

# 127, 17 27, 17 (20) 77, 17 (20









## جامعة عين شمس

التوثيق الالكتروني والميكروفيلم



نقسم بللله العظيم أن المادة التي تم توثيقها وتسجيلها علي هذه الأفلام قد اعدت دون آية تغيرات



## يجب أن

تحفظ هذه الأفلام بعيداً عن الغبار

في درجة حرارة من 15-20 مئوية ورطوبة نسبية من 20-40 %

To be kept away from dust in dry cool place of 15 – 25c and relative humidity 20-40 %



ثبكة المعلومات الجامعية





Information Netw. " Shams Children Sha شبكة المعلومات الجامعية @ ASUNET بالرسالة صفحات لم ترد بالأص

## GEOLOGICAL, MINERALOGICAL AND GEOCHEMICAL STUDIES OF SOME PHOSPHATE DEPOSITS, NORTHEASTERN SINAI; EGYPT.

Thesis Submitted to the Geology Department
Faculty of Science
Tanta University
Egypt

By
ABRAM FARID BISHAY
For
Ph.D. in Geology

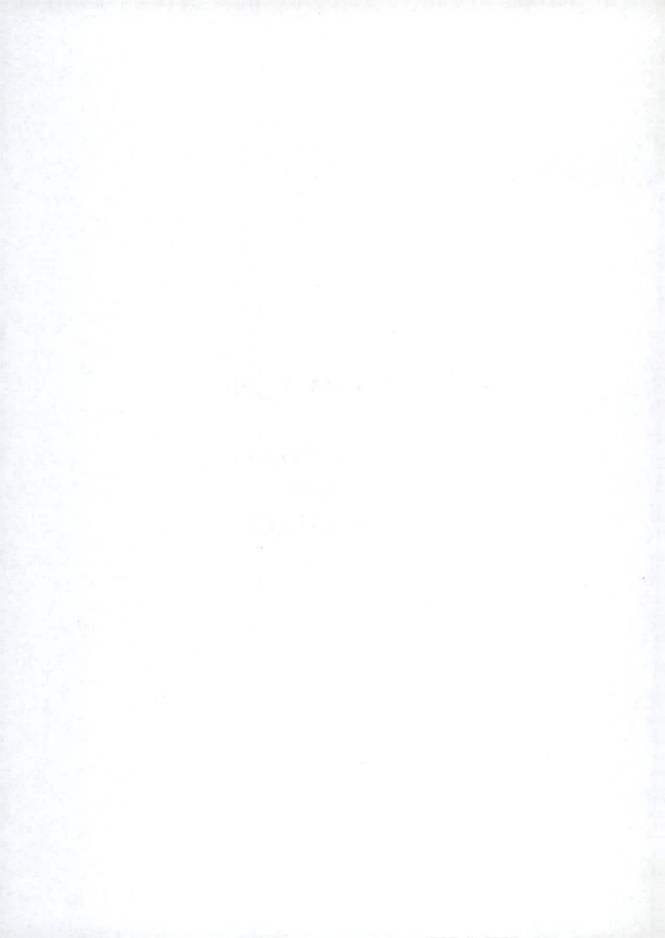
2000

Basur



### TO MY SONS

ANDREW AND MICHAEL



#### Acknowledgement

The author is grateful to the Geology Department, Faculty of Science, Tanta University and to *Prof. Dr*F. M. Ghoneim Head of the Geology Department.

I would like to express my gratitude to *Prof. Dr. Samir M. Aly*, Department of Geology, Faculty of Science, Tanta University, for his supervision and constant support.

My deepest appreciation to *Prof. Dr. Maher A. Takla*, Head of the Geology Department, Faculty of Science, Cairo University for supervising the work and his valuable critical review.

The author is greatly indebted to *Prof. Dr. Ibrahim E. El-Aassy*, Vice President of the Research Sector, Nuclear Materials Authority, who suggested the point of study and for continuous encouragement.

I would like to express my sincere gratitude to *Prof. Dr. Werner Smykatz-Kloss*, Institute of Mineralogy, Karlsruhe University, Deutschland, for his co-supervision and his kind invitation to the author to perform the practical work of the study at Karlsruhe University. Special thanks are due to the staff members at the Institute of Mineralogy, *Prof. Dr. Egon Althaus*, *Dr. E. Karotke, Dr. G. Istrate* and Mr. *Predrag Zrinjscak*. Particular thanks are also due to *Mr. Urs Muller, Mr. Georg Frosch, Miss N. Naguib* and *Miss Marion Wendt* for their sincere help.

My deepest gratitude also to *Prof. Dr. Doris Stüben* for offering facilities to do most of the chemical analyses at the Petrographical and Geochemical Institute, Karlsruhe University. The author is grateful to *Dr. Zsolt Berner*, *Dr. H. Kramar* and *Dr. Markus A. Leosson* for their kind help. I would like to thank *Miss Tina* and *Miss Barbel* for their assistance.

I am also grateful to *Prof. Dr. A. B. Salman*, the President of the NMA, *Prof. Dr. N. T. El-Hazek*, *Prof. Dr. M. A. Hassan*, and *Prof. Dr. S. N. Wassif* for their continuos support.

I wish to express my sincere thanks to *Dr. R.M.S. Shahata* for his guidance during the fieldwork.

#### Curriculum Vitae

Full name: Abram Farid Bishay.

Date of birth: 7 - 2 - 1958.

Place of birth: Cairo, Egypt.

Nationality: Egyptian.

Primary school: 1964 – 1970.

Preparatory school: 1970 – 1973.

Secondary school: 1973 – 1976.

Qualifications: (1) B. Sc. in Geology, (Grade, Very Good) Ain-Shams Univ., 1976 – 1980. (2) M. Sc. in Geochemistry, Cairo Univ., 1994.

Occupation: Assistant lecturer, at the Nuclear Materials Authority.

Head of Geology Department

Prof. Dr./ F. M. Ghoneim



#### Declaration

I declare that the contents of this thesis have not been previously submitted for a degree at this or any other university.

> Abram Farid Bishay Abut Assistant lecturer Nuclear Materials Authority

Head of Geology Department

M.F. n.

Prof. Dr./ F. M. Ghoneim

-7-de

1

3.4.