

عنوان مقاله:

Essential oil composition of Eucalyptus microtheca and Eucalyptus viminalis

محل انتشار:

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خلاصه مقاله:

Objective: Eucalyptus (Fam. Myrtaceae) is a medicinal plant and various Eucalyptus species possess potent pharmacological actions against diabetes, hepatotoxicity, and inflammation. This study aims to investigate essential oil composition from leaves and flowers of *E. microtheca* and *E. viminalis* leaves growing in the Southeast of Iran. **Materials and Methods:** The aerial parts of these plants were collected from Zahedan, Sistan and Baluchestan province, Iran in 2013. After drying the plant materials in the shade, the chemical composition of the essential oils was obtained by hydro-distillation method using a Clevenger-type apparatus and analyzed by GC/MS. **Results:** In the essential oil of *E. microtheca* leaves, 101 compounds representing 100%, were identified. Among them, α -phellandrene (16.487%), aromadendrene (12.773%), α -pinene (6.752%), globulol (5.997%), ledene (5.665%), P-cymen (5.251%), and β -pinene (5.006%) were the major constituents. In the oil of *E. microtheca* flowers, 88 compounds representing 100%, were identified in which α -pinene (16.246%), O-cymen (13.522%), β -pinene (11.082%), aromadendrene (7.444%), α -phellandrene (7.006%), globulol (5.419%), and 9-octadecenamide (5.414%) were the major components. Sixty six compounds representing 100% were identified in the oil of *E. viminalis* leaves. The major compounds were 1, 8-cineole (57.757%), α -pinene (13.379%), limonene (5.443%), and globulol (3.054%). **Conclusion:** The results showed the essential oils from the aerial parts of Eucalyptus species are a cheap source for the commercial isolation of α -phellandrene, α -pinene, and 1, 8-cineole compounds to be used in medicinal and food products. Furthermore, these plants could be an alternative source of insecticide agents.

کلمات کلیدی:

Essential oil, Eucalyptus microtheca, Eucalyptus viminalis, Myrtaceae, Hydro-distillation, GC/MS

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