

Sample Information

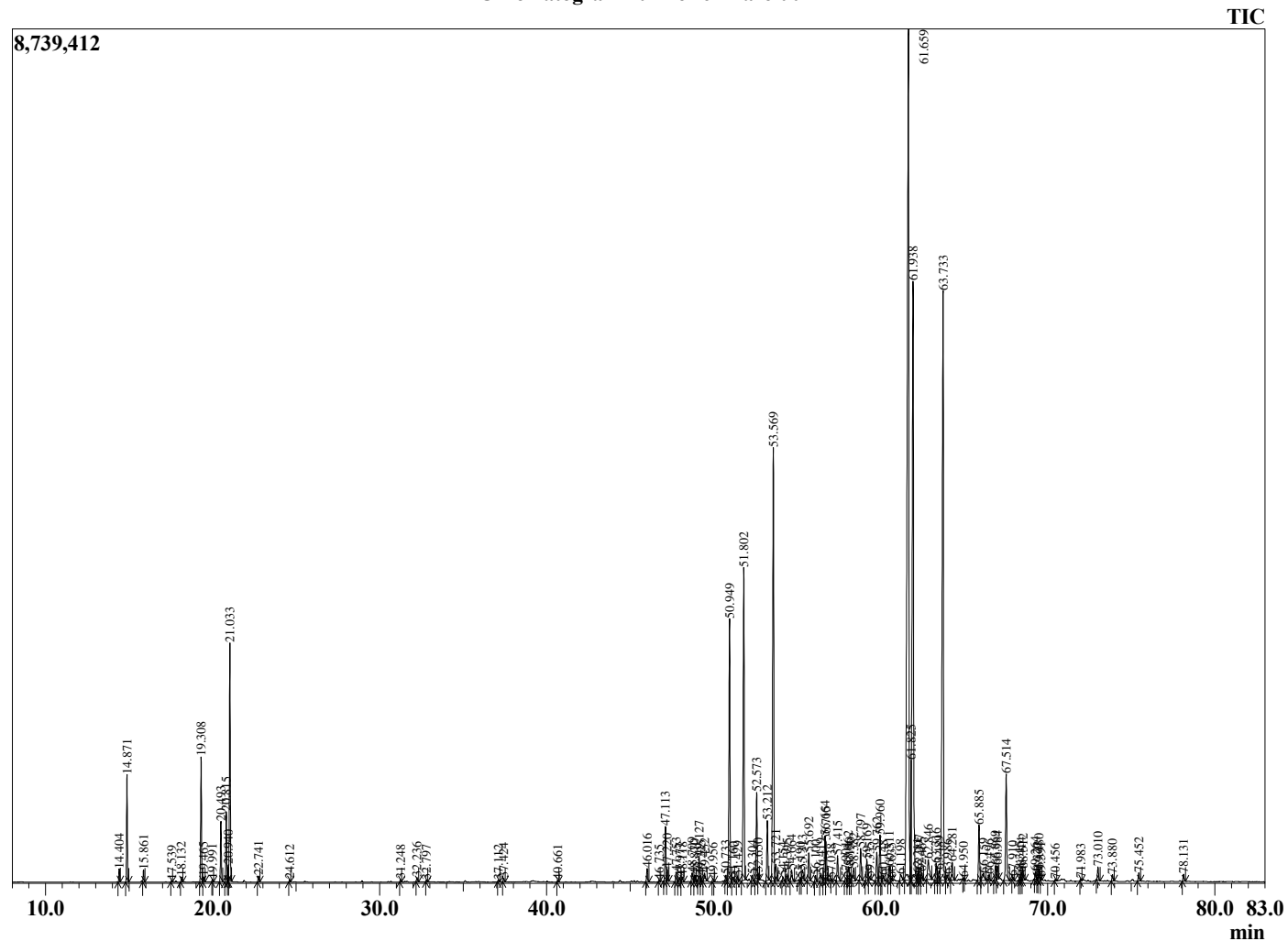
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 11/18/2020 12:35:31 PM
 Sample Type : Essential Oil
 Sample Name : Turmeric - Barefut
 Sample ID : 0110
 Injection Volume : 0.10
 Instrument ID : GC-3



Peak Report TIC

R.Time	Name	Area%
14.404	alpha-Thujene	0.16
14.871	alpha-Pinene	1.36
15.861	Camphene	0.16
17.539	beta-Pinene	0.02
18.132	Myrcene	0.06
19.308	alpha-Phellandrene	1.72
19.465	delta-3-Carene	0.07
19.991	alpha-Terpinene	0.03
20.493	para-Cymene	0.85
20.815	Limonene	1.02
20.940	beta-Phellandrene	0.21
21.033	1,8-cineole	3.44
22.741	gamma-Terpinene	0.09
24.612	Terpinolene	0.03
31.248	Terpinen-4-ol	0.03
32.236	alpha-Terpineol	0.07
32.797	alpha-Phellandrene epoxide	0.02
37.112	Geranial	0.03
37.424	Unidentified	0.06
40.661	Unidentified	0.03
46.016	7-epi-Sesquithujene	0.22
46.735	cis-alpha-Bergamotene	0.02
47.113	alpha-Santalene	0.98
47.220	trans-beta-Caryophyllene	0.18
47.753	gamma-Elemene	0.16
47.977	trans-alpha-Bergamotene	0.07
48.118	Unidentified	0.08
48.709	(Z)-beta-Farnesene	0.17
48.870	epi-beta-Santalene	0.12
49.127	(E)-beta-Farnesene	0.42
49.225	Sesquiphellandrene isomer	0.08
49.452	alpha-Humulene	0.19
49.956	alpha-Acoradiene	0.05
50.733	gamma-Curcumene	0.09
50.949	Ar-Curcumene	4.65
51.160	Unidentified	0.08
51.429	Unidentified	0.09
51.802	alpha-Zingiberene	5.48
52.304	Unidentified	0.10
52.573	beta-Bisabolene	1.54
52.650	Unidentified	0.09
53.212	alpha-Teresantalic acid	1.02
53.569	beta-Sesquiphellandrene	8.20
53.721	(E)-gamma-Bisabolene	0.36
54.154	Unidentified	0.08
54.395	Selina-4(15),7(11)-diene	0.13
54.664	Selina-3,7(11)-diene	0.24
55.190	Unidentified	0.05
55.313	Unidentified	0.26
55.692	Germacrene B	0.51
56.100	Unidentified	0.10
56.419	Unidentified	0.18
56.664	alpha-Dihydrocurcumene	0.93
56.715	Unidentified	0.52
57.038	Caryophyllene oxide	0.02
57.415	Unidentified	0.50
57.904	Unidentified	0.07
58.062	Unidentified	0.30
58.150	Unidentified	0.13
58.382	Unidentified	0.33
58.797	Zingiberenol	0.58
59.169	anti-syn-syn-Helifolen-12-al C	0.38

Chromatogram Turmeric - Barefut



Comments:

The analysis of this Turmeric batch sample meets the expected chemical profile for authentic essential oil of *Curcuma longa*. 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.

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R.Time	Name	Area%
59.335	Unidentified	0.05
59.762	Zingiberenol isomer	0.52
59.960	Unidentified	0.91
60.148	Unidentified	0.13
60.511	Unidentified	0.27
60.635	Unidentified	0.04
61.198	Unidentified	0.16
61.659	Ar-tumerone	23.70
61.825	allo-Himachalol	1.11
61.938	Tumerone	13.72
62.211	Unidentified	0.12
62.297	Unidentified	0.18
62.465	Unidentified	0.16
62.846	Unidentified	0.60
63.316	Unidentified	0.30
63.489	Unidentified	0.22
63.733	Curlone	12.67
63.986	Unidentified	0.11
64.281	Curcuphenol	0.37
64.950	(Z)-Nuciferol	0.03
65.885	Unidentified	1.00
66.159	Unidentified	0.29
66.496	Unidentified	0.08
66.869	Unidentified	0.25
66.984	Unidentified	0.24
67.514	(E)-alpha-Atlantone	2.02
67.910	Unidentified	0.05
68.315	Unidentified	0.07
68.414	Unidentified	0.14
68.512	Unidentified	0.21
69.264	Unidentified	0.13
69.372	Unidentified	0.03
69.480	Unidentified	0.19
69.591	Unidentified	0.04
70.456	Unidentified	0.03
71.983	Unidentified	0.03
73.010	Unidentified	0.24
73.880	Unidentified	0.11
75.452	Unidentified	0.15
78.131	Unidentified	0.12
		100.00