

Supporting Information

Synthesis of thieno[3,2-*b*]thiophenes from 2,5-dicarbonyl 3-nitrothiophenes via nucleophilic aromatic substitution of the nitro group with thiolates

Roman A. Irgashev* and Nikita A. Kazin

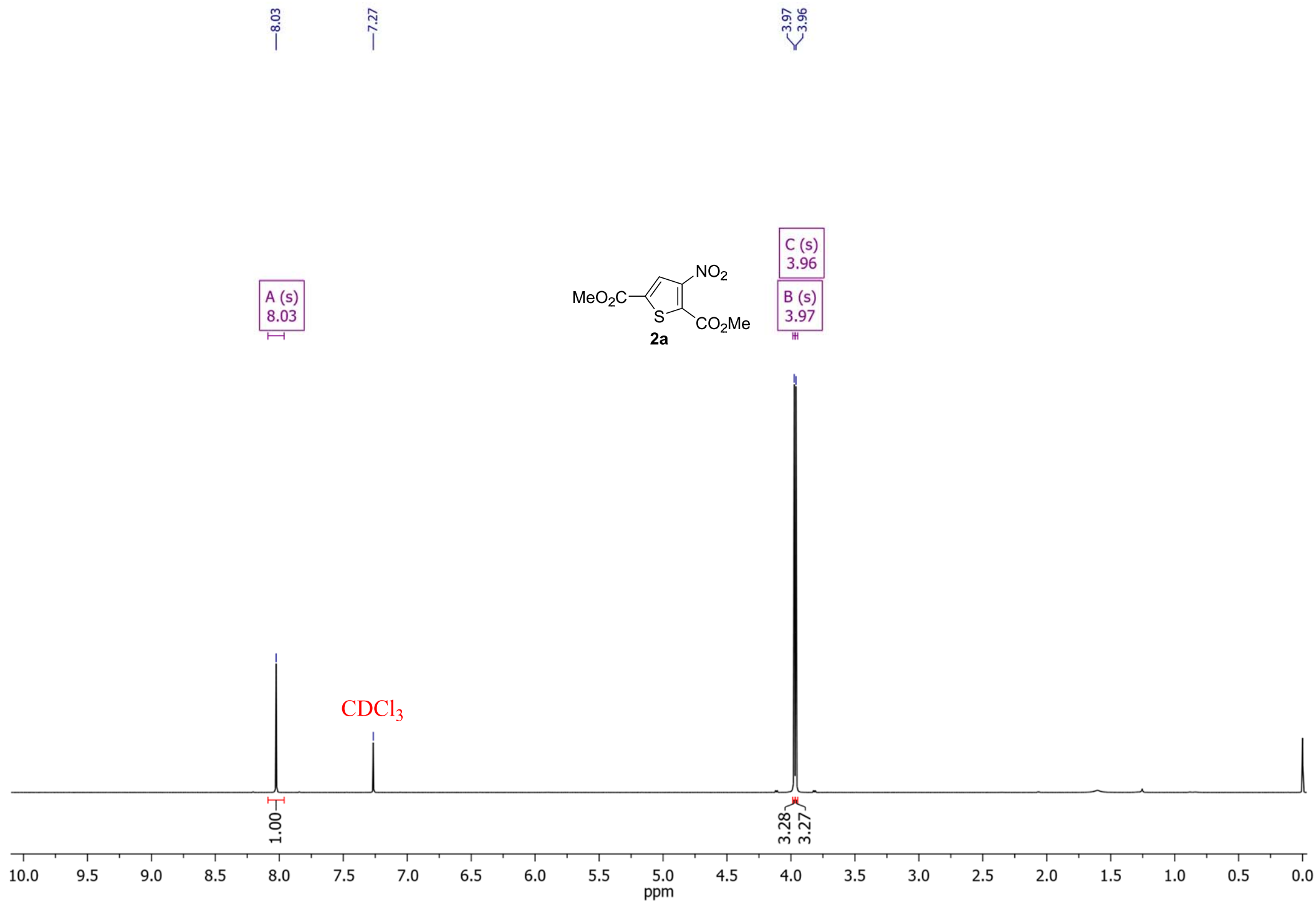
Postovsky Institute of Organic Synthesis, Ural Division, Russian Academy of Sciences, S. Kovalevskoy Str., 22, Ekaterinburg, 620990, Russia

**Corresponding author e-mail: irgashev_ra@mail.ru, irgashev@ios.uran.ru*

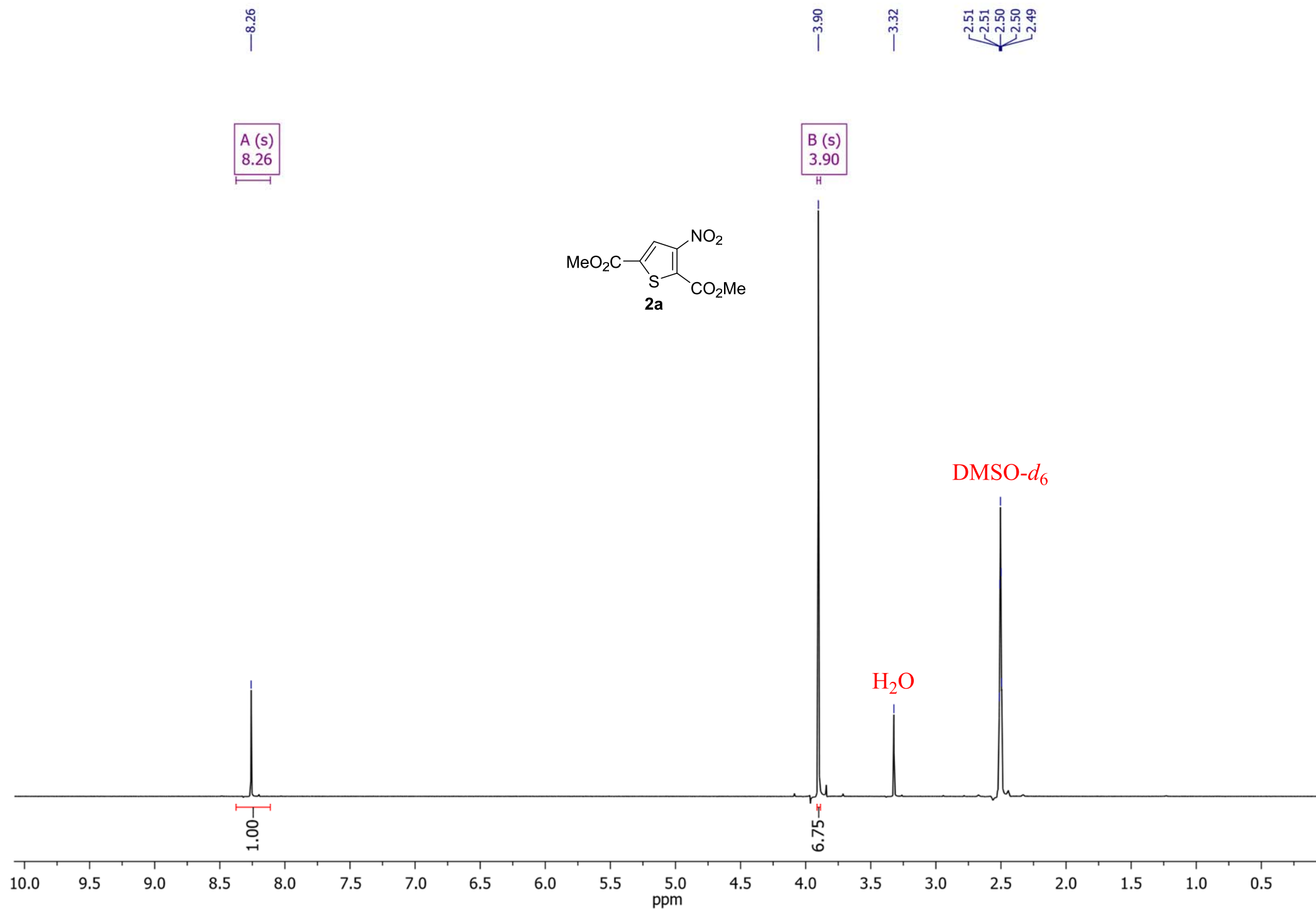
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Copies of ^1H and ^{13}C NMR spectra of compounds	S2-S37
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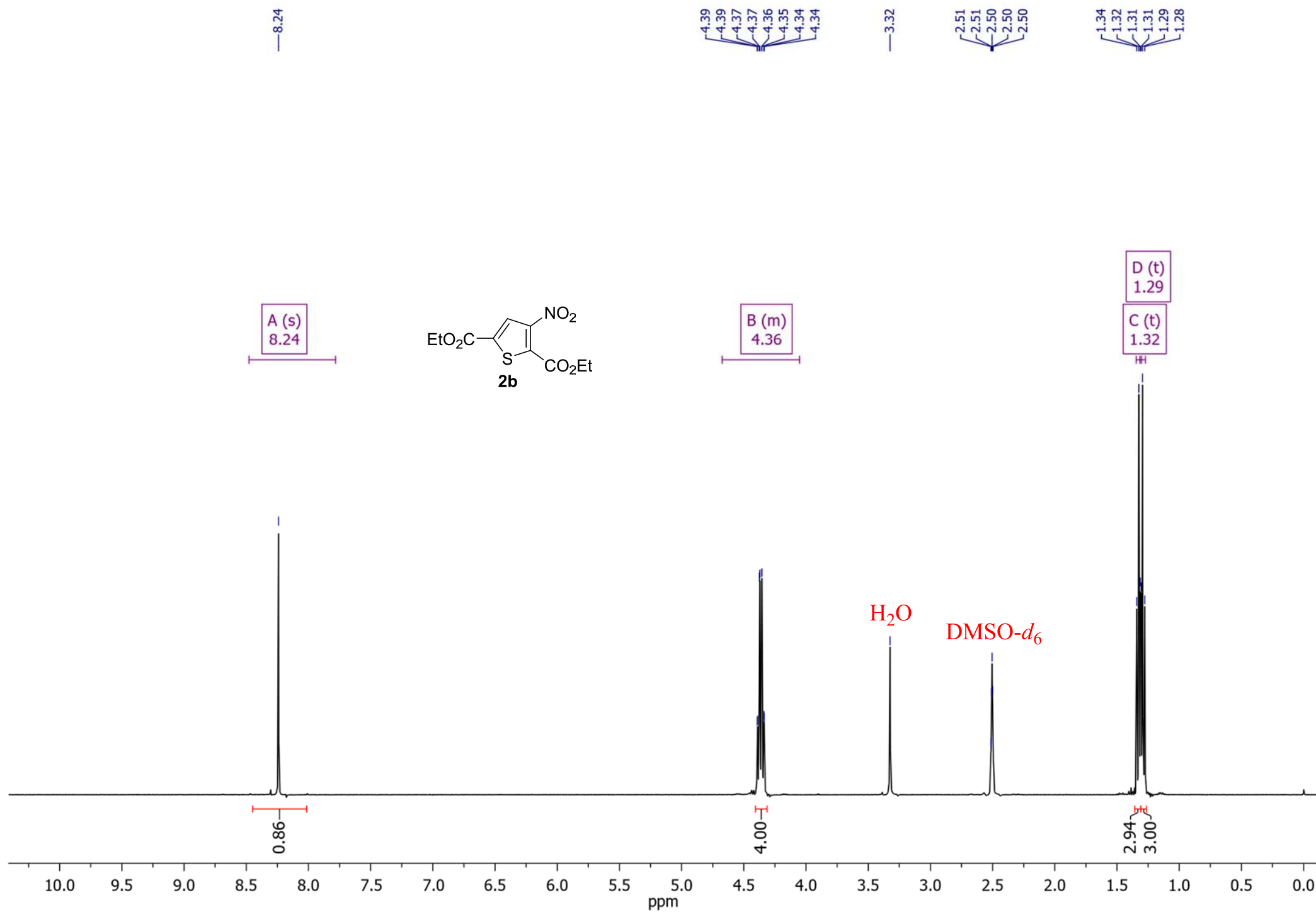
¹H NMR (solvent: CDCl₃)



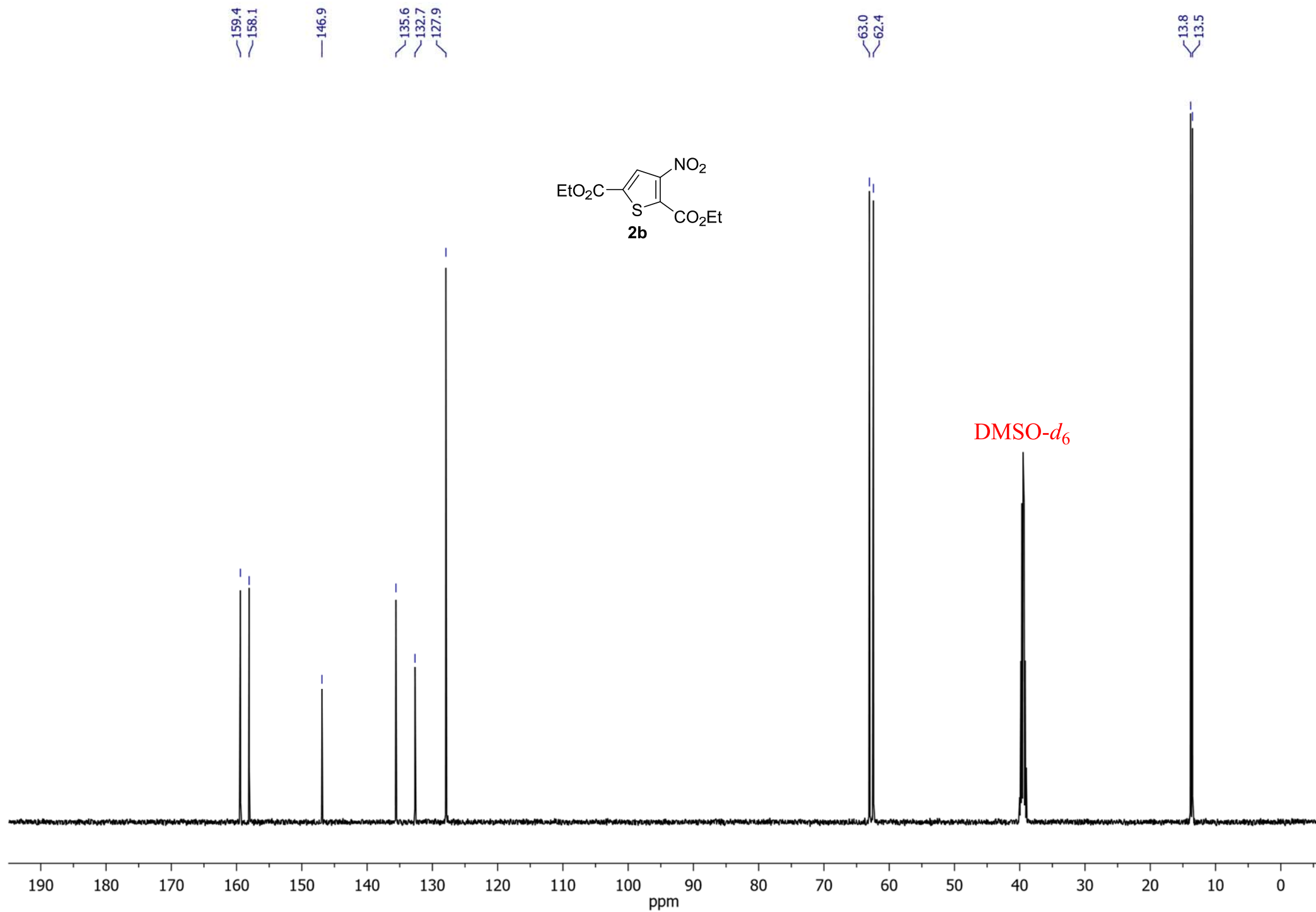
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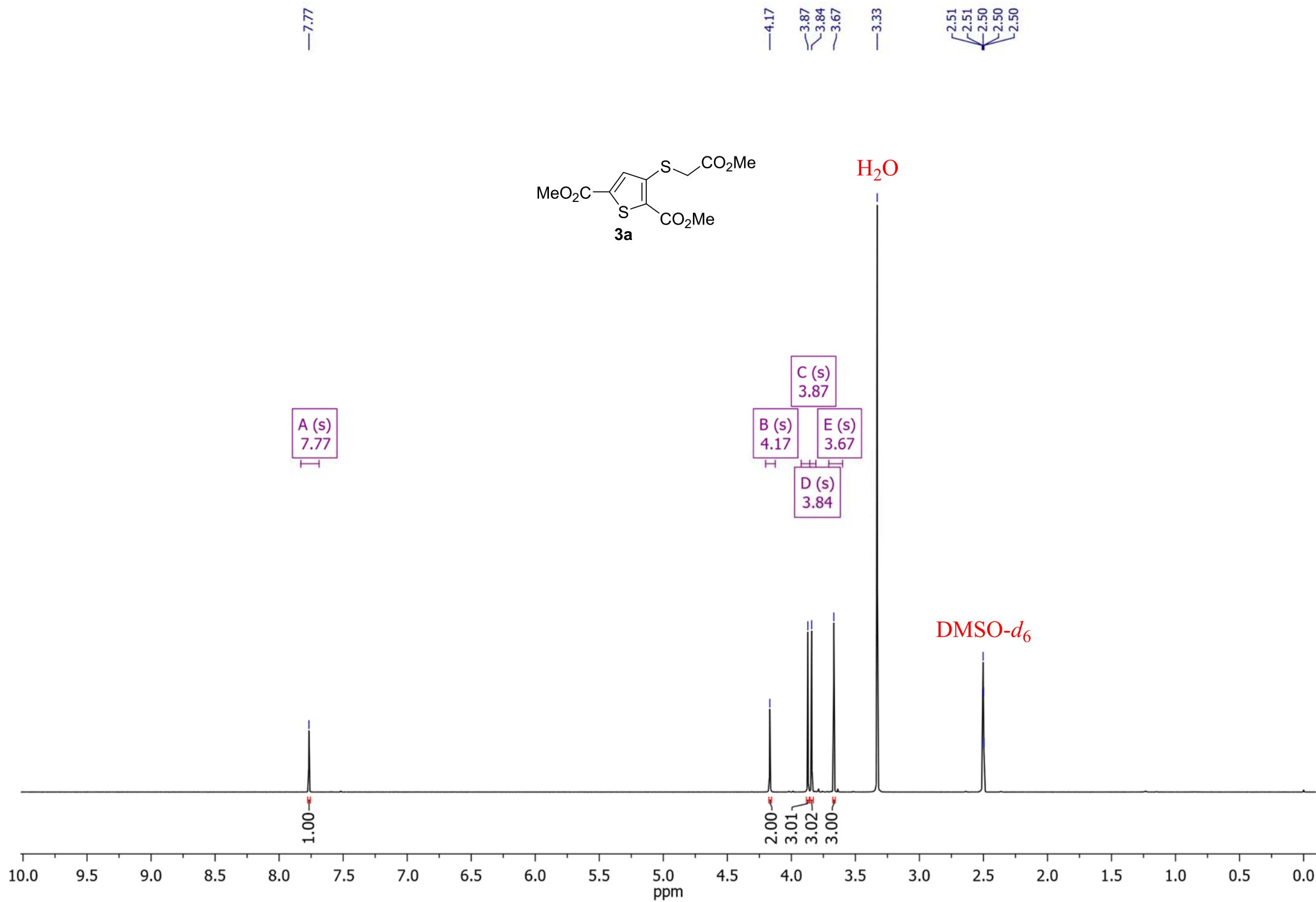


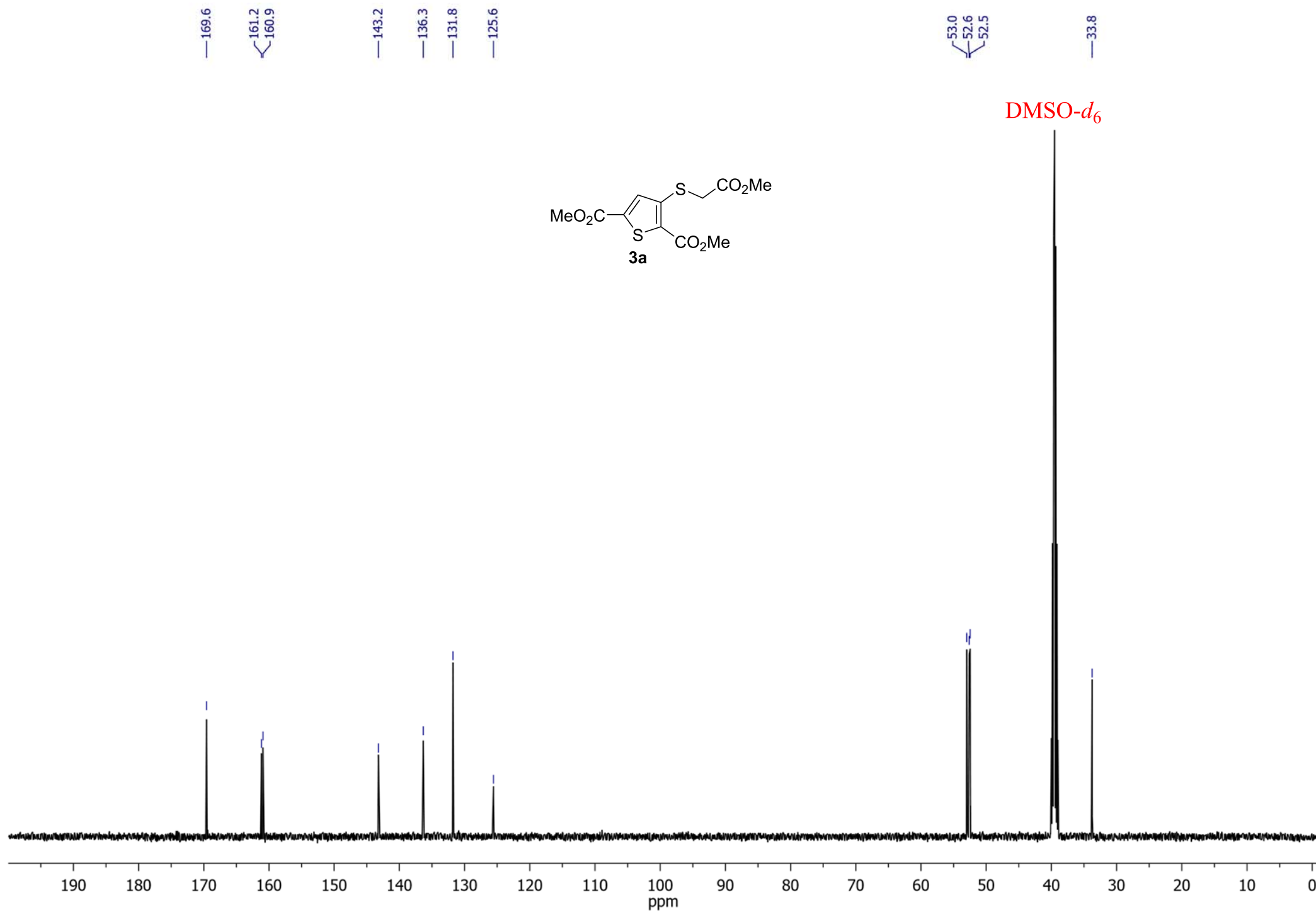
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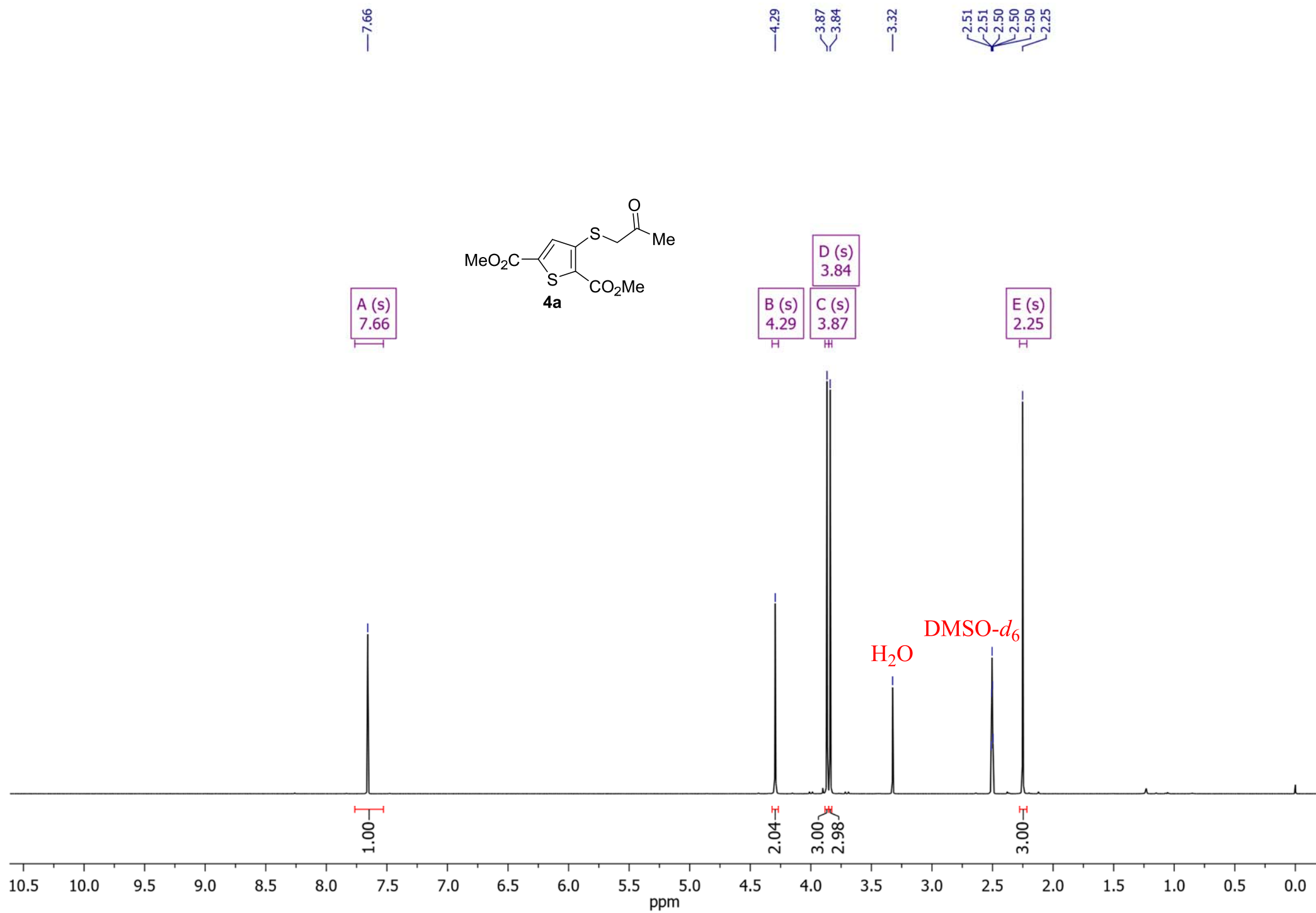
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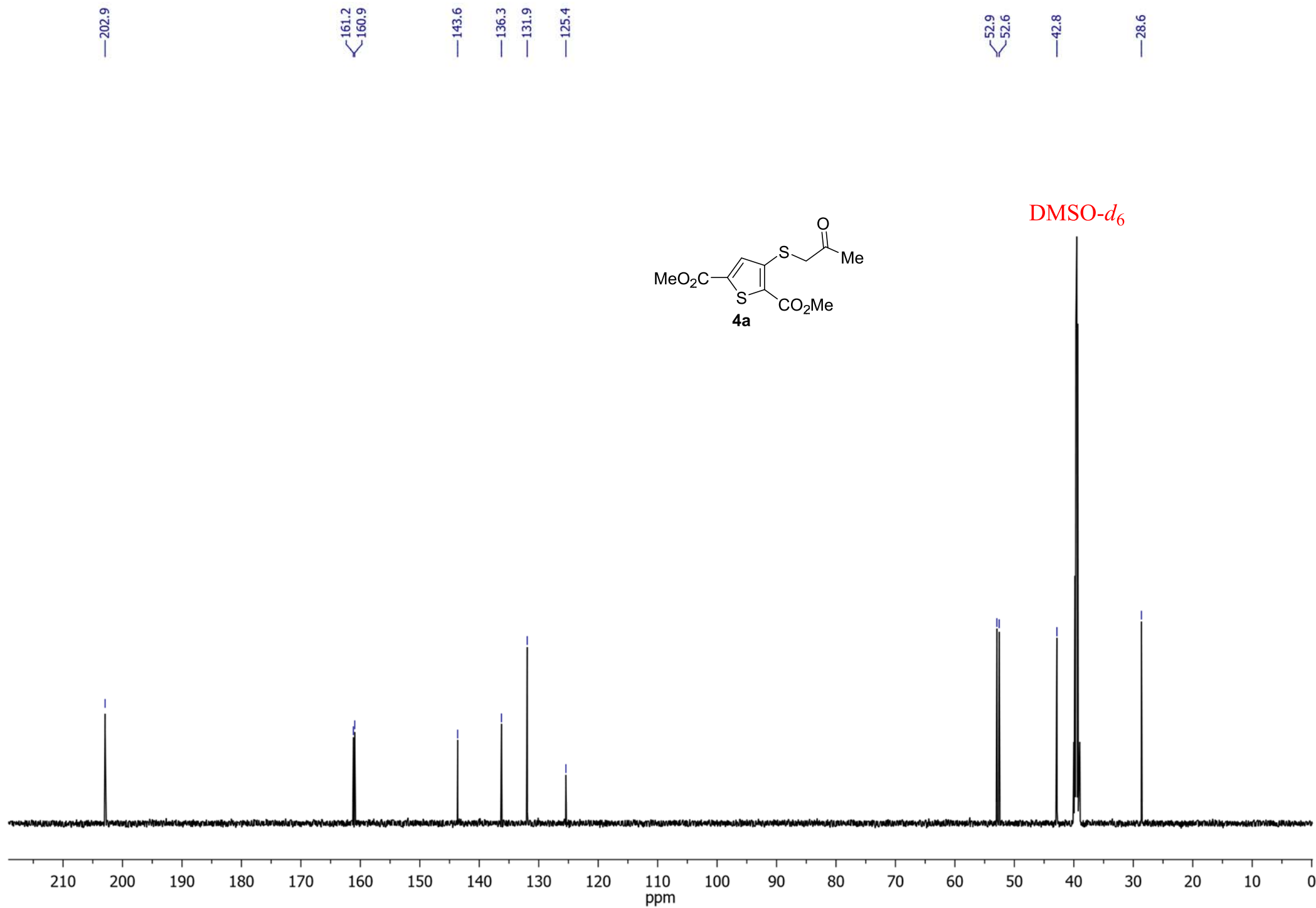




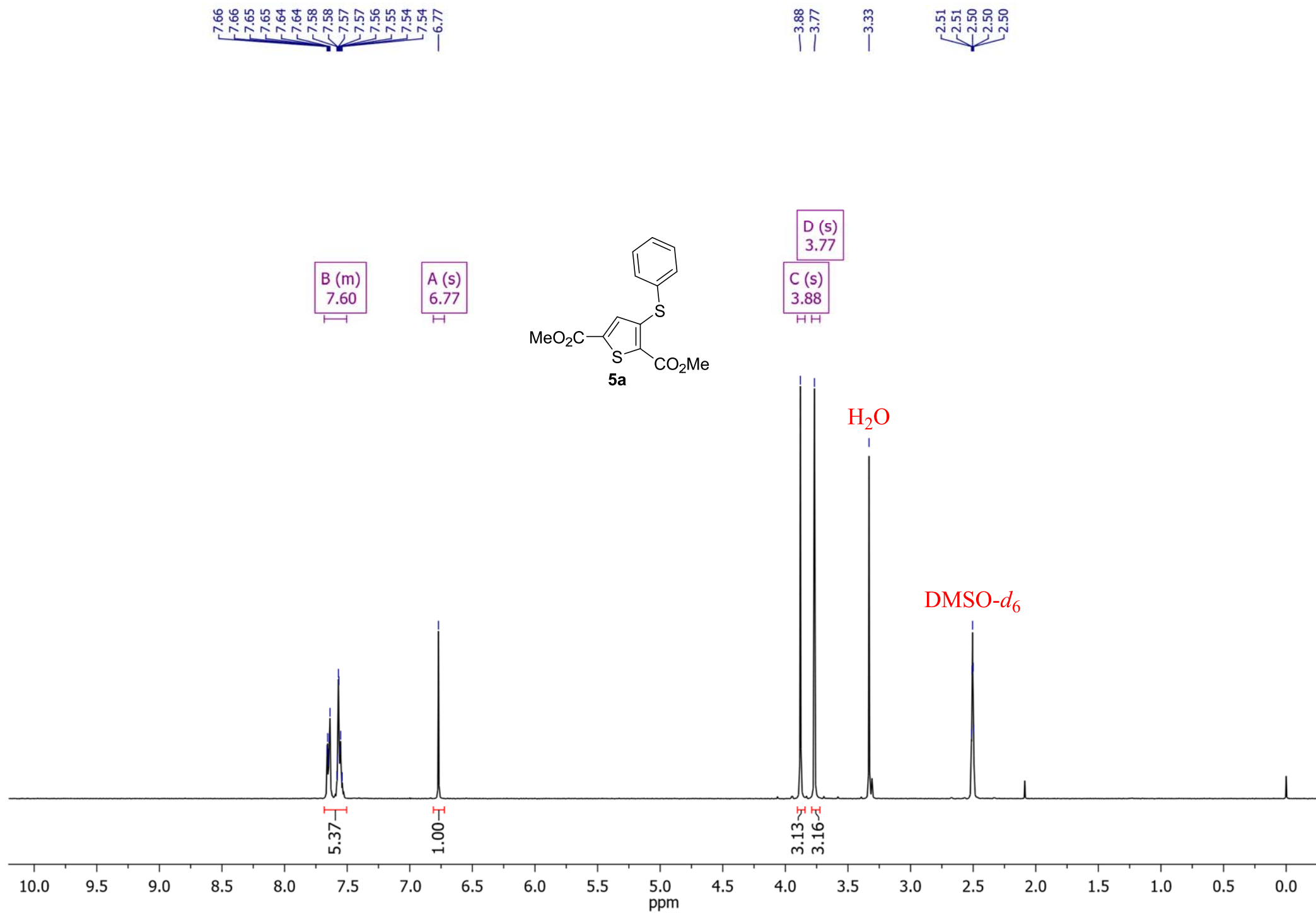
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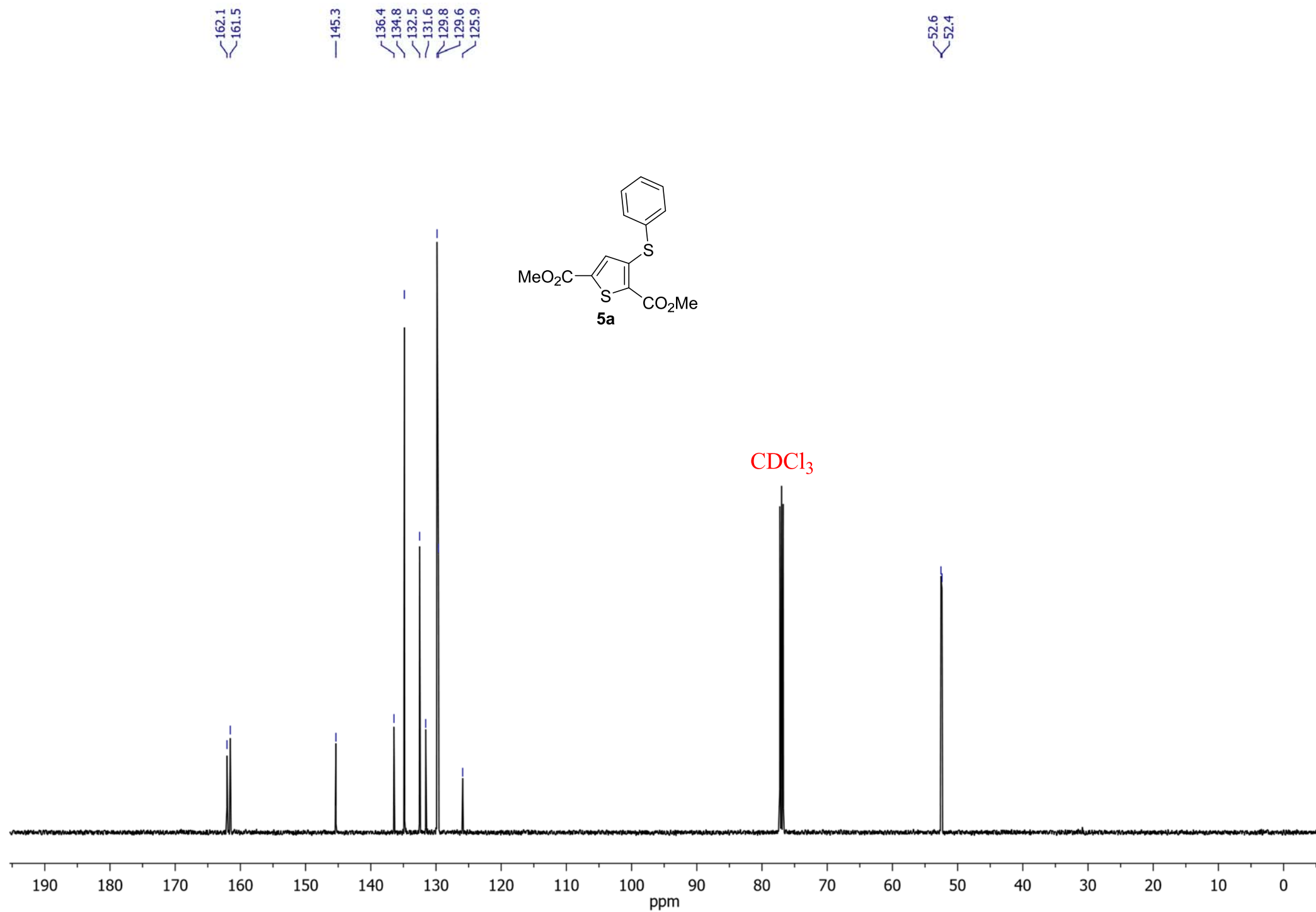


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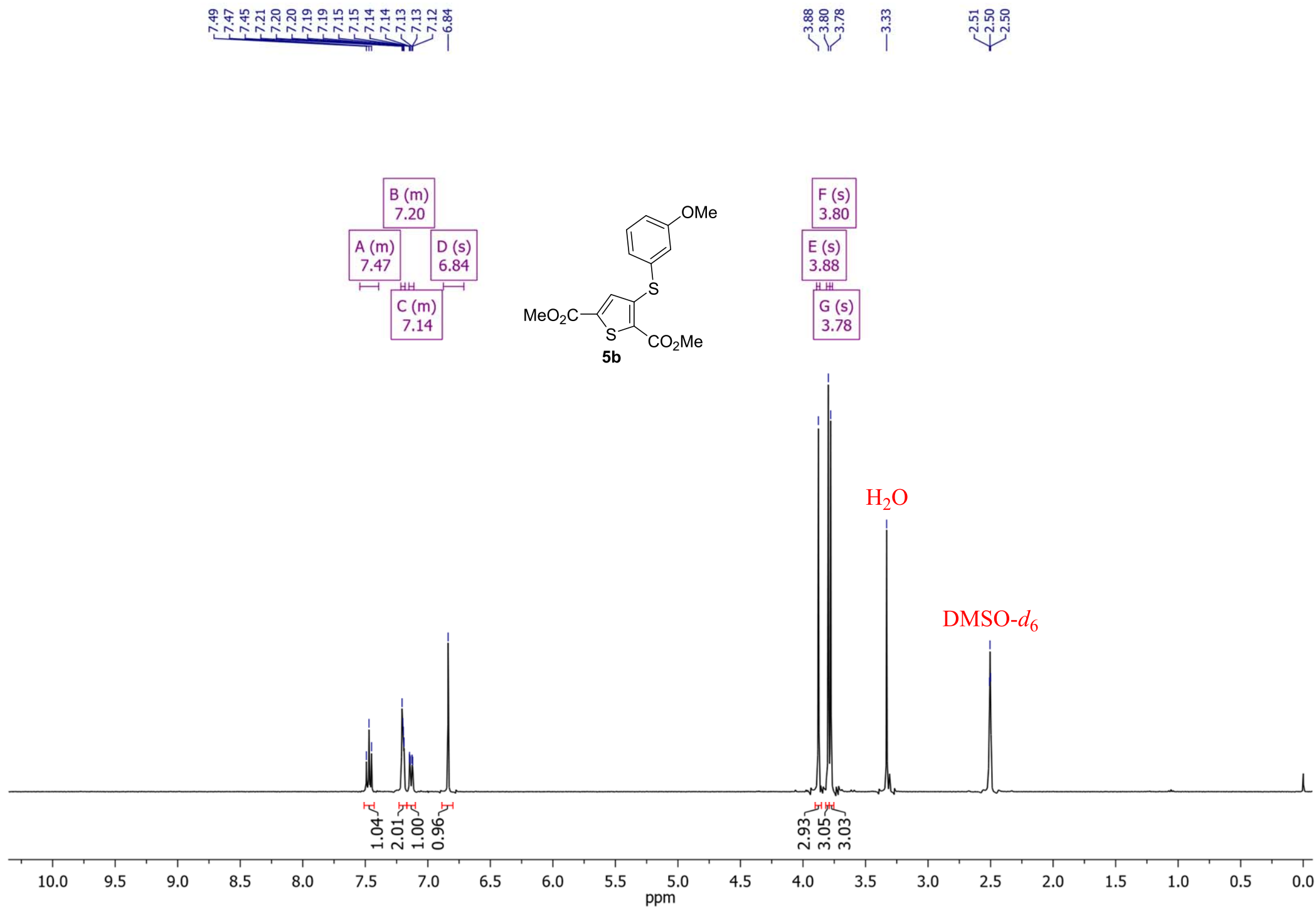


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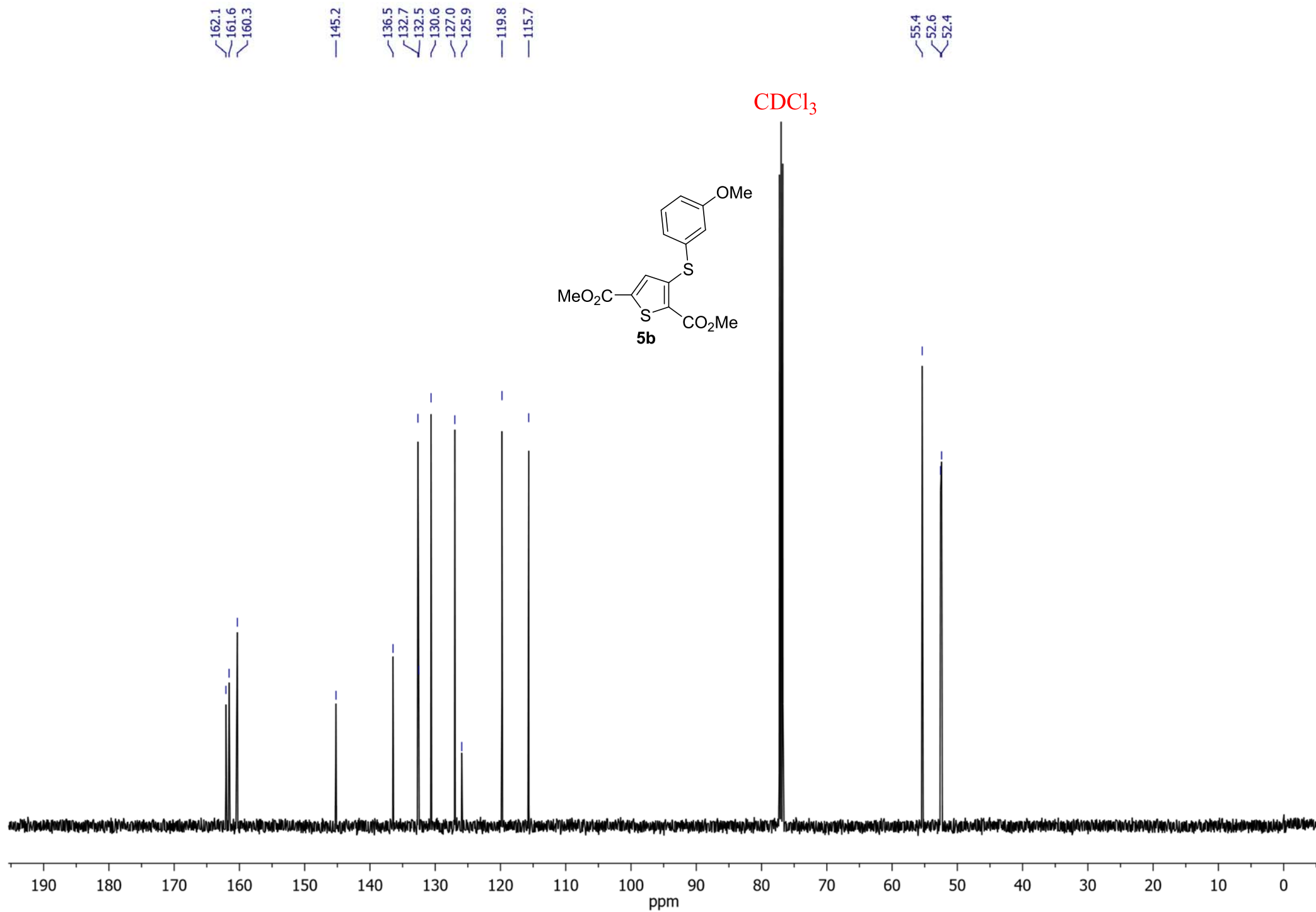




¹H NMR (solvent: DMSO-*d*₆)



¹³C NMR (solvent: CDCl₃)



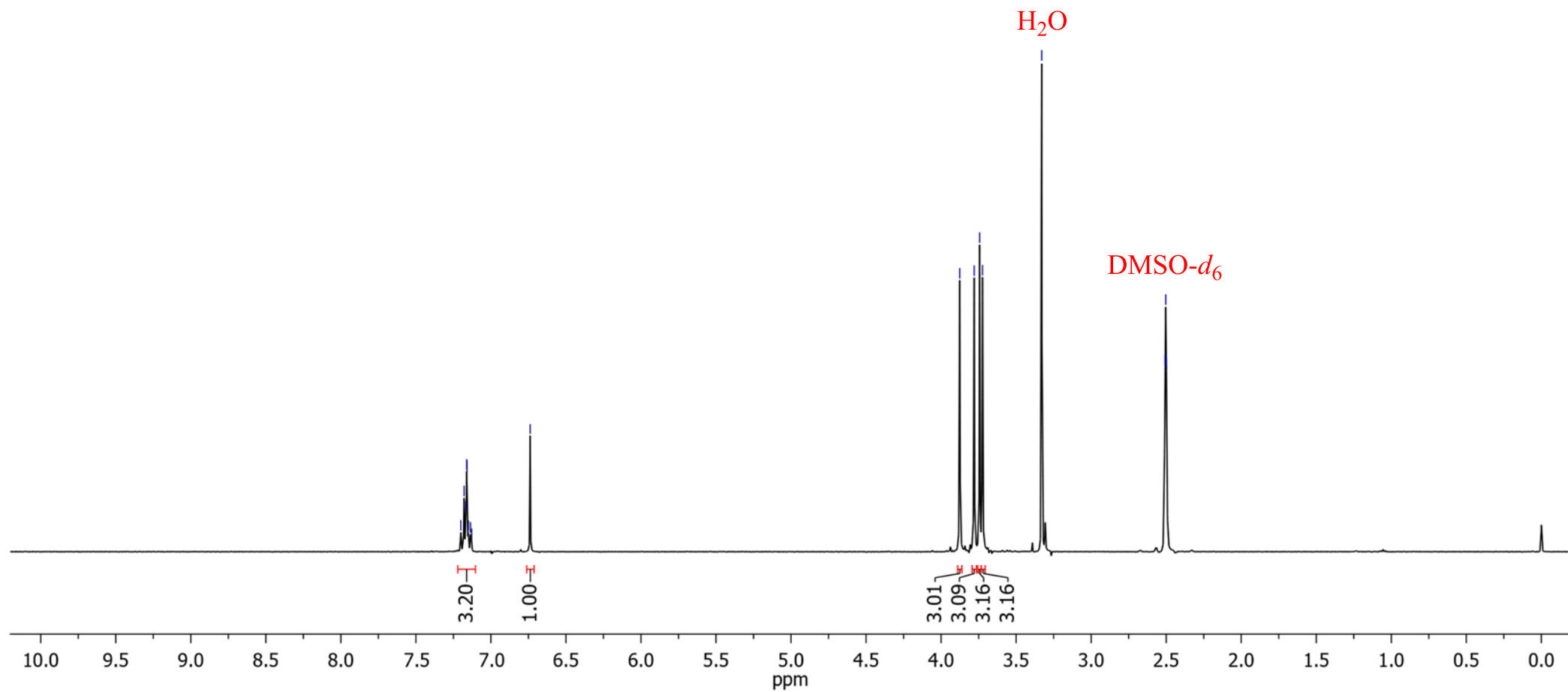
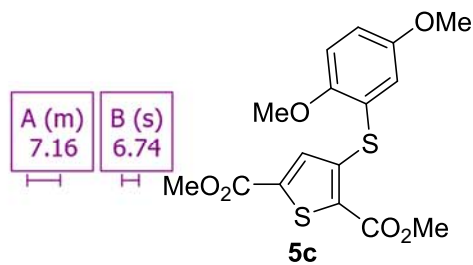
¹H NMR (solvent: DMSO-*d*₆)

7.20
7.18
7.17
7.16
7.16
7.15
7.14
7.13
6.74

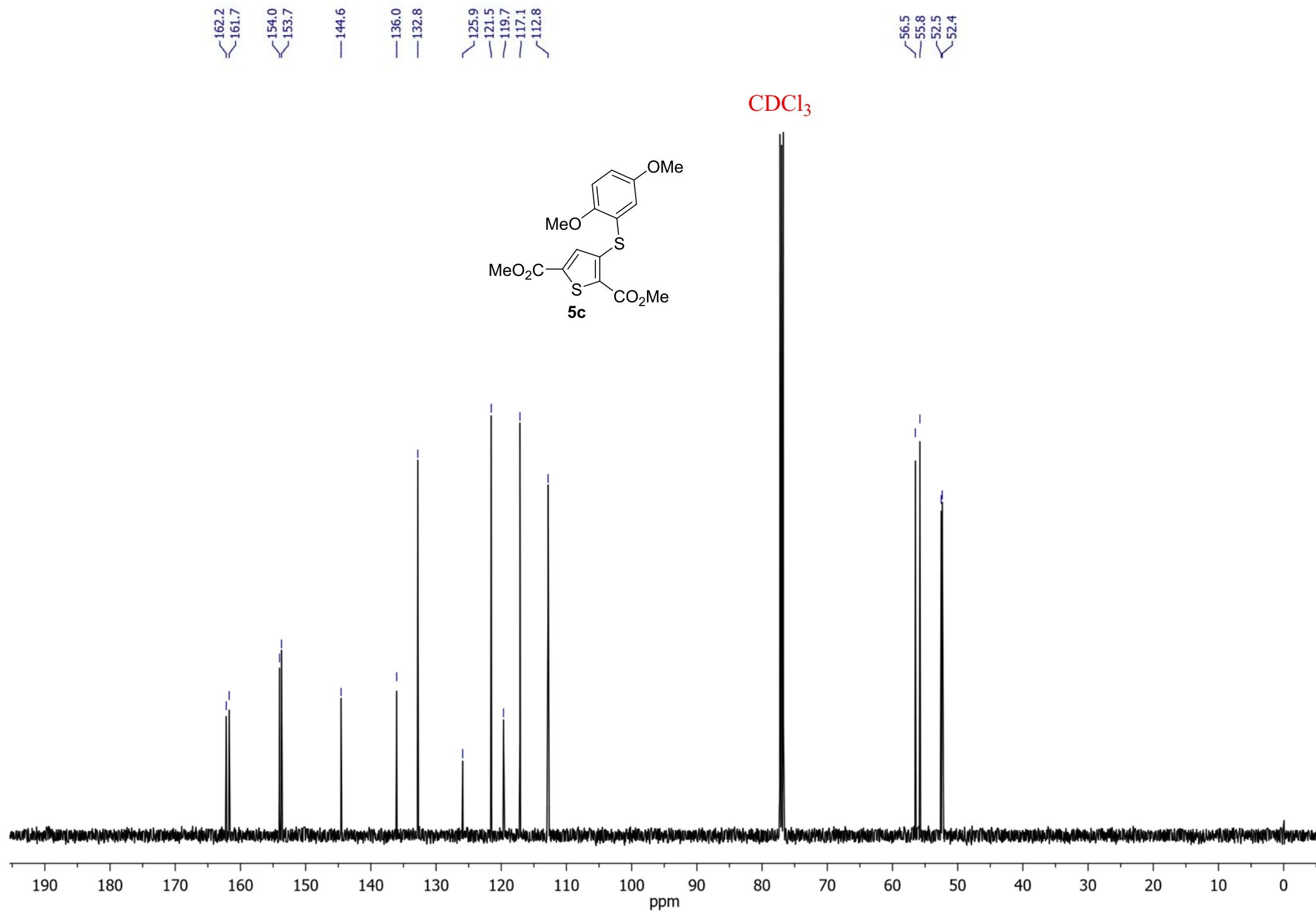
3.88
3.78
3.74
3.72

3.33

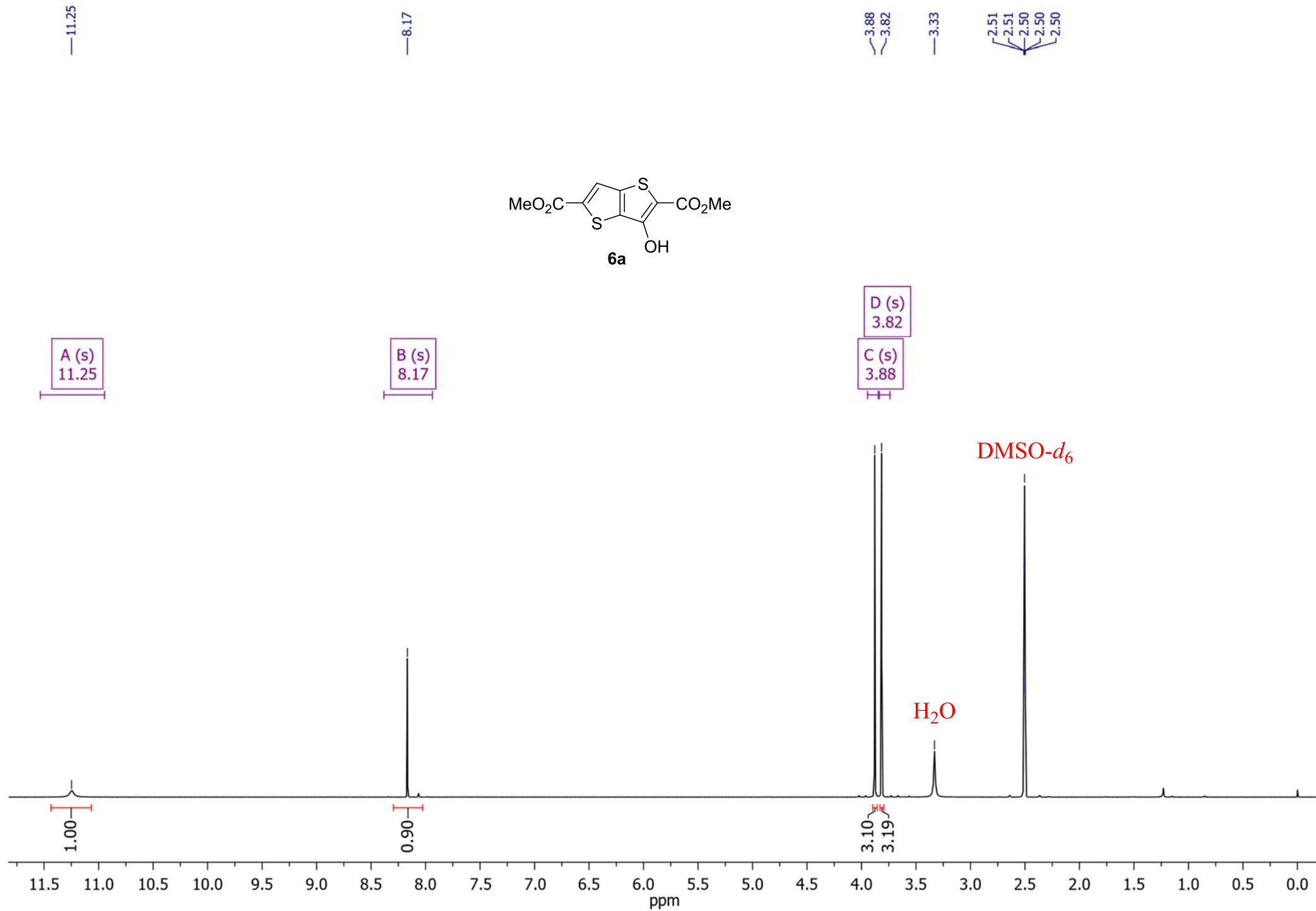
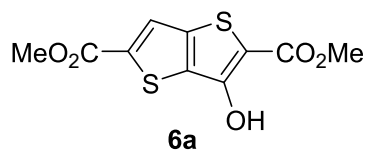
2.51
2.50
2.50

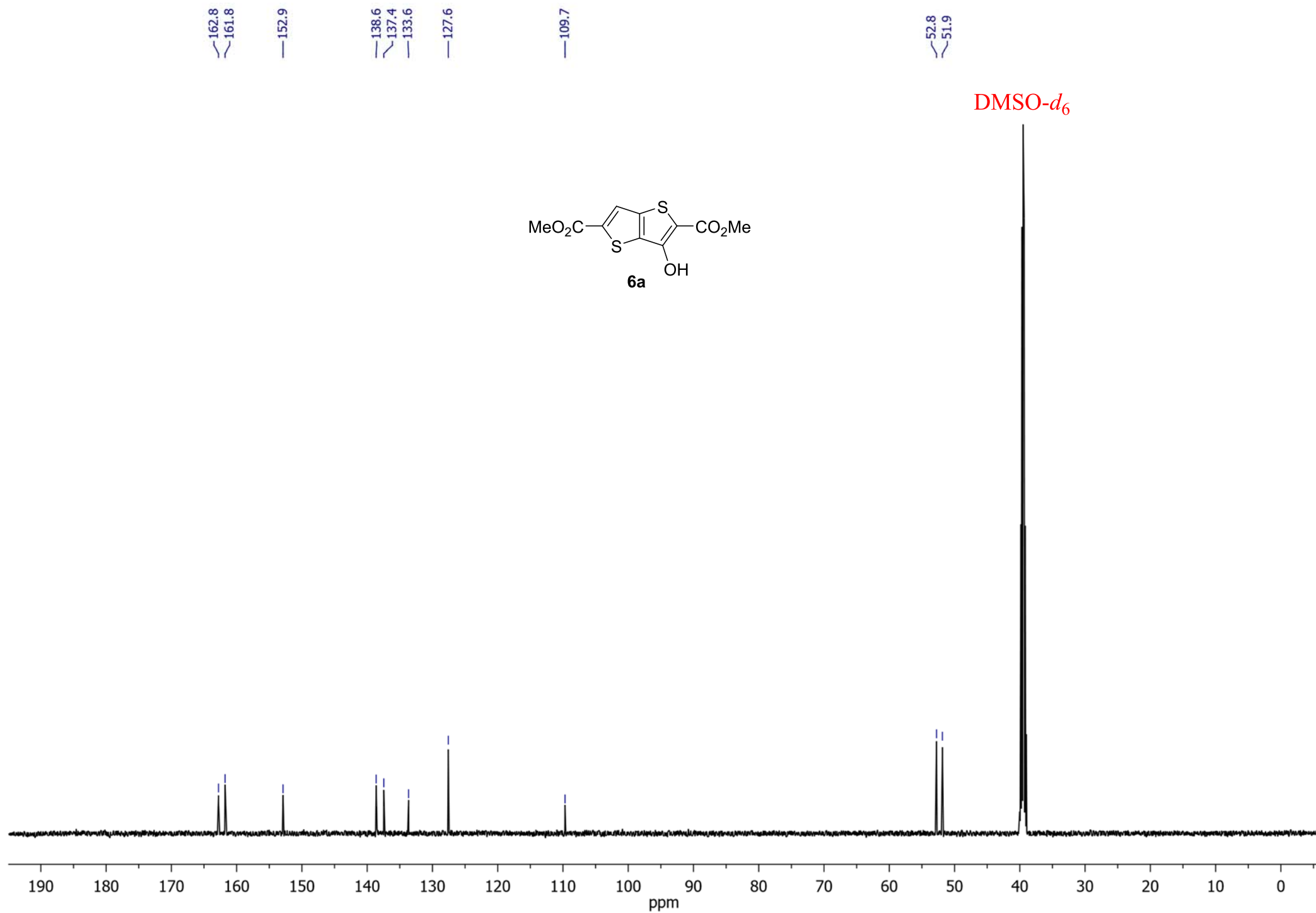


¹³C NMR (solvent: CDCl₃)

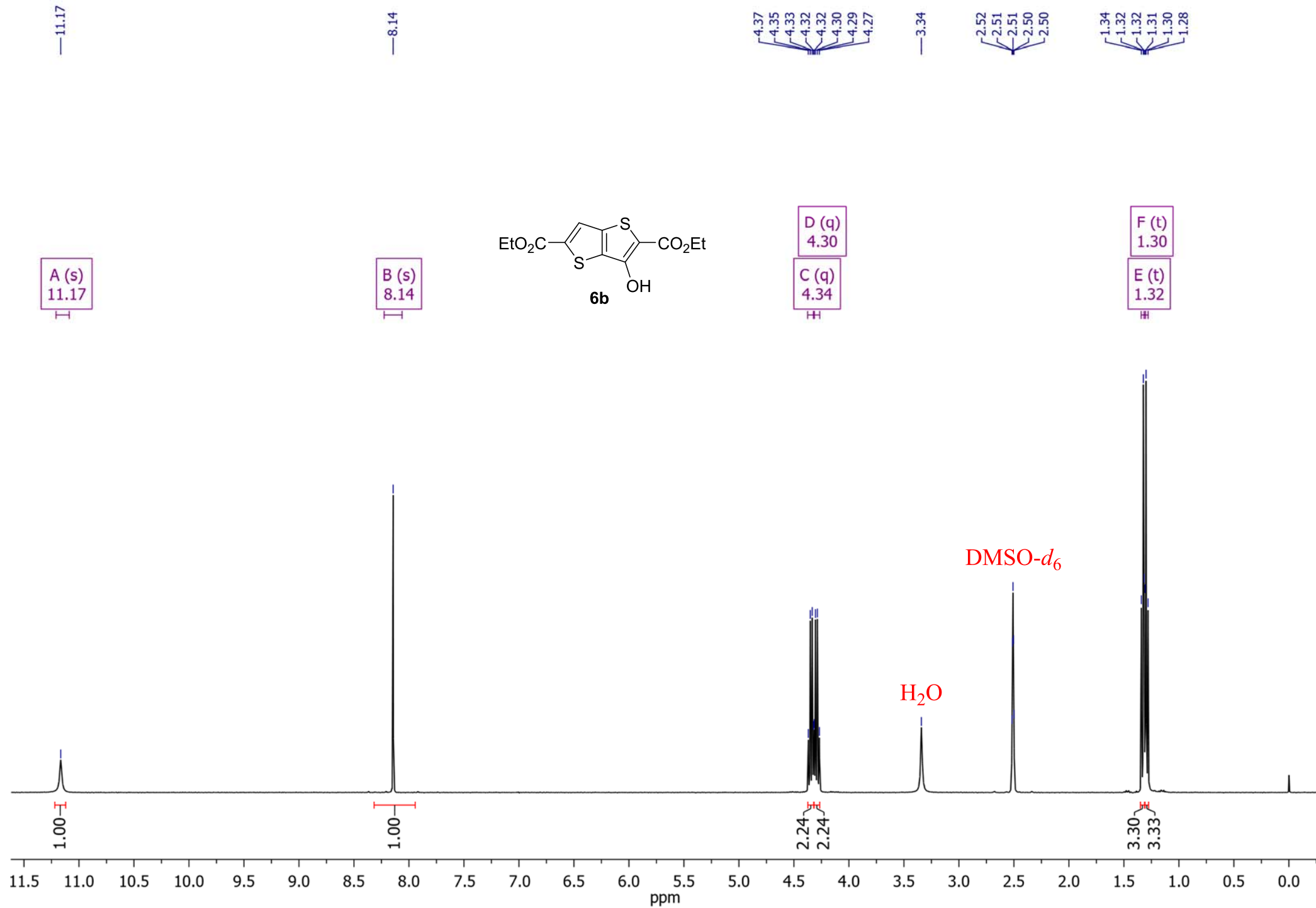


¹H NMR (solvent: DMSO-*d*₆)

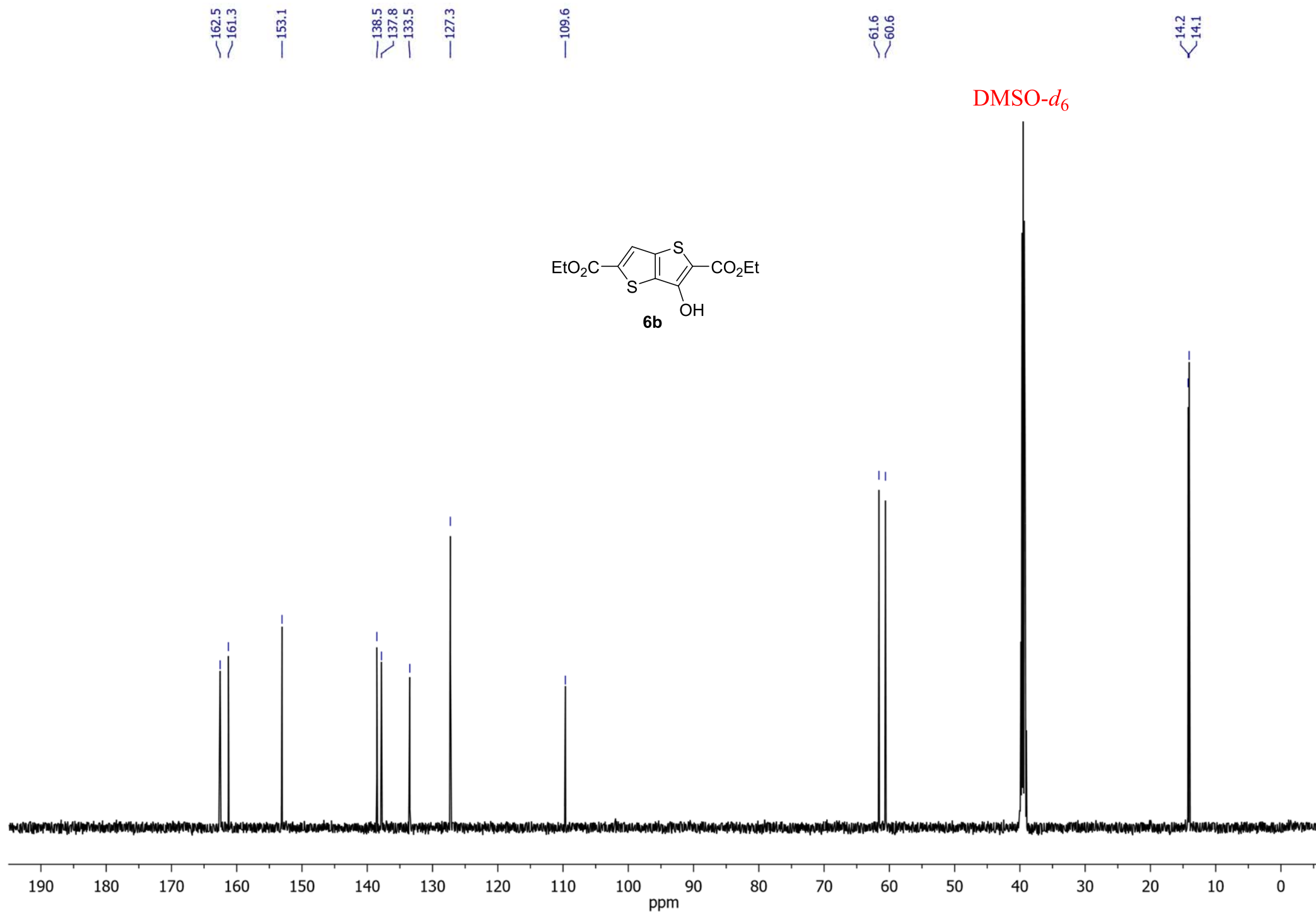




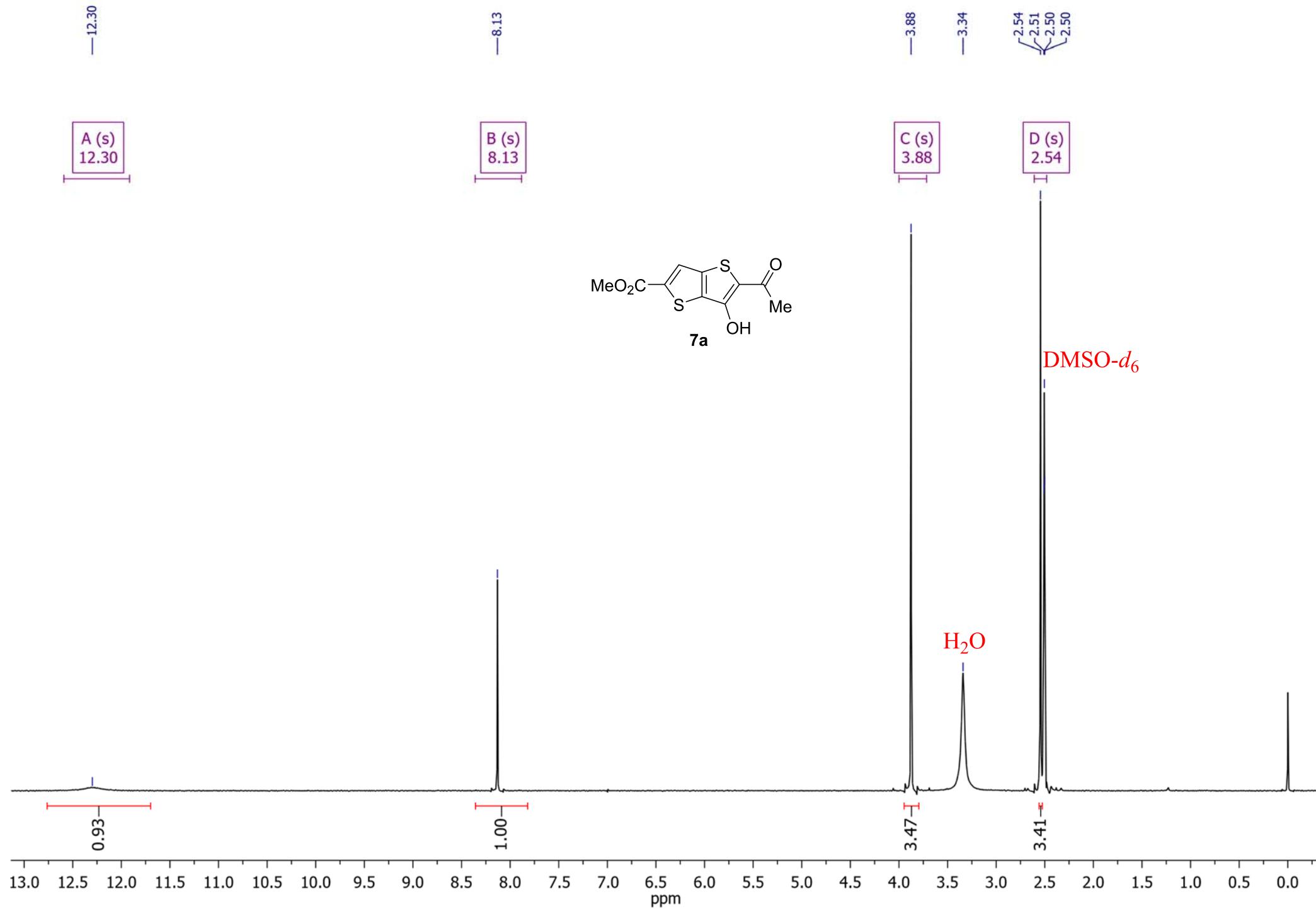
¹H NMR (solvent: DMSO-*d*₆)

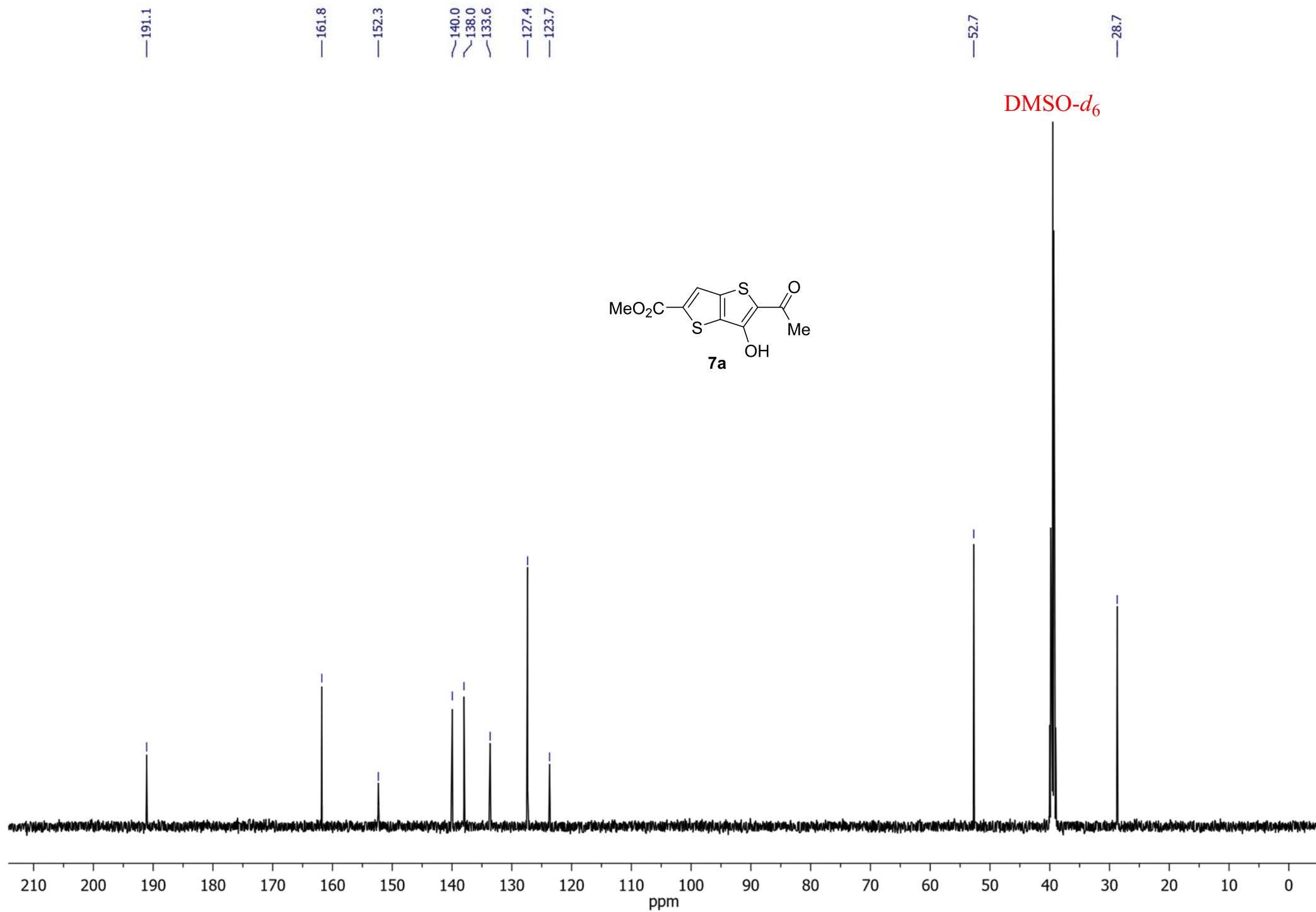


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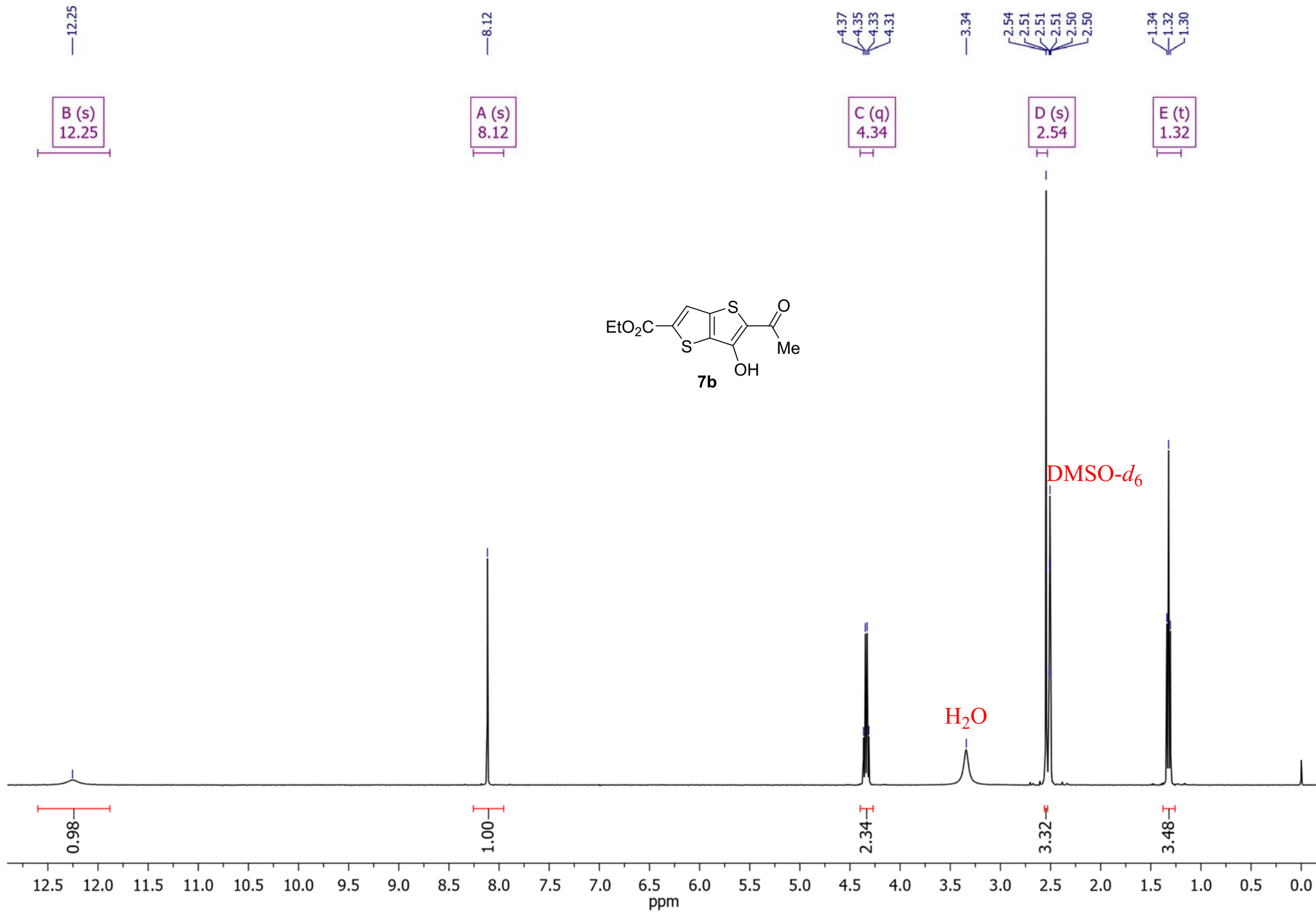


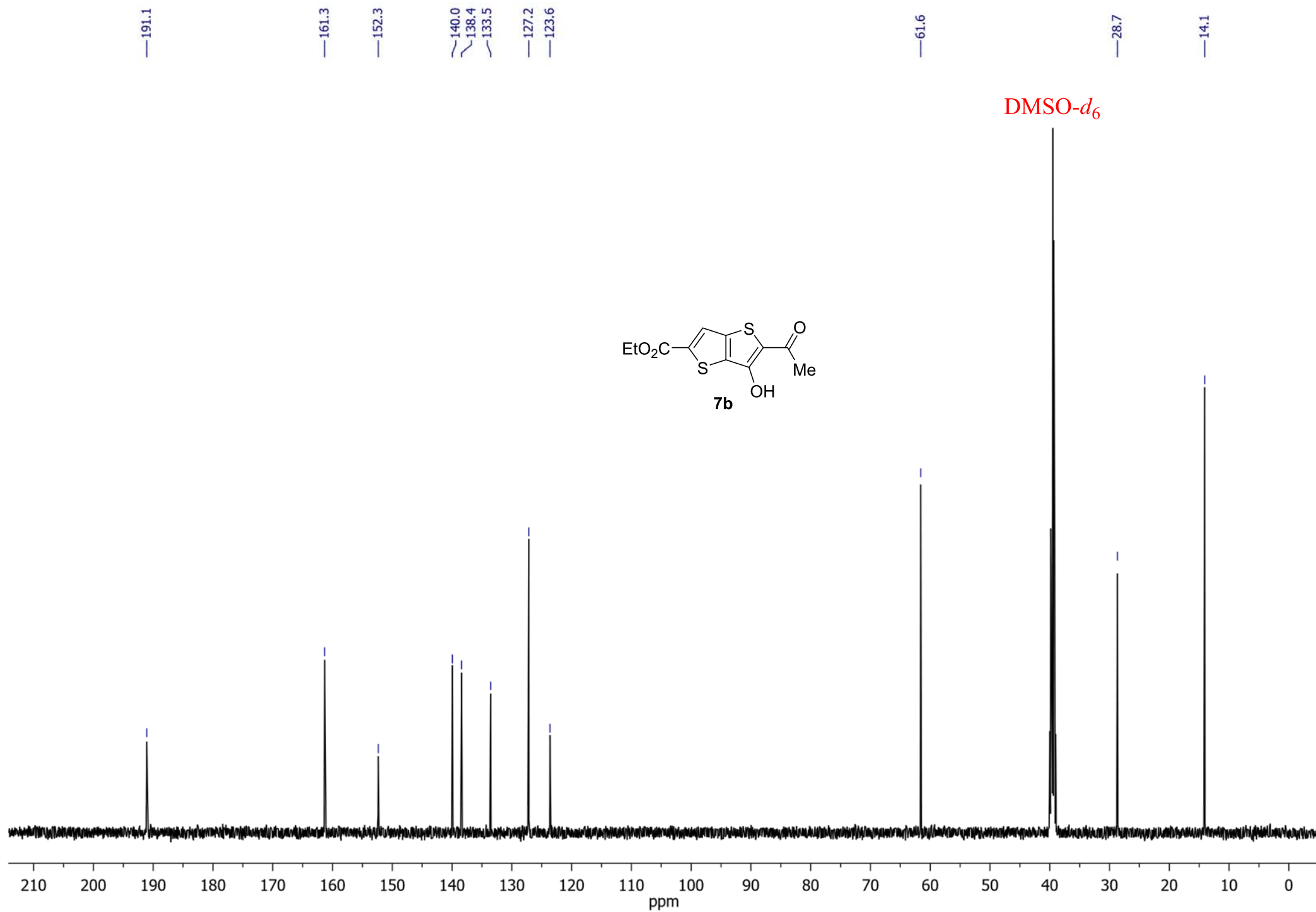
¹H NMR (solvent: DMSO-*d*₆)



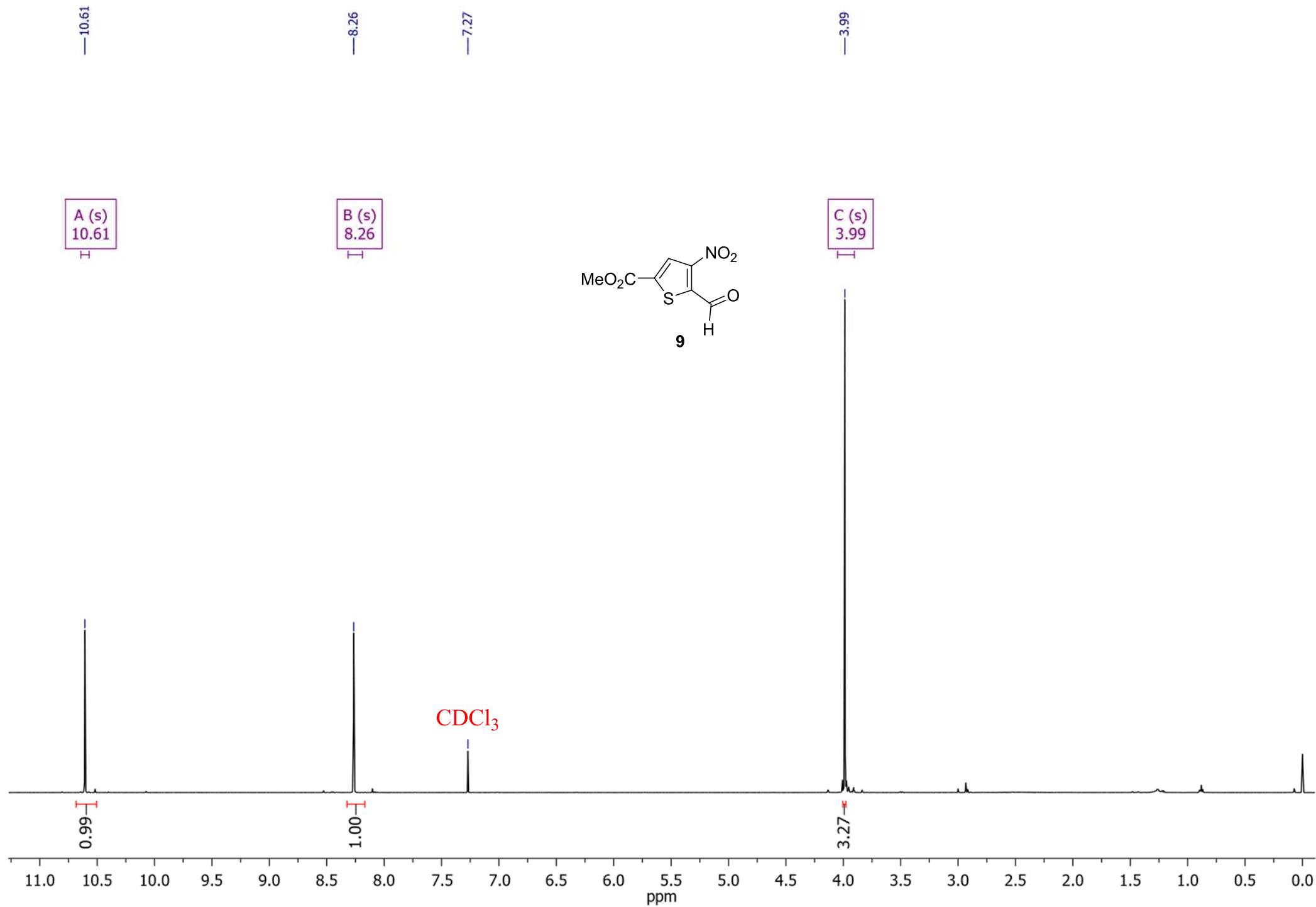


¹H NMR (solvent: DMSO-*d*₆)

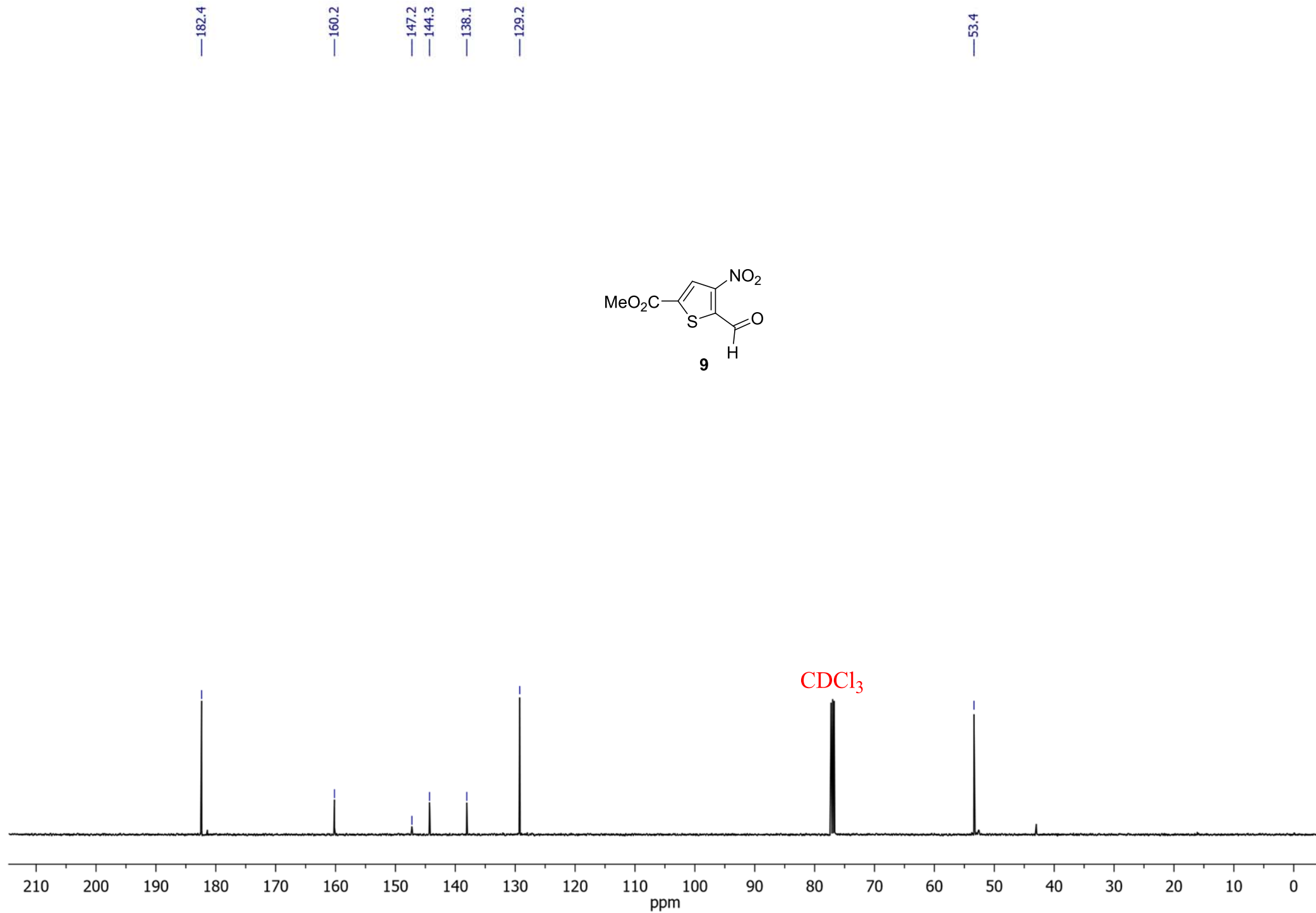
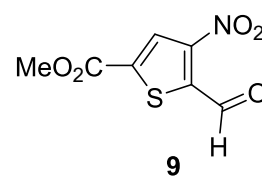




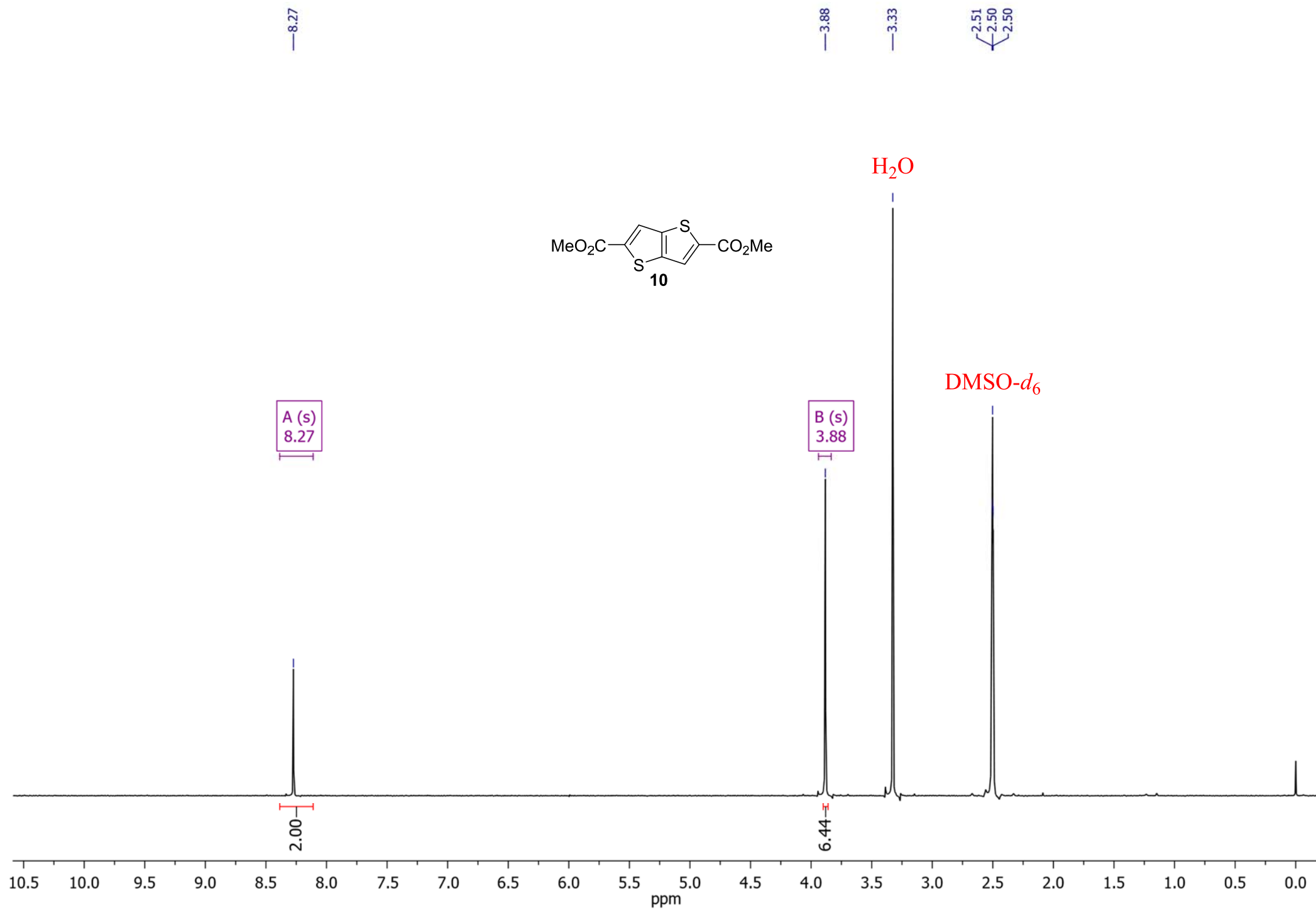
¹H NMR (solvent: CDCl₃)

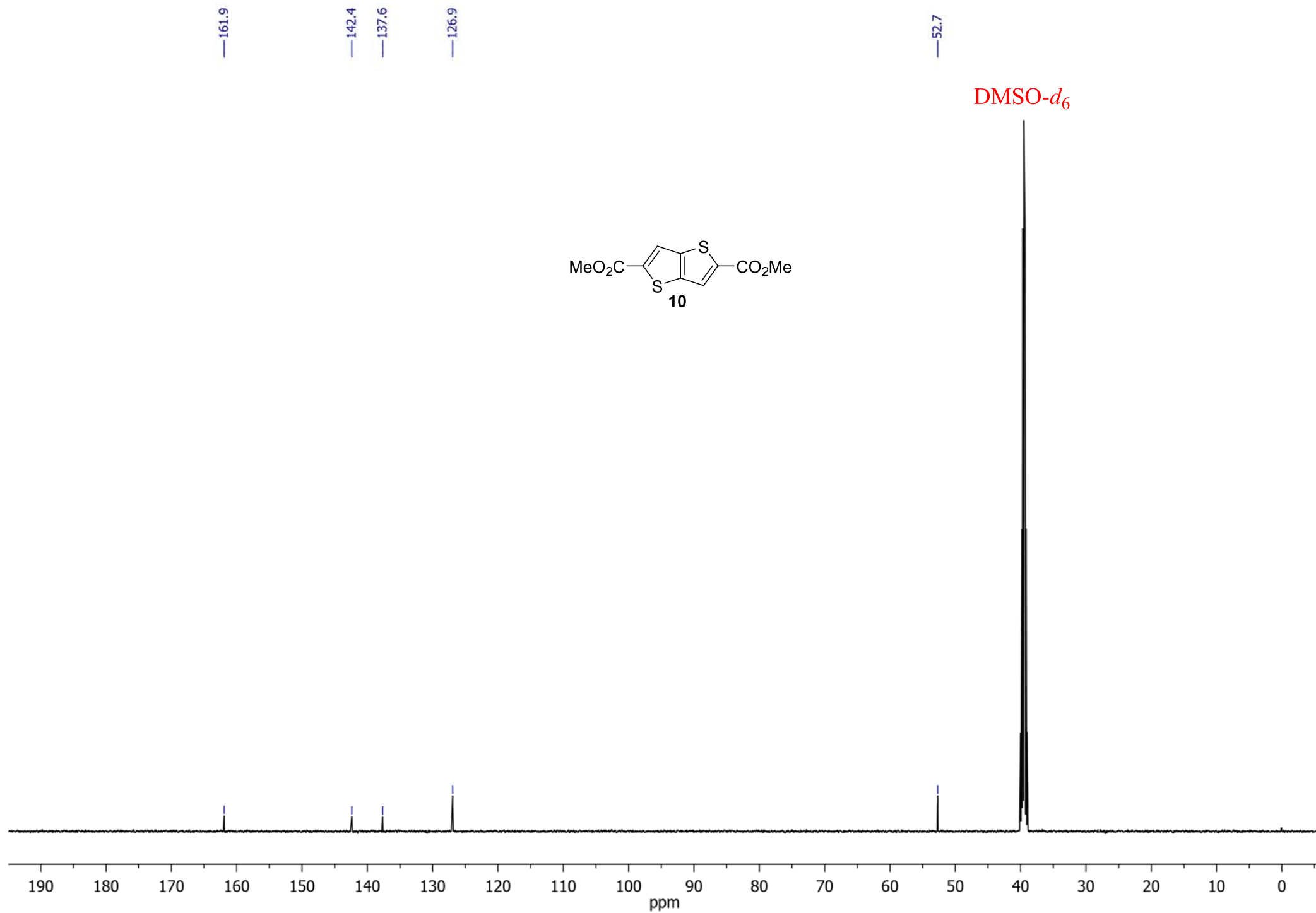


¹³C NMR (solvent: CDCl₃)

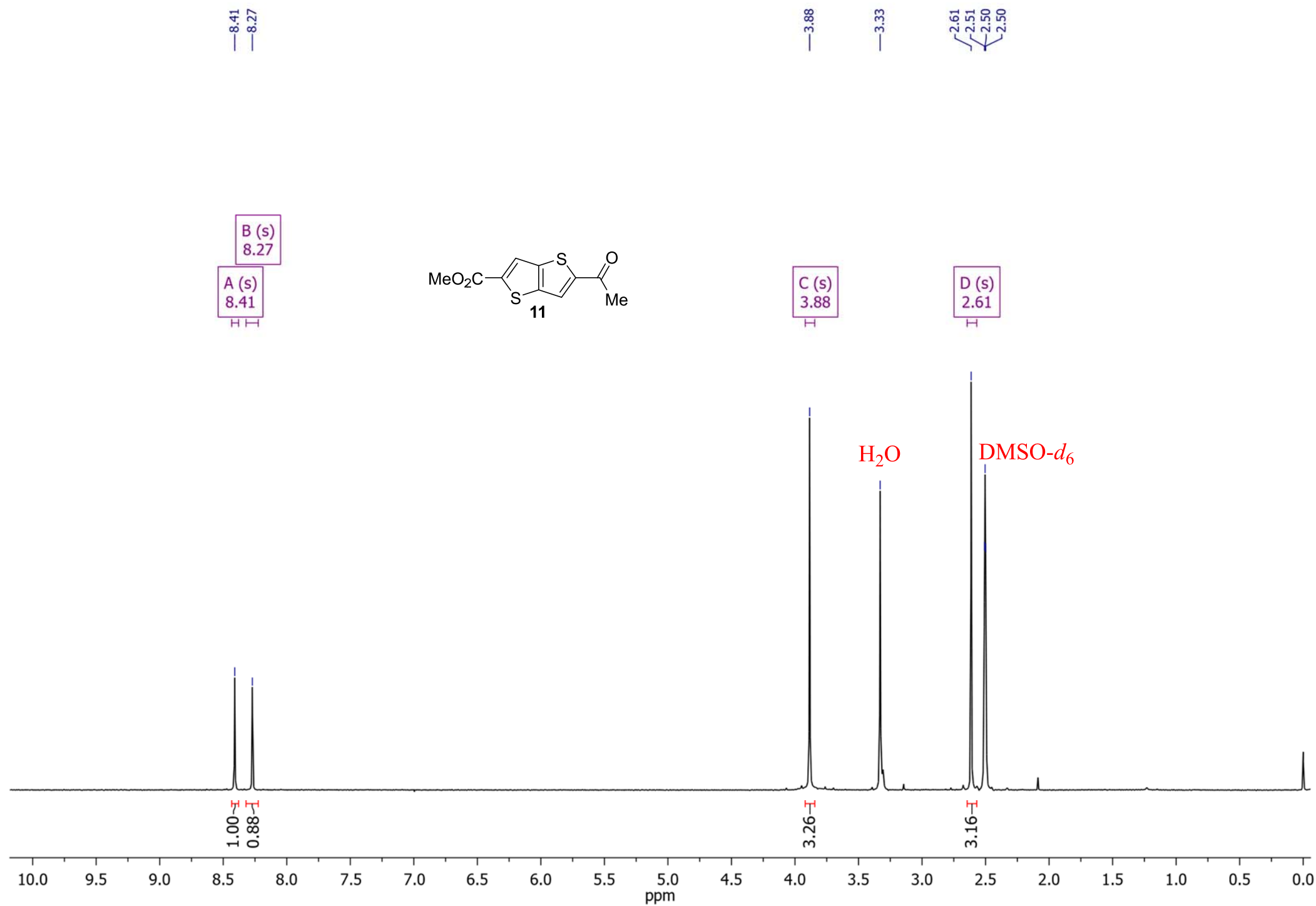


¹H NMR (solvent: DMSO-*d*₆)

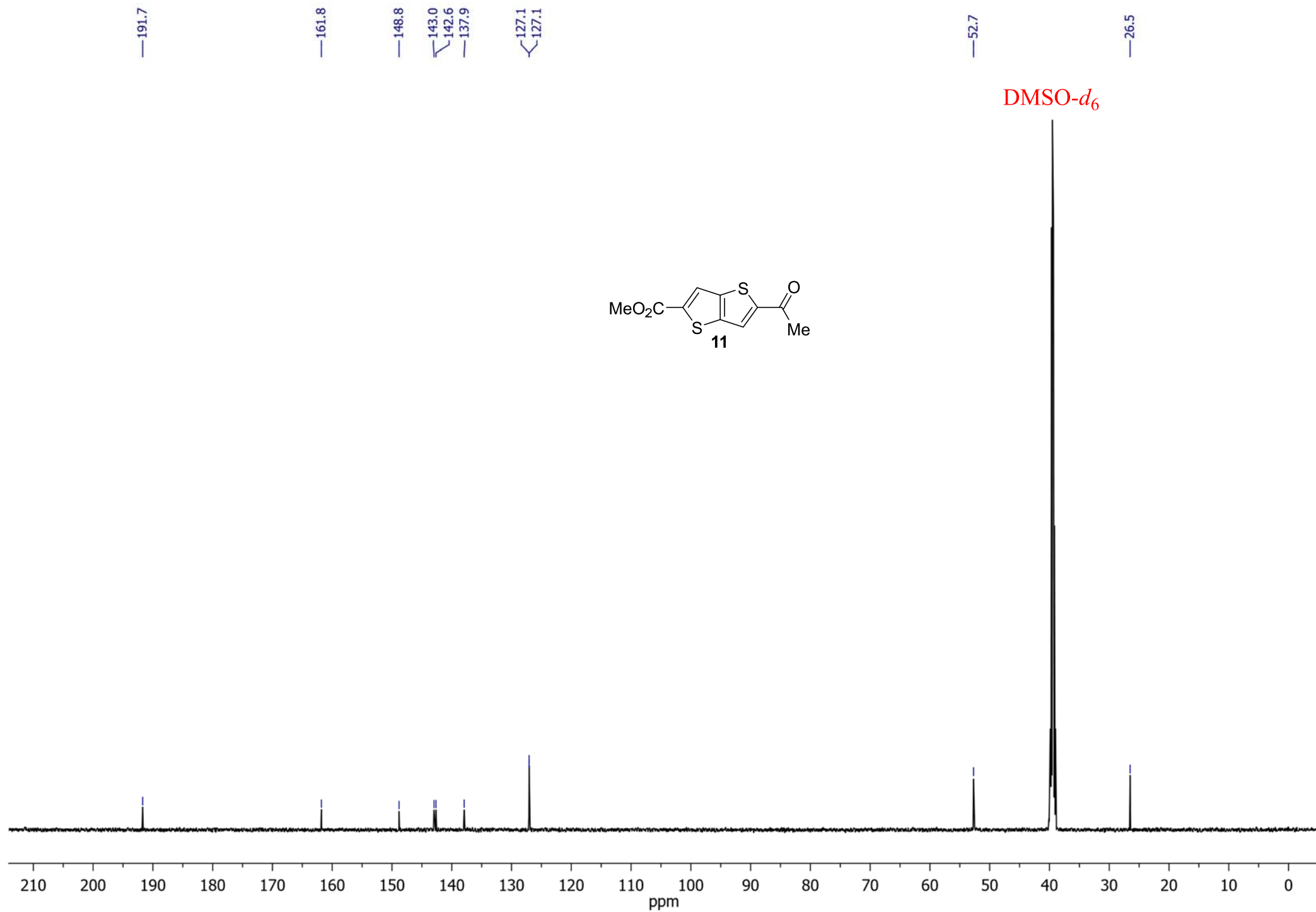




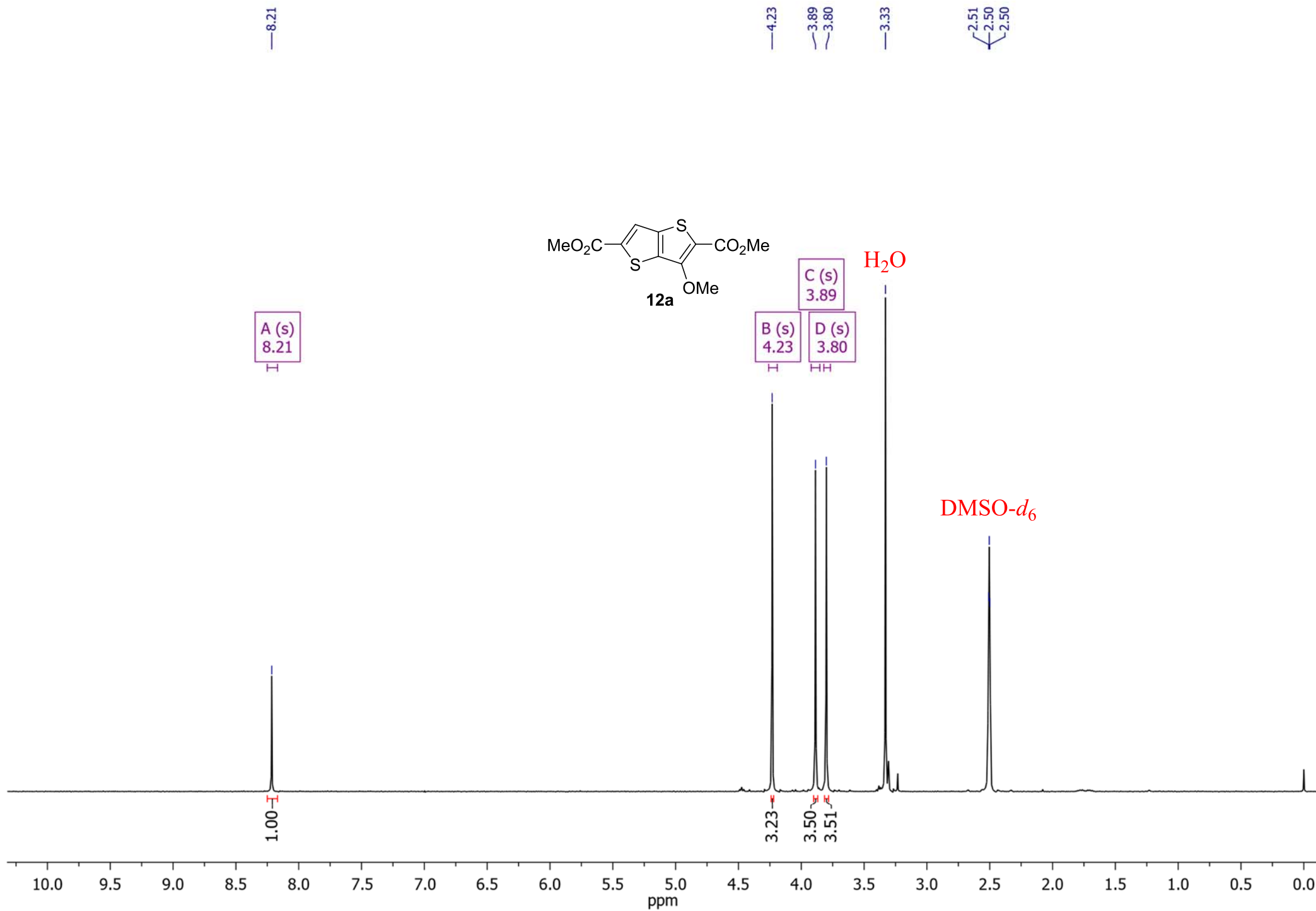
¹H NMR (solvent: DMSO-*d*₆)



¹³C NMR (solvent: DMSO-*d*₆)

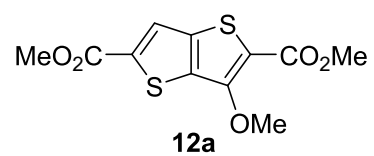


¹H NMR (solvent: DMSO-*d*₆)

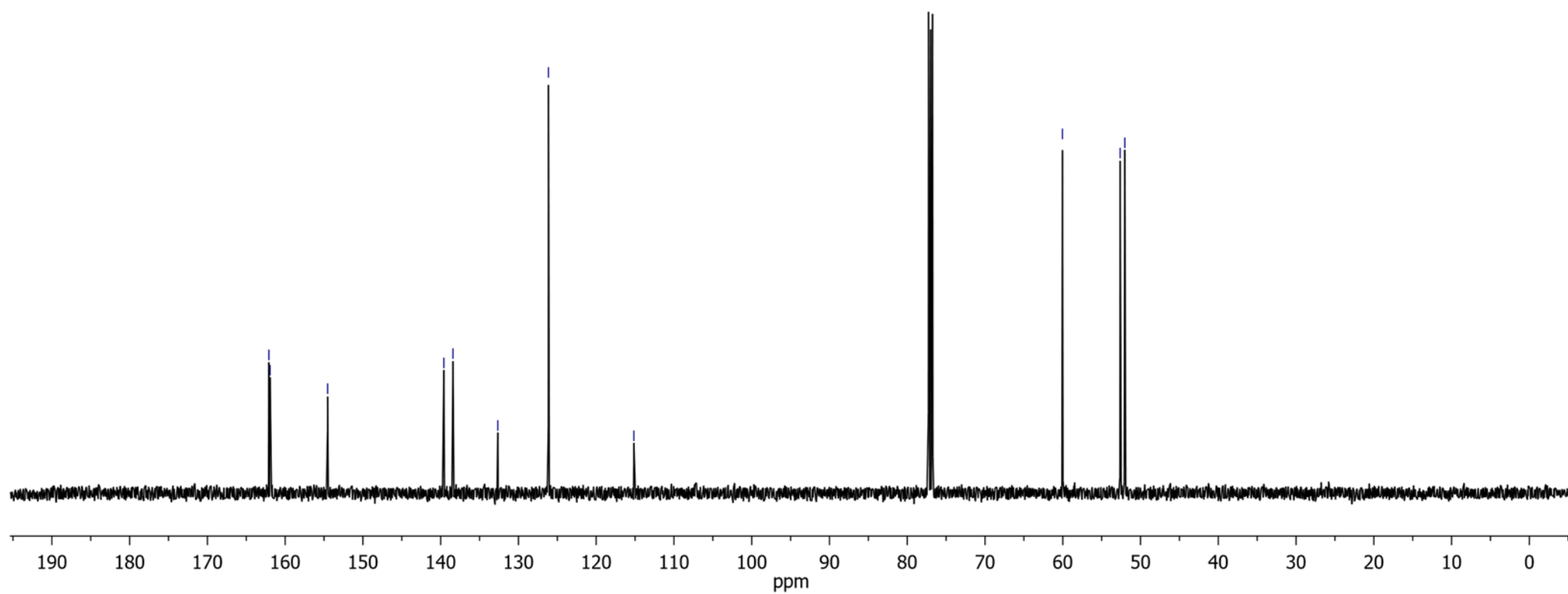


¹³C NMR (solvent: CDCl₃)

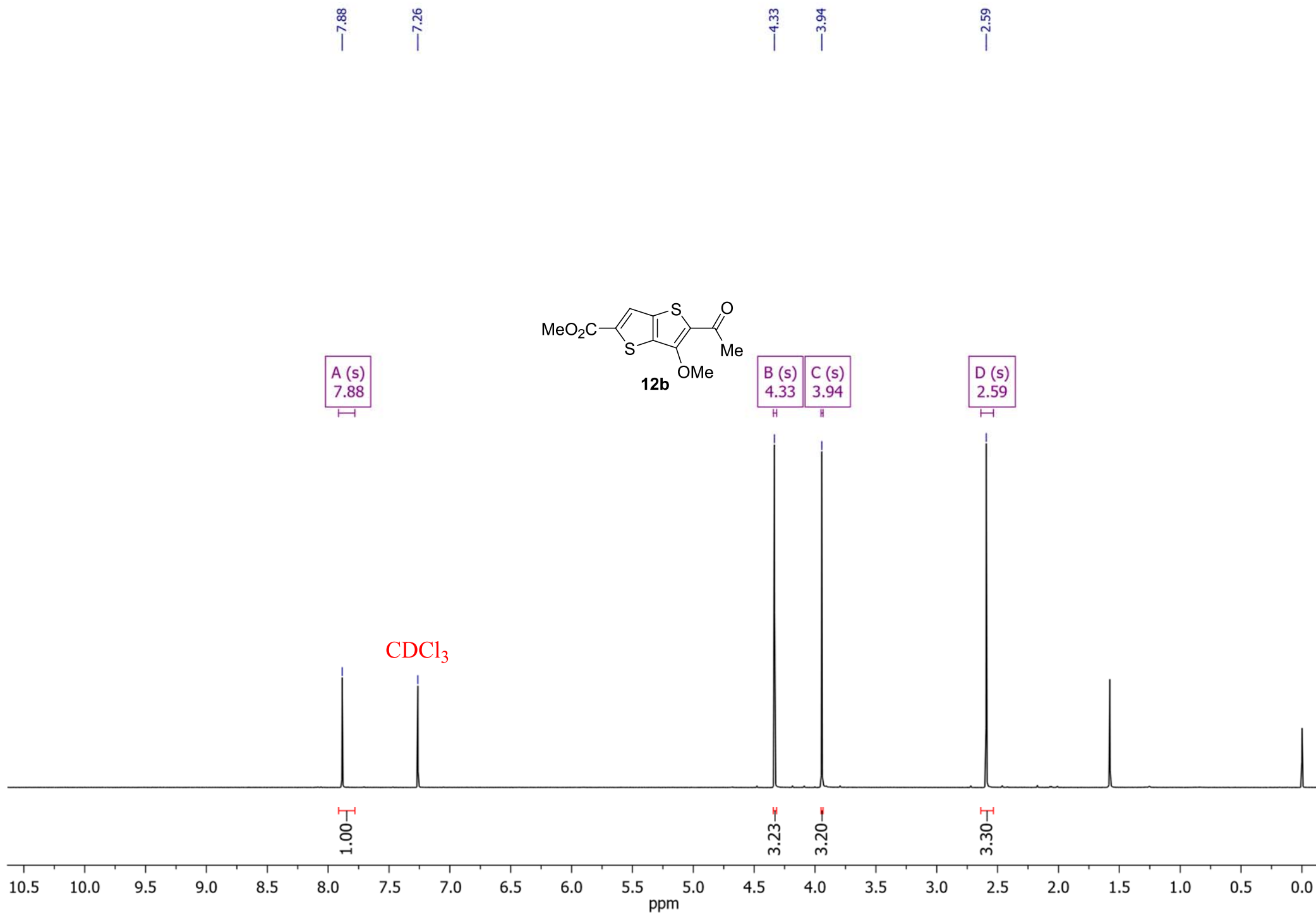
162.1
161.9
154.5
139.6
138.4
132.7
126.1
115.2
60.0
52.6
52.0

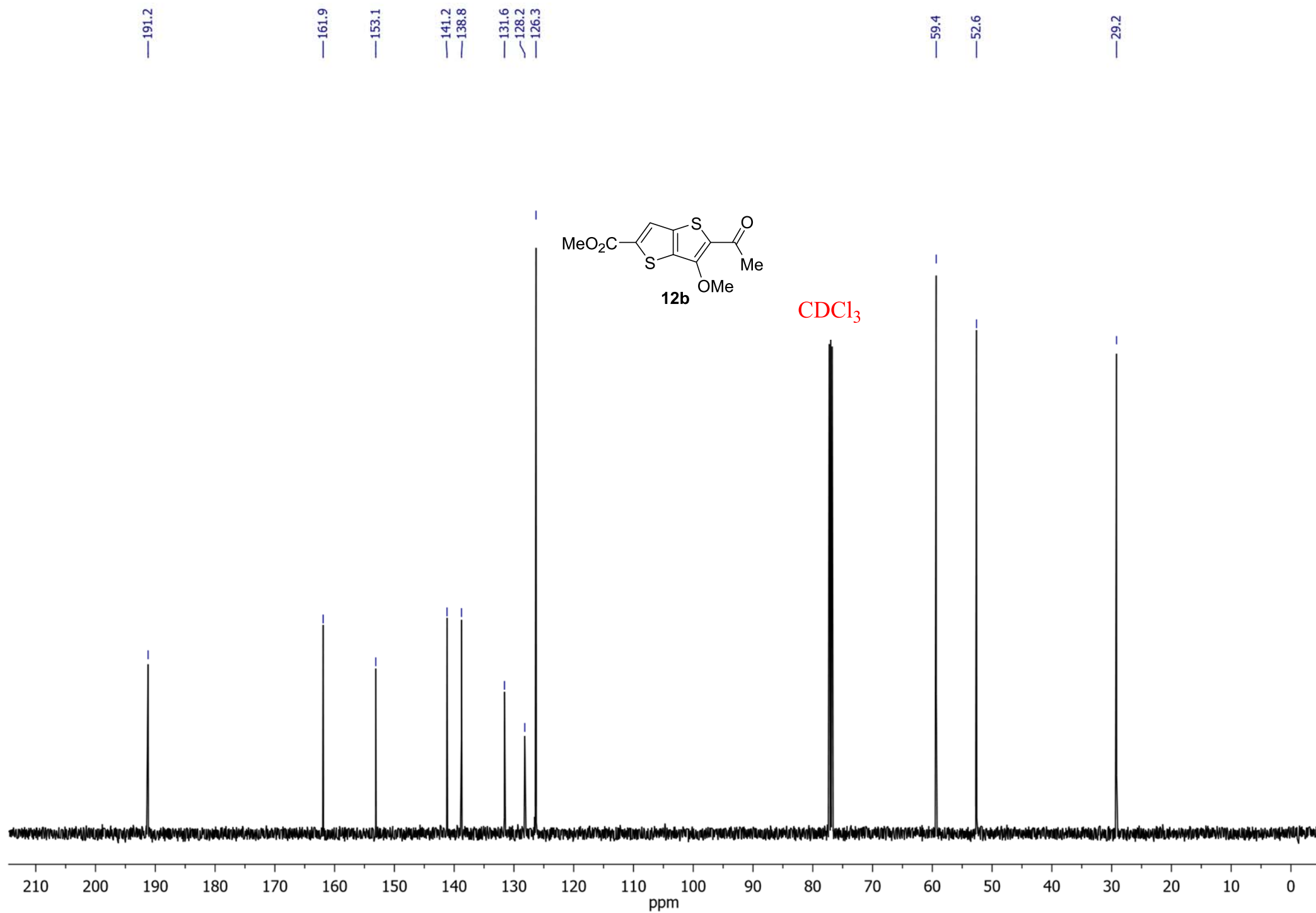


CDCl₃

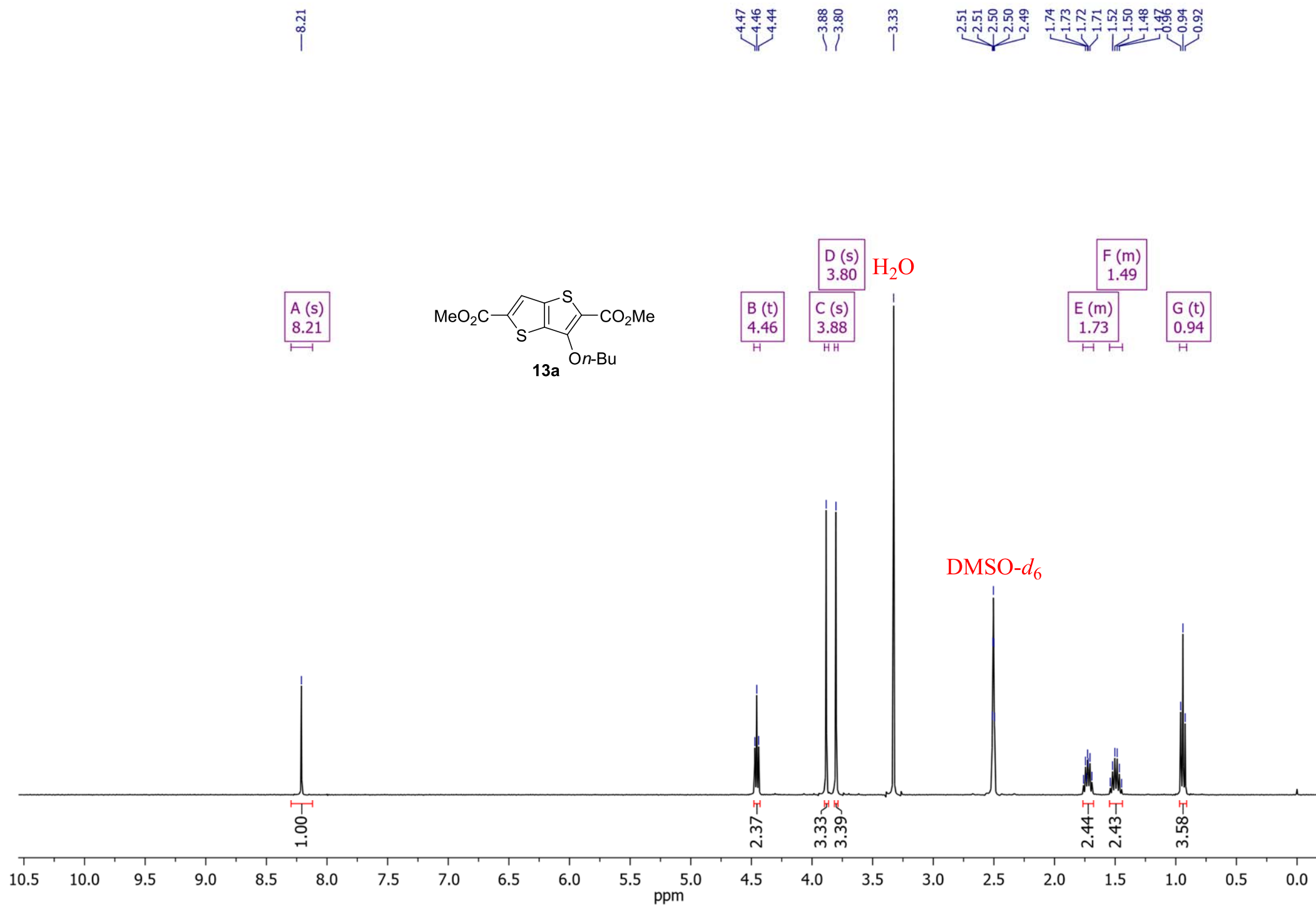


¹H NMR (solvent: CDCl₃)

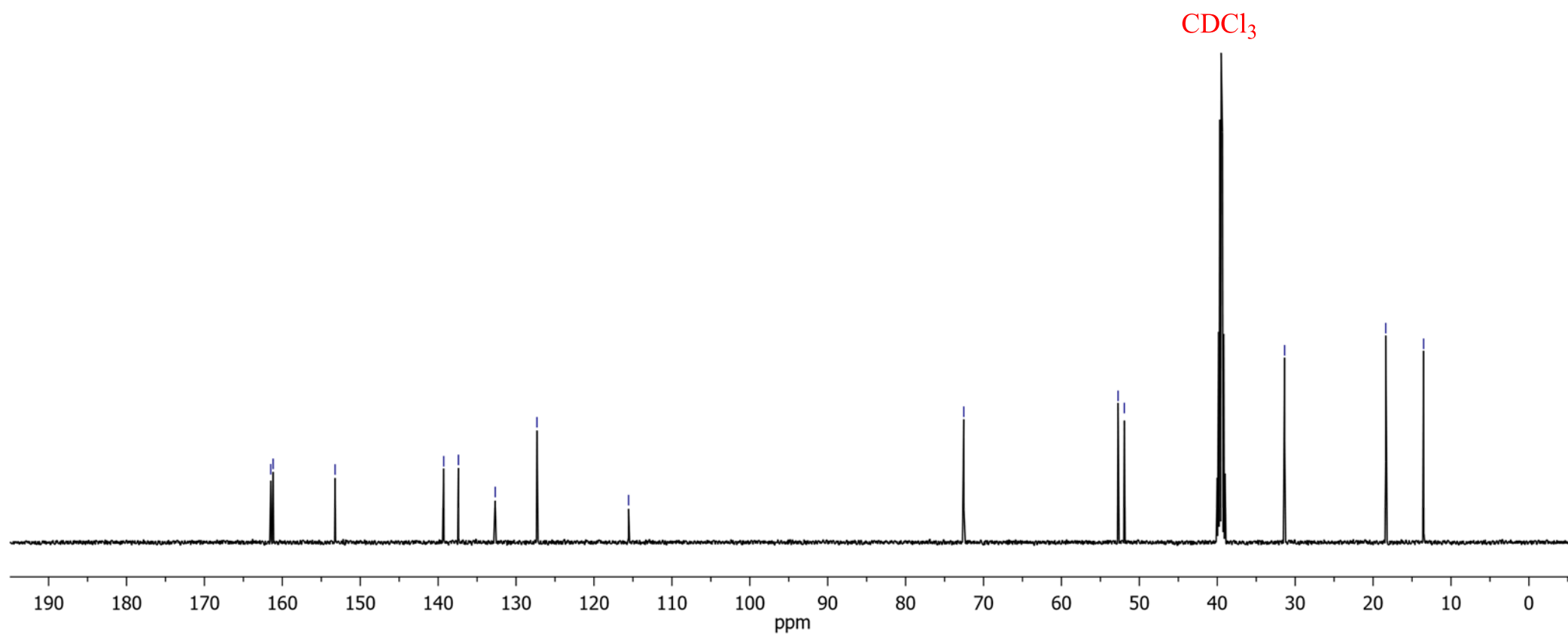
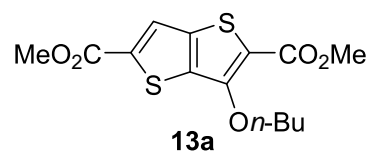




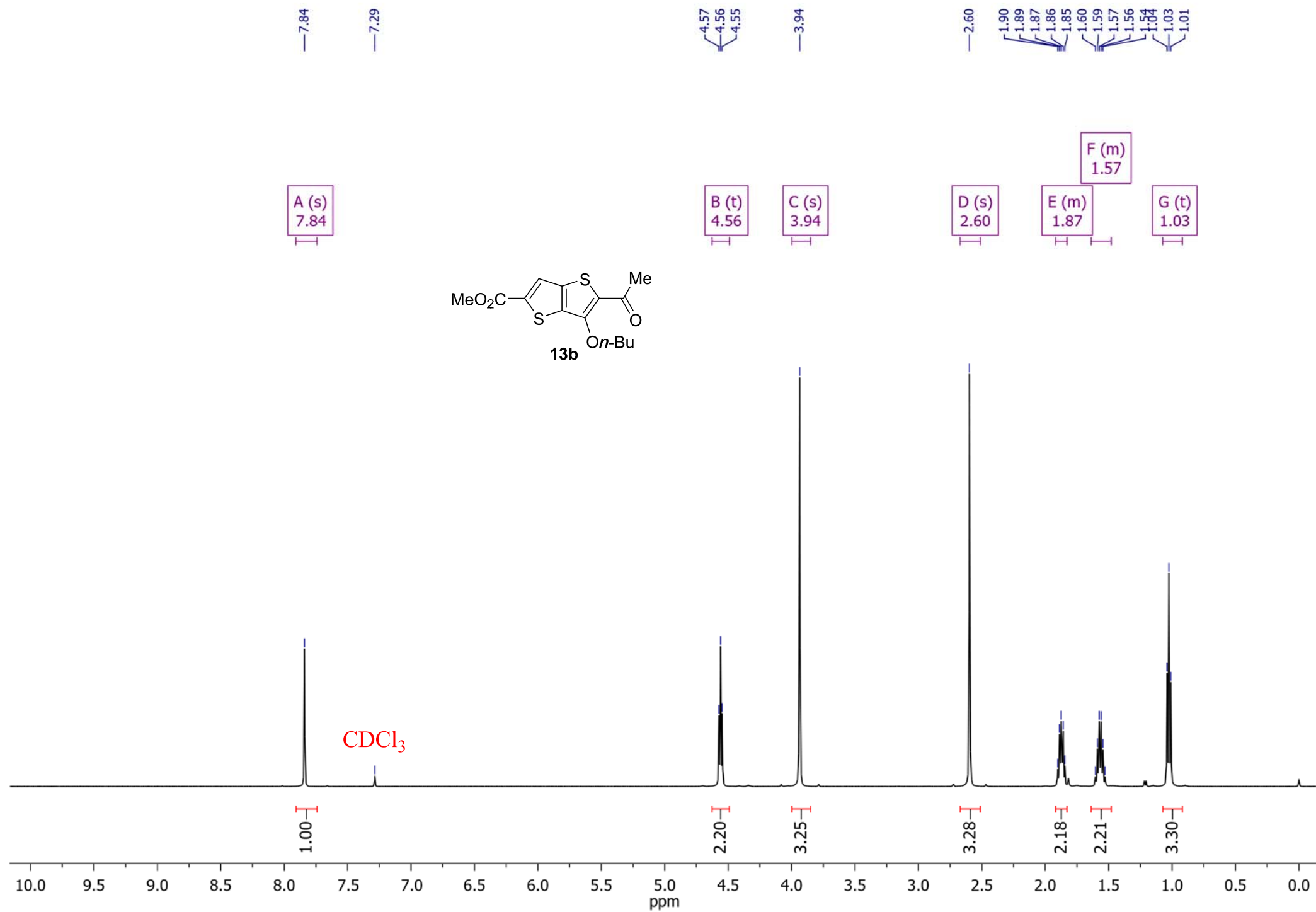
¹H NMR (solvent: DMSO-*d*₆)



¹³C NMR (solvent: DMSO-*d*₆)



¹H NMR (solvent: CDCl₃)



¹³C NMR (solvent: CDCl₃)

