

سامية محمد مصطفى



شبكة المعلومات الجامعية

بسم الله الرحمن الرحيم



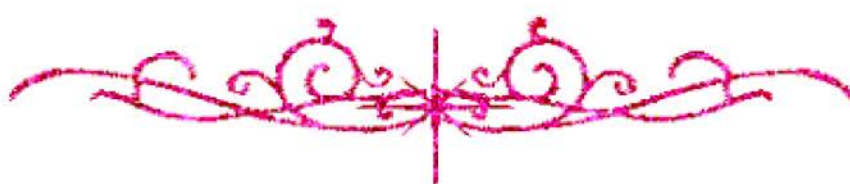
سامية محمد مصطفى



شبكة المعلومات الجامعية



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



سامية محمد مصطفى



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

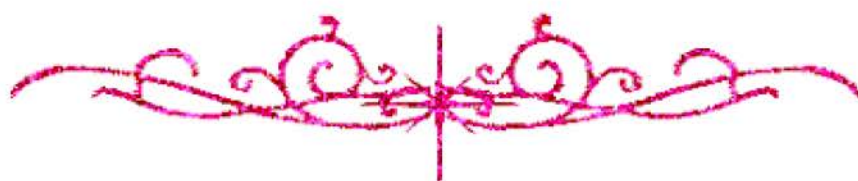
قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأقراص المدمجة قد أعدت دون أية تغيرات



يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



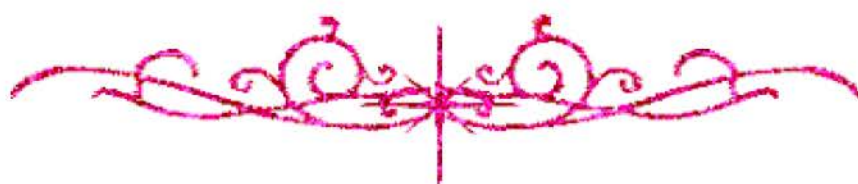
سامية محمد مصطفى



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



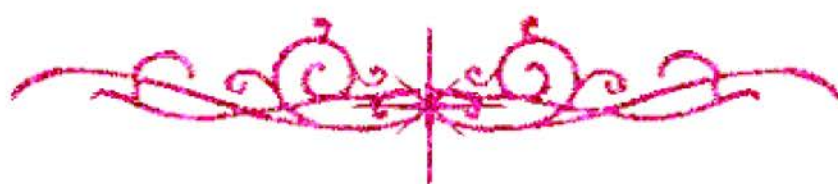
سامية محمد مصطفى

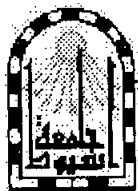


شبكة المعلومات الجامعية



بالرسالة صفحات لم ترد بالأصل





Phytochemical Studies on
***Corchorus olitorius* L. (Tiliaceae) and**
***Gladiolus segetum* ker-Gawl (Iridaceae)**

A THESIS

Submitted in Partial Fulfillment of the Requirements for the Master
Degree of Pharmaceutical Sciences (Pharmacognosy)

BY

Alaa Mohammed Hassan Mohamed Nafady

(B. Pharm. Sciences, Assiut University, 1996)

UNDER THE SUPERVISION OF

Prof. Dr. Mohamed Ahmed El-Shanawany

Professor of Pharmacognosy and
Vice-dean of Faculty of Pharmacy

Assiut University

Prof. Dr. Mahmoud H. Mohamed Prof. Dr. Hashim A. Hassanean

Professor of Pharmacognosy and
Dean of Faculty of Pharmacy
Al-Azhar University, Assiut

Professor of Pharmacognosy
Faculty of Pharmacy
Assiut University

Pharmacognosy Department

Faculty of Pharmacy

Assiut University

Egypt

2000

B

13123

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

﴿نَرْفَعُ دَرَجَاتٍ مِّنْ نَّشَأٍ
وَفَوْقَ كُلِّ ذِي عِلْمٍ عَلِيمٌ﴾

صدق الله العظيم

سورة يوسف الآية (٧٦)

APPROVAL SHEET

NAME: Alaa Mohamed Hassan Mohamed Nafady

TITLE: Phytochemical Studies on *Corchorus olitorius* L. (Tiliaceae)
and *Gladiolus segetum* ker-Gawl (Iridaceae)

APPROVED BY:

Prof. Dr. Ahmed Mohamed El-Moghazy

Prof. Dr. Mostafa Kamel Mesbah

Prof. Dr. Mohamed Ahmed El-Shanawany

Prof. Dr. Mahmoud Hamed Mohamed

Prof. Dr. Hashim Abdel-Halim Hassanean

Date: 8 /6 / 2000

DEDICATION

To My Parents

Acknowledgements

Acknowledgments

I would like to express my deepest appreciation and sincere gratitude to Prof. Dr. *Mohamed A. El-Shanawany*, Professor of Pharmacognosy and vice-dean of the Faculty of Pharmacy, Assiut University for supervising this work, his successful instructions, valuable comments, unfailing advice and fatherly assistance throughout this work.

I am greatly indebted to Prof. Dr. *Hashim A. Hassanean*, Associate Professor of Pharmacognosy, Faculty of Pharmacy, Assiut University for his supervision, continuous encouragement useful suggestions and help during this work.

My deep thanks and gratitude to Prof. Dr. *Mahmoud H. Mohamed*, Professor of Pharmacognosy, Dean of the Faculty of Pharmacy, Al-Azhar University, Assiut branch, Assiut for his indispensable advice and great assistance.

I wish to express my appreciation to all my professors and colleagues at the Department of Pharmacognosy, Faculty of Pharmacy, Assiut University for the facilities and support given throughout this study and my thanks also to the members of the Faculty of Pharmacy Al-Azhar University (Assiut branch) and to all those who helped in making this work possible.

I would like to express great indebtedness and infinite affection to my parents for their love and continuous encouragement.

CONTENTS

	Page
INTRODUCTION	
I- <i>Corchorus olitorius</i> L. (Tiliaceae)	1
1- General.....	1
2- Review of literature	3
2.1. Taxonomy	3
2.2. Pharmacological review	6
2.3. Chemical review	8
II- <i>Gladiolus segetum</i> Ker-Gawl (Iridaceae)	21
1- General.....	21
2- Review of literature	23
2.1. Taxonomy	23
2.2. Chemical review	27
- Aim of work	29
- Materials, apparatus and techniques	30
- PART I: Phytochemical investigation of seeds and seedlings of <i>Corchorus olitorius</i> L.	37
CHAPTER I: Phytochemical screening of <i>Corchorus olitorius</i> L...	37
1- Preliminary phytochemical screening	37
2- Proximate analysis	38
CHAPTER II: Extraction, fractionation and isolation of constituents of seeds and seedlings of <i>Corchorus</i> <i>olitorius</i> L.	40
1- Extraction and fractionation	40
2- Isolation of the constituents of n-hexane fraction H-1 of seeds of <i>Corchorus olitorius</i> L.....	43

	Page
3- Isolation of the constituents of methanolic fraction M-1 of seeds of <i>Corchorus olitorius</i> L.	49
4- Isolation of the constituents of methanol fraction M-2 of seedling of <i>Corchorus olitorius</i> L.	53
CHAPTER III: Identification of the isolated compounds	55
- Identification of compound F-1	55
- Identification of compound F-2	58
- Identification of compound F-3	61
- Identification of compound F-5	67
- Identification of compound F-4	76
- Identification of compound COT-M1	83
- Identification of compound COT-M2	93
- Identification of compound F-A	102
- Identification of compound F-B	109
CHAPTER IV: Quantitative determination of cardenolides of seeds and seedlings of <i>Corchorus olitorius</i> L. cultivated in Egypt	114
-PART II: Phytochemical investigation of bulbs of <i>Gladiolus segetum</i> Ker-Gawl	118
CHAPTER I: Phytochemical screening of <i>Gladiolus segetum</i> Ker-Gawl	118
1- Preliminary phytochemical screening.....	118
2- Proximate analysis.....	119
CHAPTER II: Isolation of the main constituents of bulbs of <i>Gladiolus segetum</i> Ker-Gawl.....	121
1-Extraction:	121
2-Column chromatographic fractionation of methanol fraction	122

	Page
3-Isolation of the sapogenins of the ethylacetate fraction E-1	123
CHAPTER III: Identification of the isolated compounds	127
-Identification of compound G-1	127
- Identification of compound G-3	146
- Identification of compound G-4	156
-Part III: Biological investigations	165
CHAPTER I: Antimicrobial activity of seed oil of <i>Corchorus</i> <i>olitorius</i> L. and different bulb extracts of <i>Gladiolus</i> <i>segetum</i> Ker-Gawl	165
CHAPTER II: Anti-inflammatory activity of seed oil of <i>Corchorus</i> <i>olitorius</i> L. and different bulb extracts of <i>Gladiolus</i> <i>segetum</i> Ker-Gawl	169
- General summary and conclusion	172
- References	179
- Arabic summary	