HIGH PRESSURE TREATED FRESH-CUT PEACHES IN PINEAPPLE JUICE: QUALITY RETENTION AND RELATED ENZYME ACTIVITIES

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The combined effect of pineapple juice (PJ) and high pressure processing (HPP) on the quality of fresh cut peaches were evaluated. Peaches were packed in 0-50% PJ and subjected to HPP at 600 MPa for 1–5 min at 22°C. The in-pack total colour change (ΔE) of peaches at 4°C for 4 weeks and the ΔE after exposure of peaches to ambient conditions (22°C; 21% O₂; 5h) were determined. The firmness, polyphenoloxidase (PPO) and pectin methylesterase (PME) activities of the products were also evaluated. All samples showed a significant increase in ΔE during in-pack storage at 4°C. HPP for 5 min in 50% PJ resulted in the lowest ΔE during open-pack air exposure, the highest PPO inactivation (32%), a comparatively high level of firmness retention (11N) and 48% PME inactivation. The combined treatment of 50% PJ with HPP could be employed as a natural preservation system to minimize browning in fresh-cut peaches.