

## Evaluation of Antioxidants in Medicinal plant *Limoniastrum guyonianum*

**Authors :** Assia Belfar, Mohamed Hadjadj, Messaouda Dakmouche, Zineb Ghiaba

**Abstract :** Introduction: This study aims to phytochemical screening; Extracting the active compounds and estimate the effectiveness of antioxidant in Medicinal plants desert *Limoniastrum guyonianum* (Zeïta) from South Algeria. Methods: Total phenolic content and total flavonoid content using Folin-Ciocalteu and aluminum chloride colorimetric methods, respectively. The total antioxidant capacity was estimated by the following methods: DPPH (1.1-diphenyl-2-picrylhydrazyl radical) and reducing power assay. Results: Phytochemical screening of the plant part reveals the presence of phenols, saponins, flavonoids and tannins. While alkaloids and Terpenoids were absent. The acetonic extract of *L. guyonianum* was extracted successively with ethyl acetate and butanol. Extraction of yield varied widely in the *L. guyonianum* ranging from (0.9425 %to 11.131%). The total phenolic content ranged from 53.33 mg GAE/g DW to 672.79 mg GAE/g DW. The total flavonoid concentrations varied from 5.45 to 21.71 mg/100g. IC50 values ranged from  $0.02 \pm 0.0004$  to  $0.13 \pm 0.002$  mg/ml. All extracts showed very good activity of ferric reducing power, the higher power was in butanol fraction (23.91 mM) more effective than BHA, BHT and VC. Conclusions: Demonstrated this study that the acetonic extract of *L. guyonianum* contain a considerable quantity of phenolic compounds and possess a good antioxidant activity. Can be used as an easily accessible source of Natural Antioxidants and as a possible food supplement and in the pharmaceutical industry.

**Keywords :** *limoniastrum guyonianum*, phenolics compounds, flavonoid compound, antioxidant activity

**Conference Title :** ICSRD 2020 : International Conference on Scientific Research and Development

**Conference Location :** Chicago, United States

**Conference Dates :** December 12-13, 2020