



شبكة المعلومات الجامعية

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ





شبكة المعلومات الجامعية



شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم



شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكرو فيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
على هذه الأفلام قد اعدت دون أية تغيرات



يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15 – 20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of
15 – 25c and relative humidity 20-40 %



شبكة المعلومات الجامعية



بعض الوثائق الأصلية تالفة



شبكة المعلومات الجامعية



بالرسالة صفحات

لم ترد بالأصل

SYNTHESIS OF SOME NEW NITROGEN
HETEROCYCLIC COMPOUNDS OF
ANTICIPATED ACTIVITY

A Thesis Submitted

To

Faculty of Science
Ain Shams University

For

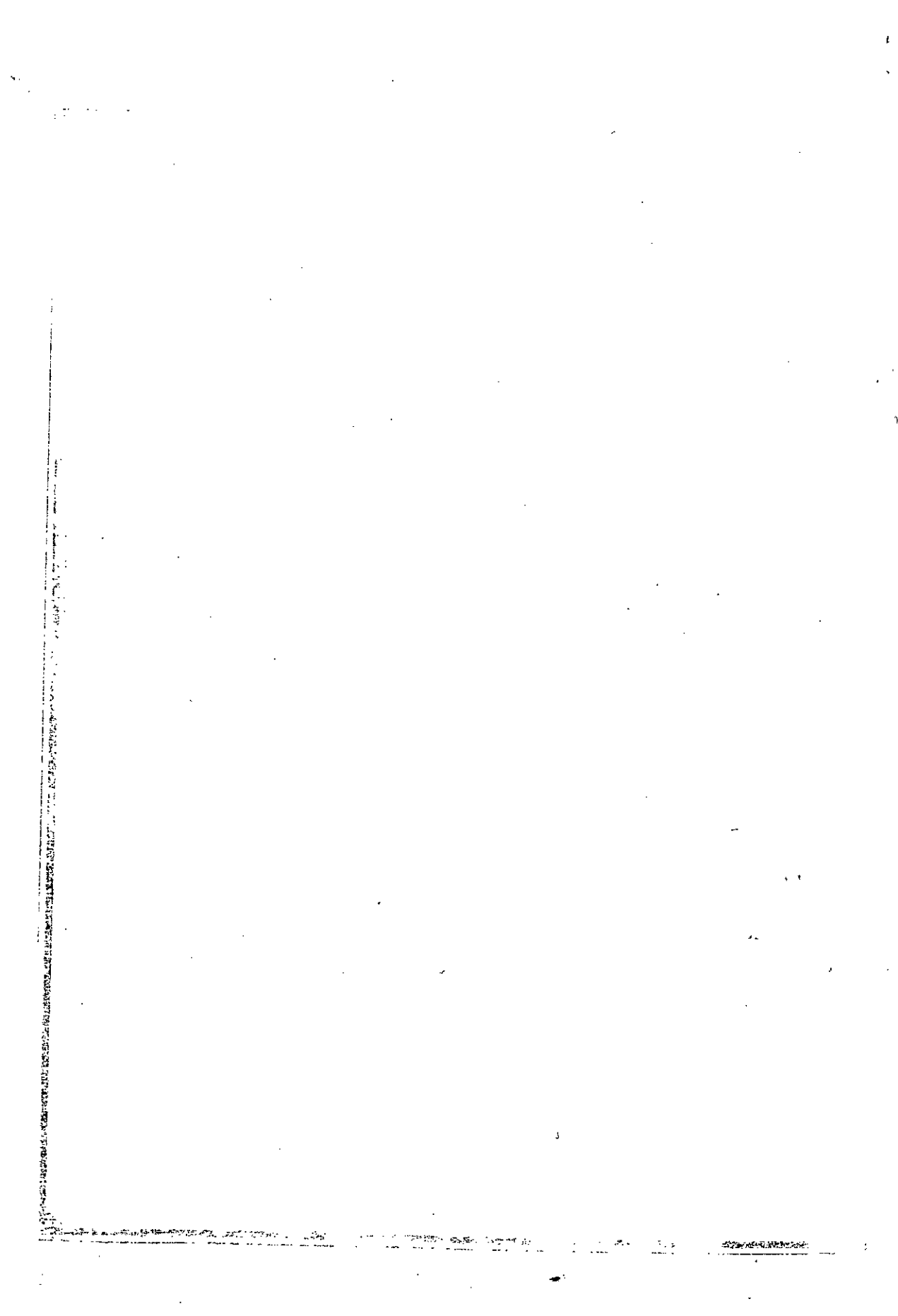
The Degree of Doctor of Philosophy (Ph. D.)
(Chemistry)

Presented By

NESREEN SAID ISMAIL
(M. Sc.)

2000

B
VY-7



SYNTHESIS OF SOME NEW NITROGEN HETEROCYCLIC COMPOUNDS OF ANTICIPATED ACTIVITY

Thesis approved

Prof. Dr. M. Habashi

M. M. Habashi

Prof. Dr. M. R. Mahmoud

Mahmoud Refai.

Prof. Dr. M. M. Kamel

M. M. Kamel

Prof. Dr. Z. M. Nofal

Z. M. Nofal.

Head of Chemistry Department

Prof. Dr. M.A. El-Kasaby

M. A. El-Kasaby

*To My Mother, My Husband
and My Daughter*

Contents

	Page
Acknowledgements	
Aim and Summary	i
Introduction	1
I. Chemotherapy of 1,8-naphthyridines	1
II. Chemistry of 1,8-naphthyridines	10
Discussion	34
Section I	36
Synthesis of some new 4-(<i>p</i> -heterocyclo substituted anilino)- 2,7-dimethyl-1,8-naphthyridines and other related products.	
Section II	66
Synthesis of a new series of 4-(<i>p</i> -heterocyclo substituted) phenoxy-2,7-dimethyl-1,8-naphthyridines of possible biological activity.	
Section III	96
A novel series of 1,8-Naphthyridine-Mannich bases of anticipated biological value.	
Experimental part	108
Biological part	133
References	136

Acknowledgement

Thanks to Allah for completing this work.

*The author wishes to express her thanks to **Prof. Dr. Mohamed Habashi**, Professor of Organic Chemistry, Faculty of Science, Ain Shams University for his interest and kind supervision. She is deeply grateful to **Prof. Dr. Mahmoud Refai**, Professor of Organic Chemistry, Faculty of Science, Ain Shams University for his consistent supervision, kind encouragement and help in discussing the physical data in this work.*

*Deep gratitude and sincere appreciation to **Prof. Dr. Mohsen Mohamed Kamel**, Professor of Therapeutical Chemistry, National Research Center, for suggesting the plan of the work, supervising and facilitating the accomplishment of this work as well as his continuous and valuable guidance and helpful discussions throughout the different phases of realizing the work.*

*Sincere thanks and appreciations are due to **Professor Dr. Zeinab Mohamed Nofal**, Head of Therapeutical Chemistry Department, National Research Center, for her beneficial supervision, valuable guidance and her support throughout the whole work.*

*She wishes also to express her deep thanks to **Dr. Wafaa Abdou Zaghary**, Ass. Professor of Pharmaceutical Chemistry, Faculty of Pharmacy, Helwan University, for her supervision and guidance in discussing the biological part.*

She would like also to express her thanks to all colleagues in National Research Center for their cooperation and moral support.

Nesreen Saïd Ismail

Contents

	Page
Acknowledgements	
Aim and Summary	i
Introduction	1
I. Chemotherapy of 1,8-naphthyridines	1
II. Chemistry of 1,8-naphthyridines	10
Discussion	34
Section I	36
Synthesis of some new 4-(<i>p</i> -heterocyclo substituted anilino)- 2,7-dimethyl-1,8-naphthyridines and other related products.	
Section II	66
Synthesis of a new series of 4-(<i>p</i> -heterocyclo substituted) phenoxy-2,7-dimethyl-1,8-naphthyridines of possible biological activity.	
Section III	96
A novel series of 1,8-Naphthyridine-Mannich bases of anticipated biological value.	
Experimental part	108
Biological part	133
References	136