



Chemical characterization of the hexane and dichloromethane extracts of the residues of the processing industry of pink pepper – Schinus terebinthifolius

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Introduction: Aroeira (Schinus terebinthifolius) belongs to the family Anacardiaceae. Its fruits, known as pink pepper, poivre-rose or peppertree, are used as condiment being highly valued in national and international market. Besides the use in food, this plant is widely used in folk medicine and has different biological activities described in the literature as antiallergic¹, antiinflammatory² and antimicrobial³ action. Objective: Considering the potential of this plant and that the state of Espírito Santo is one of the largest producers of pink pepper in Brazil, the objective of this work was to characterize the hexane and dichloromethane extracts of the residues of the pink pepper processing industry. Methodology: The extracts were prepared with fragmented residues by subjecting them to percolation with the organic solvents hexane and dichloromethane. The elution occurred until the extraction of the substances that have greater affinity with each solvent. The extracts were dried in a rotary evaporator and stored in a refrigerator until analysis. For the chemical characterization of the residue the two fractions were analyzed by Gas Chromatography coupled to Mass Spectrometry (GC-MS). Results: After the analysis it was possible to identify the following classes of compounds in the hexane extract: monoterpenes, sesquiterpenes, fatty acids, steroids and triterpenes, the latter being the most abundant. The dichloromethane fraction showed monoterpenes, steroids and, mainly, fatty acids, especially palmitic, linoleic and myristic acids. Conclusion: This study provides important information about the chemical composition of the residues of the pink pepper processing industry, demonstrating the variety of compounds present in this material. As a result, these residues are a possible source of substances with bioactive principles.

REFERENCES:

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