

Supplementary Material

Sesquiterpenes from *Artemisia argyi* Associated Endophytic *Trichoderma virens* QA-8

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Figure S1. ^1H NMR (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **1**;

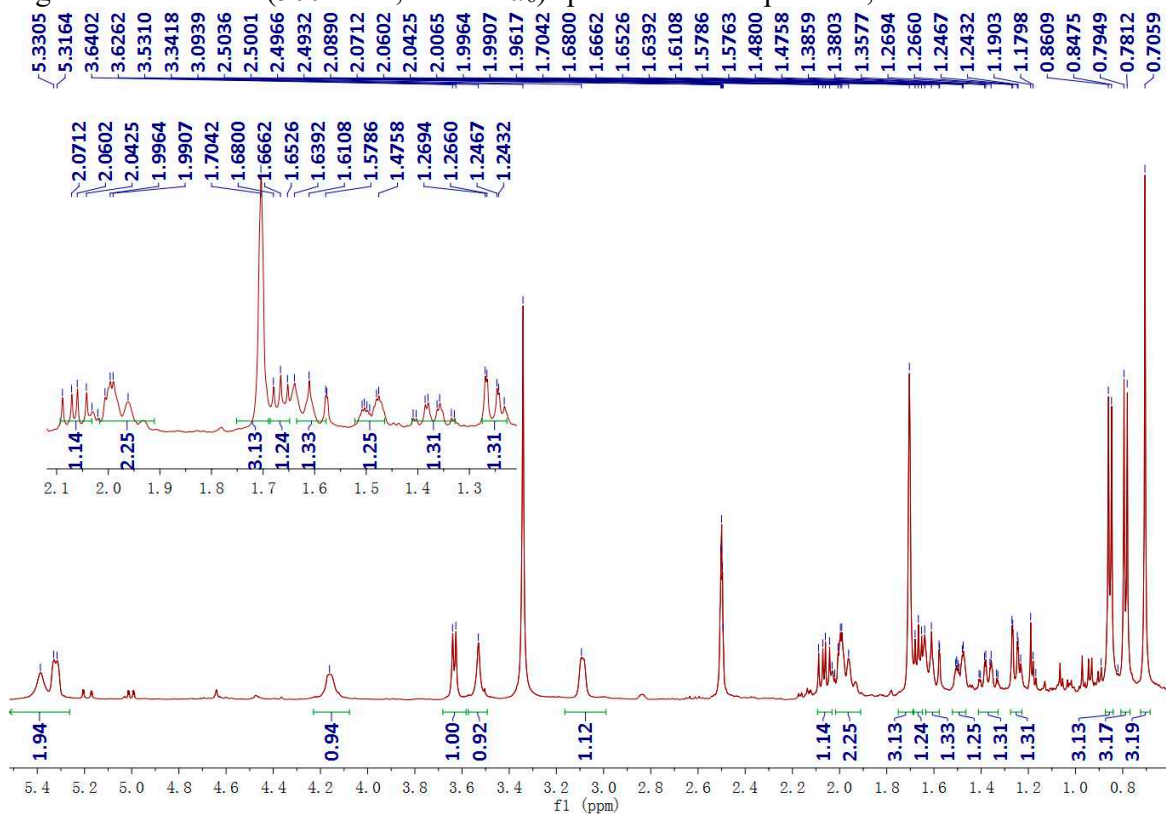


Figure S2. ^{13}C NMR (125 MHz, $\text{DMSO-}d_6$) and DEPT spectra of compound **1**;

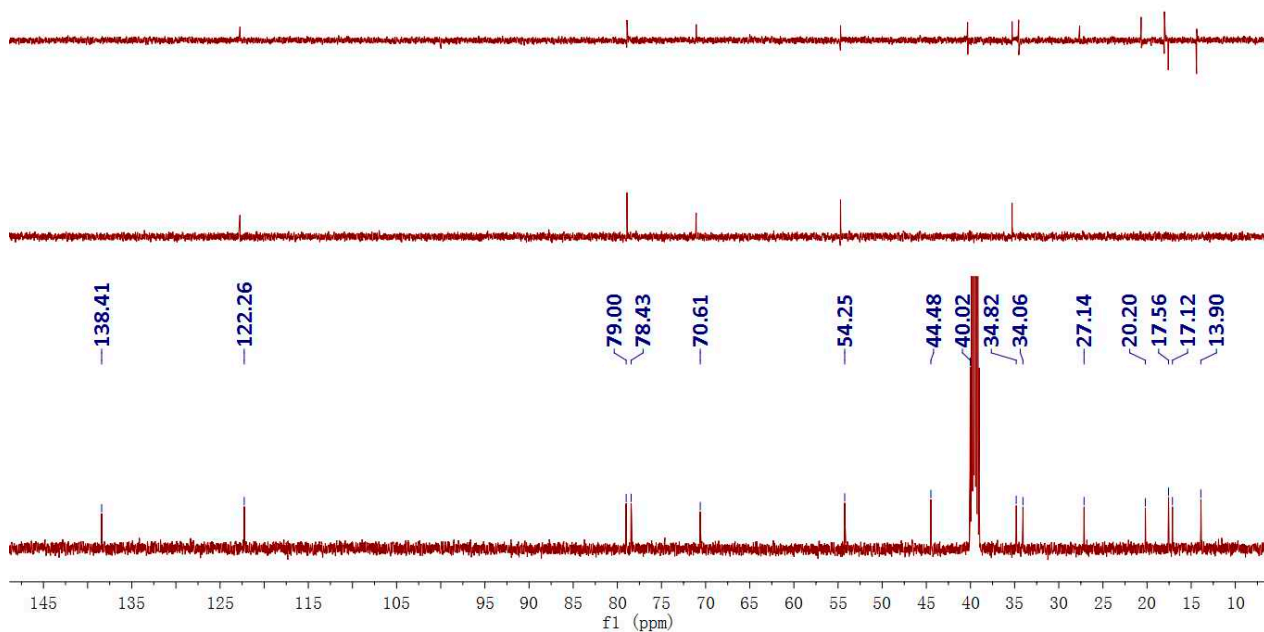


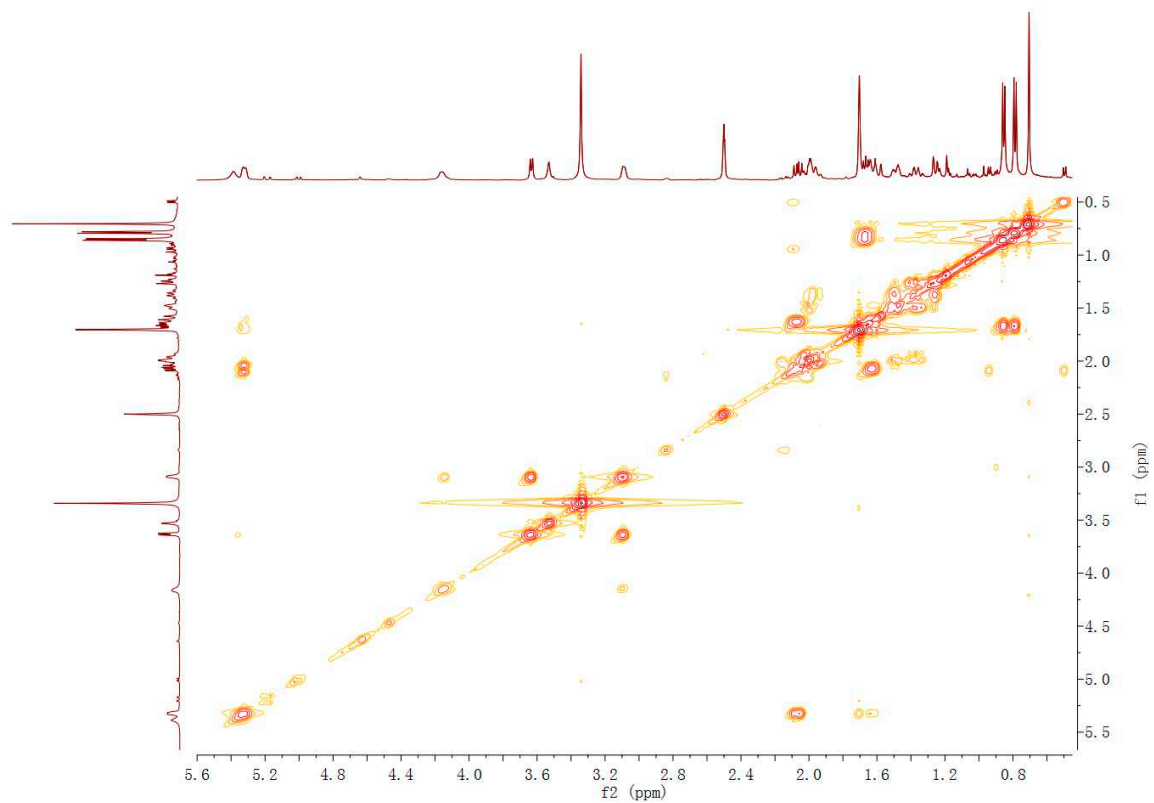
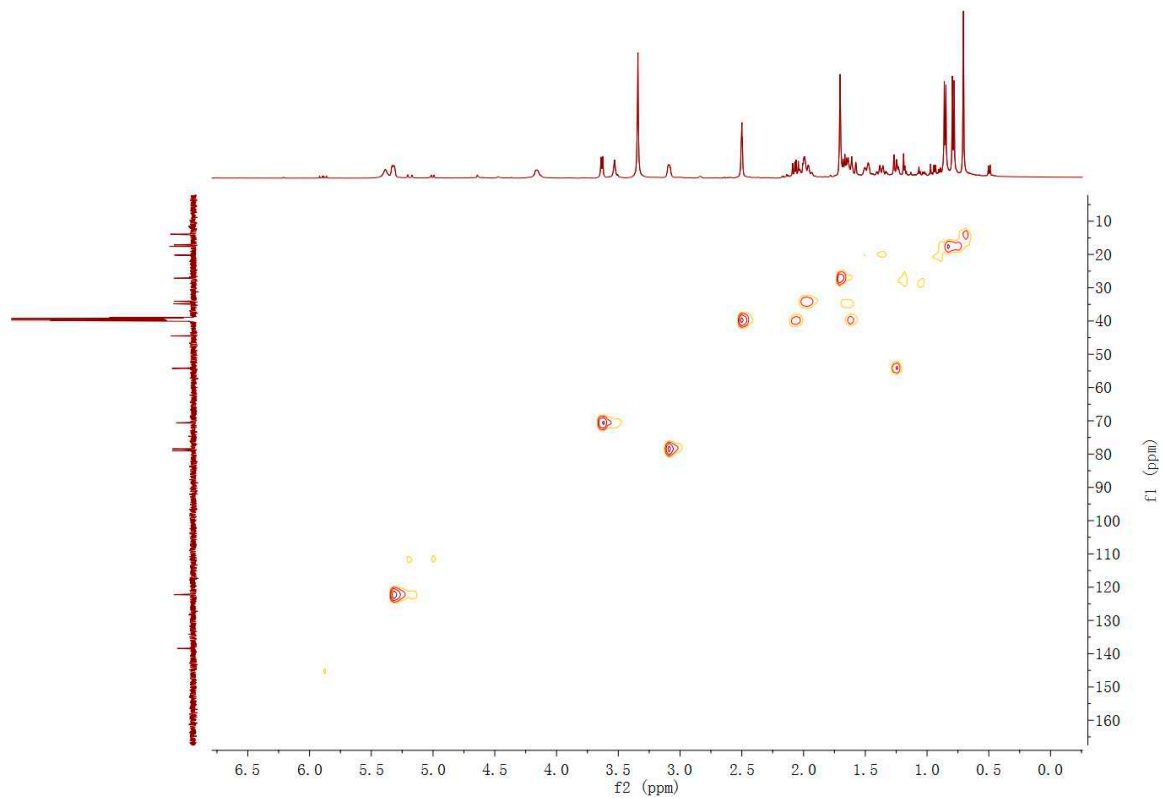
Figure S3. COSY spectrum of compound **1**;Figure S4. HSQC spectrum of compound **1**;

Figure S5. HMBC spectrum of compound **1**;

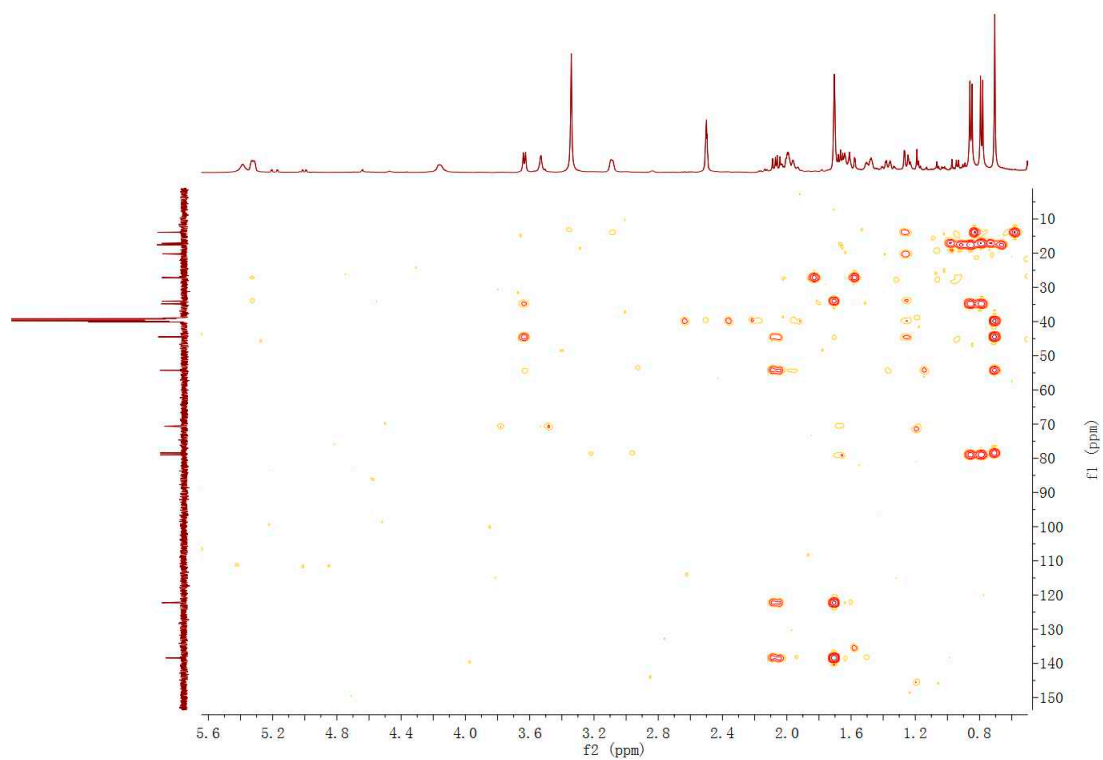


Figure S6. NOESY spectrum of compound **1**;

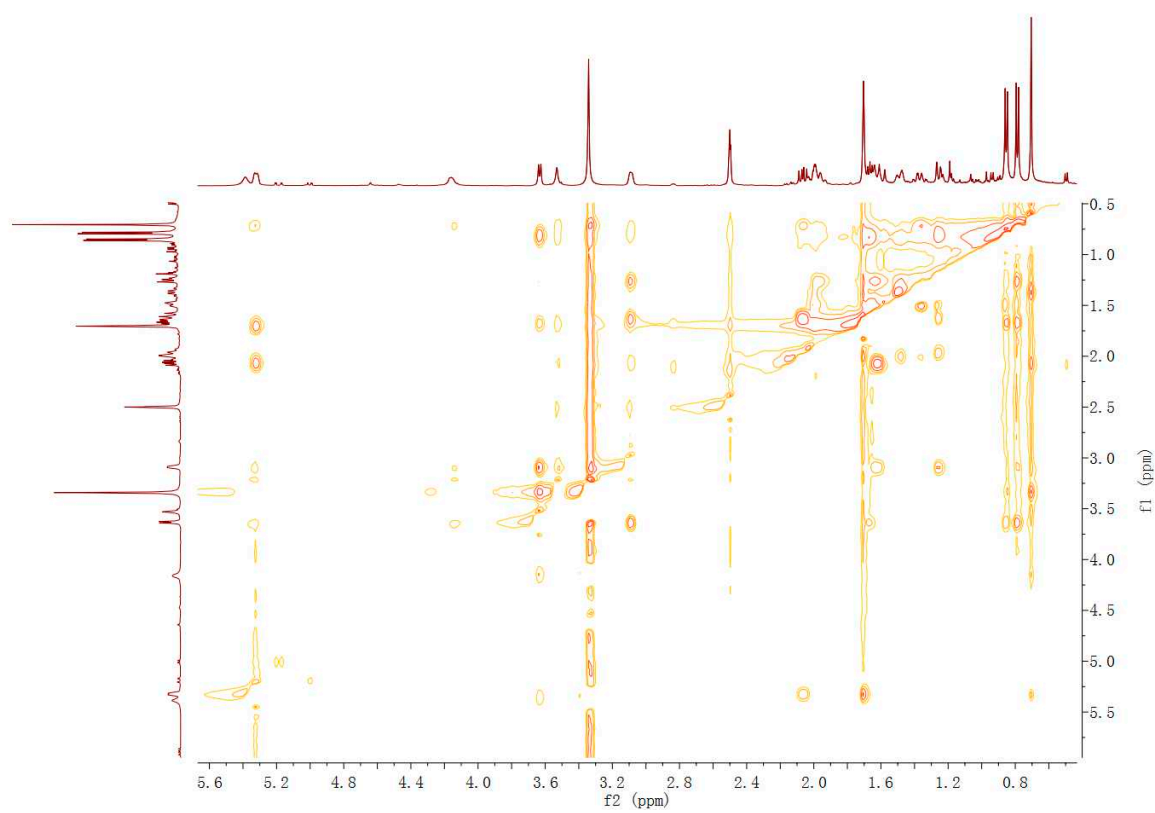


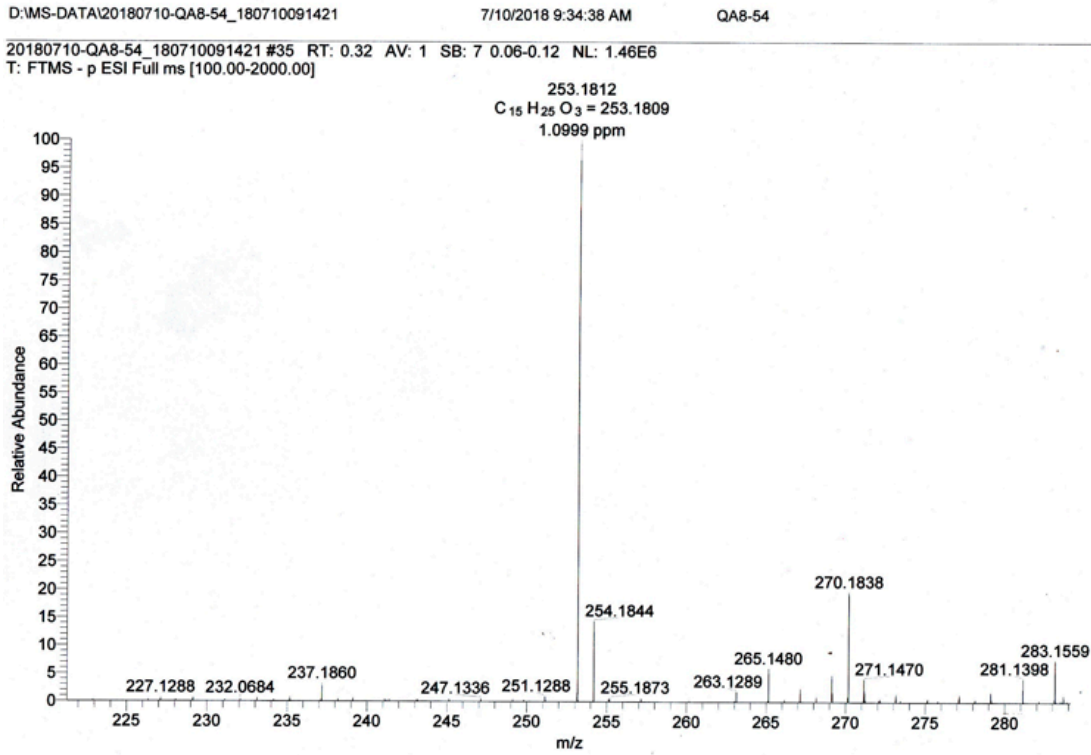
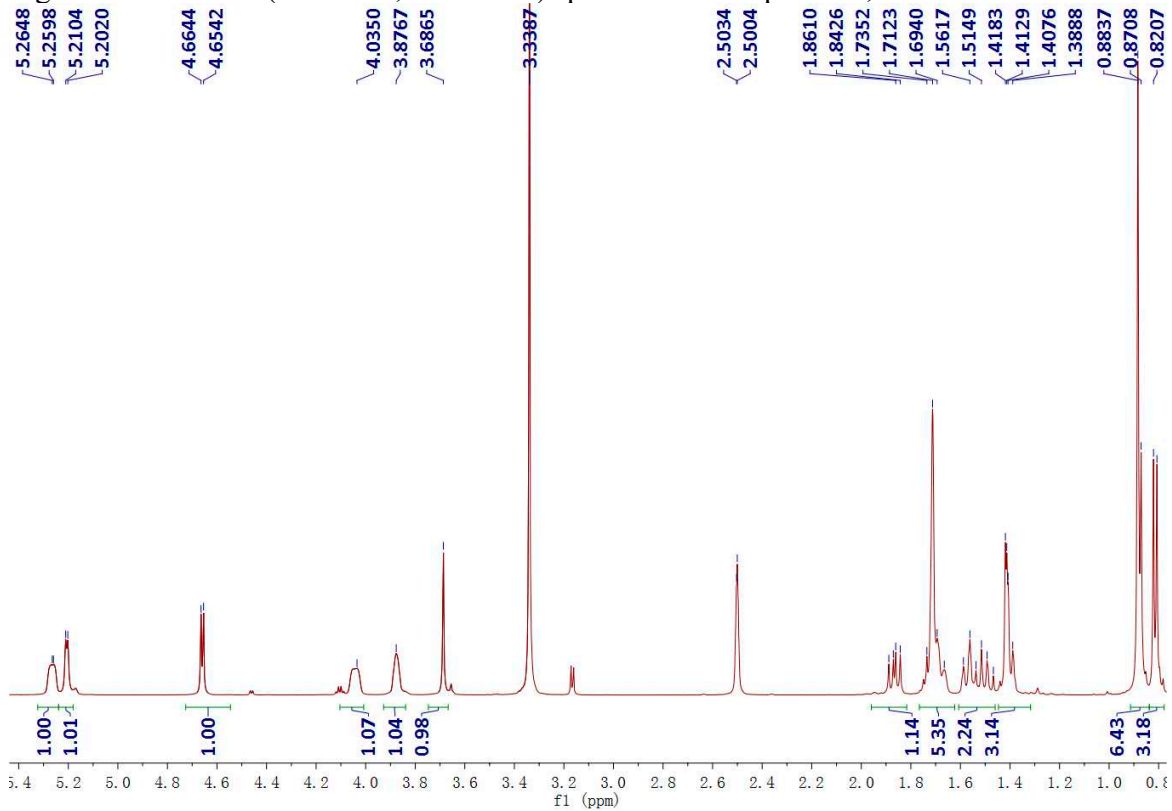
Figure S7. HRESIMS spectrum of compound **1**;Figure S8. ¹H NMR (500 MHz, DMSO-*d*₆) spectrum of compound **2**;

Figure S9. ^{13}C NMR (125 MHz, $\text{DMSO-}d_6$) and DEPT spectra of compound **2**;

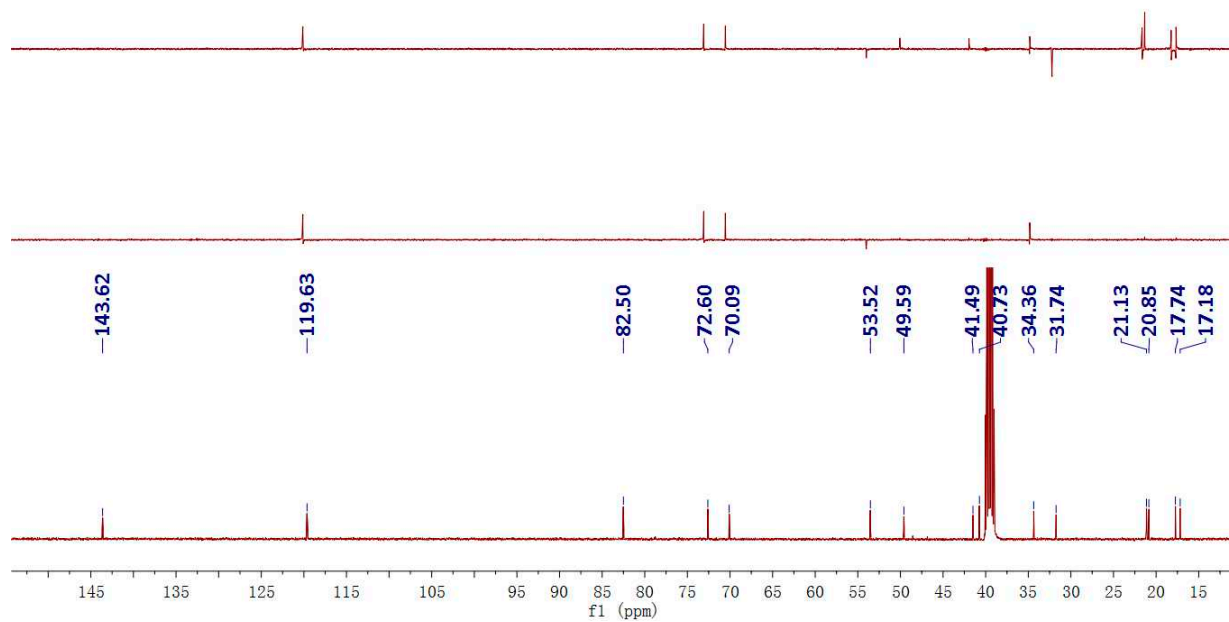


Figure S10. ^1H - ^1H COSY spectrum of compound **2**;

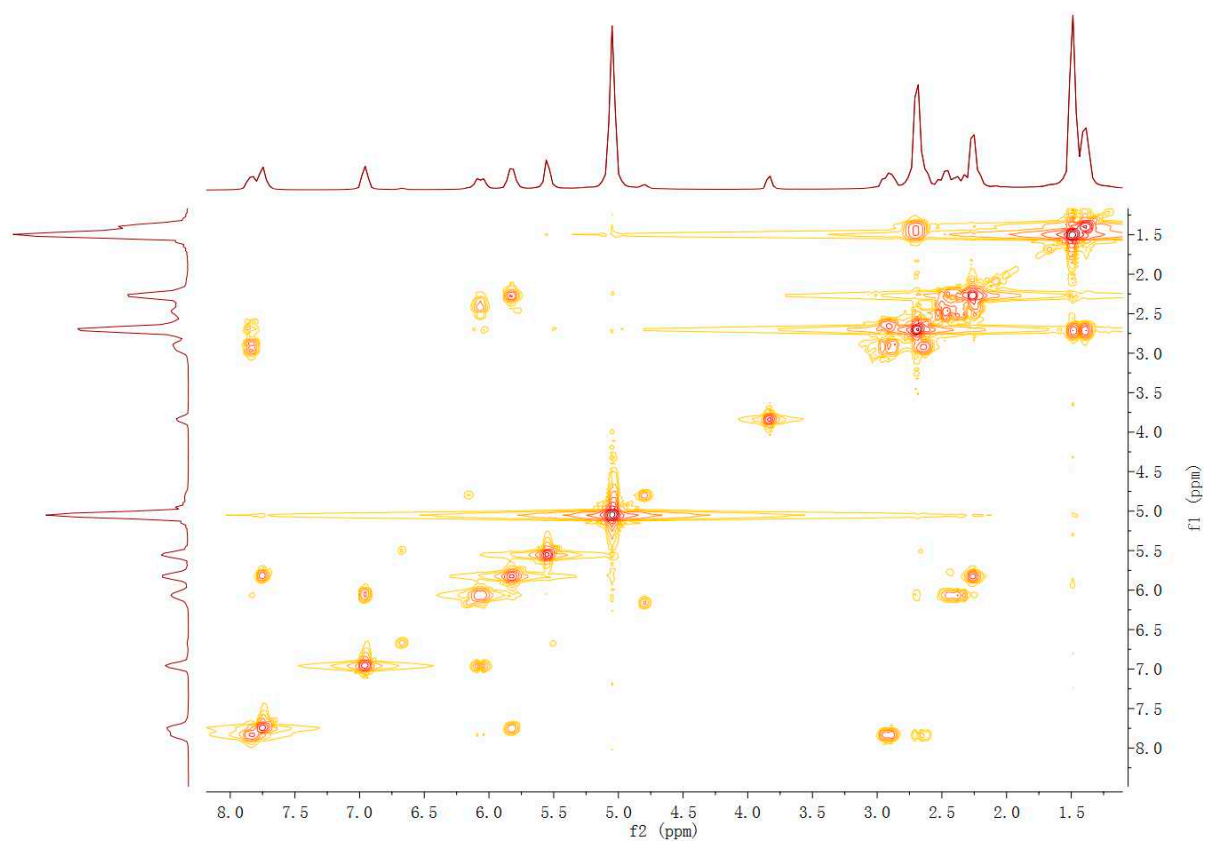


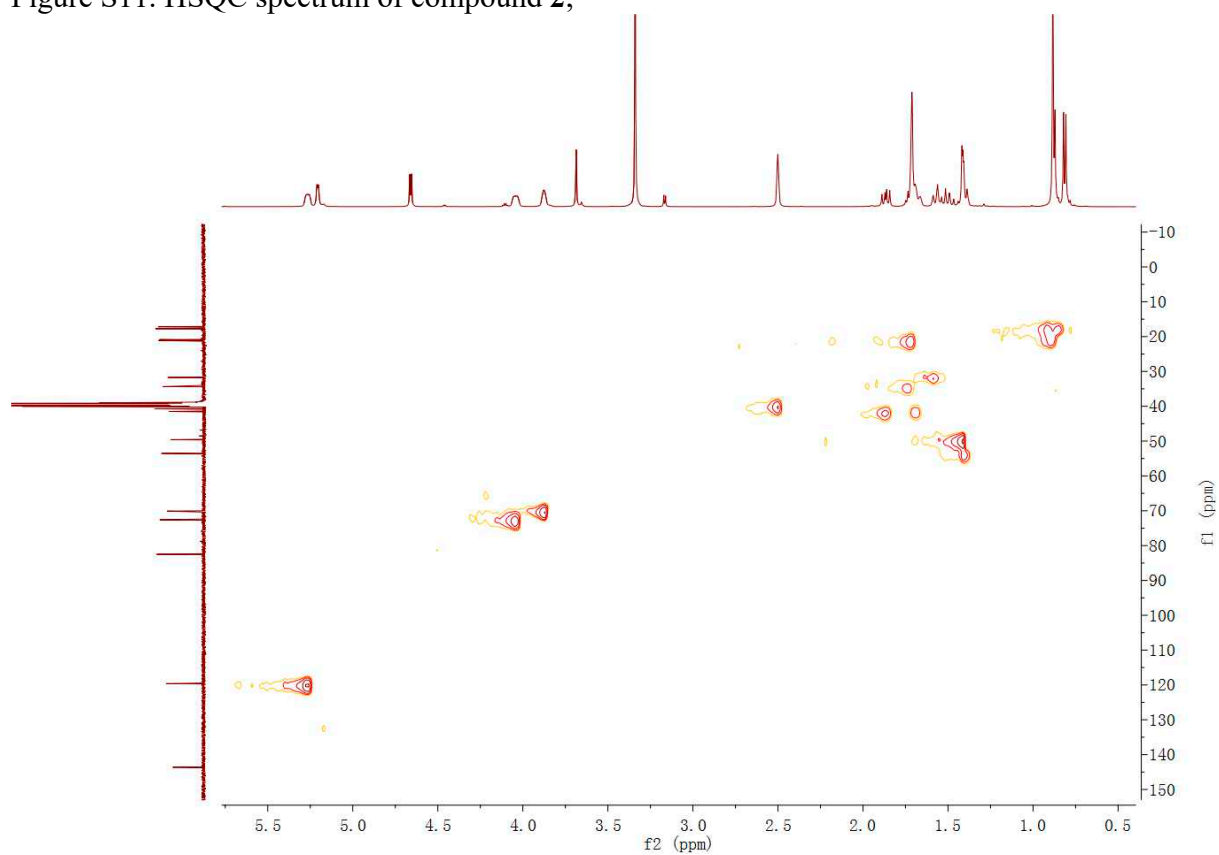
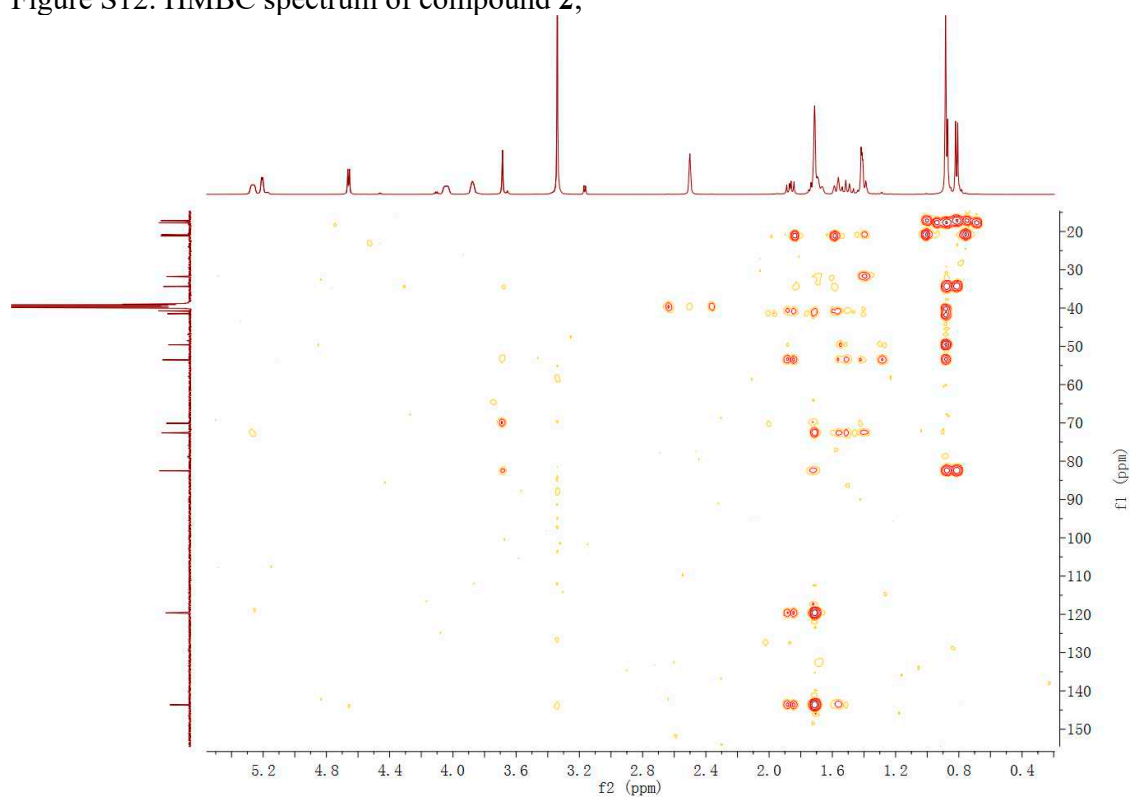
Figure S11. HSQC spectrum of compound **2**;Figure S12. HMBC spectrum of compound **2**;

Figure S13. NOESY spectrum of compound 2;

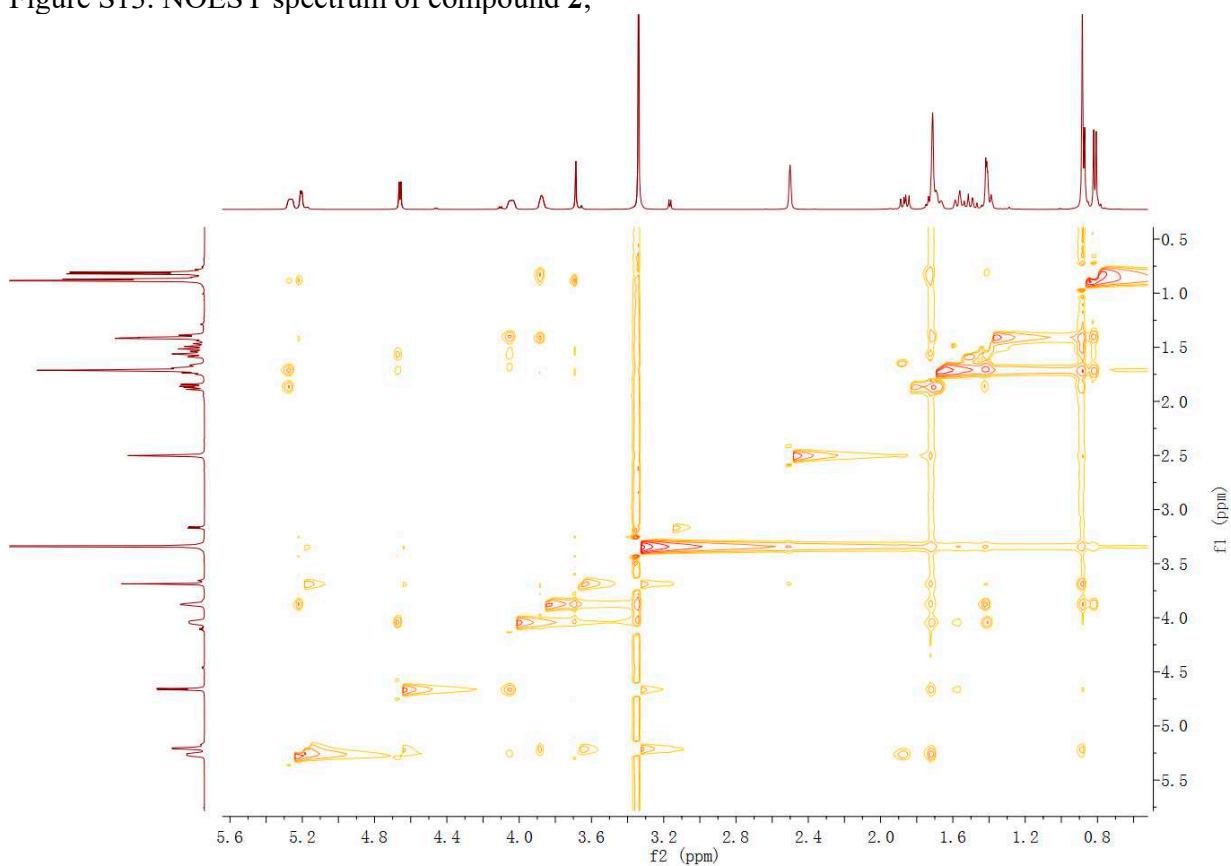


Figure S14. HRESIMS spectrum of compound 2;

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QA8-55

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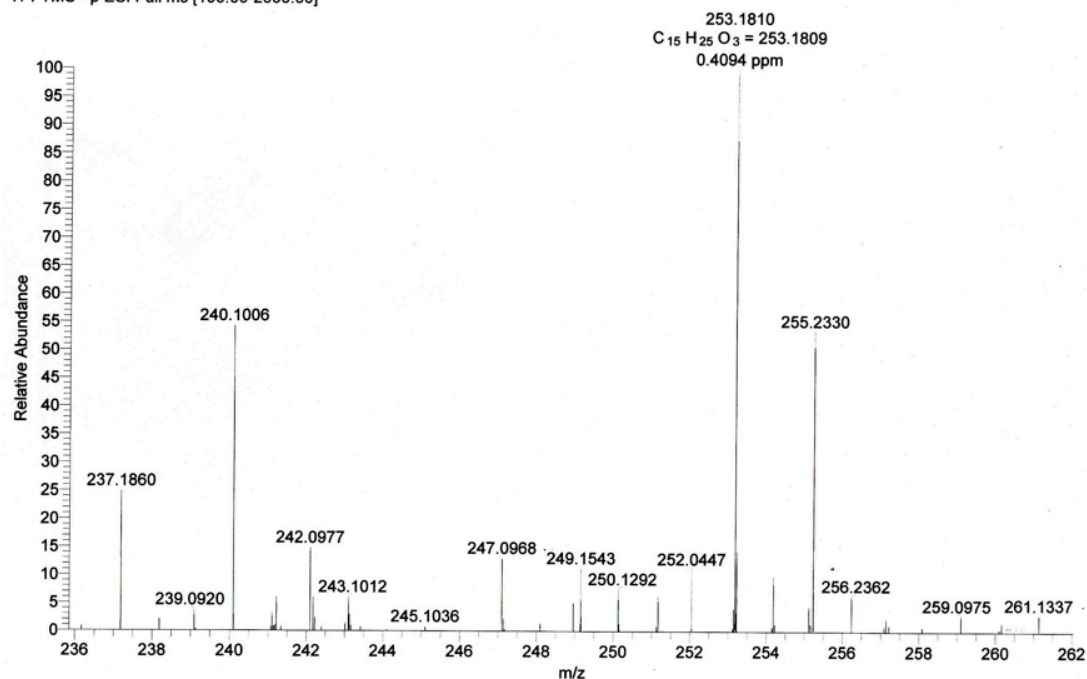


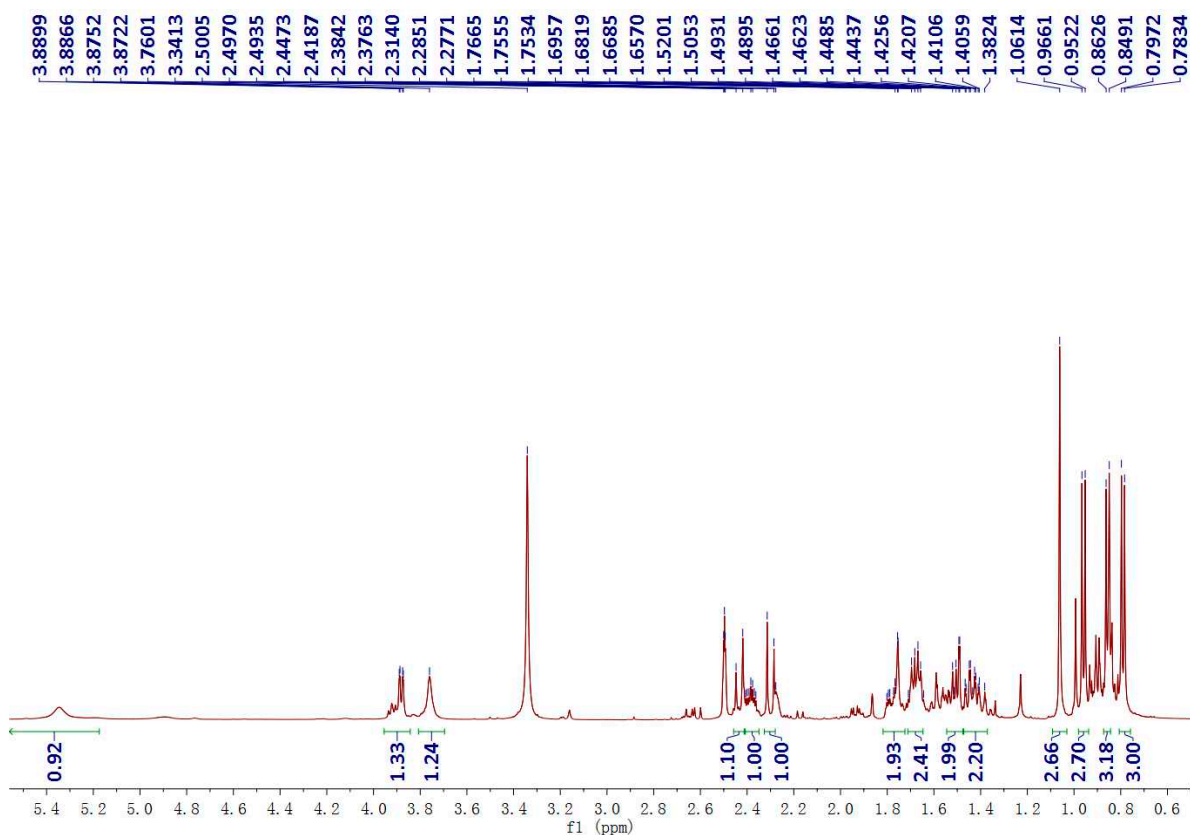
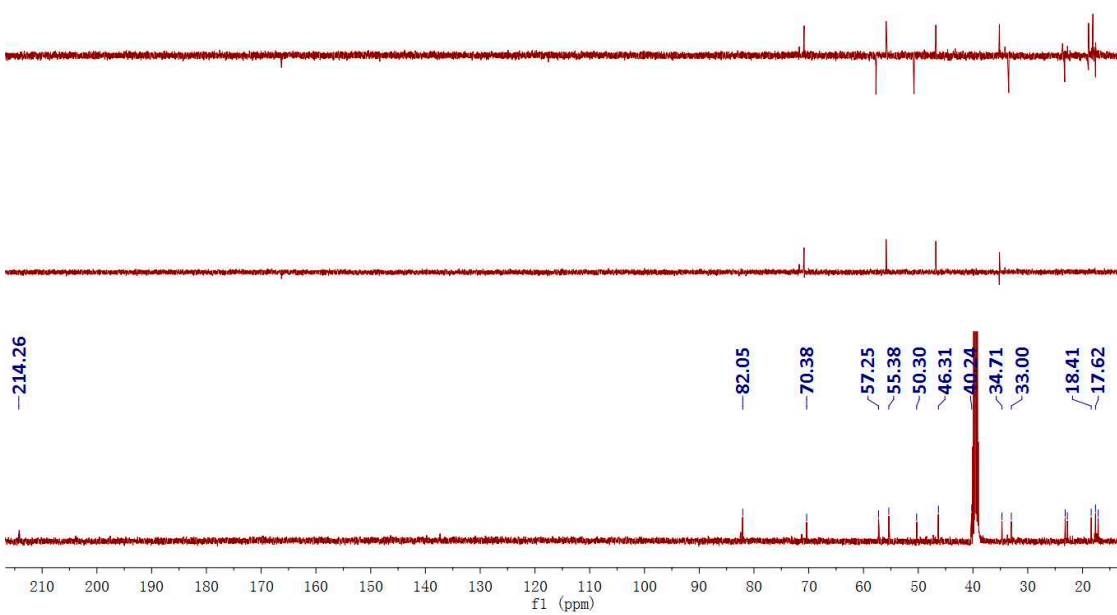
Figure S15. ^1H NMR (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **3**;Figure S16. ^{13}C NMR (125 MHz, $\text{DMSO-}d_6$) and DEPT spectra of compound **3**;

Figure S17. ^1H - ^1H COSY spectrum of compound **3**;

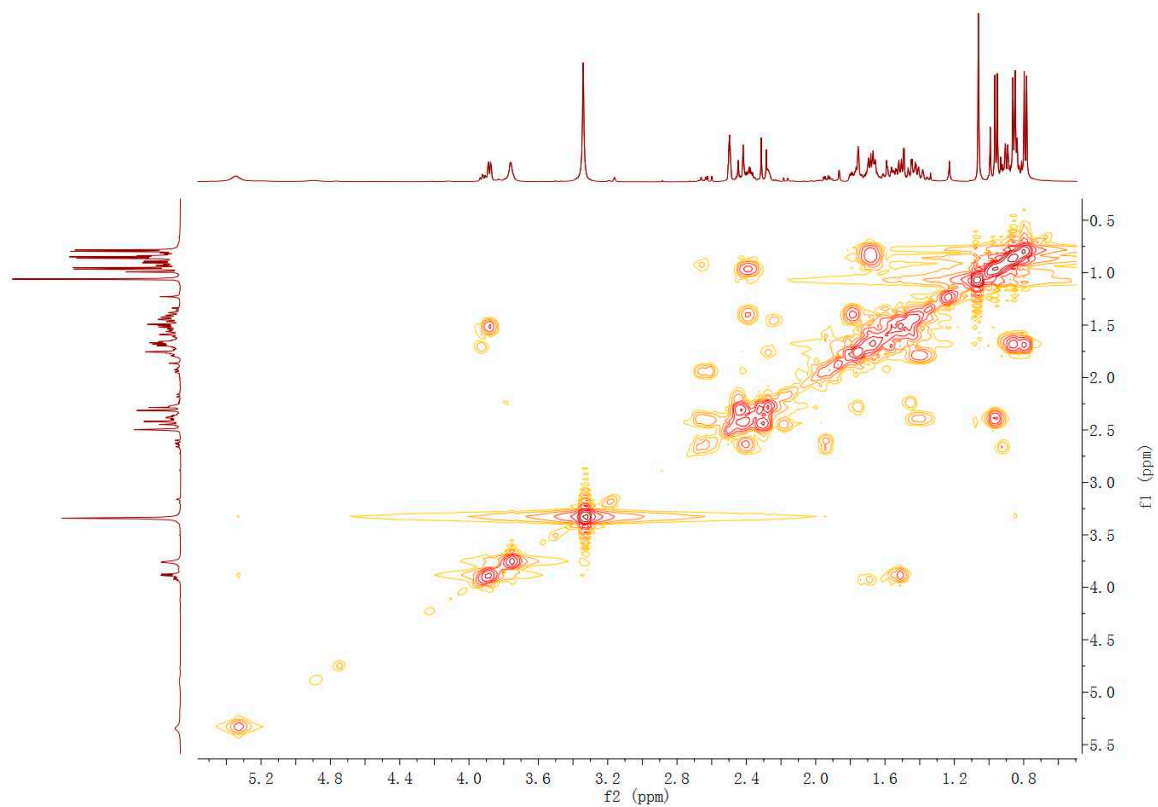


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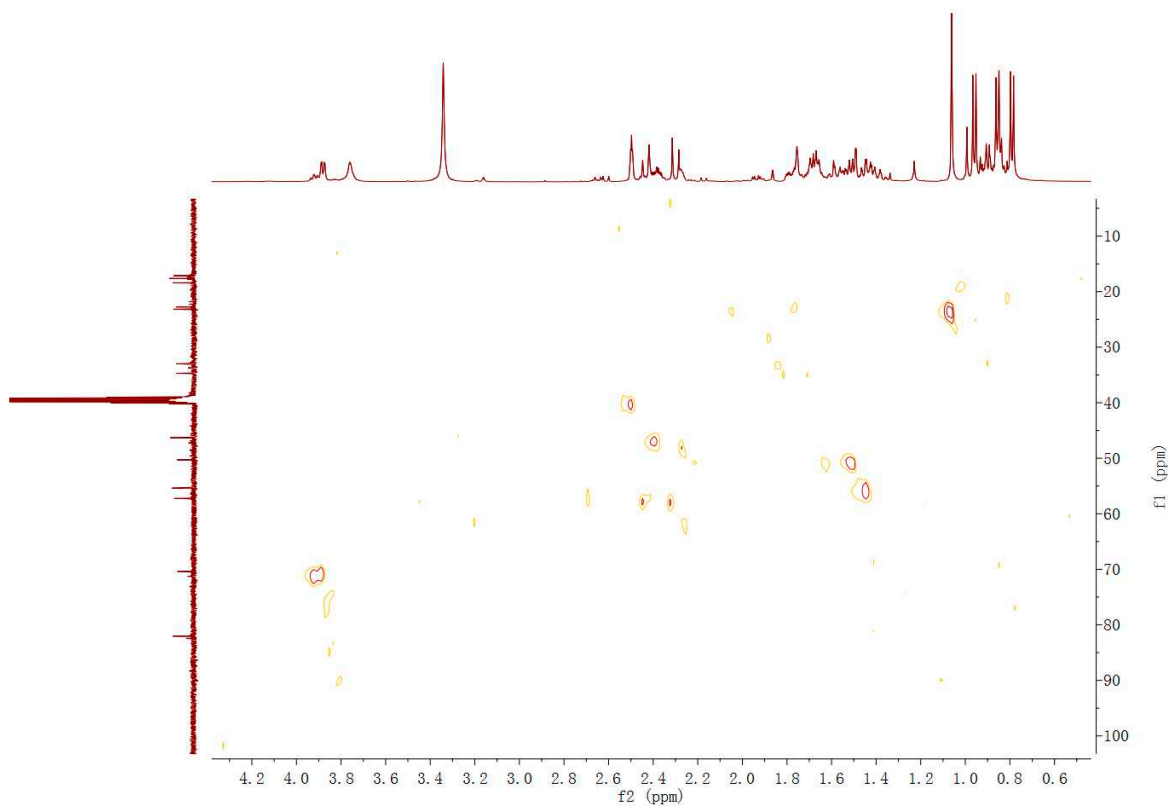


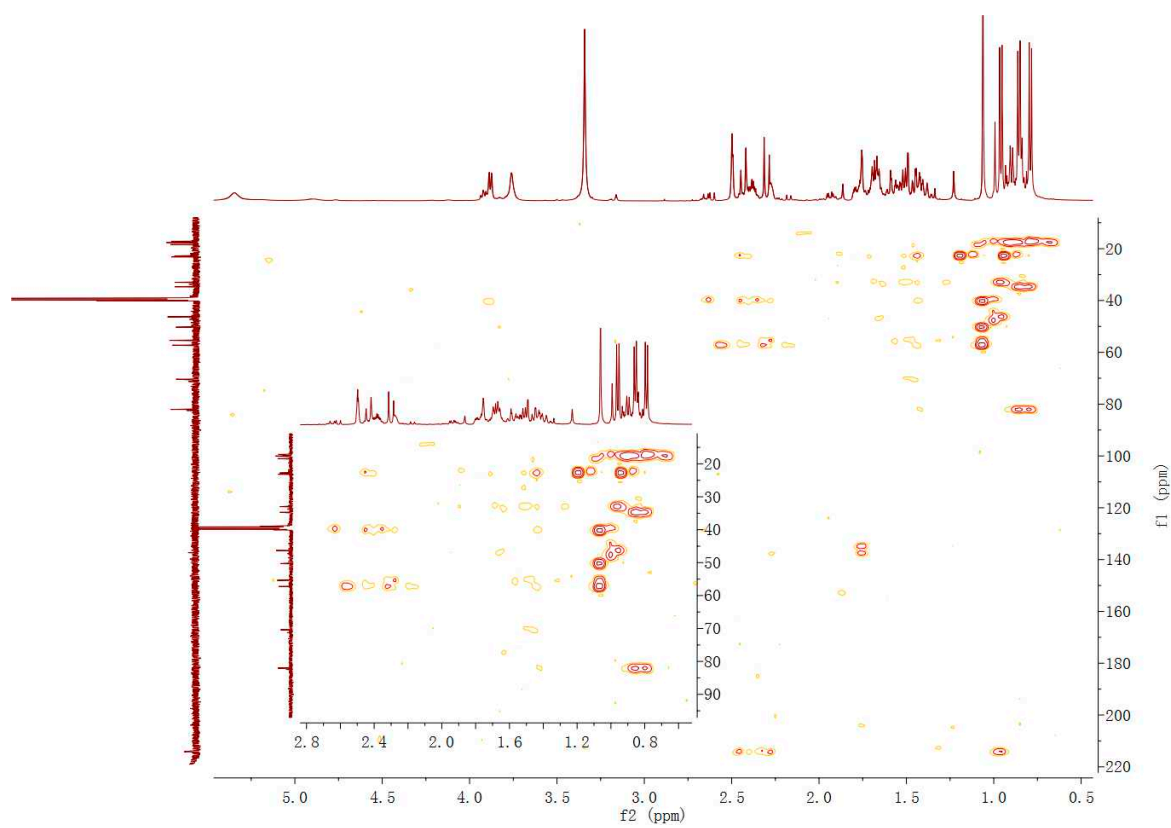
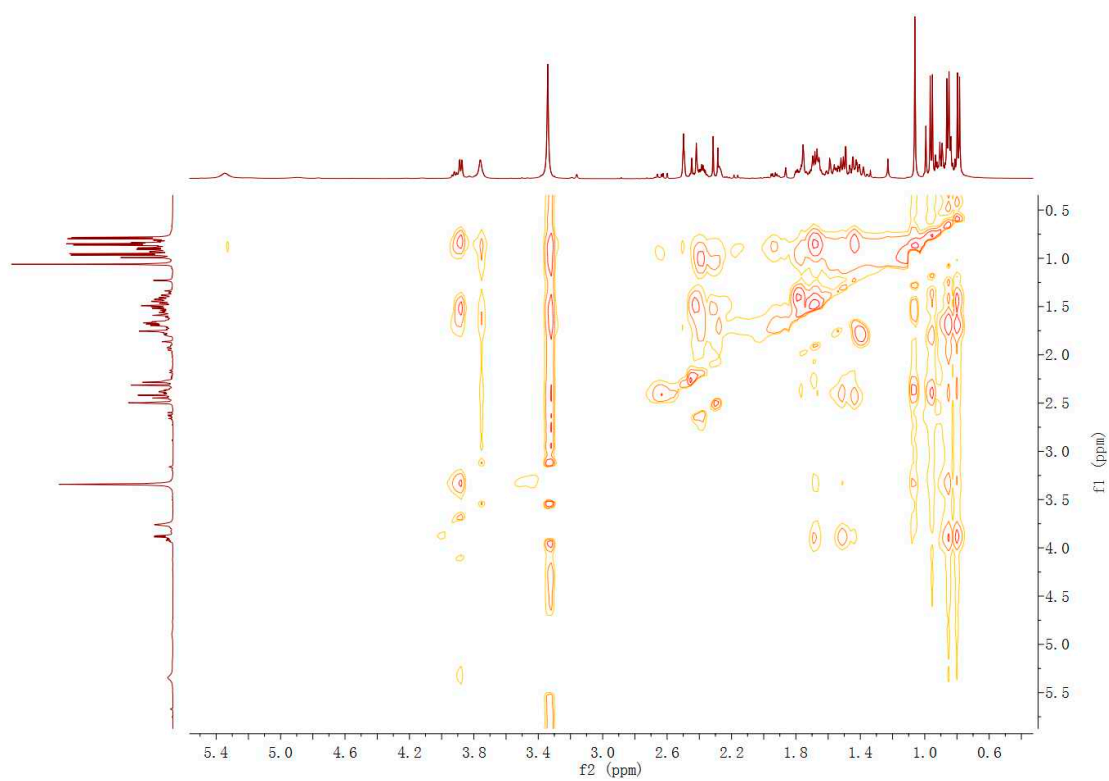
Figure S19. HMBC spectrum of compound **3**;Figure S20. NOESY spectrum of compound **3**;

Figure S21. HRESIMS spectrum of compound **3**;

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QA8-41

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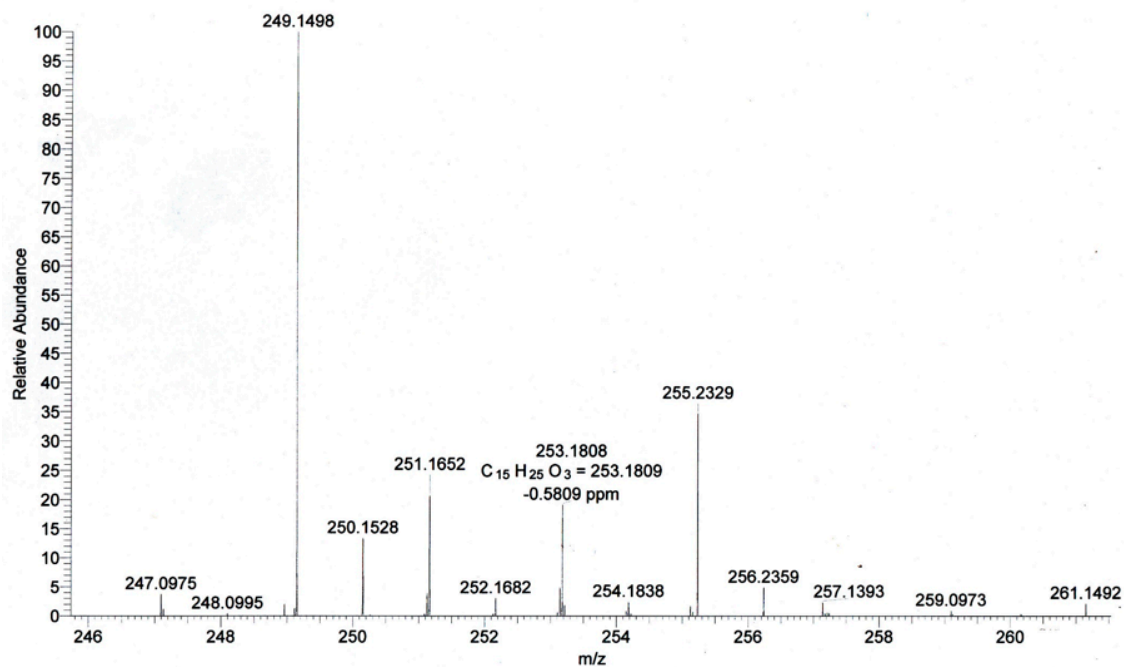


Figure S22. 1H NMR (500 MHz, $DMSO-d_6$) spectrum of compound **4**;

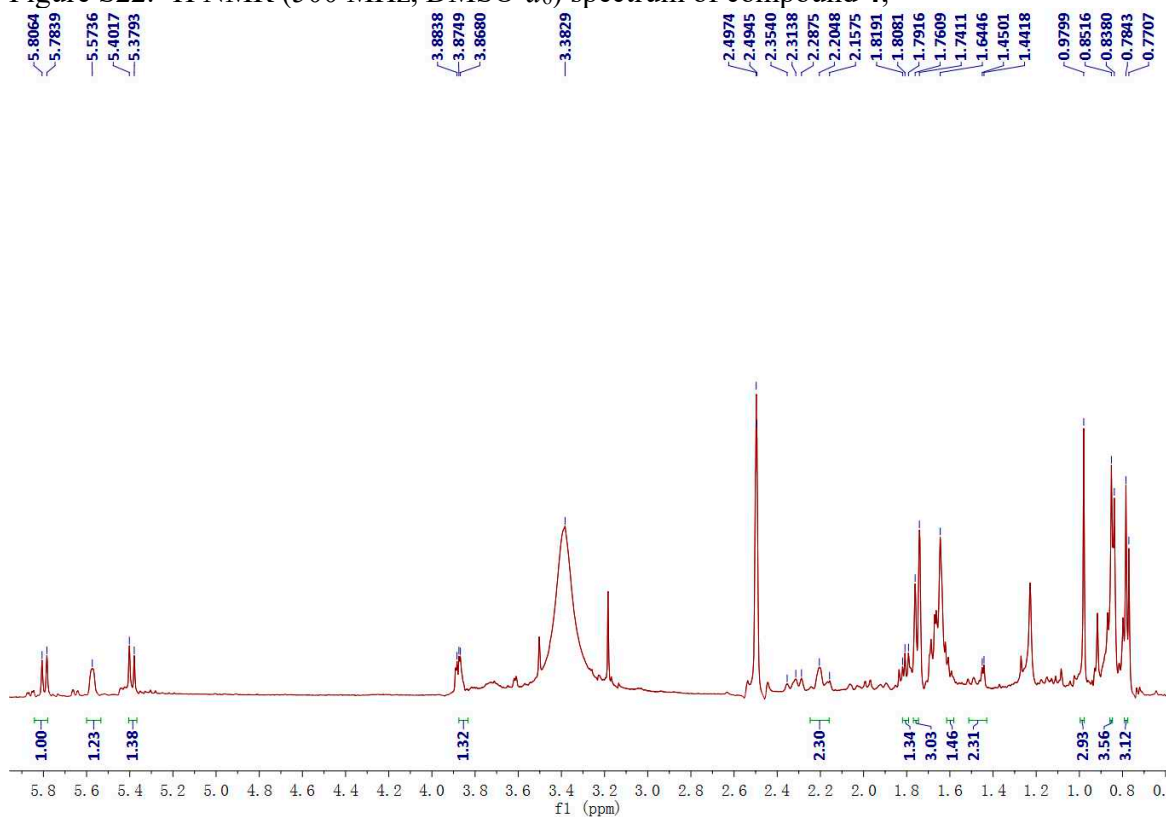


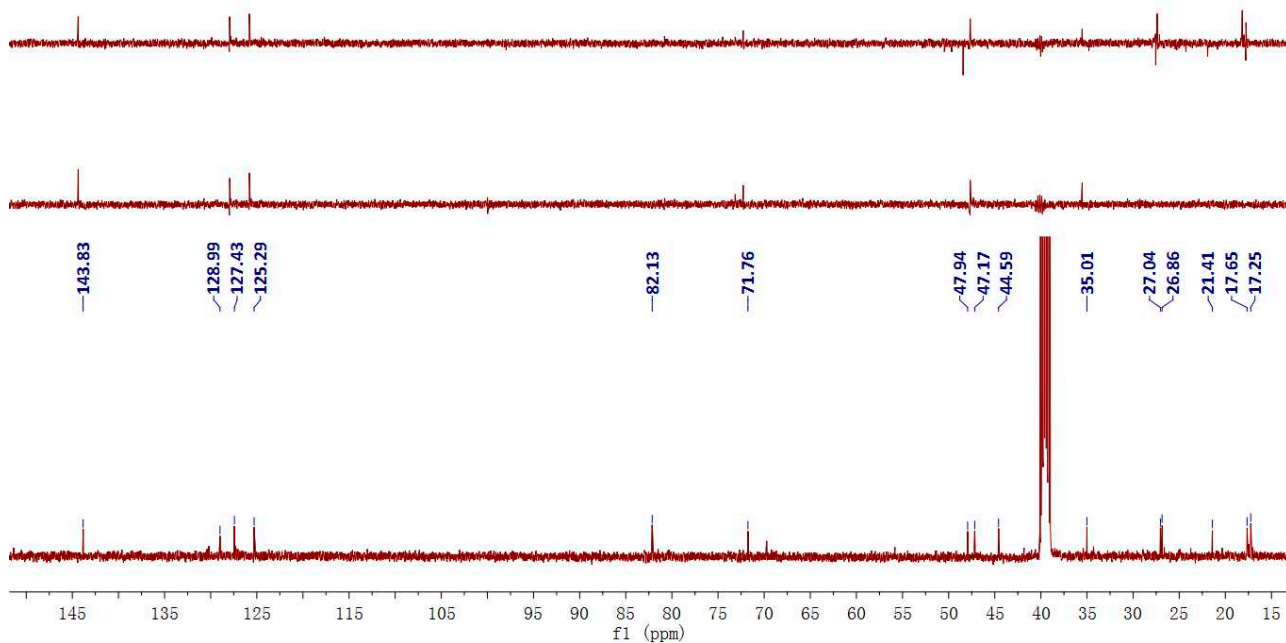
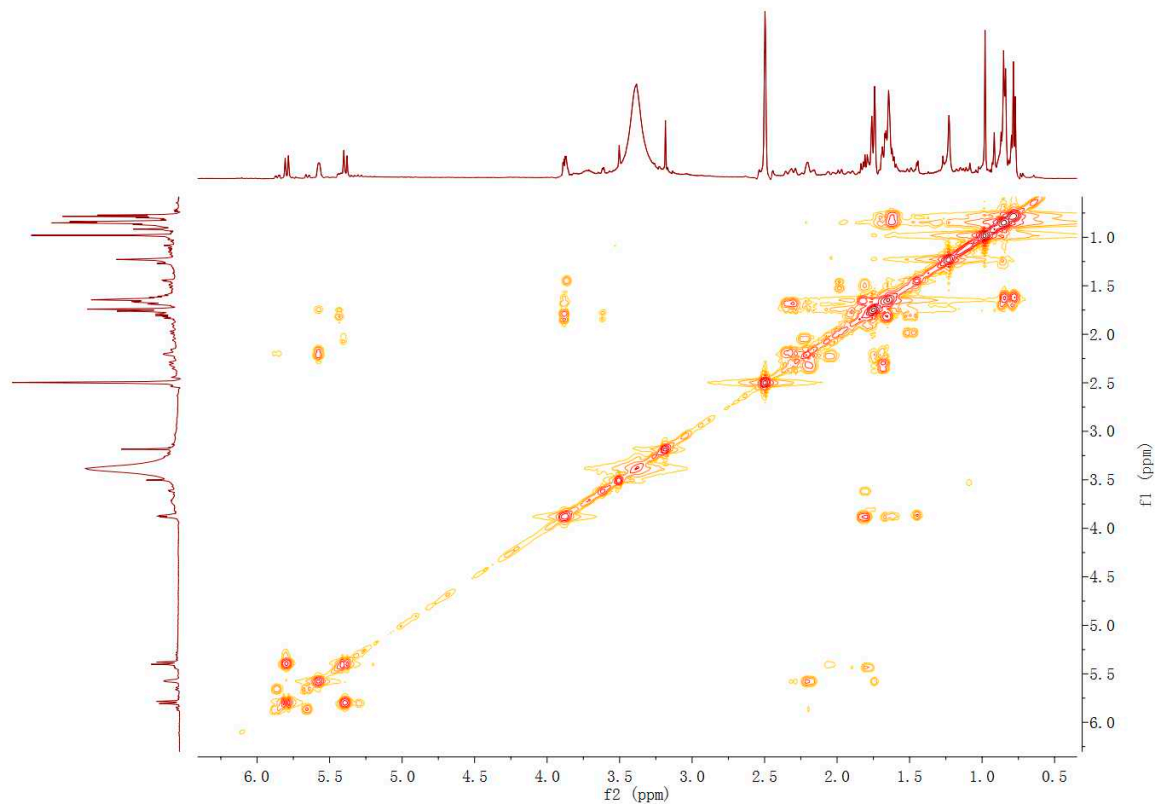
Figure S23. ^{13}C NMR (125 MHz, $\text{DMSO-}d_6$) and DEPT spectra of compound **4**;Figure S24. ^1H - ^1H COSY spectrum of compound **4**;

Figure S25. HSQC spectrum of compound 4;

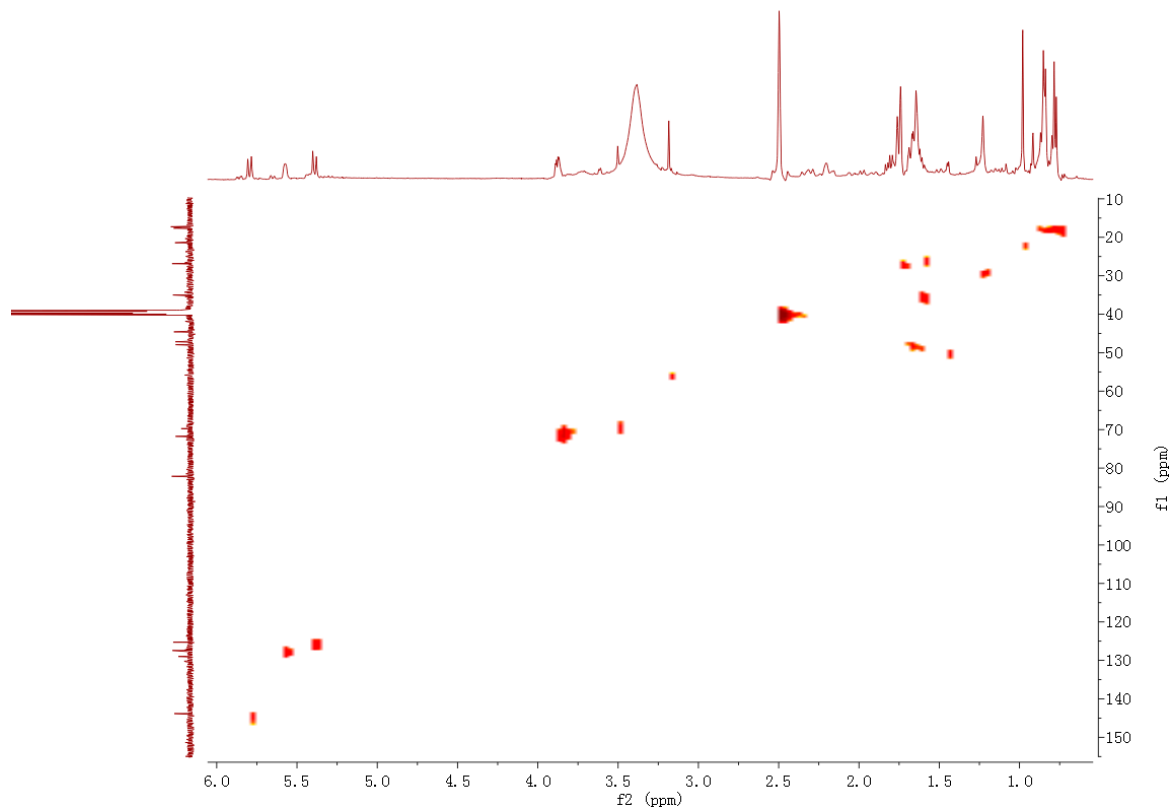


Figure S26. HMBC spectrum of compound 4;

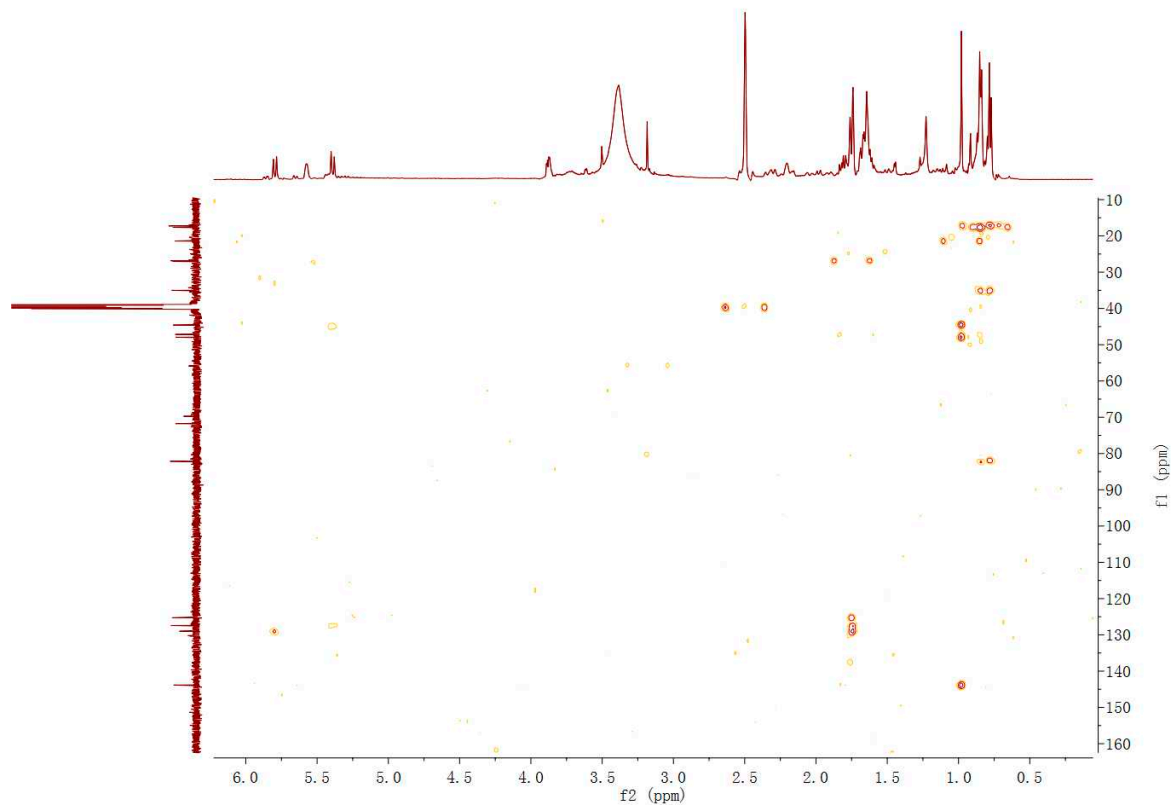


Figure S27. NOESY spectrum of compound 4;

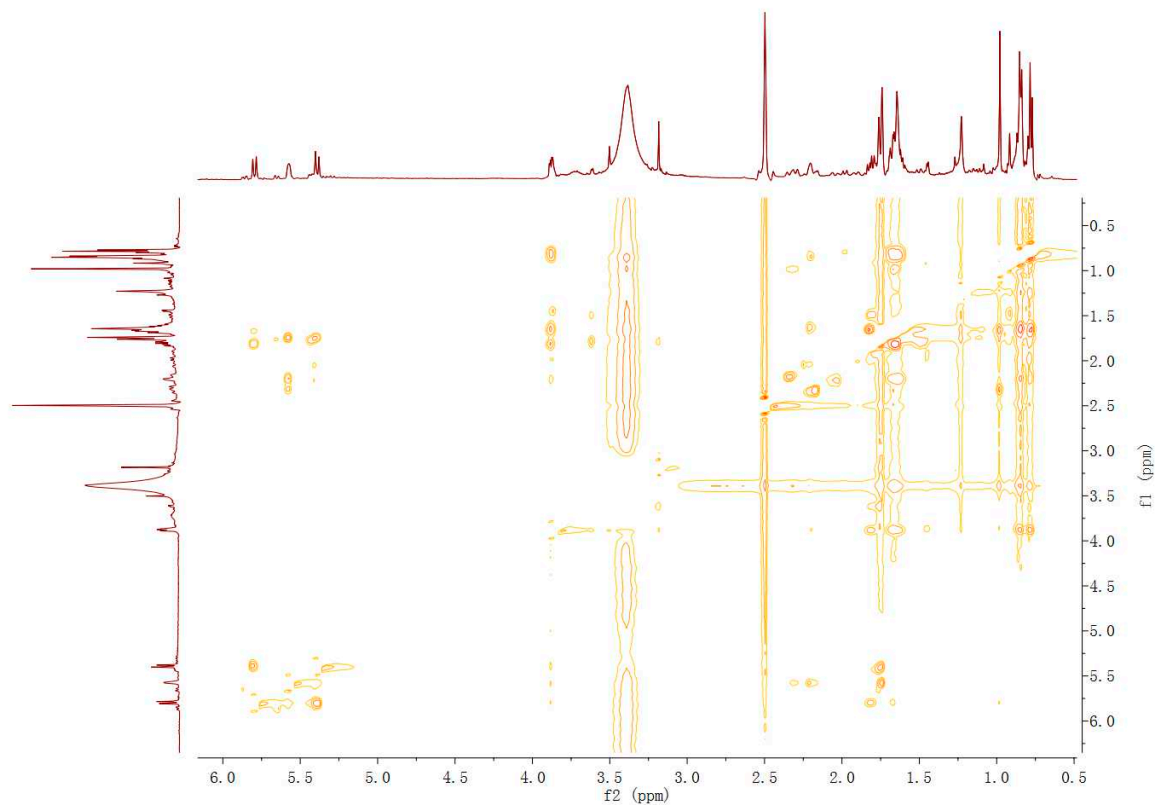


Figure S28. HRESIMS spectrum of compound 4;

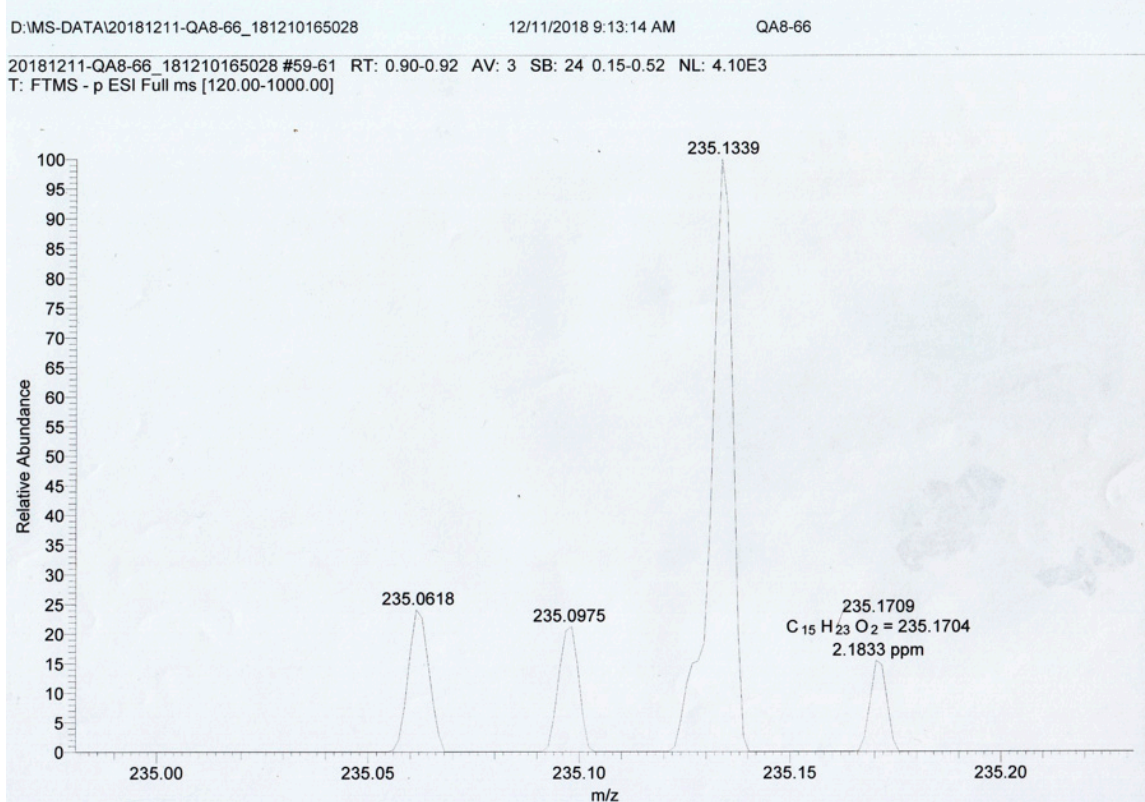


Figure S29. ^1H NMR (500 MHz, $\text{DMSO-}d_6$) spectrum of compound **5**;

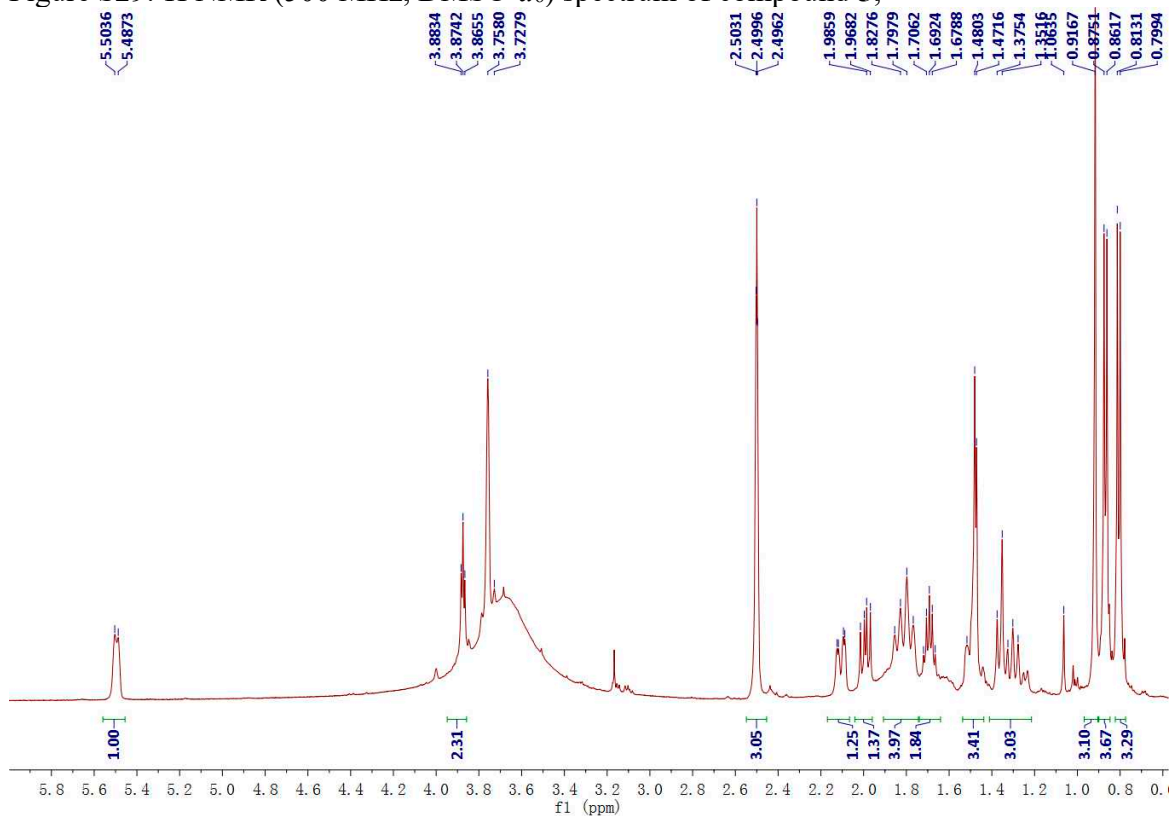


Figure S30. ^{13}C NMR (125 MHz, $\text{DMSO-}d_6$) and DEPT spectra of compound **5**;

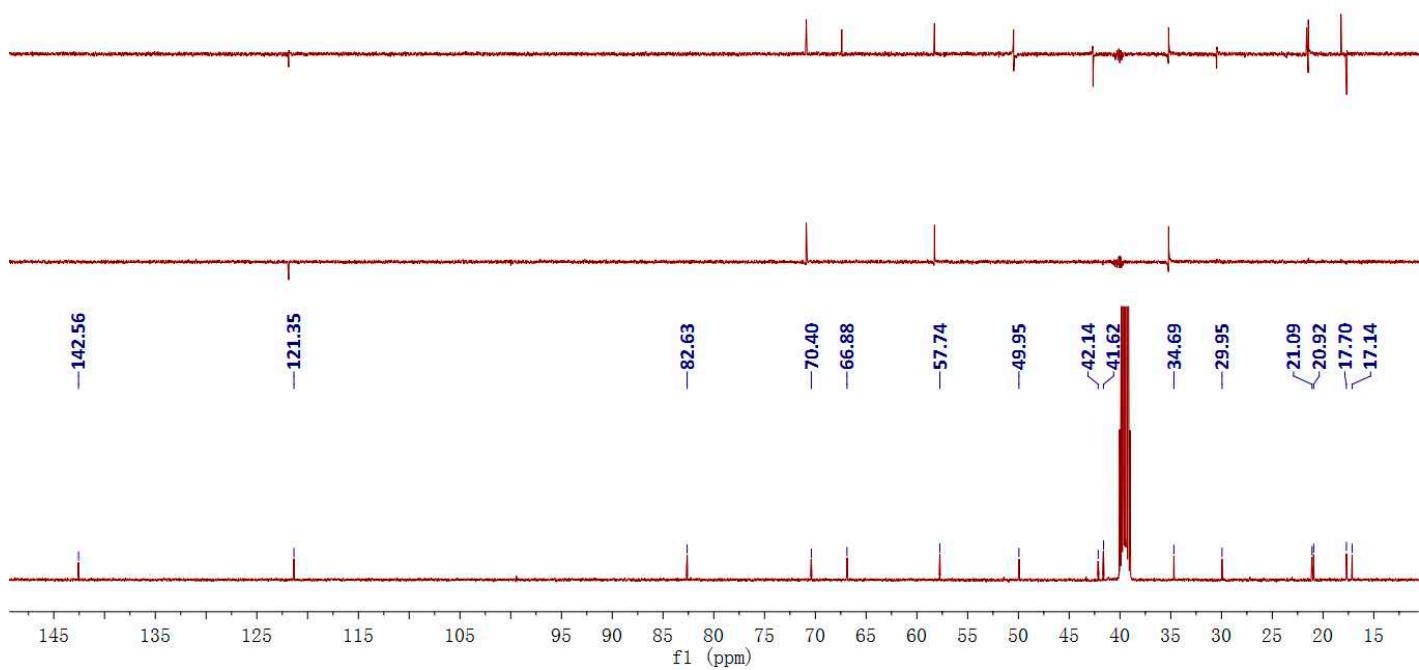


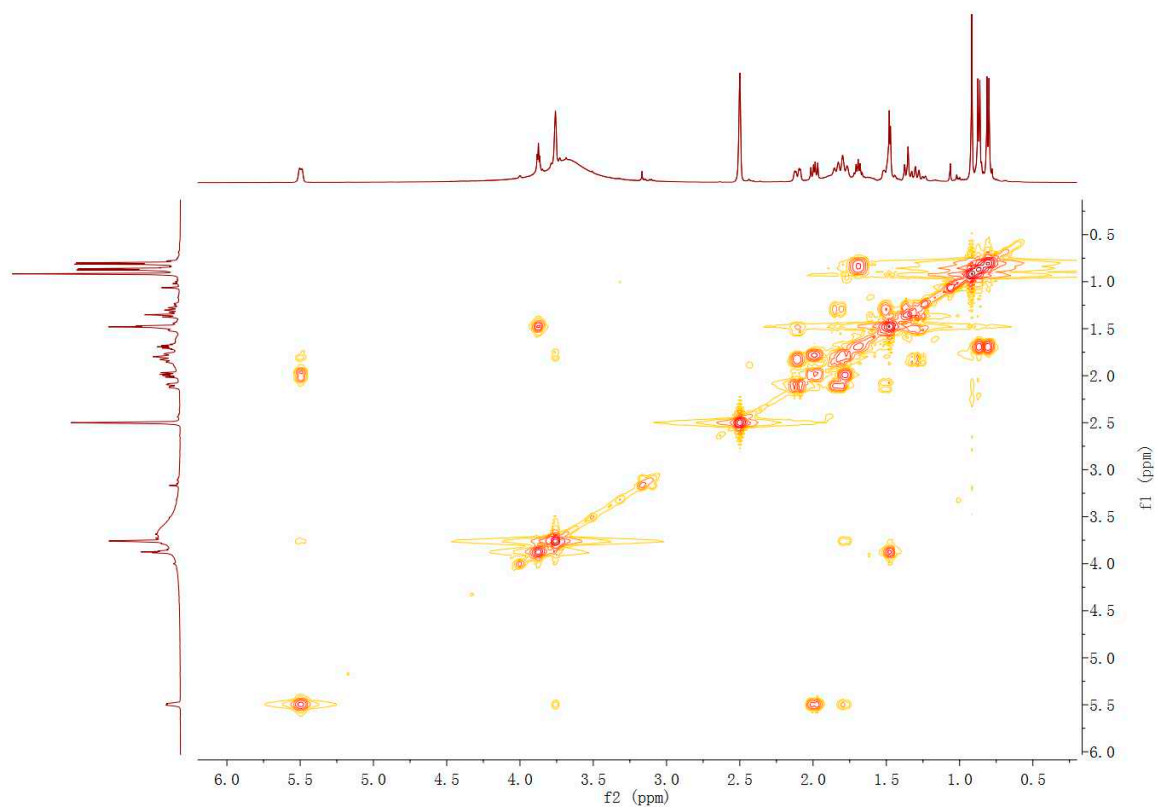
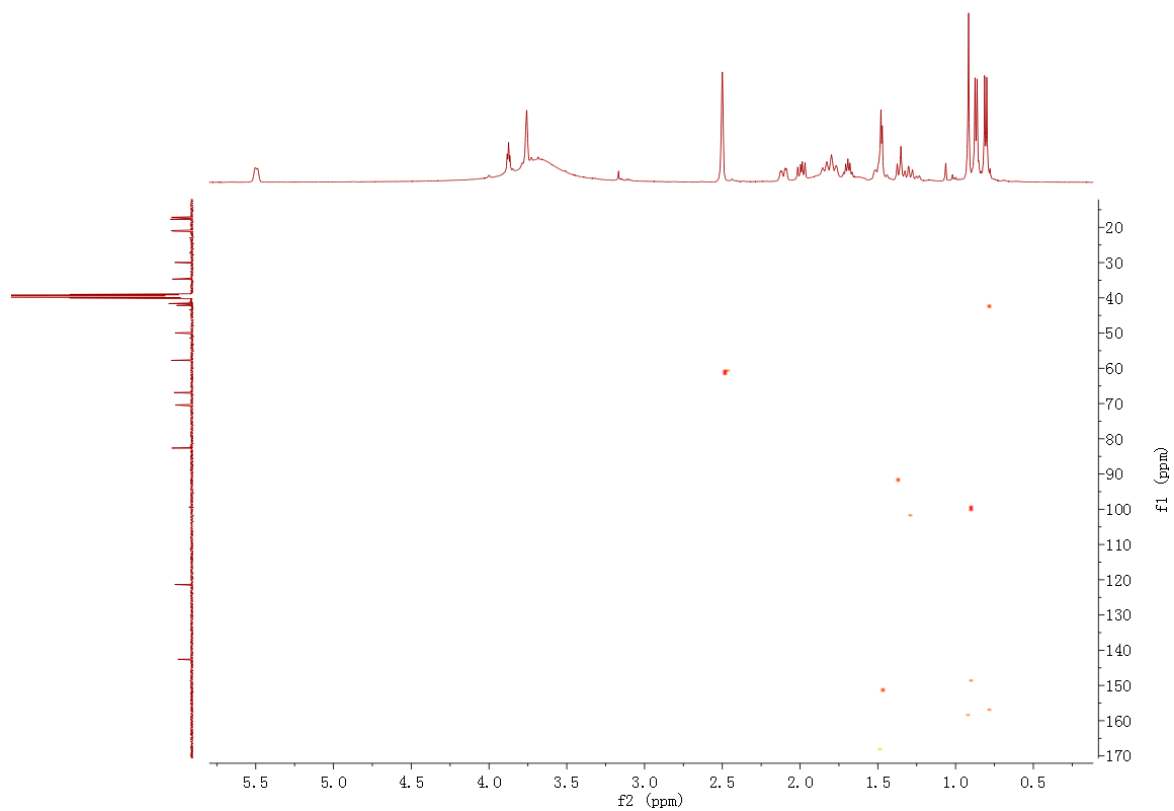
Figure S31. COSY spectrum of compound **5**;Figure S32. HSQC spectrum of compound **5**;

Figure S33. HMBC spectrum of compound **5**;

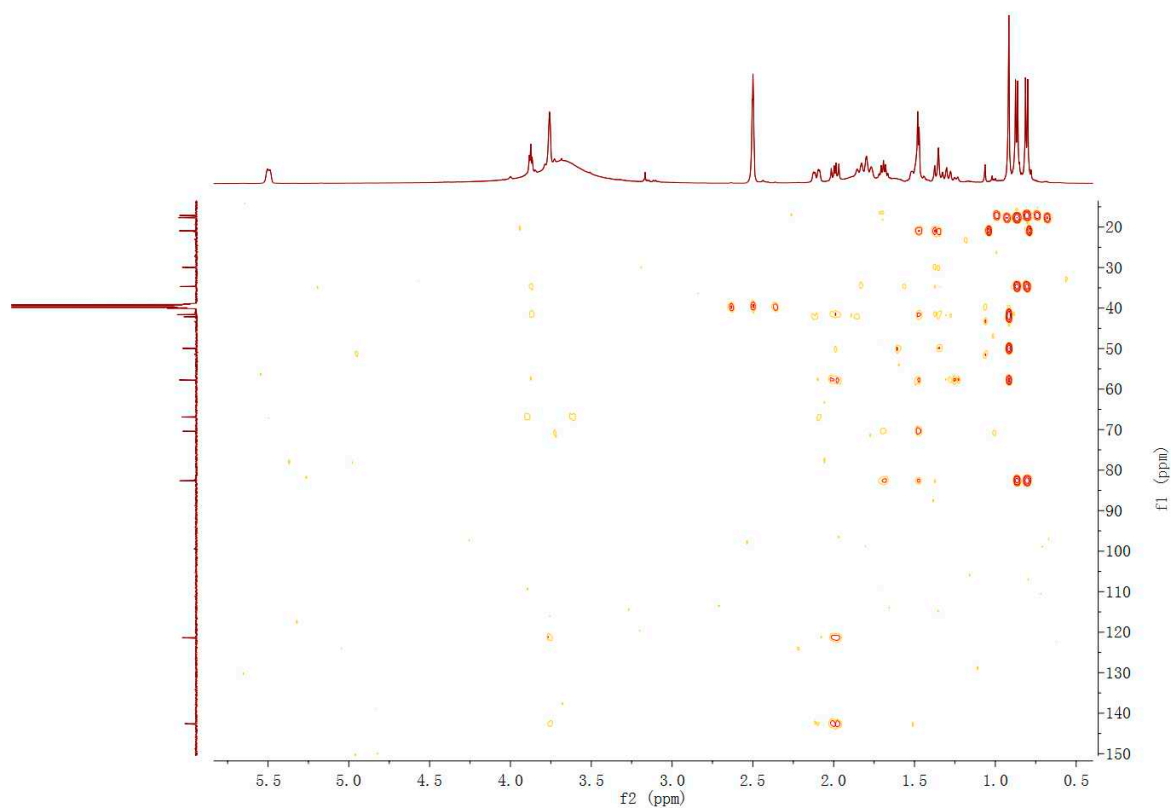


Figure S34. NOESY spectrum of compound **5**;

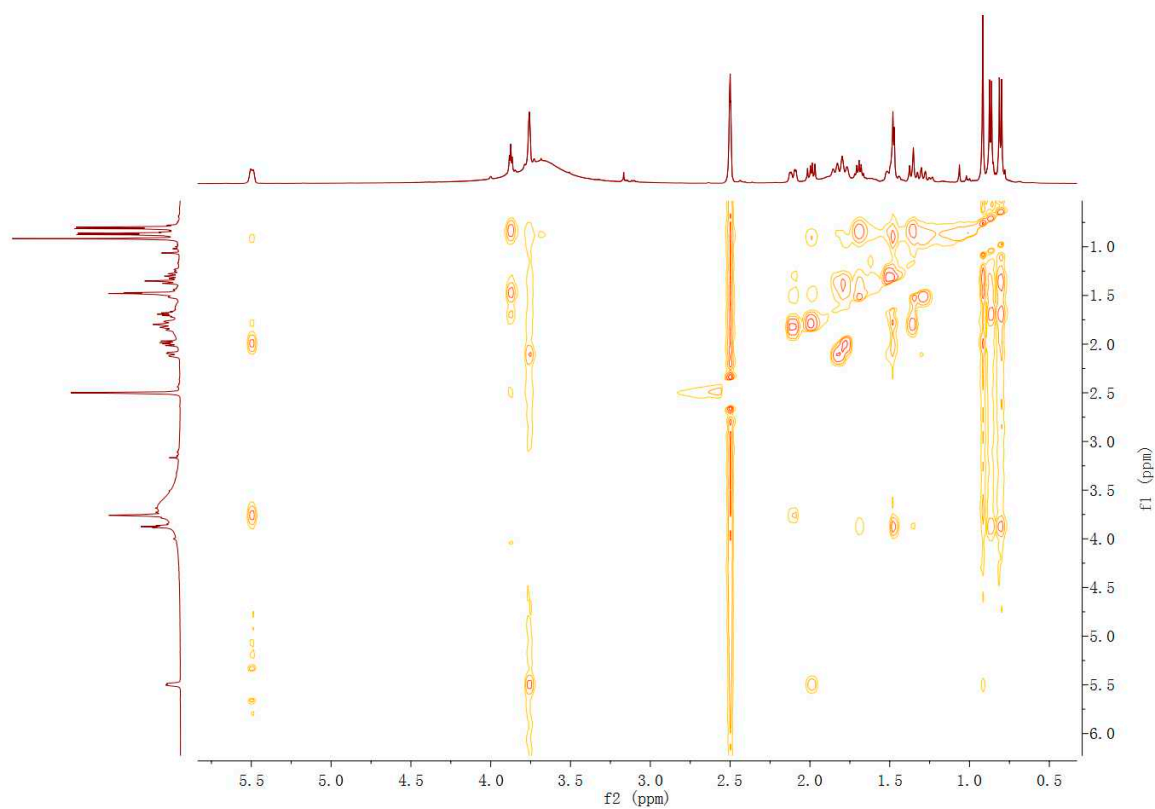


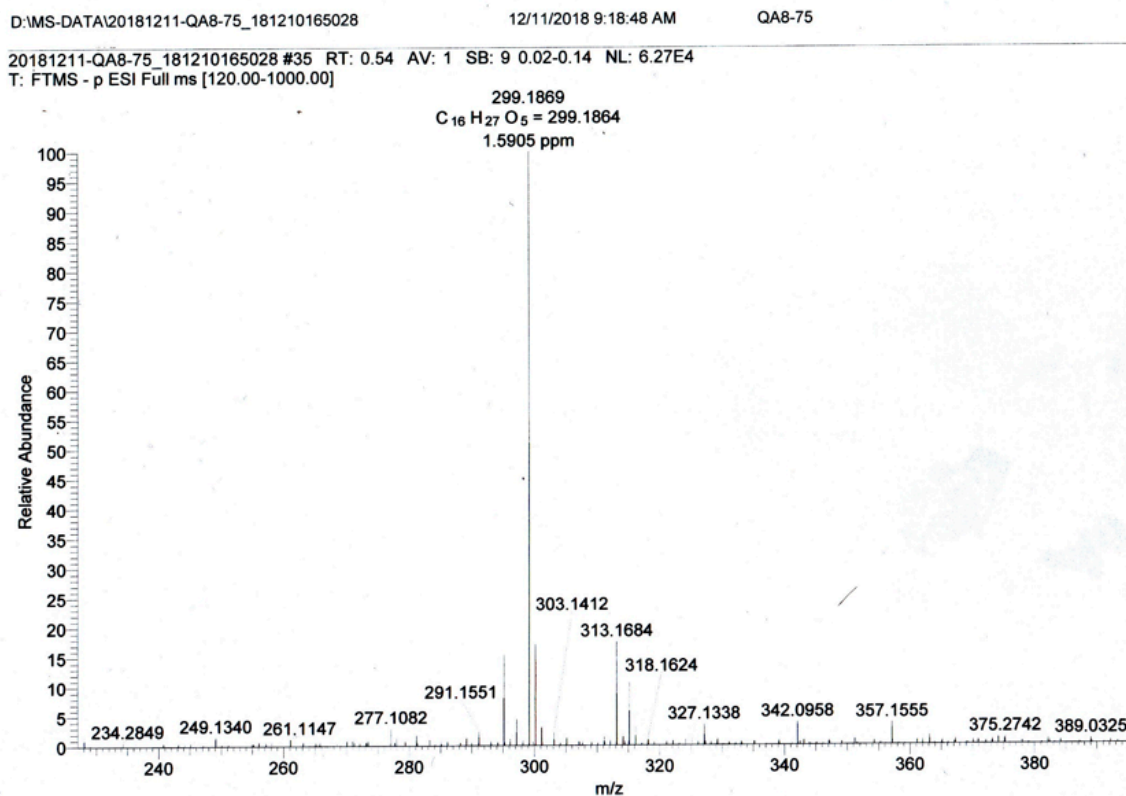
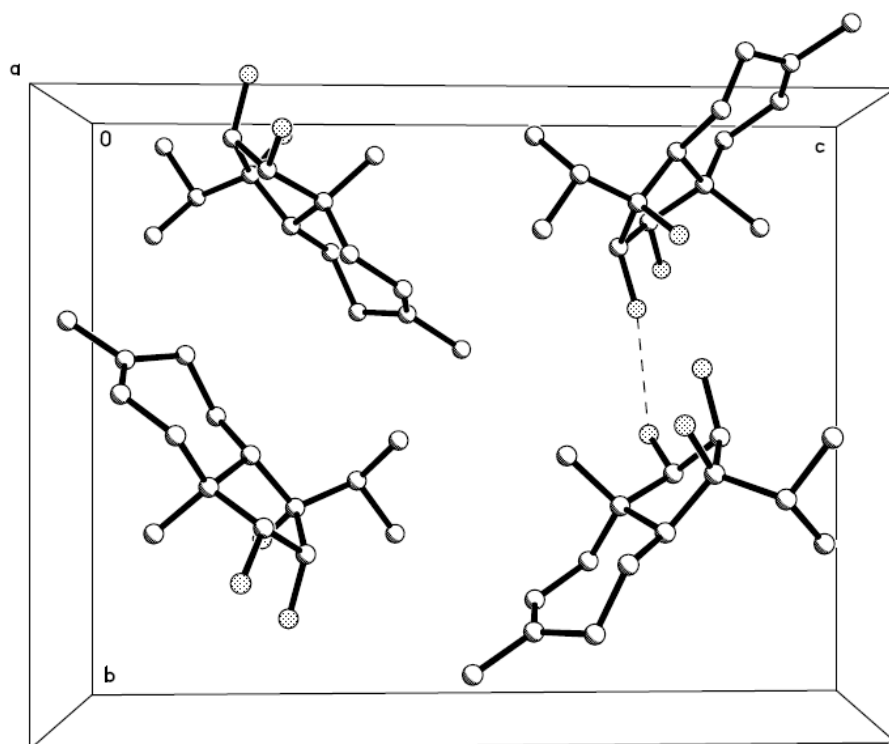
Figure S35. HRESIMS spectrum of compound **5**;Figure S36. Crystal packing of compound **1** at 293(2) K;

Figure S37. Crystal packing of compound **9** at 293(2) K;

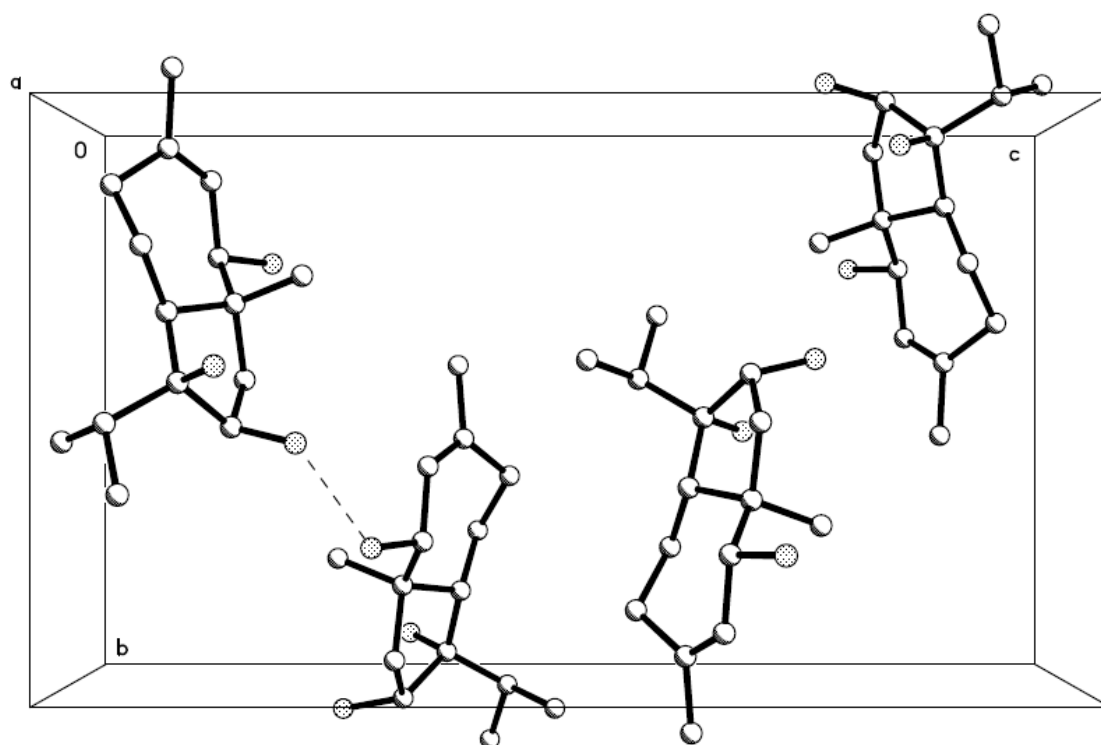


Figure S38. Crystal packing of compound **10** at 293(2) K.

