**Date :** 2023-12-20

# *Certificate of Analysis - GC Profiling*

## *Sample Identification*

**Internal code :** 23L06-NSO01
**Customer Identification :** Carrot - Lot: 235049
**Type :** Essential Oil
**Source :** *Daucus carota*
**Customer :** Natural Sourcing LLC

Checked an approved by:

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

*Notes: This report may not be published, including online, without the written consent from Laboratoire PhytoChemia.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.*



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 :** Benoit Roger, Ph. D.
**Date :** 2023-12-19

## *Physicochemical data*

**Refractive index :** 1.4896 ± 0.0003 (20 °C)
**Method :** PC-MAT-016 - Measure of the refractive index of a liquid.
**Analyst :** Cindy Caron B. Sc.
**Date :** 2023-12-06

## *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 | tr | Simple phenolic |
| Hexanal | 0.01 | Aliphatic aldehyde |
| Heptanal | 0.02 | Aliphatic aldehyde |
| Hashishene | tr | Monoterpene |
| Tricyclene | 0.02 | Monoterpene |
| α-Thujene | 0.19 | Monoterpene |
| α-Pinene | 7.50 | Monoterpene |
| Camphene | 0.41 | Monoterpene |
| Thuja-2,4(10)-diene | 0.11 | Monoterpene |
| β-Pinene | 1.67 | Monoterpene |
| Sabinene | 9.00 | Monoterpene |
| 6-Methyl-5-hepten-2-one | 0.03 | Aliphatic ketone |
| Myrcene | 2.10 | Monoterpene |
| 6-Methyl-5-hepten-2-ol | 0.01 | Aliphatic alcohol |
| α-Phellandrene | 0.01 | Monoterpene |
| Octanal | 0.02 | Aliphatic aldehyde |
| α-Terpinene | 0.17 | Monoterpene |
| *para*-Cymene | 1.15 | Monoterpene |
| Limonene | 1.14 | Monoterpene |
| β-Phellandrene | 0.11 | Monoterpene |
| (*Z*)-β-Ocimene | 0.03 | Monoterpene |
| (*E*)-β-Ocimene | 0.03 | Monoterpene |
| γ-Terpinene | 0.70 | Monoterpene |
| *cis*-Sabinene hydrate | 0.10 | Monoterpenic alcohol |
| Unknown | 0.01 | Oxygenated monoterpene |
| *trans*-Linalool oxide (fur.) | 0.01 | Monoterpenic alcohol |
| Terpinolene | 0.10 | Monoterpene |
| *para*-Cymenene | 0.04 | Monoterpene |
| α-Pinene oxide | 0.02 | Monoterpenic ether |
| *trans*-Sabinene hydrate | 0.07 | Monoterpenic alcohol |
| Hotrienol | 0.14 | Monoterpenic alcohol |
| Linalool | 0.22 | Monoterpenic alcohol |
| Unknown | 0.04 | Monoterpenic alcohol |
| Nonanal | 0.01 | Aliphatic aldehyde |
| endo-Fenchol | 0.02 | Monoterpenic alcohol |
| *cis-para*-Menth-2-en-1-ol | 0.04 | Monoterpenic alcohol |
| α-Campholenal | 0.07 | Monoterpenic aldehyde |
| Limona ketone | 0.02 | Normonoterpenic ketone |

| | | |
|---|---|---|
| *trans*-Pinocarveol | 0.16 | Monoterpenic alcohol |
| *cis*-Verbenol | 0.10 | Monoterpenic alcohol |
| *trans*-Verbenol | 0.28 | Monoterpenic alcohol |
| *meta*-Mentha-4,6-dien-8-ol | 0.04 | Monoterpenic alcohol |
| Sabinaketone | 0.06 | Normonoterpenic ketone |
| Pinocarvone | 0.04 | Monoterpenic ketone |
| (2*E*)-Nonenal | 0.08 | Aliphatic aldehyde |
| Borneol | 0.01 | Monoterpenic alcohol |
| Unknown | 0.03 | Oxygenated monoterpene |
| Terpinen-4-ol | 0.34 | Monoterpenic alcohol |
| *para*-Cymen-8-ol | 0.03 | Monoterpenic alcohol |
| Myrtenal | 0.13 | Monoterpenic aldehyde |
| α-Terpineol | 0.02 | Monoterpenic alcohol |
| Myrtenol | 0.11 | Monoterpenic alcohol |
| *para*-Mentha-1,5-dien-7-ol | 0.02 | Monoterpenic alcohol |
| Verbenone | 0.11 | Monoterpenic ketone |
| *trans*-Carveol | 0.05 | Monoterpenic alcohol |
| Unknown | 0.01 | Oxygenated monoterpene |
| Nerol | 0.03 | Monoterpenic alcohol |
| *cis*-Carveol | 0.01 | Monoterpenic alcohol |
| Cuminal | 0.04 | Monoterpenic aldehyde |
| Neral | 0.02 | Monoterpenic aldehyde |
| Carvone | 0.03 | Monoterpenic ketone |
| Unknown | 0.03 | Oxygenated monoterpene |
| Geraniol | 0.40 | Monoterpenic alcohol |
| Phellandral | tr | Monoterpenic aldehyde |
| Geranial | 0.12 | Monoterpenic aldehyde |
| Bornyl acetate | 0.29 | Monoterpenic ester |
| Cuminol | 0.07 | Monoterpenic alcohol |
| Unknown | 0.03 | Oxygenated monoterpene |
| 4-Vinylguaiacol | 0.01 | Simple phenolic |
| α-Cubebene | 0.02 | Sesquiterpene |
| α-Terpinyl acetate | 0.17 | Monoterpenic ester |
| Neryl acetate | 0.02 | Monoterpenic ester |
| α-Copaene | 0.07 | Sesquiterpene |
| Daucene | 1.47 | Sesquiterpene |
| β-Bourbonene | 0.05 | Sesquiterpene |
| β-Cubebene | 0.05 | Sesquiterpene |
| Geranyl acetate | 1.27 | Monoterpenic ester |
| Unknown | 0.27 | Sesquiterpene |
| β-Elemene | 0.14 | Sesquiterpene |
| Sesquithujene | 0.10 | Sesquiterpene |
| β-Caryophyllene | 4.14 | Sesquiterpene |
| *cis*-α-Bergamotene | 1.01 | Sesquiterpene |
| α-Santalene | 0.31 | Sesquiterpene |

| | | |
|---|---|---|
| β-Copaene | 0.04 | Sesquiterpene |
| *trans*-α-Bergamotene | 1.38 | Sesquiterpene |
| Sesquisabinene A | 0.45 | Sesquiterpene |
| α-Himachalene | 0.11 | Sesquiterpene |
| 9-epi-Isocaryophyllene | 0.06 | Sesquiterpene |
| α-Humulene | 0.36 | Sesquiterpene |
| Unknown | 0.05 | Sesquiterpene |
| Acora-3,10(14)-diene | 1.64 | Sesquiterpene |
| Sesquisabinene B | 1.42 | Sesquiterpene |
| β-Santalene | 0.01 | Sesquiterpene |
| (*E*)-β-Farnesene | 1.14 | Sesquiterpene |
| Dauca-5,8-diene? | tr | Sesquiterpene |
| γ-Decalactone | 0.16 | Aliphatic lactone |
| Unknown | 0.50 | Sesquiterpene |
| γ-Muurolene | 0.03 | Sesquiterpene |
| Germacrene D | 0.27 | Sesquiterpene |
| β-Selinene | 0.39 | Sesquiterpene |
| ar-Curcumene | tr | Sesquiterpene |
| *trans*-β-Bergamotene | 0.22 | Sesquiterpene |
| α-Selinene | 0.14 | Sesquiterpene |
| Isodaucene | 0.51 | Sesquiterpene |
| Unknown | 0.07 | Oxygenated sesquiterpene |
| Methyl (*E*)-isoeugenol | 0.71 | Phenylpropanoid |
| β-Bisabolene | 4.31 | Sesquiterpene |
| γ-Cadinene | 0.05 | Sesquiterpene |
| Sesquicineole | 0.05 | Sesquiterpenic ether |
| δ-Cadinene | 0.05 | Sesquiterpene |
| Myristicin | 0.01 | Phenylpropanoid |
| *trans*-Calamenene | 0.01 | Sesquiterpene |
| β-Sesquiphellandrene | 0.35 | Sesquiterpene |
| *trans*-Cadina-1,4-diene | 0.06 | Sesquiterpene |
| (*E*)-γ-Bisabolene | 0.04 | Sesquiterpene |
| Dauca-4(11),8-diene | 0.06 | Sesquiterpene |
| (*E*)-α-Bisabolene | 1.30 | Sesquiterpene |
| Isocaryophyllene epoxide B | 0.20 | Sesquiterpenic ether |
| Germacrene B | 0.16 | Sesquiterpene |
| Unknown | 0.35 | Oxygenated sesquiterpene |
| Germacrene D-4-ol | 0.02 | Sesquiterpenic alcohol |
| Spathulenol | 0.12 | Sesquiterpenic alcohol |
| Caryophyllene oxide isomer | 0.19 | Sesquiterpenic ether |
| Caryophyllene oxide | 2.42 | Sesquiterpenic ether |
| Carotol | 36.39 | Sesquiterpenic alcohol |
| *trans*-Dauc-8-en-4β-ol | 1.46 | Sesquiterpenic alcohol |
| Humulene epoxide II | 0.21 | Sesquiterpenic ether |
| Unknown | 0.10 | Oxygenated sesquiterpene |



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| | | |
|---|---|---|
| Unknown | 0.11 | Oxygenated sesquiterpene |
| Unknown | 0.05 | Oxygenated sesquiterpene |
| Muurola-4,10(14)-dien-1β-ol? | 0.12 | Sesquiterpenic alcohol |
| Caryophylladienol I | 0.16 | Sesquiterpenic alcohol |
| Caryophylladienol II | 0.09 | Sesquiterpenic alcohol |
| τ-Cadinol | 0.02 | Sesquiterpenic alcohol |
| Daucol | 0.59 | Sesquiterpenic alcohol |
| α-Muurolol | 0.04 | Sesquiterpenic alcohol |
| α-Cadinol | 0.05 | Sesquiterpenic alcohol |
| Unknown | 0.17 | Oxygenated sesquiterpene |
| Unknown | 0.07 | Unknown |
| (3*Z*)-Caryophylla-3,8(13)-dien-5β-ol | 0.27 | Sesquiterpenic alcohol |
| α-Asarone | 0.05 | Phenylpropanoid |
| Shyobunol | 0.02 | Sesquiterpenic alcohol |
| Apiole | 0.02 | Phenylpropanoid |
| α-Bisabolol | 0.07 | Sesquiterpenic alcohol |
| Juniper camphor | 0.30 | Sesquiterpenic alcohol |
| (2*Z*,6*E*)-Farnesol | 0.04 | Sesquiterpenic alcohol |
| (2*E*,6*E*)-Farnesol | 0.04 | Sesquiterpenic alcohol |
| Drimenol | 0.03 | Sesquiterpenic alcohol |
| Unknown | 0.06 | Oxygenated sesquiterpene |
| Unknown | 0.07 | Oxygenated sesquiterpene |
| Neophytadiene | 0.03 | Diterpene |
| Phytone | 0.09 | Terpenic ketone |
| *meta*-Camphorene | 0.01 | Diterpene |
| **Consolidated total** | **97.35** | |

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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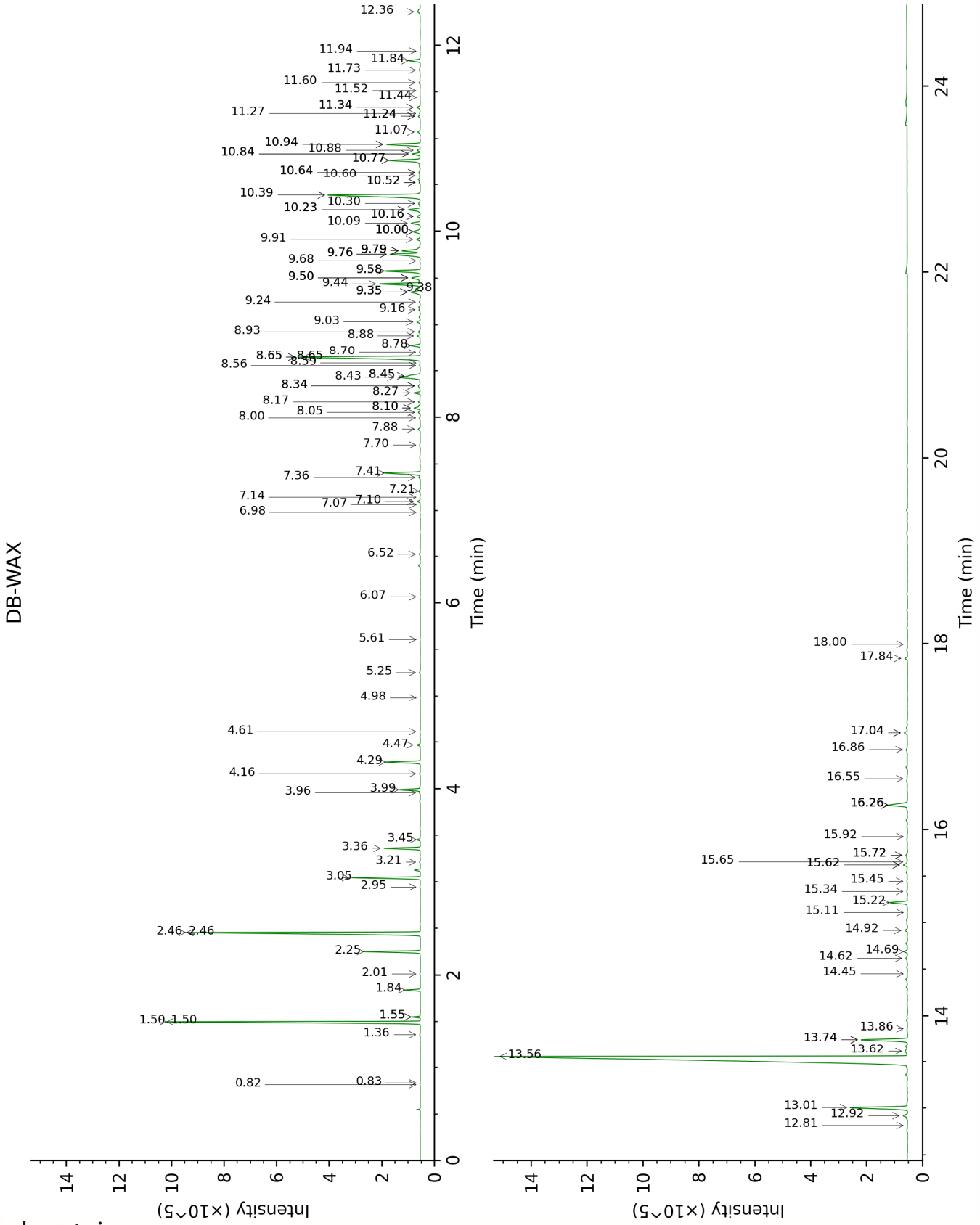
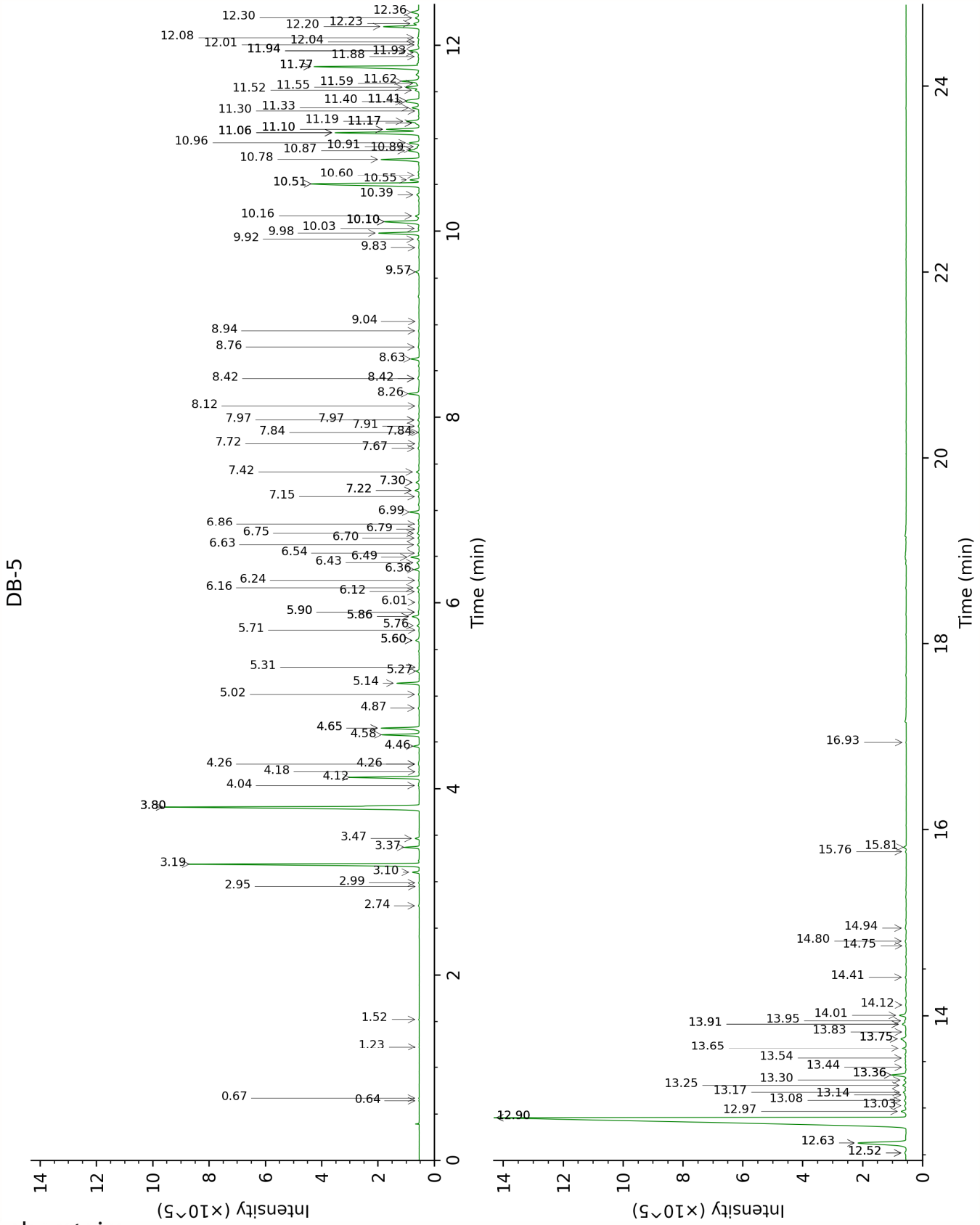

DB-WAX
Time (min)
Intensity (×10^5)
12.36
11.94
11.84
11.73
11.60
11.52
11.44
11.34
11.27
11.24
11.07
10.94
10.88
10.84
10.77
10.64
10.60
10.52
10.39
10.30
10.23
10.16
10.09
10.00
9.91
9.79
9.76
9.68
9.58
9.50
9.44
9.35
9.28
9.24
9.16
9.03
8.93
8.88
8.78
8.70
8.65
8.65
8.59
8.56
8.45
8.43
8.34
8.27
8.17
8.10
8.05
8.00
7.88
7.70
7.41
7.36
7.21
7.14
7.10
7.07
6.98
6.52
6.07
5.61
5.25
4.98
4.61
4.47
4.29
4.16
3.99
3.96
3.45
3.36
3.21
3.05
2.95
2.46
2.46
2.25
2.01
1.84
1.55
1.50
1.50
1.36
0.83
0.82
18.00
17.84
17.04
16.86
16.55
16.26
15.92
15.72
15.65
15.62
15.45
15.34
15.22
15.11
14.92
14.69
14.62
14.45
13.86
13.74
13.62
13.56
13.01
12.92
12.81


DB-5
Time (min)
Intensity (×10^5)
12.36
12.30
12.20
12.23
12.08
12.01
12.04
11.94
11.88
11.93
11.77
11.52
11.55
11.59
11.62
11.30
11.33
11.40
11.41
11.06
11.10
11.19
11.17
10.96
10.87
10.91
10.89
10.78
10.51
10.60
10.55
10.39
10.16
10.10
9.92
9.98
10.03
9.83
9.57
9.04
8.94
8.76
8.63
8.42
8.42
8.26
8.12
7.97
7.97
7.91
7.84
7.84
7.72
7.67
7.42
7.30
7.15
7.22
6.99
6.86
6.75
6.79
6.70
6.63
6.54
6.43
6.49
6.36
6.24
6.16
6.12
6.01
5.90
5.86
5.76
5.71
5.60
5.31
5.27
5.14
5.02
4.87
4.65
4.58
4.46
4.26
4.18
4.26
4.12
4.04
3.80
3.47
3.37
3.19
3.10
2.95
2.99
2.74
1.52
1.23
0.67
0.64
16.93
15.76
15.81
14.94
14.80
14.75
14.41
14.12
13.91
13.95
14.01
13.83
13.75
13.65
13.54
13.44
13.36
13.25
13.30
13.17
13.14
13.08
13.03
12.97
12.90
12.63
12.52

*FULL ANALYSIS DATA*

| Isovaleral | Column DB-WAX | | | Column DB-5 | | |
|---|---|---|---|---|---|---|
| | 0.84 | 886.3 | tr | 0.64 | 641.3 | 0.01 |
| 2-Methylbutyral | 0.82 | 879.9 | 0.01 | 0.67 | 650.8 | 0.01 |
| Toluene | 1.55* | 1001.2 | [0.19] | 1.23 | 759.2 | tr |
| Hexanal | 2.01 | 1044.7 | 0.01 | 1.52 | 800.2 | 0.01 |
| Heptanal | 3.21 | 1146.5 | 0.02 | 2.74 | 902.2 | 0.02 |
| Hashishene | 1.50* | 994.3 | [7.51] | 2.95 | 916.3 | tr |
| Tricyclene | 1.36 | 973.4 | 0.01 | 2.99 | 919.0 | 0.02 |
| α-Thujene | 1.55* | 1001.2 | [0.19] | 3.10 | 926.5 | 0.19 |
| α-Pinene | 1.50* | 994.3 | [7.51] | 3.19 | 932.2 | 7.50 |
| Camphene | 1.84 | 1028.5 | 0.41 | 3.37 | 944.1 | 0.41 |
| Thuja-2,4(10)-diene | 2.46* | 1086.8 | [9.13] | 3.47 | 950.3 | 0.11 |
| β-Pinene | 2.25 | 1067.5 | 1.67 | 3.80* | 972.5 | [10.67] |
| Sabinene | 2.46* | 1086.8 | [9.13] | 3.80* | 972.5 | [10.67] |
| 6-Methyl-5-hepten-2-one | 5.25 | 1294.9 | 0.03 | 4.04 | 987.7 | 0.03 |
| Myrcene | 3.05 | 1133.8 | 2.09 | 4.12 | 993.5 | 2.10 |
| 6-Methyl-5-hepten-2-ol | 7.14 | 1432.5 | 0.02 | 4.18 | 997.4 | 0.01 |
| α-Phellandrene | 2.95 | 1126.2 | 0.01 | 4.26* | 1002.8 | [0.05] |
| Octanal | 4.61 | 1249.3 | 0.02 | 4.26* | 1002.8 | [0.05] |
| α-Terpinene | | | | 4.46 | 1014.9 | 0.17 |
| *para*-Cymene | 4.29 | 1226.1 | 1.15 | 4.58 | 1022.6 | 1.15 |
| Limonene | 3.36 | 1157.7 | 1.14 | 4.65* | 1027.1 | [1.24] |
| β-Phellandrene | 3.45 | 1164.7 | 0.11 | 4.65* | 1027.1 | [1.24] |
| (*Z*)-β-Ocimene | 3.96 | 1202.7 | 0.03 | 4.87 | 1040.4 | 0.03 |
| (*E*)-β-Ocimene | 4.16 | 1217.2 | 0.03 | 5.02 | 1050.1 | 0.03 |
| γ-Terpinene | 3.99 | 1205.0 | 0.70 | 5.14 | 1057.7 | 0.70 |
| *cis*-Sabinene hydrate | 7.10 | 1429.3 | 0.11 | 5.27 | 1065.8 | 0.10 |
| Unknown PIMA I [m/z 79, 93 (60), 43 (40), 94 (35), 137 (33), 77 (26), 91 (20), 152 (18)] | 4.98 | 1275.6 | 0.01 | 5.31 | 1068.4 | 0.01 |
| *trans*-Linalool oxide (fur.) | 7.06 | 1426.7 | 0.01 | 5.60* | 1086.3 | [0.15] |
| Terpinolene | 4.47 | 1239.1 | 0.10 | 5.60* | 1086.3 | [0.15] |
| *para*-Cymenene | 6.52 | 1387.1 | 0.04 | 5.60* | 1086.3 | [0.15] |
| α-Pinene oxide | 5.61 | 1321.8 | 0.01 | 5.71 | 1093.3 | 0.02 |
| *trans*-Sabinene hydrate | 8.17 | 1508.6 | 0.07 | 5.76 | 1096.3 | 0.07 |
| Hotrienol | 9.03 | 1575.3 | 0.14 | 5.86* | 1102.3 | [0.31] |
| Linalool | 8.26 | 1516.1 | 0.22 | 5.86* | 1102.3 | [0.31] |

| | | | | | | |
|---|---|---|---|---|---|---|
| Unknown ORMA I [m/z 119, 109 (94), 43 (61), 95 (56), 91 (48), 77 (32), 152 (32), 137 (31), 134 (24)] | 8.70 | 1549.7 | 0.04 | 5.90* | 1105.3 | [0.05] |
| Nonanal | 6.07 | 1354.6 | 0.01 | 5.90* | 1105.3 | [0.05] |
| endo-Fenchol | 8.59 | 1540.9 | 0.02 | 6.01 | 1112.0 | 0.02 |
| *cis-para*-Menth-2-en-1-ol | 8.34* | 1521.9 | [0.15] | 6.12 | 1119.4 | 0.04 |
| α-Campholenal | 7.21 | 1437.5 | 0.06 | 6.16 | 1121.9 | 0.07 |
| Limona ketone | 8.05 | 1499.9 | 0.08 | 6.24 | 1127.0 | 0.02 |
| *trans*-Pinocarveol | 9.38 | 1602.6 | 0.18 | 6.36 | 1134.5 | 0.16 |
| *cis*-Verbenol | 9.50* | 1612.2 | [0.41] | 6.43 | 1139.1 | 0.10 |
| *trans*-Verbenol | 9.76* | 1632.6 | [1.42] | 6.49 | 1142.9 | 0.28 |
| *meta*-Mentha-4,6-dien-8-ol | 9.50* | 1612.2 | [0.41] | 6.54 | 1145.7 | 0.04 |
| Sabinaketone | 8.93 | 1567.1 | 0.09 | 6.63 | 1151.4 | 0.06 |
| Pinocarvone | 8.10* | 1503.6 | [0.31] | 6.70 | 1156.0 | 0.04 |
| (2*E*)-Nonenal | 7.88 | 1486.6 | 0.09 | 6.75 | 1159.3 | 0.08 |
| Borneol | 10.00* | 1652.1 | [0.40] | 6.79 | 1162.0 | 0.01 |
| Unknown AFGI I [m/z 109, 79 (18), 81 (15), 91 (12), 77 (10)... 152 (3)] | | | | 6.86 | 1166.0 | 0.03 |
| Terpinen-4-ol | 8.78 | 1555.8 | 0.35 | 6.99 | 1174.3 | 0.34 |
| *para*-Cymen-8-ol | 11.74 | 1796.7 | 0.05 | 7.15 | 1184.9 | 0.03 |
| Myrtenal | 8.88 | 1563.7 | 0.13 | 7.22* | 1189.1 | [0.15] |
| α-Terpineol | 10.00* | 1652.1 | [0.40] | 7.22* | 1189.1 | [0.15] |
| Myrtenol | 11.07 | 1740.7 | 0.11 | 7.30* | 1194.6 | [0.13] |
| *para*-Mentha-1,5-dien-7-ol | 11.24* | 1755.1 | [0.09] | 7.30* | 1194.6 | [0.13] |
| Verbenone | 9.79* | 1635.6 | [0.86] | 7.42 | 1201.7 | 0.11 |
| *trans*-Carveol | 11.60 | 1785.4 | 0.05 | 7.67 | 1218.6 | 0.05 |
| Unknown DACA VI [m/z 119, 43 (52), 59 (45), 91 (36), 79 (24), 134 (23)...] | 11.24* | 1755.1 | [0.09] | 7.72 | 1221.9 | 0.01 |
| Nerol | 11.27 | 1757.5 | 0.03 | 7.84* | 1229.9 | [0.02] |
| *cis*-Carveol | 11.94 | 1814.8 | 0.01 | 7.84* | 1229.9 | [0.02] |
| Cuminal | 10.77* | 1715.1 | [1.31] | 7.91 | 1234.4 | 0.04 |
| Neral | 9.68 | 1626.9 | 0.02 | 7.97* | 1238.8 | [0.06] |
| Carvone | 10.23* | 1671.0 | [0.54] | 7.97* | 1238.8 | [0.06] |
| Unknown BODA V [m/z 109, 119 (84), | 11.52 | 1778.2 | 0.03 | 8.12 | 1248.9 | 0.03 |

| | | | | | | |
|---|---|---|---|---|---|---|
| 91 (81), 134 (55)... 137 (27)...] | | | | | | |
| Geraniol | 11.84 | 1805.8 | 0.45 | 8.26 | 1257.7 | 0.40 |
| Phellandral | 10.16* | 1665.3 | [0.15] | 8.42* | 1268.6 | [0.07] |
| Geranial | 10.30 | 1676.3 | 0.12 | 8.42* | 1268.6 | [0.07] |
| Bornyl acetate | 8.45* | 1530.0 | [0.39] | 8.63 | 1282.7 | 0.29 |
| Cuminol | 14.45 | 2044.4 | 0.02 | 8.76 | 1291.7 | 0.07 |
| Unknown DACA VII [m/z 109, 43 (84), 134 (43), 41 (28), 151 (26), 91 (24)...] | 9.58* | 1618.2 | [1.45] | 8.94 | 1303.3 | 0.03 |
| 4-Vinylguaiacol | 15.34 | 2130.6 | 0.04 | 9.04 | 1310.2 | 0.01 |
| α-Cubebene | 6.98 | 1420.6 | 0.02 | 9.57* | 1347.6 | [0.15] |
| α-Terpinyl acetate | 9.92 | 1645.4 | 0.17 | 9.57* | 1347.6 | [0.15] |
| Neryl acetate | 10.39* | 1683.6 | [4.48] | 9.83 | 1365.8 | 0.02 |
| α-Copaene | 7.36 | 1448.2 | 0.05 | 9.92 | 1372.2 | 0.07 |
| Daucene | 7.40 | 1451.8 | 1.42 | 9.98 | 1376.8 | 1.47 |
| β-Bourbonene | 7.70 | 1473.9 | 0.04 | 10.03 | 1380.3 | 0.05 |
| β-Cubebene | 8.00 | 1495.5 | 0.05 | 10.10* | 1385.4 | [1.45] |
| Geranyl acetate | 10.77* | 1715.1 | [1.31] | 10.10* | 1385.4 | [1.45] |
| Unknown DACA I [m/z 161, 91 (40), 105 (38), 79 (31), 93 (29), 119 (29)... 204 (1)] | 8.10* | 1503.6 | [0.31] | 10.10* | 1385.4 | [1.45] |
| β-Elemene | 8.65* | 1545.7 | [5.81] | 10.16 | 1389.7 | 0.14 |
| Sesquithujene | 8.34* | 1521.9 | [0.15] | 10.39 | 1405.7 | 0.10 |
| β-Caryophyllene | 8.65* | 1545.7 | [5.81] | 10.51* | 1414.4 | [5.15] |
| *cis*-α-Bergamotene | 8.43 | 1529.0 | 1.01 | 10.51* | 1414.4 | [5.15] |
| α-Santalene | 8.45* | 1530.0 | [0.39] | 10.55 | 1417.5 | 0.31 |
| β-Copaene | 8.56 | 1538.7 | 0.03 | 10.60 | 1421.5 | 0.04 |
| *trans*-α-Bergamotene | 8.65* | 1545.7 | [5.81] | 10.78 | 1434.4 | 1.38 |
| Sesquisabinene A | 9.35* | 1600.0 | [0.48] | 10.87 | 1441.4 | 0.45 |
| α-Himachalene | 9.16 | 1585.2 | 0.07 | 10.89 | 1442.5 | 0.11 |
| 9-epi-Isocaryophyllene | 9.24 | 1591.6 | 0.04 | 10.92 | 1444.6 | 0.06 |
| α-Humulene | 9.50* | 1612.2 | [0.41] | 10.96 | 1447.7 | 0.36 |
| Unknown DACA VIII [m/z 109, 124 (27), 79 (10), 91 (10), 145 (10)... 204? (1)] | 10.94* | 1729.5 | [1.35] | 11.06* | 1455.8 | [3.15] |
| Acora-3,10(14)-diene | 9.44 | 1607.0 | 1.64 | 11.06* | 1455.8 | [3.15] |
| Sesquisabinene B | 9.58* | 1618.2 | [1.45] | 11.06* | 1455.8 | [3.15] |

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|---|---|---|---|---|---|---|
| β-Santalene | 9.35* | 1600.0 | [0.48] | 11.10* | 1458.4 | [1.15] |
| (*E*)-β-Farnesene | 9.76* | 1632.6 | [1.42] | 11.10* | 1458.4 | [1.15] |
| Dauca-5,8-diene? | 9.35* | 1600.0 | [0.48] | 11.17* | 1463.4 | [0.09] |
| γ-Decalactone | 14.69 | 2067.3 | 0.16 | 11.17* | 1463.4 | [0.09] |
| Unknown DACA II [m/z 161, 91 (57), 120 (46), 105 (42), 133 (25), 119 (22), 41 (21), 204 (21)] | 9.79* | 1635.6 | [0.86] | 11.19 | 1464.8 | 0.50 |
| γ-Muurolene | 9.79* | 1635.6 | [0.86] | 11.30 | 1473.1 | 0.03 |
| Germacrene D | 10.00* | 1652.1 | [0.40] | 11.33 | 1475.7 | 0.27 |
| β-Selinene | 10.09 | 1659.4 | 0.39 | 11.40*† | 1480.6 | [0.48] |
| ar-Curcumene | 10.84* | 1720.9 | [0.33] | 11.41*† | 1481.1 | [0.37] |
| *trans*-β-Bergamotene | 9.79* | 1635.6 | [0.86] | 11.41*† | 1481.1 | [0.37] |
| α-Selinene | 10.16* | 1665.3 | [0.15] | 11.52 | 1489.7 | 0.14 |
| Isodaucene | 10.23* | 1671.0 | [0.54] | 11.55 | 1492.1 | 0.51 |
| Unknown DACA III [m/z 124, 134 (62), 43 (55), 119 (52), 71 (49), 41 (45), 109 (38), 121 (37)... 220 (14)] | 11.34* | 1763.1 | [0.15] | 11.59 | 1495.1 | 0.07 |
| Methyl (*E*)-isoeugenol | 15.22 | 2118.7 | 0.68 | 11.62 | 1496.9 | 0.71 |
| β-Bisabolene | 10.39* | 1683.6 | [4.48] | 11.77* | 1508.7 | [4.36] |
| γ-Cadinene | 10.60 | 1700.9 | 0.05 | 11.77* | 1508.7 | [4.36] |
| Sesquicineole | 10.52* | 1694.5 | [0.05] | 11.88 | 1517.1 | 0.05 |
| δ-Cadinene | 10.64* | 1703.9 | [0.07] | 11.92 | 1520.5 | 0.05 |
| Myristicin | 15.92 | 2189.3 | 0.01 | 11.94* | 1522.0 | [0.37] |
| *trans*-Calamenene | 11.44 | 1772.1 | 0.01 | 11.94* | 1522.0 | [0.37] |
| β-Sesquiphellandrene | 10.84* | 1720.9 | [0.33] | 11.94* | 1522.0 | [0.37] |
| *trans*-Cadina-1,4-diene | 10.88 | 1724.2 | 0.13 | 12.01 | 1526.9 | 0.06 |
| (*E*)-γ-Bisabolene | 10.64* | 1703.9 | [0.07] | 12.04 | 1529.4 | 0.04 |
| Dauca-4(11),8-diene | 10.52* | 1694.5 | [0.05] | 12.08 | 1532.9 | 0.06 |
| (*E*)-α-Bisabolene | 10.94* | 1729.5 | [1.35] | 12.20 | 1542.3 | 1.30 |
| Isocaryophyllene epoxide B | 12.36 | 1852.1 | 0.20 | 12.24 | 1544.8 | 0.20 |
| Germacrene B | 11.34* | 1763.1 | [0.15] | 12.30 | 1549.7 | 0.16 |
| Unknown DACA V [m/z 135, 107 (92), 159 (89), 121 (84), | 13.74* | 1977.2 | [1.85] | 12.36 | 1554.4 | 0.35 |

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|---|---|---|---|---|---|---|
| 177 (80), 91 (79)... 220 (16)] | | | | | | |
| Germacrene D-4-ol | 13.86 | 1988.1 | 0.02 | 12.52* | 1567.2 | [0.09] |
| Spathulenol | 14.62 | 2060.2 | 0.12 | 12.52* | 1567.2 | [0.09] |
| Caryophyllene oxide isomer | 12.92 | 1901.5 | 0.19 | 12.63* | 1575.6 | [2.69] |
| Caryophyllene oxide | 13.01 | 1909.6 | 2.42 | 12.63* | 1575.6 | [2.69] |
| Carotol | 13.56 | 1960.0 | 36.39 | 12.90* | 1596.8 | [37.85] |
| *trans*-Dauc-8-en-4β-ol | 13.74* | 1977.2 | [1.85] | 12.90* | 1596.8 | [37.85] |
| Humulene epoxide II | 13.62 | 1965.5 | 0.18 | 12.97 | 1602.2 | 0.21 |
| Unknown DACA XI [m/z 177, 159 (59), 137 (45), 109 (41), 93 (41)...222(2)] | | | | 13.03 | 1607.1 | 0.10 |
| Unknown DACA XIII [m/z 107, 105 (93), 119 (87), 132 (85), 43 (66), 91 (61)...218(35)] | | | | 13.08 | 1611.8 | 0.11 |
| Unknown DACA XII [m/z 159, 177 (50), 93 (44), 91 (39), 105 (31), 135 (29)...222(9)] | | | | 13.14 | 1616.6 | 0.05 |
| Muurola-4,10(14)-dien-1β-ol? | 13.74* | 1977.2 | [1.85] | 13.17 | 1619.0 | 0.12 |
| Caryophylladienol I | 16.26* | 2224.3 | [0.99] | 13.25 | 1625.2 | 0.16 |
| Caryophylladienol II | 16.26* | 2224.3 | [0.99] | 13.30 | 1629.8 | 0.09 |
| τ-Cadinol | 15.11 | 2107.8 | 0.02 | 13.36* | 1634.4 | [0.60] |
| Daucol | 16.26* | 2224.3 | [0.99] | 13.36* | 1634.4 | [0.60] |
| α-Muurolol | 15.44 | 2141.5 | 0.04 | 13.44 | 1641.2 | 0.04 |
| α-Cadinol | 15.72* | 2169.4 | [0.12] | 13.54 | 1649.4 | 0.05 |
| Unknown DACA XIV [m/z 59, 95 (61), 149 (33), 81 (31), 107 (29), 108 (26)...222(1)] | 15.62* | 2158.9 | [0.20] | 13.65 | 1658.4 | 0.17 |
| Unknown FEGA IV [m/z 122, 41 (59), 79 (58), 123 (54), 107 (53), 121 (47)... 206 (13)] | 15.72* | 2169.4 | [0.12] | 13.75* | 1666.9 | [0.33] |

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|---|---|---|---|---|---|---|
| (3*Z*)-Caryophylla-3,8(13)-dien-5β-ol | 17.04* | 2305.1 | [0.15] | 13.75* | 1666.9 | [0.33] |
| α-Asarone | 17.84 | 2392.0 | 0.11 | 13.83 | 1673.1 | 0.05 |
| Shyobunol | 16.54 | 2253.6 | 0.02 | 13.91* | 1679.9 | [0.21] |
| Apiole | 18.00 | 2409.0 | 0.02 | 13.91* | 1679.9 | [0.21] |
| α-Bisabolol | 15.62* | 2158.9 | [0.20] | 13.95 | 1683.0 | 0.07 |
| Juniper camphor | 16.26* | 2224.3 | [0.99] | 14.01 | 1687.8 | 0.30 |
| (2*Z*,6*E*)-Farnesol | 16.86 | 2286.0 | 0.11 | 14.12 | 1697.0 | 0.04 |
| (2*E*,6*E*)-Farnesol | 17.04* | 2305.1 | [0.15] | 14.42 | 1722.4 | 0.04 |
| Drimenol | | | | 14.75 | 1751.6 | 0.03 |
| Unknown DACA XXIII [m/z 110, 123 (50), 95 (31), 111 (31), 109 (24)... 236 (t)] | | | | 14.80 | 1756.0 | 0.06 |
| Unknown DACA XXIV [m/z 139, 159 (31), 43 (20), 82 (15), 97 (13)... 236 (4)] | | | | 14.94 | 1768.1 | 0.07 |
| Neophytadiene | 12.82 | 1891.9 | 0.02 | 15.76 | 1840.9 | 0.03 |
| Phytone | 14.92 | 2089.0 | 0.10 | 15.81 | 1845.2 | 0.09 |
| *meta*-Camphorene | 15.65 | 2162.3 | 0.02 | 16.93 | 1949.3 | 0.01 |
| Total reported | | 96.45% | | | 97.47% | |

*: 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