The volatile fraction composition of commercially produced Citrus oils was objective of this work by using GC-MS. More than fifty components were identified in the oils using their mass spectra and linear retention indices. The monoterpene limonene was the most abundant component even trough not in a quantity expected for a fresh essential oil. Aldehydes, followed by alcohols and esters, were the main components in the oxygenated fraction. Aldehydes were the major oxygenated components in the sweet orange oil, whereas alcohols and esters were present in higher amounts in the bitter orange oil. Among them, nonanal, decanal and linalool are the most important components for the flavor of sweet orange oil and carvon is the most important ketone for the flavor of bitter orange oil in combination with the other components. The amount of carvon gives a good indication about the freshness of the oil and the quantities of α-pinene and β-pinene, sabinene and myrcene give an indication about the natural or artificially changed composition of the essential oils.

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Volatile profile and flavour of cold pressed Citrus essential oils

Sanja Kostadinovic Velickovska

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