

Table S4 Concentrations of volatile compounds in crude cold-pressed, thermally treated, water-degummed, and alkali-refined rapeseed oils.

No.	Odorant	Content ($\mu\text{g}/\text{kg}$)			
		crude cold-pressed oil	thermally treated control oil	water-degummed oil	alkali-refined oil
1	3-Butenenitrile	453.2 \pm 24.7	441.5 \pm 21.3	385.4 \pm 19.8	120.6 \pm 8.4
2	4-Pentenenitrile	9820.6 \pm 412.5	9650.2 \pm 386.1	9100.5 \pm 425.3	5850.3 \pm 298.7
3	4-(Methylsulfanyl)butyl nitrile	4069.2 \pm 185.6	3980.1 \pm 174.2	3520.4 \pm 161.9	1250.8 \pm 64.3
4	5-(Methylsulfanyl)pentanenitrile	308.1 \pm 14.8	295.4 \pm 16.2	260.2 \pm 13.5	85.3 \pm 5.7
5	Phenylacetone nitrile	345.6 \pm 18.3	338.2 \pm 17.5	315.7 \pm 14.9	110.4 \pm 6.2
6	3-Phenylpropanenitrile	1072.8 \pm 58.4	1065.5 \pm 49.6	1050.2 \pm 53.1	980.1 \pm 46.8
7	Hexanal	496.4 \pm 26.3	525.3 \pm 28.1	548.1 \pm 31.5	585.4 \pm 29.7
8	Heptanal	43.5 \pm 2.8	48.2 \pm 3.4	52.6 \pm 3.9	60.5 \pm 4.2
9	Octanal	124.6 \pm 7.3	125.8 \pm 6.9	128.3 \pm 8.1	205.2 \pm 11.4
10	Nonanal	160.5 \pm 9.4	178.4 \pm 10.6	195.2 \pm 12.3	256.8 \pm 14.7
11	Decanal	20.1 \pm 1.6	24.5 \pm 1.8	29.8 \pm 2.3	55.4 \pm 4.1
12	Undecanal	5.2 \pm 0.6	6.8 \pm 0.7	8.1 \pm 0.9	12.5 \pm 1.3
13	Dodecanal	2.5 \pm 0.3	3.1 \pm 0.4	3.5 \pm 0.4	6.1 \pm 0.8
14	(Z)-3-Hexenal	162.3 \pm 15.6	140.5 \pm 12.8	110.2 \pm 9.4	45.6 \pm 5.3
15	(E)-2-Heptenal	14.5 \pm 1.2	18.2 \pm 1.5	22.4 \pm 1.8	28.3 \pm 2.1
16	(E)-2-Octenal	29.2 \pm 2.4	35.6 \pm 2.9	40.1 \pm 3.5	45.5 \pm 3.8
17	(E)-2-Nonenal	17.3 \pm 1.5	22.4 \pm 1.8	28.6 \pm 2.4	48.9 \pm 3.6
18	(E,Z)-2,6-Nonadienal	69.6 \pm 5.2	62.4 \pm 4.8	55.3 \pm 4.1	45.2 \pm 3.5
19	(E,E)-2,4-Nonadienal	23.7 \pm 1.9	20.1 \pm 1.7	28.2 \pm 2.3	25.4 \pm 1.8
20	(E)-2-Decenal	12.0 \pm 1.1	15.3 \pm 1.4	18.5 \pm 1.6	25.2 \pm 2.1
21	(E,E)-2,4-Decadienal	4.6 \pm 0.5	6.8 \pm 0.6	8.5 \pm 0.9	12.1 \pm 1.1
22	trans-4,5-Epoxy-(E)-2-decenal	0.50 \pm 0.08	1.20 \pm 0.15	1.80 \pm 0.21	8.50 \pm 0.64
23	3-Methylbutanal	13.7 \pm 1.1	15.2 \pm 1.3	16.8 \pm 1.4	18.4 \pm 1.5
24	2-Methylbutanal	2.9 \pm 0.4	3.5 \pm 0.3	4.1 \pm 0.5	4.5 \pm 0.4
25	Phenylacetaldehyde	162.8 \pm 11.4	175.4 \pm 13.2	150.2 \pm 9.8	125.6 \pm 8.5
26	Benzaldehyde	9.1 \pm 0.8	10.5 \pm 0.9	11.2 \pm 1.1	12.8 \pm 1.2
27	1-Penten-3-one	3.9 \pm 0.4	4.5 \pm 0.5	5.2 \pm 0.6	8.5 \pm 0.7
28	6-Methyl-5-hepten-2-one	15.5 \pm 1.2	14.8 \pm 1.1	13.5 \pm 0.9	10.6 \pm 0.8
29	1-Octen-3-one	4.0 \pm 0.5	6.5 \pm 0.7	9.2 \pm 0.9	35.2 \pm 2.6
30	(Z)-1,5-Octadien-3-one	0.20 \pm 0.04	0.50 \pm 0.08	0.80 \pm 0.11	2.50 \pm 0.32
31	1-Octen-3-ol	13.4 \pm 1.1	12.1 \pm 1.0	9.7 \pm 0.8	8.5 \pm 0.7
32	(Z)-3-Hexen-1-ol	86.0 \pm 6.4	75.4 \pm 5.9	60.2 \pm 4.7	35.5 \pm 2.8
33	2-Methoxyphenol	133.4 \pm 9.6	125.6 \pm 8.8	85.4 \pm 6.2	5.5 \pm 0.6
34	4-Methylphenol	5.8 \pm 0.6	5.2 \pm 0.5	3.5 \pm 0.4	1.2 \pm 0.2
35	4-Vinylguaiacol	58.3 \pm 4.5	55.1 \pm 4.2	42.6 \pm 3.4	2.5 \pm 0.3
36	2-Phenylethanol	23.7 \pm 1.9	21.5 \pm 1.7	18.2 \pm 1.5	10.2 \pm 0.8
37	2-Isopropyl-3-methoxypyrazine	1.92 \pm 0.17	1.84 \pm 0.14	1.73 \pm 0.15	1.20 \pm 0.11
38	Allyl isothiocyanate	139.2 \pm 11.4	110.5 \pm 9.6	85.6 \pm 7.2	15.4 \pm 1.8
39	Dimethyl disulfide	1.1 \pm 0.1	2.5 \pm 0.3	3.8 \pm 0.4	8.6 \pm 0.7
40	4-Isothiocyano-1-butene	145.7 \pm 12.3	120.4 \pm 10.5	95.2 \pm 8.4	25.6 \pm 2.7
41	Dimethyl trisulfide	2.1 \pm 0.2	2.5 \pm 0.3	2.8 \pm 0.3	1.2 \pm 0.1
42	3-Methylthiopropional	3.8 \pm 0.4	4.2 \pm 0.5	4.5 \pm 0.5	2.5 \pm 0.3
43	2-Pentylfuran	3.9 \pm 0.3	5.2 \pm 0.4	8.5 \pm 0.7	35.6 \pm 2.8
44	Acetic acid	1542.4 \pm 115.7	1500.2 \pm 108.4	850.5 \pm 65.2	25.5 \pm 2.6
45	Butanoic acid	36.5 \pm 3.4	35.8 \pm 3.1	28.4 \pm 2.5	2.2 \pm 0.3
46	Octanoic acid	227.7 \pm 18.2	220.5 \pm 17.6	185.6 \pm 14.1	8.4 \pm 0.9