

BIBLIOGRAFIA

- [1] Mehta, P.K. (1994). "*Mineral Admixtures for Concrete – An Overview of Recent Developments*", *Proceedings of an Engineering Foundation Conference*, University of New Hampshire, ASCE, pp. 243-256.
- [2] Hua Xu, van Deventer, J. (1999). "*The Geopolymerisation of Natural Alumino-silicates*", *Proceedings of the Second International Conference Geopolymère '99*, Saint Quentin, pp. 43-64.
- [3] Davidovits, J. (2002). "*30 Years of Successes and Failures in Geopolymer Applications. Market Trends and Potential Breakthroughs*", *Keynote Conference on Geopolymer Conference 2002*, Melbourne, Australia, Proceedings in CD.
- [4] Chang, R. (1994). "*Química*", Ed. McGraw-Hill, Lisboa.
- [5] Jalali, S., Woods, D. (1998). "*Prediction of Soil-cement Strength Gain*", *Proceedings of 8th International Symposium on Concrete Roads*, Lisbon, pp. 49-53.
- [6] Hjorth, L. (1988). "*Development of Cementitious Materials*", *88' Conference on Geopolymers*, Compiègne, pp. 197-203.
- [7] Jalali, S. (1998). "*Détermination de l'Énergie d'Activation des Systèmes Chaux-Cendre Volante par des Essais par Analyse Calorimétrique Différentielle*", – *World Cement*, March, pp. 74-75.

- [8] Sousa Coutinho, M.J. (1998). *"Melhoria da Durabilidade dos Betões por Tratamento da Cofragem"*, Tese de Doutoramento, Faculdade de Economia da Universidade do Porto.
- [9] Orlinski, J., Guigon, M., Meyer, J.L. (1988). *"Caractérisation Mécanique de Composites à Matrice Minérale"*, 88'Conference on Geopolymer, Compiègne, pp. 339-350.
- [10] Malinowski, R., Slatkine, A., Ben Yair, M. (1961). *"Durability of Roman Mortars and Concretes for Hydraulic Structures at Caesarea and Tiberias"*, preprint R.I.L.E.M. Inter. Symp. on Durability of Concrete, Prague.
- [11] Malinowski, R. (1979). *"Concretes and Mortars in Ancient Aqueducts"*, *Concrete International*, 1, pp. 66-76.
- [12] Davidovits, J., Morris, M. (1988). *"The Pyramids, an Enigma Solved"*, Dorset Press, New York.
- [13] Glukhovskiy, V.D. (1994). *"Ancient, Modern and Future Cements"*, *First International Conference on Alkaline Cements and Concretes*, Kiev State Technical University, pp. 1-8.
- [14] Davidovits, J. (1991). *"Geopolymers: Inorganic Polymeric New Materials"*, *Journal of Thermal Analysis*, Vol. 37, pp. 1633-1656.
- [15] Krivenko, P. (1994). *"Alkaline Cements"*, *First International Conference on Alkaline Cements and Concretes*, K.S.T.U., pp. 12-45.

- [16] Dyer, A. (1988). *"An Introduction to Zeolite Molecular Sieves"*, Ed. John Wiley & Sons.
- [17] Granizo, M.L. (1998). *"Activación Alcalina de Metacaolin: Desarrollo de Nuevos Materiales Cementantes"*, Tese de Doutoramento, Universidade Autónoma de Madrid, Espanha.
- [18] Davidovits, J. (On-line). *"High-Performance Roman Cement Analysis"*, Site da Internet www.geopolymer.org/archaeo5a.html
- [19] Davidovits, F., Davidovits, J. (1999). *"Long-lasting Roman Cements and Concretes"*, *Proceedings of the Second International Conference Geopolymère' 99*, Saint Quentin, pp. 315-320.
- [20] Davidovits, F. (1993). *"Les Mortiers de Pouzzolanes Artificielles Chez Vitruve: Évolution et Historique Architecturale"*, Thèse de D.E.A., Université Paris X-Nanterre.
- [21] Davidovits, J. (1984). *"X-ray Analysis and X-ray Diffraction of Casing Stones from the Pyramids of Egypt and the Limestone of the Associated Quarries"*, *Proceedings of the Science in Egyptology Symposia*, Manchester University Press, pp. 551-520.
- [22] Sousa Coutinho, A. (1973). *"Fabrico e Propriedades do Betão"*, L.N.E.C. Vol. I e II.
- [23] Gonzalez, G.M. (1978). *"Teoria e Problemas de Materiais de Construção"*, Ed. McGraw-Hill do Brasil, pp. 66.

- [24] Davidovits, J. (1994). "*Global Warming Impact on the Cement and Aggregate Industries*", *World Resource Review*, Vol. 6, n° 2, pp. 263-278.
- [25] Sampaio, J., Sousa Coutinho, J., Sampaio, M.N. (2000). "*Melhoria do Desempenho de Betões pelo Metacaulino*", 43º Congresso Brasileiro do Concreto.
- [26] Castro Gomes, J.P. (s/d). "*Alguns Aspectos da Micro-estrutura do Cimento*", *Boletim Informativo ENGENHO*.
- [27] Swamy, R.N. (1986). "*Cement Replacing Materials*", Editor R. N. Swamy, Glasgow-Surrey University Press, Concrete Technology and Design Vol. 3.
- [28] Skurchinskaya, J.V. (1994). "*Progress in Alkaline Cements*", *First International Conference on Alkaline Cements and Concretes*, K.S.T.U., pp. 271-297.
- [29] Talling, B., Brandstetr, J. (1989). "*Present State and Future of Alkali-activated Slag Concretes*", 3rd Intern. Conf. Fly Ash, Silica Fume, Slag and Natural Pozzolans in Concrete, Trondheim, Norway, Vol. 2, pp. 1519-1545.
- [30] Davidovits, J. (1994). "*Man Made Rock Geosynthesis and the Resulting Development of Very Early High Strength Cement*", *Journal of Materials Education*, Vol. 16, n°s 2&3, pp. 91-139.
- [31] Costa, C., Lemos, F., Ramôa Ribeiro, F. (1999). "*Zeólitos. Da Engenharia Química à Engenharia Agronómica*", Ingenium, Junho.

- [32] Davidovits, J. (1999). "*Chemistry of Geopolymeric Systems, Terminology*", *Proceedings of the Second International Conference Geopolymère '99*, pp. 9-40.
- [33] Whittingham, S. (1995). "*Historical Development of Zeolite Chemistry*", The Research Foundation of SUNY.
- [34] Klein, J. (2002). "*Zeolites*", *Department of Earth and Atmospheric Sciences, Saint Louis University*, www.eas.slu.edu/People/students/Jklein/Zeolites.htm
- [35] <http://mineral.galleries.com/minerals/silicate/sodalite/sodalite.htm>.
- [36] Puertas, F. (1995). "*Cementos de Escorias Activadas Alcalinamente: Situación Actual y Perspectivas de Futuro*", *Materiales de Construcción*, Vol. 45, nº 239.
- [37] Howell, P.A., US Patent 3.114.603
- [38] Besson, H., Caillère, S., Henin, S. (1969). "*Conditions de Préparation de l'Hydro-Sodalite à Basse Température*", *Compte Rendus de l'Académie des Sciences, Paris*, D269, pp. 1367-1368.
- [39] Granizo, M.L. (1999). "*Materiales Obtenidos a Partir de Reacciones de Activación Alcalina. Morteros de Piedra Artificial Obtenidos por Reacción de Activación de Metacaolin*", *Clar Rehabilitación*, Madrid.
- [40] Narang, K.C., Chopra, S.K. (1983). "*Studies on Alkaline Activation of Blast-furnace, Steel and Alloy Slags*", *Silicate Industry* 9, pp. 175-182.

- [41] Palomo, A., Glasser, F.P. (1992). "*Chemically-bonded Cementitious Materials Based on Metakaolin*", Br. Ceram. Trans. Journal, 91, pp. 107-112.
- [42] Figueiredo Gomes, C. (1986). "*Argilas, o que São e para que Servem*", Ed. Fundação Calouste Gulbenkian.
- [43] Murat, M., Bachiorrini, A. (1986). "*Spéctroscopie d'Absorption Infrarouge Appliquée à la Caractérisation de l'État d'Amorphisation de la Métakaolinite*", C. R. Académie de Sciences de Paris, t. 303, Série II, n° 20.
- [44] Davidovits, J. (1982). "*Mineral Polymers and Methods of Making Them*", U.S. Patent 4349386 (Setembro).
- [45] Cheng, T.W., Chiu, J.P. (2003). "*Fire-resistant Geopolymer Produced by Granulated Blast Furnace Slag*", Minerals Engineering, Vol. 16, pp. 205-210.
- [46] Kunze, C., Hermann, E., Gatzweiler, R., Kiessig, G., Davidovits, J. (1999). "*Long Term Stability of Radioactive Residues Solidified by Geopolimère*", KONTEC'99 - 4th International Symposium Conditioning of Radioactive Operational Decommissioning Wastes, Hamburg, March.
- [47] Davidovits, J. (1988). "*Geopolymer Chemistry and Properties*", Proceedings of the Geopolymer'88, Vol. 1, pp. 25-48.
- [48] Davidovits, J. (1994). "*Properties of Geopolymeric Cements*", Proceedings of the First International Conference on Alkaline Cements and Concretes, Kiev, Ukraine, pp. 131-149.

- [49] Palomo, A., Grutzeck, M.W., Blanco, M.T. (1999). "*Alkali-activated Fly Ashes: A Cement for the Future*", *Cement and Concrete Research*, Vol. 29, pp. 1323-1329.
- [50] Hardjito, D., Wallah, S.E., Sumajouw, D.M.J., Rangan, B.V. (2004). "*Brief Review of Development of Geopolymer Concrete*", *George Hoff Symposium*, American Concrete Institute (to be held).
- [51] Lopez-Castro, J. (On-line). "*Qué son las Arcillas?*", <http://omega.ilce.edu.mx/ciencia/arcillas/html/lque.html>.
- [52] Liebau, F. (1985). "*Structural Chemistry of Silicates - Structure, Bonding and Classification*", Ed. Springer-Verlag.
- [53] Boutterin, C., Davidovits, J. (1988). "*Réticulation Géopolimérique (LTGS) et Matériaux de Construction*", *Geopolymer '88*, Vol. 1, Compiègne, pp. 79-88.
- [54] Mehta, P.K. (1981). "*Studies on Blended Portland Cements Containing Santorin Earth*", *Cement Concrete Research*, 11, pp. 507-518.
- [55] Davis, R.E., Kelly, J.W., Troxell, G.E., Davis, H.E. (1935). "*Properties of Mortars and Concretes Containing Portland-pozzolan Cements*", *Proceedings of the Journal of A.C.I.*, 32, pp. 80-114.
- [56] Mindless, S., Young, J.F. (1981). "*Concrete*", Ed. Prentice Hall, New Jersey.
- [57] Sersale, R., Frigione, G. (1987). "*Portland-Zeolite-Cement for Minimizing Alkali-Aggregate-Expansion*", *Cement Concrete Research*, 17, pp. 404-410.

- [58] Metso, J. (1982). "*The Alkali Reaction of Alkali-Activated Finnish Blast Furnace Slag*", *Silicates Industriels*, 47, pp. 123-127.
- [59] Jones, Tr., Walters, G.V., Kostuch, J.A. (1992). "*Role of Metakaolin in Suppressing ASR in Concrete Containing Reactive Aggregate and Exposed to Saturated NaCl Solution*", *Proceedings of the 9th International Conference on Alkali-Aggregate Reaction in Concrete*, pp. 485-496.
- [60] Mehta, P.K., Monteiro, P.J.M. (1993). "*Concrete: Structure, Properties and Materials*", Ed. Prentice Hall, New Jersey.
- [61] Van Jaarsveld, J.G.S., Van Deventer, J., Lorenzen, L. (1996). "*The Potential Use of Geopolymeric Materials to Immobilize Toxic Metals - Part I: Theory and Applications*", *Minerals Engineering*, Vol. 10, n^o 7, pp. 659-669.
- [62] Van Jaarsveld, J.G.S., Van Deventer, J.S.J., Schwartzman, A. (1999). "*The Potential Use of Geopolymeric Materials to Immobilize Toxic Metals - Part II: Material and Leaching Characteristics*", *Minerals Engineering*, Vol. 12, n^o 1, pp. 75-91.
- [63] Bankowski, P., Zou, L., Hodges, R., Singh, P.S., Trigg, M. (2002). "*Brown Coal Fly-Ash Stabilization by Inorganic Polymers*", *Proceedings of the Geopolymer Conference 2002*, Melbourne, Australia.
- [64] JCPDS (1999). *International Center for Diffraction Data*, 05-0143 e 140164.
- [65] Ghosh, S.N. (2000). "*IR Spectroscopy*", *Handbook of Analytical Techniques in Concrete Science and Technology*, pp. 174-204, William Andrew Publishing, LLC.

- [66] Murat, M., Bachiorrini, A. (1982). "*Corrélation entre l'État d'Amorphisation et l'Hidraulicité du Metakaolin*", *Bulletin Minérale*, Vol. 105, pp. 543-555.
- [67] Rocha, J.C. (1990). "*Solid-State Nuclear Magnetic Resonance Studies of Kaolinite, Metakaolinite and Related Materials*", PhD Thesis at the University of Cambridge.
- [68] Davidovits, J. (1985). "*Early High Strength Mineral Polymer*", US Patent 45009985.
- [69] Kaps, C., Buchwald, A. (2002). "*Property Controlling Influences on the Generation of Geopolymeric Binders Based on Clay*", *Proceedings of the Geopolymer 2002 Conference*, Melbourne.
- [70] Barrer, R., Beaumont, R., Carmine, C. (1974). "*Chemistry of Soil Minerals - Part IV - Action of Some Basic Solutions on Metakaolinite and Kaolinite*", J.S.C. Dalton Publishers.
- [71] Grant, R., Grant, C. (1988). "*Chemical Dictionary*", McGraw-Hill Book Company.
- [72] Dias, D.P., Thaumaturgo, C. (1999). "*Geopolymer Cements Resistant to Aggressive Agents*", *Military Engineering Institute (IME)*, Rio de Janeiro.
- [73] Chatterjee, A., K. (2000). "*X-Ray Diffraction*", *Handbook of Analytical Techniques in Concrete Science and Technology*, pp. 275-332, William Andrew Publishing, LLC.

- [74] Flanigen, E.M., Khatami, H. (1971). "*Infrared Structural Studies of Zeolite Frameworks*", *Advanced Chemistry Society*, Vol. 101, pp. 201-229.
- [75] Percival, H.J., Duncan, J.F., Foster, P.K. (1974). "*Interpretation of the Kaolinite-Mullite Reaction Sequence from Infrared Absorption Spectra*", *Journal of the American Ceramic Society*, Vol. 57, nº 2, pp. 57-61.
- [76] Kirkpatrick, R.J. (2000). "*Nuclear Magnetic Resonance Spectroscopy*", *Handbook of Analytical Techniques in Concrete Science and Technology*, pp. 205-230, William Andrew Publishing, LLC.
- [77] Sarkar, S.L., Aimin, X., Jana, D. (2000). "*Scanning Electron Microscopy, X-Ray Microanalysis of Concretes*", *Handbook of Analytical Techniques in Concrete Science and Technology*, pp. 231-274, William Andrew Publishing, LLC.
- [78] Redfern, S.A.T. (1987). "*The Kinetics of Dehydroxylation of Kaolinite*", *Clay Minerals*, Vol. 22, pp. 447-456.
- [79] Lambert, J.F., Millman, W.S., Fripiat, J.J. (1989). "*Revisiting Kaolinite Dehydroxylation: A ^{29}Si and ^{27}Al MAS NMR Study*", *Journal of American Chemical Society*, Vol. 111, pp. 3517-3522.
- [80] Barbosa, V., Thaumaturgo, C., Mackenzie, K.J. (1999). "*Synthesis and Characterization of Sodium Poly(sialate) Inorganic Polymer Based on Alumina and Silica*", *Proceedings of the Second International Conference Geopolymère '99*, Saint Quentin, pp. 65-78.
- [81] Bowker, A., Lieberman, G. (1985). "*Engineering Statistics*", Ed. Prentice-Hall, pp. 558, Table 3.

- [82] Pihlajavaara, S.E. (1994). *“Contributions for the Development of the Estimation of Long-term Performance and Service Life of Concrete”*, Helsinki University of Technology, Espoo, Report 3, 26.
- [83] Hardjito, D., Wallah, S., Somajouw, D., Rangan, B. (2003). *“Geopolymer Concrete: Turn Waste into Environmentally Friendly Concrete”*, INCONTEST 2003, at KCT, Coimbatore-6.
- [84] D’Arga e Lima, J., Teixeira-Coelho, A., Monteiro, V. (1970). *“Manual de Betão Armado”*, Laboratório Nacional de Engenharia Civil (LNEC), Lisboa.
- [85] Bettencourt-Ribeiro, A., Gonçalves, A., Salta, M. (2000). *“Influência dos Inertes na Durabilidade do Betão Armado”*, Encontro Nacional Betão Estrutural 2000, FEUP Edições.
- [86] Pacheco-Torgal, F.M. (2002). *“Influência das Propriedades Físicas de Agregados Graníticos e Calcários na Durabilidade do Betão”*, Tese de Mestrado em Engenharia Civil - Ciências da Construção, Universidade de Coimbra.
- [87] Salta, M. (2000). *“Caracterização da Resistência do Betão à Penetração dos Cloretos”*, Encontro Nacional Betão Estrutural 2000, FEUP Edições.

