

Dr. Duke's Phytochemical and Ethnobotanical Databases

List of Plants for CARYOPHYLLENE-OXIDE

Plant	Part	Low PPM	High PPM	StdDev	Reference
Artemisia annua	Shoot	75.0	2920.0	6.004003488123152	Wright, C.W. (Ed) 2002. Medicinal & Aromatic Plants-Industrial Profiles. Artemisia. 344pp. Maffei, M. (Ed) 2002. Vetiveria. The Genus Vetiveria. Taylor & Francis. NY, NY. 191 pp. Southwell, I., Lowe, R. (Eds) 1999. Tea Tree. The Genus Melaleuca. Harwood Acad. Pub. Amsterdam, Netherlands.
Ocimum tenuiflorum	Leaf	100.0	1260.0	5.030102690692117	--
Nepeta cataria	Plant	285.0	2365.0	4.032095440217275	Bourrel, C., Perineau, F., Michel, G., Bessiere, J.M. 1993. Catnip (Nepeta cataria L.) Essential Oil: Analysis of Chemical Constituents, Bacteriostatic and Fungistatic Properties. J. Ess. Oil Res., 5: 159-167.
Syzygium aromaticum	Leaf	75.0	712.0	2.643842620312473	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
Artemisia annua	Leaf	30.0	700.0	2.5915887501581745	--
Mentha longifolia	Shoot	0.0	835.0	1.4318059365230096	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Syzygium aromaticum	Fruit		2455.0	1.3957687820089826	Charalambous, G. (Ed.). 1994. Spices, Herbs and Edible Fungi. Elsevier Science B. V. Amsterdam. 764 pp.
Citrus limon	Leaf Essent. Oil	0.8	15600.0	1.322705019532784	Jim Duke's personal files.
Cuminum cyminum	Seed		435.0	1.097913908269028	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Piper nigrum	Fruit Essent. Oil		9000.0	1.0	--
Teucrium cyprum	Leaf		275.0	0.740930848860093	Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Micromeria croatica	Leaf		265.0	0.6973859570648441	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Micromeria fruticosa	Shoot		500.0	0.6971842675608764	Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of <i>Micromeria fruticosa</i> (L.) Druce subsp. <i>barbata</i> (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res 3: 477-479.
Micromeria fruticosa	Shoot		500.0	0.6971842675608764	Fleisher, Z. and Fleisher, A. 1991. The Essential Oil of <i>Micromeria fruticosa</i> (L.) Druce subsp. <i>barbata</i> (Boiss et. Ky.), P.H. Davis. Aromatic Plants of the Holy Land and the Sinai. Part VII. J. Ess. Oil Res 3: 477-479.
Vitex agnus-castus	Leaf Essent. Oil		11700.0	0.6121610007755034	Jim Duke's personal files.
Thymus cilicicus	Shoot		370.0	0.4121072019934814	Tumen, G., Koyuncu, M., Kirimer, N., and Baser, K.H.C. 1994. Composition of the Essential Oil of <i>Thymus cilicicus</i> Boiss. & Bal. J. Ess. Oil Res. 6: 97-8.
Alpinia galanga	Leaf Essent. Oil		10400.0	0.3753129945230765	--
Stevia rebaudiana	Leaf	20.0	190.0	0.3707992686004767	--
Satureja obovata	Leaf		175.0	0.3054819309076032	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . Phytochemistry 35(1): 83.
Pycnanthemum tenuifolium	Shoot	2.0	320.0	0.30246217677525256	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Ageratum conyzoides	Shoot		300.0	0.25860416668796105	R. Vera, (1993); Chemical composition of the essential oil <i>Ageratum conyzoides</i> L. (Asteraceae) from Reunion, Flavour Fragr. J., Vol.8, 257-260.
Daucus carota	Seed	310.0	350.0	0.22301376261714642	--
Origanum vulgare	Plant	84.0	336.0	0.21706461981273312	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Hyptis suaveolens	Shoot		265.0	0.18185264903520085	Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of <i>Hyptis suaveolens</i> (L.) Poit. J. Ess. Oil Res. 5: 321.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Hyptis suaveolens	Shoot		265.0	0.18185264903520085	Mallvarapu, G.R., Ramesh, S., Kaul, P.N., Bhattacharya, A.K., and Rao, B.R.R. 1993. The Essential Oil of Hyptis suaveolens (L.) Poit. J. Ess. Oil Res. 5: 321.
Salvia officinalis	Plant	55.0	308.0	0.16441757054150238	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Satureja montana	Plant	10.0	285.0	0.12117178006870569	--
Thymus riatarum	Shoot		205.0	0.050278618773326254	Iglesias, J., Vila, R., Caniguera, S., Bellakdhar, and I Idrissi, A. 1991. Analysis of the Essential Oil of Thymus riatarum. J. Ess. Oil Res. 3: 43-4.
Salvia gilliesii	Shoot		205.0	0.050278618773326254	Velasco-Negueruela, A. et al. 1993. The Essential Oil of Salvia gilliesii Benth. J. Ess. Oil Res. 5: 319-320.
Melissa officinalis	Plant	0.5	225.0	0.008356674487496966	J. Aromatherapy 1: 11.
Eucalyptus odorata	Leaf		105.0	6.676883408603721E-4	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Alpinia galanga	Leaf		100.0	-0.021104757556764116	--
Eucalyptus tetraptera	Leaf		95.0	-0.042877203454388606	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7
Thymus funkii	Shoot		135.0	-0.10322441653219411	Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383.
Thymus funkii	Shoot		135.0	-0.10322441653219411	Vila, R., et al. 1995. Composition and study of the variability of the essential oil of Thymus funkii Cousson. Flav. & Fragr. J. 10(6): 379-383.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus stoatei	Leaf		80.0	-0.10819454114726207	Bignell, C.M., Dunlop, P.J., Brophy, J. J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7
Teucrium divaricatum	Leaf		80.0	-0.10819454114726207	Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Galeopsis tetrahit	Shoot		128.0	-0.11857472006274614	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Aloysia citrodora	Plant	20.0	140.0	-0.15146472508588207	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Teucrium micropodioides	Leaf		68.0	-0.16044841130156084	Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Origanum onites	Shoot		100.0	-0.17997593418495428	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. Flav. & Frag. J. 8: 331-7.
Eucalyptus desquamata	Leaf		60.0	-0.19528432473776003	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Satureja obovata	Leaf		60.0	-0.19528432473776003	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Satureja obovata	Leaf		60.0	-0.19528432473776003	Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of Satureja obovata. Phytochemistry 35(1): 83.
Micromeria thymifolia	Leaf		55.0	-0.21705677063538453	Kirimer, N., Ozek, T., and Baser, K.H.C. 1991. Composition of the Essential Oil of Micromeria congesta. J. Ess. Oil Res., 3: 387-393.
Rosmarinus officinalis	Shoot	12.0	75.0	-0.2347984467940687	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Cinnamomum verum	Leaf	25.0	50.0	-0.238829216533009	--
Rosmarinus x lavandulaceus	Shoot	13.0	60.0	-0.26769195435953735	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Rosmarinus officinalis	Plant	0.1	75.0	-0.27368108946552483	--
Origanum syriacum	Shoot		55.0	-0.2786564568813601	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum syriacum	Shoot		45.0	-0.30058546192500585	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Origanum syriacum	Shoot		45.0	-0.30058546192500585	Fleisher, A. & Fleisher, Z. 1991. Chemical Composition of Origanum syriacum L. Essential Oil. J. Ess. Oil Res. 3: 121-123.
Rosmarinus x mendizabali	Shoot	13.0	44.0	-0.30277836242937045	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Eucalyptus dolichorhyncha</i>	Leaf		35.0	-0.3041465542258825	Bignell, C.M., Dunlop, P.J., Brophy, J. J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part I. Subgenus <i>Symphomyrtus</i> , Section <i>Dumaria</i> , Series <i>Incrassatae</i> . Flavour and Fragrance J.9(3):113-7
<i>Chrysanthemum x morifolium</i>	Plant	15.0	57.0	-0.30752562113988746	Wealth of India.
<i>Eucalyptus incrassata</i>	Leaf		34.0	-0.30850104340540735	Bignell, C.M., Dunlop, P.J., Brophy, J. J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part I. Subgenus <i>Symphomyrtus</i> , Section <i>Dumaria</i> , Series <i>Incrassatae</i> . Flavour and Fragrance J.9(3):113-7
<i>Rosmarinus officinalis</i>	Shoot	0.1	38.0	-0.3159357654555579	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus officinalis</i>	Shoot		38.0	-0.3159357654555579	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus tomentosus</i>	Shoot	24.0	35.0	-0.32251446696865166	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
<i>Rosmarinus eriocalyx</i>	Shoot	16.0	35.0	-0.32251446696865166	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the <i>Rosmarinus eriocalyx-tomentosus</i> Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Rosmarinus eriocalyx	Shoot	16.0	35.0	-0.32251446696865166	Soriano Cano, M.C., Sotomayor Sanchez, J.A., Sanchez Gomez, P. and Garcia Vallejo, M.C. 1993. Essential Oils of the Rosmarinus eriocalyx-tomentosus Complex in Southeast Spain. J. Ess. Oil Res. 5: 243-246.
Dracocephalum thymiflora	Plant		46.0	-0.3282083904964424	--
Moldavica thymiflora	Plant		46.0	-0.3282083904964424	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Salvia canariensis	Leaf		28.0	-0.33462797848255676	Casnigueral, S., Iglesias, J., Vila, R., Virgili, A. and Ibanez, C. 1994. The Essential Oil from Leaves of Salvia canariensis L. Flav. & Frag. J. 9:201-204. S. Canigueral, Facultat de Farmacia, Universitat de Barcelona, Ave. Diagonal 643, E-08028, Barcelone Spain
Teucrium kotschyianum	Leaf		27.0	-0.3389824676620817	Arnold, N., Bellomaria, B., Velentini G. and Rafaiani, S.M. 1991. Comparative Study on Essential Oil of Some Teucrium Species from Cyprus. J. Ethnopharm. 35: 105-113.
Eucalyptus forrestiana	Leaf		27.0	-0.3389824676620817	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7
Litsea glaucescens	Shoot	4.0	27.0	-0.34005767100356826	Tucker, et al, EB46(1):21-24. 1992
Lavandula x hybrida	Shoot	14.0	25.0	-0.3444434720122974	Tucker, A.O., Maciarelo, M.J., Angell, S., Espaillet, J.R., and French, E.C. 1993. The Essential Oil of Lavandula x hybrida Balb. ex Ging., a Distinct Hybrid from L. x heterophylla Poir. (Labiatae). J. Ess. Oil Res. 5: 443-445.
Eucalyptus sparsa	Leaf		25.0	-0.34769144602113145	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364

Plant	Part	Low PPM	High PPM	StdDev	Reference
Lantana camara	Shoot		18.0	-0.3597937755428494	--
Lavandula latifolia	Plant	6.0	24.0	-0.3695739292095523	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Teucrium arduini	Shoot		13.0	-0.3707582780646723	Blazevic, N., Kalodera, Z., Petricic, J., and Plazibat, M. 1992. Essential Oil Content and Composition of Teucrium arduini L. J. Ess. Oil Res. 4: 223-225.
Teucrium arduini	Shoot		13.0	-0.3707582780646723	Blazevic, N., Kalodera, Z., Petricic, J., and Plazibat, M. 1992. Essential Oil Content and Composition of Teucrium arduini L. J. Ess. Oil Res. 4: 223-225.
Tagetes lucida	Shoot		12.0	-0.37295117856903687	Bicchi, C., Fresia, M., Rubiolo, P., Monti, D., Franz, C., Goehler, I. 1997. Constituents of Tagetes lucida Cav. ssp. lucida essential oil. Flavor & Fragrance, 12(1): 47-52.
Scutellaria parvula	Plant		20.0	-0.37709493624829954	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Pimenta racemosa	Leaf	0.0	18.0	-0.3781728702778057	--
Rosmarinus officinalis	Leaf		18.0	-0.3781728702778057	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaïd, M.H. 1994. Analysis and Biological Activity of the Essential Oil of Rosmarinus officinalis L. from Egypt. Flavour and Fragrance J. 9: 29-33.
Rosmarinus officinalis	Leaf		18.0	-0.3781728702778057	Soliman, F.M., El-Kashoury, M.M., Fathy, M.M. and Gonaïd, M.H. 1994. Analysis and Biological Activity of the Essential Oil of Rosmarinus officinalis L. from Egypt. Flavour and Fragrance J. 9: 29-33.
Salvia dorisiana	Shoot	6.9	7.3	-0.38325781093955036	Tucker, A.O. & Maciarelo, M.J. 1994. The Essential Oil of Salvia dorisiana Standley. J. Ess. Oil Res. 6: 97-8.
Lycopus europeus	Plant		16.0	-0.3846159432870468	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Mentha aquatica	Shoot		6.0	-0.3861085815952244	Umamoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of Mentha aquatica Containing Sesquiterpene Alcohols as Major Components. Nippon Nogeikagaku Kaishi 67(10): 1417-1419.
Acinos alpinus	Shoot		6.0	-0.3861085815952244	Velasco-Negueruela, A., Perez-Alonso, M.J., Jimenez, S.M. and Garcia, F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Scutellaria churchilliana	Plant		14.0	-0.38837644680642036	Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Mentha aquatica	Shoot		3.0	-0.3926872831083181	Umamoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of Mentha aquatica Containing Sesquiterpene Alcohols as Major Components. Nippon Nogeikagaku Kaishi 67(10): 1417-1419.
Mentha aquatica	Shoot		3.0	-0.3926872831083181	Umamoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of Mentha aquatica Containing Sesquiterpene Alcohols as Major Components. Nippon Nogeikagaku Kaishi 67(10): 1417-1419.
Acinos alpinus	Shoot		3.0	-0.3926872831083181	Velasco-Negueruela, A., Perez-Alonso, M.J., Jimenez, S.M. and Garcia, F.M. 1993. The Volatile Constituents of Acinus alpinus (L.) Moench ssp. meridionalis (Nyman). P.W. Ball Growing in Spain. Flav. & Frag. J. 8:127-130.)
Trichostemma dichotomum	Shoot		2.0	-0.3948801836126827	Tucker, A.O. and Maciarelo, M.J. 1990. The Essential Oil of Trichostemma dichotomum. J. Ess. Oil Res. 2: 149-150.
Mentha aquatica	Shoot		1.0	-0.3970730841170472	Umamoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of Mentha aquatica Containing Sesquiterpene Alcohols as Major Components. Nippon Nogeikagaku Kaishi 67(10): 1417-1419.

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Mentha aquatica</i>	Shoot		1.0	-0.3970730841170472	Umamoto, K., Arai, T., Nii, H. and Furukawa, K. 1993. A New Chemotype of <i>Mentha aquatica</i> Containing Sesquiterpene Alcohols as Major Components. <i>Nippon Noeikagaku Kaishi</i> 67(10): 1417-1419.
<i>Elsholtzia eriostachya</i>	Shoot		0.8	-0.3975116642179201	Pant, A.K., Dev, V., Parihar, R., Mathela, C.S., Rauscher, J., Vostrowsky, O. and Bestmann, H.J. 1992. The Essential Oil from <i>Elsholtzia eriostachya</i> var. <i>pusilla</i> . <i>J. Ess. Oil Res.</i> 4: 547-549.
<i>Thymus capitatus</i>	Shoot		0.0	-0.39926598462141183	Biondi, D., Cianci, P., Geraci, C. and Ruberto, G. 1993. Antimicrobial Activity and Chemical Composition of Essential Oils from Sicilian Aromatic Plants. <i>Flav. & Frag. J.</i> 8: 331-7.
<i>Ageratum conyzoides</i>	Plant	1.0	8.0	-0.39965795736454124	--
<i>Eucalyptus porosa</i>	Leaf		13.0	-0.3999453161754302	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Symphomyrtus</i> , Section <i>Adnataria</i> . <i>Flavour and Fragrance J.</i> 10(6):359-364
<i>Myrtus communis</i>	Plant	2.0	3.0	-0.4090592161629753	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
<i>Isanthus brachiatus</i>	Plant		1.0	-0.41281971968234893	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
<i>Thymus mastichina</i>	Plant		1.0	-0.41281971968234893	Lawrence, B.M., <i>Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.</i>
<i>Eucalyptus ceratocorys</i>	Leaf		10.0	-0.4130087837140049	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part I. Subgenus <i>Symphomyrtus</i> , Section <i>Dumaria</i> , Series <i>Incrassatae</i> . <i>Flavour and Fragrance J.</i> 9(3):113-7
<i>Callicarpa americana</i>	Leaf		10.0	-0.4130087837140049	--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus ochrophloia	Leaf		10.0	-0.4130087837140049	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus cuprea	Leaf		8.0	-0.4217177620730547	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus leucoxydon	Leaf		7.0	-0.42607225125257964	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus erythrandra	Leaf		7.0	-0.42607225125257964	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J. 9(3):113-7
Eucalyptus intertexta	Leaf		5.5	-0.432603985021867	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus fasciculosa	Leaf		5.0	-0.4347812296116294	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364

Plant	Part	Low PPM	High PPM	StdDev	Reference
Eucalyptus largisparsa	Leaf		4.6	-0.4365230252834394	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Lindera benzoin	Leaf		4.0	-0.4391357187911543	--
Eucalyptus angulosa	Leaf		4.0	-0.4391357187911543	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1994. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part I. Subgenus Symphyomyrtus, Section Dumaria, Series Incrassatae. Flavour and Fragrance J.9(3):113-7
Eucalyptus behriana	Leaf		2.7	-0.4447965547245367	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus lansdowneana	Leaf		2.4	-0.4461029014783941	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364
Eucalyptus populnea	Leaf		1.8	-0.448715594986109	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus Eucalyptus. Part VI. Subgenus Symphyomyrtus, Section Adnataria. Flavour and Fragrance J. 10(6):359-364

Plant	Part	Low PPM	High PPM	StdDev	Reference
Vitex agnus-castus	Leaf		1.6	-0.44958649282201407	Ekundayo, O., Laakso, I., Holopainen, M., Hiltunen, R., Oguntimein, B., and Kauppinen, V. 1990. The Chemical Composition and Antimicrobial Activity of the Leaf Oil of <i>Vitex agnus-castus</i> L. <i>J. Essential Oil Research</i> , 2: 115-119.
Eucalyptus melanophloia	Leaf		1.0	-0.452199186329729	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Symphomyrtus</i> , Section <i>Adnataria</i> . <i>Flavour and Fragrance J.</i> 10(6):359-364
Eucalyptus viridis	Leaf	0.0	0.5	-0.4543764309194915	Bignell, C.M., Dunlop, P.J., Brophy, J.J., and Jackson, J.F. 1995. Volatile Leaf Oils of Some South-western and Southern Australian Species of the Genus <i>Eucalyptus</i> . Part VI. Subgenus <i>Symphomyrtus</i> , Section <i>Adnataria</i> . <i>Flavour and Fragrance J.</i> 10(6):359-364
Cuminum cyminum	Fruit		435.0	-0.5007242267296801	--
Juniperus communis	Fruit		15.0	-0.895044555279303	--
Eucalyptus globulus	Leaf Essent. Oil		3000.0	-0.9728987333753536	--
Tanacetum parthenium	Fruit Essent. Oil		4000.0	-1.0	--
Apium graveolens	Seed	125.0	200.0	-1.3209276708861737	Charalambous, G. (Ed.). 1994. <i>Spices, Herbs and Edible Fungi</i> . Elsevier Science B. V. Amsterdam. 764 pp.
Eucalyptus citriodora	Leaf Essent. Oil		1000.0	-1.3372802814560105	--
Magnolia denudata	Bark				--
Magnolia denudata	Bulb				--
Magnolia denudata	Flower				--
Magnolia denudata	Leaf				--
Magnolia denudata	Twig				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
Leonotis leonurus	Se		42.0		Pedro, L.G., Barroso, J.G., Marques, N.T., Ascensao, L., Pais, M.S.S. and Scheffer, J.J.C. 1991. Composition of the Essential Oil from Sepals of Leonotis leonurus R. Br. J. Ess. Oil Res. 3: 451-3
Houttuynia cordata	Shoot				--
Cinnamomum verum	Plant				--
Syzygium aromaticum	Essential Oil				--
Centella asiatica	Shoot				Jim Duke's personal files.
Psidium guajava	Essential Oil				--
Psidium guajava	Pericarp Essent. Oil				--
Vitex agnus-castus	Flower				Jim Duke's personal files.
Humulus lupulus	Essential Oil				--
Piper auritum	Leaf				Tramil
Vitex agnus-castus	Fruit				Jim Duke's personal files.
Stevia rebaudiana	Flower		265.0		Kinghorn, A. D. (Ed.) 2002. Medicinal and Aromatic Plants - Industrial Profiles. Stevia. The genus Stevia. Taylor & Francis. New York, NY. 211 pp.
Cinnamomum verum	Root Bark				--
Saussurea lappa	Root Essent. Oil				--
Psidium guajava	Leaf				Morton, J.F., Major Medicinal Plants. 1977. Atlas of Medicinal Plants of Middle America. Bahamas to Yucatan. 1981.
Alpinia galanga	Rhizome				--
Pycnanthemum loomisii	Shoot				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Ptychopetalum olacoides	Root Essent. Oil		29000.0		Uber Bucek, E., Fournier, G., Dadoun, H. 1987. Volatile Constituents of Ptychopetalum olacoides Root Oil. Planta Med. 53, 2: 231.
Lavandula angustifolia	Flower				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
Juniperus communis	Fruit Essent. Oil				--

Plant	Part	Low PPM	High PPM	StdDev	Reference
<i>Syzygium aromaticum</i>	Plant				--
<i>Copaifera</i> spp	Gum				--
<i>Agastache rugosa</i>	Shoot				Jim Duke's personal files.
<i>Pimenta dioica</i>	Plant				--
<i>Piper nigrum</i>	Fruit				Chemical Constituents of Oriental Herbs (3 diff. books)
<i>Salvia officinalis</i>	Essential Oil		13100.0		--
<i>Salvia sclarea</i>	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Ocimum basilicum</i>	Essential Oil				--
<i>Thymus capitatus</i>	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.
<i>Perilla frutescens</i>	Shoot Essent. Oil		21000.0		Nguyen, X. D., La, D. M., Lu'u, D. C., Leclercq, P. A. 1995. Essential Oil Constituents from the Aerial Parts of <i>Perilla frutescens</i> (L.) Britton. J. Essent. Oil Res., 7(4): 429-432.
<i>Mentha x piperita</i>	Essential Oil				--
<i>Artemisia annua</i>	Plant				--
<i>Satureja obovata</i>	Leaf				Arrebola, M.L., Navaro, M.C., Jimenez, J. and Ocana, F.A. 1994. Variations in Yield and Composition of the Essential Oil of <i>Satureja obovata</i> . Phytochemistry 35(1): 83.
<i>Daucus carota</i>	Root	310.0	350.0		--
<i>Laurus nobilis</i>	Plant				--
<i>Boswellia sacra</i>	Resin, Exudate, Sap		32900.0		Chiavari, G., Gtalletti, G. C., Piccaglia, R., Mohamud, M. A. 1991. Differentiation Between Resins <i>Boswellia carterii</i> and <i>Boswellia frereana</i> (Frankincense) of Somali Origin. J. Essent. Oil Res. 3 (3):185-186.
<i>Alpinia galanga</i>	Seed				--
<i>Lavandula x intermedia</i>	Plant				Lawrence, B.M., Essential Oils 1976-1977, Essential Oils 1978, Essential Oils 1979-1980.

Plant	Part	Low PPM	High PPM	StdDev	Reference
Pogostemon cablin	Plant				--
Coriandrum sativum	Fruit				Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp.
Coriandrum sativum	Seed Essent. Oil		3610.0		--