

# Supplementary Data

**Table S1.** VIP value, *p*-value and *q*-value.

Sample ID <sup>a</sup>	VIP Value <sup>b</sup>	<i>p</i> -value <sup>c</sup>	<i>q</i> -value <sup>d</sup>
Unidentified 2	1.46871	$4.6 \times 10^{-14}$	$2.71 \times 10^{-13}$
105	1.4668	$5.76 \times 10^{-14}$	$2.71 \times 10^{-13}$
$\beta$ -Sesquiphellandrene	1.46006	$1.24 \times 10^{-13}$	$4.17 \times 10^{-13}$
(Z)- $\beta$ -Farnesene	1.45881	$6.05 \times 10^{-14}$	$2.71 \times 10^{-13}$
$\beta$ -Bisabolene	1.45538	$2.67 \times 10^{-13}$	$5.98 \times 10^{-13}$
Cedr-9-ene	1.44809	$2.46 \times 10^{-13}$	$5.79 \times 10^{-13}$
85	1.44505	$3.37 \times 10^{-13}$	$6.48 \times 10^{-13}$
Unidentified 1	1.4446	$6.2 \times 10^{-13}$	$9.26 \times 10^{-13}$
Unidentified 4	1.44443	$5.63 \times 10^{-13}$	$8.81 \times 10^{-13}$
100	1.40925	$1.41 \times 10^{-11}$	$1.56 \times 10^{-11}$
64	1.40672	$1.94 \times 10^{-11}$	$1.94 \times 10^{-11}$
Germacrene D	1.40564	$2.11 \times 10^{-11}$	$2.04 \times 10^{-11}$
60	1.40451	$2.16 \times 10^{-11}$	$2.08 \times 10^{-11}$
108	1.40317	$7.39 \times 10^{-12}$	$9.36 \times 10^{-12}$
66	1.4022	$2.63 \times 10^{-11}$	$2.36 \times 10^{-11}$
$\alpha$ -Patchoulene	1.399	$3.51 \times 10^{-11}$	$2.85 \times 10^{-11}$
Curlone	1.39647	$3.99 \times 10^{-11}$	$3.08 \times 10^{-11}$
98	1.39445	$4.33 \times 10^{-11}$	$3.23 \times 10^{-11}$
Turmerone	1.39171	$5.86 \times 10^{-11}$	$3.94 \times 10^{-11}$
Unidentified 3	1.39008	$5.52 \times 10^{-11}$	$3.8 \times 10^{-11}$
$\beta$ -Cedrene	1.3655	$3.43 \times 10^{-10}$	$2.17 \times 10^{-10}$
44	1.36149	$2.26 \times 10^{-08}$	$1.13 \times 10^{-08}$
Unidentified 5	1.35678	$5.04 \times 10^{-10}$	$3.08 \times 10^{-10}$
15	1.35545	$1.96 \times 10^{-09}$	$1.1 \times 10^{-09}$
Unidentified 6	1.344	$1.36 \times 10^{-09}$	$7.91 \times 10^{-10}$
13	1.29387	$1.46 \times 10^{-05}$	$4.19 \times 10^{-06}$
21	1.29057	$1.68 \times 10^{-08}$	$8.64 \times 10^{-09}$
49	1.26715	$1.48 \times 10^{-07}$	$5.97 \times 10^{-08}$
68	1.25944	$5.4 \times 10^{-08}$	$2.5 \times 10^{-08}$
110	1.25247	$4.78 \times 10^{-08}$	$2.25 \times 10^{-08}$
$\beta$ -Guaiene	1.24747	$1.06 \times 10^{-07}$	$4.47 \times 10^{-08}$
67	1.24268	$4.6 \times 10^{-07}$	$1.67 \times 10^{-07}$
10	1.23714	$1.48 \times 10^{-08}$	$7.67 \times 10^{-09}$
$\alpha$ -Curcumene	1.23347	$1.08 \times 10^{-07}$	$4.54 \times 10^{-08}$
114	1.21633	$1.7 \times 10^{-07}$	$6.73 \times 10^{-08}$
95	1.2137	$4.08 \times 10^{-07}$	$1.5 \times 10^{-07}$
Terpinolene	1.20998	$1.04 \times 10^{-07}$	$4.4 \times 10^{-08}$
Isoleocene	1.19519	$7.98 \times 10^{-07}$	$2.75 \times 10^{-07}$
ar-Turmerone	1.18797	$4.47 \times 10^{-07}$	$1.63 \times 10^{-07}$
78	1.1791	$5.47 \times 10^{-07}$	$1.93 \times 10^{-07}$
59	1.16759	$2.18 \times 10^{-06}$	$7.03 \times 10^{-07}$
$\alpha$ -Caryophyllene	1.1616	$2.25 \times 10^{-06}$	$7.24 \times 10^{-07}$
30	1.15761	$2.36 \times 10^{-06}$	$7.57 \times 10^{-07}$
Bergamot	1.13519	$5.85 \times 10^{-06}$	$1.79 \times 10^{-06}$

**Table S1.** Cont.

Sample ID <sup>a</sup>	VIP Value <sup>b</sup>	p-value <sup>c</sup>	q-value <sup>d</sup>
61	1.11202	$2.7 \times 10^{-05}$	$7.13 \times 10^{-06}$
Agaruspriol	1.11154	$5.97 \times 10^{-06}$	$1.83 \times 10^{-06}$
115	1.11091	$1.22 \times 10^{-02}$	$1.94 \times 10^{-03}$
$\beta$ -Caryophyllen	1.09192	$1.5 \times 10^{-05}$	$4.3 \times 10^{-06}$
$\beta$ -Elemene	1.06527	$3.29 \times 10^{-05}$	$8.39 \times 10^{-06}$
9	1.06218	$3.21 \times 10^{-05}$	$8.22 \times 10^{-06}$
$\delta$ -Elemene	1.05759	$3.94 \times 10^{-05}$	$9.65 \times 10^{-06}$
19	1.05059	$6.54 \times 10^{-05}$	$1.55 \times 10^{-05}$
35	1.04962	$9.44 \times 10^{-05}$	$2.17 \times 10^{-05}$
51	1.04929	$2.04 \times 10^{-05}$	$5.64 \times 10^{-06}$
22	1.04783	$6.67 \times 10^{-05}$	$1.57 \times 10^{-05}$
62	1.04369	$2.06 \times 10^{-05}$	$5.67 \times 10^{-06}$
89	1.03099	$2.26 \times 10^{-05}$	$6.14 \times 10^{-06}$
17	1.02114	$3.35 \times 10^{-05}$	$8.51 \times 10^{-06}$
92	0.989471	$1.48 \times 10^{-04}$	$3.31 \times 10^{-05}$
74	0.977628	$3.97 \times 10^{-05}$	$9.71 \times 10^{-06}$
55	0.950677	$1.04 \times 10^{-04}$	$2.38 \times 10^{-05}$
63	0.928019	$2.31 \times 10^{-04}$	$5.02 \times 10^{-05}$
Eucalyptol	0.922692	$9.02 \times 10^{-04}$	$1.77 \times 10^{-04}$

<sup>a</sup> Sample ID means arbitrary-numbered ID of 121 features obtained from GC/TOF MS spectrum data;

<sup>b</sup> Variable importance in the projection (VIP) was obtained by Partial Least Squares Discriminant analysis (PLS-DA) with threshold of 0.9; <sup>c</sup> p-value was calculated using the Welch's t-test with significance at  $p < 0.05$ ; <sup>d</sup> False discovery rates (FDRs, q-value) were calculated from the overall p-values.

**Figure S1.** Permutation analysis of PLS-DA model derived from two *Curcuma* species. Statistical validation of the PLS-DA model was performed by permutation analysis using 100 permutations.

