

**Supplementary Table 1.**  $^1\text{H}$  chemical shift of methoxyneurosporene and spheroidenone.

Methoxyneurosporene		Spheroidenone	
Atom	Shift	Atom	Shift
6	2.12	1	1.35
6	2.12	1	1.35
7	2.12	1	1.35
7	2.12	4	3.22
10	1.62	4	3.22
10	1.62	4	3.22
10	1.62	27	2.21
11	1.67	27	2.21
11	1.67	28	2.14
11	1.67	28	2.14
12	1.83	31	2.03
12	1.83	31	2.03
12	1.83	32	2.02
30	1.82	32	2.02
30	1.82	35	1.62
30	1.82	35	1.62
31	2.12	35	1.62
31	2.12	36	1.7
32	2.12	36	1.7
32	2.12	36	1.7
35	1.63	37	1.64
35	1.63	37	1.64
35	1.63	37	1.64
36	1.67	38	1.84
36	1.67	38	1.84
36	1.67	38	1.84
37	1.96	39	1.94
37	1.96	39	1.94
37	1.96	39	1.94
38	1.97	40	1.98
38	1.97	40	1.98
38	1.97	40	1.98

39	1.97	41	2
39	1.97	41	2
39	1.97	41	2
40	1.96	42	1.99
40	1.96	42	1.99
40	1.96	42	1.99
41	6.25	43	1.35
42	6.5	43	1.35
43	5.96	43	1.35
44	5.13	44	6.77
45	6.19	45	7.47
46	6.64	46	6.6
47	6.35	47	6.61
48	6.24	48	6.55
49	6.63	49	6.35
50	6.63	50	6.64
51	6.24	51	6.45
52	6.35	52	6.25
53	6.64	53	6.63
54	6.19	54	6.63
55	6.25	55	6.25
56	6.5	56	6.22
57	5.95	57	6.51
58	5.14	58	5.95
		59	5.13
		60	5.12

**Supplementary Table 2.**  $^{13}\text{C}$  chemical shift of methoxyneurosporene and spheroidenone.

Methoxyneurosporene		Spheroidenone	
Atom	Shift	Atom	Shift
1	25.67	1	26.08
2	131.64	2	80.18
3	123.95		
4	26.67	4	53.04
5	39.73	5	203.3
7	123.92	7	126.54
8	26.77	8	146.94
9	40.25	9	133.91
10	139.63	10	140.75
11	125.83	11	124.46
12	125.09	12	140.77
13	135.33	13	135.99
14	136.01	14	136.17
15	131.52	15	130.64
16	130.12	16	139.13
17	129.49	17	136.69
18	132.49	18	132.61
19	136.90	19	129.49
20	136.38	20	130.12
21	123.79	21	131.56
22	128.51	22	135.97
23	135.08	23	135.08
24	131.40	24	124.92
25	124.99	25	126.49
26	128.50	26	139.58
27	32.23	27	32.97
28	27.4	28	27.4
29	22.29	29	125
30	39.49	30	135.25
31	74.06	31	31.94
		32	26.55
33	48.74	33	123.88

34	24.88	34	131.77
35	24.88	35	17.68
36	24.29	36	25.67
37	20.65	37	23.41
38	12.83	38	24.13
39	12.78	39	12.75
40	16.95	40	12.91
41	15.98	41	12.97
42	17.68	42	12.85
		43	26.08