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شبكة المعلومــات الجامعية التوثيق الالكتروني والميكروفيلم



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التوثيق الالكتروني والميكروفيلم



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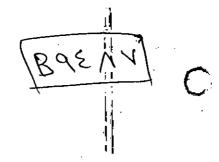
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## PHYTOCHEMICAL AND BIOLOGICAL STUDY OF SOME PLANTS BELONGING TO FAMILY CHENOPODIACEAE.

A THESIS SUBMITTED

BY

FATMA SOLIMAN EL-SHARABASY

FOR THE DEGREE OF PHILOSOPHY DOCTOR (CHEMISTRY)

THE CHEMISTRY DEPARTMENT

FACULTY OF SCIENCE
AIN SHAMS UNIVERSITY

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#### APPROVAL SHEET FOR SUBMISSION

Title of [Ph. D] Thesis:

"Phytochemical and Biological Study of Some Plants Belonging to Family Chenopodiaceae."

Name of the Candidate: Fatma Soliman El-Sharabasy

This thesis has been approved for submission by the supervisors:

1- Prof. Dr.: Mohamed Y. El-Kady

Prof. of Organic Chemistry.

Department of Chemistry.

Faculty of Science, Ain-Shams University

Signature: M. El Kady

2- Prof. Dr. Mahasen Amin Abdel-Alim

Prof. of Natural Products
Department of Chemistry of Natural
and Microbial Products
National Research Centre.

Signature: Hahasen Amin

Prof. Dr. M.A. AT-Kasaby Head of Chemistry Dept. yactilidə Səssor oğ

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#### AIM OF THE WORK

#### The present work consists of two parts:

#### Part I: Chemistry of four Salsola species:

- 1) Identification, isolation and purification of the chemical constituents of the chosen plants using different chromatographic techniques including column chromatography vacuum liquid chromatography and high performance liquid chromatography.
  - 2) Structure elucidation of the isolates by chemical means preparation of derivatives, acid hydrolysis) as well as spectral menas (GC / Mass, <sup>1</sup>H-NMR, <sup>13</sup>CNMR)

Part II: Biological study of the hydroalcoholic extracts of Salsola villosa and Salsola volkensii.

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#### PHYTOCHEMICAL AND BIOLOGICAL STUDY OF SOME PLANTS BELONGING TO FAMILY CHENOPODIACEAE

Aim of this thesis is to find new source of natural products having biological activity from wild Egyptian plants.

Four Salsola species have been chosen for this study viz,

Salsola baryosma, Salsola inermis, Salsola villosa

and Salsola volkensii.

This study includes two parts, general part and special part.

#### General part:

This part includes three items, the first is concerned with the introduction.

The second is a survey of literature and collection of previously isolated steroids, saponins, flavonoids, coumarins and alkaloids from Salsola species, pharmacological tests and importance of Salsola plants in folk medicine is also mentioned. The third items defines the botanical position of the plants under investigation.

#### Special part:

It is concerned with the experimental studies carried out in this thesis and is divided into two main parts:

#### Part one:

This part is concerned with the phytochemical study of the four plants and contains six items numbered IV, V, VI, VII, VIII and IX.

#### Part two:

This part is concerned with the pharmacological tests carried out to define the biological activity of *S.villosa* and *S. volkensii*.

#### Part 1:

 $\underline{\mathbf{IV}}$ . This is concerned with materials, apparatus and methods used during the present work.

<u>V.</u> Includes some pharmacopoeial constants, estimation of lipids, unsoponifiable matter and fatty acids in the four species. Tables 6, 7, 9, 10, 11, 12.

<u>VI</u>. Column chromatographic segregation of the constituents of the lipoidal part of Salsola villosa where eight compounds