

Dr. Duke's Phytochemical and Ethnobotanical Database

Chemicals Found in Ananas comosus

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	2,5-DIMETHYL-4-HYDROXY-3(2H)-FURANONE	Plant	1.2	1.2		
15	5-HYDROXYTRYPTAMINE	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	5-STIGMASTENE-3-BETA-7-ALPHA-DIOL	Leaf	--	--		
6	ACETALDEHYDE	Fruit	0.61	1.4	-0.7074252260202778	
16	ACETIC-ACID	Fruit	0.49	0.49	-0.6429596690411867	
3	ACETONE	Fruit	--	--		
0	ACETOXYACETONE	Fruit	--	--		
2	ACRYLIC-ACID	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	ALANINE	Fruit	170	1259	-0.9623293474565466	USDA's Ag Handbook 8 and sequelae)
15	ALPHA-LINOLENIC-ACID	Fruit	620	4592	0.9270718186858735	USDA's Ag Handbook 8 and sequelae)
23	ALPHA-TERPINEOL	Fruit	--	--		Wealth of India.
32	ALPHA-TOCOPHEROL	Fruit	1	7	-1.0138725518998306	USDA's Ag Handbook 8 and sequelae)
1	AMYL-CAPROATE	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ANANASIC-ACID	Plant	--	--		
0	ANANASIC-ACID	Stem	--	--		
14	ARGININE	Fruit	46	1333	-0.794013888564445	
112	ASCORBIC-ACID	Fruit	148	4178	-0.024713529850358282	
0	ASH	Fruit	2800	36000	-0.5350952496139966	
2	ASPARAGINE	Fruit	1251	1251	-0.05455471931954438	
3	ASPARTIC-ACID	Fruit	293	4222	-0.7799223200234909	
53	BETA-CAROTENE	Fruit	--	3	-0.14500168318231235	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	BETA-METHYL-THIOPROPIONIC-ACID-ETHYL-ESTER	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	BETA-METHYL-THIOPROPIONIC-ACID-METHYL-ESTER	Plant	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
47	BETA-SITOSTEROL	Fruit	--	40	-0.7416857929866011	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	BIACETYL	Fruit	--	--		
4	BORON	Fruit	0.2	0.2	-0.7998787652725032	Betting on Boron, Unpublished draft by J. A. Duke on file at USDA, draft and papers relating to boron percentages. Includes Internat. Z. Vit. Ern. Forschung 43:1973 (boron).
54	BROMELAIN	Leaf	--	--		
54	BROMELAIN	Fruit	--	800		
54	BROMELAIN	Fruit Juice	--	--		
54	BROMELAIN	Pericarp	--	750		
54	BROMELAIN	Stem	400	6000		
0	BROMELIN	Fruit	--	--		
0	BUTYL-FORMATE	Fruit	--	--		
102	CAFFEIC-ACID	Fruit	--	--		Wealth of India.
28	CALCIUM	Fruit	62	1308	-0.5880435225997285	
0	CAMPESTANOL	Leaf	--	--		Wealth of India.
2	CAMPESTEROL	Fruit	--	10	-0.574497534390022	
0	CARBOHYDRATES	Fruit	116000	938000	0.8294973851052414	
1	CELLULOSE	Fruit	4300	5400	-0.6079389189790592	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	CHAVICOL	Fruit	0.27	0.27	-0.9394828377321076	
7	CHLORINE	Fruit	130	460	-0.37076321149612135	
23	CITRIC-ACID	Fruit	3200	86000	0.7561189975512667	
12	COPPER	Fruit	1	8.8	-0.31279291639814205	USDA's Ag Handbook 8 and sequelae)
0	CYANIDIN-3,5,3'-TRIGLUCOSIDE	Leaf	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
5	CYANIN	Leaf	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
2	CYSTINE	Fruit	20	148	-0.9213988097846431	
0	DELTA-OCTALACTONE	Fruit	0.3	0.3	0.9999999999999998	
0	DIMETHYL-MALONATE	Fruit	0.06	0.06		
0	ERGOSTEROL-PEROXIDE	Leaf	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ERGOSTEROL-PEROXIDE	Plant	--	--		
0	ESTERS	Fruit	1	250		
6	ETHYL-ACETATE	Fruit	3	120	-0.70662139478696	
3	ETHYL-ACRYLATE	Fruit	0.77	0.77		
0	ETHYL-ALCOHOL	Fruit	60	60		
0	ETHYL-BETA-ACETOXYHEXANOATE	Fruit	0.006	0.006		
0	ETHYL-BETA-HYDROXYHEXANOATE	Fruit	0.03	0.03		
0	ETHYL-BETA-METHYLTHIOPROPIONATE	Fruit	0.09	0.09		
1	ETHYL-BUTYRATE	Fruit	--	--		
0	ETHYL-CAPROATE	Fruit	0.77	0.77		
0	ETHYL-CAPRYLATE	Fruit	--	--		
1	ETHYL-FORMATE	Fruit	--	--		
2	ETHYL-ISOBUTYRATE	Fruit	--	--		
1	ETHYL-ISOVALERATE	Fruit	0.39	0.39		
1	ETHYL-LACTATE	Fruit	--	--		
1	ETHYL-PROPIONATE	Fruit	--	--		
0	FAT	Fruit	1000	42772	-0.31456299424703693	
61	FERULIC-ACID	Plant	200	760	0.30089312112081323	
15	FIBER	Fruit	3000	45000	-0.9122848051944537	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
8	FRUCTOSE	Fruit	6000	23000	-0.5685085977706082	
22	GABA	Fruit	124	124	-0.8260218279660345	
22	GAMMA-AMINOBUTYRIC-ACID	Fruit	--	124	-0.7339036629968998	
0	GAMMA-BUTYROLACTONE	Fruit	--	--		
0	GAMMA-CAPROLACTONE	Fruit	0.12	0.12		
0	GAMMA-EUDESOL	Fruit	--	--		Wealth of India.
0	GAMMA-OCTALACTONE	Fruit	0.3	0.3		
7	GLUCOSE	Fruit	10000	32000	-0.5554772375932454	
8	GLUTAMIC-ACID	Fruit	90	3333	-0.7707955020140207	
5	GLUTAMINE	Fruit	256	256	-1.3035344452228055	
12	GLYCINE	Fruit	65	1259	-0.9073607916848047	
0	HEXOSANS	Fruit	1000	1500		
7	HISTIDINE	Fruit	48	667	-0.7330978320953143	
0	INDOLE-ACETIC-ACID-OXIDASE	Fruit	--	--		
12	IODINE	Fruit	--	1	-0.2853656286580971	
6	IRON	Fruit	3	73	-0.237916857716136	
0	ISOBUTANOL	Fruit	--	--		
3	ISOBUTYL-ACETATE	Fruit	--	--		
0	ISOBUTYL-FORMATE	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ISOCAPRONIC-ACID	Fruit	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
3	ISOLEUCINE	Fruit	23	963	-0.8033643152755049	
0	ISOPROPYL-ISOBUTYRATE	Fruit	--	--		
0	KILOCALORIES	Fruit	460	3770	0.16623260731496653	Wealth of India.
0	L-MALIC-ACID	Fruit	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
2	LEUCINE	Fruit	24	1407	-0.7853327434466933	
53	LINALOOL	Fruit	--	--		Wealth of India.
27	LINOLEIC-ACID	Fruit	840	6222	-0.26761688873606465	USDA's Ag Handbook 8 and sequelae)
4	LYSINE	Fruit	46	1852	-0.5859651529954232	
65	MAGNESIUM	Fruit	110	1075	-0.4884044378711737	
15	MALIC-ACID	Fruit	1000	4700	-0.6457922708636072	
14	MANGANESE	Fruit	12	209	0.9745812460530798	USDA's Ag Handbook 8 and sequelae)
2	METHANOL	Fruit	--	--		
15	METHIONINE	Fruit	110	815	-0.17673494188159297	USDA's Ag Handbook 8 and sequelae)

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
3	METHYL-ACETATE	Fruit	--	--		
0	METHYL-BETA-ACETOXYHEXANOATE	Fruit	0.03	0.03		
0	METHYL-BETA-HYDROXYBUTYRATE	Fruit	0.006	0.006		
0	METHYL-BETA-HYDROXYHEXANOATE	Fruit	0.021	0.021		
0	METHYL-BETA-METHYLTHIOPROPIONATE	Fruit	0.12	1.1		
2	METHYL-BUTYRATE	Fruit	--	--		
2	METHYL-CAPROATE	Fruit	--	--		
2	METHYL-CAPRYLATE	Fruit	0.75	0.75		
0	METHYL-CIS-(4?)-OCTENOATE	Fruit	0.001	0.001		
0	METHYL-ISOBUTYRATE	Fruit	--	--		
0	METHYL-ISOCAPROATE	Fruit	1.4	1.4		
2	METHYL-ISOVALERATE	Fruit	0.6	0.6		
0	METHYL-N-PROPYL-KETONE	Fruit	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
13	MUFA	Fruit	480	3556	-0.2022365513065334	USDA's Ag Handbook 8 and sequelae)
0	MYRICYL-ALCOHOL	Plant	--	--		Wealth of India.
6	MYRISTIC-ACID	Leaf	--	--		Wealth of India.
0	N-VALERIANIC-ACID	Fruit	--	--		

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
39	NIACIN	Fruit	2	33	-0.3702757051487892	
0	NITRATE	Fruit	--	1200		
0	NITROGEN	Fruit	450	1150	-0.9446478386927912	
18	OLEIC-ACID	Fruit	450	3333	-0.4550566138643591	USDA's Ag Handbook 8 and sequelae)
9	OXALIC-ACID	Fruit	50	58	-0.3031507791033899	
12	P-AMINOBENZOIC-ACID	Fruit	--	1		
25	P-COUMARIC-ACID	Plant	330	730	1	
13	PALMITIC-ACID	Fruit	190	1407	-0.34363159570129753	USDA's Ag Handbook 8 and sequelae)
2	PALMITOLEIC-ACID	Fruit	30	220	-0.3052214375445054	USDA's Ag Handbook 8 and sequelae)
11	PANTOTHENIC-ACID	Fruit	1	11	-0.4531667614192529	
24	PECTIN	Fruit	600	1600	-0.6112516644530539	
0	PENTANOL	Fruit	--	--		
0	PENTOSANS	Fruit	3300	4300	-0.82843239727699	
0	PEROXIDASE	Fruit	--	--		
7	PHENYLALANINE	Fruit	40	889	-0.8450965469447457	
0	PHOSPHATASE	Fruit	--	--		
4	PHOSPHORUS	Fruit	60	923	-0.6964737105069562	
5	PHYLLOQUINONE	Fruit	--	0.002	-0.2326945725033858	

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	PHYTOSTEROLS	Fruit	60	444	-0.6459122529026068	USDA's Ag Handbook 8 and sequelae)
14	POTASSIUM	Fruit	110	9932	0.0250816407680162	
0	PROLINE	Fruit	31	963	-0.8357784281624211	
0	PROPANOL	Fruit	--	--		
0	PROPYL-ACETATE	Fruit	--	--		
0	PROPYL-FORMATE	Fruit	--	--		
0	PROTEIN	Fruit	4000	55000	-0.7305766269277133	
4	PUFA	Fruit	1460	10815	-0.0653033406862613	USDA's Ag Handbook 8 and sequelae)
15	RIBOFLAVIN	Fruit	--	3	-0.4303249009534089	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
7	SALICYLATES	Fruit	10	150	0.09337758267881556	
1	SERINE	Fruit	250	1852	-0.6323156765928126	USDA's Ag Handbook 8 and sequelae)
26	SEROTONIN	Fruit	19	60	0.9214964116563734	
0	SFA	Fruit	320	2370	-0.3271093228160582	USDA's Ag Handbook 8 and sequelae)
4	SILICON	Fruit	110	690	1.6333480894777093	
9	SINAPIC-ACID	Fruit	--	--		Wealth of India.

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
1	SODIUM	Fruit	10	180	-0.15104516616496144	
5	STARCH	Leaf	--	30000	-0.15269733104161728	Wealth of India.
5	STARCH	Fruit	19	19	-0.4565493616156333	
5	STARCH	Stem	100000	150000	1	Wealth of India.
8	STEARIC-ACID	Fruit	110	815	-0.22517226092311657	USDA's Ag Handbook 8 and sequelae)
1	STIGMAST-5-ENE-3-BETA-7-ALPHA-DIOL	Plant	--	--		
0	STIGMASTANOL	Leaf	--	--		Wealth of India.
12	STIGMASTEROL	Fruit	--	--	-1.1725991994622522	Spiller, G. A. 1996 (Spiller, G. A. Ed. 1996. CRC Handbook of Lipids in Human Nutrition. CRC Press. Boca Raton, FL. 233 pp.)
3	SUBAPHYLLIN	Plant	--	--		Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
14	SUCROSE	Fruit	59000	150000	0.31672247615443067	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses

Activity Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
14	SULFUR	Fruit	70	200	-0.8453199626150852	
31	THIAMIN	Fruit	--	7	0.21342198396383905	
4	THREONINE	Fruit	78	859	-0.8973538144786632	
0	TRANS-TETRAHYDRO-ALPHA-ALPHA-5-TRIMETHYL-5-VINYLFURFURYL-ALC	Plant	--	--		
8	TYROSINE	Fruit	58	889	-0.6338783019676755	
3	VALINE	Fruit	39	1185	-0.6742786315009667	
28	VANILLIN	Fruit	--	--		CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	VIT-B-6	Fruit	0.9	6	-0.3708031557292606	USDA's Ag Handbook 8 and sequelae)
0	WATER	Fruit	812000	890000	0.5192678759882906	
77	ZINC	Fruit	0.7	6	-0.7311333825482068	USDA's Ag Handbook 8 and sequelae)