

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Angelica sinensis*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
11	ADENINE	Root				Jim Duke's personal files.
3	ALANINE	Root				Jim Duke's personal files.
28	ALPHA-PINENE	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
32	ALPHA-TOCOPHEROL	Root				Jim Duke's personal files.
5	ALUMINUM	Root	93.0	422.0	-0.0860532203055952	--
1	ANGELIC-ACID	Root				Jim Duke's personal files.
12	ARACHIDONIC-ACID	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
14	ARGININE	Root				Jim Duke's personal files.
112	ASCORBIC-ACID	Root	67.0	304.0	-0.4721936580133219	--
3	ASPARTIC-ACID	Root				Jim Duke's personal files.
26	BERGAPTEN	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
53	BETA-CAROTENE	Root	0.3	1.2	-0.42874913335629994	--
47	BETA-SITOSTEROL	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
4	BIOTIN	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
10	BUTYLIDENE-PHTHALIDE	Root				Jim Duke's personal files.
4	CADINENE	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
28	CALCIUM	Root	620.0	2820.0	-0.5018997684435467	--
37	CARVACROL	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
37	CARVACROL	Root Essent. Oil				Jim Duke's personal files.
20	CHOLINE	Root		2470.0	-0.12100326278601606	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
24	CHROMIUM	Root	0.2	0.9	-0.3805576061834531	--
2	COBALT	Root	3.3	15.1	-0.21746232835558876	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
12	COPPER	Root		5.0	-0.7439970811056329	Suzuki, A., Morimoto, I., and Okitzu, T., Elution of Metals from Crude Drugs, Shoykugaku Zasshi 36(3):190-195.
2	CYSTINE	Root				Jim Duke's personal files.
13	FALCARINDIOL	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
16	FALCARINOL	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
3	FALCARINONE	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
61	FERULIC-ACID	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
61	FERULIC-ACID	Plant		940.0	0.7045758177797922	Jim Duke's personal files.
15	FIBER	Root		172000.0	1.8630150734263555	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
15	FOLACIN	Root				--
23	FOLIC-ACID	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
8	FRUCTOSE	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
22	GABA	Root				Jim Duke's personal files.
22	GAMMA-AMINOBUTYRIC-ACID	Root				Jim Duke's personal files.
7	GLUCOSE	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
8	GLUTAMIC-ACID	Root				Jim Duke's personal files.
12	GLYCINE	Root				Jim Duke's personal files.
7	HISTIDINE	Root				Jim Duke's personal files.
6	IRON	Root	19.4	88.0	-0.313807642199598	--
3	ISOLEUCINE	Root				Jim Duke's personal files.
3	ISOSAFROLE	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	LEUCINE	Root				Jim Duke's personal files.

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1	LIGNOCERIC-ACID	Root				Jim Duke's personal files.
7	LIGUSTILIDE	Essential Oil		450000.0	1.0	Jim Duke's personal files.
7	LIGUSTILIDE	Root Essent. Oil		739800.0	1.0	Jim Duke's personal files.
7	LIGUSTILIDE	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
27	LINOLEIC-ACID	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	LYSINE	Root				Jim Duke's personal files.
65	MAGNESIUM	Root	583.0	2650.0	0.047066853971341596	--
14	MANGANESE	Root	0.6	2.6	-0.5148269484931834	--
15	METHIONINE	Root				Jim Duke's personal files.
6	MYRISTIC-ACID	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	N-BUTYLPHTHALIDE	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
39	NIACIN	Root	15.0	68.0	0.5147577614900641	--
2	NICOTINAMIDE	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
11	NICOTINIC-ACID	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
18	OLEIC-ACID	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
16	P-CYMENE	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
13	PALMITIC-ACID	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
11	PANTOTHENIC-ACID	Root				Chemical Constituents of Oriental Herbs (3 diff. books)

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7	PHENYLALANINE	Root				Jim Duke's personal files.
2	PHOSPHATIDYL-CHOLINE	Root				Jim Duke's personal files.
4	PHOSPHORUS	Root	735.0	3340.0	-0.031231075436283107	--
14	POTASSIUM	Root	2354.0	10700.0	-0.37188592487614675	--
15	RIBOFLAVIN	Root	0.8	3.4	-0.14761901787013534	--
29	SAFROLE	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
29	SAFROLE	Root Essent. Oil				Jim Duke's personal files.
44	SCOPOLETIN	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
60	SELENIUM	Root	0.1	0.4	-0.3339983213346751	--
1	SERINE	Root				Jim Duke's personal files.
4	SILICON	Root	0.8	3.4	-0.327286207739498	--
1	SODIUM	Root				--
5	STARCH	Root	33000.0	150000.0	-0.6933088087748416	--
8	STEARIC-ACID	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
7	SUCCINIC-ACID	Root				Jim Duke's personal files.
14	SUCROSE	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
31	THIAMIN	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	THREONINE	Root				Jim Duke's personal files.
4	TIN	Root	0.9	4.0	-1.2692190956073157	--
29	TRYPTOPHAN	Root				Jim Duke's personal files.
8	TYROSINE	Root				Jim Duke's personal files.
22	UMBELLIFERONE	Root				Chemical Constituents of Oriental Herbs (3 diff. books)
3	VALINE	Root				Jim Duke's personal files.

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75	VITAMIN-E	Root		77.0		Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
77	ZINC	Root				--