

## SUPPLEMENTARY INFORMATION

### New Tricholomalides D-G from the Mushroom *Tricholoma ustaloides* Grown in an Italian Beech Wood

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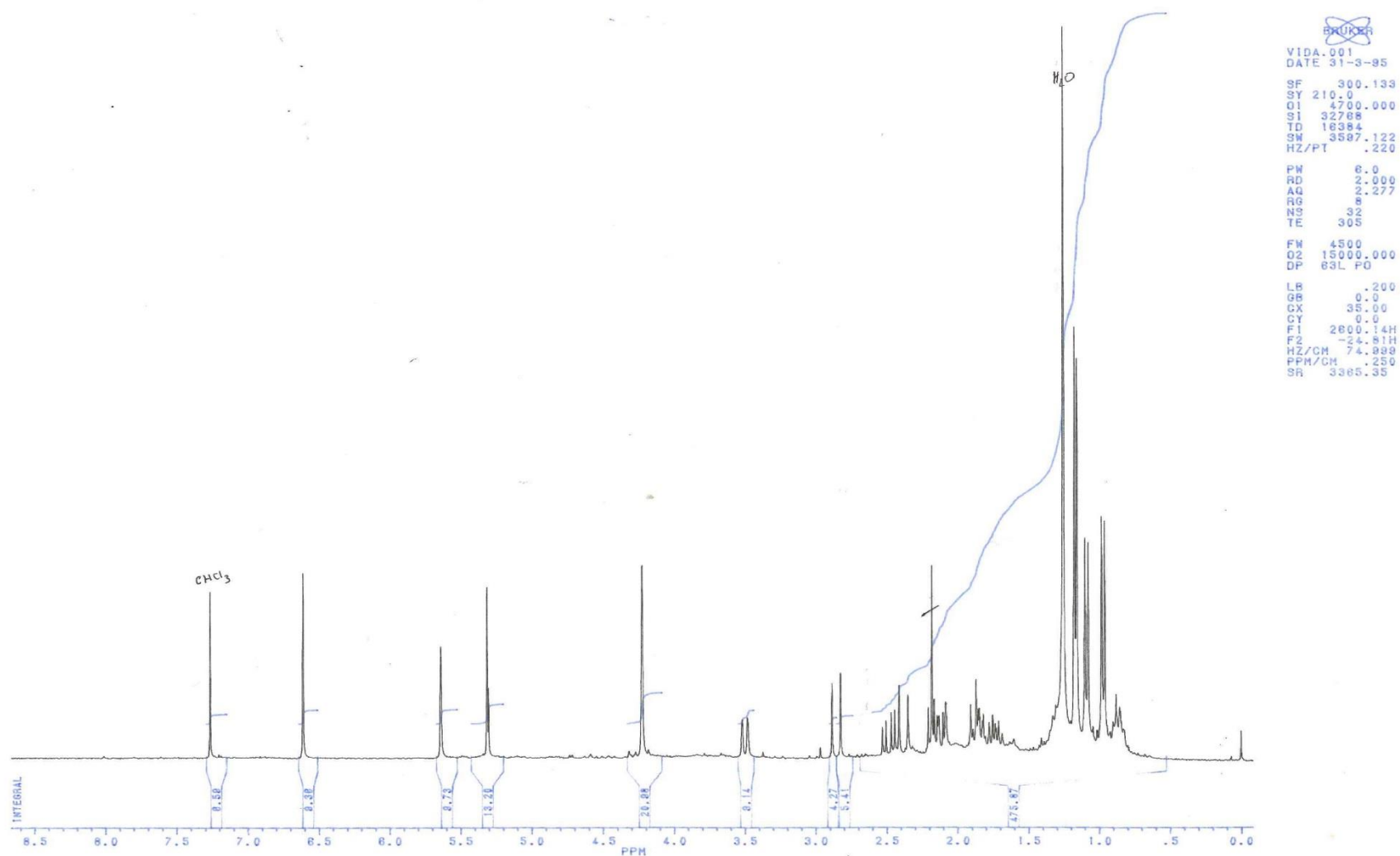
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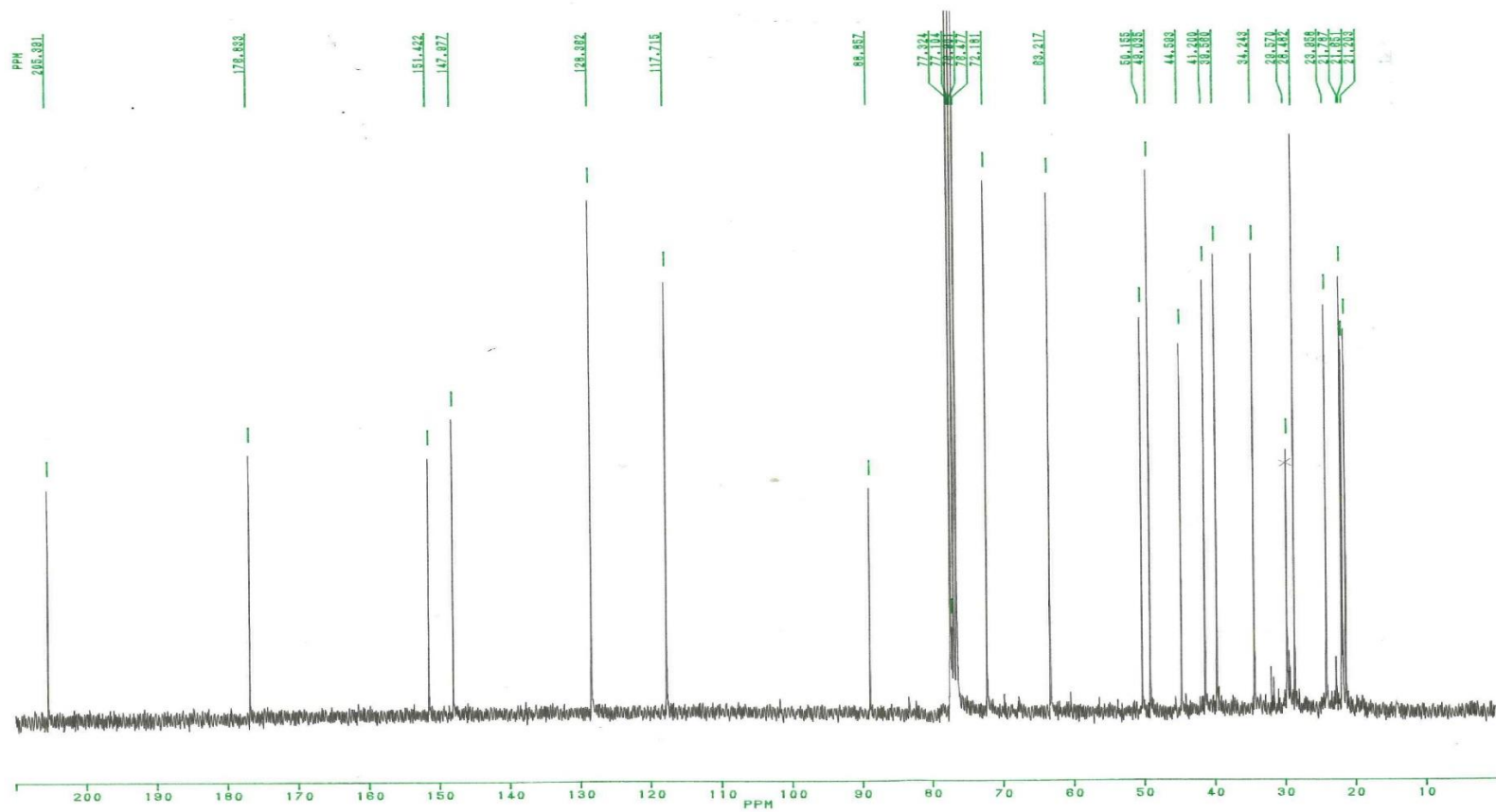
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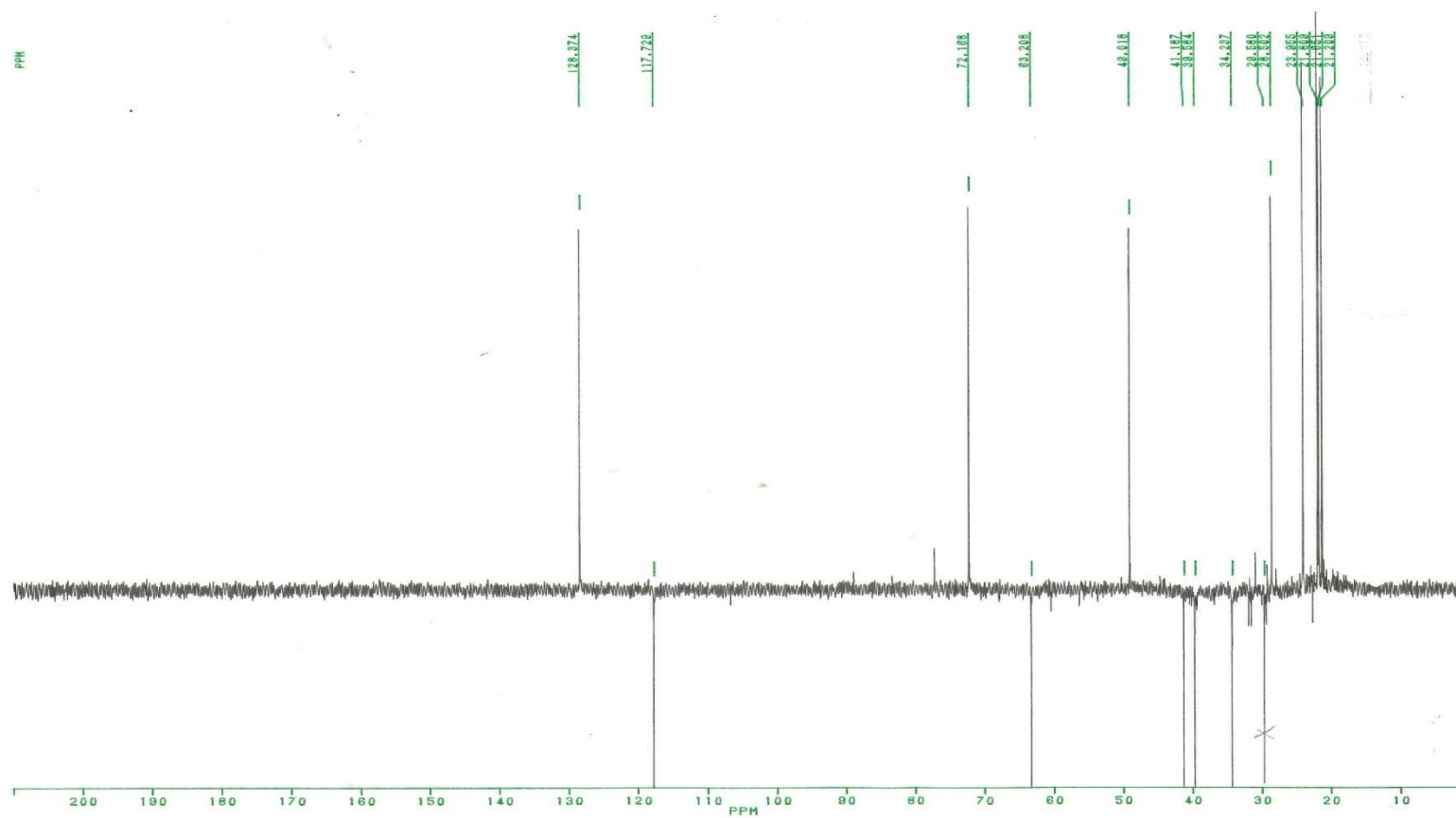
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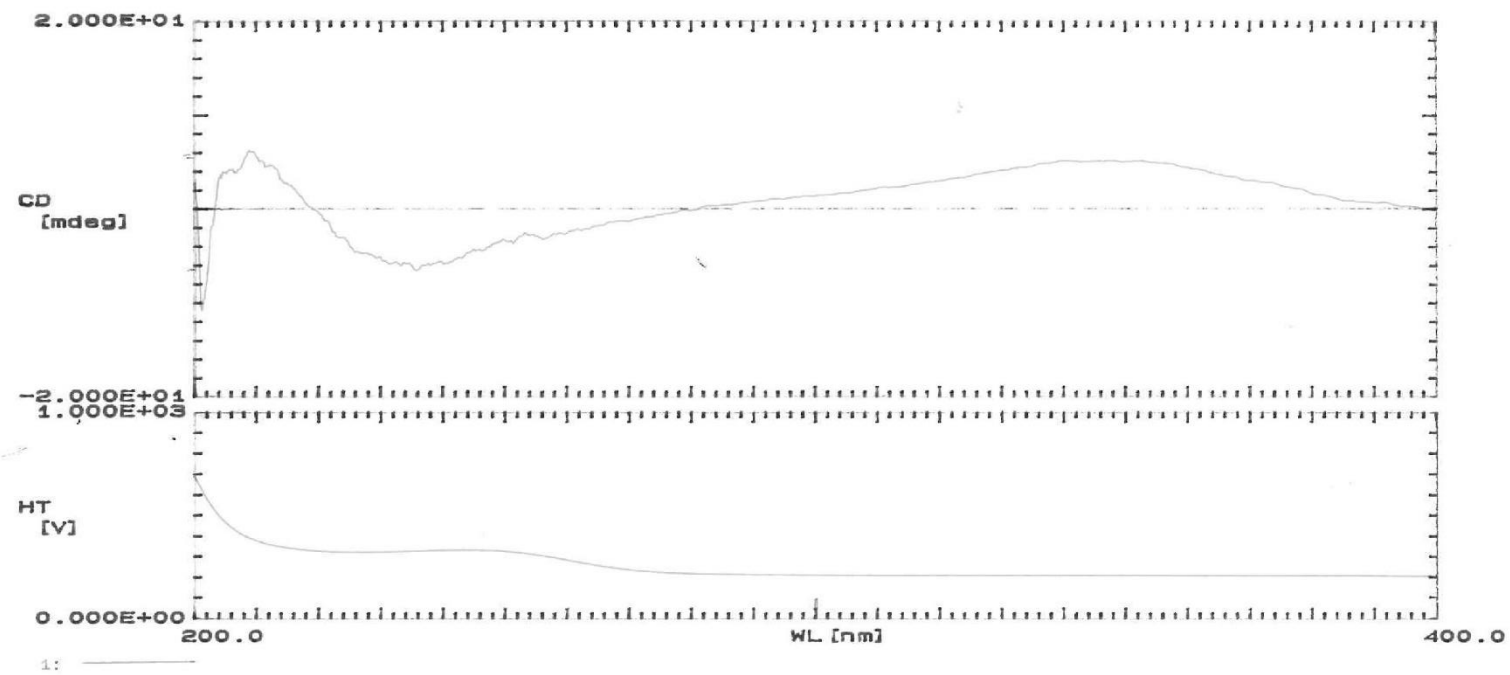
S1. <sup>1</sup>H NMR spectrum of Tricholomalide C (19).



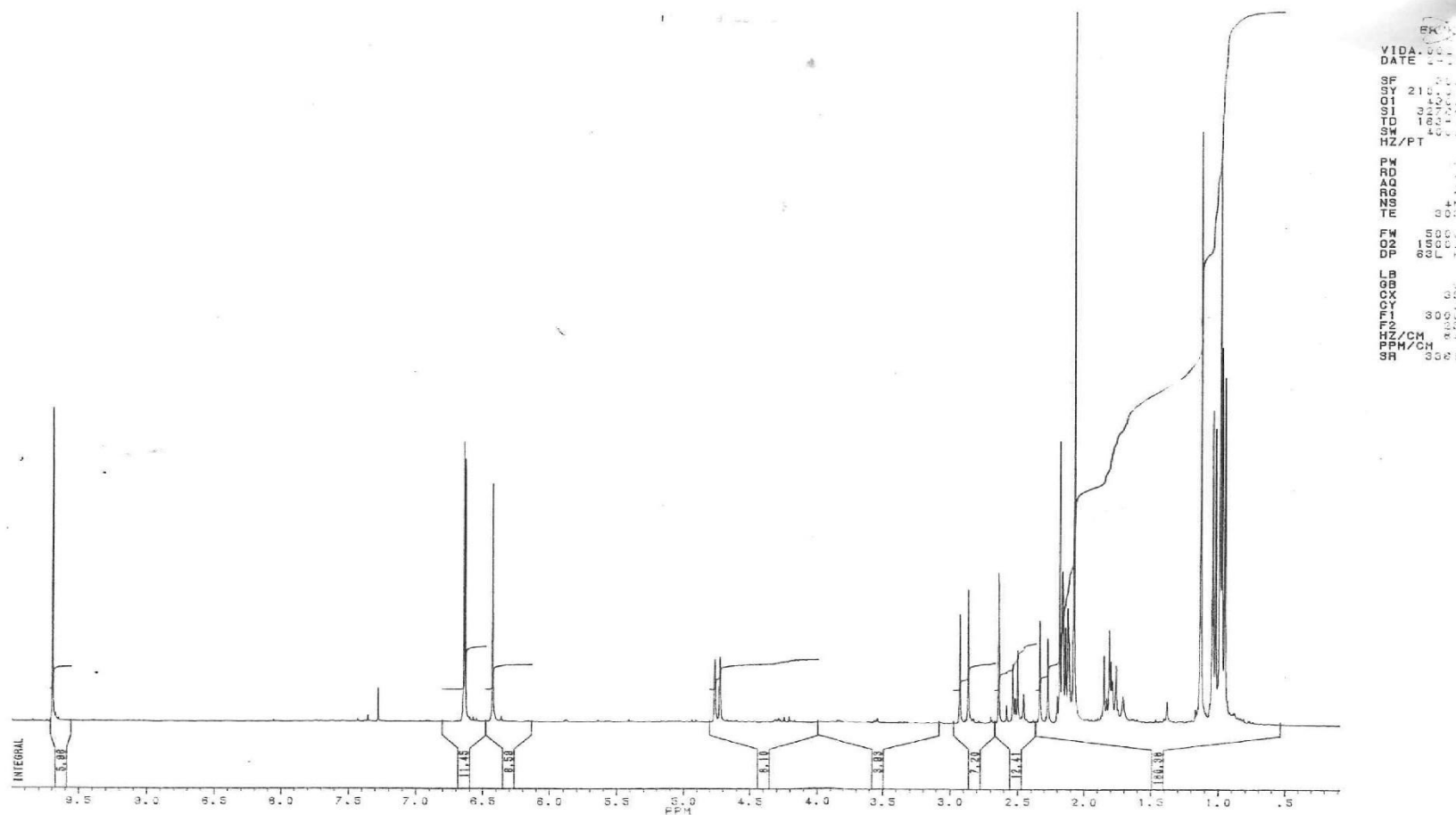
S2.  $^{13}\text{C}$  NMR spectrum of Tricholomalide C (19).



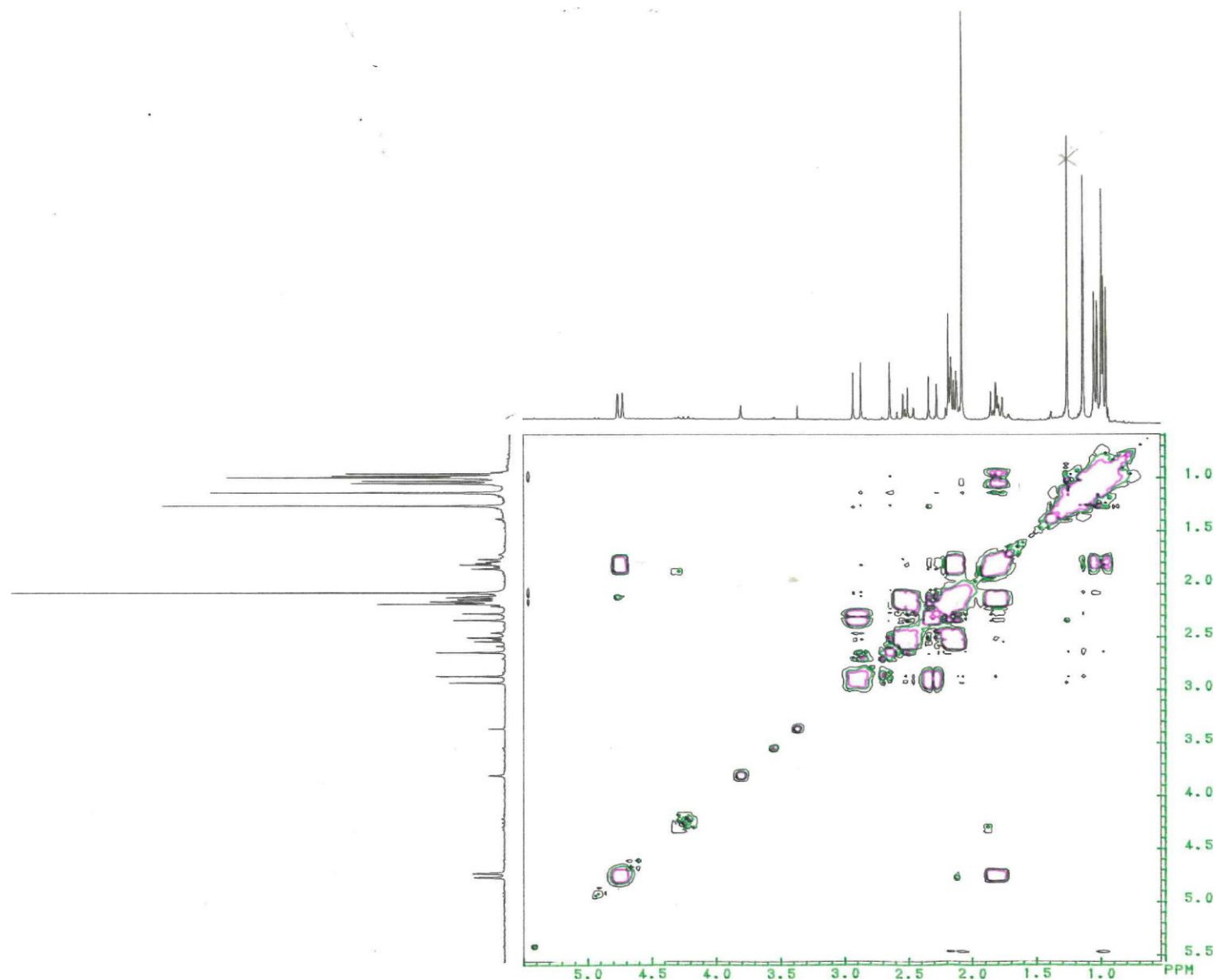
**S3. DEPT  $^{13}\text{C}$  NMR spectrum of Tricholomalide C (19).**



**S4. CD spectrum of Tricholomalide C (19).**

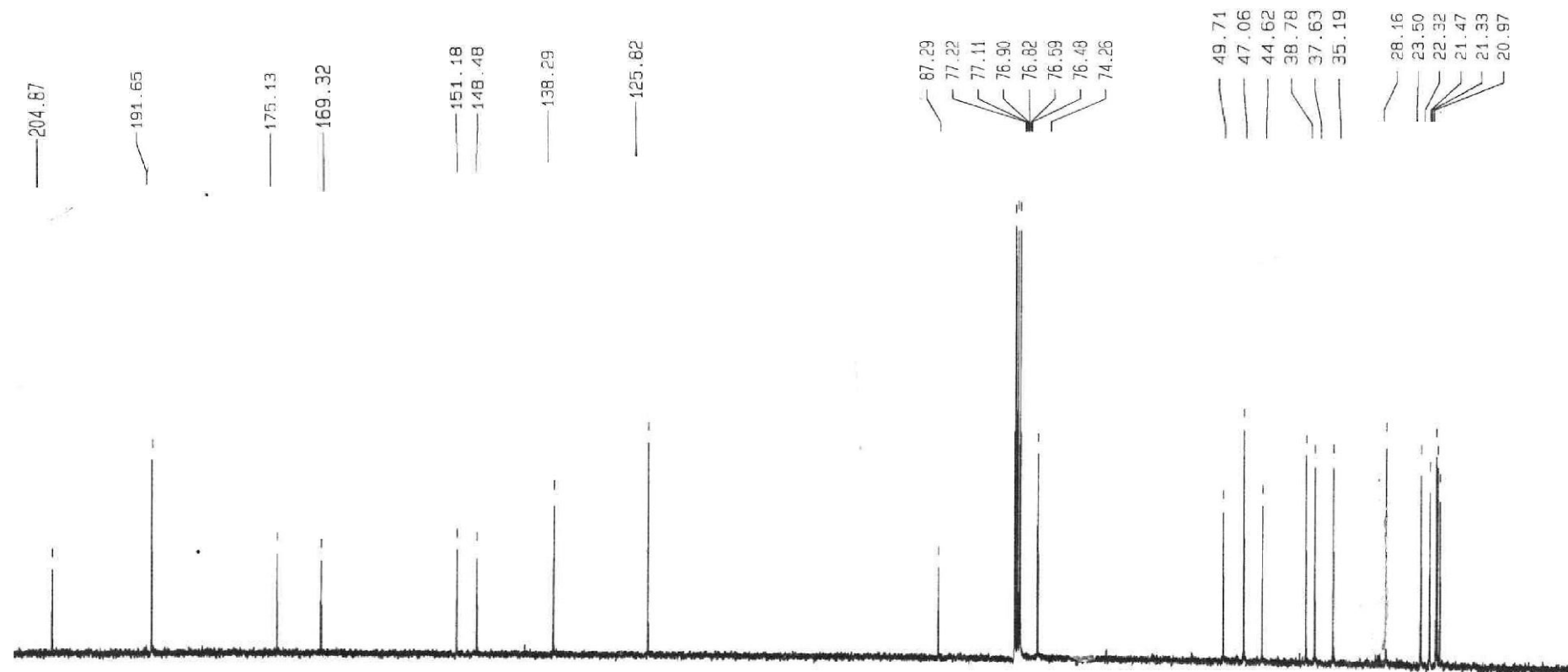


S5. <sup>1</sup>H NMR spectrum of Tricholomalide D (26).

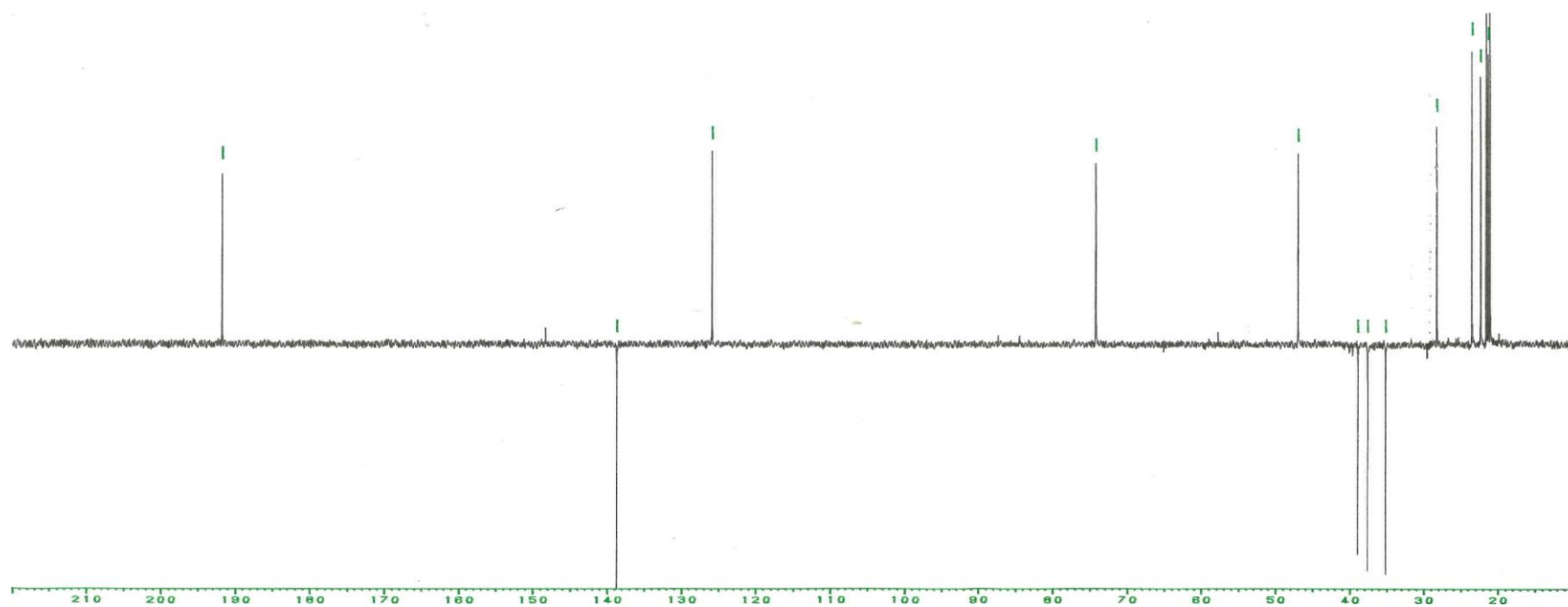


**S6. COSY spectrum of Tricholomalide D (26).**

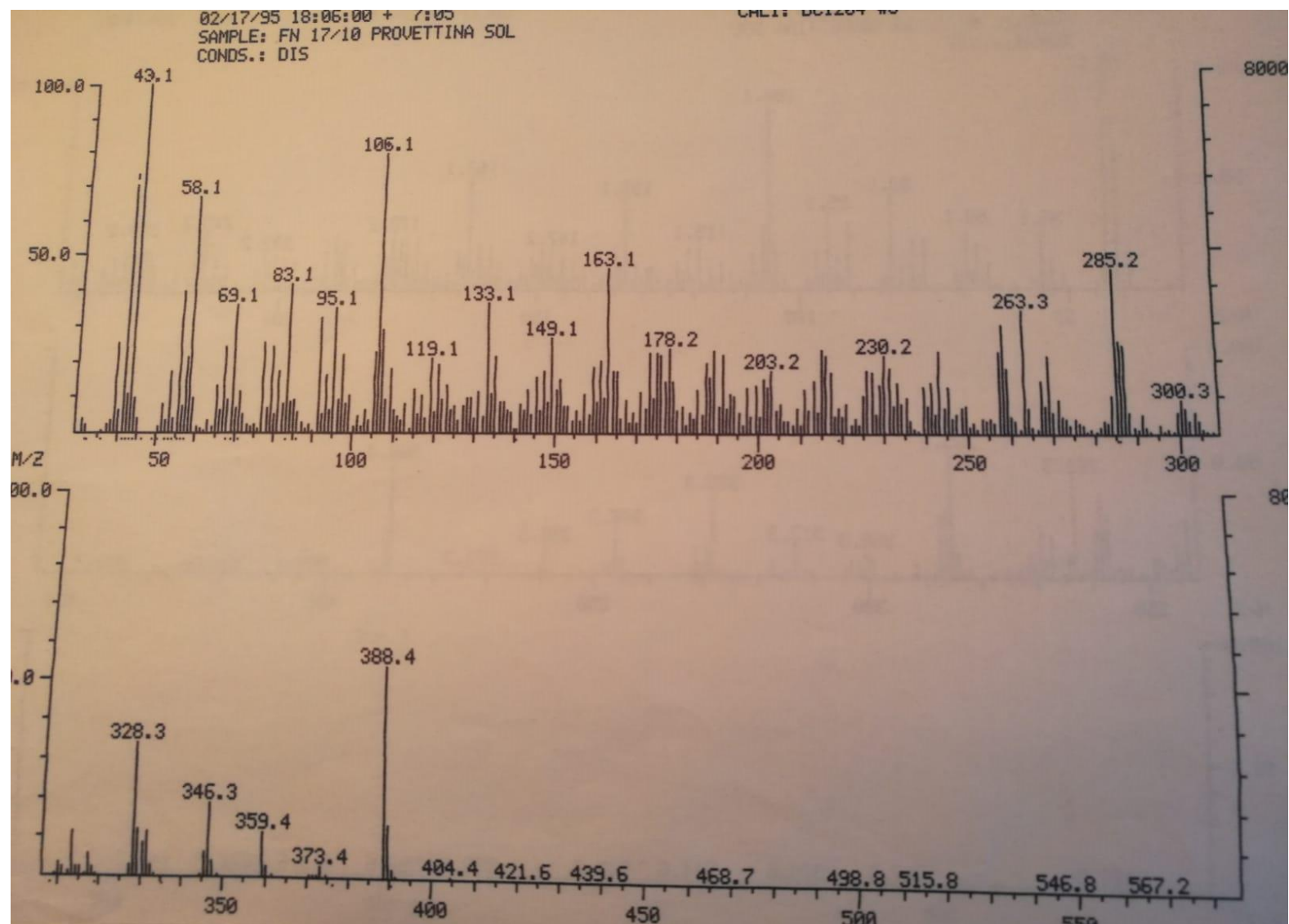




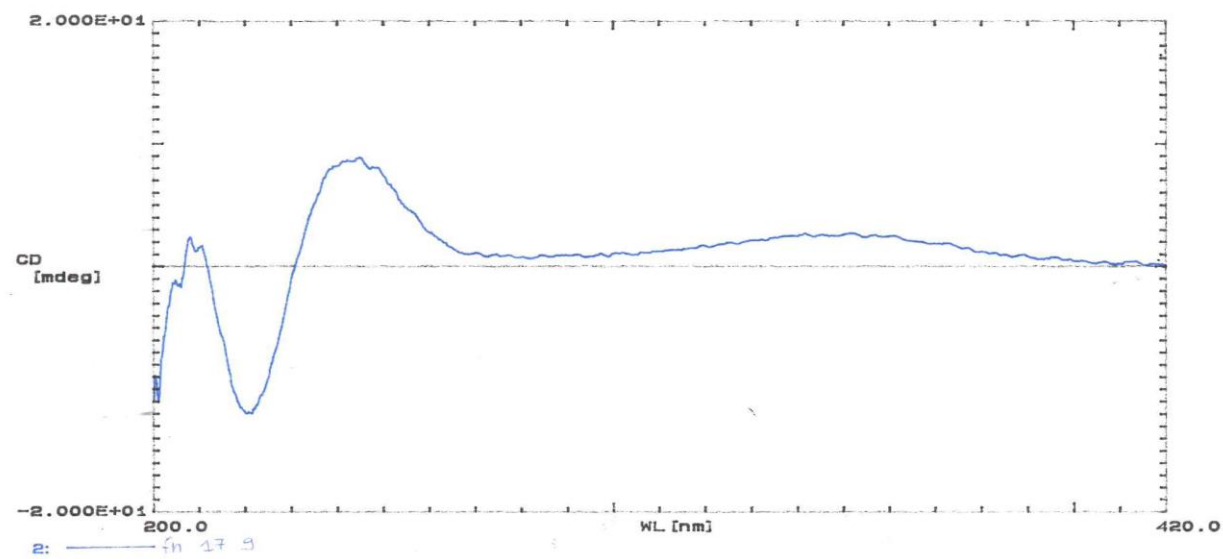
S7.  $^{13}\text{C}$  spectrum of Tricholomalide D (26).



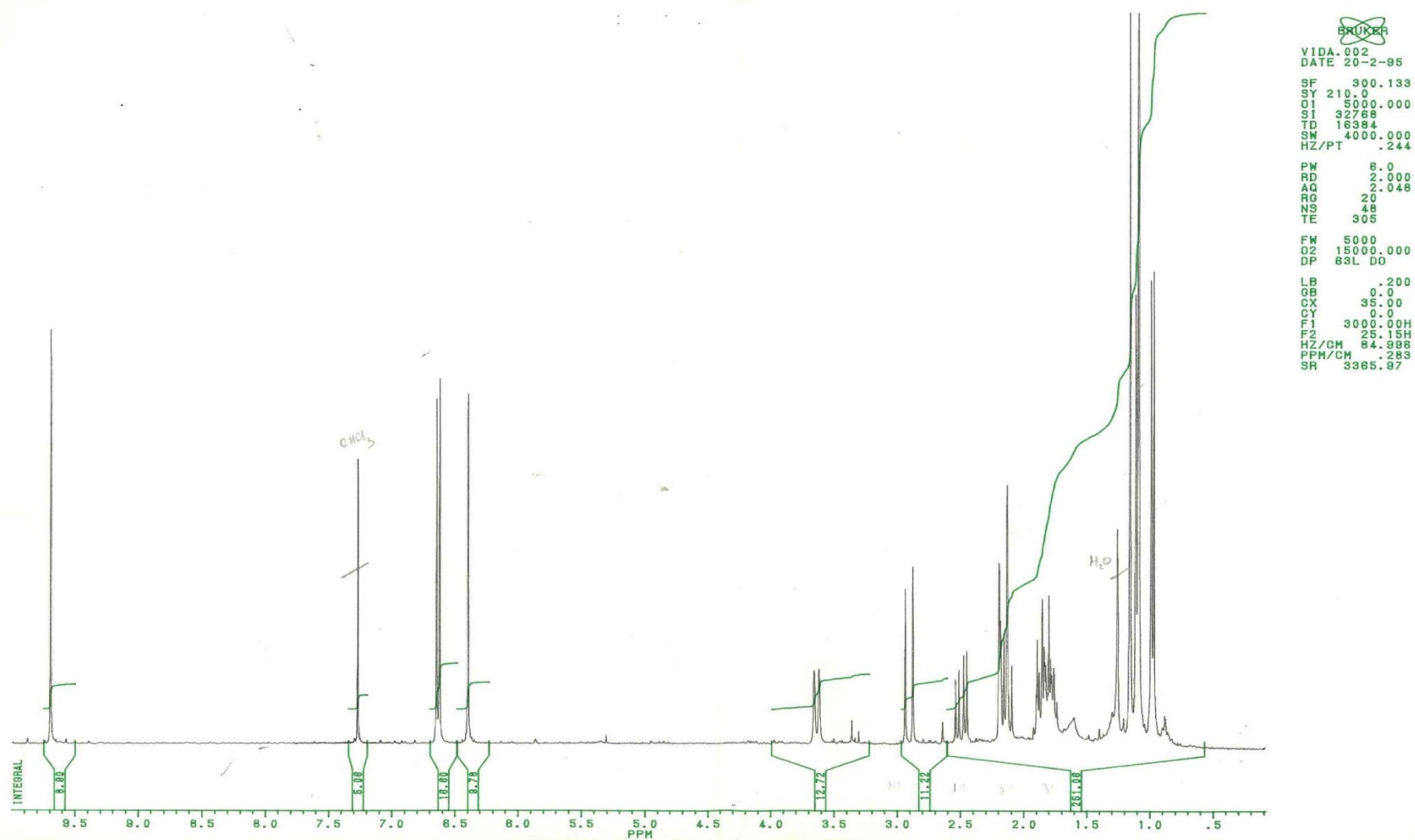
**S8. DEPT  $^{13}\text{C}$  spectrum of Tricholomalide D (26).**



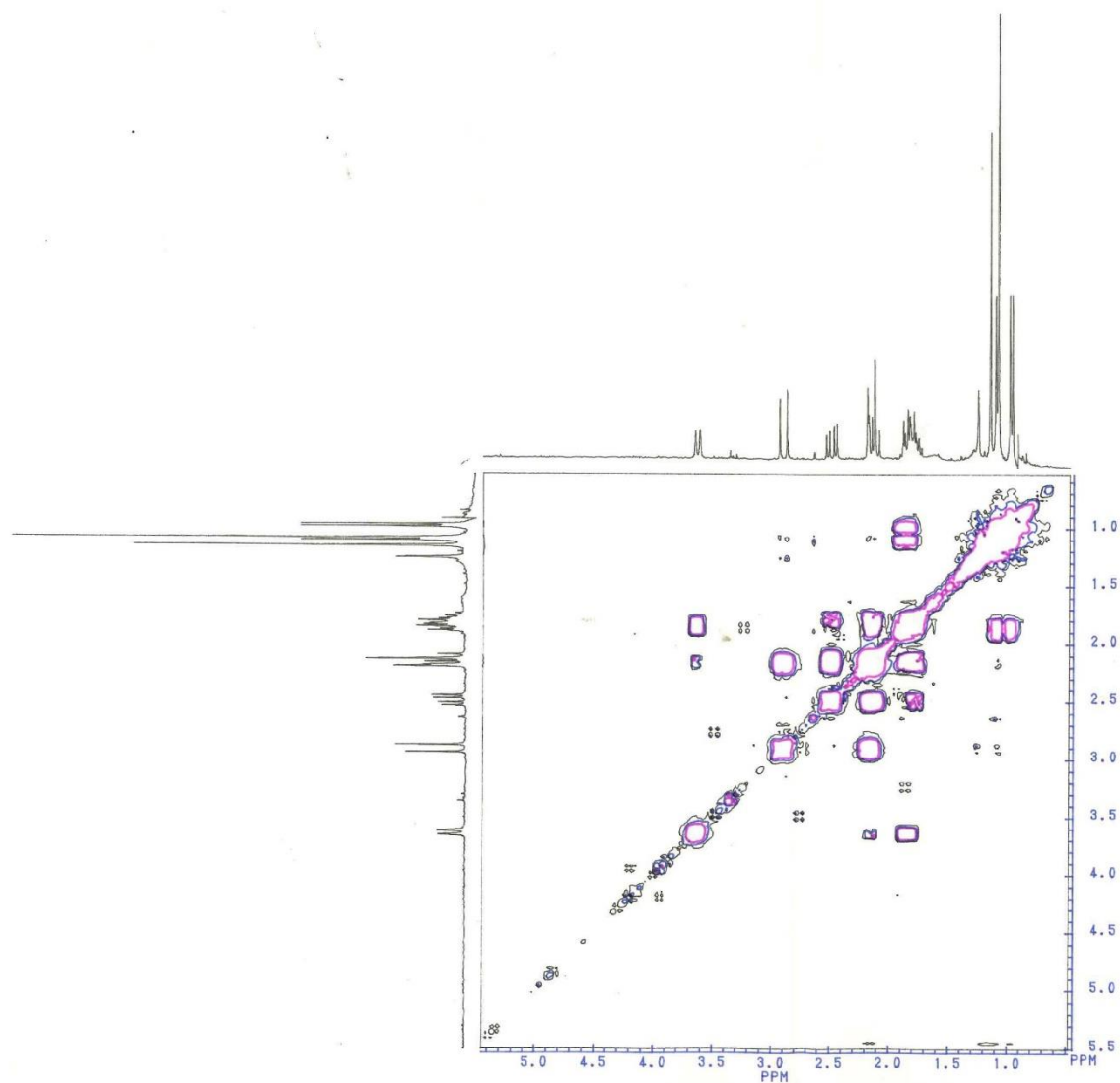
**S9. EIMS spectrum of Tricholomalide D (26).**



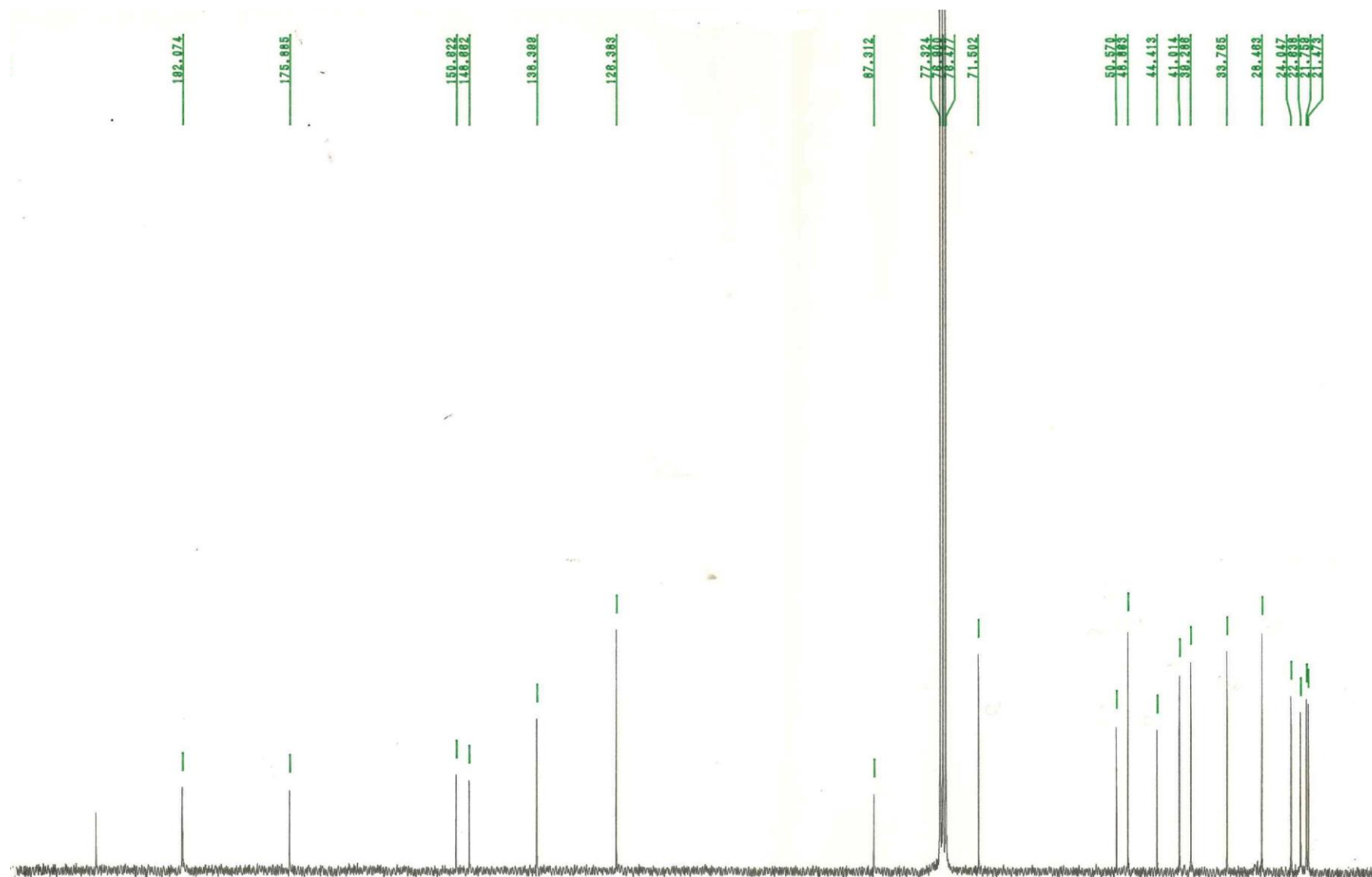
**S10. CD spectrum of Tricholomalide D (26).**



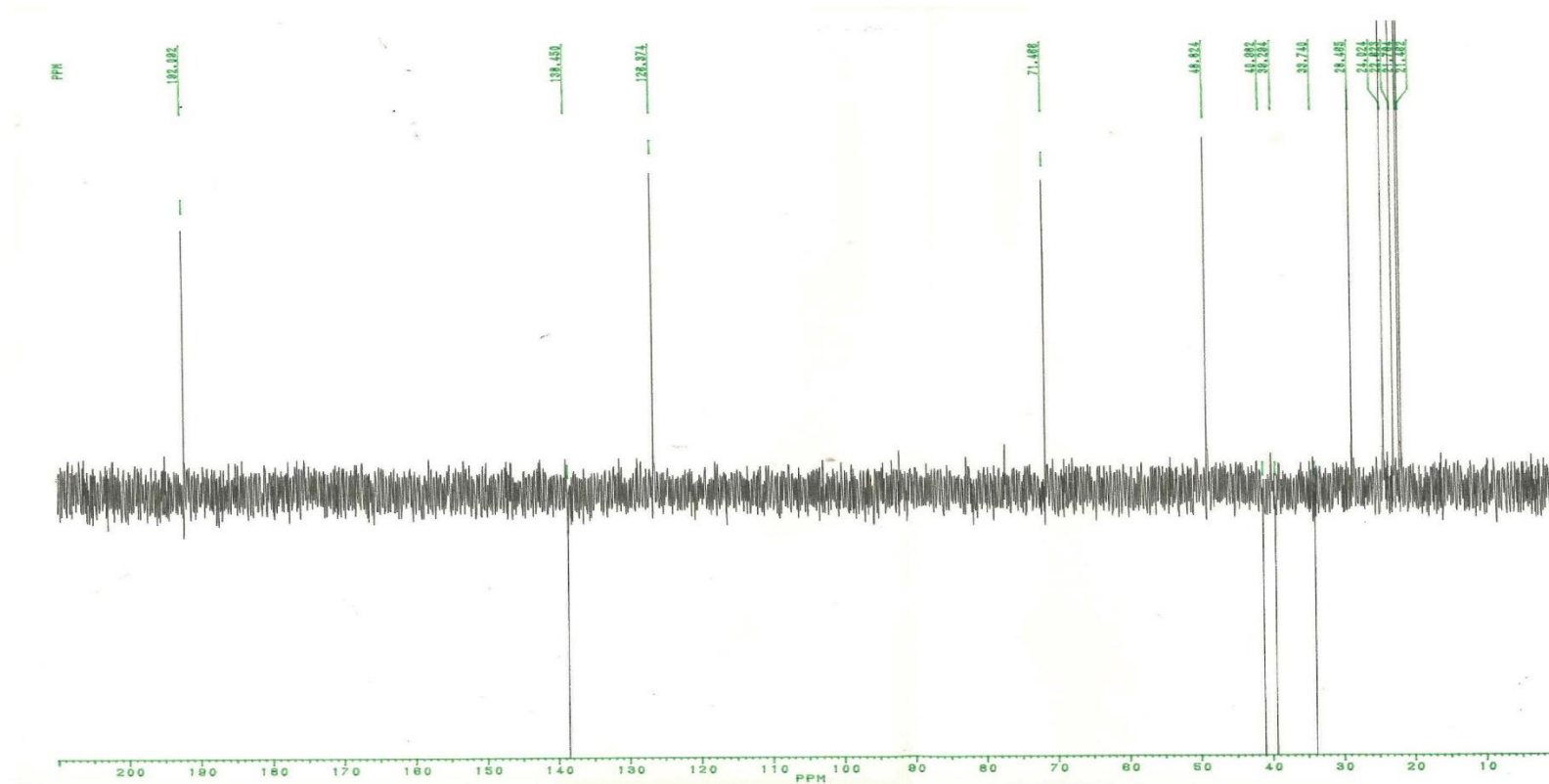
S11.  $^1\text{H}$  NMR spectrum of Tricholomalide E (27).



**S12. COSY spectrum of Tricholomalide E (27).**

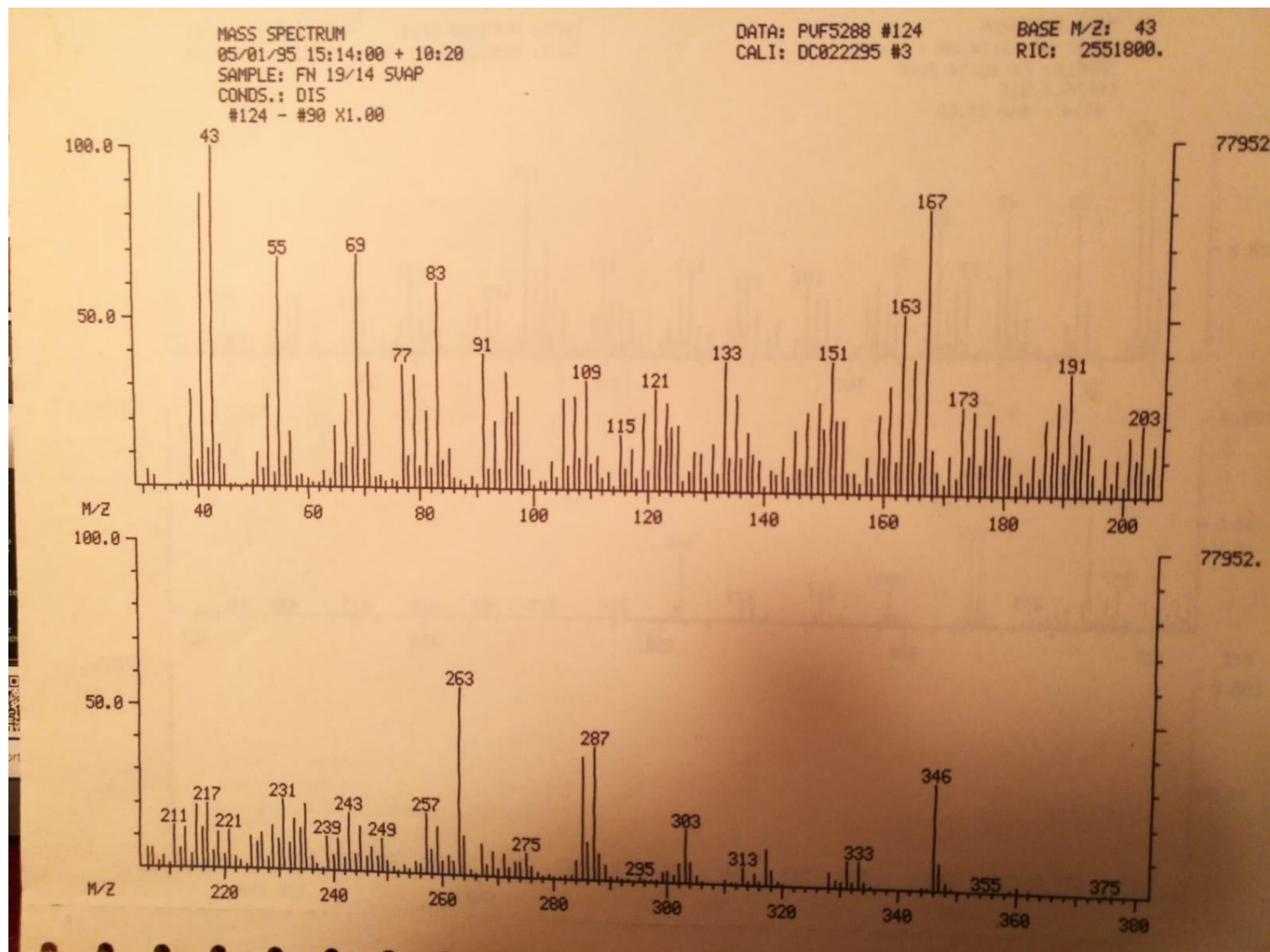


S13.  $^{13}\text{C}$  NMR spectrum of Tricholomalide E (27).

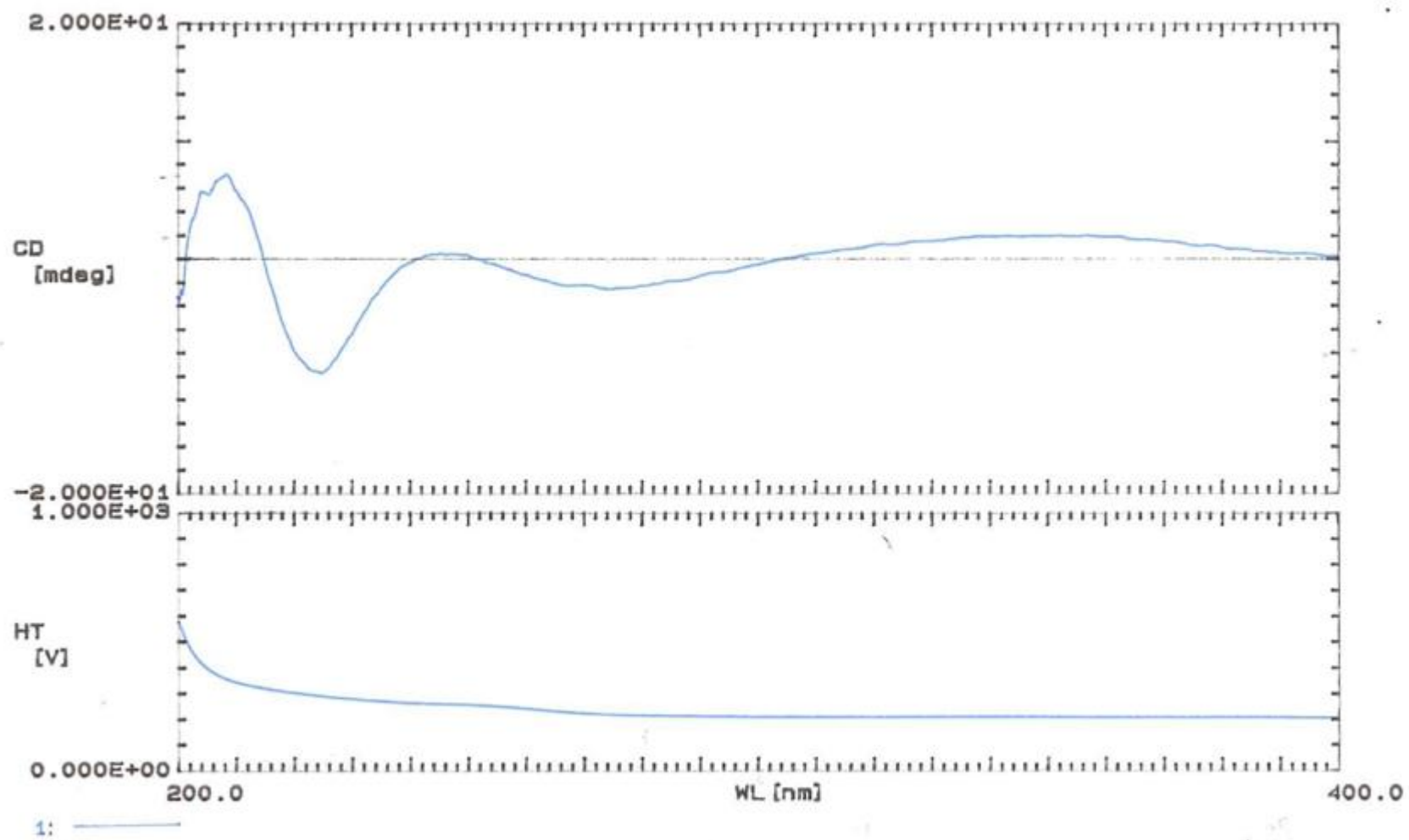


**S14. DEPT  $^{13}\text{C}$  NMR spectrum of Tricholomalide E (27).**



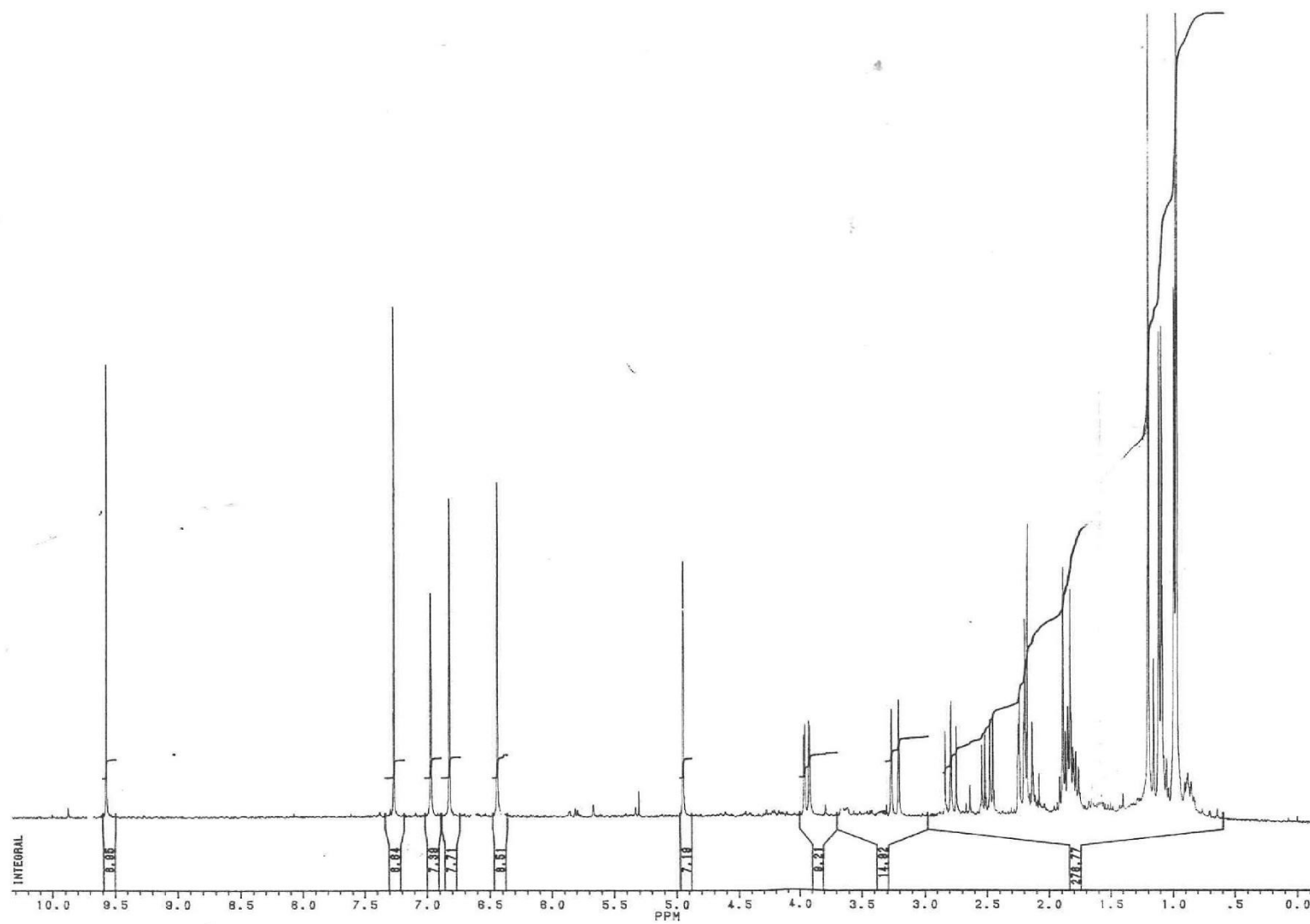


S15. EIMS spectrum of Tricholomalide E (27).

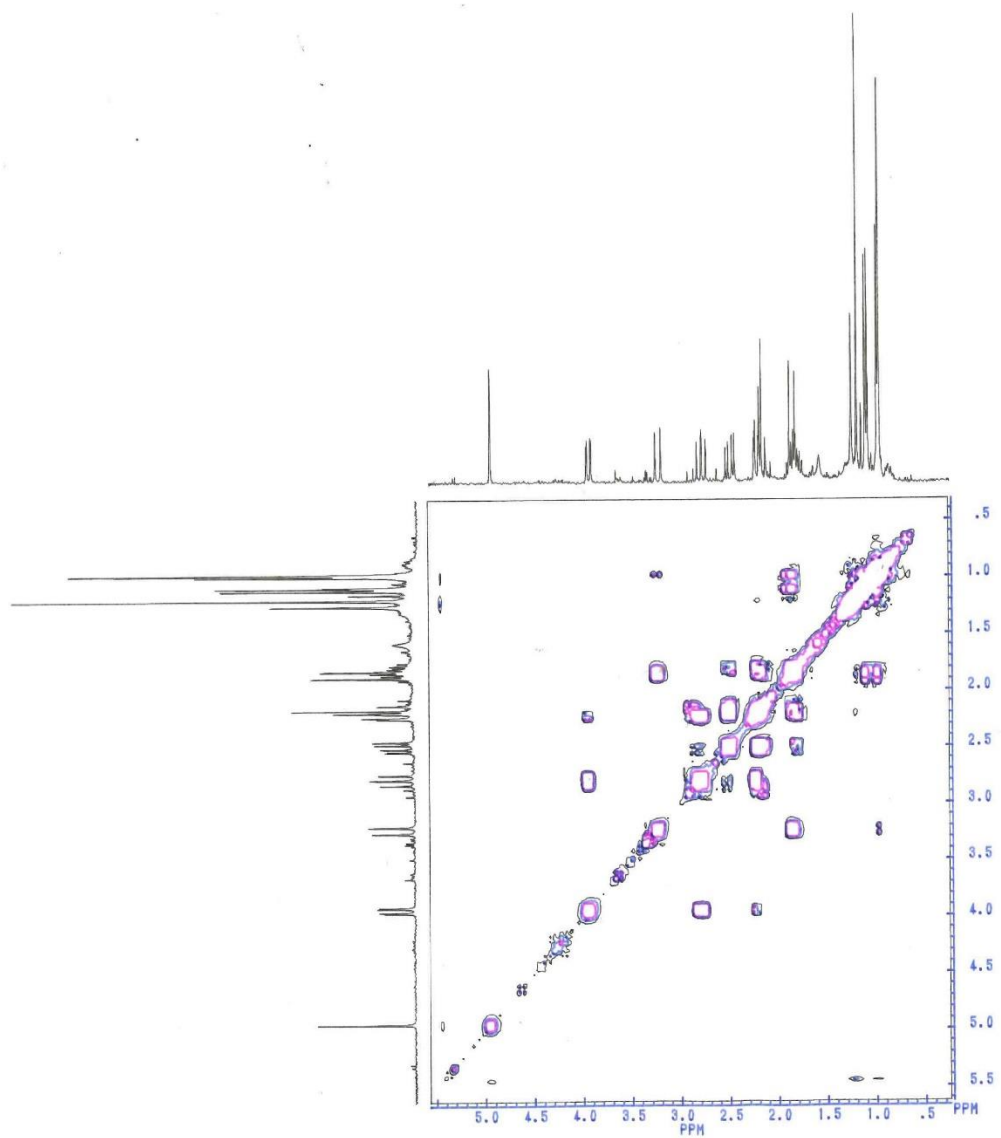


**S16. CD spectrum of Tricholomalide E (27).**

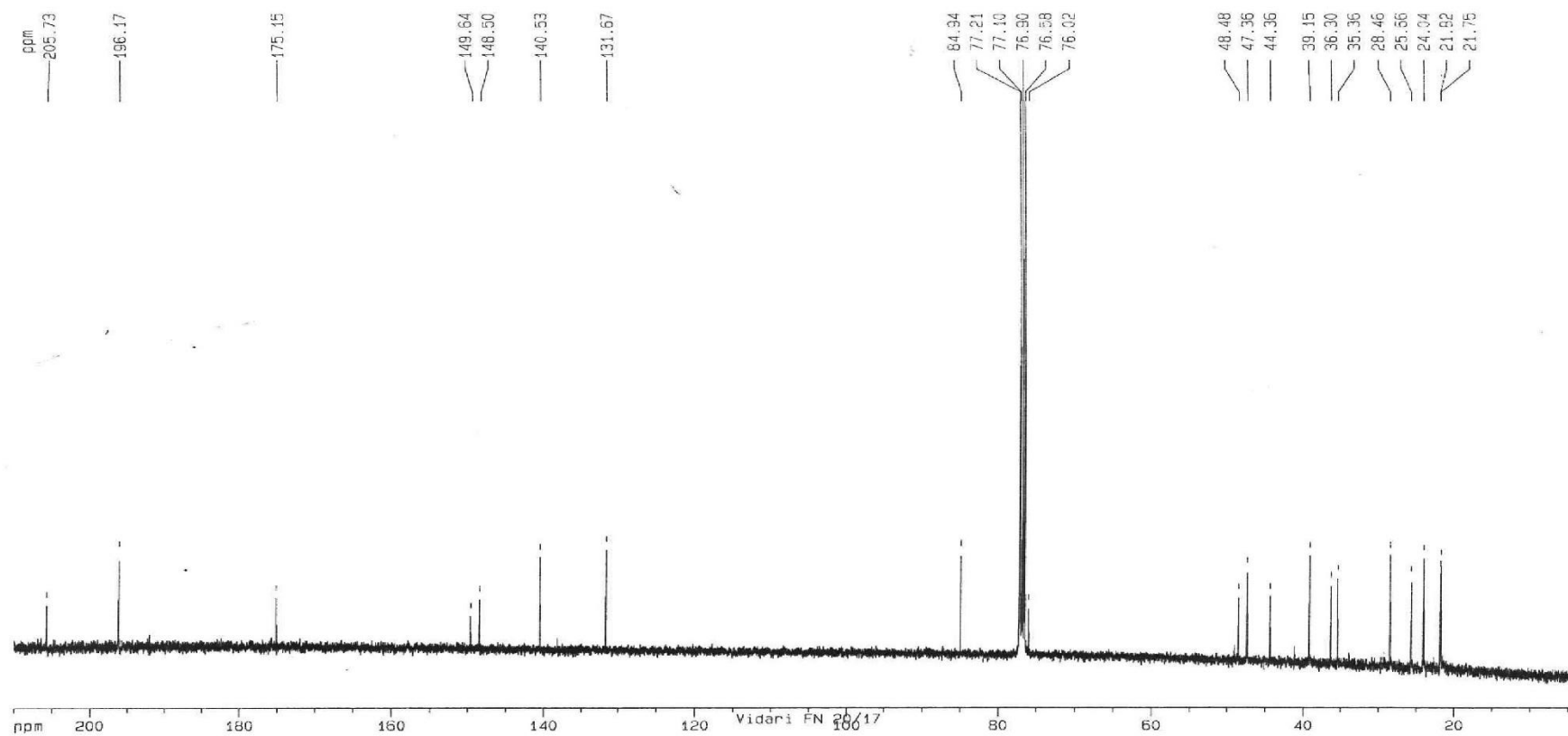
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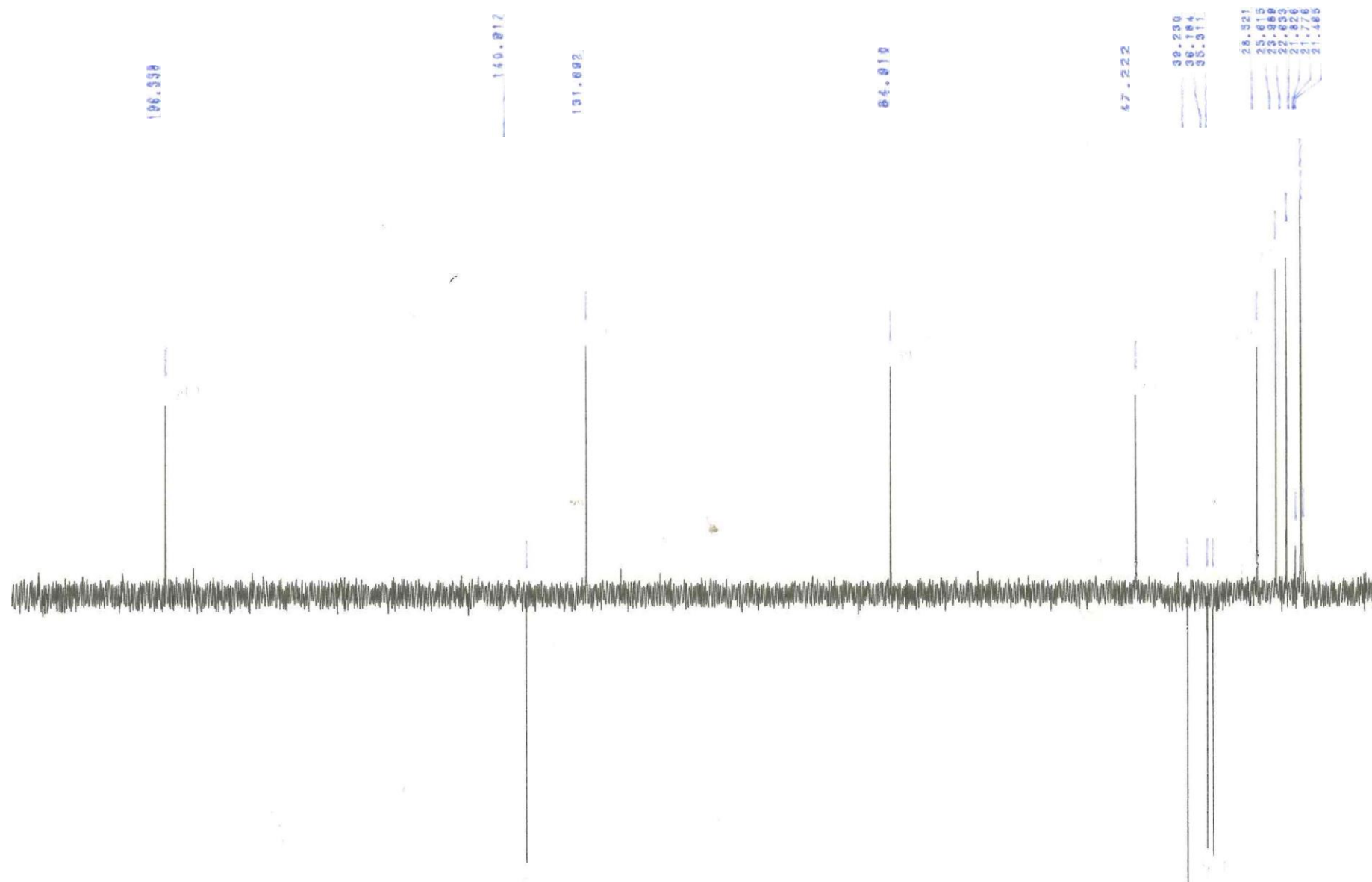
**S17.**  $^1\text{H}$  NMR spectrum of Tricholomalide F (28).



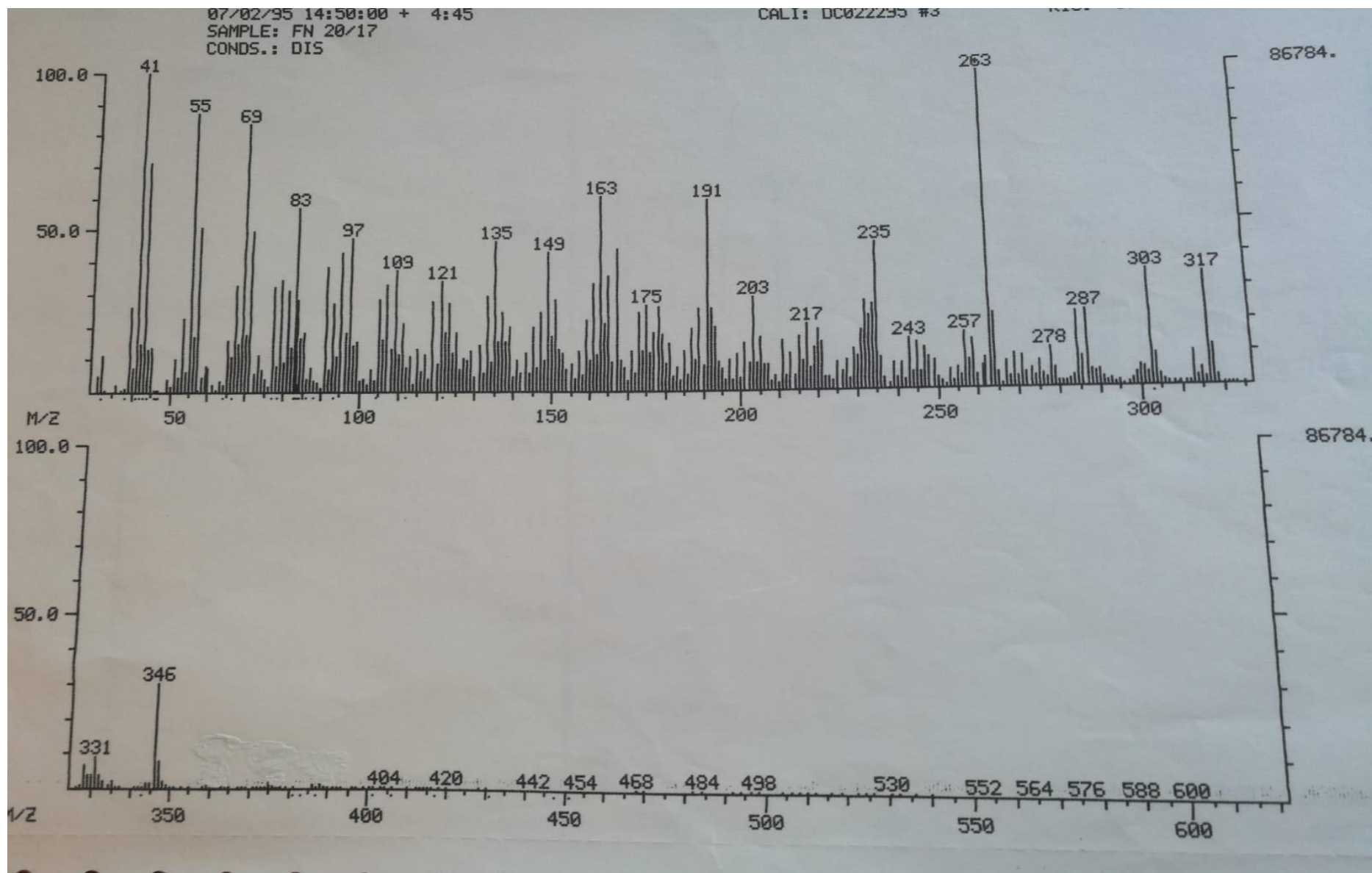
**S18. COSY spectrum of Tricholomalide F (28).**



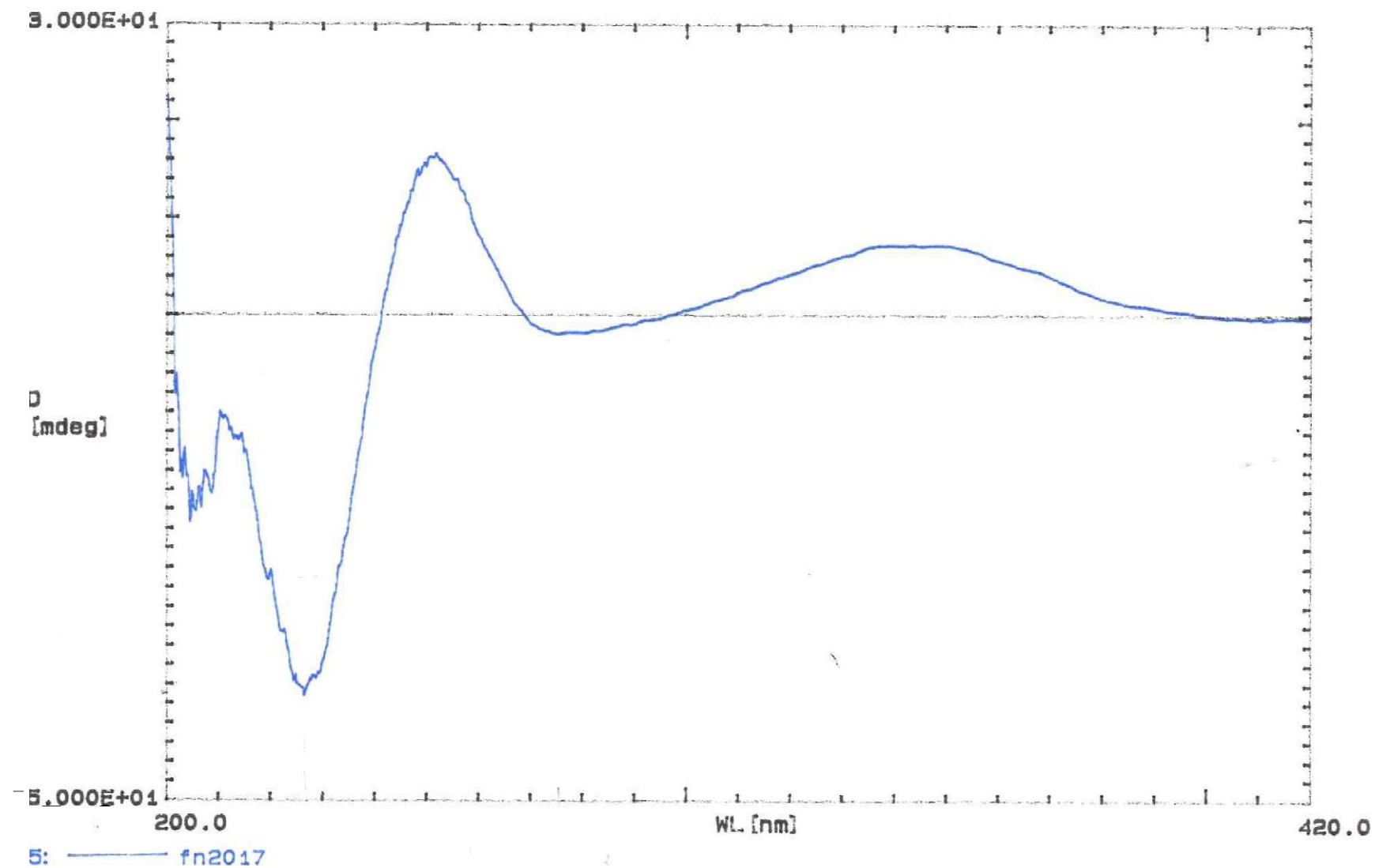
**S19.**  $^{13}\text{C}$  NMR spectrum of Tricholomalide F (28).



**S20. DEPT  $^{13}\text{C}$  NMR spectrum of Tricholomalide F (28).**

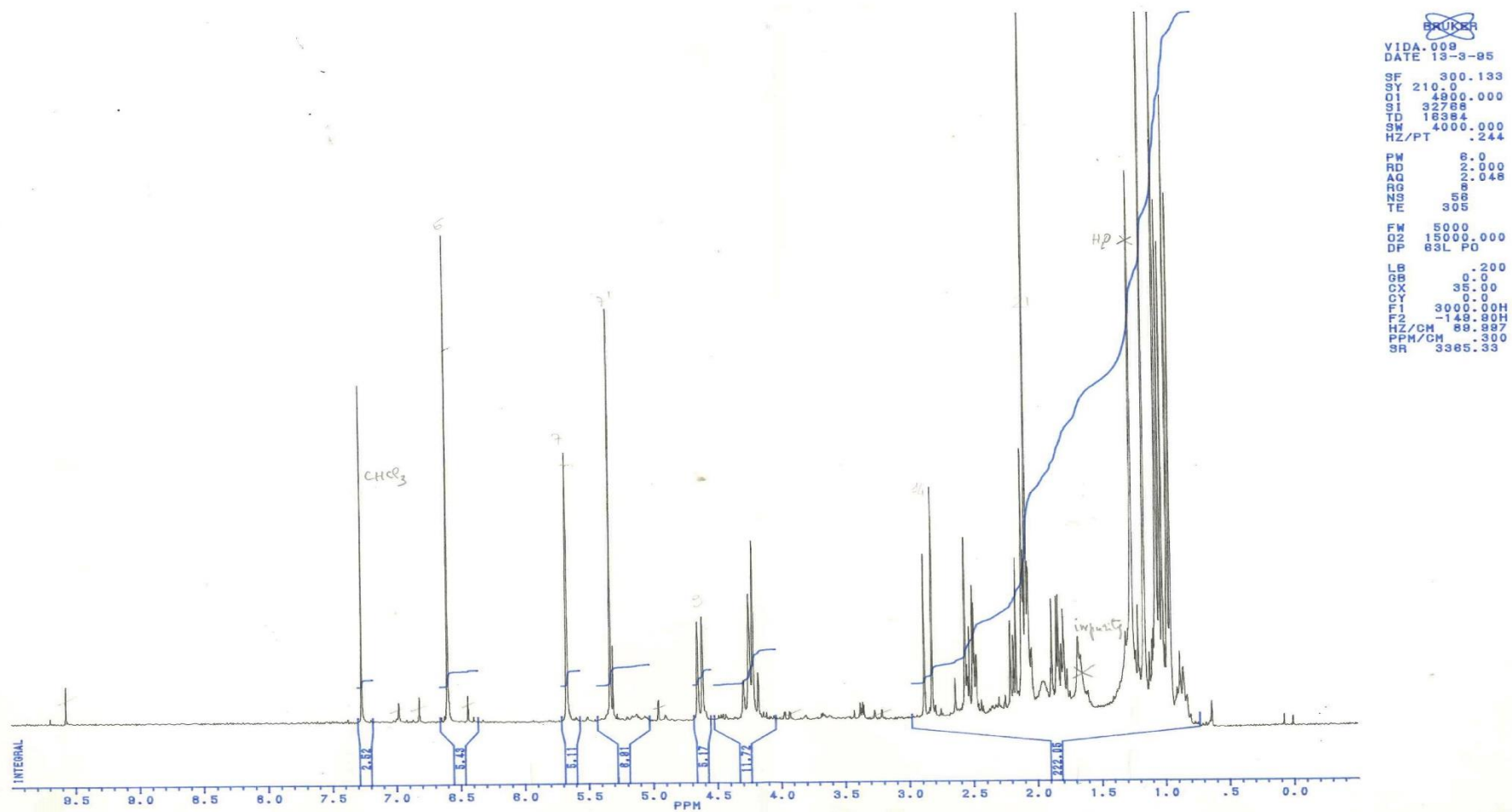


**S21. EIMS spectrum of Tricholomalide F (28).**

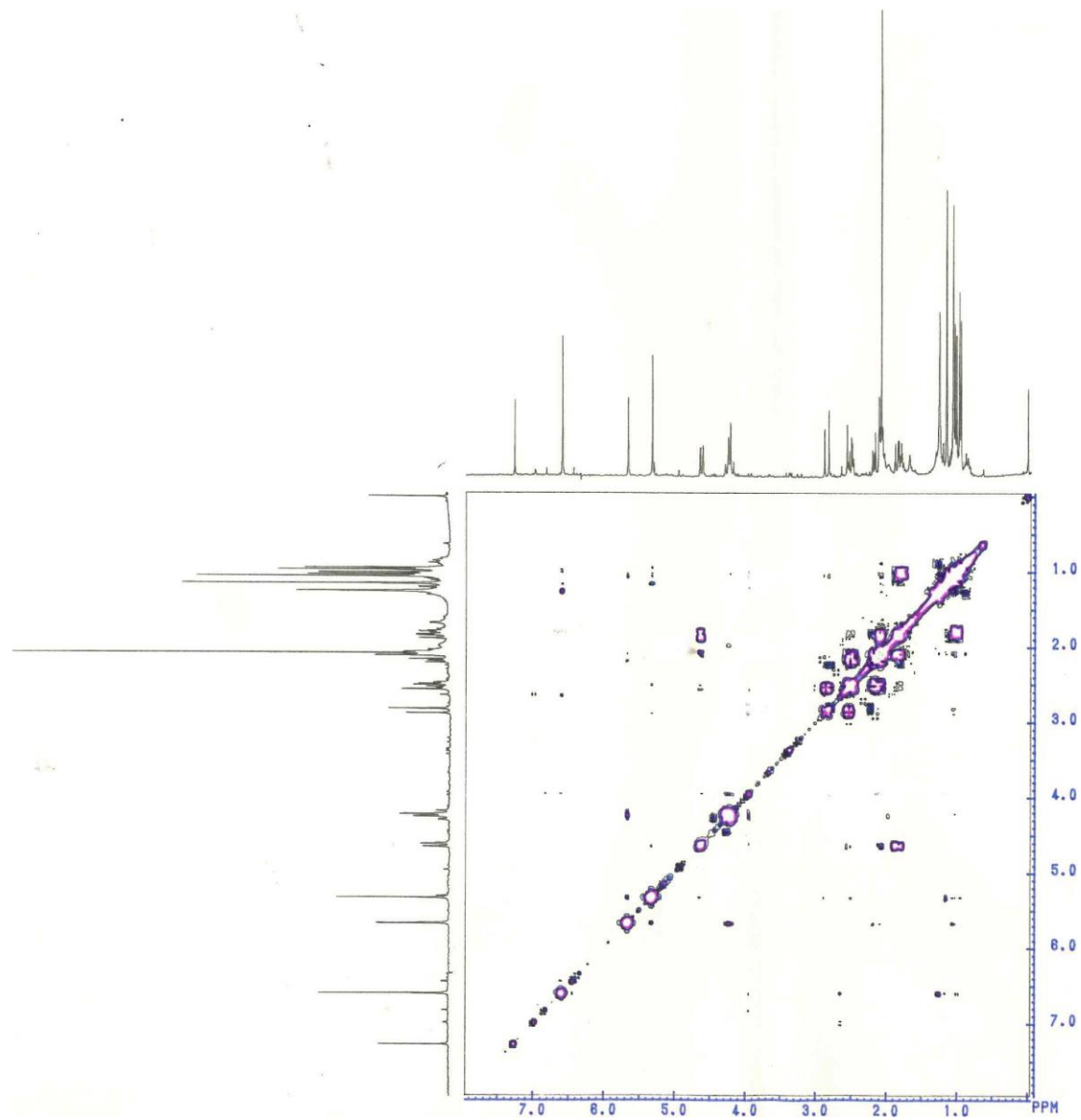


**S22. CD spectrum of Tricholomalide F (28).**

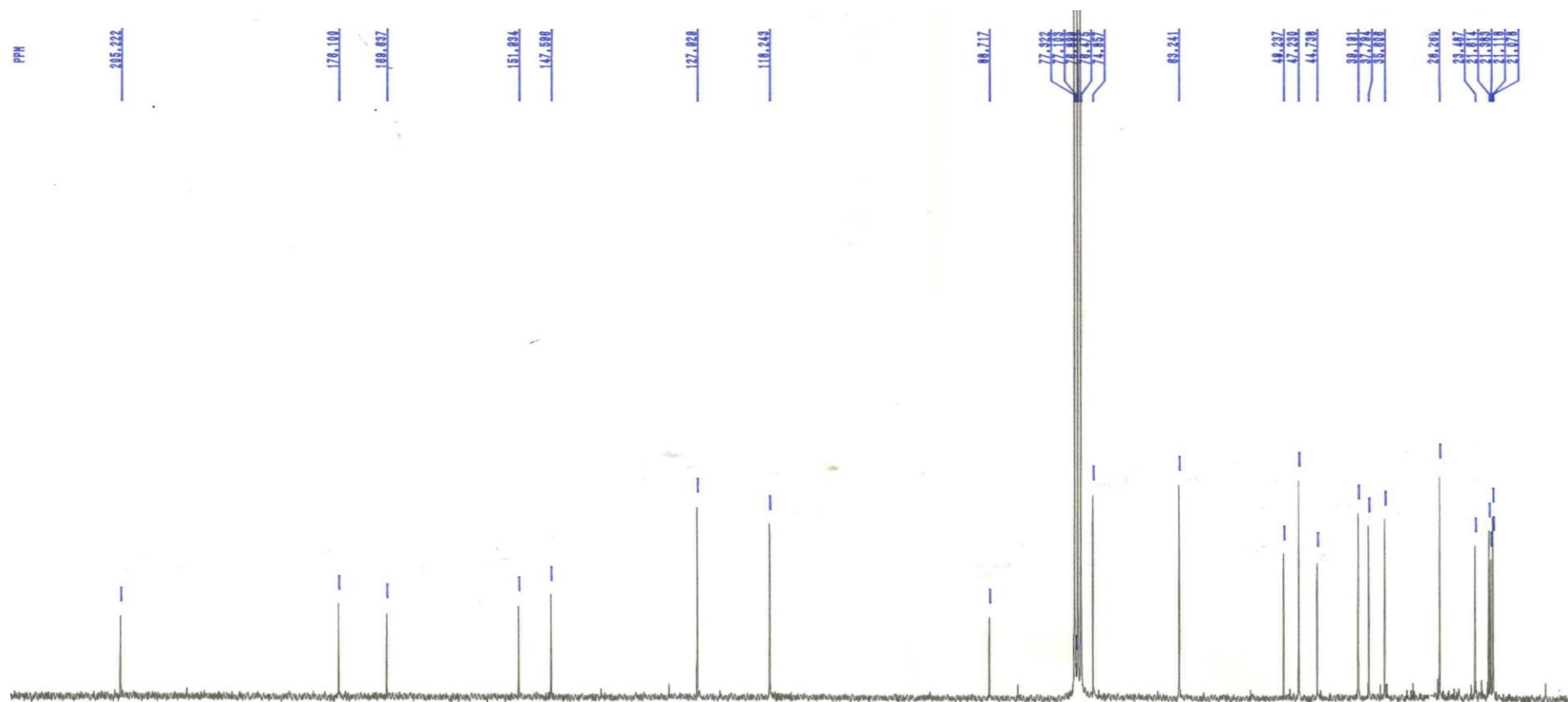




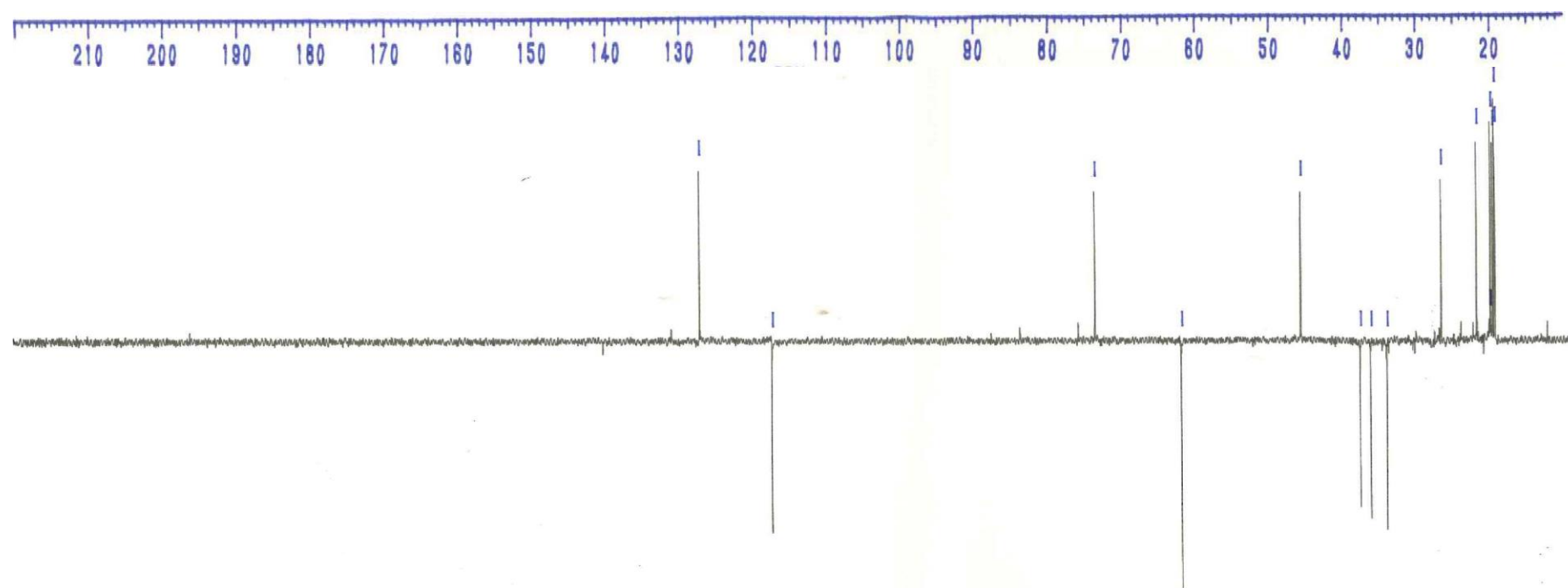
**S23.  $^1\text{H}$  NMR spectrum of Tricholomalide G (29).**



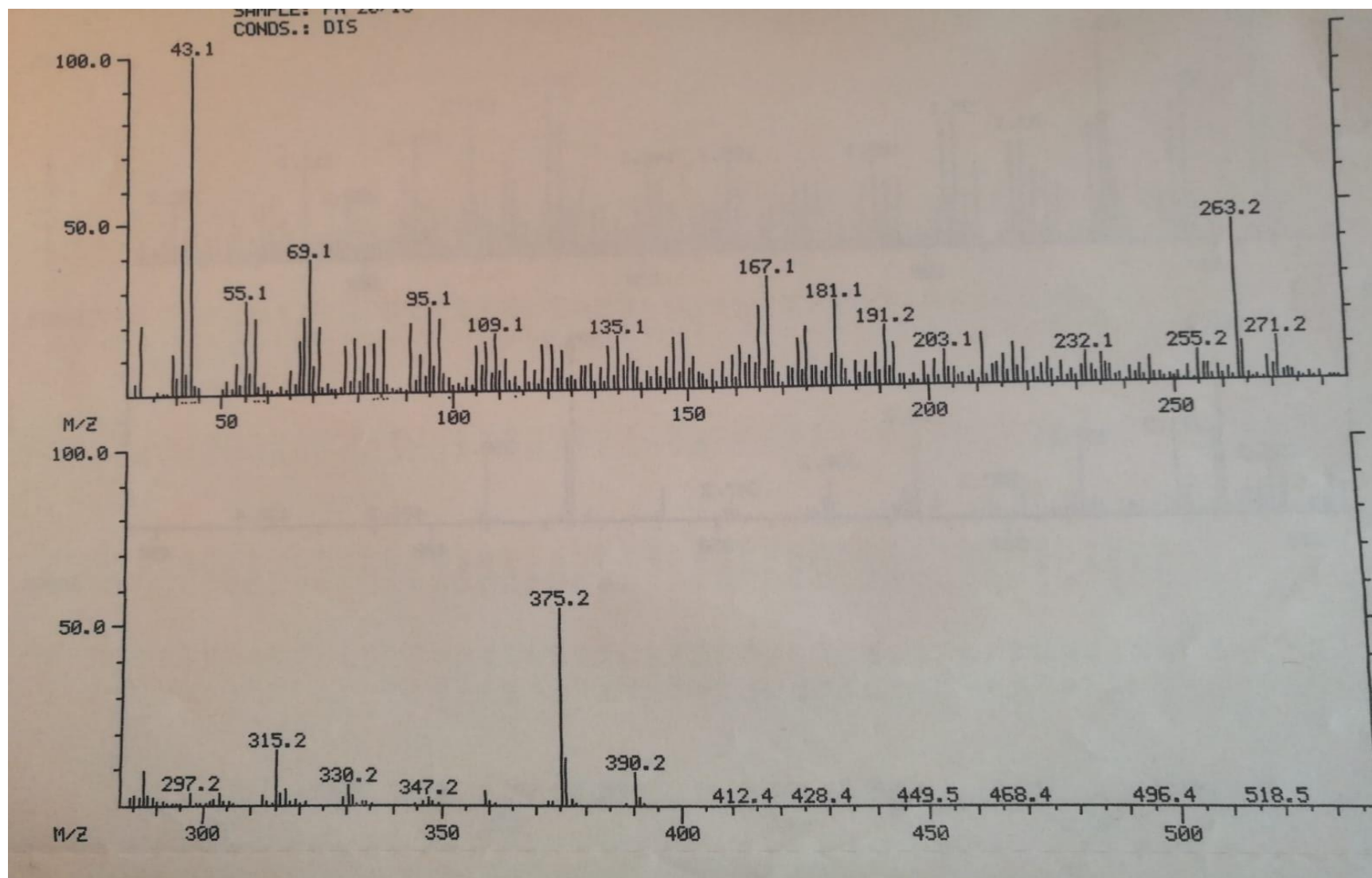
**S24. COSY spectrum of Tricholomalide G (29).**



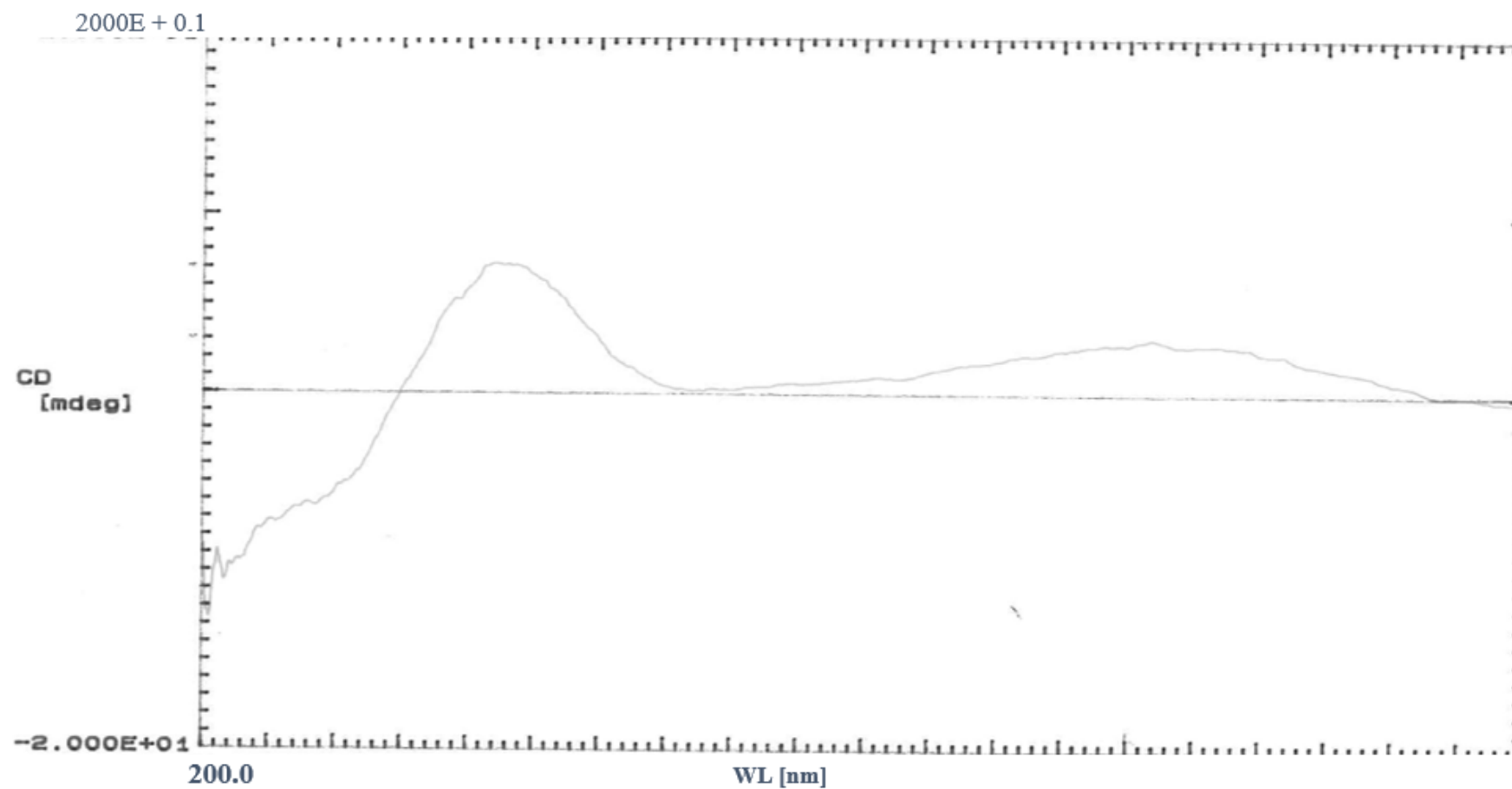
**S25.**  $^{13}\text{C}$  NMR spectrum of Tricholomalide G (29).



**S26. DEPT  $^{13}\text{C}$  NMR spectrum of Tricholomalide G (29).**



**S27. EIMS spectrum of Tricholomalide G (29).**



**S28. CD spectrum of Tricholomalide G (29).**

**S29. Table S1.** NMR spectral data for compounds **26**, **27**, and **29** in CDCl<sub>3</sub>.

C/H	26		27		29	
	$\delta_{\text{H}^{\text{a,b}}}$	$\delta_{\text{C}^{\text{c,d}}}$	$\delta_{\text{H}^{\text{a,b}}}$	$\delta_{\text{C}^{\text{c,d}}}$	$\delta_{\text{H}^{\text{a,b}}}$	$\delta_{\text{C}^{\text{c,d}}}$
1	6.63 (1H, s)	125.9 d	6.65 (1H, s)	126.5 d	6.58 (1H, s)	128.0 d
2	–	87.4 s	–	87.4 s	–	88.8 s
3	–	148.6 s	–	148.8 s	–	147.7 s
4	9.70 (1H, s)	191.8, d	9.70 (1H, s)	192.2, d	4.22 (1H, dd, 13.0, 1.1) 4.27 (1H, br d, 13)	63.3 t
5	–	175.2 s	–	176.0 s	–	176.2 s
6	2.29 (1H, dd, 18.5, 1.0) 2.88 (1H, d, 18.5)	35.3 t	2.16 (1H, dd, 18.5, 1.0) 2.91 (1H, d, 18.5)	33.9 t	2.53 (1H, dd, 18.0, 1.0) 2.85 (1H, d, 18.0)	35.7 t
7	–	49.8 s	–	50.7 s	–	49.3 s
8	4.72 (1H, ddd, 11.5, 2.0, 1.0)	74.4 d	3.63 (1H, br d, 11.5)	71.6 d	4.63 (1H, ddd, 11.5, 2.0, 0.8)	75.0 d
9	1.79 (1H, dd, 15.0, 11.5) 2.15 (1H, dd, 15.0, 2.0)	37.7 t	1.85 (1H, dd, 15.5, 11.5) 2.15 (1H, dd, 15.5, 2.0)	41.1 t	1.84 (1H, dd, 15.5, 11.5) 2.02-2.20 (1H, m)	37.9 t
10	–	44.7 s	–	44.5 s	–	44.8 s
11	–	151.3 s	–	150.7 s	–	152.0 s
12	–	205.0 s	–	205.01 s	–	205.3 s
13	2.1-2.2 (1H, m) 2.45-2.57 (1H, m)	38.9 t	2.14 (1H, dd, 19, 12) 2.49 (1H, dd, 19, 8)	39.4 t	2.05-2.18 (1H, m) 2.47-2.57 (1H, m)	39.3 t
14	2.1-2.2 (1H, m)	47.2 d	1.85-1.92 (1H, m)	49.0 d	2.1-2.2 (1H, m)	47.3 d
15	1.75-1.85 (1H, m)	28.3 d	1.75-1.85 (1H, m)	28.6 d	1.75-1.88 (1H, m)	28.4 d
16	1.02 (3H, d, 6.5)	23.6 q	1.10 (3H, d, 6.5)	24.1 <sup>e</sup> q	1.02 (3H, d, 6.5)	23.6 q
17	0.95 (3H, d, 6.5)	21.6 q	0.99 (3H, d, 6.5)	21.9 q	0.96 (3H, d, 6.5)	21.7 q
18	1.12 (3H, s)	21.4 q	1.09 (3H, s)	21.6 q	1.16 (3H, s)	21.5 q
19	0.98 (3H, s)	22.4 q	1.15 (3H, s)	22.7 <sup>e</sup> q	1.06 (3H, s)	21.2 q
20	6.41 (1H, br s) 6.62 (1H, br s)	138.4 t	6.41 (1H, s) 6.63 (1H, s)	138.5 t	5.32 (1H, s) 5.67 (1H, t, 1.1)	118.3 t
COCH <sub>3</sub>	–	169.4 s	–	–	–	169.7 s
COCH <sub>3</sub>	–	21.1 q	–	–	–	21.2 q
COCH <sub>3</sub>	2.07 (3H, s)	–	–	–	2.08 (3H, s)	–

<sup>a</sup> 300MHz; <sup>b</sup> the chemical shift of the protons attached to each carbon was established by HETCOR cross peaks; <sup>c</sup> 75 MHz; <sup>d</sup> carbon multiplicities were established by DEPT experiments;

<sup>e</sup> the assignments can be interchanged.

**S30. Table S2.** NMR spectral data for compound **28** in CDCl<sub>3</sub>.

C/H	$\delta_{\text{H}}^{\text{a,b}}$	$\delta_{\text{C}}^{\text{c,d}}$	C/H	$\delta_{\text{H}}^{\text{a,b}}$	$\delta_{\text{C}}^{\text{c,d}}$
1	6.97 (1H, d, 1.0)	131.8 d	12	–	205.8 s
2	–	76.1 s	13	2.19 (1H, dd, 19.0, 12.5) 2.50 (1H, dd, 19.0, 8.0)	39.3 t
3	–	148.6 s	14	1.75–1.85 (1H, m)	47.5 d
4	9.55 (1H, s)	196.3 d	15	1.75–1.92 (1H, m)	28.6 d
5	–	175.3 s	16	1.11 (3H, q, 6.5)	24.1 q
6	$\beta$ 1.86 (1H, d, 17.0) $\alpha$ 3.24 (1H, dd, 17.0, 1.0)	35.5 t	17	0.98 (3H, q, 6.5)	21.8 q
7	–	48.6 s	18	1.20 (3H, s)	21.9 q
8	3.92 (1H, dd, 12.8, 2.5)	85.0 d	19	0.97 (3H, br s)	25.8 q
9	$\beta$ 2.23 (1H, dd, 14.0, 2.5) $\alpha$ 2.79 (1H, dd, 14.0, 12.8)	36.4 t	20	6.45 (1H, s) 6.82 (1H, s)	140.6 t
10	–	44.5 s	2'-OH	4.92 (1H, d, 1.0)	–
11	–	149.7 s			

<sup>a</sup>300MHz; <sup>b</sup>the chemical shift of the protons attached to each carbon was established by HETCOR cross peaks; <sup>c</sup>75 MHz; <sup>d</sup>carbon multiplicities were established by DEPT experiments.