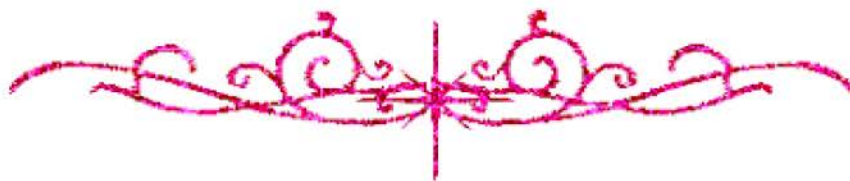


بسم الله الرحمن الرحيم





شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

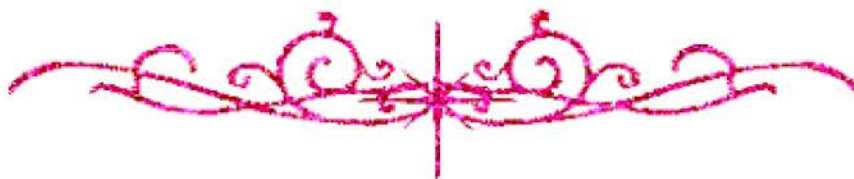
قسم

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



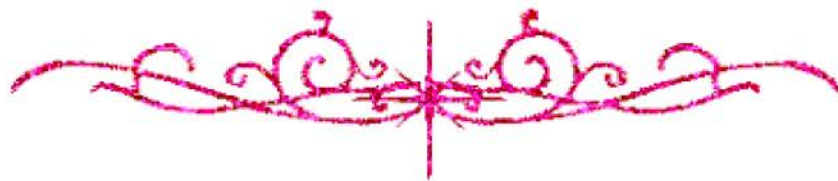
يجب أن

تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



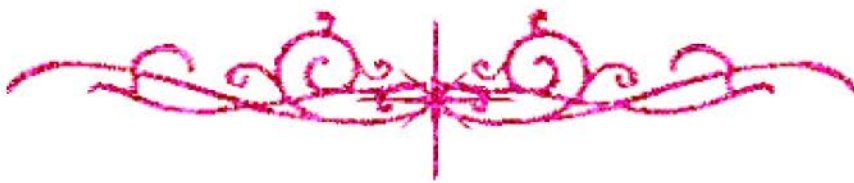


بالرسالة صفحات
لم ترد بالأصل





بعض الوثائق الأصلية تالفة



BENHA UNIVERSITY
FACULTY OF SCIENCE
CHEMISTRY DEPARTMENT

B1100.



A Thesis Entitled

**SYNTHESIS AND NOVEL STUDIES OF ACRYLIC
ACID AND PYRIDAZINE DERIVATIVES OF
PHENOXATHIIN**

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SYNTHESIS AND NOVEL STUDIES OF ACRYLIC ACID AND PYRIDAZINE DERIVATIVES OF PHENOXATHIIN

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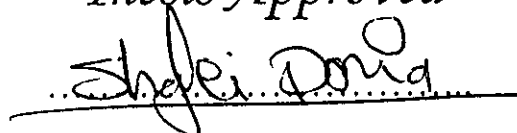
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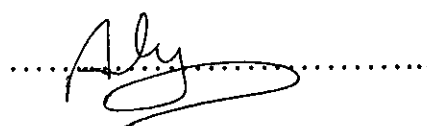
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God bless them all
Mohamed Sayed Behalo

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AIM OF THE WORK

This work aims to synthesize some novel fused and isolated heterocyclic ring systems from acrylic acid and pyridazines derived from phenoxathiin in order to evaluate their biological importance.

SUMMARY

SUMMARY

Our interest is directed towards the synthesis of new heterocyclic systems with the aim of enhancement of the biological activity of such compounds. Thus, we choose to synthesize phenoxathiin derivatives containing pyridazine and acrylic acid moities.

This work is divided into three parts:

Part 1:

It involves the synthesis of 4-oxo-4-phenoxathiin-2-ylbut-2-enoic acid (**2**) and studying its reactivity towards different reagents.

Compound (**2**) reacted with thiourea to give thiadiazole derivative **3** which in turn reacted with hydrazine hydrate and/ or hydroxylamine to give fused systems (**4,5**).

Also, acid (**2**) reacted with aromatic amines to give the corressponding acids (**6a,b**) followed by cyclization with acetic anhydride to give furanones (**7a,b**). the latter were used for the synthesis of pyridazinones (**8a,b**). Acid (**2**) reacted with phenylhydrazine to give pyridazinone (**9**).

On the other hand, reactivity of acid (**2**) towards active methylene compounds under Michael reaction conditions was studied. Thus, reaction of acid (**2**) with diethyl malonate or ethyl acetoacetate or ethyl cyanoacetate in the presence of sodium methoxide afforded pyranones (**10a-c**). While, the same reaction when carried out in the presence of ammonium acetate under the same reaction cnditions aforded (**12a-c**). Each of compounds (**10a-c**) and (**12a-c**) were condensed with hydrazine hydrate to give pyranopyridazinones (**11a-c**) and pyridopyridiazines (**13a-c**) respectively.