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## Extraction of bioactive compounds from a juçara byproduct

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Juçara is a fruit native to Brazilian Atlantic Forest bioma that is known by its high antioxidant capacity, which favors the consumption of its pulp and derived products. The centrifugation of juçara pulp is performed in order to remove suspended solids and to reduce its arenosity and lipid content, making it more appropriate for using in concentrated juices, smoothies and others ready-to-drink products. The objective of this work was to study the recovery of bioactive compounds from the residual cake of juçara pulp centrifugation.

A 2<sup>2</sup> factorial design was applied for evaluation of the bioactive compounds extraction with temperature (20 - 50 °C) and solvent:substrate ratio (1:1 – 3:1) as independent factors and the contents of total phenolic compounds, anthocyanins and antioxidant capacity as main responses. The experiments were conducted in bench orbital shakers at 60 rpm during 2 h. After extraction, samples were filtered and the extracts were kept under -18 °C until analyses.

The anthocyanins and total phenolics content of the extracts varied from 128.72 to 252.49 mg cyanidin-3-glicoside.100 g<sup>-1</sup> and from 2756.41 to 5982.63 mg gallic acid.100 g<sup>-1</sup>, respectively. Antioxidant capacity measured by the ABTS method varied from 22.79 to 34.28 µmol Trolox.g<sup>-1</sup>. Results showed that the solvent:substrate ratio affected (p<0.05) the extraction of bioactive compounds and, consequently, presented an effect on the antioxidant capacity. Total phenolics content was also affected by temperature, probably due to the increase of diffusion coefficient and solubility of molecules.

In the experimental design range, the extraction performed at 50 °C and solvent:substrate ratio of 1:1 was the thermodynamical condition most favorable for producing a bioactive extract from the juçara byproduct obtained by pulp centrifugation.