REFERENCES

ACI 221.1R (1998), "State-of-the-art report on alkali–aggregate reactivity". ACI Committee 221.

Ahmed, T., Burley, E., and Rigden, S. (1999), "Effect of alkali-silica reaction on tensile bond strength of reinforcement in concrete tested under static and fatigue loading", ACI Materials Journal, Vol. 96, No. 4, pp. 419-428.

Aïtcin, P.C. (2000), "Cements of yesterday and today concrete of tomorrow", Cement and Concrete Research, Vol. 30, No. 9, pp. 1349-1359.

Aïtcin, P.C. (2003), "The durability characteristics of high performance concrete: a review", Cement & Concrete Composites, Vol. 25, No. 4-5, pp. 409-420.

Ben Haha, M. (2006), "Mechanical effects of alkali silica reaction in concrete studied by SEM-image analysis", École Polytechnique Federale de Lausanne, Ph.D. Thesis, 176 pp.

Bérubé, M.A., Durand, B., Vezina, D. and Fournier, B. (2000), "Alkali-aggregate reactivity in Quebec (Canada)", Canadian Journal of Civil Engineering, Vol. 27, No. 2, pp. 226-245.

Bragg, D. (2000), "Alkali-aggregate reactivity in Newfoundland, Canada", Canadian Journal of Civil Engineering, Vol. 27, No. 2, pp. 192-203.

Buck, A.D., Houston, B. J. and Pepper L. (1953), "Effectiveness of mineral admixtures in preventing excessive expansion of concrete due to alkali-aggregate reaction", Journal of American Concrete Institute, Vol.30, pp. 1160.

Cavalcanti, A.J.C.T., Campos, A.T., Silveria, E.M.M. and Wanderley, E.G. (2000), "Rehabilitation of a generating unit affected by alkali-aggregate reaction", *Proceedings of the 11th International Conference on Alkali-Aggregate Reaction in Concrete*, (Ed. M.A. Bérubé et al.), Quebec City (Canada), pp. 1253-1262.

Cox, H.P., Coleman, R.B. and White, L. (1950), "Effect of blast furnace-slag cement on alkaliaggregate reaction in concrete", Pit and Quarry, Vol.45, pp. 95-96.

Deng, M. and Tang, M. (1993), "Mechanism of dedolomitization and expansion of dolomite rocks", Cement and Concrete Research, Vol. 23, No. 6, pp. 1397-1408.

Dent Glasser, L.S. and Kataoka, N. (1981), "The chemistry of alkali-aggregate reactions", *Proceedings of the 5th International Conference on Alkali-Aggregate Reaction in Concrete*, Cape Town (South Africa), S252/23.

Diamond, S. (1976), "A review of alkali-silica reaction and expansion mechanism, part 2: Reactive Aggregate", Cement and Concrete Research, Vol. 6, No. 4, pp. 549-560.

Diamond, S. (1981), "Effects of two Danish fly ashes on alkali contents of pore solutions of cement-fly ash pastes", Cement and Concrete Research, Vol. 11, No. 3, pp. 383-394.

Diamond, S. (1989), "ASR - Another look at mechanisms", *Proceedings of the 8th International Conference on Alkali-Aggregate Reaction in Concrete*, (Ed. K. Okada, S. Nishibayashi and M. Kawamura), Kyoto (Japan), pp. 83-94.

Diamond, S. (2000), "Chemistry and other characteristics of ASR gels", *Proceedings of the 11th International Conference on Alkali-Aggregate Reaction in Concrete*, (Ed. M.A. Bérubé et al.), Quebec City (Canada), pp. 31-40.

Dolar-Mantuani, L. (1964), "Expansion of Gull River Carbonate Rocks in Sodium Hydroxide", Highway Research Record, No. 45, pp. 178-195.

Fares, G. M. G. (2001), "Alkali-aggregate reaction and its effect on concrete characteristics", M.sc. Thesis, Faculty of science, Zagazig university, 89 pp.

Feng, X., Thomas, M.D.A., Bremner, T.W., Balcom, B.J. and Folliard, K.J. (2005), "Studies on lithium salts to mitigate ASR-induced expansion in new concrete: a critical review", Cement and Concrete Research, Vol. 35, No. 9, pp. 1789-1796.

Folk, R.L. (1959), "Practical petrographic classification of limestones", American Association of Petroleum Geologists Bulletin, Vol. 43, pp. 1-38.

Folliard, K.J., Thomas, M.D.A. and Kurtis, K.E. (2003), "Guidelines for the use of lithium salts to mitigate or prevent alkali-silica-reaction (ASR)", Technical report, Federal Highway Administration, Publication No. FHWA-RD-03-047, USA.

Fournier, B. and Bérubé, M.A. (2000), "Alkali-aggregate reaction in concrete: a review of basic concepts and engineering implications", Canadian Journal of Civil Engineering, Vol. 27, No. 2, pp. 167-191.

Fournier, B., Stokes, D.B. and Ferro, A. (2003), "Comparative field and laboratory investigation on the use of supplementary cementing materials and lithium-based admixtures to control expansion due to alkali-silica reaction in concrete", 6th international CANMET/ACI conference on durability of concrete, Thessaloniki, Greece, Supplementary papers 2003, ICON-CANMET, Ottawa (Canada), pp. 823-851.

Gaudreault, M. (2000), "The St. Lawrence Seaway (Quebec, Canada): A case study in the management of structures affected by alkali-aggregate reaction", *Proceedings of the 11th International Conference on Alkali-Aggregate Reaction in Concrete*, (Ed. M.A. Bérubé et al.), Quebec City (Canada), pp. 1293-1302.

Giaccio, G., Torrijos, M.C., Tobes, J.M., Batic, O.R. and Zerbino, R. (2009), "Development of alkali-silica reaction under compressive loading and its effects on concrete behaviour", ACI Materials Journal, Vol. 106, No. 3, pp. 223-230.

Gifford, P.M. and Gillott, J.E. (1996), "Alkali-silica reaction (ASR) and alkali-carbonate reaction (ACR) in activated blast furnace slag cement (ABFSC) concrete", Cement and Concrete Research, Vol. 26, No. 1, pp. 21-26.

Gillott, J.E. (1963), "Petrology of dolomitic limestones, Kingston, Ontario, Canada", Geological Society of America Bulletin, Vol. 74, No. 6, pp. 759-778.

Gillott, J.E. (1964), "Mechanism and kinetics of expansion in the alkali-carbonate rock reaction", Canadian Journal of Earth Science, Vol. 1, pp. 121-145.

Gillott, J.E. (1975), "Alkali-aggregate reactions in concrete", Engineering Geology, Vol. 9, No. 4, pp. 303-326.

Gillott, J.E. and Swenson, E.G. (1969), "Mechanism of the alkali-carbonate rock reaction", Quarterly Journal of Engineering Geology and Hydrogeology, Vol. 2, No. 1, pp. 7-23.

Glasser, F.P. (1992), "Chemistry of the alkali-aggregate reaction", "The Alkali-Silica Reaction in Concrete", Ed. R. N. Swamy, Blackie, London, United Kingdom, pp. 96-121.

Gocevski, V. and Pietruuszczak, S. (2000), "Assessment of the effects of slot-cutting in concrete dams affected by alkali-aggregate reaction", *Proceedings of the 11th International Conference on alkali-Aggregate Reaction in Concrete*, (Ed. M.A. Bérubé et al.), Quebec City (Canada), pp. 1303-1312.

Goldish, S.S., and Ruotsala, A.P. 1955, "Igneous rock series of Minnesota", American Geophysical Union, Vol. 36, No. 3, pp. 511.

Grattan-Bellew, P.E. (1997), "A critical review of ultra-accelerated test methods for alkali-silica reactivity". Cement & Concrete Composites, Vol. 19, No. 5-6, pp. 403-414.

Grattan-Bellew, P.E., Cybanski, G., Fournier, B. and Michell, L. (2003), "Proposed universal accelerated test for alkali-aggregate reaction the concrete microbar test", Cement, Concrete, and Aggregates, Vol. 25, No. 2, pp. 29-34.

Grattan-Bellew, P.E., Margeson, J., Mitchell, L.D. and Min, D. (2008), "Is ACR just another variant of ASR?, Comparison of acid insoluble residues of alkali-silica and alkali-carbonate reactive limestones and its significance for the ASR/ACR debate", *Proceedings of the 13th International Conference on Alkali-Aggregate Reaction in Concrete*, (Ed. Maarten A.T.M. Broekmans and Borge J. Wigum), Trondheim (Norway), pp. 706-716.

Hadley, D.W. (1961), "Alkali reactivity of carbonate rocks – expansion and dedolomitization", Highway Research Record, No. 40, pp. 462-474.

Hadley, D.W. (1964), "Part I. Theoretical studies: Alkali reactivity of dolomitic carbonate rocks", Highway Research Record, No. 45, pp. 1-20.

Hanna, W.C. (1947), "Unfavourable chemical reactions of aggregate in concrete and a suggested corrective", Proceedings, ASTM, Vol. 47, pp. 986-1009.

Hansen, W.C. (1944), "Studies relating to the mechanism by which the alkali-aggregate reaction proceeds in concrete", Journal of the American Concrete Institute, Vol. 15, No. 3, pp. 213-227.

HBRC report (2001), "Egypt map for the available construction raw materials and the industries based on it", report published by HBRC, 59 pp.

Hou, X., Struble, L.J. and Kirkpatrik, R.J. (2004), "Formation of ASR gel and roles of C-S-H and portlandite", Cement and Concrete Research, Vol. 34, No. 9, pp. 1683-1696.

Ichikawa, T. (2009), "Alkali–silica reaction, pessimum effects and pozzolanic effect", Cement and Concrete Research, Vol. 39, No. 8, pp. 716-726.

Jawed, I. and Skalny, J. (1978), "Alkalis in cement: A review: II. Effects of alkalis on hydration and performance of Portland cement", Cement and Concrete Research, Vol. 8, No. 1, pp. 37-52.

Katayama, T. (1992), "A critical review of carbonate rock reactions – Is their reactivity useful or harmful?", *Proceedings of the 9th International Conference on Alkali-Aggregate Reaction in Concrete*, London (U.K.), Published by The Concrete Society, Slough, pp. 508-518.

Katayama, T. (1998), "Petrographic diagnosis of alkali-aggregate reaction in concrete based on quantitative EPMA analysis" Recent advances in concrete technology, *Proceedings of the fourth CANMET/ACI/JCI International conference*, Tokushima (Japan), Farmington Hills, Michigan: ACI International, pp. 539-560.

Katayama, T. (2004), "How to identify carbonate rocks in concrete", Materials Characterization, Vol. 53, No. 2-4, pp. 85-104.

Katayama, T. and Sommer, H. (2008), "Further investigation of the mechanisms of so-called alkali-carbonate reaction based on modern petrographic techniques", *Proceedings of 13th International Conference on Alkali-Aggregate Reaction in Concrete*, (Ed. Maarten A.T.M. Broekmans and Borge J. Wigum), Trondheim (Norway), pp. 850-860.

Kilgour, C.L. (1988), "Composition and properties of Indian fly ashes", Ph.D. Thesis, Purdue University.

Klien, C. and Dutrow, B. (2008), "Manual of mineral science", 23rd edition.

Knudsen, T. and Thaulow, N. (1975), "Quantitative microanalyses of alkali-silica gel in concrete", Cement and Concrete Research, Vol. 5, No. 5, pp. 443-454.

Kozlova, S., Millrath, K., Meyer, C. and Shimanovich, S. (2004), "A suggested screening test for ASR in cement-bound composites containing glass aggregate based on autoclaving", Cement & Concrete Composites, Vol. 26, No. 7, pp. 827-835.

Lemish, J. and Moore, W.J. (1964), "Carbonate aggregate reactions, Recent studies and an approach to the problem", Highway Research Record, No. 45, pp. 57-71.

Liang, T. and Tang, M. (1995), "Correlation between reaction and expansion of alkali-carbonate reaction", Cement and Concrete Research, Vol. 25, No. 3, pp. 470-476.

Liang, T. and Tang, M. (1999), "Expansion of alkali-dolomite and alkali-magnesite reaction", Cement & Concrete Composites, Vol. 21, No. 5-6, pp. 361-373.

Liang, T., Min, D., Xiahui, L. and Tang, M. (1997), "A case study of two airport runways affected by alkali-carbonate reaction, Part One: evidences of deterioration and evaluation of aggregate", Cement and Concrete Research, Vol. 27, No. 3, pp. 321-3328.

Litvan, G. and Bickley, J. (1987), "Durability of parking structures", *Concrete Durability – Proceedings of Katherine and Bryant Mather International Symposium*, SP-100, American Concrete Institute, Detroit, pp. 1503-1526.

López-Buendía, **A. M., Climent**, **V. and Verdú**, **P. (2006)**, "Lithological influence of aggregate in the alkali-carbonate reaction", Cement and Concrete Research, Vol. 36, No. 8, pp. 1490-1500.

López-Buendía, A. M., Climent, V., Urquiola, M.M. and Mastida, J. (2008), "Influence of dolomite stability on alkali-carbonate reaction", *Proceedings of the 13th International Conference on Alkali-Aggregate Reaction in Concrete*, (Ed. Maarten A.T.M. Broekmans and Borge J. Wigum), Trondheim (Norway), pp. 254-263.

Lu, D., Fournier, B. and Grattan-Bellew, P.E. (2006a), "Evaluation of accelerated test methods for determining alkali-silica reactivity of concrete aggregates", Cement & Concrete Composites, Vol. 28, No. 6, pp. 546-554.

Lu, D., Fournier, B., Grattan-Bellew, P.E., Lu, Z. and Tang, M. (2008a), "Expansion of Spratt and Pittsburg limestones in different test procedures", *Proceedings of the 13th*

International Conference on Alkali-Aggregate Reaction in Concrete, (Ed. Maarten A.T.M. Broekmans and Borge J. Wigum), Trondheim (Norway), pp. 640-648.

Lu, D., Fournier, B., Grattan-Bellew, P.E., Xu, Z. and Tang, M. (2008b), "Development of a universal accelerated test for alkali-silica and alkali-carbonate reactivity of concrete aggregates", Materials and Structures, Vol. 41, No. 2, pp. 235-246.

Lu, D., Mei, L., Xu, Z., Tang, M. and Fournier, B. (2006b), "Alteration of alkali reactive aggregates autoclaved in different alkali solutions and application to alkali-aggregate reaction in concrete (I) Alteration of alkali reactive aggregates in alkali solutions", Cement and Concrete Research, Vol. 36, No. 6, pp. 1176-1190.

Lu, D., Mei, L., Xu, Z., Tang, M., Mo, X. and Fournier, B. (2006c), "Alteration of alkali reactive aggregates autoclaved in different alkali solutions and application to alkali-aggregate reaction in concrete (II) expansion and microstructure of concrete microbar", Cement and Concrete Research, Vol. 36, No. 6, pp. 1191-1200.

Lu, D., Zhou, X., Xu, Z., Lan, X., Tang, M. and Fournier, B. (2006d), "Evaluation of laboratory test method for determining the potential alkali contribution from aggregate and the ASR safety of the Three-Gorges dam concrete", Cement and Concrete Research, Vol. 36, No. 6, pp. 1157-1165.

Martin, N.W. and Gibson, R.C. (1966), "Deleterious constituents in cement raw materials", Symposium on Geology of Cement Raw Materials, Proceeding of 2nd forum on Geology of Industrial Minerals, Indiana University, pp. 91-100.

Marzouk, H. and Langdon, S. (2003), "The effect of alkali-aggregate reactivity on the mechanical properties of high and normal strength concrete", Cement & concrete composites, Vol. 25, No. 4-5, pp. 549-556.

McGowan, J.K. and Vivian, H.E. (1952), "Studies in cement-aggregate reaction: Correlation between development and expansion of mortars", Australian Journal of Applied Science, Vol. 3, pp. 228-232.

Mehta, P.K. (1997), "Durability – Critical issues for the future", Concrete International, Vol. 19, No. 7, pp. 27-33.

Milanesi, C.A., Marfil, S.A., Batic, O.R. and Maiza, P.J. (1996), "The alkali-carbonate reaction and its reaction products: An experience with Argentinean dolomite rock", Cement and Concrete Research, Vol. 26, No. 10, pp. 1579-1591.

Mitchell, L.D., Grattan-Bellew, P.E., Margeson, J. and Fournier, B. (2004), "The mechanistic differences between alkali silica and alkali carbonate reactions as studied by X-ray diffraction", *Proceedings of the 12th International Conference on Alkali-Aggregate Reaction in Concrete*, (Ed. 0000), Beijing (China), pp. 154-162.

Multon, S., Sellier, A. and Cyr, M. (2009), "Chemo-mechanical modeling for prediction of alkali silica reaction (ASR) expansion", Cement and Concrete Research, Vol. 39, No. 6, pp. 490-500.

Newlon, H.H. and Sherwood, W.C. (1962), "An occurrence of alkali-reactive carbonate rock in Virginia", Highway research Bulletin, No. 355, pp. 27-44.

Newlon, H.H. and Sherwood, W.C. (1964), "Methods for reducing expansion of concrete caused by Alkali-carbonate reactions", Highway Research Record, No. 45, pp. 134-150.

Newlon, H.H., Ozol, M.A. and Sherwood, W.C. (1972), "An evaluation of several methods for detecting alkali-carbonate reaction", *Progress Report No. 5*, 73 pp.

Nordtest NT Build 492 (1999), "Chloride migration coefficient from non-steady-state migration experiments", Published by Nordtest, Finland. 8 pp.

Pedneault, A. (1996), "Development of testing and analytical procedures for the evaluation of the residual potential of reaction, expansion and deterioration of concrete affected by ASR," M.Sc. Memoir, Laval University, Québec City, Canada, 133p.

Powers, T.C. and Steinour, H.H. (1955a), "An investigation of some published researches on alkali-aggregate reactions. I. The chemical reactions and mechanism of expansion". Journal of American Concrete Institute, Vol. 26, No. 6, pp. 497-516.

Powers, T.C. and Steinour, H.H. (1955b), "An interpretation of some published researches on the alkali-aggregate reactions. Part 2: a hypothesis concerning safe and unsafe reactions with reactive silica in concrete", Journal of American Concrete Institute, Vol. 26, No. 8, pp. 785-811.

Qian, G., Deng, M. and Tang, M. (2002), "Expansion of siliceous dolomitic aggregates in lithium hydroxide solution", Cement and Concrete Research, Vol. 32, No. 5, pp. 763-768.

Qian, G., Deng, M., Lan, X., Hu, Z. and Tang, M. (2002), "Alkali carbonate reaction expansion of dolomitic limestone aggregate with prophyrotopic texture", Engineering Geology, Vol. 63, No. 1-2, pp. 17-29.

Ramlochan, T., Thomas, M.D.A. and Bruber, K.A. (2000), "The effect of metakaolin on alkali-silica reaction in concrete", Cement and Concrete research, Vol. 30, No. 3, pp. 339-344.

Regourd, M., Hornain, H. and Poitevin, P. (1981), "The alkali-aggregate reaction – concrete microstructure evolution", *Proceedings of the 5th International Conference on Alkali-Aggregate Reaction in Concrete*, Cape Town (South Africa), S252/35.

Regourd, M., Mortureaux, B. and Hornain, H. (1983), "Use of condensed silica fume as filler in blended cements", *Proceedings of the 1st International Conference on Fly Ash, Silica Fume, Slag, and Natural Pozzolans in Concrete*, (Ed. V. M. Malhotra), ACI SP79, Vol. II, American Concrete Institute, Detroit, pp. 847-865.

Report of the National Materials Advisory Board (1987), "Concrete Durability – A Multibillion Dollar Opportunity", Publication No. NMAB-437, National Academy of Science, Washington, D.C., 94 pp.

RILEM recommended test method AAR-1 2003, "Detection of potential alkali-reactivity of aggregates - Petrographic method", Materials and Structures, Vol. 36, No. 7, pp. 480-496.

Rivard, P., Bérubé, M.A., Ollivier, J.P. and Ballivy, G. (2007), "Decrease of pore solution alkalinity in concrete tested for alkali-silica reaction", Materials and Structures, Vol. 40, No. 9, pp. 909-921.

Rogers, C.A. (1985), "Evaluation of the potential for expansion and cracking due to the alkalicarbonate reaction", Ontario Ministry of Transportation, Engineering Material Office, Report EM-75, pp. 38.

Rogers, C.A. (1987), "Alkali-aggregate reaction in Ontario", *Proceedings of the 7th International Conference on Alkali-Aggregate Reaction in Concrete*, Ottawa, Ontario, (Canada), pp. 5-9.

Rogers, C.A. and Hooton, R.D. (1991), "Reduction in mortar and concrete expansion with reactive aggregates due to alkali leaching", Cement, Concrete and Aggregate, Vol. 13, pp. 42-49.

Rogers, C.A. and Hooton, R.D. (1992), "Comparison between laboratory and field expansion of alkali-carbonate reactive concrete", *Proceedings of the 9th International Conference on Alkali-Aggregate Reaction in Concrete*, London (U.K.), Published by The Concrete Society, Slough, pp.877-884.

Rogers, C.A., Grattan-Bellow, P.E., Hooton, R.D., Ryell, J. and Thomas, M.D.A. (2000), "Alkali-aggregate reactions in Ontario", Canadian Journal of Civil Engineering, Vol. 27, No. 2, pp. 246-260.

Shayan, A. and Quick, G.W. (1992), "Microscopic features of cracked and uncracked concrete railway sleepers", ACI Materials Journal, Vol. 89, No. 4, pp. 348-361.

Shehata, M. (2000), "The effect of fly ash and silica fume on alkali silica reaction in concrete", PhD thesis, University of Toronto, 321p.

Shehata, M., Jagbat, S., Lachemi, M. and Rogers, C. (2009), "Do supplementary cementing materials control alkali-carbonate reaction?", Proceedings 17th Annual Symposium, Ed. D. Fowler and J. Allen, International Centre for Aggregate Research, University of Texas, Austin, May, 2009.

Shehata, M.H. and Thomas, M.D.A. (2000), "The effect of fly ash composition on the expansion of concrete due to alkali-silica reaction", Cement and Concrete Research, Vol. 30, No. 7, pp. 1063-1072.

Shehata, M.H. and Thomas, M.D.A. (2002), "Use of ternary blends containing silica fume and fly ash to suppress expansion due to alkali-silica reaction in concrete", Cement and Concrete Research, Vol. 32, No. 3, pp. 341-349.

Shehata, M.H., Thomas, M.D.A. and Bleszynski, R.F. (1999), "The effects of fly ash composition on the chemistry of pore solution in hydrated cement pastes", Cement and Concrete Research, Vol. 29, No. 12, pp. 1915-1920.

Sherwood, W.C. and Newlon, H.H. (1964a), "A Survey for reactive carbonate aggregates in Virginia", Highway Research Record, No. 45, pp. 222-233.

Sherwood, W.C. and Newlon, H.H. (1964b), "Studies on the mechanisms of alkali-carbonate reaction, Part I. Chemical reactions", Highway Research Record, No. 45, pp. 41-56.

Smaoui, N., Bérubé, M.A., Fournier, B., Bissonnette, B. and Durand, B. (2005), "Effects of alkali addition on the mechanical properties and durability of concrete", Cement and Concrete Research, Vol. 35, No.2, pp. 203-212.

Smith, P. (1964), "Learning to live with a reactive carbonate rock", Highway Research Record, No. 45, pp. 126-133.

Spry, P.G., Gan, G.L., Cody, R.D. and Cody, A.M. (1996), "The formations of rims on dolomite aggregate in Iowa highway concrete", *Semisequicentennial Transportation Conference Proceedings*, Iowa State University.

Stanton, T.E. (1940), "Expansion of concrete through reaction between cement and aggregate", Proceeding of the American Society of Civil Engineers, Vol. 66, No. 10, pp. 1781-1811.

Stanton, **T.E.** (1942), "California experience with the expansion of concrete through reaction between cement and aggregate", ACI Journal proceedings, Vol. 38, pp. 209.

Swamy, R.N and Al-Asali, M.M. (1988), "Engineering properties of concrete affected by alkalisilica reaction", ACI Materials Journal, Vol. 85, No.5, pp. 367-374.

Swamy, R.N. and Al-Asali, M.M. (1989), "Effect of alkali-silica reaction on structural behaviour of reinforced concrete beams", ACI Structural Journal, Vol. 86, No. 4, pp. 451-459.

Swamy, R.N. and Al-Asali, M.M. (1990), "Control of alkali-silica reaction in reinforced concrete beams", ACI Materials Journal, Vol. 87, No.1, pp. 38-46.

Swenson, E.G. (1957), "A reactive aggregate undetected by ASTM test", ASTM Bulletin, No. 226, pp. 48-51.

Swenson, E.G. and Gillott J.E. (1960), "Characteristics of Kingston carbonate rock reaction", Highway Research Board Bulletin, No. 275, pp. 18-31.

Swenson, E.G. and Gillott J.E. (1964), "Alkali-carbonate rock reaction", Highway Research Record, No. 45, pp. 21-40.

Swenson, E.G. and Gillott, J.E. (1967), "Alkali reactivity of dolomitic limestone aggregate", Magazine of Concrete Research, Vol. 19, No. 59, pp.95-104.

Tang, M., Deng, M., Lan, X., and Han, S. (1994), "Studies on alkali-carbonate reaction", ACI Materials Journal, Vol. 91, No. 1, pp. 26-29.

Thaulow, N., Jakobsen, U.H. and Clark, B. (1996), "Composition of alkali silica gel and ettringite in concrete railroad ties: SEM-EDX and X-ray diffraction analyses", Cement and Concrete Research, Vol. 26, No. 2, pp. 309-318.

Thomas, M., Fournier, B., Ideker J. and Shehata, M. (2006), "Test methods for evaluating preventive measures for controlling expansion due to alkali-silica reaction in concrete", Cement and Concrete Research, Vol. 36, No. 10, pp. 1842-1856.

Thomas, M.D.A. and Innis, F.A. (1998), "Effect of slag on expansion due to alkali-aggregate reaction in concrete", ACI Materials Journal, Vol. 95, No. 6, pp. 716-724.

Thomas, M.D.A., Nixon, P.J. and Pettifer, K. (1991), "The effect of pulverized fuel ash with a high total alkali content on alkali silica reaction in concrete containing natural U.K. aggregate", *Proceedings of the 2nd CANMET/ACI International conference on durability of concrete*, Vol. 2, American Concrete Institute, Detroit, pp. 919-940.

Thomas, M.D.A., Nixon, P.J., and Pettifer, K. (1991), "The effect of pulverised fuel as with a high total alkali content on alkali silica reaction in concrete containing natural U.K. aggregate", *Proceedings of the 2nd CANMET/ACI International Conference on Durability of Concrete*, (Ed. V.M. Malhotra), Vol. 2, American Concrete Institute, Detroit, pp. 919-940.

Thomas, M.D.A., Shehata, M.H., Shashiprakash, S.G. and Cail, K. (1999), "Use of ternary cementitious systems containing silica fume and fly ash in concrete", Cement and Concrete Research, Vol. 29, No. 8, pp. 1207-1214.

TR3, Technical Report 3, "Alkali-silica reaction", report published by Cement & Concrete Association of New Zealand, 60 pp.

Tremblay, C., Bérubé, M.A., Fournier, B., Thomas, M.D.A. and Folliard, K.J. (2007), "Effectiveness of lithium-based products in concrete made with Canadian natural aggregates susceptible to alkali-silica reaction", ACI Materials Journal, Vol. 104. No. 2, pp. 195-205.

Tucker, M.E. (1981/1991), "Sedimentary Petrology; an introduction to the origin of sedimentary rocks", Second Edition, Blackwell Scientific Publications, 260 pp.

Williams, D.A. and Rogers, C.A. (1991), "Field trip guide to alkali-carbonate reactions in Kingston, Ontario", Ontario Ministry of Transportation, Engineering Material Office, Report MI-145, pp. 26.

Xu, Z., Lan, X., Deng, M. and Tang, M. (2002), "A new accelerated method for determining the potential alkali-carbonate reactivity", Cement and Concrete Research, Vol. 32, No. 6, pp. 851-857.