

**Anti-SARS-CoV-2 and Cytotoxic Activity of Two Marine Alkaloids from Green Alga *Caulerpa cylindracea* Sonder in the Dardanelles**

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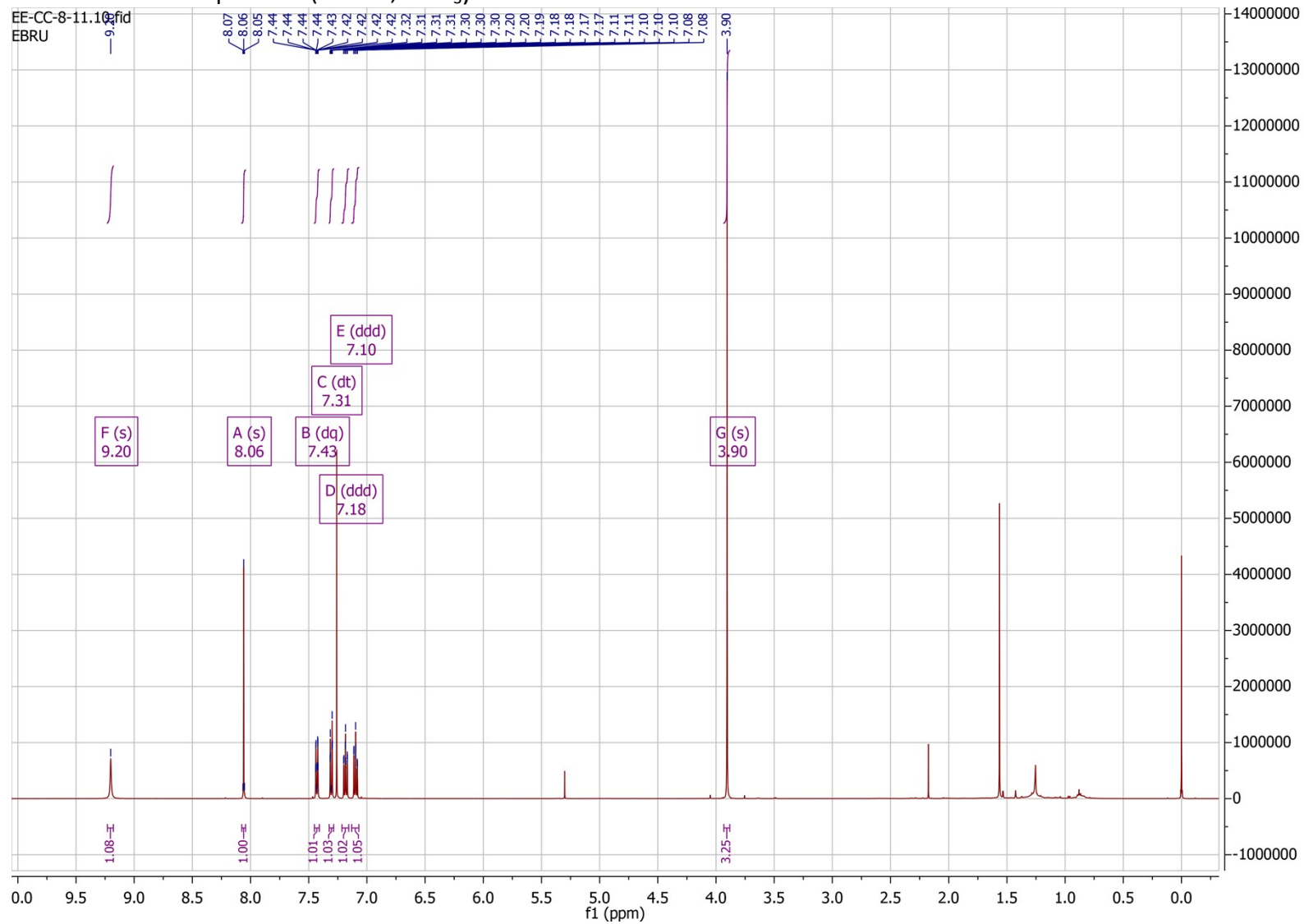
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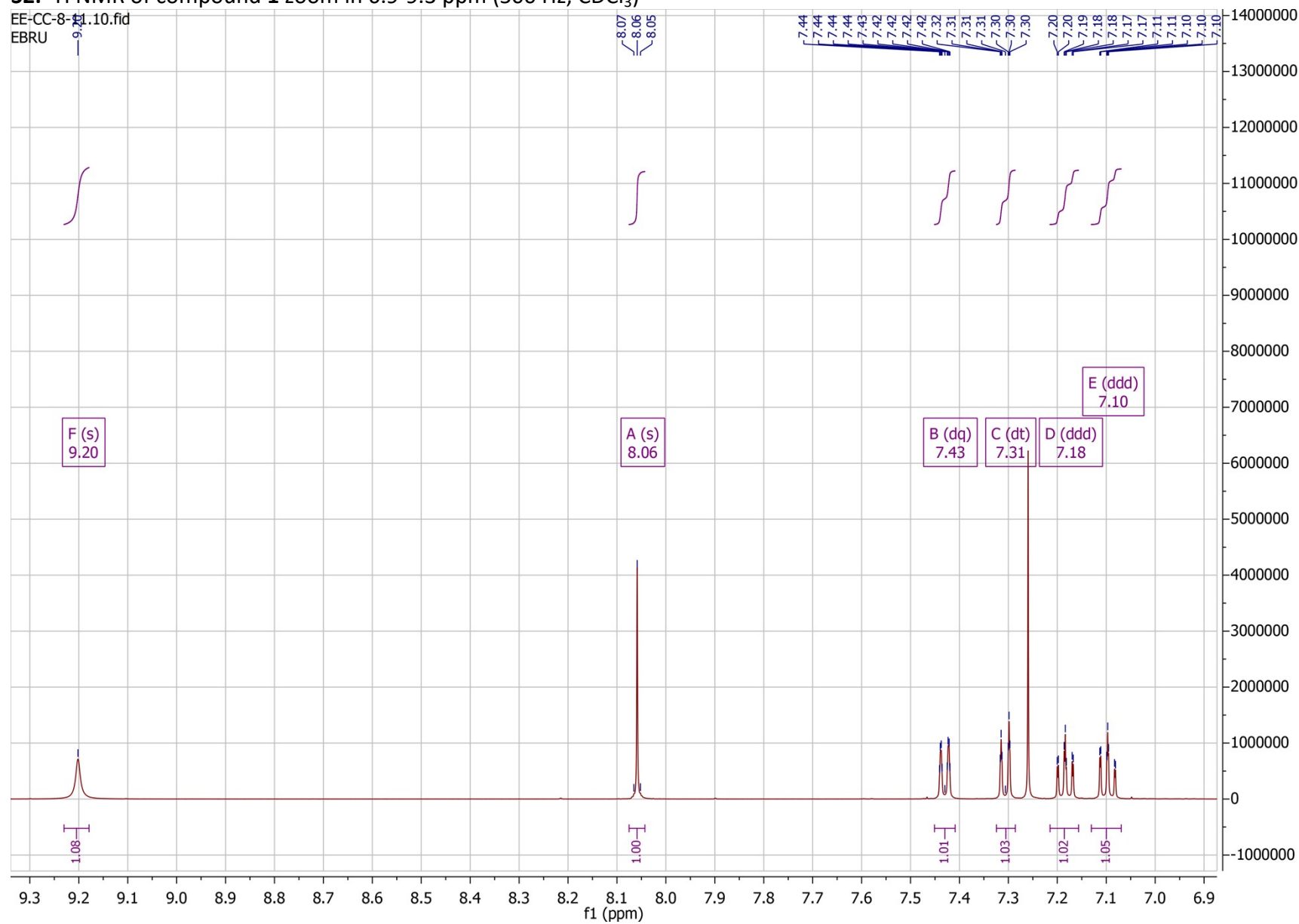
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S1: <sup>1</sup>H NMR of compound 1 (500 Hz, CDCl<sub>3</sub>)



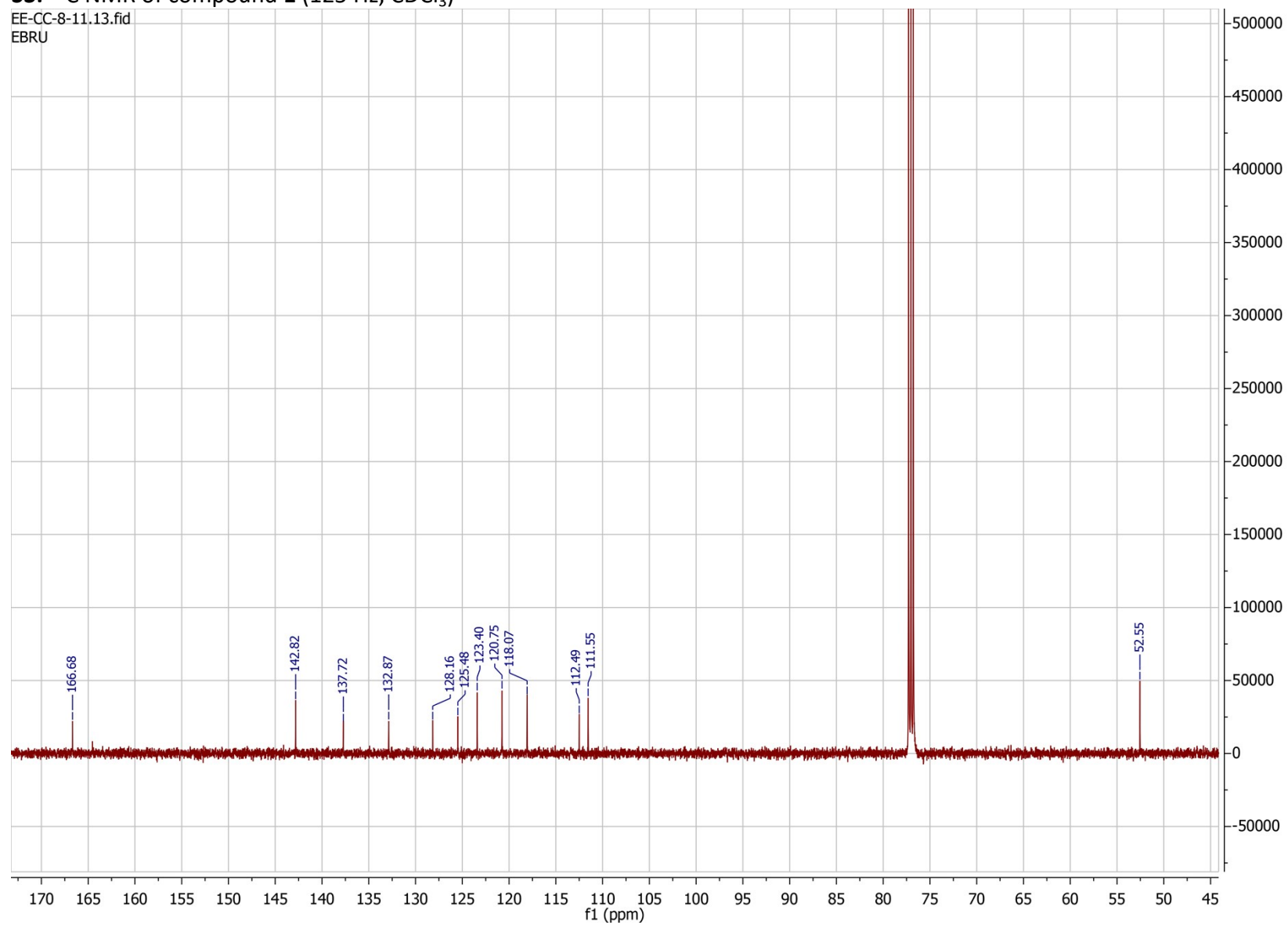
S2: <sup>1</sup>H NMR of compound 1 zoom in 6.9-9.3 ppm (500 Hz, CDCl<sub>3</sub>)

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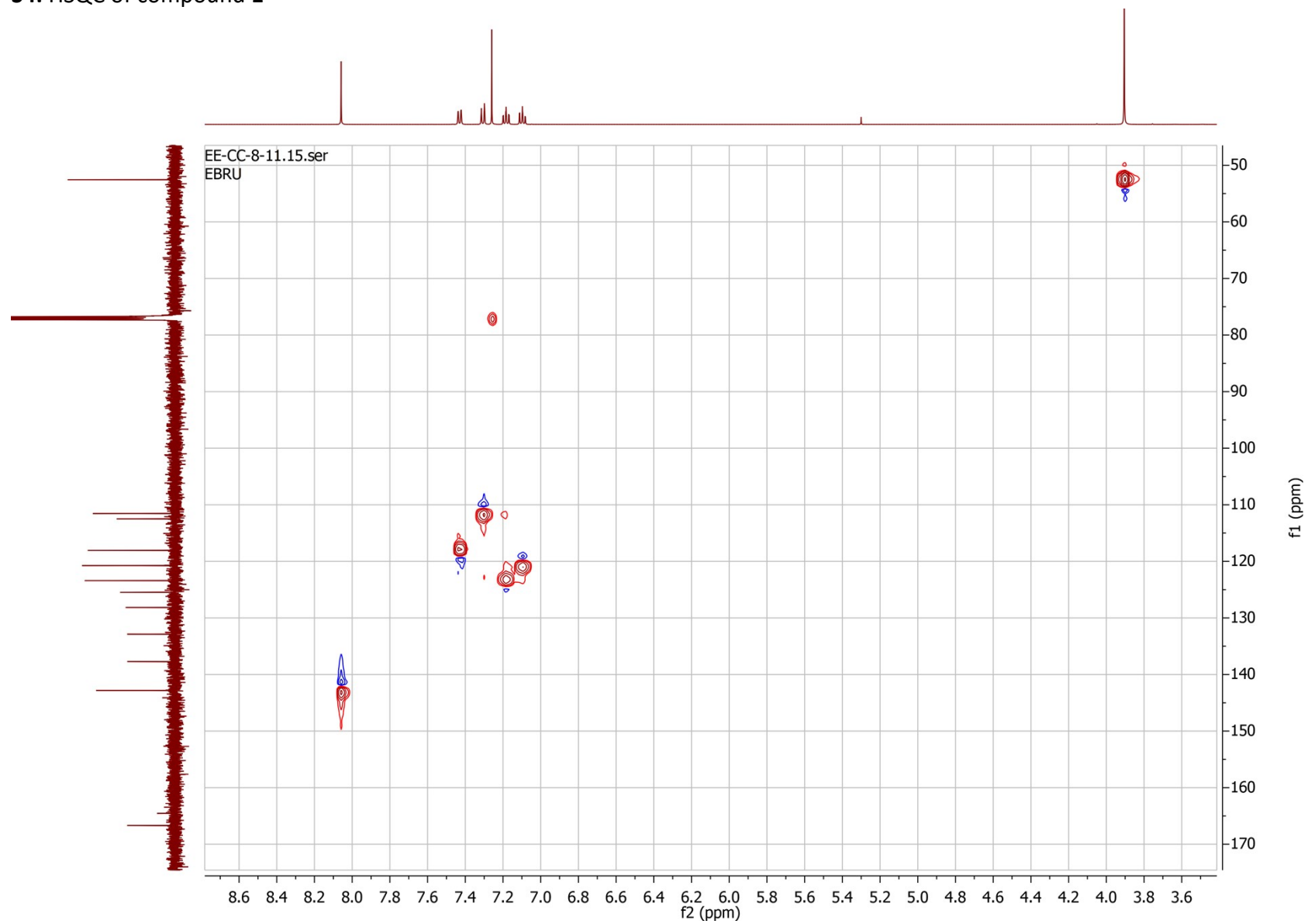


**S3:**  $^{13}\text{C}$  NMR of compound **1** (125 Hz,  $\text{CDCl}_3$ )

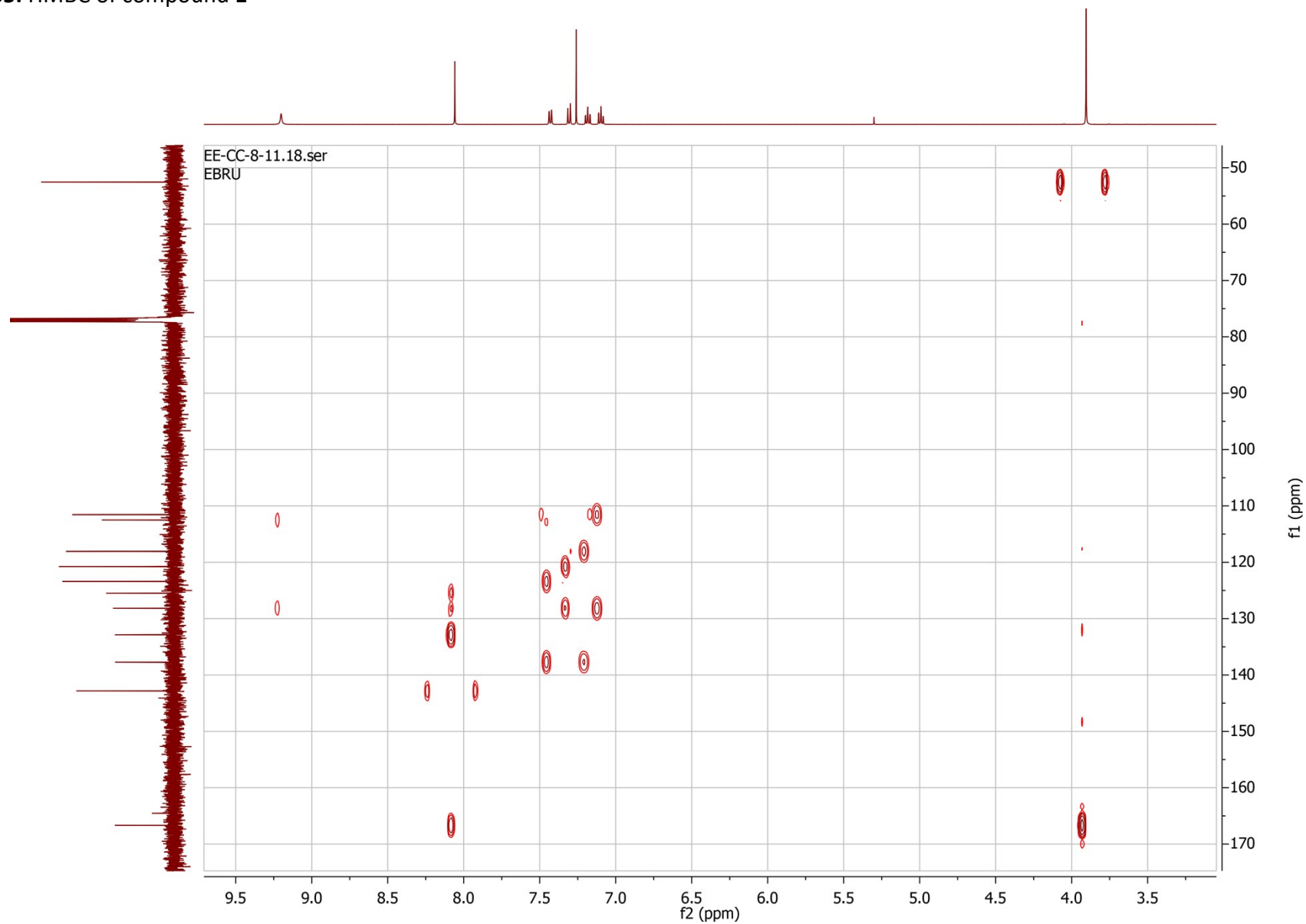
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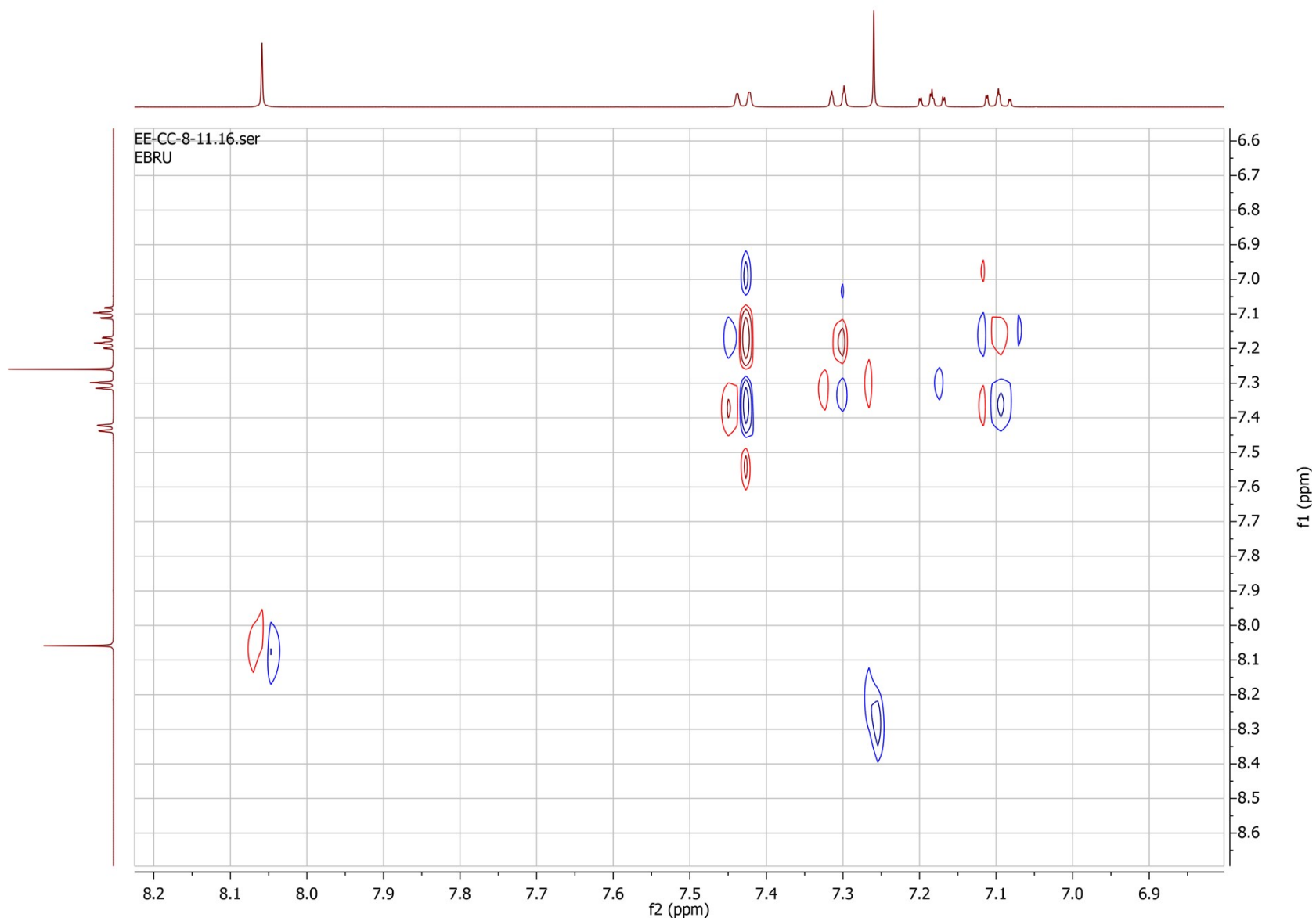
S4: HSQC of compound 1



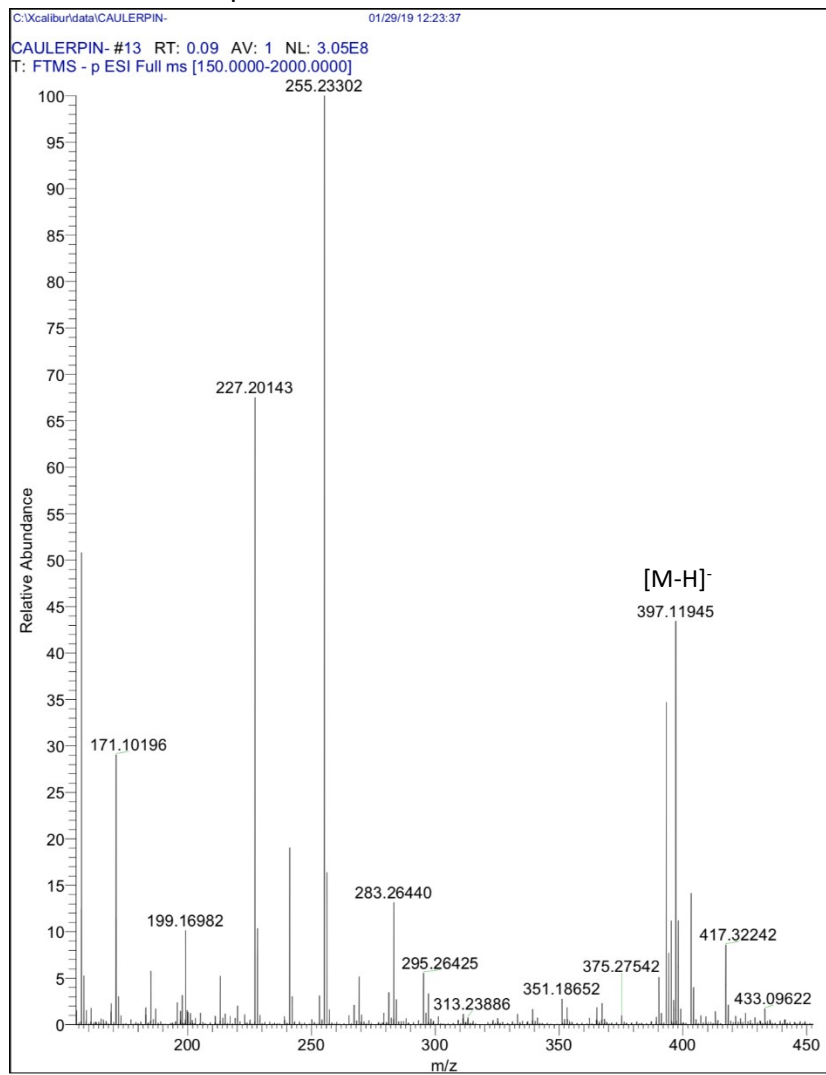
S5: HMBC of compound 1



S6: COSY of compound 1

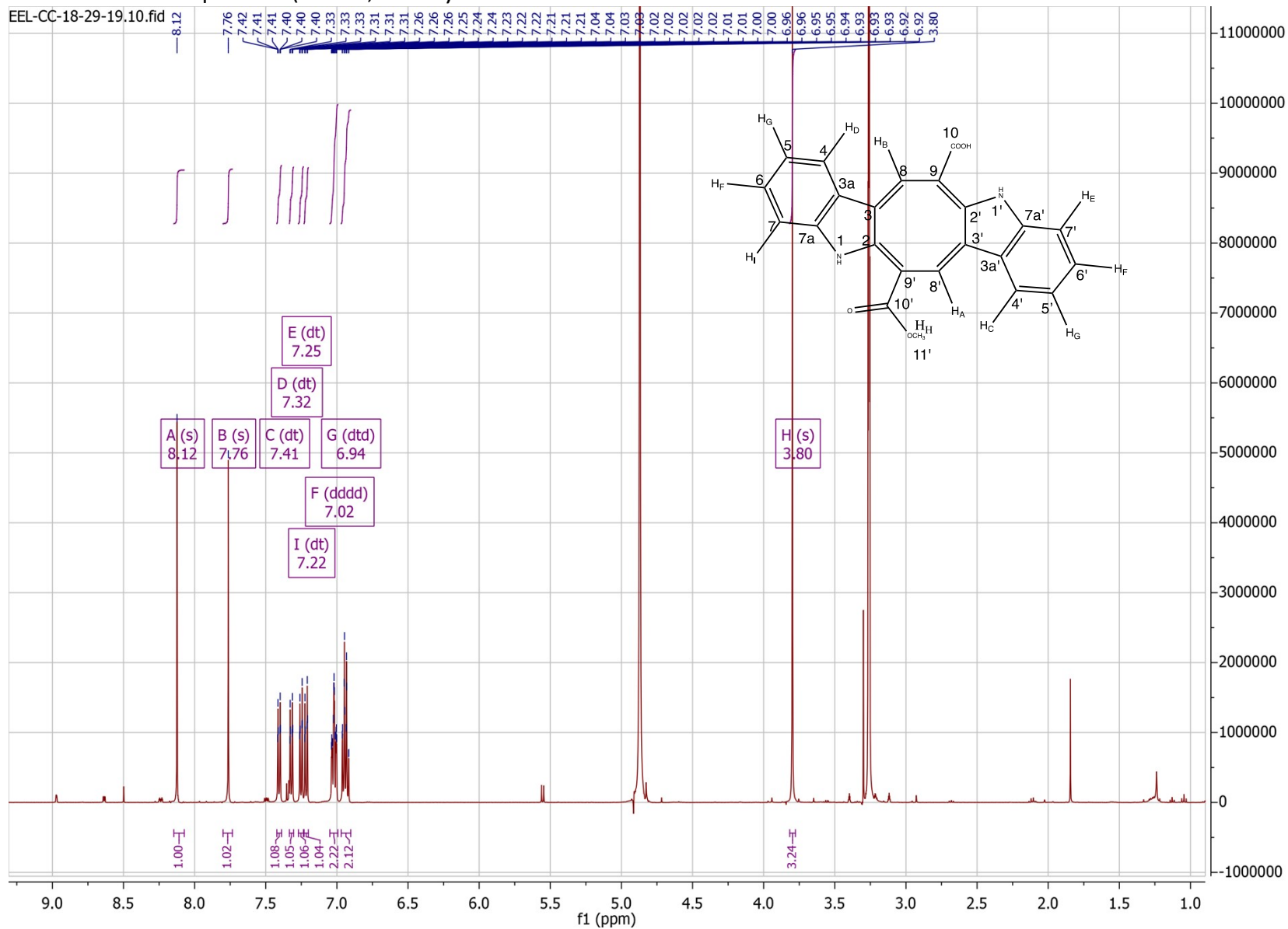


## S7: HRMS of compound 1



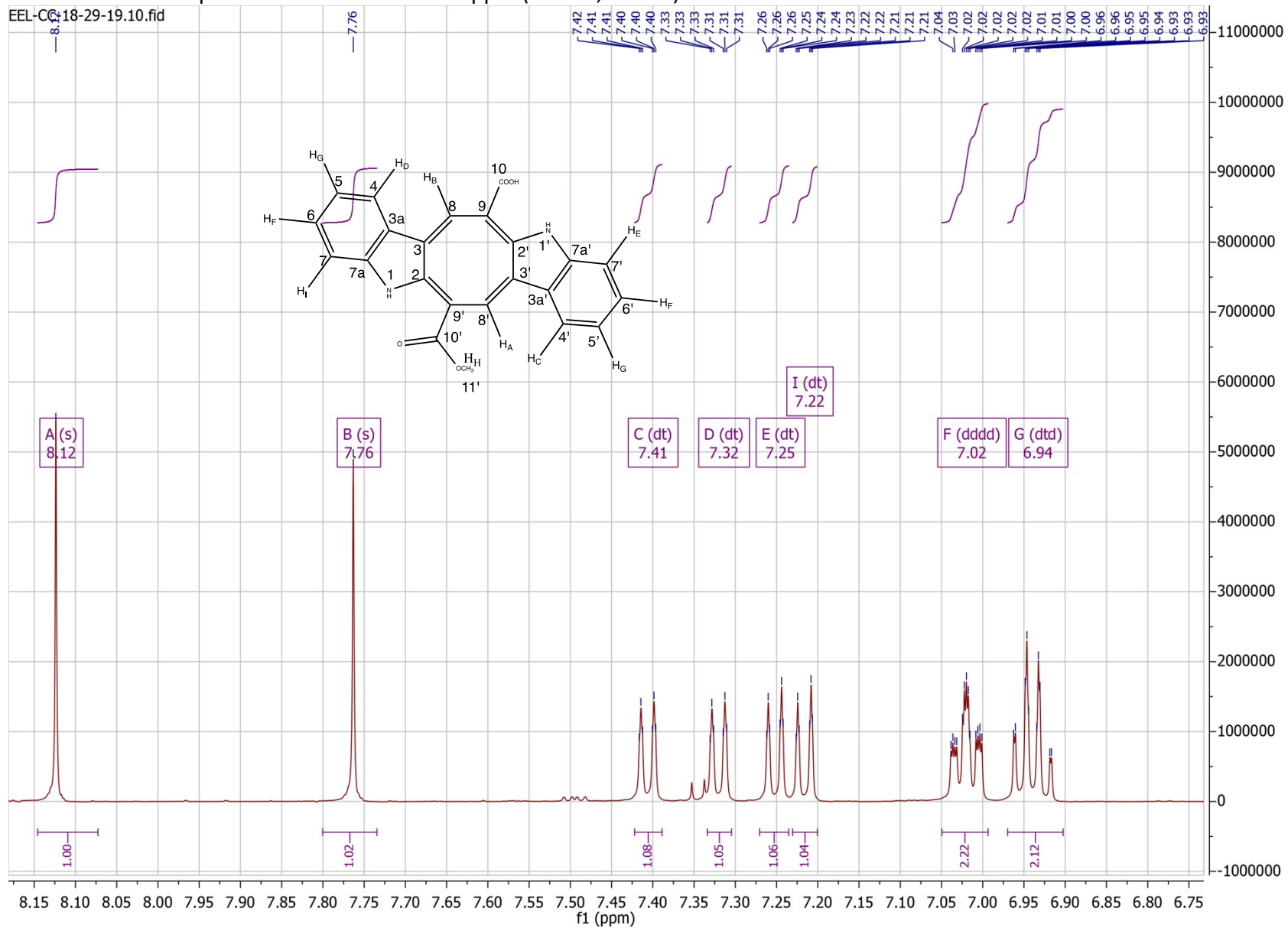


S8: <sup>1</sup>H NMR of compound 2 (500 Hz, MeOD)



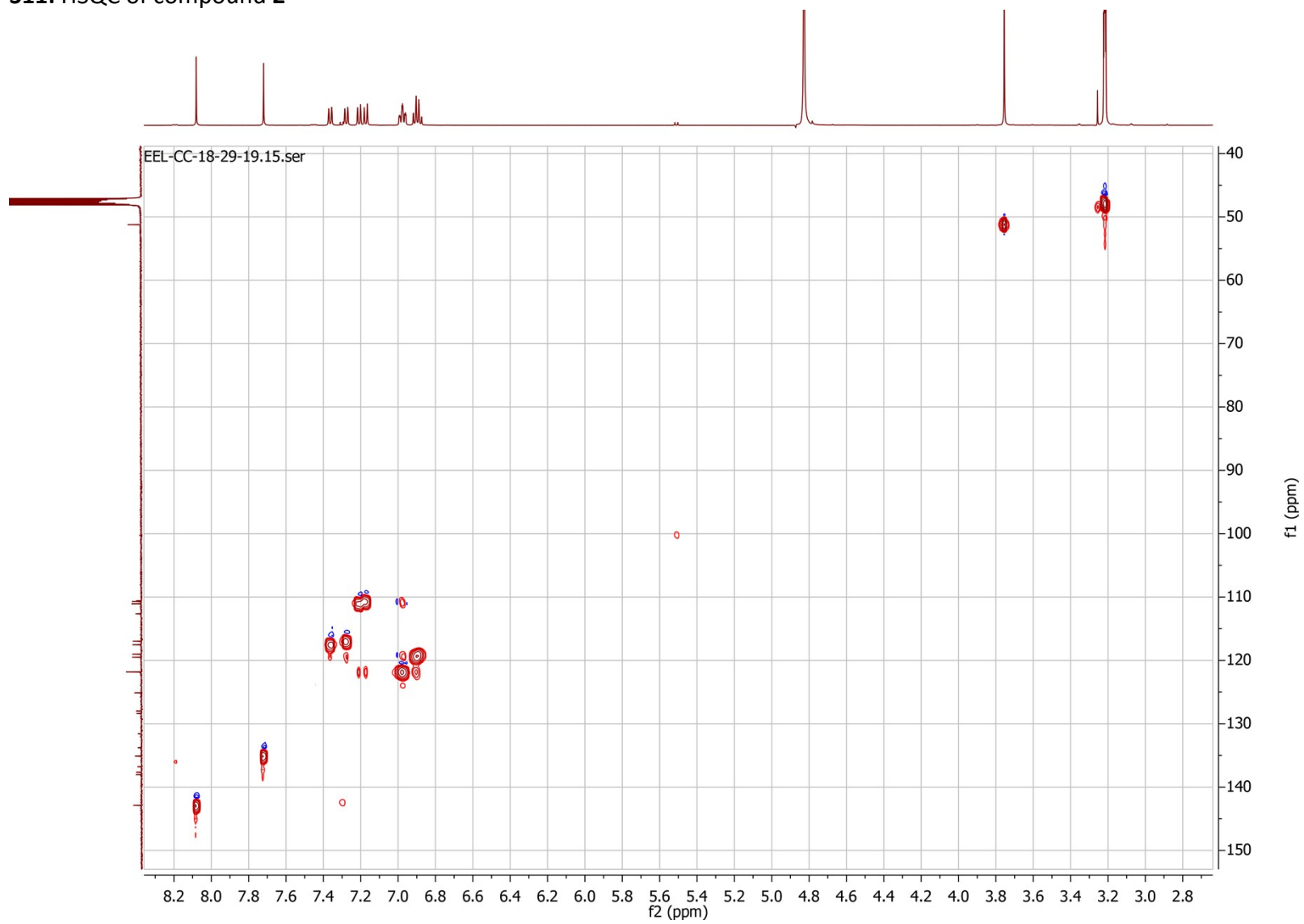
### S9: <sup>1</sup>H NMR of compound 2 zoom in 6.75-8.15 ppm (500 Hz, MeOD)

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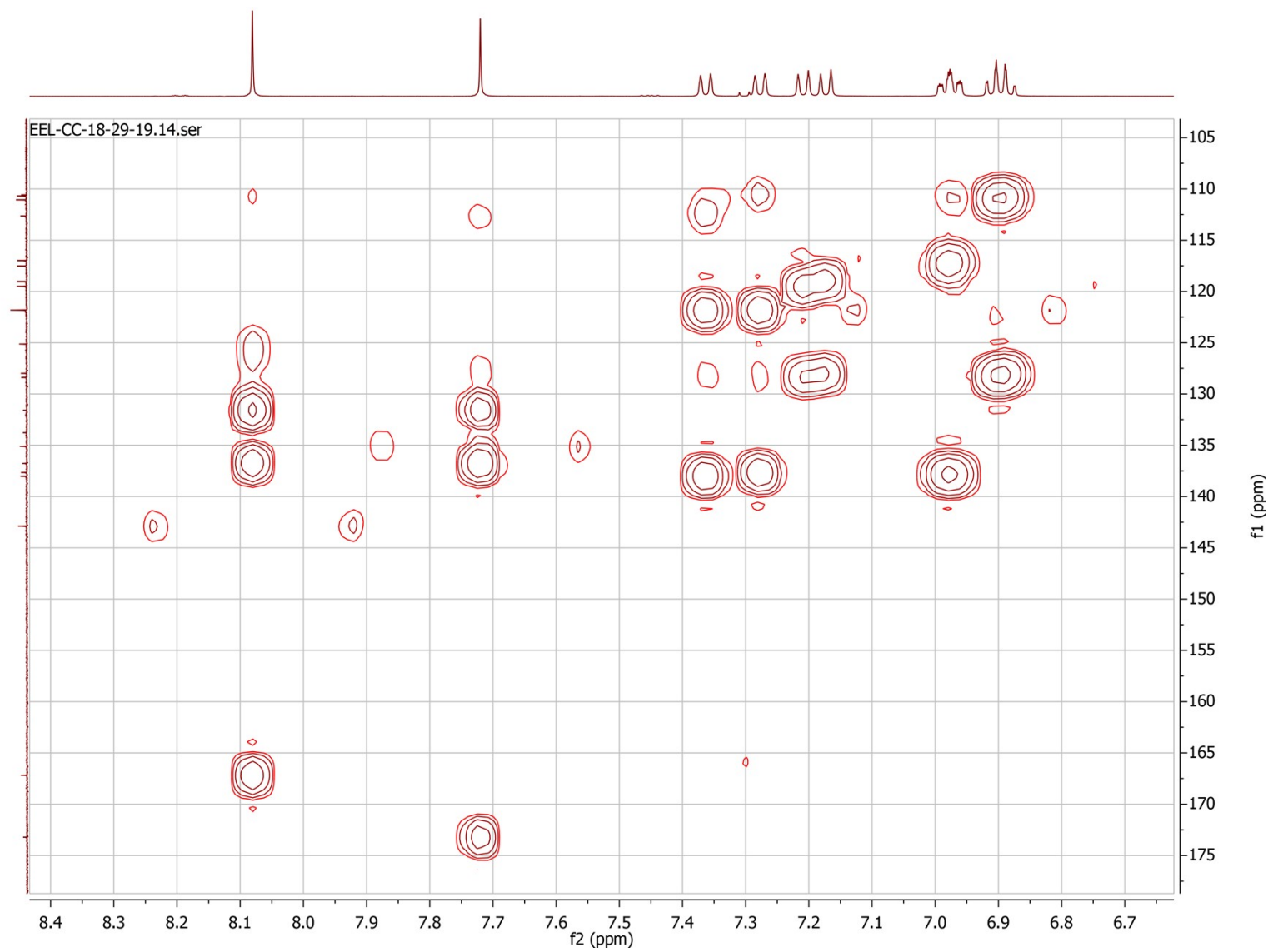




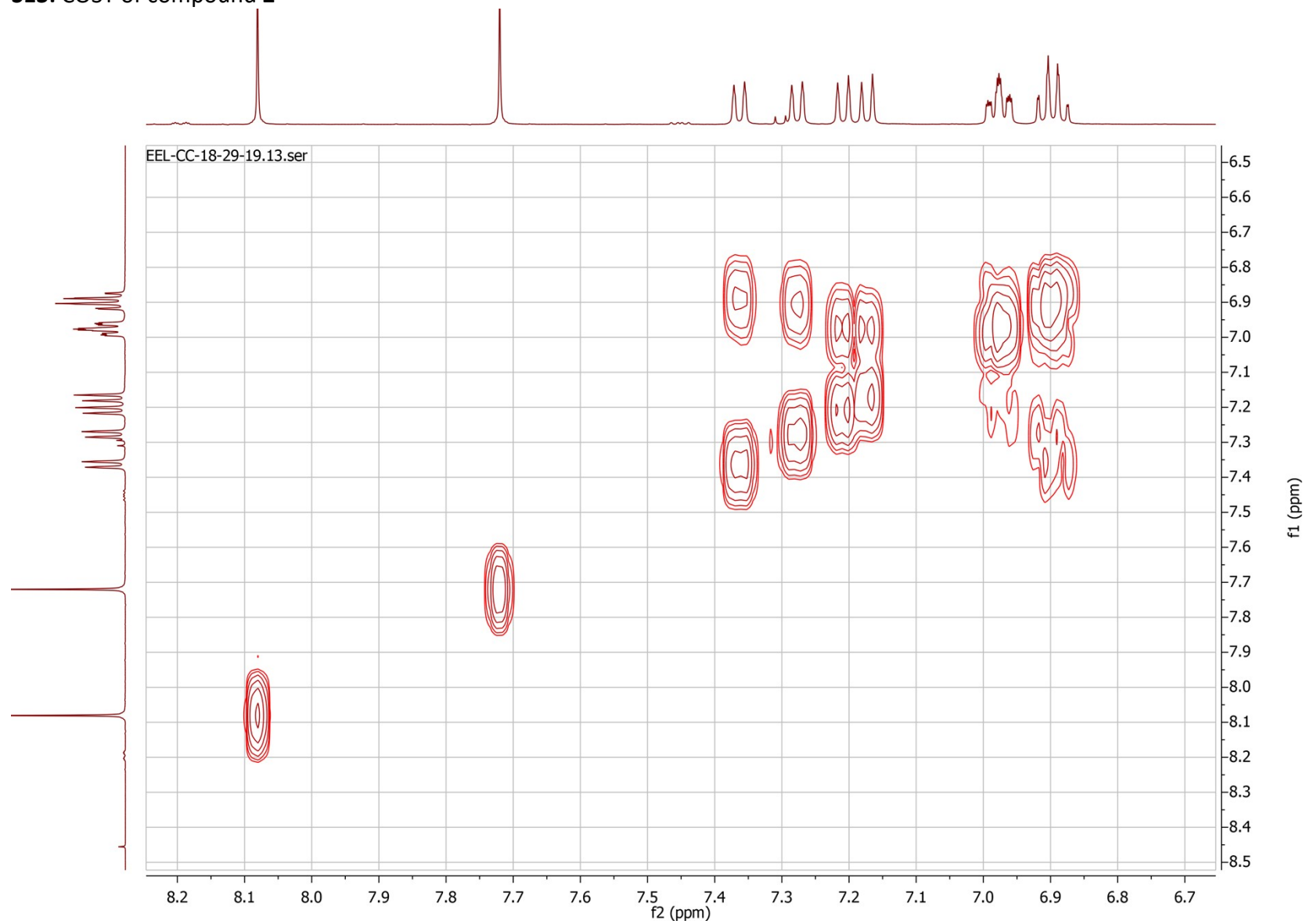
S11: HSQC of compound 2



**S12:** HMBC of compound **2** zoom in 6.6-8.4 ppm



S13: COSY of compound 2



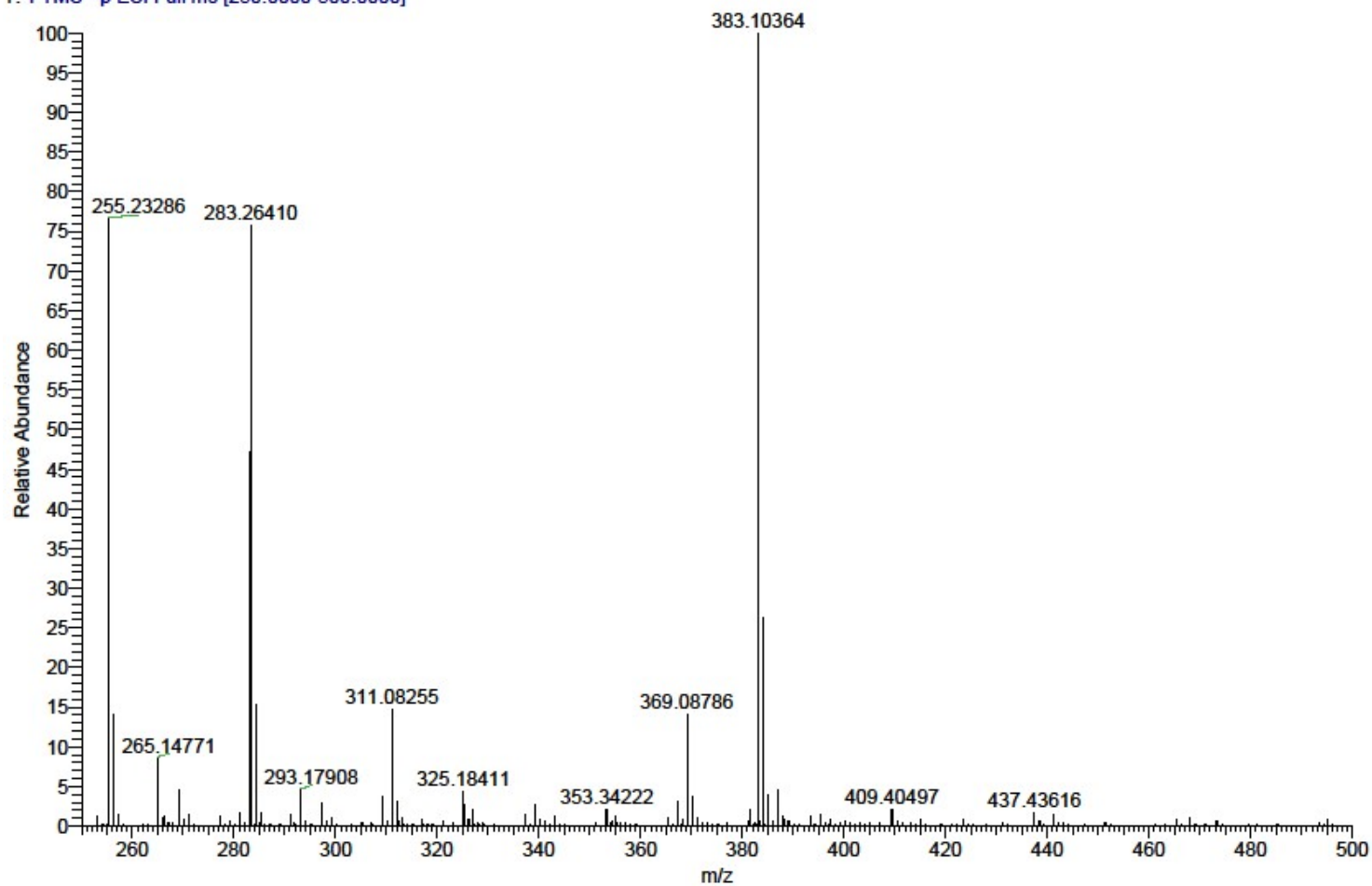
**S14: HRMS of compound 2**

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08/15/22 16:58:31

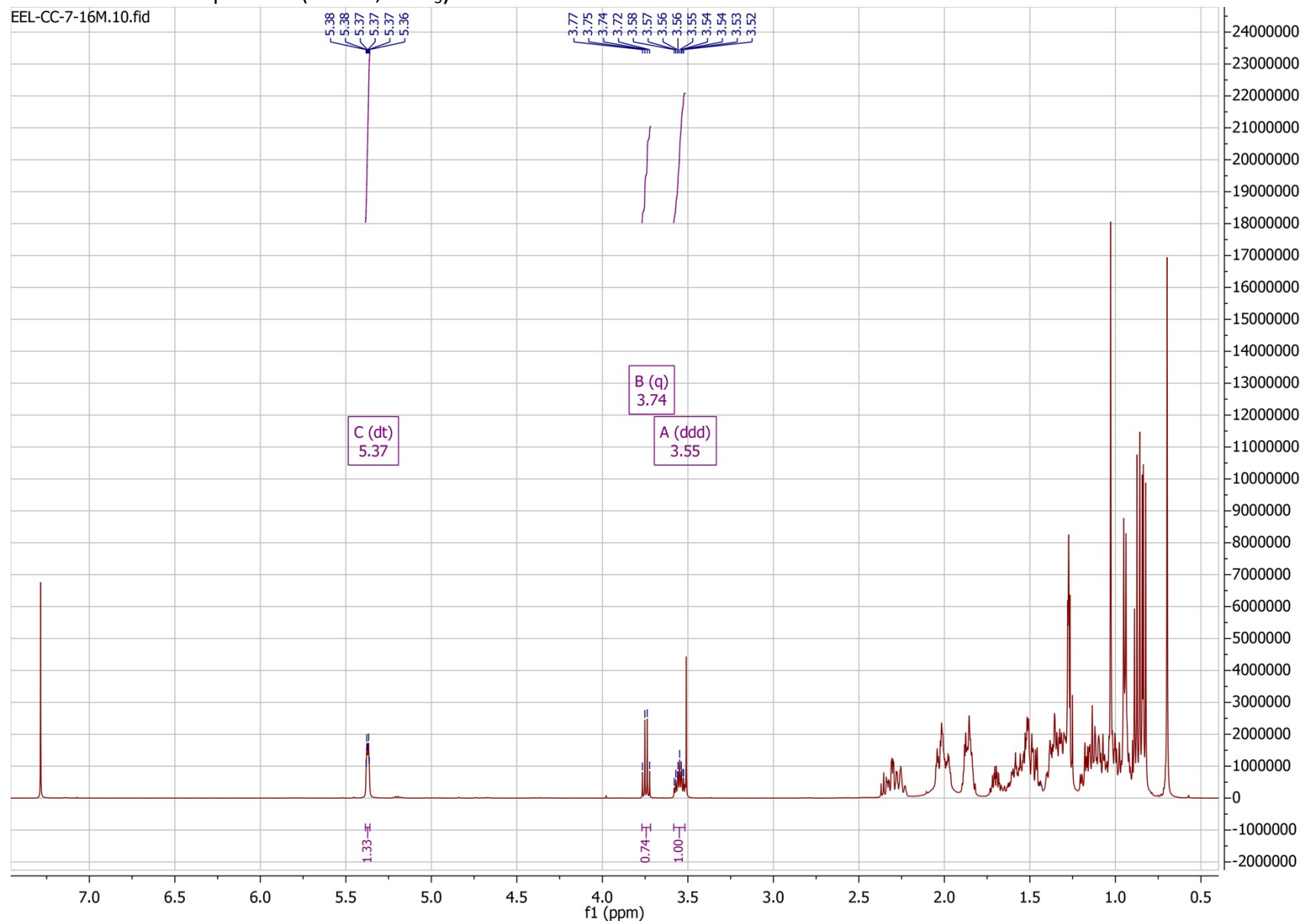
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T: FTMS - p ESI Full ms [250.0000-500.0000]



S15:  $^1\text{H}$  NMR of compound **3** (500 Hz,  $\text{CDCl}_3$ )

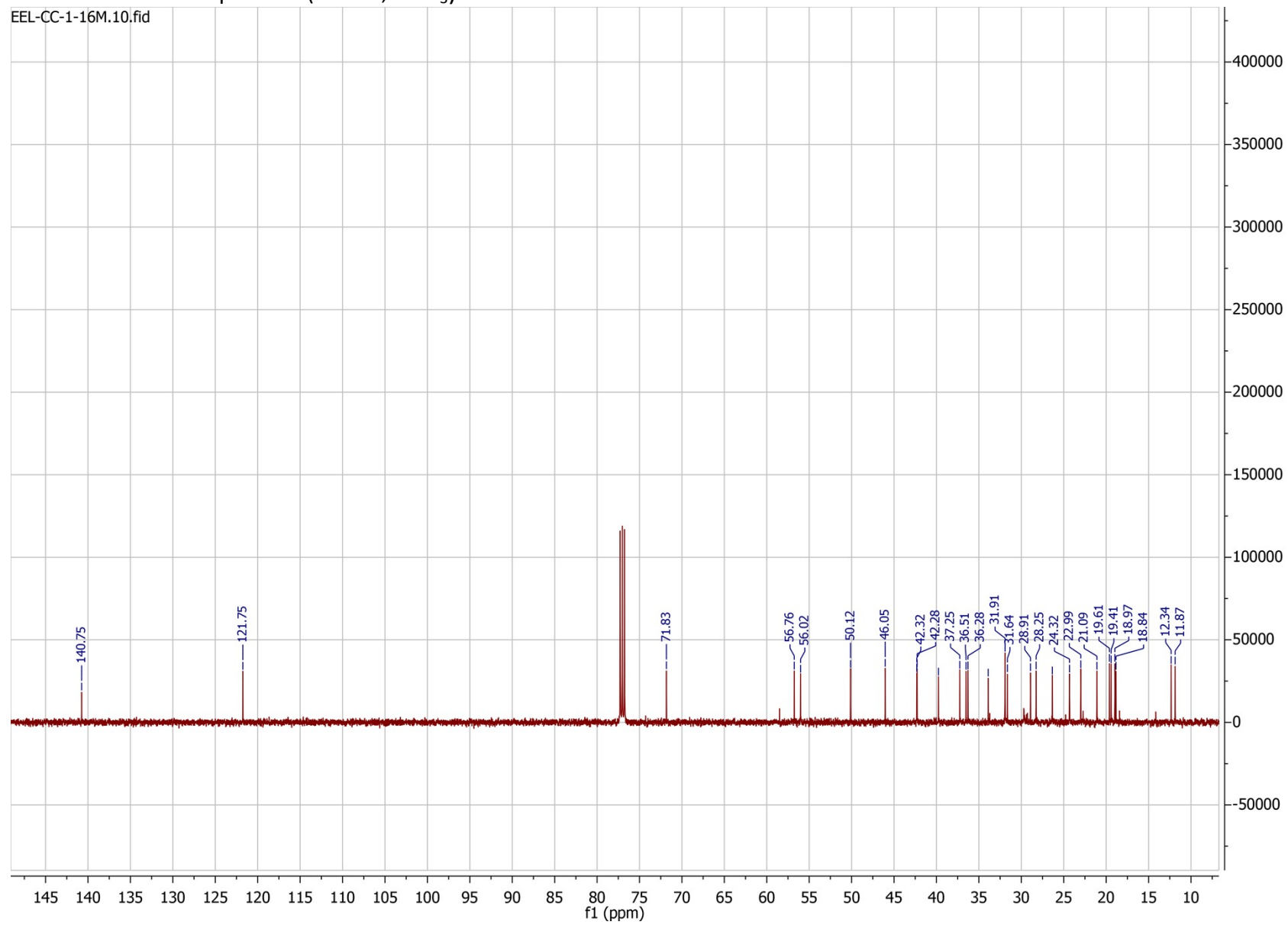
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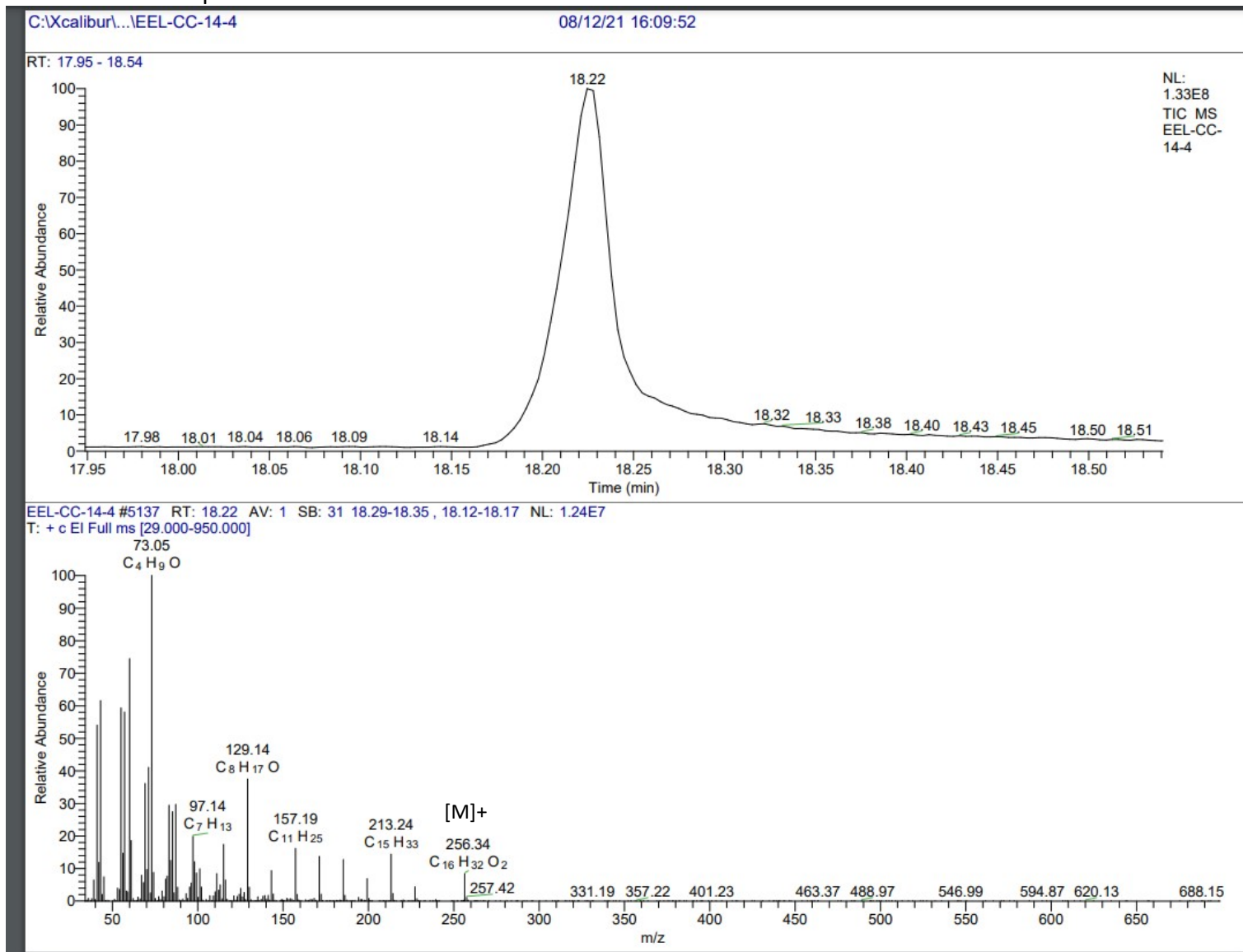


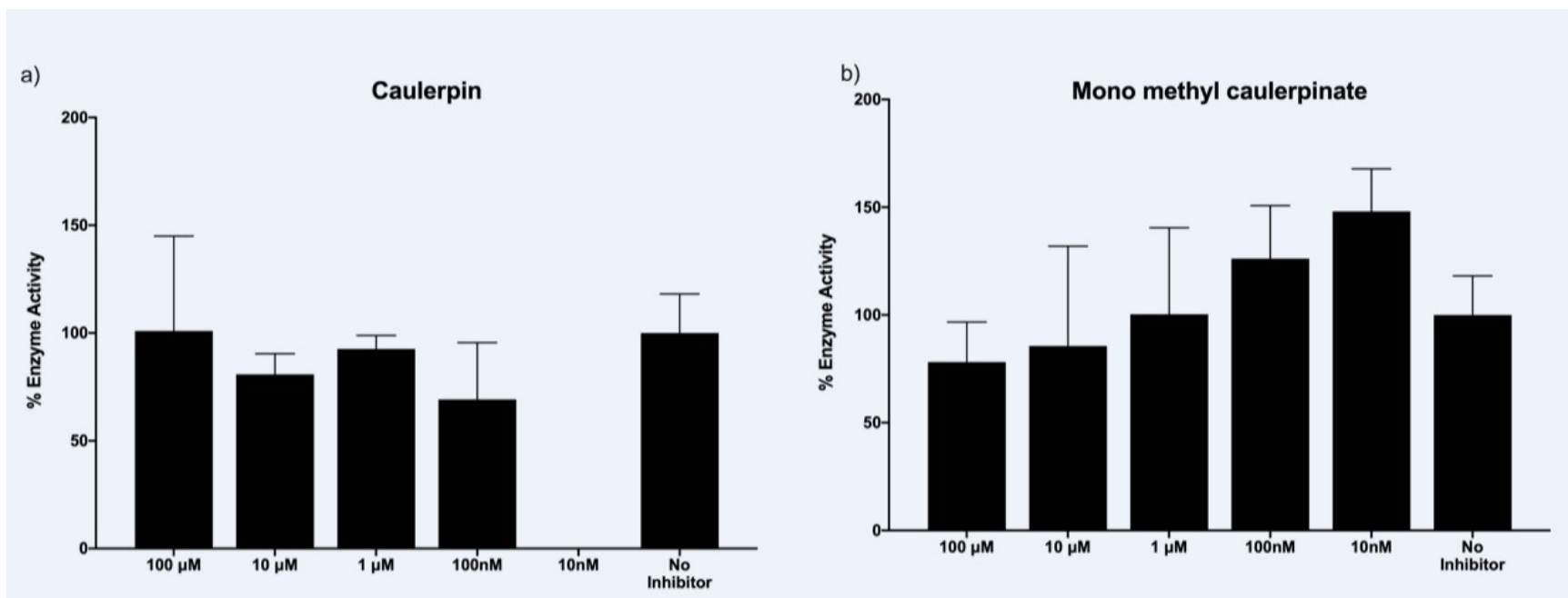
**S16:**  $^{13}\text{C}$  NMR of compound **3** (500 Hz,  $\text{CDCl}_3$ )

EEL-CC-1-16M.10.fid

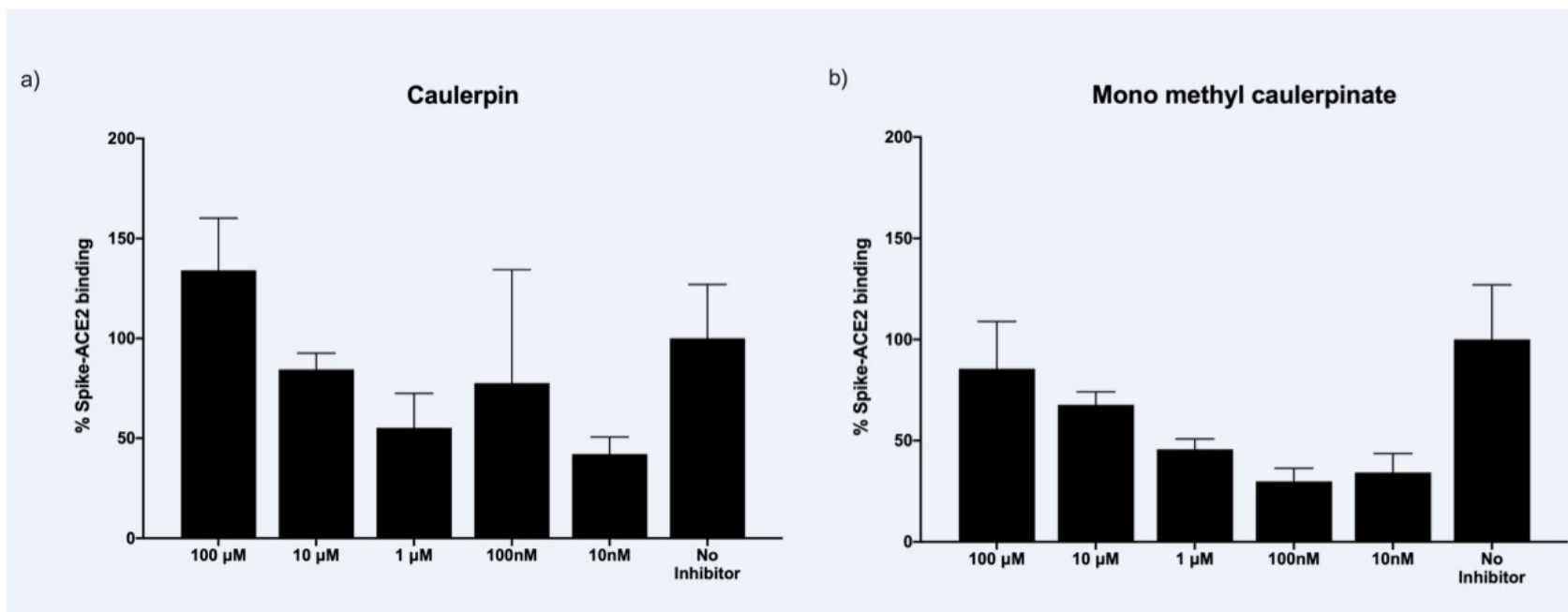


### S17: HRMS of compound 4

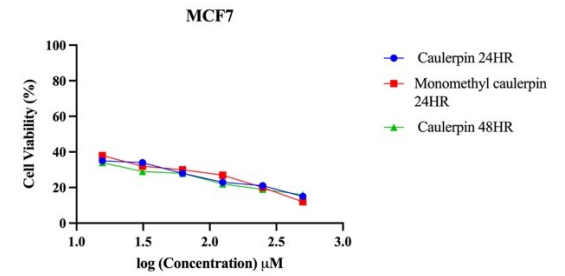
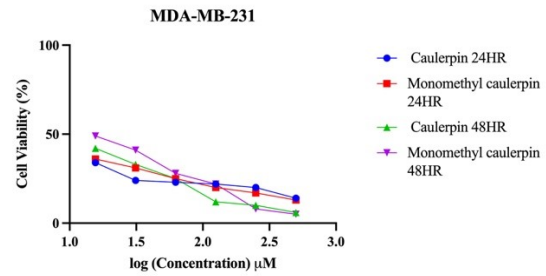
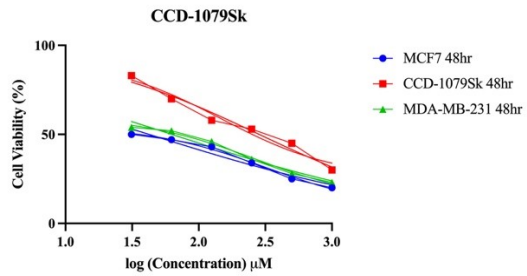




**S18:** Main protease activity of caulerpin (**1**) and mono methyl caulerpinate (**2**) at different concentrations. “No Inhibitor” indicates protease activity without any inhibitor molecules as positive control.



**S19:** Spike and ACE-2 binding activity with of caulerpin (**1**) and mono methyl caulerpinate (**2**) treated at different concentrations “No Inhibitor” indicates the binding activity without any inhibitor molecules as positive control.



**S20:** Evaluation of the cell viability of the caulerpin and mono methyl caulerpinate against MDA-MB-231 and MCF-7 cancer cell lines by MTT assay.