

شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو

# بسم الله الرحمن الرحيم





MONA MAGHRABY



شبكة المعلومات الجامعية التوثيق الإلكتروني والميكروفيلو



شبكة المعلومات الجامعية التوثيق الالكتروني والميكروفيلم



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# 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



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تحفظ هذه الأقراص المدمجة بعيدا عن الغبار



MONA MAGHRABY



"Synthesis and Biological Evaluation of Some New Heterocyclic Compounds Using 3-Formylchromone"

A Thesis Submitted By

## **Aya Ahmed Hamed**

B.Sc., Ed. 2017

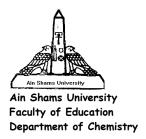
In Partial Fulfillment for Requirements of Master Degree for Teacher's Preparation in Science (Organic Chemistry)

### **Supervisors**

Prof. Dr. Magdy Ahmed Mohamed Ibrahim Dr. Al-Shimaa Badran Abdel-Monem

> Department of Chemistry Faculty of Education Ain Shams University

> > Cairo 2021



### **Approval Sheet**

"Synthesis and Biological Evaluation of Some New Heterocyclic Compounds Using 3-Formylchromone"

Supervisors	Signature
Prof. Dr. Magdy Ahmed Moha	med Ibrahim
Prof. of Organic Chemistry, Faculty of	Education, Ain Shams University.
Dr. Al- Shimaa Badran Abdel-	Monem
Lecturer of Organic Chemistry, Facult	y of Education, Ain Shams University.
Head of Chemi	istry Department
•••••	•••••
Prof. Dr. Moham	ed Abbas Mohamed
Post graduate:	
The thesis was approved	Approval date / / 2021
Approved by Council of Faculty	Approved by Council of University
Date / / 2021	Date / / 2021

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Aya Ahmed Hamed

# This work is dedicated to

my father, my mother and my brothers

# بَنْ اللَّهُ الْحُالِيِّ الْحُالِيِّ الْحُالِيِّ الْحُالِيِّ الْحُلْمِينَ فِي الْحُلْمِينَ فِي الْحُلْمِينَ فِي

قُلْ إِنَّ حَلَاتِي وَنُسُكِي وَمَدْيَايَ وَمَمَاتِي لِلَّهِ رَدِجٌ الْعَالَمِينَ(١٦٢) لاَ شَرِيكَ لَهُ وَدِذَلِكَ أُمِرْتُ وَأَذَاْ أَوَّلُ الْمُسْلِمِينَ(١٦٣)

سورة الأنعام صدق الله العظيم

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## Aim of the work

### The present work aims to:

- 1. Synthesize of the condensation product from reaction of 3-formylchromone with 4-hydroxycoumarin.
- 2. Study the chemical reactivity of condensation product towards a variety of nucleophiles.
- 3. Characterize of the newly synthesized compounds using elemental analysis and different spectroscopic techniques.
- 4. Study the biological evaluation of the newly synthesized compounds.