GC-MS analysis of the composition of the wild rose essential oil

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ABSTRACT

In the present study, wild roses (*Rosa gallica, canina, rubiginosa,* etc.) were collected and examined by GC-MS. The rose oil was obtained through steam distillation. Volatile organic compounds (VOC's), including terpenoids, benzenoids/phenylpropanoids, and unsaturated alcohols, were detected with qualitative analysis. Identified major compounds were geraniol, citronellol, benzylalcohol, 2-phenylethanol, and linalool.

Table 1. The collected rosa species

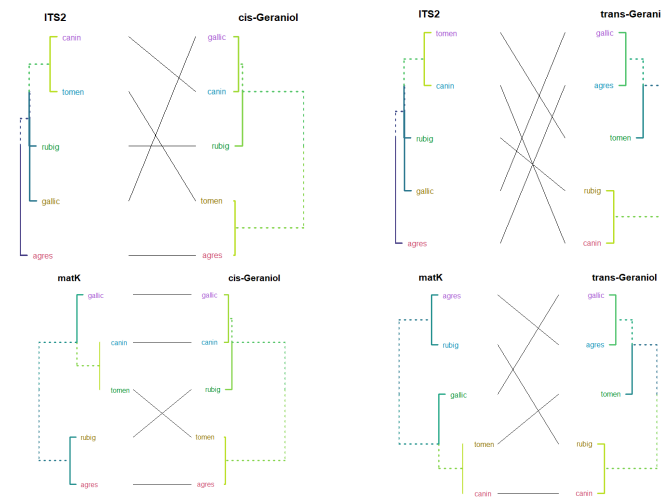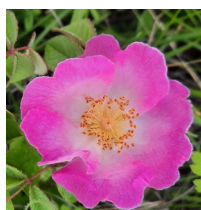|	Ciumburud	Luna de Jos	Stanisoara
Rosa agrestis	1	0	0
Rosa andegavensis	0	0	1
Rosa argesana	0	0	1
Rosa bigeneris (rubiginosa x micrantha)	0	1	0
Rosa canina	1	1	0
Rosa coziae	0	0	1
Rosa gallica	1	1	0
Rosa rubiginosa	1	1	0
Rosa squarrosa	0	1	0
Rosa tomentella	0	0	1

Fig. 3. Tanglegrams based on marker sequence phylogenies and rose oil component area under the curve clusters
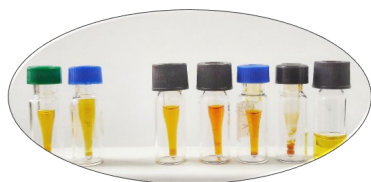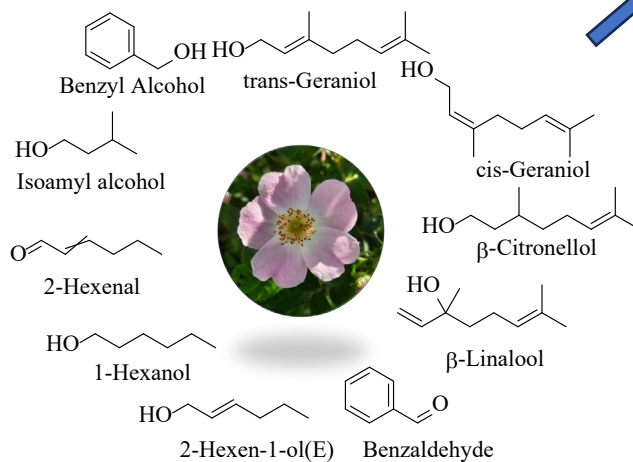

Fig. 1. The hydrodistilled rose extracts.

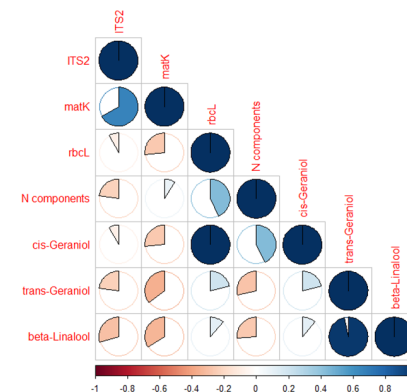Fig. 2. The major VOC's identified from rose extracts

Fig. 4. Correlograms between marker sequence phylogenies and dendrograms of rose oil component area under the curve