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ABSTRACTS

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Essential Oil of Brazilian Croton urticifolius

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The Genus Croton L. belongs to Euphorbiaceae, subfamily Crotonoideae, and comprises approximately 800 species growing in the tropical and subtropical regions [1]. Croton species are wide spread in Brazil and up to now, only a few species collected in the Amazonian and Northeastern areas have already been studied due to their biological activities and the occurrence of essential oils. Recently, the chemical composition of the essential oil from leaves of Croton cajucara was published. The concentration of linalool varied in different plants collected in several localities of Amazonian region, from 30 to 45 % [2]. Herein we report the results of a representative sample of velame (Croton urticifolius) essential oil. This shrub is commonly found in Rio de Janeiro seashore. The oil was obtained by hydrodistillation (4 hours) of aerial parts (leaves and slender stems) using a Clevenger apparatus, yield: 0.1 % (fresh weight). Analyses were performed by GC/MS and identification of the oil components was obtained by comparison of retention indices and, whenever possible, by co-injection with an authentic sample. Comparison and interpretation of fragmentation patterns in mass spectra with those stored in the NIST computer database and published in reference books [3] were also applied for the identification of the compounds. The sesquiterpene fraction predominated in this oil (98.3 %). The major constituents were δ-elemene, α-cubebene, α-copaene, β-bourbonene, B-cubebene, β-elemene, β-caryophyllene, aromadendrene, α-humulene, sevchellene, germacrene-D, bicyclogermacrene, germacrene A, trans-calamenene, cadina-1,4-diene, trans-nerolidol and spathulenol.

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