REFERENCES

ABDELALIM, A. M. K., AHMED, H. E. and ABDELAZIZ, G. E. (1993), "The effect of dual action of chlorides and sulphates on the corrosion potential and concrete compressive strength, weight and length changes", 5th International Colloquium, Concrete in Developing Countries, Cairo, Egypt, 1993, pp. 1105-1117.

ABDELAZIZ, G. E., ABDELALIM, A. M. K. and FAWZY, Y. A., (2009) "Evaluation of the short and long- term efficiencies of electro-chemical chloride extraction", Cement and Concrete Research, Vol. 39, No. 8, pp. 727-732.

ABDELAZIZ, G. E. (1993), "Durability of reinforced concrete exposed to dual action of sulphate and chloride", M.Sc. Thesis, Ain Shams University, Cairo, Egypt, 169 pp.

ABDELAZIZ, G. E. (1998), "Microstructural analysis of surface and interface zones in concrete", Ph.D. Thesis, Aston University, UK, 250 pp.

ACI COMMITTEE 234R, (1995), "Abstract of: Guide for the Use of Silica Fume in Concrete", ACI Materials Journal, (Detroit, Michigan), Vol. 92, No. 4, pp. 437-440.

ACI COMMITTEE 222R (1989), "Corrosion of metals in concrete", American Concrete Institute Manual of Concrete Practice, (Detroit, Michigan), 30 pp.

AHMED, H. I. (2009), "Performance of Egyptian activated slag in severe conditions", M.Sc. Thesis, Benha University, Egypt, 157 pp.

ALTAYYIB, A. J. (1990), "Corrosion behavior of pre-rusted rebars after placement in concrete", Cement and Concrete Research, Vol. 20, No. 6, pp. 955-960.

ANDRADE, C., ALONSO, M. C. and GONZALEZ, J. A. (1988), "An initial effort to use the corrosion rate measurements for estimating rebar durability", in Berke, N. S. Chaker, V. and Whiting, D. (eds) proceeding of the conference on corrosion rates of steel in concrete, American society for testing and materials, Bahimore, Maryland, USA, Vol. STP 1065, pp. 29-37.

ARYA, C., BUENFELD, N. R. and NEWMAN, J. B. (1990), "Factors influencing chloride binding in concrete", Cement and Concrete Research, Vol. 20, No. 2, pp. 291-300.

ARYA, C. and VASSIE, P. R. W. (1995), "Influence of cathode to anode area ratio and separation distance on galvanic corrosion current of steel in concrete containing chlorides", Cement and Concrete Research, Vol. 25, No. 5, pp. 989-998.

ARYA, C. and XU, Y. (1995), "Effect of cement type on chloride binding and corrosion of steel in concrete", Cement and Concrete Research, Vol. 25, No. 4, pp. 893-902.

AUSTIN, S. A. and ALKINDY, A. A. (2000), "Air permeability versus sorptivity: effects of field curing on cover concrete after one year of field exposure", Magazine of Concrete Research, Vol. 52, No. 1, pp. 17-24.

BAKKER R.F.M. (1983) "Permeability of blended cement concrete", Proceeding first International conference on the use of Fly Ash, Silica Fume, Slag and other mineral by-product in concrete, ACI, SP, Vol. 79, No. 30, pp 589-605.

BAMFORTH, P. B. and PRICE, W. F. (1994), "Factors influencing chloride ingress into marine structures", International Conference on Protection of Steel in Concrete, Sheffield University, UK. ed. R. N. Swamy, pp. 1105-1118.

BAMFORTH, P. B., NILSSON, O. and OLLIVIER, J. P. (1995), "A new approach to the analysis of time-dependent changes in chloride profiles to determine effective diffusion coefficient for use in modeling of chloride ingress " RILEM International workshop on chloride penetration into concrete, Paris, pp. 195-205.

BASHEER, P. A. M. (1993), "A brief review of methods for measuring the permeation properties of concrete in situ", Proceeding Institution. Civil Engineers Structures and Buildings, Vol. 1, No. 99, pp. 74-83.

BATIS, G., PANTAZOPOULOU, S. T. and BADOGIANNIS, E. (2005), "The effect of metakaolin on the corrosion behavior of cement mortars", Cement Concrete Composites, Vol. 27, No. 1, pp. 125-130.

BINGAMIN, O., A., LOWRENCE, E., and SAM, S., (2009), "A new approach to metakaolin dealumination", Australian Journal of Basic and Applied Science, Vol. 3, No. 3, pp. 2243-2248.

BENSTED, (1980), Seventh International Congress on the Chemistry of Cement, Vol. II, Paris, 1980, pp. II/1-6.

BENTUR, A. and COHEN, M. D. (1987), "Effect of condensed silica fume on the microstructure of interfacial zone in Portland cement mortars" Journal of American Ceramic Society, Vol. 70, No. 10, pp. 738-743.

BIER, T. A., KROPP, J. and HILSDORF, H. K. (1989), "Carbonation and realkalisation of concrete and hydrated cement paste", First International RILEM Congress from materials science to construction, Materials Engineering, Versailles, France, Vol. 3, No. 2, pp. 927-934.

BIJEN, J. (1996), "Benefits of slag and fly ash", Construction and Building Material, Vol. 10, No. 5, pp. 309-314.

BIRICIK H., AKOZ, F., TURKER, F. and BERKTAY, I. (2000), "Resistance to magnesium sulphate and sodium sulphate attack of mortars containing wheat straw ash", Cement and Concrete Research, Vol. 30, No. 8, pp. 1189-1197.

BODDY, A., HOOTON, R. D. and GRUBER, K. A. (2001), "Long-term testing of chloride-penetration resistance of concrete containing high-reactivity metakaolin", Cement Concrete Research. Vol. 31, No. 5, pp. 759-765.

BONEN, D., TASDEMIR, M. A. and SARKAR, S. L. (1995), "The evaluation of cementitious materials through history", Materials Research Society Symposium Proceedings, Vol. 370, pp. 159-168.

BOUZOUBAA, N., MIN-HONG ZHANG, V. M., MALHOTRA, V. M. and DEAN M. GOLDEN (1999), "Blended Fly Ash Cement- A Review", ACI Material Journal, Vol. 96, No. 6, pp. 641-650.

BREDY, P., CHABANNET, M. and PERA, J. (1989), "Microstructure and porosity of metakaolin blended cements", Material Research Society Symposium Proceeding, Vol. 137, pp. 431-436.

BROOKS, J.J. and MEGAT JOHARI, M. A. (2001), "Effect of metakaolin on creep and shrinkage of concrete", Cement Concrete Composites, Vol. 23, No. 6, pp. 495-502.

BROWN, P. W. (1986), "The hydration of tricalcium aluminate and tetracalcium aluminoferrite in the presence of calcium sulphate", Materials and Structures, Vol. 19, No. 110, pp. 137-147.

BRUNAUER, S., OLDER, I. and YUDENFREUND, M. (1970), "New model of hardened Portland cement paste", High way Research Record, No. 328, pp. 89-107.

CABRERA, J. and FRIAS, M. (2001), Mechanism of hydration of the metakaolin-lime-water system", Cement and Concrete Research, Vol. 31, No. 2, pp. 177-182.

CHUANG, S. and MACIEL, G. E. (1997), "A detailed model of local structure and silanol hydrogen bonding of silica gel surface", Journal Physics Chemistry B, Vol. 101, No. 16, pp. 3052-3064.

COHEN, M. D. and BENTUR, A. (1988), "Durability of Portland cement-Silica fume pastes in magnesium sulphate and sodium sulphate solutions", ACI materials Journal, Vol. 85, No. 3, pp. 148-157.

COLINA, F.G., ESPLUGAS, S. and COSTA, J. (2002), "High temperature reaction of kaolin with sulfuric acid", Industrial Engineering Chemistry Research, Vol. 41, No. 17, pp. 4168-4173.

COLINA, F.G. and LLORENS, J. (2007), "Study of the dissolution of dealuminated kaolin in sodium-potassium hydroxide during the gel formation step in zeolite X synthesis", Microporous and Mesoporous Materials, Vol. 100, No. 1-3, pp. 302-311.

CONJEAUD, M. L. (1980), "Mechanism of sea-water attach on cement mortar in performance of concrete in marine environment", ACI SP, (Detroit, Michigan), Vol. 65, No. 3, pp. 39-61.

COOK, D.J. and SWAING, R.N. (1985), "Cement Replacement Materials", Concrete Technology and Design, Vol. 3, pp. 40.

COURARD, L., DARIMONT, A., SCHOUTERDEN, M., FERAUCHEN, F., WILLEM, X., and DEGEIMBRE, R., (2003), "Durability of mortars modified with metakaolin", Cement and Concrete Research, Vol. 33, No. 9, pp. 1473-1479..

CURCIO, F., DEANGELIS, B.A. and PAGLIOLICO, S. (1998), "Metakaolin as a microfiller for high-performance mortars", Cement Concrete Composites, Vol. 28, No. 6, pp. 803-809.

DETWILER, R. J., and MEHTA, P. K. (1989), "Chemical and Physical Effects of Silica Fume on the Mechanical Behavior of Concrete", ACI Material Journal, Vol. 86, No. 6, pp. 609-614.

DIAMOND, S. (1976), "Cement paste microstructure", Conference on hydraulic cement pastes: Their structure and properties, Sheffield, Cement and Concrete Association, Slough, pp. 2-30.

DIAMOND, M., AKIBA, T. and KONDO, R. (1981), "Through pore size distribution and kinetics of the carbonation reaction of Portland cement mortars", Journal of the American Ceramic Society, Vol. 54, No. 9, pp. 423-428.

DIMAS, R. V., CARLOS, D. M. J. and YVONNE P. M., (1994) "Pore structure characterization of kaolin, metakaolin and their acid-treated products using small-angle X-ray scattering", Applied Clay Science, Vol. 8, No. 6, pp. 397-404.

DING, J.T. and LI, Z. (2002), "Effect of metakaolin and silica fume on properties of concrete", ACI Material Journal, Vol. 99, No. 4, pp. 393-398.

ELLIS, W. E., RIGG, E. H. and BUTLER, W. B. (1991), "Comparative results of utilization of fly ash, silica fume and GGBS in reducing the chloride permeability of concrete, in durability of concrete", ACI SP, Vol. 126, No. 23, pp. 443-458.

FAWZY, Y.A. (2008), "Assessment of fresh and hardened concrete treated with corrosion inhibitors", PhD Thesis, Benha University, Egypt, 213 pp.

FELDMAN, R. F. and SEREDA, P. J. (1970), "A new model for hydrated Portland cement and its practical implications", Journal of American Ceramic Society, Vol. 53, pp. 53-59.

FORD, K. J. R. (1992), "Leaching of fine and pelletised natal kaolin using sulfuric acid", Hydrometallurgy, Vol. 29, No. 1-3, pp. 109-130.

FRĪAS, M., SANCHEZ DE ROJAS, M.I., CABRERA, J. (2000), "The effect that the pozzolanic reaction of metakaolin has on the heat evaluation of MK-cement mortar", Cement Concrete Research, Vol. 30, No. 2, pp. 209-216.

FRĪAS, M. and CABRERA, J. (2001), "Influence of MK on the reaction kinetics in MK/ lime and MK-blended cement systems at 20ºC", Cement Concrete Research, Vol. 31, No. 4, pp. 519-527.

FRĪAS, M. and CABRERA, J. (2000), "Pore size distribution and degree of hydration of metakaolin-cement pastes", Cement Concrete Research, Vol. 30, No. 4, pp. 561-569.

GJØRV, O. E. and VENNESLAND, O. (1976), "Sea salts and alkalinity of concrete", Journal of American Concrete Institute, Vol. 73, No. 9, pp. 512-516.

GJØRV, O. E. (1995), "Effect of condensed silica fume on steel corrosion in concrete", ACI Materials Journal, Vol. 92, No. 6, pp. 591-598.

GLASS, G. K., PAGE, C. L. and SHORT, N. R. (1991), "Factors affecting the corrosion rates of steel in carbonated mortars", Corrosion Science, Vol. 32, No. 12, pp. 1283-1294.

GREENBERG, S.A. 1961), "Reaction between silica and calcium hydroxide solution .1. Kinetics in the temperature range 30 to 85°", Journal Physics Chemistry, Vol. 65, No. 1, pp 12-16.

GREENBERG, S.A. (1956), "The chemisorption of calcium hydroxide by silica", Journal Physics Chemistry, Vol. 60, No. 3, pp 325-330.

GRUBER, K. A., RAMLOCHAN, T., BODDY, A., HOOTON, R. D. and THOMAS, M. D. A. (2001), "Increasing concrete durability with high-reactivity metakaolin", Cement Concrete Composites, Vol. 23, No. 6, pp. 479-484.

GRUTZECK, M. W., ROY, D. M., and WOLFE-CONFER, D. (1982), "Mechanism of hydration of Portland cement composites containing ferrosilicon dust", Proceeding, 4th International Conference on Cement Microscopy, Las Vegas, International Cement Microscopy Association, Duncanville, Texas, pp. 193-202.

HALL, C. (1989), "Water sorptivity of mortars and concretes: A review", Magazine of Concrete Research, Vol. 47, No. 147, pp. 51-61.

HANSEN, T. C., RADJY, F. and SELLEVOLD, E. J. (1973), "Cement paste and concrete", Annual Review of Material Science, Vol. 3, August, pp. 233-268.

HE, C. OSBAECK, B. and MAKOVICKY, E. (1995) "Pozzolanic reaction of six principal clay minerals: activation, reactivity assessments and technological effects", Cement Concrete Research, Vol. 25, No. 8, pp. 1691-1702.

HEMMINGS, R. T., and BERRY, E. E. (1988), "On the glass in coal fly ashes: Recent advances", Material Research Society Symposium Proceeding, Vol. 113, pp 3-39**.**

HEWLETT, P. C. (1998), "Lea's Chemistry of Cement and Concrete", Arnold, John Wiley & Sons Inc., New York, Toronto, pp. 471-631.

HOLDEN, W. R., PAGE, C. L. and SHORT, N. R. (1983), "The influence of chlorides and sulphates on durability", Corrosion of reinforcement in concrete structure, Ellis Horwood limited, London, pp. 143-150.

HOOTON, R. D. (1993), "Influence of silica fume replacement of cement on physical properties and resistance to sulphate attack, freezing and thawing, and alkali-silica reactivity", ACI Materials Journal, Vol. 90, No. 2, pp. 143-151.

HUSSAIN, S. E. and RASHEEDUZZAFAR (1994), "Corrosion resistance performance of fly ash blended cement concrete", ACI Materials Journal, Vol. 91, No. 3, pp. 264-272.

HUSSAIN, S. E., RASHEEDUZZAFAR, AL-MUSALLAM, A. and GAHTANI, A. S. (1995), "Factors affecting threshold chloride for reinforcement corrosion in concrete", Cement and Concrete Research, Vol. 25, No. 7, pp. 1543-1555.

IRAVANI, S. (1996), "Mechanical properties of high performance concrete", ACI Materials Journal, Vol. 93, No. 5, pp. 416-426.

JAVELLANA, M. P. and JAWED, I. (1982), “Extraction of the free lime in Portland Cement and Clinker by Ethylene Glycol”, Cement and Concrete Research, Vol. 12, No. 3, pp. 309-403.

JIANYONG, L. and PIE, T. (1997), "Effect of slag and silica fume on mechanical properties of high strength concrete", Cement and Concrete Research, Vol. 27, No. 6, pp. 833-837.

KADRI, E. H. and DUVAL, R. (1998), "Influence of silica fume on the workability and the compressive strength of high-performance concretes", Cement and Concrete Research, Vol. 28, No. 4, pp. 533-547.

KELHAM, S. (1988), "A water absorption test for concrete:", Magazine Concrete Research, Vol. 40, No. 143, pp. 106-110.

KHATIB, J.M. and WILD, S. (1996), "Pore size distribution of metakaolin paste", Cement Concrete Research, Vol. 26, No. 10, pp. 1545-1553.

KHATIB, J.M. and CLAY, R.M. (2004), "Absorption characteristics of metakaolin concrete", Cement Concrete Research, Vol. 34, No. 1, pp. 19-29.

KHATIB, J.M. and WILD, S. (1998), "Sulphate resistance metakaolin mortar", Cement Concrete Research, Vol. 28, No. 1, pp. 83-92.

KOKUBU, M. (1968), "Fly ash and fly ash cement.", Proceedings of 5th International Symposium of chemistry of cement, Part VI, Vol. IV, Admixtures and special cement. Tokyo, pp. 75-105.

LAMBERT, P., PAGE, C. L. and VASSIE, P. R. W. (1991), "Investigations of reinforcement corrosion 2. Electrochemical monitoring of steel in chloride-contaminated concrete", Materials and Structures, Vol. 24, No. 143, pp. 351-358.

LAWRENCE, C. D. (1992), "The influence of binder type of sulphate resistance", Cement and Concrete Research, Vol. 22, No. 6, pp. 1047-1058.

LEA, F. M. (1970), "The chemistry of cement and concrete", London, Edward Arnold, 3rd edition, 727 pp.

LUXAN, M., MADRUGA, F., SAAVADRA, J. (1989), "Rapid evaluation of pozzolanic activity of natural products by conductivity measurement", Cement Concrete Research, Vol. 19, No. 6, pp. 63-68.

MA, W., and BROWN, P.W. (1997), "Hydrothermal reaction of fly ash with $Ca(OH)_2$ and $CaSO_4.2H_2O$", Cement Concrete Research, Vol. 25, No. 6, pp. 1237-1248.

MACEDO, J. C. D., MOTA, C. J. A. and MENEZES, S. M. C., (1994) "V. Camorim, NMR and acidity studies of dealuminated metakaolin and their correlation with cumene cracking", Applied Clay Science, Vol. 8, No. 5, pp. 321-230.

MAKHLOUF, A.A. (2002) "Application of water hyacinth ash as a partial replacement for cement", Ph.D. thesis, Cairo University, Egypt, 210 pp.

MALEK, R. I. A. and ROY, D. M. (1988), "The permeability of chloride ions in fly ash cement pastes, mortars and concrete", Materials Research Society Symposium Proceeding, Vol. 114, pp. 325-334.

MALHOTRA, V. M. (1993), "Fly ash, Slag, Silica Fume, and Rice Husk Ash in concrete: A review", Concrete International, Vol. 15, No. 4, pp. 23-28.

MANGAT, P. S. and KHATIB, J. M. (1995), "Influence of fly ash, silica fume, and slag on sulphate resistance of concrete", ACI Materials Journal, Vol. 90, No. 2, pp. 143-151.

MCCARTER, W. J., and EZIRIM, H. C. (1998), "Monitoring the early hydration of pozzolan- $Ca(OH)_2$ mixtures using electrical methods", Advanced Cement Research, Vol. 10, No. 4, pp. 161-168.

MEHTA, P. K. (1983), "Pozzolanic and cementitious by-products as mineral admixtures for concrete – A critical review", ACI, SP, Vol. 79, No. 1, pp. 1-46.

MEHTA, P. K. (1986), "Condensed Silica Fume – A Review, chapter of Cement Replacement Materials", Swamy, R.N., (Editor, Concrete Technology and Design, London, Vol. 3, 450 pp.

MEHTA, P. K. (2001), "Reducing the environmental impact of concrete", Concrete International, Vol. 23, No. 10, pp. 61-66.

MEHTA, P. K. and BURROWS, R. W. (2001), "Building durable structures in the 21st century", Concrete International, Vol. 23, No. 3, pp. 57-63.

MEHTA, P. K. and GJØRV, O. E. (1982), "Properties of portland cement concrete containing fly ash and condensed silica fume", Cement and Concrete Research, Vol. 12, No. 5, pp. 587-595.

MEHTA, P. K. and MONTEIRO, P. J. M. (2006), "Concrete", Microstructure, Properties and Materials, Third Edition, McGraw-Hill, New York, 659 pp.

MITCHELL, D. R. G., HINCZAK, I., and DAY, R .A. (1998), "Interaction of silica fume with calcium hydroxide solutions and hydrated cement pastes", Cement and Concrete Research, Vol. 28, No. 11, pp 1571-1584.

MITSUI, K., L. I, Z., and LANGE, D. A., SHAH, S. P. (1994), "Relationship between Microstructure and mechanical properties of the paste-aggregate interface" ACI Material Journal, Vol. 91, No. 1, pp. 30-39, 1994.

MORROW, B. A. and MCFARLAN, A. J. (1992), "Surface vibrational modes of silanol groups in silica" Journal Physics Chemistry, Vol. 69, pp. 1395-1400.

MOSTAFA, N. Y., EL-HEMALY, S .A. S., AL-WAKEEL, E. I., EL-KORASHY, S. A., and Brown, P. W. (2001a), "Characterization and evaluation of pozzolanic activity of Egyptian industrial by-products I: Silica fume and dealuminated kaolin", Cement and Concrete Research, Vol. 31, No. 3, pp 467-474.

MOSTAFA, N. Y., EL-HEMALY, S. A. S., AL-WAKEEL, E. I., EL-KORASHY, S. A., and Brown, P. W. (2001b), "Activity of silica fume and dealuminated kaolin at different temperatures", Cement and Concrete Research, Vol. 31, No. 6, pp 905-911.

MOSTAFA, N. Y. and Brown, P. W. (2005), "Heat of hydration of high reactive pozzolans in blended cements: Isothermal conduction calorimetry", Thermochimica Acta, Vol. 435, No. 15, pp 162-167.

MURAT, M. and DRIOUCHE, M. (1983), "Hydration reaction of calcined clays and related minerals: II Influence of mineralogical properties of the raw kaolinite on the reactivity of metakaolin", Cement Concrete Research, Vol. 13, No. 4 pp. 511-518.

NEVILLE, A. M. (1998), "Properties of concrete", Fourth edition, ELBS, Longman, 884 pp.

NGALA, V. T., PAGE, C. L., PARROTT, L. J. and YU, S. W. (1995), "Diffusion in cementitious materials: 2. further investigations of chloride and oxygen diffusion in well-cured OPC and OPC/30%PFA pastes", Cement and Concrete Research, Vol. 25, No. 4, pp. 819-826.

ODDEN, L. (1994), "The repassivating effect of electro-chemical realkalisation and chloride extraction", Sheffield Conference, pp. 1473-1488.

ODLER, I. and GLASSER, M. (1988), "Mechanism of sulphate expansion in hydrated Portland cement", Journal of American Ceramic Society, Vol. 71, No. 11, pp. 1015-1020.

OKBA, S. H., AHMED, H. E. and ABDELAZIZ, G. E. (1993), "The effect of chloride and sulphate ions on the corrosion potential of reinforcement", 5th International Colloquium, Concrete in Developing Countries, Cairo, Egypt, 1993, pp. 1058-1069.

PAGE, C. L., SHORT, N. R. and ELTARRAS, A. (1981), "Diffusion of chloride ions in hardened cement pastes", Cement and Concrete Research, Vol. 11, No. 3, pp. 395-406.

PAILLIERE, A. M., RAVERDY, M. and SERRANO, J. J. (1994), "Long-term study of the influence of the mineralogical composition of cements on resistance to sea-water: tests in artificial sea-water and in channel, in durability of concrete", ACI SP, Vol. 126, (Detroit, Michigan), pp. 426-443.

PARROTT, L. G. (1992a), "Variation of water absorption rate and porosity with depth from an exposed concrete surface: Effect of exposure conditions and cement type", Cement and Concrete Research, Vol. 22,No. 6, pp. 1077-1088.

PARROTT, L. J. (1992b), “Water absorption in cover concrete”, Materials and Structures, Vol. 25, No. 149, pp. 284-292.

POWERS, T. C. and BROWNYARD, T. L. (1948), “Studies of physical properties of hardened Portland cement paste”, Bull. 22, Portland cement Association, pp. 276-287.

PRATT, P. L. (1988), “Physical methods for the identification of microstructures”, Materials and Structures, Vol. 21, No. 122, pp. 106-117.

PUERTAS, F., RAMIREZ, M., ALONSO, S. and VAZQUEZ, T. (2000), "Alkali activated fly ash/slag cement strength behavior and hydration products", Cement and Concrete Research, Vol. 30, No. 9, pp. 227-231.

QIAN, X., LI, Z. (2001), "The relationships between stress and strain for high performance concrete with metakaolin", Cement Concrete Research, Vol. 31, No. 11, pp. 1607-1611.

RAHMAN, A. A. and GLASSER, F. P. (1989), “Comparative studies of the carbonation of hydrated cements’, Advances in Cement Research, Vol. 2, No. 6, pp. 49-54.

RAMACHANDRAN, A. I. (1969), “Application of different thermal analysis in cement chemistry”.

RAMACHANDRAN, A. I. (1971), "Possible states of chlorides in hydration of tricalcium in the presence of calcium chloride", Materials and structures, Vol. 4, No. 9, pp. 3-12.

RASHEEDUZZAFAR, S., HUSSAIN, S. E. and ALSAADOUN, S. S. (1992), "Effect of tricalcium aluminate content of cement on chloride binding and corrosion of reinforcing steel in concrete", ACI Materials Journal, Vol. 89, No. 1, pp. 3-12.

RAO, G. A. (1998), "Influence of silica fume replacement of cement on expansion and drying shrinkage", Cement and Concrete Research, Vol. 28, No. 10, pp. 1505-1509.

RICHARDSON, I. G and GROVES, G. W. (1993), "The incorporation f minor and trace elements into calcium silicate hydrate (C-S-H) gel in hydrated cement paste", Cement and Concrete Research, Vol. 23, No. 1, pp. 131-138.

RILEM 73-SBC COMMITTEE (1988), "Siliceous By-products for use in Concrete", Material and Structures, Vol. 21, No. 121, pp. 69-80.

SABIR, B. B, WILD, S, and KHATIB , J. (1996), "On the workability and strength development of metakaolin concrete", International Congress on Concrete in the Service of Mankind, Concrete for Environment Enhancement and Protection, Theme 6, Waste Materials and Alternative Products, University of Dundee (eds R.K. Dhir andD.T. Dyer). Spon, London, Vol. 25, No. 8, pp. 1713-1725.

SĂNCHEZ DE ROJAS, M. I., LUXAN, M. P., FRĪAS, M., GARCĪA, M. (1993), "The influence of different additions on Portland cement hydration heat", Cement Concrete Research, Vol. 23, No. 1, pp. 46-54.

SĂNCHEZ DE ROJAS, M. I., and FRĪAS, M. (1995), "The influence of silica fume on the heat of hydration of Portland cement", in V.M. Malhotra (Ed.), Fifth CANMET/ACI International conference on Fly Ash, Silica Fume, Slag and Natural pozzolans in Concrete, Milwaukee, Vol. 2, pp. 829-843.

SCHIEBL, P. (1983), "Corrosion of reinforcement", CEB-RILEM, International Workshop of Concrete, Copenhagen, Durability of Concrete pp. 241-290.

SCHIESSL, P. (1983), "Corrosion of reinforcement", CEB-RILEM, International Workshop of Concrete, Copenhagen, Durability of Concrete, pp. 73-93.

SCHNEIDER, U. et al (1990), "Stress corrosion of cementitious materials in sulphate solutions", Materials and Structures, Vol. 23, No. 134, pp. 110-115.

SCRIVENER, K. L., BENTUR, A. and PRATT, P. L. (1988), "Quantitative characterization of the transition zone in high strength concrete", Advances in Cement Research, Vol. 1, No. 4, pp. 230-237.

SCRIVENER, K. L. and PRATT, P. L. (1996), "Characterization of interfacial microstructure", RILEM Report 11, Interfacial Transition Zone in Concrete, edited by J. C. Maso, E & FN Spon, London, 404 pp.

SEREDA, P. J. and RAMACHANDRAN, V. S. (1975), "Predictability gaps between science and technology of cements-2, physical and mechanical behaviour of hydrated cements", Journal of American Ceramic Society, Vol. 58, No. 5-6, pp. 249-253.

SERRY, M. A., TAHA, A. S., EL-HEMALY, S. AS. And EL-DIDAMONY, H. (1984), "MK-lime hydrations products", Thermochim, Acta, Vol. 79, September, pp. 103-110.

SERSALE, R., and ORSIN, P. G. (1968) 5th International Symposium on the Chemistry of Cement Association of Japan (Ed.), Hydrated Phases After Reaction of Lime with Pozzolanic Materials, Supplementary paper IV-7, Cement Association of Japan, Tokyo, pp. 114-121.

SHI, C. and DAY, R. L. (1995), "Calorimetric study of early hydration of alkali-slag cements", Cement Concrete Research, Vol. 25, No. 6, pp. 1333-1346.

SHEHAB, h., ISMAEIL, G., MEGIED, S. A. and METWALLY, I. (April/2001), "Steel corrosion resistance of concrete containing slag cement and silica fume", Proceedings of the 9 th Int. Colloquium on Structural and Geotechnical Engineering, Ain Shams University, Faculty of Engineering, Cairo, Egypt.

SLATER, J. E. (1983), "Corrosion of metal in association with concrete", Corrosion, Vol. 55, No. 3, pp. 280-285.

SURAJ, G., LYER, C. S. P, and LALITHAMBIKA, M., (1998), "Adsorption of calcium and copper by modified kaolinites", Applied Clay Science, Vol. 13, No. 4, pp. 293-306.

SURYAVANSHI, A. K. and SWAMY, R. N. (1996), "Stability of Friedel's salt in carbonation concrete structural elements", Cement and Concrete Research, Vol. 26, No. 5, pp. 729-741.

TAYLOR, H. F. W. (1997), "The Chemistry of Cement", Second edition, Academic Press, London, UK.

TAYLOR, H. F. W. and MOHAN, K. (1985), "Analytical study of pure and extended Portland cement pastes", Journal American Ceramic Society, Vol. 68, pp. 680-685.

TAYLOR, H. F. W., FAMY, C. and SCRIVENER, K. L. (2001) , "Delayed ettringite formation", Cement and Concrete Research, Vol. 31, No. 5, pp. 683-693.

TAYLOR, M. D. and KIM, N. D. (2009), "Dealumination as a mechanism for increased acid recoverable in Waikato mineral soils", Australian Journal of Soil Research Vol. 47, No. 8, pp. 828-838.

THOMAS, M. (1995), "Chloride threshold in marine concrete", RILEM International Workshop on Chloride Penetration into Concrete, France, pp. 429-440.

THORNTON, H. T. (1978), "Acid attack of concrete caused by sulfur bacteria action", Journal of American Concrete Institute, Vol. 75, No. 11, pp. 577-584.

TIXIER, R. (2000), "Microstructural development and sulphate attack modeling in blended cement-based material", Cements Research Progress, Ed. L. Struble. American Ceramic Society, Westerbrook, Ohio, pp. 1-255.

TRITTHART, J. (1989), "Chloride binding in cement II-The influence of hydroxide concentration in the pore solution of hardened cement paste on chloride binding", Cement and Concrete Research, Vol. 19, No. 5, pp. 683-691.

VERBECK, G. J. (1975), "Mechanisms of corrosion of steel in concrete", ACI SP, Vol. 49, No. 3, (Detroit- Michigan), pp. 21-38.

WAKELY, L. D. and ROY, D. M. (1982), “A method of testing the permeability between grout and rock”, Cement and Concrete Research, Vol. 12, No. 4, pp. 533-534.

WASHBURN, E. W. (1921), “A note on a method of determining the distribution of pore sizes in a porous materials”, Proceeding International Academy Sciences, Vol. 7, No 4, USA, pp. 115-116.

WILD, S, and KHATIB , J. (1997), "Portlandite consumption in metakaolin cement pastes and mortars", Cement Concrete Research, Vol. 27, No. 1, pp. 137-146.

WILD, S, KHATIB , J. and JONES, A. (1996), "Relative strength, pozzolanic activity and cement hydration in superplasticised metakaolin concrete", Cement Concrete Research, Vol. 26, No. 10, pp. 1537-1544.

WILLEM, X. and DEGEIMBRE, R. (2003), "Durability of mortars modified with metakaolin", Cement Concrete Research, Vol. 33, No. 9, pp. 1473-1479.

WILLIAMSON, S. J. and CLARK, L. A. (2001), "The influence of the permeability of concrete cover on reinforcement corrosion", Magazine of Concrete Research, Vol. 53, No. 3, pp. 183-195.

YOUNG, J. F. (1988), “A review of the pore structure of cement paste and concrete and its influence of permeability”, ACI, SP, Vol. 108, No. 1, pp. 1-18.

ZELIC, J., KRSTULOVIC, R., TKALCEC, E. and KROLO, P. (1999), "Durability of the hydrated limestone-silica Portland cement mortars under sulphate attack", Cement and Concrete Research, Vol. 29, No. 6, pp. 819-826.

ZHANG, M.H and MALHOTRA, V. M. (1995), "Characteristics of a thermally activated alumino-silicate pozzolanic material and its use in concrete", Cement Concrete Research, Vol. 25, No. 8, pp 1713-1725

ZIMBELMANN, R. (1978), “The problem of increasing the strength of concrete, Metonwerk + Fertigteil-Technik, Heft 2, pp. 89-96.