

Title Effects of ethephon on physicochemical and quality properties of kiwifruit during ripening
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Abstract

To facilitate commercial processing and improve texture and flavor, the effects of ethephon dipping on physicochemical and quality properties of kiwifruit (*Actinidia deliciosa* cv. Qinmei) during postharvest ripening were investigated. Results showed that ethephon treatment could increase respiration rates significantly and decrease firmness and titratable acidity of kiwifruit, concomitant with higher soluble solids concentrations and total phenol contents. Moreover, ethephon treatment had no significant effects on green color, ascorbic acid contents or chlorophyll contents. The activities of chlorophyllase and Mg-dechelataase were enhanced gradually during ripening compared to the controls, and a significant positive correlation between chlorophyll degradation and chlorophyllase activity was also observed. Ripened kiwifruit can be obtained through ethephon dipping after 4 d while controls need 7 d, which indicated that ethephon could be applied for ripening and maintaining the physicochemical and quality attributes of kiwifruit.