

Table 1.- List of studied target compounds. Chromatographic parameters (retention time (Rt), retention index (RI) and quantitation ion (Quan Ion)) obtained from GC-MS chromatograms. Validation parameters obtained after application of optimized procedure (P&T extraction using EnviCarb 500 mg cartridges, 30 g of melon sample).

#	Compound name	CAS ^a no.	MW	Rt (min)	RI (Supelco Wax 10) ^b	Quan Ion (m/z)	Linearity range (ng mL ⁻¹) ^c	r ²	Instrumental precision (n=6) RSD (%) ^d	Intra-day repeatability (n=6) RSD (%) ^d	Inter-day repeatability (n=3) RSD (%) ^e
1	Methyl butyrate	623-42-7	102	4,49	900	43	454 - 2268	1,000			
2	Methyl-2-methylbutyrate	868-57-5	116	5,13	921	88	23 - 2270	0,999	4	8	11
3	2-methyl propyl acetate	110-19-0	116	5,28	926	43	111 - 2765	0,999	5	8	9
4	Ethyl butyrate	105-54-4	116	5,94	947	71	265 - 2648	1,000			
5	Ethyl-2-methyl butyrate	7452-79-1	130	6,43	963	57	217 - 2173	0,998			
6	Butyl acetate	123-86-4	116	7,12	985	43	262 - 2616	0,999	5	6	9
7	Hexanal	66-25-1	100	7,36	993	56	371 - 3713	0,999			
8	Propyl butyrate	105-66-8	130	8,81	1034	43	55 - 2745	1,000	5	4	27
9	Ethyl pentanoate	539-82-2	130	9,28	1047	88	25 - 2508	1,000			
10	Butyl isobutyrate	97-87-0	144	9,72	1059	89	43 - 2155	1,000			
11	Isobutyl butyrate	539-90-2	144	10,16	1071	71	30 - 2950	1,000			
12	Ethyl-(E)-2-butanoate	623-70-1	114	10,26	1074	69	26 - 2596	1,000			
13	Amyl acetate	123-86-4	116	10,69	1086	43	116 - 2900	1,000		13	24
14	Heptanal	111-71-7	114	11,06	1096	70	109 - 2720	1,000			
15	Methyl hexanoate	106-70-7	130	11,15	1099	74	26 - 2643	1,000			
16	Eucalyptol	470-82-6	154	11,59	1111	93	21 - 2083	1,000	11	7	12
17	Butyl butyrate	109-21-7	144	12,31	1131	71	30 - 2965	1,000			
18	Ethyl hexanoate	123-66-0	144	12,88	1147	88	22 - 2183	1,000	6	11	31
19	1-pentanol	71-41-0	88	13,44	1162	55	128 - 3195	1,000	4	6	8
20	Isoamyl butyrate	106-27-4	158	14,01	1178	70	26 - 2640	1,000			
21	Hexyl acetate	142-92-7	144	14,35	1188	43	61 - 3038	1,000	6	11	32
22	Octanal	124-13-0	128	14,81	1200	69	99 - 2479	0,999			
23	(Z)-3-hexen-1-ol, acetate	3681-71-8	142	15,85	1231	67	27 - 2660	1,000	6	10	27
24	(E)-2-heptenal	18829-55-5	112	16,00	1235	83	42 - 2118	1,000			
25	Ethyl heptanoate	106-30-9	158	16,41	1247	88	30 - 2980	1,000			
26	6-methyl-5-Hepten-2-one	110-93-0	126	16,55	1251	109	21 - 2130	0,999	5	12	15
27	1-hexanol	111-27-3	102	17,08	1267	56	205 - 2050	1,000	2,2	5	5
28	Heptyl acetate	112-06-1	158	17,80	1288	43	119 - 2975	1,000			
29	(Z)-3-hexen-1-ol	928-96-1	100	18,10	1297	67	25 - 2525	1,000	2,4	13	11
30	Nonanal	124-19-6	142	18,44	1307	57	108 - 2710	1,000			
31	(E)-2-octenal	2548-87-0	126	19,60	1343	55	33 - 833	1,000			
32	(Z)-6-nonenal	2277-19-2	140	20,35	1366	81	61 - 6130	0,998			
33	Octyl acetate	112-14-1	172	21,14	1391	43	58 - 2913	1,000	5	22	66
34	(E,E)-2,4-heptadienal	881395	110	21,69	1408	81	22 - 2203	0,999			
35	Decanal	112-31-2	156	21,83	1413	67	49 - 2469	0,999			
36	(E,E)-2,4-hexadienoic acid, ethyl ester	2396-84-1	140	22,12	1423	67	24 - 2370	1,000			
37	Benzaldehyde	100-52-7	106	22,54	1436	105	26 - 2613	1,000	4	19	16
38	(E)-2-nonenal	18829-56-6	140	22,97	1450	81	49 - 4890	0,995	9	18	15
39	Linalool	78-40-6	154	23,42	1465	93	23 - 2345	1,000			
40	1-octanol	111-87-5	130	23,69	1474	55	41 - 2063	1,000	3	3	3
41	Ethyl-3-(methylthio)propanoate	13327-56-5	148	23,95	1483	74	32 - 3185	1,000			
42	(E,Z)-2,6-nonadienal	557-48-2	138	24,50	1501	70	47 - 4730	1,000			
43	β -ciclocytral	5392-40-5	152	25,43	1533	110	24 - 2358	0,999	4	27	18
44	Phenylacetaldehyde	122-78-1	120	26,17	1559	91	24 - 2358	0,999			
45	1-nonanol	143-08-8	144	26,94	1585	55	41 - 2070	1,000	5	13	13
46	2-hydroxybenzaldehyde	90-02-8	122	27,19	1594	122	29 - 2915	0,999			
47	(Z)-3-nonen-1-ol	10340-23-5	142	27,35	1600	67	24 - 2375	0,999	4	6	8
48	(E,E)-2,4-nonadienal	5910-87-2	138	27,85	1618	81	22 - 2155	0,999	12	13	16
49	(Z)-6-nonen-1-ol	35854-86-5	142	28,30	1634	67	37 - 2155	1,000	5	18	15
50	Benzyl acetate	140-11-4	150	28,63	1646	108	13 - 1250	1,000	4	16	46
51	1-decanol	112-30-1	158	29,55	1680	55	83 - 2075	0,999	6	12	10
52	(E,Z)-2,6-nonadien-1-ol	28069-72-9	140	29,69	1685	67	22 - 2183	0,999			
53	(E,E)-2,4-decadienal	25152-84-5	152	30,80	1727	81	22 - 2180	0,999	8	12	10
54	Phenethyl acetate	103-45-7	164	30,97	1734	104	49 - 2452	1,000	7	13	64
55	Geranylacetone	689-67-8	194	32,01	1773	43	87 - 2173	0,999	5	16	13
56	Guaiacol	90-05-1	124	32,18	1779	109	26 - 2638	1,000			
57	Benzyl Alcohol	100-51-6	108	32,58	1795	79	13 - 1250	1,000	4	11	11
58	2-phenylethanol	60-12-8	122	33,45	1830	91	13 - 1250	1,000	5	13	13
59	β -ionone	14901-07-6	192	34,09	1856	177	24 - 2363	0,999	5	18	14
60	Phenol	108-95-2	94	35,65	1937	94	22 - 2173	0,999			
61	Eugenol	97-53-0	164	37,20	2098	164	27 - 2650	0,998			

^a CAS = Chemical abstract service

^b Retention index calculated with n-alkanes on Supelcowax 10 (bonded polyethylene glycol) capillary column.

^c Linearity range corresponding to the real concentration of standards used for calibration.

^d Calculated as relative standard deviation for analysis of six replicates of "Charentais" melon samples.

^e RSD calculated on 3 different days, three replicates per day giving a total of twelve values during one week.