

Crossbyanols A-D, Toxic Brominated Polyphenyl Ethers from the Hawai'ian Bloom-forming Cyanobacteria, *Leptolyngbya crossbyana*

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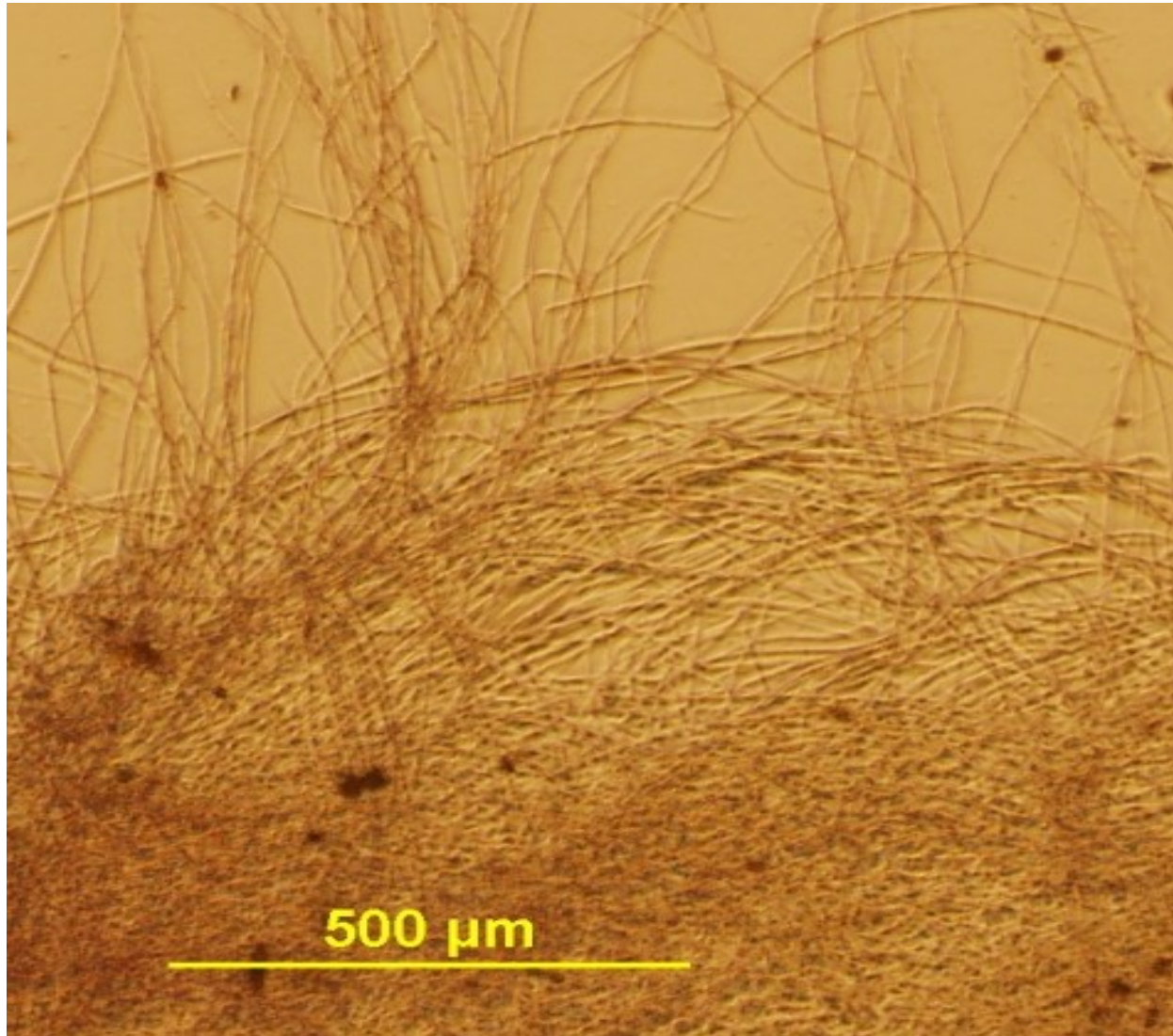
S24. HR-ESI-MS spectrum of **4**

S25. ¹H NMR spectrum of **4** in CD₃OD, 600MHz

S26. ¹³C NMR spectrum of **4** in CD₃OD, 150MHz

S27. Bioactivities of **1—4**

S1. Microscopic photograph of *L. crossbyana* filaments

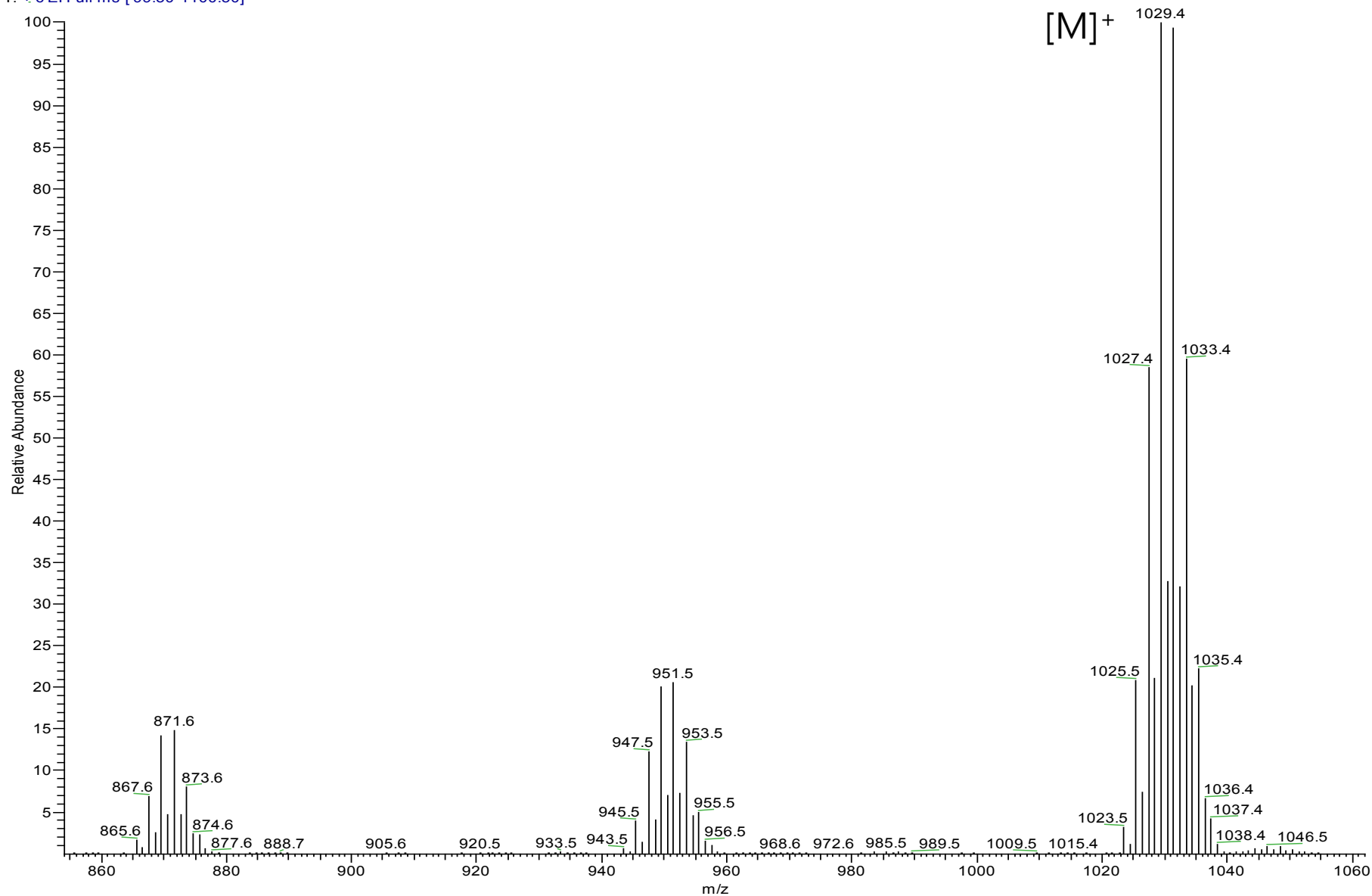


S2. Field photographs of *L. crossbyana* colonies on coral reefs

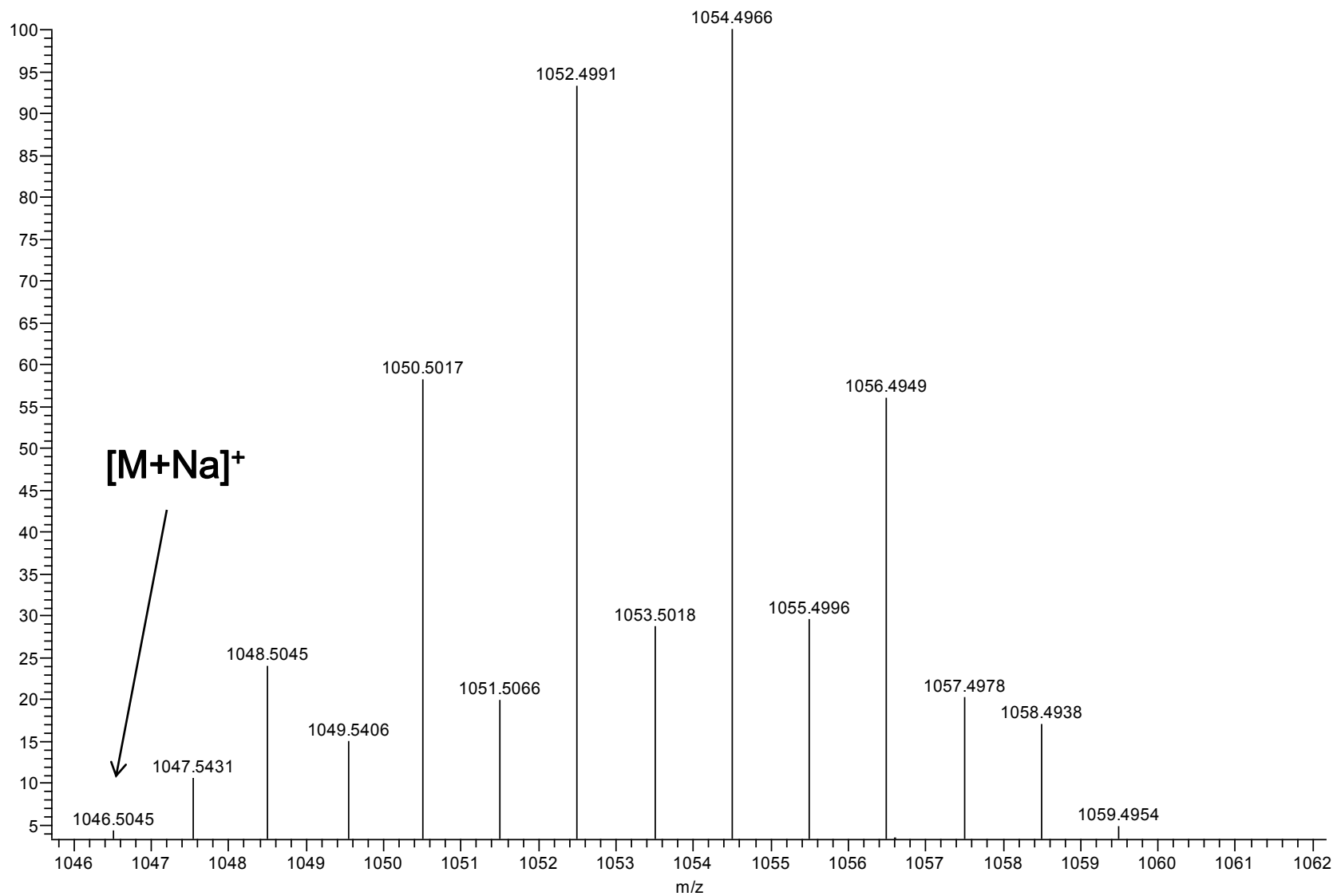


S3. LR-EI-MS of 1

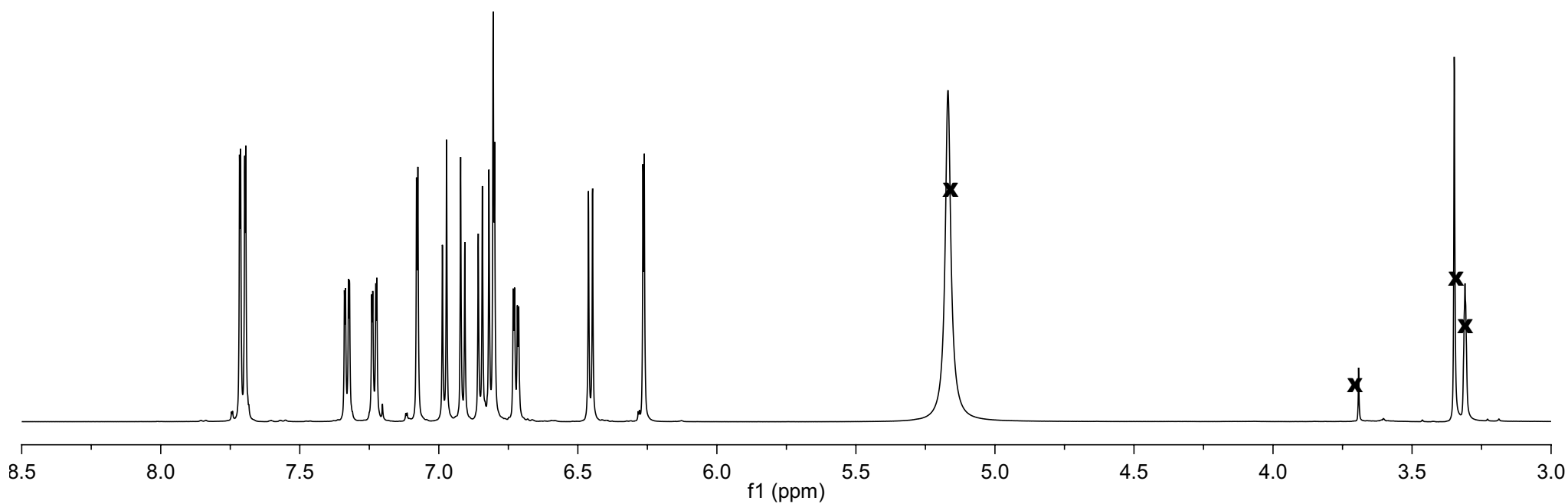
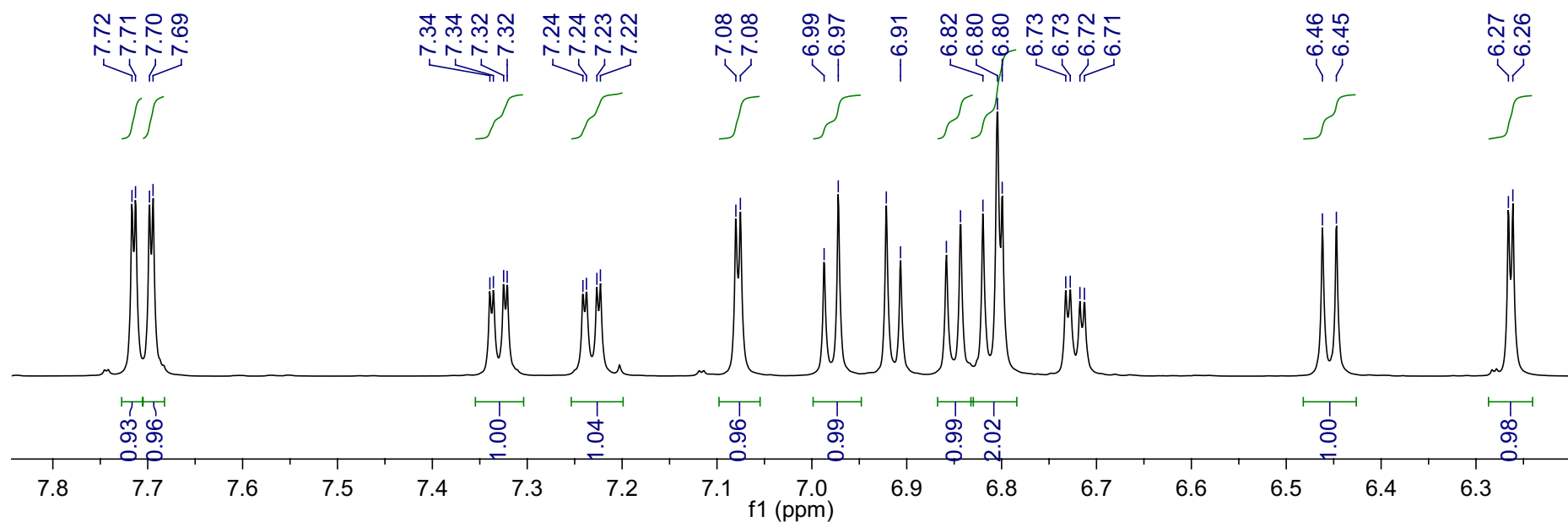
05_06_2009_1873h6_a #118-127 RT: 6.06-6.25 AV: 10 SB: 7 5.03-5.15 NL: 1.13E7
T: + c EI Full ms [99.50-1100.50]



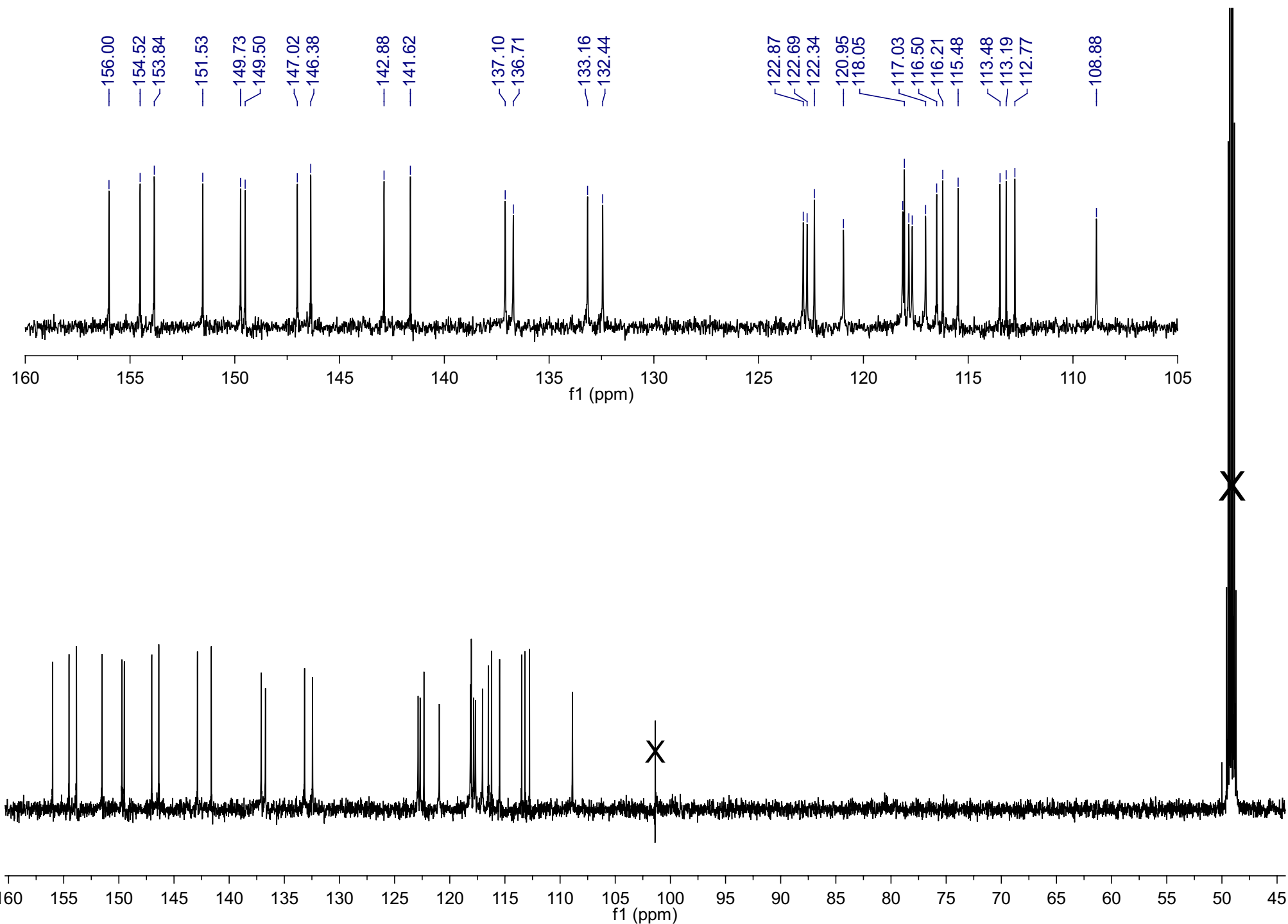
S4. HR-ESI-MS of **1**



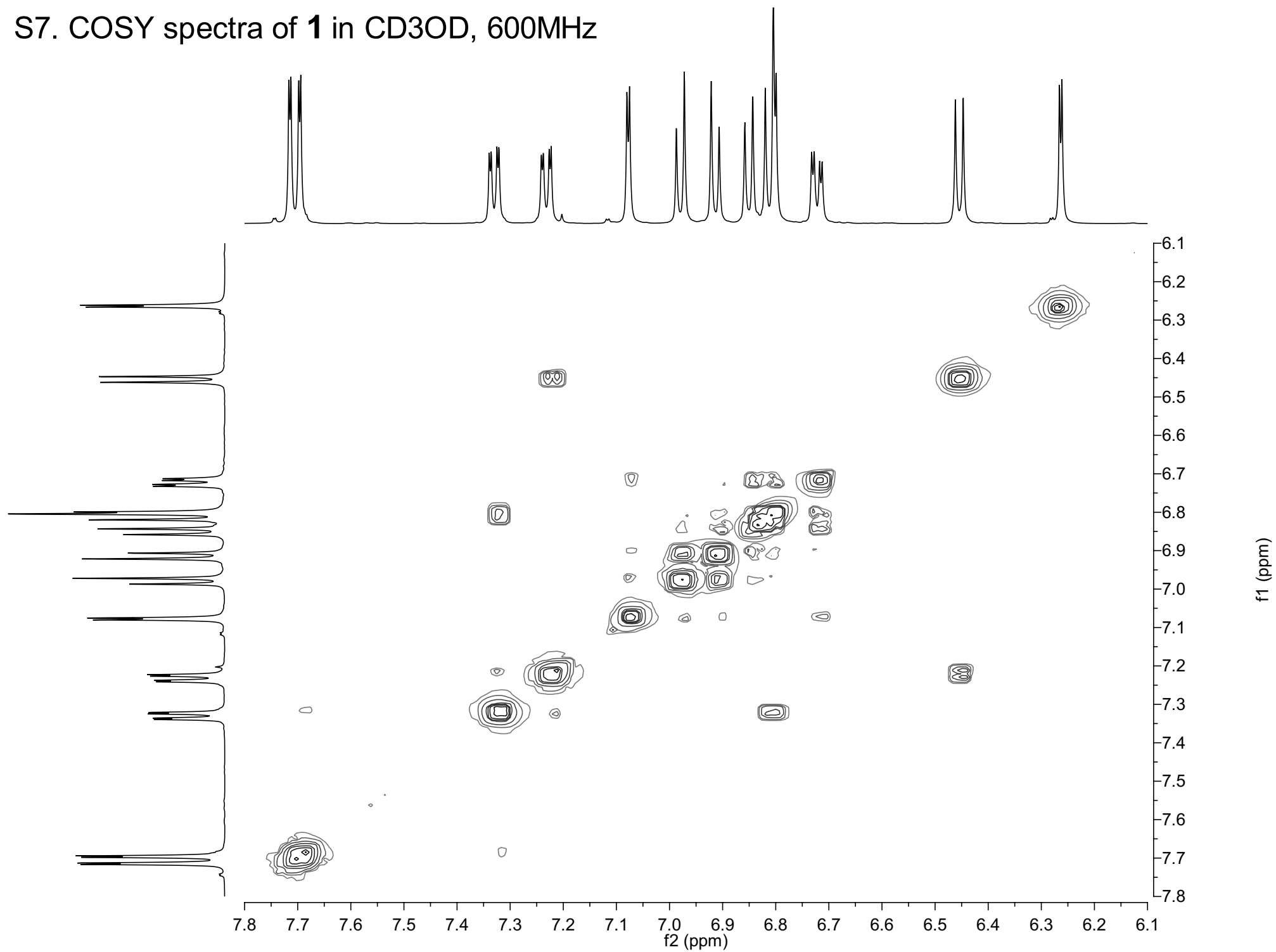
S5.1H NMR spectrum of **1** in CD₃OD, 600MHz, 16 scans



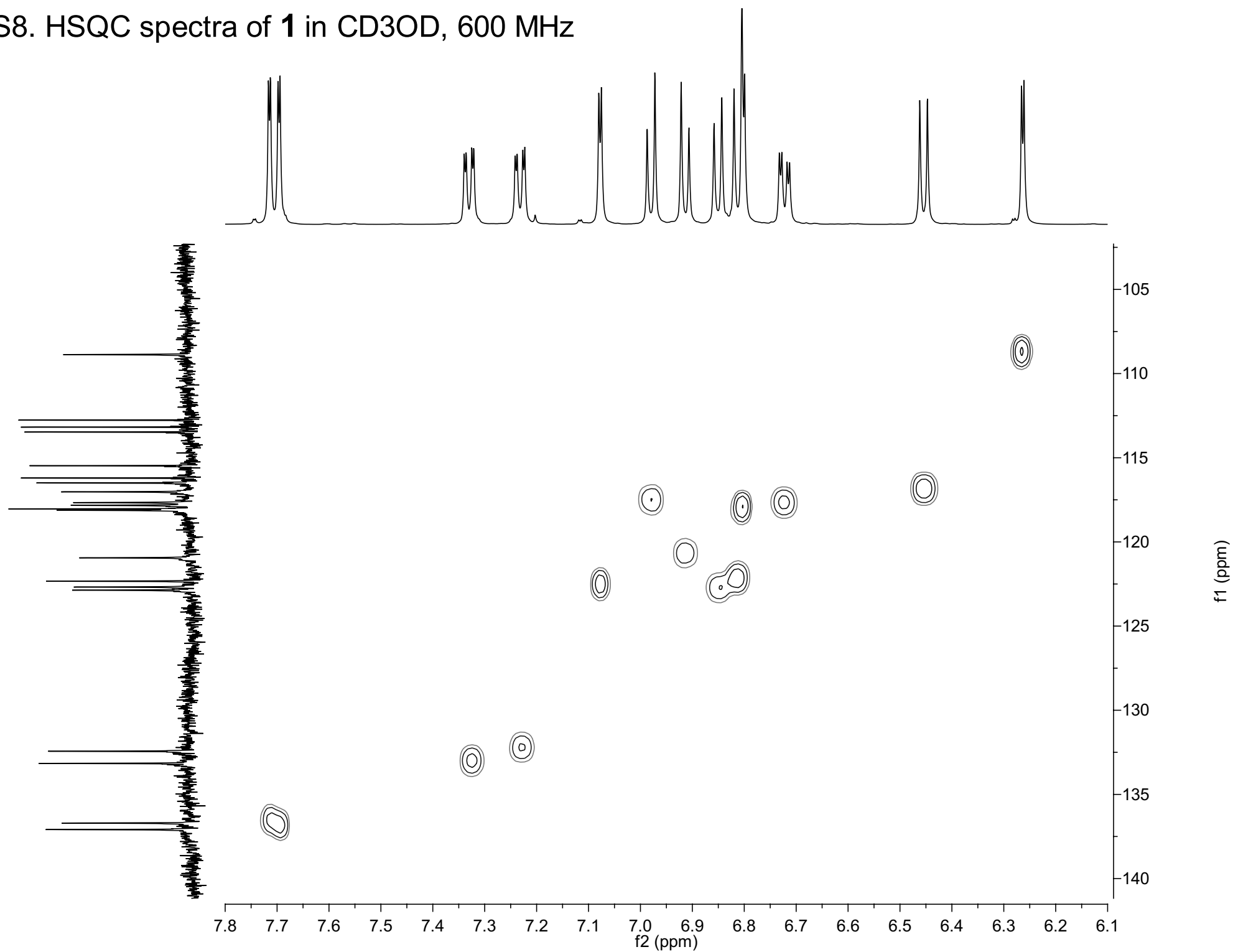
S6. ¹³C NMR spectrum of **1** in CD₃OD, 150MHz, 30000 scans



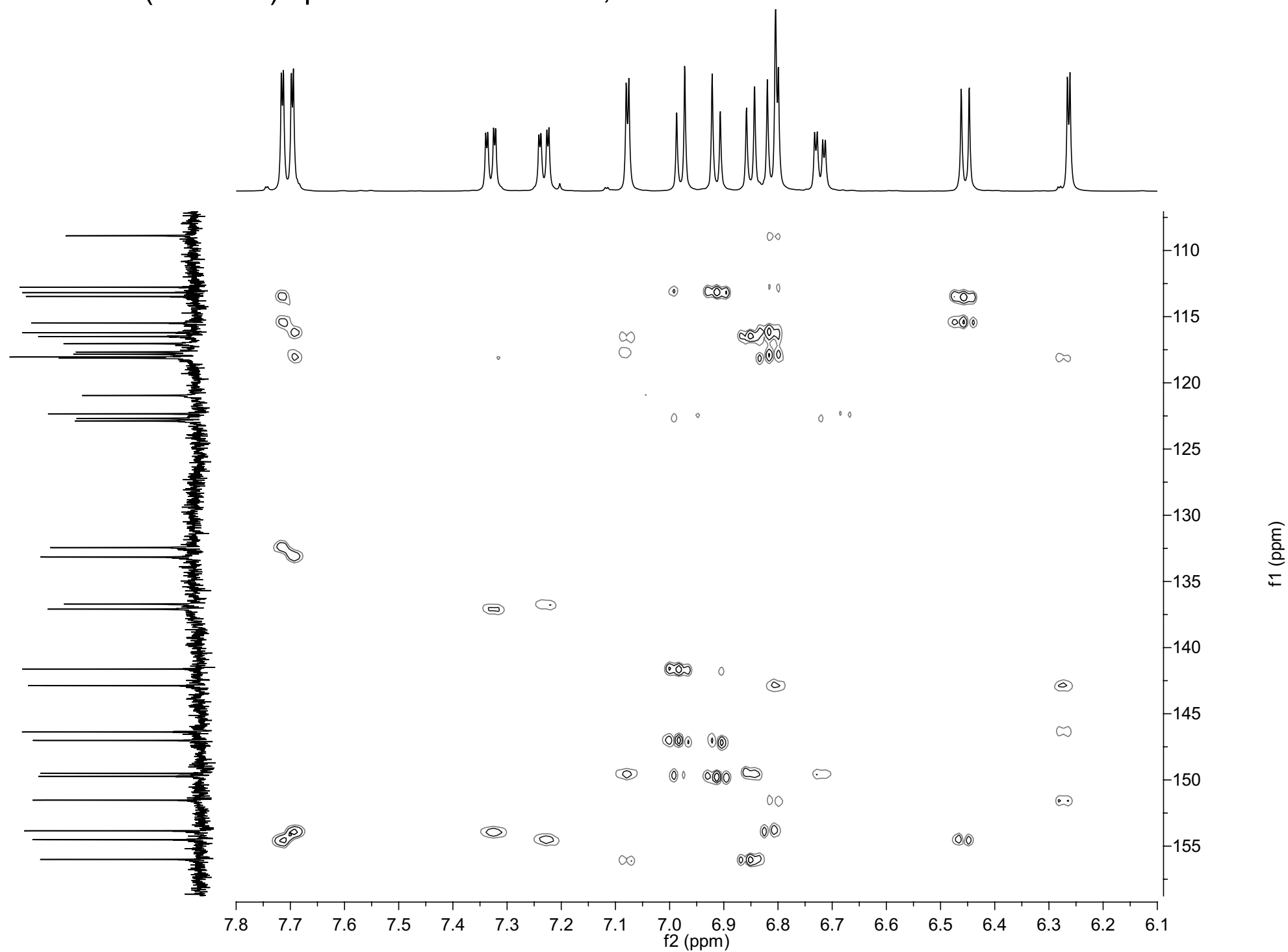
S7. COSY spectra of **1** in CD₃OD, 600MHz



S8. HSQC spectra of **1** in CD₃OD, 600 MHz

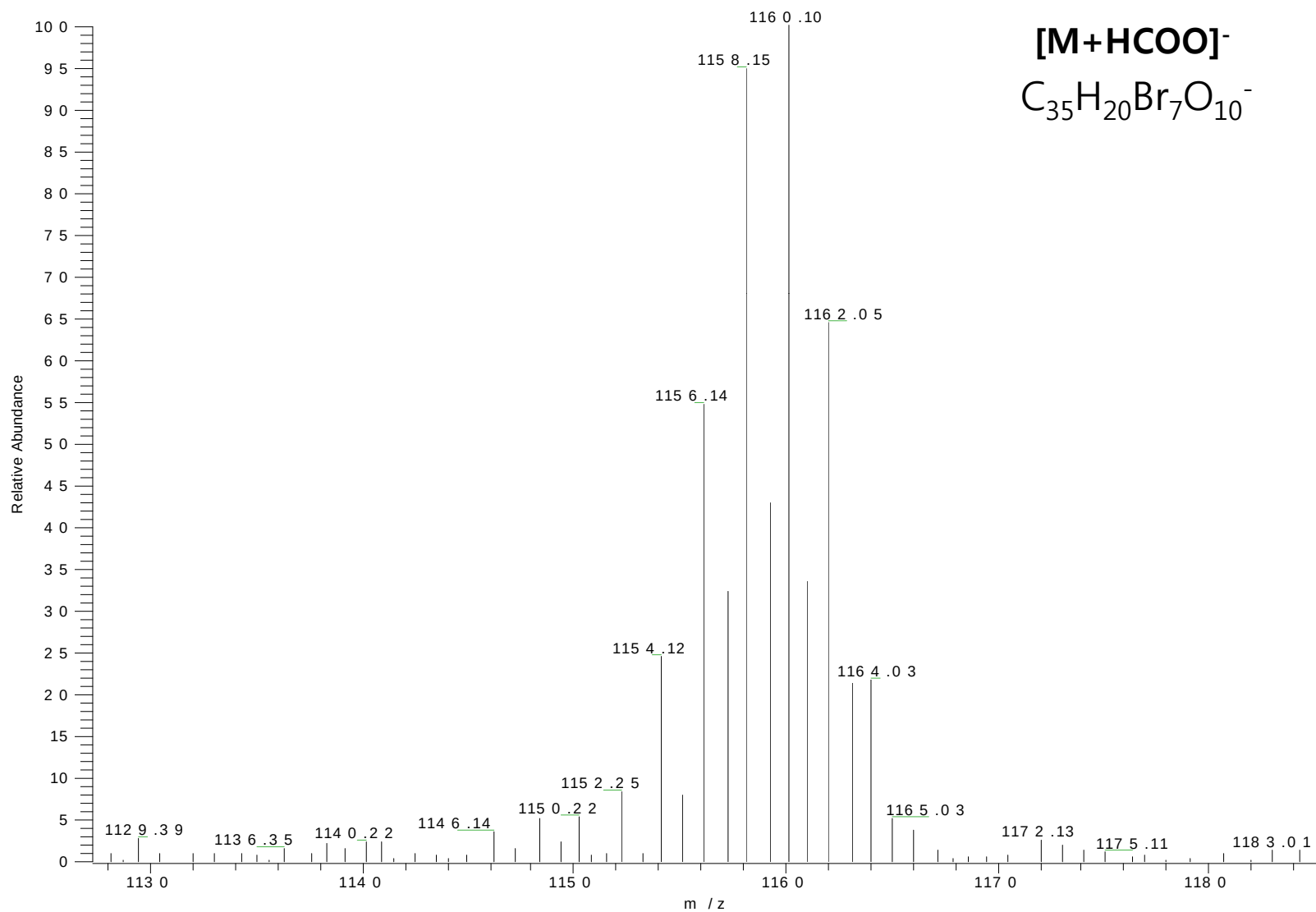


S9. HMBC ($J = 8$ Hz) spectra of **1** in CD₃OD, 600MHz

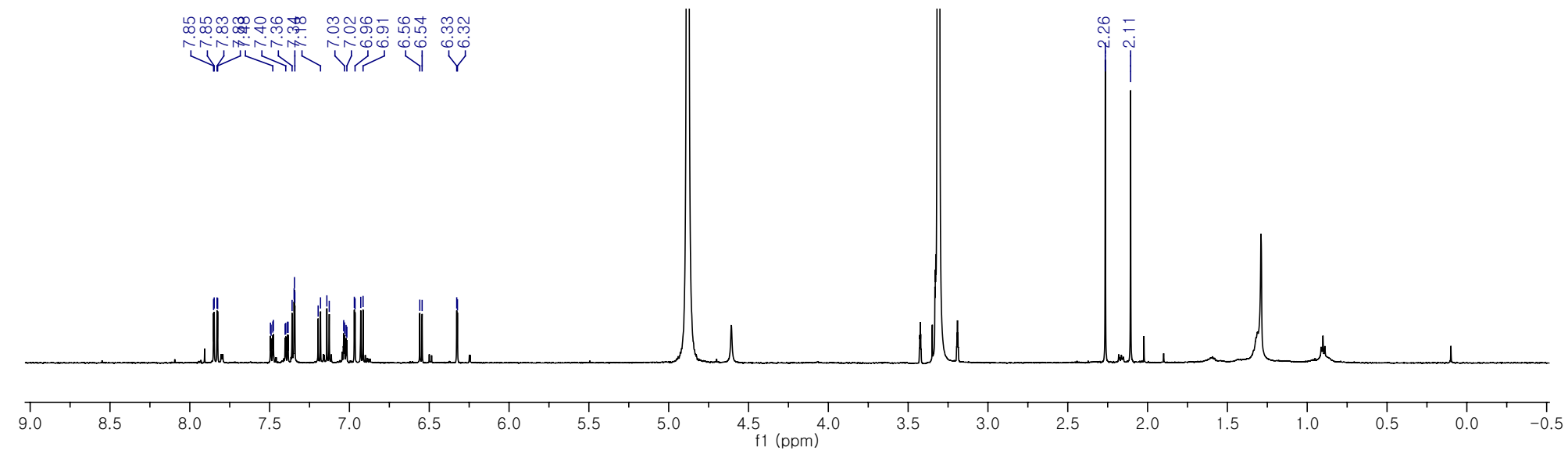
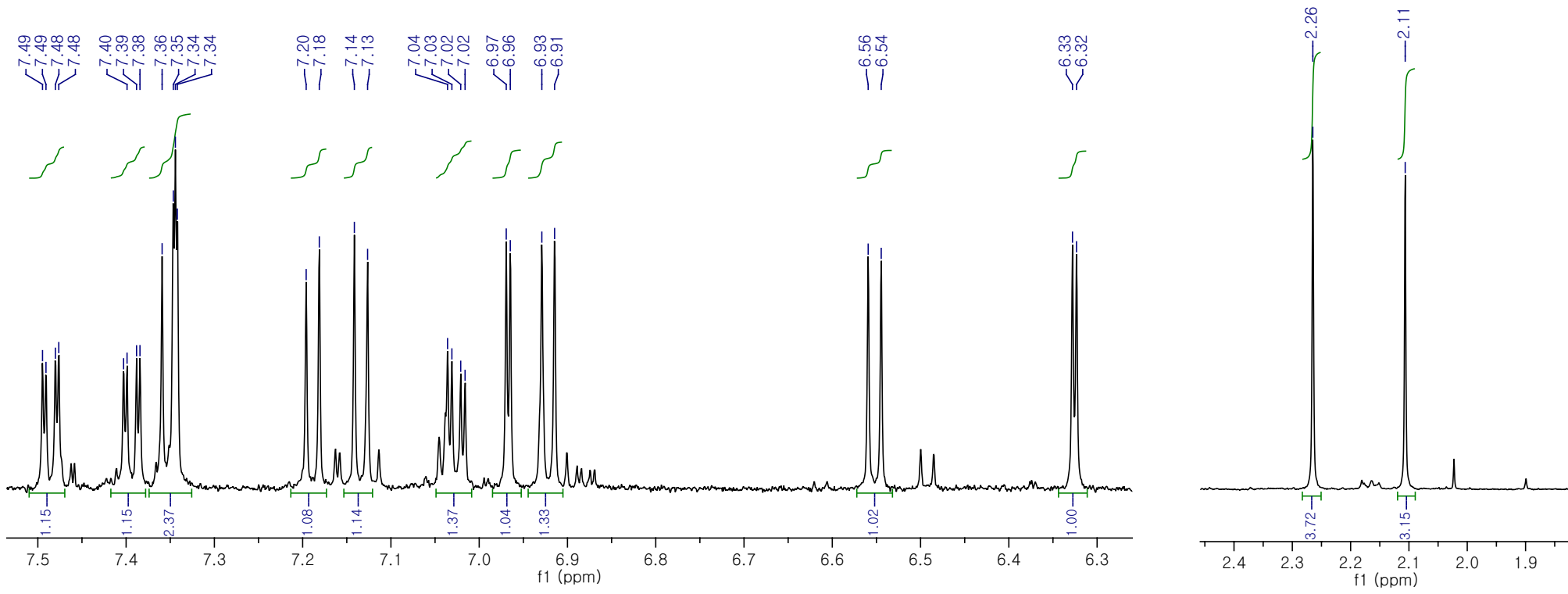


S10. LR-ESI-MS of 5

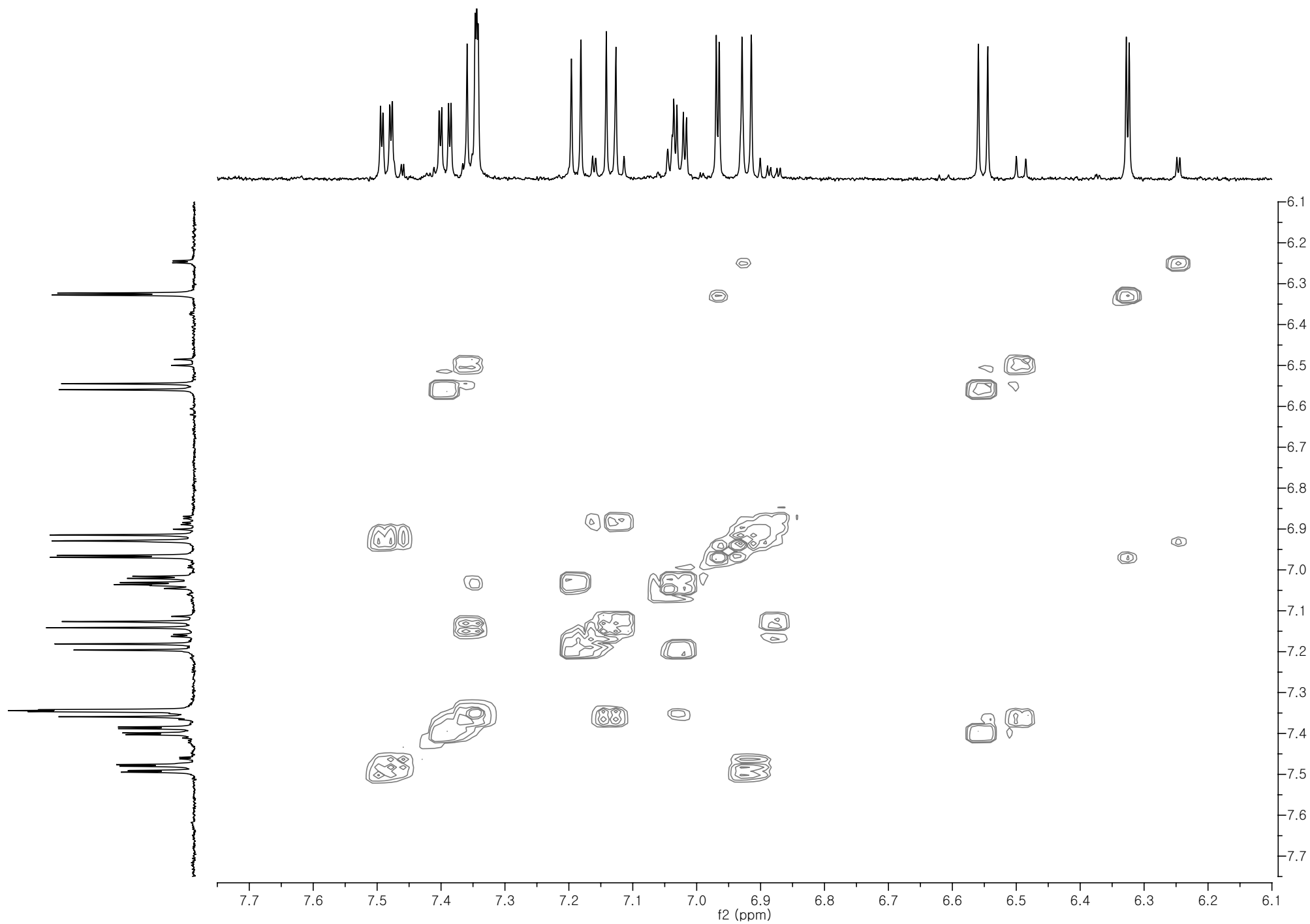
1873H6Ac1#641-654 RT: 26.80-27.31 AV: 7 NL: 6.82E5
F: -cESIFullms [150.00-2000.00]



S11. ¹H NMR spectrum of **5** in CD₃OD, 600MHz, 32 scans

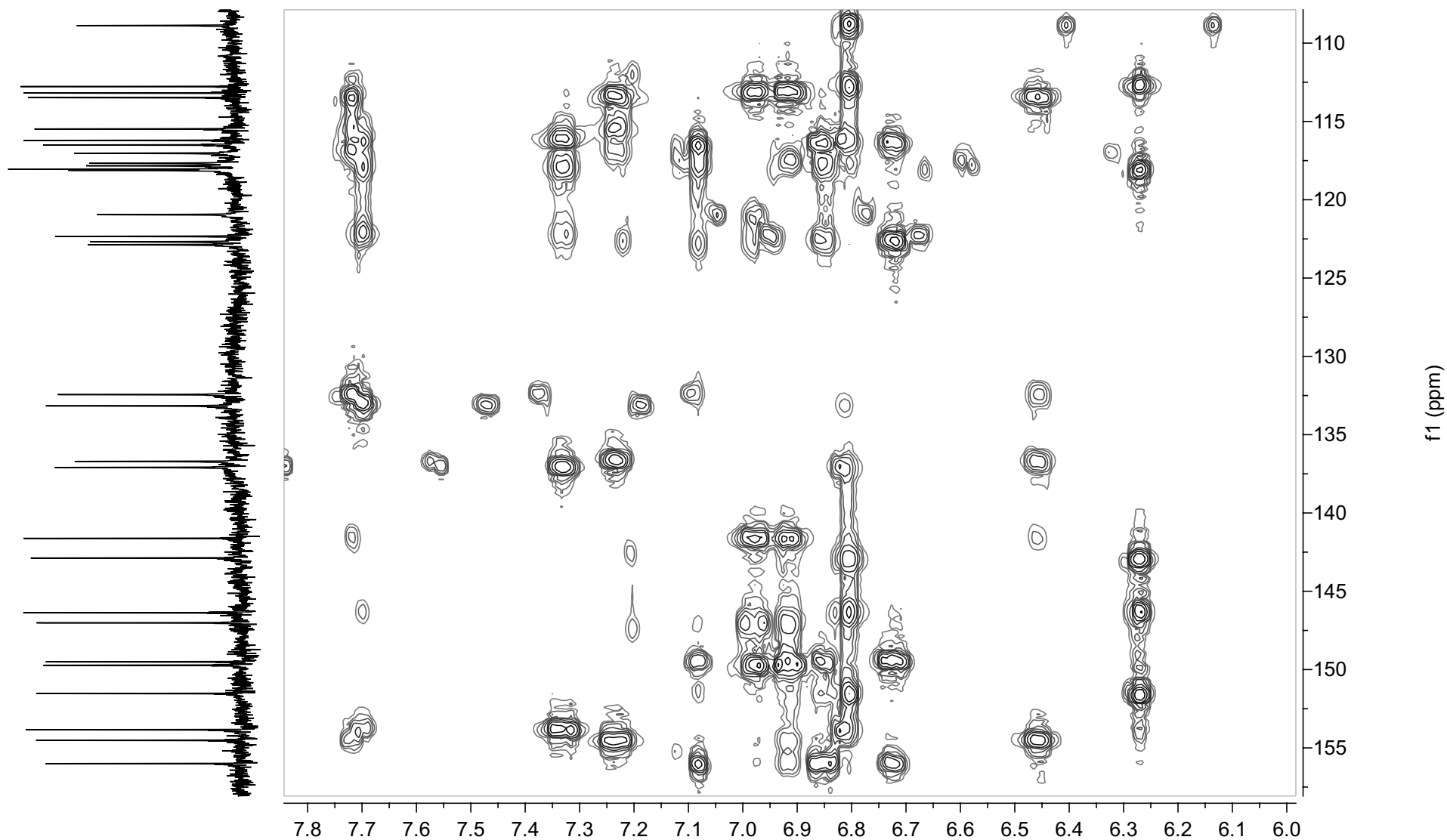
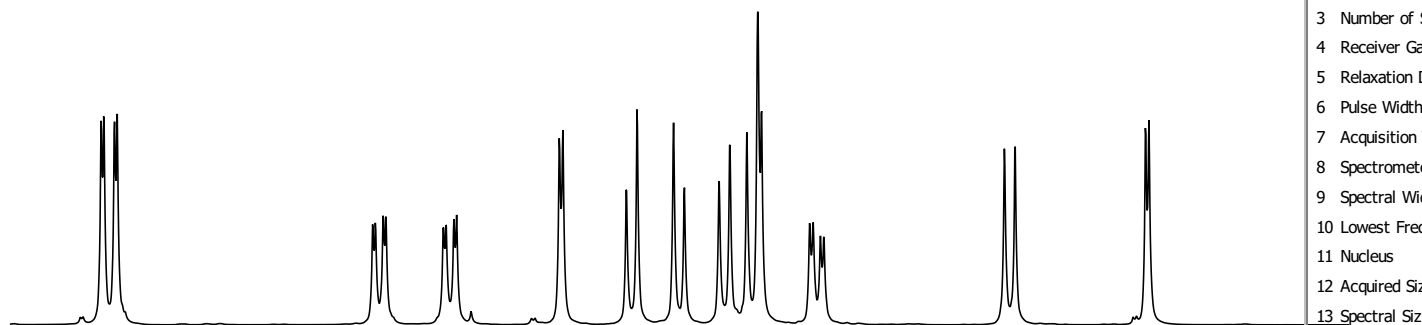


S12. COSY spectra of **5** in CD₃OD, 600MHz, 16 scans



S13. HMBC ($J = 2$ Hz) spectra of **1** in CD₃OD, 600MHz

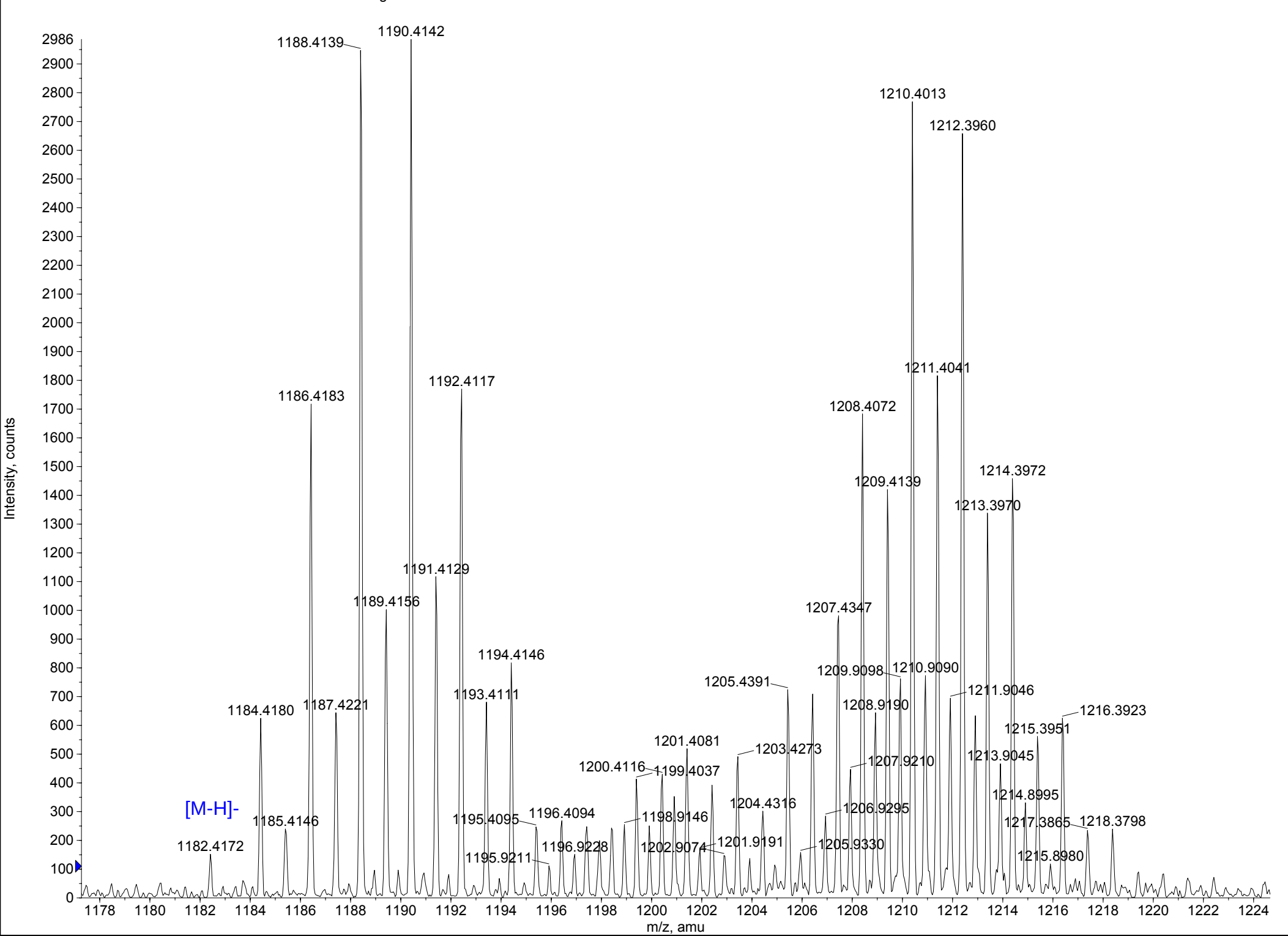
Parameter	Value (f2, f1)
1 Solvent	MeOD
2 Temperature	294.0
3 Number of Scans	128
4 Receiver Gain	2050
5 Relaxation Delay	1.3717
6 Pulse Width	10.0000
7 Acquisition Time	0.3851
8 Spectrometer Frequency	(599.70, 150.81)
9 Spectral Width	(5319.1, 33551.1)
10 Lowest Frequency	(25, -1477.1)
11 Nucleus	(¹ H, ¹³ C)
12 Acquired Size	(2048, 256)
13 Spectral Size	(1024, 1024)



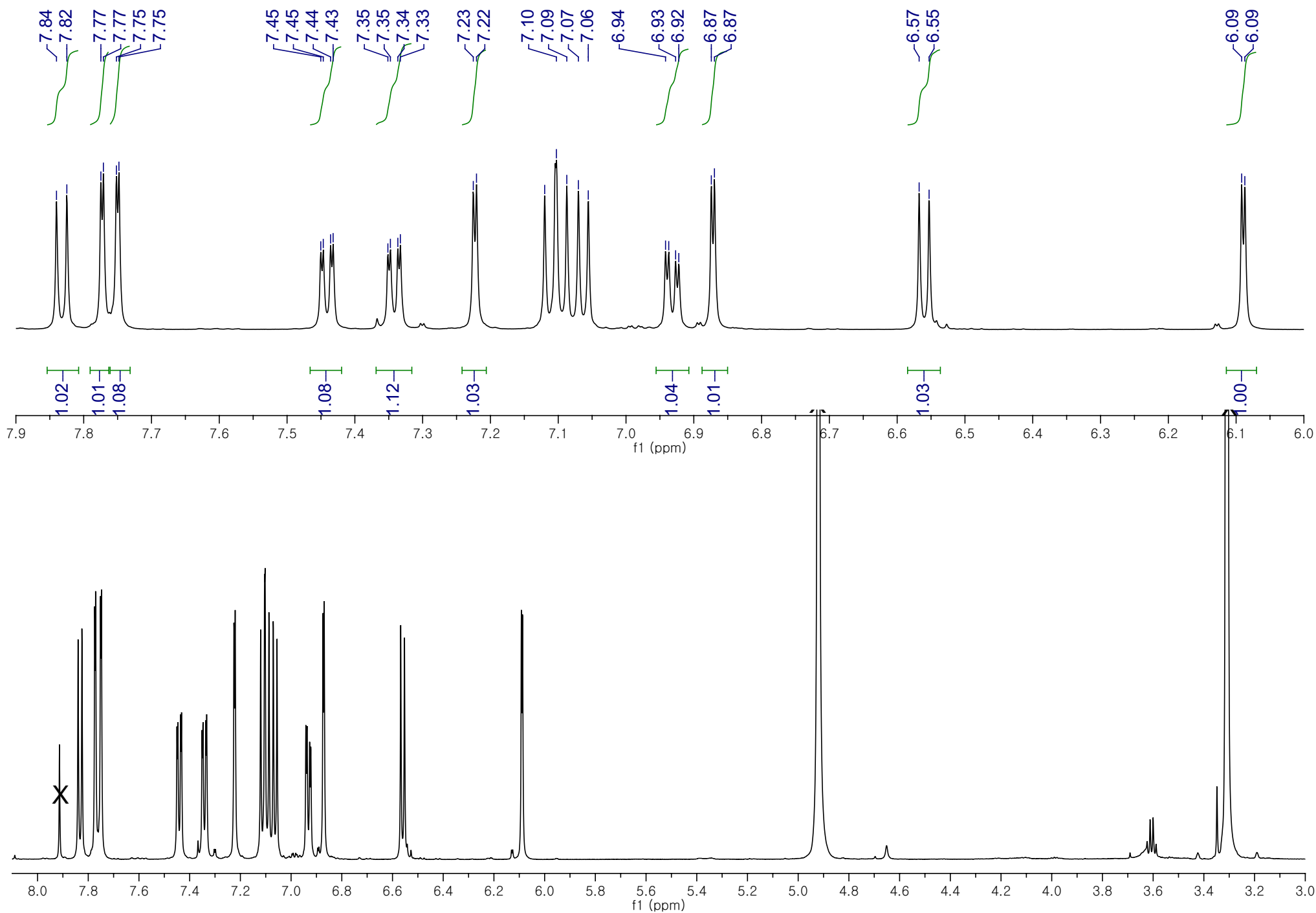
S14. HR-ESI-MS spectrum of 2.

-TOF MS: 0.353 to 0.408 min from 09010900030.wiff Agilent

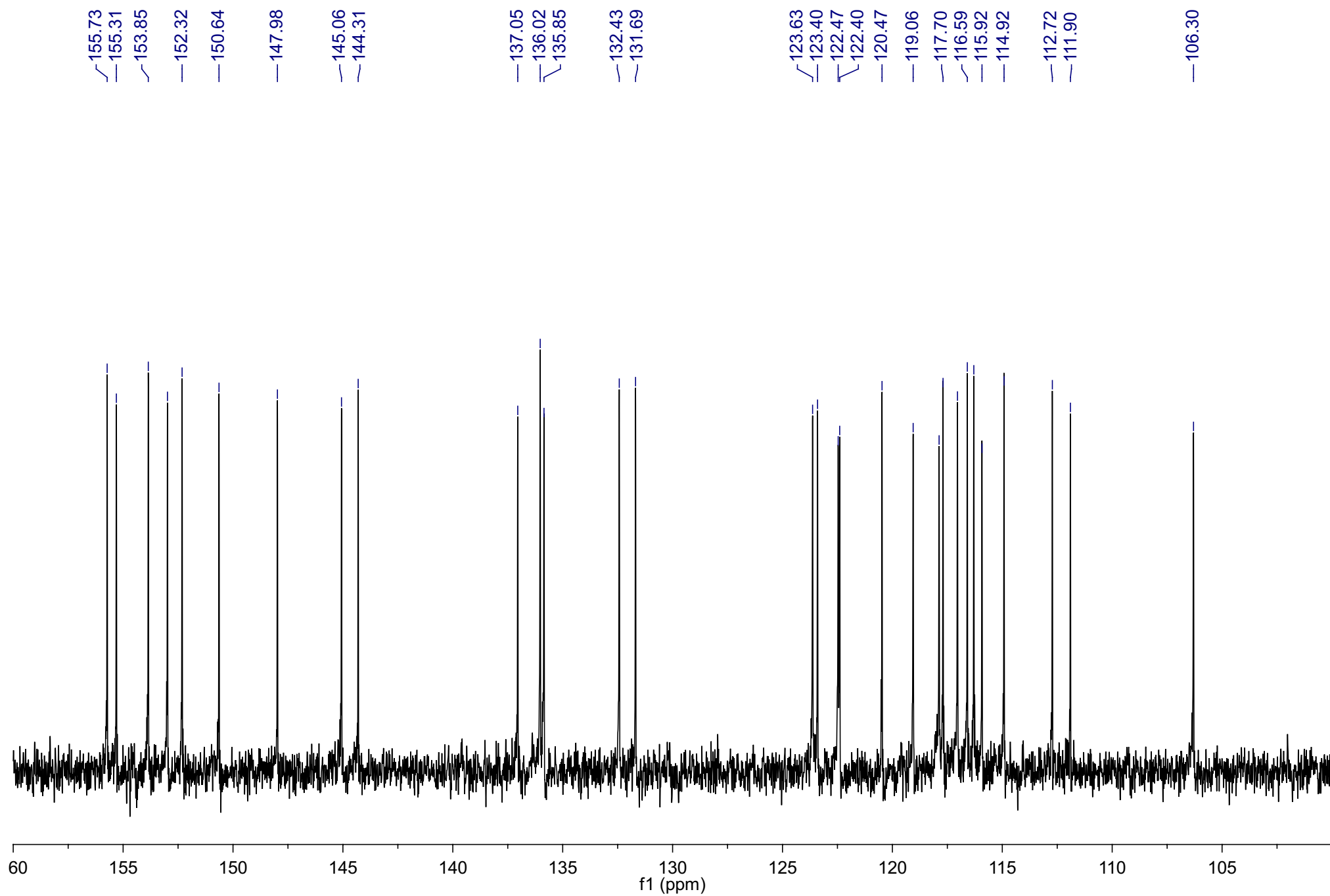
Max. 1.4e5 counts.



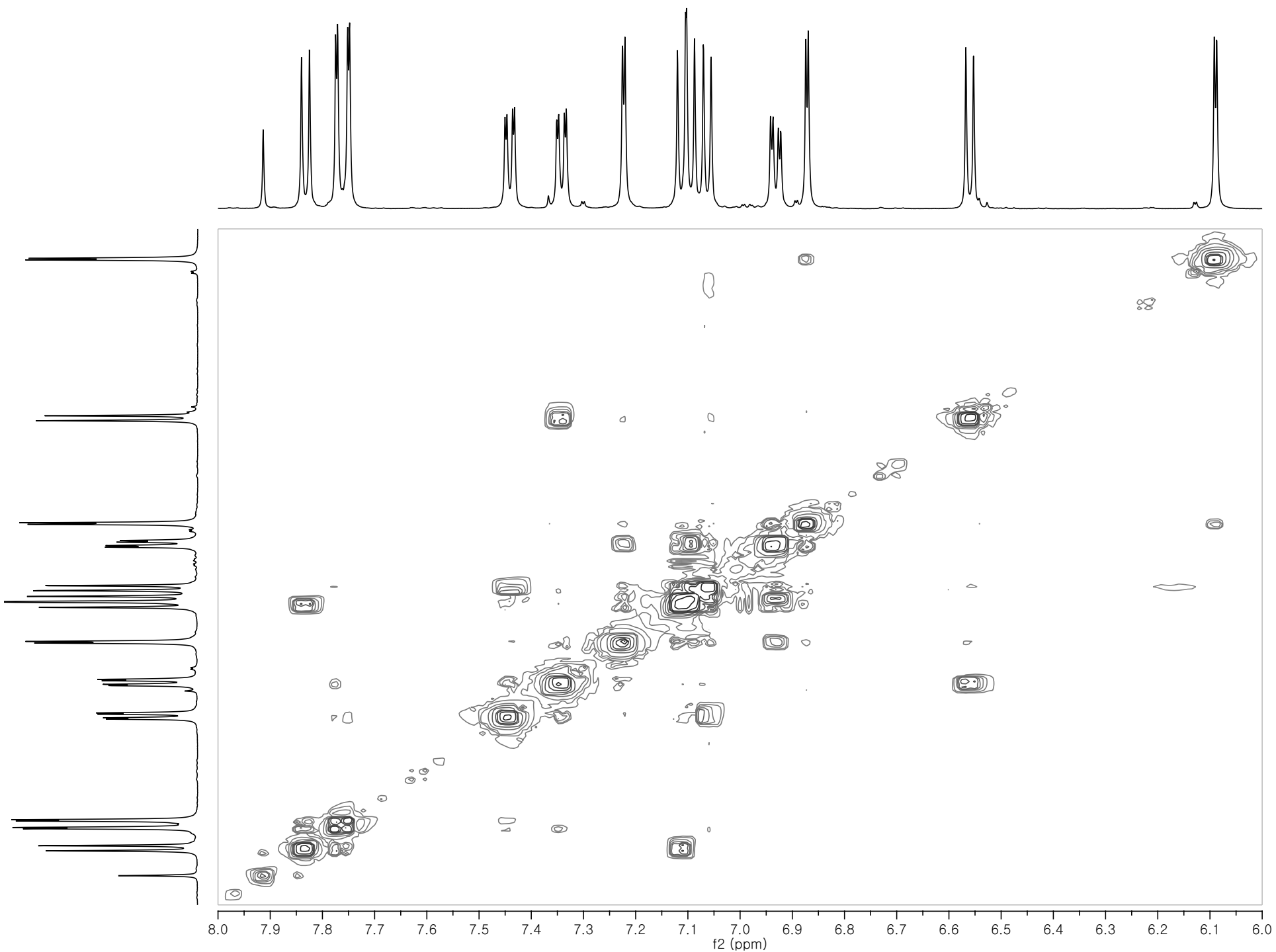
S15. ¹H NMR of Crossbyanol B (2) in CD₃OD, 600MHz, 16 scans



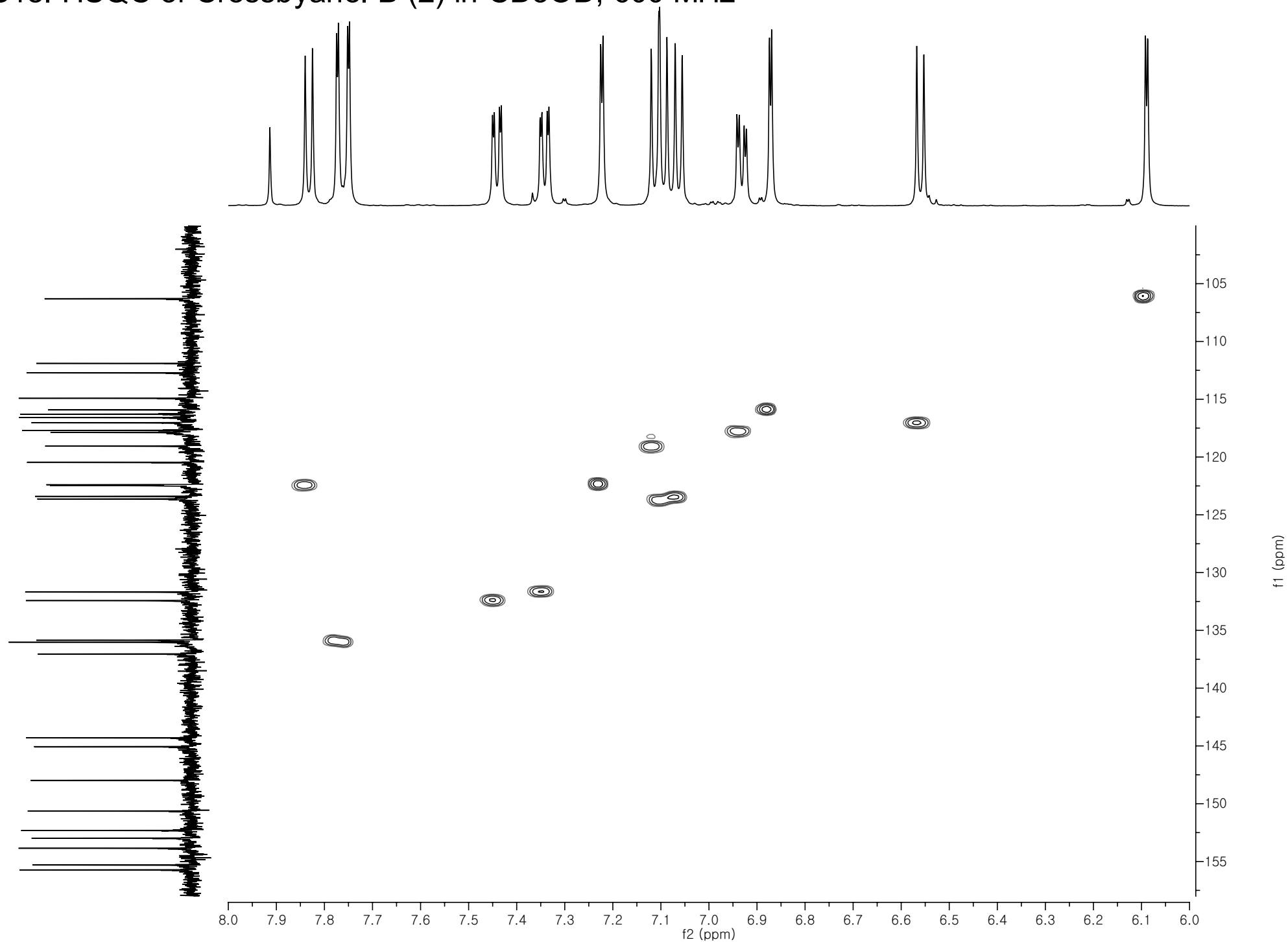
S16. ¹³C NMR of Crossbyanol B (2) in CD₃OD, 150MHz, 13000 scans



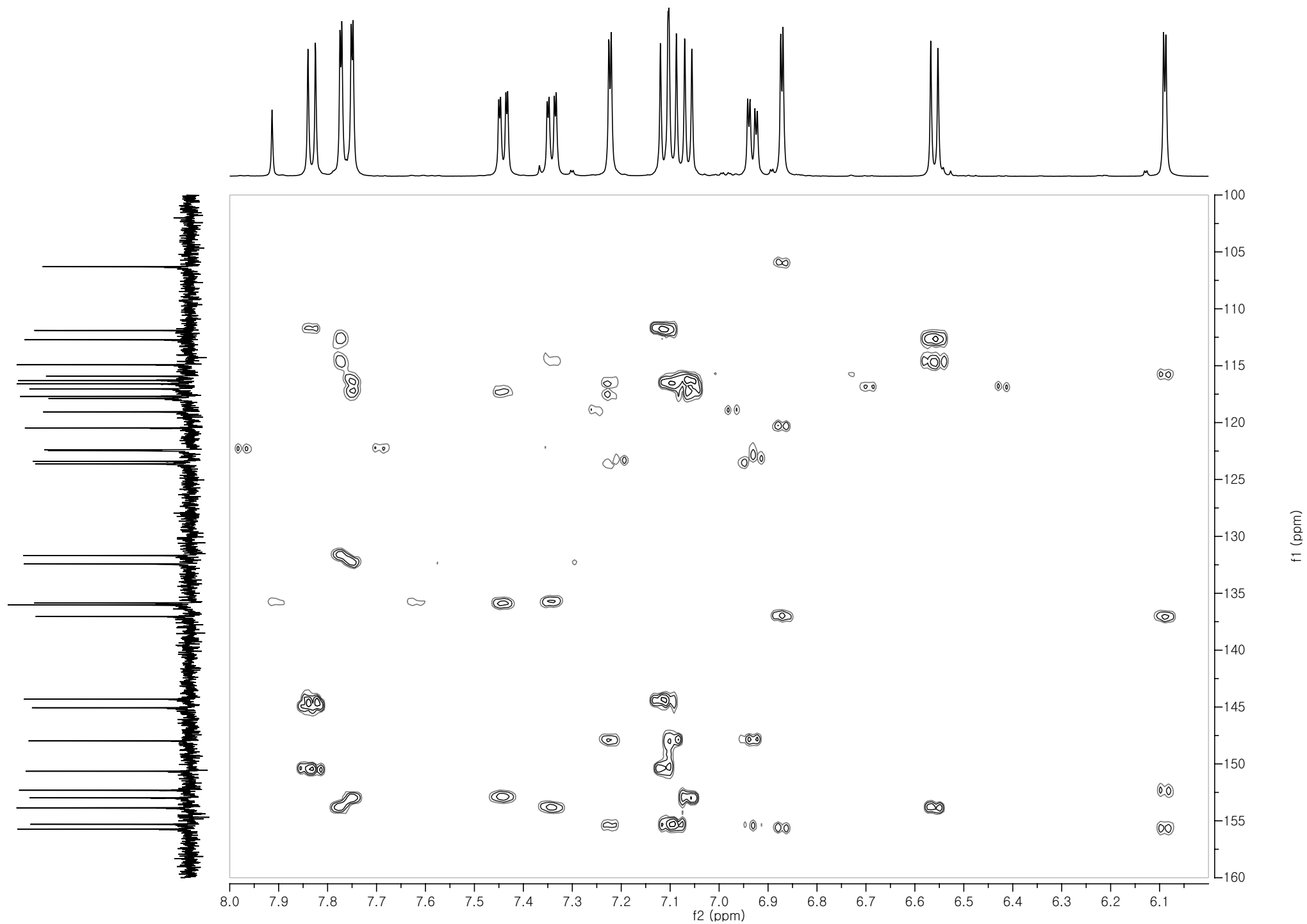
S17. COSY of Crossbyanol B (2) in CD3OD, 600MHz, 16 scans



S18. HSQC of Crossbyanol B (2) in CD₃OD, 600 MHz

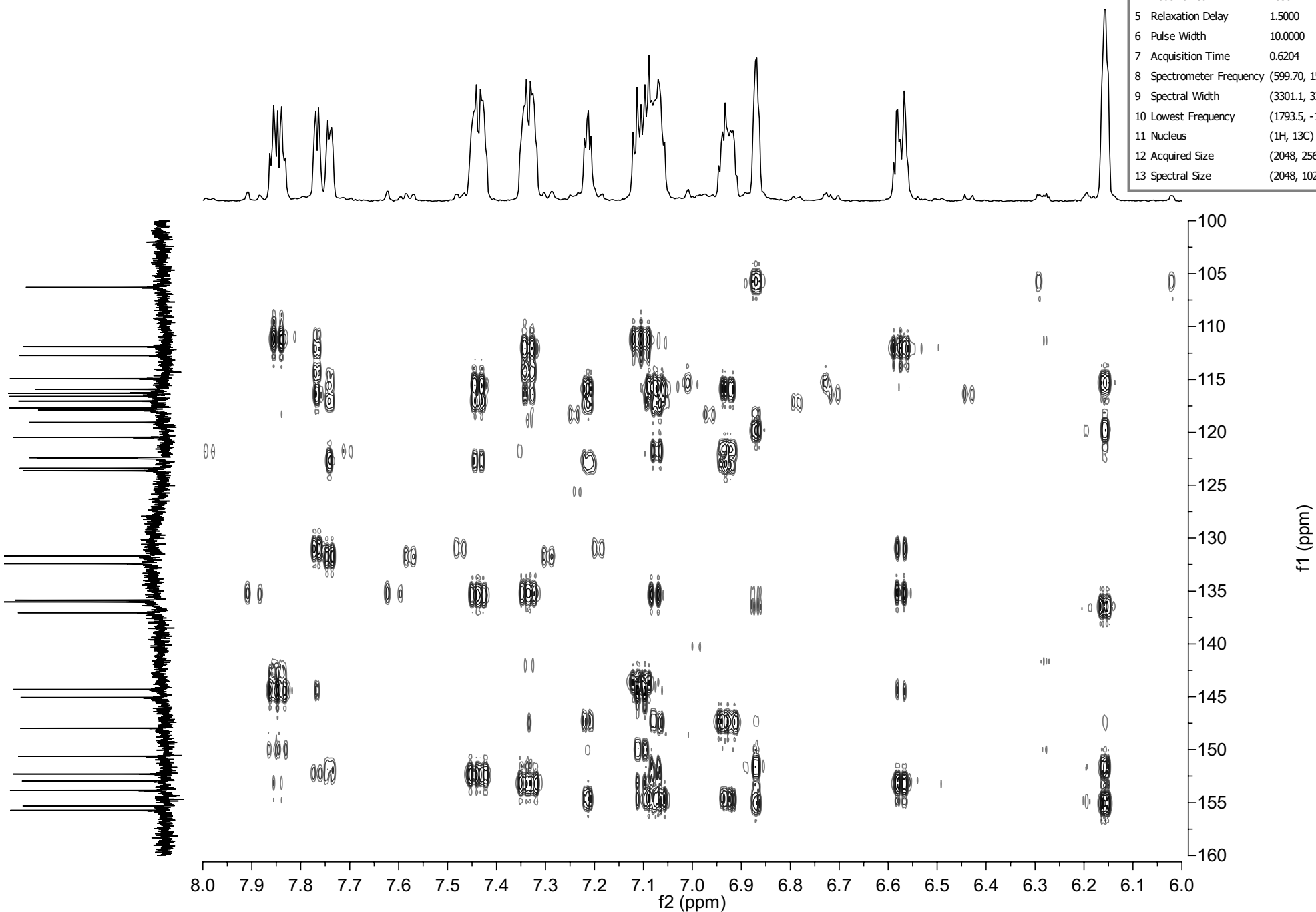


S19. HMBC ($J = 8$ Hz) of Crossbyanol B (2) in CD₃OD, 600 MHz



S20. HMBC ($J = 2$ Hz) of Crossbyanol B (2) in CD₃OD, 600 MHz

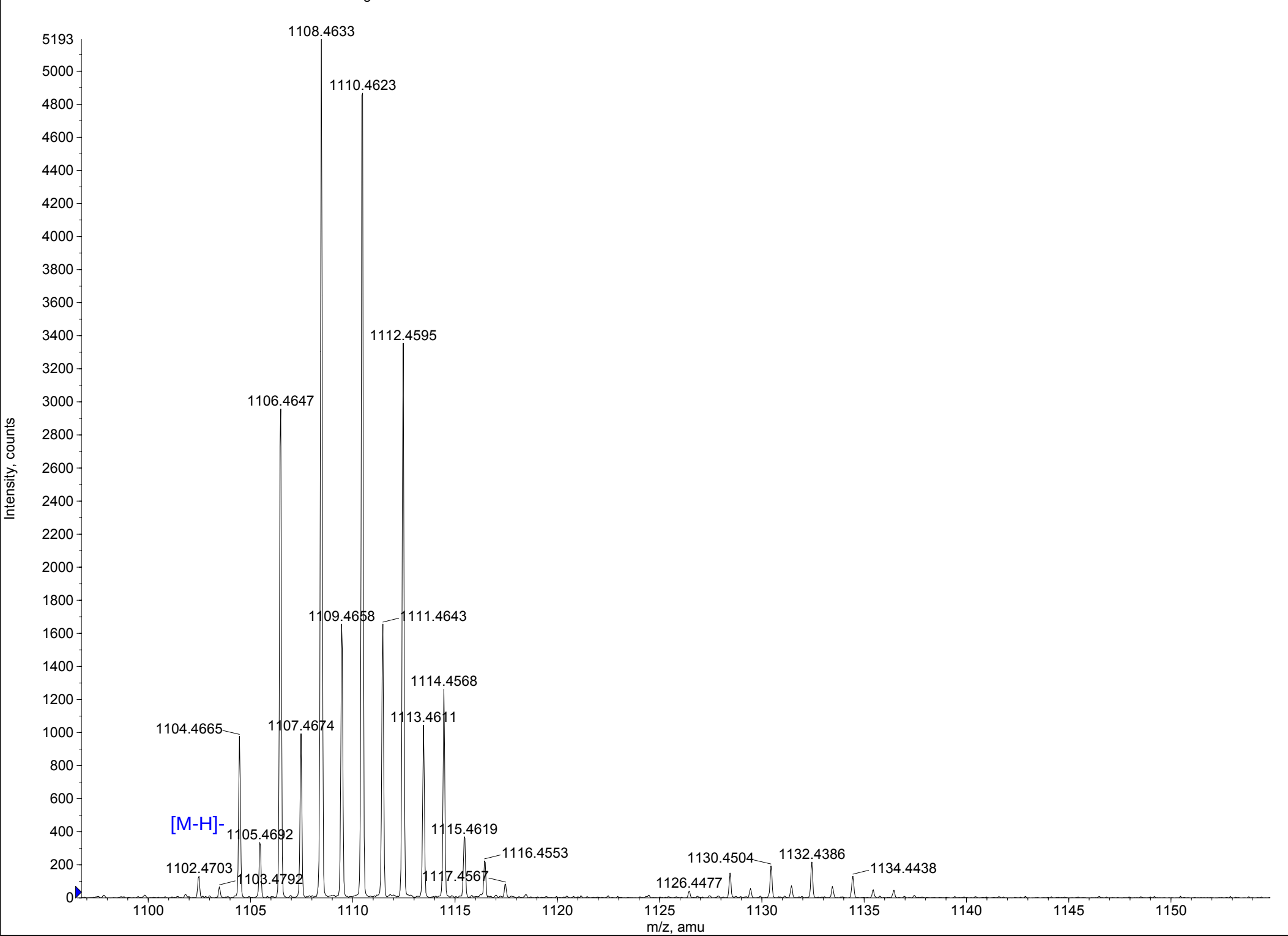
Parameter	Value (f2, f1)
1 Solvent	MeOD
2 Temperature	298.0
3 Number of Scans	128
4 Receiver Gain	2050
5 Relaxation Delay	1.5000
6 Pulse Width	10.0000
7 Acquisition Time	0.6204
8 Spectrometer Frequency	(599.70, 150.81)
9 Spectral Width	(3301.1, 33551.1)
10 Lowest Frequency	(1793.5, -1696.1)
11 Nucleus	(¹ H, ¹³ C)
12 Acquired Size	(2048, 256)
13 Spectral Size	(2048, 1024)



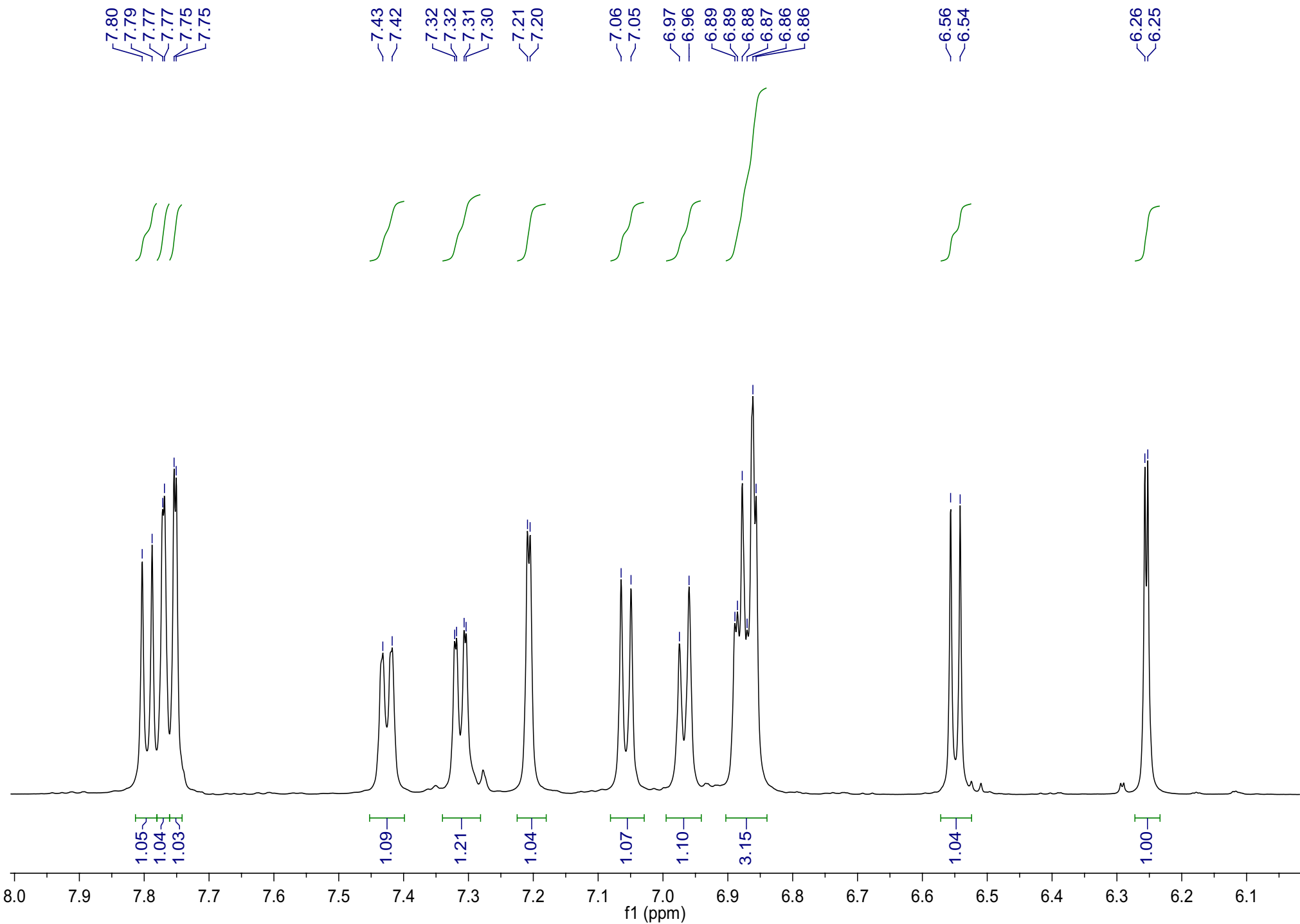
S21. HR-ESI-MS spectrum of 3

■ -TOF MS: 0.325 to 0.451 min from 083109129.wiff Agilent

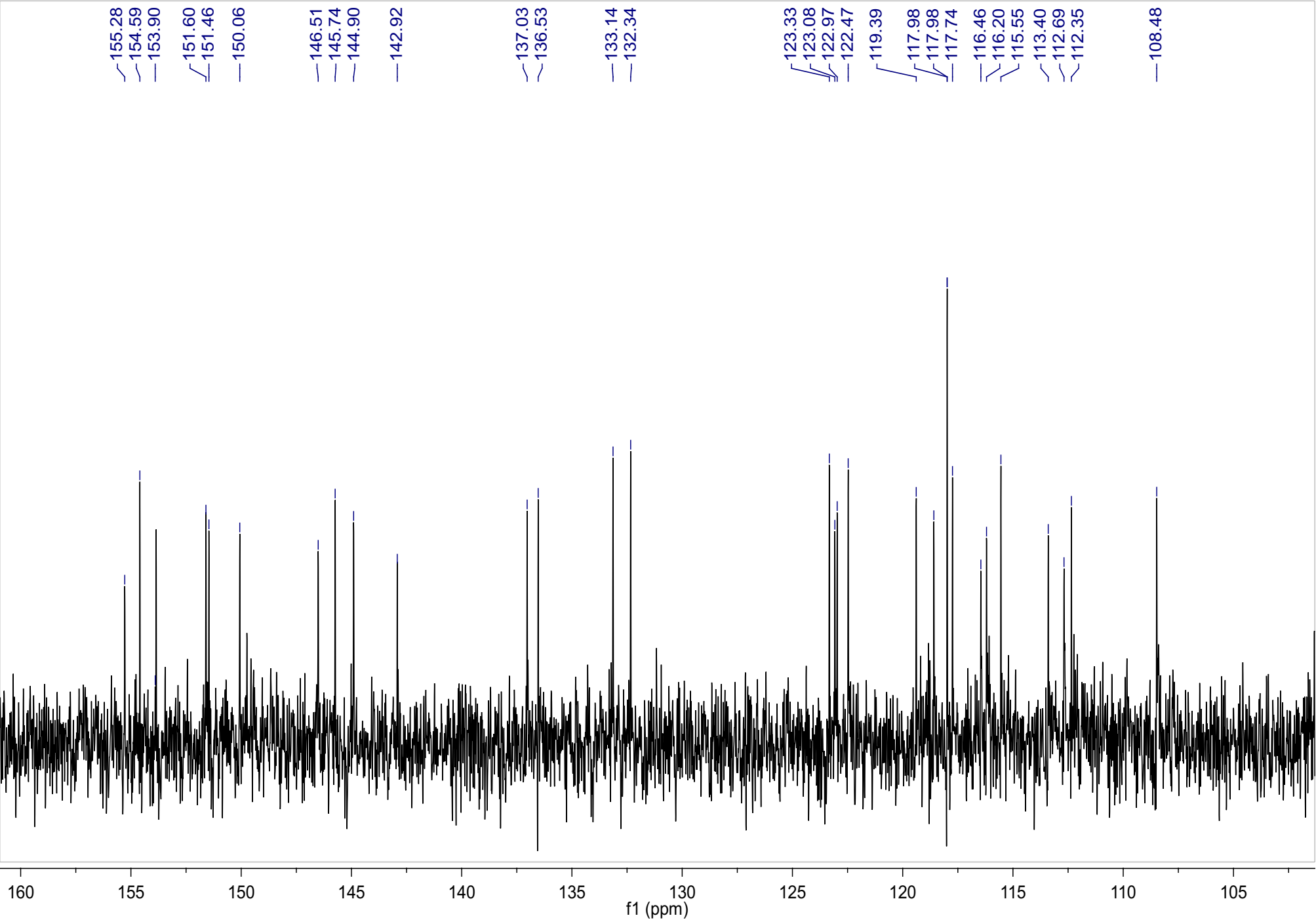
Max. 1.2e4 counts.



S22.1H NMR spectrum of **3** in CD3OD, 600MHz, 16 scans



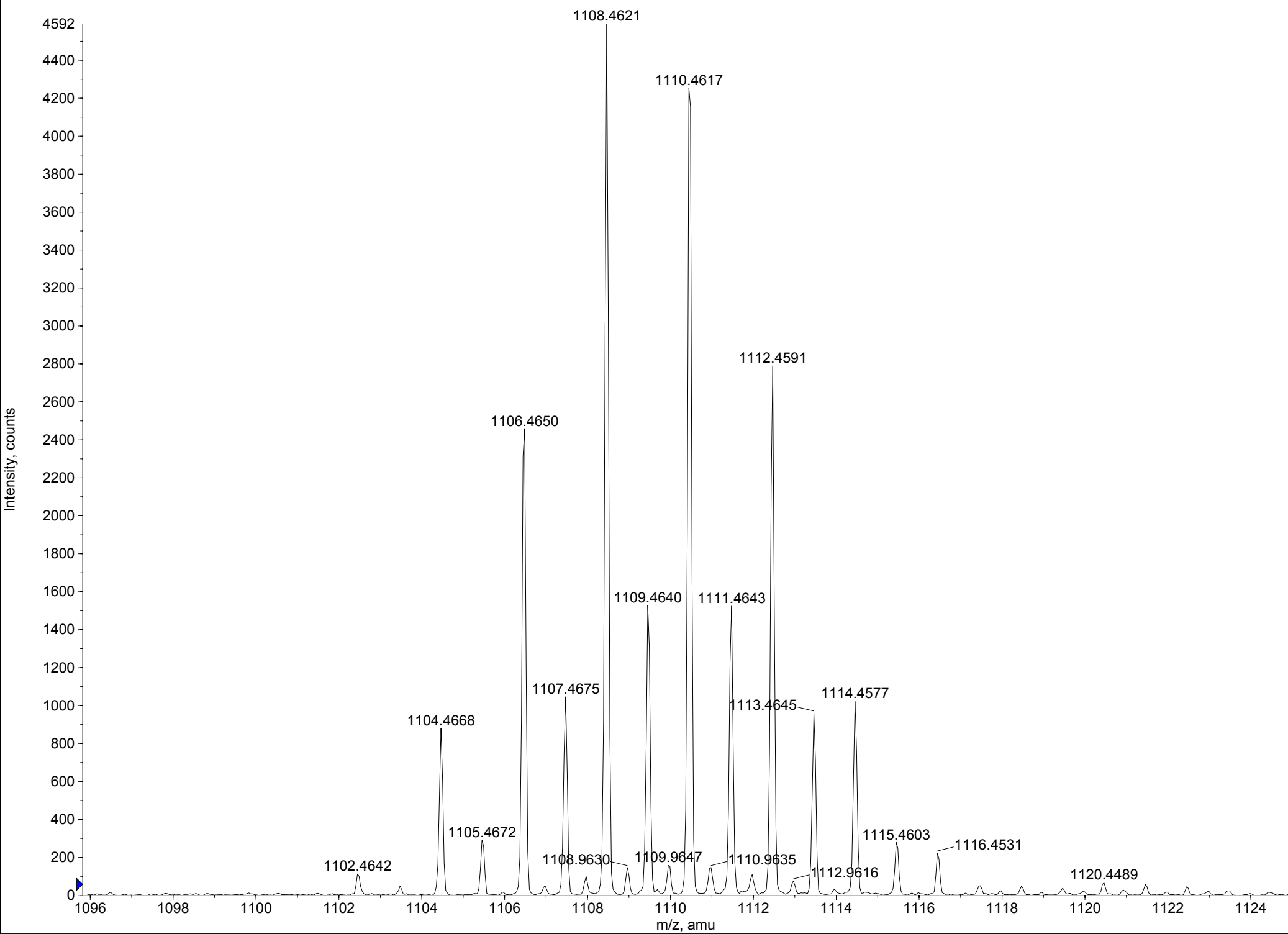
S23. ¹³C NMR spectrum of **3** in CD₃OD, 150MHz



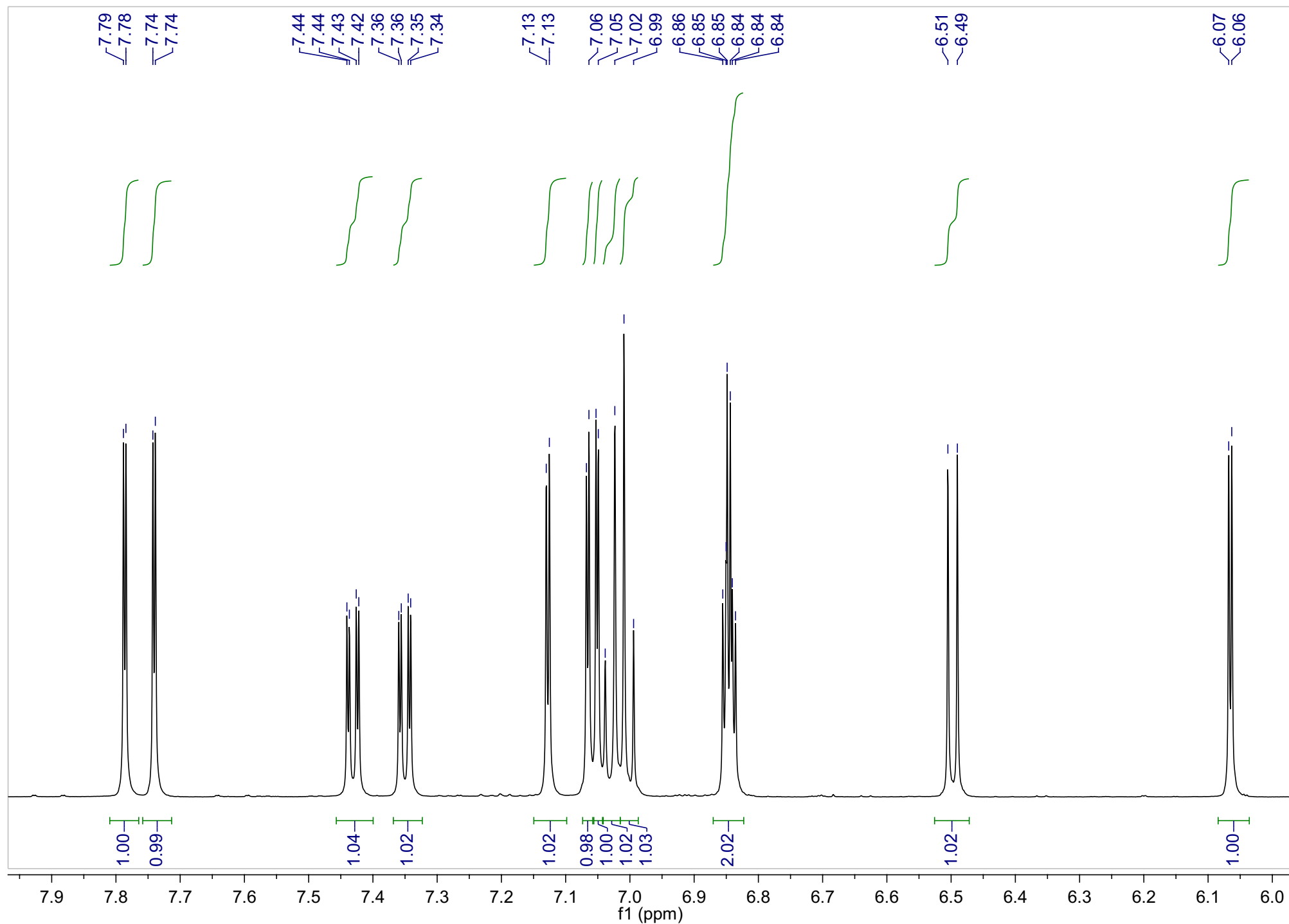
S24. HR-ESI-MS spectrum of 4

■ -TOF MS: 0.318 to 0.444 min from 083109130.wiff Agilent

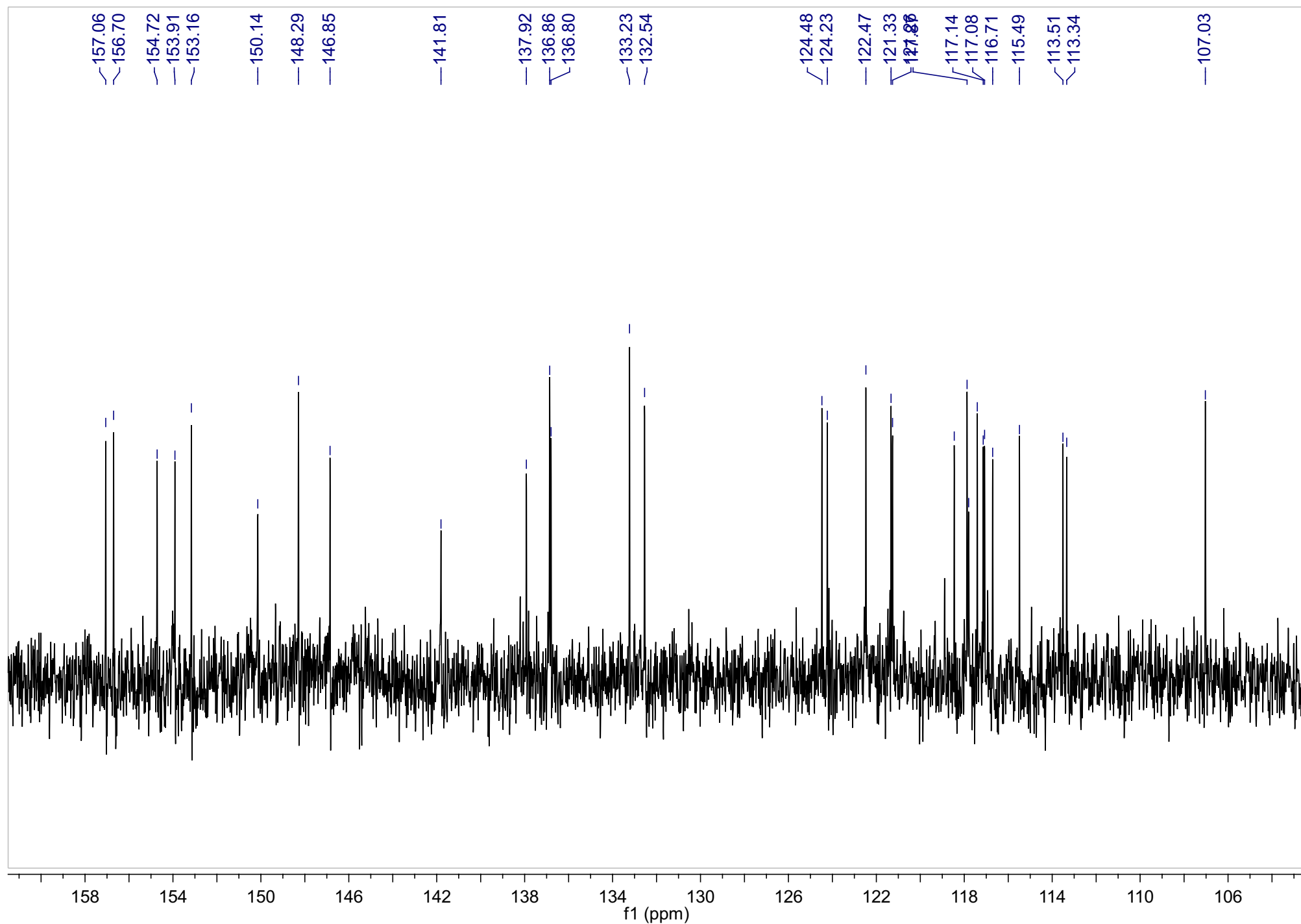
Max. 1.2e4 counts.



S25.1H NMR spectrum of **4** in CD3OD, 600MHz, 16 scans

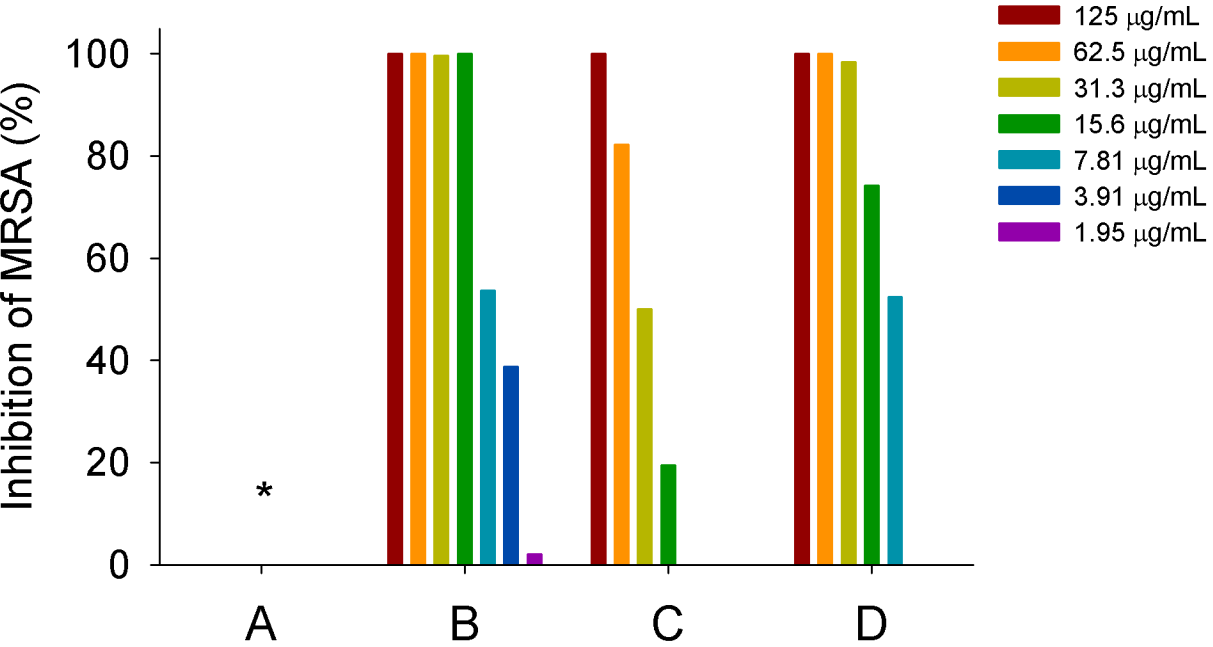


S26. ^{13}C NMR spectrum of **4** in CD_3OD , 150MHz

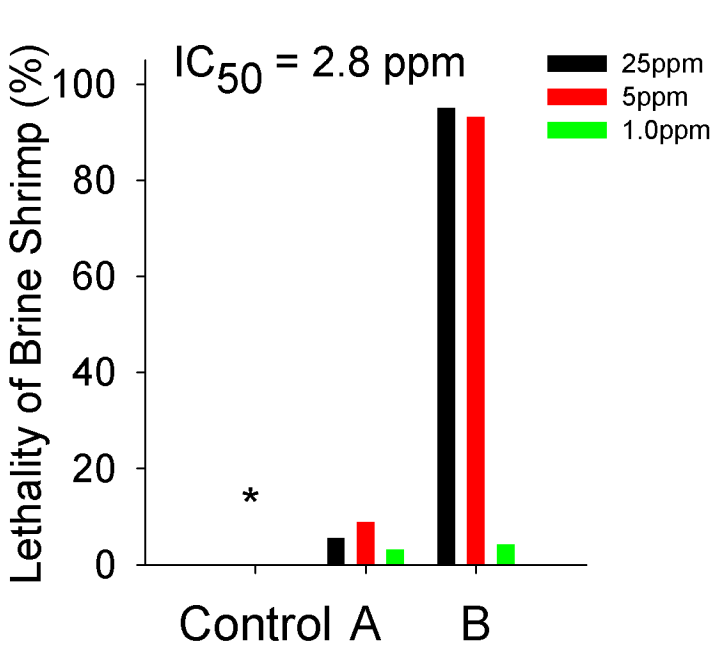


S27. Bioactivities of 1-4

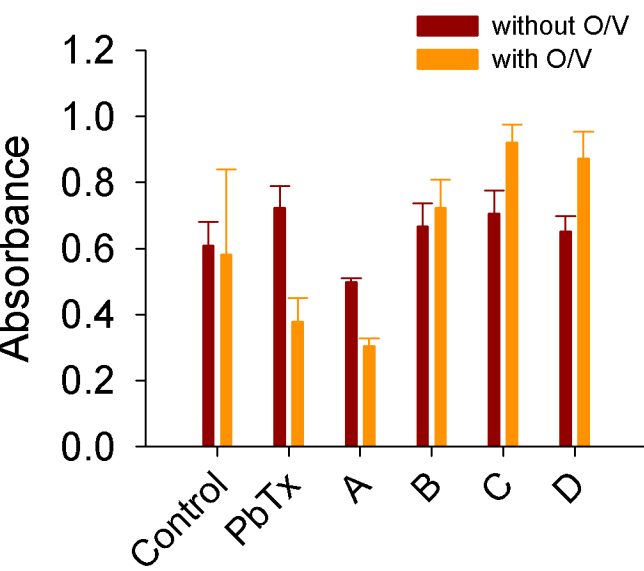
Anti-MRSA Activity



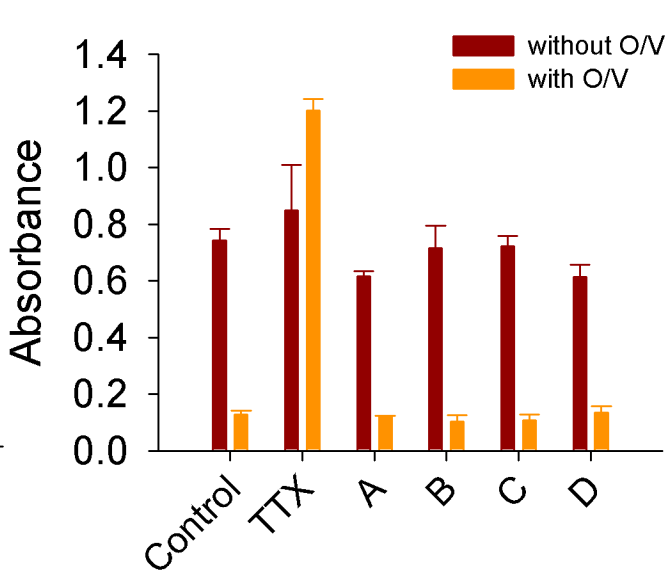
Brine Shrimp Toxicity



Sodium Channel Activator
20 µg/mL



Sodium Channel Blocker
20 µg/mL



Cytotoxicity against H460

