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Effect of microfiltration on bioactive components and antioxidant activity of *açaí* (*Euterpe oleracea* Mart.)

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ABSTRACT

Microfiltration of centrifuged a*çaí* pulp was performed using two types of membrane (ceramic and polymeric), each one at two temperatures (25 and 35°C), aiming to evaluate the influence of these parameters on its chemical composition and antioxidant activity. Temperature and membrane material did not significantly influence the bioactive components contents and the antioxidant activity of the two obtained fractions. However, permeate flux was strongly dependent on both factors, reaching the highest mean value (117 l/h m^2) with the ceramic membrane at 35°C. Clarified juice, the permeate fraction, contained about 16 mg/100 g of anthocyanins, 138 mg/100 g of total phenolics and 9 µmol Trolox/g of antioxidant activity. The retained fraction, with characteristics similar to the original *açaí* fruit, presented 75 mg/100 g of anthocyanins, 433 mg/100 g of total phenolics and 31 µmol Trolox/g of antioxidant activity. Therefore, microfiltration of *açaí* resulted in two fractions with distinct characteristics, both rich in bioactive components and with potential industrial application.

Keywords: Amazon fruits; Membrane processes; Bioactive compounds; Anthocyanins

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