

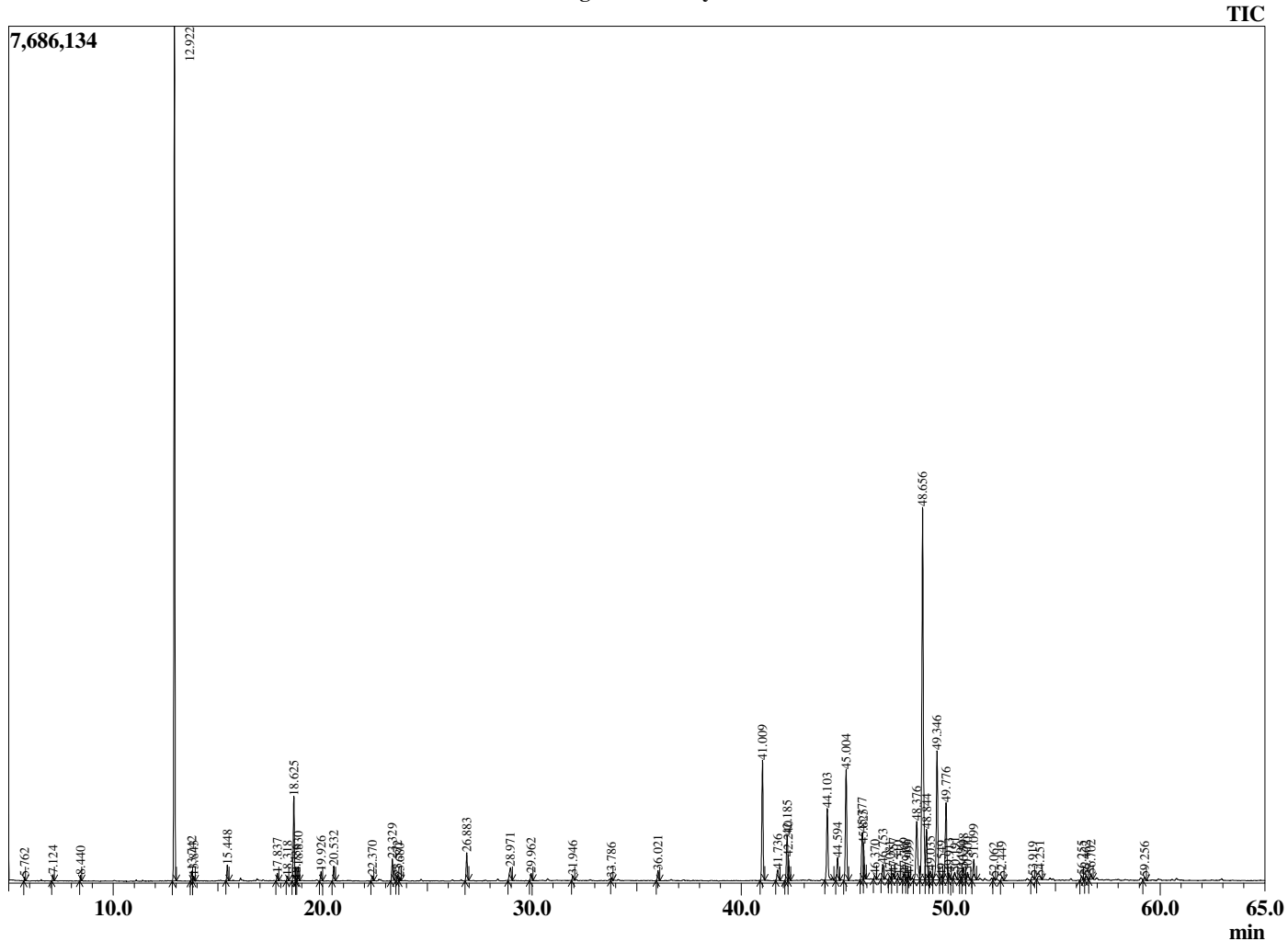
Sample Information

Analyzed by : Dr. Robert S. Pappas
 Analyzed : 8/8/2017 2:47:21 PM
 Sample Type : Essential Oil
 Sample Name : Helichrysum EH
 Sample ID : A0804E
 Injection Volume : 0.10
 Instrument ID : GC-3



R.Time	Name	Peak Report TIC	Area%
5.762	3-Hexanone		0.08
7.124	2-Methyl-2-heptene		0.17
8.440	4-Methyl 3-hexanone		0.13
12.922	alpha-Pinene		26.63
13.742	alpha-Fenchene		0.32
13.843	Camphene		0.15
15.448	beta-Pinene		0.51
17.837	alpha-Terpinene		0.23
18.318	para-Cymene		0.16
18.625	Limonene		2.92
18.736	beta-Phellandrene		0.02
18.830	1,8-Cineole		0.50
19.926	Isobutyl angelate		0.34
20.532	gamma-Terpinene		0.54
22.370	Terpinolene		0.19
23.329	Linalool		0.81
23.572	2-Methylbutyl-2-methylbutyrate		0.17
23.680	Nonanal		0.09
26.883	Isoamyl tiglate		1.05
28.971	Italidione		0.75
29.962	alpha-Terpineol		0.30
31.946	Nerol		0.19
33.786	Unidentified		0.09
36.021	Hexyl angelate		0.42
41.009	Neryl acetate		4.94
41.736	alpha-Amorphene		0.57
42.185	alpha-Copaene		2.13
42.240	Isotalicene		0.68
44.103	Italicene		3.46
44.594	cis-alpha-Bergamotene		1.02
45.004	beta-Caryophyllene		4.98
45.777	Italidione		2.38
45.825	trans-alpha-Bergamotene		1.08
46.370	6,9-Guaiadiene		0.15
46.753	Neryl propionate		0.63
47.081	trans-beta-Farnesene		0.15
47.257	alpha-Humulene		0.24
47.510	Alloaromadendrene		0.15
47.769	alpha-Acoradiene		0.26
47.910	Unidentified		0.09
47.999	beta-Acoradiene		0.20
48.376	Unidentified + Italidione		3.62
48.656	gamma-Curcumene		19.06
48.844	Ar-Curcumene		2.37
49.035	Farnesene isomer		0.51
49.346	beta-Selinene		6.35
49.549	trans-Murrola-4(14),5-diene		0.19
49.776	alpha-Selinene		3.80
49.913	alpha-Muurolene		0.30
50.191	delta-Amorphene		0.36
50.490	beta-Bisabolene		0.14
50.598	beta-Curcumene		0.57
50.800	gamma-Cadinene		0.44
51.099	delta-Cadinene		0.97
52.062	Unidentified		0.11
52.449	Unidentified		0.17
53.919	Italidione		0.19
54.251	Italidione		0.28
56.255	Unidentified		0.18
56.462	Sesquiterpenol		0.18
56.702	Eudsm-5-en-11-ol		0.20
59.256	Unidentified		0.14
			100.00

Chromatogram Helichrysum EH



Comments:

The analysis of this Helichrysum batch sample meets the expected chemical profile for authentic essential oil of Helichrysum italicum. No contamination or adulteration was detected.