

Date : 2025-08-11

CERTIFICATE OF ANALYSIS - GC PROFILING

SAMPLE IDENTIFICATION

Internal code : 25G17-PTH01

Customer Identification : Jasmine Sambac Absolute - India - J10116R

Type : Absolute

Source : *Jasminum sambac*

Customer : Plant Therapy

Checked and approved by:

Alexis St-Gelais, Ph. D., Chimiste 2013-174

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This report is an update from the first version issued on 2025-07-21 to correct the customer identification.

GAS CHROMATOGRAPHIC ANALYSIS

Method : PC-MAT-004 - Terpenes and volatiles profiling by response factor

Results : See analysis summary (next page)

Analyst : Sylvain Mercier, M. Sc., Chimiste 2014-005

Date : 2025-07-21

CONCLUSION

No adulterant, contaminant or diluent has been detected using this method.

ANALYSIS SUMMARY

Identification	mg/g	% m/m	Class
(3Z)-Hexenol	0.49	0.05	Aliphatic alcohol
Hexanol	0.49	0.05	Aliphatic alcohol
6-Methyl-5-hepten-2-one	0.11	0.01	Aliphatic ketone
(3Z)-Hexenyl acetate	18.17	1.82	Aliphatic ester
Hexyl acetate	0.11	0.01	Aliphatic ester
Unknown	0.47	0.05	Unknown
Benzyl alcohol	80.93	8.09	Simple phenolic
(Z)- β -Ocimene	0.07	0.01	Monoterpene
(E)- β -Ocimene	0.32	0.03	Monoterpene
cis-Linalool oxide (fur.)	0.88	0.09	Monoterpenic alcohol
Benzyl formate	0.18	0.02	Phenolic ester
trans-Linalool oxide (fur.)	1.88	0.19	Monoterpenic alcohol
Methyl benzoate	5.00	0.5	Phenolic ester
Linalool	80.12	8.01	Monoterpenic alcohol
Phenylethyl alcohol	15.21	1.52	Simple phenolic
Benzeneacetonitrile	8.46	0.85	Simple phenolic
Benzyl acetate	224.79	22.48	Phenolic ester
cis-Linalool oxide (pyr.)	0.71	0.07	Monoterpenic alcohol
Ethyl benzoate	1.29	0.13	Phenolic ester
Unknown	5.05	0.51	Unknown
trans-Linalool oxide (pyr.)	0.92	0.09	Monoterpenic alcohol
(3Z)-Hexenyl butyrate	0.92	0.09	Aliphatic ester
Methyl salicylate	1.64	0.16	Phenolic ester
α -Terpineol	0.15	0.01	Monoterpenic alcohol
Phenylethyl acetate	7.23	0.72	Phenolic ester
(E)-Isogeraniol?	0.14	0.01	Monoterpenic alcohol
Geraniol	5.08	0.51	Monoterpenic alcohol
Unknown	1.34	0.13	Unknown
Phenylacetic acid?	0.53	0.05	Phenolic acid
Unknown	1.67	0.17	Unknown
2,6-Dimethyl-1,7-octadiene-3,6-diol	0.14	0.01	Monoterpenic alcohol
1-Nitro-2-phenylethane	0.11	0.01	Simple phenolic
Indole	21.87	2.19	Indole
(E)-Cinnamyl alcohol	1.92	0.19	Phenylpropanoid
Methyl anthranilate	72.25	7.22	Phenolic ester
Neryl acetate	0.56	0.06	Monoterpenic ester
8-Hydroxylinalool isomer	0.92	0.09	Monoterpenic alcohol
Butyl benzoate	0.20	0.02	Phenolic ester
Methyl (E)-cinnamate	1.84	0.18	Phenylpropanoid ester
(3Z)-Hexenyl (3Z)-hexenoate	0.31	0.03	Aliphatic ester
(3Z)-Hexenyl hexanoate?	0.63	0.06	Aliphatic ester

β -Cubebene	0.07	0.01	Sesquiterpene
β -Elemene	0.49	0.05	Sesquiterpene
(Z)-Jasmone	3.01	0.3	Jasmonate
Dimethyl anthranilate	0.22	0.02	Phenolic ester
β -Caryophyllene	0.27	0.03	Sesquiterpene
(E)-Cinnamyl acetate	0.14	0.01	Phenylpropanoid ester
α -Humulene	0.31	0.03	Sesquiterpene
(E)- β -Farnesene	0.15	0.01	Sesquiterpene
γ -Muurolene	0.18	0.02	Sesquiterpene
Germacrene D	1.77	0.18	Sesquiterpene
(Z)-Jasmin lactone	0.33	0.03	Aliphatic lactone
Bicyclogermacrene	0.95	0.1	Sesquiterpene
epi-Cubebol	0.07	0.01	Sesquiterpenic alcohol
α -Muurolene	0.77	0.08	Sesquiterpene
(3Z,6E)- α -Farnesene	0.07	0.01	Sesquiterpene
(3E,6E)- α -Farnesene	48.72	4.87	Sesquiterpene
γ -Cadinene	0.87	0.09	Sesquiterpene
δ -Cadinene	1.44	0.14	Sesquiterpene
10-epi-Cubebol?	0.19	0.02	Sesquiterpenic alcohol
α -Cadinene	0.08	0.01	Sesquiterpene
Methyl N-formylanthranilate	0.24	0.02	Phenolic ester
(E)-Nerolidol	4.00	0.4	Sesquiterpenic alcohol
(3Z)-Hexenyl benzoate	24.57	2.46	Phenolic ester
Germacrene D-4-ol	21.56	2.16	Sesquiterpenic alcohol
Spathulenol	0.26	0.03	Sesquiterpenic alcohol
Caryophyllene oxide	0.12	0.01	Sesquiterpenic ether
Hexyl benzoate	0.63	0.06	Phenolic ester
(2E)-Hexenyl benzoate	0.53	0.05	Phenolic ester
Methyl N-acetylanthranilate	0.59	0.06	Phenolic ester
Ledol	0.15	0.01	Sesquiterpenic alcohol
τ -Cadinol	0.57	0.06	Sesquiterpenic alcohol
τ -Muurolol	0.27	0.03	Sesquiterpenic alcohol
Methyl <i>cis</i> -jasmonate	1.31	0.13	Jasmonate
α -Cadinol	0.89	0.09	Sesquiterpenic alcohol
Unknown	0.20	0.02	Unknown
(3E,5E)-7-Hydroxyfarnesene	0.09	0.01	Sesquiterpenic alcohol
Methyl <i>trans</i> -jasmonate	0.84	0.08	Jasmonate
Shyobunol	0.34	0.03	Sesquiterpenic alcohol
Unknown	0.18	0.02	Unknown
Pentadecanal	0.24	0.02	Aliphatic aldehyde
(2E,6E)-Farnesol	9.72	0.97	Sesquiterpenic alcohol
Oplopanone	1.35	0.14	Sesquiterpenic alcohol
Unknown	2.94	0.29	Unknown
Benzyl benzoate	10.25	1.02	Phenolic ester
Unknown	2.17	0.22	Unknown

(2E,6E)-Farnesyl acetate	3.65	0.36	Sesquiterpenic ester
Phenylethyl benzoate	0.73	0.07	Phenolic ester
Phytone	0.16	0.02	Terpenic ketone
Benzyl salicylate	0.36	0.04	Phenolic ester
Methyl palmitate	2.36	0.24	Aliphatic ester
Isophytol	9.53	0.95	Diterpenic alcohol
Palmitic acid	3.48	0.35	Aliphatic acid
Ethyl palmitate	0.20	0.02	Aliphatic ester
(E,E)-Geranylinalool	7.13	0.71	Diterpenic alcohol
(E)-Cinnamyl benzoate	0.42	0.04	Phenylpropanoid ester
Methyl linoleate	1.86	0.19	Aliphatic ester
Methyl α -linolenate	16.22	1.62	Aliphatic ester
Methyl stearate	1.48	0.15	Aliphatic ester
α -Linolenic acid	0.21	0.02	Aliphatic acid
Ethyl α -linolenate	0.41	0.04	Aliphatic ester
Docosene isomer	0.13	0.01	Alkene
Stearic acid	3.41	0.34	Aliphatic acid
Methyl (E)-phytenate	1.42	0.14	Diterpenic ester
Unknown	0.32	0.03	Unknown
(E)-Phytyl acetate	0.20	0.02	Diterpenic ester
(9Z)-Eicosenol?	0.70	0.07	Aliphatic alcohol
(9E)-Tricosene?	19.13	1.91	Alkene
1-Tricosene?	0.24	0.02	Alkene
Methyl arachidate	0.43	0.04	Aliphatic ester
4,8,12,16-Tetramethylheptadecan-4-olide?	0.40	0.04	Terpenic lactone
Tetracosene isomer	1.24	0.12	Alkene
Unknown	0.23	0.02	Unknown
2-Monopalmitin	0.38	0.04	Glyceride
Benzyl palmitate	0.96	0.1	Phenolic ester
Benzyl oleate	0.57	0.06	Phenolic ester
Benzyl α -linolenate	4.48	0.45	Phenolic ester
Benzyl stearate	0.34	0.03	Phenolic ester
(E)-Phytyl benzoate?	0.20	0.02	Phenolic ester
Squalene	2.61	0.26	Triterpene
2,3-Oxidosqualene	2.09	0.21	Triterpenic ether
Unknown	0.48	0.05	Triterpenic alcohol
α -Tocopherol	0.72	0.07	Tocopherol
Unknown	2.35	0.24	Unknown
Unknown	2.87	0.29	Unknown
Consolidated total	803.31	80.33	

tr: The compound has been detected below 0.005% of the total signal.

Note: Individual compounds contents were corrected following the method of Cachet et al., 2016 (Flavour and Fragrance Journal guidelines).

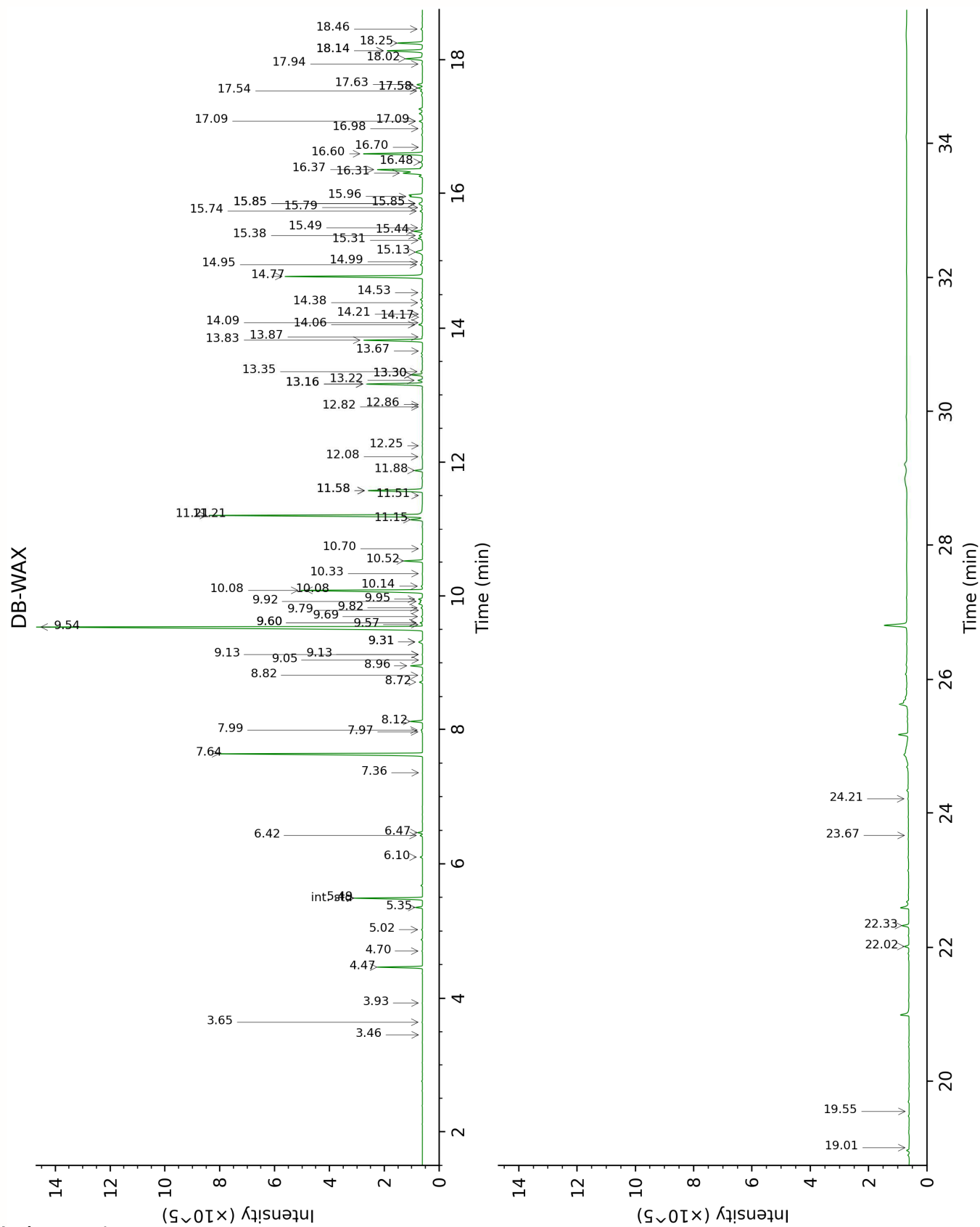
Unknown compounds are expressed in equivalents of internal standard without correction.

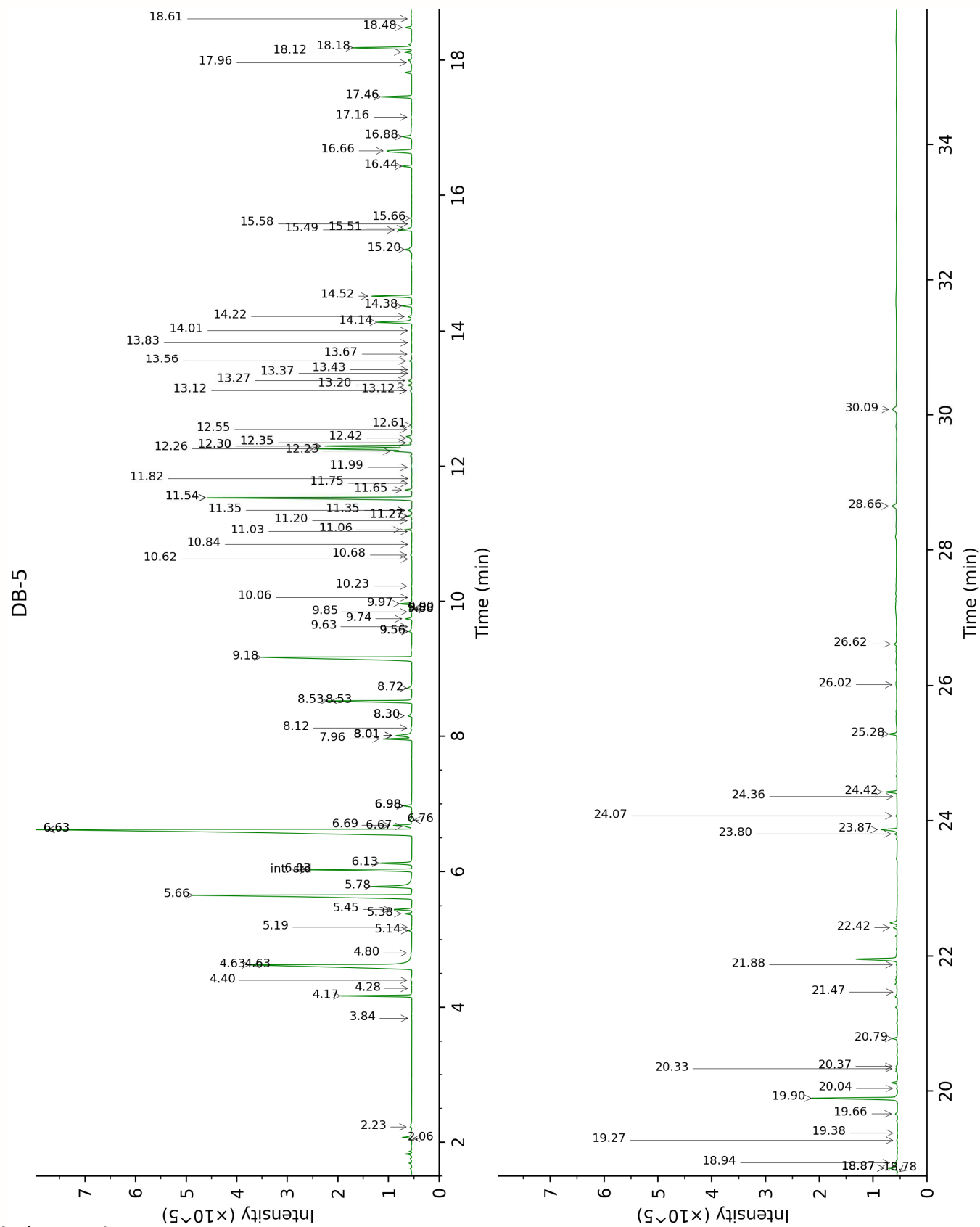
About "consolidated" data: The table above presents the breakdown of the sample volatile constituents after applying an algorithm to collapse data acquired from the multi-columns system of PhytoChemia into a single set of consolidated contents. In case of discrepancies between columns, the algorithm is set to prioritize data from the most standard DB-5 column, and smallest values so as to avoid

overestimating individual content. This process is semi-automatic. Advanced users are invited to consult the "Full analysis data" table after the chromatograms in this report to access the full untreated data and perform their own calculations if needed.

Unknowns: The occurrence of unknown compounds is to be expected in many samples, and does not denote particular problems unless noted otherwise in the conclusion.

Bracketed value ([xx]): A bracketed percent value indicate that two or more compound percentage could not be solved due to coelution.





FULL ANALYSIS DATA

(3Z)-Hexenol	Column DB-WAX			Column DB-5		
	5.35	1341.7	0.28	2.06	858.7	0.05
Hexanol	5.02	1317.2	0.04	2.23	873.1	0.05
6-Methyl-5-hepten-2-one	4.70	1296.5	0.02	3.84	988.6	0.01
(3Z)-Hexenyl acetate	4.47	1278.8	1.71	4.17	1010.5	1.74
Hexyl acetate	3.93	1239.2	0.01	4.28	1017.6	0.01
Unknown MISC CLXL [m/z 41, 57 (55), 85 (47), 59 (45), 43 (41)...]				4.40	1025.1	0.05
Benzyl alcohol	11.21*	1810.1	[9.82]	4.63*	1039.5	[9.77]
(Z)-β-Ocimene	3.46	1203.7	0.01	4.63*	1039.5	[9.77]
(E)-β-Ocimene	3.65	1218.0	0.02	4.80	1050.5	0.04
cis-Linalool oxide (fur.)	6.10	1397.3	0.10	5.14	1071.5	0.09
Benzyl formate	9.05	1626.6	0.01	5.19	1074.6	0.02
trans-Linalool oxide (fur.)	6.47	1424.7	0.19	5.38	1087.2	0.20
Methyl benzoate	8.12	1552.7	0.51	5.45	1091.1	0.51
Linalool	7.64	1514.4	9.35	5.66	1104.4	9.55
Phenylethyl alcohol	11.58*	1843.3	[2.95]	5.78	1112.5	1.88
Benzeneacetonitrile	11.58*	1843.3	[2.95]	6.13	1134.7	1.08
Benzyl acetate	9.54	1667.3	23.30	6.63*	1166.6	[23.53]
cis-Linalool oxide (pyr.)	9.82	1691.0	0.07	6.63*	1166.6	[23.53]
Ethyl benzoate	8.72	1599.9	0.14	6.67	1169.5	0.14
Unknown JASA I [m/z 43, 69 (35), 41 (26), 83 (25), 57 (22)... 150 (1)]	8.96	1619.6	0.52	6.69	1170.6	0.52
trans-Linalool oxide (pyr.)	10.14	1718.0	0.07	6.76	1175.5	0.10
(3Z)-Hexenyl butyrate	6.42	1421.5	0.09	6.98*	1189.1	[0.25]
Methyl salicylate	10.08*	1712.6	[6.64]	6.98*	1189.1	[0.25]
α-Terpineol	9.32*	1648.9	[0.26]	6.98*	1189.1	[0.25]
Phenylethyl acetate	10.52	1750.6	0.81	7.96	1254.4	0.79
(E)-Isogeraniol?	10.70	1766.3	0.02	8.01*	1257.7	[0.76]
Geraniol	11.15	1804.6	0.59	8.01*	1257.7	[0.76]
Unknown JASA II [m/z 91, 117 (80), 90 (42), 118 (29)... 136 (5)]	15.85*	2258.2	[0.27]	8.01*	1257.7	[0.76]
Phenylacetic acid?	17.09*	2390.5	[0.16]	8.12	1265.3	0.05
Unknown JASA III [m/z 91, 117 (98), 90 (65), 89 (29), 65 (29), 118 (26), 135 (23)]				8.30*	1277.4	[0.19]
2,6-Dimethyl-1,7- octadiene-3,6-diol	14.17	2086.8	0.01	8.30*	1277.4	[0.19]

1-Nitro-2-phenylethane	13.67	2037.7	0.01	8.53*	1292.7	[2.79]
Indole	16.60	2337.7	2.74	8.53*	1292.7	[2.79]
(E)-Cinnamyl alcohol	15.38	2208.5	0.21	8.72	1305.4	0.24
Methyl anthranilate	14.77	2147.1	6.70	9.18	1337.7	6.80
Neryl acetate	9.69	1680.3	0.06	9.56*	1364.7	[0.16]
8-Hydroxylinalool isomer	15.85*	2258.2	[0.27]	9.56*	1364.7	[0.16]
Butyl benzoate	11.21*	1810.1	[9.82]	9.63	1369.6	0.02
Methyl (E)-cinnamate	13.30*	2002.5	[0.48]	9.74	1377.8	0.20
(3Z)-Hexenyl (3Z)-hexenoate	9.57	1670.3	0.03	9.85	1385.1	0.03
(3Z)-Hexenyl hexanoate?				9.88*	1387.7	[0.08]
β-Cubebene	7.36	1492.7	0.01	9.88*	1387.7	[0.08]
β-Elementene	7.99	1542.4	0.07	9.90	1389.1	0.07
(Z)-Jasmone	11.88	1870.4	0.35	9.97	1393.6	0.35
Dimethyl anthranilate	13.16*	1989.7	[2.62]	10.06	1400.0	0.02
β-Caryophyllene	7.97	1540.2	0.03	10.23	1412.3	0.04
(E)-Cinnamyl acetate	14.09	2078.8	0.02	10.62	1442.0	0.02
α-Humulene	8.82	1607.9	0.04	10.68	1446.5	0.04
(E)-β-Farnesene	9.13*	1633.4	[0.02]	10.84	1458.1	0.02
γ-Murolene	9.13*	1633.4	[0.02]	11.03	1472.4	0.02
Germacrene D	9.32*	1648.9	[0.26]	11.06	1474.8	0.24
(Z)-Jasmin lactone	14.99	2169.0	0.06	11.20	1485.2	0.03
Bicyclogermacrene	9.60*	1672.6	[0.10]	11.27*	1490.1	[0.14]
epi-Cubebol	11.51	1836.8	0.01	11.27*	1490.1	[0.14]
α-Murolene	9.60*	1672.6	[0.10]	11.35*	1496.5	[0.12]
(3Z,6E)-α-Farnesene	9.79	1687.9	0.01	11.35*	1496.5	[0.12]
(3E,6E)-α-Farnesene	10.08*	1712.6	[6.64]	11.54*	1510.6	[6.84]
γ-Cadinene	9.92	1698.9	0.12	11.54*	1510.6	[6.84]
δ-Cadinene	9.95	1701.7	0.22	11.65	1519.7	0.20
10-epi-Cubebol?	13.22	1994.8	0.21	11.75	1527.5	0.02
α-Cadinene	10.33	1734.2	0.04	11.82	1532.9	0.01
Methyl N-formylanthranilate	18.14*	2507.9	[1.83]	11.99	1546.0	0.02
(E)-Nerolidol	13.30*	2002.5	[0.48]	12.23	1564.7	0.51
(3Z)-Hexenyl benzoate	13.83	2053.5	2.76	12.26	1567.5	2.83
Germacrene D-4-ol	13.16*	1989.7	[2.62]	12.30*	1570.6	[2.76]
Spathulenol	13.87	2058.1	0.03	12.30*	1570.6	[2.76]
Caryophyllene oxide	12.25	1903.6	0.01	12.35*	1574.3	[0.08]
Hexyl benzoate	13.35	2007.0	0.07	12.35*	1574.3	[0.08]
(2E)-Hexenyl benzoate	14.06	2076.0	0.18	12.42	1579.8	0.06
Methyl N-acetylanthranilate	16.98	2378.6	0.03	12.55	1589.9	0.05
Ledol	12.86	1960.8	0.01	12.61	1594.9	0.02
τ-Cadinol	14.38	2107.8	0.07	13.12*	1636.5	[0.08]

τ-Murolol	14.53	2122.7	0.03	13.12*	1636.5	[0.08]
Methyl <i>cis</i> -jasmonate	15.85*	2258.2	[0.27]	13.20	1643.2	0.13
α-Cadinol	14.94	2164.7	0.11	13.27	1648.6	0.11
Unknown JASA IV [m/z 99, 161 (100), 43 (92), 204 (74), 71 (73), 121 (65)...]				13.37	1657.5	0.02
(3 <i>E</i> ,5 <i>E</i>)-7- Hydroxyfarnesene	15.74	2246.4	0.11	13.43	1662.1	0.01
Methyl <i>trans</i> -jasmonate	16.70	2348.2	0.02	13.56	1672.6	0.08
Shyobunol	15.79	2251.8	0.04	13.67	1681.8	0.04
Unknown JASA V [m/z 99, 43 (47), 161 (42), 71 (39), 204 (31), 121 (28)...]	12.08	1888.9	0.05	13.83	1695.6	0.02
Pentadecanal	12.82	1957.6	0.02	14.01	1710.5	0.03
(2 <i>E</i> ,6 <i>E</i>)-Farnesol	16.31	2306.7	1.08	14.14	1721.4	1.23
Oplopanone	17.58*	2445.3	[0.22]	14.22	1728.6	0.16
Unknown JASA VI [m/z 105, 77 (42), 69 (29), 161 (19), 83 (16)...]	17.63	2451.1	0.27	14.38	1742.2	0.30
Benzyl benzoate	18.25	2521.0	1.24	14.52	1754.6	1.25
Unknown JASA VII [m/z 43, 159 (79), 93 (49), 119 (48), 161 (40), 187 (36)... 238? (2)]				15.20	1814.5	0.22
(2 <i>E</i> ,6 <i>E</i>)-Farnesyl acetate	15.44	2215.0	0.43	15.49	1840.7	0.43
Phenylethyl benzoate	19.01	2609.8	0.02	15.51	1842.4	0.09
Phytone	14.21	2091.2	0.02	15.58	1848.8	0.02
Benzyl salicylate	19.55	2674.9	0.01	15.66	1856.3	0.04
Methyl palmitate	15.13	2183.6	0.54	16.44	1927.9	0.29
Isophytol	15.96†	2269.1	0.58	16.66	1949.5	1.28
Palmitic acid				16.88	1969.6	0.42
Ethyl palmitate	15.49	2220.4	0.05	17.16	1996.8	0.02
(<i>E,E</i>)-Geranyllinalool	18.02	2494.5	0.90	17.46	2026.3	0.93
(<i>E</i>)-Cinnamyl benzoate	22.02	2988.2	0.22	17.96	2076.3	0.05
Methyl linoleate	17.58*	2445.3	[0.22]	18.12	2092.0	0.23
Methyl α-linolenate	18.14*	2507.9	[1.83]	18.18	2098.2	1.95
Methyl stearate	17.09*	2390.5	[0.16]	18.48	2128.9	0.18
α-Linolenic acid	23.67	3215.5	0.01	18.61	2142.1	0.02
Ethyl α-linolenate	18.46	2545.4	0.08	18.78	2159.4	0.05
Docosene isomer	15.31	2201.2	0.02	18.87*	2168.5	[0.44]
Stearic acid				18.87*	2168.5	[0.44]
Methyl (<i>E</i>)-phytenate	17.54	2440.4	0.10	18.94	2176.5	0.18
Unknown JASA VIII [m/z 190, 158 (100), 253 (68),				19.27	2211.0	0.03

193 (58), 220 (51)]						
(E)-Phytyl acetate	17.94	2485.6	0.04	19.38	2222.5	0.03
(9Z)-Eicosenol?				19.66	2253.2	0.09
(9E)-Tricosene?	16.37	2312.2	2.79	19.90	2278.1	2.76
1-Tricosene?	16.48	2324.2	0.10	20.04	2293.8	0.03
Methyl arachidate				20.33	2325.9	0.05
4,8,12,16-Tetramethylheptadecan-4-olide?				20.37	2329.8	0.05
Tetracosene isomer				20.79	2377.2	0.18
Unknown JASA IX [m/z 219, 218 (99), 217 (50), 108 (31), 220 (17), 216 (14)]				21.47	2455.5	0.02
2-Monopalmitin				21.88	2502.6	0.04
Benzyl palmitate				22.42	2568.4	0.12
Benzyl oleate				23.80	2741.1	0.07
Benzyl α-linolenate				23.87	2749.6	0.57
Benzyl stearate				24.07	2775.8	0.04
(E)-Phytyl benzoate?	24.21	3293.5	0.03	24.36	2812.8	0.03
Squalene	22.33	3029.8	0.36	24.42	2822.0	0.37
2,3-Oxidosqualene				25.28	2937.3	0.28
Unknown JAGR V [m/z 41, 119 (14), 147 (13), 40 912), 94 (12), 133 (12)...]				26.02	3038.3	0.05
α-Tocopherol				26.62	3116.4	0.10
Unknown JASA X [m/z 322, 245 (66), 122 (37), 204 (34), 321 (30), 323 (26)...]				28.66	3312.3	0.24
Unknown JASA XI [m/z 245, 246 (20), 243 (14), 217 (12), 218 (9), 91 (7), 244 (6)]				30.09	3411.1	0.30
Total reported		89.51%			94.93%	

*: Two or more compounds are coeluting on this column

[xx]: Duplicate percentage due to coelutions, only the first one is taken into account in the consolidated total

†: Peaks apexes were resolved, but peaks overlapped and were summed for analysis

tr: The compound has been detected below 0.005% of total signal.

Note: no correction factor was applied

R.T.: Retention time (minutes)

R.I.: Retention index