



Faculty of Science
Chemistry Department



Polymeric Nano-particles: from Preparation to Biomedical Applications

A thesis Submitted By

Moshera Samy Abd El-Aziz Youssef

Researcher Assistant, Polymer & Pigments Department, National Research Center

(B.Sc. Chemistry and Physics - Cairo University 2006)

(M.SC. Chemistry- Faculty of Science - Helwan University 2013)

A thesis submitted for the requirements for the degree of

Doctor of Philosophy in Science

(Chemistry)

Chemistry Department

Faculty of Science

Ain Shams University

2019



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To

Chemistry Department

Faculty of Science–Ain Shams University

For the

(PHD Degree in chemistry)

Thesis Supervisors

Dr. Abd El-Gawad Mohamed Rabie

The late Dr. Mohamed Ali Hassan

Prof. of Organic Chemistry
Chemistry Department
Faculty of Science
Ain Shams University

Dr. Magdy Mohamed H. Ayoub

Prof. of Organic Chemistry
Chemistry Department
Faculty of Science
Ain Shams University

Dr. Amal Amin Ibrahim

Prof. of Chemistry and Polymer Technology
Polymers & Pigments Department
National Research Center

Asso. Prof. of Chemistry and Polymer Technology
Polymers & Pigments Department
National Research Center

Dr. Sameh Hosam El Din

Asso. Prof. of Pharmacy
Pharmaceutical Technology
National Research Center

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Faculty of Science
Chemistry Department



Approval Sheet

Name of the Candidate: **Moshera Samy Abd El-Aziz Youssef**

Title of Ph.D. thesis: " **Polymeric Nano-particles: from
Preparation to Biomedical Applications**"

Degree: PHD Degree, Faculty of science, Ain Shams University.

Thesis Supervisors

Signature

Prof.Dr. Abd El-Gawad Mohamed Rabie

Chemistry Department,
Faculty of Science, Ain Shams University.

Prof.Dr. Abd El-Gawad Mohamed Rabie

Chemistry Department,
Faculty of Science, Ain Shams University.

Prof. Dr. Magdy Mohamed Hessein Ayoub

Polymers & Pigments Department,
National Research Center.

Asso. Prof. Dr. Amal Amin Ibrahim

Polymers & Pigments Department,
National Research Center.

Asso. Prof. Dr. Sameh Hosam El- Din Abdel- Alim

Pharmaceutical technology Department,
National Research Center.

Head of Chemistry Department
Prof. Dr. Ayman Ayoub Abdel Shafi

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ
{ وَقُلْ رَبِّ زِدْنِي عِلْمًا }

صدق الله العظيم
"سورة طه (آية ١١٤)"

"Note"

The present thesis is submitted to Ain Shams University in the partial fulfillment of the requirements for ***the PHD Degree in Science*** " Chemistry " From Faculty of science, Ain Shams University.

M.SC. Degree, Faculty of science, Helwan University, 2013.

Besides the work carried out in MSC thesis, the candidate ***Moshera Samy Abd El Aziz Youssef***, has completed the following **Pre-Master Courses** in "Organic Chemistry " Department of Chemistry of **Faculty of Science in Cairo university** on Oct. 2007 for one year.

1. Molecular Structure Chemistry
2. Quantum Chemistry
3. Polymers
4. Carbohydrates
5. Hetero cyclic
6. Design
7. Physical organic chemistry
8. Elective
9. Spectroscopy
10. Dyes
11. Biochemistry
12. Natural Products
13. Molecular orbital symmetry
14. Photochemistry.
15. Computer Science
16. Deutsch Language

This work is Dedicated

To

My Mother

And My Dear Father

Samy Abd El-Aziz Youssef

Without Their Honest Support, Endless Help

And Continues Encouragement All the Time

I Could Never finish this work

I AM SO Proud To Be your Son

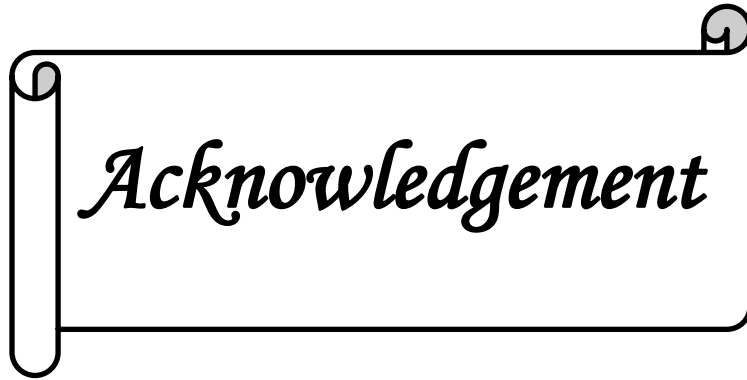
Also To

My Dear brothers

For their Continuous Encouragement and Endless help

And Also TO

My Dear Sons



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