

Sample Information

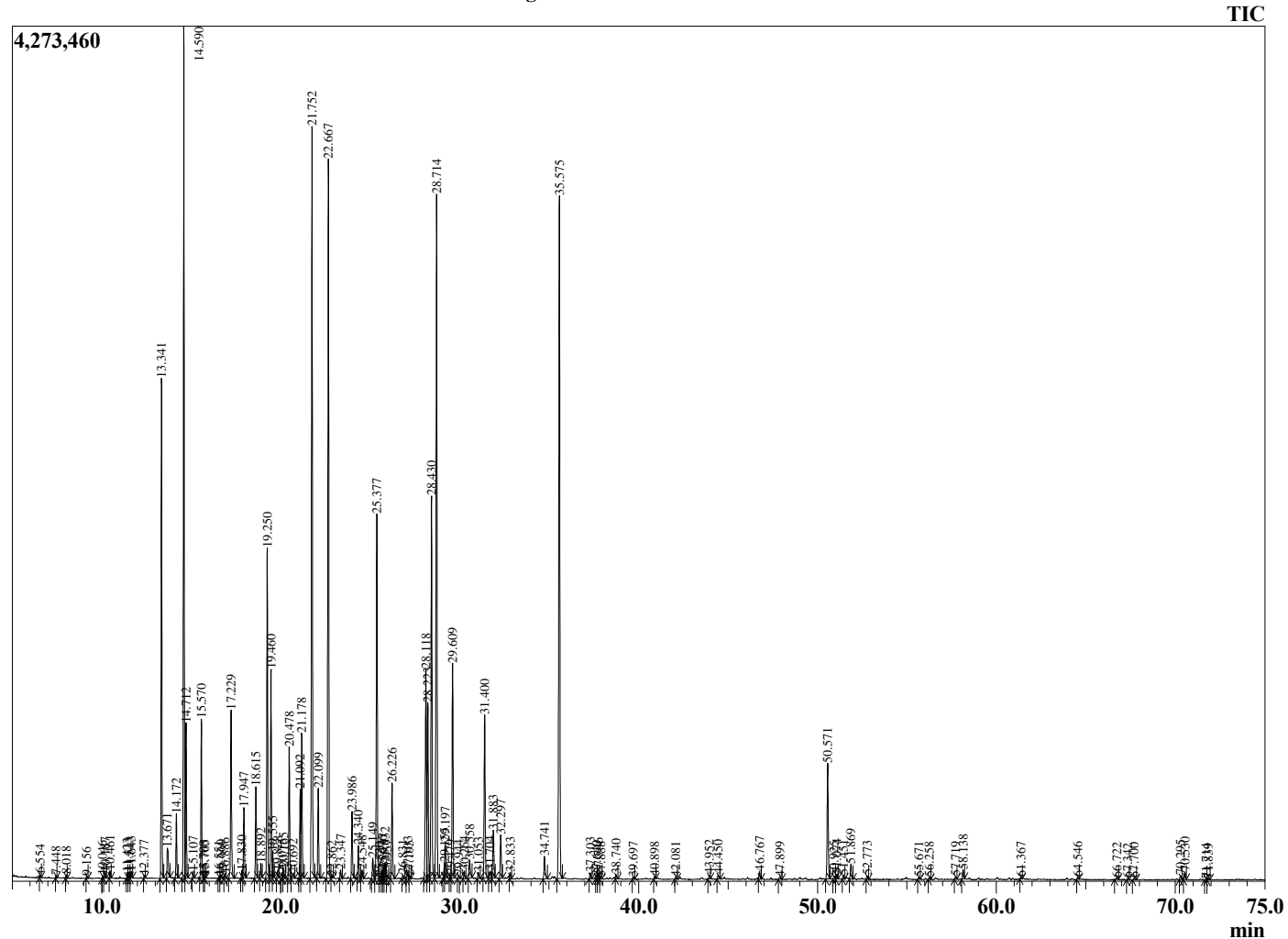
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 7/6/2021 11:50:26 AM
 Sample Type : Essential Oil
 Sample Name : Roman Chamomile - Barefut
 Sample ID : 0104
 Injection Volume : 0.10
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
6.554	2-Methyl butanol	0.03
7.448	Isobutyl acetate	0.02
8.018	1-Octene	0.03
9.156	Methyl tiglate	0.02
10.046	3-Methyl pentanol	0.02
10.187	Ethyl 2-methylbutyrate	0.05
10.461	Propyl isobutyrate	0.07
11.423	Isopentyl acetate	0.05
11.513	2-Methylbutyl acetate	0.06
11.643	Propyl methacrylate	0.07
12.377	Unidentified	0.03
13.341	Isobutyl isobutyrate	4.83
13.671	Prenyl acetate	0.50
14.172	2,5,8-Trimethyl nonane	0.66
14.590	alpha-Pinene	8.61
14.712	Isobutyl methacrylate	1.56
15.107	Propyl 2-methylbutyrate	0.07
15.570	3-Methylcyclohexanone	1.72
15.700	Isobutyl butyrate	0.02
15.765	Thujadiene isomer	0.03
16.551	Isopentyl propanoate	0.02
16.660	Amyl propionate	0.04
16.886	Sabinene	0.05
17.229	beta-Pinene	2.03
17.830	Myrcene	0.09
17.947	Propyl angelate	0.78
18.615	Isobutyl 2-methylbutyrate	1.00
18.892	Isobutyl isovalerate	0.15
19.250	Isoamyl isobutyrate	3.72
19.460	2-Methylbutyl isobutyrate	2.30
19.555	Unidentified	0.27
19.828	But-3-en-1-yl 2-methylbutanoate	0.08
20.075	Unidentified	0.05
20.165	para-Cymene	0.12
20.478	Limonene	1.53
20.692	1,8-Cineole	0.08
21.092	Pentyl methacrylate	1.01
21.178	Isopentyl methacrylate	1.69
21.752	Isobutyl angelate	9.21
22.099	Prenyl isobutyrate	1.02
22.667	Methyllyl angelate	8.96
22.862	Unidentified	0.03
23.347	Hexyl propionate	0.11
23.986	Camphenilone	0.79
24.340	Butyl angelate	0.38
24.548	Isobutyl tiglate	0.12
25.149	Isopentyl 2-methylbutyrate	0.28
25.377	2-Methylbutyl-2-methylbutyrate	4.63
25.530	Nonanal	0.04
25.676	Unidentified	0.08
25.737	2-Methylbutyl isovalerate	0.13
25.832	Isobutyl hexanoate	0.21
25.957	Unidentified	0.05
26.226	Hexyl isobutyrate	1.19
26.831	Unidentified	0.04
27.103	alpha-Campholenal	0.10
27.195	Unidentified	0.03
28.118	trans-Pinocarveol	2.89
28.223	Butanoic Acid Ester	2.20
28.430	Isoamyl angelate	5.01
28.714	Isoamyl tiglate	8.70
29.155	Unidentified	0.12

Chromatogram Roman Chamomile - Barefut



Comments:

The analysis of this Roman Chamomile batch sample meets the expected chemical profile for authentic essential oil of *Anthemis nobilis*. No contamination or adulteration was detected. The results provided in this GCMS quality analysis reflect the chemical composition of the oil and lot referenced above on the date of analysis.

R.Time	Name	Area%
29.197	Amyl angelate isomer	0.47
29.479	trans-Pinocamphone	0.04
29.609	Pinocarvone	2.75
29.944	Unidentified	0.05
30.264	Borneol	0.09
30.558	Isopinocamphone + Menthol	0.28
31.053	Unidentified	0.08
31.400	2-Methyl-2-butene angelate	2.12
31.704	Isoamyl tiglate	0.14
31.883	Myrtenal	0.67
32.297	3-Methyl-3-methylpentyl butanoate	0.56
32.833	Isopentyl hexanoate	0.07
34.741	2-Hydroxy-2-methyl-but-3-enyl 2-methyl-2-ci	0.33
35.575	4-Methyl amyl angelate	9.27
37.303	Hex-(3Z)-enyl angelate	0.08
37.640	1-Octen-3-ol butyrate	0.05
37.746	Hexyl angelate	0.08
37.888	Bornyl acetate	0.03
38.740	3-Methyl pentyl tiglate	0.05
39.697	2-Ethylbutyl hexanoate	0.03
40.898	Unidentified	0.02
42.081	7-epi-Silphiperfol-5-ene	0.03
43.952	alpha-Copaene	0.05
44.450	Unidentified	0.06
46.767	trans-beta-Caryophyllene	0.11
47.899	Benzyl tiglate	0.04
50.571	Germacrene D	1.61
50.925	3,5,11-Eudesmatriene	0.05
51.074	beta-Selinene	0.07
51.451	Bicyclogermacrene	0.05
51.869	(E,E)-alpha-Farnesene	0.22
52.773	delat-Cadinene	0.05
55.671	Unidentified	0.03
56.258	Spathulenol	0.03
57.719	Unidentified	0.03
58.138	Copaborneol	0.13
61.367	Unidentified	0.03
64.546	Unidentified	0.03
66.722	Unidentified	0.03
67.342	Unidentified	0.02
67.700	Unidentified	0.03
70.295	Neophytadiene	0.06
70.530	Phytone	0.11
71.714	Unidentified	0.01
71.839	Unidentified	0.02
		100.00