Faculty of Science

Extraction of uranium and valuable elements from Abu Hamata poly-mineralized sedimentary rocks, Southwestern Sinai, Egypt.

Thesis Submitted for
Ph.D. Degree of Science in Chemistry
(Analytical and Inorganic)

By

Walid Mahmoud Abdellah
(M. Sc. 2009)

Assistant lecturer-Nucar Materials Authority

To
Chemistry Department
Faculty of Science
Ain Shams University

2014

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بسم الله الرحمن الرحيم

((إِنَّ اللَّهَ مَعَ الَّذِينَ اتَّقَوا وَالَّذِينَ هُم مُّحْسِنُونَ))

صدق الله العظيم

(النحل آية : ١٢٨)

DEDICATION

I dedicate this work to:

- *My parents who supported and encouraged me all of the time.*
- *My wife for her patience, efforts and generous support.*
- *My sweet children, Mahmoud, Israa & Karma.*
- *My brothers & sisters.*
- *And all my family.*

Walid

Contents

List of Tables

List of Figures

List of Abbreviations

B	Boron
Ce	Cerium
Conc.	Concentration
EDX	Energy dispersive x-rays
h	Hour(s)
IX	Ion exchange resin
Eluex	IX+SX
L.O.I.	Loss of ignition
Ln	Lanthanides
N.M.A.	Nuclear Materials Authority
SX	Solvent extraction
S/L	Solid/liquid
t	Ton
U	Uranium
V	Vanadium
w.s.r.	Wet settled resin
XRD	X-ray diffraction
Y.C.	Yellow cake
Y	Yttrium