

REFERENCES

- Abdel-Mogheeth, S.M., Sallouma, M.K., Abdel-Daiem, A.A. and Farag, M.H. (1989):** Sulfate enrichment phenomenon in some lake water along the Mediterranean coast, Egypt. 1st conf. Geoch., Alex. Univ., 1989, pp. 476-487.
- Aboul Ezz, S. M. (1984):** Limnological investigation Zooplankton and Benthos in Lake Borollus. Ph.D. Thesis, Fac. of Sci., Mansoura Unive. 330pp.
- Aboul Ezz, S. M. (1988):** Priodicity and distribution of bottom fauna in the hypersaline Bardawil Lagoon (Egypt). Bull. Inst. Ocean. & Fish., 14(1); 159-174.
- Alexejev, V. (1971):** Quantitative analysis. Mir. Publ., Moscow: 563p.
- Aliev, C.A. (1971):** Paleoecological and biogeochemical investigations of molluscan shells from east Azerbiadjan. Ph. D. Thesis, Bako Univer., Soviet Union.
- Alloway, B.J. (1995 a):** Heavy metals in soils. Chapman and Hall. 165p.
- Alloway, B.J. (1995 b):** Trace elements in the terrestrial environment. Springer-Verlage, New York.
- APHA, (American Public Health Association)(1984):** Standard Methods for examination of water and wastewater. Washington, D.C.:APHA.
- APHA, (American Public Health Association) (1992):** Standard Methods for examination of water and wastewater. Washington, D.C.:APHA.
- Al- Saad, H.I. (1995):** Distribution and sources of hydrocarbon in Shat- Al- Arab estuary and NW Arabian Gulf. Ph. D. Thesis. Univer. Of Barsrah.
- Barry, L.G. (1972):** Selected powder diffraction data for minerals joint committee, powder diffraction data standard, Swarth more, 1081p.
- Bathrust, R.G.C. (1971):** Carbonate sediments and their diagenesis, Development in Sedimentology, 12 El-Sevier puble. Company, Amsterdam, London, New York.
- Bathrust, R.G.C. (1972):** Carbonate sediments and their diagenesis, Development in Sedimentology. El- Sevier Publ. Company, Amesterdam, London, New York, 12.
- Beltagy, A.I. and Lotfy, I.M.H. (1986):** Geochemistry of the Red Sea self seadiments at Al-Ghardaga. II. Geochemistry of the major elements II Bal. Inst. Oceanogr. and Fish. ARE., V. 12, p. 81-91.

- Beltagy, A.I. and Moussa, KH.A. (1984):** The distribution of organic matter in the sediments of the Gulf of Suze. *Ins. Oceanogr. & Fish., ARE* 10: 99-109.
- Bennett, R. H.; Lambert, D. N. and Hulber, M. H. (1977):** Geotechnical properties of a submarine slide area on the U. S. continental slop northeast of Willington Canyon. *Mar. Geotech.*, 2: 245-261.
- Ben-Tuvia, A., (1979):** Studies of population and fisheries of *Sparus aurata* in the Bardawil Lagoon, eastern Mediterranean. *Barc.*, Vol.I 43-67.
- Bird, E.C.F. (1985):** *Coastline Changes a Global Review*. John Willey and Sons, New York.
- Bordovskiy, O.K. (1965):** Accumulation and transformation of organic substances in marine sediments. *Mar. Geo.*, 3/12: 3-114.
- Braithwaite, C.J.R. (1973):** Setting behavior related to sieve analysis of skeletal sands. *Sedimentology*, 20: 251-263.
- Broecker, W.S., and Peng, T.H., (1982):** Describes the distribution of calcite in marine sediments and the spatial variation of CaCO_3 saturation in sea water. *Tracers in the sea*. Eldigio press, New York, chapter 2.
- Bush, W. H. and Keller, G. H. (1979):** Consolidation characteristics of continental slop sediments of Peru. *Geol. Soc. Americ. Abs.* (11):395.
- Campbell, A.C. (1982):** *The Hamlyn Guide to the Flora and Fauna of the Mediterranean Sea*. Hamlyn, London, New York, Sydney Toronto, 320 pp.
- Carver, R.E. (1971):** *Procedures in sedimentary petrology*, New York, John Wiley and sons.
- Changery, M. J. and Quayle, R.G. (1987):** Coastal wave energy. *Sea Frontiers*, 33 (4): 259-262.
- Chave, K. E. (1964):** Skeletal durability and preservation (Approaches paleoecology). New York, Sydney (Jon Willey and Sons. Inc.).
- Clark, C.R. and Lutz R.A.(1980):** Pyritization in the shells of living bivalves, *Geology*, 8:268- 271.
- Cole, G.A. (1979):** *Text book of limnology* 2nd edition St, louis, Toronto, London.
- Conley, D. J. (2000):** Biogeochemical nutrient cycles and nutrient management strategies. *Hydrobiol.*, 410: 87-96.
- Davis, R.A. (1972):** *Principles of Oceanography*. Addison Wesley Publishing Comp., Inc., 434 pp.

- Dodd, J.R. (1963):** Environmentally controlled Sr and Mg variation in *Mytilus*. *Geo. Soc. Progr. Ann. Meeting Abstract Geo. Soc. Amre. Spe. Papers*, 76: 46.
- Egyleton, E. F (1935):** A comparative study of the benthic fauna of four northern Michigan Lakes. *Papers of the Michigan Academy of Science, Arts and Letters*.
- Eherlich, A. (1975):** The diatoms from the surface sediments of the Bardawil Lagoon, Northern Sinai (paleoecological significance). *Nova Hedwigia*, Vol. 53, (1975), pp 253-277.
- El-Askary, M.A., Nasr, S.M., Moussa, A.A. and El-Mammony, M.H. (1988):** Geochemical approach to the beach and bottom sediments of the Jubal area at the entrance of the Gulf of Suze M. Sc. Thesis, Ain Shams Univ. Egypt, 304 p.
- El-Shazly, M.E., Kamel, A.F., Morsy, M.S. and Attia, S.H. (1986):** Studies on beach and sand dunes on the Mediterranean Sea coast at El-Masiad, west Al-Arish, Sinai. *Egypt J. Geol.*, 30 (1-2): 1-8.
- EL-Wakeel, S.K. and El-Sayed, M. Kh. (1978):** The texture, mineralogy and chemistry of bottom sediments and beach sands from Alexandria region, *Egypt. Mar. Geol.*, 21: 231-160.
- EL-Wakeel, S.K. and Wahby, S.D. (1970):** Bottom sediments of Manzalah lake, *Egypt J. Sed. Pet.*, 48:480- 496.
- Emery, K.O., Tracey, J.I., JR., and Laad, H.S. (1954):** Geology of Bikini and nearby atolls: Pt. I-Geology: U.S .Geol. Survey Prof. Paper 260-A, 256 p.
- Engler, R.M. and Patrick, W.H. (1975):** Stability of sulphides of Mn, Fe, Zn, Cu and Hg in flooded and nonflooded soil. *Soil Sci.*, 119(3): 217- 221.
- Euroconsult, (1992):** In association with Delft hydrolic, BLDP, Inception Report, Warkplan, the environmental parameter., (December 1992), Netherland.
- Euroconsult, (1993):** In association with Delft hydrolic, BLDP, Management of the environmental parameters, (March 1993), Netherland.
- Euroconsult, (1995):** In association with Delft hydrolic, BLDP, Management of the environmental parameters, (March 1993), Netherland.
- Faris, J.M.; Alimarah, B.Y.D.; Al- Kafaji, and Mohamed, A.R.M. (1998):** Trace metals in waters, sediments and fishes from north west Arabian Gulf. *Bull. Nat. Instit. of Oceanogra. And Fish., ARE*, 24: 403- 416.
- Filügel, E. (1982):** Microfacies analysis of limestones. XIV, 633 p., Berlin-Heidelberg (Springer).

- Fishar, M. R. A. (2005):** Ecology of communities of Lake Bardawil, Egypt. A. Meiobenthos. J. Aquat. Biol. & Fish. Vol. 9 (2):33-52.
- Fishar, M. R. A. (2005):** Ecology of communities of Lake Bardawil, Egypt. B. Meiobenthos. J. Aquat. Biol. & Fish. Vol. 9 (2):53-71.
- Folk, R.L. (1961):** Petrology of Sedimentary rock, University of Texas, Hemphills, Austin Texas.
- Folk, R.L. (1965):** Some aspects of recrystallization in ancient limestones. Sepc. Publ. Symposium Soc. Econ. Paleonyologists, Mineralogists. 13: 14-48.
- Folk, R.L. (1968):** Petrology of sedimentology rocks. Hemphill Pub. Co., Austin., Texas: 170p.
- Folk, R.L. (1974):** Petrology of Sedimentary Rocks. Himphill Publ. Co., Austin, Texas. 182 p.
- Folk, R.L. (1980):** Petrology of Sedimentary Rocks. Himphill Publ. Co., Austin, Texas. 182 p.
- Folk, R.L. and Robles, R. (1964):** Carbonate sands of Isla Perez, Alacran reef complex, Yucatan. Jour. Geol., 72: 255-292.
- Folk, R.L. and Sanders, J.E. (1978):** Principles of sedimentology. N.Y., John Willey and Sons: 792p.
- Folk, R.L. and Ward, W. (1957):** Brazos river bar, a study in the significance of grain size parameters. J. Sed. Pet., 27: 3- 26.
- Forstner, U. and Wittman, G.T.W. (1981):** Metal pollution in the aquatic environment. Springer Verlag. Berlin:486p.
- Fouda, M.F., Wanas, M.K. and Saleh, M..A. (1985):** Ecology of Bardawil Lagoon, a report to the oil pollution research unit, Pemboroke, UK. For BP. Petroleum LTD, Egypt.
- Friedman, G.M. (1961):** Distinction between dunes beach and river sands from their textural parameters. J. Sed. Pet.,31: 514- 529.
- Friedman, G.M. (1962):** On sorting coefficient and the lognormality of the grain size distribution of substances. Jour.. Geol., 70/6:737-753.
- Friedman, G.M. (1967):** Dynamic processes and statistical parameters compared for size frequency distribution of beach and river sands. J. Sed. Pet., 37: 327- 354.
- Friedman, G.M. (1968):** Geology and Geochemistry of reefs carbonate sediments and water. Gulf of Aqaba, Red Sea. Jour.Sedimentary petrology, 38: 327-354.

- Friedman, G.M. (1979):** Differences in size distribution of populations of particles among sands of various origins. *Sedimentology*, 26: 3-32.
- GAFRD., (1996):** General Authority for Fish Resources Development. The annual statistical Bulletin 1996, the statistical data of fish production. GAFRD.
- GAFRD., (1997):** General Authority for Fish Resources Development. The annual statistical Bulletin 1997, the statistical data of fish production. GAFRD.
- GAFRD., (1998):** General Authority for Fish Resources Development. The annual statistical Bulletin 1998, the statistical data of fish production. GAFRD.
- Gat, J.R. and Levy, Y. (1978):** Isotope hydrology of inland sabkhas in the Bardawil Area, Sinai. *Limnology and oceanography*, Vol. 23, No. 5, 1978, pp. 841-850.
- Gohar, M.E.M. (2002):** Chemical studies on the precipitation and dissolution of some chemical elements in Lake Qarun, Ph. D. thesis, Faculty of science, Al-Azhar Univ., p. 384.
- Griffiths, J.C. (1967):** Size versus sorting. *Jour. Geol.*, 59: 211-243.
- Guilcher, A. (1965):** Coral reefs and lagoons of Mayotte Island, Comoro Archipelago, Indian ocean and of New Caledonia, Pacific Ocean. *Submar. Geol. And Geophys.* London, 21-45.
- Hanna, A. (1965):** Organic matter in soil. In; *Chemistry of soil*. 2nd ed. Bear, E.F., Amre. Chem. Soc. Monography Series, N.Y.: 309- 317.
- Hassan, M.M., Mohamed, M.H., Attia, A., and Someeh, S. (1984):** Quaternary Geology of Dir Mahrousa Area, Nile Valley, Egypt, Abstract Presented at Third Symposium on Quaternary and Development in Egypt El-Mahrousa, 28 March, 1984.
- Hendrick, D. (1968):** A manual methods for Pelagic clay. The Sedim. Rese. Lab. Depl. Of Geol. Florida State Univer. Tallahassee, Florida.
- Ismail, M.M. and Abd El Aal, A.A. (1986):** A geochemical study of middle and upper Eocene bivalve shells from the Helwan area, Egypt. *N.J.Geo.Paleo.*, M. h 8: 867- 474.
- Jindrich, V. (1969):** Recent carbonate sedimentation by tidal channels in the lower Florida Keys. *Jour. Sed. Petrol.*, 39/2: 531-553.
- Jinkis, K.G. (1925):** Report on fisheries of Egypt for year 1924. Cairo, Ministry of Finance, Coastguard and Fisheries service. 59p.

- Kakulu, S.F. and Osibanjo, O. (1990):** Pollution studies of Nigerian rivers. Trace metals levels of surface water in Niger Delta area. *Inst. J. Environ. Stud.*, 30; 309-317.
- Kaweccka, B. (1977):** The food of dominant species of bottom fauna larvae in the River Raba (southern Poland). *Acta Hydrobiologica*, 19 (3): 191-213.
- Keller, G. H., Lambert, D.W. and Bennett, R.H. (1979):** Geochemical properties of continental slope deposits. Cape Hatteras to Hydrographer Canyon. *Soc. Econ. Paleontology. Mineralogy Spec. Publ.* (27): 131-151.
- Kenneth, P. (1988):** Sediment transport and depositional processes. Postgraduate Research Institute for Sedimentology, Univ. of Reading, Whiteknights, UK. 397 p.
- Ketchum, B. H. (1983):** Estuaries and Enclosed Seas. Elsevier Scientific Publ. New York.
- Kinsman, D. J. J. (1960):** Gypsum and anhydrite of recent age Trucial Coast, Persian Gulf. *Proc. 2nd salt symposium*, 1N. Ohio Geol. Soc. Cleveland Ohio, P. 302-326.
- Kinsman, D.J.J. (1966):** Gypsum and anhydrite of recent age, Trucial Coast, Persian Gulf. *Proc. 2nd salt symposium*, 1 N. Ohio Geol. Soc. Cleveland Ohio, p.302-326.
- Kostka, J.E., Haefele E., Viehweger, R. and Stucki, J.W. (1999):** Respiration and dissolution on iron(III) containing clay minerals by bacteria. *J. Envir. Sci. and Tech.*, 33 (18): 3127- 3133.
- Kouadiol, and Trefry, J. H. (1987):** Sediment trace metal concentration in the Ivory Coast, West Africa. *Water, Air and Soil Pollution* 32, 145-154.
- Krauskopf, K.B. (1967):** Introduction to Geochemistry. McGraw Hill Book Comp., New York.
- Krauskopf, K.B. and Bird, D.K. (1995):** Introduction to geochemistry. Mc Graw-Hill, Inc. New York, 3rd ed.: 647.
- Krissek, L. A., Scheidegger, K. F. and Kulml, L. D. (1980):** Surface sediments of the Peru-Chile continental margin and the Mazco Plate. *Geol. Soc. Am. Bull.*, 91: 321-331.
- Krumbien, W.C. and Pettijohn, F.J. (1938):** Manual of sedimentary petrography. D. Appleton-century, New York, 549 p.
- Leader, M.P. (1986):** Sedimentology. Moscow Peac. P. 128-148.

- Levy, Y. (1971):** Anomalies of Ca^{+2} and SO_4^{-2} in the Bardawil Lagoon, Northern Sinai. *Limnology and oceanography*, Vol. 16, No. 6, November 1971, pp. 983-987, USA.
- Levy, Y. (1974a):** Sedimentary reflection of depositional environment in Bardawile Lagoon, Northern Sinai. *J. Sed. Pet.*, 44 (1): 219- 227.
- Levy, Y. (1974b):** Chemical changes in intestinal water for the Bardawil Lagoon, Northern Sinai, *Journal of sedimentary petrology*, Vol. 44, No. 4, 1974, pp 1296-1304.
- Levy, Y. (1977a):** The origin and elevation of brine in coastal sabkhas, Northern Sinai. *Journal of sedimentary petrology*, Vol. 47, No. 1, 1977, pp 451-462.
- Levy, Y. (1977b):** Description and mode of formation of the supratidal evaporate faces in the Northern Sinai coastal plain. *Journal of sedimentary petrology*, Vol. 47, No. 1, 1977, pp 463-474.
- Lewis, M.S. (1969):** Sedimentary environments and unconsolidated carbonate sediments of the fringing reefs of Mahe', Seychelles. *Mar. Geo.*, 7: 95-127.
- Lotfy, I.M.H. (1997):** Mineralogical and geochemical studies of some recent molluscan shells from lake Qarun sediments, Egypt. *Delta J. Sci.*, 21(1): 50-73.
- Lotfy, I.M.H. (2001 a):** Geochemical studies on recent sediments of Manzalah Lake, Egypt. *J. Egypt, German. Soc. Zool.*, 34 (B): 57-76.
- Lotfy, I.M.H. (2001 b):** Geochemical studies on recent sediments of Manzalah lake, Egypt. *J. Egypt German. Soc. Zool.*, 34(B): 57- 76.
- Lotfy, I.M.H. (2001 c):** Sedimentological and mineralogical study on the beach sediment of Manzalah lake, Egypt. *J. Egypt German. Soc. Zool.*, 34(B): 77-103.
- Lotfy, I.M.H. (2002):** Mineralogical studies and trace metals in four recent molluscan shells from Rosetta Nile branch sediments, Egypt. *Bull. Nat. Inst. of Oceanogr. & Fish., ARE* , 28: 349- 366.
- Lotfy, I.M.H. (2003a):** Mineralogical and geochemical studies on four recent molluscan shells from Hypersaline Bardawil lagoon sediments, Egypt. *J. Egypt Acad. Soc. Environ. Develop.*, 4(2): 199- 218.
- Lotfy, I.M.H. (2003b):** Organic matter, carbonates and trace metals distribution in recent sediments of Bardawil lagoon, Egypt., *J. Egypt Acad. Soc. Environ. Develop.*, 4(2): 179- 197.

- Lotfy, I.M.H. (2003c):** Sedimentological studies on recent sediments of Bardawil Lagoon, Egypt., J. Egypt Acad. Soc. Environ. Develop., 4(2): 157- 178.
- Lowenstam, H.A. (1954):** Factors affecting the aragonite/calcite ratios in carbonate secreting marine organisms. J. Geol., 62: 287- 317.
- Madani, A.M. (2001):** Geochemical studies on the sediments and water of Bardawil Lake, Northern Egypt, with emphasis on the environmental pollution, Ph. D. Thesis, Fac. of Sci., Al-Azhar Univ., p. 188.
- Mamdouh, A.M., Attia, G.M. and Gaafer, G. R. (1991):** Sedimentological studies on recent bottom sediments of El-Bardawil lagoon. 16th Internat. Confer. Of Sc. Statist. and Count. Social. and Popul. Res., 2-7march: 299- 316.
- Mason, B. (1966):** Principles of Geochemistry, 3rd ed., New York.
- Mohamed, M.A. (1996):** Studies on the recent sedimentary environments and the benthic foraminifera in the intertidal zone of the area between Gemsha and Marsa Alam, Red Sea, Egypt. M. Sc. Thesis, faculty of science, South Valley univ. p. 169.
- Moiola, R.L. and Wieser, D. (1968):** Textural parameters on evaluation. J. Sed. Pet., 38: 45- 53.
- Moussa, A.A. (1992):** Studies on fish production of Bardawil Lagoon. M. sc. .thesis, Faculty of agriculture, Suze Canal Univ.
- Mucci, A. (1983):** The solubility of calcite and aragonite in sea water at various salinities, temperature, Amer. J. Sce., v283,780-799.
- Nasr El-Deen, A.A. (1996):** Sedimentological studies on the quaternary clastic sediments at Quseir District, Red Sea, Egypt. M. Sc. Thesis, faculty of science, South Valley univ. p. 143.
- Neev, D., and Friedman, G.M. (1978):** Late Holocene tectonic activity along the margins of Sinai subplate. Science, Vol. 202, 1978, pp. 427-429, USA.
- Passega, R. (1957):** Texture as characteristic of clastic deposition. Am. Assoc. Pet. Geol. Bull., 41: 1952- 1984.
- Passega, R. (1964):** Grain size representation by C-M patterns as geological tool. Jour. Sed. Petrol., 34/4: 830-847.
- Passega, R. and Byramjee, R. (1969):** Grain size image of clastic deposits. Sedimentology, Vol.3, p. 233-252.
- Pettijohn, F.J. (1975):** Sedimentary Rocks, 3rd ed., Harper and Row, New York.

- Pilkey, O.H. and Goodel, H.G. (1962):** Evolution of the use of Sr as a paleoecologic tool. *Geol. Soc. Am. Spec. papers*, 68: 78- 79.
- Pisanty, S. (1981):** The fishery and management of the hypersaline Lagoon of Bardawil. *GFCM stud. Rev.*, Vol. 58, pp. 35-73.
- Pro, F. D. and Tuvia, A. B. (1981):** The Bardawil Lagoon (Sirbonian Lagoon) of North Sinai. *A Summing Up.Rapp. Cont. Int. Mermedit.*, 27 (3): 101-107.
- Postma, H. (1981):** Chemistry of coastal lagoons. *Unamunesco,Novambers*(28-30), Mexico, D.F.; 421-430.
- Ramanathan, A.L., Vaithiyanathan, P., Subramanian, V. and Das, B.K. (1994):** *Wat. Res.*, 28 (7), 1585-1593.
- Rankama, K., and Sahama, T.G. (1950):** *Geochemistry*, Chigaco Univ. Chicago Press, X Vol., 912 p.
- Rosen, M.R. (1991):** Sedimentological and geochemical constraints on the evolution of Bristol dry lake basins, California, USA. *Paleogeogra. Paleoclimat. Pateoecolo.*, 84(1- 4):229- 257.
- Sadik, S. S., and Ameran, M.A. (1988):** Biological aspects and socio-economic of the Bardawil Lagoon fishery, North Sinai, Egypt, with especial reference to *Sparus aurata* (at the goint oceanography assembly, Mixico, Vol. 27, pp. 24-26.
- Sahu, W.D. (1964):** Depositional mechanism from the size analysis of clastic deposition. *Am. Assoc. Pet. Geol. Bull.*, 34: 73- 83.
- Samaan, A. A. (1977):** Distribution of bottom fauna to Lake Edku. *Bull. Inst. Ocean. and Fish., Egypt.* 7 (1): 59-90.
- Samaan, A. A. (1977):** Quantitative estimation of bottom fauna in Lake Mariut. *Bull. Inst. Ocean. and Fish., Egypt.* 2 (1): 377-397.
- Scheidegger, K. F. and Krissek, L. A. (1978):** Distribution between fluvial and eolian deposition. *Am. Assoc. Pet. Geol. Bull.* (34): 73-83.
- Serruya, C.(1971):** Problems of sedimentation in lake of Geneva Verch Theer *Angew. Limnol.*, 17; 209- 218.
- Shahin, R.R. and Abdel-Hamid, M.A. (1993):** Speciation of selected heavy metals in somp soil of Egypt. *Egypt J. Soil Scie.*, 33 (3); 305-327.
- Sheepard, F. P. (1977):** *Geological Oceanography*. Crane and Russak.
- Shukri, N.M. (1950):** The mineralogy of some Nile sediments. *Quat. J. Geo. London*, 105; 5511-5534.

- Shukri, N.M. and Philip. G. (1959):** The mineralogy of some recent sediments in the Arish-Ghaza area. Bull. Fac. Sci. Cairo, Univer. 35; 73-85.
- Siliem, T. A. E. (1988a):** Chemical conditions in Bardawil lagoon. III-some limnological studies. Bull. Nat. Inst. of Oceanogr. & Fish. 14: 123-140.
- Siliem, T.A.E. (1988b):** Chemical conditions in Bardawil lagoon, 1- The major cations. Bull. Inst. Ocean. & Fish., 14(1); 123-140.
- Smith, J.V. (1967):** X-ray Powder data. File 1-5, A.S.T.M. Philadelphia, 685 p.
- Stewart, H.B. (1958):** Sedimentary reflections of depositional environment in San Miguel lagoon, Baja California, Mexico, Bull. Am. Assoc. Pet. Geol., 42: 2567- 2618.
- Talling, J.F. and Talling, I.B (1965):** The chemical composition of African Lake waters. Int. Revue, ges, Hydrobiol. 50: 421-463.
- Taylor, J.D. and Lewis, M. S. (1970):** The flora Fauna and sediments of the marine grass beds of Mahe', Seychelles. Jour. Nat. Hist., 4,: 199-220.
- Turikian, K.K. and Armstrong, K.L. (1960):** Mg, Sr and Ba concentrations and calcite, aragonite ratios of some molluscan shells. J. Marine Res., 18: 133.
- Visher, G.S. (1969):** Grain size distribution and depositional processes. Jour. Sed. Petrol., 39/3: 1074-1106. Tulsa, Oklahoma.
- Vital, H., Stategger, R. AND Garbeschonberg, C.D. (1999):** Composition and trace element geochemistry of detrital clay and heavy mineral suites of the lower most Amzon river. J. Sed.Res., 69 (3A): 563- 575.
- Vogel, A.L. (1982):** "A text book of quantitative inorganic analysis" 4th ed. John Wiley & Sons Inc., N.Y.USA.
- Wahid-eldin, A.M. (1996):** Geochemical studies on the recent sediments of the River Nile in Greater Cairo Area, Egypt, M. Sc. Thesis, faculty of science, Zagazig univ. p. 181.
- Warshaw, C.M. and Roy, R. (1961):** Classification and a scheme for the identification of layer silicate: Geol. Soc. Amer. Bull. 72: p.351-360.
- Welch, P. S. (1952):** Limnology. 2nd Edition. New York, Torontg London, Mc. Graw Hill Book company, Inc., 258p.
- Wentworth, C.K. (1922):** Ascale of grade and class terms for clastic sediments. Jour. Geology, Vol. 30, pp.377- 392.
- Wilson, J.L. (1975):** Carbonates Facies in Geological history. Berlin, Spriner: 360 p.

- Wimpenny, R.S. (1930):** Report on the fisheries of Egypt for the year 1928, Cairo, Ministry of Finance, Coastguard and Fisheries service. 86 p.
- Zaghloul, Z.M., Ayyad, S.N. and Shaheen, S. M. (1988):** Distribution pattern of quaternary funa, in the bottom sediments of Bardawil lagoon, North Sinai, Egypt. Journal of environmental sciences, Vol. 15, (1988), pp. 125-155.