

**Table S2.** Volatile emissions of compounds detected in the headspace of newly fresh burs collected in mid-July from Varnavas (JBV), Fenos (JBF) and Kastanitsa (JBK), expressed in  $\mu\text{g h}^{-1} \pm \text{SE}$ .

RI <sup>1</sup>	RI <sup>2</sup>	Compound	JBV	JBF	JBK	X <sup>2</sup>	df, n	p
850	849	(Z)-3-Hexen-1-ol	0.83±0.16a <sup>3</sup>	1.50±0.29a,b	2.24±0.39b	9.318	2, 25	0.009
894	889	1-Nonene		0.15±0.04				
900	900	n-Nonane		0.30±0.10				
924	925	$\alpha$ -thujene	0.82±0.35	0.30±0.13		0.576	1, 48	0.448
932	929	$\alpha$ -pinene	4.42±1.78b	2.88±0.92b	0.29±0.01a	11.572	2, 25	0.003
946	947	Camphene	0.58±0.10a,b	1.15±0.21b	0.08±0.02a	15.087	2, 25	<0.001
969	970	Sabinene	54.43±18.21b	40.36±14.61a,b	5.41±0.57a	7.796	2, 25	0.020
974	978	$\beta$ -pinene	5.64±1.88b	4.55±1.46b	0.25±0.05a	11.631	2, 25	0.003
988	988	$\beta$ -Myrcene	19.88±8.02b	12.63±5.86b	0.75±0.07a	12.369	2, 25	0.002
981	988	6-Methyl-5-hepten-2-one			0.11±0.02			
1000	1000	n-decane	0.14±0.03	0.21±0.04		1.651	1, 20	0.199
1001	1002	2- $\delta$ -carene	0.05±0.02					
1002	1004	$\alpha$ -Phellandrene		0.09±0.05				
1001	1006	(E)-3-Hexenyl acetate	0.06±0.02	0.07±0.01	0.05±0.01	0.600	2, 14	0.741
1004	1008	(Z)-3-Hexenyl acetate	7.81±1.95	9.64±1.93	7.10±0.82	0.892	2, 25	0.640
1008	1010	3- $\delta$ -carene	0.64±0.34					
1010	1013	(E)-2-Hexenyl acetate	0.16±0.05	0.14±0.02	0.12±0.02	0.312	2, 20	0.856
1007	1014	Hexyl acetate	0.05±0.01	0.11±0.03	0.05±0.00	5.691	2, 20	0.058
1014	1016	$\alpha$ -Terpinene	4.82±2.13b	0.88±0.43a,b	0.07±0.01a	13.859	2, 25	<0.001
1020	1025	p-cymene	0.34±0.11b	0.24±0.13a,b	0.01±0.01a	9.762	2, 22	0.008
1030	1029	Limonene	8.42±3.79b	3.76±1.73b	0.25±0.01a	12.369	2, 25	0.002
1031	1030	$\beta$ -phelladrene	2.96±1.22b	0.80±0.36a,b	0.04±0.01a	12.661	2, 25	0.002
1026	1031	eucalyptol		2.60±1.30b	0.02±0.01a	6.429	1, 13	0.011
1032	1035	(Z)- $\beta$ -Ocimene	16.36±5.26b	8.26±2.96b	0.10±0.02a	13.326	2, 25	0.001
1044	1048	(E)- $\beta$ -Ocimene	85.10±24.07b	47.50±15.30b	2.43±0.45a	13.326	2, 25	0.001
	1055	Unknown 1						
1059	1059	$\gamma$ -Terpinene	5.80±2.23b	0.85±0.41a	0.08±0.01a	15.335	2, 21	<0.001
1086	1085	$\alpha$ -terpinolene	1.59±0.63b	0.32±0.13a		6.189	1, 18	0.013
1092	1092	1-Undecene		0.12±0.03				
1100	1100	Undecane		0.22±0.06				
1095	1101	(Z)-3-Hexenyl propanoate		0.13±0.07				
1101	1101	Linalool	1.03±0.36					
1100	1107	n-Nonanal	0.16±0.03	0.13±0.03	0.13±0.02	0.865	2, 24	0.649
1117	1117	(E)-DMNT	0.35±0.11a	0.81±0.36a,b	0.17±0.06a	6.305	2, 25	0.043
1128	1128	(E)-Allo-ocimene	3.56±1.15	1.51±0.57		3.291	1, 20	0.070
1140	1141	neo-allo-ocimene	0.50±0.22					
1142	1143	(Z)-3-hexenyl isobutanoate		0.10±0.02				
1163	1168	p-Ethylbenzaldehyde	0.13±0.02					
1184	1184	4-Terpineol	0.38±0.17	0.32±0.17		0.040	1, 14	0.841
1187	1187	(Z)-3-Hexenyl butanoate	0.29±0.06	0.37±0.09	0.22±0.04	1.196	2, 25	0.550
1187	1192	n-dodecene	0.15±0.03a,b	0.32±0.06b	0.01±0.00a	12.805	2, 21	0.002
1195	1195	Methyl salicylate	tr <sup>4</sup>	tr	tr			
1200	1199	n-Dodecane	0.20±0.06	0.23±0.06	0.02±0.01	5.319	2, 21	0.070
1209	1209	Decanal	0.16±0.03	0.15±0.02	0.13±0.02	0.271	2, 21	0.873
1229	1232	(Z)-3-Hexenyl 2-methyl butanoate	0.06±0.01	0.07±0.01	0.04±0.00	3.576	2, 19	0.167
1237	1237	(Z)-2-hexenyl isovalerate	0.08±0.01	0.10±0.02		1.333	1, 17	0.248
	1247	Unknown 2	0.55±0.15					

1258	Unknown 3	0.79±0.21						
1267	m-Ethylacetophenone	3.08±0.90b		0.12±0.01a	7.260	1, 15	0.007	
01279 1288	p-Ethylacetophenone	5.24±1.53b	0.12±0.01a	0.17±0.02a,b	13.706	2, 21	0.001	
1290 1291	n-Tridecene	0.14±0.05	0.23±0.05		0.960	1, 15	0.327	
1300 1300	n-Tridecane	0.17±0.06	0.17±0.04		0.327	1, 19	0.568	
1388 1393	1-Tetradecene		0.07±0.02					
1400 1400	n-Tetradecane		0.10±0.02					
1407 1409	Longifolene	0.17±0.10						
1419 1419	(E)- $\beta$ -Caryophyllene	1.65±0.31b	1.36±0.20b	0.08±0.02a	11.631	2, 25	0.003	
1444 1438	p-Acetylacetophenone	0.27±0.02						
1453 1450	(E)-Geranylacetone			0.08±0.02				
1452 1457	$\alpha$ -Humulene	0.30±0.07	0.16±0.01		2.438	1, 17	0.118	
1484 1480	Germacrene D	0.05±0.01	0.13±0.03		4.800	1, 11	0.028	
1493 1490	$\alpha$ -Zingiberene	0.05±0.00		0.09±0.04	0.048	1, 6	0.827	
1493 1493	1-Pentadecene		0.10±0.03					
1500 1500	Pentadecane	0.11±0.04	0.14±0.04		0.424	1, 16	0.515	
1505 1504	(E,E)- $\alpha$ -Farnesene	0.21±0.05	0.21±0.03	0.28±0.17	1.034	2, 25	0.596	
1505 1505	$\beta$ -bisabolene	0.08±0.01						
1577 1579	Spathulenol	0.04±0.01						
1582 1583	Caryophyllene oxide	0.47±0.21	0.23±0.04		0.329	1, 18	0.566	
1807 1807	2-Ethylhexyl salicylate	0.23±0.07a	1.05±0.47b		7.953	1, 16	0.005	
1828 1830	Isopropyl myristate		0.25±0.03					

<sup>1</sup> RI: Retention Index values obtained from Adams [20] and the NIST database [21].

<sup>2</sup> RT<sub>c</sub>: Retention Index values were calculated relative to C<sub>7–30</sub> n-alkanes on a column with 5% diphenyl/95% dimethyl polysiloxane stationary phase.

<sup>3</sup> Different letters within a row, are significantly differ based on the Kruskal–Wallis test (p = 0.05).

<sup>4</sup> Detected in traces