

Supplementary materials 1

Characterization of volatile compounds in Tom Yum soup by headspace–solid phase microextraction–gas chromatography–mass spectrometry combined with sensory evaluation techniques

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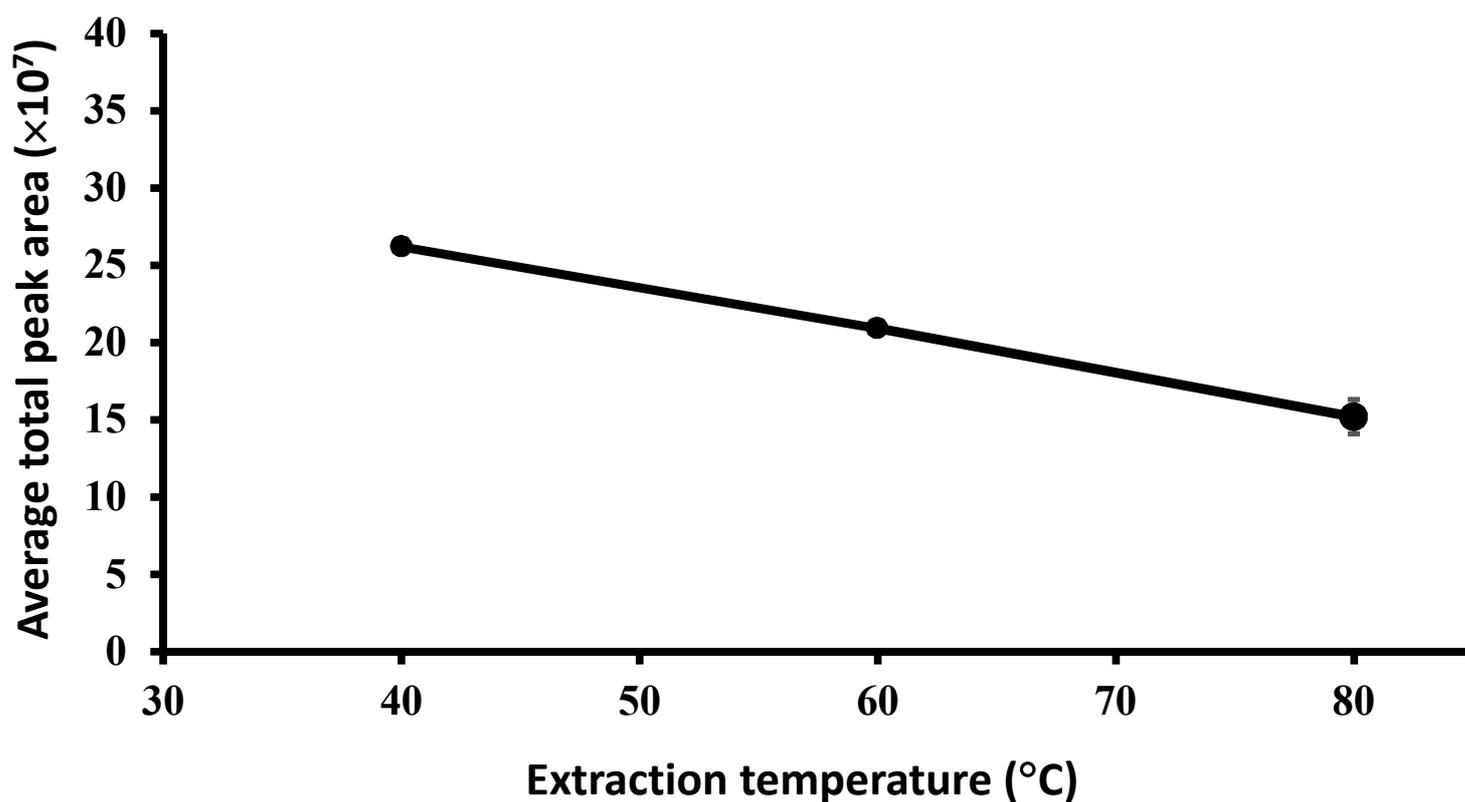


Figure S1: Average total peak area and extraction temperature.

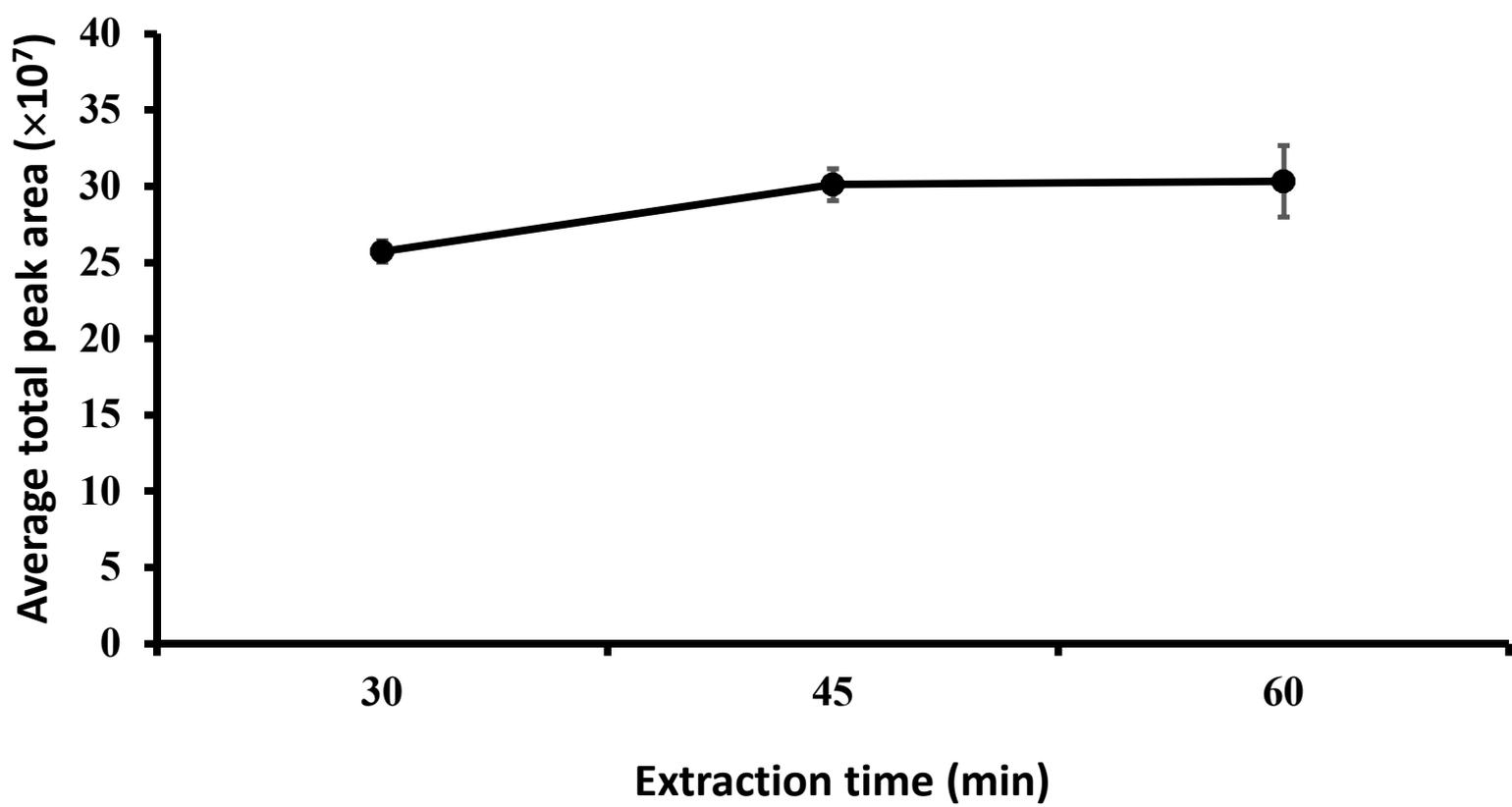


Figure S2: Average total peak area and extraction time.

Supplementary materials 2

Characterization of volatile compounds in Tom Yum soup by headspace–solid phase microextraction–gas chromatography–mass spectrometry combined with sensory evaluation techniques

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Table S1. Tentative volatile compounds in Tom Yum soup and individual ingredient.

Peak no.	RT (min)	Tentative compound	Tom Yum soup	% Average area normalization (<i>n</i> = 3)									
				Lemongrass		Fish sauce		Kaffir lime leaf		Chili		Lime juice	
				Raw	Boiled	Raw	Boiled	Raw	Boiled	Raw	Boiled	Raw	Boiled
1	2.61	Acetic acid	-	-	-	1.81 ±0.11	17.6 ±0.6	-	-	-	-	-	-
2	2.79	3-Methylbutanal	-	-	-	0.59 ±0.10	13.0 ±0.5	-	-	-	-	-	-
3	2.86	3-Methylpentanal	-	-	-	1.04 ±0.07	10.9 ±0.4	-	-	-	-	-	-
4	3.03	Propanoic acid	-	-	-	2.75 ±0.04	9.05 ±1.01	-	-	-	-	-	-
5	3.17	3-Pentanone	-	-	-	-	-	0.012 ±0.002	-	-	-	-	-
6	3.57	3-Methyl-1-butanol	-	-	-	1.04 ±0.06	-	-	-	-	-	-	-
7	3.62	2-Methyl-1-butanol	-	-	-	0.50 ±0.02	-	-	-	-	-	-	-

8	3.70	1-Methylpyrrole	-	-	-	-	-	-	-	1.66 ±0.90	0.81 ±0.03	-	-
9	4.49	Butanoic acid	-	-	-	26.13±0. 56	-	-	-	-	-	-	-
10	5.43	4-Methyl-1-pentanol	-	-	-	-	-	-	-	0.74 ±0.38	-	-	-
11	5.93	3-Hexen-1-ol	-	-	-	-	-	0.10 ±0.02	-	-	-	-	-
12	5.93	2-Methylbutanoic acid	-	-	-	14.83±0. 90	-	-	-	-	-	-	-
13	6.26	3-Methylbutanoic acid	-	-	-	14.72 ±0.24	-	-	-	-	-	-	-
14	7.10	Nonane	0.013 ±0.001	-	-	-	-	-	-	-	-	0.007 ±0.001	0.007 ±0.001
15	7.32	3-(methylthio)propanal	-	-	-	1.27 ±0.09	3.94 ±1.2	-	-	-	-	-	-
16	7.59	2,6-Dimethylpyrazine	-	-	-	0.69 ±0.12	-	-	-	-	-	-	-
17	7.70	Anisole	-	-	-	-	-	0.007 ±0.002	-	0.56 ±0.31	-	-	-
18	7.87	Tricyclene	-	-	-	-	-	-	-	0.034 ±0.02	-	0.006 ±0.001	0.004 ±0.001
19	8.01	α-Thujene	0.063 ±0.02	-	-	-	-	0.037 ±0.005	-	0.023 ±0.01	-	0.25 ±0.01	0.078 ±0.01
20	8.25	α-Pinene	0.57 ±0.07	0.011 ±0.003	-	-	-	0.044 ±0.005	-	0.047 ±0.03	-	1.64 ±0.10	0.93 ±0.01
21	8.70	α-Fenchene	0.008 ±0.001	-	-	-	-	-	-	-	-	0.002 ±0.001	0.029 ±0.003
22	8.77	Camphene	0.043 ±0.003	0.011 ±0.01	-	-	-	-	-	0.028 ±0.02	-	0.088 ±0.005	0.11 ±0.01
23	8.96	Thuja-2,4(10)-diene	-	-	-	-	-	-	-	-	-	0.005 ±0.001	0.003 ±0.001
24	9.00	4-Methylpentanoic acid	-	-	-	13.1 ±1.3	-	-	-	-	-	-	-
25	9.16	Benzaldehyde	-	-	-	3.40 ±0.60	5.95 ±0.57	-	-	-	-	-	-

26	9.65	Sabinene	0.38 ±0.14	-	-	-	-	1.21 ±0.10	0.059 ±0.01	0.18 ±0.11	-	1.24 ±0.21	0.60 ±0.10
27	9.76	β-Pinene	4.79 ±0.96	-	-	-	-	0.081 ±0.01	-	0.25 ±0.16	-	19.99 ±0.31	6.92 ±0.54
28	9.84	Phenol	-	-	-	8.50 ±0.38	-	-	-	-	-	-	-
29	10.21	6-Methyl-5-hepten-2-one	0.015 ±0.003	0.009 ±0.001	0.072 ±0.003	-	-	-	-	-	-	-	-
30	10.30	β-Myrcene	0.72 ±0.03	8.15 ±1.7	0.40 ±0.02	-	-	1.30 ±0.18	0.034 ±0.003	0.038 ±0.02	-	1.11 ±0.03	1.03 ±0.02
31	10.83	α-Phellandrene	0.071 ±0.005	0.019 ±0.002	0.026 ±0.003	-	-	0.009 ±0.002	0.021 ±0.002	-	-	0.054 ±0.003	0.13 ±0.01
32	10.93	(Z)-3-hexenyl acetate	-	-	-	-	-	2.10 ±0.13	0.047 ±0.01	-	-	-	-
33	11.22	(E)-3-Hexenyl acetate	-	-	-	-	-	0.07 ±0.01	-	-	-	-	-
34	11.32	α-Terpinene	0.34 ±0.02	0.014±0.001	-	-	-	-	-	-	-	0.38 ±0.03	0.75 ±0.05
35	11.62	m-Cymene	0.125 ±0.003	0.013±0.003	0.044 ±0.002	-	-	-	-	0.066 ±0.03	-	0.023 ±0.004	0.11 ±0.01
36	11.79	D-Limonene	26.55 ±3.01	0.16 ±0.01	0.017 ±0.002	-	-	0.19 ±0.02	0.010 ±0.001	0.34 ±0.19	-	49.93 ±0.85	42.94 ±0.42
37	11.81	2-Ethyl-1-hexanol	-	-	-	0.24 ±0.01	2.98 ±0.85	-	-	-	-	-	-
38	11.93	Eucalyptol	-	0.028 ±0.003	0.011 ±0.002	-	-	0.025 ±0.002	0.013 ±0.001	0.038 ±0.02	-	-	-
39	12.17	cis-β-Ocimene	0.087 ±0.01	3.18 ±0.37	0.100 ±0.004	-	-	0.036 ±0.01	0.013 ±0.001	-	-	0.033 ±0.003	0.019 ±0.001
40	12.39	Benzeneacetaldehyde	-	-	-	0.81 ±0.19	-	-	-	-	-	-	-
41	12.60	trans-β-Ocimene	0.093 ±0.01	1.91 ±0.22	0.073 ±0.003	-	-	0.83 ±0.11	-	0.024 ±0.01	-	0.037 ±0.001	0.067 ±0.002
42	13.04	γ-Terpinene	4.46 ±0.41	0.009 ±0.001	-	-	-	0.022 ±0.002	-	-	-	9.21 ±0.09	10.01 ±0.13
43	13.33	Acetophenone	-	-	-	0.16 ±0.03	-	-	-	-	-	-	-

62	17.17	β -Citronellal	-	0.015 ± 0.002	0.11 ± 0.01	-	-	3.90 ± 0.66	93.92 ± 0.50	-	-	-	-
63	17.23	Iso-isopulegol	0.059 ± 0.02	-	-	-	-	-	-	-	-	-	-
64	17.30	Hexyl isobutyrate	-	-	-	-	-	-	-	0.037 ± 0.01	-	-	-
65	17.52	Unknown 1	0.034 ± 0.01	-	-	-	-	-	-	-	-	-	-
66	17.61	Unknown 2	0.044 ± 0.01	0.011 ± 0.001	0.34 ± 0.01	-	-	-	-	-	-	-	-
67	17.64	Isothujol	-	-	-	-	-	-	-	-	-	0.006 ± 0.002	0.021 ± 0.004
68	17.70	<i>p</i> -Mentha-1,5-dien-8-ol	0.032 ± 0.01	-	-	-	-	-	-	-	-	-	-
69	18.04	Isopinocampone	-	-	-	-	-	-	-	-	-	0.009 ± 0.002	0.005 ± 0.001
70	18.10	Rose furan oxide	-	0.026 ± 0.002	0.014 ± 0.002	-	-	-	-	-	-	-	-
71	18.16	Terpinen-4-ol	0.28 ± 0.02	-	-	-	-	-	-	-	-	0.47 ± 0.09	0.38 ± 0.03
72	18.32	2-Isobutyl-3-methoxypyrazine	-	-	-	-	-	-	-	0.049 ± 0.01	0.76 ± 0.03	-	-
73	18.41	<i>p</i> -Mentha-1(7),8-dien-2-ol	0.34 ± 0.06	0.014 ± 0.002	0.62 ± 0.02	-	-	-	-	-	-	0.001 ± 0.001	-
74	18.60	(<i>Z</i>)-3-hexenyl butanoate	-	-	-	-	-	0.15 ± 0.04	-	-	-	-	-
75	18.75	α -Terpineol	0.66 ± 0.08	0.016 ± 0.002	-	-	-	0.027 ± 0.004	0.021 ± 0.01	-	-	0.24 ± 0.06	1.51 ± 0.17
76	18.90	Methyl salicylate	-	-	-	-	-	-	-	0.28 ± 0.11	-	-	-
77	19.14	Dodecane	-	-	-	-	-	0.030 ± 0.01	-	-	-	0.002 ± 0.001	0.003 ± 0.001
78	19.20	4-methylpentyl 2-methylbutanoate	0.051 ± 0.01	-	-	-	-	-	-	14.75 ± 2.11	3.96 ± 0.28	-	-
79	19.41	Decanal	0.15 ± 0.01	-	-	-	-	-	-	-	-	0.24 ± 0.01	0.32 ± 0.01

80	19.43	4-Methylpentyl 3-methylbutanoate	-	-	-	-	-	-	-	11.04 ±1.59	5.59 ±0.18	-	-
81	19.97	Carveol	0.012 ±0.003	-	0.031 ±0.002	-	-	-	-	-	-	-	-
82	20.01	γ-Isogeraniol	-	0.019 ±0.005	-	-	-	-	-	-	-	-	-
83	20.42	Nerol	0.44 ±0.07	13.07 ±0.73	0.31 ±0.01	-	-	-	-	-	-	0.010 ±0.002	-
84	20.51	β-Citronellol	-	-	-	-	-	47.7 ±1.1	2.65 ±0.21	-	-	-	-
85	20.52	cis-3-Hexenyl isovalerate	-	-	-	-	-	-	-	0.033 ±0.01	-	-	-
86	20.59	cis-3-Hexenyl-α-methylbutyrate	-	-	-	-	-	-	-	0.037 ±0.01	-	-	-
87	20.79	Butanoic acid, 2-methyl-, hexyl ester	-	-	-	-	-	-	-	0.44 ±0.13	-	-	-
88	20.95	β-Citral	12.36 ±1.68	2.81 ±0.48	24.84 ±0.24	-	-	-	-	-	-	0.15 ±0.02	0.10 ±0.01
89	21.00	Butanoic acid, 3-methyl-, hexyl ester	-	-	-	-	-	-	-	0.10 ±0.03	-	-	-
90	21.49	Hexyl n-valerate	-	-	-	-	-	-	-	1.05 ±0.27	-	-	-
91	21.65	Geraniol	0.91 ±0.09	39.7 ±3.2	2.89 ±0.05	-	-	0.020 ±0.01	0.026 ±0.001	-	-	0.009 ±0.002	0.005 ±0.002
92	21.81	Methyl citronellate	-	-	-	-	-	0.036 ±0.001	-	-	-	-	-
93	22.26	Geranial	25.4 ±2.8	7.15 ±0.64	69.05 ±0.21	-	-	0.018 ±0.01	-	-	-	0.36 ±0.05	0.24 ±0.02
94	22.44	Citronellyl formate	-	-	-	-	-	0.010 ±0.001	-	-	-	-	-
95	23.13	Indole	-	-	-	6.70 ±0.93	1.98 ±0.93	0.036 ±0.004	-	-	-	-	-
96	23.47	Tridecane	0.027 ±0.004	-	-	-	-	0.024 ±0.01	-	-	-	0.013 ±0.002	0.023 ±0.001
97	23.76	Hexyl 2-methylbutanoate	-	-	-	-	-	-	-	0.29 ±0.04	-	-	-

98	23.79	Undecanal	0.020 ±0.003	-	-	-	-	-	-	-	-	0.017 ±0.001	0.036 ±0.003
99	23.97	Hexyl 3-methylbutanoate	-	-	-	-	-	-	-	0.20 ±0.03	-	-	-
100	24.16	4-Methylpentyl 4-methylpentanoate	0.11 ±0.01	-	-	-	-	-	-	45.25 ±4.46	53.42 ±2.30	-	-
101	24.50	Methyl geranate	0.012 ±0.002	0.18 ±0.01	0.014 ±0.002	-	-	-	-	-	-	-	-
102	25.08	δ-Elemene	1.67 ±0.07	0.035 ±0.002	-	-	-	0.38 ±0.02	-	0.031 ±0.004	2.57 ±0.34	0.88 ±0.06	1.84 ±0.08
103	25.58	α-Cubebene	0.005 ±0.001	0.029 ±0.003	-	-	-	1.06 ±0.08	0.013 ±0.002	-	-	0.003 ±0.001	0.006 ±0.001
104	25.63	4-methylpentyl hexanoate	-	-	-	-	-	-	-	1.28 ±0.21	-	-	-
105	25.74	Citronellyl acetate	0.024 ±0.003	0.023 ±0.01	-	-	-	2.49 ±0.40	0.085 ±0.005	-	-	0.001 ±0.001	0.003 ±0.001
106	26.14	2-Methyltridecane	-	-	-	-	-	-	-	4.95 ±1.5	1.14 ±0.09	-	-
107	26.17	Neric acid	-	0.32 ±0.20	-	-	-	-	-	-	-	-	-
108	26.21	Cyclosativene	0.045 ±0.003	-	-	-	-	0.16 ±0.01	0.009 ±0.001	-	-	0.059 ±0.01	0.069 ±0.004
109	26.30	(+)-cycloisosativene	-	0.14 ±0.03	-	-	-	-	-	-	-	-	-
110	26.47	Ylangene	-	0.12 ±0.02	-	-	-	0.013 ±0.004	-	0.071 ±0.03	-	0.001 ±0.001	0.003 ±0.001
111	26.66	Copaene	-	0.056 ±0.02	-	-	-	4.66 ±0.32	0.038 ±0.01	0.027 ±0.01	-	0.001 ±0.001	0.003 ±0.001
112	26.92	(Z)-3-hexenyl hexanoate	-	-	-	-	-	0.042 ±0.01	-	-	-	-	-
113	27.01	Geranyl acetate	0.21 ±0.02	0.86 ±0.17	0.54 ±0.01	-	-	0.29 ±0.04	0.043 ±0.003	-	-	0.067 ±0.01	0.095 ±0.004
114	27.29	β-Cubebene	-	0.11 ±0.01	-	-	-	1.66 ±0.02	-	-	-	-	-
115	27.34	β-Elemene	0.68 ±0.04	0.60 ±0.11	-	-	-	0.67 ±0.03	-	0.51 ±0.29	2.67 ±0.11	0.47 ±0.04	0.98 ±0.04

116	27.49	(+)-Sativene	-	0.017 ±0.005	-	-	-	0.083 ±0.005	-	-	-	-	-
117	27.65	Tetradecane	0.007 ±0.001	-	-	-	-	0.040 ±0.01	-	0.56 ±0.15	-	0.005 ±0.001	0.007 ±0.001
118	28.03	Dodecanal	0.14 ±0.02	-	-	-	-	-	-	-	-	0.11 ±0.01	0.30 ±0.02
119	28.06	α-Gurjunene	-	-	-	-	-	0.034 ±0.002	-	-	-	-	-
120	28.10	Decyl acetate	0.043 ±0.01	-	-	-	-	-	-	-	-	-	-
121	28.28	α-Bergamotene	0.23 ±0.01	0.038 ±0.01	-	-	-	-	-	-	-	0.19 ±0.03	0.34 ±0.01
122	28.45	Caryophyllene	0.16 ±0.01	6.63 ±0.73	0.020 ±0.01	-	-	16.90 ±0.61	0.15 ±0.04	0.55 ±0.03	-	0.20 ±0.03	0.50 ±0.01
123	28.71	γ-Elemene	0.017 ±0.002	-	-	-	-	-	-	-	-	0.008 ±0.001	0.026 ±0.001
124	28.83	β-Gurjunene	0.008 ±0.001	0.029 ±0.01	-	-	-	0.25 ±0.01	-	-	-	0.004 ±0.001	0.014 ±0.001
125	29.10	trans-α-Bergamotene	-	2.57 ±0.14	-	-	-	-	-	-	-	-	-
126	29.20	Thujopsene	3.71 ±0.12	-	-	-	-	-	-	-	-	3.35 ±0.49	5.82 ±0.12
127	29.21	α-Guaiene	0.95 ±0.05	0.56 ±0.12	-	-	-	0.36 ±0.01	-	-	-	0.42 ±0.03	1.15 ±0.04
128	29.40	Seychellene	0.022 ±0.003	0.41 ±0.07	-	-	-	0.038 ±0.002	-	-	-	0.020 ±0.002	0.022 ±0.001
129	29.59	epi-β-Santalene	-	-	-	-	-	-	-	-	-	0.006 ±0.001	0.018 ±0.01
130	29.61	α-Himachalene	-	-	-	-	-	-	-	0.68 ±0.27	-	-	-
131	29.62	Aromadendrene	-	0.025 ±0.003	-	-	-	-	-	-	-	-	-
132	29.67	cis-muurola-3,5-diene	-	-	-	-	-	0.036 ±0.003	-	-	-	-	-
133	29.72	Cedrene	0.048 ±0.003	0.10 ±0.02	-	-	-	-	-	-	-	0.004 ±0.001	0.060 ±0.002

134	29.81	α -Caryophyllene	0.168 ± 0.005	0.74 ± 0.09	-	-	-	1.85 ± 0.06	0.012 ± 0.001	-	-	0.10 ± 0.01	0.221 ± 0.004
135	29.95	(E)- β -Farnesene	-	1.06 ± 0.09	-	-	-	0.054 ± 0.002	-	-	-	-	-
136	29.97	(Z)- β -Farnesene	0.22 ± 0.01	-	-	-	-	-	-	-	-	0.24 ± 0.03	0.44 ± 0.01
137	30.09	Allo-Aromadendrene	0.15 ± 0.01	-	-	-	-	0.065 ± 0.002	-	-	-	0.13 ± 0.02	0.273 ± 0.003
138	30.19	2-Methyltetradecane	-	-	-	-	-	-	-	7.40 ± 2.63	3.09 ± 0.21	-	-
139	30.40	Acoradiene	-	0.034 ± 0.004	-	-	-	0.006 ± 0.001	-	-	-	-	-
140	30.59	1-Dodecanol	-	-	-	0.67 ± 0.14	34.6 ± 1.2	-	-	-	-	-	-
141	30.60	γ -Himachalene	-	0.027 ± 0.01	0.009 ± 0.002	-	-	0.056 ± 0.003	0.023 ± 0.001	-	-	-	-
142	30.72	γ -Muurolole	0.14 ± 0.01	0.12 ± 0.04	-	-	-	0.28 ± 0.01	-	-	-	0.033 ± 0.01	0.214 ± 0.004
143	30.78	Longifolene-(V4)	-	-	-	-	-	-	-	3.18 ± 1.29	-	-	-
144	30.90	Germacrene D	-	0.59 ± 0.19	-	-	-	1.01 ± 0.05	-	0.38 ± 0.13	-	-	-
145	30.93	β -Guaiene	0.72 ± 0.02	-	-	-	-	-	-	-	-	0.51 ± 0.05	1.12 ± 0.03
146	31.00	4,11-selinadiene	-	0.93 ± 0.22	-	-	-	-	-	0.21 ± 0.07	-	-	-
147	31.07	γ -Gurjunene	0.29 ± 0.01	-	-	-	-	-	-	-	-	0.20 ± 0.02	0.562 ± 0.001
148	31.10	β -Selinene	-	0.23 ± 0.05	-	-	-	0.056 ± 0.001	-	0.043 ± 0.01	-	-	-
149	31.23	α -Elemene	0.055 ± 0.001	-	-	-	-	-	-	-	-	0.011 ± 0.002	0.077 ± 0.004
150	31.30	Cadina-3,9-diene	-	0.65 ± 0.15	0.001 ± 0.002	-	-	-	-	-	-	-	-
151	31.31	Bicyclosesquiphellandrene	-	-	-	-	-	0.030 ± 0.001	-	-	-	-	-

152	31.32	δ -Selinene	0.16 ± 0.01	-	-	-	-	-	-	-	-	0.017 ± 0.004	0.19 ± 0.01
153	31.38	Valencene	-	0.14 ± 0.04	-	-	-	-	-	-	-	-	-
154	31.46	(Z,E)- α -Farnesene	0.15 ± 0.01	0.87 ± 0.02	-	-	-	-	-	-	-	0.079 ± 0.01	0.358 ± 0.003
155	31.51	Elixene	-	-	-	-	-	2.43 ± 0.09	0.14 ± 0.03	0.037 ± 0.01	6.65 ± 1.20	-	-
156	31.62	α -Chamigrene	-	0.38 ± 0.09	-	-	-	-	-	-	-	-	-
157	31.63	Pentadecane	-	-	-	-	-	-	-	0.55 ± 0.21	-	-	-
158	31.65	α -Muuroloene	6.27 ± 0.18	-	-	-	-	0.60 ± 0.01	-	-	-	3.70 ± 0.30	6.60 ± 0.14
159	31.66	Epicubebol	0.037 ± 0.003	-	-	-	-	-	-	-	-	0.004 ± 0.001	0.020 ± 0.001
160	31.80	(Z)- α -Bisabolene	0.42 ± 0.01	-	-	-	-	-	-	-	-	0.34 ± 0.03	0.76 ± 0.01
161	31.88	δ -Guaiene	-	0.63 ± 0.14	0.040 ± 0.01	-	-	0.18 ± 0.01	0.072 ± 0.02	0.12 ± 0.03	9.08 ± 1.67	-	-
162	31.98	α -Farnesene	-	0.37 ± 0.07	-	-	-	0.98 ± 0.17	-	-	-	-	-
163	32.12	β -Bisabolene	-	-	-	-	-	-	-	-	-	1.70 ± 0.14	5.62 ± 0.24
164	32.19	γ -Cadinene	0.010 ± 0.001	0.91 ± 0.23	0.018 ± 0.002	-	-	0.20 ± 0.01	-	-	-	-	-
165	32.33	(Z)- γ -Bisabolene	0.035 ± 0.004	0.12 ± 0.03	-	-	-	-	-	-	-	0.076 ± 0.01	0.083 ± 0.02
166	32.56	δ -Cadinene	0.092 ± 0.002	0.54 ± 0.15	0.017 ± 0.002	-	-	3.14 ± 0.07	0.046 ± 0.01	0.024 ± 0.01	-	0.021 ± 0.003	0.092 ± 0.003
167	32.87	Cadina-1(2),4-diene	-	0.19 ± 0.06	-	-	-	0.17 ± 0.01	-	-	-	-	-
168	32.91	(E)- γ -Bisabolene	0.026 ± 0.001	-	-	-	-	-	-	-	-	0.018 ± 0.002	0.039 ± 0.001
169	33.02	Selina-3,7(11)-diene	0.042 ± 0.003	-	-	-	-	-	-	-	-	0.009 ± 0.002	0.061 ± 0.003

170	33.08	α -Cadinene	0.040 ± 0.002	-	-	-	-	0.022 ± 0.002	-	-	-	0.007 ± 0.002	0.071 ± 0.01
171	33.18	Hexyl benzoate	-	-	-	-	-	-	-	0.091 ± 0.03	4.03 ± 0.63	-	-
172	33.31	α -Bisabolene	0.11 ± 0.01	-	-	-	-	-	-	-	-	0.11 ± 0.01	0.352 ± 0.004
173	33.53	Hedycaryol	-	-	-	-	-	0.057 ± 0.01	-	-	-	-	-
174	33.82	Germacrene B	1.00 ± 0.04	0.012 ± 0.004	-	-	-	0.010 ± 0.001	-	-	-	0.47 ± 0.03	1.33 ± 0.04
175	34.05	2-Methylpentadecane	-	-	-	-	-	-	-	0.37 ± 0.14	-	-	-
176	34.06	(E)-Nerolidol	0.030 ± 0.003	0.056 ± 0.01	-	-	-	0.23 ± 0.02	-	-	-	0.003 ± 0.001	0.053 ± 0.003
177	34.34	(Z)-3-Hexenyl benzoate	-	0.025 ± 0.01	-	-	-	0.090 ± 0.04	0.020 ± 0.001	0.036 ± 0.02	-	-	-
178	34.67	trans-Sesquisabinene hydrate	0.007 ± 0.001	-	-	-	-	-	-	-	-	0.007 ± 0.001	0.016 ± 0.002
179	34.80	Viridiflorol	-	0.019 ± 0.01	-	-	-	0.035 ± 0.01	-	-	-	-	-
180	35.42	Hexadecane	-	-	-	-	-	-	-	0.25 ± 0.10	1.94 ± 0.35	-	-
181	36.09	Junenol	-	-	-	-	-	0.035 ± 0.004	-	-	-	-	-
182	36.12	γ -Eudesmol	0.16 ± 0.01	1.07 ± 0.27	0.15 ± 0.01	-	-	-	-	-	-	-	-
183	36.97	(-)- δ -Cadinol	0.011 ± 0.001	0.032 ± 0.01	-	-	-	-	-	-	-	-	-
184	37.42	Bulnesol	-	0.053 ± 0.02	0.007 ± 0.001	-	-	-	-	-	-	-	-
185	37.48	τ -Muurolol	0.055 ± 0.01	-	-	-	-	-	-	-	-	0.021 ± 0.004	0.073 ± 0.004
186	37.56	epi- γ -Eudesmol	0.020 ± 0.001	0.12 ± 0.03	-	-	-	-	-	-	-	-	-
187	37.73	2-Methylhexadecane	-	-	-	-	-	-	-	0.20 ± 0.09	1.10 ± 0.11	-	-

188	37.96	α -Santalol	0.021 ± 0.01	-	-	-	-	-	-	-	-	0.013 ± 0.003	0.053 ± 0.003
189	38.54	α -Bisabolol	0.035 ± 0.01	-	-	-	-	-	-	-	-	0.016 ± 0.004	0.060 ± 0.01
190	38.89	Juniper camphor	0.013 ± 0.001	0.062 ± 0.03	0.007 ± 0.001	-	-	-	-	-	-	-	0.008 ± 0.001
