

## Essential oil analysis of Iranian tropical flea-bane

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**Background and Aims:** Pulicaria species are used in traditional and folk medicines of different parts of the world for treatment of hemorrhoids, haematomas and diabetes and have cancer chemopreventive, cytotoxic, insecticide and mitotic properties. Iranian tropical flea-bane (ladies' false fleabane) or *Pulicaria arabica* (L.) Cass. from Asteraceae family is one of the medicinal plants of Iran that its aerial parts have been used in folk medicine. The aim of this study was determination of the aerial parts essential oil of *P. arabica* gathered from Dezful (Khuzestan province, Iran) for the first time.

**Methods:** The aerial parts of *P. arabica* were powdered and the volatile fraction was isolated by hydrodistillation for 3h according to the method recommended in British Pharmacopoeia. The collected oil was dried using anhydrous sodium sulfate and stored at a fridge. The oil was analyzed by GC-MS analysis.

**Results:** The aerial part of the plant yielded pale yellowish oil with a pleasant herbaceous-spicy odour. The major constituents of its essential oil were alpha-cadinol (17.7 %), germacrenol (17.0%), epi-alpha-cadinol (13.9%), delta-cadiene (11.5 %) and beta-caryophyllene (7.4 %).

**Conclusions:** Although some of our essential oil components were identified in other *Pulicaria* species reported before but most of them and their percentages are different from the samples that are gathered from Middle East and Persian Gulf countries and may be subjects for other chemical, pharmacological and biological surveys.

**Keywords:** *Pulicaria arabica*; Asteraceae; Essential oil; GC-MS; Alpha-cadinol