

## Fatty acids profile, Antimicrobial and antioxidant Activity of Fixed Oil from *Ximenia Americana* L. Seeds

The aim of the present study is to investigate the chemical constituents of the Essential Oil from *Ximenia Americana* L. plant Seeds and to evaluate its antioxidant potential and antibacterial activity. Using Soxhlet method to extract the essential oil from *Ximenia Americana* L. plant Seeds. The chemical constituents of *Ximenia Americana* Oil were identified and quantified by GC-MS, where paper disc diffusion assay was employed to evaluate the antibacterial activity and Antioxidant activities were evaluated using 1,1-diphenyl-2-picryl hydrazyl (DPPH) radical scavenging activity. Twenty three components has been identified. Ten of them are major namely 9-Octadecenoic acid (Z)-, methyl ester (32.40% ), Methyl octadeca-9-yn-11-transenoate (13.08% ), 9,12-Octadecadiynoic acid, methyl ester (2.69% ), 15-Tetracosenoic acid, methyl ester, (Z)- (4.99 %), 10-Nonadecenoic acid, methyl ester (6.81% ), Hexacosanoic acid, methyl ester (4.12%), Tetracosanoic acid, methyl ester (3.02%), Cyclopropaneoctanoic acid, 2-octyl-, methyl ester (15.93%), Octacosanoic acid, methyl ester (2.38%) and cis-10-Nonadecenoic acid, methyl ester (7.32% ). The antibacterial showed low inhibitory effect against *Pseudomonas aeruginosa* (9mm), *Bacillus subtilize* (10mm), *albicans* (10mm) and *Escherichia coli* (11mm) and *Candida albicans*. The DPPH assay, showed moderate antioxidant potential (49, 0.01 compared with standard 91± 0.01).

### Biography

Tuhami Elzein Hagr Mohammed, Department of chemistry and industrial chemistry, college of Applied and Industrial Sciences, University of Bahri, 16660/ 1111. Khartoum, Sudan. I have great experience in chemistry teaching in secondary schools as a teacher, universities as a lecturer and researcher in natural products fields' especially medicinal plants , Extraction of essential oil from medicinal plants and Identification and characterization of secondary metabolism especially Flavonoids. Also I have many participated activities on training courses and workshops as details: The basic course of a academic staff professional development, development of research proposals in Sudan and Workshop series on the laboratory practice in natural products research, Fundamentals of UV-Vs and FT-IR spectroscopy workshop (theory and practical) International Islamic university of Malaysia (IIUM). I have several publications in the natural products field specifically extraction of fixed Oils and its applications.

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