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EXTRACTION, PURIFICATION AND IDENTIFICATION OF FLAVONOIDS FROM *PASSIFLORA CINCINNATA* LEAVES.

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Abstract: *Passiflora cincinnata* is a member of the family Passifloraceae. It is popularly known in Brazil, mainly in the Northeast, as *maracujá-do-mato*. This species have been used in popular medicine mainly as anxiolytic, anti-hypertensive and anti-inflammatory. From a chemical point of view the species of this genus are world represented by the wide variety of flavonoids and their derivatives[1]. Although the chemical characterization of this genus is consolidated, the *Passiflora cincinnata* species, has been little explored chemically. Based on that the aim of this work was to extract, purify and identify flavonoids from *P.* cincinnata leaves. Plant material (leaves) of *P.* cincinnata was collected in Vitória da Conquista, BA, Brazil, in February 2014. Dried plant material (500 g) was triturated and immersed in 2 L EtOH : H_2O (7:3 V/V) for 6 h with mechanical agitation. The solvent was evaporated under reduced pressure, in 10% yield of crude extract. This extract was solubilized in 1 L EtOH : H_2O (7:3 V/V), filtered and subjected to liquid-liquid partition with n-hexane, CH_2Cl_2, AcOEt and butanol, the solvents were evaporated to dryness under reduced pressure. The butanol extract (3g) was solubilized in 5 mL of methanol and fractionated on Sephadex LH-20 columns using methanol with solvents. The fraction BuOH-3 (0,9g), was dilute (1 mg/mL) and analyzed by LC-DAD-MS and LC-DAD-MS/MS both using a Phenomenex-C18 RP column (250 mm × 4.6 mm, 5 μm). The mobile phase consisted of 0.2% formic acid (A) and acetonitrile (B), using gradient elution with a flow rate of 1 mL/min. The chromatographic profile of the analyzed samples demonstrated that BuOH-3 fraction is a suitable source of the target compounds, this fraction is free of other compounds. It revealed also the presence of 12 substances that exhibit two major absorption bands in the ultraviolet/visible region tipical of flavonoids, 320-385 (Band I) nm and 240-280nm (Band II)[2]. Through the fragmentation pattern of these compounds was possible to suggest the presence of flavonoids characterized as Isoorientin $[M - H]^-$ *m/z* 447,0950 (± 5,1 ppm)[3]; Isovitexin $[M - H]^-$ m/z 431,0977 (± 0,3 ppm)[4] and isovitexin-3"-O-glucopyranoside $[M - H]^-$ *m/z* 593,1517 (± 1,8 ppm)[5] DENG et al 2008. This work contributes to the knowledge of the chemical composition of this species and eventually all its major compounds will be identified.

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