

**Essential oils from *Nectandra cuspidata* Nees & Mart. (Lauraceae)**

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The Lauraceae is constituted by *circa* 50 genera and approximately 500 species, most of them trees. Its main distribution centers are South America and Southeastern Asia and the plants of this family are known for the production of a wide diversity of secondary metabolites. The genus *Nectandra* is well represented in the Brazilian flora, with several species presenting many benefits to man. The aim of this study was to evaluate the chemical composition of the volatile constituents from *Nectandra cuspidata* leaves and fruits were carried out on four samplings obtained from fresh leaves (FL), dried leaves (DL), fresh fruits (FF) and dried fruits (DF). Leaves and fruits from *N. cuspidata* were collected at Campus of Museu Paraense Emílio Goeldi, Belém, Pará State, Brazil in September 2014. The essential oil was obtained by hydrodistillation for 3 h. The essential-oil analyses were performed on a Shimadzu GC/MS Model QP 2010 Plus, equipped with a Rtx-5MS (30 m X 0.25 mm X 0.25 µm film thickness) fused silica capillary column. Helium was used as the carrier gas adjusted to 1.2 mL min⁻¹; with splitless injection of 1 µL of a hexane solution; injector and interface temperature were 250 °C; oven temperature programmed was 60-240 °C at 3 °C min⁻¹. EIMS: electron energy, 70 eV; ion source temperature was 200 °C. The identification of the individual components was based on the matching of their mass spectra and retention index with those recorded in the libraries of the NIST-11 system and literature data (1). The yield of essential oil from fresh and dried leaves contained 47.1 % and 9.3 % of the residual humidity, respectively, were 0.1 % and 0.2 %. The fruits oil (yield calculated at dried basis) were 1.9 % (fresh sample) and 1.1 % (dried sample). Quantitatively, the most abundant class of compounds identified was the terpenoids. Among them, bicyclogermacrene (FL, 20.2 %; DL 19.2 %; FF, 5.3 %; FD, 4.2 %), (*E*)-caryophyllene (FL, 20.0 %; DL, 23.1 %; FF, 12.0 %; FD, 7.1 %), γ-elemene (FL, 12.5 %; DL, 11.2 %; FF, 7.2 %; FD 2.7 %), germacrene B (FL, 11.5 %; DL, 10.4%; FF, 5.0 %; FD, 2.4 %) and germacrene D (FL, 9.0 %; DL, 8.3 %; FF, 21.5 %; FD, 2.3 %), δ-elemene (FL, 3.7 %; DL, 4.0 %; FF, 6.3 %; FD, 5.3 %) , β-elemene (FL, 5.6 %; DL, 6.0 %; FF, 3.8 %; FD, 2.2 %), (*E*)-nerolidol (FL, 0.3 %; DL, -; FF, 2.3 %; FD, 8.4 %), spathulenol (FL, 0.5 %; DL, 1.8 %; FF, 0.4 %; FD, 6.4 %) and caryophyllene oxide (FL, 0.4 %; DL, 1.4 %; FF, 0.3 %; FD, 7.4 %).

1. Adams, R.P. Identification of Essential Oil Components by Gas Chromatography/Quadrupole Mass Spectrometry, Allured Publishing Corp., Carol Stream, IL, 2007.