

عنوان مقاله:

Chemical Composition, Antimicrobial and Antioxidant Potential of Essential Oil of *Ziziphus spina-christi* var. *aucheri*
Grown Wild in Iran

محل انتشار:

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نویسندگان:

Maryam Papari Moghadam Fard - *Department of Chemistry, Shiraz Branch, Islamic Azad University, Shiraz, Iran*

Saghar Ketabchi - *Department of Plant Pathology, Shiraz Branch, Islamic Azad University, Shiraz, Iran*

Mohammad Hossein Farjam - *Department of Chemistry, Firoozabad Branch, Islamic Azad University, Firoozabad, Iran*

خلاصه مقاله:

Nowadays, medicinal plants are considered as a valuable source of natural compounds used in the development of antimicrobial and antioxidant drugs. The objectives of this study were to evaluate chemical composition, antimicrobial and antioxidant activities of *Ziziphus spina-christi* var. *aucheri* (Boiss.) Qaiser & Nazim. essential oil. Essential oil was obtained by hydro-distillation using Clevenger type apparatus during approximately ۳ hours and analyzed using gas chromatography/mass spectrometry (GC/MS). Eleven components were identified in *Z. spina-christi* var. *aucheri* essential oil that represented ۹۲.۱۴% of the oil. The main components of the oil were Carotol (۴۲.۲۰%), hexadecanoic acid (۱۳.۷۵%), linoleic acid (۱۱.۷۶%), vetivonic acid (۹.۵۶%) and (-)(+)-valeranone (۷.۰۶%). Antioxidant activity of the essential oil was performed using ۱,۱-diphenyl-۲-picrylhydrazyl (DPPH) and ribosomal degradation assay (HRS). Antimicrobial activity was investigated by micro broth dilution method. The antioxidant activity of *Z. aucheri* was $IC_{50} = ۵۳.۹۱ \pm ۲.۴۳۱$ and showed only by DPPH method. The oil had antimicrobial activity in low concentrations against *Aspergillus niger*, *Penicillium digitatum* and *Klebsiella pneumonia*.

کلمات کلیدی:

Ziziphus aucheri Boiss, GC/ MS, DPPH, HRS, Antioxidant, Serial dilution method

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