

عنوان مقاله:

Chemical Analysis of Essential Oils from Different Populations of *Ferulago angulata* subsp. *carduchorum* in Iran

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خلاصه مقاله:

Ferulago angulata subsp. *carduchorum* (Boiss. & Hausskn.) D.F. Chamb is a perennial species of the family Apiaceae and is locally used as a flavouring agent and for some medicinal properties. The essential oil of this plant if found to possess antibacterial and antifungal activities. The present study is aimed to determine constituents of essential oils from inflorescence of four *F. angulata* subsp. *carduchorum* populations. Air-dried samples were subjected to hydrodistillation using a Clevenger-type apparatus and extracted oils were chemically analyzed by means of GC and GC-MS. Results: With the average of ۱.۹۹% (w/w), the oil content of studied populations varied from ۰.۸۶% (Dalahoo) to ۲.۳۹% (Azgale). All oils were characterized by the high amounts of monoterpene hydrocarbons (۷۱.۱-۸۳.۶%), and the low levels of sesquiterpene hydrocarbons (۲.۰-۷.۸%) and especially oxygenated ones (absent to ۳.۵%). α -Pinene (۷.۱-۲۹.۸%), (Z)- β -ocimene (۱۴.۷-۴۵.۹%), allo-ocimene (۵.۹-۱۶.۷%), γ -terpinene (۲.۰-۱۲.۲%) and bornyl acetate (۳.۰-۷.۳%) were found to be the principal volatiles of populations in question. There were significant differences in the chemical composition of studied populations, which, considering constituents of an essential oil determine its flavor and biological activities, enabled selection of favored populations for use in different industries.

کلمات کلیدی:

Ferulago angulata subsp. *carduchorum*, Essential oils, α -pinene, (Z)- β -ocimene

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