Supporting Information

Altertoxins with quorum sensing inhibitory activities from the marine-derived fungus *Cladosporium* sp. KFD33

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List of Supporting Information

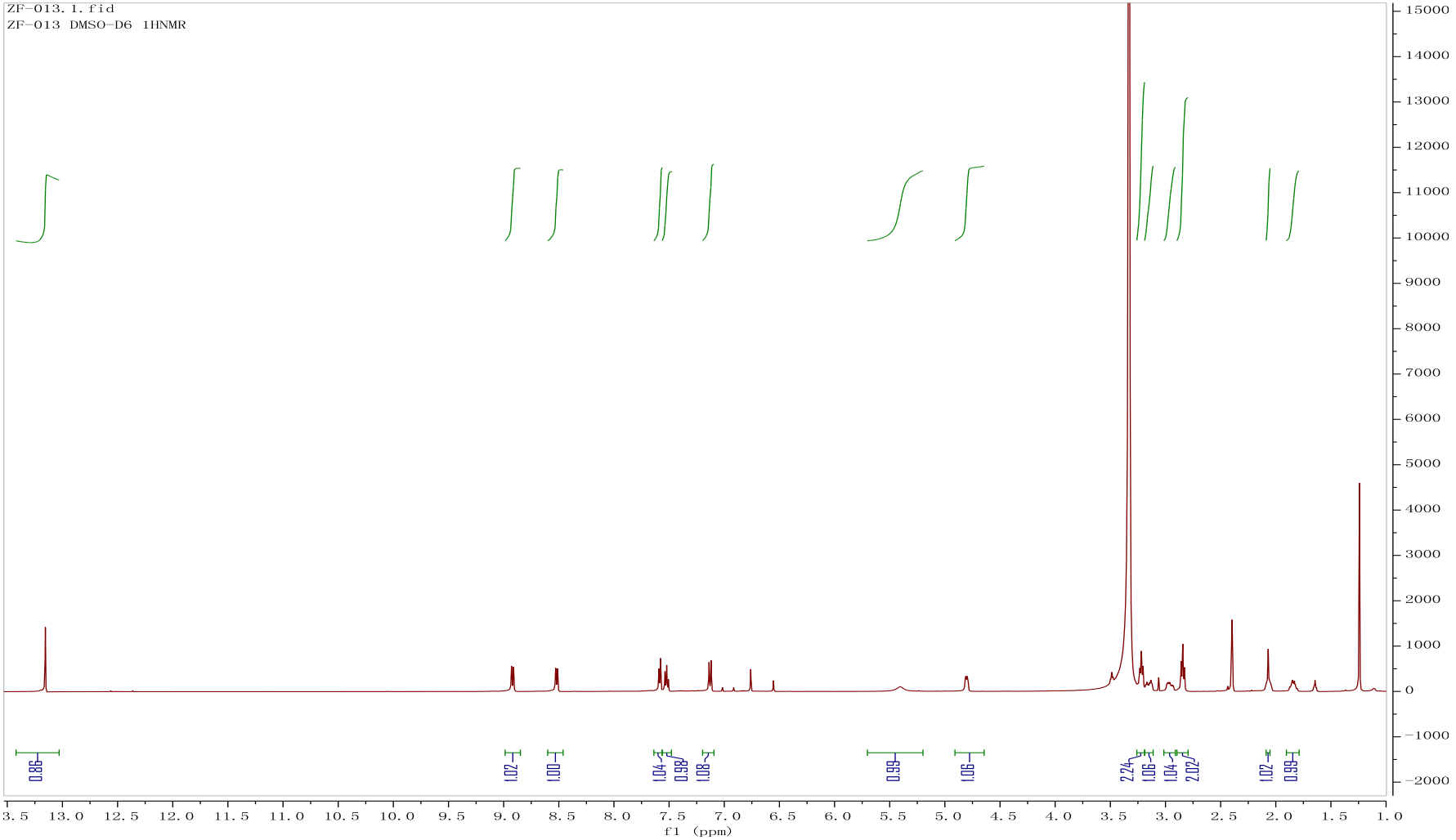

Figure S1. The ^{1}H NMR Spectrum of Compound **1** in DMSO

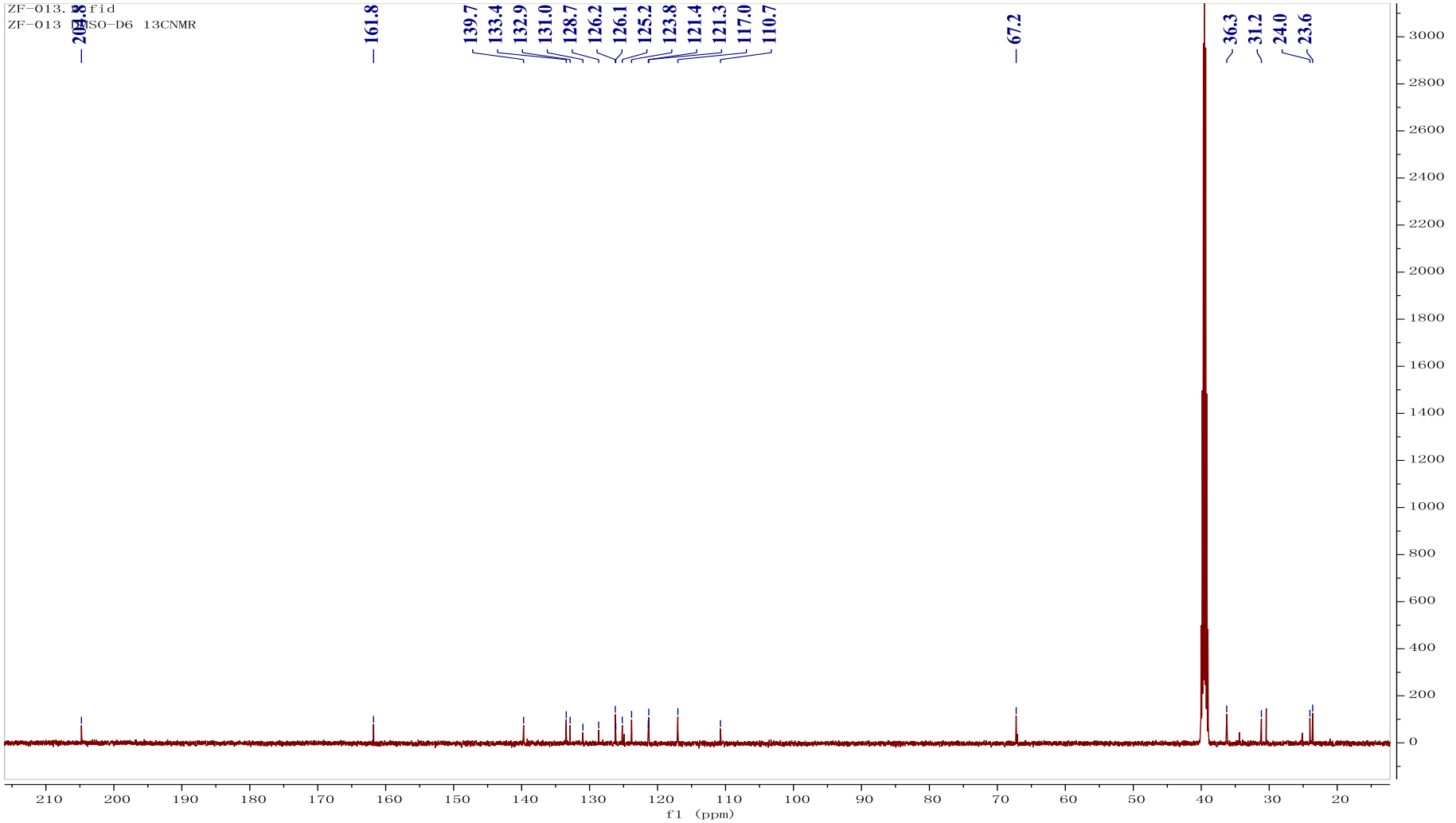

Figure S2. The ^{13}C NMR Spectrum of Compound **1** in DMSO

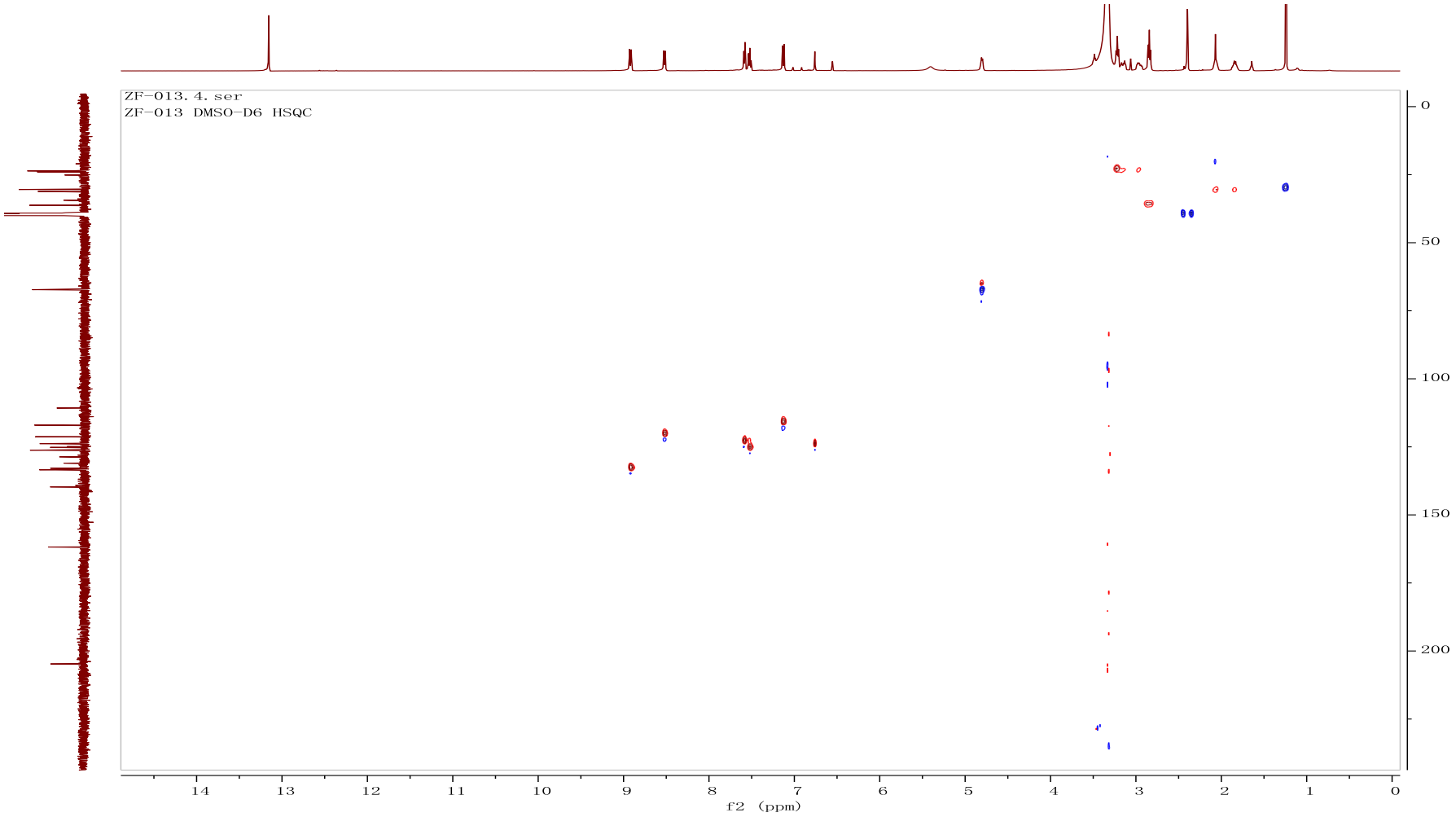

Figure S3. The HMQC Spectrum of Compound **1** in DMSO

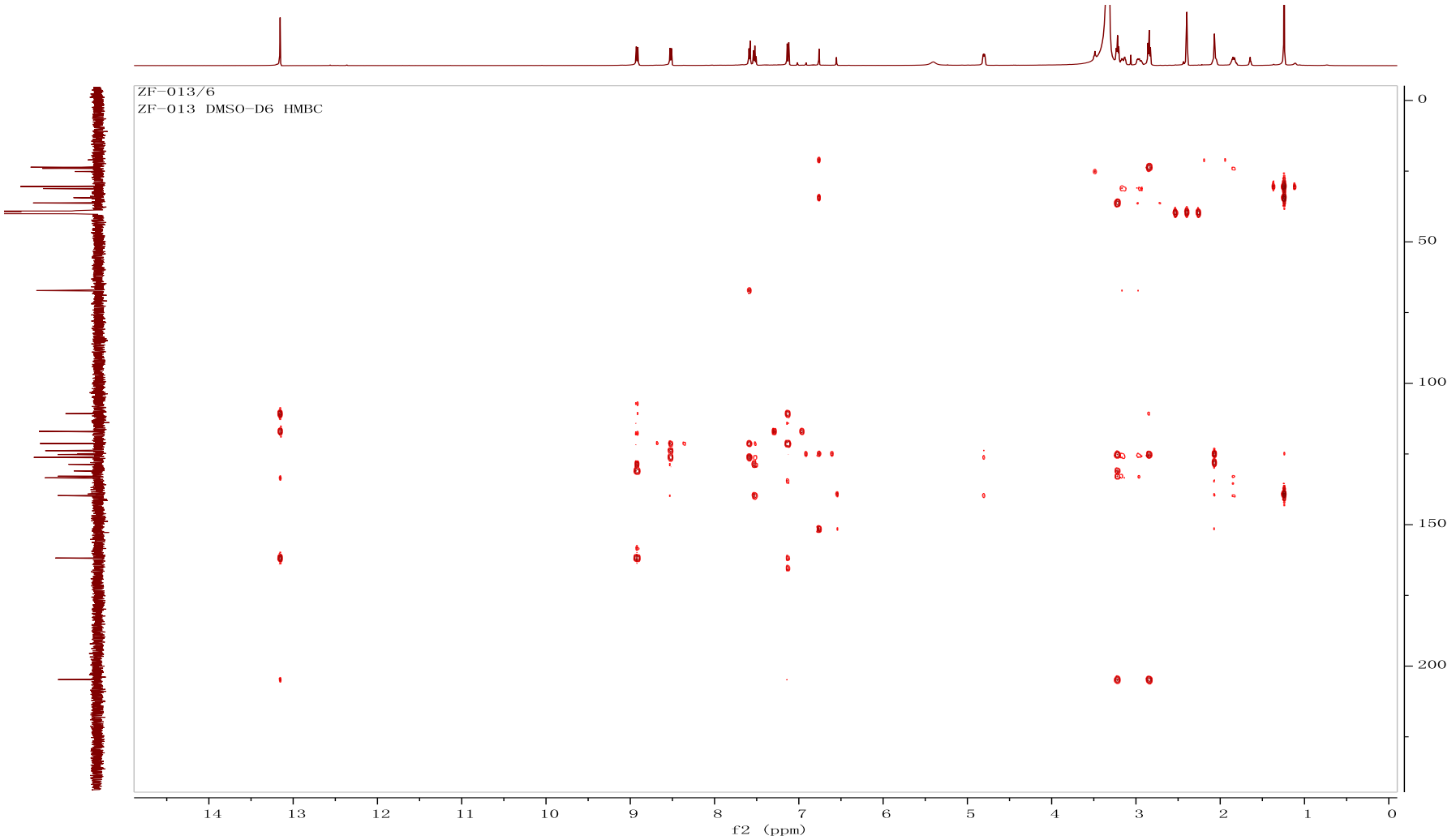

Figure S4. The HMBC Spectrum of Compound **1** in DMSO

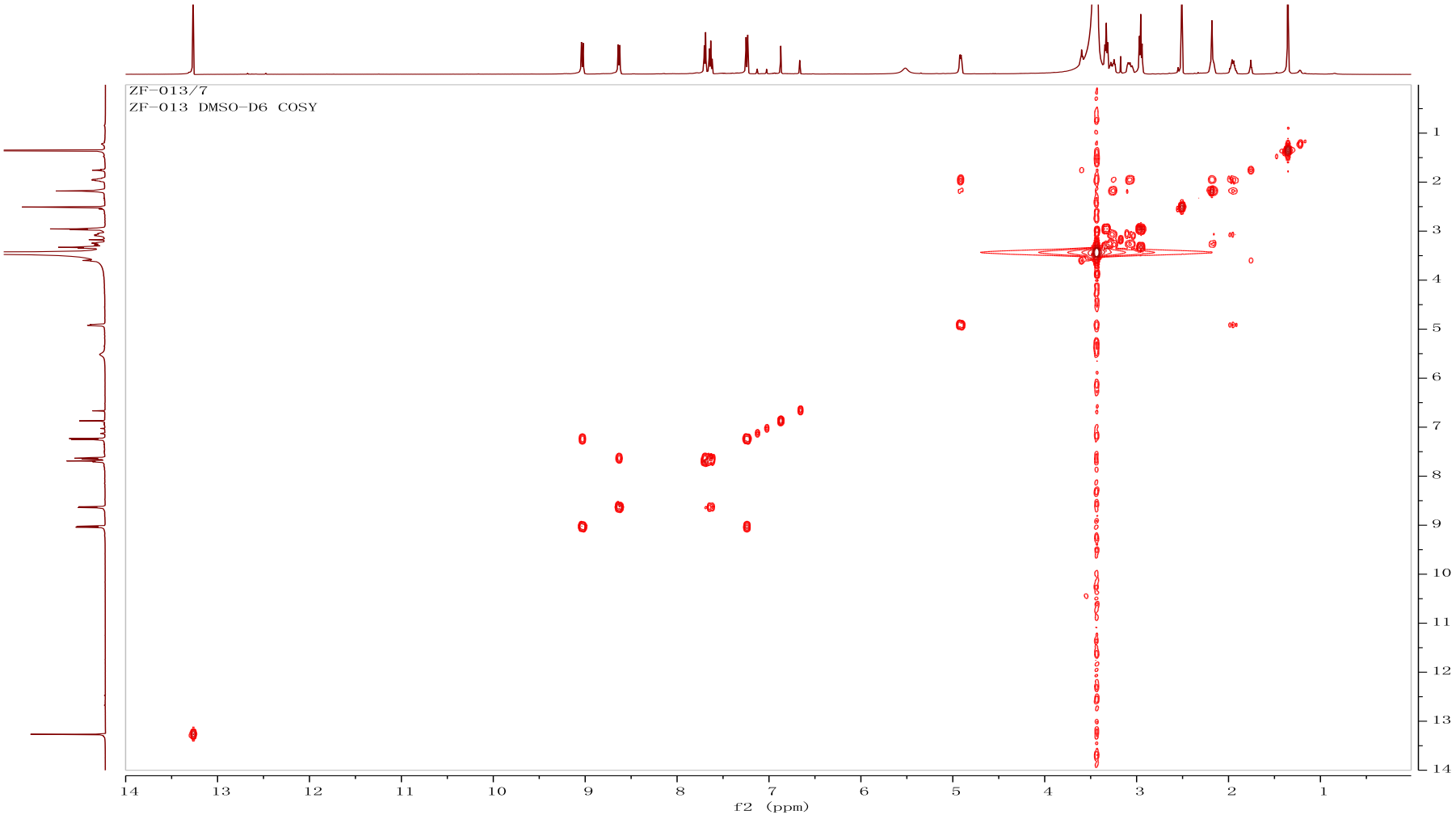

Figure S5. The COSY Spectrum of Compound **1** in DMSO

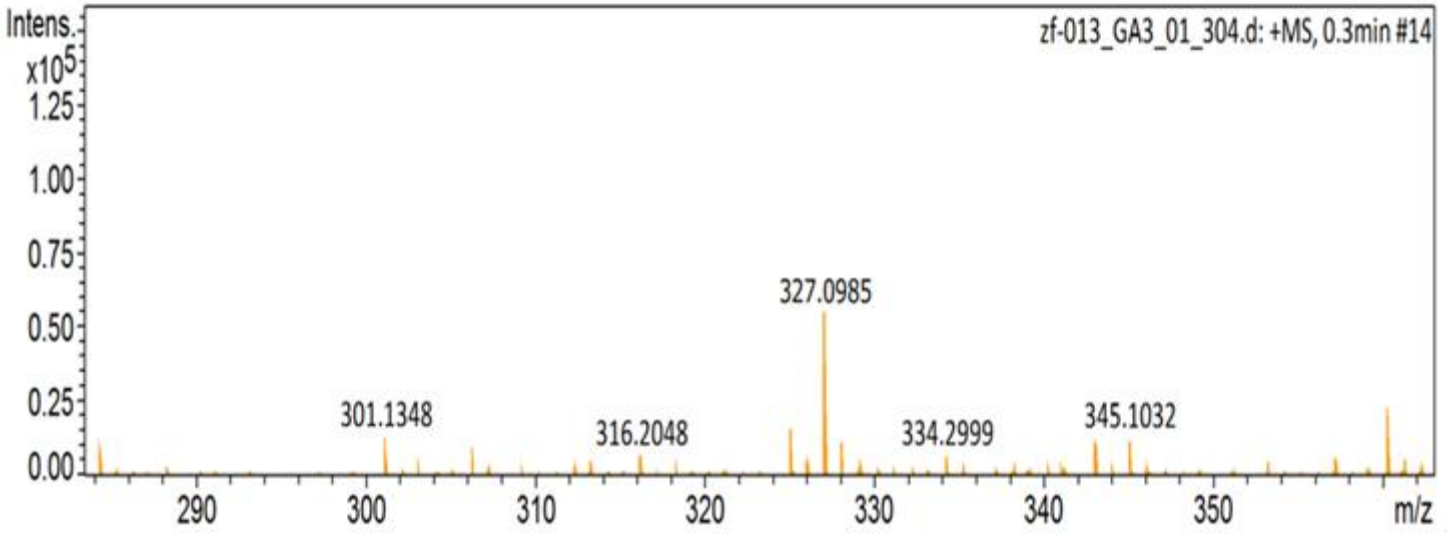

Figure S6. The HRESIMS Spectroscopic Data of Compound **1**

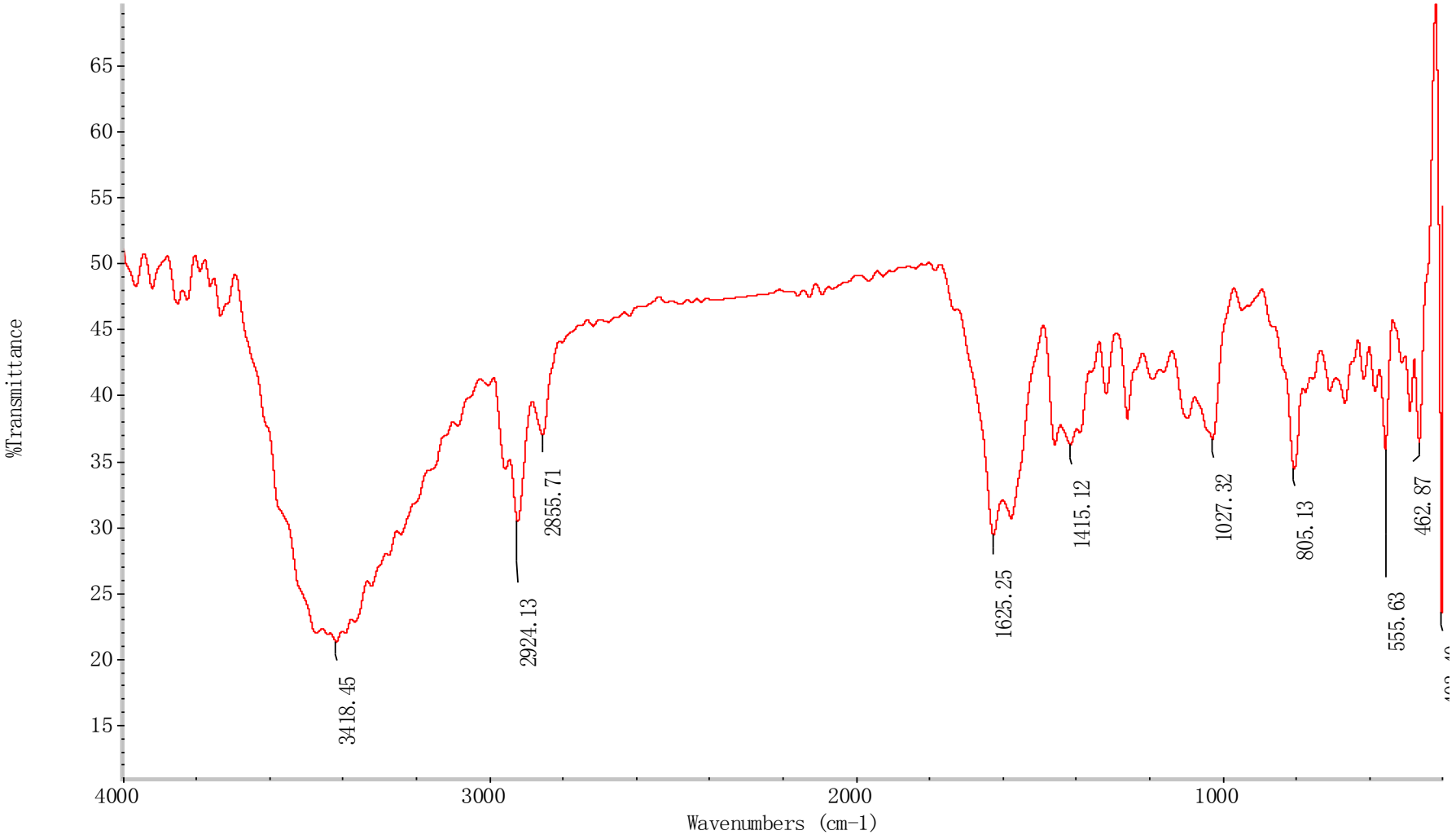

Figure S7. The IR Spectrum of Compound **1**

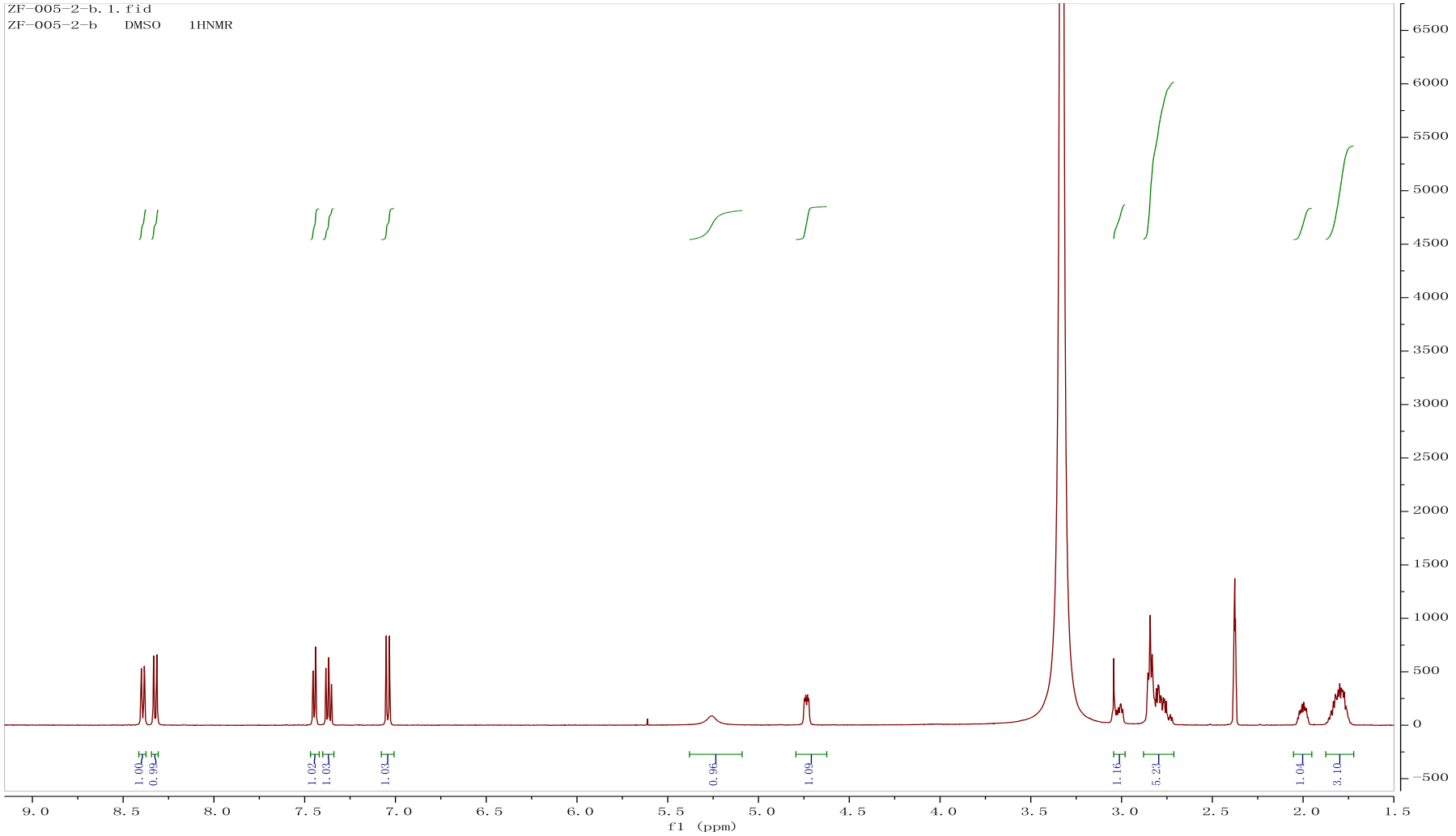

Figure S8. The ^{1}H NMR Spectrum of Compounds **2** and **3** in DMSO

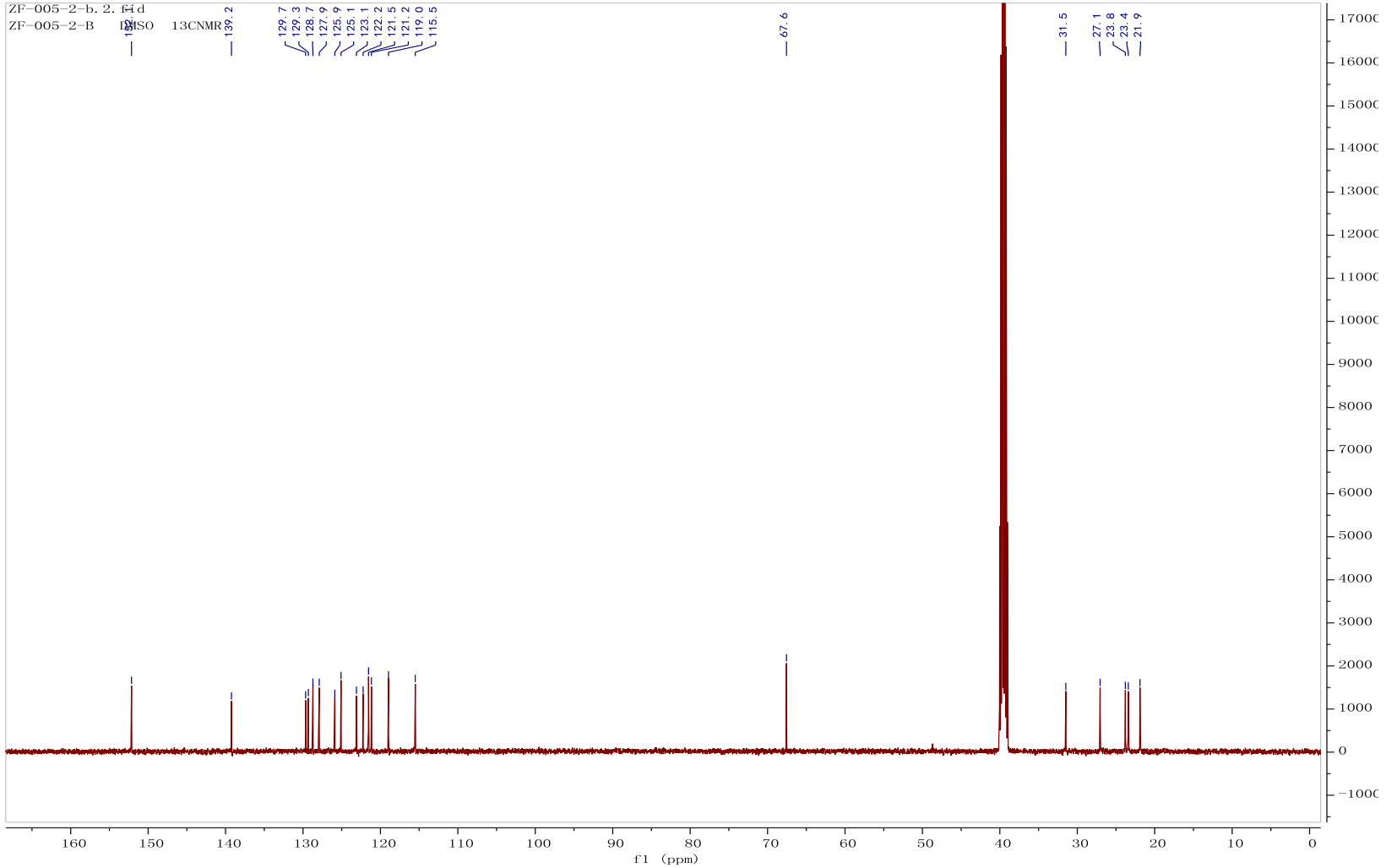

Figure S9. The ^{13}C NMR Spectrum of Compounds **2** and **3** in DMSO

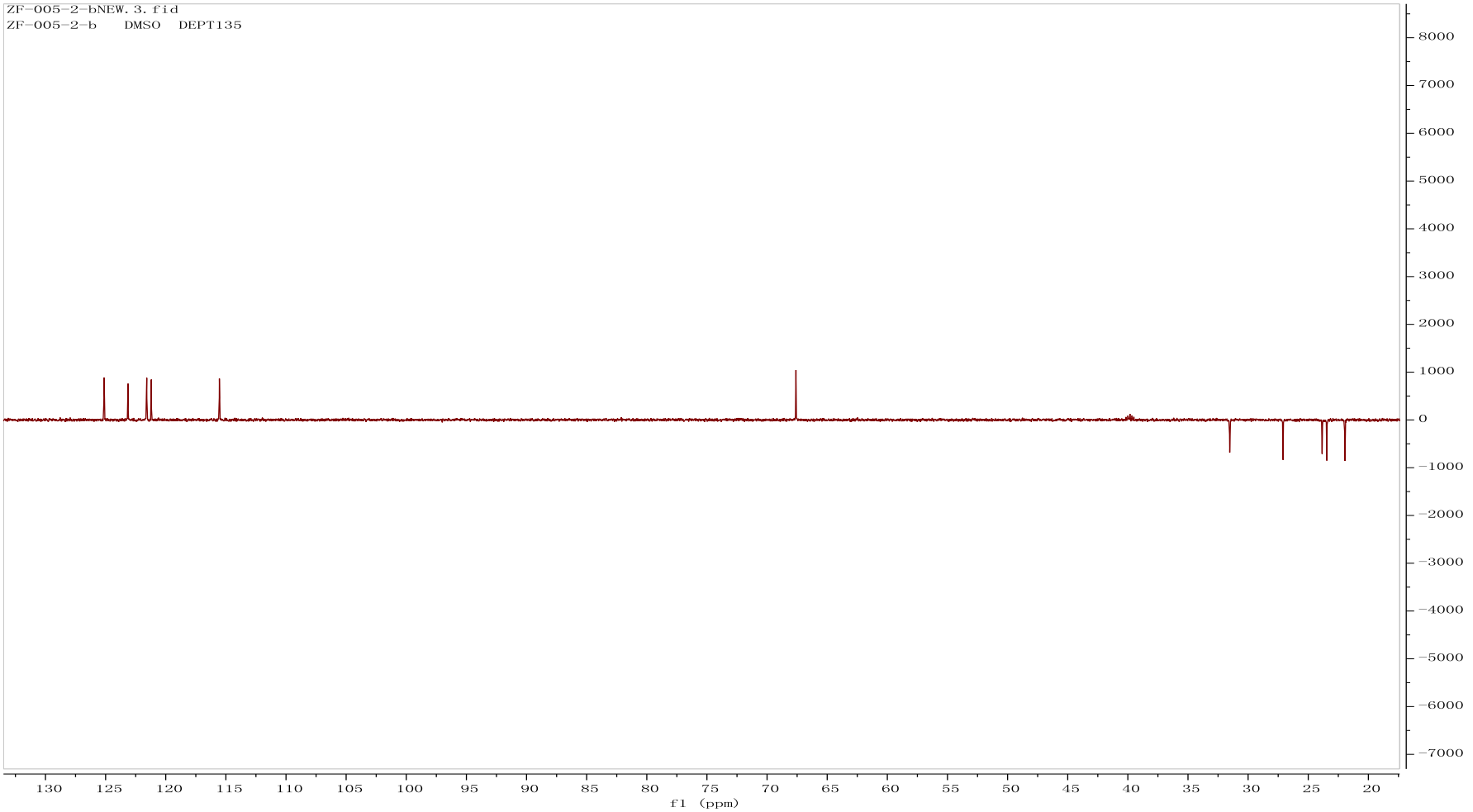

Figure S10. The DEPT Spectrum of Compounds **2** and **3** in DMSO

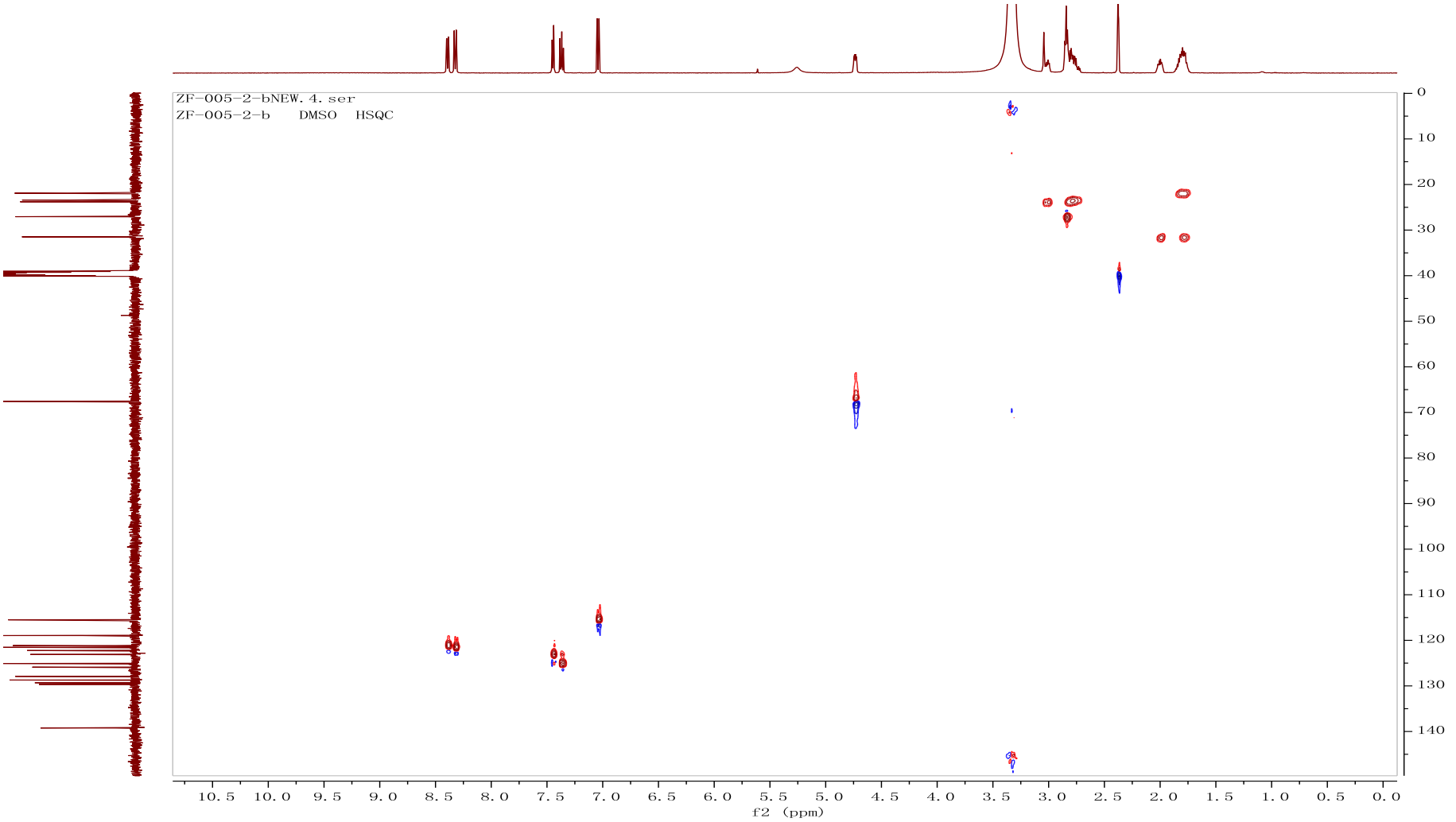

Figure S11. The HMQC Spectrum of Compounds **2** and **3** in DMSO

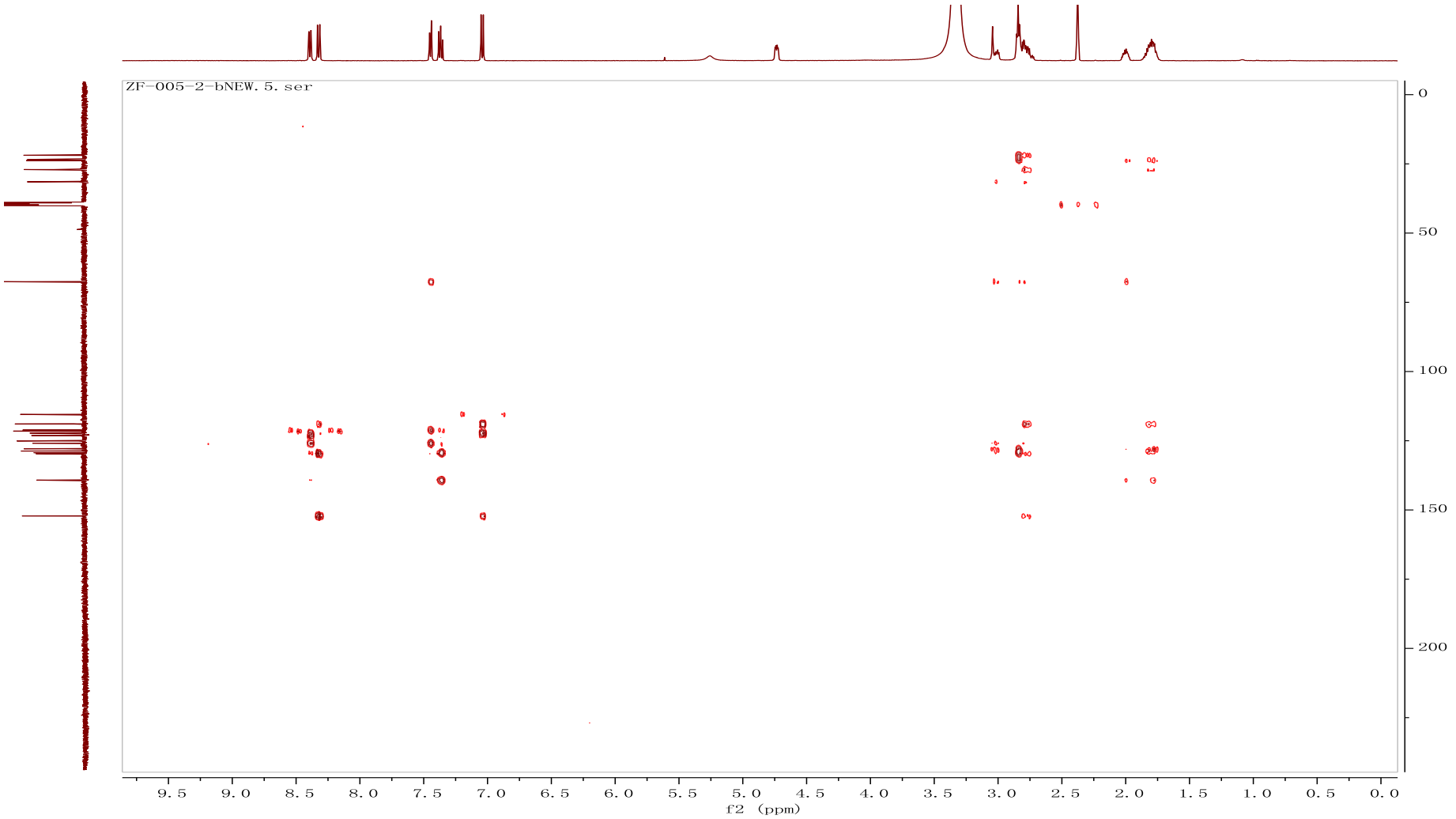

Figure S12. The HMBC Spectrum of Compounds **2** and **3** in DMSO

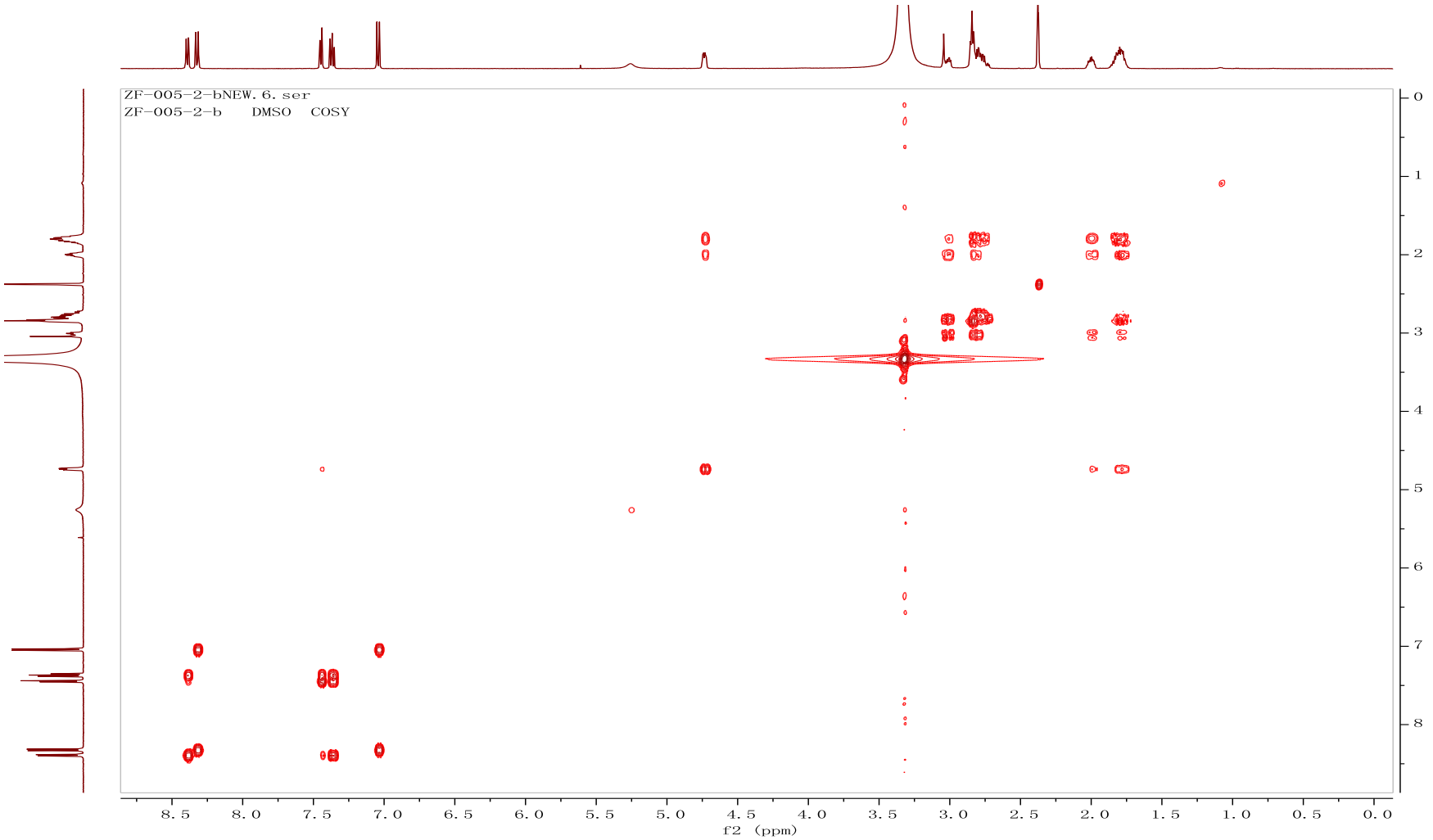

Figure S13. The COSY Spectrum of Compounds **2** and **3** in DMSO

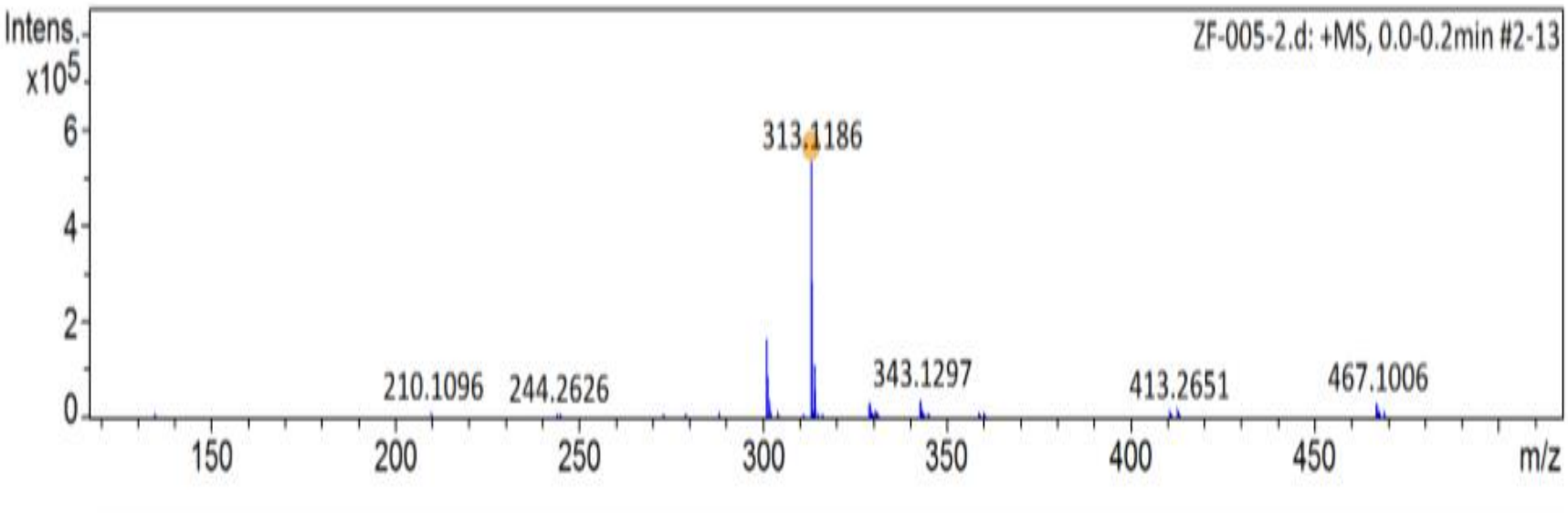

Figure S14. The HRESIMS Spectroscopic Data of Compounds **2** and **3**

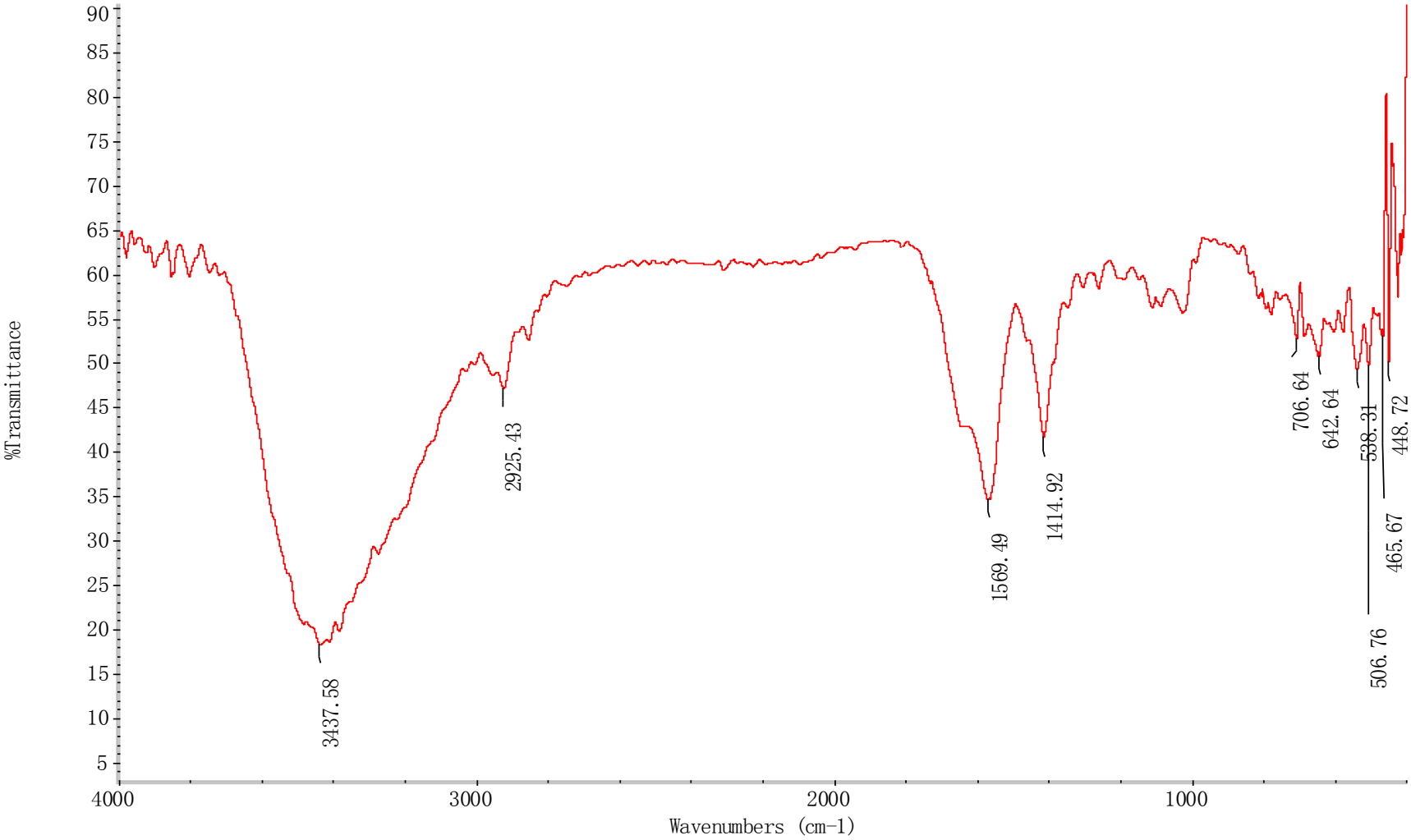

Figure S15. The IR Spectrum of Compounds **2** and **3**

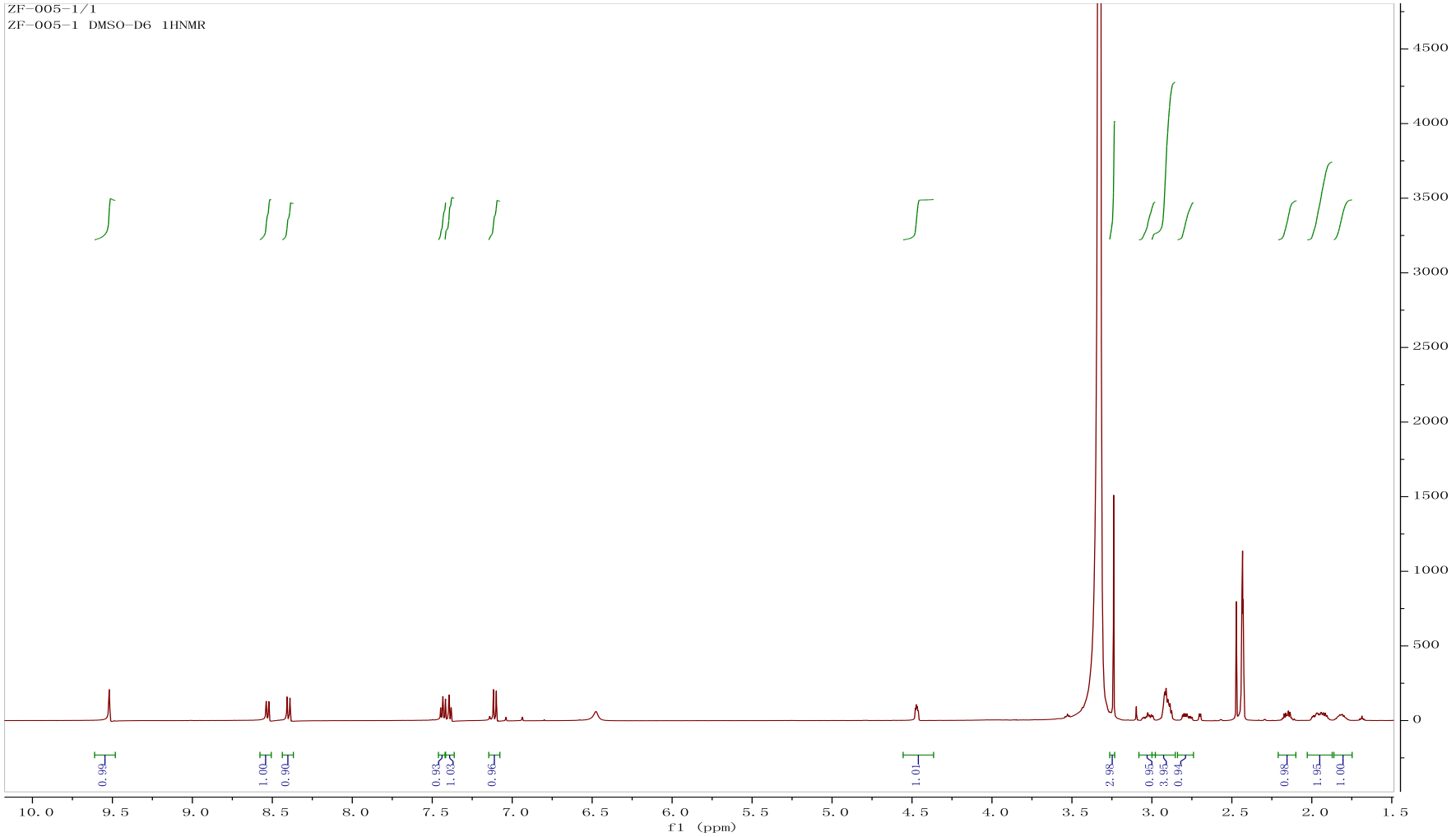

Figure S16. The ^{1}H NMR Spectrum of Compound **4** in DMSO

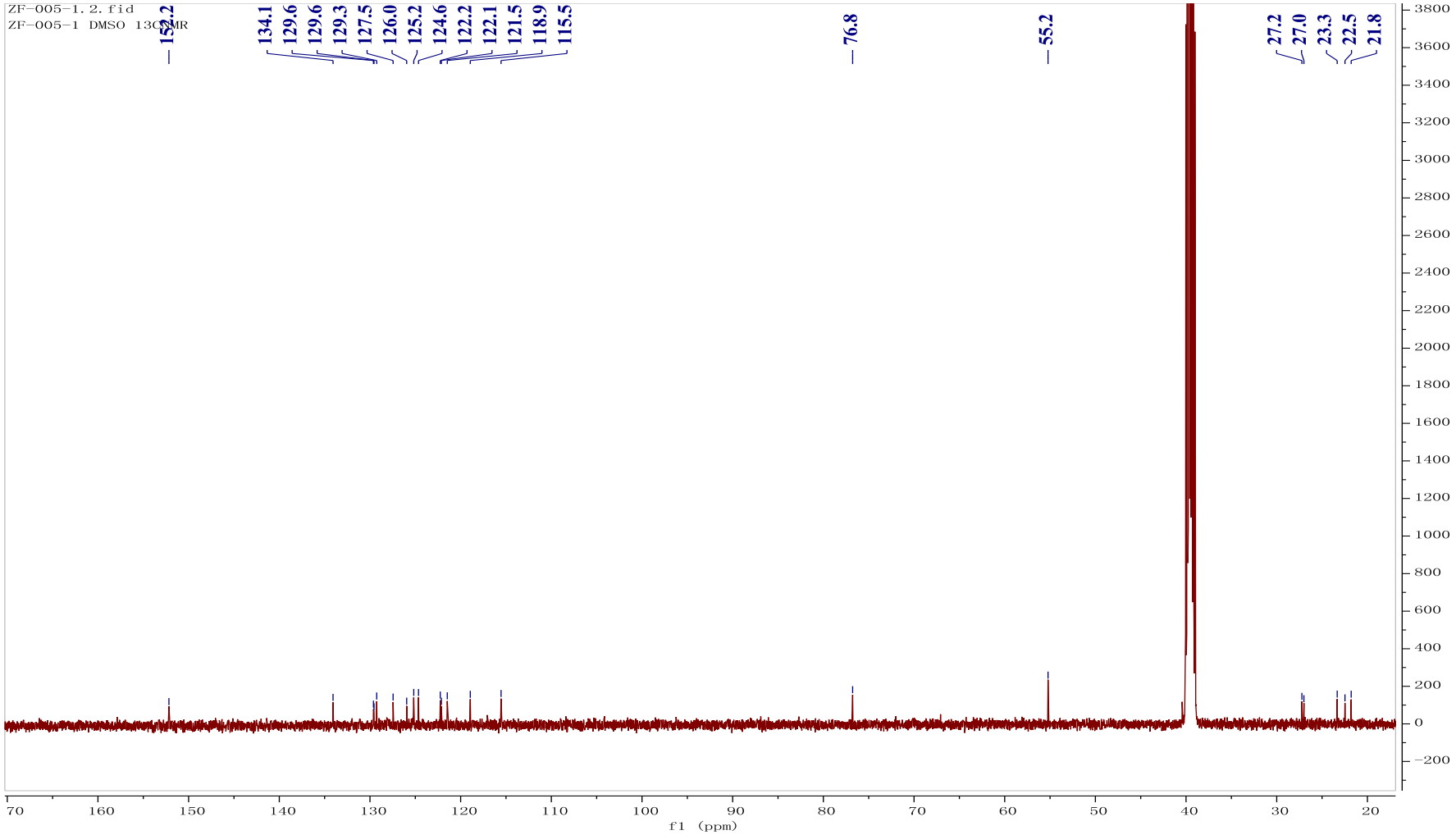

Figure S17. The ^{13}C NMR Spectrum of Compound **4** in DMSO

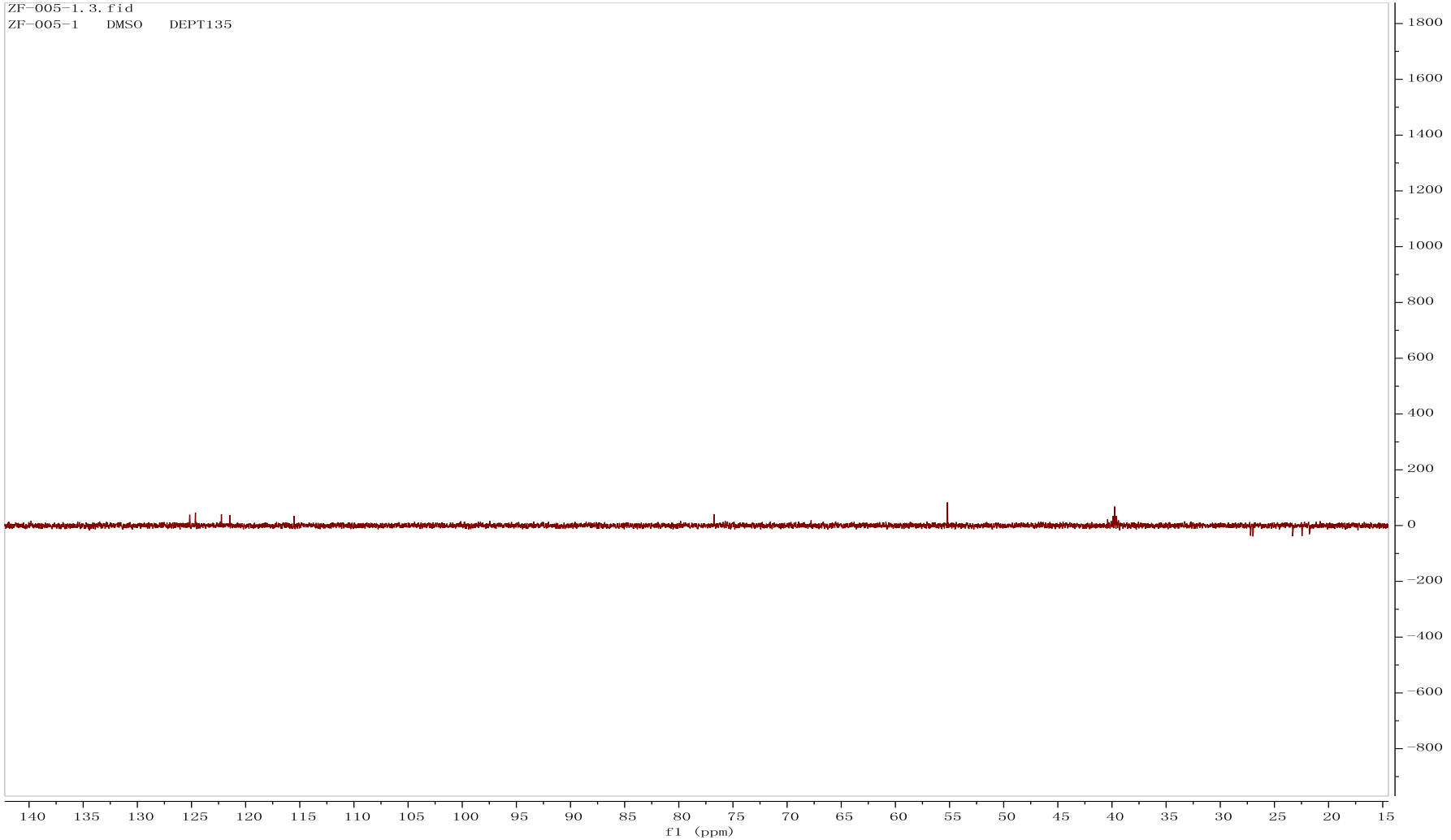

Figure S18. The DEPT Spectrum of Compound **4** in DMSO

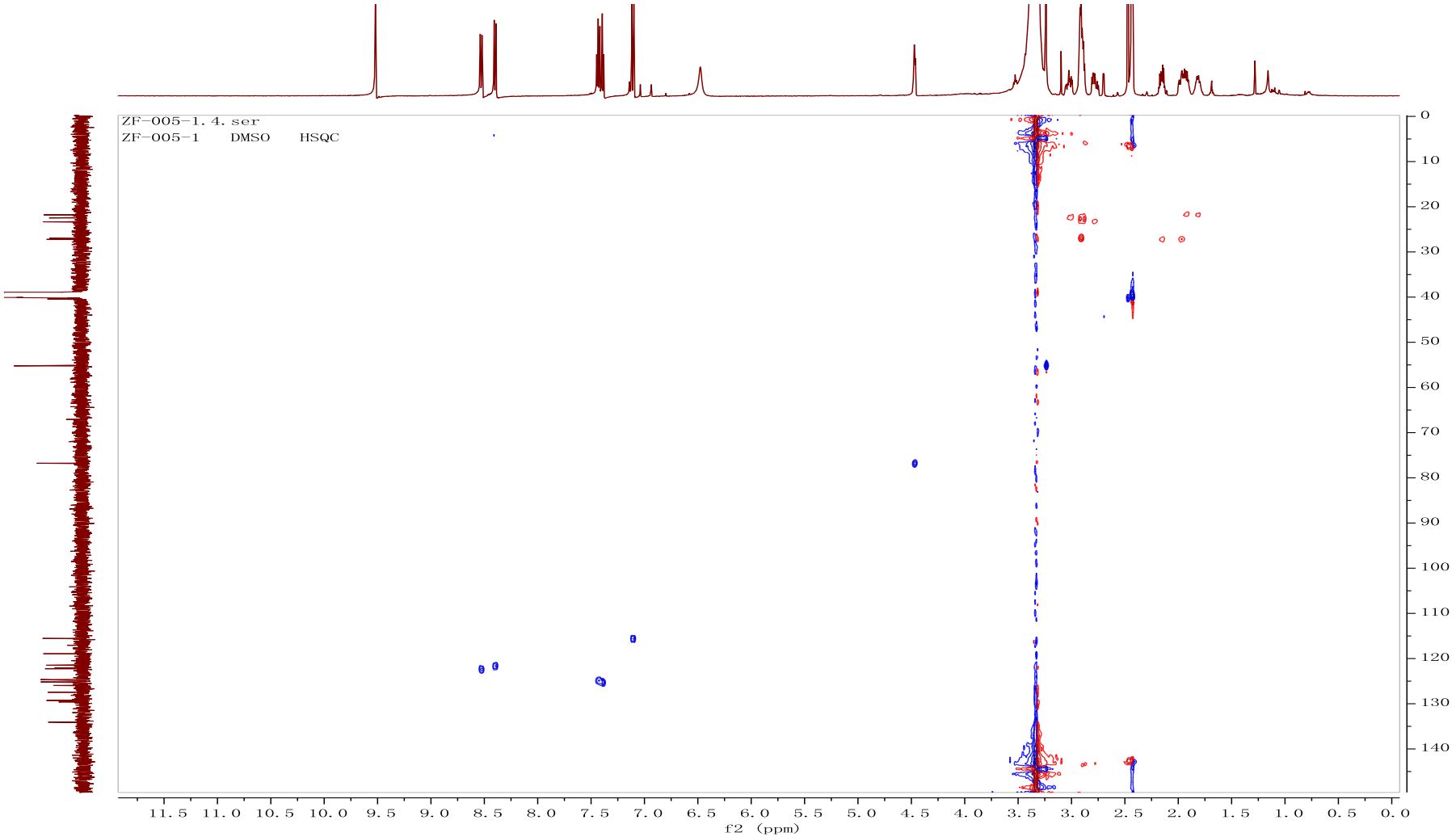

Figure S19. The HMQC Spectrum of Compound **4** in DMSO

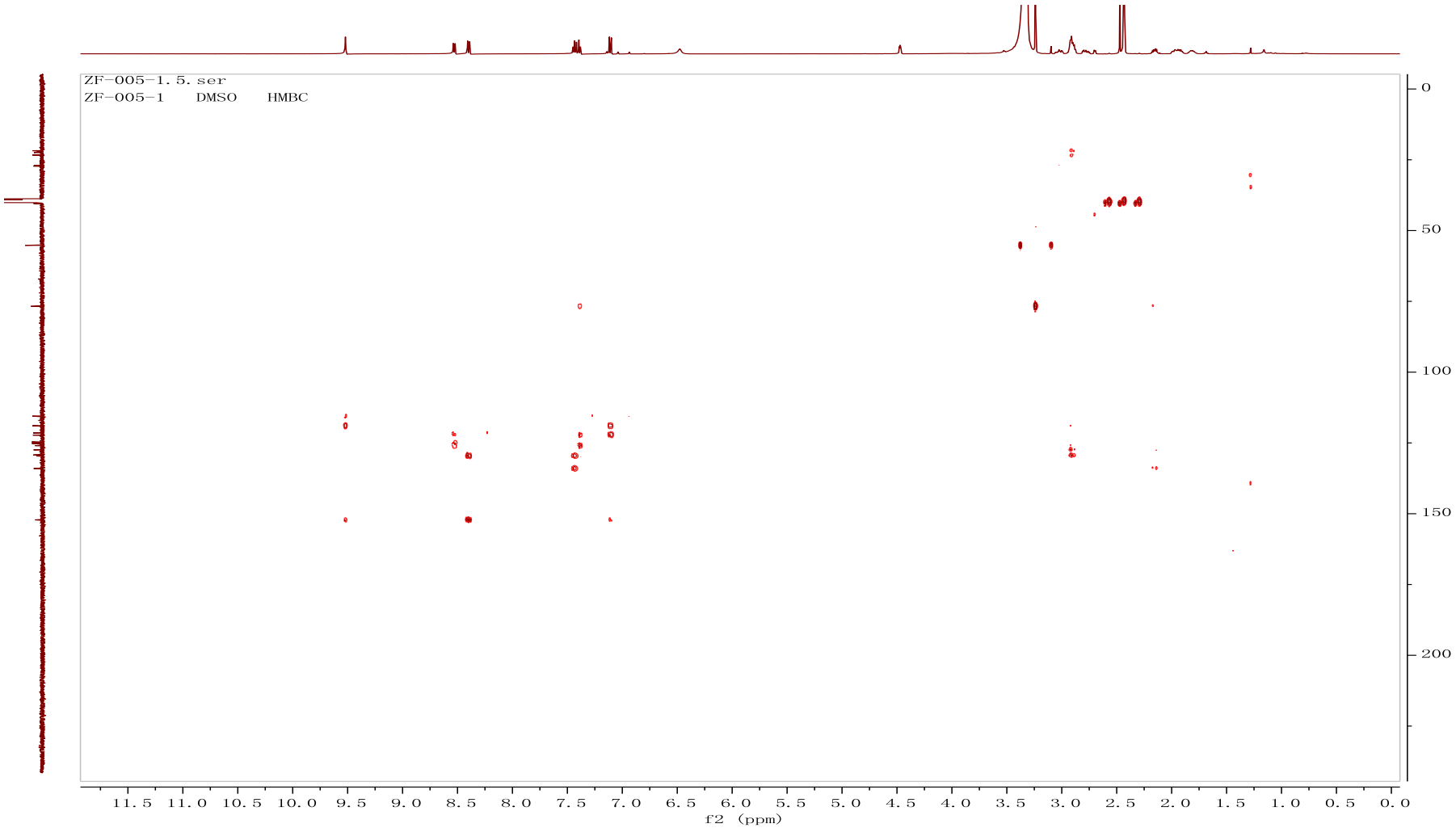

Figure S20. The HMBC Spectrum of Compound **4** in DMSO

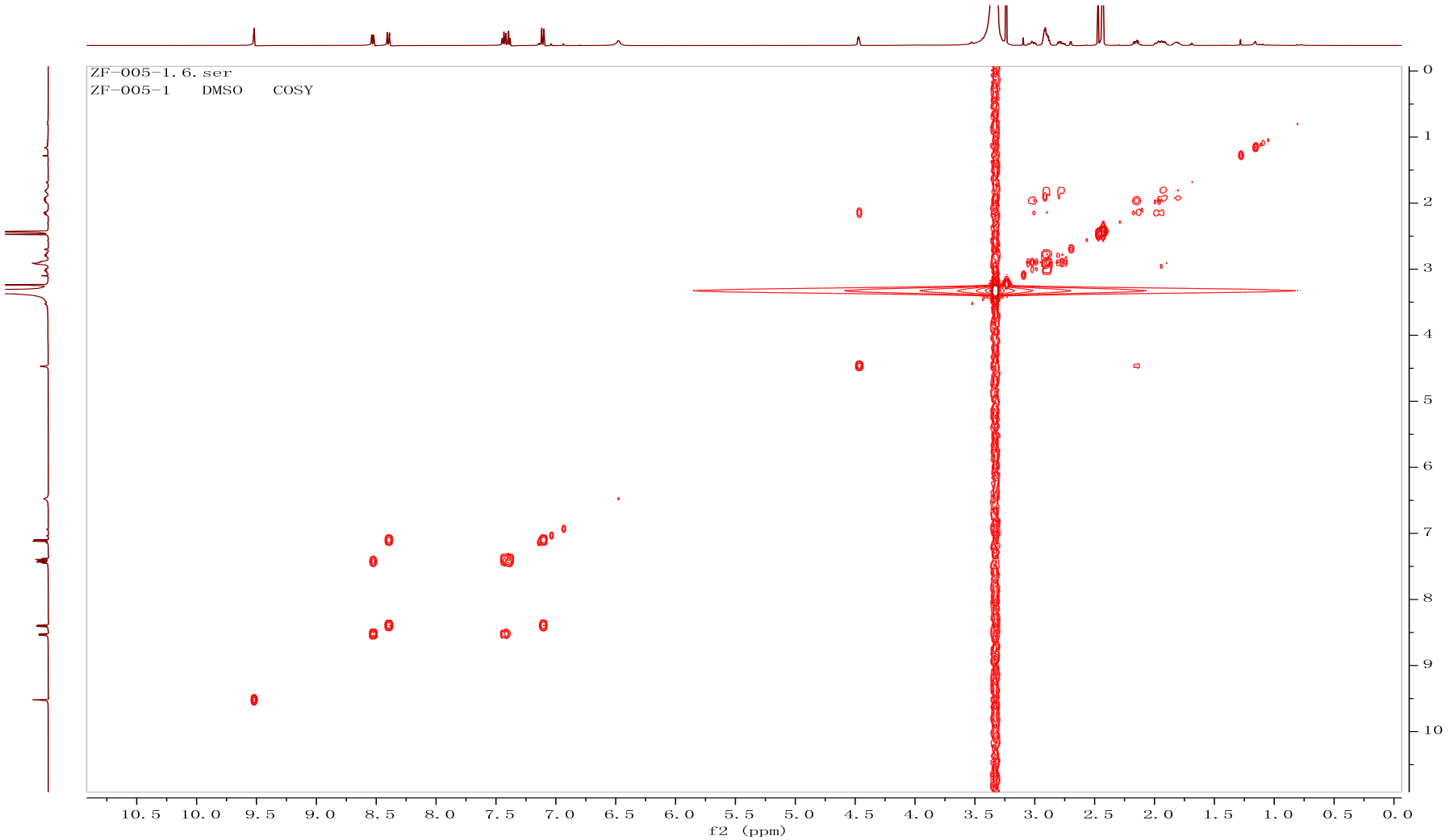

Figure S21. The COSY Spectrum of Compound **4** in DMSO

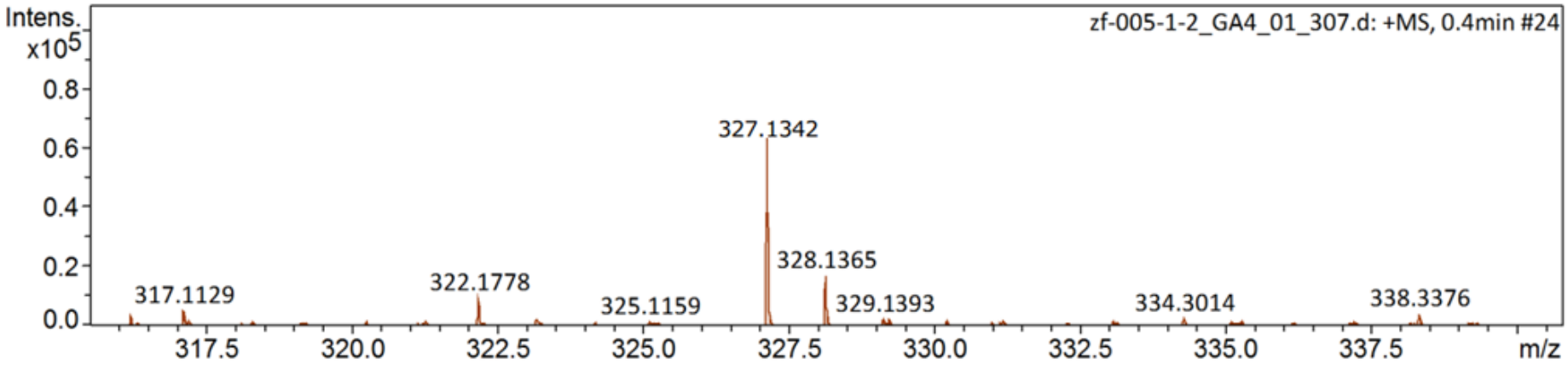

Figure S22. The HRESIMS Spectroscopic Data of Compound **4**

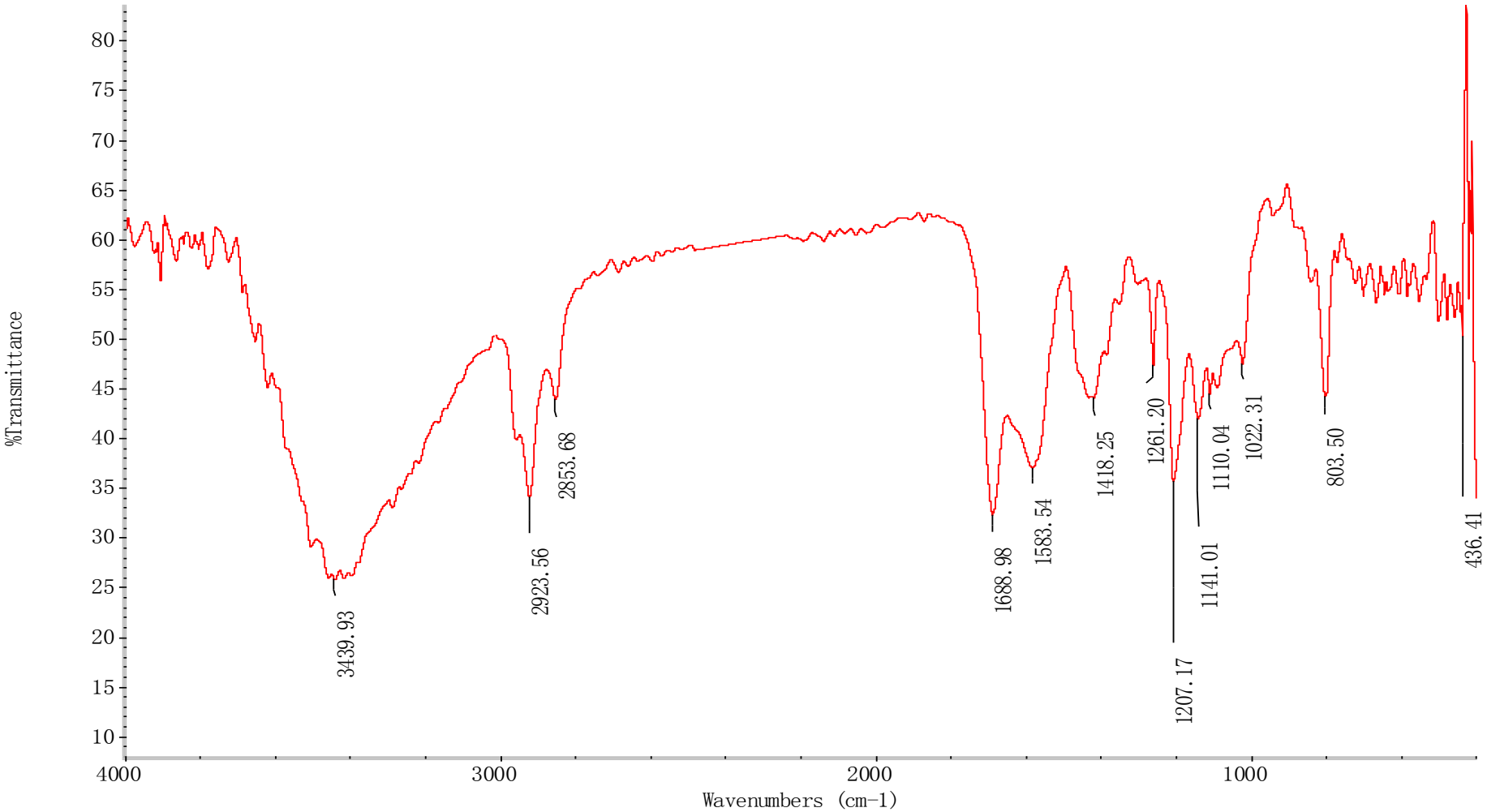

Figure S23. The IR Spectrum of Compound **4**

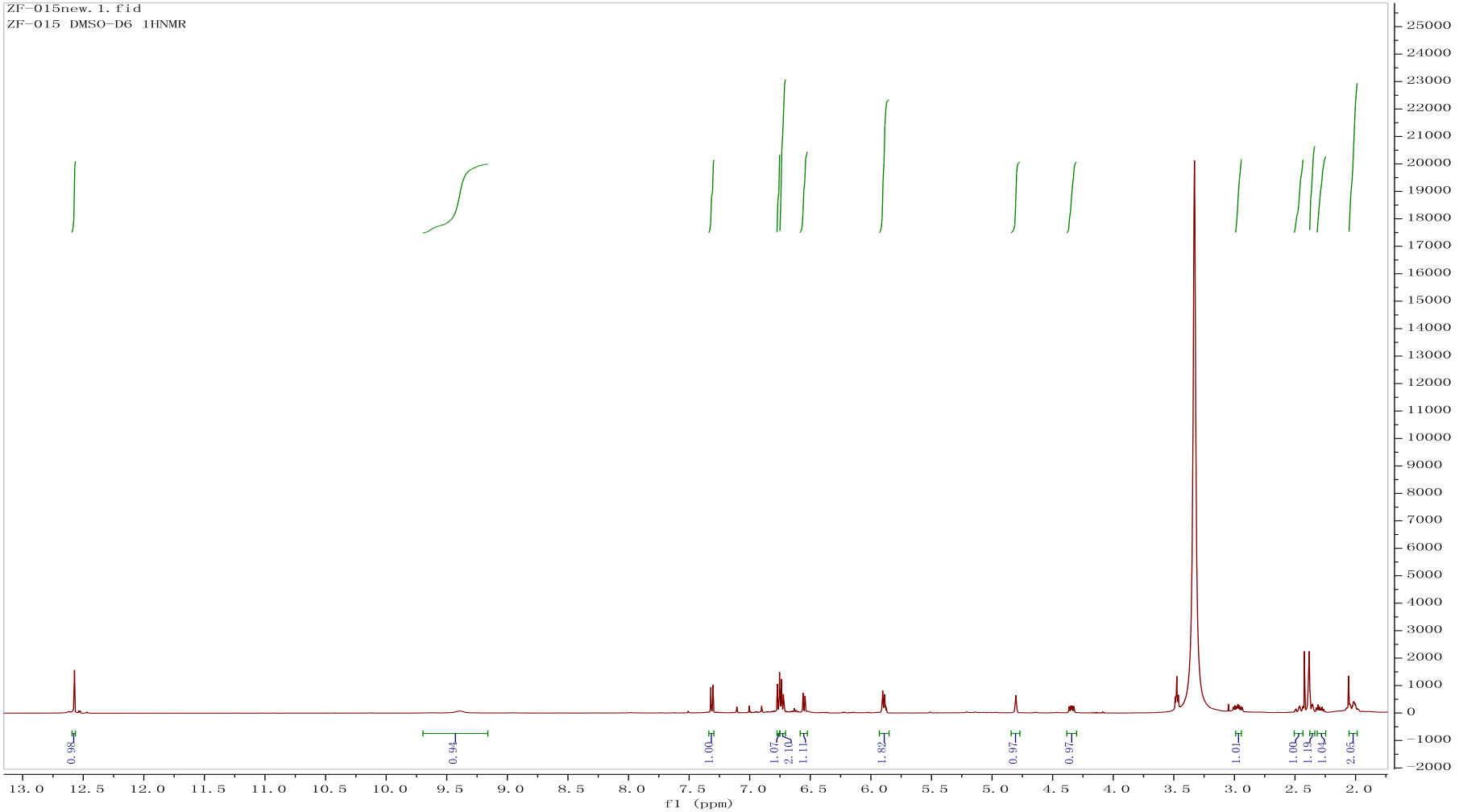

Figure S24. The ^{1}H NMR Spectrum of Compound **5** in DMSO

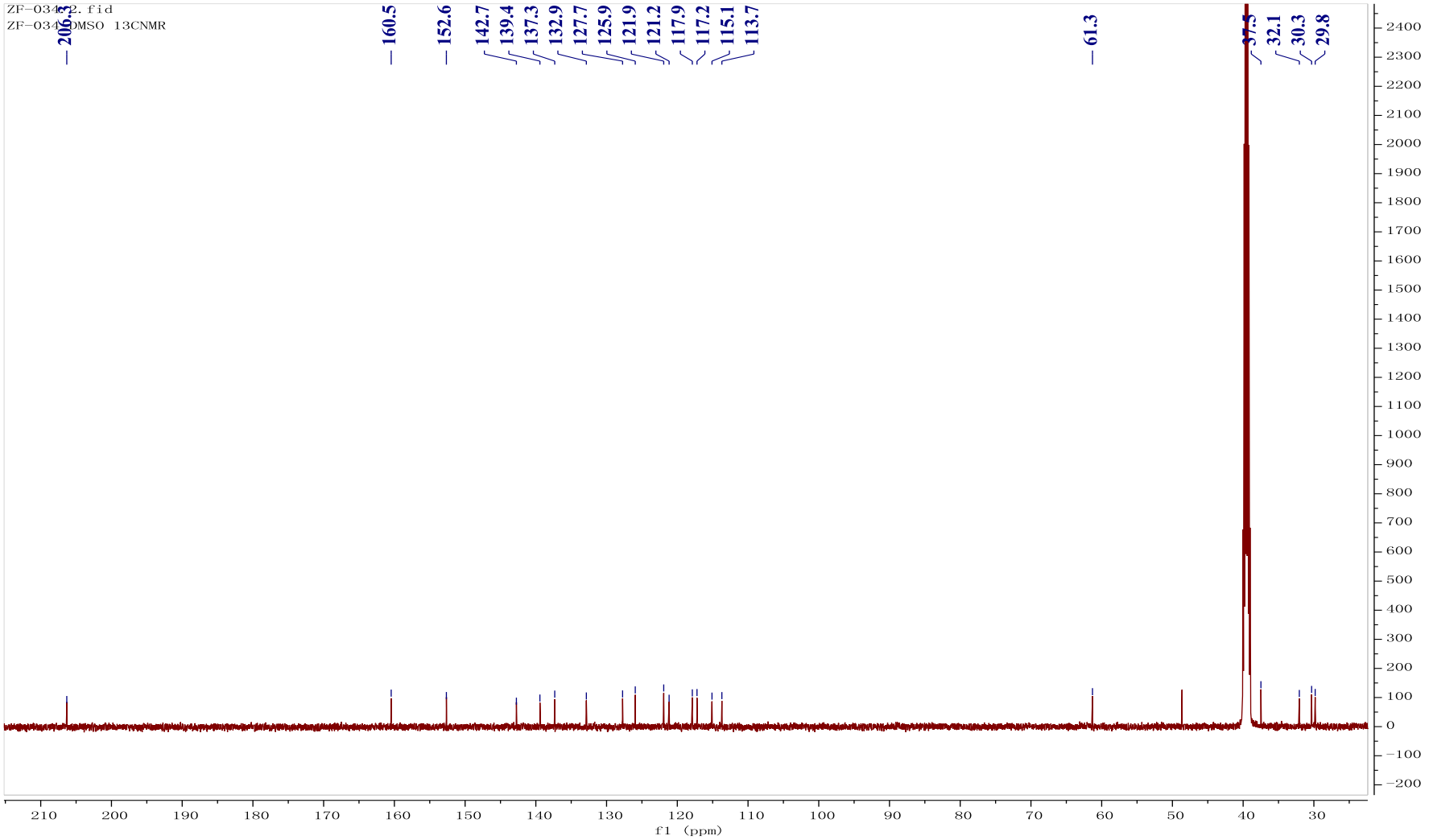

Figure S25. The ^{13}C NMR Spectrum of Compound **5** in DMSO

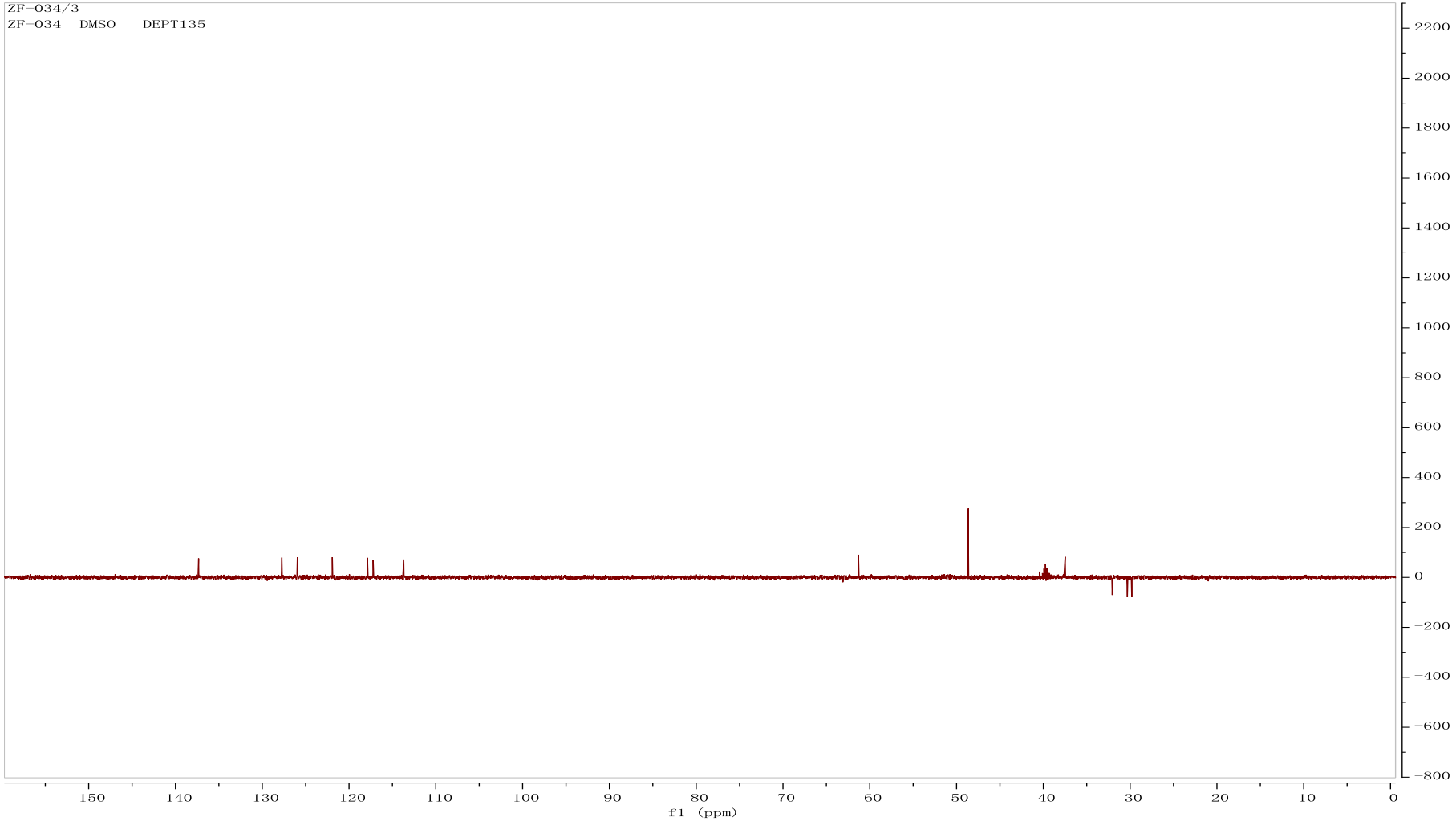

Figure S26. The DEPT Spectrum of Compound **5** in DMSO

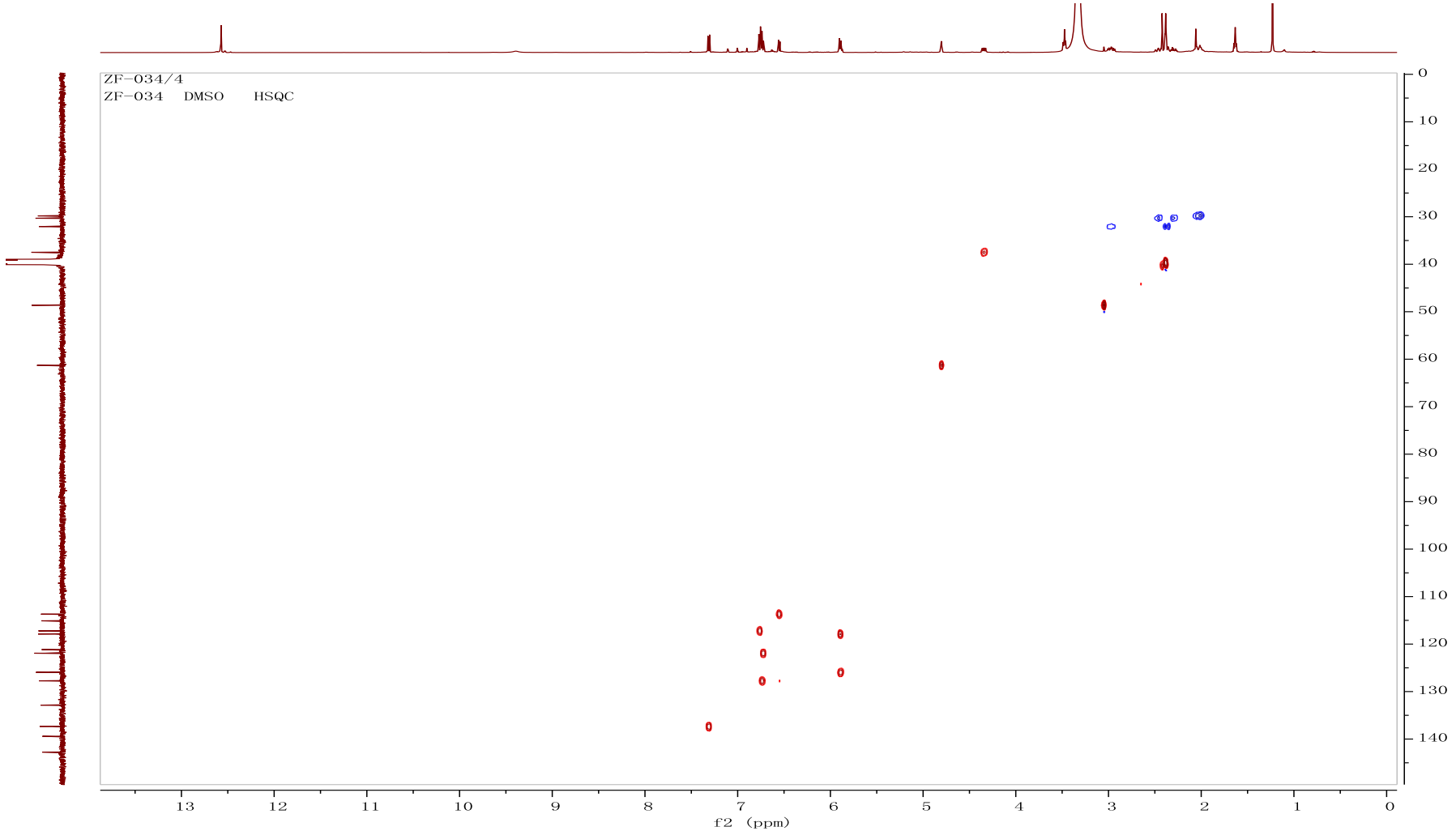

Figure S27. The HMQC Spectrum of Compound **5** in DMSO

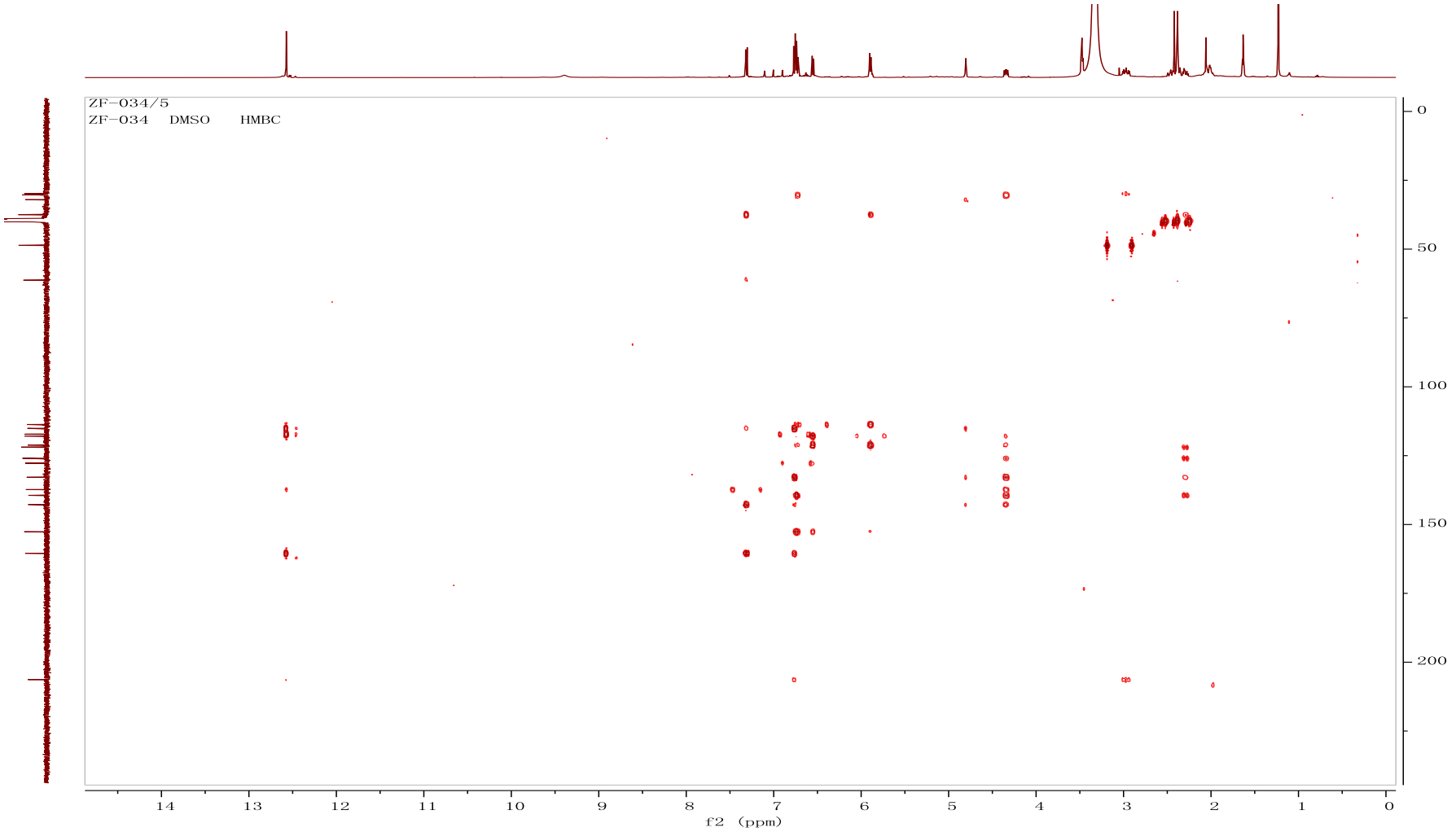

Figure S28. The HMBC Spectrum of Compound **5** in DMSO

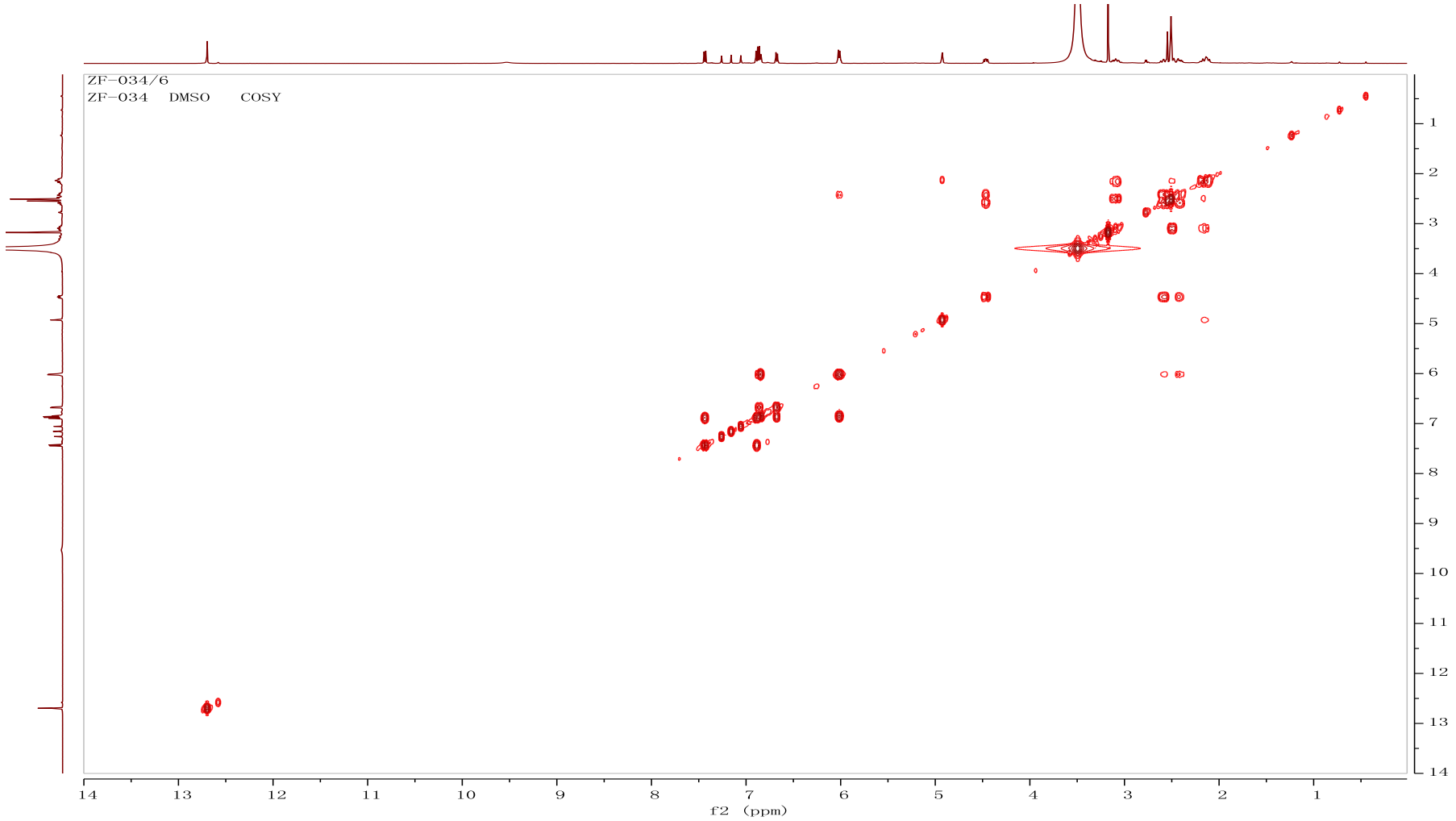

Figure S29. The COSY Spectrum of Compound **5** in DMSO

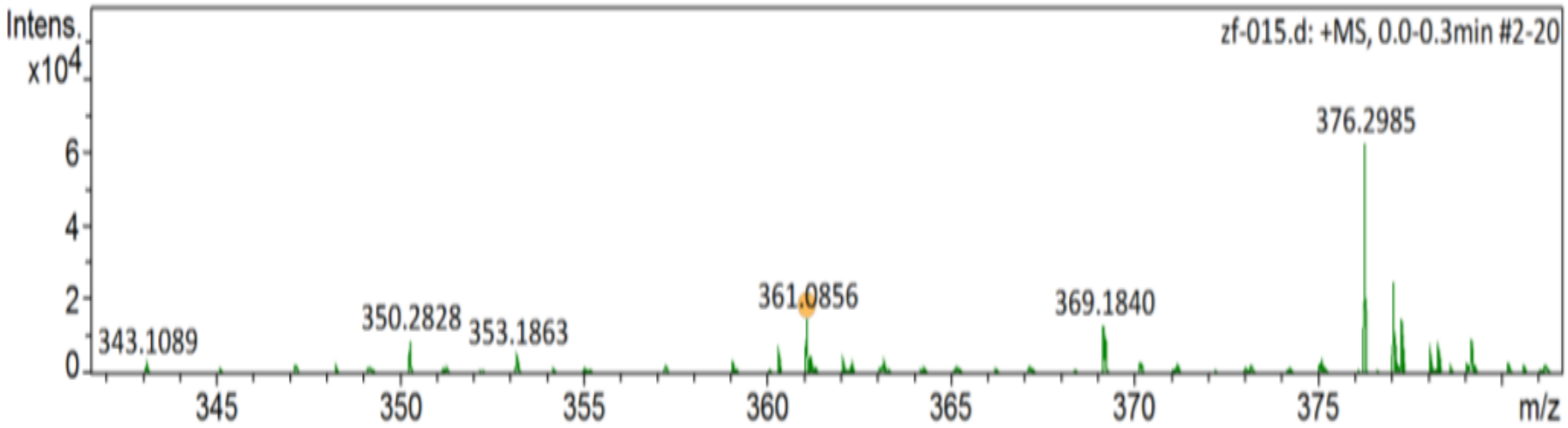

Figure S30. The HRESIMS Spectroscopic Data of Compound **5**

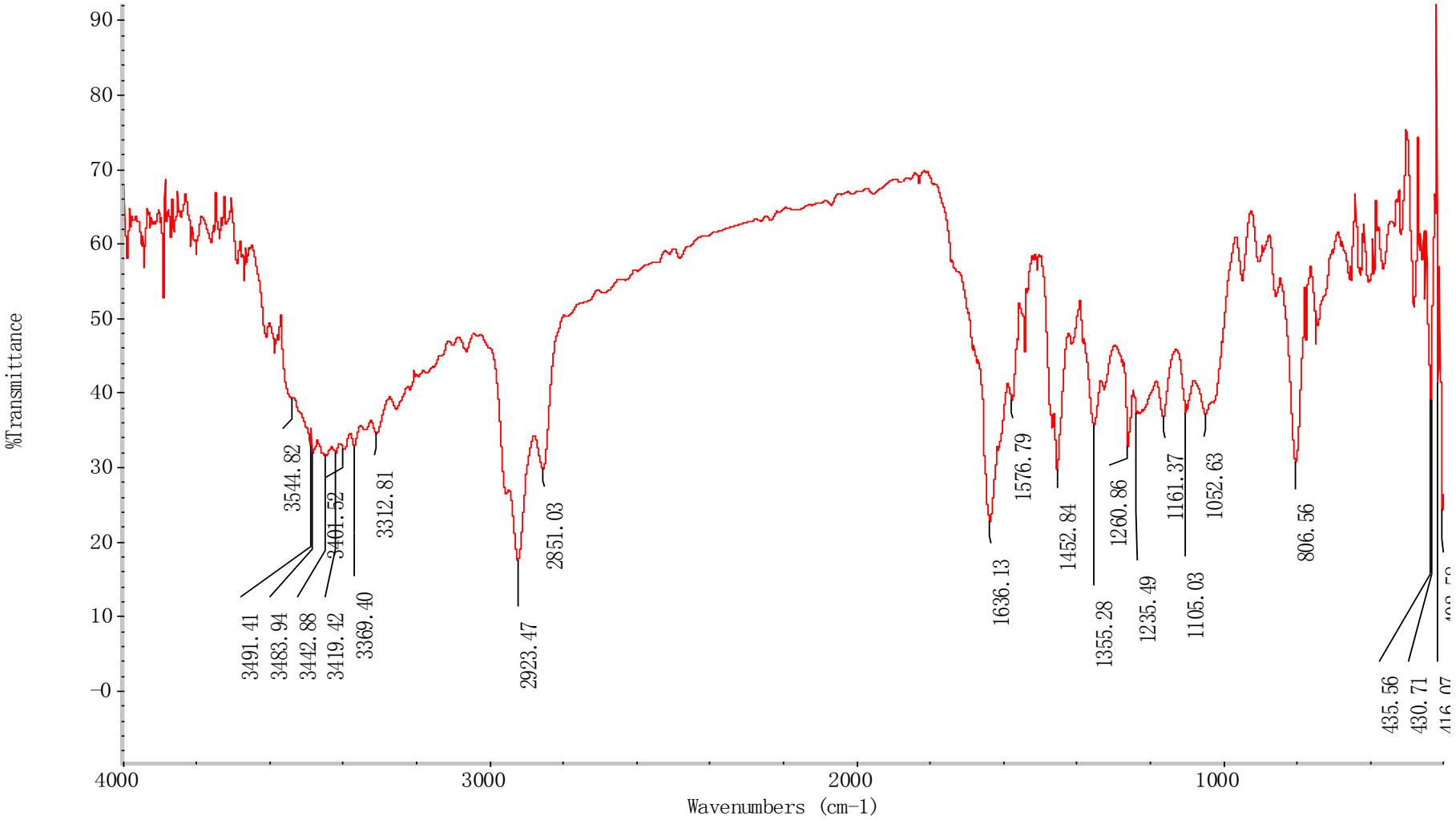

Figure S31. The IR Spectrum of Compound **5**

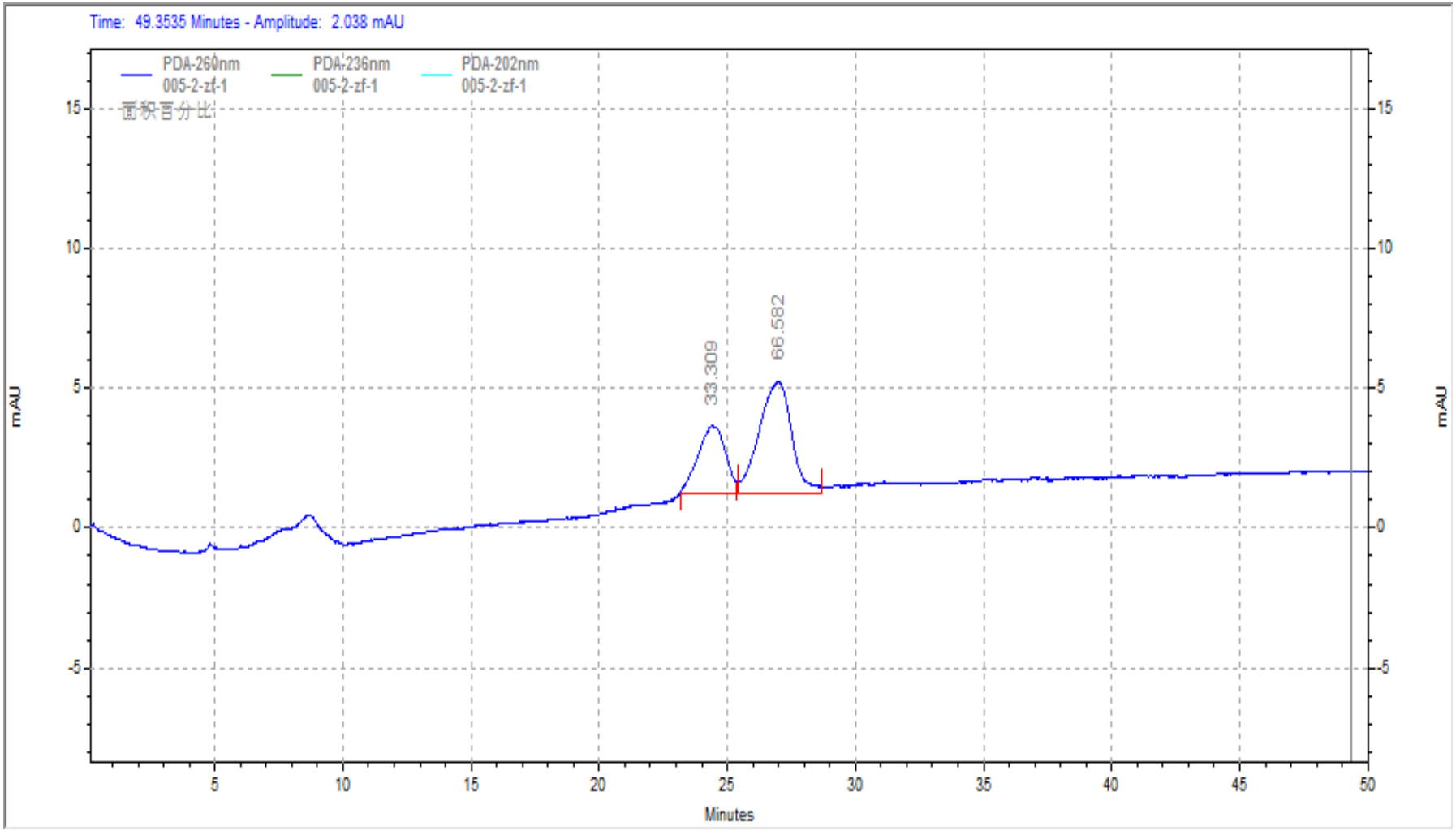

Figure S32. A peak area ratio of compounds **2** and **3** over a chiral column

Figure S33. The picture of strain *Cladosporium* sp. KFD33

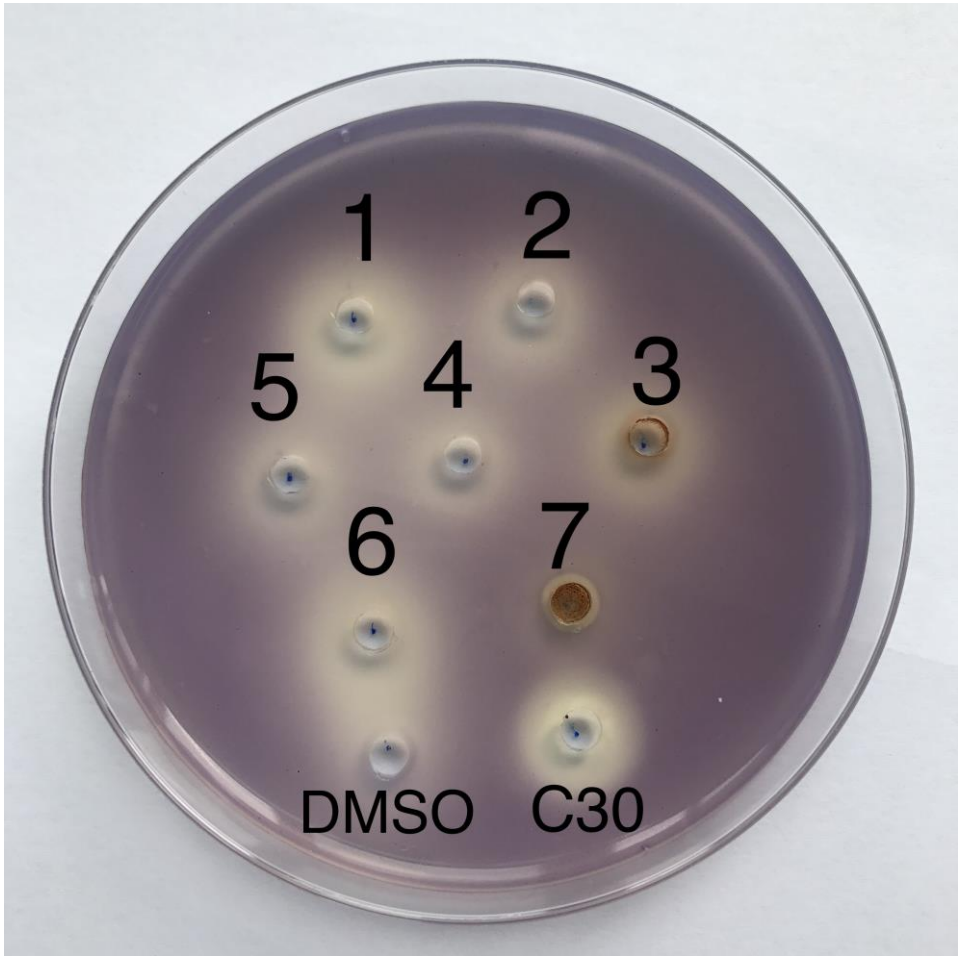

Figure S34. C. *violaceum* CV026 well diffusion assay
(Compounds **1**-**6** with 30, 30, 20, 30, 20 and 30 μg/well)

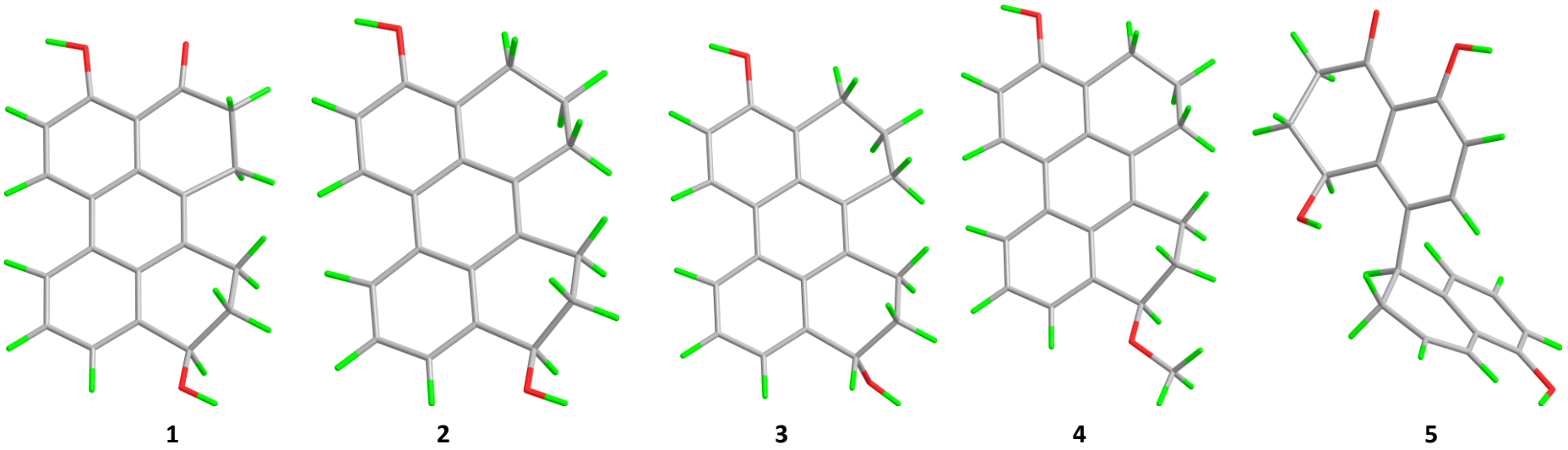

Figure S35. The energy minimized 3D chemical structures for **1-5**.

18*S* rRNA gene sequences of *Cladosporium* sp. KFD33

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GTGGTGCATGGCCGTTCTTAGTTGGTGGAGTGATTTGTCTGCTTAATTGCGATAACGAACGAGACCTTAACCTGCTAAATAGCCAGGCCCGCT
TTGGCGGGTCGCCGGCTTCTTAGAGGGACTATC

The calculations were performed by using the density functional theory (DFT) as carried out in the Gaussian 03.[S1] The preliminary conformational distributions search was performed using Frog2 online version[S2]. Further geometrical optimization were performed at the B3LYP/6-31G(d) level. Solvent effects of methanol solution were evaluated at the same DFT level by using the SCRF/PCM method.[S3] TDDFT[S4] at B3LYP/6-31G(d) was employed to calculate the electronic excitation energies and rotational strengths in methanol.

(S1) Gaussian 03, Revision E.01, M. J. Frisch, G. W. Trucks, H. B. Schlegel, G. E. Scuseria, M. A. Robb, J. R. Cheeseman, J. A. Montgomery, Jr., T. Vreven, K. N. Kudin, J.C. Burant, J. M. Millam, S. S. Iyengar, J. Tomasi, V. Barone, B. Mennucci, M. Cossi, G. Scalmani, N. Rega, G. A. Petersson, H. Nakatsuji, M. Hada, M. Ehara, K. Toyota, R. Fukuda, J. Hasegawa, M. Ishida, T. Nakajima, Y. Honda, O. Kitao, H. Nakai, M. Klene, X. Li, J. E. Knox, H. P. Hratchian, J. B. Cross, V. Bakken, C. Adamo, J. Jaramillo, R. Gomperts, R. E. Stratmann, O. Yazyev, A. J. Austin, R. Cammi, C. Pomelli, J. W. Ochterski, P. Y. Ayala, K. Morokuma, G. A. Voth, P. Salvador, J. J. Dannenberg, V. G. Zakrzewski, S. Dapprich, A. D. Daniels, M. C. Strain, O. Farkas, D. K. Malick, A. D. Rabuck, K. Raghavachari, J. B. Foresman, J. V. Ortiz, Q. Cui, A. G. Baboul, S. Clifford, J. Cioslowski, B. B. Stefanov, G. Liu, A. Liashenko, P. Piskorz, I. Komaromi, R. L. Martin, D.J. Fox, T. Keith, M. A. Al-Laham, C. Y. Peng, A. Nanayakkara, M. Challacombe, P. M. W. Gill, B. Johnson, W. Chen, M. W. Wong, C. Gonzalez, and J. A. Pople, Gaussian, Inc., Wallingford CT, 2004.

(S2) Miteva, M. A.; Guyon, F.; and Tuffery, P.; *Nucleic Acids Res.*, **2010**, *38*, W622–W627.

(S3) Sai, C.; Li, D.; Xue, C.; Wang, K.; Hu, P.; Pei, Y.; Bai, J.; Jing Y.; Li, Z.; Hua H. *Org. Lett.* **2015**, *17*, 4102-5.

(S4) (a) Miertus, S.; Tomasi, *J. Chem. Phys.* **1982**, *65*, 239–245. (b) Tomasi, J.; Persico, M. *Chem.Rev.* **1994**, *94*, 2027–2094. (c) Cammi, R.; Tomasi, J. J. *Comp.Chem.* **1995**, *16*, 1449–1458.