

- **More than Honey: Investigation on Volatiles from Monovarietal honeys Using New Analytical and Sensory Approaches**

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Abstract:

Eight monovarietal honeys from dandelion, fir tree, linden tree, chestnut tree, robinia, orange, lavender, and rape were investigated with respect to their volatile compounds and sensory properties. Analysis of the volatile compounds was performed by gas chromatographic techniques (one-dimensional GC-MS as well as comprehensive GC×GC-MS). For sensory evaluation Napping in combination with ultraflash profiling was applied using sensory experts. For dandelion honey, 34 volatile compounds are described for the first time to be present in dandelion honey. PCA and cluster analysis of the volatile compounds, respectively, show high correlation with the PCA obtained from sensory evaluation. Lavender and linden honey showed sensory characteristics that were not expected from these honey types. Analysis of the volatile compounds resulted in the identification of odor-active compounds that are very likely derived from sources other than the respective honeyflow. Contamination with essential oils used in apiculture is very likely to be the reason for the occurrence of these compounds in the investigated honeys.

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