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CHEMICAL STUDY OF PARKIA DECUSSATA DUCKE (FABACEAE)

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Species of the Fabaceae family are rich producers of secondary metabolites, mainly flavonoids, terpenes, alkaloids, and other bioactive metabolites. The genus *Parkia* (Fabaceae) also expresses the family's chemosystematics, however, some species within the genus, such as *Parkia decussata* Ducke, lack phytochemical studies. Considering this gap, this study aimed to conduct a chemical study of the species. To this end, branches and leaves (rachis and leaflets) were collected, dried in a forced circulation oven (<50 ºC), grounded and extracted with solvents in increasing order of polarity: hexane and methanol, using an ultrasonic bath. For phytochemical analysis of the extracts, comparative thin layer chromatography (TLC) was used. Subsequently, a liquid-liquid partition of the MeOH extract of the leaves was performed, obtaining four phases: hexane (PHex), dichloromethane (PDCM), ethyl acetate (PEtOAc) and hydromethanolic (PH_2O/MeOH). For the isolation of the substances open column chromatography (CCA) were used. Nuclear magnetic resonance (NMR) of ^{1}H and ^{13}C, one and two dimensions (COSY, HSQC, HMBC and DEPT 135º) were used for identification of the substances. The extracts selected for fractionation were the hexane phase, which, upon revealing the chromatographic plate with the Anisaldehyde reagent, revealed signs of terpenes. Fractionation allowed the isolation and identification of one terpene (lupeol) and two steroids (stigmasterol and β-sitosterol). The EtOAc phase, revealed signs of phenolic substances upon revealing with $FeCl_3$ reagent, and through fractionation, a flavonoid (quercetin) was isolated and identified. Therefore, the present study corroborated the chemotaxonomy of the genus (terpenes, phenolic acids, and flavonoids). The authors thanks to CNPq, CAPES, FAPEAM, FINEP and LTQPN-INPA.

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