Supplementary Information

# ANTIMICROBIAL ACETOPHENONE AND PHENALENONE DERIVATIVES FROM A SOIL-DERIVED FUNGUS *PENICILLIUM VERRUCISPORUM* JX1

**Huiping Hu,[1#] Yuting Tang,[2#] Hengyi Lin,[3] Zheng Ma,[3] Penglai Fan,[4,5] Xiachang Wang,[6] Yongyong Zhang,[1*] and Jiarong Pan[1*]**

[1]Key Laboratory of Marine Food Quality and Hazard Controlling Technology of Zhejiang Province, College of Life Sciences, China Jiliang University, Hangzhou 310018, China; [2]State Key Laboratory of Phytochemistry and Plant Resources in West China, Kunming Institute of Botany, Chinese Academy of Sciences, Kunming 650201, China; [3]Zhejiang Provincial Key Laboratory of Biometrology and Inspection & Quarantine, College of Life Sciences, China Jiliang University, Hangzhou 310018, China; [4]Key Laboratory of Ecology of Rare and Endangered Species and Environmental Protection (Guangxi Normal University), Ministry of Education, Guilin 541000, China; [5]Guangxi Key Laboratory of Rare and Endangered Animal Ecology, College of Life Sciences, Guangxi Normal University, Guilin 541000, China; [6]Jiangsu Key Laboratory for Functional Substances of Chinese Medicine, Nanjing University of Chinese Medicine, Nanjing 210023, China. E-mail: zhangyy76@163.com; panjr@cjlu.edu.cn

Table of contents:

a.

GAACTGAGTGAGGGCTCTGGGTCCACCTCCCACCCGTGTTTATTGTACCTTGTTGCTTCGGCAGGCCCGCCTCACGGC
CGCCGGGGGGCTTCTCGCCCCCGGGCCCGCGCCTGCCGGAGACACCTTTGAACGCTGTCTGAAGTTTGCAGTCTGA
GCGATTAGCTAAATTAGTTAAAACTTTCAACAACGGATCTCTTGGTTCCGGCATCGATGAAGAACGCAGCGAAATGCG
ATAATTAATGTGAATTGCAGAATTCAGTGAATCATCGAGTCTTTGAACGCACATTGCGCCCCCTGGTATTCCGGGGGGC
ATGCCTGTCCGAGCGTCATTGCTGCCCTCAAGCCCGGCTTGTGTGTTGGGCCTCGTCCCCCCTCTGCGGGGGACGGGC
CCGAAAGGCAGCGGCGGCACCGTGTCCGGTCCTCGAGCGTATGGGGCTTTGTCACCCGCTCTGTAGGCCCGGCCGG
CGCCTTAGCCGACGACACAATCTTTTTTTTCAGGTTGACCTCGGATCAGGTAGGGATACCCGCTGAACTTAAGCATATC
ATAAAGCGGGAGGAAAAGTCC

b.

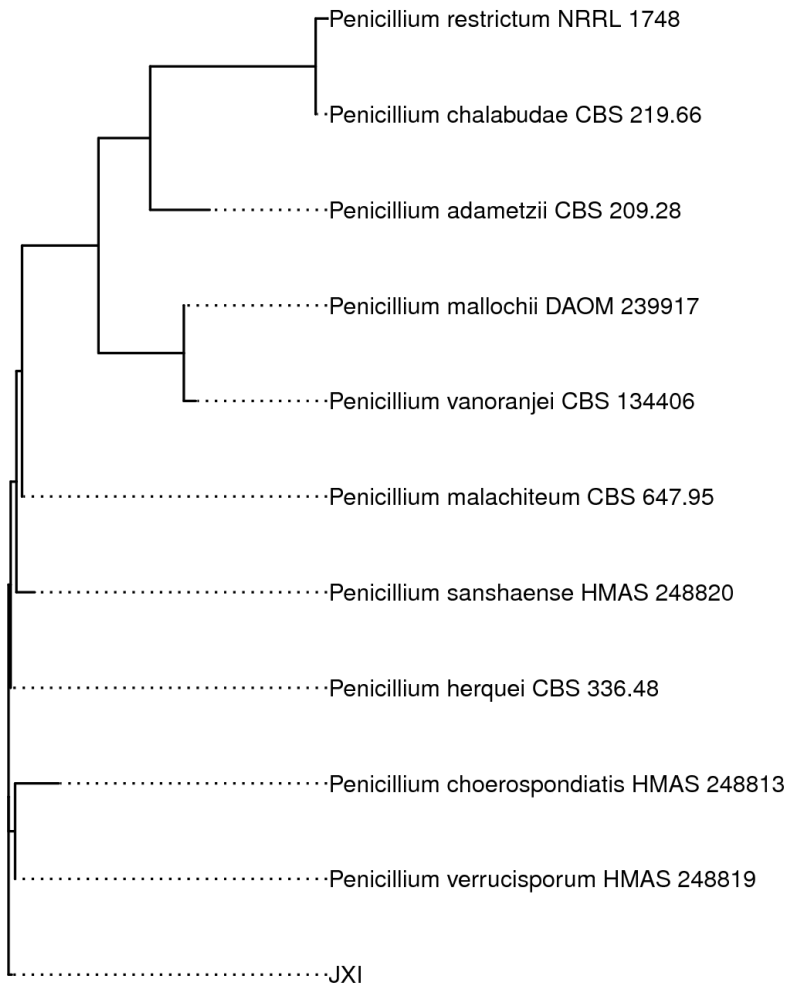



**Figure S1.** ITS gene sequences (a) and neighbor-joining phylogenetic tree of strain JX1 (b).

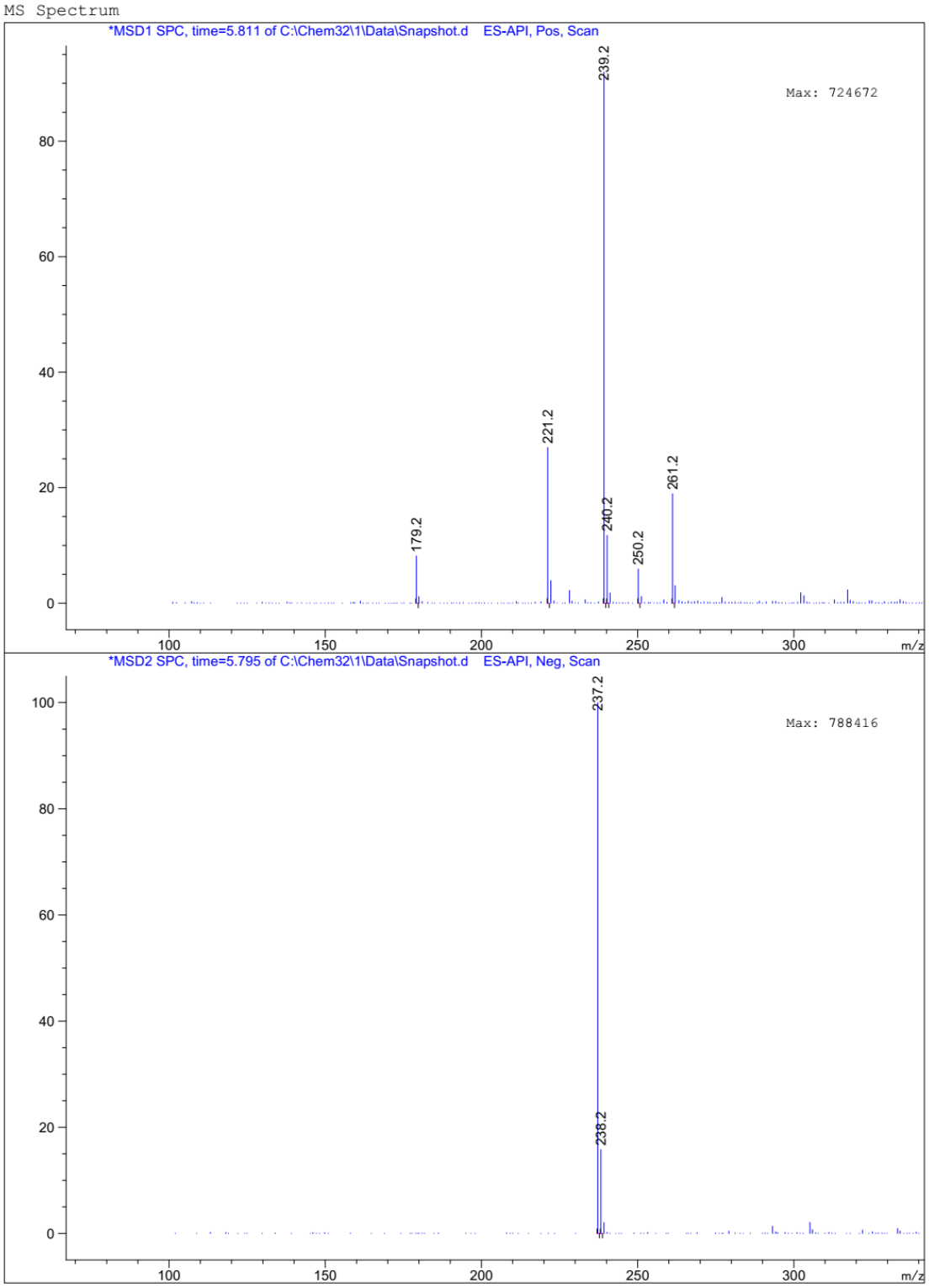
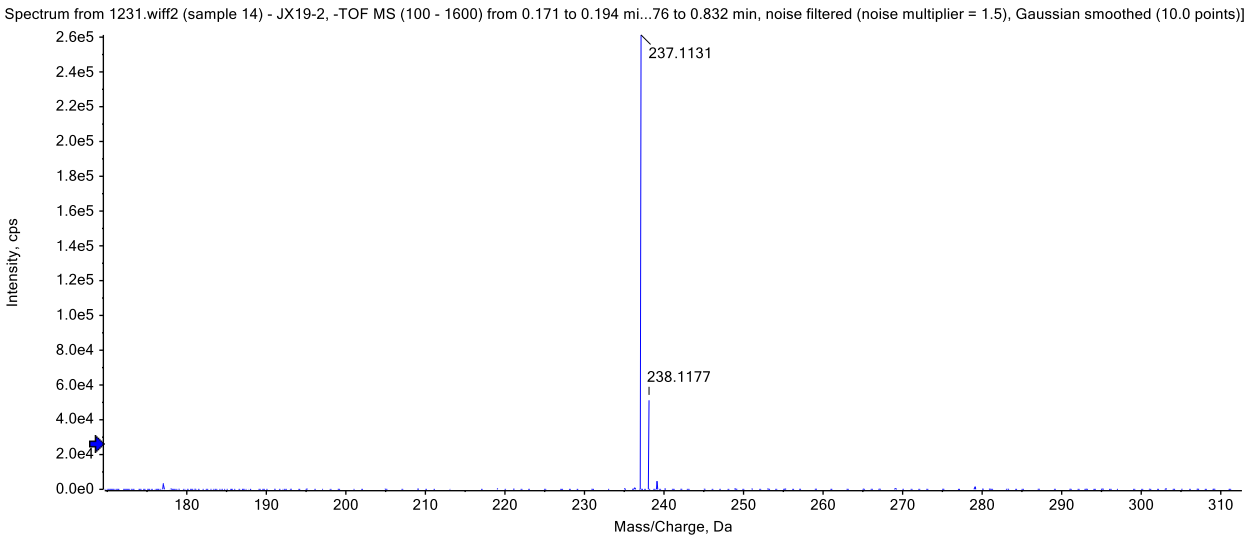



**Figure S2.** (+)-ESIMS and (–)-ESIMS spectrum of compound **1**.




| Ion Formula | Calculated *m/z* | Error (ppm) | Error (mmu) | RDB |
|---|---|---|---|---|
| C13H17O4 | 237.11214 | 4.0 | 0.95 | 6.0 |

**Figure S3.** (–)-HRESIMS spectrum of compound **1**.

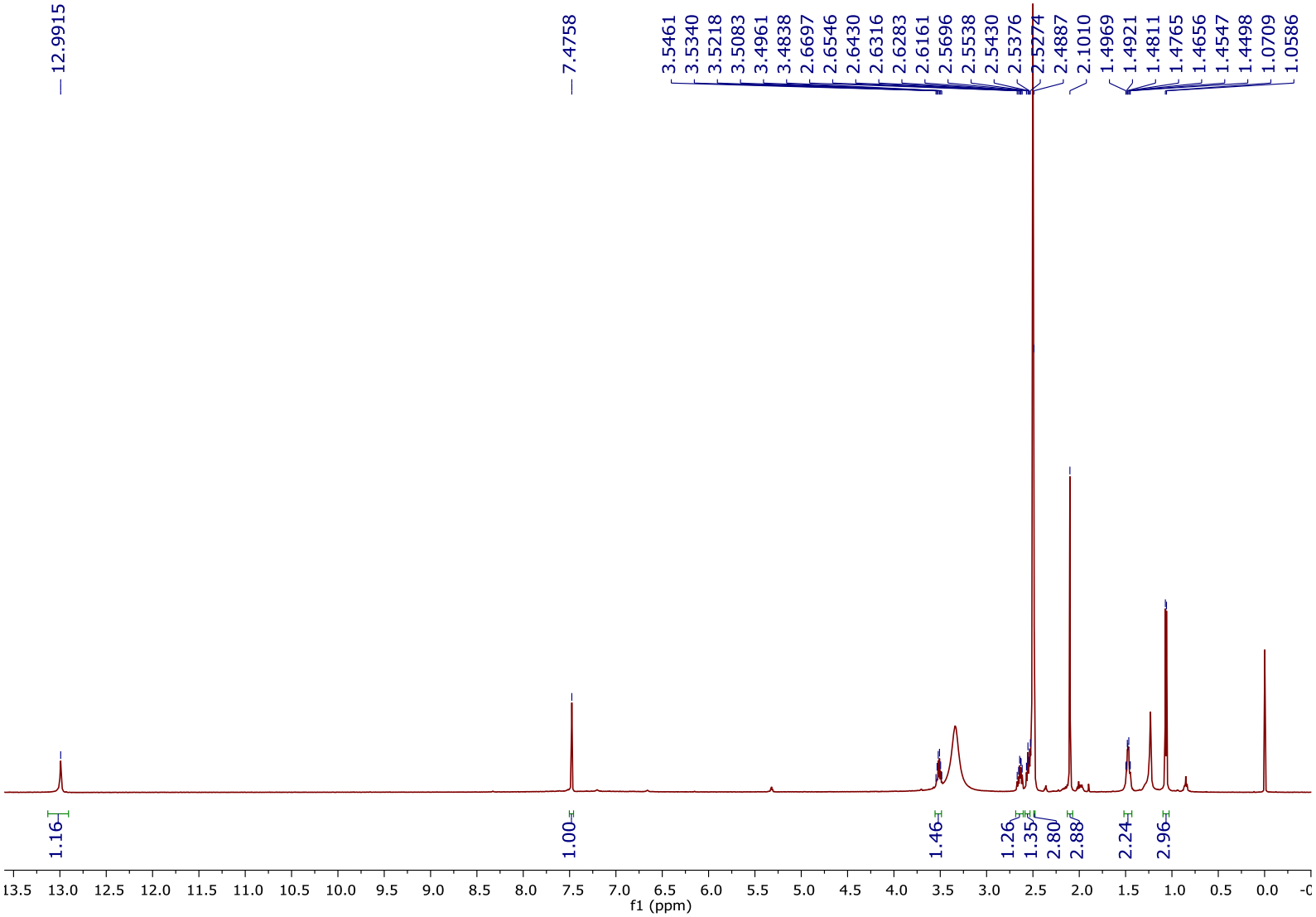



**Figure S4.** $^{1}$H NMR spectrum of compound **1**.

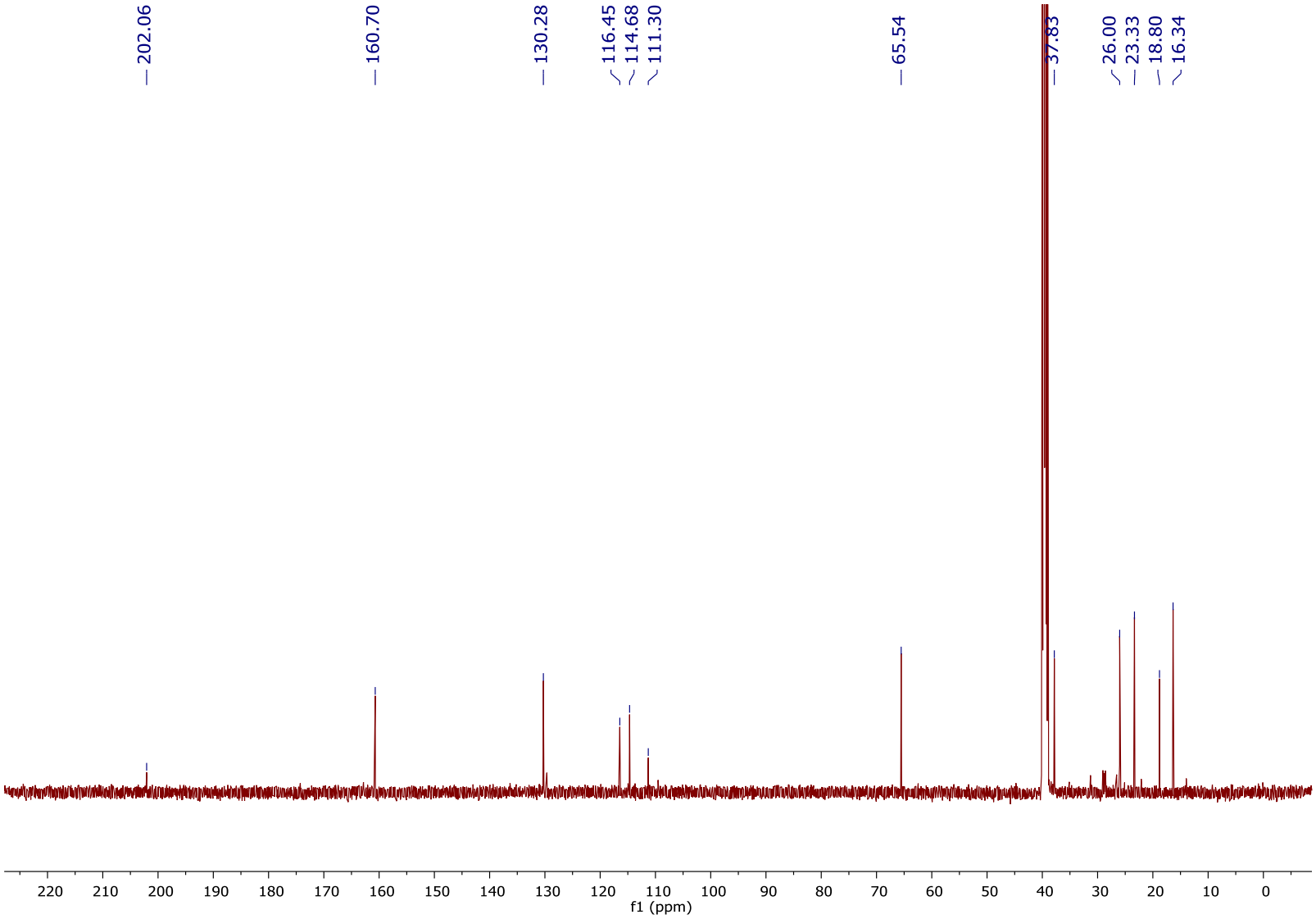



**Figure S5.** $^{13}$C NMR spectrum of compound **1**.

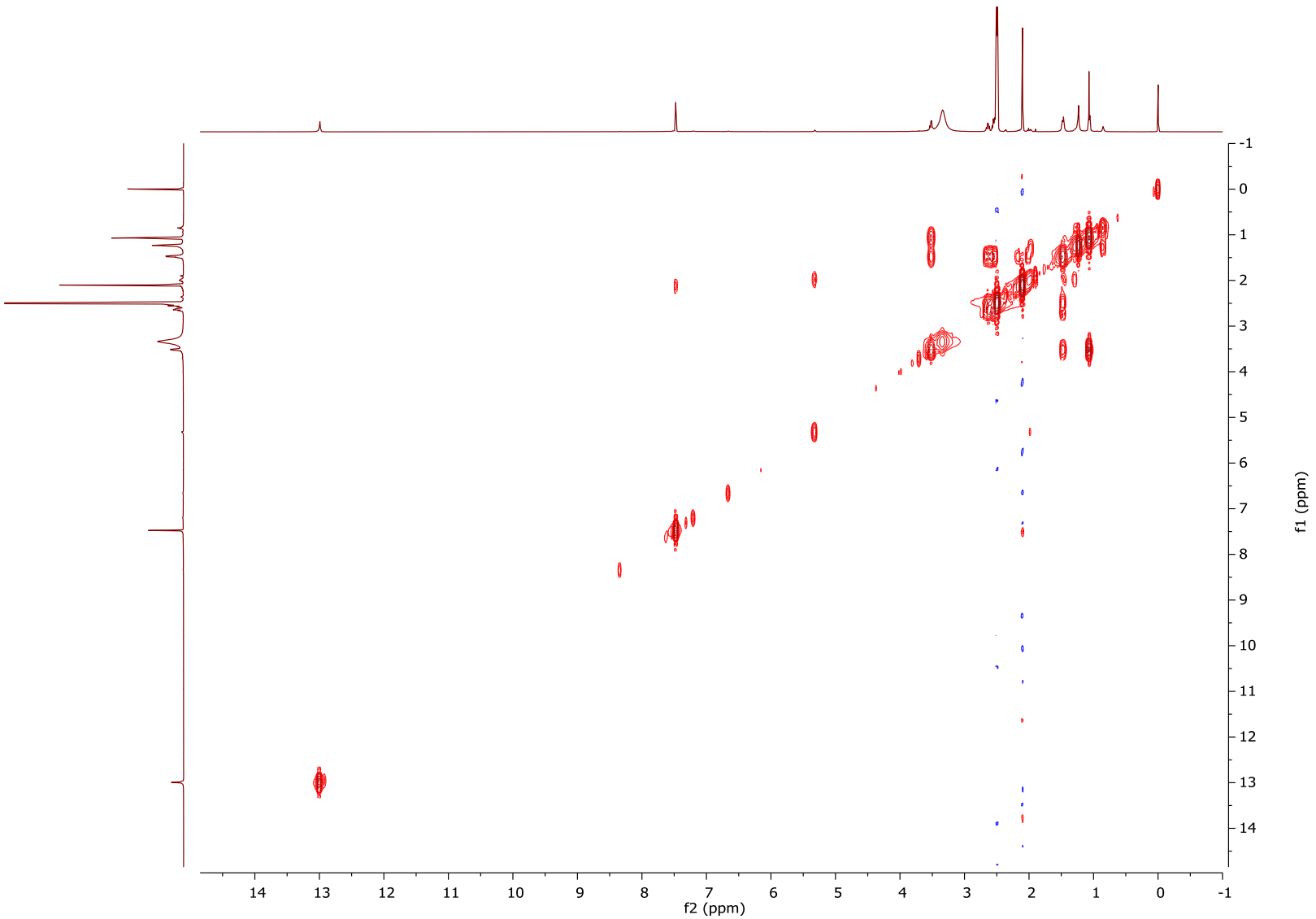



**Figure S6.** $^{1}$H-$^{1}$H COSY spectrum of compound **1**.

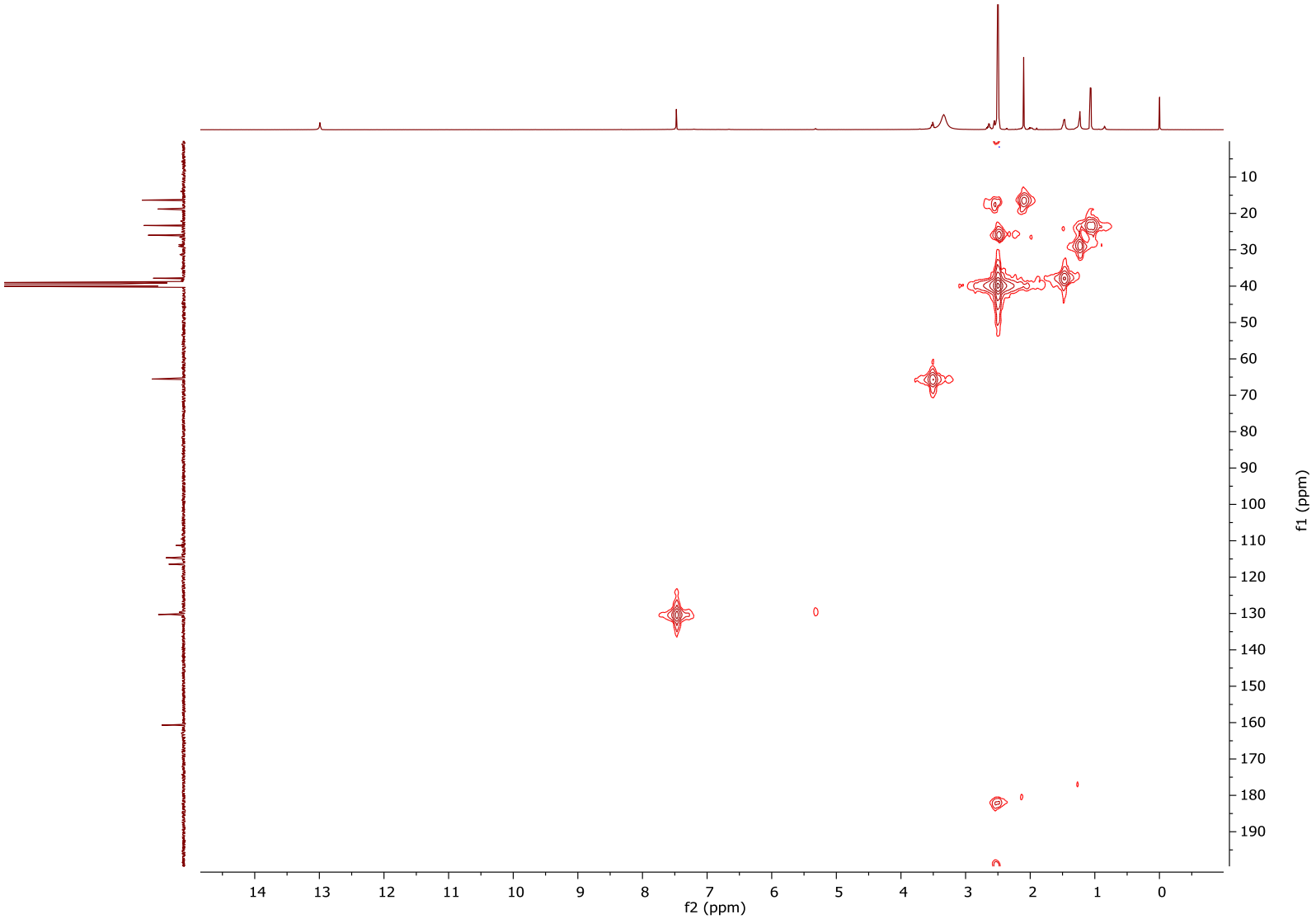



**Figure S7.** HSQC spectrum of compound **1**.

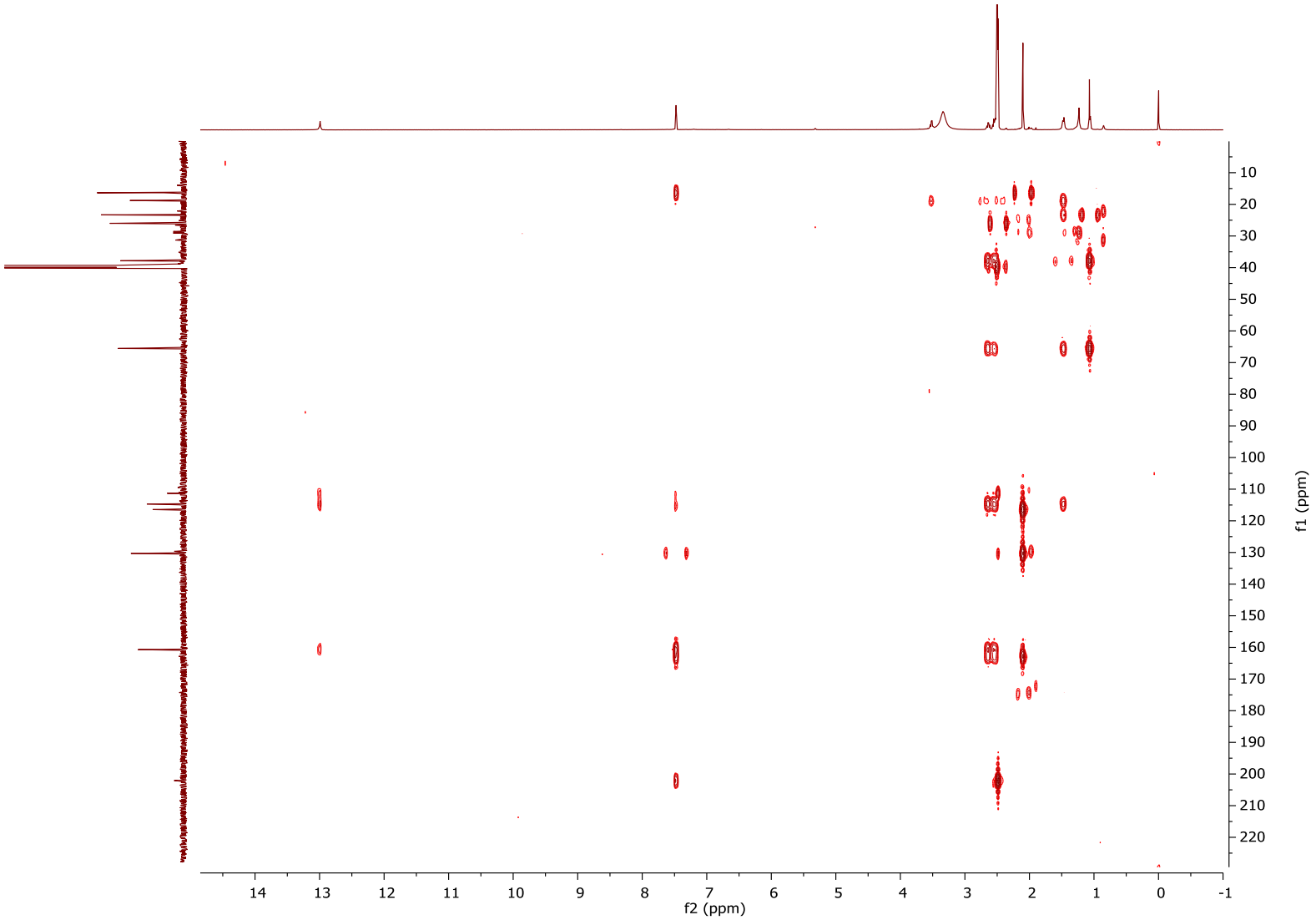



**Figure S8.** HMBC spectrum of compound **1**.

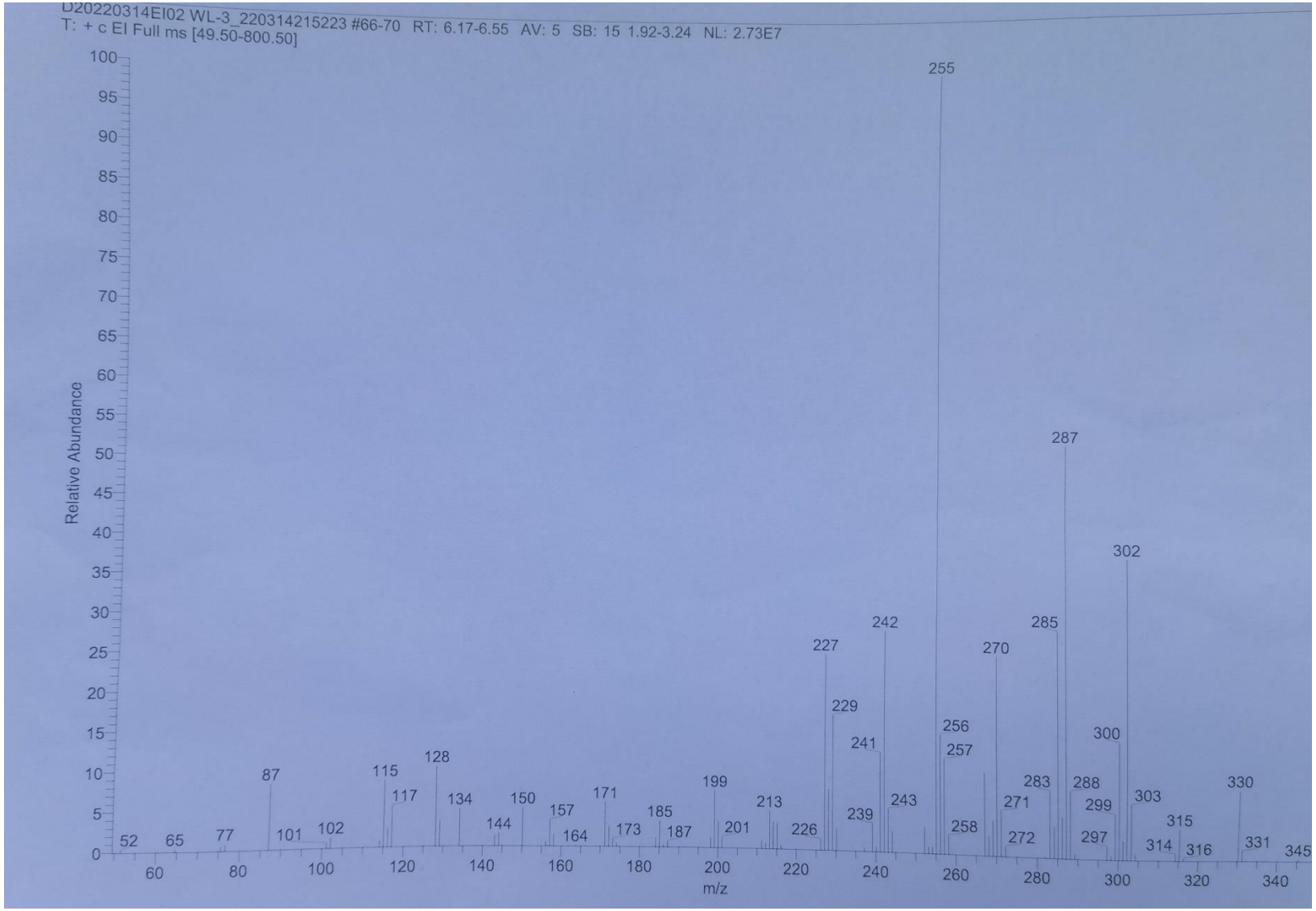



**Figure S9.** (+)-EIMS spectrum of compound **4**.

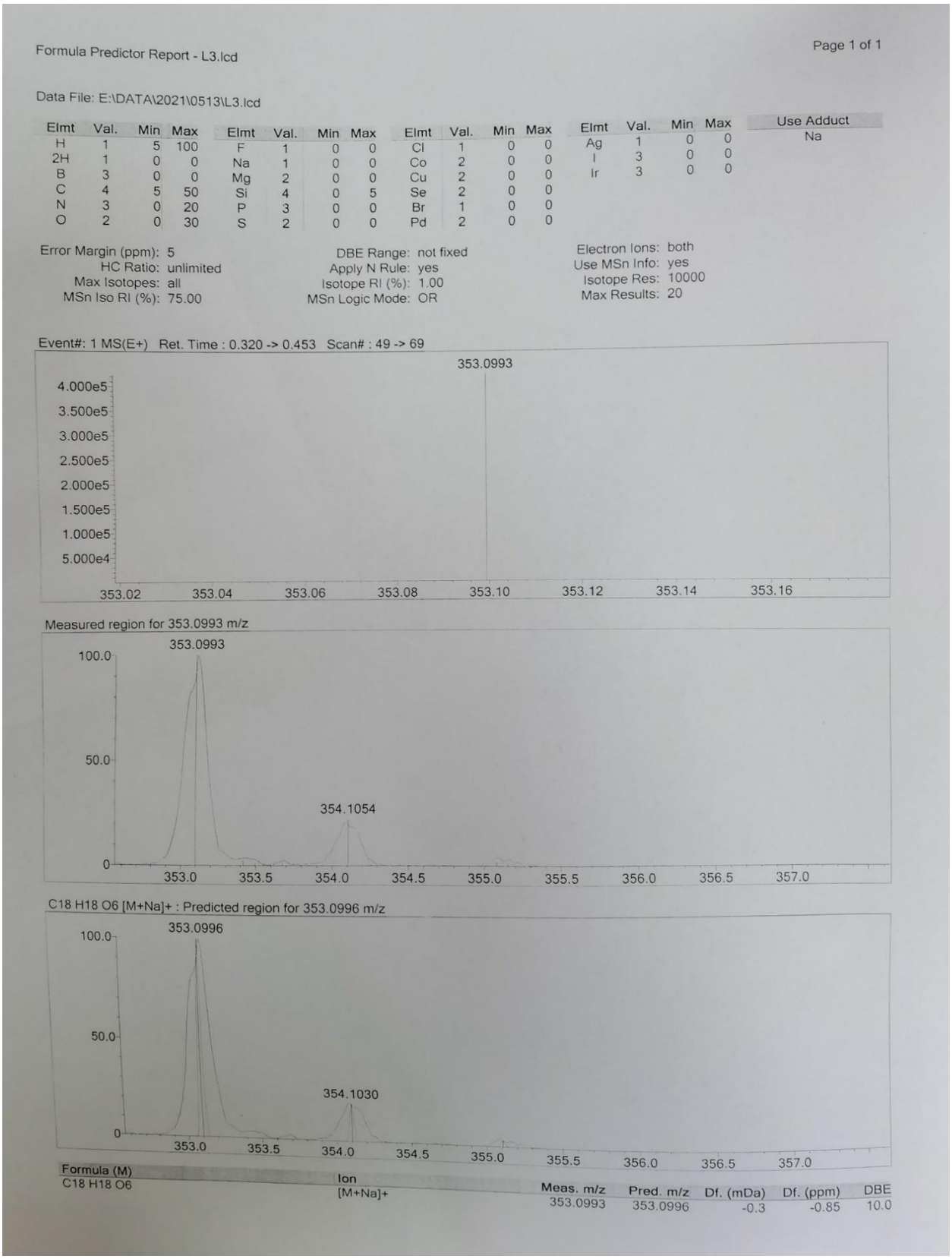



**Figure S10.** (+)-HRESIMS spectrum of compound **4**.

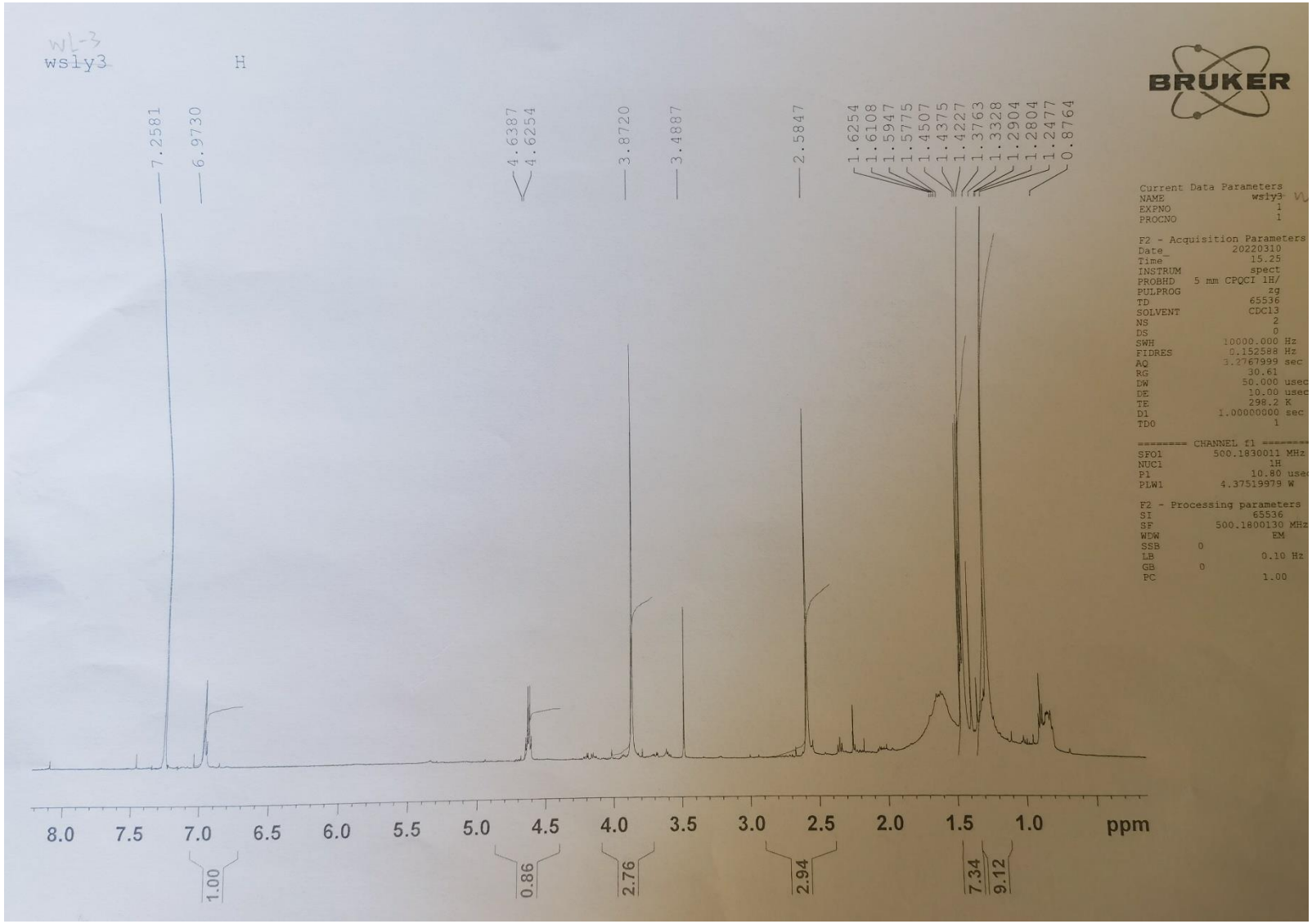



**Figure S11.** $^{1}$H NMR ($CDCl_3$, 500 MHz) spectrum of compound **4**.

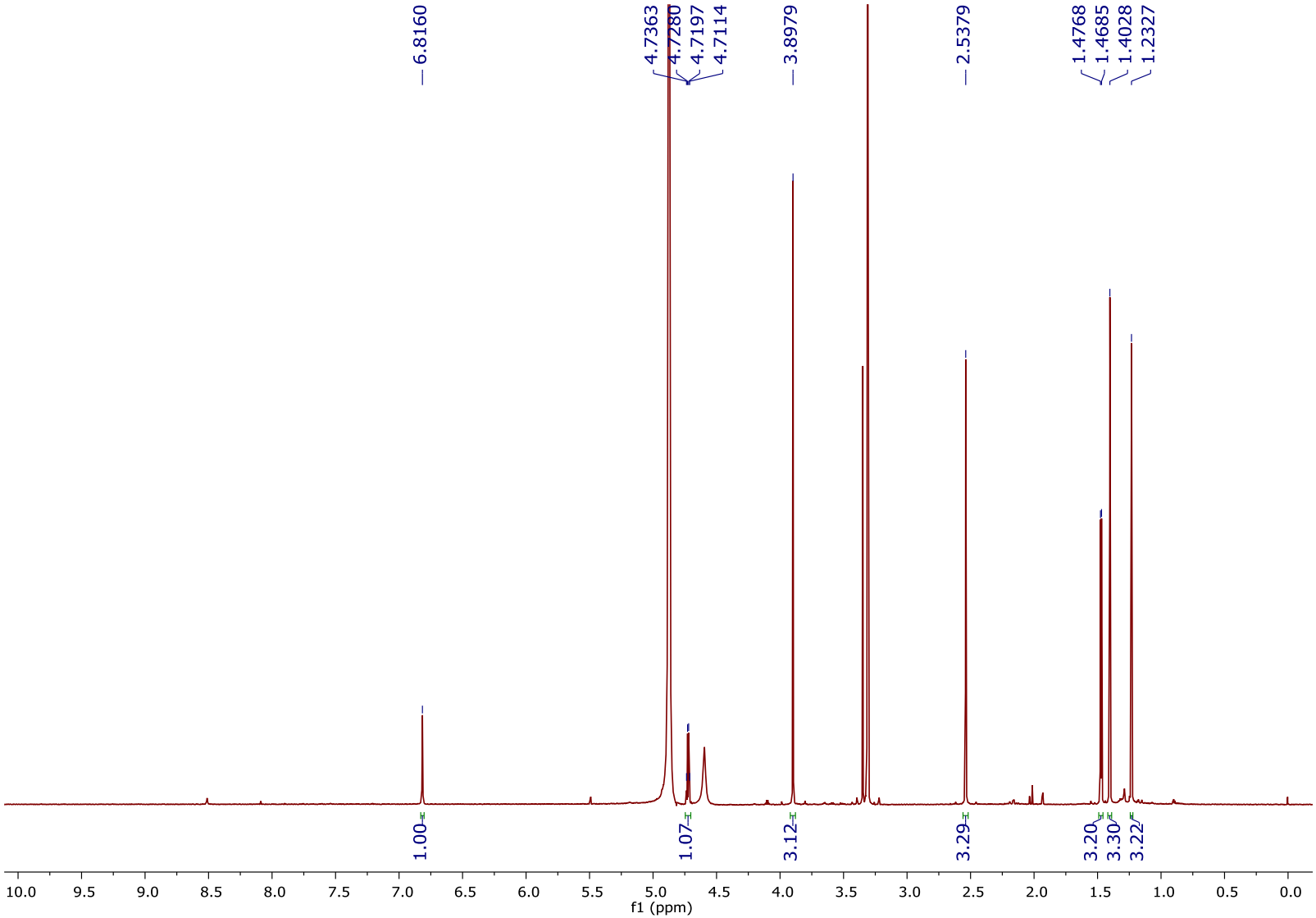



**Figure S12.** $^{1}$H NMR ($CD_3OD$, 800 MHz) spectrum of compound **4**.

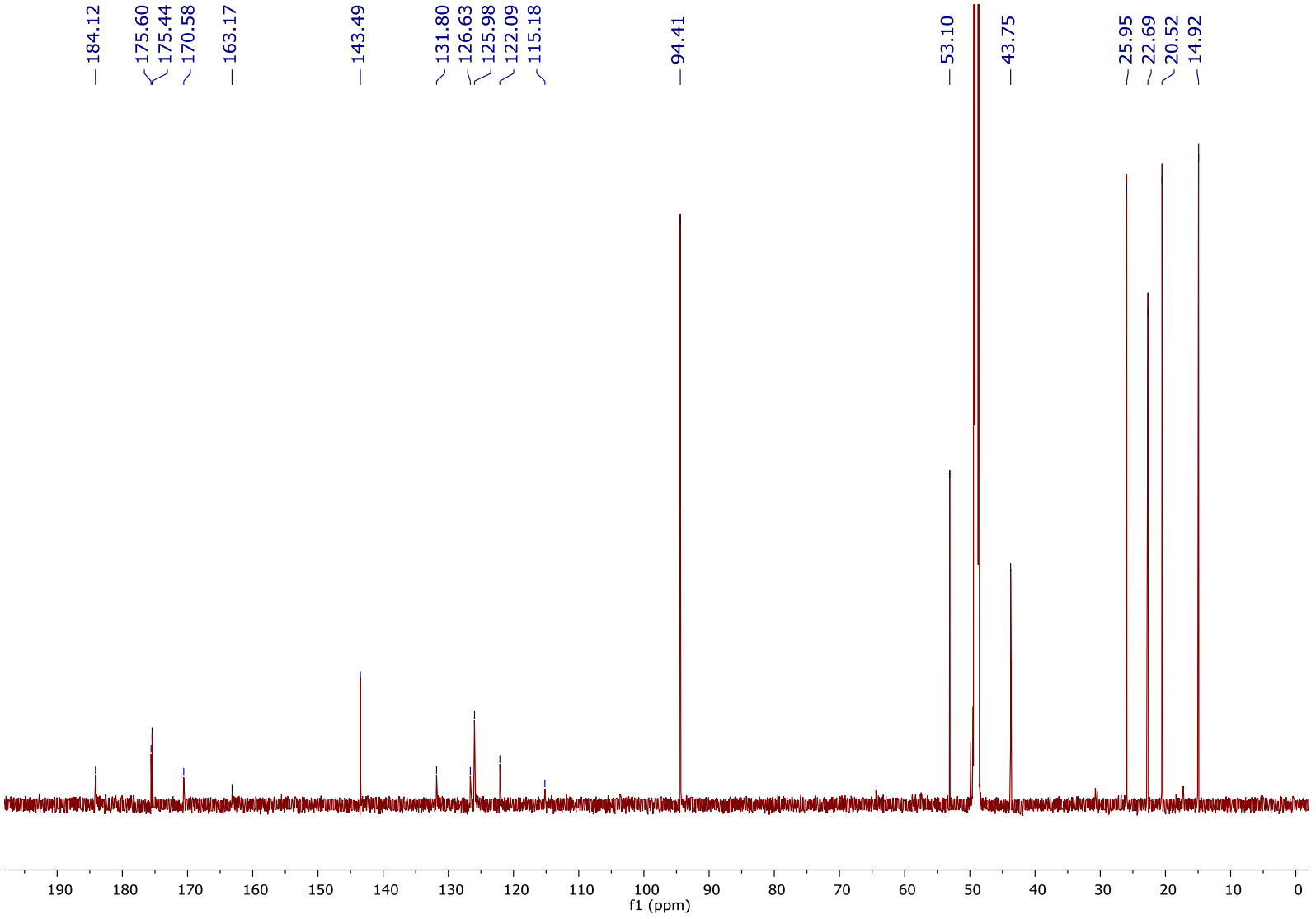



**Figure S13.** $^{13}$C NMR ($CD_3OD$, 200 MHz) spectrum of compound **4**.

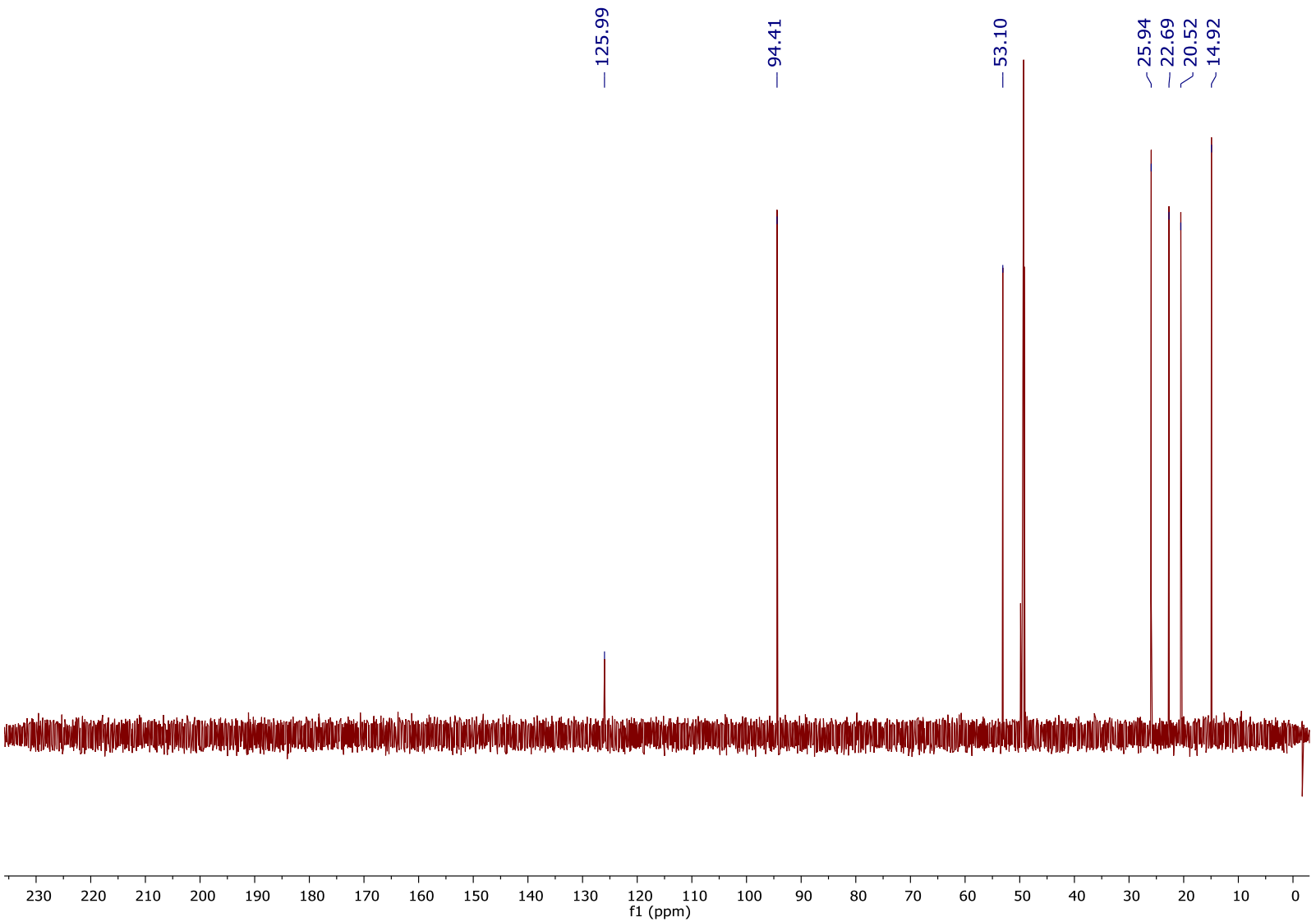



**Figure S14.** DEPT-135 spectrum of compound **4**.

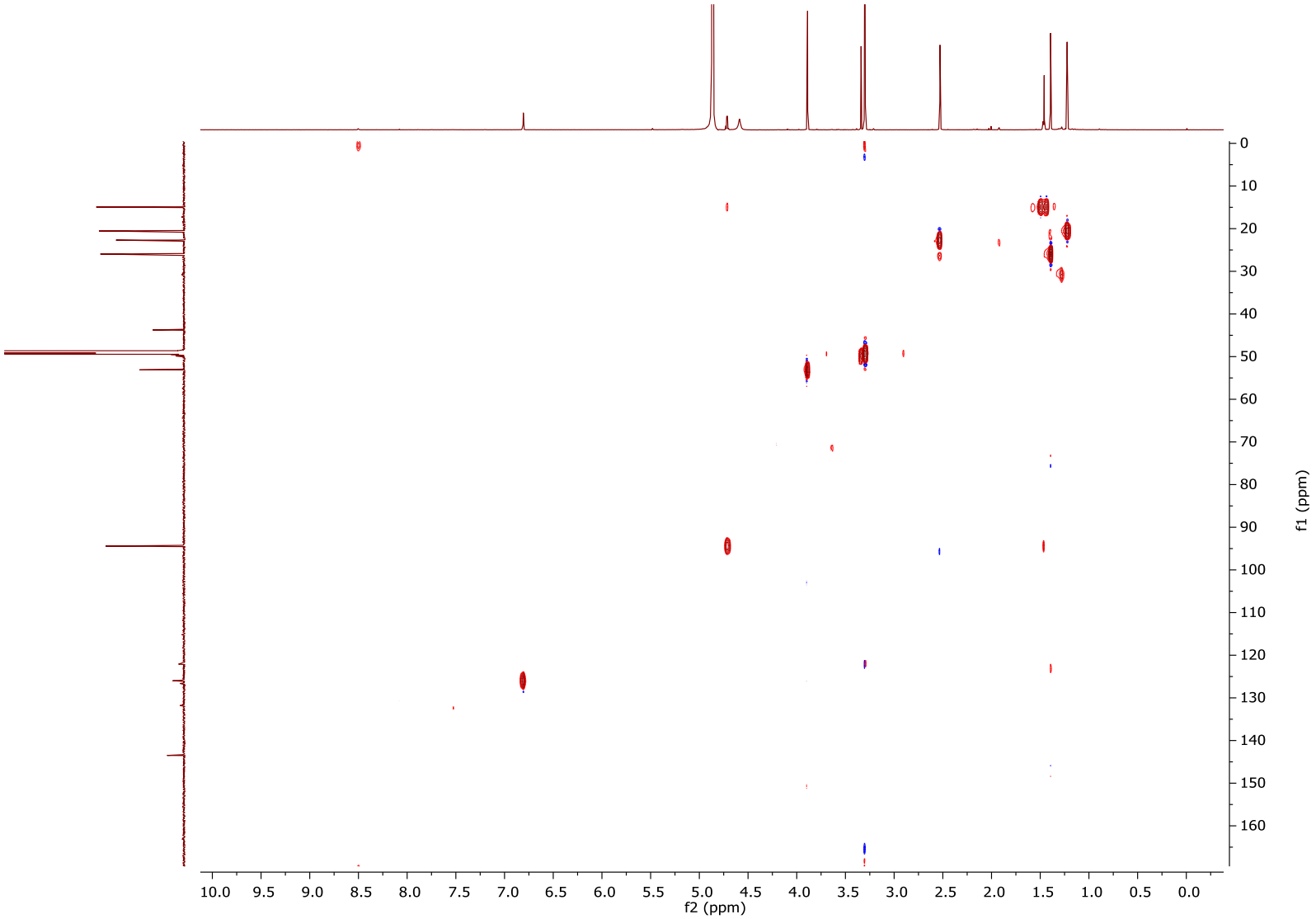



**Figure S15.** HSQC spectrum of compound **4**.

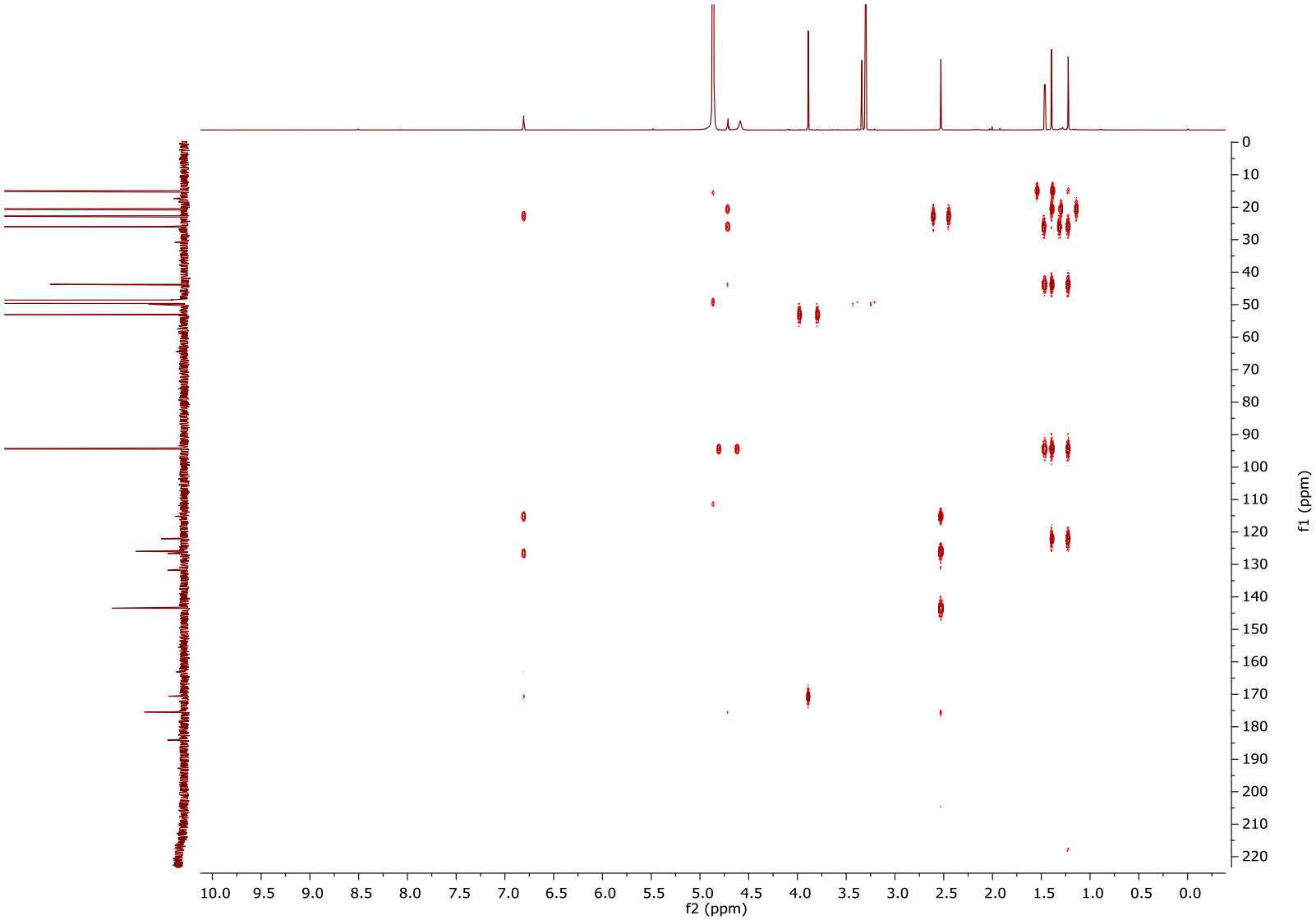



**Figure S16.** HMBC spectrum of compound **4**.