



Ain Shams University
Faculty of Women
For Arts, Science and Education
Chemistry Department

**Uranium recovery during the preparation of food
grade alkali metal phosphate by mixed hydrophilic –
hydrophobic extractants**

A Thesis Submitted for the Master Degree

In

Inorganic and Analytical Chemistry

Presented By

Nagwa Ibrahim Eid Falilia

B.Sc. chemistry(2006)

To

Chemistry Department

Faculty of Women for Arts, Science and Education

Ain Shams University

Supervised By

Prof. Dr. Marguerite Anis Wassef

Professor of Inorganic Chemistry

Chemistry Department, Faculty of Women for Arts, Science and

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Prof. Dr. Laila Attia Guirguis

Professor of Extractive Metallurgy

Nuclear Materials Authority

Dr. Saadia Ahmed Ali

Assistant professor of Inorganic Chemistry

Chemistry Department, Faculty of Women for Arts, Science and

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2013



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Thesis Advisors

Thesis Approved

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Prof. Dr.

Approval of Chemistry Department Council

Approval of faculty council

Approval of University council

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جامعة عين شمس
كلية النبات للآداب والعلوم والتربية
قسم الكيمياء

**استخلاص عنصر اليورانيوم أثناء تحضير بعض المركبات
القلوية الفوسفاتية الغذائية باستخدام مخلوط من مذيبان
أحدهما هيدروفيليك والآخر هيدروفوبيك**

رسالة مقدمة للحصول على درجة

الماجستير فى العلوم

(كيمياء غير العضوية والتحليلية)

من

الطالبة / نجوى ابراهيم عيد فليhle

بكالوريوس علوم – كيمياء (٢٠٠٦)

إلى

قسم الكيمياء كلية النبات للآداب والعلوم والتربية
جامعة عين شمس

تحت إشراف

أ.د/ مرجريت أنيس واصف

أستاذ الكيمياء غير العضوية- كلية النبات- جامعة عين شمس

أ.د/ ليلى عطية جرجس

أستاذ التقنية والخامات- هيئة المواد النووية

د/ سعدية أحمد على

أستاذ مساعد الكيمياء غير العضوية – كلية النبات – جامعة عين شمس

CHAPTER I

INTRODUCTION

CHAPTER II

EXPERIMENTAL

CHAPTER III

RESULTS & DISCUSSION

SUMMERY

REFERENCES

`Aim of the present work

The aim of the present work is to develop a quick, accurate and economical method for purification of Egyptian industrial phosphoric acid to the food grade quality.

Some phosphatic chemicals example tripoly phosphate, dicalcium phosphate and sodium ammonium hydrogen phosphate are prepared from the purified phosphoric acid.

The structure and purity of the prepared salts are studied by XRF, IR and chemical analyses.

Some of the acid impurities mainly uranium is separated and precipitated as uranyl peroxide.



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QUALIFICATIONS

Name: Nagwa Ibrahim Eid Falilia

Scientific degree: B.Sc

Department: Chemistry

College: College of women for Arts, Science and
Education

University: Ain Shams University

B.Sc. Graduation Year: 2006

NOTE

The candidate has attended post-graduate course for one year in inorganic and analytical Chemistry in the following topics:

Spectroscopy

Structural inorganic chemistry.

Advanced inorganic chemistry

Advanced coordination chemistry

Advanced reaction mechanisms.

Photochemistry.

Quantum chemistry.

Radioactivity and Nuclear Power.

Kinetic and catalysis Chemistry.

Thermodynamics.

Instrumental analysis.

English Language.

She has successfully passed a written examination in these courses, in partial fulfillment for the master degree of science.



جامعة عين شمس
كلية البنات للآداب والعلوم والتربية
قسم الكيمياء

اسم الطالبه : نجوى إبراهيم عيد فليلة

الدرجة العلمية : بكالوريوس علوم (كيمياء) .

القسم التابع له :قسم الكيمياء.

الكلية : كلية البنات للآداب والعلوم والتربية.

الجامعة : جامعة عين شمس .

سنة التخرج : ٢٠٠٦

سنة المنح :