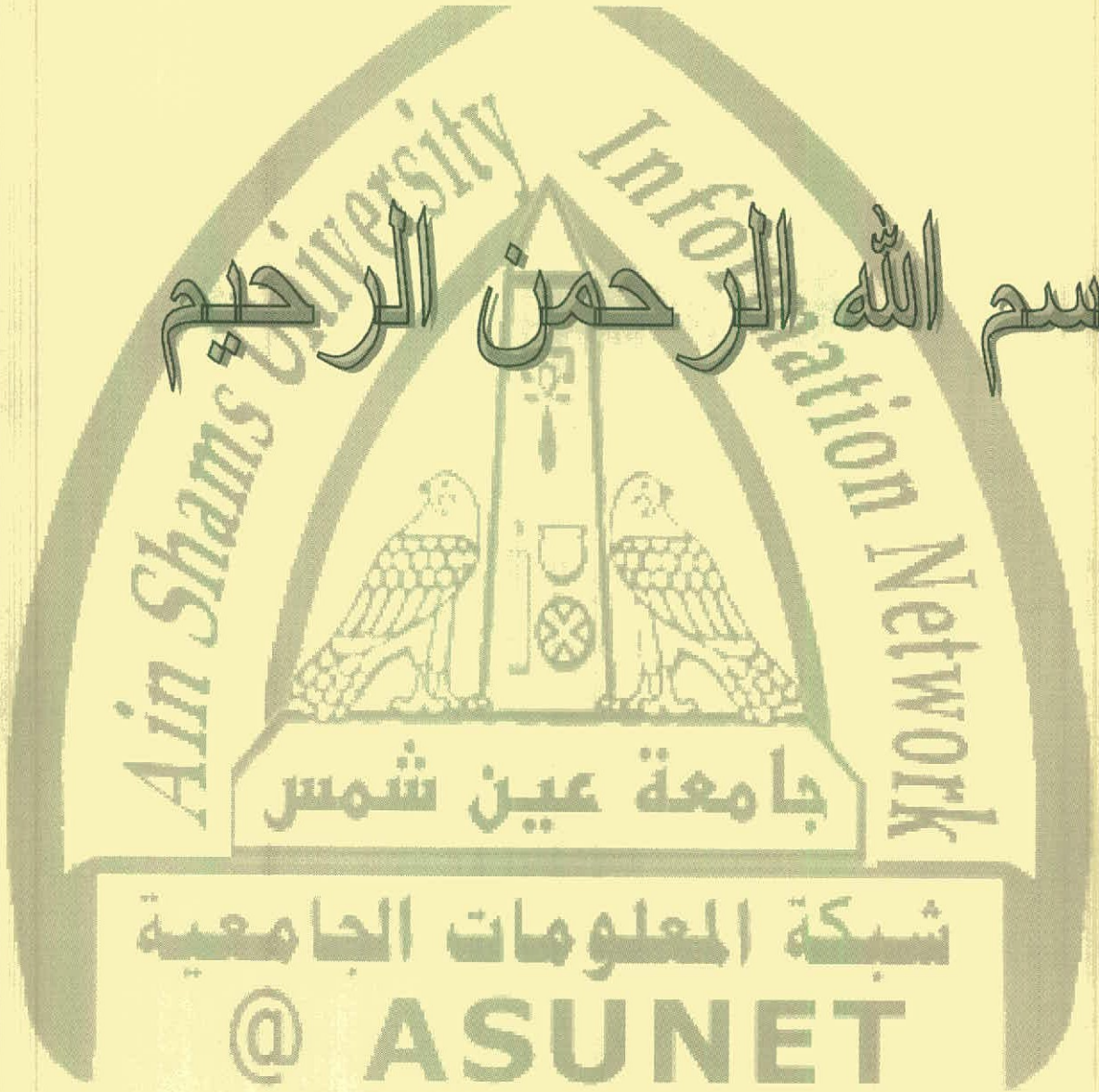
شبكة المعلومات الجامعية



بسم الله الرحمن الرحيم

شبكة المعلومات الجامعية

التوثيق الالكتروني والميكروفيلم

شبكة المعلومات الجامعية

جامعة عين شمس

التوثيق الالكتروني والميكروفيلم

قسم

نقسم بالله العظيم أن المادة التي تم توثيقها وتسجيلها
علي هذه الأفلام قد أعدت دون أية تغيرات

يجب أن

تحفظ هذه الأفلام بعيدا عن الغبار

في درجة حرارة من ١٥-٢٥ مئوية ورطوبة نسبية من ٢٠-٤٠%

To be Kept away from Dust in Dry Cool place of 15-25- c and relative humidity 20-40%

بعض الوثائـــــــق الاصليـــــة تالفـــة

بالرسالة صفحات لم ترد بالاصل

GEOCHRONOLOGICAL STUDIES OF SOME GRANITOIDS ; APPLICATION TO GEOCHEMICAL EVOLUTION AND TECTONIC HISTORY OF THE NORTHERN EASTERN DESERT, EGYPT

BY

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ABSTRACT

Seven granitoid masses in the north Eastern Desert , Egypt, have been studied petrographically,geochemically and geochronologically dated by Rb-Sr isochrons in order to assess the role of granitic magmatism in the evolution of that sector of the Egyptian basement.These masses are north Wadi Hawashiya granodiorites (841Ma), the hornblende-biotite granites of Abu Marwa (641Ma), Umm Araka-Loman (606 Ma) and Milaha(584 Ma), and the biotite granites of Abu Harba(590 Ma),Gabal Qattar (570 Ma) and north Wadi Hawashiya (556 Ma).These granitoid masses exhibit hypidiomorphic to panidiomorphic granular textures.They are two feldspars subsolvus granites indicating very slow rates of cooling allowing subsolidus reactions to take place.

The major and trace elements geochemistry indicate that the north Wadi Hawashiya granodiorites originated from a calc-alkaline peraluminous magma.The rocks exhibit the characteristics of I- type granites.They are depleted in (LIL) elements and have fractionated REE-patterns with no or small positive Eu- anomaly. They were emplacd in a pre-plate collision setting indicating subduction related magmatism within a thin unstable crust.

The younger hornblende-biotite granites of Abu Marwa and Milaha originated from a calc-alkaline peraluminous magma developed in a volcanic island-arc setting while those of Abu Harba and Umm Araka-Loman were developed in a syn-collision type settinng.These rocks exhibit fractionated REE-patterns with small to moderate negative Eu-anomaly.The younger granites of Gabal Qattar and northWadi Hawashiya originated from a calc-alkaline magma enriched in Rb relative to Sr and Ba indicating alkaline affinity and were emplaced in a within-plate tectonic setting.They exhibit a fractionated LREE pattern and a flat HREE one with a

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