Table S7 VOCs identified in four honey samples by HS-SPME-GC-MS.

No.	Compounds	CAS	RI	Rt (min)	Concentration (μg/g honey)			
					GH	HMH	LMH	RH
	Total alcohols (4)				**0.27±0.02**	**0.18±0.02**	**-**	**0.22±0.03**
1	Phenethyl alcohol	60-12-8	1136	18.549	0.27±0.02	-	-	-
2	Dihydro myrcenol	18479-59-9	1074	18.57	-	0.12±0.03	-	0.11±0.02
3	(+)-Isopinocampheol	27779-29-9	1123	20.198	-	-	-	0.12±0.03
4	1-Nonanol	143-08-8	1159	23.92	-	0.06±0.01	-	-
	Total aldehydes (8)				**0.27±0.02**	**0.61±0.1**	**0.42±0.06**	**0.29±0.07**
5	Benzeneacetaldehyde	122-78-1	1081	17.34	0.21±0.03	0.1±0.04	-	-
6	Decanal	112-31-2	1204	25.46	-	0.19±0.03	0.18±0.01	0.12±0.03
7	Dodecanal	112-54-9	1402	34.696	0.03±0	0.1±0.02	0.09±0.02	0.08±0.02
8	Tridecanal	10486-19-8	1502	38.931	-	0.06±0.03	0.05±0	0.04±0.02
9	Tetradecanal	124-25-4	1601	42.937	-	0.03±0.02	-	-
10	Tetradecyloxirane	7320-37-8	1701	46.89	-	0.04±0.01	0.04±0	-
11	Hexadecanal	629-80-1	1800	40.931	0.03±0	-	-	-
12	Heptadecanal	629-90-3	1899	49.975	-	0.08±0.02	0.06±0.02	0.04±0.01
	Total ketones (6)				**3.12±0.2**	**0.21±0.06**	**0.2±0.02**	**0.22±0.05**
13	Isophorone	78-59-1	1097	19.256	2.66±0.21	-	-	-
14	3,3,5,5-Tetramethylcyclohexanone	14376-79-5	1160	20.19	0.09±0.01	-	-	-
15	3-Butyl-3-octen-2-one	32064-71-4	1335	26.716	0.37±0.04	-	-	-
16	2-Nonanone	821-55-6	1052	19.729	-	0.07±0.02	0.1±0.01	0.05±0.02
17	2-Decanone	693-54-9	1151	24.769	-	-	-	0.09±0.03
18	2-Undecanone	112-12-9	1251	29.516	-	0.13±0.03	0.1±0.01	0.08±0.01
	Total esters (14)				**3.26±0.25**	**1±0.2**	**0.65±0.27**	**0.69±0.39**
19	(Z)-3-Hexenyl isobutyrate	41519-23-7	1126	20.338	-	0.34±0.02	-	-

20	Ethyl phenylacetate	101-97-3	1259	23.497	0.23±0.03	-	-	-
21	Amyl hexanoate	540-07-8	1282	26.404	0.11±0.01	-	-	-
22	Ethyl laurate	106-33-2	1580	34.698	0.06±0.01	-	-	-
23	Phenethyl acetate	103-45-7	1259	27.701	-	0.06±0.01	-	0.08±0.05
24	Diethyl sebacate	110-40-7	1747	49.285	0.32±0.02	-	0.12±0.06	-
25	Ethyl tetradecanoate	124-06-1	1779	40.492	0.26±0.02	-	-	-
26	Ethyl pentadecanoate	41114-00-5	1878	49.432	0.04±0.01	0.07±0.02	0.07±0.03	0.05±0.01
27	Ethyl 9-hexadecenoate	54546-22-4	1986	42.825	0.03±0	-	-	-
28	Ethyl palmitate	628-97-7	1978	44.354	2.19±0.28	-	-	-
29	Ethyl Oleate	6512-99-8	2185	45.135	0.03±0.01	-	-	-
30	Dibutyl phthalate	84-74-2	2037	52.414	-	0.05±0.01	-	-
31	Ethyl margarate	14010-23-2	2077	52.966	-	0.47±0.16	0.39±0.13	0.49±0.3
32	Elaidic acid ethyl ester	6114-18-7	2185	55.201	-	-	0.08±0.05	0.07±0.05
	Total terpenes (10)				**1.07±0.04**	**0.42±0.05**	**-**	**0.45±0.05**
33	Epoxylinalool	15249-35-1	1123	16.584	0.15±0.01	-	-	-
34	(E)-Linalool oxide (furanoid)	34995-77-2	1164	17.086	0.09±0.01	-	-	-
35	Lilac aldehyde A	53447-46-4	1197	19.861	0.07±0	-	-	-
36	Lilac aldehyde B	53447-45-3	1197	20.83	0.26±0.02	-	-	-
37	Lilac aldehyde C	53447-48-6	1197	22.586	-	-	-	0.18±0.03
38	Lilac aldehyde D	53447-47-5	1197	23.31	0.3±0.01	-	-	0.1±0.03
39	Piperitenone	491-09-8	1223	22.289	0.09±0.01	-	-	-
40	Lilac alcohol D	33081-37-7	1251	22.738	0.11±0.01	-	-	-
41	(E)-Linalool oxide (pyranoid)	39028-58-5	1164	23.603	-	-	-	0.17±0.03
42	2,6-Dimethyl-3,7-octadien-2,6-diol	13741-21-4	1197	24.774	-	0.42±0.05	-	-
	Total hydrocarbons (16)				**1.8±0.03**	**5.73±0.54**	**4.7±0.85**	**3.79±0.48**
43	Decane	124-18-5	1015	15.019	0.07±0.01	-	0.04±0.03	-

44	2,3,5,8-Tetramethyldecane	192823-15-7	1156	20.492	0.18±0.02	-	-	-
45	Undecane	1120-21-4	1115	20.156	-	0.09±0.01	0.06±0.01	-
46	4-Methyl-1-undecene	74630-39-0	1140	23.379	-	-	0.01±0.01	-
47	3-Methylundecane	1002-43-3	1150	23.651	-	0.09±0.02	0.08±0.02	-
48	Dodecane	112-40-3	1214	25.127	0.43±0.02	0.28±0.04	0.3±0.05	0.21±0.02
49	Tridecane	629-50-5	1313	29.841	-	0.22±0.03	0.21±0.03	0.16±0.01
50	3-Methyltridecane	6418-41-3	1349	32.97	-	0.07±0.01	0.06±0.01	0.07±0.02
51	1-Tetradecene	1120-36-1	1403	33.935	-	0.05±0.01	0.06±0.01	0.04±0.02
52	Tetradecane	629-59-4	1413	34.272	0.3±0.01	0.72±0.08	0.59±0.11	0.5±0.09
53	Pentadecane	629-62-9	1512	38.463	0.52±0.04	3.37±0.32	2.63±0.42	2.3±0.28
54	Hexadecane	544-76-3	1612	42.422	0.13±0	0.14±0.01	0.18±0.05	0.08±0.01
55	Heptadecane	629-78-7	1711	46.252	0.12±0.01	0.57±0.05	0.42±0.12	0.39±0.05
56	Octadecane	593-45-3	1810	40.179	0.05±0	-	-	-
57	Eicosane	112-95-8	2009	51.556	-	0.04±0	0.03±0.01	-
58	Heneicosane	629-94-7	2109	54.305	-	0.08±0.01	0.05±0.02	0.03±0.01
	Total acids (2)				**0.55±0.08**	**-**	**-**	**-**
59	6-Oxoheptanoic acid	3128-07-2	1209	22.741	0.52±0.07	-	-	-
60	Linoleic acid	60-33-3	2183	45.005	0.04±0.01	-	-	-
	Total all (60)				**10.34±0.51**	**8.15±0.95**	**5.97±1.14**	**5.66±1.01**

Note: RI represents retention index; GH, HMH, LMH and RH indicate gallnut honey, high-altitude multifloral honey, low-altitude multifloral honey and rape honey, respectively; "-" means not detected.