

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 Education Ain Shams University

Prof. Dr. Laila Attia Guirguis

Professor of Extractive Metalurgy 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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Thesis Advisors

Thesis Approved

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Approval of Chemistry Department Council

Approval of faculty council Approval of University council

ACKNOWLEDGMENT

First and foremost, I would like to thank God for helping me and giving me the opportunity and well power to accomplish this work.

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I would finally express my deep appreciation and obligation to my parents for their encouragement.



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جامعة عين شمس كلية البنات للأداب 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 في العلوم

(كيمياء غير العضوية والتحليلية)

من

الطالبة / نجوى ابراهيم عيد فليله

بكالوريوس علوم - كيمياء (٢٠٠٦)

إلى قسم الكيمياء كلية البنات للأداب والعلوم والتربية جامعة عين شمس

تحت إشراف

أ.د/ مرجريت أنيس واصف

أستاذ الكيمياء غير العضوية- كلية البنات- جامعة عين شمس

أ.د/ ليلي عطية جرجس

أستاذ التقنية والخامات- هيئة المواد النووية

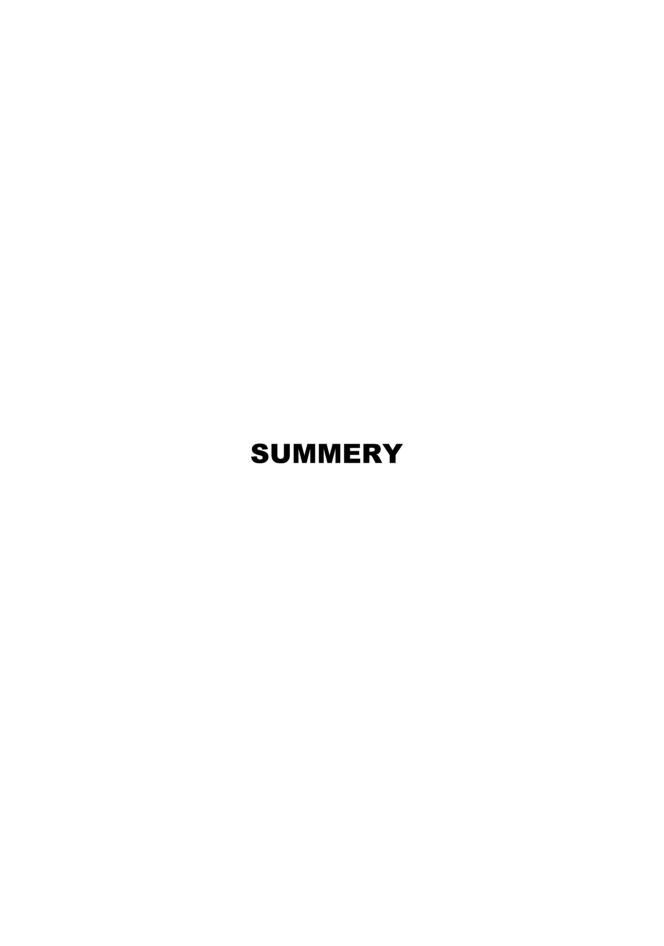
د/ سعدية أحمد على

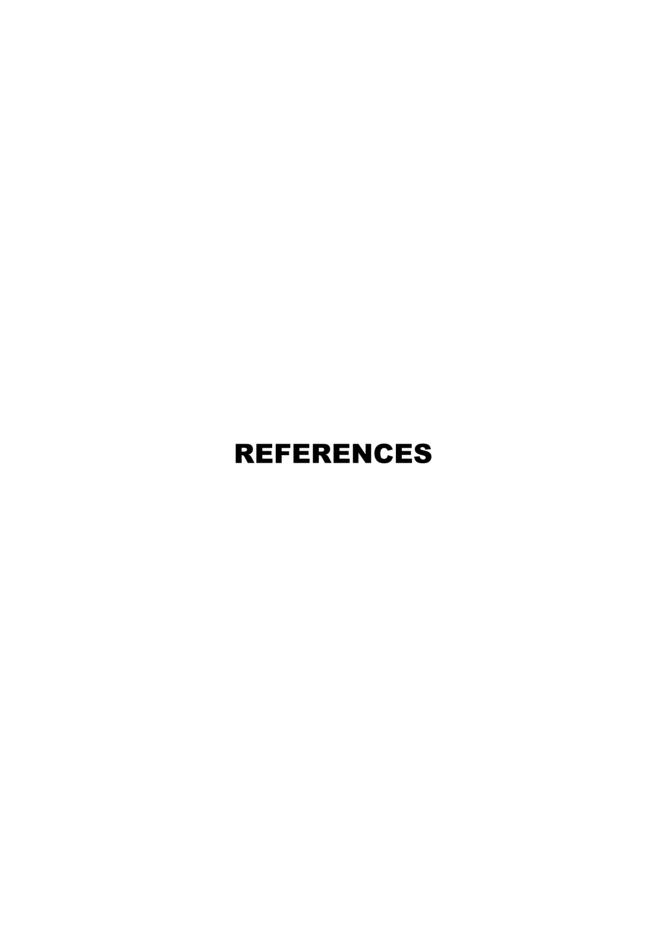
أستاذ مساعد الكيمياء غير العضوية - كلية البنات - جامعة عين شمس

CHAPTER I

CHAPTER II EXPERIMENTAL

CHAPTER III RESULTS & DISCUSSION





`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

Eduction

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: بكالوريس علوم (كيمياء).

القسم التابع له :قسم الكيمياء.

الكلية : كلية البنات للآداب والعلوم والتربية.

الجامعة : جامعة عين شمس .

سنة التخرج: ٢٠٠٦

سنة المنح: