

Supplementary Materials

Table S1. Volatile composition of *R. coriaria* fruits (Sumac samples 1-8) purchased from the Jordanian market and agriculture field.

N°	Class	Compound	LRI ^a	Samples (relative content, %) [#]							
				1	2	3	4	5	6	7	8
1	nt	Hexanal	806	-	0.7	0.1	0.3	0.3	1.0	0.2	1.3
2	nt	(<i>E</i>)-2-Hexenal	854	-	0.1	-	-	-	-	-	-
3	nt	Heptanal	901	-	0.2	-	-	-	0.1	-	-
4	mh	Tricyclene	930	-	0.2	-	-	-	-	-	-
5	mh	α-Pinene	939	-	42.2	22.2	8.2	20.1	10.4	11.0	40.8
6	mh	Camphene	953	-	2.0	0.7	1.0	0.7	0.8	1.0	0.5
7	nt	(<i>Z</i>)-2-Heptenal	960	-	0.6	-	-	0.3	0.4	-	0.3
8	mh	β -Pinene	980	-	3.9	1.3	0.3	1.1	0.8	0.2	2.8
9	nt	1-Octen-3-ol	982	-	-	-	0.3	-	-	0.5	-
10	nt	6-Methyl-5-hepten-2-one	988	-	1.2	0.3	0.5	0.8	1.2	0.5	0.8
11	mh	Myrcene	991	-	2.8	1.3	1.6	1.9	-	1.9	1.9
12	nt	2-Pentyl furan	993	-	-	-	-	-	4.1	-	-
13	nt	Octanal	1002	-	1.0	-	1.1	0.8	-	-	-
14	mh	α -Phellandrene	1005	-	-	0.7	-	-	-	0.9	0.5
15	nt	Butyl pivalate	1007	-	-	-	-	-	0.7	-	-
16	mh	δ -3-Carene	1011	-	-	0.2	0.5	-	-	0.4	-
17	mh	α -Terpinene	1018	-	0.5	0.5	2.4	0.5	-	3.0	0.2
18	nt	(<i>E</i>)-2-Hexenyl acetate	1020	-	-	-	-	-	1.2	-	-
19	mh	<i>p</i> -Cymene	1027	-	0.5	0.6	5.8	0.4	1.2	8.5	0.4
20	mh	Limonene	1031	-	8.8	4.4	4.9	5.9	3.8	5.1	7.6
21	om	1,8-Cineole	1035	5.2	-	2.6	10.4	-	2.6	5.1	-
22	mh	(<i>Z</i>)- β -Ocimene	1040	-	2.4	0.4	0.3	0.9	0.2	1.0	1.9
23	mh	(<i>E</i>)- β -Ocimene	1050	-	3.8	0.7	0.5	1.3	0.5	1.2	2.0
24	mh	γ -Terpinene	1062	-	0.5	1.0	5.5	1.0	1.0	8.0	0.8
25	nt	(<i>E</i>)-2-Octenal	1063	-	0.6	-	-	-	1.0	-	-
26	om	<i>trans</i> -Linalool oxide (furanoid)	1076	-	0.6	0.4	0.9	1.3	0.9	0.5	0.2
27	mh	Terpinolene	1088	-	0.6	0.6	1.5	0.9	1.0	1.3	0.2
28	nt	Undecane	1099	-	-	-	-	-	-	0.5	-
29	om	Linalool	1100	-	-	-	0.2	-	1.0	-	0.2
30	nt	Nonanal	1103	10.6	2.0	2.4	4.7	2.2	4.1	3.0	1.7
31	nt	Isopentyl 2-methyl butanoate	1105	-	0.3	0.2	-	-	-	-	0.1
32	om	<i>exo</i> -Fenchol	1117	-	-	0.4	0.6	-	-	0.2	-
33	om	Terpinen-1-ol	1138	-	-	-	0.1	-	-	-	-
34	om	<i>trans</i> -Pinocarveol	1140	-	-	-	-	-	-	-	0.3
35	om	Camphor	1145	-	0.2	0.2	0.4	-	0.9	0.3	-
36	om	Menthone	1154	-	-	-	-	1.1	-	-	-
37	om	Isoborneol	1156	-	6.1	0.5	2.3	3.5	5.9	3.2	-
38	om	Pinocarvone	1164	-	-	-	-	-	-	-	0.5
39	om	Borneol	1166	-	0.1	0.6	0.8	-	0.3	0.6	0.1
40	om	Menthol	1173	-	-	0.1	-	2.5	-	-	0.2
41	om	4-Terpineol	1180	-	0.2	1.2	1.6	0.4	0.9	1.1	0.1
42	om	α -Terpineol	1190	1.9	0.6	1.8	1.9	1.1	1.9	1.5	0.2
43	pp	Methyl chavicol	1197	-	-	-	-	-	2.8	-	-
44	ac-10	Safranal	1999	-	0.2	1.1	1.2	-	-	-	-
45	nt	Decanal	1205	5.7	0.5	1.2	0.8	0.6	1.0	0.5	0.5
46	om	Cumin aldehyde	1240	-	0.3	0.9	1.1	-	1.8	1.1	-
47	om	Carvone	1245	-	0.4	2.9	2.6	0.2	4.1	2.1	-
48	om	Thymoquinone	1250	-	-	-	-	-	0.8	-	-
49	om	Linalyl acetate	1258	-	0.3	0.5	-	0.3	0.1	-	0.8
50	nt	(<i>E</i>)-2-Decenal	1263	-	0.3	-	-	0.6	0.9	0.2	0.3

51	om	Isobornyl acetate	1286	-	0.5	0.6	0.4	0.2	0.7	0.4	0.3
52	pp	(<i>E</i>)-Anethole	1290	-	-	0.4	-	10.1	1.1	0.6	-
53	nt	Tridecane	1299	1.7	0.1	0.2	0.2	-	0.1	-	-
54	om	4-Terpinyl acetate	1300	-	-	-	-	-	-	-	0.1
55	om	Carvacrol	1302	-	-	-	-	-	0.5	1.2	-
56	nt	Undecanal	1312	2.5	-	-	-	-	-	-	-
57	nt	4-Vinyl guaiaicol	1315	-	-	-	-	-	0.4	-	-
58	om	α -Terpinyl acetate	1350	8.0	0.8	2.0	1.0	0.3	1.0	0.6	0.3
59	pp	Eugenol	1360	-	-	-	-	-	0.6	-	-
60	sh	α -Ylangene	1372	-	0.1	0.2	0.3	-	-	0.2	0.5
61	sh	α -Copaene	1376	-	0.5	1.0	0.8	0.4	0.5	0.5	1.3
62	nt	Tetradecane	1399	3.8	0.3	0.5	1.8	-	0.4	0.2	0.5
63	sh	Isocaryophyllene	1404	-	0.3	0.3	0.7	0.4	1.0	0.3	0.1
64	nt	Dodecanal	1408	5.2	-	-	-	-	-	-	-
65	sh	β -Ylangene	1414	-	0.8	0.2	0.9	-	-	-	-
66	os	<4,8- α -epoxy> Caryophyllene	1417	-	-	0.2	0.6	-	-	-	-
67	sh	β-Caryophyllene	1418	34.6	7.9	32.1	21.1	28.4	19.7	18.5	19.6
68	sh	β -Deprezianene	1423	-	-	-	-	-	-	0.9	-
69	sh	γ -Elemene	1433	-	0.2	0.8	0.3	0.6	0.5	0.4	0.6
70	sh	β -Gurjunene	1435	-	-	-	-	-	0.7	-	-
71	sh	α -Guaiene	1442	-	-	-	-	-	0.2	-	-
72	sh	α -Himachalene	1448	-	0.3	0.5	0.6	-	2.0	0.5	0.1
73	ac-12	(<i>E</i>)-Geranyl acetone	1454	2.9	-	-	0.2	0.6	0.6	0.6	0.7
74	sh	α -Humulene	1455	1.2	0.6	2.1	1.4	2.2	1.8	1.3	1.1
75	sh	(<i>E</i>)- β -Farnesene	1458	-	0.2	-	0.3	-	-	-	-
76	nt	Dodecanol	1471	6.9	-	-	-	-	-	-	-
77	sh	γ -Muurolene	1477	0.2	0.3	0.7	0.6	-	0.5	0.4	-
78	sh	α -Amorphene	1480	-	-	-	-	0.1	-	-	0.3
79	sh	β -Selinene	1485	-	0.2	0.4	0.5	-	0.4	0.1	0.3
80	sh	Viridiflorene	1493	-	-	0.5	0.6	-	-	0.5	0.5
81	sh	<i>cis</i> - β -Guaiene	1494	-	-	-	-	-	0.2	-	-
82	sh	α -Muurolene	1499	-	-	0.4	0.1	1.1	-	0.6	1.1
83	nt	Pentadecane	1500	4.3	-	-	-	-	-	-	-
84	sh	β -Bisabolene	1509	-	-	-	0.2	-	0.2	0.1	-
85	sh	<i>trans</i> - γ -Cadinene	1513	-	-	0.7	-	0.5	-	-	0.7
86	sh	δ -Cadinene	1523	2.4	0.4	1.1	0.7	0.7	0.5	0.6	1.4
87	sh	α -Cadinene	1538	-	-	-	-	-	-	-	0.2
88	sh	Selina-3,7(11)- diene	1542	-	-	0.2	-	-	-	-	-
89	os	Elemol	1550	-	-	-	-	0.3	-	0.4	0.3
90	os	Caryophyllene alcohol	1570	-	-	0.2	0.2	-	0.3	0.2	-
91	os	Caryophyllene oxide	1581	-	-	-	-	-	-	-	0.6
92	nt	Hexadecene	1590	-	-	0.8	0.3	-	-	0.2	-
93	nt	Hexadecane	1600	-	0.3	0.2	0.2	-	-	-	0.5
94	sh	Cadalene	1674	-	-	-	0.3	-	0.3	0.2	0.2
95	nt	Isoamyl dodecanoate	1830	-	-	-	-	-	-	0.2	-
Total identified (%)				97.2	98.5	98.3	98.6	97.1	93.4	94.6	98.5

Samples		1	2	3	4	5	6	7	8
Class of compounds									
mh	monoterpene hydrocarbons (mh)	-	62.8	34.6	32.5	34.7	19.7	43.5	59.6
om	oxygenated monoterpenes (om)	15.1	10.1	14.7	24.3	10.9	23.4	17.9	3.3
Total monoterpenes		15.1	72.9	49.3	56.8	45.6	43.1	61.4	62.9
sh	sesquiterpenes hydrocarbons (sh)	38.5	11.8	41.2	29.4	35.5	28.3	25.1	28.0
os	oxygenated sesquiterpenes (os)	-	-	0.4	0.8	0.3	0.3	0.6	0.9
Total sesquiterpenes		38.5	11.8	41.6	30.2	35.8	28.6	25.7	28.9
ac-10	apocarotenoids (ac-10)	-	0.2	1.1	1.2	-	-	-	-
ac-12	apocarotenoids (ac-12)	2.9	-	-	0.2	-	0.6	0.6	0.7
nt	non terpenes (nt)	40.7	8.2	5.9	10.2	5.6	16.6	6.3	6.0

pp	phenylpropanoids (pp)	-	-	0.4	-	10.1	4.5	0.6	-
Total identified (%)		97.2	98.5	98.3	98.6	97.1	93.4	94.6	98.5

^aLRI: Linear Retention Index on a DB5 column, [#]Samples of Sumac were collected from the different location and local market from Jordan. Sample 1 (Amman, Downtown), Sample 3 (Amman City), sample 4 (city Mall), Sample 5 (Al-Fuheis) and Sample 8 (Al-salt City). Sample 2 (Ajloun Forest Reserve), Sample 6 (Al-salt field) and Sample 7 (Al-Fuheis field).

Table S2. GC-MS analysis of Essential oil of *R. coriaria* fruits (Sumac samples 1-8) purchased from the Jordanian market and agriculture field.

				Samples (relative content, %) [#]							
				EO-1	EO-2	EO-3	EO-4	EO-5	EO-6	EO-7	EO-8
EO Yield (% w/w)				0.22	0.31	0.2	0.25	0.19	0.21	0.25	0.18
N°	Class	Compound	LRI ^a								
1	nt	Furfural	820	46.7	14.8	48.1	14.1	4.9	30.3	18.1	22.2
2	nt	(E)-2-Hexenal	854	0.2	-	-	-	-	0.1	-	-
3	nt	5-methyl-2(3H)-Furanone	864	0.3	-	0.1	-	-	0.2	-	0.2
4	nt	2-Heptanone	890	0.1	-	-	-	-	-	-	-
5	nt	Cyclohexanecarboxaldehyde	896	0.2	-	-	0.1	-	-	-	-
6	nt	4-Nonene	897	-	-	-	-	-	0.1	-	-
7	nt	Heptanal	901	0.2	-	0.2	0.1	0.1	0.1	-	0.2
8	mh	α -Pinene	939	-	-	0.1	-	-	-	-	0.1
9	nt	1-ethyl-1-methyl-Cyclopentane	944	0.2	-	-	-	-	-	-	-
10	nt	3-propyl-cyclopentene	953	-	-	-	-	-	-	-	-
11	nt	(E)-2-Heptenal	955	5.1	0.1	1.3	0.1	0.1	1.4	0.1	0.4
12	nt	5-methyl-2-Furancarboxaldehyde	959	0.7	0.1	0.9	0.1	0	0.3	0.5	0.8
13	nt	Benzaldehyde	962	0.8	0.2	1.1	0.2	0.2	0.3	0.2	0.1
14	nt	Hexanoic acid	970	0.6	0.8	0.9	0.5	0.6	0.5	0.1	-
15	nt	1-Hepten-3-one	976	0.2	-	0.1	-	-	0.1	-	-
16	nt	1-Octen-3-ol	978	2.2	0.6	1.1	0.7	0.7	0.8	-	-
17	nt	6-methyl-5-Hepten-2-one	985	-	-	-	-	-	-	-	0.1
18	mh	Myrcene	991	-	-	0.1	-	-	-	-	-
19	nt	Mesitylene	995	-	-	0.1	-	-	-	-	-
20	nt	2-methyl-1,5-Hexadiene	997	0.1	-	-	-	-	-	-	-
21	nt	Decane	998	-	-	-	-	-	-	-	0.1
22	nt	Octanal	1002	0.2	0.1	0.3	0.1	0.1	0.2	0.1	0.3
23	mh	α -Phellandrene	1005	-	-	0.2	-	-	-	-	-
24	mh	δ -3-Carene	1011	0.2	-	0.9	-	-	-	-	-
25	mh	α -Terpinene	1018	-	0.1	-	-	0.1	-	-	0.2
26	mh	<i>p</i> -Cymene	1027	-	-	0.1	-	-	0.1	-	-
27	mh	Limonene	1031	-	0.1	1.1	-	-	0.2	0.1	0.4
28	om	1,8-Cineole	1035	0.1	0.3	0.6	0.3	0.4	0.4	0.2	0.2
29	nt	3-Octen-2-one	1036	0.1	0	0.1	-	-	-	-	-
30	nt	Phenylacetaldehyde	1044	0.1	0.1	0.8	0.1	0.2	0.4	0.3	0.4
31	nt	(E)-2-Octenal	1057	1.1	0.1	0.3	0.1	-	0.5	-	-
32	nt	1-Chloro-Octane	1061	-	-	-	-	-	0.1	-	-
33	nt	Cyclooctyl alcohol	1065	1.1	0.1	0.3	-	0.1	0.1	-	-
34	nt	Heptanoic acid	1067	-	0.3	-	0.1	0.3	-	-	0.1
35	nt	1-Octanol	1069	0.2	-	-	-	-	-	-	-
36	om	<i>cis</i> -Linalool oxide (furanoid)	1070	0.4	0.2	-	0.2	0.3	-	0.1	0.2
37	nt	3-Cyclohexene-1-methanol	1073	0.1	-	-	-	-	0.1	-	-
38	om	<i>trans</i> -Linalool oxide (furanoid)	1076	0.2	0.1	0.3	-	-	0.5	-	0.1
39	mh	Terpinolene	1088	-	-	-	-	-	-	0.2	0.3
40	om	Fenchone	1091	0.1	-	-	-	-	-	-	-
41	om	Linalool	1100	0.6	-	0.1	-	-	0.1	0.1	0.2
42	nt	Nonanal	1103	0.4	0.5	0.9	0.4	0.5	0.5	6.9	6.8
43	nt	2-Ethyl-hexanoic acid	1110	-	0.1	-	-	-	-	-	-
44	om	<i>allo</i> -Ocimene	1129	-	0.1	-	-	-	-	-	0.2
45	sh	Pinocarveol	1134	-	-	-	-	-	-	-	0.1
46	om	Terpinen-1-ol	1138	-	0.1	-	0.1	0.1	-	-	0.2
47	om	Camphor	1145	-	0.1	-	0.1	0.1	0.1	-	-
48	om	Menthone	1154	0.1	-	-	-	-	-	-	-
49	nt	(E)-2-Nonenal	1159	0.3	-	-	-	0.1	0.1	0.2	0.3
50	nt	Octanoic acid	1165	0.3	1.4	-	1.4	1.5	0.5	0.3	0.7
51	om	Borneol	1166	0.2	-	0.6	-	-	-	-	0.2
52	nt	Methyl 2-hydroxydodecanoate	1169	0.1	-	-	-	-	-	-	-

53	nt	1-Nonanol	1171	-	0.1	-	0.1	0.1	-	0.2	-
54	om	Menthol	1173	-	-	-	0.2	-	-	-	-
55	om	4-Terpineol	1180	0.6	0.5	0.2	0.7	0.7	0.5	0.2	-
56	om??	p-Cymen-8-ol	1188	0.1	-	-	-	-	-	-	-
57	om	α-Terpineol	1190	1.8	1.4	1.4	1.6	1.9	1.5	3.0	2.4
58	om	(+) Dihydrocarvone	1199	0.3	0.4	-	0.4	0.6	0.4	-	-
59	om	γ -Terpineol	1201	-	0.1	-	0.1	-	-	-	-
60	nt	Decanal	1205	-	0.1	-	-	-	-	0.2	0.2
61	nt	Octyl acetate	1208	-	-	-	-	-	-	-	-
62	nt	(E,E)-2,4-Nonadienal	1216	0.2	-	-	-	-	-	-	0.1
63	om	Pulegone	1240	-	0.1	-	-	-	-	-	-
64	om	Carvone	1245	3.6	7.2	1.8	7.8	9.1	5.1	3.8	3.2
65	nt	Phenylethyl acetate	1254	-	0.1	-	-	-	-	-	-
66	nt	Nonanoic acid	1262	-	0.8	-	-	-	-	2.1	3.8
67	nt	(E)-2-Decenal	1263	0.5	0.7	0.6	1.4	1.7	0.8	2.2	1.6
68	nt	(E)-Cinnamaldehyde	1276	8.5	-	0.8	-	-	2.6	-	-
69	om	Isobornyl acetate	1286	-	-	-	-	-	-	0.1	-
70	pp	(E)-Anethole	1290	4.1	-	-	3.4	3.9	3.1	1.3	-
71	nt	Phenylethanediol	1293	0.3	-	-	-	-	0.1	-	-
72	un	unidentified	1295	-	-	-	-	-	-	0.6	0.4
73	om	Carvacrol	1302	7.7	6.9	3.2	3.9	4.3	5.0	1.0	1.8
74	nt	Undecanal	1307	-	0.1	-	0.1	0.1	-	0.2	0.2
75	nt	p-Vinyl guaicol	1311	0.3	-	-	-	-	0.2	-	-
76	nt	(E,E)-2,4-Decadienal	1319	0.4	0.1	-	0.1	0.1	0.1	2.6	4.0
77	nt	2,9-Dimethyl-5-decyne	1333	-	-	-	0.2	-	-	-	-
78	nt	Methyl 11,14,17-eicosatrienoate	1334	0.1	0.2	-	-	0.1	0.1	-	-
79	nt	3-Nonen-2-one	1339	-	0.2	-	0.3	0.2	0.1	-	-
80	om	α -Terpinyl acetate	1350	0.2	1	-	1.1	1.3	0.6	0.5	0.4
81	nt	n-Decanoic acid	1359	0.1	0.5	-	0.4	0.5	-	-	0.2
82	pp	Eugenol	1360	2.9	0.8	0.5	0.8	0.9	1.5	-	-
83	nt	(E)-2-Dodecenal	1364	-	0.1	-	-	-	-	0.3	0.5
84	sh	α -Ylangene	1372	0.1	0.2	-	0.3	-	-	-	0.3
85	sh	Caryophyllene	1373	-	0.2	-	0.2	0.2	0.2	0.4	-
86	mh	Geranyl acetate	1375	-	0.1	-	0.1	0.1	-	-	0.5
87	sh	α -Copaene	1376	0.1	1.1	0.2	1.3	1.4	0.7	0.6	-
88	om	β -Damascenone	1380	0.1	-	-	-	-	-	-	-
89	sh	(-)- β -Elemene	1391	-	0.1	-	-	-	-	-	0.7
90	pp	Methyleugenol	1397	0.5	0.6	-	0.6	0.8	0.5	0.3	-
91	nt	Tetradecane	1399	-	0.1	0.3	0.1	0.1	-	0.3	0.2
92	sh	β -Ylangene	1414	-	-	-	0.1	0.1	-	0.2	-
93	os	<4,8- α -epoxy> Caryophyllene	1417	-	0.2	-	-	-	-	-	-
94	sh	β-Caryophyllene	1418	1.2	7.5	6.7	8.7	10.1	4.5	10.6	8.1
95	nt	1-Methyl-3-phenylallyl alcohol	1421	-	-	-	-	-	-	0.2	-
96	sh	β -Deprezenene	1423	-	0.1	-	-	0.1	-	-	-
97	sh	β -Copaene	1428	-	0.1	-	-	-	-	-	0.6
98	sh	γ -Elemene	1433	-	0.2	-	-	0.2	-	0.3	-
99	sh	trans- α -Bergamotene	1439	-	0.1	-	-	0.3	-	0.3	-
100	nt	5,9-Undecadien-2-one, 6,10-dimethyl-, (Z)-	1445	-	-	-	-	-	-	-	1.5
101	sh	α -Himachalene	1448	0.1	0.9	0.5	0.8	1.0	0.4	1.8	-
102	ac-12	(E)-Geranyl acetone	1454	-	0.1	0.2	-	-	-	-	-
103	sh	(+)-Valencene	1454	-	0.2	0.2	0.2	-	0.1	0.5	1.8
104	sh	α -Humulene	1455	-	1.1	0.7	0.8	1.1	0.5	1.2	1.2
105	sh	γ -Muurolene	1477	-	0.5	0.2	0.4	0.4	0.2	0.5	0.7
106	sh	α -Amorphene	1480	-	0.6	-	0.5	0.7	0.3	0.4	0.3
107	sh	Viridiflorene	1493	-	0.1	-	-	-	-	-	-
108	sh	cis- β -Guaiene	1494	-	0.9	-	0.5	0.6	0.2	0.3	-
109	sh	Bicylogermacrene	1494	-	-	-	-	-	-	-	0.2
110	sh	Aromandendrene	1496	-	-	0.2	-	-	-	-	-
111	sh	β -Cadinene	1501	-	0.5	0.3	0.7	0.7	0.3	0.4	0.2

112	nt	Butylated Hydroxytoluene	1503	0.2	-	-	0.1	0.1	-	-	-
113	nt	3,5-bis(1,1-dimethylethyl)-Phenol	1504	-	0.1	-	-	-	-	-	-
114	sh	β -Bisabolene	1509	0.2	0.4	0.3	0.5	0.6	0.3	0.8	-
115	sh	<i>trans</i> - γ -Cadinene	1513	-	0.2	0.1	0.3	0.1	-	0.3	0.5
116	nt	1,1,4,5,6-Pentamethyl-2,3-dihydro-1H-indene	1521	-	-	-	-	-	-	-	0.8
117	sh	δ -Cadinene	1523	-	0.9	0.6	1.1	1.1	0.5	2.1	-
118	sh	<i>trans</i> -Calamenene	1525	-	-	-	-	-	-	0.3	0.3
119	sh	β -Sesquiphellandrene	1525	-	0.4	-	0.5	0.5	0.2	-	-
120	sh	α -Cadinene	1538	0.1	0.2	-	0.1	0.1	-	-	-
121	sh	α -Calacorene	1542	-	0.2	-	0.2	0.2	-	0.2	0.2
122	nt	Dodecanoic acid	1555	-	1.2	-	1.1	1.2	0.3	0.2	-
123	sh	Acorenone B	1561	-	0.8	0.7	0.8	1.0	0.4	2.1	2.0
124	nt	Tetradecane, 1-iodo-	1568	-	0.1	-	-	-	-	-	0.5
125	os	Caryophyllene alcohol	1570	0.1	0.9	0.4	0.9	1.0	0.5	1.0	0.6
126	sh	(-)-Palustrol	1570	-	-	-	-	-	-	-	0.2
127	os	Caryophyllene oxide	1581	-	0.1	-	0.1	0.2	-	-	0.5
128	nt	Hexadecene	1590	-	0.2	0.1	0.2	0.2	-	0.3	-
129	nt	Hexadecane	1600	-	0.1	0.2	0.1	0.1	0.1	0.1	-
130	sh	Viridiflorol	1608	-	0.6	-	-	-	-	0.2	-
131	nt	Tetradecanal	1611	0.5	0.1	0.1	0.2	0.1	0.4	-	-
132	sh	γ -Eudesmol	1637	-	0.1	-	0.1	0.1	-	-	-
133	sh	α -Cadinol	1660	-	0.5	0.1	0.3	0.4	0.2	0.5	-
134	sh	<i>Ar</i> -Turmerone	1664	0.1	0.2	-	0.1	0.2	0.2	0.3	0.3
135	nt	Methyl tetradecanoate	1720	-	0.1	0.1	0.2	0.1	0.1	0.1	-
136	nt	Tetradecanoic acid	1753	-	0.4	-	0.2	0.3	0.1	-	0.3
137	nt	Octadecane	1796	-	-	-	0.1	0.1	0.1	0.1	0.2
138	nt	6,10,14-trimethyl-2-Pentadecanone	1838	-	0.4	0.2	0.4	0.4	0.3	1.0	-
139	nt	2-Pentadecanone, 6,10,14-trimethyl-	1840	-	-	-	-	-	-	-	1.2
140	nt	1,2-Benzenedicarboxylic acid, bis(2-methylpropyl) ester	1856	-	0.1	-	-	-	-	-	-
141	nt	2-Heptadecanone	1897	-	0.3	-	0.3	0.3	0.2	0.2	0.3
142	ac-12	Farnesyl acetone	1907	-	0.4	0.2	0.5	0.5	0.2	1.0	0.9
143	nt	Methyl palmitate	1920	-	2.6	1.4	3.1	3.4	1.6	1.7	1.3
144	dh	Cembrene	1931	0.2	6.1	8.0	7.3	8.4	4.1	10.7	7.4
145	nt	Palmitic acid	1955	-	9.0	2.6	8.8	9.4	6.6	3.8	2.9
146	nt	Ethyl palmitate	1988	-	0.2	0.2	0.3	0.2	0.1	0.1	-
147	ac-10	Safranal	1999	-	0.1	-	-	-	-	-	-
148	nt	Methyl linoleate	2088	-	1.5	0.6	1.7	1.8	0.8	1.4	-
149	nt	Methyl linolelaidate	2093	-	1.2	-	0.7	0.9	0.7	-	0.5
150	nt	Methyl elaidate	2095	-	3.5	4.4	4.2	4.7	1.9	2.3	0.8
151	nt	Heneicosane	2101	-	-	-	-	-	-	-	0.6
152	nt	Methyl stearate	2121	-	0.2	-	0.1	0.2	0.2	0.1	-
153	nt	Oleic Acid	2134	-	5.8	-	3.5	4.4	1.5	-	-
154	nt	Linoleic acid	2155	-	-	-	-	0.9	-	-	-
155	nt	Stearic acid	2156	-	0.1	-	-	-	-	-	-
156	nt	Ethyl Oleate	2162	-	0.1	-	-	-	-	-	-
157	nt	Linoelaidic acid	2170	-	-	-	-	-	-	-	0.3
158	nt	Hexadecanamide	2174	-	0.3	-	0.1	-	-	-	-
159	nt	<i>n</i> -Tricosane	2295	-	0.1	-	0.1	-	-	0.1	-
160	nt	Stearamide	2382	-	0.2	-	-	-	-	-	-
161	nt	<i>n</i> -Pentacosane	2494	-	-	-	-	-	-	0.4	-
162	nt	<i>n</i> -Hexacosane	2593	-	-	-	-	-	-	0.1	0.9
163	nt	<i>n</i> -heptacosane	2692	-	0.1	-	0.2	0.2	-	1.0	-
164	nt	Squalene	2806	-	0.1	-	-	-	0.2	-	-
165	nt	<i>n</i> -nonacosane	2892	-	-	-	-	-	-	0.5	-
Total identified (%)				98.7	97.1	98.8	94.7	96.7	89.3	95.5	92.4
Class of compounds (%)				EO-1	EO-2	EO-3	EO-4	EO-5	EO-6	EO-7	EO-8
mh	monoterpene hydrocarbons (mh)			0.2	0.3	2.5	0.1	0.2	0.3	0.3	1.5

om	oxygenated monoterpenes (om)	16.1	18.5	8.2	16.5	18.8	14.2	9.0	9.1
	Total monoterpenes	16.3	18.8	10.7	16.6	19	14.5	9.3	10.6
sh	sesquiterpenes hydrocarbons (sh)	1.9	18.9	10.8	18.5	21.2	9.2	24.3	17.7
os	oxygenated sesquiterpenes (os)	0.1	1.2	0.4	1.0	1.2	0.5	1.0	1.1
	Total sesquiterpenes	2.0	20.1	11.2	19.5	22.4	9.7	25.3	18.8
dh	diterpene	0.2	6.1	8.0	7.3	8.4	4.1	10.7	7.4
ac-10	apocarotenoids (ac-10)	-	0.1	-	-	-	-	-	-
ac-12	apocarotenoids (ac-12)	-	0.1	0.2	-	-	-	-	-
nt	non terpenes (nt)	72.7	50.5	68.2	46.5	41.3	55.9	48.6	55.6
pp	phenylpropanoids (pp)	7.5	1.4	0.5	4.8	5.6	5.1	1.6	-
	Total identified (%)	98.7	97.1	98.8	94.7	96.7	89.3	95.5	92.4

^aLRI: Linear Retention Index on a DB5 column (NIST-2017), #Samples of Sumac were collected from the different location and local market from Jordan. Sample 1 (Amman, Downtown), Sample 3 (Amman City), Sample 4 (city Mall), Sample 5 (Al-Fuheis) and Sample 8 (Al-salt City). Sample 2 (Ajloun Forest Reserve), Sample 6 (Al-Salt field) and Sample 7 (Al-Fuheis field).