



# IV SISAMA

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## COMPLEMENT OF NATURAL ADDITIVES IN HUMAN HEALTH FROM CAPETA LEMON (CITRUS LIMONIA)

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### RESUMO

**INTRODUCTION:** Citrus limonia has variations that, technically, are the fruits of lime trees. It has several common names in various regions. Also known as pink lemon or clove lemon, it is an acidic, yellow-green lime with a thin skin, whose determinant comes from a hybrid between tangerine and lemon. **OBJECTIVE:** To extract and characterize the compounds from the LC peel, through antioxidant analysis, total phenols and total anthocyanins, beneficial to human health. **METHODOLOGY:** It consisted of cleaning the fresh samples and separating the peel, pulp and seed from the LC. The shells were frozen, freeze-dried, crushed and sieved. For the extraction of bioactive compounds, the maceration technique was applied in a metabolic bath at a temperature of 80 °C for 2 hours, using water as a polar extracting solvent. After vacuum filtration, the extract was marked by quantifying the acid activity using the (DPPH) method, the determinant of total phenolic compounds using the Folin-Ciocalteu method and total citric acid substance using Fuleki and Francis (1968). **RESULT AND DISCUSSION:** The fresh LC peels had a moisture content of 45.12%, which was found by Reda et. al. (2005), among others. The antioxidant activity was  $53.75\% \pm 4.349$ , for total phenolic compounds  $16.20 \text{ mg GAE/g} \pm 8.375$  and for total anthocyanins it was  $68.75 \text{ mg GAE/g} \pm 0.001$ . The concentration of total phenolic compounds found was 72 mg gallic acid equivalents per gram of extract. Of the concentrations evaluated in this research,  $2,600 \text{ mg.kg}^{-1}$  of LC seed extract promotes greater oxidative stability in relation to other types of lemons, except Citrus limon (Sicilian). Furthermore, it was verified that LC bark extracts have promising natural additives, with very high values of total phenols. Regarding the metabolic condition, if there is a synchrony that goes through the "slightly" alkaline process in body fluids, it generates a pH between 7.35 and 7.40, representing an ideal condition for all organic processes to act in a much more harmonious way. and balanced digestive metabolism. Consequently, there is a benefit to full health, both in the preservation and prevention of diseases of the digestive tract, as well as in other bodily organs, in addition to serving in the healthy recovery of biological functioning, as well as meeting the needs of devitalization and demineralization. of the organism. **CONCLUSION:** The LC bark extract, due to its antioxidant speed, presents itself as an alternative to be used in processed foods as a

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natural oxidant and in pharmacology. Therefore, LC can achieve water quality reengineering in the body, benefiting the entire biological and vital system. In addition to having anti-hemorrhagic, inflammatory, allergic, viral and diuretic properties, as well as mineral salts and vitamins from complex B, A and C - therefore - a fruit that is beneficial to human health.

**PALAVRAS-CHAVE:** Antioxidant activity, Bioactive compounds, Quality reengineering