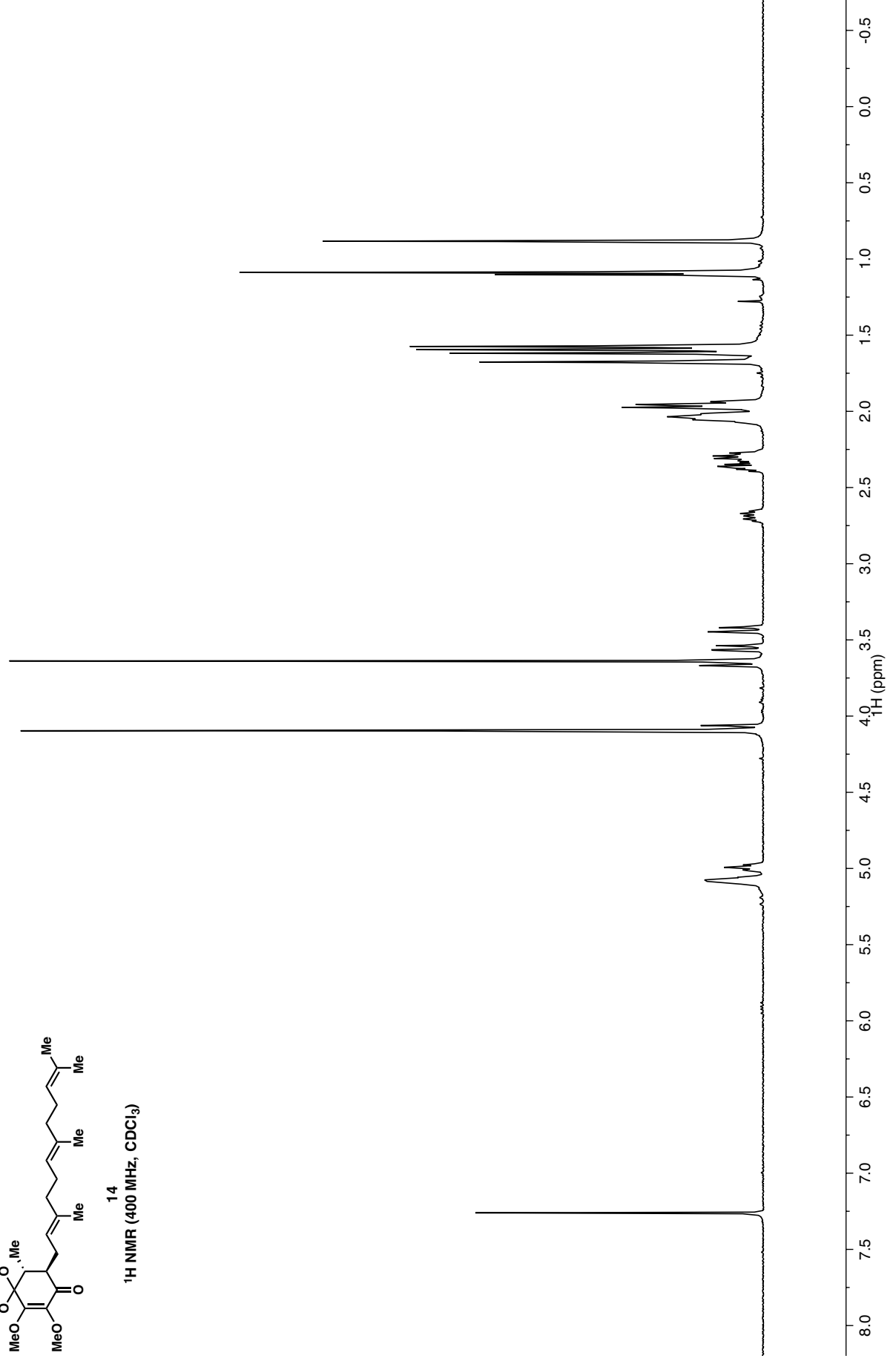
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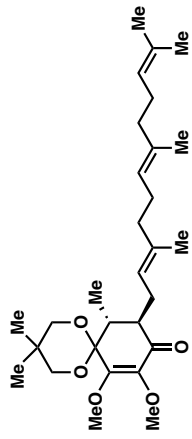
<sup>13</sup>C NMR (151 MHz, CDCl<sub>3</sub>)



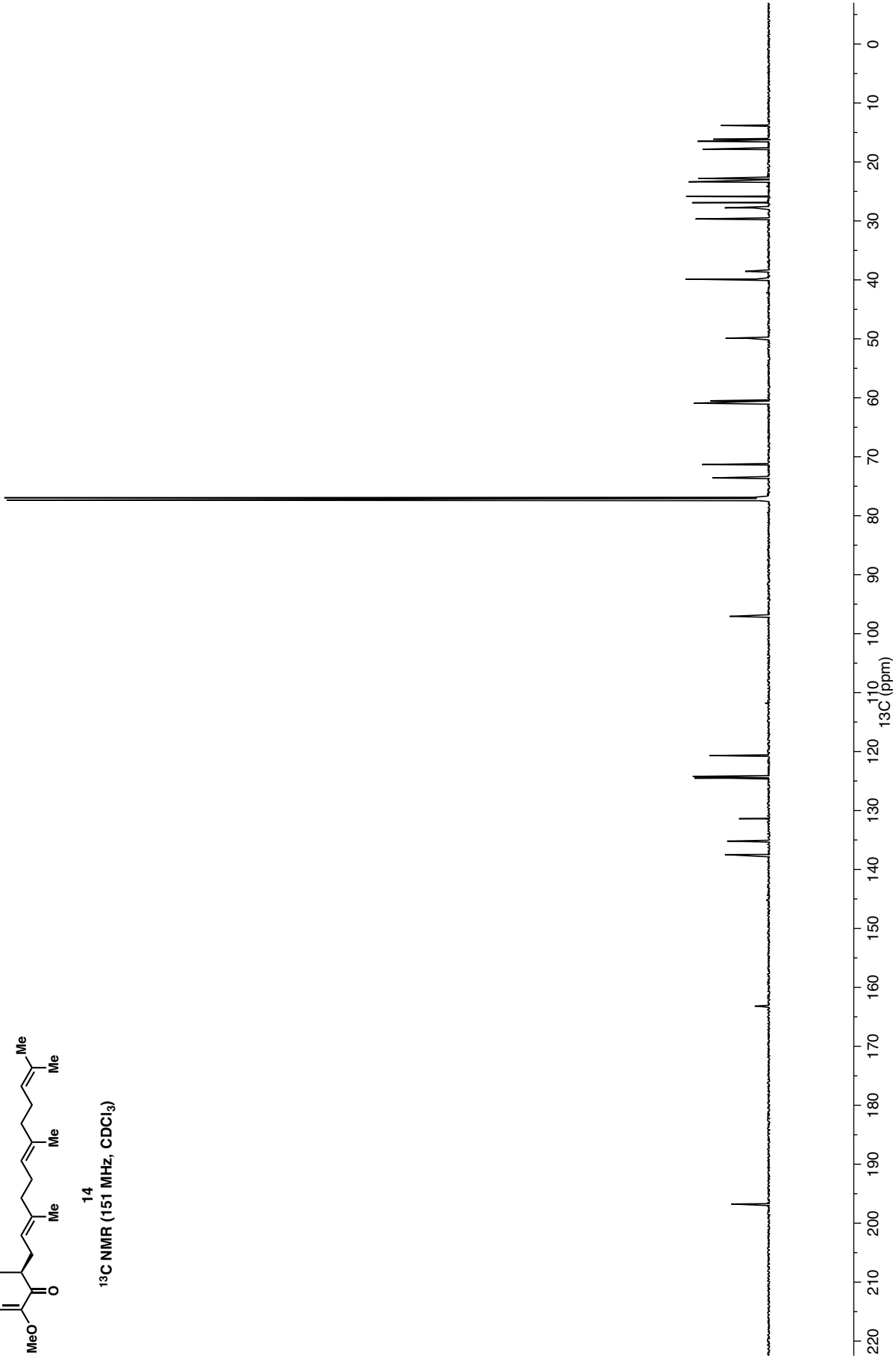


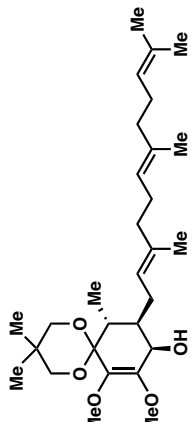
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



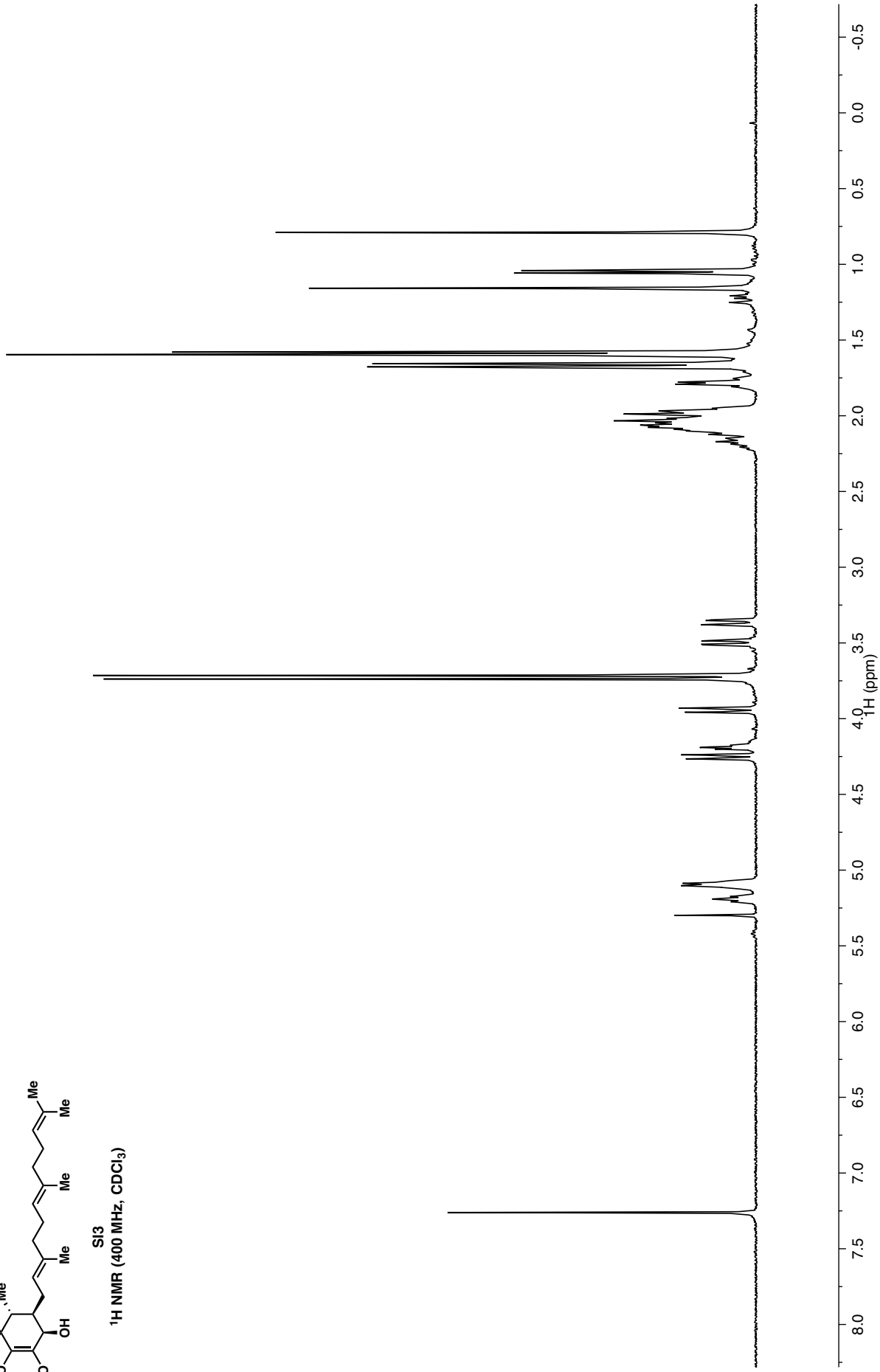


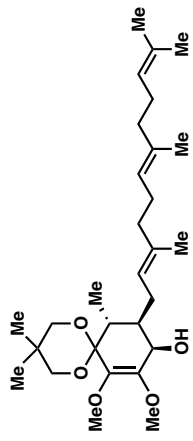
<sup>14</sup>  
<sup>13</sup>C NMR (151 MHz, CDCl<sub>3</sub>)





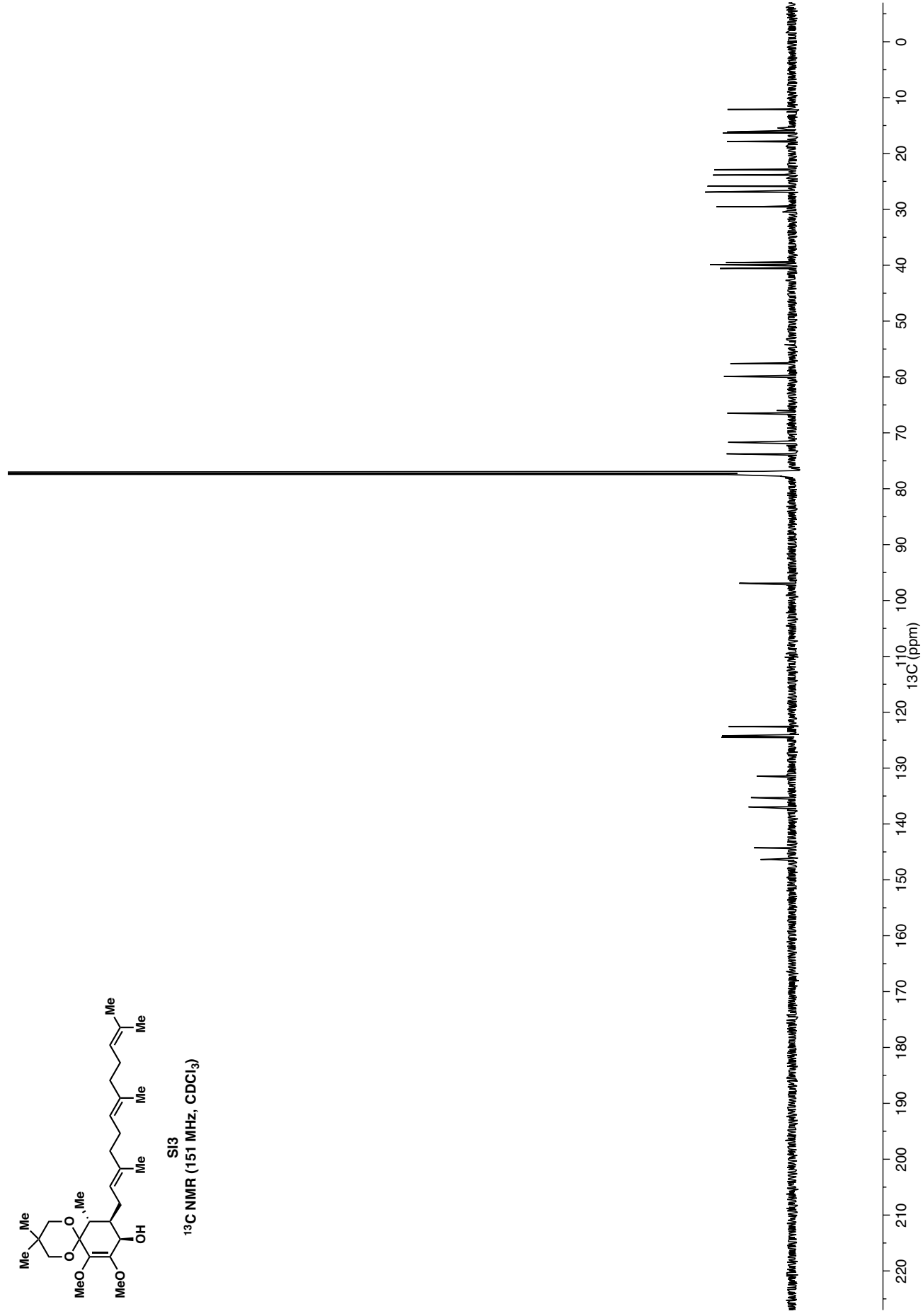
S13  
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)

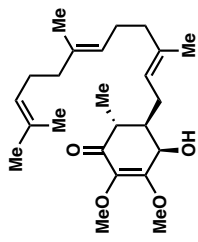




SI3

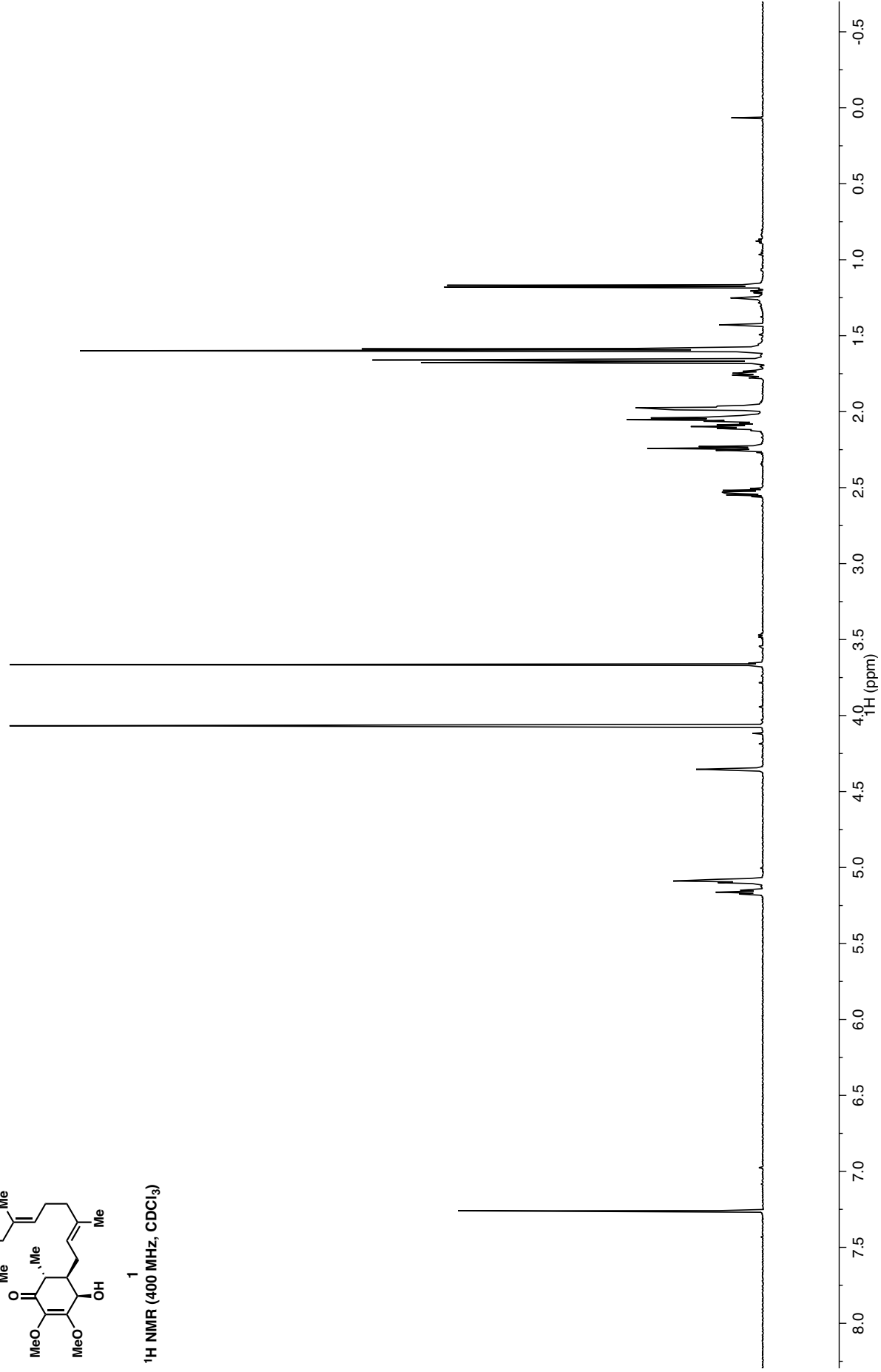
$^{13}\text{C}$  NMR (151 MHz,  $\text{CDCl}_3$ )



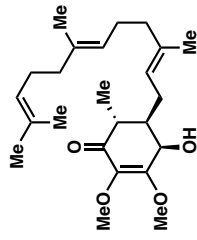


1

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

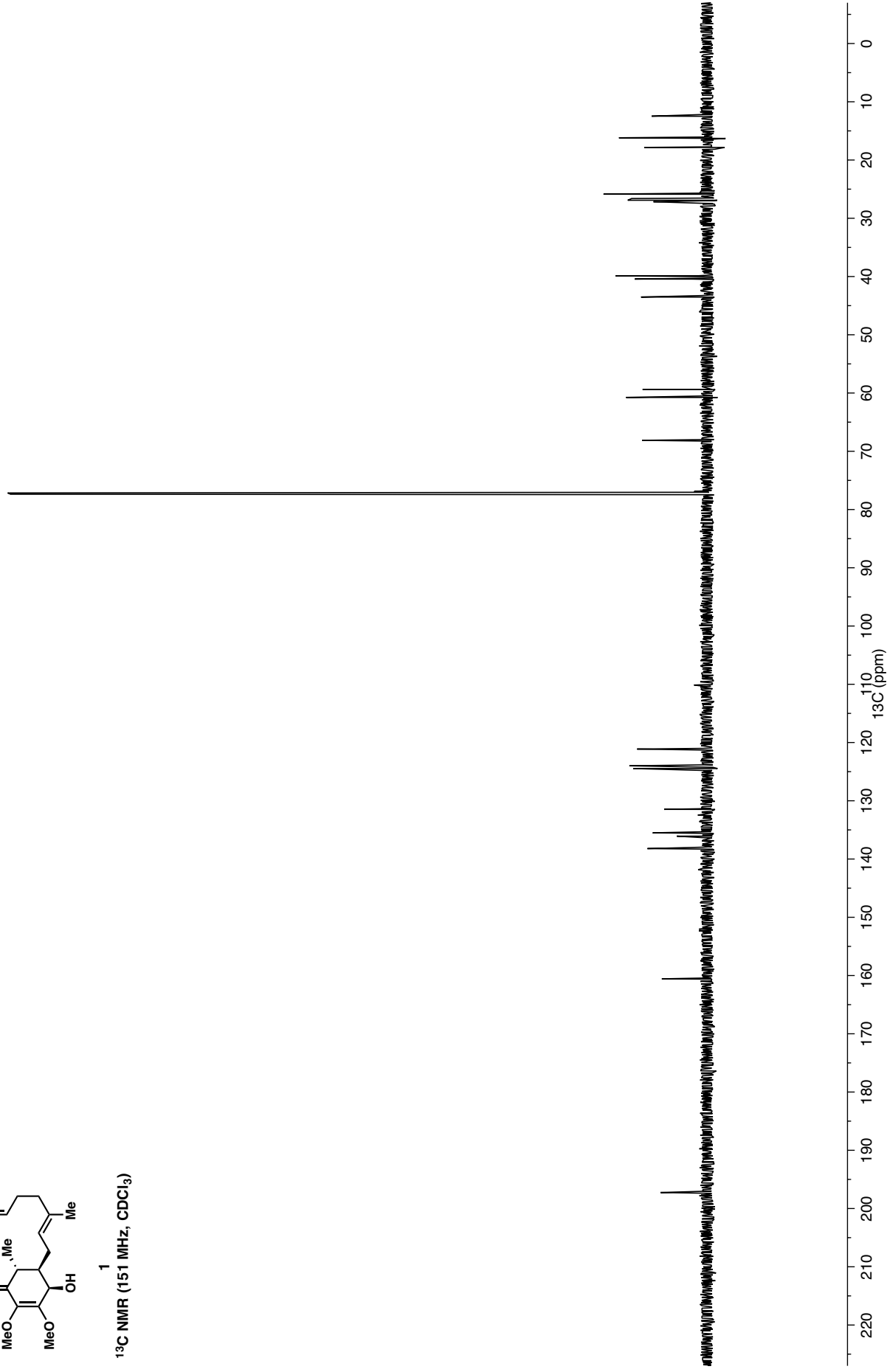


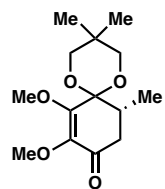




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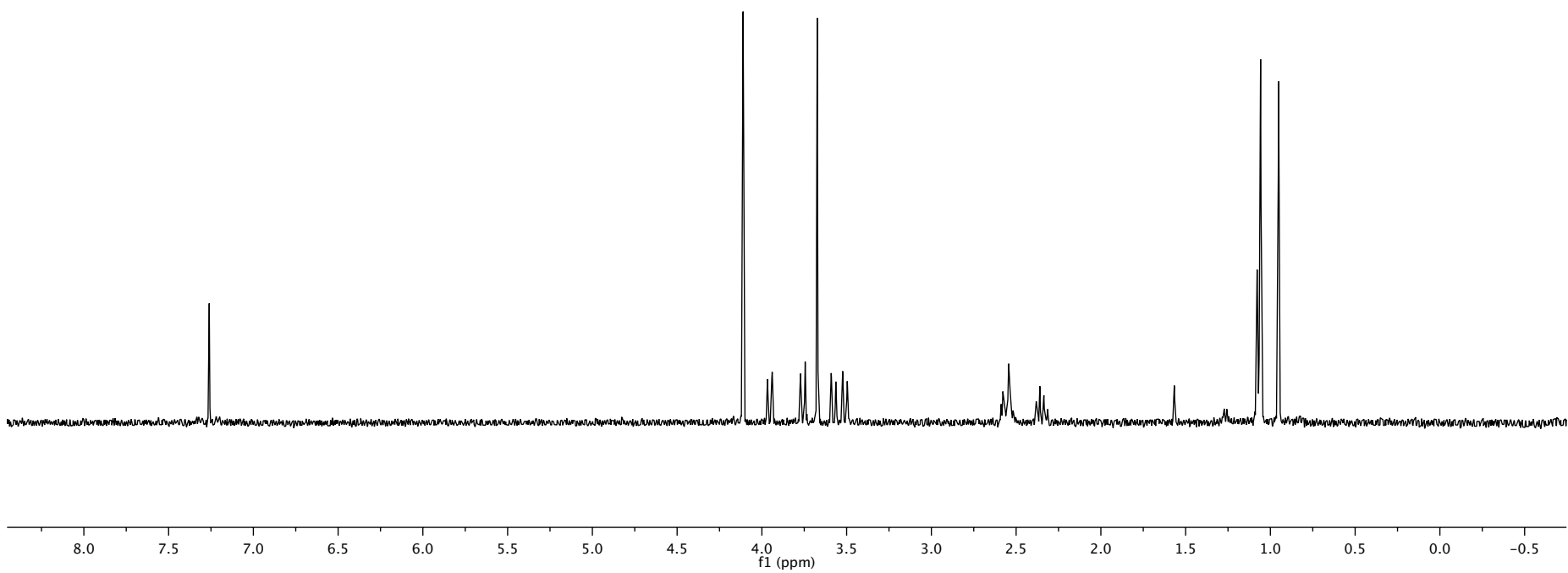
<sup>13</sup>C NMR (151 MHz, CDCl<sub>3</sub>)

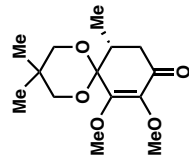




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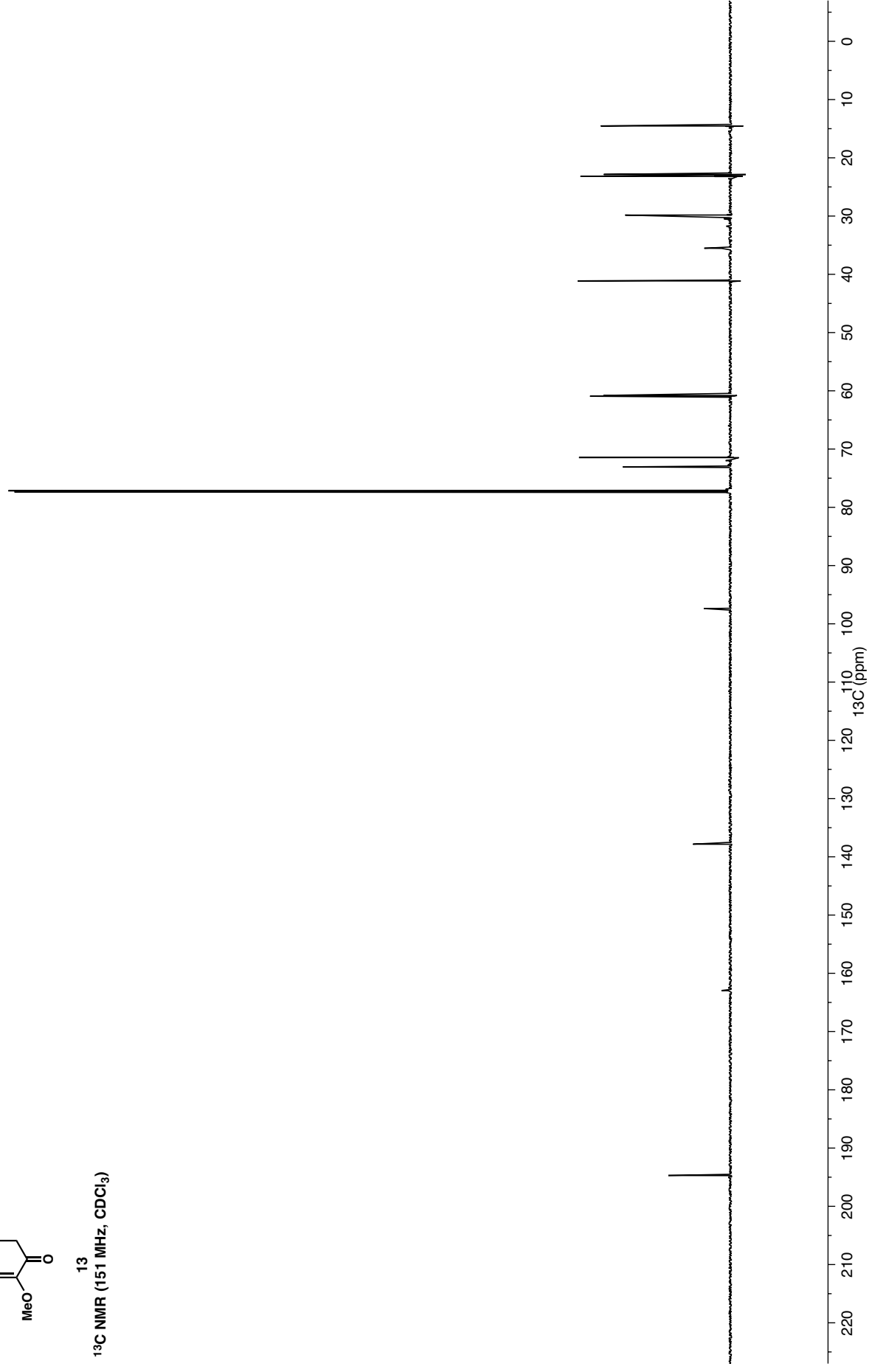
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)

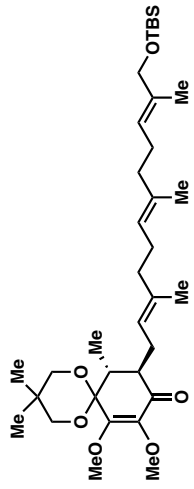




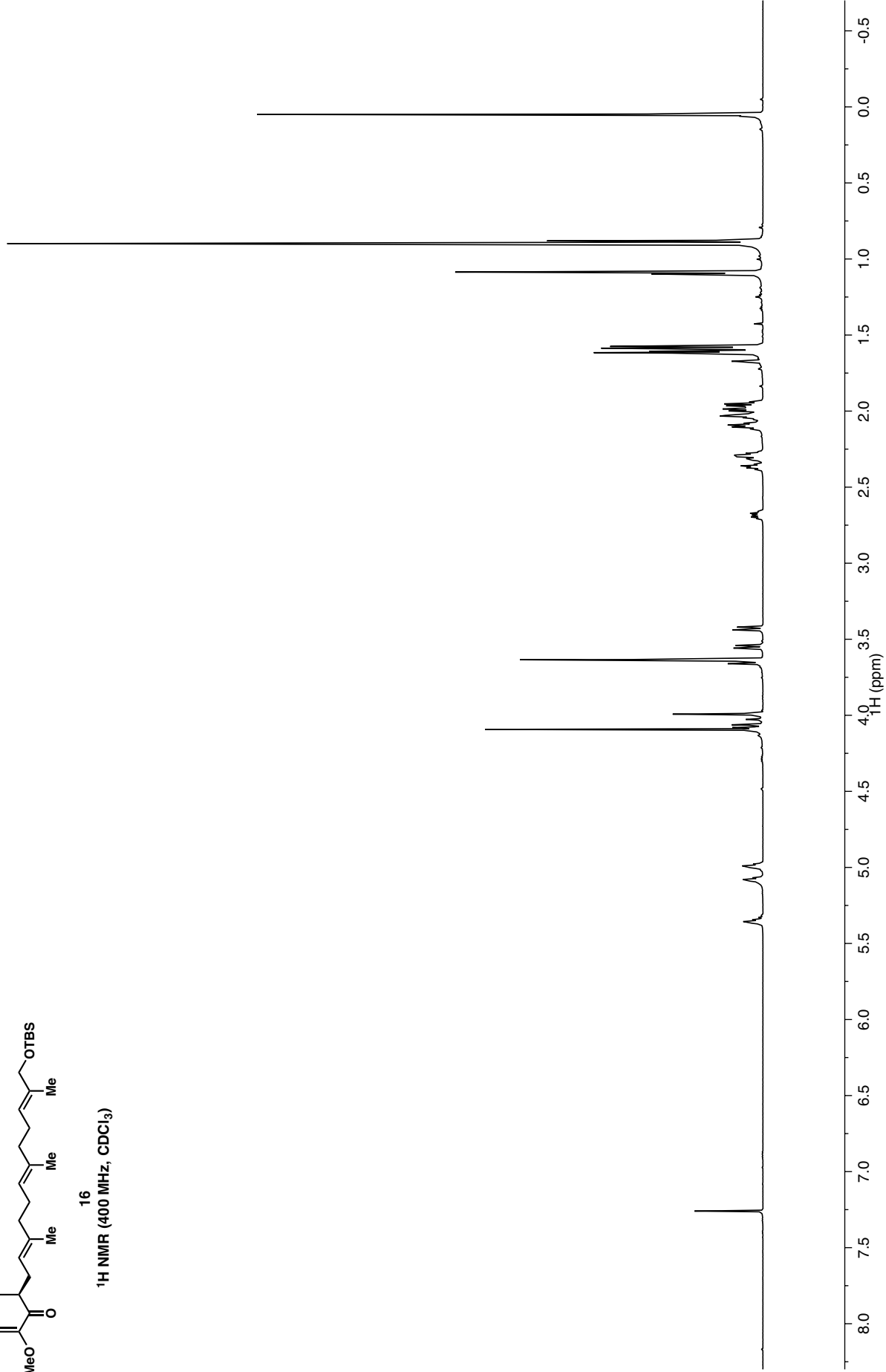
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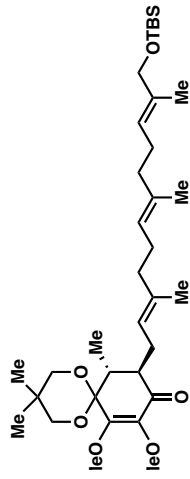
<sup>13</sup>C NMR (151 MHz, CDCl<sub>3</sub>)



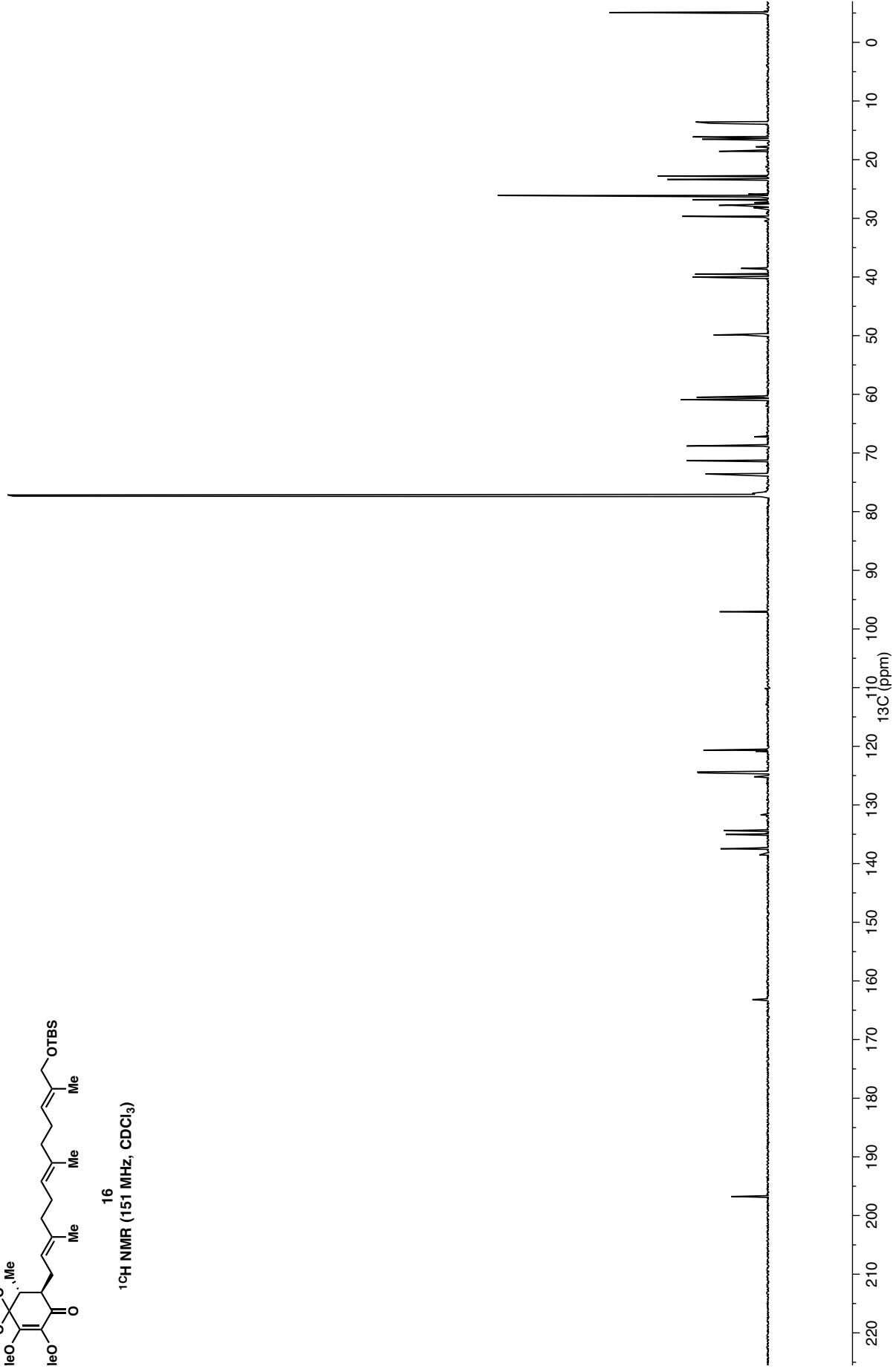


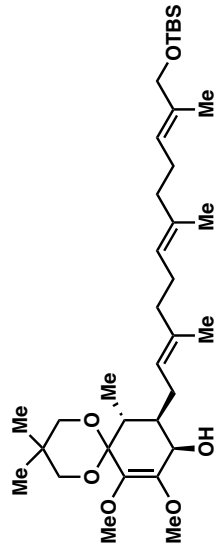
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<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)



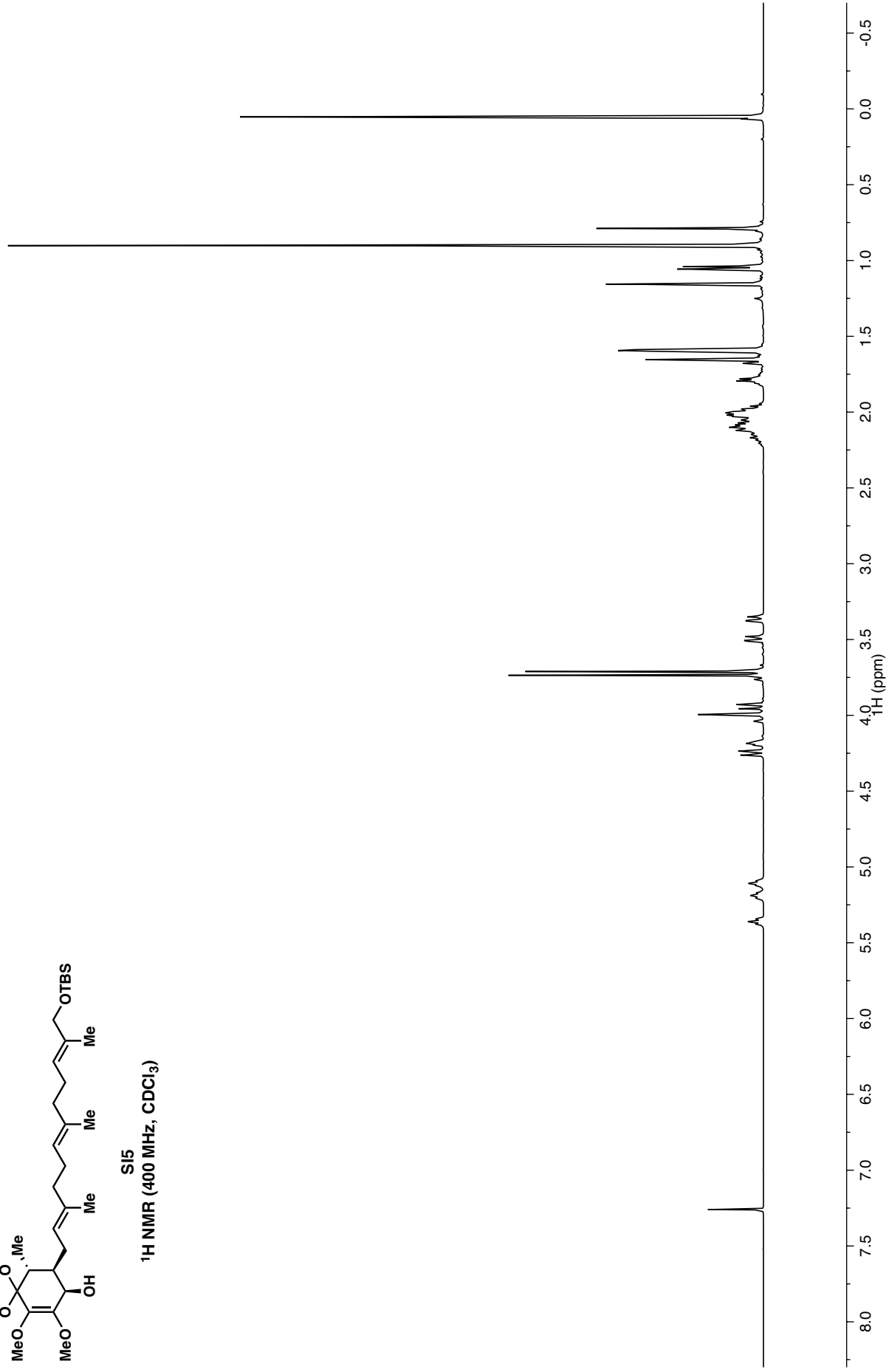


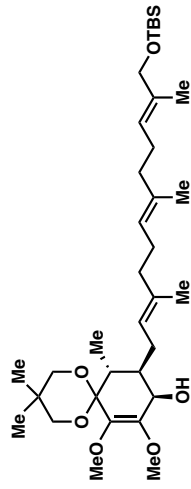
16  
<sup>13</sup>C NMR (151 MHz, CDCl<sub>3</sub>)





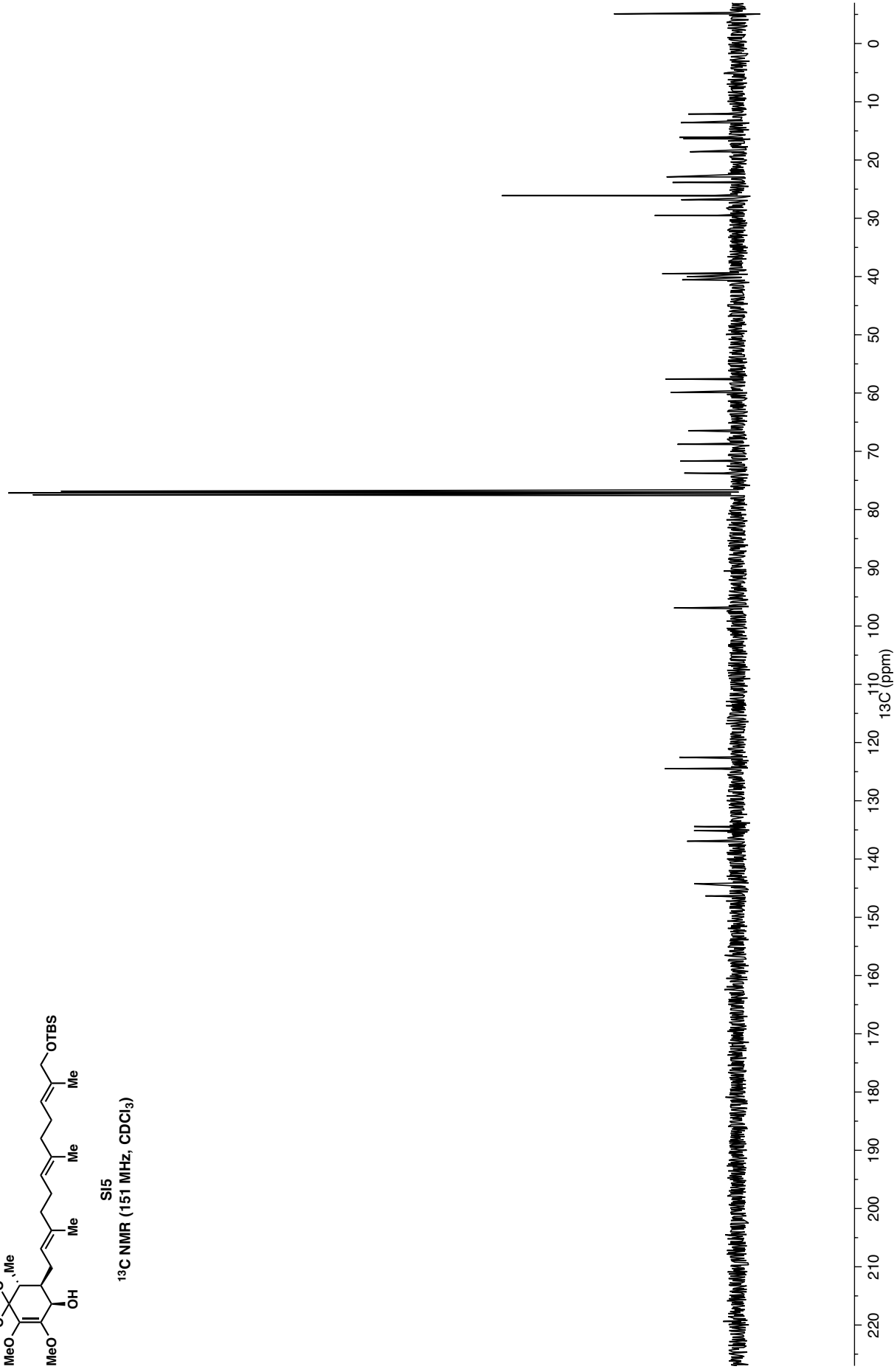
SI5  
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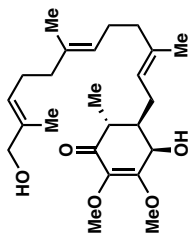




SI5

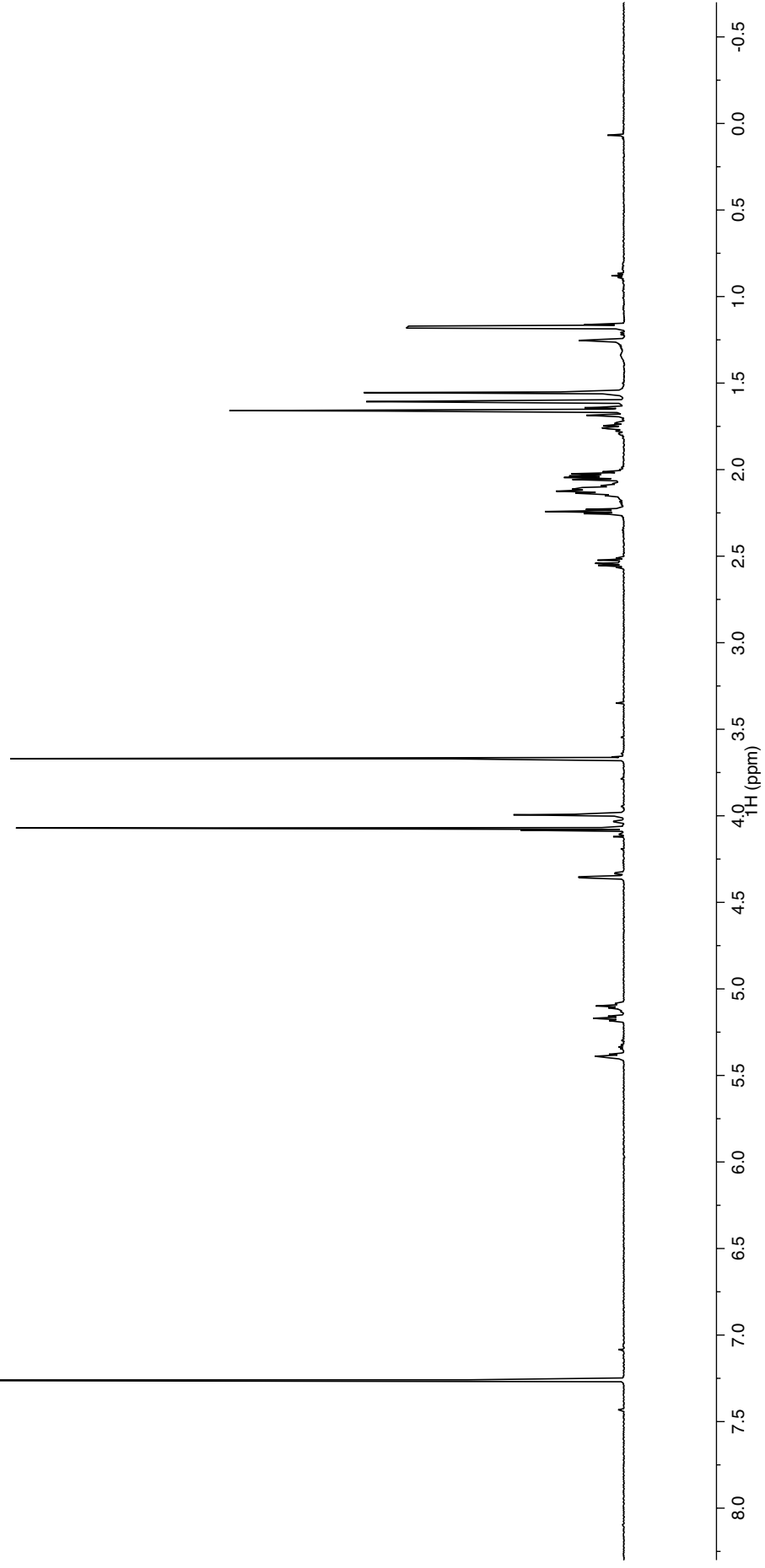
$^{13}\text{C}$  NMR (151 MHz,  $\text{CDCl}_3$ )



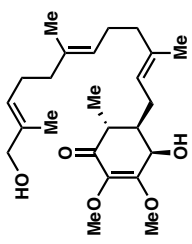


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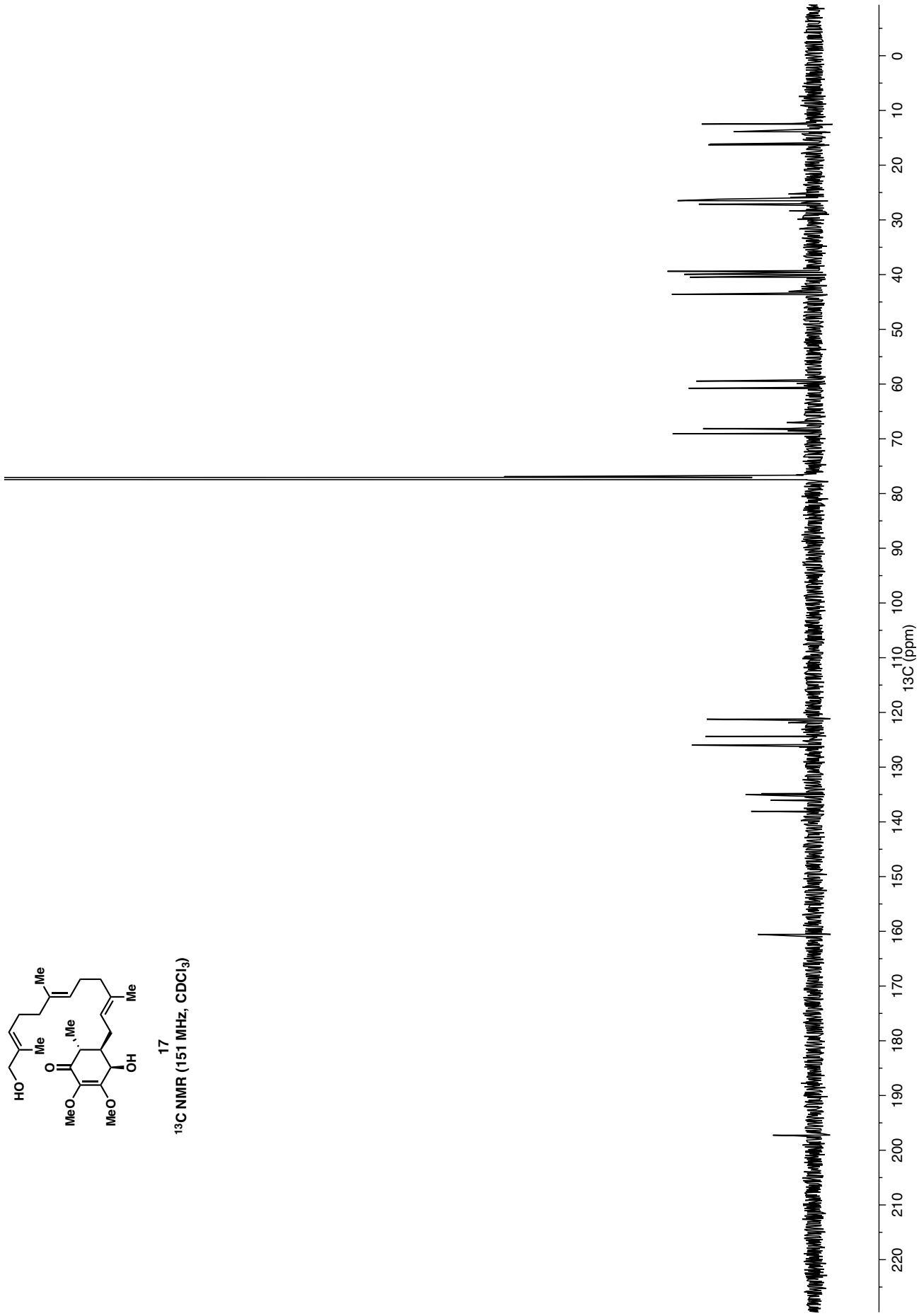
<sup>1</sup>H NMR (600 MHz, CDCl<sub>3</sub>)

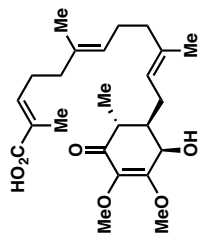




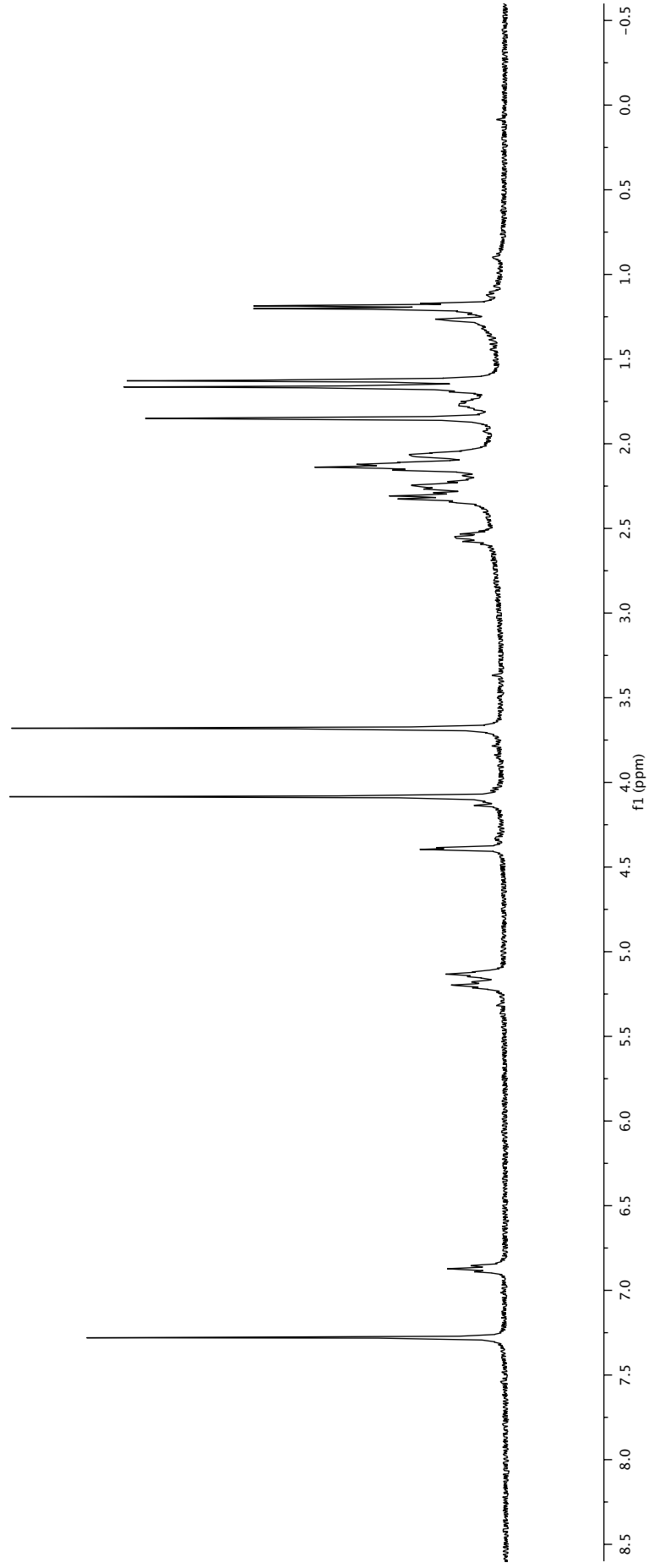


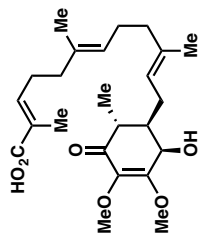
17  
<sup>13</sup>C NMR (151 MHz, CDCl<sub>3</sub>)





15  
<sup>1</sup>H NMR (400 MHz, CDCl<sub>3</sub>)





15  
<sup>13</sup>C NMR (151 MHz, CDCl<sub>3</sub>)

