

## Legends for Figures

**Figure S1:**  $^1\text{H}$  NMR spectrum of friedelan-3-one (**1**) recorded in  $\text{CDCl}_3$ .

**Figure S2:**  $^{13}\text{C}$  NMR spectrum of friedelan-3-one (**1**) recorded in  $\text{CDCl}_3$ .

**Figure S3:** MS spectrum of friedelan-3-one (**1**).

**Figure S4:** FT-IR spectrum of friedelan-3-one (**1**)

**Figure S5:**  $^1\text{H}$  NMR spectrum of  $3\alpha$ -Hydroxyfriedel-2-one (**2**) recorded in  $\text{CDCl}_3$ .

**Figure S6:**  $^{13}\text{C}$  NMR spectrum of  $3\alpha$ -Hydroxyfriedel-2-one (**2**) recorded in  $\text{CDCl}_3$ .

**Figure S7:** MS spectrum of  $3\alpha$ -Hydroxyfriedel-2-one (**2**).

**Figure S8:** FT-IR spectrum of  $3\alpha$ -Hydroxyfriedel-2-one (**2**).

**Figure S9:**  $^1\text{H}$  NMR spectrum of 3-Hydroxyfriedel-3-en-2-one (**3**) recorded in  $\text{CDCl}_3$ .

**Figure S10:**  $^{13}\text{C}$  NMR spectrum of 3-Hydroxyfriedel-3-en-2-one (**3**) recorded in  $\text{CDCl}_3$ .

**Figure S11:** MS spectrum of 3-Hydroxyfriedel-3-en-2-one (**3**).

**Figure S12:** FT-IR spectrum of 3-Hydroxyfriedel-3-en-2-one (**3**).

**Figure S13:**  $^1\text{H}$  NMR spectrum of Lupeol (**4**) recorded in  $\text{CDCl}_3$ .

**Figure S14:**  $^{13}\text{C}$  NMR spectrum of Lupeol (**4**) recorded in  $\text{CDCl}_3$ .

**Figure S15:** MS spectrum of Lupeol (**4**).

**Figure S16:** FT-IR spectrum of Lupeol (**4**).

**Figure S17:**  $^1\text{H}$  NMR spectrum of Stigmasterol (**5**) recorded in  $\text{CDCl}_3$ .

**Figure S18:**  $^{13}\text{C}$  NMR spectrum of Stigmasterol (**5**) recorded in  $\text{CDCl}_3$

**Figure S19:** MS spectrum of Stigmasterol (**5**).

**Figure S20:** FT-IR spectrum of Stigmasterol (**5**).

**Figure S21:**  $^1\text{H}$  NMR spectrum of  $(\pm)$ -4-O-Methylangolensin (**6**) recorded in  $\text{CDCl}_3$ .

**Figure S22:**  $^{13}\text{C}$  NMR spectrum of  $(\pm)$ -4-O-Methylangolensin (**6**) recorded in  $\text{CDCl}_3$

**Figure S23:** MS spectrum of ( $\pm$ ) -4-O-Methylangolensin (**6**).

**Figure S24:** FT-IR spectrum of ( $\pm$ ) -4-O-Methylangolensin (**6**).

**Figure S25.**  $^1\text{H}$  NMR spectrum of Oleanolic acid acetate (**7**) recorded in  $\text{CDCl}_3$ .

**Figure S26:**  $^{13}\text{C}$  NMR spectrum of Oleanolic acid acetate (**7**) recorded in  $\text{CDCl}_3$

**Figure S27:** MS spectrum of Oleanolic acid acetate (**7**).

**Figure S28:** FT-IR spectrum of Oleanolic acid acetate (**7**).

**Figure S29:**  $^1\text{H}$  NMR spectrum of Tetradecyl (E)-ferulate (**8**) recorded in  $\text{CDCl}_3$ .

**Figure S30:**  $^{13}\text{C}$  NMR spectrum of Tetradecyl (E)-ferulate (**8**) recorded in  $\text{CDCl}_3$

**Figure S31:** MS spectrum of Tetradecyl (E)-ferulate (**8**).

**Figure S32:** FT-IR spectrum of Tetradecyl (E)-ferulate (**8**).

**Figure S33:**  $^1\text{H}$  NMR spectrum of 9-Octadecenoic acid (**9**) recorded in  $\text{CDCl}_3$ .

**Figure S34:**  $^{13}\text{C}$  NMR spectrum of 9-Octadecenoic acid (**9**) recorded in  $\text{CDCl}_3$

**Figure S35:** MS spectrum of 9-Octadecenoic acid (**9**).

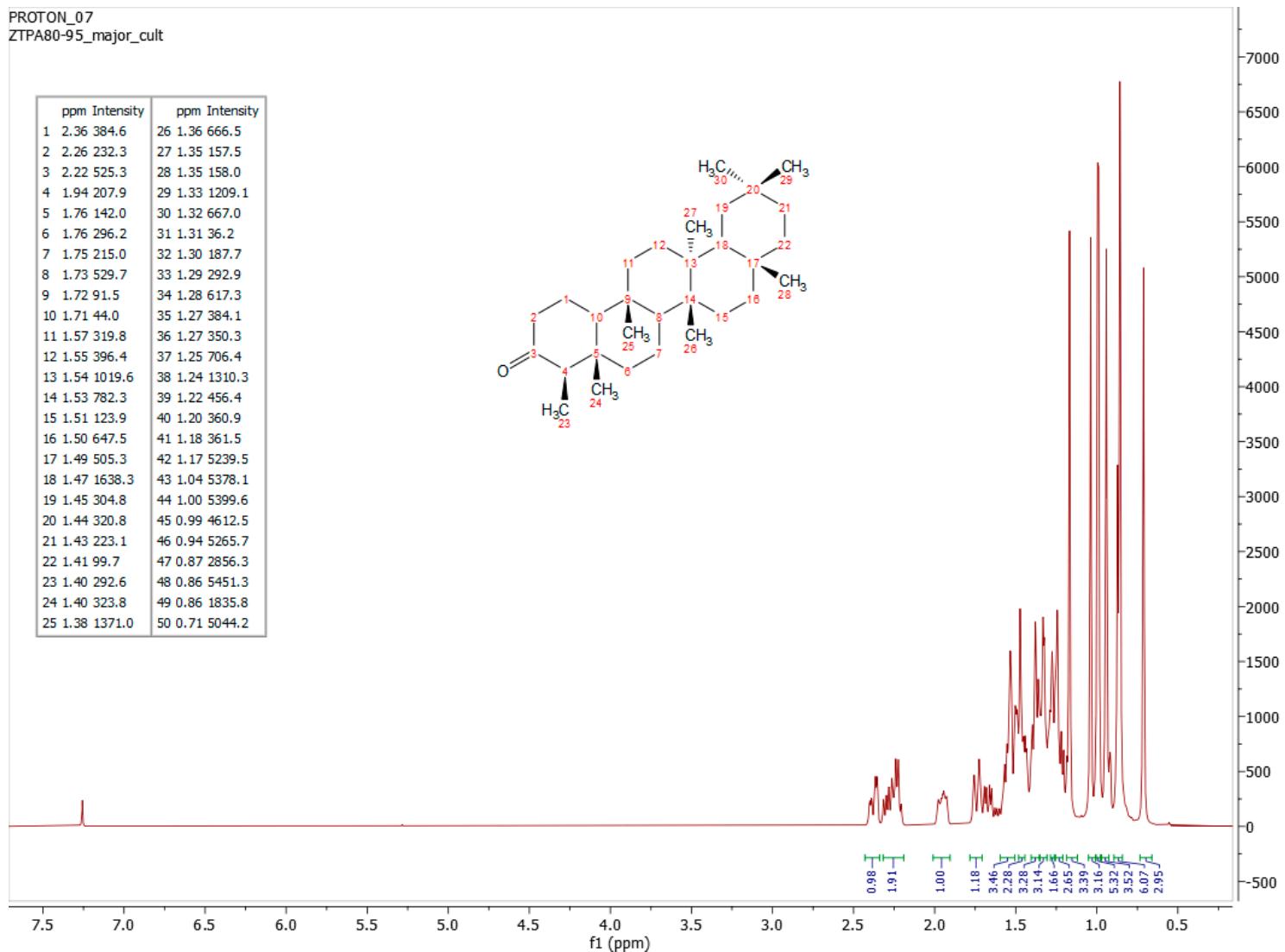
**Figure S36:** FT-IR spectrum of 9-Octadecenoic acid (**9**).

**Table S1:**  $^{13}\text{C}$  NMR (100 MHz) data ( $\delta$  value) of isolated compounds (1-8) in  $\text{CHCl}_3$

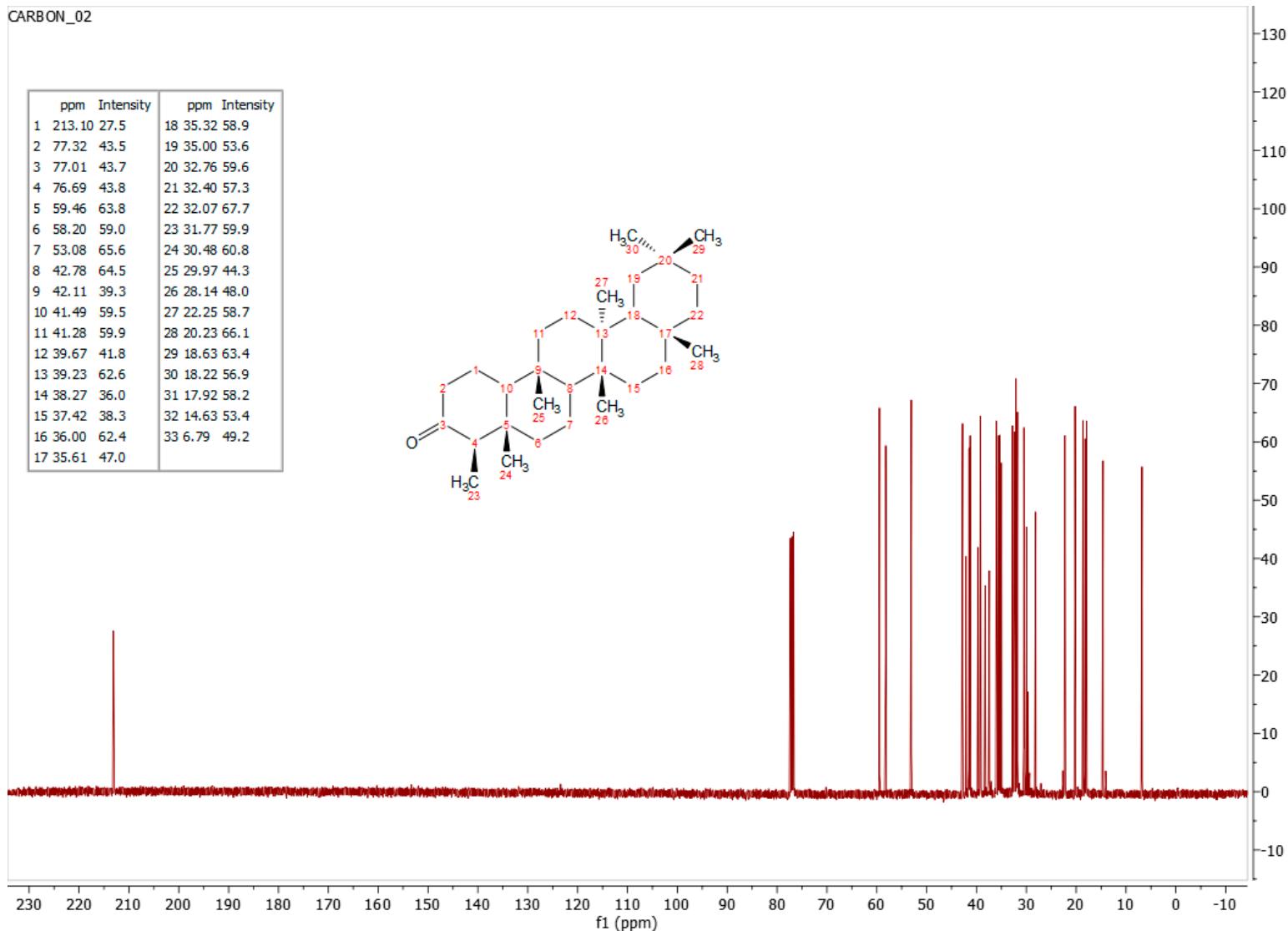
**Table S2:**  $^1\text{H}$  NMR (400 MHz) data ( $\delta$  value) of isolated compounds (1-5 and 7) in  $\text{CHCl}_3$

**Table S3:**  $^1\text{H}$  NMR (400 MHz) data ( $\delta$  value) of isolated compounds (6 and 8) in  $\text{CHCl}$

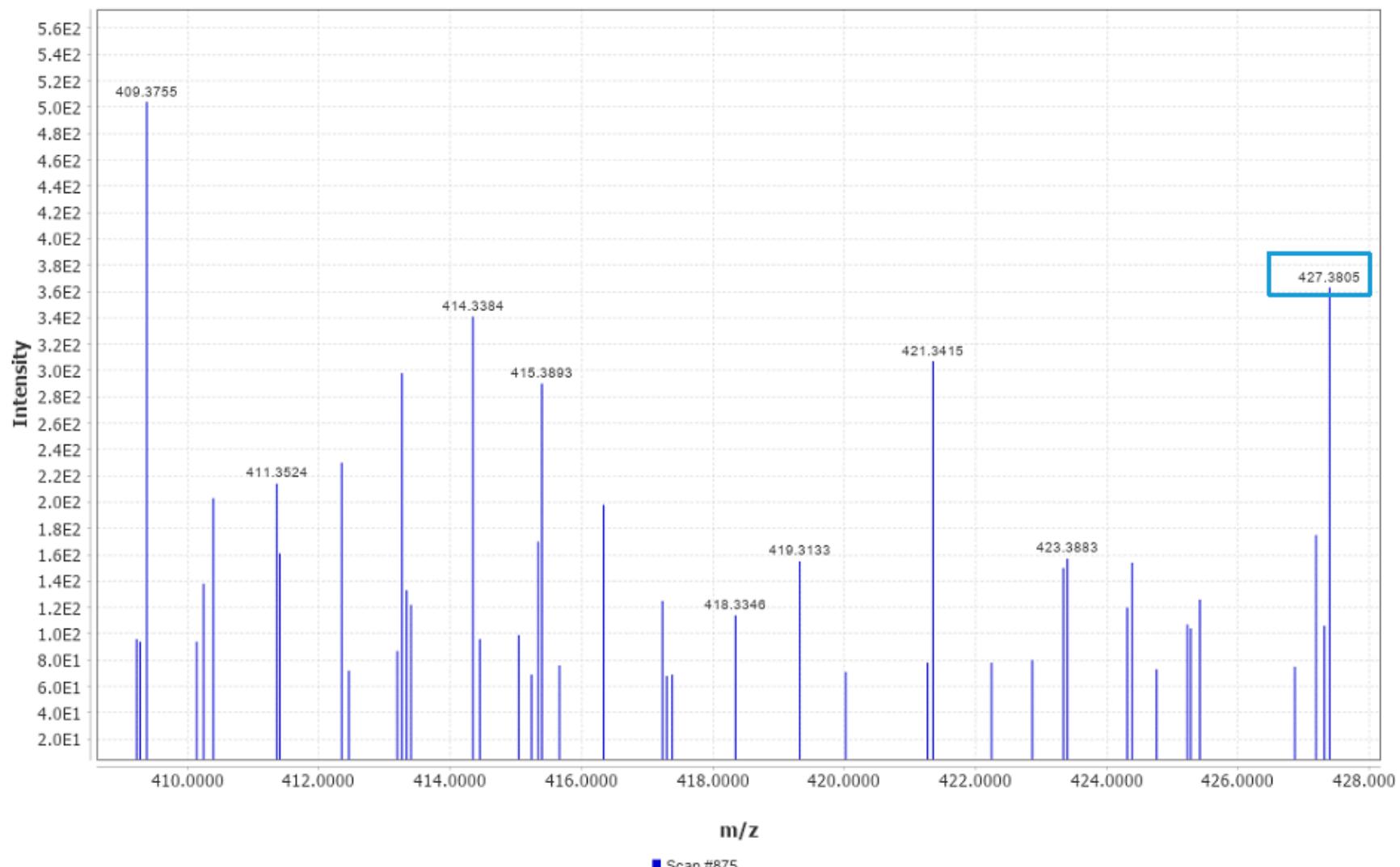
PROTON\_07  
ZTPA80-95\_major\_cult



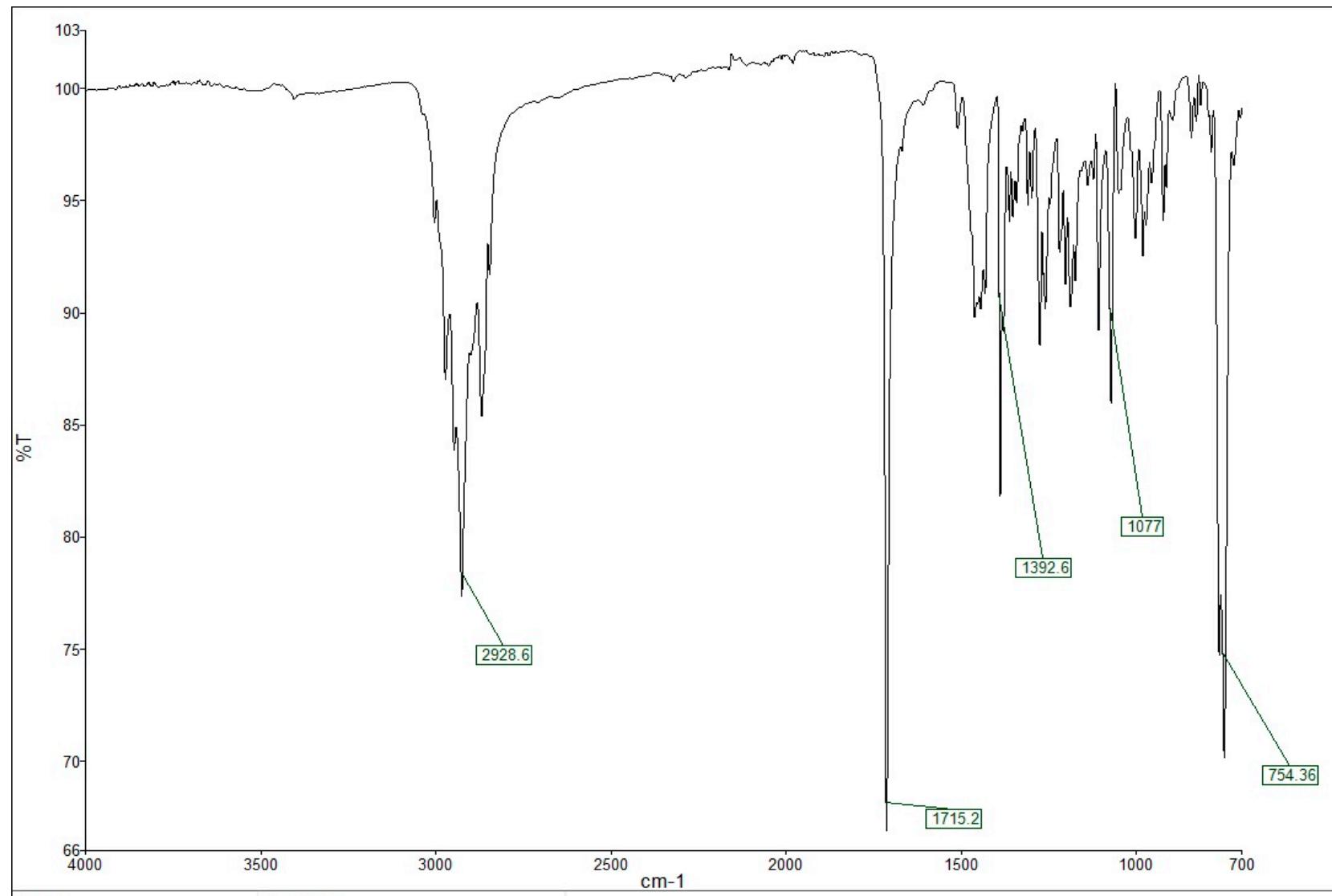
**Figure SI:** <sup>1</sup>H NMR spectrum of friedelan-3-one (1) recorded in CDCl<sub>3</sub>.



**Figure S2:** <sup>13</sup>C NMR spectrum of friedelan-3-one (**1**) recorded in CDCl<sub>3</sub>.

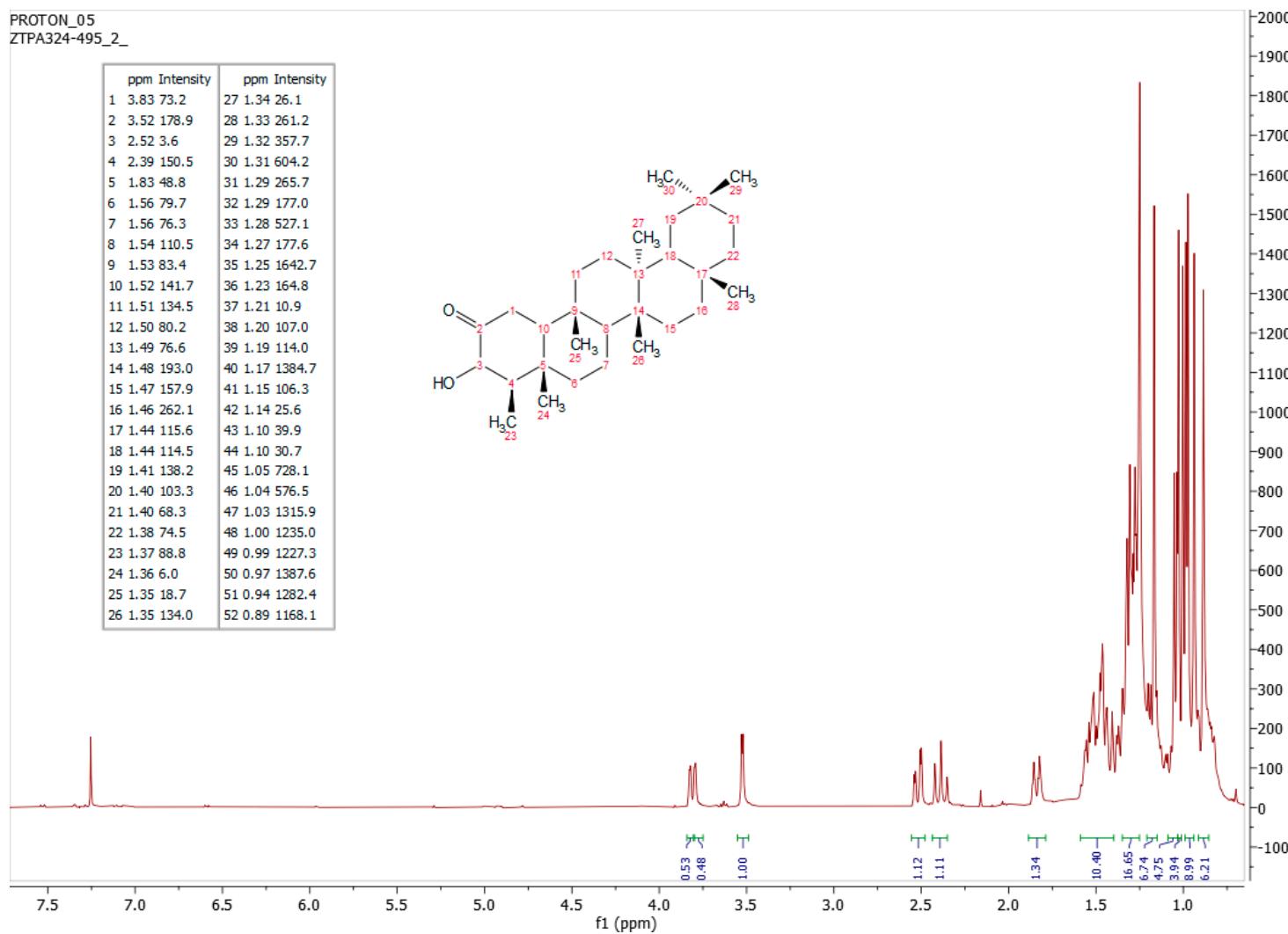


**Figure S3:** MS spectrum of friedelan-3-one (**1**).

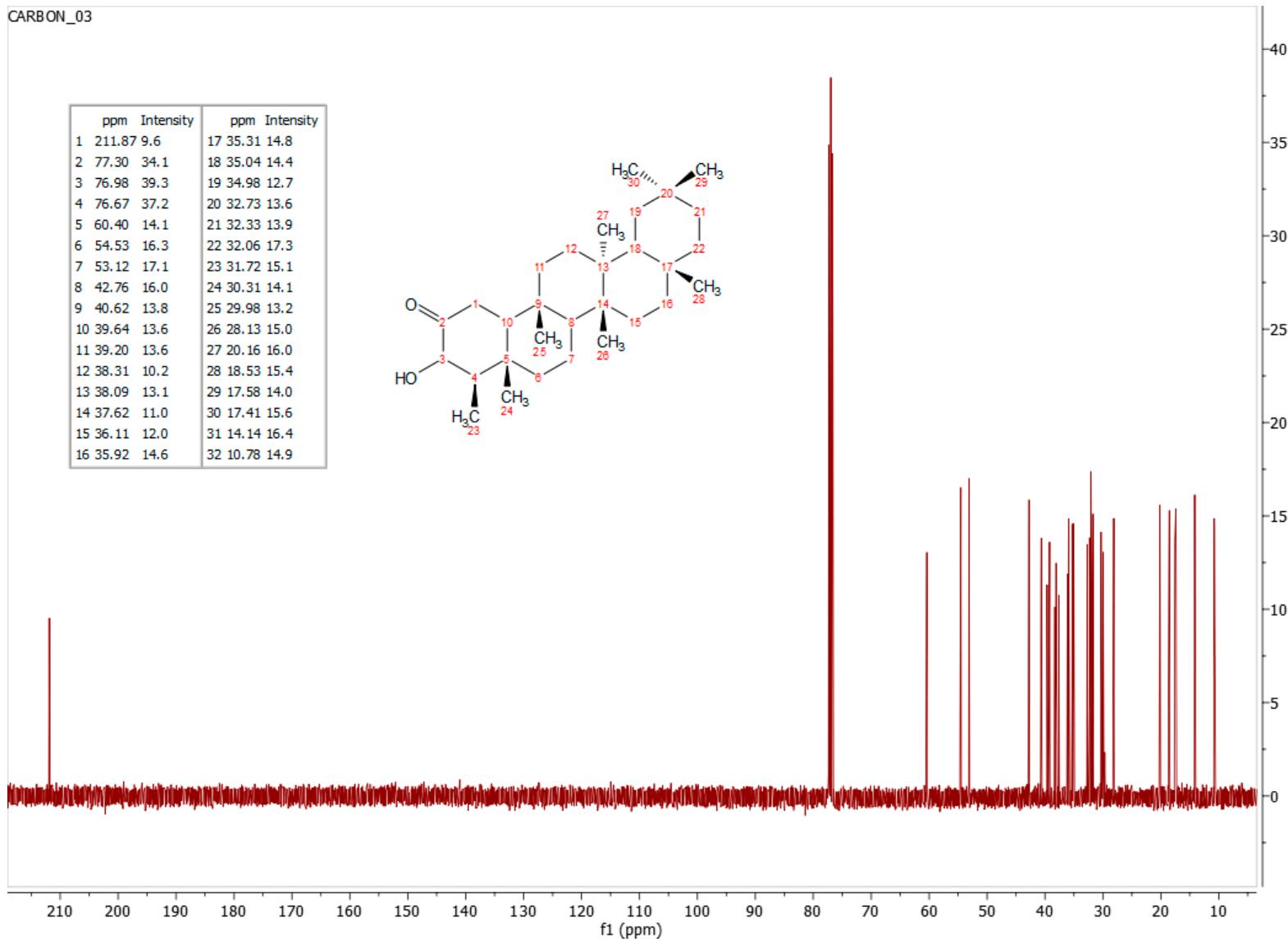


**Figure S4:** FT-IR spectrum of friedelan-3-one (**1**).

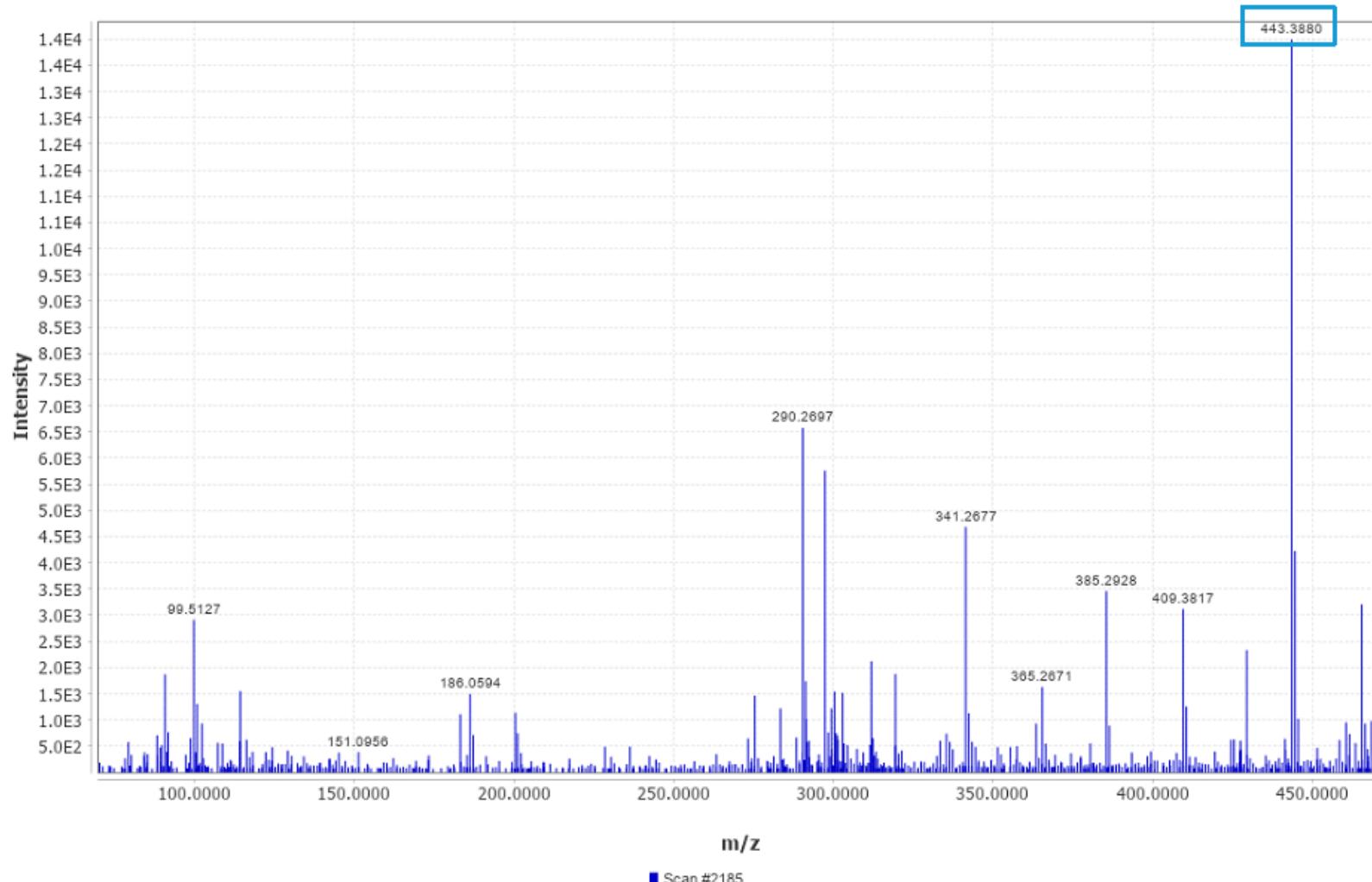
PROTON\_05  
ZTPA324-495\_2\_-



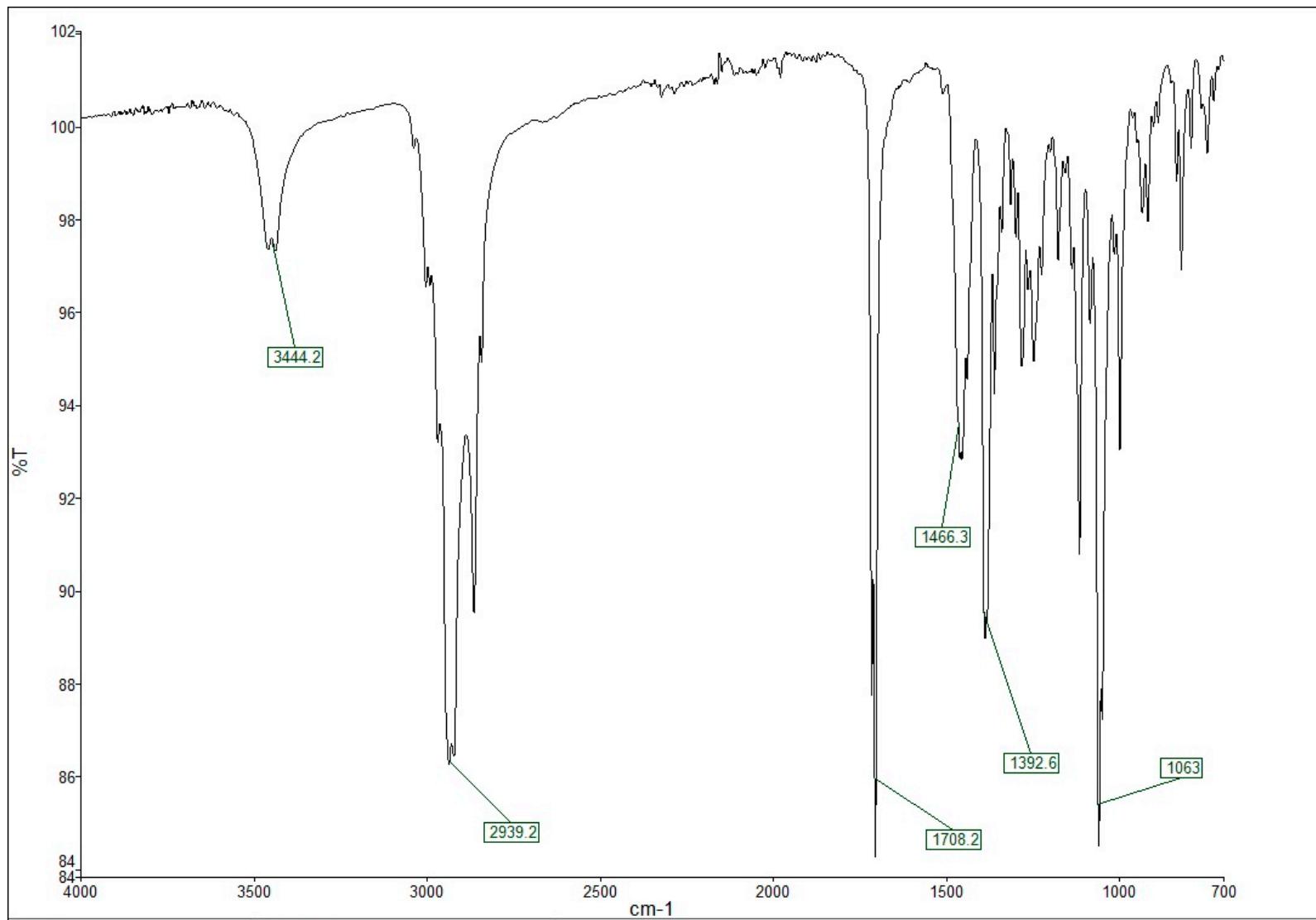
**Figure S5:** <sup>1</sup>H NMR spectrum of 3 $\alpha$ -Hydroxyfriedel-2-one (2) recorded in CDCl<sub>3</sub>.



**Figure S6:** <sup>13</sup>C NMR spectrum of 3 $\alpha$ -Hydroxyfriedel-2-one (**2**) recorded in CDCl<sub>3</sub>.

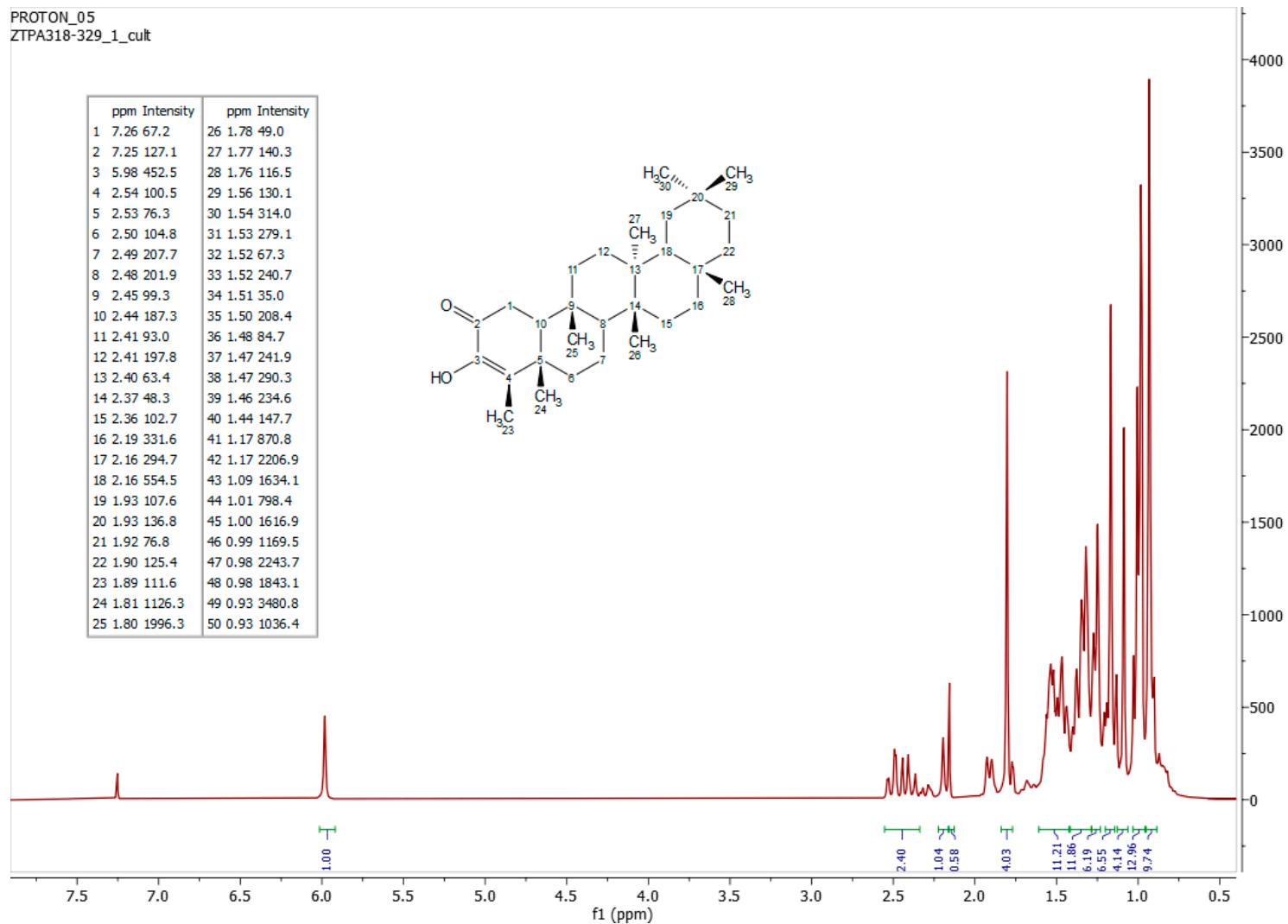


**Figure S7:** MS spectrum of  $3\alpha$ -Hydroxyfriedel-2-one (**2**).



**Figure S8:** FT-IR spectrum of 3 $\alpha$ -Hydroxyfriedel-2-one (**2**).

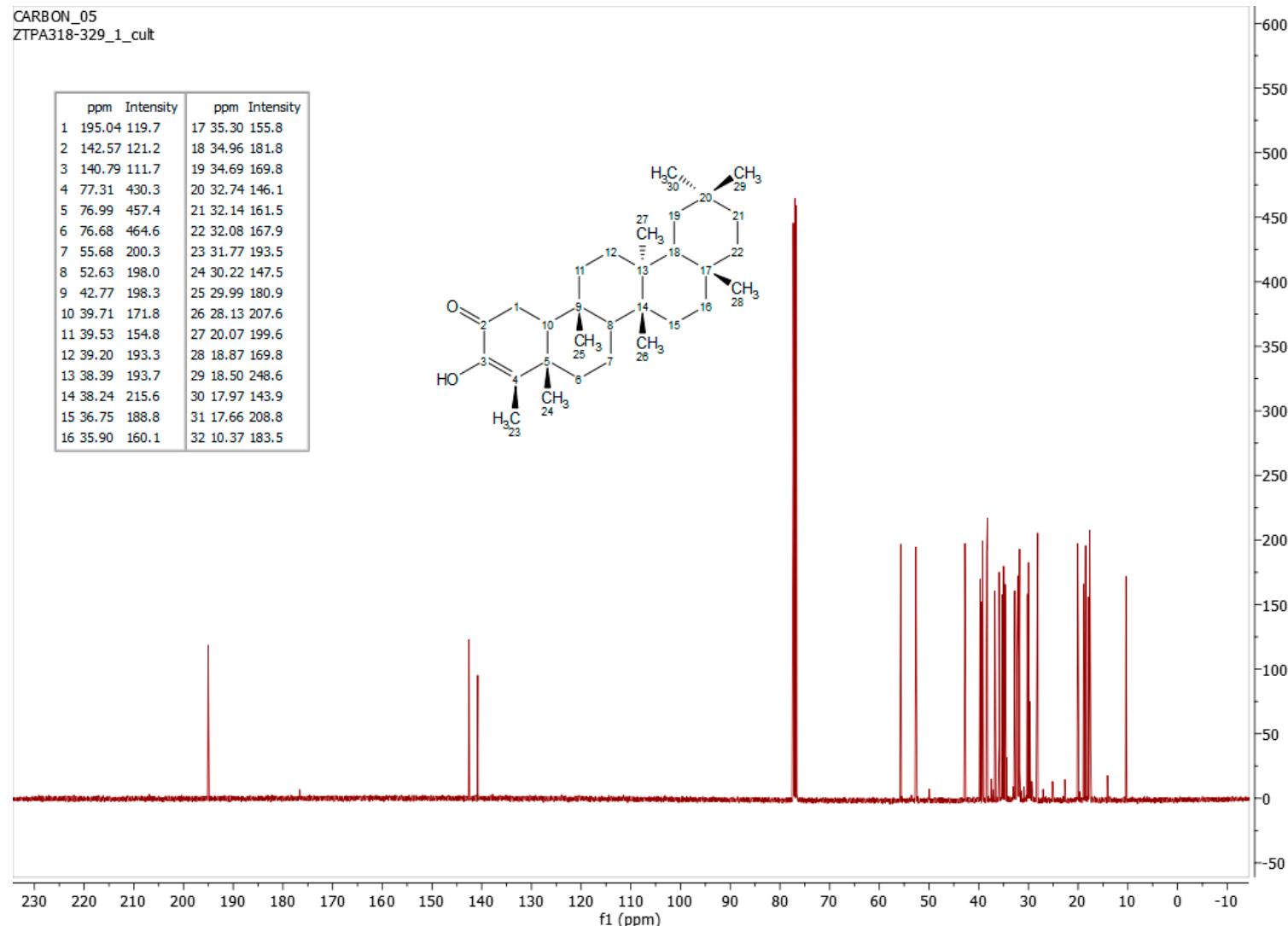
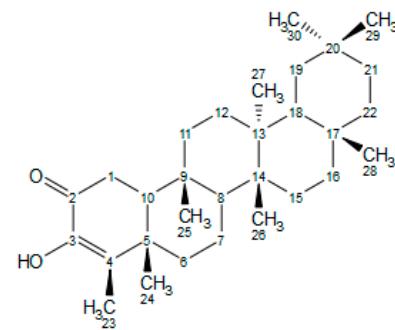
PROTON\_05  
ZTPA318-329\_1\_cult



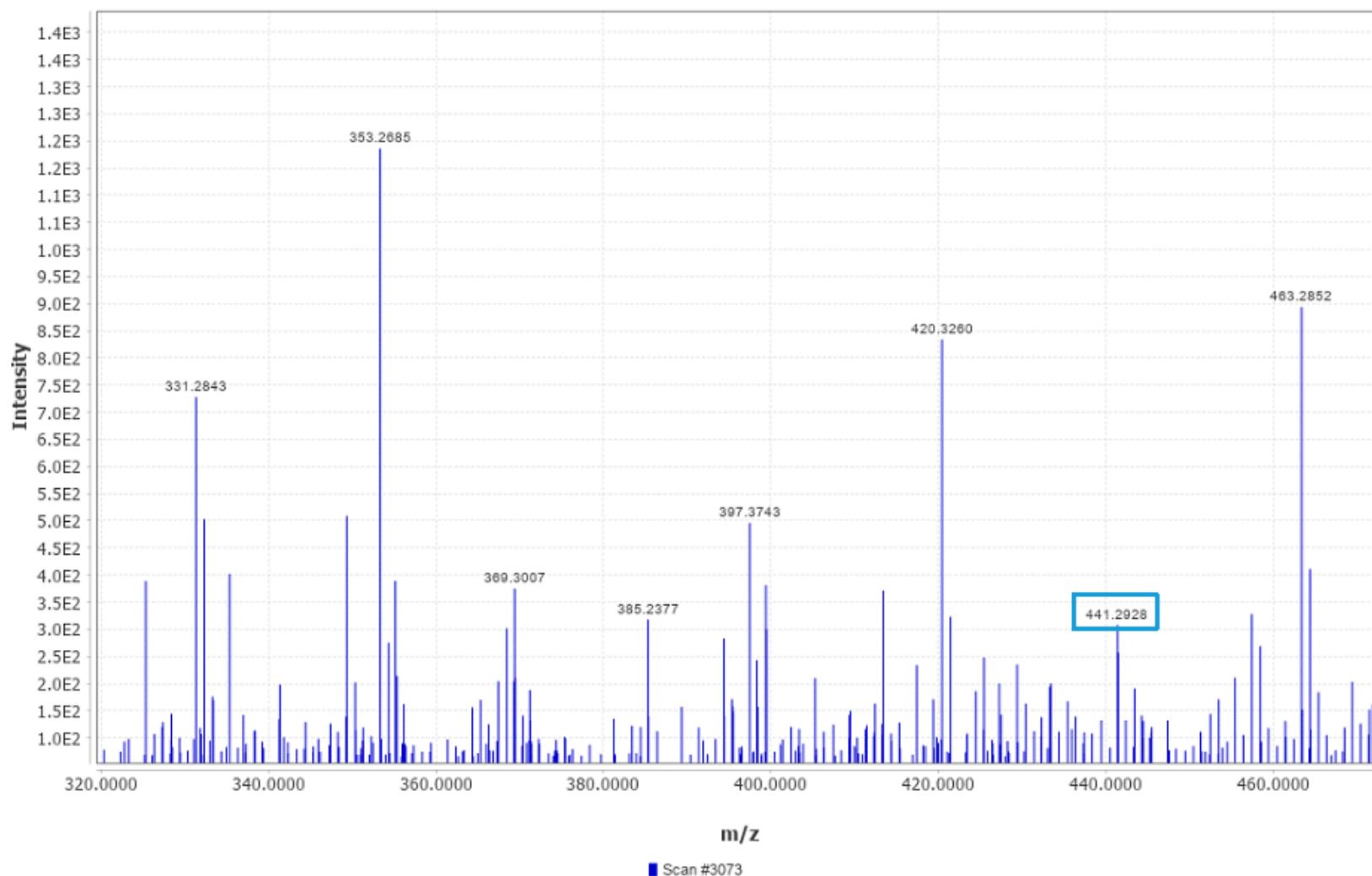
**Figure S9:** <sup>1</sup>H NMR spectrum of 3-Hydroxyfriedel-3-en-2-one (**3**) recorded in CDCl<sub>3</sub>.

CARBON\_05  
ZTPA318-329\_1\_cult

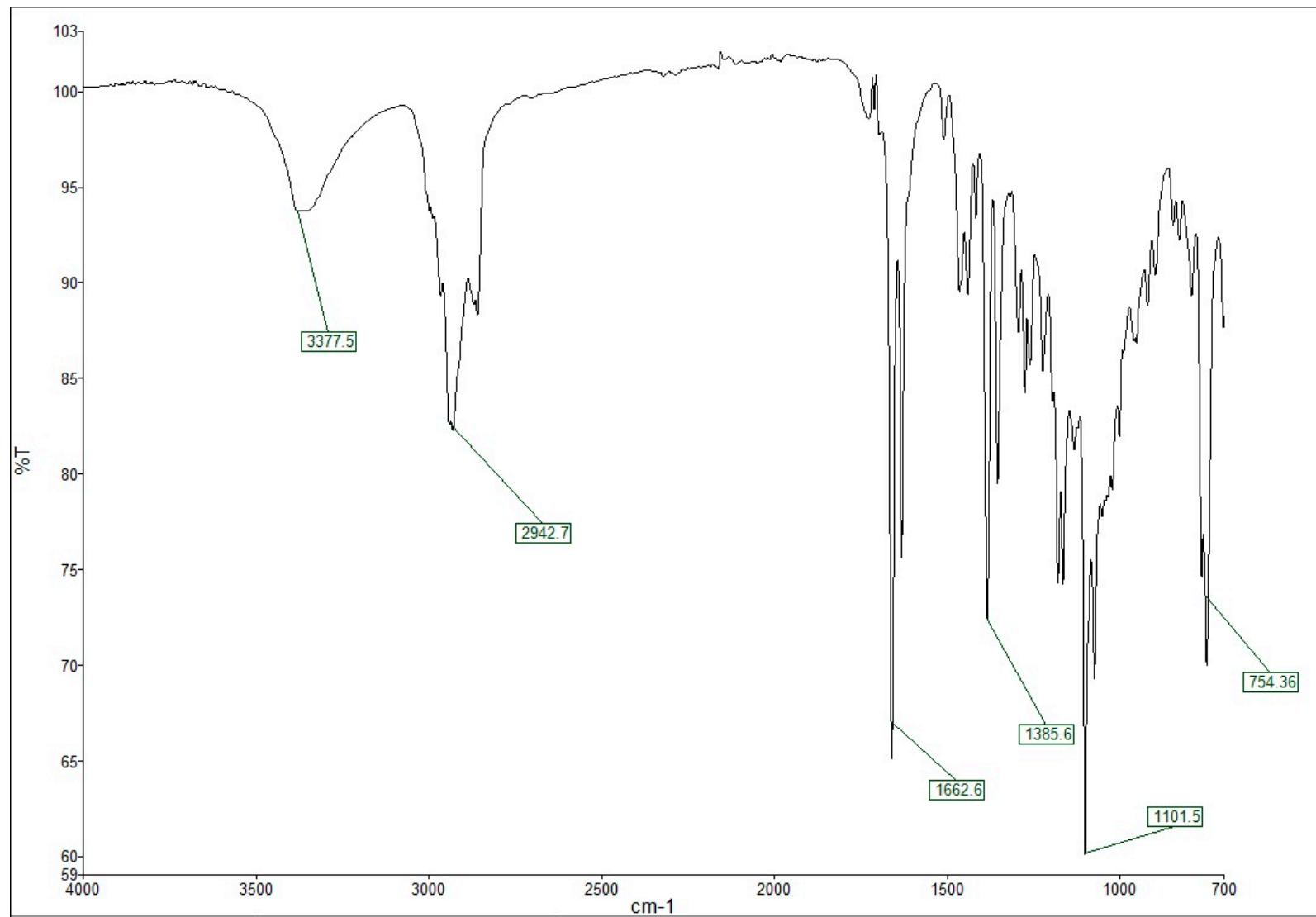
	ppm	Intensity
1	195.04	119.7
2	142.57	121.2
3	140.79	111.7
4	77.31	430.3
5	76.99	457.4
6	76.68	464.6
7	55.68	200.3
8	52.63	198.0
9	42.77	198.3
10	39.71	171.8
11	39.53	154.8
12	39.20	193.3
13	38.39	193.7
14	38.24	215.6
15	36.75	188.8
16	35.90	160.1
	32	10.37 183.5
	17	35.30 155.8
	18	34.96 181.8
	19	34.69 169.8
	20	32.74 146.1
	21	32.14 161.5
	22	32.08 167.9
	23	31.77 193.5
	24	30.22 147.5
	25	29.99 180.9
	26	28.13 207.6
	27	20.07 199.6
	28	18.87 169.8
	29	18.50 248.6
	30	17.97 143.9
	31	17.66 208.8
	32	10.37 183.5



**Figure S10:** <sup>13</sup>C NMR spectrum of 3-Hydroxyfriedel-3-en-2-one (**3**) recorded in CDCl<sub>3</sub>.



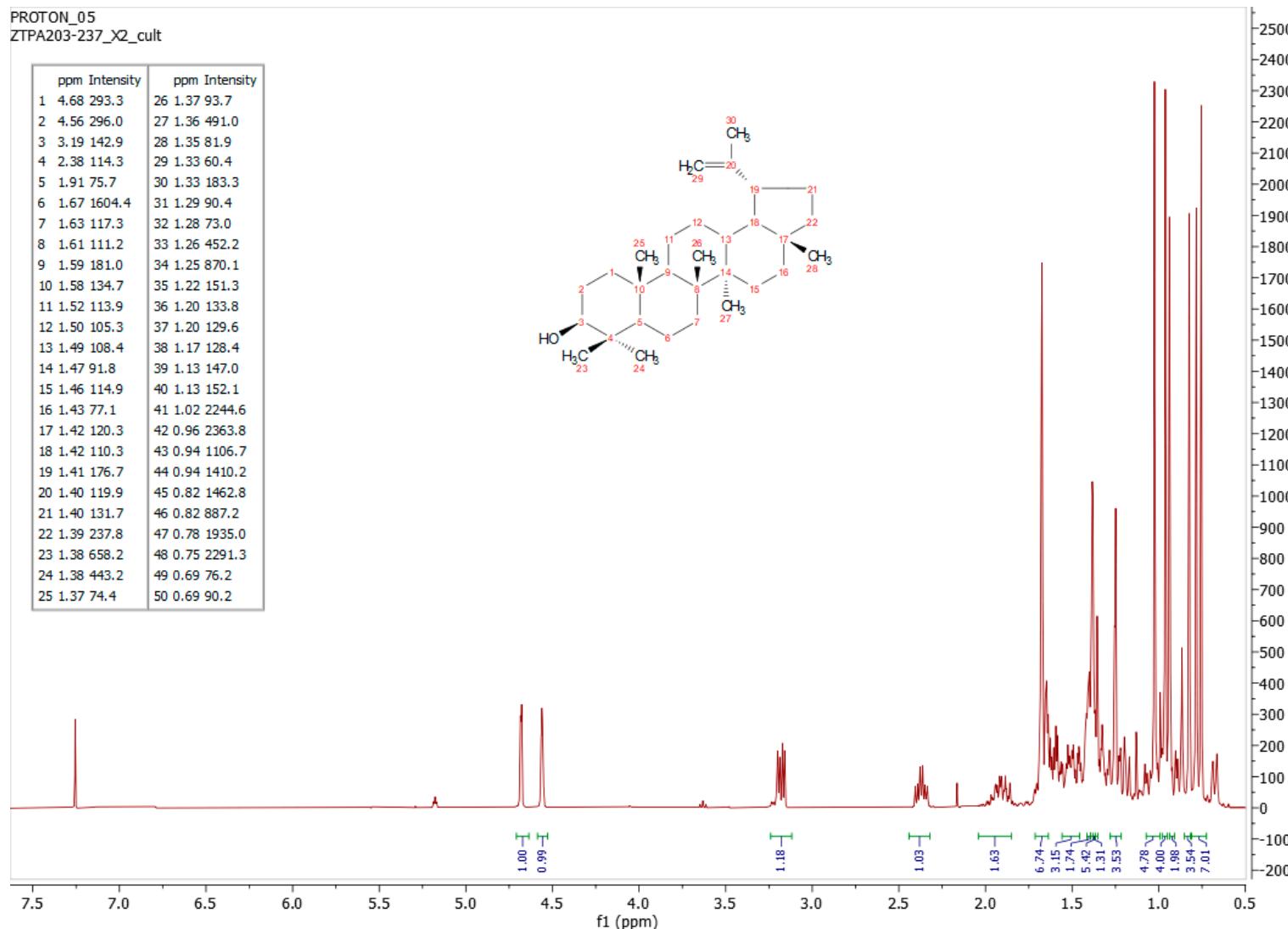
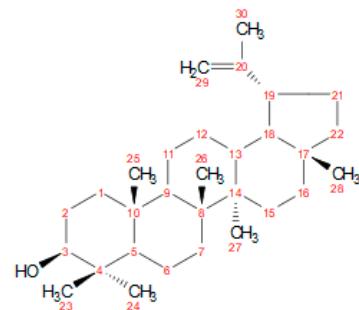
**Figure S11:** MS spectrum of 3-Hydroxyfriedel-3-en-2-one (**3**).



**Figure S12:** FT-IR spectrum of 3-Hydroxyfriedel-3-en-2-one (**3**)

PROTON\_05  
ZTPA203-237\_X2\_cult

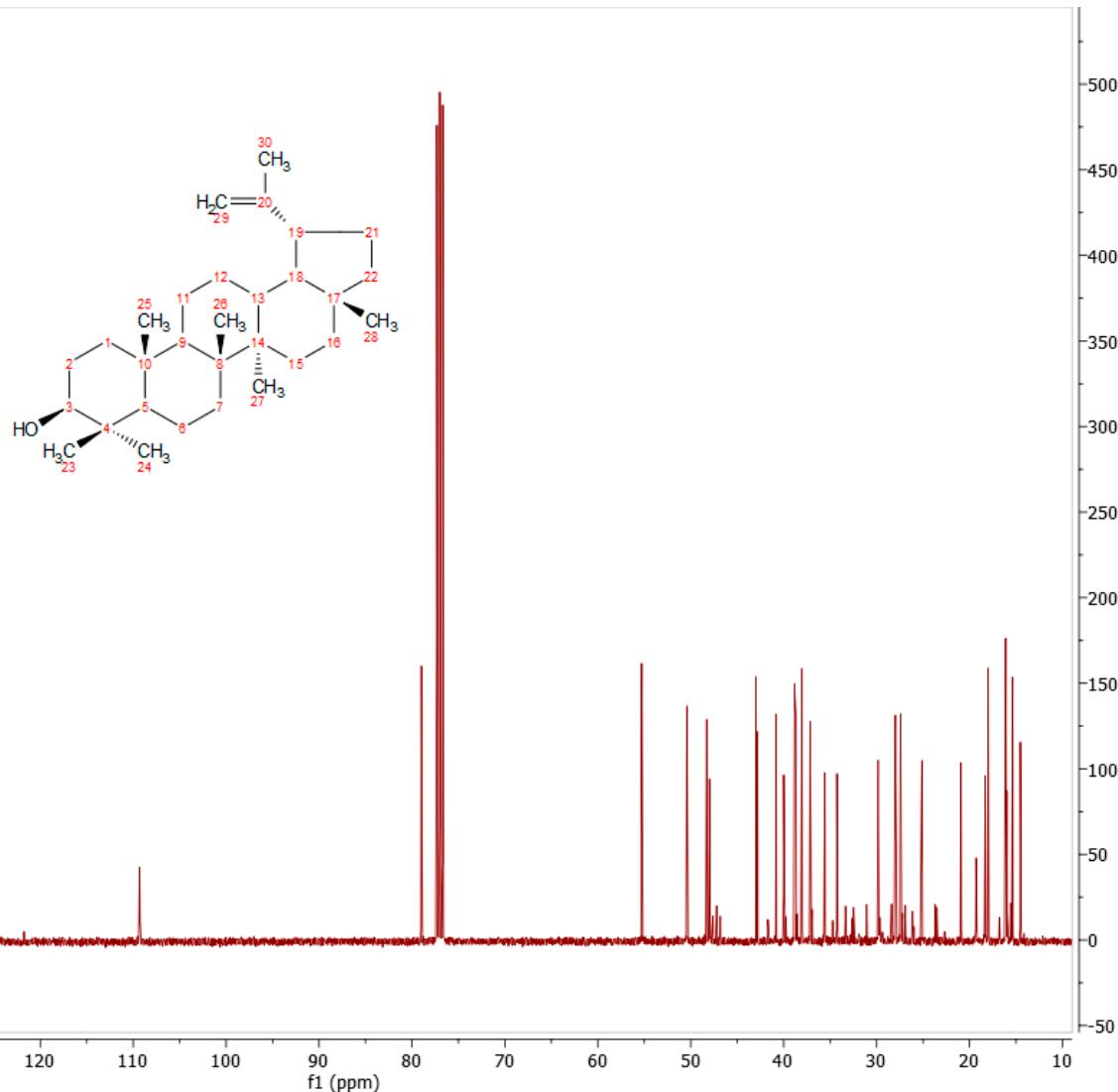
	ppm Intensity	ppm Intensity
1	4.68 293.3	26 1.37 93.7
2	4.56 296.0	27 1.36 491.0
3	3.19 142.9	28 1.35 81.9
4	2.38 114.3	29 1.33 60.4
5	1.91 75.7	30 1.33 183.3
6	1.67 1604.4	31 1.29 90.4
7	1.63 117.3	32 1.28 73.0
8	1.61 111.2	33 1.26 452.2
9	1.59 181.0	34 1.25 870.1
10	1.58 134.7	35 1.22 151.3
11	1.52 113.9	36 1.20 133.8
12	1.50 105.3	37 1.20 129.6
13	1.49 108.4	38 1.17 128.4
14	1.47 91.8	39 1.13 147.0
15	1.46 114.9	40 1.13 152.1
16	1.43 77.1	41 1.02 2244.6
17	1.42 120.3	42 0.96 2363.8
18	1.42 110.3	43 0.94 1106.7
19	1.41 176.7	44 0.94 1410.2
20	1.40 119.9	45 0.82 1462.8
21	1.40 131.7	46 0.82 887.2
22	1.39 237.8	47 0.78 1935.0
23	1.38 658.2	48 0.75 2291.3
24	1.38 443.2	49 0.69 76.2
25	1.37 74.4	50 0.69 90.2



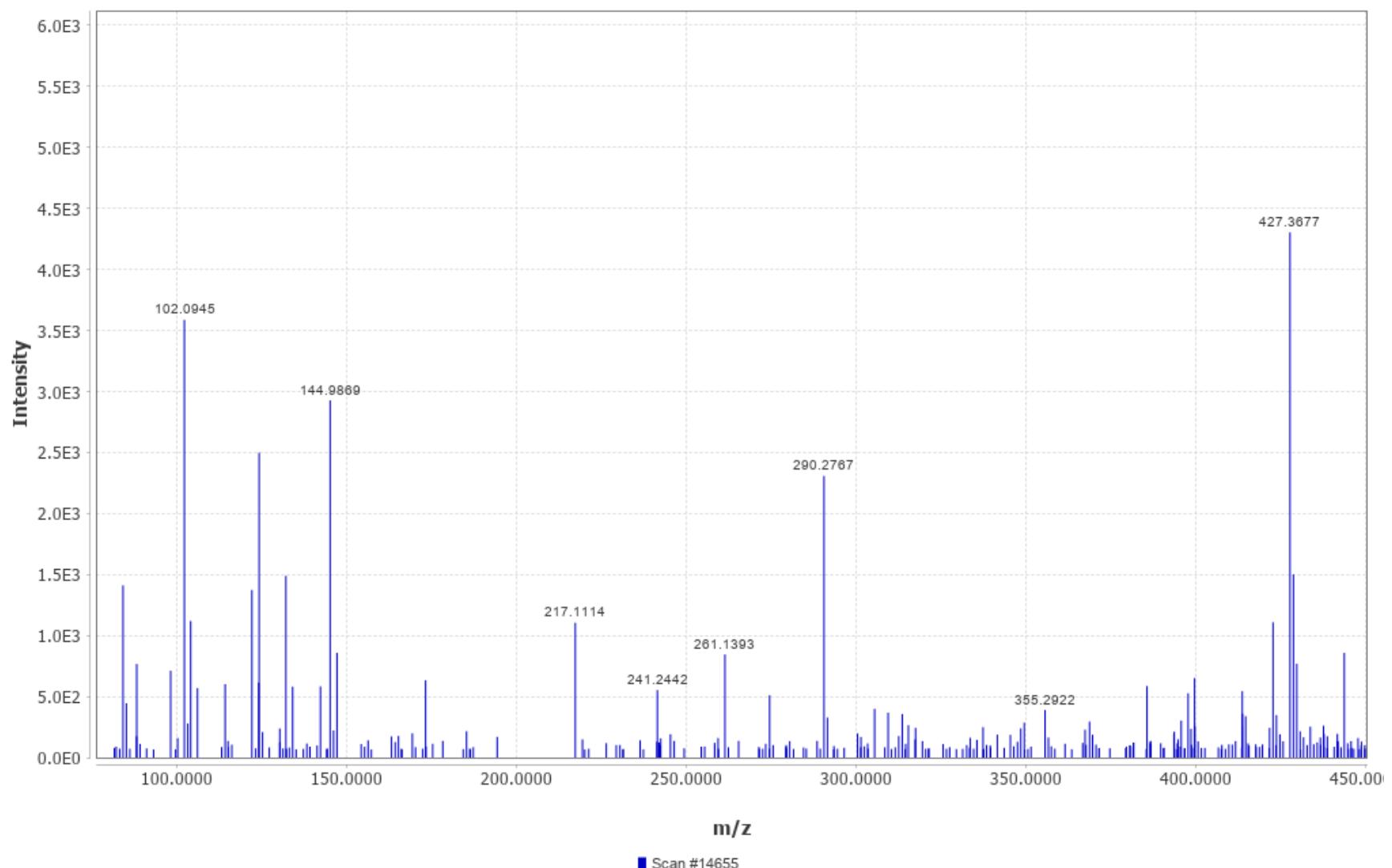
**Figure S13:**  $^1\text{H}$  NMR spectrum of lupeol (**4**) recorded in  $\text{CDCl}_3$ .

CARBON\_04  
ZTPA203-237\_X2\_cult

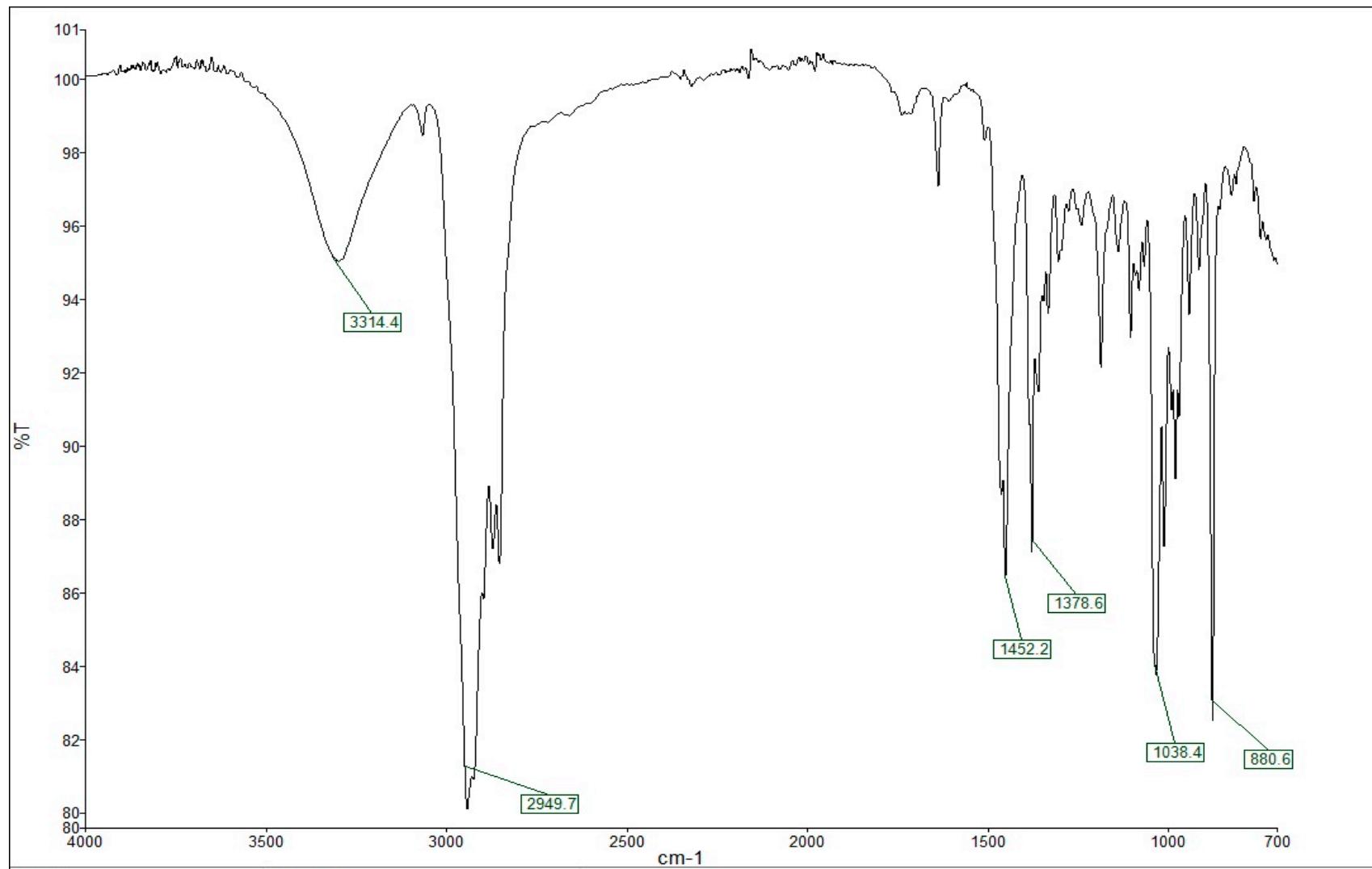
ppm	Intensity	ppm	Intensity		
1	150.96	104.8	18	38.03	160.7
2	109.31	43.4	19	37.15	139.4
3	79.02	16.2	20	35.57	101.5
4	78.99	161.2	21	34.26	101.3
5	77.32	481.7	22	29.83	107.6
6	77.01	475.7	23	29.69	53.5
7	76.69	482.3	24	27.98	127.7
8	55.28	161.8	25	27.43	111.1
9	50.42	144.0	26	27.39	108.0
10	48.28	134.9	27	25.12	103.5
11	47.97	95.3	28	20.91	102.6
12	42.99	156.0	29	18.31	98.6
13	42.82	123.1	30	17.99	161.4
14	40.81	132.8	31	16.11	178.8
15	39.99	99.7	32	15.96	89.1
16	38.85	151.4	33	15.36	157.3
17	38.69	131.0	34	14.54	114.1



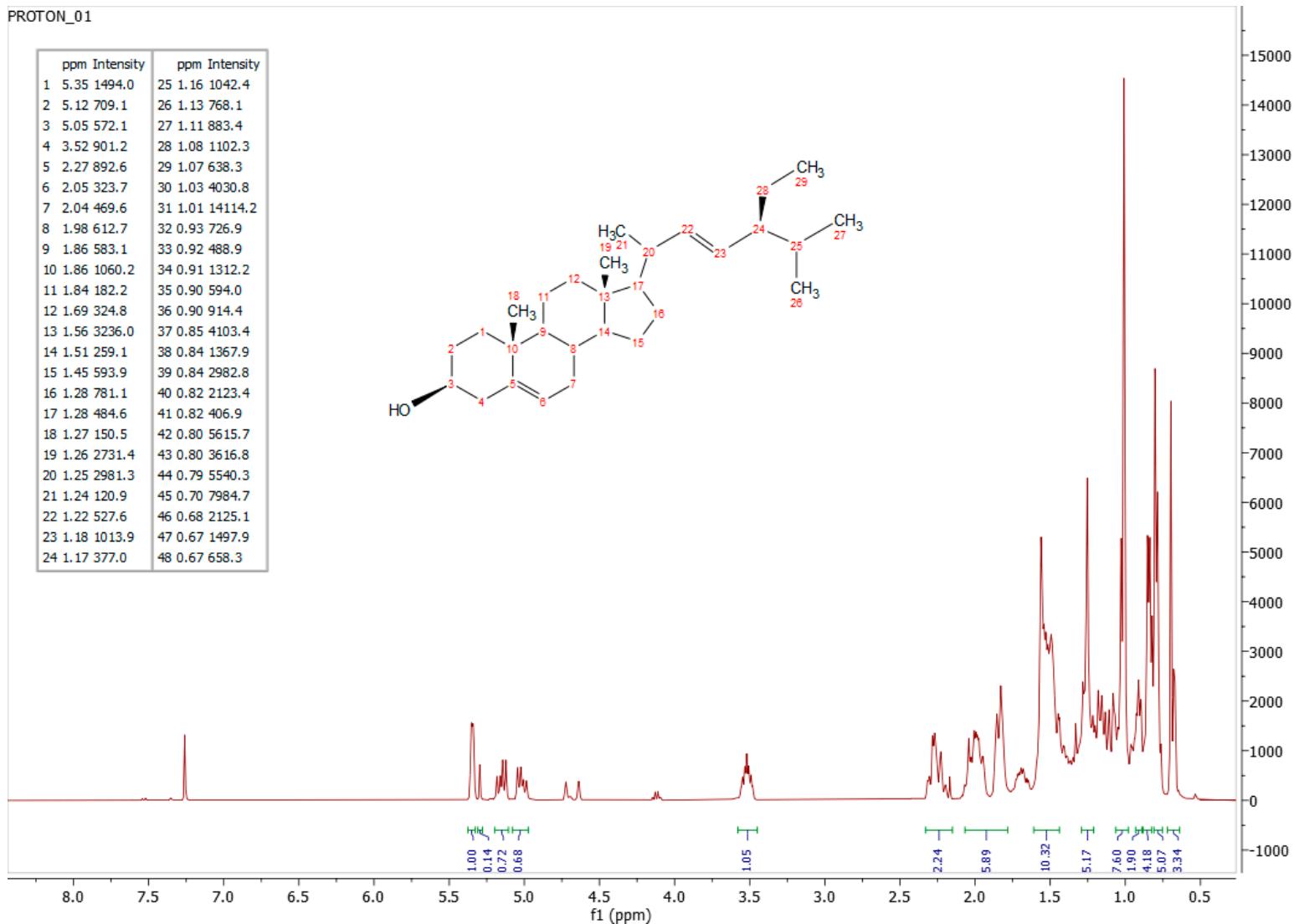
**Figure S14:** <sup>13</sup>C NMR spectrum of lupeol (4) recorded in  $\text{CDCl}_3$ .



**Figure S15:** MS spectrum of lupeol (4).



**Figure S16:** FT-IR spectrum of lupeol (**4**)



**Figure S17:**  $^1\text{H}$  NMR spectrum of stigmasterol (**5**) recorded in  $\text{CDCl}_3$ .

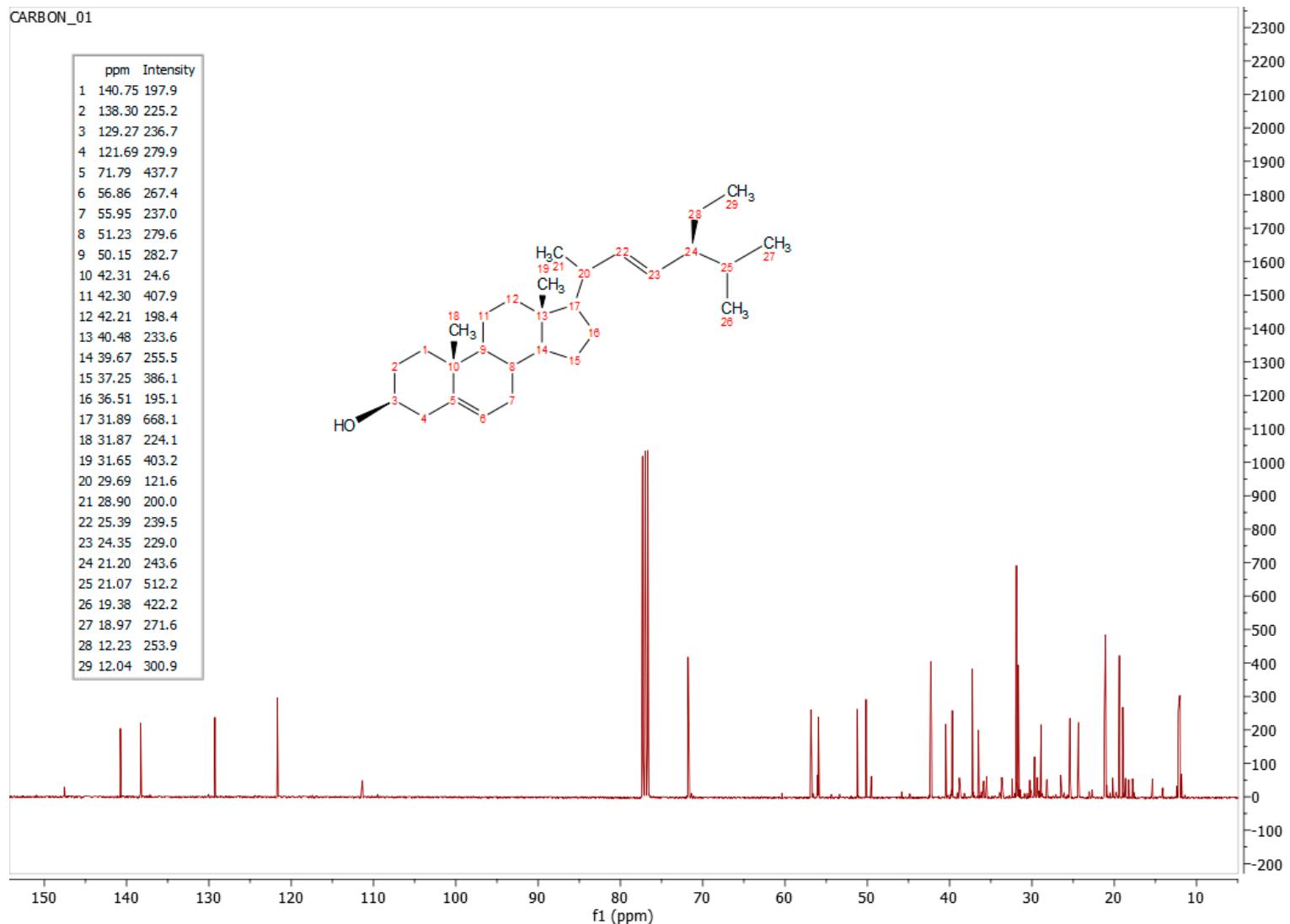
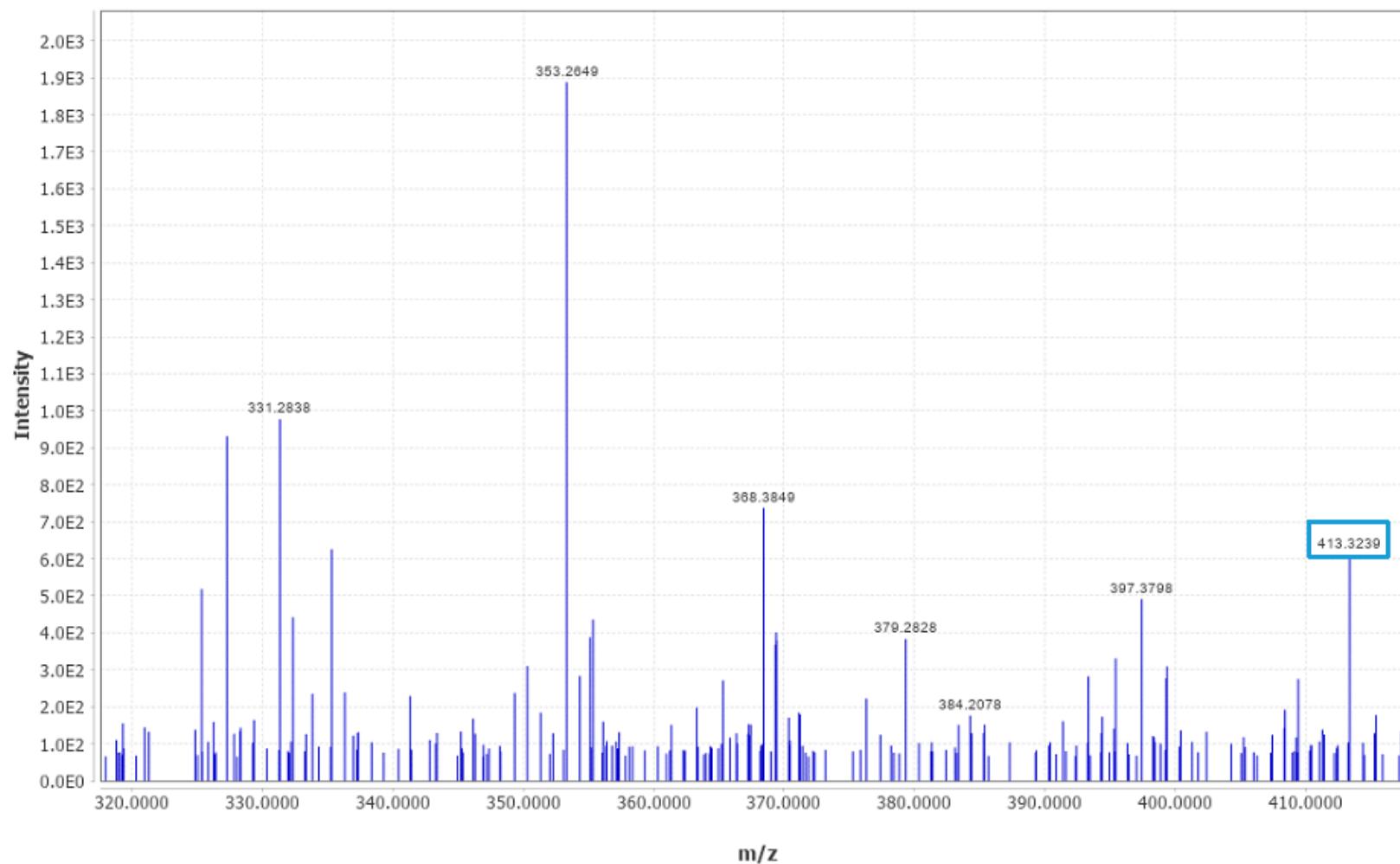
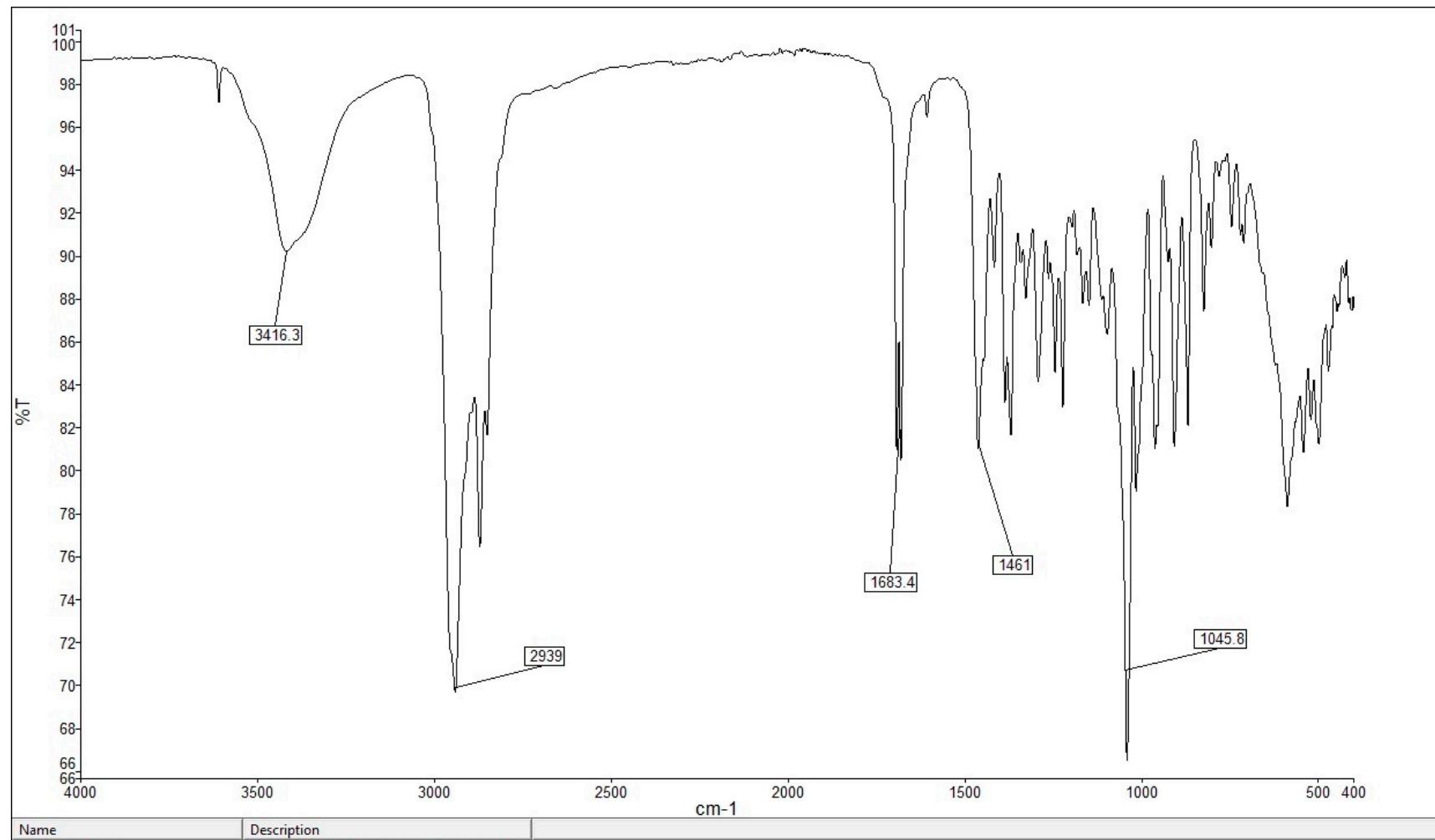


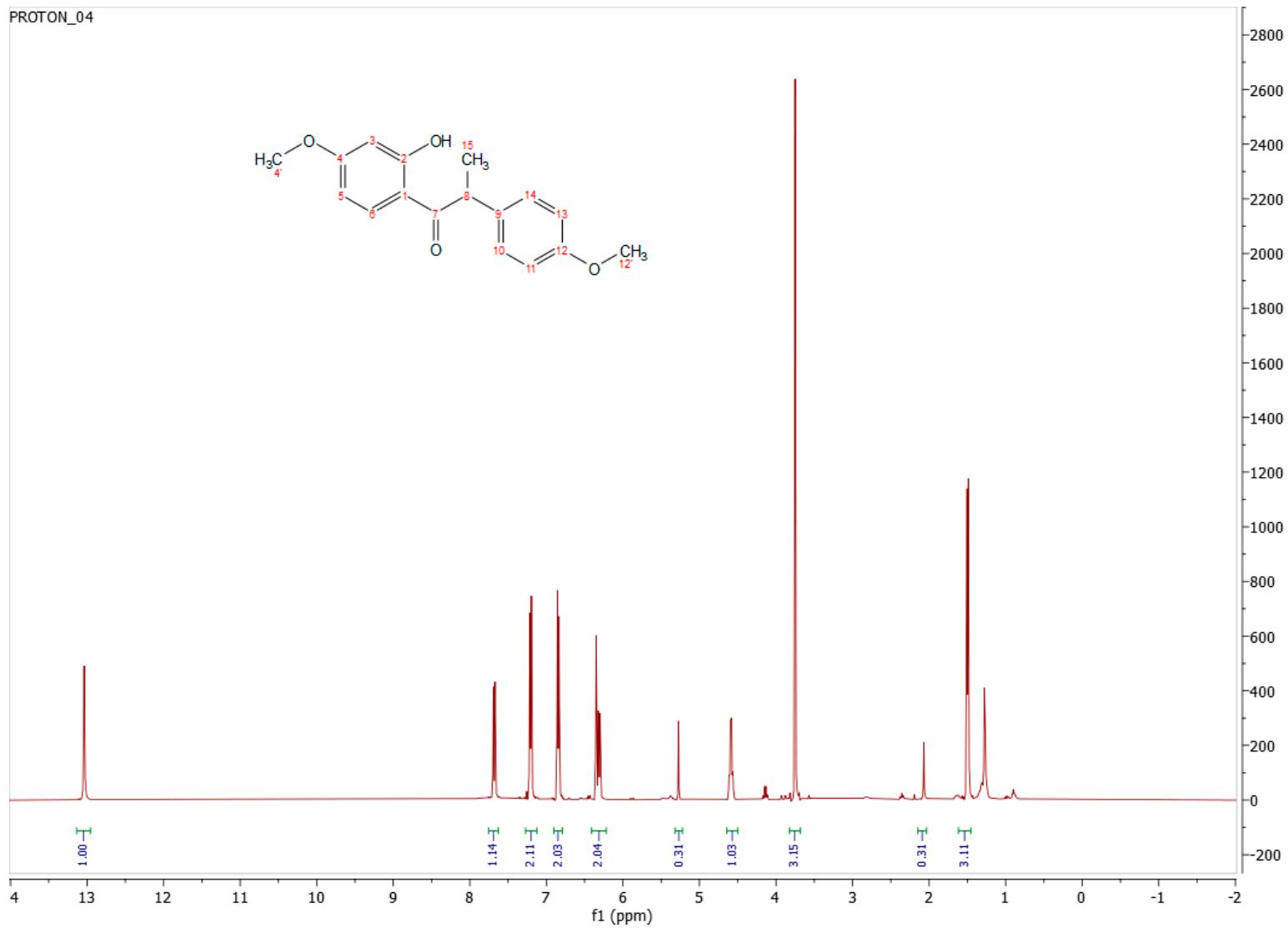
Figure S18:  $^{13}\text{C}$  NMR spectrum of stigmasterol (**5**) recorded in  $\text{CDCl}_3$



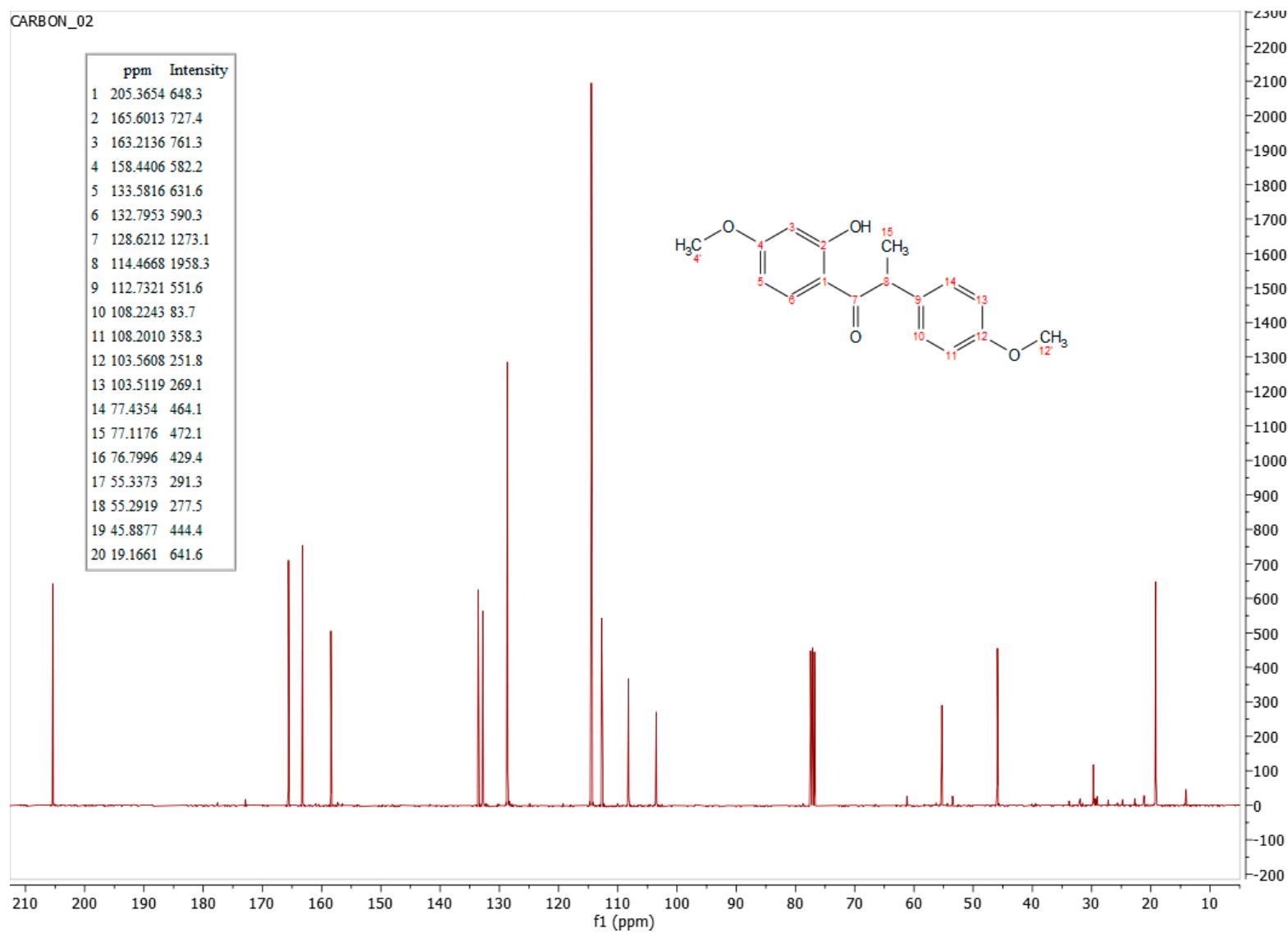
**Figure S19:** MS spectrum of stigmasterol (**5**).



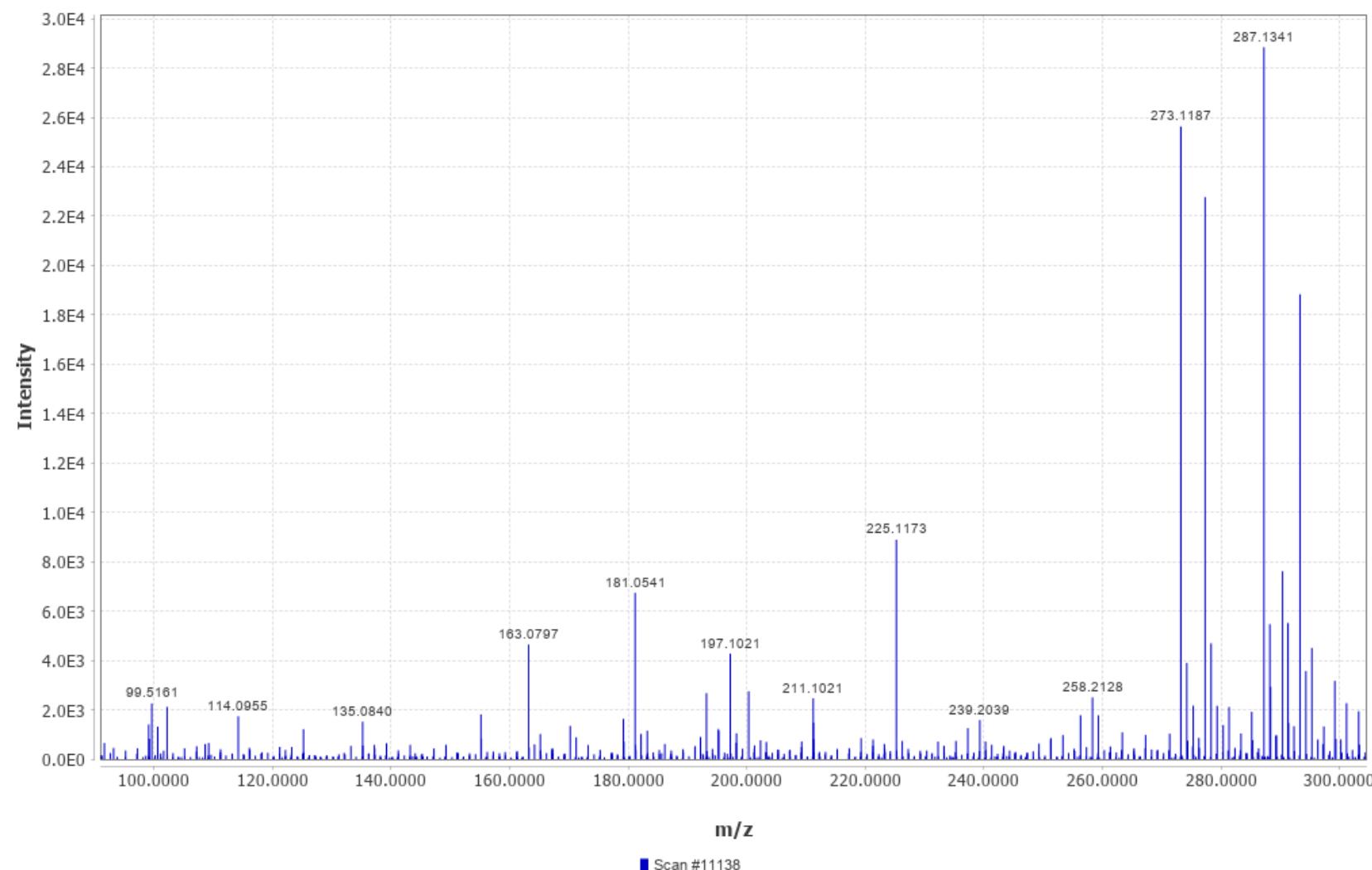
**Figure S20:** FT-IR spectrum of stigmasterol (**5**)



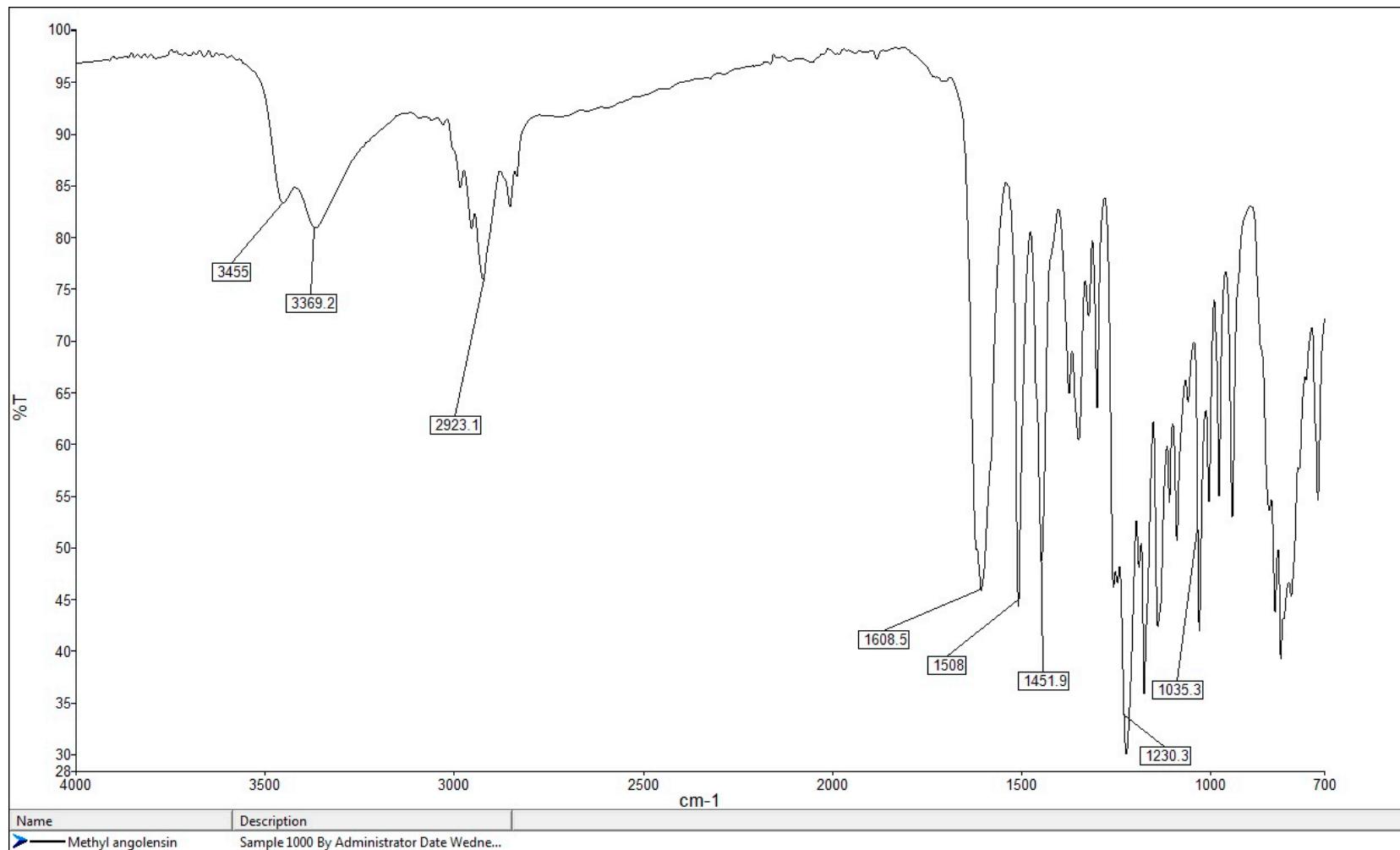
**Figure S21:** <sup>1</sup>H NMR spectrum of (±)-4-O-Methylangolensin (**6**) recorded in CDCl<sub>3</sub>.



**Figure S22:** <sup>13</sup>C NMR spectrum of ( $\pm$ ) -4-O-Methylangolensin (**6**) recorded in CDCl<sub>3</sub>



**Figure S23:** MS spectrum of ( $\pm$ ) -4-O-Methylangolensin (**6**).



**Figure S24:** FT-IR spectrum of ( $\pm$ ) -4-O-Methylangolensin (7).

PROTON\_02  
ZTPA 86-106\_light

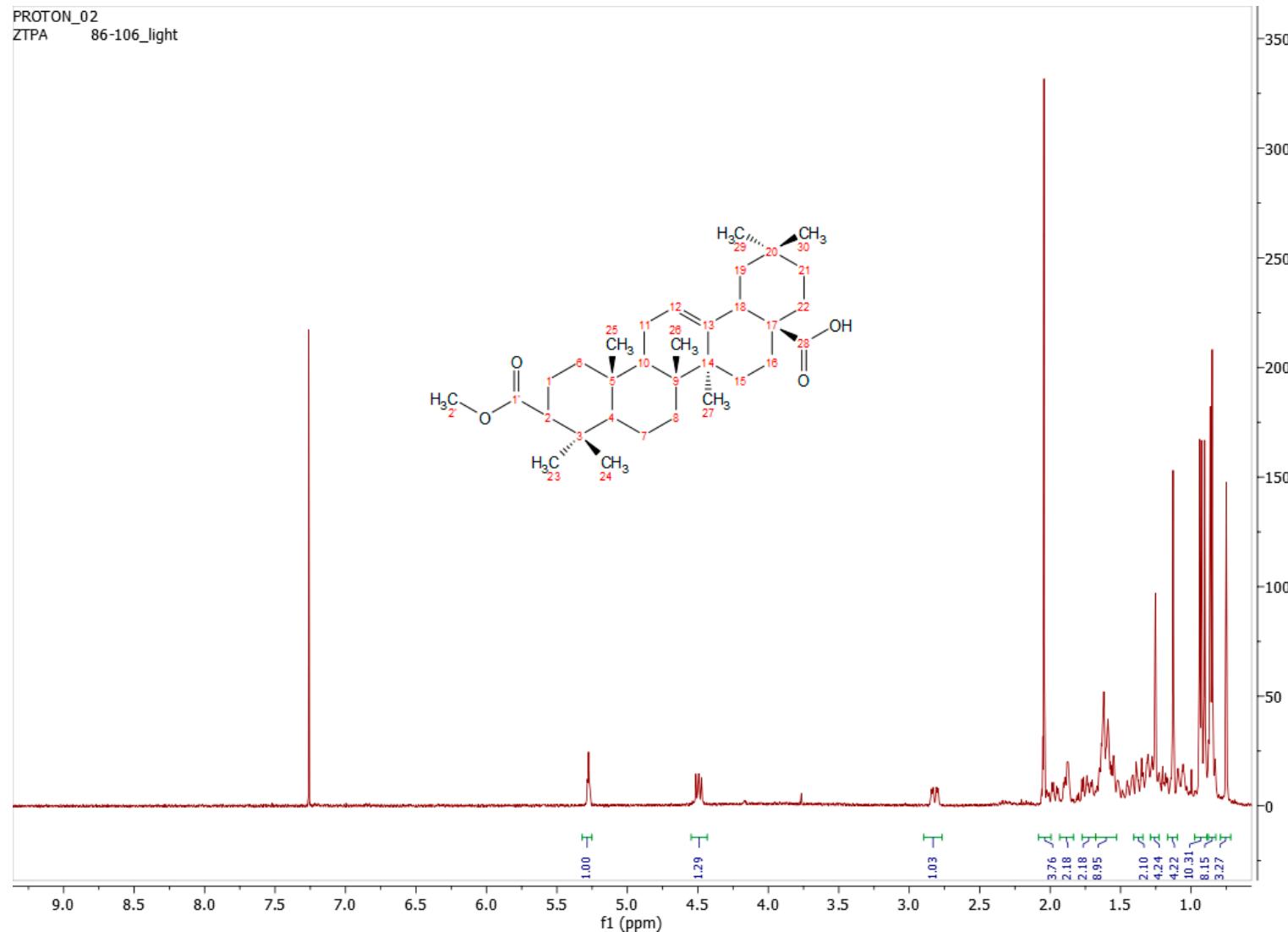
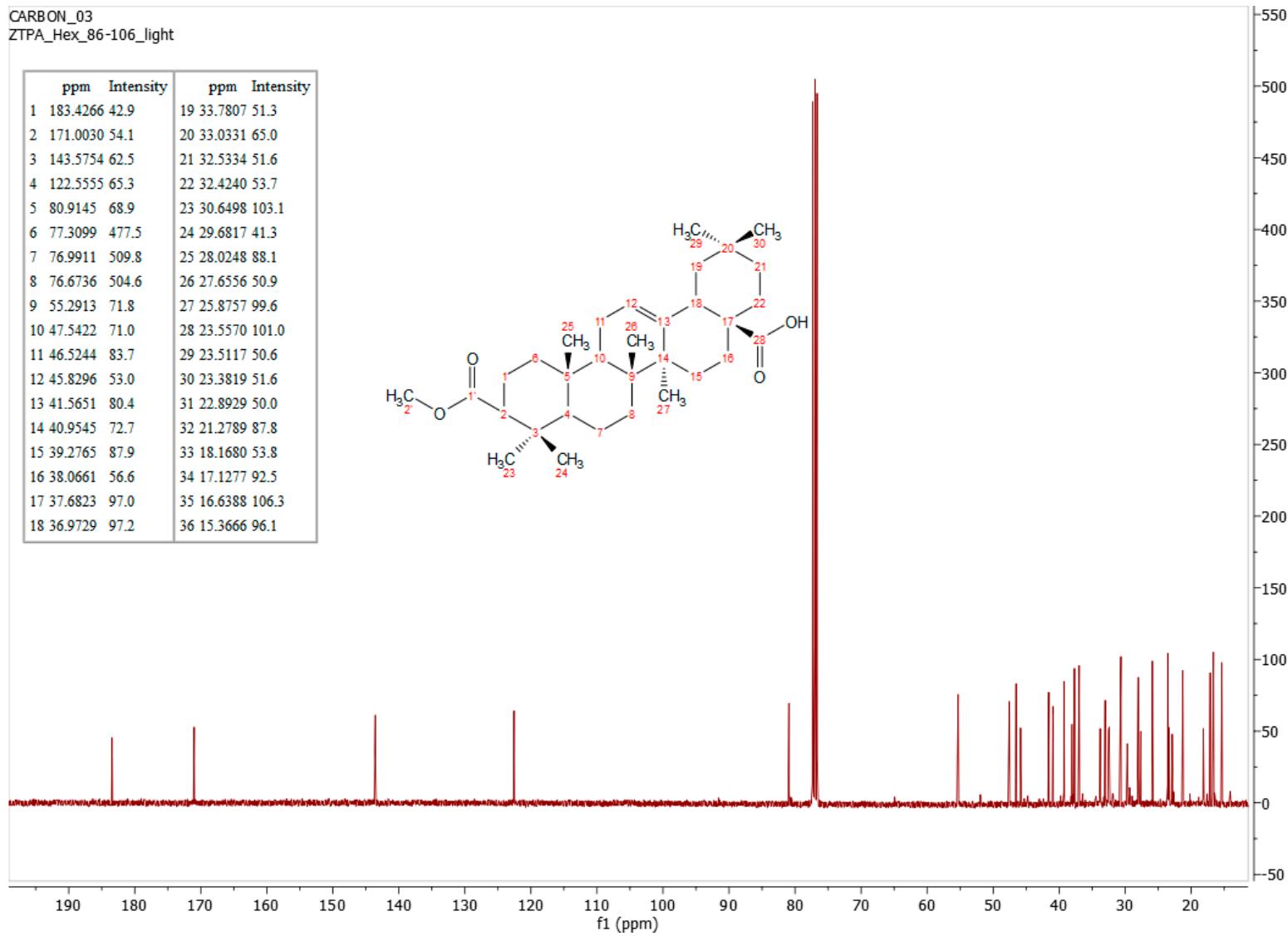
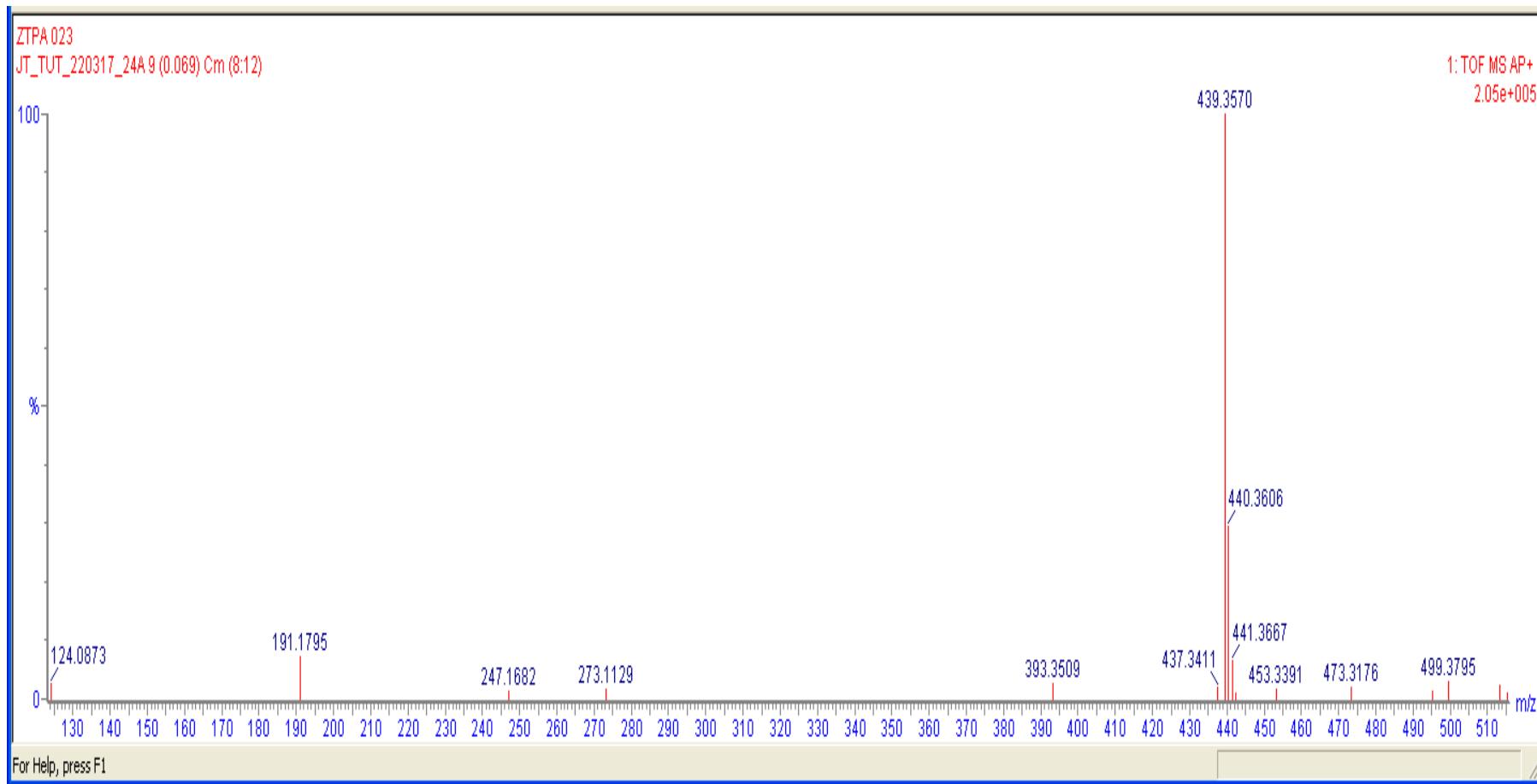


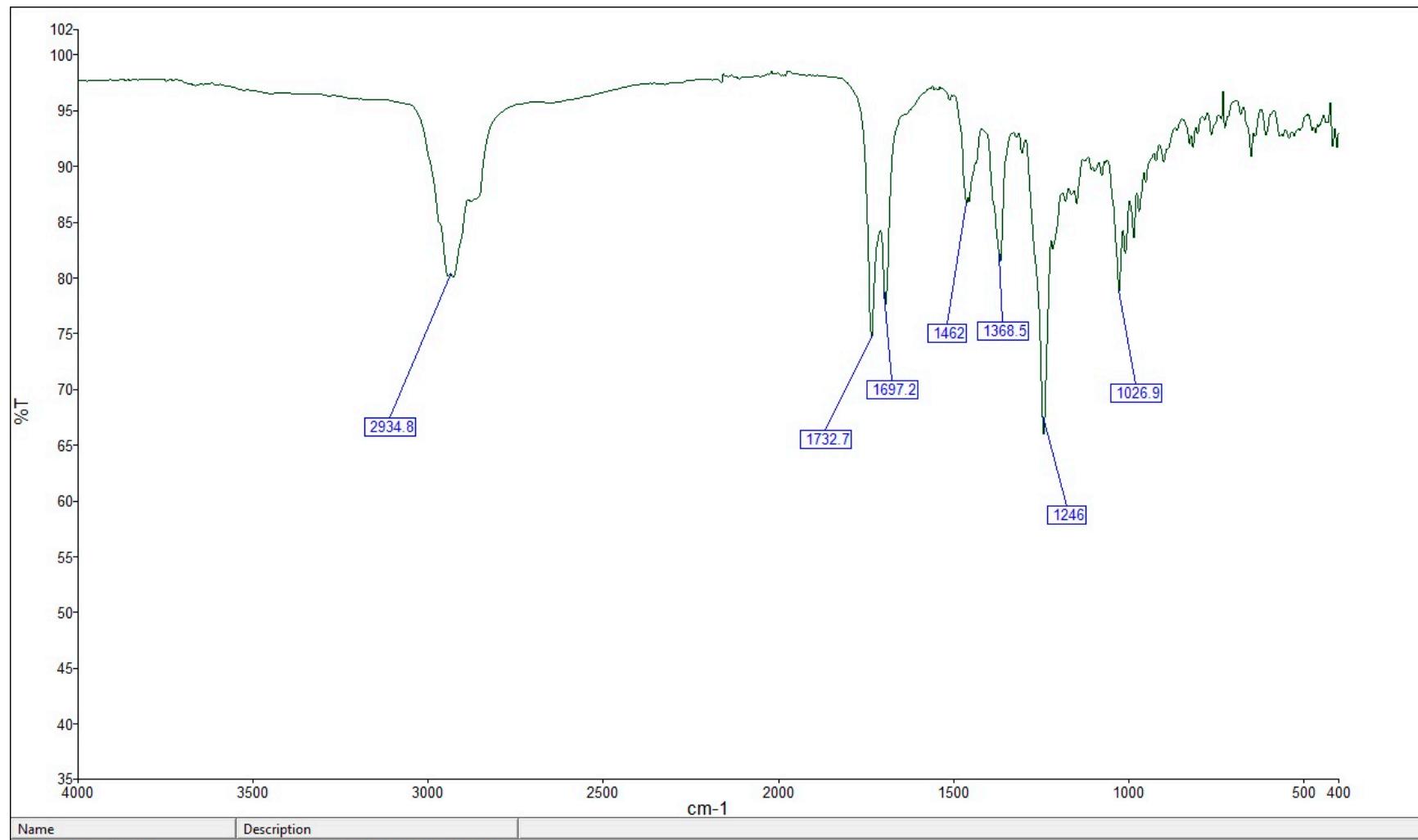
Figure S25: <sup>1</sup>H NMR spectrum of Oleanolic acid acetate (7) recorded in CDCl<sub>3</sub>.



**Figure S26:** <sup>13</sup>C NMR spectrum of Oleanolic acid acetate (**7**) recorded in CDCl<sub>3</sub>



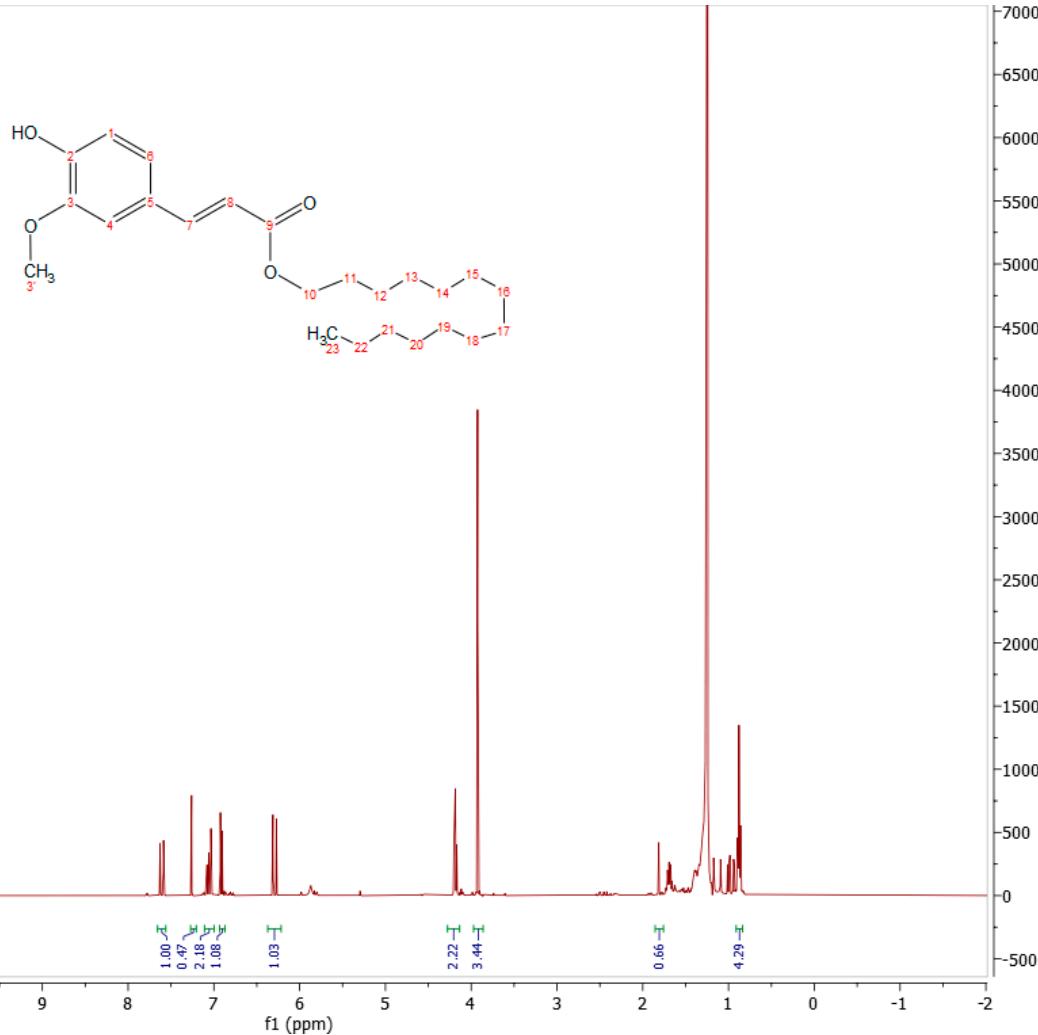
**Figure S27:** MS spectrum of Oleanolic acid acetate (**7**).



**Figure S28:** FT-IR spectrum of Oleanolic acid acetate (**7**).

PROTON\_06  
ZTPA266-274\_2\_new\_cult

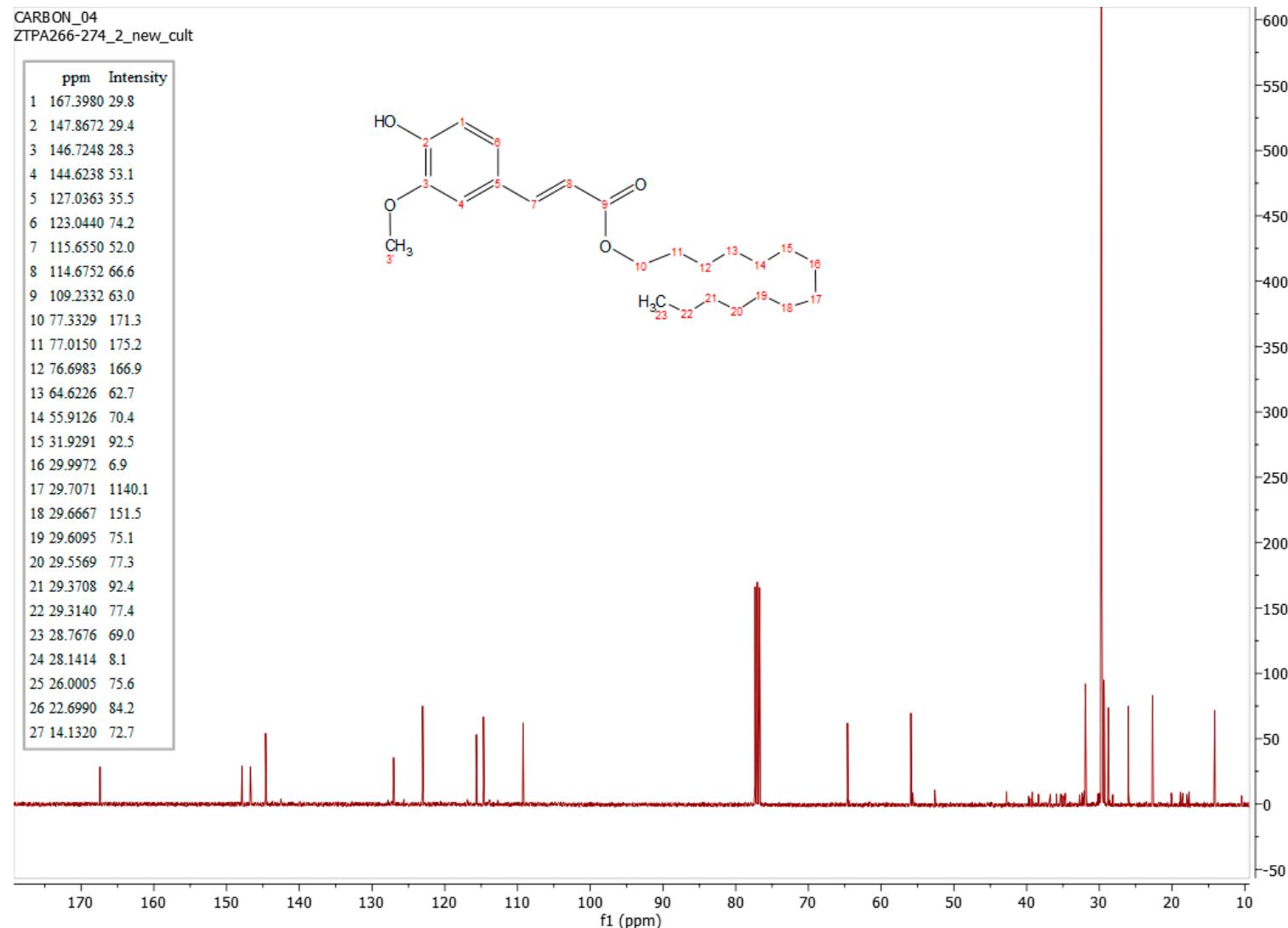
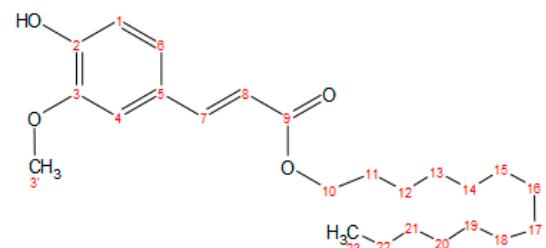
ppm	Intensity
1	7.63 408.4
2	7.59 434.9
3	7.26 704.6
4	7.08 188.4
5	7.08 232.6
6	7.06 228.7
7	7.06 323.5
8	7.04 501.7
9	7.03 387.8
10	6.92 642.5
11	6.90 505.2
12	6.31 619.0
13	6.27 566.7
14	4.20 382.8
15	4.19 839.7
16	4.17 398.8
17	3.93 3851.3
18	1.81 418.1
19	1.71 173.6
20	1.69 189.3
21	1.69 117.4
22	1.68 69.7
23	1.67 186.6
24	1.35 25.3
25	1.35 74.4
26	1.34 8.6
27	1.33 67.2
28	1.32 36.1
29	1.31 116.7
30	1.30 108.8
31	1.28 51.7
32	1.27 607.0
33	1.25 22579.1
34	1.17 276.9
35	1.09 263.8
36	0.89 324.2
37	0.88 1258.3
38	0.86 508.0



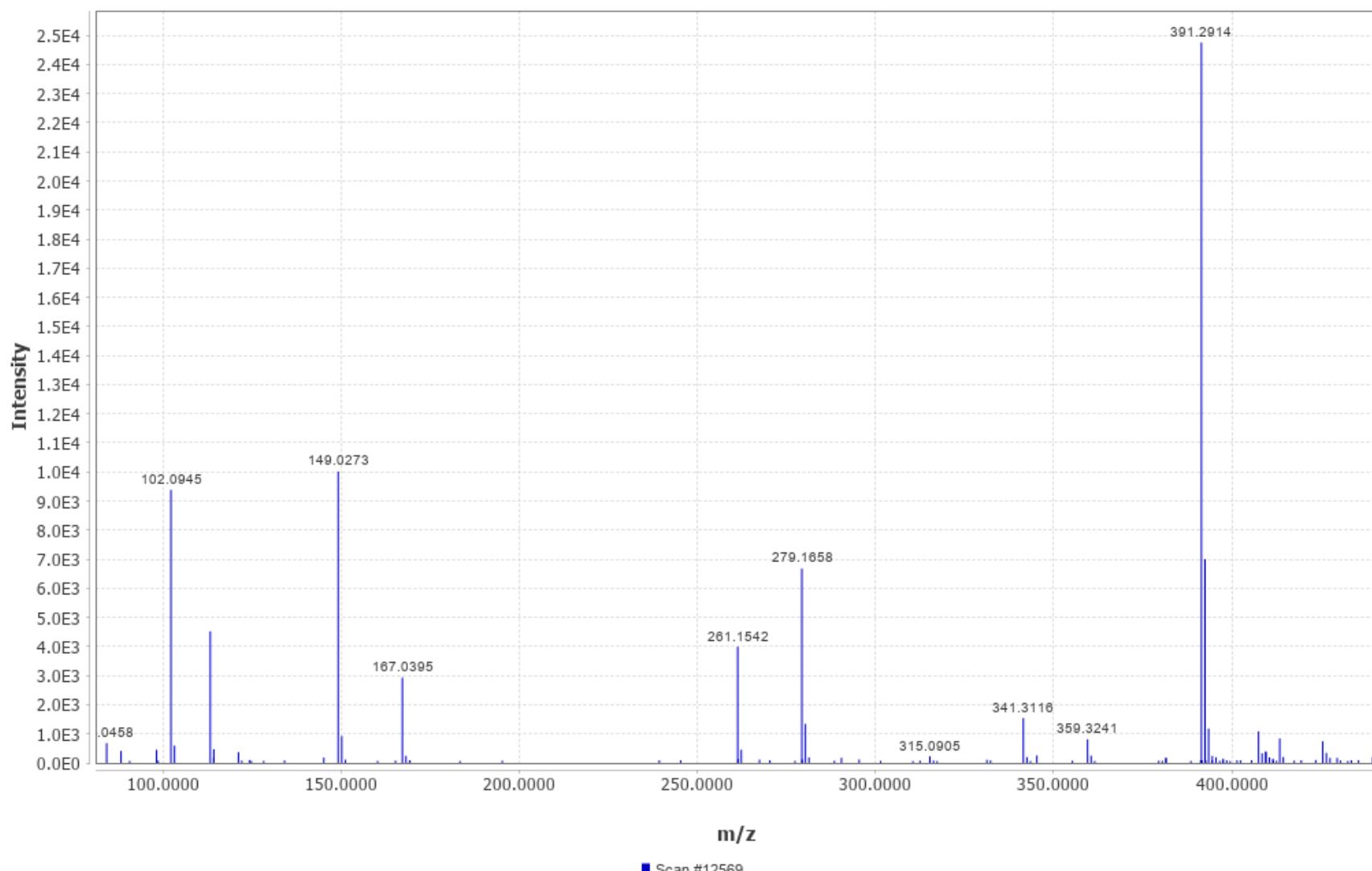
**Figure S29:** <sup>1</sup>H NMR spectrum of Tetradecyl (E)-ferulate (8) recorded in  $\text{CDCl}_3$ .

CARBON\_04  
ZTPA266-274\_2\_new\_cult

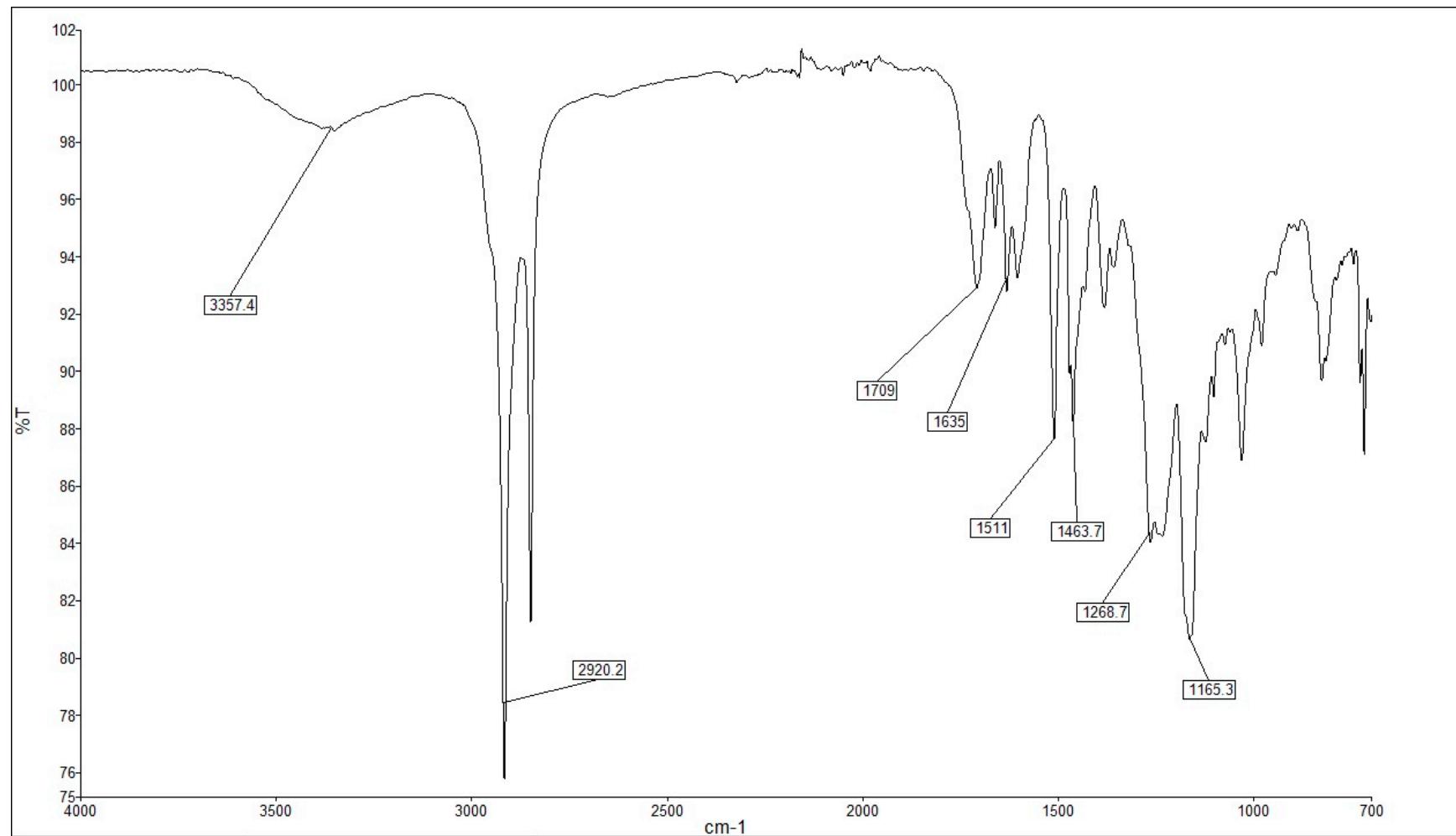
ppm	Intensity
1	167.3980 29.8
2	147.8672 29.4
3	146.7248 28.3
4	144.6238 53.1
5	127.0363 35.5
6	123.0440 74.2
7	115.6550 52.0
8	114.6752 66.6
9	109.2332 63.0
10	77.3329 171.3
11	77.0150 175.2
12	76.6983 166.9
13	64.6226 62.7
14	55.9126 70.4
15	31.9291 92.5
16	29.9972 6.9
17	29.7071 1140.1
18	29.6667 151.5
19	29.6095 75.1
20	29.5569 77.3
21	29.3708 92.4
22	29.3140 77.4
23	28.7676 69.0
24	28.1414 8.1
25	26.0005 75.6
26	22.6990 84.2
27	14.1320 72.7



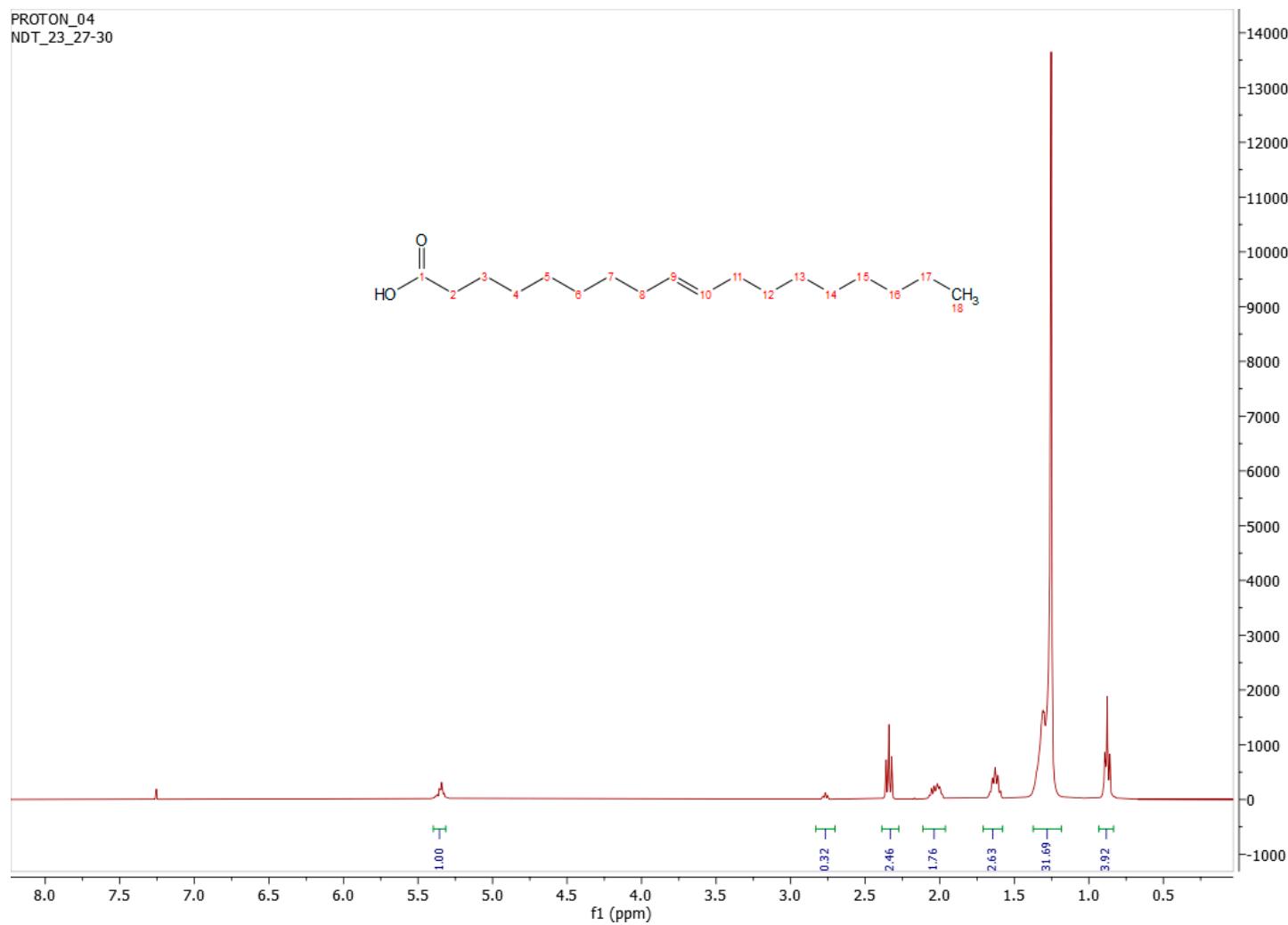
**Figure S30:**  $^{13}\text{C}$  NMR spectrum of Tetradecyl (E)-ferulate (**8**) recorded in  $\text{CDCl}_3$



**Figure S31:** MS spectrum of Tetradecyl (E)-ferulate (**8**).



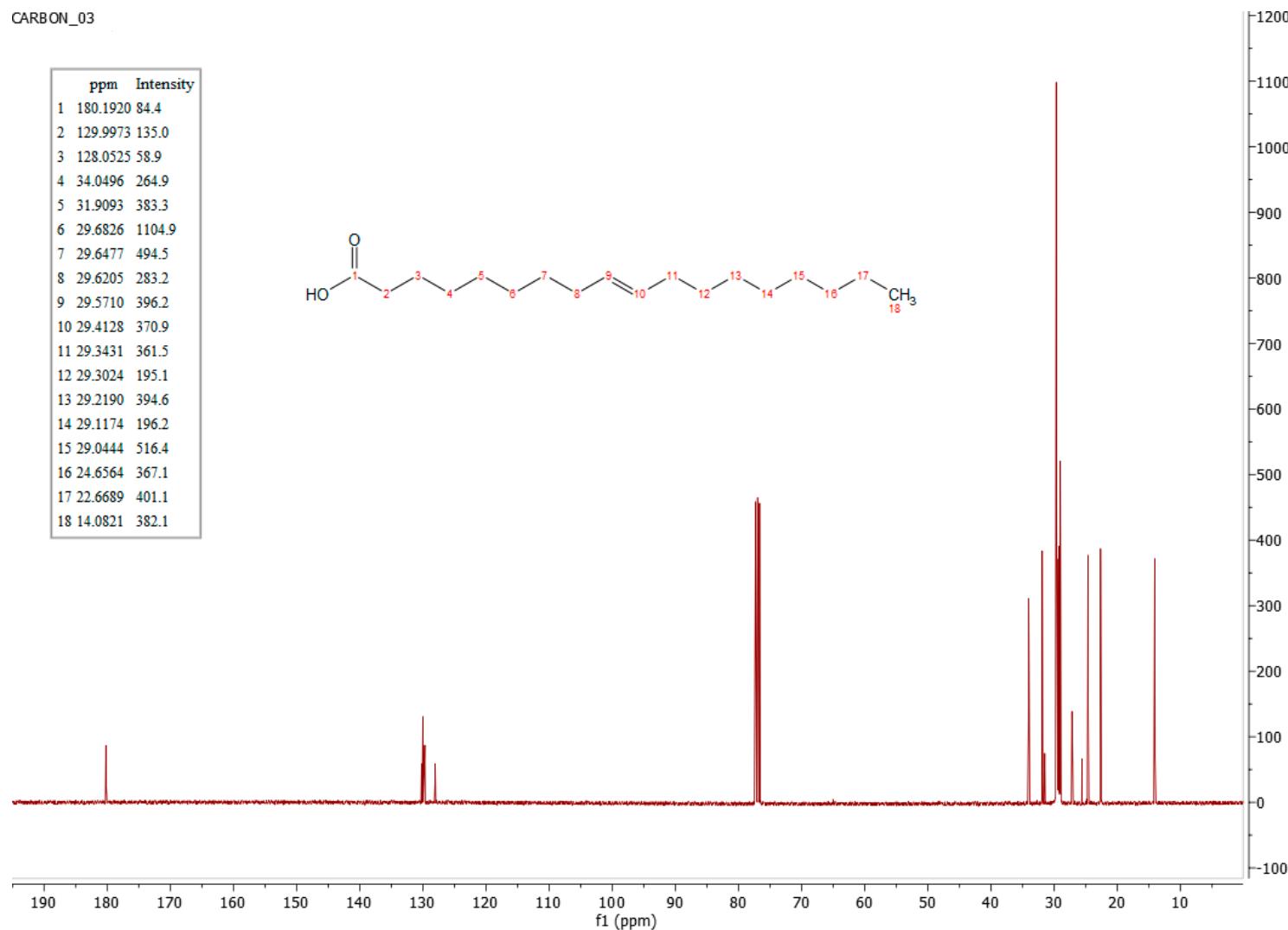
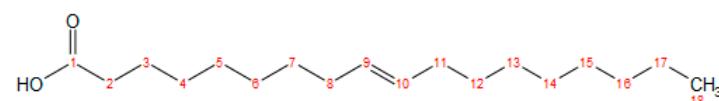
**Figure S32:** FT-IR spectrum of Tetradecyl (E)-ferulate (**8**).



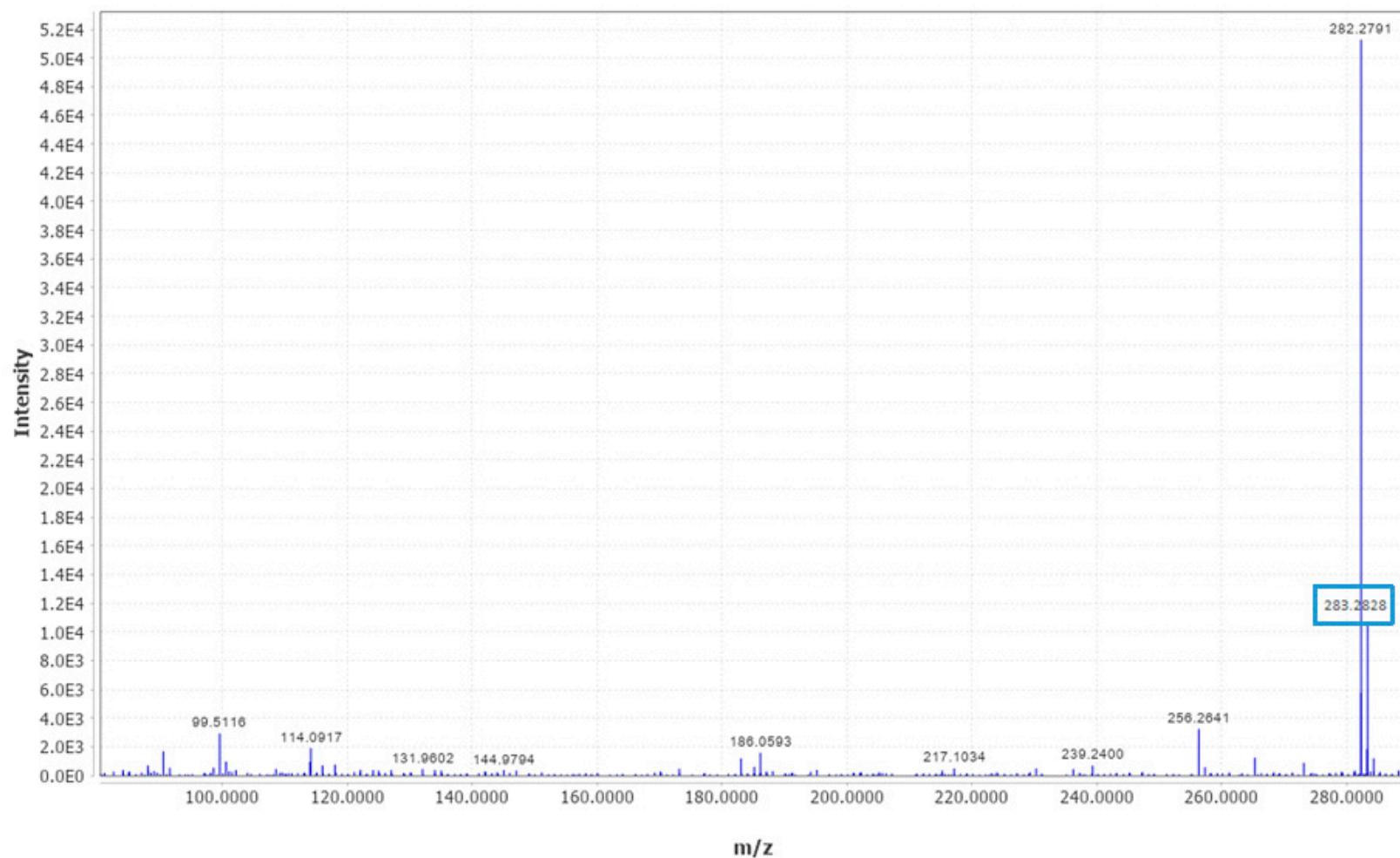
**Figure S33:**  $^1\text{H}$  NMR spectrum of 9-Octadecenoic acid (**9**) recorded in  $\text{CDCl}_3$ .

CARBON\_03

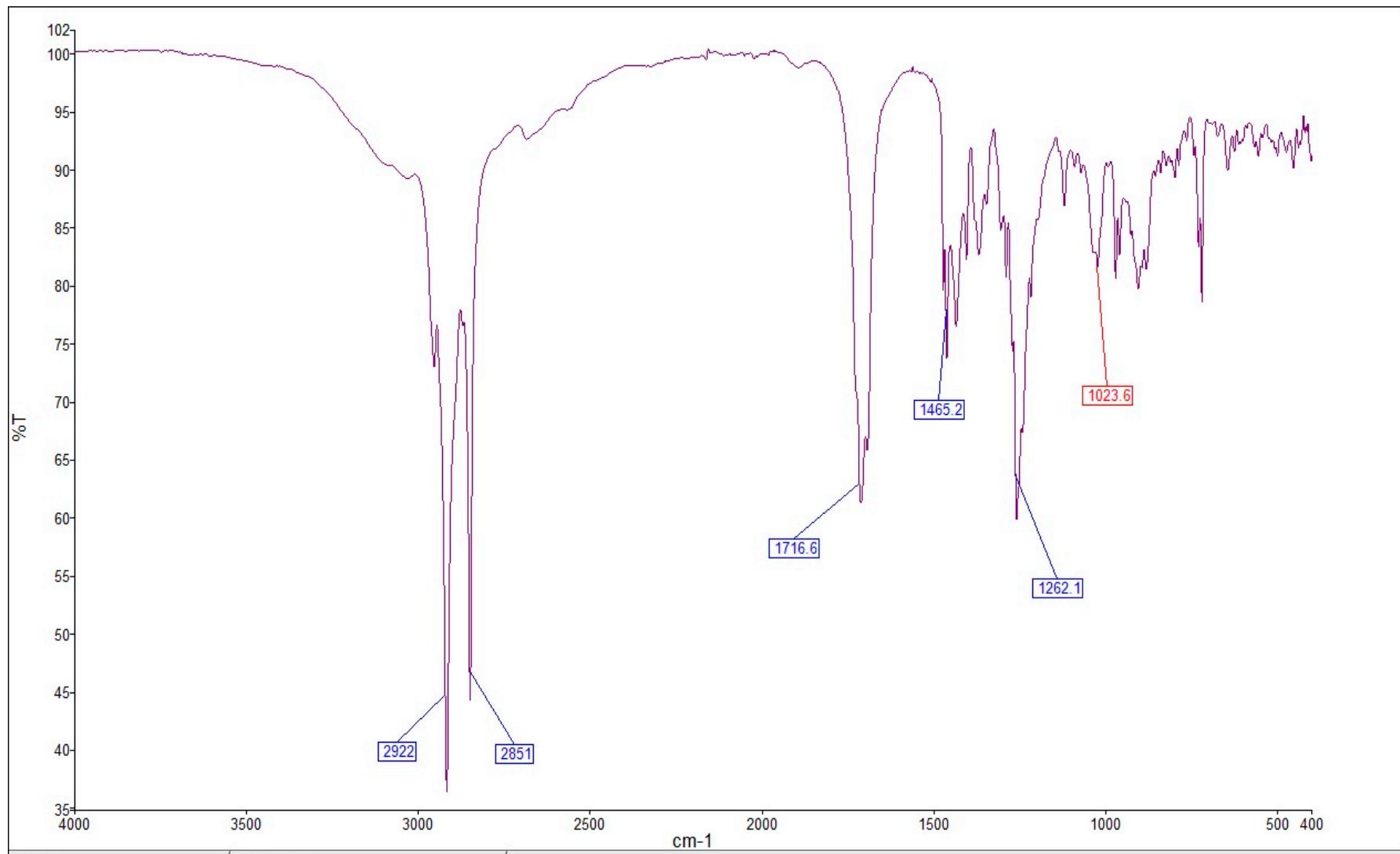
	ppm	Intensity
1	180.1920	84.4
2	129.9973	135.0
3	128.0525	58.9
4	34.0496	264.9
5	31.9093	383.3
6	29.6826	1104.9
7	29.6477	494.5
8	29.6205	283.2
9	29.5710	396.2
10	29.4128	370.9
11	29.3431	361.5
12	29.3024	195.1
13	29.2190	394.6
14	29.1174	196.2
15	29.0444	516.4
16	24.6564	367.1
17	22.6689	401.1
18	14.0821	382.1



**Figure S34:**  $^{13}\text{C}$  NMR spectrum of 9-Octadecenoic acid (**9**) recorded in  $\text{CDCl}_3$



**Figure S35:** MS spectrum of 9-Octadecenoic acid (**9**).



**Figure S36:** FT-IR spectrum of 9-Octadecenoic acid (**9**).

Table S1.  $^{13}\text{C}$  NMR (100 MHz) data ( $\delta$  value) of isolated compounds (1-9) in  $\text{CHCl}_3$

C. No	13C NMR (100 MHz) $\delta$ value									
	Compound 1	Compound 2	Compound 3	Compound 4	Compound 5	Compound 6	Compound 7	Compound 8	Compound 9	
1.	22.3 (CH <sub>2</sub> )	36.1 (CH <sub>2</sub> )	32.1 (CH <sub>2</sub> )	38.7 (CH <sub>2</sub> )	37.2 (CH <sub>2</sub> )	113.0 (C)	38.1 (CH <sub>2</sub> )	127.0 (C)	180.1 (C)	
2.	41.6 (CH <sub>2</sub> )	211.9 (C)	195.0 (C)	27.4 (CH <sub>2</sub> )	31.7 (CH <sub>2</sub> )	165.9 (CH)	27.7 (CH <sub>2</sub> )	123.1 (CH)	34.2 (CH <sub>2</sub> )	
3.	213.1 (C)	76.9 (CH <sub>2</sub> )	142.6 (CH)	79.0 (CH)	71.8 (CH)	103.6 (CH)	80.9 (CH)	114.7 (CH)	24.7 (CH <sub>2</sub> )	
4.	58.2 (CH)	54.6 (CH)	140.8 (C)	38.9 (C)	42.3 (CH <sub>2</sub> )	55.2 (OCH <sub>3</sub> )	37.7 (C)	147.9(C)	28.9 (CH <sub>2</sub> )	
5.	42.1 (C)	38.1 (C)	39.7 (C)	55.3 (CH)	140.8 (C)	162.4 (C)	55.3 (CH)	146.7 (C)	29.3 (CH <sub>2</sub> )	
6.	41.6 (CH <sub>2</sub> )	40.6 (CH <sub>2</sub> )	38.4 (CH <sub>2</sub> )	18.3 (CH <sub>2</sub> )	121.7 (CH)	107.7 (CH)	18.2 (CH <sub>2</sub> )	109.3 (CH)	29.7 (CH <sub>2</sub> )	
7.	18.3 (CH <sub>2</sub> )	17.6 (CH <sub>2</sub> )	18.0 (CH <sub>2</sub> )	34.3 (CH <sub>2</sub> )	31.9 (CH <sub>2</sub> )	132.7 (CH)	32.5 (CH <sub>2</sub> )	144.8 (CH)	29.4 (CH <sub>2</sub> )	
8.	53.1 (CH)	53.9 (CH)	52.6 (CH)	40.8 (C)	31.9 (CH)	205.0 (C)	39.3 (C)	115.7 (CH)	27.2 (CH <sub>2</sub> )	
9.	37.4 (C)	37.6 (C)	36.7 (C)	50.4 (CH)	50.1 (CH)	46.0 (CH)	47.5 (CH)	167.4 (C)	130.0 (C)	
10.	59.5 (CH)	60.4 (CH)	55.7 (CH)	37.1 (C)	36.5 (C)	19.2 (CH <sub>3</sub> )	37.0 (C)	64 (CH <sub>2</sub> )	128.1 (C)	
11.	35.6 (CH <sub>2</sub> )	35.0 (CH <sub>2</sub> )	34.7 (CH <sub>2</sub> )	20.9 (CH <sub>2</sub> )	21.1 (CH)	133.5 (C)	23.4 (CH <sub>2</sub> )	28.9 (CH <sub>2</sub> )	25.7 (CH <sub>2</sub> )	
12.	30.5 (CH <sub>2</sub> )	30.1 (CH)	30.2 (CH <sub>2</sub> )	25.1 (CH <sub>2</sub> )	39.7 (CH <sub>2</sub> )	128.6 (CH)	122.6 (CH)	26.1 (CH <sub>2</sub> )	29.2 (CH <sub>2</sub> )	
13.	39.7 (C)	39.6 (C)	39.5 (C)	38.0 (CH)	42.2	114.4 (CH)	143.6 (C)	29.3 (CH <sub>2</sub> )	29.3 (CH <sub>2</sub> )	
14.	38.3 (C)	38.3 (C)	38.2 (C)	42.8 (C)	56.8 (CH)	55.2(OCH <sub>3</sub> )	41.6 (C)	29.4 (CH <sub>2</sub> )	29.6 (CH <sub>2</sub> )	
15.	32.4 (CH <sub>2</sub> )	32.2 (CH <sub>2</sub> )	32.2 (CH <sub>2</sub> )	27.4 (CH <sub>2</sub> )	24.4 (CH <sub>2</sub> )	158.7 (C)	27.7 (CH <sub>2</sub> )	29.5 (CH <sub>2</sub> )	29.7 (CH <sub>2</sub> )	
16.	36.0 (CH <sub>2</sub> )	35.8 (CH <sub>2</sub> )	35.9 (CH <sub>2</sub> )	35.6 (CH <sub>2</sub> )	29.7 (CH <sub>2</sub> )	114.4 (CH)	22.9 (CH <sub>2</sub> )	29.5 (CH <sub>2</sub> )	31.9 (CH <sub>2</sub> )	
17.	30.0 (C)	30.0 (C)	30.0 (C)	43.0 (C)	56.8 (CH)	128.6 (CH)	46.5 (C)	29.6 (CH <sub>2</sub> )	22.7 (CH <sub>2</sub> )	
18.	42.8 (CH)	42.7 (CH)	42.6 (CH)	48.3 (CH)	12.0 (CH <sub>3</sub> )	-	41.0 (CH <sub>2</sub> )	29.6 (CH <sub>2</sub> )	14.1 (CH <sub>3</sub> )	
19.	35.3 (CH)	35.3 (CH <sub>2</sub> )	35.3 (CH <sub>2</sub> )	48.0 (CH)	19.4 (CH <sub>3</sub> )	-	45.8 (CH <sub>2</sub> )	29.7 (CH <sub>2</sub> )	-	
20.	28.1 (C)	28.1 (CH <sub>2</sub> )	28.1 (C)	151.0 (C)	40.5 (CH)	-	30.7 (C)	29.7 (CH <sub>2</sub> )	-	
21.	32.8 (CH <sub>2</sub> )	32.8 (CH <sub>2</sub> )	32.7 (CH <sub>2</sub> )	29.8 (CH <sub>2</sub> )	21.2 (CH <sub>3</sub> )	-	33.8 (CH <sub>2</sub> )	29.8 (CH <sub>2</sub> )	-	
22.	39.2 (CH <sub>2</sub> )	39.2 (CH <sub>2</sub> )	39.3 (CH <sub>2</sub> )	40.0 (CH <sub>2</sub> )	138.3 (CH)	-	32.4 (CH <sub>2</sub> )	22.7 (CH <sub>2</sub> )	-	
23.	6.8 (CH <sub>3</sub> )	10.8 (CH <sub>3</sub> )	10.4 (CH <sub>3</sub> )	28.0 (CH <sub>3</sub> )	129.3 (CH)	-	16.6 (CH <sub>3</sub> )	14.2 (CH <sub>3</sub> )	-	

24.	14.6 (CH <sub>3</sub> )	14.2 (CH <sub>3</sub> )	17.7 (CH <sub>3</sub> )	15.3 (CH <sub>3</sub> )	51.2 (CH)	-	28.0 (CH <sub>3</sub> )	55.9 (OCH <sub>3</sub> )	-
25.	17.9 (CH <sub>3</sub> )	17.6 (CH <sub>3</sub> )	18.6 (CH <sub>3</sub> )	16.1 (CH <sub>3</sub> )	31.9 (CH)	-	15.4 (CH <sub>3</sub> )	-	-
26.	20.2 (CH <sub>3</sub> )	19.9 (CH <sub>3</sub> )	18.9 (CH <sub>3</sub> )	16.0 (CH <sub>3</sub> )	21.1 (CH <sub>3</sub> )	-	17.1 (CH <sub>3</sub> )	-	-
27.	18.6 (CH <sub>3</sub> )	18.6 (CH <sub>3</sub> )	20.1 (CH <sub>3</sub> )	14.5 (CH <sub>3</sub> )	19.0 (CH <sub>3</sub> )	-	25.9 (CH <sub>3</sub> )	-	-
28.	32.1 (CH <sub>3</sub> )	32.2 (CH <sub>3</sub> )	32.1 (CH <sub>3</sub> )	18.0 (CH <sub>3</sub> )	25.4 (CH <sub>2</sub> )	-	183.4 (C)	-	-
29.				109.3 (CH <sub>2</sub> )		-	23.6 (CH <sub>3</sub> )	-	-
	35.0 (CH <sub>3</sub> )	31.9 (CH <sub>3</sub> )	31.8 (CH <sub>3</sub> )		12.2 (CH <sub>3</sub> )				
30.	31.8 (CH <sub>3</sub> )	35.3 (CH <sub>3</sub> )	35.0 (CH <sub>3</sub> )	19.3 (CH <sub>3</sub> )	-	-	33.0 (CH <sub>3</sub> )	-	-
31.	-	-	-	-	-	-	21.3 (CH <sub>3</sub> )	-	-
32.	-	-	-	-	-	-	171.0 (C)	-	-

Table S2.  $^1\text{H}$  NMR (400 MHz) data ( $\delta$  value) of isolated compounds (1-5 and 7) in  $\text{CHCl}_3$ 

C. No	$^1\text{H}$ NMR (400MHz, $\delta$ , ppm)					
	Compound 1	Compound 2	Compound 3	Compound 4	Compound 5	Compound 7
1.	1.91 (1H, m) 1.65 (1H, m)	2.39 (1H, t, $J=13.8$ Hz) 2.52 (1H, dd $J= 10.8, 2.9$ Hz)	2.42 (1H, dd $J= 17.8.0, 15.7$ Hz) 2.53 (1H, dd $J= 17.8, 3.64$ Hz)	0.91 (1H, m)	1.85 (1H, m), 1.08 (1H, m)	1.60, 1.05 (2H, m)
2.	2.36 (1H, m) 2.27 (1H, m)	-	-	1.67 (1H, m)	1.84 (1H, m), 1.50 (1H, m)	162, 188 (2H, m)
3.	-	3.81 (1H, dd $J=11.8, 2.96$ Hz) 3.51 (1H, d, $J= 3.48$ Hz OH-3)	5.98 (1H, s, OH-3)	1.60 (1H, d, $J = 10.0$ Hz)	3.51 (tdd, $J = 6.1, 4.4, 5.1$ Hz)	4.51 (1H, t, $J= 7.6$ Hz)
4.	2.21 (1H, q, $J=6.7$ Hz)	1.29 (m)	-	1.52 (1H, m)	2.30 (1H, m) 2.23 (1H, m)	-
5.	-	-	-	3.19 (1H, dd, $J = 4.4, 6.4$ Hz)	-	0.85 (1H, m)
6.	1.73 (1H, m) 1.23 (1H, m)	1.06 (1H, m) 1.85 (1H, br d $J=12.8$ Hz)	1.93 (1H, dd $J= 12.0, 2.52$ Hz) 181 (1H, m)	-	5.34 (d, $J = 5.2$ Hz)	1.52, 1.40 (2H, m)
7.	1.47 (1H, m) 1.38 (1H, m)	1.43 (1H, m) 1.48 (1H, m)	1.50 (1H, m) 1.44 (1H, m)	0.70 (1H, d, $J = 5.2$ Hz)	1.99(1H, m) 1.53 (1H, m)	1.40, 1.28 (2H, m)
8.	1.38 (1H, m)	1.29 (1H, m)	1.37 (1H, m)	1.52 (1H, m)	1.49 (1H, m)	-
9.	-	-	-	1.39 (1H, m)	0.93 (1H, m)	1.55 (1H, t)
10.	1.53 (1H, m)	1.30 (1H, m)	1.80 (1H, m)	<1.38> (2H, m)	-	-
11.	1.45 (1H, m) 1.27 (1H, m)	1.20 (1H, m) 1.30 (1H, m)	1.32 (1H, m) 1.26 (1H, m)	-	<1.50> (1H, m)	1.88, 1.62 (2H, dd, $J= 6.0, 3.7$ Hz)
12.	1.32 <1H, m>	1.33 (2H, m)	1.33 (2H, m)	1.26 (1H, m)	2.04 (1H, m) 1.17 (H, m)	5.28 (1H, t, $J= 3.7$ Hz)
13.	-	-	-	-	-	-

14.	-	-	-	1.40 (1H, m)	1.02 (1H, m)	-
15.	1.46 (1H, m) 1.25 (1H, m)	1.27 (1H, m) 1.51 (1H, m)	1.50 (1H, m) 1.30 (1H, m)	1.25 (1H, m)	1.56 (1H, m) 1.03 (1H, m)	1.05, 172 (2H, m)
16.	1.55 (1H, m)	1.33 (1H, m) 1.51 (1H, m)	1.54 (1H, m) 1.38 (1H, m)	1.67 (1H, d, <i>J</i> =9.6Hz),	1.26 (1H, m) 1.05 (1H, m)	1.98, 1.94 (2H, dd, <i>J</i> = 9.4, 4.0 Hz)
17.	-	-	-	1.02 (1H, m)	1.16 (1H, m)	-
18.	1.53 (1H, m)	1.52 (1H, m)	1.55 (1H, m)	1.67 (1H, t)	0.69 (3H, s)	2.84 (2H, dd, <i>J</i> = 9.4, 4.6 Hz)
19.	1.44 (1H, m)	1.16 (1H, m) 1.32 (1H, m)	1.20 (1H, m)	-	1.02 (3H, s)	1.62, 1.18 (2H, m)
20.	-	-	-	1.71 (1H, m)	2.04 (1H, m)	-
21.	1.46 (1H, m) 1.26 (1H, m)	1.47 (2H, m)	1.46 (1H, m) 1.28 (1H, m)	1.02 (1H, m)	1.02 (3H, s)	1.22, 1.19 (2H, m)
22.	1.45 (1H, m) 0.93 (1H, m)	1.46 (2H, m)	1.51 (1H, m)	1.46 (1H, m)	5.14 (1H, dd, <i>J</i> = 8.5, 6.6 Hz)	1.76, 1.57 (2H, m)
23.	0.86 (3H, d, <i>J</i> =6.3 Hz)	1.05 (3H, d, <i>J</i> =6.6 Hz)	1.80 (3H, s)	1.36 (1H, m)	5.05 (1H, dd, <i>J</i> = 8.5, 6.4 Hz)	0.85 (3H, s)
24.	0.71 (3H, s)	1.03 (3H, s)	0.93 (3H, s)	-	1.52 (1H, m)	0.86 (3H, s)
25.	0.86 (3H, s)	0.87 (3H, s)	0.98 (3H, s)	1.36 (1H, t)	1.52 (1H, m)	0.94 (3H, s)
26.	0.98 (3H, s)	1.00 (3H, s)	1.09 (3H, s)	2.38 (1H, td, <i>J</i> = 5.2,5.6 Hz)	0.83 (3H, d, <i>J</i> = 5.8 Hz)	0.75 (3H, s)
27.	1.04 (3H, s)	0.97 (3H, s)	1.00 (3H, s)	-	0.80 (3H, d, <i>J</i> = 5.8 Hz)	1.13 (3H, s)
28.	1.16 (3H, s)	1.17 (3H, s)	1.17 (3H, s)	1.91 (1H, m)	1.42 (1H, m) 1.16 (1H, m)	-
29.	0.99 (3H, s)	0.98 (3H, s)	0.99 (3H, s)	1.33 (1H, m)	0.80 (3H, t, <i>J</i> = 6.4 Hz)	0.93 (3H, s)
30.	0.94 (3H, s)	0.94 (3H, s)	0.93 (3H, s)	1.38 (1H, m)	-	0.90 (3H, s)
31.	-	-	-	-	-	2.04 (3H, s)

Table S3.  $^1\text{H}$  NMR (400 MHz) data ( $\delta$  value) of isolated compounds (6, 8 and 9) in  $\text{CHCl}_3$ 

Carbon No	$^1\text{H}$ NMR (400MHz, $\delta$ , ppm)		
	Compound 6	Compound 8	Compound 9
1.	-	-	-
2.	13.05 (1H, s, -OH)	7.07 (1H, dd, $J= 8.2, 1.6$ Hz)	2.34 (2H, t, $J= 7.5$ Hz)
3.	6.36 (1H, d, $J= 2.6$ Hz)	6.92 (1H, d, $J= 8.1$ Hz)	1.63 (2H, m)
4.	3.76 (3H, s, $\text{OCH}_3$ )	-	1.31 (2H, m)
5.		-	1.26 (2H, m)
6.	6.33 (1H, dd, $J= 8.0, 2.6$ Hz)	7.03 (1H, d, $J= 2.0$ Hz)	1.26 (2H, m)
7.	7.70 (1H, d, $J= 8.0$ Hz)	7.36 (1H, d, $J= 15.9$ Hz)	1.30 (2H, m)
8.	-	6.31(1H, d, $J= 15.9$ Hz)	2.02 (2H, m)
9.	4.60 (1H, q, $J= 8.0$ Hz)	-	5.35 (1H, m)
10.	1.50 (3H, s)	4.19 (2H, t, $J= 6.7$ Hz)	5.35 (1H, m)
11.	-	1.69 (2H, m)	2.78 (2H, m)
12.	7.21 (1H, d, $J= 7.0$ Hz)	1.38 (2H, m)	1.25 (2H, m)
13.	6.85 (1H, d, $J= 7.0$ Hz)	1.34 (2H, m)	1.26 (2H, m)
14.	3.76 (3H, s, $\text{OCH}_3$ )	1.33 (2H, m)	1.26 (2H, m)
15.	-	1.32 (2H, m)	1.26 (2H, m)
16.	6.83 (2H, d, $J= 7.0$ Hz)	1.31 (2H, m)	1.27 (2H, m)
17.	7.21 (2H, d, $J= 7.0$ Hz)	1.32 (2H, m)	1.30 (2H, m)
18.	-	1.30 (2H, m)	0.88 (3H, t, $J= 7.0$ Hz)
19.	-	1.26 (2H, m)	-
20.	-	1.26 (2H, m)	-
21.	-	1.25 (2H, m)	-
22.	-	1.25 (2H, m)	-
23.	-	3.91 O- $\text{CH}_3$ (3H, s)	-

24.	-	0.88 (3H, t, $J= 6.6$ Hz)	-
-----	---	---------------------------	---