

Title Effect of ultra high pressure on softening of fresh cut jujube fruit during storage
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Abstract

To study the effect of ultra high pressure (UHP) on softening of fresh-cut jujube fruit during storage, pieces of fresh-cut jujube were treated with 600 MPa for 10 min and then were stored at 4°C for 9 days. The effects of UHP on the change of polygalacturonase (PG) activity, firmness of pieces, contents of non-water soluble pectin and ascorbic acid in fresh-cut jujube were evaluated. The result showed that, after stored at 4°C for 9 days, the relative PG activity of UHP treated jujube pieces was 4.6%, the content of non-water soluble pectin, hardness and ascorbic acid of UHP treated fresh-cut jujube were 0.081%, 11.6 kg/cm² and 3256 mg/kg, respectively. It indicated that UHP could inhabit the PG activity and decrease the hydrolyzation of non-water soluble pectin. The firmness and ascorbic acid of UHP treated fresh-cut jujube fruit have not obvious changed ($P>0.05$) in comparison with untreated jujube pieces. UHP treated with 600 MPa for 10 min could effectively prevent firmness of jujube pieces associated with decrease in hydrolyzation of non-water soluble pectin.