

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ

سُبْحَانَكَ لَا عِلْمَ لَنَا إِلَّا مَا عَلَّمْتَنَا إِنَّكَ
أَنْتَ الْعَلِيمُ الْحَكِيمُ

صدق الله العظيم

الاية (٣٢) سورة البقرة

*Spectrophotometric determination of some drugs in pure form and in
different pharmaceutical preparations.*

Submitted by

Marwa Hosni Gaber Soliman

(B.Sc. Degree, Special Chemistry, Cairo univeristy 2002)

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التقدير الطبى لبعض الادوية فى صورتها النقية و فى المستحضرات الصيدلانية المختلفة

مقدمة من

الطالبة/ مروه حبنى جابر سليمان

(بكالوريوس علوم- كيمياء منفرد ٢٠٠٢)

للحصول على درجة الماجستير

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إلى

قسم الكيمياء

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APPROVAL SHEET FOR SUBMISSION

Title of [M.Sc.] Thesis: Spectrophotometric determination of some drugs in pure form and in different pharmaceutical preparations.

Name of candidate: Marwa Hosni Gaber Soliman

This thesis has been approved for submission by the supervisors:

1- **Prof. Dr.** GEHAD GENIDY MOHAMED

Signature:

2- **Dr.** SHABAN MOHAMED KHALIL

Signature:

Prof. Dr. RIFAAT H. HELAL

Chairman of Chemistry Department.

Faculty of Science- Cairo University.

ABSTRACT

Name: Marwa Hosni Gaber Soliman

Title of Thesis: Spectrophotometric determination of some drugs in pure form and in different pharmaceutical preparations.

Degree: (M.Sc.) unpublished Master of Science Thesis, Faculty of Science- Cairo University, 2009

This work has been carried out to investigate the:

- 1- Spectrophotometric microdetermination of Simvastatin, Pravastatin and Atorvastatin via charge- transfer reactions formation. This includes the utility of some π -acceptors as 2,3-dichloro-5,6-dicyanobenzoquinon (DDQ), and 7,7,8,8-tetracyanoquinodimethane (TCNQ) for estimation of Simvastatin, Pravastatin and Atorvastatin.
- 2- Determination of Simvastatin, Pravastatin and Atorvastatin through ion-pair formation reactions with Mo(V) - thiocyanate binary complex.
- 3- These reactions were applied for determination of Simvastatin, Pravastatin and Atorvastatin their pharmaceutical preparations coming from different companies.

Keywords: Simvastatin, Pravastatin, Atorvastatin, DDQ, TCNQ, Mo(V)-thiocyanate, Spectrophotometry, Charge transfer, ion-pair formation.

Supervisors:-----,-----

Prof. Dr. RIFAAT H. HELAL

Chairman of Chemistry Department.

Faculty of Science- Cairo University.

NOTE

Beside the work carried out in this thesis, the candidate had attended and successfully passed a final examination of M.Sc. courses (2004) in non organic chemistry covering the following topics:

- 1- Mechanism of inorganic reactions.
- 2- Advanced analytical chemistry.
- 3- Chelatimetry.
- 4- Statistical thermodynamics.
- 5- Quantum chemistry.
- 6- Molecular structure.
- 7- Solar energy.
- 8- X- rays thermal analysis.
- 9- Adsorption chemistry.
- 10 -Molten salts and Metallurgy.
- 11- Voltammetry.
- 12- Nuclear chemistry.
- 13- Group theory.
- 14- Electrochemistry.
- 15- Electro Kinetic phenomena.
- 16- Catalysis.
- 17- Advanced inorganic chemistry.
- 18- Physical polymer.
- 19-Statistical.
- 20- German language.

Prof. Dr. RIFAAT H. HELAL

Chairman of Chemistry Department.

Faculty of Science- Cairo University.

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المستخلص

الاسم: مروه حسنى جابر سليمان.

عنوان الرسالة: التقدير الطيفى لبعض الادوية فى صورتها النقية و فى المستحضرات الصيدلانية المختلفة

الدرجة : ماجستير.

التخصص: كيمياء تحليلية.

تهدف هذه الدراسة الى تقدير تركيز بعض الادوية المخفزة للكوليسترول مثل الاتورفاستاتين و السيمفاستاتين و البرافاستاتين سواء في المواد الخام أو في المستحضرات الصيدلانية باستخدام طريقة التقدير الطيفى والتى تعتمد على تكوين متراكبات الزوج الأيونى المتكون بين الأدوية مع ثيوسيانات الموليبدنم أو باستخدام متراكبات إنتقال الشحنة مع ٧، ٨، ٨، ربا عى سيا نوكينو دايميثان و ٣، ٢ ثنائى كلورو ٦، ٥ ثنائى سيا نو بينزوكينون. تم إستخدام الحسابات الإحصائية و اعداد الجداول لإثبات أن الطرق المقترحة دقيقة و فعالة في تقدير العقاقير سواء في المواد الخام أو في المستحضرات الصيدلانية مقارنة بالطرق المرجعية.

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المشرفون.....،.....

أ. د/ رفعت حسن هلال

رئيس مجلس قسم الكيمياء

كلية العلوم – جامعة القاهرة

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