

Chemical constituents with inhibitory activity of NO production from a wild edible mushroom, *Russula vinosa* Lindbl, may be its nutritional ingredients

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Supplementary Materials

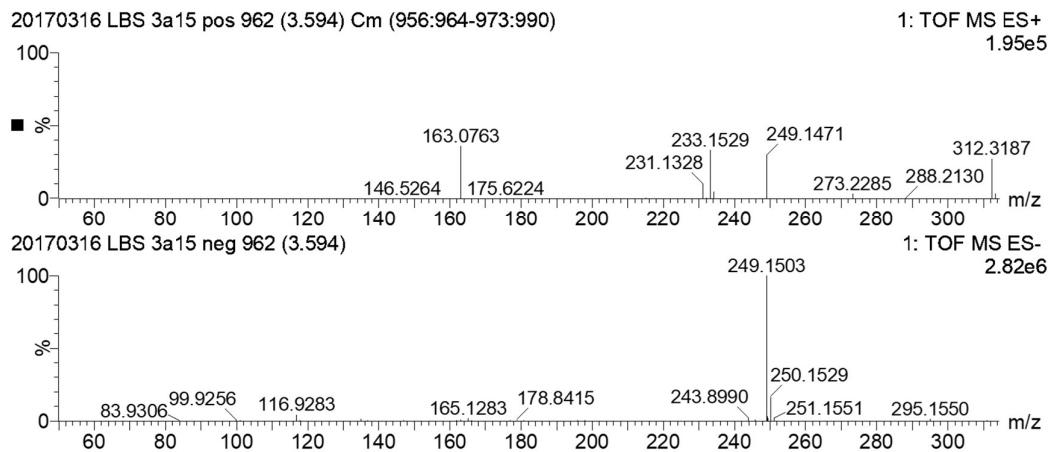


Figure S1. HR-ESI-MS spectrum of compound **1**

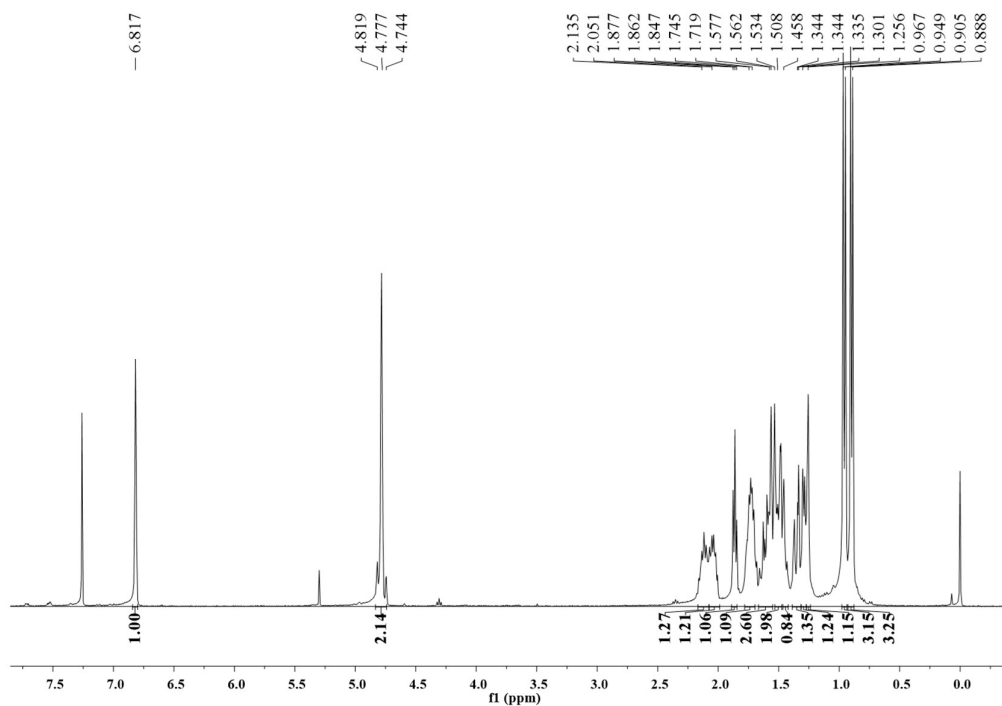


Figure S2. ^1H -NMR spectrum of compound **1**

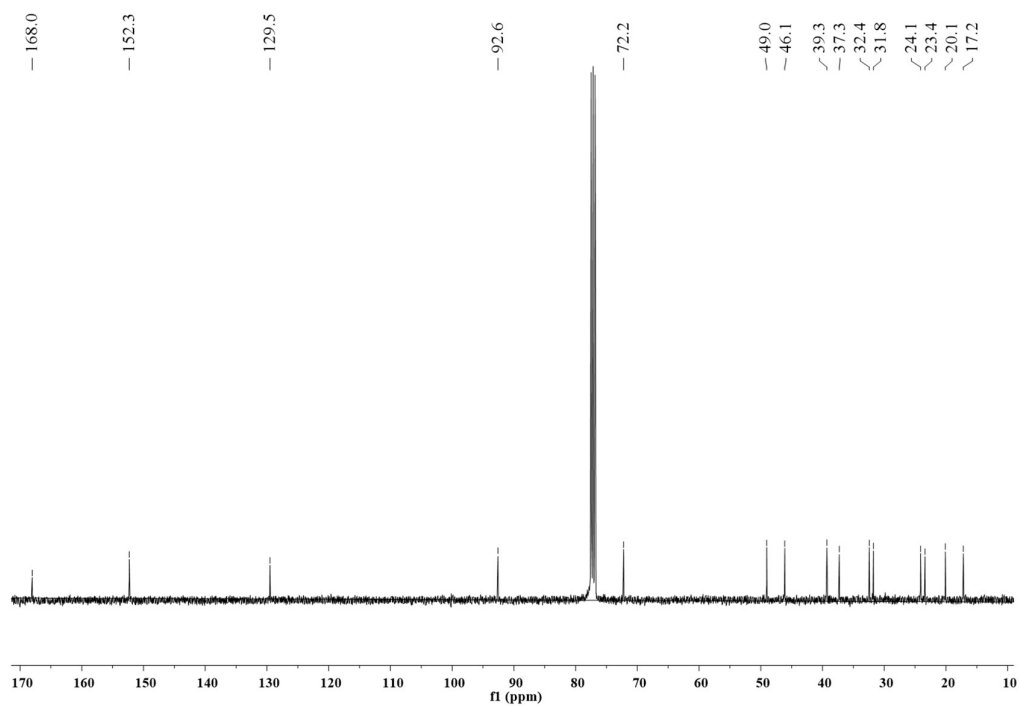


Figure S3. ^{13}C -NMR spectrum of compound **1**

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NT-S20160114-041
C13DEPT135 CDC13 D:\nmr_data ham
2 2

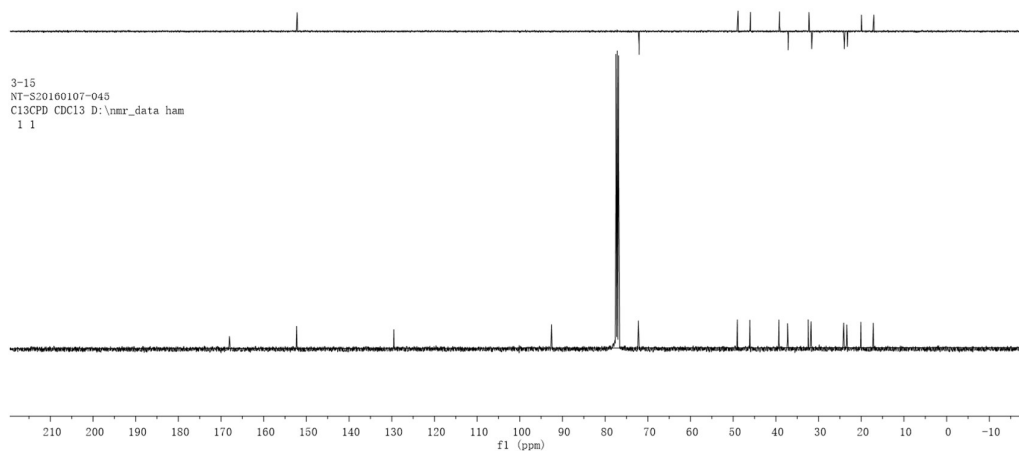


Figure S4. DEPT-135 spectrum of compound **1**

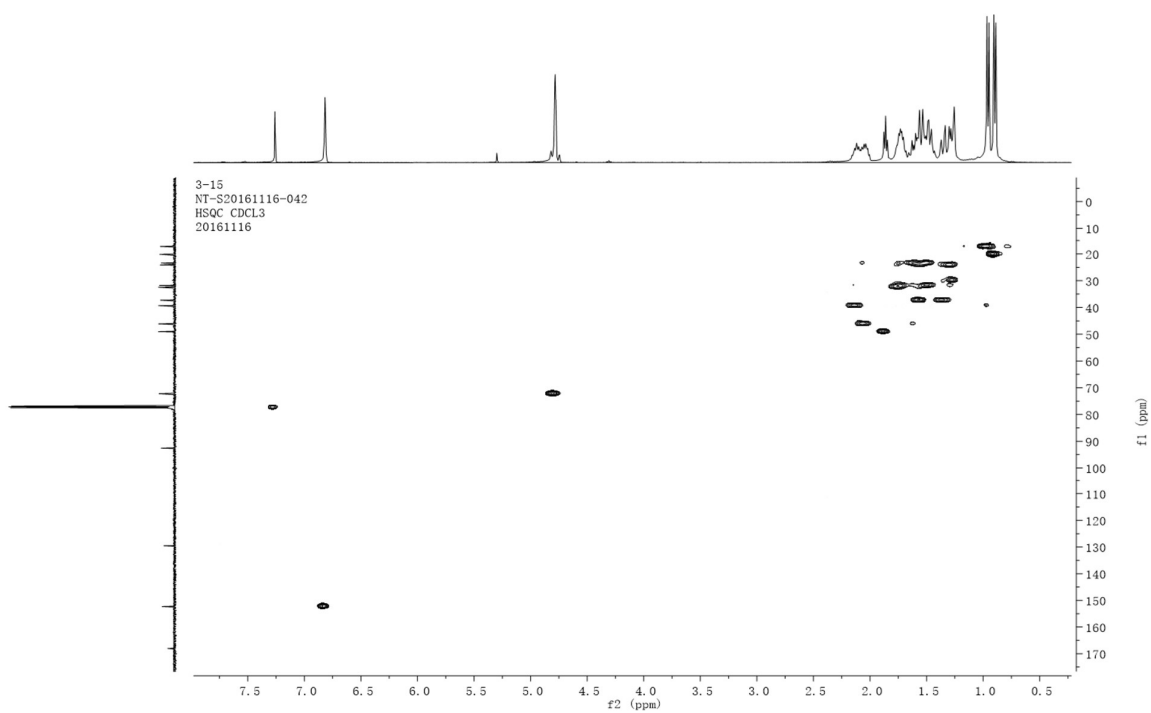


Figure S5. HSQC spectrum of compound **1**

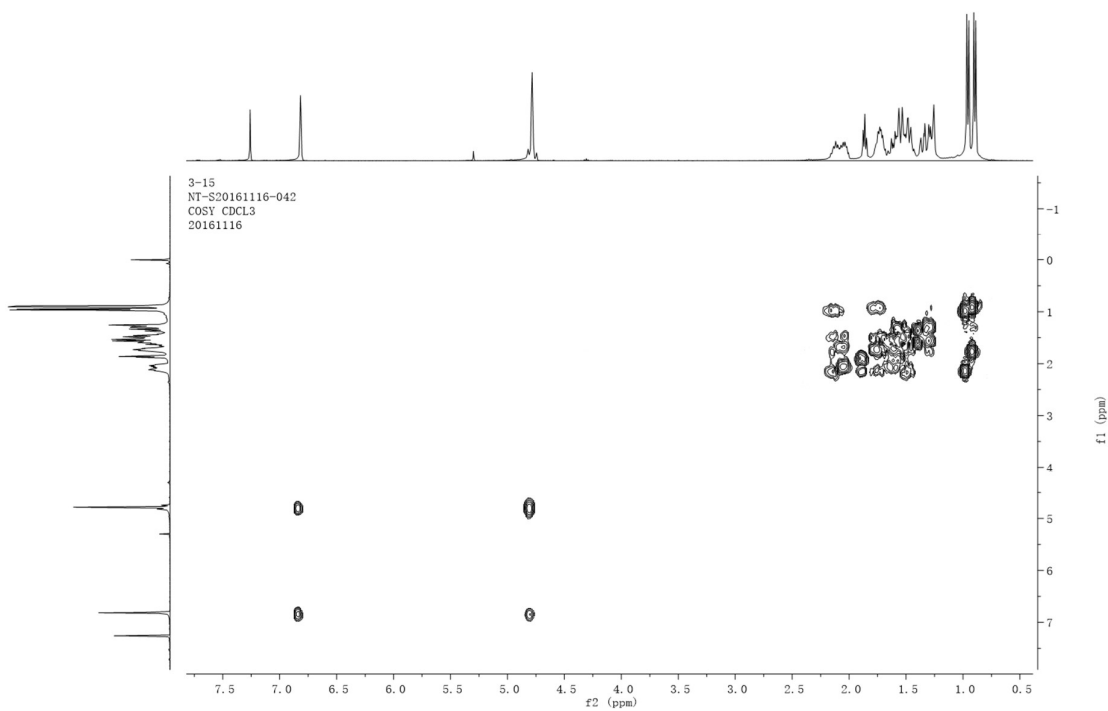


Figure S6. ^1H - ^1H COSY spectrum of compound **1**

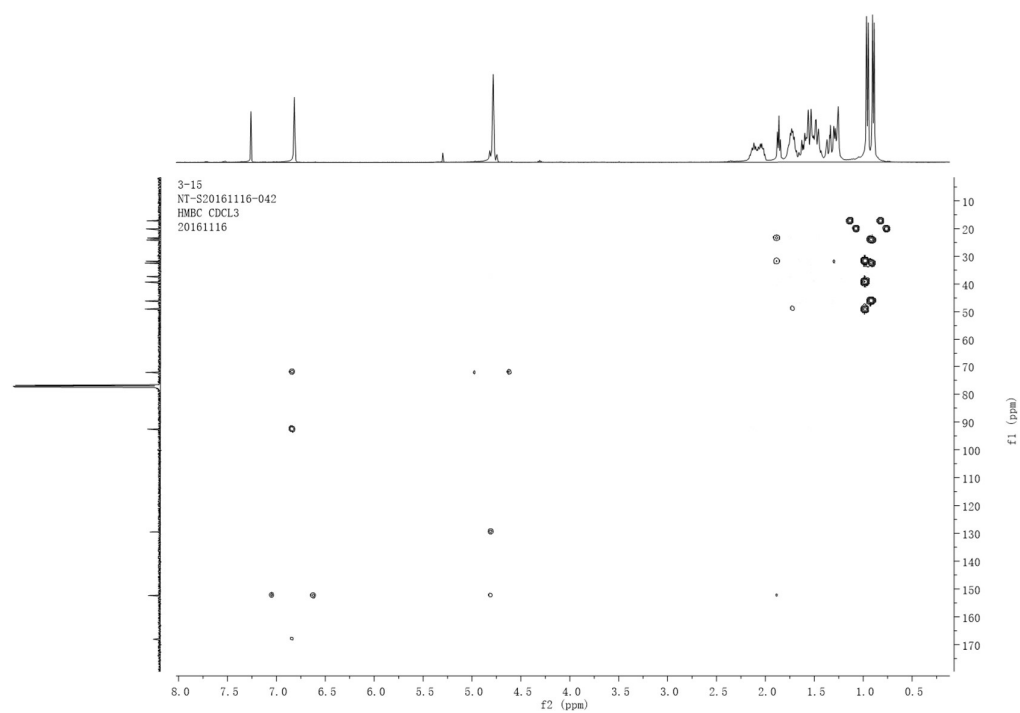


Figure S7. HMBC spectrum of compound **1**

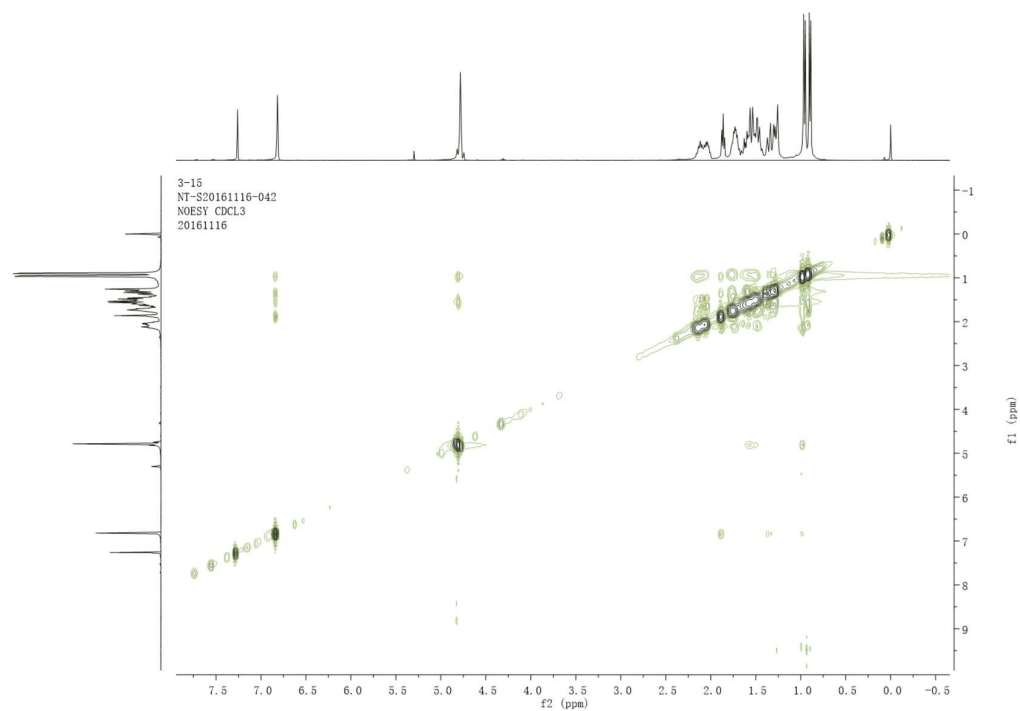


Figure S8. NOESY spectrum of compound **1**

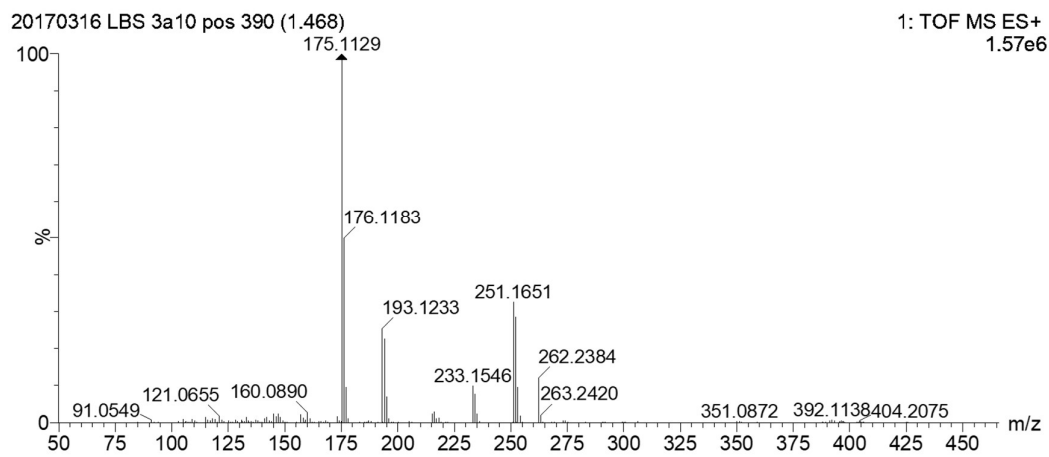


Figure S9. HR-ESI-MS spectrum of compound **2**

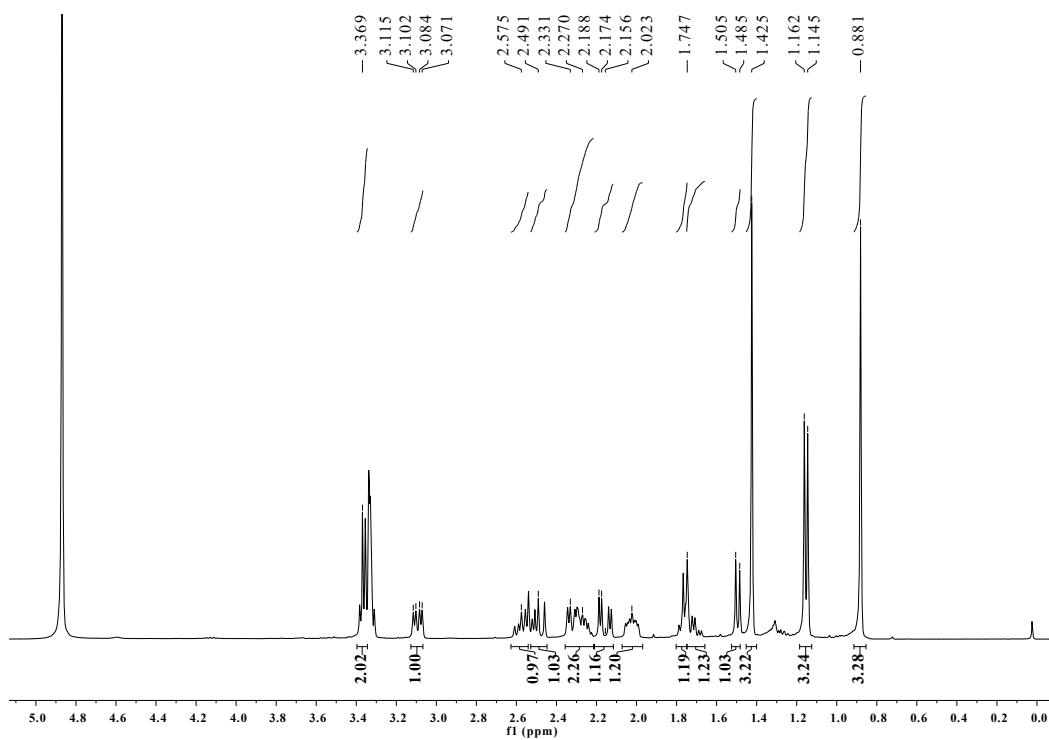


Figure S10. ^1H -NMR spectrum of compound **2**

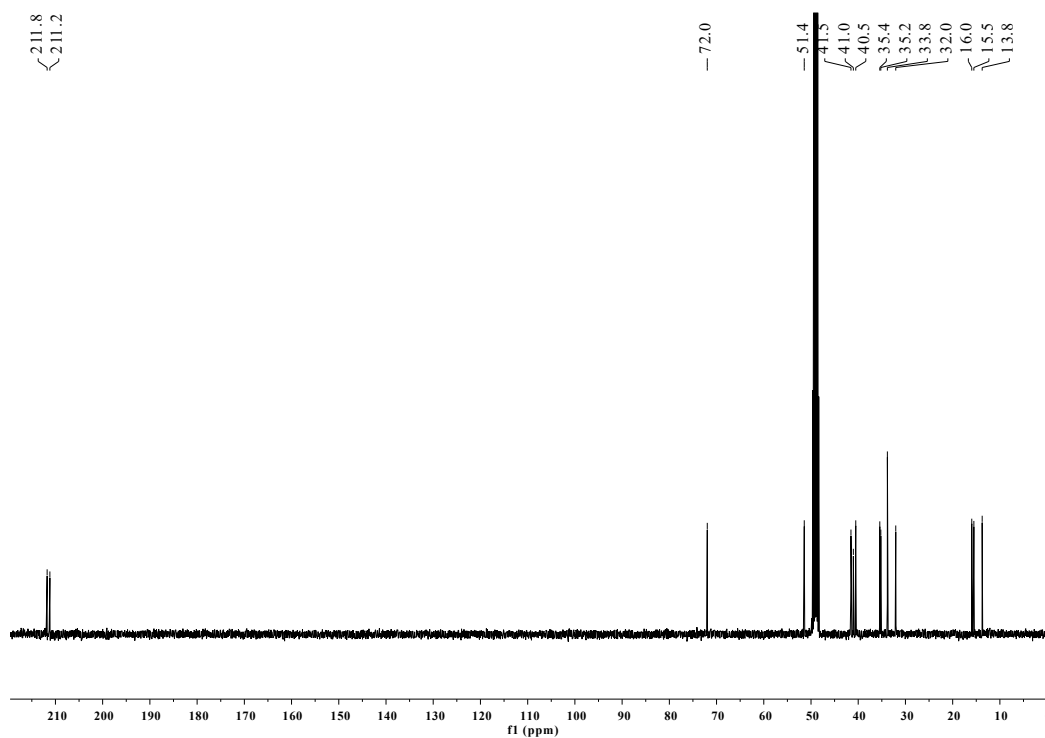


Figure S11. ^{13}C -NMR spectrum of compound 2

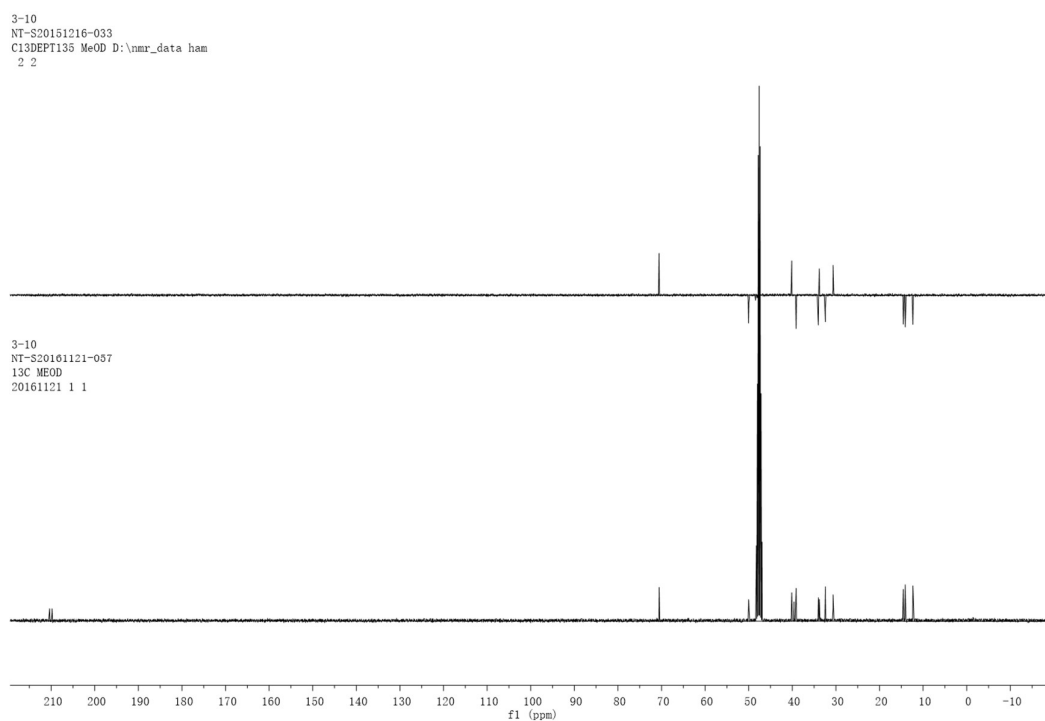


Figure S12. DEPT-135 spectrum of compound 2

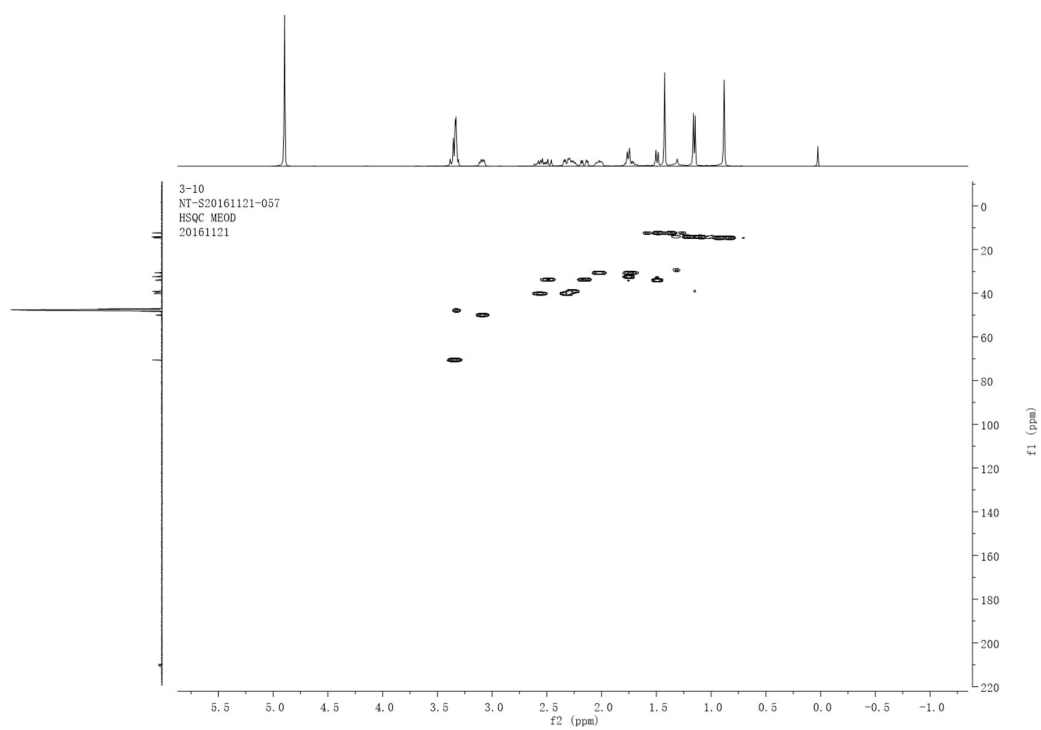


Figure S13. HSQC spectrum of compound 2

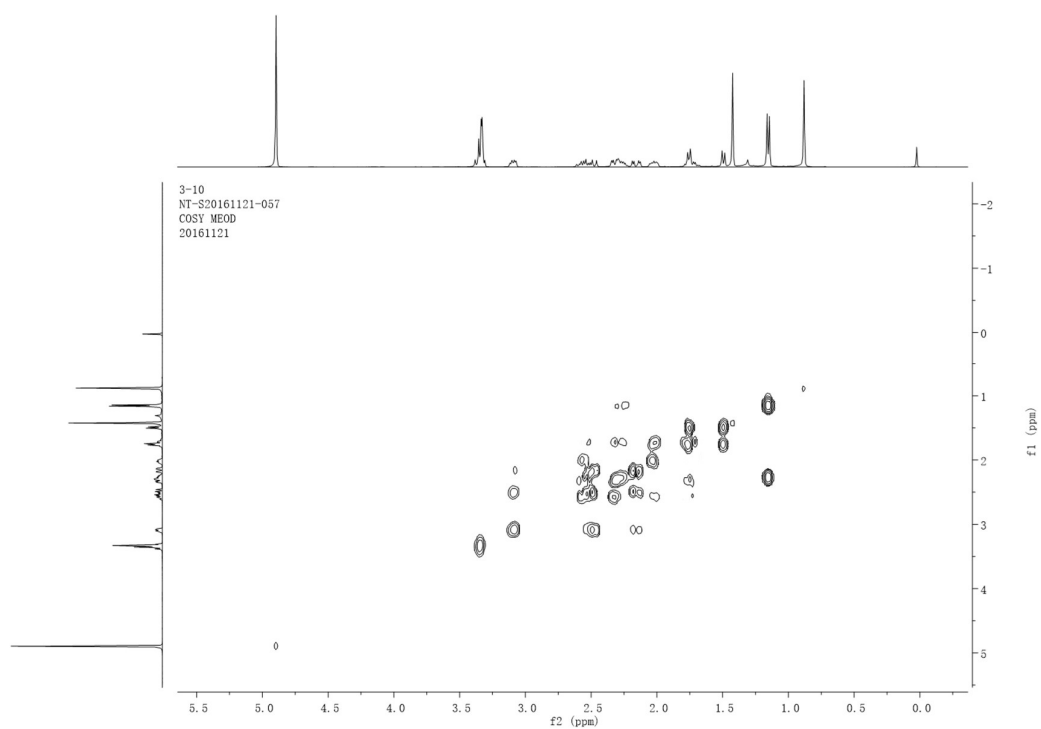


Figure S14. ^1H - ^1H COSY spectrum of compound 2

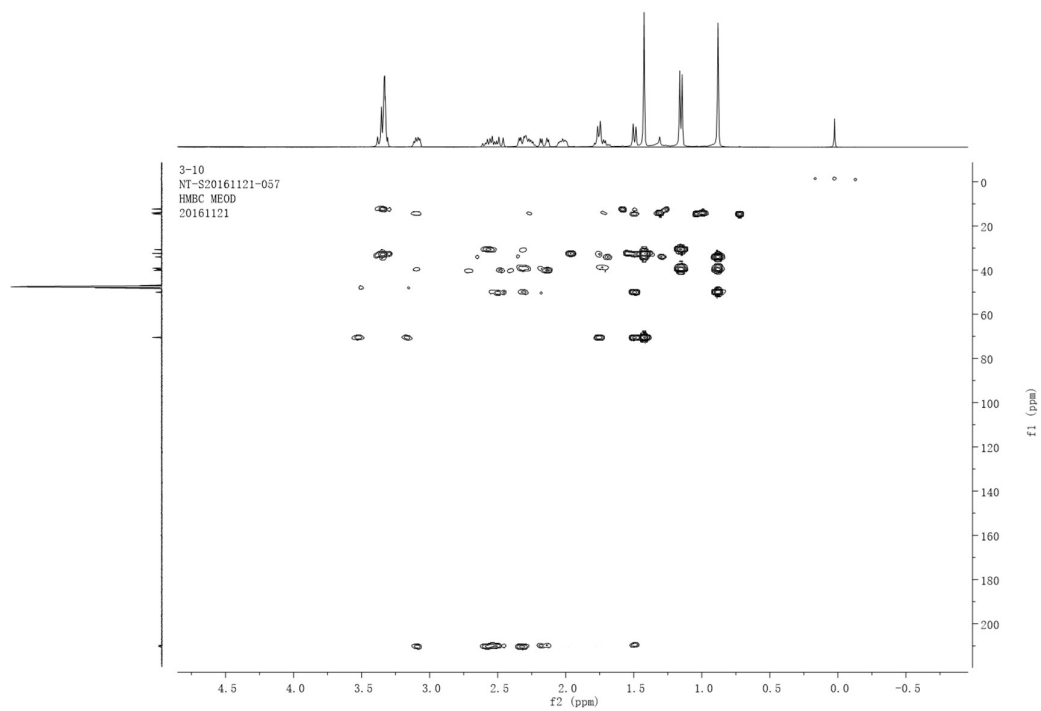


Figure S15. HMBC spectrum of compound **2**

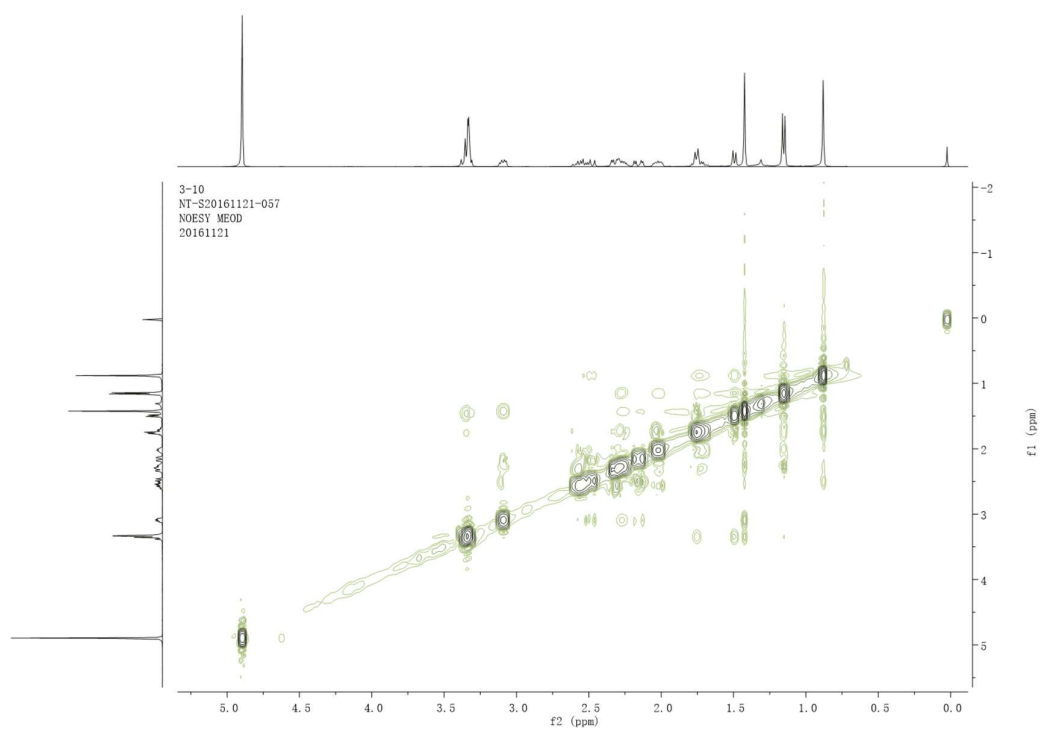


Figure S16. NOESY spectrum of compound **2**

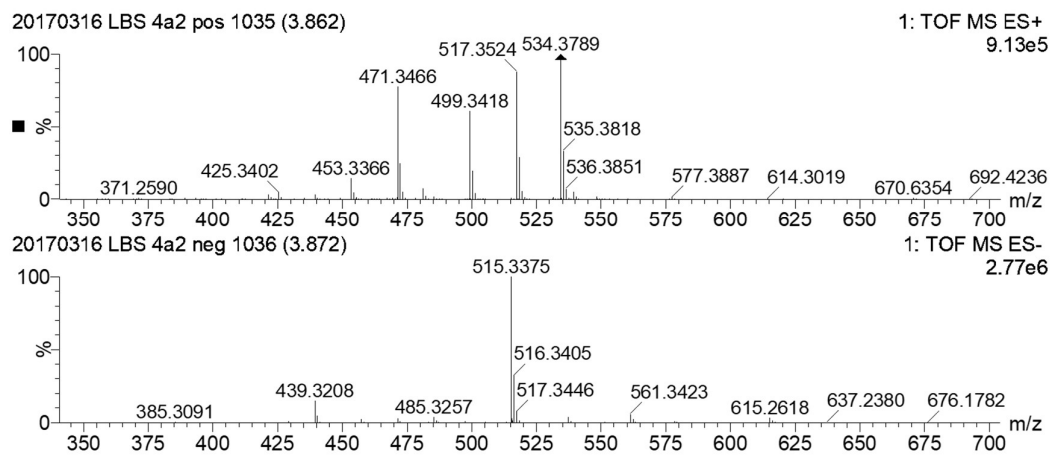


Figure S17. HR-ESI-MS spectrum of compound 3

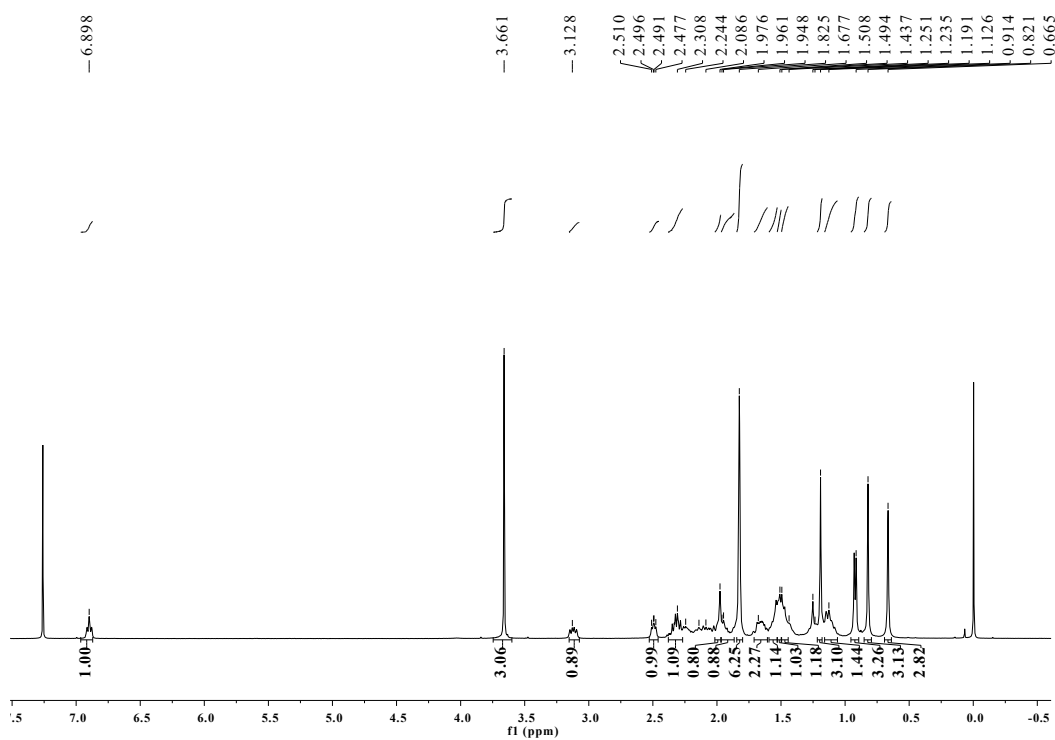


Figure S18. ^1H -NMR spectrum of compound 3

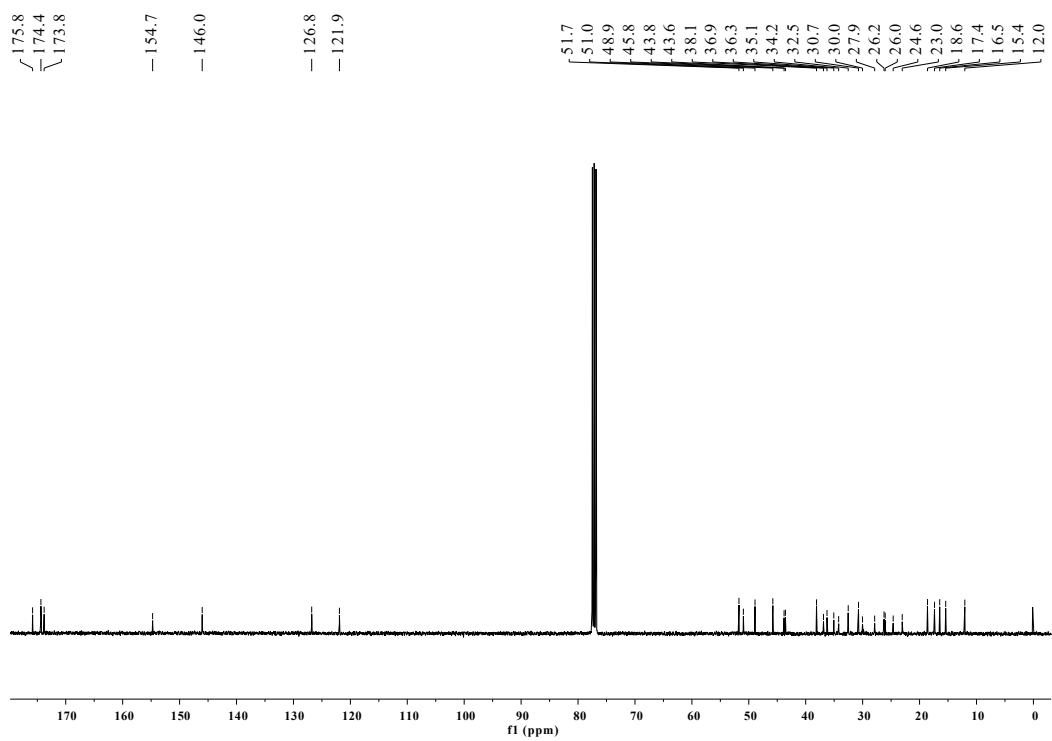


Figure S19. ^{13}C -NMR spectrum of compound **3**

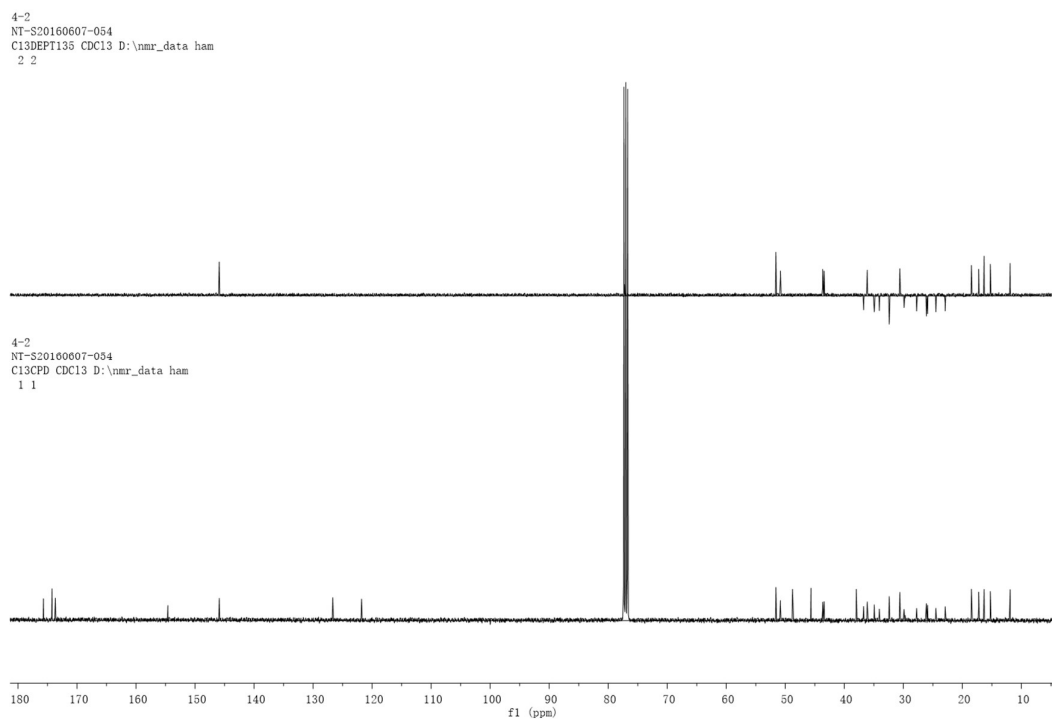


Figure S20. DEPT-135 spectrum of compound **3**

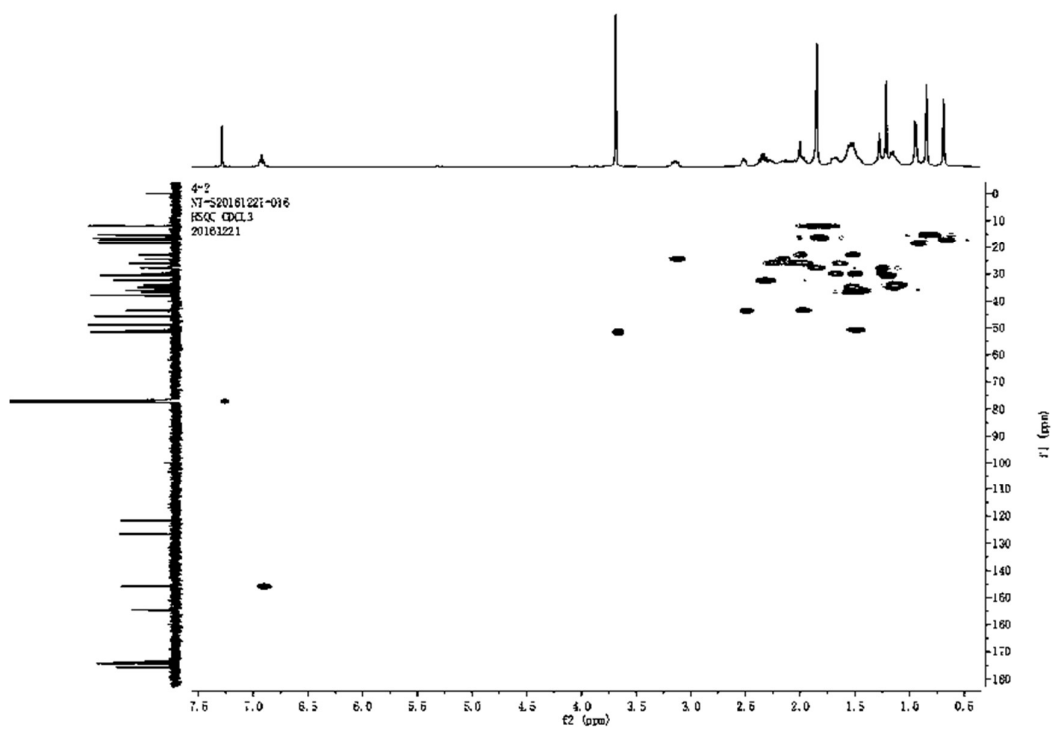


Figure S21. HSQC spectrum of compound 3

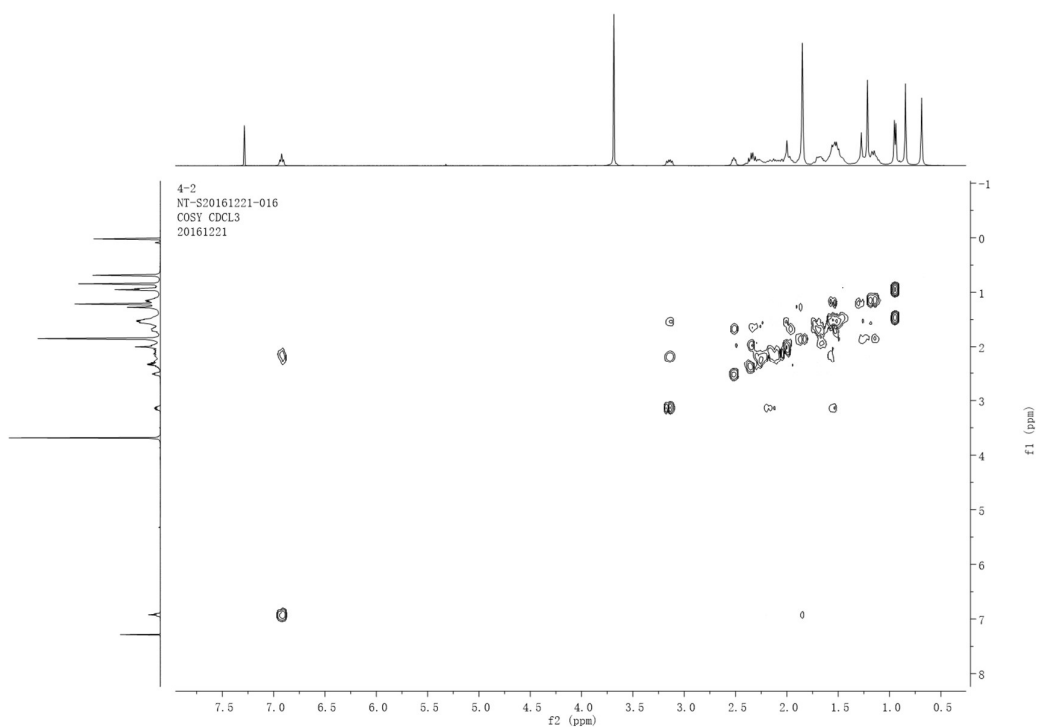


Figure S22. ^1H - ^1H COSY spectrum of compound 3

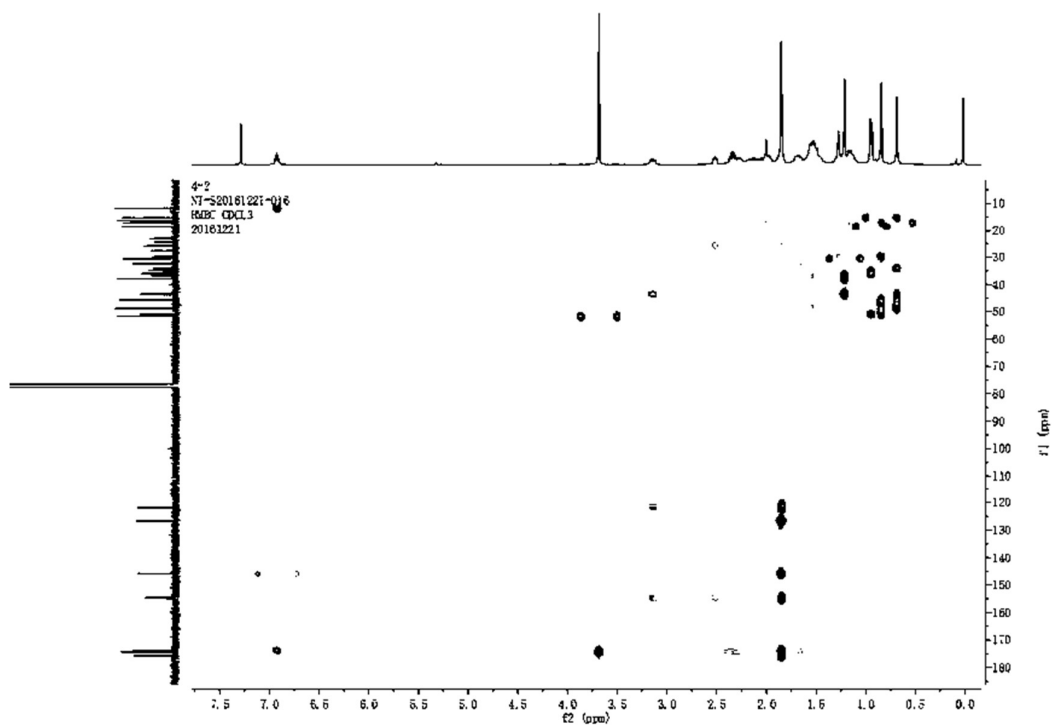


Figure S23. HMBC spectrum of compound 3

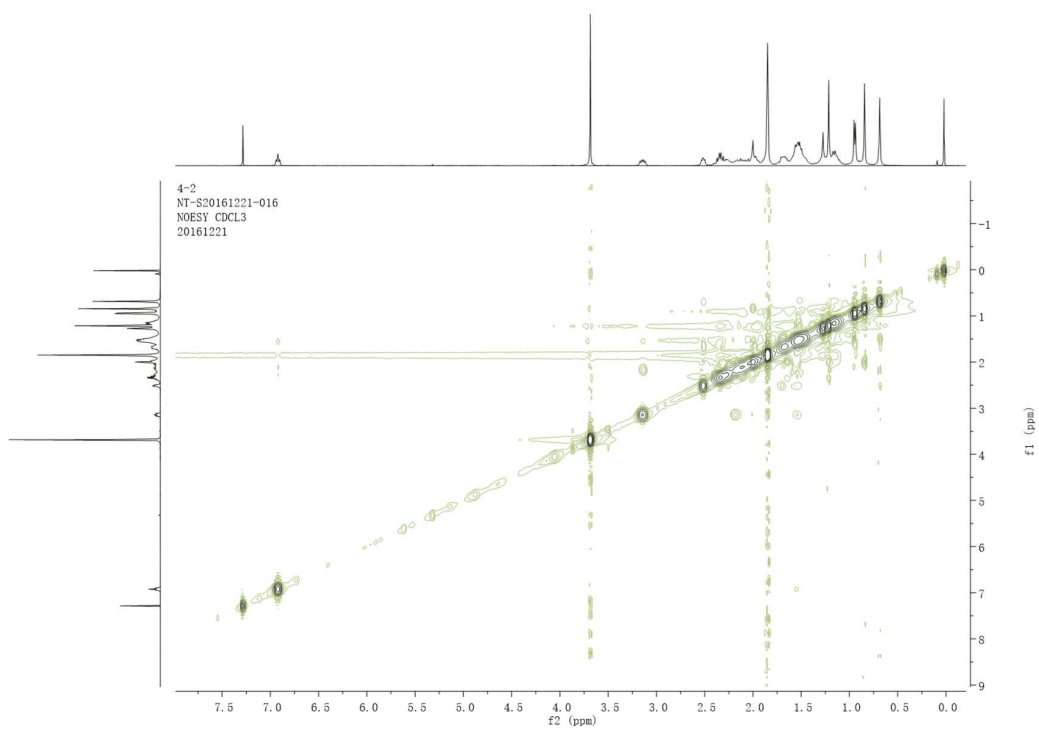


Figure S24. NOESY spectrum of compound 3

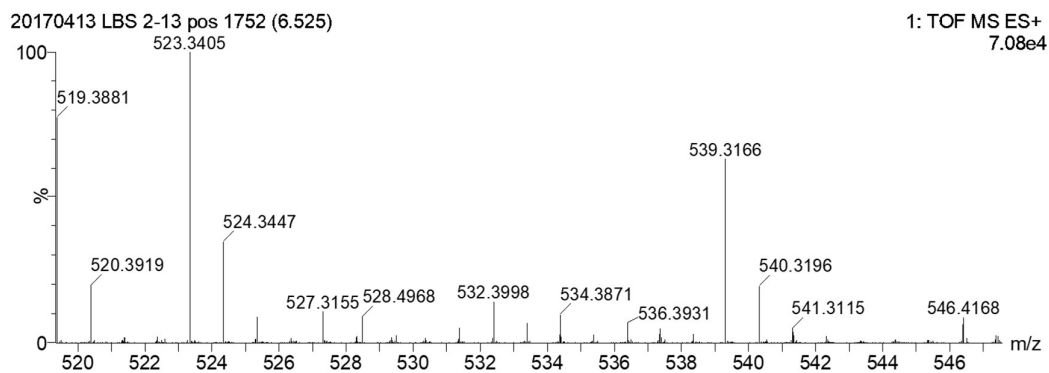


Figure S25. HR-ESI-MS spectrum of compound **4**

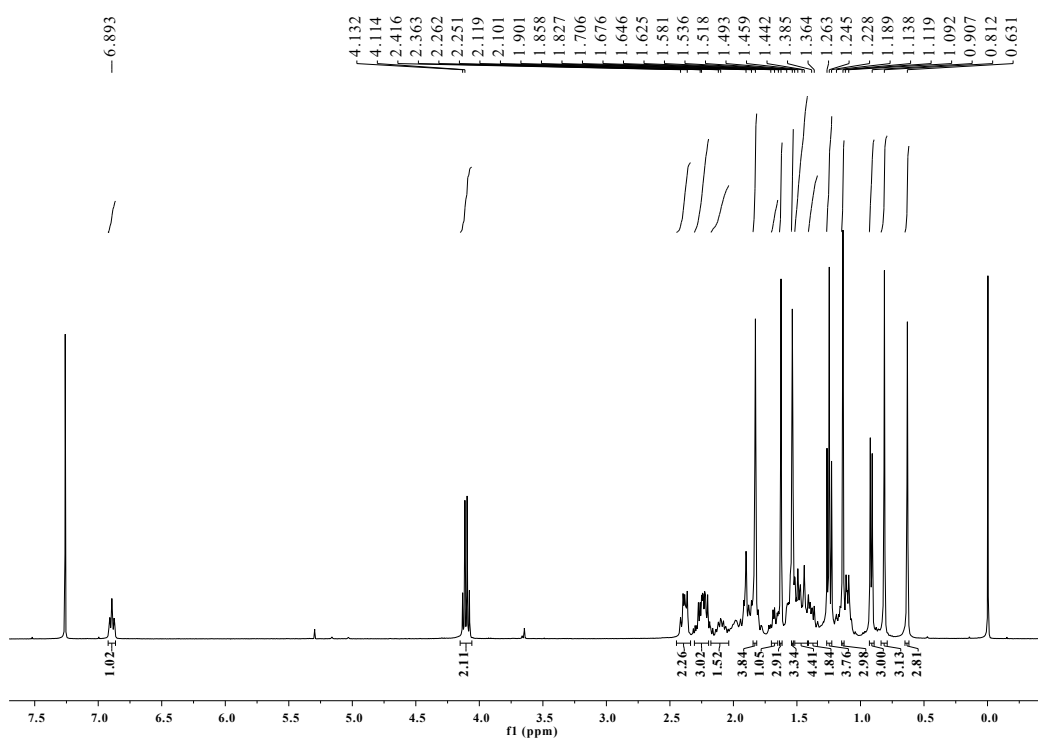


Figure S26. ^1H -NMR spectrum of compound **4**

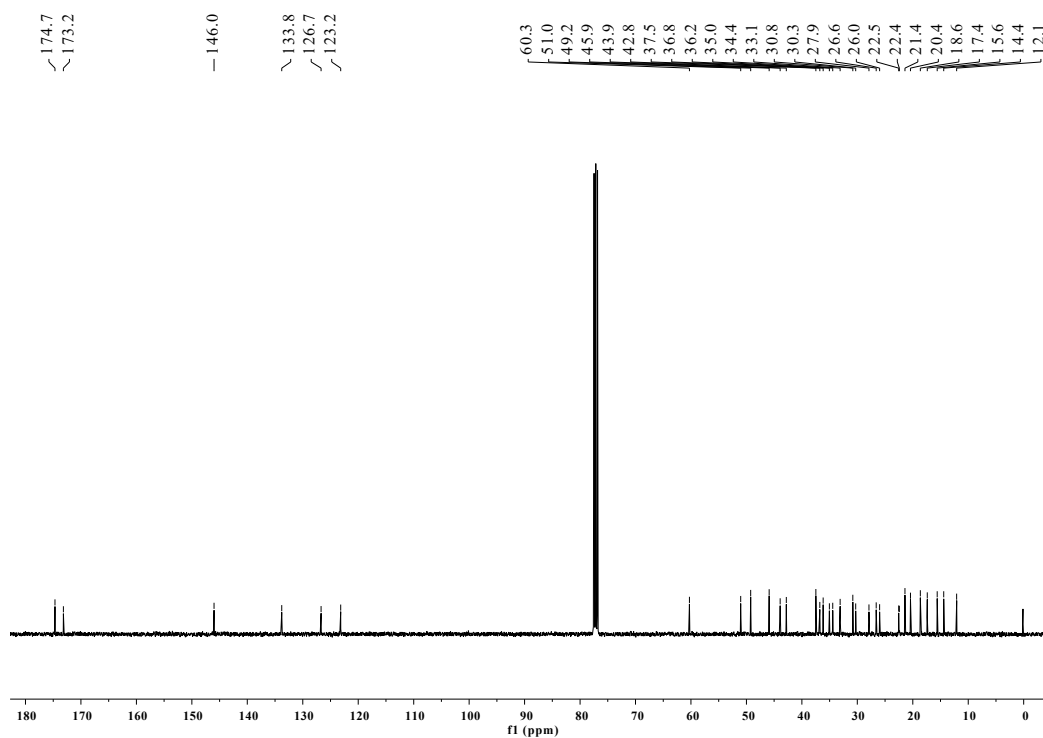


Figure S27. ^{13}C -NMR spectrum of compound **4**

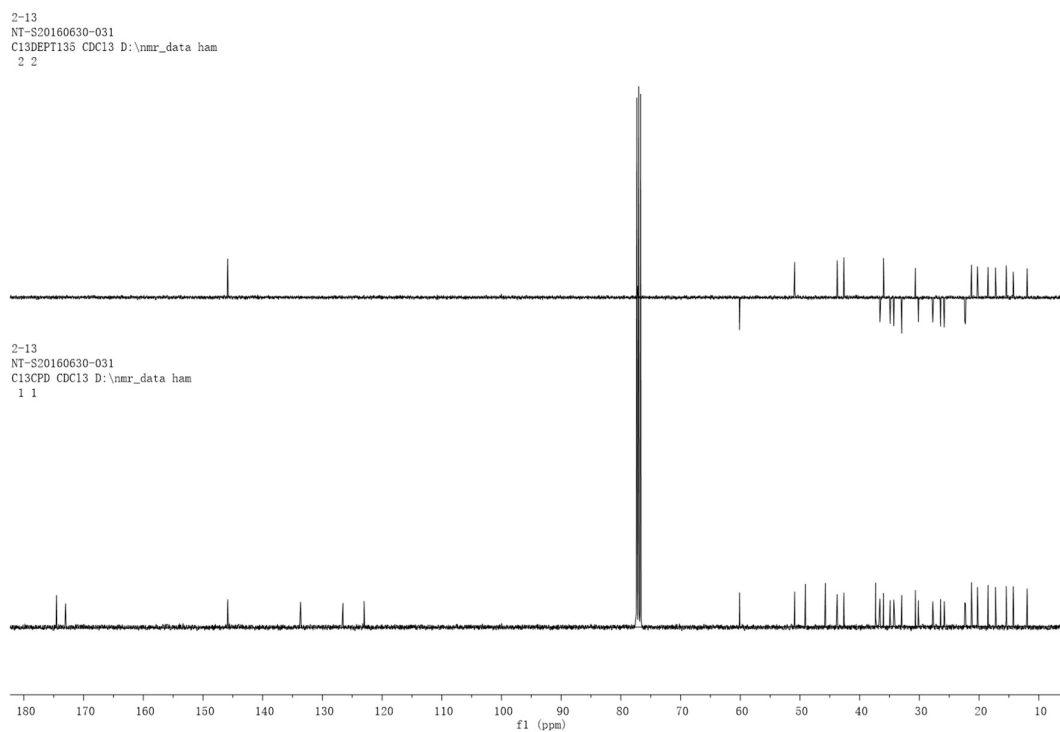


Figure S28. DEPT-135 spectrum of compound **4**

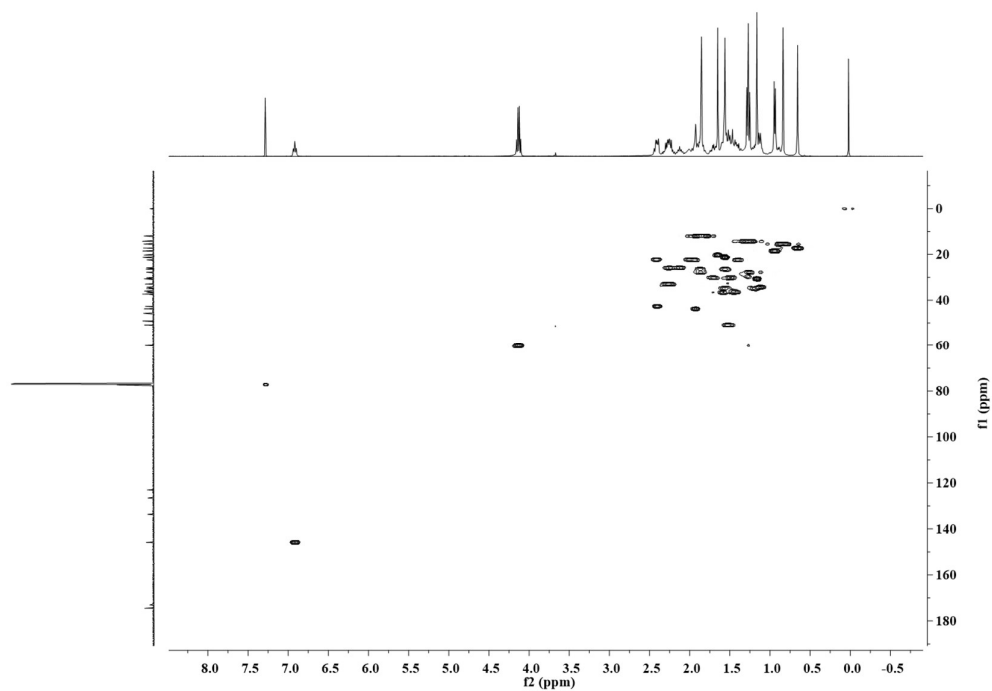


Figure S29. HSQC spectrum of compound 4

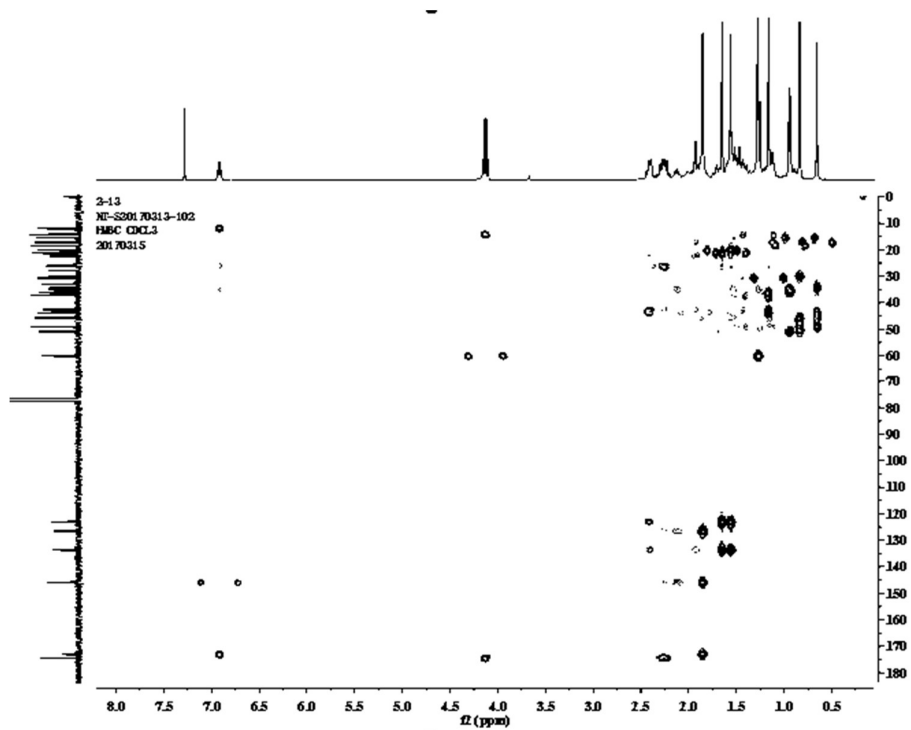


Figure S30. HMBC spectrum of compound 4

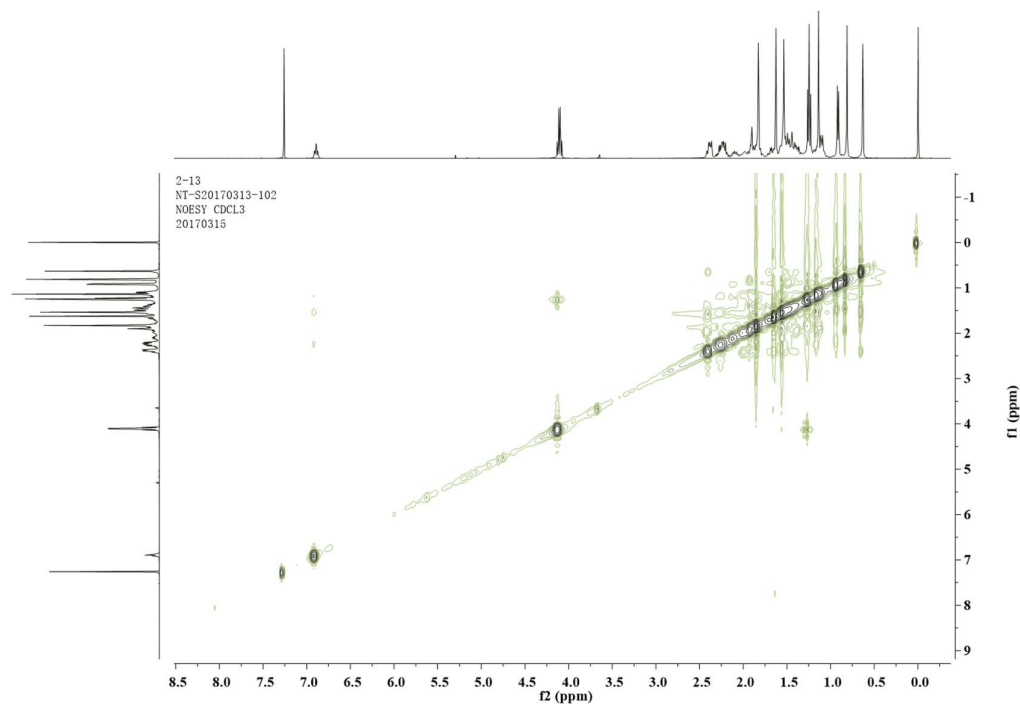


Figure S31. NOESY spectrum of compound **4**

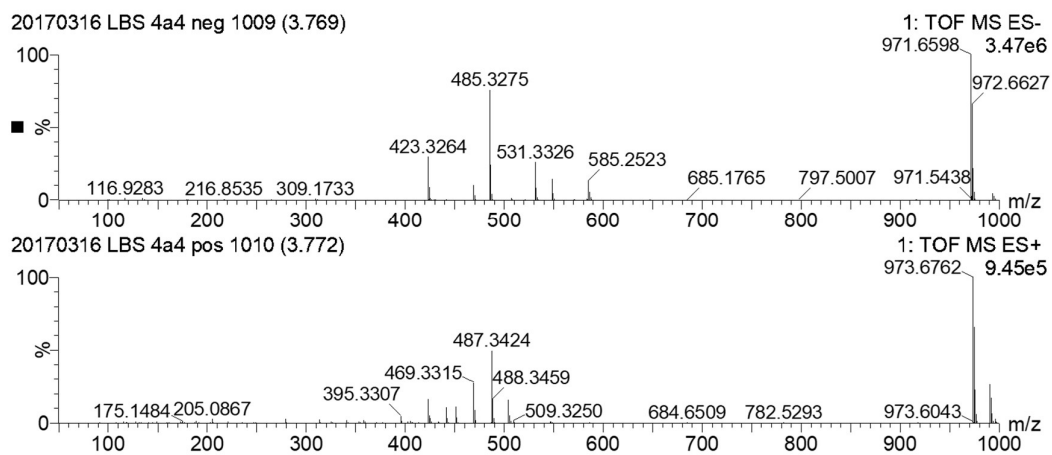


Figure S32. HR-ESI-MS spectrum of compound **5**

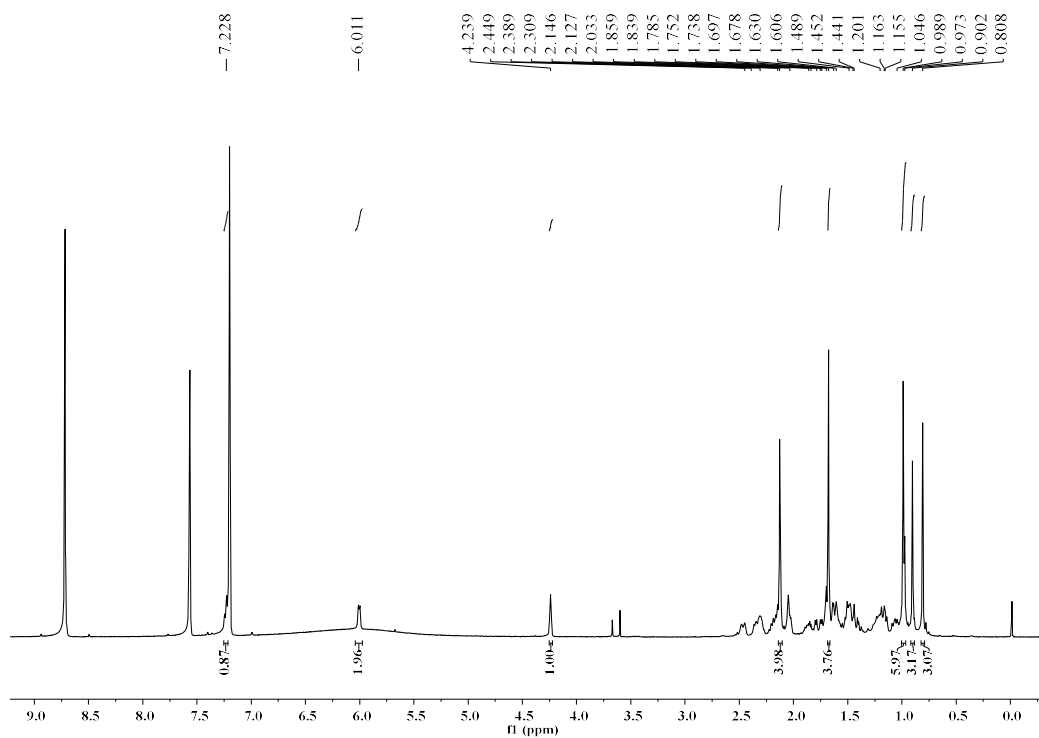


Figure S33. ¹H-NMR spectrum of compound 5

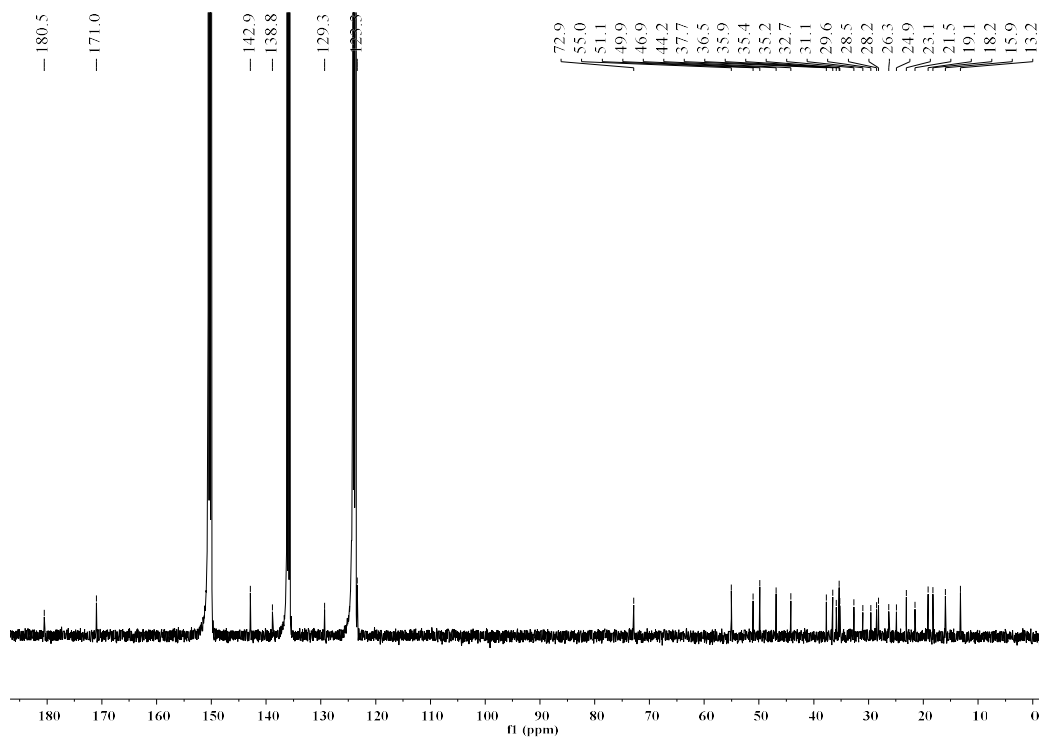


Figure S34. ¹³C-NMR spectrum of compound 5

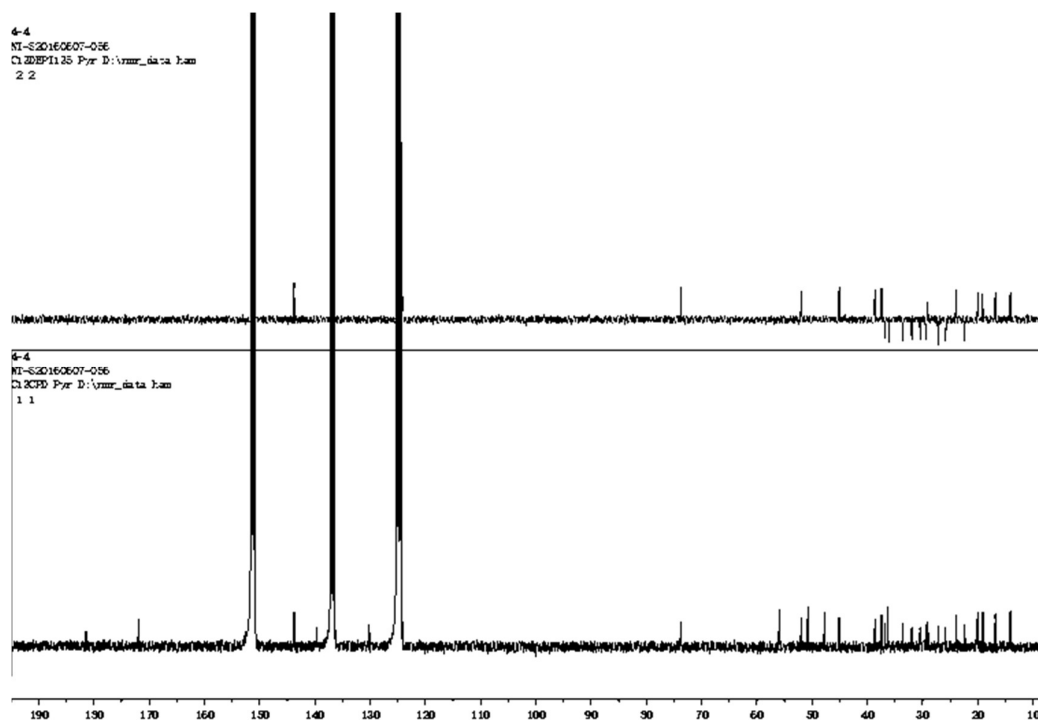


Figure S35. DEPT-135 spectrum of compound 5

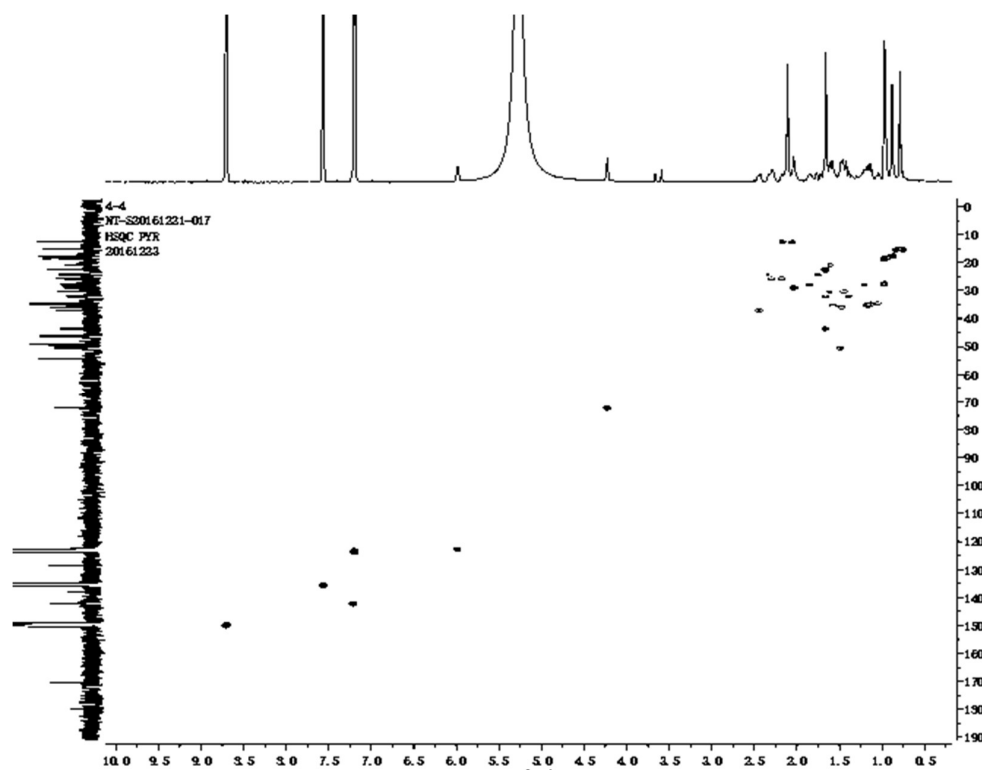


Figure S36. HSQC spectrum of compound 5

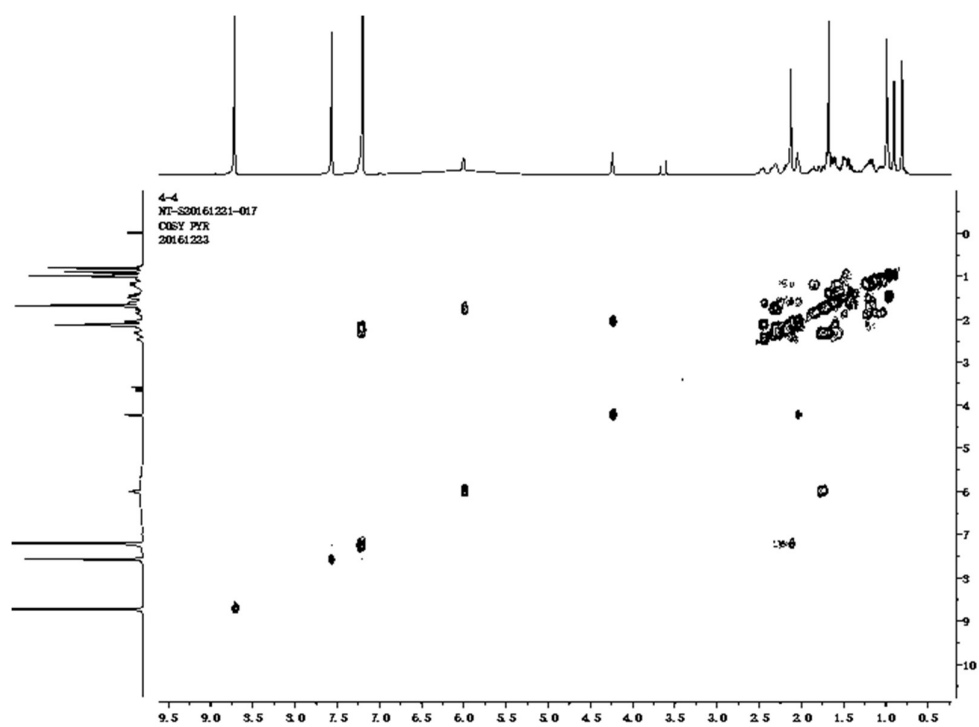


Figure S37. ^1H - ^1H COSY spectrum of compound 5

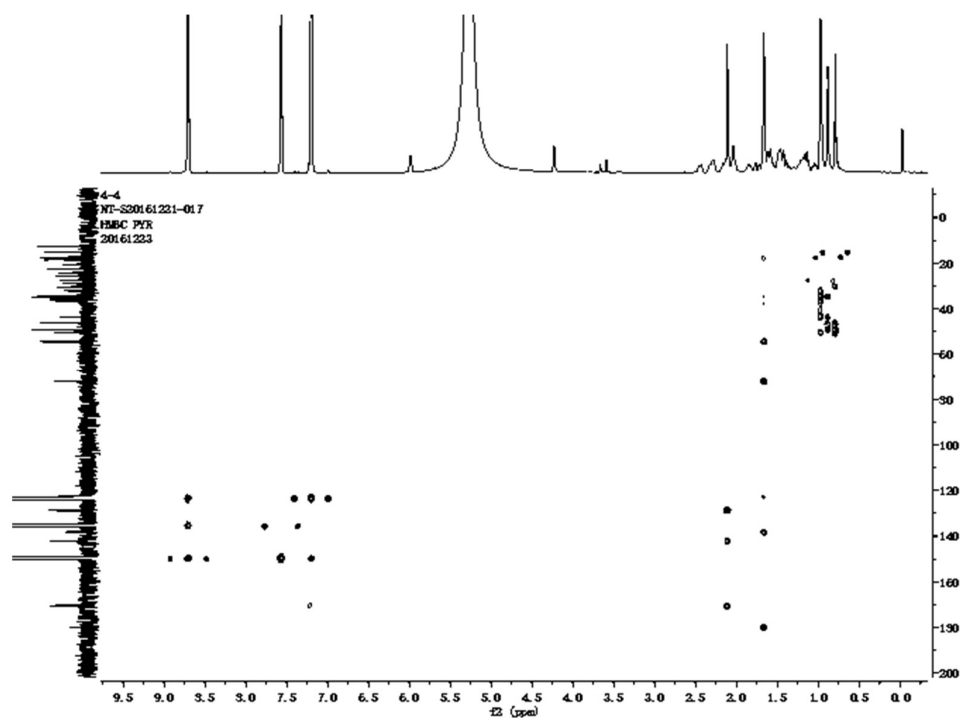


Figure S38. HMBC spectrum of compound 5

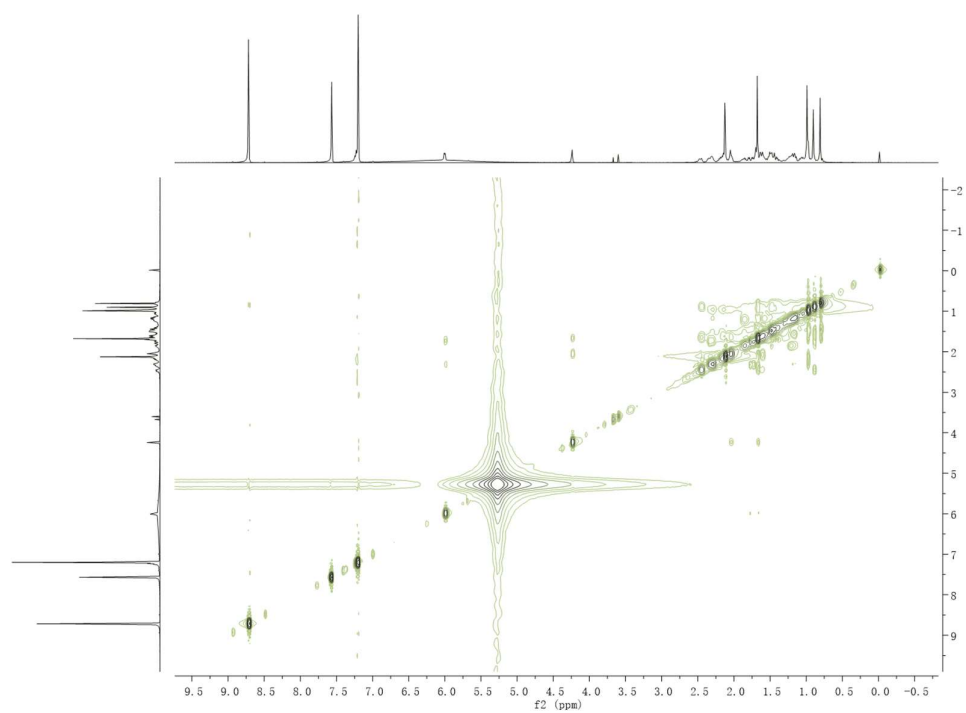


Figure S39. NOESY spectrum of compound **5**

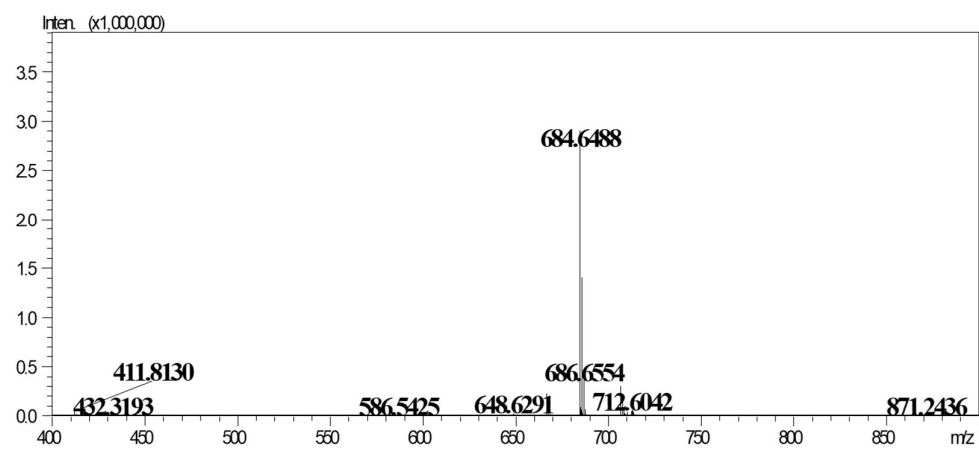


Figure S40. LC-IT-TOF-MS spectrum of compound **6** $[M+H]^+$

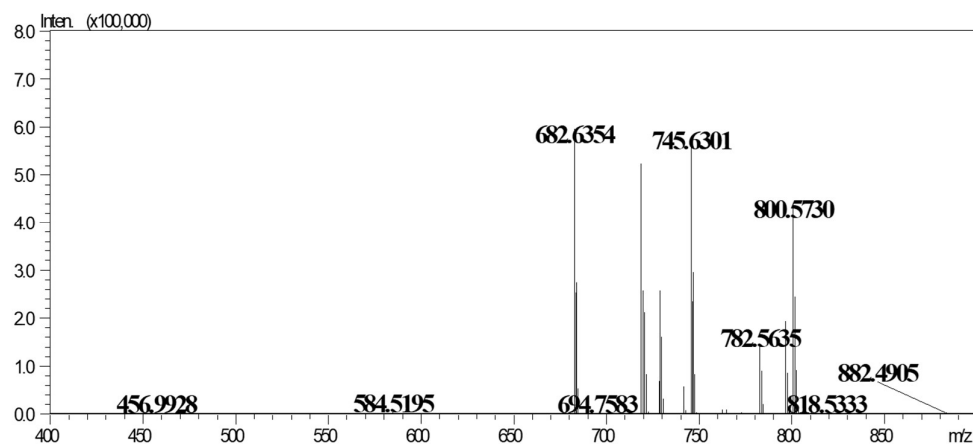


Figure S41. LC-IT-TOF-MS spectrum of compound 6 [M-H]⁻

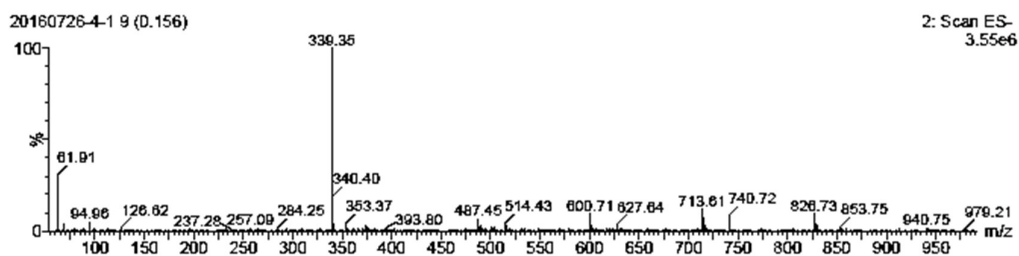


Figure S42. ESI-MS spectrum of compound 6

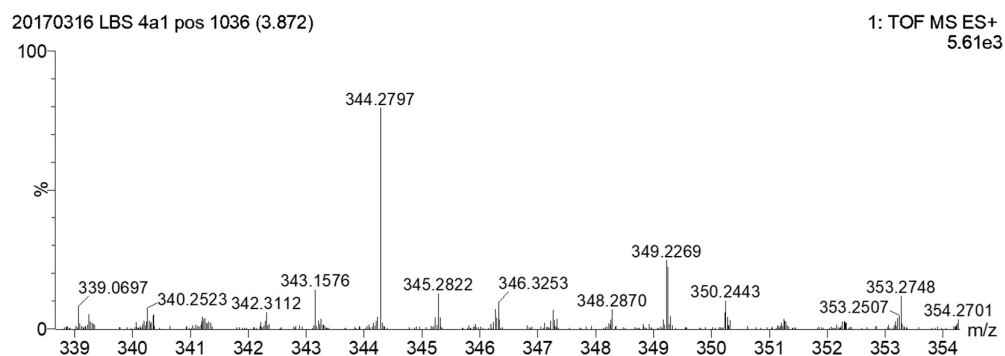


Figure S43. HR-ESI-MS spectrum of compound 6

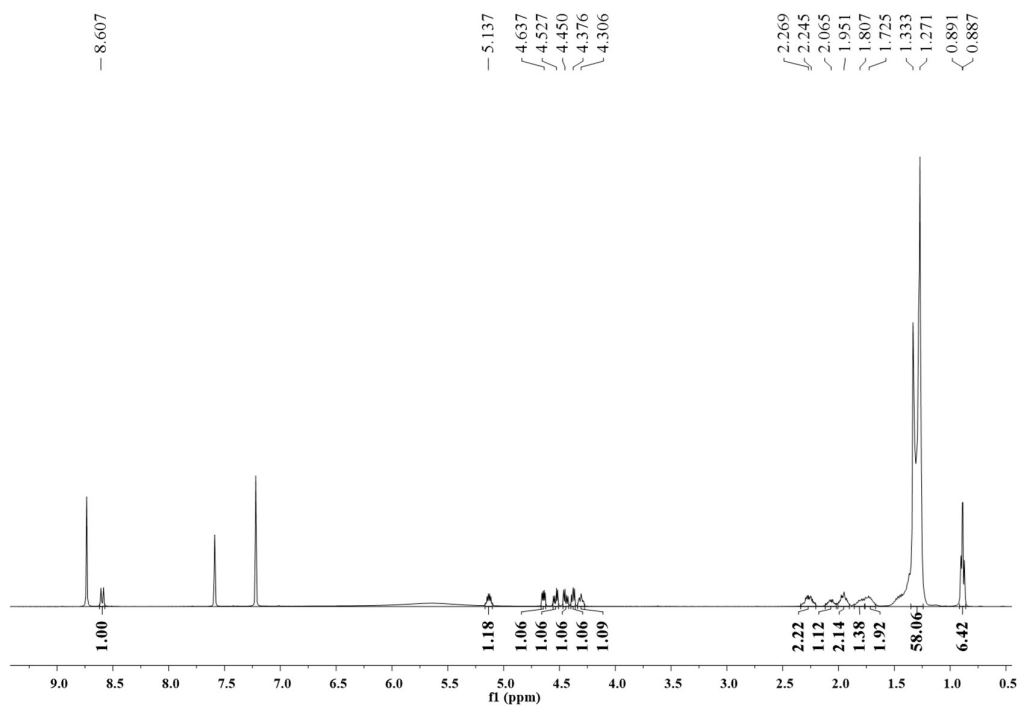


Figure S44. ¹H-NMR spectrum of compound 6

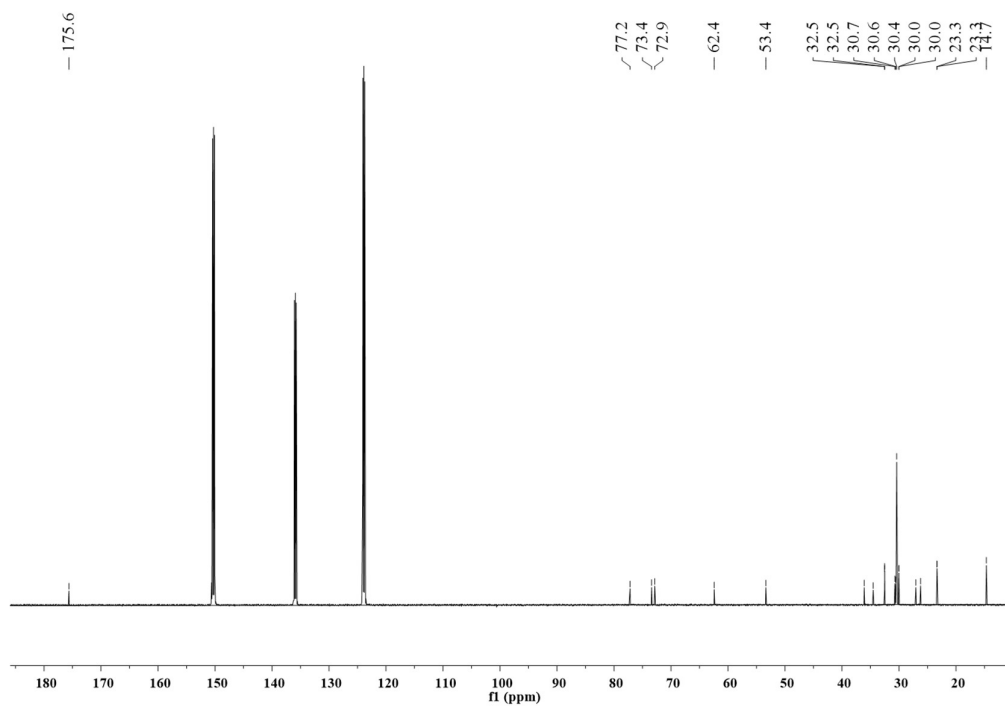


Figure S45. ¹³C-NMR spectrum of compound 6

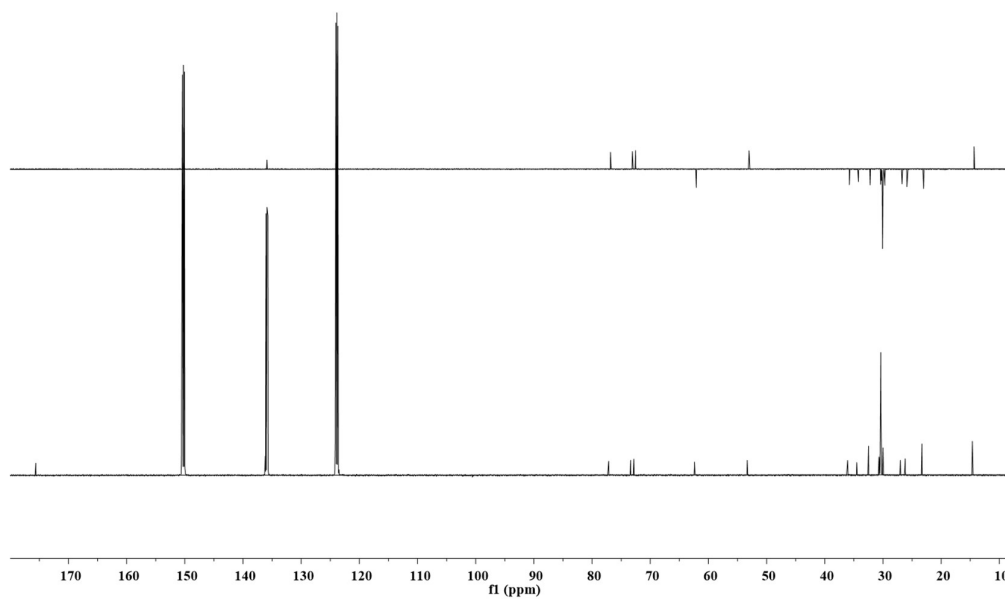


Figure S46. DEPT-135 spectrum of compound **6**

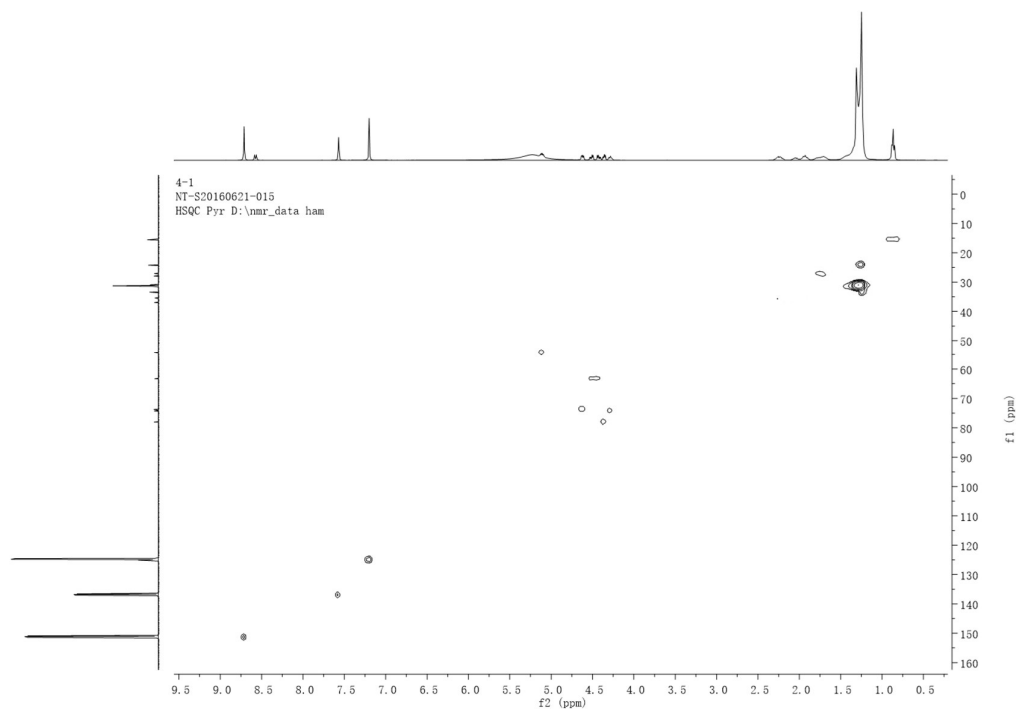


Figure S47. HSQC spectrum of compound **6**

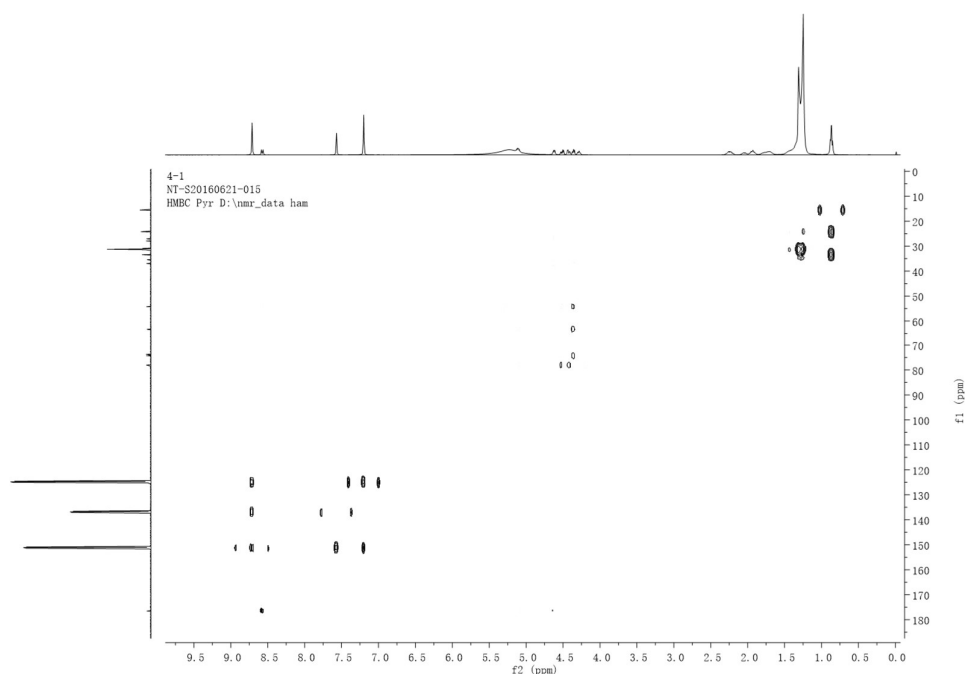


Figure S48. HMBC spectrum of compound **6**

Table 1. Identification of 15 isolates of 95% ethanol extract from the *R. vinosa* in positive ion mode.

No.	Compound	Calculated Value	Measured Value	Error (ppm)	Retention Time	Response Value
1	vinosane	251.1642	251.1642	0	3.34	34,512
2	rulepidadione C	251.1642	251.1634	-3	13.15	220,742
3	(24 <i>E</i>)-3, 4-seco-cucurbita-4, 24-diene-26, 29-dioic acid-3-methyl ester	517.3524	517.3518	-1	25.91	22,767
4	(24 <i>E</i>)-3, 4-seco-cucurbita-4, 24-diene-26-oic acid-3-ethyl ester	501.3938	501.3921	-3	31.26	104,871
5	(24 <i>E</i>)-3 β -hydroxycucurbita-5, 24-diene-26, 29-dioic acid (2 <i>S</i> , 3 <i>S</i> , 4 <i>R</i> , 2' <i>R</i>)-2-(2'-hydroxydocosanoylamino) eicosane-1, 3, 4-triol	487.3418	487.3414	-1	22.5	232,364
6	(24 <i>E</i>)-3, 4-secocucurbita-4, 24-diene-3, 26, 29-trioic acid	503.3367	503.3377	2	24.54	26,112
7	(24 <i>E</i>)-3, 4-secocucurbita-4, 24-diene-3, 26-dioic acid	473.3625	473.3621	-1	28.4	32,493
8	(24 <i>E</i>)-3 β -hydroxycucurbita-5, 24-diene-26-oic acid	457.3676	457.3672	-1	28.92	97,362
9	rosacea acid B	457.3676	457.3665	-2	28.1	53,392
10	rosacea acid A	473.3625	473.3599	-5	32.13	91,186
11	7 α , 8 α , 13-trihydroxy-marasm-5-oic acid γ -lactone	267.1597	267.1591	-2	10.29	49,460
12	aristolone	219.1743	219.1739	-2	15.42	1,258,191
13	7, 8-dimethylalloxazine	243.0877	243.0872	-2	4.61	424,705
14	L-pyroglutamic acid	130.0499	130.0492	-5	0.69	25,781
15						

Table 2. Identification of 15 isolates of 95% ethanol extract from the *R. vinosa* in negative ion mode.

No.	Compound	Calculated Value	Measured Value	Error (ppm)	Retention Time	Response Value
1	vinosane	249.1491	249.1491	0	3.35	11,148
2	rulepidadione C	249.1491	249.1491	0	13.15	35,665
3	(24E)-3, 4-seco-cucurbita-4, 24-diene-26, 29-dioic acid-3-methyl ester	515.3378	515.3376	-0	25.62	2,081,276
4	(24E)-3, 4-seco-cucurbita-4, 24-diene-26-oic acid-3-ethyl ester	499.3793	499.3797	1	31.27	2,701,378
5	(24E)-3 β -hydroxycucurbita-5, 24-diene-26, 29-dioic acid	485.3272	485.3269	-1	22.51	237,837
6	(2S, 3S, 4R, 2'R)-2-(2'-hydroxydocosanoylamino) eicosane-1, 3, 4-triol	682.6355	682.6367	2	31.75	11,754
7	(24E)-3, 4-secocucurbita-4, 24-diene-3, 26, 29-trioic acid	501.3222	501.3223	0	24.29	175,827
8	(24E)-3, 4-secocucurbita-4, 24-diene-3, 26-dioic acid	471.3480	471.3481	0	28.4	4,757,652
9	(24E)-3 β -hydroxycucurbita-5, 24-diene-26-oic acid	455.3536	455.3525	-2	29.07	2,466,945
10	rosacea acid B	455.3536	455.3531	-1	28.25	3,001,109
11	rosacea acid A	471.3480	471.3481	0	32.33	7508
12	7 α , 8 α , 13-trihydroxy-marasm-5-oic acid γ -lactone	265.1445	265.1443	-1	10.3	44,953
13	aristolone	217.1598	217.1590	-4	15.42	7760
14	7, 8-dimethylalloxazine	241.0731	241.0727	-1	4.61	72,213
15	L-pyroglutamic acid	128.0353	128.0349	-3	0.82	214,720