

Synthesis and antiproliferative activity of hops minor prenylflavonoids and new insights on prenyl group cyclization

SUPPLEMENTARY MATERIALS

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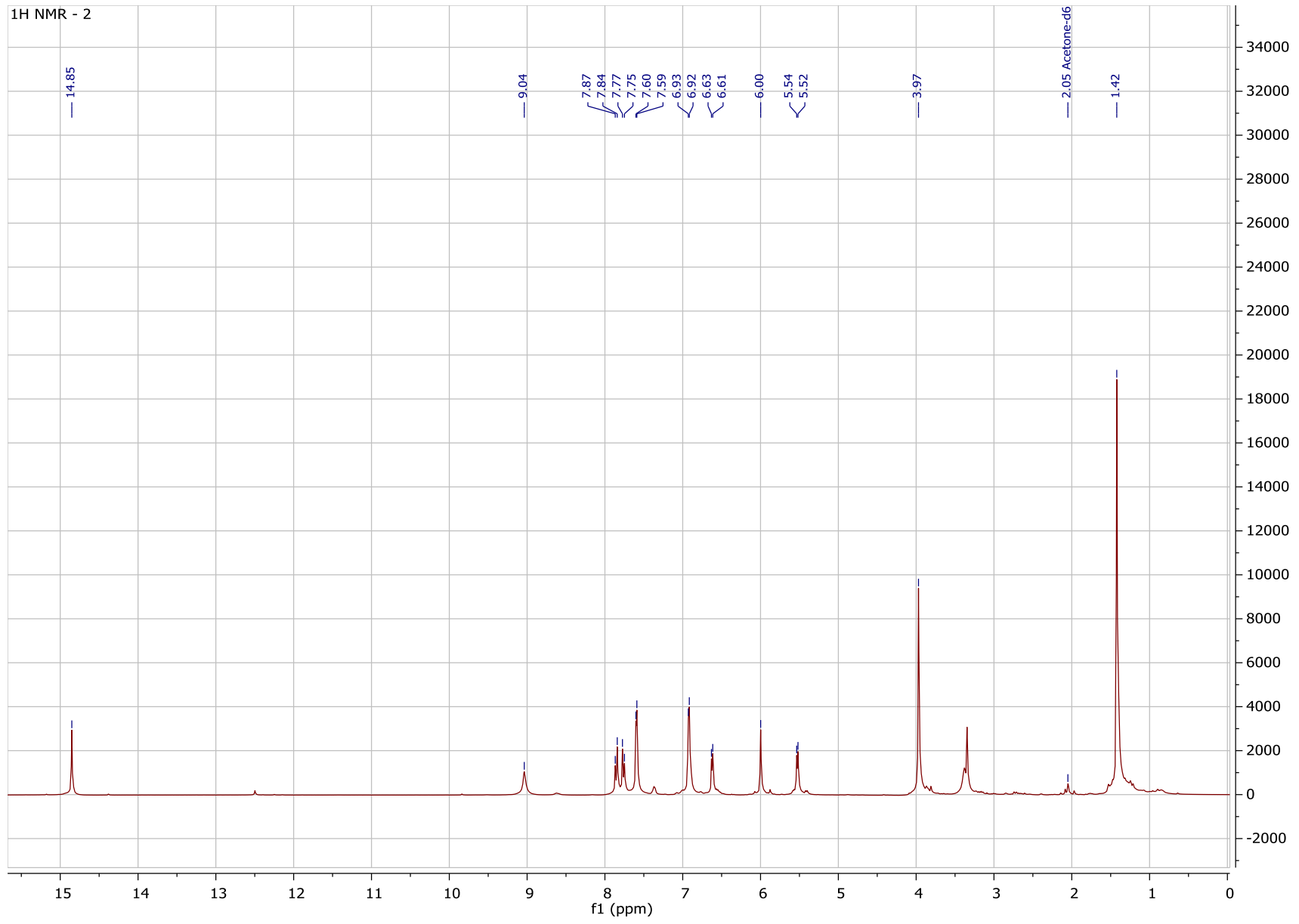
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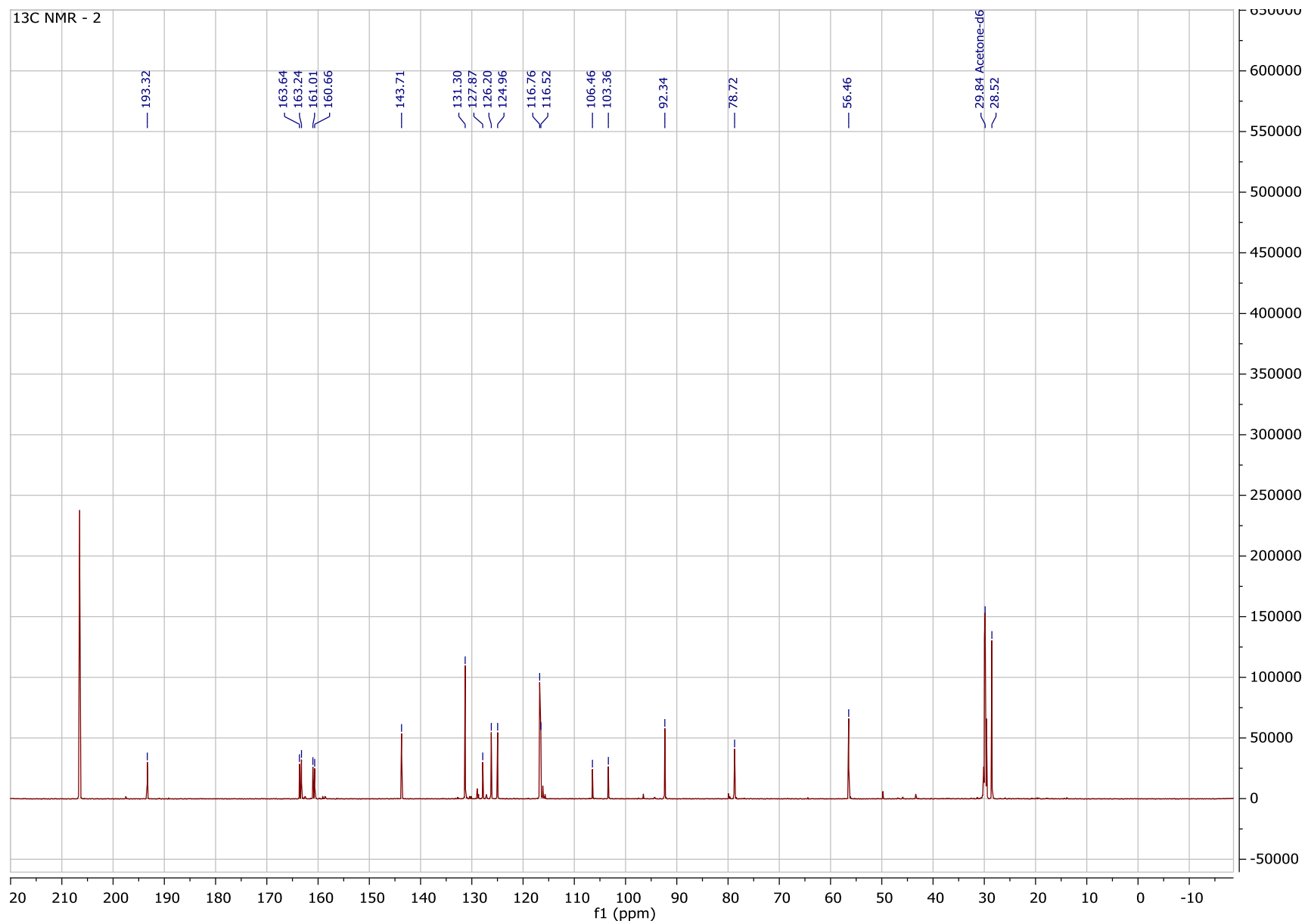
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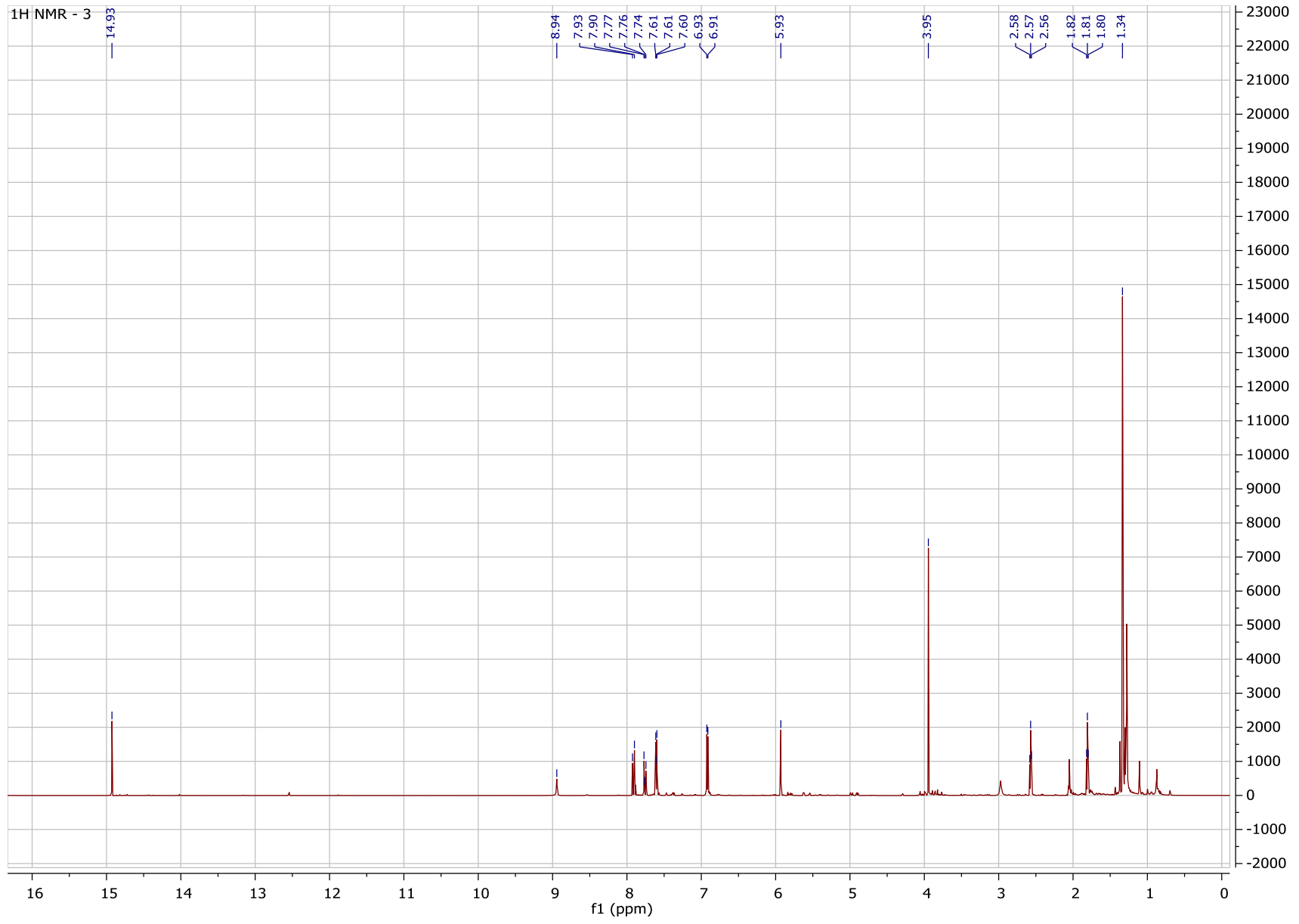
1. ¹H NMR Spectrum of **2** - xanthohumol C.
2. ¹³C NMR Spectrum of **2** - xanthohumol C.
3. ¹H NMR Spectrum of **3** - 1'',2''-dihydroxanthohumol C.
4. ¹³C NMR Spectrum of **3** - 1'',2''-dihydroxanthohumol C.
5. ¹H NMR Spectrum of **4** - 1'',2''-dihydroxanthohumol K.
6. ¹³C NMR Spectrum of **4** - 1'',2''-dihydroxanthohumol K.
7. ¹H NMR Spectrum of **6** - xanthohumol K.
8. ¹³C NMR Spectrum of **6** - xanthohumol K.
9. ¹H NMR Spectrum of **7** - 4,4'-dimethoxymethyl xanthohumol
10. ¹H NMR Spectrum of **8** - 1'',2'', α,β -tetrahydroxanthohumol C.
11. ¹³C NMR Spectrum of **8** - 1'',2'', α,β -tetrahydroxanthohumol C.
12. ¹H NMR Spectrum of **9** - 1'',2'', α,β -tetrahydroxanthohumol K.
13. ¹³C NMR Spectrum of **9** - 1'',2'', α,β -tetrahydroxanthohumol K.
14. ¹H NMR Spectrum of **10** -1'',2''-Dihydroisoxanthohumol C.
15. ¹³C NMR Spectrum of **10** -1'',2''-Dihydroisoxanthohumol C.
16. ¹H NMR Spectrum of **11a/11b** - 5,4'-dihydroxy-6'',6''-dimethyl-4'',5''-dihydropyrano-[2'',3'':7,8]flavanone and 5,4'-dihydroxy-6'',6''-dimethyl-4'',5''-dihydropyrano-[2'',3'':6,7]flavanone.
17. ¹³C NMR Spectrum of **11a/11b** - 5,4'-dihydroxy-6'',6''-dimethyl-4'',5''-dihydropyrano-[2'',3'':7,8]flavanone and 5,4'-dihydroxy-6'',6''-dimethyl-4'',5''-dihydropyrano-[2'',3'':6,7]flavanone.
18. ¹H NMR Spectrum of **12** - 2,3-Dehydroisoxanthohumol C.
19. ¹³C NMR Spectrum of **12** - 2,3-Dehydroisoxanthohumol C.
20. ¹H NMR Spectrum of **13** - 2,3-Dehydroisoxanthohumol.
21. ¹³C NMR Spectrum of **13** - 2,3-Dehydroisoxanthohumol.
22. ¹H NMR Spectrum of **14** - 1'',2''-Dihydro-2,3-dehydroisoxanthohumol C.
23. ¹³C NMR Spectrum of **14** - 1'',2''-Dihydro-2,3-dehydroisoxanthohumol C.

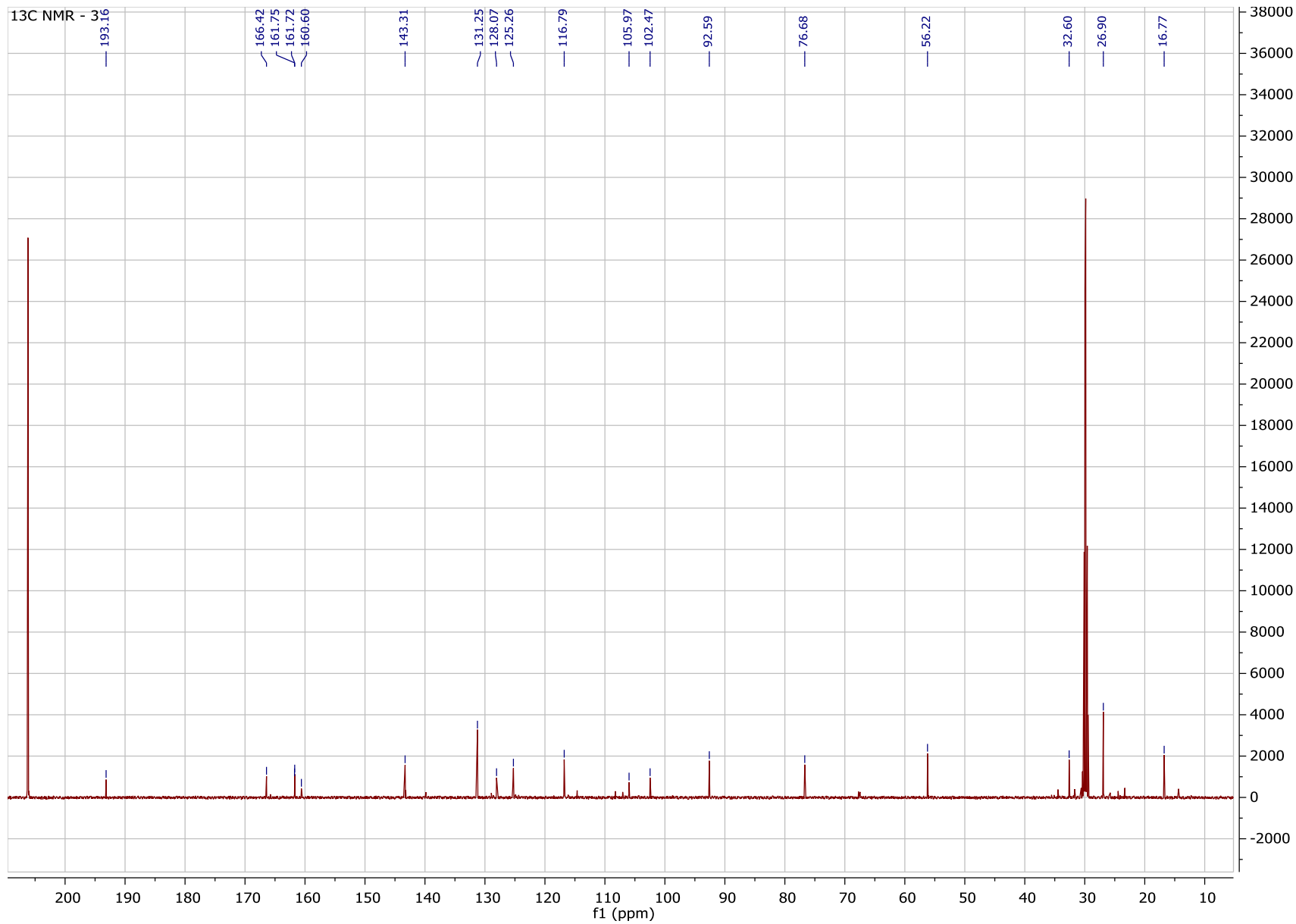
1H NMR - 2

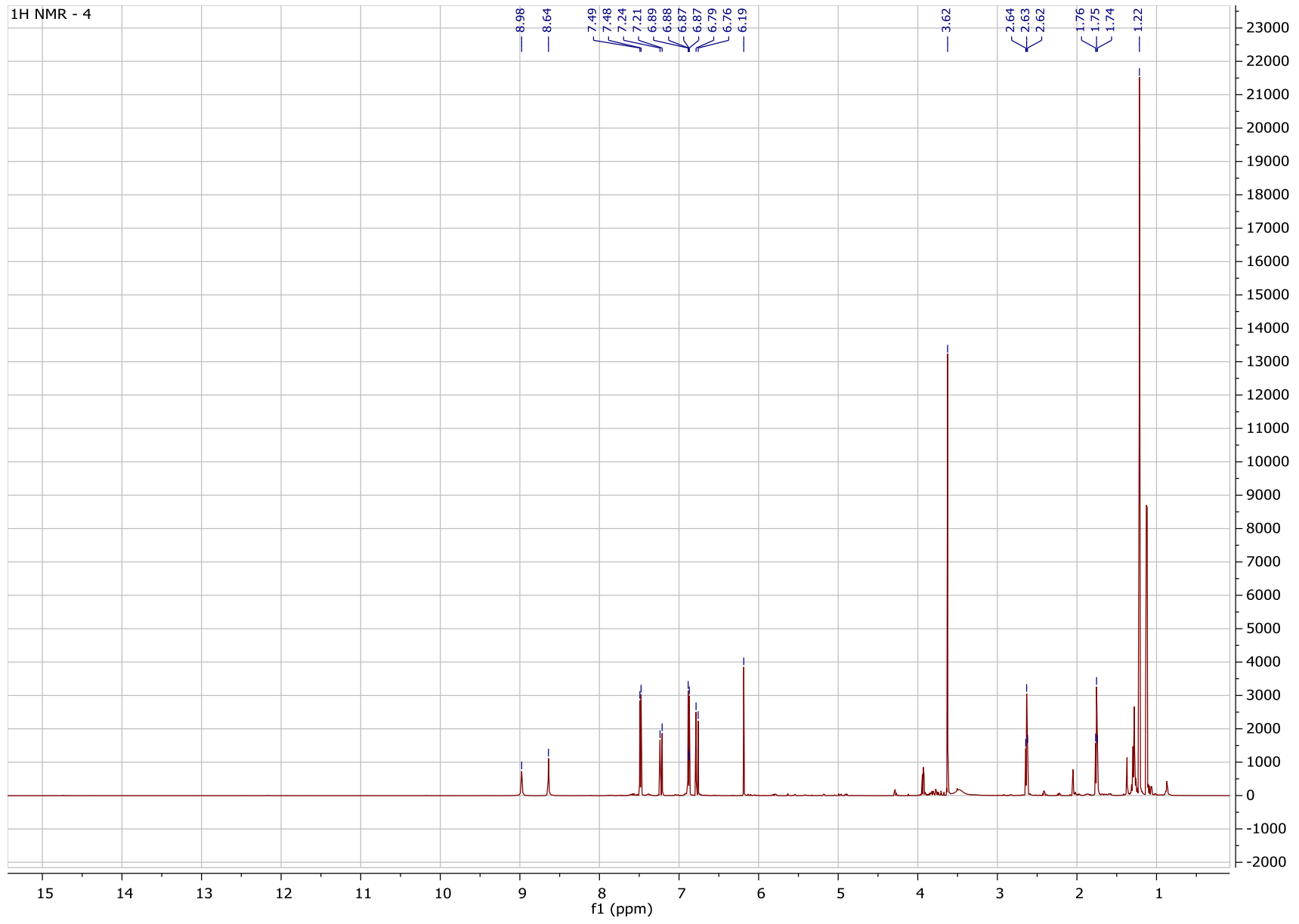


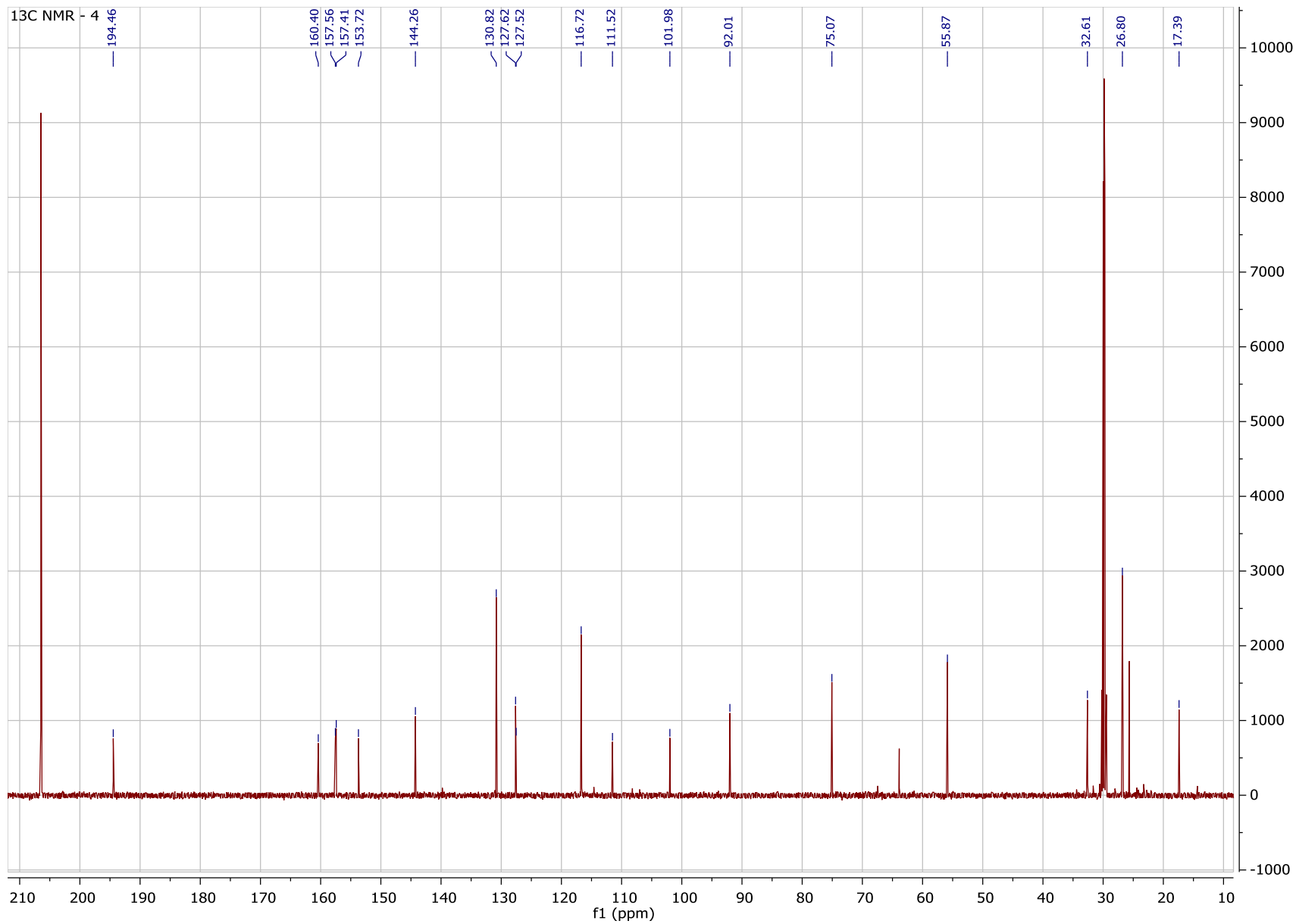
13C NMR - 2



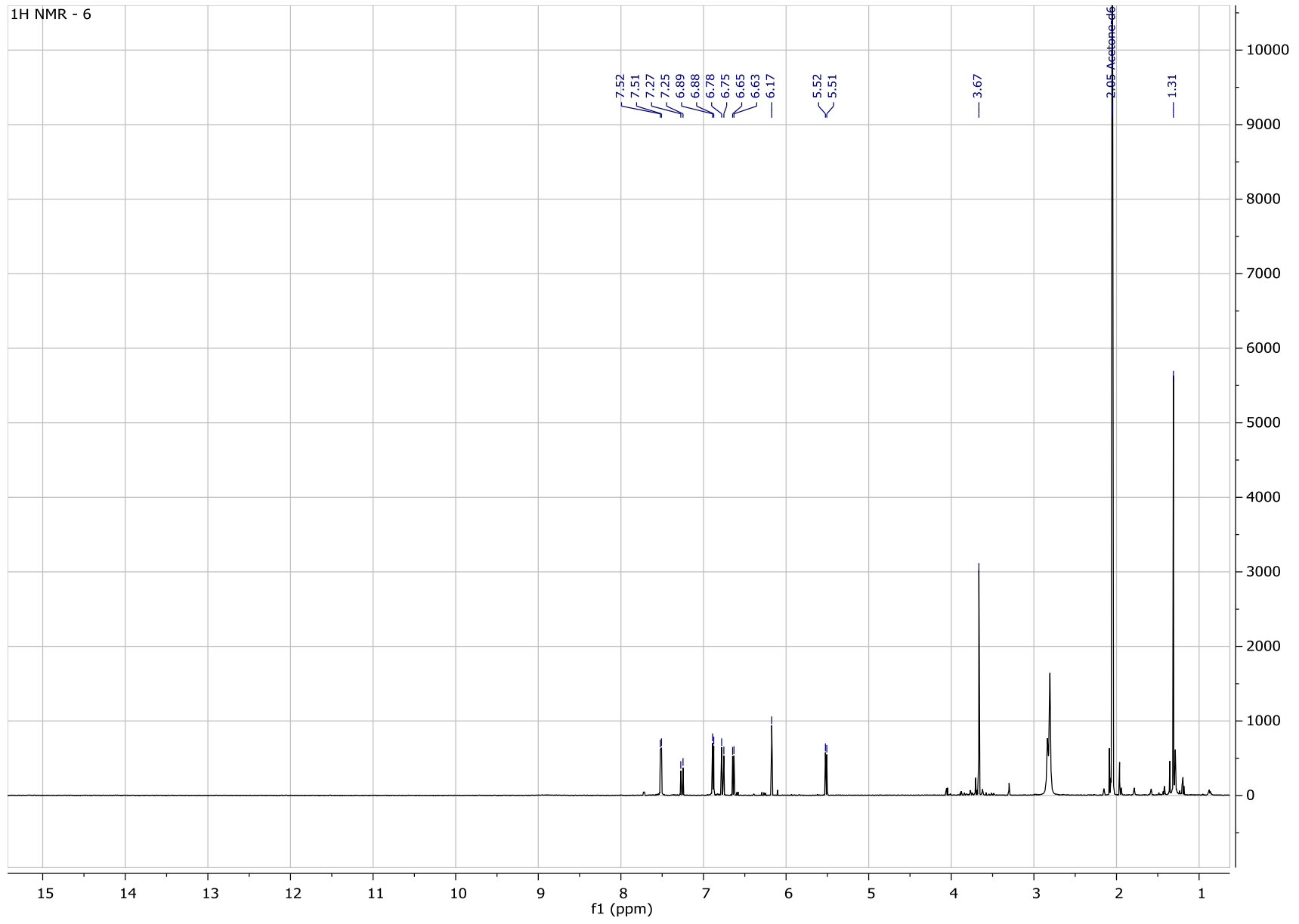


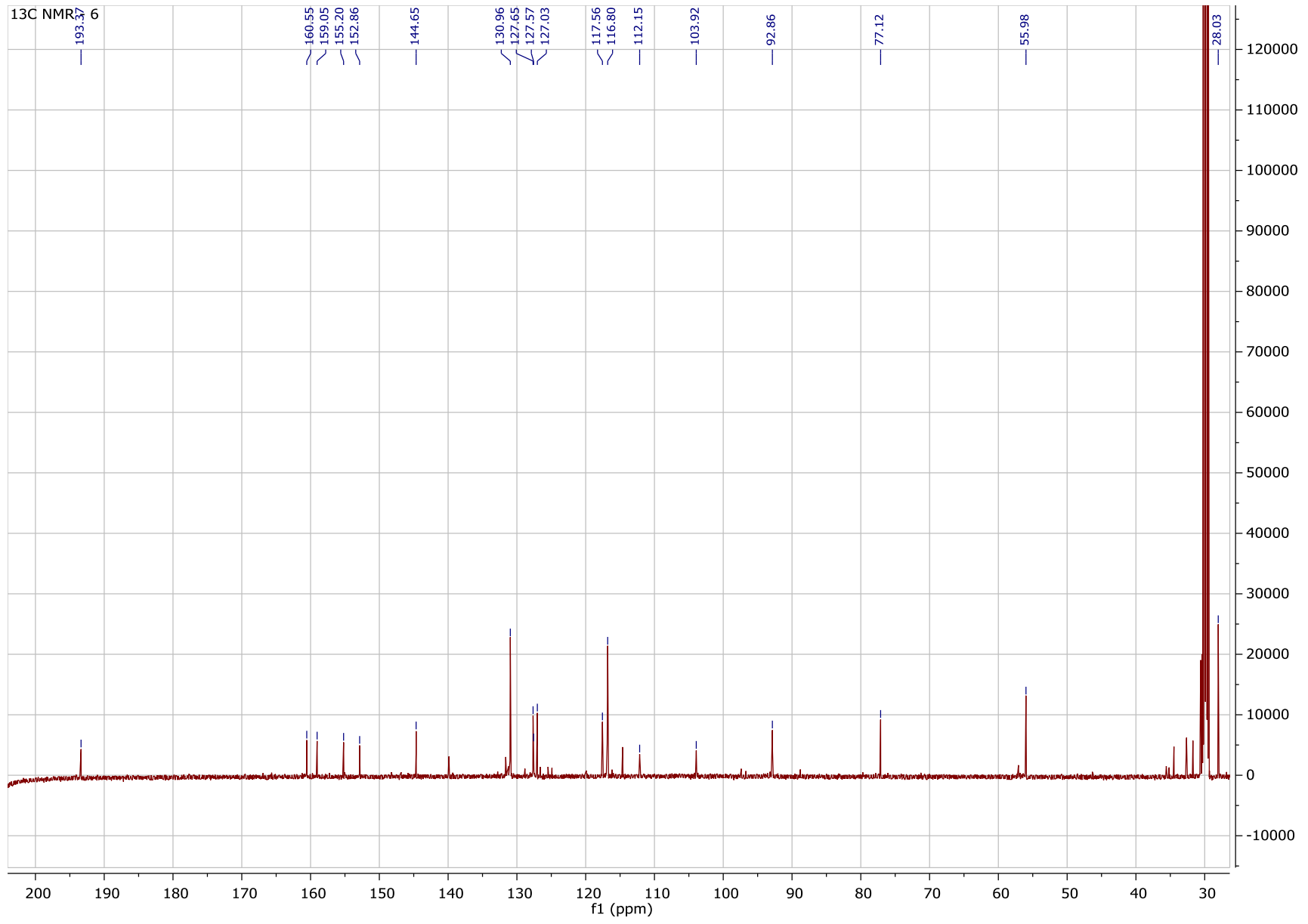


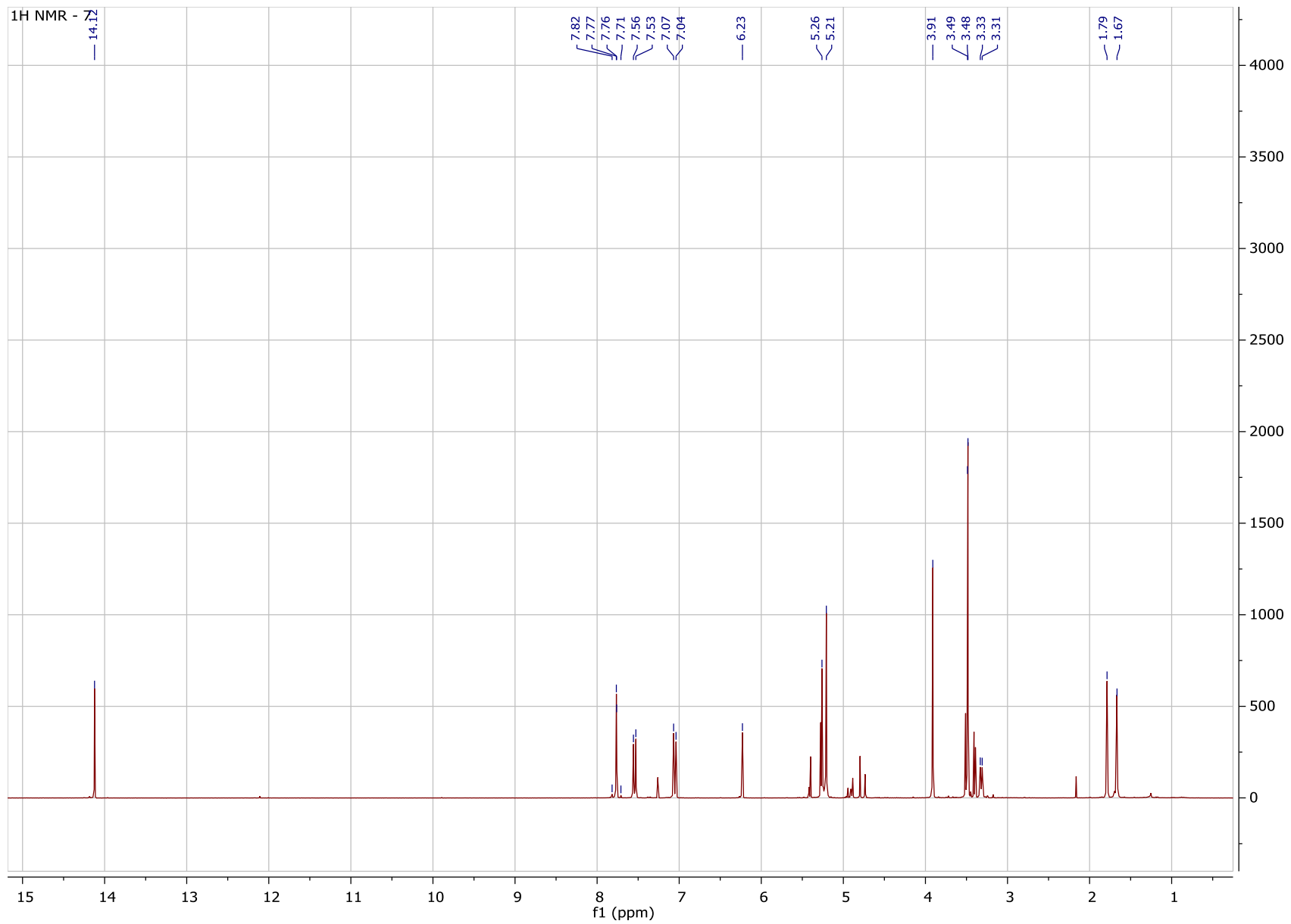


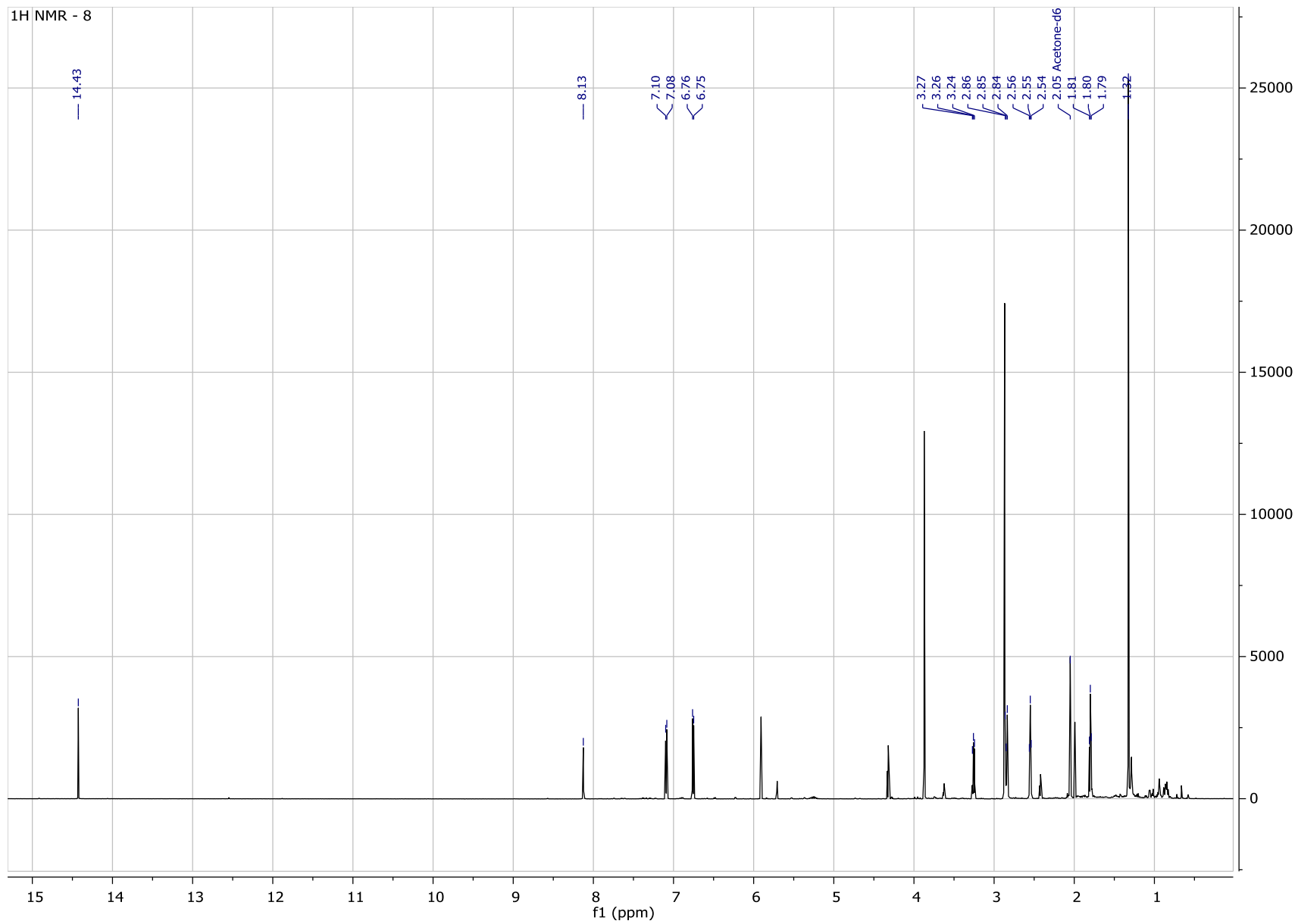


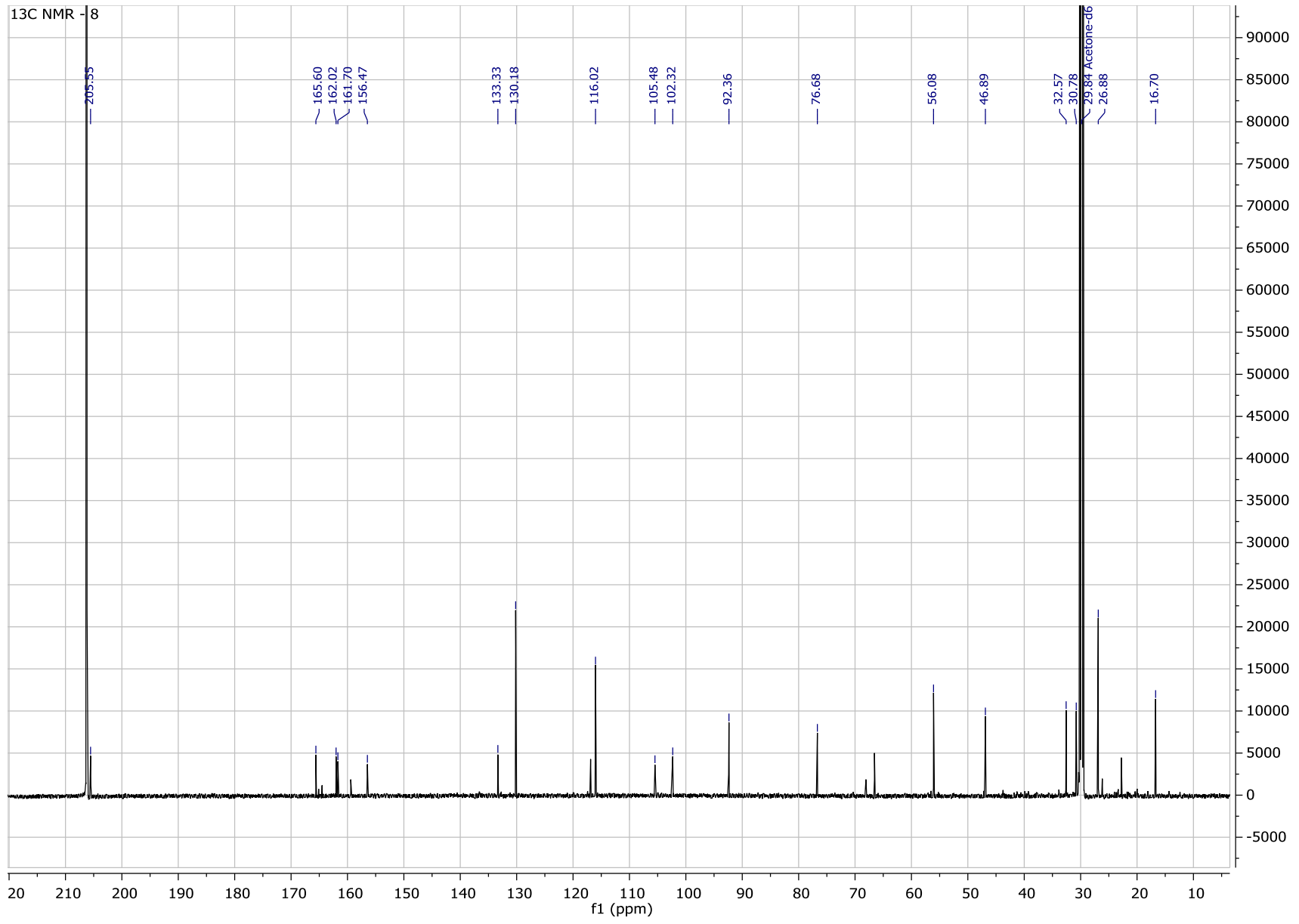
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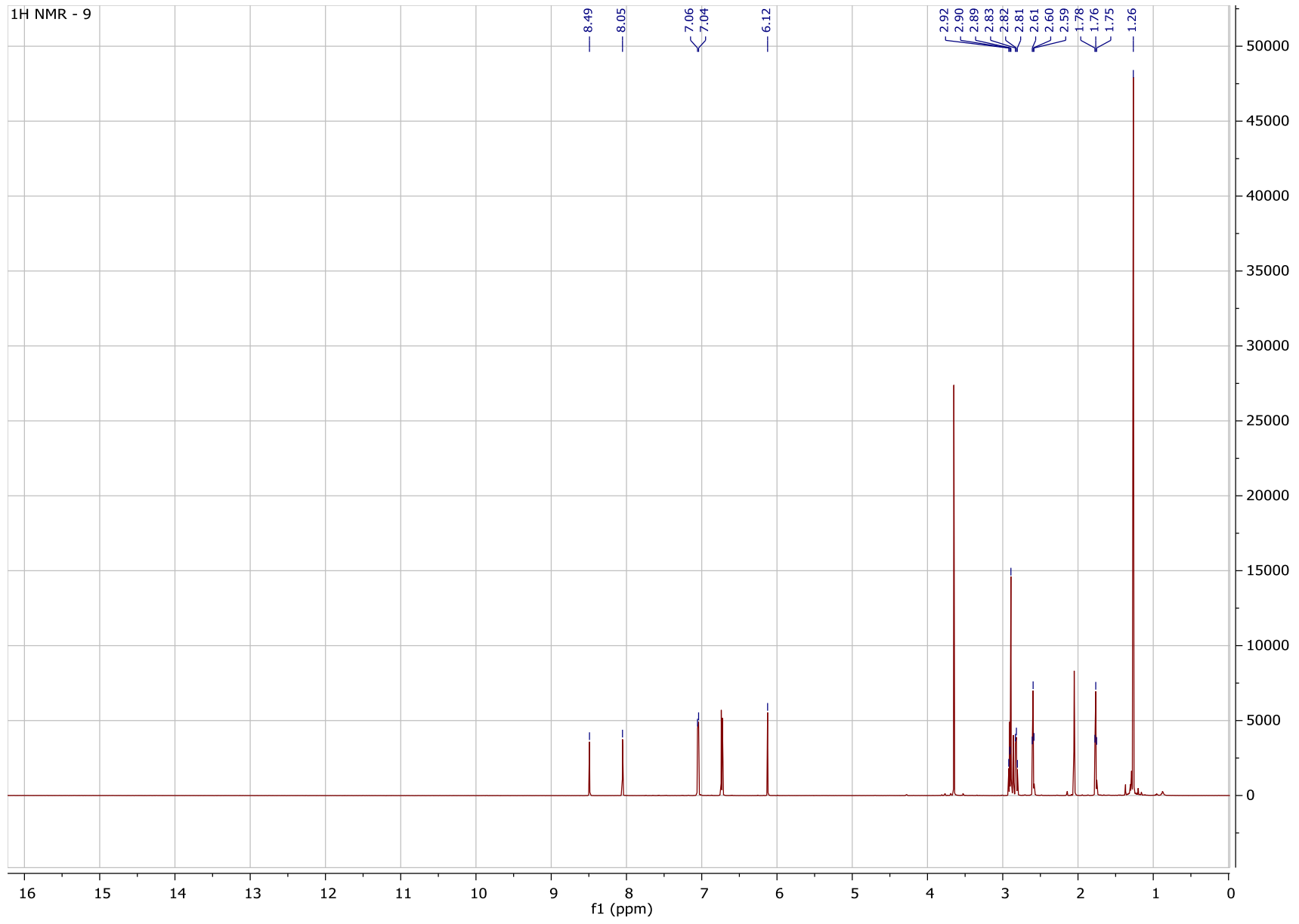


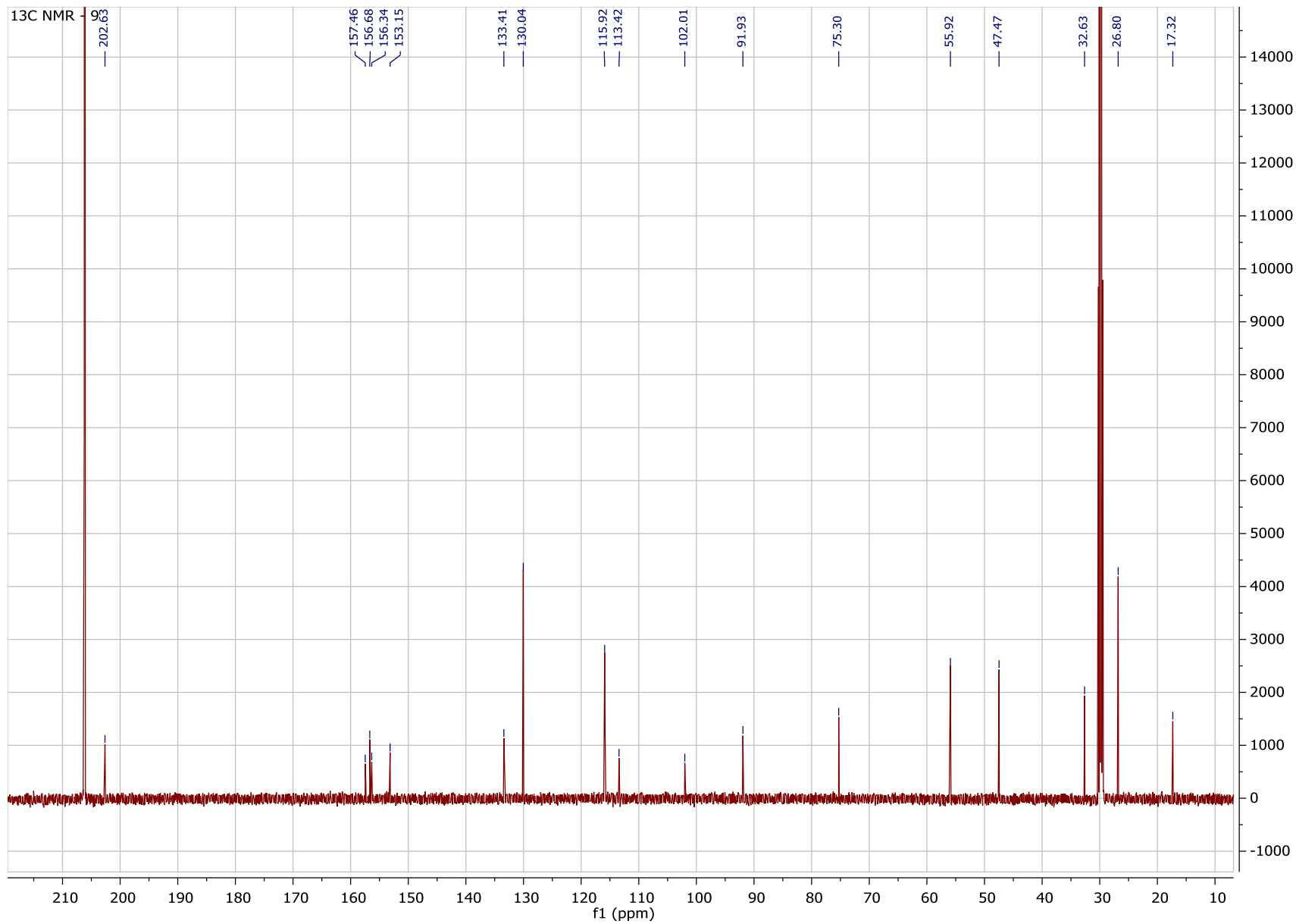




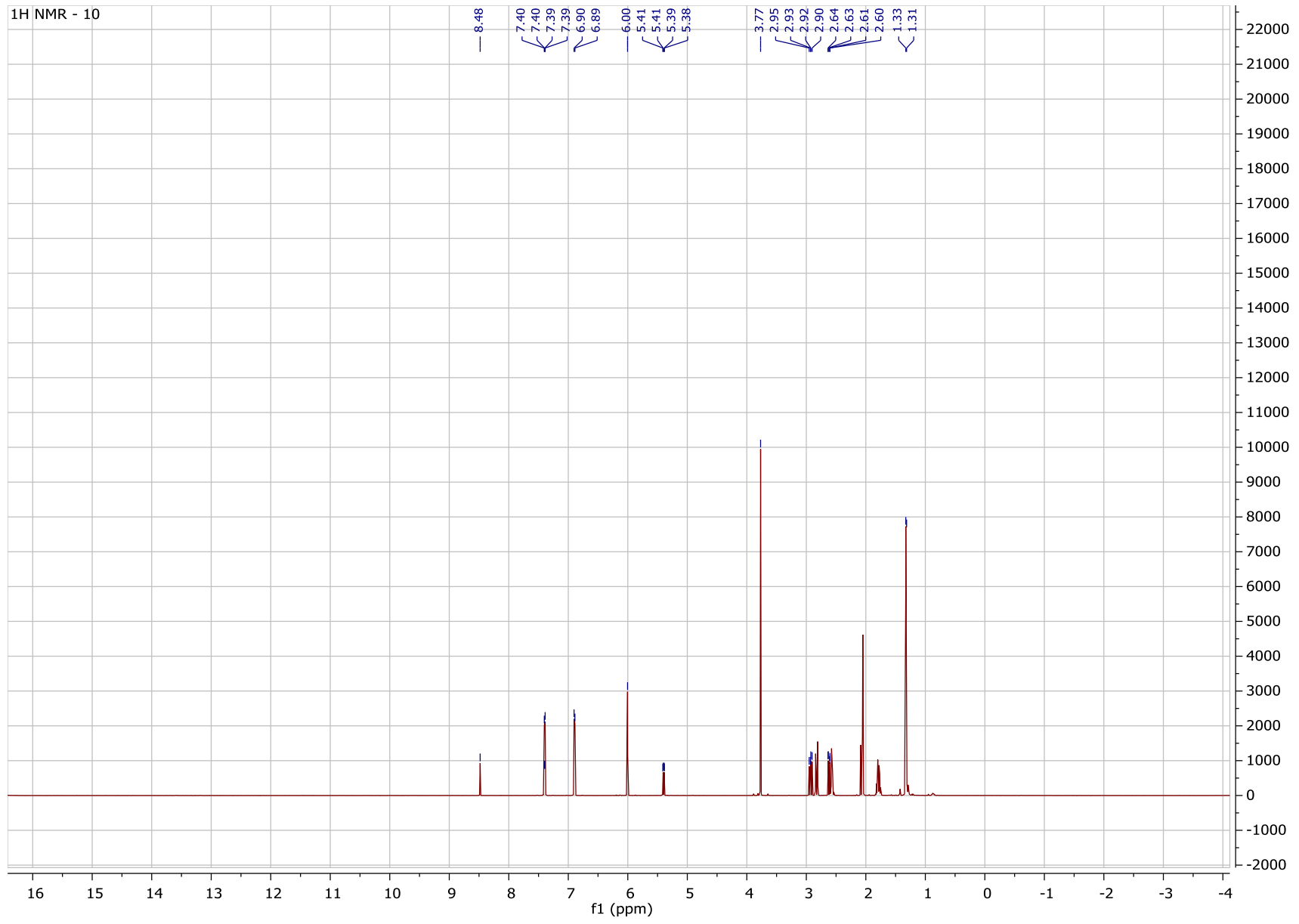


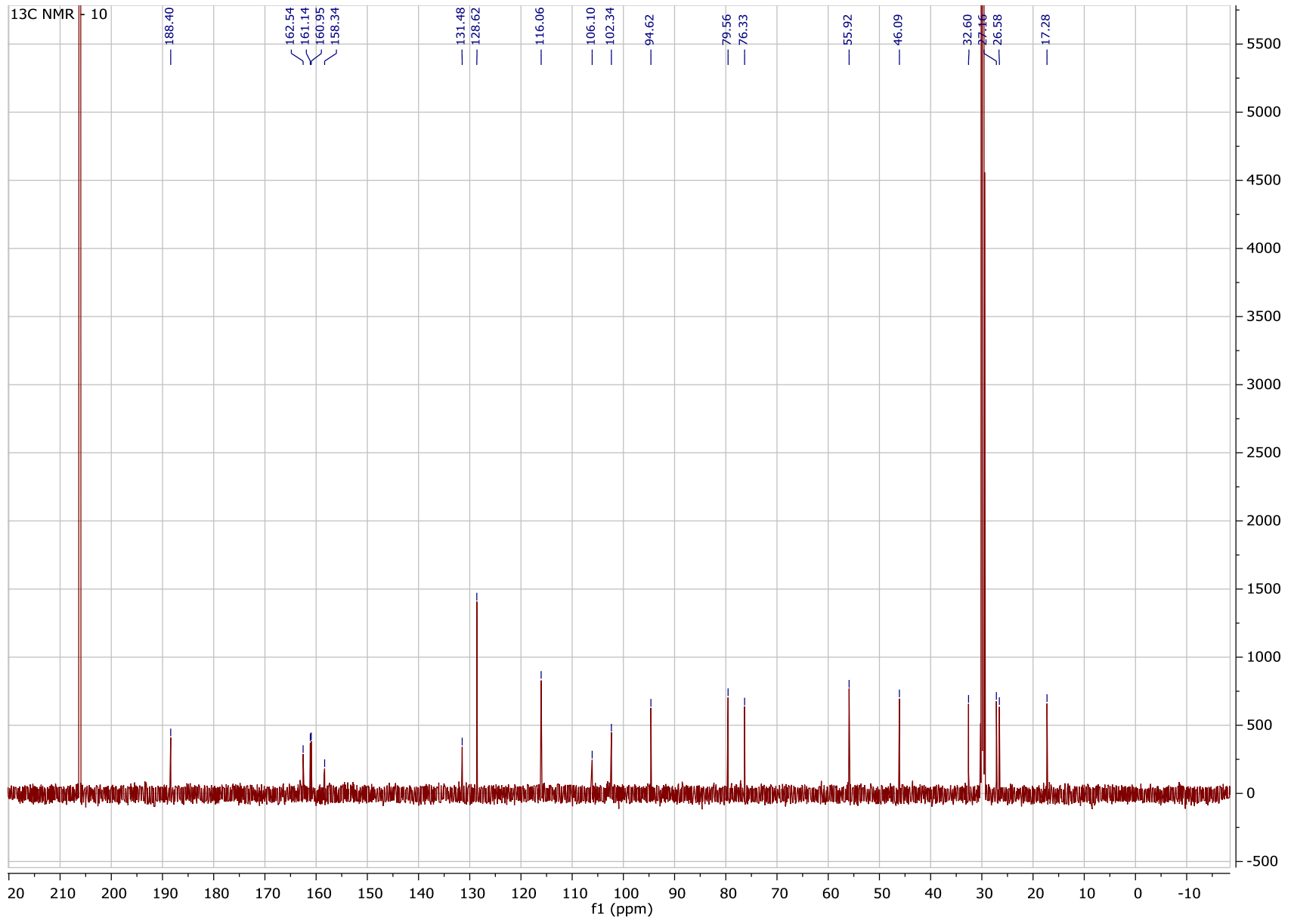




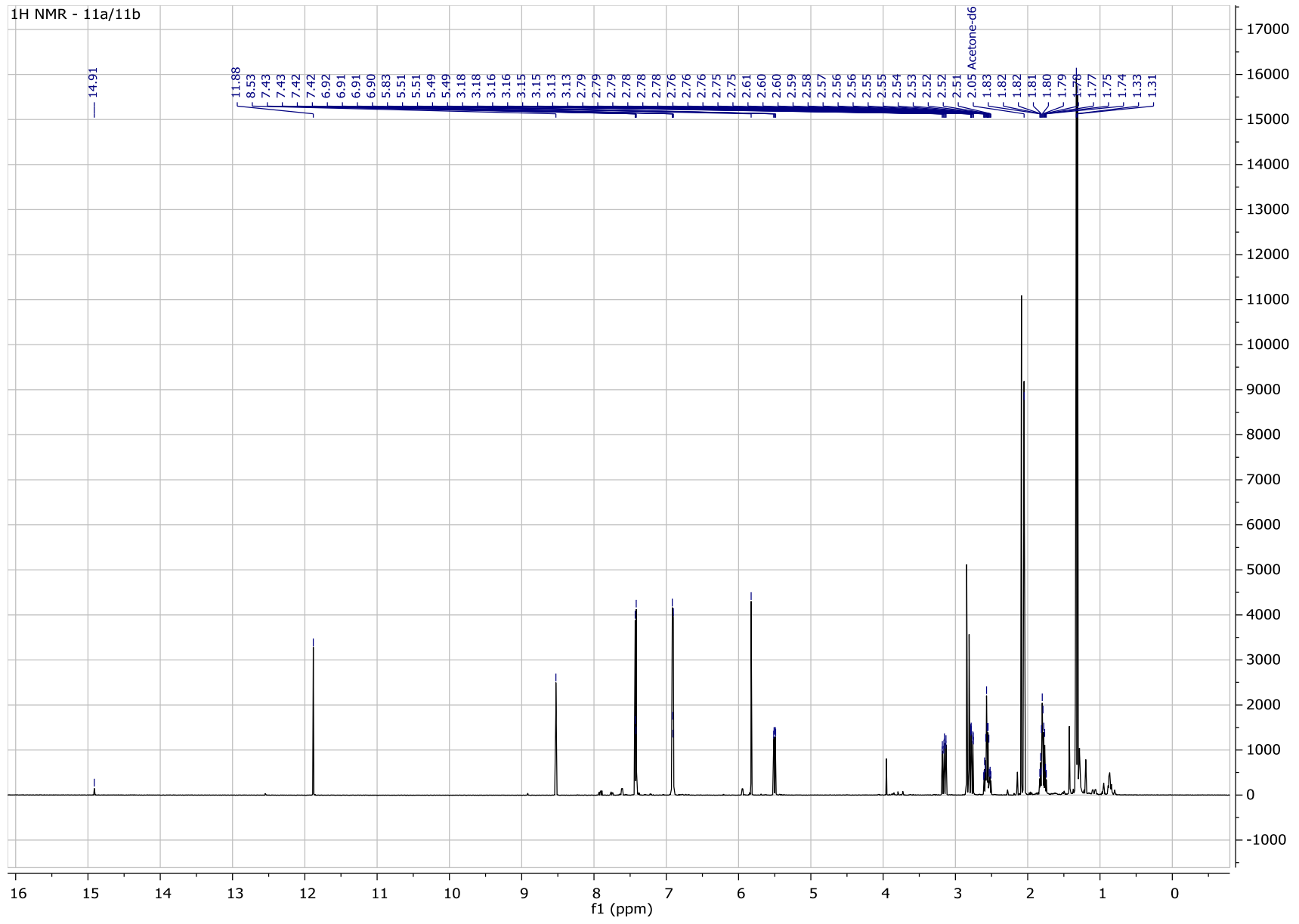


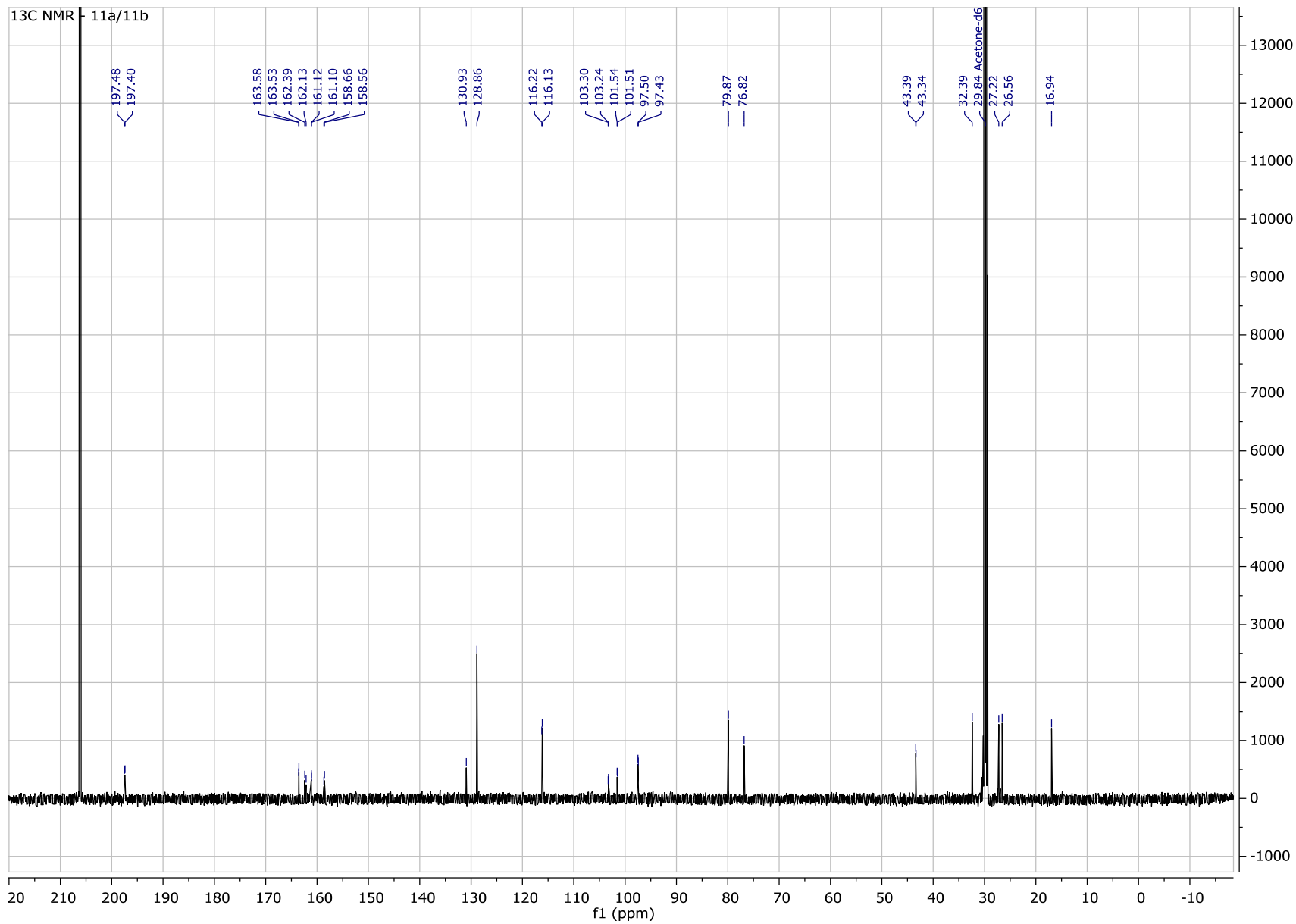
1H NMR - 10



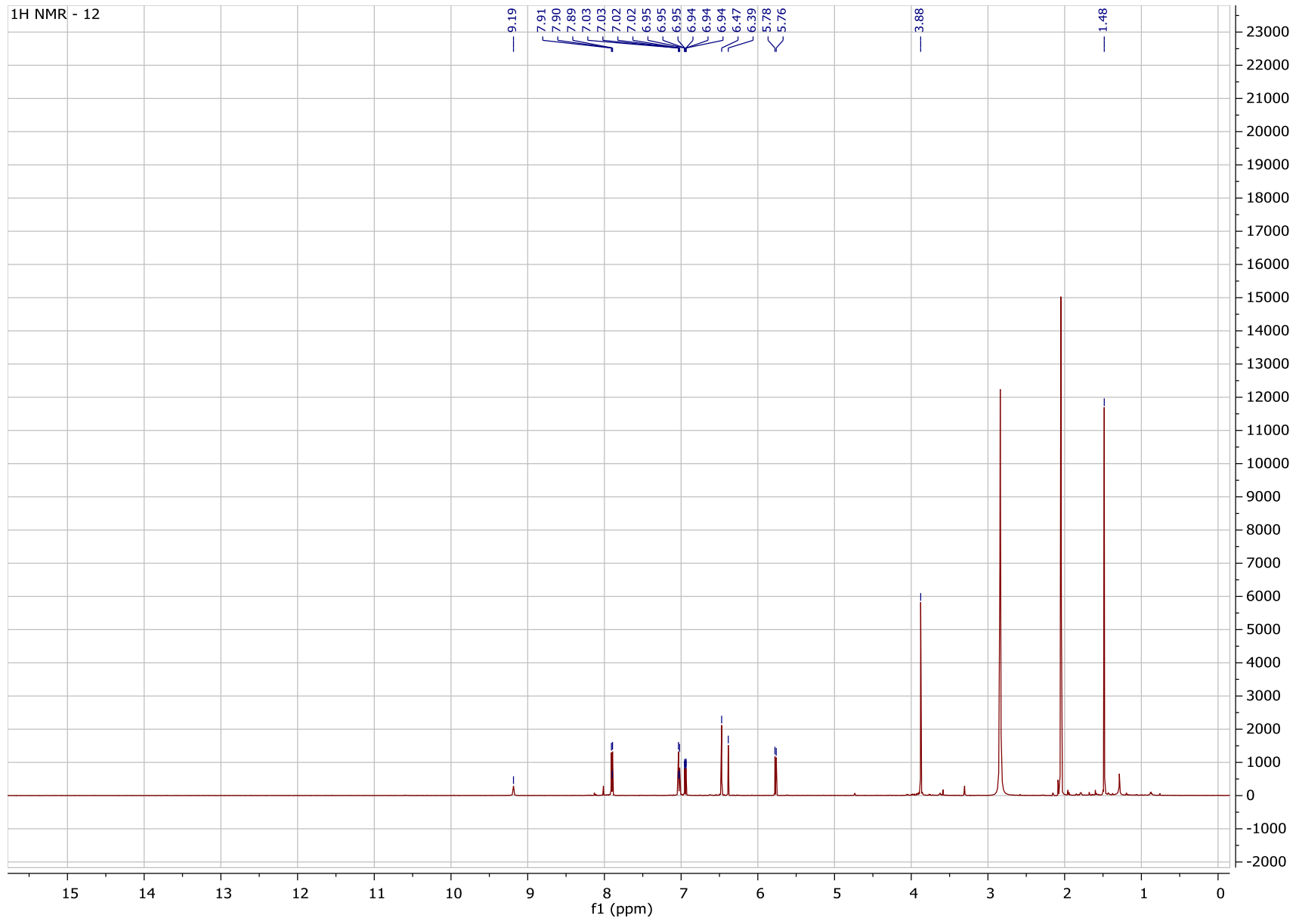


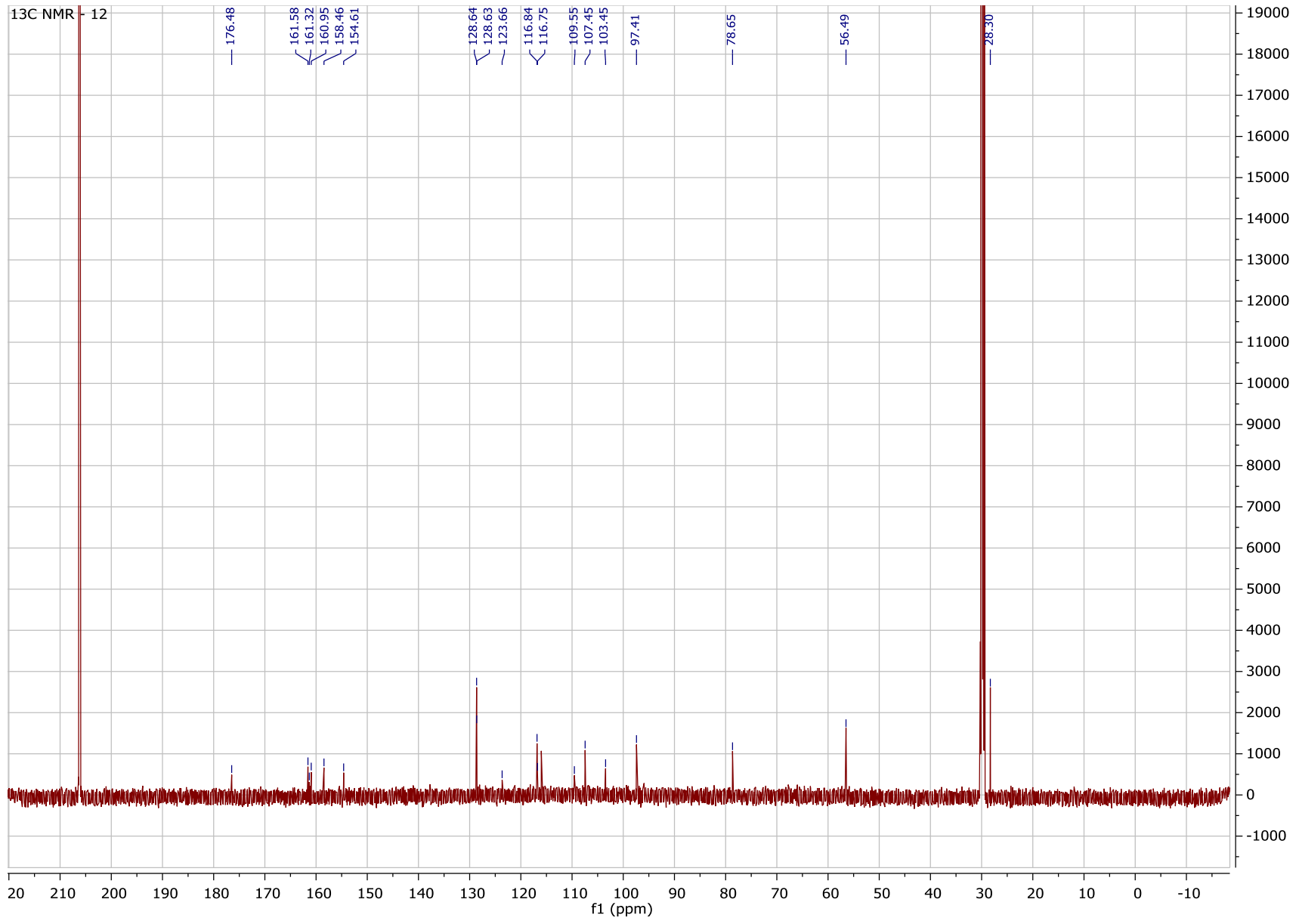
1H NMR - 11a/11b



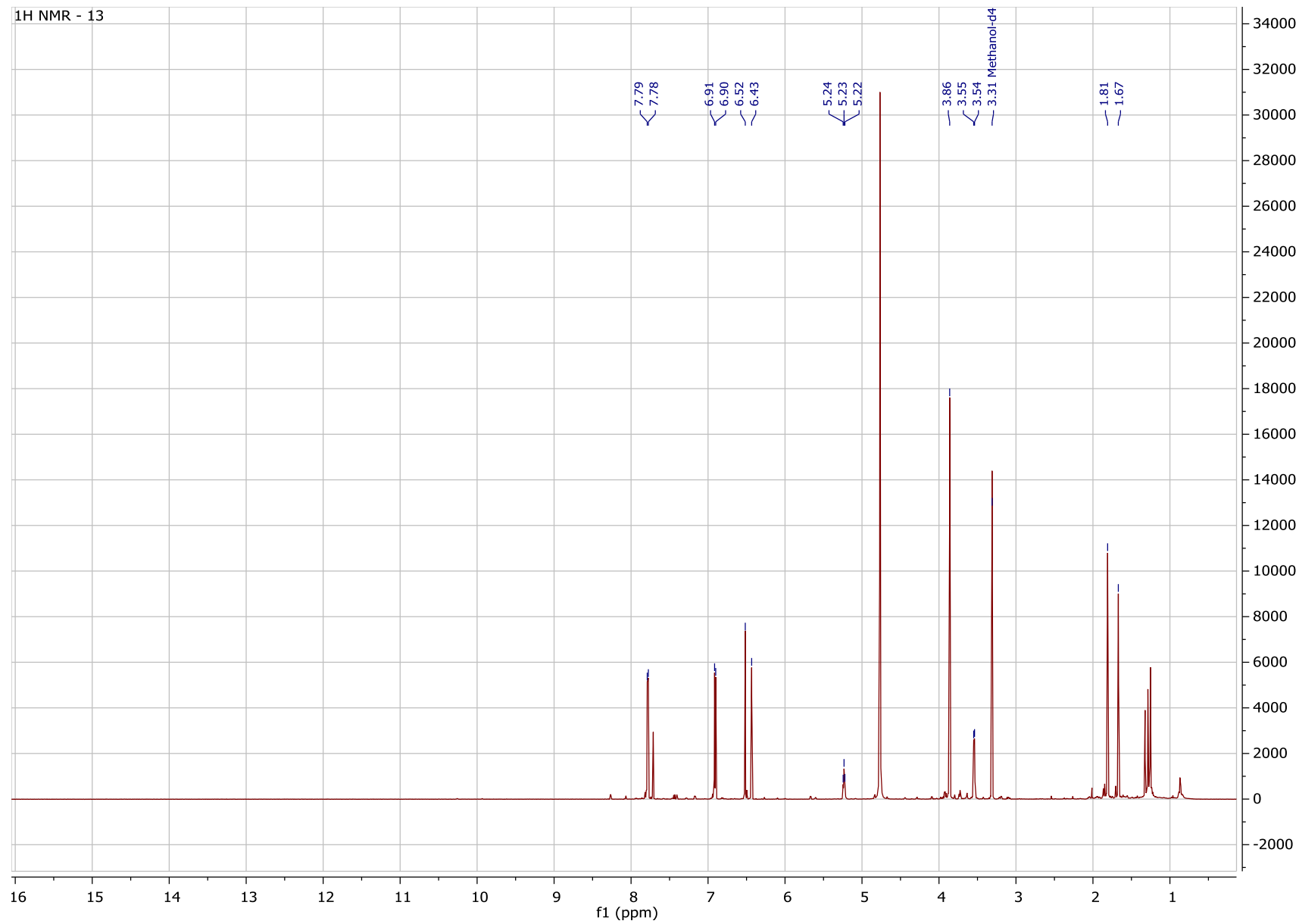


1H NMR - 12

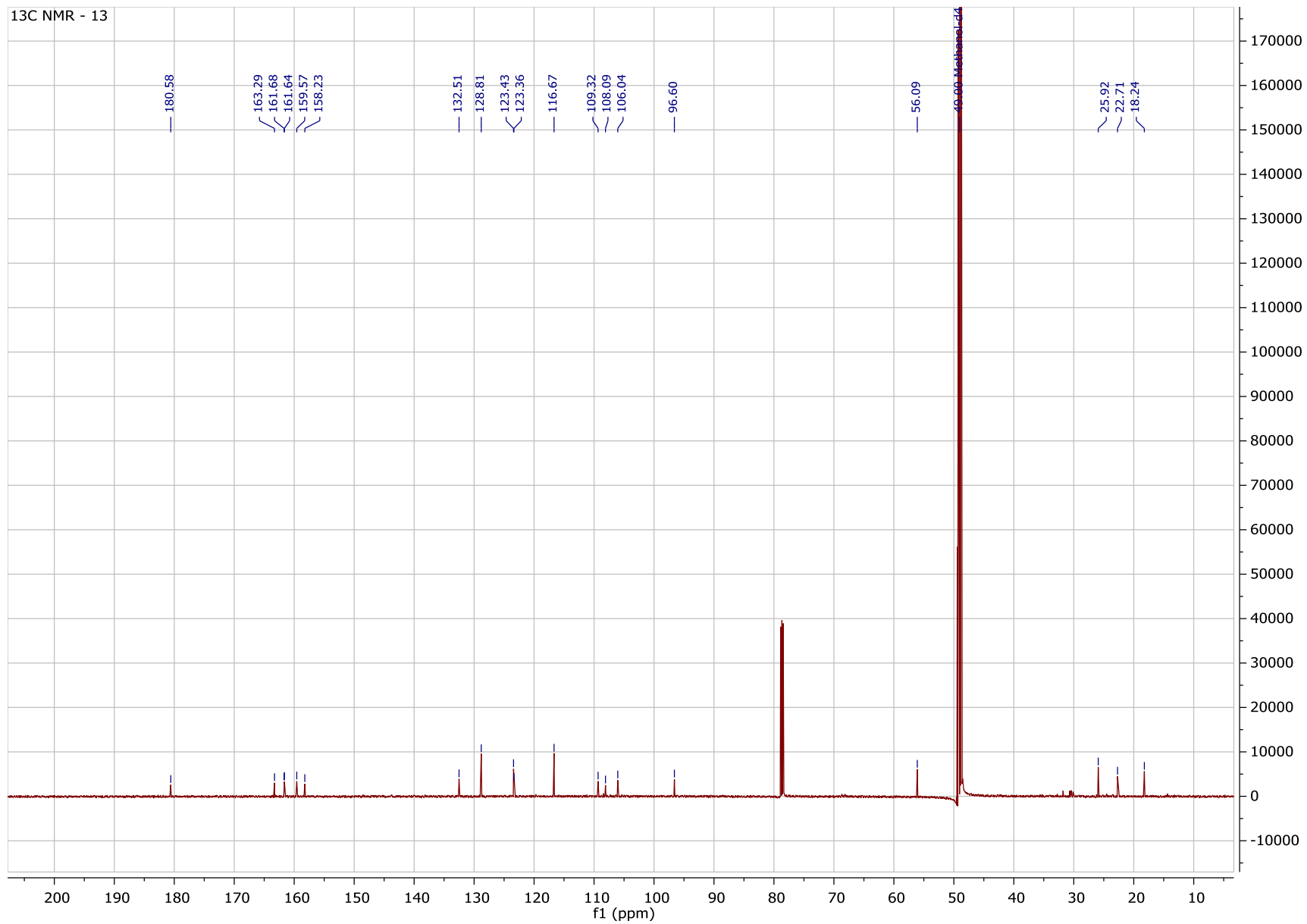




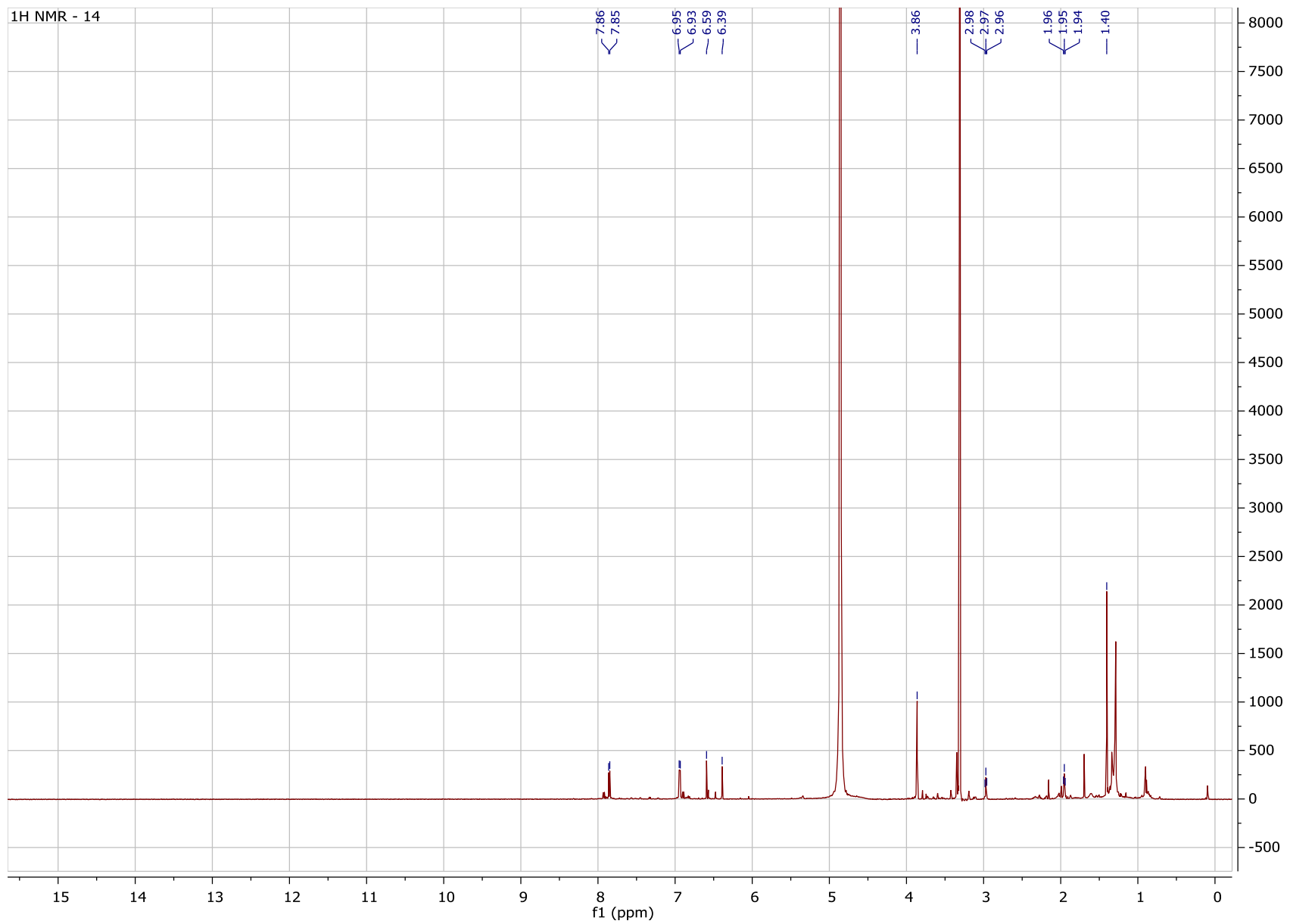
1H NMR - 13



13C NMR - 13



1H NMR - 14



¹³C NMR - 14

