

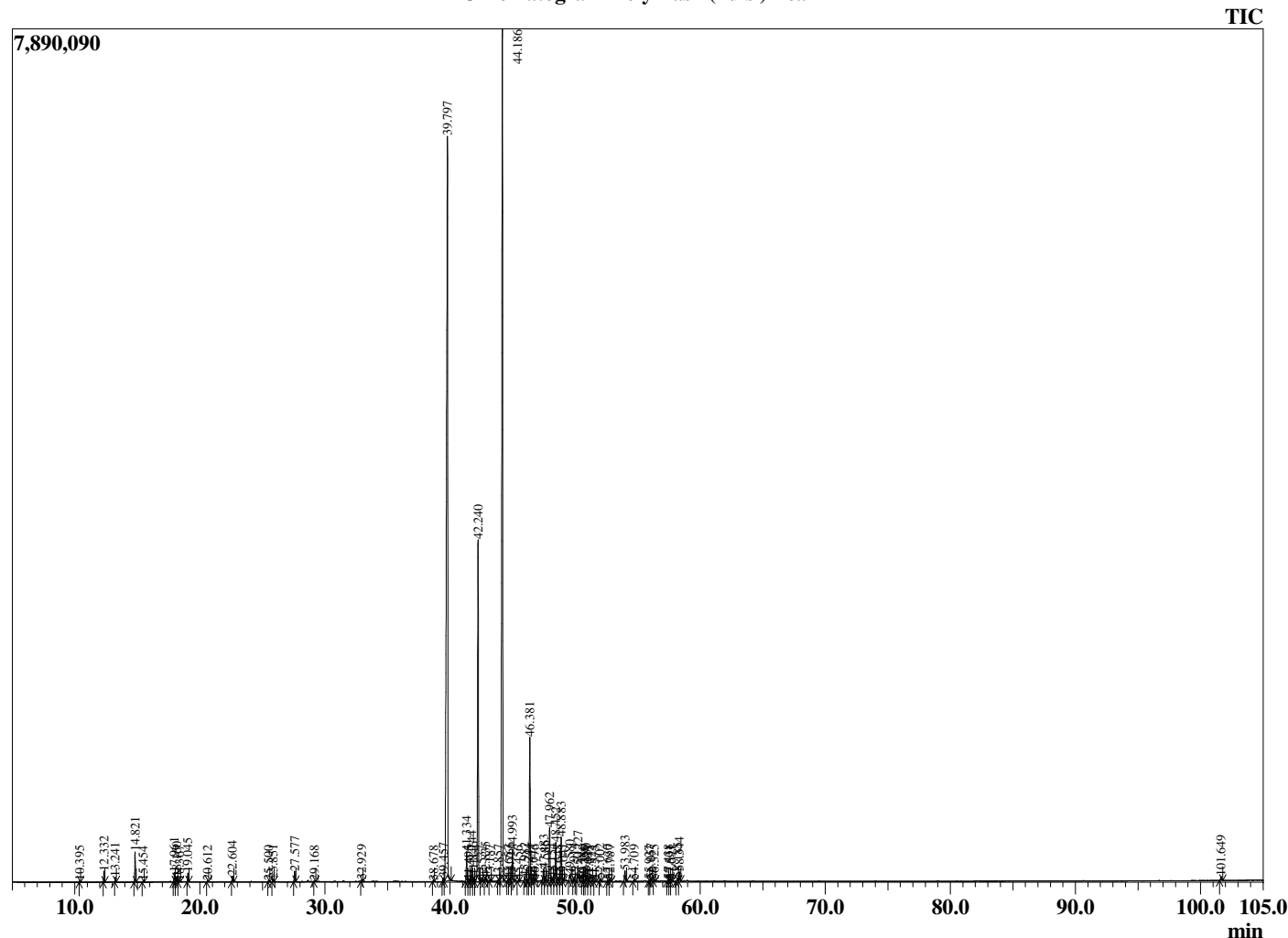
Sample Information

Analyzed by : Dr. Robert S. Pappas
 Analyzed : 12/2/2018 4:46:49 PM
 Sample Type : Essential Oil
 Sample Name : Holy Basil (Tulsi) Leaf
 Sample ID : D0B1010D
 Injection Volume : 0.10
 Instrument ID: : GC-3

This report is valid for 1 year from the analyzed date.



Chromatogram Holy Basil (Tulsi) Leaf



R.Time	Name	Area%
10.395	2,5-Diethyltetrahydrofuran	0.02
12.332	alpha-Pinene	0.24
13.241	Camphene	0.11
14.821	beta-Pinene	0.71
15.454	Myrcene	0.02
17.961	Limonene	0.23
18.160	1,8-Cineole	0.13
18.367	cis-beta-Ocimene	0.02
19.045	trans-beta-Ocimene	0.21
20.612	1-Octanol	0.03
22.604	Linalool	0.16
25.500	Geyrene	0.04
25.851	Camphor	0.08
27.577	Borneol	0.31
29.168	alpha-Terpineol	0.03
32.929	Geraniol	0.05
38.678	delta-Elementene	0.03
39.457	alpha-Cubebene	0.11
39.797	Eugenol	37.82
41.334	alpha-Copaene	0.97
41.495	Geranyl acetate	0.04
41.744	Elementene isomer	0.50
41.846	beta-Bourbonene	0.15
42.240	beta-Elementene	11.47
42.537	Unidentified	0.04
42.835	Methyleugenol	0.13
43.187	cis-beta-Caryophyllene	0.06
43.857	Unidentified	0.04
44.186	beta-Caryophyllene	31.81
44.657	Unidentified	0.04
44.766	beta-Copaene	0.12
44.993	trans-alpha-Bergamotene	1.04
45.456	cis-beta-Farnesene	0.03
45.982	Unidentified	0.13
46.244	trans-beta-Farnesene	0.06
46.381	alpha-Humulene	4.73
46.643	Alloaromadendrene	0.07
46.776	cis-Cadina-1(6),4-diene	0.05
47.483	Selina-4,11-diene	0.43
47.586	trans-Cadina-1(6),4-diene	0.14
47.962	Germacrene D	1.78
48.154	Farnesene isomer	0.09
48.452	beta-Selinene	1.35
48.648	trans-Murrola-4(14),5-diene	0.09
48.883	alpha-Selinene	1.55
49.041	alpha-Murolene	0.07
49.580	Unidentified	0.33
49.914	gamma-Cadinene	0.08
50.227	delta-Cadinene	0.55
50.580	beta-Sesquiphellandrene	0.03
50.756	trans-gamma-Bisabolene	0.02
50.880	Unidentified	0.09
51.073	trans-Cadina-1,4-diene	0.03
51.323	alpha-Cadinene	0.03
51.575	Unidentified	0.03
52.002	Elemol	0.07
52.630	Germacrene B	0.06
52.787	trans-Nerolidol	0.05
53.983	Caryophyllene oxide	0.38
54.709	Viridiflorol	0.04
55.927	1,10-di-epi-Cubenol	0.03
56.057	Unidentified	0.08
56.325	Humulene-1,6-dien-3-ol	0.04
57.438	alpha-Murolol (=Torreyol)	0.07
57.531	epi-alpha-Cadinol	0.04
57.691	delta-Cadinol	0.04
58.185	alpha-Cadinol	0.13
58.344	Unidentified	0.32
101.649	Unidentified	0.15
		100.00

Comments:

The analysis of this Holy Basil Leaf batch sample meets the expected chemical profile for authentic essential oil of *Ocimum sanctum*. No contamination or adulteration was detected.