Date : 2026-01-14

Certificate of Analysis - GC Profiling

Sample Identification

Internal code : 25L16-PTH03
Customer Identification : Ginger Steam Distilled - China - GO0106R
Type : Essential Oil
Source : *Zingiber officinale*
Customer : Plant Therapy

Checked an approved by:

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

Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia. This report is digitally signed, it is only considered valid if the digital signature is intact. The results only describe the samples that were submitted to the assays. The compliance status of the sample is provided to facilitate the reading of the report. The client remains ultimately responsible for reviewing the results presented within this report and to establish compliance of the tested batch against relevant quality criteria.

This report is an update of the version first issued on 2025-12-18 to make a correction in the sample identification section.

Méthode certifiée ISO 17025:2017 Certified method

Laboratoire PhytoChemia

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Gas Chromatographic Analysis

Method : PC-MAT-014 - Analysis of the composition of an essential oil or other volatile liquide by FAST GC-FID
ISO
Results : See analysis summary (next page)
Analyst : Jean-Christophe Fortin, M. Sc.
Date : 2025-12-17

Physicochemical data

Refractive index : 1.4893 ± 0.0003 (20 °C)
Method : PC-MAT-016 - Measure of the refractive index of a liquid.
Analyst : Cindy Caron B. Sc.
Date : 2025-12-16

Conclusion

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

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Analysis Summary - Consolidated Contents

New readers of similar reports are encouraged to read table footnotes at least once.

Identification	%	Class
Isovaleral	0.01	Aliphatic aldehyde
2-Methylbutyral	0.01	Aliphatic aldehyde
Toluene	0.03	Simple phenolic
Hexanal	0.43	Aliphatic aldehyde
Hexanol	0.01	Aliphatic alcohol
2-Heptanone	0.10	Aliphatic ketone
2-Heptanol	0.06	Aliphatic alcohol
Tricyclene	0.14	Monoterpene
α-Thujene	0.01	Monoterpene
α-Pinene	2.02	Monoterpene
Camphene	6.67	Monoterpene
α-Fenchene	0.01	Monoterpene
Unknown	0.01	Monoterpene
Sabinene	0.07	Monoterpene
β-Pinene	0.26	Monoterpene
6-Methyl-5-hepten-2-one	0.66	Aliphatic ketone
Myrcene	0.75	Monoterpene
6-Methyl-5-hepten-2-ol	0.02	Aliphatic alcohol
Pseudolimonene	0.02	Monoterpene
α-Phellandrene	0.22	Monoterpene
Octanal	0.12	Aliphatic aldehyde
Δ3-Carene	0.03	Monoterpene
α-Terpinene	0.02	Monoterpene
para-Cymene	0.06	Monoterpene
Limonene	1.17	Monoterpene
β-Phellandrene	4.24	Monoterpene
1,8-Cineole	1.92	Monoterpenic ether
2-Heptyl acetate	0.02	Aliphatic ester
(*E*)-β-Ocimene	0.01	Monoterpene
2,6-Dimethyl-5-heptenal (melonal)	0.01	Aliphatic aldehyde
γ-Terpinene	0.03	Monoterpene
cis-Sabinene hydrate	0.01	Monoterpenic alcohol
cis-Linalool oxide (fur.)	0.01	Monoterpenic alcohol
Terpinolene	0.18	Monoterpene
para-Cymenene	0.01	Monoterpene
trans-Linalool oxide (fur.)	0.01	Monoterpenic alcohol
2-Nonanone	0.06	Aliphatic ketone
Unknown	0.18	Oxygenated monoterpene
Rosefuran	0.16	Monoterpenic ether
Linalool	0.24	Monoterpenic alcohol

2-Nonanol	0.05	Aliphatic alcohol
endo-Fenchol	0.05	Monoterpenic alcohol
Bornyl methyl ether	0.03	Monoterpenic ether
trans-Pinene hydrate	0.03	Monoterpenic alcohol
(*E*)-4,8-Dimethylnona-1,3,7-triene	0.04	Terpene derivative
trans-para-Menth-2-en-1-ol	0.01	Monoterpenic alcohol
Camphor	0.08	Monoterpenic ketone
Camphene hydrate	0.05	Monoterpenic alcohol
exo-Isocitral	0.01	Monoterpenic aldehyde
Isoborneol	0.03	Monoterpenic alcohol
Citronellal	0.05	Monoterpenic aldehyde
Borneol	0.85	Monoterpenic alcohol
Isoneral	0.03	Monoterpenic aldehyde
Unknown	tr	Oxygenated monoterpene
Terpinen-4-ol	0.09	Monoterpenic alcohol
Rosefuran oxide	0.18	Monoterpenic ether
Cryptone	0.01	Normonoterpenic ketone
4-Methylacetophenone	0.01	Simple phenolic
Isogeranial	0.03	Monoterpenic aldehyde
α-Terpineol	0.41	Monoterpenic alcohol
para-Cymen-8-ol	0.05	Monoterpenic alcohol
Myrtenal	0.03	Monoterpenic aldehyde
Myrtenol	0.04	Monoterpenic alcohol
trans-Piperitol	0.01	Monoterpenic alcohol
Decanal	0.17	Aliphatic aldehyde
Bornyl formate	0.01	Monoterpenic ester
Nerol	0.01	Monoterpenic alcohol
Citronellol	0.18	Monoterpenic alcohol
Neral	0.10	Monoterpenic aldehyde
Unknown	0.06	Oxygenated monoterpene
Geraniol	0.37	Monoterpenic alcohol
Geranial	0.16	Monoterpenic aldehyde
Citronellyl formate	0.01	Monoterpenic ester
Bornyl acetate	0.11	Monoterpenic ester
2-Undecanone	0.22	Aliphatic ketone
Geranyl formate	0.04	Monoterpenic ester
Carvacrol	0.04	Monoterpenic alcohol
δ-Elemene	0.12	Sesquiterpene
α-Cubebene	0.03	Sesquiterpene
Citronellyl acetate	0.07	Monoterpenic ester
8-Hydroxy-iso-menthol	0.04	Monoterpenic alcohol
Cyclosativene I	0.14	Sesquiterpene
Cyclosativene II	0.07	Sesquiterpene
Neryl acetate	0.01	Monoterpenic ester
α-Copaene	0.46	Sesquiterpene

Geranic acid	0.26	Aliphatic acid
Unknown	0.01	Unknown
cis-β-Elemene	0.02	Sesquiterpene
Geranyl acetate	0.48	Monoterpenic ester
β-Cubebene	0.04	Sesquiterpene
β-Elemene	0.79	Sesquiterpene
Sesquithujene	0.29	Sesquiterpene
Dodecanal	0.01	Aliphatic aldehyde
β-Caryophyllene	0.11	Sesquiterpene
β-Copaene	0.05	Sesquiterpene
Unknown	0.01	Unknown
γ-Elemene	0.32	Sesquiterpene
trans-α-Bergamotene	0.14	Sesquiterpene
Unknown	0.03	Unknown
Sesquisabinene A	0.05	Sesquiterpene
Unknown	0.10	Sesquiterpene
α-Humulene	0.06	Sesquiterpene
allo-Aromadendrene	0.30	Sesquiterpene
Sesquisabinene B	0.25	Sesquiterpene
(*E*)-β-Farnesene	0.37	Sesquiterpene
Selina-4,11-diene	0.19	Sesquiterpene
trans-Cadina-1(6),4-diene	0.14	Sesquiterpene
γ-Muurolene	0.18	Sesquiterpene
Germacrene D	1.19	Sesquiterpene
γ-Curcumene	0.26	Sesquiterpene
ar-Curcumene	6.56	Sesquiterpene
β-Selinene	0.40	Sesquiterpene
Unknown	1.09	Sesquiterpene
epi-Cubebol	0.04	Sesquiterpenic alcohol
2-Tridecanone	0.03	Aliphatic ketone
Bicyclosesquiphellandrene?	2.15	Sesquiterpene
α-Zingiberene	30.58	Sesquiterpene
Cubebol	0.01	Sesquiterpenic alcohol
β-Bisabolene	6.69	Sesquiterpene
γ-Cadinene	0.32	Sesquiterpene
(3*E*,6*E*)-α-Farnesene	3.90	Sesquiterpene
δ-Cadinene	0.06	Sesquiterpene
β-Sesquiphellandrene	11.59	Sesquiterpene
Unknown	0.17	Oxygenated sesquiterpene
(*E*)-γ-Bisabolene	0.34	Sesquiterpene
Unknown	0.07	Oxygenated sesquiterpene
α-Elemol	0.41	Sesquiterpenic alcohol
Germacrene B	0.38	Sesquiterpene
Unknown	0.04	Oxygenated sesquiterpene
cis-Sesquisabinene hydrate	0.14	Sesquiterpenic alcohol

(*E*)-Nerolidol	0.43	Sesquiterpenic alcohol
1'-Hydroxyeugenol	0.08	Phenylpropanoid
ar-Turmerol	0.06	Sesquiterpenic alcohol
trans-Sesquisabinene hydrate	0.25	Sesquiterpenic alcohol
Unknown	0.04	Oxygenated sesquiterpene
cis-Zingiberenol	0.43	Sesquiterpenic alcohol
10-epi-γ-Eudesmol	0.12	Sesquiterpenic alcohol
Unknown	0.10	Oxygenated sesquiterpene
γ-Eudesmol	0.05	Sesquiterpenic alcohol
trans-Zingiberenol	0.22	Sesquiterpenic alcohol
β-Eudesmol	0.21	Sesquiterpenic alcohol
α-Eudesmol	0.16	Sesquiterpenic alcohol
(3*E*,5*E*)-7-Hydroxyfarnesene	0.02	Sesquiterpenic alcohol
α-Bisabolol	0.03	Sesquiterpenic alcohol
4-(1,5-Dimethylhex-4-enyl)cyclohex-2-enone	0.10	Norsesquiterpenic ketone
Unknown	0.25	Oxygenated sesquiterpene
Unknown	0.15	Oxygenated sesquiterpene
ar-Curcumen-15-al	0.08	Sesquiterpenic aldehyde
Unknown	0.03	Oxygenated sesquiterpene
Oplopanone	0.01	Sesquiterpenic alcohol
Xanthorizzhol	0.02	Sesquiterpenic alcohol
Unknown	0.04	Oxygenated sesquiterpene
Unknown	0.02	Oxygenated sesquiterpene
Unknown	0.05	Oxygenated sesquiterpene
Unknown	0.01	Oxygenated sesquiterpene
Unknown	0.07	Oxygenated sesquiterpene
Unknown	0.05	Oxygenated sesquiterpene
Unknown	0.01	Oxygenated sesquiterpene
Unknown	0.02	Oxygenated sesquiterpene
Unknown	0.03	Oxygenated sesquiterpene
Geranyl-*para*-cymene	0.04	Diterpene
Consolidated total	**98.40**	

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

Note: no correction factor was applied

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: Unknown compounds' mass spectral data is presented in the "Full analysis data" table. 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.

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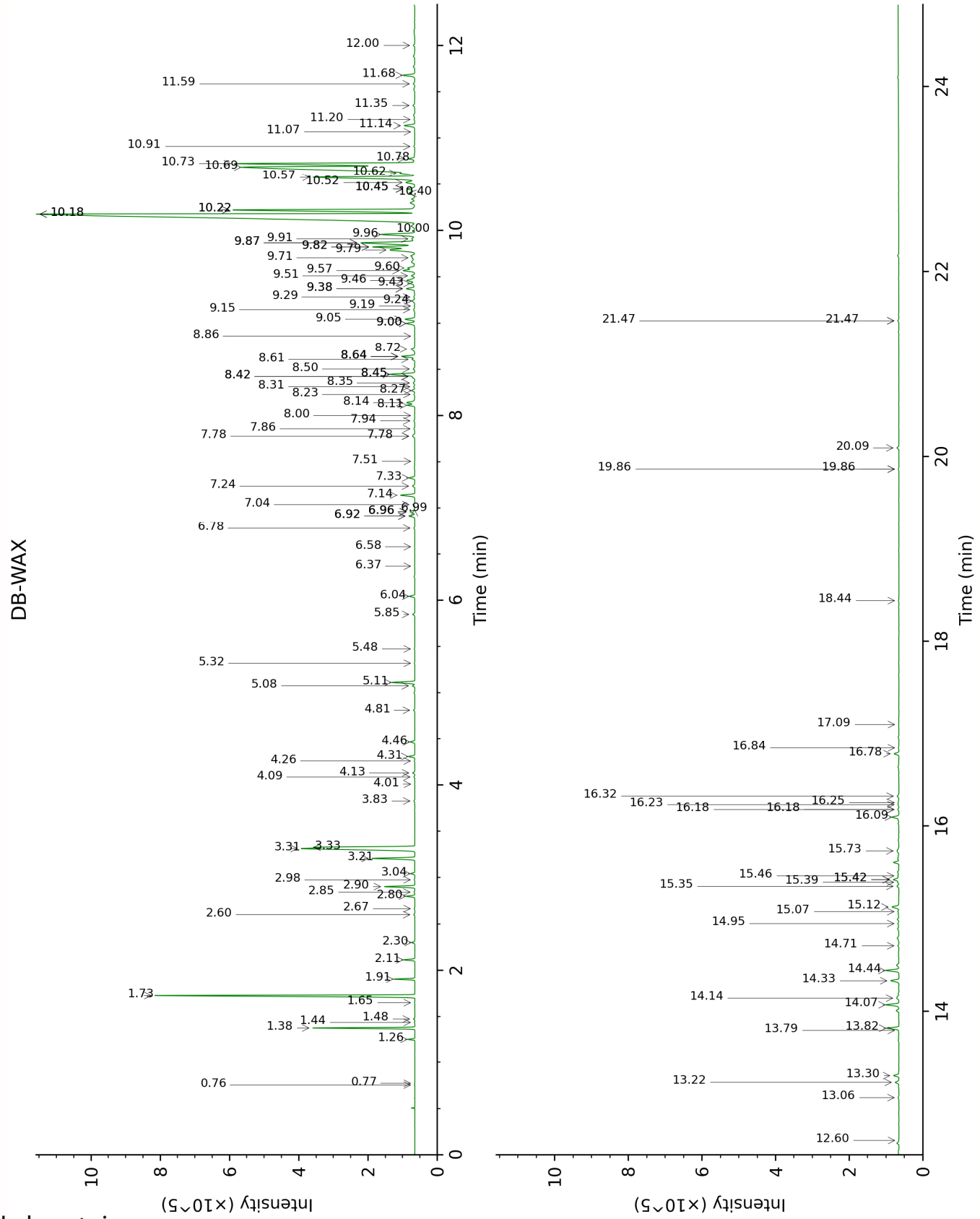
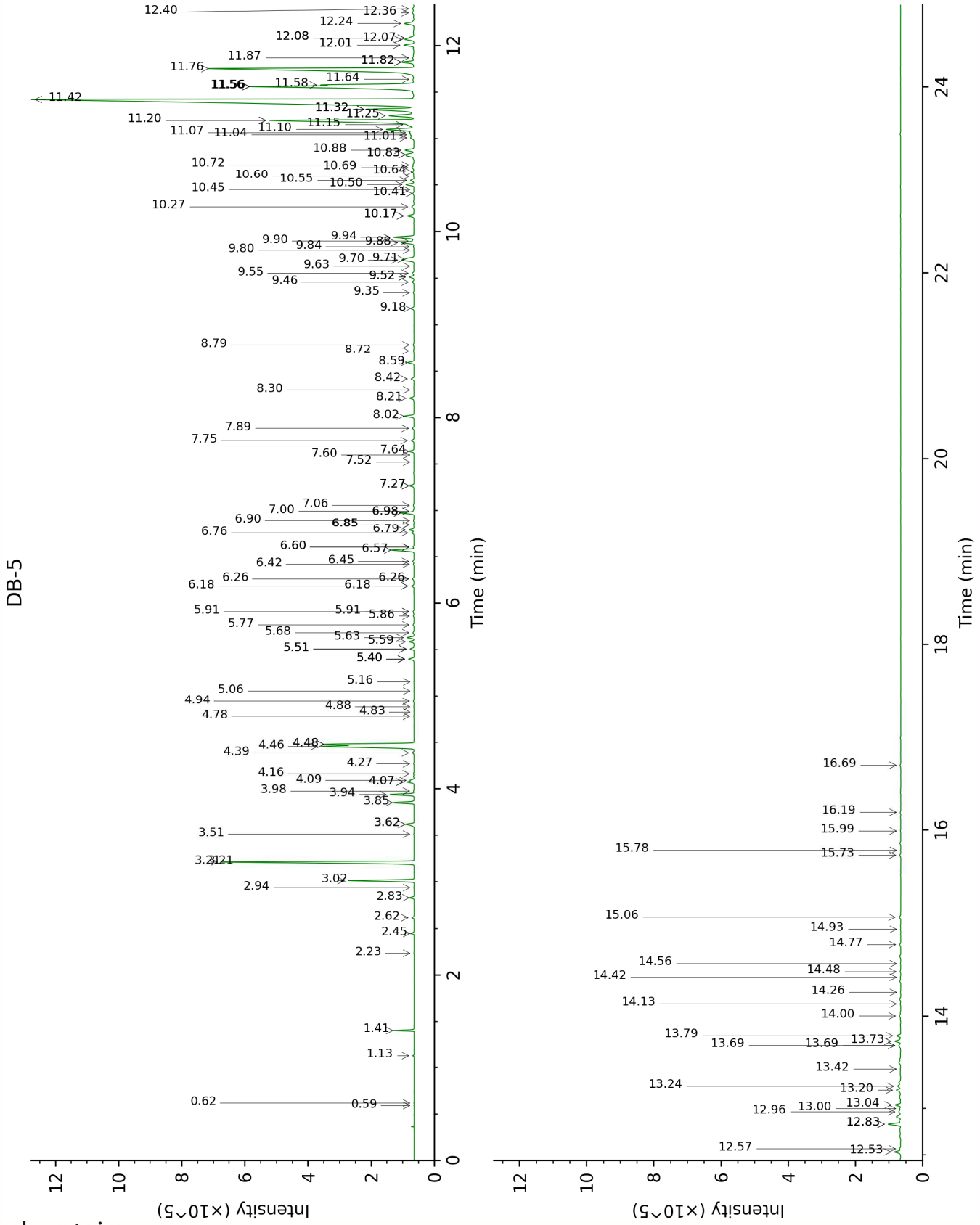

DB-WAX
Time (min)
Intensity (×10^5)
12.00
11.68
11.59
11.35
11.20
11.14
11.07
10.91
10.78
10.73
10.69
10.62
10.57
10.52
10.45
10.40
10.22
10.18
10.00
9.96
9.91
9.87
9.82
9.79
9.71
9.60
9.57
9.51
9.46
9.43
9.38
9.29
9.24
9.19
9.15
9.05
9.00
8.86
8.72
8.64
8.61
8.50
8.45
8.42
8.35
8.31
8.27
8.23
8.14
8.11
8.00
7.94
7.86
7.78
7.78
7.51
7.33
7.24
7.14
7.04
6.99
6.96
6.92
6.78
6.58
6.37
6.04
5.85
5.48
5.32
5.11
5.08
4.81
4.46
4.31
4.26
4.13
4.09
4.01
3.83
3.33
3.31
3.21
3.04
2.98
2.90
2.85
2.80
2.67
2.60
2.30
2.11
1.91
1.73
1.65
1.48
1.44
1.38
1.26
0.77
0.76
21.47
21.47
20.09
19.86
19.86
18.44
17.09
16.84
16.78
16.32
16.25
16.23
16.18
16.18
16.09
15.73
15.46
15.42
15.39
15.35
15.12
15.07
14.95
14.71
14.44
14.33
14.14
14.07
13.82
13.79
13.30
13.22
13.06
12.60


DB-5
Time (min)
Intensity (×10^5)
12.40
12.36
12.24
12.08
12.07
12.01
11.87
11.82
11.76
11.64
11.56
11.58
11.42
11.32
11.25
11.20
11.15
11.07
11.04
11.10
11.01
10.88
10.83
10.72
10.69
10.64
10.60
10.55
10.50
10.45
10.41
10.27
10.17
9.90
9.94
9.80
9.84
9.88
9.70
9.71
9.63
9.55
9.52
9.46
9.35
9.18
8.79
8.72
8.59
8.42
8.30
8.21
8.02
7.89
7.75
7.64
7.60
7.52
7.27
7.06
7.00
6.98
6.90
6.85
6.79
6.76
6.60
6.57
6.42
6.45
6.26
6.18
5.91
5.86
5.77
5.68
5.63
5.59
5.51
5.40
5.16
5.06
4.94
4.88
4.83
4.78
4.46
4.48
4.39
4.27
4.16
4.09
4.07
3.98
3.94
3.85
3.62
3.51
3.21
3.02
2.94
2.83
2.62
2.45
2.23
1.41
1.13
0.62
0.59
16.69
16.19
15.99
15.78
15.73
15.06
14.93
14.77
14.56
14.48
14.42
14.26
14.13
14.00
13.79
13.69
13.69
13.73
13.42
13.24
13.20
12.96
13.00
13.04
12.83
12.57
12.53

FULL ANALYSIS DATA

	Column DB-WAX			Column DB-5		
Isovaleral	0.77	889.3	0.01	0.59	643.2	0.01
2-Methylbutyral	0.76	882.3	0.01	0.62	653.3	0.01
Toluene	1.48	1003.1	0.03	1.13	759.3	0.03
Hexanal	1.91	1045.8	0.43	1.41	799.9	0.43
Hexanol	5.48	1325.5	0.02	2.24	872.3	0.01
2-Heptanone	3.04	1146.0	0.11	2.45	890.3	0.10
2-Heptanol	5.08	1299.3	0.07	2.62	904.6	0.06
Tricyclene	1.26	971.7	0.14	2.83	919.0	0.14
α-Thujene	1.44	999.5	0.01	2.94	926.3	0.01
α-Pinene	1.38	991.8	2.02	3.02	931.4	2.02
Camphene	1.73	1028.2	6.67	3.22*	944.7	[6.62]
α-Fenchene	1.65	1020.5	0.01	3.22*	944.7	[6.62]
Unknown ZIOF V [m/z 91, 119 (60), 77 (36), 92 (31), 93 (31)... 134 (23)]	2.67	1116.3	0.02	3.51	964.8	0.01
Sabinene	2.30	1085.1	0.07	3.62*	971.9	[0.33]
β-Pinene	2.11	1066.5	0.26	3.62*	971.9	[0.33]
6-Methyl-5-hepten-2-one	5.11	1299.8	0.66	3.85	987.5	0.66
Myrcene	2.90	1135.0	0.74	3.94	993.4	0.75
6-Methyl-5-hepten-2-ol	6.99	1434.9	0.01	3.98	995.9	0.02
Pseudolimonene	2.84	1130.3	0.02	4.07*	1002.4	[0.24]
α-Phellandrene	2.80	1126.8	0.22	4.07*	1002.4	[0.24]
Octanal	4.46	1254.1	0.13	4.09	1003.6	0.12
Δ3-Carene	2.60	1111.1	0.03	4.16	1008.1	0.03
α-Terpinene	2.98	1140.7	0.02	4.27	1014.9	0.02
para-Cymene	4.13	1229.5	0.06	4.39	1022.4	0.06
Limonene	3.21	1158.9	1.17	4.46†	1026.7	3.99
β-Phellandrene	3.32	1167.4	4.24	4.48*†	1028.2	[3.29]
1,8-Cineole	3.33	1168.4	1.92	4.48*†	1028.2	[3.29]
2-Heptyl acetate	4.26	1238.9	0.01	4.78	1047.4	0.02
(*E*)-β-Ocimene	4.01	1220.5	0.01	4.82	1050.2	0.01
2,6-Dimethyl-5-heptenal (melonal)	5.32	1314.5	0.01	4.88	1053.9	0.01
γ-Terpinene	3.83	1207.2	0.04	4.94	1057.8	0.03
cis-Sabinene hydrate	6.92*	1429.3	[0.20]	5.06	1065.0	0.01
cis-Linalool oxide (fur.)	6.58	1404.4	0.01	5.16	1071.4	0.01
Terpinolene	4.31	1242.5	0.18	5.40*	1086.9	[0.20]
para-Cymenene	6.37	1389.2	0.01	5.40*	1086.9	[0.20]
trans-Linalool oxide (fur.)	6.92*	1429.3	[0.20]	5.40*	1086.9	[0.20]
2-Nonanone	5.85	1352.1	0.06	5.51*	1093.8	[0.14]
Unknown ZIOF IX [m/z 96, 109 (55), 79 (41), 67 (38), 41 (36)... 150 (3)]	8.72	1565.3	0.18	5.51*	1093.8	[0.14]

Rosefuran	6.04	1366.0	0.16	5.59	1098.9	0.16
Linalool	8.11	1518.4	0.22	5.63	1101.6	0.24
2-Nonanol	7.78*	1492.8	[0.10]	5.68	1105.0	0.05
endo-Fenchol	8.42*	1542.2	[0.08]	5.77	1110.4	0.05
Bornyl methyl ether	4.09	1226.2	0.03	5.86	1116.7	0.03
trans-Pinene hydrate	7.94	1505.4	0.03	5.91*	1119.6	[0.06]
(*E*)-4,8-Dimethylnona-1,3,7-triene	4.81	1279.3	0.04	5.91*	1119.6	[0.06]
trans-para-Menth-2-en-1-ol	9.00*	1586.7	[0.30]	6.18*	1137.5	[0.09]
Camphor	7.24	1453.1	0.08	6.18*	1137.5	[0.09]
Camphene hydrate	8.50	1548.4	0.05	6.26*	1142.5	[0.07]
exo-Isocitral	7.51	1472.8	0.01	6.26*	1142.5	[0.07]
Isoborneol	9.38*	1616.5	[0.28]	6.42	1152.7	0.03
Citronellal	7.04	1438.4	0.06	6.45	1154.7	0.05
Borneol	9.82*	1652.6	[1.39]	6.57	1162.6	0.85
Isoneral	7.86	1498.8	0.03	6.60*	1164.8	[0.04]
Unknown AFGI I [m/z 109, 79 (18), 81 (15), 91 (12), 77 (10)... 152 (3)]				6.60*	1164.8	[0.04]
Terpinen-4-ol	8.61	1556.5	0.08	6.76	1174.7	0.09
Rosefuran oxide	8.64*	1558.9	[0.42]	6.79	1176.8	0.18
Cryptone	9.19	1601.5	0.01	6.85*	1180.5	[0.03]
4-Methylacetophenone	10.45*	1703.4	[0.27]	6.85*	1180.5	[0.03]
Isogeranial	8.23	1527.3	0.03	6.90	1183.7	0.03
α-Terpineol	9.82*	1652.6	[1.39]	6.98*	1189.1	[0.46]
para-Cymen-8-ol	11.59	1799.8	0.05	6.98*	1189.1	[0.46]
Myrtenal	8.64*	1558.9	[0.42]	7.00	1190.3	0.03
Myrtenol	10.91	1742.5	0.03	7.06	1194.4	0.04
trans-Piperitol	10.45*	1703.4	[0.27]	7.27*	1208.2	[0.18]
Decanal	7.33	1459.7	0.17	7.27*	1208.2	[0.18]
Bornyl formate	8.00	1509.8	0.01	7.52	1225.5	0.01
Nerol	11.07	1755.8	0.01	7.60	1230.8	0.01
Citronellol	10.78	1731.3	0.20	7.64	1233.4	0.18
Neral	9.51	1627.7	0.11	7.75	1241.3	0.10
Unknown BODA V [m/z 109, 119 (84), 91 (81), 134 (55)... 137 (27)...]	11.35	1779.8	0.07	7.89	1250.3	0.06
Geraniol	11.68	1808.0	0.39	8.02	1259.3	0.37
Geranial	10.18*	1681.0	[30.31]	8.21	1272.5	0.16
Citronellyl formate	8.86	1576.2	0.01	8.30	1278.6	0.01
Bornyl acetate	8.27	1530.5	0.10	8.42	1286.7	0.11
2-Undecanone	8.64*	1558.9	[0.42]	8.59	1298.8	0.22
Geranyl formate	9.91	1659.6	0.12	8.72	1307.6	0.04
Carvacrol	15.39	2155.2	0.04	8.79	1309.1	0.04
δ-Elemene	6.96*	1432.7	[0.20]	9.18	1336.8	0.12

α-Cubebene	6.78	1419.3	0.03	9.35	1348.8	0.03
Citronellyl acetate	9.46	1623.6	0.32	9.46	1356.9	0.07
8-Hydroxy-iso-menthol	15.08	2123.6	0.04	9.52*	1360.7	[0.18]
Cyclosativene I	6.96*	1432.7	[0.20]	9.52*	1360.7	[0.18]
Cyclosativene II	6.96*	1432.7	[0.20]	9.56	1363.6	0.07
Neryl acetate	10.22*	1684.7	[6.48]	9.63	1369.0	0.01
α-Copaene	7.14	1445.9	0.46	9.70*†	1373.6	[0.47]
Geranic acid				9.71*†	1374.3	[0.25]
Unknown ZIOF XII [m/z 139, 69 (63), 83 (53), 43 (49), 41 (39)...]	16.18*	2235.5	[0.04]	9.80	1381.2	0.01
cis-β-Elemene	8.31	1533.8	0.04	9.84	1383.7	0.02
Geranyl acetate	10.62	1718.1	0.46	9.88	1386.8	0.48
β-Cubebene	7.78*	1492.8	[0.10]	9.90	1388.1	0.04
β-Elemene	8.45*	1544.0	[0.89]	9.94	1391.0	0.79
Sesquithujene	8.14	1520.5	0.29	10.17*	1407.3	[0.26]
Dodecanal	10.00	1667.1	0.01	10.17*	1407.3	[0.26]
β-Caryophyllene	8.42*	1542.2	[0.08]	10.26	1414.5	0.11
β-Copaene	8.35	1536.8	0.05	10.41	1425.2	0.05
Unknown ZIOF XIII [m/z 43, 83 (81), 126 (64), 41 (53), 55 (43)...]				10.45	1428.4	0.01
γ-Elemene	9.05	1590.2	0.32	10.50	1432.4	0.32
trans-α-Bergamotene	8.45*	1544.0	[0.89]	10.55	1435.8	0.14
Unknown ZIOF XIV [m/z 41, 97 (78), 69 (77), 43 (71), 125 (67), 55 (56)... 168 (39)]	17.09	2332.5	0.02	10.60	1439.3	0.03
Sesquisabinene A	9.15	1598.4	0.05	10.64	1443.0	0.05
Unknown ZIOF XV [m/z 139, 69 (60), 41 (51), 43 (47), 119 (41)... 204 (1)]				10.69	1446.5	0.10
α-Humulene	9.29	1609.3	0.03	10.72	1448.6	0.06
allo-Aromadendrene	9.00*	1586.7	[0.30]	10.83*	1457.0	[0.55]
Sesquisabinene B	9.38*	1616.5	[0.28]	10.83*	1457.0	[0.55]
(*E*)-β-Farnesene	9.57	1632.2	0.41	10.88	1460.6	0.37
Selina-4,11-diene	9.43	1621.0	0.17	11.01	1470.5	0.19
trans-Cadina-1(6),4-diene	9.24	1605.9	0.10	11.04	1473.0	0.14
γ-Muurolene	9.60	1634.4	0.26	11.07	1474.7	0.18
Germacrene D	9.79	1650.0	1.09	11.10	1477.3	1.19
γ-Curcumene	9.71	1643.2	0.09	11.15	1481.2	0.26
ar-Curcumene	10.73	1726.9	6.56	11.20*	1484.6	[6.96]
β-Selinene	9.87*	1656.2	[2.15]	11.20*	1484.6	[6.96]
Unknown ZIOF XVII [m/z 161, 91 (100), 105 (93), 79 (89), 93 (89), 107 (79)... 204	9.96	1663.4	1.19	11.25	1488.4	1.09

(34)]						
epi-Cubebol	12.00	1836.3	0.04	11.32*	1493.5	[2.22]
2-Tridecanone	11.20	1767.0	0.03	11.32*	1493.5	[2.22]
Bicyclosesquiphellandrene?	9.87*	1656.2	[2.15]	11.32*	1493.5	[2.22]
α-Zingiberene	10.18*	1681.0	[30.31]	11.42	1501.4	30.58
Cubebol	12.60	1888.8	0.01	11.56*†	1512.1	[8.15]
β-Bisabolene	10.22*	1684.7	[6.48]	11.56*†	1512.1	[8.15]
γ-Cadinene	10.40	1699.5	0.32	11.56*†	1512.1	[8.15]
(3*E*,6*E*)-α-Farnesene	10.57	1714.1	3.90	11.58†	1513.5	2.77
δ-Cadinene	10.45*	1703.4	[0.27]	11.64	1518.3	0.06
β-Sesquiphellandrene	10.69	1723.5	11.52	11.76	1527.3	11.59
Unknown ZIOF XIX [m/z 177, 159 (67), 41 (43), 91 (43), 43 (41)... 220 (t)]	13.30	1953.1	0.17	11.82*	1532.9	[0.51]
(*E*)-γ-Bisabolene	10.52	1709.1	0.34	11.82*	1532.9	[0.51]
Unknown ZIOF XX [m/z 43, 177 (99), 93 (75), 41 (73), 91 (65), 107 (60)... 220 (4)]	13.06	1931.3	0.04	11.87	1536.4	0.07
α-Elemol	14.07	2025.7	0.44	12.01	1547.2	0.41
Germacrene B	11.14	1761.5	0.36	12.07	1552.2	0.38
Unknown ZIOF XXI [m/z 98, 97 (95), 126 (91), 95 (69), 41 (67), 55 (55), 123 (53)... 220 (3)]	14.71	2086.9	0.04	12.08*	1553.2	[0.14]
cis-Sesquisabinene hydrate	13.22	1946.4	0.14	12.08*	1553.2	[0.14]
(*E*)-Nerolidol	13.82	2001.4	0.39	12.24	1565.6	0.43
1'-Hydroxyeugenol	19.86*	2648.4	[0.02]	12.36	1574.7	0.08
ar-Turmerol	15.46	2162.2	0.04	12.40	1578.1	0.06
trans-Sesquisabinene hydrate	14.33	2050.6	0.30	12.53	1588.8	0.25
Unknown ZIOF XXIII [m/z 132, 118 (89), 145 (85), 119 (79), 117 (60)...]	13.79	1999.1	0.01	12.57	1591.5	0.04
cis-Zingiberenol	14.44	2061.2	0.43	12.83*	1612.7	[0.49]
10-epi-γ-Eudesmol	14.14	2032.6	0.12	12.83*	1612.7	[0.49]
Unknown CULO XXV [m/z 119, 85 (92), 105 (37), 120 (36), 91 (28)... 218 (6)]	16.25	2243.2	0.03	12.96	1623.7	0.10
γ-Eudesmol	14.95	2110.7	0.04	13.00	1626.7	0.05
trans-Zingiberenol	15.12	2128.6	0.27	13.04	1630.0	0.22
β-Eudesmol	15.42*	2158.1	[0.21]	13.20	1643.0	0.21
α-Eudesmol	15.35	2150.9	0.07	13.24	1646.6	0.16
(3*E*,5*E*)-7-Hydroxyfarnesene	16.32	2250.5	0.07	13.42	1661.8	0.02
α-Bisabolol	15.42*	2158.1	[0.21]	13.69*	1683.6	[0.12]
4-(1,5-Dimethylhex-4-	15.73	2189.1	0.10	13.69*	1683.6	[0.12]

enyl)cyclohex-2-enone						
Unknown ZIOF XXXVIII [m/z 137, 119 (70), 84 (69), 41 (68), 69 (53), 55 (45), 109 (38)... 222 (2)]	16.09	2227.0	0.24	13.73	1687.3	0.25
Unknown ZIOF XXVI [m/z 69, 41 (59), 118 (33), 43 (32), 55 (31)... 234? (t)]	16.78	2298.5	0.16	13.79	1692.3	0.15
ar-Curcumen-15-al	16.23	2241.0	0.05	14.00	1710.0	0.08
Unknown ZIOF XXXIX [m/z 119, 91 (31), 105 (29), 41 (25), 133 (23), 158 (21)...]	16.84	2305.4	0.02	14.13	1721.3	0.03
Oplopanone				14.26	1732.2	0.01
Xanthorizzhol	19.86*	2648.4	[0.02]	14.42	1746.2	0.02
Unknown ZIOF XXVII [m/z 82, 43 (85), 91 (67), 93 (66), 41 (66), 69 (59), 106 (47)... 218 (5)...]				14.48	1751.5	0.04
Unknown ZIOF XXIX [m/z 43, 82 (100), 41 (86), 69 (76), 93 (72), 91 (72)... 218 (4)...]				14.56	1758.9	0.02
Unknown ZIOF XXXI [m/z 151, 41 (78), 95 (71), 109 (59), 55 (56), 69 (55)... 234 (15)]				14.77	1776.8	0.05
Unknown ZIOF XXXII [m/z 69, 41 (96), 43 (90), 109 (51), 55 (42), 81 (33)...]	18.44	2481.0	0.02	14.93	1791.1	0.01
Unknown AMBA XVIII [m/z 69, 43 (95), 41 (84), 109 (78), 95 (54), 93 (49)... 177 (36), 220 (2)...]	20.09	2676.0	0.07	15.06	1802.4	0.07
Unknown AMBA XXII [m/z 43, 109 (77), 69 (65), 41 (60), 55 (51), 95 (44), 135 (43)... 207 (19)...]				15.73	1862.8	0.05
Unknown MOPE V [m/z 109, 69 (58), 43 (56), 41 (42), 135 (37), 55 (27)... 220 (5)]	21.47*	2848.7	[0.04]	15.78	1867.6	0.01
Unknown ZIOF XXXIII [m/z 125, 41 (88), 109 (76), 69 (76), 151 (68), 55 (45), 95 (36)... 236 (21)]	21.47*	2848.7	[0.04]	15.99	1886.5	0.02
Unknown ZIOF XXXIV [m/z 125, 41 (86), 151 (78), 109				16.19	1904.8	0.03

(67), 69 (63)... 236 (22)]						
Geranyl-*para*-cymene	16.18*	2235.5	[0.04]	16.69	1952.9	0.04
Total reported		96.91%			98.03%	

*: 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

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