

*ACCESSORY PUBLICATION FOR:*

**The Pd-catalyzed Alder-ene Reactions of *N*-Protected and Propargylated 1-Amino-2-Aryl-2-cyclohexenes as a New Route to C3a-Arylhexahydroindoles: Towards the Total Synthesis of Tazettine**

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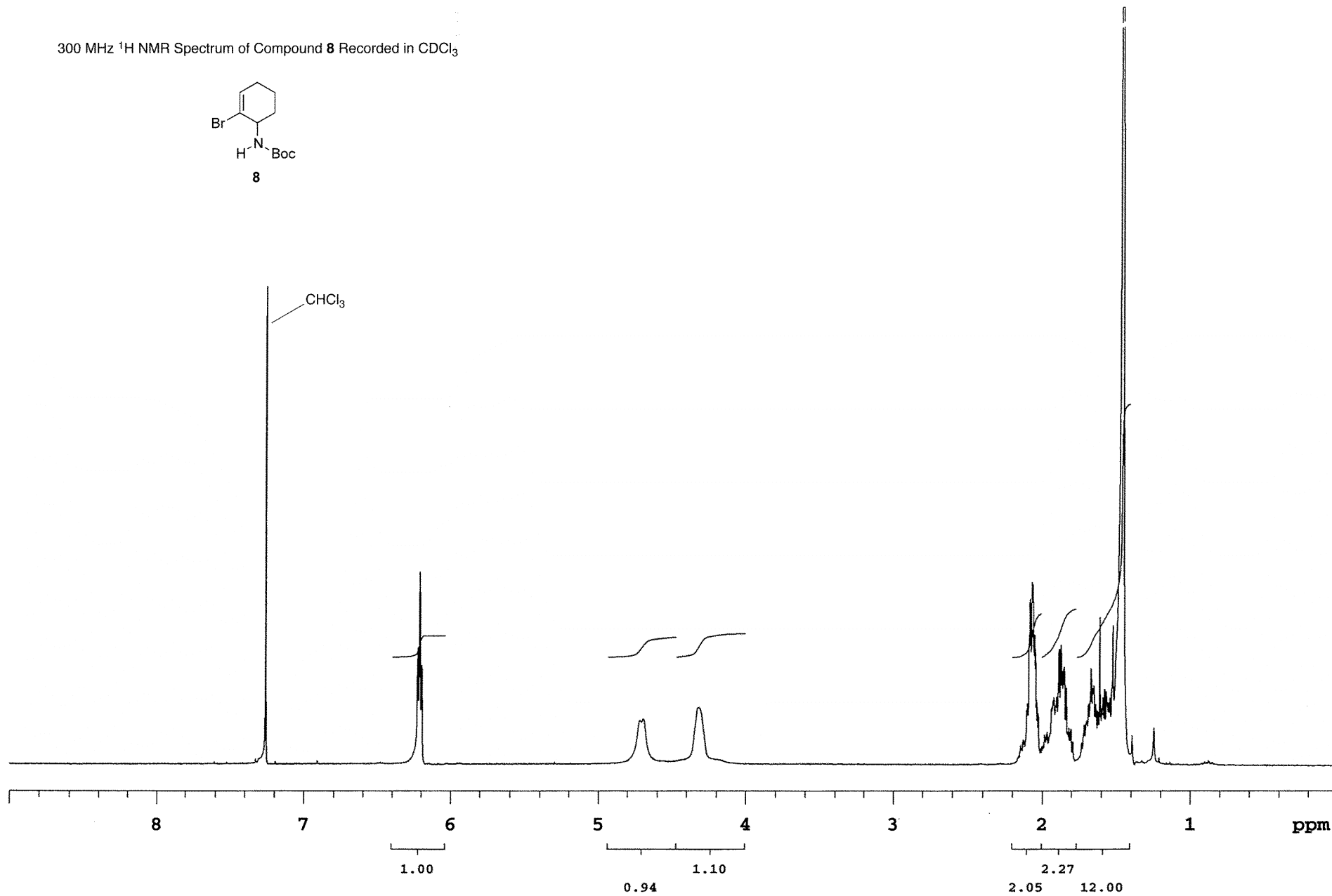
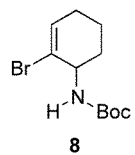
<sup>B</sup>Corresponding author. Email: mgb@rsc.anu.edu.au

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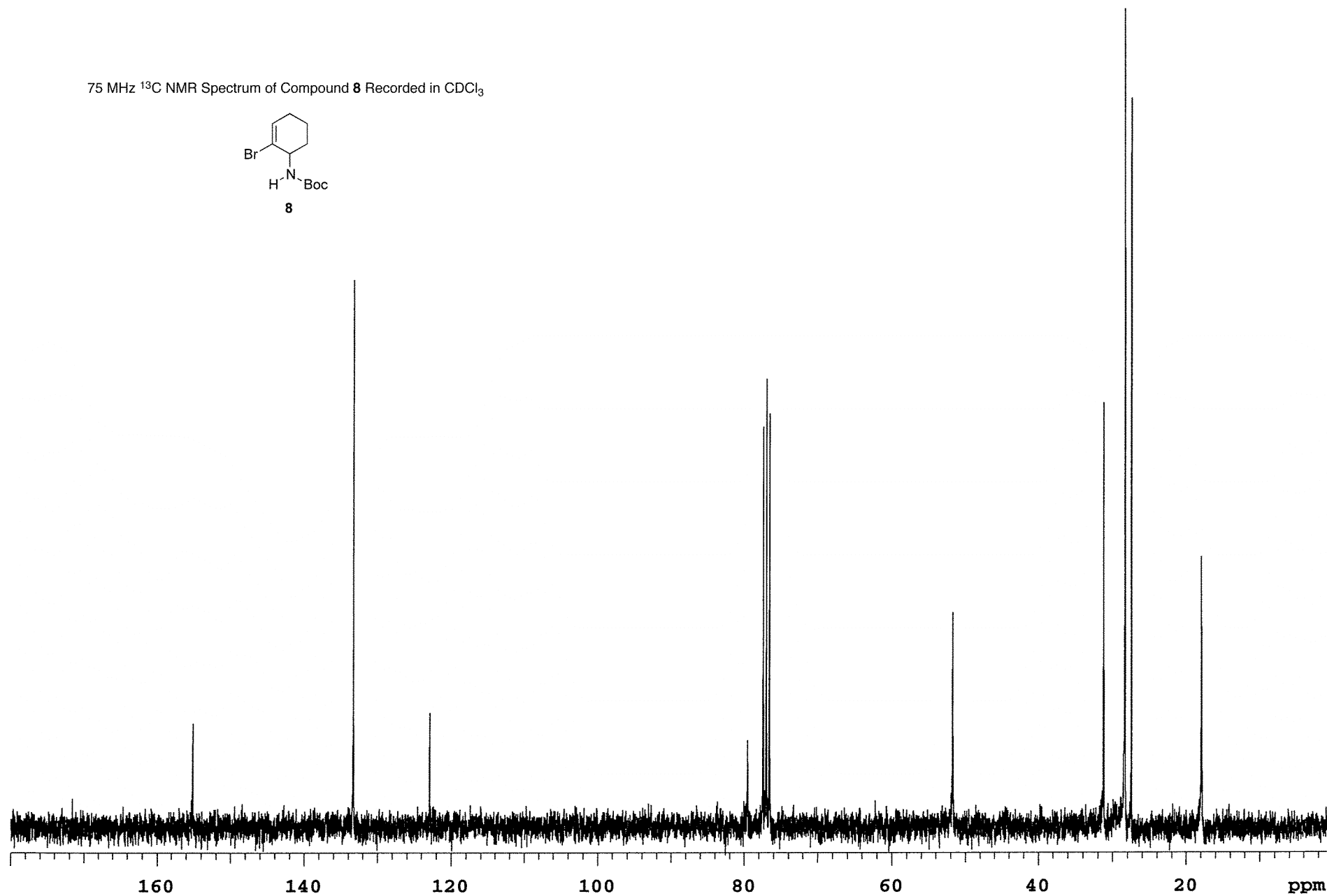
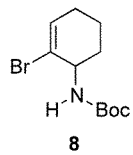
<sup>1</sup>H and/or <sup>13</sup>C NMR Spectra for Compounds **8, 10–19, 21–31, 33, 34, 37–42**

S2–S60

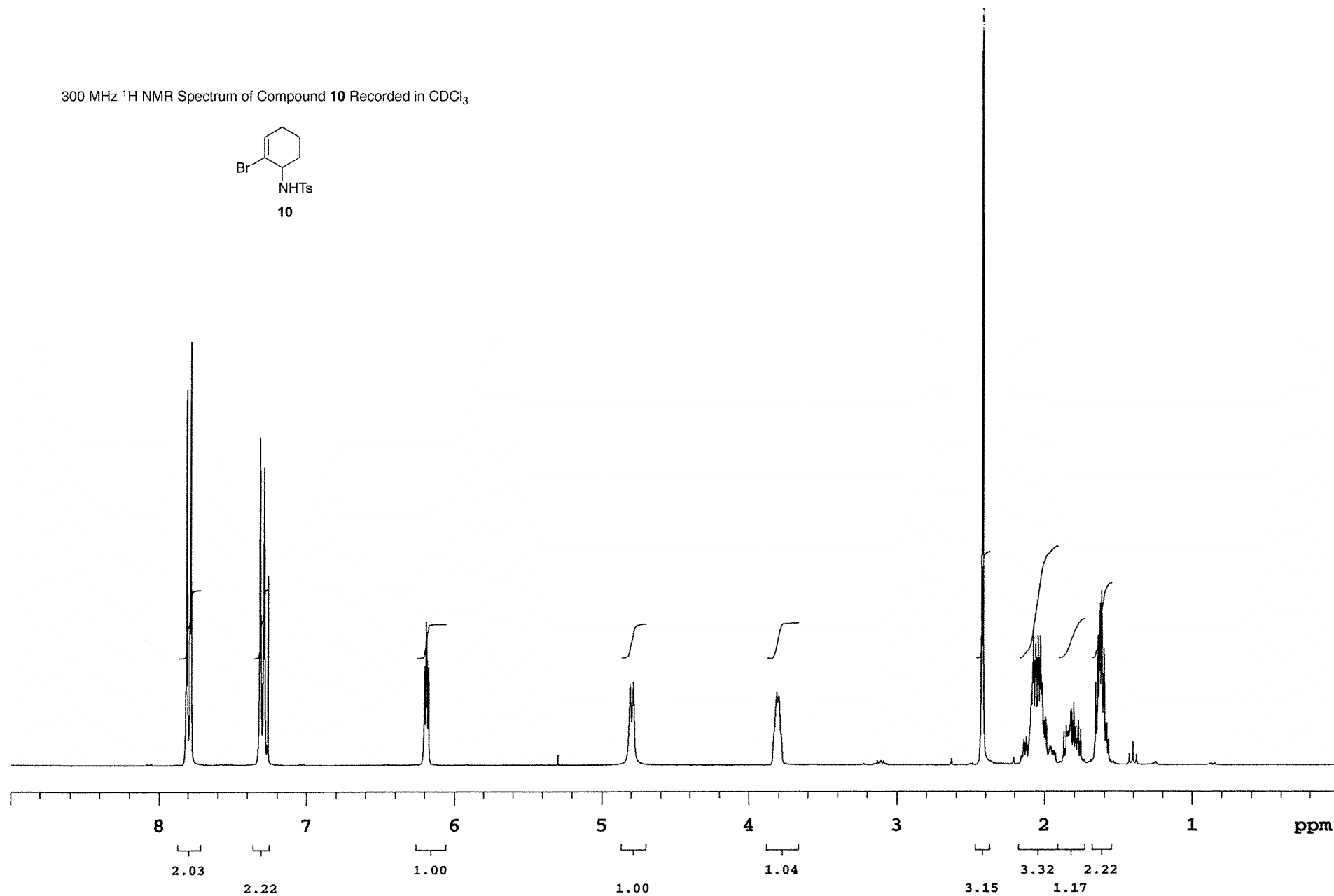
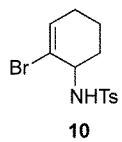
300 MHz  $^1\text{H}$  NMR Spectrum of Compound **8** Recorded in  $\text{CDCl}_3$



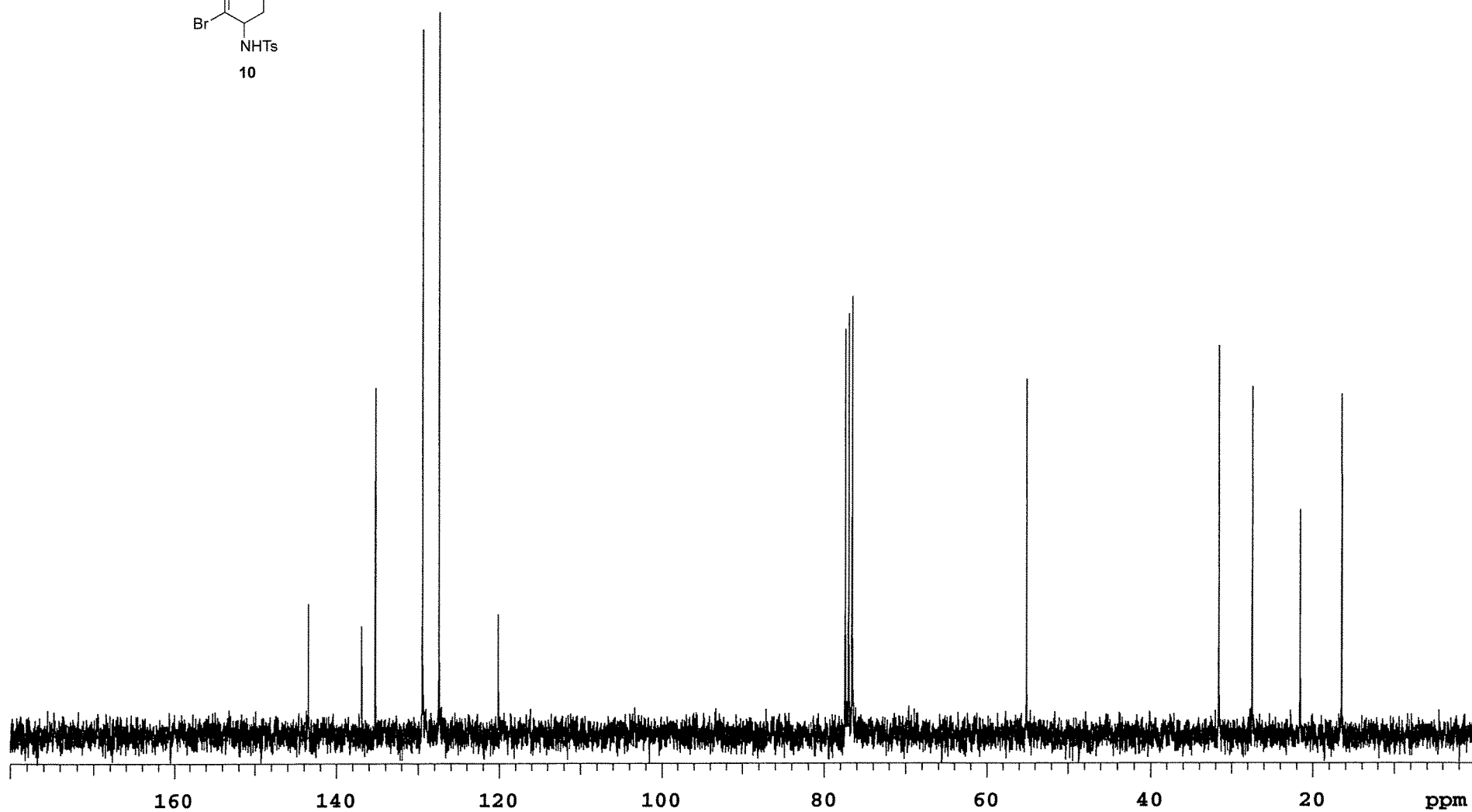
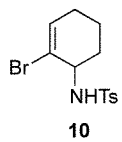
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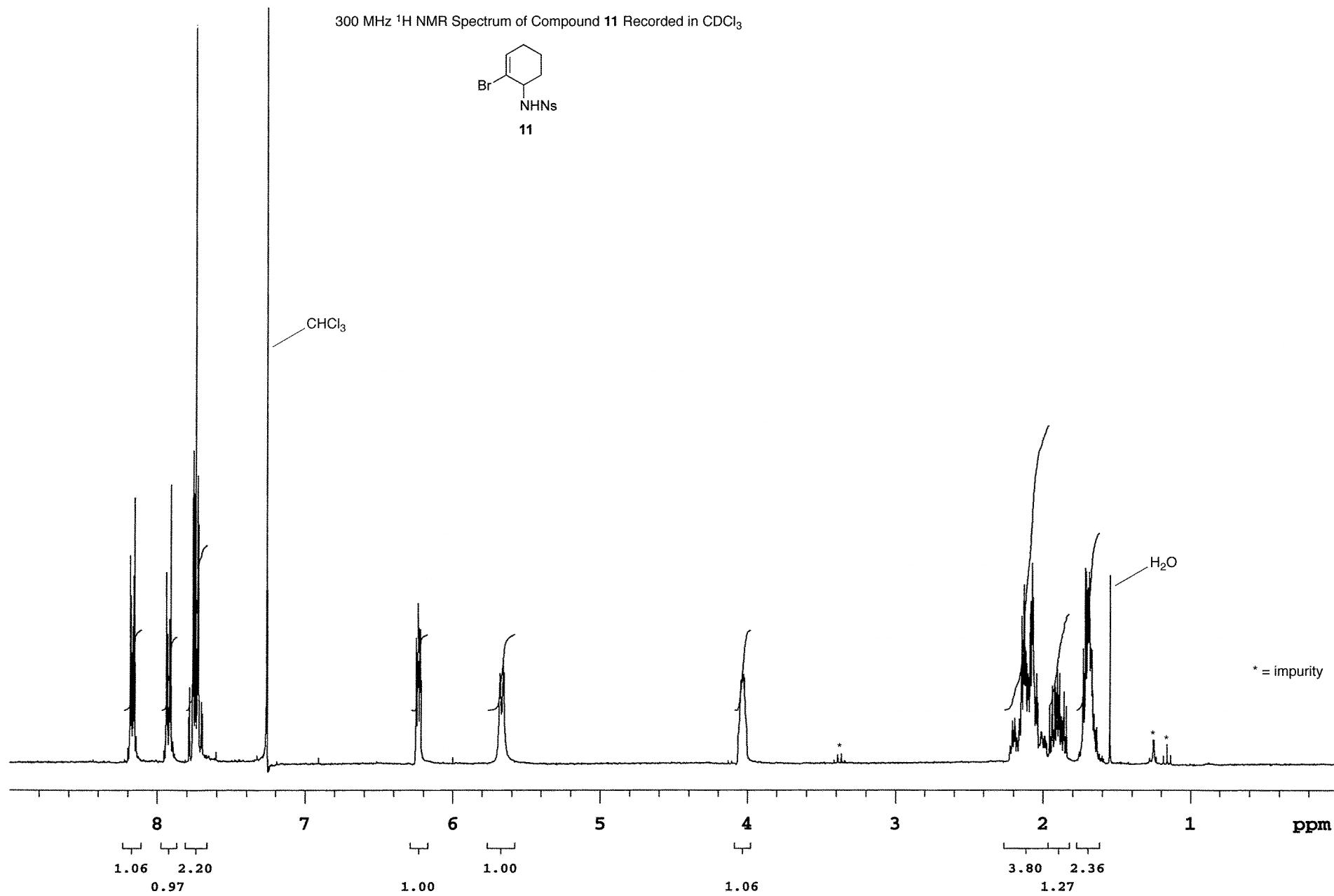
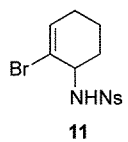
300 MHz  $^1\text{H}$  NMR Spectrum of Compound **10** Recorded in  $\text{CDCl}_3$



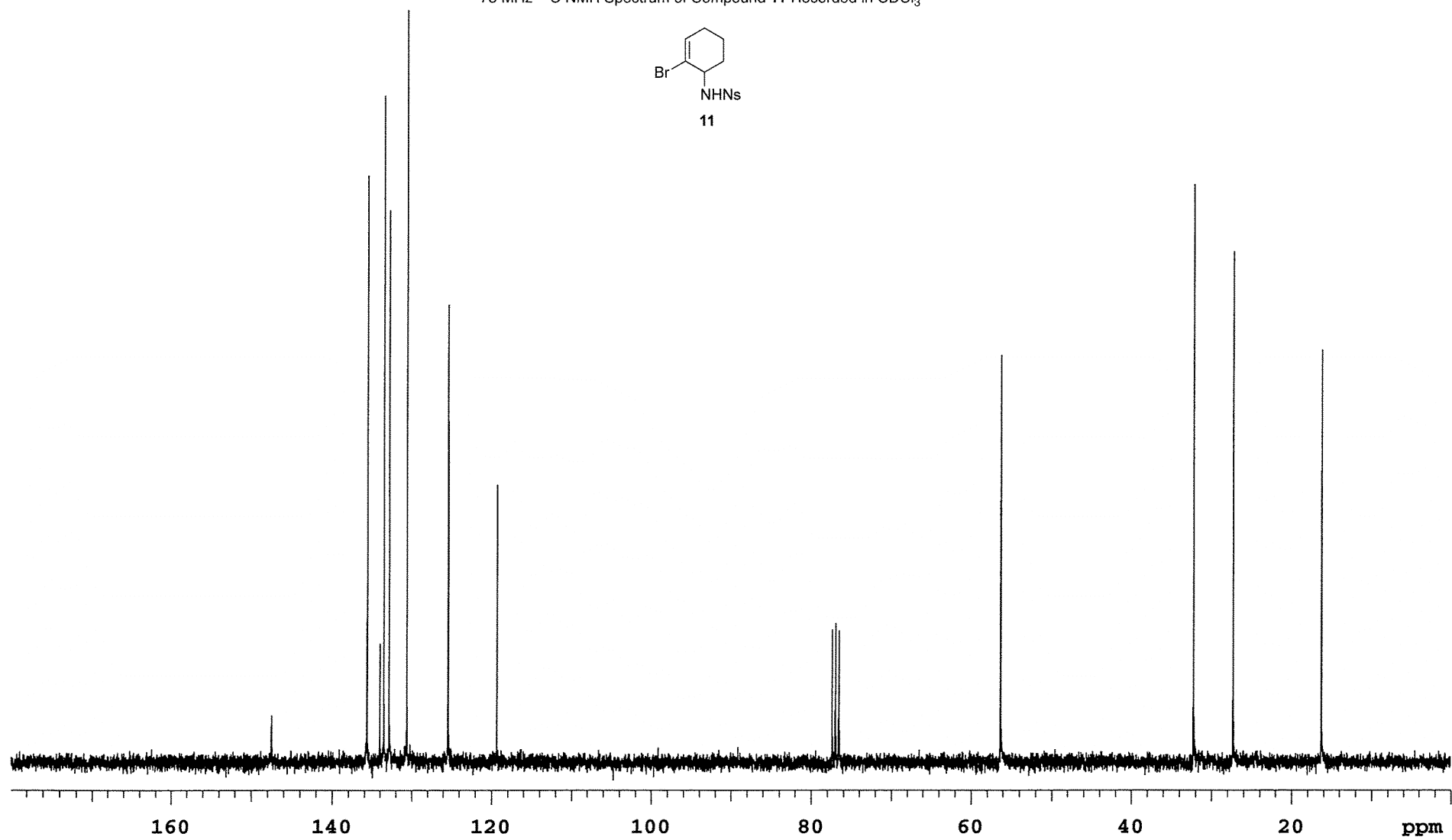
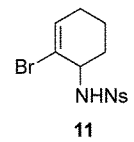
75 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **10** Recorded in  $\text{CDCl}_3$



300 MHz  $^1\text{H}$  NMR Spectrum of Compound **11** Recorded in  $\text{CDCl}_3$



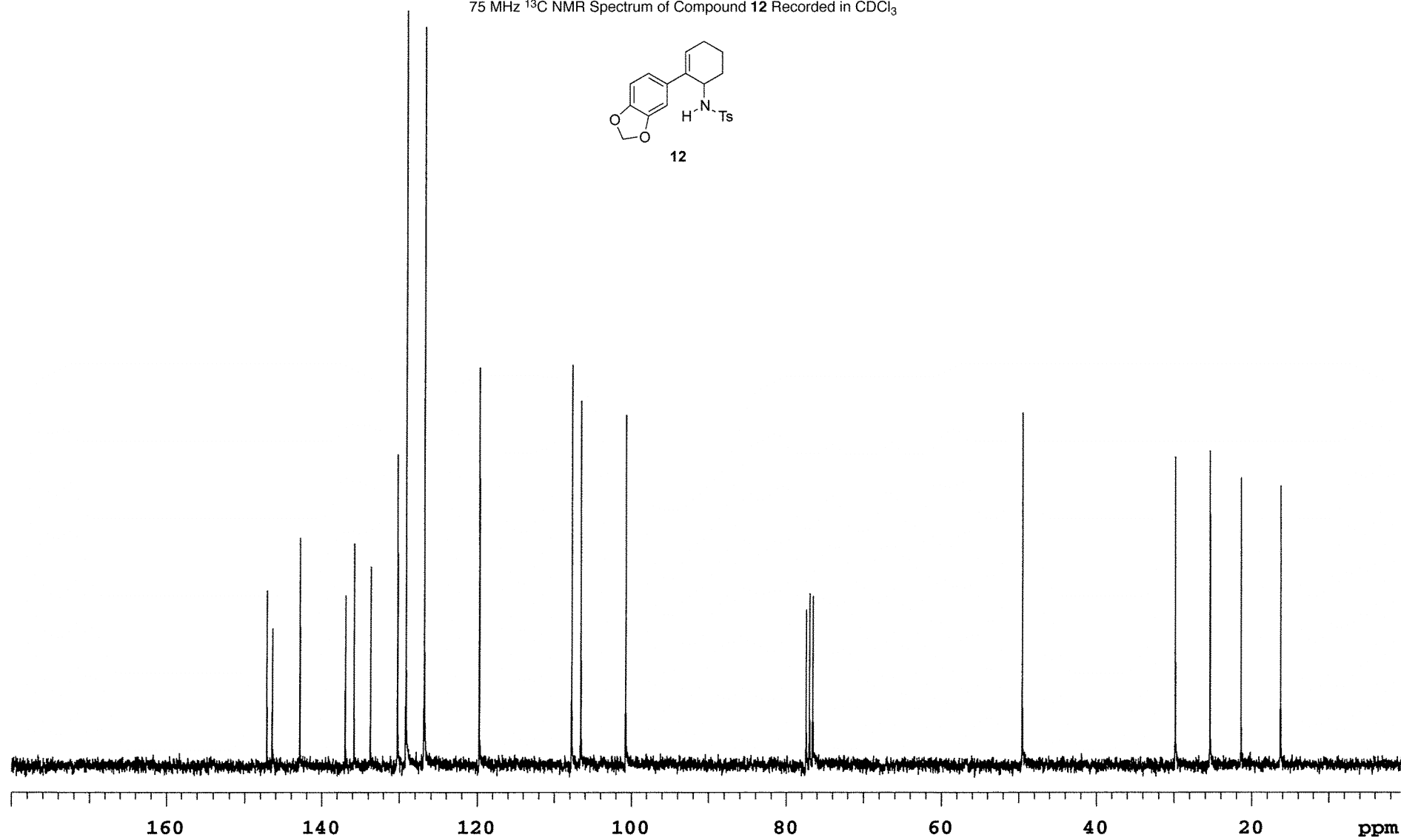
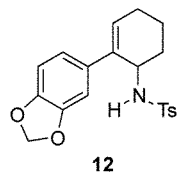
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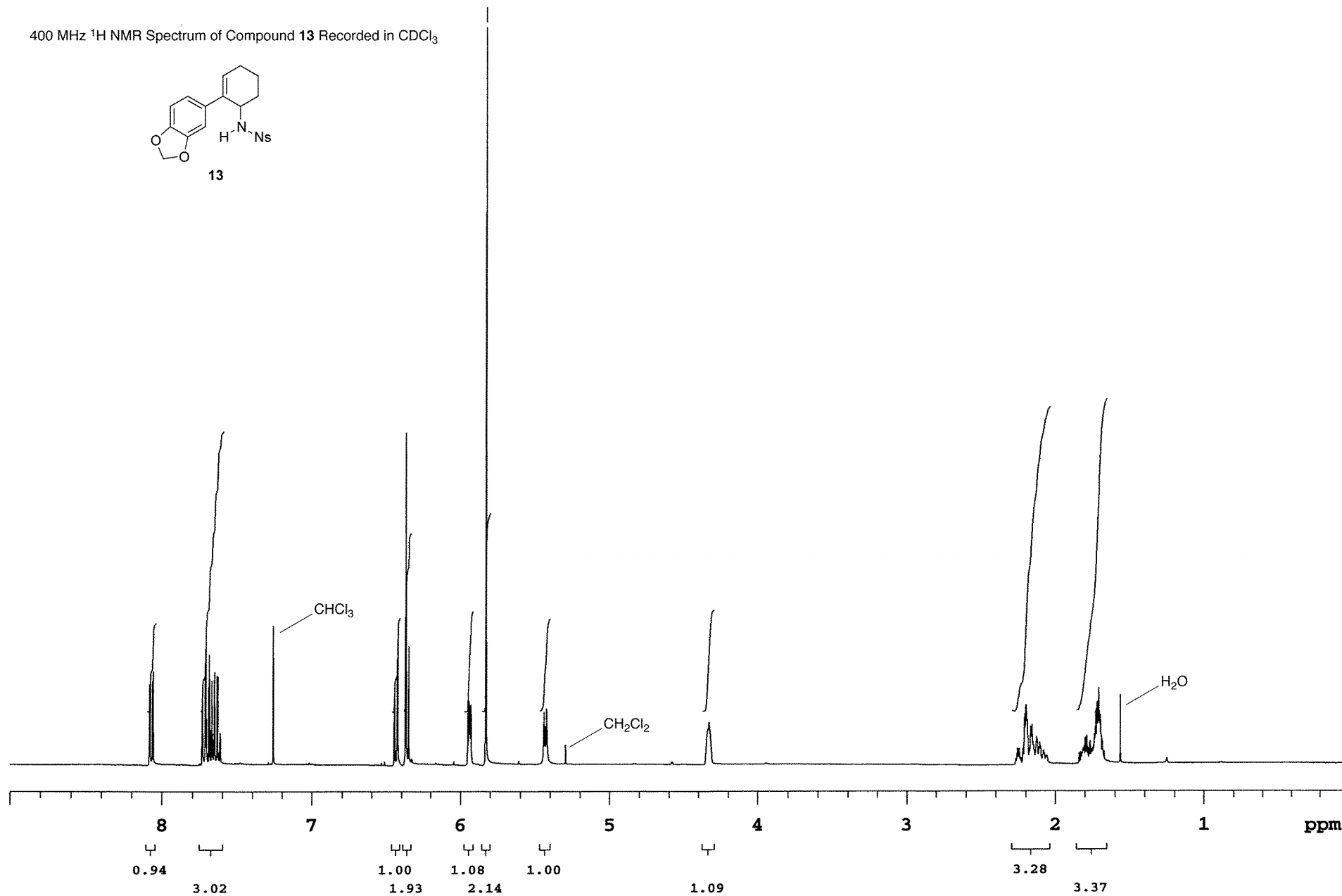
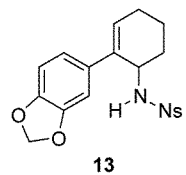




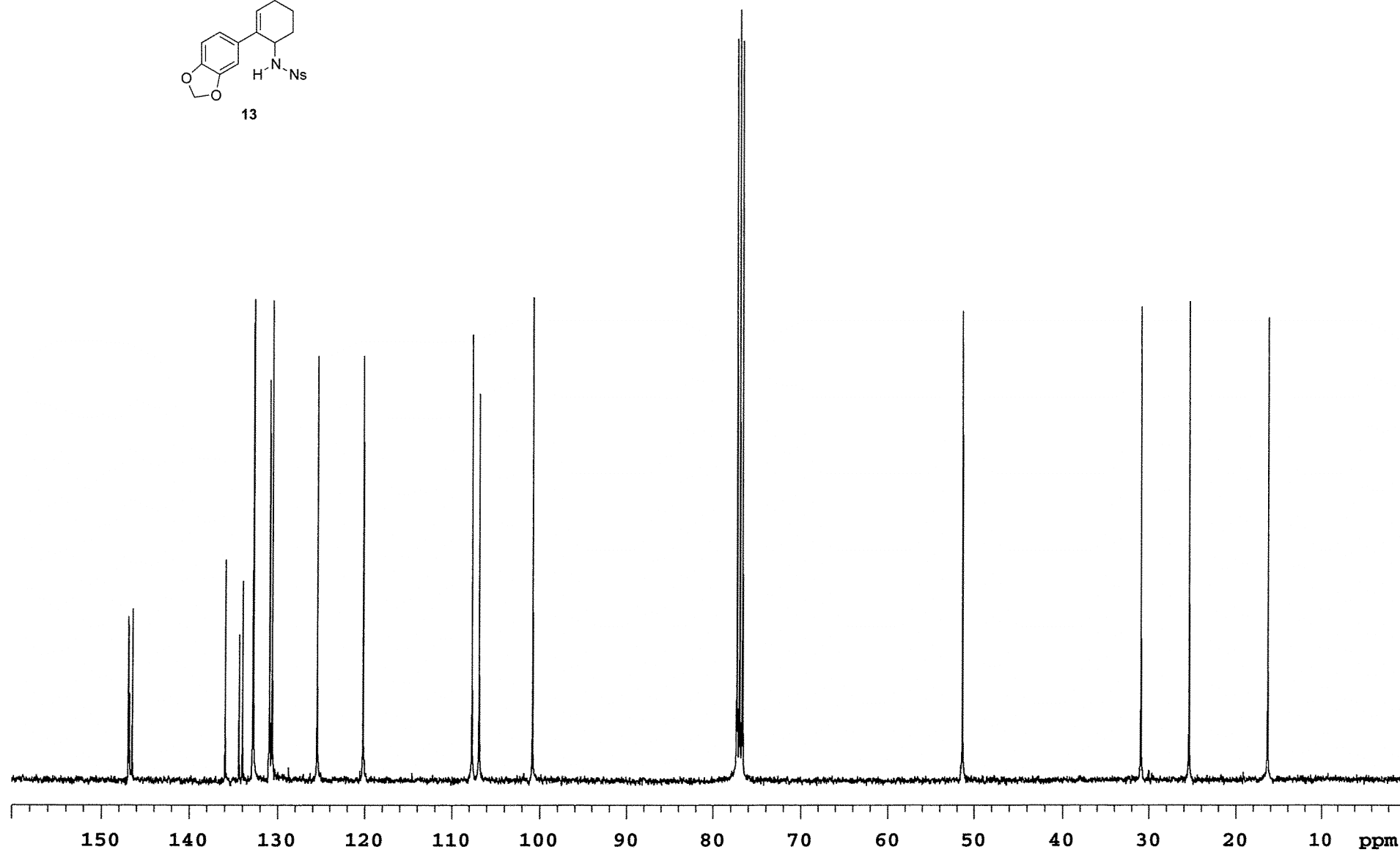
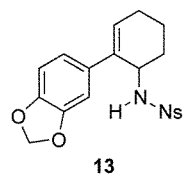
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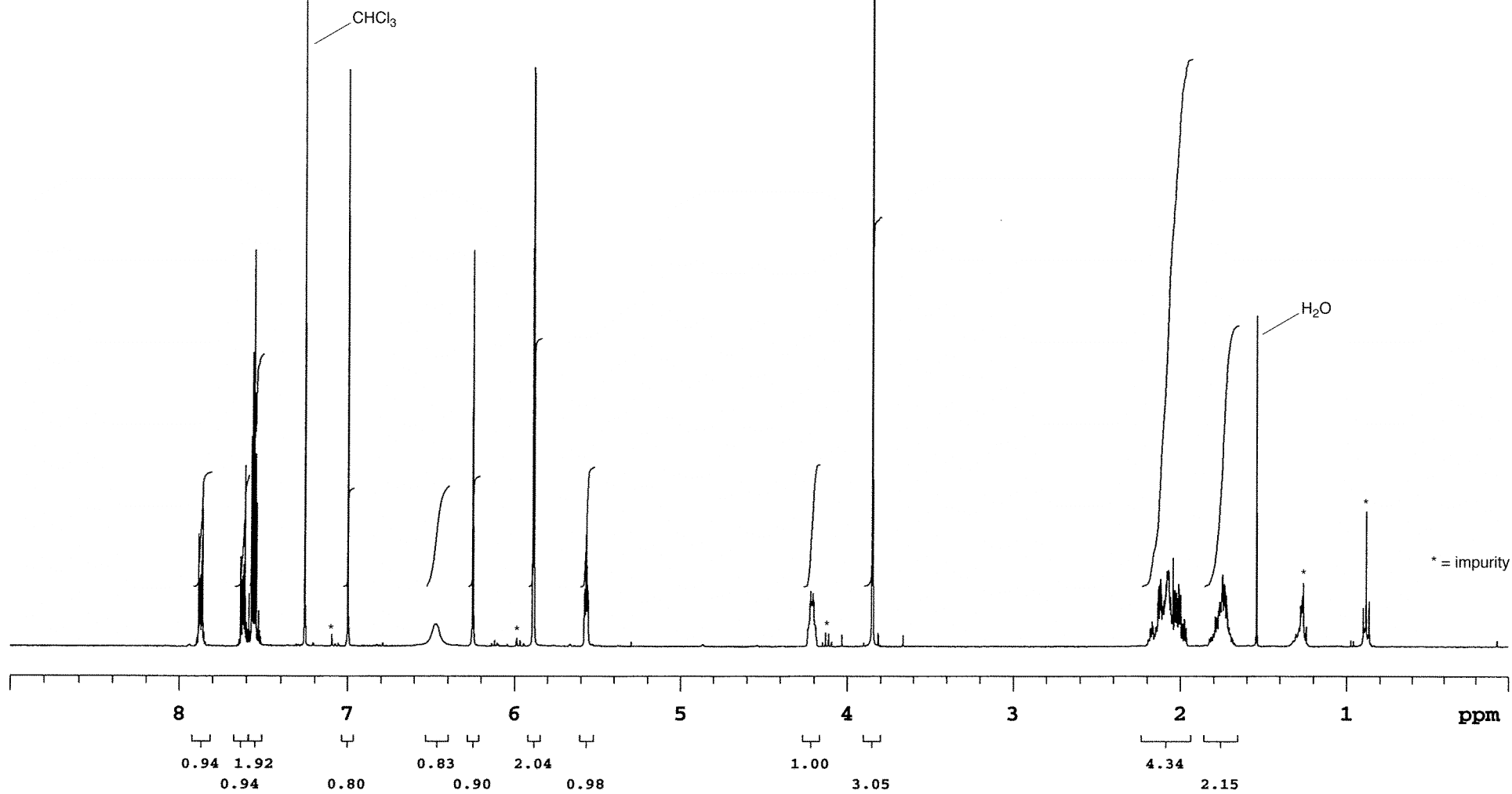
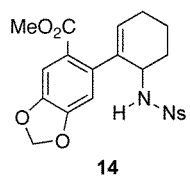
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100 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **13** Recorded in  $\text{CDCl}_3$

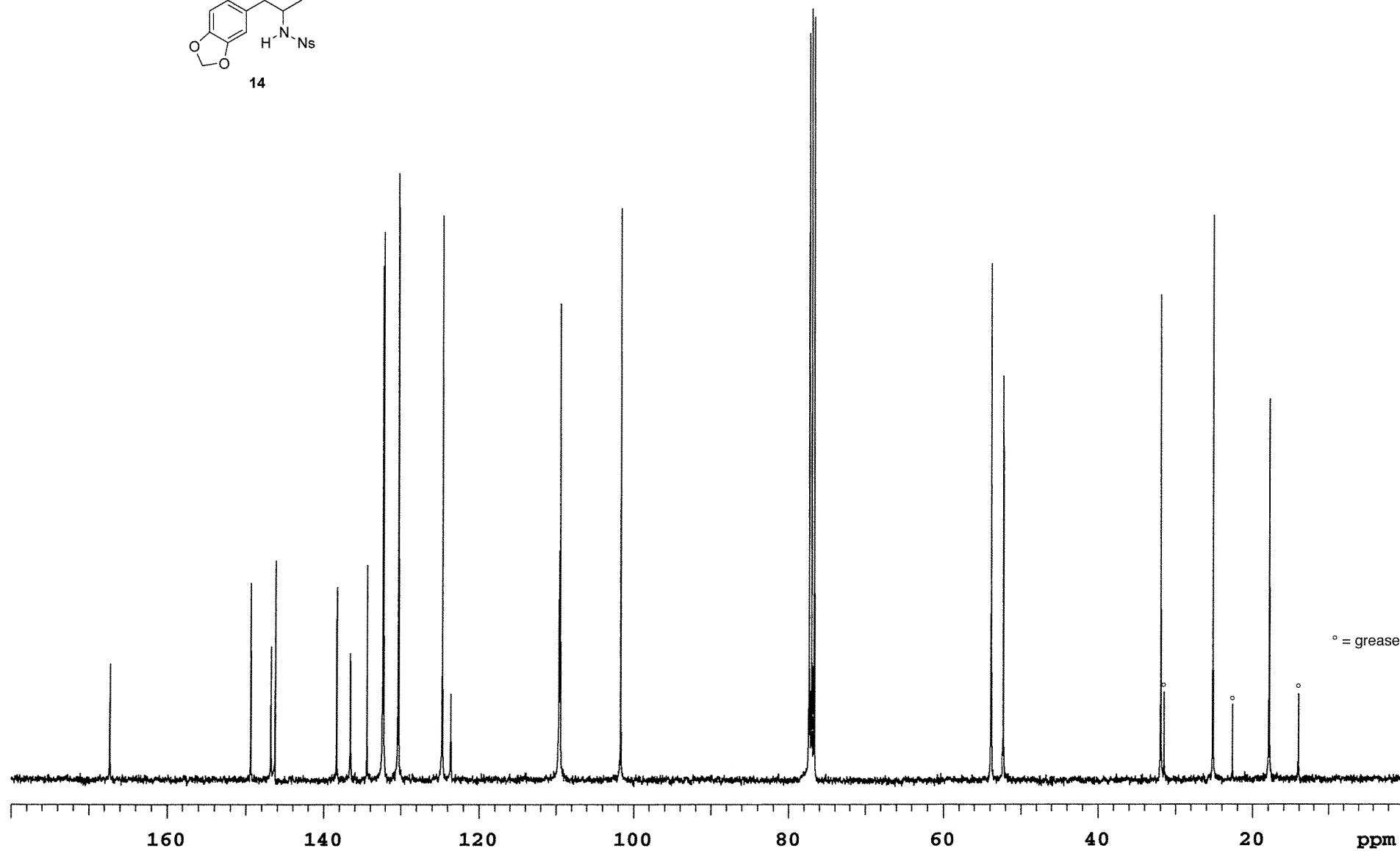
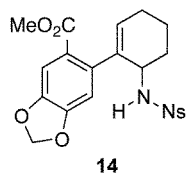


400 MHz  $^1\text{H}$  NMR Spectrum of Compound **14** Recorded in  $\text{CDCl}_3$

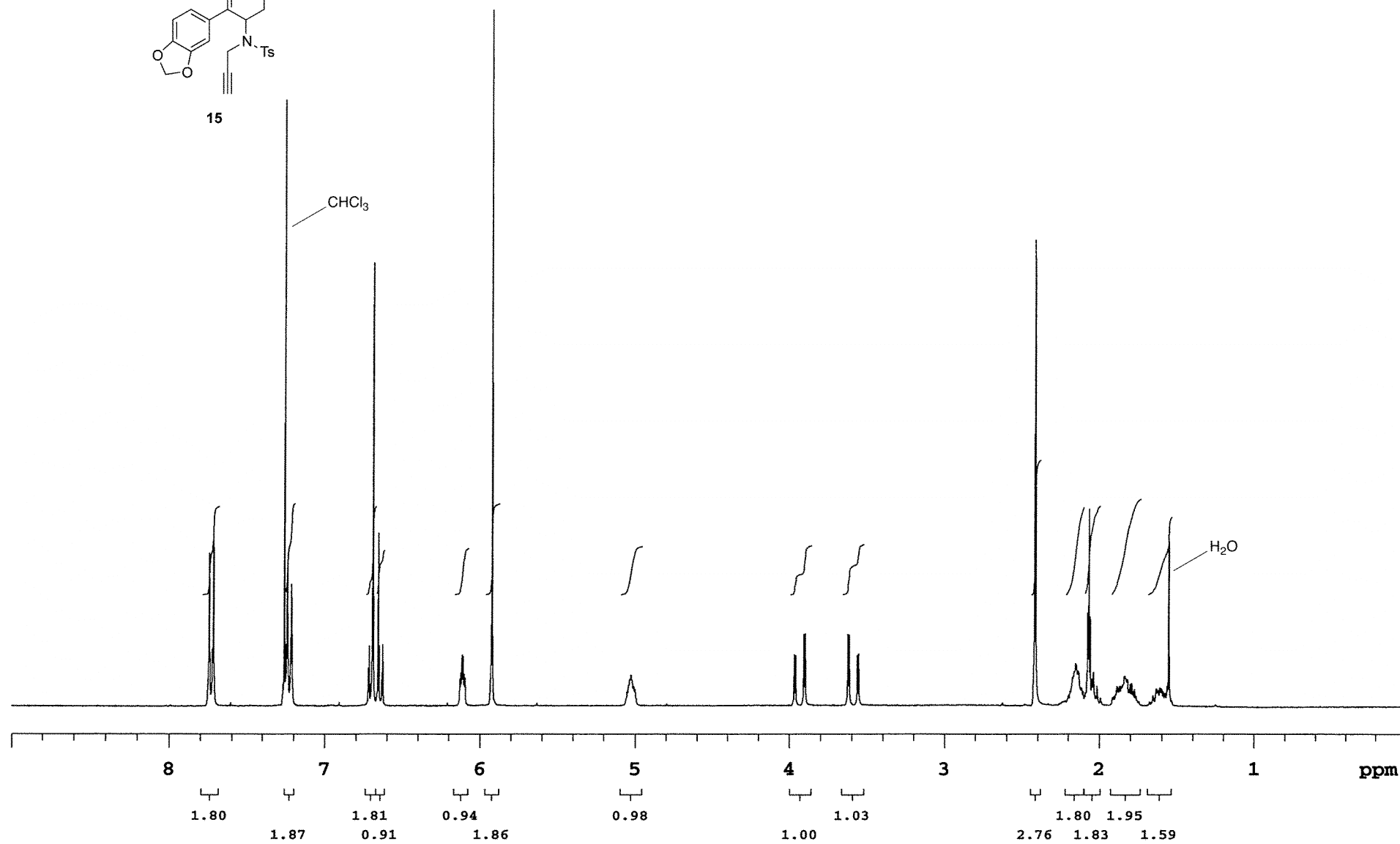
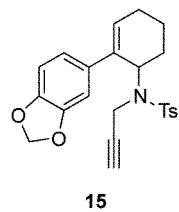


\* = impurity

100 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **14** Recorded in  $\text{CDCl}_3$

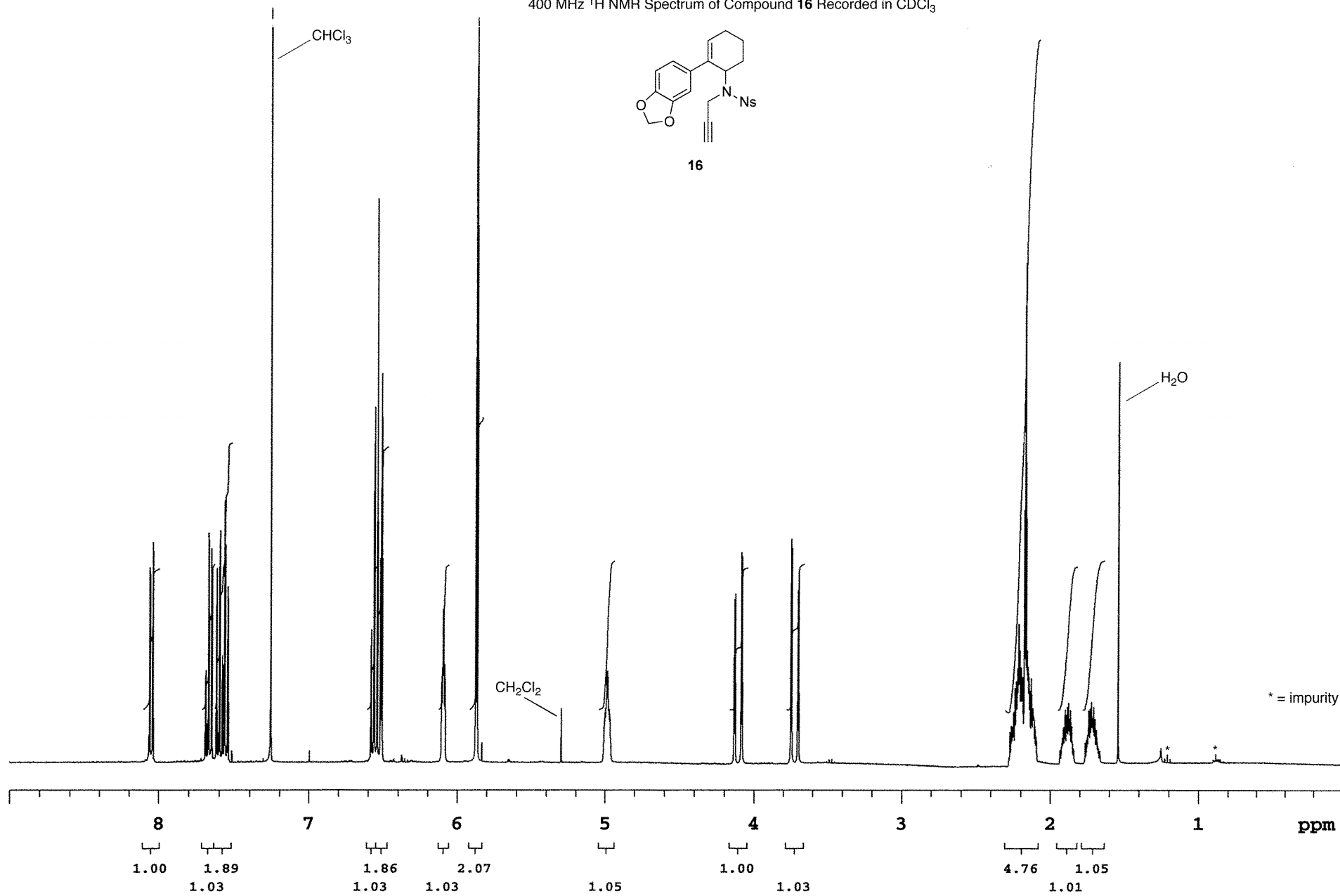
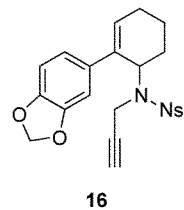


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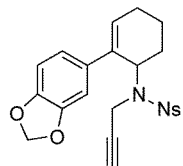


400 MHz <sup>1</sup>H NMR Spectrum of Compound **16** Recorded in CDCl<sub>3</sub>

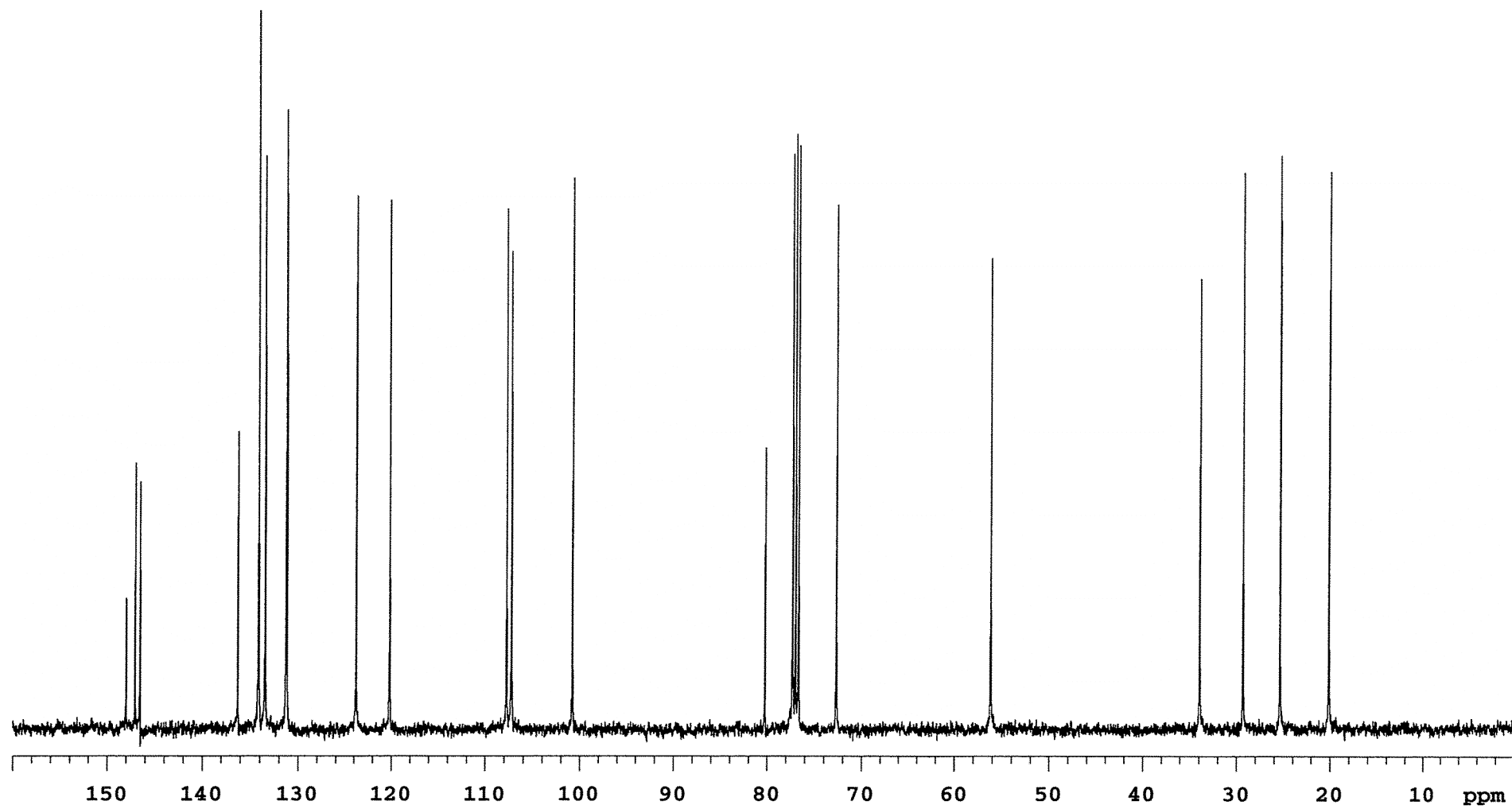




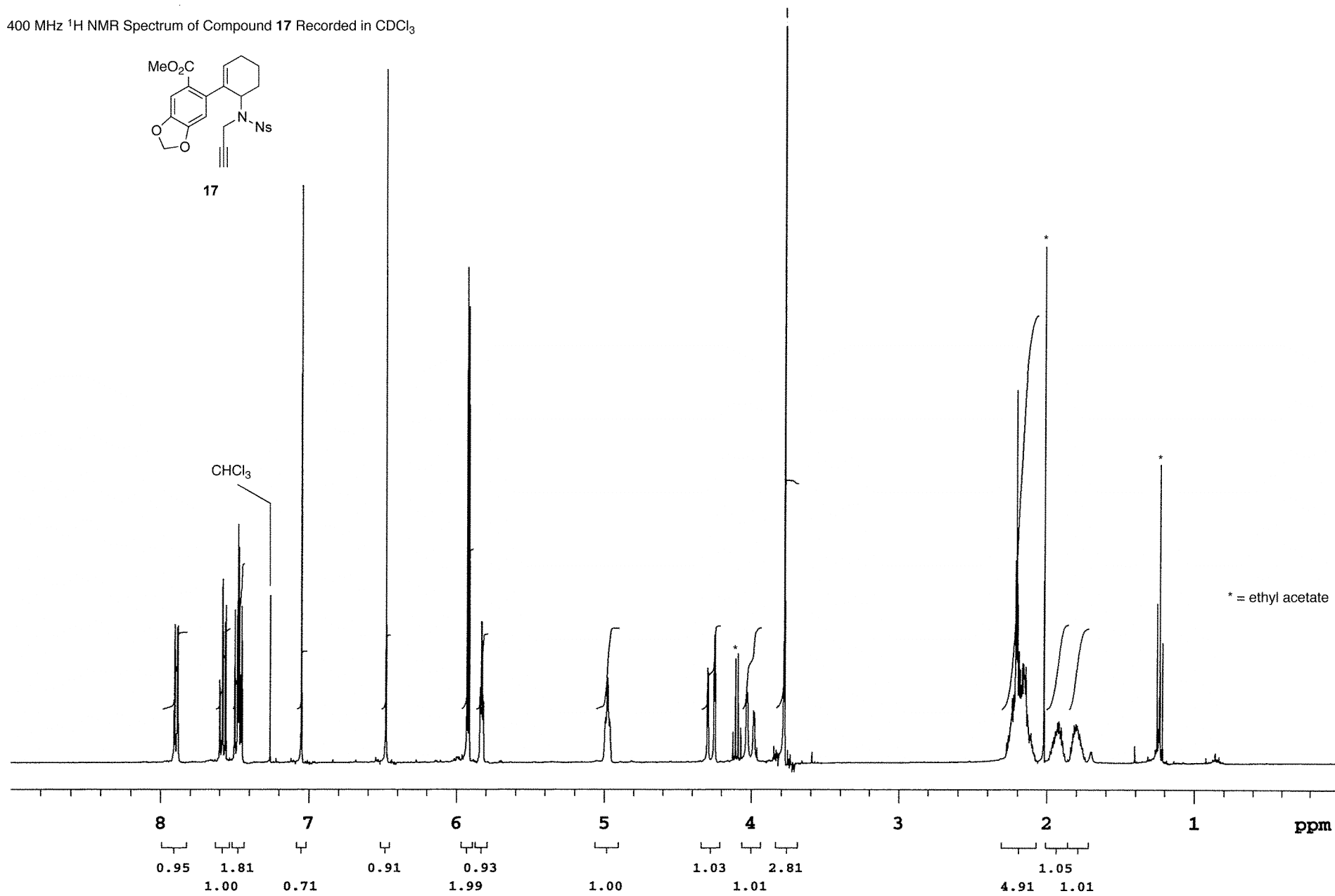
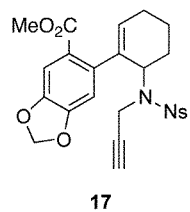
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**16**

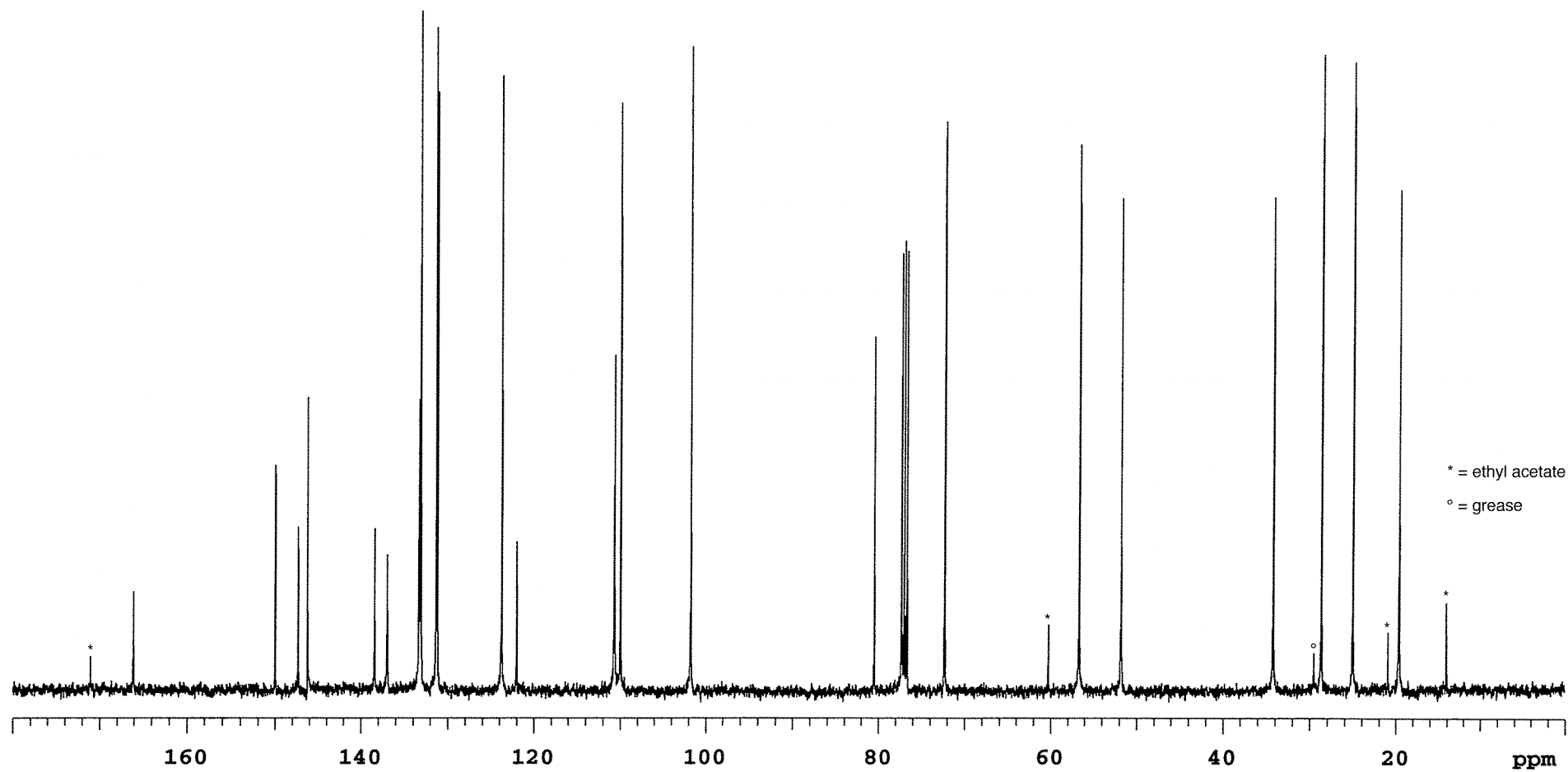
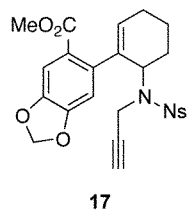


400 MHz <sup>1</sup>H NMR Spectrum of Compound 17 Recorded in CDCl<sub>3</sub>



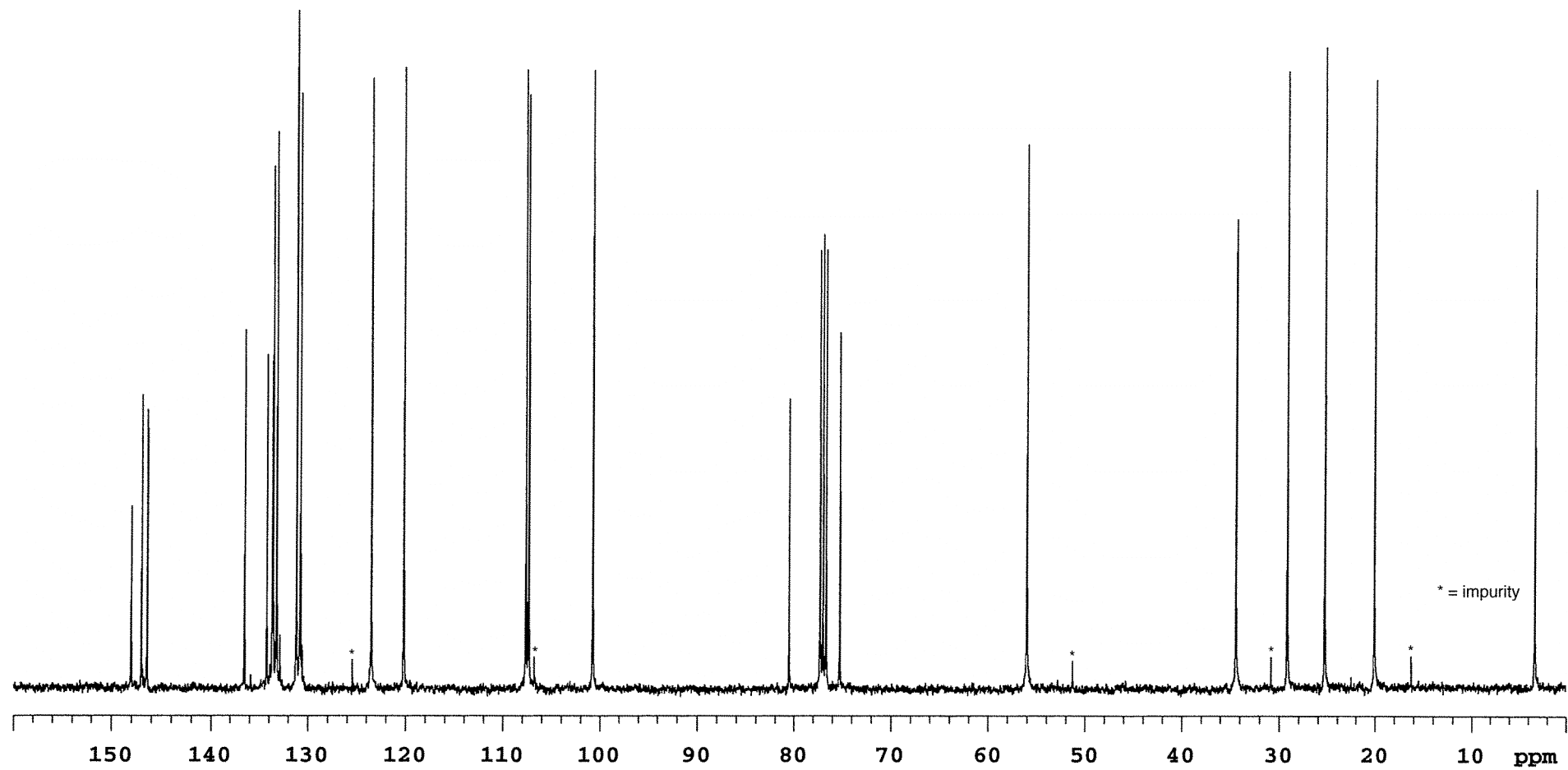
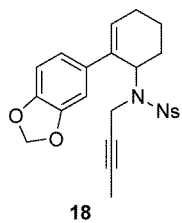
\* = ethyl acetate

100 MHz  $^{13}\text{C}$  NMR Spectrum of Compound 17 Recorded in  $\text{CDCl}_3$

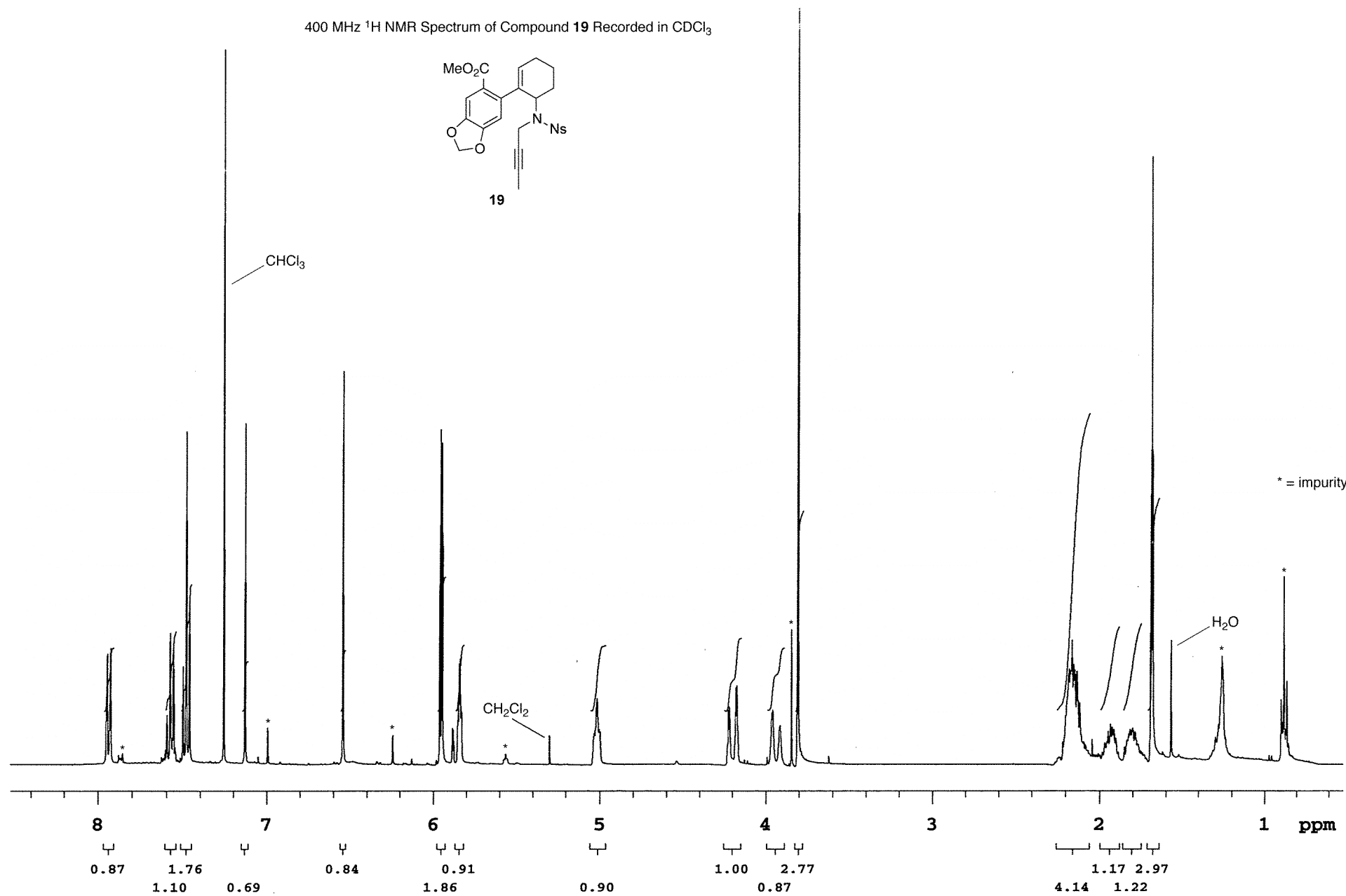
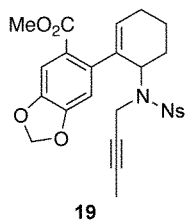




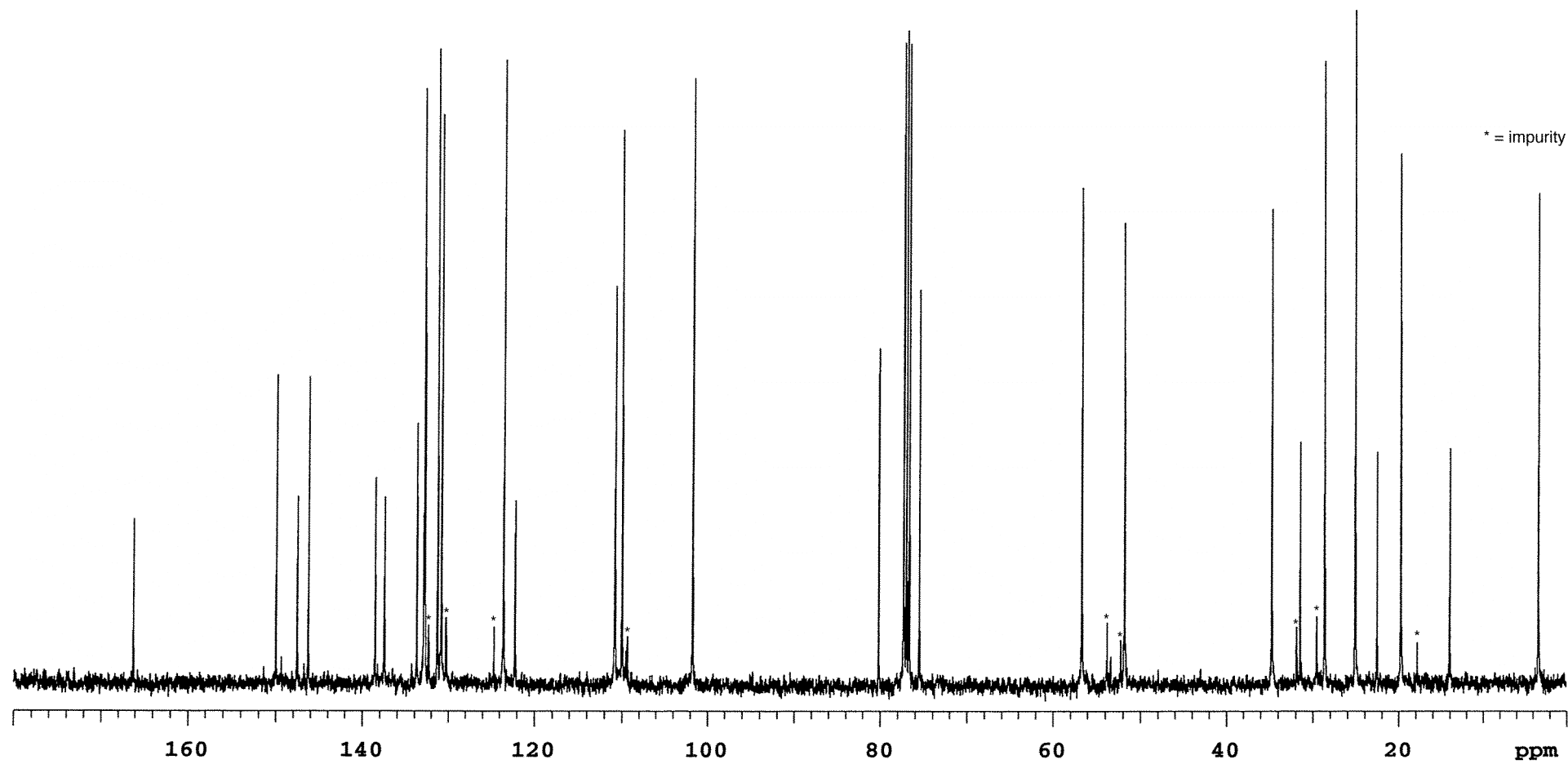
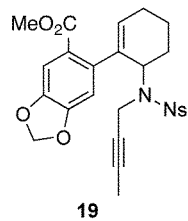
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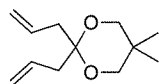
400 MHz <sup>1</sup>H NMR Spectrum of Compound **19** Recorded in CDCl<sub>3</sub>



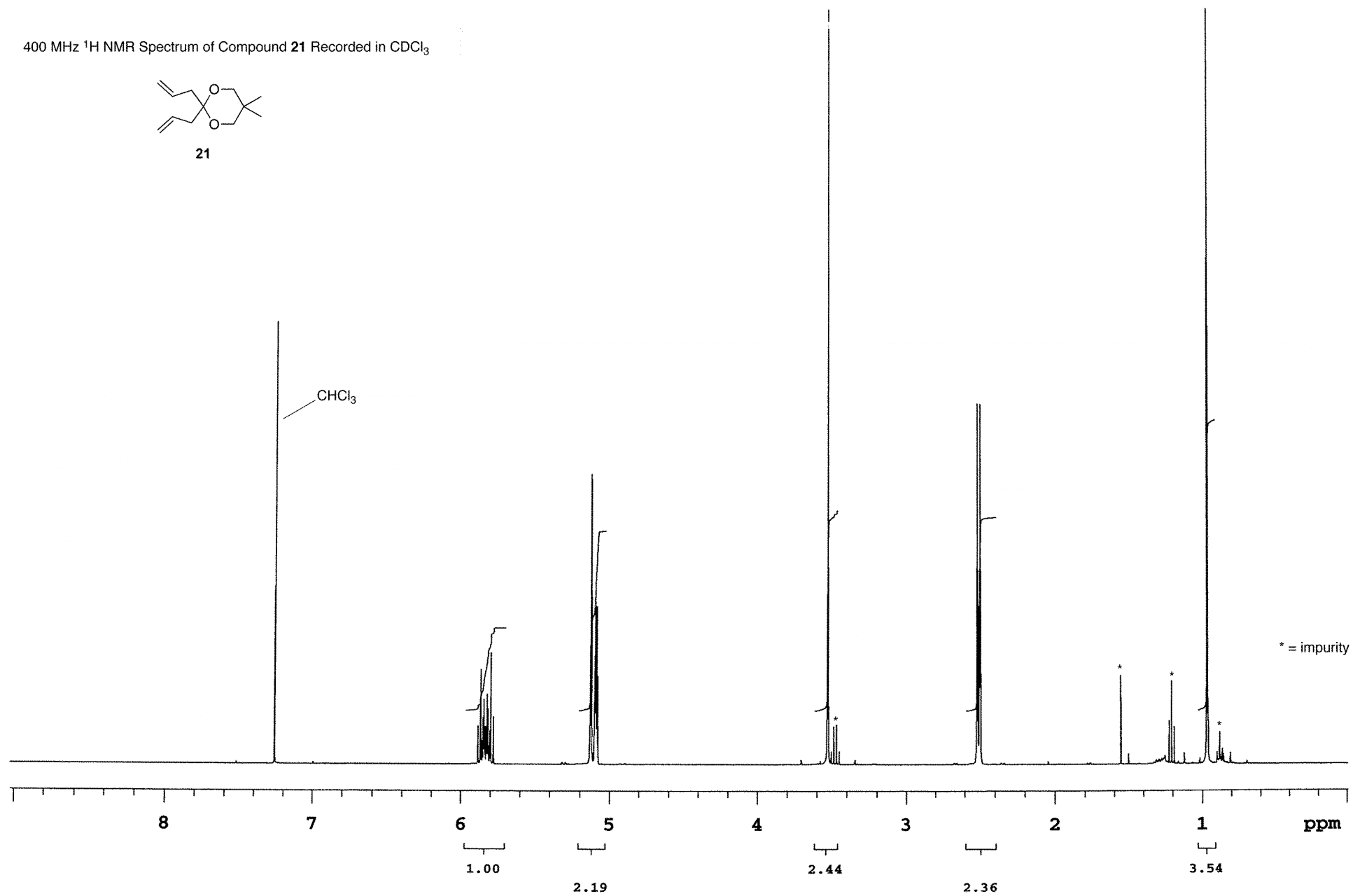
100 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **19** Recorded in  $\text{CDCl}_3$



400 MHz  $^1\text{H}$  NMR Spectrum of Compound **21** Recorded in  $\text{CDCl}_3$

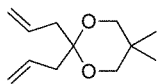


**21**

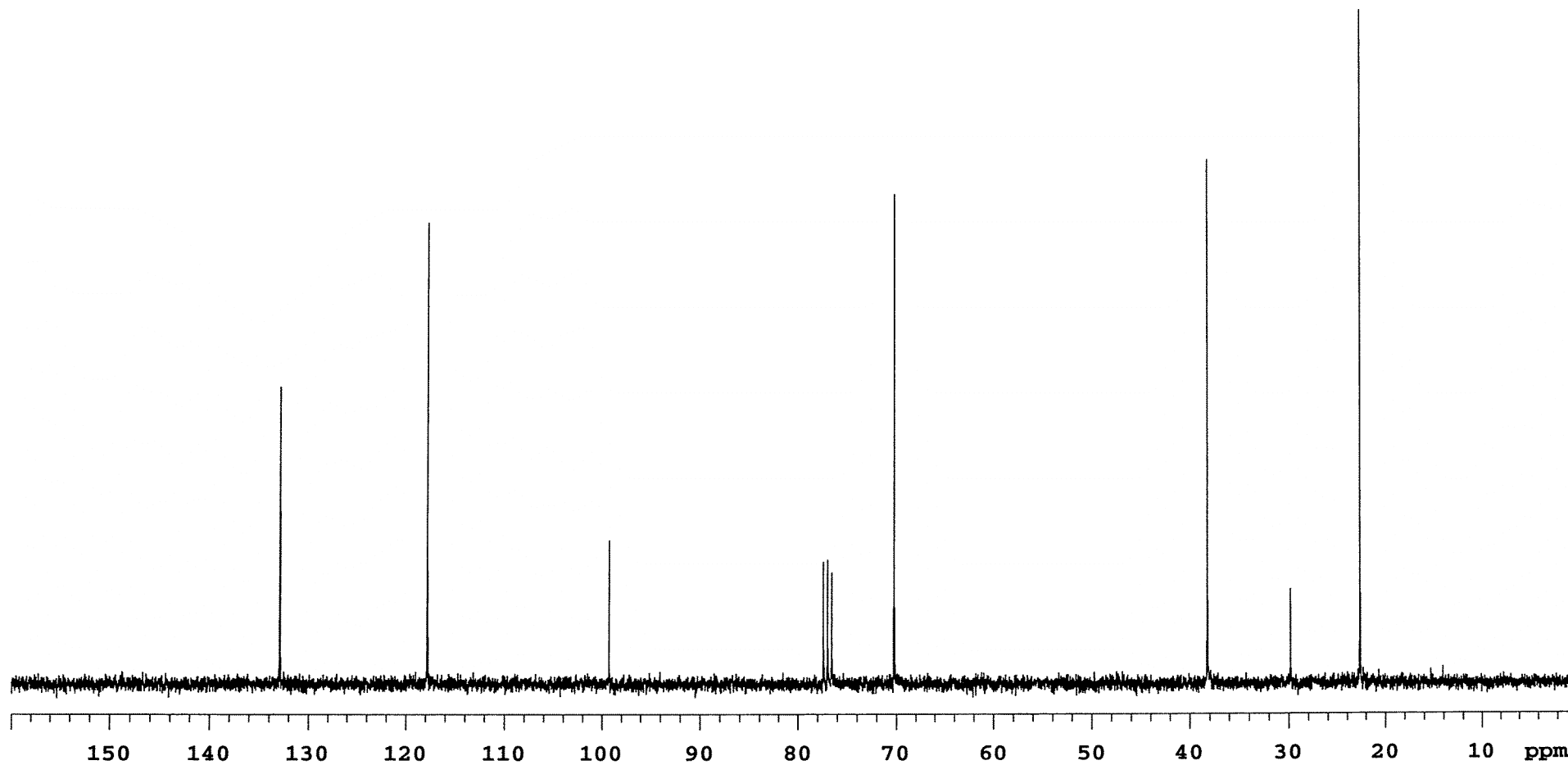




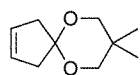
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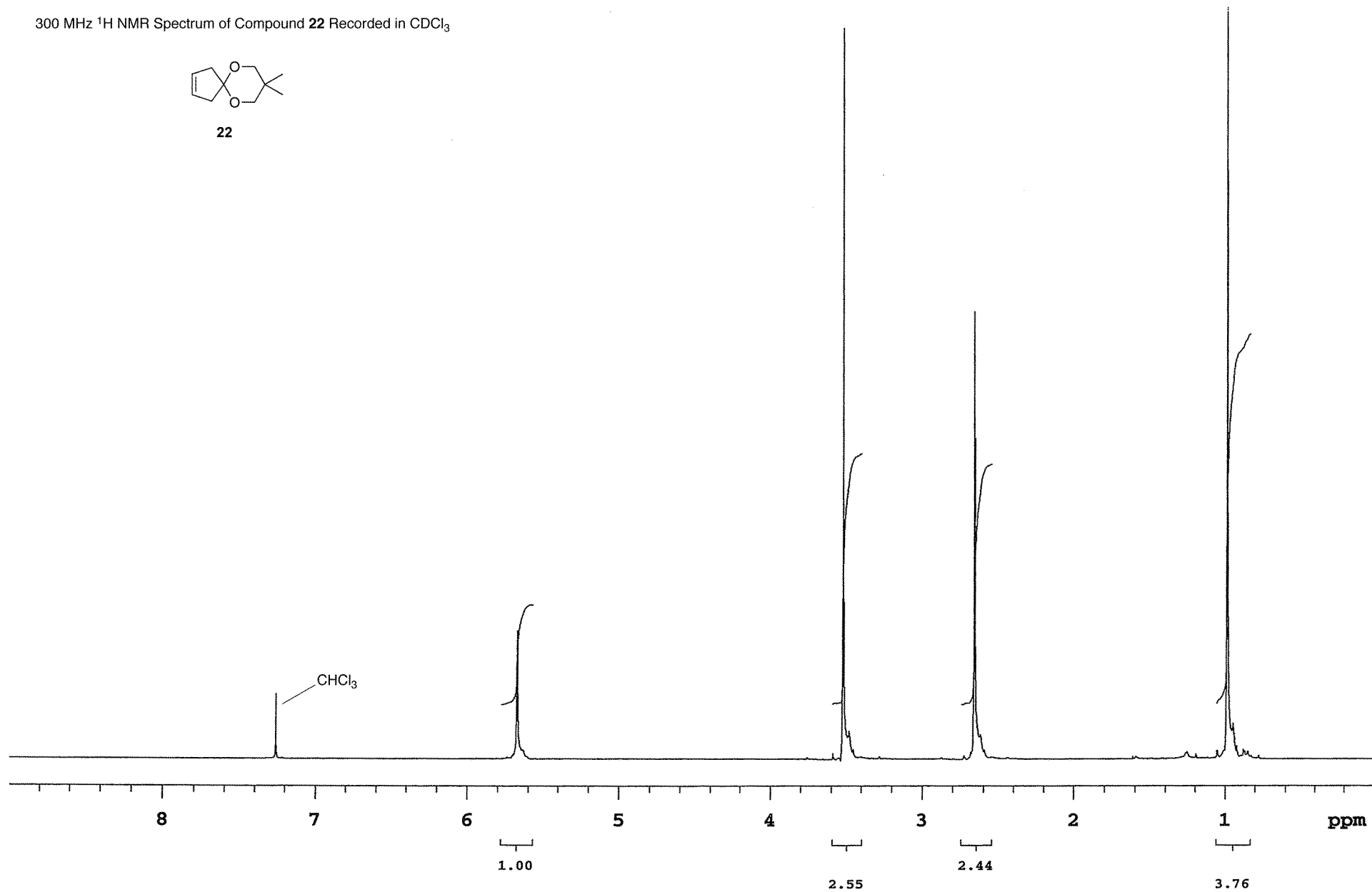
**21**



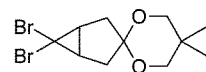
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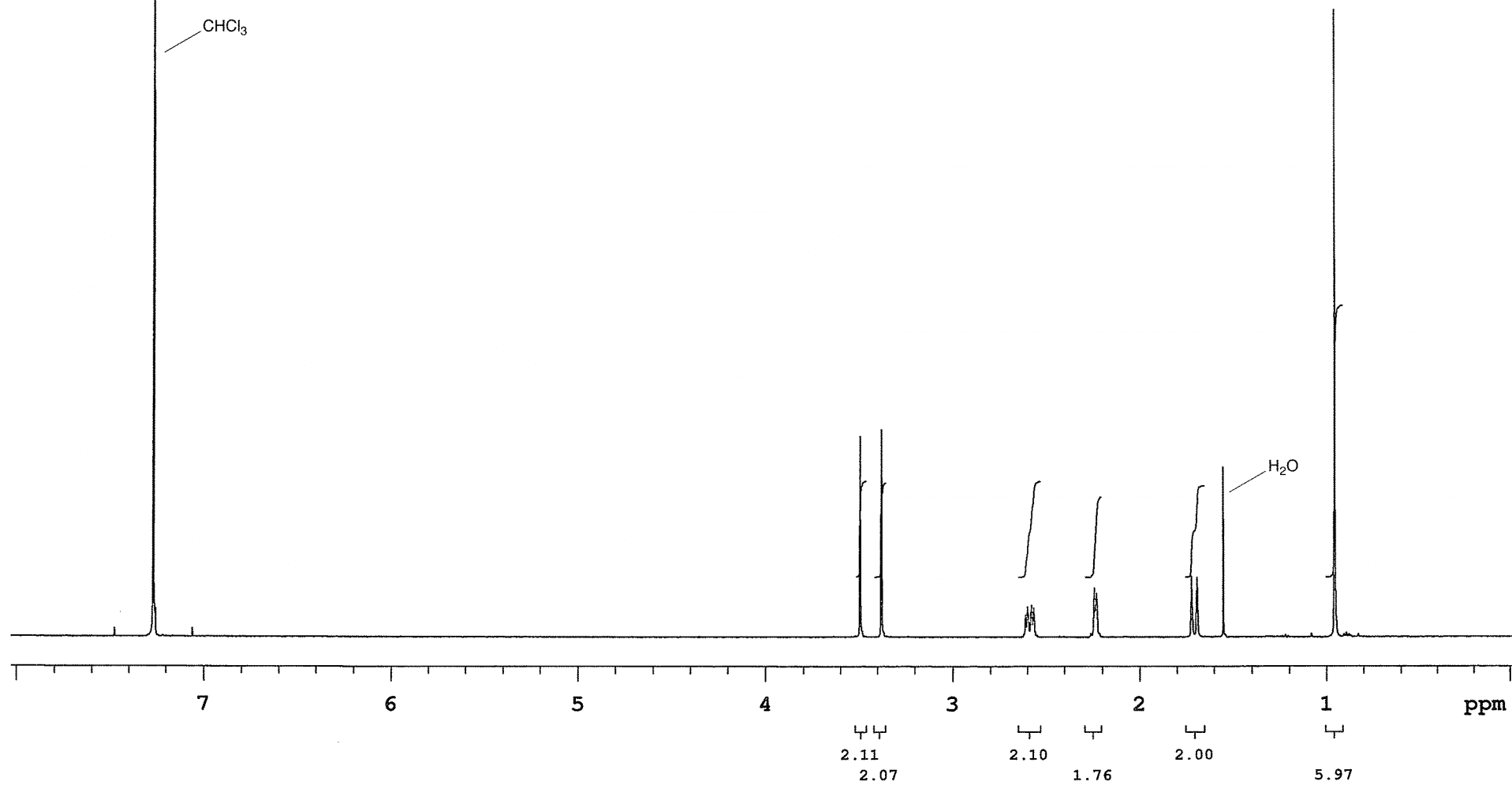
**22**



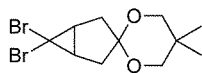
500 MHz  $^1\text{H}$  NMR Spectrum of Compound **23** Recorded in  $\text{CDCl}_3$



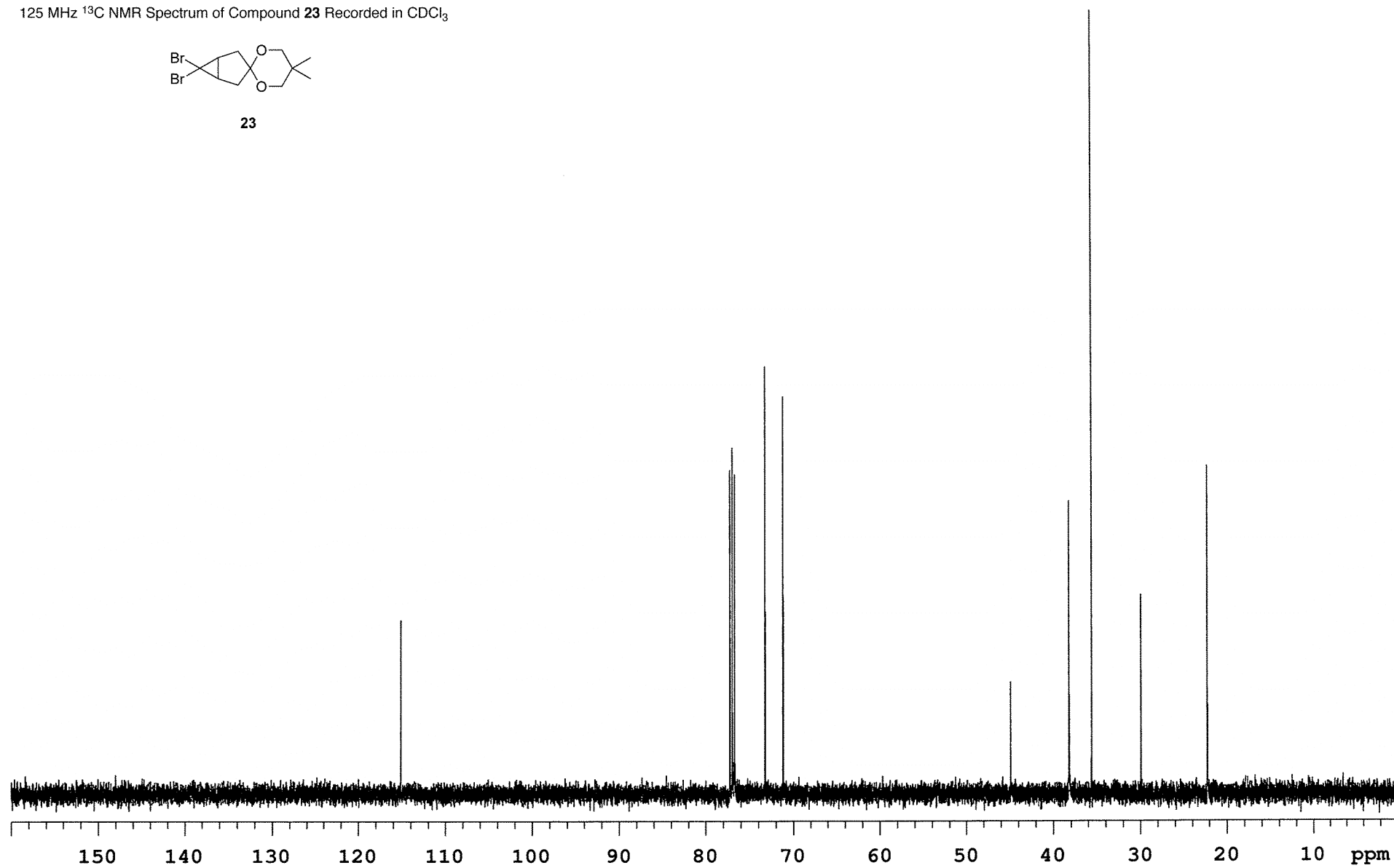
**23**



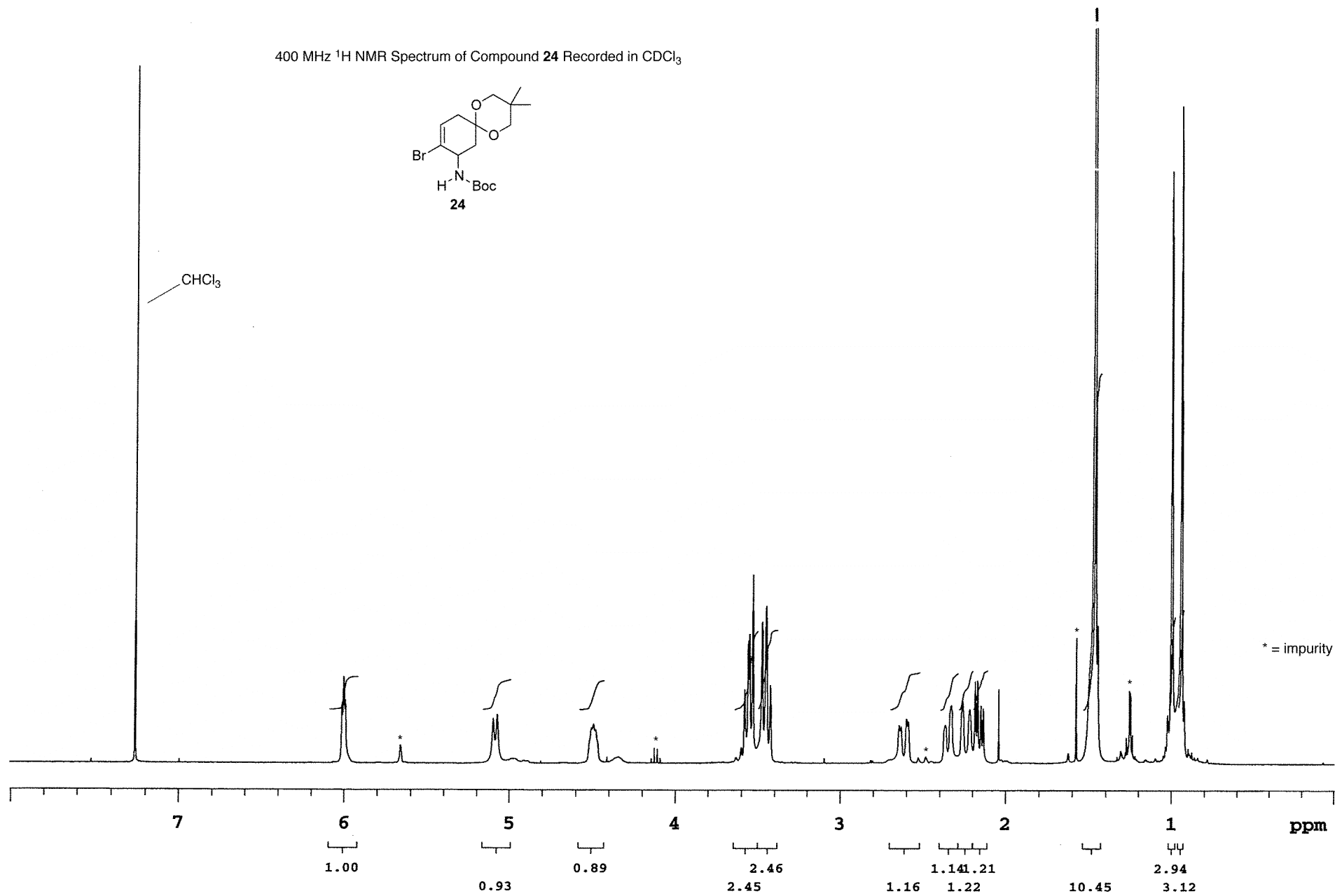
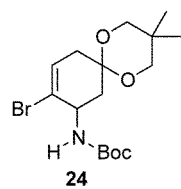
125 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **23** Recorded in  $\text{CDCl}_3$



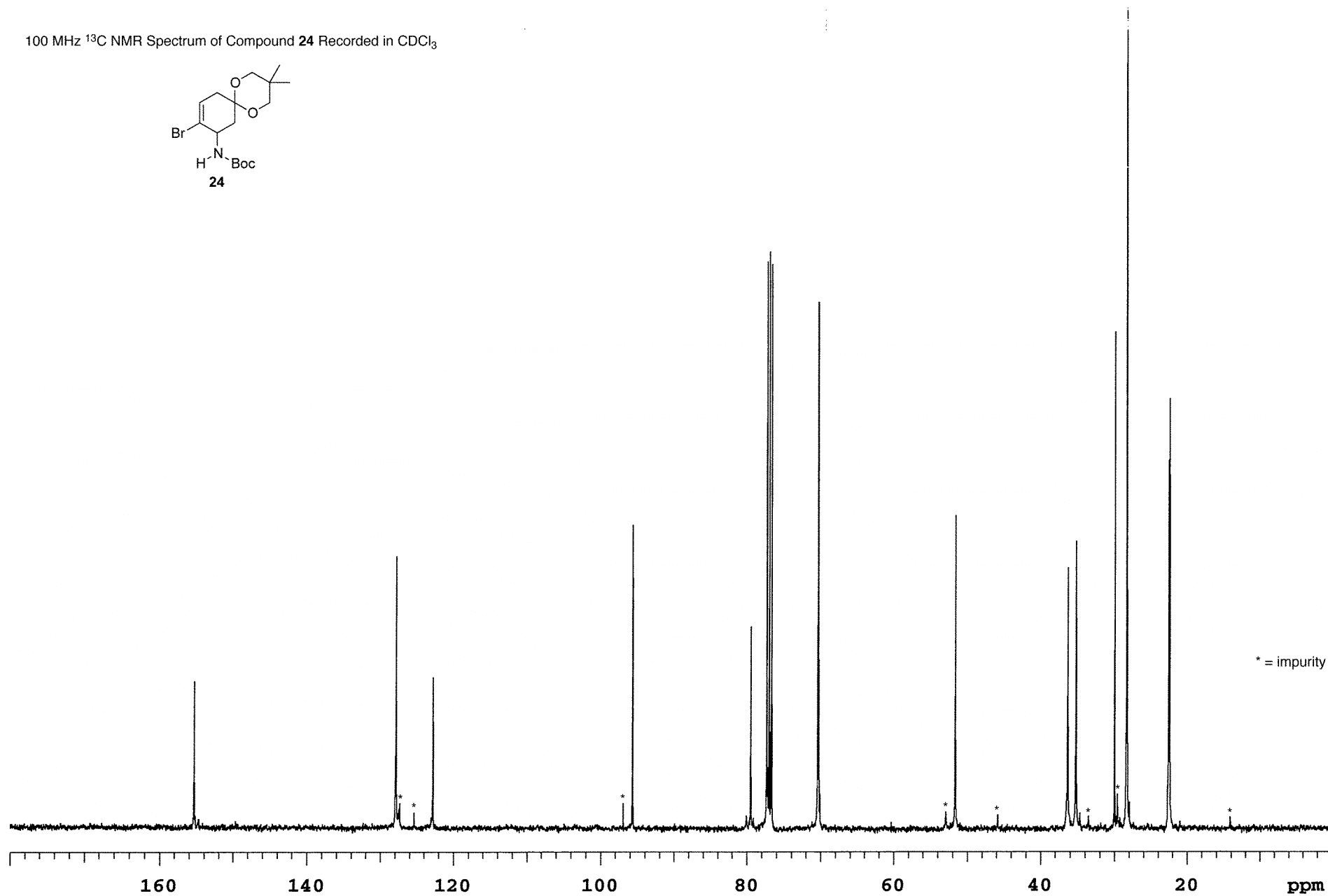
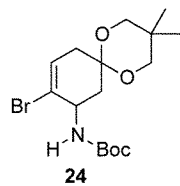
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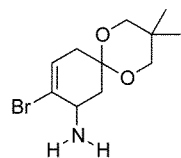
400 MHz <sup>1</sup>H NMR Spectrum of Compound 24 Recorded in CDCl<sub>3</sub>



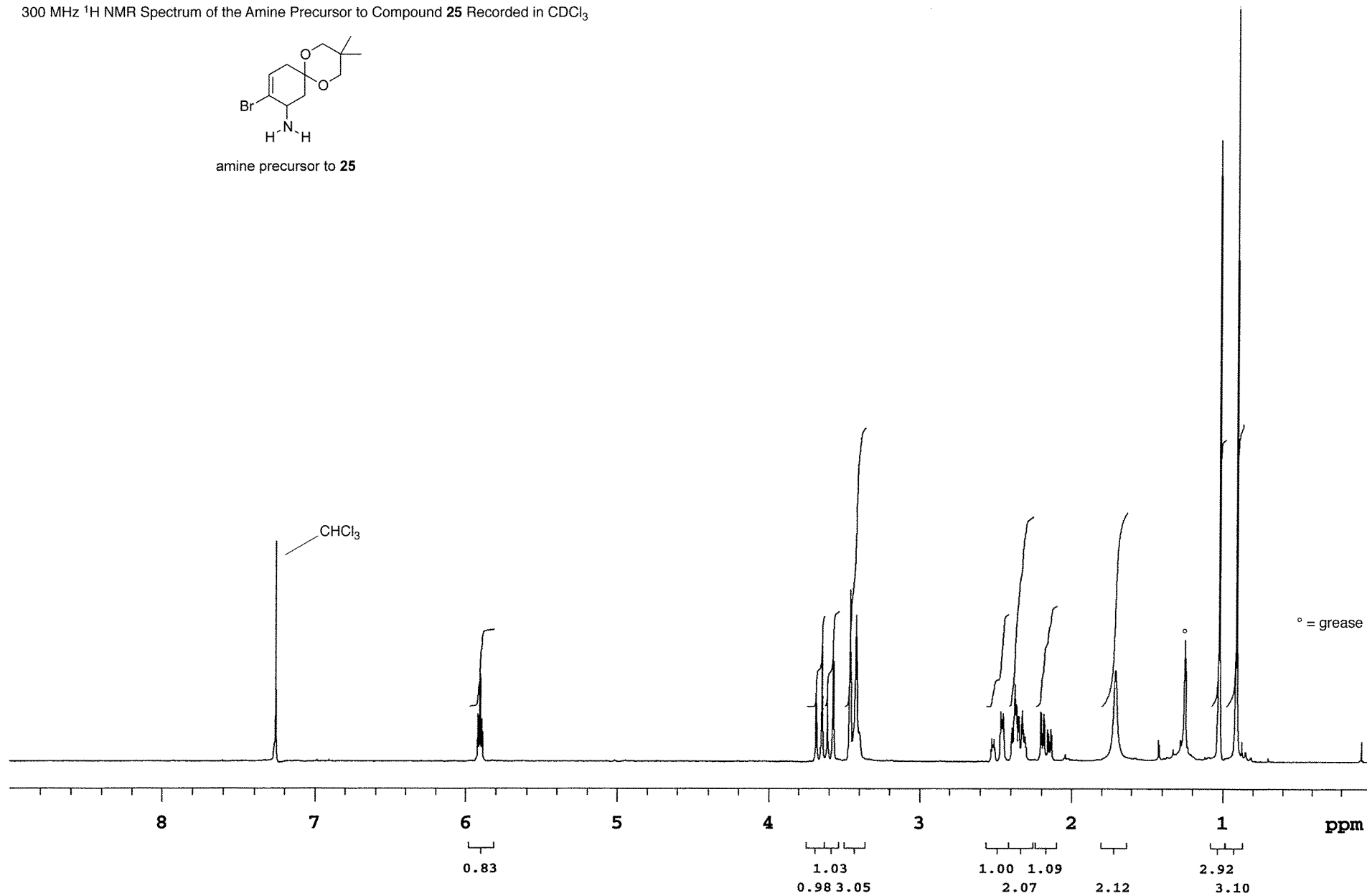
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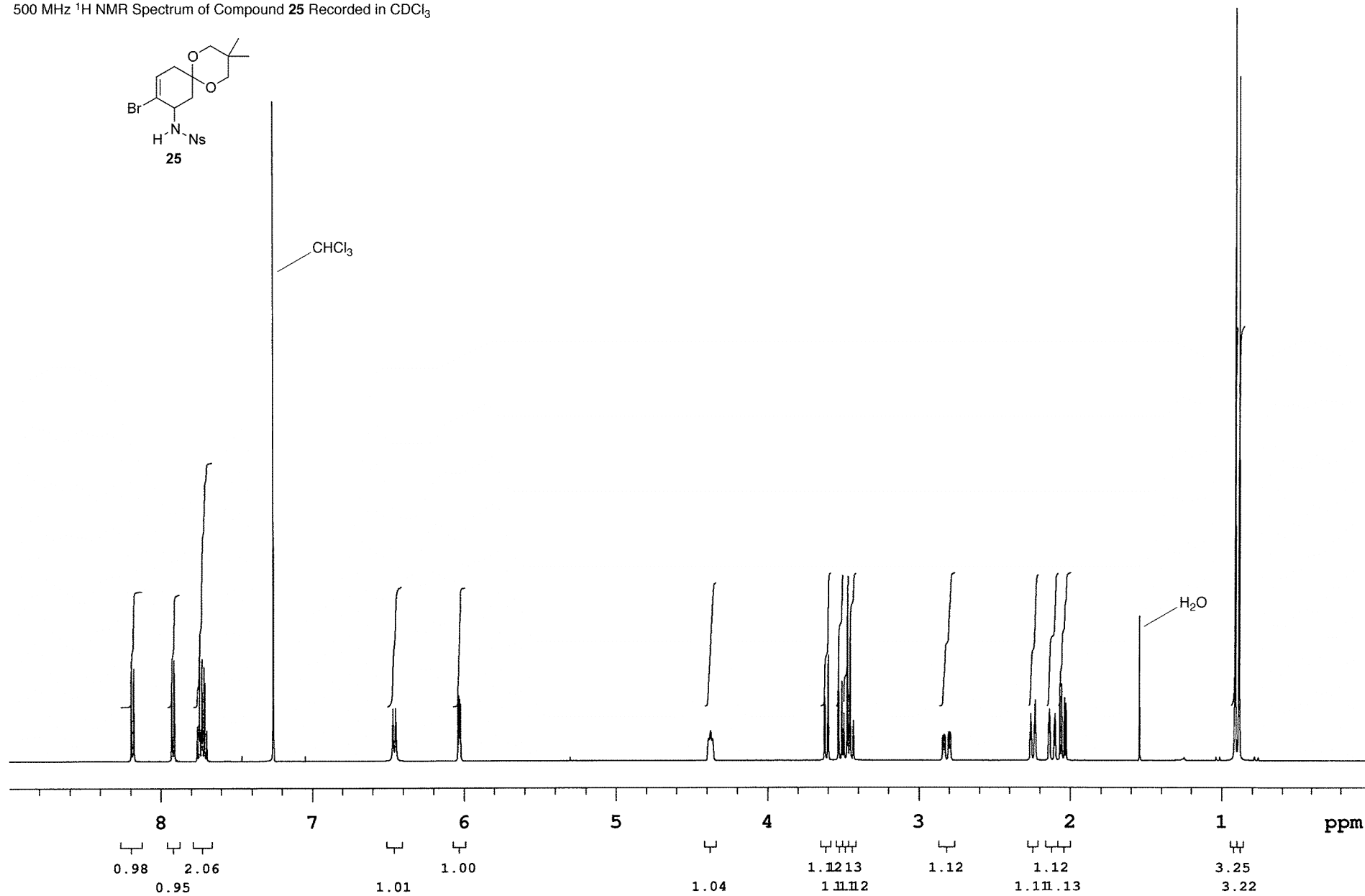
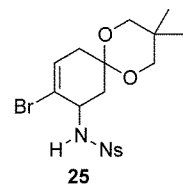
300 MHz  $^1\text{H}$  NMR Spectrum of the Amine Precursor to Compound 25 Recorded in  $\text{CDCl}_3$



amine precursor to 25

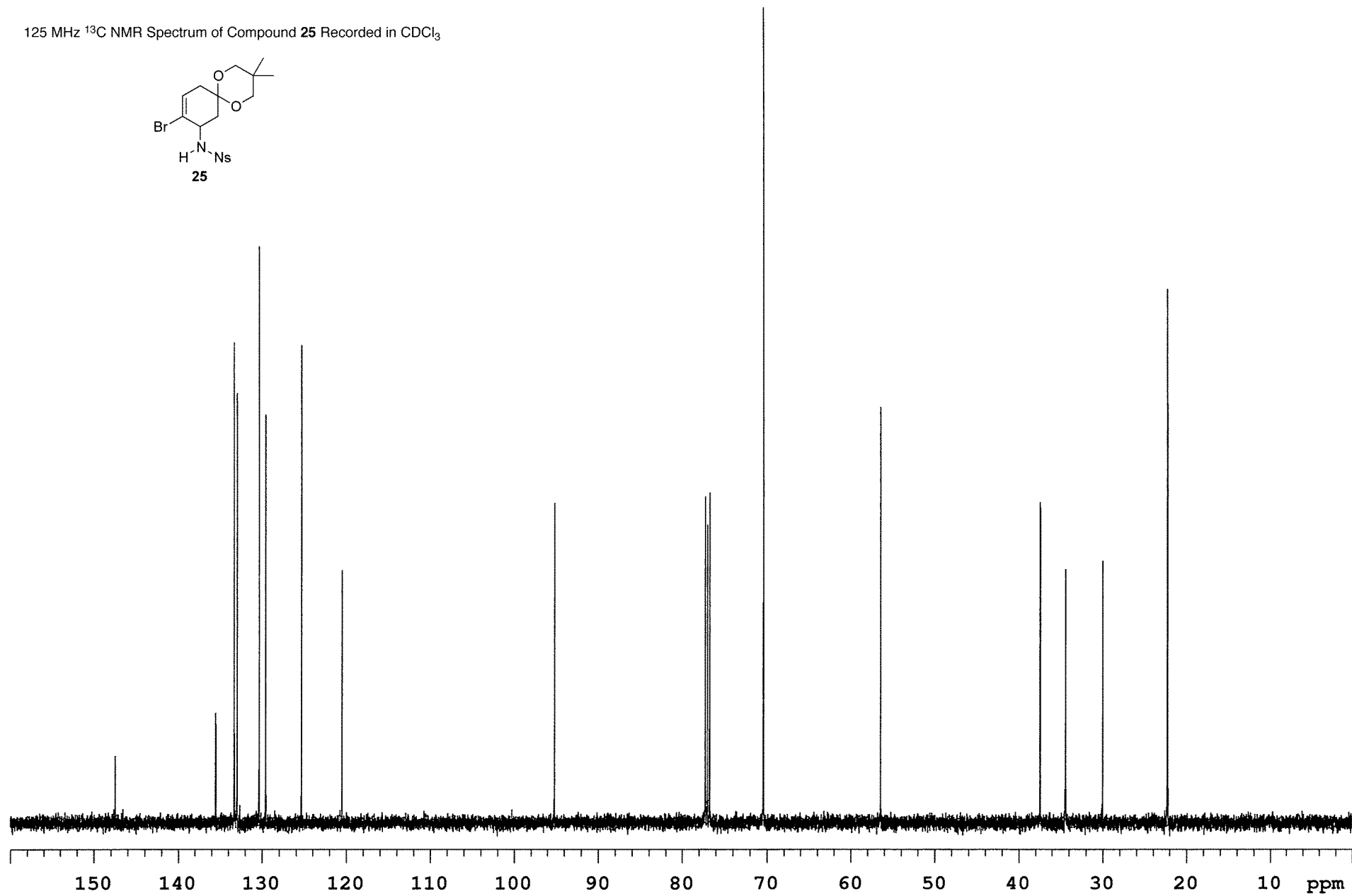
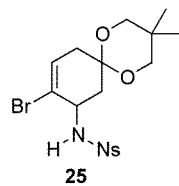


500 MHz  $^1\text{H}$  NMR Spectrum of Compound **25** Recorded in  $\text{CDCl}_3$

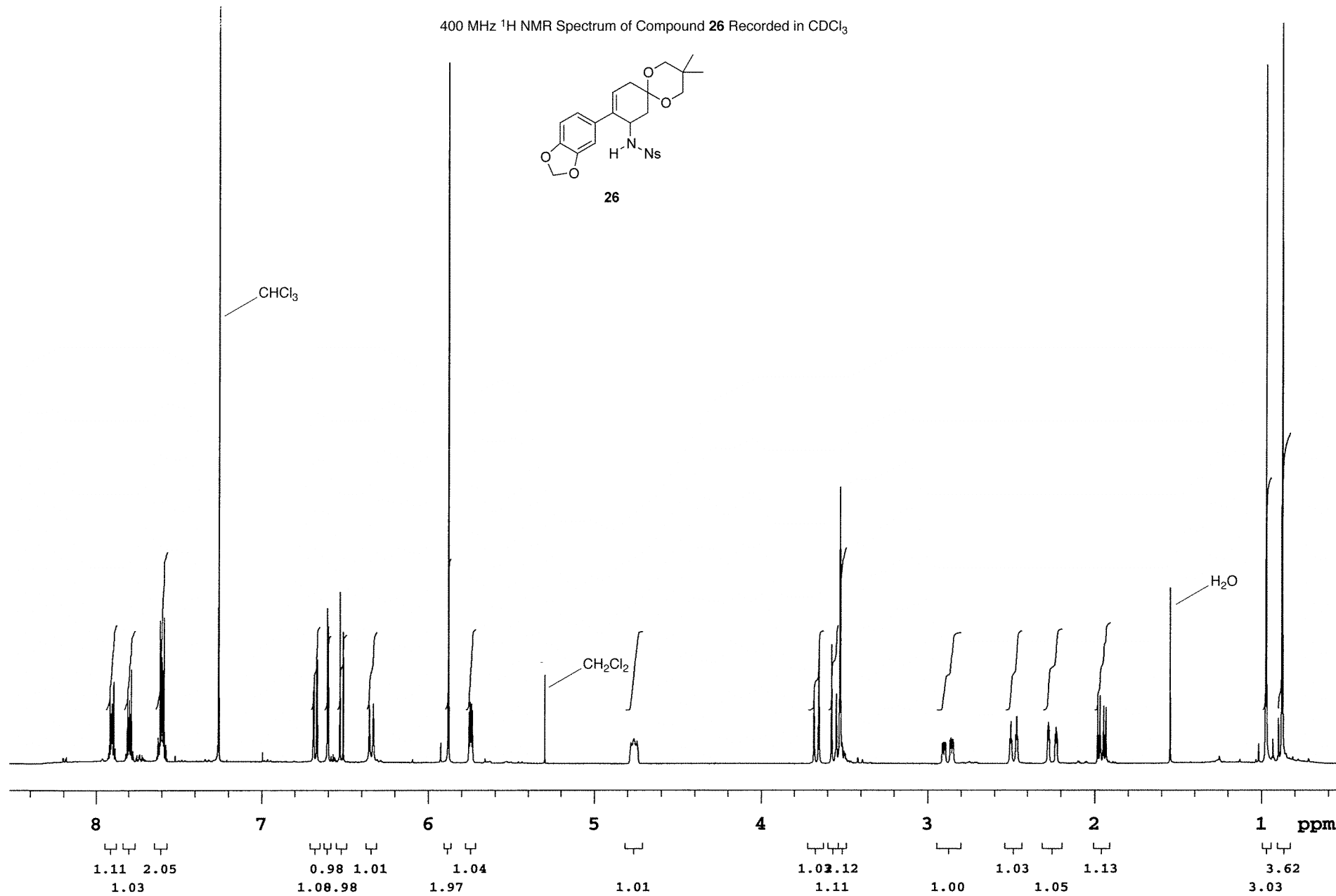
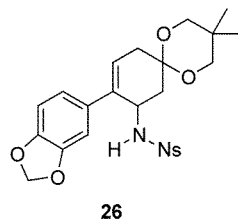




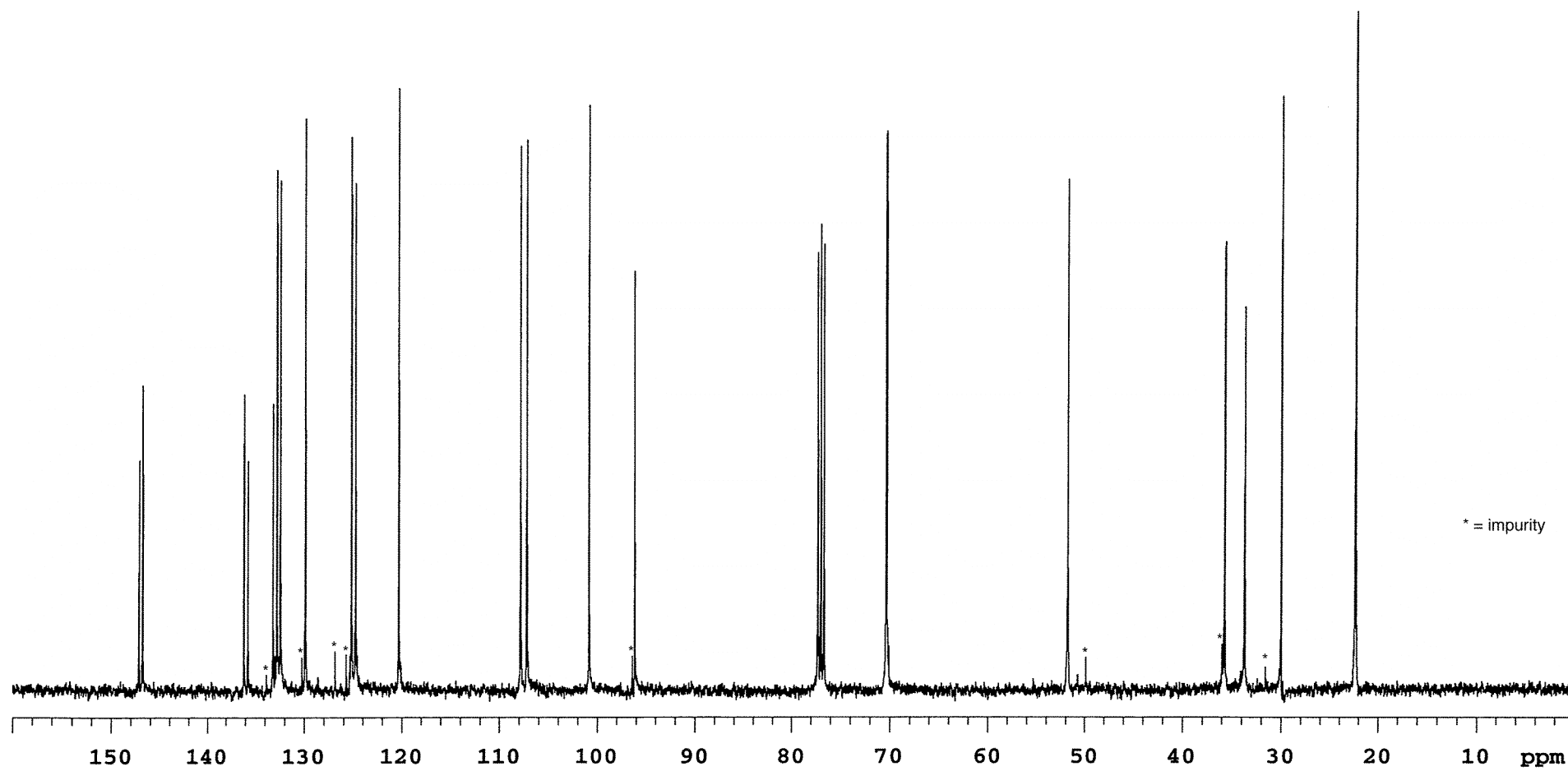
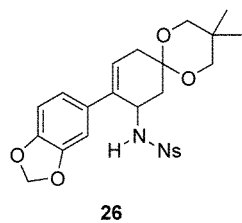
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400 MHz <sup>1</sup>H NMR Spectrum of Compound **26** Recorded in CDCl<sub>3</sub>

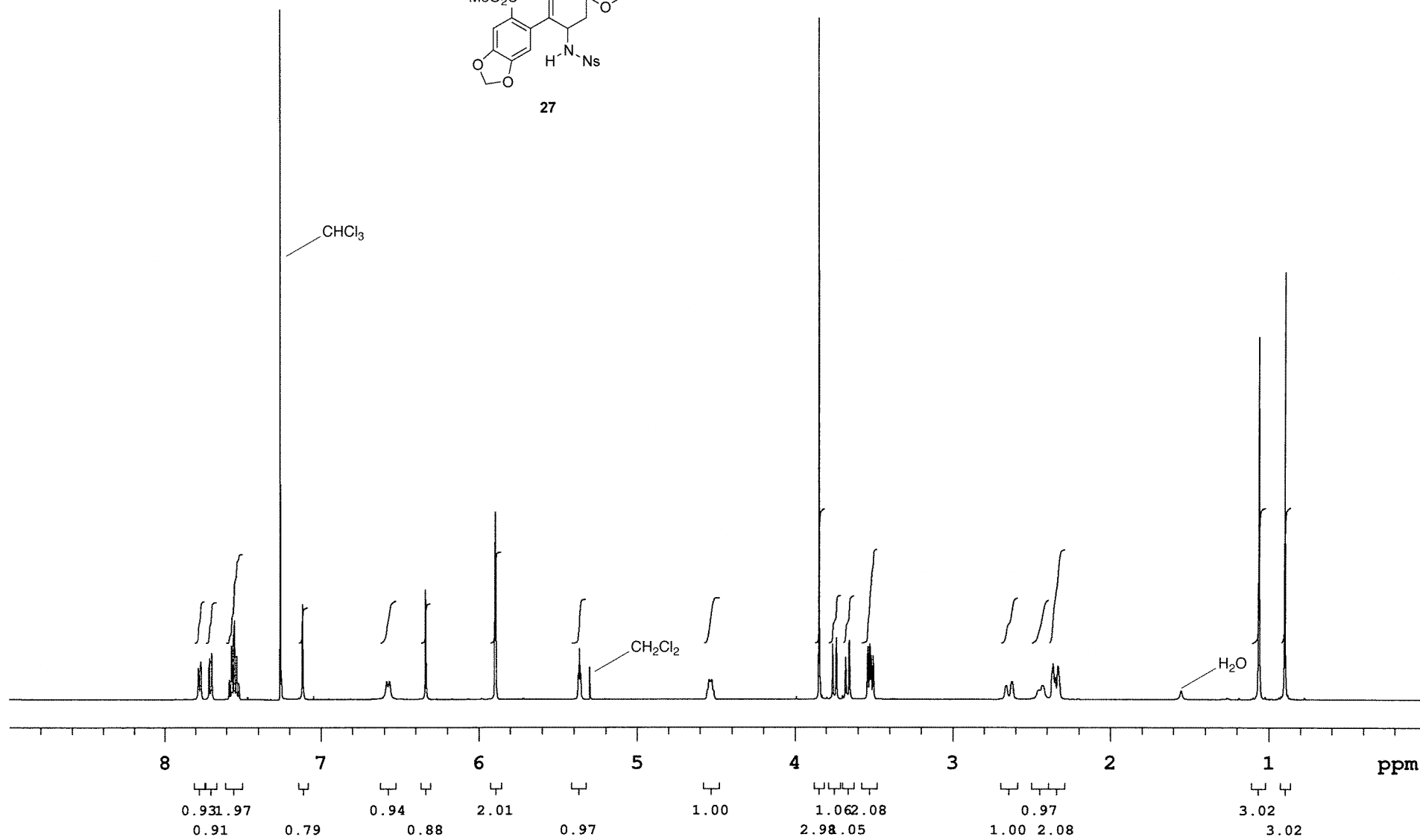
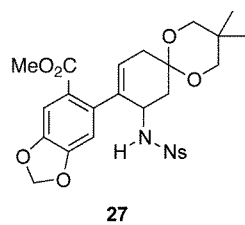


100 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **26** Recorded in  $\text{CDCl}_3$

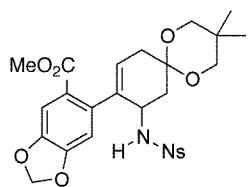


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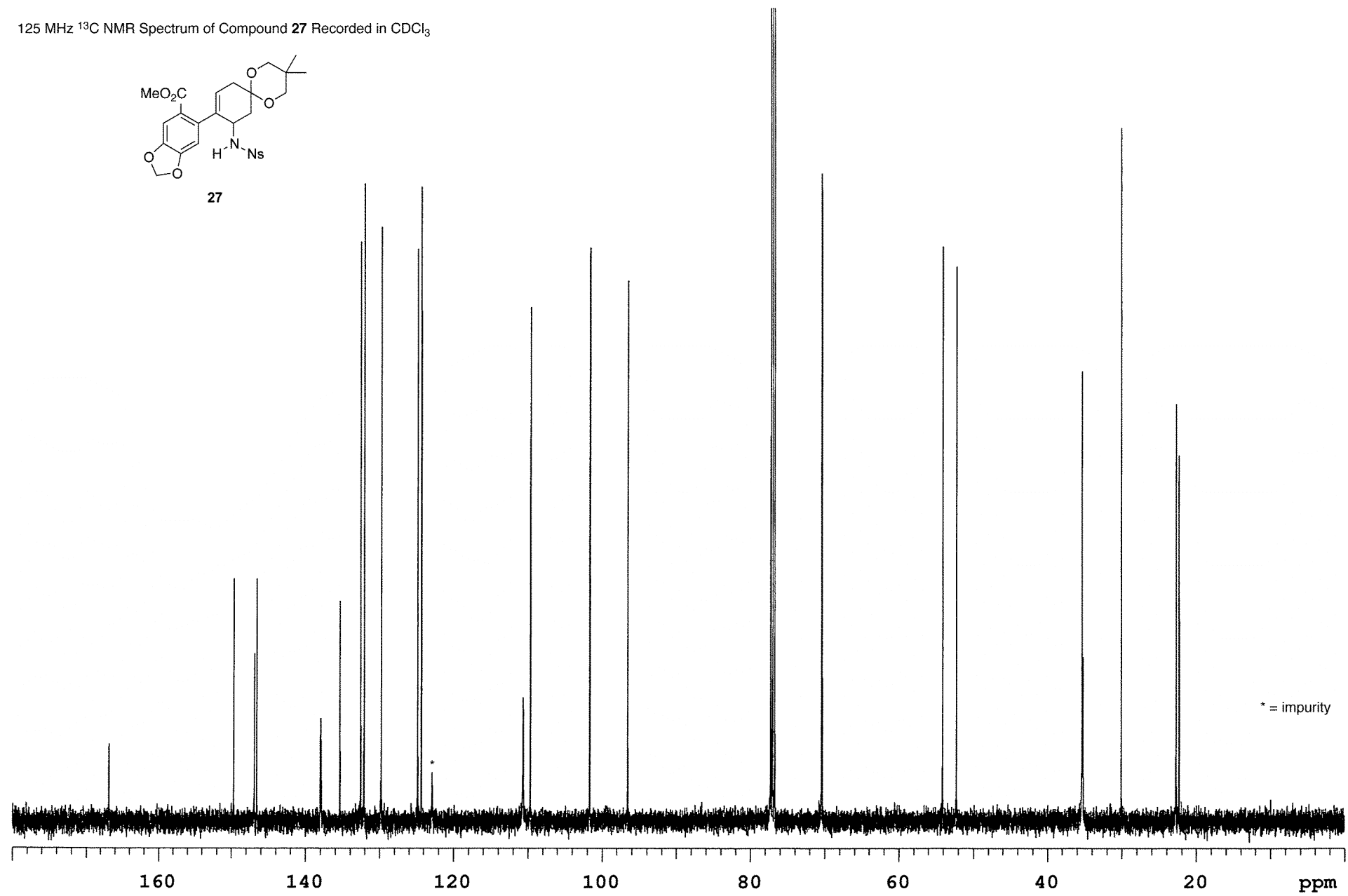
500 MHz  $^1\text{H}$  NMR Spectrum of Compound 27 Recorded in  $\text{CDCl}_3$



125 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **27** Recorded in  $\text{CDCl}_3$

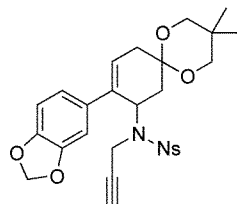


**27**

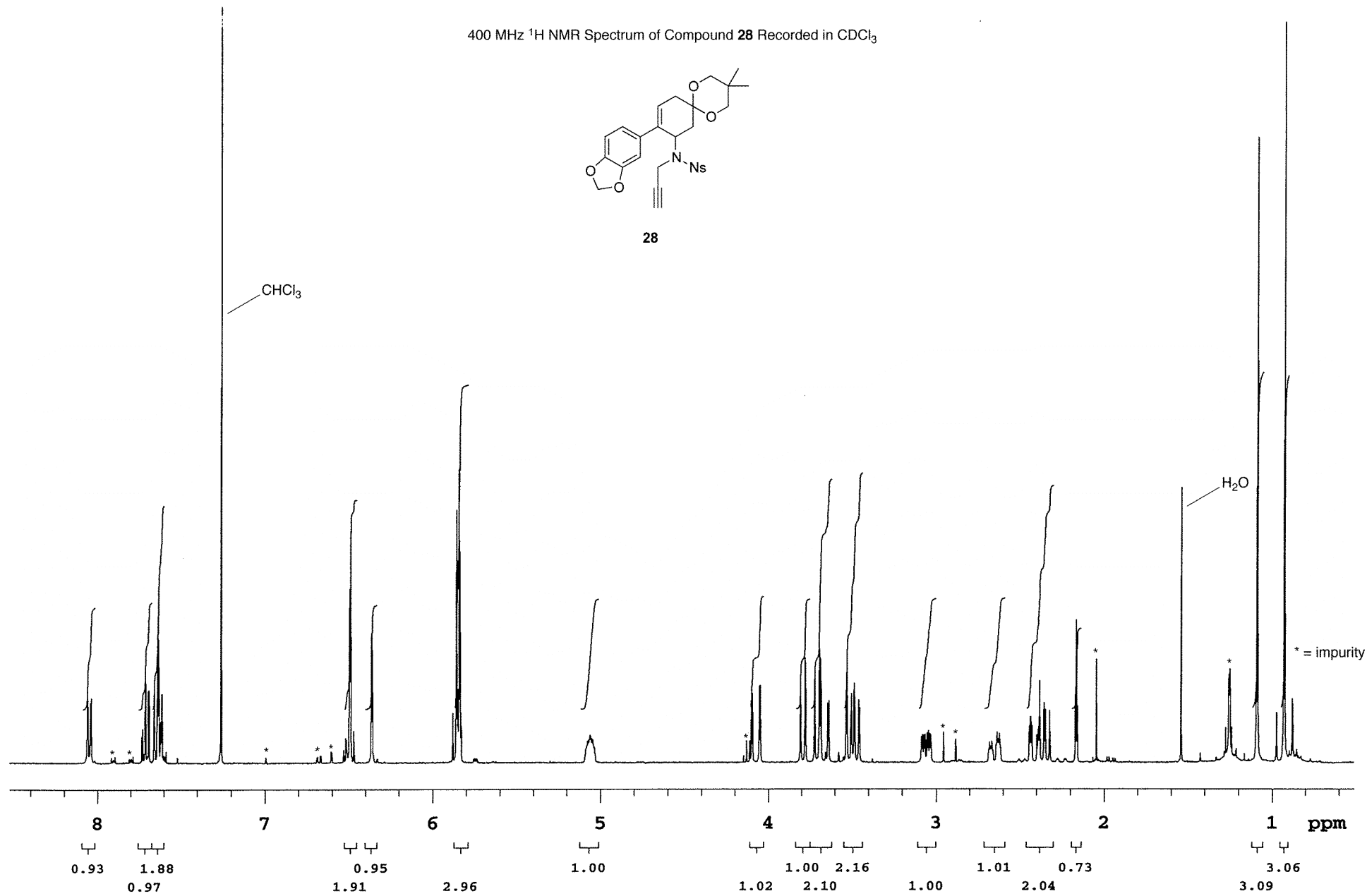


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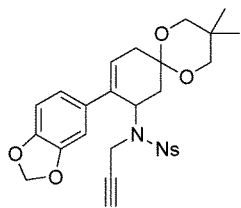
400 MHz <sup>1</sup>H NMR Spectrum of Compound **28** Recorded in CDCl<sub>3</sub>



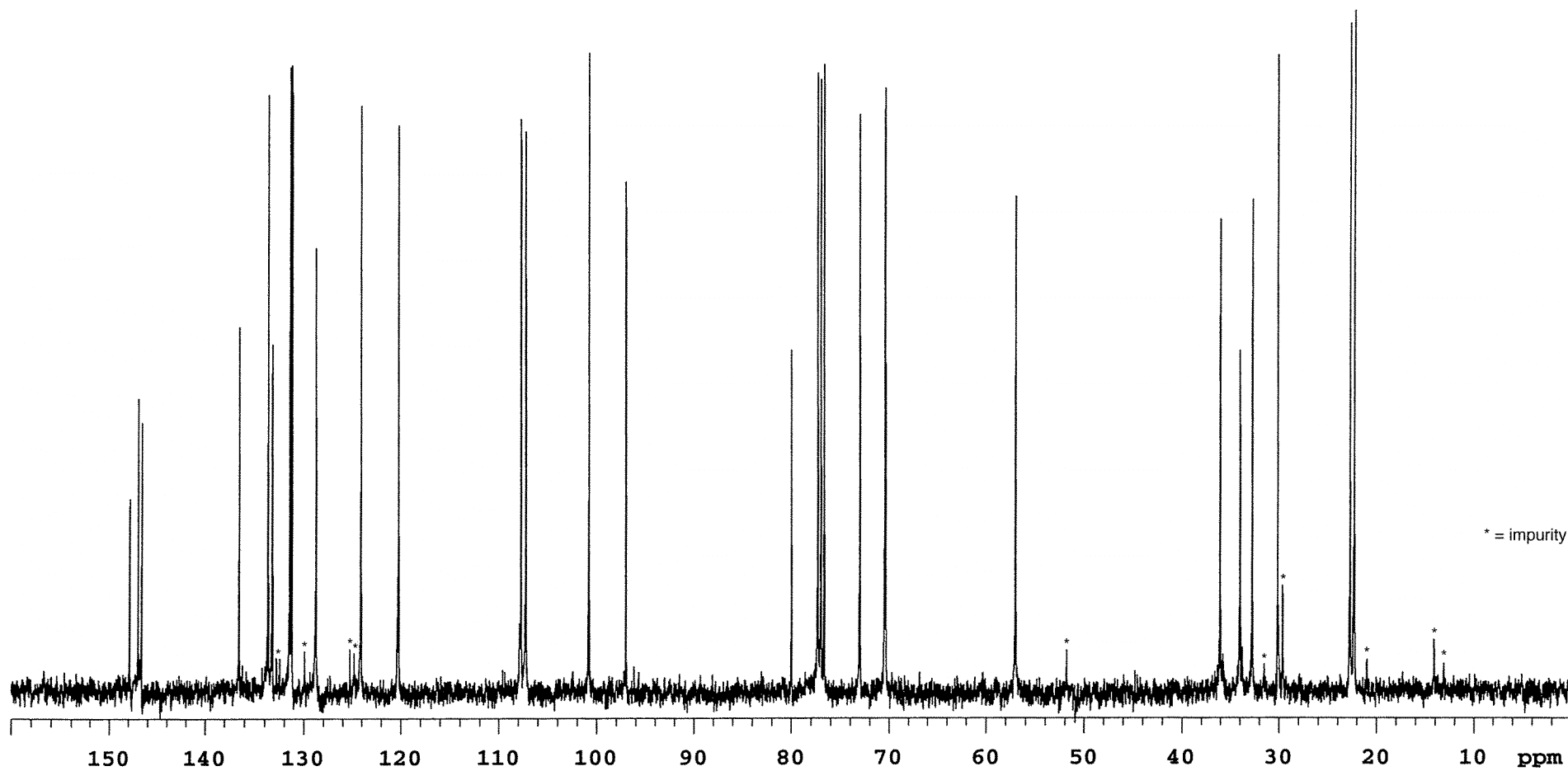
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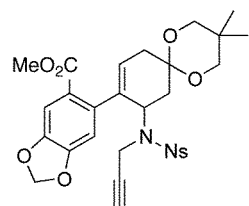
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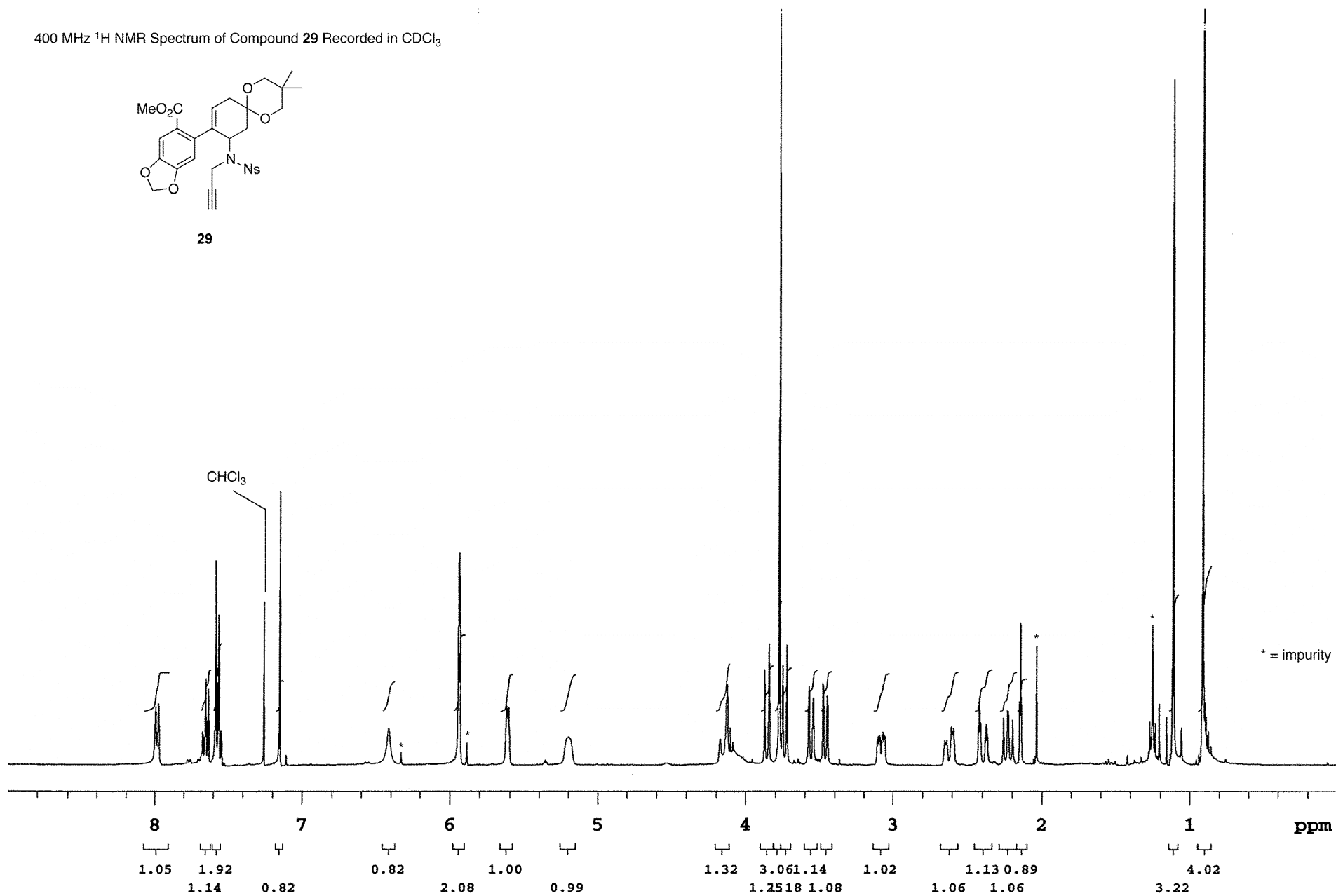
**28**



400 MHz <sup>1</sup>H NMR Spectrum of Compound **29** Recorded in CDCl<sub>3</sub>

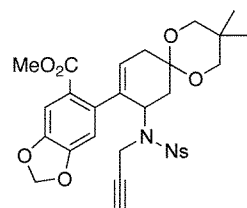


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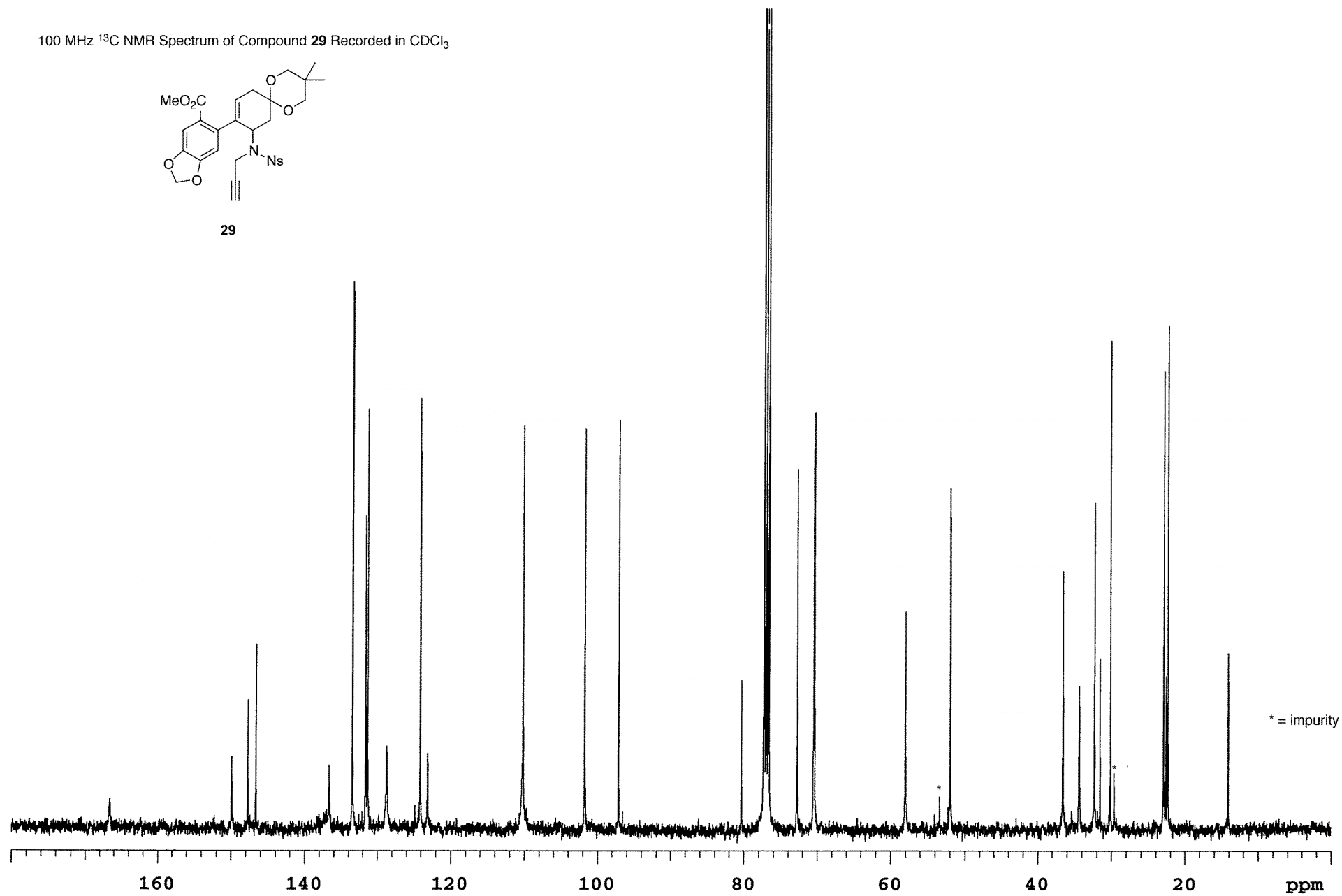




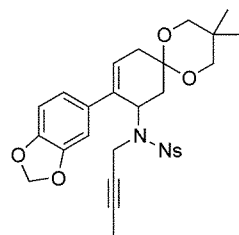
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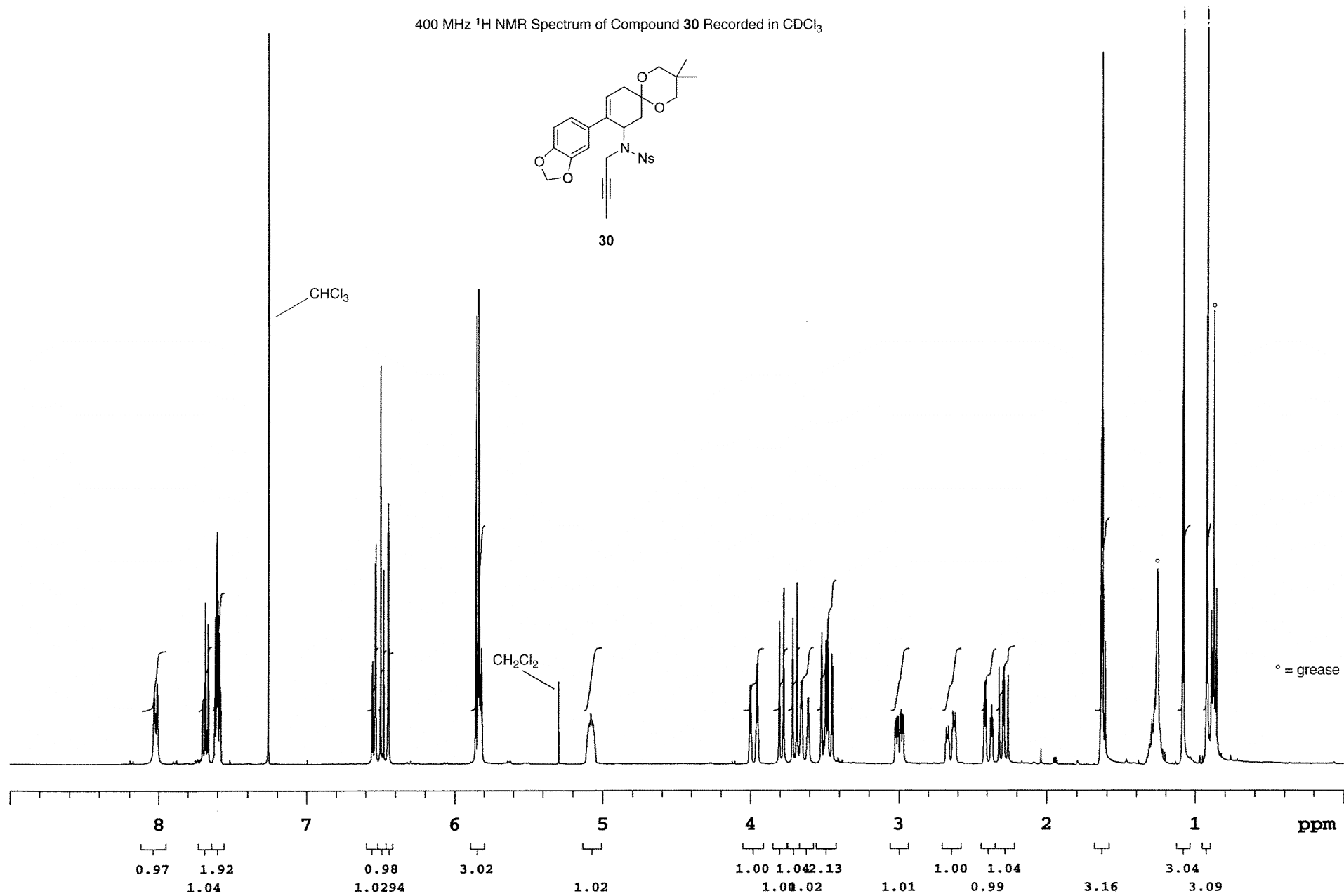
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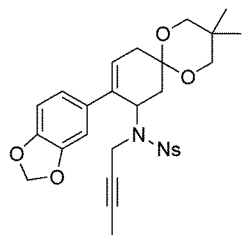
400 MHz <sup>1</sup>H NMR Spectrum of Compound **30** Recorded in CDCl<sub>3</sub>



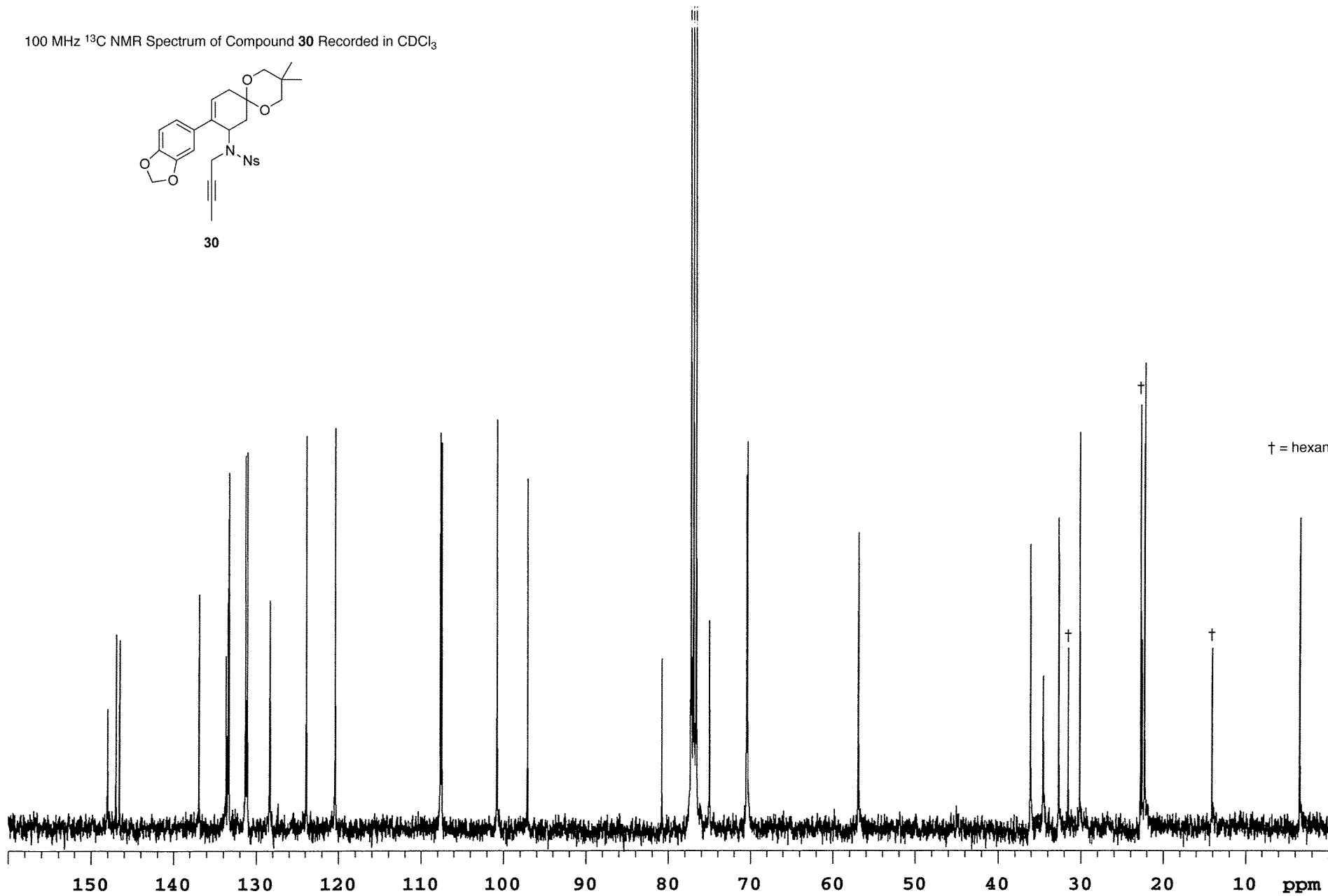
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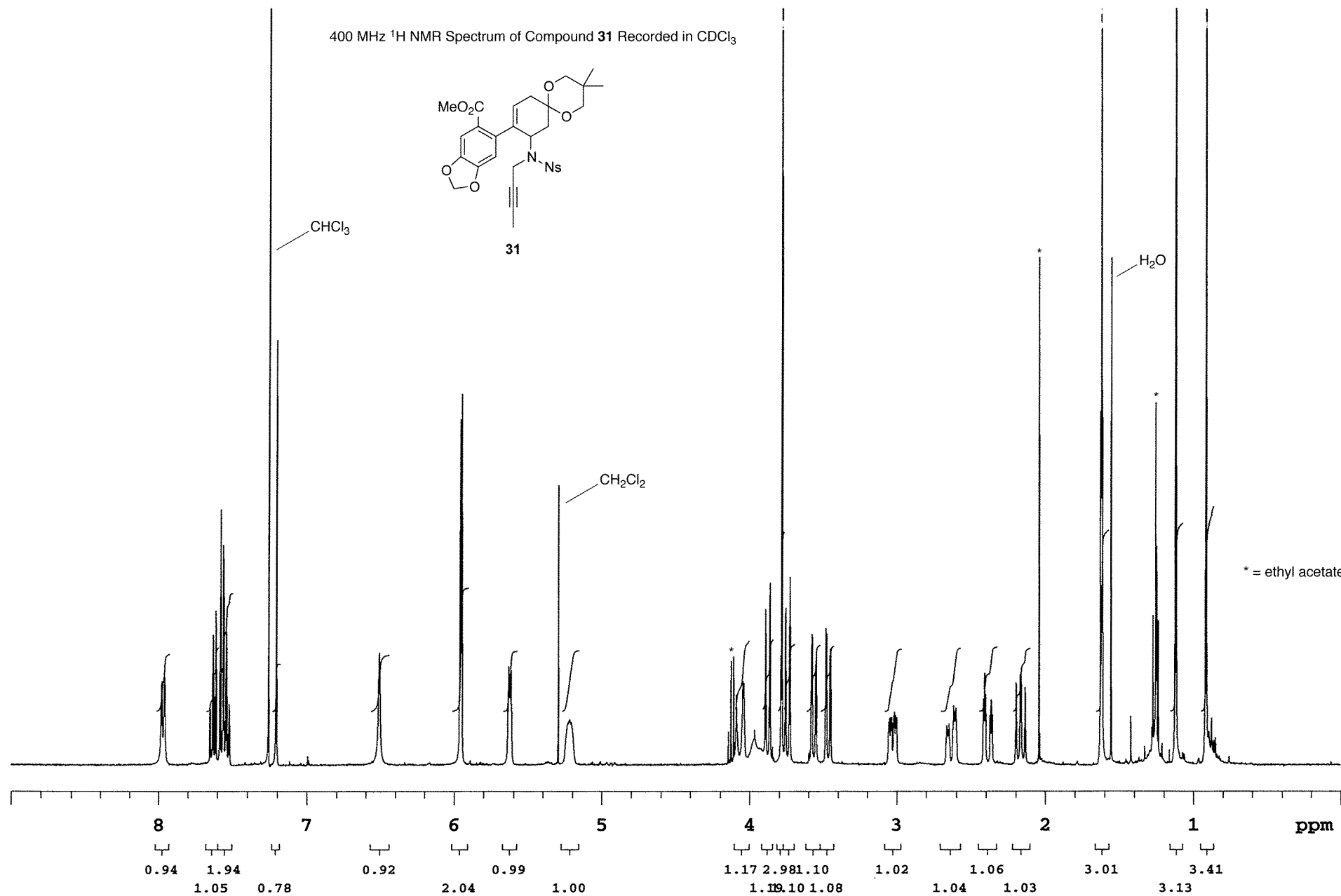
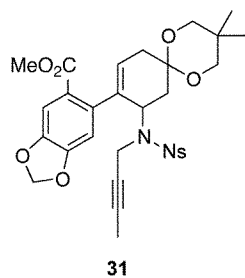
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**30**

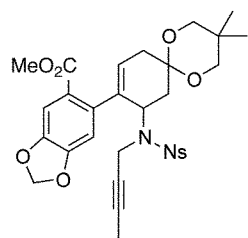


400 MHz <sup>1</sup>H NMR Spectrum of Compound 31 Recorded in CDCl<sub>3</sub>

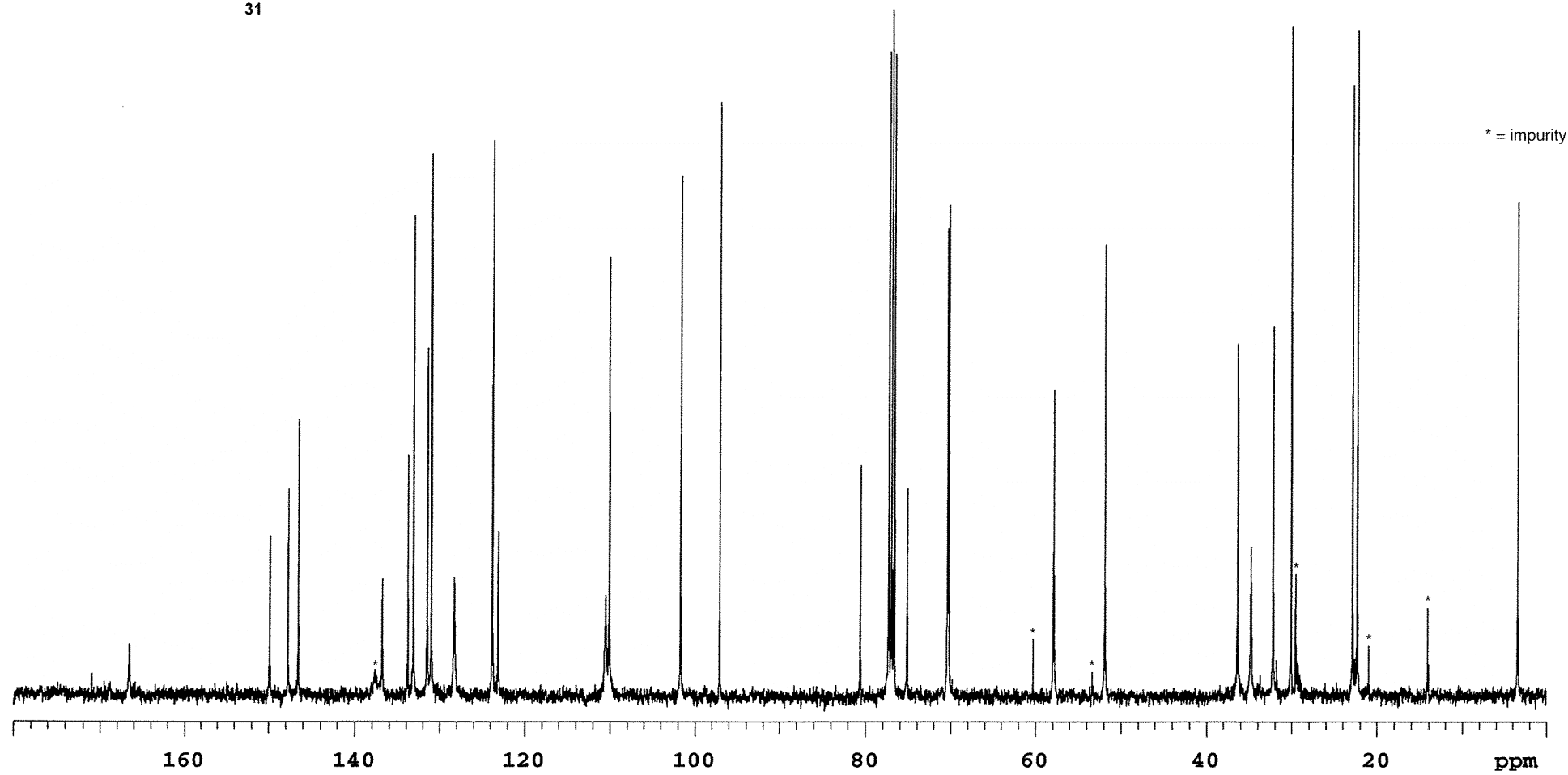


\* = ethyl acetate

100 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **31** Recorded in  $\text{CDCl}_3$



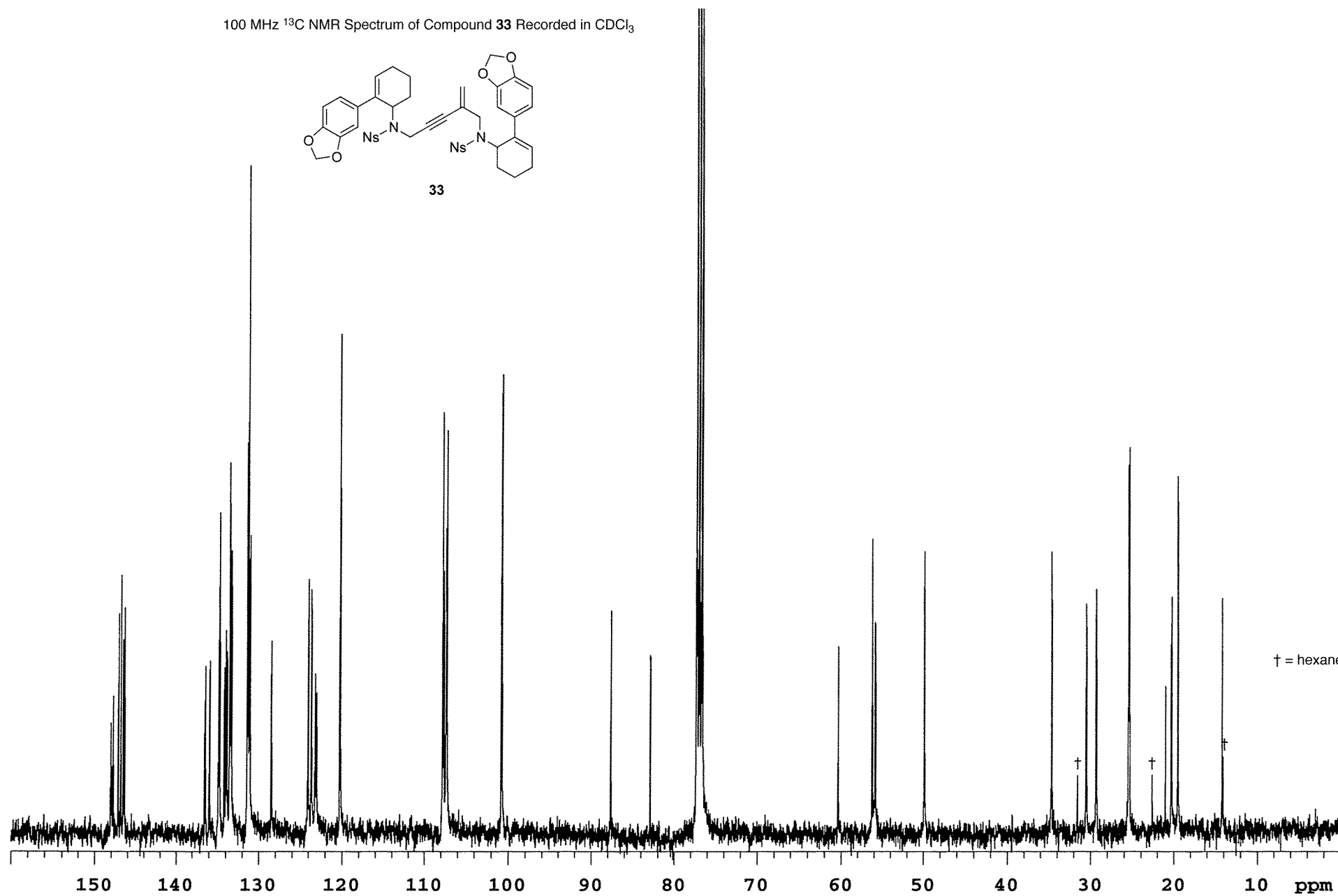
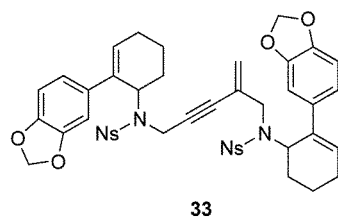
**31**



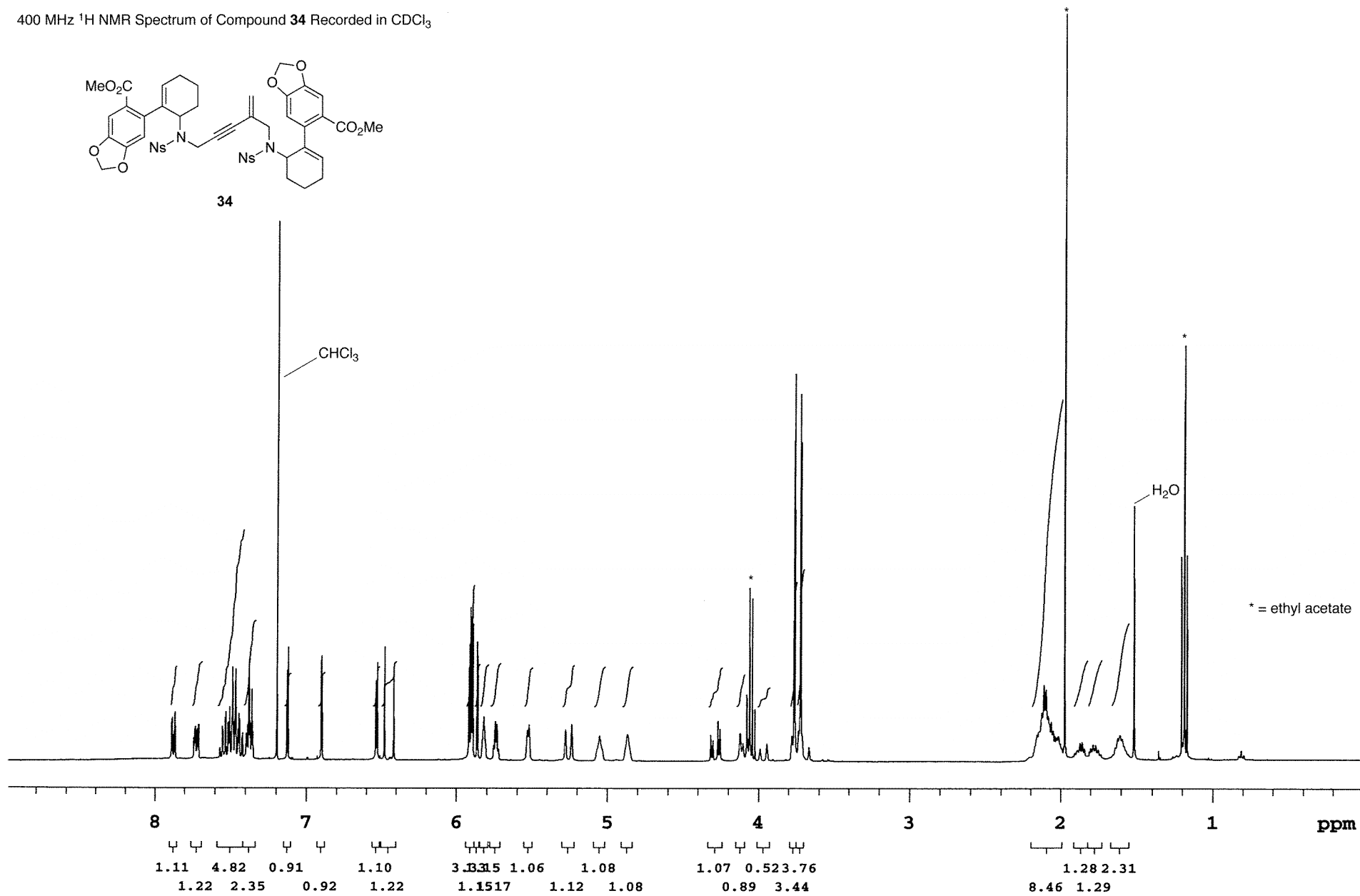
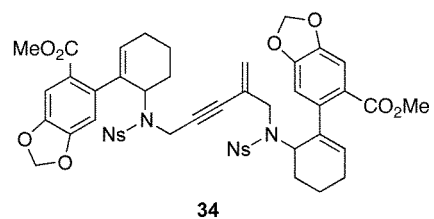
\* = impurity



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

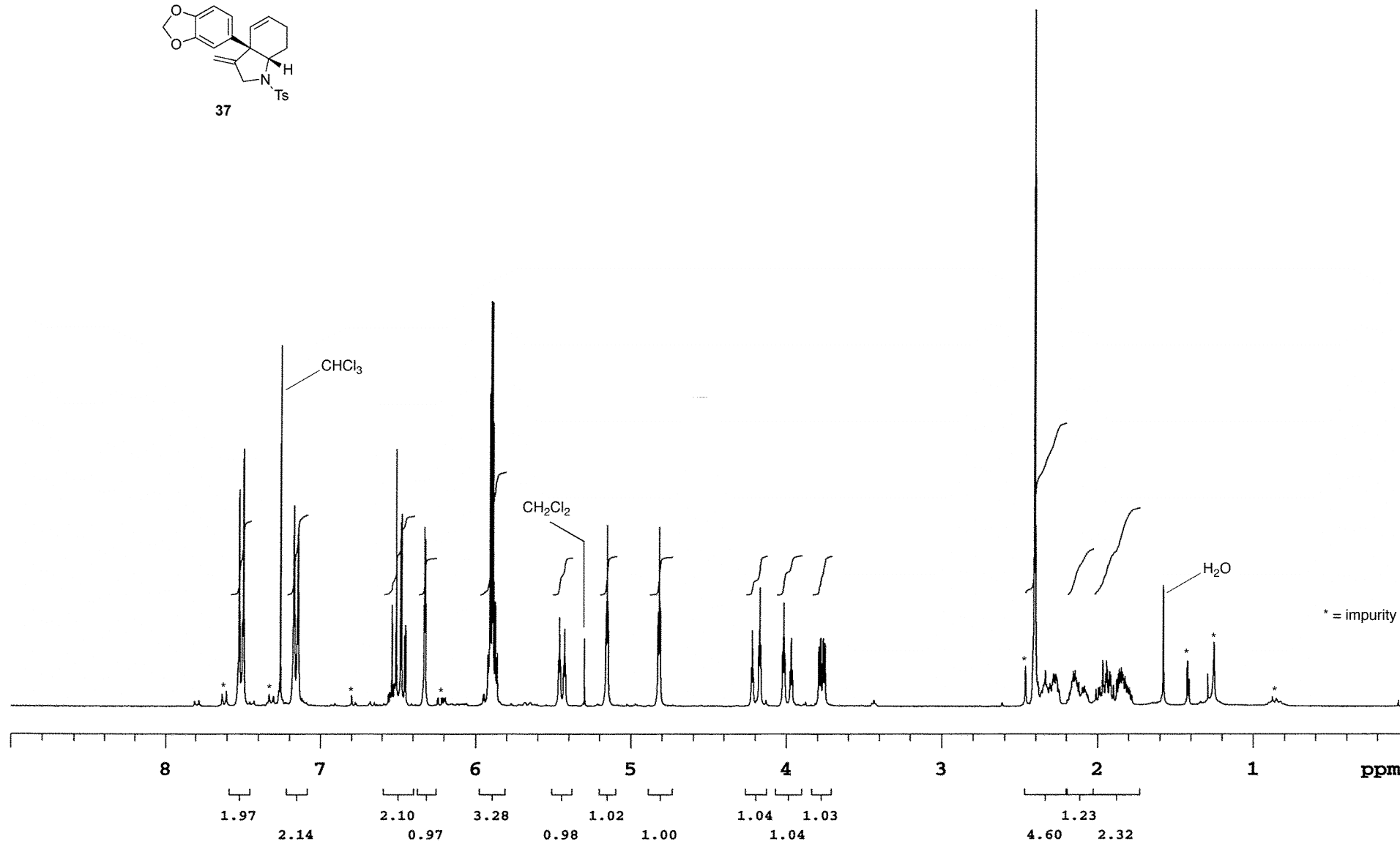
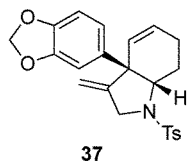


400 MHz <sup>1</sup>H NMR Spectrum of Compound **34** Recorded in CDCl<sub>3</sub>

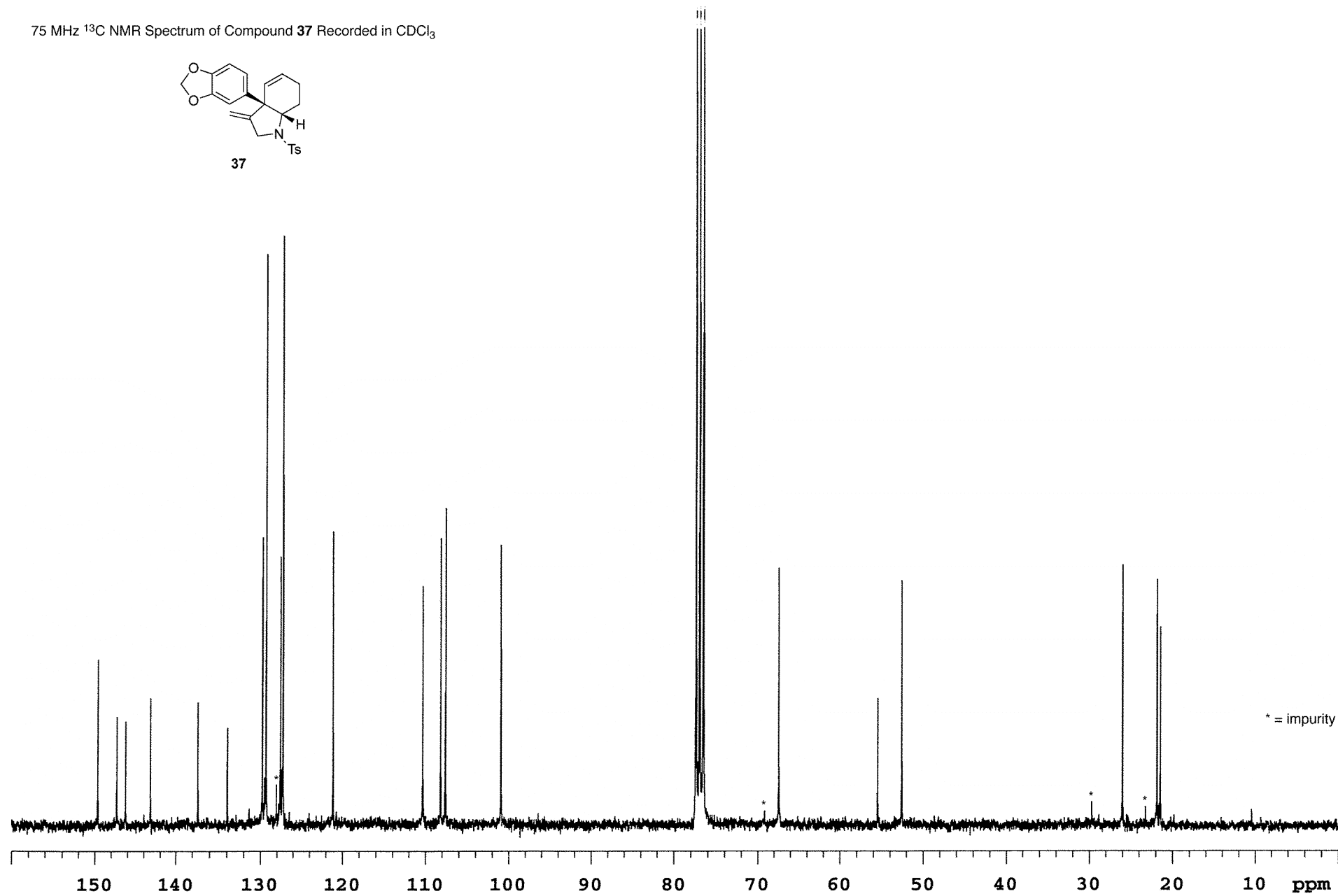
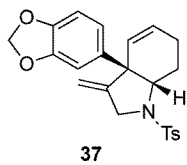




300 MHz  $^1\text{H}$  NMR Spectrum of Compound **37** Recorded in  $\text{CDCl}_3$

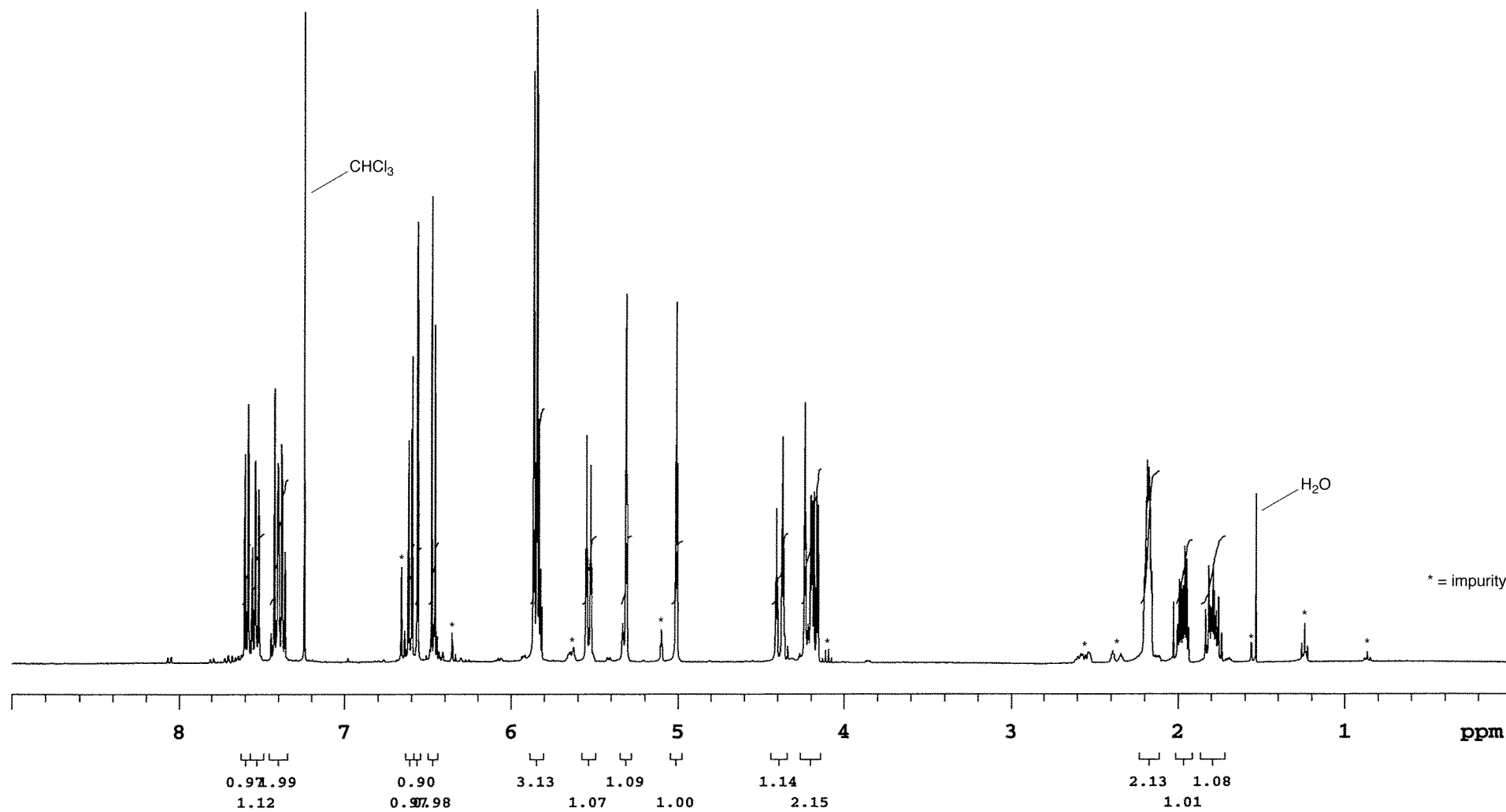
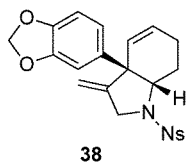


75 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **37** Recorded in  $\text{CDCl}_3$

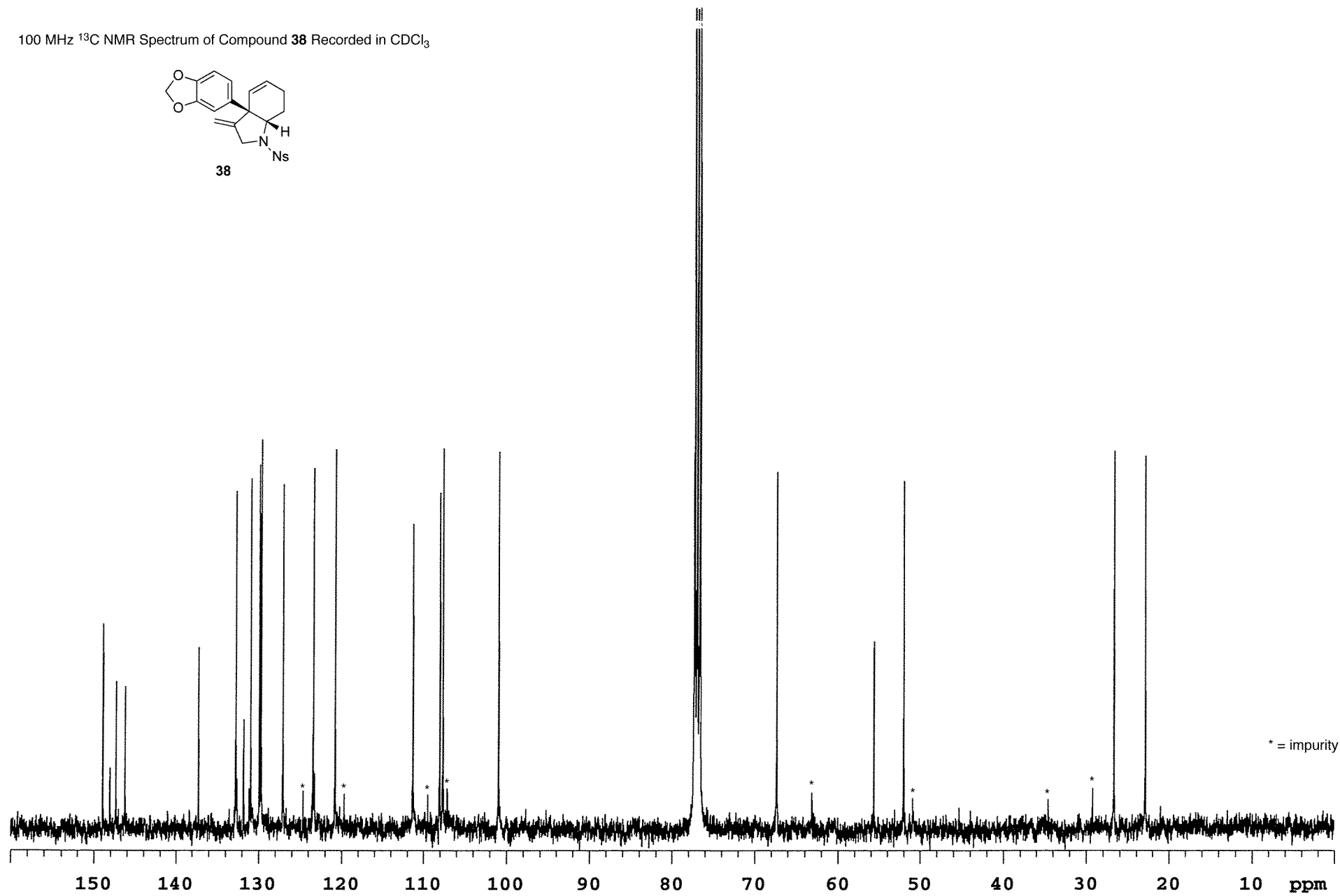
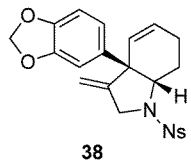


\* = impurity

400 MHz <sup>1</sup>H NMR Spectrum of Compound **38** Recorded in CDCl<sub>3</sub>

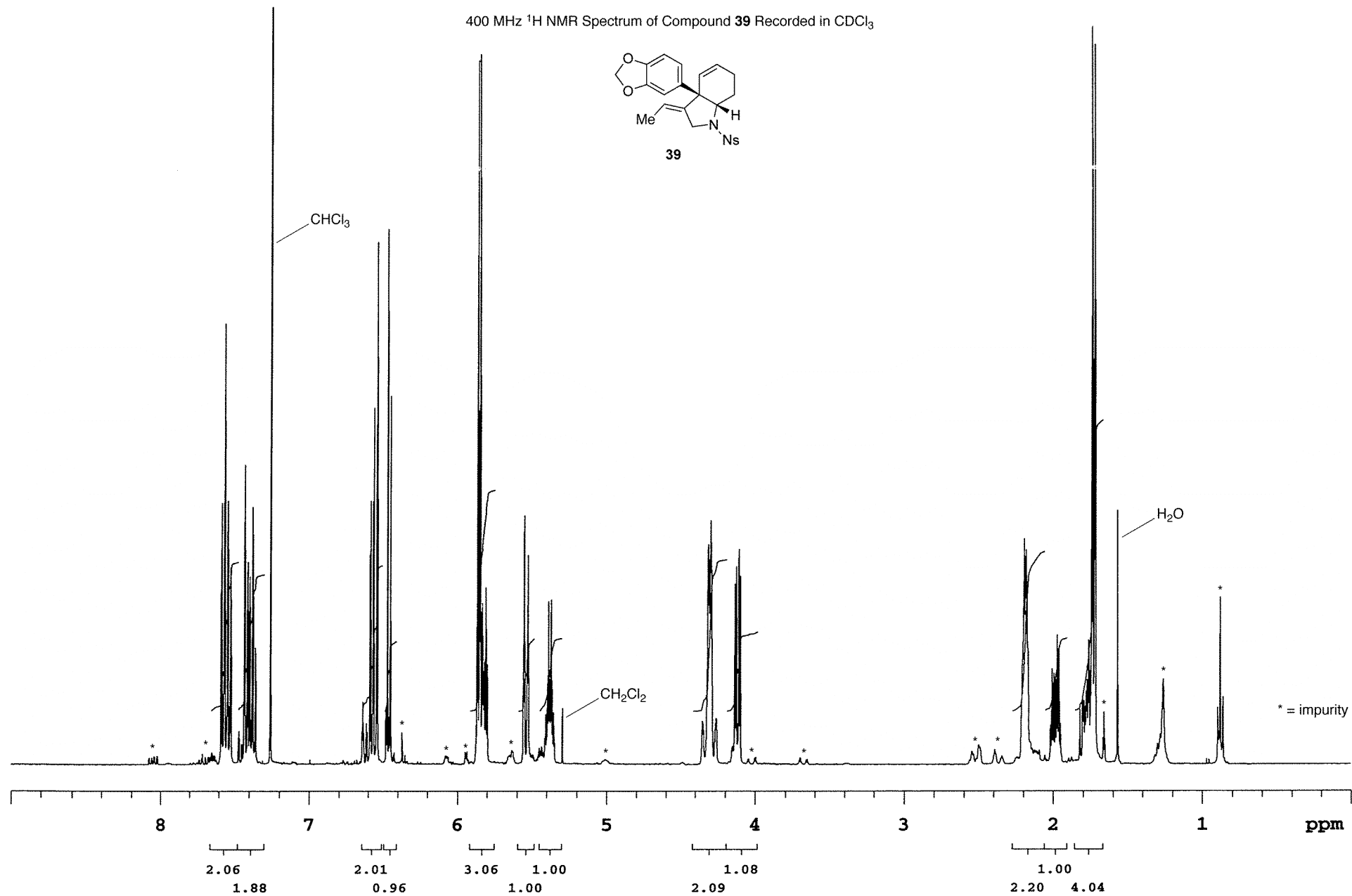
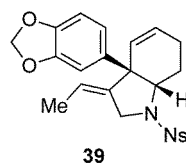


100 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **38** Recorded in  $\text{CDCl}_3$

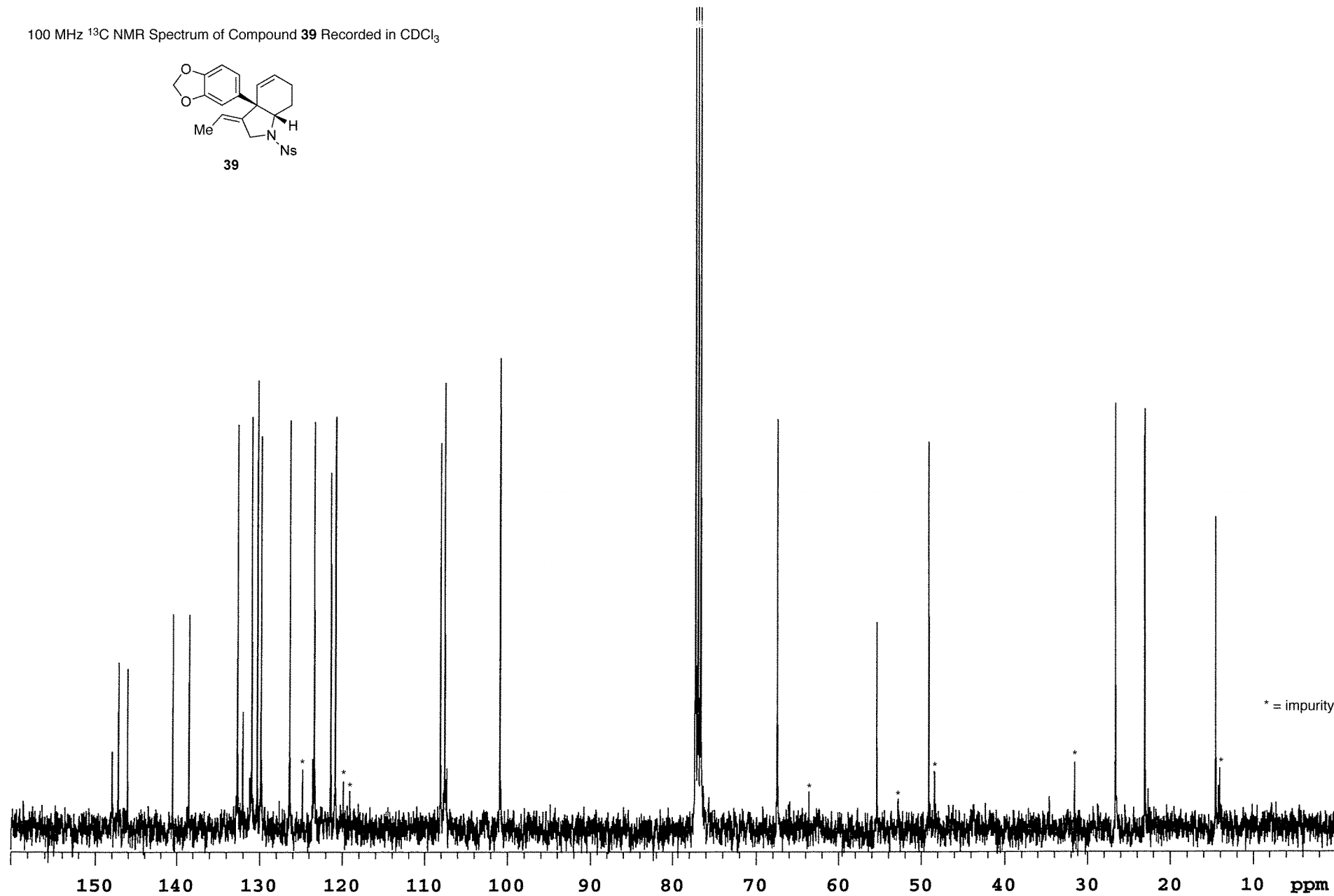
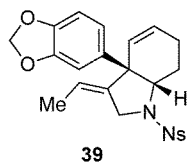


\* = impurity

400 MHz <sup>1</sup>H NMR Spectrum of Compound **39** Recorded in CDCl<sub>3</sub>

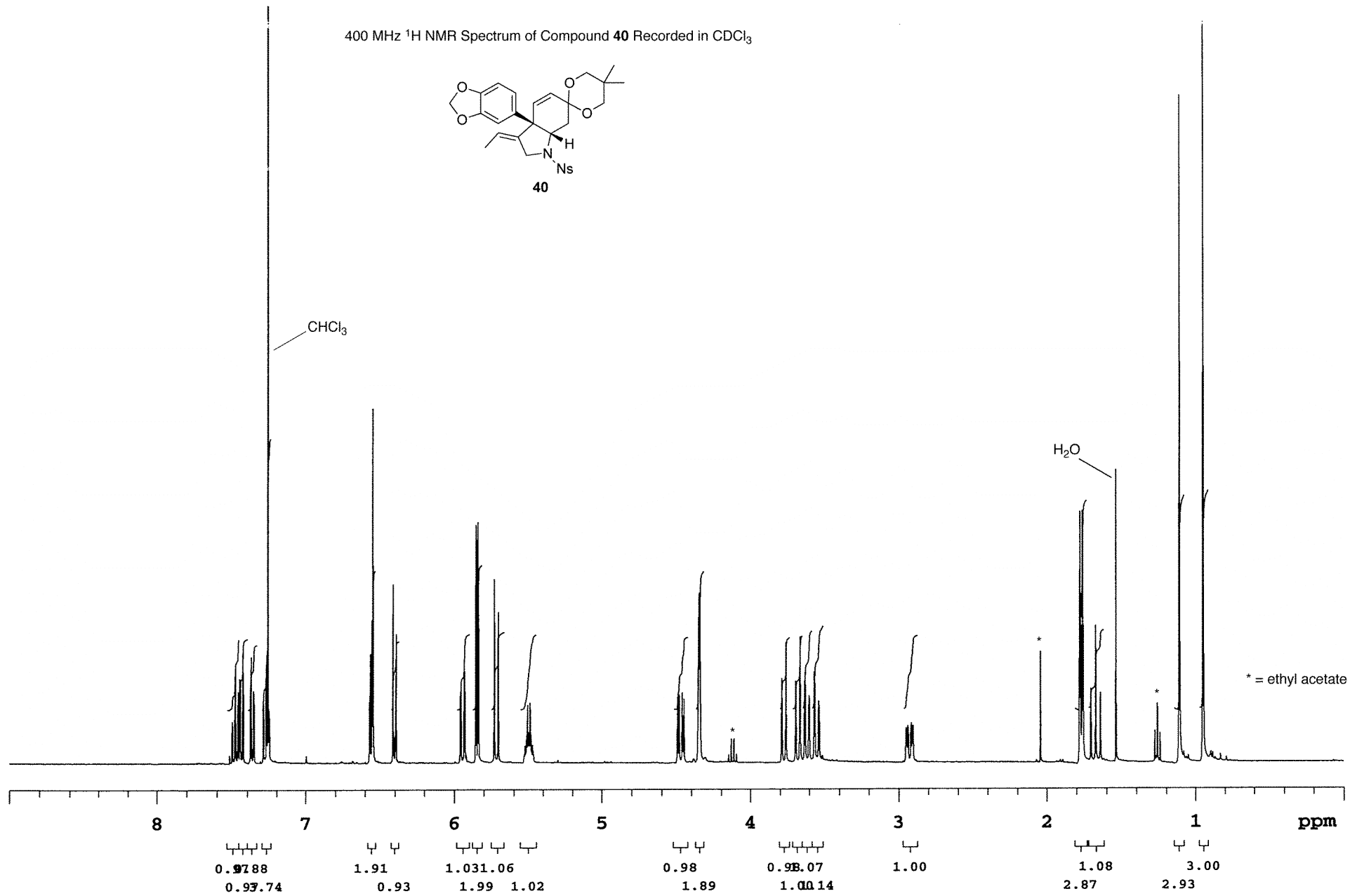
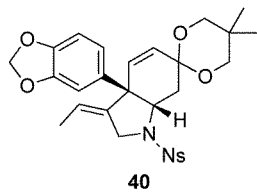


100 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **39** Recorded in  $\text{CDCl}_3$

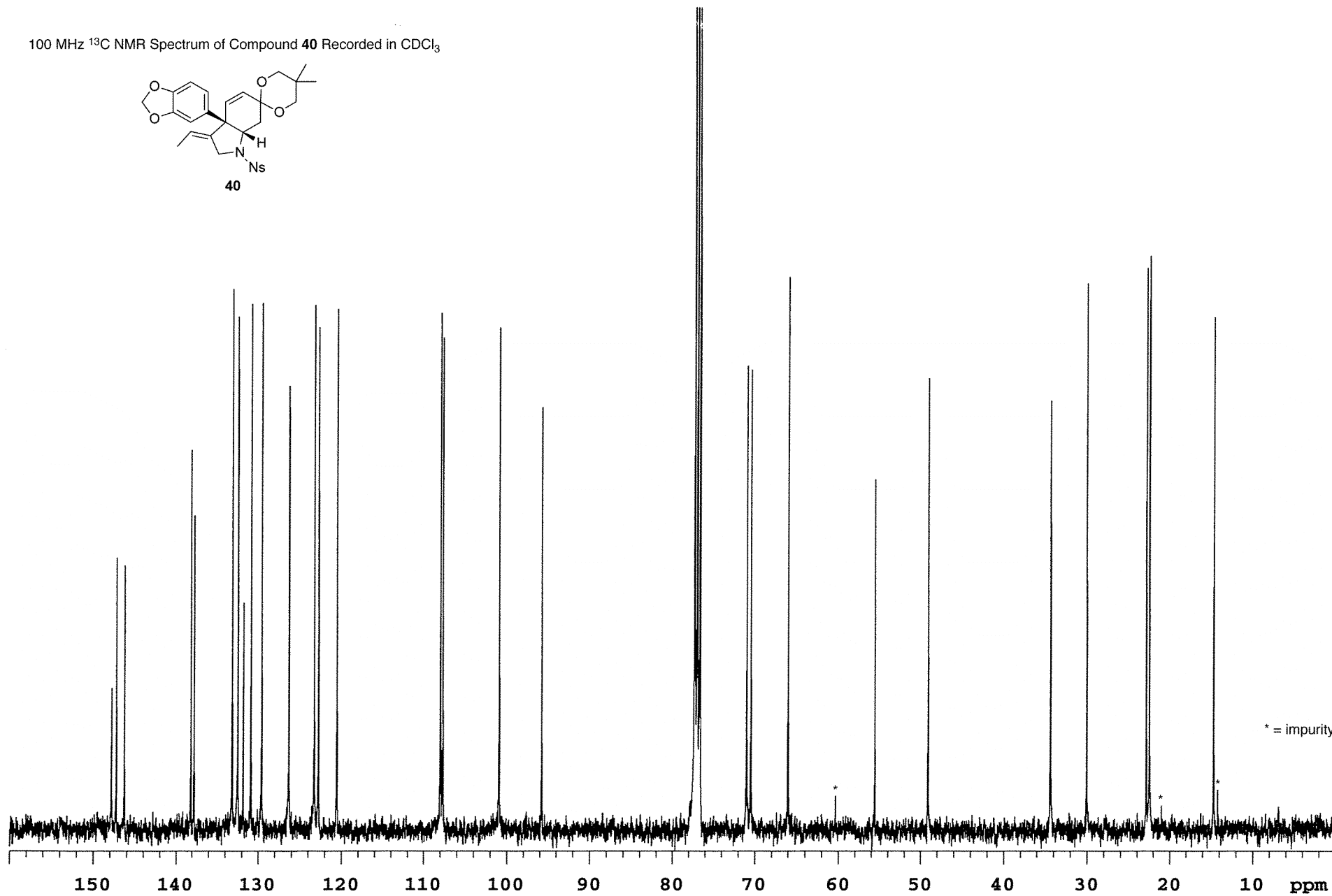
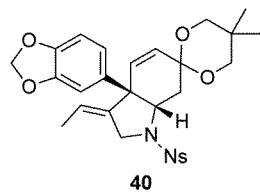


\* = impurity

400 MHz <sup>1</sup>H NMR Spectrum of Compound **40** Recorded in CDCl<sub>3</sub>

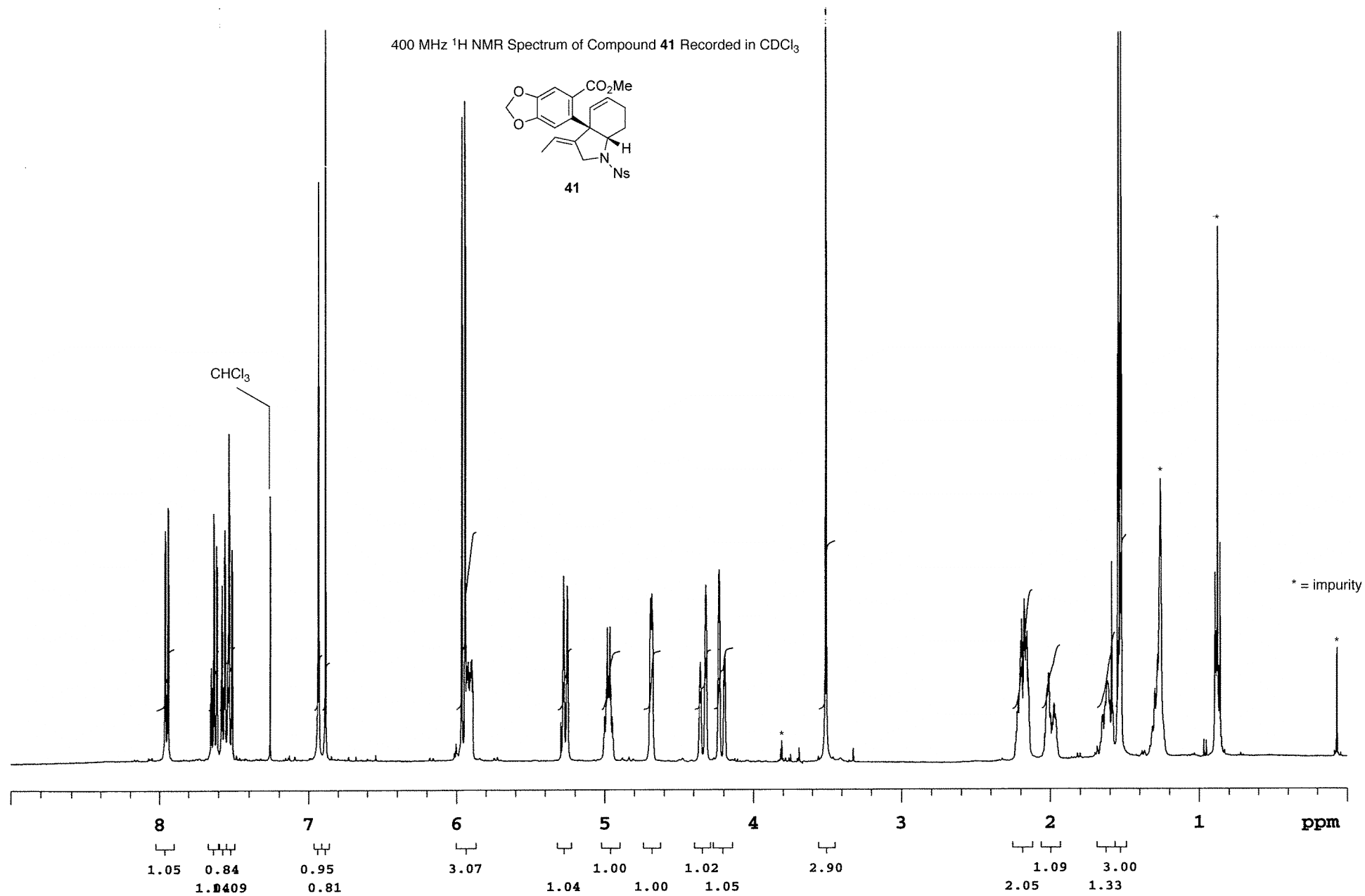
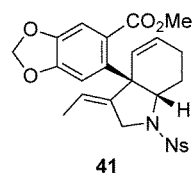


100 MHz <sup>13</sup>C NMR Spectrum of Compound **40** Recorded in CDCl<sub>3</sub>



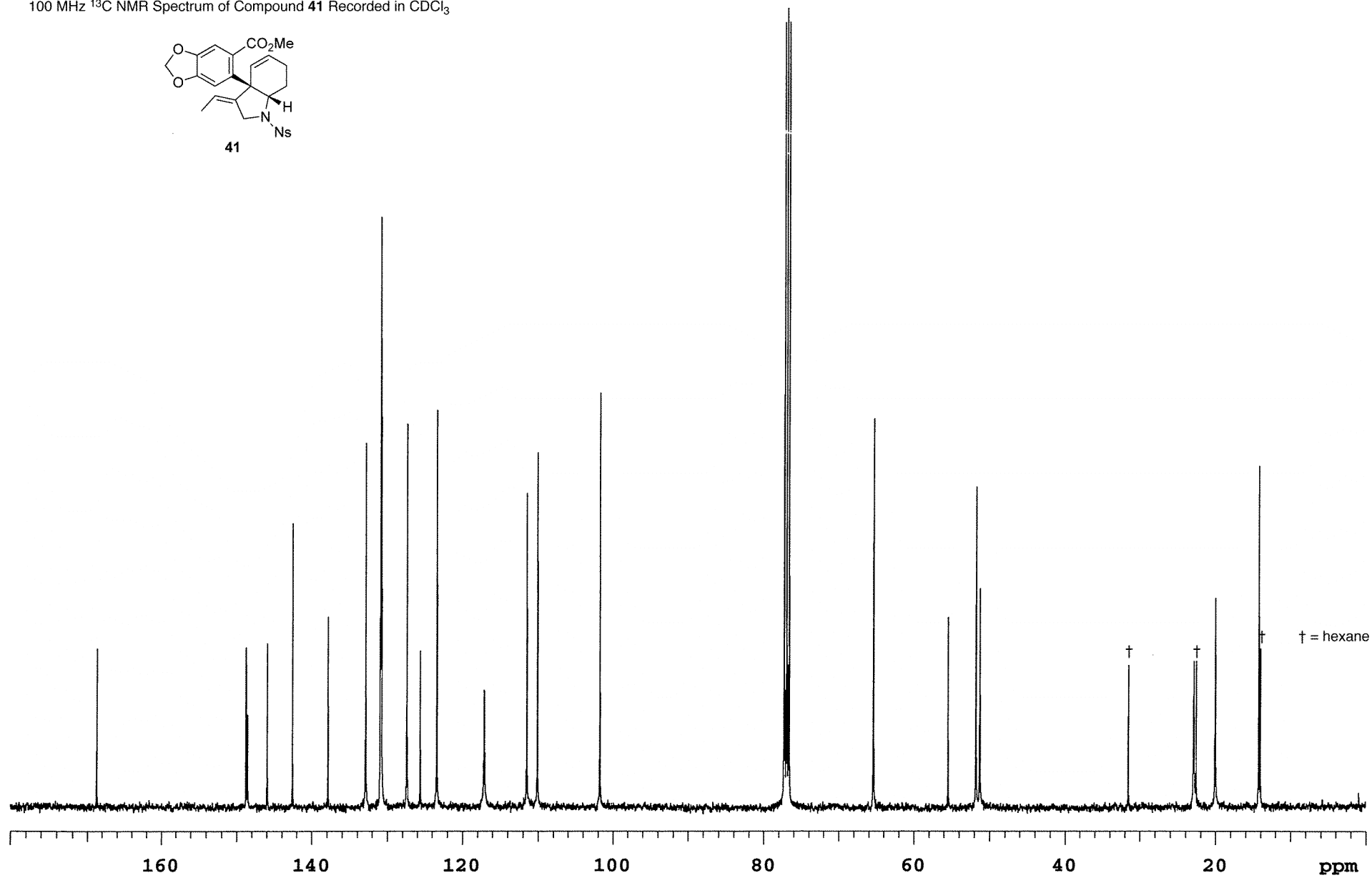
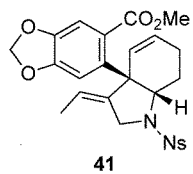


400 MHz <sup>1</sup>H NMR Spectrum of Compound 41 Recorded in CDCl<sub>3</sub>

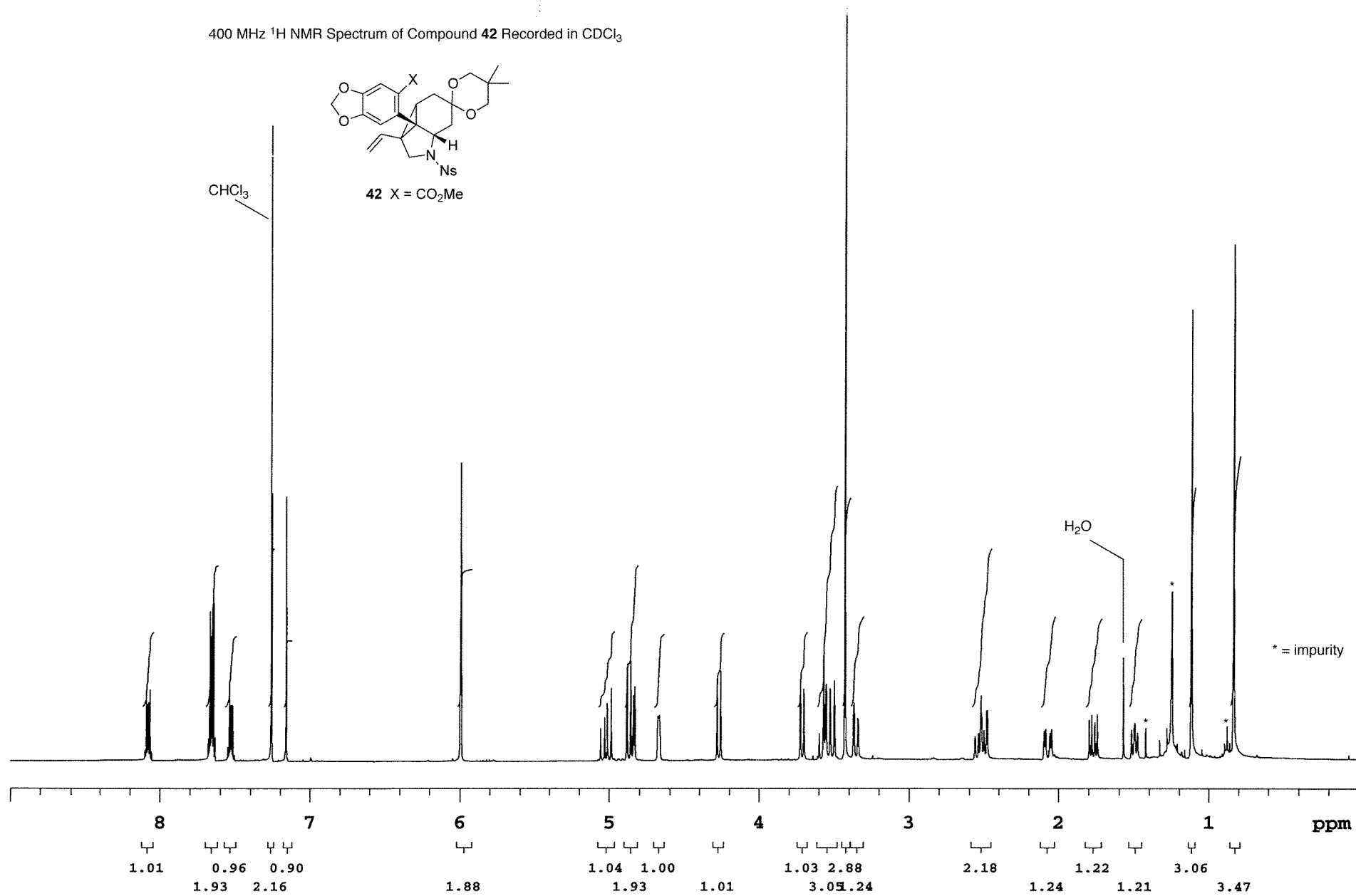
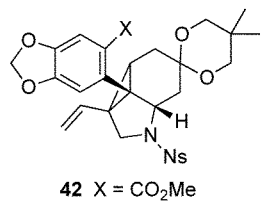


\* = impurity

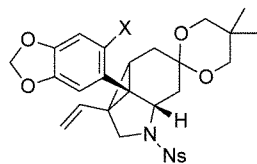
100 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **41** Recorded in  $\text{CDCl}_3$



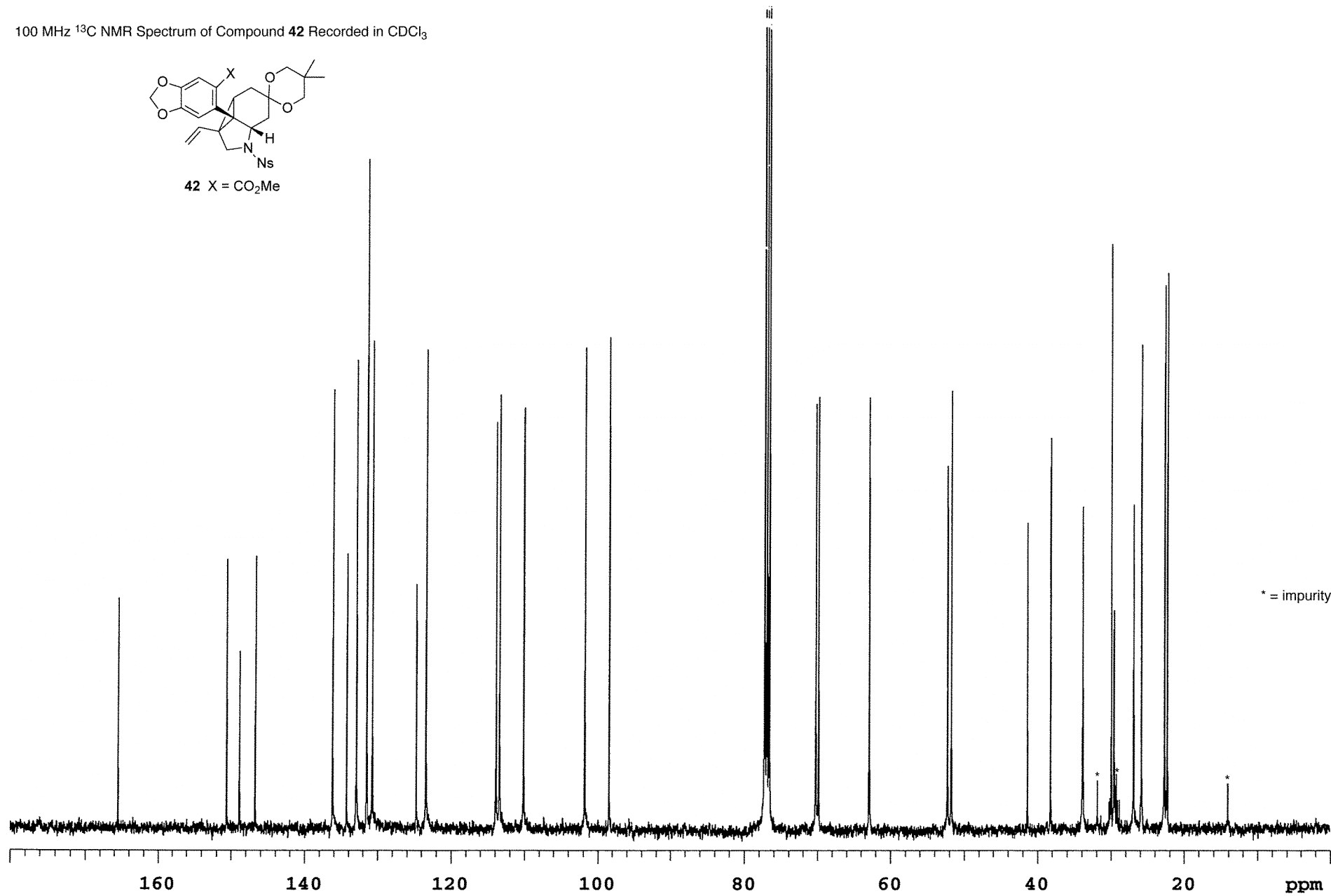
400 MHz  $^1\text{H}$  NMR Spectrum of Compound **42** Recorded in  $\text{CDCl}_3$



100 MHz  $^{13}\text{C}$  NMR Spectrum of Compound **42** Recorded in  $\text{CDCl}_3$



**42** X =  $\text{CO}_2\text{Me}$



\* = impurity