

Supplementary Materials

Figure S1. ^1H NMR spectrum (600 MHz) of compound **1** in CDCl_3 .

Figure S2. ^{13}C NMR spectrum (125 MHz) of compound **1** in CDCl_3 .

Figure S3. HSQC spectrum (600 MHz) of compound **1** in CDCl_3 .

Figure S4. HMBC spectrum (600 MHz) of compound **1** in CDCl_3 .

Figure S5. ^1H - ^1H COSY spectrum (600 MHz) of compound **1** in CDCl_3 .

Figure S6. NOESY spectrum (600 MHz) of compound **1** in CDCl_3 .

Figure S7. HR-ESIMS spectrum of compound **1**.

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

Figure S9. ^1H NMR spectrum (800 MHz) of compound **2** in CDCl_3 .

Figure S10. ^{13}C NMR spectrum (150 MHz) of compound **2** in CDCl_3 .

Figure S11. HSQC spectrum (800 MHz) of compound **2** in CDCl_3 .

Figure S12. HMBC spectrum (800 MHz) of compound **2** in CDCl_3 .

Figure S13. ^1H - ^1H COSY spectrum (800 MHz) of compound **2** in CDCl_3 .

Figure S14. NOESY spectrum (800 MHz) of compound **2** in CDCl_3 .

Figure S15. HR-ESIMS spectrum of compound **2**.

Figure S16. IR spectrum of compound **2**.

Figure S17. ^1H NMR spectrum (600 MHz) of compound **3** in CDCl_3 .

Figure S18. ^{13}C NMR spectrum (200 MHz) of compound **3** in CDCl_3 .

Figure S19. HSQC spectrum (600 MHz) of compound **3** in CDCl_3 .

Figure S20. HMBC spectrum (600 MHz) of compound **3** in CDCl_3 .

Figure S21. ^1H - ^1H COSY spectrum (600 MHz) of compound **3** in CDCl_3 .

Figure S22. ROESY spectrum (600 MHz) of compound **3** in CDCl_3 .

Figure S23. HR-ESIMS spectrum of compound **3**.

Figure S24. IR spectrum of compound **3**.

Figure S25. ^1H NMR spectrum (600 MHz) of compound **4** in CDCl_3 .

Figure S26. ^{13}C NMR spectrum (200 MHz) of compound **4** in CDCl_3 .

Figure S27. HSQC spectrum (600 MHz) of compound **4** in CDCl_3 .

Figure S28. HMBC spectrum (600 MHz) of compound **4** in CDCl_3 .

Figure S29. ^1H - ^1H COSY spectrum (600 MHz) of compound **4** in CDCl_3 .

Figure S30. ROESY spectrum (600 MHz) of compound **4** in CDCl_3 .

Figure S31. HR-ESIMS spectrum of compound **4**.

Figure S32. IR spectrum of compound **4**.

Figure S33. ^1H NMR spectrum (600 MHz) of compound **5** in CDCl_3 .

Figure S34. ^{13}C NMR spectrum (150 MHz) of compound **5** in CDCl_3 .

Figure S35. HSQC spectrum (600 MHz) of compound **5** in CDCl_3 .

Figure S36. HMBC spectrum (600 MHz) of compound **5** in CDCl_3 .

Figure S37. ^1H - ^1H COSY spectrum (600 MHz) of compound **5** in CDCl_3 .

Figure S38. NOESY spectrum (600 MHz) of compound **5** in CDCl_3 .

Figure S39. HR-ESIMS spectrum of compound **5**.

Figure S40. IR spectrum of compound **5**.

Figure S41. ^1H NMR spectrum (400 MHz) of compound **6** in CDCl_3 .

Figure S42. ^{13}C NMR spectrum (150 MHz) of compound **6** in CDCl_3 .

Figure S43. HSQC spectrum (600 MHz) of compound **6** in CDCl_3 .

Figure S44. HMBC spectrum (600 MHz) of compound **6** in CDCl_3 .

Figure S45. ^1H - ^1H COSY spectrum (600 MHz) of compound **6** in CDCl_3 .

Figure S46. NOESY spectrum (600 MHz) of compound **6** in CDCl_3 .

Figure S47. HR-EIMS spectrum of compound **6**.

Figure S48. IR spectrum of compound **6**.

1. Spectra of compound 1

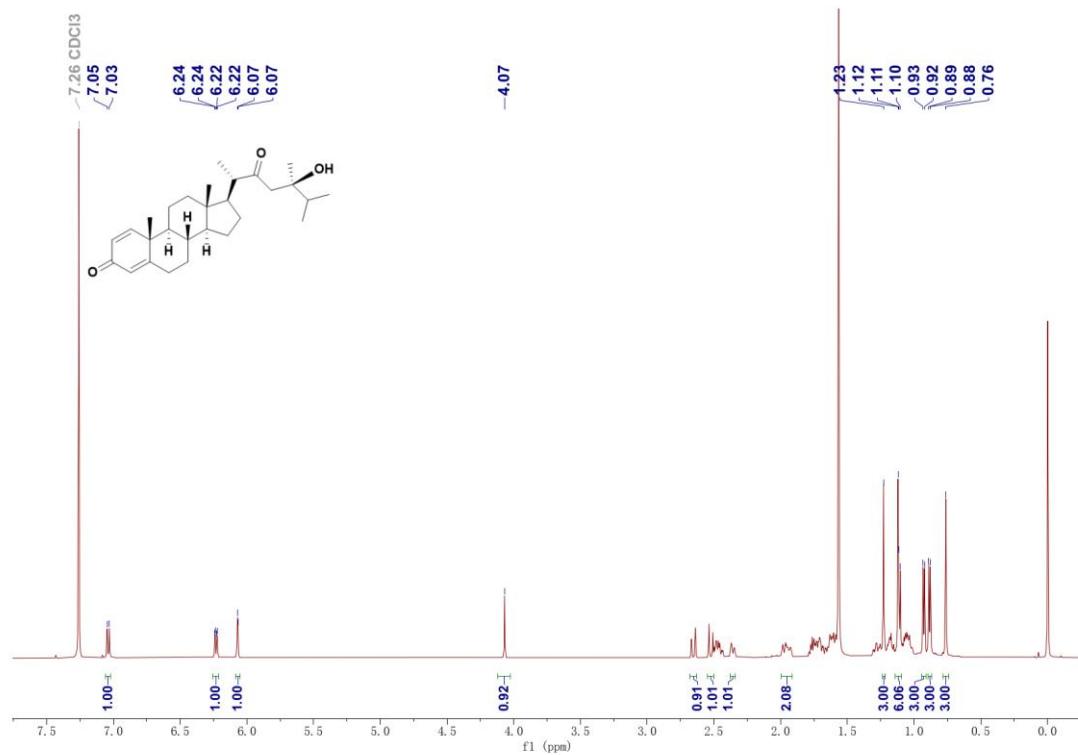


Figure S1. ^1H NMR spectrum (600 MHz) of compound 1 in CDCl_3 .

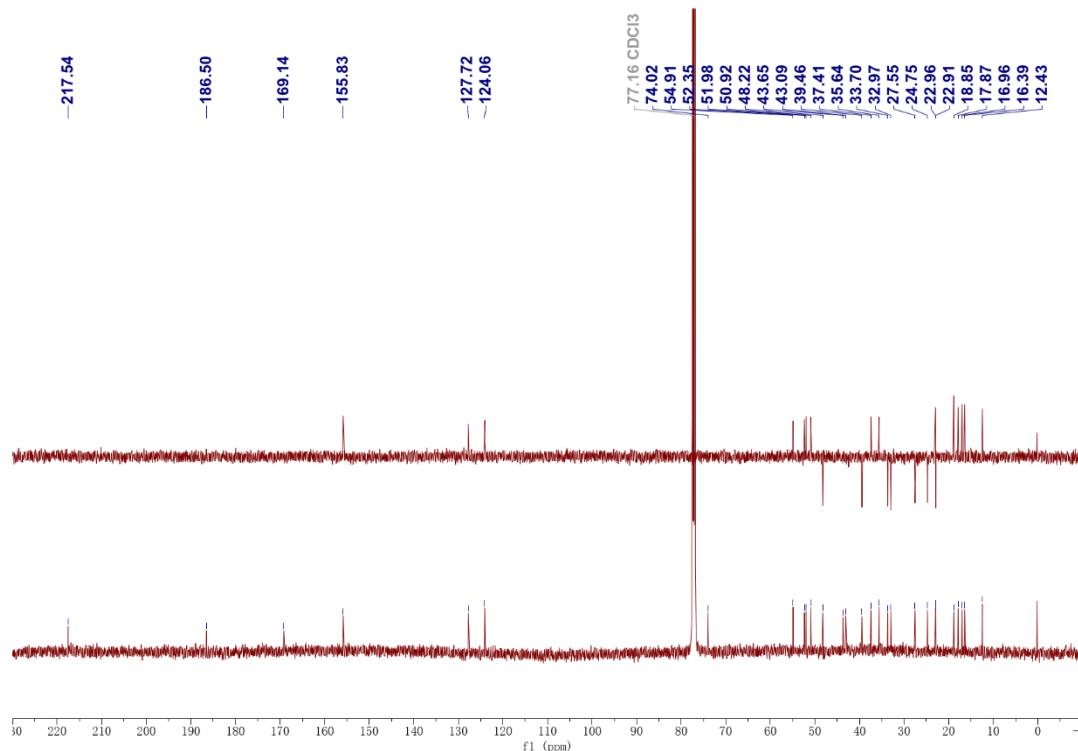


Figure S2. ^{13}C NMR spectrum (125 MHz) of compound 1 in CDCl_3 .

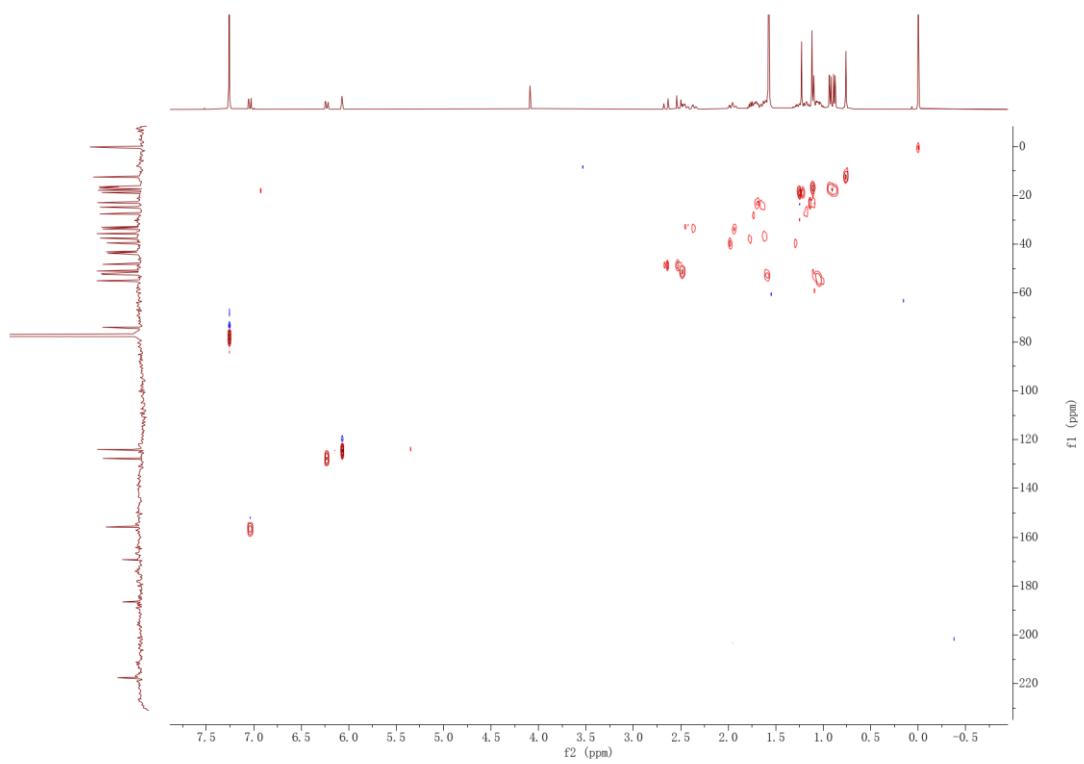


Figure S3. HSQC spectrum (600 MHz) of compound **1** in CDCl_3 .

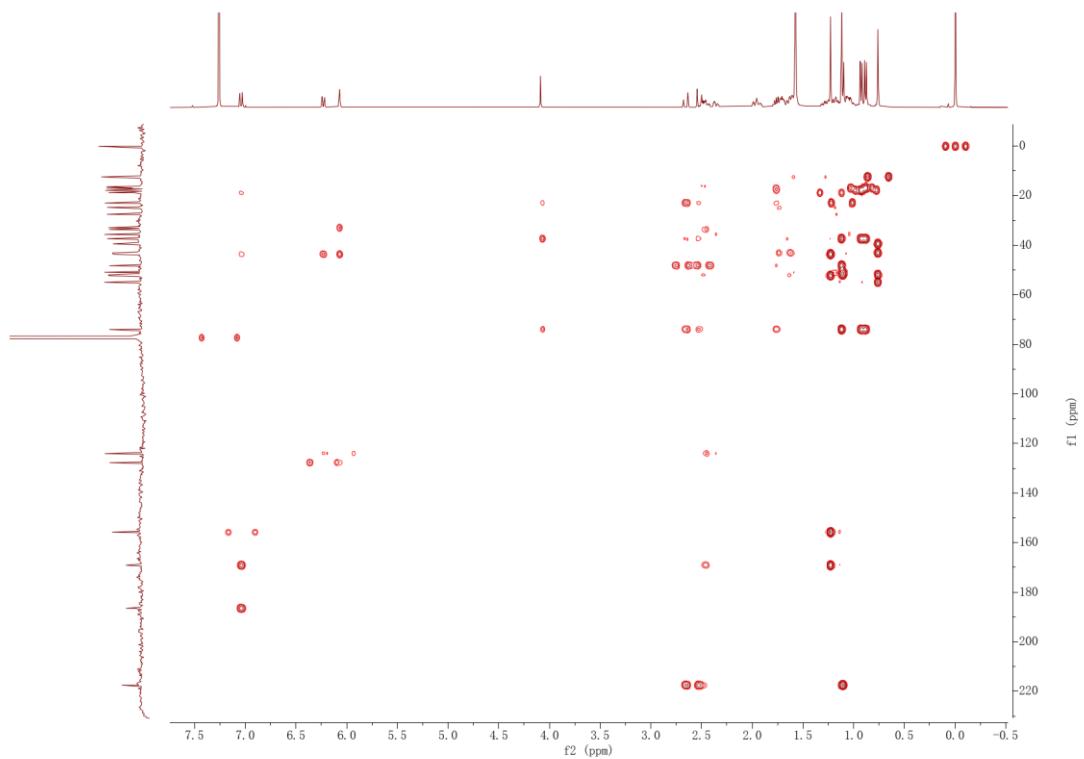


Figure S4. HMBC spectrum (600 MHz) of compound **1** in CDCl_3 .

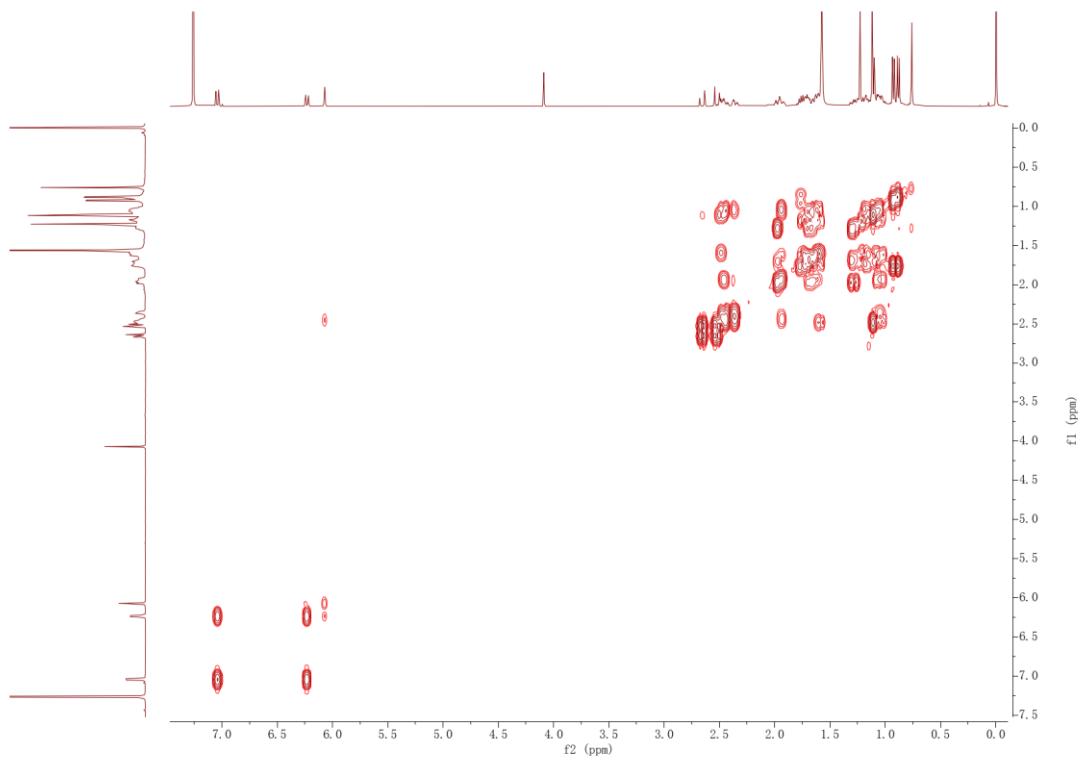


Figure S5. ^1H - ^1H COSY spectrum (600 MHz) of compound **1** in CDCl_3 .

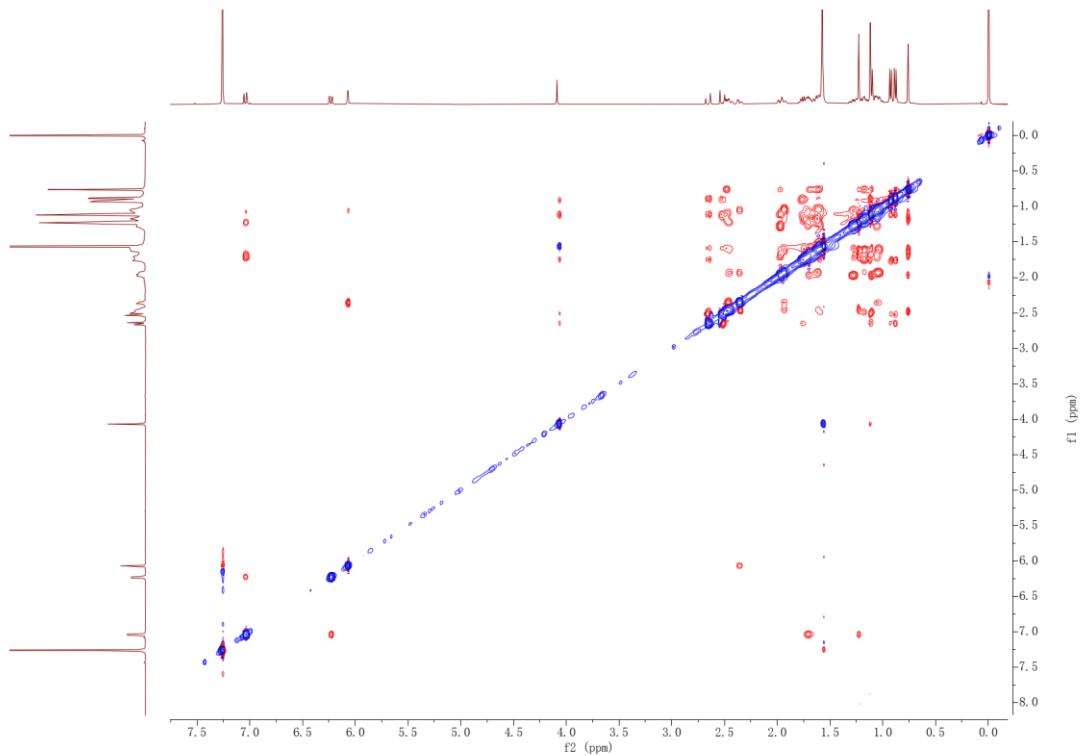


Figure S6. NOESY spectrum (600 MHz) of compound **1** in CDCl_3 .

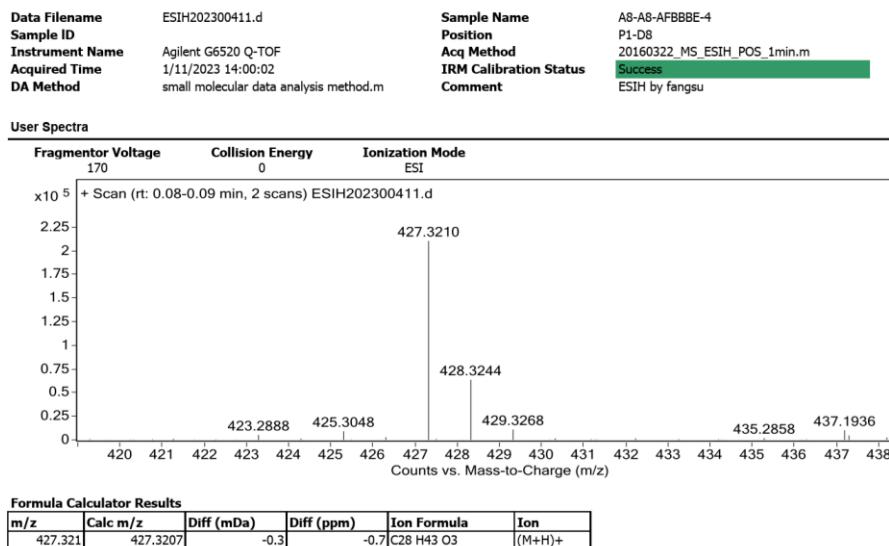


Figure S7. HR-ESIMS spectrum of compound 1.

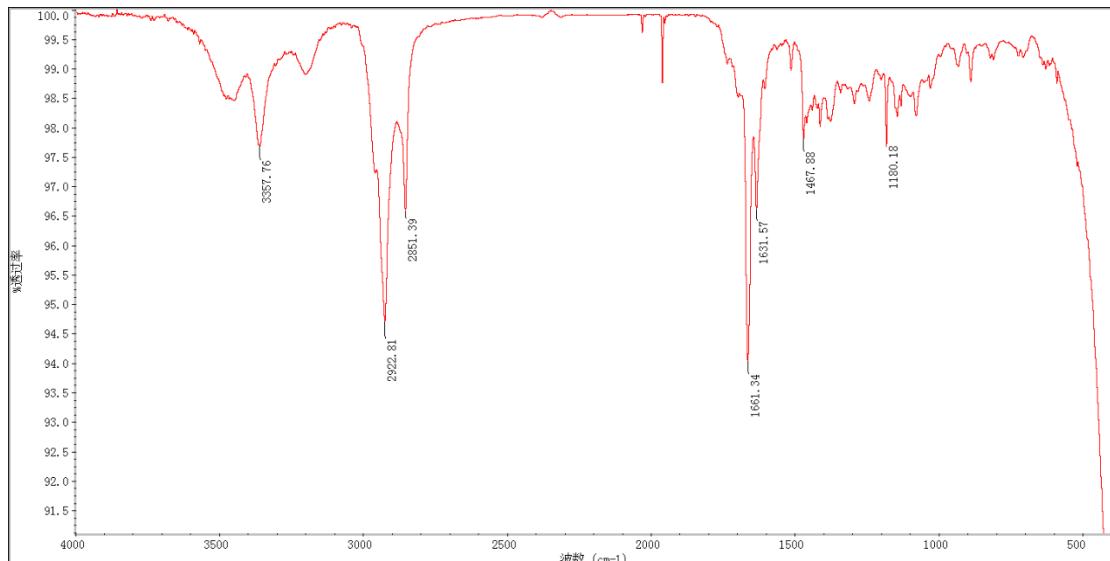


Figure S8. IR spectrum of compound 1.

2. Spectra of compound 2

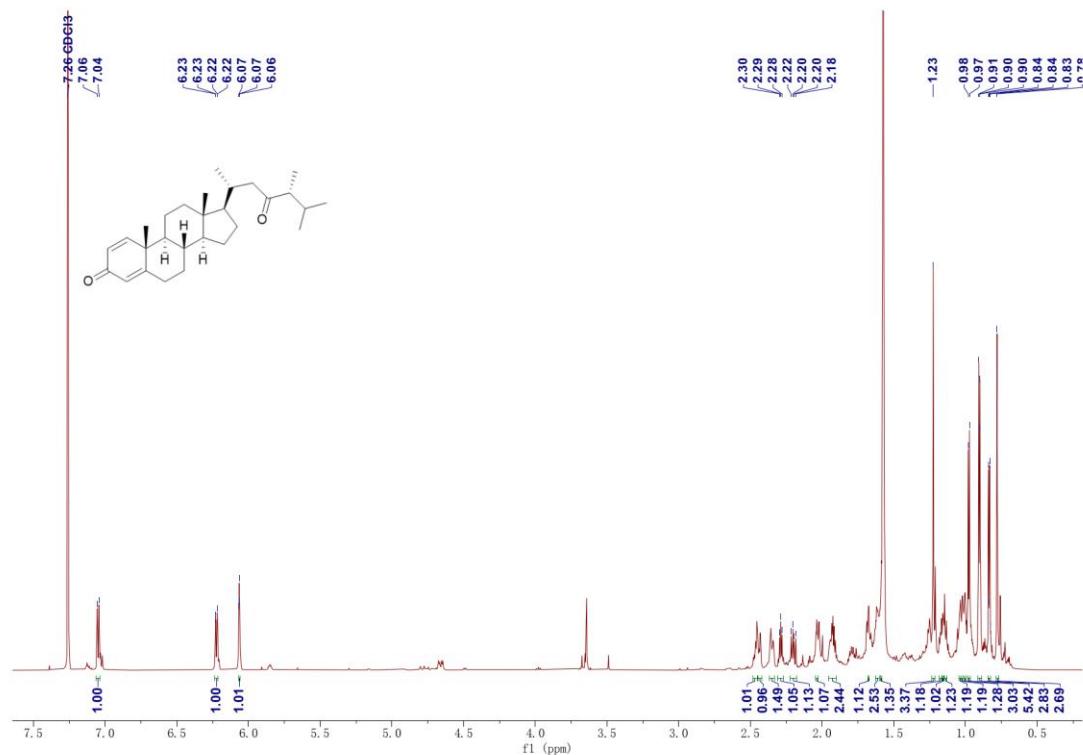


Figure S9. ¹H NMR spectrum (800 MHz) of compound 2 in CDCl₃.

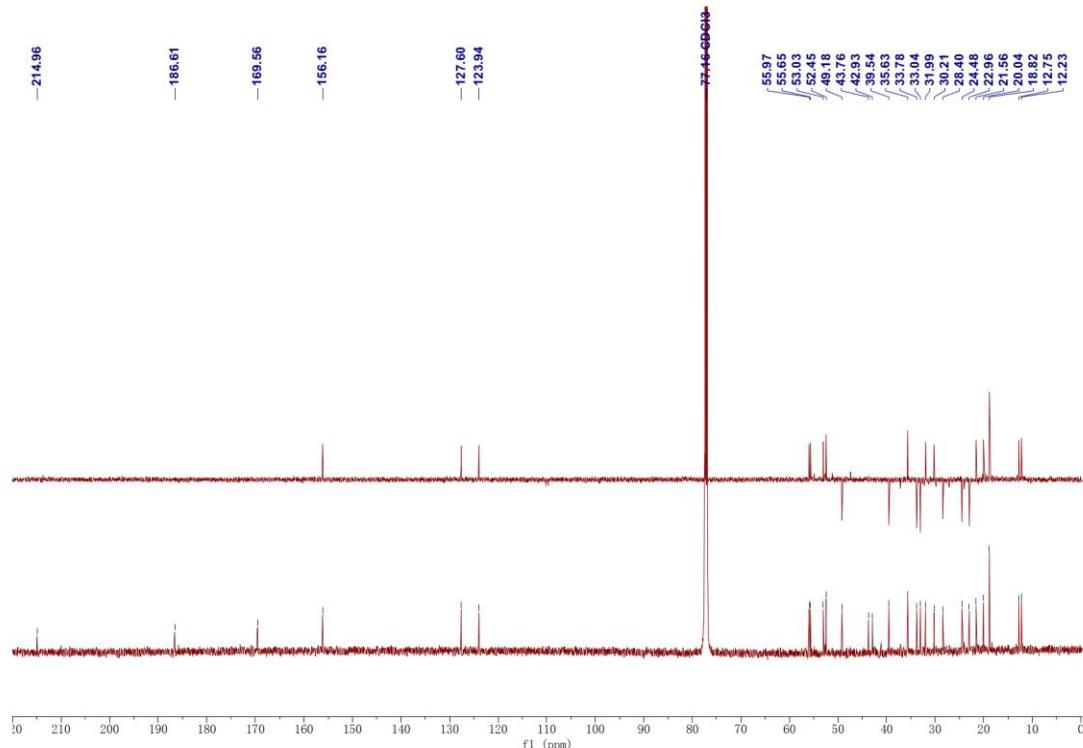


Figure S10. ¹³C NMR spectrum (150 MHz) of compound 2 in CDCl₃.

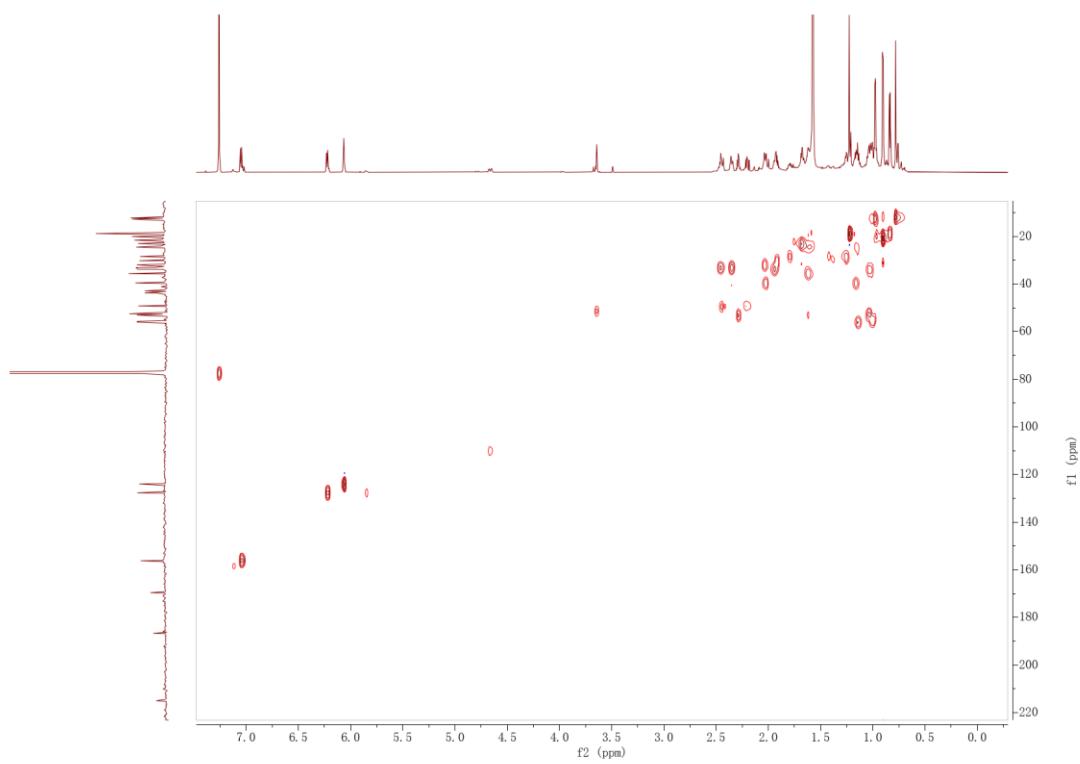


Figure S11. HSQC spectrum (800 MHz) of compound **2** in CDCl_3 .

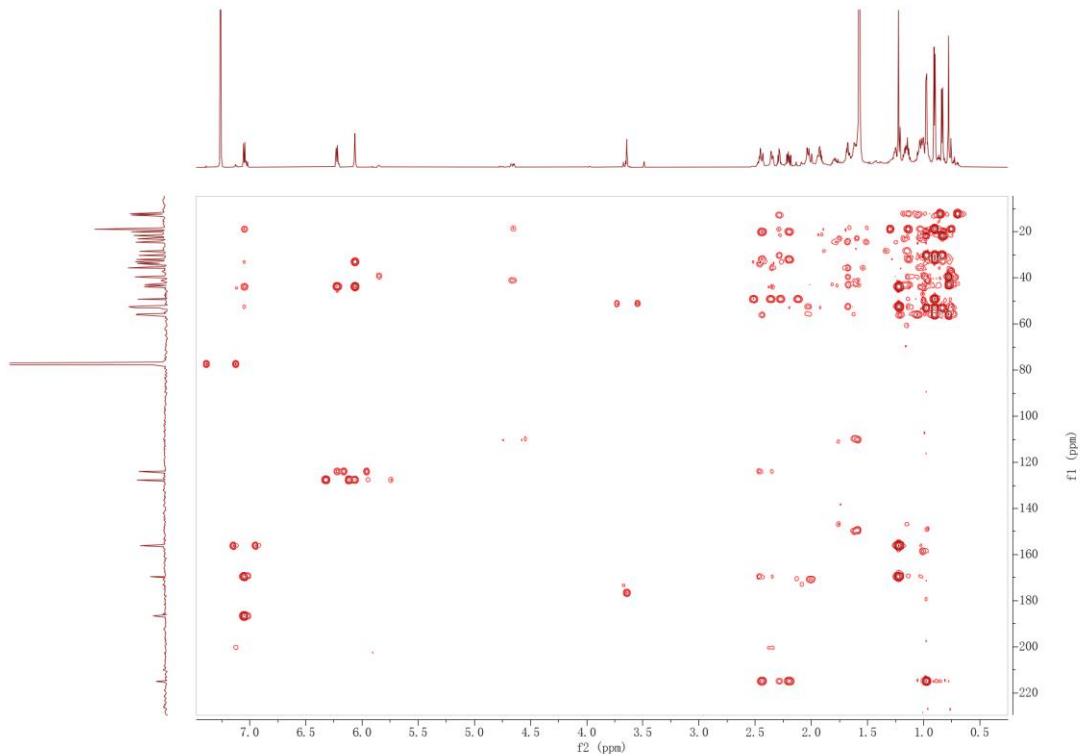


Figure S12. HMBC spectrum (800 MHz) of compound **2** in CDCl_3 .

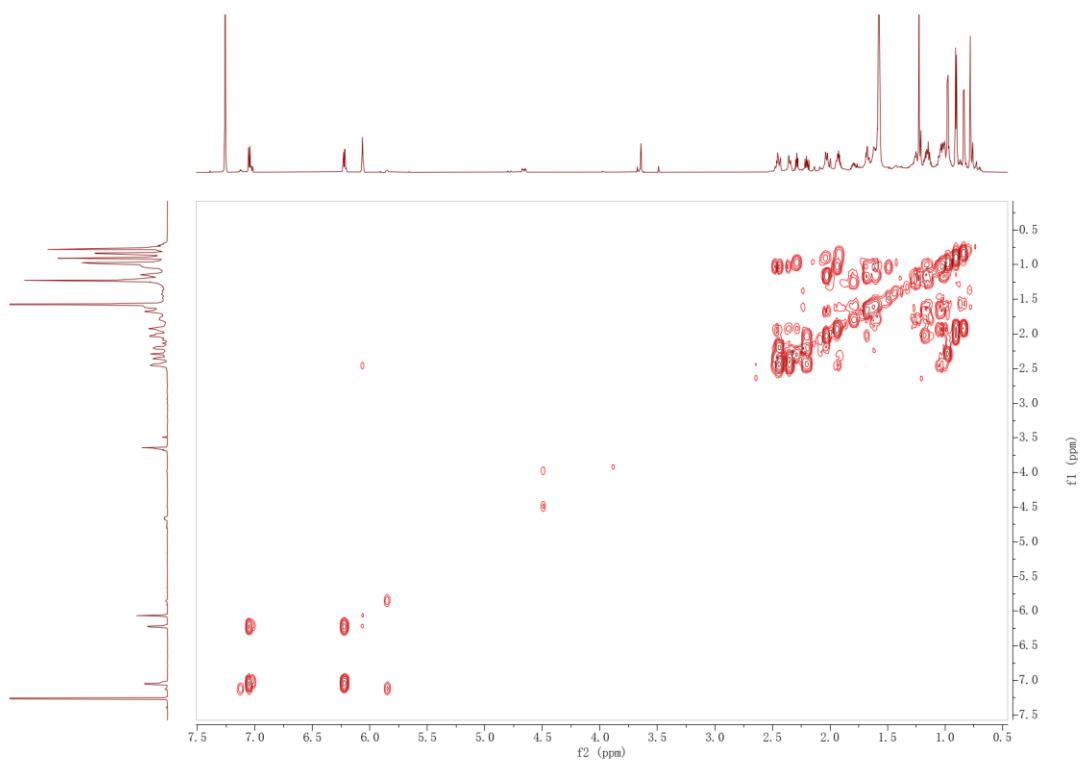


Figure S13. ^1H - ^1H COSY spectrum (800 MHz) of compound 2 in CDCl_3 .

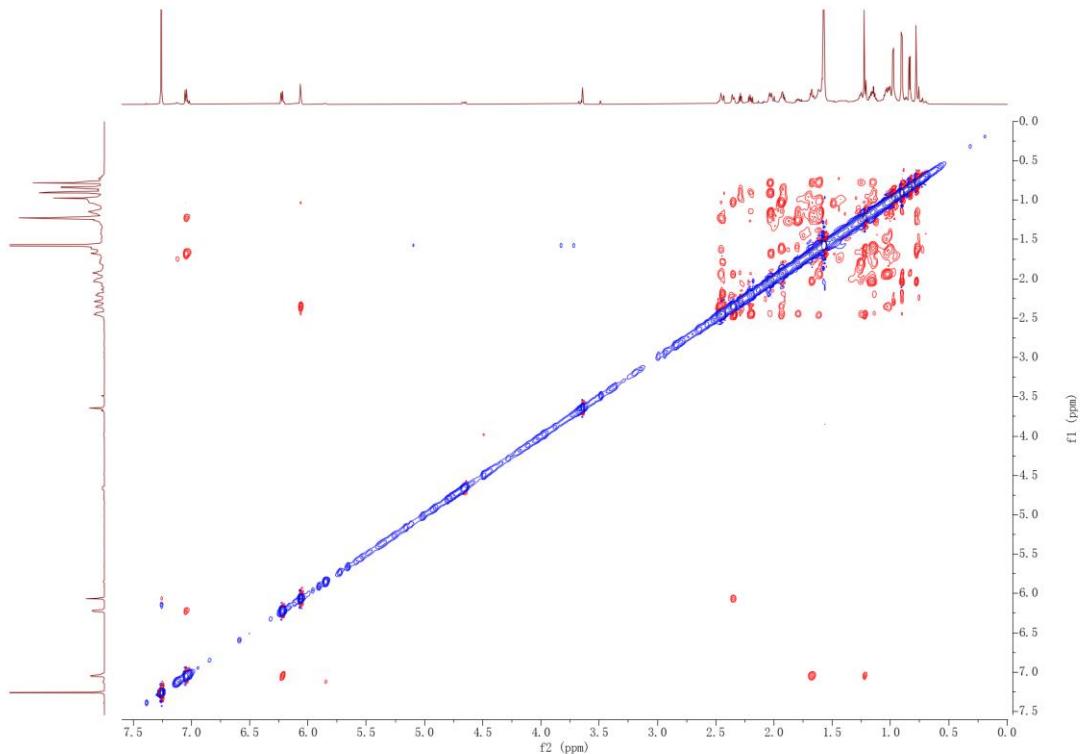


Figure S14. NOESY spectrum (800 MHz) of compound 2 in CDCl_3 .

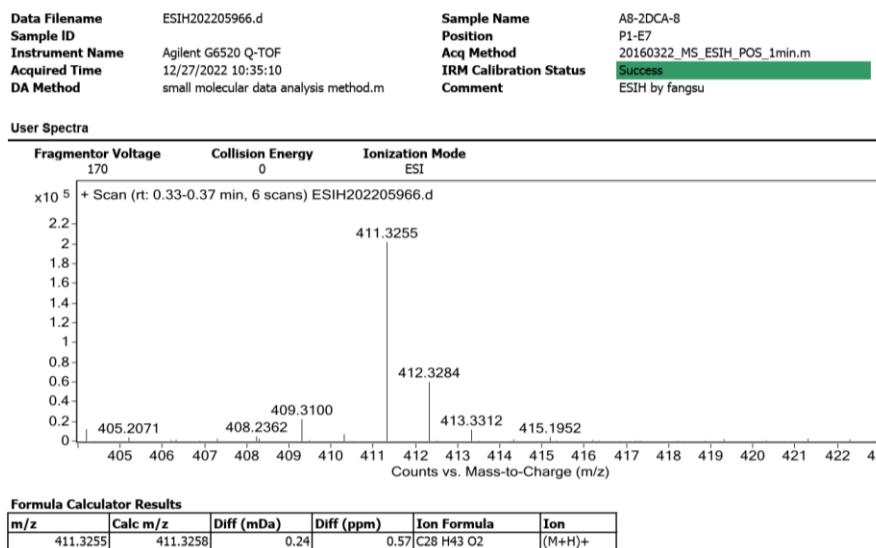


Figure S15. HR-ESIMS spectrum of compound 2.

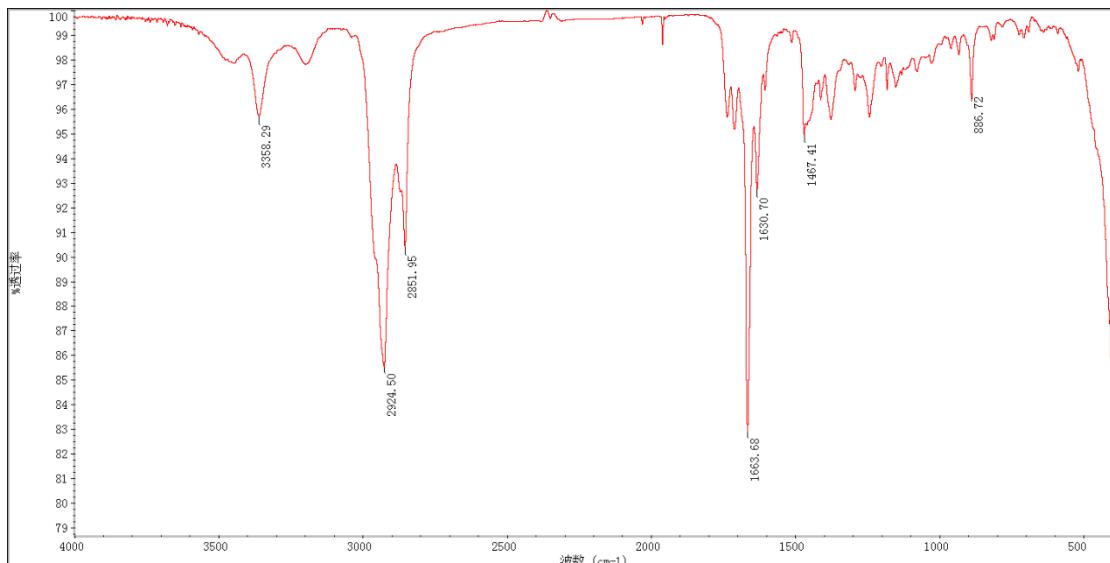


Figure S16. IR spectrum of compound 2.

3. Spectra of compound 3

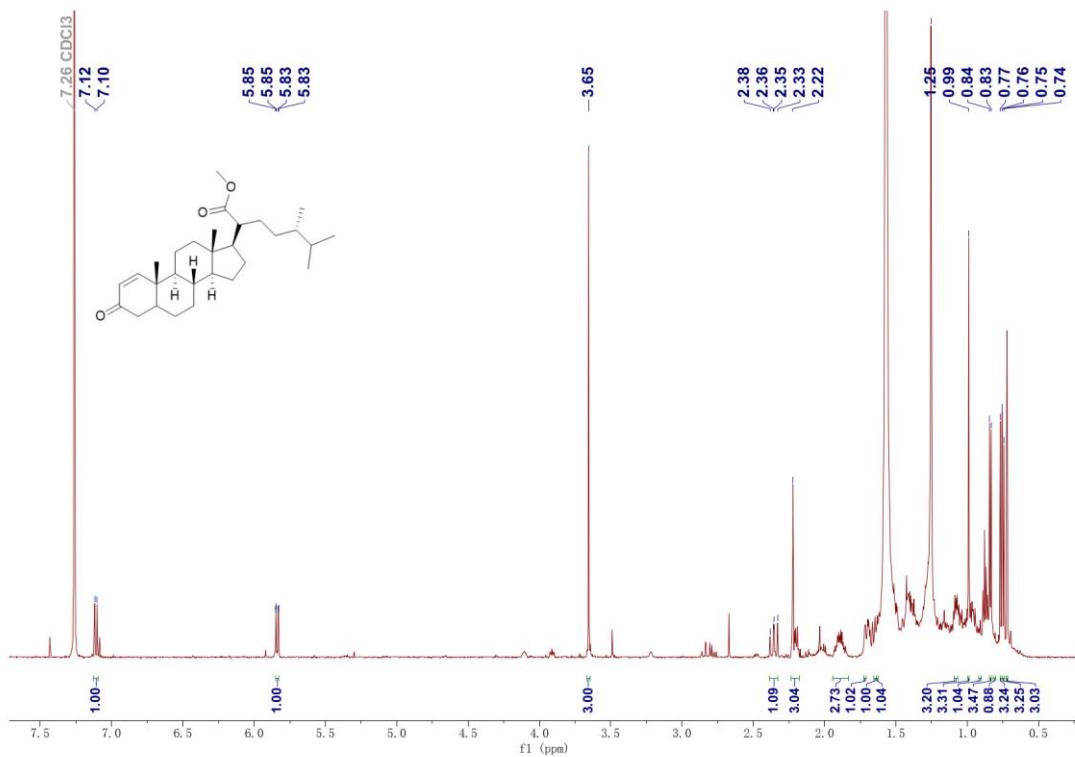


Figure S17. ^1H NMR spectrum (600 MHz) of compound **3** in CDCl_3 .

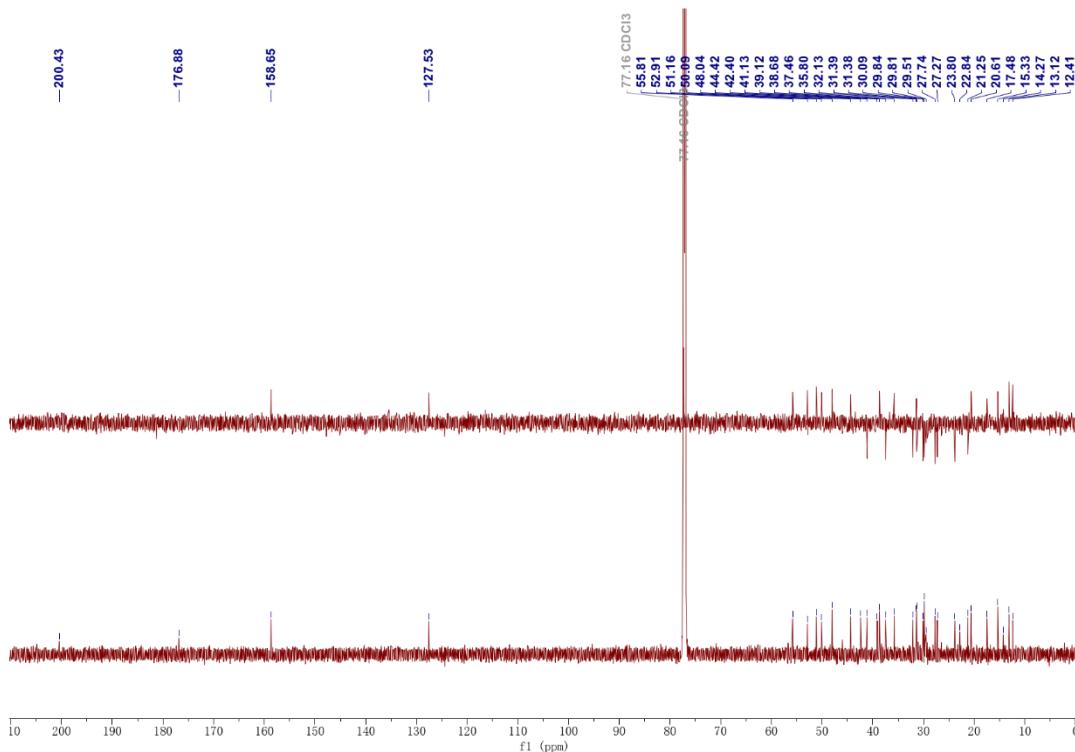


Figure S18. ^{13}C NMR spectrum (200 MHz) of compound **3** in CDCl_3 .

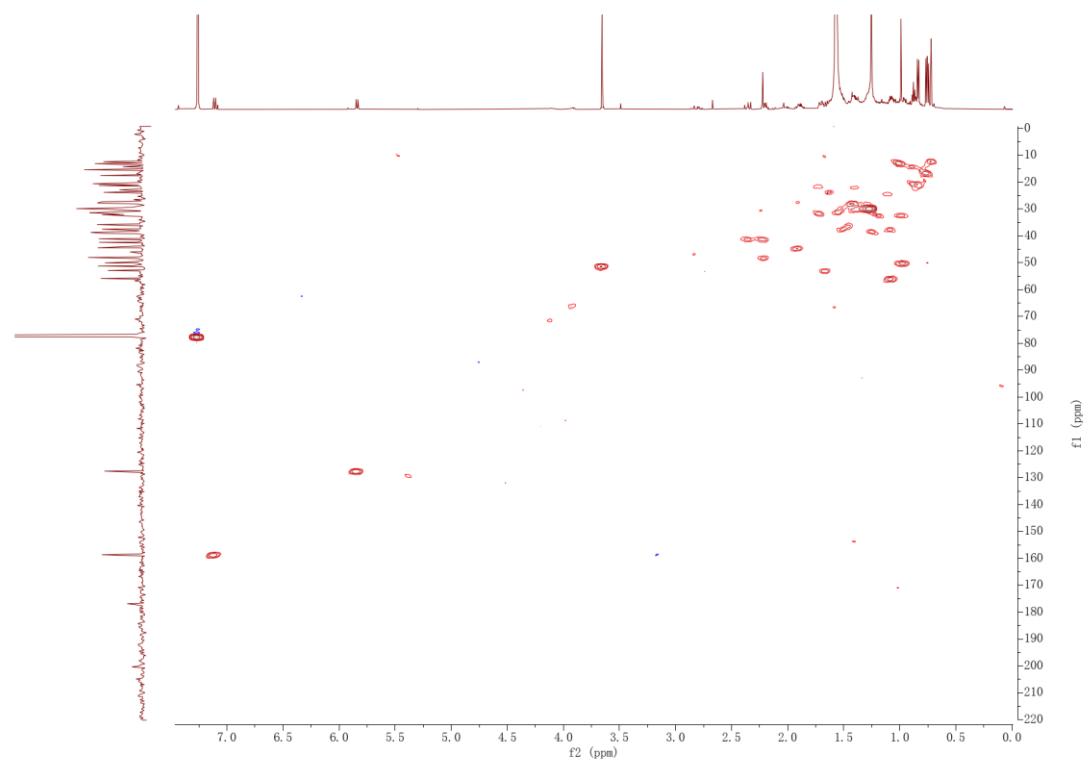


Figure S19. HSQC spectrum (600 MHz) of compound **3** in CDCl_3 .

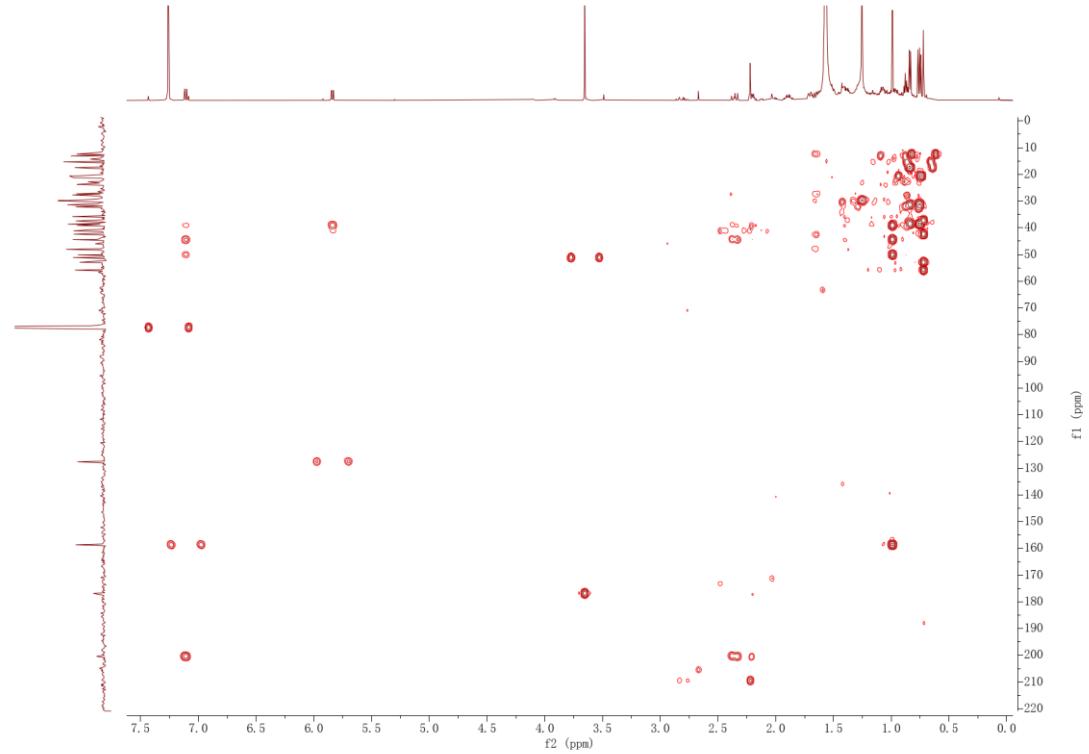


Figure S20. HMBC spectrum (600 MHz) of compound **3** in CDCl_3 .

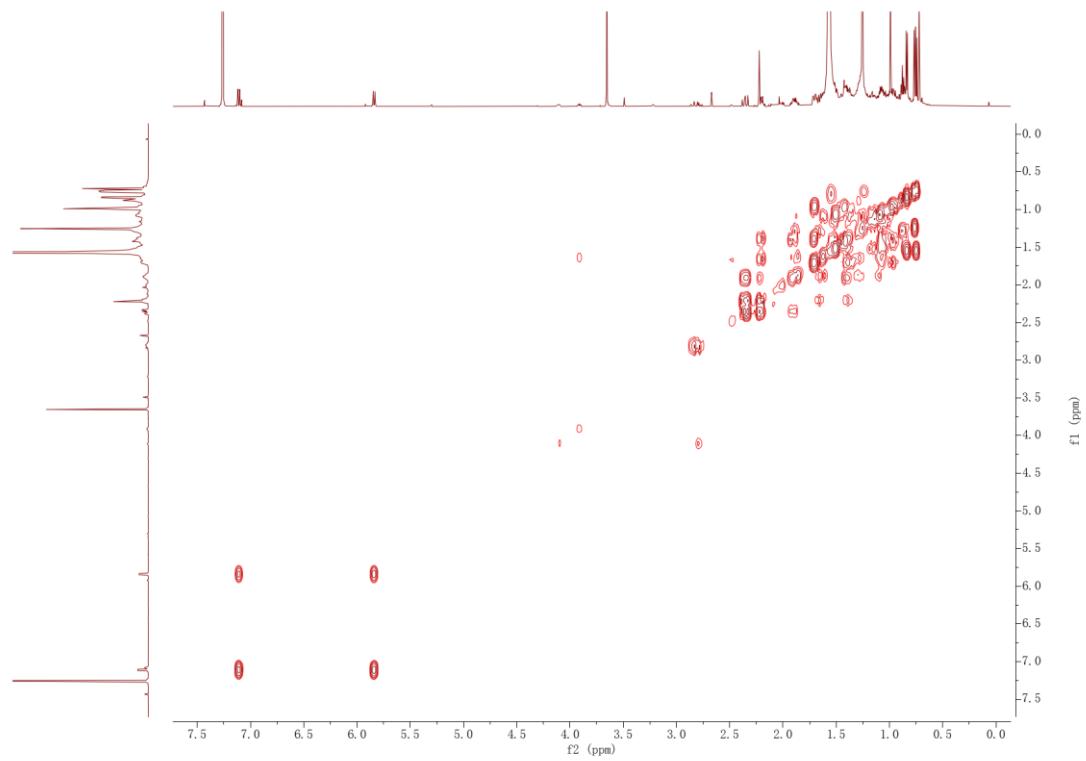


Figure S21. ^1H - ^1H COSY spectrum (600 MHz) of compound **3** in CDCl_3 .

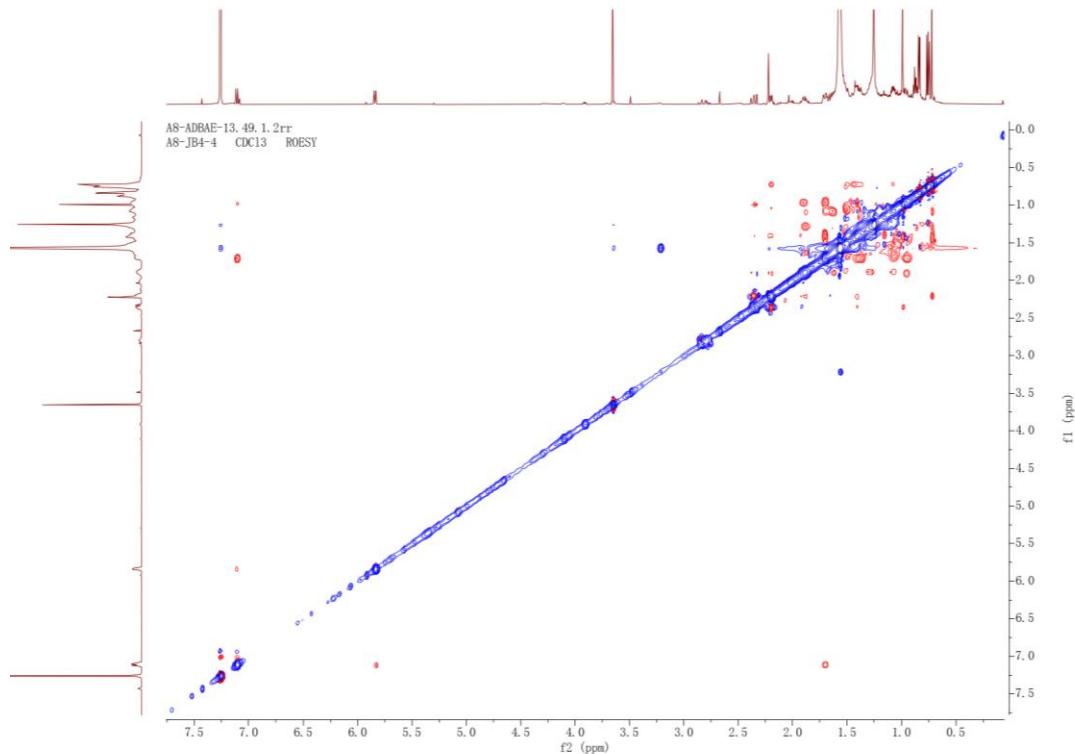


Figure S22. ROESY spectrum (600 MHz) of compound **3** in CDCl_3 .

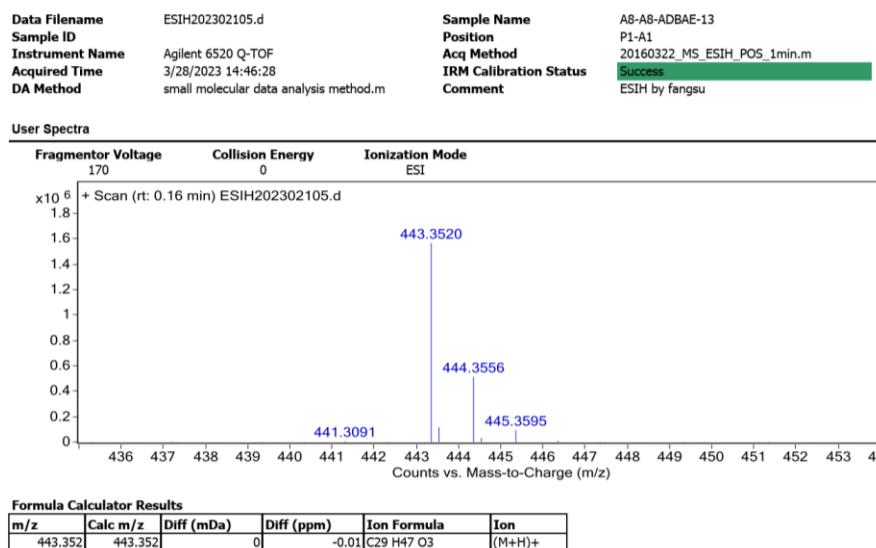


Figure S23. HR-ESIMS spectrum of compound 3.

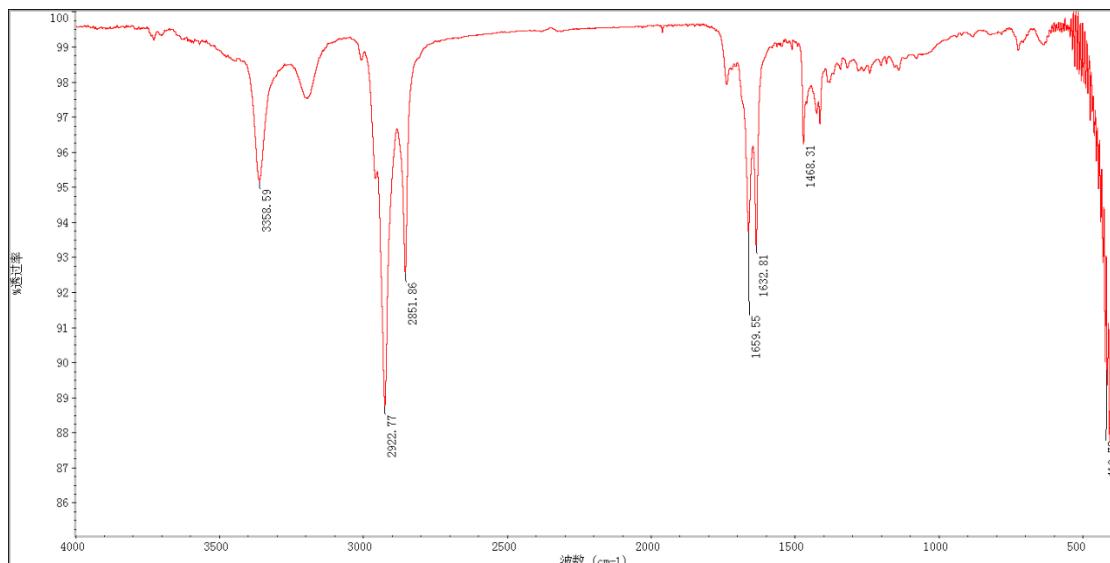


Figure S24. IR spectrum of compound 3.

4. Spectra of compound 4

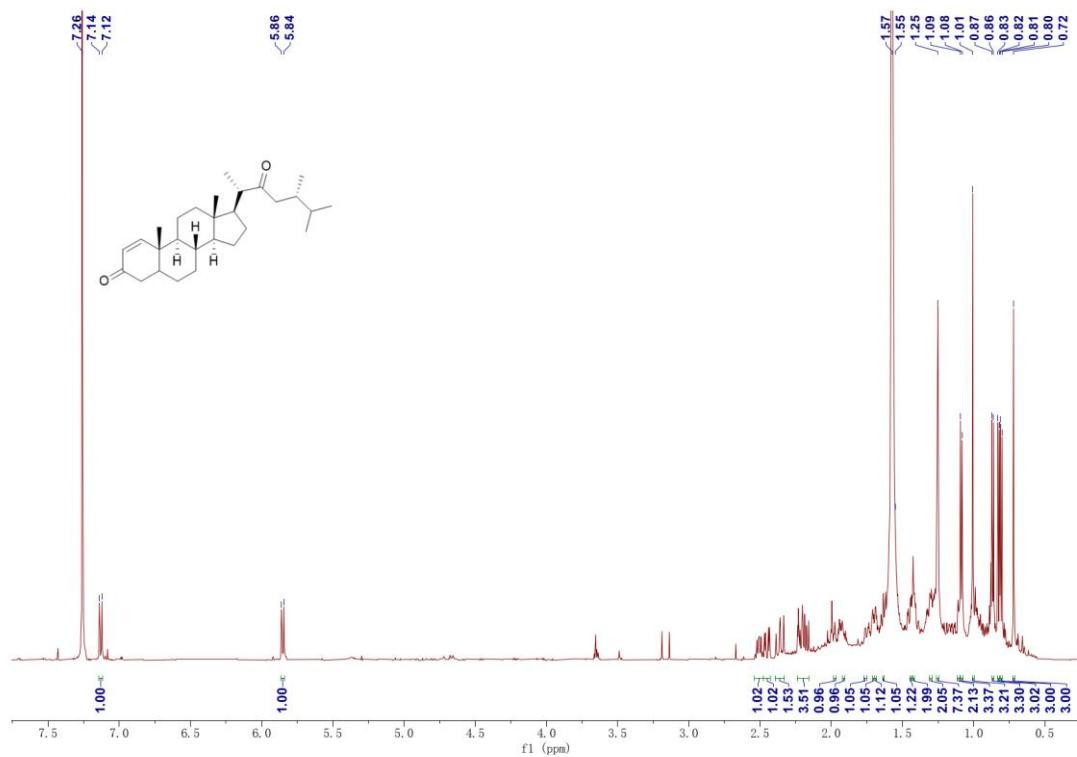


Figure S25. ^1H NMR spectrum (600 MHz) of compound 4 in CDCl_3 .

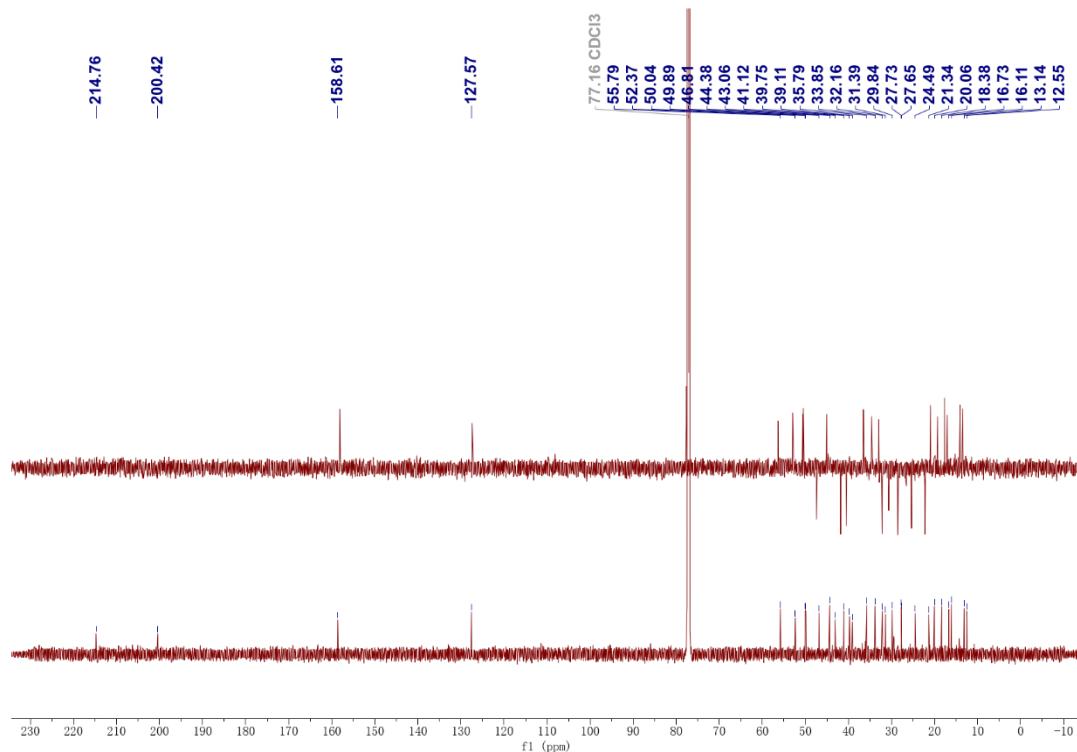


Figure S26. ^{13}C NMR spectrum (200 MHz) of compound 4 in CDCl_3 .

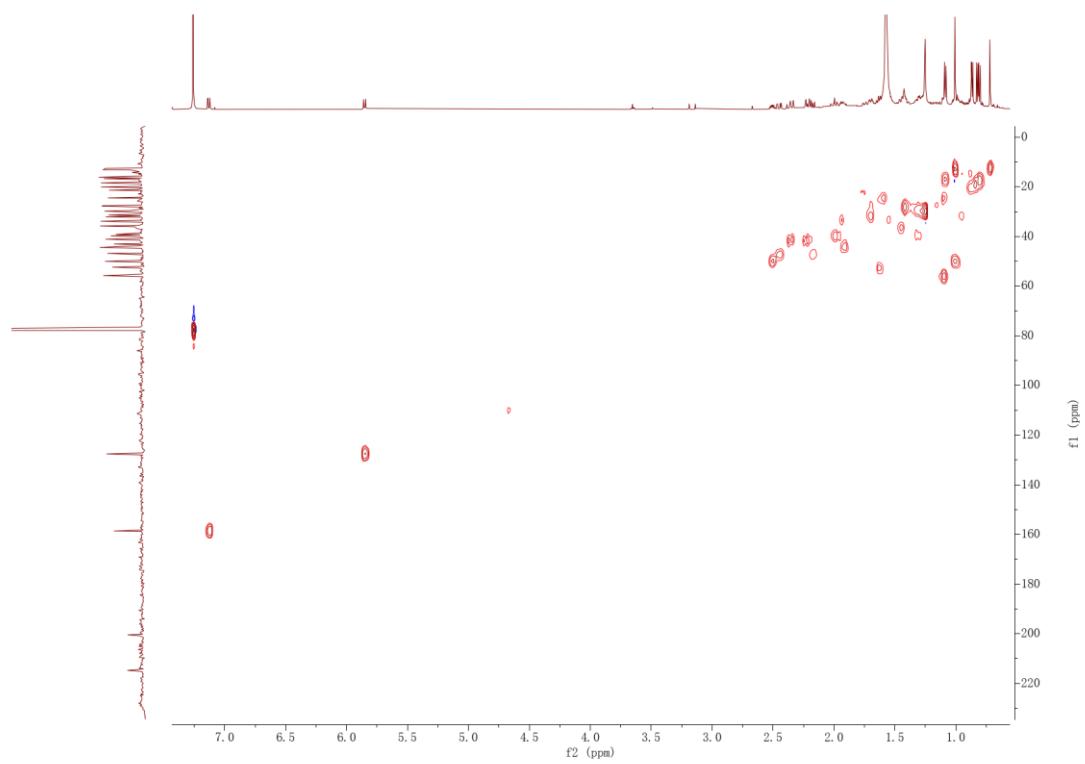


Figure S27. HSQC spectrum (600 MHz) of compound 4 in CDCl_3 .

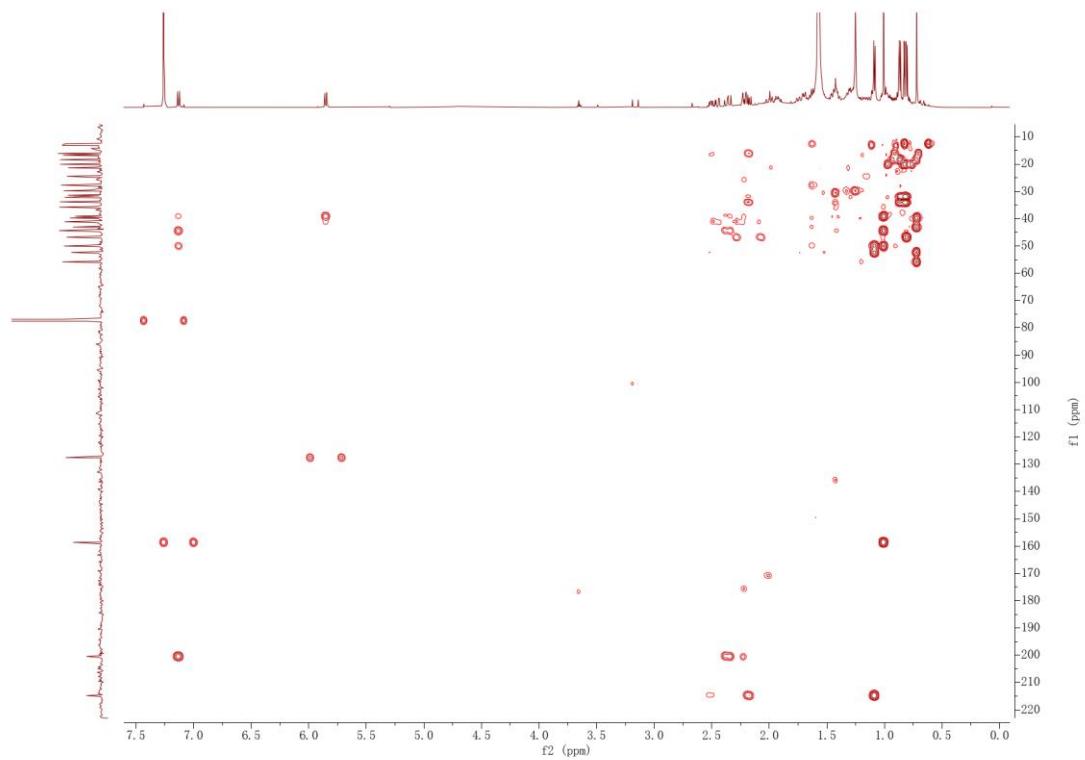


Figure S28. HMBC spectrum (600 MHz) of compound 4 in CDCl_3 .

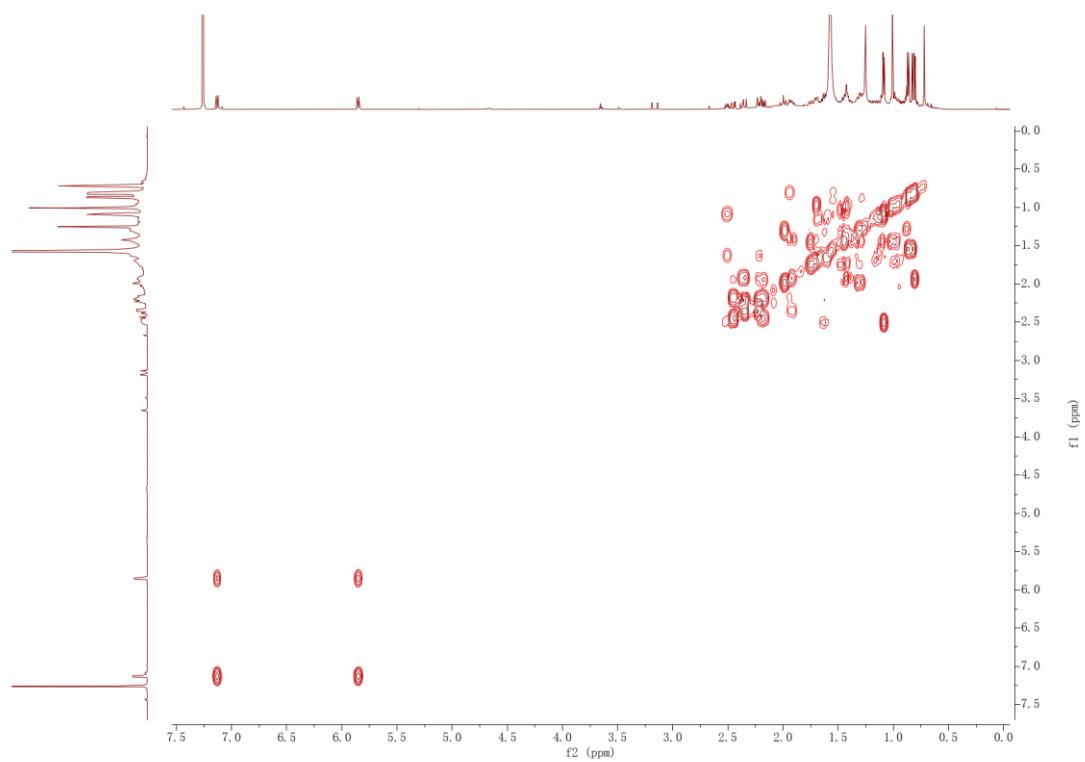


Figure S29. ^1H - ^1H COSY spectrum (600 MHz) of compound 4 in CDCl_3 .

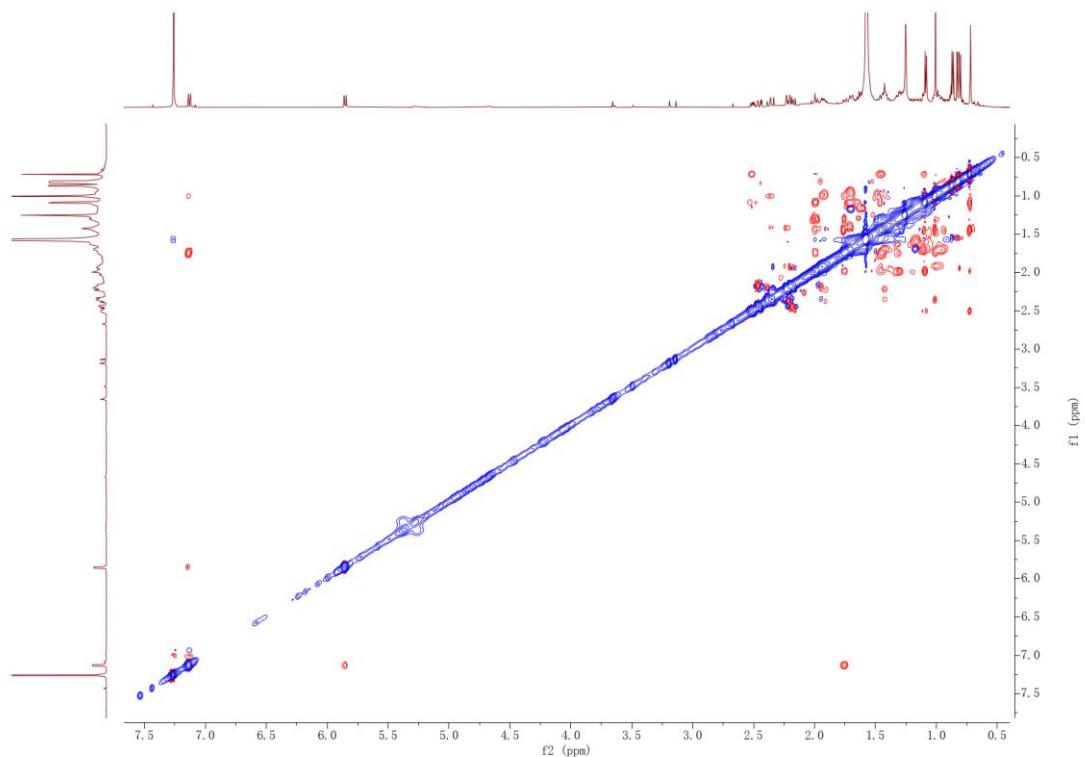


Figure S30. ROESY spectrum (600 MHz) of compound 4 in CDCl_3 .

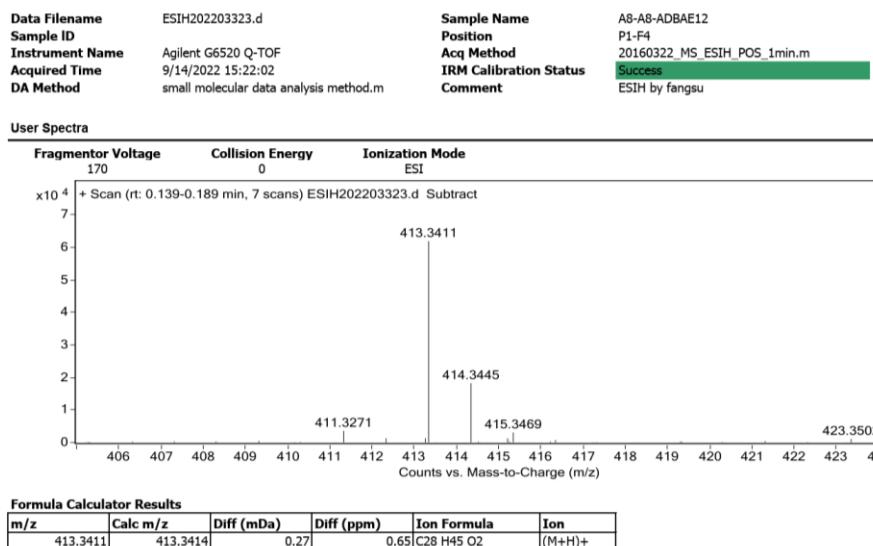


Figure S31. HR-ESIMS spectrum of compound 4.

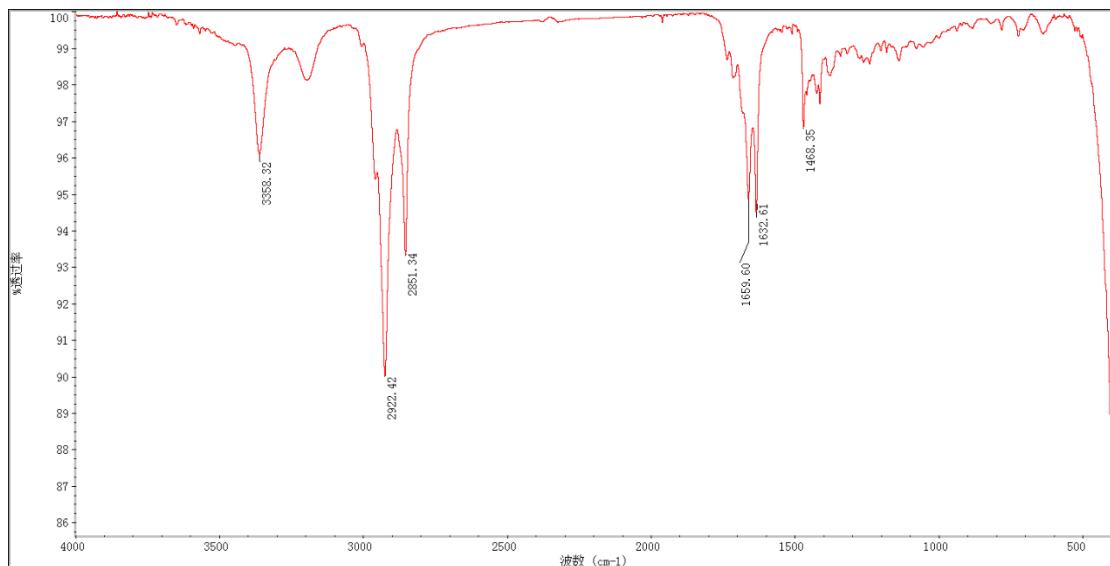


Figure S32. IR spectrum of compound 4.

5. Spectra of compound 5

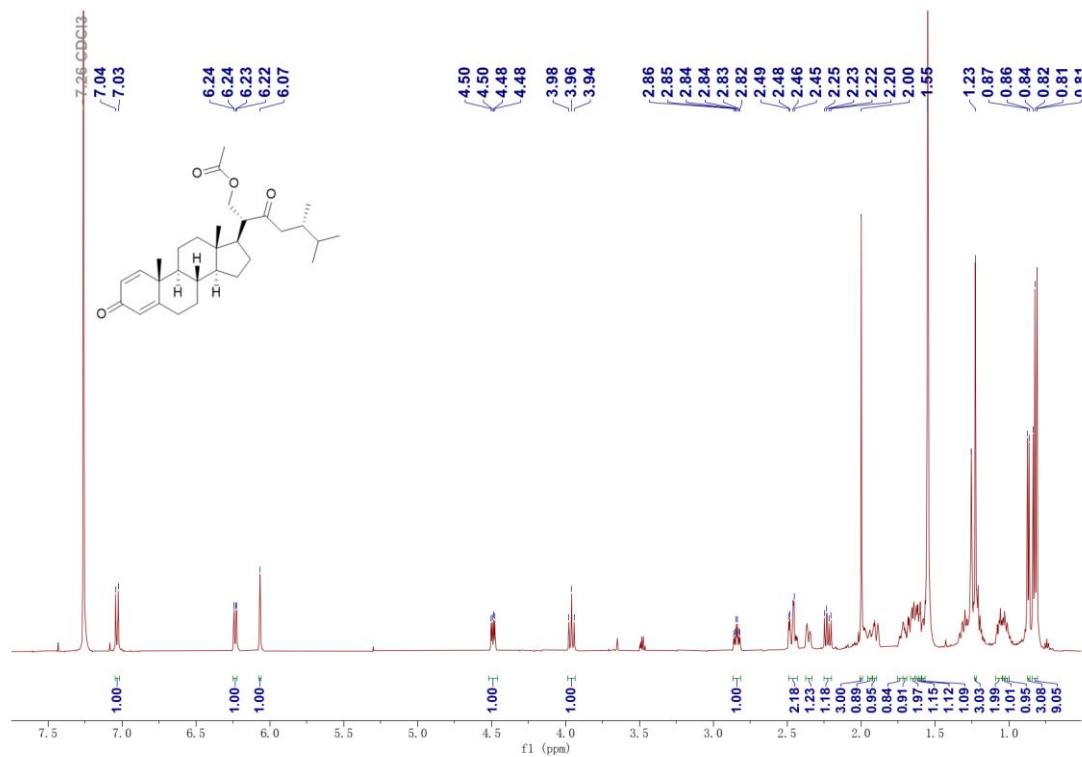


Figure S33. ^1H NMR spectrum (600 MHz) of compound **5** in CDCl_3 .

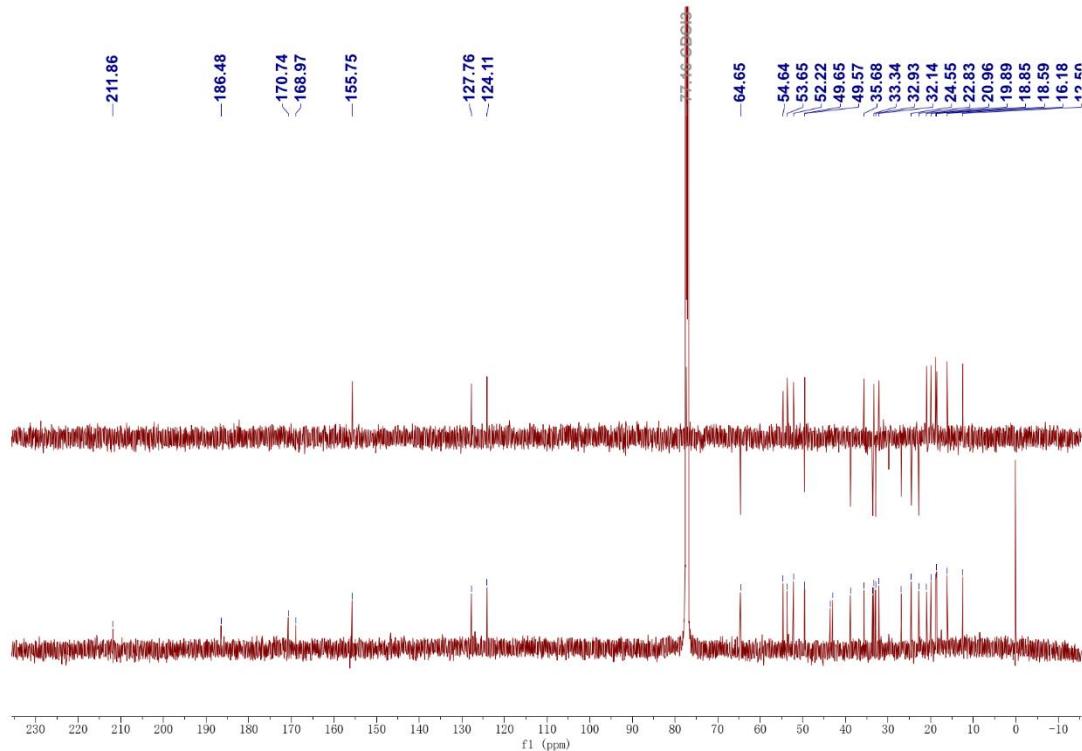


Figure S34. ^{13}C NMR spectrum (150 MHz) of compound **5** in CDCl_3 .

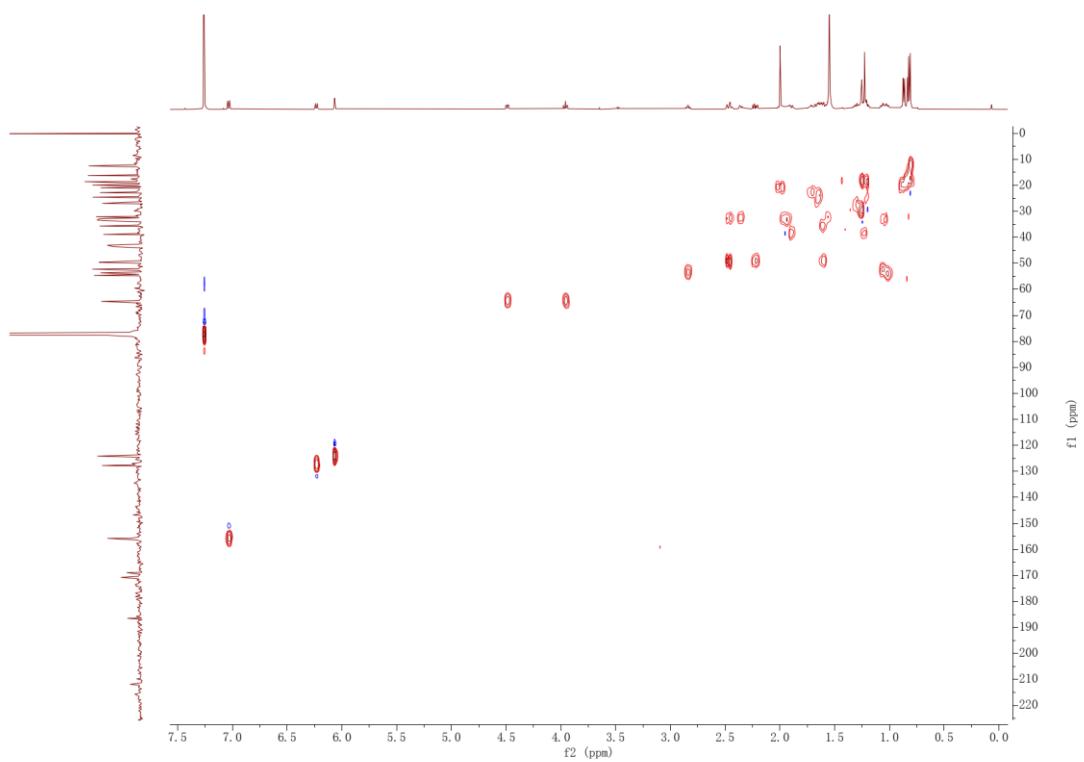


Figure S35. HSQC spectrum (600 MHz) of compound **5** in CDCl_3 .

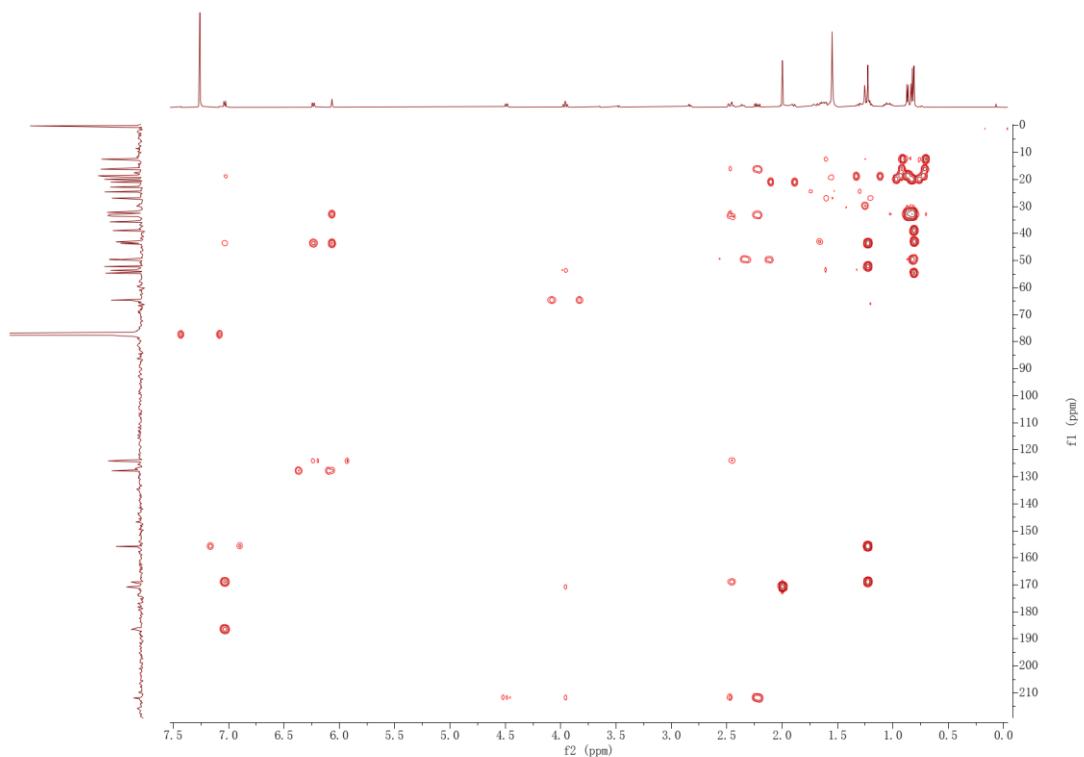


Figure S36. HMBC spectrum (600 MHz) of compound **5** in CDCl_3 .

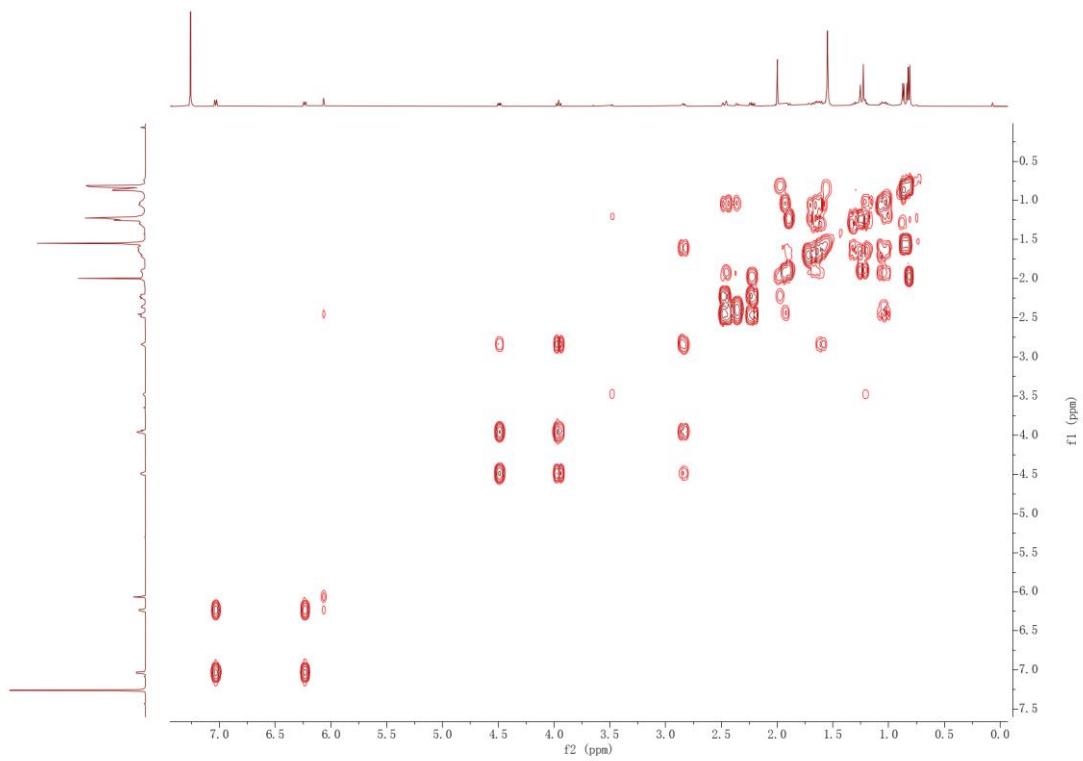


Figure S37. ^1H - ^1H COSY spectrum (600 MHz) of compound **5** in CDCl_3 .

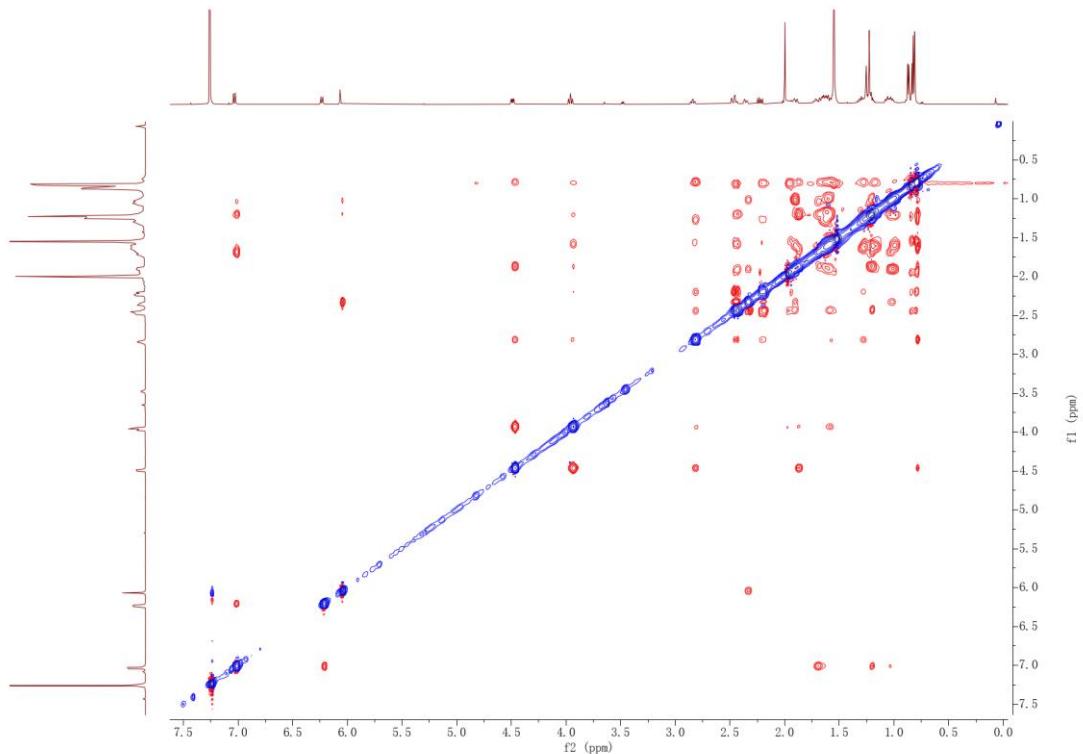


Figure S38. NOESY spectrum (600 MHz) of compound **5** in CDCl_3 .

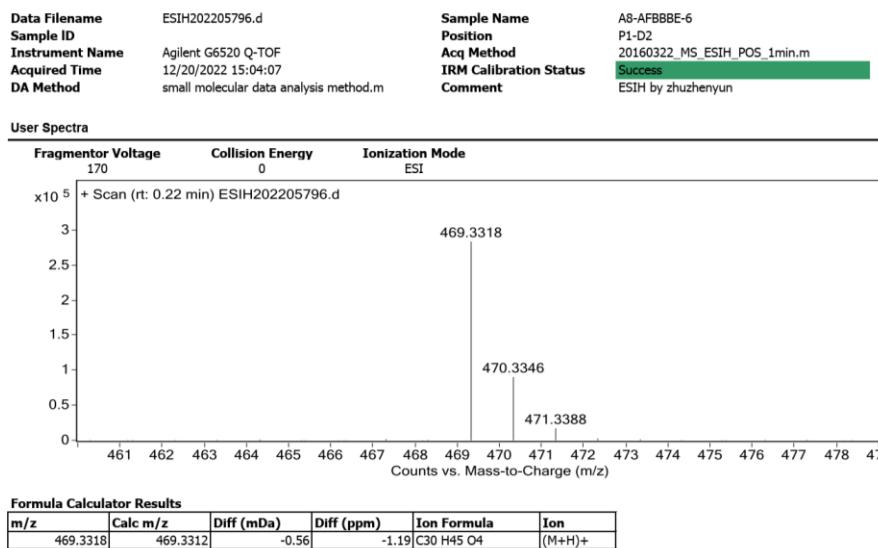


Figure S39. HR-ESIMS spectrum of compound 5.

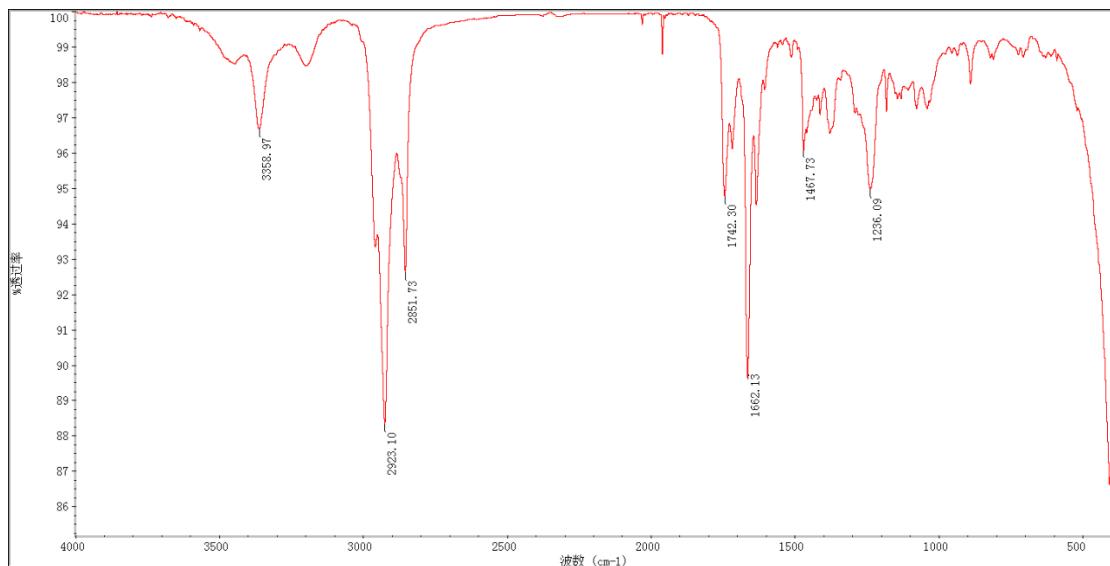


Figure S40. IR spectrum of compound 5.

6. Spectra of compound 6

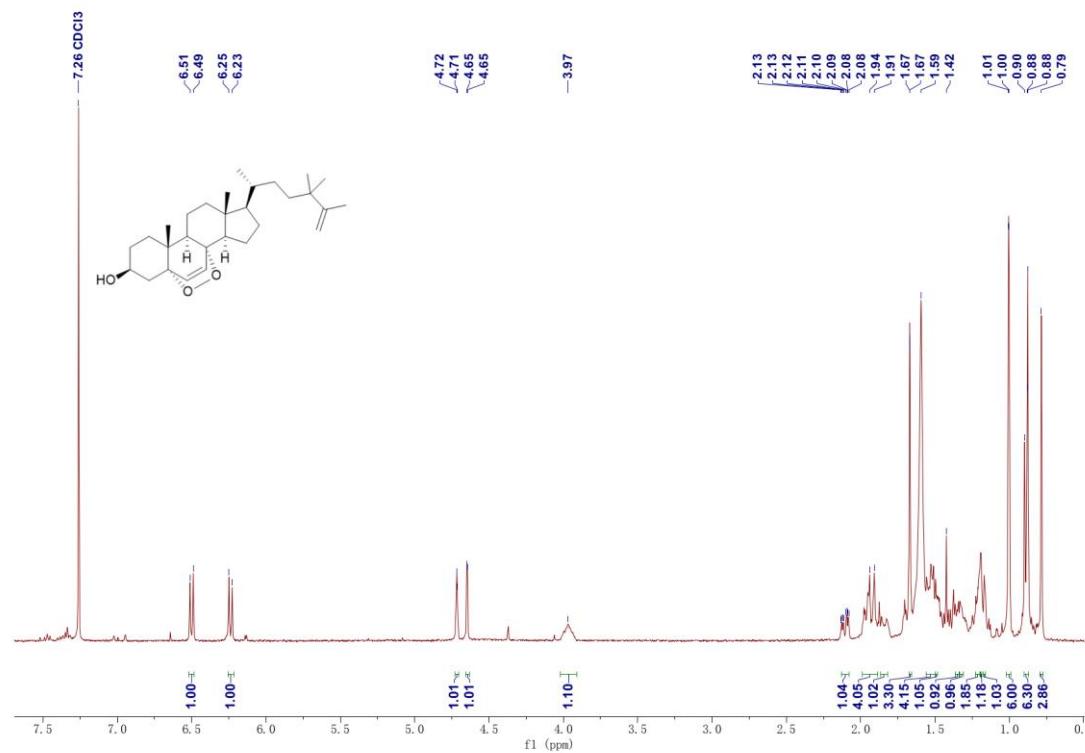


Figure S41. ¹H NMR spectrum (400 MHz) of compound 6 in CDCl₃.

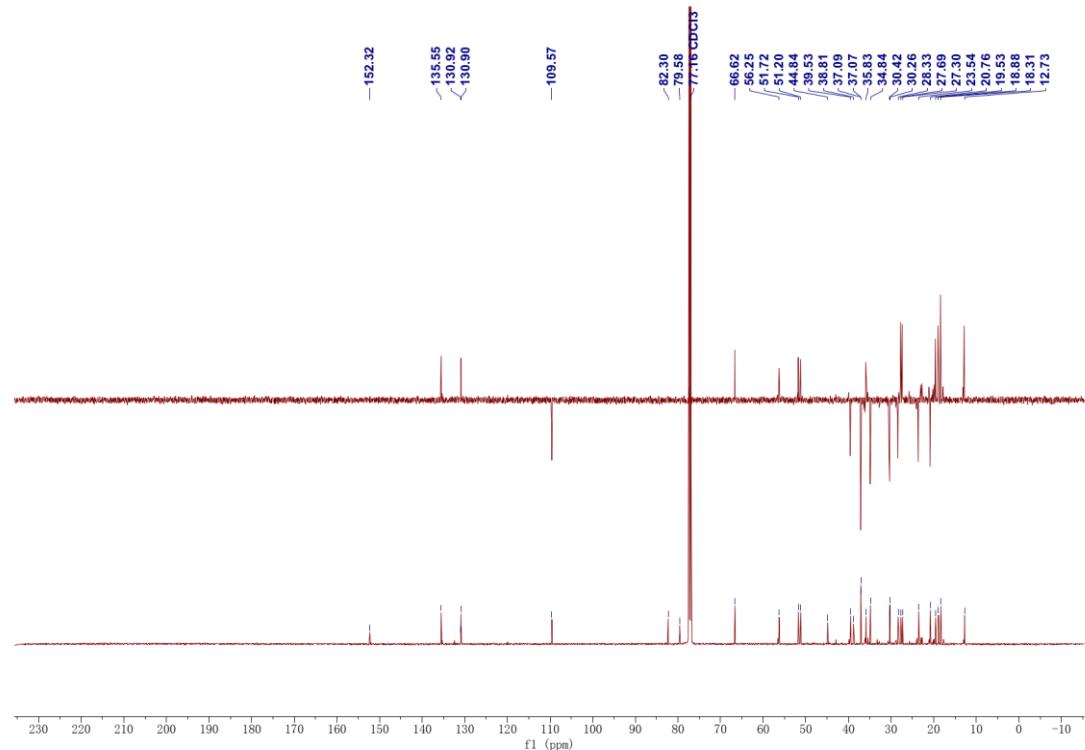


Figure S42. ¹³C NMR spectrum (150 MHz) of compound 6 in CDCl₃.

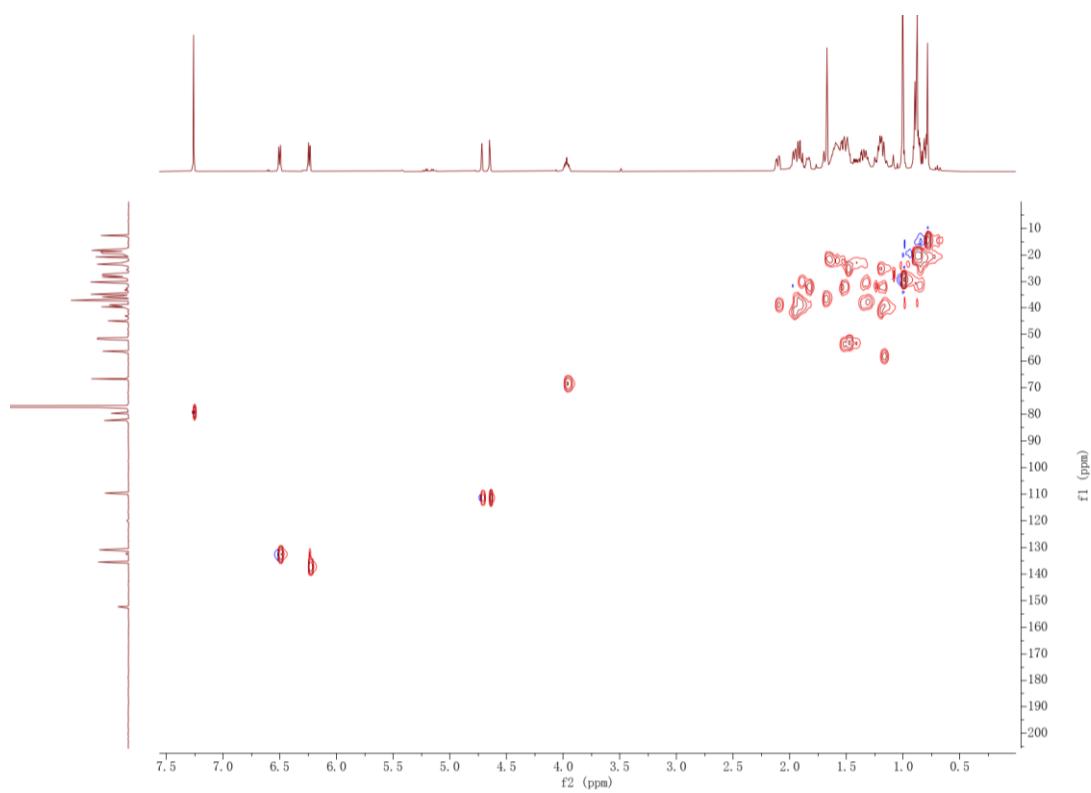


Figure S43. HSQC spectrum (600 MHz) of compound **6** in CDCl_3 .

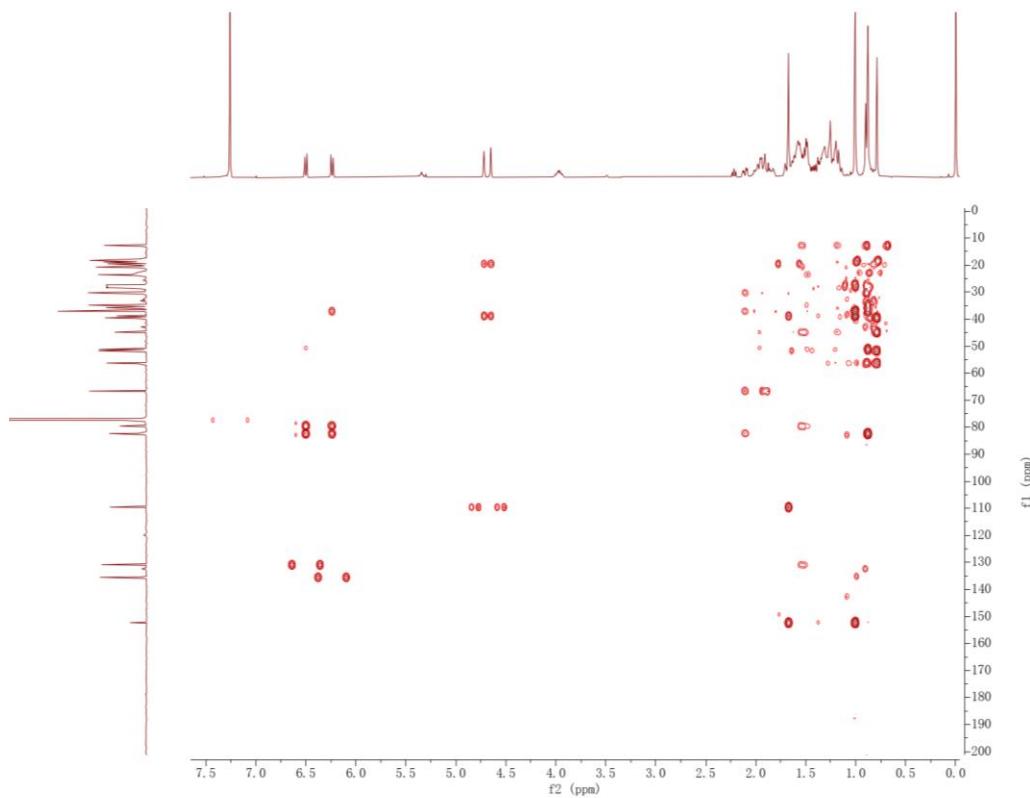


Figure S44. HMBC spectrum (600 MHz) of compound **6** in CDCl_3 .

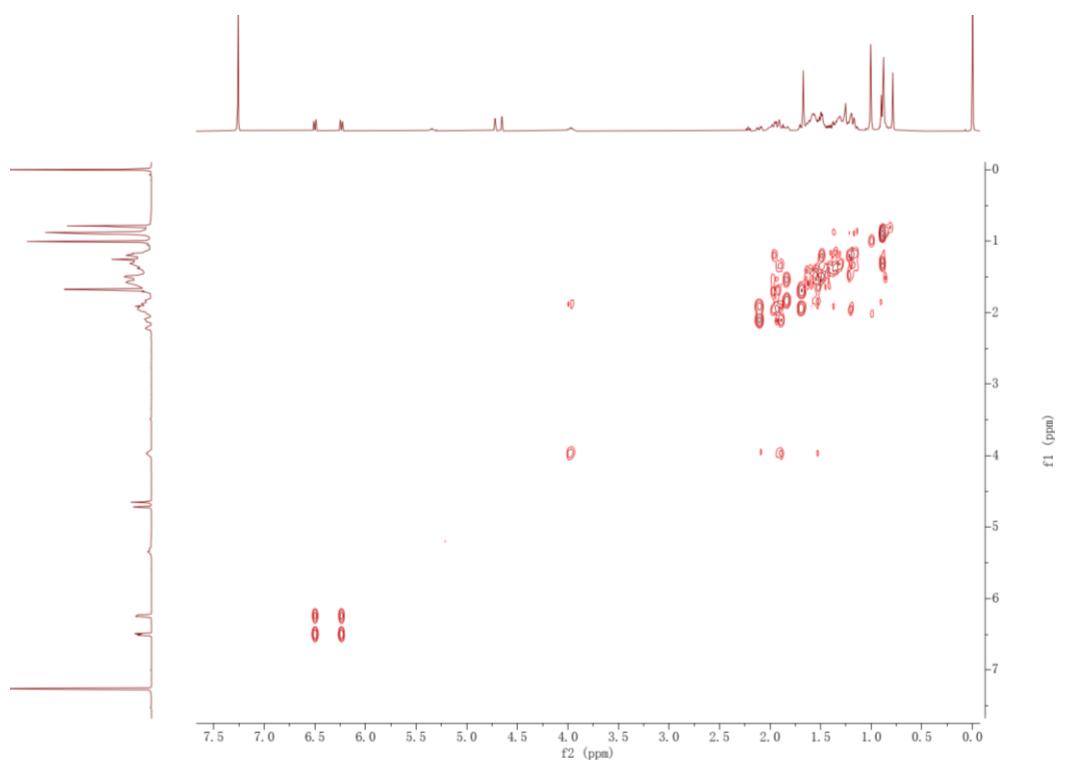


Figure S45. ^1H - ^1H COSY spectrum (600 MHz) of compound **6** in CDCl_3 .

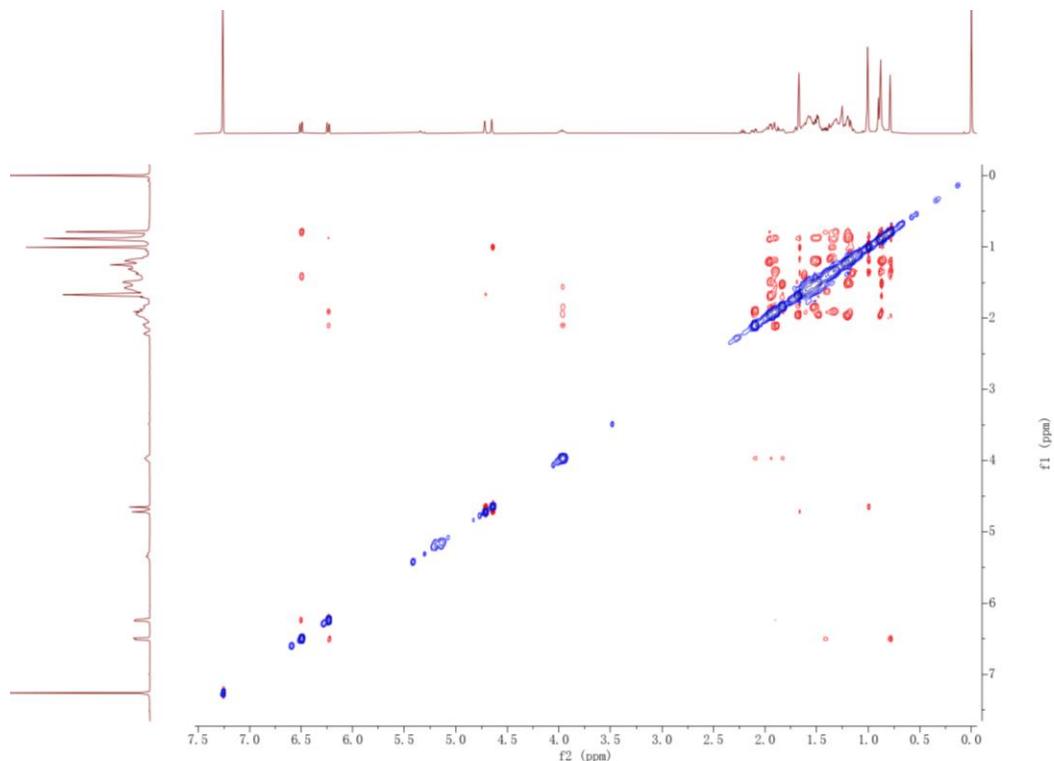


Figure S46. NOESY spectrum (600 MHz) of compound **6** in CDCl_3 .

EI202300247_A8-2CBgCD-7 -c1#17 RT: 3.30

T: + c EI Full ms [49.50-800.50]

m/z= 48-803

| m/z | Intensity | Relative | Theo. Mass | Delta (mmu) | RDB equiv. | Composition |
|----------|------------|----------|------------|-------------|------------|--|
| 69.0692 | 2526253.0 | 14.16 | 69.0699 | -0.67 | 1.5 | C ₅ H ₉ |
| 79.0176 | 1227372.0 | 6.88 | 79.0178 | -0.23 | 4.5 | C ₅ H ₃ O ₁ |
| 93.0697 | 1596930.0 | 8.95 | 93.0699 | -0.15 | 3.5 | C ₇ H ₉ |
| 95.0865 | 1721079.0 | 9.65 | 95.0855 | 0.97 | 2.5 | C ₇ H ₁₁ |
| 119.0858 | 1105517.0 | 6.20 | 119.0855 | 0.27 | 4.5 | C ₉ H ₁₁ |
| 121.1009 | 849310.0 | 4.76 | 121.1012 | -0.23 | 3.5 | C ₉ H ₁₃ |
| 123.1161 | 662506.0 | 3.71 | 123.1168 | -0.69 | 2.5 | C ₉ H ₁₅ |
| 131.0844 | 863563.0 | 4.84 | 131.0855 | -1.09 | 5.5 | C ₁₀ H ₁₁ |
| 133.1005 | 884241.0 | 4.96 | 133.1012 | -0.70 | 4.5 | C ₁₀ H ₁₃ |
| 137.1317 | 646525.0 | 3.62 | 137.1325 | -0.77 | 2.5 | C ₁₀ H ₁₇ |
| 143.0848 | 1464170.0 | 8.21 | 143.0855 | -0.71 | 6.5 | C ₁₁ H ₁₁ |
| 145.1009 | 1483471.0 | 8.32 | 145.1012 | -0.29 | 5.5 | C ₁₁ H ₁₃ |
| 152.0828 | 1155889.0 | 6.48 | 152.0832 | -0.35 | 4.0 | C ₉ H ₁₂ O ₂ |
| 157.1010 | 1241274.0 | 6.96 | 157.1012 | -0.20 | 6.5 | C ₁₂ H ₁₃ |
| 158.1074 | 1285518.0 | 7.21 | 158.1090 | -1.55 | 6.0 | C ₁₂ H ₁₄ |
| 159.1150 | 1343098.0 | 7.53 | 159.1168 | -1.79 | 5.5 | C ₁₂ H ₁₅ |
| 161.0947 | 745542.0 | 4.18 | 161.0961 | -1.39 | 5.5 | C ₁₁ H ₁₃ O ₁ |
| 171.1161 | 1103951.0 | 6.19 | 171.1168 | -0.71 | 6.5 | C ₁₃ H ₁₅ |
| 183.1162 | 778880.0 | 4.37 | 183.1168 | -0.63 | 7.5 | C ₁₄ H ₁₅ |
| 185.1315 | 889154.0 | 4.99 | 185.1325 | -1.01 | 6.5 | C ₁₄ H ₁₇ |
| 197.1324 | 1271589.0 | 7.13 | 197.1325 | -0.06 | 7.5 | C ₁₅ H ₁₇ |
| 199.1478 | 937934.0 | 5.26 | 199.1481 | -0.32 | 6.5 | C ₁₅ H ₁₉ |
| 209.1330 | 627898.0 | 3.52 | 209.1325 | 0.51 | 8.5 | C ₁₆ H ₁₇ |
| 211.1466 | 1328899.0 | 7.45 | 211.1481 | -1.50 | 7.5 | C ₁₆ H ₁₉ |
| 249.1640 | 669200.0 | 3.75 | 249.1638 | 0.25 | 9.5 | C ₁₉ H ₂₁ |
| 251.1779 | 1080331.0 | 6.06 | 251.1794 | -1.50 | 8.5 | C ₁₉ H ₂₃ |
| 253.1954 | 798748.0 | 4.48 | 253.1951 | 0.36 | 7.5 | C ₁₉ H ₂₅ |
| 267.1750 | 725700.0 | 4.07 | 267.1743 | 0.68 | 8.5 | C ₁₉ H ₂₃ O ₁ |
| 271.2060 | 683373.0 | 3.83 | 271.2056 | 0.40 | 6.5 | C ₁₉ H ₂₇ O ₁ |
| 293.1911 | 626252.0 | 3.51 | 293.1900 | 1.13 | 9.5 | C ₂₁ H ₂₅ O ₁ |
| 341.2836 | 751534.0 | 4.21 | 341.2839 | -0.32 | 6.5 | C ₂₄ H ₃₇ O ₁ |
| 351.3039 | 3330212.0 | 18.67 | 351.3046 | -0.69 | 7.5 | C ₂₆ H ₃₉ |
| 377.3198 | 7690815.0 | 43.12 | 377.3203 | -0.48 | 8.5 | C ₂₈ H ₄₁ |
| 390.3278 | 639938.0 | 3.59 | 390.3281 | -0.29 | 9.0 | C ₂₉ H ₄₂ |
| 391.3008 | 912396.0 | 5.12 | 391.2995 | 1.21 | 9.5 | C ₂₈ H ₃₉ O ₁ |
| 392.3418 | 643150.0 | 3.61 | 392.3438 | -1.96 | 8.0 | C ₂₉ H ₄₄ |
| 395.3318 | 706885.0 | 3.96 | 395.3308 | 0.99 | 7.5 | C ₂₈ H ₄₃ O ₁ |
| 406.3231 | 953240.0 | 5.34 | 406.3230 | 0.06 | 9.0 | C ₂₉ H ₄₂ O ₁ |
| 410.3547 | 17835264.0 | 100.00 | 410.3543 | 0.36 | 7.0 | C ₂₉ H ₄₆ O ₁ |
| 424.3325 | 1101792.0 | 6.18 | 424.3336 | -1.11 | 8.0 | C ₂₉ H ₄₄ O ₂ |

Figure S47. HR-EIMS spectrum of compound 6.

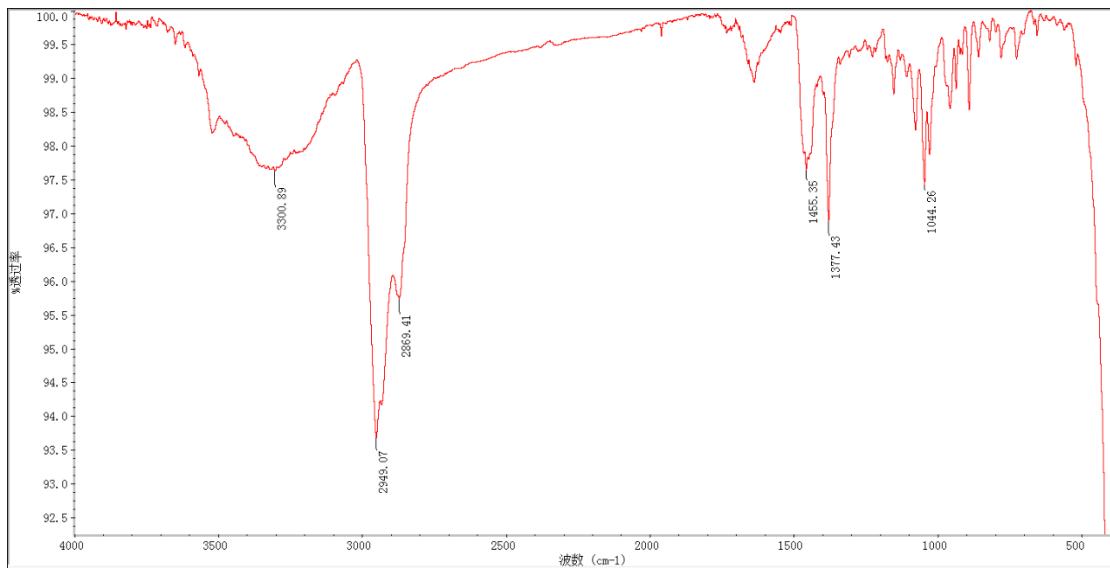


Figure S48. IR spectrum of compound 6.