

FRACTIONATION AND CHARACTERIZATION OF *Baccharis* ssp. NONVOLATILE EXTRACTS OBTAINED WITH SUPERCRITICAL CO₂

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The genus *Baccharis* includes more than 500 species distributed in the United States to Argentina, with 90% occurring in South America. In Brazil there are about 120 described species. Highlight important features in folk medicine being used mainly for digestive problems. Previous studies have reported the presence of phenolic compounds, diterpenes and saponins in *Baccharis* non-volatile extracts. Their biological and pharmacological properties are described anti-inflammatory, analgesic, antibacterial and antioxidant. One way of obtaining non-volatile extracts is by supercritical fluid extraction, resulting in an extract pure, without the need for solvent evaporation for subsequent use. In this study we used the aerial parts of eight species of *Baccharis*: *B. microdonta*, *B. megapotamica*, *B. vulneraria*, *B. usteri*, *B. trimera*, *B. tridentata*, *B. anomala*, and *B. uncinella*. The extraction procedure of non-volatile extracts by supercritical fluid was conducted in two different conditions of pressure and temperature: 150 bar/60 °C and 200 bar/60 °C. After extraction, the extracts were fractionated by column chromatography and analyzed by thin layer chromatography (TLC) and high performance liquid chromatography (HPLC). Previous results indicate recidivist compounds in some species. It was also observed that there are differences between the extracts of the same species but in different extraction conditions. The extracts also are analyzed by HPLC-MS for the identification of compounds. The *Baccharis* non-volatile extracts and its fractions presented significant antioxidant activity and antimicrobial properties against various bacteria and fungi.

Keywords: supercritical extraction, *Baccharis* ssp., non-volatile extracts, HPLC.

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