

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Berberis vulgaris*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	ALKALOIDS	Bark				Jim Duke's personal files.
0	ALKALOIDS	Stem Bark				Jim Duke's personal files.
0	ALKALOIDS	Root Bark				Jim Duke's personal files.
0	ALKALOIDS	Root		30000.0	0.5447210147302421	--
0	ALPHA-GLUCAN	Leaf				Jim Duke's personal files.
32	ALPHA-TOCOPHEROL	Leaf		213.0	-0.4086139984388556	Jim Duke's personal files.
5	ALUMINUM	Bark		489.0	1.2160510458026077	--
5	ALUMINUM	Root		489.0	-0.050103911599143874	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
112	ASCORBIC-ACID	Leaf				Jim Duke's personal files.
112	ASCORBIC-ACID	Fruit	1560.0	3800.0	-0.048216433102063125	--
112	ASCORBIC-ACID	Bark				--
112	ASCORBIC-ACID	Root		0.0	-0.6459735820044326	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	ASH	Bark		100000.0	0.7762486153900449	--
0	ASH	Root		100000.0	0.9263745562711385	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	BARGUSTANINE	Root				Jim Duke's personal files.
38	BERBAMINE	Plant				--
38	BERBAMINE	Bark				Jim Duke's personal files.
38	BERBAMINE	Root Bark				Jim Duke's personal files.
38	BERBAMINE	Stem Bark		5900.0		Jim Duke's personal files.
38	BERBAMINE	Root				Jim Duke's personal files.
0	BERBAMUNINE	Root				Jim Duke's personal files.
130	BERBERINE	Flower		6600.0		Jim Duke's personal files.
130	BERBERINE	Stem Bark	20000.0	25000.0	1.0	Jim Duke's personal files.
130	BERBERINE	Root Bark	25000.0	80000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
130	BERBERINE	Bark		45000.0	1.0	Jim Duke's personal files.
130	BERBERINE	Plant				Jim Duke's personal files.
130	BERBERINE	Root	4000.0	64800.0	1.0732112991587024	--
130	BERBERINE	Leaf		3000.0	1.0	Jim Duke's personal files.
130	BERBERINE	Stem	1600.0	28900.0		Jim Duke's personal files.
1	BERBERRUBINE	Root				Jim Duke's personal files.
1	BERBERRUBINE	Bark				Jim Duke's personal files.
1	BERBERRUBINE	Plant				Jim Duke's personal files.
0	BERBERUBINE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
0	BERCULCINE	Plant				--
0	BERLAMBINE	Root				Jim Duke's personal files.
0	BERVULCINE	Plant				--
53	BETA-CAROTENE	Root		0.0	-0.4364222203358877	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
53	BETA-CAROTENE	Bark				--
53	BETA-CAROTENE	Fruit				Jim Duke's personal files.
0	BETA-XYLAN	Leaf				Jim Duke's personal files.
102	CAFFEIC-ACID	Fruit				Jim Duke's personal files.
102	CAFFEIC-ACID	Plant				--
28	CALCIUM	Bark		19100.0	0.04088065432927098	--
28	CALCIUM	Root		19100.0	1.281053988711049	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	CAPSANTHIN	Fruit				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CARBOHYDRATES	Root		791000.0	-0.5010301330019504	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	CARBOHYDRATES	Bark		791000.0	0.18472637875974568	--
2	CHELIDONIC-ACID	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
77	CHLOROGENIC-ACID	Fruit				Jim Duke's personal files.
24	CHROMIUM	Root		1.2	-0.32076409255495114	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
24	CHROMIUM	Bark		1.2	-0.46695777588719756	--
0	CHRYSANTHEMUMXANTHIN	Plant				--
23	CITRIC-ACID	Plant				--
2	COBALT	Root		4.2	-0.454047411785451	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	COBALT	Bark		4.2	-0.42125785418549894	--
7	COLUMBAMINE	Stem				Jim Duke's personal files.
7	COLUMBAMINE	Plant				--
7	COLUMBAMINE	Stem Bark		2900.0		Jim Duke's personal files.
7	COLUMBAMINE	Bark				Jim Duke's personal files.
7	COLUMBAMINE	Root				Jim Duke's personal files.
0	COLUMBIANINE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
5	CYANIN	Leaf				Jim Duke's personal files.
5	CYANIN	Fruit				Jim Duke's personal files.
1	DELPHINIDIN-3-O-BETA-D-GLUCOSIDE	Leaf				Jim Duke's personal files.
30	ESCULETIN	Fruit				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	FAT	Bark		43000.0	1.7516922412537856	--
0	FAT	Root		43000.0	0.6709795950176085	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
15	FIBER	Root		134000.0	1.0190982480192092	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	FIBER(CRUDE)	Bark		134000.0	-0.09280313322782811	--
0	FIBER(DIETARY)	Bark		440000.0	-0.2531196743613459	--
0	FLAVOXANTHIN	Fruit				--
8	FRUCTOSE	Plant				--
7	GLUCOSE	Plant				--
16	HYDRASTINE	Plant				--
30	HYPEROSIDE	Fruit				Jim Duke's personal files.
6	IRON	Root		141.0	-0.23680974639816418	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
6	IRON	Bark		141.0	-0.2726653452388328	--
22	ISOQUERCITRIN	Fruit				Jim Duke's personal files.
11	ISOTETRANDRINE	Plant				--
13	JATRORRHIZINE	Stem				Jim Duke's personal files.
13	JATRORRHIZINE	Stem Bark		3600.0		Jim Duke's personal files.
13	JATRORRHIZINE	Root				Jim Duke's personal files.
13	JATRORRHIZINE	Bark				Jim Duke's personal files.
13	JATRORRHIZINE	Plant				--
0	JATRORRHIZINE	Plant				--
75	KAEMPFEROL	Plant				--
0	KILOCALORIES	Root		3120.0	-0.542863829304001	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	LAMBERTINE	Root				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	LUTEIN	Plant				--
65	MAGNESIUM	Bark		1430.0	-0.21822262602145115	--
65	MAGNESIUM	Root		1430.0	-0.6021008569187567	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
11	MAGNOFLORINE	Root				Jim Duke's personal files.
11	MAGNOFLORINE	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
15	MALIC-ACID	Fruit				Jim Duke's personal files.
15	MALIC-ACID	Plant				--
14	MANGANESE	Fruit		72.0	0.07122111766474458	Jim Duke's personal files.
14	MANGANESE	Bark		6.0	-0.6364342982594638	--
14	MANGANESE	Root		6.0	-0.47422778363505214	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
39	NIACIN	Bark		81.0	0.2578378448300648	--
39	NIACIN	Root		81.0	0.8915275962998075	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
10	OXYACANTHINE	Plant				--
10	OXYACANTHINE	Stem Bark		10000.0		Jim Duke's personal files.
10	OXYACANTHINE	Root Bark				Jim Duke's personal files.
10	OXYACANTHINE	Bark				Jim Duke's personal files.
10	OXYACANTHINE	Root				Jim Duke's personal files.
17	PALMATINE	Root				Jim Duke's personal files.
17	PALMATINE	Plant				--
17	PALMATINE	Bark				Jim Duke's personal files.
17	PALMATINE	Stem				Jim Duke's personal files.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
24	PECTIN	Fruit				--
0	PECTOSE	Plant				--
1	PELARGONIN	Fruit				Jim Duke's personal files.
1	PEONIDIN-3-O-BETA-D-GLUCOSIDE	Leaf				Jim Duke's personal files.
1	PETUNIDIN-3-O-BETA-D-GLUCOSIDE	Fruit				Jim Duke's personal files.
4	PHOSPHORUS	Root		450.0	-0.5390309919095246	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	PHOSPHORUS	Bark		450.0	-0.6352599515754915	--
0	POLYSACCHARIDE	Leaf				Jim Duke's personal files.
14	POTASSIUM	Bark		4370.0	-0.3528759279078849	--
14	POTASSIUM	Root		4370.0	-0.8353902413704184	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	PROTEIN	Bark		66000.0	-0.48801359484383927	--
0	PROTEIN	Root		66000.0	-0.5885743538024715	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
176	QUERCETIN	Plant				--
0	RESIN	Plant				--
15	RIBOFLAVIN	Root		9.4	1.1654342408130138	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
15	RIBOFLAVIN	Bark		9.4	2.0673075679276955	--
87	RUTIN	Fruit				Jim Duke's personal files.
60	SELENIUM	Root		3.4	-0.12058843939849437	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
60	SELENIUM	Bark		3.4	-0.14068469031161568	--
4	SILICON	Root		2.3	-0.33233926906342903	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	SILICON	Bark		2.3	-0.5383130457856886	--
9	SINAPIC-ACID	Plant				--
1	SODIUM	Root		350.0	-0.34980723700266797	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	SODIUM	Bark		350.0	-0.04229439782411715	--
5	STARCH	Bark		90000.0	0.06580046651608526	--
14	SUCROSE	Fruit				Jim Duke's personal files.
0	SUGAR	Fruit				Jim Duke's personal files.
35	TANNIN	Plant				Williamson, E. M. and Evans, F. J., Potter's New Cyclopaedia of Botanical Drugs and Preparations, Revised Ed., Saffron Walden, the C. W. Daniel Co., Ltd., Essex UK, 362 pp, 1988, reprint 1989.
35	TANNIN	Fruit		55600.0	-0.37527226866356317	Jim Duke's personal files.
6	TARTARIC-ACID	Plant				--
31	THIAMIN	Root		10.0	0.29583140028457455	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	THIAMINE	Bark		10.0	1.7500000000000002	--
4	TIN	Bark		26.0	1.6805545028405047	--
4	TIN	Root		26.0	0.9670741465839783	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
89	URSOLIC-ACID	Fruit				Jim Duke's personal files.
1	VITAMIN-K	Leaf				Jim Duke's personal files.
0	VULCRACINE	Plant				--
0	VULVRACINE	Plant				Jim Duke's personal files.
1	YATRORICINE	Plant				--
5	ZEAXANTHIN	Plant				--
77	ZINC	Bark				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Refernce Citation
77	ZINC	Root				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.