

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

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## **ABSTRACT**

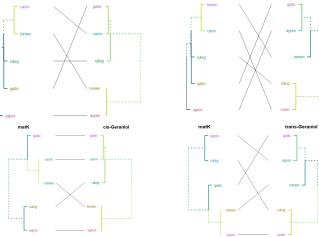
In the present study, wild roses (Rosa gallica, canina, rubiginosa, etc.) were collected and examined by GC-MS. The rose oil was obtained through steam distillation. Volatile organic compounds (VOC's), including terpenoids, benzenoids/phenylpropanoids, and unsaturated alcohols, were detected with qualitative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

Table 1. The collected rosa species					canin	galic		
	Ciumburud	Luna de Jos	Stanisoara		tomen	carin	canin	
Rosa agrestis	1	0	0		rubia	rubig	rubig	
Rosa andegavensis	0	0	1					
Rosa argesana	0	0	1		L galic /	tomen	□ galic	
Rosa bigeneris								
(rubiginosa x micrantha)	0	1	0		agres - matK	agres cis-Geraniol	matK	
Rosa canina	1	1	0			1	·····	
Rosa coziae	0	0	1		canin	canin	L <sub>rubig</sub>	
Rosa gallica	1	1	0		tomen	ndig		
Rosa rubiginosa	1	1	0			$\times$	ganc	
Rosa squarrosa	0	1	0		☐ nubig	tomen	i	
Rosa tomentella	0	0	1		agres	agres	i	
Benzyl Alco			OH HO  Benzyl Alcohol trans-Geraniol HO			Fig. 3. Tanglegrams based on marker and rose oil component area under the		
			HO	cis-Geraniol		ITS2 YEE		
			soamyl alcohol	HO B-Citronellol		matk rbcL	N components	

Fig. 1. The hydrodistilled rose extracts.

R-Citronellol 2-Hexenal **β-Linalool** 1-Hexanol 2-Hexen-1-ol(E) Benzaldehyde

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



er sequence phylogenies he curve clusters

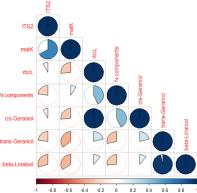


Fig. 4. Correlograms between marker sequence phylogenies and dendrograms of rose oil component area under the curve