

BIBLIOTECA VIRTUAL



***Bibliografía***

## Bibliografía

- Adamson, A.W y Gast, A.P. (1997): *Physical Chemistry of Surfaces*, 6<sup>th</sup> ed. John Wiley & Sons, New York, 784 p.
- Aguilar, J. (1989): *Curso de termodinámica*. Editorial Alambra, Madrid, 714 p.
- Alonso, F.J., Esbert, R.M. y Ordaz, J. (1987): Comportamiento hídrico de calizas y dolomías. *Boletín Geológico y Minero*, 98: 555-576.
- Anderson G.M y Crerar D.A. (1993): *Thermodynamics in geochemistry*. Oxford University Press, Oxford, 588 p.
- Anselmetti, F.A., Luthi, S. y Eberli, G.P. (1998): Quantitative characterisation of carbonate pore system by digital image analysis, *AAPG Bulletin*, 82: 1815-1836.
- Atkins, P.W. (1991): *Físicoquímica*. Addison-Wesley Iberoamericana, Wilmington, 1001 p.
- Ball, J.W., Jenne, E.A. y Nordstrom, D.K. (1979): WATEQ2-a computerised chemical model for trace and major element speciation and chemical equilibria of natural waters. En: *Chemical Modelling in Aqueous Systems* (E.A. Jenne, Ed.), *American Chemical Society*, Washington DC, 815-835.
- Ball, J.W. y Nordstrom, D.K. (1991): User's manual for WATEQ4F, with revised thermodynamic data base and test cases for calculating speciation of major, trace, and redox elements in natural waters. *USGS Report 91-183*.
- Barton, C.C. y La Pointe, P.R. (1995): *Fractals in the earth sciences*. Plenum Press, New York, 265 p.
- Bell, F.G., (1993): Durability of carbonate rock as building stone with comments on its preservation. *Environmental Geology*, 21: 187-200.
- Bell, F.G. (2000): *Engineering properties of soils and rocks*, 4<sup>a</sup> Ed. Blackwell Science Oxford, 482 p.
- Benavente, D. (1998): *Presión de cristalización como factor condicionante de la durabilidad de las rocas ornamentales porosas*. Tesis de Licenciatura. Universidad de Alicante. 104 p.

- Benavente D., García del Cura M.A., Fort R. y Ordóñez, S. (1999): Thermodynamic modelling of changes induced by salt pressure crystallisation in porous media of stone. *Journal of Crystal Growth*, 204: 168-178.
- Benavente, D., García del Cura, M.A., Bernabéu, A. y Ordóñez, S. (2001a): Quantification of salt weathering in porous stones using an experimental continuous partial immersion method. *Engineering Geology*, 59: 313-325.
- Benavente, D., García del Cura, M.A., Fort, R. y Ordóñez, S. (2001b): Determination and quantification of pore structure using backscattered electron image analysis in porous building. *Proceedings of 8th Euroseminar on Microscopy Applied of Building Materials*, Atenas, 517-524.
- Benavente, D., García del Cura, M.A., y Ordóñez, S. (2001c): Influencia de la humedad relativa y la temperatura en la durabilidad frente a la cristalización de las sales en rocas ornamentales porosas. *III Congreso Ibérico de Geoquímica, Zaragoza*, 611-615.
- Benavente, D., Lock, P., García del Cura, M.A. y Ordóñez, S. (2002): Predicting the capillary imbibition of porous rocks from microstructure. *Transport in Porous Media*, 49: 59-76.
- Berner R.A. (1971): *Principles of Chemical Sedimentary*. MacGraw-Hill, New York, 240 p.
- Berryman, J.G. y Blair, S.C. (1987): Kozeny-Carman relations and image processing methods for estimating Darcy's constant. *Journal of Applied Physics*, 62: 2221-2228.
- Bethke, C.M. (1992): The question of uniqueness in geochemical modelling. *Geochimica et Cosmochimica Acta*, 56: 4315-4320.
- Bethke, C.M. (1996): *Geochemical Reaction Modelling: Concepts and Applications*. Oxford University Press, New York, 397 p.
- Blasi, P., Frisa Morandini, A., Mancini, R. y Marini, P. (1998): An experimental investigation on marble testing for bending strength: reliability of the results and size effects. *II Cong. Inter. de la Piedra*.
- Bourbié, T., Coussy, O. y Zinszner, B. (1987): *Acoustics of porous media*. Editions Technip, Paris, 334 p.

- Bruton, C.J. y Viani, B.E. (1992): Geochemical modelling of water-rock interactions in the unsaturated zone. En: *Water-Rock Interaction* (Y.K. Kharaka y A.S. Maest, Eds.) Balkema, Róterdam, 705-708.
- Callister, W.D. (1995): *Ciencia e ingeniería de los materiales*. Editorial Reverte, Barcelona, 459 p.
- Camuffo, D. (1984): Condensation-evaporation cycles in pore and capillary systems according to the Kelvin model. *Water, Air, Soil Pollution*, 21: 151-159.
- Camuffo, D. (1998): *Microclimate for cultural heritage*. Elsevier, Amsterdam, 415 p.
- Capella, B. y Dietler G. (1999): Force-distance by atomic force microscopy. *Surface Science Reports*, 34: 1-104.
- Choquette, P. W. y Pray, L. C. (1970): Geology nomenclature and classification of porosity sedimentary carbonates. *AAPG Bulletin*, 54: 207-250.
- Christensen, N.I. (1990): Seismic Velocities. En *Practical handbook of physical properties of rocks and minerals* (R.S. Carmichael Ed.), 429-546.
- Clegg, S.L. y Whitfield, M. (1991): Activity coefficients in natural waters. En: *Activity coefficients in electrolyte solutions* (K.S. Pizer Ed.), CRC Press, Inc. Boca Raton, 279 – 434.
- Coca, P. y Rosique, J. (1992): *Ciencia de materiales*. Ed. Pirámide, Madrid, 687 p.
- Correns, C.W. (1949): Growth and dissolution of crystals under linear pressure. *Disc. Faraday Soc.*, 5: 267-271.
- Davies, C.W. (1962): *Ion Association*. Butterworths, London, 190p.
- Doehne, E. (1995): Environmental scanning microscopy. *Proc. XVII Reunión Anual Sociedad Española de Microscopía (Oviedo)*, 314-315.
- Doyen, P.M. (1988): Permeability, conductivity, and pore geometry of sandstone, *Journal of Geophysical Research*, 93: 7729-7740.
- Dullien, F.A.L., El-Sayed, M.S. y Batra, V.K. (1977): Rate of capillary rise in porous media with nonuniform pores. *Journal of Colloid and Interface Science*, 60: 497-506.
- Dullien F.A.L (1992) : *Porous Media Fluid Transport and Pore Structure*. Academic Press, San Diego, 574 p.

- Esbert, R.M., Ordaz, J., Alonso, F.J., Montoto, M., González Limón, T. y Álvarez de Buergo Ballester, M. (1997): *Manual de diagnóstico y tratamiento de materiales cerámicos pétreos y cerámicos*. Col·legi d'Aparelladors i Arquitectes Tècnics de Barcelona, Barcelona, 139 p.
- Etris, E.L., Brumfield, D.S., Ehrlich, R. y Crabtree, S.J. (1988): Relation between pores, throats and permeability: a petrographic/physical analysis of some carbonate grainstones and packstones. *Carbonates and Evaporites*, 3: 17-32.
- Fitzner, B. y Snethlage, R. (1982): Ueber Zusammenhänge zwischen salzkristallisationsdruck und Porenradienverteilung. *GP Newsletter*, 3: 13-24.
- Fitzner B., Heinrichs K. y Volker M. (1996): Model for salt weathering at maltese globigerina limestone. En: *Origin, mechanisms and effects of salts on degradation of monuments in marine and continental environments* (U. Zezza Ed.). Protection and conservation of the European cultural heritage research report nº 4. European commission research workshop. Bari, 333-344
- Folk R. (1962): Spectral subdivision of limestone types. En: *Classification of Carbonate Rocks* (W.E. Ham Ed.), *AAPG Bulletin*, 62-84.
- Fort, R. (1996a): Análisis del sistema poroso de las rocas. En: *Degradación y conservación del Patrimonio Arquitectónico* (F. Mingarro. Ed.), Ed. Complutense, Madrid, 227-235.
- Fort, R. (1996b): El agua en los materiales pétreos: comportamiento. En: *Degradación y conservación del Patrimonio Arquitectónico* (F. Mingarro. Ed.), Ed. Complutense, Madrid, 237-248.
- French, R.H. (2000): Origins and applications of London dispersion Forces and Hamaker constants in ceramics, *Journal of the American Ceramic Society*, 83: 2117-2146.
- García Guinea, J., Abella, R., Sánchez Moral, S., Benito, R. y Martín Ramos, D. (2000): Examining hydrated minerals using optically stimulated x-ray diffraction, an inexpensive modification of traditional diffractometers. *Journal of Sedimentary Research*, 70: 964-967.
- Garrels, R.M. y Christ, C.L. (1965): *Solutions, minerals, and equilibria*. Harper and Row, New York, 450 pp.
- Gauri, K.L., Chowdhury, A.N., Kulshreshtha, N.P. y Punuru. A.R. (1988): Geologic features and the durability of limestones at the Sphinx. En: Marinos y Koukis

- (Eds.), *Engineering Geology of Ancient Works, Monuments and Historical Sites*. Balkema, Rotterdam, 723-729.
- Gmelin, L. (1966): Handbuch der anorganischen chemie. Verlag Chemie, Weinheim. Vol. 21, 1091-1117.
- Goudie, A.S. (1974): Further experimental investigation of rock weathering by salt and other mechanical processes. *Zeitschrift für Geomorphologie*, 21: 1-12.
- Goudie, A.S. (1986): Laboratory simulation of 'the wick effect' in salt weathering of rock. *Earth Surface Processes and Landforms*, 11: 275-285.
- Goudie, A.S. (1993): Salt weathering simulation using a single-immersion technique. *Earth Surface Processes and Landforms*, 18: 368-376.
- Goudie, A.S. y Viles, H.A. (1995): The nature and pattern of debris liberation by salt weathering: a laboratory study. *Earth Surface Processes and Landforms*, 20: 437-449.
- Goudie, A.S. (1999): Experimental salt weathering of limestone in relation to rock properties. *Earth Surface Processes and Landforms*, 24: 715-724.
- Gregg, S.J. y Sing, K.S.W. (1982): *Adsorption, surface area, and porosity*, 2<sup>nd</sup> ed. Academic Press, London, 303 p.
- Grossi, C.M. y Esbert, R.M. (1994): Las sales solubles en el deterioro de rocas monumentales. Revisión bibliográfica. *Materiales de Construcción*, 44: 15-30.
- Grossi, C.M., Esbert, R.M., Suárez del Río, L.M., Montoto, M. y Laurenzi-Tabasso, M., (1997): Acoustic emission monitoring to study sodium sulphate crystallization in monumental porous carbonate stones, *Studies in Conservation*, 42: 115-125.
- Guéguen, Y. y Palciauskas, V. (1994): *Introduction to the physics of rock*. Princeton, University Press. Princeton, 294 p.
- Hammecker, C., Mertz, J. D., Fischer, C. y Jeannette, D. (1993): A geometrical model for numerical simulation of capillary imbibition in sedimentary rocks. *Transport in Porous Media*, 12: 125-141.
- Hammecker, C. y Jeannette, D. (1994): Modelling the capillary imbibition kinetics in sedimentary rocks: role of petrographical features. *Transport in Porous Media*, 17: 285-303.

- Hammecker C. (1995): The importance of the petrophysical properties and external factors in stone decay on monuments. *Pure and Applied Geophysics*, 145: 337-361.
- Hanor, J.S. (1987): *Origin and migration of subsurface sedimentary brines*. Short Course nº 21, S.E.P.M. 247 p.
- Harvie, C.E. y Weare, J.H. (1980): The prediction of mineral solubilities in natural waters: the Na-K-Mg-Ca-Cl-SO<sub>4</sub>-H<sub>2</sub>O systems from zero to high concentrations at 25 °C. *Geochimica et Cosmochimica Acta*, 44: 981-997.
- Harvie C.E., Möller N. y Weare J.H. (1984): The prediction of mineral solubilities in natural waters: the Na<sup>+</sup>-K<sup>+</sup>-Mg<sup>+2</sup>-Ca<sup>+2</sup>-Cl<sup>-</sup>-SO<sub>4</sub><sup>-2</sup>-H<sub>2</sub>O system from zero to high concentration at 25 °C. *Geochimica et Cosmochimica Acta*, 44: 981-997.
- Hatfield, K.L., (1999): *Pore morphology and the characterisation of North Sea sandstone*. Doctoral Dissertation, University of Leicester, UK.
- Helgeson, H.C. (1969): Thermodynamic of hydrothermal systems at elevated temperatures and pressures. *American Journal of Science*, 267: 729-804.
- Hirschwald, J. (1908): *Die Prüfung der natürlichen Bausteine auf ihre Wetterbeständigkeit*. Ernst & Sonh, Berlin.
- Hoffmann, D., Niedack-Nad, M. y Niesel, K. (1996): Evaporation as a feature of characterising stone. En: *8<sup>th</sup> International Congress on Deterioration and Conservation of Stone*, Berlin, 453-460.
- Horvath, A.L. (1985) *Handbook of aqueous electrolyte solutions : physical properties, estimation, and correlation methods*. Halsted Press, New York , 631 p.
- Israelachvili, J.N. (1991): *Intermolecular and surface forces*, 2<sup>nd</sup> ed. Academic Press, London, 450 p.
- Jefferson, D. P. (1993): Building stone: the geological dimension. *Quarterly Journal of Engineering Geology*, 26: 305-319.
- Kendall, K. (1984): Connection between structure and strength of porous solids. En: *Physics and chemistry of porous media* (D.L. Johnson y P.N. Sen. Eds.) Schlumberger-Doll Research, 1983. American Institute of Physics, New York, 78-88.
- Kharaka, Y.K. y Barnes, I. (1973): SOLMNEQ: solution-mineral equilibrium computations. *USGS Reports*, 215-899.

- Kinsman, D.J.J., (1976): Evaporites: relative humidity control of primary mineral facies. *Journal of Sedimentary Petrology*, 46: 273-279.
- Kirkpatrick, S. (1973): Percolation and conduction, *Reviews of Modern Physics*, 45: 574-588.
- Krautkrämer, J y Krautkrämer, H. (1969): *Ultrasonic testing of materials*. Springer-Verlag, Berlin. 521 p.
- Krinsley, D.H., Pye, K., Boggs, S. y Tovey, N.K. (1998): *Backscattered scanning electron microscopy and image analysis of sediments and sedimentary rocks*. Cambridge University Press, Cambridge, 193 p.
- Krumbein, W.E. (1983): *Microbial geochemistry*. Blackwell Scientific, Oxford, 330 p.
- Krumgalz, B.S., Hecht, A., Starinsky, A. y Katz, A. (2000): Thermodynamic constraints on Dead Sea evaporation: can the Dead Sea dry up? *Chemical Geology*, 165: 1-11.
- Kuchitsu, N., Ishizaki, T. y Nishiura, T., (1999): Salt weathering of the brick monuments in Ayutthaya, Thailand, *Engineering Geology*, 55: 91-99.
- Künzel H.M. (1995): *Simultaneous Heat and Moisture transport in building components: one- an two-dimensional calculations using simple parameters*. IRB Verlag. Stuttgart. 102 p.
- La Iglesia, A., García del Cura, M. A. y Ordóñez, S. (1994): The physicochemical weathering of monumental dolostones, grainstones and limestones; dimension stones of Cathedral of Toledo (Spain). *The Science of the Total Environment*, 152: 179-188.
- La Iglesia A., Gonzalez V., López Acedo V. y Viedma C. (1997): Salt crystallisation in porous construction materials I. Estimation of crystallisation pressure. *Journal of Crystal Growth*, 177: 111-118.
- Landau, L.D. y Lifshitz, E.M. (1969): *Teoría de la elasticidad*. Volumen 7 del curso de Física Teórica. Ed. Reverté, Barcelona, 226 p.
- Langmuir, D. (1997): *Aqueous Environmental Geochemistry*. Prentice-Hall, Inc., Upper Saddle River, 600 p.
- Lasaga A.C. (1998): *Kinetic theory in the Earth Science*. Princeton University Press, Princeton, 811 p.

- Lebro, I. Schaap, M.G. y Suarez, D.L. (1999): Saturated hydraulic prediction from microscopic pore geometry measurements and neural network analysis, *Water Resources Research*, 35: 3149-3158.
- Leventis, A., Verganelakis, D.A., Halse, M.R., Webber, J.B. y Strange, J.H. (2000): Capillary imbibition and pore characterisation in cement pastes. *Transport in Porous Media*, 39: 143-157.
- Linke, W.F. (1965): *Solubilities of inorganic and metal organic compounds*, 4<sup>th</sup> ed. American Chemical Society, Washington, Vol. 1: 1487 p.; Vol. 2: 1914 p.
- Lowell, S. y Shields, J.E. (1984): *Powder surface area and porosity*. 2<sup>nd</sup> ed. Chapman and Hall, London, 234 p.
- Mandelbrot, B.B. (1982): *The fractal geometry of nature*. W. H. Freeman, San Francisco, 460 p.
- Matsuoka, N. (1988): laboratory experiments on frost shattering of rocks. *Science Reports of the Institute of Geosciences*, University de Tsukuba, Section A, 9: 1-36.
- Matubayasi, N., Matsuo, H., Yamamoto, K., Yamaguchi, S. y Matuzawa, A. (1999): Thermodynamic quantities of surface formation of aqueous electrolyte solutions I. Aqueous solutions of NaCl, MgCl<sub>2</sub>, and LaCl<sub>3</sub>. *Journal of Colloid and Interface Science*, 209: 398-402.
- Mayer, J.E. (1950): The theory of ionic solutions. *Journal of Chemical Physics*, 18: 1426-1436.
- Meng, B. (1994): Resolution-dependent characterisation of interconnected pore systems: development and suitability of a new method. *Materials and Structures*, 27: 63-70.
- Millero F.J. (1979): Effects of pressure and temperature on activity coefficients. En: *Activity coefficients in electrolyte solutions* (R.M. Pytkowicz Ed.) CRC Press, Inc. Boca Raton, 63-151.
- Millero, F.J. (1982): The effect of pressure on the solubility of minerals in water and seawater. *Geochimica et Cosmochimica Acta*, 46:11-22.
- Mod' d B.K., Howarth R.J. y Bland C.H. (1996): Rapid prediction of Building Research Establishment limestone durability class from porosity and saturation, *Quarterly Journal of Engineering Geology*, 29: 285-297.
- Montoto M., Calleja, L., Pérez, B. y Esbert R.M. (1991): Evaluation in situ of the state

- of deterioration of Monumental stones by non-destructive ultrasonic techniques. En: *Materials Issues in Art and Archaeology II, MRS.* (P.B. Vandiver, J. Druzik y G.S. Wheeler, Eds.), 273-284.
- Montoto M. (1996): Técnicas no destructivas aplicadas a la conservación del patrimonio histórico. En: *Cuadernos Técnicos: Técnicas de diagnóstico aplicadas a la conservación de los materiales de construcción en los edificios históricos* (E. Sebastián, ed.). IAPH, Sevilla, p. 85-94.
- Mossotti. V.G. y Eldeeb, A.R. (1992): The fractal nature of Salem limestone. En: *7<sup>th</sup> International Congress on Deterioration and Conservation of Stone* (J. Delgado Rodrigues, F. Henriques y F. Telmo Jeremias Eds.), Laboratório Nacional de Engenharia Civil, Lisbon, 621-630.
- Mullin, J.M. (1993): *Crystallisation*. Butterworth-Heinemann, Oxford, 527 p.
- Ordaz, J. y Esbert, R. (1985) Porosity and capillarity in some sandstone and dolomite monumental stone. *5<sup>th</sup> International Congress on Deterioration and Conservation of Stone*, Lausanne, 93-102.
- Ordóñez S., García del Cura M.A., Fort R., Louis M., López de Azcona M.C. y Mingarro, F. (1994): Physical properties and petrography characteristics of some Bateig varieties. En: *7<sup>th</sup> International IAEG Congress Lisboa* (R. Oliveira, L.F. Rodrigues, A.G. Coelho and A.P. Cunha Eds.), Balkema, Lisboa, 3595-3604.
- Ordóñez S., Fort R. y García del Cura M. A. (1997): Pore size distribution and the durability of a porous limestone. *Quarterly Journal of Engineering Geology*, 30: 221-230.
- Ordóñez, S. y Bernabéu, A. (1998): Comparación entre valores de rotura a flexión a partir de datos obtenidos entre ensayos de tres y cuatro puntos. *II Cong. Inter. de la Piedra*.
- Ordóñez, S., Fort, R., Benavente, D., García del Cura, M. A. y Bernabéu, A. (1998): Dimensional porous stone durability from mercury porosimetry data. *II Cong. Inter. de la Piedra*.
- Ordóñez, S., Cañaveras, J.C., Benavente, D. y Bernabéu, A. (2000): *Introducción a la Cristalografía Práctica, 1ª ed.* Ediciones Universidad de Alicante, 218 p.
- Parkhurst, D.L., Thorstenson, D.C. y Plummer, L.N. (1980): PHREEQC-a computer program for geochemical calculations. *USGS Reports 80-96*.

- Parkhurst, D.L. y Appelo, C.A.J. (1999): User's guide to PHREEQC (Version 2)-A computer program for speciation, batch reaction, one dimensional transport, and inverse geochemical calculations. *USGS Reports*, 143 p.
- Pavlov, P. V. y Jojlov, A. F. (1992): *Física del estado sólido*. Editorial MIR Rubiños-1860 S.A., 431p.
- Pisarenko, G. S., Yakovlev, A. V. y Matviev, V. (1979): *Manual de resistencia de materiales*. Moscú, 493 p.
- Pitzer K. S. (1973): Thermodynamics of Electrolytes I: Theoretical basis and general equations. *Journal of Physical Chemistry*, 77: 268-277.
- Pitzer K.S. y Mayorga G. (1974): Thermodynamics of Electrolytes. *Journal of Solution Chemistry*, 3: 539-546.
- Pitzer K. S. (1975): Thermodynamics of Electrolytes V: Effects of Higher order electrostatic terms. *Journal of Solution Chemistry*, 4: 249-265.
- Pitzer, K.S. (1979): *Theory: ion interaction approach*. En: *Activity Coefficients in Electrolyte Solutions* (R.M. Pytkow itz Ed.), CRC Press, Boca Raton, 1: 157-208.
- Pitzer, K.S. (1987): A thermodynamic model for aqueous solutions of liquid-like density. En I.S.E. Carmichael y H.P. Eugster (eds.), *Thermodynamic Modelling of Geological Materials: Mineral, Fluids and Melts. Reviews in Mineralogy*, 17: 97-142.
- Plummer, L.N., Parkhurst, D.L., Fleming, G.W., Dunkle, S.A. (1988): PHRQPITZ, a computer program incorporating Pitzer's equations for calculation of geochemical reactions in brines. *USGS Water-Resources Investigations Report 88-4153*, 319 p.
- Prieto, M. (1991): Fundamentos de ontogenia mineral. En: *Yacimientos minerales: Técnicas de estudio; Tipos; Evolución metalogénica; Exploración* (Ed. R. Lunar y R. Oyarzun. Editorial Centro de Estudios Ramón Areces S.A., 3-31.
- Richarson, B. A. (1991): The durability of porous stones. *Stone Industries*, 22-25.
- Rodríguez García, F. y García Ruiz, P. (1995): Porosimetría por intrusión de mercurio: fundamentos de la técnica y aplicación a la caracterización microestructural de hormigones. *Ingeniería Civil*, 97: 21-37.
- Rodríguez Navarro, C. y Sebastián, E. (1994): Técnicas de análisis del sistema poroso de materiales pétreos ornamentales: usos y limitaciones. *Ingeniería Civil*, 96: 130-142.

- Rodríguez Navarro, C. (1996): Microscopía electrónica de barrido ambiental (ESEM). Fundamentos y aplicaciones en conservación de materiales ornamentales. En *Cuadernos Técnicos: Técnicas de diagnóstico aplicadas a la conservación de los materiales de construcción en los edificios históricos* (E. Sebastián, Ed.), IAPH, Sevilla, 85-94 p.
- Rodríguez Navarro C., Doehne E., Ginell W.S. y Sebastian E. (1996): Salt growth in capillary and porous media. En: *Proceeding of 3rd International Congress on Restoration of Architectural Heritage and Building*, (E. Sebastian, I. Valverde y U. Zezza Eds.), Universidad de Granada, 509-514.
- Rodríguez Navarro, C. (1998): *Causas y mecanismos de alteración de los materiales calcáreos de las catedrales de Granada y Jaén*. Tesis Doctoral, Universidad de Granada, 412 p.
- Rodríguez Navarro C. y Doehne E. (1999): Salt weathering: influence of evaporation rate, supersaturation and crystallisation pattern. *Earth Surface Processes and Landforms*, 24: 191-209.
- Rodríguez Navarro, C., Doehne, E. y Sebastián, E. (2000): How does sodium sulfate crystallize? Implications for the decay and testing of building materials? *Cement and Concrete Research*, 30: 1528-1534.
- Rossi-Manaresi, R. y Tucci, A. (1989): Pore structure and salt crystallization: "salt decay" of Agrigento biocalcarene and "case hardening" in sandstone. En: *Proceedings 1<sup>st</sup> International Symposium, "The Conservation of Monuments in the Mediterranean Basin"*, Bari, 97-100.
- Rouquerol, J., Avnir, D., Fairbridge, C.W., Everett, D.H., Haynes, J.H., Pernicone, N., Ramsay, J.D.F., Sing, K.S.W. y Unger, K.K. (1994): Recommendations for the characterization of porous solids. *Pure & Applied Chemistry*, 66: 1739-1758.
- Russell, S.A. (1927): *Stone protection from committee report*. H.M. Stationary Office, London.
- Saiz Jimenez, C. (1997): Biodeterioration vs biodegradation: the role of microorganisms in the removal of pollutants deposited on historic buildings. *International Biodeterioration and Biodegradation*, 40: 225-232.
- Sánchez Moral, S. (1994): *Sedimentación salina actual en un lago continental (Laguna de Quero, Toledo)*. Aplicación de la modelización termodinámica al estudio de

- secuencias de precipitación salina*. Tesis Doctoral. Universidad Complutense de Madrid, 391p.
- Sánchez Moral, S., Ordóñez, S., Benavente, D. y García del Cura, M.A. (2002): The water balance equations in Saline Playa Lakes: Comparison between experimental data and actual data from Quero Playa Lake (Central Spain). *Sedimentary Geology*, 148: 221-234.
- Sand, W. (1997): Microbial mechanisms of deterioration of inorganic substrates- A general mechanistic overview. *International Biodeterioration and Biodegradation*, 40: 183-190.
- Scherer, G.W. (1990): The theory of drying. *Journal of the American Ceramic Society*, 73: 3-14
- Scherer, G.W. (1993): Freezing gels. *Journal of Non-Crystalline Solids*, 155: 1-25.
- Scherer, G.W. (1999): Crystallisation in pores. *Cement and Concrete Research*, 29: 1347-1358.
- Scherer, G.W. (2000): Stress from crystallisation of salt in pores. En: *9<sup>th</sup> International Congress on Deterioration and Conservation of Stone*, (V. Fassina Ed.), Elsevier, Venice, 187-194.
- Schlueter, E.M. (1995): *Predicting the transport properties of sedimentary rocks from microstructure*. Doctoral Dissertation, University of California, Berkeley. 268 p.
- Schlueter, E.M., Zimmerman, R.W., Witherspoon, P.A., y Cook, N.G.W. (1997): The fractal dimension of pores in sedimentary rocks and its influence on permeability. *Engineering Geology*, 49: 293-302.
- Schön, J.H. (1996): *Physical properties of rocks: fundamentals and principles of petrophysics*. Handbook of geophysical exploration. Section I, Seismic Exploration Vol. 18. Pergamon, New York, 583 p.
- Sebastián, E.M., de la Torre, M.J., Cazalla, O., Cultrone, G. y Rodríguez-Navarro, C. (1999): Evaluation of treatments on biocalcarenes with ultrasound. *The e-Journal of non-destructive Testing and Ultrasonics*, 4, No. 12
- Sigegismund, S., Ullemeyer, K., Weis, T. y Tschegg, E.K. (2000): Physical weathering of marbles caused by anisotropic thermal expansion. *International Journal of Earth Sciences*, 89: 170-182.

- Snethlage R. y Wendler E. (1997): Moisture cycles and sandstone degradation. In *Saving Our Architecture Heritage: The Conservation Historic Stone Structures* (N.S. Baer y R. Snethlage ed.) John Wiley & Sons, Chichester, 7-24.
- Söhnel, O. (1982): Electrolyte crystal-aqueous-solution interfacial tensions from crystallization data. *Journal of Crystal Growth*, 57: 101-108.
- Söhnel, O. (1983): Estimation of electrolyte-crystal-aqueous-solution interfacial tension. *Journal of Crystal Growth*, 63: 174-176.
- Söhnel, O. y Garside, J. (1992): *Precipitation. Basic principles and industrial applications*. Oxford, 389 p.
- Sperling C.H.B y Cooke, R.U. (1985): Laboratory simulation of rock weathering by salt crystallisation and hydration processes in hot, arid environments. *Earth Surface Processes and Landforms*, 10: 541-555.
- Stumm, W. y Morgan, J. (1981): *Aquatic Chemistry: an Introduction Emphasising Chemical Equilibria in Natural Waters*, 2<sup>nd</sup> ed. Wiley, New York, 780 p.
- Tada, R., Maliva, R. y Siever, R. (1987): A new mechanism, for pressure solution in porous quartzose sandstone, *Geochimica et Cosmochimica Acta*, 51: 2295-2301.
- Tam, C. M., Matsuura T. y Tremblay A.Y. (1991): The fractal nature of membranes. *Journal of Colloid and Interface Science*, 147: 206-212.
- Tardy Y. y Nahon D. (1985): Geochemistry of laterites, stability of Al-goethite, Al-hematite, and Fe<sup>+3</sup>-kaolinite in bauxites and ferricretes: an approach to mechanism of concretion formation. *American Journal of Science*, 285: 865-903.
- Tiab. D. y Donaldson, E.C. (1996): *Petrophysics: theory and practice of measuring reservoir rock and fluid transport properties*. Houston. Gulf Pub. Co. 706 p.
- Trewin, N. (1988): Use of scanning electron microscope in sedimentology. En *Techniques in Sedimentology* (M. Tucker Ed.). Blackwell Scientific Publications, Oxford, 229-273.
- Tucker, M.E. y Wright, V.P. (1990): *Carbonate sedimentology*. Blackwell scientific publications, Oxford, 482 p.
- Uchida, E., Ogawa, E., Maeda, N. y Nakagawa, T. (1999): Deterioration of stone materials in the Angkor monuments, Cambodia. *Engineering Geology*, 55:101-112.

- UTHESCA *ImageTool*® (1995): Desarrollado en la Universidad de Texas Health Science Center en San Antonio, Texas.
- Valdeon, L., de Freitas M.H. y King, M.S. (1996): Assessment of the quality of building stones using signal processing procedures. *Quarterly Journal of Engineering Geology*, 29: 299-308.
- Verrecchia, E.P. (1995): On the relationship between the pore-throat morphology index ("a") and fractal dimension ( $D_f$ ) of pore networks in carbonate rocks-discussion. *Journal of Sedimentary Research*, 65: 701-702.
- Vos, B.H. (1976): Waterabsorption and drying of materials. En: *The Conservation of Stone, Proc. Int. Symp.* (R. Rossi-Manaresi Ed.), Bologna, 679-694.
- Warscheid, Th y Braams, J. (2000): Biodeterioration of stone: a review. *International Biodeterioration and Biodegradation*, 46: 343-368.
- Washburn, E. W. 1921, The dynamics of capillary flow, *Physical Review*, 17: 273-283.
- Wellman, H.W. y Wilson, A. T. (1965): Salt weathering, a neglected geological erosive agent in coastal and arid environments. *Nature*, 205: 1097-1098.
- Wely, P.K. (1959): Pressure solution and the force of crystallisation. A phenomenological theory. *Journal of Geophysical Research*, 64: 2001-2025.
- Winkler, E.M. y Singer, P.C. (1972): Crystallization pressure of salts in stone and concrete. *Geol. Soc. Am. Bull.* 83: 3509-3514.
- Winkler, E.M. (1997): *Stone in Architecture: Properties, Durability*, 3<sup>rd</sup> ed. Springer-Verlag, Berlin, 309p.
- Wolery, T.J. (1992): EQ3/EQ6, a software package for geochemical modelling of aqueous systems, package overview and installation guide (version 7.0). Lawrence Livermore National Laboratory Report UCRL-MA-110662.
- Zeza, U. (1990): Physical-mechanical properties of quarry and building stones. En: *Analytical methodologies for investigation of damage stones* ( Veniale y U. Zeza, ed.), Pavia, 1-20.
- Zilberbrand M. (1999): On equilibrium constants for aqueous geochemical reactions in water unsaturated soils and sediments. *Aquatic Geochemistry*, 5: 195-206.
- Zimmerman, R.W. y Bodvarsson, G. (1991): A simple approximate solution for horizontal infiltration in a Brooks-Corey medium, *Transport in Porous Media*, 6: 195-205.