

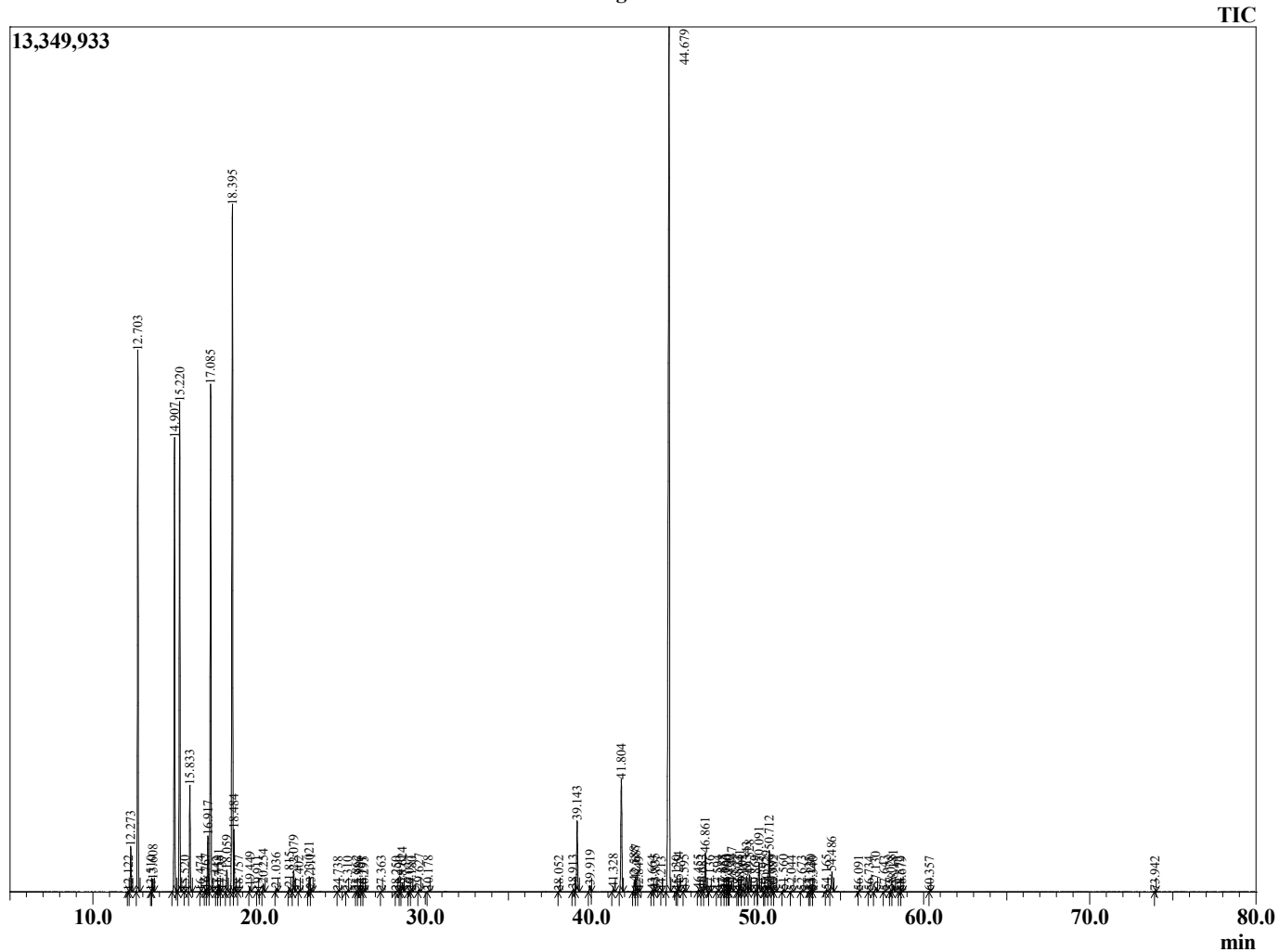
Sample Information

Analyzed by : KS  
 Analyzed : 10/15/2022 2:42:02 AM  
 Sample Type : Essential Oil  
 Sample Name : Black Pepper  
 Injection Volume : 0.10 µL  
 Lot Number : 12856  
 Instrument ID : GC-3

Peak Report TIC

R.Time	Name	Area%
12.122	Tricyclene	0.01
12.273	alpha-Thujene	0.79
12.703	alpha-Pinene	9.81
13.510	alpha-Fenchene	0.01
13.608	Camphene	0.22
14.907	Sabinene	8.92
15.220	beta-Pinene	9.47
15.520	trans-Isolimonene	0.01
15.833	Myrcene	2.03
16.474	delta-2-Carene	0.01
16.767	Pseudolimonene	0.05
16.917	alpha-Phellandrene	1.15
17.085	delta-3-Carene	10.42
17.442	1,4-Cineole	0.00
17.581	alpha-Terpinene	0.15
17.737	ortho-Cymene	0.02
18.059	para-Cymene	0.45
18.395	Limonene	15.21
18.484	beta-Phellandrene	1.14
18.757	trans-beta-Ocimene	0.01
19.449	cis-beta-Ocimene	0.11
19.911	Terpinene analogue	0.02
20.254	gamma-Terpinene	0.17
21.036	trans-Sabinene hydrate	0.08
21.815	Isoterpinolene	0.09
22.079	Terpinolene	0.47
22.402	para-Cymenene	0.01
23.021	Linalool	0.34
23.111	cis-Sabinene hydrate	0.06
24.738	cis-para-Mentha-2-en-1-ol	0.01
25.310	cis-Limonene oxide	0.01
25.862	trans-Pinocarveol	0.01
25.986	Unidentified	0.02
26.191	trans-Verbenol	0.01
26.295	Unidentified	0.01
27.363	para-Mentha-1,5-dien-8-ol	0.01
28.250	Unidentified	0.01
28.490	Unidentified	0.00
28.624	Terpinen-4-ol	0.21
29.037	para-Cymen-8-ol	0.02
29.180	Unidentified	0.01
29.627	alpha-Terpineol	0.06
30.178	alpha-Phellandrene epoxide	0.03
38.052	Unidentified	0.02
38.913	Elemene isomer	0.06
39.143	delta-Elemene	1.80
39.919	alpha-Cubebene	0.16
41.328	Cyclosativene	0.09
41.804	alpha-Copaene	2.90
42.588	beta-Cubebene	0.25
42.687	beta-Elemene	0.31
42.849	Unidentified	0.01
43.664	cis-beta-Caryophyllene	0.03
43.835	alpha-Gurjunene	0.06
44.213	Gurjunene isomer	0.00
44.679	trans-beta-Caryophyllene	26.53
45.130	Unidentified	0.01
45.254	beta-Copaene	0.13
45.595	alpha-Guaiene	0.05
46.455	Cadina-3,5-diene	0.04
46.683	trans-beta-Farnesene	0.05
46.861	alpha-Humulene	1.00

Chromatogram 98401-49



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R.Time	Name	Area%
47.136	Alloaromodendrene	0.02
47.594	Unidentified	0.02
47.888	Cadina-1(6),4-diene	0.04
48.063	gamma-Muurolene	0.06
48.190	Unidentified	0.04
48.260	Unidentified	0.01
48.447	Germacrene D	0.25
48.822	delta-Selinene	0.01
48.941	beta-Selinene	0.19
49.102	gamma-Amorphene	0.07
49.343	Bicyclogermacrene	0.46
49.528	alpha-Muurolene	0.42
49.869	trans,trans-alpha-Farnesene	0.02
50.091	beta-Bisabolene	0.76
50.395	gamma-Cadinene	0.00
50.529	Cubebol	0.15
50.712	delta-Cadinene	1.07
50.899	trans-Calamenene	0.03
50.982	Unidentified	0.03
51.560	trans-Cadina-1,4-diene	0.05
52.044	trans-alpha-Bisabolene	0.03
52.673	Unidentified	0.04
53.125	Germacrene B	0.01
53.230	trans-Nerolidol	0.04
53.340	Unidentified	0.01
54.165	Spathulenol	0.04
54.486	Caryophyllene oxide	0.59
56.091	Humulene epoxide II	0.01
56.734	Unidentified	0.01
57.130	Spathulenol analogue	0.13
57.643	Caryophylla-4(12),8(13)-dien-5-beta-ol	0.01
58.028	epi-alpha-Muurolol	0.04
58.181	alpha-Muurolol	0.16
58.572	Valerianol	0.01
58.679	Unidentified	0.01
60.357	alpha-Bisabolol	0.01
73.942	Camphorene	0.01
		100.00