

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Carica papaya*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	4-TERPINEOL	Fruit				--
15	5-HYDROXYTRYPTAMINE	Plant				Jim Duke's personal files.
3	ALANINE	Fruit	140.0	1253.0	-0.9646875161658541	USDA's Ag Handbook 8 and sequelae)
15	ALPHA-LINOLENIC-ACID	Fruit	250.0	2238.0	-0.1389637310912248	USDA's Ag Handbook 8 and sequelae)
11	ALPHA-PHELLANDRENE	Fruit				--
13	ALPHA-TERPINENE	Fruit				--
32	ALPHA-TOCOPHEROL	Leaf				Jim Duke's personal files.
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.
14	ARGININE	Fruit	100.0	895.0	-0.9108448929638525	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	--
3	ASPARTIC-ACID	Fruit	490.0	4387.0	-0.7582452723944939	USDA's Ag Handbook 8 and sequelae)
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.
24	BENZALDEHYDE	Fruit		300.0	-0.06377099858893052	--
9	BENZYL-ALCOHOL	Fruit		0.0	-0.7177394965097122	Jim Duke's personal files.
20	BENZYL-ISOTHIOCYANATE	Seed	2000.0	5000.0	-1.0	Jim Duke's personal files.
20	BENZYL-ISOTHIOCYANATE	Fruit	0.001	291.0		--
53	BETA-CAROTENE	Pericarp				Jim Duke's personal files.
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	Seed Oil				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
53	BETA-CAROTENE	Fruit				--
3	BETA-PHELLANDRENE	Fruit				--
47	BETA-SITOSTEROL	Leaf				Jim Duke's personal files.
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.
4	BORON	Fruit	5.0	15.0	-0.5018987122156774	--
2	BUTYL-ALCOHOL	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
102	CAFFEIC-ACID	Leaf				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	--
2	CAMPESTEROL	Seed Oil				Jim Duke's personal files.
1	CAPROIC-ACID	Fruit				Jim Duke's personal files.
17	CARPAININE	Leaf	150.0	4000.0		--
17	CARPAININE	Bark				--
17	CARPAININE	Fruit		200.0		Jim Duke's personal files.
17	CARPAININE	Plant				Jim Duke's personal files.
17	CARPAININE	Seed				--
17	CARPAININE	Root				--
4	CARPOSIDE	Leaf				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
31	CARYOPHYLLENE	Fruit				--
1	CHOLESTEROL	Seed Oil				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
20	CHOLINE	Leaf		200.0	-0.47726562792110133	Jim Duke's personal files.
24	CHROMIUM	Fruit	0.1	1.0	-0.3671750908546996	--
4	CHYMOPAPAIN	Latex Exudate				--
23	CITRIC-ACID	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
2	COBALT	Fruit	2.0	14.0	1.1597144135765933	--
12	COPPER	Fruit	0.1	5.0	-0.6085448044834153	--
2	CRYPTOXANTHIN	Pericarp				Jim Duke's personal files.
7	CYCLOARTENOL	Seed Oil				Jim Duke's personal files.
1	EPSILON-CAROTENE	Fruit				--
1	EPSILON-CAROTENE	Pericarp				Jim Duke's personal files.
24	ETHANOL	Fruit				Jim Duke's personal files.
6	ETHYL-ACETATE	Fruit				--
1	ETHYL-BENZOATE	Fruit				--
1	ETHYL-BUTYRATE	Fruit				--
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	--
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.
8	FRUCTOSE	Leaf				Jim Duke's personal files.
8	FRUCTOSE	Bark				Jim Duke's personal files.
8	FRUCTOSE	Fruit				Jim Duke's personal files.
7	FUMARIC-ACID	Fruit	3150.0	23333.0	1.4090927316950586	--
1	GALACTOSE	Bark				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	GAMMA-CAROTENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
11	GAMMA-TERPINENE	Fruit				--
8	GENTISIC-ACID	Leaf				Jim Duke's personal files.
2	GERANYL-ACETONE	Fruit				--
2	GERMACRENE-D	Fruit				--
7	GLUCOSE	Leaf				Jim Duke's personal files.
7	GLUCOSE	Bark				Jim Duke's personal files.
7	GLUCOSE	Fruit				Jim Duke's personal files.
8	GLUTAMIC-ACID	Fruit				USDA's Ag Handbook 8 and sequelae)
12	GLYCINE	Fruit	180.0	1611.0	-0.7711938117552699	USDA's Ag Handbook 8 and sequelae)
5	HEXANAL	Fruit				--
1	HEXYL-ACETATE	Fruit				Jim Duke's personal files.
7	HISTIDINE	Fruit	50.0	448.0	-0.8866430953186365	USDA's Ag Handbook 8 and sequelae)
6	IRON	Fruit	0.4	3.0	-0.5155879913303996	--
6	IRON	Leaf	8.0	38.0	-0.824258114808842	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	ISOAMYL-ACETATE	Fruit				--
3	ISOBUTYL-ACETATE	Fruit				Jim Duke's personal files.
2	ISOBUTYL-ALCOHOL	Fruit				Jim Duke's personal files.
3	ISOLEUCINE	Fruit	80.0	716.0	-0.8775495343550369	USDA's Ag Handbook 8 and sequelae)
2	ISOPROPYL-ALCOHOL	Fruit				Jim Duke's personal files.
7	LAURIC-ACID	Flower				Jim Duke's personal files.
7	LAURIC-ACID	Leaf				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.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
7	LAURIC-ACID	Seed Oil		4000.0	-0.7012763853261376	Jim Duke's personal files.
7	LAURIC-ACID	Fruit	10.0	90.0	-0.4444146432555388	--
2	LEUCINE	Fruit	160.0	1432.0	-0.7800180381461054	USDA's Ag Handbook 8 and sequelae)
1	LIGNOCERIC-ACID	Seed Oil				Jim Duke's personal files.
53	LINALOOL	Fruit		0.0	-0.5857755812776223	--
27	LINOLEIC-ACID	Flower				Jim Duke's personal files.
27	LINOLEIC-ACID	Leaf				Jim Duke's personal files.
27	LINOLEIC-ACID	Seed Oil		4000.0	-1.5223259403119926	Jim Duke's personal files.
27	LINOLEIC-ACID	Seed		5389.0	-0.871660128625913	--
27	LINOLEIC-ACID	Fruit	60.0	537.0	-0.347823614663473	--
16	LYCOPENE	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
16	LYCOPENE	Pericarp				Jim Duke's personal files.
4	LYSINE	Fruit	250.0	2238.0	-0.48599361292492554	USDA's Ag Handbook 8 and sequelae)
65	MAGNESIUM	Fruit	110.0	815.0	-0.608799543813469	--
15	MALIC-ACID	Fruit	3150.0	23333.0	0.567329421438877	--
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.
14	MANGANESE	Fruit	0.1	1.0	-0.3969436204051225	--
2	METHANOL	Fruit				Jim Duke's personal files.
15	METHIONINE	Fruit	10.0	179.0	-0.9599249017247726	--
3	METHYL-ACETATE	Fruit				--
21	METHYL-SALICYLATE	Fruit				--
13	MUFA	Fruit	380.0	3402.0	-0.2044785517519125	USDA's Ag Handbook 8 and sequelae)

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	MYOSMINE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
2	MYOSMINE	Leaf		1.4		Jim Duke's personal files.
22	MYRCENE	Fruit				--
6	MYRISTIC-ACID	Seed				--
6	MYRISTIC-ACID	Fruit	70.0	627.0	-0.23956447622829535	--
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.
1	MYRISTOLEIC-ACID	Fruit				Jim Duke's personal files.
1	MYRISTOLEIC-ACID	Flower				Jim Duke's personal files.
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.
3	N-HENTRIACONTANE	Seed Oil				Jim Duke's personal files.
2	N-HEXACOSANE	Seed Oil				Jim Duke's personal files.
1	N-NONACOSANE	Seed Oil				Jim Duke's personal files.
2	NEOXANTHIN	Fruit				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
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	--
21	NICOTINE	Leaf		102.8	-0.7499661778472884	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.
5	OCTANOIC-ACID	Fruit				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
18	OLEIC-ACID	Seed	193545.0	202400.0	0.6847466271086402	--
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.
13	PALMITIC-ACID	Seed	28791.0	30107.0	-0.07839595078720965	--
13	PALMITIC-ACID	Fruit	320.0	2865.0	-0.320933619156033	--
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.
2	PALMITOLEIC-ACID	Fruit	200.0	1790.0	-0.01827100523355692	--
2	PALMITOLEIC-ACID	Flower				Jim Duke's personal files.
11	PANTOTHENIC-ACID	Fruit	2.0	19.0	0.05712424299404392	USDA's Ag Handbook 8 and sequelae)
25	PAPAIN	Latex Exudate	51000.0	135000.0		--
25	PAPAIN	Fruit				--
24	PECTIN	Fruit				Jim Duke's personal files.
7	PHENYLALANINE	Fruit	90.0	806.0	-0.8738816258110772	USDA's Ag Handbook 8 and sequelae)
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	--
14	POTASSIUM	Leaf	6520.0	28978.0	-0.060322902844285126	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
14	POTASSIUM	Fruit	690.0	5110.0	-1.1330381120971724	--
2	PRUNASIN	Leaf				Jim Duke's personal files.
4	PUFA	Fruit	310.0	2775.0	-0.6408686079046128	USDA's Ag Handbook 8 and sequelae)
3	PYRIDINE	Fruit				Jim Duke's personal files.
15	RIBOFLAVIN	Leaf	5.0	21.0	-0.07942432526480918	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	RIBOFLAVIN	Fruit	0.4	3.0	-0.4303249009534089	--
7	SALICYLATES	Fruit	0.8	8.0	-0.31380232713014544	--
60	SELENIUM	Fruit	0.1	1.0	-0.13821084305127834	--
1	SERINE	Fruit	150.0	1343.0	-0.8120190151666494	USDA's Ag Handbook 8 and sequelae)
4	SILICON	Fruit	1.2	10.0	-0.5759531928031193	--
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	--
10	SQUALENE	Seed Oil				Jim Duke's personal files.
8	STEARIC-ACID	Flower				Jim Duke's personal files.
8	STEARIC-ACID	Leaf				Jim Duke's personal files.
8	STEARIC-ACID	Seed Oil		50000.0	-0.5312228391740013	Jim Duke's personal files.
8	STEARIC-ACID	Seed	12650.0	13282.0	-0.2772157419739704	--
8	STEARIC-ACID	Fruit	20.0	179.0	-0.2673505228936131	--
12	STIGMASTEROL	Seed Oil				Jim Duke's personal files.
3	STYRENE	Fruit				Jim Duke's personal files.
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.
14	SULFUR	Fruit	300.0	900.0	-0.35813249886374227	--
6	TARTARIC-ACID	Fruit	3150.0	23333.0	-0.24237898104354536	--
9	TERPINOLENE	Fruit				--
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)
4	THREONINE	Fruit	110.0	985.0	-0.8449765955821991	USDA's Ag Handbook 8 and sequelae)



Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	TOLUENE	Fruit		0.005	-0.707116857507301	Jim Duke's personal files.
29	TRYPTOPHAN	Fruit	40.0	716.0	-0.18868896426915321	--
8	TYROSINE	Fruit	50.0	448.0	-0.8166172460051626	USDA's Ag Handbook 8 and sequelae)
3	VALINE	Fruit	100.0	895.0	-0.7341136385803058	USDA's Ag Handbook 8 and sequelae)
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.
10	XYLITOL	Bark				Jim Duke's personal files.
5	ZEAXANTHIN	Fruit				ANON. 1948-1976. The Wealth of India raw materials. Publications and Information Directorate, CSIR, New Delhi. 11 volumes.
77	ZINC	Fruit				--