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High isostatic pressure and thermal processing of açai fruit (*Euterpe oleracea* Martius): effect on pulp color and inactivation of peroxidase and polyphenol oxidase.

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Abstract

The present study evaluated the effect of high isostatic pressure (HIP) on the activity of peroxidase (POD) and polyphenol oxidase (PPO) from açai. Açai pulp was submitted to several combinations of pressure (400, 500, 600 MPa), temperature (25 and 65°C) for 5 and 15 min. The combined effect of HIP technology and high temperatures (690 MPa by 2 and 5 min at 80°C) was also investigated and compared to the conventional thermal treatment (85°C/1 min). POD and PPO enzyme activity and instrumental color were examined after processing and after 24 h of refrigerated storage. Results showed stability of POD for all pressures at 25°C, which proved to be heat-resistant and baro-resistant at 65°C. For PPO, the inactivation at 65°C were 71.7% for 600 MPa

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