Abstract

GC-MS Analysis and Antioxidant Potential of Essential Oil from Endemic Sideritis rubriflora Hub.-Mor. †

Ramazan Ceylan *, Gökhan Zengin and Abdurrahman Aktümsek

Department of Biology, Science Faculty, Selcuk University, 42130 Konya, Turkey; gokhanzengin@selcuk.edu.tr (G.Z.); aktumsek@selcuk.edu.tr (A.A.)
* Correspondence: biyoram7@gmail.com; Tel.: +90-506-685-4768
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Abstract: The genus Sideritis, belonging to the Labiateae family, is represented by more than 150 species distributed mainly in the Mediterranean regions. Member of the genus have been used as beverages, flavorings, and medication. We aimed to shed light on the antioxidant potential of the essential oil of Sideritis rubriflora Hub.-Mor. In this study, antioxidant capacity (DPPH and ABTS radical scavenging, CUPRAC and FRAP, phosphomolibdenum assay, and metal chelating activity) of essential oil of S. rubriflora was investigated with colorimetric methods. Also, essential oil composition of the plant was determined by gas chromatography/mass spectrophotometry (GC-MS). 48 components, representing 95.4% of essential oil of S. rubriflora were identified. β-pinene (10.7%) and Germacrene D (10.7%) were the main constituents of the essential oil. Generally, essential oil of S. rubriflora has shown moderate free radical, reducing power, metal chelating. The reported results supported that the possible use of essential oil of S. rubriflora is a source of natural agents for phytopharmaceutical applications.

Keywords: Sideritis; essential oil; antioxidant activity; GC-MS

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