

E2-44: Studies on the volatile oils of *Alpinia calcarata*

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Alppppinia calcarata (S. Heenaraththa) (family - Zingibaraceae) is cultivated in India and Sri Lanka for medicinal purposes. The rhizomes are used as tonic, stomachic, carminative, stimulant, in rheumatism, bronchial catarrh and as depressant of the cardio-vascular system. It is commonly used in the treatment of arthritis in Sri Lanka.

Only methylcinnamate was reported in *Alpinia calcarata* found in India. The present study deals with investigation of the volatile constituents of *Alpinia calcarata* found in Sri Lanka.

The dried crushed plant materials were steam distilled for 4 h to obtain the essential oils of rhizome (3.60%), roots (0.57%), leaves (0.42%). The oils were analysed by Gas Liquid Chromatography. Using retention time peak enhancement and GC/MS data 1,8 - cineol, caratol, fenchonol acetate, α -muurolene α -terpineol, camphor, sabinene, β -pinene, car - 3 - ene, 4-terpineol, isoborneol, isocaryophyllene, endo-fenchol, aristolene, epicamphor, linalool were identified.

The major constituent in rhizome and leaf oil is 1,8-cineol but in root oil it is camphor. Methyl cinnamate reported in Indian oil was not a prominent component in Sri Lankan oil and further it differs from the oil of *Alpinia galanga* which is reported to contain about 48% methyl cinnamate.

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