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## GC-MS profile of volatiles obtained from fresh root of *Peucedanum longifolium* Waldst. & Kit.

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*Peucedanum longifolium* (Sect. *Peucedanum*) is one of the 14 *Peucedanum* L. species growing in the flora of Serbia. The species usually inhabits calcareous, dry grasslands and rocky slopes of medium altitudes in the C, S & E parts of Balkan Peninsula, extending to the mountains of C Romania. However, we have surprisingly found it growing over silicate bedrock. The present study, for the first time, reports chemical composition determined by GC-FID and GC-MS of *P. longifolium* fresh root essential oil (EO) and headspace (HS) volatiles obtained from the individuals growing on siliceous substrate and HS volatiles obtained from the plants growing on the calcareous substrate, in both cases from vegetative growth stage.  $\alpha$ -Pinene was the most abundant compound in all three samples (60.3% EO S, 76.3% HS S and 62.6% HS C). The greatest differences are manifested in the content of sabinene (20.9% EO S, 8.1% HS S and 25.2% HS C). The difference in the prevalence of other constituents in all the investigated samples is less than 2%.

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## Comparative study of epicuticular alkane profiles of *Primula veris* L. and *P. acaulis* (L.) L. (Primulaceae)

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The genus *Primula* L. (Primulaceae) encompasses more than 400 plant species distributed in temperate and cold regions of the Northern hemisphere. Although a number of *Primula* spp. produce farinas and/or exudates, the epicuticular compounds

have received little attention. Here, for the first time, we analyzed the chloroform leaf surface washings of two species from this genus: *Primula veris* L. and *P. acaulis* (L.) L. The plant material of *P. veris* was collected from the slopes of the mountain Suva planina and that of *P. acaulis* in the vicinity of the village Gornja Slatina, near Leskovac (SE Serbia). A chromatographic separation of the washings yielded a fraction representing a mixture of *n*-, *iso*- and *anteiso*-alkanes. However, both qualitatively and quantitatively, the composition of the alkanes differed between *P. veris* and *P. vulgaris*. Both alkane profiles were dominated by *n*-alkanes with the usual higher plant odd-even ratio, and showed a maximum at C<sub>29</sub>. *Primula veris* was found to produce longer chain-length alkanes (C<sub>23</sub>-C<sub>35</sub>) when compared to *P. acaulis* (C<sub>9</sub>-C<sub>33</sub>). Interestingly, the branched alkanes were present in a significant relative amount with the approximate ratio of *n*- : *iso*- : *anteiso*- alkanes 67:24:9 and 53:35:12, for *P. veris* and *P. acaulis*, respectively.

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## Antibiofilm potential of *Ocimum basilicum* and *Salvia officinalis* commercial essential oils

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Biofilms are complex communities of microorganisms, responsible for over 60% of chronic human infections and present one of the leading problems in medicine. *Pseudomonas aeruginosa* is human pathogenic bacteria which is a causative agent of a number of human diseases and is known by its biofilm producing ability. *Ocimum basilicum* L. (basil) and *Salvia officinalis* L. (sage) are widely used in traditional medicine for a variety of conditions. Therefore, the aim of this study was to investigate the potential of their commercial essential oils against biofilm development of *P. aeruginosa* strains.

The efficacy of these two essential oils to *P. aeruginosa* biofilm forming ability was determined using crystal violet method. Out of 15 clinical strains, two of them