Date : July 14, 2021

Certificate of Analysis – GC Profiling

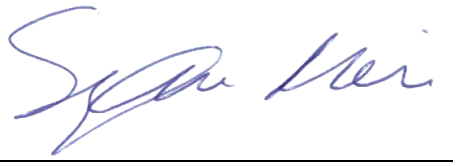
Sample identification

Internal code : 21G02-PTH09
Customer identification : Blue Tansy - Morocco - B50109208R
Type : Essential oil
Source : *Tanacetum annuum*
Customer : Plant Therapy

Analysis

Method: PC-MAT-014 ISO - Analysis of the composition of an essential oil or other volatile liquid by FAST GC-FID (in French); identifications validated by GC-MS.
Analyst : Sylvain Mercier, M. Sc., Chimiste 2014-005
Analysis date : July 12, 2021

Checked and approved by :



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

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Méthode certifiée ISO 17025:2017 Certified method

Laboratoire PhytoChemia

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PHYSICOCHEMICAL DATA

Physical aspect: Dark blue liquid
Refractive index: 1.5013 ± 0.0003 (20 °C; method PC-MAT-016)

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
2-Ethylfuran	tr	Furan
2-Methylbutanol	tr	Aliphatic alcohol
Ethyl isobutyrate	tr	Aliphatic ester
Toluene	tr	Simple phenolic
Methyl 2-methylbutyrate	tr	Aliphatic ester
Unknown	tr	Unknown
Unknown	0.01	Unknown
Hexanal	0.01	Aliphatic aldehyde
Ethyl 2-methylbutyrate	0.07	Aliphatic ester
Ethyl isovalerate	0.02	Aliphatic ester
Propyl isobutyrate	0.01	Aliphatic ester
Hexanol	0.01	Aliphatic alcohol
Nonane	tr	Alkane
Hashishene	0.01	Monoterpene
Tricyclene	0.06	Monoterpene
α-Thujene	0.27	Monoterpene
Ethyl tiglate?	0.03	Aliphatic ester
α-Pinene	2.79	Monoterpene
α-Fenchene	0.01	Monoterpene
Camphene	1.06	Monoterpene
Propyl 2-methylbutyrate	0.07	Aliphatic ester
Thuja-2,4(10)-diene	0.02	Monoterpene
Sabinene	14.01	Monoterpene
β-Pinene	6.49	Monoterpene
6-Methyl-5-hepten-2-one	0.05	Aliphatic ketone
Myrcene	6.92	Monoterpene
2-Pentylfuran	0.02	Furan
Octanal	0.05	Aliphatic aldehyde
α-Phellandrene	5.20	Monoterpene
Pseudolimonene	0.01	Monoterpene
Δ3-Carene	0.02	Monoterpene
α-Terpinene	0.66	Monoterpene
Isoamyl isobutyrate	0.01	Aliphatic ester
para-Cymene	5.33	Monoterpene
Limonene	2.42	Monoterpene
β-Phellandrene	0.34	Monoterpene
1,8-Cineole	0.26	Monoterpenic ether
(*Z*)-β-Ocimene	0.03	Monoterpene
Butyl 2-methylbutyrate	0.03	Aliphatic ester
(*E*)-β-Ocimene	0.02	Monoterpene
Butyl isovalerate	0.02	Aliphatic ester
γ-Terpinene	1.15	Monoterpene
Prenyl isobutyrate	0.02	Aliphatic ester

cis-Sabinene hydrate	0.09	Monoterpenic alcohol
Octanol	0.06	Aliphatic alcohol
para-Cymenene	0.04	Monoterpene
Terpinolene	0.42	Monoterpene
6,7-Epoxymyrcene	0.31	Monoterpenic ether
trans-Sabinene hydrate	0.09	Monoterpenic alcohol
Linalool	0.10	Monoterpenic alcohol
Nonanal	0.03	Aliphatic aldehyde
Isoamyl isovalerate	0.02	Aliphatic ester
2-Methylbutyl 2-methylbutyrate	0.14	Aliphatic ester
Unknown	0.25	Unknown
cis-para-Menth-2-en-1-ol	0.07	Monoterpenic alcohol
α-Campholenal	0.08	Monoterpenic aldehyde
Limona ketone	0.30	Normonoterpenic ketone
trans-Pinocarveol	0.02	Monoterpenic alcohol
Camphor	12.51	Monoterpenic ketone
α,4-Dimethyl-3-cyclohexene-1-methanol	0.14	Normonoterpenic alcohol
Sabinaketone	0.08	Normonoterpenic ketone
Citronellal	0.01	Monoterpenic aldehyde
Pinocarvone	0.04	Monoterpenic ketone
Borneol	1.70	Monoterpenic alcohol
Unknown	0.06	Oxygenated monoterpene
Unknown	0.10	Oxygenated monoterpene
Terpinen-4-ol	1.23	Monoterpenic alcohol
Unknown	0.11	Unknown
para-Cymen-8-ol	0.05	Monoterpenic alcohol
Myrtenal	0.12	Monoterpenic aldehyde
α-Terpineol	0.13	Monoterpenic alcohol
Myrtenol	0.13	Monoterpenic alcohol
cis-α-Phellandrene epoxide (IPP vs Me)	0.13	Monoterpenic ether
trans-Piperitol	0.02	Monoterpenic alcohol
Decanal	0.09	Aliphatic aldehyde
trans-Carveol	0.02	Monoterpenic alcohol
Unknown	0.07	Oxygenated monoterpene
(3*Z*)-Hexenyl 2-methylbutyrate	0.01	Aliphatic ester
trans-α-Phellandrene epoxide (IPP vs Me)	0.12	Monoterpenic ether
Cuminal	0.02	Monoterpenic aldehyde
Hexyl 2-methylbutyrate	0.03	Aliphatic ester
Carvotanacetone	0.05	Monoterpenic ketone
Piperitone	0.07	Monoterpenic ketone
Geranial	0.07	Monoterpenic aldehyde
α-Terpinen-7-al	0.06	Monoterpenic aldehyde
Anthemol?	0.05	Monoterpenic alcohol
Bornyl acetate	0.02	Monoterpenic ester
Cuminol	0.06	Monoterpenic alcohol
Thymol	0.77	Monoterpenic alcohol
4-Methylhexyl 2-methylbutyrate	0.05	Aliphatic ester
Carvacrol	0.12	Monoterpenic alcohol
6-Hydroxycarvotanacetone	0.02	Monoterpenic alcohol
para-Menth-5-en-1,2-diol isomer III	0.02	Monoterpenic alcohol
1,4-para-Menthadien-7-ol	0.06	Monoterpenic alcohol
α-Cubebene	0.01	Sesquiterpene

α-Copaene	0.06	Sesquiterpene
Modhephene	0.02	Sesquiterpene
(*E*)-β-Damascenone	0.06	Ionone or analog
7-epi-Sesquithujene?	0.02	Sesquiterpene
β-Elemene	0.28	Sesquiterpene
Benzyl isovalerate	0.03	Phenolic ester
β-Caryophyllene	1.55	Sesquiterpene
β-Copaene	0.01	Sesquiterpene
Octyl 2-methylbutyrate	0.11	Aliphatic ester
trans-α-Bergamotene	0.13	Sesquiterpene
Sesquisabinene A	1.43	Sesquiterpene
α-Humulene	0.19	Sesquiterpene
(*E*)-β-Farnesene	0.11	Sesquiterpene
4,5-diepi-Aristolochene	0.12	Sesquiterpene
Dehydrosesquicineole	0.07	Sesquiterpenic ether
γ-Muurolene	0.07	Sesquiterpene
Germacrene D	1.13	Sesquiterpene
γ-Curcumene	0.14	Sesquiterpene
β-Selinene	0.34	Sesquiterpene
ar-Curcumene	0.10	Sesquiterpene
Phenylethyl isovalerate	0.05	Phenolic ester
Bicyclogermacrene	0.19	Sesquiterpene
Phenylethyl 2-methylbutyrate	0.01	Phenolic ester
δ-Guaiene	0.07	Sesquiterpene
β-Curcumene	0.02	Sesquiterpene
3,6-Dihydrochamazulene	3.94	Azulene
γ-Cadinene	0.11	Sesquiterpene
Dihydrochamazulene isomer I	0.89	Azulene
δ-Cadinene	0.13	Sesquiterpene
Dihydrochamazulene isomer II	tr	Azulene
β-Sesquiphellandrene	0.56	Sesquiterpene
Dihydrochamazulene isomer III	0.06	Azulene
Phenylethyl angelate?	0.06	Phenolic ester
Isocaryophyllene epoxide B	0.03	Sesquiterpenic ether
α-Elemol	0.06	Sesquiterpenic alcohol
(*E*)-Nerolidol	0.05	Sesquiterpenic alcohol
Spathulenol	0.07	Sesquiterpenic alcohol
Caryophyllene oxide	0.30	Sesquiterpenic ether
Caryophyllene oxide isomer	0.03	Sesquiterpenic ether
10-epi-Junenol	0.01	Sesquiterpenic alcohol
Humulene epoxide II	0.03	Sesquiterpenic ether
5,6-Dihydrochamazulene	0.85	Azulene
Junenol	0.02	Sesquiterpenic alcohol
Unknown	0.05	Sesquiterpene
7,12-Dehydro-5,6,7,8-tetrahydrochamazulene	1.57	Azulene
γ-Eudesmol	0.17	Sesquiterpenic alcohol
Eremoligenol	0.04	Sesquiterpenic alcohol
τ-Cadinol	0.03	Sesquiterpenic alcohol
β-Eudesmol	0.66	Sesquiterpenic alcohol
Dihydrochamazulene isomer IV	1.27	Azulene
α-Eudesmol	0.02	Sesquiterpenic alcohol
(3*E*,5*E*)-7-Hydroxyfarnesene	0.07	Sesquiterpenic alcohol

Unknown	0.13	Azulene
Chamazulene	7.18	Azulene
α-Phellandrene dimer II	0.05	Diterpene
Dehydrochamazulene	0.02	Azulene
Phytone	0.06	Terpenic ketone
9-(15,16-Dihydro-15-methyleneneryl)-α-terpinene?	0.13	Homoditerpene
9-(15,16-Dihydro-15-methyleneneryl)-para-cymene?	0.01	Homoditerpene
9-(15,16-Dihydro-15-methylenegeranyl)-para-cymene	0.22	Homoditerpene
9-(15,16-Dihydro-15-methylenegeranyl)-α-terpinene	0.63	Homoditerpene
Unknown	0.19	Unknown
Unknown	0.73	Unknown
Unknown	0.06	Unknown
Unknown	0.03	Unknown
Consolidated total	**94.76%**	

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

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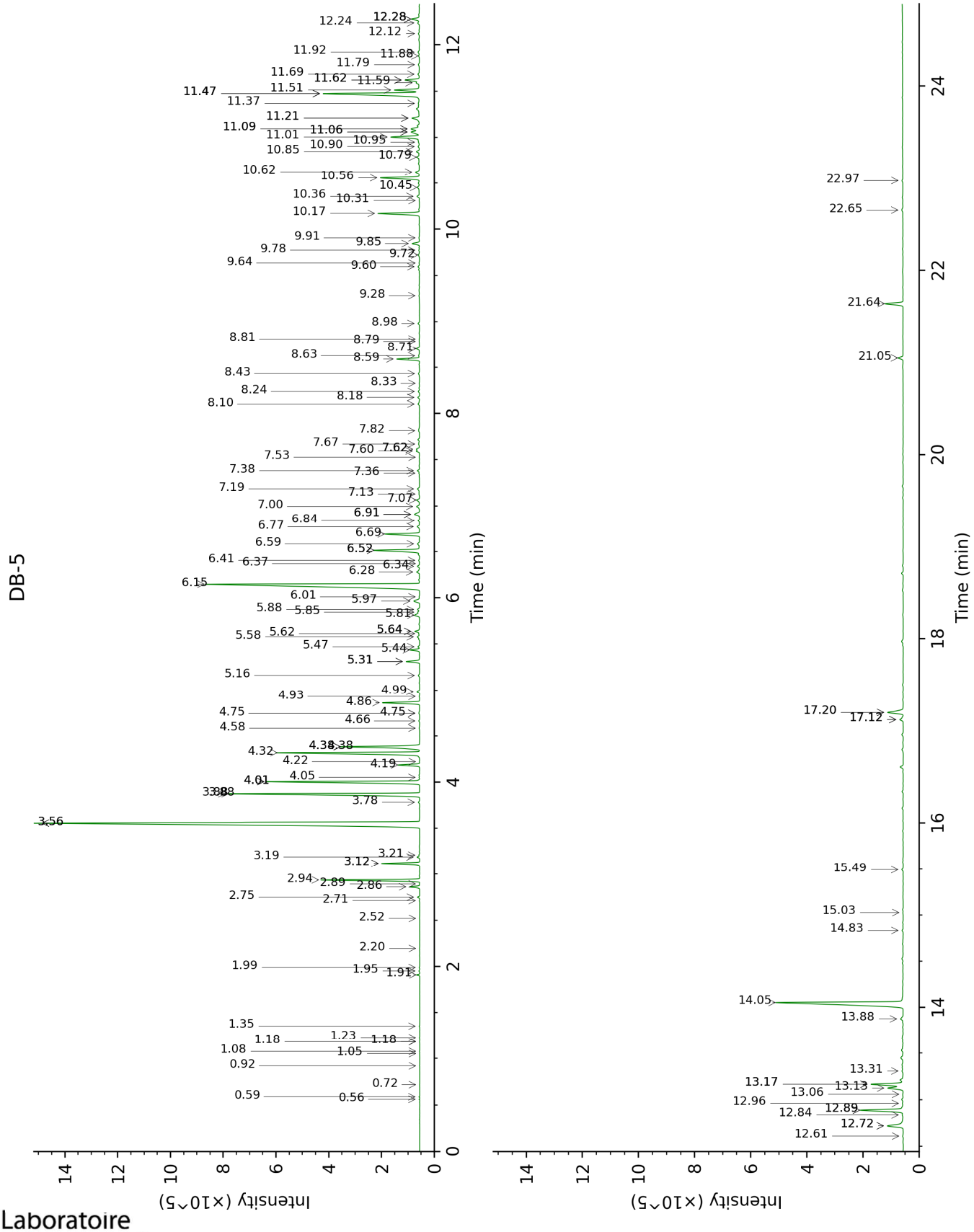
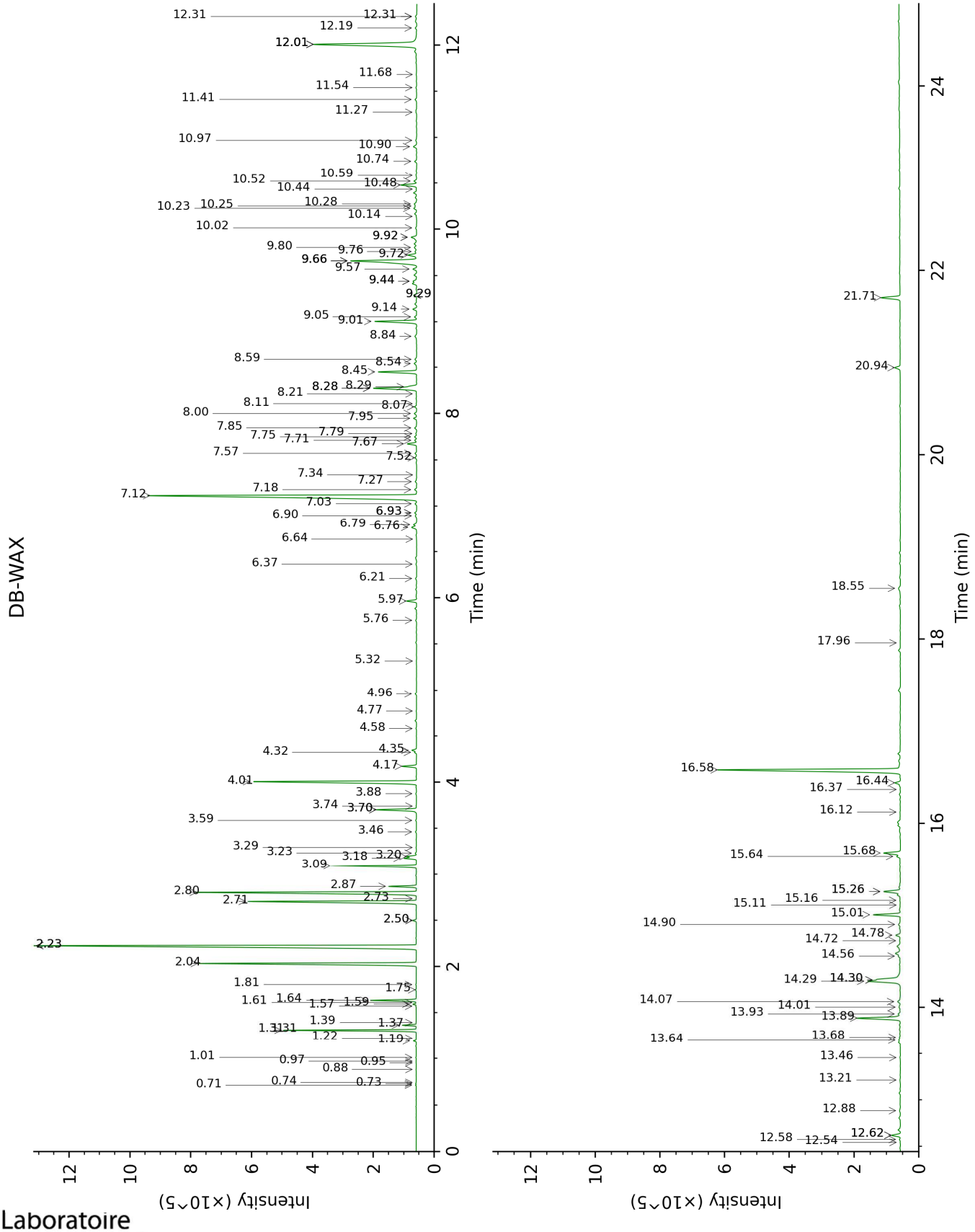

DB-5
Time (min)
Intensity (×10^5)
12.24
12.28
12.12
11.92
11.88
11.79
11.69
11.62
11.59
11.47
11.51
11.37
11.21
11.09
11.06
11.01
10.95
10.90
10.85
10.79
10.62
10.56
10.45
10.36
10.31
10.17
9.91
9.85
9.78
9.72
9.64
9.60
9.28
8.98
8.81
8.79
8.71
8.63
8.59
8.43
8.33
8.24
8.18
8.10
7.82
7.67
7.60
7.62
7.53
7.38
7.36
7.19
7.13
7.07
7.00
6.91
6.84
6.77
6.69
6.59
6.52
6.41
6.37
6.34
6.28
6.15
6.01
5.97
5.88
5.85
5.81
5.58
5.62
5.64
5.47
5.44
5.31
5.16
4.93
4.99
4.86
4.75
4.75
4.66
4.58
4.32
4.38
4.22
4.19
4.05
3.78
3.56
3.19
3.21
3.12
2.94
2.89
2.86
2.75
2.71
2.52
2.20
1.99
1.95
1.91
1.35
1.18
1.23
1.10
1.08
1.05
0.92
0.72
0.59
0.56
22.97
22.65
21.64
21.05
17.20
17.12
15.49
15.03
14.83
14.05
13.88
13.31
13.17
13.13
13.06
12.96
12.84
12.89
12.72
12.61


DB-WAX
Time (min)
Intensity (×10^5)
12.31
12.19
12.01
11.68
11.54
11.41
11.27
10.97
10.90
10.74
10.59
10.52
10.48
10.44
10.28
10.25
10.23
10.14
10.02
9.92
9.80
9.76
9.72
9.66
9.57
9.44
9.29
9.14
9.05
9.01
8.84
8.59
8.54
8.45
8.29
8.28
8.21
8.11
8.07
8.00
7.95
7.85
7.79
7.75
7.71
7.67
7.57
7.52
7.34
7.27
7.18
7.12
7.03
6.93
6.90
6.79
6.76
6.64
6.37
6.21
5.97
5.76
5.32
4.96
4.77
4.58
4.35
4.32
4.17
4.01
3.88
3.74
3.70
3.59
3.46
3.29
3.23
3.20
3.18
3.09
2.87
2.80
2.73
2.71
2.50
2.23
2.04
1.81
1.75
1.64
1.61
1.59
1.57
1.39
1.37
1.31
1.22
1.19
1.01
0.97
0.95
0.88
0.74
0.73
0.71
21.71
20.94
18.55
17.96
16.58
16.44
16.37
16.12
15.68
15.64
15.26
15.16
15.11
15.01
14.90
14.78
14.72
14.56
14.30
14.29
14.07
14.01
13.93
13.89
13.68
13.64
13.46
13.21
12.88
12.62
12.58
12.54

FULL ANALYSIS DATA

Identification	Column DB-5			Column DB-WAX		
	R.T	R.I	%	R.T	R.I	%
Isovaleral	0.56	643	0.01	0.73	887	0.01
2-Methylbutyral	0.59	653	0.01	0.71	881	0.01
2-Ethylfuran	0.72	702	tr	0.88	918	tr
2-Methylbutanol	0.92	734	tr	3.30	1175	0.02
Ethyl isobutyrate	1.05	754	tr	0.97	933	tr
Toluene	1.08	758	tr	1.39	1002	tr
Methyl 2-methylbutyrate	1.18*	774	0.01	1.22	976	tr
Unknown [m/z 73, 41 (54), 87 (50), 56 (47), 54 (29), 55 (25), 100 (23)... 115? (6)]	1.18*	774	[0.01]	0.95	930	tr
Unknown [m/z 73, 87 (52), 41 (45), 56 (42), 100 (29)...]	1.23	781	0.01	1.01	940	0.01
Hexanal	1.36	800	0.01	1.81	1044	0.01
Ethyl 2-methylbutyrate	1.91	850	0.07	1.59	1022	0.07
Ethyl isovalerate	1.95	853	0.02	1.75	1038	0.02
Propyl isobutyrate	1.99	856	0.01	1.61	1024	0.01
Hexanol	2.20	874	0.01	5.32	1323	0.01
Nonane	2.52	902	tr	0.74	892	tr
Hashishene	2.71	916	0.01	1.31*	992	2.79
Tricyclene	2.75	918	0.06	1.19	971	0.06
α-Thujene	2.86†	926	0.31	1.37	999	0.27
Ethyl tiglate?	2.89†	928	[0.31]	3.46	1189	0.03
α-Pinene	2.94	931	2.79	1.31*	992	[2.79]
α-Fenchene	3.12*	943	1.08	1.57	1020	0.01
Camphene	3.12*	943	[1.08]	1.64	1026	1.06
Propyl 2-methylbutyrate	3.19	948	0.07	2.50*	1111	0.09
Thuja-2,4(10)-diene	3.21	950	0.02	2.23*	1087	14.03
Sabinene	3.56*	973	20.53	2.23*	1087	[14.03]
β-Pinene	3.56*	973	[20.53]	2.04	1067	6.49
6-Methyl-5-hepten-2-one	3.78	988	0.05	4.96	1297	0.04
Myrcene	3.88*	994	6.94	2.80	1135	6.92
2-Pentylfuran	3.88*	994	[6.94]	3.59	1199	0.02
Octanal	4.01*	1003	5.27	4.32	1254	0.05
α-Phellandrene	4.01*	1003	[5.27]	2.70	1127	5.20
Pseudolimonene	4.01*	1003	[5.27]	2.74	1130	0.01
Δ3-Carene	4.05	1006	0.02	2.50*	1111	[0.09]
α-Terpinene	4.19	1015	0.66	2.87	1141	0.65
Isoamyl isobutyrate	4.22	1017	0.01	3.23	1170	0.03
para-Cymene	4.32	1023	5.33	4.01	1230	5.31
Limonene	4.38*	1028	3.00	3.09	1159	2.42
β-Phellandrene	4.38*	1028	[3.00]	3.18	1166	0.34
1,8-Cineole	4.38*	1028	[3.00]	3.20	1167	0.26
(*Z*)-β-Ocimene	4.58	1040	0.03	3.70*†	1207	1.20
Butyl 2-methylbutyrate	4.66	1045	0.03	3.74†	1210	[1.20]
(*E*)-β-Ocimene	4.75*	1051	0.04	3.88	1220	0.02

Butyl isovalerate	4.75*	1051	[0.04]			
γ-Terpinene	4.86	1058	1.15	3.70*†	1207	[1.20]
Prenyl isobutyrate	4.93	1062	0.02	4.77	1288	0.01
cis-Sabinene hydrate	4.99	1066	0.09	6.79†	1431	[0.31]
Octanol	5.16	1077	0.06	8.08	1527	0.07
para-Cymenene	5.31*	1087	0.46	6.21	1388	0.04
Terpinolene	5.31*	1087	[0.46]	4.17	1243	0.42
6,7-Epoxymyrcene	5.44†	1095	0.37	5.97	1370	0.31
trans-Sabinene hydrate	5.47†	1097	[0.37]	7.85	1510	0.09
Linalool	5.58	1104	0.10	7.95	1518	0.11
Nonanal	5.62	1106	0.03	5.76	1355	0.04
Isoamyl isovalerate	5.64*	1108	0.18	4.58	1273	0.02
2-Methylbutyl 2-methylbutyrate	5.64*	1108	[0.18]	4.35	1256	0.14
Unknown [m/z 71, 43 (95), 81 (82), 79 (73), 67 (67), 41 (49), 109 (14)...]	5.81	1119	0.25	6.76†	1429	0.31
cis-para-Menth-2-en-1-ol	5.85	1121	0.07	8.00	1522	0.09
α-Campholenal	5.88	1123	0.08	6.90	1438	0.06
Limona ketone	5.97	1129	0.30	7.68	1496	0.31
trans-Pinocarveol	6.01	1132	0.02	9.06	1604	0.08
Camphor	6.15	1141	12.51	7.12	1455	12.62
α,4-Dimethyl-3-cyclohexene-1-methanol	6.28	1149	0.14			
Sabinaketone	6.34	1153	0.08	8.59	1567	0.08
Citronellal	6.37	1155	0.01	6.93*	1441	0.07
Pinocarvone	6.41	1157	0.04	7.78	1505	0.03
Borneol	6.52*	1164	1.77	9.66*	1653	3.22
Unknown [m/z 95, 110 (38), 81 (21), 79 (16)... 152 (7)]	6.52*	1164	[1.77]	7.52	1485	0.06
Unknown [m/z 95, 110 (43), 81 (28), 41 (15)... 152 (8)]	6.59	1169	0.10	7.57	1489	0.06
Terpinen-4-ol	6.69	1176	1.23	8.45	1557	1.24
Unknown [m/z 69, 68 (65), 110 (51), 67 (39), 41 (27), 83 (26)...]	6.77	1181	0.11	7.75	1502	0.08
para-Cymen-8-ol	6.84	1186	0.05	11.41	1799	0.06
Myrtenal	6.91*	1190	0.25	8.54	1564	0.12
α-Terpineol	6.91*	1190	[0.25]	9.66*	1653	[3.22]
Myrtenol	7.00	1196	0.13	10.74	1742	0.07
cis-α-Phellandrene epoxide (IPP vs Me)	7.07	1200	0.13	10.90	1756	0.13
trans-Piperitol	7.13	1205	0.02	10.25	1701	0.05
Decanal	7.19	1208	0.09	7.18	1459	0.07
trans-Carveol	7.36	1220	0.02	11.27	1787	0.02
Unknown [m/z 93, 41 (68), 79 (67), 91 (66), 92 (57), 67 (42), 77 (41)... 150 (12)]	7.38	1222	0.07			

(3*Z*)-Hexenyl 2-methylbutyrate	7.53	1232	0.01	6.93*	1441	[0.07]
trans-α-Phellandrene epoxide (IPP vs Me)	7.60	1236	0.12	12.01*	1852	4.99
Cuminal	7.62*	1238	0.11	10.44	1716	0.02
Hexyl 2-methylbutyrate	7.62*	1238	[0.11]	6.37	1399	0.03
Carvotanacetone	7.67	1241	0.05	9.29*	1623	0.13
Piperitone	7.82	1251	0.07	9.76	1661	0.07
Geranial	8.10	1271	0.07	10.02	1682	0.05
α-Terpinen-7-al	8.18	1276	0.06	10.59	1729	0.04
Anthemol?	8.24	1280	0.05			
Bornyl acetate	8.33	1286	0.02	8.11	1530	0.02
Cuminol	8.43	1294	0.06	14.07	2041	0.14
Thymol	8.59	1304	0.77	15.00	2133	0.85
4-Methylhexyl 2-methylbutyrate	8.63	1307	0.05	7.27	1466	0.06
Carvacrol	8.70	1308	0.12	15.26*	2158	0.64
6-Hydroxycarvotanacetone	8.79	1314	0.02	11.54	1811	0.02
para-Menth-5-en-1,2-diol isomer III	8.81	1316	0.02	15.11	2143	0.01
1,4-para-Menthadien-7-ol	8.98	1328	0.06	13.64	2001	0.05
α-Cubebene	9.28	1350	0.01	6.64	1419	0.01
α-Copaene	9.60	1372	0.06	7.03	1448	0.05
Modhephene	9.64	1375	0.02	7.34	1471	0.01
(*E*)-β-Damascenone	9.72	1381	0.06	10.97	1762	0.04
7-epi-Sesquithujene?	9.78	1385	0.02	7.71	1499	0.07
β-Elemene	9.85	1390	0.28	8.28*†	1543	1.79
Benzyl isovalerate	9.91	1394	0.03	11.68	1823	0.01
β-Caryophyllene	10.17	1413	1.55	8.28*†	1543	[1.79]
β-Copaene	10.31	1424	0.01	8.22	1538	0.03
Octyl 2-methylbutyrate	10.36	1427	0.11	8.84	1587	0.10
trans-α-Bergamotene	10.45	1434	0.13	8.29†	1544	[1.79]
Sesquisabinene A	10.56	1442	1.43	9.01	1600	1.43
α-Humulene	10.62	1447	0.19	9.14	1610	0.14
(*E*)-β-Farnesene	10.79	1460	0.11	9.44*†	1635	0.29
4,5-diepi-Aristolochene	10.85	1464	0.12	9.29*	1623	[0.13]
Dehydrosesquicineole	10.90	1468	0.07	9.92*	1673	0.26
γ-Muurolene	10.95	1472	0.07	9.44*†	1635	[0.29]
Germacrene D	11.01	1476	1.13	9.66*	1653	[3.22]
γ-Curcumene	11.06*	1480	0.44	9.57	1646	0.14
β-Selinene	11.06*	1480	[0.44]	9.72	1658	0.34
ar-Curcumene	11.09*	1482	0.39	10.52	1724	0.10
Phenylethyl isovalerate	11.09*	1482	[0.39]	12.88	1931	0.05
Bicyclogermacrene	11.21*	1491	0.37	9.92*	1673	[0.26]
Phenylethyl 2-methylbutyrate	11.21*	1491	[0.37]	12.62*	1906	0.31
δ-Guaiene	11.37	1503	0.07	9.80	1664	0.11
β-Curcumene	11.48*	1511	4.47	10.14	1692	0.02
3,6-Dihydrochamazulene	11.48*	1511	[4.47]	12.01*	1852	[4.99]
γ-Cadinene	11.48*	1511	[4.47]	10.23	1699	0.11

Dihydrochamazulene isomer I	11.51	1514	0.89	12.01*	1852	[4.99]
δ-Cadinene	11.59	1520	0.13	10.28	1703	0.11
Dihydrochamazulene isomer II	11.62*	1523	0.56	12.31*	1878	0.06
β-Sesquiphellandrene	11.62*	1523	[0.56]	10.48	1720	0.56
Dihydrochamazulene isomer III	11.68	1528	0.06	12.18	1868	0.05
Phenylethyl angelate?	11.79	1536	0.06	14.01	2036	0.07
Isocaryophyllene epoxide B	11.88	1543	0.03	12.01*	1852	[4.99]
α-Elemol	11.92	1547	0.06	13.93	2029	0.08
(*E*)-Nerolidol	12.12	1562	0.05	13.68	2004	0.04
Spathulenol	12.24	1572	0.07	14.30*†	2064	[2.20]
Caryophyllene oxide	12.28*	1575	0.34	12.62*	1906	[0.31]
Caryophyllene oxide isomer	12.28*	1575	[0.34]	12.58	1902	0.03
10-epi-Junenol	12.28*	1575	[0.34]	12.54	1900	0.01
Humulene epoxide II	12.61	1601	0.03	13.21	1961	0.03
5,6-Dihydrochamazulene	12.72*	1610	0.88	14.30*†	2064	[2.20]
Junenol	12.72*	1610	[0.88]	13.46	1983	0.02
Unknown [m/z 145, 173 (83), 159 (57), 174 (47), 129 (47), 115 (44), 128 (43), 91 (43), 157 (36), 202 (30)]	12.84	1620	0.05			
7,12-Dehydro-5,6,7,8-tetrahydrochamazulene	12.89*	1624	1.73	13.89	2024	1.57
γ-Eudesmol	12.89*	1624	[1.73]	14.78	2111	0.17
Eremoligenol	12.96	1630	0.04	14.90	2122	0.10
τ-Cadinol	13.06	1638	0.03	14.72	2105	0.05
β-Eudesmol	13.13	1644	0.66	15.26*	2158	[0.64]
Dihydrochamazulene isomer IV	13.17*	1647	1.30	14.29†	2063	2.20
α-Eudesmol	13.17*	1647	[1.30]	15.16	2148	0.02
(3*E*,5*E*)-7-Hydroxyfarnesene	13.31	1659	0.07	16.12	2246	0.02
Unknown [m/z 143, 142 (92), 157 (79), 158 (61), 141 (59), 128 (57), 159 (43), 115 (41), 202 (41)]	13.88	1706	0.13	18.55	2510	0.15
Chamazulene	14.06	1722	7.18	16.58	2294	7.47
α-Phellandrene dimer II	14.83	1790	0.05	12.31*	1878	[0.06]
Dehydrochamazulene	15.03	1806	0.02	17.96	2444	0.01
Phytone	15.49	1849	0.06	14.56	2088	0.07
9-(15,16-Dihydro-15-methyleneneryl)-α-terpinene?	17.12*	2002	0.18	15.64	2197	0.13
9-(15,16-Dihydro-15-methyleneneryl)-para-cymene?	17.12*	2002	[0.18]	16.37	2272	0.01

9-(15,16-Dihydro-15-methylenegeranyl)-para-cymene	17.20*	2009	0.79	16.44	2279	0.22
9-(15,16-Dihydro-15-methylenegeranyl)-α-terpinene	17.20*	2009	[0.79]	15.68	2200	0.63
Unknown analog I	21.05	2417	0.19	20.94	2795	0.21
Unknown [m/z 186, 157 (37), 171 (18), 322 (15)]	21.64	2487	0.73	21.71	2892	0.73
Unknown analog II	22.65	2608	0.06			
Unknown analog III	22.97	2648	0.03			
Total identified		**93.83%**			**93.32%**	
Total reported		**95.58%**			**94.92%**	

*: Two or more compounds are coeluting on this column
[xx]: Duplicate percentage due to coelutions, not 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