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Essential Oil Contents of Endemic Species Astragalus monspessulanus L. ssp. illyricus (Bernhardt) Chater

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Abstract : Astragalus monspessulanus L. ssp. illyricus (Bernhardt) Chater is endemic species of Fabaceae family and belongs to hemicryptophyte. This plant grows wild in the sub-Mediterranean area. We analyzed the composition of the essential oil of stems and leaves of A. monspessulanus L. ssp. Illyricus, collected in Tijarica, near Split, Croatia. Water distilled essential oils from aerial parts of investigation plant have been analysed by GC and GC/MS using VF-5ms capillary column. The total yield of oil was 0.08%, based on dry weight of samples. Thirty-eight compounds were representing 88.5% of the total oil. This essential oil was characterized by a high concentration of cis-myrtanol (20.5%), geranyl acetate (9.6%) and phytone (6.6%). Previous research in the species A. monspessulanus have included flavoalkaloids and flavonoids composition. The present study gives additional knowledge about secondary metabolites contents on the genus Astragalus.

Keywords : essential oil, isovaleric acid, Valeriana tuberosa, geranyl acetate, phytone
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