

## عنوان مقاله:

Fatty Acid Composition Analysis of Aerial Parts of Selected Salvia Species Growing in Iran and Chemotaxonomic Approach by Shoot Fatty Acid Composition

## محل انتشار:

مجله تحقیقات شیمی تجزیه و تجزیه زیستی، دوره 5، شماره 2 (سال: 1397)

تعداد صفحات اصل مقاله: 10

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## خلاصه مقاله:

In this study, fatty acid (FA) composition of aerial parts of selected Salvia species from Iran was analyzed by Gas chromatography. The amount of FAs was quantified for leaf and shoot of species as mg per kg (mg/kg) of dry weight. The results showed that FA contents of aerial parts for studied plants varied significantly and changed between ۷۳.۰۵ and ۷۳۹.۵۰ mg/kg of dried weight. Caprylic (C۸:۰, ۱.۰۰-۳۸۰.۴۹ mg/kg), elaidic (C۱۸:۱n۹t, ۰.۷۳-۹۷.۲۹ mg/kg), stearic (C۱۸:۰, ۱.۱-۶۲.۹۷ mg/kg), palmitic (C۱۶:۰, ۱.۱۹-۳۶.۴۸ mg/kg), and  $\alpha$ -linoleic (C۱۸:۳n۳, ۱.۳۴-۱۹.۳۶ mg/kg) acid were major identified FAs. The numerical analyze was applied on FA composition of shoot and leaf of specimens and the shoot FA composition was selected to identify the systematic position of studied species. The UPGMA (Unweighted Pair Group Method with Arithmetic Mean) dendrogram showed that the species were grouped in two clusters. Caprylic acid (C۸:۰), behenic acid (C۲۲:۰), and lignoceric acid (C۲۴:۰) were chief characters in the infrageneric grouping the species in the genus. *S. chloroleuca* and *S. atropatanawere* placed in cluster I and separated from other species based on shoot FA composition. The discrimination of Salvia species based on their botanical classification was supported by results. The results confirmed that FA composition of shoot are distinguishable and can be used as chemotaxonomic markers.

## کلمات کلیدی:

Salvia, Fatty Acid composition, Chemotaxonomy, Gas Chromatography

