

Title Effects of 1-MCP on peel browning of pomegranates
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Abstract

The effects of 1-MCP (0.25 $\mu\text{l/L}$, 0.5 $\mu\text{l/L}$, 1 $\mu\text{l/L}$) on peel browning and some physiological and biochemical indices of Dahongpao Pomegranate fruits during storage at ambient temperature were studied. The pomegranate peel browning was reduced. Browning index of fruit treated with 1-MCP decreased obviously. 0.5 $\mu\text{l/L}$ 1-MCP gave the browning decrease of 35% after 7 weeks storage. The 1-MCP lowered ethylene production, PPO activity, but had not significantly effects on total phenols and free phenols content; delayed the decomposition of anthocyanins in peel, and decreased malondialdehyde (MDA) level. The effects of Diphenylamine (DPA) was also compared with 1-MCP, DPA has a lower effects on controlling pomegranate peel browning.