

Dr. Duke's Phytochemical and Ethnobotanical Databases

Chemicals found in *Tanacetum parthenium*

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
112	ASCORBIC-ACID	Plant		330.0	-0.5162152379862993	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
77	ZINC	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
76	EUGENOL	Essential Oil				--
76	EUGENOL	Fruit Essent. Oil		1000.0		--
71	THYMOL	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of <i>Tanacetum parthenium</i> (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
67	1,8-CINEOLE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of <i>Tanacetum parthenium</i> (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
65	MAGNESIUM	Plant		2400.0	-0.5172740870337147	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
60	LIMONENE	Essential Oil		5000.0	-0.7082860385987012	--
60	SELENIUM	Plant		1.7	-0.3516547080519198	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
60	LIMONENE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of <i>Tanacetum parthenium</i> (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
53	BETA-CAROTENE	Plant		14.0	-0.6513567486971203	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
53	LINALOOL	Essential Oil		13000.0	-0.5248552467846653	--
47	BETA-SITOSTEROL	Leaf Essent. Oil		16000.0		--
47	BETA-SITOSTEROL	Fruit Essent. Oil				--
41	CAMPHOR	Fruit Essent. Oil		189000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
41	CAMPHOR	Leaf Essent. Oil		201000.0	0.40766428831174817	--
41	CAMPHOR	Shoot		24.0	-0.15638075587436032	--
41	CAMPHOR	Essential Oil		442000.0	1.342251919291669	--
39	NIACIN	Plant		285.0	2.918886504988539	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
37	CARVACROL	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
36	ALANTOLACTONE	Leaf				--
35	BORNEOL	Shoot		9.0	-0.3900888401961888	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
35	BORNEOL	Essential Oil		10000.0	-0.8168042453042687	--
35	BORNEOL	Fruit Essent. Oil		1300.0		--
31	THIAMIN	Plant		4.1	-0.2974931626940486	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
31	CARYOPHYLLENE	Fruit Essent. Oil				--
28	ALPHA-PINENE	Shoot		15.0	-0.14595252753743698	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
28	CALCIUM	Plant		5810.0	-0.8321353407836742	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
28	ALPHA-PINENE	Essential Oil		10000.0	-0.47207505752571344	--
28	ALPHA-PINENE	Fruit Essent. Oil		2000.0	-0.8225046812392973	--
27	PARTHENOLIDE	Leaf	130.0	300000.0		--
27	PARTHENOLIDE	Fruit Essent. Oil		284000.0		--
27	PARTHENOLIDE	Flower	0.0	2424.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
27	PARTHENOLIDE	Plant				--
27	PARTHENOLIDE	Seed		15200.0		--
27	PARTHENOLIDE	Shoot	80.0	8700.0		--
27	PARTHENOLIDE	Leaf Essent. Oil		61000.0		--
24	CHROMIUM	Plant		1.7	-0.7046051474035722	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
24	BENZALDEHYDE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
23	ALPHA-TERPINEOL	Shoot		2.5	-0.2832600201311504	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
23	TERPINEN-4-OL	Shoot		4.0	-0.16552235945768073	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
23	ALPHA-TERPINEOL	Plant				--
23	MELATONIN	Leaf	6.0	3500.0	1.4142114910611014	--
23	TERPINEN-4-OL	Essential Oil		28000.0	-0.3450735894935254	--
23	TERPINEN-4-OL	Fruit Essent. Oil		1000.0	-0.7441224268433381	--
22	MYRCENE	Fruit Essent. Oil				--
16	P-CYMENE	Fruit Essent. Oil		5000.0	-0.9962725072187498	--
16	P-CYMENE	Essential Oil		31000.0	-0.3774568610491117	--
16	P-CYMENE	Shoot		9.0	-0.49426810257944204	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
15	RIBOFLAVIN	Plant		2.5	-0.6210248948087893	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
15	FIBER	Plant		143000.0	-0.5900378792839802	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
14	MANGANESE	Plant		8.1	-0.6368507291246737	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
14	POTASSIUM	Plant		22500.0	0.04901058337072094	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
13	BETA-PINENE	Essential Oil				--
13	BETA-PINENE	Fruit Essent. Oil		1000.0	-0.7715573703107804	--
13	ALPHA-TERPINENE	Plant				--
13	ALPHA-TERPINENE	Shoot		45.0	-0.35510895262369646	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
13	BETA-PINENE	Shoot		4.0	-0.12082019397820601	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
12	BORNYL-ACETATE	Shoot		28.0	-0.36126712188937815	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
12	STIGMASTEROL	Fruit Essent. Oil				--
11	GAMMA-TERPINENE	Fruit Essent. Oil		1000.0	-1.0164567396291118	--
11	GAMMA-TERPINENE	Shoot		28.0	-0.3749884139681809	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
11	ALPHA-PHELLANDRENE	Essential Oil		6000.0	-0.4769076636125325	--
11	GAMMA-TERPINENE	Essential Oil		10000.0	-0.6855735643465313	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
10	CUMINALDEHYDE	Shoot		0.0	-0.32576507180696485	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
9	COSTUNOLIDE	Shoot		6.0	-1.0	--
9	CAMPHENE	Leaf Essent. Oil		30000.0	0.1899278105662218	--
9	COSTUNOLIDE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
9	CAMPHENE	Essential Oil		54000.0	0.9292841063141826	--
9	TERPINOLENE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
9	CAMPHENE	Fruit Essent. Oil		7000.0	-0.3352780859890732	--
9	DELTA-CADINENE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
9	TERPINOLENE	Plant				--
9	DELTA-CADINENE	Essential Oil				--
9	BENZYL-ALCOHOL	Fruit Essent. Oil				--
9	CAMPHENE	Shoot		95.0	-0.1255113105525119	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
8	CARYOPHYLLENE-OXIDE	Fruit Essent. Oil		4000.0	-1.0	--
6	CARYOPHYLLENE-EPOXIDE	Shoot		31.0	1.6391694335729892	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
6	IRON	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
5	ALUMINUM	Plant		6.0	-0.7451443685154636	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
5	ISOFRAXIDIN	Root		122.0	1.0	--
5	CANIN	Plant				Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp.
5	SANTAMARIN	Leaf				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
5	SANTAMARIN	Plant				--
5	SANTAMARIN	Flower				--
5	SABINOL	Fruit Essent. Oil		1300.0		--
5	SABINENE	Essential Oil				--
5	CANIN	Shoot		0.8		--
5	SABINENE	Fruit Essent. Oil		1000.0	-0.7138066475051742	--
5	SABINENE	Shoot		5.0	-0.29059831881924897	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
5	CANIN	Leaf				--
4	SILICON	Plant		4.6	-0.5184035386753152	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	PHOSPHORUS	Plant		5010.0	0.683008160317236	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	ARTECANIN	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
4	TIN	Plant		21.0	0.00964806037643002	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
4	COSMOSIIN	Flower				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
4	ARTECANIN	Plant				--
4	ARTECANIN	Shoot		0.4		--
3	SANTAMARINE	Flower		424.0		--
3	LUTEOLIN-7-GLUCURONIDE	Leaf				--
3	CYNAROSIDE	Leaf				--
2	THUJOPSENE	Shoot		1.5	-0.7071067811865476	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
2	GERMACRENE-D	Shoot		4.0	-0.368249369369666	--
2	COBALT	Plant				Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
2	(-)-CAMPHOR	Plant				--
2	CHRYSANTHENYL-ACETATE	Shoot		360.0		Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
2	GERMACRENE-D	Essential Oil		46000.0	-1.0	--
2	ALPHA-HUMULENE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
2	GERMACRENE-D	Leaf Essent. Oil		31000.0	-0.5383216002693361	--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
2	BENZYL-PROPIONATE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
2	GERMACRENE-D	Tissue Culture				--
2	FARNESENE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
1	3-BETA-HYDROXYPARTHENOLIDE	Leaf				--
1	PINOCARVONE	Essential Oil				--
1	ELEUTHEROSIDE-B-1	Shoot				--
1	PINOCARVONE	Fruit Essent. Oil		2000.0		--
1	REYNOSIN	Leaf				--
1	3-BETA-HYDROXYPARTHENOLIDE	Shoot		1.2		--
1	REYNOSIN	Shoot		0.4		--
1	BENZYL-ISOVALERATE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
1	PINOCARVONE	Shoot		2.0	-0.6307569440575539	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
1	REYNOSIN	Flower		1485.0		--
1	ARTEMORIN	Shoot		4.0		--
1	BENZYL-ISOBUTYRATE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.



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1	SODIUM	Plant		48.0	-0.3014209590315537	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
1	REYNOSIN	Plant				--
0	CHRYSANTHENOL-4-ACETATE	Shoot		1.2		--
0	TANETIN	Flower				--
0	2-METHYLPENTA-2,4-DIENE	Fruit Essent. Oil		2000.0		--
0	SECOTANAPARATHOLIDE	Leaf				--
0	EO	Plant	200.0	700.0	-0.686929830421695	List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	ALPHA-COPAENE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	WATER	Plant		895000.0	0.5311464179022468	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	TRANS-SPIROKETAL-ENOL-ETHER	Root Essent. Oil		51000.0		--
0	BICYCLOGERMACRENE	Root		4.0		--
0	QUERCETAGETIN-3,7-DIMETHYL-ETHER	Leaf				--
0	9-EPIPECTACHOL	Root		143.0		--
0	CHRYSANTHEMUM-SESQUITERPENE-LACTONE	Leaf				--
0	TANAPARTHIN-PEROXIDE	Leaf				--
0	PARTHOLIDE	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	SANTIN	Plant				--
0	2-(HEXA-2',4'-DIYNYLIDENE)-1,6-TRANS-DIOXASPIRO-(4,5)-DEC-3-ENE	Shoot		0.6		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	APIGENIN-7-GLUCURONIDE	Leaf				--
0	COSTIC-ACID-METHYL-ESTER	Shoot		0.8		--
0	TRANS-SPIROKETAL-ENOL-ETHER	Fruit Essent. Oil		61000.0		--
0	3-BETA-HYDROXYCOSTUNOLIDE	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	QUERCETAGETIN-3,7-DIMETHYL-ETHER	Flower				--
0	CARBOHYDRATES	Plant		514000.0	-1.0198824234248682	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	8-BETA-HYDROXYREYNOSIN	Plant				--
0	ISOAMYL-ISOVALERATE	Fruit Essent. Oil		2000.0		--
0	ALPHA-THUJENE	Shoot		15.0	-0.2864465102156434	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	SECOTANAPARTHENOLID E	Plant				--
0	CHRYSANTHEMUM-PARTHENIUM-EN-YNE-BICLCLO-ETHER	Root		3.0		--
0	TANAPARTHIN-BETA-PEROXIDE	Shoot		4.0		--
0	P-METHYL-ISO-PROPENYLBENZENE	Fruit Essent. Oil				--
0	BETA-FARNESENE	Shoot		12.0	-0.39419791087988254	--
0	2-(HEXA-2',4'-DIYNYLIDENE)-1,6-CIS-DIOXASPIRO-(4,5)-DEC-3-ENE	Root		100.0		--
0	ALPHA-THUJENE	Essential Oil		6000.0	-0.36186369670280605	--
0	CHRYSANTHENYL-PROPIONATE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.

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0	CIS-SPIROKETOL-ENOL-ETHER	Root Essent. Oil		575000.0		--
0	TRANS-DENDRANTHEMA-SPIROFURAN-A	Root		2000.0		--
0	1-BETA-HYDROXYARBUSCULIN	Leaf				--
0	QUERCETAGETIN-3,3',7-TRIMETHYL-ETHER	Leaf				--
0	8-ALPHA-ISOBUTYRYL-OXYESTAFIATIN	Shoot		2.0		--
0	HEXAN-1-AL	Fruit Essent. Oil				--
0	CHRYSANTH-TRANS-ENYL-ACETATE	Essential Oil		235000.0		--
0	TANAPARTHIN-BETA-PEROXIDE	Leaf				--
0	EO	Shoot		1500.0	-0.8141965329475307	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	P-METHYLBENZALDEHYDE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	2-(HEXA-2',4'-DIYNYLIDENE)-1,6-CIS-DIOXASPIRO-(4,5)-DEC-3-ENE	Shoot		1.2		--
0	EPOXYSANTAMARINE	Flower		30.0		--
0	ALPHA-THUJENE	Fruit Essent. Oil		2000.0	-0.7397616687333448	--
0	OCTANOIC-ACID-ETHYL-ESTER	Fruit Essent. Oil		1000.0		--
0	CHRYSANTHENYL-ISOVALERATE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	SECOTANAPARTHOLIDE-A	Leaf				--
0	CIS-DENDRANTHEMA-SPIROFURAN-A	Shoot		8.0		--
0	TRANS-DENDRANTHEMA-SPIROFURAN-A	Shoot		0.6		--

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0	GUAIANOLIDES	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
0	QUERCETAGETIN-3,3',7-TRIMETHYL-ETHER	Flower				--
0	8-ALPHA-HYDROXYESTAFIATIN	Shoot		0.4		--
0	HEX-TRANS-2-EN-1-AL	Fruit Essent. Oil				--
0	TANAPARTHIN-ALPHA-PEROXIDE	Shoot		1.6		--
0	MANGOLIOLIDE	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
0	BUTYL-BENZENE	Fruit Essent. Oil				--
0	LINALYL-PROPIONATE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	10-EPICANIN	Shoot		0.4		--
0	EPOXYARTEMORIN	Leaf				--
0	CHRYSARTEN-B	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
0	CHRYSANTHENYL-ANGELATE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	TANNINS	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	CIS-CHRYSANTHENOL-ISOVALERATE	Shoot		0.8		--
0	TRANS-CHRYSANTHENOL-ACETATE	Leaf Essent. Oil		47000.0		--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	GERMACRONOLIDES	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	8-ALPHA-ANGELOYL-OXYESTAFIATIN	Shoot		3.0		--
0	HEX-CIS-3-EN-1-OL	Fruit Essent. Oil				--
0	TANAPARTHIN-ALPHA-PEROXIDE	Leaf				--
0	BORNEOL-ANGELATE	Shoot		0.8		--
0	SABINENE-HYDRATE	Fruit Essent. Oil				--
0	1-BETA-HYDROXYARBUSCULIN	Plant				--
0	CHRYSARTEN-A	Plant				J.S. Glasby Dict.Pls Containing 2ndary Metabolite. 1991.
0	MICHEFUSCALIDE	Leaf				--
0	TANAPARTHIN-1BETA,4BETA-EPOXIDE	Leaf				--
0	CIS-CHRYSANTHENOL-ANGELATE	Shoot		1.0		--
0	TRANS-CHRYSANTHENOL-ACETATE	Fruit Essent. Oil		155000.0		--
0	GERMACRENE	Plant		14900.0		--
0	BETA-FARNESENE	Essential Oil		8000.0		--
0	L-BORNEOL	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	4-BETA-ACETOXY-CHRYSANTHENONE	Shoot		1.2		--
0	CAR-3-ENE	Fruit Essent. Oil				--
0	TANACETIN	Shoot		15800.0		--
0	BORNEOL-ACETATE	Essential Oil		7000.0	-0.6918807209736767	--
0	FAT	Seed		312000.0	0.24552423015523567	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	(-)-EPOXYARTEMORIN	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	DOCOS-3-ENE	Fruit Essent. Oil		60000.0		--
0	CHRYSANTHENOL	Shoot		2.0	-1.0	--
0	CHRYSARTHEMIN-B	Plant				--
0	TANAPARTHIN-1ALPHA,4ALPHA-EPOXIDE	Leaf				--
0	CIS-CHRYSANTHENOL-ACETATE	Shoot		1.0		--
0	BETA-FARNESENE	Root		40.0	1.4074654870795833	--
0	ASH	Plant		171000.0	0.9030718561913528	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	SABINENE-HYDRATE	Shoot		1.5		Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	PYRETHRIN	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.
0	BORNEOL-ACETATE	Fruit Essent. Oil		7000.0		--
0	FAT	Plant		48000.0	-0.05468700183087534	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	P-ETHYLBENZALDEHYDE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	PARTHENOLIDES	Plant		9000.0		--
0	KILOCALORIES	Plant		2860.0	-0.40616652820501614	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	CHRYSARTHEMIN-A	Plant				--
0	MAGNOLIALIDE	Plant				--
0	TANAPARTHIN	Leaf				--

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CIS-CHRYSANTHENOL-ACETATE	Leaf				--
0	BETA-CARYOPHYLLENE	Essential Oil				--
0	3-BETA-HYDROXYCOSTUNOLIDE	Shoot		4.0		--
0	PROTEIN	Seed		222000.0	-0.10493212955134139	CRC Handbook of Medicinal Herbs and/or CRC Handbook of Proximate Analyses
0	SECOTANAPARTHOLIDE-B	Shoot		0.8		--
0	P-CYMENENE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	ORTHOCARSINE	Plant				Tramil
0	DEHYDROSAUSSUREALACTONE	Fruit Essent. Oil		6000.0		--
0	BETA-CARYOPHYLLENE	Shoot		8.0	-0.39375252938120847	Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of Tanacetum parthenium (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	BORNEOL-ACETATE	Shoot		1.2		--
0	CHRYSANTHEMOMIN	Leaf				--
0	TANACETIN	Plant				Tramil
0	CHRYSOERIOL-7-GLUCURONIDE	Leaf				--
0	3-BETA-HYDROXYCOSTUNOLIDE	Leaf				--
0	GERMACRENE-A	Tissue Culture				--
0	PROTEIN	Plant		267000.0	0.7665154169276235	Pedersen, M. 1987. Nutritional Herbology. Pederson Publishing. Bountiful, Utah. 377 pp.
0	SECOTANAPARTHOLIDE-B	Leaf				--
0	EUDESMANOLIDES	Leaf				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.

Activities Count	Chemical	Plant Part	Low PPM	High PPM	StdDev	Reference Citation
0	CURCUMENE	Shoot				Hendriks, H., Bos, R., and Woerdenbag, H. J. 1996. The Essential Oil of <i>Tanacetum parthenium</i> (L.) Schultz-Bip. Flavor and Fragrance Journal 11(6): 367-71.
0	8-BETA-REYNOSIN	Plant				J.S. Glasby Dict.Plis Containing 2ndary Metabolite. 1991.
0	D-FRIEDOOLEAN-14-EN-3-OL	Root Essent. Oil		53000.0		--
0	8-BETA-HYDROXYREYNOSIN	Leaf				--
0	CHRYSANTHEMOLIDE	Leaf				--
0	ALPHA-FARNESENE	Fruit Essent. Oil				--
0	CHRYSANTHENOL-4-BETA-HYDROXY	Shoot		3.0		--
0	TANETIN	Leaf				--
0	BENZYL-2-METHYL-BUTYRATE	Fruit Essent. Oil		5000.0		--
0	3,4-BETA-EPOXY-8-DEOXYCUMAMBRIN-B	Flower		485.0		--
0	SECOTANAPARTHOLIDE-A	Shoot		0.2		--
0	APIGENIN-7-GLUCOSIDE	Plant				List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979.
0	10-EPICANIN	Leaf				--
0	(+)-EPOXYARTEMORIN	Leaf				--
0	5-BETA-HYDROXYREYNOSIN	Plant				Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp.