

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Carica papaya*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
77	ZINC	Fruit				--
5	ZEAXANTHIN	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
10	XYLITOL	Bark				Jim Duke's personal files.
2	VIOLAXANTHIN	Leaf				Jim Duke's personal files.
2	VIOLAXANTHIN	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
3	VALINE	Fruit	100.0	895.0	-0.7341136385803058	USDA's Ag Handbook 8 and sequelae)
8	TYROSINE	Fruit	50.0	448.0	-0.8166172460051626	USDA's Ag Handbook 8 and sequelae)
29	TRYPTOPHAN	Fruit	40.0	716.0	-0.18868896426915321	--
1	TOLUENE	Fruit		0.005	-0.707116857507301	Jim Duke's personal files.
4	THREONINE	Fruit	110.0	985.0	-0.8449765955821991	USDA's Ag Handbook 8 and sequelae)
31	THIAMIN	Leaf	1.0	4.0	-0.8971070751644596	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
31	THIAMIN	Fruit	0.2	2.6	-0.34980129918184183	USDA's Ag Handbook 8 and sequelae)
9	TERPINOLENE	Fruit				--
6	TARTARIC-ACID	Fruit	3150.0	23333.0	-0.24237898104354536	--
14	SULFUR	Fruit	300.0	900.0	-0.35813249886374227	--
14	SUCROSE	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
14	SUCROSE	Leaf				Jim Duke's personal files.
14	SUCROSE	Bark				Jim Duke's personal files.
3	STYRENE	Fruit				Jim Duke's personal files.
12	STIGMASTEROL	Seed Oil				Jim Duke's personal files.
8	STEARIC-ACID	Seed Oil		50000.0	-0.5312228391740013	Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	STEARIC-ACID	Seed	12650.0	13282.0	-0.2772157419739704	--
8	STEARIC-ACID	Fruit	20.0	179.0	-0.2673505228936131	--
8	STEARIC-ACID	Flower				Jim Duke's personal files.
8	STEARIC-ACID	Leaf				Jim Duke's personal files.
10	SQUALENE	Seed Oil				Jim Duke's personal files.
1	SODIUM	Leaf	160.0	711.0	-0.521006410073194	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
1	SODIUM	Fruit	60.0	444.0	-0.14184676510350971	--
4	SILICON	Fruit	1.2	10.0	-0.5759531928031193	--
1	SERINE	Fruit	150.0	1343.0	-0.8120190151666494	USDA's Ag Handbook 8 and sequelae)
60	SELENIUM	Fruit	0.1	1.0	-0.13821084305127834	--
7	SALICYLATES	Fruit	0.8	8.0	-0.31380232713014544	--
15	RIBOFLAVIN	Leaf	5.0	21.0	-0.07942432526480918	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	RIBOFLAVIN	Fruit	0.4	3.0	-0.4303249009534089	--
3	PYRIDINE	Fruit				Jim Duke's personal files.
4	PUFA	Fruit	310.0	2775.0	-0.6408686079046128	USDA's Ag Handbook 8 and sequelae)
2	PRUNASIN	Leaf				Jim Duke's personal files.
14	POTASSIUM	Fruit	690.0	5110.0	-1.1330381120971724	--
14	POTASSIUM	Leaf	6520.0	28978.0	-0.060322902844285126	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
4	PHOSPHORUS	Leaf	1420.0	6311.0	0.24645891872875847	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
4	PHOSPHORUS	Fruit	170.0	1260.0	-0.5941134018186989	--
7	PHENYLALANINE	Fruit	90.0	806.0	-0.8738816258110772	USDA's Ag Handbook 8 and sequelae)
24	PECTIN	Fruit				Jim Duke's personal files.
25	PAPAIN	Latex Exudate	51000.0	135000.0		--
25	PAPAIN	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
11	PANTOTHENIC-ACID	Fruit	2.0	19.0	0.05712424299404392	USDA's Ag Handbook 8 and sequelae)
2	PALMITOLEIC-ACID	Flower				Jim Duke's personal files.
2	PALMITOLEIC-ACID	Fruit	200.0	1790.0	-0.01827100523355692	--
13	PALMITIC-ACID	Flower				Jim Duke's personal files.
13	PALMITIC-ACID	Leaf				Jim Duke's personal files.
13	PALMITIC-ACID	Seed Oil	162000.0	190000.0	0.05419140224469152	Jim Duke's personal files.
13	PALMITIC-ACID	Seed	28791.0	30107.0	-0.07839595078720965	--
13	PALMITIC-ACID	Fruit	320.0	2865.0	-0.320933619156033	--
18	OLEIC-ACID	Fruit	180.0	1611.0	-0.4683286447061981	USDA's Ag Handbook 8 and sequelae)
18	OLEIC-ACID	Leaf				Jim Duke's personal files.
18	OLEIC-ACID	Flower				Jim Duke's personal files.
18	OLEIC-ACID	Seed Oil	743000.0	755000.0	2.266462351347825	Jim Duke's personal files.
18	OLEIC-ACID	Seed	193545.0	202400.0	0.6847466271086402	--
5	OCTANOIC-ACID	Fruit				Jim Duke's personal files.
21	NICOTINE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
21	NICOTINE	Leaf		102.8	-0.7499661778472884	Jim Duke's personal files.
39	NIACIN	Leaf	21.0	93.0	-0.05474550834730091	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
39	NIACIN	Fruit	4.0	30.0	-0.41038049882634875	--
2	NEOXANTHIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	N-NONACOSANE	Seed Oil				Jim Duke's personal files.
2	N-HEXACOSANE	Seed Oil				Jim Duke's personal files.
3	N-HENTRIACONTANE	Seed Oil				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	N-ACETYL- HEXOSAMIDASE	Latex Exudate				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	MYRISTOLEIC-ACID	Fruit				Jim Duke's personal files.
1	MYRISTOLEIC-ACID	Flower				Jim Duke's personal files.
6	MYRISTIC-ACID	Flower				Jim Duke's personal files.
6	MYRISTIC-ACID	Leaf				Jim Duke's personal files.
6	MYRISTIC-ACID	Seed Oil		4000.0	-0.5619514869490164	Jim Duke's personal files.
6	MYRISTIC-ACID	Seed				--
6	MYRISTIC-ACID	Fruit	70.0	627.0	-0.23956447622829535	--
22	MYRCENE	Fruit				--
2	MYOSMINE	Leaf		1.4		Jim Duke's personal files.
2	MYOSMINE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
13	MUFA	Fruit	380.0	3402.0	-0.2044785517519125	USDA's Ag Handbook 8 and sequelae)
21	METHYL-SALICYLATE	Fruit				--
3	METHYL-ACETATE	Fruit				--
15	METHIONINE	Fruit	10.0	179.0	-0.9599249017247726	--
2	METHANOL	Fruit				Jim Duke's personal files.
14	MANGANESE	Fruit	0.1	1.0	-0.3969436204051225	--
15	MALIC-ACID	Latex Exudate		4400.0		ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	MALIC-ACID	Fruit	3150.0	23333.0	0.567329421438877	--
65	MAGNESIUM	Fruit	110.0	815.0	-0.608799543813469	--
4	LYSINE	Fruit	250.0	2238.0	-0.48599361292492554	USDA's Ag Handbook 8 and sequelae)
16	LYCOPENE	Pericarp				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
16	LYCOPENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
27	LINOLEIC-ACID	Flower				Jim Duke's personal files.
27	LINOLEIC-ACID	Leaf				Jim Duke's personal files.
27	LINOLEIC-ACID	Seed		5389.0	-0.871660128625913	--
27	LINOLEIC-ACID	Seed Oil		4000.0	-1.5223259403119926	Jim Duke's personal files.
27	LINOLEIC-ACID	Fruit	60.0	537.0	-0.347823614663473	--
53	LINALOOL	Fruit		0.0	-0.5857755812776223	--
1	LIGNOCERIC-ACID	Seed Oil				Jim Duke's personal files.
2	LEUCINE	Fruit	160.0	1432.0	-0.7800180381461054	USDA's Ag Handbook 8 and sequelae)
7	LAURIC-ACID	Flower				Jim Duke's personal files.
7	LAURIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
7	LAURIC-ACID	Leaf				Jim Duke's personal files.
7	LAURIC-ACID	Fruit	10.0	90.0	-0.4444146432555388	--
7	LAURIC-ACID	Seed Oil		4000.0	-0.7012763853261376	Jim Duke's personal files.
2	ISOPROPYL-ALCOHOL	Fruit				Jim Duke's personal files.
3	ISOLEUCINE	Fruit	80.0	716.0	-0.8775495343550369	USDA's Ag Handbook 8 and sequelae)
2	ISOBUTYL-ALCOHOL	Fruit				Jim Duke's personal files.
3	ISOBUTYL-ACETATE	Fruit				Jim Duke's personal files.
2	ISOAMYL-ACETATE	Fruit				--
6	IRON	Leaf	8.0	38.0	-0.824258114808842	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
6	IRON	Fruit	0.4	3.0	-0.5155879913303996	--
7	HISTIDINE	Fruit	50.0	448.0	-0.8866430953186365	USDA's Ag Handbook 8 and sequelae)
1	HEXYL-ACETATE	Fruit				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
5	HEXANAL	Fruit				--
12	GLYCINE	Fruit	180.0	1611.0	-0.7711938117552699	USDA's Ag Handbook 8 and sequelae)
8	GLUTAMIC-ACID	Fruit				USDA's Ag Handbook 8 and sequelae)
7	GLUCOSE	Leaf				Jim Duke's personal files.
7	GLUCOSE	Bark				Jim Duke's personal files.
7	GLUCOSE	Fruit				Jim Duke's personal files.
2	GERMACRENE-D	Fruit				--
2	GERANYL-ACETONE	Fruit				--
8	GENTISIC-ACID	Leaf				Jim Duke's personal files.
11	GAMMA-TERPINENE	Fruit				--
2	GAMMA-CAROTENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	GALACTOSE	Bark				Jim Duke's personal files.
7	FUMARIC-ACID	Fruit	3150.0	23333.0	1.4090927316950586	--
8	FRUCTOSE	Leaf				Jim Duke's personal files.
8	FRUCTOSE	Bark				Jim Duke's personal files.
8	FRUCTOSE	Fruit				Jim Duke's personal files.
15	FIBER	Seed		170000.0	0.27811243148773734	ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
15	FIBER	Leaf	18000.0	145000.0	-0.20447325046745057	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
15	FIBER	Fruit	5000.0	92198.0	-0.46690178925800363	--
1	ETHYL-BUTYRATE	Fruit				--
1	ETHYL-BENZOATE	Fruit				--
6	ETHYL-ACETATE	Fruit				--
24	ETHANOL	Fruit				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	EPSILON-CAROTENE	Pericarp				Jim Duke's personal files.
1	EPSILON-CAROTENE	Fruit				--
7	CYCLOARTENOL	Seed Oil				Jim Duke's personal files.
2	CRYPTOXANTHIN	Pericarp				Jim Duke's personal files.
12	COPPER	Fruit	0.1	5.0	-0.6085448044834153	--
2	COBALT	Fruit	2.0	14.0	1.1597144135765933	--
23	CITRIC-ACID	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
4	CHYMOPAPAIN	Latex Exudate				--
24	CHROMIUM	Fruit	0.1	1.0	-0.3671750908546996	--
20	CHOLINE	Leaf		200.0	-0.47726562792110133	Jim Duke's personal files.
1	CHOLESTEROL	Seed Oil				Jim Duke's personal files.
31	CARYOPHYLLENE	Fruit				--
4	CARPOSIDE	Leaf				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
17	CARPAIN	Seed				--
17	CARPAIN	Root				--
17	CARPAIN	Leaf	150.0	4000.0		--
17	CARPAIN	Bark				--
17	CARPAIN	Fruit		200.0		Jim Duke's personal files.
17	CARPAIN	Plant				Jim Duke's personal files.
1	CAPROIC-ACID	Fruit				Jim Duke's personal files.
2	CAMPESTEROL	Seed Oil				Jim Duke's personal files.
28	CALCIUM	Leaf	3440.0	23800.0	0.36642881915355097	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
28	CALCIUM	Fruit	159.0	1180.0	-0.6175808503755033	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
102	CAFFEIC-ACID	Leaf				Jim Duke's personal files.
2	BUTYL-ALCOHOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	BORON	Fruit	5.0	15.0	-0.5018987122156774	--
47	BETA-SITOSTEROL	Seed				Jim Duke's personal files.
47	BETA-SITOSTEROL	Fruit				Jim Duke's personal files.
47	BETA-SITOSTEROL	Flower				Jim Duke's personal files.
47	BETA-SITOSTEROL	Seed Oil				Jim Duke's personal files.
47	BETA-SITOSTEROL	Leaf				Jim Duke's personal files.
3	BETA-PHELLANDRENE	Fruit				--
53	BETA-CAROTENE	Leaf	116.0	514.0	1.1005033579469683	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
53	BETA-CAROTENE	Pericarp				Jim Duke's personal files.
53	BETA-CAROTENE	Fruit				--
53	BETA-CAROTENE	Seed Oil				Jim Duke's personal files.
20	BENZYL-ISOTHIOCYANATE	Fruit	0.001	291.0		--
20	BENZYL-ISOTHIOCYANATE	Seed	2000.0	5000.0	-1.0	Jim Duke's personal files.
9	BENZYL-ALCOHOL	Fruit		0.0	-0.7177394965097122	Jim Duke's personal files.
24	BENZALDEHYDE	Fruit		300.0	-0.06377099858893052	--
1	BEHENIC-ACID	Seed				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
1	BEHENIC-ACID	Seed Oil		16000.0	0.29658976365227746	Jim Duke's personal files.
3	ASPARTIC-ACID	Fruit	490.0	4387.0	-0.7582452723944939	USDA's Ag Handbook 8 and sequelae)
112	ASCORBIC-ACID	Leaf	1400.0	6222.0	0.13340221850054146	--
112	ASCORBIC-ACID	Fruit	640.0	4741.0	0.010292117056281466	--
14	ARGININE	Fruit	100.0	895.0	-0.9108448929638525	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	ANTHERAXANTHIN	Fruit				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
32	ALPHA-TOCOPHEROL	Leaf				Jim Duke's personal files.
13	ALPHA-TERPINENE	Fruit				--
11	ALPHA-PHELLANDRENE	Fruit				--
15	ALPHA-LINOLENIC-ACID	Fruit	250.0	2238.0	-0.1389637310912248	USDA's Ag Handbook 8 and sequelae)
3	ALANINE	Fruit	140.0	1253.0	-0.9646875161658541	USDA's Ag Handbook 8 and sequelae)
15	5-HYDROXYTRYPTAMINE	Plant				Jim Duke's personal files.
8	4-TERPINEOL	Fruit				--