شبكة المعلومات الجامعية

التوثيق الإلكتروني والميكروفيلم

بسم الله الرحمن الرحيم

MONA MAGHRABY

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جامعة عين شمس

التوثيق الإلكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
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تحفظ هذه الأقراص المدمجة بعيدا عن الغبار

MONA MAGHRABY

Ain Shams University

Faculty of Education

Department of Chemistry

Synthesis, Spectral Characterization and Biological Evaluation of Some Novel Phosphorus Compounds Containing Pyranopyrazole Moiety

A thesis submitted

By

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B.Sc. & Ed. 2013

M.Sc. 2018

For in partial fulfillment for requirements of Ph.D. Degree of Teacher's Preparation in Science (Organic Chemistry)

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Cairo, Egypt

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Approval Sheet

Synthesis, Spectral Characterization and Biological Evaluation of Some Novel Phosphorus Compounds Containing Pyranopyrazole Moiety

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Higher studies:

The thesis was approved Approval date / /

Approved by Council of Faculty Approved by Council of University

Date / / Date / /

بسم الله الرحمن الرحيم

" قَالُوْا سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ أَنْتَ العَلِيْمُ الحَكِيْمُ "

سورة البقرة 32

Dedication

To my parents

To my husband

To my children

And

To my lovers

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Noha M. Hassanin

Theoretical courses

The candidate has successfully passed examinations in the following topics in the post graduate studies

I) Topics of General Diploma for Teacher's Preparation in Science (Chemistry):

Organic Chemistry 1

(A) Natural Products

(B) Polymer Chemistry

Organic Chemistry 2

(A) Reaction Mechanism

(B) Stereochemistry

Physical Chemistry 1

(A) Catalysis Chemistry

(B) Electrochemistry

Physical Chemistry 2

Quantum Chemistry

Inorganic Chemistry 1

Polarography

Inorganic Chemistry 2

Organometallic Compounds

Inorganic Chemistry 3

Solutions

Inorganic Chemistry 4

Metal Chelates

مقرر تربوي 1

مقرر تربوي 2

English Language

Theoretical courses

II) Topics of Special Diploma for Teacher's Preparation in Science (Organic Chemistry)

Organic Chemistry 1

Spectroscopy I: IR, UV, and Mass Spectrometry

Organic Chemistry 2

Spectroscopy II: NMR Spectrometry

Organic Chemistry 3

Heterocyclic Chemistry

Organic Chemistry 4

Selected Topics: Aromaticity, Delocalized Chemical bonding, and Aromatic Nucleophilic Substitution

Organic Chemistry 5

Stereochemistry

Organic Chemistry 6

Organic Reactions

Organic Chemistry 7

Free Radicals Reactions

Organic Chemistry 8

(A) Sulfur and Phosphorous Compounds

(B) Organic Analytical Chemistry

Organic Chemistry 9

Review Article

مقرر تربوي 1

مقرر تربوي 2

English Language