

Sample Information

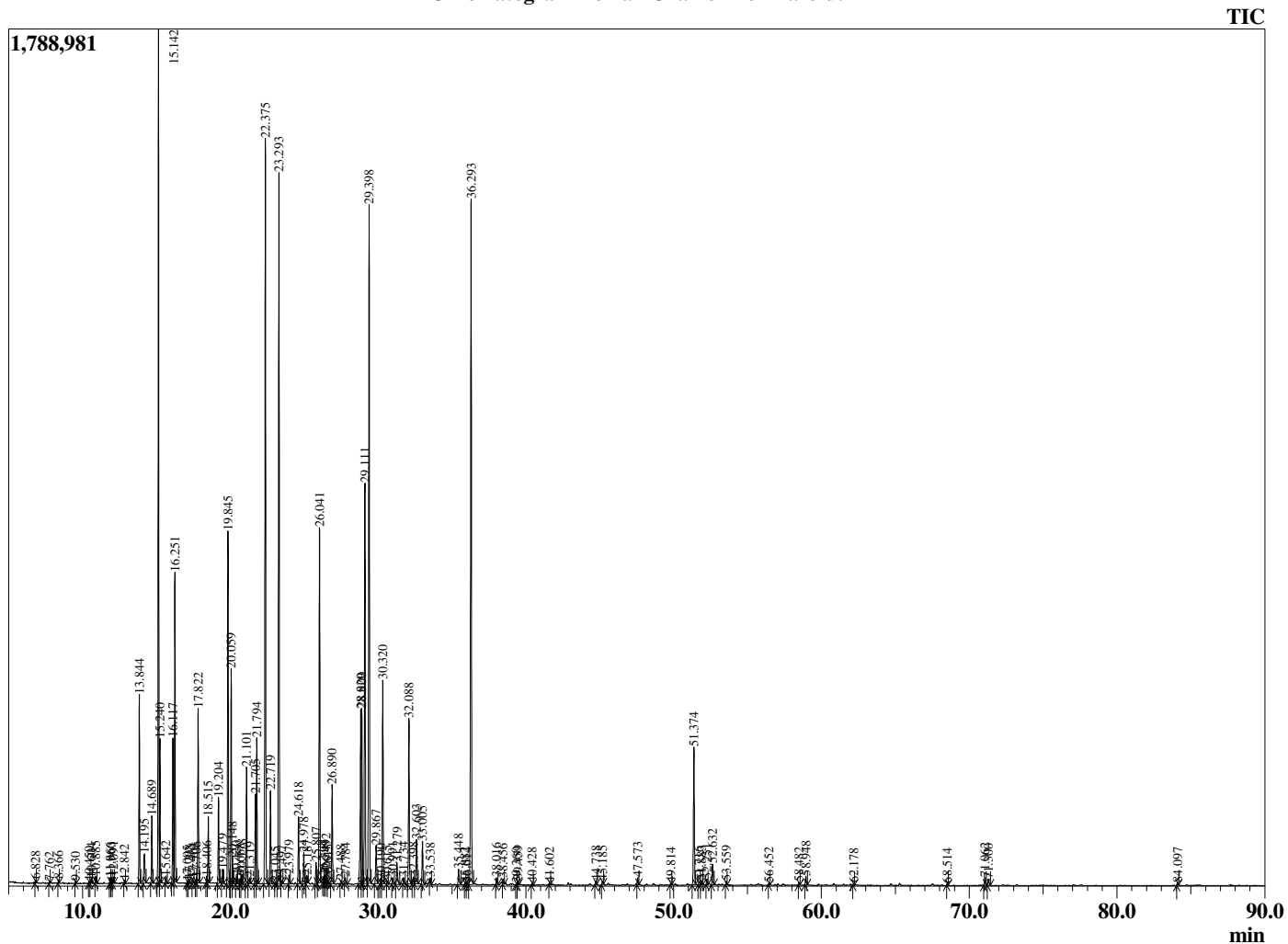
Analyzed by : Dr. Robert S. Pappas  
 Analyzed : 4/22/2020 5:39:54 PM  
 Sample Type : Essential Oil  
 Sample Name : Roman Chamomile - Barefut  
 Sample ID : 0103  
 Injection Volume : 0.10  
 Instrument ID : GC-2



Peak Report TIC

R.Time	Name	Area%
6.828	2-Methyl butanol	0.03
7.762	Isobutyl acetate	0.02
8.366	1-Octene	0.02
9.530	Methyl tiglate	0.02
10.450	3-Methyl pentanol	0.02
10.604	Ethyl 2-methylbutyrate	0.05
10.885	Propyl isobutyrate	0.07
11.866	Isopentyl acetate	0.05
11.963	2-Methylbutyl acetate	0.06
12.091	Propyl methacrylate	0.06
12.842	Unidentified	0.03
13.844	Isobutyl isobutyrate	1.86
14.195	Prenyl acetate	0.51
14.689	2,5,8-Trimethyl nonane	0.70
15.142	alpha-Pinene	8.96
15.240	Isobutyl methacrylate	1.42
15.642	Propyl 2-methylbutyrate	0.07
16.117	Unidentified	1.66
16.251	Isobutyl butyrate	3.21
17.095	Isoamyl propionate	0.02
17.208	Unidentified	0.04
17.464	Sabinene	0.05
17.706	Butyl methacrylate	0.06
17.822	beta-Pinene	1.96
18.406	Myrcene	0.08
18.515	Ethyl tiglate isomer	0.74
19.204	Isobutyl 2-methylbutyrate	0.97
19.479	Isobutyl isovalerate	0.16
19.845	Isoamyl isobutyrate	3.92
20.059	2-Methylbutyl isobutyrate	2.45
20.148	Roman Chamomile isomer	0.27
20.420	Roman Chamomile isomer	0.08
20.668	Unidentified	0.06
20.778	para-Cymene	0.12
21.101	Limonene	1.35
21.319	1,8-Cineole	0.08
21.705	Pentyl methacrylate	1.05
21.794	Isopentyl methacrylate	1.67
22.375	Isobutyl angelate	9.15
22.719	Prenyl isobutyrate	1.10
23.045	gamma-Terpinene	0.02
23.293	Methallyl angelate	8.91
23.497	Unidentified	0.03
23.979	Hexyl propionate	0.10
24.618	Camphenilone	0.81
24.978	Butyl angelate	0.41
25.187	Isobutyl tiglate	0.10
25.807	Isopentyl 2-methylbutyrate	0.28
26.041	2-Methylbutyl-2-methylbutyrate	4.43
26.314	Unidentified	0.06
26.397	2-Methylbutyl isovalerate	0.09
26.492	Isobutyl hexanoate	0.16
26.615	Unidentified	0.04
26.890	Hexyl isobutyrate	1.23
27.488	Unidentified	0.05
27.784	alpha-Campholenal	0.09
28.829	trans-Pinocarveol	2.54
28.900	Butanoic Acid Ester	2.08
29.111	Isoamyl angelate	5.15
29.398	Isoamyl tiglate	8.84
29.867	Unidentified	0.56
30.190	Pinocampnone	0.06

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%
30.320	Pinocarpone	2.65
30.615	Unidentified	0.04
30.991	Borneol	0.08
31.279	Isopinocampone	0.36
31.734	Isoamyl tiglate	0.09
32.088	2-Methyl-2-butene angelate	2.10
32.398	Unidentified	0.12
32.603	Myrtenal	0.63
33.005	3-Methyl-3-methylpentyl butanoate	0.58
33.538	Isopentyl hexanoate	0.05
35.448	2-Hydroxy-2-methyl-but-3-enyl 2-methyl-2-ci	0.24
35.882	Carvone	0.02
36.014	Unidentified	0.02
36.293	4-Methyl amyl angelate	9.31
38.016	Hex-(3Z)-enyl angelate	0.09
38.456	Unidentified	0.07
39.360	Unidentified	0.02
39.459	Unidentified	0.06
40.428	2-Ethylbutyl hexanoate	0.03
41.602	Unidentified	0.02
44.738	alpha-Copaene	0.05
45.185	Unidentified	0.05
47.573	beta-Caryophyllene	0.09
49.814	Unidentified	0.02
51.374	Germacrene D	1.95
51.716	Unidentified	0.05
51.883	beta-Selinene	0.07
52.251	Bicyclogermacrene	0.08
52.632	(E,E)-alpha-Farnesene	0.29
53.559	delta-Cadinene	0.04
56.452	Unidentified	0.02
58.482	Unidentified	0.03
58.948	Viridiflorol	0.13
62.178	Unidentified	0.02
68.514	Unidentified	0.02
71.062	Neophytadiene	0.11
71.300	Phytone	0.10
84.097	Phytol	0.04
		100.00