

Supporting Information

Swietemicrolides A–D, mexicanolide-type limonoids from the bark of *Swietenia microphylla* with *in vitro* cytotoxic and α -glucosidase inhibitory activities

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Table S1. ¹H (500 MHz) and ¹³C (125 MHz) NMR data for swimahogin A (5) in acetone-*d*₆

No.	δ_{H} (<i>J</i> in Hz)	δ_{C}
1	7.06 d (10.5)	154.9
2	5.86 d (10.5)	125.8
3	-	203.0
4	-	46.9
5	2.64 dd (6.1, 3.1)	45.6
6	H _a : 2.58 dd (17.0, 6.2) H _b : 2.42 dd (17.0, 3.1)	33.1
7	-	175.6
8	-	93.5
9	1.81 m	52.5
10	-	45.0
11	1.56 m	22.3
12	1.51 m; 1.30 m	34.5
13	-	43.0
14	-	87.3
15	2.95 d (16.8); 2.30 d (16.8)	43.2
16	-	174.5
17	5.47 m	71.4
18	1.08 s	17.8
19	1.41 s	20.2
20	-	126.6
21	7.57 brs	142.0
22	6.49 brs	111.3
23	7.51 t (1.4)	143.8
28	1.00 s	24.0
29	1.11 s	23.3
30	1.90 s	16.7
7-OCH ₃	3.67 s	52.8
14-OH	6.77 dd (5.2, 2.3)	
17-OH	5.65 t (3.2)	

Table S2. ^1H (500 MHz) and ^{13}C (125 MHz) NMR data for β -sitosterol-3-*O*- β -D-glucopyranoside (6) in pyridine- d_5

No.	δ_{H} (<i>J</i> in Hz)	δ_{C}
1		38.0
2		30.8
3	4.00 m	78.7
4		39.9
5		141.5
6	5.38 m	122.4
7		32.7
8		32.6
9		50.9
10		37.5
11		21.8
12		40.5
13		43.0
14		57.4
15		25.0
16		29.1
17		56.8
18	0.69 s	12.5
19	0.96 s	19.8
20		36.9
21	1.01 d (6.5)	19.6
22		34.8
23		27.0
24		46.6
25		30.0
26	0.93 d (7.4)	19.9
27	0.89 d (6.9)	20.5

28		24.0
29	0.91 t (6.9)	12.7
1'	5.08 d (7.8)	103.1
2'	4.08 t (8.2)	75.9
3'	4.31 m	79.1
4'	4.31 m	72.3
5'	4.00 m	79.0
6'	H _a : 4.59 dd (11.8, 2.5) H _b : 4.44 dd (11.8, 5.3)	63.4

Table S3. ^1H (500 MHz) and ^{13}C (125 MHz) NMR data for homovanillyl alcohol (7) in acetone- d_6

No.	δ_{H} (J in Hz)	δ_{C}
1		145.8
2		148.3
3	6.83 d (1.4)	113.5
4		131.8
5	6.62 dd (8.0 và 1.5)	122.3
6	6.72 d (8.0)	115.6
1'	2.71 t (7.1)	40.0
2'	3.69 m	64.3
2-OCH ₃	3.82 s	56.3
1-OH	7.29 s	
2'-OH	3.58 t (5.5)	

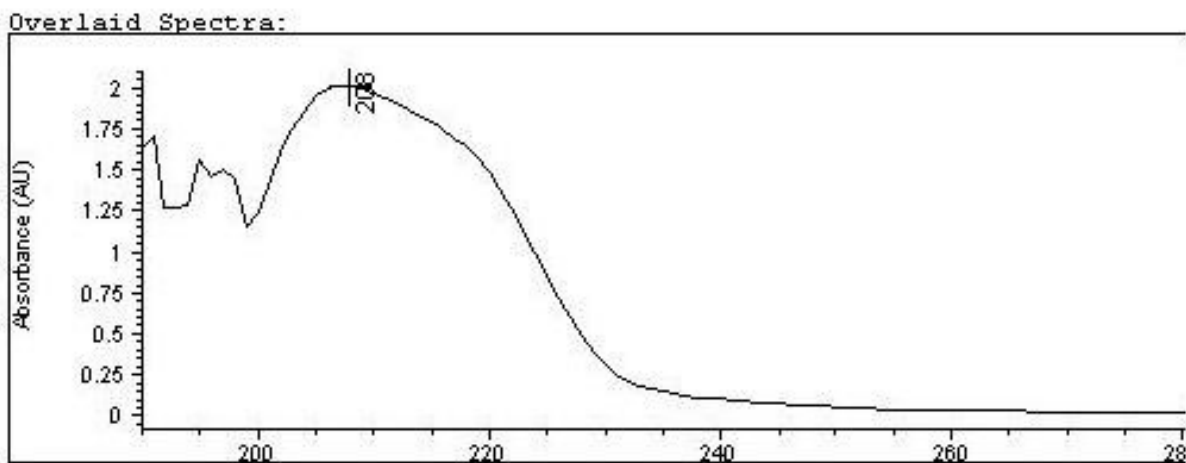


Figure S1. UV spectrum of swetemicrolide A (1)

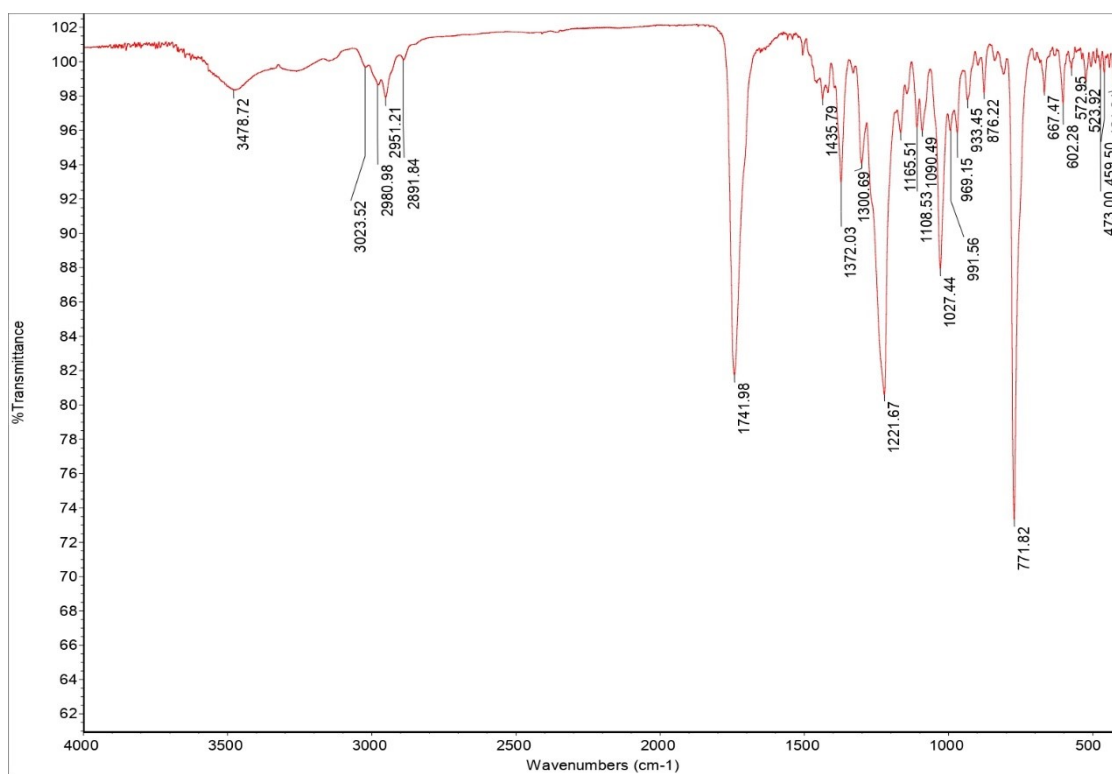


Figure S2. IR spectrum of swetemicrolide A (1)

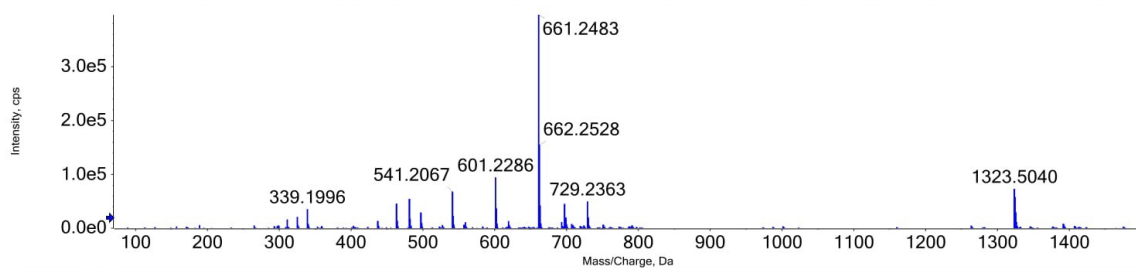


Figure S3. HRESIMS spectrum of swetemicrolide A (1)

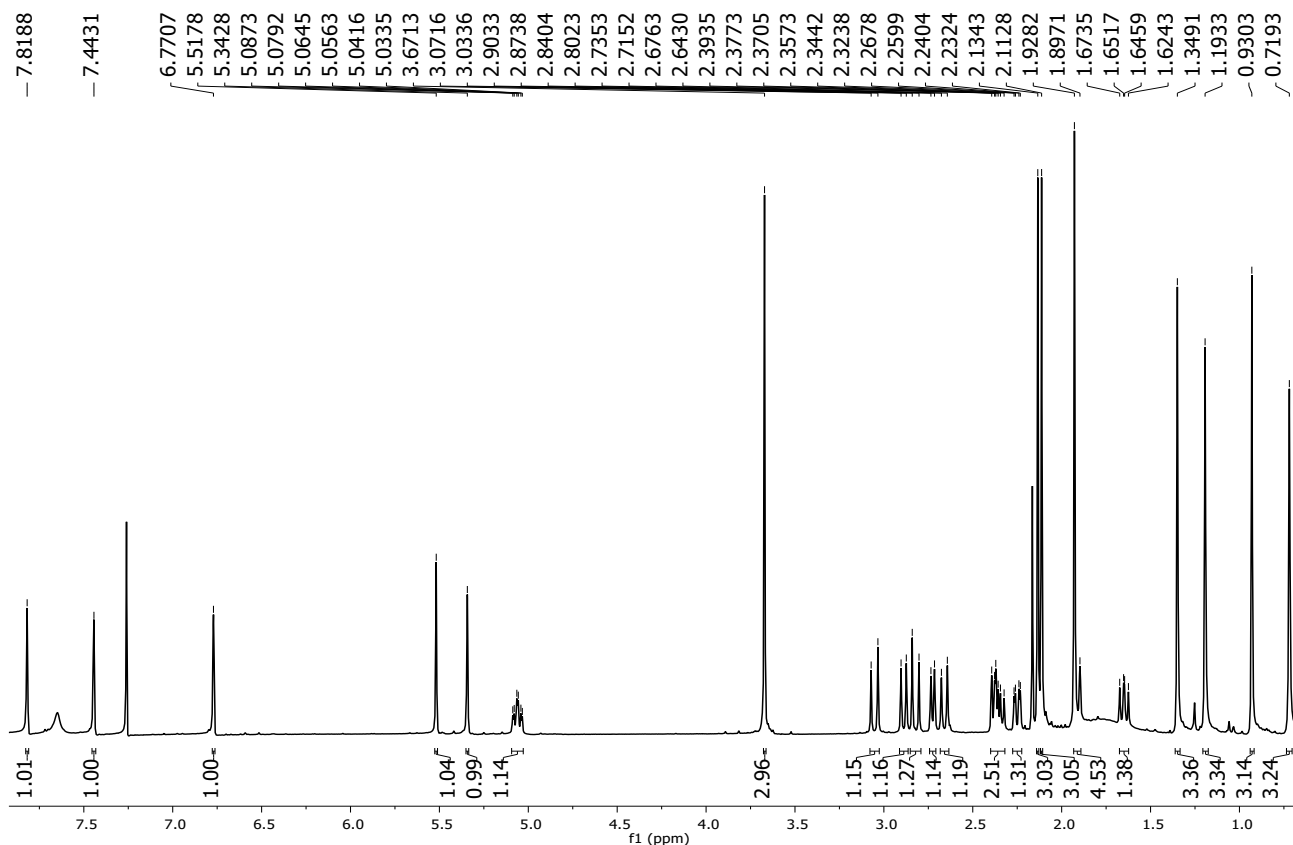


Figure S4. ^1H NMR spectrum of swetemicrolide A (**1**) in CDCl_3 (500MHz)

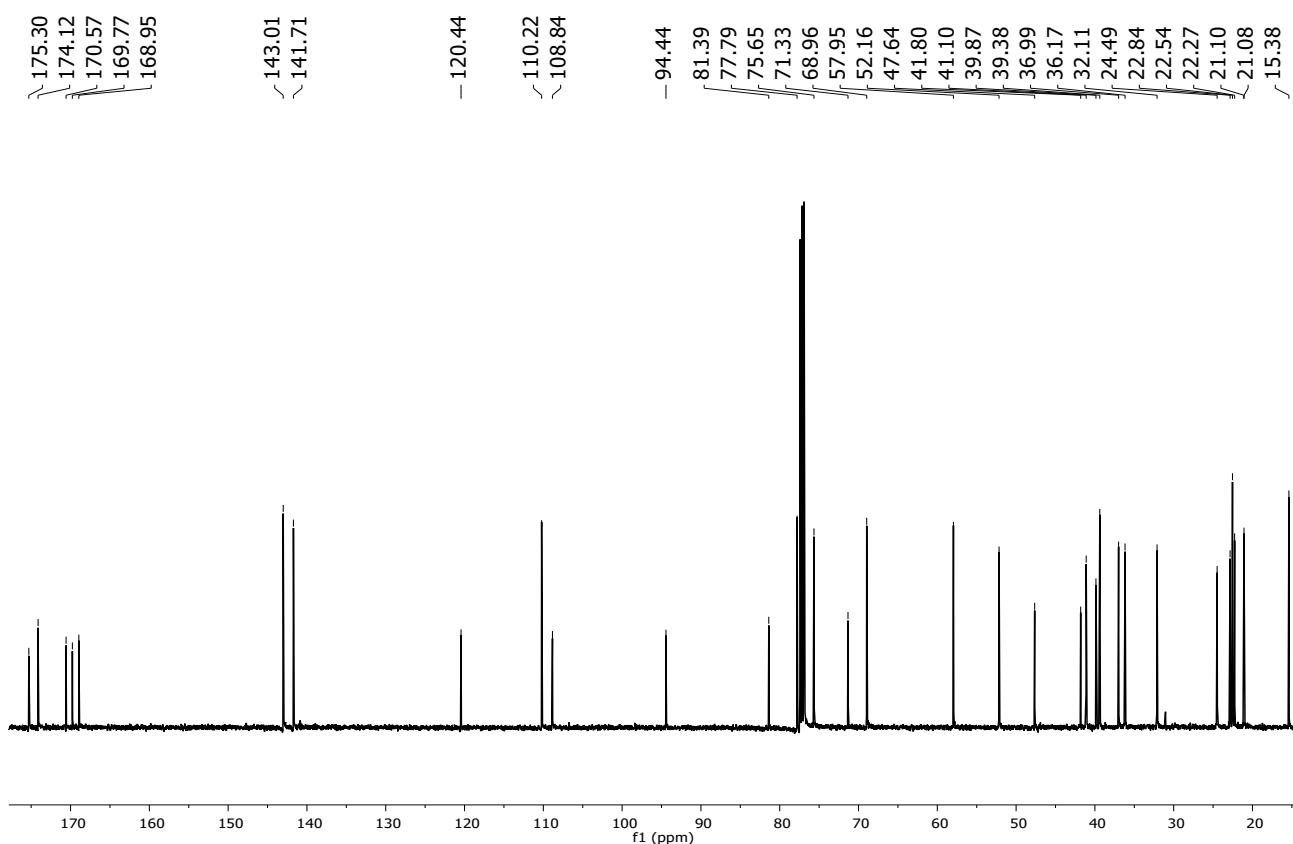


Figure S5. ^{13}C NMR spectrum of swetemicrolide A (**1**) in CDCl_3 (125MHz)

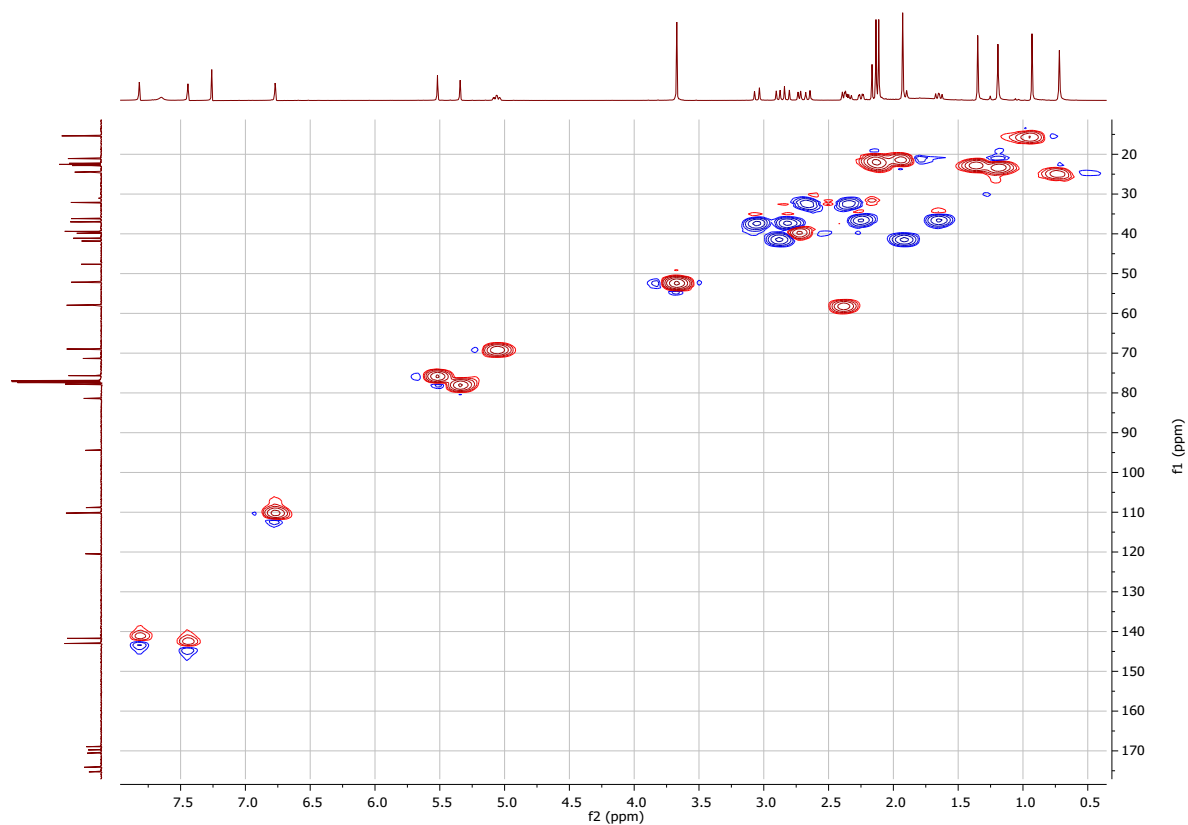


Figure S6. HMBC spectrum of swetemicrolide A (**1**) in CDCl_3

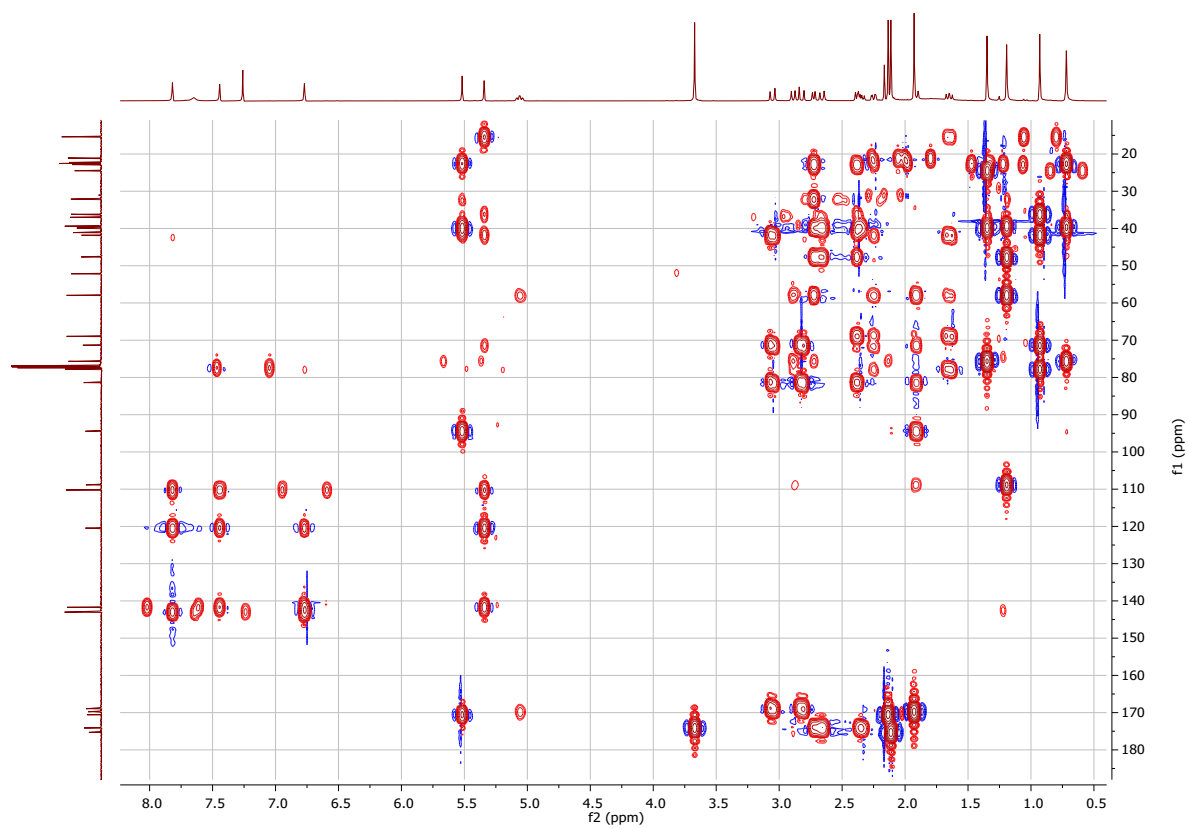


Figure S7. HMBC spectrum of swetemicrolide A (**1**) in CDCl_3

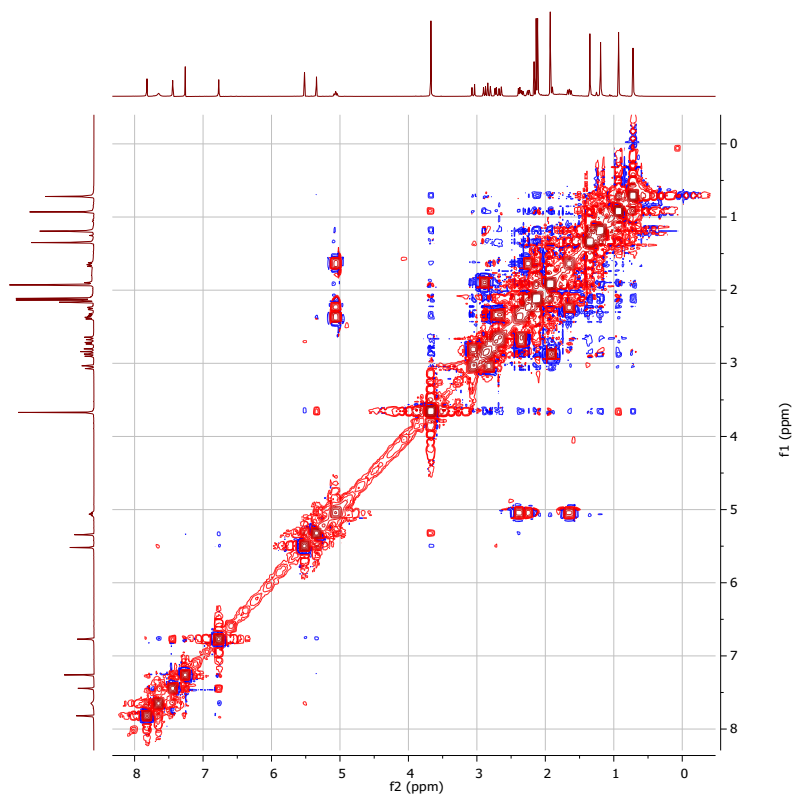


Figure S8. $^1\text{H} - ^1\text{H}$ COSY spectrum of swetemicrolide A (**1**) in CDCl_3

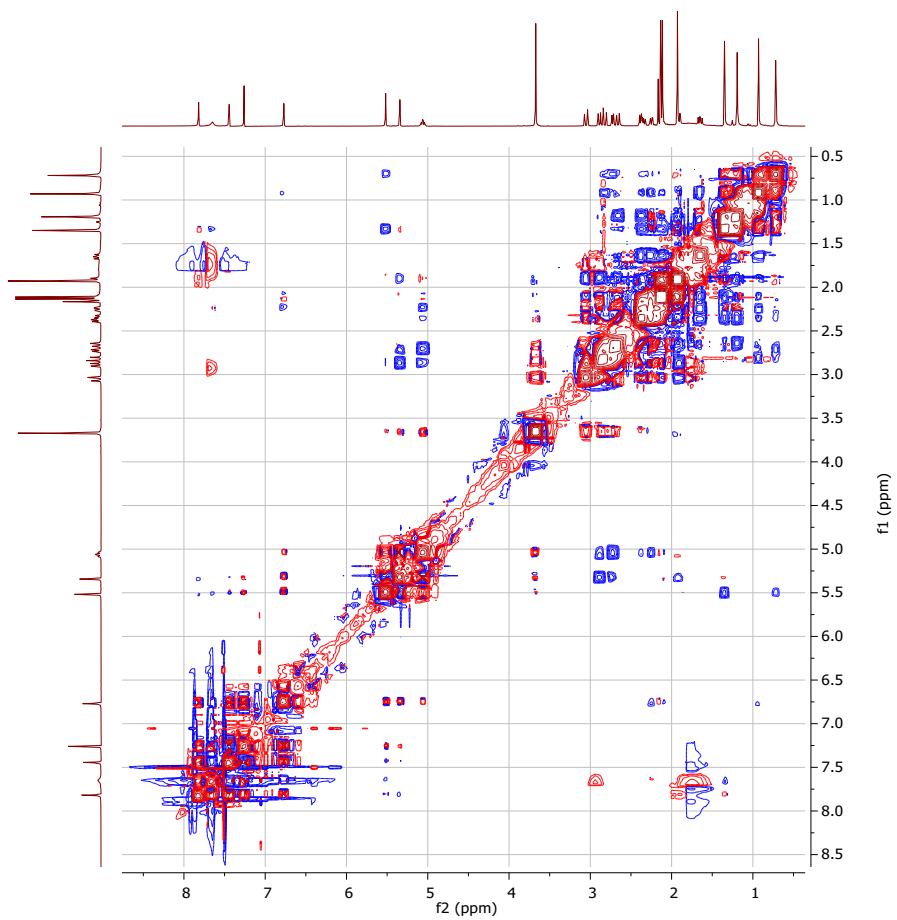


Figure S9. NOESY spectrum of swetemicrolide A (**1**) in CDCl_3

Overlaid Spectra:

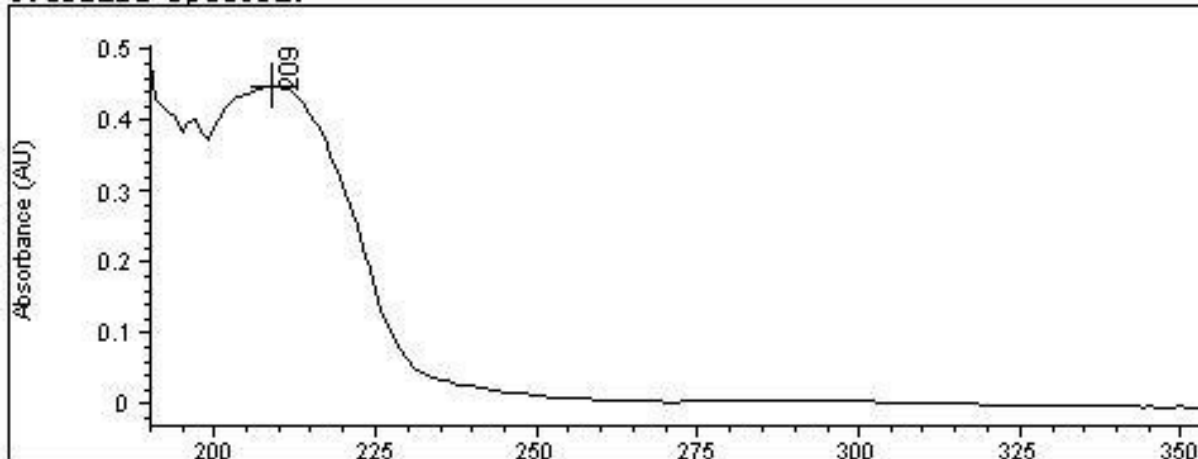


Figure S10. UV spectrum of swetemicrolide B (2).

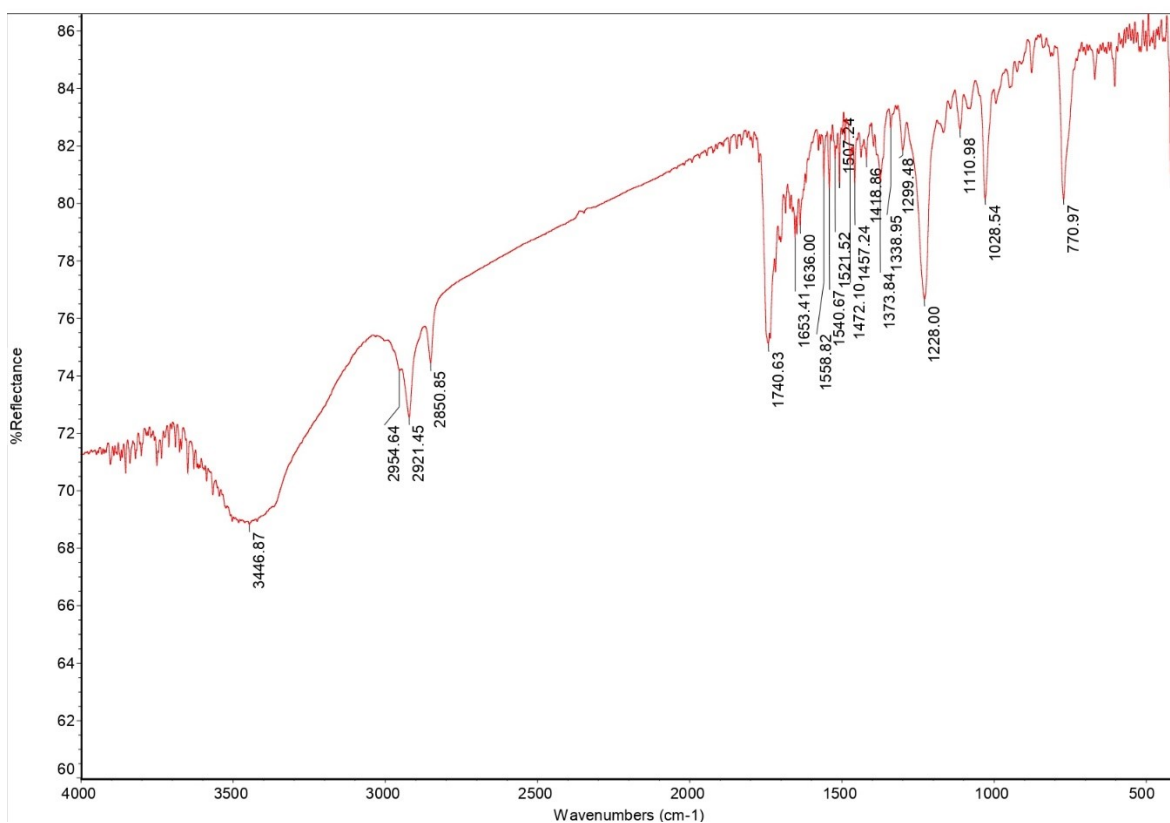


Figure S11. IR spectrum of swetemicrolide B (2).

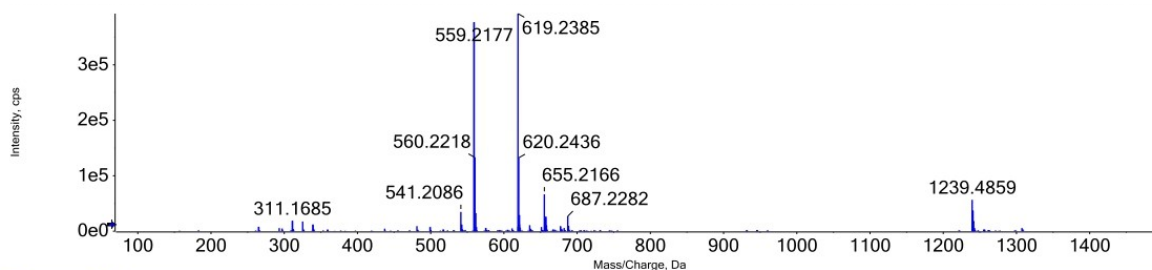


Figure S12. HRESIMS spectrum of swetemicrolide B (2).

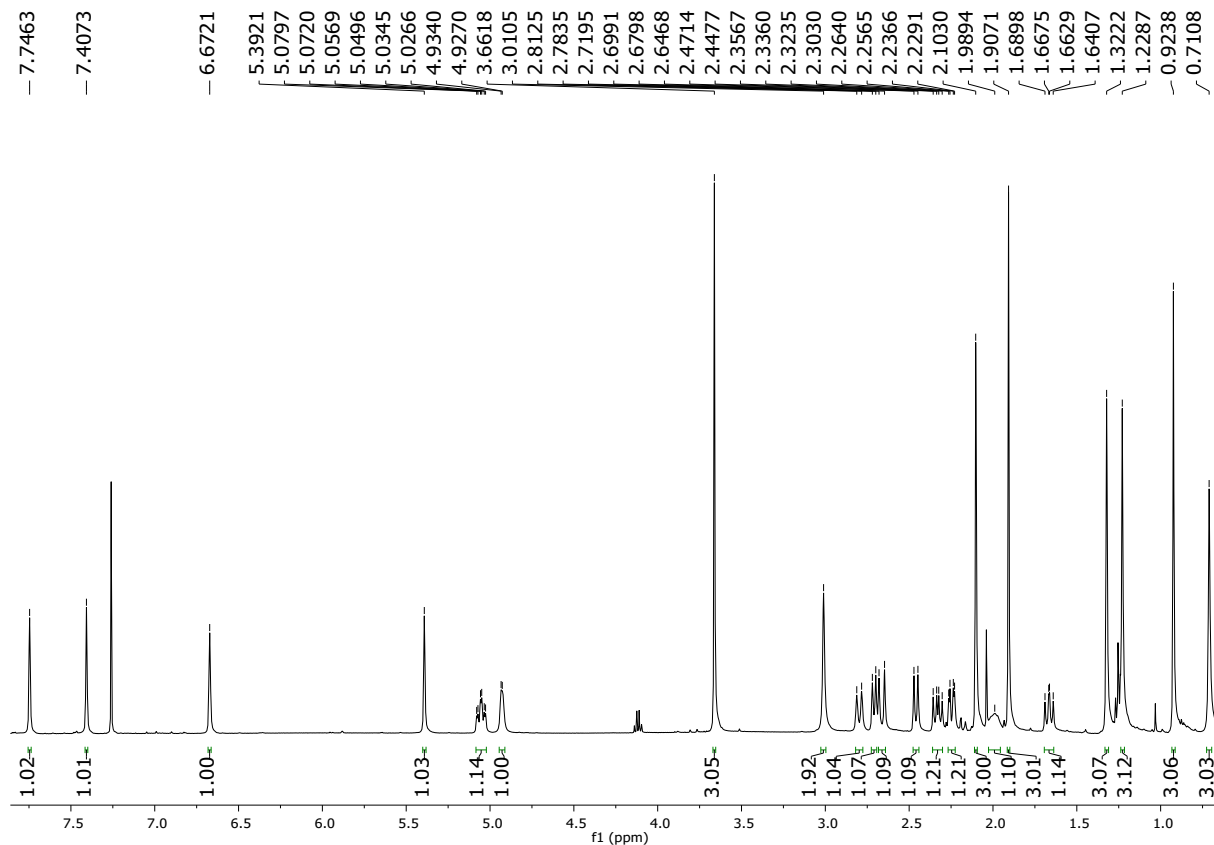


Figure S13. ^1H NMR spectrum of swetemicrolide B (**2**) in CDCl_3 (500MHz)

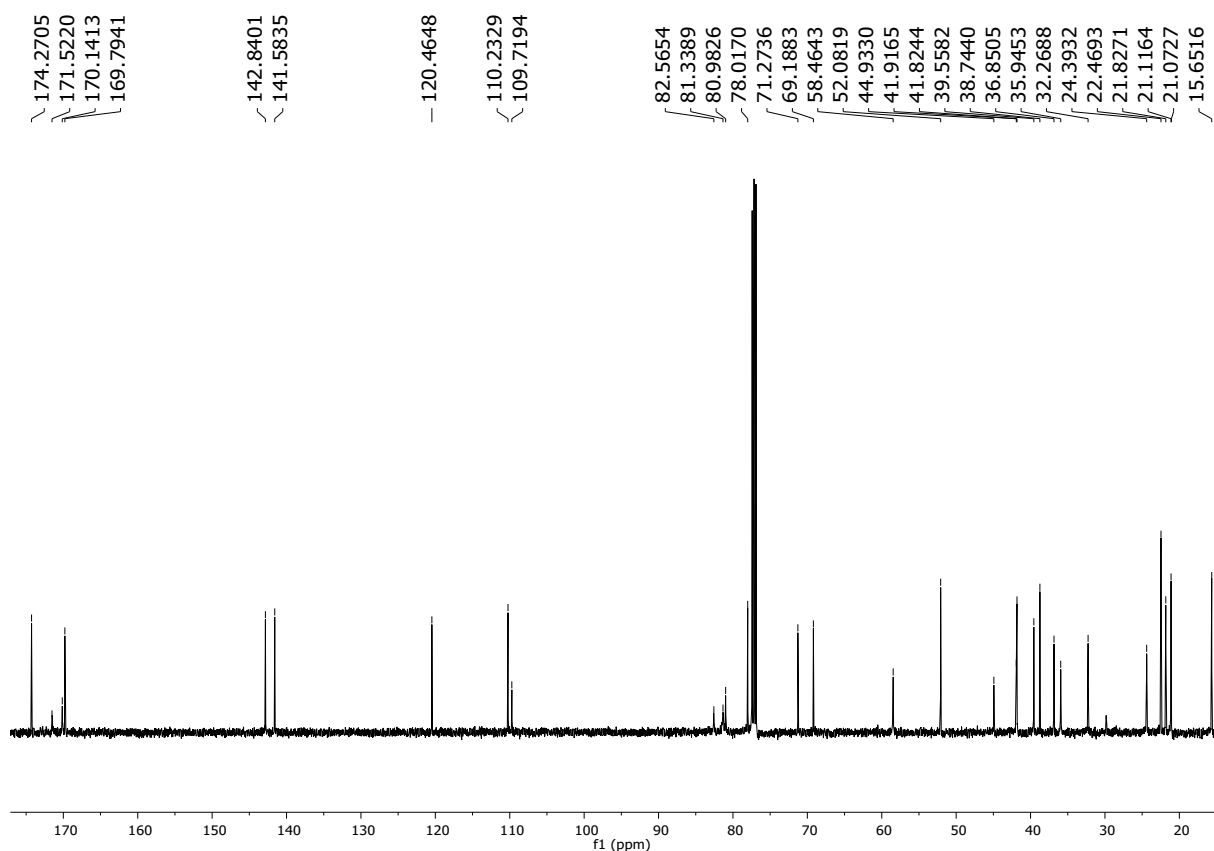


Figure S14. ^{13}C NMR spectrum of swetemicrolide B (**2**) in CDCl_3 (125MHz)

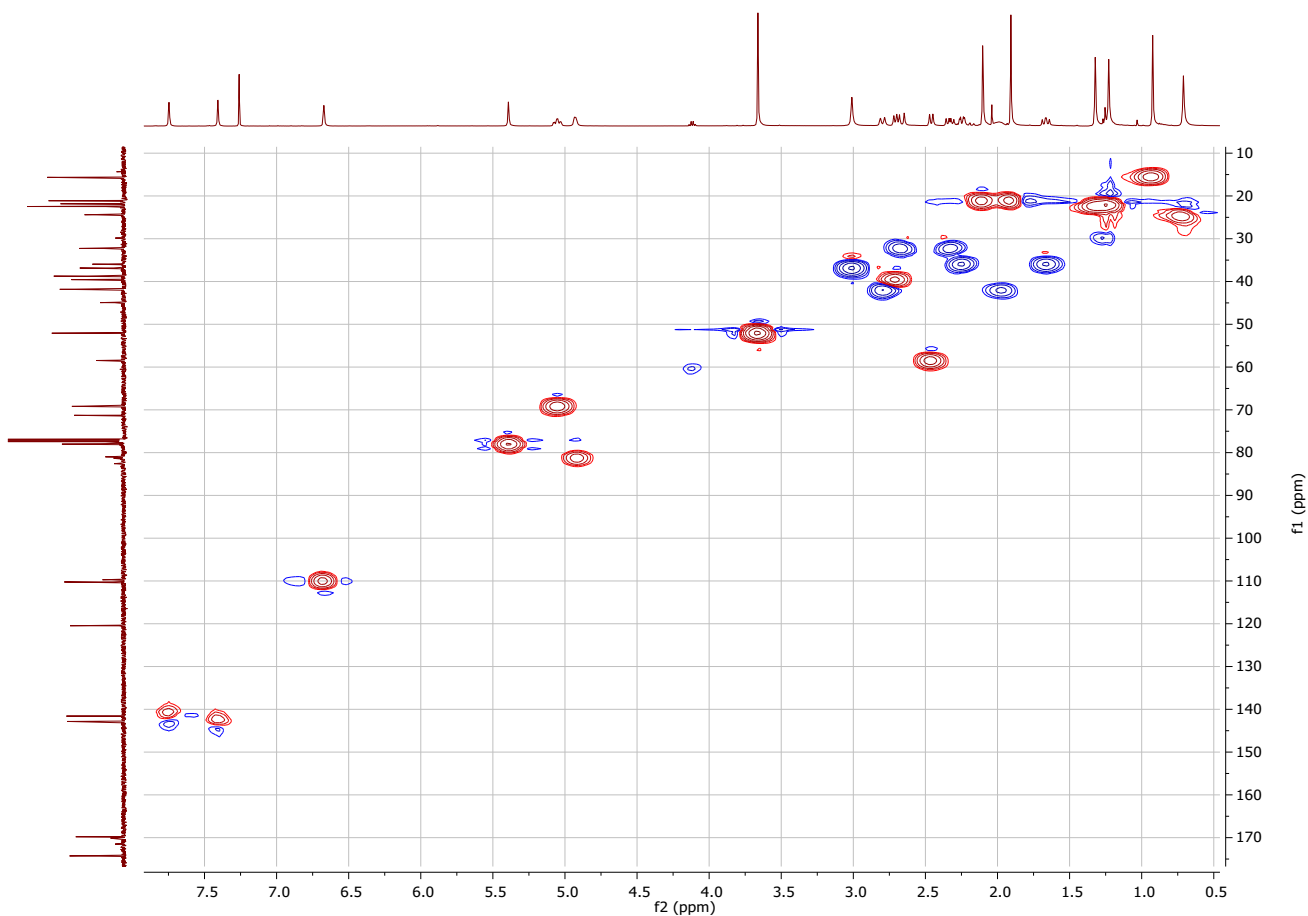


Figure S15. HSQC spectrum of swetemicrolide B (**2**) in CDCl_3

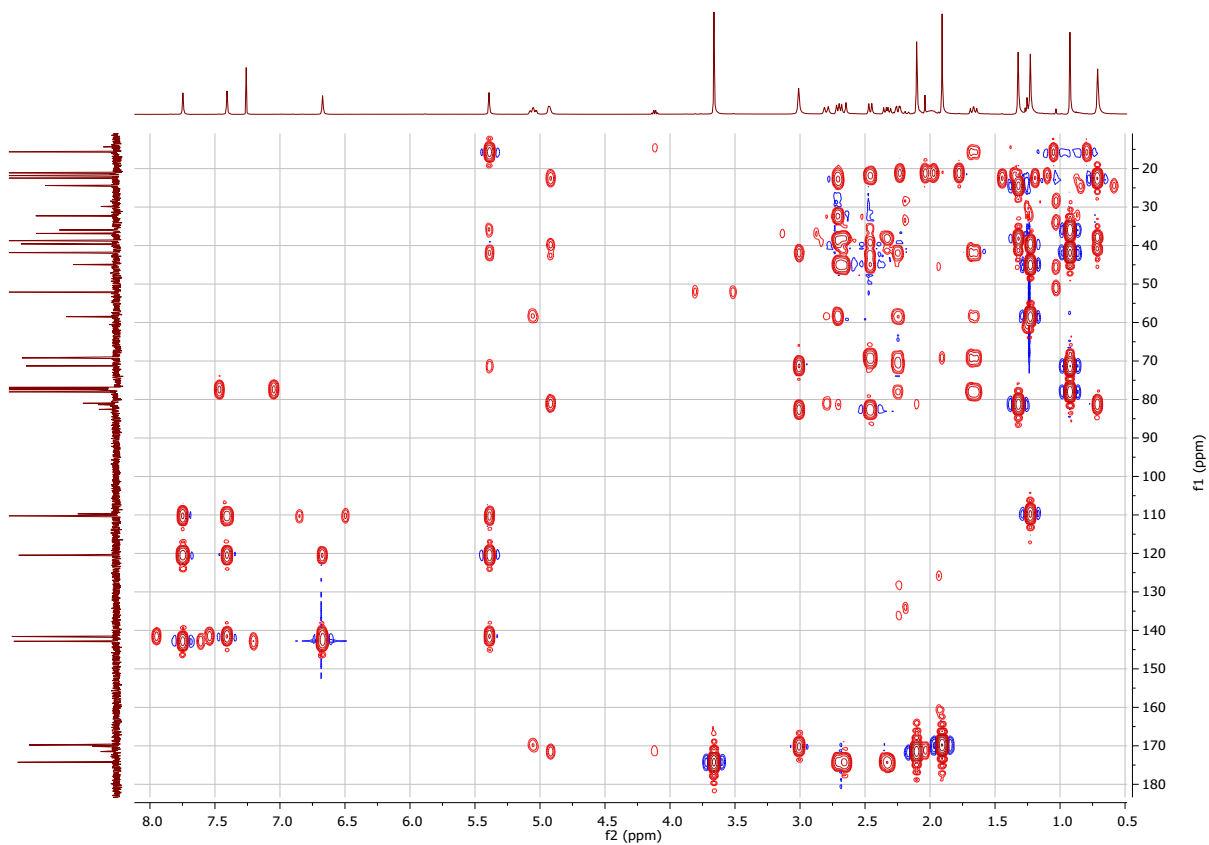


Figure S16. HMBC spectrum of swetemicrolide B (**2**) in CDCl_3

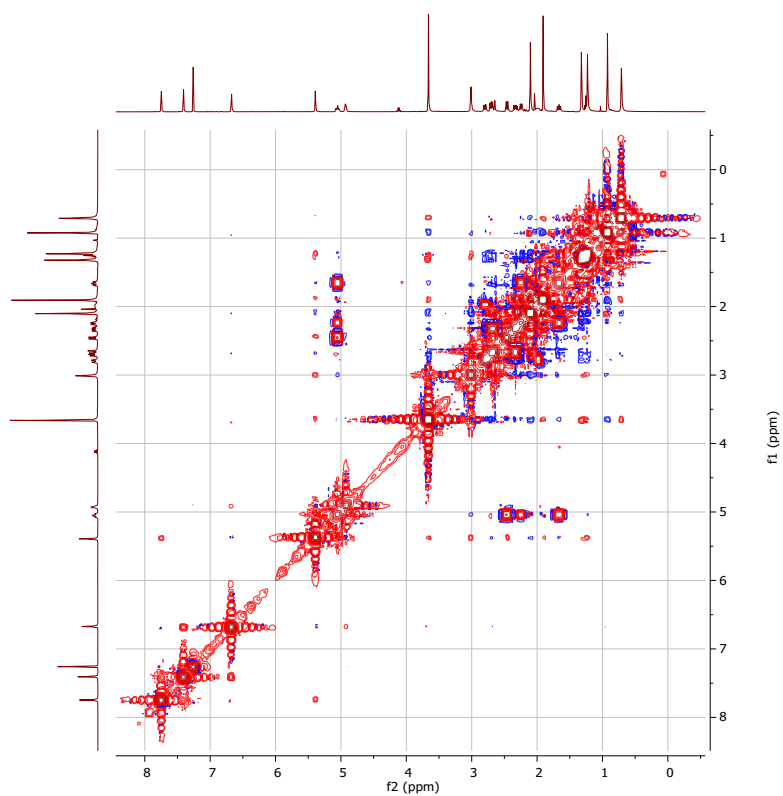


Figure S17. $^1\text{H} - ^1\text{H}$ COSY spectrum of swetemicrolide B (**2**) in CDCl_3

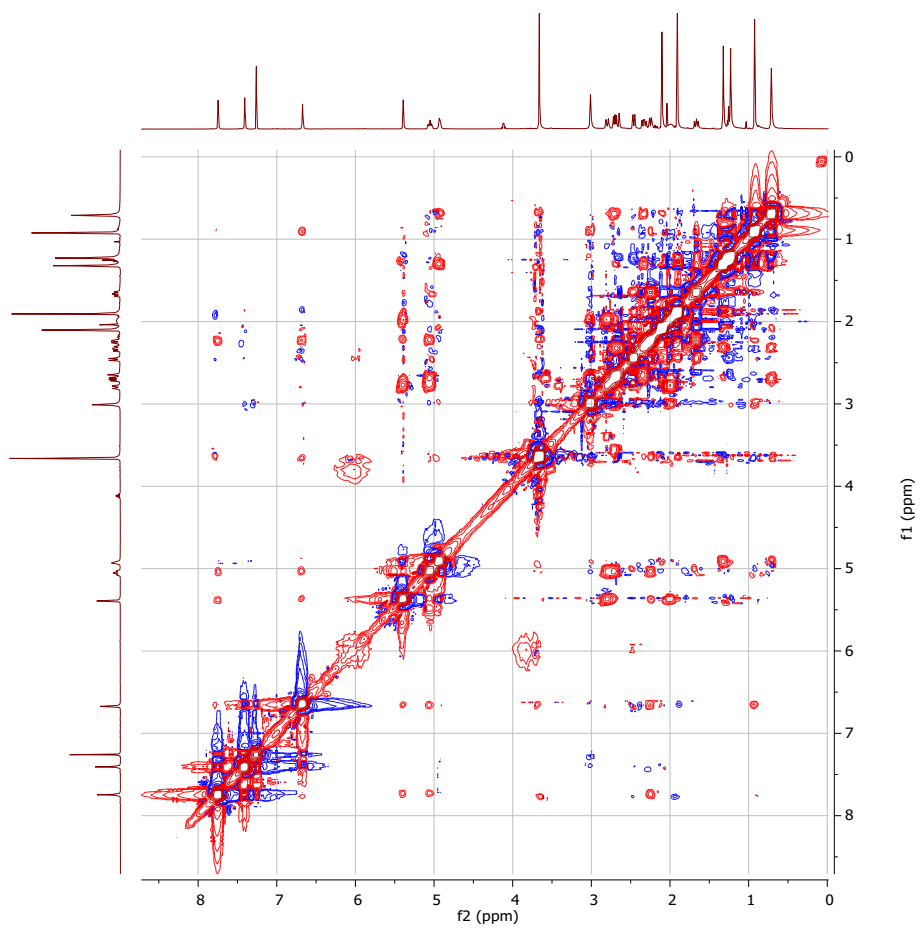


Figure S18. NOESY spectrum of swetemicrolide B (**2**) in CDCl_3

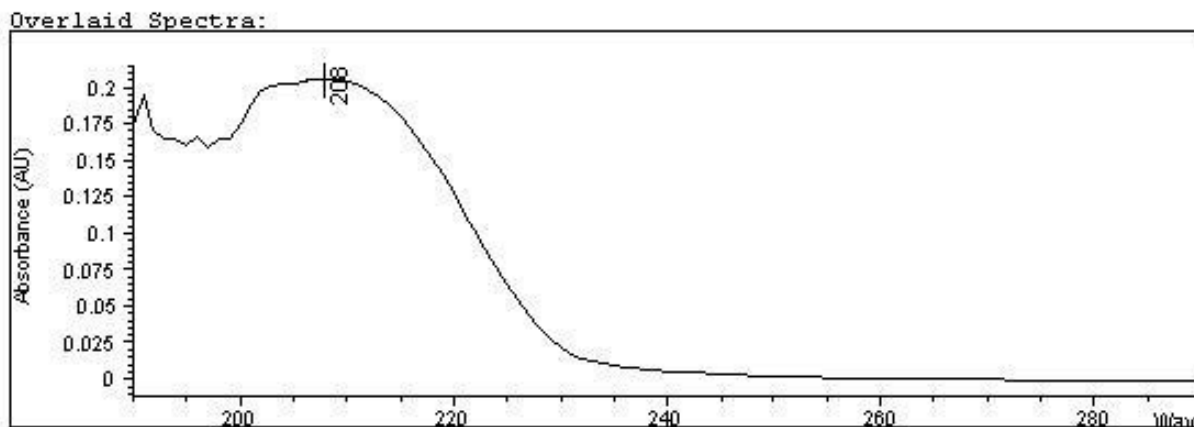


Figure S19. UV spectrum of swetemicrolide C (3).

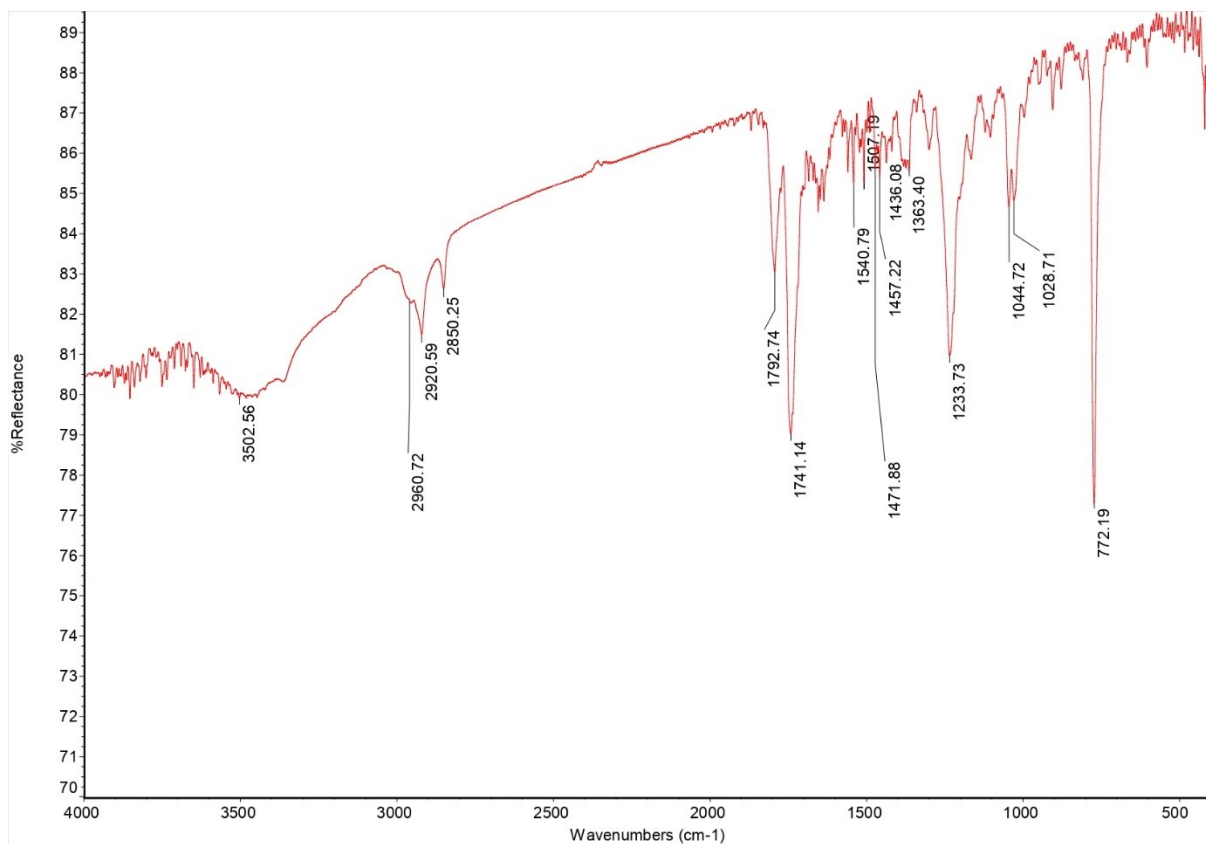


Figure S20. IR spectrum of swetemicrolide C (3).

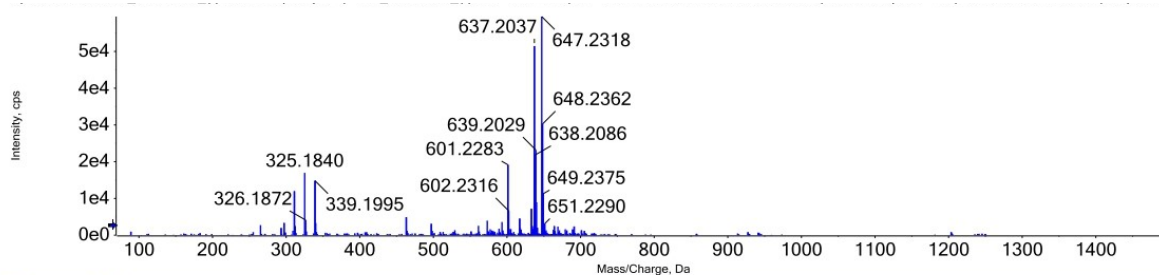


Figure S21. HRESIMS spectrum of swetemicrolide C (3).

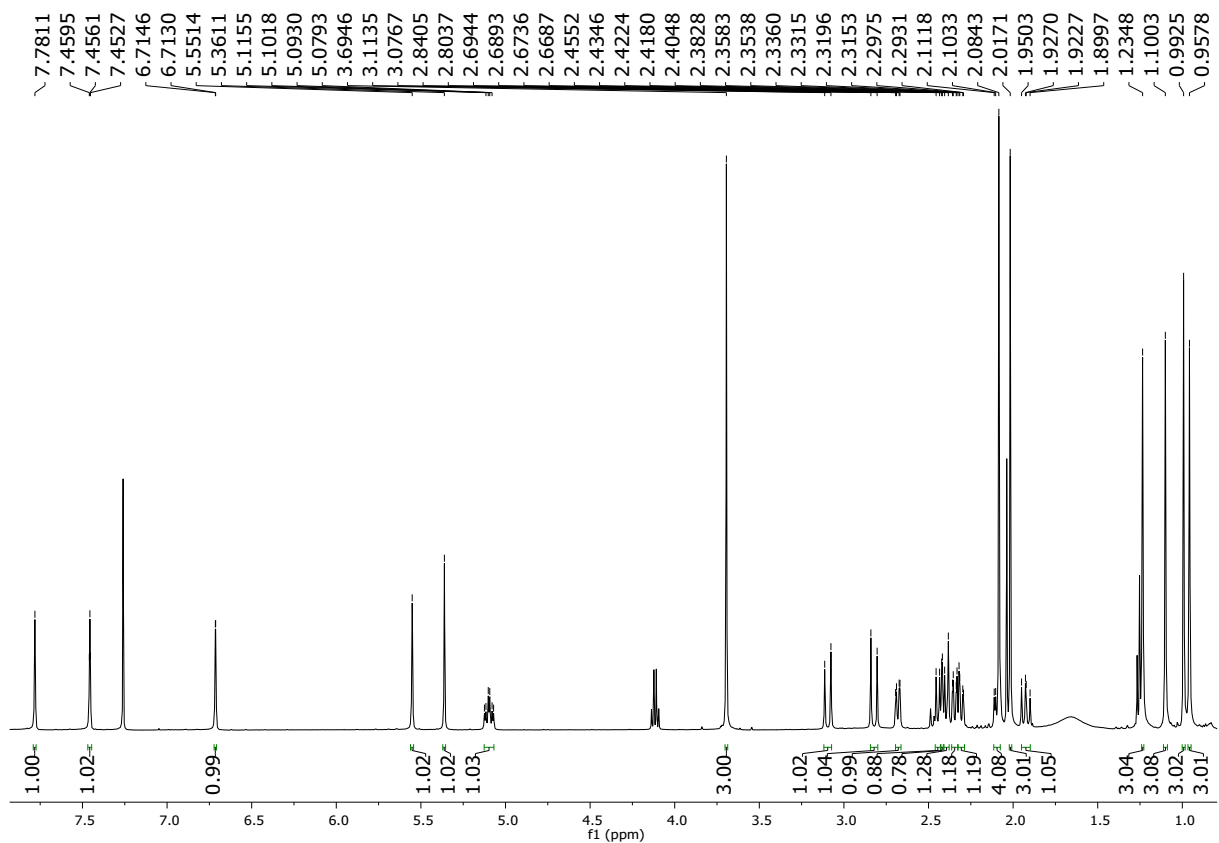


Figure S22. ^1H NMR spectrum of swetemicrolide C (**3**) in CDCl_3 (500MHz)

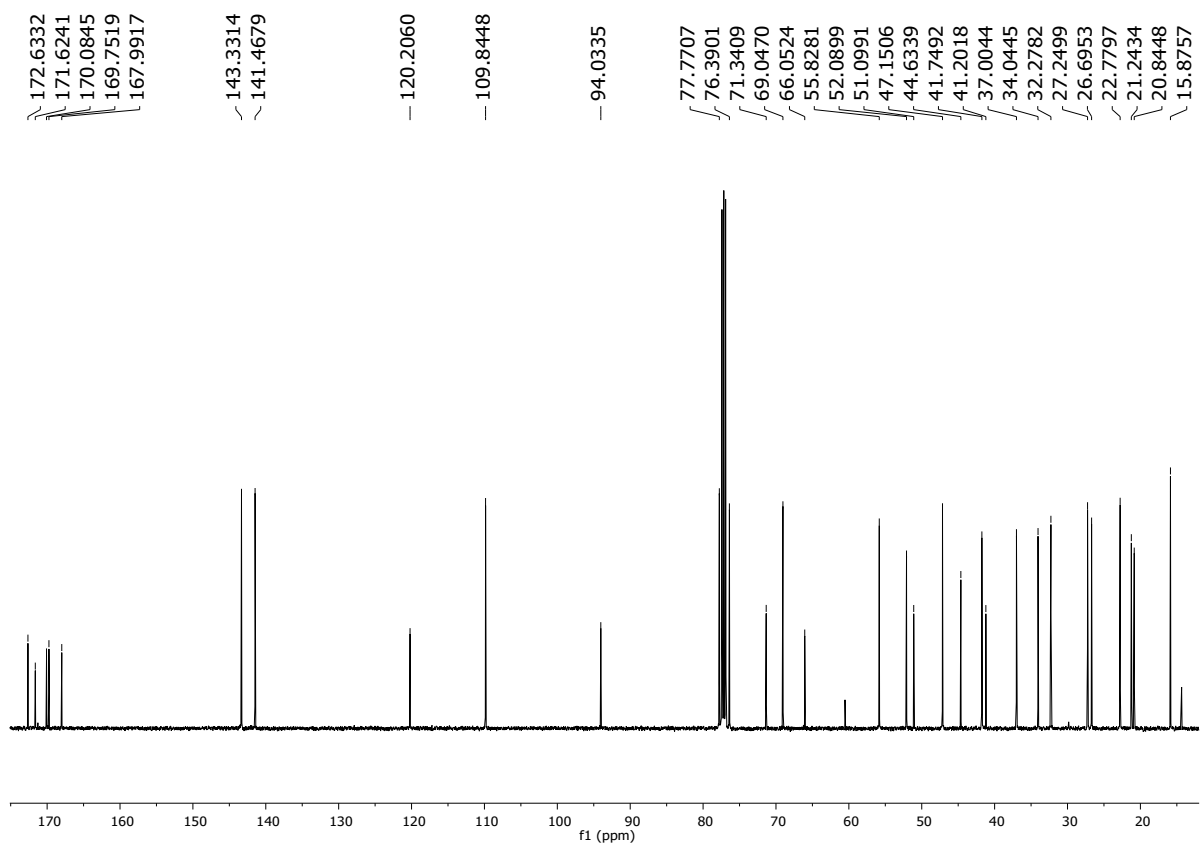


Figure S23. ^{13}C NMR spectrum of swetemicrolide C (**3**) in CDCl_3 (125MHz)

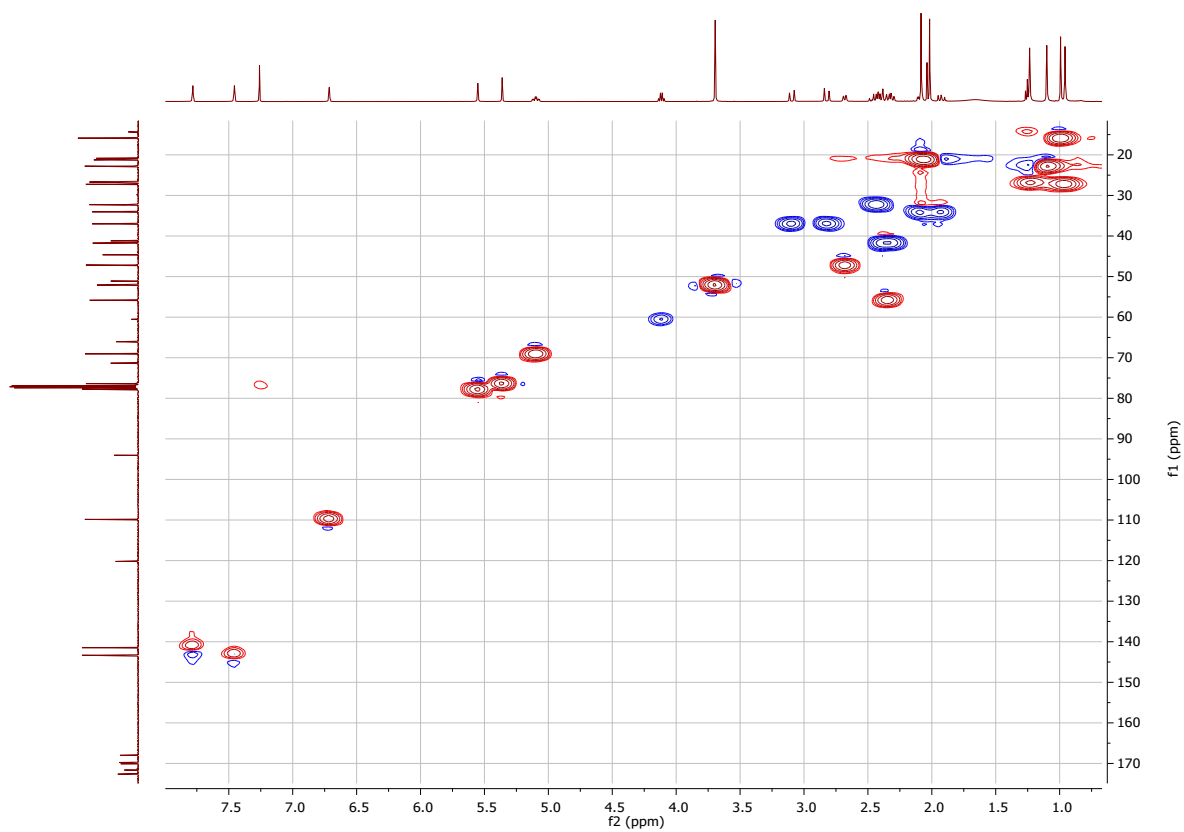


Figure S24. HSQC spectrum of swetemicrolide C (**3**) in CDCl_3

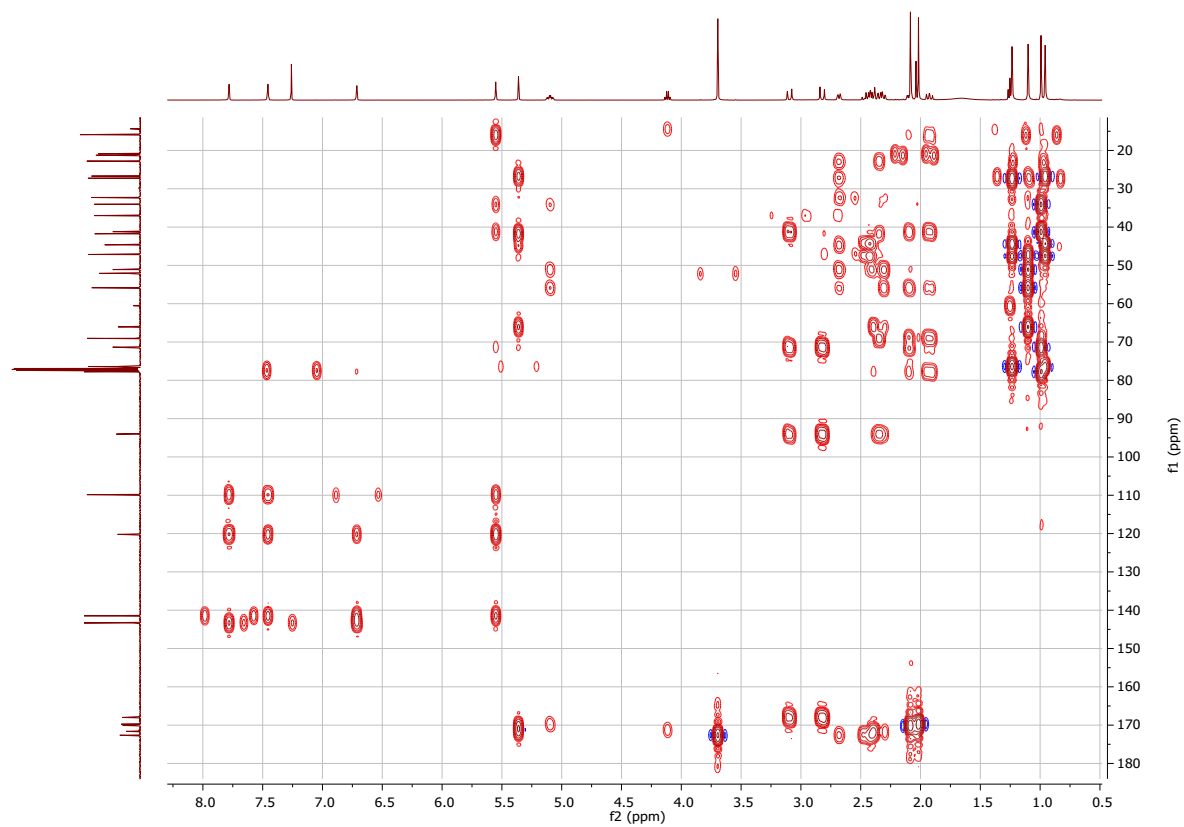


Figure S25. HMBC spectrum of swetemicrolide C (**3**) in CDCl_3

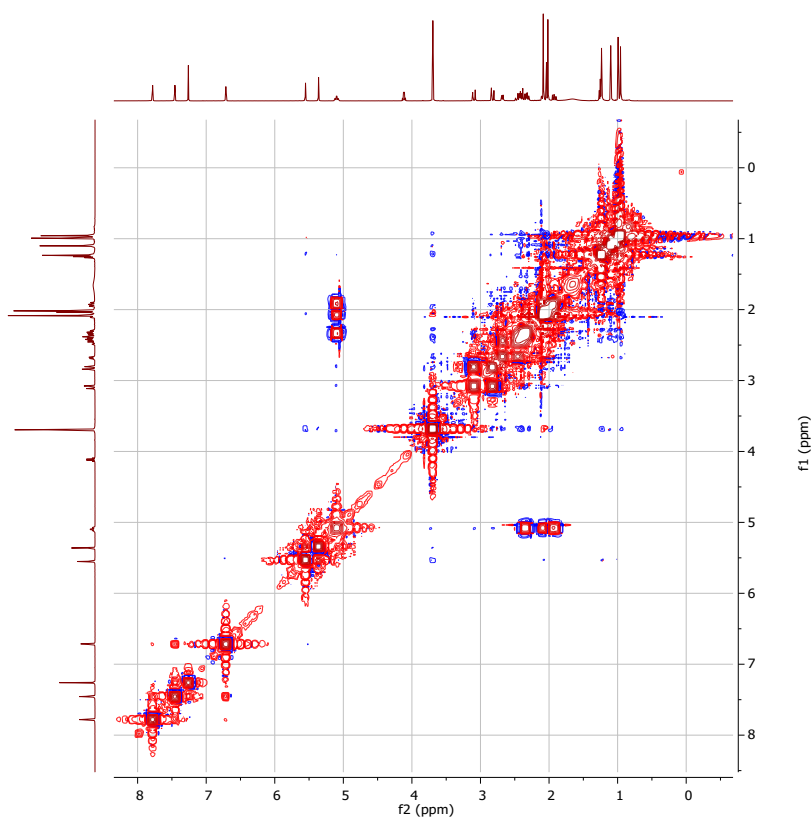


Figure S26. $^1\text{H} - ^1\text{H}$ COSY spectrum of swetemicrolide C (**3**) in CDCl_3

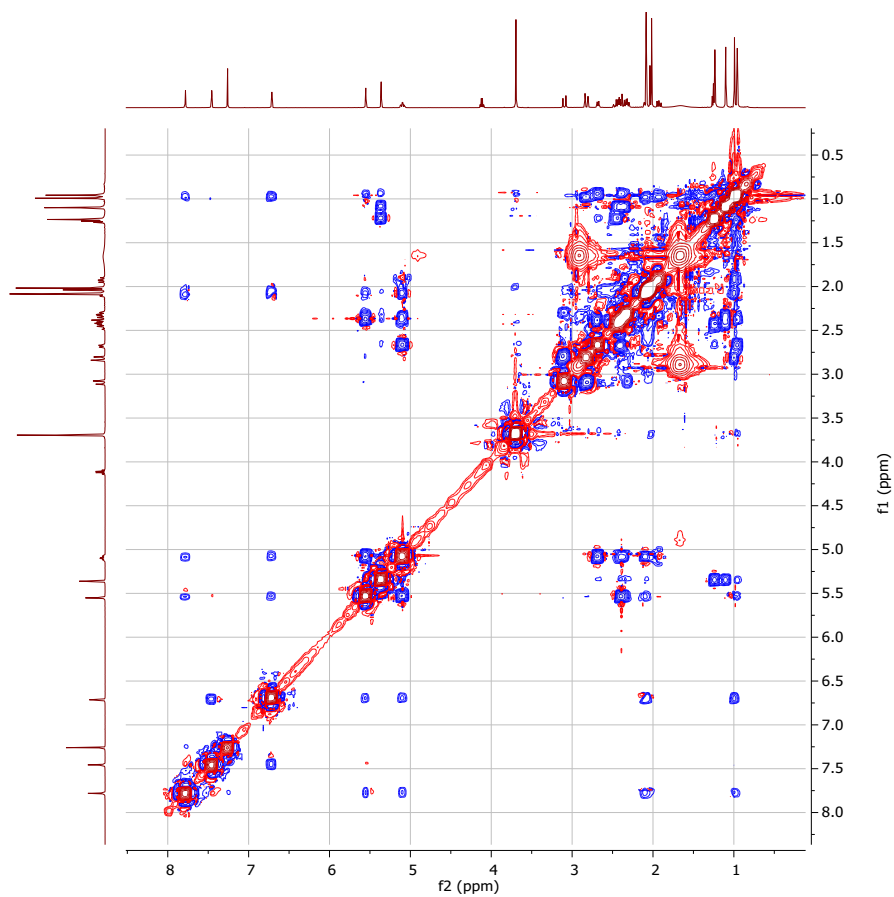


Figure S27. NOESY spectrum of swetemicrolide C (**3**) in CDCl_3

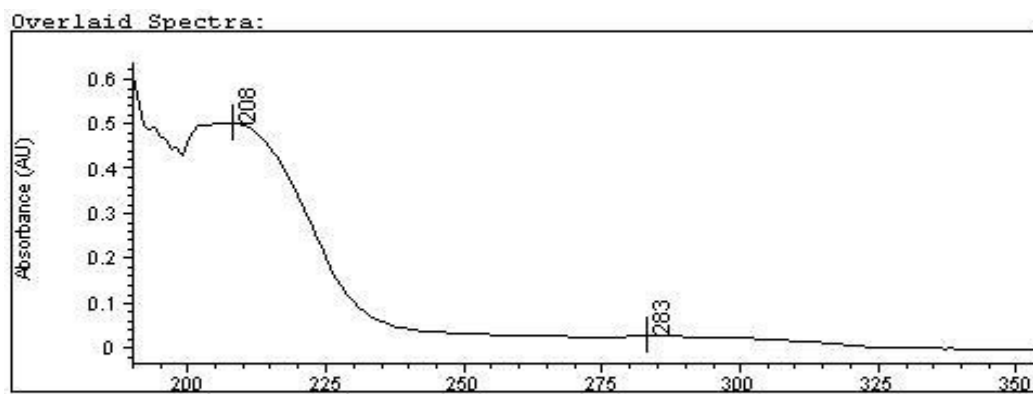


Figure S28. UV spectrum of swetemicrolide D (4).

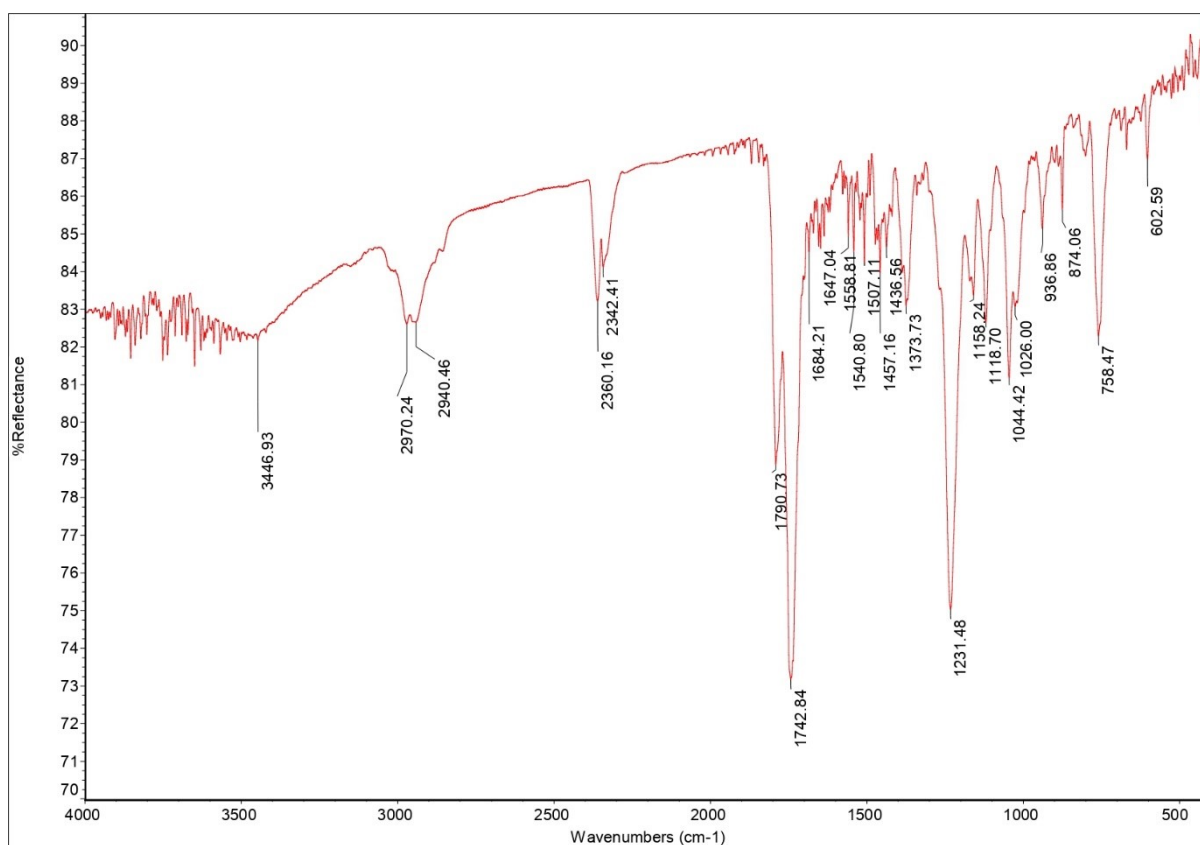


Figure S29. IR spectrum of swetemicrolide D (4).

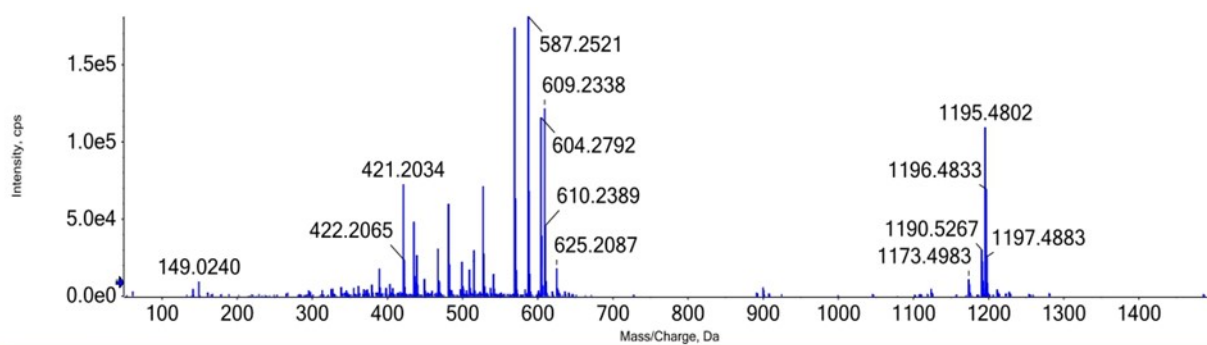


Figure S30. HRESIMS spectrum of swetemicrolide D (**4**).

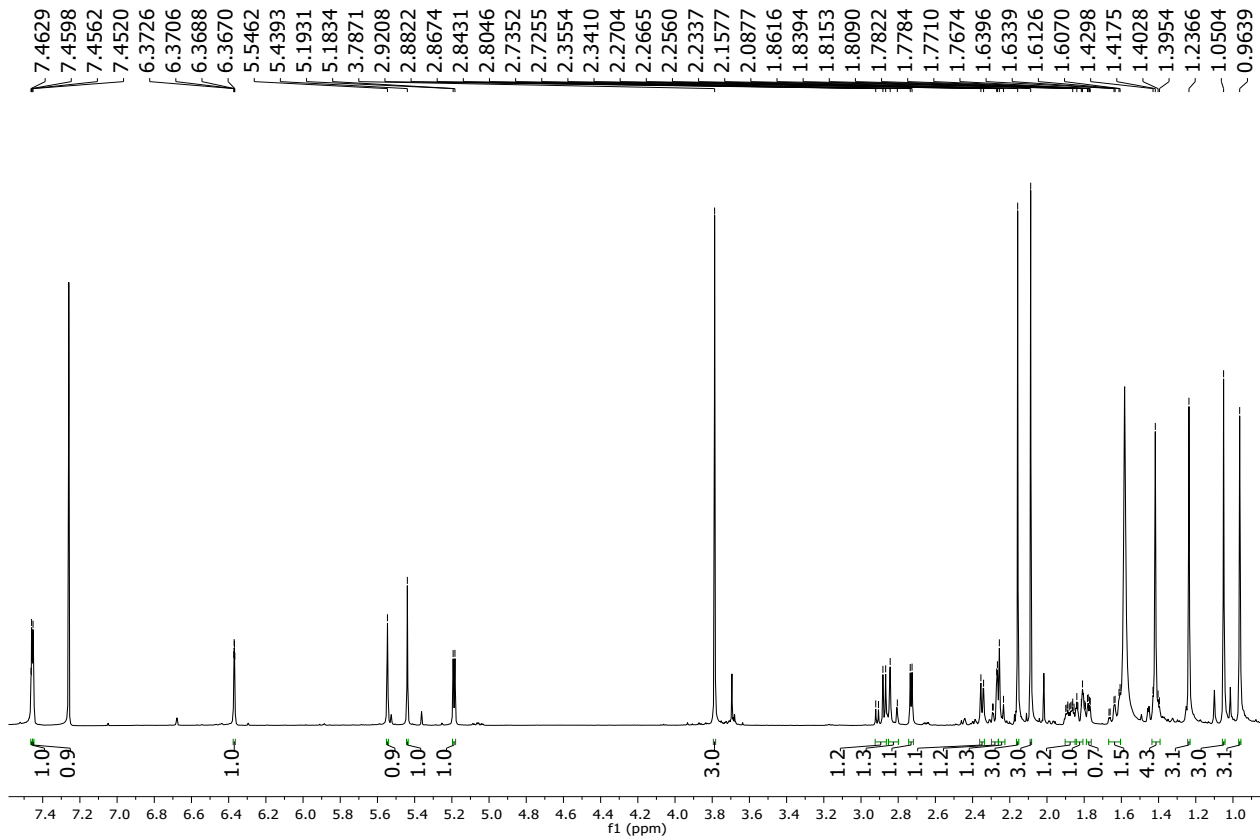


Figure S31. ^1H NMR spectrum of swetemicrolide D (4) in CDCl_3 (500MHz)

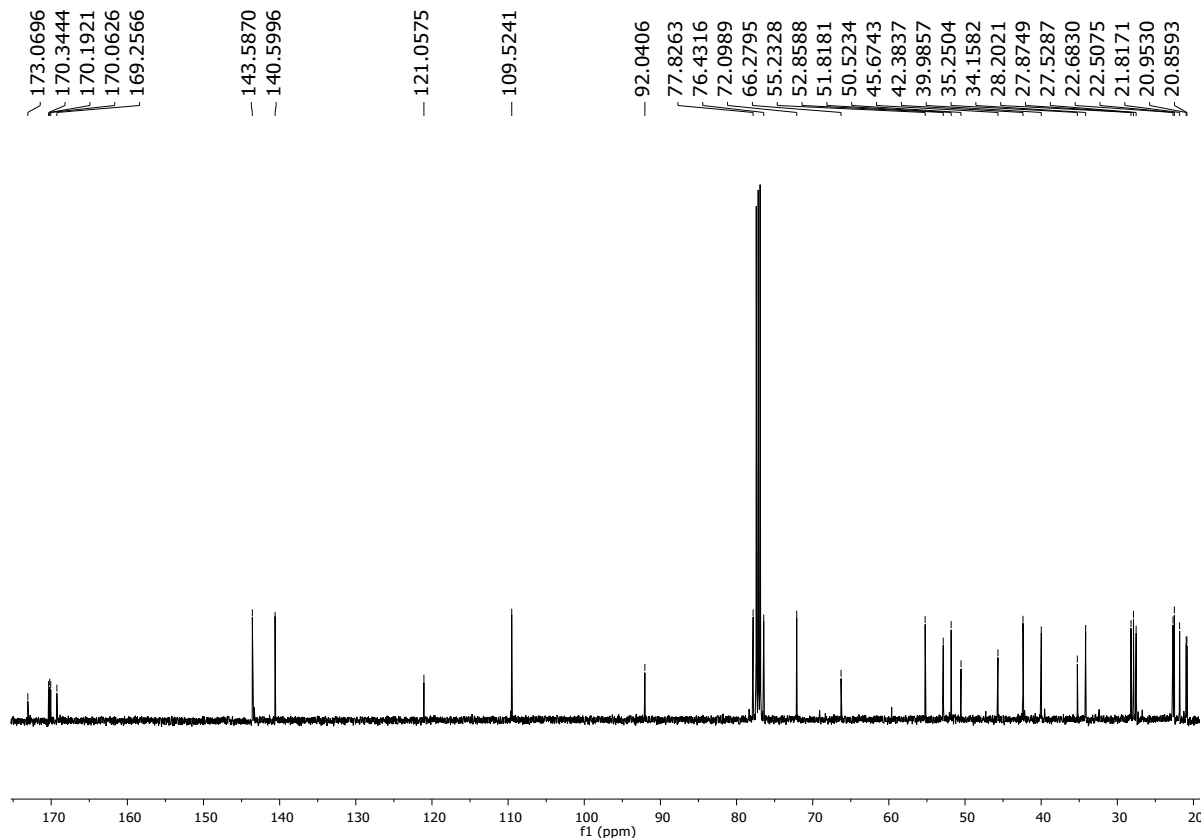


Figure S32. ^{13}C NMR spectrum of swetemicrolide D (4) in CDCl_3 (125MHz)

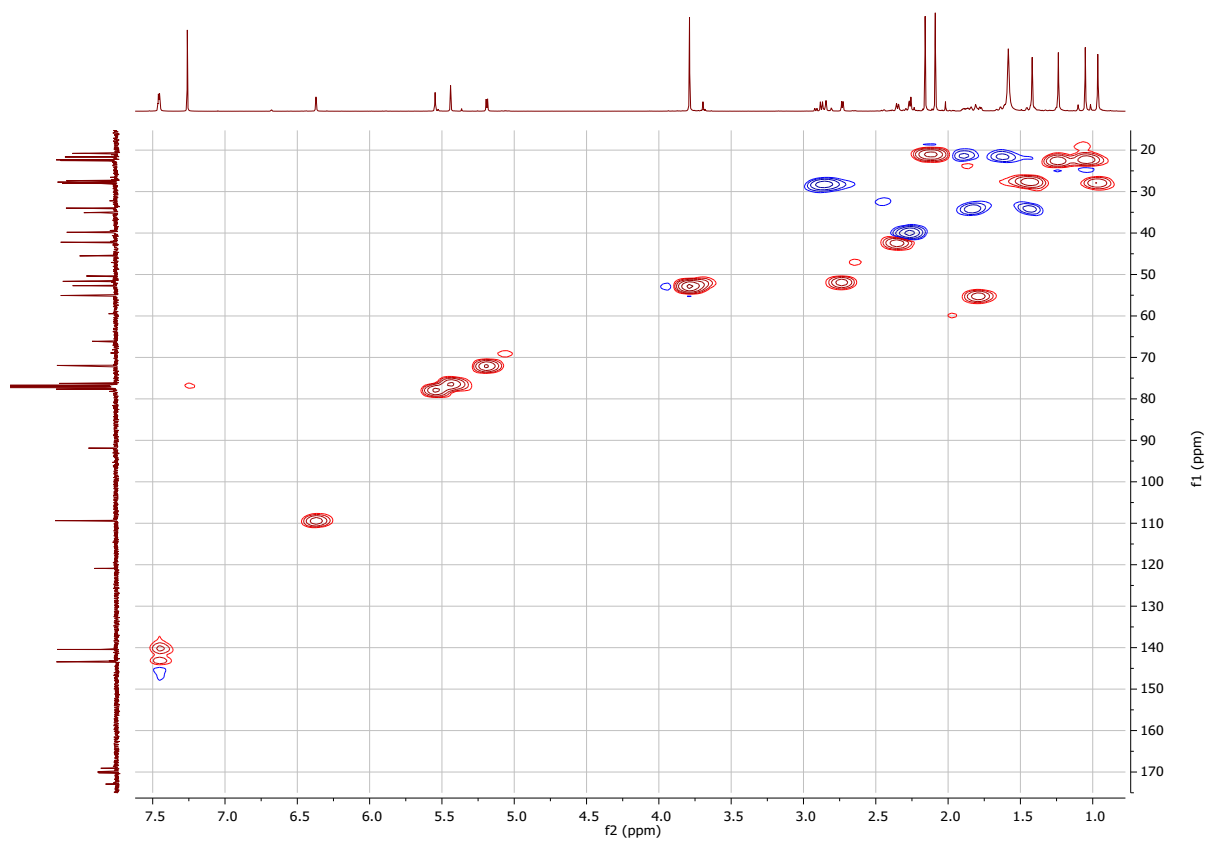


Figure S33. HSQC spectrum of swetemicrolide D (4) in CDCl_3

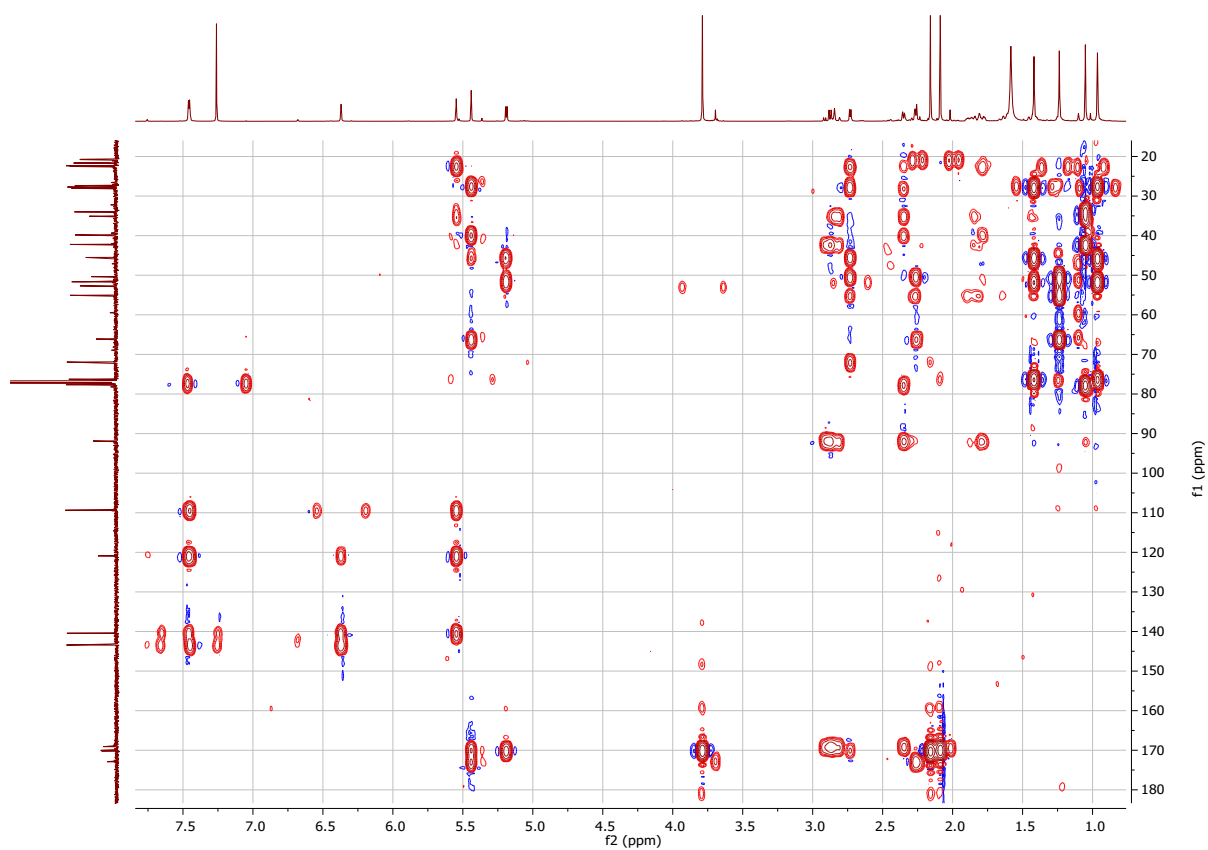


Figure S34. HMBC spectrum of swetemicrolide D (4) in CDCl_3

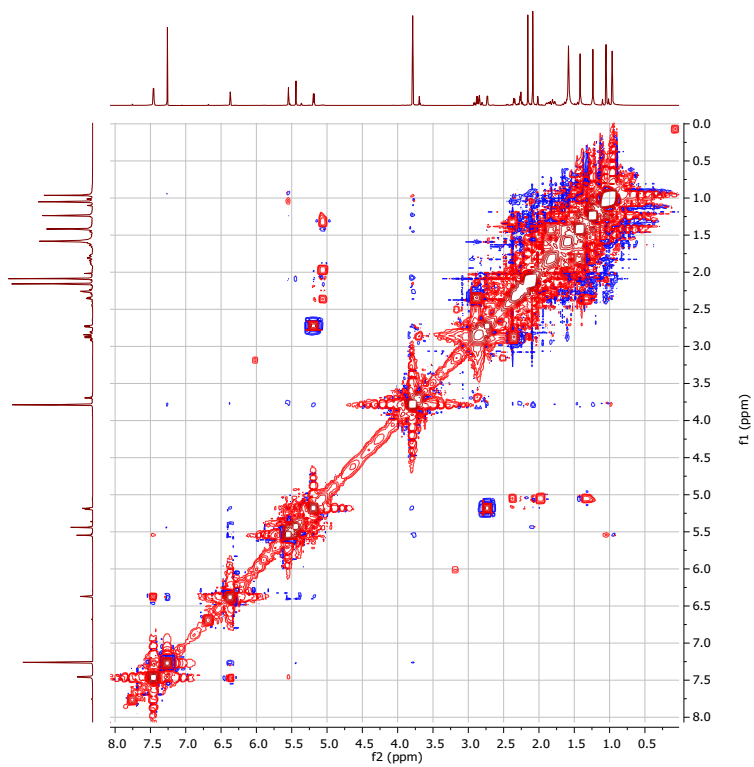


Figure S35. $^1\text{H} - ^1\text{H}$ COSY spectrum of swetemicrolide D (**4**) in CDCl_3

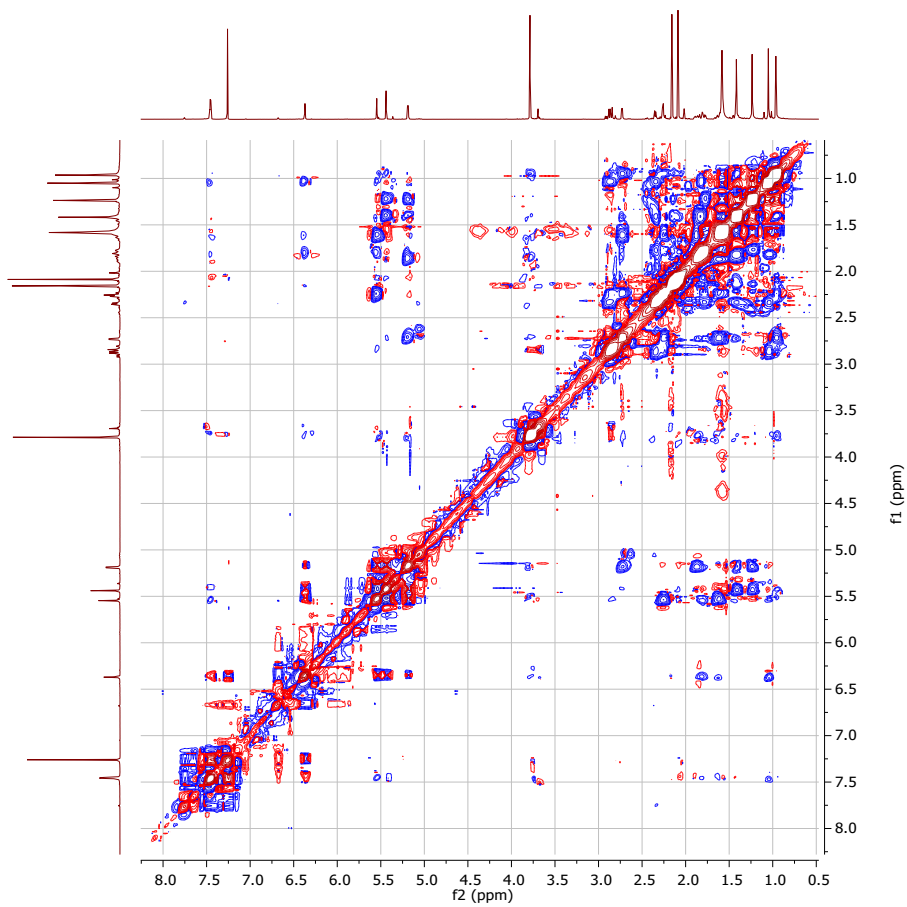


Figure S36. NOESY spectrum of swetemicrolide D (**4**) in CDCl_3

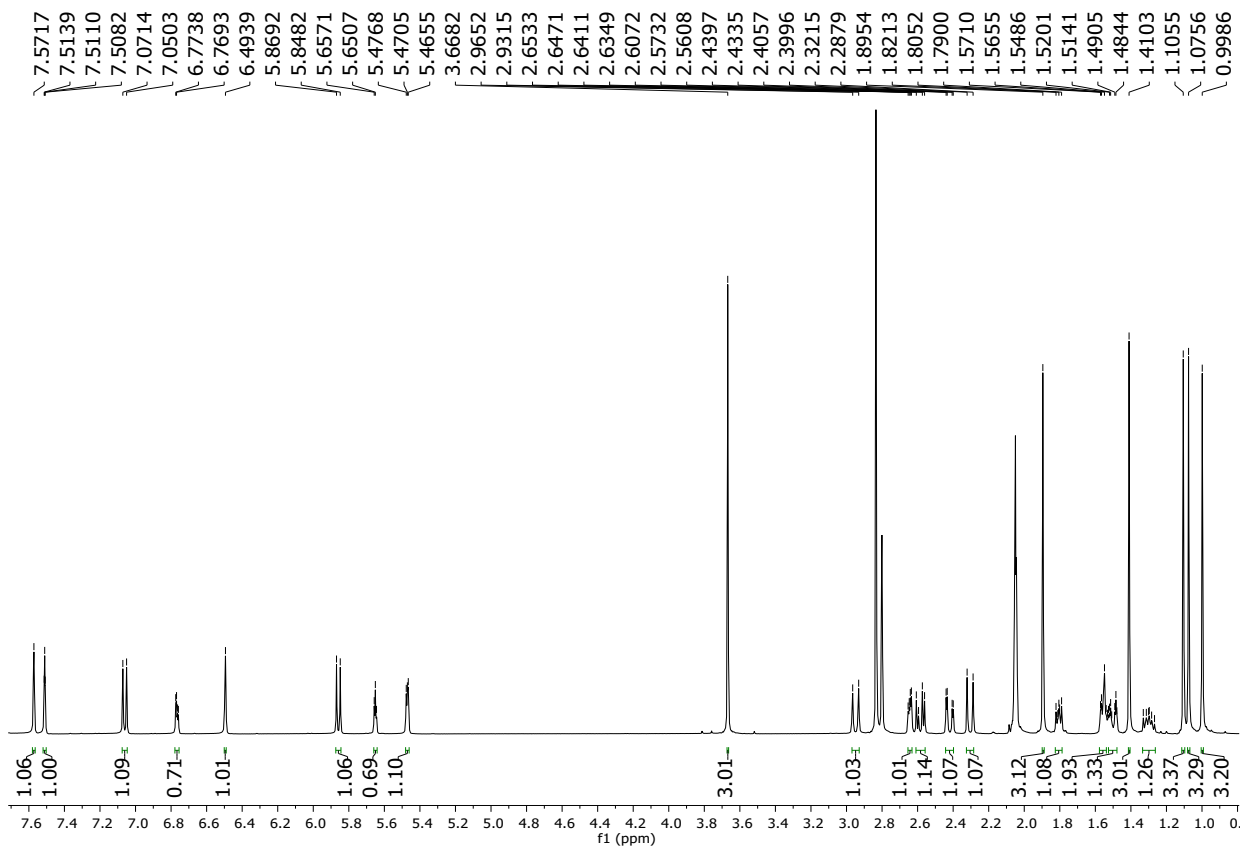


Figure S37. ^1H NMR spectrum of swimahogin A (**5**) in acetone- d_6 (500MHz)

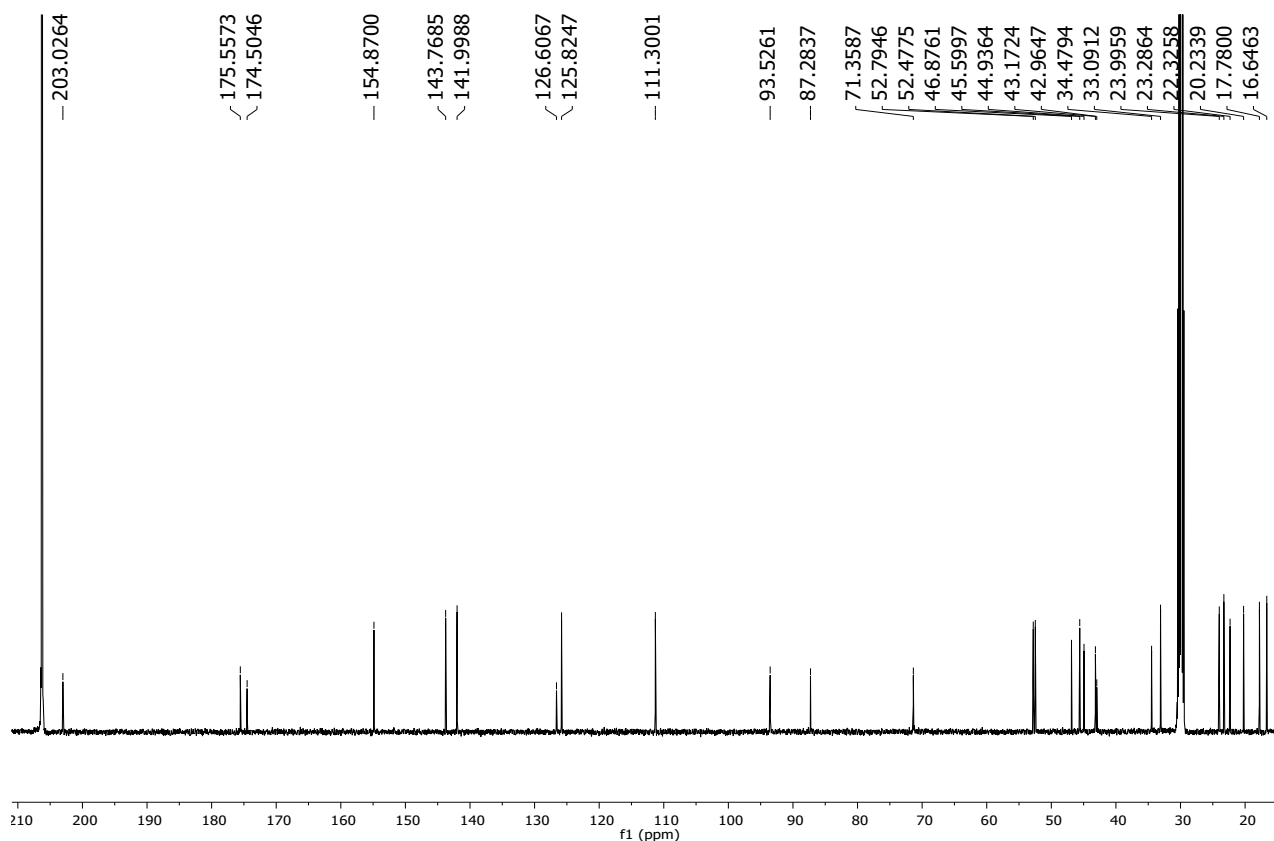


Figure S38. ^{13}C NMR spectrum of swimahogin A (**5**) in acetone- d_6 (125MHz)

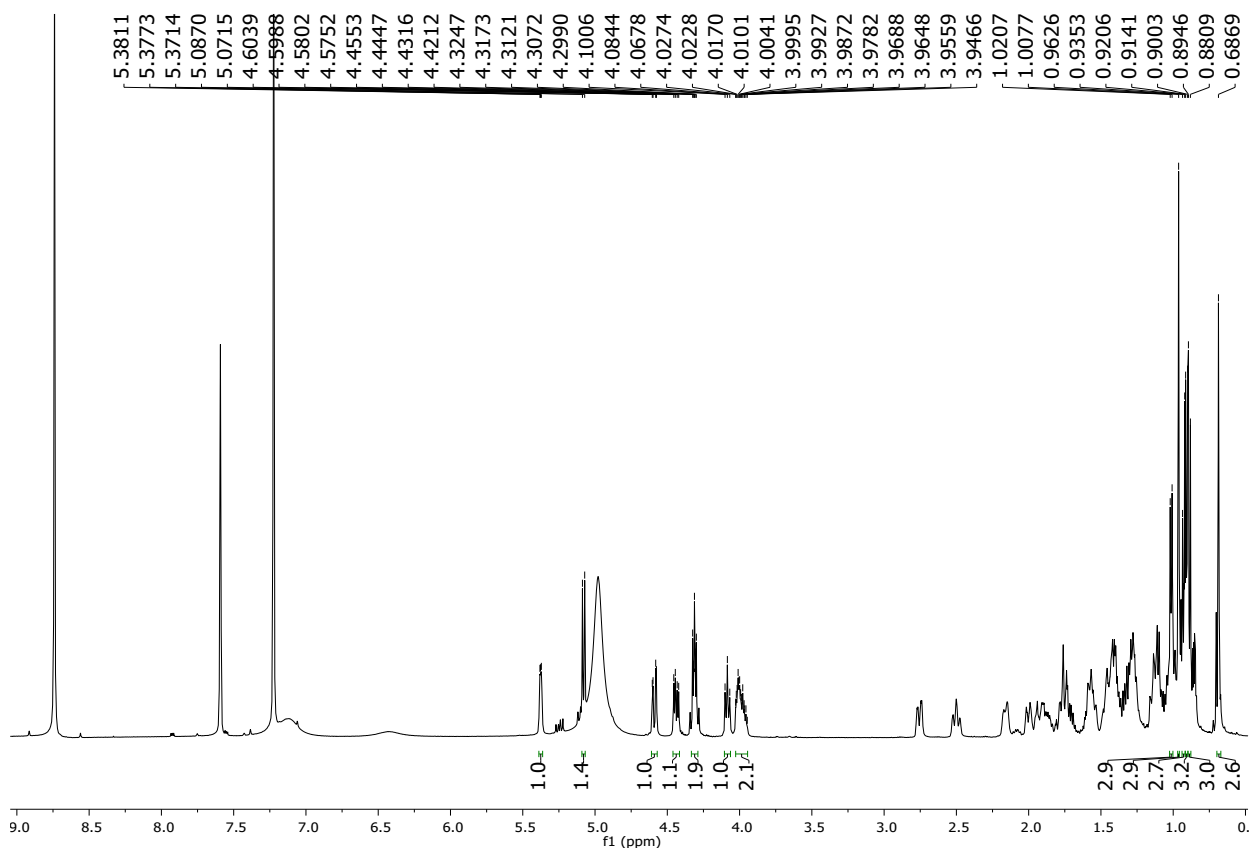


Figure S39. ^1H NMR spectrum of β -sitosterol-3- O - β -D-glucopyranoside (**6**) in pyridine- d_5 (500MHz)

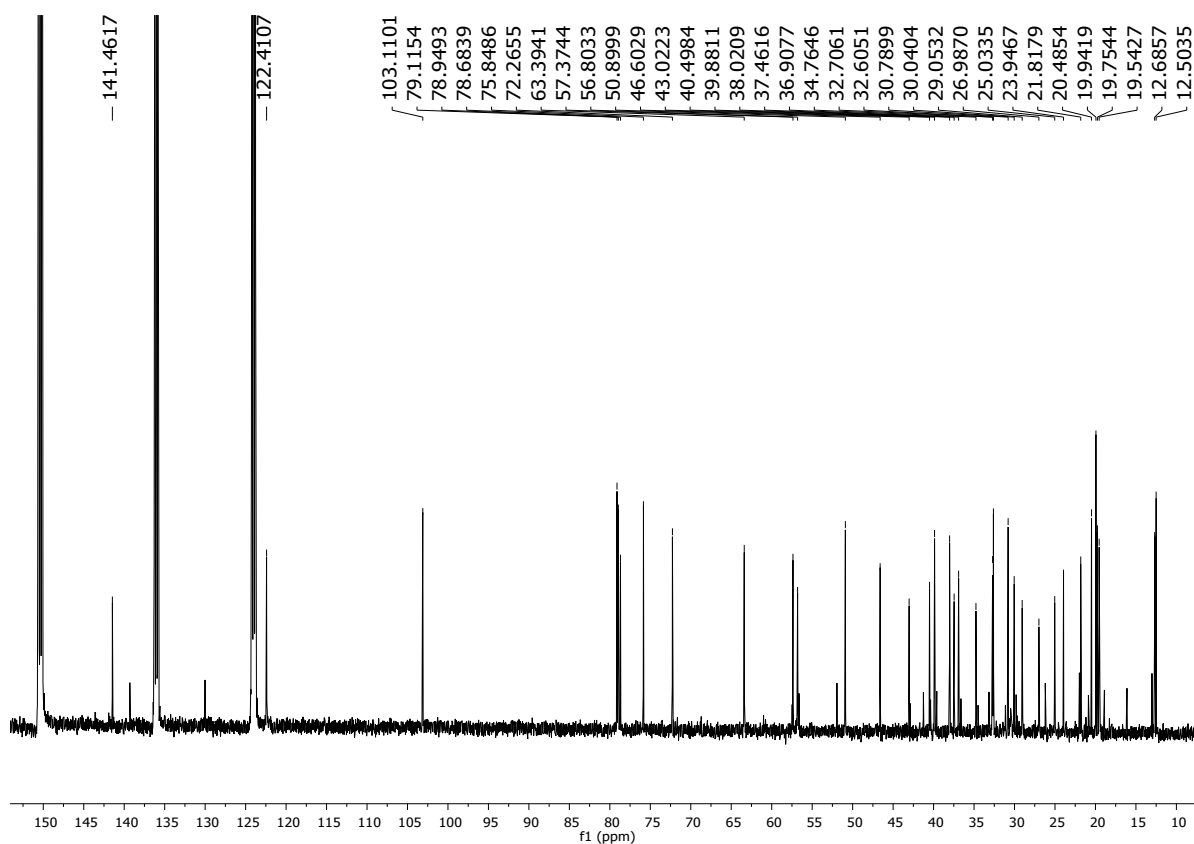


Figure S40. ^{13}C NMR spectrum of β -sitosterol-3- O - β -D-glucopyranoside (**6**) in pyridine- d_5 (125MHz)

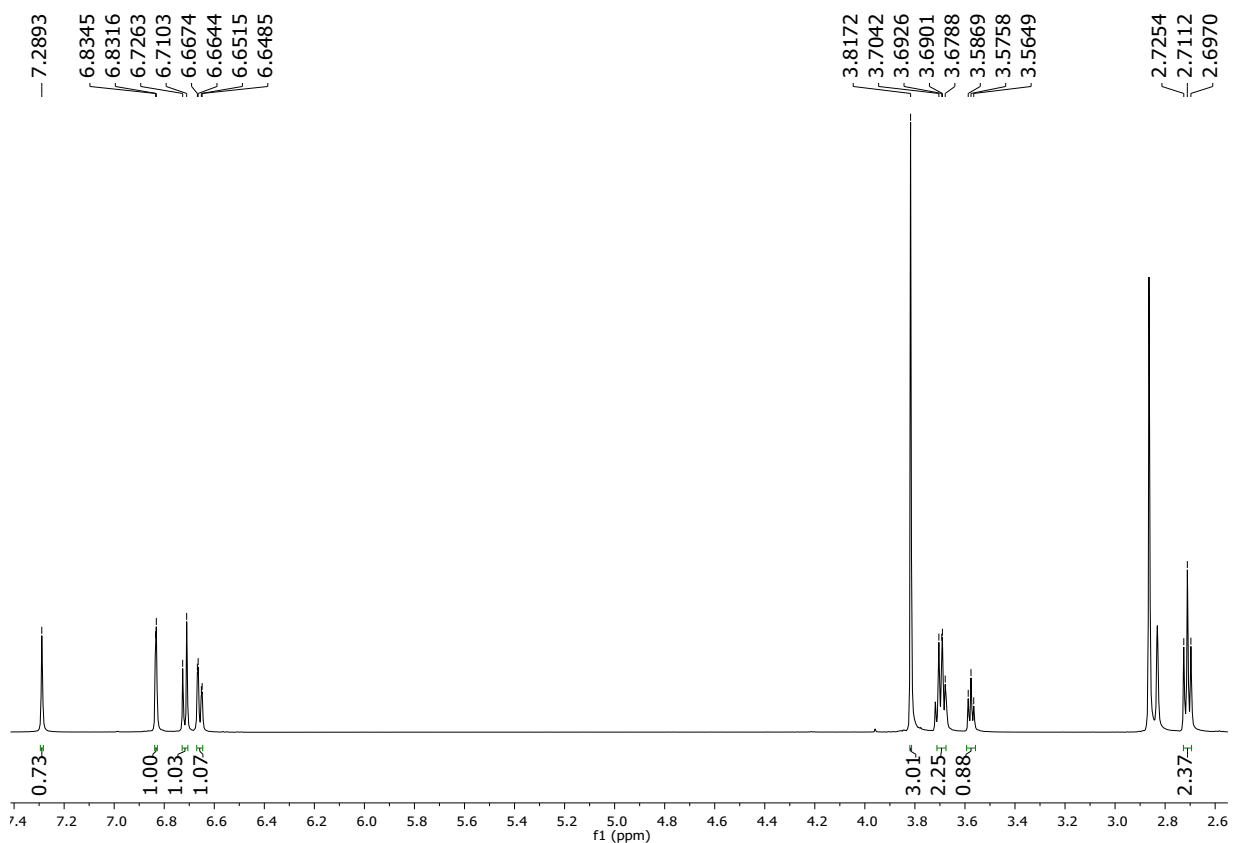


Figure S41. ^1H NMR spectrum of homovanillyl alcohol (**7**) in acetone- d_6 (500MHz)

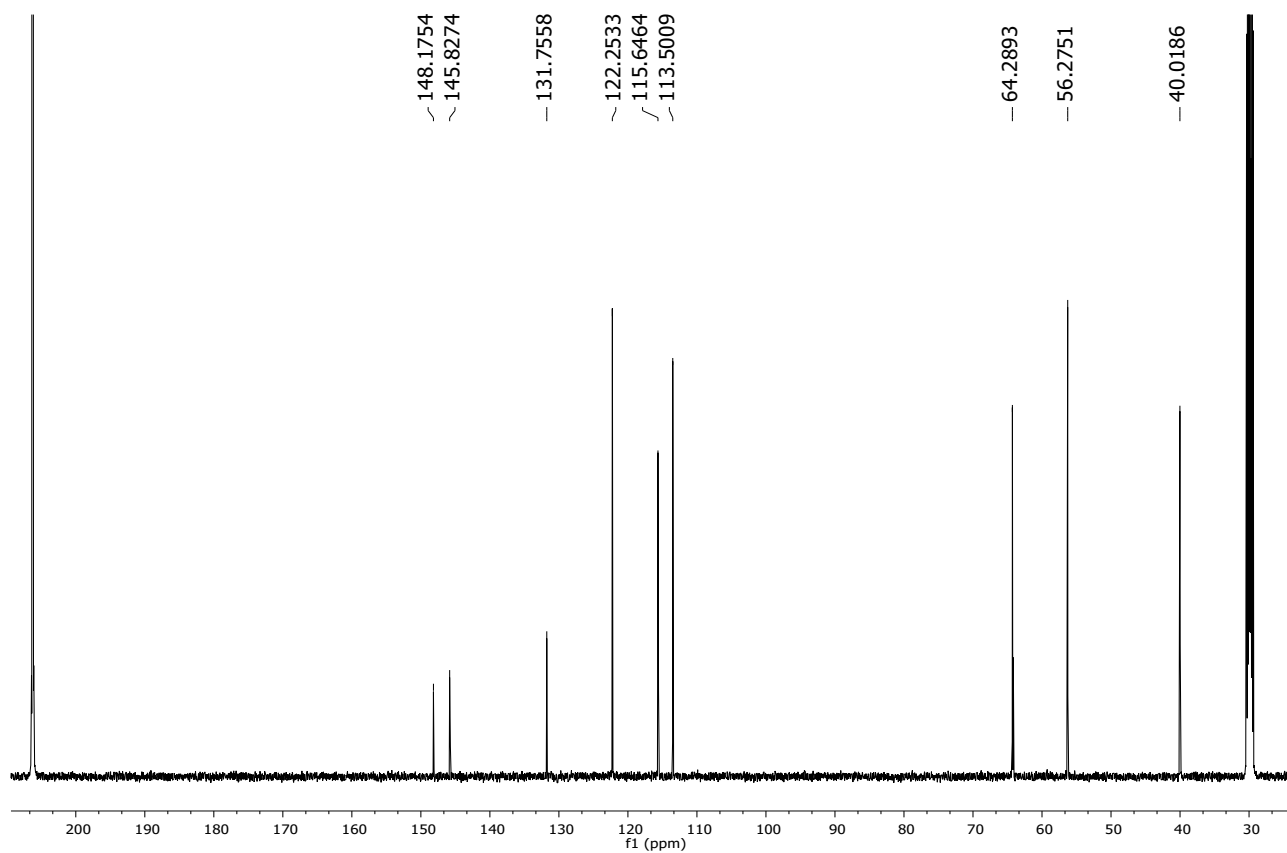


Figure S42. ^{13}C NMR spectrum of homovanillyl alcohol (**7**) in acetone- d_6 (125MHz)