

Extraction and identification of volatile compounds from flowers of the subtropical plant *Ziziphus spina christi* (family: Rhamnaceae)

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Abstract

Flowers of *Ziziphus spina christi* are known to be very attractive to predators and parasitoids. The flower volatile compounds were analyzed to understand which compounds could be specifically responsible for this attractiveness. The volatile compounds of *Ziziphus spina christi* flowers were extracted by closed-loop-stripping-analysis (CLSA) and also by headspace solid phase microextraction (SPME) followed by GC-MS analysis. The volatile compounds were separated and identified by retention indices and direct comparison with authentic standards. The main chemical classes of the volatile compounds are ketones, aldehydes, alcohols and monoterpenes. Flower extract and some specific compounds will be further tested for their responsiveness to predators and parasitoids in behavioral and electrophysiological experiments.

Keywords: *Ziziphus spina christi*, volatile compounds, allelochemicals, CLSA, SPME, GC-MS analysis