

Title Electronic nose responses of fresh-cut apples affected by postharvest treatments and storage time

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Abstract

The aroma of intact apple is affected by postharvest treatment, which is necessary for intact apples that will be processed into fresh-cut apples off the harvest season. In this experiment, electronic nose is used as a mean to evaluate total volatiles emitted by fresh-cut apples from intact apples subjected to $1 \mu\text{L}\cdot\text{L}^{-1}$ 1-methylcyclopropene treatment (MCP), controlled atmosphere storage (CA), the combination of MCP and CA, and control (no MCP treatment, in normal air storage) after 3, 5, and 7 months storage. The electronic nose response of apple slices from MCP-treated apples and apples in CA storage were very similar for all storage times but were different from the response of slices from apples subjected to the combination treatments for all storage times. The differences in response were greater after processing than after a 2 week holding period at 3°C as whole fruit.