



Volatile compounds from Myrciaria floribunda powder

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Myrciaria floribunda is a fruit species of the Myrtaceae family, popularly known as camboim (1). It is found in several stretches of restinga in the state of Rio de Janeiro. Its fruits are consumed in natura, in the form of jelly or added to give flavor in distilled beverages. There are some studies describing its botanical characteristics, popular use and the chemical composition and therapeutic activity of the essential oil of its leaves. In this purpose, the fruits were collected in the restinga of Maricá, lyophilized and triturated. The volatiles of the resultant powder were extracted by solid phase microextraction (SPME) and analyzed by gas chromatography. The volatiles were extracted over a 60 min period at room temperature from the lyophilized and pulverized fruit and adsorbed, in the headspace, by a Supelco adsorption fiber (50/30 µm CAR/DVB/PDMS). The volatiles were desorbed and analyzed by GC-FID and GC-MS in Agilent 6890N and 5973N systems, both with HP-5MS fused silica capillary columns (30 m x 0.25 mm x 0.25 µm). Hydrogen was used as carrier gas for GC-FID and helium for GC-MS, both with a flow rate of 1.0 mL/minute. Injection was in splitless mode. Oven temperature was raised from 40 to 240°C at 3°C/minute. Mass detector was operated in electronic ionization mode at 70 eV. The percentage composition was obtained by normalization from FID. Oil components were identified by comparison of both mass spectra and linear retention indices with spectral library and literature (2). Among the 32 compounds identified 34.4% are monoterpene hydrocarbons, 25% oxygenated monoterpenes and 40.6% sesquiterpene hydrocarbons. The main compound was cis-β-ocimene, representing 50.8% of the total. The characterization of essential oil in this fruit is an important information, once the presence of those compounds is commonly related to other parts of the plant (leaves and flowers).

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- 2. Adams, R.P.; Identification of Essential Oil Components by Gas Chromatography/Mass Spectrometry, 4th ed. Allured Publ. Corp, Carol Stream, IL (2007).

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