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## Chemical constituents of the essential oil from fruits of *Zosimia absinthifolia* (Vent.) Link.

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The genus *Zosimia*, belonging to the Umbelliferae family, is represented in the flora of Iran by only two species as *Zosimia absinthifolia* (Vent.) Link. and *Z. radians* Boiss. & Hohen. *Z. absinthifolia* is widely distributed in Iran and neighboring countries [1]. The composition of the oil of dried fruits of *Z. absinthifolia* from Turkey has been reported. *n*-Octyl acetate (38.1%) and *n*-octyl hexanoate (31.9%) were the main constituents [2]. In addition, the composition of the essential oil from aerial parts of the plant, growing wild in Iran, has been reported. The major components were *n*-octyl acetate (24.7%) and  $\beta$ -caryophyllene (22.2%) [3]. Two new flavonoids were also isolated and identified from methanol extract of the aerial parts of the plant [4].

In this study, *Z. absinthifolia* was collected from Bardsir, the Khansar region, Kerman province, Iran in June 2011. The air-dried fruits of the plant (100 g) were powdered and subjected to hydrodistillation for 3 h using a Clevenger-type apparatus. The clear yellowish oil was isolated in the yield of 0.8% (w/w). The composition of the extracted oil was analyzed by GC and GC/MS. GC analysis was carried out using a Shimadzu 15A instrument coupled to a flame ionization detector (FID). An Agilent 5975C mass spectrometer coupled to an Agilent 7890A gas chromatograph equipped with a HP-5MS capillary column was used for GC/MS analysis. Fourteen compounds were identified in the fruit oil of *Z. absinthifolia*, representing 99.2% of the total oil. The oil was characterized by a high content of *n*-octyl acetate (69.8%) as the main compound, followed by *n*-octanol (8.3%),  $\alpha$ -pinene (4.6%), bornyl acetate (4.3%),  $\beta$ -caryophyllene (3.1%), and camphene (2.0%). Consequently, the fruit oil of *Z. absinthifolia* was rich in nonterpenoid compounds (79.7%).

### References

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