

Sample Information

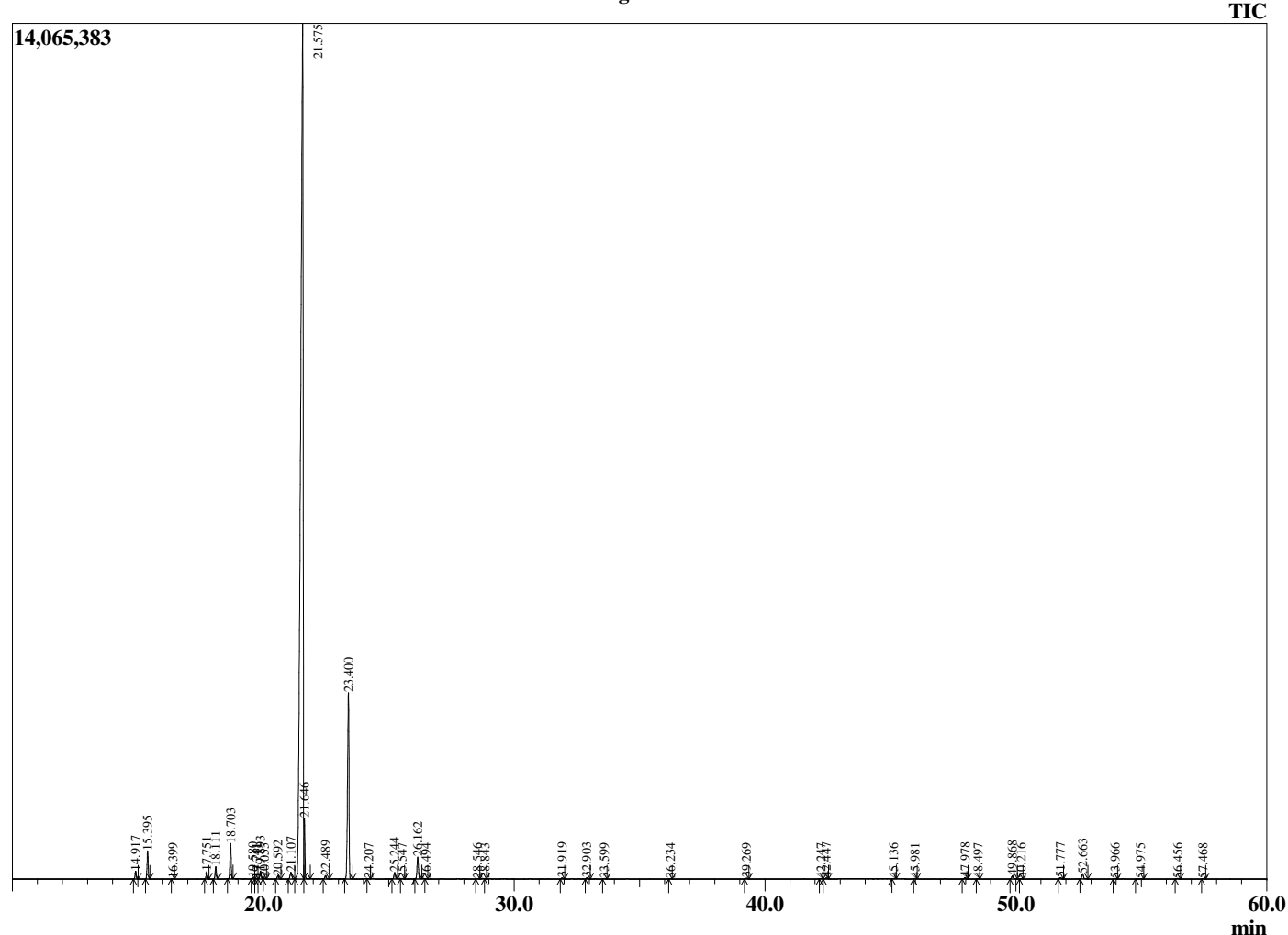
Analyzed by : Dr. Robert S. Pappas
 Analyzed : 9/13/2018 4:17:05 PM
 Sample Type : Essential Oil
 Sample Name : Yuzu
 Sample ID : D0B0913G
 Injection Volume : 0.10
 Instrument ID: : GC-3



Peak Report TIC

R.Time	Name	Area%
14.917	alpha-Thujene	0.33
15.395	alpha-Pinene	1.21
16.399	Camphene	0.01
17.751	Sabinene	0.33
18.111	beta-Pinene	0.57
18.703	Myrcene	1.62
19.580	Octanal	0.06
19.741	Pseudolimonene	0.02
19.893	alpha-Phellandrene	0.37
20.055	3-Carene	0.03
20.592	alpha-Terpinene	0.18
21.107	para-Cymene	0.41
21.575	Limonene	79.99
21.646	beta-Phellandrene	1.93
22.489	E-beta-Ocimene	0.17
23.400	gamma-Terpinene	10.02
24.207	cis-Linalool oxide (furanoid)	0.01
25.244	Terpinolene	0.34
25.547	Dehydro-p-cymene	0.03
26.162	Linalool	1.13
26.494	Nonanal	0.01
28.546	cis-Limonene oxide	0.02
28.843	trans-Limonene oxide	0.01
31.919	Terpinen-4-ol	0.06
32.903	alpha-Terpineol	0.06
33.599	Decanal	0.02
36.234	Carvone	0.01
39.269	Thymol	0.05
42.247	Elemene isomer	0.03
42.447	delta-Elemene	0.06
45.136	alpha-Copaene	0.01
45.981	beta-Elemene	0.04
47.978	beta-Caryophyllene	0.09
48.497	gamma-Elemene	0.02
49.868	E-beta-Farnesene	0.20
50.216	alpha-Humulene	0.02
51.777	Germacrene D	0.09
52.663	Bicyclogermacrene	0.33
53.966	delta-Cadinene	0.04
54.975	(Z)-9-Dodecen-12-olide (Yuzu Lactone)	0.03
56.456	Germacrene B	0.05
57.468	Spathulenol	0.02
		100.00

Chromatogram Yuzu



Comments:

The analysis of this Yuzu, Japan batch sample meets the expected chemical profile for authentic essential oil of *Citrus junos*. 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.