

## SUPPORTING INFORMATION

FOR

### Ethynylbenzenoid metabolites of *Antrodia camphorata*: synthesis and inhibition of TNF expression

Marco Buccini,<sup>a</sup> Kathryn A. Punch,<sup>a</sup> Belinda Kaskow,<sup>a</sup> Gavin R. Flematti,<sup>a</sup> Brian W. Skelton,<sup>b</sup> Lawrence J. Abraham<sup>a</sup> and Matthew J. Piggott\*<sup>a</sup>

<sup>a</sup>School of Chemistry & Biochemistry, The University of Western Australia, Perth, Australia. <sup>b</sup>Centre for Microscopy, Characterisation and Analysis, The University of Western Australia, Perth, Australia.

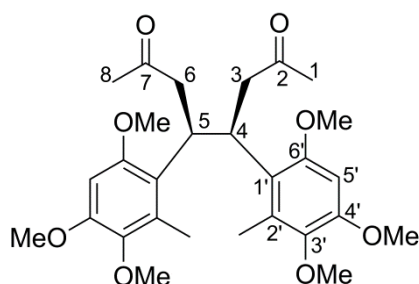
[matthew.piggott@uwa.edu.au](mailto:matthew.piggott@uwa.edu.au)

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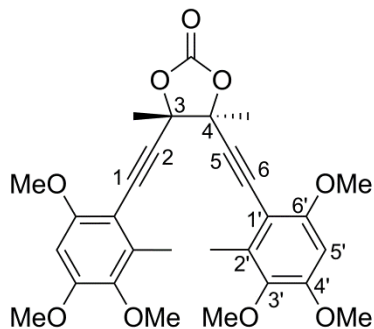
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## I. 1) Crystallographic data and structural refinement for 50



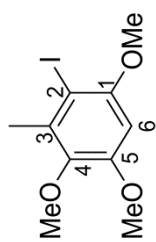
Empirical formula	C <sub>28</sub> H <sub>38</sub> O <sub>8</sub>
Formula weight	502.58
Temperature	100(2) K
Wavelength	0.71073 Å
Crystal system	Monoclinic
Space group	<i>P</i> 2 <sub>1</sub> / <i>c</i>
Unit cell dimensions	<i>a</i> = 9.5690(2) Å <i>b</i> = 8.0724(2) Å <i>c</i> = 17.2904(3) Å $\beta$ = 96.872(2)°
Volume	1326.00(5) Å <sup>3</sup>
<i>Z</i>	2
Density (calculated)	1.259 Mg/m <sup>3</sup>
Absorption coefficient	0.091 mm <sup>-1</sup>
Crystal size	0.30 x 0.24 x 0.23 mm <sup>3</sup>
$\theta$ range for data collection	3.92 to 34.85°.
Index ranges	-15 ≤ <i>h</i> ≤ 15, -12 ≤ <i>k</i> ≤ 12, -27 ≤ <i>l</i> ≤ 27
Reflections collected	30818
Independent reflections	5538 [R(int) = 0.0437]
Completeness to $\theta = 33.00^\circ$	99.8 %
Absorption correction	Semi-empirical from equivalents
Max./min. transmission	1.00/0.93
Refinement method	Full-matrix least-squares on <i>F</i> <sup>2</sup>
Data / restraints / parameters	5538 / 0 / 168
Goodness-of-fit on <i>F</i> <sup>2</sup>	0.985
Final R indices [ <i>I</i> > 2 $\sigma$ ( <i>I</i> )]	<i>R</i> 1 = 0.0510, <i>wR</i> 2 = 0.1371
R indices (all data)	<i>R</i> 1 = 0.0854, <i>wR</i> 2 = 0.1514
Largest diff. peak and hole	0.553 and -0.238 e.Å <sup>-3</sup>

## 2) Crystallographic data and structural refinement for 51

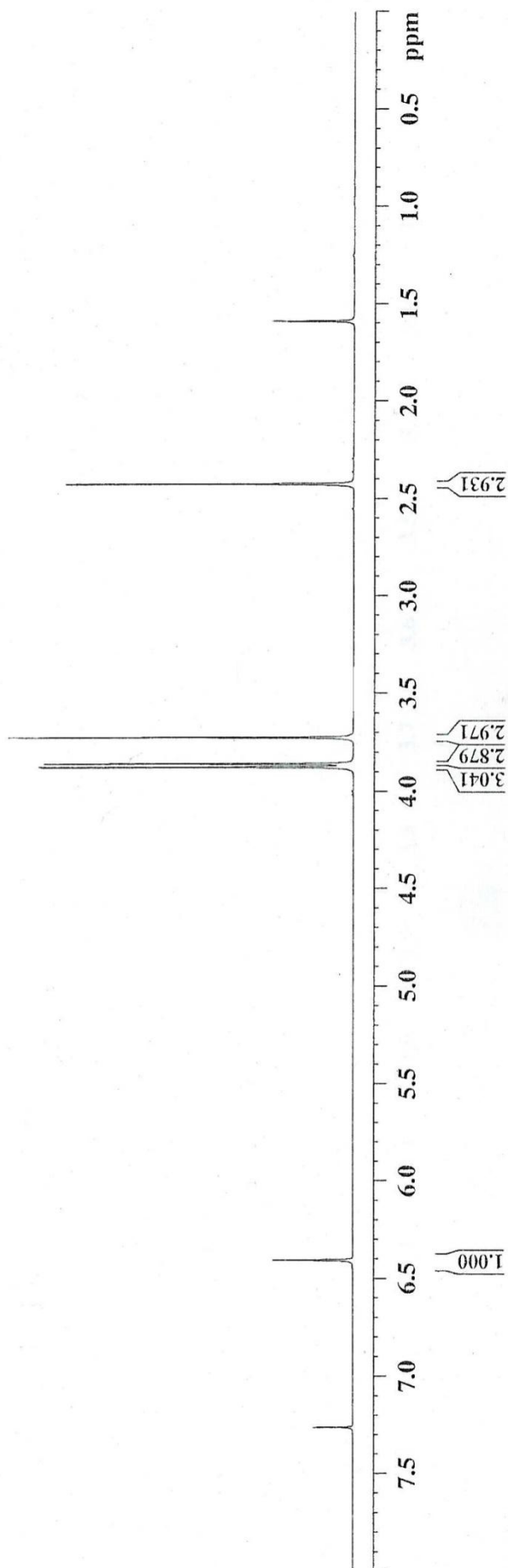


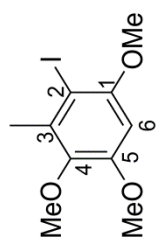
Empirical formula	C <sub>29</sub> H <sub>32</sub> O <sub>9</sub>
Formula weight	524.55
Temperature	100(2) K
Wavelength	0.71073 Å
Crystal system	Monoclinic
Space group	<i>P</i> 2 <sub>1</sub>
Unit cell dimensions	<i>a</i> = 7.3517(19) Å <i>b</i> = 18.103(5) Å <i>c</i> = 10.012(3) Å $\beta$ = 96.47(2)°
Volume	1323.9(6) Å <sup>3</sup>
<i>Z</i>	2
Density (calculated)	1.316 Mg/m <sup>3</sup>
Absorption coefficient	0.098 mm <sup>-1</sup>
Crystal size	0.31 x 0.16 x 0.09 mm <sup>3</sup>
$\theta$ range for data collection	2.79 to 25.00°.
Index ranges	-4 ≤ <i>h</i> ≤ 8, -21 ≤ <i>k</i> ≤ 21, -11 ≤ <i>l</i> ≤ 9
Reflections collected	7957
Independent reflections	2406 [R(int) = 0.0820]
Completeness to $\theta = 25.00^\circ$	99.9 %
Absorption correction	Semi-empirical from equivalents
Max. and min. transmission	1.00/0.93
Refinement method	Full-matrix least-squares on <i>F</i> <sup>2</sup>
Data / restraints / parameters	2406 / 235 / 357
Goodness-of-fit on <i>F</i> <sup>2</sup>	1.412
Final R indices [ <i>I</i> > 2 $\sigma$ ( <i>I</i> )]	<i>R</i> 1 = 0.1458, <i>wR</i> 2 = 0.3562
R indices (all data)	<i>R</i> 1 = 0.1602, <i>wR</i> 2 = 0.3683
Largest diff. peak and hole	1.305 and -0.504 e.Å <sup>-3</sup>

## II. NMR SPECTRA

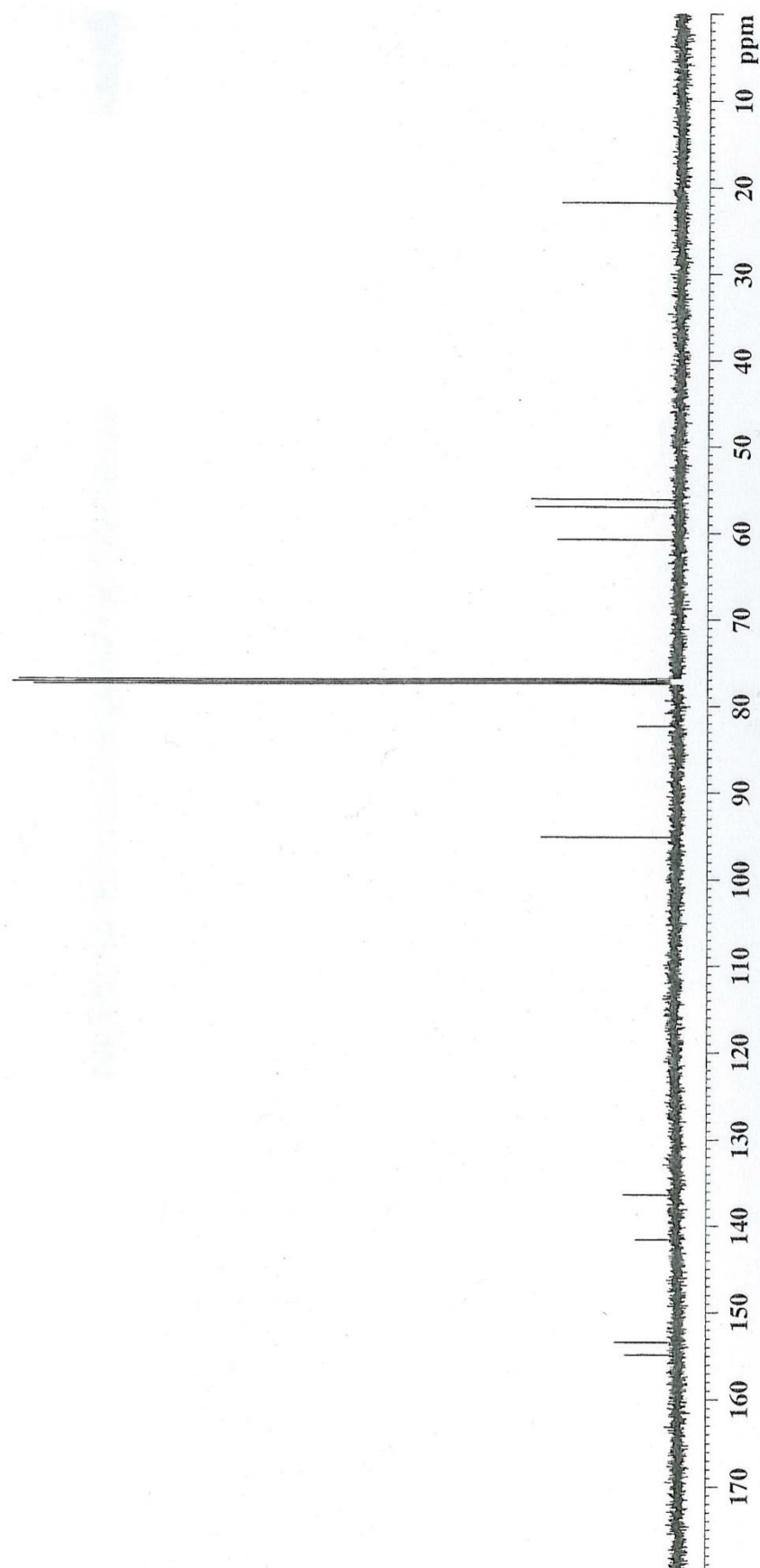


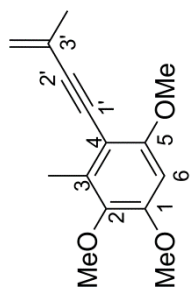
500 MHz  $^1\text{H}$  NMR spectrum of **5** in  $\text{CDCl}_3$



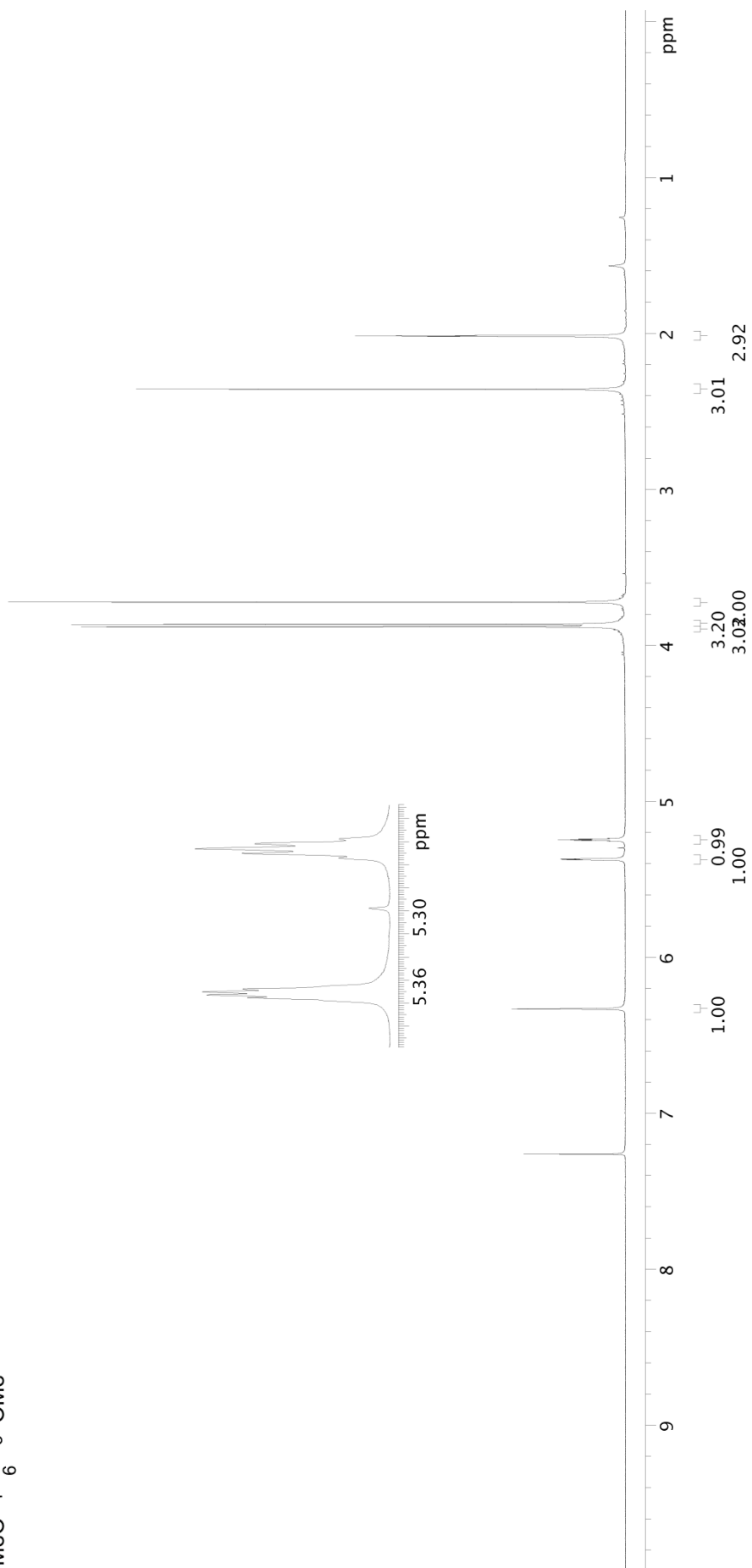


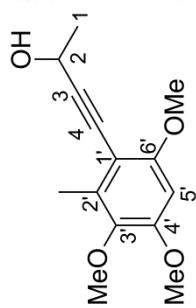
125 MHz  $^{13}\text{C}$  NMR spectrum of **5** in  $\text{CDCl}_3$



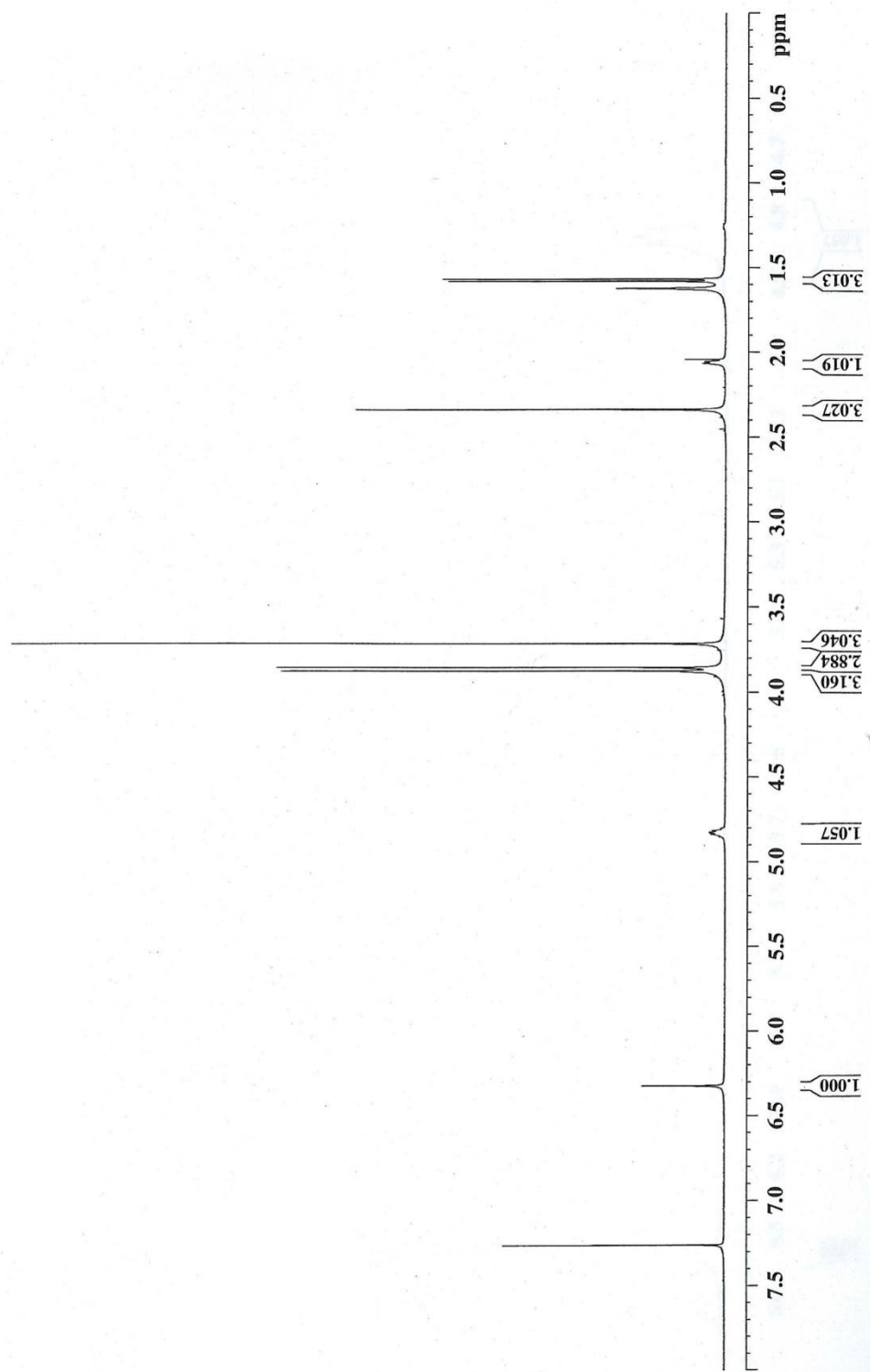


400 MHz  $^1\text{H}$  NMR spectrum of antrocamphin A (**2**) in  $\text{CDCl}_3$

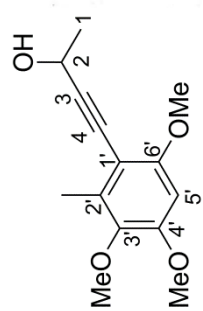




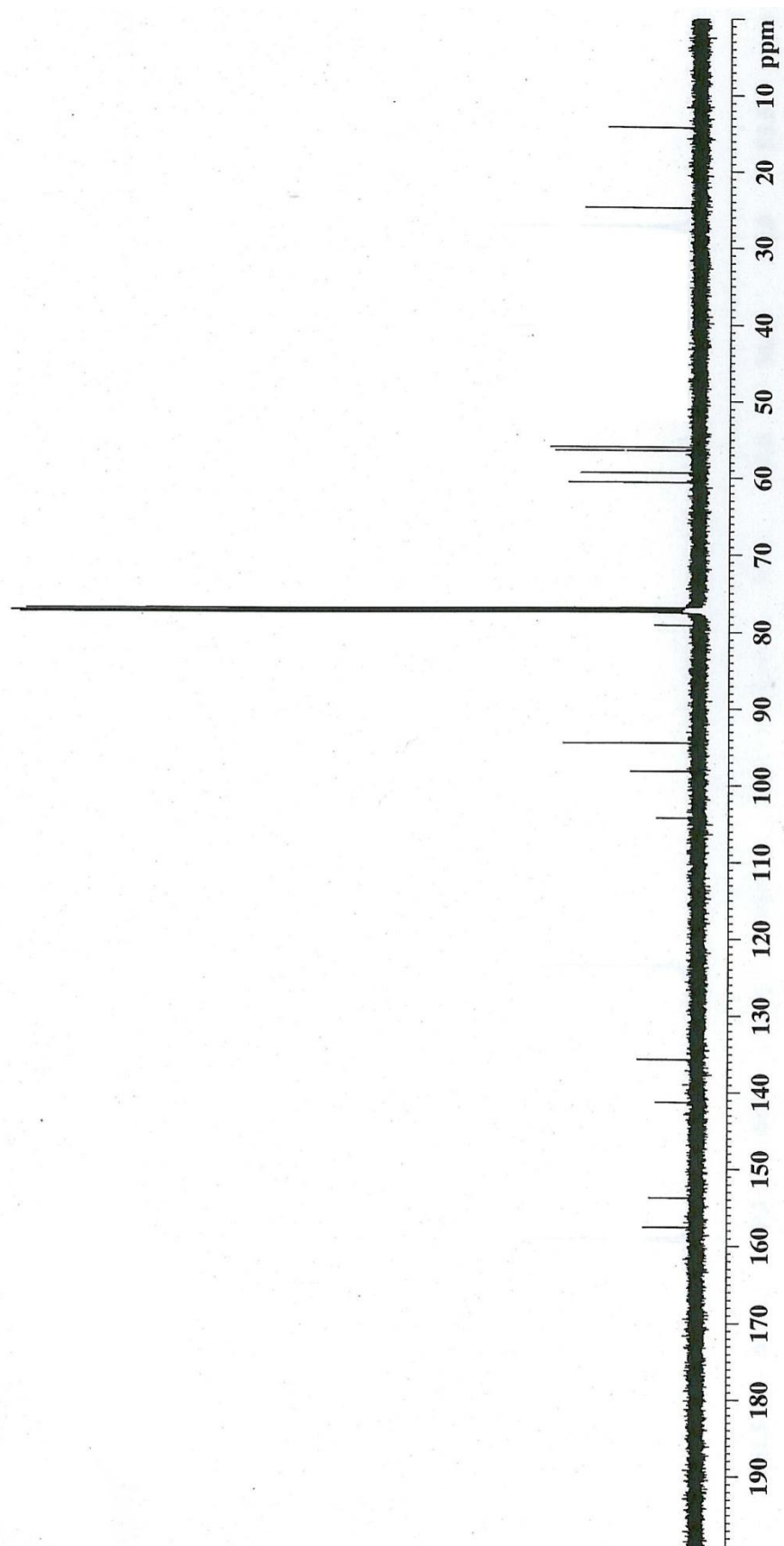
500 MHz <sup>1</sup>H NMR spectrum of **19** in CDCl<sub>3</sub>

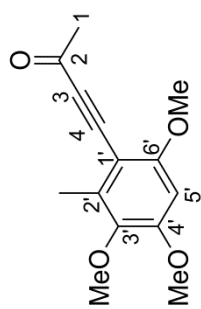




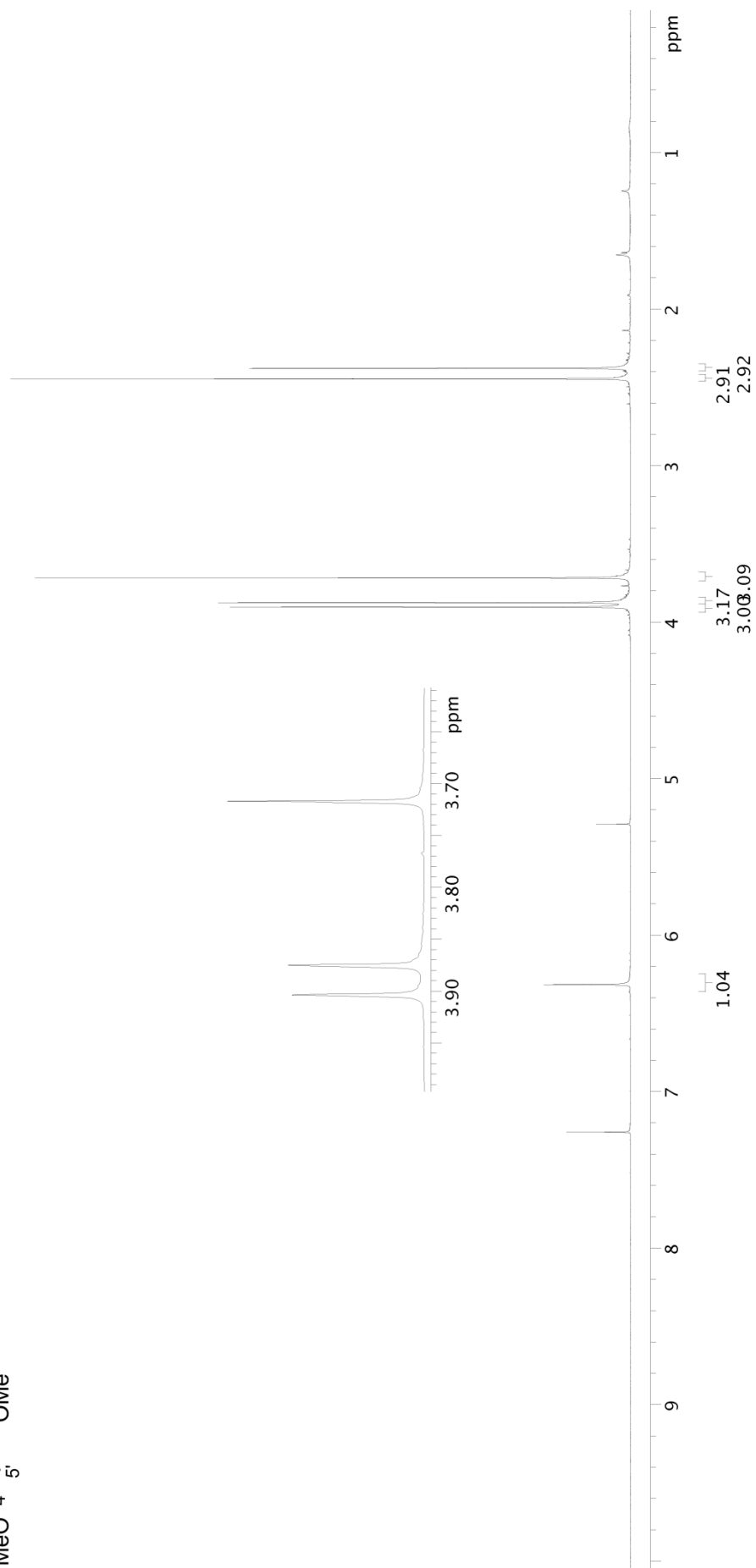


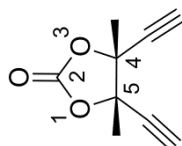
125 MHz  $^{13}\text{C}$  NMR spectrum of **19** in  $\text{CDCl}_3$



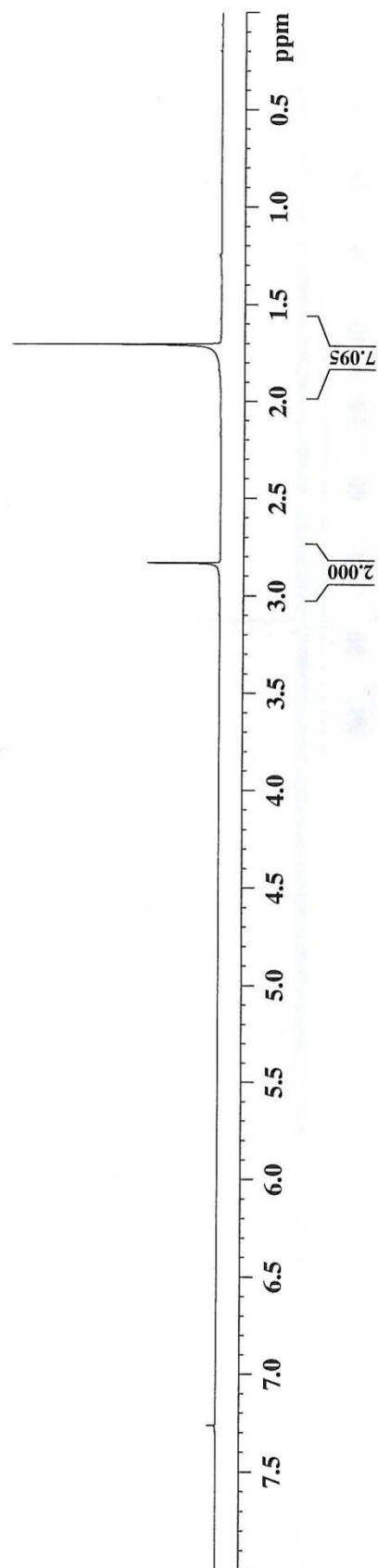


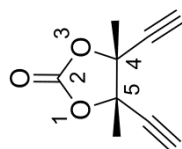
400 MHz  $^1\text{H}$  NMR spectrum of antrocamphin B (**3**) in  $\text{CDCl}_3$



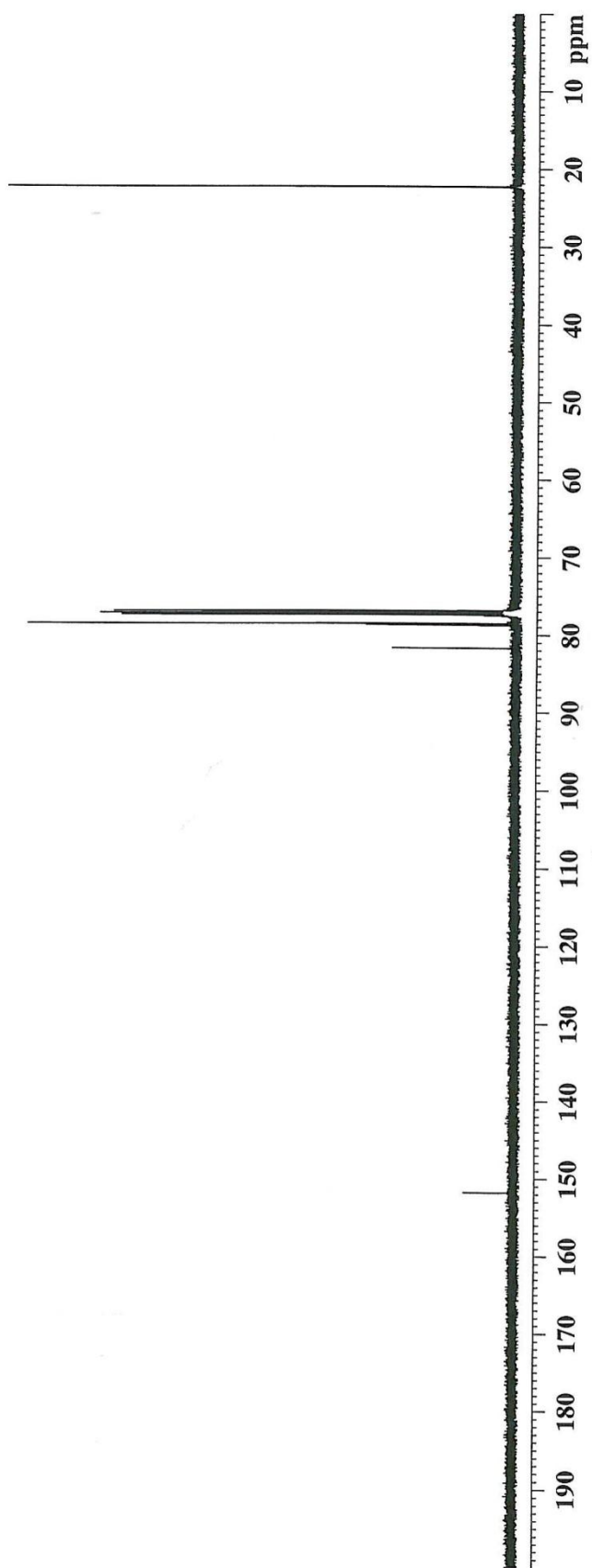


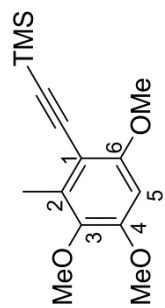
500 MHz  $^1\text{H}$  NMR spectrum of **26** in  $\text{CDCl}_3$



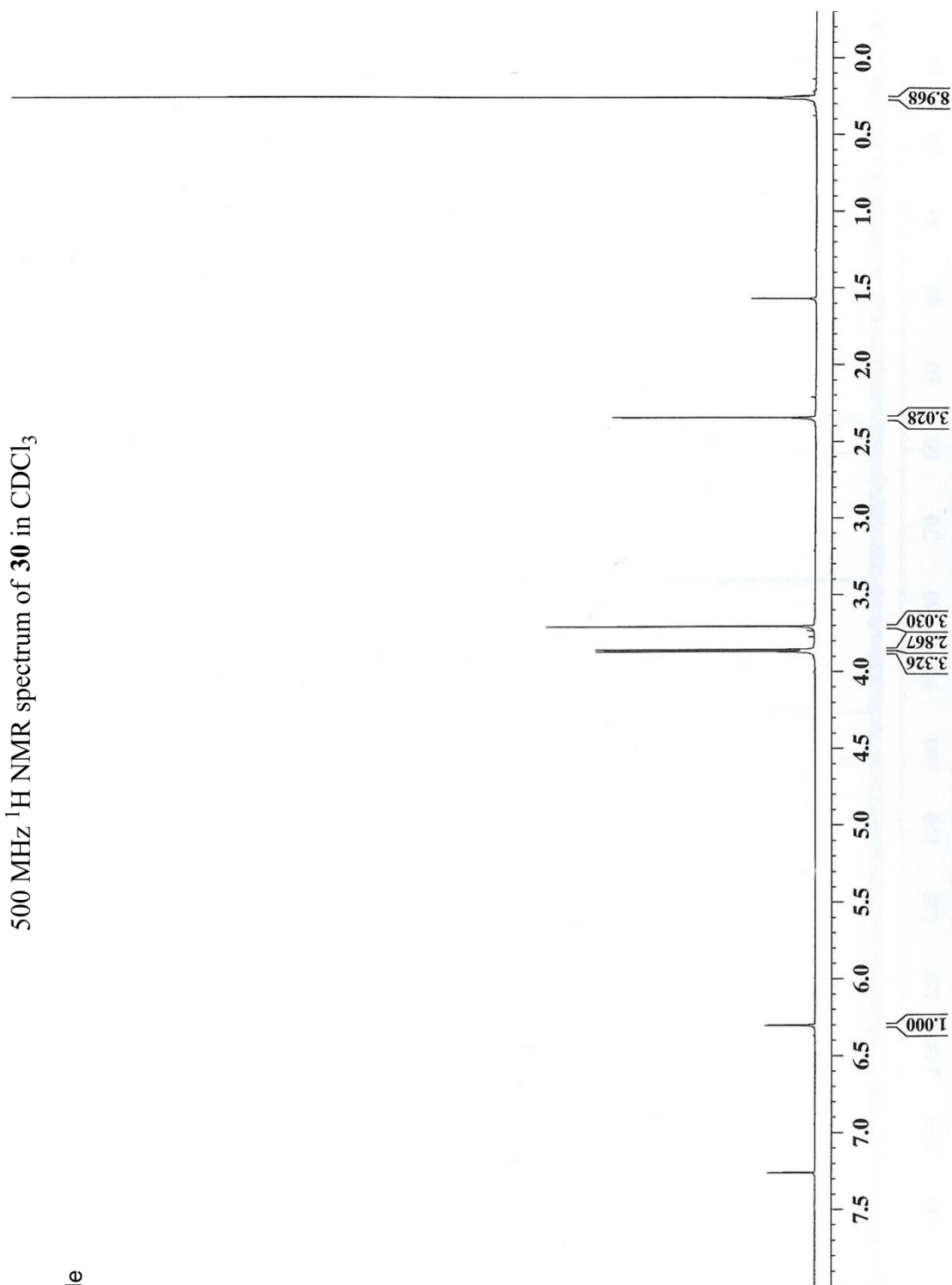


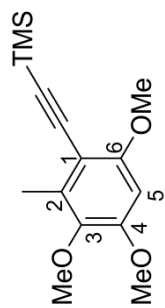
125 MHz  $^{13}\text{C}$  NMR spectrum of **26** in  $\text{CDCl}_3$



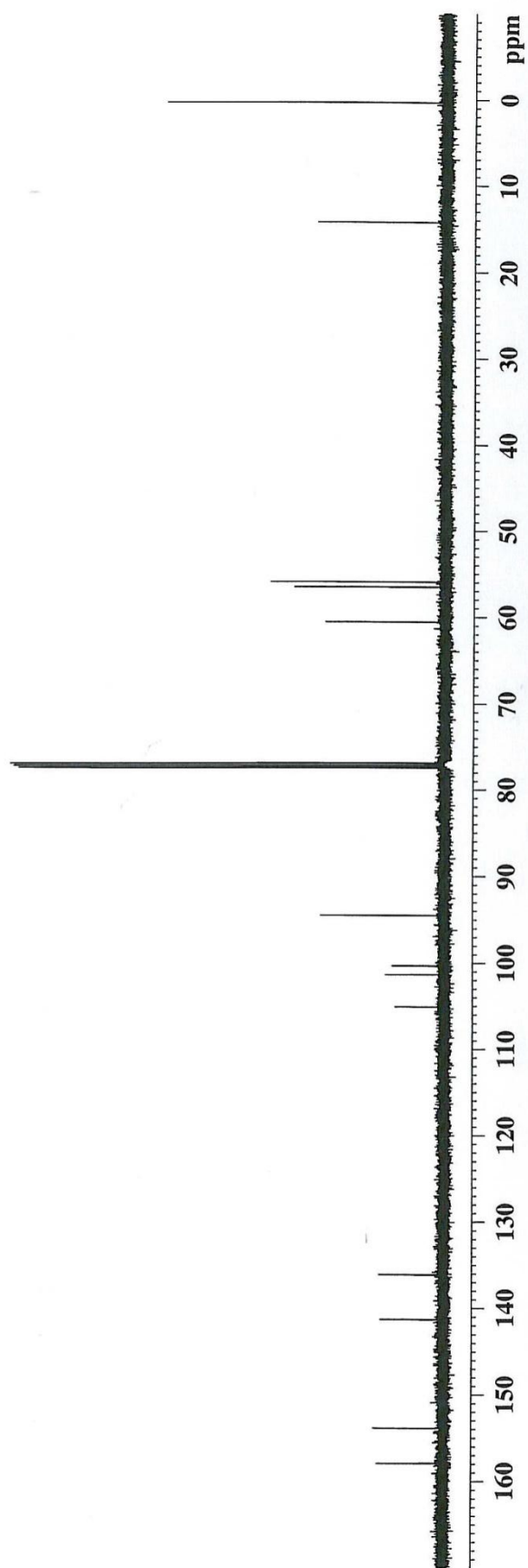


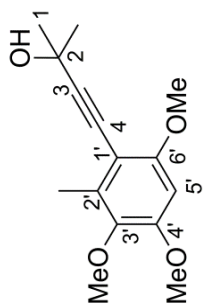
500 MHz  $^1\text{H}$  NMR spectrum of **30** in  $\text{CDCl}_3$



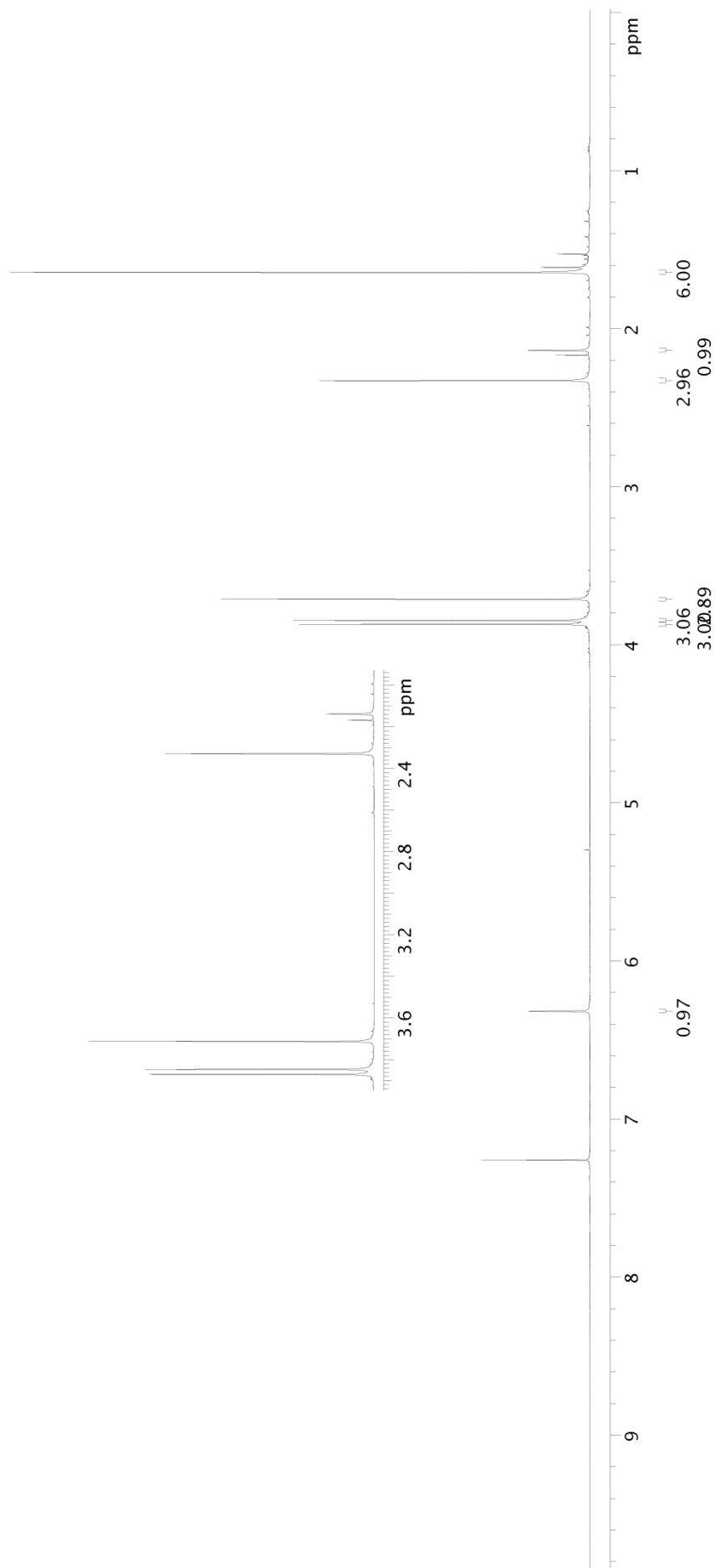


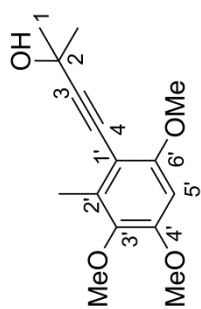
125 MHz  $^{13}\text{C}$  NMR spectrum of **30** in  $\text{CDCl}_3$



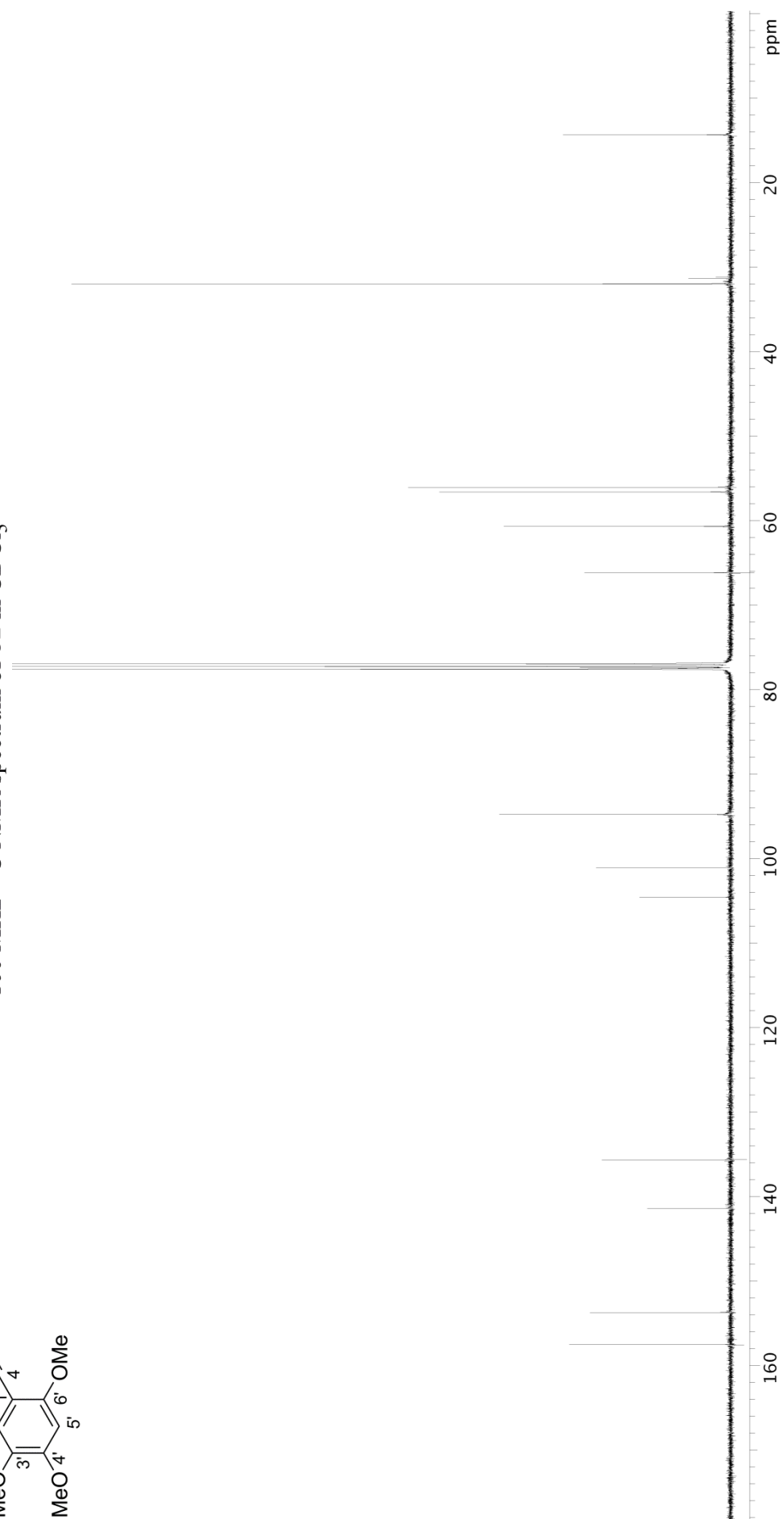


400 MHz  $^1\text{H}$  NMR spectrum of **32** in  $\text{CDCl}_3$

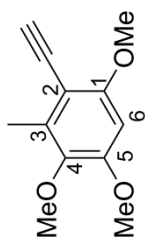




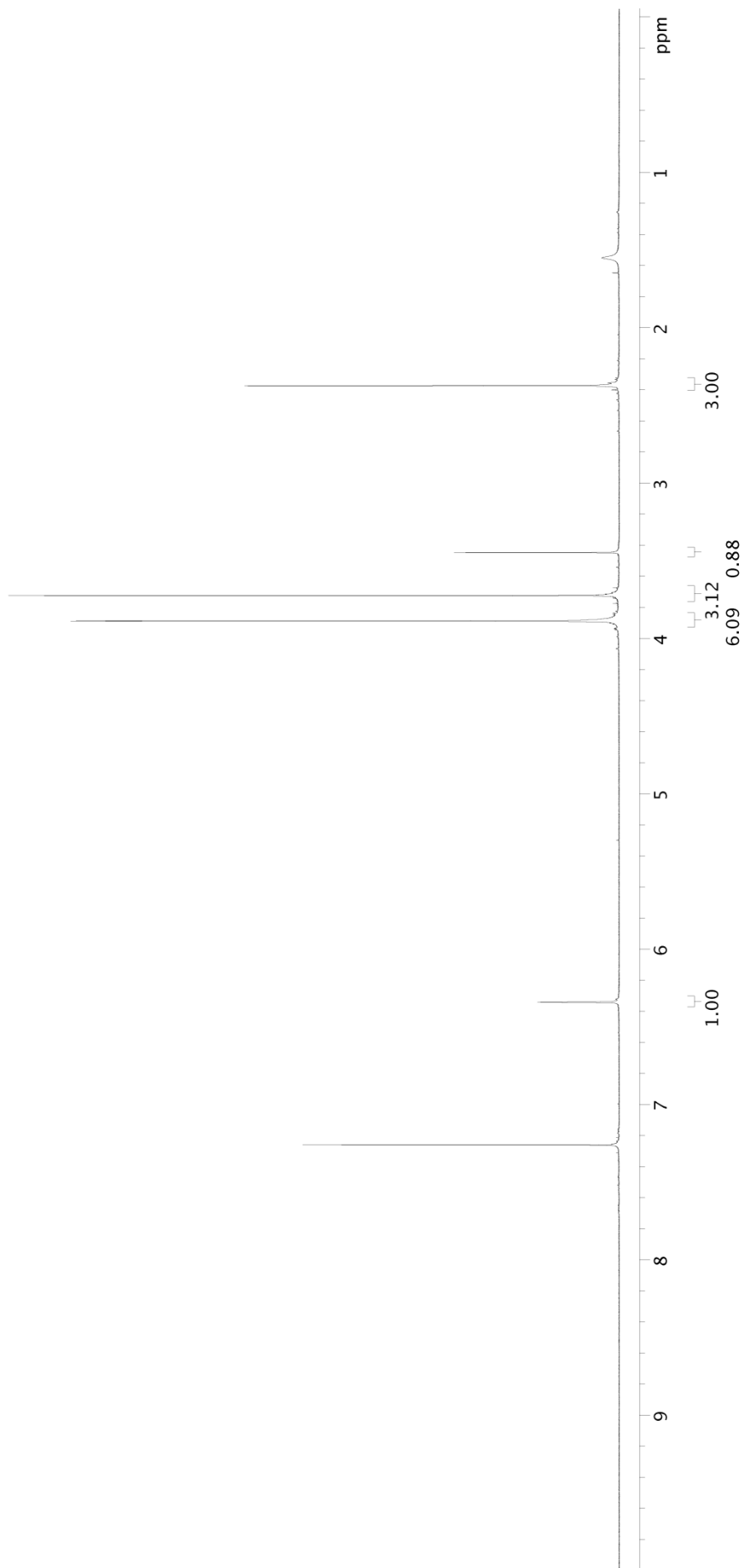
100 MHz  $^{13}\text{C}$  NMR spectrum of **32** in  $\text{CDCl}_3$

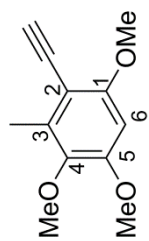




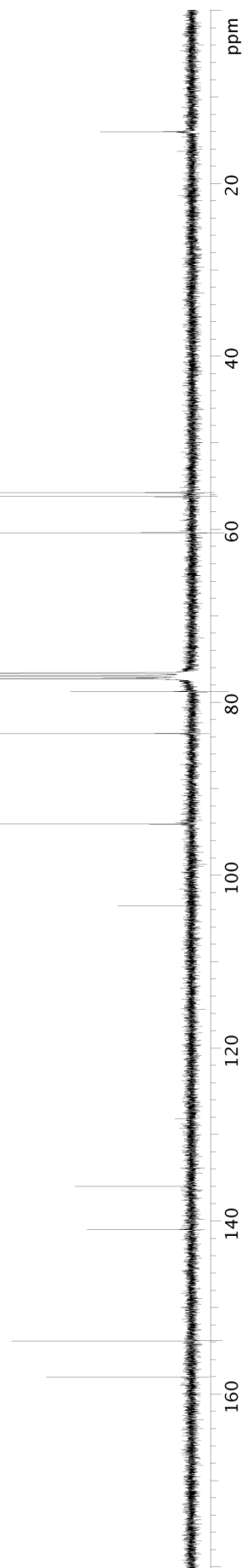


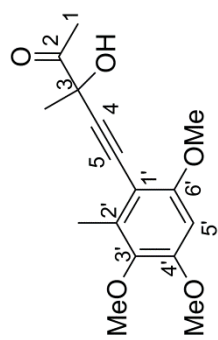
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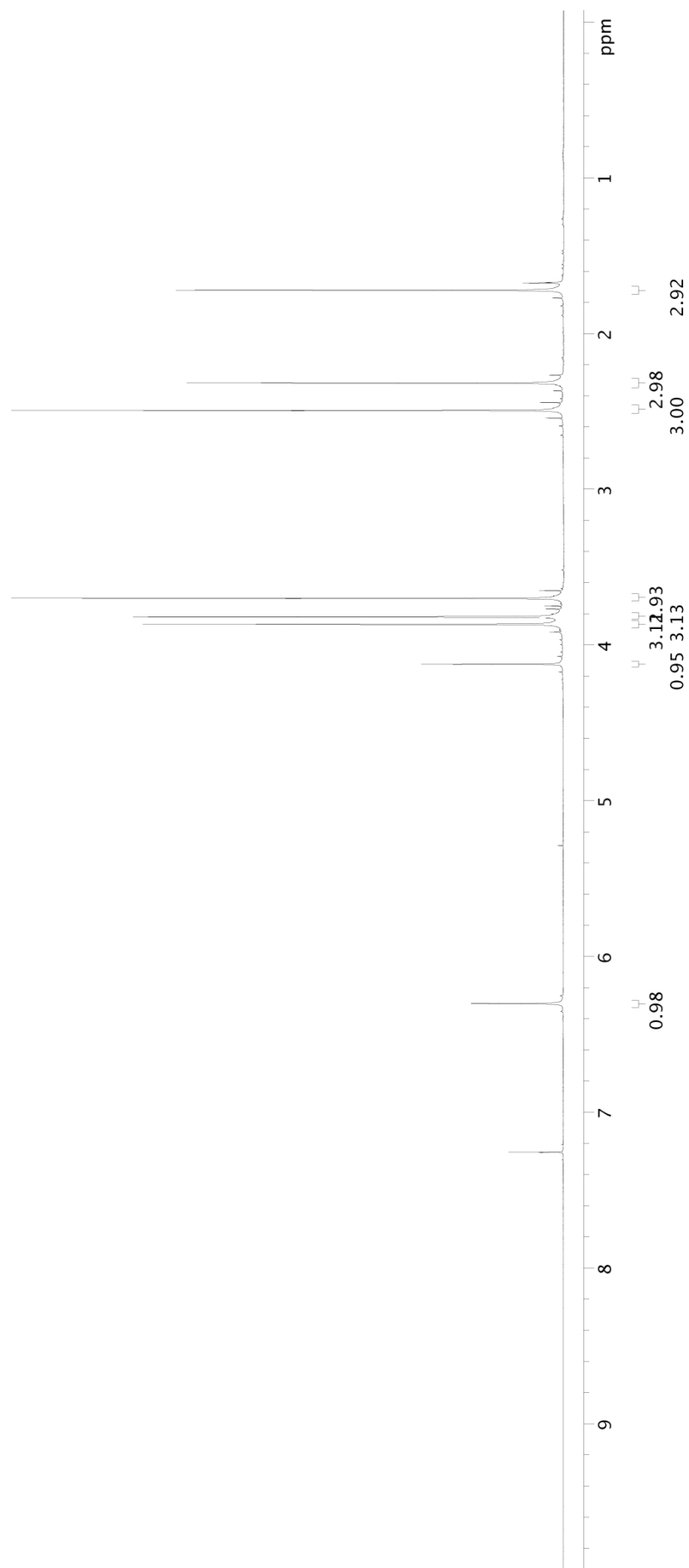


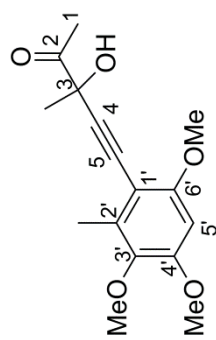
100 MHz  $^{13}\text{C}$  NMR spectrum of **33** in  $\text{CDCl}_3$



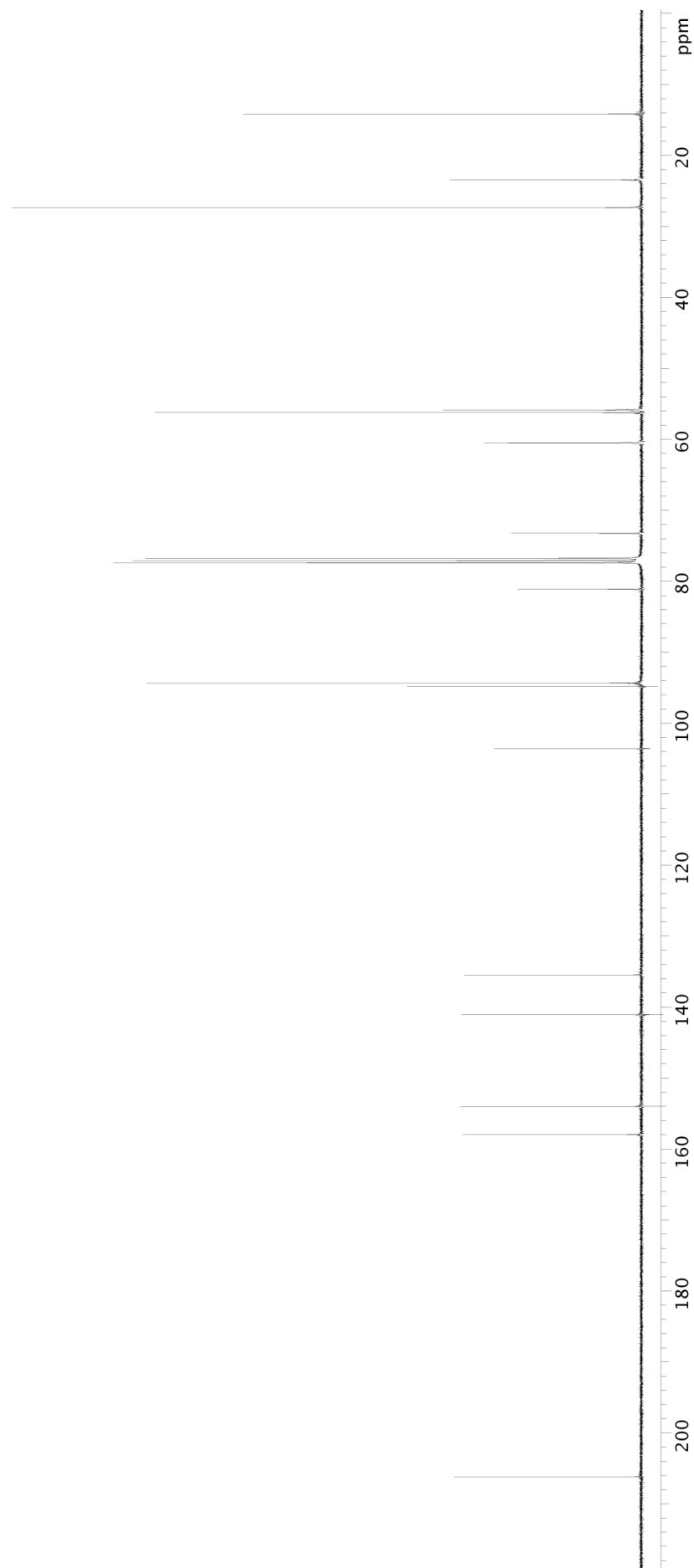


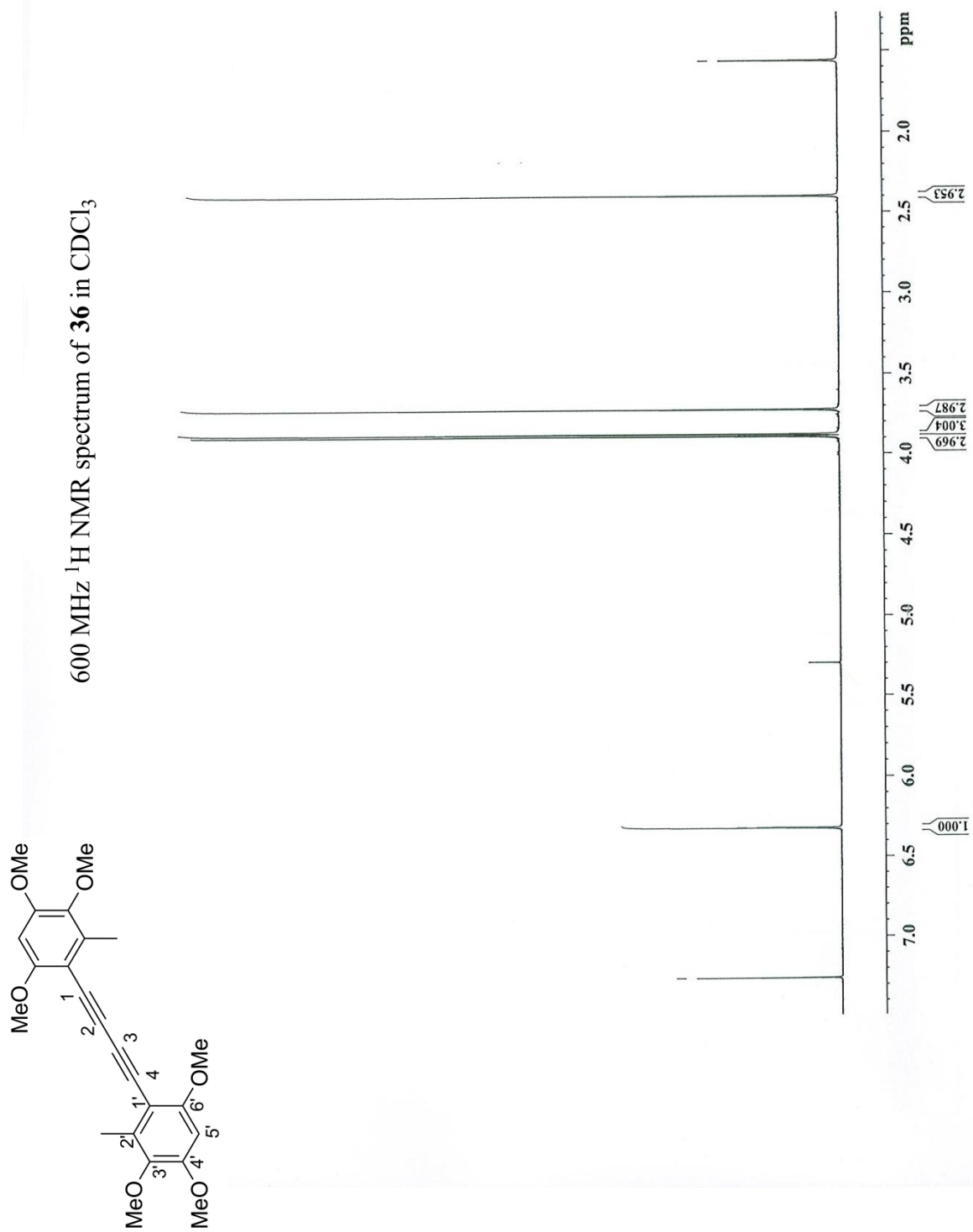
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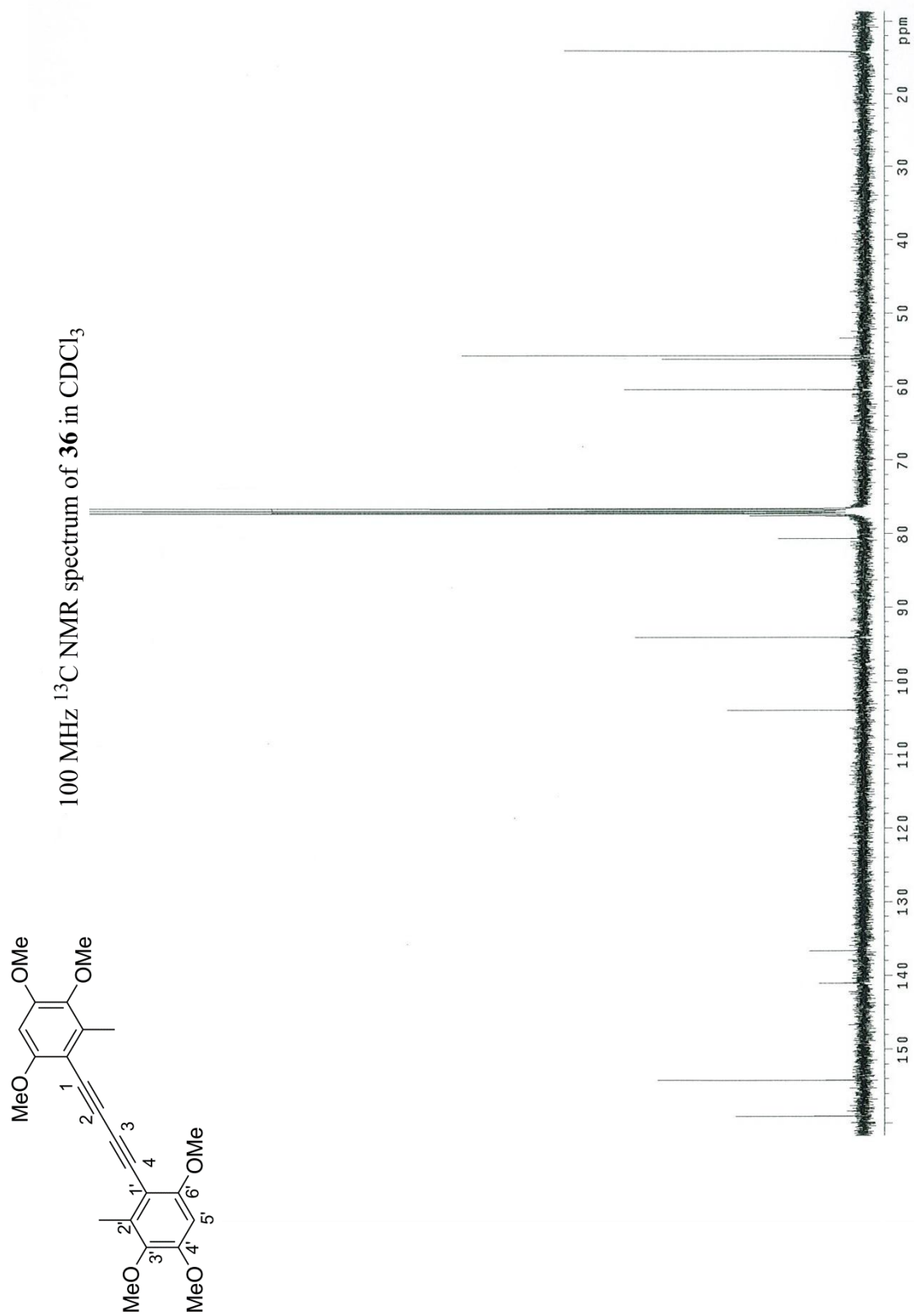


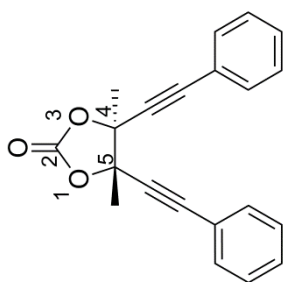


100 MHz  $^{13}\text{C}$  NMR spectrum of **35** in  $\text{CDCl}_3$

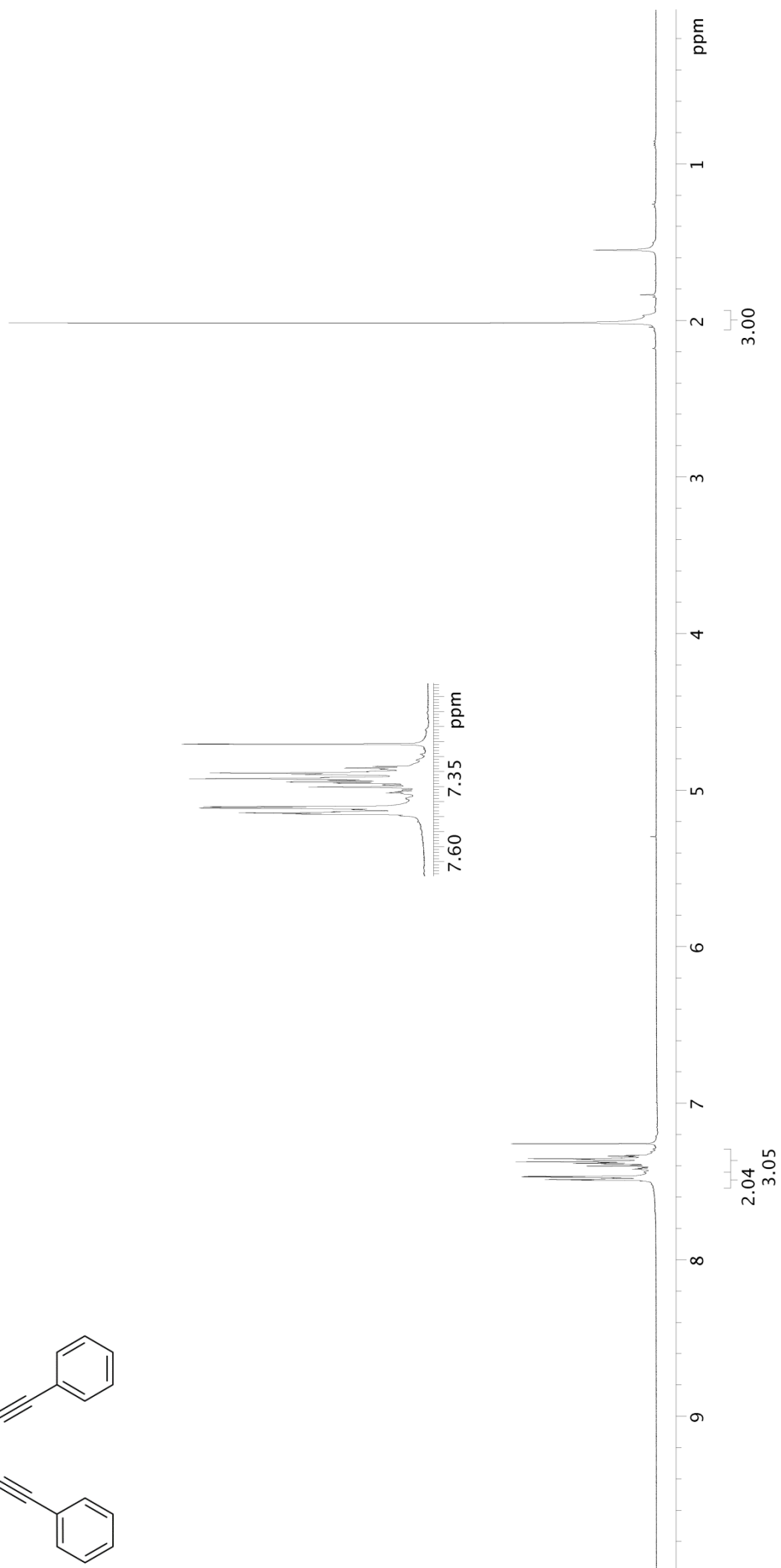


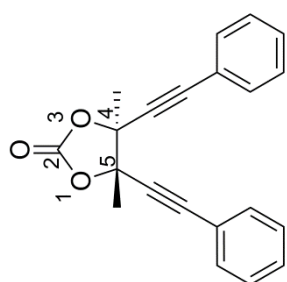




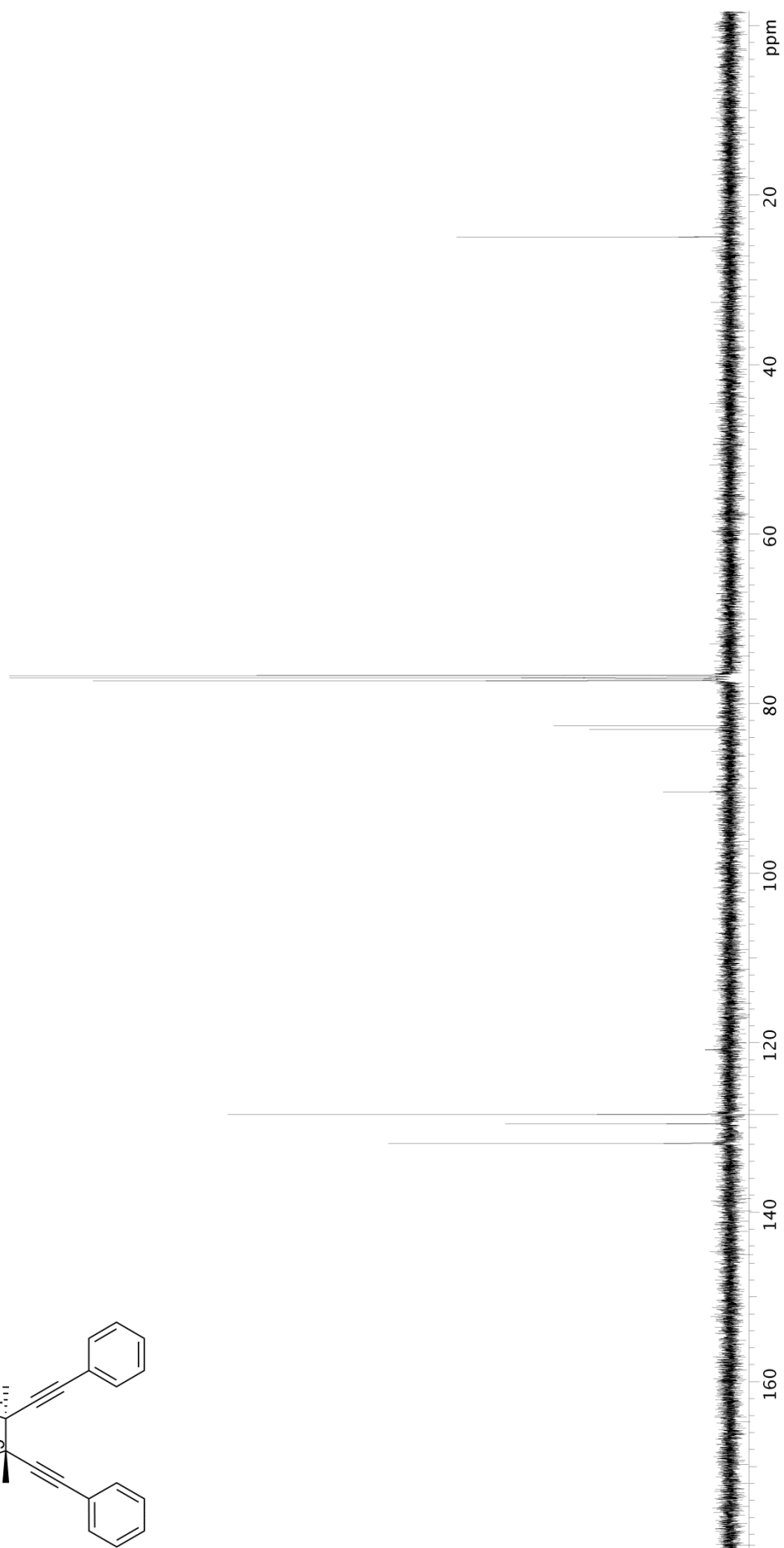


400 MHz  $^1\text{H}$  NMR spectrum of **41** in  $\text{CDCl}_3$

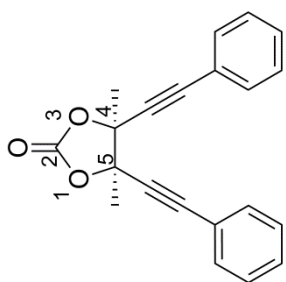




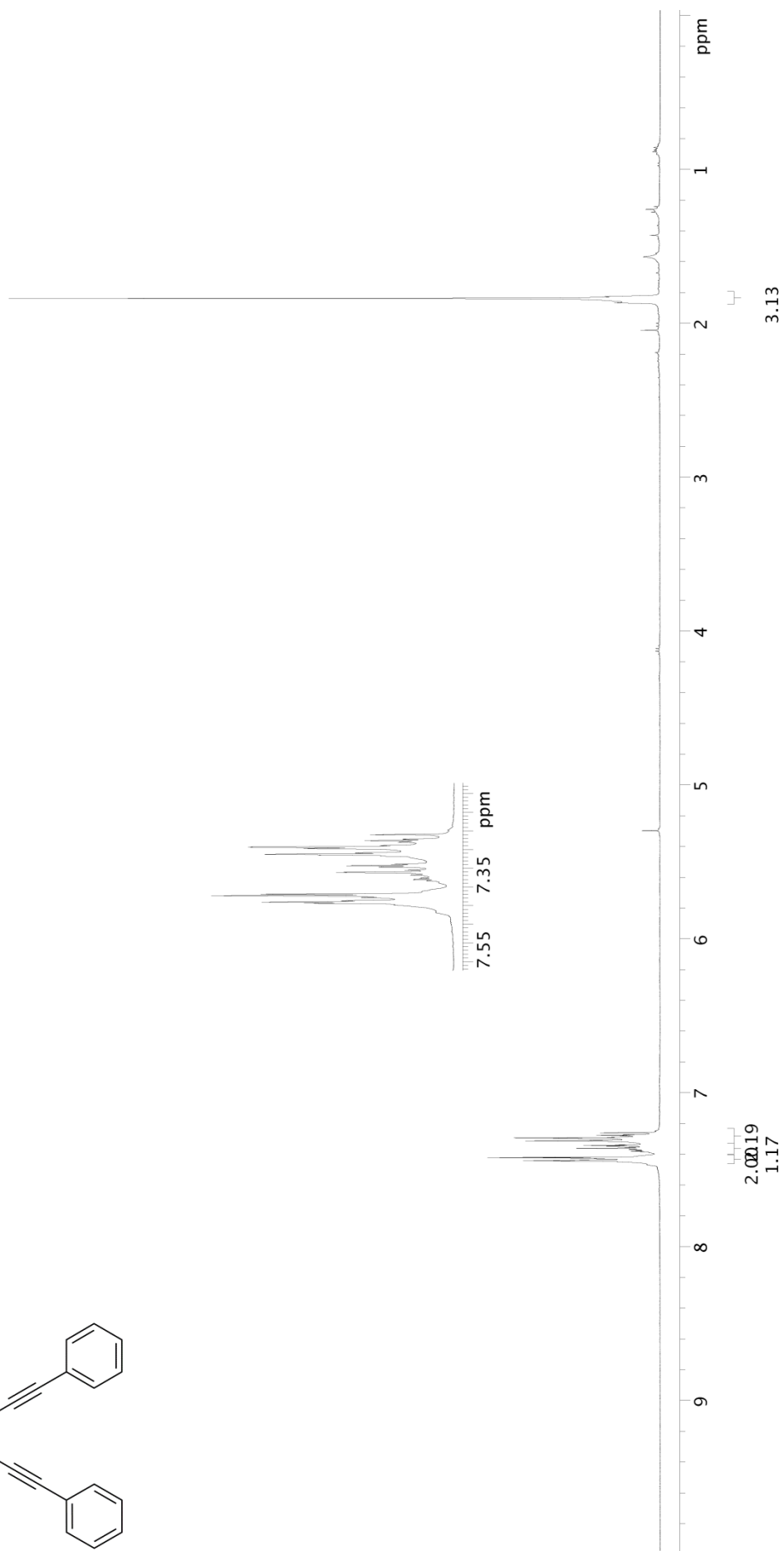
100 MHz <sup>13</sup>C NMR spectrum of **41** in CDCl<sub>3</sub>

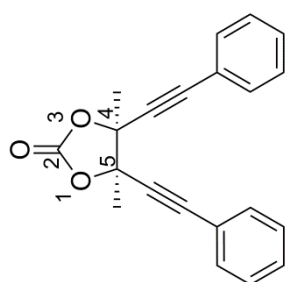




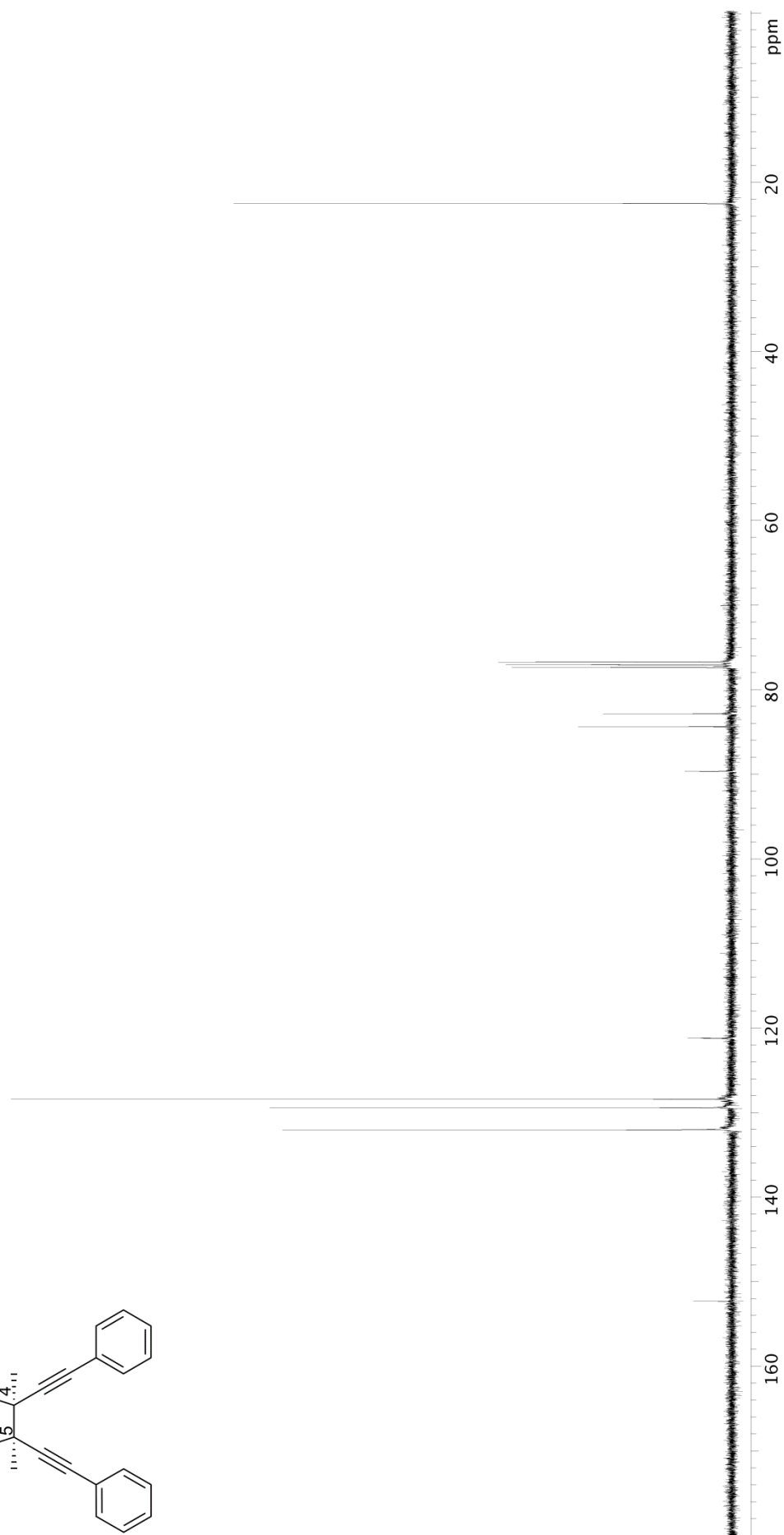


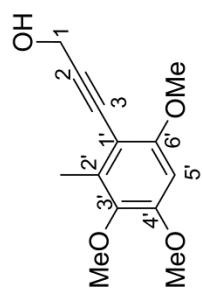
400 MHz  $^1\text{H}$  NMR spectrum of **40** in  $\text{CDCl}_3$



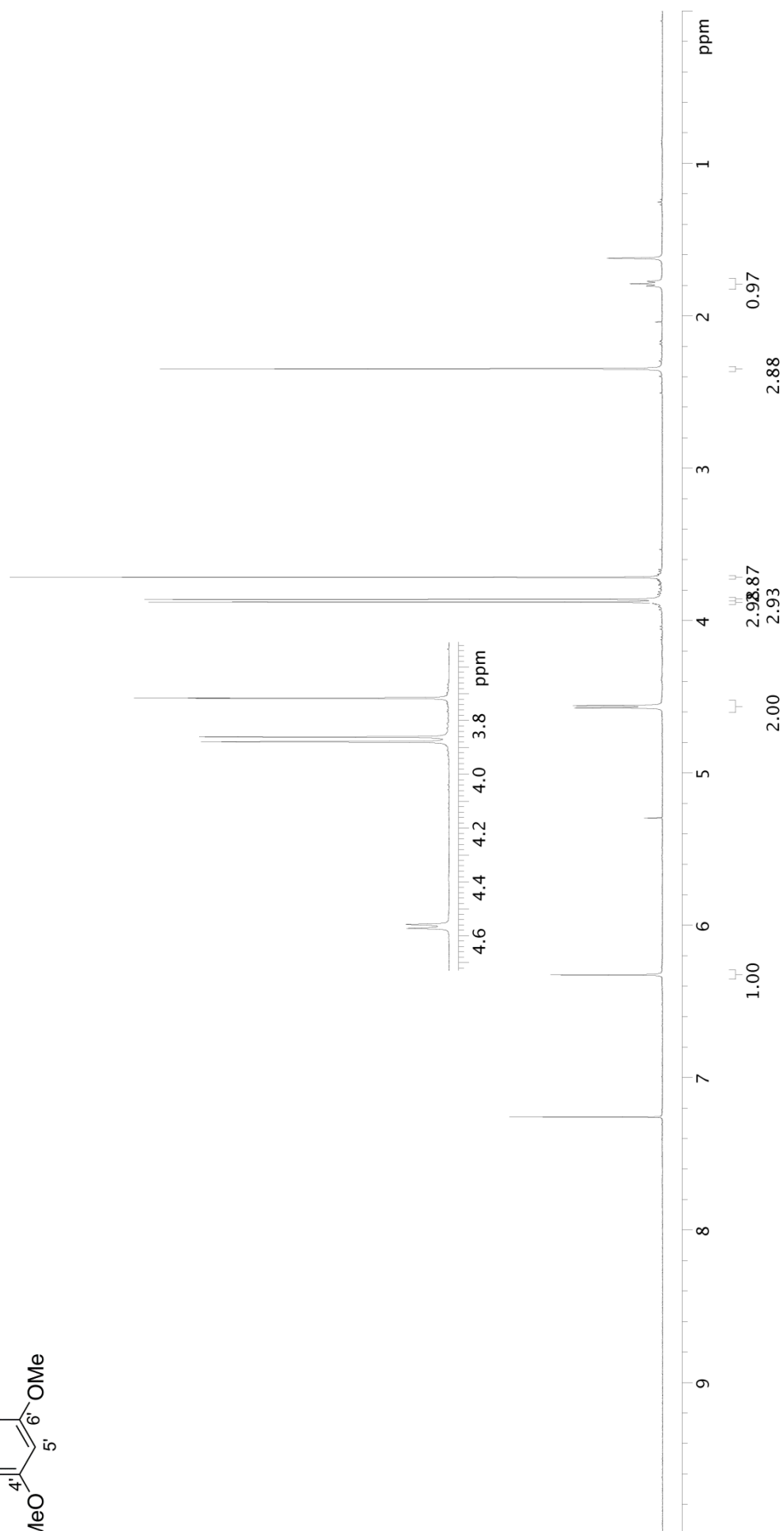


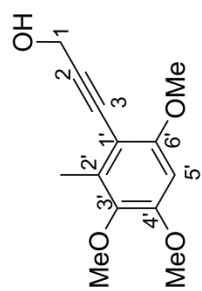
100 MHz  $^{13}\text{C}$  NMR spectrum of **40** in  $\text{CDCl}_3$



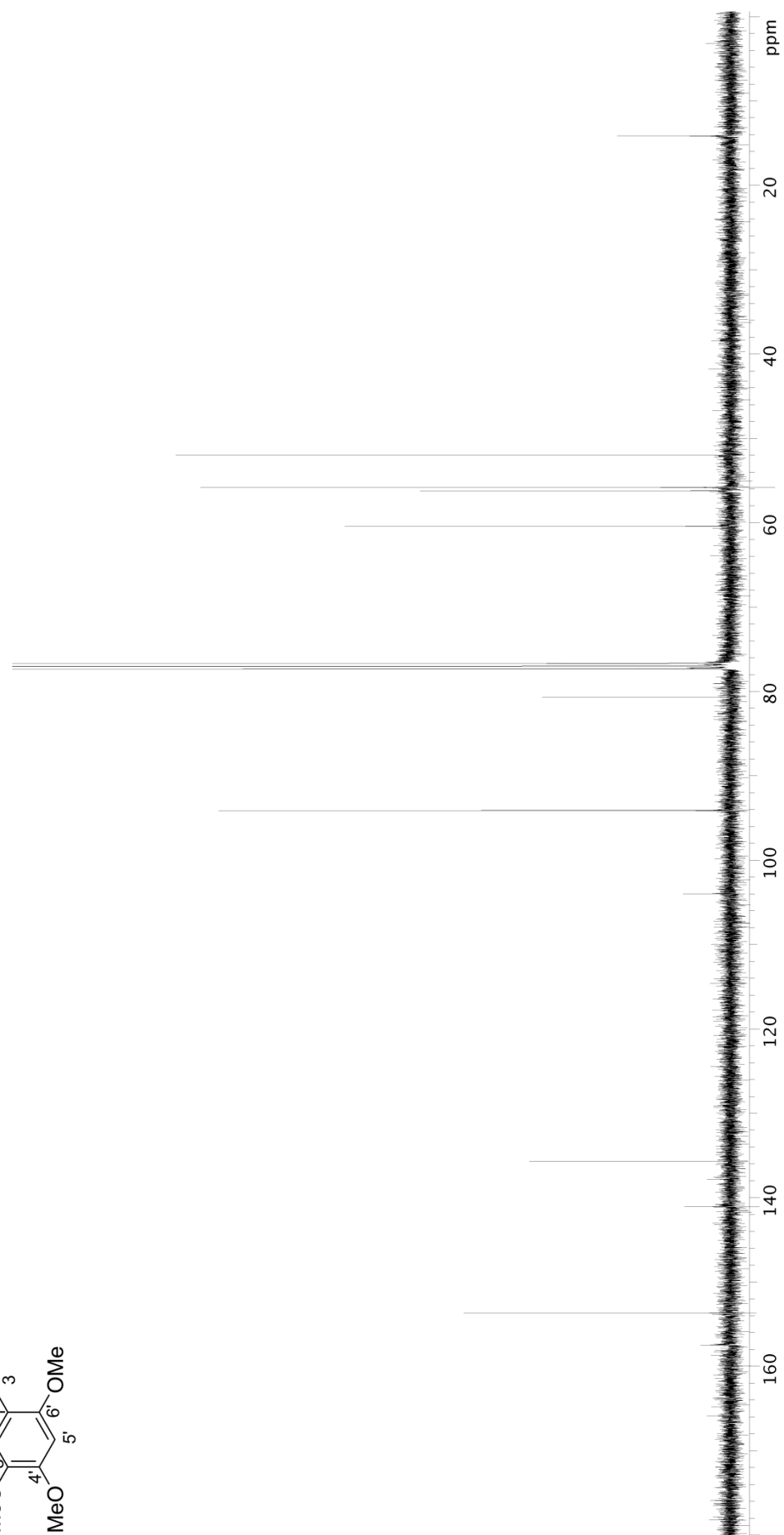


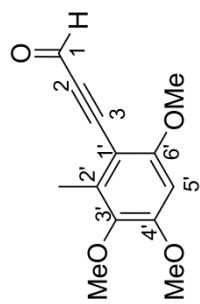
400 MHz  $^1\text{H}$  NMR spectrum of **43** in  $\text{CDCl}_3$



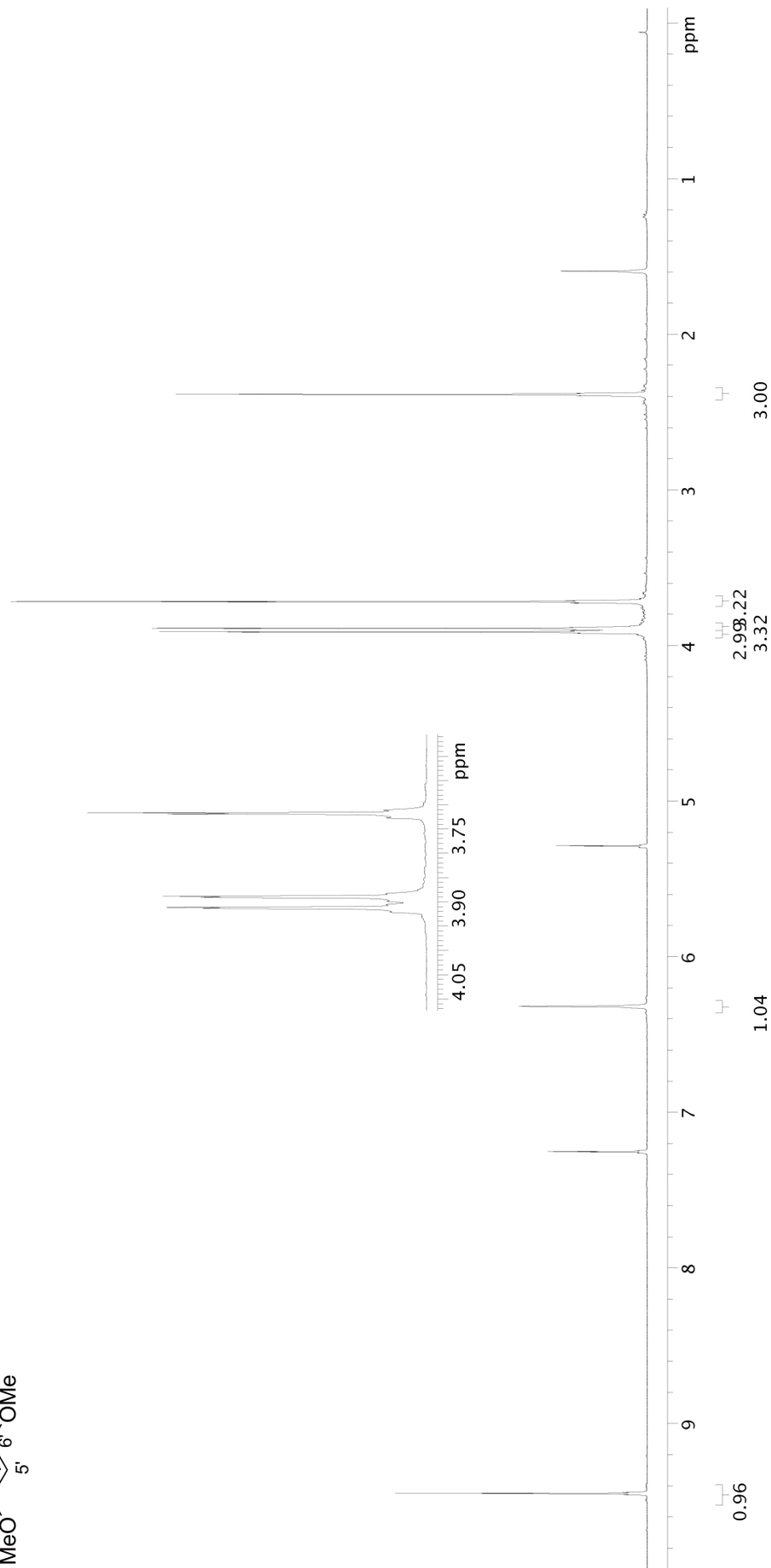


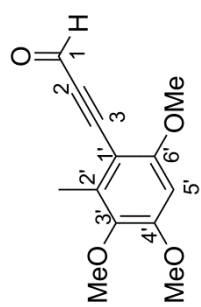
100 MHz <sup>13</sup>C NMR spectrum of **43** in CDCl<sub>3</sub>



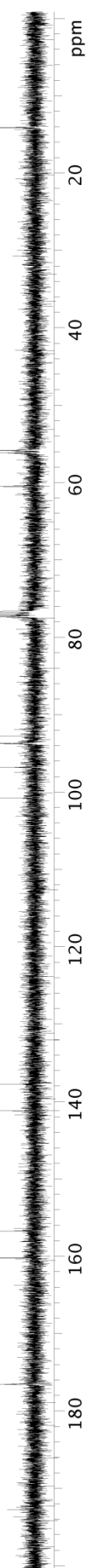


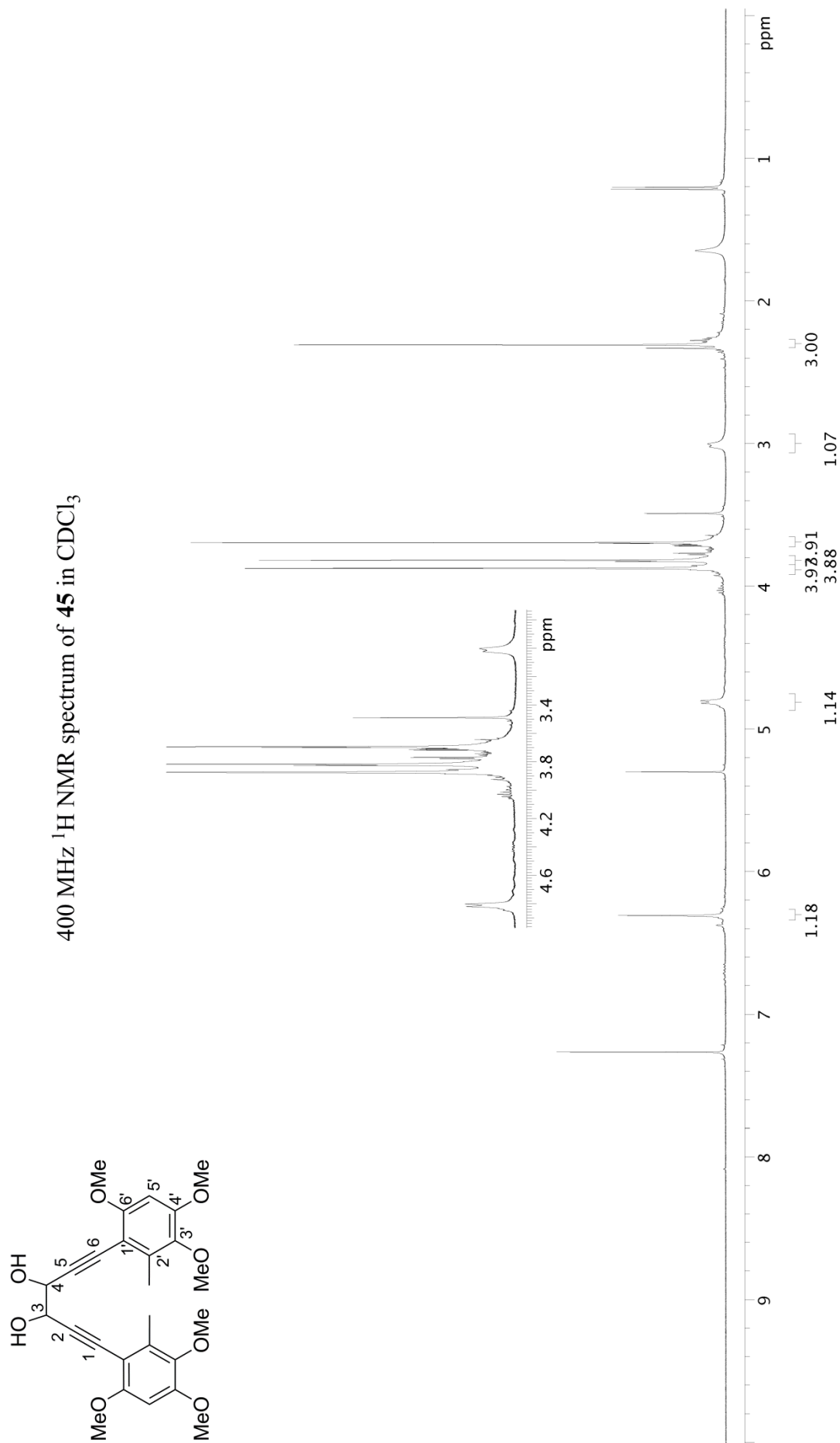
400 MHz  $^1\text{H}$  NMR spectrum of **44** in  $\text{CDCl}_3$

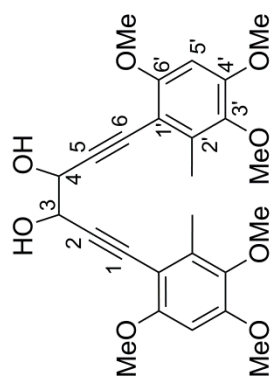




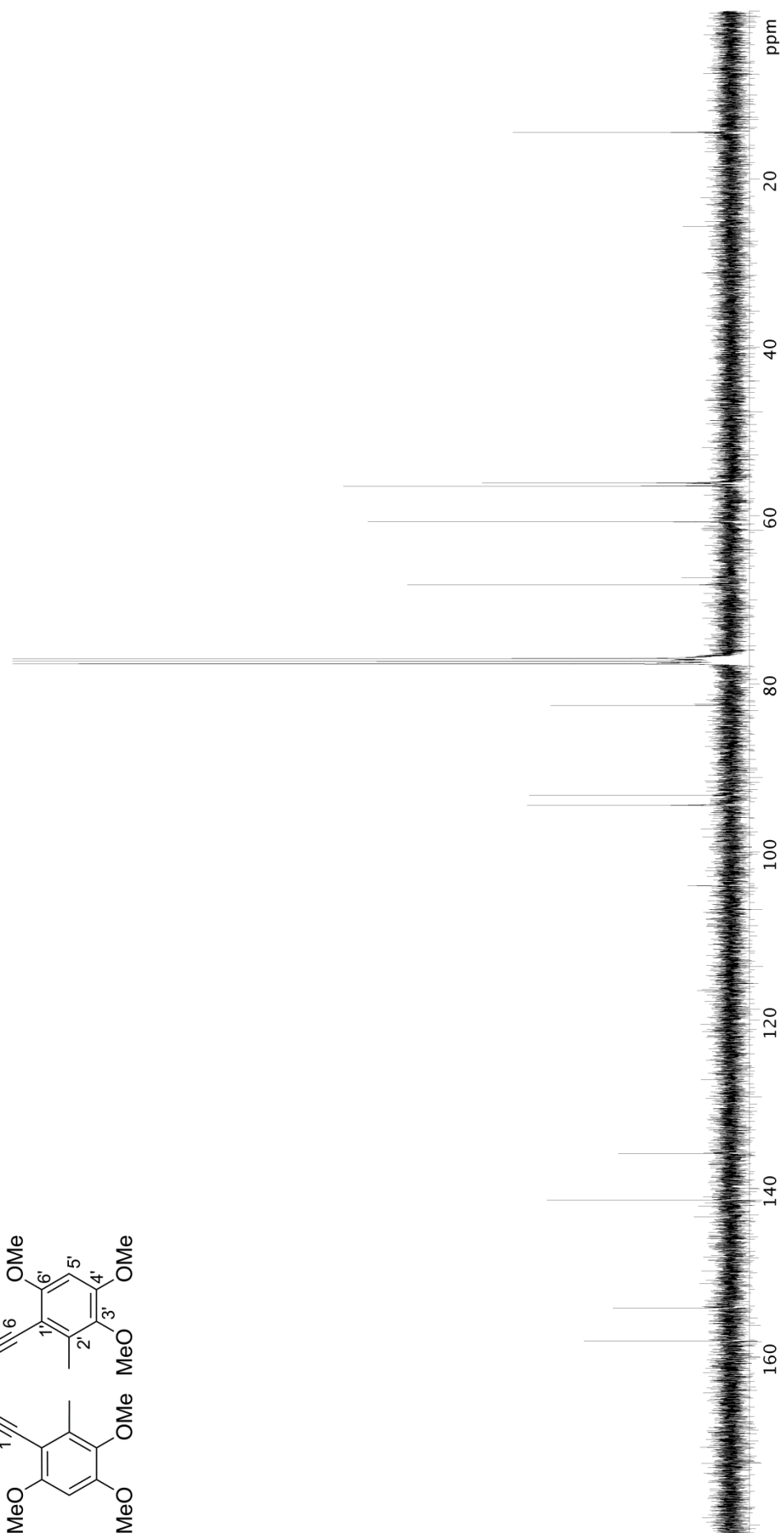
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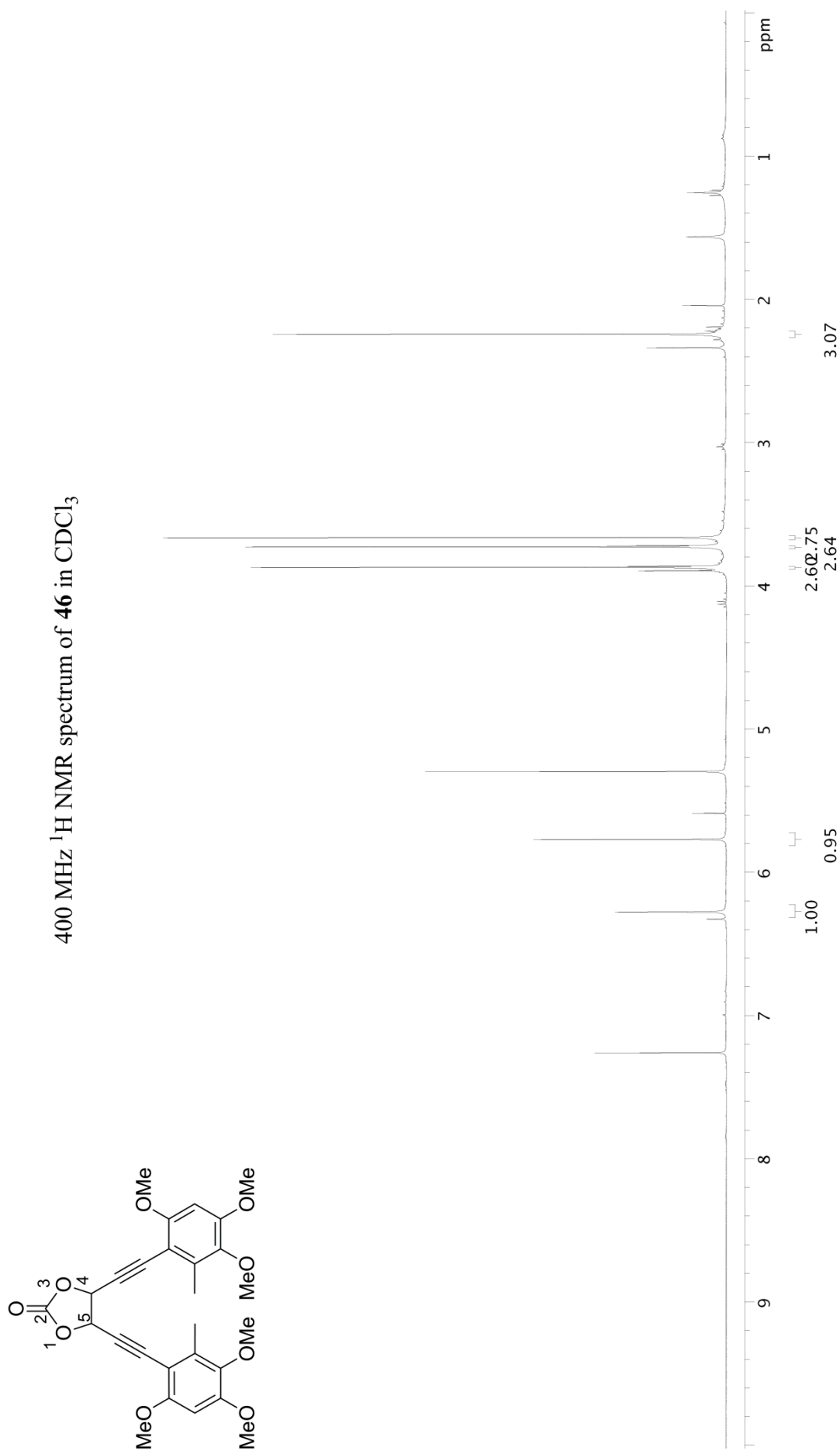


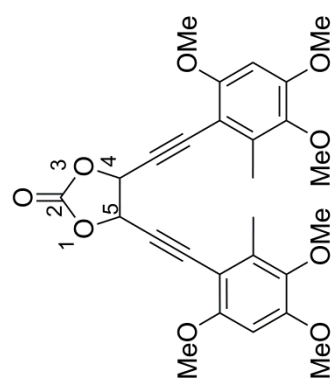


100 MHz  $^{13}\text{C}$  NMR spectrum of **45** in  $\text{CDCl}_3$

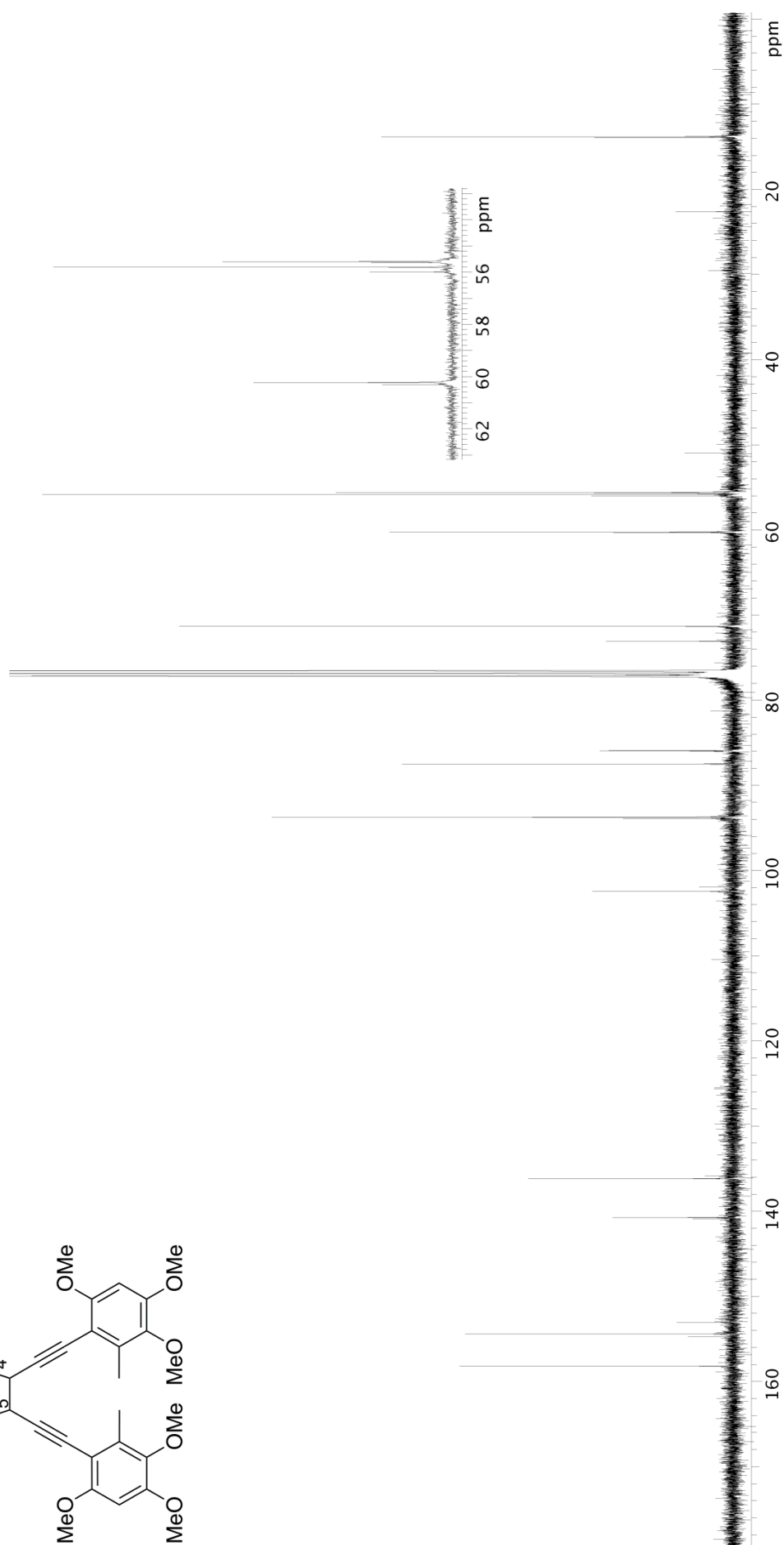


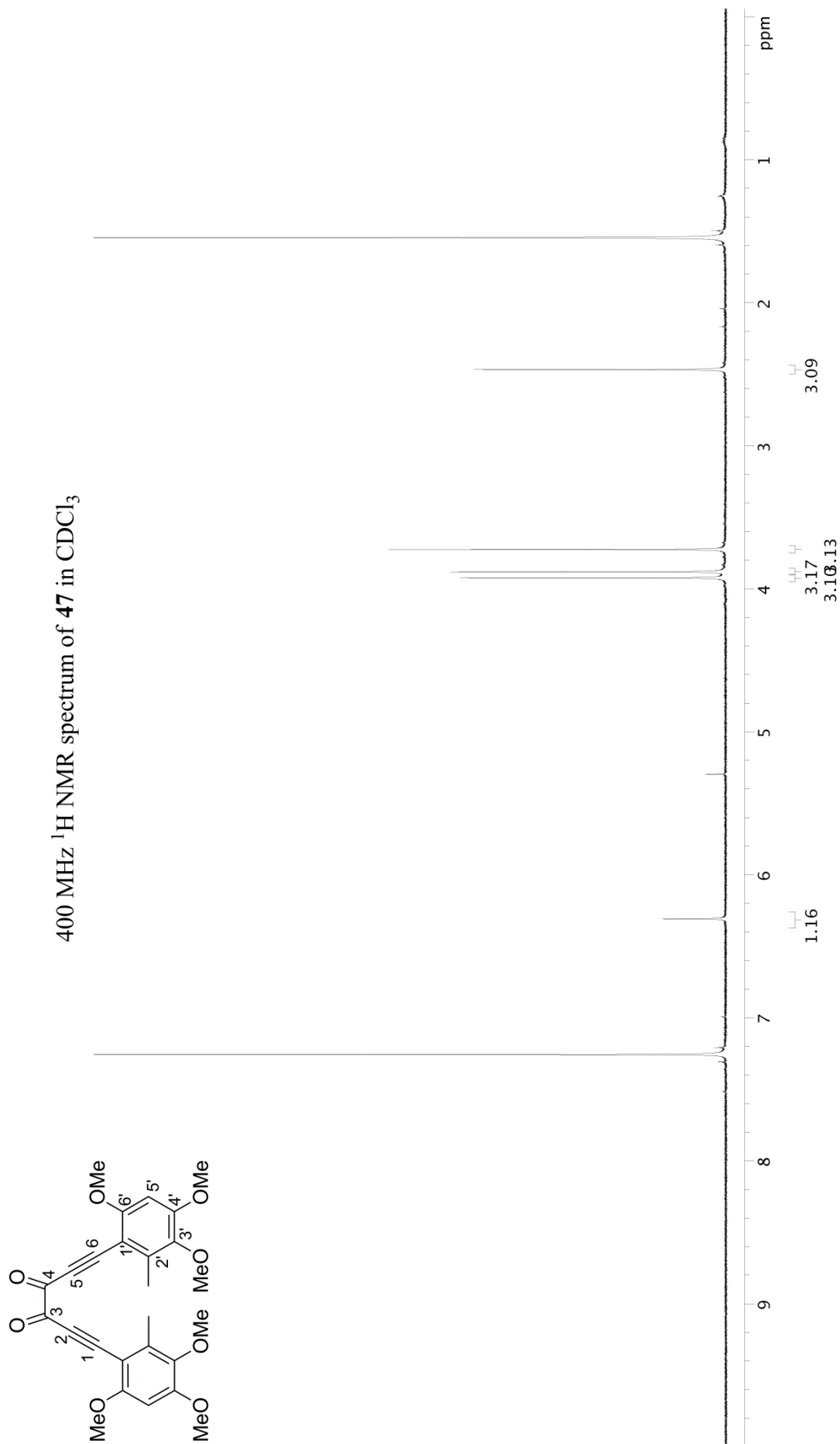


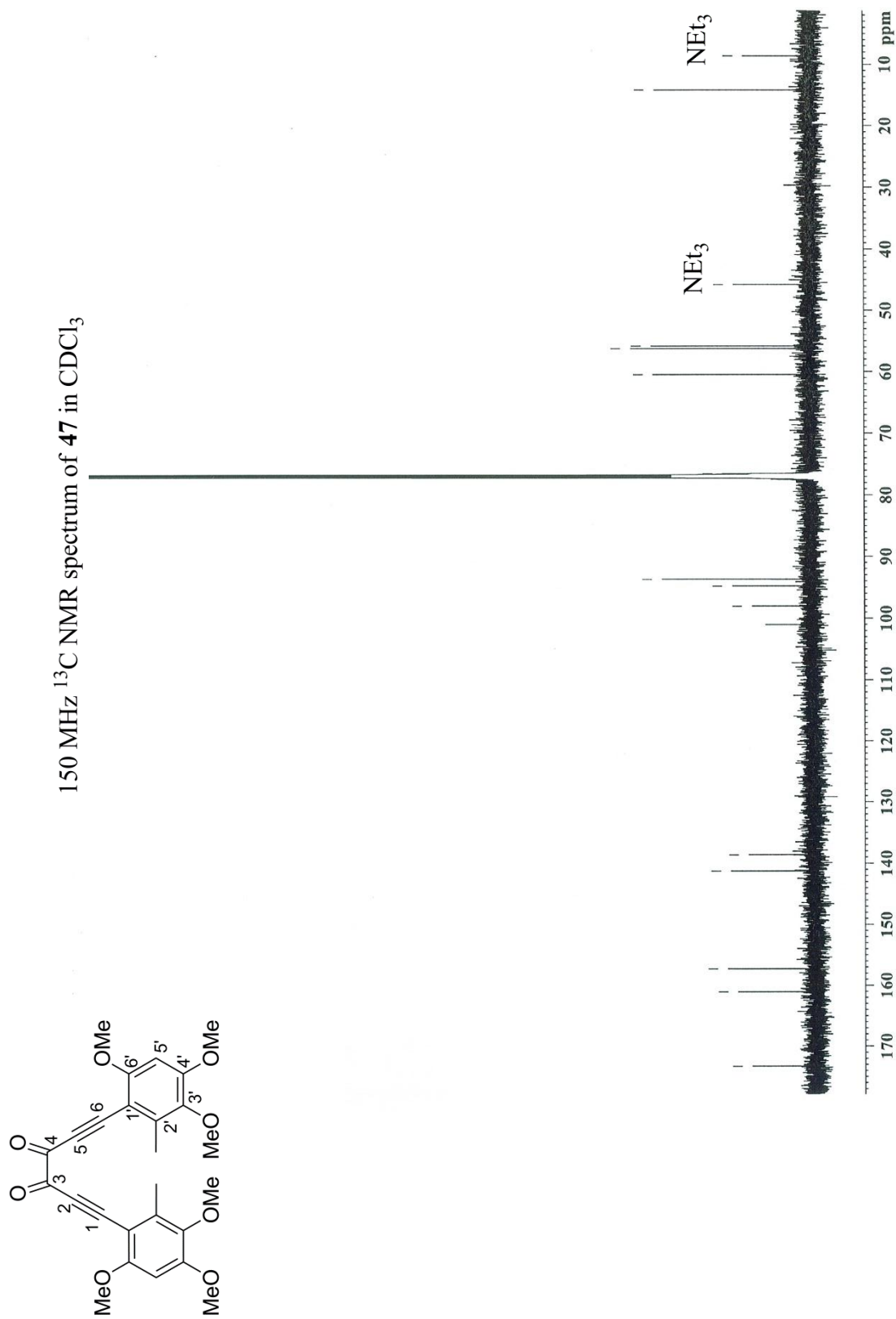


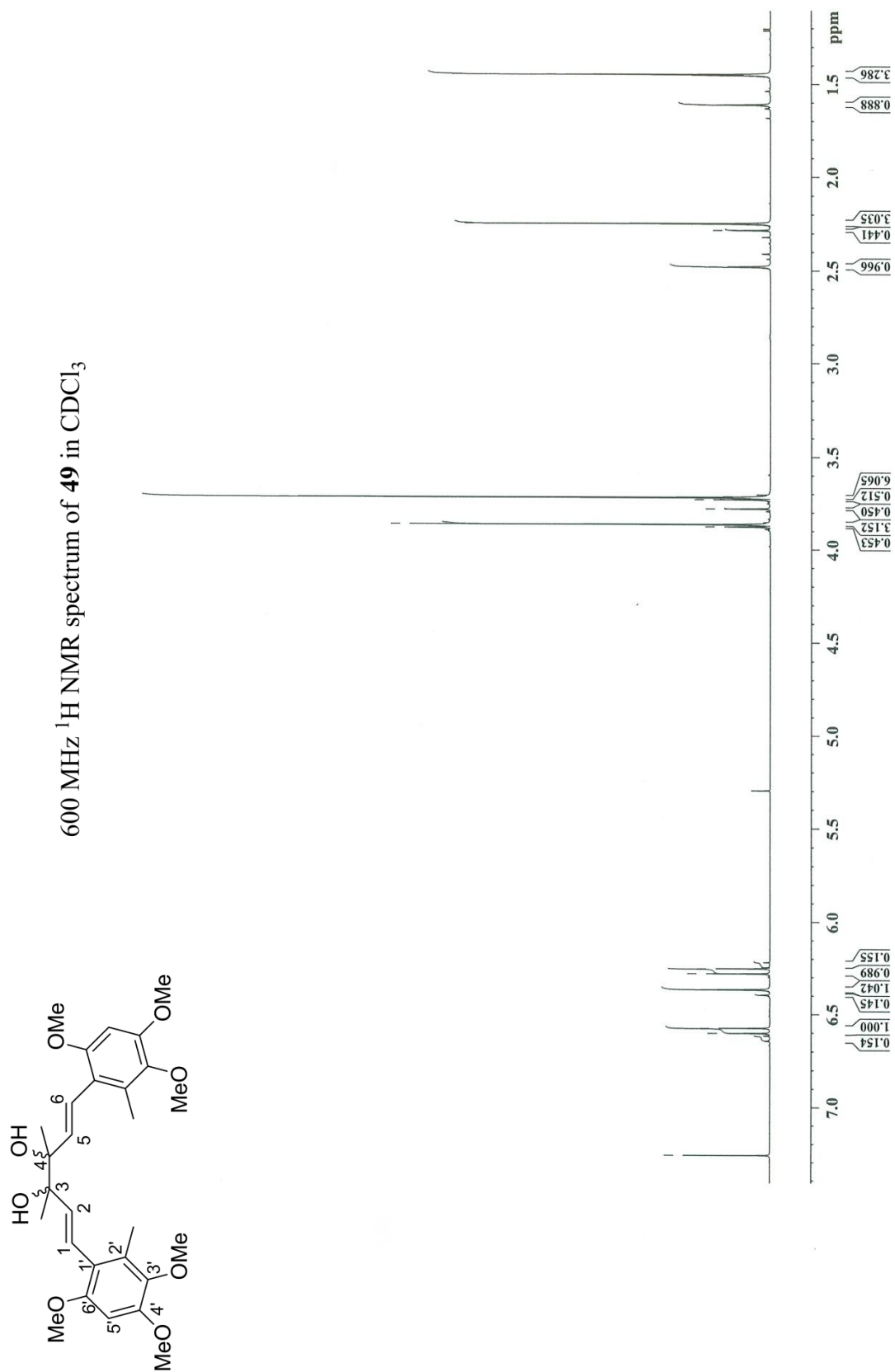


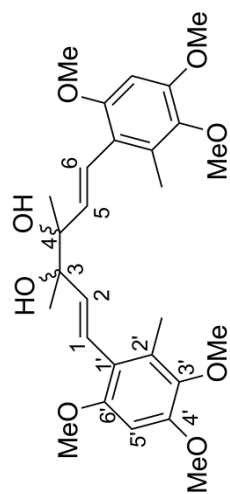
100 MHz  $^{13}\text{C}$  NMR spectrum of **46** in  $\text{CDCl}_3$



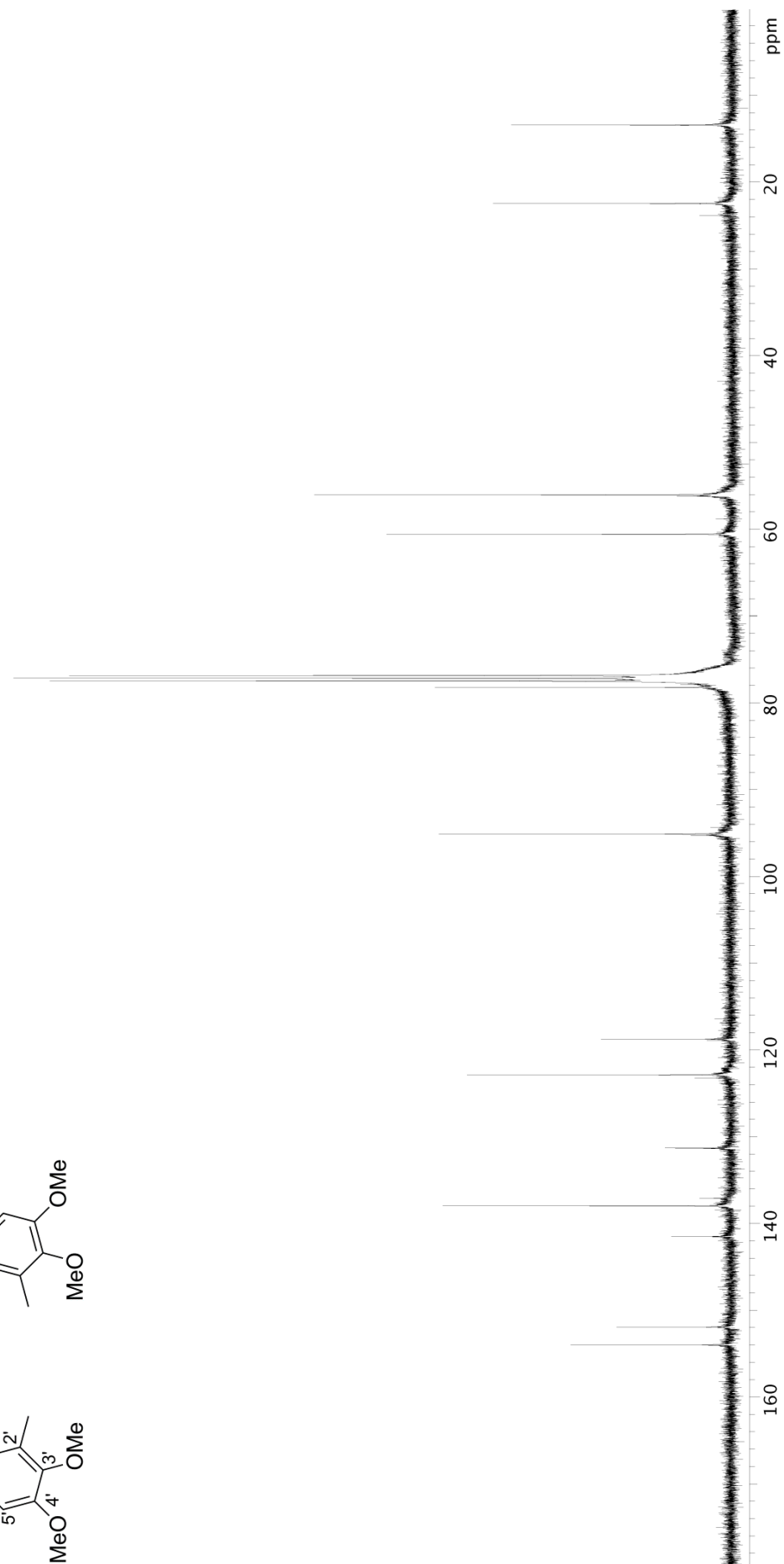


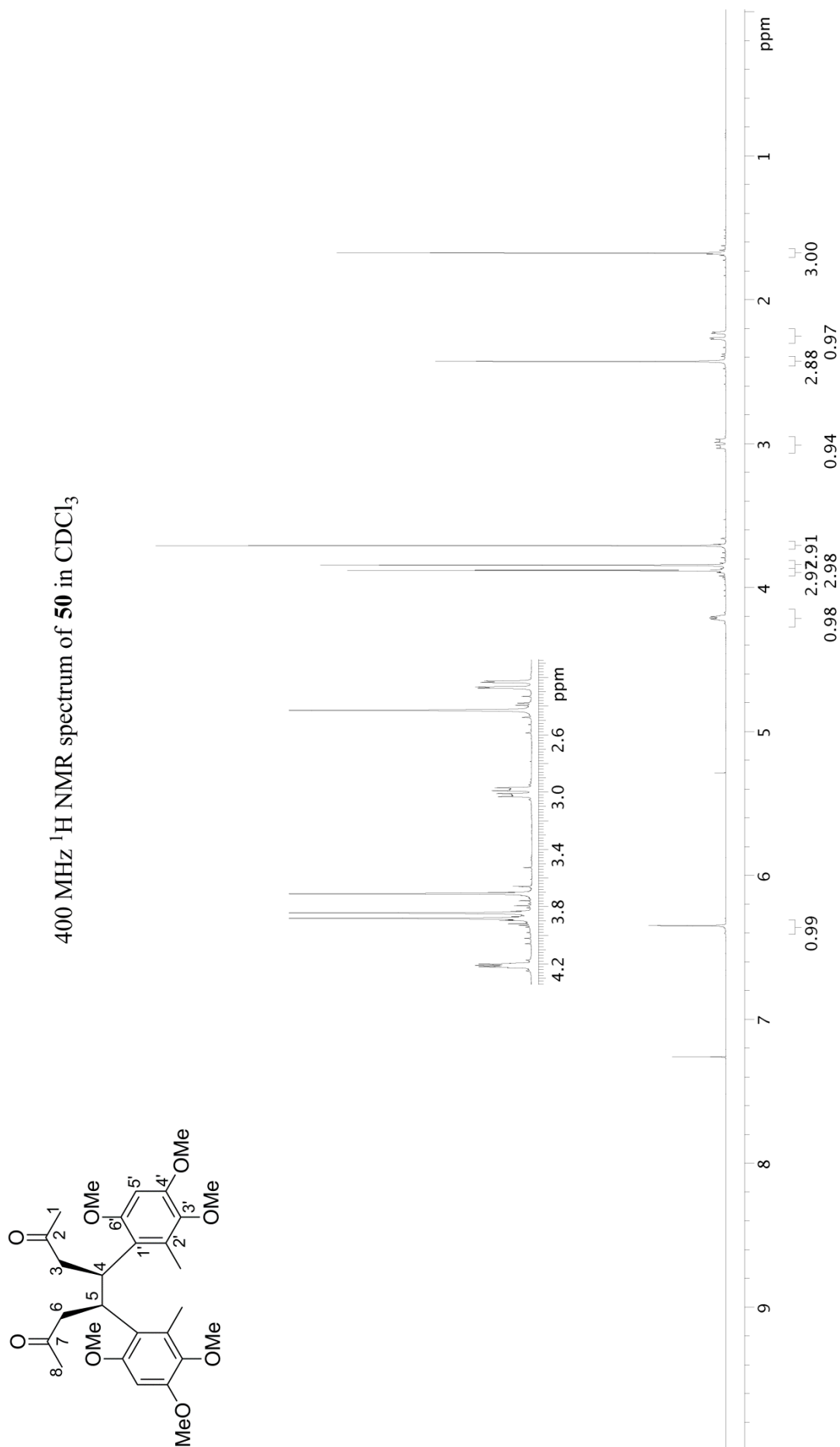


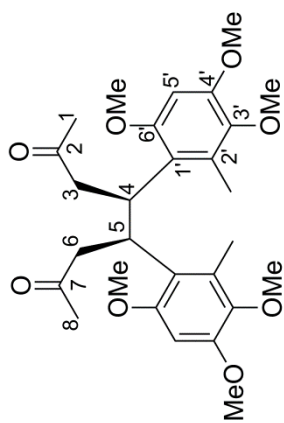




100 MHz  $^{13}\text{C}$  NMR spectrum of **49** in  $\text{CDCl}_3$







100 MHz  $^{13}\text{C}$  NMR spectrum of **50** in  $\text{CDCl}_3$

