

List of All Chemicals

P Eucalyptus botryoides (Myrtaceae)

*Unless otherwise noted all references are to Duke, James A. 1992. Handbook of phytochemical constituents of GRAS herbs and other economic plants. Boca Raton, FL. CRC Press.

| Chemical | Part <input type="button" value="All"/> | Low PPM | High PPM | StdDev | *Reference |
|----------------------------------------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------|-------------|--------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| 1,8-CINEOLE | Shoot | -- | 1880.0 | -0.11 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264. |
| Activities (67) | | | | | |
| (-)-Chronotropic 87 nl/ml | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| (-)-Inotropic 87 nl/ml | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| Acaricide LC100=6 uM | | | | | |
| Allelopathic | | | | | |
| Allergenic | | | | | |
| Anesthetic | | | | | |
| Anthelmintic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. | | | | |
| Antiacetylcholinesterase IC50=41 ug/ml | | | | | |
| Antiallergic | J. Food Hyg. Soc. Jap. 33(6): 569. | | | | |
| Antibacterial 50 ppm | | | | | |
| Antibronchitic | | | | | |
| Anticariogenic | | | | | |
| Anticatarrh | Martindale's 29th | | | | |
| Anticholinesterase IC50=50-70 | | | | | |
| Antifatigue | | | | | |
| Antihalitosis | American Health, 12(4): 17, 1993. | | | | |
| Antiinflammatory | | | | | |
| Antilaryngitic | | | | | |
| Antinociceptive | | | | | |
| Antipharyngitic | | | | | |
| Antiplaque | | | | | |
| Antirheumatic | | | | | |
| Antirhinitic | | | | | |
| Antiseptic | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. | | | | |
| Antisinusitic | | | | | |
| Antispasmodic | | | | | |
| Antistaphylococcic 50 ppm | | | | | |
| Antitussive | | | | | |
| Antiulcer | | | | | |
| CNS-Stimulant | | | | | |
| Candidicide | | | | | |
| Carcinogenic | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals.</i> VCH Publishers, New York. 3560-4253. | | | | |
| Choleretic | | | | | |
| Convulsant | | | | | |
| Counterirritant | Martindale's 29th | | | | |
| Cytochrome-P450-Inducer | | | | | |
| Decongestant | | | | | |
| Degranulant 0.3 ul/ml | | | | | |
| Dentifrice | Martindale's 29th | | | | |
| Edemagenic inj | | | | | |
| Expectorant | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.</i> Taylor & Frost, London. 791 pp. | | | | |
| FLavor FEMA 1-200 | Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry | | | | |
| Fungicide | | | | | |
| Gastroprotective | | | | | |
| Gram(+)-icide | | | | | |
| Gram(-)-icide | | | | | |
| Hepatotonic | | | | | |

| | | | | |
|----------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------|--|--|--|
| Herbicide IC50=78 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. | | | |
| Hypotensive | | | | |
| Inflammatory inj | | | | |
| Insectifuge | | | | |
| Irritant | Rinzler, C. A. 1990. The Complete Book of Herbs, Spices and Condiments. Facts on File, New York. 199 pp. | | | |
| Myorelaxant | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. | | | |
| Nematicide | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. | | | |
| Neurotoxic | | | | |
| P450-Inducer | | | | |
| Pediculicide 2.3 x pyrethrin | | | | |
| Perfume | Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry | | | |
| Pesticide | | | | |
| Rubefacient | Martindale's 29th | | | |
| Secretagogue | | | | |
| Sedative | | | | |
| Spasmogenic | | | | |
| Surfactant | | | | |
| Testosterone-Hydroxylase-Inducer | | | | |
| Transdermal | | | | |
| Trichomonicide LD100=1,000 ug/ml | | | | |

| | | | | | |
|--------------------------|-------|----|------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALLO-AROMADENDRENE | Shoot | -- | 6.0 | -0.18 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |
| ALPHA-FENCHYL-ALCOHOL | Shoot | -- | 40.0 | 0.62 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |
| ALPHA-P-DIMETHYL-STYRENE | Shoot | -- | 16.0 | -0.74 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |
| ALPHA-PHELLANDRENE | Shoot | -- | 0.1 | -0.31 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |

| Activities (11) | | | | | |
|--------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|-------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Antibacterial | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. | | | | |
| Antistaphylococcic | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. | | | | |
| Dermal | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Emetic | | | | | |
| FLavor FEMA 10-130 | Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry | | | | |
| Fungicide | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. | | | | |
| Insectiphile | Pakistan Encyclopedia Planta Medica. 1986. | | | | |
| Irritant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Laxative | | | | | |
| Perfumery | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. | | | | |
| Pesticide | | | | | |
| ALPHA-PINENE | Shoot | -- | 820.0 | -0.07 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |

Activities (28)

| | |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Allelochemic | |
| Allergenic | |
| Antiacne | |
| Antibacterial | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory 500 mg/kg | |
| Antipneumonic | |
| Antiseptic | |
| Antispasmodic | |
| Antistaphylococcic | |
| Antiviral | Economic & Medicinal Plant Research, 5: 195. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Coleoptophile | |
| Expectorant | Michael Castleman 1991. The Healing Herbs. Rodale Press, Emmaus, PA 436 pp. |
| FLavor FEMA 15-150 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide IC50=30 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insecticide 0.82 uM/fly | |
| Insectifuge 50 ppm | |
| Insectiphile | J. Stored. Prod. Res., 22:141, 1986. |
| Irritant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| P450-2B1-Inhibitor IC50=0.087 uM | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Sedative | Lawrence Review of Natural Products, Jun-90. |
| Spasmogenic | |
| Tranquilizer | Lawrence Review of Natural Products, Jun-90. |
| Transdermal | |

ALPHA-TERPINENE Shoot -- 0.1 -0.48 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (13)

| | |
|-----------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|
| ACE-Inhibitor 100 ug/ml (weak activity) | |
| Acaricide | |
| Aldose-Reductase-Inhibitor 100 ug/ml | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpenes from Trees. Toyama-Ken Yakuji Kenkyusho Nenpo, (20): 95-101. |
| Antiacetylcholinesterase IC50=1.0 mM | |
| Antinitrosaminic | |
| Antispasmodic | |
| FLavor FEMA 1-40 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Insecticide 0.86 uM/fly | |
| Insectifuge | |
| P450-2B1-Inhibitor IC50=0.76 uM | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Spasmogenic | |

ALPHA-TERPINEOL Shoot -- 32.0 -0.25 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (23)

| | |
|-----------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACE-Inhibitor 100 ug/ml (weak activity) | |
| Aldehyde-Reductase-Inhibitor 100 ug/ml | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpenes from Trees. Toyama-Ken Yakuji Kenkyusho Nenpo, (20): 95-101. |
| Allelopathic | Wright, C.W. (Ed) 2002. Medicinal & Aromatic Plants-Industrial Profiles. Artemisia. 344pp. Maffei, M. (Ed) 2002. Vetiveria. The Genus Vetiveria. Taylor & Francis. NY, NY. 191pp. Southwell, J., Lowe, R. (Eds) 1999. Tea Tree. The Genus Melaleuca. Harwood Acad. Pub. Amsterdam, Netherlands. |
| Antiacne | |
| Antibacterial MIC=800-1,600 ug/ml | Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. J. Agric. Food Chem. 41: 1102-1105. |
| Anticancer | Joseph, J., Nadeau, D. and Underwood, A. 2001. The Color Code. Hyperion, NY. |
| Anticariogenic MIC=800-1,600 ug/ml | Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against Streptococcus mutans. J. Agric. Food Chem. 41: 1102-1105. |
| Antiinflammatory | |
| Antiproliferant | |
| Antiseptic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Cicatrizant ED50=240 ug/g mus | |
| FLavor FEMA 5-40 | Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry |
| Insecticide 1.29 uM/fly | |
| Interleukin-6-Inhibitor | |
| Mosquitofuge > Deet | |
| Motor-Depressant | Buchbauer et al, e.g. Buchbauer et al, 1993. Therapeutic properties of essential oils and fragrances. Chap. 12 in Teranishi, R., Buttery, R.G. and Sugisawa, H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC |
| Nematicide MLC=1 mg/ml | Shoyakugaku Zasshi, 44: 183. |
| Perfumery | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Sedative | Buchbauer et al, e.g. Buchbauer et al, 1993. Therapeutic properties of essential oils and fragrances. Chap. 12 in Teranishi, R., Buttery, R.G. and Sugisawa, H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC |
| Termiticide IC100=5 mg/g | |
| Transdermal | |
| Vulnerary ED50=240 ug/g mus | |

| | | | | | |
|------------------------|-------|----|------|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ALPHA-TERPINYL-ACETATE | Shoot | -- | 19.0 | -0.27 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |
| ALPHA-THUJENE | Shoot | -- | 0.1 | -0.56 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |
| AROMADENDRENE | Shoot | -- | 10.0 | -0.18 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |

Activities (3)

| | |
|-------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------|
| Antiseptic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Pesticide | |

| | | | | | |
|--------------|-------|----|-----|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| BENZALDEHYDE | Shoot | -- | 0.1 | -0.22 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264. |
|--------------|-------|----|-----|-------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|

Activities (24)

| | |
|------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Allergenic | |
| Anesthetic | |
| Antibacterial | |
| Anticancer | |
| Antimutagenic | |
| Antipeptic | |
| Antiseptic | |
| Antispasmodic | |
| Antitumor | |
| Candidicide | |
| FLavor FEMA 150-800 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Immunostimulant | |
| Insecticide | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Insectifuge 50 ppm | J. Stored. Prod. Res., 22:141, 1986. |
| Motor-Depressant | Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC |
| Narcotic | Merck 11th Edition |
| Nematicide MLC=1 mg/ml | Shoyakugaku Zasshi, 44: 183. |
| Pesticide | |
| Sedative | Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC |
| Termiticide LD100=5 mg/g | |
| Tyrosinase-Inhibitor ID50=820 uM | |
| Tyrosinase-Inhibitor ID50=87 ug/ml | |
| Tyrosinase-Inhibitor ID50=0.82 mM | |
| Tyrosinase-Inhibitor ID50=830 uM | |

BETA-CARYOPHYLLENE Shoot -- 0.1 -0.41 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

BETA-ELEMENE Shoot -- 0.1 -0.34 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (5)

| | |
|---------------------|--------------------------------------------------------------------------------------------------|
| Anticancer (Cervix) | Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987. |
| Antigliomic | |
| Antiproliferant | |
| Antitumor (Cervix) | Medicinal and Poisonous Plants of the Tropics. Leeuwenberg, A.J.M., ed. Pudoc, Wageningen. 1987. |
| Apoptotic | |

BETA-PINENE Shoot -- 0.1 -0.12 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (13)

| | |
|--------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Allergenic | |
| Antiinflammatory | |
| Antiseptic | Leung, A. Y. and Foster, S. 1995. Encyclopedia of Common Natural Ingredients 2nd Ed. John Wiley & Sons, New York. 649 pp. |
| Antispasmodic | |
| Candidicide | |
| FLavor FEMA 15-600 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |
| Spasmogenic | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Transdermal | |

BORNEOL Shoot -- 42.0 -0.36 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (35)

| | |
|-------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| (-)-Chronotropic 29 ug/ml | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| (-)-Inotropic 29 ug/ml | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| Allelochemic | |
| Analgesic | |
| Antiacetylcholine | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Antibacterial MIC=125-250 ug/ml | |
| Antibronchitic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antiescherichic MIC=125 ug/ml | |
| Antifeedant | |
| Antiinflammatory | |
| Antiotitic | |
| Antipyretic | |
| Antisalmonella MIC=125 ug/ml | |
| Antispasmodic ED50=0.008 mg/ml | |
| Antistaphylococcic MIC=250 ug/ml | |
| Antiyeast MIC=250 ug/ml | |
| CNS-Stimulant | List, P.H. and Horhammer, L., Hager's Handbuch der Pharmazeutischen Praxis, Vols. 2-6, Springer-Verlag, Berlin, 1969-1979. |
| CNS-Toxic | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Candidicide MIC=250 ug/ml | |
| Choleretic | |
| FLavor FEMA<1 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | |
| Hepatoprotective | |
| Herbicide IC50=470 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Herbicide IC50=470 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Inhalant | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Insect-Repellent | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | Rinzler, C. A. 1990. The Complete Book of Herbs, Spices and Condiments. Facts on File, New York. 199 pp. |
| Myorelaxant | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Nematicide MLC=1 mg/ml | Shoyakugaku Zasshi, 44: 183. |
| Perfumery | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Pesticide | |
| Sedative | Medline (post 1990 searches filed in my computer) |
| Tranquilizer | |

CAMPHENE Shoot -- 35.0 -0.13 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (9)

| | |
|----------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Allelopathic | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. |
| Antilithic? | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Antioxidant | Jim Duke's personal files. |
| Expectorant | Hansel, R., Keller, K., Rimpler, H., and Schneider, G. eds. 1992. Hager's Handbuch der Pharmazeutischen Praxis, Drogen (A-D), 1209 pp., 1993 (E-O), 970 pp., 1994 (P-Z), 1196 pp. Springer-Verlag, Berlin. |
| FLavor FEMA 15-175 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Hypocholesterolemic? | Jeffery B. Harborne and H. Baxter, eds. 1983. Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants. Taylor & Frost, London. 791 pp. |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Pesticide | |
| Spasmogenic | Fitoterapia No.59-1984. |

CAMPHOLENIC-ALDEHYDE Shoot -- 0.1 -0.31 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

CITRONELLAL Shoot -- 0.1 -0.22 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (20)

Acaricide
 Allergenic
 Antibacterial
 Antiseptic 3.8 x phenol Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
 Antistaphylococcic
 Antistreptococcic
 Candidicide
 Embryotoxic
 FLavor FEMA <1 Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
 Fungicide
 Insectifuge Merck 11th Edition
 Irritant Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
 Motor-Depressant Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. Bioactive Volatile Compounds from Plants. ACS Symposium Series 525. Amer. Chem. Soc., Washington DC
 Mutagenic?
 Nematicide MIC 1 mg/ml Shoyakugaku Zasshi, 44: 183.
 P450-2B1-Inhibitor IC50=1.56 uM
 Perfumery
 Pesticide
 Sedative ED=1 mg/kg Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
 Teratogenic

CITRONELLIC-ACID Shoot -- 0.1 -0.23 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

CITRONELLOL Shoot -- 3.0 -0.18 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (15)

Allergenic
 Antibacterial
 Antiseptic
 Antistaphylococcic
 Antistreptococcic
 Candidicide
 FLavor FEMA 1-50 Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
 Fungicide HerbalGram No. 17.
 Herbicide IC50=160 uM Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.
 Irritant Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.
 Nematicide MLC=100 ug/ml Shoyakugaku Zasshi, 44: 183.
 Perfumery Merck 11th Edition
 Pesticide
 Sedative Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176)
 Trichomonicide LD100=300 ug/ml

CITRONELLYL-ACETATE Shoot -- 0.1 -0.23 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (2)

FLavor FEMA <1-700 Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry
 Irritant Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.

CUMINALDEHYDE Shoot -- 0.1 -0.33 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

| Activities (10) | | | | | |
|--------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Antibacterial | | | | | |
| FLavor FEMA <1 | | | | | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | | | | | Singh*, G., Upadhyay, R.K. 1990. Fungitoxic Activity of Cumaldehyde, Main Constituent of the Cuminum cyminum Oil. <i>Fitoterapia</i> 62(1): 86, 1991. |
| Irritant | | | | | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Larvicide | | | | | Leung, A.Y., <i>Encyclopedia of Common Natural Ingredients Used in Food, Drugs, and Cosmetics</i> , John Wiley & Sons, New York, 1980. |
| Perfumery | | | | | Jeffery B. Harborne and H. Baxter, eds. 1983. <i>Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants</i> . Taylor & Frost, London. 791 pp. |
| Pesticide | | | | | |
| Sedative | | | | | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Tyrosinase-Inhibitor ID50=0.05 mM | | | | | |
| Ulcerogenic | | | | | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |

| | | | | | |
|---------------------|-------|----|--------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| EO | Shoot | -- | 3200.0 | -0.66 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264. |
| GAMMA- TERPINENE | Shoot | -- | 150.0 | -0.29 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264. |

| Activities (11) | | | | | |
|--------------------------------------------|--|--|--|--|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| ACE-Inhibitor 100 ug/ml (weak activity) | | | | | |
| Acaricide | | | | | |
| Aldose-Reductase- Inhibitor 100 ug/ml | | | | | Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpenes from Trees. <i>Toyama-Ken Yakuji Kenkyusho Nenpo</i> , (20): 95-101. |
| Antiacetylcholinesterase IC23=1.2 mM | | | | | |
| Antifeedant | | | | | Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. <i>Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K)</i> , 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin. |
| Antioxidant | | | | | Jim Duke's personal files. |
| FLavor FEMA 1-40 | | | | | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Insectifuge | | | | | Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. <i>Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K)</i> , 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin. |
| Irritant | | | | | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Perfumery | | | | | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | | | | | |

| | | | | | |
|-------------------------|-------|----|------|-------|---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| GLOBULOL | Shoot | -- | 38.0 | -0.21 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264. |
| ISOAMYL- ISOVALERATE | Shoot | -- | 0.1 | -0.48 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264. |
| ISOBUTYL- VALERATE | Shoot | -- | 0.1 | -0.52 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264. |
| LEDOL | Shoot | -- | 0.1 | -0.22 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264. |
| LIMONENE | Shoot | -- | 0.1 | -0.33 | Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. <i>Journal of Essential Oil Res.</i> 4: 259-264. |

Activities (60)

| | |
|-----------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------|
| AChE-Inhibitor | Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. & Physiol.</i> , 23, 1985, 383-8. |
| Acaricide LC100=8 uM | |
| Allelochemic | |
| Allergenic 1/20th carene | |
| Antiacetylcholinesterase IC22-26=1.2 mM | |
| Antiadenomic | |
| Antialzheimeran? | Grundy, D. L. and Still, C. C., Inhibition of acetylcholinesterases by pulegone-1,2-epoxide, <i>Oest. Biochem. & Physiol.</i> , 23, 1985, 383-8. |
| Antiasthmatic | |
| Antibacterial | Revista Itiliana Eppos, 12: 5, 1994. |
| Anticancer | |
| Antiesophagitic | |
| Antifeedant | |
| Antiflu | Economic & Medicinal Plant Research, 5: 195. |
| Antiinflammatory | |
| Antilithic | |
| Antilymphomic | |
| Antimetastatic (Stomach) | |
| Antimutagenic | Economic & Medicinal Plant Research, 6: 235. |
| Antiobesity | |
| Antiseptic | |
| Antispasmodic ED50=0.197 mg/ml | Fitoterapia No.59-1984. |
| Antitumor | |
| Antitumor (Breast) | |
| Antitumor (Colon) | |
| Antitumor (Pancreas) | |
| Antitumor (Prostate) | |
| Antitumor (Stomach) | |
| Antiviral | |
| Apoptotic | |
| Bronchoprotectant | |
| Cancer-Preventive | Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidistat | |
| Chemopreventive | |
| Cholesterolytic | |
| Detoxicant | |
| Enterocontractant | J. Aromatherapy 4: 22. |
| Expectorant | |
| FLavor | |
| Fungiphilic | J. Agric. Food Chem. 43: 2283. |
| Fungistat | |
| GST-Inducer | |
| Herbicide IC50=45 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Histaminic | |
| Immunomodulator | |
| Insecticide 0.37 uM/fly | |
| Insectifuge | Jacobson, M., Glossary of Plant-Derived Insect Deterrents, CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Interleukin-6-Inhibitor | |
| Irritant | |
| Lipolytic | |
| Myorelaxant 50 mg/kg | |
| NO-Genic | |
| Nematicide IC=100 ug/ml | Nigg, H.N. and Seigler, D.S., eds. 1992. Phytochemical Resources for Medicine and Agriculture. Plenum Press, New York. 445 pp. |
| Ornithine-Decarboxylase-Inhibitor ~750 mg/kg (diet) | |
| Ozone-Scavenger | |
| P450-Inducer | |
| Peristaltic | |
| Pesticide | |
| Photosensitizer | Rinzler, C. A. 1990. The Complete Book of Herbs, Spices and Condiments. Facts on File, New York. 199 pp. |
| Sedative ED=1-32 mg/kg | Wagner & Wolff, eds. 1977. New Natural Products (RS164. I56. 176) |
| Transdermal | |

Activities (53)

| | |
|-------------------------------------------------------|-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Acaricide C90=<15 ul/l (= <15 ppm) | |
| Allergenic | |
| Analgesic | |
| Anesthetic 0.01-1 ug/ml | |
| Antiacetylcholinesterase | |
| Antiallergic | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Antianaphylactic | |
| Antibacterial MIC=1,600 ug/ml | |
| Anticariogenic MIC=1,600 ug/ml | Muroi, H. and Kubo, I. 1993. Combination Effects of Antibacterial Compounds in Green Tea Flavor against <i>Streptococcus mutans</i> . <i>J. Agric. Food Chem.</i> 41: 1102-1105. |
| Anticolic | |
| Anticonvulsant 200 mg/kg ipr mus | |
| Antiedemic | |
| Antiglutamaergic | |
| Antihistaminic | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Antiinflammatory | |
| Antileukemic IC50=3.5-4.2 ug/ml | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antilymphomic IC50=3.5-4.2 ug/ml | Chiang, L. C., Chiang, W., Chang, M. Y., Ng, L. T., Lin, C. C. 2003. Antileukemic activity of selected natural products in Taiwan. <i>Am J Chin Med</i> , 31(1):37-46. |
| Antimange | |
| Antimite | |
| Antimutagenic | |
| Antiseptic 5 x phenol | Wagner & Wolff, eds. 1977. <i>New Natural Products</i> (RS164. I56. 176) |
| Antishock | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| Antispasmodic | Buchbauer, G., Jirovetz*, L., Nikiforov, A., Remberg, G., Raverdino, V. 1989. Headspace-Analysis and Aroma Compounds of Austrian Hay-Blossoms (<i>Flores Graminis</i> , <i>Graminis Flos</i>) used in Aromatherapy. <i>J. Ess. Oil Res.</i> , 2: 185-191, 1990. |
| Antiviral | |
| Barbituate-Synergist | |
| Bronchorelaxant | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| CNS-Depressant | |
| Cancer-Preventive | Stitt, P. A. <i>Why George Should Eat Broccoli</i> . Dougherty Co, Milwaukee, WI, 1990, 399 pp. |
| Candidistat | |
| Carminative | |
| Culicide LC50=156-194 mg/l | |
| Cytotoxic | |
| Expectorant | Huang, K. C. 1993. <i>The Pharmacology of Chinese Herbs</i> . CRC Press, Boca Raton, FL 388 pp. |
| FLavor FEMA 2-40 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | <i>Acta Botanica Sinica</i> , 32: 49. |
| GABA-nergic | |
| Hypnotic | |
| Hypothermic | |
| Insecticide LC50=156-194 mg/l | |
| Insectifuge | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. <i>Compendium of Safety Data Sheets for Research and Industrial Chemicals</i> . VCH Publishers, New York. 3560-4253. |
| Larvicide LC50=156-194 mg/l | |
| Mosquitofuge > Deet | |
| Motor-Depressant | Buchbauer et al, e.g.Buchbauer et al,1993.Therapeutic properties of essential oils and fragrances. Chap.12 in Teranishi,R, Buttery,R.G and Sugisawa,H. Eds. <i>Bioactive Volatile Compounds from Plants</i> . ACS Symposium Series 525. Amer. Chem. Soc., Washington DC |
| Nematicide MLC=1 mg/ml | <i>Shoyakugaku Zasshi</i> , 44: 183. |
| Perfumery | Merck 11th Edition |
| Pesticide | |
| Prooxidant | Charalambous, G. (Ed.). 1994. <i>Spices, Herbs and Edible Fungi</i> . Elsevier Science B. V. Amsterdam. 764 pp. |
| Sedative ED=1-32 mg/kg | Wagner & Wolff, eds. 1977. <i>New Natural Products</i> (RS164. I56. 176) |
| Sedative 200 mg/kg ipr mus (1% as active as diazepam) | |
| Termitifuge | Jacobson, M., <i>Glossary of Plant-Derived Insect Deterrents</i> , CRC Press, Inc., Boca Raton, FL, 213 p, 1990. |
| Trichomonicide LD100=600 ug/ml | |
| Tumor-Promoter | |

MYRCENE Shoot -- 0.1 -0.34 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. *Journal of Essential Oil Res.* 4: 259-264.

Activities (22)

ACE-Inhibitor 100 ug/ml

Aldose-Reductase-Inhibitor 100 ug/ml Okamura, K., Iwakami, S., Matsunaga, T. 1992. Biological Activity of Monoterpenes from Trees. *Toyama-Ken Yakuji Kenkyusho Nenpo*, (20): 95-101.

Allergenic

Analgesic Kauderer, B., Zamith, H., Paumgartten, F.J.R., and Speit, G. Evaluation of the Mutagenicity of B-Myrcene in Mammalian Cells In Vitro. *Environmental and Molecular Mutagenesis* 18: 28-34, 1991.

Antibacterial

Anticonvulsant

Antimutagenic Kauderer, B., Zamith, H., Paumgartten, F.J.R., and Speit, G. Evaluation of the Mutagenicity of B-Myrcene in Mammalian Cells In Vitro. *Environmental and Molecular Mutagenesis* 18: 28-34, 1991.

Antinitrosaminic

Antinociceptive 10-20 mg/kg ipr mus Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. *J. Pharm. Pharmacol.* 42: 877-878, 1990.

Antinociceptive 20-40 mg/kg scu mus Rao, V.S.N., Menezes, A.M.S., Viana, G.S.B. 1990. Effect of myrcene on nociception in mice. *J. Pharm. Pharmacol.* 42: 877-878, 1990.

Antioxidant Jim Duke's personal files.

Antispasmodic Jim Duke's personal files.

Chemopreventive Stitt, P. A. Why George Should Eat Broccoli. Dougherty Co, Milwaukee, WI, 1990, 399 pp.

FLavor FEMA 0.5-9 Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry

Fungicide Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp.

Hypothermic

Insectifuge

Irritant Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253.

Myorelaxant 100-200 mg/kg

P450-2B1-Inhibitor IC50=0.14 uM

Perfumery Jeffery B. Harborne and H. Baxter, eds. 1983. *Phytochemical Dictionary. A Handbook of Bioactive Compounds from Plants.* Taylor & Frost, London. 791 pp.

Pesticide

MYRTENOL Shoot -- 0.1 -0.25 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. *Journal of Essential Oil Res.* 4: 259-264.

Activities (2)

Antimalarial IC50=5-50 ug/ml Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. Africa Herbal Antimalaria Meeting. PlantaPhile Publications, Berlin. 72 pp.

Antiplasmodial IC50=5-50 ug/ml Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. Africa Herbal Antimalaria Meeting. PlantaPhile Publications, Berlin. 72 pp.

P-CYMEN-8-OL Shoot -- 0.1 -0.17 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. *Journal of Essential Oil Res.* 4: 259-264.

P-CYMENE Shoot -- 0.1 -0.5 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. *Journal of Essential Oil Res.* 4: 259-264.

Activities (16)

| | |
|-----------------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Analgesic | Martindale's 28th |
| Antiacetylcholinesterase IC40=1.2 mM | |
| Antibacillary | |
| Antibacterial | |
| Antiflu | |
| Antirheumatalgic | Martindale's 28th |
| Antiviral | |
| FLavor FEMA 12-250 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Fungicide | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Herbicide IC50=50 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge | Blaschek, W., Hansel, R., Keller, K., Reichling, J., Rimpler, H., and Schneider, G. eds. 1998. Hager's Handbuch der Pharmazeutischen Praxis, Auflage Band 2 (A-K), 909 pp., (L-Z), 858 pp. Springer-Verlag, Berlin. |
| Irritant | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Laxative | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Pesticide | |
| Sedative | Zebovitz, T. C. Ed. 1989. Part VII. Flavor and Fragrance Substances, in Keith L. H. and Walters, D.B., eds. Compendium of Safety Data Sheets for Research and Industrial Chemicals. VCH Publishers, New York. 3560-4253. |
| Trichomonicide LD100=50 ug/ml | |

PIPERITONE Shoot -- 0.1 -0.23 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (7)

| | |
|-------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Antiasthmatic | |
| FLavor FEMA 1-2 | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Herbicide IC50=30 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Herbicide IC50=75 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge (> DEET) | Bowers, W.S., Ortego, F., You, X., and Evans, P.H. Insect Repellents From The Chinese Prickly Ash Zanthoxylum bungeanum. Journal of Natural Products, 56(6): 935-938, 1993. |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewd book by Coats and draft by Henry |
| Pesticide | |

SPATHULENOL Shoot -- 29.0 -0.28 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

TERPINEN-4-OL Shoot -- 0.1 -0.17 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (23)

| | |
|--------------------------------------------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Allelopathic | Wright,C.W.(Ed)2002.Medicinal&Aromatic Plants-Industrial Profiles.Artemisia.344pp.Maffei,M.(Ed)2002.Vetiveria.The Genus Vetiveria.Taylor&Francis.NY,NY.191pp.Southwell,I.,Lowe,R.(Eds)1999.Tea Tree.The Genus Melaleuca.Harwood Acad.Pub.Amsterdam,Netherlands. |
| Antiacetylcholinesterase IC21-24=1.2 mM | |
| Antiacne | |
| Antiallergic | |
| Antiasthmatic | Chin. J. Tuber. Respir. Dis., 4:203, 1982. |
| Antibacterial | |
| Antioxidant | |
| Antiseptic | Flav. & Frag. J. 9: 129. |
| Antispasmodic | |
| Antitussive | Chin. J. Tuber. Respir. Dis. |
| Antiulcer | |
| Bacteriostatic | Chin. J. Tuber. Respir. Dis. |
| Diuretic 0.1 ml/rat | |
| Fungicide | |
| Herbicide IC50=200 mM | Lydon, J. & Duke, S., The potential of pesticides from plants, pp. 1-41 in Craker, L. & Simon, J., eds, Herbs, Spices & Medicinal Plants: Recent Advances in Botany, Horticulture, & Pharmacology, v. 4, Oryx Press, Phoenix, 1989, 267pp. |
| Herbicide IC50=22 uM | Keeler, R.F. and Tu, A.T. eds. 1991. Toxicology of Plant and Fungal Compounds. (Handbook of Natural Toxins Vol. 6) Marcel Dekker, Inc. NY. 665 pp. |
| Insectifuge | |
| Irritant | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Nematicide MLC=1 mg/ml | Shoyakugaku Zasshi, 44: 183. |
| Pesticide | |
| Renoirritant | Newall, C. A., Anderson, L. A. and Phillipson, J. D. 1996. Herbal Medicine - A Guide for Health-care Professionals. The Pharmaceutical Press, London. 296pp. |
| Spermicide ED100=0.015 | |
| Vulnerary | Lawrence Review of Natural Products, Jan-91. |

TRANS- PINOCARVEOL Shoot -- 35.0 -0.2 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (2)

| | |
|--------------------------------|----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Antimalarial IC50=5-50 ug/ml | Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. Africa Herbal Antimalaria Meeting. PlantaPhile Publications, Berlin. 72 pp. |
| Antiplasmodial IC50=5-50 ug/ml | Rukunga, G. and Simons, A. J. 2006. The Potential of Plants as a Source of Antimalarial Agents - A Review. Africa Herbal Antimalaria Meeting. PlantaPhile Publications, Berlin. 72 pp. |

VERBENONE Shoot -- 0.1 -0.26 Zrira, S. S., Benjilali, B. B., Fechtal, M. M., & Richard, H. H. 1991. Essential Oils of Twenty-seven Eucalyptus Species Grown in Morocco. Journal of Essential Oil Res. 4: 259-264.

Activities (5)

| | |
|----------------|--------------------------------------------------------------------------------------------|
| Allelochemic | |
| Coleopterifuge | |
| Insectifuge | |
| Perfumery | Aloe Research Council - Duke writeup of non-peer reviewed book by Coats and draft by Henry |
| Pesticide | |