

Title Effective screening of aroma pattern in carrots
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Abstract

Actual results of nutrition research and psychology demonstrate the essential power of a high sensory quality for the strengthened consumption of fruit and vegetable, and consequently for the health. The contemporary taste trend prefers sweet products. Generally carrots meet this preference. But their quality is also affected by bitter compounds, volatiles, and free amino acids. Beside sweetness aroma is the most important quality parameter. The majority of volatile compounds emitted from raw carrots are mono- and sesquiterpenes which can comprise up to 97 % of the total amount. More than 100 aroma compounds have been identified in the raw vegetable. The objective of this study was to introduce the automated headspace SPME-GC with pattern recognition as data processing as a rapid and reliable method for analysis of carrot aroma composition. The method is used for quality assessment and for genome mapping of aroma compounds.