

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in Citrus aurantiifolia

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
112	ASCORBIC-ACID	Fruit	291.0	4444.0	-0.008174449784343766	--
77	ZINC	Fruit	1.0	9.0	-0.6408757503171868	USDA's Ag Handbook 8 and sequelae)
67	1,8-CINEOLE	Fruit		70.0	-0.41945193577446593	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
60	LIMONENE	Fruit	4700.0	7500.0	0.3254224854124864	--
53	BETA-CAROTENE	Fruit	0.0	2.0	-0.14693466516508752	--
53	CITRAL	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
53	LINALOOL	Fruit	9.0	20.0	-0.5801815825068863	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
39	NIACIN	Fruit	1.0	29.0	-0.4237487633855353	--
35	BORNEOL	Fruit		60.0	-0.7063054263490658	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	CARYOPHYLLENE	Fruit	30.0	250.0	-0.3885919789508993	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
31	THIAMIN	Fruit	0.0	3.0	-0.29859918253223444	--
29	TRYPTOPHAN	Fruit	30.0	255.0	-0.8356780113999882	USDA's Ag Handbook 8 and sequelae)
28	ALPHA-PINENE	Fruit	80.0	240.0	-0.6561241736048067	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
28	CALCIUM	Fruit	90.0	3084.0	-0.17821309971085345	--
27	LINOLEIC-ACID	Fruit	360.0	3060.0	-0.31222791202233824	USDA's Ag Handbook 8 and sequelae)
26	BERGAPTEN	Fruit				--
25	IMPERATORIN	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
23	CITRIC-ACID	Fruit		800.0	-0.6385696610504172	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
23	ALPHA-TERPINEOL	Fruit	30.0	590.0	0.0769717277948267	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
23	TERPINEN-4-OL	Fruit		166.0	-0.33320430132175255	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
22	MYRCENE	Fruit	70.0	1030.0	-0.22373470605849002	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
20	CITRONELLAL	Fruit		140.0	0.8579977788182253	--
18	OLEIC-ACID	Plant	160.0	1360.0	-0.6725782785123336	--
16	P-CYMENE	Fruit	50.0	1160.0	-0.4262066202868709	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
15	METHIONINE	Fruit	20.0	170.0	-0.9710077785150063	USDA's Ag Handbook 8 and sequelae)
15	ALPHA-LINOLENIC-ACID	Fruit	190.0	1615.0	-0.42109633411209685	USDA's Ag Handbook 8 and sequelae)
15	MALIC-ACID	Fruit		2000.0	-0.8215787018847368	--
15	FIBER	Fruit	3000.0	67000.0	-0.7046822298607128	--
15	RIBOFLAVIN	Fruit	0.0	2.0	-0.6444915447424321	--
15	ISOPIMPINELLIN	Fruit				--
14	POTASSIUM	Fruit	820.0	9533.0	-0.7417192681764139	--
13	BETA-PINENE	Fruit	90.0	1190.0	-0.2597183887550868	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	GERANIAL	Fruit	10.0	680.0	0.9705306013879492	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
13	PALMITIC-ACID	Fruit	10.0	85.0	-0.36421233986648255	USDA's Ag Handbook 8 and sequelae)
13	ALPHA-TERPINENE	Fruit		80.0	-0.0127221438562562	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
12	COPPER	Fruit	1.0	6.0	-0.5307153602504487	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
11	ALPHA-PHELLANDRENE	Fruit		20.0	-0.5665622033948856	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	GAMMA-TERPINENE	Fruit	60.0	2170.0	-0.25199677041945456	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
11	PERILLALDEHYDE	Fruit				--
11	PANTOTHENIC-ACID	Fruit	2.0	18.0	-0.006662132557618176	USDA's Ag Handbook 8 and sequelae)
10	5-METHOXY-PSORALEN	Fruit				--
9	OXALIC-ACID	Fruit				--
9	CAMPHENE	Fruit	50.0	80.0	-0.3186300658171268	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
9	TERPINOLENE	Fruit	60.0	120.0	0.047285066012756526	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
8	STEARIC-ACID	Fruit	10.0	85.0	-0.2735844169584349	--
8	ISOIMPERATORIN	Fruit				--
7	SUCCINIC-ACID	Fruit				--
6	BETA-BISABOLENE	Fruit		90.0	-0.8555004504472944	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
6	FURFURAL	Fruit	0.0	1.0	-0.7089815020862192	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
6	MYRISTIC-ACID	Fruit	10.0	85.0	-0.26513375553502133	USDA's Ag Handbook 8 and sequelae)
6	IRON	Fruit	0.0	67.0	-0.26171724059735857	--
5	GERANYL-ACETATE	Fruit	30.0	310.0	-0.4216405420735619	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	SABINENE	Fruit		160.0	-0.4853487568252894	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	NERYL-ACETATE	Fruit	1.0	310.0	1.7013381797018676	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
5	OCTANOIC-ACID	Fruit		2.0	-0.5716518444101517	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
4	PHOSPHORUS	Fruit	110.0	2000.0	-0.3693459584082821	--
4	LYSINE	Fruit	140.0	1190.0	-0.7574189341525978	USDA's Ag Handbook 8 and sequelae)
4	NERAL	Fruit	40.0	460.0	1.5487945633363407	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	BETA-PHELLANDRENE	Fruit		90.0	-0.45703003116030555	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	NOOTKATONE	Fruit		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
3	BETA-TERPINEOL	Fruit		70.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	DECANOL	Fruit		6.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	BERGAMOTTIN	Fruit				--
2	PALMITOLEIC-ACID	Fruit	30.0	255.0	-0.2988244533847072	USDA's Ag Handbook 8 and sequelae)
2	NERYL-FORMATE	Fruit		20.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
2	PHELLOPTERIN	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
2	OXYPEUCEDANIN-HYDRATE	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	DODECANAL	Fruit		1.0	-1.3678940092779692	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	XANTHYLETIN	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
1	DECYL-ACETATE	Fruit		10.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
1	MALONIC-ACID	Fruit				--
1	6,7-DIMETHOXYCOUMARIN	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
1	SODIUM	Fruit	10.0	222.0	-0.16289877578023426	--
1	QUINIC-ACID	Fruit				--
0	POLYHYDROXYPHLOBAN	Fruit				--
0	TERPINEN-1-OL	Fruit		70.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	OCTANAL	Fruit	30.0	80.0	1.4102204808154215	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	DIMETHOXYCOUMARIN	Fruit				--
0	METHYL-HEPTENONE	Fruit		1.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	GERMACRENE-B	Fruit		3500.0	1.0	Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	SUGARS	Fruit	0.0	17400.0	-0.8123734149384401	--
0	1,4-CINEOLE	Fruit		180.0	-0.9430816794645105	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	PHLOBOTANNIN	Fruit				--
0	ALPHA-P-DIMETHYL-STYRENE	Fruit		50.0	1.2787240261820119	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	XANTHOPHYLLS	Fruit	11.0	19.0	-1.0	--
0	NONANOL	Fruit	1.0	10.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	8-GERAN-OXYPORALEN	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	WATER	Fruit	877000.0	911000.0	0.6105778416650238	--
0	GAMMA-SELINENE	Fruit		20.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	NONANE	Fruit		6.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	DECANAL	Fruit	9.0	10.0	-0.798910393394575	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-BISABOLENE	Fruit	250.0	400.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	UNDECANE	Fruit		3.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	NONANAL	Fruit		20.0	0.043299578832457684	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	5-GERANOXY-7-METHOXYCOUMARIN	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	ALPHA-BERGAMOTENE	Fruit	50.0	250.0	1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	FOLUENE	Plant				--
0	ASH	Fruit	2000.0	3800.0	-1.3689254367339239	--
0	ALPHA-ALPHA-P-TRIMETHYL-BENZYL-ALCOHOL-ETHER	Fruit		20.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	ALPHA-ALPHA-P-TRIMETHYL-BENZYL	Plant				--
0	TRIDECANE	Fruit		2.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	EO	Pt		3100.0	-1.0	--
0	LINALOL	Fruit	9.0	20.0	-0.636217155719963	--
0	ALPHA,ALPHA-P-TRIMETHYLBENZYL-ALCOHOL	Fruit		60.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	THYMYL-METHYL-ETHER	Fruit		2.0	-1.0	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	FENCHOL	Fruit		120.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	CARBOHYDRATES	Fruit	59000.0	895900.0	0.6043670496771566	--
0	ALPHA-THUJENE	Fruit		40.0	-0.5594757607508909	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	FAT	Fruit	2000.0	26700.0	-0.4373196374673332	--
0	PROTEIN	Fruit	4000.0	65000.0	-0.5965222785125606	--
0	OCTANOL	Fruit		1.0	1.4142135623730945	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
0	EO	Plant	3000.0	10000.0	0.019853678703787233	--
0	2,6,6-TRIMETHYL-2-VINYLTETRAHYDROPYRAN	Fruit		16.0		Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
0	LIMETTIN	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	2,2-DIMETHYL-5(-1)-METHYL-1-PROPENYL)TETRA-HYDROFURAN	Plant		30.0		--