

(200)  
R290  
80-930

PROJECT REPORT  
Egypt Investigations  
(IR)EG-11

GEOLOGIC LITERATURE ON EGYPT, 1933 TO 1978

By

C. R. Glenn and J. M. Denman

U. S. Geological Survey

OPEN FILE REPORT

80-930

This report is preliminary and has  
not been edited or reviewed for  
conformity with Geological Survey  
standards or nomenclature.

(200)  
R290  
no. 80-930



(200)  
R290  
no. 80-930



EG-11

UNITED STATES  
DEPARTMENT OF THE INTERIOR  
GEOLOGICAL SURVEY

PROJECT REPORT  
EGYPT INVESTIGATIONS  
(IR)EG-11



GEOLOGIC LITERATURE ON EGYPT, 1933 TO 1978

✓  
**U.S. Geological Survey,**

**Reports-Open file series**

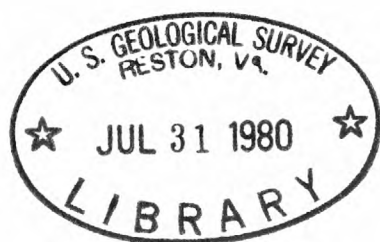


*TM  
am*

*twanell*

311967







## CONTENTS

|                            | Page |
|----------------------------|------|
| Introduction .....         | 1    |
| Serial List .....          | 3    |
| References .....           | 20   |
| Subject Index Format ..... | 153  |
| Subject Index .....        | 157  |

## ILLUSTRATION

|   |   |
|---|---|
| Figure 1. Key map to Egypt, 1:500,000 base-map sheets ..... | 2 |
|---|---|



# GEOLOGIC LITERATURE ON EGYPT, 1933 TO 1978

By

Craig R. Glenn and Johnnie M. Denman

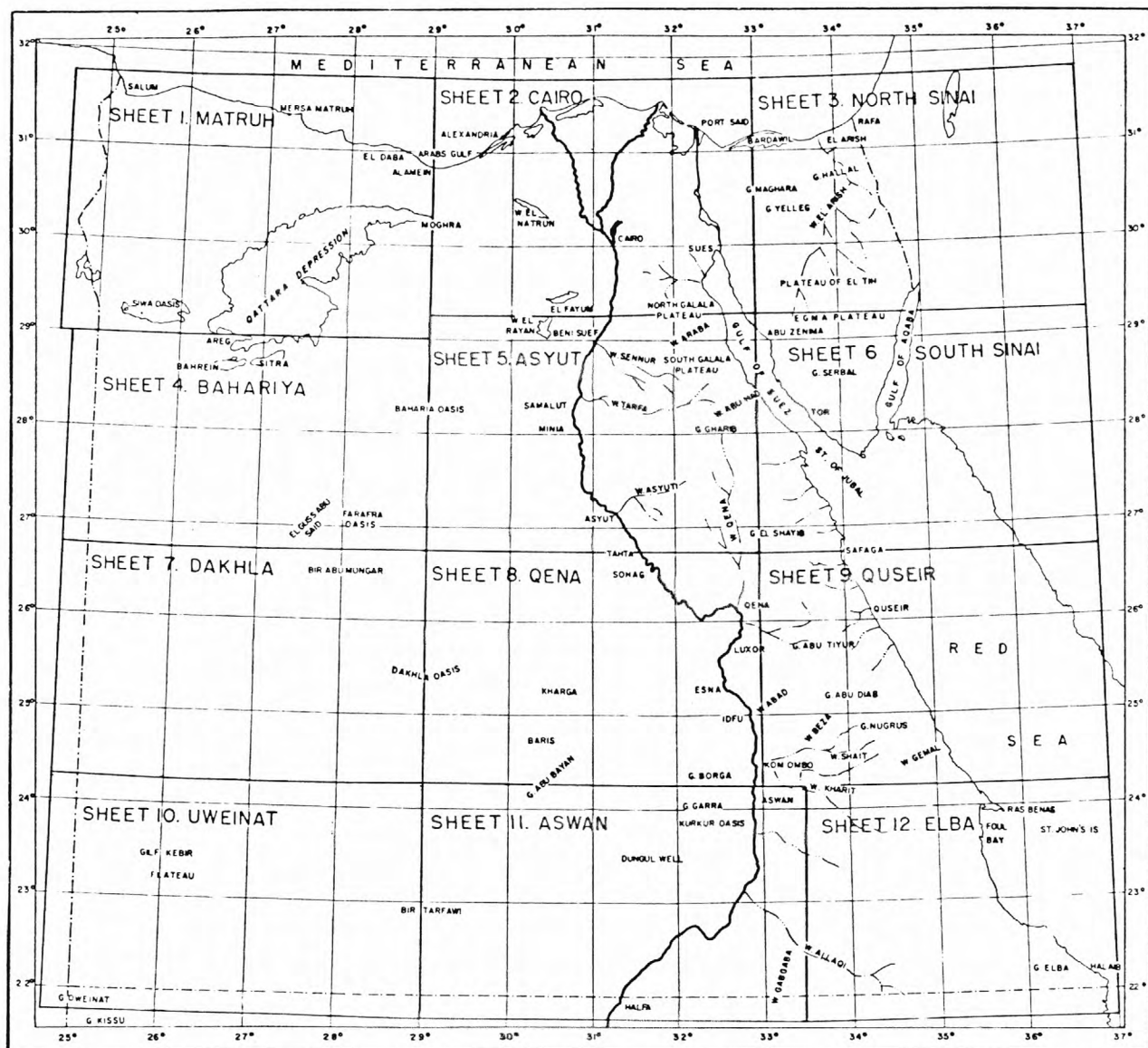
## INTRODUCTION

The following list of references includes most of the geological literature on Egypt published between 1933 and 1978; a few entries have been added from years prior to or after this period. To insure complete coverage, some publications that refer to areas adjacent to or extending slightly beyond the political boundaries of Egypt have been included. Abstracts, theses, dissertations, and unpublished papers are not included.

Entries in this index to the geological literature on Egypt are arranged by author and year and are cross-indexed under subject headings that are listed in alphabetical order. In the subject index, subheadings under Areal Studies provide for a rapid survey of literature pertaining to a particular geographic area. Geographic boundaries are primarily those defined within the confines of the Egyptian Geological Survey's 1:500,000 base-map sheets (see figure 1).

This compilation has been made as part of a program of geological investigations of the energy resources of Egypt conducted cooperatively by the U.S. Geological Survey and the Geological Survey of Egypt for the Government of Egypt and the U.S. Department of Energy. The compilers wish to acknowledge special assistance rendered by Jacquelyn H. Freeberg and William G. Sanders of the Geological Survey in locating little-known references and publications.





0 100 200km

Figure 1. Key map to Egypt, 1:500,000 base-map sheets (Said, 1962a)



# Serial List

- Abh. Math-naturw. Kl. Akad. Wiss. Mainz -- Abhandlugen. Mathematisch-Naturwissenschaft-lische Klasse Akademie der Wissenschaften und der literature, Mainz. Franz Steiner Verlag Gumbh., Weisbaden- Germany.
- Acad. Bras. Cienc., An. -- Academia Brasileira de Ciencias, Anais. Rio de Janeiro.
- Acad. Sci. (Paris), C. R., Ser. B -- Academie des Sciences, Comptes Rendus Hebdomadaires des Seances, Serie B, Sciences Physiques. Paris.
- Acad. Sci. (Paris), C. R., Ser. C -- Academie des Sciences, Comptes Rendus Hebdomadaires des Seances, Serie C, Sciences Chimiques. Paris.
- Acad. Sci. (Paris), C. R., Ser. D -- Academie des Sciences, Comptes Rendus Hebdomadaires des Seances, Serie D, Sciences Naturelles. Paris.
- Acad. Sci. (Paris), C. R., Mem. -- Academie des Sciences, Comptes Rendus Hebdomadaires des Seances, Memoires. Paris
- Acad. Sci. USSR, Dokl., Earth Sci. Sect. -- Academy of Sciences of the USSR, Doklady, Earth Sciences Sections (English translation of Akademiya Nauk, SSSR, Doklady). American Geological Institute, Washington, D. C.
- Acta bot. Hung. -- Acta botanica-Academiae scientiarum Hungaricae. Budapest, Hungary.
- Acta Geol. (Acad. Sci. Hung.) -- Acta Geologica (Academia Scientiarum Hungaricae). Budapest.
- Acta Mineral.-Petrogr. (Szeged) -- Acta Mineralogica-Petrographica (Acta Universitatis Szegediensis). Szeged.
- Acta Univ. Carol., Geogr. -- Acta Universitatis Carolinae, Geographica. Prague.
- Adv. Pollen-Spore Res. -- Advances in Pollen-Spore Research. New Delhi.
- Afr. Micropaleontol. Colloq., 3rd, Proc. -- African Micropaleontological Colloquium, 3rd, Cairo, Proceedings, National Information and Documentation Center. Cairo.
- Afr. Micropaleontol. Colloq., 4th, Proc. -- African Micropaleontological Colloquium, 4th, Abidjan, Proceedings, National Information and Documentation Center. Cairo
- Akad. Nauk Azerb. SSR, Dokl. -- Akademiya Nauk Azerbaydzhanskoy SSR, Doklady. Baku.
- Akad. Nauk SSSR, Dokl. -- Akademiya Nauk SSSR, Doklady. Moscow.
- Akad. Nauk SSSR, Geol. Inst., Trans. -- Akademiya Nauk SSSR, Geologicheskii Institut, Trudy. Moscow.
- Akad. Nauk SSSR, Inst. Fiz. - Khim. Anal., Izv. --Akademiya Nauk SSSR, Institut Fiziko - Khimicheskogo Analiza, Izvestiia. Leningrad.
- Akad. Nauk SSSR, Izv., Ser. Geogr. -- Akademiya Nauk SSSR, Izvestiya, Seriya Geograficheskaya. Moscow
- Akad. Nauk SSSR, Izv., Ser. Geol. -- Akademiya Nauk SSSR, Izvestiya, Seriya Geologicheskaya. Moscow.
- Akad. Nauk SSSR, Vestn. -- Akademiya Nauk SSSR, Vestnik. Moscow.
- Ala., Geol. Surv., Bull. -- Alabama, Geological Survey, Bulletin.
- Alger., Serv. Carte Geol., Bull. -- Algeria, Service de la Carte geologique, Bulletin; serie 1, Paleontologie. Algiers.
- Am. Anthrop. -- American Anthropologist. Lancaster, Pennsylvania.
- Am. Assoc. Pet. Geol., Bull. -- American Association of Petroleum Geologists, Bulletin. Tulsa, Oklahoma.
- Am. Ceramic Soc., J. -- American Ceramic Society, Journal. Columbus, Ohio.

- Am. Chem. Soc., Div. Water, Air, Waste Chem., Prepr. -- American Chemical Society, Division of Water, Air, and Waste Chemistry, Preprints. Washington, D. C.
- Am. Geophys. Union, Geophys. Monogr. -- American Geophysical Union, Geophysical Monograph (National Academy of Sciences - National Research Council, Publication). Washington, D.C.
- Am. Geophys. Union Trans. -- American Geophysical Union Transactions.
- Am. J. Sci. -- American Journal of Science. New Haven, Connecticut.
- Am. Mineral. -- American Mineralogist (Mineralogical Society of America, Journal). Washington, D.C.
- Am. Mus. Novit. -- American Museum Novitates (American Museum of Natural History). New York.
- Am. Water Resour. Assoc., Proc. Ser. -- American Water Resources Association, Proceedings Series. Urbana, Illinois.
- Anglo-Egypt. Sudan Geol. Surv., Bull. -- Anglo-Egyptian Sudan Geological Survey Bulletin. Khartoum.
- Ann. Bot. -- Annals of Botany. London.
- Ann. Inst. Oceanogr. Monaco. -- Annales de l'Institut Oceanographique. Monaco. Paris, France.
- Ann. Mag. Natur. Hist. -- (The) Annals & Magazine of Natural History. London.
- Ann. Min. Geol., Tunis -- Annales des Mines et de la Geologie, Tunis.
- Ann. Office Natl. Combustible Liquides -- Annales de l'Office Nationale de Combustibles Liquides. Paris.
- Ann. Paleontol., Invertebres -- Annales de Paleontologie, Invertebres. Paris.
- Ann. Paleontol., Vertebres -- Annales de Paleontologie, Vertebres. Paris.
- Ann. Soc. Geol. Belg. -- Annales de la Societe geologique de Belgique, Liego.
- Ann. Serv. Antiq. Egypte -- Annales du Services des Antiquites de l'Egypte. Cairo.
- Annali. Geofis. -- Annali di Geofisica, Roma.
- Antropologie -- Antropologie, Masson and Cie. Paris
- Arab J. Nuclear Sci. -- Arab Journal of Nuclear Sciences and Applications. Cairo.
- Arab Min. Pet. Assoc. Trans. -- The Arab Mining and Petroleum Association Transactions. Cairo.
- Arab Pet. Congr., 2nd, Beirut, Pap. -- Arab Petroleum Congress, 2nd, Beirut, Paper, 1960.
- Arab Pet. Congr., 3rd, Alexandria, Pap. -- Arab Petroleum Congress, 3rd, Alexandria, Paper, 1961.
- Arab Pet. Congr., 4th, Beirut, Pap. -- Arab Petroleum Congress, 4th, Beirut, Paper, 1963.
- Arab Pet. Congr., 5th, Cairo, Pap. -- Arab Petroleum Congress, 5th, Cairo, Paper, 1965.
- Arab Pet. Congr., 6th, Baghdad, Pap. -- Arab Petroleum Congress, 6th, Baghdad, Paper, 1967.
- Arab Pet. Congr., 7th, Kuwait, Pap. -- Arab Petroleum Congress, 7th, Kuwait, Paper, 1970
- Arab Pet. Congr., 8th, Algiers, Pap. -- Arab Petroleum Congress, 8th, Algiers, Paper, 1972
- Arab Sci. Congr., 5th, Baghdad -- Arab Science Congress, 5th, Baghdad.
- Arab Sci. Congr., 6th, Damascus -- Arab Science Congress, 6th, Damascus.
- Arab Sci. Congr., 7th, Cairo -- Arab Science Congress, 7th, Cairo.



Arch. Palona -- Archeologia Polona, Warsaw, Poland. Instytut Historii Kultury Materialnej PAN.

Arid Zone Res. (UNESCO) -- Arid Zone Research (United Nations Educational, Scientific and Cultural Organization). Paris.

Ariz. State Univ., Cent. Meteor. Stud., Publ. -- Arizona State University, Center for Meteorite Studies, Publication. Tempe.

Assoc. Am. Geogr., Ann. -- Association of American Geographers, Annals.

Assoc. Fr. Etude Quat., Bull. -- Association Francais pour l'Etude du Quaternaire, Bulletin. Paris.

Assoc. Geogr. Fr., Bull. -- Association de Geographes Francais, Bulletin. Paris.

Assoc. Senegal. Etude Quat. (Ouest) Afr., Bull. Liason -- Association Senegalaise pour l'Etude du Quaternaire (de L'Ouest) Africain, Bulletin de Liaison. Dakar.

Aufbereitungs - Tech. -- Aufbereitungs - Technik. Zeitschrift fur die Aufbereitung fester Rohstoffe. Weisbaden, West Germany.

Aust. Mus., Rec. -- Australian Museum, Records. Sydney.

Austria, Geol. Bundesanst., Jahrb., Sonderb. -- Austria, Geologische Bundesanstalt, Jahrbuch, Sonderband. Vienna.

B. C., Univ., Dept. Geol., Rep. -- British Columbia, University, Department of Geology, Report. Vancouver.

Baghdad, Univ., Coll. Sci., Bull. -- Baghdad, University, College of Science, Bulletin.

Bayer. Akad. Wiss., Math.-Naturwiss. Kl., Abh. -- Bayerische Akademie der Wissenschaften, Mathematisch-Naturwissenschaftliche Klasse, Abhandlungen. Munich.

Bayer. Staatssamml. Palaeontol. Hist. Geol., Mitt. -- Bayerische Staatssammlung fuer Palaeontologie und Historische Geologie, Mitteilungen. Munich.

Beitr. Mineral. Petrogr. Berlin. -- Beitrage Zur Mineralogie und Petrographie. Berlin, West Gemany. Springer Verlag, West Germany.

Boll. Geofis. Teor. Appl. -- Bollettino di Geofisica Teorica ed Applicata (Osservatorio Geofisico Sperimentale). Trieste.

Bonn. Geogr. Abh. -- Bonner Geographische Abhandlungen. Bonn, West Germany.

Br. Ceram. Soc., Trans. -- British Ceramic Society, Transactions. Stoke-on-Trent.

Br. Mus. (Nat. Hist.), Bull., Geol. -- British Museum (Natural History) Bulletin, Geology. London.

Breviora -- Breviora (Harvard University, Museum of Comparative Zoology). Cambridge, Massachusetts.

Bull. Fac. Agr., Cairo Univ. -- Bulletin of Faculty of Agriculture, Cairo University. Egypt.

Bull. Fac. Eng., Assiut Univ. -- Bulletin of the Faculty of Engineering, Assiut University. Egypt.

Bull. Fac. Eng., Cairo Univ. -- Bulletin of the Faculty of Engineering, Cairo University. Cairo.

Bull. Fac. Sci., Ain Shams Univ. -- Bulletin of the Faculty of Science, Ain Shams University. Egypt.

Bull. Fac. Sci., Alex. Univ. -- Bulletin of the Faculty of Science, Alexandria University. Egypt.

Bull. Fac. Sci., Assiut Univ. -- Bulletin of the Faculty of Science, Assiut University. Egypt.

- Bull. Fac. Sci., Cairo Univ. -- Bulletin of the Faculty of Science, Cairo University. Cairo.
- Bull. Fac. Sci., Cairo Fouad I Univ. -- Bulletin of the Faculty of Science, Cairo Fouad I University. Cairo.
- Bull. Inst. Desert Egypte -- Bulletin d L'Institut du Desert D'Egypte. NIDOC. Le Caire.
- Bull. Res. Coun. Isr. -- Bulletin of the Research Council of Israel. Jerusalem.
- Bull. Sci. Tech., Assiut Univ. -- Bulletin of Science and Technology, Assiut University. Egypt.
- Bull. Volcanol. -- Bulletin Volcanologique (International Association of Volcanology and Chemistry of the Earth's Interior). Naples.
- Bundesanst. Geowiss. Rohstoffe -- Bundesanstalt fuer Geowisswnschaften und Rohstoffe. Hannover
- Cah. Geol. -- Cahiers Geologiques (Association des Amis et Anciens Eleves du Laboratoire de Geologie S.P.C.N. de l'Universite de Paris).
- Can. Geogr. -- Canadian Geographic. Ottawa.
- Can., Geol. Surv., Pap. -- Canada, Geological Survey, Paper. Ottawa.
- Can. Inst. Min. Metal., Spec. Vol. -- Canadian Institute of Mining and Metallurgy, Special Volume. Toronto.
- Can. Inst. Min. Metal., Trans. -- Canadian Institute of Mining and Metallurgy, Transactions. Toronto.
- Can. Metal. Q. -- Canadian Metallurgical Quarterly. Montreal, Canada. Institute of Mining and Metallurgy.
- Can. Min. J. -- Canadian Mining Journal. Gardenvale, Quebec.
- Celostatni Konf. Geofyz., Sb. -- Celostatni Konference Geofyziku, Sbornik.
- Cent. Rech. Pau, Bull. -- Centre de Recherches de Pau (Societe Nationale des Petroles d'Aquitaine), Bulletin.
- Cesk. Spol. Zemepisna, Sb. -- Ceskoslovenska Spolecnost Zemepisna, Sbornik. Prague.
- Chem. Erde -- Chemie der Erde; Zeitschrift fuer Chemische Mineralogie, Petrographie, Bondenkunde, Geochemie und Meteoritenkunde. Jena, Germany.
- Chem. Geol. -- Chemical Geology; an International Journal. Elsevier Publication Company, Amsterdam.
- Chron. Mines. -- Chronique des Mines et de la Recherche Miniere (Centre d'Etudes Geologiques et Minieres). Paris.
- Clay Miner. -- Clay Minerals (Mineralogical Society, Clay Minerals Group, Journal). Oxford-Edinburgh.
- Colo., Univ., Stud. Ser. Anthropol. -- Colorado, University, Studies Series in Anthropology. Boulder, Colorado.
- Comm. Int. Explor. Sci. Mer Mediterr., Rapp. P-v Reun. -- Commission International pour l'Exploration Scientifique de la Mer Mediterranee, Rapports et Proces-verbaux de Reunions. Monaco.
- Conf. Coastal Eng., Proc. -- Conference on Coastal Engineering, Proceedings. American Society of Civil Engineers. New York.
- Conf. Hydrometeorol., Prepr. -- Conference on Hydrometeorology, Preprints.
- Congr. Int. Stratigr. Geol. Carbonifere, C.R. -- Congress International de Stratigraphie et de Geologie du Carbonifere, Compte Rendu.
- Contrib. Mineral. Petrol. - Beitr. Mineral. Petrol. -- Contributions to Mineralogy and Petrology - Beitrage zur Mineralogie und Petrologie. Berlin-Heidelberg-New York.

Contrib. Primatol. -- Contributions to Primatology. S. Karger, Basel, Switzerland.

Copenh., Univ., Mus. Mineral. Geol., Commun. Paleontol. -- Copenhagen, Universite, Museum de Mineralogie et de Geologie, Communications Paleontologiques. Copenhagen.

Curr. Anthropol. -- Current Anthropology, University of Chicago, U.S.A.

Cushman Found. Foraminiferal Res., Contrib. -- Cushman Foundation for Foraminiferal Research, Contributions. Washington, D.C.

Deep Sea Res. -- Deep Sea Research. Pergamon Press, Oxford - New York.

Deut. Geol. Ges., Z. -- Deutsche Geologische Gesellschaft, Zeitschrift. Hanover.

Die Erde -- Die Erde (Gesellschaft fur Erdkunde zu Berlin, Zeitschrift).

Earth Planet. Sci. Lett. -- Earth and Planetary Science Letters; a Letter Journal Devoted to the Development in Time of the Earth and Planetary System. Elsevier Sci. Publ. Co., Amsterdam.

Earth Surf. Process. -- Earth Surface Processes (Journal of the British Geomorphological Research Group). John Wiley and Sons, London-New York.

Eclogae Geol. Helv. -- Eclogae Geologicae Helvetiae. Basel.

Econ. Geol. -- Economic Geology and the Bulletin of the Society of Economic Geologists. New Haven, Connecticut.

Egypt, Geol. Surv., Ann. -- Egypt, Geological Survey, Annals. Cairo.

Egypt, Geol. Surv., Monogr. -- Egypt, Geological Survey, Monograph. Cairo.

Egypt, Geol. Surv., Pap. -- Egypt, Geological Survey, Paper. Cairo.

Egypt, Geol. Surv., Publ. -- Egypt, Geological Survey, Publications other than Annals, Monograph, and Paper. Cairo.

Egypt. Acad. Sci., Proc. -- Egyptian Academy of Sciences, Proceedings, Cairo.

Egypt. J. Bot. -- Egyptian Journal of Botany

Egypt. J. Chem. -- Egyptian Journal of Chemistry. Cairo.

Egypt. J. Geol. -- Egyptian Journal of Geology (Geological Society of Egypt), continuation of Journal of Geology of the United Arab Republic. Cairo.

Egypt. J. Soil Sci. -- Egyptian Journal of Soil Science (Society of Soil Science). Cairo.

Egypt, Min. Res. Dept., Geol. Mus., Pap. -- Egypt Mineral Resources Department, Geological Museum, Paper. Cairo.

Egypt. Rev. Sci. -- Egyptian Reviews of Science. Cairo.

Empresa Nac. Adaro Invest. Mineras, [Publ.], Ser. 7 -- Empresa Nacional Adaro de Investigaciones Mineras, [Publicaciones], Serie 7, Trabajos de Congresos y Reuniones. Madrid.

Encic. Petrol. Gas Nat. -- Enciclopedia del Petrolia e Gas Naturale a Cura dell' Ente Nazionale Idrocarburi. Italy.

Eng. Geol. -- Engineering Geology. Elsevier Sci. Publ. Co., Amsterdam.

Environ. Res. Inst. Mich. -- Environmental Research Institute of Michigan, Ann Arbor, Michigan.

Erdkunde -- Erdkunde; Archiv fuer Wissenschaftliche Geographie. Bonn.

Erzmetall -- Erzmetall (continuation of Zeitschrift fuer Erzbergbau und Metall huettenwesen). Stuttgart.

Estuarine Coastal Mar. Sci. -- Estuarine and Coastal Marine Science. Academic Press. London-New York.

Experientia -- Experientia; Revue Mensuelle des Sciences Pures et Appliquees-Monatsschrift fuer die gesamete Gebiete der Naturwissenschaft. Basel.



- Fortschr. Mineral. -- Fortschritte der Mineralogie (Deutsche Mineralogische Gesellschaft). Stuttgart.
- Forschungen Fortschr. -- Forschungen und Fortschritte. Berlin.
- Fr., Bur. Rech. Geol. Minieres, Bull (Ser 2), Sect. 2 -- France, Bureau de Recherches Geologiques et Minieres, Bulletin (Serie 2), Section 2, Geologie Appliquee, Chronique des Mines. Orleans.
- Fr., Bur. Rech. Geol. Minieres, Mem. -- France, Bureau de Recherches Geologiques et Minieres, Memoires. Paris.
- Fr., Cent. Nat. Rech. Sci., Colloq. Int. -- France, Centre National de la Recherche Scientifique, Colloques Internationaux. Paris.
- Fragm. Mineral. Palaeontol. -- Fragmenta Mineralogica et Palaeontologica (Termesztudományi Museum). Budapest.
- Freiberg. Forschungsh., Reihe C -- Freiburger Forschungshefte, Reihe C (Bergakademie Freiberg). Leipzig.
- G. B., Geol. Surv., Bull. -- Great Britain, Geological Survey, Bulletin. London.
- G. Geol. -- Giornale de Geologia Bologna - Annali del museo geoloico de Bologna. Italy.
- Geochim. Cosmochim. Acta -- Geochimica et Cosmochimica Acta (The Geochemical Society, Journal). Pergamon Press, Oxford.
- Geoderma -- Geoderma, an International Journal of Soil Science. Elsevier Sci. Publ. Co., Amsterdam.
- Geoexploration -- Geoexploration; International Journal of Mining and Technical Geophysics and Related Subjects. Elsevier Publ. Co., Amsterdam.
- Geoforum -- Geoforum; Journal of Physical, Human and Regional Geosciences. Pergamon-Vieweg, Braunschweig.
- Geog. Ann. -- Geografiska Annaler (Svenska Sällskapet för Antropologi och Geografi). Stockholm.
- Geog. J. (London) -- Geographical Journal (Royal Geographical Society). London.
- Geography -- Geography (Geographical Association). London.
- Geokhim. (Akad. Nauk SSSR) -- Geokhimiya (Akademiya Nauk SSSR). Moscow.
- Geol. Assoc. Can., Spec. Pap. -- Geological Association of Canada, Special Paper. Toronto
- Geol. Berlin -- Geologie (Zeitschrift für das Gesamtgebiet der Geologie und Mineralogie sowie der angewandten Geophysik) (Germany, Staatliche Geologische Kommission). Berlin.
- Geol. Foeren. Stockh. Foerh. -- Geologiska Föreningen i Stockholm, Föreläsningar.
- Geol. Glas. (Sarajevo, Geol. Zavod) -- Geoloski Glasnik (Sarajevo, Geoloski Zavod) - Bulletin Geologique (Sarajevo, Institut Geologique).
- Geol. Jahrb. -- Geologisches Jahrbuch. Amt für Bodenforschung. Hanover.
- Geol. Jahrb., Reihe B -- Geologisches Jahrbuch, Reihe B (Germany, Bundesanstalt für Geowissenschaften und Rohstoffe) (formerly Germany, Bundesanstalt für Bodenforschung). Hanover.
- Geol. Jahrb., Reihe C -- Geologisches Jahrbuch, Reihe C (Germany, Bundesanstalt für Geowissenschaften und Rohstoffe) (formerly Germany, Bundesanstalt für Bodenforschung). Hanover.
- Geol. Jahrb., Reihe D -- Geologisches Jahrbuch, Reihe D (Germany, Bundesanstalt für Geowissenschaften und Rohstoffe) (formerly Germany, Bundesanstalt für Bodenforschung). Hanover.
- Geol. Mag. -- Geological Magazine. Cambridge, England.

Geol. Minjnbouw -- Geologie en Mijnbouw (Koninklijk Nederlands Geologisch  
 Mijnbouwkundig Genootschap, Maandblad). The Hague.  
 Geol. Mitt. -- Geologische Mitteilungen-Aachen -- West Germany.  
 Forschungsstelle fuer Regionale und Angewandte Geologie.  
 Geol. Nefti Gaza -- Geologiya Nefti i Gaza. Moscow.  
 Geol. Prospect. J. -- Geological Prospecting Journal. Moscow.  
 Geol. Rud. Mestorozhd. -- Geologiya Rudnykh Mestorozhdeniy (Akademiya  
 Nauk SSSR). Moscow.  
 Geol. Rundsch. -- Geologische Rundschau; Internationale Zeitschrift fur  
 Geologie (Geologische Vereinigung). Stuttgart.  
 Geol. Soc. Am., Bull. -- Geological Society of America, Bulletin. Boulder,  
 Colorado.  
 Geol. Soc. Am., Mem. -- Geological Society of America, Memoir. Boulder,  
 Colorado.  
 Geol. Soc. Den., Bull. -- Geological Society of Denmark, Bulletin  
 (Dansk Geologisk Forening, Meddelelser). Copenhagen.  
 Geol. Soc. India, J. -- Geological Society of India, Journal.  
 Bangalore.  
 Geol. Soc. Iraq, J. -- Geological Society of Iraq, Journal. Baghdad.  
 Geol. Soc. London, Q. J. -- Geological Society of London, Quarterly Journal.  
 Geol. Soc. S. Afr., Trans.--Geological Society of South Africa, Transactions.  
 Johannesburg.  
 Geol. Vjesn. (Zagreb) -- Geoloski Vjesnik (Institut za Geoloska Istrazivanja  
 u Zagrebu). Zagreb  
 Geologie -- Geologie. Zeitschrift fur des Gesamtgebiet der Geologie  
 and Mineralogie Sowie der angewadten Geophysik. Berlin, West  
 Germany.  
 Geomorfologiya -- Geomorfologiya (Akademiya Nauk SSSR). Moscow.  
 Geomorphology -- Geomorphology (English translation of Geomorphologiya).  
 Consultants Bureau, New York.  
 Geophys. J. Czech. Acad. Sci., Prague -- Geophysical Journal of Czechoslovak  
 Academy of Sciences, Prague.  
 Geophys. Prospect. (The Hague) -- Geophysical Prospecting (European  
 Association of Exploration Geophysicists). The Hague.  
 Geophys. Res. Lett. -- Geophysical Research Letters. American Geo-  
 physical Union. Washington, D. C.  
 Geophysics -- Geophysics (Society of Exploration Geophysicists,  
 Journal). Tulsa, Oklahoma.  
 Geotectonics -- Geotectonics (English translation of Geotektonika).  
 American Geophysical Union, Washington, D.C.  
 Geotherm. Energy -- Geothermal Energy. West Covina, California.  
 Geotimes -- Geotimes (American Geological Institute). Falls Church,  
 Virginia.  
 Ger. Bundesanst. Bodenforsch., Geol. Jahrb. -- Germany Bundesanstalt  
 fuer Bodenforschung und Geologische Landesaeemter, Geologisches  
 Jahrbuch. Hanover.  
 Ger., Zent. Geol. Inst., Abh. -- Germany, Zentrales Geologisches Institut,  
 Abhandlungen. Berlin.  
 Ges. Wiss. Gottingen, Abh., math.-phys. Kl., -- Gesellschaft der Wissen-  
 schaften zu Gottingen, Abhandlung; Nachrichten mathematische-  
 physikaklische Klasse, Fachgruppe IV, Mineralogie und Geologie.  
 Grenoble, Univ., Lab. Geol., Tr. -- Grenoble, Universite, Laboratoire  
 de Geologie de la Faculte des Sciences, Travaux.

- Harv. Univ., Mus. Comp. Zool., Bull. -- Harvard University, Museum of Comparative Zoology, Bulletin. Cambridge, Massachusetts.
- Hess. Landesamt Bodenforsch., Notizbl. -- Hessisches Landesamt für Bodenforschung, Notizblatt. Wiesbaden
- Hiroshima Univ., J. Sci., Ser. C. -- Hiroshima University, Journal of Science, Series C, Geology and Mineralogy.
- Hung., Magy. Allami Foeltd. Intez., Evi Jel. -- Hungary, Magyar Allami Foeltdani Intezet, Evi Jelentese. Budapest.
- Hydrobiologia (The Hague) -- Hydrobiologia. Dr. W. Junk N. V. Publication. The Hague.
- I.A.E.A., Proc. Ser. -- International Atomic Energy Agency, Proceedings Series. Vienna.
- I.A.E.A., Tech. Rep. Ser. -- International Atomic Energy Agency, Technical Reports Series. Vienna.
- IFO-Inst. fuer Wirtsch. Muench Afr. Stud. -- IFO-Institut fuer Wirtschaftsforschung Muenchen Afrika - Studien. Munich.
- Indian Ceram. Soc., Trans. -- Indian Ceramic Society, Transaction. Calcutta.
- Indian J. Technol. -- Indian Journal of Technology (Council of Scientific and Industrial Research). New Delhi.
- Inst. Egypte, Bull. -- Institut d'Egypte, Bulletin. Cairo.
- Inst. Egypte, Mem. -- Institut d'Egypte, Memoires. Cairo.
- Inst. Fouad 1<sup>er</sup> du Desert, Bull. -- Institut Fouad 1<sup>er</sup> du Desert, Bulletin. Heliopolis.
- Inst. Geol., Ore Dep., Petrogr., Mineral. Geochem., Trans. -- Institute of Geology, Ore Deposits, Petrography, Mineralogy and Geochemistry, Moscow Academy of Science
- Inst. "Lucas Mallada" Invest. Geol., Cursos Conf. -- Instituto "Lucas Mallada" de Investigaciones Geologicas, Cursos y Conferencias. Madrid.
- Inst. Min. Metal., Trans., Sec. A -- Institution of Mining and Metallurgy, Transactions, Section A, Mining Industry. London
- Inst. Petrol. Rev. -- Institute of Petroleum Review. London.
- Int. Assoc. Hydrol. Sci., Stud. Rept. Hydrol. -- International Association of Hydrological Sciences, Studies and Reports in Hydrology (continuation of International Association of Scientific Hydrology, Studies and Reports in Hydrology). Louvain.
- Int. Assoc. Math. Geol., J. -- International Association for Mathematical Geology, Journal. Plenum Press. New York.
- Int. Assoc. Quaternary Res., 7th Congr., Proc. -- International Association for Quaternary Research, 7th Congress (1965), Proceedings. U.S. National Academy of Sciences - National Research Council. Yale Univ. Press, New Haven - London.
- Int. Assoc. Sci. Hydrol., Bull. -- International Association of Scientific Hydrology (International Union of Geodesy and Geophysics) - Association Internationale d'Hydrologie Scientifique (Union Geodesique et Geophysique Internationale), Bulletin. Louvain.
- Int. Assoc. Sci. Hydrol., Publ. -- International Association of Scientific Hydrology, Publication.
- Int. Assoc. Sci. Hydrol. - UNESCO, Stud. Rep. Hydrol. -- International Association of Scientific Hydrology - United Nations Educational, Scientific and Cultural Organization, Studies and Reports in Hydrology. Paris.
- Int. Cent. Arid Semi-Arid Land Stud., Publ. -- International Center for Arid and Semi-Arid Land Studies, Publication. Lubbock, Texas.



- Int. Conf. Peaceful Uses Atomic Energy, 2nd, Geneva, Proc. -- International Conference on Peaceful Uses of Atomic Energy, 2nd, Geneva, Proceedings. 1958
- Int. Conf. Planktonic Microfossils, 1st, Proc. -- International Conference on Planktonic Microfossils, 1st, Geneva 1967, Proceedings. E. J. Brill, Leiden, 1969.
- Int. Congr. Soil Sci., 8th, Bucharest, Trans. -- International Congress of Soil Science, 8th, Bucharest, Transactions
- Int. Geochem. Explor. Symp., Proc. -- International Geochemical Exploration Symposium, Proceedings. London.
- Int. Geogr. Congr., 16th, Lisbon, C.R. -- International Geographical Congress, 16th, Lisbon, 1949, Comptes Rendus.
- Int. Geogr. Congr., 17th, Washington, D.C., Proc. -- International Geographical Congress, 17th, Washington, D.C., 1952, Proceedings.
- Int. Geol. Congr., 18th, Great Britain, Rept. -- International Geological Congress, 18th, Great Britain, 1948, Report. London.
- Int. Geol. Congr., 19th, Algeria, C.R. -- International Geological Congress, 19th, Algeria, 1952, Comptes Rendus. Algiers.
- Int. Geol. Congr., 20th, Manganese, Symp. -- International Geological Congress, 20th, 1956, Symposium sobre el Sistema Cambrico, su Paleogeografia y el Problema de su Base; Symposium sobre Yacimientos de Manganese; Symposium sobre Yacimientos de Petroleo y Gas. Mexico.
- Int. Geol. Congr., 21st, Copenhagen -- International Geological Congress, 21st, Copenhagen, 1960.
- Int. Geol. Congr., 22nd, Delhi -- International Geological Congress, 22nd, Delhi, 1964.
- Int. Geol. Congr., 23rd, Prague -- International Geological Congress, 23rd, Prague, 1968.
- Int. Geol. Congr., 24th, Montreal -- International Geological Congress, 24th, Montreal, 1972.
- Int. Hydrogr. Rev. -- International Hydrographic Review. Monaco.
- Int. J. Rock Mech. Min. Sci. -- International Journal of Rock Mechanics and Mining Sciences. Pergamon Press. Oxford.
- Int. Quat. Assoc., 4th Congr., Rome-Pisa, Actes II -- International Quaternary Association (Associazione Internazionale per lo Studio del Quaternario - Association Internationale pour l'Etude du Quaternaire - International Association for Quaternary Research - Internationale Quartarvereinigung), 4th Congress, Rome-Pisa, 1953, Actes II; Resumes des Communications.
- Int. Rev. Gesamten Hydrobiol. -- International Revue der Gesamten Hydrobiologie. Berlin.
- Int. Sediment. Congr., 8th, Heidelberg -- International Sedimentological Congress, 8th, Heidelberg, 1971.
- Int. Symp. Remote Sensing Environ., Proc. -- International Symposium on Remote Sensing of Environment, Proceedings (Environmental Research Institute of Michigan, Center for Remote Sensing Information and Analysis). Ann Arbor.
- Int. Union Geol. Sci., Comm. Mediter. Neogene Stratigr., Sess 3, Proc. -- International Union of Geological Sciences, Commission on Mediterranean Neogene Stratigraphy, Session 3, Proceedings.
- Int. Union Geol. Sci., Comm. Mediter. Neogene Stratigr., Sess 4, Proc. -- International Union of Geological Sciences, Commission on Mediterranean Neogene Stratigraphy, Session 4, Proceedings.
- Isr., Geol. Surv., Bull. -- Israel, Geological Survey, Bulletin. Jerusalem.

- Isr., Geol. Surv., Geol. Data Process. Unit Rep. -- Israel, Geological Survey, Geological Data Processing Unit Report. Jerusalem
- Isr. J. Bot. -- Israel Journal of Botany.
- Isr. J. Chem. -- Israel Journal of Chemistry (Israel Chemical Society-National Council for Research and Development), Weizmann Science Press of Israel. Jerusalem.
- Isr. J. Earth Sci. -- Israel Journal of Earth Sciences. Jerusalem.
- J. Appl. Chem. Lond. -- Journal of Applied Chemistry. London. Society of Chemical Industry. London.
- J. Bot. U.A.R. -- Journal of Botany. Cairo, NIDOC, U.A.R.
- J. Chem. Eng. Data -- Journal of Chemical and Engineering Data. Washington.
- J. Egypt. Medical Assoc. -- Journal of the Egyptian Medical Association. Cairo.
- J. Geochem. Explor. -- Journal of Geochemical Exploration (Association of Exploration Geochemists, Journal). Elsevier Publ. Co., Amsterdam.
- J. Geol. -- Journal of Geology. Chicago, Illinois.
- J. Geol. Soc., Lond. -- Journal of the Geological Society, London (supercedes Geological Society of London, Quarterly Journal).
- J. Geol. U.A.R. -- Journal of Geology of the United Arab Republic. Cairo.
- J. Geophys. -- Journal of Geophysics - Zeitschrift fuer Geophysik. Springer Verlag, Berlin.
- J. Geophys. Res. -- Journal of Geophysical Research (American Geophysical Union). Washington, D.C.
- J. Hydrol. -- Journal of Hydrology. Elsevier Sci. Publ. Co., Amsterdam.
- J. Mammal. -- Journal of Mammalogy (American Society of Mammalogists). Lawrence, Kansas.
- J. Mines, Met. Fuels (Calcutta) -- Journal of Mines, Metals and Fuels (incorporating Indian Mining Journal and the official organ of the Indian Mine Managers' Association). Calcutta.
- J. Paleontol. -- Journal of Paleontology. Tulsa, Oklahoma.
- J. Phys. (Soc. Fr. Phys.), Colloq. -- Journal de Physique (Societe Francaise de Physique), Colloque. Paris.
- J. Sediment. Petrol. -- Journal of Sedimentary Petrology. Tulsa, Oklahoma.
- J. Soil Sci. -- Journal of Soil Science. Oxford.
- Jap., Geol. Surv., Bull. -- Japan, Geological Survey, Bulletin. Kawasaki.
- Johns Hopkins Univ., Stud. Geol. -- Johns Hopkins University, Studies in Geology. Baltimore, Maryland.
- K. Ned. Akad. Wetensch. Proc. -- Koninklijke Nederlandse Akademie van Wetenschappen, Proceedings. Amsterdam.
- K. Svenska Vetenskapsakad., Handl. -- Kungliga Svenska Vetenskapsakademiens Handler.
- Kush -- Kush. United States of America.
- Lethaia -- Lethaia; An International Journal of Palaeontology and Stratigraphy. Universitetsforlaget, Oslo.
- Lexique -- Lexique Stratigraphique International - Afrique, L'Egypt et Sudan Congress Geologique International, Commission de Stratigraphie. Paris.
- Limnol. Oceanogr. -- Limnology and Oceanography (American Society of Limnology and Oceanography). Lawrence, Kansas.
- Lithoclastia -- Lithoclastia (Centre de Recherches et d'Etudes Oceanographiques). Boulogne, France.

Lithol. Miner. Resour. -- Lithology and Mineral Resources (English translation of Litologiya i Poleznyye Iskopyemye). Consultants Bureau. New York.

Litol. Polez. Izkop. -- Litologiya i Poleznyye Iskopyemye. Moscow.

Lithos -- Lithos; An International Journal of Mineralogy, Petrology, and Geochemistry. Oslo.

Lyon, Mus. Hist. Nat., Arch. -- Lyon, Museum d'Histoire Naturelle, Archives.

Maden Tetkik Arama Enst. (Min. Res. Explor. Inst. Turk.), Bull. (Foreign Ed.) -- Maden Tetkik ve Arama Enstitüsü (Mineral Research and Exploration Institute of Turkey), Bulletin (Foreign Edition). Ankara.

Man -- Man. London. Royal Anthropological Institute.

Mar. Biol. -- Marine Biology. Springer-Verlag, Berlin-New York.

Mar. Geol. -- Marine Geology. Elsevier Sci. Publ. Co., Amsterdam.

Mar. Tech. Soc., J. -- Marine Technology Society, Journal. Washington, D.C.

Meerestech. - Mar. Technol. -- Meerestechnik - Marine Technology (Verein Deutscher Ingenieure). Dusseldorf.

"Meteor" Forsch., Reihe C -- "Meteor" Forschungsergebnisse, Reihe C, Geologie und Geophysik (Deutsch Forschungsgemeinschaft). Gebrüder Bornträger, Berlin-Stuttgart.

Meteorol. Rundsch. -- Meteorologische Rundschau, Berlin. Springer Verlag. Berlin, West Germany.

Meteoritics -- Meteoritics (Meteoritical Society, Journal). Center for Meteorite Studies, Arizona State University, Tempe.

Micropaleontology. -- Micropaleontology (American Museum of Natural History). New York.

Min. Ann. Review -- Mining Annual Review. Published by Mining Journal, London.

Min. Geol (Soc. Min. Geol. Jap.) -- Mining Geology (Society of Mining Geologists of Japan, Journal). Tokyo.

Min. J., London -- Mining Journal, London.

Min. Mag. -- Mining Magazine. Mining Journal Ltd. London.

Min. Miner. Eng. -- Mining and Minerals Engineering. London.

Miner. Deposita. -- Mineralium Deposita; International Journal for Geology, Mineralogy, and Geochemistry of Mineral Deposits. Heidelberg.

Mineral. Mag. -- Mineralogical Magazine and Journal of the Mineralogical Society. London.

Mineral. Rec. -- Mineralogical Record. Bowie, Maryland.

Mineral. Slovaca -- Mineralia Slovaca. Bratislava.

Mining Mag. -- Mining Magazine. Mining Journal Ltd. London.

Mitt. Geol. Ges. Wien. -- Mitteilungen der Geologischen Gesellschaft in Wien. Geologische Gesellschaft.

Mosaic -- Mosaic (National Science Foundation). Washington, D.C.

Mosc. Univ. Proc. -- Moscow University Proceedings. Moscow.

Mosk. Univ., Vestn., Ser. 4, Geol. -- Moskovskiy Universitet, Vestnik, Seriya 4, Geologiya.

Mosk. Univ., Vestn., Ser. 5, Geogr. -- Moskovskiy Universitet, Vestnik, Seriya 5, Geographiya.

Mus. Natl. Hist. Nat., Bull. -- Museum National d'Histoire Naturelle, Bulletin. Paris.

N.M. Contrib. Anthropol. -- New Mexico Contributions in Anthropology. New Mexico, Eastern New Mexico University. Portale.

N.Y. Acad. Sci., Ann. -- New York Academy of Sciences, Annals. New York.



Nagoya Univ., J. Earth Sci. -- Nagoya University, Department of Earth Sciences, Journal of Earth Sciences.  
 NASA, Publ., Wash., D.C. -- National Aeronautics and Space Administration, Publication, Washington, D.C.  
 Nat. Resour. (UNESCO) -- Nature and Resources (International Hydrological Decade, Bulletin) (United Nations Educational, Scientific and Cultural Organization). Paris.  
 Natl. Metal. Lab. Tech. J. -- National Metallurgical Laboratory Technical Journal. Calcutta, India.  
 NATO Adv. Study Inst., Ser. C, Math. Phys. Sci. -- North Atlantic Treaty Organization Advanced Study Institutes, Series C, Mathematical and Physical Sciences. D. Reidel Publ. Co., Dordrecht-Boston.  
 Natur Mus. -- Natur und Museum (Senckenbergische Naturforschende Gesellschaft, Bericht). Frankfurt.  
 Natur und Volk -- Natur und Volk. Senckenbergische naturforschende Gesellschaft. Frankfurt.  
 Nature -- Nature. London.  
 Naturhist. Ges. Hanover, Ber. Beih. -- Naturhistorische Gesellschaft zu Hanover, Bericht Beihefte. Hanover  
 Naturwiss. Ver. Steiermark, Mitt. -- Naturwissenschaftlicher Verein für Steiermark, Mitteilungen. Graz.  
 Naturwissenschaften -- Naturwissenschaften. Berlin.  
 Nauchno-Issled. Lab. Geol. Zarubezh. Stran, Tr. -- Nauchno-Issledovatel'skaya Laboratoriya Geologii Zarubezhnykh Stran, Trudy. Moscow.  
 Ned. Aardrijksk. Gen. Amsterdam, Tijds. -- Nederlandsch Aardrijkskundig Genootschap Amsterdam, Tijdschrift. Leiden.  
 Ned. Akad. Wetensch., Proc., Ser. B -- Nederlandse Akademie van Wetenschappen, Proceedings, Series B, Physical Sciences. Amsterdam.  
 Nether., Geol. Stichting, Meded., Nieuwe Ser. -- Netherlands, Geologische Stichting, Jaarverslag, Mededelingen, Nieuwe Serie, Serie C (Utkomsten van nieuwe geologische-palaeontologische onderzoekingen van den ondergrond van Nederland). The Hague -- Maastricht.  
 Neue Hutte -- Neue Hutte. Gesellschaft deutscher Huttenleute. Berlin.  
 Neues Jahrb. Geol. Palaeontol., Abh. -- Neues Jahrbuch für Geologie und Palaeontologie, Abhandlungen. Stuttgart.  
 Neues Jahrb. Geol. Palaeontol., Monatsh. -- Neues Jahrbuch für Geologie und Palaeontologie, Monatshefte. Stuttgart.  
 Neues Jahrb. Mineral., Abh. -- Neues Jahrbuch für Mineralogie, Abhandlungen. Stuttgart.  
 Neues Jahrb. Mineral., Geol., Palaeontol., Bd., Abt. A -- Neues Jahrbuch für Mineralogie, Geologie, und Palaeontologie, Beilagebände, Abteilung A. Stuttgart.  
 Neues Jahrb. Mineral., Geol., Palaeontol., Bd., Abt. B -- Neues Jahrbuch für Mineralogie, Geologie, und Palaeontologie, Beilagebände, Abteilung B. Stuttgart.  
 Neues Jahrb. Mineral., Geol., Palaeontol., Bd., Abh. -- Neues Jahrbuch für Mineralogie, Geologie, und Palaeontologie, Beilagebände, Abhandlungen.  
 Neues Jahrb. Mineral., Geol., Palaeontol., Bd., Monatsh. -- Neues Jahrbuch für Mineralogie, Geologie, und Palaeontologie, Beilagebände, Monatshefte.  
 Neues Jahrb. Mineral., Monatsh. -- Neues Jahrbuch für Mineralogie, Monatshefte. Stuttgart.  
 New Sci. -- New Scientist. London.

Nobel Symp., 12th, Proc. -- Nobel Symposium, 12th, Institute of Physics, Uppsala University [11-15 August 1969], Proceedings, 1970, Wiley Interscience Division, New York-Almqvist and Wiksell, Stockholm.

Nor. Geol. Tidsskr. -- Norsk Geologisk Tidsskrift. Oslo.

Notes Mem. Moyen-Orient -- Notes et Memoires sur le Moyen-Orient (Museum National d'Histoire Naturelle). Paris.

Oceanogr. Mar. Biol., Ann. Rev. -- Oceanography and Marine Biology; an Annual Review, George Allen & Unwin, London.

Oceanology -- Oceanology (English translation of Okeanologiya). American Geophysical Union. Washington, D.C.

Oceanus -- Oceanus (Woods Hole Oceanographic Institution). Woods Hole, Massachusetts.

Offshore Tech. Conf., Pap. -- Offshore Technology Conference, Paper. Houston, Texas.

Offshore Tech. Conf., Prepr. -- Offshore Technology Conference, Preprint. Houston, Texas.

Offshore Tech. Conf., Proc. -- Offshore Technology Conference, Proceedings. Houston, Texas.

Oil Gas J. -- Oil and Gas Journal. Tulsa, Oklahoma.

Oil Weekly -- Oil Weekly. Houston, Texas.

Okeanol. (Akad. Nauk SSSR) -- Okeanologiya (Akademiya Nauk SSSR). Moscow.

Orighini -- Orighini. Preistoria e Prostostoria Delle Civiltà Antiche, Università di Roma: Museo Delle Orighini. Rome.

Osterreich. Geogr. Ges., Mitt. -- Österreichische Geographische Gesellschaft, Mitteilungen. Vienna.

Pak. J. Sci. Ind. Res. -- Pakistan Journal of Scientific and Industrial Research. Karachi.

Palaeobiologica -- Palaeobiologica. Wien.

Palaeoecol. Afr. -- Palaeoecology of Africa and of the Surrounding Island and Antarctica. Cape Town.

Palaeontogr. Abt. A. -- Palaeontographica, Abteilung A, Palaeozoologie-Stratigraphie. Stuttgart.

Palaeontogr. Abt. B. -- Palaeontographica, Abteilung B, Palaeophytologie. Stuttgart.

Palaeontogr. Am. -- Palaeontographica Americana (Palaeontological Research Institution). Ithaca, New York.

Palaeontol. Abh. -- Palaeontologische Abhandlungen. Berlin, Ed. Bd. Akademie, Verlag GmbH, Berlin.

Palaeontol. Soc. India, J. -- Palaeontological Society of India, Journal. Lucknow.

Palaeontol. Z. -- Palaeontologische Zeitschrift. Stuttgart.

Palaeontology -- Palaeontology (Palaeontological Association). London.

Paudua, Univ., Inst. Geol. Mineral., Mem. -- Paudua, Università, Institute de Geologia e Mineralogie, Memoire.

Peabody Mus. Nat. Hist., Yale Univ., Bull. -- Peabody Museum of Natural History, Yale University, Bulletin. Yale.

Pedologie -- Pedologie (Societe Belge de Pedologie - Belgische Bodemkundige Vereniging, Bulletin). Ghent.

Pet. Explor. Soc. Libya -- Petroleum Exploration Society of Libya, 6th Annual Field Conference.

Petermanns Geogr. Mitt. -- Petermanns Geographische Mitteilungen. Gotha.

Photo interpretation (Paris) -- Photo interpretation. Editions Technip, Paris.

Phys. Chem. Glass. -- Physics and Chemistry of Glasses, Society of Glass Technology. Sheffield, England.

Planktonic Conf., 2nd, Proc. -- Planktonic Conference, 2nd, Roma, Ediziona Tecnocienza, Proceedings.

Pol., Inst. Geol., Biul. -- Poland, Instytut Geologiczny, Biuletyn. Warsaw.

Pollen Spores -- Pollen et Spores (Museum National d'Histoire Naturelle). Paris.

Postilla (Yale University, Peabody Museum of Natural History). New Haven, Connecticut.

Powder Technology -- Powder Technology. Elsevier, Amsterdam.

Precambrian Res. -- Precambrian Research. Elsevier Sci. Publ. Co., Amsterdam.

Priroda -- Priroda (Akademiya Nauk SSR). Moscow.

Proc. Zool. Soc. U.A.R. -- Proceedings of the Zoological Society. Cairo, United Arab Republic.

Przegl. Geol. -- Przegląd Geologiczny. Warsaw.

Pure Appl. Geophys. -- Pure and Applied Geophysics (continuation of Geofisica Pura e Applicata). Basel-Stuttgart.

Quaternaria -- Quaternaria. Rome.

Queensl. Natural. -- Queensland Naturalist. Brisbane.

R. Astron. Soc., Geophys. J. -- Royal Astronomical Society, Geophysical Journal. Oxford.

R. Ont. Mus., Life Sci. Contrib. -- Royal Ontario Museum, Life Sciences Contributions. Toronto.

R. Soc. Lond., Philos. Trans., Ser. A -- Royal Society of London, Philosophical Transactions, Series A, Mathematical and Physical Sciences.

R. Soc. Lond., Proc., Ser. A -- Royal Society of London, Proceedings, Series A, Mathematical and Physical Sciences.

R. Soc. Lond., Proc., Ser. B -- Royal Society of London, Proceedings, Series B, Biological Sciences.

Radiocarbon (Am. J. Sci.) -- Radiocarbon (American Journal of Science). New Haven, Connecticut.

Res. Council Isr., Bull., sec. G -- Research Council of Israel, Bulletin, section G, Geo-sciences. Jerusalem.

Rev. Chim. Miner. -- Revue de Chimie Minerale. Paris.

Rev. Espan. Micropaleontol. -- Revista Espanola de Micropaleontologia. Madrid.

Rev. Gen. Sci., Paris -- Revue Generale des Sciences pures et appliquees. Paris.

Rev. Geogr. Lyon -- Revue de Geographie de Lyon.

Rev. Geogr. Phys. Geol. Dyn. -- Revue de Geographie Physique et de Geologie Dynamique. Paris.

Rev. Ind. Miner. -- Revue de l'Industrie Minerale. Saint-Etienne.

Rev. Inst. Fr. Pet. -- Revue de l'Institut Francais du Petrole. Paris.

Rev. Micropaleontol. -- Revue de Micropaleontologie (Laboratoire de Micropaleontologie). Paris.

Rev. Palaeobot. Palynol. -- Review of Palaeobotany and Palynology. Elsevier Publ. Co., Amsterdam.

Riv. Ital. Paleontol. Stratigr. -- Rivista Italiana di Paleontologia e Stratigrafia. Milan.

Riv. Ital. Petrol. -- Rivista Italiana del Petrolio. Rome.

Rock Mech. (Vienna) -- Rock Mechanics (International Society for Rock Mechanics) (continuation of Felsmechanik und Ingenieurgeologie). Vienna.

Rocks Miner. -- Rocks and Minerals. Washington, D.C.



Rom., Inst. Geol., Stud. Teh. Econ., Ser. C. -- Romania, Institutul Geologic, Studii Tehnice si Economice, Seria C, Pedologice. Bucharest.

S. Afr. Sci. Bull. -- South African Science Bulletin (South African Association for the Advancement of Science). Johannesburg.

Sarsia -- Sarsia (Bergen, Universitet).

Schweiz. Mineral. Petrogr. Mitt. -- Schweizerische Mineralogische und Petrographische Mitteilungen - Bulletin Suisse de Mineralogie et Petrographie - Bollettino Svizzero di Mineralogia e Petrografia. Zurich.

Sci. J. -- Science Journal (Incorporating Discovery). London.

Sci. Progr. Decouverte -- Science Progres Decouverte (supersedes Science Progress, La Nature). Paris.

Sci. Progr., Nature (Paris) -- Science Progress, La Nature. Paris.

Science (AAAS) -- Science (American Association for the Advancement of Science). Washington, D.C.

Seance Soc. Phys. Hist. -- Seance Societe Physique Histoire, Compte Rendu, Paris.

Sedimentology -- Sedimentology (International Association of Sedimentologists). Blackwell Scientific Publications. Oxford-London.

Sediment. Geol. -- Sedimentary Geology. Elsevier Sci. Publ. Co., Amsterdam.

Sel. Bibliogr. Middle East Geol. -- Selected Bibliography of Middle East Geology. Israel, Geological Survey. Jerusalem.

Smithson. Contrib. Earth Sci. -- Smithsonian Contributions to the Earth Sciences (Smithsonian Institution). Washington, D.C.

Soc. Econ. Paleontol. Mineral., Spec. Publ. -- Society of Economic Paleontologists and Mineralogists, Special Publication. Tulsa, Oklahoma.

Soc. Fr. Mineral., Bull. -- Societe Francaise de Mineralogie, Bulletin. Paris.

Soc. Fr. Mineral. Cristallogr., Bull. -- Societe Francaise de Mineralogie et de Cristallographie, Bulletin. Paris

Soc. Geogr. Egypte, Bull. -- Societe de Geographie d'Egypte, Bulletin. Cairo.

Soc. Geol. Fr., Bull. -- Societe Geologique de France, Bulletin. Paris.

Soc. Geol. Fr., C.R. Seances -- Societe Geologique de France, Compte Rendu sommaire des Seances. Paris

Soc. Geol. Fr., Mem. -- Societe Geologique de France, Memoire. Paris.

Soc. Geol. Fr., Mem. Hors Ser -- Societe Geologique de France, Memoire Hors Serie. Paris.

Soc. Geol. Ital., Boll. -- Societa Geologica Italiana, Bollittino. Rome.

Soc. Geol. Ital., Mem. -- Societa Geologica Italiana, Memoire. Rome.

Soc. Linn. Normandie, Bull. -- Societe Linneene de Normandie, Bulletin. Caen.

Soc. Toscana Sci. Nat., Atti, Mem. -- Societa Toscana di Scienze Naturali, Atti, Memoire. Pisa

Soil Sci. -- Soil Science. Baltimore, Maryland.

South African Sci. -- South African Science (South African Association for the Advancement of Science, Bulletin). Johannesburg.

South. Methodist Univ., Inst. Stud. Earth Man, Rep. Invest. -- Southern Methodist University, Institute for the Study of Earth and Man, Reports of Investigations. Dallas, Texas.

Sov. Geol. -- Sovetskaya Geologiya. Moscow.

Sprechsaal Keram. -- Sprechsaal für Keramik, Glas, Email, Silikate;  
 Zeitschrift für die Technischen und Wirtschaftlichen Fragen der  
 Silikat-Industrien. Coburg.  
 Suisse Paleontol. Mem. -- Memoires de la Societe Paleontologique Suisse.  
 Zurich.  
 Tectonophysics -- Tectonophysics, International Journal of Geotectonics  
 and the Geology and Physics of the Interior of the Earth. Elsevier  
 Sci. Publ. Co., Amsterdam.  
 Tschermaks Mineral. Petrogr. Mitt., Bull. -- Tschermaks Mineralogische und  
 Petrographische Mitteilungen, Bulletin. Vienna.  
 Turk. Jeol. Kurumu, Bult. -- Türkiye Jeoloji Kurumu, Bulteni (Geological  
 Society of Turkey, Bulletin). Ankara.  
 Turk., Miner. Res. Explor., Bull. -- Turkey, Mineral Research and Explora-  
 tion Institute, Bulletin. Ankara.  
 U.A.R., Geol. Surv. Min. Res. Dept., Pap. -- United Arab Republic,  
 Geological Survey and Mineral Research Department, Paper. Cairo.  
 U.A.R., Geol. Surv.-Geol. Mus., Palaeontol. Ser., Monogr. -- United Arab  
 Republic, Geological Survey-Geological Museum, Palaeontological  
 Series, Monograph. Cairo.  
 U.A.R., Geol. Surv., Pap. -- United Arab Republic, Geological Survey,  
 Paper. Cairo.  
 U.A.R., Geol. Surv., Publ. -- United Arab Republic, Geological Survey,  
 Publication. Cairo.  
 U.S. Bur. Mines, Bull. -- U.S. Bureau of Mines, Bulletin. Washington, D.C.  
 U.S. Bur. Mines, Inf. Circ. -- U.S. Bureau of Mines, Information Circular.  
 Washington, D.C.  
 U.S. Bur. Mines, Miner. Yearb. -- U.S. Bureau of Mines, Minerals  
 Yearbook. Washington, D.C.  
 U.S. Geol. Surv., Open-file Rep. -- U.S. Geological Survey, Open-file Report.  
 Reston, Virginia.  
 U.S. Geol. Surv., Prof. Pap. -- U.S. Geological Survey, Professional Paper.  
 Reston, Virginia.  
 U.S. NASA, Spec. Publ. -- U.S. National Aeronautics and Space Administration,  
 Special Publication. Washington, D.C.  
 U.S. NASA, Tech. Note -- U.S. National Aeronautics and Space Administration,  
 Technical Note. Washington, D.C.  
 Umschau -- Umschau in wissenschaft und Technik. Frankfurt am Main.  
 Underwater Sci. Tech. J. -- Underwater Science Technology Journal. Guildford.  
 UNESCO, Earth Sci. Ser. -- United Nations Educational Scientific and Cultural  
 Organization, Earth Science Series. Paris.  
 UNESCO, Ecol. Conserv. Ser. -- United Nations Educational Scientific and  
 Cultural Organization, Ecology and Conservation Series. Paris.  
 Universo -- L'Universo (Istituto Geografico Militare, Rivista).  
 Florence.  
 Utah Geol. Assoc., Publ. -- Utah Geological Association, Publication.  
 Salt Lake City, Utah.  
 Utah, Univ., Anthropol. Pap. -- Utah, University, Anthropological Papers.  
 Salt Lake City.  
 Verh. Geol. Bundesanst. Wien -- Verhandlungen der Geologischen Bundesanstalt.  
 Wien.  
 Verh. Int. Verein. theor. angew. Limnol. -- Verhandlungen der Internationalen  
 Vereinigung für theoretische und angewandte Limnologie. Stuttgart.  
 Vest. Ustred. Ust. Geol. -- Vestnik Ustredniho Ustavu Geologickeho. Prague.

- Vop. Mikropaleontol. -- Voprosy Mikropaleontologii (Akademiya Nauk SSSR, Otdeleniye Nauk oZemle, Geologicheskiiy Institut). Moscow.
- Vses. Geogr. O-vo, Izv. -- Vsesoyuznoye Geograficheskoye Obshchestvo, Izvestiya. Leningrad.
- Vyssh. Uchebn. Zaved., Izv., Geol. Razved. -- Vysshoye Uchebnoye Zavedeniye (Ministerstvo Vysshego i Srednego Spetsial'nogo Obrazovaniya SSSR), Izvestiya, Geologiya i Razvedka. Moscow.
- Vyssh. Uchebn. Zaved., Izv., Neft' Gaz -- Vysshoye Uchebnoye Zavedeniye (Ministerstvo Vysshego i Srednego Spetsial'nogo Obrazovaniya SSSR), Izvestiya, Neft'i Gaz. Baku.
- Wash. Acad. Sci., J. -- Washington Academy of Sciences, Journal. Washington, D.C.
- Woods Hole Oceanogr. Inst., Coll. Repr. -- Woods Hole Oceanographic Institution, Collected Reprints. Woods Hole, Massachusetts.
- World Pet. Congr., 6th, Frankfurt am Main, Proc. -- World Petroleum Congress, 6th, Frankfurt am Main, 1963, Proceedings.
- Yale Scient. Mag. -- Yale Scientific Magazine. New Haven, Connecticut.
- Ymer (Svenska Sallaskapet Anthropol. och Geogr.) -- Ymer (Svenska Sallaskapet for Anthropologi och Geografi). Stockholm.
- Z. Geomorphol. -- Zeitschrift fuer Geomorphologie - Annals of Geomorphology - Annales de Geomorphologie. Berlin - Stuttgart.
- Z. Geophys. -- Zeitschrift fur Geophysik (Deutsche Geophysikalische Gesellschaft). Wurzburg.
- Z. Ethnol. -- Zeitschrift fur Ethnologie. Berlin.
- Z. Tenside Det. -- Zeitschrift Tenside Detergents. Munich.
- Zb. Geol. Vied, Rada ZK -- Zbornik Geologickych Vied, Rada ZK, Zapadne Karpaty (Czechoslovakia, Ustredni Ustav Geologicky). Bratislava.
- Zentralb. Mineral., Geol. Palaeontol., Abt. A -- Zentralblatt fur Mineralogie, Geologie und Palaeontologie, Abteilung A, Mineralogie und Petrographie. Stuttgart.
- Zentralb. Mineral., Geol. Palaeontol., Abt. B -- Zentralblatt fur Mineralogie, Geologie und Palaeontologie, Abteilung B, Geologie und Palaeontologie. Stuttgart.
- Zool. Soc. Lond., Symp. -- Zoological Society of London, Symposia. London.

## REFERENCES

- Aaland, A. I., and Hassa, A. A., 1972, Hydrocarbon potential of the Abu-Gharadig basin in the Western Desert, Egypt: Arab Pet. Congr., 8th, Algiers, Pap. no. 81 (B-3), 19 p.
- Abbass, H. L., 1961a, The evolutionary characters of certain turreted gastropod families and their significance on ontogeny and phylogeny: Egypt. J. Geol., v. 5, no. 1, p. 39-53.
- \_\_\_\_\_, 1961b, The structure of Carolina placunoides cantraine from the Eocene of Egypt: Egypt. J. Geol., v. 5, no. 1, p. 55-58.
- \_\_\_\_\_, 1962, A monograph on the Egyptian Cretaceous pelecypods: U.A.R., Geol. Surv.-Geol. Mus., Palaeontol. Ser., Monogr. no. 1, 224 p.
- \_\_\_\_\_, 1963, A monograph on the Egyptian Cretaceous gastropods: U.A.R., Geol. Surv.-Geol. Mus., Palaeontol. Ser., Monogr. no. 2, 145 p.
- \_\_\_\_\_, 1965, The structure of Carolia placunoides cantraine from the Eocene of Egypt: J. Geol. U.A.R., v. 5, no. 1, p. 55-69.
- \_\_\_\_\_, 1966, On the occurrence of Lanistes in Oligocene gravels in Egypt: J. Geol. U.A.R., v. 6, no. 1, p. 73-77.
- \_\_\_\_\_, 1967, A monograph on the Egyptian Paleocene and Eocene gastropods: U.A.R., Geol. Surv.-Geol. Mus., Palaeontol. Ser., Monogr. no. 4, 154 p.
- \_\_\_\_\_, 1969a, On the occurrence of a scorpion in marine middle Eocene formation, Mokattam, Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4, A, p. 571-574.
- \_\_\_\_\_, 1969b, A monograph on the Egyptian Paleocene and Eocene gastropods: Egypt, Geol. Surv., Monogr. no. 4, 154 p.
- \_\_\_\_\_, 1973, A monograph on the Egyptian Paleocene and Eocene pelecypods: Egypt. J. Geol., v. 16, no. 1, p. 69-200.
- Abbass, H. L., and Abed, M. M., 1971, Paleoecologic studies of the Upper Cretaceous-lower Tertiary succession in the Kurkur Dungul area, Western Desert, Egypt: Bull. Fac. Sci., Ain Shams Univ., no. 15, p. 87-106.
- Abbass, H. L., and Ebeid, M. Z., 1969, An introduction to the classification of the Jurassic rock stratigraphy in Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 871-882.
- Abbass, H. L., and El Gamal, M. M., 1969, Contribution to the stratigraphy of the Miocene rocks of the Salum area, northern Western Desert, Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 857-867.
- \_\_\_\_\_, 1970, Systematic study of some fenestellid Bryozoa from Um Bogma Formation, Carboniferous of Western Sinai, Egypt: Egypt. Acad. Sci., Proc., v. 23, p. 87-92.
- Abbas, H. L., and Habid, M. M., 1969, Stratigraphy of west Mawhoub area, south Western Desert: Bull. Inst. Desert Egypte, v. 19, no. 2, p. 47-107.
- \_\_\_\_\_, 1970, Mechanical composition and mineralogy of the Nubian sandstone in west Mawhoub area, south Western Desert: Bull. Inst. Desert Egypte, v. 20, no. 1, p. 21-48.
- \_\_\_\_\_, 1971, Hydrogeological studies on west Mawhoub area, south Western Desert, Egypt: Bull. Inst. Desert Egypte, v. 21, no. 2, p. 265-283.
- Abdallah, A. M., 1961a, Note on the manganese iron ore deposit in Wadi Araba, Gulf of Suez: Egypt. J. Geol., v. 5, no. 1, p. 77-79.
- \_\_\_\_\_, 1961b, New findings of interest on the geology of the western side of the Gulf of Suez: Egypt. J. Geol., v. 5, no. 1, p. 71-72.



- Abdallah, A. M., 1965a, New Bathonian (Middle Jurassic) occurrence at the western side of the Gulf of Suez, Egypt: Egypt, Geol. Surv., Pap. no. 30, 8 p.
- \_\_\_\_\_, 1965b, Note on the manganese-iron ore deposit in Wadi Araba, Gulf of Suez: J. Geol. U.A.R., v. 5, no. 1, p. 77-79.
- \_\_\_\_\_, 1967a, Geology of some gypsum deposits in the north Western Desert of Egypt: Egypt, Geol. Surv., Pap. no. 41, 11 p.
- \_\_\_\_\_, 1967b, Stratigraphy and structure of a portion in north Western Desert of Egypt, U.A.R. (El Alamein-Debba-Qattara-Moghra area) with reference to its economic potentialities: Egypt, Geol. Surv., Pap. no. 45, 19 p.
- Abdallah, A. M., and Abdel Hady, F. M., 1966, Geology of Sadat area, Gulf of Suez: Egypt. J. Geol., v. 10, p. 1-22.
- \_\_\_\_\_, 1971, Microfacies of the Eocene and Miocene rocks at the southeastern corner of Gebel Ataga Gulf of Suez, U.A.R.: Bull. Fac. Sci., Cairo Univ., no. 43, p. 345-357.
- Abdallah, A. M., and Dardir, A. A., 1971, The tectonics of the iron deposit of Wadi el Dabbah in the central part of the Eastern Desert of Egypt, in Z badan zloz kruszcw w Polsce, tom VIII: Pol., Inst. Geol., Biul., no. 241, p. 119-134.
- Abdallah, A. M., and Eissa, R. A., 1971, The Campanian rocks of the southern Galala, ARE: Bull. Fac. Sci., Cairo Univ., no. 44, p. 259-270.
- Abdallah, A. M., and El Addindani, A., 1963a, Note on the Cenomanian-Turonian contact in the Galala Plateaux, Eastern Desert: Egypt. J. Geol., v. 7, p. 67-79.
- \_\_\_\_\_, 1963b, Stratigraphy of upper Paleozoic rocks, western side of Gulf of Suez: Egypt, Geol. Surv., Pap. no. 25, 18 p.
- Abdallah, A. M., El Addindani, A., and Fahmy, A., 1963, Stratigraphy of the lower Mesozoic rocks, western side of Gulf of Suez, Egypt: Egypt, Geol. Surv., Pap. no. 27, 23 p.
- Abdallah, A. M., El Sharkawi, M. A., and Marzouk, A., 1971, Geology of Mersa Thelmet area southern Galala, Eastern Desert, ARE: Bull. Fac. Sci., Cairo Univ., no. 44, p. 271-280.
- Abdallah, A. M., and Fahmy, N. A., 1969, A new pelecypod subgenus and species from the Middle Jurassic of Khashm El Galala, Gulf of Suez: J. Geol. U.A.R., v. 13, no. 2, p. 145-152.
- Abdallah, A. M., Mahfouz, S., and Abdel Razek, T. M., 1972a, Mineralogical and geochemical studies on some Egyptian phosphates (southern Egypt): Chem. Erde, v. 31, no. 3-4, p. 305-320.
- \_\_\_\_\_, 1972b, Genesis of some Egyptian phosphate deposits (southern Egypt) with special emphasis on X-ray analysis: Chem. Erde, v. 31, no. 3-4, p. 364-372.
- Abdallah, A. M., Meneisy, M. Y., and Shaaban, M. M., 1974, A geological study on the volcanic rocks, Wadi Araba and Abu Darag areas, Gulf of Egypt: J. Geol. U.A.R., v. 17, no. 2, p. 111-123.
- Abdel Azim, M. F., 1970, Crude oil composition; a clue to its migration in the Gulf of Suez region: Arab Pet. Congr., 7th, Kuwait, Pap. no. 7, 6 p.
- Abdel Aziz, M. G., Mirtov, J. V., and Karenko, M. V., 1973, Contributions to the mineralogy of the phosphates of the Nile Valley: J. Geol. U.A.R., v. 15, no. 2, p. 93-98.
- Abdel Aziz, M. G., and others, 1971, El Omayid gypsum deposit: Egypt, Geol. Surv., Ann., v. 1, p. 111-116.

- Abdel Gawad, M., 1966, X-ray spectrographic determination of hafnium-zirconium ratio in zirconium minerals: *Am. Mineral.*, v. 51, no. 3-4, p. 464-473.
- \_\_\_\_\_, 1969, Geological structures of the Red Sea area inferred from satellite pictures; in *Hot brines and recent heavy metal deposits in the Red Sea*, Degens, E. T., and Ross, D. A., eds.: Springer-Verlag, New York Inc., p. 25-37.
- \_\_\_\_\_, 1970a, Interpretation of satellite photographs of the Red Sea and Gulf of Aden: *R. Soc. London, Philos. Trans.*, Ser. A, v. 267, p. 23-40.
- \_\_\_\_\_, 1970b, The Gulf of Suez, a brief review of stratigraphy and structure: *R. Soc. London, Philos. Trans.*, Ser. A, v. 267, p. 41-48.
- Abdel Kader, F. H., 1974, Soil units of the salt-affected soils at Ferhash and Tel-El-Kebir regions, ARE: *Egypt. J. Soil Sci.*, v. 13, no. 2, p. 261-267.
- Abdel Kader, F. H., and Abdel Hamid, N. E., 1974, Comparative micro-morphology of some soil types of Lower Egypt: *Geoderma*, v. 12, no. 3, p. 245-262.
- Abdel Khalek, M. L., 1974, Characteristics and utilization potential of a Jurassic coal from Sinai Peninsula: *Egypt. J. Geol.*, v. 17, no. 1, p. 71-84.
- Abdel Khalek, M. L., and Hafez, A., 1974, Geology of Wadi Dib area, Esh El Mellaha Range, Eastern Desert: *Egypt. J. Geol.*, v. 17, no. 1, p. 19-36.
- Abdel Razik, T. M., 1969a, Stratigraphical studies on the phosphate deposits between River Nile and Red Sea (south latitude 27°N): *Bull. Fac. Sci., Cairo Univ.*, no. 42, p. 299-324.
- \_\_\_\_\_, 1969b, Geological studies on the Upper Cretaceous-Eocene sediments in Gabal Abou Had (Wadi Qena): *Bull. Fac. Sci., Cairo Univ.*, no. 42, p. 269-298.
- \_\_\_\_\_, 1972, Comparative studies on the Upper Cretaceous-early Paleogene sediments on the Red Sea coast, Nile Valley, and Western Desert: *Arab Pet. Congr.*, 8th, Algiers, Pap. no. 71, 23 p.
- Abdel Razik, T. M., and Razvakuayev, A. V., 1974, On the tectonic origin of the Nile Valley between Idfu and Qena: *Egypt. J. Geol.*, v. 16, no. 2, p. 235-245.
- Abdel Rehim, A., 1973, Autoclave leaching of some economic minerals: *Acta Geol. (Acad. Sci. Hung.)*, v. 17, no. 4, p. 307-318.
- \_\_\_\_\_, 1975, Production of corundum from Kalabsha kaolinite (Egypt); Part I, Thermal investigation: *Acta Geol. (Acad. Sci. Hung.)*, v. 19, no. 3-4, p. 287-300.
- Abdel Salam, M. A., 1961, Soil classification and land utilization of area of Wadi El Arish: *Soc. Geogr. Egypte, Bull.*, v. 34, p. 5-52.
- \_\_\_\_\_, 1963, Soil of the lower Nuba: *Soc. Geogr. Egypte, Bull.*, v. 36, p. 5-28.
- \_\_\_\_\_, 1966, Soils of Wadi El-Natron area: *Bull. Inst. Desert Egypte*, v. 16, no. 1, p. 43-76.
- \_\_\_\_\_, 1969, Soils of north Sinai, U.A.R.: *Bull. Inst. Desert Egypte*, v. 19, no. 2, p. 161-181.
- Abdel Salam, M. A., and Allison, L. E., 1959, Identification of the clay minerals in the extension area soils in Egypt, U.A.R.: *Bull. Inst. Desert Egypte*, v. 9, no. 1, p. 87-99.

- Abdel Salam, M. A., and El Demerdash, S., 1967, Comparative studies of the soils in the Delta region and the border fringes, V. calcium carbonate distribution: Bull. Inst. Desert Egypte, v. 17, no. 1, p. 51-62.
- Abdel Salam, M. A., and El Tablawy, M., 1970, Pliocene diatom assemblages from East Bakr and East Gharib exploratory wells in the Gulf of Suez: Arab. Pet. Congr., 7th, Kuwait, Pap. no. 7, 15 p.
- Abdel Salam, M. A., and Etmann, A. A., 1970, Evaluation of the physiographic features of Dabbaa area, Mediterranean Coastal Zone of U.A.R. from aerial photographs and their bearing on land use: Bull. Inst. Desert Egypte, v. 20, no. 1, p. 77-102.
- Abdel Salam, M. A., Harga, A. A., and Rabie, F. H., 1972, Mineralogical composition of the Fayoum Beni-Suez soils, ARE: Bull. Inst. Desert Egypte, v. 22, no. 1, p. 117, 129.
- Abdel Salam, M. A., and Ibrahim, Galal M., 1966, Soils of the New Valley area: Bull. Inst. Desert Egypte, v. 16, no. 1, p. 105-126.
- Abdel Salam, M. A., and others, 1966, Comparative studies of the solid in the Delta region and the border fringes, I-granulometric analysis: Bull. Inst. Desert Egypte, v. 16, no. 2, p. 59-90.
- \_\_\_\_\_, 1968, Studies on some physical aspects of Ras El-Hekma soils: Bull. Inst. Desert Egypte, v. 18, no. 2, p. 21-42.
- \_\_\_\_\_, 1969, Soil genesis of the Dabbaa area "Mediterranean" coastal strip, U.A.R.: Bull. Inst. Desert Egypte, v. 19, no. 1, p. 147-165.
- \_\_\_\_\_, 1971, Trace elements content of the soils of the Wadi El Natrun: Bull. Inst. Desert Egypte, v. 21, no. 2, p. 339-410.
- \_\_\_\_\_, 1972a, Soil classification of the Ameriya-Maryut area, western Mediterranean coast of Egypt: Bull. Inst. Desert Egypte, v. 22, no. 2, p. 281-293.
- \_\_\_\_\_, 1972b, Studies of some physical properties on Kharga Oasis soils: Soil Sci., v. 39, p. 79-92.
- Abdel Samie, A. G., 1960, Soil survey, classification and management of the Mariut agricultural project: Soc. Geogr. Egypte, Bull., t. 33, p. 147-176.
- \_\_\_\_\_, 1961, Report on the survey and classification of the Kharga Oasis soils: Soc. Geogr. Egypte, Bull., v. 34, p. 53-74.
- \_\_\_\_\_, 1967, The soils of Wadi El Natrun terraces, their origin, nature, classification and agricultural possibilities: Bull. Inst. Desert Egypte, v. 17, no. 2, p. 65-95.
- Abdine, A. S., and Deibis, S., 1972, Lower Cretaceous-Aptian sediments in the northern Western Desert, Egypt: Arab Pet. Congr., 8th, Algiers, Pap. no. 74, 17 p.
- Abdou, H. F., 1969, On the occurrence of Maestrichtian rocks in south Galala Plateau, Eastern Desert, Egypt: Bull. Fac. Sci., Alex. Univ., v. 9, p. 511-526.
- Abdou, H. F., and Abdel Kareem, M. R., 1969, Upper Cretaceous-lower Tertiary planktonic Foraminifera from Gebel Ghanima, Kharga Oasis, Western Desert Egypt: Bull. Fac. Sci., Alex. Univ., v. 9, p. 451-509.
- \_\_\_\_\_, 1975a, Planktonic foraminiferal zonation of the middle and upper Eocene of Fayoum Province, Egypt, in Proceedings of the 5th African colloquium on micropalaeontology: Empresa Nac. Adaro Invest. Mineras [Publ.], Ser. 7, no. 3, p. 15-46

- Abdou, H. F., and Abdel Kareem, M. R., 1975b, On the occurrence of Altistoma species in the middle Eocene of Fayoum Province, Egypt, in Proceedings of the 5th African colloquium on micropalaeontology: Empresa Nac Adaro Invest. Mineras [Publ.], Ser. 7, no. 3, p. 47-55.
- Abdou, H. F., and Fawzi, M. A., 1966, Micropaleontological studies on the Cenomanian rocks of Gebel El Minshereh, northern Sinai: Bull. Fac. Sci., Alex. Univ., v. 7, p. 335-359.
- Abdou, H. F., and Marzouk, A., 1969, Jurassic Foraminifera and microfacies of Katib El-Makhazin well, western Sinai, UAR [with discussion]: Afr. Micropaleontol. Colloq., 3rd, Proc., p. 13-23.
- Abdou, H. F., Naim, E. M., and Abdel Kareem, M. R., 1969, Planktonic foraminiferal zonation of the Upper Cretaceous-lower Tertiary rocks of Gebel Ghanima, Kharga Oasis, Western Desert, Egypt: Bull. Fac. Sci., Alex. Univ., v. 9, p. 251-270.
- Abdou, H. F., Naim, E. M., and Sultan, I. Z., 1969, Biostratigraphic studies on the lower Tertiary rocks of Gebel Um Rokham and Saint Paul area, Eastern Desert, Egypt: Bull. Fac. Sci., Alex. Univ., v. 9, p. 271-300.
- Abdoul El Enin, S., 1966, Questa features, definition, classification and their development in the Maghara district, northern Sinai, U.A.R.: Soc. Geogr. Egypte, Bull., v. 39, p. 177-192.
- Abel, H., 1975, Gerhard Rohlfs-life and work: Egypt, Geol. Surv., Ann., v. 5, p. 17-23.
- Abou Khadrah, A. M., and Khaled, K. A., 1978, Origin and diagenesis of the Aptian Alamein Dolomite in Razzak oil field, north Western Desert, Egypt: Chem. Erde, v. 37, no. 2, p. 154-164.
- Abu Al Ezz, M. S., 1965, The evolution of landscape in lower Nubia: Soc. Geogr. Egypte, Bull., v. 38, p. 5-30.
- \_\_\_\_\_, 1970, Landforms of Egypt: Am. Univ. Press, Cairo, 281 p.
- Abu Wafa, T., and Lahib, A. H., 1973, Seepage losses from Lake Nasser, in Man-made lakes; their problems and environmental effects; physical systems: Am. Geophys. Union, Geophys. Monogr., no. 17, p. 287-291.
- Abudebeau Bey, C., 1933, Diagrammes des eaux southerraines dans le centre du delta pendant plusieurs annees: Inst. Egypte, Bull., t. 15, f. 1, p. 1-11.
- Adams, W. A., and Hans-Ake Nodstrom, 1963, The archeological survey of the west bank of the Nile: Kush, v. 61, ? p.
- Adindani, A., and others, 1975, Evaluation of El-Gharbaniyat gypsum deposit: Egypt, Geol. Surv., Ann., v. 5, p. 123-136.
- Adindani, A., and Shakhov, R. A., 1970, The occurrence of coal and some geological features of the Mesozoic and Paleozoic sediments of Egypt, in Studies on some mineral deposits of Egypt, Part I, Generalization of geological data on hard minerals; section B, Coal: U.A.R., Geol. Surv., Publ., p. 67-86.
- Adkins, D. C., 1977, The mineral industry of Egypt: U.S. Bur. Mines, Miner. Yearb., 1974, v. III, p. 299-308.
- Afanasev, G. D., 1960a, Nekotorye cherty magmatizma Egipta (itogi nadyudenii vo vremya prebyvaniya v OAR delegatsii unchenykh SSSR): Akad. Nauk SSSR, Izv., Ser. Geol. no. 3, p. 26-40.
- \_\_\_\_\_, 1960b, Some features of igneous activity in Egypt: Akad. Nauk SSSR, Izv., Ser. Geol., no. 3, p. 20-31.



- Aghion, H., 1940a, Sur les terrasses fluivales das le Wadi Araba: Bull. Fac. Sci., Fouad I Univ., Cairo, no. 21, p. 17-35.
- \_\_\_\_\_, 1940b, Sur les massifs de gres et quartzites traverses par des tubes du type Gebel Ahmar: Bull. Fac. Sci., Fouad I Univ., Cairo, no. 21, p. 1-15.
- Aharon, P., Koloday, Y., and Sass, E., 1977, Recent hot brine dolomitization in the "Solar Lake," Gulf of Elat; isotopic, chemical, and mineralogical study: J. Geol., v. 85, no. 1, p. 27-48.
- Ahlmann, H. W., 1936, K. S. Sandfords undersokningar om utvecklingen av Nildalen och den paleonlitiska kulturen i denna: Ymer (Svenska Sallaskapet Anthropol. och Geogr.) arg. 56, H. 2, p. 176-183.
- Ahmad, A. M. A., and Abdel Rahman, M. H., 1977, Two-dimensional mass distribution from gravity anomalies, South El Arish area: Turk. Miner. Res. Explor., Bull., no. 89, p. 24-35.
- Ahmed, A. R. A., 1972, Environmental interpretations of the Aptian carbonates of the Western Egyptian Desert: Arab Pet. Congr., 8th, Algiers, Pap. no. 79, 16 p.
- Ahmed, M. I. S., Koide, H., and Inami, K., 1977, Grain size dependence on ultimate strength of marble under confining pressure and the size of Griffith inclusion: Jap., Geol. Surv., Bull., v. 28, no. 7, p. 47-66.
- Aitken, W. E., 1968, Hans Burgl (1907-1966): Am. Assoc. Pet. Geol., Bull., v. 52, no. 2, p. 358.
- Akaad, M. K., 1957, Petrography, structure and time relations of the Igla Formation, Eastern Desert: Egypt. J. Geol., v. 1, no. 2, p. 93-103.
- \_\_\_\_\_, 1959, Dykes, felsite intrusions and intrusion breccias at Wadi Igla, Eastern Desert: Egypt. J. Geol., v. 3, no. 1, p. 89-106.
- \_\_\_\_\_, 1963a, The Carbane cataclastic gneiss, Co. Donegal Ireland and its comparison with the "Shaitian" type of the Eastern Desert of Egypt: Bull. Sci. Tech., Assiut Univ., v. 6, p. 79-100.
- \_\_\_\_\_, 1963b, Pyroclastics from Dokham volcanics at Wadi Um Alda-north Eastern Desert: Bull. Fac. Sci., Ain Shams Univ., no. 9, p. 465-483.
- \_\_\_\_\_, 1972, A contemplation and assessment of the 1960-1961 classification of the rocks of the central Eastern Desert, in The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, p. 19-45.
- Akaad, M. K., El Gaby, S., and Abbas, A. A., 1967a, Geology and petrology of the migmatites around Feiran Oasis, Sinai: Bull. Sci. Tech., Assiut Univ., v. 10, p. 65-87.
- \_\_\_\_\_, 1967b, On the evolution of Feiran migmatites, Sinai: Egypt. J. Geol., v. 11, p. 49-58.
- Akaad, M. K., El Gaby, S., and Habib, M. E., 1974, The Barud Gneisses and the origin of gray granite: Bull. Fac. Sci., Assiut Univ., v. 1, p. 55-69.
- Akaad, M. K., and El Ramly, M. F., 1958, Seven new occurrences of the Igla formation in the Eastern Desert of Egypt: U.A.R., Geol. Surv. Min. Res. Dept., Pap. no. 3, 38 p.
- \_\_\_\_\_, 1960, Geological history and classification of the basement rocks of central Eastern Desert of Egypt: Egypt, Geol. Surv., Pap. no. 9, 24 p.
- \_\_\_\_\_, 1961, The nepheline syenite ring complex of Gebel Abu Khrug: Egypt, Geol. Surv., Pap. no. 14, 22 p.

- Akaad, M. K., and El Ramly, M. F., 1963a, The cataclastic mylonitic gneisses north of Gebel El Maiyit and the origin of the granite of Shaitian type: Egypt, Geol. Surv., Pap. no. 26, 14 p.
- \_\_\_\_\_, 1963b, Geology and structure of the Umm Lassaf-Umm Nar iron belt (Eastern Desert of Egypt): U.A.R., Geol. Surv. Min. Res. Dept., Pap. no. 17, 23 p.
- Akaad, M. K., and Essawy, M. A., 1964a, Geology and structure of the area east of Gebel Atud, eastern Desert, Egypt: Bull. Sci. Tech., Assiut Univ., v. 7, p. 63-80.
- \_\_\_\_\_, 1964b, The metagabbro-diorite complex northeast of Gebel Atud, Eastern Desert and the term epidiorite: Bull. Sci. Tech., Assiut Univ., v. 7, p. 87-108.
- \_\_\_\_\_, 1965a, Old limestones in the conglomerates of the Atud Formation: Bull. Sci. Tech., Assiut Univ., v. 8, p. 117-128.
- \_\_\_\_\_, 1965b, Notes on the occurrence of old cataclastic gneisses in the meta-conglomerates and meta-greywackes of the Atud Formation, Eastern Desert: Bull. Sci. Tech., Assiut Univ., v. 8, p. 103-114.
- \_\_\_\_\_, 1965c, Petrography, origin and sedimentation of the Atud Formation and bearing on the early part of the geological history of the Basement Complex of the Eastern Desert of Egypt: Bull. Sci. Tech., Assiut Univ., v. 8, p. 75-102.
- \_\_\_\_\_, 1965d, Appinites and appinitic diorites from the Idfu-Mersa Alam road, Eastern Desert: Bull. Sci. Tech., Assiut Univ., v. 8, p. 55-74.
- Akaad, M. K., and Moustafa, G. M., 1963, The Shait granite - a cataclastic mylonitic grandiorite: Egypt, Geol. Surv., Pap. no. 19, 18 p.
- Akaad, M. K., and Naggar, M. H., 1963a, The deposit of the Egyptian alabaster at Wadi El-Assyuti: Soc. Geogr. Egypte, Bull., v. 36, p. 29-30.
- \_\_\_\_\_, 1963b, Geology of Wadi Sannour alabaster and the general geological history of the Egyptian deposits: Bull. Inst. Desert Egypte, v. 13, no. 2, p. 35-63.
- \_\_\_\_\_, 1964, Petrology of the Egyptian alabaster of Wadi El-Assyuti: Bull. Fac. Sci., Alex. Univ., v. 6, p. 157-163.
- Akaad, M. K., and Noweir, A. M., 1964a, A new occurrence of the Atud Formation at Wadi El Muweilih, Eastern Desert of Egypt: Bull. Sci. Tech., Assiut Univ., v. 7, p. 31-44.
- \_\_\_\_\_, 1964b, Trachyte plugs and breccia cones east Gabal Um Hombos, Eastern Desert of Egypt: Bull. Sci. Tech., Assiut Univ., v. 7, p. 49-60.
- \_\_\_\_\_, 1969, Lithostratigraphy of the Hammamat-Um Seleimat district, Eastern Desert, Egypt: Nature, v. 223, no. 5203, p. 284-285.
- \_\_\_\_\_, 1972, Some aspects of the serpentinites and their associated derivatives along Qift-Quseir Road, Eastern Desert, in The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, p. 251-270.
- Akaad, M. K., and Shazly, G. A., 1972, Description and petrography of the Meatig Group, Eastern Desert: Egypt, Geol. Surv., Ann., v. 2, p. 215-237.
- Al Far, D. M., 1964, The black sands of northern Sinai with an appendix of some new findings in Sinai: Inst. Egypte, Bull., v. 46, p. 1-27.

- Al Far, D. M., 1966, Geology of coal deposits of Gebel El Maghara, north Sinai: Egypt, Geol. Surv., Pap. no. 37, 59 p.
- \_\_\_\_\_, 1971, A field test for bauxite and related ores: Egypt, Geol. Surv., Ann., v. 1, p. 147-149.
- Al Far, D. M., Hagemann, H. W., and Omara, S., 1965, Beitrag zur geologie des Kohlefuhrhrenden gebites von El-Maghara, Nord Sinai (Agypten): Geol. Mitt., 54, Helt 4, p. 397-429.
- Al Shanti, A. M., ed., 1978, Evolution and mineralization of the Arabian-Nubian Shield: Precambrian Res., v. 6, no. 1, A1-A40.
- Albright, J. L., 1976, The mineral industry of the Arab Republic of Egypt: U.S. Bur. Mines, Miner. Yearb., 1973, v. 3, p. 271-280.
- Aleem, A. A., and Manguin, E., 1951, Depot d'une diatomite recente dans la province de Fayoum (Egypte): Acad. Sci. (Paris), C.R., Ser. B, t. 233, no. 25, p. 1647-1649.
- Alessio, M., and others, 1965, University of Rome carbon 14 dates II: Radiocarbon (Am. J. Sci.), v. 7, p. 213-222.
- Aliyev, A. A., 1971, O kolumbitakh iz pegmatitovykh zhil odonogo iz redkometal'nykh proyaveniy Yugo-Vostochnoy pustyni Yegipta [Columbites from pegmatite veins in one of the rare metal deposits in the southeastern Desert, Egypt]: Akad. Nauk Azerb. SSR, Dokl., v. 27, no. 9, p. 63-69.
- Allan, T. D., 1964, A preliminary magnetic survey in the Red Sea and Gulf of Aden: Boll. Geofis. Teor. Appl., v. 6, p. 196.
- \_\_\_\_\_, 1966, A bathymetric chart of the Red Sea: Int. Hydrogr. Rev., XLIII, p. 33.
- \_\_\_\_\_, 1970, Magnetic and gravity fields over the Red Sea: R. Soc. London, Philos. Trans., Ser. A, v. 267, p. 153-180.
- Allan, T. D., Cranock, H., and Morelli, C., 1964, Magnetic gravity and depth surveys in the Mediterranean and Red Sea: Nature, v. 204, p. 1245.
- Allan, T. D., and Morelli, C., 1970, The Red Sea: The Sea (Arthur E. Maxwell, ed.), v. 4, pt. 2-3, p. 493-542: Wiley-Intersci., New York
- Allan, T. D., and Pisani, M., 1966, Gravity and magnetic measurements in the Red Sea; in The World Rift System (Irvine, T. N., ed.): Can., Geol. Surv., Pap. no. 66-14, p. 62-64.
- Allison, L. J., 1977, Geological applications of Nimbus radiation data in the Middle East: U.S. NASA, Tech. Note, no. D-8469, 79 p.
- Alloiteau, I., and Farag, I., 1964, Monographie des Polypiers Jurassiques D'Egypte: Inst. Egypte, Bull., v. 39, p. 49-130.
- Amann, H., 1972, Exploration for marine mineral resources with the research vessel Valdivia: Meerestech.-Mar. Technol., v. 3, no. 3, p. 102-106.
- Amann, H., and others, 1973, Metalliferous muds of the marine environment: Offshore Tech. Conf., Pap. no. 5, v. 1, p. 345-353.
- Amer, A. F., Krintsov, M. I., and Hanna, F. L., 1970a, The Egyptian carbonate rocks and the possibilities of their utilisation, in Studies on some mineral deposits of Egypt: Part III, Nepheline syenite project: U.A.R., Geol. Surv., Publ., p. 195-208.
- \_\_\_\_\_, 1970b, Assessment of the Egyptian clay deposits, in Studies on some mineral deposits of Egypt: Part III, Nepheline syenite project: U.A.R. Geol. Surv., Publ., p. 209-218.
- Amer, A. F., and Mansour, A. O., 1955, Geology of El-Daghabag-El Gindi district: Egypt, Geol. Surv., Publ., 74 p.

- Amiel, A. J., and Milner, D. S., 1972, Uranium distribution in carbonate sediments of a hypersaline pool, Gulf of Elat, Red Sea: *Isr. J. Earth Sci.*, v. 21, no. 3-4, p. 187.
- Amiel, A. J., Milner, D. S., and Friedman, G. M., 1971, The geochemistry of uranium in aragonitic sediments from a hypersaline lake, Red Sea: *Am. Geophys. Union Trans.*, v. 52, no. 4, p. 361.
- Amin, M. S., 1947, A tin-tungsten deposit in Egypt: *Econ. Geol.*, v. 42, no. 7, p. 637-671.
- \_\_\_\_\_, 1948, Origin and alteration of chromites from Egypt: *Econ. Geol.*, v. 43, no. 2, p. 133-153.
- Amin, M. S., 1954, The ilmenite deposit of Abu Ghalga, Egypt: *Econ. Geol.*, v. 49, no. 1, p. 77-78.
- \_\_\_\_\_, 1955a, Some regional features of the pre-Cambrian in the central Eastern Desert, Egypt: *Bull. Inst. Desert Egypte*, t. 5, no. 1, p. 193-208.
- \_\_\_\_\_, 1955b, Geological features of some mineral deposits in Egypt: *Bull. Inst. Desert Egypte*, t. 5, no. 1, p. 209-239.
- \_\_\_\_\_, 1955c, Geology and mineral deposits of Umm Rus sheet: Egypt, *Geol. Surv., Publ.*, 51 p.
- \_\_\_\_\_, 1960, The Nubian sandstone aquifer and its bearing on the oil possibilities of the Western Desert: *Arab Pet. Congr.*, 2nd, Beirut, v. 2, p. 129-130.
- \_\_\_\_\_, 1961, Subsurface features and oil prospects of the Western Desert, Egypt: *Arab Pet. Congr.*, 3rd, Alexandria, v. 2, 8 p.
- Amin, M. S., and Afia, M. A., 1954, Anthrophyllite-vermiculite deposit of Hafafit, Eastern Desert, Egypt: *Econ. Geol.*, v. 49, no. 3, p. 317-337.
- Amin, M. S., and Mohamed, I. H., 1954, Geology of Umm Lassaf district (Wadi Ithil sheet): Egypt, *Geol. Surv., Publ.*, 13 p.
- Amin, M. S., and Moustafa, G. A., 1954, Geology of Abu Diab district: Egypt, *Geol. Surv., Publ.*, 42 p.
- Amin, M. S., and others, 1953, Geology of the Nab'a district: Egypt *Geol. Surv., Publ.*, 34 p.
- Amin, M. S., Sabet, A. H., and Mansour, A. O. A., 1953, Geology of Atud district: Egypt, *Geol. Surv., Publ.*, 71 p.
- Amit, O., 1975, Retrograde zoning in garnets of Elat-Wadi Magrish metamorphic rocks: *Lithos*, v. 9, no. 4, p. 259-262.
- Amit, O., and Eyal, Y., 1976, The genesis of Wadi Magrish migmatites (N-E Sinai): *Contr. Mineral Petrol.-Beitr. Mineral. Petrol.*, v. 59, no. 1, p. 95-110.
- Anderson, J. E., 1968, Late Paleolithic skeletal remains from Nubia: *The Prehistory of Nubia*, v. 2, p. 996-1040 (F. Wendroff, ed.).
- Andrawis, S. F., 1967, Biostratigraphical study of the subsurface Paleocene sections of Ezz El Orban-Ras El-Behar region in the western coast of the Gulf of Suez: *Arab Pet. Congr.*, 6th, Baghdad, v. 2, 4 p.
- \_\_\_\_\_, 1969, *Bulimina* and related genera from Miocene of some wells in Gulf of Suez region [with discussion]: *Afr. Micropaleontol. Colloq.*, 3rd, Proc., p. 1-11.
- \_\_\_\_\_, 1970, Planktonic zonation of the subsurface Eocene sections of Ezz El Orban-Ras El Behar region in the Gulf of Suez, U.A.R.: *Arab Pet. Congr.*, 7th, Kuwait, Pap. no. 7, 12 p.



- Andrawis, S. F., 1972, New biostratigraphic contribution for the upper part of the Paleozoic rocks of Gibb-Afia well no. 11, Western Desert, Egypt: Arab Pet. Congr., 8th, Algiers, Pap. no. 76, 11 p.
- Andrew, G., 1934a, Note on the Chepren diorite: Inst. Egypte, Bull., t. 16, f. 2, p. 105-109.
- \_\_\_\_\_, 1934b, The structure of the Esh-Mellaha Range (Eastern Desert of Egypt, 27°30'-28°N.): Inst. Egypte, Bull., t. 16, f. 1, p. 47-59.
- \_\_\_\_\_, 1936, Sur les roches hyperalcalines d'Egypte: Soc. Fr. Mineral., Bull., t. 59, no. 3-5, p. 338-346.
- \_\_\_\_\_, 1937a, On the Nubian sandstone [Cretaceous] of the Eastern Desert of Egypt: Inst. Egypte, Bull., t. 19, f. 1, p. 93-115.
- \_\_\_\_\_, 1937b, The late Tertiary igneous rocks of Egypt (field relations): Bull. Fac. Sci., Egypt. Univ., no. 10, 60 p.
- \_\_\_\_\_, 1938, On the Imperial porphyry [Eastern Desert]: Inst. Egypte, Bull., t. 20, f. 1, p. 63-81.
- \_\_\_\_\_, 1945, Sources of information on the geology of the Anglo-Egyptian Sudan: Anglo-Egypt. Sudan Geol. Surv., Bull., no. 3, 36 p.
- Andrew, G., and Cuvillier, J., 1938, Decouverte l'oligocene marin dans la region de Borg el-Arab: Acad. Sci. (Paris), C. R., Ser. B, t. 206, no. 3, p. 201-202.
- Andrews, C. W., 1902, A preliminary notice of a land tortoise from the upper Eocene of the Fayoum, Egypt: Egypt, Geol. Surv., Publ., 11 p.
- \_\_\_\_\_, 1906, Descriptive catalogue of Tertiary vertebrata of the Fayum, Egypt: Egypt, Geol. Surv., Publ., 324 p.
- Andrews, C. W., and Beadnell, H. J. L., 1902, Preliminary notes on some new mammals from the upper Eocene of the Fayoum Egypt: Egypt, Geol. Surv., Publ., 9 p.
- Annoscia, E., 1965, Revisione del genere Cuvilliera bryzoo del Luteziano Superiore de'Egitto: Paudua, Univ., Inst. Geol. Mineral., Mem., v. 25, 10 p.
- Ansary, R., and Kenawy, A., 1956, Upper Cretaceous and lower Tertiary Foraminifera from northern Sinai, Egypt: Micropaleontology, v. 2, no. 2, p. 105-159.
- Ansary, S. E., 1955, Report on the foraminiferal fauna from the upper Eocene of Egypt: Bull. Inst. Desert Egypte, no. 6, 160 p.
- \_\_\_\_\_, 1956, The probable depth of the upper Eocene sea in Egypt as indicated by Foraminifera: Bull. Inst. Desert Egypte, t. 6, no. 1, p. 193-201.
- Ansary, S. E., and Andrawis, S. F., 1965, The Miocene biostratigraphy of the Rahmi Shukeir area, Eastern Desert, U.A.R.: Arab Pet. Congr., 5th, Cairo, v. 2, 8 p.
- Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1961, Biostratigraphic studies of the subsurface Eocene in the G. P. C. Bakr, Kareem and Rahmy fields: Arab Pet. Congr., 3rd, Alex., v. 2, 6 p.
- \_\_\_\_\_, 1963, Biostratigraphical studies of the Upper Cretaceous sections in G. P. C. wells in Sinai and Eastern Desert: Arab Pet. Congr., 4th, Beirut, v. 2, 9 p.
- Ansary, S. E., and Emera, M. M., 1962, A new foraminiferal fauna from El Minshera area, north Sinai: Egypt. J. Geol., v. 6, p. 85-101.

- Ansary, S. E., and Fahmy, S. E., 1969, Zonal stratigraphy of sub-surface Paleogene deposits at Ezz El Orban area, Gulf of Suez: J. Geol. U.A.R., v. 13, no. 2, p. 49-60.
- \_\_\_\_\_, 1971, Zonation par les foraminifères plactoniques des dépôts Paléogènes de la région d'Ezz-El-Orban, Golfe de Suez, Egypte [Zonation based on the planktonic Foraminifera of Paleogene deposits in the Ezz El Orban region, Gulf of Suez, Egypt]: Rev. Micropaleontol., v. 14, no. 2, p. 121-130.
- Ansary, S. E., and Fakhr, B. Y., 1958, Maestrichtian Foraminifera from Um El Huetat area, west of Safaga: Egypt. J. Geol., v. 2, no. 2, p. 105-146.
- Ansary, S. E., and Ismail, M. M., 1956, The determination of the middle-upper Eocene boundary in the area east of Helwan as indicated by Foraminifera: Bull. Inst. Desert Egypte, t. 6, no. 1, p. 185-192.
- \_\_\_\_\_, 1963, Middle Eocene Foraminifera from Gebel Hofd, north of Helwan, Egypt: Bull. Fac. Sci., Alex. Univ., v. 5, p. 115-135.
- Ansary, S. E., and Tewfik, N. M., 1966, Planktonic Foraminifera and some benthonic species from the subsurface Upper Cretaceous of Ezz El Orban area, Gulf of Suez: Egypt. J. Geol., v. 10, p. 37-75.
- \_\_\_\_\_, 1969, Biostratigraphy and time stratigraphy of subsurface Upper Cretaceous of Ezz El Orban area, Gulf of Suez region, U.A.R.: Afr. Micropaleontol. Colloq., 3rd, Proc., p. 95-106.
- Anwar, Y. M., 1964, Note on the occurrence of copper minerals at Ras Benas, Eastern Desert: Egypt. J. Geol., v. 8, p. 89-95.
- Anwar, Y. M., and Abdel Rehim, A. M., 1970a, Extraction of thorium from Egyptian monazite under pressure: Bull. Fac. Sci., Alex. Univ., v. 10, p. 151-171.
- \_\_\_\_\_, 1970b, High pressure hydrometallurgy of alkaline leaching of Egyptian zircon: Bull. Fac. Sci., Alex. Univ., v. 10, p. 173-193.
- Anwar, Y. M., Abdel Rehim, A. M., and El Bouseily, A. M., 1970a, Hydrometallurgical extraction of titanium from Egyptian ilmenite ores; part I, Solubility of sodium titanate in mineral acids: Bull. Fac. Sci., Alex. Univ., v. 10, p. 195-209.
- \_\_\_\_\_, 1970b, Hydrometallurgical extraction of titanium from ilmenite ores: part II; Alkaline leaching of ilmenite: Bull. Fac. Sci., Alex. Univ., v. 10, p. 211-237.
- Anwar, Y. M., and El Bouseily, A. M., 1970a, Subsurface studies on the black sand deposits at Rosetta Nile mouth, Egypt; part II, Mineralogical studies: Bull. Fac. Sci., Alex. Univ., v. 10, p. 141-150.
- \_\_\_\_\_, 1970b, Subsurface studies on the black sand deposits at Rosetta Nile mouth, Egypt; part I, Mechanical analysis: Bull. Fac. Sci., Alex. Univ., v. 10, p. 117-139.
- Anwar, Y. M., and El Sakkary, A. A., 1970, Geochemical and paragenetic studies of the Mn-Fe ores of west-central Sinai, Egypt: Bull. Fac. Sci., Alex. Univ., v. 10, p. 239-251.
- Anwar, Y. M., and Kotb, H., 1963, Geochemical and mineralogical studies of zinc-copper-lead ore of Samiuk area, Eastern Desert: Bull. Fac. Sci., Alex. Univ., v. 5, p. 89-113.
- \_\_\_\_\_, 1966, Studies on graphite of Wadi Sitra, Eastern Desert: Bull. Fac. Sci., Alex. Univ., v. 7, p. 361-371.

- Anwar, Y. M., Kotb, H., and Ammar, S. H., 1964, Geochemistry of the iron ore deposits of the Eastern Desert: Bull. Fac. Sci., Alex. Univ., v. 6, p. 119-155.
- Anwar, Y. M., Kotb, H., and Zohny, N., 1969, Geochemistry of Egyptian chromites: Bull. Fac. Sci., Alex. Univ., v. 9, p. 143-182.
- Anwar, Y. M., and others, 1963, Comparative geochemical studies on three Egyptian composite phosphate samples: Egypt. J. Geol., v. 7, p. 105-118.
- Anwar, Y. M., and Tarabili, E. E., 1960a, Petrogenic studies of some Upper Cretaceous and Eocene formations from Safaga and Kosseir area: J. Geol. U.A.R., v. 4, no. 2, p. 45-79.
- \_\_\_\_\_, 1960b, Petrogenic study of some upper Eocene formations from Safaga and Qusseir area: Egypt. J. Geol., v. 4, p. 45-82.
- Anwar, Y. M., Tosson, S., and Saad, N. A., 1970, Geology and mineralogy of the iron ore of Umm Gerifat area, Egypt: Bull. Fac. Sci., Alex. Univ., v. 10, p. 303-329.
- Arambourg, C., 1946, Anancus osiris, un mastodonte nouveau du pliocene inferieur d'Egypte: Soc. Geol. Fr., Bull., s. 5, t. 15, f. 7-8, p. 479-495.
- \_\_\_\_\_, 1947, Sur le gisement d'Anancus osiris: Soc. Geol. Fr., C. R. Seances, no. 8, p. 164-166.
- Arkell, W. J., 1951a, Red Sea rifting: Geol. Mag., v. 88, no. 1, p. 70-71; reply by S. W. Tromp, no. 4, p. 298-299.
- \_\_\_\_\_, 1951b, A search for the alleged Sinemurian in the Wadi Araba, Eastern Desert of Egypt: Geol. Mag., v. 88, no. 5, p. 305-314.
- Armélagos, G. J., 1964, A fossilized mandible from near Wadi Halfa, Sudan: Man, v. 64, p. 12-13.
- Armélagos, G. J., and others, 1965, Report on the physical anthropology section, University of Colorado Nubian Expedition: Kush, XIII, p. 24-27.
- Asaad, Y., 1966, Use of electric logs in regional correlation of wells in the Gulf of Suez area: Bull. Fac. Eng., Cairo Univ., p. 445-464.
- Ash, S. R., 1971, Piazopteris branneri from the Lower Jurassic, Egypt: Rev. Palaeobot. Palynol., v. 13, no. 2, p. 147-154.
- Ashri, A. H., 1974, The movement of sand dunes at Kharga Oasis: Egypt. J. Geol., v. 17, no. 1, p. 37-46.
- Ashry, M. M., 1968, Clay mineralogy and petrology of the shaley clay deposits of the Pliocene of Shakluf bridge in the Fayum: Bull. Inst. Desert Egypte, v. 18, no. 2, p. 1-20.
- \_\_\_\_\_, 1970, The mineralogy of some clay pockets in the iron ochre deposit at Um Gereifat, Red Sea Coast, and its bearing on the genesis of the ore: Chem. Erde, v. 29, no. 2, p. 139-151.
- \_\_\_\_\_, 1973, Occurrence of Li, B, Cu and Zn in some Egyptian Nile sediments: Geochim. Cosmochim. Acta, v. 37, no. 11, p. 2449-2458.
- Ashry, M. M., and El Hinnawi, E. E., 1970, Tridymite from Um Gerifat, Red Sea Coast, Egypt: Neues Jahrb. Mineral., Monatsh., no. 9, p. 400-404.
- Ashry, M. M., and Riskalla, S., 1968, Clay mineralogy of the Pliocene Potter's clay sediments of Feddan El Sayed in the town of Qena, Egypt: Bull. Inst. Desert Egypte, v. 18, no. 1, p. 1-16.
- Atfeh, M. S., 1966, Phosphatic deposits in Syria and Safaga district, Egypt; discussion: Econ. Geol., v. 61, p. 1142-1152.

- Athavale, R. N., 1969, Intensity of the geomagnetic field in pre-historic Egypt: *Earth Planet. Sci. Lett.*, v. 6, no. 3, p. 221-224.
- Atia, A. K. M., Hilmy, M. E., and Bolous, S. N., 1970a, Mineralogy of the salt deposits of Wadi Natrun: *Bull. Inst. Desert Egypte*, v. 20, no. 1, p. 49-76.
- \_\_\_\_\_, 1970b, Mineralogy of the incrustation deposits of Wadi El Natrun, ARE: *Bull. Inst. Desert Egypte*, v. 20, no. 2, p. 301-326.
- Atia, A. K. M., Hilmy, M. E., and Hegab, O. A., 1970, Mineralogy of the sediments of Wadi El Natrun lakes: *Bull. Inst. Desert Egypte*, v. 20, no. 2, p. 327-352.
- Atia, A. K. M., Hilmy, M. E., and Morsy, A. M., 1971, Composition and structure of phosphate deposits in ARE: *Bull. Inst. Desert Egypte*, v. 21, p. 11-29.
- \_\_\_\_\_, 1972, X-ray study on Egyptian phosphates: *Bull. Inst. Desert Egypte*, v. 22, no. 2, p. 227-240.
- Attia, A. A., and others, 1955, Meteorites and related bodies, with a guide to the collection of the Geological Museum, Cairo: Egypt, Min. Res. Dept., Geol. Mus., Pap. no. 1, 53 p.
- Attia, M. I., 1942, Note on the underground water in Egypt: Egypt, Geol. Surv., Publ., 24 p.
- \_\_\_\_\_, 1948, Geology of the Barramiya mining district: Egypt, Geol. Surv., Publ., 76 p.
- \_\_\_\_\_, 1949, A new mode of occurrence of iron-ore deposits in the Eastern Desert of Egypt: *Inst. Egypte, Bull.*, t. 31, p. 49-68.
- \_\_\_\_\_, 1950, The geology of iron-ore deposits of Egypt: Egypt, Geol. Surv., Publ., 34 p.
- \_\_\_\_\_, 1952, The geology of iron-ore deposits of Egypt: *Int. Geol. Congr.*, 18th, Great Britain, Rept., pt. 13, p. 6-13.
- \_\_\_\_\_, 1953, Groundwater in Egypt: *Soc. Geogr. Egypte, Bull.*, t. 26, p. 207-225.
- \_\_\_\_\_, 1954a, Deposits in the Nile Valley and the Delta: Egypt, Geol. Surv., Publ., 356 p.
- \_\_\_\_\_, 1954b, Groundwater in Egypt [with discussion]: *Bull. Inst. Desert Egypte*, t. 4, no. 1, p. 198-211.
- \_\_\_\_\_, 1955a, Contribution to the study of Helwan sulphur and mineral springs: *Soc. Geogr. Egypte, Bull.*, t. 28, p. 51-78.
- \_\_\_\_\_, 1955b, Topography, geology and iron-ore deposits of the district east of Aswan: Egypt, Geol. Surv., Publ., 262 p.
- \_\_\_\_\_, 1956, Manganese deposits of Egypt: *Int. Geol. Congr.*, 20th, Mexico, Manganese, Symp., t. 2, p. 143-171.
- Auldrige, L., 1975, Wildcat campaign opens in far-flung Egyptian search: *Oil Gas J.*, v. 73, no. 28, p. 41-45.
- \_\_\_\_\_, 1977, Egypt's geological 'lay of the land': *Oil Gas J.*, v. 75, no. 9, p. 155-156.
- Avnimelech, M. A., 1948, A new species of *Aspidiscus* from the middle Cretaceous of Sinai and remarks on this genus in general: *Eclogae Geol. Helv.*, v. 40, no. 2, p. 294-298.
- \_\_\_\_\_, 1965, Bibliography of Levant geology (including Cyprus, Hatay, Israel, Jordan, Lebanon, Sinai and Syria): Jerusalem, 192 p.
- \_\_\_\_\_, 1969, Bibliography of Levant geology, including Cyprus, Hatay, Israel, Jordania, Lebanon, Sinai and Syria; volume 2: *Isr. Program Sci. Transl.*, 184 p.



- Awad, G. H., 1952, Praecardiomya sinaitica, a new lamellibranch and genus species from the middle Cretaceous (Cenomanian) of Sinai, Egypt: Inst. Fouad 1<sup>er</sup> du Desert, Bull., t. 2, no. 1, p. 7-9.
- \_\_\_\_\_, 1965, Note on fauna of interest encountered in the western side of the Gulf of Suez: J. Geol. U.A.R., v. 5, no. 1, p. 73-75.
- Awad, G. H., and Abdallah, A. M., 1966, Upper Cretaceous in southern Galala, Eastern Desert with emphasis on neighboring area: Egypt. J. Geol., v. 10, p. 125-142.
- Awad, G. H., and Abed, M. M., 1969, Biostratigraphical zoning of the lower Tertiary in the Dakhla Oasis: Egypt, Geol. Surv., Pap. no. 47, 63 p.
- Awad, G. H., Fair, M. I., and Abbas, H. L., 1953, Contribution to the stratigraphy of the Mokattam area east of Cairo: Bull. Inst. Desert Egypte, t. 3, no. 2, p. 106-107.
- Awad, G. H., and Fawzy, I. M. A., 1956, The Cenomanian transgression over Egypt: Bull. Inst. Desert Egypte, t. 6, no. 1, p. 168-184.
- Awad, G. H., and Ghobrial, M. G., 1966, Zonal stratigraphy of the Kharga Oasis: Egypt, Geol. Surv., Pap. no. 34, 77 p.
- Awad, G. H., and Hassan, M. Y., 1960, Evidence of rain erosion in the Kharga Oasis: Bull. Inst. Desert Egypte, t. 7, no. 2, p. 55-58.
- Awad, G. H., and Naim, E. M., 1966a, Comparative statistical studies on Cardita libyca (Quass) from Kharga Oasis: Bull. Fac. Sci., Alex. Univ., v. 7, p. 293-303.
- \_\_\_\_\_, 1966b, A biometrical variational study on Crassatella zitteli (Quass): Bull. Fac. Sci., Alex. Univ., v. 7, p. 305-324.
- \_\_\_\_\_, 1969a, Statistical comparisons of Crassatella zitteli magna population: Bull. Fac. Sci., Alex. Univ., v. 9, p. 413-434.
- \_\_\_\_\_, 1969b, A study on the variability of genus Carbonical McCoy: Bull. Fac. Sci., Alex. Univ., v. 9, p. 301-308.
- Awad, G. H., Naim, E. M., and Abdou, H. F., 1964, The Campanian-Maestrichtian boundary and the Phosphate Series: Bull. Fac. Sci., Alex. Univ., v. 7, p. 293-303.
- Awad, G. H., and Said, R., 1963, Egypt: Lexique, v. IV, Afrique, Fasc. 46, p. 1-75.
- Awad, G. H., Said, R., and Delany, F., 1966, International lexicon; volume 4, Africa; part 4b, Egypt, Sudan Lexique stratigraphique international; volume IV, Afrique; fascicule 4b, Egypt, Sudan: Union Int. Geol. Sci., Comm. Stratigr., 105 p.
- Awad, H., 1948, Le Gilf-el-Kebir et l'Auenat: Soc. Geogr. Egypte, Bull., t. 22, f. 3-4, p. 137-150.
- \_\_\_\_\_, 1951, La montagne du Sinai du central; etude morphologique: Soc. Geogr. Egypte, Publ., 247 p.
- \_\_\_\_\_, 1952, Presentation d'une carte morphologique du Sinai au 1:500.000e: Inst. Fouad 1<sup>er</sup> du Desert, Bull., t. 2, no. 1, p. 132-138.
- \_\_\_\_\_, 1953, Signification morphologique des depots lacustres de la montagne du Sinai central: Soc. Geogr. Egypte, Bull., t. 25, p. 23-28.
- \_\_\_\_\_, 1956, A new type of desert cuesta in central Sinai: Int. Geogr. Congr., 17th, Washington, D.C., Proc., p. 126-131.
- Ayalon, A., 1976, The mineralogy of detrital sediments along the western coast of Gulf of Elat: J. Sediment. Petrol., v. 46, no. 3, p. 743-752.

- Ayouti, M. K., 1975, Exploration for oil in the Libyan (Western) Desert of Egypt: Egypt, Geol. Surv., Ann., v. 5, p. 99-104.
- Azer, N., 1962, Some geological aspects about Ain El Sira spring area at the Mokattam front: Soc. Geogr. Egypte, Bull., v. 35, p. 5-12.
- \_\_\_\_\_, 1965, Structural features of Gebel El Mokattam area, east Cairo: Soc. Geogr. Egypte, Bull., v. 38, p. 201-234.
- \_\_\_\_\_, 1966, Remarks on the origin of Precambrian mineral deposits in Egypt, U.A.R.: Tschermaks Mineral. Petrogr. Mitt., Bull., XL, H. 1-2.
- Badawry, R., 1963, Geological significance of the regional gravity data, eastern Mediterranean region: Arab Pet. Congr., 4th, Beirut, v. 2, p. 305-310.
- Baecker, H., 1971, Copper and zinc in the Red Sea: Umschau, v. 71, no. 19, p. 707.
- Baecker, H., and Richter, H., 1973, Recent hydrothermal sedimentary deposits in the Atlantis-II Deep Red Sea: Geol. Rundsch., v. 62, no. 3, p. 697-740.
- Baecker, H., and Schoell, M., 1972, New deeps with brines and metalliferous sediments in the Red Sea: Nature, v. 240, no. 103, p. 153-158.
- Bagnold, R. A., 1951, Some problems of desert physics: Inst. Fouad 1<sup>er</sup> du Desert, Bull., t. 1, no. 2, p. 27-33.
- Bahat, D., 1975, Characterization of albite from Sinai by physical methods: Isr. Jour. Earth Sci., v. 24, no. 1-2, p. 1-5.
- Baker, B. H., 1970, The structural pattern of the Afro-Arabian rift system in relation to plate tectonics: R. Soc. Lond., Philos. Trans., Ser. A, v. 267, p. 383-391, 399-405.
- Ball, J., 1900, Kharga Oasis; its topography and geology: Egypt, Geol. Surv., Publ., 116 p.
- \_\_\_\_\_, 1902, Topographical and geological results of a reconnaissance survey of Gebel Garra and the Oasis of Kurkur: Egypt, Geol. Surv., Publ., 40 p.
- \_\_\_\_\_, 1907, A description of the first Aswan cataract of the Nile: Egypt, Geol. Surv., Publ., 121 p.
- \_\_\_\_\_, 1912, The geography and geology of southeastern Egypt: Egypt, Geol. Surv., Publ., 304 p.
- \_\_\_\_\_, 1913, A brief note on the phosphate deposits of Egypt: Egypt, Geol. Surv., Publ., 6 p.
- \_\_\_\_\_, 1916, The geography and geology of west-central Sinai: Egypt, Geol. Surv., Publ., 219 p.
- \_\_\_\_\_, 1933, The Qattara depression of the Libyan Desert and the possibility of its utilization for power production: Geog. J. (London), v. 82, no. 4, p. 289-314.
- \_\_\_\_\_, 1937, The water supply of Mersa Matruh: Egypt, Geol. Surv., Pap. no. 43, 41 p.
- Ball, J., and Beadnell, H. J. L., 1902, Baharia Oasis; its topography and geology: Egypt, Geol. Surv., Publ., 84 p.
- Ban Yosef, O., Wendorf, F., and Marks, A. E., 1975, The Epipaleolithic in Palestine and Sinai in Problems in prehistory; North Africa and the Levant: South. Methodist Univ. Press, Dallas, Tex., p. 363-378.
- Bannert, D. N., 1971, Plate drift in the Red Sea region analyzed from space photographs, in International Symposium on Remote Sensing of Environment: 7th Proc., Willow Run Lab., Ann Arbor, Michigan.

- Bannert, D. N., 1972, Afar tectonics analyzed from space photographs: Am. Assoc. Pet. Geol., Bull., v. 56, no. 5, p. 903-915.
- Bannert, D. N., and Kedar, E. Y., 1971, Plate tectonics in the Red Sea region as inferred from space photographs: NASA, Publ., Wash., D.C., 16 p. (NASA TN D-6261).
- Bar, C. B., and Klitzsch, E., 1964, Introduction to the geology of Egypt, in Guidebook to the geology and archaeology of Egypt: Pet. Explor. Soc. Libya, 6th Ann., Field Conf., p. 71-98.
- Bar, M., Kolodny, Y., and Bentor, Y. K., 1974, Dating faults by fission track dating of apatites; an attempt: Earth Planet. Sci. Lett., v. 22, no. 2, p. 157-162.
- Barakat, M. G., 1970, A stratigraphical review of the Jurassic formations in Egypt and their oil potentialities: Arab. Pet. Congr., 7th, Kuwait, Pap. no. 7, 14 p.
- Barakat, M. G., and Abdel Hady, Y. E., 1974, Stratigraphy and paleogeographic construction of Salum district during the Neogene: Hung., Magy. Allami Foeldt. Intez., Evi Jel., 1972, p. 313-341.
- Barakat, M. G., and Abdel Hamid, M. L., 1974, Subsurface geology of Farafra Oasis, Western Desert: Egypt. J. Geol., v. 17 no. 2, p. 97-110.
- Barakat, M. G., Abdel Khalek, L. M., and Abou Khadrah, A. M., 1970, The geology of Gabal Abou-Treifiya area, Cairo-Suez district: Bull. Inst. Desert Egypte, v. 20, no. 1, p. 1-20.
- Barakat, M. G., and Abou Khadrah, A. M., 1971, On the occurrence of lower Lutetian in G. Abou Treifiya area, Cairo-Suez district: Egypt. J. Geol., v. 15, no. 2, p. 75-81.
- Barakat, M. G., and Aboul Ela, N. W., 1970, Microfacies and paleoecology of middle Eocene and younger sediments in Geneifa area, Cairo-Suez district: J. Geol. U.A.R., v. 14, no. 1, p. 23-36.
- \_\_\_\_\_, 1971, The geology of Gabal Geneifa-Gabal Gharra area, Cairo-Suez district, U.A.R.: Bull. Inst. Desert Egypte, v. 21, no. 1, p. 31-47.
- Barakat, M. G., and Afra, A. A., 1972, Lithofacies and biofacies of early Upper Cretaceous in Mersa Matruh Well no. 1, Western Desert, Egypt: Arab Pet. Congr., 8th, Algiers, Pap. no. 69, 27 p.
- Barakat, M. G., and Ashri, A. H., 1970, Airphoto interpretation of some structural features in the area southwest of Aswan: Egypt. J. Geol., v. 16, no. 2, p. 247-254.
- Barakat, M. G., and Assad, F. A., 1965, Geological results of the Assiut-Kharga well: Egypt. J. Geol., v. 9, p. 81-86.
- Barakat, M. G., and El Dawoody, A. S., 1973, A microfacies study of the Upper Cretaceous-Paleocene-lower Eocene sediments at Duwi and Gurnah sections, southern Egypt: Hung., Magy. Allami Foeldt. Intez., Evi Jel., v. 1973, p. 391-414.
- Barakat, M. G., and Fahmy, S. E., 1969a, Basinal evolution of Ezz El Orban area during the Paleogene time: Bull. Fac. Sci., Cairo Univ., no. 42, p. 325-339.
- \_\_\_\_\_, 1969b, Lithofacies and biofacies in the lower Paleogene of Ezz El Orban: Afr. Micropaleontol. Colloq., 3rd, Proc., p. 107-112.
- Barakat, M. G., and Milad, G. S., 1966, Subsurface geology of Dakhla Oasis: Egypt. J. Geol., v. 10, p. 145-153.
- Barakat, M. G., and Tewfik, N. M., 1966, Microfacies of the Upper Cretaceous and older sediments in Ezz El Orban exploratory well no. 1: Egypt. J. Geol., v. 10, p. 25-34.

- Barakat, N., and El Shazly, E. M., 1956, Spectrographic distribution of chemical elements in Egyptian minerals from lead, zinc, copper and gold deposits: *Inst. Egypte, Bull.*, t. 37, f. 2, p. 31-43.
- Baric, L., 1962, Celestite from Abu Anz, Qusseir district, Egypt: *Geoloski Glasnik (Sarajevo, Geol. Zavod)*, v. 6, p. 65-66.
- Barker, H., Burleigh, R., and Meeks, N., 1969, British Museum natural radiocarbon measurements VI: *Radiocarbon (Am. J. Sci.)*, v. 11, no. 2, p. 278-294.
- Barlow, C. H., 1947a, A few disconnected observations upon matters geological, by an amateur, in Egypt: *Rocks Miner.*, v. 22, no. 8, p. 703-709.
- \_\_\_\_\_, 1947b, Agate occurrence in Egypt: *Rocks Miner.*, v. 22, no. 9, p. 829.
- Barr, F. T., 1964, Geology of the Gulf of Suez area, in Guidebook to the geology and archaeology of Egypt: *Pet. Explor. Soc. Libya*, 6th Ann. Field Conf., p. 123-140.
- \_\_\_\_\_, 1968, Geology and archaeology of North Cyrenaica, Libya: *Pet. Explor. Soc. Libya*, Amsterdam, 1968.
- Barron, T., 1907a, The topography and geology of the district between Cairo and Suez: *Egypt, Geol. Surv., Publ.*, 133 p.
- \_\_\_\_\_, 1907b, The topography and geology of western Sinai: *Egypt, Geol. Surv., Publ.*, 241 p.
- Barrow, T., and Hume, W. F., 1902, Topography and geology of the Eastern Desert of Egypt (central portion): *Egypt, Geol. Surv., Publ.*, 331 p.
- Barthel, K. W., and Boettcher, R., 1978, Abu Ballas Formation (Tithonian/Berriasian, Southwestern Desert, Egypt), a significant lithostratigraphic unit of the former Nubian Series: *Bayer. Staatssamml. Palaeontol. Hist. Geol., Mitt.*, no. 18, p. 153-166.
- Barthelemy, Y., 1939, A propos de la presence de poches a cailloutis dans l'eocene infeieur a l'ouest de Sohag: *Soc. Geogr. Egypte, Bull.*, t. 20, f. 2, p. 275-281.
- \_\_\_\_\_, 1940a, Des poches a cailloutis de la region de Sohag et leur relation probable avec un reseau hydrographique post-eocene: *Soc. Geogr. Egypte, Bull.*, t. 20, f. 3, p. 329-336.
- \_\_\_\_\_, 1940b, De l'erosion souterraine dans la region de Sohag: *Inst. Egypte, Bull.*, t. 22, f. 1, p. 35-38.
- \_\_\_\_\_, 1942, Quelques resultats d'analyses du contenu des "poches de Sohag": *Soc. Geogr. Egypte, Bull.*, t. 20, f. 4, p. 421-434.
- Barton, D., 1938, Discussion; the disintegration and exfoliation of granite in Egypt: *J. Geol.*, v. 46, no. 1, p. 109-111.
- Barton, N. G., and Blackshaw, S. M., 1976, A statistical evaluation of the analyses carried out on Egyptian limestone: *Lithoclastia*, no. 2, p. 11-16.
- Bartov, Y., and Steinitz, G., 1977, The Judea and Mount Scopus groups in the Negev and Sinai with trend surface analysis of the thickness data: *Isr. J. Earth Sci.*, v. 26, no. 3-4, p. 119-148.
- Bashat, H. M., Salem, M., and Etman, M. H., 1970, Application of radioactive-tracers in oilfield exploitation practice in U.A.R.: *Arab Pet. Congr.*, 7th, Kuwait, Pap. no. 7, 16 p.
- Bassiouni, M. E. A., 1965, Ostracodon aus dem "Pliozan" von Kom el Shelul Pyramiden - plateau, Gizeh (Agypten): *Geol. Jahrb.*, v. 82, p. 631-654.



- Bassiouni, M. E. A., 1969, Ostracoden aus dem Eozan von Agypten, I, Trachyleberidinae: Geol. Jahrb., v. 87, p. 383-426.
- \_\_\_\_\_, 1970, Ostracoden aus dem Eozan von Agypten; 2, die Unterfamilien Hemicytherinae, Thaerocytherinae und Camplyocytherinae [Ostracoda from the Eocene of Egypt; part 2, The subfamilies Hemicytherinae, Thaerocytherinae and Camplyocytherinae]: Ger. Bundesanst. Bodenforsch., Geol. Jahrb., v. 88, p. 203-233.
- \_\_\_\_\_, 1971, Ostracoden aus dem Eozan von Agypten; 3, Die Unterfamilien Brachytherinae and Buntoniinae [Ostracods from the Eocene of Egypt; 3, The subfamilies Brachytherinae and Buntoniinae]: Ger. Bundesanst. Bodenforsch., Geol. Jahrb., v. 89, p. 169-185.
- Basta, E. Z., 1970, A note on an ilmenite occurrence in Wadi El Miyah, Eastern Desert: J. Geol. U.A.R., v. 14, no. 1, p. 37-41.
- \_\_\_\_\_, 1971, Different types of ilmenite-magnetite intergrowths and their origin: Bull. Fac. Sci., Cairo Univ., no. 44, p. 195-212.
- Basta, E. Z., Abdallah, A. M., and El Kadi, M. B., 1971, Geological and mineralogical investigations on a white sandstone deposit north of Faiyum: Bull. Fac. Sci., Cairo Univ., no. 44, p. 143-163.
- \_\_\_\_\_, 1974, Geology and mineralogy of diatomitic clay deposits north of Faiyum, Egypt: Bull. Fac. Sci., Cairo Univ., no. 45, p. 319-329.
- Basta, E. Z., and Abdel Kader, Z., 1969a, The occurrence of lizardite in Egypt: Inst. Egypte, Bull., v. 50, p. 81-92.
- \_\_\_\_\_, 1969b, The mineralogy of Egyptian serpentinites and talc carbonates: Mineral. Mag., v. 37, p. 394-408.
- Basta, E. Z., and Amer, H. I., 1969, El-Gidida iron ores and their origin, Bahariya Oasis, Western Desert, Egypt: Econ. Geol., v. 64, p. 424-444.
- \_\_\_\_\_, 1970a, Mineralogical investigations of El Gidida area, Bahariya Oases, U.A.R.: Bull. Fac. Sci., Cairo Univ., no. 43, p. 237-269.
- \_\_\_\_\_, 1970b, A geochemical study on the El Gidida iron-ore, Bahariya Oases, U.A.R.: Bull. Fac. Sci., Cairo Univ., no. 43, p. 217-236.
- \_\_\_\_\_, 1970c, Geological and petrographic studies on El Gidida area, Bahariya Oases, U.A.R.: Bull. Fac. Sci., Cairo Univ., no. 43, p. 189-215.
- Basta, E. Z., El Kadi, M. B., and Maksoud, M. A., 1971, Mineralogy of some bentonitic clays from Faiyum, U.A.R. and Aldress, Shropshire, England: Bull. Fac. Sci., Cairo Univ., no. 43, p. 271-284.
- Basta, E. Z., El Sharkawi, M. A., and Salem, N. W., 1969, Mineralogy of some fluxed sinters produced from the Aswan iron ore: Inst. Min. Metal., Trans., Sec. A, v. 78, p. 1-13.
- \_\_\_\_\_, 1970, Mineralogy of some fluxed sinters produced from the Aswan iron ore, discussion: Inst. Min. Metal., Trans., Sec. A, v. 79, p. 81-85.
- Basta, E. Z., and Girgis, M. H., 1968, The titaniferous iron ore of Umm Effin area, south Eastern Desert, U.A.R.: Egypt. Acad. Sci., Proc., v. 21, p. 127-144.
- \_\_\_\_\_, 1969, Petrological, mineralogical and geochemical studies of the magnetite-ilmenite-apatite (nelsonite from Kolmnab), south Eastern Desert, ARE: Egypt. Acad. Sci., Proc., v. 22, p. 145-156.
- Basta, E. Z., and Hanafy, M. A., 1970, Alteration of some Egyptian chromites: Egypt. Acad. Sci., Proc., v. 23, p. 1-8.

- Basta, E. Z., and Kamel, M., 1971, Mineralogy and ceramic properties of some Egyptian talcs: Bull. Fac. Sci., Cairo Univ., no. 43, p. 285-299.
- Basta, E. Z., Philip, G., and Khalil, P., 1971, Petrological studies on some soil sediments from Faiyum area and Nile Valley - mineral analysis: Bull. Fac. Sci., Cairo Univ., no. 44, p. 127-142.
- \_\_\_\_\_, 1974, Clay mineralogy of some soil sediments from Faiyum area and the Nile Valley, Egypt: Egypt. J. Soil Sci., v. 14, no. 1, p. 75-91.
- Basta, E. Z., and Saleeb, W. S., 1971a, Mineralogy of the manganese ores of Elba area, south Eastern Desert: Egypt. J. Geol., v. 15, no. 1, p. 29-48.
- \_\_\_\_\_, 1971b, Elba manganese ores and their origin, south Eastern Desert, U.A.R.: Mineral. Mag., v. 38, no. 294, p. 235-244.
- \_\_\_\_\_, 1973, Mineralogy of the manganese ores of Elba area, south Eastern Desert: J. Geol. U.A.R., v. 15, no. 1, p. 19-48.
- Basta, E. Z., and Takla, M. A., 1968a, Petrological studies on Abu Ghalaga ilmenite occurrence, Eastern Desert: Egypt. J. Geol., v. 12, p. 43-71.
- \_\_\_\_\_, 1968b, Magnetic behavior of the ilmenite ore of Abu Ghalaga: Egypt. J. Geol., v. 12, p. 73-85.
- \_\_\_\_\_, 1968c, Mineralogy and origin of Abu Ghalaga ilmenite occurrence, Eastern Desert: Egypt. J. Geol., v. 12, no. 2, p. 87-136.
- Basta, E. Z., and Zaki, G. M., 1961, Geology and mineralization of Wadi Sikeit area, south eastern Desert: Egypt. J. Geol., v. 5, p. 1-36.
- Batanouny, K. H., 1975, Water resources and plant life in the Egyptian desert, in Computer simulation of water resources systems (Van-steenkiste, G. C., ed.): Am. Elsevier Publ. Co., Inc., New York, p. 383-396.
- Baturin, G. N., 1970, New types of ores in the ocean: Priroda, no. 9, p. 79-81.
- Baturin, G. N., Kochenov, A. V., and Trimonis, Y. S., 1969, Composition and origin of iron-ore sediments and hot brines in the Red Sea: Oceanology, v. 9, no. 3, p. 360-368.
- Baumgartel, E. J., 1965, Predynastic Egypt: Fasc. 38, in Cambridge Ancient History: Second Cambridge Univ. Press, 39 p.
- Bayoumi, A. I., 1963, Computing seismic data of the Sadd El Aaly area by a simple rapid and consistent technique: Bull. Sci. Tech., Assiut Univ., v. 6, p. 39-54.
- \_\_\_\_\_, 1971, Geoelectrical characteristics of the water-bearing formation, Ras El Hekma coastal area, Western Desert, Egypt: Bull. Inst. Desert Egypte, v. 21, no. 2, p. 313-325.
- Bayoumi, A. I., and Abdel Rahman, F., 1972, Subsurface geologic conditions in the area between Wadi Dara and Gebel El Zeit, Gulf of Suez district, for petroleum exploration: Arab Pet. Congr., 8th, Algiers, Pap. no. 38, 32 p.
- Bayoumi, A. I., and Ahmed, A. S., 1969, Structural interpretation of geophysical anomalies in Qatrani-Natron area: Arab Sci. Congr., 6th, Damascus, pt. 4A, p. 209-215.
- Bayoumi, A. I., and Awad, G. M., 1972, A geophysical study on the area east of Bahariya Oasis, Western Desert, for petroleum prospection: Arab Pet. Congr., 8th, Algiers, Pap. no. 39, 32 p.

- Bayoumi, A. I., and Boctor, J. G., 1970, Geological significance of gravity and magnetic anomalies in Rahmi area, Gulf of Suez district, U.A.R.: Arab Pet. Congr., 7th, Kuwait, Pap. no. 7, 27 p.
- Bayoumi, A. I., and El Dashlouty, S., 1967, A preliminary study of Um Gheig zinc-lead deposits for gravity prospecting: Egypt. J. Geol., v. 11, p. 39-46.
- Bayoumi, A. I., and El Gamili, M., 1966, A magnetic study in Wadi El Assiuti area, Eastern Desert, Egypt: Bull. Inst. Desert Egypte, v. 16, no. 1, p. 19-42.
- \_\_\_\_\_, 1969, An attempt for the estimation of the basement depths in the northern Western Desert of Egypt, U.A.R.: Bull. Sci. Tech., Assuit Univ., v. 12, p. 129-144.
- \_\_\_\_\_, 1970, A geophysical study on the Fayium Rayan area, with reference to its subsurface structure: Arab Pet. Congr., 7th, Kuwait, v. 2, 35 (B-2), 15 p.
- Bayoumi, A. I., and Helmi, A., 1965, A contribution of seismic well data in the northern part of the Western Desert, Egypt: Bull. Sci. Tech., Assiut Univ., v. 8, p. 129-142.
- \_\_\_\_\_, 1967, Seismic velocities and reflection shooting in northern Egypt: Egypt. J. Geol., v. 11, p. 1-17.
- \_\_\_\_\_, 1971, Velocity profiles and their bearing on the interpretation of seismic reflections in northern Western Desert, ARE: Bull. Fac. Sci., Cairo Univ., no. 44, p. 213-218.
- Bayoumi, A. I., Helmi, A., and Wadi, N., 1965, A preliminary study of petroleum exploration in Western Desert, U.A.R.: Arab Pet. Congr., 5th, Cairo, v. 2, 5 p.
- Bayoumi, A. I., and Sabri, A. M., 1970, Quantitative analysis of gravity anomalies in the Qatrani-Wadi El Natrun area: Inst. Egypte, Bull., v. 51, p. 25-34.
- \_\_\_\_\_, 1971a, A contribution to magnetic anomalies in the Qatrani-El Natrun area, north Western Desert, Egypt, ARE: Bull. Fac. Sci., Cairo Univ., no. 44, p. 165-173.
- \_\_\_\_\_, 1971b, The subsurface geologic conditions in relation to the regional gravity anomalies in Qatrani-Wadi El Natrun area, Western Desert, Egypt, U.A.R.: Bull. Fac. Sci., Ain Shams Univ., no. 15, p. 129-148.
- Bayoumi, A. I., and Sayed, A. A., 1972, A geophysical study on the underground water resources of the limestones of Ras El Hekma area, northern Mediterranean coastal zone of Egypt, ARE, in International Fachtagung zur Untersuchung unterirdischer Wasserwege mittels Kuenstlicher und nastuerlicher Markierungsmittek, 2nd, Votraege, Diskussionen und Beitrage: Geol. Jahrb., Reihe C, no. 2, p. 261-263.
- Bayoumi, A. I., and Shenouda, H. H., 1972, Analytical resolution of the potential data as a mean for emphasizing subsurface structures in the Cairo Suez area, Gulf of Suez district: Arab Pet. Congr., 8th, Algiers, Pap. no. 73 (B-3), 36 p.
- Bayoumi, A. I., and Shereff, M. R., 1969, Adjustments of "delta time" velocities and their effects on the interpretation of the geoseismic structure in the northern Western Desert of Egypt, U.A.R.: Bull. Sci. Tech., Assiut Univ., v. 12, p. 113-127.
- \_\_\_\_\_, 1971a, Mathematical considerations to the seismic velocity distribution in the northern Western Desert of Egypt, U.A.R.: Bull. Fac. Sci., Cairo Univ., no. 43, p. 301-314.

- Bayoumi, A. I., and Shereff, M. R., 1971b, The geologic conditions controlling the distribution of seismic velocities in the northern Western Desert of Egypt: *Bull. Fac. Sci., Cairo Univ.*, no. 43, p. 315-344.
- Beadnell, H. J. L., 1901a, Farafra Oasis; its topography and geology: *Egypt, Geol. Surv., Publ.*, 39 p.
- \_\_\_\_\_, 1901b, Dakhla Oasis; its topography and geology: *Egypt, Geol. Surv., Publ.*, 107 p.
- \_\_\_\_\_, 1902, Cretaceous regions of Abu Roash, near the Pyramids of Giza: *Egypt, Geol. Surv., Publ.*, 18 p.
- \_\_\_\_\_, 1905, The topography and geology of the Fayium province of Egypt: *Egypt, Geol. Surv., Publ.*, 101 p.
- Beaumont, P., Blake, G. H., and Wagstaff, J. M., 1976, The Middle East; a geographical study: John Wiley & Sons, London, 572 p.
- Beckman, J. P., and others, 1969, Standard planktonic zones in Egypt [with discussion]: *Int. Conf. Planktonic Microfossils, 1st., Proc.*, v. 1, p. 92-103.
- Bedewi, M. F., and Ghobrial, N. K., 1971, Physical properties and processing of Wadi Kalabsha kaolin for industrial purposes, in The discovery of a new kaolin deposit in Wadi Kalabsha, Nubia: *Egypt, Geol. Surv., Pap. no. 54*, p. 113-127.
- Beets, C., 1953, Slumping in Miocene deposits at Hurghada, Red Sea district, Egypt: *Geol. Mijnbouw, jg. 15*, no. 9, p. 321-325.
- Beheiry, A., 1967, Geomorphology of the Western Desert margin between Sohag and Naga Hammadi, Egypt: *Soc. Geogr. Egypte, Bull.*, v. 40, p. 35-62.
- Behrensmeyer, A. K., 1974, Late Cenozoic sedimentation in the Lake Rudolf Basin, Kenya: *Egypt, Geol. Surv., Ann.*, v. 4, p. 287-306.
- Behrman, D., 1970, Unsuspected riches of the Red Sea: *Chron. Mines*, v. 38, no. 391, p. 97-98.
- Bell, J. D., and Sandford, K. S., 1971, Nodular masses of manganese in volcanic rocks around Jebel Uweinat, in *Symp. Geol. Libya*, C. Gray, ed.: *Fac. Sci., Univ. Libya*, p. 333-339.
- Bell, J. F., 1968, The measurement of the distance between Ethiopia Perim-south Arabia at Bab El Mandeb in 1965, Jan.: *R. Astron. Soc., Geophys. J.*, v. 16, no. 3, p. 317-323.
- Bellair, P., 1949, Le quaternaire de Tejerhi (Fezzan) [with discussion]: *Soc. Geol. Fr., C.R. Seances*, no. 9-10, p. 160-162.
- Ben Avraham, Z., and Hall, J. K., 1977, Geophysical survey of Mount Carmel structure and its extension into the eastern Mediterranean: *J. Geophys.*, v. 82, no. 5, p. 793-802.
- Ben Avraham, Z., and Oren, O. H., 1978, The structure and tectonic setting of the Levant continental margin, eastern Mediterranean in *Structure and tectonics of the eastern Mediterranean: Tectonophysics*, v. 46, no. 3-4, p. 313-331.
- Ben Menahem, A., and Aboodi, E., 1971, Tectonic patterns in the northern Red Sea region: *J. Geophys. Res.*, 76, no. 11, p. 2674-2689.
- Benson, R. H., and Ruggieri, G., 1974, The end of the Miocene, a time of crisis in Tethys-Mediterranean history: *Egypt, Geol. Surv., Ann.*, v. 4, p. 237-250.
- Bentz, F. P., and Gutman, S. I., 1977, Landsat data contributions to hydrocarbon exploration in foreign regions: *U.S. Geol. Surv., Prof. Pap.*, no. 1015, p. 83-92.



- Beregovoy, G. T., and others, 1972, Taking space photographs of the Earth *Fotografirovaniye Zemli iz kosmosa*, in *Issledovaniya prirodnoy sredy s piloteruyemykh orbital'nykh stantsiy: Gidrometeoizdat*, Leningrad, SUN. p. 68-181.
- Berger, R., 1970, Ancient Egyptian radiocarbon chronology, in a symposium on the impact of the natural sciences on archeology: R. Soc. Lond., Philos. Trans., Ser. A, v. 269, no. 1193, p.23-36.
- Berger, R., and Libby, W. F., 1966, UCLA radiocarbon dates V: Radiocarbon (Am. J. Sci.), v. 8, p. 467-497.
- Berggren, W. A., 1964, Biostratigraphy of the Paleocene-lower Eocene of Luxor and nearby Western Desert, in *Guidebook to the geology and archaeology of Egypt: Pet. Explor. Soc. Libya, 6th Ann. Field Conf.*, p. 149-176.
- \_\_\_\_\_, 1969, Micropaleontologic investigations of Red Sea cores summation and synthesis of results, in *Hot brines and recent heavy metal deposits in the Red Sea*, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 329-335.
- Berggren, W. A., and Boersma, A., 1969, Late Pleistocene and Holocene planktonic Foraminifera from the Red Sea, in *Hot brines and recent heavy metal deposits in the Red Sea*, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 282-298.
- Berggren, W. A., and Philips, J. D., 1971, Influence of continental drift on distribution of the Tertiary benthonic Foraminifera in the Caribbean and Mediterranean regions, in *Symposium on the geology of Libya: Fac. Sci., Univ. Libya*, p. 263-299.
- Beyth, M., Grunhagen, H., and Zilberfarb, A., 1978, An ultramafic rock in the Precambrian of eastern Sinai: *Geol. Mag.*, v. 115, no. 5, p. 373-378.
- Biely, A., Rakus, M., and Robinson, P., 1974, Le Neogene de la Tunisie: *Egypt, Geol. Surv., Ann.*, v. 4, p. 307-317.
- Bignon, B., 1972, Etude d'un poisson Perleididae du Trias du Sinai [A fossil fish (Perleididae) from the Triassic of the Sinai]: *Mus. Natl. Hist. Nat.*, Bull., no. 52, p. 53-63.
- Bignot, G., and Guyader, J., 1965, Quelques precisions sur *Neobulimina varsoviensis* Bielecka and Pozaryoli 1954, et *Paleogaudryina magharensis* Said and Barakat 1958: *Rev. Micropaleontol.*, v. 8, no. 1, p. 53-58.
- Bischoff, J. L., 1969a, Red Sea geothermal brine deposits, their mineralogy, chemistry and genesis, in *Hot brines and recent heavy metal deposits in the Red Sea*, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 368-410.
- \_\_\_\_\_, 1969b, Geothite-Hematite stability relations with relevance to sea water and the Red Sea brine system, in *Hot brines and recent heavy metal deposits in the Red Sea*, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 402-406.
- \_\_\_\_\_, 1972, A ferroan nontronite from the Red Sea geothermal system: *Clay Miner.*, v. 20, p. 217-223.
- Bischoff, J. L., and Manheim, F. T., 1969, Economic potential of Red Sea heavy metal deposits, in *Hot brines and recent heavy metal deposits in the Red Sea*, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 535-541.
- Bishara, W. W., and Habib, M. E., 1973, The Precambrian banded iron ore of Semna, Eastern Desert, Egypt: *Neues Jahrb. Mineral., Abh.*, v. 120, no. 1, p. 108-118.

- Bishara, W. W., and Nasr, M., 1975, On the heavy mineral content of some Nubian sandstone exposures in Kharga Oasis: *Bull. Fac. Sci., Assiut Univ.*, v. 2, no. 2, p. 67-77.
- Bishay, A., and Atwa, G., 1971, Egyptian phosphate ore and its beneficiation: *Arab Conf. Petrochem.*, Kuwait, 29 p.
- Bishay, A., and others, 1974a, Zinc-lead deposits: *Egypt, Geol. Surv.*, Pap. no. 61, p. 47-53.
- \_\_\_\_\_, 1974b, Abu Ghalaga ilmenite deposit: *Egypt, Geol. Surv.*, Pap. no. 61, p. 55-61.
- \_\_\_\_\_, 1974c, Black sand deposits: *Egypt, Geol. Surv.*, Pap. no. 61, p. 63-66.
- Bishay, N. Z., 1973, Hydrogeochemical characteristics of brines in the western coast of the Gulf of Suez: *Mineral. Slovaca*, v. 5, no. 1, p. 4360.
- Bishay, Y., 1961, Biostratigraphical study of the Eocene in the Eastern Desert between Samalut and Assiut by large Foraminifera: *Arab. Pet. Congr.*, 3rd, Alexandria, v. 2, 13 p.
- \_\_\_\_\_, 1967, An approach to stratigraphic correlation by microfacies: *Arab Pet. Congr.*, 6th, Baghdad, v. 2, 3 p.
- Bjorkman, J. K., 1973, Meteors and meteorites in the ancient Near East: *Ariz. State Univ., Cent. Meteor. Stud.*, Publ., no. 12, 132 p.
- Blake, G. H., 1974, Oil in Egypt: *Geography*, v. 59, pt. 1, no. 262, p. 49-51.
- Blissenbach, E., 1972, Continental drift and metalliferous sediments: *Oceanology*, Int. 72, Conf. Papers, p. 412-416.
- Blondeau, A., 1970, Les Nummulites de l'Afrique: *Afr. Micropaleontol. Colloq.*, 4th, Abidjan, Proc., p. 54-70.
- Bobbitt, J. E., and Gallagher, J. O., 1978, Petroleum geology of the Gulf of Suez: *Offshore Tech. Conf.*, Proc., no. 10, v. 1, p. 375-382.
- Boehm, S., Gill, D., and Frenkel, Y., 1974, Geochemical exploration of Sinai and southern Israel; automated data processing of wadi-sediment samples: *Isr., Geol. Surv., Geol. Data Process. Unit*, Rep., no. 7/74, 25 p.
- Bogatyrev, B. A., Gipp, S. K., and Grigor'ev, V. N., 1974, The pre-Visean "laterite" weathering crust in Central Asia: *Lithol. Miner. Resour.*, v. 9, no. 1, p. 104-109.
- Bogoch, R., 1977, Residual cipolino in the Sinai Precambrian: *Isr. J. Earth Sci.*, v. 26, no. 2, p. 64-67.
- Bogoch, R., and Cook, P., 1974, Calcite cementation of a Quaternary conglomerate in southern Sinai: *J. Sediment. Pet.*, v. 44, no. 3, p. 917-920.
- Bold W. A., 1964, Ostracoden aus der Oberkreide von Abu Rawash, Agypten: *Palaeontogr.*, Abt. A., Bd 123, Lf. 4-6, p. 111-135.
- Bonatti, E., and Oiva, J., 1969, Palygorskite from the deep sea, a reply: *Am. Mineral.*, v. 54, no. 3-4, p. 568.
- Bostrom, K., and Valdes, S., 1969, Arsenic in ocean floors: *Lithos*, v. 2, no. 4, p. 351-360.
- Boulos, F. K., 1972, Electrical sounding the water surface at Khor Kundi El-Bahari in Egypt: *Geophys. Prospect.* (The Hague), v. 2, p. 304-316.
- Bowen, B. E., and Vondra, C. F., 1974, Paleoenvironmental interpretations of the Oligocene Gabal et Qatrani Formation, Fayum Depression, Egypt: *Egypt, Geol. Surv., Ann.*, v. 4, p. 115-138.

- Bowerman, J. N., 1966, Petroleum developments in north Africa in 1965: Am. Assoc. Pet. Geol., Bull., v. 50, no. 8, p. 1681-1703.
- \_\_\_\_\_, 1967, Petroleum developments in north Africa in 1966: Am. Assoc. Pet. Geol., Bull., v. 51, no. 8, p. 1564-1586.
- Bowker Company, 1971, Volume I and II Ulrich's International Periodicals Dictionary 14th edition: Bowker Co., 1180 Ave. of the Americas, N. Y., U.S.A.
- Braitsch, O., 1973, Rhythmic bedding and influxes (with comment), in Marine evaporites, origin, diagenesis and geochemistry: Dowden Hutchinson and Ross, Stroudsburg, Penn. (reprint), p. 240-247.
- Brewer, P. G., and others, 1969, Hydrography of the Red Sea, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 138-147.
- \_\_\_\_\_, 1972, Hydrographic observations on the Red Sea brines indicate a marked increase in temperature: Woods Hole Oceanogr. Inst., Coll. Repr., pt. 2, 5 p.
- Brewer, P. G., and Spencer, D. W., 1969, A note on the chemical composition of the Red Sea brines, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens, and D. A. Ross., eds.: Springer Verlag, New York, p. 174-179.
- Bronnimann, P., 1968, Re-examination of the morphology of "Nantiloculina" circularis (Said and Barakat, 1959), from the Upper Jurassic of Egypt and Israel: Seance Soc. Phys. Hist., C. R., Geneve, n.s., v. 2, no. 1, p. 62-73.
- Brooks, R. R., Kaplan, I. R., and Peterson, M. N. A., 1969, Trace element composition of Red Sea geothermal brine and interstitial water, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 180-203.
- Brown, P., and Stratton, G. B., 1963, World list of scientific periodicals published in the years 1900-1960: Butterworths, London, 1824 p.
- Bryan, W. B., 1972, Morphology of quench crystals in submarine basalts: J. Geophys. Res., v. 77, no. 29, p. 5812-5819.
- Brzozowski, J., 1971, Quartz sands in the delta of the Nile River: Przegl. Geol., v. 19, no. 8-9, p. 414-415.
- Budanov, V. I., 1970, Mechanism of formation of ring complexes: Acad. Sci. USSR, Dokl., Earth Sci. Sect., v. 191, p. 59-62.
- Buffetaut, E., 1976, Der Land-Krokodilier Libycosuchus Stromer und die Familie Libycosuchidae (Crocodylia, Mesosuchia) aus der Kreide Afrikas [The land crocodile Libycosuchus and the family Libysosuchidae (Crocodylia, Mesosuchia) from the Cretaceous of Africa]: Bayer. Staatssamml. Palaeontol. Hist. Geol., Mitt., no. 16, p. 17-28.
- Buge, E., 1964, Aperçu sur les bryozoaires miocènes et pliocènes des bassins méditerranéens d'Afrique: Inst. "Lucas Mallada" Invest. Geol., Cursillos Conf., no. 9, p. 167-169.
- Bugrov, V. A., 1974, Geochemical sampling techniques in the Eastern Desert of Egypt: J. Geochem. Explor., v. 3, no. 1, p. 67-75.

- Bugrov, V. A., El Gadael, A. A., and Soliman, M. M., 1973, Rare-metallic albitites as a new type of ore-mineralization in Egypt, in Proceedings of the International Meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: Egypt, Geol. Surv., Ann., v. 3, p. 185-206.
- Bugrov, V. A., and Shalaby, I. M., 1973, First discovery of Cu-Ni sulphide mineralization in gabbro peridotitic rocks in Eastern Desert of Egypt: Egypt, Geol. Surv., Ann., v. 3, p. 177-183.
- \_\_\_\_\_, 1975, Geochemical prospecting in the Eastern Desert of Egypt: Econ. Geol., no. 1, p. 523-530.
- Bulanzhe, Y. D., Gusev, N. A., and Silvin, Y. A., 1977, Opredeleeniye uskoreniya sily tyazhesti v Kaire [Determination of the gravity value at Cairo], in Rezul'taty vysokotochnykh gravimetricheskikh izmereniy (Milyutina, Ye. N., and others, eds.), p. 45-47: Sovyetskoye radio, Moscow, Union of Soviet Socialist Republics.
- Burek, P. J., 1969, Structural effects of sea-floor spreading in the Gulf of Aden and the Red Sea on the Arabian Shield, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 59-70.
- Burggraef, W., and Mueller, H. G., 1965, Die phosphatlagerstaetten Hamrawein in der arabischen Wuste: Erzmetall, v. 18, no. 10, p. 494-500.
- Burollet, P. F., 1963, Reconnaissance geologique dans le sud-est du bassin de Kufra: Rev. Inst. Fr. Pet., v. 18, no. 11, p. 1537-1545.
- Burollet, P. F., and others, 1975, Summary of petroleum activities in Symposium geodynamique geologie et geophysique marines: Comm. Int. Explor. Sci. Mer Mediterr., Rapp. P-v. Reun., v. 23, no. 4a, p. 35-37.
- Butzer, K. W., 1959a, Contributions to the Pleistocene geology of the Nile Valley: Erdkunde, 13, H. 1, p. 46-67.
- \_\_\_\_\_, 1959b, Some recent geological deposits in the Egyptian Nile Valley: Geog. J. (London), v. 125, pt. 1, p. 75-79.
- \_\_\_\_\_, 1959c, Studien zum vor- und fruhgeschichtlichen Landschaftswandel der Sahara; III, Die Naturlandschaft Agyptens wahrend der Vorgesichte und der dynastischen Zeit -- The natural landscape of Egypt during the Stone Age and in dynastic times: Abh. Math-naturw. Kl. Akad. Wiss. Mainz, no. 2, p. 43-122.
- \_\_\_\_\_, 1960a, Archeology and geology in ancient Egypt: Science (AAAS), v. 132, no. 3440, p. 1617-1624.
- \_\_\_\_\_, 1960b, On the Pleistocene shorelines of Arabs Gulf, Egypt: J. Geol., v. 68, p. 626-637.
- \_\_\_\_\_, 1960c, Dynamic climatology of large scale European circulation patterns in the Mediterranean: Meteorol. Rundsch., v. 13, p. 97-105.
- \_\_\_\_\_, 1960d, Remarks on the geography of settlement in the Nile Valley during Hellenistic times: Soc. Geogr. Egypte, Bull., v. 33, p. 5-36.
- \_\_\_\_\_, 1961a, Climatic change in arid regions since the Pliocene: Arid Zone Research (UNESCO), v. 18, p. 31-56.
- \_\_\_\_\_, 1961b, Archaelogische Fundstellen Mittel und Obderagyp ten in ihrer geologischen Landschaft: Mitt. Deut. Archael. Inst., Abt., Kairo, 17, p. 54-68.



- Butzer, K. W., 1962a, Pleistocene stratigraphy and prehistory in Egypt: *Quaternaria*, v. 6, p. 451-477.
- \_\_\_\_\_, 1962b, The Pleistocene sequence in Egypt and its implication for pluvial-glacial correlation in the Sahara: *Oanafrican de Prehistorie*, Congr. 4th, Leopoldville, 1959, Brussell. 1962, v. 1, p. 133-139.
- \_\_\_\_\_, 1964, Pleistocene palaeoclimates of Kurkur Oasis, Egypt: *Can. Geogr.*, v. 8, p. 125-140.
- \_\_\_\_\_, 1965a, Physical conditions in eastern Europe, western Asia, and Egypt before the period of agricultural and urban settlement: *The Cambridge Ancient History*, revised edition of volumes I, II, Cambridge Univ., Press, 39 p.
- \_\_\_\_\_, 1965b, Desert landforms at the Kurkur Oasis, Egypt: *Assoc. Am. Geogr., Ann.*, v. 55, p. 578-591.
- \_\_\_\_\_, 1967, Late Pleistocene deposits of the Kom Ombo Plain, Upper Egypt: *Alfred Rust-Festschrift, Fundamenta (Cologne)*, B. 2, p. 213-227.
- \_\_\_\_\_, 1969, The 2nd raised beach near el Alamein, Egypt: *Congr. Inst. I.N.Q.A., Actas*, no. 5 (1957), v. 1, p. 529-530.
- \_\_\_\_\_, 1971, Quaternary paleoclimatology of the Sahara *Quartaere Vorzeitklima der Sahara: Die Sahara und ihre Randgebiete; Darstellung eines Natur-Grossraumes; I. Band, Physiogeographie IFO-Inst. fuer Wirtsch. Muench. Afr. Stud.*, no. 60, p. 349-398.
- \_\_\_\_\_, 1975, Patterns of environmental change in the Near East during late Pleistocene and early Holocene times, *in Problems in pre-history; North Africa and the Levant* (Wendorf, F., and others, eds.): *South. Methodist Univ. Press, Dallas, Tex., United States*, p. 389-410.
- Butzer, K. W., and Hansen, C. L., 1965, On Pleistocene evolution of the Nile Valley in southern Egypt: *Can. Geogr.*, v. 9, p. 74-83.
- \_\_\_\_\_, 1967, Upper Pleistocene stratigraphy in southern Egypt, *in Background to African evolution*, W. W. Bishop and J. D. Clark, eds.: *Univ. Chicago Press*, p. 329-356.
- \_\_\_\_\_, 1968, Desert and river in Nubia, geomorphology and prehistoric environment at Aswan Reservoir: *Wisconsin Univ. Press*, 562 p.
- \_\_\_\_\_, 1972a, Stratigraphy and geochronology of the Nile Valley in Egyptian Nubia and the Kom Ombo Plain: *Palaeoecol. Afr.*, v. 6, p. 121-124.
- \_\_\_\_\_, 1972b, Late Pleistocene stratigraphy of the Kom Ombo Plain, upper Egypt; comparison with other recent studies near Esna-Edfu: *Assoc. Senegal. Etude Quat. Ouest Afr., Bull., Liason*, no. 35-36, p. 5-14.
- Callow, W. J., and others, 1966, National physical laboratory radio-carbon measurements IV: *Radiocarbon (Am. J. Sci.)*, v. 8, p. 340-347.
- Canton Thompson, G., 1952, Kharga Oasis [Egypt] in prehistory: *London, Univ., Athlone Press*, 213 p.
- Carpen, T. R., 1965, Guidebook to the geology and archeology of Egypt; a review: *Am. Assoc. Pet. Geol. Bull.*, v. 49, p. 104-106.
- Carpentier, A., and Farag, I., 1949, Sur une flore probablement rhétienne a El Galala El Bahariya (rive occidentale du golfe de Suez, Egypt): *Soc. Geol. Fr., Bull.*, s. 5, t. 18 (1948), f. 6-7, p. 551-563.

- Carpentier, A., and Ibrahim, F., 1948, Sur une flore, probablement rhétienne a El Galala El Bahariya (rive occidentale du golfe de Suez, Egypte): Acad. Sci. (Paris), C.R., Ser. D, t. 226, no. 8, p. 686-688.
- Carroll, D. L., 1945, Northern Egypt; test drilling starts long awaited campaign: Oil Weekly, v. 117, no. 7, p. 44-45, 49.
- Carwile, R. H., and Faure, G., 1971, Strontium isotope ratios and base metal content in a core from the Atlantis II Deep Red Sea: Chem. Geol., v. 8, no. 1, p. 15-23.
- Castelain, J., 1966, Aperçu stratigraphique sur la micropaléontologie et la palynologie des sédiments secondaires et tertiaires des bassins de l'ouest Africain, in Bassins sédimentaires du littoral africain, symp., 1re partie, Littoral Atlantique (New Delhi, 1964): Union Int. Sci. Geol., Assoc. Serv., Geol. Afr., Paris, p. 40-51.
- Catalano, R., Ruggier, G., and Sprovieri, R., 1976, Messinian evaporites in the Mediterranean: Soc. Geol. Ital., Mem., v. 16, 385 p.
- Cayeux, L., 1939 and 1941, Les phosphates de chaux sédimentaires de France (France métropolitaine et d'outre-mer): Etudes des gires minérales de la France, t. 1 and 2, 279 p.
- Chabanaud, P., 1937, Les téléostéens dyssymétriques du Mokattam inférieur de Tourah: Inst. Egypte, Mem. t. 32, 125 p.
- \_\_\_\_\_, 1941, Etude complémentaire de la morphologie du téléostéen pleuronectoïde soleiforme Eobuglossus Oecenicus: Soc. Geol. Fr., Bull., s. 5, t. 10, no. 1-2, p. 17-23.
- Champetier, Y., 1977, L'environnement margino-littoral et la valorisation des substances utiles [The marginal-littoral environment and beneficiation of industrial minerals] in Environnements sédimentaires marins: Soc. Geol. Fr., Bull., v. 19, no. 2, p. 299-305.
- Chandler, M. E. J., 1954, Some Upper Cretaceous and Eocene fruits from Egypt: Br. Mus. (Nat. Hist.), Bull., Geol., v. 2, no. 4, p. 149-187.
- Chase, R. L., 1969, Basalt from the axial trough of the Red Sea, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 122-128.
- Chata, A., 1951, Difficulties encountering the finding of oil in the Gulf of Suez region: Inst. Fouad 1<sup>er</sup> du Desert, Bull., t. 1, no. 1, p. 81-105.
- \_\_\_\_\_, 1952, Oil possibilities of northern Sinai: Inst. Fouad 1<sup>er</sup> du Desert, Bull., t. 2, no. 2, p. 111-116.
- Chatters, R. M., 1968, Washington State University natural radio-carbon measurements I: Radiocarbon (Am. J. Sci.), v. 10, no. 2, p. 479-498.
- Chen, C., 1969, Pteropods in the brine sediments of the Red Sea, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 313-316.
- Cherif, O. H., 1972, Some aspects of the palaeoecology of the lower Miocene of the northern part of the Gulf of Suez, Egypt: Arab Pet. Congr., 8th, Algiers, Pap. no. 82 (B-3), 12 p.
- Cherif, O. H., Bassiouni, M. A., and Ghanima, S. A., 1975, Stratigraphy, paleoecology and climates of the Neogene and Quaternary of the Mersa Matrouh area, north Western Desert, Egypt: Egypt., Geol. Surv., Ann., v. 5, p. 137-147.

- Chernysheva, V. I., 1969, Ultrabasite and gabbro from the rift zones of the Arabian-Indian and western Indian under-water ridges: *Oceanology*, v. 9, no. 4, p. 519-528.
- Chilingar, G. V., Rieke, H. H., and Robertson, J. O., Jr., 1963, Degree of hydration of clays: *Sedimentology*, v. 2, no. 4, p. 341-342.
- Chlebowski, R., 1976, Appendix B; Mineral analysis of samples from Site E71K14, areas A and D, in *Prehistory of the Nile Valley* (Wendorf, F., and others, eds.): Academic Press, New York, N.Y., p. 325-326.
- Choubert, G., and Faure-Muret, A., 1969, Explanatory note -- international tectonic map of Africa: UNESCO, Earth Sci. Ser., 54 p.
- Chow, T. J., 1968, Lead isotopes of the Red Sea region: *Earth Planet. Sci. Lett.*, v. 5, no. 3, p. 143-147.
- Chumakov, I. S., 1967a, Pliocene and Pleistocene deposits of the Nile Valley in Nubia and Upper Egypt: *Akad. Nauk SSSR, Geol. Inst., Trans.*, no. 170, 115 p.
- \_\_\_\_\_, 1967b, Fosforitonosnyy allyuviy doliny Nila [Phosphorite-bearing alluvium in the Nile valley]: *Akad. Nauk SSSR, Dokl.*, v. 176, no. 2, p. 413-416.
- \_\_\_\_\_, 1968a, Pliocene ingression into the Nile Valley according to new data, in *Desert and river in Nubia*, K. W. Butzer and C. L. Hansen, eds.: Wisconsin Press, p. 521-522.
- \_\_\_\_\_, 1968b, Phosphorite-bearing alluvium of the Nile valley: *Acad. Sci. USSR, Dokl., Earth Sci. Sect.*, v. 176 (1967), p. 63-68.
- Chumakov, I. S., and Shumenko, S. I., 1977, Heulandite authigene des despots d'embouchure pliocenes du Nil [Authigenic heulandite from the fluvio-marine Pliocene of the Nile Valley]: *Acad. Sci. (Paris), C.R.*, ser. D, v. 284, no. 5, p. 333-336.
- Churcher, C. S., 1972, Late Pleistocene vertebrates from archaeological sites in the plain of Kom Ombo, Upper Egypt: *R. Ont. Mus., Life Sci. Contrib.*, no. 82, 150 p.
- \_\_\_\_\_, 1974, Relationships of the late Pleistocene vertebrate fauna from Kom Ombo, upper Egypt: *Egypt, Geol. Surv., Ann.*, v. 4, p. 363-384.
- Churcher, C. S., and Smith, P. E. L., 1972, Kom Ombo; preliminary report on the fauna of Late Paleolithic sites in Upper Egypt: *Science (AAAS)*, v. 177, no. 4045, p. 259-261.
- Clark, R. M., and Renfrew, C., 1973, Tree-ring calibration of radio-carbon dates and the chronology of ancient Egypt: *Nature*, v. 243, no. 5405, p. 266-270.
- Clarke, F. E., 1978, The corrosive well waters of Egypt's Western Desert: *U.S. Geol. Surv., Open-file Rep.*, no. 78-892, 96 p.
- Clayton, P. A., 1951, The silica glass of the Libyan Desert: *Inst. Fouad 1<sup>er</sup> du Desert, Bull.*, t. 1, no. 2, p. 34-38.
- Clayton, P. A., and Spencer, L. J., 1934, Silica glass from the Libyan Desert: *Mineral. Mag.*, v. 23, no. 144, p. 501-508.
- \_\_\_\_\_, 1973, Silica glass from the Libyan Desert [with comment], in *Tektites*: Dowden, Hutchinson and Ross, Stroudsburg, p. 12-19.
- Clifford, T. N., 1970, The structural framework of Africa, in *African magmatism and tectonics*, T. N. Clifford and I. G. Gass, eds.: Oliver and Boyd (Edinburgh), p. 1-26.
- Cohen, A. J., 1960, Germanium content of tektites and other natural glasses; implication concerning the origin of tektites: *Int. Geol. Congr.*, 21st, Norden, pt. 1, p. 30-39.

- Cohen, A. J., 1961, The terrestrial origin of Libyan Desert silica glass: Phys. Chem. Glass., v. 2, no. 3, June, p. 83-86.
- Coleman, R. G., and others, 1973, Red Sea basalts: Am. Geophys. Union Trans., v. 54, no. 11, p. 1001-1002.
- Collins, B., and Auldrige, L., 1978, Mediterranean busy, but giant find still elusive: Oil Gas J., v. 76, no. 2, p. 39-43.
- Conedera, C., and Ercoli, A., 1977, Il drenaggio fossile [Fossil drainage]: Universo, v. 57, no. 6, p. 1057-1072.
- Conroy, G. C., 1976a, Primate postcranial remains from the Oligocene of Egypt: Contrib. Primatol., no. 8, 134 p.
- \_\_\_\_\_, 1976b, Hallucial tarsometatarsal joint in an Oligocene anthropoid Aegyptopithecus zeuxis: Nature, v. 262, no. 5570, p. 684-686.
- Cooper, J. A., and Richards, J. R., 1969, Lead isotope measurements on sediments from Atlantis II and discovery deep area, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 499-511.
- Coque, M. R., 1972, Premiers resultats de recherches geomorphologiques dans le piedmont de Thebes (Haute-Egypte) [First results of geomorphologic research on the piedmont of Thebes, Upper Egypt]: Assoc. Geogr. Fr., Bull., no. 399, p. 227-234.
- Coque, M. R., and Said, R., 1972, Etude geomorphologique de la frange du Sahara Thebian: Graffiti Thebain de la Montagne Thebain, 1, 3: Centre de Documentation et D'Etudes sur L'Ancienne Egypte, le Caire, p. 12-22.
- Costea, I., 1964, Note on microfacies of Palaeocene sediments in Egypt: Egypt. J. Geol., v. 8, no. 1, p. 47-52.
- Cox, L. R., 1956, Lamellibranchia from the Nubian sandstone series of Egypt: Inst. Egypte, Bull., t. 37, f. 2, p. 465-476.
- Craig, H., 1966, Isotopic composition and origin of the Red Sea and Salton Sea geothermal brines: Science, v. 154, no. 3756, p. 1544-1547.
- \_\_\_\_\_, 1968, Radiocarbon age of the Red Sea brine: Am. Geophys. Union Trans., v. 49, p. 193.
- \_\_\_\_\_, 1969, Geochemistry and origin of the Red Sea brines, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 208-242.
- Crane, H. R., and Griffin, James B., 1966, University of Michigan radiocarbon dates XI: Radiocarbon (Am. J. Sci.), v. 8, p. 256-285.
- Crommelin, R. D., and Cailleux, A., 1939, Sur les sables calcaires de la cote egyptienne a 50 km. a l'ouest d'Alexandrie: Soc. Geol. Fr., C.R. Seances, f. 6, p. 75-76.
- Cuvillier, J., 1933, Sur la presence de L'Orbitolites complanatus Lmk. dans les couches de passage de l'eocene moyen a l'eocene superieur en Egypte: Acad. Sci. (Paris), C.R., Ser. B, t. 197, no. 17, p. 931-932.
- \_\_\_\_\_, 1934a, Les Kurkurstufe dans le Desert Lybique et leur position stratigraphique: Acad. Sci. (Paris), C.R., Ser. B, t. 199, no. 23, p. 1323-1325.
- \_\_\_\_\_, 1934b, Les "Esna shales" et leur veritable signification stratigraphique: Inst. Egypte, Bull., t. 16, f. 2, p. 133-137.



- Cuvillier, J., 1934c, Du Caire a l'oasis de Farafra via Baharia; aperçus géographique et géologique: Soc. Geogr. Egypte, Bull., t. 18, f. 3-4, p. 257-281.
- 1934d, Repartition et valeur stratigraphique de Nummulites laevigatus Brug. sp. dans l'Eocene égyptien: Acad. Sci. (Paris), C.R., Ser. B, t. 198, no. 8, p. 762-763.
- 1934e, Sur la presence de Nummulites discorbina Schlotheim var. Libyca Checchia-Rispoli dans les couches terminales du Gebel Galamoun (Oasis de Mouellah): Soc. Geol. Fr., C. R. Seances, f. 1-2, p. 18-19.
- 1936a, Sur la presence du pliocene marin a l'est d'El Saff (Haute-Egypte): Inst. Egypte, Bull., t. 18, f. 1, p. 151-155.
- 1936b, Note sur Clypeaster fourtaui Lambert: Soc. Geol. Fr., C. R. Seances, f. 15, p. 255-257.
- 1936c, Valeur stratigraphique et repartition géographique de Nummulites discorbina Schl. en Egypte et dans le bassin mediterraneen: Soc. Geol. Fr., C. R. Seances, f. 12, p. 202-204.
- 1937a, La serie sedimentaire au gebel Sharaouana (Haute-Egypte): Soc. Geol. Fr., C. R. Seances, f. 5, p. 60-62.
- 1937b, La serie sedimentaire a l'est de Kilabia (Haute-Egypte): Inst. Egypte, Bull., t. 19, f. 1, p. 63-65.
- 1937c, Quelques observations a propos de mollusques du tertiaire égyptien etudies par Madam L. Pieragnoli: Inst. Egypte, Bull., t. 19, f. 2, p. 229-234.
- 1937d, Decouverte du nummulitique dans l'ile de Shadwan (Mer Rouge): Acad. Sci. (Paris), C. R., Ser. B, t. 204, no. 5, p. 366-367.
- 1937e, Presence du carbonifere marin dans l'ouadi Abou Darag (Desert Arabique): Acad. Sci. (Paris), C. R., Ser. B, t. 204, no. 24, p. 1834-1835.
- 1938a, Note sur Palaeostoa osiridis Bell. sp.: Soc. Geol. Fr., C. R. Seances, f. 1-2, p. 21-22.
- 1938b, Un nouveau gisement du pliocene marin au nord du Gebel Chelloul: Soc. Geol. Fr., C. R. Seances, f. 5, p. 71-72.
- 1938c, La serie sedimentaire a l'est de Khizam (Haute-Egypte): Inst. Egypte, Bull., t. 20, p. 151-153.
- 1938d, Decouverte de lepidocyclines dans l'oligocene d'Egypte: Acad. Sci. (Paris), C. R., Ser. B, t. 206, no. 9, p. 685-687.
- 1938e, Presence de miogypsines dans le miocene d'Egypte: Acad. Sci. (Paris), C. R., Ser. B, t. 206, no. 13, p. 1035-1036.
- 1938f, Contribution a l'etude du nummulitique de l'Hadhramaout (Arabie meridionale): Acad. Sci. (Paris), C. R., Ser. B, t. 206, no. 26, p. 1979-1980.
- 1939a, Cretace et nummulitique a l'est de Chaghab (Haute-Egypte): Inst. Egypte, Bull., t. 20, f. 2, p. 247-253.
- 1939b, Le nummulitique au nord de Girga (Haute-Egypte): Acad. Sci. (Paris), C. R., Ser. B, t. 208, no. 24, p. 1919-1921.
- 1940, L'oligocene du Gebel Khashab (Desert Lybique): Acad. Sci. (Paris), C. R., Ser. B, t. 210, no. 9, p. 340-342.
- 1941a, Le passage du cretace a l'eocene dans la region de Suez: Acad. Sci. (Paris), C. R., Ser. B, t. 212, no. 17, p. 710-712.
- 1941b, Valeur stratigraphique et repartition géographique du genre Dietyoconus dans le nummulitique d'Egypte: Acad. Sci. (Paris), C. R., Ser. B, t. 212, no. 12, p. 502-504.

- Cuvillier, J., 1942a, L'eocene de la region de Suez et ses rapports avec le cretace superieur: Soc. Geol. Fr., Bull., s. 5, t. 11, no. 1-3, p. 25-34.
- \_\_\_\_\_, 1942b, Presence de Nummulites irregularis dans l'eocene d'Egypt: Acad. Sci. (Paris), C.R., Ser. B, t. 214, no. 4, p. 175-177.
- \_\_\_\_\_, 1943, Les niveaux aquiferes dans le desert Libyque egyptien: Soc. Geol. Fr., Bull., s. 5, t. 12 (1942), f. 4-6, p. 123-131.
- \_\_\_\_\_, 1949, Presence du paleocene en Haute-Egypte: Soc. Geol. Fr., C. R. Seances, no. 11-12, p. 268-270.
- \_\_\_\_\_, 1953, Paleogeographie de l'Egypte au debut des temps tertiaires: Soc. Geogr. Egypte, Bull., t. 25, p. 5-7.
- Cuvillier, J., and Joleaud, L., 1934, Kemtichthys sadeki, nouveau percoide fossile d'Egypte: Inst. Egypte, Bull., t. 16, f. 1, p. 93-98.
- Dangeard, L., 1942, Une acetabulariee miocene a Hurghada au bord de la Mer Rouge: Soc. Linn. Normandie, Bull., s. 9, v. 2, p. 77-78.
- Dardir, A. A., and Abu Zeid, K. M., 1972, Geology of the basement rocks between latitudes 27° 00' & 30° N, Eastern Desert, in The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, p. 129-160.
- Darke, C. L., and Girdler, R. W., 1964, A geophysical study of the Red Sea: R. Astron. Soc., Geophys. J., v. 8, p. 473-495.
- Dauglass, R. C., 1960, Revision of the family Orbitolinidae: Micro-paleontology, v. 6, no. 3, p. 249-270.
- Davey, J. C., 1948, Report on southern Sinai: Mineral. Mag., v. 78, no. 1-4, p. 9-20, 76-78, 144-152, 212-214.
- Davies, D., 1969, The Red Sea, development of an ocean: Sci. J., no. 2, p. 39-44.
- Davies, D., and Tramontini, C., 1970, The deep structure of the Red Sea: R. Soc. Lond., Philos. Trans., Ser. A., v. 267, p. 181-189.
- De Kun, N., 1965, The mineral resources of Africa: Elsevier Publ. Co., Amsterdam, 740 p.
- Degens, E. T., 1962, Geochemische Untersuchungen Von Wassern aus der Agyptischen Sahara: Geol. Rundsch., v. 52, p. 625-639.
- \_\_\_\_\_, 1970, Sea-floor spreading, mineral exploration in the Red Sea and the Black Sea: Umschau, v. 70, no. 9, p. 268-274.
- Degens, E. T., and Ross, D. A., 1967, Hot brines and heavy metals in the Red Sea: Oceanus, v. 13, p. 24.
- \_\_\_\_\_, 1969, Hot brines and recent heavy metal deposits in the Red Sea: Springer Verlag, Berlin - New York, 600 p.
- Delair, J. B., 1967, The occurrence of Upper Cretaceous Pliosaurus in Egypt: Egypt. Acad. Sci., Proc., v. 20, p. 101-102.
- Delevaux, M. H., Doe, B. R., and Brown, G. F., 1967, Preliminary lead isotope investigations of brine from the Red Sea, galena from Kingdom of Saudi Arabia and galena from United Arab Republic (Egypt): Earth Planet. Sci. Lett., v. 3, p. 139.
- Delfour, J., 1976, Volcanisme et gites mineraux du bouclier arabo-nubien [Volcanism and ore deposits of the Arabian-Nubian Shield], in Metallogenie et geologie miniere: Soc. Geol. Fr., Mem. Hors Ser., no. 7, p. 137-142.
- Delpey, G., 1940, Structure de certains opercules de gasteropodes: Inst. Egypte, Bull., t. 22, f. 2, p. 221-224.
- \_\_\_\_\_, 1943, Un cartilage calcifie fossile: Soc. Geol. Fr., Bull., s. 5, t. 12 (1942), f. 1-3, p. 45-56.

- Demangeot, J., 1953, Les regions morphologiques de la presqu' 13  
sinaitique: Rev Geogr. Lyon, v. 28, no. 2, p. 135-141.
- Deraniyagala, P. E. P., 1968, Three extinct mammals from Africa: Pal-  
aeontol. Soc. India, J., v. 5-9, p. 16-20.
- Deuser, W. G., 1968, Postdepositional changes in the oxygen isotope  
ratios of Pleistocene Foraminifera tests in the Red Sea: J.  
Geophys. Res., v. 73, p. 3311.
- Deuser, W. G., and Degens, E. T., 1969,  $O_{18}/O_{16}$  and  $C_{13}/C_{12}$  ratios of  
fossils from Hot-Brine deep sea area of the central Red Sea, in  
Hot brines and recent heavy metal deposits in the Red Sea, E. T.  
Degens and D. A. Ross, eds.: Springer Verlag, New York, p.  
336-347.
- Dietrich, G., and Krause, G., 1969, The observation of the vertical  
structure of hot salt water by R. V. Meteor, in Hot brines and  
recent heavy metal deposits in the Red Sea, E. T. Degens and D. A.  
Ross, eds.: Springer Verlag, New York, p. 10-14.
- Dijkstra, S. J., 1957, Lower Carboniferous megapores: Nether., Geol.  
Stichting, Meded, Nieuwe Ser., no. 10 (1956), p. 5-18.
- Dolphin, L. T., Jr., Bollen, R. L., and Oetzel, G. N., 1974, An under-  
ground electromagnetic sounder experiment: Geophysics, v. 39,  
no. 1, p. 49-55.
- Domenico, S. N., 1978, Multiple reflections and head waves in the Gulf of  
Suez: Offshore Tech. Conf., Proc., no. 10, v. 2, p. 1119-1132.
- Dowidar, N. M., 1971, Distribution and ecology of Ceratium egyptiacum  
Halim and its validity as indicator of the current regime in the  
Suez Canal: Int. Rev. Gesamten Hydrobiol., v. 56, no. 6, p. 957-  
966.
- Drooger, C. W., 1966, Miogysinidae of Europe and north Africa: Int.  
Union Geol. Sci., Comm. Mediter. Neogene Stratigr., Sess. 3, Proc.,  
p. 51-53.
- Drover, D. P., and Beshai, H. M., 1962, A preliminary study of some  
chemical constituents of the bottom deposits of the White Nile:  
Hydrobiologia, (The Hague), v. 20, no. 2, p. 179-183.
- Druckman, Y., 1977, Differential subsidence during the deposition of  
the Lower Jurassic Ardon Formation in western Jordan, southern  
Israel and northern Sinai: Isr. J. Earth Sci., v. 26, no. 2,  
p. 45-54.
- Duba, A., Heard, H. C., and Schock, R. N., 1974, Electrical conduc-  
tivity of olivine at high pressure and under controlled oxygen  
fugacity: J. Geophys. Res., v. 79, no. 11, p. 1667-1673.
- Dubertret, L., 1961, Manifestations de desquamation observees en  
Rhodesie du Sud et en Haute-Egypte [with discussion]: Soc. Geol.  
Fr., Bull., s. 7, t. 3, no. 1, p. 69-73.
- \_\_\_\_\_, 1966, Notice preliminaire sur la carte tectonique de l'Afrique,  
feuille: Int. Geol. Congr., 22nd, India, Comm. Geol. Map world,  
Sci., Commun., p. 91-94.
- \_\_\_\_\_, 1967, Remarques sur le fosse de la mer Morte et ses prolonge-  
ments au nord jusqu'au Tarus: Rev. Geogr. Phys. Geol. Dyn., ser.  
2, v. 9, no. 1, p. 3-16.
- \_\_\_\_\_, 1972, Sur la dislocation de l'ancienne plaque sialique; Afrique-  
Sinai-peninsule Arabique; proposition d'un nouveau modele [On the  
dislocation of the former sialic plate which included Africa,  
Sinai, and the Arabian Peninsula; proposal of a new model]:  
Notes Mem. Moyen-Orient, v. 12, pt. 2, p. 227-243.

- Dumanowski, B., 1960, Notes on the evolution of slopes in an arid climate: *Z. Geomorphol.*, Bd. 1, p. 178-189.
- Dutuit, J. M., 1974, Caracteres generaux des gisements Triassiques marocains: Egypt, *Geol. Surv., Ann.*, v. 4, p. 1-8.
- Dzotsenidze, G. S., 1972, Hot brines in the Red Sea volcanogenic-sedimentary ore formation: *Geol. Rud. Mestorozhd.*, v. 14, no. 5, p. 3-21.
- Eckstein, Y., 1970, Physiochemical limnology and geology of a meromictic pond on the Red Sea shores: *Limnol. Oceanogr.*, v. 15, no. 3, p. 363-372.
- \_\_\_\_\_, 1976a, The application of chemical hydrogeothermometers to groundwaters in Israel, in *Proceedings of the international congress on thermal waters, geothermal energy and vulcanism of the Mediterranean area; Volume II, Thermal waters* (Augustithus, S. S., organizer): *Natl. Tech. Univ., Athens, Greece*, p. 81-96.
- \_\_\_\_\_, 1976b, The interrelation between heat flow and groundwater circulation in Israel, in *Proceedings of the international congress on thermal waters, geothermal energy and vulcanism of the Mediterranean area; Volume II, Thermal waters* (Augustithus, S. S., Organizer): *Natl. Tech. Univ., Athens, Greece*, p. 97-112.
- Eckstein, Y., Gill, D., and Slepian, I., compilers, 1973, Processed geochemical data of ground water resources in southern Sinai: *Isr., Geol. Surv., Geol. Data Process. Unit Rept.*, no. 5/73, unpaginated.
- Edinger, T., 1933, Ergebnisse der Forschungsreisen Prof. E. Stromers in den Wusten Aegyptens; V, Tertiare Wirbeltiere; 5. Ueber Gehirne tertiärer Sirenia Aegyptens und Mitteleuropas sowie der razenten Seekuhe: *Bayer. Akad. Wiss., Math.-Naturwiss. Kl., Abh. N. F.*, H. 20, 36 p.
- \_\_\_\_\_, 1938, Mitteilungen über Wirbeltierreste aus dem Mittelpliocen des Natrontales (Aegypten); 9, Das Gehirn des *Libypithecus*: *Zentralb. Mineral., Geol. Palaeontol., Abt. B*, no. 4, p. 122-128.
- Edwards, I. E. S., 1970, Absolute dating from Egyptian records and comparison with carbon-14 dating, in a symposium on the impact of the natural sciences on archeology: *R. Soc. Lond., Philos. Trans., Ser. A*, v. 269, no. 1193, p. 11-18.
- Edwards, W. N., 1933, On the Cretaceous fern *Paradoxopteris* [from Libyan Desert] and its connection with *Weichselia*: *Annals Bot.*, v. 47, no. 186, p. 317-341.
- Egypt Geological Survey, 1900, Report on the phosphate deposits: *Egypt, Geol. Surv., Publ.*, p. 16-21.
- Eicher, D. B., 1947, Micropaleontology of the Triassic of north Sinai: *Inst. Egypte, Bull.*, t. 23, p. 87-92.
- Eicher, D. B., and Mosher, L. C., 1974, Triassic conodonts from Sinai and Palestine: *J. Paleontol.*, v. 48, no. 4, p. 727-739.
- Eid, A. M., 1963, New sources for the production of pig iron from ilmenite ores: *Egypt, Geol. Surv., Pap.* no. 24, 16 p.
- Eid, A. M., and Abdel Rehim, M. M., 1963a, Metallurgical research on Zn-Pb oxidized ore of Umm Gheig deposits: *Egypt, Geol. Surv., Pap.* no. 22, 15 p.
- \_\_\_\_\_, 1963b, The treatment of sulphides zinc-copper-lead ore of Umm Samiuki south Eastern Desert: *Egypt, Geol. Surv., Pap.* no. 23, 10 p.



- Einsele, G., 1967, Sedimentary processes and physical properties of cores from the Red Sea, Gulf of Aden and of the Nile Delta: *in* Marine Geotechnique, Int. Res. Conf. Mar. Geotech., 1966, Proc., p. 154-162.
- Einsele, G., and others, 1968, Horizontal reef growths at the southern end of the Red Sea: *Deut. Geol. Ges., Z.*, v. 117 (1965), no. 2-3, p. 595.
- Einsele, G., and Werner, F., 1968, Composition, texture and mechanical properties of recent sediments of the Nile Delta, Red Sea and the Gulf of Aden: "Meteor" Forsch., Reihe. C, no. 1, p. 21-42.
- \_\_\_\_\_, 1972, Sedimentary processes at the entrance Gulf of Aden/Red Sea: "Meteor" Forsch., Reihe. C, no. 10, p. 39-62.
- Eisenlohr, V., 1965, Untersuchung der Manganerzlagersttaon Um Bogma Bei-Abu Zeneim auf der Halbinsel Sinai: *Schriften der Gesellschaft Deutscher Metallhuten und Bergleut E. V.*, Heft 15, p. 101-104.
- Eissa, N. A., and others, 1976, Mossbauer effect study of natural Egyptian chalcopryite: *J. Phys. (Soc. Fr. Phys.)*, Colloq., v. 37, no. 12 suppl., Colloq. 6, p. C6.793-C6.796.
- El Addindani, A., and Shakhov, R. A., 1970, The occurrence of coal and some geological features of the Mesozoic and Paleozoic sediments of Egypt, *in* Studies on some mineral deposits of Egypt, O. Mahar-ram, and others, eds.: *Egypt, Geol. Surv., Publ.*, p. 67-86.
- El Agamawi, Y. M., Chalabi, M. F., and El Cheltawi, S. T., 1972, Dis-solution kinetics of  $\text{Ca}(\text{PO}_4)_3$  from Egyptian phosphate rock in hydrochloric acid: *Arab Min. Pet. Assoc. Trans.*, v. 27, no. 2, p. 141-162.
- El Akkad, S., and Abdallah, A. M., 1971, Contribution to geology of Gebel Ataga area: *Egypt, Geol. Surv., Ann.*, v. 1, p. 21-42.
- El Akkad, S., and Dardir, A. A., 1966a, Geology of the Red Sea coast between Ras Shagra and Mersa Alam: *Egypt, Geol. Surv., Pap.* no. 35, 67 p.
- \_\_\_\_\_, 1966b, Geology and phosphate deposits of Wassif-Safaga area: *Egypt, Geol. Surv., Pap.* no. 36, 35 p.
- El Akkad, S., and Issawi, B., 1963, Geology and iron-ore deposits of Bahariya Oasis: *Egypt, Geol. Surv., Pap.* no. 18, 300 p.
- El Ashry, M. T., 1970, Sedimentology of reservoir sandstone in El-Morgan Field, Gulf of Suez, U.A.R.: *Am. Assoc. Pet. Geol., Bull.*, v. 55, no. 2, p. 337.
- \_\_\_\_\_, 1972, Source and dispersal of reservoir sands in El Morgan field, Gulf of Suez, Egypt: *Sediment. Geol.*, v. 8, no. 4, p. 317-325.
- El Askary, M. A., and El Mahdy, O. R., 1976, The Nubia sandstone at Kharga Oasis; a fresh-water deposit; geochemical evidence: *Chem. Geol.*, v. 17, no. 1, p. 1-11.
- El Awady, M. A., and Ghanem, N. A., 1975a, The physical and chemical properties of Alexandria western harbor waters relevant to foul-ing and antifouling paints; Part III, The chemical characteristics of the harbor waters: *Mar. Tech. Soc., J.*, v. 9, no. 6, p. 12-18, 23-24.

- El Awady, M. A., and Ghanem, N. A., 1975b, The physical and chemical properties of Alexandria western harbor waters relevant to fouling and antifouling paints; Part II, The physical characteristics of the harbor waters: Mar. Tech. Soc., J., v. 9, no. 6, p. 3-11.
- El Ayouty, M. K., 1975, Exploration for oil in the Western Desert: Egypt, Geol. Surv., Ann., v. 5, p. 99-104.
- El Ayouty, M. K., and Ezzat, M. A., 1961, Hydrological observation in the search for the underground water in the Western Desert of Egypt, U.A.R.: Int. Assoc. Sci. Hydrol. Publ. no. 57, p. 114-119.
- El Azm, A. A., and El Badry, K. M., 1978, Suitability of some Egyptian sands for the production of glass: Sprechsaal Keram., v. 111, no. 6, p. 379-381.
- El Badry, H. M., Nakhla, F. M., and Saleh, S. A., 1964, A contribution to the study of the Carboniferous and the Jurassic coal deposits in the Sinai Peninsula, Egypt, U.A.R.: Bull. Fac. Eng., Cairo Univ., p. 283-306.
- \_\_\_\_\_, 1966, A study of the Carboniferous coal deposits in the Sinai Peninsula, Egypt, U.A.R.: Arab Sci. Congr., 5th, Baghdad, no. 2, p. 479-494.
- El Badry, K. M., 1972, Semi-industrial purification of some Egyptian sands: Indian Ceram. Soc., Trans., v. 31, no. 2, p. 10N-14N.
- El Bakary, F., 1956, La recherche miniere en Egypte: Rev. Ind. Miner., num. spec. IR, p. 554-558.
- El Banbi, H. A., 1970, Reservoir characteristics and production performance of Alamein oil field, Western Egyptian Desert, U.A.R.: Arab Pet. Congr., 7th, Kuwait, Pap. no. 7, 81 p. (B-1).
- El Bassyouny, A. A., and others, 1970, El Mahamid phosphorite deposit, in Studies on some mineral deposits of Egypt; Part II, Phosphate project: U.A.R., Geol. Surv., Publ., p. 135-152.
- El Baz, F., and Gheith, M. A., 1970, Memorial of Riad Abdel Megid Migazy (1919-1967): Am. Mineral., v. 55, p. 569-573.
- El Dakkak, M. W., 1974, Sinainella aegyptiaca n. gen. n. sp., nouveau genre de foraminifere du Cenomanien du Djebel Nezzazat, Sinai, Egypte [Sinainella aegyptiaca n. gen. n. sp., new genus of Foraminifera of the Cenomanian of Djebel Nezzazat, Sinai, Egypt: Rev. Micropaleontol., v. 17, no. 3, p. 107-110.
- El Damaty, A. H., and El Sherbieny, A. F., 1973, Thermal analysis for determining the potassium supplying power in the alluvial soils of Egypt: Egypt. J. Soil Sci., v. 12, no. 2, p. 167-172.
- El Damaty, A. H., Hamdi, H., and Zanati, M., 1973, Potassium potential and the potential buffering capacity of some soils of Egypt: Egypt. J. Soil Sci., v. 12, no. 1, p. 1-11.
- El Damaty, A. H., and others, 1973a, Copper status in some selected soils of Egypt: Egypt. J. Soil Sci., v. 13, no. 1, p. 55-64.
- \_\_\_\_\_, 1973b, A preliminary study on zinc in some selected alluvial Nile Delta soils: Egypt. J. Soil Sci., v. 13, no. 1, p. 109-120.
- \_\_\_\_\_, 1976, Studies on humas acids in soils; II, Effect of organic residues and soil types on the chemical characteristics of humic and fulvic acids: Egypt. J. Soil Sci., v. 15, no. 2, p. 175-183.

- El Dawoody, A. S., 1971, Middle Eocene Foraminifera from Samalut and Areg Oases, Egypt, U.A.R.: Zb. Geol. Vied, Rada Zk., no. 14, p. 91-163.
- \_\_\_\_\_, 1977, Micro- and nannopaleontology of the Paleocene-lower Eocene succession in Gebel El Teir, Kharga Oasis, Egypt: Riv. Ital. Paleontol. Stratigr., v. 83, no. 4, p. 825-868.
- El Dawoody, A. S., and Barakat, M. G., 1972, Nannobiostratigraphy of the upper Paleocene-lower Eocene contact in Duwai Range, Qussier district, Egypt: Arab Pet. Congr., 8th, Algiers, Pap. no. 70 (B-3), 30 p.
- \_\_\_\_\_, 1973, Nannobiostratigraphy of the Upper Cretaceous-Paleocene contact in Duwi Range, Qusseir district, Egypt: Riv. Ital. Paleontol. Stratigr., v. 79, no. 1, p. 103-124.
- El Demerdash, S., Abdel Aal, S. I., and Abdel Salam, M. A., 1970, Study of the clay minerals in the apex part of the Delta region, ARE: Bull. Inst. Desert Egypte, v. 20, no. 2, p. 433-440.
- El Demerdash, S., and others, 1971a, Trace elements content in some soils of Egypt: Bull Inst. Desert Egypte, v. 21, no. 1, p. 127-137.
- \_\_\_\_\_, 1971b, Mineralogy of the clay fraction of the alluvial soils of Egypt: Bull. Inst. Desert Egypte, v. 21, no. 2, p. 411-425.
- El Etr, H. A., 1971, Analysis of airphoto lineations of Darheeb district, south Eastern Desert: Egypt, Geol. Surv., Ann., v. 1, p. 93-108.
- El Etr, H. A., Abdallah, A. M., and Abdel Rahman, M. A., 1976, Dike distribution in the southern part of the Gulf of Suez region, Egypt, in Afar between continental and oceanic rifting: Verlagsbuchhandl (Naegele u. Obermiller), Stuttgart, Germany, Federal Republic, (edited by Pilger, A., and others), v. 2, p. 144-148.
- El Etr, H. A., Abdallah, A. M., and Yehia, M. A., 1973, Structural analysis of the southeast of Sidi Barrai, northwestern Mediterranean coast: Egypt. J. Geol., v. 17, no. 2, p. 124-145.
- El Etr, H. A., and Abdel Rahman, M. A., 1976, Airphoto lineations of the southern part of the Gulf of Suez region, Egypt: Utah Geol. Assoc., Publ., no. 5, p. 309-326.
- El Gabaly, M., 1962, The presence of attapulgite in some soils of the Western Desert: Soil Sci., v. 39, p. 389-390.
- El Gabaly, M., and Khadr, M., 1962, Clay mineral studies of some Egyptian desert and Nile alluvial soils: J. Soil Sci., v. 13, no. 2, p. 333-342.
- El Gabaly, M., and Worthington, E. B., 1977, Problems and effects in irrigation in the Near East region, in Arid land irrigation in developing countries; environmental problems and effects: Pergamon Press, Oxford, p. 239-249.
- El Gaby, S., 1967, The mode of formation of cordierite gneisses in mig-matic rocks: Bull. Sci. Tech., Assiut Univ., v. 10, p. 91-105.
- \_\_\_\_\_, 1975, Petrochemistry and geochemistry of some granites from Egypt: Neues Jahrb. Mineral., Abh., v. 124, no. 2, p. 147-189.
- El Gala, A. M., and others, 1976, Studies on some chemical and nutritional changes associated with putting a virgin calcareous soil under cropping: Egypt. J. Soil Sci., v. 15, no. 2, p. 201-210.
- El Goresy, A., 1964, Neue Boebeckungen an der Nickel-Magnetkies-Lagerstätten von Abu Swayel, Agypten: Neues Jahrb. Mineral., Abh., Stuttgart, v. 102, no. 1, p. 107-113.

- El Guebeily, M. A., and El Shazly, E. M., 1974, Arab Republic of Egypt, in Peaceful nuclear explosions III; applications, characteristics and effects: I.A.E.A., Vienna, Austria (statement on national programs), p. 3-11.
- El Guindy, M. M., 1972, Pt. III-Benificiation of Egyptian phosphate ores and new trends in that field: Arab Min. Pet. Assoc. Trans., v. 27, no. 1, p. 131-132.
- El Hadidi, A., 1970, Review of the drainage policy after study of the earliest water break through Eocene reservoir Bakr North; Amer area: Arab. Pet. Congr., 7th, Kuwait, Pap. no. 7, 31 p.
- El Hamkin, B., 1967, Air-borne magnetic survey for Semna area, Eastern Desert: Egypt. J. Geol., v. 11, p. 31-37.
- El Hamkin, B., and Nakhla, A. F., 1970, Interpretation of aeromagnetic survey in Egypt: Jour. Geol. U.A.R., v. 14, no. 2, p. 119-129.
- El Hashmi, M. M., 1970, Lithologic composition of the Rudeis Formation in Kareem oil field and its relation to oil: Arab Pet. Congr., 7th, Kuwait, v. 2, 55 (B-3), 12 p.
- \_\_\_\_\_, 1972, Sedimentation and oil possibilities of the Paleozoic sediments at Siwi Basin, Western Desert, Egypt: Arab Pet. Congr., 8th, Algiers, Pap. no. 72 (B-3), 12 p.
- El Hewehi, Z., El Nasr Khalaf, S., and Omar, A., 1968, Investigation on the suitability of Maghara coal for the production of metallurgical coke: Egypt. J. Chem., v. 10, p. 245-252.
- El Hinnawi, E., 1964a, Petrochemical characters of African volcanic rocks, part I -- Ethiopia and the Red Sea region: Neues Jahrb. Mineral., Abh., v. 3, p. 65.
- \_\_\_\_\_, 1964b, Mineralogical and geochemical studies on Egyptian black sands: Beitr. Mineral. Petrogr. Berlin, no. 9, p. 519.
- \_\_\_\_\_, 1965a, Contributions to the study of Egyptian (U.A.R.) iron ores: Econ. Geol., v. 60, no. 7, p. 1497-1509.
- \_\_\_\_\_, 1965b, Petrographical and geochemical studies on Egyptian basalts: Bull. Volcanol., v. 28, no. 3, p. 80.
- \_\_\_\_\_, 1966, Optische und Geochische Untersuchungen an neun Turmalien (Elbatiaten): Neues Jahrb. Mineral., Abh., v. 3, p. 80.
- \_\_\_\_\_, 1969, Electron probe investigation of some intergrowths in iron-titanium minerals from Rossetta black sands: Contrib. Mineral. Petrol.-Beitr. Mineral. Petrol., v. 21, p. 332.
- \_\_\_\_\_, 1973a, Remarks on "Biaxial" calcite: Contrib. Mineral. Petrol.-Beitr. Mineral. Petrol., v. 38, no. 4, p. 339-3341.
- \_\_\_\_\_, 1973b, Remarks on the term "Nubian sandstone": Am. Assoc. Pet. Geol., Bull., v. 57, no. 1, p. 204-206.
- El Hinnawi, E., and Abdel Maksoud, M. A., 1968, A petrography of Cenozoic volcanic rocks of Egypt, U.A.R.: Geol. Rundsch., v. 57, p. 879-890.
- \_\_\_\_\_, 1972, Geochemistry of Egyptian Cenozoic basaltic rocks: Chem. Erde, v. 31, no. 1, p. 93-112.
- El Hinnawi, E., and Abdel Mogheeth, S. M., 1972, Geochemistry of ground waters from Burg El Arab area, Egypt: Neues Jahrb. Geol. Palaeontol., Abh., v. 140, no. 2, p. 185-206.
- El Hinnawi, E., and Atwa, S. M., 1973, Geochemistry of ground waters from some localities west of the Nile Delta: Geol. Rundsch., v. 62, no. 1, p. 225-254.



- El Hinnawi, E., Atwa, S. M., and Abdel Mogheeth, S. M., 1972, Distribution of silica, iron and boron in ground waters from the northern Western Desert of Egypt: *Chem. Erde.*, v. 31, no. 2, p. 226-236.
- El Hinnawi, E., and El Shahat, A., 1969, Ore-microscopic studies on opaque minerals from Sand Islets in the Nile Delta: *Chem. Erde.*, v. 28, no. 1-2, p. 23-29.
- El Hinnawi, E., Hilmy, M. E., and Hussein, S. A., 1975, Contributions to the mineralogy of Nubian sandstones and associated mineralizations from Kharga-Dakhla Oases, Egypt: *Geol. Soc. Iraq, J.*, Special issue, p. 117-134.
- El Hinnawi, E., and Hofriann, R., 1966, Optische und chemische untersuhugen an neun Turmalien (Elbaiten): *Neues Jahrb. Mineral.*, Monatsh, no. 3, p. 80-89.
- El Hinnawi, E., Kabesh, M. L., and Mansour, M. A., 1969, Evaluation of the mechanical analysis of sandstones from terraces between Um Gheig and Mersa Murbarak, Red Sea coast, Egypt: *Egypt. Acad. Sci., Proc.*, v. 22, p. 157-160.
- El Hinnawi, E., Kabesh, M. L., and Zahran, I., 1973, Mineralogy and chemistry of Nubian sandstones from the central Eastern Desert of Egypt: *Neues Jahrb. Mineral., Abh.*, v. 118, no. 3, p. 211-234.
- El Hinnawi, E., and Loukina, S. M., 1971, Petrography and chemistry of some Egyptian carbonate rocks: *Neues Jahrb. Geol. Palaeontol., Abh.*, v. 138, no. 3, p. 284-312.
- \_\_\_\_\_, 1972a, A contribution to the geochemistry of Egyptian alabaster: *Tschermaks Mineral. Petrogr. Mitt., Bull.*, v. 17, no. 3, p. 215-222.
- \_\_\_\_\_, 1972b, On the distribution of strontium in some Egyptian carbonate rocks: *Neues Jahrb. Geol. Palaeontol., Monatsh.*, no. 2, p. 72-77.
- El Hinnawi, E., and Maksoud, M. A., 1972, Geochemistry of Egyptian Cenozoic basaltic rocks: *Chem. Erde*, v. 31, no. 1, p. 93-112.
- El Hiti, A. S., 1976, A study of Egyptian bentonite by X-ray diffraction method: *Pak. J. Sci. Ind. Res.*, v. 19, no. 5-6, p. 258-261.
- El Kadi, M. A., and others, 1973a, Available zinc status in the soils of Egypt as evaluated by chemical and biological methods: *Egypt. J. Soil Sci.*, v. 12, no. 2, p. 123-132.
- \_\_\_\_\_, 1973b, A study of absorption and release of zinc from systems containing clay using  $^{65}\text{Zn}$ : *Egypt. J. Soil Sci.*, v. 12, no. 2, p. 201-210.
- El Kady, A. A., Hassan, A. M., and Sabet, A. H., 1977, Nuclear techniques used in prospecting for gold in the Arab Republic of Egypt, in *Nuclear techniques and mineral resources 1977, Proceedings of the International Symposium on nuclear techniques in exploration, extraction and processing of mineral resources held by the International Atomic Energy Agency in Vienna, 7-10 March 1977: I.A.E.A., Proc. Ser.*, no. 464, p. 333-342.
- El Kady, H. A., and Abdel Salam, M. A., 1972, Criteria of classification for soils of the western Mediterranean coast of Egypt: *Bull. Inst. Desert Egypte*, v. 22, no. 1, p. 95-105.
- El Kady, H. A., Abdel Salam, M. A., and Hamdi, H., 1972, Mineralogy of the clay fraction in soils of Maryut area: *Bull. Inst. Desert Egypte*, v. 22, no. 1, p. 63-67.
- El Karamany, K. E., and Bishay, A., 1972, Part 1 - Egyptian phosphate ores and technical tests conducted on it in foreign laboratories: *Arab Min. Pet. Assoc. Trans.*, v. 27, no. 1, p. 65-116.

- El Khashab, B., 1974, Review of the early Tertiary Eutherian faunas of African mammals in Fayum province, Egypt: Egypt, Geol. Surv., Ann., v. 4, p. 95-114.
- El Kholy, S. B., Hashad, A. H., and Selim, E. T. M., 1970, Lead isotopes and trace elements in some Miocene Red Sea galenas: Pure Appl. Geophys., v. 81, no. 4, p. 135-150.
- El Kholy, S. B., and Selim, E. T. M., 1968, Mass spectrometric study of some selected galenas from the Eastern Desert of Egypt: Pure Appl. Geophys., v. 70, no. 2, p. 115-131.
- \_\_\_\_\_, 1971, Isotopic composition of some Egyptian galena by thermal emission mass spectrometry: Pure Appl. Geophys., v. 87, p. 192-202.
- El Mowelhi, N. M., and Hamdi, H., 1976, The sodic soils in Egypt; II, Mineralogical characteristics: Egypt. J. Soil Sci., v. 15, no. 2, p. 105-123.
- El Naggar, Z. R., 1966a, Stratigraphy and Planktonic Foraminifera of the Upper Cretaceous - lower Tertiary succession in the Esna-Idfu region, Nile Valley, Egypt: Br. Mus. (Nat. Hist.), Bull. Geol., Suppl. 2, 279 p.
- \_\_\_\_\_, 1966b, Stratigraphy and classification of type Esna group of Egypt: Am. Assoc. Pet. Geol., Bull., v. 50, no. 7, p. 1455-1477.
- \_\_\_\_\_, 1969, Correlation of the various planktonic foraminiferal zonations of the Paleocene: Int. Conf. Planktonic Microfossils, 1st, Proc., v. 2, p. 202-233.
- \_\_\_\_\_, 1970a, New suggestion for the division and correlation of Paleocene strata by the use of Planktonic Foraminifera: Cushman Found. Foraminiferal Res., Contrib., v. 21, pt. 2, p. 182-223.
- \_\_\_\_\_, 1970b, On a proposed litho-stratigraphic subdivision for the Late Cretaceous-early Paleogene succession in the Nile Valley, Egypt: Arab Pet. Congr., 7th, Kuwait, v. 2, Pap. no. 64 (B-3), 50 p.
- \_\_\_\_\_, 1971a, On the classification, evolution and stratigraphical distribution of the Globigerinacea: Planktonic Conf., 2nd, Proc., v. 1, p. 421-461.
- \_\_\_\_\_, 1971b, The genus Rugoglobigerina in the Maestrichtian Sharawa shale of Egypt: Planktonic Conf., 2nd, Proc., v. 1, p. 477-498.
- El Naggar, Z. R., and Haynes, J., 1967, Globotruncana caliciformis in the Maestrichtian Sharawa shale of Egypt: Cushman Found. Foraminiferal Res., Contrib., v. 18, pt. 1, p. 1-13.
- \_\_\_\_\_, 1968, Stratigraphy and classification of the type Esna group of Egypt, reply: Am. Assoc. Pet. Geol., Bull., v. 52, no. 9, p. 1794-1798.
- El Ramly, I. M., 1965, Contribution to hydrogeological study of limestone terrains in U.A.R., in Symposium on hydrology of fractured rock, Dubrovnik, Yugoslavia: Int. Assoc. Sci. Hydrol., Publ., no. 73, v. 1, p. 348-377.
- \_\_\_\_\_, 1966, New light on the origin of natural lakes south Qattara depression, Western Desert, U.A.R.: Arab Sci. Congr., 5th, Baghdad, v. 2, p. 547-567.
- \_\_\_\_\_, 1968, Quaternary shoreline changes of Alamein district in connection with ground-water possibilities: Bull. Inst. Desert Egypte, v. 48, 49, p. 163-166.

- El Ramly, I. M., 1971, Shore-line changes during the Quaternary in the Western Desert, Mediterranean coastal region (Alexandria): *Quaternaria*, v. 15, p. 285-292.
- El Ramly, M. F., 1963, The absolute ages of some basement rocks from Egypt: U.A.R., Geol. Surv. Min. Res. Dept., Pap. no. 15, 13 p.
- \_\_\_\_\_, 1972, A new geological map for the basement rocks in the Eastern and south Western Deserts of Egypt; scale, 1:1,000,000, *in* The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, p. 1-18.
- El Ramly, M. F., and Akaad, M. K., 1960a, The basement complex in the central Eastern Desert of Egypt: Egypt, Geol. Surv., Pap. no. 8, 35 p.
- \_\_\_\_\_, 1960b, The basement complex in the central Eastern Desert of Egypt between latitudes 24°30' and 25°40'N.: U.A.R., Geol. Surv. Min. Res. Dept., Pap. no. 8, 35 p.
- El Ramly, M. F., Akaad, M. K., and Al Far, D. M., 1959, Cassiterite-wolframite mineralization near Gebael El Mueilha (Eastern Desert of Egypt): Egypt, Geol. Surv., Pap. no. 6, 22 p.
- El Ramly, M. F., Akaad, M. K., and Ramsy, A. H., 1964, Geology and structure of Um-Nar iron deposit: Egypt, Geol. Surv., Pap. no. 28, 29 p.
- El Ramly, M. F., Akaad, M. K., and Shaaban, M. S., 1963, Geology and structure of the iron-ore deposit of Gabal El Hadid (Eastern Desert of Egypt): U.A.R., Geol. Surv. Min. Res. Dept., Pap. no. 16, 31 p.
- El Ramly, M. F., and Al Far, D. M., 1955, Geology of El Mueilha-Dunqash district (Barramiya east sheet): Egypt, Geol. Surv., Publ., 44 p.
- El Ramly, M. F., Gazenko, S. D., and Sanad, S. K., 1970, The quartz deposit of Marwit Umm Higlig, *in* Studies on some mineral deposits of Egypt; Part V, Prospecting for quartz: U.A.R., Geol. Surv., Publ., p. 251-260.
- El Ramly, M. F., Hussein, A. A., and Budanov, V. I., 1971, The alkali-line rocks of south Eastern Desert, Egypt: Egypt, Geol. Surv., Pap. no. 53, 111 p.
- El Ramly, M. F., Ivanov, S. S., and Kochin, G. G., 1970, General review of the mineral potentials of Egypt, *in* Studies on some mineral deposits of Egypt, eds., O. Maharram, and others: Egypt, Geol. Surv., Publ., pt. 1, p. 3-27.
- El Ramly, M. F., Kotb, S., and Osman, F., 1971, Geology of Wadi Kalabsha kaolin deposits in Wadi Kalabsha, Nubia, Egypt: U.A.R., Geol. Surv., Pap. no. 54, p. 3-38.
- El Ramly, M. F., and others, 1969a, A petrographical study on the central part of Abu Khrug ring complex (south Eastern Desert of Egypt): Egypt, Geol. Surv., Pap. no. 51, 53 p.
- \_\_\_\_\_, 1969b, The three ring complexes of Gebel El Kahfa, Gabel Nigrub El Fogani and Gabal E. Naga (south Eastern Desert of Egypt): Egypt, Geol. Surv., Pap. no. 52, 39 p.
- \_\_\_\_\_, 1970a, Tintunsten mineralisation in the Eastern Desert of Egypt, *in* Studies on some mineral deposits of Egypt; Part I, Generalization of geological data on hard minerals; Section A, Metallic minerals: U.A.R., Geol. Surv., Publ., p. 43-52.

- El Ramly, M. F., and others, 1970b, The occurrence of gold in the Eastern Desert of Egypt, in Studies on some mineral deposits of Egypt; Part 1, Generalization of geological data on hard minerals; Section A, Metallic minerals: U.A.R., Geol. Surv., Publ., p. 53-64.
- \_\_\_\_\_, 1970c, Lead-zinc mineralisation of the Red Sea coast, in Studies on some mineral deposits of Egypt; Part I, Generalization of geologic data on hard minerals; Section A, Metallic minerals: U.A.R., Geol. Surv., Publ., p. 28-42.
- \_\_\_\_\_, 1970d, Assessment and technological testing of the nepheline syenites of Gabal Abu Khrug, in Studies on some mineral deposits of Egypt; Part III, Nepheline syenite project: U.A.R., Geol. Surv., Publ., p. 155-180.
- \_\_\_\_\_, 1970e, Ring complexes in south Eastern Deseert, in studies on some mineral deposits of Egypt, O. Moharram, and others, eds.: Egypt, Geol. Surv., Publ., p. 181-191.
- El Ramly, M. F., and Salloum, G., 1974, The tectonic regioning of the basement rocks of the Eastern Desert of Egypt: Acta Mineral.-Petrogr. (Szeged), v. 21, no. 2, p. 173-181.
- El Saadawi, W. E., Badawi, A., and El Awarimi, A. A., 1975, On silicified rhizome fragments of Phragmites communis Trin. from the Pleistocene of El Fayum, Egypt: Palaeontogr., Abt. B., v. 154, no. 5-6, p. 172-178.
- El Saadawi, W. E., and Farag, E., 1971, Some Mesozoic plants from Abu Darag, western side of Gulf of Suez: Egypt. J. Bot., v. 15, no. 1, 9 p.
- El Senussi, M. Y., and Shata, A., 1967, The hydrogeology of Umm El Rakham area (Western Desert, Mediterranean coastal zone, Egypt, U.A.R.): Bull. Inst. Desert Egypte, v. 17, no. 2, p. 1-52.
- \_\_\_\_\_, 1969a, Microfacies study of Umm El Rakham rock formations: Bull. Inst. Desert Egypte, v. 19, no. 2, p. 35-44.
- \_\_\_\_\_, 1969b, The stratigraphy of Um El Rakham area: Bull. Inst. Desert Egypte, v. 19, no. 2, p. 1-32.
- \_\_\_\_\_, 1969c, Geomorphological and morphological aspects of Umm El Rakham area "West Marsa Matruh" Egypt: Bull. Inst. Desert Egypte, v. 19, no. 2, p. 31-62.
- El Shami, I., El Shazly, M., and Shata, A., 1971, A contribution to the geology of El Dabaa area "western Mediterranean littoral zone": Bull. Inst. Desert Egypte, v. 19, no. 1, p. 63-95.
- El Sharkawi, M. A., and Abu Khadra, A. M., 1968, The dolerite-limestone contact of Gebel Abu Treifiya, Cairo-Suez district: Egypt. J. Geol., v. 12, p. 11-18.
- El Sharkawi, M. A., and Bassiony, M. W., 1971, Calc-silicate minerals in contact with Batoga granite, south Eastern Desert, Egypt, ARE: Bull. Fac. Sci., Cairo Univ., no. 44, p. 281-285.
- El Sharkawi, M. A., and others, 1976, Characterization of ground water horizons in Bahariya Oases, Western Desert, Egypt, in Proceedings of the international congress on thermal waters, geothermal energy and vulcanism of the Mediterranean area; Volume 2, Thermal waters: Natl. Tech. Univ., Athens, p. 507-518.
- El Shatoury, H. M., Takenouchi, S., and Imai, H., 1974, Fluid inclusion studies of some beryliferous pegmatites and a tin-tungsten lode from Egypt: Min. Geol. (Soc. Min. Geol. Jap.), v. 24, no. 126, p. 307-314.



- El Shazly, E. M., 1954, Rocks of Aswan area: Egypt, Geol. Surv., Publ., 23 p.
- \_\_\_\_\_, 1956, Recent investigations on Egyptian copper deposits [with discussion]: Colloque Geol. Appl. Proche-Orient, Ankara, 1955, p. 61-68.
- \_\_\_\_\_, 1957a, Classification of Egyptian mineral deposits: Egypt. J. Geol., v. 1, no. 1, p. 1-21.
- \_\_\_\_\_, 1957b, Review of Egyptian geology; part II, Economic geology, engineering geology, ground and surface water, meteorites, mineralogy, Precambrian geology and soils: Egypt. Rev. Sci., v. 1, p. 51-91.
- \_\_\_\_\_, 1958, A new meteorite record west of Aswan: Egypt. J. Geol., v. 2, no. 1, p. 71-73.
- \_\_\_\_\_, 1959a, Controle des mineralisations tertiaires en Egypte [Controls of Tertiary ore deposition in Egypt]: Chron. Mines, an. 27, no. 275, p. 138-149.
- \_\_\_\_\_, 1959b, Notes on the mining map of Egypt: Int. Geol. Congr., 20th, Mexico, Assoc. Serv. Geol. Africanos, Actas y Tr., p. 423-435.
- \_\_\_\_\_, 1962a, Report on the results of drilling in the iron ore deposits of Gebel Ghorabi and report on the mineralogy and low grade iron ores of El Heiz area, Bahariya Oasis: Egypt, Geol. Surv., Publ., 50 p.
- \_\_\_\_\_, 1962b, Report on the mineralogy of the low grade iron ores of El Heiz area, Baharia Oasis, Western Desert: U.A.R., Geol. Surv. Min. Res. Dep., Publ., p. 45-50.
- \_\_\_\_\_, 1962c, Report on the results of drilling in the iron ore deposit of Gebel Ghorabi, Baharia Oasis, Western Desert: U.A.R., Geol. Surv. Min. Res. Dep., Publ., p. 3-41.
- \_\_\_\_\_, 1964, On the classification of the Precambrian and other rocks of magmatic affiliation in Egypt, U.A.R.: Int. Geol. Congr., 22nd, India.
- \_\_\_\_\_, 1968, Lead deposits in Egypt, in Symposium on lead-zinc in Africa, P. Nicolini, ed.: Ann. Min. Geol., Tunis, no. 23, p. 243-275.
- \_\_\_\_\_, 1977, The geology of the Egyptian region; in The Ocean Basins and Margins (Nairn, E. M., Kanes, W. H., and Stehli, F. G., eds.), v. 4A: Plenum Press, N.Y., N.Y., p. 379-444.
- El Shazly, E. M., and Abdallah, A. M., 1964, Geology of sulphur occurrences of Ranga, Eastern Desert: Egypt, Geol. Surv., Pap. no. 31, 10 p.
- El Shazly, E. M., Abdel Hady, M. A., and Morsy, M. A., 1974, Geologic interpretation of infrared thermal images in east Qatrani area, Western Desert, Egypt, in Ninth international symposium on remote sensing of environment: Environ. Res. Inst. Mich., p. 1877-1889.
- El Shazly, E. M., and Afia, M. S., 1958, Geology of Samiuki deposit, Eastern Desert: Egypt. J. Geol., v. 2, no. 1, p. 25-43.
- El Shazly, E. M., El Hazek, N. M. T., and El Mahrouky, F. A., 1972a, Mineralogical study on east Luxor rock phosphate as basis for its technology: Arab Min. Pet. Assoc. Trans., no. 2, p. 165-183.
- \_\_\_\_\_, 1972b, Geochemistry of east Luxor rock phosphate as a basis for its technology: Arab. Min. Pet. Assoc. Trans., v. 27, no. 2, p. 199-233.

- El Shazly, E. M., El Hazek, N. M. T., and El Mahrouky, F. A., 1972c, Study of the leaching characteristics of rock phosphate by hydrochloric acid: Arab Min. Pet. Assoc. Trans., no. 2, p. 231-247.
- \_\_\_\_\_, 1972d, Investigation of the leaching characteristics of rock phosphate by phosphoric acid: Arab Min. Pet. Assoc. Trans., v. 27, no. 2, p. 259-269.
- \_\_\_\_\_, 1972e, Recovery of uranium from in-process phosphate fertilizers: Arab Min. Pet. Assoc. Trans., v. 27, no. 2, p. 275-282.
- \_\_\_\_\_, 1972f, Suggested flowsheets for the preparation of phosphate fertilizers and byproduct uranium concentrates: Arab Min. Pet. Assoc. Trans., v. 27, no. 2, p. 287-294.
- \_\_\_\_\_, 1972g, Preparation of sodium diuranate from the uraniferous iron phosphorate concentrate: Arab Min. Pet. Assoc. Trans., v. 27, p. 303-311.
- El Shazly, E. M., El Sokkary, A. A., and Khalil, S. O., 1971, Petrography and geochemistry of some pink granite pebbles from Hammamat conglomerates, Eastern Desert: Egypt. J. Geol., v. 15, no. 1, p. 49-55.
- \_\_\_\_\_, 1973, Petrography and geochemistry of some granite pebbles from metamorphosed conglomerates, Qift-Qusseir area, Eastern Desert: J. Geol. U.A.R., v. 15, no. 1, p. 57-64.
- El Shazly, E. M., Farag, I. M., and Bassyuni, F. A., 1965, Contribution to the geology and mineralization at Abu Swayel area, Eastern Desert: Egypt. J. Geol., v. 9, p. 45-66.
- \_\_\_\_\_, 1971, Contributions to the geology and mineralization at Abu Swayel area, Eastern Desert; Part II, Abu Swayel copper-nickel deposit: J. Geol. U.A.R., v. 13, no. 1, p. 1-15.
- El Shazly, E. M., and Hamada, M. M., 1954, Geology of Gebel Mudarag west area; Nugrus sheet, Eastern Desert: Egypt, Geol. Surv., Publ., 31 p.
- El Shazly, E. M., and Hassan, A. K., 1962, Report on the results of drilling at the Umm Gheig mine, Eastern Desert: Egypt, Geol. Surv., Publ., 34 p.
- \_\_\_\_\_, 1972, Geology and radioactive mineralization at Wadi Sikait-Wadi El Gemal area, Eastern Desert: Egypt. J. Geol., v. 16, no. 2, p. 201-234.
- El Shazly, E. M., and Krs, M., 1972, A paleomagnetic study of Cretaceous rocks from Wadi Natash area, Eastern Desert, Egypt: Geophys. J. Czech. Acad. Sci., Prague, no. 329-334.
- \_\_\_\_\_, 1973, Paleogeography and paleomagnetism of the Nubian sandstone, Eastern Desert of Egypt: Geol. Rundsch., v. 62, no. 1, p. 212-225.
- El Shazly, E. M., and Mansour, A. O., 1962, Note on the occurrence of native sulphur of Umm Reigha, Red Sea coast: Egypt. J. Geol., v. 6, p. 133-136.
- El Shazly, E. M., Meshref, W. M., and Fouad, K. M., 1969, Aerial radiometry of El Alamein oil field, Egypt, U.A.R.: Geophys. Prospect. (The Hague), v. 17, no. 3, p. 336-343.
- El Shazly, E. M., Naser, S. A., and Shukri, B., 1955, Contributions to the mineralogy of the copper deposits in Sinai: Egypt, Geol. Surv., Pap. no. 1, 8 p.
- El Shazly, E. M., and others, 1959, Miocene lead and zinc deposits in Egypt: Int. Geol. Congr., 20th, Mexico, sec. 13, p. 119-134.

- El Shazly, E. M., and others, 1971, The use of acacia trees in biogeochemical prospecting, in Geochemical exploration (Int. Geochemical Exploration Symposium, 3d Proc): Can. Inst. Min. Metal., Spec. v., no. 11, p. 426-434.
- \_\_\_\_\_, 1973, Geochemistry of Abu Swayel area, Eastern Desert: Egypt. J. Geol., v. 17, no. 1, p. 1-18.
- \_\_\_\_\_, 1974a, Geochronology of Abu Swayel area, south Eastern Desert: Egypt. J. Geol., v. 17, no. 1, p. 1-18.
- \_\_\_\_\_, 1974b, Geologic interpretation of ERTS-1 satellite images for West Aswan area, Egypt, in Ninth international symposium on remote sensing of environment: Environ. Res. Inst. Mich., v. 1, p. 105-117.
- \_\_\_\_\_, 1974c, Geologic interpretation of ERTS-1 satellite images for West Aswan area, Egypt, in Ninth international symposium on remote sensing of environment: Environ. Res. Inst. Mich., v. 1, p. 119-131.
- \_\_\_\_\_, 1974d, Origin of uranium in Oligocene Quaternary sediments, Western Desert, Arab Republic of Egypt [with discussion], in Formation of uranium ore deposits; sedimentary basins and sandstone-type deposits; sedimentary deposits in other areas: I.A.E.A., Proc. Ser., no. STI/PUB/374, p. 467-478.
- \_\_\_\_\_, 1974e, Geologic interpretation of ERTS-1 satellite images for West Aswan area, Egypt, in Third earth resources technology satellite-1 symposium; volume I; Technical presentations, section A; Mineral resources, geological structure and landform surveys: U.S. NASA, Spec. Publ. no. 351, p. 919-920.
- \_\_\_\_\_, 1975, Geological and geophysical investigations of the Suez Canal Zone: Acad. Sci. Res. Technol., Cairo, Egypt, 38 p.
- \_\_\_\_\_, 1977a, Geochemical exploration under extremely arid conditions: J. Geochem. Explor., v. 8, no. 1-2, p. 305-323.
- \_\_\_\_\_, 1977b, Application of Landsat satellite imagery for iron ore prospecting in the Western Desert of Egypt, in Proceedings of the eleventh international symposium on remote sensing of environment (Cook, J. J., chm.): Int. Symp. Remote Sensing Environ., Proc., no. 11, p. 1355-1364.
- \_\_\_\_\_, 1977c, Groundwater studies in arid areas in Egypt using Landsat satellite images, in Proceedings of the eleventh international symposium on remote sensing of environment (Cook, J. J., chm.): Int. Symp. Remote Sensing Environ., Proc., no. 11, p. 1365-1372.
- \_\_\_\_\_, 1977d, Interpretation of multispectral and infrared thermal surveys of the Suez Canal zone, Egypt, in Proceedings of the eleventh international symposium on remote sensing of environment: Int. Symp. Remote Sensing Environ., Proc., no. 11, p. 1533-1542.
- \_\_\_\_\_, 1978, Application of Landsat imagery in the geological and soil investigations in the central Western Desert, Egypt: Int. Symp. Remote Sensing Environ., Proc., no. 12, v. 2, p. 857-866.
- El Shazly, E. M., and Sabet, A. H., 1955, A preliminary report on El'-Atawi copper deposit, Eastern Desert: Egypt, Geol. Surv., Pap. no. 2, 5 p.
- El Shazly, E. M., and Saleeb, G. S., 1959, Contributions to the mineralogy of Egyptian manganese deposits: Econ. Geol., v. 54, no. 5, p. 873-888.

- El Shazly, E. M., and Saleeb, G. S., 1972, Scapolite-Crancrinite Mineral Association in St. John's Island, Egypt, in Mineralogy-Mineralogie, sec. 14: Int. Geol. Congr., 24th, Montreal, Proc., no. 24, p. 192-199.
- El Shazly, E. M., Shukri, N. M., and Fouad, K. M., 1968, Airborne radiometry and regional geology in the central Eastern Desert, Egypt, U.A.R.: Int. Geol. Congr., 23rd, Czech., Rep., sec. 5, Proc., p. 37-48.
- El Shazly, E. M., Shukri, N. M., and Saleeb, G. S., 1963, Geological study of Oleikat Marahil and Umm Sekran manganese iron deposits, west-central Sinai: Egypt. J. Geol., v. 7, p. 1-26.
- El Shazly, M. M., 1970, Contribution to the geochemistry of the ground water in Mersa Matruh area: Bull. Inst. Desert Egypte, v. 20, no. 2, p. 289-300.
- El Shazly, M. M., and Shata, A., 1960a, Contribution to the study of the stratigraphy of El Kharga Oasis: Bull. Inst. Desert Egypte, v. 10, no. 1, p. 1-10.
- \_\_\_\_\_, 1960b, Contribution to the study of the heavy minerals in the Nubian sandstone section of the New Valley project area, pt. 1, El Kharga Oasis: Bull. Inst. Desert Egypte, v. 10, no. 1, p. 11-18.
- \_\_\_\_\_, 1969, Geomorphology and pedology of Mersa Matruh area, western Mediterranean littoral zone: Bull. Inst. Desert Egypte, v. 19, no. 1, p. 1-30.
- El Shazly, M. M., Shata, A., and El Shazly, E. M., 1960, Microfacies study of some Nubian sandstone core samples in El Kharga new test well: Bull. Inst. Desert Egypte, v. 10, no. 1, p. 27-36.
- El Shazly, M. M., Shata, A., and Farag, I. M., 1964, Lithology of the Neogene and post Neogene sediments of Mersa Matruh area: Egypt. J. Geol., v. 8, p. 21-44.
- El Sherif, S., and others, 1973, A study of zinc mobility in some soils of Egypt using radio-active zinc  $^{65}\text{Zn}$ : Egypt. J. Soil Sci., v. 13, no. 1, p. 17-21.
- El Shinnawi, M. A., 1964, The stratigraphy of Gebel Ghanima section Kharga Oasis, Upper Egypt: Bull. Fac. Sci., Alex. Univ., v. 6, p. 209-223.
- \_\_\_\_\_, 1967a, Upper Cretaceous ammonites from Wadi Sudr, western Sinai, U.A.R.: Bull. Fac. Sci., Alex. Univ., v. 8, p. 181-197.
- \_\_\_\_\_, 1967b, Contribution to the stratigraphy of the White Chalk Formation at Wadi Sudr, western Sinai, U.A.R.: Bull. Fac. Sci., Alex. Univ., v. 8, p. 199-217.
- \_\_\_\_\_, 1968, Stratigraphic studies on Nagb Assiut section, Kharga Oasis: Bull. Fac. Sci., Alex. Univ., v. 8, no. 2, p. 285-297.
- \_\_\_\_\_, 1969, Contribution to stratigraphy of Hurghada well no. 134, Eastern Desert U.A.R.: Bull. Fac. Sci., Alex. Univ., v. 9, p. 397-412.
- \_\_\_\_\_, 1970a, The term "Esna shale" and its formal significance as rock-stratigraphic unit in Egypt: Bull. Fac. Sci., Alex. Univ., v. 10, p. 279-286.
- \_\_\_\_\_, 1970b, Veniella surdensis (n.sp.) from the Santonian of Wadi Sudr, Western Sinai, Egypt: Bull. Fac. Sci., Alex. Univ., v. 10, p. 331-345.



- El Shinnawi, M. A., 1972, Some Maestrichtian new species of Gabonella (forams) from Hurgada well no 134, Eastern Desert, Egypt: Rev. Micropaleontol., v. 14, no. 4, p. 235-247.
- \_\_\_\_\_, 1973, A biometrical study on Gabonella species (foraminifers) adapted to restricted environment: Rev. Micropaleontol., v. 15, no. 4, p. 247-258.
- \_\_\_\_\_, 1975, Planktonic Foraminifera from the Miocene Globigerina marl of Hurgada well 134, Eastern Desert, Egypt, in Proceedings of the 5th African colloquium on micropalaeontology: Empresa Nac. Adaro Invest. Mineras [Publ.], ser 7, no. 3, p. 199-224.
- El Shinnawi, M. A., and Sultan, I. Z., 1973, Lithostratigraphy of some subsurface Upper-Cretaceous sections in the Gulf of Suez area, Egypt: Acta Geol. (Acad. Sci. Hung.), v. 17, no. 4, p. 469-494.
- \_\_\_\_\_, 1975a, Biostratigraphy of some subsurface lower Paleogene sections in the Gulf of Suez area, Egypt, in Proceedings of the 5th African colloquium on micropalaeontology: Empresa Nac. Adaro Invest. Mineras Publ., ser 7, no. 3, p. 225-262.
- \_\_\_\_\_, 1975b, Biostratigraphy of some subsurface Upper Cretaceous sections in the Gulf of Suez area, Egypt, in Proceedings of the 5th African colloquium on micropalaeontology: Empresa Nac. Adaro Invest. Mineras, ser. 7, no. 3, p. 263-292.
- El Sinbawy, H. A., and others, 1965, A contribution to the beneficiation of El Gedida iron ores, Bahariya Oasis U.A.R.: Bull. Fac. Eng., Cairo Univ., p. 523-543.
- El Sökkary, A. A., 1972, Statistical geochemical studies on the Mn-Fe ores of west-central Sinai: Egypt. Acad. Sci., Proc., v. 25, p. 155-162.
- El Sökkary, A. A., 1974, Mineralogy and chemistry of a pegmatitic feldspar from Hafafit, Egypt: Acta Mineral.-Petrogr. (Szeged), v. 21, no. 2, p. 277-281.
- El Sökkary, A. A., and Abdel Monem, H. H., 1977, Mineralogical and chemical studies of barites from Gebel El Hudi, Eastern Desert, Egypt: Neues Jahrb. Mineral., Abh., v. 128, no. 3, p. 285-292.
- El Sökkary, A. A., and Salloum, G., 1974, The relation between the geochemistry and deep-seated faults of acid plutonites of Egypt: Acta Mineral.-Petrogr. (Szeged), v. 21, no. 2, p. 183-190.
- El Sweify, A., 1969, A Serpulid from the Cenomanian of north and west Sinai, U.A.R.: Afr. Micropaleontol. Colloq., 3rd, Cairo, Proc., p. 385-391.
- El Tahlawi, M. R., 1974, Domal structures in the Eocene plateaus surrounding the Nile Valley, Upper Egypt: Neues Jahrb. Geol. Palaeontol., Monatsh., no. 5, p. 257-265.
- El Tarabili, E. E., 1964, General outline of the structures of the sedimentary formation in the central part of the Eastern Desert, Qusseir-Safaga-Wadi Qena's southern part: Bull. Inst. Desert Egypte, v. 14, no. 2, p. 27-43.
- \_\_\_\_\_, 1966a, Preliminary investigation of the economic prospects of the phosphate deposits in the Qusseir-Safaga area: Bull. Sci. Tech. Assiut Univ., v. 9, p. 23-32.
- \_\_\_\_\_, 1966b, General outlines of epeirogenesis and sedimentation in region between Safaga and Qusseir and southern Wadi Qena area, Eastern Desert, Egypt: Am. Assoc. Pet. Geol. Bull., v. 50, p. 1890-1898.

- El Tarabili, E. E., 1969, Paleogeography, paleoecology and genesis of the phosphate sediments in Qusseir-Safaga area, U.A.R.: *Econ. Geol.*, v. 64, p. 172-182.
- \_\_\_\_\_, 1970a, Paleogeography, paleoecology and genesis of the phosphatic sediments in the Quseir-Safaga area, U.A.R.; a reply: *Econ. Geol.*, v. 65, no. 1, p. 68-71.
- \_\_\_\_\_, 1970b, Contribution to the origin of the Red Sea depression, origin of its northern part: *Arab Pet. Congr.*, 7th, Kuwait, no. 63 (B-3), 13 p.
- \_\_\_\_\_, 1971, Tektonische Praegung der Tafelsedimente des stabilen Schelfs in Aegypten am Beispiel des Kosseir-Safaga-Gebiets am Roten Meer, U.A.R. [Tectonic elements of platform sediments on the stable shelf in Egypt, illustrated by the Kosseir-Safaga area, Red Sea, U.A.R.]: *Geologie*, v. 20, no. 3, p. 236-250.
- El Tarabili, E. E., and Adawy, N., 1972, Geologic history of Nukhul-Baba area, Gulf of Suez, Sinai, Egypt: *Am. Assoc. Pet. Geol., Bull.*, v. 56, no. 5, p. 882-902.
- El Wakeel, S. K., 1963, A study of bottom deposits of Lake Qarun, Egypt, pt. 1, Mechanical analysis: *Bull. Fac. Sci., Alex. Univ.*, v. 5, p. 33-59.
- \_\_\_\_\_, 1964a, A study of the bottom deposits of Lake Qarun, pt. 2, Chemical investigations: *Bull. Fac. Sci., Alex. Univ.*, v. 6, p. 27-79.
- \_\_\_\_\_, 1964b, Recent bottom sediments from the neighborhood of Alexandria, Egypt: *Mar. Geol.*, v. 2, no. 1-2, p. 137-146.
- El Wakeel, S. K., Abdou, H. F., and Mohamed, M. A., 1974, Texture and distribution of recent marine sediments of the continental shelf off the Nile Delta: *Geol. Soc. Iraq*, J., v. 7, p. 15-34.
- El Wakeel, S. K., Abdou, H. F., and Wahby, S. D., 1970, Foraminifera from bottom sediments of Lake Maryut and Lake Manzalah, Egypt: *U.A.R. Oceanogr. Fish., Bull.*, v. 1, p. 427-448.
- El Wakeel, S. K., and El Sayed, M. K., 1978, The texture, mineralogy and chemistry of bottom sediments and beach sands from the Alexandria region, Egypt: *Mar. Geol.*, v. 27, no. 1-2, p. 137-160.
- El Wakeel, S. K., and Wahby, S. D., 1970, Bottom sediments of Lake Manzalah: *J. Sediment. Petrol.*, v. 40, p. 480-496.
- El Zarka, M. H., 1969, Comparative analysis of regularities in the distribution of petroleum of the eastern nearshore Gulf of Suez, U.A.R., and the southern zone step-like fault-grabens of the Dnieper-Donets province, USSR: *Vyssh. Uchebn. Zaved., Izv., Neft' Gaz*, no. 9, p. 11-15.
- \_\_\_\_\_, 1970, Nekotoryye zakonomernosti izmeneniya fizikokhimicheskikh svoystv flyuidov v zalezakh nefti vostochnoy pribrezhnoy polosy suetskogo zaliva [Regularities in variation of physical-chemical properties of fluids in petroleum reservoirs of the nearshore eastern Gulf of Suez]: *Vyssh. Uchebn. Zaved., Izv., Neft' Gaz*, no. 2, p. 13-16.
- \_\_\_\_\_, 1975, Geochemical relations of fluids in oil fields of Gulf of Suez, Egypt: *Am. Assoc. Pet. Geol., Bull.*, v. 59, no. 9, p. 1667-1675.
- El Zarka, M. H., and El Ghamry, M. A., 1976a, To the origin and characteristics of fluids of Kareem oil field, Gulf of Suez, Egypt: *Baghdad, Univ., Coll. Sci., Bull.*, v. 17, no. 1, p. 181-200.

- El Zarka, M. H., and El Ghamry, M. A., 1976b, Subsurface study of Palaeogene sediments of Kareem oil field, Gulf of Suez, Egypt: Baghdad, Univ., Coll. Sci., Bull., v. 17, no. 2, p. 393-424.
- \_\_\_\_\_, 1977, Physiography of Miocene depositional basin of Kareem oil field, Gulf of Suez, Egypt: Baghdad, Univ., Coll. Sci. Bull., v. 18, no. 1, p. 81-138.
- El Zoghby, M. E., 1955, Les ressources minerales de l'Egypte: Rev. Ind. Miner., v. 36, no. 630, p. 1072-1082.
- Ela, N. M., 1978, The palynological characteristics of the Upper Cretaceous sediments in Abu Tartar Plateau, Kharga Oasis, Egypt: Rev. Espan. Micropaleontol., v. 10, no. 3, p. 421-442.
- Elgals, A. H., and Hendawy, S., 1973, Studies on iron availability and behavior in some soils of Egypt: Egypt. J. Soil Sci., v. 12, no. 1, p. 21-30.
- Elgizawi, M. G., 1974, Use of cross-correlation techniques for determining the relationship between groundwater levels and sources in the Nile Delta area: Int. Assoc. Hydrol. Sci., Stud. Rept. Hydrol., no. 15, p. 319-325.
- Elouard, P., and Roman, J., 1967, Presence du genre Gagaria (echinide regulier temnopleuride) dans l'eocene moyen de la vallee du Sengal [Presence of the genus Gagaria (a regular temnopleurid echinoid) in the middle Eocene of the Senegal valley]: Soc. Geol. Fr., Bull., ser. 7, v. 8 (1966), no. 6, p. 839-844.
- Embabi, N. S., 1972, The semi-playa deposits of Kharga depression, the Western Desert, Egypt: Soc. Geogr. Egypte, Bull., v. 41-42, p. 73-87.
- Emery, K. O., 1960, Weathering of the Great Pyramid: J. Sediment. Petrol., v. 30, no. 1, p. 140-143.
- Emery, K. O., Heezen, B. C., and Allen, T. D., 1966, Bathymetry of the Eastern Mediterranean Sea: Deep Sea Res., v. 13, p. 173-192.
- Emery, K. O., Hunt, J. M., and Hays, E. E., 1969, Summary of hot brines and heavy metal deposits in the Red Sea, in Hot brines and recent heavy metal deposits in the Red Sea (E. T. Degens and D. A. Ross, eds.): Springer Verlag, New York, p. 557-571.
- Entz, B., and Rzoska, J., 1976, Lake Nasser and Lake Nubia in The Nile, biology of an ancient river: Dr. W. Junk B. V., The Hague, NLD., p. 271-298.
- Eppler, W., Jr., 1939, Ein aussergewöhnlich grosser Olivinkristall von Edelsteingute: Zentralb. Mineral., Geol. Palaeontol., Abt. A, no. 4, p. 102-105.
- Erez, J., and Gill, D., 1977, Multivariate analysis of biogenic constituents in recent sediments off Ras Burka, Gulf of Elat, Red Sea: Int. Assoc. Math. Geol., J., v. 9, no. 1, p. 77-98.
- Erickson, A. J., and Simmons, G., 1969, Thermal measurements in the Red Sea hot brine pools, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 114-121.
- Essawy, M. A., 1972, Petrogenesis of alkaline rhyolites and microgranites from Samadai-Tunduba area, Eastern Desert, in The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, p. 239-250.

- Essawy, M. A., and Abu Zeid, K. M., 1972, Atalla felsite intrusion and its neighbouring rhyolitic flows and tuffs, Eastern Desert, in The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, p. 271-281.
- Evenari, M., Yaalon, D. H., and Gutterman, Y., 1974, Note on soils with vesicular structure in deserts: Z. Geomorphol., v. 18, no. 2, p. 162-172.
- Ezz, S. Y., and others, 1968, Magnetic roasting of some Egyptian ferruginous manganese ores: Symp. on non-ferrous metals technology, Jamshedpur, India, v. 3, p. 142-151.
- Ezzat, M. A., 1966, Geologic structures in the Nile Basin and its relation to ground water movements: Arab Eng., Conf., Jordan, 1966.
- Ezzat, M. A., El Badry, H. M., and Ibrahim, M. M., 1966, Hydrogeology of the Wadi El Gadid project, Western Desert, U.A.R., with special reference to the Kharga Oasis: Bull. Fac. Eng., Cairo Univ., p. 477-500.
- Ezzat, M. A., and others, 1962, Preliminary report on the hydrogeology of the New Valley, Western Desert, Egypt, with special emphasis on Kharga Oasis: Egypt. Gen. Desert Develop. Org.-U.S. Agency Int. Devel., Cairo-U.S. Geol. Surv., Wash., D.C., 181 p.
- Ezzat, M. R., 1967, Interpretation technique of reflection records in area of complicated seismic geologic condition: Arab Pet. Congr., 6th, Baghdad, v. 2, 3 p.
- \_\_\_\_\_, 1972, Case history of seismic exploration in the Egyptian Desert: Arab Pet. Congr., 8th, Algiers, Pap. no. 43 (B-2), 27 p.
- Fabre, J., 1968, A tectonic map of the south Sahara (with discussion): Soc. Geol. Fr., C.R. Seances, no. 8, p. 254-256.
- Fabricius, F. H., 1973, Pleistocene and early Holocene ooids in Mediterranean coastal waters with discussion, in Symposium sur la Geodynamique de la region Mediterraneenne: Comm. Int. Explor. Sci. Mer. Mediterr., Rapp. P.-v., Reun., v. 22, no. 2a, p. 162-164.
- Fahmy, S. E., 1975, Contribution to Eocene stratigraphy and micropaleontology in the Nile Valley, Egypt, in Proceedings of the 5th African colloquium on micropalaeontology: Empresa Nac. Adaro Invest. Mineras, Ser. 7, no. 3, p. 293-333.
- Fahmy, S. E., and others, 1969a, Biostratigraphy of Paleogene deposits in Egypt [with discussion]: Afr. Micropaleontol. Colloq., 3rd, Proc., p. 477-484.
- \_\_\_\_\_, 1969b, Biostratigraphic and correlation scheme of the Miocene deposits in the Gulf of Suez region [with discussion]: Afr. Micropaleontol. Colloq., 3rd, Proc., p. 493-500.
- Fairbridge, R. W., 1962, New radiocarbon dates of Nile sediments: Nature, v. 196, no. 4850, p. 108-110.
- \_\_\_\_\_, 1963, Nile sedimentation above Wadi Halfa during the last 20,000 years: Kush, v. 11, p. 96-107.
- Fairhall, A. W., Schell, W. R., and Young, J. A., 1968, Radiocarbon dating at the University of Washington III: Radiocarbon (Am. J. Sci.), v. 8, p. 498-506.
- Fairhead, J. D., 1973, Crustal structure of the Gulf of Aden and the Red Sea: Tectonophysics, v. 20, no. 1-4, p. 261-267.
- Fairhead, J. D., and Girdler, R. W., 1970, The seismicity of the Red Sea: R. Soc. Lond., Philos. Trans., Ser. A, v. 267, p. 49-71.



- Fakhry, A. A., 1974, Geochemical studies at the Fawakhir gold mine, Eastern Desert, Egypt; 2, Infrared absorption spectroscopy as a means of characterizing the primary dispersion haloes of gold deposits: J. Geochem. Explor., v. 3, no. 3, p. 265-275.
- Falcon, N. L., and others, 1970, Organizers for a discussion on the structure and evolution of the Red Sea, Gulf of Aden and Ethiopia Rift junction: R. Soc. Lond., Philos. Trans., Ser. A, v. 267, p. 1-417.
- Fanous, Y., 1961, Investigation on the critical depths of transition of anhydrite and gypsum in some oil fields of the Gulf of Suez: Arab Pet. Congr., 3rd, Alex., v. 2, 3 p.
- Farag, I. A. M., 1947, Preliminary notes on the geology of Risan Aneiza: Bull. Fac. Sci., Fouad I Univ., no. 26, p. 211-248.
- \_\_\_\_\_, 1948, Deux nouveaux gisements de bathonien fossilifere sur la rive occidentale du golfe du Suez en Egypte: Soc. Geol. Fr., C.R. Seances, no. 6, p. 109-111.
- \_\_\_\_\_, 1955, Some remarks on the Lower Cretaceous exposures of Gebel Maghara dome (northern Sinai): Bull. Inst. Desert Egypte, t. 5, no. 1, p. 146-161.
- \_\_\_\_\_, 1957a, On the occurrence of Lias in Egypt: Egypt. J. Geol., v. 1, no. 1, p. 49-64.
- \_\_\_\_\_, 1957b, Quatre especes nouvelles du genre Terebratula dans les roches jurassiques du massif du Maghara, Sinai du nord: Egypt. J. Geol., v. 1, no. 2, p. 127-135.
- \_\_\_\_\_, 1959, Contribution to the study of the Jurassic formations in the Maghara massif (northern Sinai, Egypt): Egypt. J. Geol., v. 3, no. 2, p. 175-199.
- \_\_\_\_\_, 1960a, Neuf especes nouvelles du genre Eudesia dans les roches jurassiques d'Egypte: J. Geol. U.A.R., v. 4, no. 1, p. 63-71.
- \_\_\_\_\_, 1960b, Deux nouvelles especes du genre Parathyridina dans l'oxfordien superieur d'Egypte: J. Geol. U.A.R., v. 4, no. 1, p. 73-76.
- Farag, I. A. M., and Gatinaud, W., 1960a, Un nouveau genre de terebratulides dans le bathonien d'Egypte: J. Geol. U.A.R., v. 4, no. 1, p. 77-79.
- \_\_\_\_\_, 1960b, Six especes nouvelles du genre Rhynchonella dans les roches jurassiques d'Egypte: J. Geol. U.A.R., v. 4, no. 1, p. 81-87.
- Farag, I. A. M., and Ismail, M. M., 1955, On the structure of the Wadi Hof area (northeast of Helwan): Bull. Inst. Desert Egypte, t. 5, no. 1, p. 179-192.
- \_\_\_\_\_, 1959, A contribution to the structure of the area east of Helwan: Egypt. J. Geol., v. 3, no. 1, p. 71-87.
- \_\_\_\_\_, 1965, Geomorphology of the area to the east of Helwan: Bull. Fac. Sci., Cairo Univ., no. 39, p. 271-279.
- Farag, I. A. M., and Omara, S., 1955, On the occurrence of marine Middle Jurassic deposits at Gebel El Minshera (northern Sinai, Egypt): Bull. Inst. Desert Egypte, t. 5, no. 1, p. 165-177.
- Farag, I. A. M., and Sadek, A., 1966, Stratigraphy of Gebel Homeira area, Cairo-Suez district: Egypt. J. Geol., v. 10, p. 107-122.
- Farag, I. A. M., and Shata, A., 1954, Detailed geological survey of El Minshera area: Bull. Inst. Desert Egypte, t. 4, no. 2, p. 5-82.

- Farag, I. A. M., and Yallouze, M., 1967, Index fossils of the Carboniferous of Egypt (with a description of a number of fossils after Walther and Schellwein): Bull. Fac. Sci., Cairo Univ., no. 40, p. 175-207.
- Farah, M. Y., 1968, Contribution to the developmental research on nuclear materials in U.A.R.: Inst. Egypte, Bull., v. 48-49, p. 87-107.
- Farah, M. Y., and El Yamani, I. S., 1970, Separation of high purity zircon from Rosetta placers: Arab J. Nuclear Sci., v. 3, no. 1, p. 48-60.
- Faris, M. I., 1947, The contact of the Cretaceous and Eocene rocks in the Taramsa-Tukh area (Quena, upper Egypt): Inst. Egypte, Bull., t. 28, p. 73-85.
- \_\_\_\_\_, 1948, Contribution to the stratigraphy of Abu Rauwash and the history of the Upper Cretaceous in Egypt: Bull. Fac. Sci., Fouad I Univ., no. 27, p. 221-239.
- \_\_\_\_\_, 1956, History of Egypt during the past geological eras: Bull. Fac. Sci., Ain Shams Univ., no. 1, p. 209-218.
- \_\_\_\_\_, 1959, Some stratigraphical and structural aspects of Egypt: Int. Geol. Congr., 20th, Mexico, Asoc. Serv. Geol. Africanos, Actas y Tr., p. 87-92.
- \_\_\_\_\_, 1960, Contribution to the stratigraphy and petrography of Aswan iron ore: Bull. Fac. Sci., Ain Shams Univ., no. 6, p. 297-304.
- \_\_\_\_\_, 1961, The Cretaceous system of Egypt and its relation with the Eocene sediments: Int. Geol. Congr., 21st, Copenhagen, Rept., pt. 26, p. 24-31.
- \_\_\_\_\_, 1972, Quaternary environmental changes in the Nile Valley and their effect on man, in The origin of Homo sapiens -- origine de l'homme moderne: UNESCO, Ecol. Conserv. Ser., no. 3, p. 219-220.
- Faris, M. I., and Abbass, H. L., 1961, The geology of Shabrawet area: Bull. Fac. Sci., Ain Shams Univ., no. 7, p. 37-59.
- Faris, M. I., Abbass, H. L., and El Gamel, M. M., 1969, An approach to the geomorphology of Salum area, north Western Desert, Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4A, p. 337-352.
- Faris, M. I., Abdel Dayem, M. M., and Sabry, A. M., 1965, A contribution to the gravity interpretation of Rahmy area: Bull. Fac. Eng., Cairo Univ., p. 333-356.
- \_\_\_\_\_, 1967a, The analytical continuation of gravity in Rahmi area, Eastern Desert, U.A.R.: Arab Pet. Congr., 6th, Baghdad, v. 2, 5 p.
- \_\_\_\_\_, 1967b, Regional and residual gravity fields of Rahmy area: Bull. Fac. Sci., Ain Shams Univ., no. 11, p. 1-10.
- Faris, M. I., and Abu Zeid, M. M., 1961, Age, origin and mining geology of the Aswan iron ore: Bull. Fac. Sci., Ain Shams Univ., no. 7, p. 85-103.
- Faris, M. I., and El Bishlawy, M. N., 1969, Conditions of formation and regularities in the distribution of oil and gas accumulations: Bull. Fac. Sci., Ain Shams Univ., Cairo, no. 13, p. 77-88.
- Faris, M. I., El Bishlawy, M. N., and Ayad, M. H., 1969a, Subsurface geologic studies on the Miocene rocks of Feiran oil field, Sinai, U.A.R.: Bull. Fac. Sci., Ain Shams Univ., Cairo, no. 13, p. 37-54.
- \_\_\_\_\_, 1969b, Geostructural and paleotectonic analysis of Feiran oil field, Sinai, U.A.R.: Bull. Fac. Sci., Ain Shams Univ., no. 13, p. 55-75.

- Faris, M. I., El Bishlawy, M. N., and Deibis, S., 1967, Subsurface geologic studies on the Miocene sediments of Belayim marine oil field: Bull. Fac. Sci., Ain Shams Univ., no. 11, p. 179-192.
- Faris, M. I., El Bishlawy, M. N., and El Dashlouty, S. A., 1967, Qualitative interpretation of gravity and magnetic anomalies of Abu Zeneima-Abu Rudeis area, east coast Gulf of Suez, Egypt: Bull. Fac. Sci., Ain Shams Univ., Cairo, no. 11, p. 193-206.
- \_\_\_\_\_, 1969a, Lithostratigraphic analysis of the Miocene formations in Abu Rudeis oil field, Sinai, U.A.R.: Bull. Fac. Sci., Ain Shams Univ., no. 13, p. 1-36.
- \_\_\_\_\_, 1969b, The tectonic and paleogeologic setting of Abu Rudeis-Abu Zeneima area of the Gulf of Suez oil province during the Miocene: Bull. Fac. Sci., Ain Shams Univ., no. 13, p. 89-102.
- Faris, M. I., Gad, G., and Nasr, I. A., 1961, Sedimentological studies on some noncalcareous rocks and their economical applications (studies on some Egyptian and Libyan clays and suitability for ceramic industry): Bull. Fac. Sci., Ain Shams Univ., no. 7, p. 17-36.
- Faris, M. I., and George, F. G., 1961, Sedimentological studies on some calcareous rocks and their economical application (limestone and dolomites in Abu Roach): Bull. Fac. Sci., Ain Shams Univ., no. 7, p. 1-16.
- \_\_\_\_\_, 1963, A study on the calcareous rocks of Abu Roach and its importance in the recognition of petroleum reservoirs: Arab Pet. Congr., 4th, Beirut, v. 2, 19 p.
- \_\_\_\_\_, 1966, Studies on Eocene and lower Miocene producing carbonate rocks in Bakr, Kareem and Rahmy fields: Arab Sci. Congr., 5th, Baghdad, pt. 2, p. 469-477.
- Faris, M. I., and Girgis, G. F., 1967, Porosity types of producing rocks in Bakr, Kareem and Rahmy oil fields: Arab Pet. Congr., 6th, Baghdad, v. 2, 8 p.
- Faris, M. I., and Hassan, M. Y., 1959, Report on the stratigraphy and fauna of the Upper Cretaceous-Paleocene rocks of Um-El-Huetat, Safaga area: Bull. Fac. Sci., Ain Shams Univ., no. 4, p. 191-207.
- Faris, M. I., Higazy, R. A., and Hassanein, A. M., 1966, Lithological and stratigraphical studies of some coal-bearing formations at Ayoun Musa district: Bull. Fac. Sci., Ain Shams Univ., no. 10, p. 319-331.
- Faris, M. I., and Kamel, I., 1953, Mid-Tertiary volcanicity of Egypt: Bull. Volcanol., s. 2, t. 13, p. 99-104.
- Faris, M. I., and Soliman, S. M., 1954, Dolomitic rocks of Abu-Roach and the adjacent localities: Int. Geol. Congr., 19th, Algeria, C.R., sec. 13, f. 15, p. 441-456.
- \_\_\_\_\_, 1961, Petrology of the dolomite rocks of Abu Roach and its consideration to possible petroleum reservoirs in other parts of Egypt: Arab Pet. Congr., 3rd, Alex., v. 2, p. 1-30.
- Faris, M. I., Youssef, M. I., and Kamel, O. A., 1963, Mineralogy and origin of some vein manganese ores in Sinai: Bull. Fac. Sci., Ain Shams Univ., no. 9, p. 485-515.
- Faris, M. J., 1967, Sedimentary economic deposits in United Arab Republic: Deut. Geol. Ges., Z., v. 116 (1964), no. 3, p. 598-602.
- Farlow, J. O., 1976, Two endocranial casts of Fajumia schweinfurthi (Teleostei; Siluridae) from the Qasr El Sagha Formation (late Eocene) of Egypt: J. Paleontol., v. 50, no. 3, p. 536-538.

- Fathi, A., 1960, A study on soil aggregation of the Nile alluvium: Bull. Fac. Agr., Cairo Univ., no. 219, p. 3-32.
- Fathi, A., and Hanna, F., 1969a, Morphology and classification of some soils of the Eastern Desert, U.A.R.: Bull. Inst. Desert Egypte, v. 19, no. 1, p. 183-194.
- \_\_\_\_\_, 1969b, The application of numerical classification for soils of the Western Desert, U.A.R., with reference to land capability: Bull. Inst. Desert Egypte, v. 19, no. 1, p. 195-200.
- \_\_\_\_\_, 1969c, Petrographical study of some desertic soils of the Western Desert, U.A.R.: Bull. Inst. Desert Egypte, v. 19, no. 2, p. 185-189.
- \_\_\_\_\_, 1971, Morphology and classification of some soils of the Western Desert, U.A.R.: Bull. Inst. Desert Egypte, v. 19, no. 1, p. 183-194.
- Fathi, A., and others, 1971a, Factors contributing to the genesis of the Cairo-Suez district soils: Bull. Inst. Desert Egypte, v. 21, no. 2, p. 383-391.
- \_\_\_\_\_, 1971b, Soils of the Cairo-Suez district -- their morphology and classification: Bull. Inst. Desert Egypte, v. 21, no. 2, p. 367-381.
- \_\_\_\_\_, 1971c, Morphology of some soil profiles in Siwa Oasis: Bull. Inst. Desert Egypte, v. 21, no. 1, p. 93-108.
- \_\_\_\_\_, 1973, Gypsum precipitates in soils south of Manzala Lake, Egypt: Egypt. J. Soil Sci., v. 12, no. 2, p. 189-199.
- \_\_\_\_\_, 1976, Clay in relation to pedality and stability of micro-structure in Nile alluvial soils: Egypt. J. Soil Sci., v. 16, no. 1, p. 93-112.
- Faure, G., and Jones, L. M., 1969, Anomalous strontium in the Red Sea brines, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 243-250.
- Fawzi, M. A., 1959, Etude stratigraphique et paleontologique de la region du Gebel Shebrauet: Egypt. J. Geol., v. 3, no. 2, p. 149-158.
- \_\_\_\_\_, 1960, Contribution to the study of the Cenomanian of Egypt and correlation of the Egyptian facies with those of neighboring countries: Bull. Fac. Sci., Alex. Univ., v. 4, p. 107-150.
- \_\_\_\_\_, 1963a, La faune cenomanienne d'Egypte: U.A.R., Geol. Surv., Geol. Mus. Palaeontol. Ser., Monogr. no. 2, 131 p.
- \_\_\_\_\_, 1963b, On the Cenomanian of Africa: Bull. Fac. Sci., Alex. Univ., v. 5, p. 144-177.
- \_\_\_\_\_, 1964, On the phylogenetic trends and transitional stages of Cretaceous oysters: Bull. Fac. Sci., Alex. Univ., v. 6, p. 225-239.
- Fawzi, M. A., and Naim, E. M., 1964, A study of marine Lower Cretaceous formation in Gebel Shabrawet: Bull. Fac. Sci., Alex. Univ., v. 6, p. 241-255.
- Fayed, L. A., 1970, Clay minerals of some of the River Nile sediments near Cairo: Int. J. Rock Mech. Min. Sci., v. 7, no. 3, p. 253-256.
- Fayed, L. A., and Hassan, M. K., 1970, Identification and distribution of clay minerals in some sediments of the Nile Delta, U.A.R.: Int. J. Rock Mech. Min. Sci., v. 7, no. 6, p. 605-611.



- Fayed, L. A., and Hassan, M. K., 1971, Differential thermal behavior of clay minerals in some Nile Delta sediments, U.A.R.: *Int. J. Rock Mech. Min. Sci.*, v. 8, no. 5, p. 445-450.
- Fayed, L. A., and Khattab, A. F., 1973, Investigation and construction of Wadi El Rayan tunnel, Egypt: *Int. J. Rock Mech. Min. Sci.*, v. 10, no. 2, p. 97-103.
- Fediaevsky, S., 1934, Quelques notes sur un gisement de minerai de tungstene dans la Haute-Egypte: *Inst. Egypte, Bull.*, t. 16, f. 1, p. 15-19.
- Fentzloff, H. E., 1961, Die Naturgegebenheiten des Saad el Aali-Projekts; Hochnstaue Assuan, Agypten -- The natural setting of the Saad el Aali project -- high dam of Aswan, Egypt: *Die Erde* Jg. 92, H. 1, p. 6-17.
- Ferrar, H. T., 1910, Preliminary note on the subsoil water in lower Egypt: *Egypt, Geol. Survey, Publ.*, 16 p.
- Fleagle, J. G., and Simons, E. L., 1978, Humeral morphology of the earliest apes: *Nature*, v. 276, no. 5689, p. 705-707.
- Fleagle, J. G., Simons, E. L., and Conroy, G. C., 1975, Ape limb bone from the Oligocene of Egypt: *Science (AAAS)*, v. 189, no. 4197, p. 135-137.
- Fleischer, R. L., and Price, P. B., 1964, Glass dating by fission fragment tracks: *J. Geophys. Res.*, v. 69, no. 2, p. 331-339.
- Fleischer, R. L., Price, P. B., and Walker, R. M., 1965, On the simultaneous origin of tektite and other natural glasses: *Geochim. Cosmochim. Acta*, v. 29, p. 161-166.
- Fleissner, H., and Fleissner, G., 1971, The coral gardens of Shadwan, in *Regional variation in Indian Ocean coral reefs*: *Zool. Soc. Lond., Symp.*, no. 28, p. 535-539.
- Flexer, A., 1968, Stratigraphy and facies development of Mount Scopus group (Senonian-Paleocene) in Israel and adjacent countries: *Isr. J. Earth Sci.*, v. 17, no. 3, p. 85-113.
- Fourtau, R., 1913, Catalogue des invertébrés fossiles de l'Egypte, représentés dans les collections du Musée de Géologie au Caire, Série 1 Terrains Tertiaires, 1er partie, Echinides Eocènes: *Egypt, Geol. Surv., Publ.*, 93 p.
- \_\_\_\_\_, 1914, Catalogue des invertébrés fossiles de l'Egypte, représentés dans les collections du Musée de Géologie au Caire. Série 2 Terrains Crétacés, 1er Partie. Echinodermes: *Egypt, Geol. Surv., Publ.*, 109 p.
- \_\_\_\_\_, 1917, Catalogue des invertébrés fossiles de l'Egypte représentés dans les collections du Musée de 2me Partie; Mollusques Lammelli-branches: *Egypt, Geol. Surv., Publ.*, 109 p.
- \_\_\_\_\_, 1920a, Contribution à l'Etude des vertébrés Miocènes de l'Egypte: *Egypt, Geol. Surv., Publ.*, 122 p.
- \_\_\_\_\_, 1920b, Catalogue des invertébrés fossiles de l'Egypte, représentés dans les collections du Musée de Géologie au Caire. Série 4 Terrains Tertiaires, 2nd Partie; Echinodermes Neogènes: *Egypt, Geol. Surv., Publ.*, 100 p.
- \_\_\_\_\_, 1924, Catalogue des invertébrés fossiles de l'Egypte représentés dans les collections du Musée de Géologie au Caire. Série 6 Terrains Jurassiques, 1er Partie; Echinodermes: *Egypt, Geol. Surv., Publ.*, 39 p.

- Francis, M. H., 1972, Geology of the basement complex in the north Eastern Desert between latitudes 27°30' and 28°00'N, in The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, p. 161-180.
- Frenkel, H., 1975, Pseudocyclammina (?), P. smouti Banner, from the Bathonian Sherif Fm. of Gebel Maghara (northern Sinai): Isr. J. Earth Sci., v. 24, no. 1-2, p. 49-52.
- Freund, R., 1965, A model of the structural development of Israel and adjacent areas since Upper Cretaceous times: Geol. Mag., v. 102, p. 189-205.
- \_\_\_\_\_, 1970, Plate tectonics of the Red Sea and east Africa: Nature, v. 228, no. 5270, p. 453.
- Friedman, G. M., 1965, A fossil shoreline in the Gulf of Elat (Agaba): Isr. J. Earth Sci., v. 14, p. 89-90.
- \_\_\_\_\_, 1968, Geology and geochemistry of reefs, carbonate sediments and waters, Gulf of Agaba (Elat), Red Sea: J. Sediment. Petrol., v. 38, p. 895-919.
- \_\_\_\_\_, 1972, Significance of Red Sea in problem of evaporites and basinal limestones: Am. Assoc. Pet. Geol., Bull., v. 56, no. 6, p. 1072-1086.
- Friedman, G. M., Amiel, A. J., and Schneidermann, N., 1974, Submarine cementation in reefs; example from the Red Sea: J. Sediment. Petrol., v. 44, no. 3, p. 816-825.
- Friedman, G. M., and Gavish, E., 1971, Mediterranean and Red Sea (Gulf of Agaba) beachrocks, in Carbonate cements: Johns Hopkins Univ., Stud. Geol., no. 19, p. 13-16.
- Friedman, G. M., and others, 1973, Generation of carbonate particles and laminites in algal mats -- example from sea-marginal hypersaline pool, Gulf of Agaba, Red Sea: Am. Assoc. Pet. Geol., Bull., v. 57, no. 3, p. 541-557.
- Friedman, G. M., Schneiderman, N., and Gevirtz, J. L., 1971, Indurated hard calcium carbonate layers at the bottom of the Red Sea, in Carbonate cements: Johns Hopkins Univ., Stud. Geol., no. 19, p. 116-117.
- Friedman, I., and Parker, C. J., 1969, Libyan desert glass; its viscosity and some comments on its origin: J. Geophys. Res., v. 74, no. 27, p. 6777-6779.
- \_\_\_\_\_, 1973, Libyan Desert glass; its viscosity and some comments on its origin [with comments], in Tektites: Dowden, Hutchinson and Ross, Stroudsburg, p. 109-111.
- Fronzel, C., and Gettens, R. J., 1955, Chalconatronite, a new mineral from Egypt: Science (AAAS), v. 122, no. 3158, p. 75-76.
- Frost, A., and others, 1947, The discovery and prospecting of a potential gold field near Odendaalstrut in the Orange Free State, Union of South Africa: Geol. Soc. S. Afr., Trans., v. 49, p. 1-33.
- Furon, R., 1960, Geology of Africa, English translation, 1963: Edinburgh and London, Oliver and Boyd, 377 p.
- \_\_\_\_\_, 1971, Geologie und Bodenschätze [Geology and resources], in Die Sahara und ihre Randgebiete; Darstellung eines Natur-Grossraumes; I. Band, Physiogeographie: IFO-Inst. fuer Wirtsch. Muench. Afr. Stud., no. 60, p. 113-155.
- Furon, R., and Lombard, J., 1964, Explanatory note geological map of Africa (1:5,000,000): Natural Resources Research, (UNESCO-ASGA), 39 p.

- Gabert, G., Ruxton, B. P., and Venzlaff, H., 1960, *Über untersuchungen im Kristallin der nordlichen Red Sea Hill im Sudan*: Geol. Jahrb., v. 77, p. 241-270.
- Gad, G. M., 1950, Thermochemical changes in alunite and alunitic clays: Am. Ceramic Soc., J., v. 33, no. 6, p. 208-210.
- \_\_\_\_\_, 1952, Refractory raw materials of Barramya: Br. Ceram. Soc., Trans., v. 51, no. 9, p. 429-437.
- Gad, G. M., and Abdel Maksoud, M., 1966, Constitution and suitability of Kharga clays: Egypt. J. Chem., v. 9, no. 2, p. 235-242.
- Gad, G. M., and Barrett, L. R., 1949, The constitution of some Egyptian clays: Mineral. Mag., v. 28, no. 205, p. 587-597.
- Gad, G. M., and Gharib, N., 1966, Vermiculite insulating refractories: Egypt. J. Chem., v. 9, no. 2, p. 243-251.
- Gad, G. M., and Girgis, L. G., 1967a, Chromite refractories: Egypt. J. Chem., v. 10, no. 1, p. 55-66.
- \_\_\_\_\_, 1967b, Forsterite refractories, pt. 1 -- The constitution and suitability of raw materials: Egypt. J. Chem., v. 10, no. 2, p. 177-186.
- \_\_\_\_\_, 1967c, Forsterite refractories, pt. 2 -- The constitution and properties of forsterite refractories: Egypt. J. Chem., v. 10, no. 2, p. 189-197.
- \_\_\_\_\_, 1968, Stable dolomite refractories: Egypt. J. Chem., v. 11, no. 2, p. 219-227.
- Gad, G. M., and Talaat, A., 1969, Suitability of the Egyptian zircon and monazite sands for refractory and electric-insulator industry: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 768-796.
- Gaillard, C., 1934, Contribution à l'étude de la faune préhistorique de l'Egypte: Lyon, Mus. Hist. Nat., Arch. t. 14, Mem. 3, 125 p.
- Galal El-Din Hafez Awad, 1946, On the occurrence of marine Triassic (Muschelkalk) deposits in Sinai: Inst. Egypte, Bull., t. 27, p. 397-429.
- Games, K. P., 1977, The magnitude of the palaeomagnetic field; a new non-thermal, non-detrital method using sun-dried bricks: R. Astron. Soc., Geophys. J., v. 48, no. 3, p. 315-329.
- Garfunkel, Z., and Bartov, Y., 1977, The tectonics of the Suez Rift: Isr. Geol. Surv., Bull., no. 71, 44 p.
- Garson, M. S., and Shalaby, I. M., 1976, Precambrian-lower Paleozoic plate tectonics and metallogenesis in the Red Sea region: Geol. Assoc. Can., Spec. Pap., no. 14, Metallogeny and plate tectonics, p. 573-596.
- Gass, I. G., 1969, The Red Sea depression: Geol. Mag., v. 106, no. 1, p. 89-90.
- \_\_\_\_\_, 1970, The evolution of volcanism in the junction of the Red Sea, Gulf of Aden and Ethiopian rifts: R. Soc. Lond., Philos. Trans., Ser. A, v. 267, p. 369-381.
- \_\_\_\_\_, 1972, Proposals concerning the variation of volcanic products and processes within the oceanic environment (with discussion): R. Soc. Lond., Philos. Trans., Ser. A, v. 271, no. 1213, p. 131-140.
- \_\_\_\_\_, 1973, The Red Sea depression -- causes and sequences, in Continental Drift, sea floor spreading and plate tectonics, Darling, D. H., and Runcorn, S. K., eds.: Implications to the Earth Sciences, Acad. Press, London.

- Gass, I. G., and Gibson, I. L., 1969, The structural evolution of the rift zones in Middle East: *Nature*, v. 221, p. 926-930.
- Gass, I. G., Mallick, D. I. J., and Cox, K. G., 1973, Volcanic islands of the Red Sea: *Geol. Soc. Lond., Q.J.*, v. 129, p. 275-310.
- Gass, I. G., and Whiteman, A. J., 1969, The Red Sea depression (discussion): *Geol. Mag.*, v. 106, no. 1, p. 89-90.
- Gat, J. R., 1974, Local variability of the isotope composition of groundwater: *I.A.E.A., Proc. Ser.*, no. STI/PUB/373, v. 2, p. 51-60.
- Gat, J. R., and Issar, A., 1974, Desert isotope hydrology; water sources of the Sinai Desert: *Geochim. Cosmochim. Acta*, v. 38, no. 7, p. 1117-1131.
- Gautier, A., 1966, Camelis thornasia from the northern Sudan and its bearing on relationship C. thornesi-C. bacterianus: *J. Paleontol.*, v. 40, p. 1368-1372.
- \_\_\_\_\_, 1968, Mammalian remains of the northern Sudan and southern Egypt: The prehistory of Nubia, F. Wendorf, ed., v. 1: South. Methodist Univ. Press, Dallas, p. 80-99.
- \_\_\_\_\_, 1976a, appendix G; Freshwater mollusks and mammals from upper Palaeolithic sites near Idfu and Isna, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Acad. Press, New York, N. Y., p. 349-364.
- \_\_\_\_\_, 1976b, Appendix H; Animal remains from localities near Dishna, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Acad. Press, New York, N. Y., p. 365-367.
- \_\_\_\_\_, 1976c, Appendix I; animal remains from archaeological sites of terminal Paleolithic to Old Kingdom age in the Fayum, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Acad. Press, New York, N. Y., p. 369-381.
- Gavich, I. K., and others, 1974, Gidrodinamicheskoye obosnovaniye vyobra optimal'nykh usloviy ekspluatatsli mestorozhdeniya podzemnykh vod kompleksnym modelirovaniyem na AVM i ETSVM [Hydrodynamic evidence for the selection of optimal exploitation parameters for a ground-water deposit, analog computer and electronic digital computer modelling]: *Vyssh. Uchebn. Zaved., Izv., Geol. Razved.*, no. 3, p. 89-94.
- Gavish, E., 1974, Geochemistry and mineralogy of a recent sabkha along the coast of Sinai, Gulf of Suez: *Sedimentology*, v. 21, no. 3, p. 397-414.
- Gaynanov, A. G., and Stroyev, P. A. G., 1967, Features of the earth's crustal structure in the Red Sea, the Gulf of Aden and the north-west Indian Ocean: *Mosk. Univ., Vestn., Ser. 4, Geol.*, v. 22, no. 6, p. 3-15.
- Genter, W., and others, 1978, Silver sources of archaic Greek coinage: *Naturwissenschaften*, v. 65, no. 6, p. 273-284.
- Genter, W., Storzer, D., and Wagner, G. A., 1969, New fission track ages of tektites and related glasses: *Geochim. Cosmochim. Acta*, v. 33, no. 9, p. 1075-1081.
- Gerson, R., and Yair, A., 1975, Geomorphic evolution of some small desert watersheds and certain palaeoclimatic implications; Santa Katherina area, southern Sinai: *Z. Geomorphol.*, v. 19, no. 1, p. 66-82.



- Gervirtz, J. L., and Friedman, G. M., 1966, Deep sea carbonate sediments of the Red Sea and their implications on marine lithification: *J. Sediment. Petrol.*, v. 36, p. 143.
- Gettens, R. J., and Frondel, C., 1955, Chalconatronite, an alteration product on some ancient Egyptian bronzes: *Studies in Conservation*, Aberdeen, p. 64-75.
- Geyh, M. A., 1967, Hanover radiocarbon measurements V: Radiocarbon (Am. J. Sci.), v. 9, p. 218-236.
- Gezeery, N. H., Mohsen, S. M., and Farid, M. I., 1972, Sedimentary basins of Egypt and their petroleum prospects: Arab Pet. Congr., 8th, Algiers, Pap. no. 83 (B-3), 13 p.
- Ghabbour, S. I., and Rzoska, J., 1976, The faunal of Oligochaeta in the Nile Basin, in *The Nile, biology of an ancient river*: Dr. W. Junk B. V., The Hague, p. 117-125.
- Ghaith, A. M., and Mikhail, M. T., 1964, Mineralogical study of the clay fraction in the topsoil of the northern part of the Nile Delta: *Int. Congr. Soil Sci.*, 8th, Bucharest, Trans., v. 5, p. 535-545.
- Ghallab, M. S., 1976, Prehistoric civilisations in lower Egypt, in *The Nile, biology of an ancient river* (Rzoska, J., ed.): Dr. W. Junk B. V., The Hague, p. 47-49.
- Ghallab, M. S., and Rzoska, J., 1976, Prehistoric civilisations in lower Egypt, in *The Nile, biology of an ancient river*: Dr. W. Junk B.V., The Hague, p. 47-49.
- Ghanem, M., 1972a, Geology of the basement rocks north of latitude 28°N Eastern Desert, Ras Ghareb area, in *The basement complex of Egypt*: Egypt, Geol. Surv., Ann., v. 2, p. 181-198.
- \_\_\_\_\_, 1972b, Geology of Wadi Hodein area, in *The basement complex of Egypt*: Egypt, Geol. Surv., Ann., v. 2, p. 199-214.
- Ghanem, M., Gabra, S., and Ahmed, S. H., 1971, El Omayid gypsum deposit: Egypt, Geol. Surv., Ann., v. 1, p. 111-116.
- Ghanem, M., Mirtov, J. V., and Karpenko, M. V., 1971, Contribution to the mineralogy of the phosphates of the Nile Valley: *Egypt. J. Geol.*, v. 15, no. 2, p. 93-98.
- Ghanem, M., and others, 1970, Stratigraphy of the phosphate-bearing Cretaceous and Paleogene sediments of the Nile Valley between Idfu and Qena, in *Studies on some mineral deposits of Egypt*: Egypt, Geol. Surv., Publ., p. 109-134.
- \_\_\_\_\_, 1973, Basement rocks in Eastern Desert of Egypt north of latitude 26°40'N, in *Proceedings of the international meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities*: Egypt, Geol. Surv., Ann., v. 3, p. 33-38.
- Ghanem, N. A., and El Awady, M. A., 1975, Physical and chemical properties of Alexandria western harbor waters relevant to fouling and antifouling paints; Part I, The unique characteristics of the harbor and work orientation: *Mar. Tech. Soc., J.*, v. 9, no. 5, p. 41-47.
- Ghanim, B. M., Rabie, F., and Hamdi, H., 1974, Clay mineralogy of the soils of Maryut area; 1, Qualitative mineralogical analysis: *Egypt. J. Soil Sci.*, v. 14, no. 1, p. 93-99.
- Gharib, N., and Gad, G. M., 1966, Aluminosilicate insulating refractories: *Egypt. J. Chem.*, v. 9, no. 2, p. 253-265.

- Ghazarian, G. B., 1957, Final report on the electrical resistivity survey carried out at Wadi El Kharruba, March 1957: Bull. Inst. Desert Egypte, no. 10, p. 121-131.
- Gheith, M. A., 1956, Classification and review of Egyptian iron ore deposits [with discussion]: Colloque Geol. Appl. Proche-Orient Ankara, 1955, p. 106-113.
- \_\_\_\_\_, 1959, Mineralogy, thermal analysis and origin of the Bahariya iron ores of Egypt: Int. Geol. Congr., 20th, Mexico, Trans., sec. 13, p. 135-151.
- \_\_\_\_\_, 1961, Age of basement rocks in eastern United Arab Republic and northern Sudan: N. Y. Acad. Sci., Ann. v. 91, art. 2, p. 530-534.
- Ghobrial, M. G., 1963, Some new occurrences of manganese deposits in Egypt: Egypt, Geol. Surv., Pap. no. 20, 25 p.
- \_\_\_\_\_, 1967, The structural geology of Kharga Oasis: Egypt, Geol. Surv., Pap. no. 43, 39 p.
- Ghobrial, M. G., and Lotfi, M., 1967, The geology of Gebel Qattar and Gebel Dokhan area: Egypt, Geol. Surv., Pap. no. 40, 26 p.
- Ghorab, M. A., 1960, Geologic observations on the surface and subsurface petroleum indications in U.A.R.: Arab Pet. Congr., 2nd, Beirut, v. 2, p. 25-38.
- \_\_\_\_\_, 1961, Abnormal stratigraphic feature in Ras Ghareb oil fields: Arab Pet. Congr., 3rd, Alex., v. 2, 10 p.
- Ghorab, M. A., Bishay, Y. M., and Tewfik, N. M., 1969, Contribution to the geology of the Farafra-Bahariya region: Afr. Micropaleontol. Colloq., 3rd, Cairo, Proc., p. 225-226.
- Ghorab, M. A., and Ismail, M. M., 1957, A microfacies study of the Eocene and Pliocene east of Helwa: Egypt. J. Geol., v. 1, no. 2, p. 105-125.
- \_\_\_\_\_, 1969, Microfacies of the Abu Roach surface sections: Bull. Fac. Sci., Alex. Univ., v. 9, p. 331-364.
- Giegengack, R., 1970, Uranium series corals from Red Sea: Nature., v. 236, p. 155-156.
- Giegengack, R., and Issawi, B., 1975, Libyan Desert silica glass, a summary of the problem of its origin: Egypt, Geol. Surv., Ann., v. 5, p. 105-118.
- Gill, D., and Ford, S. O., 1956, Manganiferous iron ore deposits of the Om Bogma district, Sinai, Egypt: Int. Geol. Congr., 20th, Manganese, Symp. t. 2, p. 173-177.
- Gillman, M., Letullier, A., and Renouard, G., 1966, La Mer Rouge geologie et probleme petrolier: Rev. Inst. Fr. Pet., v. 21, p. 1467-1487.
- Gindy, A. R., 1954, The plutonic history of the Aswan area, Egypt: Geol. Mag., v. 91, no. 6, p. 484-497.
- \_\_\_\_\_, 1955, The plutonic history of the Aswan area, Egypt: Geol. Mag., v. 92, no. 2, p. 174.
- \_\_\_\_\_, 1956a, The igneous and metamorphic rocks of the Aswan area, Egypt (with a new geological map of the area and tables of rock analyses): Inst. Egypte, Bull., t. 37, f. 2, p. 83-117.
- Gindy, A. R., 1956b, The status of garnet in some late intrusions from the Eastern Desert and in Donegal, Eire: Bull. Inst. Desert Egypte, t. 6, no. 1, p. 159-167.

- Gindy, A. R, 1956c, Biotite schlieren in some intrusive granites from Egypt and Donegal and their origin: Bull. Inst. Desert Egypte, t. 6, no. 1, p. 143-151.
- 1960a, Radioactivity of some constituents of the black sands of Rosetta (Rashid), Egypt: Bull. Fac. Sci., Alex. Univ., v. 4 p. 91-105.
- 1960b, The genesis of a late breccia-dyke on Awad Island, south of the Aswan dam, and its important implications: Bull. Inst. Desert Egypte, t. 7, no. 1, p. 75-94.
- 1961a, Allanite from Wadi El Gemal area, Eastern Desert of Egypt, and its radioactivity: Am. Mineral., v. 46, no. 7-8, p. 985-993.
- 1961b, Radioactivity in monazite, zircon, and "radioactive black" grains in backsands of Rosetta, Egypt: Econ. Geol., v. 56, no. 2, p. 436-441.
- 1961c, Mineragraphy and radioactivity of some ore minerals and associated gangues from the U.A.R.: Egypt. Acad. Sci., Proc., v. 16, p. 49-60.
- 1961d, On the mineragraphy and radioactivity of the Aswan oolitic hematite deposits and associated ferruginous sediments: Egypt. Acad. Sci., Proc., v. 16, p. 61-70.
- 1961e, On the radioactivity and origin of the manganese-iron deposits of west-central Sinai: Egypt. Acad. Sci., Proc., v. 16, p. 71-86.
- 1961f, The use of nuclear pellicles for studying the radioactivity of mineral grains: Egypt. J. Geol., v. 5, p. 105-122.
- 1961g, Radioactivity and Tertiary volcanic activity in Egypt: Econ. Geol., v. 56, no. 3, p. 557-568.
- 1963a, Stratigraphic sequence and structure of post lower Eocene section in Wadi Gasus el Baharia, Safaga district, Eastern Desert, U.A.R.: Bull. Fac. Sci., Alex. Univ., v. 5, p. 71-87.
- 1963b, Alpha radioactivity of the basement rocks of Aswan area: Egypt. Acad. Sci., Proc., v. 17, p. 8-47.
- 1964, Radioactivity of late Precambrian dykes and other minor intrusions from Aswan and Qusseir district, Egypt: Inst. Egypte, Bull., v. 40, p. 103-155.
- 1965, The Nubian sandstone around Telal El Zouhour, and its barite veins and sand crystals: Inst. Egypte, Bull., v. 38, p. 1-70.
- 1966a, Pyrite mineralization in phosphate mine no. 5 (Om El Heweit) Safaga district, Red Sea province: Arab Sci. Congr., 5th, Baghdad, pt. 3, p. 575-605.
- 1966b, The origin of copper mineralization in central Sinai, U.A.R.: Arab Sci. Congr., 5th, Baghdad, pt. 3, p. 607-634.
- 1968, Syngenetic sedimentary copper zinc-nickel and uranium in the black shales of west-central Sinai and Safaga district in the Eastern Desert: Egypt. Acad. Sci., Proc., v. 21, p. 1-10.
- 1969, Styolites and shockbreccias in the Egyptian Eocene and their possible bias with conglomerates in stratigraphic studies: Arab Sci. Congr., 6th, Damascus, pt. 4A, p. 87-118.
- 1970a, Alpha radioactivity of the basement rocks in the area west and southwest of Qusseir, Red Sea province, Egypt: Inst. Egypte, Bull., v. 52, p. 157-197.

- Gindy, A. R., 1970b, Alpha radioactivity of some Egyptian Nubian sandstones; part I -- Partition of the radioactivity between the different size grades of the sandstones: Bull. Fac. Sci., Alex. Univ., v. 10, p. 287-301.
- \_\_\_\_\_, 1970c, Pre- and post-Nubian sandstone hydrothermal activities in the environs of Aswan town: Bull. Fac. Sci., Alex. Univ., v. 10, p. 263-278.
- \_\_\_\_\_, 1970d, Distribution of Alpha radioactivity in the different size grades of some crushed coarse Aswan granite samples: Bull. Fac. Sci., Alex. Univ., v. 10, p. 253-262.
- \_\_\_\_\_, 1971a, Constitution and origin of radioactive multicolored ringed and banded stains coating some fractures and joint-planes in the koalin beds of west-central Sinai: Egypt. Acad. Sci., Proc., v. 24, p. 69-78.
- \_\_\_\_\_, 1971b, The stratigraphic succession of the exposed coastal Miocene sediments north of Salum Town, its diagenesis and correlation with that of the Siwa Depression, Western Desert of Egypt: Egypt. Acad. Sci., Proc., v. 23, p. 9-28.
- \_\_\_\_\_, 1972, Toward a kinematic classification of the Egyptian basement, in The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, p. 47-77.
- \_\_\_\_\_, 1978, Alpha radioactivity of the constituent particles in some pelletal phosphorites from Safaga and other localities in Egypt: J. Sediment. Petrol., v. 48, no. 2, p. 539-544.
- Gindy, A. R., Abdou, H. F., and El Askary, M. A., 1969, Litho and biostratigraphy of the exposed middle Miocene succession of the Siwa depression, Western Desert, Egypt, pt. 1: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 905-921.
- Gindy, A. R., and Badra, A. E., 1968, Bentonite-like clays and marls in the north Western Desert of Egypt: Egypt. Acad. Sci., Proc., v. 21, p. 11-36.
- Gindy, A. R., and El Askary, M. A., 1969a, Stratigraphy, structure and origin of Siwa depression, Western Desert of Egypt: Am. Assoc. Pet. Geol., Bull., v. 53, no. 3, p. 603-625.
- \_\_\_\_\_, 1969b, Microfacies and petrographic studies of middle Eocene sediments of Siwa: Inst. Egypte, Bull., v. 50, p. 11-48.
- \_\_\_\_\_, 1969c, Heavy mineral detritals of exposed Miocene of Siwa depression, Western Desert, U.A.R. and their stratigraphic and paleontologic significance: Bull. Fac. Sci., Alex. Univ., v. 9, p. 227-250.
- Gindy, A. R., El Askary, M. A., and Khalil, S. O., 1978, Differential thermal and thermogravimetric studies and some trace-element contents of some coals and carbonaceous shales from west-central Sinai: Chem. Geol., v. 22, no. 4, p. 267-283.
- Gindy, A. R., and Ghazlan, A. I., 1966, Radioactivity of some Egyptian and foreign igneous rocks and their derivatives: Arab Sci. Congr., 5th, Baghdad, pt. 3, p. 545-568.
- Gindy, A. R., Ghazlan, A. I., and Afia, M. S., 1966, Thorium and uranium contents of some Precambrian rocks from Wadi-El Gemal area, Eastern Desert: Inst. Egypte, Bull., v. 41, p. 53-74.
- Gindy, A. R., and Sultan, I. Z., 1978, Thin-section mechanical analysis of a Miocene coquina from Salum, Egypt: J. Sediment. Petrol., v. 48, no. 2, p. 513-517.



- Gingerich, P., 1978, The Stuttgart collection of Oligocene Primates from the Fayum province of Egypt: *Palaeontol. Z.*, v. 52, no. 1-2, p. 82-92.
- Ginzbourg, D., 1971, Note on the eolian deposits and loess of northern Sinai and the Western Negev (Israel), in *Etudes sur le Quaternaire dans le Monde*, v. 4: Assoc. Fr. Etude Quat., Bull., Suppl., no. 4, p. 757-758.
- Girdler, R. W., 1966, The role of translational and rotational movements in the formation of the Red Sea and Gulf of Aden: *Can., Geol. Surv., Pap.* 66/14, Rept. of First U.M.C. Symposium, Ottawa, 1965, p. 65-77
- \_\_\_\_\_, 1969, The Red Sea, a geophysical background, in *Hot brines and recent heavy metal deposits in the Red Sea*, E.T. Degens and D.A. Ross, eds.: Springer Verlag, New York, p. 38-58.
- \_\_\_\_\_, 1970a, An aeromagnetic survey of the junction of Red Sea, Gulf of Aden and Ethiopian rift junction: *R. Soc. Lond., Philos. Trans., Ser. A*, v. 267, p. 359-368.
- \_\_\_\_\_, 1970b, A review of Red Sea heat flow: *R. Soc. Lond., Philos. Trans., Ser. A*, v. 267, p. 191-203.
- \_\_\_\_\_, 1970c, The structure and evolution of the Red Sea and the nature of the Red Sea, Gulf of Aden and Ethiopian rift junction: *Tectonophysics*, v. 10, no. 5-6, p. 579-582.
- Girdler, R. W., Gass, I. G., and Cox, K. G., 1973, Discussion of the Red Sea Islands: *Geol. Soc. Lond., Q.J.*, v. 129, pt. 6, p. 643-645.
- Girgis, G. F., and Faris, M. I., 1970, Presence of some local source sediments within the oil-producing Eocene limestones in the western coast of Gulf of Suez: *Arab. Pet. Congr.*, 7th, Kuwait, Pap., no. 7, 12 p.
- \_\_\_\_\_, 1972, Remarks on the late Mesozoic and Tertiary sediments neighboring to the developed heights of the Arabo-Nubian in Egypt, and their significance to petroleum exploration: *Arab Pet. Congr.*, 8th, Algiers, Pap. no. 68 (B-3), 12 p.
- Girgis, G. F., and Girgis, B. S., 1969, Studies and investigations on diatomaceous deposits in Fayoum depression: *Arab Sci. Congr.*, 6th, Damascus, pt. 4B, p. 751-767.
- Girgis, G. F., and Hindy, K. T., 1970, Relationship of Nummulites gizehensis community and lime mud bottom stratum of the Upper Lutetian Sea: *Afr. Micropaleontol. Colloq.*, 4th, Abidjan., Proc., p. 165-174.
- Girgis, L. G., and Gad, G., 1970, Refractory aspects of some dolomitic magnesite rocks: *J. Appl. Chem. Lond.*, v. 20, p. 134-139.
- Goby, J. E., 1942, Les Monts d'Attaka: *Soc. Geogr. Egypte, Bull.*, t. 20, f. 4, p. 393-420.
- Goll, R. M., 1969, Radiolaria; the history of a brief invasion, in *Hot brines and recent heavy metal deposits in the Red Sea*, E.T. Degens and D.S. Ross, eds.: Springer Verlag, New York, p. 306-312.
- Gomma, W., Soliman, A., and El Tahlawi, M. R., 1974, Geotechnical properties of the limestones exposed along the Nile Valley, Egypt: *Rock Mech. (Vienna)*, v. 6, no. 4, p. 247-253.
- Goodchild, J. H., 1956, Geological values of manganese oxide outcrops everywhere: *Int. Geol. Congr.*, 20th, Manganese, Symp. t. 1, p. 133-134.

- Goreau, T. F., and others, 1976, Fungiacava eilatensis burrows in fossil Fungia (Pleistocene) from the Sinai Peninsula: R. Soc. Lond., Proc., Ser. B., v. 193, no. 1112, p. 245-252.
- Goudarzi, G. H., 1970, Geology and mineral resources of Libya: U.S. Geol. Surv., Prof. Pap., no. 660, 104 p.
- Grdzlov, L. I., Morozov, L. I., and Shumilova, M. B., 1972, O perspektivakh neftegazonosnosti Arabskoy Respubliki Yegipet [Petroleum and gas prospects of Egypt]: Geol. Nefti Gaza, no. 8, p. 71-72.
- Greenwood, P. H., 1974, Review of Cenozoic fresh-water fish faunas in Africa: Egypt, Geol. Surv., Ann., v. 4, p. 211-232.
- Greenwood, P. H., and Tood, E. J., 1976, Appendix J; Fish remains from upper Paleolithic sites near Idfu and Isna, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Acad. Press, New York, N.Y., p. 383-388.
- Guichard, J., and Guichard, G., 1965, The early and middle Paleolithic of Nubia; a preliminary report, in Contribution to the prehistory of Nubia (F. Wendorf, ed.): South. Methodist Univ., Dallas, p. 57-116.
- \_\_\_\_\_, 1968, Contribution to the study of the early and middle Paleolithic in Nubia, in The prehistory of Nubia (F. Wendorf, ed.), v. 1: South. Methodist Univ., Dallas, p. 148-193.
- Gusakov, Y. P., and Zonn, S. V., eds., 1978, Kharga Oasis o pochvoobrazovanii i meliorativnom osvoenii pochv v ekstraaridnykh usloviyakh ARE (oasis Kharga) [Soil formation and a meliorative development of soils under the extra-arid conditions of Egypt], in Genezis i geografiya pochv zarubezhnykh stran; po issledovaniyam sovetskikh geografov): Izd. Nauka, Moscow, SUN, p. 39-57.
- Gvirtzman, G., 1976, Late Wurm temperature depression in the Middle East -- 15°C; evidence from fossil snowlines on Mount Hermon and Jebel Catharina, Sinai, in Geography in Israel (Admiral, D. H. K., and others, eds.): Int. Geogr. Union, Isr. Natl. Comm., Jerusalem, Israel, p. 364-372.
- Gvirtzman, G., Friedman, G. M., and Miller D. S., 1973, Control and distribution of uranium in coral reefs during diagenesis: J. Sediment. Petrol., v. 43, p. 985-997.
- Haas, G., 1959, On some fragments of the dermal skeleton of Placodontia from the Trias of Araif en Naga, Sinai peninsula: K. Svenska Vetenskapsakad., Handl. s. 4, b. 7, no. 4, 19 p.
- Hackett, J. P., Jr., and Bischoff, J. L., 1973, New data on the stratigraphy, extent and geologic history of the Red Sea geothermal deposits: Econ. Geol., v. 58, no. 4, p. 553-564.
- Hadidi, T. A., 1960, Bakr oil fields, the southern region U.A.R.: Arab Pet. Congr., 2nd, Beirut, v. 2, p. 200-206.
- \_\_\_\_\_, 1961, A comparative study of Bakr-Kareem and Ras Gharib oil fields: Arab Pet. Congr., 3rd, Alex., 20 (B-1), 7 p.
- Haenel, R., 1972, Heat flow measurements in the Red Sea and the Gulf of Aden: Z. Geophys., v. 38, no. 6, p. 1035-1047.
- Hafez, A., and Lotfi, M., 1971, Stratigraphy and correlation of the Hammamat conglomerates, Wadi Dib, Eastern Desert: Bull. Fac. Sci., Cairo Univ., no. 44, p. 231-246.
- Hagedorn, H., 1975, The African map during the 18th and 19th centuries: Egypt, Geol. Surv., Ann., v. 5, p. 24.
- Haman, K. A., 1975, Larger Foraminifera from the lower Eocene of the Gebel Gurnah, Luxor, Egypt: Palaeontology, v. 18, pt. 1, p. 161-178.

- Hamdi, H., 1967, The mineralogy of fine fraction of the alluvial soils of Egypt: *Egypt. J. Soil Sci.*, v. 7, no. 1, p. 15-21.
- Hamdi, H., and Epprecht, W., 1953, Der Einfluss der Temperatur auf die Tonfraktion einer ägyptischen Bodenprobe: *Schweiz. Mineral. Petrogr. Mitt.*, Bd. 33, H. 1, p. 119-126.
- Hamdi, H., Mitwally, S. E., and Bishay, G., 1968, A comparative study of hydraulic conductivity in the alluvial soils of Egypt: *Geoderma*, v. 2, no. 1, p. 27-32.
- Hamdi, H., and Naga, M., 1949, Chemische und mineralogische Untersuchungen an ägyptischen Boden: *Schweiz. Mineral. Petrogr. Mitt.*, Bd. 29, H. 2, p. 537-540.
- \_\_\_\_\_, 1952, A study of the clay fraction of Egyptian soils: *Experimentia*, v. 8, no. 12, p. 459-460.
- Hamdi, H., and others, 1969, Soil morphology and classification of the Dabbaa area: *Bull. Inst. Desert Egypte*, v. 19, no. 1, p. 119-145.
- \_\_\_\_\_, 1973a, A study on the aggregation of compacted soils: *Egypt. J. Soil Sci.*, v. 12, no. 1, p. 89-106.
- \_\_\_\_\_, 1973b, Classification of some soils of the Nile Valley: *Egypt. J. Soil Sci.*, v. 13, no. 1, p. 23-43.
- Hamilton, W. R., 1973, A lower Miocene mammalian fauna from Siwa, Egypt: *Palaeontology*, v. 16, pt. 2, p. 275-281.
- Hammad, M. A., and Abdel Salam, M. A., 1968, the genesis and formation of calcite horizons of the soils of the western coast of U.A.R.: *Bull. Inst. Desert Egypte*, v. 18, no. 2, p. 43-58.
- Hammad, M. A., Abdel Salam, M. A., and Hamdi, H., 1965, The relationship between geomorphology and land use in Mediterranean littoral of the U.A.R.: *Bull. Inst. Desert Egypte*, v. 15, no. 1, p. 1-19.
- \_\_\_\_\_, 1967, The relation between geomorphology and land use in the Mediterranean coastal littoral of the U.A.R.: *Egypt. J. Soil Sci.*, v. 7, no. 1, p. 1-14.
- Hammoud, N. S., and Khazback, A. E., 1973, Relative radiometric assay of Egyptian beach monazite sand: *Mineral. Slovaca*, v. 5, no. 4, p. 469-475.
- Hanna, F. S., and Beckmann, H., 1975, Clay minerals of some soils of the Nile Valley in Egypt: *Geoderma*, v. 14, no. 2, p. 159-170.
- Hansen, C. L., and others, 1966, Early Pleistocene deposits of the Nile Valley in Egyptian Nubia: *Quaternaria*, v. 8, p. 177-185.
- Hanter, G., 1965, Remarks on the distribution of the Miocene sediments in the Gulf of Suez region: *Arab Pet. Congr.*, 5th, Cairo, v. 2, 5 p.
- \_\_\_\_\_, 1967, Remarks on the oil accumulation in the Gulf of Suez and Red Sea districts, Egypt: *Arab Pet. Congr.*, 6th, Baghdad, v. 2, 8 p.
- Harga, A. A., Abdel Salam, M. A., and Abdou, F. M., 1972, Fabric analysis of the Fayoum-Beni Suef soils, ARE: *Bull. Inst. Desert Egypte*, v. 22, no. 1, p. 107-115.
- Harga, A. A., and others, 1968a, Study of the Burg El Arab-El Hammam area, the western Mediterranean coastal zone of the U.A.R.; II -- Soil survey and classification: *Bull. Inst. Desert Egypte*, v. 18, no. 1, p. 45-68.
- \_\_\_\_\_, 1968b, Study of Burg El Arab-El Hammam area, the western Mediterranean coastal zone of U.A.R.; I -- Physiography and genesis: *Bull. Inst. Desert Egypte*, v. 18, no. 1, p. 17-44.

- Harga, A. A., Rabie, F., and Abdel Salam, M. A., 1974, Studies of the soils of the coastal littoral of Egypt, ARE; II -- Frabic analyses of Burg El-Arab, El-Hammam soils: Egypt. J. Soil Sci., v. 13, no. 2, p. 191-202.
- Harris, P. G., 1969, Basalt type and African rift valley tectonism, in The world rift system: Tectonophysics, v. 8, no. 4, p. 427-436.
- Harris, S. A., 1957, Mechanical constitution of certain present-day Egyptian dune sands: J. Sediment. Petrol., v. 27, no. 4, p. 421-434.
- \_\_\_\_\_, 1958, Differentiation of various Egyptian aeolian microenvironments by mechanical composition: J. Sediment. Petrol., v. 28, no. 2, p. 164-174.
- \_\_\_\_\_, 1959, The mechanical composition of some intertidal sands: J. Sediment. Petrol., v. 29, no. 3, p. 412-424.
- Hartmann, M., 1969, Investigations of Atlantis II deep samples taken by the FS Meteor, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens, and D. A. Ross, eds.: Springer Verlag, New York, p. 204-207.
- \_\_\_\_\_, 1970, [Geochemical investigations of the hydrothermal brine basins on the Red Sea floor, results to date and interpretations]: Geol. Rundsch., v. 60, no. 1, p. 244-526.
- \_\_\_\_\_, 1972, Sound velocity data for the hot brines and corrected depth of the interfacies in the Atlantis II Deep: Mar. Geol., v. 12, no. 5, p. M12-M20.
- \_\_\_\_\_, 1973, [Studies on the suspended material in the hydrothermal brines of the Atlantis II Deep]: Geol. Rundsch., v. 62, no. 3, p. 742-754.
- Hartmann, M., and Lohmann, L., 1968, Investigations of thermal brines and sediments of the Atlantis II Deep in the Red Sea: "Meteor" Forsch., Reihe C, no. 1, p. 13-20.
- Hartmann, M., and Nielsen, H., 1966, Sulphur isotopes in the hot brines and sediment of Atlantis II Deep (Red) Sea: Mar. Geol., v. 4, p. 305-306.
- Hashad, A. H., and others, 1962, Theoretical and experimental consideration of the Rb-Sr age-dating method: Egypt. J. Geol., v. 16, no. 2, p. 255-267.
- \_\_\_\_\_, 1974, Rb-Sr isotopic age determination of some basement Egyptian granites: Egypt. J. Geol., v. 16 (1972), no. 2, p. 269-282.
- Hassan, A. A., 1963, The distribution of Triassic and Jurassic formations in east Mediterranean: Arab Pet. Congr., 4th, Beirut, v. 2, 10 p.
- \_\_\_\_\_, 1967, A new Carboniferous occurrence in the Abu Durba, Sinai, Egypt: Arab Pet. Congr., 6th, Baghdad, v. 2, 8 p.
- Hassan, A. A., and El Ramly, I. M., 1966, Preliminary ground-water investigations in Ras El Hekma area, Western Desert, Mediterranean littoral, U.A.R.: Arab Sci. Congr., 5th, Baghdad, pt. 2, p. 503-528.
- Hassan, A. A., El Sabh, M. L., and Morcos, S. A., 1973, Change in the current regime in the Suez Canal after construction of Aswan High Dam [discussion and reply]: Nature, v. 248, no. 5445, p. 217-219.
- Hassan, F. A., 1971, Nubia sandstone uses and misuses; discussion: Am. Assoc. Pet. Geol., Bull., v. 55, no. 6, p. 887-890.
- \_\_\_\_\_, 1974, The archaeology of the Dishna plain, Egypt; a study of a late paleolithic settlement: Egypt, Geol. Surv., Pap. no. 59.



- Hassan, F. A., 1976a, Appendix D; Heavy mineral analysis of some Pleistocene sediments in the Nile Valley, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N.Y., p. 331-338.
- \_\_\_\_\_, 1976b, Appendix F; Granulometric analysis of the sand fraction of some Quaternary Nile sediments, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N.Y., p. 343-347.
- \_\_\_\_\_, 1978, Impurity-related centers in a pale green calcite crystal: Am. Mineral., v. 63, no. 7-8, p. 732-736.
- Hassan, F. A., and Attia, A. K., 1976, Appendix E; X-ray mineralogy of some Quaternary Nile sediments, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N.Y., p. 339-342.
- Hassan, F. A., and El Dashlouty, S., 1970, Miocene evaporites of Gulf of Suez region and their significance: Am. Assoc. Pet. Geol., Bull., v. 54, no. 9, p. 1686-1696.
- Hassan, H. L., 1972, Utilization of Nile waters, in 21st International Geographical Congress, selected papers, v. 4, Regional geography and cartography: Natl. Comm. Geogr., Calcutta, India, p. 82-90.
- Hassan, M. A., 1973, Geology and geochemistry of radioactive columbite-bearing psammitic gneiss of Wadi Abu Rusheid, south Eastern Desert, Egypt, in Proceedings of the international meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: Egypt, Geol. Surv., Ann., v. 3, p. 207-225.
- \_\_\_\_\_, 1974, On the occurrence of columbite mineralization in Wadi, Abu Rusheid, Eastern Desert: Egypt. J. Geol., v. 16, no. 2, p. 283-291.
- Hassan, M. Y., 1957, Libyaconchus, a new pelecypod genus from the Esna shales of southern Egypt: Egypt. J. Geol., v. 1, no. 2, p. 135-141.
- \_\_\_\_\_, 1967, A new Belmenoid genus from the Eocene rocks of Tripolitania, Libya: Bull. Fac. Sci., Ain Shams Univ., no. 11, p. 171-178.
- \_\_\_\_\_, 1969a, Note on some uncommon or undeterminable vertebrate remains from upper Senonian and Paleocene rocks from Egypt: Bull. Inst. Desert Egypte, v. 19, no. 2, p. 151-159.
- \_\_\_\_\_, 1969b, Contribution to the Echinoid fauna of the Maestrichtian-Paleocene strata of southwestern Egypt: Egypt. Acad. Sci., Proc., v. 22, p. 15-20.
- \_\_\_\_\_, 1969c, Catalogue of valid and invalid names of Senonian-Paleocene megafossils of southern Egypt: Bull. Fac. Sci., Ain Shams Univ., no. 13, p. 103-125.
- \_\_\_\_\_, 1970, New molluscan fauna from the Maestrichtian of Kharga Oasis, south Western Desert of Egypt: Egypt. Acad. Sci., Proc., v. 23, p. 65-76.
- \_\_\_\_\_, 1971a, Xenoheliz? ibyensis, a new problematic form from the Maestrichtian of Kharga Oasis, south Western Desert of Egypt: Bull. Inst. Desert Egypte, v. 19, no. 1, p. 97-104.

- Hassan, M. Y., 1971b, Correlation of the Cretaceous-Tertiary contact in the oases of the south Western Desert of Egypt with that in the Djofra graben, eastern Tripolitania, Libya: Bull. Fac. Sci., Ain Sci. Shams Univ., no. 15, p. 1-18.
- Hassan, M. Y., Sadek, A., and Boukary, M., 1971, Middle Eocene nannoplankton from the Nile Valley area (Beni-Suef), Egypt: Bull. Fac. Sci., Ain Shams Univ., no. 15, p. 51-61.
- Hassan, M. Y., and Salama, S. A. 1969, Contribution to the coral fauna of the Maestrichtian Paleocene paper shales and "snow white chalk" of the oases of the south Western Desert of Egypt: Inst. Egypte, Bull., v. 51, p. 73-98.
- Hassan, M. Y., and Strougo, A. M., 1970, Preliminary note on a boring Lamellibrach genus *Martesia* reported for the first time in Eocene rocks from Egypt: Egypt. Acad. Sci., Proc., v. 23, p. 35-56.
- Hathout, M. Z., and Abdel Azim, Y. Y., 1961, High-grade iron oxides from ferruginous sandstone: Iron and Steel Congr., 1st., Cairo, 24 p.
- \_\_\_\_\_, 1963a, The dressing of phosphates of Egypt; pt. 1, Dolomitic phosphates of Safaga: Egypt, Geol. Surv., Publ., 18 p.
- \_\_\_\_\_, 1963b, The dressing of the phosphates of Egypt; pt. 2, The dolomitic phosphates of El Kharga Oasis: Egypt, Geol. Surv., Publ., 13 p.
- \_\_\_\_\_, 1963c, The dressing of Phosphates in Egypt; pt. 2, The dolomitic phosphates of El-Dakhla Oasis: Egypt, Geol. Surv., Publ., 13 p.
- Hathout, M. Z., and El Shafay, S. B., 1961, Washability curves for Egyptian coals: Iron and Steel Congr., 1st, Cairo, 20 p.
- Haude, W., 1961, Die naturgegebene Wasserspende an Agypten und den Nil: Die Erde Jg. 92, H. 1, p. 18-42.
- Haxel, O., 1976, Beitrag der physik zur Kilmageschichte [The physics of climatic history: Naturwissenschaften, v. 63, no. 1, p. 16-22.
- Hazzaa, I. B., and others, 1967, Investigation of ground water radial flow using radioactive tracers: Int. Assoc. Sci. Hydrol., Bull., v. 12, no. 3, p. 55-59.
- Heimdal, B. R., Taasen, J. P., and Elbraechter, M., 1977, Net phytoplankton of the Great Bitter Lake in the Suez Canal: Sarsia, v. 63, no. 2, p. 75-83.
- Heinzlein, J. D., 1968, Geological history of the Nile Valley, in The prehistory of Nubia (F. Wendorf, ed.), v. 1: South. Methodist Univ. Press, p. 1955.
- Heinzlein, J. D., and Paepe, R., 1965, The geological history of the Nile Valley, in Sudanese Nubia "preliminary results", in Contribution to prehistory of Nubia (F. Wendorf, ed.): South. Methodist Univ. Press, p. 29-56.
- Helal, A. H., 1964, Bedeutung eines agyptischen Felsbildes bei Mekka fur die Frage nach dem Alter von Blockmeerbildungen, und Desquamationen in Saudi-Arabien: Z. Geomorphol., B. 8, H. 3, p. 366-369.
- \_\_\_\_\_, 1965, Jurassic spores and pollen grains from the Kharga Oasis, Western Desert, Egypt: Neues Jahrb. Geol. Palaeontol., Abh., v. 123, no. 2, p. 160-166.
- \_\_\_\_\_, 1966, Jurassic plant microfossils from the subsurface of Kharga Oasis, Western Desert, Egypt: Palaeontogr., Abt. A., Bull. 117, p. 83-98.
- Helal, A. H., and Ulrich, J., 1962, Zur geologie von Musa am Westlichen Sinai, Agypten: Geol. Runsch., v. 52, p. 651-665.

- Heller Kallai, L., Nathan, Y., and Weissbrod, T., 1973, The clay mineralogy of Paleozoic sediments from southern Israel: *Isr. J. Earth Sci.*, v. 22, no. 3, p. 157-164.
- Heller Kallai, L., Nathan, Y., and Zak, I., 1973, Clay mineralogy of Triassic sediments in southern Israel and Sinai: *Sedimentology*, v. 20, no. 4, p. 513-521.
- Hellstrom, B., 1953a, The ground-water supply of northeastern Sinai: *Geog. Ann.*, arg. 35, h. 2, p. 61-74.
- \_\_\_\_\_, 1953b, Note on the ground-water supply of northeastern Sinai: *Bull. Inst. Desert Egypt*, t. 3, no. 1, p. 135-138.
- Hendricks, R. L., and others, 1969, Chemical composition of sediments and interstitial brines from the Atlantis II Discovery and Chain Deep, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens, and D. A. Ross, eds.: Springer Verlag, New York, p. 407-440.
- Heritsch, F., 1937, Lithostrotionella stylaxis Trautschold aus der arabischen Wüste: *Naturwiss. Ver. Steiermark, Mitt.*, Bd. 4, p. 164-165.
- Herman, Y., 1965, Etude des sediments quaternaires de la Mer Rouge: *Ann. Inst. Oceanogr. Monaco*, v. 42, p. 339.
- \_\_\_\_\_, 1968, Evidence of climatic changes in Red Sea cores, means of correlation of Quaternary successions: *Int. Assoc. Quaternary, Res.*, 7th Congr. (1965), Proc., v. 8, p. 325-348.
- \_\_\_\_\_, 1971, Vertical and horizontal distribution of pteropods in Quaternary sequences, in The micropaleontology of oceans: Cambridge Univ. Press, Cambridge, p. 463-486.
- Herman, Y., and Rosenberg, P. E., 1969, Mineralogy and micropaleontology of a goethite-bearing Red Sea core, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 448-459.
- Hermína, M. H., 1967, Geology of the northwestern approaches of Kharga Oasis: *Egypt, Geol. Surv., Pap.* no. 44, 87 p.
- \_\_\_\_\_, 1973, Preliminary evaluation of Maghrabi-Liffya phosphorites, Abu Tartua area, Western Desert, Egypt, in Proceedings of the international meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: *Egypt, Geol. Surv., Ann.*, v. 3, p. 39-74.
- \_\_\_\_\_, 1974, Abu Tartur phosphorite deposit, Western Desert: *Egypt, Geol. Surv., Pap.* no. 61, p. 1-10.
- Hermína, M. H., Ghobrial, M. G., and Issawi, B., 1961, The geology of the Dakhla area: *U.A.R., Geol. Surv. Min. Res. Dept.*, Pap., 33 p.
- Hermína, M., and Issawi, B., 1971, Rock-stratigraphic classification of the Upper Cretaceous-lower Tertiary exposures in southern Egypt, in Symposium on the geology of Libya: *Fac. Sci., Univ. Libya, Tripoli*, p. 147-154.
- Hermína, M. H., and Wassef, A., 1975, Geology and exploration of the large phosphate deposit in Abu Tartur Plateau, the Libyan (Western) Desert, Egypt: *Egypt, Geol. Surv., Ann.*, v. 5, p. 87-98.
- Heybrock, F., 1965, The Red Sea Miocene evaporite basins, in Salt basins around Africa: *Inst. Pet. Rev., Lond.*, p. 17-40.

- Higazy, R. A., and El Ramly, M. E., 1960, Potassium-argon ages of some rocks from the Eastern Desert of Egypt: U.A.R., Geol. Surv. Min. Res. Dept., Pap. no. 7, 19 p.
- Higazy, R. A., and Hussein, H. A., 1955, Remarks on the uranium content of some black shales and phosphates from Kosseir and Safaga: Egypt. Acad. Sci., Proc., no. 11, p. 63-66.
- Higazy, R. A., and Naguib, A. G., 1958, A study of the Egyptian monazite bearing black sands: Int. Conf. Peaceful Uses Atomic Energy, 2nd, Geneva, Proc., v. 2, p. 658-662.
- Higazy, R. A., and others, 1958, The discovery of uranium ores in Egypt: Int. Conf. Peaceful Uses Atomic Energy, 2nd, Geneva, Proc., v. 2, p. 97-99.
- Higazy, R. A., and Shata, A., 1960, Remarks on the age and origin of ground water in the Western Desert, with special reference to El Kharga Oasis (southern province, Egypt, U.A.R.): Soc. Geogr. Egypte, Bull., t. 33, p. 177-186.
- Higazy, R. A., and Wasfy, H. M., 1956, Petrogenesis of granitic rocks in the neighborhood of Aswan, Egypt: Bull. Inst. Desert Egypte, t. 6, no. 1, p. 209-248.
- \_\_\_\_\_, 1957, Remarks on the age of granites in Egypt: Egypt. J. Geol., v. 1, no. 2, p. 85-92.
- Hilal, M. H., and others, 1976, Studies on humus acids in soils of an arid region; I, Extraction and fractionation of soil organic matter: Egypt. J. Soil Sci., v. 15, no. 2, p. 167-173.
- Hilal, M. H., and Rasheed, M. A., 1976, Some chemical changes in properties of the Nile water after the construction of the High Dam: Egypt. J. Soil Sci., v. 16, no. 1, p. 1-8.
- Hilas, O. M., and Kiwan, A. M., 1960, Investigation on Egyptian radioactive minerals, part 2: Egypt. J. Chem., v. 3, no. 2, p. 283-288.
- Hildebrand, N., Shirav, M., and Freund, R., 1974, Structure of the western margin of the Gulf of Elat (Agaba) in the Wadi El Quseib-Wadi Haimur area, Sinai: Isr. J. Earth Sci., v. 23, no. 4, p. 117-130.
- Hillebrandt, A., 1965, Foraminifieren-Stratigraphie im Alttertiar von Zumaya (Provinz Guipuzcoa, NW-Spanien) und ein Vergleich mit anderen Tethys-Gebieten: Bayer. Akad. Wiss., Math.-Naturwiss. Kl., Abh., no. 123, 62 p.
- Hilmy, M. E., 1951, Beach sands of the Mediterranean coast of Egypt: J. Sediment. Petrol., v. 21, no. 2, p. 109-120.
- \_\_\_\_\_, 1952, Reply to the remarks of N. M. Shurkri on "Beach sands of the Mediterranean coast of Egypt" by M. E. Hilmy: J. Sediment. Petrol., v. 22, no. 1 p. 53.
- Hilmy, M. E., and Awad, N. T., 1965, Celestite from Mokattam area, Cairo, Egypt: Bull. Inst. Desert Egypte, v. 15, no. 2, p. 1-6.
- \_\_\_\_\_, 1969, Barite mineralization at Aswan: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 797-816.
- Hilmy, M. E., and Darwish, M. H., 1966, Mineralogy of the Saline deposits from Wadi El Natrun, Egypt, U.A.R.: Arab Sci. Congr., 5th, Baghdad, p. 441-451.
- Hilmy, M. E., and Ghazlan, A. I., 1962, Uranium and thorium concentration in some sulphides and oxide minerals from nonuraniferous areas: Bull. Fac. Sci., Ain Shams Univ., no. 8, p. 489-495.



- Hilmy, M. E., Kamel, O. A., and Niaz, E. A., 1969, Mineralogy of iron-ore deposits of Wadi Kareem, Eastern Desert, Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 685-716.
- Hilmy, M. E., Lotfi, A., and Moshen, L. A., 1965, Secondary copper minerals from west-central Sinai: Egypt. J. Geol., v. 9, p. 1-12.
- Hilmy, M. E., and Moshen, L. A., 1963, Geology of some occurrences of copper minerals in Sinai: Bull. Fac. Sci., Ain Shams Univ., no. 9, p. 517-539.
- \_\_\_\_\_, 1966, Mineralogy of some occurrences of copper minerals in Sinai: Bull. Fac. Sci., Ain Shams Univ., no. 10, p. 263-304.
- Hilmy, M. E., and Moustafa, G. A., 1960, Muscovite occurrence in Rod Umm El Farag pegmatites, south Eastern Desert, Egypt, U.A.R.: Egypt, Geol. Surv., Pap. no. 11, 6 p.
- \_\_\_\_\_, 1961, Muscovite occurrence in Rod Umm El-Farag pegmatite, south Eastern Desert, Egypt U.A.R.: U.A.R., Geol. Surv. Min. Res. Dept., Pap. no. 11, 6 p.
- Hilmy, M. E., Nakhla, F. M., and Rasmy, M., 1972, Contribution to the mineralogy, geochemistry and genesis of the Miocene lead-zinc deposits in Egypt: Chem. Erde, v. 31, no. 3-4, p. 373-390.
- Hilmy, M. E., and others, 1968, Investigation on some mineral deposits in Um Rus area, Eastern Desert: Egypt. J. Geol., v. 12, p. 127-133.
- \_\_\_\_\_, 1976, Sedimentology and paleocurrent study of Nubia sandstone in Kharga Oasis: Baghdad, Univ., Coll. Sci., Bull., v. 17, no. 2, p. 425-451.
- Himida, I. H., 1963, Geological structure of the Libyan Desert, U.A.R.: Geol. Prospecting J., no. 9.
- \_\_\_\_\_, 1965a, Artesian water of the Nubian sandstones in the Libyan Desert of the U.A.R.: Geol. Prospecting J., no. 6.
- \_\_\_\_\_, 1965b, A quantitative study of artesian water exploration resources in Kharga and Dakhla Oases, Western Desert of Egypt: Bull. Inst. Desert Egypte, v. 16, no. 2, p. 31-58.
- \_\_\_\_\_, 1967, Remarks on the absolute-age determination of the artesian water of the oases of the Western Desert, with a special reference to Kharga Oasis: Bull. Inst. Desert Egypte, v. 17, no. 2, p. 53-64.
- \_\_\_\_\_, 1972, The Nubian Artesian Basin, its regional hydrogeological aspect and palaeohydrological reconstruction, in Symposium on the results of research on representative and experimental basins -- Colloque sur les resultats des recherches sur les bassins representatifs et experimentaux; Vol. II; New Techniques: Int. Assoc. Sci. Hydrol., Publ., no. 97, p. 370-390.
- Himida, I. H., Bishay, N. Z., and Diab, M. S., 1972, Hydrogeological and hydrogeochemical studies on Agun Musa area: Bull. Inst. Desert Egypte, v. 22, no. 1, p. 17-31.
- Himida, I. H., Diab, M. S., and Augustithus, S. S., 1976, Hydrogeology of thermal springs in the northern regions of Suez Gulf, Egypt, in Proceedings of the international congress on thermal waters, geothermal energy and vulcanism of the Mediterranean area; Volume 2, Thermal waters: Natl. Tech. Univ., Athens, Greece, p. 292-304.
- Himida, I. H., and El Daem, A. A., 1976, Hydrogeochemical characteristics of some thermal mineral springs in the area to the east of Cairo, Egypt, ARE, in Proceedings of the international congress on thermal waters, geothermal energy and vulcanism of the Mediterranean area; Volume 2, Thermal waters (Augustithus, S. S., organizer): Natl. Tech. Univ., Athens, Greece, p. 305-319.

- Hirsch, F., 1976, Sur l'origine des particularismes de la faune du Trias et du Jurassique de la plate-forme africano-arabe [The origin of faunal peculiarities during the Triassic and Jurassic of the African-Arabian Platform: Soc. Geol. Fr., Bull., v. 18, no. 2, p. 543-552.
- Holman, B. W., 1953a, Ilmenite in Egypt: Mineral. Mag., v. 89, no. 4. p. 212-216.
- \_\_\_\_\_, 1953b, Some iron ores of Egypt: Min. J., Lond., v. 240, no. 6149, p. 766-767.
- \_\_\_\_\_, 1956, Mineral deposits in Egypt: Bull. Inst. Desert Egypte, t. 6, no. 1, p. 130-142.
- Holmes, R., and Tooms, J. S., 1973, Dispersion from a submarine exhalative ore body: Int. Geochem. Explor. Symp. Proc., no. 4, p. 193-202.
- Hooijer, D. A., 1966, Fossil mammals of Africa no. 2; Miocene rhinoceroses of east Africa: Br. Mus. (Nat. Hist.) Bull., Geol., v. 13, no. 2, p. 119-190.
- Horowitz, A., 1973, Noeggerathia dickeri n. sp. from the Carboniferous of Sinai: Rev. Palaeobot. Palynol., v. 15, no. 1, p. 51-56.
- \_\_\_\_\_, 1975, Cenozoic erosive surfaces of central Sinai: Isr. J. Earth Sci., v. 24, no. 1-2, p. 53-55.
- Hottinger, L., 1960, Recherches sur les Alveolines Paleocenes et Eocenes: Suisse Paleont. Mem., v. 75-76, 243 p.
- Hume, W. F., 1905, Catalogue of the Geological Museum, Cairo: Egypt, Geol. Surv., Publ., 37 p.
- \_\_\_\_\_, 1906, The topography and geology of southeastern Sinai: Egypt, Geol. Surv., Publ., 280 p.
- \_\_\_\_\_, 1911, The principles and objects of geology, with special reference to the geology of Egypt: Egypt, Geol. Surv., Publ., 25 p.
- \_\_\_\_\_, 1912, Explanatory notes to accompany the geological map of Egypt: Egypt, Geol. Surv., Publ., 50 p.
- \_\_\_\_\_, 1916, Report on the oilfield regions of Egypt: Egypt, Geol. Surv., Publ., 103 p.
- \_\_\_\_\_, 1921, The soils and water supply of the Maryut district, west Alexandria: Egypt, Geol. Surv., Publ., 52 p.
- \_\_\_\_\_, 1925, Geology of Egypt, volume 1 -- The surface features of Egypt, their determining causes and relation to geological structure: Egypt, Geol. Surv., Publ., 408 p.
- \_\_\_\_\_, 1927, The phosphate deposits in Egypt: Egypt, Geol. Surv., Publ., 20 p.
- \_\_\_\_\_, 1934, Geology of Egypt; Volume II, The fundamental pre-Cambrian rocks of Egypt and the Sudan; their distribution, age, and character; Pt. I, The metamorphic rocks: Egypt, Geol. Surv., Publ., 300 p.
- \_\_\_\_\_, 1935, Geology of Egypt: Volume II, pt. 2, the later plutonic and intrusive rocks, with a special chapter dealing with dynamical geology and the age of the Precambrian rocks in Egypt: Egypt, Geol. Surv., Publ., p. 301-688.
- \_\_\_\_\_, 1937, Geology of Egypt, volume II, The fundamental pre-Cambrian rocks of Egypt and the Sudan, their distribution, age and character; Pt. III, The minerals of economic value associated with the intrusive pre-Cambrian igneous rocks and ancient sediments, and methods suggested for the dating of historical and geological times: Egypt, Geol. Surv., Publ., 689-990.

- Hume, W. F., 1962, Geology of Egypt, The stratigraphical history of Egypt from the close of the pre-Cambrian episodes to the end of the Cretaceous period: Egypt, Geol. Surv., Publ., v. 3, pt. 1, 712 p.
- \_\_\_\_\_, 1964, Geology of Egypt -- The stratigraphical history of Egypt from the close of the Cretaceous period to the end of the Oligocene: Egypt, Geol. Surv., Publ., v. 3, pt. 2, 734 p.
- \_\_\_\_\_, 1965, Geology of Egypt; a digest of papers published on Egypt; v. 3, The stratigraphical history of Egypt, pt. 1, From the close of the pre-Cambrian episodes to the end of the Cretaceous period; The story of the submergence of a continental borderland beneath the sea, 712 p.; pt 2, From the close of the Cretaceous period to the end of the Oligocene; The story of the submergence of a continental borderland beneath the sea: U.A.R., Geol. Surv. Min. Res. Dept., Publ., 734 p.
- Hume W. F., and Little, O. H., 1931, Views of typical desert scenery in Egypt: Egypt, Geol. Surv., Publ., 14 p.
- Hunt, J. M., and others, 1967, Red Sea, detailed survey of hot brine areas: Science (AAAS), v. 156, p. 514.
- Hussein, A. A., 1973, Results of mineral exploration program in south Eastern Desert of Egypt, in Proceedings of the international meetings held on the occasion of the 75 anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: Egypt, Geol. Surv., Ann., v. 3, p. 109-124.
- Hussein, A. A., and Hassan, M. A., 1973, Further contribution to geology and geochemistry of some Egyptian ring complexes, in Proceedings of the international meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: Egypt, Geol. Surv., Ann., v. 3, p. 167-175.
- Hussein, A. T., 1969, The constitution and characteristics of Egyptian zircon sand: Arab. Sci. Congr., 6th, Damascus, pt. 4B, p. 729-732.
- Hussein, A. T., Abdalla, H. M., and Gad, G. M., 1965, The constitution and characteristics of Aswan clay: Egypt. J. Geol., v. 9, no. 2, p. 69-79.
- Hussein, A. T., and Gad, G. M., 1965a, A study of Egyptian clays, pt. 2 --The constitution of the clays and their suitability for refractory brickmaking: Egypt. J. Chem., v. 8, no. 1, p. 61-67.
- \_\_\_\_\_, 1965b, A study of some Egyptian clays, pt. 1, -- The physical characteristics of clays: Egypt. J. Chem., v. 8, no. 1, p. 51-58.
- Hussein, F. A., and Lotfi, M., 1971, A note on the origin of chert in phosphate rocks in upper Egypt: Egypt. J. Geol., v. 15, no. 2, p. 99-104.
- Hussein, H. A., 1958, Etude sur quelques phosphates égyptiens; teneur en phosphate et radioactivité: Soc. Geol. Fr., Bull., s. 6, t. 8, no. 3, p. 289-294.
- Hussein, H. A., Anwar, Y. M., and El Soukkary, A. A., 1973, Radiogeologic studies of some Carboniferous rocks of west-central Sinai: J. Geol. U.A.R., v. 15 (1971), no. 2, p. 119-127.

- Hussein, M. K., Kammel, R., and Winterhages, H., 1967, A study on the reduction mechanism of ilmenite ores: *Indian J. Technol.*, v. 5, no. 12, p. 369-377.
- Hussein, M. K., Khairy, E. M., and El Tawil, S. Z., 1972, Reduction of Egyptian ilmenite ores with CO and COCO<sub>2</sub> mixtures: *Erzmetall.*, Bd. 25, H. 3, p. 119-124.
- Hussein, M. K., Kolta, G. A., and Abdel Aal, O., 1971, Analysis and investigation of chromite ores from Baramia, Eastern Desert: *J. Geol. U.A.R.*, v. 13, no. 1, p. 17-24.
- Hussein, M. K., and others, 1971, A study on the solid-state reduction of chromite ores by hydrogen: *Rev. Chim. Miner.*, v. 8, p. 463-475.
- Hussein, M. K., and Saba, A. E., 1966a, Unter-suchungen zum Chlorieren agyptischer ilmeniterze: *Neue Hutte*, v. 11, p. 267.
- \_\_\_\_\_, 1966b, Verhuttung agyptischer ilmeniterze durch einen Kombinierten schmelz-und Chlorierungsprozess: *Neue Hutte*, v. 11, p. 338-341.
- Hutchinson, R. W., and Engels, G. G., 1972, Tectonic evolution in the southern Red Sea and its possible significance to older rifted continental margins: *Geol. Soc. Am., Bull.*, v. 83, no. 10, p. 2898-3002.
- Hutchinson, R. W., and Gass, I. G., 1971, Mafic and ultramafic inclusions associated with undersaturated basalt on Kod Ali Island, southern Red Sea: *Contrib. Mineral. Petrol.-Beitr. Mineral. Petrol.*, v. 31, no. 2, p. 94-101.
- Hutchison, R., Gale, N., and Arden, J. W., 1975, Invalid 4.01 Gyr model U-Pb "age" of the Nakhla meteorite: *Nature*, v. 254, no. 5502, p. 678-680.
- Huzayyin, S. A., 1950a, Physiographic stages in the L. Nile valley during the Pleistocene [with discussion]: *Int. Geogr. Congr.*, 16th, Lisbon, C.R., t. 2, p. 228-230.
- \_\_\_\_\_, 1950b, La depression de Fayyoun; un exemple d'erosion eolienne [with discussion]: *Int. Geogr. Congr.*, 16th, Lisbon, C. R., t. 2, p. 731-733.
- \_\_\_\_\_, 1956, Pleistocene climate of Sinai peninsula: *Int. Geogr. Congr.*, 17th, Proc., p. 342-344.
- Ibrahim, D. M., and Gad, G., 1970a, Heavy concrete units from black sands for protection from Gamma radiation: *Sprechsaal Keram.*, v. 103, no. 14, p. 634-636.
- \_\_\_\_\_, 1970b, Special building materials from black sands for the protection from Gamma radiation: *Sprechsaal Keram.*, v. 103, no. 17, p. 768-773.
- Ibrahim, M. M., 1942, Report on Barramia district: *Egypt, Geol. Surv., Publ.*, 34 p.
- \_\_\_\_\_, 1943, Preliminary report on the work of the geological expedition to Barramia area in 1943: *Egypt, Geol. Surv., Publ.*, 39 p.
- \_\_\_\_\_, 1953, The petrified forest; part II: *Inst. Egypte, Bull.*, t. 34, p. 317-328.
- \_\_\_\_\_, 1960, The regional arch in Egypt and its environments: *J. Geol. U.A.R.*, v. 4, no. 1, p. 17-61.
- Irvine, T. N., ed., 1966, The world rift system: *Can., Geol. Surv., Pap.* no. 66-14, 471 p.
- Isayev, Y. N., and Razvalyayev, A. V., 1977, The relationship between rift and pre-rift structural patterns, with the Red Sea as an example: *Geotectonics*, v. 11, no. 2, p. 104-111.



- Ismail, M. M., and Abdallah, A. M., 1966, Contribution to the stratigraphy of St Paul Monastery area by microfacies: Bull. Fac. Sci., Alex Univ., v. 7, p. 325-333.
- Ismail, M. M., and Abdel Razik, T. M., 1969a, Stratigraphical microfacies studies in Gebel Anz area, near Qusseir, Eastern Desert U.A.R.: Bull. Fac. Sci., Alex. Univ., v. 9, p. 365-382.
- \_\_\_\_\_, 1969b, Stratigraphical microfacies studies in the Idfu-Esna district, Nile Valley, U.A.R.: Bull. Fac. Sci., Alex. Univ., v. 9, p. 383-396.
- Ismail, M. M., and Bassiouni, M. A., 1966, Stratigraphic zoning of the Eocene east of Helwan by ostracodes: Bull. Fac. Sci., Ains Shams Univ., no. 10, p. 431-441.
- Ismail, M. M., and El Dakkak, M. W., 1968, Stratigraphical microfacies studies of the Eocene and marine Miocene of Gebel Iweibid area, Cairo-Suez district: Bull. Fac. Sci., Alex. Univ., v. 8, no. 2, p. 259-328.
- Ismail, M. M., and Farag, I. A. M., 1957, Contributions to the stratigraphy of the area east of Helwan (Egypt): Bull. Inst. Desert Egypte, t. 7, no. 1, p. 95-134.
- Ismail, M. M., Fawzi, M. A., and Naim, E. M., 1967, A microfacies study of the Cretaceous strata of Gebel Shabrawet area, Eastern Desert, U.A.R.: Bull. Fac. Sci., Alex. Univ., v. 8, no. 1, p. 219-234.
- Ismail, M. M., and Mansour, A. I. M., 1969, Microfacies studies of the Lower Cretaceous of Gebel El Maaza, north Sinai: Bull. Fac. Sci., Alex. Univ., v. 9, p. 435-450.
- Ismail, M. M., and Selim, A. A., 1966, A contribution to the stratigraphy of Gebel Ataga scarps, Eastern Desert, U.A.R.: Bull. Inst. Desert Egypte, v. 16, no. 2, p. 1-20.
- \_\_\_\_\_, 1968, A microfacies study of the Cretaceous and Eocene strata of Gebel Ataga scarps, Eastern Desert, U.A.R.: Bull. Fac. Sci., Alex. Univ., v. 8, no. 2, p. 235-257.
- \_\_\_\_\_, 1969, Stratigraphy of Salum area, Western Desert, U.A.R.: Bull. Fac. Sci., Alex. Univ., v. 9, p. 309-328.
- Israel, Geological Survey Library, 1973, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 73/9-12, 12 p.
- \_\_\_\_\_, 1974a, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 74/1-2, 13 p.
- \_\_\_\_\_, 1974b, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 74/4-5, 11 p.
- \_\_\_\_\_, 1974c, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 74/6, 12 p.
- \_\_\_\_\_, 1974d, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 74/10, 11 p.
- \_\_\_\_\_, 1974e, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 74/11, 11 p.
- \_\_\_\_\_, 1974f, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 74/12, 10 p.
- \_\_\_\_\_, 1975a, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/1, 11 p.
- \_\_\_\_\_, 1975b, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/3, 11 p.
- \_\_\_\_\_, 1975c, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/4, 10 p.

- Israel, Geological Survey Library, 1975d, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/5, 12 p.
- \_\_\_\_\_, 1975e, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/6, 11 p.
- \_\_\_\_\_, 1975f, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/7, 11 p.
- \_\_\_\_\_, 1975g, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/8, 12 p.
- \_\_\_\_\_, 1975h, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/9, 10 p.
- \_\_\_\_\_, 1975i, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/10, 10 p.
- \_\_\_\_\_, 1975j, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/11, 10 p.
- \_\_\_\_\_, 1975k, Selected bibliography of Middle East geology: Sel. Bibliogr. Middle East Geol., no. 75/12, 11 p.
- Issar, A., Bein, A., and Michaeli, A., 1972, On the ancient water of the upper Nubian Sandstone aquifer in central Sinai and southern Israel: J. Hydrol., v. 17, no. 4, p. 353-374.
- Issar, A., and Eckstein, Y., 1969, The lacustrine beds of Wadi Feiran Sinai, their origin and significance: Isr. J. Earth Sci., v. 18, no. 1, p. 21-22.
- Issar, A., and others, 1971, Formation waters, hot springs and mineralization phenomena along the eastern shore of the Gulf of Suez: Int. Assoc. Sci. Hydrol., Bull., v. 16, no. 3, p. 25-44.
- Issar, A., Rosenthal, E., and Eckstein, Y., 1969, Brines, thermal springs and mineralization phenomena along the eastern coast of Sinai as compared to those of the hot deeps of the Red Sea: Isr. J. Earth Sci., v. 18, no. 3-4, p. 162.
- Issawi, B., 1969, The geology of Kurkur-Dungul area: Egypt, Geol. Surv., Pap. no. 46, 102 p.
- \_\_\_\_\_, 1971, Geology of Darb El Arbain, Western Desert, Egypt: Egypt, Geol. Surv., Ann., v. 1, p. 53-92.
- \_\_\_\_\_, 1972, Review of Upper Cretaceous-lower Tertiary stratigraphy in central and southern Egypt: Am. Assoc. Pet. Geol., Bull., v. 56, no. 8, p. 1448-1463.
- \_\_\_\_\_, 1973a, Nubia sandstone; type section: Am. Assoc. Pet. Geol., Bull., v. 57, no. 4, p. 741-744.
- \_\_\_\_\_, 1973b, Geology of southeastern corner of Western Desert, in Proceedings of the international meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: Egypt, Geol. Surv., Ann., v. 3, p. 25-30.
- \_\_\_\_\_, 1976a, An introduction to the physiography of the Nile Valley, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N. Y., United States, p. 3-22.
- \_\_\_\_\_, 1976b, General geology of the El-Kilh area, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N.Y., p. 23-25.
- \_\_\_\_\_, 1976c, Geology of the Isna area (west of the Nile), in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N. Y., p. 43-45.

- Issawi, B., 1976d, Geology of the Dandara area, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N. Y., p. 109-111.
- \_\_\_\_\_, 1976e, Geology of the Fayum depression, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N. Y., p. 151-153.
- Issawi, B., and El Etr, H. A., 1971, Geology of Darb El Arbain, Western Desert, Egypt: Egypt, Geol. Surv., Ann., v. 1, p. 53-92.
- Issawi, B., and others, 1969, Contribution to the structure and phosphate deposits of Qusseir area: Egypt, Geol. Surv., Pap. no. 50, 35 p.
- \_\_\_\_\_, 1971, Geology of Safaga-Qusseir coastal plain and of Mohammed Rabah area: Egypt, Geol. Surv., Ann., v. 1, p. 1-19.
- Issawi, B., and Pomeyrol, R., 1971, Nubian sandstone, discussion and reply: Am. Assoc. Pet. Geol., Bull., v. 55, no. 6, p. 885-887.
- Issawi, B., and Soliman, S. M., 1971, Carboniferous of Egypt, isopach and lithofacies maps; discussion and reply: Am. Assoc. Pet. Geol., Bull., v. 55, no. 6, p. 1448-1463.
- Issawi, B., Wendorf, F., and Schild, R., 1976, Geology of the Dandara area, in Prehistory of the Nile Valley: Academic Press, New York, N.Y., p. 93-94.
- Issawi, B., Zaki, N., and Belety, A., 1971, Micropaleontology and microfacies of Sin El-Kaddab, Western Desert, Egypt: Egypt, Geol. Surv., Ann., v. 1, p. 153-165.
- Ivanov, T., Shalaby, I. M., and Hussein, A. A., 1973, Metallogenic characteristics of south Eastern Desert of Egypt, in Proceedings of the international meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: Egypt, Geol. Surv., Ann., v. 3, p. 139-166.
- Jackson, G. K., 1941, Notes on the Cretaceous deep sea deposits in England and the shallow sea deposits of the Libyan desert: Queensl. Natural., v. 11, no. 6, p. 134-136.
- Jackson, R. D., Idso, S. B., and Otterman, J., 1975, Surface albedo and desertification: Science (AAAS), v. 189, no. 4207, p. 1012-1015.
- Jaeger, J. J., 1974, Nouvelles faunes de Rongeurs (Mammalia; Rodentia) du Miocene superieur d'Afrique Nord-Occidentale: Egypt, Geol. Surv., Ann., v. 4, p. 263-268.
- James, G. T., and Slaughter, B. H., 1974, A primitive new middle Pliocene Murid from Wadi elnatrun, Egypt: Egypt, Geol. Surv., Ann., v. 4, p. 333-361.
- James, H. L., 1969, Comparison between Red Sea deposits and ironstone and iron formation, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 525-534.
- Jhanwar, M. L., and Sharma, S. B., 1974, Interpretation of geology of the area in the vicinity of Nile Delta, Egypt, from Gemini space photograph: Geol. Soc. India, J., v. 15, no. 3, p. 320-324.
- Jodot, P., 1953, Les Pseudoceratodes du nummulitique continental circumsaarien: Alger., Serv. Carte Geol., Bull., s. 1, no. 17, 116 p.
- Joleaud, L., 1933, Progres recents de nos connaissances sur la geologie du quaternaire et sur la prehistoire de l'Egypte: Rev. Gen. Sci., Paris, t. 44, no. 21, p. 601-608.

- Jones, E. N., and Browning, D. G., 1971, Cold water layer in the southern Red Sea: *Limnol. Oceanogr.*, v. 16, no. 3, p. 503-509.
- Jong, J. D., 1940, Albitisierungserscheinungen an grau- und dioritischen Gesteinen aus der östlichen arabischen Wüste Ägyptens: *Neues Jahrb. Mineral., Geol., Palaeontol.*, Bd. 76, Abt. A, H. 1, p. 93-112.
- Jongmans, W. J., and van der Heide, S., 1953, Contribution a l'etude de la faune et de la flore du carbonifere inferieur de l'Egypte [with discussion]: *Int. Geol. Congr.*, 19th, Algeria, C.R., sec. 2, f. 2, p. 65-70.
- \_\_\_\_\_, 1955, Flore et faune du carbonifere inferieur de l'Egypte: *Nether., Geol. Stichting, Meded., Nieuwe Ser.*, no. 8, p. 59-75.
- Jux, U., 1954, Zur Geologie des Dreiecksgebietes von Abu Roasch bei Kairo: *Neues Jahrb. Geol. Palaeontol., Abh.* Bd. 100, H. 2, p. 159-207.
- \_\_\_\_\_, 1957, Zwei neue Seesterne aus der Kreide von Abu Roasch (*Forbesiaster gaensis* und *Recurvaster lorioli*) und das fazielle Bild des ägyptischen Santos: *Palaeontol. Z.*, Bd. 31, no. 3-4, p. 186-197.
- Kabbani, F. K., 1970, Geophysical and structural aspects of the central Red Sea rift valley: *R. Soc. Lond., Philos. Trans., Ser. A.*, v. 267, p. 89-97.
- Kabesh, M. L., Abdel Khalek, M. L., and Refaat, A. M., 1970, Geology of Wadi El-Mellaha area, Esh El-Mellaha Range, Eastern Desert: *J. Geol. U.A.R.*, v. 14, no. 2, p. 53-84.
- Kabesh, M. L., Aly, M. M., and Refaat, A. M., 1975, On the chemistry of biotites and variation of ferrous-ferric ratios in the granitic rocks of Umm Naggat Stock, Egypt: *Neues Jahrb. Mineral., Abh.*, v. 124, no. 1, p. 47-60.
- Kabesh, M. L., El Hinnawi, E. E., and Mansour, M. A., 1970 A note on the geochemistry of the iron ochre deposit of Um Gerifat, Red Sea coast: *J. Geol. U.A.R.*, v. 14, no. 1, p. 43-46.
- Kabesh, M. L., and Hamada, M. M., 1954, Limestones of Cairo neighborhood: *Egypt, Geol. Surv., Publ.*, 24 p.
- Kabesh, M. L., and Higazy, M., 1969, Geology of the basement rocks south of Um Gheig mine, Eastern Desert, U.A.R.: *Arab Sci. Congr.*, 6th, Damascus, pt. 4a, p. 149-196.
- Kabesh, M. L., Hilmy, M. E., and Bishady, A. M., 1967, Geology of the basement rocks in the area around Um Rus gold mine, Eastern Desert: *Egypt. J. Geol.*, v. 11, p. 58-83.
- Kabesh, M. L., Hilmy, M. E., and Ragab, A. G., 1972, The chemical composition of biotites as a guide to the petrogenesis of El Atawi granitic rocks, Eastern Desert, Egypt: *Chem. Erde*, v. 31, no. 3-4, p. 286-294.
- Kabesh, M. L., Lofti, M., and Refaat, A. M., 1970, Petrochemical characters of Wadi El Mellaha granitic rocks, Esh El Mellaha Range, Eastern Desert: *J. Geol. U.A.R.*, v. 14, no. 1, p. 1-12.
- Kabesh, M. L., and others, 1977, Geochemistry of biotites from Ras Barud granitic rocks, Eastern Desert, Egypt: *Neues Jahrb. Mineral., Abh.*, v. 129, no. 2, p. 201-210.
- Kabesh, M. L., and Ragab, A. G., 1974, The chemistry of biotites as a guide to the evolution trends of El Atawi granitic rocks, Eastern Desert, Egypt: *Neues Jahrb. Mineral., Monatsh.*, no. 7, p. 307-316.



- Kabesh, M. L., and Refaat, A. M., 1972, The chemical composition of biotites as a guide to the petrogenesis of the granitic rocks of Wadi El-Mellaha, northern Eastern Desert, Egypt: Neues Jahrb. Mineral., Abh., v. 117, no. 1, p. 85-95.
- \_\_\_\_\_, 1973, The significance of biotites as a guide to the petrogenesis of the granitic rocks of Umm Naggat stock, Eastern Desert, Egypt: Ger. Bundesanst. Bodenforsch., Geol. Jahrb., Reihe D., no. 3, p. 55-67.
- Kabesh, M. L., and Shahin, A. N., 1968, Preliminary studies of the dyke rocks in Esh El Mellaha range, Eastern Desert: Egypt. J. Geol., v. 12, p. 21-31.
- \_\_\_\_\_, 1969, Geology of the basement rocks of Esh El Mellaha range, Eastern Desert: Bull. Inst. Desert Egypte, v. 19, no. 2, p. 109-147.
- Kabid, A. L. A., 1972, Rate of sediment motion using fluorescent tracer: Conf. Coastal Eng., Proc., no. 13, v. 2, p. 985-1003.
- Kaddah, M. T., 1948, The soils of Egypt: Soil Sci., v. 65, no. 5, p. 357-365.
- Kalin, J., 1961, Sur les primates de l'oligocene inferieur d'Egypt (morphologie comparee et interpretation evolutive de Parapithecus fraasi Schlosser, Propliopithecus haeckeli Schlosser et Morepithecus markgrafi Schlosser): Ann. Paleontol., Vertebres, t. 47, p. 1-48.
- Kamel, B., 1963, Indication of faulting on seismic recording section, cross section and contour maps with example from seismic work in the Gulf of Suez region: Arab Pet. Congr., 4th, Beirut, v. 2, 12 p.
- Kamel, K., 1953, Sand dunes in Kharga depression: Soc. Geogr. Egypte, Bull., t. 25, p. 77-80.
- Kamel, M., El Sharty, A., and El Nekhely, A., 1972, Gravity anomalies in Bahariya Oasis: Arab Pet. Congr., 8th, Algiers, Pap. no. 40 (B-2), 11 p.
- Kamel, O. A., 1971a, Mineralogical study and origin of Wadi Kalabasha kaolin, in The discovery of a new kaolin deposit in Wadi Kalabasha, Nubia: Egypt, Geol. Surv., Pap. no. 54, p. 83-109.
- \_\_\_\_\_, 1971b, The Bahariya iron ores, their mineralogy and origin: Egypt, Geol. Surv., Ann., v. 1, p. 117-133.
- Kamel, O. A., and others, 1973, Mineralogical analysis and evaluation of black sands at eastern part of East Side Nile section, Abu Kashabe area, Rosetta, Egypt, in Proceedings of the international meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: Egypt, Geol. Surv., Ann., v. 3, p. 227-247.
- Karamany, M. F., and Abdel Aati, A. H., 1972, Interpretation of seismic reflection survey in the western part of Darb El Rubi (Western Desert, Egypt) -- Nashfa area, for petroleum exploration: Arab Pet. Congr., 8th, Algiers, Pap. no. 47 (B-2), 10 p.
- Karez, I., and Zak, I., 1968, Paleocurrents in the Triassic sandstone of Araif el Naga, Sinai: Isr. J. Earth Sci., v. 17, p. 9-15.
- Kazakova, V. P., Leont'yev, O. K., and Nauar, A. K., 1978, Pozdnechetvertichnaya paleogeografiya del'ty Nila [The late Quaternary paleogeography of the Nile Delta]: Mosk. Univ., Vestn., ser. 5, Geogr., no. 4, p. 56-64.

- Kedar, E. Y., and Otterman, J., 1976, No desertification mechanism: Science (AAAS), v. 194, no. 4266, p. 747-749.
- Kedves, M., 1971, Presence de types sporomorphes importants dans les sediment pre-Quaternaires Egyptiens: Acta bot. Hung., Tomus 17 (3-4), p. 371-378.
- Keldani, E. H., 1941, A bibliography of geology and related sciences concerning Egypt up to the end of 1939: Egypt, Geol. Surv., Publ., 428 p.
- Kenaway, A. I., 1972, Planktonic Foraminifera of the lower Tertiary succession in the Taramsa section, Qena, Nile Valley, Egypt: Fragm. Mineral. Palaeontol., no. 3, p. 25-100.
- \_\_\_\_\_, 1974, Large Foraminifera from the lower Eocene Thebes Formation, Taramsa section, Qena, Egypt: Hung., Magy. Allami Foeldt. Intez., Evi Jel., 1972, p. 271-321.
- \_\_\_\_\_, 1975, Large Foraminifera from the Esna shale unit of El Guss Abu Said, Farafra Oasis, Egypt: Neues Jahrb. Geol. Palaeontol., Abh., v. 149, no. 2, Suppl., Pt. III, p. 17.
- Kenawy, A. I., and El Baradi, N. M., 1977, Early and middle Eocene larger Foraminifera in the environs of Assiut, Egypt: Bull. Fac. Sci., Assiut Univ., v. 6, no. 1, p. 247-271.
- Kennedy, W. Q., 1965, The influence of basement structure on the evolution of the coastal (Mesozoic and Tertiary) basins of Africa: Salt Basins Around Africa, Inst. Petrol., London, p. 7-16.
- Kenyon, N. H., Stride, A. H., and Belderson, R. H., 1975, Plan views of active faults and other features on the lower Nile Cone: Geol. Soc. Am., Bull., v. 86, no. 12, p. 1733-1739.
- Kerdany, M. T., 1968, Note on the planktonic zonation of the Miocene in the Gulf of Suez region, U.A.R.: Int. Union Geol. Sci., Comm. Mediter. Neogene Stratigr., Ses. 4, Proc., v. 37, Fasc. 3, p. 157-166.
- Kerdany, M. T., and Abdel Salam, H., 1969, Globotruncana falsecalcarata n. sp., from the Qusseir, Eastern Desert, U.A.R.: Afr. Micropaleont. Colloq., 3rd, Cairo, Proc., p. 261-267.
- \_\_\_\_\_, 1970, Bio- and litho-stratigraphic studies of the pre-Miocene of some off-shore exploration wells in the Gulf of Suez: Arab. Pet. Congr., 7th, Kuwait, Pap. no. 7, 17 p.
- Kerdany, M. T., and Belety, A. M., 1971, Globorotalia velascoensis and related species from Gebel El-Anz, Eastern Desert, Egypt: Egypt, Geol. Surv., Ann., v. 1, p. 181-192.
- Kerdany, M. T., Eissa, R. A., and Lahib, F., 1973, Quelques Foraminifères Cenomaniens de la partie ouest de la region du Golfe de Suez (Egypt) [Some Cenomanian Foraminifera from the western part of the Gulf of Suez region, Egypt]: Rev. Micropaleontol., v. 16, no. 2, p. 89-96.
- Kerdany, M. T., and Fahmy, S., 1965, Paleoenvironmental trends in Gebel El Zeit area, an appraisal of paleoecological studies for oil exploration: Arab Pet. Congr., 5th, Cairo, v. 2, 7 p.
- \_\_\_\_\_, 1969, Gabonella in Egypt: Afr. Micropaleontol. Colloq., 3rd, Cairo, Proc., p. 485-491.
- Kerdany, M. T., and Marzouk, A., 1970, Biostratigraphic correlation of some Callovian-Bathonian sections in Barga-Maghara area, north Sinai, U.A.R.: Afr. Micropaleontol. Colloq., 4th, Abidjan, Proc., p. 209-219.

- Kerdany, M. T., and Marzouk, A., 1971, Some Jurassic Foraminifera and microfacies from subsurface and surface rocks of Giddi area, Western Sinai: Egypt, Geol. Surv., Ann., v. 1, p. 199-210.
- Kermabon, A. J., 1972, Recent developments in deep-sea electrical resistivity probings; its application to the sedimentary study of the Red Sea hot brines in Oceanology Internat. 72, Conf. Papers, p. 385-387.
- Kermack, K. A., 1974, Fauna of the Stormberg Series (Upper Triassic) of the Republic of South Africa and Lesotho: Egypt, Geol. Surv., Ann., v. 4, p. 9-24.
- Kersting, C. C., 1964, Petroleum developments in Egypt, in Guidebook to the geology and archaeology of Egypt: Pet. Explor. Soc. Libya, 6th Ann. Field Conf., p. 179-184.
- Khadr, K., 1961a, The clay mineral composition of some soils of the U.A.R.: J. Soil Sci., v. 1, p. 141-154.
- \_\_\_\_\_, 1961b, Heavy residues of some Egyptian soils: Geol. Mijnbouw., v. 40, p. 11-25.
- Khairy, E. M., Hussein, M. K., and El Barrawy, K. A., 1968, Sulphatization and sulphidization hydrometallurgical extraction of main constituents of a local ilmenite ore: Symp. of Non-Ferrous Metals, Jamshedpur, India, v. 3, p. 132-141.
- Khairy, E. M., Hussein, M. K., and El Tawil, S. Z., 1966, Pre-oxidation of ilmenite ores and its bearing on their solid state reduction by hydrogen: Natl. Metal. Lab. Tech. J., May, p. 10-14.
- Khairy, E. M., and others, 1964, Analysis and composition of Egyptian ilmenite ores from Abu Ghalaga and Rosetta: Egypt. J. Geol., v. 8, p. 1-9.
- Khalil, N. A., 1967, Effect of deviation in wells on the resistivity measurements: Arab Pet. Congr., 6th, Baghdad, v. 2, 4 p.
- \_\_\_\_\_, 1970, Oil potentialities of the Eocene rocks in the U.A.R.: Arab Pet. Congr., 7th, Kuwait, Pap. no. 7, 9 p.
- Khalil, N. A., and El Mofty, S., 1972, Some geophysical anomalies in the Western Desert, Egypt, their geological significance and oil prospects: Arab Pet. Congr., 8th, Algiers, Pap. no. 42, 9 p.
- Khalil, S. E., and Abdel Salam, M. W., 1972, Studies on some factors affecting the production of extra low-grade ferrochrome from Barramia chromite ore by aluminothermic process: Egypt. J. Chem., v. 15, no. 4, p. 347-359.
- Khalil, S. E., Hussein, M. K., and Belal, A. M., 1972, Studies on some factors affecting the production of ferro-titanium from black sand ilmenite by the aluminothermic process: Egypt. J. Chem., v. 15, no. 2, p. 145-156.
- Khatab, H. A., and Hadidi, T. A., 1961, A comparative study of Bakr-Kareem and Ras Gharib oil fields: Arab Pet. Congr., 3rd, Alex., v. 2, 7 p.
- Khatab, H. A., and others, 1973, Prospective oil prospects in Egypt: United Nations Economic and Social Council, Regional Conf. on Petroleum Industry and Manpower in the field of Hydrocarbons, Tripoli-Libya, p. 1-26.

- Kheyfrets, M. Y., Gusev, N. A., and Lokhov, V. V., 1977, Rezul'taty nekotorykh mezhdunarodnykh mayatnikovyykh svyazey, vpolnennykh Tsentral'nykh nauch-no-issledovatel'skim institutom geodezii, aeros'yemki i kartografii (SSSR) [Results of some international pendulum gravity measurements made by the USSR Central Research Institute for Geology, Aerosurvey and Cartography], in Rezul'taty vysokotochnykh gravimetricheskikh izmereniy (Milyutina, Y. N., and others, eds.), p. 52-56: Sovyetskoye radio, Moscow, Union of Soviet Socialist Republics.
- Kholief, M. M., 1968, Cross-bedding and its geologic significance: Egypt. Acad. Sci., Proc., v. 21, p. 61-66.
- \_\_\_\_\_, 1971, Petrographical studies on some quartz sand samples, from Wadi El Natrun, Western Desert, U.A.R.: Bull. Inst. Desert Egypte, v. 19, no. 1, p. 105-118.
- \_\_\_\_\_, 1972a, A note on the analysis of cross-bedding measurements in the Nubian sandstone of the Eastern Desert, Egypt: Egypt. Acad. Sci., Proc., v. 23, p. 235-240.
- \_\_\_\_\_, 1972b, A study of grain morphology and heavy mineral composition in the sedimentary sequence of the U.A.R., in The Mediterranean Sea, a natural sedimentation laboratory: Dowden, Hutchinson and Ross, Stroudsburg, Pennsylvania, p. 345-354.
- \_\_\_\_\_, 1974, Study of inclusions in detrital quartz of Nile Delta sediments, Egypt: Neues Jahrb. Mineral., Monatsh., no. 9, p. 418-423.
- \_\_\_\_\_, 1975, Endoscopical study on some Carboniferous detrital sediments from west-central Sinai, Egypt: Fortschr. Mineral., v. 52, Special Issue, p. 447-453.
- Kholief, M. M., and Hamed, H. A., 1976, Effective method for correlation between some hydrocarbon productive horizons of Miocene age in the Gulf of Suez with the help of inclusions in quartz: Cent. Rech. Pau, Bull., v. 10, no. 1, p. 53-65.
- Kholief, M. M., Hilmy, M. E., and Shata, A., 1969, Geological and mineralogical studies of some sand deposits in the Nile Delta: J. Sediment. Petrol., v. 39, no. 4, p. 1521-1529.
- Kholief, M. M., and Youssef, M., 1971, Mineralogical studies of some quartz and layers, Gulf of Suez: J. Geol. U.A.R., v. 13, no. 1, p. 25-35.
- Kilpper, K., 1966, Ptilophyllum kharagaense n. sp. aus der kharga oase, Wustlich Wuste Agypten Mittaljure?: Paleontogr., Abt. A, Bull. 117, p. 75-82.
- Kishk, F. M., and others, 1976, Mineralogical and chemical composition of the clay fraction of some Nile alluvial soils in Egypt: Chem. Geol., v. 17, no. 4, p. 295-305.
- Klemme, H. D., 1958, Regional geology of the Circum-Mediterranean region: Am. Assoc. Pet. Geol., Bull., v. 42, p. 477-512.
- Klitzsch, E., 1971, The structural development of parts of north Africa since Cambrian time, in Sym. on the geology of Libya, C. Gray, ed.: Fac. Sci., Univ. of Libya, p. 253-262.
- \_\_\_\_\_, 1978, Geologische bearbeitung Suedwest-Agyptens [Geologic study of Southwest Egypt: Geol. Rundsch., v. 67, no. 2, Africa-Heft, p. 509-520.
- Klitzsch, E., and others, 1979, Major subdivisions and depositional environments of Nubia strata, southwestern Egypt: Am. Assoc. Pet. Geol., Bull., v. 63, no. 6, p. 967-974.



- Knetsch, G., 1953a, Zur Geologie eines altägyptischen Baudenkmals in Giza: Neues Jahrb. Geol. Palaeontol., Monatsh., H. 3, p. 112-115.
- \_\_\_\_\_ 1953b, "Tongletscher" an Tafelbergen der östlichen Kalk-Wüste Ägyptens: Neues Jahrb. Geol. Palaeontol., Monatsh., H. 4, p. 152-156.
- \_\_\_\_\_ 1954a, Allgemeing-geologische Beobachtungen aus Ägypten (1951-1953): Neues Jahrb. Geol. Palaeontol., Abh., Bd. 99, H. 3, p. 287-297.
- \_\_\_\_\_ 1954b, Strukturelle Skizze von Ägypten: Geol. Rundsch., Bd. 42, H. 2, p. 242-246.
- \_\_\_\_\_ 1957, Ein Struktur-Skizze Ägyptens und einiger seiner Nachbargebiete: Ger. Bundesanst. Bodenforsch., Geol. Jahrb., Bd. 74, p. 75-86.
- \_\_\_\_\_ 1958, Germanotype Deformationenbilder aus Ägypten: Geol. Berlin, Jg. 7, h. 3-6, p. 440-447.
- \_\_\_\_\_ 1959, Überschiebungs-Tiefbau, Magmatismus und Lagerstätten-Tradition in einem präkambrischen Molassebereich Ägyptens: Geol. Rundsch., Bd. 46 (1957), H. 2, p. 283-305.
- \_\_\_\_\_ 1960, Über aride Verwitterung unter besonderer Berücksichtigung natürlicher und künstlicher Wände in Ägypten: Z. Geomorphol., Suppl.-Bd. 1, p. 190-205.
- \_\_\_\_\_ 1963, Geologische Überlegungen zu der Frage des artesischen Wassers in der westlichen ägyptischen Wüste: Geol. Rundsch., v. 52, p. 640-650.
- Knetsch, G., and Mazhar, M. A., 1953, Traces of subsurface watermigration as an indication of former climates: Bull. Inst. Desert Egypte, t. 3, no. 2, p. 125-132.
- Knetsch, G., and others, 1963, Untersuchungen an Grundwassern del Ost. Sahara: Geol. Rundsch. no. 22, p. 587-610.
- Knetsch, G., and Refai, E., 1955, Über Wustenverwitterung, Wusten-Feinrelief und Denkmalzerfall in Ägypten: Neues Jahrb. Geol. Palaontol., Abh., Bd. 101, H. 2, p. 227-256.
- Knetsch, G., and Yallouze, M., 1955, Remarks on the origin of the Egyptian oasis-depression: Soc. Geogr. Egypte, Bull., t. 28, p. 21-33.
- Knott, S. T., and Bunce, E. T., 1965, Geophysical studies of the Red Sea north of latitude 17°N.: Am. Geophys. Union Trans., v. 46, p. 102.
- Knott, S. T., Bunce, E. T., and Chase, R. L., 1966, Red Sea seismic reflection studies, in The world rift system: Can., Geol. Surv., Pap. 66-14, p. 33.
- Koenigswald, G. H. R. von, 1948, Ein Hyaenaelurus aus dem Miocen Nordafrikas: Eclogae Geol. Helv., v. 40, no. 2, p. 292-294.
- Kohman, T. P., Lowmann, P. D., Jr., and Abdel Khalek, M. L., 1967, Space and aerial photography of the Libyan Desert silica glass area: Thirtieth Ann. Mtg., Meteoritical Soc., Oct. 25-27, Am. Res. Centre, Moffett Field Calif.
- Kolbe, H., 1957, Zur Geologie der Eisenerzvorkommen Ägyptens: Ger. Bundesanst. Bodenforsch. Geol. Jahrb., Bd. 74, p. 611-627.
- Kolkila, A. A., 1975, Mineralogy and rate of dust fallout over Cairo, Helwan and the northern-western coast of Egypt: Acta Geol. (Acad. Sci. Hung.), v. 19, no. 3-4, p. 301-318.
- Kolta, G. A., and Abdel Aal, O., 1972, Extraction of chromium chemical compounds from Egyptian chromite concentrates: Can. Inst. Min. Metal., Trans., v. 11, no. 3, p. 481.

- Komkov, A. I., 1960, X-ray study of the mineralogy of some Miocene clays, from Oyouun Mousa, Sinai: *J. Geol. U.A.R.*, v. 4, no. 2, p. 27-43.
- Kossakowska Such, J., 1976, Appendix C; Analysis of grain from sites E71K14 and E71K15, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N. Y., p. 327-329.
- Kostandi, A. B., 1959, Facies maps for the study of the Paleozoic and Mesozoic sedimentary basins of the Egyptian region: *Arab Pet. Congr.*, 1st, Cairo, p. 54-61.
- \_\_\_\_\_, 1961, Hurghada oil fields: *Arab Pet. Congr.*, 3rd, Alex., v. 2, 7 p.
- \_\_\_\_\_, 1963, Eocene facies and tectonics interpretation in the Western Desert, U.A.R.: *Rev. Inst. Fr. Pet.*, v. 18, no. 10-11, p. 1331-1343.
- Kotb, H., Abdel Azim, Y. Y., and Kamel, O. A., 1971, Beneficiation of Safaga low grade phosphate deposit: *Egypt, Geol. Surv., Ann.*, v. 1, p. 135-146.
- Kotb, H., El Kammar, A. M., and Zohny, N., 1978, Mineralogical and geochemical studies on Abou-Sabouna phosphorites (Mahamied-Sharawna) Upper Egypt, ARE: *Tschermaks Mineral. Petrogr. Mitt., Bull.*, v. 25, no. 3, p. 171-183.
- Kotb, H., Ghaly, E. L., and Awad, M. F., 1965, Chemical studies on Ayun Mousa coal: *Egypt, Geol. Surv., Pap.* no. 38, 18 p.
- Kotb, H., and others, 1971, Chemical composition and degree of whiteness of Wadi Kalabasha kaolin, in The discovery of a new kaolin deposit in Wadi Kalabasha, Nubia, Egypt: *Egypt, Geol. Surv.*, *Pap.* no. 54, p. 41-79.
- Kovda, V. A., and Worthington, E. B., 1977, Arid land irrigation and soil fertility; problems of salinity, alkalinity, compaction, in Arid land irrigation in developing countries; environmental problems and effects: Pergamon Press, Oxford, p. 211-235.
- Krashennnikov, V. A., 1965, Zonal Paleogene stratigraphy of the eastern Mediterranean: *Inst. Geol., Ore Dep., Petrogr., Mineral. Geochem., Trans.*, v. 133, p. 1-76.
- \_\_\_\_\_, 1968, Correlation of the Miocene deposits of the eastern Mediterranean to stratigraphical sections of the Miocene stages: Committee Mediterranean Neogene Stratigraphy Proc. IV, sess., Bologna 1967, *G. Geol. Fasc.* 3, p. 167-178.
- Krashennnikov, V. A., and Abdel Razik, T. M., 1969, Zonal stratigraphy of the Paleocene in Qusseir, "Red Sea Coast": *Afr. Micropaleontol. Colloq.*, 3rd, Cairo, Proc., no. 3, p. 299-309.
- Krashennnikov, V. A., and Ponikarov, V. P., 1964, Stratigraphy of the Mesozoic and Paleozoic deposits in Egypt: *Sov. Geol.*, no. 2, p. 47-71.
- \_\_\_\_\_, 1965, Zonal stratigraphy of Paleogene in Nile Valley: *Egypt, Geol. Surv., Pap.* no. 32, 26 p.
- Krause, H., 1965, Mineralien und ihre Verteilung auf der Ilmenitlagerstätte von Abu-Khalaga, Egypten: *Neues Jahrb. Mineral. Abh.*, v. 104, p. 29-51.
- \_\_\_\_\_, 1967, Beobachtungen an Ilmenit-Feingefügen [Observations on ilmenite microstructures]: *Neues Jahrb. Mineral., Monatsh.*, no. 6, p. 179-183.
- \_\_\_\_\_, 1968, Microscopic investigation of Abu Ghalaga ilmenite deposit: *Deut. Geol. Ges., Z.*, v. 177 (1965), no. 3-4, p. 897-898.
- Krinov, E. L., 1945, An undescribed iron meteorite El Qoseir: *Acad. Sci. USSR, Dokl., Earth Sci. Sect.*, no. 7, p. 497-499.

- Krs, M., 1972, Specific problems of ore prospecting geophysics in regions of arid climate: *Pure Appl. Geophys.*, v. 98, p. 163-172.
- Krs, M., and Mazac, O., 1975, Efektivni metodika komplexnich geofyzikalnich projektu v rudni prospekci (zkusenosti ze zahranici) [Effective methods used in complex geophysical projects applied to ore prospecting; foreign experiences]: *Celostatni Konf. Geofyz.*, Sb., no. 6, dil 3, p. 297-330.
- Krs, M., Soliman, A. A., and Amin, A. H., 1973, Geophysical phenomena over deep-seated tectonic zones in southern part of Eastern Desert of Egypt: *Egypt, Geol. Surv., Ann.*, v. 3, p. 125-138.
- Kruchinina, N. V., Komarova, N. I., and Iskander, N. R., 1974, Paleozyskiye sporovo-pyl'tsevyye komplekсы nekotorykh rayonov Yegipta [Paleozoic spore-pollen complexes of some regions of Egypt], in *Palinologiya proterofita i paleofita; Trudy III Mezhdunarodnoy palinologicheskoy konferensii* (Naumova, S. N., ed.): *Izd. Nauka*, Moscow, Union of Soviet Socialist Republics, p. 98-100.
- Krulc, Z., and others, 1969, The application of geoelectrical methods to ground-water exploration of unconsolidated formations in semi-arid areas: *Geoexploration*, v. 7, no. 2, p. 83-95.
- Krumbein, W. E., 1975, Biogenic monohydrocalcite spherules in lake sediments of Lake Kivu (Africa) and the Solar Lake (Sinai): *Sedimentology*, v. 22, no. 4, p. 631-634.
- Krumbein, W. E., and Cohen, Y., 1977, Primary production, mat formation and lithification; contribution of oxygenic and facultative anoxygenic cyanobacteria, in *Fossil algae; recent results and developments* (Fluegel, E., ed.): *Springer-Verlag*, Berlin, Germany, Federal Republic of, First International Symposium on Fossil Algae, p. 37-56.
- Ku, T. L., 1969, Uranium series isotopes in sediments from the Red Sea hot brine area, in *Hot brines and recent heavy metal deposits in the Red Sea*, E. T. Degens and D. A. Ross, eds.: *Springer Verlag*, New York, p. 512-524.
- Ku, T. L., Thurber, D. L., and Mathieu, G. G., 1969, Radiocarbon chronology of Red Sea sediments, in *Hot brines and recent heavy metal deposits in the Red Sea*, E. T. Degens and D. A. Ross, eds.: *Springer Verlag*, New York, p. 348-359.
- Kummel, B., 1960, Middle Triassic nautiloids from Sinai, Egypt, and Israel: *Harv. Univ., Mus. Comp. Zool., Bull.*, v. 123, no. 7, p. 283-302.
- Kvasov, D. D., 1969a, Limnological hypothesis of the origin of the hot brines in the Red Sea: *Nature*, v. 221, no. 5183, p. 850-851.
- \_\_\_\_\_, 1969b, Ancient lake waters at the bottom of the Red Sea: *Vses. Geogr. O-vo, Izv.*, v. 101, no. 6, p. 546-548.
- Labib, F., and Hamdi, H., 1973, Pedological and mineralogical studies of some Nile terraces: *Egypt. J. Soil Sci.*, v. 12, no. 2, p. 173-188.
- Labib, F., and Sys, C., 1971, Soils on lacustrine and marine deposits in the United Arab Republic: *Pedologie*, v. 20, no. 3, p. 381-403.
- Lagarde, A., and others, 1969, Synthèse hydrogéologique du système aquifère de la plaine du Sais et étude dynamique de son exploitation sur modèles analogiques, résistance-capacité et mathématique [Hydrogeology of the Sais aquifer system and dynamics of its exploitation based on mathematical and resistance-capacity analog models]: *Fr., Bur. Rech. Geol. Minieres, Mem.*, no. 76, p. 171-191.

- Lagneau Herenger, L., 1953, Note preliminaire a l'etude des spongiaires siliceux du cretace superieur d'Egypt: Grenoble, Univ., Lab. Geol., Tr. t. 30, p. 123-126.
- Lambert, J., 1936, Sur quelques nouveaux echinides fossiles d'Egypte: Inst. Egypte, Bull., t. 18, f. 1, p. 39-43.
- \_\_\_\_\_, 1938, Note sur un Dorocidarid du Sinai: Inst. Egypte, Bull., t. 20, f. 1, p. 83-85.
- Land, L. S., Salem, M. R. I., and Morrow, D. W., 1975, Paleohydrology of ancient dolomites; geochemical evidence: Am. Assoc. Pet. Geol., Bull., v. 59, no. 9, p. 1602-1625.
- Lasserre, M., 1967, Donnees nouvelles acquises, en geochronologie, par la methode au strontium appliquee a l'etude des massifs cristallins du Cameroun: Soc. Geol. Fr., C.R. Seances, no. 3, p. 89-90.
- Lassiter, J. B., 1971, Some chemical aspects of the evolution and utilization of the Red Sea heavy metal deposits: Am. Chem. Soc., Div. Water, Air, Waste Chem., Prepr., v. 11, no. 2, p. 114-121.
- Laughton, A. S., 1970, A new bathymetric chart of the Red Sea: R. Soc. Lond., Philos. Trans., Ser. A, v. 267, p. 21-22.
- Lavocat, R., 1974, Les Rongeurs d'Afrique par: Egypt, Geol. Surv., Ann., v. 4, p. 233-236.
- Le Roy, L. W., 1953, Biostratigraphy of the Maqfi section Egypt: Geol. Soc. Am., Mem. 54, 73 p.
- Lehmann, E., 1977, The mineralogical variation in spessarites of the Asswan area, Egypt: Neus Jahrb. Mineral., Abh., v. 129, no. 1, p. 66-74.
- Leigh, E. G., 1968a, Modern and fossil marine Mollusca of the Red Sea littoral at Mersa Alam, in Desert and River in Nubia, Butzer, K. L., and Hansen, C. L., eds.: Univ. Wisconsin Press, p. 499-508.
- \_\_\_\_\_, 1968b, Fossil Mollusca from Kurkur Oasis, in Desert and River in Nubia, Butzer, K. L., and Hansen, C. L., eds.: Univ. Wisconsin Press, p. 513-514.
- Leigh, E. G., and Butzer, K. L., 1968, Fossil Mollusca from the Kom Ombo, in Desert and River in Nubia, Butzer, K. L., and Hansen, C. L., eds.: Univ. Wisconsin Press, p. 509-512.
- Lerman, A., 1960, Triassic pelecypods from southern Israel and Sinai: Res. Council Isr., Bull., sec. G, v. 9, no. 1, p. 1-51.
- Levy, Y., 1971, Anomalies of  $\text{Ca}^{2+}$  and  $\text{SO}_4^{2-}$  in the Bardawil Lagoon, Northern Sinai: Limnol. Oceanogr., v. 16, no. 6, p. 983-987.
- \_\_\_\_\_, 1974a, Sedimentary reflection of depositional environment in the Bardawil Lagoon, northern Sinai, J. Sediment. Petrol., v. 44, no. 1, p. 219-227.
- \_\_\_\_\_, 1974b, Chemical changes in interstitial water from the Bardawil Lagoon, northern Sinai: J. Sediment. Petrol., v. 44, no. 4, p. 1296-1304.
- \_\_\_\_\_, 1977a, The origin and evolution of brine in coastal sabkhas, northern Sinai: J. Sediment. Petrol., v. 47, no. 1, p. 451-462.
- \_\_\_\_\_, 1977b, Description and mode of formation of the supratidal evaporite facies in northern Sinai coastal plain: J. Sediment. Petrol., v. 47, no. 1, p. 463-474.
- Lewy, Z., 1972, Xenomorphic growth in ostreids: Lethaia, v. 5, no. 4, p. 347-351.
- \_\_\_\_\_, 1973, Pigmentation patterns preserved on late Turonian oysters [letter]: Isr. J. Earth Sci., v. 22, no. 1, p. 64-65.



- Lewy, Z., 1975, The geological history of southern Israel and Sinai during the Coniacian: *Isr. J. Earth Sci.*, v. 24, no. 1-2, p. 19-43.
- Little, A. L., and Bell, F. G., 1975, Ground-water control by exclusion, in *Methods of treatment of unstable ground*: Newnes-Butterworths, London, p. 37-68.
- Little, O. H., 1925, The geography and geology of Makalla (south Arabia): *Egypt, Geol. Surv., Publ.*, 250 p.
- \_\_\_\_\_, 1930a, Report on an investigation of the water supply of Kharga and Dakhla Oases: *Egypt, Geol. Surv., Publ.*, 30 p.
- \_\_\_\_\_, 1930b, Report of the 15th session of the International Geological Congress, Pretoria, 1929: *Egypt, Geol. Surv., Publ.*, 54 p.
- \_\_\_\_\_, 1932, Report on the water supply of Kharga and Dakhla Oases: *Egypt, Geol. Surv., Publ.*, 30 p.
- \_\_\_\_\_, 1933, Egyptian minerals, rocks and fossils in collection of H. R. H. Prince Fourouk: *Egypt, Geol. Surv., Publ.*, 82 p.
- \_\_\_\_\_, 1936, Recent geological work in the Faiyum and in the adjoining portion of the Nile Valley: *Inst. Egypte, Bull.*, t. 18, f. 2, p. 201-240.
- Little, O. H., and Attia, M. I., 1942a, A report on some studies of underground water flow and subsoil pollution: *Egypt, Geol. Surv., Publ.*, 62 p.
- \_\_\_\_\_, 1942b, The deep bores in Kharga and Dakhla Oases and their effects on the future of the Oases: *Egypt, Geol. Surv., Publ.*, 61 p.
- \_\_\_\_\_, 1943, The development of Aswan district with notes on the minerals of southeastern Egypt: *Egypt, Geol. Surv., Publ.*, 107 p.
- Lofti, M., 1962, Some observations on the geology and structure of Wadi Beitan area, south Eastern Desert: *Bull. Inst. Desert Egypte*, v. 12, no. 2, p. 1-28.
- \_\_\_\_\_, 1967, The minor structures of Gebel Ahmer east of Cairo: *Bull. Fac. Sci., Cairo Univ.*, no. 40, p. 235-249.
- \_\_\_\_\_, 1973, Characteristics and utilization potential of a Jurassic coal from Sinai peninsula: *Egypt. J. Geol.*, v. 17, no. 1, p. 71-84.
- Lofti, M., and Hafez, A., 1973, Geology of Wadi Dib area Esh El Mellaha range, Eastern Desert: *Egypt. J. Geol.*, v. 17, no. 1, p. 19-36.
- Lofti, M., and Kabesh, M. L., 1964, On a new classification of basement rocks of the Red Sea hills, Sudan: *Soc. Geogr. Egypte, Bull.*, v. 37, p. 93-100.
- Lorch, J., 1967, A Jurassic florule from Sinai: *Isr. J. Bot.*, v. 16, p. 29-37.
- Lowell, J. D., and Genk, G. J., 1971, Sea-floor spreading and structural evolution of southern Red Sea: *Am. Assoc. Pet. Geol., Bull.*, v. 55, no. 2, p. 349.
- \_\_\_\_\_, 1972, Sea-floor spreading and structural evolution of southern Red Sea: *Am. Assoc. Pet. Geol., Bull.*, v. 56, no. 2, p. 247-259.
- Loya, Y., and Slobodkin, L. B., 1971, The coral reefs of Eilat, Gulf of Eilat, Red Sea, in *Regional variation in Indian Ocean coral reefs*: *Zool. Soc. Lond., Symp.*, no. 28, p. 117-139.
- Lubell, D., 1974, The Fakhurian; a late Paleolithic industry from upper Egypt: *Egypt, Geol. Surv., Pap.* no. 58, 193 p.
- Lucas, A., 1902a, Disintegration of building stones in Egypt: *Egypt, Geol. Surv., Publ.*, 17 p.

- Malati, M. A., Yousef, A. A., and Afra, M. A., 1969, The effect of flotation reagents on grinding: *Powder Tech.*, v. 2, p. 21-26.
- Maley, J., 1969, The Nile, new data and an attempt to summarize its geologic history: *Assoc. Senegal Etude Quat. (Ouest) Afr., Bull., Liaison*, no. 21, p. 40-48.
- Mamet, B., and Omara, S., 1969, Microfacies of the lower Carboniferous dolomitic limestone formation of the Um Bogma terrane (Sinai, Egypt): *Cushman Found. Foraminiferal Res., Contrib.*, v. 20, no. 3, p. 106-109.
- Manheim, F. T., 1973, Red Sea hot brine; metal deposits: *Acta Geol. (Acad. Sci. Hung.)*, v. 17, no. 4, p. 383-389.
- Mansour, A., Barakat, M. G., and Abdel Hady, Y., 1969, Marine Pliocene planktonic foraminiferal zonation southeast of Salum, Egypt: *Riv. Ital. Paleontol. Stratigr.*, v. 75, no. 4, p. 833-846.
- Mansour, M. S., and Bassyuni, F. A., 1954, Geology of Wadi Garf district (Barramiya east sheet): *Egypt, Geol. Surv., Publ.*, 34 p.
- Mansour, M. S., Bassyuni, F. A., and Al Far, D. M., 1956, Geology of Umm Salatit-El Hisinat district (Barramiya east sheet): *Egypt, Geol. Surv., Publ.*, 44 p.
- Maric, L., 1960, Über die Alkalimentasanatose in den Grauwacken südlich von Qusseir am Roten Meer (Agypten): *Neues Jahrb. Mineral., Monatsh.*, p. 241-248.
- Marks, A. E., 1968a, The Mousterian industries of Nubia, in *The Prehistory of Nubia* (F. Wendorf, ed.), v. 1: *South. Methodist Univ. Press*, p. 194-314.
- \_\_\_\_\_, 1968b, The Halfa industry, in *The Prehistory of Nubia* (F. Wendorf, ed.), v. 1: *South. Methodist Univ. Press*, p. 392-460.
- \_\_\_\_\_, 1968c, The Sebilian industry of the Second Cataract in *The Prehistory of Nubia* (F. Wendorf, ed.), v. 1: *South. Methodist Univ. Press*, p. 461-531.
- Mart, J., and Sass, E., 1972, Geology and origin of the manganese ore of Um Bogma, Sinai: *Econ. Geol.*, v. 67, no. 2, p. 445-455.
- Martin, F., 1968, Pleistocene Mollusks from Sudanese Nubia in *The Prehistory of Nubia* (F. Wendorf, ed.), v. 1: *South. Methodist Univ. Press*, p. 56-79.
- Martin, L., 1971, Micropaleontological bibliography and index of North Africa (1837-1968), in *Symp. on the geology of Libya: Fac. Sci., Univ. Libya*, p. 167-214.
- Martinez, J. D., 1972, Environmental geology of the coastal margin, in *Earth sciences and the quality of life, Symposium 1 -- les sciences de la Terre et la condition humaine, Colloque 1: Int. Geol. Congr., 24th, Montreal, Proc.*, no. 24, p. 45-58.
- Martonne, E., 1947, Impressions d'un voyage au Sinai: *Assoc. Geogr. Fr., Bull.*, no. 183-184, p. 25-27.
- \_\_\_\_\_, 1948, Reconnaissance géographique au Sinai: *Soc. Geogr. Egypte, Bull.*, t. 22, f. 3-4, p. 105-136.
- Marzouk, I., 1970, Rock-stratigraphy and oil potentiality of the Oligocene and Miocene in the Western Desert, U.A.R.: *Arab Pet. Congr.*, 7th, Kuwait, Pap. no. 7, 28 p.
- Massieux, M., 1966a, Les Algues du Nummulitique Egyptien et des terrains Cretace-Eocene de quelques regions mesogeenes, pt. 1: *Rev. Micropaleontol.*, v. 9, no. 2, p. 111-132.

- Meleik, M. L., and others, 1978, Aerial and ground radiometry in relation to the sedimentation of radioactive minerals of the Daminetta beach sands, Egypt, *in* Uranium geology in resource evaluation and exploration (Nash, J. T., ed.): Econ. Geol., v. 73, no. 8, p. 1738-1748.
- Meneisy, M. Y., 1972, On the isotopic dating of the Egyptian basement rocks, *in* The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, p. 103-109.
- \_\_\_\_\_, 1974, Mineral deposits in Egypt (under investigation): Egypt, Geol. Surv., Pap. no. 61, 66 p.
- Meneisy, M. Y., Attia, A., and Abu Zeid, M. M., 1972, Genesis and environment of deposition of Wadi Araba clays: Bull. Inst. Desert Egypte, v. 22, no. 1, p. 1-12.
- \_\_\_\_\_, 1974, A mineralogical study on clays from Wadi Araba, Gulf of Suez region: Egypt. J. Geol., v. 17, no. 2, p. 163-178.
- Meneisy, M. Y., and El Kaliuobi, B. A., 1975, Isotopic ages of the volcanic rocks of the Bahariya Oasis: Egypt, Geol. Surv., Ann., v. 5, p. 119-122.
- Meneisy, M. Y., and Kreuzer, H., 1974a, Potassium-argon ages of Egyptian basaltic rocks: Geol. Jahrb., Reihe D, no. 9, p. 21-31.
- \_\_\_\_\_, 1974b, Potassium-argon ages of nepheline ring complexes in Egypt: Geol. Jahrb., Reihe D, no. 9, p. 33-39.
- Meneisy, M. Y., Omar, A. A., and Shaaban, M. M., 1973, Petrology of the volcanic rocks of Wadi Araba-Abu Darag, Eastern Desert: Bull. Volcanol., v. 37, no. 3, 12 p.
- Mergner, H., 1971, Structure, ecology and zonation of Red Sea reefs (in comparison with south Indian and Jamaican reefs) (with discussion), *in* Regional variation in Indian Ocean coral reefs: Zool. Soc. Lond., Symp., no. 28, p. 141-161.
- Meshal, A. H., 1975, Brine at the bottom of the Great Bitter Lake as a result of closing the Suez Canal: Nature, v. 256, no. 5515, p. 297-298.
- Meshref, W. M., and El Sheikh, M. M., 1974, Magnetic tectonic trend analysis in northern Egypt: Egypt. J. Geol., v. 17, no. 2, p. 179-184.
- Messerli, B., 1978, Probleme des Periglazials in den Gabirgen der ariden Zone, *in* Colloque sur le periglaciaire d'altitude du domaine mediterraneen et abords [The problem of periglacial phenomena in the mountain ranges of the arid zone]: Assoc. Geographique d'Alsace, France, p. 333-345.
- Metwalli, M. H., 1974, Migration differentiation as a mechanism during migration of crude oils in Um El Yusr oil field (Gulf of Suez petroleum province): Bull. Fac. Sci., Cairo Univ., no. 45, p. 331-341.
- Metwalli, M. H., and Abdel Hady, Y. E., 1975, Petrographic characteristics of oil-bearing rocks in Alamein oil field; significance in source-reservoir relations in northern Western Desert, Egypt: Am. Assoc. Pet. Geol., Bull., v. 59, no. 3, p. 510-523.
- Metwalli, M. H., and Bashat, H. M., 1974, The channels of oil and gas migration in Um El Yusr oil field (Gulf of Suez region) U.A.R.: Bull. Fac. Sci., Cairo Univ., no. 45, p. 309-317.
- Metwally, S. Y., and others, 1973, A study on the porosity of compacted soils: Egypt. J. Soil Sci., v. 12, no. 1, p. 107-119.

- Mhor, P. A., 1970, Plate tectonics of the Red Sea and east Africa: *Nature*, v. 228, no. 7, p. 547-548.
- Michel, R., 1971, Petroleum developments in north Africa in 1970: *Am. Assoc. Pet. Geol., Bull.*, v. 55, no. 9, p. 1531-1558.
- Mikhail, F. N., 1973, Status of water resources in Egypt, in *Water for the human environment* (edited by Chow, V. T., and others); v. 2, County reports, Africa: *Int. Water Resour. Assoc., Campaign*, Ill.
- Mikhail, S., and Abdou, I. K., 1971, Les argiles Egyptiennes et leurs applications dans l'industrie petroliere; deuxieme partie, Etude de la capacite d'absorption des argiles traitees [Use of Egyptian clays in the petroleum industry; part 2, Study of the absorption capacity of treated clays]: *Rev. Inst. Fr. Pet.*, v. 26, no. 12, p. 1213-1224.
- Mikhail, S., and others, 1971, Les argiles Egyptiennes et leurs application dans l'industrie petroliere; premier partie, Etude des caracteristiques des argiles brutes et des argiles traitees [Use of Egyptian clays in the petroleum industry; part 1, Study of raw and treated clay properties]: *Rev. Inst. Fr. Pet.*, v. 26, no. 11, p. 1077-1084.
- Mikhaylov, I. A., Mirtov, Y. V., and Razvalyayev, A. V., 1971, K usloviyam foramirovaniya fosfatonosnykh otlozheniy Yegipta [Conditions of formation of the phosphate-bearing deposits of Egypt], in *Materialy po regional'noy geologii Afriki i zarubezhnoy Azii: Nauchno-Issled. Lab. Geol. Zarubezh. Stran, Tr.*, no. 22, p. 150-160.
- Milad, S., El Hakim, M., and Moustafa, F., 1974, The suitability of the soluble sodium percentage as a reliable index for diagnosis and calculating gypsum requirements of alkali soils in Egypt: *Egypt. J. Soil Sci.*, v. 14, no. 1, p. 47-53.
- Milanovskiy, Y. Y., 1974, Osnovnyye cherty geologicheskogo stroyeniya Afrikan-Araviyskogo riftovogo poyasa [Main features of the geological structure of the African-Arabian Rift Belt], in *Vostochno-Afrikanskaya riftovaya sistema; tom I, Osnovnyye cherty stroyeniya: Stratigrafiya*, p. 34-44.
- Milanovsky, E. E., 1969, Major features of the structure and formation of the rift system of eastern Africa and Arabia: *Mosc. Univ. Proc.*, v. 1 (Geology), p. 42-60.
- Miller, A. R., and others, 1966, Hot brines and recent iron deposits in deeps of the Red Sea: *Geochim. Cosmochim. Acta*, v. 30, p. 341.
- Milliman, J. D., Ross, D. A., and Ku, T., 1969, Precipitation and lithification of deep-sea carbonates in the Red Sea: *J. Sed. Petrol.*, v. 39, no. 2, p. 724-736.
- Milyutina, Y. N., and others, 1977, Rezul'taty vysokotochnnykh gravimetricheskikh izmereniy [Results of high-precision gravity measurements], in *Rezul'taty issledovaniy po mezhdunarodnym geofizicheskim: Sovyetskoye radio, Moscow*, 99 p.
- Minaw, F., Hanna, B., and Mikhail, F. M., 1972, Relation between dielectric constant and dielectric loss for Egyptian rocks: *Egypt. J. Geol.*, v. 16, no. 2, p. 293-301.
- Mining Annual Review, 1978, Egypt: *Min. Ann. Review*, 1978, p. 513-514.
- Mishnaevsky, G., 1966, Occurrence of *Ostrea eilatensis*; a new oyster species from the Cenomanian of southern Israel and Egypt: *Nature*, v. 210, no. 5035, p. 517-518.



- Mishnaevsky, G., 1967, Some Cenomanian ostreids from Israel: *Isr. J. Earth Sci.*, v. 16, no. 3, p. 132-139.
- Mitwally, M., 1951, Some new light on the origin of the artesian water of the Egyptian oases of the Libyan Desert: *Inst. Fouad 1<sup>er</sup> du Desert, Bull.*, t. 1, no. 2, p. 74-83.
- \_\_\_\_\_, 1953, Physiographic features of the oases of the Libyan Desert: *Bull. Inst. Desert Egypte*, t. 3, no. 2, p. 143-163.
- Mizutani, S., and Suwa, K., 1966, Orthoquartzitic sand from the Libyan Desert, Egypt: *Nagoya Univ. J. Earth Sci.*, v. 14, no. 2, p. 137-149.
- Mobarek, I. E., 1972, The Nile Delta coastal protection project: *Conf. Coastal Eng., Proc.*, no. 13, v. 2, p. 1409-1426.
- Mohamed, S. S., and Kahlil, S., 1971, Electrical resistivity investigations for prospecting ground water in the area between Ismailiya Canal and Cairo-Ismailiya road: *Bull. Inst. Desert Egypt*, v. 21, no. 2, p. 285-295.
- Mohamed, S. S., and others, 1972a, Electrical studies on the ground water in Wadi-El Arish and some localities in northern Sinai, Egypt: *Bull. Inst. Desert Egypte*, v. 22, no. 2, p. 261-279.
- \_\_\_\_\_, 1972b, Application of the resistivity method on hydrogeological investigation in the west of Nubariya reclamation project: *Bull. Inst. Desert Egypte*, v. 22, no. 2, p. 241-259.
- Moharram, M. O., 1959, Main mineral deposits produced in Egypt: *Egypt, Geol. Surv., Publ.*, 21 p.
- Moharram, M. O., and others, eds., 1970a, Studies on some mineral deposits of Egypt: *Egypt, Geol. Surv., Publ.*, 260 p.
- \_\_\_\_\_, 1970b, El Mahamio phosphate project, in *Studies on some mineral deposits of Egypt: Egypt, Geol. Surv., Publ.*, p. 135-152.
- Mohr, P. A., 1969, Relationships between recent Middle East and African earthquakes: *Nature*, v. 223, no. 5208, p. 816-818.
- \_\_\_\_\_, 1970, Catalog of chemical analyses of rocks from the intersection of the African, Gulf of Aden and Red Sea rift systems: *Smithson. Contrib. Earth Sci.*, no. 2, 399 p.
- Monod, T., 1963, The late Tertiary and Pleistocene in Sahara and adjacent southern regions, in *African ecology and human evolution*, Viking Fund Publications in anthropology: Aldine Publ. Co., Chicago, no. 36 (Howell, Becurliare, eds.).
- Moon, F. W., 1922, Preliminary geological report on Saint John's Island (Red Sea): *Egypt, Geol. Surv., Publ.*, 16 p.
- Morcos, S. A., El Wakeel, S. K., and Mahlis, A. M., 1969, Chlorinity and density of Lake Maryut water: *Bull. Fac. Sci., Alex. Univ.*, v. 9, p. 119-142.
- Moret, L., and Mahmoud, G. E., 1954, Nouvelles observations stratigraphiques et paleontologiques sur l'albien du massif du Moghara (Sinai, Egypte): *Grenoble, Univ., Lab. Geol., Tr.*, t. 31, p. 269-274.
- Morgan, D. E., and El Barkouky, A., 1956, Geophysical history of Ras Gharib field, in *Geophysical Case History: Geophysics*, v. 2, p. 237-247.
- Morgan, P., and Swanberg, C. A., 1977, The Egyptian connection: *Geoterm. Energy*, v. 5, no. 10, p. 7-13.
- Mosaic, 1977, A continent comes unglued: *Mosaic*, v. 8, no. 6, p. 10-17.

- Moshkovitz, S., and Ehrlich, A., 1976a, Schizopharella punctulata Deflandre et Dangeard and Crepidolithus crassus (Deflandre) Noel Upper Jurassic calcareous nannofossils from Israel and northern Sinai: Isr. J. Earth Sci., v. 25, no. 2, p. 51-57.
- \_\_\_\_\_, 1976b, Distribution of Middle and Upper Jurassic calcareous nannofossils in the northeastern Negev, Israel and in Gebel Maghara, northern Sinai: Isr., Geol. Surv., Bull., no. 69, 47 p.
- Moskalenko, V. N., 1966, Nouyye dannyye o stroyenii osadochnoy tolshchi i fundamenta v more Levanta [New data on the structure of the sedimentary strata and basement in the Levant Sea]: Okeanol. (Akad. Nauk SSSR), v. 6, no. 6, p. 1030-1040.
- Moursy, A. S., and others, 1977, Characteristics and trace metals of the crude oils from Ras Gharib, Bakr and Kareem oilfields, Gulf of Suez region: Indian J. Technol., v. 15, no. 11, p. 494-496.
- Moustafa, G. A., 1957, An introduction to the application of aerial photography in geology and other fields: Egypt, Geol. Surv., Publ., 9 p.
- \_\_\_\_\_, 1961, Aerial photographs and geological interpretation in United Arab Republic (southern region): U.A.R., Geol. Surv. Min. Res. Dept., Pap. no. 10, 16 p.
- Moustafa, G. A., and Abdalla, A. M., 1958, Geology of Abu Mireiwa district: Egypt, Geol. Surv., Publ., 27 p.
- Moustafa, G. A., and Akaad, M. K., 1962, Geology of the Hammash-Sufra district: U.A.R., Geol. Surv. Min. Res. Dept., Pap. no. 12, 31 p.
- Moustafa, G. A., and Hilmy, M. E., 1958, Contribution to the geology and mineralogy of the Hammash copper deposits, south Eastern Desert of Egypt: U.A.R., Geol. Surv. Min. Res. Dept., Pap. no. 5, 16 p.
- Moustafa, G. A., Kabesh, M. L. A., and Abdalla, A. M., 1954, Geology of Gebel El Ineigi district: Egypt, Geol. Surv., Publ., 44 p.
- Moustafa, G. A., and Morcos, M. B., 1973, A simplified photograph and its application to Umm Nar area (Barramiya sheet, Eastern Desert of Egypt): Egypt, Geol. Surv., Pap. no. 60, 20 p.
- Moustafa, Y. S., 1953, A preliminary note on some research problems of the Fayum fossil vertebrates: Bull. Inst. Desert Egypte, t. 3, no. 1, p. 126-127.
- \_\_\_\_\_, 1973, New geological map of Egypt, in Proceedings of the international meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: Egypt, Geol. Surv., Ann., v. 3, p. 249-257.
- \_\_\_\_\_, 1974a, Oligocene African proboscidea; part I, Introduction; part II, The Phiomia-Palaeomastodon question: Egypt, Geol. Surv., Ann., v. 4, p. 385-432.
- \_\_\_\_\_, 1974b, Critical observations on the occurrence of Fayum fossil vertebrates: Egypt, Geol. Surv., Ann., v. 4, p. 41-78.
- \_\_\_\_\_, 1974c, Studies of paleopathology and taxonomic problems of some Fayum fossil vertebrates: Egypt, Geol. Surv., Ann., v. 4, p. 139-148.
- Munnich, K. O., and Vogel, J. C., 1963, Untersuchungen an pluvialen wassern der Ost-Sahara: Geol. Rundsch., v. 52, p. 611-624.
- Munns, R. G., Stanley, R. J., and Densmore, C. D., 1967, Hydrographic observation of the Red Sea brines: Nature, no. 214, p. 1215.

- Murray, G. W., 1949, Desiccation in Egypt: Soc. Geogr. Egypte, Bull., t. 23, f. 1-2, p. 19-34.
- \_\_\_\_\_, 1951, The Egyptian climate; an historical outline: Geog. J. (London), v. 117, pt. 4, p. 422-434.
- \_\_\_\_\_, 1952a, The water beneath the Egyptian Western Desert: Geog. J. (London), v. 118, pt. 4, p. 443-452.
- \_\_\_\_\_, 1952b, The artesian water of Egypt: Egypt, Geol. Surv., Pap. no. 52, 20 p.
- \_\_\_\_\_, 1967, Dare me to the desert: George Allen and Unwin, London, 211 p.
- Mustafa, A., and Ghaly, E. L., 1964, Survey of Qusseir shales and the carbonaceous shales in Egypt: J. Chem. Eng. Data, v. 9, no. 4, p. 57-67.
- Naga, M. A., Abdalla, M. M., and Abdel Aal, S. I., 1973, Mineralogical studies on alkali soils at Sharkia Governorate, Egypt: Egypt, J. Soil Sci., v. 12, no. 1, p. 41-58.
- Naga, M. A., and Heakal, M. S., 1973, Amorphous ignerogenic fractions of the Nile alluvial soils: Egypt. J. Soil Sci., v. 12, no. 1, p. 69-88.
- Naim, E. M., 1966, On the relative age of some Maestrichtian fauna from the western oases of Egypt: Bull. Fac. Sci., Alex. Univ., v. 7, p. 281-291.
- Naim, E. M., and Ismail, M. M., 1966, A microfacies study of the conglomerate and sandstone series in Qusseir area: Bull. Fac. Sci., Alex. Univ., v. 7, p. 265-280.
- Naim, E. M., and Mansour, A., 1969, Ontogenetic and phylogenetic studies on the genus Pseudomesalia (Douville): Bull. Fac. Sci., Alex. Univ., v. 9, p. 555-566.
- Nakano, M., 1973, A new genus Arabitrigonia nov.: Hiroshima Univ., J. Sci., Ser. C, v. 7, no. 1, p. 65-67.
- Nakhla, A. F., 1970, The interpretation of Delta T anomalies in case of low latitudes: Egypt. J. Geol., v. 14, no. 2, p. 111-117.
- Nakhla, A. F., and Podbelova, E. A., 1974, Qualitative and quantitative analyses of the aeromagnetic survey over the western part of the Western Desert: Egypt. J. Geol., v. 17, no. 2, p. 185-194.
- Nakhla, F. M., 1958a, Polianite pseudomorphs from Um Bogma, Sinai: Egypt. J. Geol., v. 2, no. 2, p. 89-103.
- \_\_\_\_\_, 1958b, Mineralogy of the Egyptian black sands and its applications: Egypt. J. Geol., v. 2, no. 1, p. 1-24.
- \_\_\_\_\_, 1961a, The iron ore deposits of El-Bahariya Oasis, Egypt: Econ. Geol., v. 56, no. 6, p. 1103-1111.
- \_\_\_\_\_, 1961b, Polianite pseudomorphs: Am. Mineral., v. 46, no. 7-8, p. 964-968.
- Nakhla, F. M., El Badry, H. M., and Saleh, S. A., 1966, A contribution to the study of the Jurassic coal deposits in Sinai peninsula, Egypt, U.A.R.: Bull. Fac. Eng., Cairo Univ., p. 545-568.
- Nakhla, F. M., and El Hinnawi, E. E., 1960, Contribution to the study of Egyptian barites: Egypt. Acad. Sci., Proc., v. 15, p. 11-16.
- Nakhla, F. M., Hussein, M. K., and Toma, S. A., 1972, Microstructures of Egyptian Black Sands Ilmenites: Chem. Erde, v. 31, no. 3-4, p. 350-363.
- Nakhla, F. M., and Ramsy, M., 1971, A note on the microscopic examination of the Titaniferous iron ores at Abu Ghalaga area, Egypt: Chem. Erde, v. 29, no. 4, p. 342-346.

- Nakhla, F. M., Ramsy, M., and Basily, A. B., 1973, Contribution to the mineralogy and geochemistry of the sulphide mineralisation at Gebel Derhib Talc mine, Egypt: *Neues Jahrb. Mineral., Abh.*, v. 118, no. 2, p. 149-158.
- Nakhla, F. M., and Shehata, M. R. N., 1963, Mineralogy of some manganese iron ores from west-central Sinai, Egypt: *Neues Jahrb. Mineral., Abh.*, v. 99, no. 3, p. 277-294.
- \_\_\_\_\_, 1967, Contribution to the mineralogy and geochemistry of some iron ore deposits in Egypt, U.A.R.: *Miner. Deposita*, v. 2, no. 4, p. 357-371.
- Nakkady, S. E., 1950, A new foraminiferal fauna from the Esna shales Upper Cretaceous chalk of Egypt: *J. Paleontol.*, v. 24, no. 6, p. 675-692.
- \_\_\_\_\_, 1952, The foraminiferal fauna of the Esna shales of Egypt: *Inst. Egypte, Bull.*, t. 31, p. 209-247.
- \_\_\_\_\_, 1955, The stratigraphical implication of the accelerated tempo of evolution in the Mesozoic-Cenozoic transition of Egypt: *J. Paleontol.*, v. 29, no. 4, p. 702-706.
- \_\_\_\_\_, 1957, Biostratigraphy and interregional correlation of the upper Senonian and lower Paleocene of Egypt: *J. Paleontol.*, v. 31, no. 2, p. 428-447.
- \_\_\_\_\_, 1959, Biostratigraphy of the Um Elghanayem section, Egypt: *Micro-paleontology*, v. 5, no. 4, p. 453-464.
- Nakkady, S. E., and Eissa, R. A., 1960, Biostratigraphy and correlation of two Lower Cretaceous subsurface sections at Oyoun Mousa, Sinai: *J. Geol. U.A.R.*, v. 4, no. 2, p. 1-18.
- Nakkady, S. E., and Osman, A., 1954, The genus *Globotruncana* in Egypt, taxonomy and stratigraphical value: *Int. Geol. Congr.*, 19th, Algeria, C.R., sec. 13, f. 15, p. 75-95.
- Nasr, I., Gad, G. M., and Faris, M. I., 1973, The constitution of some Egyptian clays, their high temperature phases and refractories: *Egypt. J. Chem.*, v. 16, no. 2, p. 133-141.
- Nasser, S. A., and Chukri, B., 1958, Prospecting and exploration in south Sinai 1953-1954: *Egypt, Geol. Surv., Publ.*, 26 p.
- Nassim, G. L., 1949, The discovery of nickel in Egypt: *Econ. Geol.*, v. 44, no. 2, p. 143-150.
- \_\_\_\_\_, 1950, The oolitic hematite deposits of Egypt: *Econ. Geol.*, v. 45, no. 6, p. 578-581.
- Nassim, S., and others, 1956, Report on the prospecting work carried out in Wadi Hamata area, south Eastern Desert: *Egypt, Geol. Surv., Publ.*, 90 p.
- Nathan, Y., Bentor, Y. K., and Wurtzburger, U., 1970, Vein palygorskites in Israel and Sinai; their origin and symmetry: *Isr. J. Chem.*, v. 8, no. 3, p. 469-476.
- Neary, C. R., 1978, Evolution and mineralisation of the Arabian-Nubian Shield: *Mineral. Mag.*, v. 139, no. 1, p. 47-48.
- Neev, D., and Friedman, G. M., 1978, Late Holocene tectonic activity along the margins of the Sinai Subplate: *Science (AAAS)*, v. 202, no. 4366, p. 427-429.
- Neubauer, W. H., 1962, Geologie der Goldlagerstätte von El Sid in Ober-egypten mit einem Beitrag zur zentralen Arabischen Wüste: *Geol. Jahrb.*, v. 80, p. 117-160.
- Nicod, M. A., 1973, Petroleum developments in North Africa in 1972: *Am. Assoc. Pet. Geol., Bull.*, v. 57, no. 10, p. 1984-2007.



- Nicod, M. A., 1974, Petroleum developments in North Africa in 1973: Am. Assoc. Pet. Geol., Bull., v. 58, no. 10, p. 2025-2054.
- \_\_\_\_\_, 1976, Petroleum developments in North Africa in 1975: Am. Assoc. Pet. Geol., Bull., v. 60, no. 10, p. 1767-1812.
- \_\_\_\_\_, 1978, Petroleum developments in North Africa in 1977: Am. Assoc. Pet. Geol., Bull., v. 62, no. 10, p. 1796-1843.
- Nicola, F., and Soliman, M., 1972, Water resources in planning in the Western Desert of Egypt, in Symposium on water resources system planning with special reference to irrigation, drainage and flood control: Int. Comm. Irrig. Drain., New Delhi, India, p. 169-184.
- Nielsen, E., 1953, L'erosion cotiere dans le delta du Nil [Coastal erosion in the Nile Delta]: Nat. Resour. (UNESCO), v. 9, no. 1, p. 14-20.
- Nir, D., 1970, Les lacs quaternaires dans la region de Feiran (Sinai central) [Quaternary lakes of the Feiran region, central Sinai]: Rev. Geogr. Phys. Geol. Dyn., v. 12, no. 4, p. 335-345.
- Nir, Y., 1971, Geology of Entedebir Island and its recent sediments, in Dahlak archipelago, southern Red Sea: Isr. J. Earth Sci., v. 20, no. 1, p. 13-40.
- Noll, W., and Hangst, K., 1975a, Zur Kenntnis der altaegyptischen Blaupigmente [The ancient Egyptian blue pigments]: Neues Jahrb. Mineral., Monatsh., no. 5, p. 209-214.
- \_\_\_\_\_, 1975b, Gruen- und Blaupigmente der Antike [Ancient green and blue pigments]: Neues Jahrb. Mineral., Monatsh., no. 12, p. 529-540.
- Nonveiller, E., 1970, Permeability, uplift pressure, seepage discharges, in International Symposium on Rock Mechanics, Proceedings, Oct. 22-24, 1968: Soc. Esp. Mec. Rocas, Madrid, p. 369-377.
- Notholt, A. J. G., 1970, Economic development and geology of phosphate deposits in the countries neighboring the CENTO Region: Central Treaty Organization, Econ. Comm. Advisory Group on Minerals Development, Ad Hoc working group on phosphates, Ankara, Turkey, 22-25 June 1970, 11 p.
- Oakley, K. P., 1965, The antiquity of new Kom Ombo skull: Man, no. 96, p. 104.
- \_\_\_\_\_, 1967, Catalogue for Fossil Hominide, part 1, Africa: British Mus. Nat. Hist., ? p.
- Oddy, W. A., Hughes, M. J., and Baker, S., 1976, The washing of limestone sculptures from Egypt and the Middle East: Lithoclastia, no. 2, p. 3-10.
- Oeschger, H., and Riesen, I., 1965, Bern radiocarbon dates IV: Radiocarbon (Am. J. Sci.), v. 7, p. 1-9.
- O'Keefe, J. A., 1976, Tektites and their origin, in Developments in petrology: Elsevier Sci. Publ. Co., Amsterdam, v. 4, 254 p.
- Oliver, F. W., 1945, Dust storms in Egypt and their relation to the war period, as noted in Maryut, 1932-45: Aust. Mus., Rec., v. 106, no. 1-2, p. 26-49.
- Omar, A. A., and El Shennawi, A. W., 1973, Crystallization of some molten Egyptian basaltic rocks and corresponding glasses: J. Geol. U.A.R., v. 15, no. 1, p. 65-73.
- Omara, S., 1954, Micro-stratigraphy of the upper Senonian and the Cretaceous-Eocene boundary of the Nezzazat section (east coast of the Gulf of Suez, Egypt): Bull. Inst. Deserte Egypte, t. 4, no. 2, p. 130-140.

- Omara, S., 1956, New Foraminifera from the Cenomanian of Sinai, Egypt: J. Paleontol., v. 30, no. 4, p. 883-890.
- \_\_\_\_\_, 1959, The geology of Sherm El Sheikh sandstone, Sinai: Egypt. J. Geol., v. 3, no. 1, p. 107-121.
- \_\_\_\_\_, 1964, Diapiric structures in Egypt and Syria: Am. Assoc. Pet. Geol., Bull., v. 48, no. 7, p. 1116-1125.
- \_\_\_\_\_, 1965a, A micropaleontological approach to the stratigraphy of the Carboniferous exposures of the Gulf of Suez region: Neues Jahrb. Geol. Palaontol., Monatsh., H. 7, p. 409-419.
- \_\_\_\_\_, 1965b, Phosphatic deposits in Syria and Safaga district, Egypt: Econ. Geol., v. 60, no. 2, p. 214-227.
- \_\_\_\_\_, 1967, Contribution to the stratigraphy of the Egyptian Carboniferous exposures: Arab Pet. Congr., 6th, Baghdad, 7 p.
- \_\_\_\_\_, 1971, Early Carboniferous tabulate corals from Um Bogma area, southwestern Sinai, Egypt: Riv. Ital. Paleontol. Stratigr., v. 77, no. 2, p. 141-154.
- \_\_\_\_\_, 1972, An Early Cambrian outcrop in southwestern Sinai, Egypt: Neues Jahrb. Geol. Paleontol., Monatsh., no. 5, p. 306-314.
- Omara, S., and Andrawis, S. F., 1969, Some remarks on genus Thomasinella Schlumberger [with discussion]: Afr. Micropaleontol. Colloq., 3rd, Cairo, Proc., p. 323-326.
- Omara, S., Bishara, W. W., and Nasr, M., 1974, Grain-size parameters and paleoenvironments of the Nubia sandstone: J. Sediment. Petrol., v. 44, no. 1, p. 136-144.
- Omara, S., Bishara, W. W., and Sanad, S., 1973, A new occurrence of an economic gypsum deposit in the northern Western Desert of Egypt: Neues Jahrb. Mineral., Monatsh., no. 10, p. 474-479.
- Omara, S., and El Tahlawi, M. R., 1972, Limestone "dykes" in the Nile Valley around Assiut, upper Egypt: Neues Jahrb. Geol. Paleontol., Monatsh., no. 8, p. 475-483.
- Omara, S., El Tahlawi, M. R., and Abdel Kireem, H., 1973, Depositional environment of the lower Eocene carbonate rocks exposed east of the Nile Valley, between latitudes of Sohag and Girga, Upper Egypt: Arab Sci. Congr., 7th, Cairo, v. 4, p. 153-164.
- Omara, S., El Tahlawi, M. R., and Hafez, H., 1969, Microfacies of the lower Eocene limestones in the environs of Assiut: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 733-750.
- Omara, S., El Tahlawi, M. R., and Khalifa, H., 1969, Contribution to the biostratigraphy and microfacies of the lower Tertiary of Gabal Shaghab area near Esna: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 889-901.
- \_\_\_\_\_, 1973, Contribution to the geology of Gabal Shaghab area near Esna, upper Egypt: Bull. Fac. Sci., Assiut Univ., v. 1, p. 3-24.
- Omara, S., and Gramann, F., 1966, Upper Carboniferous ostracods from Wadi Araba, Eastern Desert, Egypt: Verh. Geol. Bundesanst., Wien, N. V., 1-2, p. 148-155.
- Omara, S., Hemida, I., and Sanad, S., 1970, Structure and hydrogeology of Farafra Oasis, Western Desert, U.A.R.: Arab Pet. Congr., 7th, Kuwait, Pap. no. 7, 15 p.
- Omara, S., and Kenawy, A. I., 1975, Newly recorded larger Foraminifera from the early Eocene rocks of Gabal Um El Ghanayem, Kharga Oasis, Egypt: Bayer, Staatssamml. Palaeontol. Hist. Geol., Mitt, no. 15, p. 3-18.

- Omara, S., and Kenawy, S., 1966, Upper Carboniferous microfossils from Wadi Araba Eastern Desert, Egypt: Neues Jahrb. Geol. Paleontol., Abh., v. 124, no. 1, p. 56-83.
- Omara, S., and Ouda, K. H., 1969a, Early Pliocene Foraminifera from Latakia region, Syria, compared to those from Burg El Arab well no. 1, west of Alexandria, Egypt: Arab Sci. Congr., 6th, Damascus, p. 719-728.
- \_\_\_\_\_, 1969b, Pliocene Foraminifera from the subsurface rocks of Burg El Arab well no. 1, Western Desert, Egypt [with discussion]: Afr. Micropaleontol. Colloq., 3rd, Cairo, Proc., p. 581-601.
- \_\_\_\_\_, 1972, Lithostratigraphic revision of the Oligocene Miocene succession in the northern Western Desert, Egypt: Arab Pet. Congr., 8th, Algeria, Pap. no. 93 (B-3), 16 p.
- Omara, S., and Sanad, S., 1975, Rock stratigraphy and structural features of the area between Wadi El Natrun and the Moghra Depression (Western Desert, Egypt): Geol. Jahrb., Reihe B., no. 16, p. 45-73.
- Omara, S., and Schultz, G., 1965, A lower Carboniferous microflora from southwestern Sinai, Egypt: Paleontographica, Abt. A., v. 117, no. 1-3, p. 47-58.
- Omara, S., and Stauch, F., 1965, The foraminiferal genus Nazzazata Omara: Riv. Ital. Paleontol. Stratigr., v. 71, no. 2, p. 547-562.
- Omara, S., and Vangereow, E. F., 1965, Carboniferous (Westphalian) Foraminifera from Abu El Darag, Eastern Desert, Egypt: Geol. Minjnbouw., v. 44, p. 87-93.
- Omara, S., Vangereow, E. F., and Kenawy, A., 1966, Neue Funde von Foraminiferen in Ober-Karbon, von Abu Darag, Agypten: Paleontol. Z., v. 40, no. 3-4, p. 244-256.
- Onay, T. S., 1949, Uber die Smirgelgesteine SW-Anatoliens: Schweiz. Mineral. Petrogr. Mitt., Bd. 29, H. 2, p. 357-491.
- Orlova, G. A., 1970, Izucheniye beregov Del'ty Nile (Ekspeditsiya OAR) [Research on the shoreline of the Nile Delta, expedition to the U.A.R.]: Akad. Nauk SSSR, Vestn., no. 7, p. 85-89.
- Orlova, G., and Zenkovich, V., 1974, Erosion of the shores of the Nile Delta: Geoforum, no. 18, p. 68-72.
- Ormond, R. F. G., and Campbell, R. C., 1971, Observations on Acanthaster planci and on the coral reef echinoderms in the Sudanese Red Sea, in Regional variation in Indian Ocean coral reefs: Zool. Soc. Lond., Symp., no. 28, p. 433-454.
- Orphy, M. K., 1971, Research on phosphate ore concentration in the U.A.R.: Arab Conf. Petrochemicals, Kuwait, 14 p.
- Orphy, M. K., and El Gillani, D., 1972, Research on phosphate ore concentration in ARE, part 2: Arab Min. Pet. Assoc. Trans., no. 1, p. 119-128.
- Orphy, M. K., Malati, M. A., and Moustafa, S. I., 1965, Beneficiation of El Baharia iron ores (Gebel Ghorabi, Western Desert) by magnetizing reduction and magnetic separation: Bull. Fac. Eng., Cairo Univ., p. 569-586.
- \_\_\_\_\_, 1967, Beneficiation of El Bahariya iron ores, Gebel Ghorabi, Western Desert by flotation: Bull. Fac. Eng., Cairo Univ., p. 435-453.
- Orphy, M. K., and others, 1969, Anionic flotation of the Nile Valley phosphate ores: Min. Mag., Sept., v. 121, no. 3, p. 183-191.
- Orphy, M. K., Yousef, A. A., and Bibawy, T. A., 1969, Calcination of calcareous phosphate ores: Min. Mag., Sept., v. 121, no. 3, p. 195.

- Orphy, M. K., Yousef, A. A., and Hanna, H. S., 1967, Beneficiation of low-grade phosphate ore of Qusseir area, ARE, part I -- Anionic flotation of phosphate: Bull. Fac. Eng., Cairo Univ., p. 401-418.
- \_\_\_\_\_, 1968a, Beneficiation of low-grade ore, part I -- Anionic flotation of phosphate: Min. Miner. Eng., no. 5, p. 48-50.
- \_\_\_\_\_, 1968b, Beneficiation of low-grade phosphate, part II -- Cationic flotation: Min. Miner. Eng., no. 10, p. 48-54.
- Orphy, M. K., Yousef, A. A., and Moustafa, S. I., 1969, Beneficiation of Egyptian iron ores: Can. Min. J., Dec., p. 45-53.
- Osman, A., 1956, The stratigraphy of the pre-Tertiary subsurface formations of Abu-Roash: Inst. Egypte, Bull., t. 37, f. 2, p. 211-223.
- Osman, A., and Hassanien, A. M., 1962, The biostratigraphy of the subsurface formations encountered in Ayoun Musa well no. 4, Sinai: Egypt. J. Geol., v. 6, p. 103-119.
- \_\_\_\_\_, 1965, New Jurassic-Lower Cretaceous and Miocene Foraminifera from west-central Sinai: Bull. Fac. Eng., Cairo Univ., p. 315-331.
- Osman, A., and Marzouk, A., 1963, Some Jurassic Lagenidae from Ayoun Musa well no. 5: Bull. Fac. Eng., Cairo Univ., p. 401-429.
- Ostoya, P., 1968, New evidence in the history of primates from the Oligocene of Fayoum: Sci. Progr., Nature (Paris), no. 3400, p. 307-308.
- Otterman, J., 1974, Baring high-albedo soils by overgrazing; a hypothesized desertification mechanism: Science (AAAS), v. 186, no. 4163, p. 531-533.
- \_\_\_\_\_, 1977, Monitoring surface albedo change with Landsat: Geophys. Res. Lett., v. 4, no. 10, p. 441-444.
- Otterman, J., and Ginzburg, A., 1974, Earth surveys by remote sensing in Israel, in Approaches to earth survey problems through uses of space techniques: Akad. Verlag, Berlin, p. 427-431.
- Ouda, K., and Sharara, N., 1978a, Electron microscopical studies on the ultrastructures and perforations of the Egyptian Miogypsinidae: Riv. Ital. Paleontol. Stratigr., v. 84, no. 2, p. 457-475.
- \_\_\_\_\_, 1978b, Non radiate wall ultrastructure in Lepidocyclina Gumbel: Rev. Espan. Micropaleontol., v. 10, no. 2, p. 323-336.
- Pairazian, V. V., 1970, Prospects of oil and gas based on geochemical evidences: Arab Pet. Congr., 7th, Kuwait, Pap. no. 7, 7 p.
- Papanastassiou, D. A., and Wasserburg, G. J., 1974, Evidence for late formation and young metamorphism in the Anchondrite Nakhla: Geophys. Res. Lett., v. 1, no. 1, p. 23-26.
- Passarge, S., 1933, Studien in der agyptischen Wüste; 1. Morphologische Untersuchungen in der Wüste bei Heluan: Ges. Wiss. Göttingen, mat.-phys. Kl., Abh., F. 3, h. 9, p. 1-92.
- \_\_\_\_\_, 1949, Zur Kenntnis des Fayums: Naturwissenschaften, Jg. 36, H. 1, p. 16-21.
- \_\_\_\_\_, 1950, Grundlinien in Aufbau Afrikas: Naturwissenschaften, Jg. 37, H. 15, p. 343-346.
- Paver, G. L., and Jordan, J. N., 1956, Report of Ministry of Public Works on reconnaissance hydrological and geophysical observations in north Sinai coastal area of Egypt: Bull. Inst. Desert Egypte, no. 7, 87 p.
- Paver, G. L., and Pretorius, D. A., 1954a, Report on hydrogeological investigations in Kharga and Dakhla Oases: Bull. Inst. Desert Egypte, no. 4, 108 p.



- Paver, G. L., and Pretorius, D. A., 1954b, Report on reconnaissance hydrogeological investigations in the Western Desert coastal zone: Bull. Inst. Desert Egypte, no. 5, 145 p.
- Pawley, G. S., and Abrahamsen, N., 1973, Do the pyramids show continental drift?: Science (AAAS), v. 179, no. 4076, p. 892-893.
- Perch Nielsen, K., 1973, Neue Coccolithen aus dem Maastrichtien von Daenemark, Madagaskar und Aegypten [New coccoliths from the Maestrichtian of Denmark, Madagascar and Egypt]: Geol. Soc. Den., Bull., v. 22, pt. 4, p. 306-333.
- Petrascheck, W. E., and Nakhla, F. M., 1961, Contribution to the study of Um Bogma coal deposit, west-central Sinai: Egypt. J. Geol., v. 5, p. 81-87.
- Pezaro, P., 1973, The geology and petrology of the eastern margins of Jebel Ferani: Hebro Univ., Jersualem, 91 p.
- Pfannenstiel, M., 1952, Zur Quartargenschichte des Nildetas: Geol. Rundsch., Bd. 40, H. 1, p. 108-109.
- \_\_\_\_\_, 1956, Die eiszeitlichen Schwankungen des Mittelmeerspiegels in Raume des Nildetas [with discussion]: Int. Quat. Assoc., 4th Congr., Rome-Pisa, Actes II, p. 529-532.
- Pfender, J., 1934, Sur un bryozoaire nouveau du lutetien superieur d'El-Fachn (Haute-Egypte): Inst. Egypte, Bull., t. 16, f. 1, p. 99-103.
- \_\_\_\_\_, 1940, Les algues du nummulitique egyptien et des terrains cretaces-eocenes de quelques regions mesogeenes: Inst. Egypte, Bull., t. 22, f. 2, p. 225-250.
- Philip, G., and Abou Khadrah, 1972, Petrography of the Miocene and younger deposits, Wadi El Natrun area, Western Desert, Egypt: Egypt. Acad. Sci., Proc., v. 25, p. 237-249.
- Philip, G., and Asaad, F. A., 1971, Mechanical analysis, porosity and permeability studies on Nubia Sandstone, south of Beris, Kharga Oasis, Western Desert: J. Geol. U.A.R., v. 13, no. 1, p. 37-48.
- \_\_\_\_\_, 1974, Contributions to the subsurface geology of the Nubia Sandstone; lithology and zonation of some wells, south of Beris Oasis, Kharga Oasis, Western Desert, Egypt: Bull. Fac. Sci., Cairo Univ., no. 45, p. 287-307.
- Philip, G., Basta, E. Z., and Khalil, J. B., 1971, Petrographic studies on some soil sediments from Fayium area and Nile Valley, chemical and mechanical analysis: Inst. Egypte, Bull., v. 52, p. 99-118.
- Philip, G., and Beheri, S., 1961, Mechanical analysis and mineral composition of Gebel Asfar dunes: Bull. Fac. Sci., Cairo Univ., no. 37, p. 67-97.
- Philip, G., and Reda, S., 1968a, The petrography and petrology of the oil-bearing sand of the East Belayium oil field, part I -- Mechanical analysis: Bull. Fac. Sci., Cairo Univ., no. 41, p. 181-217.
- \_\_\_\_\_, 1968b, The petrography and petrology of the oil-bearing sands of the East Belayium oil field, part II -- Mineral analysis: Bull. Fac. Sci., Cairo Univ., no. 41, p. 219-258.
- Philip, G., and Yousri, F., 1965, Mineral composition of some Nile sediments near Cairo: Bull. Fac. Sci., Cairo Univ., no. 39, p. 231-251.
- Philipps, W., 1948, Recent discoveries in the Egyptian Faiyum and Sinai: Science (AAAS), v. 107, no. 2791, p. 666-670.
- Philips, J. D., 1970, Magnetic anomalies in the Red Sea: R. Soc. Lond., Philos. Trans., Ser. A, v. 267, p. 205-217.
- \_\_\_\_\_, 1971, Magnetic anomalies in the Red Sea: Woods Hole Oceanogr. Inst., Coll. Repr., pt. 2, 13 p.

- Pouquet, J., and Tricart, J., 1976, Techniques d'ytukusation des enregistrements de teledetection "a la portee des debutants" [Utilization techniques of remote sensing recordings at the hands of beginners], in Apports de la teledetection a l'etude des regions arides et subarides; journee d'etude organisee le 9 avril 1976 au CNEAT: Cen. Perfectionnement, Amenagement Milieu Nat., Strassbourg, France, p. 21-33.
- Prakash, U., 1976, Fossil woods resembling *Dichrostachys* and *Entandrophragma* from the Tertiary of the Middle East: Ger., Zent. Geol. Inst., Abh., no. 26, Eozaene Floren des Geiseltales, p. 499-507.
- Prasad, G., Whiteman, A., and Shawa, M. S., 1971, Nubian Sandstone paleo-environment in Sudan; discussion and reply: Am. Assoc. Pet. Geol., Bull., v. 55, no. 6, p. 883-885.
- Pribyl, V., 1970, Iisecne ceriny v oblasti Abu Roasch a Giran el Ful u Kahiry [Dunes in the Abu Roasch and Giran el Ful near Kahirah]: Cesk. Spol. Zemepisna. Sb., v. 75, no.2, p. 163-166.
- \_\_\_\_\_, 1974, General geomorphological map of Egypt: Acta Univ. Carol., Geogr., no. 1, p. 3-11.
- Przybylowska Lange, W., 1976, Appendix A; Diatoms from the site E71K14, area A, trench 1, upper diatomaceous silt (Unit 4, figure 31), in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N. Y., p. 321-323.
- Pugh, D. T., 1967, Origin of hot brines in the Red Sea: Nature, v. 214, p. 1003.
- \_\_\_\_\_, 1969, Temperature measurements in the bottom layers of the Red Sea brines, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens, and D. A. Ross, eds.: Springer Verlag, N.Y., p. 158-163.
- Puglisi, S. M., 1967, Missione per ricerche preistoriche in Egitto: Origini, v. 1, p. 301-312.
- Qureshi, J. R., 1971, Gravity measurements in northeastern Sudan and crustal structure of the Red Sea: R. Astron. Soc., Geophys. J., v. 24, no. 2, p. 119-135.
- Raafat, I., 1971, Soil survey and classification in the U.A.R.: Arab Conf. Petrochemicals, Kuwait, 7 p.
- Rabie, F., and others, 1974, Studies of the soils of the coastal littoral of Egypt, ARE; I, Mineralogy of Burg El-Arab, El-Hamman soils: Egypt. J. Soil Sci., v. 13, no. 2, p. 173-190.
- Raheji, P. C., 1973, Lake Nasser, in Man-made lakes; their problems and environmental effects; case studies of major man-made lakes: Am. Geophys. Union, Geophys. Monogr., no. 17, p. 234-245.
- Rahman Hussein, F. A., and Abdel Khalek, M. L., 1973, A note on the origin of chert in phosphate rocks, Upper Egypt: J. Geol. U.A.R., v. 15, no. 2, p. 99-104.
- Ramadan, F. M., and others, 1960, Evaluation of Ein Elsiera spring waters: J. Egypt. Medical Assoc., v. 43, no. 2, p. 950-958.
- Ramez, M. R. H., 1971, Jointing mechanism of Gebel El Rukham marble in relation to its fabric and geologic settings: Neues Jahrb. Mineral., Abh., v. 115, no. 3, p. 279-290.
- Ramez, M. R. H., and Abdel Masoud, M. A., 1970, The flow pattern and jointing mechanism of Abu Zaabal doleritic basalt: Int. J. Rock Mech. Min. Sci., v. 7, p. 233-248.
- Ramez, M. R. H., and Marie, A. A., 1967, Dynamic significance of the fabric of Gebel El Rukham marble, Eastern Desert: Egypt. J. Geol., v. 11, p. 87-92.

- Ramez, M. R. H., and Marie, A. A., 1974, The geology and petrography of the basement rocks at Gebel El Rukham area, Eastern Desert: Egypt. J. Geol., v. 17, no. 2, p. 147-162.
- Ramez, M. R. H., and Mosalamy, F. H., 1969, The deformed nature of various size fractions in some clastic sands: J. Sediment. Petrol., v. 39, no. 3, p. 1182-1187.
- Ramez, M. R. H., and Sabrah, B. A., 1971, The ceramic properties of basalt powder and clay mixtures in relation to their initial composition: Egypt. J. Chem., v. 14, no. 5, p. 507-518.
- Ranov, V. A., and Budanov, V. I., 1973, Kolleksiya kamennogo veka iz Araviyskoy pustyni (ARY) [A stone age collection from the Arabian Desert, Egypt]: Izd. Nauka, Moscow, Union of Soviet Socialist Republics, 47 p.
- Rashed, A. A., Roushdy, M. I., and Youssef, M. H., 1975, Chemical nature of Ras-Amer crude oil; Part II, Evaluation of residual fraction (b.r.>300 degrees C): Egypt. J. Chem., v. 18, no. 5, p. 903-907.
- Rathjens, K., and Wissmann, H. V., 1933, Morphologische probleme im graben des Rothen Meeres: Petermanns Geogr. Mitt., Jg. 79, H. 5-6 and 7-8, p. 113-117, 183-187.
- Razvalyayev, A. V., 1969, The Cretaceous-Paleogene stage of geologic development of the Red Sea basin: Geotectonics, no. 5, p. 310-313.
- Razvalyayev, A. V., Mikhaylov, I. A., and Mirtov, Y. V., 1970a, tektonicheskoy prirode doling Nila [Tectonic nature of the Nile Valley]: Geomorfologiya, no. 2, p. 60-65.
- \_\_\_\_\_, 1970b, Tectonic nature of the Nile Valley: Geomorphology, no. 2, p. 131-135.
- Reed, C. A., 1964, A natural history study of Kurkur Oasis, Libyan Desert, western governate, Egypt; I, Introduction: Postilla, no. 84, 20 p.
- \_\_\_\_\_, 1965, A human frontal bone from the late Pleistocene of the Kom Ombo plain, Upper Egypt: Man, no. 95, p. 101-104.
- \_\_\_\_\_, 1966, The Yale University prehistoric expedition to Nubia, 1962-1965 discovery: Peabody Mus. Nat. Hist. Yale Univ. Bull., v. 1, no. 2, p. 16-23.
- Reeves, C. C., Jr., ed., 1972, Playa Lake Symposium: Int. Cent. Arid Semi-Arid Land Stud., Publ., no. 4, 334 p.
- Refai, E., and Riskalla, T. R., 1969a, Magnetic field survey of Abou Roach basalt: Egypt. J. Geol., v. 11, no. 1, p. 21-28.
- \_\_\_\_\_, 1969b, Magnetic field survey of Abu Roach basalt: Bull. Fac. Sci., Cairo Univ., no. 42, p. 341-363.
- Refai, E., and Wassif, N., 1971, Studies on the magnetism of Abu Roach basalt: Bull. Fac. Sci., Cairo Univ., no. 44, p. 219-230.
- Reilly, F. A., ed., 1964, Guidebook to the geology and archaeology of Egypt: Pet. Explor. Soc. Libya, 184 p.
- Resch, W. F. E., 1973, Neue Felsbidefunde in der agyptischen Ostwuste: Z. Ethnol., v. 88, p. 86-97.
- Riad, S., 1977, Shear zones in North Egypt interpreted from gravity data: Geophysics, v. 42, no. 6, p. 1207-1214.
- Rich, P. V., 1974, Significance of Tertiary avifaunas from Africa (with emphasis on a mid- to late-Miocene avifauna from southern Tunisia): Egypt. Geol. Surv., Ann., v. 4, p. 167-210.
- Rigassi, D. A., 1969, Nubian Sandstone; discussion should the term Nubian Sandstone be dropped: Am. Assoc. Pet. Geol., Bull., v. 53, p. 183-184.

- Rigassi, D. A., 1971, Carboniferous of Egypt; discussion: *Am. Assoc. Pet. Geol., Bull.*, v. 55, no. 11, p. 2058-2059.
- Rigassi, D. A., and Soliman, S. M., 1971, Cretaceous of Western Desert, Egypt; discussion: *Am. Assoc. Pet. Geol., Bull.*, v. 55, no. 11, p. 2060-2061.
- Rigby, J. F., 1968, A reevaluation of the pre-Gondwana Carboniferous flora: *Acad. Bras. Cienc., An.*, v. 40, no. 4, p. 577.
- \_\_\_\_\_, 1969, A reevaluation of the pre-Gondwana Carboniferous flora: *Acad. Bras. Cienc., An.*, v. 41, no. 3, p. 393-413.
- Riley, J. P., 1967, The hot saline waters of the Red Sea bottom and their related sediments: *Oceanogr. Mar. Biol., Ann. Rev.*, p. 141.
- Rittmann, A., 1953, Some remarks on the geology of Aswan: *Bull. Inst. Desert Egypte*, t. 3, no. 2, p. 35-64.
- \_\_\_\_\_, 1954, Remarks on the eruptive mechanism of the Tertiary volcanos of Egypt: *Bull. Volcanol.*, s. 2, t. 15, p. 109-117.
- \_\_\_\_\_, 1958, Geosynclinal volcanism, ophiolites and Barramiya rocks: *Egypt. J. Geol.*, v. 2, no. 1, p. 61-65.
- Rittmann, A., and Machu, W., 1955, On the origin of Egyptian phosphate deposits: *Bull. Fac. Eng., Cairo Univ.*, v. 2, p. 303-318.
- Rizkalla, I., 1976, Magnetic anomalies as a tool for the determination of basement rock types: *Boll. Geofis. Teor. Appl.*, v. 19, no. 70, p. 114-123.
- Rizzini, A., and others, 1978, Stratigraphy and sedimentation of a Neogene-Quaternary section in the Nile Delta area, ARE, *in* Messinian erosional surfaces in the Mediterranean (Cita, M. B., and others, eds.): *Mar. Geol.*, v. 27, no. 3-4, p. 327-348.
- Robinson, P., and Black, C. C., 1974, Vertebrate faunas from the Neogene of Tunisia: *Egypt. Geol. Surv., Ann.*, v. 4, p. 319-332.
- Robson, D. A., 1959, The geological structure of the Wadi el Dirba area of Sinai: *Geol. Soc. London, Q. J.*, v. 115, pt. 1, no. 457, p. 41-47.
- \_\_\_\_\_, 1970, Suez rift: *Nature*, v. 228, no. 5277, p. 1237.
- \_\_\_\_\_, 1971, The structure of the Gulf of Suez (clysmic rift) with special reference to the eastern side: *Geol. Soc. London, Q. J.*, v. 127, p. 247-277.
- Rodier, J., 1963, Bibliography of African hydrology: *Nat. Resour. (UNESCO)*, 166 p.
- Rofail, N., and Tadros, S., 1970, The study of modelling the ground water flow in the Nile Delta using the Electrical Analogue Method, *in* Hydrology of deltas -- hydrologie des deltas, v. 2: *Int. Assoc. Sci. Hydrol.-UNESCO, Stud. Rep. Hydrol.*, no. 9, p. 408-415.
- Rogers, J. J. W., 1977, Three arguments for continual evolution of sial throughout geologic time, *in* Chemical evolution of the early Precambrian (Ponnamperuma, C., ed.): *Academic Press, New York*, p. 27-39.
- Rognon, P., 1976, Constuctions alluviales holocenes et oscillations climatiques du Sahara meridional [Holocene alluvial structures and climatic fluctuations of the southern Sahara]: *Assoc. Geogr. Fr., Bull.*, v. 53, no. 433-434, p. 77-84.
- Ronkin, B. L., 1933, Natronnye ozera Egipta [soda lakes of Egypt]: *Akad. Nauk SSSR, Inst. Fiz.-Khim. Anal., Izv.*, v. 6, p. 311-322.
- Ross, D. A., 1971, The Red and Black Seas: *Am. Sci.*, v. 59, p. 420-424.
- \_\_\_\_\_, 1972, Red Sea hot brine area; revisited: *Science (AAAS)*, v. 175, no. 4029, p. 1455-1457.



- Ross, D. A., Hays, E. E., and Allstrom, F. C., 1969, Bathymetry and continuous seismic profiles of the hot brine region of the Red Sea, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 82-97.
- Ross, D. A., and Hunt, J. M., 1967, Third brine pool in the Red Sea: *Nature*, v. 213, p. 587.
- Ross, D. A., and others, 1970, The hot brine deeps of the Red Sea, in Man and the sea; classic accounts of marine exploration: Am. Mus. Nat. Hist. Press, p. 467-473.
- \_\_\_\_\_, 1972, Deep-sea drilling project in the Red Sea: *Geotimes*, v. 17, no. 7, p. 24-26.
- Ross, D. A., and Schlee, J., 1973, Shallow structure and geologic development of southern Red Sea: *Geol. Soc. Am., Bull.*, v. 84, p. 3827-3848.
- Ross, D. A., and Uchupi, E., 1977, Structure and sedimentary history of southeastern Mediterranean Sea-Nile Cone area: *Am. Assoc. Pet. Geol., Bull.*, v. 61, no. 6, p. 872-902.
- Rossignol, M., 1969, Recent palynologic sedimentation in the Dead Sea: *Pollen Spores*, v. 11, no. 1, p. 17-18.
- Rothe, J. P., 1970, Moyen-orient et Afrique du nord; Mission d'information seismologique, novembre-décembre 1969 [The Middle East and North Africa seismologic information mission, November-December, 1969]: UNESCO, Paris, 45 p.
- Roufaïel, G. S. S., 1973, The role of metasomatism in the genesis of Abu Khruh nepheline syenites, Eastern Desert: *Egypt. J. Geol.*, v. 16, no. 1, p. 19-34.
- Roushdy, M. I., and others, 1975, Studies on normal paraffins of Abu Gharadig crude oil: *Egypt. J. Chem.*, v. 18, no. 4, p. 773-781.
- Russell, M. J., and Burgess, A., 1969, Tectonic comparison of north Atlantic and Middle East rifting: *Nature*, v. 222, no. 5198, p. 1056-1057.
- Ryan, W. B. F., and others, 1969, Suspended matter in the Red Sea brines and its detection by light scattering, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 153-157.
- Rzoska, J., 1976a, The geological evolution of the River Nile in Egypt, in The Nile, biology of an ancient river (Rzoska, J., ed.): Dr. W. Junk B., V., The Hague, p. 2-4.
- \_\_\_\_\_, 1976b, Delta lakes of Egypt, in The Nile, biology of an ancient river (Rzoska, J., ed.): Dr. W. Junk B., V., The Hague, p. 309-312.
- \_\_\_\_\_, 1976c, Nile sediments, in The Nile, biology of an ancient river: Dr. W. Junk B., V., The Hague, p. 155-161.
- \_\_\_\_\_, 1976d, Nile waters; hydrology past and present in The Nile, biology of an ancient river: Dr. W. Junk B., V., The Hague, p. 145-153.
- \_\_\_\_\_, 1976e, Palaeo-ecology, in The Nile, biology of an ancient river: Dr. W. Junk B., V., The Hague, p. 33-45.
- \_\_\_\_\_, 1976f, Pleistocene history of the Nile in Nubia, in The Nile, biology of an ancient river: Dr. W. Junk B., V., The Hague, p. 5-9.
- \_\_\_\_\_, 1976g, River and Nile Valley before man's interference, in The Nile, biology of an ancient river: Dr. W. Junk B., V., The Hague, p. 73-78.
- Rzoska, J., and Wickens, G. E., 1976, Vegetation of the Nile Basin, in The Nile, biology of an ancient river: Dr. W. Junk B., V., The Hague, p. 79-86.

- Saad, M. A. H., 1974, Calcareous deposits of the brackish-water lakes in Egypt: *Hydrobiologia* (The Hague), v. 44, no. 4, p. 381-387.
- Saad, S. I., 1962, Pollen and spores recently discovered in the coals of Sinai: *Pollen Spores*, v. 4, no. 2, p. 375.
- \_\_\_\_\_, 1963, Pollen spores recently discovered in the coals of Sinai region; I, Ayoun Moussa district: *Palaeontographica*, Abt. B., Bd. 113, Lf. 5-6, p. 117-125.
- \_\_\_\_\_, 1965, Pollen and spores recently discovered in the coals of Sinai region; 2, Um Bogma district: *Palaeontographica*, Abt. B., v. 115, pt. 4-6, p. 139-148.
- \_\_\_\_\_, 1975, Palynological results and their bearing on the theory of continental displacement: *Adv. Pollen-Spore Res.*, v. 1, p. 70-77.
- \_\_\_\_\_, 1978, Palynological studies in the Egyptian Desert; Umbarka IX borehole: *Pollen Spores*, v. 20, no. 2, p. 261-301.
- Saad, S. I., and Sami, S., 1968, Studies of pollen and spores of Nile Delta deposits (Berenbal region): *Pollen Spores*, v. 9, no. 3, p. 467-503.
- Saada, M. Y., and others, 1970, Washing Egyptian common salt: *Min. Miner. Eng.*, p. 36-41.
- Saada, M. Y., Rabie, A. A., and Ezz, S. Y., 1969, Beneficiation of Abu-Ghalaga ilmenite ore; part 1, laboratory tests: *Aufbereitungs-Tech.*, no. 11, p. 657.
- \_\_\_\_\_, 1970, Beneficiation of Abu-Ghalaga ilmenite ore; part 2 -- Pilot plant experiments: *Aufbereitungs-Technik.*, no. 2, p. 99.
- Sabatier, G., 1969, Palygorskite from the deep sea, a discussion: *Am. Mineral.*, v. 54, no. 3-4, p. 567.
- Sabet, A. H., 1958, Geology of some dolerite flows on the Red Sea coast, south of El Qsseir: *Egypt. J. Geol.*, v. 2, no. 1, p. 45-60.
- \_\_\_\_\_, 1961, Geology and mineral deposits of Gebel El Sibai area, Red Sea Hills, Egypt, U.A.R.: *Egypt, Geol. Surv., Publ.*, 190 p.
- \_\_\_\_\_, 1969, Some examples of photogeological interpretation of sedimentary rocks in arid region: *Arab Sci. Congr.*, 6th, Damascus, pt. 4A, p. 197-207.
- \_\_\_\_\_, 1972, On the stratigraphy of the basement rocks of Egypt, in *The basement complex of Egypt*: *Egypt, Geol. Surv., Ann.*, v. 2, p. 79-101.
- \_\_\_\_\_, 1974a, Abu Dabbab tin-tantalum deposit: *Egypt, Geol. Surv., Pap. no. 61*, p. 11-19.
- \_\_\_\_\_, 1974b, Nuweibi tantalum deposit: *Egypt, Geol. Surv., Pap. no. 61*, p. 19-25.
- \_\_\_\_\_, 1974c, Placer deposits of Igla, Abu Dabbab and Nuweibi: *Egypt, Geol. Surv., Pap. no. 61*, p. 27-35.
- Sabet, A. H., Bendawi, M. F., and Abdel Razik, T. M., 1969, Beneficiation of white sands from Wadi El Natrun: *Egypt, Geol. Surv., Pap. no. 49*, 26 p.
- Sabet, A. H., Chabenenco, V., and Tsogoev, V., 1973, Tin-tungsten and rare-metal mineralization in the central Eastern Desert of Egypt, in *Proceedings of the international meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities*: *Egypt, Geol. Surv., Ann.*, v. 3, p. 75-86.

- Sabet, A. H., El Gaby, S., and Zalata, A. A., 1972, Geology of the basement rocks in the northern parts of El-Shayib and Safaga sheets, Eastern Desert, in The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, p. 111-128.
- Sabet, A. H., and Saleeb, G. S., 1968, On the geology and paragenesis of lead mineralization at Siweigat El Soda and Taletid, Eastern Desert: Egypt. J. Geol., v. 12, p. 1-8.
- Sabet, A. H., and Tsogoev, V., 1973, Problems of geological and economic evaluation of tantalum deposits in apogranites during states of prospecting and exploration, in Proceedings of the international meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: Egypt, Geol. Surv., Ann., v. 3, p. 87-107.
- Sabet, A. H., and Z'aatout, M. A., 1955, Geology of El-Shalul; El-Bakiya district "Barramiya west sheet": Egypt, Geol. Surv., Publ., 75 p.
- Sabry, A. M., and Abdel Rahman, M. M., 1972, A geophysical contribution to Bouger anomalies in El Arish (El Quosaima area) north Sinai, Egypt: Bull. Inst. Desert Egypte, v. 22, no. 1, p. 33-37.
- Sabry, H., and El Naggar, Z. R., 1968, Stratigraphy and classification of the type Esna group of Egypt, discussion and reply: Am. Assoc. Pet. Geol., Bull., v. 52, p. 1792-1798.
- Sabry, Y., and others, 1967, Geophysical investigations for ground water in Maghara area, northern Sinai: Egypt, Geol. Surv., Pap. no. 42, 14 p.
- Sadek, A., 1967, A new contribution to the Oligocene-Miocene stratigraphy of Egypt by means of Miogypsinids: Verh. Geol. Bundesanst., Wien., no. 3, p. 70.
- \_\_\_\_\_, 1969a, Some calcareous nannoplankton from Egypt: Afr. Micropaleontol. Colloq., 3rd, Cairo, Proc., p. 327-335.
- \_\_\_\_\_, 1969b, Contribution to the Miocene stratigraphy of Egypt by means of miogypsinids: Afr. Micropaleontol. Colloq., 3rd, Cairo, Proc., no. 3, p. 509-516.
- \_\_\_\_\_, 1971, Determination of the upper Paleocene-lower Eocene boundary by means of calcareous nannofossils: Rev. Espan. Micropaleontol., v. 3, no. 3, p. 277-282.
- \_\_\_\_\_, 1972, Nannofossils from the middle-upper Eocene strata of Egypt, in Refresher colloquium 1971 in the fields of stratigraphy and micropaleontology, final report: Austria, Geol. Bundesanst., Jahrb., Sonderb., no. 19, p. 107-127.
- \_\_\_\_\_, 1977, Early Paleozoic sediments of the Zagros-Taurus-ranges: Geol. Rundsch., v. 66, no. 1, p. 263-276.
- \_\_\_\_\_, 1978, Nannofossils and diatoms from some Pliocene sediments of the north Western Desert, Salum area, Egypt: Neues Jahrb. Geol. Palaeontol., Monatsh., no. 5, p. 307-313.
- Sadek, A., and Abdel Razik, T. M., 1970, Zonal stratigraphy of the lower Tertiary at Gabal Um El Huetat, Red Sea coast, by means of nannofossils: Arab. Pet. Congr., 7th, Kuwait, Pap. no. 7, 16 p.
- Sadek, A., Barakat, M. G., and Arafa, A. A., 1974, Planktonic foraminiferal zonation of early Upper Cretaceous in Mersa Matruh well no. 1, Western Desert, Egypt: Rev. Espan. Micropaleontol., v. 6, no. 1, p. 111-125.

- Sadek, A., Barakat, M. G., and Teleb, F. M., 1974, Planktonic foraminiferal zonation of Eocene section in Betty Well No. 1, Western Desert, Egypt: *Rev. Espan. Micropaleontol.*, v. 6, no. 1, p. 101-110.
- Sadek, A., and Farouk, T., 1973, Discoasters (calcareous nannoplankton) and biostratigraphy of the Eocene sediments in Egypt: *Rev. Espan. Micropaleontol.*, v. 5, no. 3, p. 307-328.
- Sadek, A., and Teleb, F., 1974, Eocene coccoliths from Egypt: *Rev. Espan. Micropaleontol.*, v. 6, no. 1, p. 7-24.
- \_\_\_\_\_, 1978a, Standard nannofossil zones of Egypt; Part I, Maestrichtian: *Rev. Espan. Micropaleontol.*, v. 10, no. 2, p. 205-210.
- \_\_\_\_\_, 1978b, Standard nannofossil zones of Egypt; Part II, Paleocene: *Rev. Espan. Micropaleontol.*, v. 10, no. 3, p. 443-452.
- Sadek, H., 1959, The Miocene in the Gulf of Suez region: Egypt, *Geol. Surv., Publ.*, 118 p.
- Sadek, M., 1953, Summary of prospecting in Wadi El Gemal area, Eastern Desert: Egypt, *Geol. Surv., Publ.*, 44 p.
- \_\_\_\_\_, 1956, Les recherches hydrogeologiques dans la Desert Occidental egyptien: *Colloque Geol. Appl. Proche-Orient*, Ankara, 1955, p. 232-242.
- \_\_\_\_\_, 1965, Local materials for drilling fluids and casing cementing in C.O.P.E. fields: Arab Pet. Congr., 5th, Cairo, v. 2, 11 p.
- Safwat, H., Mandil, M., and Farag, A. A. O., 1961a, Concentration of sodium carbonate from natrun by flotation, pt. 1 -- Flotation reagents: Egypt. J. Chem., v. 4, no. 1, p. 71-82.
- \_\_\_\_\_, 1961b, Concentration of sodium carbonate from natrun, pt. 2 -- Effect of operating conditions: Egypt. J. Chem., v. 4, no. 1, p. 83-90.
- Saggerson, E. P., and Turner, L. M., 1972, Some evidence from the evolution of regional metamorphism in Africa: *Int. Geol. Congr.*, 24th, Montreal, Canada, sec. 1, p. 153-161.
- Said, R., 1954, Remarks on the geomorphology of the area east of Helwan, Egypt: *Soc. Geogr. Egypte, Bull.*, t. 27, p. 93-103.
- \_\_\_\_\_, 1955, Foraminifera from some "Pliocene" rocks of Egypt: *Wash. Acad. Sci., J.*, v. 45, no. 1, p. 8-13.
- \_\_\_\_\_, 1957, Review of Egyptian geology; pt. 1, Historical geology, paleontology, tectonics, geomorphology and Pleistocene geology: *Egypt. Rev. Sci.*, v. 1, p. 1-50.
- \_\_\_\_\_, 1958, Remarks on the geomorphology of the deltaic coastal plain between Rosetta and Port Said: *Soc. Geogr. Egypte, Bull.*, t. 31, p. 115-125.
- \_\_\_\_\_, 1960a, Bibliography on Sinai: Sinai Volume, Sci. Council, Cairo, p. 386-416.
- \_\_\_\_\_, 1960b, New light on the origin of the Qattara depression: *Soc. Geogr. Egypte, Bull.*, t. 33, p. 37-44.
- \_\_\_\_\_, 1960c, Planktonic Foraminifera from the Thebes Formation, Luxor, Egypt: *Micropaleontology*, v. 6, no. 3, p. 277-286.
- \_\_\_\_\_, 1961a, Verneuilina pharaonica new name of V. minuta Said and Barakat, preoccupied: *Cushman Found. Foraminiferal Res., Contrib.*, v. 12, pt. 4, p. 148.
- \_\_\_\_\_, 1961b, Tectonic framework of Egypt and its influence on distribution of Foraminifera: *Am. Assoc. Pet. Geol., Bull.*, v. 45, no. 2, p. 198-218.
- \_\_\_\_\_, 1962a, The geology of Egypt: Amsterdam-New York, Elsevier Publ. Co., 377 p.



- Said, R., 1962b, News report, Egypt: Micropaleontology, v. 8, no. 3, p. 410-411.
- \_\_\_\_\_, 1962c, Das Miozan in der Westlichen Wüste Agyptens: Geol. Jahrb., v. 80, p. 349-366.
- \_\_\_\_\_, 1963a, Note on the biostratigraphy of the middle and upper Eocene sections in Egypt: Rev. Inst. Fr. Pet., v. 18, no. 10-11, p. 1500-1503.
- \_\_\_\_\_, 1963b, structural setting of Gulf of Suez, Egypt: World Pet. Congr., 6th, Frankfurt am Main, Proc., p. 201-204.
- \_\_\_\_\_, 1964a, Trip to Gulf of Suez, in Guidebook to the geology and archaeology of Egypt: Pet. Explor. Soc. Libya, 6th Ann. Field Conf., p. 141-148.
- \_\_\_\_\_, 1964b, Field trip to Luxor, in Guidebook to the geology and archaeology of Egypt: Pet. Explor. Soc. Libya, 6th Ann. Field Conf., p. 177-178.
- \_\_\_\_\_, 1964c, Egitto: Enciclopedia del petrolio del Gas Naturale; C. Colomori, Ed., Roma, v. 4, p. 7-76.
- \_\_\_\_\_, 1969a, The Pleistocene geology of Dungul region, southern Libyan Desert, Egypt: Utah, Univ., Anthrop. Pap. no. 92, Nubia series no. 4, p. 7-18.
- \_\_\_\_\_, 1969b, General stratigraphy of the adjacent land areas of the Red Sea, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, Berlin, p. 71-81.
- \_\_\_\_\_, 1971a, The Geological Survey of Egypt (1896-1971); history and organization: Egypt, Geol. Surv., Pap. no. 55, 26 p.
- \_\_\_\_\_, 1971b, Explanatory notes to accompany the geological map of Egypt: Egypt, Geol. Surv., Pap. no. 56, 123 p.
- \_\_\_\_\_, 1971c, Decouverte d'un nouveau et important gisement de phosphate dans le plateau d'Abu Tartur, Desert Occidental Egypte [Discovery of a new large phosphate deposit in Abu Tartur Plateau, Western Desert, Egypt]: Fr. Bur. Rech. Geol. Minieres, Bull. (Ser 2), sect. 2, no. 6, p. 137-145.
- \_\_\_\_\_, 1973, Proceedings of the International meetings held on the occasion of the 75th anniversary of the Geological Survey of Egypt; some recent contributions of the Geological Survey of Egypt in the fields of geological mapping and mineral exploration activities: Egypt, Geol. Surv., Ann., v. 3, 257 p.
- \_\_\_\_\_, 1974a, Essays on African paleontology: Egypt, Geol. Surv., Ann., v. 4, 432 p.
- \_\_\_\_\_, 1975a, Some observations on the geomorphological evolution of the south Western Desert of Egypt and its relation to the origin of ground water: Egypt, Geol. Surv., Ann., v. 5, p. 61-70.
- \_\_\_\_\_, 1975b, The geological evolution of the River Nile, in Problems in prehistory; North Africa and the Levant (Wendorf, F., and others, eds.): South. Methodist Univ. Press, Dallas, Texas, p. 7-44.
- \_\_\_\_\_, 1975c, One hundred years of geological research in Egyptian deserts: Egypt, Geol. Surv., Ann., v. 5, 147 p.

- Said, R., and Andrawis, S. F., 1961, Lower Carboniferous microfossils from the subsurface rocks of the Western Desert of Egypt: Cushman Found. Foraminiferal Res., Contrib., v. 12, pt. 1, p. 22-25.
- Said, R., Attia, A. A., and Mansour, A. O., 1971, Introducing the new 1:250,000 geological map of Egypt, in Symposium on the geology of Libya: Fac. Sci., Univ. Libya, Tripoli, p. 141-145.
- Said, R., and Barakat, M. G., 1957a, Lower Cretaceous Foraminifera from Khashm el Mistan, northern Sinai, Egypt: Micropaleontology, v. 3, no. 1, p. 39-45.
- \_\_\_\_\_, 1957b, Cenomanian Foraminifera from Gebel Asagil, northern Sinai, Egypt: Egypt. J. Geol., v. 1, no. 1, p. 65-84.
- \_\_\_\_\_, 1958, Jurassic microfossils from Gebel Maghara, Sinai, Egypt: Micropaleontology, v. 4, no. 3, p. 231-272.
- Said, R., and Bassiouni, M. A., 1958a, Miocene Foraminifera of Gulf of Suez region, Egypt: Am. Assoc. Pet. Geol., Bull., v. 42, no. 8, p. 1958-1977.
- \_\_\_\_\_, 1958b, Calabrian microfossils from Kom El Shellul, Giza: Egypt. J. Geol., v. 2, no. 2, p. 147-179.
- Said, R., and Beheiri, S., 1962, Quantitative geomorphology of the area to the east of Cairo: Soc. Geogr. Egypte, Bull., t. 34, p. 125-149.
- Said, R., and Eissa, R. A., 1969, Some microfossils from upper Paleozoic rocks of western coastal plan of Gulf of Suez region, Egypt [with discussion]: Afr. Micropaleontol. Colloq., 3rd, Cairo, Proc., p. 337-383.
- \_\_\_\_\_, 1970, Microfacies studies for some upper Paleozoic rocks from the western side of the Gulf of Suez region, Egypt: Afr. Micropaleont. Colloq., 4th, Abidjan, Proc., p. 327-356.
- Said, R., and El Heiny, I., 1967, Planktonic Foraminifera from the Miocene rocks of the Gulf of Suez region: Cushman Found. Foraminiferal Res., Contrib., v. 18, pt. 1, p. 14-26.
- Said, R., and Issawi, B., 1964, Geology of northern Plateau, Bahariya Oasis, Egypt: Egypt, Geol. Surv., Pap. no. 29, 41 p.
- \_\_\_\_\_, 1965, Preliminary results of a geological expedition to lower Nubia and to Kurkur and Dungas Oases, Egypt, in The prehistory of Nubia, F. Wendorf, ed.: South. Methodist Univ. Press, Dallas, Texas, p. 1-28.
- Said, R., and Kamel, T., 1956, Recent littoral Foraminifera from the Egyptian Mediterranean coast between Rosetta and Saloum: Inst. Egypte, Bull., t. 37, f. 2, p. 341-369.
- \_\_\_\_\_, 1957, The distribution of Foraminifera in the Egyptian Mediterranean coast: Egypt. J. Geol., v. 1, no. 2, p. 143-157.
- Said, R., and Kenawy, A., 1956, Upper Cretaceous and lower Tertiary foraminifera from northern Sinai, Egypt: Micropaleontology, v. 2, p. 105-159.
- \_\_\_\_\_, 1957, Foraminifera from the Turonian rocks of the Abu-Roash, Egypt: Cushman Found. Foraminiferal Res., Contrib., v. 8, pt. 2, p. 77-86.
- Said, R., and Kerdany, M. T., 1961, The geology and micropaleontology of the Farafra Oasis, Egypt: Micropaleontology, v. 7, no. 3, p. 317-336.
- Said, R., and Mansour, A. O., ed., 1971, The discovery of a new Kaolin deposit in Wadi Kalabsha, Nubia, Egypt: Egypt, Geol. Surv., Pap. no. 54, 138 p.

- Said, R., and Martin, L., 1964, Cairo area geological excursions notes, in Guidebook to the geology and archaeology of Egypt: Pet. Explor. Soc. Libya, 6th Ann. Field Conf., p. 107-121.
- Said, R., and Metwalli, H., 1963, Foraminifera of some Miocene sediments of the Cairo-Suez district: Egypt. J. Geol., v. 7, no. 1, p. 29-63.
- Said, R., and others, 1969, Proceedings of the Third African Micropaleontological Colloquium, Cairo, March 4-10, 1968: Afr. Micropaleontol. Colloq., 3rd, Cairo, Proc., 621 p.
- \_\_\_\_\_, 1970, Remarks on the Holocene geology and archeology of northern Fayum Desert: Arch. Polona, v. 13, 22 p.
- \_\_\_\_\_, 1971, The basement complex of Egypt: Egypt, Geol. Surv., Ann., v. 2, 280 p.
- \_\_\_\_\_, 1972, A preliminary report on the Holocene geology and archaeology of the northern Fayum Desert, in Playa Lake Symposium: Int. Cent. Arid Semi-Arid Land Stud., Publ., no. 4, p. 41-61.
- \_\_\_\_\_, 1975, Bibliography of geology and related sciences concerning Egypt for the period 1960-1973: Egypt, Geol. Surv., Publ., 192 p.
- Said, R., Philip, G., and Shukri, N. M., 1956, Post Tertiary climatic fluctuations in northern Egypt: Quaternaria, v. 3, p. 167-172.
- Said, R., and Sabry, H., 1964, Planktonic Foraminifera from the type locality of the Esna shale in Egypt: Micropaleontology, v. 10, no. 3, p. 375-395.
- Said, R., and Shukri, N. M., 1955, Ancient shore-lines of Egypt; part 1, The Paleozoic: Soc. Geogr. Egypte, Bull., t. 28, p. 41-49.
- Said, R., Wendorf, F., and Schild, R., 1970a, The geology and prehistory of the Nile Valley in Upper Egypt: Arch. Polona, v. 12, p. 43-60.
- \_\_\_\_\_, 1970b, New concepts in Egyptian prehistory: Science (AAAS), v. 169, p. 1161-1171.
- Said, R., and Yoursi, F. F., 1963, Origin and Pleistocene history of River Nile near Cairo, Egypt: Inst. Egypte, Bull., v. 45, p. 1-30.
- Said, R., and Zaki, S., 1967, The distribution of the Miocene rock unit of the East Balayim oil field east coast Gulf of Suez, U.A.R.: Arab Pet. Congr., 6th, Baghdad, 12 p.
- Saleeb, G. S., 1962, On the application of geostatistics to the stratiform ore deposits: Egypt. J. Geol., v. 6, p. 121-131.
- \_\_\_\_\_, 1968, A geostatistical study of iron ores of Dabbah, Eastern Desert: Egypt. J. Geol., v. 12, p. 33-41.
- \_\_\_\_\_, 1972, The role of metasomatism in the genesis of Abu Khurug, nepheline-syenite, Eastern Desert: Egypt. J. Geol., v. 16, no. 1, p. 19-34.
- Saleeb, G. S., and El Baz, M. H., 1969, On the microfluorescence study of phosphate rocks at Hamrawein, Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 847-855.
- \_\_\_\_\_, 1973, Lithostratigraphic and genetic studies on the Duwi Formation at Hamrawein, Younis and El Gihania, Red Sea coast: Egypt Acad. Sci., Proc., v. 24, p. 109-121.
- Saleeb, G. S., and Fafous, B. R. B., 1970, A note on gold-bearing quartz-wolframite vein at Atud, Eastern Desert: J. Geol. U.A.R., v. 14, no. 1, p. 47-51.
- Saleeb, G. S., and Samuel, M. D., 1975, Iron-lead-zinc sulphide mineralization and related native sulphur in Miocene sediments at Ranga, Red Sea Coast, Egypt: Neues Jahrb. Geol. Palaeontol., Monatsh., no. 11, p. 682-692.

- Saleh, S. A., 1964, A contribution to the study of the Carboniferous and Jurassic coal deposits in Sinai peninsula, Egypt, U.A.R.: Bull. Fac. Eng., Cairo Univ., p. 283-306.
- Salem, M., 1965, Formation waters of the Bakr-Gharib-Kareem area: Arab Pet. Congr., 5th, Cairo, v. 2, 13 p.
- Salem, R., 1976, Evolution of Eocene-Miocene sedimentation patterns in parts of northern Egypt: Am. Assoc. Pet. Geol., Bull., v. 60, no. 1, p. 34-64.
- Salomon Calvi, W., 1939, Anadolu ve Misir su vaziyetlerinin mukayesesi -- Die Wasserhaltnisse Aegyptens verglichen mit denen Anatoliens: Maden Tetkik Arama, Enst. (Min. Res. Explor. Inst. Turk.), Bull. (Foreign Ed.), sene 4, sayi 2, p. 37-68.
- Samuel, M. D., and others, 1977, Lithostratigraphy and petrographical analysis of the Neogene sediments at Abu Ghusun; Um Mahara area, Red Sea coast, Egypt, in Beitrage zur Lithologie: Freiberg. Forschungsh., Reihe C, no. 323, p. 47-56.
- Sanford, K. S., 1933, Geology and geomorphology of the southern Libyan Desert: Geog. J. (London), v. 82, no. 3, p. 213-219.
- \_\_\_\_\_, 1934, Paleolithic man and the Nile Valley in upper and middle Egypt; a study of the region during Pliocene and Pleistocene times: Chicago, Univ., Oriental Inst. Publ., v. 18, xiii, 131 p.
- Sass, E., Weiler, Y., and Katz, A., 1972, Recent sedimentation and oolitic formation in Ras Matarma, Gulf of Suez, in The Mediterranean Sea; a natural sedimentation laboratory: Int. Sediment. Congr., 8th, Heidelberg, p. 279-292.
- Saxby, J. D., 1972, Organic matter in Red Sea sediments: Chem. Geol., v. 9, no. 4, p. 234-240.
- Sayyah, T. A., and El Shatoury, H. M., 1974, Some geochemical features of Wadi Natash volcanics, Eastern Desert: Egypt. J. Geol., v. 17, no. 1, p. 85-95.
- Sayyah, T. A., and others, 1974, Contribution to the geochemistry of some pink granites, central Eastern Desert: Egypt. J. Geol., v. 17, no. 1, p. 57-69.
- Scamp, H., 1951, Das Hochgebirge des sudlichen Sinai und die Frage nach seiner diluviale Vereisung: Die Erde, 1951/52, H. 1, p. 18-25.
- \_\_\_\_\_, 1953, Die Sinai-Halbinsel: Erdkunde, B. 7, p. 232-235.
- Schattner, I., 1961, Weathering phenomena in the light of current notions: Res. Council Isr., Bull., sec. G, v. 10, no. 1-4, p. 247-266.
- Scheer, G., 1971, Coral reefs and coral genera in the Red Sea and Indian Ocean with discussion, in Regional variation in Indian Ocean coral reefs: Zool. Soc. Lond., Symp., no. 28, p. 329-367.
- Schellmann, G. A., 1959, Formation of sulfur by reduction of anhydrite at Ras Gamsa, Egypt: Econ. Geol., v. 54, no. 5, p. 889-894.
- Scheunch, J., 1973, Measurements of heat flow in the Red Sea between 19° and 26° north latitude, the region of the brines deeps: Z. Geophys., v. 39, no. 5, p. 859-862.
- Schild, R., and Wendorf, F., 1975, New explorations in the Egyptian Sahara, in Problems in prehistory; North Africa and the Levant (Wendorf, F., and others, eds.): South. Methodist Univ. Press, Dallas, Texas, p. 65-112.
- \_\_\_\_\_, 1976a, Quaternary stratigraphy and archaeology of the El-Kilh area, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N.Y., p. 47-91.



- Schild, R., and Wendorf, F., 1976b, Survey of the West Bank from the Valley of the Kings to Gebel El-Dugm, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N.Y., p. 95-107.
- \_\_\_\_\_, 1976c, Quaternary geology and archaeology of the Makhadma area, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N. Y., p. 113-119.
- \_\_\_\_\_, 1976d, Pleistocene stratigraphy and archaeology of the Dishna area, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N. Y., p. 121-149.
- \_\_\_\_\_, 1976e, Archaeology and Pleistocene stratigraphy of the northern Fayum Depression, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N. Y., p. 155-226.
- \_\_\_\_\_, 1976f, Synthesis; the older Nilotic deposits, in Prehistory of the Nile Valley (Wendorf, F., and others, eds.): Academic Press, New York, N. Y., p. 229-319.
- Schild, R., Wendorf, F., and Issawi, B., 1976a, Appendix K; Wear patterns on some lithic artifacts from Isnan sites, in Prehistory of the Nile Valley: Academic Press, New York, N. Y., p. 389-391.
- \_\_\_\_\_, 1976b, Quaternary stratigraphy and archaeology of the El-Kiln area, in Prehistory of the Nile Valley: Academic Press, New York, N. Y., p. 27-41.
- Schling, J. G., 1969, Red Sea floor origin, a rare earth evidence: Science (AAAS), v. 165, p. 1357-1360.
- Schmidt, W. J., 1960, Gipsfossilien von der Westkuste des Golfes von Suez: Palaeontol. Z., Bd. 34, no. 2, p. 202-205.
- Schneider, W., and Wachendorf, H., 1973, Volcanism and graben-building in the Red Sea: Geol. Rundsch., v. 62, no. 3, p. 754-773.
- Schoell, M., and Hartman, M., 1973, Detailed temperature structure of the hot brines in the Atlantis II Deep area (Red Sea): Mar. Geol., v. 14, no. 1, p. 1-14.
- Schoell, M., and Stahl, W., 1972, The carbon isotopic composition and the concentration of the dissolved inorganic carbon in the Atlantis II Deep brine, Red Sea: Earth. Planet. Sci. Lett., v. 15, no. 2, p. 206-211.
- Schoo, J., 1934, Romeinsche aardoliewinning aan de golf van Suez: Ned. Aardrijksk. Gen. Amsterdam, Tijds., r. q, dl. 51, no. 6, p. 883-888.
- Schroll, E., 1969, Exkursion in die Wueste Aegyptens [Excursion to the Egyptian Desert] [Summ]: Tschermaks Mineral. Petrogr. Mitt., Bull., v. 13, no. 3-4, p. 308-310.
- Schult, A., Soffel, H., and Hussain, A. G., 1978, Palaeomagnetism of Cretaceous Nubian Sandstone, Egypt: J. Geophys., v. 44, no. 4, p. 333-340.
- Schurmann, H. M. E., 1937a, Eruptivesteine des Wadi Set im ostlichen Zeitia-Stock, ostliche Arabische Wuste: Zentralb. Mineral., Geol. Palaeontol., Abt. A, no. 1, p. 13-29.
- \_\_\_\_\_, 1937b, Massengesteine aus Aegypten; Erster Teil: Neues Jahrb. Mineral., Geol., Palaeontol., Bd. 72, Abt. A, H. 3, p. 441-463.
- \_\_\_\_\_, 1940, Massengesteine aus Aegypten; Dritter Teil, Das alte Konglomerat aus dem Wadi, Dib, Esh-Melaha-Kette, ostliche arabische Wuste: Neues Jahrb. Mineral., Geol., Palaeontol., Bd. 75, Abt. A, H. 3, p. 351-390.

- Schurmann, H. M. E., 1941, Maggengesteine aus Agypten; funfter Teil, Die jung-algonkischen granitischen und dioritischen Gesteine aus dem Hochgebirge zwoscjem Gebel Dokhan und Safaga und ihre Kontaktgesteine: Neues Jahrb. Mineral., Geol., Palaeontol., Bd. 11, H. 4, p. 231-236.
- 1942a, Massengesteine aus Agypten; sechster Teil, Beitrag zur Kenntnis der prakambrischen Hammamat-Serie, ihrer Eruptivesteine und der in ihnen auftretenden jungeren Massengesteine in der Esh Melaha-Kette: Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Bd. 77, Abt. A, p. 78-173.
- 1942b, Massengesteine aus Agypten; siebter Teil, Die chemische Zusammensetzung der alten Porphyre und Porphyrite der Hammamatserie: Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Bd. 77, Abt. A, p. 337-382.
- 1943a, Massengesteine aus Agypten; achter Teil, Das Grundgebirge des nordlichen Teiles der ostlichen Arabischen Wuste Agyptens: Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Abt. A, Bd. 78, p. 1-88.
- 1943b, Massengesteine aus Agypten; neunter Teil; Die granitischen Prahamamat-Massengesteine der nordlichen Etabai: Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Abt. A, Bd. 78, p. 381-439.
- 1943c, Das Grundgebirge des nordlichen Teils der ostlichen arabischen Wuste Agyptens: Geol. Rundsch., Bd. 33, H. 4-6, p. 364-399.
- 1943d, Mons Claudianus: Geol. Rundsch., Bd. 33, H. 4-6, p. 400-402.
- 1944, Le precambrien de la partie nord du desert arabique oriental de l'Egypte: Soc. Geol. Fr., Bull., s. 5, t. 12, f. 7-9, p. 377-414.
- 1945a, Massengesteine aus Agypten; zehnter Teil, Bemerkungen uber das Grundgebirge des Nubische-Arabischen Schildes: Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Abt. A, Bd. 79, H. 2, p. 258-272.
- 1945b, Massengesteine aus Agypten; elfter Teil, Die chemische Zusammensetzung der Porphyre und Porphyrite der Prahamamatserie: Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Abt. A, Bd. 79, H. 2, p. 273-294.
- 1948, Massengesteine aus Agypten; zwolfter Teil, Die Radioaktivitat einiger Gesteinsproben: Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Abt. A, Bd. 79, H. 3, p. 471-476.
- 1949a, The basement rocks of the northern part of the eastern desert of Egypt: Soc. Geogr. Egypte, Bull., t. 23, f. 1-2, p. 35-61.
- 1949b, Massengesteine aus Agypten; dreizehnter Teil, Die Posthamamat-Plutone und ihre Ganggesteine zwischen 28°25' nordlicher Breite im Hochgebirge: Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Abt. A, Bd. 80, H. 2, p. 263-296.
- 1950a, Les roches cristallines precambriennes de la region du Golfe de Suez: Geol. Mijnbouw, jg. 12, no. 7, p. 205-207.
- 1950b, Massengesteine aus Agypten; vierzehnter Teil, Das Prakambrium in nordlichen Teil der ostlichen Arabischen Wuste (27°40' und 28° nordlicher Breite) und im westlichen Sinai und seine magmatischen Intrusionen: Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Abt. A, Bd. 81, H. 2, p. 201-272.
- 1952, Massengesteine aus Agypten; funfzehnter Teil, Untersuchungen des alteren und jungeren Prakambriums im nordlichen Teil der ostlichen arabischen Wuste (27°30'): Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Bd. 84, H. 1, p. 93-146.

- Schurmann, H. M. E., 1953, The Precambrian of the Gulf of Suez area [with discussion]: Int. Geol. Congr., 19th, Algeria, C.R., sec. 1, f. 1, p. 115-135.
- \_\_\_\_\_, 1954, Massengesteine aus Agypten; sechzehnter Teil, Untersuchungen des alteren und jungeren Prakambriums in Gebiete des G. Um Tenasib, G. Samar el Abd, G. Mongul und G. Abu Marwa in der ostlichen Wuste: Neues Jahrb. Mineral., Abh., Bd. 86, H. 2, p. 211-274.
- \_\_\_\_\_, 1955, The Precambrian history of the Gulf of Suez area: Soc. Geogr. Egypte, Bull., t. 28, p. 35-39.
- \_\_\_\_\_, 1956a, Prakambrium der arabischen Wuste Agyptens: Geol. Rundsch., Bd. 45, H. 2, p. 179-193.
- \_\_\_\_\_, 1956b, Massengesteine aus Agypten; Siebzehnter Teil, Ergänzende Untersuchungen im Prakambrium der ostlichen Wuste: Neues Jahrb. Mineral., Abh., Bd. 89, H. 3, p. 367-395.
- \_\_\_\_\_, 1958, Massengesteine aus Agypten; achtzehnter Teil, Die Prakambri-schen Gneise und Schiefer im nordlichen Teil der ostlichen Wuste: Neues Jahrb. Geol. Palaeontol., Abh., Bd. 107, H. 1, p. 103-136.
- \_\_\_\_\_, 1959, Massengesteine aus Agypten; neunzehnter Teil, Prakambrische Kristalline Schiefer und Gneise der ostlichen Wuste zwischen 28°30' nordl. Breite: Neues Jahrb. Geol. Palaeontol., Abh., Bd. 108, H. 2, p. 127-249.
- \_\_\_\_\_, 1961a, The Riphean of the Red Sea area: Geol. Foeren. Stockh., Foerh., v. 83, no. 2, p. 109-128.
- \_\_\_\_\_, 1961b, Massengesteine aus Agypten (Igneous rocks from Egypt); volumes 1-20: Neues Jahrb. Geol. Mineral. Abh., v. 113, no. 2, p. 111-152.
- \_\_\_\_\_, 1964, Rejuvenation of Precambrian rocks under epirogenetical conditions during old Paleozoic times in Africa: Geol. Mijnbouw, v. 43, no. 5, p. 196-200.
- \_\_\_\_\_, 1966, The Precambrian along the Gulf of Suez and the northern part of the Red Sea: Leiden, E. Z. Brill, 404 p.
- \_\_\_\_\_, 1971a, Gulf of Suez and northern Red Sea: UNESCO, Earth Sci. Ser., no. 6, p. 417-422.
- \_\_\_\_\_, 1971b, Western Desert: UNESCO, Earth Sci. Ser., no. 6, p. 423-427.
- \_\_\_\_\_, 1974, The Precambrian in North Africa: Leiden, E. Z. Brill, 351 p.
- Schurmann, H. M. E., Burger, D., and Dijkstra, S. J., 1963, Permian near Wadi Araba, eastern Desert of Egypt: Geol. Mijnbouw, v. 42 no. 10, p. 329-336.
- Schurmann, H. M. E., and others, 1960, Fourth preliminary note on age determination of magmatic rocks by means of radioactivity: Geol. Mijnbouw, v. 39, p. 93-104.
- Schwager, C., 1970, Fossile Foraminiferen von Kar Nikobar -- Die Foraminiferen aus den Eocaenablagerungen der Libyschen Wueste und Aegyptens [Fossil Foraminifera of Car Nicoban -- Foraminifera from the Eocene deposits of the Libyan desert and Egypt]: Antiquariaat Junk, 185 p.
- Schwegler, E., 1948a, Die Boden nordostafrikanischer Wusten und Halbwusten: Neues Jahrb. Mineral., Geol., Palaeontol., Abh., Abt. B., Bd. 89, H. 3, p. 349-406.

- Schwegler, E., 1948b, Vorgänge subaerischer Diagenese in Kustendunensanden des agyptischen Mittelmeer-Gibietes: Neues Jahrb. Mineral., Geol., Palaeontol., Monatsh., Abt. B, Jg. 1945-48, H. 1-4, p. 9-16.
- \_\_\_\_\_, 1948c, Mitteilung einiger neuen Beobachtungen am Miocanprofil bei der Oase des Jupiter Ammon in der Libyschen Wüste: Neues Jahrb. Mineral., Geol., Palaeontol., Monatsh., Abt. B, Jg. 1945-48, H. 5-8, p. 233-236.
- Searle, R., and others, 1972, Local earthquakes observed at Addis Ababa, Ethiopian Rift Valley, in East African rifts: Elsevier Publ. Co., p. 41-52.
- Seeger, P., 1968, Weathering of building and monumental stones: Naturhist. Ges. Hanover, Ber. Beih, no. 5, p. 35-57.
- Selim, A. A., 1974, Origin and lithification of the Pleistocene carbonates of the Salum area, western coastal plains of Egypt: J. Sediment. Petrol., v. 44, no. 1, p. 70-78.
- Sestini, J., 1965, Cenozoic stratigraphy and depositional history, Red Sea coast, Sudan: Am. Assoc. Pet. Geol., Bull., v. 49, no. 9, p. 1453-1472.
- Seward, A. C., 1935, Leaves of dicotyledons from the Nubian sandstone of Egypt: Egypt, Geol. Surv., Publ., 21 p.
- Shafik, S., and Stradner, H., 1971, Nannofossils from the Eastern Desert, Egypt with reference to maestrichtian nannofossils from the USSR: Austria, Geol. Bundesanst, Jahrb. Sonderb., no. 17, p. 69-104.
- Shalaby, I., 1974a, Copper-nickel mineralization at Gabbro Akarem: Egypt, Geol. Surv., Pap. no. 61, p. 37-40.
- \_\_\_\_\_, 1974b, Molybdenum mineralization at Homr Akarem: Egypt, Geol. Surv., Pap. no. 61, p. 41-45.
- Shamah, K., and Blondeau, A., 1976, Presence de Nummulites somaliensis dans l'Eocene moyen d'Egypte [Presence of Nummulites somaliensis in the middle Eocene of Egypt]: Soc. Geol. Fr., Bull., v. 18, no. 3, Supplement 3, p. 102-104.
- Sharaf El Din, S. H., 1974, Longshore sand transport in the surf zone along the Mediterranean Egyptian coast: Limnol. Oceanogr., v. 19, no. 2, p. 182-189.
- Shata, A., 1951, The Jurassic of Egypt: Inst. Fouad 1<sup>er</sup> du Desert, Bull., t. 1, no. 2, p. 68-73.
- \_\_\_\_\_, 1953a, New light on the structural developments of the Western Desert of Egypt: Bull. Inst. Desert Egypte, t. 3, no. 1, p. 101-106.
- \_\_\_\_\_, 1953b, An account of the geology of El Hemeimat; area lying between the Qattara and the Sewa depressions, Western Desert: Bull. Inst. Desert Egypte, t. 3, no. 2, p. 108-113.
- \_\_\_\_\_, 1955a, Geomorphological aspects of the west Sinai foreshore province: Bull. Inst. Desert Egypte, t. 5, no. 1, p. 137-145.
- \_\_\_\_\_, 1955b, Some remarks on the distribution of the Carboniferous formations in Egypt: Bull. Inst. Desert Egypte, t. 5, no. 1, p. 241-247.
- \_\_\_\_\_, 1955c, An introductory note on the geology of the northern portion of the Western Desert of Egypt: Bull. Inst. Desert Egypte, t. 5, no. 2, p. 96-102.
- \_\_\_\_\_, 1956a, Structural development of the Sinai peninsula, Egypt: Bull. Inst. Desert Egypte, t. 6, no. 2, p. 117-157.
- \_\_\_\_\_, 1956b, The general geology of the Sinai peninsula and its relationship to petroleum occurrences [with discussion]: Colloque Geol. Appl. Proche-Orient, Ankara, 1955, p. 153-164.



- Shata, A., 1956c, Oil possibilities of the west Sinai foreshore province: Inst. Egypte, Bull., t. 37, f. 2, p. 305-325.
- \_\_\_\_\_, 1956d, Note on the distribution of the Triassic formations in Egypt: Inst. Egypte, Bull., t. 37, f. 2, p. 335-338.
- \_\_\_\_\_, 1957a, Remarks on the physiography of El Amiria-Maryut area (Western Desert Mediterranean littoral, Egypt): Soc. Geogr. Egypte, Bull., t. 30, p. 53-74.
- \_\_\_\_\_, 1957b, Geology and geomorphology of the Wadi El Kharruba area (Western Desert, Mediterranean littoral, Matruh district, Egypt): Bull. Inst. Desert Egypte, no. 10, p. 91-120.
- \_\_\_\_\_, 1959a, Structural development of the Sinai peninsula (Egypt): Int. Geol. Congr., 20th, Mexico, Assoc. Serv. Geol. Africanos, Actas y Tr., p. 225-249.
- \_\_\_\_\_, 1959b, New light on the Cretaceous formations of the Sinai peninsula, Egypt [with discussion]: Int. Geol. Congr., 20th, El Sistema Cretacico, Sympt. t. 2, p. 7-32.
- \_\_\_\_\_, 1959c, Ground water and geomorphogeny of the northern sector of Wadi El Arish basin: Soc. Geogr. Egypte, Bull., t. 32, p. 217-245.
- \_\_\_\_\_, 1959d, Geological problems related to the ground water supply of some desert areas of Egypt: Soc. Geogr. Egypte, Bull., t. 32, p. 247-262.
- \_\_\_\_\_, 1960a, Rock exposures and their bearing on the soil formation of some desert areas of Egypt (U.A.R.): Bull. Inst. Desert Egypte, no. 12, p. 71-81.
- \_\_\_\_\_, 1960b, The geology and geomorphology of El Qusaima area (northeast Sinai, Egypt, U.A.R.): Soc. Geogr. Egypte, Bull., t. 33, p. 95-145.
- \_\_\_\_\_, 1962a, Remarks on the geomorphology, pedology and ground-water potentialities of the southern entrance to the New Valley, part 1 -- The lower Nubia area, Egypt, U.A.R.: Soc. Geogr. Egypte, Bull., v. 35, p. 273-299.
- \_\_\_\_\_, 1962b, Remarks on the regional geologic structure of the ground water reservoirs at El Kharga and El Dakhla Oases (Western Desert, Egypt, U.A.R.): Soc. Geogr. Egypte, Bull., t. 34, p. 151-165.
- \_\_\_\_\_, 1966, Evaluation of the Nubian sandstone aquifer in the area including U.A.R., Libya and Sudan: Arab Sci. Congr., 5th, Baghdad, pt. w, p. 409-412.
- \_\_\_\_\_, 1971a, A new light on the ground-water potentials of the Nubia sandstone aquifer in northeast Africa, in C. Gray, ed., Symp. Geol. Libya: Fac. Sci., Univ. Libya, p. 483-486.
- \_\_\_\_\_, 1971b, The geomorphology, pedology and hydrogeology of the Mediterranean Coastal Desert of U.A.R., in Symposium on the geology of Libya: Fac. Sci., Univ. Libya, p. 431-466.
- \_\_\_\_\_, 1973, The pink psuedo-oolitic limestone; a post-Miocene rock unit in the Mediterranean coastal zone west of the Nile Delta: Egypt. J. Geol., v. 16, no. 1, p. 1-18.
- Shata, A., and El Fayoumy, I., 1967, Geomorphological and morphological aspects of the region west of the Nile Delta with special reference to Wadi El Natrun area: Bull. Inst. Desert Egypte, v. 17, no. 1, p. 1-28.
- \_\_\_\_\_, 1970a, Remarks on the hydrogeology of the Nile Delta, U.A.R., in Hydrology of Deltas: Int. Assoc. Sci. Hydrol.-UNESCO, Stud. Rept. Hydrol., v. 2, no. 9, p. 385-396.

- Shata, A., and El Fayoumy, I., 1970b, Remarks on the regional geological structure of the Nile Delta, in Hydrology of deltas -- Hydrologie des deltas, v. 1: Int. Assoc. Sci. Hydrol. - UNESCO, Stud. Rep. Hydrol., no. 9, p. 189-197.
- Shata, A., and others, 1962, The geology, age and origin of the ground-water supplies in some desert areas of the U.A.R.: Bull. Inst. Desert Egypte, v. 12, no. 2, p. 61-124.
- Shawa, M. S., 1969, Nubian sandstone; discussion: Am. Assoc. Pet. Geol., Bull., v. 53, no. 1, p. 182.
- Shawarbi, M. Y., 1962, The evolution of Solodi soils in the Mediterranean zone of the Nile Delta: Bull. Fac. Agr., Cairo Univ., no. 226, p. 3-14.
- Shawki Moustafa, Y., 1963, On some Pleistocene human remains from the Kharga Oasis: Proc. Zool Soc. U.A.R., v. 1, p. 219-222.
- \_\_\_\_\_, 1964, The domesticated animals of the Sckhem-Khet Step-Pyramid: Ann. Serv. Antiq. Egypte, v. 58, p. 255-265.
- \_\_\_\_\_, 1973, New geological map of Egypt, review: Egypt, Geol. Surv., Ann., v. 3, p. 249-257.
- Shimron, A. E., 1975, Petrogenesis of the Tarr albitite-carbonatite complex, Sinai Peninsula: Mineral. Mag., v. 40, no. 309, p. 13-24.
- Shimron, A. E., and Brookins, D. G., 1974, Rb-Sr radiometric age of late Precambrian fossil-bearing and associated rocks from Sinai: Earth Planet. Sci. Lett., v. 24, no. 1, p. 136-140.
- Shimron, A. E., and others, 1974, Origin of the intrusive carbonate rocks between the Gulf of Elat and Gulf of Suez rifts: Isr. J. Earth Sci., v. 22, no. 4, p. 243-254.
- Shimron, A. E., and Zwart, H. J., 1970, The occurrence of low pressure metamorphism in the Precambrian of the Middle East and northeast Africa: Geol. Minjnbouw, v. 49, no. 5, p. 369-373.
- Shiner, J. L., 1968, The Cataract tradition in The prehistory of Nubia (F. Wendorf, ed.), v. 2: South. Methodist Univ. Press, Dallas, Texas, p. 535-629.
- Shirtajuddin, A. S., 1972, Geology and petroleum prospects in eastern Red Sea: Am. Assoc. Pet. Geol., Bull., v. 56, no. 4, p. 707-719.
- Shiskina, O. V., and Bogoyavleskiy, A. N., 1970, The saline composition of the Red Sea abyssal water. Geokhim. (Akad. Nauk. SSSR), no. 5, p. 632-636.
- Shukri, N. M., 1945a, Geology of the Nubian sandstone: Nature, v. 156, no. 3952, p. 116.
- \_\_\_\_\_, 1945b, Bottom deposits of the Red Sea: Nature, v. 155, no. 3932, p. 306.
- \_\_\_\_\_, 1945c, On the geology of the Brother Islands, northern Red Sea: Bull. Fac. Sci., Cairo Fouad I Univ., no. 25, p. 173-200.
- \_\_\_\_\_, 1945d, The mineralogy of a Neolithic terrace at Tura, Egypt: Geol. Mag., v. 82, no. 1, p. 31-33.
- \_\_\_\_\_, 1953a, The geology of the desert east of Cairo: Bull. Inst. Desert Egypte, t. 3, no. 2, p. 89-105.
- \_\_\_\_\_, 1953b, The mineralogy of Egyptian sediments [presidential address]: Bull. Inst. Desert Egypte, t. 3, no. 1, p. 93-100.
- \_\_\_\_\_, 1954a, Remarks on the geological structure of Egypt: Soc. Geogr. Egypte, Bull., t. 27, p. 65-82.
- \_\_\_\_\_, 1954b, The geology of Shadwan Island, northern Red Sea: Soc. Geogr. Egypte, Bull., t. 27, p. 83-92.

- Shukri, N. M., and Akmal, M. G., 1953, The geology of Gebel el-Nasuri and Gebel el-Angabiya district: Soc. Geogr. Egypte, Bull., t. 26, p. 243-276.
- Shukri, N. M., and Azer, N., 1952, The mineralogy of Pliocene and more recent sediments in the Faiyum: Inst. Fouad 1<sup>er</sup> du Desert, Bull., t. 2, no. 1, p. 10-39.
- Shukri, N. M., and Basta, E. Z., 1959, A note on the occurrence of a polysulphide deposit at Gebel Derhib, south Eastern Desert: Egypt. J. Geol., v. 3, no. 2, p. 167-174.
- Shukri, N. M., and Basta, E. Z., 1963, The geology of southwestern part of Gebel Siwigat El Arsha area, Eastern Desert of Egypt: Bull. Fac. Sci., Cairo Univ., no. 38, p. 1-48.
- Shukri, N. M., and El Ayouty, M. K., 1953, The mineralogy of the Nubian sandstone in Aswan: Bull. Inst. Desert Egypte, t. 3, no. 2, p. 65-88.
- \_\_\_\_\_, 1956, The geology of Gebel Iweibid-Gebel Gafra area, Cairo-Suez district: Soc. Geogr. Egypte, Bull., t. 29, p. 67-109.
- Shukri, N. M., El Ayouty, M. K., and Morcos, M. B., 1971, Geology of Dar El Beida area, Cairo-Suez district: Egypt, Geol. Surv., Ann., v. 1, p. 43-52.
- Shukri, N. M., El Shazly, E. M., and Sabet, A. H., 1959, The iron ore deposit of Umm Ghamis El Zaga, Eastern Desert: Egypt. J. Geol., v. 3, no. 2, p. 123-147.
- Shukri, N. M., and Higazy, R. A., 1944, Mechanical analysis of some bottom deposits of the northern Red Sea: J. Sediment. Petrol., v. 14, no. 2, p. 43-69.
- Shukri, N. M., and Nakhla, F. M., 1956, The sulphur deposits of Ras Gamsa, Red Sea coast, Egypt: Colloque Geol. Appl. Proche-Orient, Ankara, 1955, p. 114-119.
- Shukri, N. M., and Philip, G., 1961, The mineralogy of some recent deposits in Arish-Gaza area: Bull. Fac. Sci., Cairo Univ., no. 35, p. 73-85.
- Shukri, N. M., Philip, G., and Said, R., 1956, The geology of the Mediterranean coast between Rosetta and Bardia; part II, Pleistocene sediments, geomorphology and microfacies: Inst. Egypte, Bull., t. 37, f. 2, p. 395-427.
- Shukri, N. M., and Said, R., 1945, Contribution to the geology of the Nubian sandstone; part I, Field observations and mechanical analysis: Bull. Fac. Sci., Cairo Fouad I Univ., no. 25, p. 149-172.
- Shumenko, S. I., and Chumakov, I. S., 1974a, Heulandite from the Nile Valley deposits: Lithol. Miner. Resour., v. 9, no. 6, p. 758-760.
- \_\_\_\_\_, 1974b, Geylandit iz otlozheniy doliny Nila [Heulandite from the Nile]: Litol. Polez. Iskop., no. 6, p. 140-143.
- Shushkina, O. V., and Gogoyavlenskiy, A. N., 1970, Salt composition of deep waters of the Red Sea: Geokhim. (Akad. Nauk SSSR) no. 5, p. 632-636.
- Siagayev, N. A., 1967, The main tectonic features of Egypt (an explanatory note to accompany the tectonic map of Egypt, scale, 1:2,000,000): Egypt, Geol. Surv., Pap. no. 39, 26 p.
- \_\_\_\_\_, 1970, On tectonics of the central part of the Eastern Desert, Egypt, U.A.R.: Vyssh. Uchebn. Zaved., Izv., Geol. Razved., no. 11, p. 47-54.
- Siagayev, N. A., and Salloum, G. M., 1971, Tectonics of the N.E. part of the African continent with special reference to the area of ARE: Akad. Nauk SSSR, Izv., Ser. Geol., no. 12, p. 21-33.

- Simons, E. L., 1959, An anthropoid frontal bone from the Fayum Oligocene of Egypt; the oldest skull fragment of a higher primate: *Am. Mus. Novit.*, no. 1976, 16 p.
- \_\_\_\_\_, 1960a, *Apidium* and *Oreopithecus*: *Nature*, v. 186, no. 4727, p. 824-826.
- \_\_\_\_\_, 1960b, New fossil primates; a review of the past decade: *Am. Sci.*, v. 48, no. 2, p. 179-192.
- \_\_\_\_\_, 1961, An anthropoid mandible from the Oligocene Fayum beds of Egypt: *Am. Mus. Novit.*, no. 2051, 5 p.
- \_\_\_\_\_, 1962a, Two new primate species from the African Oligocene: *Postilla*, v. 64, 12 p.
- \_\_\_\_\_, 1962b, An expedition to the Egyptian Desert: *Yale Scient. Mag.*, 4 p.
- \_\_\_\_\_, 1964, Review (Geology of Egypt by R. Said): *Am. J. Sci.*, v. 262, no. 10, p. 1237.
- \_\_\_\_\_, 1965, New fossil apes from Egypt and the initial differentiation of Hominoidea: *Nature*, v. 205, no. 4967, p. 135-139.
- \_\_\_\_\_, 1967a, A fossil colobus skull from the Sudan (primate Cercopithecoidea): *Postilla*, no. 111, 12 p.
- \_\_\_\_\_, 1967b, Review of the phyletic interrelationships of Oligocene and Miocene Old World Anthropoidea in *Problemes actuels de paleontologie (evolution des vertebres)*: *Fr., Cent. Nat. Rech. Sci., Colloq. Int.*, no. 163, p. 597-601.
- \_\_\_\_\_, 1968a, Early Cenozoic mammalian faunas, Fayum province, Egypt, part 1 -- African Oligocene mammals: *Peabody Mus. Nat. Hist., Yale Univ., Bull.*, no. 28, p. 1-19.
- \_\_\_\_\_, 1968b, Hunting the "Dawn Apes" of Africa: *Yale Univ.*, 1968, *Discovery* 4 (1), Fall 1968, p. 19-32.
- \_\_\_\_\_, 1969, Miocene monkey (*Prohylobates*) from northern Egypt: *Nature*, v. 223, no. 5207, p. 687-689.
- \_\_\_\_\_, 1974, Relationships of *Aegyptopithecus* to other primates: *Egypt, Geol. Surv., Ann.*, v. 4, p. 149-156.
- Simons, E. L., and Gingerich, P. D., 1974, New carnivorous mammals from the Oligocene of Egypt: *Egypt, Geol. Surv., Ann.*, v. 4, p. 157-166.
- Simons, P., 1973a, Der Osten der Sahara; Die Nilwueste [Eastern Sahara; the Nile desert], in *Die Sahara und ihre Randgebiete; Darstellung eines Natur-Grossraumes; Teil B, Die Teilgebiete der Sahara und ihrer Randzonen; III. Band, Regional geographie (Die Landschaften)*: *IFO-Inst. fuer Wirtsch. Muench. Afr. Stud.*, no. 62, p. 433-535.
- \_\_\_\_\_, 1973b, Uweinat, an isolated mountain at the extreme limit. Uweinat, ein Insel-Gebirge am "Grenzkreuz", in *Die Sahara und ihre Randgebiete; Darstellung eines Natur-Grossraumes; Teil B, Die Teilgebiete der Sahara und ihrer Randzonen; III. Band, Regionalgeographie (Die Landschaften)*: *IFO-Inst. fuer Wirtsch. Muench. Afr. Stud.*, no. 62, p. 423-429.
- Slaughter, B. H., and Thurmond, J. T., 1974, A lower Cenomanian (Cretaceous) Ichthyofauna from the Bahaiya formation of Egypt: *Egypt, Geol. Surv., Ann.*, v. 4, p. 25-40.
- Smith, P. E. L., 1964, Radiocarbon dating of a late Paleolithic culture from Egypt: *Science (AAAS)*, v. 145, no. 3634, p. 811.
- \_\_\_\_\_, 1966, The late Paleolithic of northeast Africa in the light of recent research: *Am. Anthropologist*, v. 68, no. 2, pt. 2, p. 325-355.



- Smith, P. E. L., 1967, New investigation in the late Pleistocene archeology of the Kom Ombo plain (Upper Egypt): *Quaternaria*, v. 9, p. 141-152.
- \_\_\_\_\_, 1974, The palaeolithic of Egypt; some notes on a centennial, in *Perspectives in palaeoanthropology* (Ghosh, A. K., ed.), p. 157-170: Firma K. L. Mukhopadhyay, Calcutta, India.
- Sneh, A., Friedman, G. M., and Lewy, Z., 1972, Recent and Senonian oncolites from Sinai and southern Israel (Lewy, 1972) [discussion and reply]: *Isr. J. Earth Sci.*, v. 22, no. 1, p. 59-61.
- Sneh, A., and Weissbrod, T., 1973, Nile Delta; the defunct pelusiatic branch identified: *Science (AAAS)*, v. 180, no. 4081, p. 59-61.
- Snfrl Kireem, M. A., 1978, Wall ultramicrostructure of Fissoarchaeoglobigerina n.g. (Foraminifer): *Rev. Espan. Micropaleontol.*, v. 10, no. 1, p. 57-65.
- Socin, C., 1946, Fossile ecocenico con iscrizione geroglifica rinvenuto in Eliopoli (studio paleontologico): *Soc. Toscana Sci., Nat., Atti, Mem.*, v. 53, p. 163-171.
- Solecki, R. S., and others, 1963, Preliminary statement of the prehistoric investigations of the Columbia University Nubian Expedition in Sudan, 1961-1962: *Kush*, v. 11, p. 70-90.
- Soliman, A., and Doheim, M. A., 1972, On the new method of evaluation of phosphate ores and its application to the Egyptian ores: *Arab Min. Pet. Assoc. Trans.*, v. 27, no. 1, p. 51-60.
- Soliman, A., Gomman, W., and El Tahlawi, M. R., 1973, Statistical study on the relations between physical and mechanical properties of Egyptian limestones: *Bull. Fac. Eng., Assiut Univ.*, v. 1, 14 p.
- Soliman, H. A., 1972, Discovery of Paleocene Foraminifera in the subsurface strata of el Kharga Oasis (Western Desert, Egypt): *Bull. Inst. Desert Egypte*, v. 21, no. 1, p. 1-8.
- \_\_\_\_\_, 1975, Spores et pollen rencontres dans le forage n°8 El Kharga, Desert ouest (Egypte) [Spore and pollen occurrence in the El Kharga water well no. 8, Western Desert, Egypt]: *Rev. Micropaleontol.*, v. 18, no. 1, p. 53-57.
- Soliman, H. A., and Sultan, I., 1976, Spores et pollens des gres de Baharia, Desert Ouest, Egypte [Spores and pollen from the sandstone of Bahariya, Western Desert, Egypt: *Micropaleontology*, v. 19, no. 2, p. 108-111.
- Soliman, J. A., 1975, Structure de la muraille du test de quelques Nodosariidae du Cretace superieur-Eocene inferieur d'Egypte [Wall structure of the tests of several Nodosariidae from the Upper Cretaceous-lower Eocene of Egypt]: *Rev. Micropaleontol.*, v. 18, no. 2, p. 117-125.
- Soliman, S. M., 1960, Geochemical prospecting for petroleum and its possible application in the Middle East: *Arab Pet. Congr.*, 2nd, Beirut, v. 2, p. 96-114.
- \_\_\_\_\_, 1961a, Geologic history of Africa, summary: *Bull. Fac. Sci., Ain. Shams Univ.*, no. 7, p. 67-83.
- \_\_\_\_\_, 1961b, Geology of the manganese deposits of Um Bogma, Sinai, and its position in the African manganese production: *First Iron and Steel Congr.*, Cairo, p. 1-21.
- \_\_\_\_\_, 1963, Tertiary mineralization in Egypt: *Vest. Ustred. Ust. Geol.*, v. 38, p. 281-284.

- Soliman, S. M., 1964a, Primary structure in a part of the Nile Delta sand beach, in L. M. Van Straaten, ed., Development in sediment: Elsevier, Publ. Co., New York-Amsterdam, v. 1, p. 379-381.
- \_\_\_\_\_, 1964b, Silicified reed plants from the Fayum, Egypt: Am. J. Sci., v. 262, no. 8, p. 998-1007.
- \_\_\_\_\_, 1975, Petrology of Carboniferous dolostone and marine transgression over west-central Sinai, Egypt: Congr. Int. Stratigr. Geol. Carbonifere, C.R., no. 7, v. 4, p. 253-265.
- Soliman, S. M., and Amer, K. M., 1969, Petrology of Upper Cretaceous and Danian rocks of Gebel El Duwi, Qusseir area, Eastern Desert, Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4A, p. 465-553.
- \_\_\_\_\_, 1972a, Petrology of the phosphorite deposits, Qusseir area: Arab Min. Pet. Assoc. Trans., v. 27, no. 1, p. 17-48.
- \_\_\_\_\_, 1972b, Cretaceous sedimentation in Eastern Desert Egypt, and evaluation for petroleum prospecting, an appraisal of stratigraphic maps: Arab Pet. Congr., 8th, Algiers, Pap. no. 77, 33 p.
- Soliman, S. M., and El Badry, O., 1970, Nature of Cretaceous sedimentation in Western Desert, Egypt: Am. Assoc. Pet. Geol., Bull., v. 54, no. 12, p. 2349-2370.
- Soliman, S. M., and El Fetouh, M. A., 1969a, Litho-stratigraphy of the Carboniferous Nubian type sandstones in west-central Sinai, Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4A, p. 11-377.
- \_\_\_\_\_, 1969b, Petrology of the Carboniferous sandstones in west-central Sinai: J. Geol. U.A.R., v. 13, no. 2, p. 61-143.
- \_\_\_\_\_, 1970, Carboniferous of Egypt; isopach and lithofacies maps: Am. Assoc. Pet. Geol., Bull., v. 54, no. 10, p. 1918-1930.
- Soliman, S. M., and Faris, M. I., 1963, General geological setting of the Nile Delta province and its evaluation for petroleum prospecting: Arab Pet. Congr., 4th, Beirut, v. 2, 11 p.
- \_\_\_\_\_, 1965, Geologic setting of the Gulf of Suez Province during the Eocene Period: Arab Pet. Congr., 5th, Cairo, Ser. Pap. no. 30, 29 p.
- Soliman, S. M., Faris, M. I., and El Badry, O., 1970, Lithostratigraphy of the Cretaceous formations in the Baharia Oasis, Western Desert, Egypt, U.A.R.: Arab. Pet. Congr., 7th, Kuwait, Pap. no. 59, 30 p.
- Soliman, S. M., Faris, M. I., and Hassan, F., 1965, Geologic setting of the Gulf of Suez province during the Eocene period: Arab Pet. Congr., 5th, Cairo, v. 2, 30 p.
- Soliman, S. M., and Hassaan, M. M., 1969, Contribution to the geology and geochemistry of lead-zinc and sulfur deposits of Gebel El Rousas, Anz and Ranga localities, Eastern Desert, Egypt: Arab. Sci. Congr., 6th, Damascus, pt. 4B, p. 591-660.
- \_\_\_\_\_, 1970, Petrology of the middle Miocene rocks of Gebel El Rousas, Ranga and Abu Anz localities, Eastern Desert, Egypt: Arab. Pet. Congr., 7th, Kuwait, Pap. no. 7, 40 p.
- \_\_\_\_\_, 1971, Geochemical prospecting for lead and zinc in Gebel el Rousas, Eastern Desert, Egypt: Geol. Rundsch, v. 60, no. 3, p. 1285-1301.
- Soliman, S. M., and Korany, E. M., 1972, Lithostratigraphy and petrology of Paleocene-lower middle Eocene, Gebel El Duwi area, Egypt and evaluation for petroleum prospecting: Arab Pet. Congr., 8th, Algiers, Pap. no. 75, 42 p.

- Solle, G., 1967, Felsgleitungen in Oberagyp ten; ein Beitrag zum Ablauf grosser Gleitungssysteme [Rock slides in upper Egypt; a contribution to knowledge of the formation of large landslide systems: Hess. Landesamt Bodenforsch., Notizbl., v. 95, p. 117-147.
- \_\_\_\_\_, 1968, Cataracts of the Nile: Natur Mus., v. 98, no. 5, 7, 8, 11, p. 211-215.
- Solovyeva, M. N., and Krashenninnikov, V. A., 1965, Some general features of the foraminiferal associations and stratigraphy of the African and Russian platforms: Vop. Mikropaleontol., no. 9, ? p.
- Souaya, F. J., 1961, Contribution to the study of Miogypsia s. 1 from Egypt: Ned. Akad. Wetensch., Proc., ser. B, v. 64, no. 5, p. 665-705.
- \_\_\_\_\_, 1963a, On the calcareous Algae (Melobesioideae) of Gabal Gharra (Cairo-Suez Road) with a local zonation and some possible correlations: J. Paleontol., v. 37, no. 6, p. 1204-1216.
- \_\_\_\_\_, 1963b, Micropaleontology of four sections south Qusseir, Egypt: Micropaleontology, v. 9, no. 3, p. 233-266.
- \_\_\_\_\_, 1963c, On the Foraminifera of Gebel Gharra (Cairo-Suez Road) and some other Miocene samples: J. Paleontol., v. 37, no. 2, p. 433-457.
- \_\_\_\_\_, 1965a, Miocene Foraminifera of the Gulf of Suez region, U.A.R.; part 1, Systematics (Astrohisizoidae-Buliminoidea): Micropalaeontology, v. 11, no. 3, p. 301-343.
- \_\_\_\_\_, 1965b, On the Bryozoa of Gebel Gharra (Cairo-Suez Road) and other Miocene sections in Egypt: J. Paleontol., v. 39, no. 6, p. 1129-1144.
- \_\_\_\_\_, 1966a, Miocene Foraminifera of the Gulf of Suez region, U.A.R., pt. 4, -- Paleocology and age: Micropaleontology, v. 12, no. 4, p. 493-504.
- \_\_\_\_\_, 1966b, Sakesaria cotteri -- an early Eocene Foraminifer from Egypt: J. Paleontol., v. 40, no. 4, p. 859-866.
- \_\_\_\_\_, 1966c, Miocene Foraminifera of the Gulf of Suez, U.A.R., pt. 3 -- Biostratigraphy: Micropaleontology, v. 12, no. 2, p. 183-202.
- \_\_\_\_\_, 1966d, Miocene Foraminifera of the Gulf of Suez region, U.A.R., pt. 2 -- Systematics (Totalioidea): Micropaleontology, v. 12, no. 1, p. 43-64.
- Spanderashvilli, G. I., and Mansour, M., 1970, The Egyptian phosphates, in Studies on some mineral deposits of Egypt; Part I, Generalisation of geological data on hard minerals; Section C, Phosphates: Egypt, Geol. Surv., Publ., p. 89-106.
- Spencer, L. J., 1939, Tektites and silic-glass: Mineral. Mag., v. 25, no. 167, p. 425-440.
- Spiro, B. F., 1971, Ultrastructure and chemistry of the skeleton of Tubipora musica Linne.: Copenh., Univ., Mus. Mineral. Geol., Commun. Paleontol., no. 169, p. 270-284.
- Squyres, C. H., and Bradley, W., 1964, Notes on the Western Desert of Egypt, in Guidebook to the geology and archaeology of Egypt: Pet. Explor. Soc. Libya, 6th Ann. Field Conf., p. 99-105.
- Stainforth, R. M., 1949, Foraminifera in the upper Tertiary of Egypt: J. Paleontol., v. 23, no. 4, p. 419-422.
- Stanley, D. J., and Maldonado, A., 1977, Nile Cone; late Quaternary stratigraphy and sediment dispersal: Nature, v. 266, no. 5598, p. 129-135.

- Starmans, G. A. N., 1947, A possible method of time determination: South African Sci. Bull., v. 1, no. 5, p. 100-103.
- Stechepinsky, V., 1938, Les gisements petroliferes d'Egypte: Ann. Office Natl. Combustible Liquides, v. 13, no. 5, p. 823-874.
- Stephens, J. D., and Wittkopp, R., 1969, Microscopic and electron beam microprobe study of sulphide minerals in Red Sea mud samples, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 441-447.
- Stoffers, P., and Fischbeck, R., 1975, Biogenic monohydrocalcite spherules in lake sediments of Lake Kiva (Africa) and the Solar Lake (Sinai); a reply: Sedimentology, v. 22, no. 4, p. 635-636.
- Strangway, D. W., and McMahan, B. E., 1969, Magnetic properties of minerals from Red Sea thermal brines, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 460-473.
- Striem, H. L., 1954, The seifs on the Israel-Sinai border and the correlation of their alignment: Res. Council Isr., Bull., sec. G, v. 4, no. 2, p. 195-198.
- Stringfield, V. T., Le Grand, H. E., and La Moreaux, P. E., 1974, Karst and paleohydrology of carbonate rock terranes in semiarid and arid regions with a comparison to humid karst of Alabama: Ala., Geol. Surv., Bull., no. 105, 106 p.
- Stromer, E., 1933, Wirbeltierreste der Baharije-Stufe (unterstes Cenoman), 12; Die procolen Crocodilia: Bayer. Akad. Wiss., Math.-Naturwiss. Kl., Abh., N.F., H. 15, 55 p.
- \_\_\_\_\_, 1934a, Ergebnisse der Forschungsreisen Prof. E. Stromer in den Wusten Aegyptens; II, Wirbeltierreste der Baharije-Stufe (unterstes Cenoman); 13. Dinosauria: Bayer. Akad. Wiss., Math.-Naturwiss. Kl., Abh., N.F., H. 22, 79 p.
- \_\_\_\_\_, 1934b, Ergebnisse der Forschungsreisen Prof. E. Stromer in den Wusten Aegyptens; II, Wirbeltierreste der Baharije-Stufe (unterstes Cenoman); 14. Testudinata: Bayer. Akad. Wiss., Math.-Naturwiss. Kl., Abh., N.F., H. 25, 26 p.
- \_\_\_\_\_, 1936, Ergebnisse von Forschungsreisen in den Wusten Aegyptens: Forschungen Fortschr., Jg. 12, no. 19, p. 242-243.
- Stromer, E., Kraut, H., and Storz, M., 1933, Die fossilen Flora Aegyptens, 3; Der Erhaltungszustand und die Entstehung der Kieselholzer Aegyptens: Bayer. Akad. Wiss., Math.-Naturwiss. Kl., Abh., N.F., H. 16, 52 p.
- Strougo, A. M., 1970, Observations sur la coquille de Carolia placunoides cantraine: Egypt. Acad. Sci., Proc., v. 23, p. 57-64.
- \_\_\_\_\_, 1973, Observations sur les huitres du groupe multicostata de l'Eocene superieur d'Egypte [Observations on the oysters of the multicostata group from the upper Eocene of Egypt]: Egypt. Acad. Sci., Proc., v. 24 (1971), p. 135-139.
- \_\_\_\_\_, 1975a, Lucia pharaonis Bellardi, 1854: Soc. Geol. Fr., Bull., v. 17, no. 5, p. 746-751.
- \_\_\_\_\_, 1975b, Les Corbulidae de l'Eocene superieur d'Egypte [The Corbulidae of the upper Eocene of Egypt]: Mus. Natl. Hist. Nat., Bull., no. 280, p. 29-40.
- \_\_\_\_\_, 1975c, Decouverte d'une discontinuite de sedimentation dans l'Eocene superieur du Gebel Mokattam (Egypte) [Discovery of a discontinuity in the upper Eocene of Gebel Mokattam, Egypt]: Soc. Geol. Fr., Bull., v. 18, no. 5 Supplement, p. 213-215.



- Strougo, A. M., 1976a, Bivalvia de l'Eocene superieur d'Egypte; I, Carditidae [Upper Eocene Bivalvia of Egypt; I, Carditidae]: Ann. Paleontol., Invertebres, v. 62, no. 1, p. 19-48.
- \_\_\_\_\_, 1976b, Bivalves de l'Eocene superieur d'Egypte, II, Carditidae [Upper Eocene Bivalvia of Egypt; II, Carditidae]: Ann. Paleontol., Invertebres, v. 62, no. 2, p. 103-122.
- \_\_\_\_\_, 1976c, Le Membre Ain Mus (Gebel Mokattam; Eocene superieur) et ses equivalents chronostratigraphiques a l'ouest du Nil [The Ain Musa Member (Gebel Mokattam; upper Eocene) and its chronostratigraphic equivalents to the west of the Nile River]: Acad. Sci. (Paris), C.R., ser. D., v. 283, no. 10, p. 1137-1140.
- \_\_\_\_\_, 1977, Le "Biarritzien" et le Priabonien en Egypte et leurs faunes de bivalves [The "Biarritzian" and Priabonian of Egypt and their bivalve fauna]: Paris, Univ., Lab. Paleontol., Trav., 247 p.
- Strumpe, E., 1961, Contribution to the study of ore minerals in some igneous rocks from Assiut: Mineral. Mag., v. 32, p. 767-777.
- Sulfur Corporation Limited (Britain), 1971, World survey of phosphate, 3d edition: The British Sulphur Corp., Ltd., London, 180 p.
- Sultan, I. Z., 1977, Carboniferous miospores from a black shale unit in the Gulf of Suez, Egypt, in Sedimentologie et geochemie de la surface: Soc. Geol. Fr., Bull., v. 30, no. 3, p. 189-202.
- \_\_\_\_\_, 1978, Mid-Cretaceous plant microfossils from the northern part of the Western Desert of Egypt: Rev. Palaeobot. Palynol., v. 25, no. 3-4, p. 259-267.
- Summerhayes, C. P., and others, 1978, Nile Delta; nature and evolution of continental shelf sediments: Mar. Geol., v. 27, no. 1-2, p. 43-65.
- Summerhayes, C. P., Ross, D. A., and Stoffers, P., 1977, Nile submarine fan; sedimentation, and deformation, oil potential: Offshore Tech. Conf., Prepr., no. 9, v. 1, p. 35-40.
- Suwa, K., 1966, Maximum microclines in Aswan granitic rocks, Egypt: Nogoya Univ., J. Earth Sci., v. 14, no. 2, p. 116-136.
- Svenonius, B., and Olausson, E., 1976, Do the pyramids show continental drift?: Palaeoecol. Afr., v. 9, (covering the years 1972-1974) p. 48-51.
- Swanberg, C. A., Morgan, P., and Daggett, P., 1976, Preliminary report on the thermal springs of Egypt, in Proceedings of the international congress on thermal waters, geothermal energy and vulcanism of the Mediterranean area; Volume q, Thermal waters (Augustithus, S. S., organizer): Natl. Tech., Univ., Athens, Greece, p. 504-554.
- Swartz, D. H., and Arden, D. D., 1960, Geologic history of the Red Sea area: Am. Assoc. Pet. Geol., Bull., v. 44, no. 10, p. 1621-1637.
- Sylvester Bradley, P. C., 1973, A Mediterranean catastrophe: Geol. Mag., v. 110, no. 1, p. 73-74.
- \_\_\_\_\_, 1974, Fossil evidence for the rotation of Spain during the evolution of the Mediterranean Sea: Egypt, Geol. Surv., Ann., v. 4, p. 251-262.
- Synelnikov, A. S., and Kollerov, D. K., 1959, Palynologic analysis and age of coal samples from El Bedaa-Thora district, west-central Sinai: Egypt, Geol. Surv., Pap. no. 4, ?p.
- Taeckholm, V., 1975, Contribution of the Rohlfs expedition to the botany of Egypt: Egypt, Geol. Surv., Ann., v. 5, ?p.
- Takla, M. A., 1976, Electron microprobe on zoned wolframite from Elba, Egypt: Neues Jahrb. Mineral., Monatsh., no. 11, p. 477-483.

- Talling, J. F., and Rzoska, J., 1976a, Phytoplankton; composition, development and productivity, in The Nile, biology of an ancient river: Dr. W. Junk B. V., The Hague, p. 385-402.
- \_\_\_\_\_, 1976b, Water characteristics, in The Nile, biology of an ancient river: Dr. W. Junk B. V., The Hague, p. 357-384.
- Tareyeva, O. K., 1974, Nekotoryye geomorfologicheskiye predposylki formirovaniya pribezhnomorskikh rossypey v Yuzhnom i Yugo-Vostochnom Spredizemnomor'ye [Some geomorphologic prerequisites for beach placer deposit formation in the southern and southeastern Mediterranean: Nauchno-Issled. Lab. Geol. Zarubezh. Stran, Tr., no. 27, Mineral'nyye resursy mirovogo okeana, p. 211-225.
- Tarling, D. H., 1970, Paleomagnetism and origin of the Red Sea and Gulf of Aden: R. Soc. Lond., Philos. Trans., Ser. A., v. 267, p. 219-226.
- Tauber, H., 1968, Copenhagen radiocarbon dates IX: Radiocarbon (Am. J. Sci.), v. 10, no. 2, p. 295-327.
- Tayel, M. Y., 1974, Effect of clay content and salt concentration on boundary-flow error in laboratory hydraulic conductivity measurements: Egypt. J. Soil Sci., v. 14, no. 1, p. 65-74.
- Tazieff, H., 1969, Tectonic relations between Danakil and the Red Sea (with discussion): Soc. Geol. Fr., Bull., ser. 7, v. 10, no. 4, p. 468-477.
- Tazieff, H., and others, 1972, Tectonic significance of the Afar (or Danakil) depression: Nature, v. 235, no. 5334, p. 144-147.
- Tchoumakov, J., 1968, Phosphate-bearing alluvium of the Nile Valley Nubia: Cah. Geol., no. 84, p. 999-1003.
- Thiele, J., Gramann, F., and Kleinsorge, H., 1970, Zur Geologie zwischen dem Nordrand der oestlichen Kattara-Senke und der Mittellemeer-Kueste (Aegypten, westlich Wueste) [The geology of the Western Desert of Egypt between the northern edge of the eastern Kattara depression and the Mediterranean coast]: Ger. Bundesanst. Bodenforsch., Geol. Jahrb., v. 88, p. 321-353.
- Thilmans, G., and others, 1974, Fichier des ages absolus du Quaternaire d'Afrique au Nord de l'Equateur; 9 e Serie [Index cards of absolute ages from the Quaternary of Africa north of the Equator; 9th series]: Assoc. Senegal. Etude Quat. (Ouest) Afr., Bull. Liason, no. 40, p. 51-31.
- Thomas, H. D., and Omara, S., 1957, The Cenomanian compound coral, Aspidiscus cristatus (Lamarck), from Nezzazat, western Sinai: Geol. Mag., v. 94, no. 2, p. 151-155.
- Thompson, A. B., and Ball, J., 1918, Report on the Daga Shabell oilfield (British Somaliland): Egypt, Geol. Surv., Publ., ?p.
- Thompson, G. C., Gardner, E. W., and Huzayyin, S. A., 1937, Lake Moeris; reinvestigations and some comments: Inst. Egypte, Bull., t. 19, f. 2, p. 243-303.
- Tobia, S. K., and Fekry, A. A., 1964, Geochemistry of some Egyptian phosphate deposits: Egypt. J. Geol., v. 8, p. 11-19.
- Tobien, H., 1936, Mitteilungen uber Wirbeltierreste aus dem Mittelpliocan des Natrontales (Aegypten); 7, Artiodactyla; A, Bunodontia, Suidae: Deut. Geol. Ges., Z., Bd. 88, H. 1, p. 42-53.
- Toni, R. T., 1969, Campanian-Maestrichtian mollusca from Gebel El Rokham, Eastern Desert, Egypt: Bull. Fac. Sci., Alex. Univ., v. 9, p. 527-554.
- Tooms, J. S., 1970a, Metal deposits in the Red Sea, their nature, origin and economic worth: Underwater Sci. Tech. J., v. 2, no. 1, p. 28-33.

- Tooms, J.S., 1970b, Review of knowledge of metalliferous brines and related deposits: *Inst. Min. Metall., Trans., Sec. B*, v. 79, no. 765, p. B116-B126.
- Tooms, J. S., Holmes, R., and Horowitz, A., 1973, Confirmation of Ostrapoff's fourth brine hole, Red Sea: *Nature*, v. 241, no. 113, p. 161-162.
- Tooms, J. S., and Rugheim, M., 1969, Additional metalliferous sediments in the Red Sea: *Nature*, v. 223, no. 5213, p. 1356-1359.
- Tosson, S., 1954, The Rennebaum volcano in Egypt: *Bull. Volcanol.*, t. 15, p. 99-108.
- \_\_\_\_\_, 1957, Comparison of some wolframite deposits in Egypt and France: *Econ. Geol.*, v. 52, no. 8, p. 972-974.
- \_\_\_\_\_, 1958, Cristaux de cassiterite et de scheelite d'Egypte: *Soc. Fr. Mineral., Bull.*, t. 81, no. 7-9, p. 243.
- \_\_\_\_\_, 1960, Note on crystallized ancient Egyptian glass: *Bull. Fac. Sci., Alex. Univ.*, v. 4, p. 89-90.
- \_\_\_\_\_, 1963a, A volcanic origin of Aswan iron ore: *Bull. Fac. Sci., Alex. Univ.*, v. 5, p. 137-149.
- \_\_\_\_\_, 1963b, Note on El Gharbaniat gypsum deposits near Alexandria: *Egypt. J. Geol.*, v. 7, p. 71-72.
- \_\_\_\_\_, 1964a, Etudes geochemiques des roches en la region Zarquet Naam, sud Egypte: *Bull. Fac. Sci., Alex. Univ.*, v. 6, p. 175-207.
- \_\_\_\_\_, 1964b, The volcanic rocks of Bahariya Oasis, Egypt, U.A.R.: *Bull. Volcanol.*, t. 27, p. 447-452.
- \_\_\_\_\_, 1969a, Etudes metallogenique d'un gisement de wolfram en Egypte, U.A.R.: *Bull. Fac. Sci., Alex. Univ.*, v. 9, p. 183-216.
- \_\_\_\_\_, 1969b, The barite and gypsum at Um Rhaigha area south of the Eastern Desert, U.A.R.: *Bull. Fac. Sci., Alex. Univ.*, v. 9, p. 217-226.
- \_\_\_\_\_, 1969c, Etude des quelques mineraux d'Egypte par les rayons X: *Arab Sci. Congr.*, 6th, Damascus, pt. 4A, p. 455-464.
- \_\_\_\_\_, 1971, A new occurrence of serpentine and magnesite in Wadi Um Gheig, Eastern Desert, Egypt: *Inst. Egypte, Bull.*, v. 52, p. 29-35.
- Tosson, S., and Ghowall, S. I., 1974, Geochemistry of the gypsiferous sediments of the Abis area, a reclaimed part of Lake Maryut in northern Egypt, in *Fourth symposium on salt*, volume one (edited by Coogan, Alan H.): *Geochemistry and Mineralogy*, p. 337-342.
- Tosson, S., and Saad, N. A., 1971, Origin of the iron ore of Um Gerifat area, Egypt: *Inst. Egypte, Bull.*, v. 52, p. 17-26.
- \_\_\_\_\_, 1972, Origin of the iron ore of the Umm Gerifat area, Egypt: *Chem. Geol.*, v. 9, no. 3, p. 195-202.
- \_\_\_\_\_, 1974, Genetic studies of El-Bahariya iron ore deposits, Western Desert, Egypt: *Neues Jahrb. Mineral., Abh.*, v. 121, no. 3, p. 291-317.
- Touray, J. C., 1971, Hot brines in the Red Sea premises of metalliferous deposits: *Sci. Progr. Decouverte*, no. 3429, p. 36-44.
- Tourky, A., Issal, I. M., and Shalaby, A., 1962, Analysis of uranium in ores: *Egypt. J. Chem.*, v. 5, no. 1, p. 53-64.
- Tramontini, C., and Davies, D., 1969, A seismic refraction survey in the Red Sea: *R. Astron. Soc., Geophys. J.*, v. 17, no. 2, p. 225-241.
- Traverse, A., Ames, H. T., and Kremp, G. O. W., 1967, Catalog of fossil spores and pollen; volume 27, Carboniferous megaspores and microspores: *Pa. State Univ., Palynol. Lab.*, 152 p.

- Tromp, S. W., 1949a, The value of Globigerinidae ratios in stratigraphy: J. Paleontol., v. 23, no. 2, p. 223-224.
- \_\_\_\_\_, 1949b, The determination of the Cretaceous-Eocene boundary by means of quantitative, generic, microfaunal determinations and the conception "Danian" in the Near East: J. Paleontol., v. 23, no. 6, p. 673-676.
- \_\_\_\_\_, 1950, The age and origin of the Red Sea graben: Geol. Mag., v. 87, no. 6, p. 385-392.
- \_\_\_\_\_, 1951a, Misir ve bilhassa Kizildenizin jeolojik tarihcesi [The geological history of Egypt and of the Red Sea in particular]: Turk. Jeol. Kurumu, Bult., v. 3, no. 1, p. 51-95.
- \_\_\_\_\_, 1951b, Preliminary compilation of the macro-stratigraphy of Egypt: Soc. Geogr. Egypte, Bull., t. 24, p. 55-103.
- \_\_\_\_\_, 1952, Tentative compilation of the micropaleontology of Egypt: J. Paleontol., v. 26, no. 4, p. 661-667.
- Tsoar, H., 1976, Characterization of sand dune environments by their Grain-size, mineralogy and surface texture, in Geography in Israel (Admiran, D. H. K., and others, eds.): Int. Geogr. Union, Isr. Natl. Comm., Jerusalem, p. 327-343.
- Turekian, K. K., and others, 1970, An evaluation of the uranium-helium method of dating of fossil bones: Earth Planet. Sci. Lett., v. 7, no. 5, p. 420-424.
- Turner, J. S., 1969, A physical interpretation of the observations of hot brine layers in the Red Sea, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 164-173.
- U. S. Central Intelligence Agency, 197?, Israel and borderlands, reference maps: Wash., D. C., scale 1:150,000 and 1:500,000.
- U. S. Geological Survey, 1978, Egypt: U. S. Geol. Surv., Prof. Pap., 1100, p. 342.
- UNESCO, 1963, Enquete sur les ressources naturelles du continent africain: Ressources naturelles, Paris, 448 p.
- \_\_\_\_\_, 1967, Carte de l'Afrique, Fond geologique, echelle; 1/10,000,000 et 1/20,000,000: UNESCO et l'Association des services geologiques africains (ASGA), Paris.
- \_\_\_\_\_, 1968, Carte tectonique internationale de L'Afrique (Science de la terre, 4), echelle 1/5,000,000: UNESCO et l'Association des services geologiques africains (ASGA), Paris.
- \_\_\_\_\_, 1969, Carte minerale de l'Afrique echelle 1/10,000,000: UNESCO et l'Association des services geologiques africains (ASGA), Paris.
- Vadez, E., 1933, Oolithische, Roteisenezlagerstätten in Agypten: Zentralb. Mineral., Geol. Palaeontol., Abt. A, no. 5, p. 161-175.
- Vail, J. R., 1971, Dyke swarms and volcanic activity in northeastern Africa, in C. Gray, ed.: Symp. Geol. Libya, Fac. Sci., Univ. Libya, p. 341-347.
- \_\_\_\_\_, 1972, Pre-Nubian tectonic trends in northeastern Sudan: J. Geol. Soc., Lond., v. 128, pt. 1, p. 21-32.
- \_\_\_\_\_, 1976, Location and geochronology of igneous ring-complexes and related rocks in north-east Africa: Geol. Jahrb., Reihe B, no. 20, p. 97-114.
- Van Campo, M., Guinet, P., and Cohen, J., 1968, Fossil pollen from late Tertiary and middle Pleistocene deposits of Kurkur Oasis, in K. L. Butzer and C. L. Hansen, eds. -- Desert and river in Nubia: Univ. Wisconsin Press, p. 515-520.



- Van der Ploeg, P., 1938, Egypt, *in* The science of petroleum: Dunstan and others, v. 1, p. 150-151, London.
- Varlamoff, N., 1973a, Quelques remarques sur la tectonique cassante des plates-formes africaines et les mineralisations connexes [The "breaking" tectonics of the African platforms and their associated mineralizations], *in* Les roches plutoniques dans leurs rapports avec les gites mineraux: Masson and Cie, Paris, p. 297-298.
- \_\_\_\_\_, 1973b, Considerations sur les types de pegmatites et sur leurs repartitions spatiales dans ou autour des granites du Centre et de l'Ouest africains [The types of pegmatites and their spatial distribution in or around the granites of central and west Africa with discussion and comments], *in* Les roches plutoniques dans leurs rapports avec les gites mineraux: Masson and Cie, Paris, p. 145-165.
- Vech, H., 1968,  $U^{234}/U^{238}$  in the east Pacific sector of the Antarctic Ocean and in the Red Sea: *Geochim. Cosmochim. Acta*, v. 32, p. 117.
- Vech, H., and Giegengack, R., 1970, Uranium series-ages of corals from the Red Sea: *Nature*, v. 226, p. 155-156.
- Veenenbos, J. S., and Ghaith, A. M., 1964, Some characteristics of the desert soils of the U.A.R. with discussion, *in* Int. Congr. Soil Sci., 8th, Trans: Publ. House Acad. Soc. Repub. Rom., Bucharest, v. 5, p. 289-297.
- Vered, M., 1977, Magnitude-duration relations for the Afro-Eurasian junction: *Isr. J. Earth Sci.*, v. 26, no. 1, p. 15-18.
- Vered, M., and Ben Menahem, A., 1974, Application of synthetic seismograms to the study of low-magnitude earthquakes and crustal structure in the northern Red Sea region: *Seismol. Soc. Am., Bull.*, v. 64, no. 4, p. 1221-1237.
- Viotti, C., and El Demerdash, G., 1969, Studies in Eocene sediments of Wadi Nukhul area, east coast, Gulf of Suez [with discussion]: *Afr. Micropaleontol. Colloq.*, 3rd, Cairo, Proc., p. 403-423.
- Viotti, C., and Mansour, A., 1969, Tertiary planktonic foraminiferal zonation from the Nile Delta, Egypt, U.A.R., pt. 1 -- Miocene planktonic foraminiferal zonation: *Afr. Micropaleontol. Colloq.*, 3rd, Cairo, p. 425-459.
- Virieux, A., 1934, Les marmites d'erosion; Contribution a l'etude de leur formation, d'apres des observations faites en Suisse et en Egypte: *Inst. Egypte, Bull.*, t. 16, f. 2, p. 167-176.
- Vishnevskiy, A. N., Krivtsov, A. I., and Razvalyayev, A. V., 1975, Precambrian tectonics of the margin of the Red Sea: *Geotectonics*, v. 9, no. 1, p. 40-46.
- Visse, L., 1952, Genese des gites phosphates du sud-est Algero-Tunisien: *Int. Geol. Congr.*, 19th, Algeria, Monogr. Regionales, Ser 1, no. 27, 58 p.
- Vittimberga, P., and Cardello, R., 1963, Sedimentologie et petrographie du Paleozoique du bassin de Kufra: *Rev. Inst. Fr. Pet.*, v. 18, no. 11, p. 1546-1557.
- Vladimirskaja, R. A., 1974, Lithologic study of the Cretaceous and Paleozoic sandstone sequence in Siwi-1 and Bahrein-1, Western Desert: *Egypt. J. Geol.*, v. 17, no. 1, p. 47-55.
- Vogel, J. C., and Ehhalt, D., 1963, The use of the carbon isotopes in groundwater studies, *in* Radioisotopes in hydrology: I.A.E.A., Proc. Ser., p. 383-395.
- Vogeltanz, R., 1965, Einige eozane Dekopoden vom alpennordrand und aus Agypten: *Neues Jahrb. Geol. Palaont., Monatsh.*, H. 1, p. 41-54.

- Vondra, C. F., 1974, Upper Eocene transitional and near-shore marine Qasr el Sagha Formation, Fayum depression, Egypt: Egypt, Geol. Surv., Ann., v. 4, p. 79-94.
- Vondra, C. F., and Bowen, B. E., 1976, Plio-Pleistocene deposits and environments, East Rudolf, Kenya, in Earliest man and environments in the Lake Rudolf Basin; stratigraphy, paleoecology, and evolution (Coopens, Y., and others, eds.): Univ. Chicago Press, Chicago, Ill., p. 79-93.
- Voute, C., 1963, Some geological aspects of the conservation project for the Philae Temples in the Aswan area: Geol. Rundsch., v. 52, p. 665-675.
- Vowinkel, E., and Orvig, S., 1977, The water budget and potential water reserves of the Upper White Nile area: Conf. Hydrometeorol., Prepr. no. 2, p. 144-149.
- Vroman, A., 1961, On the Red Sea rift problem: Bull. Res. Coun., Israel, 10 G (1-2), p. 321-338.
- Wagner, G., 1934, Von der Oase Faiyum: Natur und Volk, Bd., 64, H. 6, p. 233-241.
- \_\_\_\_\_, 1935, Geologische Beobachtungen an den Pyramiden: Aus der Heimat: Naturwissenschaften, Jg. 48, H. 1, p. 19-21.
- Wahab, M. A., and others, 1973, Studies on the formation of some soils in the Nile Valley: Egypt. J. Soil Sci., v. 12, no. 1, p. 31-40.
- \_\_\_\_\_, 1975a, Chemical nature of Abu-Gharadig crude oil fractions boiling above 300 degrees: Egypt. J. Chem., v. 18, no. 5, p. 881-889.
- \_\_\_\_\_, 1975b, Evaluation of Abu Gharadig crude oil; physiochemical characteristics of the crude oil and its technical fractions: Egypt. J. Chem., v. 18, no. 4, p. 709-721.
- \_\_\_\_\_, 1975c, Studies on resins and asphaltenes from Abu Gharadig crude oil: Egypt. J. Chem., v. 18, no. 4, p. 783-790.
- Wahby, S. D., and others, 1978, Chemical characteristics of Lake Maryut, a polluted lake south of Alexandria, Egypt: Estuarine Coastal Mar. Sci., v. 7, no. 1, p. 17-28.
- Waite, H. A., and Idris, H., 1961, Status of the hydrogeological investigations in the New Valley project, Western Egyptian region, U.A.R.: Int. Assoc. Sci. Hydrol.-UNESCO, Stud. Rep. Hydrol., no. 56, p. 214-255.
- Wall, D., and Warren, J. S., 1969, Dinoflagellates in Red Sea piston cores, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 542-549.
- Ward, W. C., and McDonald, K. C., 1979, Nubia Formation of central Eastern Desert, Egypt-major subdivisions and depositional setting: Am. Assoc. Pet. Geol., Bull., v. 63, no. 6, p. 975-983.
- Wasfi, S. M., 1969, Miocene planktonic foraminiferal zones from the Gulf of Suez, Egypt: Afr. Micropaleontol. Colloq., 3rd, Cairo, Proc., p. 461-474.
- Watson, S. W., and Waterbury, J. B., 1969, The sterile hot brines of the Red Sea, in Hot brines and recent heavy metal deposits in the Red Sea, E. T. Degens and D. A. Ross, eds.: Springer Verlag, New York, p. 272-281.
- Webber, P. J., 1961, Phleboteris branneri from the Western Desert of Egypt: Ann. Mag. Natur. Hist., ser. 13, v. 4, no. 37, p. 7-10.

- Weiler, W., 1935, Ergebnisse der Forschungsreisen Prof. E. Stromer in den Wüsten Ägyptens; II, Wirbeltierreste der Baharije-Stufe (unterstes Cenoman); 16, Neue Untersuchungen an den Fischresten: Bayer. Akad. Wiss., Math.-Naturwiss. Kl., Abh. N. F., H. 32, 52 p.
- Weir, A. H., Ormerod, E. C., and El Mansey, I. M. I., 1975, Clay mineralogy of sediments of the western Nile Delta: Clay Miner., v. 10, no. 5, p. 369-386.
- Weissbrod, T., 1969, The Paleozoic of Israel and adjacent countries, part 2, The Paleozoic outcrops in southwestern Sinai and their correlations with those of southern Israel: Isr., Geol. Surv., Bull., no. 48, 32 p.
- \_\_\_\_\_, 1971, "Nubian Sandstone" -- Reply to discussions by Prasad, Issawi and Hassan: Am. Assoc. Pet. Geol., Bull., v. 55, no. 6, p. 890-891.
- \_\_\_\_\_, 1976, The Permian in the Near East: NATO Adv. Study Inst., Ser. C, Math. Phys. Sci., v. 22, p. 200-214.
- Wendorf, F., 1968a, Late Paleolithic site in Egyptian Nubia, in The Prehistory of Nubia (Wendorf, F., ed.), v. 2: South. Methodist Univ. Press, Dallas, p. 791-953.
- \_\_\_\_\_, 1968b, Site 117 -- A Nubian final Paleolithic graveyard near Jebel Sahara, Sudan, in The Prehistory of Nubia (Wendorf, F., ed.), v. 2: South. Methodist Univ. Press, Dallas, p. 954-995.
- \_\_\_\_\_, 1968c, Summary of Nubian prehistory in The Prehistory of Nubia (Wendorf, F., ed.), v. 2: South. Methodist Univ. Press, Dallas, p. 1041-1060.
- \_\_\_\_\_, 1968d, The prehistory of Nubia, v. 1 and v. 2: Fort Burgwin Research Center and Southern Methodist Univ. Press, Dallas, 1084 p.
- Wendorf, F., Daugherty, R., and Waeochter, J., 1964, The Museum of New Mexico-Columbia University Nubian Expedition; the 1962-63 Field Program: Kush, v. 12, p. 12-18.
- Wendorf, F., and others, 1965a, The combined prehistoric expedition: Results of the 1963-64 field session: Kush, v. 13.
- \_\_\_\_\_, 1965b, Contributions to the prehistory of Nubia: Fort Burgwin Res. Center, Taos, New Mexico-Southern Methodist Univ. (Contrib. Anthropology no. 1), Dallas, Tex., Publ. no. 4, 164 p.
- \_\_\_\_\_, 1976, The prehistory of the Egyptian Sahara: Science (AAAS), v. 193, no. 4248, p. 103-114.
- Wendorf, F., and Said, R., 1967, Paleolithic remains in Upper Egypt: Nature, v. 215, no. 5098, p. 244-247.
- Wendorf, F., Said, R., and Schild, R., 1970a, Late Paleolithic sites in Upper Egypt: Arch. Polona, v. 12, p. 19-42.
- \_\_\_\_\_, 1970b, Egyptian prehistory -- some new concepts: Science (AAAS), v. 169, no. 3951, p. 1161-1171.
- \_\_\_\_\_, 1970c, Problems of dating the late Paleolithic in Egypt [with discussion], in Radiocarbon variations and absolute chronology: Nobel Symp., 12th, Proc., p. 57-59.
- Wendorf, F., and Schild, R., 1974, The Paleolithic of the lower Nile Valley, in Problems in prehistory; North Africa and the Levant (Wendorf, F., and others, eds.): South. Methodist Univ. Press, Dallas, Tex., p. 127-129.
- Wendorf, F., Schild, R., and Issawi, B., 1976, Prehistory of the Nile Valley: Academic Press, New York, N. Y., 404 p.

- Wendorf, F., Shiner, J. L., and Marks, A. E., 1965, Introduction; summary of the 1962-63 season, in F. Wendorf, ed., *Prehistory of Nubia*, Fort Burgwin Research Center: South. Methodist Univ. Press, Dallas, Tex., p. ix-xxxv.
- Wendorf, W. E., 1966, Two prehistoric archeological sites in Egyptian Nubia: *Postilla*, no. 102, p. 1-46.
- Westphal, F., 1975, Bauprinzipien im Panzer der Placodonten (Reptilia triadica) [Principles of structure in the placodont armor; triadic Reptilia]: *Palaeontol. Z.*, v. 49, no. 1-2, p. 97-125.
- White, E. I., 1936, On certain Eocene percoid fishes: *Ann. Mag. Nat. Hist.*, s. 10, v. 18, no. 103, p. 43-54.
- Whiteman, A. J., 1963, Essay review -- The geological map of Africa, scale, 1:5,000,000, new edition, 1963: *Geol. Mag.*, v. 102, no. 1, p. 80-86.
- \_\_\_\_\_, 1965, Written contribution dealing with the Red Sea littoral, in *Salt basins around Africa*: *Inst. Petrol., Geol. Soc.*, London, p. 119-120.
- \_\_\_\_\_, 1967, Red Sea depression: *New Sci.*, v. 34, no. 547, p. 554.
- \_\_\_\_\_, 1968, Formation of the Red Sea depression: *Geol. Mag.*, v. 105, no. 3, p. 231-246.
- \_\_\_\_\_, 1970a, The existence of transform faults in the Red Sea depression: *R. Soc. Lond., Philos. Trans., Ser. A*, v. 267, p. 407-408.
- \_\_\_\_\_, 1970b, Nubian Group, origin and status: *Am. Assoc. Pet. Geol., Bull.*, v. 54, no. 3, p. 522-526.
- \_\_\_\_\_, 1970c, An appeal for an up-to-date accurate tectonic map of the Red Sea depression: *R. Soc. Lond., Philos. Trans., Ser. A*, v. 267, p. 409-411.
- \_\_\_\_\_, 1971, *The geology of Sudan Republic*: Oxford Univ. Press, Oxford, 290 p.
- Williams, E., 1954, New or redescribed pelomedusid skulls from the Tertiary of Africa and Asia (Testudines, Pelomedusidae); 2, A podocnemide skull from the Miocene of Moghara, Egypt: *Breviora*, no. 39, 8 p.
- Willmann, K., 1937, Zur Petrographie des cristallinen Gebietes am Sud-und Sudwestrand der Libyschen Wüste: *Neues Jahrb. Mineral., Geol., Paleontol.*, Bd. 72, Abt. A, H. 3, p. 367-399.
- Wilson, J. A., 1970, New trends in archeology: *Inst. Egypte, Bull.*, v. 50, p. 49-58.
- Wilson, W. E., 1976, Famous mineral localities; Saint John's Island, Egypt: *Mineral. Rec.*, v. 7, no. 6, p. 310-314.
- Winkler, E. M., 1966, Important agents of weathering for building and monumental stone: *Eng. Geol.*, v. 1, no. 5, p. 381-400.
- Wood, A. E., 1962, The juvenile tooth patterns of certain African rodents: *J. Mammal.*, v. 43, p. 310-322.
- \_\_\_\_\_, 1968, Early Cenozoic mammalian faunas, Fayum province, Egypt, part 2 -- The African Oligocene Rodentia: *Peabody Mus. Nat. Hist., Yale Univ., Bull.*, no. 28, p. 23-105.
- Worsley, T., 1974, The Cretaceous-Tertiary boundary event in the ocean, in *Studies in Paleo-oceanography*; based on a symposium sponsored by the Society of Economic Paleontologists and Mineralogists: *Soc. Econ. Paleontol. Mineral., Spec. Publ.*, no. 20, p. 94-125.
- Yaalon, D. H., 1970, Parallel stone cracking, a weathering process on desert surfaces: *Rom., Inst. Geol. Stud. Teh. Econ., Ser. C*, no. 18, p. 107-111.



- Yair, A., and Lavee, H., 1976a, Runoff generation on arid talus slopes, in *Geography in Israel* (Admiran, D. H. K., and others, eds.): Int. Geogr. Union, Isr. Natl. Comm., Jerusalem, p. 353-363.
- \_\_\_\_\_, 1976b, Runoff generative process and runoff yield from arid talus mantled slopes: *Earth Surf. Process.*, v. 1, no. 3, p. 235-247.
- Yakubov, T. F., 1968, The sands of the Kharga Oasis in the Libyan Desert of Egypt and related problems: *Akad. Nauk. USSR, Izv., ser. Geogr.*, no. 3, p. 31-39.
- Yallouze, M., 1943, L'examen des roches poreuses par la methode d'evaporation: *Inst. Egypte, Bull.*, t. 25, p. 145-158.
- \_\_\_\_\_, 1952, Contribution experimental a l'hydrologie des dunes: *Inst. Egypte, Bull.*, t. 33, p. 137-142.
- \_\_\_\_\_, 1967a, On a method of determination of the depth of soil water absorption and fluctuation of the underground water: *Bull. Fac. Sci., Cairo Univ.*, no. 40, p. 217-225.
- \_\_\_\_\_, 1967b, Heavy detrital accessories in the sand of Gebel Asfar dunes: *Bull. Fac. Sci., Cairo Univ.*, no. 40, p. 209-216.
- Yallouze, M., and Knetsch, G., 1954, Linear structures in and around the Nile basin (comparative analysis of tectonic evolution in North Africa): *Soc. Geogr. Egypte, Bull.*, v. 5, no. 27, p. 153-207.
- Yaron, F., and Fenkel, R., 1969,  $U^{234}/U^{238}$  ratio in the Red Sea: *Isr. J. Earth Sci.*, v. 18, no. 3-4, p. 149.
- Yousef, A. A., and Arafa, M. A., 1971, Some physiochemical aspects of flotability of manganese dioxide: *Z. Tenside Det.*, 8, jg., H. 5, p. 252-255.
- Yousef, A. A., Boulos, T. R., and Arafa, M. A., 1971, Magnetic flotation beneficiation of chromite ores: *Can. Metal. Q.*, v. 10, no. 4, p. 323-326.
- Yousef, A. A., Boulos, T. R., and Saada, M. Y., 1968, Beneficiation of Egyptian glass sands: *Symp. on non-ferrous metals tech., Jams-hedpur, India*, v. 3, p. 231-237.
- \_\_\_\_\_, 1972, Egypt's mineral resources: *Mineral. Mag.*, v. 127, no. 3, Sept., p. 269-285.
- Yousef, A. A., Girgis, L. G., and Boulos, T. R., 1968, Egypt's talc carbonates -- Beneficiation and refractory aspects of the rocks of Barramia: *Min. Miner. Eng.*, June, p. 30-33.
- Yousef, A. A., and others, 1970a, Some aspects of magnetising reduction of iron ores and the magnetic separation of the reduced products: *Rev. de Chim. Miner.*, v. 7, p. 451-462.
- \_\_\_\_\_, 1970b, Concentration of low-grade chromite ores for metallurgical and chemical purposes: *J. Mines, Met. Fuels (Calcutta)*, Jan., p. 12-17.
- Youssef, H. M., 1953, The occurrence of *Nummulites deserti* de la Harpe in Kharga Oasis and the age of the lower Libyan in southern Egypt: *Bull. Inst. Desert Egypte*, t. 3, no. 2, p. 114-120.
- Youssef, M. I., 1954, Stratigraphy of the Gebel Oweina section near Esna, Upper Egypt: *Bull. Inst. Desert Egypte*, t. 4, no. 2, p. 83-93.
- \_\_\_\_\_, 1957, Upper Cretaceous rocks in Kosseir area: *Bull. Inst. Desert Egypte*, t. 7, no. 2, p. 35-53.
- \_\_\_\_\_, 1958, Association of phosphates with synclines and its bearing on prospecting for phosphates in Sinai: *Egypt. J. Geol.*, v. 2, no. 2, p. 75-88.

- Youssef, M. I., 1964, New relations for the effect of temperature on the evaporation of ground water: Bull. Inst. Desert Egypte, v. 14, no. 1, p. 31-41.
- \_\_\_\_\_, 1965, Genesis of bedded phosphate: Econ. Geol., v. 60, p. 590-600.
- \_\_\_\_\_, 1966, New and rarely used maps used as aid in mining geology: Bull. Fac. Sci., Ain Shams Univ., Cairo, v. 10, p. 306-317.
- \_\_\_\_\_, 1968, Structural pattern of Egypt and its interpretation: Am. Assoc. Pet. Geol., Bull., v. 52, no. 4, p. 601-614.
- \_\_\_\_\_, 1971, Guides for prospecting for phosphates in Libya, in C. Gray, ed., Symp. Geol. Libya: Fac. Sci., Univ. Libya, p. 513-522.
- Youssef, M. I., and Abdel Aziz, W., 1971, Biostratigraphy of the Upper Cretaceous-lower Tertiary in Farafra Oasis, Libyan Desert, Egypt, in Symposium on the geology of Libya: Fac. Sci., Univ. Libya, p. 227-249.
- Youssef, M. I., and Abdel Malik, W. M., 1969a, Microfacies of the Tertiary rocks of the Tayiba-Feiran area, west-central Sinai, Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4A, p. 253-310.
- \_\_\_\_\_, 1969b, Stratigraphy, structure and sedimentary history of the Tertiary rocks of Tayiba-Feiran area west-central Sinai, Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 661-673.
- \_\_\_\_\_, 1969c, Micropaleontological zonation of the Tertiary rocks of Tayiba-Feiran area, west-central Sinai, Egypt: Arab Sci. Congr., 6th, Damascus, pt. 4B, p. 675-684.
- Youssef, M. I., Bassiouni, M. A., and Cherif, O. H., 1970, Some stratigraphic and tectonic aspects of the Miocene in the northeastern part of the Eastern Desert, Egypt: Inst. Egypte, Bull., v. 52, p. 119-155.
- Youssef, M. I., Bassiouni, M. A., and Haman, K. A., 1971, Microfacies of the middle Miocene rocks of Agrud area (NW. of Suez): Egypt. Acad. Sci., Proc., v. 23, p. 227-233.
- Youssef, M. I., and El Tarabili, E., 1970, Paleogeography and paleoecology and genesis of the phosphate sediments in Qusseir-Safaga, U.A.R. -- discussion and reply: Econ. Geol., v. 65, p. 66-71.
- Youssef, M. I., and Moshen, L. A., 1963, Mineralogy and origin of some vein manganese ores in Sinai: Bull. Fac. Sci., Ain Shams Univ., no. 9, p. 485-515.
- Youssef, M. I., Youssef, H., and Abdou, F., 1953, A faunule with Nummulites deserti from Kousseir area: Bull. Inst. Desert Egypte, t. 3, no. 2, p. 123-124.
- Youssef, M. S., and El Kahwagy, A. S., 1966, Geophysical and geochemical interpretation at Um Gheig area, Eastern Desert: Egypt, Geol. Surv., Pap. no. 33, 12 p.
- Youssef, M. S., and El Saady, M. N., 1963, Relation between ground-water composition and geology of Dakhla Oasis: Soc. Geogr. Egypte, Bull., v. 36, p. 101-112.
- Youssef, M. S., and others, 1967, Geophysical investigation for ground water in Maghara area, north Sinai: Egypt, Geol. Surv., Pap. no. 42, 14 p.
- \_\_\_\_\_, 1970a, Efficiency of logging operations in prospecting for useful minerals in Egypt, in O. M. Mahgoub, and others, eds., Studies on some mineral deposits of Egypt: Egypt, Geol. Surv., Publ., pt. 4, p. 239-248.

- Youssef, M. S. and others, 1970b, Practical application of complex geophysical investigations on some ore deposits in Egypt, in Studies on some mineral deposits in Egypt; Part IV, Geophysical investigation: Egypt, Geol. Surv., Publ., p. 221-237.
- Zaatout, M. A., 1956, The dolomite and dolomitic rocks of Gebel Ataga (eastern cliff, Suez sheet): Egypt, Geol. Surv., Publ., 27 p.
- Zaatout, M. A., and Abdou, H. F., 1975, A review of Bahariya iron ore deposit: Egypt, Geol. Surv., Ann., v. 5, p. 71-86.
- Zaffarano, R. F., 1974a, The mineral industry of Algeria, in Mineral Yearbook 1972; Volume III, area reports; international (edited by Albert E. Schreck): U.S. Bur. Mines, Washington, D.C., 1974, p. 65-76.
- \_\_\_\_\_, 1974b, The mineral industry of the Arab Republic of Egypt, in Minerals Yearbook 1972; Volume III, area reports; international (edited by Albert E. Schreck): U.S. Bur. Mines, Washington, D.C., p. 259-268.
- \_\_\_\_\_, 1974c, The mineral industry of Libya, in Minerals Yearbook 1972; Volume III, area reports: U.S. Bur. Mines, Washington, D.C., p. 547-554.
- Zaghloul, Z. M., 1960, Note on the occurrence of the urano-thorite and radioactive zircon in black sands of Rosetta: Egypt. J. Geol., v. 4, p. 89-91.
- Zaghloul, Z. M., Abdel Rahmin, A. M., and Abdalla, A. A., 1961, Measurements of total alphaparticles radioactivity of mineral grains: Egypt. J. Geol., v. 5, p. 91-102.
- Zaghloul, Z. M., and Asswad, T. A., 1965, Note on subsurface Miocene anhydrite of Belayim East oil field, Gulf of Suez: Egypt. J. Geol., v. 9, p. 89-95.
- Zaghloul, Z. M., Ibrahim, A., and Asswad, T. A., 1967, X-ray study on subsurface Miocene anhydrite of Belayim East oil field, Gulf of Suez: Arab Pet. Congr., 6th, Baghdad, v. 2, 4 p.
- Zaghloul, Z. M., and Kamil, K. E., 1965, The mineralogical and petrographical features of monazite from the black sands of Rosetta: Egypt. J. Geol., v. 9, no. 1, p. 17-30.
- \_\_\_\_\_, 1966, Mineralogical and petrographical features of zircon of the black sands of Rosetta: Bull. Inst. Desert Egypte, v. 16, no. 1, p. 1-18.
- \_\_\_\_\_, 1967, A correlative study on zircon, rutile and monazite of the black sands of the Rosetta, the future of the deposit after the construction of Aswan High Dam, Egypt: Bull. Sci. Tech., Assiut Univ., v. 10, p. 107-124.
- Zaghloul, Z. M., and Khaffagy, M. B., 1965, Zircon in the granites of Aswan, Upper Egypt, U.A.R.: Bull. Sci. Tech., Assiut Univ., v. 8, p. 115-128.
- Zaghloul, Z. M., and Mabrouk, B., 1964, On uranium in Dakhala and Mahamid phosphate deposits: Egypt. J. Geol., v. 8, p. 70-86.
- Zahran, M. A., 1966, Ecological study of Wadi Dungul: Bull. Inst. Desert Egypte, v. 16, no. 1, p. 127-144.
- \_\_\_\_\_, 1967, On the ecology of the coast of Gulf of Suez littoral salt marsh: Bull. Inst. Desert Egypte, v. 17, no. 2, p. 225-252.
- \_\_\_\_\_, 1977, Africa; a wet formation of the African Red Sea coast, in Wet coastal ecosystems (Chapman, V. J., ed.): Elsevier Sci. Publ. Co., Amsterdam, v. 1, p. 215-231.

- Zdansky, O., 1938, Eotherium majus sp. n., eine neue Sirene aus dem Mitteleozan von Aegypten: *Palaeobiologica*, Bd. 6, Lf. 2, p. 429-434.
- \_\_\_\_\_, 1947, On flint pebbles from the Egyptian Desert: *Inst. Egypte, Bull.*, t. 28, p. 93-100.
- Zeidan, S., 1967, Electric logging proves helpful in water flooding: *Arab Pet. Congr.*, 6th, Baghdad, v. 2, 6 p.
- Zeidan, S., and El Hossary, A., 1971, A statistical study on core analysis data in Hamman Faraun member of Shukeir oil field, Egypt: *Bull. Fac. Sci., Ain Shams Univ.*, no. 15, p. 31-50.
- Zeidan, S., and Fargall, M., 1971, Factors affecting the neutron log response for porosity determination: *Bull. Fac. Sci., Ain Shams Univ.*, no. 15, p. 63-76.
- Zeidan, S., and Mahmoud, A., 1969, Analysis of electric logs and their applications to geologic and engineering problems in Aswan High Dam, U.A.R.: *Arab Sci. Congr.*, 6th, Damascus, pt. 4A, p. 59-86.
- \_\_\_\_\_, 1971, an experimental study on the relation between filtration coefficient and electrical resistivity of sand during its injection with grouts for High Dam construction: *Bull. Fac. Sci., Ain Shams Univ.*, no. 15, p. 19-30.
- Zein El Abedine, A., 1966, Study of the subdeltaic sandy formations and their effect on the adjacent soils of the Nile Delta: *J. Soil Sci.*, v. 6, p. 37-49.
- Zein El Abedine, A., Abdalla, M. M., and El Demerdashe, S., 1966, Comparative studies of the soils in the Delta region and the border fringes; pt. III -- Mineralogy of the subfractions: *Bull. Inst. Desert Egypte*, v. 16, no. 2, p. 107-122.
- Zitzmann, A., 1977, The iron ore deposits of the Arab Republic of Egypt, in *The iron ore deposits of Europe and adjacent areas; explanatory notes to the international map of the iron ore deposits of Europe, 1:2,500,000*: *Bundesanst. Geowiss. Rohstoffe*, v. 1, p. 129-133.
- \_\_\_\_\_, 1978, *The iron ore deposits of Europe and adjacent areas; explanatory notes to the international map of the iron ore deposits of Europe, 1:2,500,000*: *Bundesanst. Geowiss. Rohstoffe*, 386 p.
- Zonn, S. V., ed., 1978, *Genezis i geografiya pochv Zarubezhnykh stran; po issledovaniyam sovetskikh geografov* [Soil genesis and geography in foreign countries; investigations of Soviet geographers]: *Izd. Nauka, Moscow*, 183 p.
- Zwittkovits, Franz, 1966, Egypt Die Karstformen im Wadi Garawi (Arabische Wüste, Agypten) [Karst features in the Garawi wasi, Arabian Desert]: *Osterreich. Geogr. Ges., Mitt.*, v. 108, no. 2-3, p. 287-295.



## SUBJECT INDEX FORMAT

### AREAL GEOLOGY

- Local by 1:500,000 Sheet

- Regional

### ASTROGEOLOGY

### BASEMENT COMPLEX

### ECONOMIC GEOLOGY AND NATURAL RESOURCES

- Areal Studies

  - Local by 1:500,000 Sheet

  - Regional

- Coal

  - Analysis and Chemical Composition

  - General Studies

  - Production

  - Resources and Prospects

- Mineral Resources

  - Geothermal Deposits and Metalliferous Brines

  - Metals

    - Individual by Name

    - Undifferentiated

  - Metals and Nonmetals Undifferentiated

  - Nonmetals

    - Individual by Name

    - Undifferentiated

- Nuclear Energy

  - Radioactive Minerals

  - Radioactivity and Nuclear Material Studies

- Petroleum (Oil and Gas)

  - Accumulation

  - Developments

    - Local by 1:500,000 Sheet

    - Regional

  - Drilling and Completion Practice

  - Oil and Gas Fields

    - Local by 1:500,000 Sheet

    - Regional

  - Origin and Migration

  - Petroleum Geology

  - Production

  - Resources, Prospects, and Exploration

  - Wells and Samples

- Questionable Resources

### ENGINEERING GEOLOGY

- Building Materials

- Engineering Studies

- Foundation and Site Reports

- Landslides and Erosion

- Physical Properties of Sediments and Rocks

### ENVIRONMENTAL GEOLOGY AND GEOLOGIC HAZARDS

### GENERAL

- Bibliographies, Catalogues, and Publication Lists

- Biographies

- Guidebooks, Road Logs, Excursions, and Field Trips
- Meetings, Symposiums, Lectures, and Minutes
- GEOCHEMISTRY
- GEOCHRONOLOGY
- GEOMORPHOLOGY
  - Areal Studies
    - Local by 1:500,000 Sheet Number
    - Regional
  - Continental Features
    - Alluvial Fans and Piedmonts
    - Basins
    - Deltas
    - Desert Landforms
    - Mountains, Hills, and Plateaus
    - Rivers and Lakes
    - Topography
  - Nearshore Marine Features
    - Beaches and Strand Lines
    - Littoral Zones
    - Reefs
  - Offshore Marine Features
- GEOPHYSICS
  - Areal Studies
    - Local by 1:500,000 Sheet Number
    - Regional
  - Bathymetry
  - General Studies
  - Geodesy
  - Gravity
  - Heat Flow
  - Magnetics
  - Remote Sensing and Photography
  - Resistivity
  - Seismic
- HYDROLOGY AND HYDROGEOLOGY
  - Areal Studies
    - Local by 1:500,000 Sheet Number
    - Regional
  - Dams and Dam Sites
  - General Studies
  - Ground Water
  - Hydrogeochemistry (Aquatic Chemistry)
  - Paleohydrology
  - Surface Waters
  - Water Quality
  - Wells and Springs
- IGNEOUS GEOLOGY
  - Areal Studies
    - Local by 1:500,000 Sheet Number
    - Regional
  - General Studies
  - Petrography and Petrology
  - Processes and Genesis
- METAMORPHIC GEOLOGY

Areal Studies

Local by 1:500,000 Sheet Number

Regional

Petrography and Petrology

Processes and Genesis

MINERALOGY (see also Economic Geology and Natural Resources, Mineral Resources)

PALEOCLIMATOLOGY AND CLIMATOLOGY

PALEOGEOGRAPHY

PALEONTOLOGY

Ages

Pre-Cretaceous

Cretaceous

Tertiary

Paleocene

Eocene

Oligocene

Miocene

Pliocene

Undifferentiated

Quaternary

Pleistocene

Holocene (Recent)

Undifferentiated

Areal Studies

Local by 1:500,000 Sheet

Regional

Correlation, Relationships, and Biostratigraphy

Megafofossils (Invertebrate)

Annelida

Arthropoda

Brachipoda

Bryozoa

Coelenterata

Echinodermata

Mollusca

Cephalopoda

Gastropoda

Pelecypoda (Lamellibranchiata)

Undifferentiated

Porifera

Undifferentiated

Microfofossils

Diatoms

Foraminifera

Nannoplankton

Ostracods

Radiolaria

Undifferentiated

Paleobotany and Palynology

Paleoenvironment, Paleoecology, and Biofacies

Trace Fossils

Vertebrates

Fish

Mammals other than Primates

- Primates (includes Archeology and Anthropology)
- Reptiles
- Undifferentiated
- SEDIMENTARY GEOLOGY
  - Environments and Facies
    - Continental
    - Marine
    - Undifferentiated
  - General Studies
  - Petrography and Petrology
    - Areal Studies
      - Local by 1:500,000 Sheet
      - Regional
    - Sedimentary Structures and Patterns
    - General Studies
    - Stratigraphic Units - listed by name
  - Sedimentation
    - Depositional Processes
    - Diagenesis and Lithification
    - Erosion and Weathering
    - General Studies
    - Rates and Transport
- SOILS
- STRATIGRAPHY
  - Ages
    - Pre-Cretaceous
    - Cretaceous
    - Tertiary
      - Paleocene
      - Eocene
      - Oligocene
      - Miocene
      - Pliocene
      - Undifferentiated
    - Quaternary
      - Pleistocene
      - Holocene (Recent)
      - Undifferentiated
  - Areal Studies
    - Local by 1:500,000 Sheet
    - Regional
  - Correlation (see also Paleontology, Correlation, Relationships, and Biostratigraphy)
  - Stratigraphic Unit by Name
- STRUCTURAL GEOLOGY
  - Areal Studies
    - Local by 1:500,000 Sheet
    - Regional
  - Faults
  - Folds
  - General
  - Tectonics and Structural Evolution



## Subject Index

### Areal Geology

#### Local

##### Sheet 1 - Matruh

Ball, J., 1933; Barakat, M. G., and Afra, A. A., 1972; El Shami, I., El Shazly, M., and Shata, A., 1971; Said, R., 1960b; Shata, A., 1953b, 1955c, 1957b; Thiele, J., Gramann, F., and Kleinsorge, H., 1970.

##### Sheet 2 - Cairo

Abdallah, A. M., and Abdel Hady, F. M., 1966, 1971; Azer, N., 1962; Barakat, M. G., Abdel Khalek, L. M., and Abou Khadrah, A. M., 1970; Barakat, M. G., and Abou Khadrah, A. M., 1971; Barakat, M. G., and Aboul Ela, N. M., 1971; Barron, T., 1907a; Basta, E. Z., Abdallah, A. M., and El Kadi, M. B., 1971, 1974; Bayoumi, A. I., and Sabri, A. M., 1971b; Beadnell, H. J. L., 1902, 1905; Crommelin, R. D., and Cailleux, A., 1939; Cuvillier, J., 1934c; El Akkad, S., and Abdallah, A. M., 1971; El Shazly, E. M., Abdel Hady, M. A., and Morsy, M. A., 1974; Entz, B., and Rzoska, J., 1976; Faris, M. I., and Abbass, H. L., 1961; Fawzi, M. A., 1959; Goby, J. E., 1942; Helal, A. H., and Ulrich, J., 1962; Issawi, B., 1976e; Kabesh, M. L., Abdel Khalek, M. L., and Refaat, A. M., 1970; Little, O. H., 1932; Said, R., and Martin, L., 1964; Shukri, N. M., 1953a; Shukri, N. M., and Akmal, M. G., 1953; Shukri, N. M., and El Ayouty, M. K., 1956; Shukri, N. M., El Ayouty, M. K., and Morcos, M. B., 1971; Shukri, N. M., Philip, G., and Said, R., 1956; Soliman, S. M., and Faris, M. I., 1963; Wagner, G., 1934.

##### Sheet 3 - North Sinai

Ahmad, A. M. A., and Abdel Rahman, M. H., 1977; Ball, J., 1916; Barron, T., 1907b; Farag, I. A. M., 1947, 1955; Farag, I. A. M., and Shata, A., 1954; Shata, A., 1960b.

##### Sheet 4 - Bahariya

Ball, J., and Beadnell, H. J. L., 1902; Barakat, M. G., and Abdel Hamid, M. L., 1974; Beadnell, H. J. L., 1901a; Cuvillier, Jean, 1934c; El Akkad, S., and Issawi, B., 1963; Ghorab, M. A., Bishay, Y. M., and Tewfik, N. M., 1969; Ibrahim, M. M., 1942; Said, R., and Issawi, B., 1964; Said, R., and Kerdany, M. T., 1961.

##### Sheet 5 - Asyute

Awad, G. H., and Abdallah, A. M., 1966; Bayoumi, A. I., and Bector, J. G., 1970.

##### Sheet 6 - South Sinai

Abdel Khalek, M. L., and Hafez, A., 1974; Andrew, G., 1934b; Ball, J., 1916; Barron, T., 1907b; Basta, E. Z., and Amer, H. I., 1970c; Bayoumi, A. I., and Abdel Rahman, F., 1972; Davey, J. C., 1948; El Shazly, E. M., Shukri, N. M., and Saleeb, G. S., 1963; El Tarabili, E. E., and Adawy, N., 1972; Faris, M. I., and Hassan, M. Y., 1959; Ghobrial, M. G., and Lotfi, M., 1967; Hume, W. F., 1906; Lofti, M., and Hafez, A., 1973; Nasser, S. A., and Chukri, B., 1958; Pezaro, P., 1973; Shukri, N. M., 1945c, 1954b; Youssef, M. I., and Abdel Malik, W. M., 1969b.

Areal Geology (continued)

Local (continued)

Sheet 7 - Dakhla

Barakat, M. G., and Milad, G. S., 1966; Beadnell, H. J. L., 1901b; Burollet, P. F., 1963; Youssef, M. S., and El Saady, M. N., 1963.

Sheet 8 - Qena

Awad, H., 1948; Ball, 1900, 1902; Barakat, M. G., and Assad, F. A., 1965; Barakat, M. G., and Milad, G. S., 1966; Beadnell, H. J. L., 1901b; Hermina, M. H., 1967; Hermina, M. H., Ghobrial, M. G., and Issawi, B., 1961, Issawi, B., 1971, 1976b, 1976c, 1976d; Issawi, B., and El Etr, H. A., 1971; Omara, S., El Tahlawi, M. R., and Khalifa, H., 1973.

Sheet 9 - Quseir

Akaad, M. K., and Essawy, M. A., 1964a; Amer, A. F., and Mansour, A. O., 1955; Amin, M. S., 1955c; Amin, M. S., and Mohamed, I. H., 1954; Amin, M. S., and Moustafa, G. A., 1954; Amin, M. S., and others, 1952; Amin, M. S., Sabet, A. H., and Mansour, A. O. A., 1953; Attia, M. I., 1948; Basta, E. Z., and Zaki, G. M., 1961; El Akkad, S., and Dardir, A. A., 1966a, 1966b; El Ramly, M. F., and Al Far, D. M., 1955; El Shazly, E. M., and Afia, M. S., 1958; El Shazly, E. M., and Hamada, M. M., 1954; El Shazly, E. M., and Hassan, A. K., 1962; Faris, M. I., and Hassan, M. Y., 1959; Hussein, H. A., and El Kassas, I. A., 1971b; Hussein, H. A., Faris, M. I., and Assaf, H. S., 1969; Ibrahim, M. M., 1943; Issawi, B., and others, 1971; Mansour, M. S., and Bassyuni, F. A., 1954; Mansour, M. S., Bassyuni, F. A., and Al Far, D. M., 1956; Moustafa, G. A., and Abdallah, A. M., 1958; Moustafa, G. A., and Akaad, M. K., 1962; Moustafa, G. A., and Hilmy, M. E., 1958; Moustafa, G. A., Kabesh, M. L. A., and Abdalla, A. M., 1954; Sabet, A. H., and Z'aatout, M. A., 1955; Shukri, N. M., and Basta, E. Z., 1963.

Sheet 10 - Uweinat

Awad, H., 1948; Simons, P., 1973b.

Sheet 11 - Aswan

Ball, J., 1902, 1907; El Shazly, E. M., 1954; El Shazly, E. M., and others, 1974b, 1974c, 1974e; Gindy, A. R., 1954; Issawi, B., 1969, 1971; Issawi, B., and El Etr, H. A., 1971; Reed, C. A., 1964; Rittmann, A., 1953; Rzoska, J., 1976f; Said, R., and Issawi, B., 1965; Voute, C., 1963.

Sheet 12 - Elba

El Shazly, E. M., Farag, I. M., and Bassyuni, F. A., 1965, 1971; El Shazly, E. M., and Hassan, M. A., 1972; Ghanem, M., 1972b; Lofti, M., 1962; Moon, F. W., 1922.

Regional

Abdallah, A. M., 1961b, 1965a; Abdel Gawad, M., 1970a, 1970b; Abdine, A. S., and Deibis, S., 1972; Ahmed, A. R. A., 1972; Al Shanti, A. M., ed, 1978; Allan, T. D., and Morelli, C., 1970; Allison, L. J., 1977; Amin, M. S., 1955a; Andrew, G., 1936; Attia, M. I., 1954a; Auldridge, L., 1977; Badawry, R., 1963; Ball, J., 1912, 1916; Bar, C. B., and Klitzsch, E., 1964; Barr, F. T., 1964, 1968; Barrow, T., and Hume, W. F., 1902; Bayoumi, A. I., and Shereff, R., 1971b; Beaumont,

## Areal Geology (continued)

### Regional (continued)

P., Blake, G. H., and Wagstaff, J. M., 1976; Butzer, K. W., 1959a, 1959b, 1960a; Carpen, T. R., 1965; Dubertret, L., 1967; El Addindani, A., and Shakhov, R. A., 1970; El Shazly, E. M., 1957b, 1977; El Shazly, E. M., and others, 1978; El Shazly, E. M., Shukri, N. M., and Fouad, K. M., 1968; Entz, B., and Rzoska, J., 1976; Faris, M. I., 1956; Fawzi, M. A., 1960; Friedman, G. M., 1968; Furon, R., 1960, 1971; Furon, R., and Lombard, J., 1964; Gass, I. G., and Whiteman, A. J., 1969; Gillman, M., Letullier, A., and Renouard, G., 1966; Girdler, R. W., Gass, I. G., and Cox, K. G., 1973; Goudarzi, G. H., 1970; Hagedorn, H., 1975; Hassan, A. A., 1963; Heinzlein, J. D., 1968; Heinzlein, J. D., and Paepe R., 1965; Hilmy, M. E., and Moshen, L. A., 1963; Himida, I. H., 1963; Hume, W. F., 1911, 1912, 1925; Issawi, B., 1973b; Issawi, B., Wendorf, F., and Schild, R., 1976; Klemme, H. D., 1958; Klitzsch, E., 1978; Knetsch, G., 1954a; Little, O. H., 1925; Lucas, A., 1905; Martonne, E., 1947, 1948; Mining Ann. Review, 1978; Moustafa, Y. S., 1973; Nir, Y., 1971; Reilly, F. A., ed., 1964; Resch, W. F. E., 1973; Rigassi, D. A., 1971a, 1971b; Ross, D. A., 1971; Said, R., 1957, 1962a, 1971b, 1974b, 1975c, 1975d; Said, R., Attia, A. A., and Mansour, A. O., 1971; Said, R., Wendorf, F., and Schild, R., 1970a; Sanford, K. S., 1933; Schurmann, H. M. E., 1974; Shata, A., 1956b; Shawki Moustafa, Y., 1973; Shirtajuddin, A. S., 1972; Simons, E. L., 1964; Simons, P., 1973a; Solle, G., 1968; Squyres, C. H., and Bradley, W., 1964; Swartz, D. H., and Arden, D. D., 1960; Tromp, S. W., 1951a; U. S. Central Intelligence Agency, 1977; U. S. Geological Survey, 1978; UNESCO, 1967, 1968; Whiteman, A. J., 1963, 1971.

### Astrogeology

Attia, A. A., and others, 1955; Bjorkman, J. K., 1973; Cohen, A. J., 1960; El Shazly, E. M., 1957b; 1958; Fleischer, R. L., Price, P. B., and Walker, R. M., 1965; Genter, W., Storzer, D., and Wagner, G. A., 1969; Giegengack, R., and Issawi, B., 1975; Hutchinson, R., Gale, N., and Arden, J. W., 1975; Krinov, E. L., 1945, O'Keefe, J. A., 1976; Spenser, L. J., 1939.

### Basement Complex

Akaad, M. K., 1963a, 1963b; Akaad, M. K., and El Ramly, M. F., 1960, 1963a; Akaad, M. K., and Essawy, M. A., 1964b, 1965b, 1965c; Akaad, M. K., and Moustafa, G. M., 1963; Akaad, M. K., and Noweir, A. M., 1972; Al Shanti, A. M., 1978; Amin, M. S., 1955a; Azer, N., 1966; Bayoumi, A. I., and El Gamili, M., 1969; Clifford, T. N., 1970; Dardir, A. A., and Abu Zeid, K. M., 1972; Delfour, J., 1976; El Etr, H. A., Abdallah, A. M., and Abdel Rahman, M. A., 1976; El Ramly, M. F., 1963, 1972; El Ramly, M. F., and Akaad, M. K., 1960a, 1960b; El Ramly, M. F., and Salloum, G., 1974; El Shazly, E. M., El Sokkary, A. A., and Khalil, S. O., 1971, 1973; El Shazly, E. M., Farag, I. M., and Bassyuni,

## Basement Complex (continued)

F. A., 1965; Francis, M. H., 1972; Ghanem, M., 1972a, 1972b; Ghanem, M., and others, 1973; Gheith, M. A., 1961; Gindy, A. R., 1963b, 1970a, 1972; Hashad, A. H., and others, 1974; Kabesh, M. L., and Higazy, M., 1969; Kabesh, M. L., Hilmy, M. E., and Bishady, A. M., 1967; Kabesh, M. L., and Shahin, A. N., 1969; Kennedy, W. Q., 1965; Knetsch, G., 1959; Lotfi, M., and Kabesh, M. L., 1964; Meneisy, M. Y., 1972; Moskalenko, V. N., 1966; Naim, E. M., and Ismail, M. M., 1966; Neary, C. R., 1978; Ramez, M. R. H., and Marie, A. A., 1974; Rizkalla, I., 1976; Sabet, A. H., 1972; Sabet, A. H., El Gaby, S., and Zalata, A. A., 1972; Said, R., and others, 1971; Schurmann, H. M. E., 1974.

## Economic Geology and Natural Resources

### Areal Studies

#### Local

##### Sheet 2 - Cairo

Adindani, A., and others, 1975; Anwar, Y. M., and El Bouseily, A. M., 1970a, 1970b; Atia, A. K. M., Hilmy, M. E., and Bolous, S. N., 1970a, 1970b; Attia, M. I., 1955a; Ball, J., 1937; Basta, E. Z., Abdallah, A. M., and El Kadi, M. B., 1974; Basta, E. Z., El Kadi, M. B., and Maksoud, M. A., 1971; El Hinnawi, E., 1969; El Hinnawi, E. E., and El Shahat, A., 1969; Farah, M. Y., and El Yamani, T. S., 1970; Faris, M. I., and George, F. G., 1961; Faris, M. I., and George, F. G., 1963; Faris, M. I., Higazy, R. A., and Hassanein, A. M., 1966; Faris, M. I., and Soliman, S. M., 1954; Gindy, A. R., 1960a, 1961b; Girgis, G. F., and Girgis, B. S., 1969; Hilmy, M. E., and Awad, N. T., 1965; Hilmy, M. E., and Darwish, M. H., 1966; Himida, I. H., Diab, M. S., and Augustithus, S. S., 1976; Himida, I. H., and El Daem, A. A., 1976; Kamel, O. A., and others, 1973; Khairy, E. M., and others, 1964; Kotb, H., Ghaly, E. L., and Awad, M. F., 1965; Meleik, M. L., and others, 1978; Sabet, A. H., Bendawi, M. F., and Abdel Razik, T. M., 1969; Tosson, S., 1963b; Tosson, S., and Ghowall, S. I., 1974; Yallouze, M., 1967b; Zaghloul, Z. M., and Kamil, K. E., 1965, 1966, 1967.

##### Sheet 3 - North Sinai

Al Far, D. M., 1966, Amiel, A. J., and Milner, D. S., 1972; Levy, Y., 1971.

##### Sheet 4 - Bahariya

Basta, E. Z., and Amer, H. I., 1969, 1970a, 1970b; El Shazly, E. M., 1962a, 1962b; El Sinbawy, H. A., and others, 1965; Gheith, M. A., 1959; Kamel, O. A., 1971b; Kolbe, H., 1957; Nakhla, F. M., 1961a; Orphy, M. K., Malati, M. A., and Mustafa, S. I., 1967; Tosson, S., and Saad, N. A., 1974; Zaatout, M. A., and Abdou, H. F., 1975.

##### Sheet 5 - Asyute

Abdel Aziz, and others, 1971; Abdallah, A. M., 1961a, 1965b; Akaad, M. K., and Naggar, M. H., 1963a, 1963b, 1964; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1961; Basta, E. Z., and Amer, H. I., 1969, 1970a, 1970b;



Economic Geology and Natural Resources (continued)

Areal Studies (continued)

Local (continued)

Sheet 5 - Asyute (continued)

El Shazly, E. M., 1962a, 1962b, 1962c; El Zarka, M. H., and El Ghamry, M. A., 1976a, 1976b; Faris, M. I., and George, F. G., 1966; Ghanem, M., Gabra, S., and Ahmed, S. H., 1971; Hadidi, T. A., 1960, 1961; Rashed, A. A., Roushdy, M. I., and Youssef, M. H., 1975; Strumpel, E. 1961; Yallouze, M., 1967b.

Sheet 6 - South Sinai

Bayoumi, A. I., and Abdel Rahman, F., 1972; Bayoumi, A. I., and Awad, G. M., 1972; Eisenlohr, V., 1965; El Ashry, M. T., 1972; El Hewehi, Z., El Nasr Khalaf, S., and Omar, A., 1968; El Shazly, E. M., Shukri, N. M., and Saleeb, G. S., 1963; El Tarabili, E. E., 1970a; El Zarka, M. H., and El Ghamry, M. A., 1976a, 1976b; Faris, M. I., and George, F. G., 1966; Ghorab, M. A., 1961; Gill, D., and Ford, S. O., 1956; Gindy, A. R., El Askary, M. A., and Khalil, S. O., 1978; Hadidi, T. A., 1960, 1961; Hilmy, M. E., Lotfi, A., and Moshen, L. A., 1965; Khattab, H. A., and Hadidi, T. A., 1961; Kostandi, A. B., 1961; Mart, J., and Sass, E., 1972; Nasser, S. A., and Chukri, B., 1958; Petrascheck, W. E., and Nakhla, F. M., 1961; Philip, G., and Reda, S., 1968a, 1968b; Rashed, A. A., Roushdy, M. I., and Youssef, M. H., 1975; Shukri, N. M., and Nakhla, F. M., 1956; Soliman, S. M., 1961b; Zaghloul, Z. M., and Asswad, T. A., 1965; Zaghloul, Z. M., Ibrahim, A., and Asswad, T. A., 1967.

Sheet 7 - Dakhla

Zaghloul, Z. M., and Mabrouk, B., 1964.

Sheet 8 - Qena

Abdallah, A. M., and Dardir, A. A., 1971; Barthelemy, Y., 1940a, 1942; Bishara, W. W., and Nasr, M., 1975; El Bassyouny, A. A., and others, 1970; El Shazly, M. M., and Shata, A., 1960b; Embabi, N. S., 1972; Gad, G. M., and Abdel Maksoud, M., 1966; Ghanem, M., and others, 1970; Hathout, M. Z., and Abdel Azim, Y. Y., 1963b; Hermina, M. H., 1973, 1974; Hermina, M. H., and Wassef, A., 1975; Kotb, H., El Kammar, A. M., and Zohny, N., 1978; Said, R., 1971c; Zaghloul, Z. M., and Mabrouk, B., 1964.

Sheet 9 - Quseir

Akaad, M. K., and El Ramly, M. F., 1961, 1963b; Amin, M. S., 1947, 1948; Amin, M. S., and Afia, M. S., 1954; Anwar, Y. M., and Kotb, H., 1963; 1966; Anwar, Y. M., Tosson, S., and Saad, N. A., 1970; Ashry, M. M., 1970; Atfeh, M. S., 1966; Basta, E. Z., 1970; Basta, E. Z., and Zaki, G. M., 1961; Bayoumi, A. I., and El Dashlouty, S., 1967; Bedewi, M. F., and Ghobrial, N. K., 1971; Bishara, W. W., and Habib, M. E., 1973; Burggraef, W., and Muller, H. G., 1965; Eid, A. M., and Abdel Rehim, M. M., 1963a, 1963b; El Ramly, M. F., Akaad, M. K., and Al Far, D. M., 1959; El Ramly, M. F., Akaad, M. K., and Rasmy, A. H., 1964; El Ramly, M. F., and others, 1969a, 1969b, 1970d, 1970e; El Shazly, E. M., and Afia, M. S., 1958; El Shazly, E. M., and Hassan, A. K.,

Economic Geology and Natural Resources (continued)

Areal Studies (continued)

Local (continued)

Sheet 9 - Quseir (continued)

1962; El Shazly, E. M., and Mansour, A. O., 1962; El Shazly, E. M., and Sabet, A. H., 1955; El Tarabili, E. E., 1966a, 1969, 1970a; Gad, G. M., 1952; Gindy, A. R., 1968, 1978; Hassan, M. A., 1973, 1974; Hathout, M. Z., and Abdel Azim, Y. Y., 1963a; Hilmy, M. E., Kamel, O. A., and Niazzy, E. A., 1969; Hilmy, M. E., and others, 1968; Hussein, H. A., and El Kassas, I. A., 1970; 1971a; Hussein, H. A., Faris, M. I., and Assaf, H. S., 1969, 1970; Hussein, M. K., Kolta, G. A., and Abdel Aal, O., 1971; Issawi, B., and others, 1969; Kabash, M. L., El Hinnawi, E. E., and Mansour, M. A., 1970; Kotb, H., Abdel Azim, Y. Y., and Kamel, O. A., 1971; Kotb, H., and others, 1971; Moustafa, G. A., and Hilmy, M. E., 1958; Omara, S., 1965b; Sabet, A. H., 1961; 1974a, 1974b, 1974c; Sabet, A. H., and Saleeb, G. S., 1968; Sadek, M., 1953; Saleeb, G. S., 1968; Saleeb, G. S., and El Baz, M. H., 1969, 1973; Saleeb, G. S., and Fafous, B. R. B., 1970; Shalaby, I., 1974a, 1974b; Shukri, N. M., El Shazly, E. M., and Sabet, A. H., 1959; Soliman, S. M., and Amer, K. M., 1972a; Soliman, S. M., and Hassaan, M. M., 1969, 1971; Tossou, S., 1971; Tossou, S., and Saad, N. A., 1971, 1972.

Sheet 10 - Uweinat

Bell, J. D., and Sandford, K. S., 1971.

Regional

Abdallah, A. M., 1967a; Abdallah, A. M., Mahfouz, S., and Abdel Razek, T. M., 1972a, 1972b; Abdel Aziz, M. G., Mirtov, J. V., and Karenko, M. V., 1973; Abdel Razik, T. M., 1969a; Abdel Azim, M. F., 1970; Abdel Khalek, M. L., 1974; Adindani, A., and Shakhov, R. A., 1970; Adkins, D. C., 1977; Al Far, D. M., 1964; Albright, J. L., 1976; Amiel, A. J., Milner, D. S., and Friedman, G. M., 1971; Amin, M. S., 1955c, 1960, 1961; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1963; Anwar, Y. M., and El Sokkary, A. A., 1970; Anwar, Y. M., Kotb, H., and Ammar, S. H., 1964; Anwar, Y. M., Kotb, H., and Zohny, N., 1969; Anwar, Y. M., and others, 1963; Asaad, Y., 1966; Atia, A. K. M., Hilmy, M. E., and Morsy, A. M., 1971; Attia, M. I., 1949, 1950, 1952; 1956; Auldridge, L., 1975; Ayouti, M. K., 1975; Azer, N., 1966; Baecker, H., 1971; Baecker, H., and Richter, H., 1973; Baecker, H., and Schoell, M., 1972; Ball, J., 1913; Barakat, M. G., 1970; Bashat, H. M., Salem, M., and Etman, M. H., 1970; Basta, E. Z., and Girgis, M. H., 1968, 1969; Basta, E. Z., and Saleeb, W. S., 1971a, 1971b; Baturin, G. N., Kochenov, A. V., and Trimonis, Y. S., 1969; Bayoumi, A. I., Helmi, A., and Wadie, N., 1965; Behrman, D., 1970; Bentz, F. P., and Gutman, S. I., 1977; Bischoff, J. L., 1969a; Bischoff, J. L., and Manheim, F. T., 1969; Bishay, A., and others, 1974a; 1974c; Blake, G. H., 1974; Bugrov, V. A., El Gadael, A. A., and Soliman, M. M., 1973; Bugrov, V. A., and Shalaby, I. M., 1973, 1975; Carroll, D. L., 1945; Champetier, Y., 1977; Chata, A., 1951, 1952; Clayton,

## Economic Geology and Natural Resources (continued)

### Areal Studies (continued)

#### Regional (continued)

P. A., and Spencer, L. J., 1934, 1973; Craig, H., 1966, 1968, 1969; Degens, E. T., 1970; Degens, E. T., and Ross, D. A., 1967, 1969; De Kun, N., 1965; Delevaux, M. H., Doe, B. R., and Brown, G. F., 1967; Delfour, J., 1976; Deuser, W. G., and Degens, E. T., 1969; El Addindani, A., and Shakhov, R. A., 1970; El Badry, H. M., Nakhla, F. M., and Saleh, S. A., 1964, 1966; El Bakary, F., 1956; El Gabaly, M., and Khadr, M., 1962; El Hinnawi, E., 1964b, 1965a; El Kholy, S. B., and Selim, E. T. M., 1968; El Ramly, M. F., Ivanov, S. S., and Kochin, G. G., 1970; El Ramly, M. F., and others, 1970a, 1970b, 1970c, 1970d, 1970e; El Shazly, E. M., 1956, 1957b, 1959a, 1959b, 1968; El Shazly, E. M., Naser, S. A., and Shukri, B., 1955; El Shazly, E. M., and others, 1959; El Sokkary, A. A., 1972; El Zarka, M. H., 1969, 1970, 1975; El Zoghby, M. E., 1955; Emery, K. O., Hunt, J. M., and Hays, E. E., 1969; Fanous, Y., 1961; Faris, M. I., 1967; Faris, M. I., Youssef, M. I., and Kamel, O. A., 1963; Fedievsky, S., 1934; Furon, R., 1971; Garson, M. S., and Shalaby, I. M., 1976; Gezeery, N. H., Mohsen, S. M., and Farid, M. I., 1972; Gheith, M. A., 1956; Ghorab, M. A., 1960; Gillman, M., Letullier, A., and Renouard, G., 1966; Gindy, A. R., 1961e, 1966b, 1968, 1978; Gindy, A. R., and Badra, A. E., 1968; Goodchild, J. H., 1956; Goudorzi, G. H., 1970; Grdzlov, L. I., Morazov, L. I., and Shumilova, M. B., 1972; Hackett, J. P., Jr., and Bischoff, J. L., 1973; Hanter, G., 1967; Heybrock, F., 1965; Hilmy, M. E., and Moshen, L. A., 1963; Holman, B. W., 1956; Hume, W. F., 1916, 1927, 1937; Hussein, A. A., 1973; Issar, A., and others, 1971; Issar, A., Rosenthal, E., Eckstein, Y., 1969; Ivanov, T., Shalaby, I. M., and Hussein, A. A., 1973; Kersting, C. C., 1964; Kholief, M. M., and Hamed, H. A., 1976; Kotb, H., El Kammar, A. M., and Zohny, N., 1978; Krs, M., 1972; Little, O. H., and Attia, M. I., 1943; Marzouk, I., 1970; Mazor, E., 1968; Meckelein, W., 1975; Meneisy, M. Y., ed., 1974; Michel, R., 1971; Nakhla, F. M., El Badry, H. M., and Saleh, S. A., 1966; Nicola, F., and Soliman, M., 1972; Noll, W., and Hangst, K., 1975a, 1975b; Omara, S., 1965b; Orphy, M. K., 1971; Orphy, M. K., and El Gillani, D., 1972; Saad, M. A. H., 1974; Saad, S. I., 1965; Saleh, S. A., 1964; Shumenko, S. I., and Chumakov, I. S., 1974a, 1974b; Soliman, S. M., and Faris, M. I., 1965; Stchepinsky, V., 1938; Stotters, P., and Fischbeck, R., 1975; Sultan, I. Z., 1977; UNESCO, 1969; Visse, L., 1952; Youssef, A. A., Boulos, T. R., Saada, M. Y., 1972; Youssef, M. I., 1958, 1971; Zaffarano, R. F., 1974a, 1974b, 1974c; Zitzmann, A., 1978.

#### Coal

##### Analyses and Chemical Composition

Abdel Khalek, M. L., 1974; El Hewehi, Z., El Nasr Khalaf, S., and Omar, A., 1968; Faris, M. I., Higazy, R. A., and Hassanein, A. M., 1966; Gindy, A. R., El Askary, M. A., and Khalil, S. O., 1978; Hathout, M. Z., and El Shafay, S. B.,

## Economic Geology and Natural Resources (continued)

### Coal (continued)

#### Analyses and Chemical Composition (continued)

1961; Kotb, H., Ghaly, E. L., and Awad, M. F., 1965; Synelnik, A. S., and Kollerov, D. K., 1959.

#### General Studies

Nakhla, F. M., El Badry, H. M., and Saleh, S. A., 1966; Petrascheck, W. E., and Nakhla, F. M., 1961; Saleh, S. A., 1964; Sultan, I. Z., 1977.

#### Production

Lotfi, M., 1973.

#### Resources and Prospects

Abdel Khalek, M. L., 1974; Adindani, A., and Shakhov, R. A., 1970; Al Far, D. M., 1966; Al Far, D. M., Hagemann, H. W., and Omara, S., 1965; El Addindani, A., and Shakhov, R. A., 1970; El Badry, H. M., Nakhla, F. M., and Saleh, S. A., 1964, 1966.

### Mineral Resources

#### Geothermal Deposits and Metalliferous Brines

Aharon, P., Koloday, Y., and Sass, E., 1977; Amiel, A. J., and Milner, D. S., 1972; Amiel, A. J., Milner, D. S., and Friedman, G. M., 1971; Attia, M. I., 1955a; Baecker, H., 1971; Baecker, H., and Richter, H., 1973; Baecker, H., and Schoell, M., 1972; Baturin, G. N., 1970; Baturin, G. N., Kochenov, A. V., and Trimonis, Y. S., 1969; Behrman, D., 1970; Bischoff, J. L., 1969a, 1969b, 1972; Bischoff, J. L., and Manheim, F. T., 1969; Bishay, N. Z., 1973; Blissenbach, E., 1972; Bostrom, K., and Valdes, S., 1969; Brewer, P. G., and others, 1969, 1972; Brewer, P. G., and Spencer, D. W., 1969; Brooks, R. R., Kaplan, I. R., and Peterson, M. N. A., 1969; Chen, C., 1969; Cooper, J. A., and Richards, J. R., 1969; Craig, H., 1966, 1968, 1969; Degens, E. T., 1970; Degens, E. T., and Ross, D. A., 1967, 1969; Delevaux, M. H., Doe, B. R., and Brown, G. F., 1967; Deuser, W. G., and Degens, E. T., 1969; Dietrich, G., and Krause, G., 1969; Dzotsenidze, G. S., 1972; Emery, K. O., Hunt, J. M., and Hays, E. E., 1969; Erickson, A. J., and Simmons, G., 1969; Faure, G., and Jones, L. M., 1969; Goll, R. M., 1969; Hackett, J. P., Jr., and Bischoff, J. L., 1973; Hartmann, M., 1969, 1970, 1972, 1973; Hartmann, M., and Lohmann, L., 1968; Hartmann, M., and Nielson, H., 1966; Hendricks, R. L., and others, 1969; Herman, Y., and Rosenberg, P. E., 1969; Himida, I. H., Diab, M. S., and Augustithus, S. S., 1976; Himida, I. H., El Daem, A. A., 1976; Holmes, R., and Tooms, J. S., 1973; Hunt, J. M., and others, 1967; Issar, A., and others, 1971; Issar, A., Rosenthal, E., and Eckstein, Y., 1969; James, H. L., 1969; Kermabon, A. J., 1972; Ku, T. L., 1969; Ku, T. L., Thurber, D. L., and Mathieu, G. G., 1969; Kvasov, D. D., 1969a; Lassiter, J. B., 1971; Manheim, F. T., 1973; Maucher, H., 1970; Mazor, E., 1968; Mazor, E., Nadler, A., and Molcho, M., 1973; McIntyre, A., 1969; Miller, A. R., and others, 1966; Morgan, P., and Swanberg, C. A., 1977; Munns, R. G., Stanley, R. J., and Densmore, C. D., 1967; Philips, J. D., Woodside, J., and Bowin, C. O., 1969; Pugh,



## Economic Geology and Natural Resources (continued)

### Mineral Resources (continued)

#### Geothermal Deposits and Metaliferous Brines (continued)

D. T., 1967, 1969; Riley, J. P., 1967; Ross, D. A., 1972; Ross, D. A., Hayes, E. E., and Allstrom, F. C., 1969; Ross, D. A., and Hunt, J. M., 1967; Ross, D. A., and others, 1970, 1972; Ryan, W. B. F., and others, 1969; Scheunch, J., 1973; Schoell, M., and Hartman, M., 1973; Schoell, M., and Stahl, W., 1972; Stephens, J. D., and Wittkopp, R., 1969; Strangway, D. W., and McMahan, B. E., 1969; Swanberg, C. A., Morgan, P., and Daggett, P., 1976; Tooms, J. S., 1970a, 1970b; Tooms, J. S., Holmes, R., and Horowitz, A., 1973; Tooms, J. S., and Rugheim, M., 1969; Touray, J. C., 1971; Turner, J. S., 1969; Wall, D., and Warren, J. S., 1969; Watson, S. W., and Waterbury, J. B., 1969.

#### Metals

##### Albitites

Bugrov, V. A., El Gadael, A. A., and Soliman, M. 1973.

##### Arsenic

Bostrom, K., and Valdes, S., 1969.

##### Barium

El Sokkary, A. A., and Abdel Monem, H. M., 1977; Gindy, A. R., 1965; Hilmy, M. E., and Awad, N. T., 1969; Nakhla, F. M., and El Hinnawi, E. E., 1960; Tossou, S., 1969b.

##### Bauxite

Al Far, D. M., 1971.

##### Chromite

Amin, M. S., 1948; Anwar, Y. M., Kotb, H., and Zohny, N., 1969; Basta, E. Z., and Hanafy, M. A., 1970; Gad, G. M., and Girgis, L. G., 1967a; Hussein, M. K., and El Barrawi, K., 1971; Hussein, M. K., Kolta, G. A., and Abdel Aal, O., 1971; Hussein, M. K., and others, 1971; Khalil, S. E., and Abdel Salam, M. W., 1972; Kolta, G. A., and Abdel Aal, O., 1972; Yousef, A. A., Boulos, T. R., and Arafa, M. A., 1971; Yousef, A. A., and others, 1970b.

##### Columbite

Aliyev, A. A., 1971; Hassan, M. A., 1973, 1974.

##### Copper

Anwar, Y. M., 1964; Anwar, Y. M., and Kotb, H., 1963; Ashry, M. M., 1973; Baecker, H., 1971; Barakat, N., and El Shazly, E. M., 1956; Bugrov, V. A., and Shalaby, I. M., 1973; Eid, A. M., and Abdel Rehim, M. M., 1963b; Eissa, N. A., and others, 1976; El Damaty, A. H., and others, 1973a; El Shazly, E. M., 1956; El Shazly, E. M., and Afia, M. S., 1958; El Shazly, E. M., Farag, I. M., and Bassyuni, F. A., 1971; El Shazly, E. M., Naser, S. A., and Shukri, B., 1955; El Shazly, E. M., and Sabet, A. H., 1955; Gindy, A. R., 1966b, 1968; Hilmy, M. E., Lotfi, A., and Moshen, L. A., 1965; Hilmy, M. E., and Moshen, L. A., 1963, 1966; Moustafa, G. A., and Hilmy, M. E., 1958; Shalaby, I., 1974a.

##### Galena

Delevaus, M. H., Doe, B. R., and Brown, G. F., 1967.

##### Germanium

Cohen, A. J., 1960.

## Economic Geology and Natural Resources (continued)

### Mineral Resources (continued)

#### Metals (continued)

##### Gold

El Kady, A. A., Hassan, A. M., and Sabet, A. H., 1977;  
El Ramly, M. F., and others, 1970b; Frost, A., and others,  
1947; Neubauer, W. H., 1962; Saleeb, G. S., and Fasfous, B.  
R. B., 1970.

##### Heavy Minerals and Black Sand Deposits

Anwar, Y. M., and El Bouseily, A. M., 1970a, 1970b; Bishara,  
W. W., and Nasr, M., 1975; Bishay, A., and others, 1974c;  
Blissenbach, E., 1972; El Hinnawi, E., 1964b, 1969; El  
Shazly, M. M., and Shata, A., 1960b; Emery, K. O., Hunt,  
J. M., and Hays, E. E., 1969; Gindy, A. R., 1960a, 1961b;  
Gindy, A. R., and El Askary, M. A., 1969c; Hassan, F. A.,  
1976a; Henricks, R. L., and others, 1969; Higazy, R. A.,  
and Naguib, A. G., 1958; Hussein, M. K., and El Tawil, S.  
Z., 1967; Ibrahim, D. M., and Gad, G., 1970a, 1970b; Kamel,  
O. A., and others, 1973; Khalil, S. E., Hussein, M. K., and  
Belal, A. M., 1972; Nakhla, F. M., 1958b, Nakhla, F. M.,  
Hussein, M. K., and Toma, S. A., 1972; Sabet, A. H., 1974c;  
Sabet, A. H., Bendawi, M. F., and Abdel Razik, T. M., 1969;  
Yallouze, M., 1967b; Zaghloul, Z. M., 1960; Zaghloul, Z. M.,  
and Kamil, K. E., 1965, 1966, 1967.

##### Ilmenite and Titanium Ores

Amin, M. S., 1954; Anwar, Y. M., Abdel Rehim, A. M., and  
El Bouseily, A. M., 1970a, 1970b; Basta, E. Z., 1970, 1971;  
Basta, E. Z., and Girgis, M. H., 1968, 1969; Basta, E. Z.,  
and Takla, M. A., 1968a, 1968b, 1968c; Bishay, A., and  
others, 1974b; Eid, A. M., 1963; El Hinnawi, E., 1969;  
Holman, B. W., 1953a; Hussein, M. K., and El Tawil, S. Z.,  
1964, 1967; Hussein, M. K., Kammel, R., and Winterhages,  
H., 1967; Hussein, M. K., Khairy, E. M., and El Tawil, S.  
Z., 1972; Hussein, M. K., and Saba, A. E., 1966a, 1966b;  
Khairy, E. M., Hussein, M. K., and El Barrawy, K. A., 1968;  
Khairy, E. M., Hussein, M. K., and El Tawil, S. Z., 1966;  
Khairy, E. M., and others, 1964; Khalil, S. E., Hussein, M.  
K., and Belal, A. M., 1972; Krause, H., 1965, 1967, 1968;  
Nakhla, F. M., Hussein, M. K., and Toma, S. A., 1972; Nakhla,  
F. M., and Ramsy, M., 1971; Saada, M. Y., Rabie, A. A., and  
Ezz, S. Y., 1969, 1970; Zaghloul, Z. M., and Kamil, K., 1967.

##### Iron

Abdallah, A. M., 1961a, 1965b; Abdallah, A. M., and Dardir,  
A. A., 1971; Akaad, M. K., and El Ramly, M. F., 1963b; Anwar,  
Y. M., and El Sokkary, A. A., 1970; Anwar, Y. M., Kotb, H.,  
and Ammar, S. H., 1964; Anwar, Y. M., Tosson, S., and Saad,  
N. A., 1970; Ashry, M. M., 1970; Attia, M. I., 1949, 1950,  
1952, 1955b; Basta, E. Z., 1971; Basta, E. Z., and Amer, H. I.,  
1969, 1970a, 1970b, 1970c; Basta, E. Z., El Sharkawi, M.  
A., and Salem, M. W., 1969, 1970; Basta, E. Z., and Girgis,  
M. H., 1968; Baturin, G. N., Kochenov, A. V., and Trimonis,  
Y. S., 1969; Bischoff, J. L., 1969b; Bishara, W. W., and  
Habib, M. E., 1973; Eid, A. M., 1963; El Akkad, S., and  
Issawi, B., 1963; Elgals, A. H., and Hendawy, S., 1973; El

## Economic Geology and Natural Resources (continued)

### Mineral Resources (continued)

#### Metals (continued)

##### Iron (continued)

Goresy, A., 1964; El Hinnawi, E. E., 1965a; 1969; El Hinnawi, E., Atwa, S. M., and Abdel Mogheeth, S. M., 1972; El Ramly, M. F., Akaad, M. K., and Rasmy, A. H., 1964; El Shazly, E. M., 1962a, 1962b; El Shazly, E. M., and Afia, M. S., 1958; El Shazly, E. M., and others, 1977b; El Shazly, E. M., Shukri, N. M., and Saleeb, G. S., 1963; El Sinbawy, H. A., and others, 1965; El Sokkary, A. A., 1972; Faris, M. I., 1960; Faris, M. I., and Abu Zeid, M. M., 1961; Gheith, M. A., 1956, 1959; Gill, D., and Ford, S. O., 1956; Gindy, A. R., 1961d, 1961e; Hathout, M. Z., and Abdel Azim, Y. Y., 1961; Herman, Y., and Rosenberg, P. E., 1969; Hilmy, M. E., Kamel, O. A., and Niazy, E. A., 1969; Holman, B. W., 1953b; James, H. L., 1969; Kabesh, M. L., El Hinnawi, E. E., and Mansour, M. A., 1970; Kamel, O. A., 1971b; Kolbe, H., 1957; Malati, M. A., and Afra, M. A., 1963; Malati, M. A., and Boulos, T. R., 1963; Nakhla, F. M., 1961a, Nakhla, F. M., and Ramsy, M., 1971; Nakhla, F. M., and Shehata, M. R. N., 1963, 1967; Nassim, G. L., 1950; Orphy, M. K., Malati, M. A., and Moustafa, S. I., 1965, 1967; Orphy, M. K., Yousef, A. A., and Moustafa, S. I., 1969; Saleeb, G. S., 1968; Saleeb, G. S., and Samuel, M. D., 1975; Shukri, N. M., El Shazly, E. M., and Sabet, A. H., 1959; Tosson, S., 1963a; Tosson, S., and Saad, N. A., 1971, 1972, 1974; Yousef, A. A., and others, 1970a; Zaatout, M. A., and Abdou, H. F., 1975; Zitzmann, A. 1977; 1978.

##### Lead

Anwar, Y. M., and Kotb, H., 1963; Barakat, N., and El Shazly, E. M., 1956; Bayoumi, A. I., and El Dashlouty, S., 1967; Bishay, A., and others, 1974a; Delevaux, M. H., Doe, B. R., and Brown, G. F., 1967; Eid, A. M., and Abdel Rehim, M. M., 1963a; El Kholy, S. B., Hashad, A. H., and Selim, E. T. M., 1970; El Kholy, S. B., and Selim, E. T. M., 1968, 1971; El Ramly, M. F., and others, 1970c; El Shazly, E. M., 1968; El Shazly, E. M., and Afia, M. S., 1958; El Shazly, E. M., and others, 1959; Hilmy, M. E., Nakhla, F. M., and Rasmy, M., 1972; Sabet, A. H., and Saleeb, G. S., 1968; Saleeb, G. S., and Samuel, M. D., 1975; Soliman, S. M., and Hassaan, M. M., 1969, 1971.

##### Lithium

Ashry, M. M., 1973.

##### Magnesium

Tosson, S., 1971.

##### Manganese

Abdallah, A. M., 1961a, 1965b; Anwar, Y. M., and El Sokkary, A. A., 1970; Attia, M. I., 1956; Basta, E. Z., and Saleeb, W. S., 1971a, 1971b, 1973; Bell, J. D., and Sandford, K. S., 1971; Eisenlohr, V., 1965; El Shazly, E. M., and Saleeb, G. S., 1959; El Shazly, E. M., Shukri, N. M., and Saleeb, G. S., 1963; El Sokkary, A. A., 1972a; Ezz, S. Y., and others, 1968; Faris, M. I., Youssef, M. I., and Kamel, O.

## Economic Geology and Natural Resources (continued)

### Mineral Resources (continued)

#### Metals (continued)

##### Manganese (continued)

A., 1963; Ghobrial, M. G., 1963; Gill, D., and Ford, S. O., 1956; Gindy, A. R., 1961e; Goodchild, J. H., 1956; Malati, M. A., Orphy, M. K., and Yousef, A. A., 1961a, 1961b; Mart, J., and Sass, E., 1972; Nakhla, F. M., and Shehata, M. R. N., 1963; Soliman, S. M., 1961b; Yousef, A. A., and Arafa, M. A., 1971; Youssef, M. I., and Moshen, L. A., 1963.

##### Molybdenum

Shalaby, I., 1974b.

##### Nickel

Bugrov, V. A., and Shalaby, I. M., 1973; El Goresy, A., 1964; El Shazly, E. M., Farag, I. M., and Bassyuni, F. A., 1971; Gindy, A. R., 1968; Nassim, G. L., 1949; Shalaby, I., 1974a.

##### Silver

Gentner, W., and others, 1978.

##### Strontium (Celestite)

Baric, L., 1962; Hilmy, M. E., and Awad, N. T., 1965.

##### Tantalum

Sabet, A. H., 1974b; Sabet A. H., and Tsogoev, V., 1973.

##### Thorium (Monazite)

Anwar, Y. M., and Abdel Rehim, A. M., 1970a; Gindy, A. R., Ghozlan, A. I., and Afia, M. S., 1966; Hammoud, N. S., and Kazback, A. E., 1973; Higazy, R. A., and Naguib, A. G., 1958; Hilmy, M. E., and Ghozland, A. I., 1962;

##### Tin (Cassiterite)

Amin, M. S., 1947; El Ramly, M. F., Akaad, M. K., and Al Far, D. M., 1959; El Ramly, M. F., and others, 1970a; El Shatoury, H. M., Takenouchi, S., and Imai, H., 1974; Sabet, A. H., 1974a; Sabet A. H., Chabanenco, V., and Tsogoev, V., 1973; Tosson, S., 1958.

##### Tungsten

Amin, M. S., 1947; El Ramly, M. F., Akaad, M. K., and Al Far, D. M., 1959; El Ramly, M. F., and others, 1970a; El Shatoury, H. M., Takenouchi, S., and Imai, H., 1974; Fediaevsky, S., 1934; Sabet, A. H., Chabanenco, V., and Tsogoev, V., 1973; Saleeb, G. S., and Fafous, B. R. B., 1970; Takla, M. A., 1976; Tosson, S., 1957, 1958, 1969a.

##### Uranium (see Economic Geology and Natural Resources, Nuclear Energy, Radioactive Minerals)

##### Zinc

Anwar, Y. M., and Kotb, H., 1963; Ashry, M. M., 1973; Baecker, H., 1971; Barakat, N., and El Shazly, E. M., 1956; Bayoumi, A. I., and El Dashlouty, S., 1967; Bishay, A., and others, 1974a; Eid, A. M., and Abdel Rehim, M. M., 1963a, 1963b; El Damaty, A. H., and others, 1973b; El Kadi, M. A., and others, 1973a, 1973b; El Ramly, M. F., and others, 1970c; El Shazly, E. M., and Afia, M. S., 1958; El Shazly, E. M., and others, 1959; El Sherif, S., and others, 1973; Gindy, A. R., 1968; Hilmy, M. E., Nakhla, F. M., and Rasmy,



## Economic Geology and Natural Resources (continued)

### Mineral Resources (continued)

#### Metals (continued)

##### Zinc (continued)

M., 1972; Saleeb, G. S., and Samuel, M. D., 1975; Soliman, S. M., and Hassaan, M. M., 1969; 1971.

##### Undifferentiated

Amann, H., and others, 1973; Baecker, H., and Schoell, M., 1972; Bischoff, J. L., and Manheim, F. T., 1969; Blissenbach, E., 1972; Carwile, R. H., and Faure, G., 1971; Degens, E. T., and Ross, D. A., 1967, 1969; Ivanov, T., Shalaby, I. M., and Hussein, A. A., 1973; Sabet, A. H., Chabanenco, V., and Tsogoev, V., 1973.

#### Metals and Nonmetals Undifferentiated

Abdel Rehim, A., 1973; Adkins, D. C., 1977; Al Far, D. M., 1971; Albright, J. L., 1976; Amann, H., 1972; Amin, M. S., 1955b, 1955c; Attia, M. I., 1948, Azer, N., 1966; Baecker, H., and Richter, H., 1973; Baturin, G. N., 1970; Behrman, D., 1970; Bischoff, J. L., 1969a; Champetier, Y., 1977; Degens, E. T., 1970; El Bakary, F., 1956; El Hinnawi, E. E., and El Shahat, A., 1969; El Ramly, M. F., Ivanov, S. S., and Kochin, G. G., 1970; El Shazly, E. M., 1957a; 1959a; El Zoghby, M. E., 1955; Faris, M. G., 1967; Garson, M. S., and Shalaby, I. M., 1976; 1967; Hilmy, M. E., and Ghazlan, A. T., 1962; Hilmy, M. E., and others, 1968; Holman, B. W., 1956; Hume, W. F., 1937; Hussein, A. A., 1973; Krs, M., and Mazac, O., 1975; Little, O. H., and Attia, M. I., 1943; Malati, M. A., Yousef, A. A., and Afra, M. A., 1969; Meneisy, M. Y., 1974; Moharram, M. O., 1959; Moharram, M. O., and others, 1970a; Saleeb, G. S., 1962; Strumpel, E., 1961; Tareyeva, O. K., 1974; Yousef, A. A., Boulos, T. R., and Saada, M. Y., 1972; Youssef, M. I., 1966; Youssef, M. S., and others, 1970a; Zaffarano, R. F., 1974a, 1974b, 1974c.

#### Nonmetals

##### Alabaster

Akaad, M. K., and Naggar, M. H., 1963a, 1963b; 1964; El Hinnawi, E., and Loukina, S. M., 1972a.

##### Boron

Ashry, M. M., 1973; El Hinnawi, E., Atwa, S. M., and Abdel Mogheeth, S. M., 1972.

##### Carbonate Rocks

Aharon, P., Koloday, Y., and Sass, E., 1977; Amer, A. F., Krintsov, M. I., and Hanna, F. L., 1970a; Faris, M. I., and George, F. G., 1961, 1963; Faris, M. I., and Soliman, S. M., 1954; Gad, G., and Girgis, L. G., 1968; Saad, M. A. H., 1974; Safwat, H., Mandil, M., and Farag, A. A. O., 1961a, 1961b; Zaatout, M. A., 1956.

##### Celestite (SrSO<sub>4</sub>)

Baric, L., 1962; Hilmy, M. E., and Awad, N. T., 1965.

##### Clays

Abdel Rehim, A., 1975; Amer, A. F., Krintsov, M. I., and Hanna, F. L., 1970b; Amin, M. S., and Afia, M. S., 1954; Ashry, M. M., 1968; 1970; Ashry, M. M., and Riskalla, S., 1968; Basta, E. Z., Abdallah, A. M., and El Kadi, M. B.,

# Economic Geology and Natural Resources (continued)

## Mineral Resources (continued)

### Nonmetals (continued)

#### Clays (continued)

1974; Basta, E. Z., El Kadi, M. B., and Maksoud, M. A., 1971; Bedewi, M. F., and Ghobrial, N. K., 1971; Bischoff, J. L., 1972; El Demerdash, S., Abdel Aal, S. I., and Abdel Salam, M. A., 1970; El Demerdash, S., and others, 1971b; El Gabaly, M., and Khadr, M., 1962; El Kadi, M. A., and others, 1973b; El Ramly, M. F., Kotb, S., and Osman, F., 1971; Faris, M. I., Gad, G., and Nasr, I. A., 1961; Fayed, L. A., and Hassan, M. K., 1970, 1971; Gad, G. M., 1950, 1952; Gad, G. M., and Abdel Maksoud, M., 1966; Gad, G. M., and Barrett, L. R., 1949; Gad, G. M., and Gharib, N., 1966; Ghanim, B. M., Rabie, F., and Hamdi, H., 1974; Gharib, N., and Gad, G. M., 1966; Gindy, A. R., and Badra, A. E., 1968; Hussein, A. T., Abdallah, H. M., and Gad, G. M., 1965; Hussein, A. T., and Gad, G. M., 1965a, 1965b; Kamel, O. A., 1971a; Komkov, A. I., 1960; Kotb, H., and others, 1971; Nasr, I., Gad, G. M., and Faris, M. I., 1973; Said, R., and Mansour, A. O., 1971.

#### Corundum

Abdel Rehim, A., 1975.

#### Diatomite

Basta, E. Z., Abdallah, A. M., and El Kadi, M. B., 1974; Girgis, G. F., and Girgis, B. S., 1969.

#### Graphite

Anwar, Y. M., and Kotb, H., 1966.

#### Gypsum and Anhydrite

Abdallah, A. M., 1967a; Abdel Aziz, and others, 1971; Adindani, A., and others, 1975; Fanous, Y., 1961; Fathi, A., and others, 1973; Ghanem, M., Gabra, S., and Ahmed, S. H., 1971, Omara, S., Bishara, W. W., and Sanad, S., 1973; Ronkin, B. L., 1933; Tosson, S., 1963b, 1969b; Tosson, S., and Ghowall, S. I., 1974; Zaghloul, Z. M., and Asswad, T. A., 1965.

#### Muscovite

Hilmy, M. E., and Moustafa, G. A., 1960, 1961.

#### Nepheline Syenites

Akaad, M. K., and El Ramly, M. F., 1961; El Ramly, M. F., and others, 1969a, 1969b, 1970d, 1970e.

#### Olivine

Gad, G. M., and Girgis, L. G., 1967b, 1967c.

#### Phosphates

Abdallah, A. M., Mahfouz, S., and Abdel Razek, T. M., 1972a, 1972b; Abdel Aziz, M. G., Mirtov, J. V., and Karenko, M. V., 1973; Abdel Razik, T. M., 1969a, 1969b; Anwar, Y. M., and others, 1963; Atfeh, M. S., 1966; Atia, A. K. M., Hilmy, M. E., and Morsy, A. M., 1971, 1972; Awad, G. H., Naim, E. M., and Abdou, H. F., 1964; Ball, J., 1913; Basta, E. Z., and Girgis, M. H., 1969; Bishay, A., and Atwa, G., 1971; Burggraef, W., and Mueller, H. G., 1965; Cayeux, L., 1939, 1941; Chumakov, I. S., 1967a, 1968b; Egypt Geological Survey, 1900; El Akkad, S., and Dardir, A. A., 1966b; El Bassyouny, A. A., and others, 1970; El Karamany,

## Economic Geology and Natural Resources (continued)

### Mineral Resources (continued)

#### Nonmetals (continued)

##### Phosphates (continued)

K. E., and Bishay, A., 1972; El Shazly, E. M., El Hazek, N. M. T., and El Mahrouky, F. A., 1972a, 1972b, 1972c, 1972d, 1972e, 1972f, 1972g; El Tarabili, E. E., 1966a, 1969, 1970a; Ghanem, M., Mirtov, J. V., and Karpenko, M. V., 1971; Ghanem, M., and others, 1970; Gindy, A. R., 1966a, 1978; Hathout, M. Z., and Abdel Azim, Y. Y., 1963a, 1963b, 1963c; Hermina, M. H., 1973, 1974; Hermina, M. H., and Wassef, A., 1975; Hume, W. F., 1927; Hussein, F. A., and Lotfi, M., 1971; Issawi, B., and others, 1969; Kotb, H., Abdel Azim, Y. Y., and Kamel, O. A., 1971; Kotb, H., and El Kammer, A. M., and Zohny, N., 1978; Mikhaylov, I. A., Mirtov, Y. V., and Razvalyayev, A. V., 1971; Omara, S., 1965b; Moharram, M. O., and others, 1970b; Notholt, A. J. G., 1970; Orphy, M. K., 1971; Orphy, M. K., and El Gillani, D., 1972; Orphy, M. K., and others, 1969; Orphy, M. K., Yousef, A. A., and Bibawy, T. A., 1969; Orphy, M. K., Yousef, A. A., and Hanna, H. S., 1967; 1968a, 1968b; Rahman Hussein, F. A., and Abdel Khalek, M. L., 1973; Rittmann, A., and Machu, W., 1955; Said, R., 1971c; Saleeb, G. S., and El Baz, M. H., 1969, 1973; Soliman, A., and Doheim, M. A., 1972; Soliman, S. M., and Amer, K. M., 1972a; Spanderashvilli, G. I., and Mansour, M., 1970; Sulfur Corporation Limited (Britain), 1971; Tchoumakov, J., 1968; Tobia, S. K., and Fekry, A. A., 1964; Visse, L., 1952; Youssef, M. I., 1958, 1965, 1971; Youssef, M. I., and El Tarabili, E., 1970; Zaghloul, Z. M., and Mabrouk, B., 1964.

##### Quartz, Sand, Gravel and Glass

Barthelemy, Y., 1939, 1940a, 1942; Brzozowski, J., 1971; Clayton, P. A., 1951; Clayton, P. A., and Spencer, L. J., 1934, 1973; Cohen, A. J., 1961; El Azm, A. A., and El Badry, K. M., 1978; El Ramly, M. F., Gazenko, J. D., and Sanad, S. K., 1970; Fleischer, R. L., and Price, P. B., 1964; Fleischer, R. L., Price, P. B., and Walker, R. M., 1965; Friedman, I., and Parker, C. J., 1969, 1973; Gad, G. M., and Talaat, A., 1969; Giegengack, R., and Issawi, B., 1975; Hassan, F. A., 1976b; Hilmy, M. E., 1951, 1952; Kohman, T. P., Lowmann, P. D., Jr., and Abdel Khalek, M. L., 1967; Spencer, L. J., 1939; Tosson, S., 1960; Yousef, A. A., Boulos, T. R., and Saada, M. Y., 1968.

##### Refractories

Gad, G. M., 1952; Gad, G., and Gharib, N., 1966; Gad, G. M., and Girgis, L. G., 1967a, 1967b, 1967c, 1968; Gad, G. M., and Talaat, A., 1969; Gharib, N., and Gad, G. M., 1966; Girgis, L. G., and Gad, G. M., 1970; Hussein, A. T., and Gad, G. M., 1965a; Nasr, I., Gad, G., and Faris, M. I., 1973; Yousef, A. A., Girgis, L. G., and Boulos, T. R., 1968.

##### Salts Undifferentiated

Atia, A. K. M., Hilmy, M. E., and Bolous, S. N., 1970a, 1970b; Baecker, H., and Schoell, M., 1972; Bishay, N. Z., 1973; Hassan, F. A., and El Dashlouty, S., 1970; Heybrock,

## Economic Geology and Natural Resources (continued)

### Mineral Resources (continued)

#### Nonmetals (continued)

##### Salts Undifferentiated (continued)

F., 1965; Hilmy, M. E., and Darwish, M. H., 1966; Saada, M. Y., and others, 1970; Whiteman, A. J., 1965.

##### Sulfur

Attia, M. I., 1955a; El Shazly, E. M., and Abdallah, A. M., 1964; El Shazly, E. M., and Mansour, A. O., 1962; Hartmann, M., and Nielson, H., 1966; Saleeb, G. S., and Samuel, M. D., 1975; Schellmann, G. A., 1959; Shukri, N. M., and Nakhla, F. M., 1956.

##### Talc

Basta, E. Z., and Kamel, M., 1971; El Shazly, E. M., and Afia, M. S., 1958; Nakhla, F. M., Ramsy, M., and Basily, A. B., 1973; Yousef, A. A., Girgis, L. G., and Boulos, T. R., 1968.

##### Zeolite

Chumakov, I. S., and Shumenko, S. I., 1977.

##### Zircon

Anwar, Y. M., and Abdel Rehim, A. M., 1970b; Farah, M. Y., and El Yamani, I. S., 1970; Gad, G. M., and Talaat, A., 1969; Hussein, A. T., 1969; Hussein, H. A., Faris, M. I., and Makram, W., 1965; Zaghloul, Z. M., 1960; Zaghloul, Z. M., and Kamil, K., 1966, 1967; Zaghloul, Z. M., and Khaffagy, M. B., 1965.

##### Undifferentiated

Catalano, R., Ruggieri, G., and Sprovieri, R., 1976.

### Nuclear Energy

#### Radioactive Minerals

Amiel, A. J., and Milner, D. S., 1972; Amiel, A. J., Milner, D. S., and Friedmann, G. M., 1971; El Guebeily, M. A., and El Shazly, E. M., 1974; El Shazly, E. M., El Hazek, N. M. T., and El Mahrouky, F. A., 1972e, 1972f, 1972g; El Shazly, E. M., and Hassan, A. K., 1972; El Shazly, E. M., and others, 1974d; El Sherif, S., and others, 1973; Gindy, A. R., 1960a, 1961b, 1961f, 1968, 1978; Gindy, A. R., Ghazlan, A. I., and Afia, M. S., 1966; Higazy, R. A., and Hussein, H. A., 1955; Higazy, R. A., and Naguib, A. G., 1958; Higazy, R. A., and others, 1958; Hilar, O. M., and Kiwan, A. M., 1960; Hilmy, M. E., and Ghazlan, A. I., 1962; Zaghloul, Z. M., and Mabrouk, B., 1964.

#### Radioactivity and Nuclear Material Studies

Gindy, A. R., and Ghazlan, A. I., 1966; Hussein, H. A., Anwar, Y. M., and El Soukkary, A. A., 1973; Hussein, H. A., and El Kassas, I. A., 1971a; Hussein, H. A., Faris, M. I., and Assaf, H. S., 1969, 1970; Hussein, H. A., Faris, M. I., and Makram, W., 1965; Zaghloul, Z. M., 1960; Zaghloul, Z. M., Abdel Rahim, A. M., and Abdallah, A. A., 1961.

### Petroleum (Oil and Gas)

#### Accumulation

Faris, M. I., and El Bishlawy, M. N., 1969; Faris, M. I., and Soliman, S. M., 1961; Hanter, G., 1967; Omara, S., 1964.



## Economic Geology and Natural Resources (continued)

### Petroleum (Oil and Gas)

#### Developments

##### Local (Sheet 1-Matruh)

Metwalli, M. H., and Abdel Hady, Y. E., 1975.

##### Regional

Bowerman, J. N., 1966, 1967; Burollet, P. F., and others, 1975; Metwalli, M. H., and Abdel Hady, Y. E., 1975; Michel, R., 1971; Nicod, M. A., 1973, 1974, 1976, 1978.

#### Drilling and Completion Practice

Bashat, H. M., Salem, M., and Etman, M. H., 1970; Sadek, M., 1965; Zeidan, S., and El Hossary, A., 1971.

### Oil and Gas Fields

#### Local

##### Sheet 1 - Matruh

Abou Khadrah, A. M., and Khaled, K. A., 1978; Blake, G. H., 1974; Bobbitt, J. E., and Gallagher, J. O., 1978; El Banbi, H. A., 1970; El Shazly, E. M., Meshref, W. M., and Fouad, K. M., 1969; Metawalli, M. H., and El Hady, Y. E., 1975, Roushdy, M. I., and others, 1975.

##### Sheet 2 - Cairo

El Banbi, H. A., 1970, Faris, M. I., and Soliman, S. M., 1961.

##### Sheet 5 - Asyote

Ansary, S. E., and Andrawis, S. F., 1965; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1961; El Zarka, M. H., and El Ghamry, M. A., 1976a, 1977; Faris, M. I., and George, F. G., 1966; Faris, M. I., and Girgis, G. F., 1967; Hadidi, T. A., 1960, 1961; Morgan, D. E., and El Barkouky, A., 1956; Moursy, A. S., and others, 1977; Schoo, J., 1934.

##### Sheet 6 - South Sinai

Ansary, S. E., and Andrawis, S. F., 1965; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1961; El Ashry, M. T., 1970; El Hashmi, M. M., 1970; El Zarka, M. H., and El Ghamry, M. A., 1976a, 1976b; Faris, M. I., El Bishlawy, M. N., and Ayad, M. H., 1969a, 1969b, Faris, M. I., El Bishlawy, M. N., and Deibis, S., 1967; Faris, M. I., El Bishlawy, M. N., and El Dashlouty, S. A., 1969a; Faris, M. I., and George, F. G., 1966; Faris, M. I., and Girgis, G. F., 1967; Ghorab, M. A., 1961; Hadidi, T. A., 1960, 1961; Khattab, H. A., and Hadidi, T. A., 1961; Kostandi, A. B., 1961; Metwalli, M. H., and Bashat, H. M., 1974; Morgan, D. E., and El Barkouky, A., 1956; Moursy, A. S., and others, 1977; Philip, G., and Reda, S., 1968a, 1968b; Said, R., and Zaki, S., 1967; Schoo, J., 1934; Zeidan, S., and El Hossary, A., 1971.

#### Regional

Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1963; Bobbitt, J. E., and Gallagher, J. O., 1978; Burollett, P. F., 1975; El Zarka, M. H., and El Ghamry, M. A., 1977; Hume, W. F., 1916; Kersting, C. C., 1964; Kholief, M. M., and Hamed, H. A., 1976; Said, R., 1964d.

#### Origin and Migration

Abdel Azim, M. F., 1970; El Ashry, M. T., 1972; El Zarka,

## Economic Geology and Natural Resources (continued)

### Petroleum (Oil and Gas) (continued)

#### Origin and Migration (continued)

M. H., and El Ghamry, M. A., 1976a; Faris, M. I., and El Bishlawy, M. N., 1969; Girgis, G. F., and Faris, M. I. 1970; Metwalli, M. H., 1974; Metwalli, M. H., and Bashat, H. M., 1974.

#### Petroleum Geology (General)

Amim, M. S., 1961; Bashat, H. M., Salem, M., and Etman, M. H., 1970; Bobbitt, J. E., and Gallagher, J. D., 1978; Burollet, P. F., and others, 1975; El Ashry, M. T., 1972; El Banbi, H. A., 1970, El Hashmi, M. H., 1970, 1972; El Zarka, M. H., 1969, 1970, 1975; El Zakrka, M. H., and El Ghamry, M. A., 1976a, 1976b, 1977; Faris, M. I., and George, F. G., 1963; 1966; Faris, M. I., and Girgis, G. F., 1967; Ghorab, M. A., 1960; Gillman, M., Letullier, A., and Renouard, G., 1966; Karamany, M. F., and Abdel Aati, A. H., 1972; Kennedy, W. Q., 1965; Kerdany, M. T., and Fahmy, S., 1965; Khalil, N. A., 1967; Metwalli, M. H., and Abdel Hady, Y. E., 1975; Mikhail, S., and Abdou, I. K., 1971; Mikhail, S., and others, 1971; Moursy, A. S., and others, 1977; Omara, S., 1964; Philip, G., and Reda, S., 1968a, 1968b; Rashed, A. A., Roushdy, M. I., and Youssef, M. H., 1975; Roushdy, and others, 1975; Shata, A., 1956b; Soliman, S. M., 1960; Soliman, S. M., and Faris, M. I., 1963; Soliman, S. M., and Korany, E. M., 1972; Wahab, M. A., and others, 1975b; Zeidan, S., and Fargall, M., 1971; Zeidan, S., and Mahmoud, A., 1969.

#### Production

Burollet, P. F., and others, 1975; El Banbi, H. A., 1970; Wahaab, M. A., and others, 1975a, 1975b.

#### Resources, Prospects, and Exploration

Aaland, A. I., and Hassa, A. A., 1972; Amin, M. S., 1960; 1961; Ayouti, M. K., 1975; Barakat, M. G., 1970; Bayoumi, A. I., and Awad, G. M., 1972; Bayoumi, A. I., Helmi, A., and Wadi, N., 1965; Bentz, F. P., and Gutman, S. I., 1977; Carroll, D. L., 1945; Chata, A., 1951, 1952, El Ayouty, M. K., 1975; El Hashmi, M. M., 1972; Gezeery, N. H., Mohsen, S. M., and Farid, M. I., 1972; Girgis, G. F., and Faris, M. I., 1972; Grdzlov, L. I., Morozov, L. I., and Shumilova, M. B., 1972; Kerdany, M. T., and Abdel Salam, H. A., 1970; Kerdany, M. T., and Fahmy, S., 1965; Khalil, N. A., and El Mofty, S., 1972; Khattab, H. A., and others, 1973; Kholief, M. M., and Hamed, H. A., 1976; Marzouk, I., 1970; Pairazain, V. V., 1970; Shata, A., 1956c; Shirtajuddin, A. S., 1972; Soliman, S. M., and Faris, M. I., 1963; Stchepinsky, V., 1938; Summerhayes, C. P., Ross, D. A., and Stoffers, P., 1977; Van der Ploeg, P., 1938.

#### Wells and Samples

Abdel Salam, M. A., and El Tablawy, M., 1970; Andrawis, S. F., 1969; 1972; Asaad, Y., 1966; Auldridge, L., 1975; Bayoumi, A. I., and Helmi, A., 1965; El Shinnawi, M. A., 1969.

## Economic Geology and Natural Resources (continued)

### Questionable Resources

Ball, J., 1933; Clarke, F. E., 1978; El Damaty, A. H., and El Sherbieny, A. F., 1973; El Sharkawi, M. A., and others, 1976; Krs, M., 1972; Mikhail, F. N., 1973; Nicola, F., and Soliman, M., 1972; Noll, W., and Hangst, K., 1975a, 1975b; Stoffers, P., and Fischbeck, R., 1975; UNESCO, 1963.

## Engineering Geology

### Building Materials

Lucas, A., 1902a, 1915; Meade, W. G., and Hanna, F. B., 1972; Oddy, W. A., Hughes, M. J., and Baker, S., 1976; Seeger, P., 1968; Winkler, E. M., 1966.

### Engineering Studies

El Awady, M. A., and Ghanem, N. A., 1975a, 1975b.

### Foundation and Site Reports

El Hadidi, A., 1970; Fayed, L. A., and Khattab, A. F., 1973; Fentzloff, H. E., 1961.

### Landslides and Erosion

Awad, G. H., and Hassan, M. Y., 1960; Domenico, S. N., 1978; Solle, G., 1967.

### Physical Properties of Sediments and Rocks

Bagnold, R. A., 1951; Nonveiller, E., 1970; Oddy, W. A., Hughes, M. J., and Baker, S., 1976; Zeidan, S., and Farghall, M., 1971; Zeidan, S., and Mahmoud, A., 1969, 1971.

## Environmental Geology and Geologic Hazards

Abu Wafa, T., and Lahib, A. H., 1973; Barthelemy, Y., 1940b; Domenico, S. N., 1978; El Awady, M. A., and Ghanem, N. A., 1975a, 1975b; El Gabaly, M., and Worthington, E. B., 1977; El Gala, A. M., and others, 1976; Hammad, M. A., Abdel Salam, M. A., and Hamdi, H., 1965, 1967; Hilal, M. H., and Rasheed, M. A., 1976; Kovda, V. A., and Worthington, E. B., 1977; Little, O. H., and Attia, M. I., 1942a; Martinez, J. D., 1972; Meshal, A. H., 1975; Mobarek, I. E., 1972; Nielson, E., 1975; Raheji, P. C., 1973; Wahby, S. D., and others, 1978; Zahran, M. A., 1966, 1977.

## General

### Bibliographies, Catalogues, and Publication Lists

Andrew, G., 1945; Andrews, C. W., 1906; Avnimelech, M. A., 1965, 1969; Bowkers Company, 1971; Brown, P., and Stratton, G. B., 1963; Hume, W. F., 1905; Israel Geological Survey Library, 1973, 1974a, 1974b, 1974c, 1974d, 1974e, 1974f, 1975a, 1975b, 1975c, 1975d, 1975e, 1975f, 1975g, 1975h, 1975i, 1975j, 1975k; Keldani, E. H., 1941; Little, O. H., 1933; Martin, L., 1971; Oakley, K. P., 1967; Rodier, J., 1963; Said, R., 1960a; Said, R., and others, 1975.

### Biographies

Aitken, W. E., 1968; El Baz, F., and Gheith, M. A., 1970; Said, R., 1971a.

### Guidebooks, Roadlogs, Excursions, and Fieldtrips

Attia, A. A., and others, 1955; Murray, G. W., 1967; Said,

## General (continued)

### Guidebooks, Roadlogs, Excursions, and Fieldtrips (continued)

R., 1964a, 1964b; Said, R., and Martin, L., 1964; Schroll, E., 1969; Simons, E. L., 1962b; Taeckholm, V., 1975.

### Meetings, Symposiums, Lectures, and Minutes

Little, O. H., 1930b; Reeves, C. C., Jr., 1972; Said, R., 1974; Said, R., 1973; Said, R., and others, 1969.

## Geochemistry (See also Hydrology and Hydrogeology, Hydrochemistry)

Aharon, P., Koloday, Y., and Sass, E., 1977; Amiel, A. J., Milner, D. S., and Friedman, G. M., 1971; Anwar, Y. M., and El Sakkary, A. A., 1970; Anwar, Y. M., and Kotb, H., 1963; Anwar, Y. M., Kotb, H., and Ammar, S. H., 1964; Anwar, Y. M., Kotb, H., and Zohny, N., 1969; Anwar, Y. M., and others, 1963; Basta, E. Z., and Amer, H. I., 1970b; Basta, E. Z., and Girgis, M. H., 1969; Bischoff, J. L., 1969a; Brooks, R. R., Kaplan, I. R., and Peterson, M. N. A., 1969; Bugrov, V. A., 1974; Bugrov, V. A., and Shalaby, I. M., 1975; Craig, H., 1966, 1969; Degens, E. T., 1962; Deuser, W. G., 1968; Deuser, W. G., and Degens, E. T., 1969; Drover, D. P., and Beshai, H. M., 1962; Eckstein, Y., 1976a, 1976b; Eckstein, Y., Gill, D., and Slepian, I., 1973; El Askary, M. A., and El Mahdy, O. R., 1976; El Awady, M. A., and Ghanem, N. A., 1975a, 1975b; El Damaty, A. H., and El Sherbieny, A. F., 1973; El Damaty, A. H., Hamdi, H., and Zanati, M., 1973; El Damaty, A. H., and others, 1973a, 1973b; El Demerdash, S., and others, 1971a; El Gaby, S., 1975; El Hinnawi, E., 1964a, 1964b, 1965b, 1966; El Hinnawi, E., and Abdel Maksoud, M. A., 1972; El Hinnawi, E., and Abdel Mogheeth, S. M., 1972; El Hinnawi, E., Kabesh, M. L., and Zahran, I., 1973; El Hinnawi, E., and Loukina, S. M., 1971; 1972a, 1972b; El Hinnawi, E., and Maksoud, M. A., 1972; El Kholy, S. B., and Selim, E. T. M., 1971; El Shazly, E. M., El Hazek, N. M. T., and El Mahrouky, F. A., 1972b; El Shazly, E. M., El Sakkary, A. A., and Khalil, S. O., 1971, 1973; El Shazly, E. M., and others, 1971, 1973; 1977a; El Shazly, M. M., 1970; El Sakkary, A. A., 1972, 1974; El Sakkary, A. A., and Abdel Monem, H. H., 1977; El Sakkary, A. A., and Salloum, G., 1974; El Wakeel, S. K., 1964a, 1964b; El Wakeel, S. K., and El Sayed, M. K., 1978; El Zarka, M. H., 1970, 1975; Fakhry, A. A., 1974; Faure, G., and Jones, L. M., 1969; Friedman, G. M., 1968; Gavish, E., 1974; Gindy, A. R., 1960a, 1961a, Gindy, A. R., El Askary, M. A., and Khalil, S. O., 1978; Gindy, A. R., Ghazlan, A. I., and Afia, M. S., 1966; Hamdi, H., and Epprecht, W., 1953; Hamdi, H., and Naga, M., 1949, 1952; Hartmann, M., 1970; Hartmann, M., and Nielsen, H., 1966; Hassan, M. A., 1973; Hendricks, R. L., and others, 1969; Hilas, O. M., and Kiwan, A. M., 1960; Hilmy, M. E., Nakhla, F. M., and Rasmy, M., 1972; Hussein, A. A., and Hassan, M. A., 1973; Kabesh, M. L., Aly, M. M., and Refaat, A. M., 1975; Kabesh, M. L., El Hinnawi, E. E., and Mansour, M. A., 1970; Kabesh, M. L., Hilmy, M. E., and Ragab, A. G., 1972; Kabesh, M. L., Lofti, M., and Refaat, A. M., 1970; Kabesh, M. L., and others, 1977; Kabesh, M. L., and



## Geochemistry (See also Hydrology and Hydrogeology, Hydrochemistry)

Ragab, A. G., 1974; Kabesh, M. L., and Refaat, A. M., 1972, 1973; Kishk, F. M., and others, 1976; Kotb, H., El Kammar, A. M., and Zohny, N., 1978; Land, L. S., Salem, M. R. I., and Morrow, D. W., 1975; Lassiter, J. B., 1971; Levy, Y., 1971, 1974b; Mohr, P. A., 1970; Nakhla, F. M., Ramsy, M., and Basily, A. B., 1973; Nakhla, F. M., and Shehata, M. R. N., 1967; Pairazian, V. V., 1970; Philip, G., Basta, E. Z., and Khalil, J. B., 1971; Podosek, F. A., 1973; Ramez, M. R. H., and Sabrah, B. A., 1971; Rogers, J. J. W., 1977; Safwat, H., Mandil, M., and Farag, A. A. O., 1961a, 1961b; Saxby, J. D., 1972; Sayyah, T. A., and El Shatoury, H. M., 1974; Sayyah, T. A., and others, 1974; Schling, J. G., 1969; Schoell, M., and Stahl, W., 1972; Soliman, S. M., and Hassaan, M. M., 1969, 1971; Tobia, S. K., and Fekry, A. A., 1964; Tosson, S., 1964a; Tosson S., and Ghowail, S. I., 1974; Vech, H., 1968; Yousef, A. A., and Arafa, M. A., 1971; Youssef, M. S., and El Kahwagy, A. S., 1966.

## Geochronology

Aharon, P., Koloday, Y., and Sass, E., 1977; Alessio, M., and others, 1965; Bar, M., Kolodny, Y., and Bendor, Y. K., 1974; Barker, H., Burliegh, R., and Meeks, N., 1969; Berger, R., 1970; Berger, R., and Libby, W. F., 1966; Butzer, K. W., and Hansen, C. L., 1972a; Callow, W. J., and others, 1966; Carwile, R. H., and Faure, G., 1971; Chatters, R. M., 1968; Chow, T. J., 1968; Clark, R. M., and Renfrew, C., 1973; Cooper, J. A., and Richards, J. R., 1969; Craig, H., 1966, 1968; Crane, H. R., and Griffin, J. B., 1966; Delevaux, M. H., Doe, B. R., and Brown, G. F., 1967; Deuser, W. G., 1968; Deuser, W. G., and Degens, E. T., 1969; Edwards, I. E. S., 1970; El Hinnawi, E., 1965b; El Hinnawi, E., and Loukina, S. M., 1972b; El Kholi, S. B., Hashad, A. H., and Selim, E. T. M., 1970; El Ramly, M. F., 1963; El Shazly, E. M., and others, 1974a; Fairbridge, R. W., 1962; Fairhall, A. W., Schell, W. R., and Young, J. A., 1968; Fleischer, R. L., and Price, P. B., 1964; Genter, W., Storzer, D., and Wagner, G. A., 1969; Geyh, M. A., 1967; Hashad, A. H., and others, 1962, 1974; Higazy, R. A., and El Ramly, M. E., 1960; Himida, I. H., 1967; Hume, W. F., 1937; Hussein, H. A., Faris, M. I., and Assaf, H. S., 1970; Hutchison, R., Gale, N., and Arden, J. W., 1975; Ku, T. L., Thurber, D. L., and Mathieu, G. G., 1969; Lasserre, M., 1967; Meneisy, M. Y., 1972; Meneisy, M. Y., and El Kaliuobi, B. A., 1975; Meneisy, M. Y., and Kreuzer, H., 1974a, 1974b; Oeschger, H., and Riesen, T., 1965; Shimron, A. E., and Brookins, D. G., 1974; Smith, P. E. L., 1964; Starmans, G. A. N., 1947; Tauber, H., 1968; Thilmans, G., and others, 1974; Turekian, K. K., and others, 1970; Vail, J. R., 1976; Vech, H., 1968; Vech, H., and Giegengack, R., 1970; Yaron, F., and Frenkel, R., 1969.

Geomorphology  
Areal Studies  
Local

Sheet 1 - Matruh

Butzer, K. W., 1969; El Ramly, I. M., 1968; El Senussi, M.Y., and Shata, A., 1969c; El Shazly, M. M., and Shata, A., 1969; Faris, M. I., Abbass, H. L., and El Gamel, M. M. 1969; Harga, A. A., and others, 1968b; Shata, A., 1957a, 1957b.

Sheet 2 - Cairo

Abudebeau Bey, C., 1933; Aghion, H., 1940b; Barron, T., 1907a; Beadnell, H. J. L., 1905; Cuvillier, J., 1934c; El Ramly, I. M., 1971; Farag, I. A. M., and Ismail, M. M., 1965; Harga, A. A., and others, 1968b; Huzayyin, S. A., 1950b; Kazakova, V. P., Leonto'yev, O. K., and Nauar, A. K., 1978; Orlova, G. A., 1970; Orlova, G., and Zenkovich, V., 1974; Passarge, S., 1933, 1949; Pribyl, V., 1970; Said, R., 1954, 1958; Said, R., and Beheiri, S., 1962; Shata, A., and El Fayoumy, I., 1967; Shukri, N. M., Philip, G., and Said, R., 1956; Zwittkovits, F., 1966.

Sheet 3 - North Sinai

Abdoul El Enin, S., 1966; Awad, H., 1951, 1953, 1956; Horowitz, A., 1975; Loya, Y., and Slobodkin, L. B., 1971; Shata, A., 1959c, 1960b.

Sheet 4 - Bahariya

Beadnell, H. J. L., 1901a; Cuvillier, J., 1934c.

Sheet 5 - Asyute

El Zarka, M. H., and El Ghamry, M. A., 1977; Pribyl, V., 1970.

Sheet 6 - South Sinai

Aghion, H., 1940a; Ball, J., and Beadnell, H. J. L., 1902; El Zarka, M. H., and El Ghamry, M. A., 1977; Hume, W. F., 1906; Zwittkovits, F., 1966.

Sheet 7 - Dakhla

Beadnell, H. J. L., 1901b.

Sheet 8 - Qena

Ball, J., 1900; Beadnell, H. J. L., 1901a; Beheiry, A., 1967; Butzer, K. W., 1967; Coque, M. R., 1972; Coque, M. R., and Said, R., 1972; Kamel, K., 1953; Shata, A., 1962a.

Sheet 10 - Uweinat

Simons, P., 1973b.

Sheet 11 - Aswan

Abu Al Ezz, M. S., 1965; Attia, M. I., 1955b; Ball, J., 1902; Butzer, K. W., 1965b, Butzer, K. W., and Hansen, C. L., 1968.

Regional

Abu Al Izz, M. S., 1970; Awad, H., 1951, 1952; Ball, J., 1912, 1916; Barron, T., 1907b; Barrow, T., and Hume, W. F., 1902; Butzer, K. W., 1959c, 1961b; Champetier, Y., 1977; Chumakov, I. S., and Shumenko, S. I., 1977; Demangeot, J., 1953; Einsele, G., and others, 1968; El Zarka, M. H., and El Ghamry, M. A., 1977; Friedman, G. M., Amiel, A. J., and Schneidermann, N., 1974; Hammad, M. A., Abdel Salam, M. A., and Hamdi, H., 1965, 1967; Hume, W. F., 1925; Huzayyin, S. A., 1950a; Issawi, B., 1976a; Messerli, B., 1977; Mizutani,

## Geomorphology (continued)

### Areal (continued)

#### Regional (continued)

S., and Suwa, K., 1966; Passarge, S., 1950; Pribyl, V., 1974; Rathjens, K., and Wissmann, H. V., 1933; Rognon, P., 1976; Said, R., 1957, 1975a; Sanford, K. S., 1933; Schamp, H., 1951, 1953; Simons, P., 1973a; Stringfield, V. T., Le Grand, H. E., and La Moreaux, P. E., 1974; Tareyeva, O. K., 1974.

#### Continental Features

##### Alluvial Fans and Piedmonts

Coque, M. R., 1972; Rognon, P., 1976.

##### Basins

El Zarka, M. H., and El Ghamry, M. A., 1977.

##### Deltas

Abudebeau Bey, C., 1933; Rzoska, J., 1976b; Sneh, A., and Weissbrod, T., 1973; Summerhayes, C. P., and others, 1972.

##### Desert Landforms

Ashri, A. H., 1974; Butzer, K. W., 1965b; Butzer, K. W., and Hansen, C. L., 1968; Coque, M. R., and Said, R., 1972; Dumanowski, B., 1960; Gerson, R., and Yair, A., 1975; Hume, W. F., and Little, O. H., 1931; Huzayyin, S. A., 1950b; Kamel, K., 1953; Knetsch, G., and Refai, E., 1955; Mitwally, M., 1953; Mizautani, S., and Suwa, K., 1966; Murray, G. W., 1949; Passarge, S., 1933; Philip, G., and Beheri, S., 1961; Pribyl, V., 1970; Simons, P., 1973a; Striem, H. L., 1954; Stringfield, V. T., Le Grand, H. E., and La Morreaux, P. E., 1974; Zwittkovits, F., 1966.

##### Mountains, Hills, and Plateaus

Abdoul El Enin, S., 1966; Awad, H., 1951, 1953, 1956; Dubertret, L., 1961; Goby, J. E., 1942; Messerli, B., 1978; Mosaic, 1977; Simons, P., 1973b.

##### Rivers and Lakes

Aghion, H., 1940a; Butzer, K. W., and Hansen, C. L., 1965, 1968; Chumakov, I. S., and Shumenko, S. I., 1977; Huzayyin, S. A., 1950a; Issawi, B., 1976a, Maley, J., 1969; Ronkin, B. L., 1933; Rzoska, J., 1976a, 1976b; Said, R., 1975b; Said, R., and Yoursi, F., 1963; Schamp, H., 1951.

##### Topography

Attia, M. I., 1955b; Awad, H., 1952; Ball, J., 1900, 1902, 1912; Ball, J., and Beadnell, H. J. L., 1902; Barron, T., 1907a, 1907b; Barrow, T., and Hume, W. F., 1902; Beadnell, H. J. L., 1901a, 1901b, 1905; Horowitz, A., 1975; Hume, W. F., 1906, 1925; Pribyl, V., 1970

#### Nearshore Marine Features

##### Beaches and Strandlines

Butzer, K. W., 1960b, 1969; Chumakov, I. S., and Shumenko, S. I., 1977; El Ramly, I. M., 1968, 1971; Friedman, G. M., 1965; Orlova, G. A., 1970; Orlova, G., and Zenkovich, V., 1974; Said, R., and Shukri, N. M., 1955; Tareyeva, O. K., 1974.

##### Littoral Zones

Champetier, Y., 1977; Hammad, M. A., Abdel Salam, M. A., and Hamdi, H., 1965, 1967; Shata, A., 1955a, 1957a, 1971b.

## Geomorphology (continued)

### Nearshore Zones (continued)

#### Reefs

Einsele, G., and others, 1968; Friedman, G. M., Amiel, A. J., and Scheidermann, N., 1974; Loya, Y., and Slobodkin, L. B., 1971; Mergner, H., 1971; Scheer, G., 1971.

#### Offshore Marine Features

Davies, D., 1969.

## Geophysics

### Areal Studies

#### Local

##### Sheet 1 - Matruh

Bayoumi, A. I., 1971; Bayoumi, A. I., and Sayed, A. A., 1972; El Shazly, E. M., Meshref, W. M., and Fouad, K. M., 1969.

##### Sheet 2 - Cairo

Bayoumi, A. I., and Ahmed, A. S., 1969; Bayoumi, A. I., and El Gamili, M., 1970; Bayoumi, A. I., and Sabri, A. M., 1970, 1971a, 1971b; Bayoumi, A. I., and Shenouda, H. H., 1972; Bulanzhe, Y. D., Gusev, N. A., and Silvin, Y. A., 1977; El Shazly, E. M., Abdel Hady, M. A., and Morsy, M. A., 1974; El Shazly, E. M., and others, 1977d; Jhanwar, M. L., and Sharma, S. B., 1974; Kazakova, V. P., Leont'yev, O. K., and Nauar, A. K., 1978; Refai, E., and Riskalla, T. R., 1969a, 1969b; Refai, E., and Wassif, N., 1971; Rofail, N., and Tadros, S., 1970.

##### Sheet 3 - North Sinai

Ahmad, A. M. A., and Abdel Rahman, M. H., 1977; Ghazarian, G. B., 1957; Paver, G. L., and Jordan, J. N., 1956; Sabry, A. M., and Abdel Rahman, N. M., 1972; Sabry, Y., and others, 1967.

##### Sheet 4 - Bahariya

Kamel, M., El Sharty, A., and El Nekhely, A., 1972.

##### Sheet 5 - Asyute

Bayoumi, A. I., and Boctor, J. G., 1970; Bayoumi, A. I., and El Gamili, M., 1966; 1970; Faris, M. I., Abdel Dayem, M. M., and Sabry, A. M., 1965, 1967a, 1967b; Karamany, M. F., and Abdel Aati, A. H., 1972.

##### Sheet 6 - South Sinai

Bayoumi, A. I., and Awad, G. M., 1972; Faris, M. I., El Bishlawy, M. N., and El Dashlouty, S. A., 1967; Youssef, M. S., and others, 1967.

##### Sheet 9 - Quseir

El Hamkin, B., 1967; Moustafa, G. A., and Morcos, M. B., 1973; Youssef, M. S., and El Kahwagy, A. S., 1966.

##### Sheet 11 - Aswan

Boulos, F. K., 1972; El Shazly, E. M., and others, 1974b, 1974c, 1974e.

##### Sheet 12 - Elba

El Etr, H. A., 1971.

#### Regional

Allan, T. D., and Pisani, M., 1966; Badawry, R., 1963; Bayoumi, A. I., and El Gamili, M., 1969; Bayoumi, A. I.,



## Geophysics (continued)

### Areal Studies (continued)

#### Regional (continued)

and Helmi, A., 1965, 1967, 1971; Bayoumi, A. I., and Shereff, M. R., 1969; 1971a, 1971b; Ben Avraham, Z., and Hall, J. K., 1977; Darke, C. L., and Girdler, R. W., 1964; El Etr, H. A., and Abdel Rahman, M. A., 1976; El Shazly, E. M., and others, 1977b, 1978; El Shazly, E. M., Shukri., N. M., and Fouad, K. M., 1968; Emery, K. O., Heezen, B. C., and Allen, T. D., 1966; Ezzat, M. R., 1972; Fairhead, J. D., and Girdler, R. W., 1970; Games, K. P., 1977; Girdler, R. W., 1969, 1970a; Haenel, R., 1972; Kabbani, F. K., 1970; Khalil, N. A., and El Mofty, S., 1972; Knott, S. T., and Bunce, E. T., 1965; Knott, S. T., Bunce, E. T., and Chase, R. L., 1966; Krs, M., Soliman, A. A., and Amin, A. H., 1973; Laughton, A. S., 1970; Masson, P., and Agnich, F. J., 1958, 1959; Meshref, W. M., and El Sheikh, M. M., 1974; Milyutina, Y. N., and others, 1977; Morgan, P., and Swanberg, C. A., 1977; Moustafa, G. A., 1961; Nakhla, A. F., and Podbelova, E. A., 1974; Philips, J. D., 1970, 1971; Philips, J. D., and Ross, D. A., 1970, 1971; Plaumann, S., 1963; Riad, S., 1977; Rothe, J. P., 1970; Scheuch, J., 1973; Schult, A., Soffel, H., and Hussain, A. G., 1978; Searle, R., and others, 1972; Soliman, S. M., 1960; Tarling, D. H., 1970; Tramontini, C., and Davies, D., 1969; Vered, M., and Ben Menahem, A., 1974.

#### Bathymetry

Allan, T. D., 1966; Allan, T. D., Cranock, H., and Morelli, C., 1964; Emery, K. O., Heezen, B. C., and Allan, T. D., 1966; Laughton, A. S., 1970; Ross, D. A., Hays, E. E., and Allstrom, F. C., 1969.

#### General Studies

Dolphin, L. T., Jr., Bollen, R. L., Oetzel, G. N., 1974; Krs, M., 1972; Krs, M., and Mazac, O., 1975; Krs, M., Soliman, A. A., and Amin, A. H., 1973; Sabry, Y., and others, 1967; Soliman, S. M., 1960; Youssef, M. S., and others, 1970b.

#### Geodesy

Bell, J. F., 1968.

#### Gravity

Ahmad, A. M. A., and Abdel Rahman, M. H., 1977; Allan, T. D., 1970; Allan, T. D., Cranock, H., and Morelli, C., 1964; Allan, T. D., Pisani, M., 1966; Badawry, R., 1963; Bayoumi, A. I., and Boctor, J. G., 1970; Bayoumi, A. I., and El Dashlouty, S., 1967; Bayoumi, A. I., and Sabri, A. M., 1970, 1971b; Bulanzhe, Y. D., Gusev, N. A., and Silvin, Y. A., 1977; Faris, M. I., Abdel El Dayem, M. M., and Sabry, A. M., 1965, 1967a, 1967b; Faris, M. I., El Bishlawy, M. N., and El Dashlouty, S. A., 1967; Kamel, M., El Sharty, A., and El Nekhely, A., 1972; Kheyfrets, M. Y., Gusev, N. A., and Lokhov, V. V., 1977; Milyutina, Y. N., and others, 1977; Philips, J. D., Woodside, J., and Bowin, C. O., 1969; Plaumann, S., 1963; Riad, S., 1977; Sabry, A. M., and Abdel Rahman, M. M., 1972.

## Geophysics (continued)

### Heat Flow

Girdler, R. W., 1970b; Haenel, R., 1972; Morgan, P., and Swanberg, C. A., 1977; Nakhla, A. F., 1970; Podosek, F. A., 1973; Scheunch, J., 1973; Schoell, M., and Hartman, M., 1973.

### Magnetics

Allan, T. D., 1964, 1970; Allan, T. D., Cranock, H., and Morelli, C., 1964; Allan, T. D., and Pisani, M., 1966; Athavale, R. N., 1969; Bayoumi, A. I., and Boctor, J. G., 1970; Bayoumi, A. I., and El Gamili, M., 1966; Bayoumi, A. I., and Sabri, A. M., 1971a; Dolphin, L. T., Jr., Bollen, R. L., and Oetzel, G. N., 1974; Dowidar, N. M., 1971; El Hamkin, B., 1967; El Hamkin, B., and Nakhla, A. F., 1970; El Shazly, E. M., and Krs, M., 1972, 1973; Faris, M. I., El Bishlawy, M. N., and El Dashlouty, S. A., 1967; Games, K. P., 1977; Girdler, R. W., 1970a; Meshref, W. M., and El Sheikh, M. M., 1974; Nakhla, A. F., and Podbelova, E. A., 1974; Philips, J. D., 1970, 1971; Philips, J. D., Woodside, J., and Bowin, C. O., 1969; Refai, E., and Riskalla, T. R., 1969a, 1969b; Refai, E., and Wassif, N., 1971; Rizkalla, I., 1976; Schult, A., Soffel, H., Hussain, A. G., 1978; Tarling, D. H., 1970.

### Remote Sensing and Photography

Abdel Gawaad, M., 1970a; Abdel Salam, M. A., and Etmann, A. A., 1970; Allison, L. J., 1977; Bannert, D. N., 1971; Bannert, D. N., and Kedar, E. V., 1971; Barakat, M. G., and Ashri, A. H., 1970; Bentz, F. P., and Gutmann, S. I., 1977; Beregovoy, G. T., and others, 1972; El Etr, H. A., and Abdel Rahman, M. A., 1976; El Shazly, E. M., Abdel Hady, M. A., and Morsy, M. A., 1974; El Shazly, E. M., Meshref, W. M., and Fouad, K. M., 1969; El Shazly, E. M., and others, 1974b, 1974c, 1974e, 1977b, 1977c, 1977d, 1978; El Shazly, E. M., Shukri, N. M., and Fouad, K. M., 1968; Jhanwar, M. L., and Sharma, S. B., 1974; Kohman, T. P., Lowmann, P. D., Jr., and Abdel Khalek, M. L., 1967; Meleik, M. L., and others, 1978; Moustafa, G. A., 1957, 1961; Moustafa, G. A., and Morcos, M. B., 1973; Otterman, J., 1977; Otterman, J., and Ginzburg, A., 1974; Pouquet, J., 1969; Sabet, A. H., 1969.

### Resistivity

Asaad, Y., 1966; Bayoumi, A. I., 1971; Boulos, F. K., 1972; Dolphin, L. T., Jr., Bollen, R. L., and Oetzel, G. N., 1974; Ghazarian, G. B., 1957; Kermabon, A. J., 1972; Khalil, N. A., 1967; Krulc, Z., and others, 1969; Minaw, F., Hanna, B., and Mikhail, F. M., 1972; Mohamed, S. S., and Kahlil, S., 1971; Mohamed, S. S., and others, 1972a, 1972b; Rofail, N., and Tadros, S., 1970; Tayel, M. Y., 1974; Zeidan, S., 1967; Zeidan, S., and Farghall, M., 1971; Zeidan, S., and Mahmoud, A., 1969, 1971.

### Seismic

Bayoumi, A. I., 1963; Bayoumi, A. I., and Helmi, A., 1965, 1967, 1971; Bayoumi, A. I., and Shereef, M. R., 1969, 1971a, 1971b; Ezzat, M. R., 1967, 1972; Fairhead, J. D., and Girdler, R. W., 1970; Hartmann, M., 1972; Kamel, B., 1963; Karamany,

## Geophysics (continued)

### Seismic (continued)

M. F., and Abdel Aati, A. H., 1972; Masson, P., and Agnich, F. J., 1958, 1959; Philips, J. D., and Ross, D. A., 1970, 1971; Ross, D. A., Hays, E. E., and Allstrom, F. C., 1969; Rothe, J. P., 1970; Searle, R., and others, 1972; Tramontini, C., and Davies, D., 1969; Vered, M., and Ben Menahem, A., 1974.

## Hydrology and Hydrogeology

### Areal Studies

#### Local

##### Sheet 1 - Matruh

Ball, J., 1937; Bayoumi, A. I., 1971; Bayoumi, A. I., and Sayed, A. A., 1972; El Ramly, I. M., 1966, 1968; El Senussi, M. Y., and Shata, A., 1967; El Shazly, M. M., 1970; Hassan, A. A., and El Ramly, I. M., 1966; Paver, G. L., and Pretorius, D. A., 1954b; Shata, A., 1971b.

##### Sheet 2 - Cairo

El Awady, M. A., and Ghanem, N. A., 1975a, 1975b; El Hinnawi, E., and Abdel Mogheeth, S. M., 1972; El Hinnawi, E., and Atwa, S. M., 1973; El Hinnawi, E., Atwa, S. M., and Abdel Mogheeth, S. M., 1972; Elgizawi, M. G., 1974; Entz, B., and Rzoska, J., 1976; Ghanem, N. A., and El Awady, M. A., 1975; Heimdal, B. R., Tassen, J. P., and Elbraechter, M., 1977; Himida, I. H., Bishay, N. Z., and Diab, M. S., 1972; Himida, I. H., Diab, M. S., and Augustithus, S. S., 1976; Himida, I. H., and El Daem, A. A., 1976; Hume, W. F., 1921; Lucas, A., 1902b, 1903; Mohamed, S. S., and others, 1972b; Morcos, S. A., El Wakeel, S. K., and Mahlis, A. M., 1969; Rofail, N., and Tadros, S., 1970; Shata, A., 1971b; Shata, A., and El Fayoumy, I., 1970a; Wahby, S. D., and others, 1978.

##### Sheet 3 - North Sinai

Hellstrom, B., 1953a, 1953b; Levy, Y., 1974b; Paver, G. L., and Jordan, J. N., 1956; Paver, G. L., and Pretorius, D. A., 1954b; Shata, A., 1959c.

##### Sheet 4 - Bahariya

El Sharkawi, M. A., and others, 1976; Omara, S., Hemida, I., and Sanad, S., 1970

##### Sheet 5 - Asyute

El Hadidi, A., 1970; Salem, M., 1965.

##### Sheet 6 - South Sinai

Nir, D., 1970; Salem, M., 1965.

##### Sheet 7 - Dakhla

Abbass, H. L., and Habib, M. M., 1971; Himida, I. H., 1965b; Little, O. H., 1930a; 1932; Little, O. H., and Attia, M. I., 1942b; Paver, G. L., and Pretorius, D. A., 1954a; Shata, A., 1962b.

##### Sheet 8 - Qena

Ezzat, M. A., El Badry, H. M., and Ibrahim, M. M., 1966; Higazy, R. A., and Shata, A., 1960; Himida, I. H., 1965b, 1967; Little, O. H., 1930a, 1932; Little, O. H., and Attia, M. I., 1942b; Paver, G. L., and Pretorius, D. A., 1954a; Shata, A., 1962a, 1962b; Waite, H. A., and Idris, H., 1961.

## Hydrology and Hydrogeology (continued)

### Areal Studies (continued)

#### Local (continued)

##### Sheet 9 - Queseir

Ramez, M. R. H., and Marie, A. A., 1974.

##### Sheet 11 - Aswan

Abu Wafa, T., and Lahib, A. H., 1973; Hassan, A. A., El Sabh, M. L., and Morcos, S. A., 1973; Rzoska, J., 1976a; Vowinckel, E., Orvig, S., 1977.

#### Regional

Amin, M. S., 1960; Attia, M. I., 1942, 1953, 1954b; Batanouny, K. H., 1975; Brewer, P. G., and others, 1969, 1972; Clarke, F. E., 1978; Conedera, C., and Ercoli, A., 1977; Cuvillier, J., 1943; Degens, E. T., 1962; Domenico, S. N., 1978; Dowidar, N. M., 1971; Drover, D. P., and Beshai, H. M., 1962; Eckstein, Y., 1976a, 1976b; Eckstein, Y., Gill, D., and Slepian, I., 1973; El Ayouty, M. K., and Ezzat, M. A., 1961; El Gabaly, M., and Worthington, E. B., 1977; El Hinnawi, E., Atwa, S. M., and Abdel Mogheeth, S. M., 1972; El Ramly, I. M., 1965; El Shazly, E. M., 1957b; Entz, B., and Rzoska, J., 1976; Ezzat, M. A., 1966; Ferrar, H. T., 1910; Gat, J. R., and Issar, A., 1974; Hamdi, H., Mitwally, S. E., and Guindi, B., 1968; Higazy, R. A., and Shata, A., 1960; Hilal, M. H., and Rasheed, M. A., 1976; Himida, I. H., 1965a, 1967, 1972; Issar, A., Bein, A., and Michaeli, A., 1972; Issar, A., and others, 1971; Jones, E. N., and Browning, D. G., 1971; Knetsch, G., 1963; Knetsch, G., and others, 1963; Mikhail, F. N., 1973; Mitwally, M., 1951; Mohamed, S. S., and others, 1972a; Munnich, K. O., and Vogel, J. C., 1963; Murray, G. W., 1952a, 1952b; Nicola, F., and Soliman, M., 1972; Ross, D. A., 1971; Rzoska, J., 1976d, 1976e; Saad, M. A. H., 1974; Sadek, M., 1956; Said, R., 1975a; Salem, M., 1965; Salomon Calvi, W., 1939; Shata, A., 1966, 1971a; Stoffers, P., and Fishbeck, R., 1975; Stringfield, V. T., Le Grand, H. E., and La Moreaux, P. E., 1974; Talling, J. F., Rzoska, J., 1976a, 1976b; Vowinckel, E., and Orvig, S., 1977.

#### Dams and Damsites

Hilal, M. H., and Rasheed, M. A., 1976.

#### General Studies

Domenico, S. N., 1978; El Gabaly, M., and Worthington, E. B., 1977; Lagarde, A., and others, 1969; Munnich, K. O., and Vogel, J. C., 1963; Nicola, F., and Soliman, M., 1972; Nonveiller, E., 1970; Rodier, J., 1963; Stringfield, V. T., Le Grand, H. E., and La Moreaux, P. E., 1974; Tayel, M. Y., 1974; Zeidan, S., 1967.

#### Ground Water

Bayoumi, A. I., 1971; Cuvillier, J., 1943; Eckstein, Y., 1976a, 1976b; Eckstein, Y., Gill, D., and Slepian, I., 1973; El Ayouty, M. K., and Ezzat, M. A., 1961; Elgizawi, M. G., 1974; El Hinnawi, E., and Abdel Mogheeth, S. M., 1972; El Hinnawi, E., and Atwa, S. M., 1973; El Sharkawi, M. A., and others, 1976; El Shazly, E. M., and others, 1977c; El Shazly, M. M., 1970; Ezzat, M. A., 1966; Ezzat, M. A., and others, 1962; Ferrar, H. T., 1910; Gat, J. R., 1974; Gavich, I. K.,



## Hydrology and Hydrogeology (continued)

### Groundwater (continued)

and others, 1974; Hamdi, H., Mitwally, S. E., and Guindi, B., 1968; Hassan, A. A., and El Ramly, I. M., 1966; Hazzaa, I. B., and others, 1967; Hellstrom, B., 1953a, 1953b; Higazy, R. A., and Shata, A., 1960; Issar, A., Bein, A., and Michaeli, A., 1972; Issar, A., and others, 1971; Knetsch, G., and Mazhar, M. A., 1953; Knetsch, G., and others, 1963; Krulc, Z., and others, 1969; Little, A. L., and Bell, F. G., 1975, Little, O. H., and Attia, M. I., 1942a, 1942b; Mitwally, M., 1951; Mohamed, S. S., and Kahlil, S., 1971; Mohamed, S. S., and others, 1972a; Murray, G. W., 1952a, 1952b; Ramez, M. R. H., and Marie, A. A., 1974; Rofail, N., and Tadros, S., 1970; Sabry, Y., and others, 1967; Said, R., 1975a; Salem, M., 1965; Shata, A., 1959c, 1959d, 1962a, 1962b, 1966, 1971a; Shata, A., and others, 1962; Vogel, J. C., and Enhalt, D., 1963; Yallouze, M., 1967a; Youssef, M. I., 1964; Youssef, M. S., and El Saady, M. N., 1963; Youssef, M. S., and others, 1967.

### Hydrogeochemistry (Aquatic Chemistry)

Bishay, N. Z., 1973; Brewer, P. G., and Spencer, D. W., 1969; Clarke, F. E., 1978; Degens, E. T., 1962; Drover, D. P., and Beshai, H. M., 1962; Eckstein, Y., 1970; Eckstein, Y., Gill, D., and Slepyan, I., 1973; El Awady, M. A., and Ghanem, N. A., 1975a, 1975b; El Hinnawi, E., and Abdel Mogheeth, S. M., 1972; El Hinnawi, E., and Atwa, S. M., 1973; El Hinnawi, E., Atwa, S. M., and Abdel Mogheeth, S. M., 1972; El Shazly, M. M., 1970; Gat, J. R., 1974; Gat, J. R., and Issar, A., 1974; Ghanem, N. A., and El Awady, M. A., 1975; Himida, I. H., Bishay, N. Z., and Diab, M. S., 1972; Himida, I. H., and El Daem, A. A., 1976; Levy, Y., 1974b; Shishkina, O. V., and Bogoyavleskiy, A. N., 1970; Wahby, S. D., and others, 1978; Youssef, M. S., and El Saady, M. N., 1963

### Paleohydrology

Conedera, C., and Ercoli, A., 1977; Himida, I. H., 1972; Stringfield, V. T., Le Grand, H. E., and La Moreaux, P. E., 1974.

### Surface Waters

Dowidar, N. M., 1971; Eckstein, Y., 1970; El Ramly, I. M., 1966; Entz, B., and Rzoska, J., 1976; Gerson, R., and Yair, A., 1975; Hassan, A. A., El Sabh, M. L., and Morcos, S. A., 1973; Hassan, H. L., 1972; Haude, W., 1961; Hilal, M. H., and Rasheed, M. A., 1976; Kovda, V. A., and Worthington, E. B., 1977; Kvasov, D. D., 1969a, 1969b; Morcos, S. A., El Wakeel, S. K., and Mahlis, A. M., 1969; Nir, D., 1970; Por, F. D., 1969; Raheji, P. C., 1973; Rzoska, J., 1976c, 1976d, 1976e, 1976f; Saad, M. A. H., 1974; Stoffers, P., and Fischbeck, R., 1975; Thompson, G. C., Gardner, E. W., and Huzayyin, S. A., 1937; Yair, A., and Lavee, H., 1976a, 1976b.

### Water Quality

Clarke, F. E., 1978; El Awady, M. A., and Ghanem, N. A., 1975a, 1975b; Heimdal, B. R., Taasen, J. P., and Elbraechter, M., 1977; Hilal, M. H., and Rasheed, M. A., 1976; Pouquet, J.,

## Hydrology and Hydrogeology (continued)

### Water Quality (continued)

and Tricart, J., 1976; Talling, J. F., and Rzoska, J., 1976a, 1976b; Vowinkel, E., and Orvig, S., 1977.

### Wells and Springs

Attia, M. I., 1955a; Azer, N., 1962; Ball, J., 1937; Clarke, F. E., 1978; Himida, I. H., 1965a, 1965b, 1967; Himida, I. H., Diab, M. S., and Augustithus, S. S., 1976; Knetsch, G., 1963; Ramadan, F. M., and others, 1960.

## Igneous Geology

### Areal Studies

#### Local

##### Sheet 2 - Cairo

Abdallah, A. M., Meneisy, M. Y., and Shaaban, M. M., 1974; El Sharkawi, M. A., and Abu Khadra, A. M., 1968; Ramez, M. R. H., and Abdel Maksoud, M. A., 1970.

##### Sheet 4 - Bahariya

Meneisy, M. Y., and El Kaliuobi, B. A., 1975.

##### Sheet 5 - Asyute

Abdallah, A. M., Meneisy, M. Y., and Shaaban, M. M., 1974; Dardir, A. A., and Abu Zeid, K. M., 1972; Magaritz, M., and Issar, A., 1973; Meneisy, M. Y., Omar, A. A., and Shaaban, M. M., 1973; Tosson, S., 1964b.

##### Sheet 6 - South Sinai

Andrew, G., 1938; Dardir, A. A., and Abu Zeid, K. M., 1972; Ghanem, M., 1972a; Kabesh, M. L., Lofti, M., and Refaat, A. M., 1970; Kabesh, M. L., and Refaat, A. M., 1972; Kabesh, M. L., and Shahin, A. N., 1968, 1969; Magaritz, M., and Issar, A., 1973.

##### Sheet 8 - Qena

El Ramly, M. F., and Akaad, M. K., 1960a, 1960b; El Shazly, E. M., El Sakkary, A. A., and Khalil, S. O., 1973.

##### Sheet 9 - Quseir

Akaad, M. K., 1959, 1963b; Akaad, M. K., and El Ramly, M. F., 1961; Akaad, M. K., and Essawy, M. A., 1964b, 1965d; Akaad, M. K., and Noweir, A. M., 1972; El Ramly, M. F., and Akaad, M. K., 1960a, 1960b; El Ramly, M. F., and others, 1969a; 1970d; El Shazly, E. M., El Sakkary, A. A., and Khalil, S. O., 1971, 1973; Essawy, M. A., 1972; Essawy, M. A., and Abu Zeid, K. M., 1972; Gindy, A. R., 1964; Kabesh, M. L., and others, 1977; Kabesh, M. L., and Ragab, A. G., 1974; Ramez, M. R. H., and Marie, A. A., 1974; Rittmann, A., 1958b; Roufaiel, G. S. S., 1973; Sabet, A. H., 1958; Saleeb, G. S., 1972; Sayyah, T. A., and El Shatoury, H. M., 1974.

##### Sheet 11 - Aswan

Gindy, A. R., 1954, 1955, 1956a, 1956b, 1956c, 1960b, 1964, 1970c, 1970d; Higazy, R. A., and Wasfy, H. M., 1956; Suwa, K., 1966.

##### Sheet 12 - Elba

Amin, M. S., 1954; El Ramly, M. F., and others, 1969b; El Shazly, E. M., Farag, I. M., and Bassyuni, F. A., 1965, 1971; Sabet, A. H., 1958.

## Igneous Geology (continued)

### Areal Studies (continued)

#### Regional

Abdallah, A. M., Meneisy, M. V., and Shaaban, M. M., 1974; Afanasev, G. D., 1960a, 1960b; Akaad, M. K., 1963a; 1972; Akaad, M. K., El Gaby, S., and Habib, M. E., 1974; Akaad, M. K., and El Ramly, M. F., 1960; Al Shanti, A. M., 1978; Andrew, G., 1937b; Barton, D., 1938; Beyth, M., Grunhagen, H., and Zilberfarb, A., 1978; Bugrov, V. A., and Shalaby, I. M., 1973; Chase, R. L., 1969; Coleman, R. G., and others, 1973; Delfour, J., 1976; Duba, A., Heard, H. C., and Schock, R. N., 1974; El Etr, H. A., Abdallah, A. M., and Abdel Rahman, M. A., 1976; El Hinnawi, E., 1964a, 1965b; El Hinnawi, E., and Abdel Maksoud, M. A., 1968, 1972; El Ramly, M. F., 1963, 1972; El Ramly, M. F., and Akaad, M. K., 1960a, 1960b; El Ramly, M. F., Hussein, A. A., and Budanov, V. I., 1971; El Shazly, E. M., El Sokkary, A. A., and Khalil, S. O., 1973; El Sokkary, A. A., and Salloum, G., 1974; Faris, M. I., and Kamel, I., 1953; Gass, I. G., 1970; Ghanem, M., and others, 1973; Harris, P. G., 1969; Higazy, R. A., and Wasfy, H. M., 1957; Hume, W. F., 1935, 1937; Jong, J. D., 1940; Schneider, W., and Wachendorf, H., 1973; Vail, J. R., 1976; Varlamoff, N., 1973b.

#### General Studies

Abdallah, A. M., Meneisy, M. Y., and Shaaban, M. M., 1974; Akaad, M. K., and Moustafa, G. M., 1963; Akaad, M. K., and Noweir, A. M., 1964b; Aliyev, A. A., 1971; Andrew, G., 1934a, 1936; Attia, A. A., and others, 1955; Barton, D., 1938; Beyth, M., Grunhagen, H., and Zilberfarb, A., 1978; Duba, A., Heard, H. C., and Schock, R. N., 1974; Dubertret, L., 1961; El Hinnawi, E., and Abdel Maksoud, M. A., 1968, 1972; El Shazly, E. M., 1964; El Sokkary, A. A., and Salloum, G., 1974; Faris, M. I., and Kamel, I., 1953; Gabert, G., Ruxton, B. P., and Venzlaff, H., 1960; Gass, I. G., Mallick, D. I. J., and Cox, K. G., 1973; Gindy, A. R., 1970d; Higazy, R. A., and Wasfy, H. M., 1957; Meneisy, M. Y., and Kreuzer, H., 1974a, 1974b; Soliman, S. M., 1963; Tosson, S., 1954; Vail, J. R., 1971, 1976.

#### Petrography and Petrology

Akaad, M. K., El Gaby, S., and Habib, M. E., 1974; Akaad, M. K., and El Ramly, M. F., 1961; Andrew, G., 1937b, 1938; Chase, R. L., 1969; Chernysheva, V. I., 1969; Coleman, R. G., and others, 1973; Delfour, J., 1976; El Etr, H. A., Abdallah, A. M., and Abdel Rahman, M. A., 1976; El Gaby, S., 1975; El Hinnawi, E., and Abdel Maksoud, M. A., 1968; El Ramly, M. F., and Akaad, M. K., 1960a, 1960b; El Ramly, M. F., and others, 1969a, 1969b, 1970d; El Shazly, E. M., El Sokkary, A. A., and Khalil, S. O., 1971, 1973; El Shazly, E. M., Farag, I. M., and Bassyuni, F. A., 1965; Essawy, M. A., 1972; Essawy, M. A., and Abu Zeid, K. M., 1972; Gindy, A. R., 1956a, 1956b, 1956c, 1961g; Harris, P. G., 1969; Hussein, A. A., and Hassan, M. A., 1973; Hutchinson, R. W., and Gass, I. G., 1971; Jong, J. D., 1940; Kabesh, M. L., Lofti, M., and Refaat, A. M., 1970; Meneisy, M. Y., Omar, A. A., and Shaaban, M. M., 1973; Omar, A. A., and El Shennawi, A. W., 1973; Suwa, K., 1966; Varlamoff,

## Igneous Geology (continued)

### Petrography and Petrology (continued)

N., 1973b; Williams, K., 1937.

### Processes and Genesis

Afanasev, G. D., 1960a; Akaad, M. K., El Gaby, S., and Habib, M. E., 1974; Akaad, M. K., and El Ramly, M. F., 1963a; Al Shanti, A. M., 1978; Amin, M. S., 1948; Anwar, Y. M., and El Sokkary, A. A., 1970; Azer, N., 1966; Budanov, V. I., 1970; Craig, H., 1969; Delfour, J., 1976; El Gaby, S., 1967, 1975; El Shazly, E. M., and Afia, M. S., 1958; El Sokkary, A. A., and Salloum, G., 1974; Essawy, M. A., 1972; Gass, I. G., 1970, 1972; Gindy, A. R., 1954, 1955, 1956c, 1960b; Harris, P. G., 1969; Higazy, R. A., and Wasfy, H. M., 1956; Hutchinson, R. W., and Gass, I. G., 1971; Ibrahim, M. M., 1960; Jong, J. D., 1940; Kabesh, M. I., Hilmy, M. E., and Ragab, A. G., 1972; Kabesh, M. I., and Ragab, A. G., 1974; Kabesh, M. I., and Refaat, A. M., 1972, 1973; Lewy, Z., 1972; Omar, A. A., and El Shennawi, A. W., 1973; Rittmann, A., 1954, 1958; Rogers, J. J. W., 1977; Roufaiel, G. S. S., 1973; Saleeb, G. S., 1972; Schneider, W., and Wachendorf, H., 1973; Shimron, A. E., 1975; Shimron, A. E., and others, 1974.

## Metamorphic Geology

### Areal Studies

#### Local

##### Sheet 2 - Cairo

Aghion, H., 1940b; El Sharkawi, M. A., and Abu Khadra, A. M., 1968.

##### Sheet 3 - North Sinai

Amit, O., 1975; Amit, O., and Eyal, Y., 1976.

##### Sheet 5 - Asyute

Dardir, A. A., and Abu Zeid, K. M., 1972.

##### Sheet 6 - South Sinai

Akaad, M. K., El Gaby, S., and Abbas, A. A., 1967a, 1967b; Dardir, A. A., and Abu Zeid, K. M., 1972; Ghanem, M., 1972a.

##### Sheet 8 - Qena

El Ramly, M. F., and Akaad, M. K., 1960a, 1960b; El Shazly, E. M., El Sokkary, A. A., and Khalil, S. O., 1973.

##### Sheet 9 - Quseir

Akaad, M. K., 1957, 1963a; Akaad, M. K., and Essawy, M. A., 1964b; El Shazly, E. M., El Sokkary, A. A., and Khalil, S. O., 1971, 1973; Hassan, M. A., 1973; Maric, L., 1960; Ramez, M. R. H., and Marie, A. A., 1974.

##### Sheet 11 - Aswan

Gindy, A. R., 1956a.

##### Sheet 12 - Elba

El Shazly, E. M., Farag, I. M., and Bassyuni, F. A., 1965.

#### Regional

Akaad, M. K., 1972; Akaad, M. K., and El Ramly, M. F., 1960; Akaad, M. K., and Essawy, M. A., 1965b, 1965c; Akaad, M. K., and Shazly, G. A., 1972; Al Shanti, A. M., 1978; Bogoch, R., 1977; El Ramly, M. F., 1963, 1972; El Ramly, M. F., and Akaad, M. K., 1960a, 1960b; El Shazly, E.



## Metamorphic Geology (continued)

### Areal Studies (continued)

#### Regional (continued)

M., El Sokkary, A. A., and Khalil, S. O., 1973; Ghanem, M., and others, 1973; Hume, W. F., 1934; Saggerson, E. P., and Turner, L. M., 1972; Shimron, A. E., and Zwart, H. J., 1970.

#### Petrography and Petrology

Akaad, M. K., 1957; Akaad, M. K., and El Ramly, M. F., 1963a; Akaad, M. K., and Shazly, G. A., 1972; Basta, E. Z., and Abdel Kader, Z., 1969b; El Ramly, M. F., and Akaad, M. K., 1960a, 1960b; El Shazly, E. M., El Sokkary, A. A., and Khalil, S. O., 1971, 1973; El Shazly, E. M., Farag, I. M., and Bassyuni, F. A., 1965; Gindy, A. R., 1956a; Ramez, M. R. H., and Marie, A. A., 1974.

#### Processes and Genesis

Akaad, M. K., El Gaby, S., and Abbas, A. A., 1967a, 1967b; Al Shanti, A. M., 1978; Amit, O., 1975; Amit, O., and Eyal, Y., 1976; Azer, N., 1966; El Gaby, S., 1967; Papanastassiou, D. A., and Wasserburg, G. J., 1974; Saggerson, E. P., and Turner, L. M., 1972.

## Mineralogy (See also Economic Geology and Natural Resources, Mineral Resources)

Abbass, H. L., and Habib, M. M., 1970; Abdel Gawad, A. M., 1966; Aharon, P., Koloday, Y., and Sass, E., 1977; Anwar, Y. M., and El Bouseily, A. M., 1970a, 1970b; Anwar, Y. M., and Kotb, H., 1963; Anwar, Y. M., Tosson, S., and Saad, N. A., 1970; Ashry, M. M., 1968; 1970; Ashry, M. M., and El Hinnawi, E. E., 1970; Ashry, M. M., and Riskalla, S., 1968; Atia, A. K. M., Hilmy, M. E., and Bolous, S. N., 1970a, 1970b; Atia, A. K. M., Hilmy, M. E., and Hegab, O. A., 1970; Atia, A. K. M., Hilmy, M. E., and Morsy, A. M., 1972; Ayalon, A., 1976; Bahat, D., 1975; Barakat, N., and El Shazly, E. M., 1956; Baric, L., 1962; Barlow, C. H., 1947a, 1947b; Basta, E. Z., 1971; Basta, E. Z., Abdallah, A. M., and El Kadi, M. B., 1971, 1974; Basta, E. Z., and Abdel Kader, Z., 1969a, 1969b; Basta, E. Z., and Amer, H. I., 1970a; Basta, E. Z., El Kadi, M. B., and Maksoud, M., Abdel, 1971; Basta, E. Z., El Sharkawi, M. A., and Salem, M. W., 1969, 1970; Basta, E. Z., and Girgus, M. H., 1969; Basta, E. Z., and Kamel, M., 1971; Basta, E. Z., Philip, G., and Khalil, P., 1971, 1974; Basta, E. Z., and Saleeb, W. S., 1971, 1973; Basta, E. Z., and Takla, M. A., 1968c; Basta, E. Z., and Zaki, G. M., 1961; Bischoff, J. L., 1969a, 1969b; Bogoch, R., and Cook, P., 1974; Bonatti, E., and Oiva, J., 1969; Bryan, W. B., 1972; Bugrov, V. A., and Shalaby, I. M., 1973; Chlebowski, R., 1976; Clayton, P. A., 1972; Clayton, P. A., and Spencer, L. J., 1934, 1973; Cohen, A. J., 1960, 1961; Craig, H., 1969; Duba, A., Heard, H. C., and Schock, R. N., 1974; El Damaty, A. H., and El Sherbieny, A. F., 1973; El Damaty, A. H., Hamdi, H., and Zanati, M., 1973; El Damaty, A. H., and others, 1973a; El Demerdash, S., and others, 1971b; El Hinnawi, E., 1964b, 1966, 1969, 1973a; El Hinnawi, E., Hilmy, M. E., and Hussein, S. A., 1975; El Hinnawi, E., Kabesh, M. L., and Zahran, I.,

Mineralogy (See also Economic Geology and Natural Resources, Mineral Resources) (continued)

1973; El Hiti, A. S., 1976; El Kadi, M. A., and others, 1973b; El Kady, H. A., Abdel Salam, M. A., and Hamdi, H., 1972; El Kholy, S. B., and Selim, E. T. M., 1968, 1971; El Mowelhi, N. M., and Hamdi, H., 1976; El Ramly, M. F., Akaad, M. K., and Al Far, D. M., 1959; El Sharkawi, M. A., and Abu Khadra, A. M., 1968; El Sharkawi, M. A., and Bassiony, M. W., 1971; El Shatoury, H. M., Takenouchi, S., and Imai, H., 1974; El Shazly, E. M., 1975b; El Shazly, E. M., El Hazek, N. M. T., and El Mahrouky, F. A., 1972a; El Shazly, E. M., Naser, S. A., and Shukri, B., 1955; El Shazly, E. M., and Saleeb, G. S., 1959, 1972; El Sokkary, A. A., 1974; El Sokkary, A. A., and Abdel Monem, H. M., 1977; El Wakeel, S. K., and El Sayed, M. K., 1978; Eppler, W., Jr., 1939; Fakhry, A. A., 1974; Fayed, L. A., and Hassan, M. K., 1971; Frondel, C., and Gettens, R. J., 1955; Gad, G. M., 1950; Gavish, E., 1974; Gettens, R. J., and Frondel, C., 1955; Ghaith, A. M., and Mikha'il, M. T., 1964; Ghanem, M., Mirtov, J. V., and Karpenko, M. V., 1971; Ghanium, B. M., Rabie, F., and Hamdi, H., 1974; Gheith, M. A., 1959; Gindy, A. R., 1956b, 1956c, 1961a, 1961b, 1961c, 1961d, 1961e, 1961f, 1965, 1966a, 1966b, 1968 1970d, 1971a; Gindy, A. R., Ghazlan, A. I., and Afia, M. S., 1966; Gvirtzman, G., Friedman, G. M., and Miller, D. S., 1973; Hamdi, H., 1967; Hamdi, H., and Naga, M., 1949; Hammad, M. A., and Abdel Salam, M. A., 1968; Hammoud, N. S., and Khazback, A. E., 1973; Hanna, F. S., and Beckman, H., 1975; Harris, S. A., 1957; Hassan, F. A., 1976a, 1976b, 1978; Hassan, M. A., 1974; Heller Kallai, L., Nathan, Y., and Weissbrod, T., 1973; Heller Kallai, L., Nathan, Y., and Zak, I., 1973; Herman, Y., and Rosenberg, P. E., 1969; Hilmy, M. E., Kamel, O. A., and Niazzy, E. A., 1969; Hilmy, M. E., and Moshen, L. A., 1966; Hilmy, M. E., and Moustafa, G. A., 1960, 1961; Hilmy, M. E., Nakhla, F. M., and Rasmy, M., 1972; Holmes, R., and Tooms, J. S., 1973; Hussein, F. A., and Lotfi, M., 1971; Jong, J. D., 1940; Kamel, O. A., 1971a, 1971b; Kamel, O. A., and others, 1973; Kholief, M. M., 1974; Kholief, M. M., and Hamed, H. A., 1976 Kholief, M. M., Hilmy, M. E., and Shahat, A., 1969; Kholief, M. M., and Youssef, M., 1971; Kishk, F. M., and others, 1976; Kishk, F. M., and others, 1976; Kolkila, A. A., 1975; Komkov, A. I., 1960; Kotb, H., El Kammar, A. M., and Zohny, N., 1978; Krumbein, W. E., 1975; Labib, F., and Hamdi, H., 1973; Lehmann, E., 1977; Levy, Y., 1971; Meneisy, M. Y., Attia, A., and Abu Zeid, M. M., 1972, 1974; Naga, M. A., Abdallah, M. M., and Abdel Aal, S. I., 1973; Naga, M. A., and Heakal, M. S., 1973; Nakhla, F. M., 1958a, 1958b, 1961b; Nakhla, F. M., Ramsy, M., and Basily, A. B., 1973; Nakhla, F. M., and Shehata, M. R. N., 1967; Nasr, I., Gad, G. M., and Faris, M. I., 1973; Nathan, Y., Bentor, Y. K., and Wurtzburger, U., 1970; Neary, C. R., 1978; Noll, W., and Hangst, K., 1975a, 1975b; Philip, G., and Beheri, S., 1961; Philip, G., and Yousri, F., 1965; Rabie, F., and others, 1974; Sabatier,

Mineralogy (See also Economic Geology and Natural Resources, Mineral Resources)  
(continued)

G., 1969; Shukri, N. M., 1945d, 1953b; Shukri, N. M., and Azer, N., 1952; Shukri, N. M., and El Ayouty, M. K., 1953; Shukri, N. M., and Philip, G., 1961; Shumenko, S. I., and Chumakov, I. S., 1974a, 1974b; Soliman, S. M., 1963; Spencer, L. J., 1939; Stephens, J. D., and Wittkopp, R., 1969; Strangway, D. W., and McMahan, B. E., 1969; Takla, M. A., 1976; Tosson, S., 1971; Tsoar, H., 1976; Varlamoff, N., 1973a; Weir, A. H., Ormerod, E. C., and El Mansey, I. M. I., 1975; Wilson, W. E., 1976; Youssef, M. I., and Moshen, L. A., 1963; Zaghloul, Z. M., Ibrahim, A., and Asswad, T. A., 1967.

Paleoclimatology and Climatology

Butzer, K. W., 1960c, 1961a, 1962b, 1964, 1965a, 1971, 1975; Butzer, K. W., and Hansen, C. L., 1968; Cherif, O. H., Bassiouni, M. A., and Ghanima, S. A., 1975; Conedera, C., and Ercoli, A., 1977; Faris, M. I., 1972; Gerson, R., and Yair, A., 1975; Gvirtzman, G., 1976; Haxel, O., 1976; Herman, Y., 1968; Himida, I. H., 1972; Huzayyin, S. A., 1956; Jackson, R. D., Idso, S. B., and Otterman, J., 1975; Knetsch, G., and Mazhar, M. A., 1953; Murray, G. W., 1951a; Oliver, F. W., 1945; Pfannenstiel, M., 1952, 1956; Rognon, P., 1976; Said, R., Philip, G., and Shukri, N. M., 1956; Schamp, H., 1951.

Paleogeography

Barakat, M. G., and Abdel Hady, Y. E., 1974; Butzer, K. W., 1960b, 1960d; Cuvillier, J., 1953; Davies, D., 1969; Dubertret, L., 1972; El Shazly, E. M., and Krs, M., 1973; El Tarabili, E. E., 1969.

Paleontology

Ages

Pre-Cretaceous

Abbass, H. L., and El Gamal, M. M., 1970; Abdallah, A. M., and Fahmy, N. A., 1969; Abdou, H. F., and Marzouk, A., 1969; Alloiteau, I., and Farag, I., 1964; Andrawis, S. F., 1972; Arkell, W. J., 1951b; Ash, S. R., 1972; Bignon, B., 1972; Bronnimann, P., 1968; Carpentier, A., and Farag, I., 1949; Dijkstra, S. J., 1957; Eicher, D. B., 1947; Eicher, D. B., and Mosher, L. C., 1974; El Saadawi, W. E., and Farag, E., 1971, Farag, I., 1948, 1957b, 1960a, 1960b; Farag, I., and Gatinaud, W., 1960a, 1960b; Farag, I., and Yallouze, M., 1967; Fourtau, R., 1924, 1969; Helal, A. H., 1965, 1966; Hirsch, F., 1976; Horowitz, A., 1973; Jongmans, W. J., and van der Heide, S., 1953, 1955; Kerdany, M. T., and Marzouk, A., 1970, 1971; Kermack, K. A., 1974; Kummel, B., 1960; Lambert, J., 1938; Lerman, A., 1960; Lorch, J., 1967; Moshkovitz, S., and Ehrlich, A., 1976a, 1976b; Omara, S., 1971; Omara, S., and Kenawy, S., 1966; Omara, A., and Schultz, G., 1965; Osman, A., and Marzouk, A., 1963; Rigby, J. F., 1968, 1969; Said, R., and Andrawis, S. F., 1961; Said, R., and Barakat, M. G., 1958; Said, R., and Eissa, R. A., 1969.

## Paleontology (continued)

### Ages (continued)

#### Cretaceous

Abbass, H. L., 1962, 1963; Abbass, H. L. and Abed, M. M., 1971; Abdou, H. F., and Abdel Kareem, M. R., 1969; Abdou, H. F., and Fawzi, M. A., 1966; Abdou, H. F., Naim, E. M., and Abdel Kareem, M. R., 1969; Ansary, R., and Kenawy, A., 1956; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1963; Ansary, S. E., and Fakhr, B. Y., 1958; Ansary, S. E., and Tewfik, N. M., 1966, 1969; Avnmimelech, M. A., 1948; Awad, G. H., 1952; Barakat, M. G., and Afra, A. A., 1972; Buffetaut, E., 1976; Chandler, M. E. J., 1954; Cox, L. R., 1956; Cuvillier, J., 1937d; Delair, J. B., 1967; Edwards, W. N., 1933; El Dakkak, M. W., 1974; El Dawoody, A. S., and Barakat, M. G., 1973; El Naggar, Z. R., 1966a, 1971b; El Naggar, Z. R., and Haynes, J., 1967; El Shinnawi, M. A., 1967a, 1970b, 1972; El Shinnawi, M. A., and Sultan, I. Z., 1975b; El Sweifty, A., 1969; Ela, N. M., 1978; Fawzi, M. A., 1963a, 1963b, 1964; Fourtau, R., 1914; Hassan, M. Y., 1969a, 1969b, 1969c, 1970, 1971a; Hassan, M. Y., and Salama, S. A., 1969; Kerdany, M. T., Eissa, R. A., and Labib, F., 1973; Lagneau Herenger, L., 1953; Lambert, J., 1938; Lewy, Z., 1972, 1973; Mahmoud, I. G. E., 1951a, 1951b, 1952a, 1952b, 1955; Massieux, M., 1966a, 1966b; Mishnaevsky, G., 1967; Naim, E. M., 1966; Nakano, M., 1973; Nakkady, S. E., 1950, 1957; Nakkady, S. E., and Eissa, R. A., 1960; Omara, S., 1956; Perch Nielsen, K., 1973; Sadek, A., Barakat, M. G., and Arafa, A. A., 1974; Sadek, A., and Teleb, F., 1978a; Said, R., and Barakat, M. G., 1957a, 1957b; Said, R., and Kenawy, A., 1956, 1957; Shafik, S., and Stradner, H., 1971; Slaughter, B. H., and Thurmond, J. T., 1974; Soliman, J. A., 1975; Sultan, I. Z., 1978; Thomas, H. D., and Omara, S., 1957; Toni, R. T., 1969.

#### Tertiary

##### Paleocene

Abbass, H. L., 1967, 1969b, 1973; Andrawis, S. F., 1967; Barakat, M. G., and Fahmy, S. E., 1969b; Berggren, W. A., 1964; Cuvillier, J., 1937d, 1953; El Dawoody, A. S., 1977; El Dawoody, A. S., and Barakat, M. G., 1973; El Naggar, Z. R., 1969, 1970a; El Shinnawi, M. A., and Sultan, I. Z., 1975a; Hassan, M. Y., 1969a, 1969b, 1969c; Hassan, M. Y., and Salama, S. A., 1969; Hottinger, L., 1960; Kenawy, A. I., 1972, 1975; Massieux, M., 1966a, 1966b; Nakkady, S. E., 1950, 1952, 1957; Sadek, A., and Teleb, F., 1978b; Said, R., and Kenawy, A., 1956; Soliman, H. A., 1972, 1975.

##### Eocene

Abbass, H. L., 1961b, 1965, 1967, 1969a, 1969b, 1973; Abdou, H. F., and Kireem, M. R. A., 1975a, 1975b; Andrews, C. W., 1902; Andrews, C. W., and Beadnell, H. J. L., 1902; Annoscia, E., 1965; Ansary, S. E., 1955, 1956; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1961; Ansary, S. E., and Ismail, M. H., 1956, 1963; Barakat, M. G., and Aboul Ela, N. M., 1970; Barakat, M. G., and Fahmy, S. E., 1968b; Bassiouni, M. E. A., 1969, 1970, 1971; Berggren, W. A., 1964; Bishay,



Paleontology (continued)

Ages (continued)

Tertiary (continued)

Eocene (continued)

Y., 1961; Chandler, M. E. J., 1954; Cuvillier, J., 1933, 1934d, 1934e, 1936b, 1937d, 1938f, 1941b, 1942b; Cuvillier, J., and Joleaud, L., 1934; El Dawoody, A. S., 1971, 1977; El Shinnawi, M. A., and Sultan, I. Z., 1972; Elouard, P., and Roman, J., 1967; Fahmy, S. E., 1975; Fahmy, S. E., and others, 1969a; Farlow, J. O., 1976; Fourtau, R., 1913; Girgis, G. F., and Hindy, K. T., 1970; Hamam, K. A., 1975; Hassan, M. Y., 1967; Hassan, M. Y., and Strougo, A. M., 1970; Hottinger, L., 1960; Ismail, M. M., and Bassiouni, M. A., 1966; Kenawy, A. I., 1972, 1974; Kenawy, A. I., and El Baradi, N. M., 1977; Massieux, M., 1966a, 1966b; Omara, S., and Kenawy, A. I., 1975; Sadek, A., 1972; Sadek, A., Barakat, M. G., and Teleb, F. M., 1974; Sadek, A., and Farouk, T., 1973; Sadek, A., and Teleb, F., 1974; Schwager, C., 1970; Shamah, K., and Blondeau, A., 1976; Soliman, J. A., 1975; Souaya, F. J., 1966b; Strougo, A. M., 1973, 1976a, 1976b; White, E. I., 1936.

Oligocene

Abbass, H. L., 1966; Barakat, M. G., and Fahmy, S. E., 1969b; Conroy, G. C., 1976a, 1976b; Cuvillier, J., 1938d, 1940; El Shinnawi, M. A., and Sultan, I. Z., 1975a; Fahmy, S. E., and others, 1969a; Fleagle, J. G., Simons, E. L., and Conroy, G. C., 1975; Gingerich, P., 1978; Kalin, J., 1961; Kenawy, A. I., 1972; Ostoya, P., 1968; Simons, E. L., 1959, 1961, 1962a, 1967b, 1968a; Simons, E. L., and Gingerich, P. D., 1974; Wood, A. E., 1968.

Miocene

Andrawis, S. F., 1969; Ansary, S. E., and Andrawis, S. F., 1965; Benson, R. H., and Ruggieri, G., 1974; Buge, E., 1964; Cherif, O. H., 1972; Cuvillier, J., 1938e; Dangeard, L., 1942; El Shinnawi, M. A., 1975; Fahmy, S. E., and others, 1969b; Fourtau, R., 1920a, 1920b; Gindy, A. R., Abdou, H. F., and El Askary, M. A., 1969; Hamilton, W. R., 1973; Jaeger, J. J., 1974; Kerdany, M. T., 1968; Koenigswald, G. H. R. von, 1948; Macfayden, W. A., 1930; Osman, A., and Hassanien, A. M., 1965; Robinson, P., and Black, C. C., 1974; Said, R., and Bassiouni, M. A., 1958a; Said, R., and El Heiny, I., 1967; Said, R., and Metwalli, H., 1963; Simons, E. L., 1967b, 1969; Souaya, F. J., 1963c, 1965a, 1965b, 1966a, 1966c, 1966d; Viotti, C., and Mansour, A., 1969; Wasfi, S. M., 1969; Williams, E., 1954.

Pliocene

Arambourg, C., 1946; Bassiouni, M. E. A., 1965; Buge, E., 1964; Cuvillier, J., 1938a; Edinger, T., 1938; Fourtau, R., 1920b; James, G. T., and Slougher, B. H., 1974; Mansour, A., Barakat, M. G., and Abdel Hady, Y., 1969; Omara, S., and Ouda, K. H., 1969a, 1969b; Robinson, P., and Black, C. C., 1974; Sadek, A., 1978; Said, R., 1955; Sanford, K. S., 1934.

Paleontology (continued)

Ages (continued)

Tertiary (continued)

Undifferentiated

Abbass, H. L., and Abed, M. M., 1971; Abdou, H. F., and Abdel Kareem, M. R., 1969; Abdou, H. F., Naim, E. M., and Abdel Kareem, M. R., 1969; Abdou, H. F., Naim, E. M., and Sultan, I. Z., 1969; Andrews, C. W., 1906; Ansary, R., and Kenawy, A., 1956; Ban Yosef, O., Wendorf, F., and Marks, A. E., 1975; Barakat, M. G., and Aboul Ela, N. W., 1970; Berggren, W. A., and Philips, J. D., 1971; Castelain, J., 1966; Cuvillier, J., 1937c, El Khashab, B., 1974; El Naggar, Z. R., 1966a, 1966b; Kedves, M., 1971; Lambert, J., 1938; Maglio, V. J., 1974; Prakash, U., 1976; Rich, P. V., 1974; Stainforth, R. M., 1949; Van Campo, M., Guinet, P., and Cohen, J., 1968.

Quaternary

Pleistocene

Berggren, W. A., and Boersma, A., 1969; Churcher, C. S., 1972, 1974; Churcher, C. S., and Smith, P. E. L., 1972; Deuser, W. G., 1968; El Saadawi, W. E., Badawi, A., and El Awamri, A. A., 1975; Goreau, T. F., and others, 1976; Greenwood, P. H., 1974; Herman, Y., 1971; Martin, F., 1968; Ranov, V. A., and Budanov, V. I., 1973; Reed, C. A., 1965; Said, R., and Basiouni, M. A., 1958b; Sanford, K. S., 1934; Shawki Moustafa, Y., 1963; Van Campo, M., Guinet, P., and Cohen, J., 1968;

Holocene (Recent)

Berggren, W. A., and Boersma, A., 1969; Gautier, A., 1976c; Greenwood, P. H., 1974; Greenwood, P. H., and Tood, E. J., 1976; Herman, Y., 1971; Lewy, Z., 1972; Rossignol, M., 1969; Rzdowska, J., and Wickens, G. E., 1976

Undifferentiated

Ban Yosef, O., Wendorf, F., and Marks, A. E., 1975; Schild, R., Wendorf, F., and Issawi, B., 1976b.

Areal Studies

Local

Sheet 1 - Matruh

Andrawis, S. F., 1972; Barakat, M. G., and Afra, A. A., 1972; Gindy, A. R., Abdou, H. F., and El Askary, M. A., 1969; Gindy, A. R., and El Askary, M. A., 1969c; Gindy, A. R., and Sultan, I. Z., 1978; Hamilton, W. R., 1973; Mansour, A., Barakat, M. G., and Abdel Hady, Y., 1969; Sadek, A., 1978; Sultan, I. Z., 1978.

Sheet 2 - Cairo

Abdou, H. F., Naim, E. M., and Sultan, I. Z., 1969; Andrews, C. W., 1902, 1906; Andrews, C. W., and Beadnell, H. J. L., 1902; Ansary, S. E., and Ismail, M. M., 1956, 1963; Ash, S. R., 1972; Barakat, M. G., and Aboul Ela, N. M., 1970; Basiouni, M. E. A., 1965; Bold, W. A., 1964; Carpentier, A., and Farag, I., 1949; Chabanaud, P., 1937; Cuvillier, J., 1938a, 1938d, 1940; Cuvillier, J., and Joleaud, L., 1934; Edinger, T., 1938; El Khashab, B., 1974; El Saadawi, W. E., Badawi, A., and El Awamri, A. A. A., 1975; El Saadawi, W. E., and Farag, E., 1971; El Shinnawi, M. A., 1970b, 1972, 1975;

Paleontology (continued)

Areal Studies (continued)

Local (continued)

Sheet 2 - Cairo

El Wakeel, S. K., Abdou, H. F., and Wahby, S. D., 1970; Fawzi, M. A., 1959; Gautier, A., 1976c; Gingerich, P., 1978; Ismail, M. M., and Bassiouni, M. A., 1966; James, G. T., and Slaughter, B. H., 1974; Moustafa, Y. S., 1953, 1974b, 1974c; Omara, S., and Ouda, K. H., 1969a, 1969b; Omara S., and Vangereow, E. F., 1965; Omara, S., Vangereow, E. F., and Kenawy, A., 1966; Osman, A., and Hassanien, A. M., 1962; Osman, A., and Marzouk, A., 1963; Ostoya, P., 1968; Philipps, W., 1948; Saad, S. I., 1963; Saad, S. I., and Sami, S., 1968; Said, R., and Bassiouni, M. A., 1958b; Said, R., and Kamel, T., 1956; Said, R., and Kenawy, A., 1957; Said, R., and Metwalli, H., 1963; Schild, R., and Wendorf, F., 1976e; Simons, E. L., 1959, 1961, 1968a; Soliman, S. M., 1964b; Souaya, F. J., 1963a, 1963c, 1965b.

Sheet 3 - North Sinai

Ansary, S. E., and Emera, M. M., 1962; Ash, S. R., 1972; Eicher, D. B., 1947; El Shinnawi, M. A., 1970b, 1972, 1975; El Sweify, A., 1969; Farag, I. A. M., 1957b; Frenkel, H., 1975; Kerdany, M. T., and Marzouk, A., 1970, 1971; Mahmoud, I. G. E., 1952a, 1952b, 1955; Moret, L., and Mahmoud, G. E., 1954; Moshkovitz, S., and Ehrlich, A., 1976b; Said, R., and Barakat, M. G., 1957a, 1957b, 1958; Said, R., and Kenawy, A., 1956; Williams, E., 1954.

Sheet 4 - Bahariya

Carpentier, A., and Farag, I., 1949; Kenawy, A. I., 1975; Le Roy, L. W., 1953; Said, R., and Kerdany, M. T., 1961; Soliman, H. A., and Sultan, I., 1976.

Sheet 5 - Asyute

Ansary, S. E., and Andrawis, S. F., 1965; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1961; Ansary, S. E., and Fahmy, S. E., 1969, 1971; Ansary, S. E., and Tewfik, N. M., 1966, 1969; Barakat, M. G., and Fahmy, S. E., 1969b; Bishay, Y., 1961; Carpentier, A., and Farag, I., 1949; El Dawoody, A. S., 1971; Hassan, M. Y., Sadek, A., and Boukary, M., 1971; Kanawy, A. I., and El Baradi, N. M., 1977; Omara, S., and Gramann, F., 1966; Omara, S., and Kenawy, S., 1966.

Sheet 6 - South Sinai

Ansary, S. E., and Andrawis, S. F., 1965; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1961; Cuvillier, J., 1937d; Dangeard, L., 1942; Kerdany, M. T., and Fahmy, S., 1965; Mamet, B., and Omara, S., 1969; Thomas, H. D., and Omara, S., 1957; Youssef, M. I., and Abdel Malik, W. M., 1969c.

Sheet 8 - Qena

Awad, G. H., and Ghobrial, M. G., 1966; Awad, G. H., and Naim, E. M., 1966a; Berggren, W. A., 1964; Canton Thomas, G., 1952; Cuvillier, J., 1939a; El Dawoody, A. S., 1977; El Nagger, Z. R., 1966a; Gautier, A., 1976a, 1976b; Greenwood, P. H., and Tood, E. J., 1976; Hamam, K. A., 1975; Hassan, M. Y., 1970, 1971a; Helal, A. H., 1965, 1966; Kenawy, A. I.,

Paleontology (continued)

Areal Studies (continued)

Local (continued)

Sheet 8 - Qena (continued)

1972, 1974; Leigh, E. G., and Butzer, K. L., 1968; Nakkady, S. E., 1959; Oakley, K. P., 1965; Omara, S., and Kenawy, A. I., 1975; Reed, C. A., 1965; Said, R., and Sabry, H., 1964; Schild, R., and Wendorf, F., 1976b, 1976d; Schild, R., Wendorf, F., and Issawi, B., 1976b; Shawki Moustafa, Y., 1963; Smith, P. E. L., 1967; Soliman, H. A., 1972, 1975; Youssef, H. M., 1953.

Sheet 9 - Quseir

Ansary, S. E., and Fakhr, B. Y., 1958; Cuvillier, J., 1934e, 1939a; El Dawoody, A. S., and Barakat, M. G., 1973; Kerdany, M. T., and Abdel Salam, H., 1969; Kerdany, M. T., and Belety, A. M., 1971; Leigh, E. G., 1968a, 1968b; Souaya, F. J., 1963b; Toni, R. T., 1969; Youssef, M. I., Youssef, H., and Abdou, F., 1953.

Sheet 11 - Aswan

Abbass, H. L., and Abed, M. M., 1971; Armelagos, G. J., 1964; Guichard, J., and Guichard, G., 1965, 1968; Van Campo, M., Guinet, P., and Cohen, J., 1968.

Regional

Andrawis, S. F., 1967, 1969, 1970; Ansary, R., and Kenawy, A., 1956; Ansary, S. E., and Andrawis, S. F., 1965; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1961, 1963; Awad, G. H., 1965; Bassiouni, M. E. A., 1969, 1970, 1971; Berggren, W. A., 1964, 1969; Bignon, B., 1972; Blondeau, A., 1970; Buffetaut, E., 1976; Cherif, O. H., 1972; Cuvillier, J., 1936b, 1936c; Drooger, C. W., 1966; Edwards, W. N., 1933; Eicher, D. B., 1947; El Dakkak, M. W., 1974; El Shinnawi, M. A., and Sultan, I. Z., 1973; Fahmy, S. E., 1975; Fahmy, S. E., and others, 1969a, 1969b; Farag, I. A. M., and Yallouze, M., 1967; Fawzi, M. A., 1963; Gautier, A., 1968; Ghallab, M. S., and Rzoska, J., 1976; Hassan, M. Y., 1957, 1967; Heritsch, F., 1937; Hirsch, F., 1976; Jaeger, J. J., 1974; Jodot, P., 1953; Jongmans, W. J., and van der Heide, S., 1953, 1955; Kerdany, M. T., 1968; Kerdany, M. T., Eissa, R. A., and Labib, F., 1973; Kerdany, M. T., and Fahmy, S., 1969; Lambert, J., 1938; Lavocat, R., 1974; Lerman, A., 1960; Lewy, Z., 1972; Macfadyen, W. A., 1930; Maglio, V. J., 1974; Mahmoud, I. G. E., 1951a, 1951b; Martin, F., 1968; Mishnaevsky, G., 1966, 1967; Moshkivitz, S., and Ehrlich, A., 1976a, 1976b; Naim, E. M., 1966; Pfender, J., 1940; Philipps, W., 1948; Rzoska, J., 1976e, 1976f; Rzoska, J., and Wickens, G. E., 1976; Saad, S. I., 1965, 1975; Sadek, A., and Teleb, F., 1978a, 1978b; Said, R., 1961, 1962b, 1974a; Said, R., and Bassiouni, M. A., 1958a; Said, R., and El Heiny, I., 1967; Said, R., and Kamel, T., 1957; Said, R., and others, 1969; Schwager, C., 1970; Shatik, S., and Stradner, H., 1971; Sneh, A., Friedman, G. M., and Lewy, Z., 1972; Souaya, F. J., 1965a; Squyres, C. H., and Bradley, W., 1964; Sultan, I. Z., 1977.



## Paleontology (continued)

### Correlation, Relationships and Biostratigraphy

Abdou, H. F., Naim, E. M., and Sultan, I. Z., 1969; Andrawis, S. F., 1967, 1969, 1970, 1972; Ansary, S. E., and Andrawis, S. F., 1965; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1961, 1963; Ansary, S. E., and Fahmy, S. E., 1969, 1971; Ansary, S. E., and Tewfik, N. M., 1969; Awad, G. H., and Abed, M. M., 1969; Awad, G. H., and Ghobrial, M. G., 1966; Barakat, M. G., and Afra, A. A., 1972; Beckman, J. P., and others, 1969; Berggren, W. A., 1964, 1969; Berggren, William A., and Philips, J. D., 1971; Bishay, Y., 1961; Castelain, J., 1966; Cherif, O. H., Bassiouni, M. A., and Ghanima, S. K., 1975; Cuvillier, J., 1934d, 1938f, 1941a, 1941b; Drooger, C. W., 1966; El Dawoody, A. S., and Barakat, M. G., 1973; El Naggar, Z. R., 1966a, 1969, 1970a, 1971a; El Shinnawi, M. A., and Sultan, I. Z., 1973, 1975a, 1975b; Fahmy, S. E., 1975; Fahmy, S. E., and others, 1969a, 1969b; Gindy, A. R., Abdou, H. F., and El Askary, M. A., 1969; Herman, Y., 1971; Hillebrandt, A., 1965; Ismail, M. M., and Bassiouni, M. A., 1966; Jodot, P., 1953; Kerdany, M. T., 1968; Kerdany, M. T., and Abdel Salam, H., 1970; Kerdany, M. T., and Marzouk, A., 1970; Krasheninnikov, V. A., 1965; Krasheninnikov, V. A., and Abdel Razik, T. M., 1969; Krasheninnikov, V. A., and Ponikarov, V. P., 1965; Le Roy, L. W., 1953; Macfadyen, W. A., 1930; Nakkady, S. E., 1955, 1957, 1959; Nakkady, S. E., and Eissa, R. A., 1960; Nakkady, S. E., and Osman, A., 1954; Omara, S., 1965a; Omara, S., El Tahlawi, M. R., and Khalifa, H., 1969; Omara, S., and Ouda, K. H., 1969a; Osman, A., and Hasanien, A. M., 1962; Rich, P. V., 1974; Saad, S. I., 1975; Sadek, A., 1967, 1969b, 1971; Sadek, A., and Abdel Razik, T. M., 1970; Sadek, A., Barakat, M. G., and Arafa, A. A., 1974; Sadek, A., Baraket, M. G., and and Teleb, F. M., 1974; Sadek, A., and Farouk, T., 1973; Sadek, A., and Teleb, F., 1978a, 1978b; Said, R., 1963a; Solovyeva, N. M., and Krasheninnikov, V. A., 1965; Souaya, F. J., 1963a, 1966c; Strougo, A. M., 1976c; Tromp, S. W., 1949a; 1949b; Turekian, K. K., and others, 1970; Viotti, C., and Mansour, A., 1969; Youssef, M. I., and Abdel Aziz, W., 1971; Youssef, M. I., and Abdel Malik, W. M., 1969c.

### Megafossils (Invertebrate)

#### Annelida

El Sweify, A., 1969; Ghabbour, S. I., and Rzoska, J., 1976.

#### Arthropoda

Abbass, H. L., 1969a; Bold, W. A., 1964.

#### Brachiopoda

Farag, I. A. M., 1957b, 1960a, 1960b; Farag, I. A. M., and Gatinaud, W., 1960a, 1960b.

#### Bryozoa

Abbass, H. L., and El Gamal, M. M., 1970; Annoscia, E., 1965; Buge, E., 1964; Pfender, J., 1934; Souaya, F. J., 1965b.

#### Coelenterata

Alloiteau, I., and Farag, I., 1964; Avnmimelech, M. A., 1948; Dangeard, L., 1942; Hassan, M. Y., and Salama, S.

Paleontology (continued)

Megafossils (Invertebrate) (continued)

Coelenterata (continued)

A., 1969; Heritsch, F., 1937; Loya, Y., and Slobodkin, L. B., 1971; Omara, S., 1971; Ormond, R. F. G., and Campbell, R. C., 1971; Thomas, H. D., and Omara, S., 1957; Vech, H., and Giegengack, R., 1970.

Echinodermata

Cuvillier, J., 1936b; Elouard, P., and Roman, J., 1967; Fourtau, R., 1913, 1914, 1920a, 1924; Hassan, M. Y., 1969b; Jux, U., 1957; Lambert, J., 1936, 1938; Mahmoud, I. G. E., 1952a, 1955; Ormond, R. F. G., and Campbell, R. C., 1971.

Mollusca

Cephalopoda

Arnell, W. J., 1951a; El Shinnawi, M. A., 1967a; Hassan, M. Y., 1967; Kummel, B., 1960; Mahmoud, I. G. E., 1952b, 1955.

Gastropoda

Abbass, H. L., 1961a, 1963, 1966, 1967, 1969b; Chen, C., 1969; Cuvillier, J., 1938a; Delpey, G., 1940; Deuser, W. G., and Degens, E. T., 1969; Herman, Y., 1971; Jodot, P., 1953; Mahmoud, I. G. E., 1951b.

Pelecypoda (Lamellibranchiata)

Abbass, H. L., 1962, 1973; Abdallah, A. M., and Fahmy, N. A., 1969; Awad, G. H., 1952; Awad, G. H., and Naim, E. M., 1966a, 1966b; 1969a, 1969b; Chabanaud, P., 1941; Cox, L. R., 1956; Fawzi, M. A., 1964; Fourtau, R., 1917; Hassan, M. Y., 1957; Hassan, M. Y., and Strougo, A. M., 1970; Lerman, A., 1960; Lewy, Z., 1973; Mahmoud, I. G. E., 1951a; Mishnaevsky, G., 1966, 1967; Nakano, M., 1973; Strougo, A. M., 1973; 1976a, 1976b, 1977; Toni, R. T., 1969

Undifferentiated

Castelain, J., 1966; Cuvillier, J., 1937c; Gautier, A., 1976a; Gindy, A. R., and Sultan, I. Z., 1978; Hassan, M. Y., 1970; Leigh, E. G., 1968a, 1968b; Leigh, E. G., and Butzer, K. L., 1968; Mahmoud, I. G. E., 1952a, 1955; Martin, F., 1968.

Porifera

Lagneau Herenger, L., 1953.

Undifferentiated

Awad, G. H., 1965; Churcher, C. S., and Smith, P. E. L., 1972; Cuvillier, J., 1940; Hassan, M. Y., 1969c, 1971a; Jongmans, W. J., and van der Heide, S., 1953, 1955; Kilpper, K., 1966; Naim, E. M., and Mansour, A., 1969; Rich, P. V., 1974.

Microfossils

Diatoms

Abdel Salam, M. A., and El Tablawy, M., 1970; Przybylowska Lange, W., 1976; Sadek, A., 1978.

Foraminifera

Abdou, H. F., and Abdel Kareem, M. R., 1969; Abdou, H. F., and Kireem, M. A., 1975a; Abdou, H. F., and Marzouk, A., 1969; Abdou, H. F., Naim, E. M., and Abdel Kareem, M. R., 1969; Andrawis, S. F., 1969; Ansary, R., and Kenawy, A.,

## Paleontology (continued)

### Microfossils (continued)

#### Foraminifera (continued)

1956; Ansary, S. E., 1955, 1956; Ansary, S. E., and Emera, M. M., 1962; Ansary, S. E., and Fahmy, S. E., 1971; Ansary, S. E., and Fakhr, B. Y., 1958; Ansary, S. E., and Ismail, M. M., 1956, 1963; Ansary, S. E., and Tewfik, N. M., 1966; Berggren, W. A., and Boersma, A., 1969; Berggren, W. A., and Philips, J. D., 1971; Bignot, G., and Guyader, J., 1965; Bishay, Y., 1961; Blondeau, A., 1970; Bronniman, P., 1968; Cuvillier, J., 1933, 1934d, 1934e, 1937d, 1938e, 1938f, 1939b, 1941a, 1941b, 1942b; Dauglass, R. C., 1960; Deuser, W. G., 1968; Deuser, W. G., and Degens, E. T., 1969; Drooger, C. W., 1966; El Dakkak, M. W., 1974; El Dawoody, A. S., 1971; El Naggar, Z. R., 1966a, 1969, 1970a, 1971a, 1971b; El Naggar, Z. R., and Haynes, J., 1967; El Shinnawi, M. A., 1970b, 1972, 1973, 1975; El Wakeel, S. K., Abdou, H. F., and Wahby, S. D., 1970; Frenkel, H., 1975; Girgis, G. F., and Hindy, K. T., 1970; Hämam, K. A., 1975; Hillebrandt, A., 1965; Hottinger, L., 1960; Kenawy, A. I., 1972, 1974, 1975; Kenawy, A. I., and El Baradi, N. M., 1977; Kerdany, M. T., and Abdel Salam, H., 1969; Kerdany, M. T., and Belety, A. M., 1971; Kerdany, M. T., Eissa, R. A., and Labib, F., 1973; Kerdany, M. T., and Fahmy, S., 1969; Kerdany, M. T., and Marzouk, A., 1971; Macfadyen, W. A., 1930; Mamet, B., and Omara S., 1969; Mansour, A., Barbakat, M. G., and Abdel Hady, Y., 1969; Massieux, M., 1966a, 1966b; Nakkady, S. E., 1950, 1952; Nakkady, S. E., and Osman, A., 1954; Omara, S., 1956; Omara, S., and Andrawis, S. F., 1969; Omara, S., and Kenawy, A. I., 1975; Omara, S., and Ouda, K. H., 1969a, 1969b; Omara, S., and Stauch, F., 1965; Omara, S., and Vangereow, E. F., 1965; Omara, S., Vangereow, E. F., and Kenawy, A., 1966; Osman, A., and Hussanien, A. M., 1965; Osman, A., and Marzouk, A., 1963; Ouda, K., and Sharara, N., 1978a, 1978b; Pfender, J., 1940; Sadek, A., 1967, 1969b; Sadek, A., Barakat, M. G., and Arafa, A. A., 1974; Sadek, A., Barakat, M. G., and Teleb, F. M., 1974; Said, R., 1955, 1960c, 1961a, 1961b; Said, R., and Barakat, M. G., 1957a, 1957b; Said, R., and Bassiouni, M. A., 1958a; Said, R., and El Heiny, I., 1967; Said, R., and Kamel, T., 1956, 1957; Said, R., and Kenawy, A., 1956, 1957; Said, R., and Metwalli, H., 1963; Said, R., and Sabry, H., 1964; Schwager, C., 1970; Shamah, K., and Blondeau, A., 1976; Snfrl Kireem, M. A., 1978; Soliman, H. A., 1972, 1975; Solovyeva, M. N., and Krashenninnikov, V. A., 1965; Souaya, F. J., 1961, 1963c, 1965a, 1966a, 1966b, 1966c, 1966d; Stainforth, R. M., 1949; Tromp, S. W., 1949a; Viotti, C., and Mansour, A., 1969; Wasfi, S. M., 1969; Youssef, H. M., 1953; Youssef, M. I., Youssef, H., and Abdou, F., 1953.

#### Nannoplankton

El Dawoody, A. S., 1977; El Dawoody, A. S., and Barakat, M. G., 1973; Hassan, M. Y., Sadek, A., and Boukary, M., 1971; McIntyre, A., 1969; Moshkovitz, S., and Ehrlich, A., 1976a, 1976b; Perch Nielsen, K., 1973; Sadek, A., 1969a,

Paleontology (continued)

Microfossils (continued)

Nannoplankton (continued)

1971, 1972, 1978; Sadek, A., and Abdel Razik, T. M., 1970; Sadek, A., and Farouk, T., 1973; Sadek, A., and Teleb, F., 1974, 1978a, 1978b; Shafik, S., and Stradner, H., 1971; Wall, D., and Warren, J. S., 1969.

Ostracoda

Bassiouni, M. E. A., 1965, 1969, 1970, 1971; Ismail, M. M., and Bassiouni, M. A., 1966; Omara, S., and Gramann, F., 1966.

Radiolarians

Goll, R. M., 1969.

Undifferentiated

Abdou, H. F., and Fawzi, M. A., 1966; Andrawis, S. F., 1967, 1969; Ansary, S. E., and Andrawis, S. F., 1965; Ansary, S. E., Andrawis, S. F., and Fahmy, S. E., 1961, 1963; Ansary, S. E., and Fahmy, S. E., 1969; Beckman, J. P., and others, 1969; Berggren, W. A., 1969; Castelain, J., 1966; Cuvillier, J., 1953; Eicher, D. B., 1947; El Dawoody, A. S., 1977; Fahmy, S. E., 1975; Herman, Y., and Rosenberg, P. E., 1969; Issawi, B., Zaki, N., and Belety, A., 1971; Kerdany, M. T., 1968; Martin, L., 1971; Omara, S., 1965a, Omara, S., and Kenawy, S., 1966; Said, R., 1962b; Said, R., and Andrawis, S. F., 1961; Said, R., and Barakat, M. G., 1958; Said, R., and Bassiouni, M. A., 1958b; Said, R., and Eissa, R. A., 1969; Said, R., and Kerdany, M. T., 1961; Shafik, S., and Stradner, H., 1971; Souaya, F. J., 1963b; Talling, J. F., and Rzoska, J., 1976a; Tromp, S. W., 1949b, 1952.

Paleobotany and Palynology

Ash, S. R., 1971; Carpentier, A., and Farag, I., 1949; Carpentier, A., and Ibrahim, F., 1948; Chandler, M. E. J., 1954; Cuvillier, J., 1940; Dijkstra, S. J., 1957; Edwards, W. N., 1933; El Saadawi, W. E., Badawi, A., and El Awarmi, A. A., 1975; El Saadawi, W. E., and Farag, E., 1971; Ela, N. M., 1978; Helal, A. H., 1965, 1966; Horowitz, A., 1973; Ibrahim, M. M., 1953; Jongmans, W. J., and van der Heide, S., 1953, 1955; Kedves, M., 1971; Kermack, K. A., 1974; Kruchinina, N. V., Komarova, N. I., and Iskander, N. R., 1974; Krumbein, W. E., and Cohen, Y., 1977; Lewy, Z., 1972; Lorch, J., 1967; Omara, S., and Schultz, G., 1965; Pfender, J., 1940; Prakash, U., 1976; Rigby, J. F., 1968, 1969; Rossignol, M., 1969; Rzoska, J., and Wickens, G. E., 1976; Saad, S. I., 1962, 1963, 1965, 1975, 1978; Saad, S. I., and Sami, S., 1968; Seward, A. C., 1935; Sneh, A., Friedman, G. M., and Lewy, Z., 1972; Soliman, H. A., 1975; Soliman, H. A., and Sultan, I., 1976; Soliman, S. M., 1964b; Souaya, F. J., 1963a; Sultan, I. Z., 1977, 1978; Taeckholm, V., 1975; Traverse, A., Ames, H. T., and Kremp, G. O. W., 1967; Van Campo, M., Guinet, P., and Cohen, J., 1968.

Paleoenvironment, Paleoecology, and Biofacies

Abbass, H. L., and Abed, M. M., 1971; Ansary, S. E., 1956;



## Paleontology (continued)

### Paleoenvironment, Paleoecology, and Biofacies (continued)

Barakat, M. G., and Aboul Ela, N. M., 1970; Barakat, M. G., and Afra, A. A., 1972; Barakat, M. G., and Fahmy, S. E., 1969b; Cherif, O. H., 1972; Cherif, O. H., Bassiouni, M. A., and Ghanima, S. A., 1975; Deuser, W. G., 1968; Deuser, W. G., and Degens, E. T., 1969; El Tarabili, E. E., 1969, 1970; Girgis, G. F., and Hindy, K. T., 1970; Hirsch, F., 1976; Jongmans, W. J., and van der Heide, S., 1953; Kerdany, M. T., and Fahmy, S., 1965; Monod, T., 1963; Rzoska, J., 1976c, 1976d, 1976e; Saad, S. I., 1975; Said, R., 1974a; Souaya, F. J., 1966a; Vondra, C. F., and Bowen, B. E., 1976.

### Trace Fossils

El Sweify, A., 1969; Goreau, T. F., and others, 1976.

### Vertebrates

#### Fish

Bignon, B., 1972; Cuvillier, J., and Joleaud, L., 1934; Greenwood, P. H., 1974; Greenwood, P. H., and Tood, E. J., G. T., 1976; Jongmans, W. J., and van der Heide, S., 1953, 1955; Slaughter, B. H., and Thurmond, J. T., 1974; White, E. I., 1936.

#### Mammals other than Primates

Andrews, C. W., and Beadnell, H. J. L., 1902; Arambourg, C., 1946, 1947; Deraniyagala, P. E. P., 1968; El Khashab, B., 1974; Fleagle, J. G., Simons, E. L., and Conroy, G. C., 1975; Gautier, A., 1966, 1968, 1976a; Gingerich, P., 1978; Hamilton, W. R., 1973; Hooijer, D. A., 1966; Jaeger, J. J., 1974; Kalin, J., 1961; Koenigswald, G. H. R. von, 1948; Lavocat, R., 1974; Moustafa, Y. S., 1974a; Simons, E. L., 1968a, 1968b, 1969, 1974; Simons, E. L., and Gingerich, P. D., 1974; Wood, A. E., 1962, 1968.

#### Primates (includes Archeology and Anthropology)

Adams, W. A., and Hans Ake, N., 1963; Ahlmann, H. W., 1936; Anderson, J. E., 1968; Armelagos, G. J., 1964; Armelagos, G. J., and others, 1965; Baumgartel, E. J., 1965; Berger, R., 1970; Butzer, K. W., 1959c, 1960a, 1960d, 1961b, 1962a; Canton Thompson, G., 1952; Carpen, T. R., 1965; Chelebowski, R., 1976; Churcher, C. S., 1972; Clark, R. M., and Renfrew, C., 1973; Conroy, G. C., 1976a, 1976b; Coque, M. R., and Said, R., 1972; Faris, M. I., 1972; Fleagle, J. G., and Simons, E. L., 1978; Fleagle, J. G., Simons, E. L., and Conroy, G. C., 1975; Gallab, M. S., 1976; Ghallab, M. S., and Rzoska, J., 1976; Guichard, J., and Guichard, G., 1965, 1968; Hassan, F. A., 1974; Kossakowska Such, J., 1976; Lubell, D., 1974; Marks, A. E., 1968a, 1968b, 1968c; Oakley, K. P., 1965, 1967; Ostoya, P., 1968; Philipps, W., 1948; Phillips, J. L., 1973, 1975; Phillips, J. L., and Butzer, K. W., 1973; Puglisi, S. M., 1967; Ranov, V. A., and Budanov, V. I., 1973; Reed, C. A., 1965, 1966; Reilly, F. A., 1964; Said, R., 1975b; Said, R., and others, 1970, 1972; Said, R., Wendorf, F., and Schild, R., 1970a, 1970b; Sanford, K. S., 1934; Schild, R., and Wendorf, F., 1975, 1976a, 1976b, 1976c, 1976d, 1976e, 1976f; Schild, R., Wendorf, F., and Issawi, B., 1976a, 1976b; Shawki Moustafa, Y., 1963;

## Paleontology (continued)

### Vertebrates (continued)

#### Primates (includes Archeology and Anthropology) (continued)

Shiner, J. L., 1968; Simons, E. L., 1959, 1960a, 1960b, 1961, 1962a, 1965, 1967a, 1967b, 1974; Smith, P. E. L., 1964, 1966, 1967, 1974; Solecki, R. S., and others, 1963; Squyres, C. H., and Bradley, W., 1964; Vondra, C. F., and Bowen, B. E., 1976; Wendorf, F., 1968a, 1968b, 1968c, 1968d; Wendorf, F., Daugherty, R., and Waeochter, J., 1964; Wendorf, F., and others, 1965a, 1965b, 1976; Wendorf, F., and Said, R., 1967; Wendorf, F., Said, R., and Schild, R., 1970a, 1970b, 1970c; Wendorf, F., Schild, R., and Issawi, B., 1976; Wendorf, F., Shiner, J. L., and Marks, A. E., 1965; Wendorf, W. E., 1966; Williams, E., 1954; Wilson, J. A., 1970.

#### Reptiles

Andrews, C. W., 1902; Buffetaut, E., 1976; Delair, J. B., 1967; Haas, G., 1959; Westphal, F., 1975.

#### Undifferentiated

Andrews, C. W., 1906; Churcher, C. S., 1972, 1974; Churcher, C. S., and Smith, P. E. L., 1972; Delpey, G., 1943; Edinger, T., 1933, 1938; Eicher, D. B., and Mosher, L. C., 1974; Fourtau, R., 1920a; Hassan, M. Y., 1969a; Maglio, V. J., 1974; Moustafa, Y. S., 1953, 1974b, 1974c; Robinson, P., and Black, C. C., 1974; Shawki Moustafa, Y., 1964; Spiro, B. F., 1971.

## Sedimentary Geology

### Environments and Facies

#### Continental

Anwar, Y. M., and El Bouseily, A. M., 1970a, 1970b; Ashri, A. H., 1974; Ashry, M. M., 1973; Ashry, M. M., and Riskalla, S., 1968; Atia, A. K. M., Hilmy, M. E., and Bolous, S. N., 1970a, 1970b; Atia, A. K. M., Hilmy, M. E., and Hegab, O. A., 1970; Attia, M. I., 1954a; Behrensmeyer, A. K., 1974; Brzowski, J., 1971; Chumakov, I. S., 1967a, 1967b; Einsele, G., and Werner, F., 1968; El Askary, M. A., and El Mahdy, O. R., 1976; El Wakeel, S. K., 1963, 1964a, 1964b; El Wakeel, S. K., and Wahby, S. D., 1970; Embabi, N. S., 1972; Fairbridge, R. W., 1962; Gavish, E., 1974; Ginzbourg, D., 1971; Hansen, C. L., and others, 1966; Harris, S. A., 1957, 1958; Issar, A., and Eckstein, Y., 1969; Jux, U., 1954; Krumbein, W. E., 1975; Levy, Y., 1974a, 1974b, 1977a, 1977b; Medani, A. H., 1972; Meneisy, M. Y., Attia, A., and Abu Zeid, M. M., 1972; Mizutani, S., and Suwa, K., 1966; Rognon, P., 1976; Rzoska, J., 1976c, 1976d, 1976e, 1976f, 1976g; Saad, M. A. H., 1974; Sneh, A., and Weissbrod, T., 1973; Stanley, D. J., and Maldonado, A., 1977; Tsoar, H., 1976; Ward, W. C., and McDonald, K. C., 1979; Yakubov, T. F., 1968.

#### Marine

Amann, H., and others, 1973; Amiel, A. J., Milner, D. S., and Friedman, G. M., 1971; Andrew, G., and Cuvillier, J., 1938; Ansary, S. E., 1956; Awad, G. H., and Fawzy, I. M. A., 1956; Ayalon, A., 1976; Baecker, H., and Richter, H.,

## Sedimentary Geology (continued)

### Environments and Facies (continued)

#### Marine (continued)

1973; Baecker, H., and Schoell, M., 1972; Barakat, M. G., and Fahmy, S. E., 1969a; Benson, R. H., and Ruggieri, G., 1974; Butzer, K. W., 1960b; Cuvillier, J., 1941a, 1941b, 1942a, 1949, 1953; Davies, D., 1969; Dietrich, G., and Krause, G., 1969; El Ramley, I. M., 1968, 1971; El Shinnawi, M. A., 1973; El Wakeel, S. K., Abdou, H. F., and Mohamed, M. A., 1974; El Wakeel, S. K., and El Sayed, M. K., 1978; Erez, J., and Gill, D., 1977; Fabricius, F. H., 1973; Farag, I. A. M., and Omara, S., 1955; Fawzi, M. A., and Naim, E. M., 1964; Fleissner, H., and Fleissner, G., 1971; Friedman, G. M., 1968, 1972; Friedman, G. M., Amiel, A. J., and Schneidermann, N., 1974; Friedman, G. M., and Gavish, E., 1971; Friedman, G. M., and others, 1973; Friedman, G. M., Schneiderman, N., and Gevirtz, J. L., 1971; Galal El Din Hafez Awad, 1946; Gevirtz, J. L., and Friedman, G. M., 1966; Giegengack, R., 1970; Harris, S. A., 1959; Hassan, H. L., 1972; Herman, Y., 1965; Heybrock, F., 1965; Hilmy, M. E., 1951, 1952; Hume, W. F., 1962, 1964, 1965; Ismail, M. M., and El Dakkak, M. W., 1968; Jackson, G. K., 1941; Omara, S., Tahlawi, M. R., and Abdel Kireem, H., 1973; Shukri, N. M., 1945b; Summerhayes, C. P., and others, 1978; Summerhayes, C. P., Ross, D. A., and Stoffers, P., 1977; Vondra, C. F., 1974; Whiteman, A. J., 1965.

#### Undifferentiated

Abdallah, A. M., and Abdel Hady, F. M., 1971; Anwar, Y. M., and Tarabili, E. E., 1960b; Barakat, M. G., and Abdel Hady, Y. E., 1974; Barakat, M. G., and Aboul Ela, N. M., 1970; Barakat, M. G., and Afra, A. A., 1972; Barakat, M. G., and El Dawoody, A. S., 1973; Bishay, Y., 1967; Bowen, B. E., and Vondra, C. F., 1974; Chumakov, I. S., 1968a; Druckman, Y., 1977; Fawzi, M. A., 1960; Issawi, B., and Soliman, S. M., 1971; Karez, I., and Zak, I., 1968; Klitzsch, E., and others, 1979; Kostandi, A. B., 1963; Omara, S., Bishara, W. W., and Nasr, M., 1974; Prasad, G., Whiteman, A., and Shawa, M. S., 1971; Soliman, S. M., and El Fetouh, M. A., 1970; Soliman, S. M., Faris, M. I., and Hassan, F., 1965; Vondra, C. F., and Bowen, B. E., 1976; Whiteman, A. J., 1970b.

#### General Studies

Ahmed, M. I. S., Koide, H., and Inami, K., 1977; Helal, A. H., 1965; Mizutani, S., and Suwa, K., 1966; Ramez, M. R. H., and Mosalamy, F. H., 1969; Ross, D. A., and Uchupi, E., 1977; Rzoska, J., 1976c; Striem, H. L., 1954.

#### Petrography and Petrology

##### Areal Studies

##### Local

##### Sheet 1 - Matruh

Abou Khadrah, A. M., and Khaled, K. A., 1978; Barakat, M. G., and Afra, A. A., 1972; El Senussi, M. Y., and Shata, A., 1969a; El Shazly, M. M., Shata, A., and Farag, I. M., 1964; Gindy, A. R., and El Askary, M. A., 1969b; Gindy, A. R., and Sultan, I. Z., 1978; Selim, A. A., 1974; Vladimirskaia, R. A., 1974.

Sedimentary Geology (continued)

Petrography and Petrology (continued)

Areal Studies (continued)

Local (continued)

Sheet 2 - Cairo

Abdallah, A. M., and Abdel Hady, F. M., 1971; Aleem, A. A., and Manguin, E., 1951; Anwar, Y. M., and El Bouseily, A. M., 1970a, 1970b; Ashry, M. M., 1968; Atia, A. K. M., Hilmy, M. E., and Bolous, S. N., 1970a, 1970b; Atia, A. K. M., Hilmy, M. E., and Hegab, O. A., 1970; Barakat, M. G., and Aboul Ela, N. M., 1970; Bowen, B. E., and Vondra, C. F., 1974; Crommelin, R. D., and Cailleux, A., 1939; Einsele, G., and Werner, F., 1968; El Hinnawi, E., and Loukina, S. M., 1971; El Wakeel, S. K., 1963, 1964a, 1964b; El Wakeel, S. K., Abdou, H. F., and Mohamed, M. A., 1974; El Wakeel, S. K., and El Sayed, M. K., 1978; El Wakeel, S. K., and Wahby, S. D., 1970; Faris, M. I., and Soliman, S. M., 1954; 1961; Fawzi, M. A., and Naim, E. M., 1964; Ghorab, M. A., and Ismail, M. M., 1957, 1969; Harris, S. A., 1957; Ismail, M. M., and El Dakkak, M. W., 1968; Ismail, M. M., Fawzi, M. A., and Naim, E. M., 1967; Ismail, M. M., and Selim, A. A., 1968; Kabesh, M. L., and Hamada, M. M., 1954; Kholief, M. M., 1974; Kholief, M. M., Hilmy, M. E., and Shata, A., 1969; Philip, G., and Abou Khadrah, 1972; Philip, G., and Beheri, S., 1961; Sass, E., Weiler, Y., and Katz, A., 1972; Shukri, N. M., Philip, G., and Said, R., 1956; Soliman, S. M., 1964a; Stanley, D. J., and Maldonado, A., 1977; Youssef, M. I., Bassiouni, M. A., and Haman, K. A., 1971; Zaatout, M. A., 1956; Zaghloul, Z. M., and Kamil, K. E., 1965, 1966; Zein El Abedine, A., 1966.

Sheet 3 - North Sinai

Al Far, D. M., 1964, 1966; Al Far, D. M., Hagemann, H. W., and Omara, S., 1965; Ayalon, A., 1976; Erez, J., and Gill, D., 1977; Ismail, M. M., and Mansour, A. I. M., 1969; Karez, I., and Zak, I., 1968; Kerdany, M. T., and Marzouk, A., 1971; Kholief, M. M., 1975; Levy, Y., 1974a, 1977b; Soliman, S. M., 1975; Soliman, S. M., and El Fetouh, M. A., 1969b.

Sheet 4 - Bahairiya

Vladimirskaja, R. A., 1974.

Sheet 5 - Asyute

Akaad, M. K., and Naggar, M. H., 1963a, 1963b; 1964; Barakat, M. G., and Fahmy, S. E., 1969b; Barakat, M. G., and Tawefik, 1966; El Hinnawi, E., and Loukina, S. M., 1971; Ismail, M. M., and Abdallah, A. M., 1966; Omara, S., El Tahlawi, M. R., and Hafez, H., 1969.

Sheet 6 - South Sinai

Ayalon, A., 1976; El Hashmi, M. M., 1970; Hussein, H. A., Anwar, Y. M., and El Soukkary, A. A., 1973; Issar, A., and Eckstein, Y., 1969; Kholief, M. M., 1975; Mamet, B., and Omara, S., 1969; Omara, S., 1959; Philip, G., and Reda, S., 1968a, 1968b; Soliman, S. M., 1975; Soliman, S. M., and El Fetouh, M. A., 1969b; Viotti, C., and El Demerdash, G., 1969; Youssef, M. I., and Abdel Malik, W. M., 1969a.



Sedimentary Geology (continued)

Petrography and Petrology (continued)

Areal Studies (continued)

Local (continued)

Sheet 7 - Dakhla

Abbass, H. L., and Habib, M. M., 1970.

Sheet 8 - Qena

El Askary, M. A., and El Mahdy, O. R., 1976; El Hinnawi, E. E., Hilmy, M. E., and Hussein, S. A., 1975; El Shazly, M. M., Shata, A., and El Shazly, E. M., 1960; Embabi, N. S., 1972; Hilmy, M. E., and others, 1976; Ismail, M. M., and Abdel Razik, T. M., 1969b; Philip, G., and Asaad, F. A., 1971, 1974; Yakubov, T. F., 1968.

Sheet 9 - Quseir

Akaad, M. K., 1957; Amin, M. S., and Afia, M. S., 1954; Anwar, Y. M., and Tarabili, E. E., 1960a; Atfeh, M. S., 1966; Barakat, M. G., and El Dawoody, A. S., 1973; El Hinnawi, E., Kabesh, M. L., and Mansour, M. A., 1969; Ismail, M. M., and Abdel Razik, T. M., 1969a; Naim, E. M., and Ismail, M. M., 1966; Samuel, M. D., and others, 1977; Soliman, S. M., and Amer, K. M., 1969, 1972a; Soliman, S. M., and Hassaan, M. M., 1970; Soliman, S. M., and Korany, E. M., 1972.

Sheet 11 - Aswan

Cuvillier, J., 1934a; Faris, M. I., 1960; Soliman, S. M., and Hassaan, M. M., 1970.

Regional

Amer, A. F., Krintsov, M. I., and Hanna, F. L., 1970a, 1970b; Andrew, G., 1937a; Barton, N. G., and Blackshaw, S. M., 1976; Bogoch, R., and Cook, P., 1974; Clayton, P. A., 1951; Clayton, P. A., and Spencer, L. J., 1934, 1973; Costea, I., 1964; Cuvillier, J., 1940; Druckman, Y., 1977; Einsele, G., 1967; Einsele, G., and Werner, F., 1972; El Hinnawi, E., and Loukina, S. M., 1972b; Fabricius, F. H., 1973; Friedman, G. M., Amiel, A. J., and Schneidermann, N., 1974; Gomma, W., Soliman, A., and El Tahlawi, M. R., 1974; Hilmy, M. E., 1951, 1952; Issawi, B., and Soliman, S. M., 1971; Jackson, G. K., 1941; Kholief, M. M., 1972b; Medani, A. H., 1972; Rognon, P., 1976; Ross, D. A., and Uchupi, E., 1977; Said, R., and Eissa, R. A., 1970; Sultan, I. Z., 1977; Summerhayes, C. P., and others, 1978.

Sedimentary Structures and Patterns

Braitsch, O., 1973; Einsele, G., 1967; Gindy, A. R., 1969; Hilmy, M. E., and others, 1976; Karez, I., and Zak, I., 1968; Kholief, M. M., 1968, 1972a; Omara, S., and El Tahlawi, M. R., 1972; Salem, R., 1976; Soliman, S. M., 1964a.

General Studies

Gindy, A. R., and Sultan, I. Z., 1978; Kholief, M. M., 1971, 1972b; Saad, M. A. H., 1974; Samuel, M. D., and others, 1977; Soliman, A., Gomma, W., and El Tahlawi, M. R., 1973; Sultan, I. Z., 1977; Vittimberga, P., and Cardello, R., 1963; Zdansky, O., 1947.

Stratigraphic Units

Atud Formation

Akaad, M. K., and Essawy, M. A., 1965a, 1965c.

## Sedimentary Geology (continued)

### Petrography and Petrology (continued)

#### Stratigraphic Units (continued)

Duwi Formation - See Economic Geology and Natural Resources, Mineral Resources, Nonmetals, Phosphates.

#### Esna Shale

Cuvillier, J., 1934b.

#### Gebel el Qatrani Formation

Bowen, B. E., and Vondra, C., F., 1974.

#### Igla Formation

Akaad, M. K., 1957.

#### Kurkurstufe Formation

Cuvillier, J., 1934a.

#### Mokattam Formation

El Hinnawi, E., and Loukina, S. M., 1971, 1972b.

#### Nubian Sandstone

Abbass, H. L., and Habib, M. M., 1970; Andrew, G., 1937a; El Hinnawi, E., Hilmy, M. E., and Hussein, S. A., 1975; El Hinnawi, E., Kabesh, M. L., and Zahran, I., 1973; El Shazly, M. M., Shata, A., and El Shazly, E. M., 1960; Gindy, A. R., 1965, 1970b; Himly, M. E., and others, 1976; Issawi, B., 1973a; Kholief, M. M., 1972a; McKee, E. D., 1962; Medani, A. H., 1972; Mustafa, A., and Ghaly, E. L., 1964; Omara, S., Bishara, W. W., and Nasr, M., 1974; Philip, G., and Asaad, F. A., 1971, 1974; Pomeyrol, R., 1968; Prasad, G., Whiteman, A., and Shawa, M. S., 1971; Shukri, N. M., and El Ayouty, M. K., 1953; Shukri, N. M., and Said, R., 1945; Ward, W. C., and McDonald, K. C., 1979; Whiteman, A. J., 1970b.

#### Qasr El Sagha Formation

Vondra, C. F., 1974.

#### Rudeis Formation

El Hashmi, M. M., 1970.

Variegated Shales (Quseir Shales) (See Nubia Sandstone Formation)

## Sedimentation

### Depositional Processes

Abou Khadrah, A. M., and Khaled, K. A., 1978; Akaad, M. K., and Essawy, M. A., 1965c; Awad, G. H., and Fawzy, I. M. A., 1956; Druckman, Y., 1977; Einsele, G., and Werner, F., 1972; Friedman, G. M., 1972; Friedman, G. M., and others, 1973; Krumbein, W. E., 1975; Levy, Y., 1977a, 1977b; Meshal, A. H., 1975; Milliman, J. D., Ross, D. A., and Ku, T., 1969; Rzoska, J., 1976a; Sestini, J., 1965; Stanley, D. J., and Maldonado, A., 1977; Summerhayes, C. P., and others, 1978; Summerhayes, C. P., Ross, D. A., and Stoffers, P., 1977.

### Diagenesis and Lithification

Abou Khadran, A. M., and Khaled, K. A., 1978; Chumakov, I. S., and Shumenko, S. I., 1977; Deuser, W. G., 1968; Friedman, G. M., 1972; Friedman, G. M., Amiel, A. J., and Schneidermann, N., 1974; Gervirtz, J. L., and Friedman, G. M., 1966; Gindy, A. R., 1971b; Gvirtzman, G., Friedman, G. M., and Miller, D. S., 1973; Milliman, J. D., Ross, D. A., and Ku, T., 1969; Selim, A. A., 1974.

## Sedimentary Geology (continued)

### Sedimentation (continued)

#### Erosion and Weathering

Awad, G. H., and Hassan, M. Y., 1960; Ayalon, A., 1976; Emery, K. O., 1960; Huzayyin, S. A., 1950b; Kedar, E. Y., and Otterman, J., 1976; Knetsch, G., 1953a, 1960; Knetsch, G., and Refai, E., 1955; Lucas, A., 1902a; Murray, G. W., 1949; Nielsen, E., 1973; Oddy, W. A., Hughes, M. J., and Baker, H., 1976; Orlova, G., and Zenkovich, V., 1974; Ramez, M. R. K., and Mosalamy, F. H., 1959; Schattner, I., 1961; Seeger, P., 1968; Stringfield, V. T., Le Grand, H. E., and La Moreaux, P. E., 1974; Winkler, E. M., 1966; Yaalon, D. H., 1970.

#### General Studies

Beets, C., 1953; Butzer, K. W., 1962b; Chumakov, I. S., 1968a; Einsele, G., 1967; Einsele, G., and Werner, F., 1972; El Hashmi, M. M., 1972; El Tarabili, E. E., 1966b; Fairbridge, R. W., 1963; Faris, M. I., Gad, G., and Nasr, I. A., 1961; Knetsch, G., 1953b; Kolkila, A. A., 1975; Levy, Y., 1974a; Orlova, G. A., 1970; Otterman, J., 1974; Pfannenstiel, M., 1952, 1956; Ramez, M. R. H., and Mosalamy, F. H., 1969; Rizzini, A., and others, 1978; Ross, D. A., 1971; Rossignol, M., 1969; Salem, R., 1976; Sass, E., Weiler, Y., and Katz, A., 1972; Schmidt, W. J., 1960; Selim, A., 1974; Soliman, S. M., and Amer, K. M., 1970; Summerhayes, C. P., and others, 1978.

#### Rates and Transport

Ashri, A. H., 1974; Awad, G. H., and Fawzy, I. M. A., 1956; Einsele, G., and Werner, F., 1972; Kabib, A. L. A., 1972; Sharaf El Din, S. H., 1974; Yair, A., and Lavee, H., 1976a, 1976b.

#### Soils

Abdel Samie, A. G., 1960; Abdel Kader, F. H., 1974; Abdel Kader, F. H., and Abdel Hamid, N. E., 1974; Abdel Salam, M. A., 1961, 1963, 1966, 1969; Abdel Salam, M. A., and Allison, L. E., 1959; Abdel Salam, M. A., and El Demerdash, S., 1967; Abdel Salam, M. A., Harga, A. A., and Rabie, F. H., 1972; Abdel Salam, M. A., and Ibrahim, G. M., 1966; Abdel Salam, M. A., and others, 1966, 1968, 1969, 1971, 1972a, 1972b; Abdel Samie Ahmed, G., 1961, 1967; Ashry, M. M., 1973; Ashry, M. M., and Riskalla, S., 1968; Basta, E. Z., Philip, G., and Khalil, P., 1971, 1974; Bogatyrev, B. A., Gipp, S. K., and Grigor'ev, V. N., 1974; Chilingar, G. V., Rieke, H. H., and Robertson, J. O., Jr., 1963; El Damaty, A. H., and El Sherbieny, A. F., 1973; El Damaty, A. H., Hamdi, H., and Zanati, M., 1973; El Damaty, A. H., and others, 1973a, 1973b; El Demerdash, S., Abdel Aal, S. I., and Abdel Salam, M. A., 1970; El Demerdash, S., and others, 1971a, 1971b; El Gabaly, M., 1962; El Gabaly, M., and Khadr, M., 1962; El Gala, A. M., and others, 1976; El Kadi, M. A., and others, 1973a, 1973b; El Kady, H. A., and Abdel Salam, M. A., 1972; El Kady, H. A., Abdel Salam, M. A., and Hamdi, H., 1972; El Mowelhi, N. M., and Hamdi, H., 1976; El Shazly, E. M., and others, 1978; El Shazly, M. M., and Shata, A., 1969; El Sherif, S., and

## Soils (continued)

others, 1973; Elgals, A. H., and Hendawy, S., 1973; Evenari, M., Yaalon, D. H., and Gutterman, Y., 1974; Fairbridge, R., 1962, 1963; Fathi, A., 1960; Fathi, A., and Hanna, F., 1969a, 1969b, 1969c; 1971; Fathi, A., and others, 1971a, 1971b, 1971c, 1973, 1976; Fayed, L. A., 1970; Fayed, L. A., and Hassan, M. K., 1970, 1971; Ghaith, A. M., and Mikhail, M. T., 1964; Ghanim, B. M., Rabie, F., and Hamdi, H., 1974; Hamdi, H., 1967; Hamdi, H., and Epprecht, W., 1953; Hamdi, H., Mitwally, S. E., and Guindi, B., 1968; Hamdi, H., and Naga, M., 1949, 1952; Hamdi, H., and others, 1969, 1973a, 1973b; Hammad, M. A., and Abdel Salam, M. A., 1968; Hanna, F. S., and Beckmann, H., 1975; Hansen, C. L., and others, 1966; Harga, A. A., Abdel Salam, M. A., and Abdou, F. M., 1972; Harga, A. A., and others, 1968a; Harga, A. A., Rabie, F., and Abdel Salam, M. A., 1974; Hilal, M. H., and others, 1976; Hume, W. F., 1921; Kaddah, M. T., 1948; Khadr, K., 1961a, 1961b, Kishk, F. M. and others, 1976; Kovda, V. A., and Worthington, E. B., 1977; Labib, F., and Hamdi, H., 1973; Labib, F., and Sys, C., 1971; Lucas, A., 1902b, 1903; Metwally, S. Y., and others, 1973; Milad, S., El Hakim, M., and Moustafa, F., 1974; Naga, M. A., Abdallah, M. M., and Abdel Aal, I., 1973; Naga, M. A., and Heakal, M. S., 1973; Otterman, J., 1974; Philip, G., Basta, E. Z., and Khalil, J. B., 1971; Philip, G., and Yousri, F., 1965; Phillobbos, E. R., and Hassan, K. K., 1975; Raafat, I., 1971; Rabie, F., and others, 1974; Shata, A., 1960a, 1971b; Shawarbi, M. Y., 1962; Veenenbos, J. S., and Ghaith, A. M., 1964; Wahab, M. A., and others, 1973; Yallouze, M., 1967a; Zein El Abedine, A., 1966; Zein El Abedine, A., Abdalla, M. M., and El Demerdashe, S., 1966; Zonn, S. V., 1978.

## Stratigraphy

### Ages

#### Pre-Cretaceous

Abbass, H. L., and Ebeid, M. Z., 1969; Abdallah, A. M., 1965a; Abdallah, A. M., and El Addindani, A., 1963b; Abdallah, A. M., El Addindani, A., and Fahmy, A., 1963; Adindani, A., and Shakhov, R. A., 1970; Akaad, M. K., 1957, 1959; Akaad, M. K., and El Ramly, M. F., 1958, 1960; Akaad, M. K., and Shazly, G. A., 1972; Barakat, M. G., 1970; Beyth, M., Grunhagen, H., and Zilberfarb, A., 1978; Cuvillier, J., 1937e; Dutuit, J. M., 1974; El Addindani, A., and Shakhov, R. A., 1970; El Hashmi, M. M., 1972; El Shazly, E. M., 1957b; Farag, I. A. M., 1957b, 1959; Farag, I. A. M., and Omara, S., 1955; Galal El Din Hafez Awad, 1946; Girgis, G. F., and Faris, M. I., 1972; Hassan, A. A., 1963, 1967; Hume, W. F., 1934, 1935, 1937, 1962; Hussein, H. A., Anwar, Y. M., and El Soukkary, A. A., 1973; Issawi, B., and Soliman, S. M., 1971; Kerdany, M. T., and Abdel Salam, H. A., 1970; Krashe-  
ninnikov, V. A., and Ponikarov, V. P., 1964; Neary, C. R., 1978; Omara, S., 1965a, 1967, 1972; Osman, A., 1956; Picard, L., and Flexer, A., 1974; Rigassi, D. A., 1971a; Sadek, A., 1977; Schurmann, H. M. E., 1974; Shata, A., 1951, 1955b,



## Stratigraphy (continued)

### Ages (continued)

#### Pre-Cretaceous (continued)

1956d; Soliman, S. M., and El Fetouh, M. A., 1969a, 1970; Weissbrod, T., 1969.

#### Cretaceous

Abdallah, A. M., and Eissa, R. A., 1971; Abdallah, A. M., and El Addindani, A., 1963; Abdel Razik, T. M., 1969a, 1969b, 1972; Abdine, A. S., and Deibis, S., 1972; Abdou, H. F., 1969; Ahmed, A. R. A., 1972; Andrew, G., 1937a; Ansary, S. E., and Tewfik, N. M., 1969; Anwar, Y. M., and Tarabili, E. E., 1960a; Awad, G. H., Naim, E. M., and Abdou, H. F., 1964; Barakat, M. G., and Afra, A. A., 1972; Barakat, M. G., and El Dawoody, A. S., 1973; Barakat, M. G., and Tewfik, N. M., 1966; Barthel, K. W., and Boettcher, R., 1978; Beadnell, H. J. L., 1902; Cuvillier, J., 1937a; 1938c, 1939a, 1941a, 1942a, 1949, 1953; El Dawoody, A. S., and Barakat, M. G., 1973; El Nagger, Z. R., 1966a, 1970b; El Shinnawi, M. A., and Sultan, I. Z., 1973, 1975b; El Sokkary, A. A., and Salloum, G., 1974; Farag, I. A. M., 1955, 1957a; Faris, M. I., 1947, 1948, 1961; Faris, M. I., and Hassan, M. Y., 1959; Fawzi, M. A., 1960, 1963b; Fawzi, M. A., and Naim, E. M., 1964; Ghanem, M., and others, 1970; Girgis, G. F., and Faris, M. I., 1972; Hassan, M. Y., 1971b; Hermina, M., and Issawi, B., 1971; Hume, W. F., 1962, 1964, 1965; Issawi, B., 1972; Jux, U., 1954; Kerdany, M. T., and Abdel Salam, H. A., 1970; Krasheninnikov, V. A., and Ponikarov, V. P., 1964; Lewy, Z., 1975; Nakkady, S. E., and Eissa, R. A., 1960; Omara, S., 1954; Osman, A., 1956; Razvalyayev, A. V., 1969; Rigassi, D. A., 1971b; Sadek, A., Barakat, M. G., and Arafa, A. A., 1974; Sadek A., and Teleb, F., 1978a; Schult, A., Soffel, H., and Hussain, A. G., 1978; Shafik, S., and Stradner, H., 1971; Shata, A., 1959b; Soliman, S. M., 1975; Soliman, S. M., and Amer, K. M., 1969; Soliman, S. M., Faris, M. I., and El Badry, O., 1970; Tromp, S. W., 1949b; Weissbrod, T., 1976; Worsley, T., 1974; Youssef, M. I., 1957; Youssef, M. I., and Abdel Aziz, W., 1971.

#### Tertiary

##### Paleocene

Abdel Razik, T. M., 1969b, 1972; Andrawis, S. F., 1967; Ansary, S. E., and Fahmy, S. E., 1969, 1971; Anwar, Y. M., and Tarabili, E. E., 1960a, Awad, G. H., and Abed, M. M., 1969; Barakat, M. G., and El Dawoody, A. S., 1976; Costea, I., 1964; Cuvillier, J., 1934a, 1934b, 1949, 1953; El Nagger, Z. R., 1966a, 1966b, 1970a, 1970b; El Shinnawi, M. A., and Sultan, I. Z., 1972; El Zarka, M. H., and El Ghamry, M. A., 1976b; Faris, M. I., 1947, 1961; Ghanem, M., and others, 1970; Hassan, M. Y., 1971b; Hume, W. F., 1964, 1965; Issawi, B., 1972; Kerdany, M. T., and Abdel Salam, H., 1970; Krasheninnikov, V. A., 1965; Krasheninnikov, V. A., and Abdel Razik, T. M., 1969; Krasheninnikov, V. A., and Ponikarov, V. P., 1965; Nakkady, S. E., 1950; Omara, S., 1954; Razvalyayev, A. V., 1969; Sadek, A., 1971; Sadek, A., and Abdel Razik, T. M., 1970; Soliman, S. M., and Amer, K. M., 1969; Soliman,

## Stratigraphy (continued)

### Ages (continued)

#### Tertiary (continued)

##### Paleocene (continued)

S. M., and Korany, E. M., 1972; Tromp, S. W., 1949b; Youssef, M. I., and Abdel Aziz, W., 1971.

##### Eocene

Abdallah, A. M., and Abdel Hady, F. M., 1971; Abdel Razik, T. M., 1969b; Ansary, S. E., and Fahmy, S. E., 1969, 1971; Ansary, S. E., and Ismail, M. M., 1956; Anwar, Y. M., and Tarabili, E. E., 1960a; Awad, G. H., and Abed, M. M., 1969; Barakat, M. G., and Abou Khadrah, A. M., 1971; Barakat, M. G., and Aboul Ela, N. M., 1970; Barakat, M. G., and El Dawoody, A. S., 1973; Cuvillier, J., 1934a, 1939a, 1939b, 1941a, 1942a, 1949, 1953; El Naggar, Z. R., 1970b; El Shinnawi, M. A., and Sultan, I. Z., 1975a; El Zarta, M. H., and El Ghamry, M. A., 1976b; El Shinnawi, M. A., and Sultan, I. Z., 1972; Fahmy, S. E., 1975; Faris, M. I., 1947, 1961; Ghanem, M., and others, 1970; Ghorab, M. A., and Ismail, M. M., 1957; Gindy, A. R., 1963a, 1969; Gindy, A. R., and El Askary, M. A., 1969b; Hume, W. F., 1964, 1965; Ismail, M. M., and Bassiouni, M. A., 1966; Ismail, M. M., and El Dakkak, M. W., 1968; Issawi, B., 1972; Kerdany, M. T., and Abdel Salam, H. A., 1970; Kostandi, A. B., 1963; Krasheninnikov, V. A., 1965; Krasheninnikov, V. A., and Ponikarov, V. P., 1965; Omara, S., 1954; Razvalyayev, A. V., 1969; Sadek, A., 1971; Sadek, A., and Abdel Razik, T. M., 1970; Sadek, A., Barakat, M. G., and Teleb, F. M., 1974; Sadek, A., and Farouk, T., 1973; Said, R., 1963a; Soliman, S. M., Faris, M. I., and Hassan, F., 1965; Soliman, S. M., and Kerany, E. M., 1972; Strougo, A., 1976c; Tromp, S. W., 1949b; Viotti, C., and El Demerdash, G., 1969; Youssef, M. I., and Abdel Aziz, W., 1971;

##### Oligocene

Andrew, G., and Cuvillier, J., 1938; Ansary, S. E., and Fahmy, S. E., 1969, 1971; Awad, G. H., and Abed, M. M., 1969; Bowen, B. E., and Vondra, C. F., 1974; El Naggar, Z. R., 1970b; El Shinnawi, M. A., and Sultan, I. Z., 1972; El Zarka, M. H., and El Ghamry, M. A., 1976b; Ghanem, M., and others, 1970; Hume, W. F., 1964, 1965; Issawi, B., 1972; Kerdany, M. T., and Abdel Salam, H., 1970; Krasheninnikov, V. A., 1965; Krasheninnikov, V. A., and Ponikarov, V. P., 1965; Marzouk, I., 1970; Omara, S., and Ouda, K. H., 1972; Razvalyayev, A. V., 1969; Sadek, A., 1967.

##### Miocene

Abbass, H. L., and El Gamal, M. M., 1969; Abdallah, A. M., and Abdel Hady, F. M., 1971; Barakat, M. G., and Abdel Hady, Y. E., 1974; Biely, A., Rakus, M., and Robinson, P., 1974; Cherif, O. H., Bassiouni, M. A., and Ghanima, S. A., 1975; El Shazly, M. M., Shata, A., and Farag, I. M., 1964; Faris, M. I., El Bishlawy, M. N., and Ayad, M. H., 1969a; Faris, M. I., El Bishlawy, M. N., and Deibis, S., 1967; Faris, M. I., El Bishlawy, M. N., and El Dashlouty, S. A., 1969a; Gindy, A. R., Abdou, H. F., and El Askary, M. A.,

## Stratigraphy (continued)

### Ages (continued)

#### Tertiary (continued)

##### Miocene (continued)

1969; Gindy, A. R., and El Askary, M. A., 1969c; Gindy, A. R., and Sultan, I. Z., 1978; Hanter, C., 1965; Heybrock, F., 1965; Ismail, M. M., and El Dakkak, M. W., 1968; Kholief, M. M., and Hamed, H. A., 1976; Krasheninnikov, V. A., 1968; Marzouk, I., 1970; Omara, S., and Ouda, K. H., 1972; Rizzini, A., and others, 1978; Sadek, A., 1967, 1969b; Sadek, H., 1959; Said, R., 1962c; Said, R., and Zaki, S., 1967; Samuel, M. D., and others, 1977; Soliman, S. M., and Hassaan, M. M., 1970; Youssef, M. I., Bassiouni, M. A., and Cherif, O. H., 1970.

##### Pliocene

Barakat, M. G., and Abdel Hady, Y. E., 1974; Biely, A., Rakus, M., and Robinson, P., 1974; Cherif, O. H., Bassiouni, M. A., and Ghanima, S. A., 1975; Chumakov, I. S., 1967a; Chumakov, I. S., and Shumenko, S. I., 1977; Cuvillier, J., 1936a, 1936b; El Shazly, M. M., Shata, A., and Farag, I. M., 1964; Ghorab, M. A., and Ismail, M. M., 1957; Rizzini, A., and others, 1978; Samuel, M. D., and others, 1977; Vondra, C. F., and Bowen, B. E., 1976.

##### Undifferentiated

Abdou, H. F., Naim, E. M., and Sultan, I. Z., 1969; Castelain, J., 1966; Cuvillier, J., 1937a, 1937b, 1937c; El Nagger, Z. R., 1966a; Girgis, G. F., and Faris, M. I., 1972; Hermina, M., and Issawi, B., 1971; Omara, S., El Tahlawi, M. R., and Khalifa, H., 1969; Samuel, M. D., and others, 1977; Sestini, J., 1965

#### Quaternary

##### Pleistocene

Bellair, P., 1949; Butzer, K. W., 1959a, 1962a, 1962b, 1967; Butzer, K. W., and Hansen, C. L., 1967, 1972b; Cherif, O. H., Bassiouni, M. A., and Ghanima, S. A., 1975; El Shazly, M. M., Shata, A., and Farag, I. M., 1964; Fabricius, F. H., 1973; Hansen, C. L., and others, 1966; Herman, Y., 1965, 1968; Joleaud, L., 1933; Rizzini, A., and others, 1978; Rzoska, J., 1976f; Said, R., 1957, 1969a; Samuel, M. D., and others, 1977; Schild, R., and Wendorf, F., 1976a, 1976c, 1976d, 1976e; Sestini, J., 1965; Vondra, C. F., and Bowen, B. E., 1976.

##### Holocene (Recent)

Bellair, P., 1949; Butzer, K. W., 1959b; Cherif, O. H., Bassiouni, M. A., and Ghanima, S. A., 1975; El Shazly, M. M., Shata, A., and Farag, I. M., 1964; Fabricius, F. H., 1973; Herman, Y., 1965, 1968; Joleaud, L., 1933; Rizzini, A., and others, 1978; Rognon, P., 1976; Said, R., and others, 1970, 1972; Schild, R., and Wendorf, F., 1976a, 1976c; Sestini, J., 1965; Stanley, D. J., and Maldonado, A., 1977.

##### Undifferentiated

Higazy, R. A., and Wasfy, H. M., 1957; Samuel, M. D., and others, 1977; Schild, R., Wendorf, F., and Issawi, B., 1976b; Worsley, T., 1974. 211

## Stratigraphy (continued)

### Areal

#### Local

##### Sheet 1 - Matruh

Abbass, H. L., and El Gamal, M. M., 1969; Abdallah, A. M., 1967b; Barakat, M. G., and Abdel Hady, Y. E., 1974; Cherif, O. H., Bassiouni, M. A., and Ghanima, S. A., 1975; El Senussi, M. Y., and Shata, A., 1969b; Gindy, A. R., 1971b; Gindy, A. R., Abdou, H. F., and El Askary, M. A., 1969; Gindy, A. R., and El Askary, M. A., 1969a, 1969c; Ismail, M. M., and Selim, A. A., 1969; Omara, S., and Sanad, S., 1975; Sadek, A., Barakat, M. G., and Arafa, A. A., 1974; Sadek, A., Barakat, M. G., and Teleb, F. M., 1974.

##### Sheet 2 - Cairo

Abdallah, A. M., and Abdel Hady, F. M., 1971; Andrew, G., and Cuvillier, J., 1938; Awad, G. H., Faris, M. I., and Abbass, H. L., 1953; Cuvillier, J., 1937e, 1938b, 1941a; El Shinnawi, M. A., 1967b; Farag, I. A. M., and Sadek, A., 1966; Faris, M. I., Higazy, R. A., and Hassanein, A. M., 1966; Fawzi, M. A., 1959; Ismail, M. M., and Bassiouni, M. A., 1966; Ismail, M. M., and El Dakkak, M. W., 1968; Ismail, M. M., and Farag, I. A. M., 1957; Ismail, M. M., and Selim, A. A., 1966; Jux, U., 1954; Nakkady, S. E., and Eissa, R. A., 1960; Omara, S., and Sanad, S., 1975; Osman, A., 1956; Osman, A., and Hassanein, A. M., 1962; Rizzini, A., and others, 1978; Said, R., and others, 1970, 1972; Viotti, C., and Mansour, A., 1969.

##### Sheet 3 - North Sinai

El Shinnawi, M. A., 1967b; Farag, I. A. M., 1955, 1959; Farag, I. A. M., and Omara, S., 1955; Mahmoud, I. G. E., 1955; Moret, L., and Mahmoud, G. E., 1954; Soliman, S. M., and El Fetouh, M. A., 1969a.

##### Sheet 4 - Bahariya

Soliman, S. M., Faris, M. I., and El Badry, O., 1970; Youssef, M. I., and Abdel Aziz, W., 1971.

##### Sheet 5 - Asyute

Abdallah, A. M., and Eissa, R. R., 1971; Abdallah, A. M., and El Addindani, A., 1963b; Abdallah, A. M., El Sharkawi, M. A., and Marzouk, A., 1971; Abdou, H. F., 1969; Akaad, M. K., and Noweir, A. M., 1964a; Andrawis, S. F., 1970; Ansary, S. E., and Fahmy, S. E., 1969, 1971; Ansary, S. E., and Tewfik, N. M., 1969; Francis, M. H., 1972; Ismail, M. M., and Abdallah, A. M., 1966.

##### Sheet 6 - South Sinai

El Shinnawi, M. A., 1969; El Tarabili, E. E., and Adawy, N., 1972; Faris, M. I., El Bishlawy, M. N., and El Dashlouty, S. A., 1969a; Faris, M. I., Hassan, M. Y., 1959; Francis, M. H., 1972; Ghorab, M. A., 1961; Hassan, A. A., 1967; Omara, S., 1954, 1959, 1972; Said, R., and Zaki, S., 1967; Soliman, S. M., and El Fetouh, M. A., 1969a; Youssef, M. I., and Abdel Malik, W. M., 1969b.

##### Sheet 7 - Dakhla

Abbass, H. L., and Habib, M. M., 1969; Awad, G. H., and Abed, M. M., 1969; Barakat, M. G., and Milad, G. S., 1966.



Stratigraphy (continued)

Areal (continued)

Local (continued)

Sheet 8 - Qena

Awad, G. H., and Abed, M. M., 1969; Awad, G. H., and Ghobrial, M. G., 1966; Barakat, M. G., and Assad, F. A., 1965; Barakat, M. G., and Milad, G. S., 1966; Butzer, K. W., 1967; Butzer, K. W., and Hansen, C. L., 1972a, 1972b; Cuvillier, J., 1937a, 1937b; El Nagger, Z. R., 1966a, 1966b; El Shazly, M. M., and Shata, A., 1960a; El Shinnawi, M. A., 1964, 1968; Faris, M. I., 1947; Ismail, M. M., and Abdel Razik, T. M., 1969b; Nakkady, S. E., 1959; Omara, S., El Tahlawi, M. R., and Khalifa, H., 1969; Schild, R., Wendorf, F., and Issawi, B., 1976b; Youssef, H. M., 1953; Youssef, M. I., 1954.

Sheet 9 - Quseir

Akaad, M. K., 1957; Akaad, M. K., and Noweir, A. M., 1969; Barakat, M. G., and El Dawoody, A. S., 1973; El Akkad, S., and Dardir, A. A., 1966a, 1966b; El Dawoody, A. S., and Barakat, M. G., 1973; Farag, I. A. M., 1957a; Faris, M. I., and Hassan, M. Y., 1959; Gindy, A. R., 1963a; Ismail, M. M., and Abdel Razik, T. M., 1969a; Kabesh, M. L., and Higazy, M., 1969; Kabesh, M. L., Hilmy, M. E., and Bishady, A. M., 1967; Krasheninnikov, V. A., and Abdel Razik, T. M., 1969; Ramez, M. R. H., and Marie, A. A., 1974; Sadek, A., and Abdel Razik, T. M., 1970; Samuel, M. D., and others, 1977; Schild, R., and Wendorf, F., 1976a; Soliman, S. M., and Amer, K. M., 1969; Soliman, S. M., and Korany, E. M., 1972; Youssef, M. I., 1960.

Sheet 11 - Aswan

Butzer, K. W., and Hansen, C. L., 1972a, 1972b; Cuvillier, J., 1934a; Faris, M. I., 1960; Hansen, C. L., and others, 1966; Said, R., 1969a.

Regional

Abbass, H. L., and Ebeid, M. Z., 1969; Abdallah, A. M., 1967b; Abdallah, A. M., and El Addindani, A., 1963b; Abdallah, A. M., El Addindani, A., and Fahmy, A., 1963; Abdel Gawad, M., 1969, 1970b; Abdel Razik, T. M., 1969, 1972; Akaad, M. K., 1972, Akaad, M. K., and El Ramly, M. F., 1960, Andrew, G., 1937a; Asaad, Y., 1966; Awad, G. H., and Said, R., 1963; Awad, G. H., Said, R., and Delany, F., 1966; Barthel, K. W., and Boettcher, R., 1978; Bartov, Y., and Steinitz, G., 1977; Biely, A., Rakus, M., and Robinson, P., 1974; Butzer, K. W., and Hansen, C. L., 1972a, 1972b; Cuvillier, J., 1934a, 1934b, 1934d, 1939b, 1941b, 1949; Dutuit, J. M., 1974; El Naggar, Z. R., 1970b; El Shinnawi, M. A., and Sultan, I. Z., 1973, 1975a, 1975b; El Tarabili, E. E., 1964; Fahmy, S. E., 1975; Farag, I. A. M., 1957a, Faris, M. I., 1956, 1959; Fawzi, M. A., 1960, 1963b; Flexer, A., 1968; Galal El Din Hafez Awad, 1946; Gass, I. G., 1973; Hanter, G., 1965; Hassan, A. A., 1963; Hassan, M. Y., 1971b; Herman, Y., 1965; Hermina, M., and Issawi, B., 1971; Hume, W. F., 1962, 1964; Issawi, B., 1972; Issawi, B., and Soliman, S. M., 1971; Kholief, M. M., and Hamed, H. A., 1976, Kostandi, B.,

## Stratigraphy (continued)

### Areal (continued)

#### Regional (continued)

1959; Krasheninnikov, V. A., 1965; Krasheninnikov, V. A., and Ponikarov, V. P., 1964, 1965; Lewy, Z., 1975; Lotfi, M., and Kabesh, M. L., 1964; Macfadyen, W. A., 1930; Marzouk, I., 1970; Nakkady, S. E., 1955; Omara, S., 1965a; Philobos, E. R., and Hassan, K., 1975; Picard, L., and Flexer, A., 1974; Rigassi, D. A., 1971; Rigassi, D. A., and Soliman, S. M., 1971; Ross, D. A., and others, 1972; Sabet, A. H., 1972; Sadek, H., 1959; Said, R., 1962c, 1969b; Schult, A., Stoffel, H., Hussain, A. G., 1978; Schurmann, H. M. E., 1974; Shata, A., 1959b; Soliman, S. M., 1961a; Solovyeva, M. N., and Krasheninnikov, V. A., 1965; Swartz, D. H., and Arden, D. D., 1960; Tromp, S. W., 1951a, 1951b; Weissbrod, T., 1969, 1976; Youssef, M. I., Bassiouni, M. A., and Cherif, O. H., 1970.

#### Correlation (see also Paleontology, Correlation, Relationships, and Biostratigraphy)

Asaad, Y., 1966; Awad, G. H., Said, R., and Delany, F., 1966; Barthel, K. W., and Boettcher, R., 1978; Bishay, Y., 1967; Butzer, K. W., 1962b; Butzer, K. W., and Hansen, C. L., 1972; Cuvillier, J., 1942a; El Naggar, Z. R., 1969, 1970a, 1970b; El Shinnawi, M. A., and Sultan, I. Z., 1973; Fawzi, M. A., 1960; Flexer, A., 1968; Gindy, A. R., 1971b; Hafez, A., and Lotfi, M., 1971; Hassan, M. Y., 1971b; Herman, Y., 1968; Kholief, M. M., and Hamed, H. A., 1976; Krasheninnikov, V. A., 1968; Macfadyen, W. A., 1930; Philobos, E. R., and Hassan, K., 1975; Picard, L., and Flexer, A., 1974; Strougo, A., 1976c; Tromp, S. W., 1949a; Weissbrod, T., 1969.

#### Stratigraphic Unit

##### Abu Ballas Formation

Barthel, K. W., and Boettcher, R., 1978.

##### Ain Musa Bed

Strougo, A., 1976c.

##### Ardon Formation

Druckman, Y., 1977.

##### Atud Formation

Akaad, M. K., and Essawy, M. A., 1965a, 1965b, 1965c; Akaad, M. K., and Noweir, A. M., 1964a.

##### Chalk Formation

Abdel Razik, T. M., 1969b; Nakkady, S. E., 1950.

##### Dakhla Shale Formation

Abdel Razik, T. M., 1969b.

##### Dokhan Volcanics

Akaad, M. K., 1963.

##### Duwi Formation

Abdallah, A. M., Mahfouz, S., and Abdel Razek, T. M., 1972a, 1972b; Abdel Razik, T. M., 1969a, 1969b; Saleeb, G. S., and El Baz, M. H., 1973.

##### Esna Group (See also Esna Shale)

El Naggar, Z. R., 1966a, 1966b; Sabry, H., and El Naggar, Z. R., 1968.

## Stratigraphy (continued)

### Stratigraphic Units (continued)

#### Esna Shale (See also Esna Group)

Abdel Razik, T. M., 1969b; Cuvillier, J., 1934b; El Naggar, Z. R., 1966a, 1966b; El Naggar, Z. R., and Haynes, J., 1967, 1968; El Shinnawi, M. A., 1970a; Kenawy, A. I., 1975; Nakkady, S. E., 1950, 1952; Said, R., and Sabry, H., 1964.

#### Gebel el Qatrani Formation

Bowen, B. E., and Vondra, Carl F., 1974.

#### Hammamat 'Series'

Hafez, A., and Lotfi, M., 1971.

#### Igla Formation

Akaad, M. K., 1957, Akaad, M. K., and El Ramly, M. F., 1958.

#### Judea Group

Bartov, Y., and Steinitz, G., 1977.

#### Kurkurstufe

Cuvillier, J., 1934a.

#### Meatig Group (Mitiq Series)

Akaad, M. K., and Shazly, G. A., 1972.

#### Mokattam Formation

Abbass, H. L., 1969a, 1969b.

#### Mount Scopus Group

Bartov, Y., and Steinitz, G., 1977; Flexer, A., 1968.

#### Nubian Sandstone

Abbass, H. L., and Habib, M. M., 1970; Abdel Razik, T. M., 1969b; Amin, M. S., 1960; Andrew, G., 1937a; Barthel, K. W., and Boettcher, R., 1978; Bishara, W. W., and Nasr, M., 1975; El Askary, M. A., and El Mahdy, O. R., 1976; El Hinnawi, E., 1973b; El Shazly, E. M., and Krs, M., 1973; El Shazly, M. M., and Shata, A., 1960b; Gindy, A. R., 1965, 1970c; Hassan, F. A., 1971; Issawi, B., 1973a; Issawi, B., and Pomeyrol, R., 1971; Klitzsch, E., and others, 1979; Mustafa, A., and Ghaly, E. L., 1964; Pomeyrol, R., 1968; Rigassi, D. A., 1969; Schult, A., Soffel, H., and Hussain, A. G., 1978; Seward, A. C., 1935; Shawa, M. S., 1969; Shukri, N. M., 1945a; Shukri, N. M., and Said, R., 1945; Weissbrod, T., 1971; Whiteman, A. J., 1970b.

#### Phosphate Formation - See Duwi Formation

#### Qasr el Sagha Formation

Vondra, C. F., 1974.

#### Rudeis Formation

El Hashmi, M. M., 1970

#### Shaitian Formation

Akaad, M. K., 1963a.

#### Sharawna Shale (See also Esna Group)

El Naggar, Z. R., 1971b; El Naggar, Z. R., and Haynes, J., 1967.

#### Thebes Formation

Abdel Razik, T. M., 1969b; Kenawy, A. I., 1974.

#### White Chalk Formation

El Shinnawi, M. A., 1967b

## Structural Geology

### Areal Studies

#### Local

##### Sheet 1 - Matruh

Abdallah, A. M., 1967b; El Etr, H. A., Abdallah, A. M., and Yehia, M. A., 1973; Gindy, A. R., and El Askary, M. A., 1969a; Harga, A. A., and others, 1968b; Omara, S., and Sanad, S., 1975; Said, R., 1960b.

##### Sheet 2 - Cairo

Azer, N., 1965; Bayoumi, A. I., and Ahmed, A. S., 1969; Bayoumi, A. I., and El Gamili, M. M., 1970; Bayoumi, A. I., and Shenouda, H. H., 1972; Farag, I. A. M., and Ismail, M. M., 1955, 1959; Harga, A. A., and others, 1968b; Jux, U., 1954; Knetsch, G., 1953a; Lotfi, M., 1967; Omara, S., and Sanad, S., 1975; Shata, A., and El Fayoumy, I., 1970b.

##### Sheet 3 - North Sinai

Hildebrand, N., Shirav, M., and Freund, R., 1974.

##### Sheet 4 - Bahariya

Omara, S., Hemida, I., and Sanad, S., 1970.

##### Sheet 5 - Asyute

Bayoumi, A. I., and El Gamili, M. M., 1970.

##### Sheet 6 - South Sinai

Andrew, G., 1934b; Beets, C., 1953; Faris, M. I., El Bishlawy, M. N., and Ayad, M. H., 1969b; Hildebrand, N., Shirav, M., and Freund, R., 1974; Youssef, M. I., and Abdel Malik, W. M., 1969b.

##### Sheet 8 - Qena

Abdel Razik, T. M., and Razvaliaev, A. V., 1974; Ghobrial, M. G., 1967; Ghobrial, M. G., and Lotfi, M., 1967.

##### Sheet 9 - Quseir

Akaad, M. K., and Essawy, W. A., 1964a; El Tarabili, E. E., 1966a, 1966b, 1971; Issawi, B., and others, 1969; Ramez, M. R. H., 1971; Ramez, M. R. H., and Marie, A. A., 1967.

##### Sheet 11 - Aswan

Barakat, M. G., and Ashri, A. H., 1970.

##### Sheet 12 - Elba

Lotfi, M., 1962.

#### Regional

Abdel Gawad, M., 1970b; Bannert, D. N., 1972; Bartov, Y., and Steinitz, G., 1977; Bayoumi, A. I., and El Gamili, M., 1969; Bayoumi, A. I., and Shereef, M. R., 1969, 1971b; Ben Avraham, Z., and Hall, J. K., 1977; Ben Avraham, Z., and Oren, O. H., 1976; Ben Menahem, A., and Aboodi, E., 1971; Burek, P. J., 1969; Chernysheva, V. I., 1969; Clifford, T. N., 1970; Davies, D., 1969; Davies, D., and Tramontini, C., 1970; Dubertret, L., 1966, 1967; El Sokkary, A. A., and Salloum, G., 1974; El Tarabili, E. E., 1964, 1970b; Fabre, J., 1968; Fairhead, J. D., 1973; Falcon, N. L., and others, 1970; Faris, M. I., 1959; Freund, R., 1965, 1970; Garfunkel, Z., and Bartov, Y., 1977; Garson, M. S., and Shalaby, I. M., 1976; Gass, I. G., 1969, 1973; Gass, I. G., and Whiteman, A. J., 1969; Gaynanov, A. G., and Stroyev, P. A. G., 1967; Himida, I. H., 1963; Ibrabim, M. M., 1960; Irvine, T. N., 1966; Isayev, Y. N., and Razvalyayev, A. V.,



## Structural Geology (continued)

### Areal Studies (continued)

#### Regional (continued)

1977; Kabbani, F. K., 1970; Kennedy, W. Q., 1965; Kenyon, N. H., Stride, A. H., and Belderson, R. H., 1975; Klitzsch, E., 1971; Knetsch, G., 1954b, 1957, 1958, 1959; Kostandi, A. B., 1963; Lowell, J. D., and Genik, G. J., 1971; Masson, P., 1978; Mhor, P. A., 1970; Milanovskiy, Y. Y., 1974; Milanovsky, E. E., 1969; Mosaic, 1977; Neev, D., and Friedman, G. M., 1978; Omara, S., 1964; Passarge, S., 1950; Razvalyayev, A. V., Mikhailov, I. A., and Mirtov, Y. V., 1970a, 1970b; Riad, S., 1977; Robson, D. A., 1959, 1970, 1971; Rognon, P., 1976; Ross, D. A., and Schlee, J., 1973; Ross, D. A., and Uchupi, E., 1977; Russell, M. J., and Burgess, A., 1964; Said, R., 1957, 1963b; Shata, A., 1953a, 1956a, 1959a; Shukri, N. M., 1954a; Siagayev, N. A., 1967, 1970; Siagayev, N. A., and Sallum, G. M., 1971; G. M., 1979; Tazieff, H., and others, 1972; UNESCO, 1968; Vail, J. R., 1972; Varlamoff, N., 1973a; Vered, M., and Ben Menahem, A., 1974; Vishnevskiy, A. N., Krivtsov, A. I., and Razvalyayev, A. V., 1975; Whiteman, A. J., 1967, 1968, 1970a, 1970c; Youssef, M. I., 1968; Youssef, M. I., Bassiouni, M. A., and Cherif, O. H., 1970.

#### Faults

Bar, M., Kolodny, Y., and Bentor, Y. K., 1974; El Sokkary, A. A., and Salloum, G., 1974; Goby, J. E., 1942; Kamel, B., 1963; Kenyon, N. H., Stride, A. H., and Belderson, R. H., 1975; Whiteman, A. J., 1970a.

#### Folds

Jux, U., 1954.

#### General

Ahmed, M. I. S., Koide, H., and Inami, K., 1977; Ben Avraham, Z., and Oren, O. H., 1978; Dubertret, L., 1961, 1967; Gaynanov, A. G., and Stroyev, P. A. G., 1967; Kenyon, N. H., Stride, A. H., and Belderson, R. H., 1975; Masson, P., 1978; Mohr, P. A., 1969; Moskalenko, V. N., 1966; Omara, S., 1964; Ramez, M. R. H., 1971, Ramez, M. R. H., and Abdel Maksoud, M. A., 1970; Rognon, P., 1976; Ross, D. A., and Uchupi, E., 1977; Vered, M., and Ben Menahem, A., 1974.

#### Tectonics and Structural Evolution

Abdallah, A. M., and Dardir, A. A., 1971; Abdel Razik, T.M., and Razvaliaev, A. V., 1974; Arkell, W. J., 1951a; Baker, B. H., 1970; Bannert, D. N., 1971, 1972; Bannert, D. N., and Kedar, E. Y., 1971; Ben Avraham, Z., and Oren, O. H., 1978; Ben Menahem, A., and Aboodi, E., 1971; Berggren, W. A., and Philips, J. D., 1971; Blissenbach, E., 1972; Burek, P. J., 1969; Chase, R. L., 1969; Chernysheva, V. I., 1969; Choubert, G., and Faure Mauret, A., 1969; Clifford, T. N., 1970; Davies, D., 1969; Davies, D., and Tramontini, C., 1970; Degens, E. T., 1970; Dubertret, L., 1966, 1967, 1972; El Ramly, M. F., and Salloum, G., 1974; El Tarabili, E. E., 1966b, 1970b, 1971; Fabre, J., 1968; Fairhead, J. D., 1973; Falcon, N. L., and others, 1970; Faris, M. I., El Bishlawy, M. N., and Ayad, M. H., 1969b; Faris, M. I., El Bishlawy, M. N., and El Dashlouty, S. A., 1969b; Freund, R., 1965,

## Structural Geology (continued)

### Tectonics and Structural Evolution (continued)

1970; Garfunkel, Z., and Bartov, Y., 1977; Garson, M. S., and Shalaby, I. M., 1976; Gass, I. G., 1970, 1972, 1973; Gass, I. G., Mallick, D. I. J., and Cox, K. G., 1973; Gass, I. G., and Whiteman, A. J., 1969; Gaynanov, A. G., and Stroyev, P. A. G., 1967; Girdler, R. W., 1966, 1970c; Harris, P. G., 1969; Hassan, F. A., and El Dashlouty, S., 1970; Hutchinson, R. W., and Engels, G. G., 1972; Ibrahim, M. M., 1960; Irvine, T. N., 1966; Kennedy, W. Q., 1965; Klitzsch, E., 1971; Knetsch, G., 1957, 1959; Knetsch, G., and Yallouze, M., 1955; Kostand, A. B., 1963; Lowell, J. D., and Genik, G. J., 1971, 1972; McKenzie, D. P., Davies, D., and Molnar, P., 1970; Meshref, W. M., and El Sheikh, M. M., 1974; Mhor, P. A., 1970; Milanovskiya, Y. Y., 1974; Milanovsky, E. E., 1969; Mohr, P. A., 1969, 1970; Mosaic, 1977; Neev, D., and Friedman, G. M., 1978; Passarge, S., 1950; Pawley, G. S., and Abrahamsen, N., 1973; Razvalyayev, A. V., 1969; Razvalyayev, A. V., Mikhaylov, I. A., and Mirtov, Y. V., 1970a, 1970b; Robson, D. A., 1970, 1971; Rogers, J. J. W., 1977; Ross, D. A., and Schlee, J., 1973; Russell, M. J., and Burgess, A., 1969; Saad, S. I., 1978; Said, R., 1960b, 1961b; Schling, J. G., 1969; Schneider, W., and Wachendorf, H., 1973; Shata, A., 1956a, 1959a; Siagayev, N. A., 1967, 1970; Siagayev, N. A., and Sallum, G. M., 1971; Svenonius, B., and Olausson, B., 1976; Sylvester Bradley, P. C., 1974; Tarling, D. H., 1970; Tazieff, H., 1969, 1972; Tazieff, H., and others, 1972; Tromp, S. W., 1950, 1951a; Vail, J. R., 1972; Varlamoff, N., 1973a; Vered, M., 1977; Vishnevskiy, A. N., Krivtsov, A. I., and Razvalyayev, A. V., 1975; Vroman, A., 1961; Whiteman, A. J., 1967, 1968, 1970c; Yallouze, M., and Knetsch, G., 1954; Youssef, M. I., Bassiouni, M. A., and Cherif, O. H., 1970.





3 1818 00019460 3