AquiParameter: Aquifer Parameter Dataset. Compilation and Statistical Analysis using R.

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References

1.- Zekai,S. (2014).*Practical and Applied Hidrogeology*. U.K. Elsevier

2.- Freeze, R.A. and Cherry, J.A. (1979). Groundwater. Prentice Hall, Englewood Cliffs, USA.

3.- Fitts,C.(2002).*Groundwater Science*. U.K. Elsevier

4.- Brassington, R.(2007).*Field Hidrogeology*. UK. John Wiley & Sons.

5.- Pérez, E. S., & de Navascués, I. M. P. (2013). *Hidráulica subterránea*. Colegio de Ingenieros de Caminos, canales y Puertos.

6.- Pérez, E. S., & de Navascués, I. M. P. (2013). *Hidráulica subterránea*. Colegio de Ingenieros de Caminos, canales y Puertos.

7.- Todd,D. y Mays, L. (2004). *Ground Water Hydrogeology*. Third Edition. USA. Wiley

8.- Brassington, R. (2da edicion). *Field Hidrogeology*. UK. Wiley

9.- Poehls, D. J., & Smith, G. J. (Eds.). (2011). *Encyclopedic dictionary of hydrogeology*. Academic press.

10.- Kresic, N. (2006). *Hydrogeology and groundwater modeling.* CRC press.

11.- Kresic, N. (2006). *Hydrogeology and groundwater modeling.* CRC press.

12.- Fetter, C. (2018). *Applied hydrogeology*. Columbus, Ohio. Waveland Press.

13.- Domenico, P. A., & Schwartz, F. W. (1998). *Physical and chemical hydrogeology* (Vol. 506). New York: Wiley.

14.- Domenico, P. A., & Schwartz, F. W. (1998). *Physical and chemical hydrogeology* (Vol. 506). New York: Wiley.

15.- Krásný, J., & Sharp, J. M. (Eds.). (2007). *Groundwater in fractured rocks: IAH selected paper series (Vol. 9).* CRC Press, 9.

16.- Welhan J., & Reed M. (1997). *Geostatistical analysis of regional hydraulic conductivity variations in the Snake River Plain aquifer, eastern Idaho*. Bulletin of the Geological Society of America, 109(7), 855-868. doi: 10.1130/0016-7606(1997)109<0855:GAORHC>2.3.CO;2.

17.- Souza W., & Voss C. (1987). *Analysis of an anisotropic coastal aquifer system using variable density flow and solute transport simulation*. Journal of Hydrology, 92(1-2), 17-41. doi: 10.1016/0022-1694(87)90087-4.

18.- Dewandel , B , Lachassagne P., Boudier F., Al-Hattali S. Ladouche B., Pinault J., Al-Suleimani Z. (2005). *A conceptual hydrogeological model of ophiolite hard-rock aquifers in Oman based on a multiscale and a multidisciplinary approach.* Hydrogeology Journal, 13(5-6), 708-726. doi: 10.1007/s10040-005-0449-2.

19.- Ophori D. (1999). *Constraining permeabilities in a large-scale ground water system through model calibration*. Journal of Hydrology, 224(1-2), 1-20. doi: 10.1016/S0022-1694(99)00083-9.

20.- Manning C. (1999). *Permability of the continental crust: implications of geothermal data and metamorphic systems*. Reviews of Geophysics, 37:127–150.

21.- Colwell F., & Lehman R. (1997).*Carbon source utilization profiles for microbial communities from hydrologically distinct zones in a basalt aquifer.* Microbial Ecology, 33(3) , 240-251. doi: 10.1007/s002489900027.

22.- Rotzoll K., El-Kadi A., Gingerich S. (2007). *Estimating hydraulic properties of volcanic aquifers using constant-rate and variable-rate aquifer tests.* Journal of the American Water Resources Association, 43(2), 334-345. doi: 10.1111/j.1752-1688.2007.00026.x.

23.- Fantong W., Satake H., Ayonghe S., Aka F., Asai K.(2009). *Hydrogeochemical controls and usability of groundwater in the semi-arid Mayo Tsanaga River Basin: Far north province, Cameroon*. Environmental Geology, 58(6), 1281-1293. doi: 10.1007/s00254-008-1629-x.

24.- Khaleel R. (1989). *Scale dependence of continuum models for fractured basalts.* Water Resources Research, 25(8), 1847-1855. doi: 10.1029/WR025i008p01847.

25.- Bishop, C. W. (1991), *Hydraulic properties of vesicular basalt*, M.S. thesis, University of Arizona.

26.- Gingerich S. (1999). *Ground water and surface water in the Haiku area, East Maui, Hawaii.* U.S. Geological Survey Water-Resources Investigations Report, 98-4142, 38 p.

27.- Atkinson T. (1997). *Diffuse flow and conduit flow in limestone terrain in the Mendip Hills, Somerset (Great Britain).* Journal of Hydrology, 35(1-2), 93-110. doi: 10.1016/0022-1694(77)90079-8.

28.- McKay L. Driese S. Smith K. Vepraskas M. (2005). *Hydrogeology and pedology of saprolite formed from sedimentary rock, eastern Tennessee, USA.* Geoderma, 126(1-2 SPEC. ISS.), 27-45. doi: 10.1016/j.geoderma.2004.11.017.

29.- Ackerer P., & Delay F. (1999). *Inversion of a set of well-test interferences in a fractured limestone aquifer by using an automatic downscaling parameterization technique.* Journal of Hydrology, 389(1-2), 42-56. doi: 10.1016/j.jhydrol.2010.05.020.

30.- Cuthbert M. Mackay R. Tellam J. Thatcher K. (2010). *Combining unsaturated and saturated hydraulic observations to understand and estimate groundwater recharge through glacial till*. Journal of Hydrology, 391(3-4), 263-276. doi: 10.1016/j.jhydrol.2010.07.025.

31.- Keller, C.K., Vanderkamp, G., Cherry, J.A. (1989*). A multiscale study of the permeability of a thick clayey till.* Water Resources Research 25 (11), 2299– 2317. doi: 10.1029/WR025i011p02299.

32.- Runkel A. Tipping R. Alexander E. Alexander S. (2006).*Hydrostratigraphic characterization of intergranular and secondary porosity in part of the Cambrian sandstone aquifer system of the cratonic interior of North America: Improving predictability of hydrogeologic properties.* Sedimentary Geology, 184(3-4), 281-304. doi: 10.1016/j.sedgeo.2005.11.006.

33.- Drizo A. Frost C. Grace J. Smith K. () *Physico-chemical screening of phosphate-removing substrates for use in constructed wetland systems.* Water Research, 33(17), 3595-3602. doi: 10.1016/S0043-1354(99)00082-2.

34.- Boving T. Grathwohl P. (2001). *Tracer diffusion coefficients in sedimentary rocks: Correlation to porosity and hydraulic conductivity.* Journal of Contaminant Hydrology, 53(1-2), 85-100. doi: 10.1016/S0169-7722(01)00138-3.

35.- Whitaker F. Smart P.(2000) *Characterising scale-dependence of hydraulic conductivity in carbonates: Evidence from the Bahamas.* Journal of Geochemical Exploration, 69-70, 133-137. doi: 10.1016/S0375-6742(00)00016-9.

36.- Sukop M. Huang H. Alvarez P. Variano E. Cunningham K. (2013) *Evaluation of permeability and non-Darcy flow in vuggy macroporous limestone aquifer samples with lattice Boltzmann methods.* Water Resources Research, 49(1), 216-230. doi: 10.1029/2011WR011788.

37.- Binley A. Slater L. Fukes M. Cassiani G.(2005). *Relationship between spectral induced polarization and hydraulic properties of saturated and unsaturated sandstone.* Water Resources Research, 41(12), 1-13. doi: 10.1029/2005WR004202.

38.- Gulley J. Benn D. (2007). *Structural control of englacial drainage systems in Himalayan debris-covered glaciers*. Journal of Glaciology, 53(182), 399-412. doi: 10.3189/002214307783258378.

39.-Doyen P.(1988). *Permeability, conductivity, and pore geometry of sandstone.* Journal of Geophysical Research, 93(B7), 7729-7740. doi: 10.1029/JB093iB07p07729.

40.- El-Naqa A. (2001). *The hydraulic conductivity of the fractures intersecting Cambrian sandstone rock masses, central Jordan.* Environmental Geology, 40(8), 973-982. doi: 10.1007/s002540100266.

41.- Morrice J. Valett H. Dahm C. Campana M. (1997). Alluvial characteristics, groundwater-surface water exchange and hydrological retention in headwater streams. Hydrological Processes, 11(3), 253-267. doi: 10.1002/(SICI)1099-1085(19970315)11:3<253::AID-HYP439>3.0.CO;2-J.

42.- Nastev M. Savard M. Lapcevic P. Lefebvre R. Martel R.(2004). *Hydraulic properties and scale effects investigation in regional rock aquifers, south-western Quebec, Canada.* Hydrogeology Journal, 12(3), 257-269. doi: 10.1007/s10040-004-0340-6.

43.- Cilona A. Aydin A. Likerman J. Parker B. Cherry J. (2016). *Structural and statistical characterization of joints and multi-scale faults in an alternating sandstone and shale turbidite sequence at the Santa Susana Field Laboratory: Implications for their effects on groundwater flow and contaminant transport.* Journal of Structural Geology, 85, 95-114. doi: 10.1016/j.jsg.2016.02.003.

44.- Côté J. Konrad J. (2003). *Assessment of the hydraulic characteristics of unsaturated base-course materials: a practical method for pavement engineers.* Canadian Geotechnical Journal, 40(1), 121-136. doi: 10.1139/t02-084.

45.- Izuka S. Gingerich S.(1998). *Ground water in the southern Lihue Basin, Kauai, Hawaii.* U.S. Geological Survey Water-Resources Investigations Report 98-4031, 71 p

46.- Sinha A. Singh R. Khanna P. (2012). *Hydrogeology of a buried channel, village Shenoli, District Satara, Maharashtra.* Journal of the Geological Society of India, 80(3), 363-368. doi: 10.1007/s12594-012-0154-4.

47.- Nichols W. Shade P. Hunt Jr. C. (1996). *Summary of the Oahu, Hawaii, regional aquifer-system analysis.* US Geological Survey Professional Paper, (1412 A).

48.- Takasaki, K.J., & Mink, J.F. (1982). *Water resources of southeastern Oahu Hawaii*. US Geological Survey Water-Resources Investigations, 82-628, 82p.

49.- Wentworth, C.(1938). *Geology and Groundwater-Resources of the Palolo- Waiale District: Honolulu*, City and county of Hololulu. Unpublised manuscript in files of the Board of Water Supply, 274p.

50.- Eyre, P.R., Edward,C., Shade. P.J.(1986). *Hydrology of the leeward aquifers, southeast Oahu, Hawaii*. U.S. Geological Survey Water-Resources Investigations Report 85-4270, 67p.

51.- Visher, F.N.,& Mink, J.F.(1964). Ground-water resources in southern Oahu, Hawaii. U.S. Geological Survey Water-Supply, paper 1778, 133p.

52 .- Mink, J.F. (1980). *State of the grounwater resources of souther Oahu, Honolulu, city and county of Hololulu,* Board of water-supply, 83p.

53 .- Williams, J.A. & Soroos, R.L. (1973). *Evaluations of methods of pumping test analyses for application to Hawaiian aquifers.* University of Hawaii. Water Resources Research Center Technical Report no. 70, 159p.

54.- Waichler S., & Yabusaki S. (2005). *Flow and Transport in the Hanford 300 Area Vadose Zone-Aquifer-River System.* PNNL Rept, PNNL-15125(July).doi: 10.2172/15016611.

55.- Miller M. Green R. Peterson F. Jones R. Loague K. (1988). *Hydrogeologic characteristics of subsoil and saprolite and their relation to contaminant transport, central O'ahu, Hawai'i.* Water Resources Research Center (University of Hawaii), (Technical Report No. 178), 76 p. doi:

56.- Kahle S. Taylor W. Lin S. Sumioka S. Olsen T. (2010). *Hydrogeologic framework, groundwater and surface-water systems, land use, pumpage, and water budget of the Chamokane Creek basin, Stevens County, Washington.* Scientific Investigations Report, 60, 2 sheets-60, 2 sheets.

57.- Barker, J.A. (1989). *Programs to simulate and analyse pumpingtests in large-diameter wells*. Br Geol Surv Tech Rep WD/89/ 23:34.

58.- McGrail B. Spane F. Sullivan E. Bacon D. Hund G. (2011). *The Wallula basalt sequestration pilot project.* Energy Procedia (2011) 4 5653-5660.doi: 10.1016/j.egypro.2011.02.557.

59.- Welhan J. Reed M.(1997). *Geostatistical analysis of regional hydraulic conductivity variations in the Snake River Plain aquifer, eastern Idaho.* Bulletin of the Geological Society of America, 109(7), 855-868. doi: 10.1130/0016-7606(1997)109<0855:GAORHC>2.3.CO;2.

60.- Vaccaro, J.J.(1999). *Summary of the Columbia Plateau Regional Aquifer-System analysis, Washington, Oregon, Idaho*. USGS Professional Paper 1413-A.

61.- Singhal BBS, Gupta RP (1999) Applied hydrogeology of fractured rocks. Kluwer, Dordrecht, The Netherlands.

62.- Rotzoll K. El-Kadi A. Gingerich S. (2007). *Estimating hydraulic properties of volcanic aquifers using constant-rate and variable-rate aquifer tests.* Journal of the American Water Resources Association, 43(2), 334-345.doi: 10.1111/j.1752-1688.2007.00026.x.

63.- Souza W. Voss C.(1987). *Analysis of an anisotropic coastal aquifer system using variable-density flow and solute transport simulation.* Journal of Hydrology (1987) 92(1-2) 17-41. doi: 10.1016/0022-1694(87)90087-4.

64.- Williams, J.A. and Soroos, R.L., 1973. *Evaluation of methods of pumping test analysis for application to Hawaiian aquifers.* Tech. Rep. No. 70, Water Resour. Res. Cent., Univ. Hawaii, 159 pp.

65.- da Silva F. Wallach R. Chen Y. (1993). *Hydraulic properties of sphagnum peat moss and tuff (scoria) and their potential effects on water availability.* Plant and Soil (1993) 154(1) 119-126. doi: 10.1007/BF00011080.

66.- Story S. Amy P. Bishop C. Colwell F.(1995). *Bacterial transport in volcanic tuff cores under saturated flow conditions.* Geomicrobiology Journal, 13(4), 249-264. doi: 10.1080/01490459509378024.

67.- Dewandel B. Lachassagne P. Zaidi F. Chandra S. *A conceptual hydrodynamic model of a geological discontinuity in hard rock aquifers: Example of a quartz reef in granitic terrain in South India.* Journal of Hydrology, 405(3-4), 474-487. doi: 10.1016/j.jhydrol.2011.05.050.

68.- Maréchal, J.C., Dewandel, B., Subrahmanyam, K..(2004). *Use of hydraulic tests at different scales to characterize fracture network properties in the weatheredfissured layer of a hard rock aquifers*. Water Resour. Res. 40, W11508. doi: 10.1029/2004WR003137.

69.- Dewandel, B., Lachassagne, P., Wyns, R., Maréchal, J.C., Krishnamurthy, N.S., 2006. A generalized hydrogeological conceptual model of granite aquifers controlled by single or multiphase weathering. J. Hydrol. 330, 260–284. doi: 10.1016/ j.jhydrol.2006.03.026.

70.- Le Bourgeois O. Bouvier C. Brunet P. Ayral P.(2016). *Inverse modeling of soil water content to estimate the hydraulic properties of a shallow soil and the associated weathered bedrock.* Journal of Hydrology, 541, 116-126. doi: 10.1016/j.jhydrol.2016.01.067.

71.- Harman C. Lohse K. Troch P. Sivapalan M.(2014). *Spatial patterns of vegetation, soils, and microtopography from terrestrial laser scanning on two semiarid hillslopes of contrasting lithology.* Journal of Geophysical Research: Biogeosciences, 119(2), 163-180. doi: 10.1002/2013JG002507.

72.- Ellefsen K. Hsieh P. Shapiro A. (2002). *Crosswell seismic investigation of hydraulically conductive, fracture bedrock near Mirror Lake, New Hampshire.* Journal of Applied Geophysics, 50(3), 299-317. doi: 10.1016/S0926-9851(02)00149-0.

73.- Tiedeman C. Goode D. Hsieh P. (1997). *Numerical simulations of ground-water flow through glacial deposits and crystalline bedrock in the Mirror Lake Area, Grafton County, New Hampshire.* U.S. Geological Survey Professional Paper 1572, 50.

74.- Chen Y., Ling X., Liu M., Hu R., Yang Z. (2018). *Statistical distribution of hydraulic conductivity of rocks in deep-incised valleys, Southwest China.* Journal of Hydrology, 566, 216,226. doi: 10.1016/j.jhydrol.2018.09.016.

75.- Kshirsagar P. Siebe C. Guilbaud M. Salinas S. Layer P.(2015). *Late Pleistocene Alberca de Guadalupe maar volcano (Zacapu basin, Michoacán): Stratigraphy, tectonic setting, and paleo-hydrogeological environment.* Journal of Volcanology and Geothermal Research, 304 214-236. doi: 10.1016/j.jvolgeores.2015.09.003.

76.- Geldon A.(2004). *Hydraulic tests of Miocene volcanic rocks at Yucca Mountain and Pahute Mesa and implications for groundwater flow in the Southwest Nevada Volcanic Field, Nevada and California.* Special Paper of the Geological Society of America, 381, 1-93. doi: 10.1130/0-8137-2381-7.1.

77.- Molenda M. Stockhert F. Brenne S. Alber M. (2013). *Comparison of Hydraulic and Conventional Tensile Strength Tests.* ISRM International Conference for Effective and Sustainable Hydraulic Fracturing 981-992.doi: 10.5772/56300.

78.- Cheng W. Ni J. (2009).*The Pumping Test Data Analyses of Andesite Rock Blocks Aquifer with Varied Hydraulic Boundaries by Generalized Radial Flow Model.* Geotechnical Special Publication, (194), 64-71. doi: 10.1061/41046(353)10.

79.- Runkel A. Tipping R. Alexander E. Alexander S. (2006). *Hydrostratigraphic characterization of intergranular and secondary porosity in part of the Cambrian sandstone aquifer system of the cratonic interior of North America: Improving predictability of hydrogeologic properties.* Sedimentary Geology, 184(3-4), 281-304. doi: 10.1016/j.sedgeo.2005.11.006.

80.- Cuthbert M. Mackay R. Tellam J. Thatcher K. (2010).*Combining unsaturated and saturated hydraulic observations to understand and estimate groundwater recharge through glacial till.* Journal of Hydrology, 391(3-4), 263-276. doi: 10.1016/j.jhydrol.2010.07.025.

81.- Kim J. Choi H. Lee J. (2005).*Characterization of hydrogeologic properties for a multi-layered alluvial aquifer using hydraulic and tracer tests and electrical resistivity survey.* Environmental Geology, 48, 991–1001. doi: 10.1007/s00254-005-1299-x.

82.- Chen X. (2005). *Statistical and geostatistical features of streambed hydraulic conductivities in the Platte River, Nebraska.* Environmental Geology, 48(6), 693-701. doi: 10.1007/s00254-005-0007-1.

83.- Mejías M. Renard P. Glenz D. *Hydraulic testing of low-permeability formations. A case study in the granite of Cadalso de los Vidrios, Spain.* Engineering Geology, 107(3-4), 88-97. doi: 10.1016/j.enggeo.2009.05.010.

84.- Martinez-Landa L. Carrera J. Pérez-Estaún A. Gomez P. Bajos C. (2016). *Structural geology and geophysics as a support to build a hydrogeologic model of granite rock.* Solid Earth, 7(3), 881-895. doi: 10.5194/se-7-881-2016.

85.- Moharir K. Pande C. Patil S. (2017). *Inverse modelling of aquifer parameters in basaltic rock with the help of pumping test method using MODFLOW software.* Geoscience Frontiers, 8(6), 1385-1395. doi: 10.1016/j.gsf.2016.11.017.

86.- Wang W. Wang Y. Sun Q. Zhang M. Qiang Y. Liu M. (2018). *Spatial variation of saturated hydraulic conductivity of a loess slope in the South Jingyang Plateau, China.* Engineering Geology, 236, 70-78. doi: 10.1016/j.enggeo.2017.08.002.

87.- Kim H. Cho G. Lee J. Kim S. (2013). *Geotechnical and geophysical properties of deep marine fine-grained sediments recovered during the second Ulleung Basin Gas Hydrate expedition, East Sea, Korea.* Marine and Petroleum Geology, 47, 56-65. doi: 10.1016/j.marpetgeo.2013.05.009.

88.- Pujades E. Vàzquez-Suñé E. Carrera J. Jurado A. (2014). *Dewatering of a deep excavation undertaken in a layered soil.* Engineering Geology, 178, 15-27. doi: 10.1016/j.enggeo.2014.06.007.

89.- Pujades, E., Lopez, A., Carrera, J., Vàzquez-Suñé, E., Jurado, A., 2012b. Barrier effect of underground structures on aquifers. Eng. Geol. 145–146, 41–49.

90.- Medeiros W. do Nascimento A. Alves da Silva F. Destro N. Demétrio J. (2010). *Evidence of hydraulic connectivity across deformation bands from field pumping tests: Two examples from Tucano Basin, NE Brazil.* Journal of Structural Geology, 32(11), 1783-1791. doi:10.1016/j.jsg.2009.08.019.

91.- Chesnaux R. Allen D. Jenni S. (2009). *Regional fracture network permeability using outcrop scale measurements.* Engineering Geology, 108(3-4), 259-271. doi: 10.1016/j.enggeo.2009.06.024.

92.- Chesnaux R. Allen D. Jenni S. (2009). *Regional fracture network permeability using outcrop scale measurements.* Engineering Geology, 108(3-4), 259-271. doi: 10.1016/j.enggeo.2009.06.024.

93.- Phien-Wej N. Giao P. Nutalaya P. (1998). *Field experiment of artifical recharge through a well with reference to land subsidence control.* Engineering Geology, 50(1-2), 187-201. doi: 10.1016/S0013-7952(98)00016-7.

94.- Shamsuddin M. Sulaiman W. Suratman S. Zakaria M. Samuding K. (2014). *Conjunctive use of surface water and groundwater via the bank infiltration method.* Arabian Journal of Geosciences, 7(9), 3731-3753. doi: 10.1007/s12517-013-1036-9.

95.- Chen X. Yin Y. Goeke J. Diffendal R. (2005). *Vertical movement of water in a High Plains Aquifer induced by a pumping well.* Environmental Geology, 47(7), 931-941

96.- Rodríguez-Escales P. Folch A. Vidal-Gavilan G. van Breukelen B. (2016). *Modeling biogeochemical processes and isotope fractionation of enhanced in situ biodenitrification in a fractured aquifer.* Chemical Geology, 425, 52-64. doi: 10.1016/j.chemgeo.2016.01.019.

97.- Shi X. Xue Y. Ye S. Wu J. Zhang Y. Yu J. (2007). *Characterization of land subsidence induced by groundwater withdrawals in Su-Xi-Chang area, China*. Environmental Geology, 52(1), 27-40. doi: 10.1007/s00254-006-0446-3.

98.- Koffi K., Kouame I., Kouadio E., Douagui A.(2013). *Study of Hydraulic properties (porosity and saturated hydraulic conductivity) of the quaternary aquifer of Abidjan (Cote d'Ivoire).* International Journal of Innovation and Applied Studies, 3(1), 151-159.

99.- Gelhar L. Welty C. Rehfeldt K. (1992). *A critical review of data on field-scale dispersion in aquifers.* Water Resources Research, 28(7), 1955-1974. doi: 10.1029/92WR00607.

100.- Michael H. Voss C.(2009). *Estimation of regional-scale groundwater flow properties in the Bengal Basin of India and Bangladesh.* Hydrogeology Journal, 17(6), 1329-1346. doi: 10.1007/s10040-009-0443-1.

101.- Hitchmough A. Riley M. Herbert A. Tellam J. (2007). *Estimating the hydraulic properties of the fracture network in a sandstone aquifer.* Journal of Contaminant Hydrology, 93(1-4), 38-57. doi: 10.1016/j.jconhyd.2007.01.012.

102.- Allen, D.J., Brewerton, L.J., Coleby, L.M., Gibbs, B.R., Lewis, M.A., Macdonald, A.M., Wagstaff, S.J., Williams, A.T., 1997. *The physical properties of major aquifers in England and Wales.* British Geological Survey Tech. Report. WD/97/34. Environmental Agency R&D Publication, vol. 8. 312 pp

103.- Barlow P. Desimone L. Moench A. (2000). *Aquifer response to stream-stage and recharge variations. II. Convolution method and applications.* Journal of Hydrology, 230(3-4), 211-229. doi: 10.1016/S0022-1694(00)00176-1.

104.- Cheng C. Chen X. (2007). *Evaluation of methods for determination of hydraulic properties in an aquifer-aquitard system hydrologically connected to a river.* Hydrogeology Journal, 15(4), 669-678. doi: 10.1007/s10040-006-0135-z.

105.- Allen D. Brewerton L. Coleby L. Gibbs B. Lewis M. MacDonald A. Wagstaff S. Williams A. (1997).*The physical properties of major aquifers in England and Wales.* British geological survey,Technical 312, (WD/97/034), 333p.

106.- Stephens D. Hsu K. Prieksat M. Ankeny M. Blandford N. Roth T.Kelsey J. Whitworth J. (1998). *A comparison of estimated and calculated effective porosity.* Hydrogeology Journal, 6(1), 156-165. doi: 10.1007/s100400050141.

107.- Worthington S. Smart C. Ruland W. (2012). *Effective porosity of a carbonate aquifer with bacterial contamination: Walkerton, Ontario, Canada.* Journal of Hydrology, 464-465, 517-527. doi: 10.1016/j.jhydrol.2012.07.046.

108.- Dewandel B. Maréchal J. Bour O. Ladouche B. Ahmed S. Chandra S. Pauwels H. (2012). *Upscaling and regionalizing hydraulic conductivity and effective porosity at water*geological environmen*shed scale in deeply weathered crystalline aquifers.* Journal of Hydrology, 416-417, 83-97. doi: 10.1016/j.jhydrol.2011.11.038.

109.- Santos R. Sanches Fernandes L. Moura J. Pereira M. Pacheco F. (2014). *The impact of climate change, human interference, scale and modeling uncertainties on the estimation of aquifer properties and river flow components.* Journal of Hydrology, 519(PB), 1297-1314. doi: 10.1016/j.jhydrol.2014.09.001.

110.- McKay L. Driese S. Smith K. Vepraskas M. (2005). *Hydrogeology and pedology of saprolite formed from sedimentary rock, eastern Tennessee, USA.* Geoderma, 126(1-2 SPEC. ISS.), 27-45. doi: 10.1016/j.geoderma.2004.11.017.

111.- Heath, R.C.(1983). *Basic ground-water hydrology*. United States Geological Survey Water Supply Paper 2220, p. 13.

112.- Berhane G. Martens K. Al Farrah N. Walraevens K. (2013). *Water leakage investigation of micro-dam reservoirs in Mesozoic sedimentary sequences in Northern Ethiopia.* Journal of African Earth Sciences, 79, 98-110. doi: 10.1016/j.jafrearsci.2012.10.004.

113.- Heap M. Violay M. Wadsworth F. Vasseur J. (2017). *From rock to magma and back again: The evolution of temperature and deformation mechanism in conduit margin zones.* Earth and Planetary Science Letters, 463, 92-100. doi: 10.1016/j.epsl.2017.01.021.

114.- Breuer B. Koch M. Bardsley E. (2000). *Modeling the feasibility of tapping artesian flow to augment winter baseflows in a hydropower catchment in New Zealand.* Water Studies, 7, 325-334. doi: 10.2495/HY000311.

115.- Hind, K.J. (1986). *A geotechnical investigation of ignimbrites in the Ruahihi Area, Tauranga.* Unpublished M. Sc. Thesis, University of Waikato, Hamilton, NZ.

116.- Jeanpert J. Iseppi M. Adler P. Genthon P. Sevin B. Thovert J. Dewandel B. Join J. (2019). *Fracture controlled permeability of ultramafic basement aquifers. Inferences from the Koniambo massif, New Caledonia.* Engineering Geology, 256, 67-83. doi: 10.1016/j.enggeo.2019.05.006.

117.- Ducci D. Sellerino M. (2015). *Groundwater Mass Balance in Urbanized Areas Estimated by a Groundwater Flow Model Based on a 3D Hydrostratigraphical Model: the Case Study of the Eastern Plain of Naples (Italy).* Water Resources Management, 29(12), 4319-4333. doi: 10.1007/s11269-015-1062-3.

118.- Valett H. Morrice J. Dahm C. Campana M. (1996). *Parent lithology, surface-groundwater exchange, and nitrate retention in headwater streams.* Limnology and Oceanography, 41 (2), 333-345. doi: 10.4319/lo.1996.41.2.0333.

119.- Haldeman W. Chuang Y. Rasmussen T. Evans D. (1991). *Laboratory analysis of fluid flow and solute transport through a fracture embedded in porous tuff.* Water Resources Research, 27(1), 53-65. doi: 10.1029/90WR01902.

120.- Bredehoeft J. (1997). *Fault permeability near Yucca Mountain.* Water Resources Research, 33(11), 2459-2463. doi: 10.1029/97WR01710.

121.- LeCain G. Stuckless J. (2013). *Hydrology of the unsaturated zone, Yucca Mountain, Nevada.* U.S. Geological Survey, USA, 209, 9-72.

121.- Temiz C. Cayci G. (2018).*The effects of gypsum and mulch applications on reclamation parameters and physical properties of an alkali soil.* Environmental Monitoring and Assessment, 190(6). doi: 10.1007/s10661-018-6669-4.

122.- Goodfellow B. Hilley G. Webb S. Sklar L. Moon S. Olson C. (2016). *The chemical, mechanical, and hydrological evolution of weathering granitoid.* Journal of Geophysical Research: Earth Surface, 121(8), 1410-1435. doi: 10.1002/2016JF003822.

123.- Ahlbom K. Smellie J. (1991). *Overview of the Fracture Zone Project at Finnsjön, Sweden.* Journal of Hydrology, 126(1-2), 1-15. doi: 10.1016/0022-1694(91)90198-Q.

124.- Schweisinger T. Svenson E. Murdoch L.(2009). *Introduction to hydromechanical well tests in fractured rock aquifers.* Ground Water, 47(1), 69-79. doi: 10.1111/j.1745-6584.2008.00501.x.

125.- Bala A. Eduvie O. Byami J. (2011). *Borehole depth and regolith aquifer hydraulic characteristics of bedrock types in Kano area, Northern Nigeria.* African Journal of Environmental Science and Technology, 5 (3), 228-237. doi: 10.4314/ajest.v5i3.71936.

126.- Dewandel B. Perrin J. Ahmed S. Aulong S. Hrkal Z. Lachassagne P. Samad M. Massuel S. (2010). *Development of a tool for managing groundwater resources in semi-arid hard rock regions: Application to a rural watershed in South India.* Hydrological Processes, 24 (19), 2784-2797. doi: 10.1002/hyp.7696.

127.- Marechal, J.C., Dewandel, B., Subrahmanyam, K. (2004). *Use of hydraulic ´ tests at different scales to characterize fracture network properties in the weathered-fractured layer of a hard rock aquifer*. Water Resources Research 40: W11508, 1–17.

128.- Pitkänen, P., Snellman, M., Leino-Forsman, H., Front, K. (1992). *Groundwater chemistry and water-rock interaction at Olkiluoto.* Report YJT-92-02, Nuclear Waste Commission of Finnish Power Companies, Helsinki, 321 p.

129.- Stober, I.,& Bucher, K. (2000). *Hydraulic Properties of the upper Continental Crust: data from the Urach 3 geothermal well.* In: Stober I, Bucher K (eds) Hydrogeology of crystalline rocks, Kluwer, Dordrecht, p 53–78

130.- Stober I., & Bucher, K. (2005). *Deep-fluids: Neptune meets Pluto. In: Voss C (ed) The future of hydrogeology*. Hydrogeol J 13:112– 115.

131.-Coyle B.J., & Zoback, M.D. (1988). *In situ permeability and fluid pressure measurements at ~2 km depth in the Cajon Pass research well.* Geophys Res Lett 15(9):1029–1032

132.- Abdelaziz R. Merkel B. *Sensitivity analysis of transport modeling in a fractured gneiss aquifer.* Journal of African Earth Sciences, 103, 121-127. doi: 10.1016/j.jafrearsci.2014.12.003.

133.- Mogaji K. Olayanju G. Oladapo M. (2011). *Geophysical evaluation of rock type impact on aquifer characterization in the basement complex areas of Ondo State, Southwestern Nigeria: Geo-electric assessment and Geographic Information Systems (GIS) approach.* International Journal of Water Resources and Environmental Engineering, 3(4), 77-86.

134.- Bear J.J., Cheng HD.A. (2010) Modeling Contaminant Transport. In: Modeling Groundwater Flow and Contaminant Transport. Theory and Applications of Transport in Porous Media, 23. Springer, Dordrecht.

135.- Kukkonen I. Šafanda J. (1996). *Palaeoclimate and structure: The most important factors controlling subsurface temperatures in crystalline rocks. A case history from Outokumpu, eastern Finland.* Geophysical Journal International, 126(1), 101-112. doi: 10.1111/j.1365-246X.1996.tb05270.x.

136.- Mace, R. Smyth, R.(2003). *Hydraulic Properties of the Carizo-Wilcox Aquifer in Texas Information for Groundwater Modeling, Planing, and Management. Report of investigatins-University of Teas at Autin*. Bureau of Economic Geology, 2003, No. 269, 39.

137.- Vargas, C. Ortega, A.(2014). *Fracture hydraulic conductivity in the Mexico City clayed aquitard: Field Piezometer rising-head tests*. Hydrogeology Journal, 12, 336-344. doi: 10.1007/s10040-003-0302-4

138.- Kruseman, G. Ridder, N.. (1994). *Analysis and Evaluation of Pumping Test Data.* The Netherlands: Bulletin - International Institute for Land Reclamation & Improvement (Wageningen), 11.

139.- Bouwer, H. and R.C. Rice 1978. Delayed aquifer field as a phenomenon of delayed air entry. Water Resources Res., Vol. 14, pp. 1068-1074.

140.-Rosén, B. (1974). *Surface Hydrogeology.* In: Geohydrological Investigations of Groundwater in Granite Rocks in Sardina, Dept Land Impr Drain, R Inst Techn, Stockholm , II, 3:21, A: 69-82.

141.- Barbieri, G. Vernier,A.(1977). *Surface hydrogeology – Tempio Pausania " Geohydrological Investigations of Groundwater in Granite Rocks in Sardina"* , Dept Land Impr Drain, R Inst Technology, Stockholm, II 2:21 A.

142.- Fialho A, Chambell, A. Almeida,C. (1998). *Hydraulic Characterization of fractured aquifers by doublé porosity models on Évora Municipality.* In: Proceedings of the 4th Congress of water, The water as structural Resource of Development, Report and Abstracts, Abstract: 179, Paper: CD-128

143.- Duque,J. Almeyda, C. (1998). *Hydrochemical Characterization of The Gabbros of Beja Aquifer System (in portuguese)*. In: 4th Congress of Water. The wáter as structural Resource of Development Reports and Abstracts, Abstract: 193-194, Paper: CD-164

144.- Chambel,A. (1999). *Hydrogeology of Mértola Municipality [In Portuguese].* PhD. Thesis, Évora: University of Évora, Évora.

145.- Memon B. Ponta G.(2004). *Performance and Evaluation of Pumping Tests in Karstic Carbonate and Evaporite Aquifers.* Geotechnical Special Publication, (122), 250-264. doi: 10.1061/40698(2003)23.

146.- Baudron P. Sprenger C. Lorenzen G. Ronghang M. (2016). *Hydrogeochemical and isotopic insights into mineralization processes and groundwater recharge from an intermittent monsoon channel to an overexploited aquifer in eastern Haryana (India).* Environmental Earth Sciences, 75(5), 1-11. doi: 10.1007/s12665-015-4911-8.

147.- Morales-Casique E. Guinzberg-Belmont J. Ortega-Guerrero A. (2016). *Regional groundwater flow and geochemical evolution in the Amacuzac River Basin, Mexico.* Hydrogeology Journal, 24(7), 1873-1890. doi: 10.1007/s10040-016-1423-x.

148.- Rushton, K., (2003). Groundwater Hydrology: Conceptual and Computational Models. John 558 Wiley & Sons Ltd., Chichester.

149.- Al-Awadi E. Mukhopadhyay A. Al-Haddad A. (1995). *Compatibility Of Desalinated Water With The Dammam Formation At The Northwest Shigaya Water-Well Field, Kuwait - A Preliminary Study.* Hydrogeology Journal, 3(4), 56-73. doi: 10.1007/s100400050068.

150.- Adams B.,& Kitching R. (1979). *The simulation of transmissivity, storativity and evapotranspiration in a digital model of a fissured dolomite aquifer near ndola, zambia.* Hydrological Sciences Bulletin, 24(4), 487-498. doi: 10.1080/02626667909491888.

151.- Shapiro A.(1989). *Interpretation of oscillatory water levels in observation wells during aquifer tests in fractured rock.* Water Resources Research, 25(10), 2129-2137. doi: 10.1029/WR025i010p02129.

152.- Neuman, S.P. (1974). *Effect of partial penetration on flow in unconfined aquifers considering delayed yield gravity response*. Water Resources Research 10, no. 2: 303–312

153.- Moench, A.F. (1984). *Double-porosity models for a fissured groundwater reservoir with fracture skin.* Water Resources Research 20, no. 7: 831–846

154.- Muldoon M. Simo J. Bradbury K. (2001). *Correlation of hydraulic conductivity with stratigraphy in a fractured-dolomite aquifer, northeastern Wisconsin, USA.* Hydrogeology Journal, 9(6), 570-583. doi: 10.1007/s10040-001-0165-5.

155.- Gaswirth S. Budd D. Crawford B.(2006). *Textural and stratigraphic controls on fractured dolomite in a carbonate aquifer system, Ocala limestone, west-central Florida.* Sedimentary Geology, 184(3-4), 241-254. doi: 10.1016/j.sedgeo.2005.11.010.

156.- Verbovšek T. Veselič M. (2008). *Factors influencing the hydraulic properties of wells in dolomite aquifers of Slovenia.* Hydrogeology Journal, 16(4), 779-795. doi: 10.1007/s10040-007-0250-5.

157.- Motyka J. Pulido-Bosch A. Borczak S. Gisbert J. (1998). *Matrix hydrogeological properties of Devonian carbonate rocks of Olkusz (Southern Poland).* Journal of Hydrology, 211(1-4), 140-150. doi: 10.1016/S0022-1694(98)00229-7.

158.- Atkinson, T.C.(1977). *Diffuse flow and conduit flow in limestone terrain in the Mendip Hills, Somerset (Great Britain)*. J. Hydrol., 35, 93-110.

159.- Medici G. West L. Banwart S. (2019). *Groundwater flow velocities in a fractured carbonate aquifer-type: Implications for contaminant transport.* Journal of Contaminant Hydrology, 222, 1-16. doi: 10.1016/j.jconhyd.2019.02.001.

160.- Rovey,C.W. II & Cherkauer, D.S.(1994). *Relation between hydraulic conductivity and texture in a carbonate aquifer: Observations.* Ground water, 32, 53-62.

161.- Maslia M. Johnston R.(1984). *Use of a digital model to evaluate hydrogeologic controls on groundwater flow in a fractured rock aquifer at Niagara Falls, New York, U.S.A.* Journal of Hydrology, 75(1-4), 167-194. doi: 10.1016/0022-1694(84)90049-0.

162.- Yechieli Y. Ronen D. Berkowitz B. (1995). *Are sedimentary salt layers always impermeable?.* Geophysical Research Letters, 22(20), 2761-2764. doi: 10.1029/95GL02785.

163.- Srisuk, K., Sriboonlue, V., Buaphan, C. (1999). *Groundwater flow, saline water and saline soils in the Central Khorat Basin, northeast Thailand*. Symposium on Mineral, Energy and Water Resources of Thailand: Towards the Year 2000, Thailand, pp. 238–251.

164..- Domenico, P., & Mifflin,M.(1965). *Water from low-permeability sediments and land subsidence.* Water Resources Research,1(4), 563-576. doi: 10.1029/WR001i004p00563

165.- Motz L. (2009). *Multiple-pumped-well aquifer test to determine the anisotropic properties of a karst limestone aquifer in Pasco County, Florida, USA.* Hydrogeology Journal, 17(4), 855-869. doi: 10.1007/s10040-008-0408-9

167.- Audouin O. Bodin J. (2008). *Cross-borehole slug test analysis in a fractured limestone aquifer.* Journal of Hydrology, 348(3-4), 510-523. doi: 10.1016/j.jhydrol.2007.10.021.

168.- Alfaifi H. Abdelfatah M. Abdelrahman K. Zaidi F. Ibrahim E. Alarifi N. (2017).*Groundwater management scenarios for the Biyadh-Wasia aquifer systems in the eastern part of Riyadh region, Saudi Arabia.* Journal of the Geological Society of India, 89(6), 669-674. doi: 10.1007/s12594-017-0676-x.

170.- Jones H. Morris B. Cheney C. Brewerton L. Merrin P. Lewis M. MacDonald A. Coleby L. Talbot J. Mckenzie A. Bird M. Cunningham J. Robinson V. (2000).*The physical properties of minor aquifers in England and Wales.* British Geological Survey, 234pp. (WD/00/004, Environment Agency R&D Publication 68)

171.- Mosthaf K. Brauns B. Fjordbøge A. Rohde M. Kerrn-Jespersen H. Bjerg P. Binning P. Broholm M. *Conceptualization of flow and transport in a limestone aquifer by multiple dedicated hydraulic and tracer tests.* Journal of Hydrology, 561, 532-546. doi: 10.1016/j.jhydrol.2018.04.011.

172.- DiFrenna V. Price R. Savabi M. (2008). *Identification of a hydrodynamic threshold in karst rocks from the Biscayne Aquifer, south Florida, USA.* Hydrogeology Journal, 16(1), 31-42. doi: 10.1007/s10040-007-0219-4.

173.- Worthington S. (2009). *Diagnostic hydrogeologic characteristics of a karst aquifer (Kentucky, USA).* Hydrogeology Journal, 17(7), 1665-1678. doi: 10.1007/s10040-009-0489-0.

174.- Jeelani G. (2008). *Aquifer response to regional climate variability in a part of Kashmir Himalaya in India.* Hydrogeology Journal, 16(8), 1625-1633. doi: 10.1007/s10040-008-0335-9.

175.-Painter S. Woodbury A. Jiang Y.(2007). *Transmissivity estimation for highly heterogeneous aquifers: Comparison of three methods applied to the Edwards Aquifer, Texas, USA.* Hydrogeology Journal,15(2), 315-331. doi: 10.1007/s10040-006-0071-y.

176.- Nassimi A. Mohammadi Z.(2016).*Estimation of hdraulic conductivity using geoelectrical data for assessing of scale effect in a karst aquifer.* Acta Carsologica, 45(3), 243-251. doi: 10.3986/ac.v45i3.3632.

177.- Morin R. Hess A. Paillet F. (1988). *Determining the Distribution of Hydraulic Conductivity in a Fractured Limestone Aquifer by Simultaneous Injection and Geophysical Logging.* Groundwater, 26(5), 587-595. doi: 10.1111/j.1745-6584.1988.tb00792.x.

178.- Masciopinto C., & Palmiotta D. (2013). *Flow and Transport in Fractured Aquifers: New Conceptual Models Based on Field Measurements.* Transport in Porous Media, 96(1), 117-133. doi: 10.1007/s11242-012-0077-y.

179.- Borgia GC, Bortolotti V, Masciopinto C. (2002). *Valutazione del contributo della porosita` effettiva alla trasmissivita` di acquiferi fratturati con tecniche di laboratorio e di campo (Evaluation of effective porosity contribution to the transmissivity of fractured aquifer using laboratory and field techniques)*. IGEA Groundw Geoeng 17, 31–43

179.- Masciopinto C (2005) *Pumping-well data for conditioning the realization of the fracture aperture field in groundwater flow models*. J Hydrol 309(1-4), 210–228

180.- Bolster CH, Genereux DP, Saiers JE. (2001). *Determination of specific yield of Biscayne Aquifer with a canal-drawdown test.* Ground Water 39: 768–777. doi: 10.1111/j.1745-6584.2001.

181.- Özler H. (2015). *Hydrogeology of the Kaklik (Denizli). Aquifer in Turkey.* Procedia Earth and Planetary Science, 15, 345-352. doi: 10.1016/j.proeps.2015.08.087.

182.- Odling N. West L. Hartmann S. Kilpatrick A. (2013). *Fractional flow in fractured chalk; A flow and tracer test revisited.* Journal of Contaminant Hydrology, 147, 96-111. doi: 10.1016/j.jconhyd.2013.02.003.

183.-Jimenez-Martinez J. Smith M. Pope D. (2016). *Prediction of groundwater-induced flooding in a chalk aquifer for future climate change scenarios.* Hydrological Processes, 30(4), 573-587. doi: 10.1002/hyp.10619.

184.- Price M, Downing RA, Edmunds WM. 1993. The chalk as an aquifer. In The Hydrogeology of the Chalk of North-West Europe Downing RA, Price M, Jones GP (eds). Oxford University Press: Oxford, UK; pp. 35–58.

185.- Foster, S.S.D. and Milton, V.A., 1974. The permeability and storage of an unconfined chalk aquifer. Hydrol. Sci. Bull., 19(4), 485--500

186.- MacDonald A. Allen D.(2010). *Aquifer properties of the Chalk of England.* Quarterly Journal of Engineering Geology and Hydrogeology, 34(4), 371-384. doi: 10.1144/qjegh.34.4.371.

187.- Bonì R. Cigna F. Bricker S. Meisina C. McCormack H. (2016). *Characterisation of hydraulic head changes and aquifer properties in the London Basin using Persistent Scatterer Interferometry ground motion data.* Journal of Hydrology, 540, 835-849. doi: 10.1016/j.jhydrol.2016.06.068.

188.- Spence M. Thornton S. Bottrell S. Spence K. (2005). *Determination of interstitial water chemistry and porosity in consolidated aquifer materials by diffusion equilibrium-exchange.* Environmental Science and Technology, 39(4), 1158-1166. doi: 10.1021/es049401v.

189.- Mahmood-ul-Hassan M. Akhtar M. Gregory P. (2008). *Solute movement through intact columns of cryoturbated upper chalk.* Hydrological Processes, 22(13), 2086-2093. doi: 10.1002/hyp.6808.

190.- Gombert P. Pokryszka Z. Lafortune S. Lions L. Gal F. Joulian C. Grellier S. Prevot F. Darmoul Y. Squarcioni P.(2014).*Selection, instrumentation and characterization of a pilot site for CO2 leakage experimentation in a superficial aquifer.* Energy Procedia, 63, 3172-3181. doi: 10.1016/j.egypro.2014.11.342.

191.- Rushton K., & Rathod K. (1981). *Aquifer response due to zones of higher permeability and storage coefficient.* Journal of Hydrology, 50(C), 299-316. doi: 10.1016/0022-1694(81)90075-5.

192.- Motyka J. (1998). *A conceptual model of hydraulic networks in carbonate rocks, illustrated by examples from Poland.* Hydrogeology Journal, 6(4), 469-482. doi: 10.1007/s100400050169.

193.- Fretwell B. Burgess W. Barker J. Jefferies N. (2005). *Redistribution of contaminants by a fluctuating water table in a micro-porous, double-porosity aquifer: Field observations and model simulations.* Journal of Contaminant Hydrology, 78(1-2), 27-52. doi: 10.1016/j.jconhyd.2005.02.004.

194.- Soley R. Power T. Mortimore R. Shaw P. Dottridge J. Bryan G. Colley I.(2012). *Modelling the hydrogeology and managed aquifer system of the Chalk across southern England.* Geological Society Special Publication, 364(1), 129-154. doi: 10.1144/SP364.10.

195.- Reeves M.(1979). *Recharge and pollution of the english chalk: Some possible mechanisms.* Engineering Geology, 14(4), 231-240. doi: 10.1016/0013-7952(79)90065-6.

196.- Schürch M. Buckley D. (2002). *Integrating geophysical and hydrochemical borehole-log measurements to characterize the Chalk aquifer, Berkshire, United Kingdom.* Hydrogeology Journal, 10(6), 610-627. doi: 10.1007/s10040-002-0220-x.

197.- Price, M., Bird, M.J. and Foster, S.S.D.(1976). *Chalk pore-size measurements and their significance.* Water Sere., 80, 596-600.

198.- Price, M.(1987). *Fluid flow in the Chalk of England.* Geol. Soc. London Spec. Publ., 34, 141-156.

199.- Van den Daele G. Barker J. Connell L. Atkinson T. Darling W. Cooper J.(2007). *Unsaturated flow and solute transport through the Chalk: Tracer test and dual permeability modelling.* Journal of Hydrology, 342(1-2), 157-172. doi: 10.1016/j.jhydrol.2007.05.021.

200.- Wellings, S.R.(1984). *Recharge of the Upper Chalk aquifer at a site in Hampshire, England.* 2. Solute movement. J. Hydrol. 69, 275–285.

201.- Brouye S.(2006). *Modelling the migration of contaminants through variably saturated dual-porosity , dual-permeability chalk.* Journal of Contaminant Hydrology, 82(3-4), 195-219. doi: 10.1016/j.jconhyd.2005.10.004.

202.- Zuber A. Michalczyk Z. Maloszewski P.(2001).*Great tritium ages explain the occurrence of good-quality groundwater in a phreatic aquifer of an urban area, Lublin, Poland.* Hydrogeology Journal, 9(5), 451-460. doi: 10.1007/s100400100149.

203.- Thiéry D. Amraoui N. Noyer M.(2018). *Modelling flow and heat transfer through unsaturated chalk – Validation with experimental data from the ground surface to the aquifer.* Journal of Hydrology, 556, 660-673. doi: 10.1016/j.jhydrol.2017.11.041.

204.- Price M. Morris B. Robertson A.(1982). *A study of intergranular and fissure permeability in Chalk and Permian aquifers, using double-packer injection testing.* Journal of Hydrology, 54(4), 401-423. doi: 10.1016/0022-1694(82)90165-2.

205.- Zghibi A. Zouhri L. Chenini I. Merzougui A. Tarhouni J.(2016). *Modelling of the groundwater flow and of tracer movement in the porous and fissured media: Chalk Aquifer (Northern part of Paris Basin, France).* Hydrological Processes, 30(12), 1916-1928. doi: 10.1002/hyp.10746.

206.- Lutz P., & Zouhri L. (2015). *A multidisciplinary hydrogeophysical approach applied to the chalk aquifer using MRS (North of France).* Near surface geoscience 2015, Turin, Italy, 6–10, (Communication avec acte). doi:10.3997/2214-4609. 201413705

207.- Barker, J. A . (1993) . *Modelling groundwater flow and transport in the Chalk , In: The Hydrogeology o f the Chalk o f North-West Europe*. (Ed) Downing , R . A ., Price, M . & Jon es, G. P. Clarendon Press, Oxford .

208.- Watson S. (2006). *Solute transport and hydrodynamic characteristics in the Chalk aquifer at Tilmanstone, Kent.* PQDT - Global, pp: 455

209.- Castagna M. Becker M. Bellin A.(2011). *Joint estimation of transmissivity and storativity in a bedrock fracture.* Water Resources Research, 47(9). doi: 10.1029/2010WR009262.

210.-Al-Ahmadi M.(2009). *Hydrogeology of the Saq aquifer northwest of Tabuk, northern Saudi Arabia.* Journal of King Abdulaziz University, Earth Sciences, 20(1), 51-66. doi: 10.4197/Ear.20-1.4.

211.- Liu Y. Shao J. Cui Y.(2015). *A double-porosity slug test model for a sloping fracture zone.* Environmental Earth Sciences, 74(7), 5875-5884. doi: 10.1007/s12665-015-4611-4*.*

212.- Franklin WS, Zhang H (2003) Fundamentals of ground water. Wiley, New York, pp 72–75.

213.-Dunning C.(2005). *Lithology, hydraulic properties, and water quality of the Sandstone aquifer in the northwestern part of the Bad River Indian Reservation, Wisconsin, 1998-1999.* Open-File Report 2004–1425, 1998-1999.

214.- Kulkarni H. Vijay Shankar P. Deolankar S. Shah M.(2004). *Groundwater demand management at local scale in rural areas of India: A strategy to ensure water well sustainability based on aquifer diffusivity and community participation.* Hydrogeology Journal, 12(2), 184-196. doi: 10.1007/s10040-004-0320-x*.*

215.- Hamdan A. Sawires R.(2013). *Hydrogeological studies on the Nubian sandstone aquifer in El-Bahariya Oasis, Western Desert, Egypt.* Arabian Journal of Geosciences, 6(5), 1333-1347. doi: 10.1007/s12517-011-0439-8*.*

216.- Rubin H. Yaniv S. Spiller M. Köngeter J.(2008). *Parameters that control the cleanup of fractured permeable aquifers.* Journal of Contaminant Hydrology, 96(1-4), 128-149. doi: 10.1016/j.jconhyd.2007.10.007*.*

217.- Carlsoon, L.,& Carlstedt,A.(2018). *Estimation of the storage coefficient of the Cambrian sandstone in the Billingen-Falbygden Area, Västergötland, Swenden.* Nord Hydrol, 6(4), 189-206. doi: 10.2166/nh.1975.0013*.*

218.- Karaman A. Akhiev S. Carpenter P.(1999). *A new method of analysis of water-level response to a moving boundary of a longwall mine.* Water Resources Research, 35(4), 1001-1010. doi: 10.1029/1998WR900089*.*

219.- Boucher M. Favreau G. Vouillamoz J. Nazoumou Y. Legchenko A.(2009). *Estimating specific yield and transmissivity with magnetic resonance sounding in an unconfined sandstone aquifer (Niger).* Hydrogeology Journal, 17(7), 1805-1815. doi: 10.1007/s10040-009-0447-x*.*

220.- Ghoubachi S.(2012).*Contribution to the hydrogeology of the Lower Cretaceous aquifer in east Central Sinai, Egypt.* Journal of King Saud University - Science, 25(2),91-105. doi: 10.1016/j.jksus.2010.05.009*.*

221.- Medici G. West L. Mountney N.(2016). *Characterizing flow pathways in a sandstone aquifer: Tectonic vs sedimentary heterogeneities.* Journal of Contaminant Hydrology, 194, 36-58. doi: 10.1016/j.jconhyd.2016.09.008.

222.-Pokar, M., West, L.J., Odling, N.E.(2006). *Petrophysical characterization of the Sherwood Sandstone from East Yorkshire, UK.* In: Barker, R.D., Tellam, J.H. (Eds.), Fluid

Flow and Solute Movement in Sandstones: The Offshore UK Permo-Triassic Red Bed Sequence. Geol. Soc. London, Spec. Publ. 263, pp. 103-118.

223.- Allen, D.J., Brewerton, L.M., Coleby, B.R., Gibbs, M.A., Lewis, A.M., MacDonald, S.J., Wagstaff, A.T, Williams, L.J.(1997). *The Physical Properties of Major Aquifers in England and Wales.* Technical Report WD/97/34, 157-287. BGS, Nottingham, England (UK).

224.- Amajor L.(1991). *Aquifers in the benin formation (miocene-recent), eastern Niger delta, Nigeria: Lithostratigraphy, hydraulics, and water quality.* Environmental Geology and Water Sciences,17(2), 85-101. doi: 10.1007/BF01701565.

225.- Eftimi R.(2003). *Hydraulic parameters and yield of wells of sandstone-conglomerate aquifer of Rrogozhina Formation in Albania.* Proceedings of the 1st Workshop on Fissured … , 59-72.

226.- Smerdon B. Smith L. Harrington G. Gardner W. Piane C. Sarout J.(2014). *Estimating the hydraulic properties of an aquitard from in situ pore pressure measurements.* Hydrogeology Journal, 22(8), 1875-1887. doi: 10.1007/s10040-014-1161-x.

227.-Hughes A. Smerdon B. Alessi D.(2017). *Hydraulic properties of the Paskapoo Formation in west-central Alberta.* Canadian Journal of Earth Sciences, 54(8), 883-892. doi: 10.1139/cjes-2016-0164.

228.- Burg A. Gersman R.(2016). *Hydrogeology and geochemistry of low-permeability oil-shales – Case study from HaShfela sub-basin, Israel.* Journal of Hydrology, 540, 1105-1121. doi: 10.1016/j.jhydrol.2016.07.026.

229.- Schoeller, H., 1962. *Geochemie des eaux souterraines*. Rev. de l' Institut Francais du Petrole, 10: 230-244.

230.- Zhang Q. Su Y. Zhang M. Wang W.(2017). *A multi-linear flow model for multistage fractured horizontal wells in shale reservoirs.* Journal of Petroleum Exploration and Production Technology, 7, 747–758. doi: 10.1007/s13202-016-0284-0

231.- Ugada U. Ibe K. Akaolisa C. Opara A.(2014). *Hydrogeophysical evaluation of aquifer hydraulic characteristics using surface geophysical data: a case study of Umuahia and environs, Southeastern Nigeria.* Arabian Journal of Geosciences, 7(12), 5397-5408. doi: 10.1007/s12517-013-1150-8.

232.- Ebong E. Akpan A. Onwuegbuche A.(2014). *Estimation of geohydraulic parameters from fractured shales and sandstone aquifers of Abi (Nigeria) using electrical resistivity and hydrogeologic measurements.* Journal of African Earth Sciences, 96, 99-109. doi: 10.1016/j.jafrearsci.2014.03.026.

233.- Aleke C. Ibuot J. Obiora D.(2018). *Application of electrical resistivity method in estimating geohydraulic properties of a sandy hydrolithofacies: a case study of Ajali Sandstone in Ninth Mile, Enugu State, Nigeria.* Arabian Journal of Geosciences, 11(12). doi: 10.1007/s12517-018-3638-8.

234.- Koth, K.R., and Long, A.J.(2012). *Microgravity methods for characterization of groundwater-storage changes and aquifer properties in the karstic Madison aquifer in the Black Hills of South Dakota, 2009–12*. U.S. Geological Survey Scientific Investigations Report 2012–5158, 22 p.

235.- Castany, G.(1967). *Traité pratique des eaux souterraines*. Dunod, Paris. p. 657. City of Austin, 2003. Land use by planning areas. ftp://coageoid01.ci.austin.tx. us/GIS-Data/Regional/coa_gis.html, accessed Feb. 15, 2006.

236.-Calba, F.(1980). *Hydrogéologie du karst crayeux du pays de Caux (France)*. Etude de deux bassins. Doctoral Thesis, Université de Rouen, Rouen, France, p. 189.

237.- Bize, J., Dereal, Y., Rognon, P.(1963). *Variation avec la marée de la nappe alluviale de la Seine à Tancarville*, BURGEAP.

238.- Stevanović Z. Milanović S. Ristić V. (2010).*Supportive methods for assessing effective porosity and regulating karst aquifers.* Acta Carsologica, 39(2), 313-329. doi: 10.3986/ac.v39i2.102.

239.- Dewandel B. Caballero Y. Perrin J. Boisson A. Dazin F. Ferrant S. Chandra S. Maréchal J.(2017). *A methodology for regionalizing 3-D effective porosity at watershed scale in crystalline aquifers.* Hydrological Processes, 31(12), 2277-2295. doi: 10.1002/hyp.11187.

240.- Bonacci O.(1995). *Ground water behaviour in karst: example of the Ombla Spring (Croatia).* Journal of Hydrology, 165(1-4), 113-134. doi: 10.1016/0022-1694(94)02577-X.

241.- Bonacci, O., 1987. Karst Hydrology. Springer, Berlin, 179 pp.

242.- Campana M., & Mahin D.(1985). Model-derived estimates of groundwater mean ages, recharge rates, effective porosities and storage in a limestone aquifer. Journal of Hydrology, 76(3-4), 247-264. doi: 10.1016/0022-1694(85)90136-2.

243.- Worthington, S.R.H., Smart, C.C., Ruland, W.(2012). *Effective porosity of a carbonate aquifer with bacterial contamination*. Walkerton, Ontario. Canada. J. Hydrol. 464–465, 517–527.

244.- Cook, S.J., Fitzpatrick, C.M., Burgess, W.G., Lytton, L., Bishop, P., Sage, R.(2012). *Modelling the influence of solution-enhanced conduits on catchment-scale contaminant transport in the Hertfordshire Chalk aquifer.* In: Shepley, M.G., Whiteman, M.I., Hulme, P.J., Grout, M.W., (Eds.), Groundwater Resources Modelling: A Case Study from the UK. Geol. Soc. London Spec. Publ. 364, pp. 205–225

245.- Price, M., Downing, R.A., Edmunds, W.M., 1993. The Chalk as an aquifer. In: Downing, R.A., Price, M., Jones, G.P. (Eds.), The Hydrogeology of the Chalk of North-West Europe. Clarendon, Oxford, pp. 33–58.

246.- Ackerman, D.J., Rousseau, J.P., Rattray, G.W., Fisher, J.C., 2010. Steady-state and transient models of groundwater flow and advective transport, eastern Snake River Plain

aquifer, Idaho National Laboratory and vicinity, Idaho, U.S. Geol. Surv. Sci. Invest. Rep., 2010–5123.

247.- Gorski J., & Ghodeif, K.(2000). *Salinization of shallow water aquifer in El Qaa coastal plain, Sinai, Egypt.* In: Proceedings of 16th salt water intrusion meeting, Wolin Island, Poland

248.- Kim, N.-W., Chung, I.-M., Yoo, S., Lee, J., Yang, S.-K., 2009. *Integrated surface–groundwater analysis in Jeju Island (in Korean)*. J. Environ. Sci. 1017, 1026.

249.- Dann R. Close M. Pang L. Flintoft M. Hector R.(2008). *Complementary use of tracer and pumping tests to characterize a heterogeneous channelized aquifer system in New Zealand*. Hydrogeology Journal, 16(6), 1177-1191. doi: 10.1007/s10040-008-0291-4.

250.-Kuria Z.(2013). *Groundwater Distribution and Aquifer Characteristics in Kenya.* Elsevier B.V., 83-107. doi: 10.1016/B978-0-444-59559-1.00008-6.

251.- Razafindratsima S. Péron O. Piscitelli A. Gégout C. Schneider V. Barbecot F. Giffaut E. Robinet J. Le Cointe P. Montavon G.(2015). *Transport properties of iodide in a sandy aquifer: Hydrogeological modelling and field tracer tests.* Journal of Hydrology, 520, 61-68. doi: 10.1016/j.jhydrol.2014.11.021.

252.- Ma R. Zheng C. Zachara J. Tonkin M.(2012). *Utility of bromide and heat tracers for aquifer characterization affected by highly transient flow conditions.* Water Resources Research, 48(8). doi: 10.1029/2011WR011281.

253.- Khalil M. Santos F.(2013). *Hydraulic conductivity estimation from resistivity logs: A case study in Nubian sandstone aquifer.* Arabian Journal of Geosciences, 6(1), 205-212. doi: 10.1007/s12517-011-0343-2.

254.- Heinz, J., Kleineidam, S., Teutsch, G., Aigner, T.(2003). *Heterogeneity patterns of quaternary glaciofluvial gravel bodies (SW-Germany)*: application to hydrogeology. Sediment. Geol. 158, 1–23

255.- Pohll G. Hassan A. Chapman J. Papelis C. Andricevic R.(1999). *Modeling ground water flow and radioactive transport in a fractured aquifer.* Ground Water, 37(5), 770-784. doi: 10.1111/j.1745-6584.1999.tb01170.x.

256.- Paradis C. McKay L. Perfect E. Istok J. Hazen T.(2018). Correction: Push-pull tests for estimating effective porosity: expanded analytical solution and in situ application. Hydrogeology Journal, 26(2), 381-393. doi: 10.1007/s10040-017-1672-3

257.- Sonnenborg T. Scharling P. Hinsby K. Rasmussen E. Engesgaard P. (2016). *Aquifer Vulnerability Assessment Based on Sequence Stratigraphic and 39Ar Transport Modeling.* Groundwater (2016) 54(2) 214-230. doi: 10.1111/gwat.12345.

258.- Maréchal J. Dewandel B. Ahmed S. Galeazzi L. Zaidi F.(2006). *Combined estimation of specific yield and natural recharge in a semi-arid groundwater basin with irrigated agriculture.* Journal of Hydrology, 329(1-2), 281-293. doi: 10.1016/j.jhydrol.2006.02.022.

259.- Crosbie R. Binning P. Kalma J.(2005). *A time series approach to inferring groundwater recharge using the water table fluctuation method.* Water Resources Research, 41(1), 1-9. doi: 10.1029/2004WR003077.

260.- Crosbie, R. S. (2003), The regional scaling of groundwater recharge, Ph.D. thesis, Univ. of Newcastle, Callaghan, NSW, Australia.

261.- Saha D. Agrawal A.(2006). Determination of specific yield using a water balance approach - Case study of Torla Odha watershed in the Deccan Trap province, Maharastra State, India. Hydrogeology Journal, 14(4), 625-635. doi: 10.1007/s10040-005-0471-4.

262.- Versey, H.R., & Singh, B.K. (1982). *Groundwater in Deccan basalts of the Betwa basin, India.* J Hydrol 58:297–306.

263.- Vouillamoz J. Lawson F. Yalo N. Descloitres M.(2014). *The use of magnetic resonance sounding for quantifying specific yield and transmissivity in hard rock aquifers: The example of Benin*. Journal of Applied Geophysics, 107,16-24. doi: 10.1016/j.jappgeo.2014.05.012.

264.- Gehman C. Harry D. Sanford W. Stednick J. Beckman N.(2010). *Estimating specific yield and storage change in an unconfined aquifer using temporal gravity surveys.* Water Resources Research, 46(4). doi: 10.1029/2007WR006096.

265.- Fox, G. (2003). *Estimating streambed and aquifer parameters from a stream/aquifer analysis test*. paper presented at Hydrology Days 2003, AGU, Fort Collins, Colo., 31 March to 2 April.

266.- Chen X. Song J. Wang W.(2010). *Spatial variability of specific yield and vertical hydraulic conductivity in a highly permeable alluvial aquifer.* Journal of Hydrology, 388(3-4) ,379-388. doi: 10.1016/j.jhydrol.2010.05.017.

267.-Misstear B. Brown L. Johnston P.(2009). *Estimation of groundwater recharge in a major sand and gravel aquifer in Ireland using multiple approaches.* Hydrogeology Journal, 17(3), 693-706. doi: 10.1007/s10040-008-0376-0.

268.- Daly, D. (1981). *Pollardstown Fen: hydrogeological assessment of the effects of drainage on the water supply to the Grand Canal.* Report, Geological Survey of Ireland, Dublin.

269.- Norris, S.E.(1983). *Aquifer tests and well field performance, Scioto River Valley near Piketon, Ohio.* Part I. Ground Water, 21 (3): 287-292.

270.- Vouillamoz J. Sokheng S. Bruyere O. Caron D. Arnout L.(2019). *Towards a better estimate of storage properties of aquifer with magnetic resonance sounding.* Journal of Hydrology, 458-459, 51-58. doi: 10.1016/j.jhydrol.2012.06.044.

271.- Abdulla F. Al-Assa'd T.(2006). *Modeling of groundwater flow for Mujib aquifer, Jordan.* Journal of Earth System Science,115(3), 289-297. doi: 10.1007/BF02702043.

272.- Chen X. Chen X.(2003). *Sensitivity analysis and determination of streambed leakance and aquifer hydraulic properties.* Journal of Hydrology, 284(1-4), 270-284. doi: 10.1016/j.jhydrol.2003.08.004.

273.- Moench A.(1994). *Specific Yield as Determined by Type-Curve Analysis of Aquifer-Test Data.* Groundwater, 32(6), 949-957. doi: 10.1111/j.1745-6584.1994.tb00934.x.

274.- Pulido-Bosch, A. (1993). *The karstic aquifer of the Torcal de Antequera (Malaga).* In: Pulido-Bosch A (ed) Some Spanish karstic aquifers. University of Granada, pp 37–49.

275.- Panagopoulos G.(2012). *Application of MODFLOW for simulating groundwater flow in the Trifilia karst aquifer, Greece.* Environmental Earth Sciences, 67(7), 1877-1889. doi: 10.1007/s12665-012-1630-2.

276.- Taheri Tizro A. Voudouris K. Basami Y.(2012). *Estimation of porosity and specific yield by application of geoelectrical method - A case study in western Iran.* Journal of Hydrology, 454-455, 160-172. doi: 10.1016/j.jhydrol.2012.06.009.

277.- Shevenell L.(1996). *Analysis of well hydrographs in a karst aquifer: Estimates of specific yields and continuum transmissivities.* Journal of Hydrology, 174(3-4), 331-355. doi: 10.1016/0022-1694(95)02761-0.

278.- Marechal,JC. Dewandel B. and Sebrahanyam, K.(2004). *Use of hydraulic conductivity test and at different scales to characterize fracture network properties in the weathered – fractured layr of a hard rock aquifer.* Water Resourches Research, 40 (11): Art. No.W110508. doi: 10.1029/2004WR003137

279.- Misstear, B.D.R. (2000).*Groundwater recharge assessmen: a key component of river basin management.* In: Proc. National Hydology seminar on River Basin Management (Irish National Commites of the International Hydrology Programme and The International Commite for Irrigations and Drainage), Tullamore, 21 November 2000,52-59.

280.- Betson, M., & Robins, N. (2003). *Use of permeability to estímate vulnerability to diffuse pollution on fractued aquifers in Scotland.* Proceedings of the IAH conference “Groundwater in fractued Rocks”, Prague, 15-19 semptember 2003.

281.- Gelhar,L . W.(1982). *Analysis of two-well tracer tests with a pulse input.* Rockwell International Corp., Richland, WA (USA). Rockwell Hanford Operations, 21(9).

282.- Ahlstrom, S. W., H. P. Foote, R. C. Arnett, C. P. Cole, and R. J., Serne, R. (1977). *Multicomponent mass transport model: Theory and numérical implementation (discrete-particle-random-walk-version).* Rep. BNWL-2127, Battelle Pac. Northwest Lab., Richland.

283.- Bentley, H. W., and G. R.(1983). *Walter, Two-well recirculating tracer tests at H-2: Waste Isolation Pilot Plant (WIPP), southwest New Mexico*. draft paper, Hydro Geochem., Inc., Tucson, Ariz., 1983.

284.- Bierschenk, W. H.(1959). *Aquifer characteristics and ground-water movement at Hanford*. Rep. HW-60601, Hanford At. Products Oper., Richland, Wash.

285.- Bredehoeft, J. D., & Pinder G. F. (1973). *Mass transport in flowing groundwater.* Water Resour. Res., 9(1), 144-210. doi: 10.1029/WR009i001p00194.

286.- Claasen, H. C., & Cordes,E.H.(1975). *Two-well recirculating tracer test in fractured carbonate rock, Nevada*. Hydrol. Sci. Bull.., 20(3), 367-382.

287.- Dieulin, A.(1981). *Lixiviation in situ d'un gisement d'uranium en milieu granitique.* Draft Rep. LHM/RD/81/63, Ecole Natl. Super. desMines de Paris, Fontainebleau, France.

288.- MacFarlane,D.S., Cherry,J.A., Gillham,R.W., Sudicky, E.A.(1983). *Migration of contaminantions in groundwatear at a landfill: A case Study, 3, , Tritium as an indicator of dispersión and recharge*. , Hydrol., 63, 51-80.

289.- Fenske, P, . R.(1973). *Hydrology and radionuclide transport, monitoring well HT-2m, Tatum Dome, Mississippi*. Porj, Rep. 25, Tech, Rep. NVD-1253-6, Cent. for Water Resour. Res., Desert Res. Inst., Univ. of Nev. Syst., Reno.

290.- Freyberg D. L.(1986). *A natural gradient experiment on solute transport in a sand aquifer, 2, Spatial moments and the advection and dispersión of nonreactive tracers*, Water Resour. Res., 22(13), 2031-2046. doi: 10.1029/WR022i013p02031.

291.- Garabedian, S.,Gelhar, L.W., Celia, M.A.(1987). *Large-scale Dispersive transport in aquifers: Field experiments and reactive transport theory.* Rep. 315, Ralph M. Parsons Lab. for WaterResour. and Hydrodyn., Mass. Inst. of Technol., Cambridge.

292.- Grove, B.(1977), *The use of Galerkin infinite-element Methods to solve mass transport equations*, Rep. USGS/WRD/WRI-78/0U11.S, . Geol.Surv.,Denver,Colo, 77-99. doi: 10.3133/wri7749.

293.- Grove, D. B., & Beetem, W.A.(1971). *Porosity and dispersión constant Calculations for a fractured carbonate aquifer using the two-well tracer method*. Water Resour. Res., 7(1), 128-134, 19 71. doi: 10.1029/WR007i001p00128.

294.- Halevy, E.,Nir, A.(1962). *Determination of aquifer parameters with the aid of radioactive tracers*. Journal of Geophysical Research, 67(6), 2403-2409. doi: 10.1029/jz067i006p02403.

295.- Huyakorn P.S., Anderson,P., Motz, F., Güven,O., Melville,J.(1986). *Simulatioms of two-well tracers tests in stratified aquifers at the Chalk River and the Mobile sites.* Water Resources Research, 22(7), 1016-1030. doi: 10.1029/WR022i007p01016.

296.- Ivanovitch, M., & Smith,D.(1978). *Determination of aquifer parameters by a two-well pulsed method using radioactive tracers*. Journal of Hydrology, 36(1-2), 35-45. doi: 10.1016/0022-1694(78)90035-5.

297.- Klotz, D., Seller,K., Moser, H., Neumaier F.(1980). *Dispersivity and velocity relationship from laboratory and field experiments.* Journal of Hydrology, 45(3-4), 169-184. doi: 10.1016/0022-1694(80)90018-9.

298.- Kreft, A. Lenda, A. Turek, B. Zuber, A. Czauderna, K.(1974). *Determination of effective porosities by the two-well pulse method*, Isot. Tech. Groundwate Hrydrol., Proc. Syrup.,2 , 295- 312.

299.- Lau, L., Kaufman,W., and Todd,D.(1957). *Studies of dispersion in a radial flow system, Canal Seepage Research: Dispersion Phenomena in Flow Through Porous Media*. Progress Rep. 3, I.E.R. Ser. 93, Issue 3, Sanit. Eng. Res. Lab., Dep. of Eng. and School of Public Health, Univ. of Calif., Berkeley.

300.- Leland, D . F., and Hillel,D.(1981). *Scale effects on measurement of dispersivity in a shallow, unconfined aquifer, paper presented at Chapman Conference on Spatial Variability in Hydrologic Modeling.* AGU, Fort Collins Colo., July 21-23, 1981.

301.- Mercado, A.(1966). *Recharge and mixing tests at Yavne 20 well field, Underground Water Storage Study.* Tech. Rep. 12, Publ. 611, Tahal-Water Plann. for Isr., Tel Aviv.

302.- Moltyaner, G. L., and Killey, R.W.(1988). *Twin Lake tracer tests: Longitudinal dispersión*. Water Resour. Res., 24(10) 1613-1627.

303.- Thrope,H.(1981). *Movement of contaminants into and through the Heretaunga Plains aquifer.* New Zealand Ministry of Works and Development Water and Soil. Division, Movement of contaminants into and through the Heretaunga. Plains aquifer, report, 225-241

304.- Oakes,D., and Edworthy, D.(1977). *Field measurement of dispersion Coefficients in the United Kingdom.* Groundwater Quality, Measurement, Prediction and Protection. Research Centre, Reading, England,, pp. 327-340.

305.- Papadopulos, S., and Larson,S.(1978). *Aquifer storage of heated water: II, Numerical simulation of field results*, Ground Water, 16(4), 242-248, 1978. doi: 10.1111/j.1745-6584.1978.tb03231.x.

306.- Pickens, J., and Grisak,G.(1981).*Scale dependent dispersión in a stratified granular aquifer.* Water Resour. Res., 17(4), 1191-1211. doi: 10.1029/WR017i004p01191

307.- Rabinowitz, D., and Gross,G.(1972). *Environmental tritium as a hydrometeorologic tool in the Roswell Basin, New Mexico.* Tech. Completion Rep. OWRR:A-O37-NMEX, N.M. Water Resour. Res. Inst., Las Cruces, 32(1–2), 3-17. doi: 10.1016/0022-1694(77)90114-7.

308.- Roberts, P., Reinhard,M., Hopkins,G. and Summers, R.(1981). *Advection-dispersion-sorption models for simulating the transport of organic contaminants,* paper presented at International Conference on Ground Water Quality Research, Rice Univ., Houston, Tex.

309.- Segol,G ., and Pinder,G.(1976). *Transient simulation of saltwater Intrusión in southeastern Florida*. Water Resours, R.es.,12(1), 65-70. doi: 10.1029/WR012i001p00065.

310.- Sudicky,E., Cherry,J. and Frind,E.(1983). *Migration of Contaminants in groundwater at a landfill: A case study 4, , A natural-gradient dispersión test*, J. Hydrol., 63(1-2), 81-108. doi: 10.1016/0022-1694(83)90224-X.

311.- VaccaroJ., and Bolke,E.(1983). *Evaluation of wáter quality Characteristics of part of the Spokanea quifer, Washington and Idaho, using a solute transport digital model,* U.S. Geol. Surv. Open File Rep., 82-769. doi: 10.3133/ofr82769.

312.- Walter, G.(1983). *Convergent flow tracer test at H-6: Waste isolation pilot plant (WlPP), southeast New Mexico (draft)*, Hydro Geochem, Inc., Tucson, Ariz.

313.- Webster, D.,Procter, F., and Marine, J.(1970). *Two-well tracer Test in fractured crystalline rock*, U.S. Geol. Surv., WaterSupply Pap., 1544-1.

314.- Werner, A., Blau, R.(1983). *Nutzung von Grundwasser fur Warmepumpen, Versickerrungstest Aefligen,* Versuch 2, 1982/83, Water and Energy Manage. Agency of the State of Bern, Switzerland.

315.-Wiebenga,W., Ellis, W., Seatonberry, B., and Andrew,J.(1967). *Radioisotopes as groundwater tracers .* Geophys. Res., 72(16), 4081-4091. doi: 10.1029/JZ072i016p04081

316.- Wood, W.(1981). *A geochemical method of determining dispersivityin regional groundwater systems*, J. Hydrol., 54(1-3), 209-224. doi:/10.1016/0022-1694(81)90161-X.

317.- Wilson, L.(1971). *Investigations on the subsurface disposal of waste effluents at inland sites,* Res. Develop. Progress Rep. 650, U.S. Dep. of Interior, Washington.

318.- Valocchi, A., Roberts,P., Parks, G., and Street, R.(1981). *Simulation of the transport of ion-exchanging solutes using laboratory-determined chemical parameter values*, Ground Water, 19(6), 600-607. doi: 0.1111/j.1745-6584.1981.tb03514.x

319.- Sykes, J. , Pahwa,S., Ward,D., and Lantz,D.(1983). *The Validation of SWENT,a geosphere transport model in Scientific Computing,* edited by R. Staplemant et al., pp. 351-361, I MAESI, North-Holland, Amsterdam.

320.- British Geological Survey.(1993). *Groundwater storage in British aquifers: Chalk.* Project Record 128/8/A National Rivers Authority, London.

321.- Alexander, L S. (1981). *The hydrogeology of the Chalk of south Dorset.* PhD thesis, University of Bristol, Bristol.

322.- Institute of Geological Sciences and Wessex Water Au thority.(1979). *Hydrogeological map of the Chalk and associated minor aquifers of Wessex (1:100 000).* NERC, Keyworth.

323.- Shaw, P J, and Packman, M J.(1988). *Chalk — Upper Greensand investigation: report on the hydrogeological investigation of the Southern Downs aquifer.* Internal Report of the Southern Water Authority.

324.- Wessex Water Authority somerset Division.(1976). *Synopsis of Report on Tone Groundwater Scheme*. New Works Planning, Management Paper 76/15. Ref RP/14/2.

325.- Halcrow, (Sir William) and Partners.(1992). *Upper Hampshire Avon groundwater study: report on phase 1*. National Rivers Authority, Wessex Region.

326.- Headworth, H. G., Keating, T., and Packman, M. J. (1982). *Evidence for a shallow highly-permeable zone in the Chalk of Hampshire, UK*. Journal of Hydrology, 55, 93–112. doi: 10.1016/0022-1694(82)90122-6.

327.- Southern Water Authority.(1984). *South Downs Investigation: report on the Resources of the Chichester Chalk Block*. Southern Water Authority, Sussex.

328.- Owen, M, and Robinson, V. K. (1978). *Characteristics and yield in fissured Chalk. Institution of Civil Engineers.* Symposium on Thames Groundwater Scheme, Paper 2, 33–49. doi

329.- Water Resources Board.(1972). *The hydrogeology of the London Basin.* Water Resources Board, Reading.

330.- Flavin, R. J., and Joseph, J. B. (1983). *The hydrogeology of the Lee Valley, N. London.* Quarterley Journal of Engineering Geology, 16, 65–82. doi: 10.1144/GSL.QJEG.1983.016.01.06.

331.- Southern Water and Mid-Kent Water Company.(1989) . *North Kent groundwater development scheme*. Internal Report of Southern Water, Kent Division , Chatham, Kent.

332.- Woodland, A W. (1946). *Water supply from underground sources of the Cambridge–Ipswich district*. Geological Survey Wartime Pamphlet, 20 (X).

333.- Downing, R. A. (1955). *Groundwater resources in relation to the geology of northern East Anglia.* Institute of Geological Sciences, Technical Report WD/55/1.

334.- University of Birmingham.(1984). Groundwater modelling investigation of the River Gipping area of Suffolk. Final report to Anglian Water Authority.

335.- Anglian Water Authority. 1980. *North Essex Chalk aquifer investigation*, final report.

336.- Foster, S. S. D., Parry, E. L., and Chilton, P. J. (1976). *Groundwater resources development and saline water intrusion in the Chalk aquifer of north Humberside*. IGS Technical Report 76/4.

337.- University of Birmingham.(1978). *South Humberbank Salinity Research Project.* Final report to Anglian Water Authority

338.- University of Birmingham.(1982). *Southern Chalk Hydrogeological Investigation*. Final report to Anglian Water Authority.

339.- O'Shea, M. J. (1981). *Borehole recharge of the Folkestone beds at Hardham, Sussex*, Journal of the Institution of Water Engineers and Scientists, 38 (1), 9-24.

340.- Izatt, D., and Fox, G. B. (1981). *Groundwater development in the Lower Greensand of Sussex*. (Worthing: Southern Water Authority.). Quart. J. Engng Geol.; Gbr; DA, 12(1), 59-60

341.- MacDonald, A. M. (1992). *A resistivity survey of the hydraulic structure of the Lower Greensand of southeast England.* MSc. Thesis, University College London, London.

342.- Monkhouse, R. A., and Fleet, M. (1975). *A geophysical investigation of saline water in the chalk of the south coast of England.* Quarterly Journal of Engineering Geology, 8, 291–302.

343.- Shaw, P. (1976). T*he hydrogeology of parts of Oxfordshire and Northamptonshire.* MPhil thesis, University College, London.

344.- Ramingwong, T. (1974). *Hydrogeology of the Keuper sandstone in the Droitwich syncline area—Worcestershire.* PhD thesis, University of Birmingham.

345.- Koukis, G. (1974). *Physical mechanical and chemical properties of the Triassic sandstone aquifer of the Vale of York*. PhD thesis University of Leeds.

346.- Ineson, J. (1957). *Report on pumping tests carried out on the wells of Imperial Chemical Industries Ltd*., Billingham. British Geological Survey Water Dept Report, WD/57/2/A.

347.- Reeves, M. J., Birtles, A. B., Courchee, R., and Aldrick, R. J. (1974). *Groundwater resources of the Vale of York*. Water Resources Board, Reading, 90pp.

348.- Parker, J. M., Foster, S. S. D., Sherratt, R., and Aldrick, J. (1985). *Diffuse pollution and groundwater quality of the Triassic sandstone aquifer in southern Yorkshire*. British Geological Survey Report,17(5). (London: HMSO.)

349.- Knipe, C. V., Lloyd, J. W., Lerner, D. N., and Greswell, R. (1993). *Rising Groundwater levels in Birmingham and the engineering implications*. CIRIA Special Publication, 92.

350.- British Geological Survey. (1993). *Groundwater storage in British aquifers: Chalk.* Project Record 128/8/A National Rivers Authority, London.

351.- Worthington, P. F. (1977). *Permeation properties of the Bunter Sandstone of Northwest Lancashire*. Journal of Hydrology, 32(3-4), 295–303.doi: 10.1016/0022-1694(77)90022-1

352.- Wessex Water Authority somerset Division.(1976). *Synopsis of Report on Tone Groundwater Scheme*. New Works Planning, Management, 76(15). Ref RP/14/2.

353.-Davey, J. C. (1981). *Hydrogeology of the Permian Aquifers in Central and East Devonshire*, Doctoral dissertation. University of Bristol..

354.- Burgess, A. S.(1971). *Engineering geology and geohydrology of the Magnesian Limestone of Northern England*. PhD thesis, University of Durham.

355.- Aldrick, R. J.(1974). *The hydrogeology of the Triassic Sandstones of North Yorkshire.* PhD thesis, University of Leeds.

356.- Murphy, R D. (1986). *An evaluation of the problems of water inrushes to the Wistow Mine, Selby Coalfield, N. Yorkshire*. Msc thesis (unpublished) University College London.

357.- Hobbs, S L. (1988). *Recharge, flow and storage in the unsaturated zone of the Mendip limestone aquifer*. PhD Thesis, Bristol University.

358.- National Rivers Authority. (1993). *Vale of Glamorgan. Carboniferous Limestone Study.* Report for NRA Welsh Region by Aspinwall and Company. NA1803A/R3.

359.- Young, C. P., and Connor, K. J. (1978). *Investigation of a site at Tythegston, Glamorgan.* WLR Technical Note No. 29. Water Research Centre.

360.- Machiwal D., and Jha, M.(2015). *GIS-based water balance modeling for estimating regional specific yield and distributed recharge in data-scarce hard-rock regions.* Journal of Hydro-Environment Research, 9(4), 554-568. doi: 10.1016/j.jher.2014.07.004.

361.- Machiwal, D. (2009). *Hydraulic and geochemical characterization and groundwater prospect of Hard-Rock Aquifer Systems in Udaipur, Rajasthan.* Unpublished Ph. D. Thesis, Indian Institute of Technology, Kharagpur, India.

362.- Naik, P.K., and Awasthi, A.K.(2003). *Groundwater resources assessment of the Koyna River basin, India*. Hydrogeology Journal, 11, 582-594. doi: 10.1007/s10040-003-0273-5.

363.- Rotzoll, K. El-Kadi, A., and Gingerich, S.(2008). *Analysis of an unconfined aquifer subject to asynchronous dual-tide propagation.* Ground Water, 46(2), 239-250. doi: 10.1111/j.1745-6584.2007.00412.x.

364.- Pfeffer, J., Boucher, M., Hinderer, J. Favreau, G. Boy, J. De Linage, C. Cappelaere, B. Luck, B. Oi M., and Le Moigne, N.(2011). *Local and global hydrological contributions to time-variable gravity in Southwest Niger.* Geophysical Journal International, 184(2), 661-672

365.- Belcher, W.R., Elliott, P.E., Geldon, A.L.(2002). *Hydraulic-Property Estimates for Use With a Transient Ground-Water Flow Model of the Death Valley Regional Ground-Water Flow System, Nevada and California*. USGS Water Resources Investigation Report 01-4120, 28 p.

366.- GEOBOL-UNDP.(1973). *Los recursos de agua del Altiplano norte y del ~rea de Oruro. Proyecto de desarrollo de los recursos de aguas subterraneas en el Altiplano.* (The water resources of the northern Altiplano and of the Oruro area. Project of Groundwater Resources Development in the Altiplano). Servicio Geol6gico de Bolivia, United Nations Development Programme, La Paz.

367.- Stephenson, K.M., and Novakowski, K.S.(2006). *The analysis of pulse interference tests conducted in a fractured rock aquifer bounded by a constant free surface*. Journal Hydrology, 319, 109–22. doi: 10.1016/j.jhydrol.2005.07.005.

368.- Blake, D., Mlisa, A., & Hartnady, C. (2010). *Large scale quantification of aquifer storage and volumes from the Peninsula and Skurweberg Formations in the southwestern Cape*. Water SA, 36(2), 177-184. doi:10.4314/wsa.v36i2.183727.

369.- Kollet, S. J., & Zlotnik, V. A. (2005). *Influence of aquifer heterogeneity and return flow on pumping test data interpretation.* Journal of hydrology, 300(1-4), 267-285. doi: 10.1016/j.jhydrol.2004.06.011.

370.- Delottier, H., Pryet, A., Lemieux, J. M., & Dupuy, A. (2018). *Estimating groundwater recharge uncertainty from joint application of an aquifer test and the water-table fluctuation method.* Hydrogeology Journal, 26(7), 2495-2505. doi: 10.1007/s10040-018-1790-6.

371.- Bolster, C. H., Genereux, D. P., & Saiers, J. E. (2001). *Determination of specific yield for the Biscayne aquifer with a canal-drawdown test*. Groundwater, 39(5), 768-777. doi: 10.1111/j.1745-6584.2001.tb02368.x

372.- Jinxi, S. O. N. G., & Xunhong, C. H. E. N. (2010). *Variation of specific yield with depth in an alluvial aquifer of the Platte River valley, USA.* International Journal of Sediment Research, 25(2), 185-193. doi: 10.1016/S1001-6279(10)60037-6

373.- Jagucki, M. L. (1995). *Hydrogeology and Water Quality of at the Management Systems Evaluation Area Near Piketon, Ohio* (Vol. 95, No. 4139). US Department of the Interior, US Geological Survey.

374.- Madhnure, P., Peddi, N. R., & Allani, D. R. (2016). *An integrated hydrogeological study to support sustainable development and management of groundwater resources: a case study from the Precambrian Crystalline Province, India.* Hydrogeology journal, 24(2), 475-487. doi: 10.1007/s10040-015-1342-2.

375.- Shrestha, S., & Shrestha, S. D. (2008). *Groundwater condition of Banepa area, Central Nepal.* Bulletin of the Department of Geology, 11, 31-40. doi: 10.3126/bdg.v11i0.1540.

376.- Stober, I., & Bucher, K.(2005). *The upper continental crust, an aquifer and its fluid: Hydaulic and chemical data from 4 km depth in fractured crystalline basement rocks at the KTB test site.* Geofluids, 5(1), 8-19. doi: 10.1111/j.1468-8123.2004.00106.x.

377.- *Persaud, E., Levison, J., Pehme, P., Novakowski, K., & Parker, B. (2018). Cross-hole fracture connectivity assessed using hydraulic responses during liner installations in crystalline bedrock boreholes. Journal of Hydrology, 556, 233-246. doi:* 10.1016/j.jhydrol.2017.11.008.

378.- Monkhouse, R. A. , and Richards, H. J. (1984). *Groundwater Resources of the United Kingdom*. (Hannover: Th. Schafer.). United Kingdom.

379.- Water Resources Board.(1972). *The hydrogeology of the London Basin.* Water Resources Board, Reading.

380.- Environment Agency.(1998). *Rising groundwater levels in the Chalk-Basal Sands aquifer of the central London Basin.* Environment Agency, Reading.

381.- Lowings, V. A., and GILES, D. M. (1987). *Proposed groundwater abstraction by CEGB at Fawley.* Southern Water Authority.

382.- Southern Water Authority, Directorate Of Resource Planning.(1978). *Desk study of the hydrogeology of the Ashdown Beds in the Rother Basin.*

383.- McKelvey, P. (1993). *A regional groundwater flow model of the Sandringham Sands — Northwest Norfolk.* Unpublished MSc thesis, University of Birmingham.

384.- Price, J. H. (1957). *Hydrogeology of the Spilsby Sandstone*. Geological Survey of Great Britain Technical Report, WD/57/6.

385.- Davey, J. C. (1981). *Hydrogeology of the Permian Aquifers in Central and East Devonshire*. Doctoral dissertation. University of Bristol.

386.- Holliday, D. (1986). *Devonian and Carboniferous Basins. 84–110 in 'Geothermal energy—the potential in the United Kingdom*. DOWNING, RA, and GRAY, DA.

387.- Campbell, J E. 1986. *Garrigill water supply improvement scheme: results of hydrogeological fieldwork.* North West Water Hydrogeological Report, No. 171.

288.- Bishop, P. K., Lerner, D. N., Jakobsen, R., Gosk, E., Burston, M. W., & Chen, T. (1993). *Investigation of a solvent polluted industrial site on a deep sandstone-mudstone sequence in the UK.* Part 2. Contaminant sources, distributions, transport and retardation. Journal of Hydrology, 149(1-4), 231-256. doi: 10.1016/0022-1694(93)90108-L.

289.- Hodgson, A. V., & Gardiner, M. D. (1971). *An investigation of the aquifer potential of the Fell Sandstone of Northumberland.* Quarterly Journal of Engineering Geology and Hydrogeology, 4(2), 91-109. doi: 10.1144/GSL.QJEG.1971.004.02.01.

390.- Richardson, L. (1935). *Wells and springs of Herefordshire*. HM Stationery Office.

391.- Batchelor, A. S. (1978). *Permeability enhancement studies in southwest England.* 1st Ann. Rept., Camborne School of Mines, Cornwall.

392.- Heath, M. J., & Durrance, E. M. (1985). *Hydrogeological investigations at an experimental site in granite, south west England, in relation to the transport of radionuclides through fractured rock.* Nuclear and chemical waste management, 5(4), 251-267. doi: 10.1016/0191-815X(85)90002-6.

393.- Liu, G., Zheng, C., Tick, G. R., Butler Jr, J. J., & Gorelick, S. M. (2010). *Relative importance of dispersion and rate-limited mass transfer in highly heterogeneous porous media: Analysis of a new tracer test at the Macrodispersion Experiment (MADE) site.* Water Resources Research, 46(3). doi: 10.1029/2009WR008430.

395.- Boggs, J. M., Young, S. C., Beard, L. M., Gelhar, L. W., Rehfeldt, K. R., & Adams, E. E. (1992). *Field study of dispersion in a heterogeneous aquifer: 1. Overview and site description.* Water Resources Research, 28(12), 3281-3291. doi: 10.1029/92WR01756

396.- Pavelic, P., Dillon, P. J., & Simmons, C. T. (2006). *Multiscale characterization of a heterogeneous aquifer using an ASR operation.* Groundwater, 44(2), 155-164. doi: 10.1111/j.1745-6584.2005.00135.x

397.- Delbart, C., Valdes, D., Barbecot, F., Tognelli, A., & Couchoux, L. (2016). *Spatial organization of the impulse response in a karst aquifer.* Journal of Hydrology, 537, 18-26. doi: 10.1016/j.jhydrol.2016.03.029.

398.- Prickett, T. A. (1965). *Type-curve solution to aquifer tests under water-table conditions*. Groundwater, 3(3), 5-14. 10.1111/j.1745-6584.1965.tb01214.x.

399.- Boulton, N. S. (1954). *Unsteady radial flow to a pumped well allowing for delayed yield from storage.* Int. Assoc. Sci. Hydrol. Publ, 2, 472-477.

400.- Booth, C. J., Spande, E. D., Pattee, C. T., Miller, J. D., & Bertsch, L. P. (1998). *Positive and negative impacts of longwall mine subsidence on a sandstone aquifer.* Environmental Geology, 34(2-3), 223-233. doi: 10.1007/s002540050274.

401.- Botha, J. F., & Cloot, A. H. J. (2004). *Deformations and the Karoo aquifers of South Africa.* Advances in water resources, 27(4), 383-398. doi: 10.1016/j.advwatres.2004.02.014.

402.- Newman, G. H. (1973). *Pore-volume compressibility of consolidated, friable, and unconsolidated reservoir rocks under hydrostatic loading.* Journal of Petroleum Technology, 25(02), 129-134. doi: 10.2118/3835-PA.

403.- McConnell, C. L. (1993). *Double porosity well testing in the fractured carbonate rocks of the Ozarks*. Groundwater, 31(1), 75-83. doi: 10.1111/j.1745-6584.1993.tb00830.x.

404.- Jat, M. L., Acharya, M. S., & Singh, J. (1995). *Estimation of aquifer parameters by least-squares method under linear flow conditions in fractured rocks*. Hydrology Research, 26(2), 111-124. doi: 10.2166/nh.1995.0007.

405.- Carlsson, L., & Ejdeling, G. (1979). Geohydrological properties of tectonic zones in hard rocks obtained from artificial recharge tests and numerical modeling. Hydrology Research, 10(1), 49-62. doi: 10.2166/nh.1979.0005.

406.- Low, D. J., Hippe, D. J., & Yannacci, D. (2002). *Geohydrology of southeastern Pennsylvania (No. 4166)*. US Department of the Interior, US Geological Survey. doi:

407.- Southern Cross Resources Australia Pty Ltd. (2000). *Honeymoon Uranium Project: Environmental Impact Statement: Response Supplement.* Southern Cross Resources Australia Pty Limited.

408.- Allen, D. (2006). *Electrical conductivity imaging beneath far west NSW water reservoirs and the Darling River*. Far West Water Alliance.

409.- Australia, G. (2008). *Assessment of groundwater resources in the Broken Hill region*. Department of the Environment and Water Resources.

410.- Rutqvist, J., Noorishad, J., Tsang, C. F., & Stephansson, O. (1998). *Determination of fracture storativity in hard rocks using high-pressure injection testing.* Water Resources Research, 34(10), 2551-2560. doi: 10.1029/98WR01863.

411.- Rutqvist, J. (1996). *Hydraulic pulse testing of single fractures in porous and deformable hard rocks.* Quarterly Journal of Engineering Geology and Hydrogeology, 29(2), 181-192. doi: 10.1144/GSL.QJEGH.1996.029.P2.06.

412.- Won, J. H., Lee, J. Y., Kim, J. W., & Koh, G. W. (2006). *Groundwater occurrence on Jeju Island, korea*. Hydrogeology Journal, 14(4), 532-547. doi: 10.1007/s10040-005-0447-4.

413.- Barrocu, G., Muscas, L., Sciabica, M.G. (2004). *Geographic information systems and modelling of saltwater intrusion in the Capoterra Alluvial Plain (Sardinia-Italy).* In: Cheng AHD, Ouazar D (eds) Coastal aquifer management, monitoring, modelling, and case studies. Lewis, Boca Raton.

414.- Greenman, D. W., Rima, D. R., Lockwood, W. N., & Meisler, H. (1961). *Ground water resources of the Coastal Plain area of southeastern Pennsylvania.* Pa. Geol. Surv., Ground Water Resource Repts.: W, 13.

415.- Gerhart, J. M., & Lazorchick, G. J. (1988). *Evaluation of the ground-water resources of the lower Susquehanna River basin, Pennsylvania and Maryland* (p. 128). US Government Printing Office.

416.- Plank, M. O., Woodruff, K. D., & Werkheiser, W. H. (1995). *Geology and Hydrology of the Cockeysville Formation Northern New Castle County, Delawar*e. Newark, DE: Delaware Geological Survey, University of Delaware.

417.- Stewart, J. W., Callahan, J. T., & Carter, R. F. (1964). *Geologic and hydrologic investigation at the site of the Georgia Nuclear Laboratory, Dawson County, Georgia* (No. 1133-F). US Govt. Print. Off.,.

418.- Dingman, R. J., & Ferguson, H. F. (1956). *The Water Resources of Baltimore and Harford Counties* (Vol. 17). Maryland Department of Geology, Mines, and Water Resources.

419.- Sloto, R. A. (1990). *Geohydrology and simulation of ground-water flow in the carbonate rocks of the Valley Creek basin, Eastern Chester County, Pennsylvania.* Water-Resources Investigations Report, 89, 4169.

420.- Gerhart, J. M., & Lazorchick, G. J. (1984). *Evaluation of the ground-water resources of parts of Lancaster and Berks Counties, Pennsylvania* (No. 84-4327). US Department of the Interior, Geological Survey.

421.- Sloto, R. A. (1994). *Geology, Hydrology, and ground-water quality of Chester County, Pennsylvania*. Chester County Water Resources Authority.

422.- Meisler, H., & Becher, A. E. (1971). *Hydrogeology of the carbonate rocks of the Lancaster 15-minute quadrangle, southeastern Pennsylvania* (Vol. 26). Commonwealth of Pennsylvania, Bureau of Topographic and Geologic Survey.

423.- Becher, A.E., 1971, Ground water in Pennsylvania: Pennsylvania Geological Survey, 4th ser., Educational Series no. 3, 42 p.

424.- Rima, D. R., Meisler, H., & Longwill, S. (1962). *Geology and hydrology of the Stockton Formation in southeastern Pennsylvania A study of the effect of lithology upon the yield of wells: Pennsylvania Geological Survey, Fourth series.* Bulletin W14.

425.- Roy F. Weston/IT.(1988). *Regional Hydrogeologic Investigation, Town of Hereford Site, Berks County*, Pa.: Roy F. Weston and IT.

426.- Marechal, J. C., Dewandel, B., Subrahmanyam, K., & Torri, R. (2008). *Various pumping tests and methods for evaluation of hydraulic properties in fractured hard rock aquifers. In Groundwater Dynamics in Hard Rock Aquifers* (pp. 100-111). Springer, Dordrecht. doi: 10.1007/978-1-4020-6540-8_7.

427.- Marechal, J.C., Dewandel, B., Subrahmanyam, K. (2004). *Contribution of hydraulic tests at different scales to characterize fracture network properties in the weathered-fissured layer of a hard rock aquifers*. Water Resources Research 40(1-17), W11508

428.- Burbey, T. J., & Brandon, R. A. (2016). *Characterization of a hydraulically induced crystalline-rock fracture.* Hydrological Processes, 30(18), 3289-3302. doi: 10.1002/hyp.10856.

429.- Gannon, J. P., Burbey, T. J., Bodnar, R. J., & Aylor, J. (2012). *Geophysical and geochemical characterization of the groundwater system and the role of Chatham Fault in groundwater movement at the Coles Hill uranium deposit, Virginia, USA*. Hydrogeology Journal, 20(1), 45-60. doi: 10.1007/s10040-011-0798-y.

430.- Shindo,S.(1991). *Study on the recharge mechanism and development of groundwater in the island area of tanzania.* Progress report of Japan-Tanzania joint research-3. Chiba University, Japan.

431.- Sadiki, H. (1993). *Hydrogeological study of Makutupora basin Dodoma Tanzania, supported by groundwater flow modelling*. ITC.

433.- Marine, I. W. (1975). *Water level fluctuations due to earth tides in a well pumping from slightly fractured crystalline rock*. Water Resources Research, 11(1), 165-173.

434.- Baiocchi, A., Dragoni, W., Lotti, F., Piacentini, S.M., Piscopo, V. (2015). *A multi-scale approach in hydraulic characterization of a metamorphic aquifer: what can be inferred about the groundwater abstraction possibilities*. Water 7, 4638-4656.doi: 10.3390/w7094638

435.-Barrocu, G. (2007). *Hydrogeology of granite rocks in Sardinia.* In: Krasny J. and Sharp J.M. (Eds), Groundwater in fractured rocks. Taylor & Francis, London, 33-44.

436.- Baiocchi, A., Dragoni, W., Lotti, F., Piscopo, V. (2014) *Sustainable yield of fractured rock aquifers: the case of crystalline rocks of Serre Massif (Calabria, southern Italy)*. In: Sharp J.M. (Ed), Fractured rock hydrogeology. Taylor & Francis Group, London, 79-97.

437.- Guihéneuf, N., Boisson, A., Bour, O., Dewandel, B., Perrin, J., Dausse, A., ... & Maréchal, J. C. (2014). G*roundwater flows in weathered crystalline rocks: Impact of piezometric variations and depth-dependent fracture connectivity.* Journal of Hydrology, 511, 320-334.

438.- Nicolas, M., Bour, O., Selles, A., Dewandel, B., Bailly-Comte, V., Chandra, S., ... & Maréchal, J. C. (2019). *Managed Aquifer Recharge in fractured crystalline rock aquifers: Impact of horizontal preferential flow on recharge dynamics.* Journal of Hydrology, 573, 717-732. doi: 10.1016/j.jhydrol.2019.04.003.

439.- Dewandel, B., Lachassagne, P., Wyns, R., Maréchal, J. C., & Krishnamurthy, N. S. (2006). *A generalized 3-D geological and hydrogeological conceptual model of granite aquifers controlled by single or multiphase weathering*. Journal of hydrology, 330(1-2), 260-284. doi: 10.1016/j.jhydrol.2006.03.026.

440.- Jalludin, M., & Razack, M. (1994). *Analysis of pumping tests, with regard to tectonics, hydrothermal effects and weathering, for fractured Dalha and stratiform basalts, Republic of Djibouti.* Journal of Hydrology, 155(1-2), 237-250. doi: 10.1016/0022-1694(94)90167-8.

441.- António, F., & Pacheco, L. (2002). *Response to pumping of wells in sloping fault zone aquifers*. Journal of Hydrology, 259(1-4), 116-135. doi: 10.1016/S0022-1694(01)00584-4.

442.- Roques, C., Bour, O., Aquilina, L., Dewandel, B., Leray, S., Schroetter, J. M., ... & Lavenant, N. (2014). *Hydrological behavior of a deep sub-vertical fault in crystalline basement and relationships with surrounding reservoirs*. Journal of Hydrology, 509, 42-54. doi: 10.1016/j.jhydrol.2013.11.023.

443.- Barker, J. A. (1988). *A generalized radial flow model for hydraulic tests in fractured rock.* Water Resources Research, 24(10), 1796-1804. doi: 10.1029/WR024i010p01796.

444.- Randall, A. D., Thomas, M. P., Thomas Jr, C. E., & Baker, J. A. (1966). *Water resources inventory of Connecticut Part 1: Quinebaug River basin* (No. 8). Connecticut Water Resources Commission.

445.- Burbey, T. J., Hisz, D., Murdoch, L. C., & Zhang, M. (2012). *Quantifying fractured crystalline-rock properties using well tests, earth tides and barometric effects*. Journal of hydrology, 414, 317-328. doi: 10.1016/j.jhydrol.2011.11.013.

446.- Jalludin, M., & Razack, M. (2004). *Assessment of hydraulic properties of sedimentary and volcanic aquifer systems under arid conditions in the Republic of Djibouti (Horn of Africa)*. Hydrogeology Journal, 12(2), 159-170. doi: 10.1007/s10040-003-0312-2.

447.- Ochoa-González, G. H., Carreón-Freyre, D., Cerca, M., & López-Martínez, M. (2015). *Assessment of groundwater flow in volcanic faulted areas. A study case in Queretaro, Mexico.* Geofísica internacional, 54(3), 199-220. doi: 10.1016/j.gi.2015.04.016.

448.- Vittecoq, B., Reninger, P. A., Violette, S., Martelet, G., Dewandel, B., & Audru, J. C. (2015). *Heterogeneity of hydrodynamic properties and groundwater circulation of a coastal andesitic volcanic aquifer controlled by tectonic induced faults and rock fracturing–Martinique island (Lesser Antilles–FWI)*. Journal of Hydrology, 529, 1041-1059. doi: 10.1016/j.jhydrol.2015.09.022

449.- Tiedeman, C. R., & Hsieh, P. A. (2001). Assessing an open-well aquifer test in fractured crystalline rock. Groundwater, 39(1), 68-78. doi: 10.1111/j.1745-6584.2001.tb00352.x.

450.- Boisson, A., Guihéneuf, N., Perrin, J., Bour, O., Dewandel, B., Dausse, A., ... & Maréchal, J. C. (2015). *Determining the vertical evolution of hydrodynamic parameters in weathered and fractured south Indian crystalline-rock aquifers: insights from a study on an instrumented site.* Hydrogeology Journal, 23(4), 757-773. doi: 10.1007/s10040-014-1226-x.

451.- Oki, D. S. (2005). *Numerical simulation of the effects of low-permeability valley-fill barriers and the redistribution of ground-water withdrawals in the Pearl Harbor area, Oahu, Hawaii.* US Department of the Interior, US Geological Survey.

452.- Rotzoll, K., El-Kadi, A. I., & Gingerich, S. B. (2007). *Estimating Hydraulic Properties of Volcanic Aquifers Using Constant-Rate and Variable-Rate Aquifer Tests 1*. JAWRA Journal of the American Water Resources Association, 43(2), 334-345. doi: 10.1111/j.1752-1688.2007.00026.x

453.- Hahn, J., Lee, Y., Kim, N., Hahn, C., & Lee, S. (1997). *The groundwater resources and sustainable yield of Cheju volcanic island, Korea*. Environmental Geology, 33(1), 43-53. doi: 10.1007/s002540050223.

454.- Baiocchi, A., Lotti, F., & Piscopo V.(2012). *Conceptual Hydrogeological Model and Groundwater Resource Estimation in a Complex Hydrothermal Area: The Case of the Viterbo Geothermal Area (Central Italy).* Journal of Water Resource and Protection, 04(04), 231-247. doi: 10.4236/jwarp.2012.44026.

454.- Nyagwambo, N. L. (2006). *Groundwater recharge estimation and water resources assessment in a tropical crystalline basement aquifer.*

455.- Ren, S., Gragg, S., Zhang, Y., Carr, B. J., & Yao, G. (2018). *Borehole characterization of hydraulic properties and groundwater flow in a crystalline fractured aquifer of a headwater mountain watershed, Laramie Range, Wyoming*. Journal of Hydrology, 561, 780-795. doi: 10.1016/j.jhydrol.2018.04.048.

456.- Raposo, J. R., Molinero, J., & Dafonte, J. (2012). *Parameterization and quantification of recharge in crystalline fractured bedrocks in Galicia-Costa* (NW Spain). Hydrology & Earth System Sciences, 16(6).

457.- Foster, S. S., Ellis, A. T., Losilla-Penon, M., & Rodriguez-Estrada, H. V. (1985). *Role of Volcanic Tuffs in Ground-Water Regime of Valle Central, Costa Rica.* Groundwater, 23(6), 795-801.

458.- Pola, A., Martínez-Martínez, J., Macías, J. L., Fusi, N., Crosta, G., Garduño-Monroy, V. H., & Núñez-Hurtado, J. A. (2016). *Geomechanical characterization of the Miocene Cuitzeo ignimbrites, Michoacán, Central Mexico*. Engineering Geology, 214, 79-93. doi: 10.1016/j.enggeo.2016.10.003.

459.- Mirus, B. B., Halford, K., Sweetkind, D., & Fenelon, J. (2016). *Testing the suitability of geologic frameworks for extrapolating hydraulic properties across regional scales.* Hydrogeology Journal, 24(5), 1133-1146. doi: 10.1007/s10040-016-1375-1.

460.- Singhal, B. B. S., & Gupta, R. P. (2010). *Hydrogeology of volcanic rocks. In Applied hydrogeology of fractured rocks*. Springer, Dordrecht, 257-268. doi: 10.1007/978-90-481-8799-7_14.

461.- Flores-Márquez, E. L., Jiménez-Suárez, G., Martínez-Serrano, R. G., Chávez, R. E., & Pérez, D. S. (2006). *Study of geothermal water intrusion due to groundwater exploitation in the Puebla Valley aquifer system, Mexico*. Hydrogeology Journal, 14(7), 1216-1230. doi: 10.1007/s10040-006-0029-0.

462.- Lachassagne, P. (2008). *Overview of the hydrogeology of hard rock aquifers: applications for their survey, management, modelling and protection.* In Groundwater Dynamics in Hard Rock Aquifers. Springer, Dordrecht, 40-63. doi: 10.1007/978-1-4020-6540-8_3.

463.- Das, S.,& Chatterjee, R. (1997). *Aquifer characteristics and productivity of fractured basement complex of Orissa. Proceedings of National Conference of Emerging Trends in developing Sustainable Groundwater Resources*.NCGWS-97, Jawaharlal Nehru Technological University, Hyderabad,23–36.

464.-Das, S. (2019). *Frontiers of Hard Rock Hydrogeology in India.* In Ground Water Development-Issues and Sustainable Solutions. Springer, Singapore, 35-68. doi: 10.1007/978-981-13-1771-2_3.

465.- Bell, F. G., & Maud, R. R. (2000). *A groundwater survey of the greater Durban area and environs, Natal, South Africa*. Environmental Geology, 39(8), 925-936.

466.- Botha, G. A., & Singh, R. (2012). *Geological, geohydrological and development potential zonation influences; environmental management framework for uMkhanyakude District, KwaZulu-Natal*. Council for Geoscience, Pretoria.

467.- Lin, H., & Lin, L. (2019). *A typical groundwater storage assessment in the Tugela area, South Africa.* Hydrogeology Journal, 27(3), 827-840. doi: 10.1007/s10040-018-1897-9.

468.- Kumar, T. J. R., Balasubramanian, A., Kumar, R. S., Dushiyanthan, C., Thiruneelakandan, B., Suresh, R., ... & Davidraju, D. (2016). *Assessment of groundwater potential based on aquifer properties of hard rock terrain in the Chittar–Uppodai watershed, Tamil Nadu, India*. Applied Water Science, 6(2), 179-186.

469.- Milanovic, P. T. (1981). *Karst hydrogeology* (No. 551.49 M637). Water Resources Publications.

470.- Torbarov, K. (1976). *Estimation Of Permeabulity And Effective Porosity In Karst On The Basis Of Recession Curve Aanalysis.* Hydrology and water richness of karst. Proceedings of the Yugoslav—American symposium, Dubrovnik, June 1975. Zavod za hidrotehniku Gradjevinskog fakulteta, Sarajevo, 97–106

471.- Castany, G. (1984). *Hydrogeological features of carbonate rocks*. Guide to the hydrology of carbonate rocks. IHP Studies and reports in hydrology, 41, 47-67.

472.- Khadri, S. F. R., & Moharir, K. (2016). *Characterization of aquifer parameter in basaltic hard rock region through pumping test methods: a case study of Man River basin in Akola and Buldhana Districts Maharashtra India*. Modeling Earth Systems and Environment, 2(1), 33. doi: 10.1007/s40808-015-0047-9.

473.- Sikakwe, G. U. (2018). *GIS-based model of groundwater occurrence using geological and hydrogeological data in Precambrian Oban Massif southeastern Nigeria.* Applied Water Science, 8(3), 79. doi: 10.1007/s13201-018-0700-3.

474.- Comte, J. C., Cassidy, R., Nitsche, J., Ofterdinger, U., Pilatova, K., & Flynn, R. (2012). *The typology of Irish hard-rock aquifers based on an integrated hydrogeological and geophysical approach*. Hydrogeology Journal, 20(8), 1569-1588. doi: 10.1007/s10040-012-0884-9.

475.- Bell, F. G. (1998). *Environmental Geology: Principles and Practice*. Blackwell, Oxford.

476.- Walton, W. C. (1970). *Groundwater Resource Evaluation*. McGraw-Hill, New York.

477.- Bhuiyan, C., Singh, R. P., & Flügel, W. A. (2009). *Modelling of ground water recharge-potential in the hard-rock Aravalli terrain, India: a GIS approach.* Environmental Earth Sciences, 59(4), 929. doi: 10.1007/s12665-009-0087-4.

478.- Ababou, R. (2008). *Quantitative stochastic hydrogeology: the heterogeneous environment.* In Overexploitation and Contamination of Shared Groundwater Resource. Springer, Dordrecht, 119-182. doi: 10.1007/978-1-4020-6985-7_8.

479.- Rojas, R., Commander, P., McFarlane, D., Ali, R., Dawes, W., Barron, O., ... & Charles, S. (2018). *Groundwater resource assessment and conceptualization in the Pilbara Region, Western Australia.* Earth Systems and Environment, 2(2), 345-365. doi: 10.1007/s41748-018-0051-0.

480.- Sharma, K. D., & Kumar, S. (2008*). Hydrogeological research in India in managing water resources. In Groundwater dynamics in hard rock aquifers* (pp. 1-19). Springer, Dordrecht. doi: 10.1007/978-1-4020-6540-8_4.

481.- Norgbe, B. Y. (1996). Evaluation of the hydrogeological relationship between monitoring and productive boreholes in the Upper West Region, Ghana. MPhil, University of Ghana, Ghana. doi:

482.- CIDA/GWSC. (1980). *Final hydrogeological report for drilling program 1974–1979.* A report prepared by Wardrop and Associates for Ghana Water and Sewerage Corporation and Canadian International Development Agency

483.- Ray, A., & Shekhar, S. (2009). Ground water issues and development strategies in West Bengal. Bhu-Jal News, 24(1), 1-17.

484.- Masset, O., & Loew, S. (2010). *Hydraulic conductivity distribution in crystalline rocks, derived from inflows to tunnels and galleries in the Central Alps, Switzerland.* Hydrogeology Journal, 18(4), 863-891. doi: 10.1007/s10040-009-0569-1.

485.- Madhnure, P. (2014). *Groundwater exploration and drilling problems encountered in basaltic and granitic terrain of Nanded district, Maharashtra.* Journal of the Geological Society of India, 84(3), 341-351. doi: 10.1007/s12594-014-0138-7.

486.- Adithya, V. S., Chidambaram, S., Thivya, C., Thilagavathi, R., Prasanna, M. V., Nepolian, M., & Ganesh, N. (2016). A study on the impact of weathering in groundwater chemistry of a hard rock aquifer. Arabian Journal of Geosciences, 9(2), 158. doi: 10.1007/s12517-015-2073-3.

487.- Gopinath, G., & Seralathan, P. (2004). *Identification of groundwater prospective zones using IRS-ID LISS III and pump test methods.* Journal of the Indian Society of Remote Sensing, 32(4), 329. doi: 10.1007/BF03030858.

488.- Leveinen, J., Rönkä, E., Tikkanen, J., & Karro, E. (1998). *Fractional flow dimensions and hydraulic properties of a fracture-zone aquifer, Leppävirta, Finland.* Hydrogeology Journal, 6(3), 327-340. doi: 10.1007/s100400050156.

489.- Kebede, S. (2013). *Groundwater occurrence in regions and basins*. In Groundwater in Ethiopia. Springer, Berlin, Heidelberg, 15-121. doi: 10.1007/978-3-642-30391-3_2.

490.-Tang, Y., Zhou, J., Yang, P., Yan, J., & Zhou, N. (2017). *Groundwater engineering.* Springer Singapore.

491.- Lohman, S. W. (1972). Ground-water hydraulics. US Government Printing Office, 708.

492.- Adepelumi, A. A., Yi, M. J., Kim, J. H., Ako, B. D., & Son, J. S. (2006). *Integration of surface geophysical methods for fracture detection in crystalline bedrocks of southwestern Nigeria.* Hydrogeology Journal, 14(7), 1284-1306.

493.- Singh, V. S. (2007). *Parameterization of Groundwater Aquifer System*. In Groundwater. Springer, Dordrecht. 61-77. doi: 10.1007/978-1-4020-5729-8_3.

494.- Rushton, K. R., & Weller, J. (1985). *Response to pumping of a weathered-fractured granite aquifer*. Journal of Hydrology, 80(3-4), 299-309. doi: 10.1016/0022-1694(85)90123-4.

495.- Holland, M. (2011). *Hydrogeological characterisation of crystalline basement aquifers within the Limpopo Province, South Africa* (Doctoral dissertation). University of Pretoria.

496.- Holland, M., & Witthüser, K. T. (2011). *Evaluation of geologic and geomorphologic influences on borehole productivity in crystalline bedrock aquifers of Limpopo Province, South Africa*. Hydrogeology Journal, 19(5), 1065-1083. doi: 10.1007/s10040-011-0730-5.

497.- Vassolo, S., Neukum, C., Tiberghien, C., Heckmann, M., Hahne, K., & Baranyikwa, D. (2019). *Hydrogeology of a weathered fractured aquifer system near Gitega, Burundi.* Hydrogeology journal, 27(2), 625-637. doi: 10.1007/s10040-018-1877-0.

498.- Rangarajan, R., & Prasada Rao, N. T. V. (2001). *Natural Recharge Measurements in Maheshwaram Granitic Watershed, Ranga Reddy district, Andhra Pradesh, India-1999 Monsoon.* Technical Report No. NGRI-20001-GW-298, National Geophysical Research Institute, Hyderabad, India.

499.- Bruel, D., Engerrand, C., Ledoux, E., Maréchal, J. C., Touchard, F., Subrahmanyam, K., & Ahmed, S. (2002). *The evaluation of aquifer parameters in Maheshwaram mandal, RR dist., AP., India.* Ecole des Mines de Paris. CIG, technical report LHM/RD/02/28.

500.- Moosavi, S. A., Goshtasbi, K., Kazemzadeh, E., Bakhtiari, H. A., Esfahani, M. R., & Vali, J. (2014). *Relationship between porosity and permeability with stress using pore volume compressibility characteristic of reservoir rocks.* Arabian Journal of Geosciences, 7(1), 231-239. doi: 10.1007/s12517-012-0760-x.

501.- Murty, B., & Raghavan, V. (2002). *The gravity method in groundwater exploration in crystalline rocks: a study in the peninsular granitic region of Hyderabad, India*. Hydrogeology Journal, 10(2), 307-321. doi: 10.1007/s10040-001-0184-2.

502.- Davis, S. N., & Turk, L. J. (1969). *Best well depth in crystalline rocks*. Johnson Drillers Journal, 41(4), 1-5, 10 REF.

503.- Worthington, S. R., Smart, C. C., & Ruland, W. (2012). *Effective porosity of a carbonate aquifer with bacterial contamination: Walkerton, Ontario, Canada.* Journal of hydrology, 464, 517-527. doi: 10.1016/j.jhydrol.2012.07.046.

504.- Deming, D. (2002). *Introduction to hydrogeology*. McGraw-Hill College.

505.- Worthington, S. R., & Smart, C. C. (2017). *Transient bacterial contamination of the dual-porosity aquifer at Walkerton, Ontario, Canada.* Hydrogeology Journal, 25(4), 1003-1016. doi: 10.1007/s10040-016-1514-8.

506.- Haitjema, H. M., & Anderson, M. P. (2016). *Darcy velocity is not a velocity.* Groundwater, 54(1), 1-1. doi: 10.1111/gwat.12386.

507.- Medici, G., West, L. J., Chapman, P. J., & Banwart, S. A. (2019). *Prediction of contaminant transport in fractured carbonate aquifer types: a case study of the Permian Magnesian Limestone Group (NE England, UK)*. Environmental Science and Pollution Research, 26(24), 24863-24884. doi: 10.1007/s11356-019-05525-z.

508.- Quinn, P. M., Cherry, J. A., & Parker, B. L. (2011). Quantification of non-Darcian flow observed during packer testing in fractured sedimentary rock. Water Resources Research, 47(9). doi: 10.1029/2010WR009681.

509.- Neymeyer, A., Williams, R. T., & Younger, P. L. (2007). *Migration of polluted mine water in a public supply aquifer.* Quarterly Journal of Engineering Geology and Hydrogeology, 40(1), 75-84. doi: 10.1144/1470-9236/05-060.

510.- Medici, G., West, L. J., & Banwart, S. A. (2019). *Groundwater flow velocities in a fractured carbonate aquifer-type: implications for contaminant transport*. Journal of contaminant hydrology, 222, 1-16. doi: 10.1016/j.jconhyd.2019.02.001.

511.- Bauer, H., Schröckenfuchs, T. C., & Decker, K. (2016). *Hydrogeological properties of fault zones in a karstified carbonate aquifer (Northern Calcareous Alps, Austria)*. Hydrogeology Journal, 24(5), 1147-1170. doi: 10.1007/s10040-016-1388-9.

512.- Izgec, O., Demiral, B., Bertin, H., & Akin, S. (2008). *CO 2 injection into saline carbonate aquifer formations I*. Transport in porous media, 72(1), 1-24. doi: 10.1007/s11242-007-9132-5.

513.- Fetter, C. W. (2001). *Applied hydrogeology*., 4th edn.(Prentice Hall: Upper Saddle River, NJ).

514.- Pla, C., Valdes-Abellan, J., Tenza-Abril, A. J., & Benavente, D. (2016). *Predicting Daily Water Table Fluctuations in Karstic Aquifers from GIS-Based Modelling, Climatic Settings and Extraction Wells.* Water resources management, 30(7), 2531-2545. doi: 10.1007/s11269-016-1302-1.

515.- Motyka, J., Witczak, S., & Zuber, A. (1994). *Migration of lignosulfonates in a karstic-fractured-porous aquifer: history and prognosis for a Zn-Pb mine, Pomorzany, southern Poland.* Environmental geology, 24(2), 144-149. doi: 10.1007/BF00767888.

516.- Prill, R. C. (1961). *Comparison of drainage data obtained by centrifuge and column-drainage methods.* USGS Prof. Pap, 424, 399-401.

517.- Goderniaux, P., Brouyère, S., Gutierrez, A., & Baran, N. (2010). *Multi-tracer tests to evaluate the hydraulic setting of a complex aquifer system (Brévilles spring catchment, France)*. Hydrogeology journal, 18(7), 1729-1740. doi: 10.1007/s10040-010-0633-x.

518.- Fauveau, E. (2006). *Caractérisation hydrogéologique et reconnaissance des facies des dépots meubles avec les sondages par enforcement et par rotopercussion. Hydrogeological characterization and facies recognition in unconsolidated deposits using direct push and Rotopercussion sounding.)* Master thesis. INRS-Eau, Terre et Environnement, Quebec, Canada.

519.- Paradis, D., Ballard, J. M., Lefebvre, R., & Savard, M. M. (2018). *Multi-scale nitrate transport in a sandstone aquifer system under intensive agriculture.* Hydrogeology journal, 26(2), 511-531.doi: 10.1007/s10040-017-1668-z.

521.- Pérez, J. J., & Sanz, E. (2011). *Hydrodynamic characteristics and sustainable use of a karst aquifer of high environmental value in the Cabrejas range (Soria, Spain).* Environmental Earth Sciences, 62(3), 467-479. doi: 10.1007/s12665-010-0540-4.

522.- Wang, J. G., Hu, B., Wu, D., Dou, F., & Wang, X. (2019). A multiscale fractal transport model with multilayer sorption and effective porosity effects. Transport in Porous Media, 129(1), 25-51. doi: 10.1007/s11242-019-01276-0.

523.- Vandenbohede, A., Louwyck, A., & Lebbe, L. (2009). *Conservative solute versus heat transport in porous media during push-pull tests.* Transport in porous media, 76(2), 265-287. doi: 10.1007/s11242-008-9246-4.

524.- Shapiro, A. (1996). *Estimation of effective porosity in fractured crystalline rock by controlled tracer tests. In Joint US geological survey*. US Nuclear Regulatory Commission Workshop on Research Related to Low-level Radioactive Waste Disposal (pp. 185-190).

525.- Simpson, M. J., Clement, T. P., & Yeomans, F. E. (2003). *Analytical model for computing residence times near a pumping well.* Groundwater, 41(3), 351-354.doi: 10.1111/j.1745-6584.2003.tb02604.x.

526.- Urumović, K., & Urumović Sr, K. (2016). *The referential grain size and effective porosity in the Kozeny–Carman model.* Hydrology and Earth System Sciences, 20(5).

527.- Mackay, D. M., Freyberg, D. L., Roberts, P. V., & Cherry, J. A. (1986). *A natural gradient experiment on solute transport in a sand aquifer: 1. Approach and overview of plume movement.* Water Resources Research, 22(13), 2017-2029. doi: 10.1029/WR022i013p02017.

528.- Auge, M. P., Hernández, M., & Hernández, L. (2002, March). *Actualización del conocimiento del acuífero semiconfinado Puelche en la provincia de Buenos Aires, Argentina.* In XXXII International Hydrogeology Congress, 624-633.

530.- Auge, M. (2016). *Hydrogeology of Plains*. In Hydrogeology of Plains (pp. 1-73). Springer, Cham. doi: 10.1007/978-3-319-31429-7_1.

531.- Zhan, G., & Duex, T. (2010). *Hydrologic evaluation on post-closure flooding and dewatering of the Homestake Mine.* Mining Engineering, 62(4), 64.

532.- Zhan, J. (2002). *Homestake Mine open cut evaluation of the pit water recovery. Barrick Management Corp*., Salt Lake City, UT. 20pp.

533.- Das, S. (2019). *Frontiers of Hydrogeology: Seven Decades in India.* Journal of the Geological Society of India, 93(4), 492-496. doi: 10.1007/s12594-019-1186-9.

534.- Grzybowski, M., Lenczewski, M. E., & Oo, Y. Y. (2019). *Water quality and physical hydrogeology of the Amarapura township, Mandalay, Myanmar.* Hydrogeology Journal, 27(4), 1497-1513. doi: 10.1007/s10040-018-01922-9.

535.- Petrides, B., & Cartwright, I. (2006). *The hydrogeology and hydrogeochemistry of the Barwon Downs Graben aquifer, southwestern Victoria, Australia*. Hydrogeology Journal, 14(5), 809-826. doi: 10.1007/s10040-005-0018-8.

536.-Blake, W. J. R. (1978). *Groundwater for Geelong: Completion report on the hydrogeological investigation of the Barwon Downs Basin.* Geological Survey of Victoria. Unpublished Report, 38.

537.- Entwisle, D. C., Hobbs, P. R. N., Jones, L. D., Gunn, D., & Raines, M. G. (2005). *The relationships between effective porosity, uniaxial compressive strength and sonic velocity of intact Borrowdale Volcanic Group core samples from Sellafield*. Geotechnical & Geological Engineering, 23(6), 793-809. doi: 10.1007/s10706-004-2143-x.

538.- Taylor, G., & Eggleton, R. A. (2001). *Regolith geology and geomorphology*. John Wiley & Sons.

539.- Nwankwo, N. C., Anthony, A. S., & Nwosu, L. I. (2009). *Estimation of the heat flow variation in the Chad Basin Nigeria*. Journal of Applied Sciences and Environmental Management, 13(1). doi: 10.4314/jasem.v13i1.55276.

540.- Arújo, L. M., França, A. B., & Potter, P. E. (1999). *Hydrogeology of the Mercosul aquifer system in the Paraná and Chaco-Paraná Basins, South America, and comparison with the Navajo-Nugget aquifer system, USA*. Hydrogeology Journal, 7(3), 317-336. doi: 10.1007/s100400050205.

541.- Berg, C. F. (2014). *Permeability description by characteristic length, tortuosity, constriction and porosity.* Transport in porous media, 103(3), 381-400. doi: 10.1007/s11242-014-0307-6.

542.- Prickett, T. A. (1965). *Type-curve solution to aquifer tests under water-table conditions.* Groundwater, 3(3), 5-14. doi: 10.1111/j.1745-6584.1965.tb01214.x.

543.- Dümmer, M. (1982). *Zur Hydrogeologie des Raumes Nürnberg-Bad Windsheim, Mfr: unter bes. Berücks*. d. Gradabteilungsblätter 6532 Nürnberg, 6531 Fürth, 6530 Langenzenn, 6529 Markt Erlbach u. 6528 Marktbergel (Doctoral dissertation, Verlag nicht ermittelbar).

544. Strauhal, T., Loew, S., Holzmann, M., & Zangerl, C. (2016). *Detailed hydrogeological analysis of a deep-seated rockslide at the Gepatsch reservoir (Klasgarten, Austria)*. Hydrogeology journal, 24(2), 349-371. doi: 10.1007/s10040-015-1341-3.

545.- Zharikov, A. V., Velichkin, V. I., Malkovsky, V. I., & Shmonov, V. M. (2014). *Experimental study of crystalline-rock permeability: Implications for underground radioactive waste disposal.* Water resources, 41(7), 881-895. doi: 10.1134/S0097807814070136.

546.- Basu, A., & Mishra, D. A. (2014). *A method for estimating crack-initiation stress of rock materials by porosity.* Journal of the Geological Society of India, 84(4), 397-405. doi: 10.1007/s12594-014-0145-8.

547.- Wei, Y. N., Fan, W., & Cao, Y. (2017). *Experimental study on the vertical deformation of aquifer soils under conditions of withdrawing and recharging of groundwater in Tongchuan region, China*. Hydrogeology journal, 25(2), 297-309. doi: 10.1007/s10040-016-1498-4.

548.- Birkholzer, J. T., Zhou, Q., & Tsang, C. F. (2009). *Large-scale impact of CO2 storage in deep saline aquifers: A sensitivity study on pressure response in stratified systems.* international journal of greenhouse gas control, 3(2), 181-194. doi: 10.1016/j.ijggc.2008.08.002.

549.- Aliewi, A. S., Mackay, R., Jayyousi, A., Nasereddin, K., Mushtaha, A., & Yaqubi, A. (2001). *Numerical simulation of the movement of saltwater under skimming and scavenger pumping in the Pleistocene aquifer of Gaza and Jericho areas, Palestine*. Transport in porous media, 43(1), 195-212. doi: 10.1023/A:1010698516886.

550.- Huang, Y., Scanlon, B. R., Nicot, J. P., Reedy, R. C., Dutton, A. R., Kelley, V. A., & Deeds, N. E. (2012). *Sources of groundwater pumpage in a layered aquifer system in the Upper Gulf Coastal Plain, USA.* Hydrogeology Journal, 20(4), 783-796. doi: 10.1007/s10040-012-0846-2.

551.- Ostendorf, D. W., DeGroot, D. J., Judge, A. I., & LaMesa, D. F. (2010). *Method to characterize aquitards above leaky aquifers with water supply wells*. Hydrogeology Journal, 18(3), 595-605. doi: 10.1007/s10040-009-0563-7.

552.- Gingerich, S. B., & Voss, C. I. (2005). *Three-dimensional variable-density flow simulation of a coastal aquifer in southern Oahu, Hawaii, USA*. Hydrogeology Journal, 13(2), 436-450. doi: 10.1007/s10040-004-0371-z.

553.- Jang, C. S., Liu, C. W., Chia, Y., Cheng, L. H., & Chen, Y. C. (2008). *Changes in hydrogeological properties of the River Choushui alluvial fan aquifer due to the 1999 Chi-Chi earthquake, Taiwan.* Hydrogeology journal, 16(2), 389-397. doi: 10.1007/s10040-007-0233-6.

554.- Horne, R.N. (1995). *Modern well test analysis.* Petroway, Palo Alto, CA.

555.- Evans, P. R. (1980). *Geology of the Galilee Basin.* The geology and geophysics of northeastern Australia: Geological Society of Australia, 2, 299-305.

556.- Jiang, Z., Mariethoz, G., Schrank, C., Cox, M., & Timms, W. (2016). *Mapping the hydraulic connection between a coalbed and adjacent aquifer: example of the coal-seam gas resource area, north Galilee Basin, Australia.* Hydrogeology journal, 24(8), 2143-2155. doi: 10.1007/s10040-016-1447-2.

557.- Chen, C., Pei, S., & Jiao, J. (2003). *Land subsidence caused by groundwater exploitation in Suzhou City, China*. Hydrogeology journal, 11(2), 275-287. doi: 10.1007/s10040-002-0225-5.

558.- Obrzud, R. (2010). *The hardening soil model: A practical guidebook.* Zace Services.

559.- Lee, J., Kokkinaki, A., & Kitanidis, P. K. (2018). *Fast large-scale joint inversion for deep aquifer characterization using pressure and heat tracer measurements*. Transport in Porous Media, 123(3), 533-543. doi: 10.1007/s11242-017-0924-y.

560.- Singhal, B. B. S., & Gupta, R. P. (2010). *Applied hydrogeology of fractured rocks.* Springer Science & Business Media.

561.- Madhnure, P., Peddi, N. R., & Allani, D. R. (2016). *An integrated hydrogeological study to support sustainable development and management of groundwater resources: a case study from the Precambrian Crystalline Province, India.* Hydrogeology journal, 24(2), 475-487. doi: 10.1007/s10040-015-1342-2.

562.- Perrin, J., Ahmed, S., & Hunkeler, D. (2011). *The effects of geological heterogeneities and piezometric fluctuations on groundwater flow and chemistry in a hard-rock aquifer, southern India.* Hydrogeology Journal, 19(6), 1189. doi: 10.1007/s10040-011-0745-y.

563.- Ministry of Water Resources GOI. (2009). *Report of the ground water resource estimation committee.* Ministry of Water Resources, Gov. of India.

564.- Kotchoni, D. V., Vouillamoz, J. M., Lawson, F. M., Adjomayi, P., Boukari, M., & Taylor, R. G. (2019). *Relationships between rainfall and groundwater recharge in seasonally humid*

Benin: a comparative analysis of long-term hydrographs in sedimentary and crystalline aquifers. Hydrogeology journal, 27(2), 447-457. doi: 10.1007/s10040-018-1806-2.

565.- Naik, P. K., Awasthi, A. K., Anand, A., & Mohan, P. C. (2001). *Hydrogeologic framework of the Deccan terrain of the Koyna River basin, India.* Hydrogeology Journal, 9(3), 243-264. doi: 10.1007/s100400100123.

566.- Kang, F., Jin, M., & Qin, P. (2011). *Sustainable yield of a karst aquifer system: a case study of Jinan springs in northern China.* Hydrogeology Journal, 19(4), 851-863. doi: 10.1007/s10040-011-0725-2.

567.- Cheong, J. Y., Hamm, S. Y., Kim, H. S., Ko, E. J., Yang, K., & Lee, J. H. (2008). *Estimating hydraulic conductivity using grain-size analyses, aquifer tests, and numerical modeling in a riverside alluvial system in South Korea.* Hydrogeology Journal, 16(6), 1129. doi: 10.1007/s10040-008-0303-4.

568.- Bhusari, V., Katpatal, Y. B., & Kundal, P. (2017). *Performance evaluation of a reverse-gradient artificial recharge system in basalt aquifers of Maharashtra, India*. Hydrogeology Journal, 25(3), 689-706. doi: 10.1007/s10040-016-1499-3.

569.- Huang, J., Pavlic, G., Rivera, A., Palombi, D., & Smerdon, B. (2016). *Mapping groundwater storage variations with GRACE: a case study in Alberta, Canada.* Hydrogeology Journal, 24(7), 1663-1680. doi: 10.1007/s10040-016-1412-0.

570.- Zhang, Y., Wu, J., Xue, Y., Wang, Z., Yao, Y., Yan, X., & Wang, H. (2015). *Land subsidence and uplift due to long-term groundwater extraction and artificial recharge in Shanghai, China.* Hydrogeology journal, 23(8), 1851-1866. doi: 10.1007/s10040-015-1302-x.

571.- Zhang, Q., Volker, R. E., & Lockington, D. A. (2004). *Numerical investigation of seawater intrusion at Gooburrum, Bundaberg, Queensland, Australia.* Hydrogeology Journal, 12(6), 674-687. doi: 10.1007/s10040-004-0333-5.

572.- Lukas, W. G., DeGroot, D. J., Ostendorf, D. W., & Hinlein, E. S. (2015). *Multi-scale hydrogeologic characterization of a leaky till–mantled fractured bedrock aquifer system.* Canadian Geotechnical Journal, 52(12), 1945-1955. doi: 10.1139/cgj-2014-0296.

573.-Ostendorf, D. W., Lukas, W. G., & Rotaru, C. (2015). *Recharge and pumping hydraulics in a till drumlin above fractured bedrock (Massachusetts, USA).* Hydrogeology Journal, 23(4), 741-756. doi: 10.1007/s10040-014-1227-9.

574.- Izuka, S. K., & Gingerich, S. B. (1998). *Estimation of the depth to the fresh-water/salt-water interface from vertical head gradients in wells in coastal and island aquifers*. Hydrogeology journal, 6(3), 365-373. doi: 10.1007/s100400050159.

575.- Zhuang, C., Zhou, Z., Illman, W. A., Guo, Q., & Wang, J. (2017). *Estimating hydraulic parameters of a heterogeneous aquitard using long-term multi-extensometer and groundwater level data.* Hydrogeology Journal, 25(6), 1721-1732. doi: 10.1007/s10040-017-1596-y.

576.- Chen, M., Buscheck, T. A., Wagoner, J. L., Sun, Y., White, J. A., Chiaramonte, L., & Aines, R. D. (2013). *Analysis of fault leakage from Leroy underground natural gas storage facility, Wyoming, USA.* Hydrogeology Journal, 21(7), 1429-1445. doi: 10.1007/s10040-013-1020-1.

577.- Timms, W. A., & Acworth, R. I. (2005). *Propagation of pressure change through thick clay sequences: an example from Liverpool Plains, NSW, Australia.* Hydrogeology Journal, 13(5-6), 858-870. doi: 10.1007/s10040-005-0436-7.

578.- Acworth, R. I., & Beasley, R. (1998). *Investigation of EM31 anomalies at Yarramanbah/Pump Station Creek on the Liverpool Plains of New South Wales*. University of New South Wales, Water Research Laboratory.

579.- Yousafzai, A., Eckstein, Y., & Dahl, P. (2008). Numerical simulation of groundwater flow in the Peshawar intermontane basin, northwest Himalayas. Hydrogeology journal, 16(7), 1395. doi: 10.1007/s10040-008-0355-5.

579.- Sepúlveda, N., & Kuniansky, E. L. (2010). *Effects of model layer simplification using composite hydraulic properties.* Hydrogeology journal, 18(2), 405-416. doi: 10.1007/s10040-009-0505-4.

580.- Du Preez, M., Dennis, R., & Van Tonder, G. J. (2007). *Experimental measurement of specific storativity by the determination of rock elastic parameters*. Water Research Commission.

581.- Van Tonder, G., Bardenhagen, I., Riemann, K., Van Bosch, J., Dzanga, P., & Xu, Y. (2002). *Manual on pumping test analysis in fractured-rock aquifers*. Water Research Commission (WRC) of South Africa, Report, (1116/1), 02.

582.- de Lucena, L. R., da Silva, L. R., Vieira, M. M., Carvalho, B. M., & Júnior, M. M. X. (2016). *Estimating hydraulic parameters of the Açu-Brazil aquifer using the computer analysis of micrographs.* Journal of hydrology, 535, 61-70. doi: 10.1016/j.jhydrol.2016.01.025.

583.- Hebig, K. H., Ito, N., Tecklenburg, J., Machida, I., Marui, A., & Scheytt, T. (2016). *Use of single-well push–pull tracer tests to simulate a dynamic saltwater–freshwater interface.* Environmental Earth Sciences, 75(4), 281. doi: 10.1007/s12665-015-4999-x.

584.- Streetly, M. J., & Kotoub, S. (1998). *Determination of aquifer properties in northern Qatar for application to artificial recharge*. Quarterly Journal of Engineering Geology and Hydrogeology, 31(3), 199-209.doi: 10.1144/GSL.QJEG.1998.031.P3.04.

585.- Desbarats, A. J., Boyle, D. R., Stapinsky, M., & Robin, M. J. L. (1999). *A dual-porosity model for water level response to atmospheric loading in wells tapping fractured rock aquifers*. Water resources research, 35(5), 1495-1505. doi: 10.1029/1998WR900119.

586.- Rojstaczer, S. (1988). *Determination of fluid flow properties from the response of water levels in wells to atmospheric loading*. Water Resources Research, 24(11), 1927-1938. doi: 10.1029/WR024i011p01927.

587.- Hallet, V. (2004). *Groundwater modelling of the long term evolution of the nitrate content in the Cretaceous chalky aquifer of Hesbaye (Belgium).* Revue des Sciences de l'Eau/Journal of Water Science, 17(1), 3-22.

588.- Zaidi, F. K., Ahmed, S., Dewandel, B., & Maréchal, J. C. (2007). *Optimizing a piezometric network in the estimation of the groundwater budget: a case study from a crystalline-rock watershed in southern India.* Hydrogeology Journal, 15(6), 1131-1145. doi: 10.1007/s10040-007-0167-z.

589.- Ahamed, A. J., Loganathan, K., & Jayakumar, R. (2015). *Hydrochemical characteristics and quality assessment of groundwater in Amaravathi river basin of Karur district, Tamil Nadu, South India*. Sustainable Water Resources Management, 1(3), 273-291. doi: 10.1007/s40899-015-0026-3.

590.- GSDA. (2008). *Groundwater Surveys and Development Agency's Annual Report for the year 2007–2008*. District Office, Nagpur

591.- PWD. (2000).*Groundwater perspectives: a profile of Kancheepuram District, Tamil Nadu.* Public Works Department, Tamil Nadu, June, 220 pp

592.- Maréchal, J. C., Vouillamoz, J. M., Kumar, M. M., & Dewandel, B. (2010). *Estimating aquifer thickness using multiple pumping tests.* Hydrogeology journal, 18(8), 1787-1796. doi: 10.1007/s10040-010-0664-3.

593.- Mondal, N. C., Singh, V. P., & Ahmed, S. (2012). *Entropy-based approach for assessing natural recharge in unconfined aquifers from Southern India*. Water resources management, 26(9), 2715-2732. doi: 10.1007/s11269-012-0042-0.

594.- Suryanarayana, C., & Mahammood, V. (2019). *Groundwater-level assessment and prediction using realistic pumping and recharge rates for semi-arid coastal regions: a case study of Visakhapatnam city, India*. Hydrogeology journal, 27(1), 249-272.doi: 10.1007/s10040-018-1851-x.

595.- Manghi, F., Mortazavi, B., Crother, C., & Hamdi, M. R. (2009). *Estimating regional groundwater recharge using a hydrological budget method.* Water resources management, 23(12), 2475-2489.doi. 10.1007/s11269-008-9391-0.

596.- Chinnasamy, P., Maheshwari, B., Dillon, P., Purohit, R., Dashora, Y., Soni, P., & Dashora, R. (2018). *Estimation of specific yield using water table fluctuations and cropped area in a hardrock aquifer system of Rajasthan, India.* Agricultural Water Management, 202, 146-155. doi: 10.1016/j.agwat.2018.02.016.

597.- Machiwal, D. (2009). *Hydraulic and geochemical characterization and groundwater prospect of Hard-Rock Aquifer Systems in Udaipur, Rajasthan.* Unpublished Ph. D. Thesis, Indian Institute of Technology, Kharagpur, India.

598.- Vouillamoz, J. M., Valois, R., Lun, S., Caron, D., & Arnout, L. (2016). *Can groundwater secure drinking-water supply and supplementary irrigation in new settlements of North-West Cambodia?.* Hydrogeology journal, 24(1), 195-209. doi: 10.1007/s10040-015-1322-6.

599.- Naik, P. K., & Awasthi, A. K. (2003). *Groundwater resources assessment of the Koyna River basin, India.* Hydrogeology Journal, 11(5), 582-594.doi: 10.1007/s10040-003-0273-5.

600.- Hussein, M. T. (1975). *Hydrogeological investigation of Khor Arbaat basin*. Democratic Republic of the Sudan, Geological & Mineral Resources Department.

601.- Demlie, M., Wohnlich, S., Wisotzky, F., & Gizaw, B. (2007). *Groundwater recharge, flow and hydrogeochemical evolution in a complex volcanic aquifer system, central Ethiopia.* Hydrogeology Journal, 15(6), 1169-1181. doi: 10.1007/s10040-007-0163-3.

602.- Cruz-Fuentes, T., Heredia, J., Cabrera, M. C., & Custodio, E. (2014). *Behaviour of a small sedimentary volcanic aquifer receiving irrigation return flows: La Aldea, Gran Canaria, Canary Islands (Spain)*. Hydrogeology journal, 22(4), 865-882. doi: 10.1007/s10040-013-1094-9.

603.- MOP-UNESCO. (1975). *Estudio científico de los recursos de agua en las Islas Canarias [Scientific study of the water resources in Canary Islands],* Project SPA/69/515 MOP (DGOH)-PNUD (UNESCO). Dirección General de Obras Hidráulicas-UNESCO, Madrid

604.- Anderson, M. P., Woessner, W. W., & Hunt, R. J. (1992). *Applied groundwater modeling: Simulation of flow and advective transport.* Academic Press Inc., San Diego, CA. Journal of Hydrology, 140, 393-395.

605.- Moghaddam, A. A., & Najib, M. A. (2006). *Hydrogeologic characteristics of the alluvial tuff aquifer of northern Sahand Mountain slopes, Tabriz, Iran*. Hydrogeology Journal, 14(7), 1319-1329. doi: 10.1007/s10040-006-0036-1.

606.- Matengu, B., Xu, Y., & Tordiffe, E. (2019). *Hydrogeological characteristics of the Omaruru Delta Aquifer System in Namibia*. Hydrogeology Journal, 27(3), 857-883. doi: 10.1007/s10040-018-1913-0.

607.- Rasmussen, T. C., Haborak, K. G., & Young, M. H. (2003). *Estimating aquifer hydraulic properties using sinusoidal pumping at the Savannah River site, South Carolina, USA.* Hydrogeology Journal, 11(4), 466-482.doi: 10.1007/s10040-003-0255-7.

608.- Heap, M. J., Russell, J. K., & Kennedy, L. A. (2016). *Mechanical behaviour of dacite from Mount St. Helens (USA): A link between porosity and lava dome extrusion mechanism (dome or spine)?.* Journal of Volcanology and Geothermal Research, 328, 159-177. doi: 10.1016/j.jvolgeores.2016.10.015.

609.- Kwicklis, E., & Farnham, I. (2014). *Testing the 14 C ages and conservative behavior of dissolved 14 C in a carbonate aquifer in Yucca Flat, Nevada (USA), using 36 Cl from groundwater and packrat middens.* Hydrogeology journal, 22(6), 1359-1381. doi: 10.1007/s10040-014-1131-3.

610.- Huan, H., Wang, J., Lai, D., Teng, Y., & Zhai, Y. (2015). A*ssessment of well vulnerability for groundwater source protection based on a solute transport model: a case study from Jilin City, northeast China*. Hydrogeology Journal, 23(3), 581-596. doi: 10.1007/s10040-014-1211-4.

611.- Baillieux, A., Moeck, C., Perrochet, P., & Hunkeler, D. (2015). *Assessing groundwater quality trends in pumping wells using spatially varying transfer functions.* Hydrogeology journal, 23(7), 1449-1463. doi: 10.1007/s10040-015-1279-5.

612.- Expósito, J. L., Esteller, M. V., Paredes, J., Rico, C., & Franco, R. (2010). *Groundwater protection using vulnerability maps and wellhead protection area (WHPA): a case study in Mexico.* Water resources management, 24(15), 4219-4236. doi: 10.1007/s11269-010-9654-4.

613.- von Freyberg, J., Rao, P. S. C., Radny, D., & Schirmer, M. (2015). *The impact of hillslope groundwater dynamics and landscape functioning in event-flow generation: a field study in the Rietholzbach catchment, Switzerland.* Hydrogeology journal, 23(5), 935-948. doi: 10.1007/s10040-015-1238-1

614.- Hughes, J. D., Vacher, H. L., & Sanford, W. E. (2009). *Temporal response of hydraulic head, temperature, and chloride concentrations to sea-level changes, Floridan aquifer system, USA.* Hydrogeology journal, 17(4), 793-815. doi: 10.1007/s10040-008-0412-0.

615.-Calba, F. (1980). *Hydrogéologie du karst crayeux du pays de Caux (France). Etude de deux bassins*.[Hydrogeology of the chalky karst of Pays de Caux (France)], Université Pierre et Marie Curie, Paris, 189.

616.- Massei, N., Wang, H. Q., Field, M. S., Dupont, J. P., Bakalowicz, M., & Rodet, J. (2006). *Interpreting tracer breakthrough tailing in a conduit-dominated karstic aquifer.* Hydrogeology Journal, 14(6), 849-858.doi: 10.1007/s10040-005-0010-3.

617.- Maqsoud, A. (1996). A*pproche hydrologique et hydrochimique du caractère karstique éventuel d'hydrosystèmes souterrains de la craie du bassin de Paris* (Doctoral dissertation, Lille 1).

618.- Corseuil, H. X., Monier, A. L., Fernandes, M., Schneider, M. R., Nunes, C. C., do Rosario, M., & Alvarez, P. J. (2011). *BTEX plume dynamics following an ethanol blend release: geochemical footprint and thermodynamic constraints on natural attenuation.* Environmental Science & Technology, 45(8), 3422-3429. doi: 10.1021/es104055q.

619.- Lage, I. D. C. (2005). *Avaliação de metodologias para determinação da permeabilidade em meios porosos: a área experimental da Fazenda Ressecada.* SC. Anu. Inst. Geocienc, 28(2), 202-203.

620.- Graham, P. W., Andersen, M. S., McCabe, M. F., Ajami, H., Baker, A., & Acworth, I. (2015). *To what extent do long-duration high-volume dam releases influence river–aquifer interactions? A case study in New South Wales, Australia.* Hydrogeology journal, 23(2), 319-334. doi: 10.1007/s10040-014-1212-3.

621.- D&MI, CDM. (1991). *Water and wastewater masterplan for Salalah: basis of planning report; Office of the minister of state and governor of Dhofar.* Dhofar municipality, Salalah

622.- Taylor J, Sons Consulting Engineers. (1979). *Salalah water supply contract W3.* Wellfield completion report presenting information collected on the water resources of the Salalah plain, Sultanate of Oman

623.- Bonsor, H. C., MacDonald, A. M., Ahmed, K. M., Burgess, W. G., Basharat, M., Calow, R. C., ... & Moench, M. (2017). *Hydrogeological typologies of the Indo-Gangetic basin alluvial aquifer, South Asia*. Hydrogeology journal, 25(5), 1377-1406. doi: 10.1007/s10040-017-1550-z.

624.-Lovelock, P. E. R., & Murti, P. K. (1972). *Results of the spring 1972 groundwater survey in Nawalur, South Central Nepal*. IGS report. WD/72/7, IGS, Saint-Mandé, France.

625.- Chaudhri, A. U. R. (1966). *Analysis of hydrologic performance tests in unconfined aquifers*.Hydrology Graduate College. The University of Arizona.

626.- Golder Associates. (2000). *Report on hydrogeological assessment, bacteriological impacts, Walkerton town wells, Municipality of Brockton, County of Bruce, Ontario, 50p. plus figures, tables and appendices.* Walkerton Inquiry, Exhibit 259

627.- Worthington, S. R. H., & Ford, D. C. (2009). *Self-organized permeability in carbonate aquifers*. Groundwater, 47(3), 326-336.doi: 10.1111/j.1745-6584.2009.00551.x.

628.- Robins, N. S., Jones, H. K., & Ellis, J. (1999). *An aquifer management case study–the Chalk of the English South Downs.* Water Resources Management, 13(3), 205-218. doi: 10.1023/A:1008101727356.

629.- Hirata, R. C. A., Bastos, C. R. A., Rocha, G. A., Gomes, D. C., & Iritani, M. A. (1991). *Groundwater pollution risk and vulnerability map of the state of São Paulo, Brazil.* Water Science and Technology, 24(11), 159-169. doi: 10.2166/wst.1991.0348.

630.- Sracek, O., & Hirata, R. (2002). *Geochemical and stable isotopic evolution of the Guarani Aquifer System in the state of São Paulo, Brazil.* Hydrogeology Journal, 10(6), 643-655. doi: 10.1007/s10040-002-0222-8.

631.- Silva, R. B. G. (1983). *Hydrogeochemical and isotopic study of groundwater of the Botucatu Aquifer. São Paulo state (in Portuguese)*. PhD thesis, University of São Paulo, Brazil.

632.- Tolan, T., Lindsey, K., Nielson, M., & Loper, S. (2007). *Geologic Framework of Selected Sediment and Columbia River Basalt Units in the Columbia Basin Ground Water Management Area of Adams.* Franklin, Grant and Lincoln Counties, Washington, Edition, 2.

633.- Vaccaro, J. J. (1999). *Summary of the Columbia Plateau, Regional Aquifer-system Analysis, Washington, Oregon, and Idaho*. US Geological Survey. 1413.

634.- Zouari, K., Trabelsi, R., & Chkir, N. (2011). *Using geochemical indicators to investigate groundwater mixing and residence time in the aquifer system of Djeffara of Medenine (southeastern Tunisia).* Hydrogeology Journal, 19(1), 209-219. doi: 10.1007/s10040-010-0673-2.

635.- Biver, P. (1993). *Etude phénoménologique et numérique de la propagation des polluants miscibles dans un milieu à porosité multiple [Phenomenological and numerical study of miscible contaminant propagation in a multi-porosity medium]*. French, PhD thesis, University of Liege, Faculty of Applied Sciences.

636.- Ghasemizadeh, R., Yu, X., Butscher, C., Padilla, I. Y., & Alshawabkeh, A. (2016). *Improved regional groundwater flow modeling using drainage features: a case study of the central northern karst aquifer system of Puerto Rico (USA*). Hydrogeology journal, 24(6), 1463-1478. doi: 10.1007/s10040-016-1419-6.

637.- Antonellini, M., Mollema, P., Giambastiani, B., Bishop, K., Caruso, L., Minchio, A., ... & Gabbianelli, G. (2008). *Salt water intrusion in the coastal aquifer of the southern Po Plain, Italy*. Hydrogeology journal, 16(8), 1541. doi: 10.1007/s10040-008-0319-9.

638.- Murray, R., Louw, D., van der Merwe, B., & Peters, I. (2018). *Windhoek, Namibia: from conceptualising to operating and expanding a MAR scheme in a fractured quartzite aquifer for the city's water security.* Sustainable Water Resources Management, 4(2), 217-223.doi: 10.1007/s40899-018-0213-0.

639.- Cobbing, J. E., Hobbs, P. J., Meyer, R., & Davies, J. (2008). *A critical overview of transboundary aquifers shared by South Africa*. Hydrogeology Journal, 16(6), 1207-1214.doi: 10.1007/s10040-008-0285-2.

640.- Riva, M., Guadagnini, L., Guadagnini, A., Ptak, T., & Martac, E. (2006). P*robabilistic study of well capture zones distribution at the Lauswiesen field site.* Journal of contaminant hydrology, 88(1-2), 92-118. doi: 10.1016/j.jconhyd.2006.06.005.

641.- Levy, J., Chesters, G., Gustafson, D. P., & Read, H. W. (1998). A*ssessing aquifer susceptibility to and severity of atrazine contamination at a field site in south-central Wisconsin, USA*. Hydrogeology Journal, 6(4), 483-499. doi: 10.1007/s100400050170.

642.- Sauriol, J. (2016). Provenance of buried esker groundwater: the case of Vars-Winchester esker aquifer, Eastern Ontario, Canada. Hydrogeology journal, 24(1), 123-139. doi: 10.1007/s10040-015-1327-1.

643.-Schuh, W. M., & Bottrell, S. H. (2014). *Function of a deltaic silt deposit as a repository and long-term source of sulfate and related weathering products in a glaciofluvial aquifer derived from organic-rich shale (North Dakota, USA)*. Hydrogeology journal, 22(3), 565-585. doi: 10.1007/s10040-013-1085-x.

645.- Topinkova, B., Nesetril, K., Datel, J., Nol, O., & Hosl, P. (2007). *Geochemical heterogeneity and isotope geochemistry of natural attenuation processes in a gasoline-contaminated aquifer at the Hnevice site, Czech Republic.* Hydrogeology Journal, 15(5), 961-976. doi: 10.1007/s10040-007-0179-8.

646.- Ferreira, J. C. L., da Conceição Cunha, M., Chachadi, A. G., Nagel, K., Diamantino, C., & Oliveira, M. M. (2007). *Aquifer development planning to supply a seaside resort: a case study in Goa, India.* Hydrogeology Journal, 15(6), 1147-1155. doi: 10.1007/s10040-007-0161-5.

647.- Sprenger, C., & Lorenzen, G. (2014). *Hydrogeochemistry of urban floodplain aquifer under the influence of contaminated river seepage in Delhi (India)*. Aquatic geochemistry, 20(5), 519-543. doi: 10.1007/s10498-014-9234-y.

648.- Křivánek, O.,& Kněžek, M. (2001). *Sources of drinking water in Káraný (in Czech).* Pragueue Waterworks, Prague, pp 33

649.- Rivard, C., Michaud, Y., Lefebvre, R., Deblonde, C., & Rivera, A. (2008). *Characterization of a regional aquifer system in the Maritimes Basin, Eastern Canada.* Water resources management, 22(11), 1649. doi: 10.1007/s11269-008-9247-7.

650.- Campana, C., & Fidelibus, M. D. (2015). *Reactive-transport modelling of gypsum dissolution in a coastal karst aquifer in Puglia, southern Italy*. Hydrogeology journal, 23(7), 1381-1398. doi: 10.1007/s10040-015-1290-x.

651.- Plummer, L. N., Eggleston, J. R., Andreasen, D. C., Raffensperger, J. P., Hunt, A. G., & Casile, G. C. (2012). *Old groundwater in parts of the upper Patapsco aquifer, Atlantic Coastal Plain, Maryland, USA: evidence from radiocarbon, chlorine-36 and helium-4.* Hydrogeology Journal, 20(7), 1269-1294. doi: 10.1007/s10040-012-0871-1.

652.- Belan, K. P. (2010). *Characterizating a Fractured Rock Aquifer with Hydraulic Testing at a Contaminated Municipal Well Using Flexible Liner Methods and Depth Discrete Monitoring.* University of Guelph. School of Engineering.

653.- Nastev, M., Lefebvre, R., Rivera, A., & Martel, R. (2006). *Quantitative assessment of regional rock aquifers, south-western Quebec, Canada*. Water resources management, 20(1), 1-18. doi: 10.1007/s11269-006-2072-y.

654.- Ii, H. (1995). *Effective porosity and longitudinal dispersivity of sedimentary rocks determined by laboratory and field tracer tests*. Environmental geology, 25(2), 71-85. doi: 10.1007/BF00767863.

655.- Sénéchal, P., & Sénéchal, G. (2010). *Relationships between water flow rate and geophysical measurements in an alluvial aquifer*. Acta Geophysica, 58(1), 83. doi: 10.2478/s11600-009-0024-7.

656.- Vogel, A. (2007). *Hydrogeologische Charakterisierung der Grundwasservorkommen im Bereich „Hastenrather Graben "bei Stolberg/Aachen* (Doctoral dissertation, Diploma Thesis. Institute of Hydrogeology, RWTH Aachen University (unpublished)).

657-.- Khadra, W. M., & Stuyfzand, P. J. (2018). *Simulation of saltwater intrusion in a poorly karstified coastal aquifer in Lebanon (Eastern Mediterranean)*. Hydrogeology Journal, 26(6), 1839-1856. doi: 10.1007/s10040-018-1752-z.

658.- Burbey, T. J. (1999). *Effects of horizontal strain in estimating specific storage and compaction in confined and leaky aquifer systems.* Hydrogeology Journal, 7(6), 521-532. doi: 10.1007/s100400050225.

659.- Stadler, S., Geyh, M. A., Ploethner, D., & Koeniger, P. (2012). *The deep Cretaceous aquifer in the Aleppo and Steppe basins of Syria: assessment of the meteoric origin and geographic source of the groundwater.* Hydrogeology Journal, 20(6), 1007-1026. doi: 10.1007/s10040-012-0862-2.

660.- Maloszewski, P., & Zuber, A. (1993). *Tracer experiments in fractured rocks: matrix diffusion and the validity of models*. Water Resources Research, 29(8), 2723-2735. doi: 10.1029/93WR00608.

661.- Eckart, M., & Klinger, C. (2006). *Assessment of the impact of the mine flooding process on ground water quality: coupled 'Mine-ground water model'hydrodynamical and hydrochemical model-BOXMODEL.* Report of the experts from DMT GmbH, Essen, Germany for Głowny Instytut Górnictwa, Katowice.

662.- Rogoż, M., Frolik, A., Staszewski, B., Bukowski, P., & Augustyniak, I. (1999). *Konsekwencje hydrogeologiczne likwidacją zakładu górniczego "Siersza" w Trzebini [Hydrogeological consequences of the abandonment of the "Siersza" mine at Trzebinia—in Polish]. Report of the Główny Instytut Górnictwa, no.* In Report of the Głowny Instytut Górnictwa, Katowice, no. MGM/359/99; 41156319-120.

663.- Golian, M., Teshnizi, E. S., & Nakhaei, M. (2018). *Prediction of water inflow to mechanized tunnels during tunnel-boring-machine advance using numerical simulation.* Hydrogeology Journal, 26(8), 2827-2851. doi: 10.1007/s10040-018-1835-x.

664.- Elango, L., Brindha, K., Kalpana, L., Sunny, F., Nair, R. N., & Murugan, R. (2012). *Groundwater flow and radionuclide decay-chain transport modelling around a proposed uranium tailings pond in India.* Hydrogeology Journal, 20(4), 797-812. doi: 10.1007/s10040-012-0834-6.

665.- Martos-Rosillo, S., Rodríguez-Rodríguez, M., Moral, F., Cruz-Sanjulián, J. J., & Rubio, J. C. (2009). *Analysis of groundwater mining in two carbonate aquifers in Sierra de Estepa (SE Spain) based on hydrodynamic and hydrochemical data.* Hydrogeology journal, 17(7), 1617. doi: 10.1007/s10040-009-0464-9.

666.- Forcada, E. G., & Evangelista, I. M. (2008). *Contributions of boron isotopes to understanding the hydrogeochemistry of the coastal detritic aquifer of Castellón Plain, Spain.* Hydrogeology Journal, 16(3), 547-557. doi: 10.1007/s10040-008-0290-5.

667.- Acworth, R. I., & Brain, T. (2008). *Calculation of barometric efficiency in shallow piezometers using water levels, atmospheric and earth tide data.* Hydrogeology Journal, 16(8), 1469-1481. doi: 10.1007/s10040-008-0333-y.

668.- Priebe, E. H., Neville, C. J., & Rudolph, D. L. (2018). *Enhancing the spatial coverage of a regional high-quality hydraulic conductivity dataset with estimates made from domestic water-well specific-capacity tests.* Hydrogeology journal, 26(2), 395-405. doi: 10.1007/s10040-017-1681-2.

669.-Pfunt, H., Houben, G., & Himmelsbach, T. (2016). *Numerical modeling of fracking fluid migration through fault zones and fractures in the North German Basin.* Hydrogeology Journal, 24(6), 1343-1358. doi: 10.1007/s10040-016-1418-7.

670.- Ferguson, J., Radke, B.M., Jacobson, G.J., Evans, W.R., Chambers, L., White, I.A., Wooding, R.A. (1995). *The Mourquong discharge complex and disposal basin, Murray*

Basin, SE Australia. Australian Geological Survey Organisation, Canberra, AGSO Rec 1995/9

671.- Butler Jr, J. J. (2009). *Pumping tests for aquifer evaluation—Time for a change?.* Groundwater, 47(5), 615-617. doi: 10.1111/j.1745-6584.2008.00488.x.

672.- Scheihing, K. W., Moya, C. E., & Tröger, U. (2017). *Insights into Andean slope hydrology: reservoir characteristics of the thermal Pica spring system, Pampa del Tamarugal, northern Chile.* Hydrogeology Journal, 25(6), 1833-1852. doi: 10.1007/s10040-017-1533-0.

673.- Sonney, R. (2010). *Groundwater flow, heat and mass transport in geothermal systems of a Central Alpine Massif.* The cases of Lavey-les-Bains, Saint-Gervais-les-Bains and Val d'Illiez (Doctoral dissertation).

674.- Rudolph, D. L., Sultan, R., Garfias, J., & McLaren, R. G. (2006). *Significance of enhanced infiltration due to groundwater extraction on the disappearance of a headwater lagoon system: Toluca Basin, Mexico*. Hydrogeology Journal, 14(1-2), 115-130.

675.- Navarro, J. Á. S., López, P. C., & Perez-Garcia, A. (2004). *Evaluation of geothermal flow at the springs in Aragon (Spain), and its relation to geologic structure*. Hydrogeology Journal, 12(5), 601-609. doi: 10.1007/s10040-004-0330-8.

676.- Weitowitz, D. C., Maurice, L., Lewis, M., Bloomfield, J. P., Reiss, J., & Robertson, A. L. (2017). *Defining geo-habitats for groundwater ecosystem assessments: an example from England and Wales (UK).* Hydrogeology Journal, 25(8), 2453-2466. doi: 10.1007/s10040-017-1629-6.

677.- Martínez, D., & Bocanegra, E. (2002). *Hydrogeochemistry and cation-exchange processes in the coastal aquifer of Mar Del Plata, Argentina.* Hydrogeology Journal, 10(3), 393-408. doi: 10.1007/s10040-002-0195-7.

678.- Geophysics GPR International Inc. (2002). *Whapmagoostui-Kuujjuarapik water project.* Final report M-02546 presented to the Whapmagoostui Band Conuncil, Kuujjuarapik, Quebec City, QC, 141.

679.- Wilkes, S. M., Clement, T. P., & Otto, C. J. (2004). *Characterisation of the hydrogeology of the Augustus River catchment, Western Australia.* Hydrogeology Journal, 12(2), 209-223. doi: 10.1007/s10040-003-0298-9.

0040-008-0365-680.- Brunner, P., Franssen, H. J. H., Kgotlhang, L., Bauer-Gottwein, P., & Kinzelbach, W. (2007). *How can remote sensing contribute in groundwater modeling?*. Hydrogeology journal, 15(1), 5-18. doi: 10.1007/s10040-006-0127-z.

681.- Rao, G. T., Rao, V. G., Ranganathan, K., Surinaidu, L., Mahesh, J., & Ramesh, G. (2011). *Assessment of groundwater contamination from a hazardous dump site in Ranipet, Tamil Nadu, India*. Hydrogeology Journal, 19(8), 1587-1598. doi: 10.1007/s10040-011-0771-9.

682.- MWR. (1996). *Jabal Akhdar Hydrogeological Assessment.* Water Resources Assessment Report, Ministry of Water Resources, Sultanate of Oman.

683.- Niemann, W. L., & Rovey II, C. W. (2009). *A systematic field-based testing program of hydraulic conductivity and dispersivity over a range in scale.* Hydrogeology Journal, 17(2), 307-320. doi: 10.1007/s13.

684.- Reynolds, D. A., & Marimuthu, S. (2007). *Deuterium composition and flow path analysis as additional calibration targets to calibrate groundwater flow simulation in a coastal wetlands system*. Hydrogeology Journal, 15(3), 515-535. doi: 10.1007/s10040-006-0113-5.

685.- King, A. C., Raiber, M., Cox, M. E., & Cendón, D. I. (2017). *Comparison of groundwater recharge estimation techniques in an alluvial aquifer system with an intermittent/ephemeral stream (Queensland, Australia)*. Hydrogeology Journal, 25(6), 1759-1777. doi: 10.1007/s10040-017-1565-5.

686.- Klaas, D. K. S. Y., Imteaz, M. A., Sudiayem, I., Klaas, E. M. E., & Klaas, E. C. M. (2017, October). *On the development of a new methodology in sub-surface parameterisation on the calibration of groundwater models.* In IOP Conference Series: Earth and Environmental Science (Vol. 92, No. 1, p. 012026). IOP Publishing.

687.- Lancia, M., Zheng, C., Yi, S., Lerner, D. N., & Andrews, C. (2019). *Analysis of groundwater resources in densely populated urban watersheds with a complex tectonic setting: Shenzhen, southern China.* Hydrogeology journal, 27(1), 183-194. doi: 10.1007/s10040-018-1867-2.

688.- Burghof, S., Gabiri, G., Stumpp, C., Chesnaux, R., & Reichert, B. (2018). *Development of a hydrogeological conceptual wetland model in the data-scarce north-eastern region of Kilombero Valley, Tanzania.* Hydrogeology journal, 26(1), 267-284. doi: 10.1007/s10040-017-1649-2.

689.- Nonterah, C., Xu, Y., & Osae, S. (2019). *Groundwater occurrence in the Sakumo wetland catchment, Ghana: model–setting–scenario approach.* Hydrogeology Journal, 27(3), 983-996. doi: 10.1007/s10040-019-01959-4.

690.- Kvitsand, H. M., Myrmel, M., Fiksdal, L., & Østerhus, S. W. (2017). *Evaluation of bank filtration as a pretreatment method for the provision of hygienically safe drinking water in Norway: Results from monitoring at two full-scale sites.* Hydrogeology Journal, 25(5), 1257-1269. doi: 10.1007/s10040-017-1576-2.

691.- Sakiyan, J., & Yazicigil, H. (2004). *Sustainable development and management of an aquifer system in western Turkey.* Hydrogeology Journal, 12(1), 66-80. doi: 10.1007/s10040-003-0315-z.

692.- PWD. (2000). *Groundwater perspectives. A profile of Kancheepuram district, Tamil Nadu.* Public Works Department, Tamil Nadu, June, 220 pp

694.- Magri, F., Akar, T., Gemici, U., & Pekdeger, A. (2012). *Numerical investigations of fault-induced seawater circulation in the Seferihisar-Balçova Geothermal system, western Turkey.* Hydrogeology Journal, 20(1), 103-118. doi: 10.1007/s10040-011-0797-z.

695.- GEC. (2009). *Report of the Groundwater Resource Estimation Committee: groundwater resource estimation methodology*. Ministry of Water Resources, Government of India, New Delhi

696.- CGWB. (2012). *Aquifer systems of Chhattisgarh*. Central Groundwater Board, Chhattisgarh Region, Anupam Nagar, India

697.- Dar, F. A., Perrin, J., Ahmed, S., & Narayana, A. C. (2014). *Carbonate aquifers and future perspectives of karst hydrogeology in India.* Hydrogeology journal, 22(7), 1493-1506. doi: 10.1007/s10040-014-1151-z.

698.- Karatzas, G. P., & Dokou, Z. (2015). *Optimal management of saltwater intrusion in the coastal aquifer of Malia, Crete (Greece), using particle swarm optimization*. Hydrogeology Journal, 23(6), 1181-1194. doi: 10.1007/s10040-015-1286-6.

699.- Anderson, T. A., Bestland, E. A., Wallis, I., & Guan, H. D. (2019). *Salinity balance and historical flushing quantified in a high-rainfall catchment (Mount Lofty Ranges, South Australia).* Hydrogeology Journal, 27(4), 1229-1244. doi: 10.1007/s10040-018-01916-7.

700.- Gracheva, I., Karimov, A., Turral, H., & Miryusupov, F. (2009). *An assessment of the potential and impacts of winter water banking in the Sokh aquifer, Central Asia*. Hydrogeology journal, 17(6), 1471-1482. doi: 10.1007/s10040-009-0444-0.

701.- Harrison, S., Molson, J., Abercrombie, H., Barker, J., Rudolph, D., & Aravena, R. (2000). *Hydrogeology of a coal-seam gas exploration area, southeastern British Columbia, Canada: Part 1. Groundwater flow systems.* Hydrogeology journal, 8(6), 608-622. doi: 10.1007/s100400000096.

702.- Nastev, M., Rivera, A., Lefebvre, R., Martel, R., & Savard, M. (2005). *Numerical simulation of groundwater flow in regional rock aquifers, southwestern Quebec, Canada*. Hydrogeology journal, 13(5-6), 835-848. doi: 10.1007/s10040-005-0445-6.

703.- Chuang, P. Y., Chia, Y., Liou, Y. H., Teng, M. H., Liu, C. Y., & Lee, T. P. (2016). *Characterization of preferential flow paths between boreholes in fractured rock using a nanoscale zero-valent iron tracer test.* Hydrogeology Journal, 24(7), 1651-1662. doi: 10.1007/s10040-016-1426-7.

704.- Cole, J., Coniglio, M., & Gautrey, S. (2009). *The role of buried bedrock valleys on the development of karstic aquifers in flat-lying carbonate bedrock: insights from Guelph, Ontario, Canada.* Hydrogeology journal, 17(6), 1411-1425. doi: 10.1007/s10040-009-0441-3.

705.- Hudak, P. F. (1998). *A method for designing configurations of nested monitoring wells near landfills.* Hydrogeology Journal, 6(3), 341-348. doi: 10.1007/s100400050157.

706.- Gelhar, L. W., Welty, C., & Rehfeldt, K. R. (1992). *A critical review of data on field-scale dispersion in aquifers.* Water resources research, 28(7), 1955-1974. doi: 10.1029/92WR00607.

707.- Lemke, L. D., & Cypher, J. A. (2010). *Postaudit evaluation of conceptual model uncertainty for a glacial aquifer groundwater flow and contaminant transport model.* Hydrogeology journal, 18(4), 945-958. doi: 10.1007/s10040-009-0554-8.

708.- Hansel, A. K., & Johnson, W. H. (1996). *Wedron and Mason Groups: Lithostratigraphic reclassification of deposits of the Wisconsin Episode, Lake Michigan lobe area.* Bulletin no. 104.

709.- Ackerman, J. R., Peterson, E. W., Van der Hoven, S., & Perry, W. L. (2015). *Quantifying nutrient removal from groundwater seepage out of constructed wetlands receiving treated wastewater effluent.* Environmental earth sciences, 74(2), 1633-1645. doi: 10.1007/s12665-015-4167-3.

710.- Ludwikowski, J. J., & Peterson, E. W. (2018). *Transport and fate of chloride from road salt within a mixed urban and agricultural watershed in Illinois (USA): assessing the influence of chloride application rates.* Hydrogeology Journal, 26(4), 1123-1135. doi: 10.1007/s10040-018-1732-3.

711.- Loheide, S. P., Butler Jr, J. J., & Gorelick, S. M. (2005). *Estimation of groundwater consumption by phreatophytes using diurnal water table fluctuations: A saturated‐unsaturated flow assessment.* Water resources research, 41(7). doi: 10.1029/2005WR003942

712.- Schilling, K. E. (2009). *Investigating local variation in groundwater recharge along a topographic gradient, Walnut Creek, Iowa, USA*. Hydrogeology journal, 17(2), 397-407. doi: 10.1007/s10040-008-0347-5.

713.- Zhang, Y. K., & Schilling, K. E. (2006). *Effects of land cover on water table, soil moisture, evapotranspiration, and groundwater recharge: a field observation and analysis.* Journal of Hydrology, 319(1-4), 328-338. doi: 10.1016/j.jhydrol.2005.06.044.

714.- Spitz, K., & Moreno, J. (1996). *A practical guide to groundwater and solute transport modeling*. John Wiley and sons.Wiley, Chichester, UK

715.- Zhou, P., Li, G., Lu, Y., & Li, M. (2014). *Numerical modeling of the effects of beach slope on water-table fluctuation in the unconfined aquifer of Donghai Island, China.* Hydrogeology Journal, 22(2), 383-396. doi: 10.1007/s10040-013-1045-5.

716.- Promma, K., Zheng, C., & Asnachinda, P. (2007). *Groundwater and surface-water interactions in a confined alluvial aquifer between two rivers: effects of groundwater flow dynamics on high iron anomaly.* Hydrogeology Journal, 15(3), 495-513. doi: 10.1007/s10040-006-0110-8.

717.- Coes, A. L., Spruill, T. B., & Thomasson, M. J. (2007). *Multiple-method estimation of recharge rates at diverse locations in the North Carolina Coastal Plain, USA*. Hydrogeology Journal, 15(4), 773-788. doi: 10.1007/s10040-006-0123-3.

718.- Bjerg, P. L., Hinsby, K., Christensen, T. H., & Gravesen, P. (1992). *Spatial variability of hydraulic conductivity of an unconfined sandy aquifer determined by a mini slug test.* Journal of Hydrology, 136(1-4), 107-122. doi: 10.1016/0022-1694(92)90007-I.

719.- Misstear, B., Banks, D., Clark, L. (2006). *Water wells and boreholes.* Wiley. http://onlinelibrary.wiley.com/book/10.1002/0470031344. Accessed November 2017

720.- Visser, P. W., Kooi, H., & Stuyfzand, P. J. (2015). *The thermal impact of aquifer thermal energy storage (ATES) systems: a case study in the Netherlands, combining monitoring and modeling*. Hydrogeology Journal, 23(3), 507-532. doi: 10.1007/s10040-014-1224-z.

721.- Yun, Z., Xiao, J., Han, X., Shi, Y., Kang, L.,, Yao, Y., Zhou, Z., Zhang, H. (1981). *Regional hydrogeological survey report (Guangzhou and Jiangmen) P.R. China Guangdong Hydrogeological Team (GHT), Guangdong Provincial Geological Bureau, Guangzhou, China*

722.- Burow, K. R., Dubrovsky, N. M., & Shelton, J. L. (2007). *Temporal trends in concentrations of DBCP and nitrate in groundwater in the eastern San Joaquin Valley, California, USA.* Hydrogeology journal, 15(5), 991-1007. doi: 10.1007/s10040-006-0148-7.

723.- Kasper, J. W., Denver, J. M., McKenna, T. E., & Ullman, W. J. (2010). *Simulated impacts of artificial groundwater recharge and discharge on the source area and source volume of an Atlantic Coastal Plain stream, Delaware, USA*. Hydrogeology journal, 18(8), 1855-1866. doi: 10.1007/s10040-010-0641-x.

724.- Denver, J. M. (1989). *Effects of agricultural practices and septic-system effluent on the quality of water in the unconfined aquifer in parts of eastern Sussex County, Delaware.* Newark, DE: Delaware Geological Survey, University of Delaware.

725.- Seifert, D., Sonnenborg, T. O., Scharling, P., & Hinsby, K. (2008). *Use of alternative conceptual models to assess the impact of a buried valley on groundwater vulnerability.* Hydrogeology Journal, 16(4), 659-674. doi: 10.1007/s10040-007-0252-3.

726.- Kuroda, K., Hayashi, T., Do, A. T., Canh, V. D., Nga, T. T. V., Funabiki, A., & Takizawa, S. (2017). *Groundwater recharge in suburban areas of Hanoi, Vietnam: effect of decreasing surface-water bodies and land-use change.* Hydrogeology Journal, 25(3), 727-742. doi: 10.1007/s10040-016-1528-2.

727.- Winiarski, T., Bedell, J. P., Delolme, C., & Perrodin, Y. (2006). T*he impact of stormwater on a soil profile in an infiltration basin*. Hydrogeology Journal, 14(7), 1244-1251. doi: 10.1007/s10040-006-0073-9.

728.- Mügler, C., Genty, A., & Cabrera, J. (2004). *Numerical modelling of hydraulic decompression due to the excavation of tunnel and drifts at the Tournemire underground laboratory*. Geotechnical & Geological Engineering, 22(4), 525-543. doi: 10.1023/B:GEGE.0000047044.11492.e2.

729.- Matthess, G., & Ubell, K. (2003). *Allgemeine Hydrogeologie-Grundwasserhaushalt*. Wasser und Abfall, 11(12), 28.

730.- Sonnenthal, E., Spycher, N., Callahan, O., Cladouhos, T., & Petty, S. (2012). *A thermal–hydrological–chemical model for the enhanced geothermal system demonstration project at Newberry Volcano, Oregon*. In Proceedings of the 37th Workshop on Geothermal Reservoir Engineering, Stanford, CA (Vol. 30).

731.- Rawls, W. J., Brakensiek, D. L., & Miller, N. (1983). *Green-Ampt infiltration parameters from soils data*. Journal of hydraulic engineering, 109(1), 62-70.

732.- Machiwal, D., Singh, P. K., & Yadav, K. K. (2017). *Estimating aquifer properties and distributed groundwater recharge in a hard-rock catchment of Udaipur, India.* Applied Water Science, 7(6), 3157-3172. doi: 10.1007/s13201-016-0462-8.

733.- Vandenbohede, A., & Lebbe, L. (2007). *Effects of tides on a sloping shore: groundwater dynamics and propagation of the tidal wave*. Hydrogeology Journal, 15(4), 645-658. doi: 10.1007/s10040-006-0128-y.

734.- Tarhouni, J. (1994). *Modèle inverse tridimensionel d'optimation de parameters de nappes aquifers: applications a l'echelle regionale et locale [Three-dimensional inverse model for the optimalisation of parameters: applications on a regional and local scale].* Doctoral dissertation, PhD Thesis, Ghent University, Belgium.

735.- Kacimov, A. R., Sherif, M. M., Perret, J. S., & Al-Mushikhi, A. (2009). *Control of sea-water intrusion by salt-water pumping: Coast of Oman.* Hydrogeology Journal, 17(3), 541-558. doi: 10.1007/s10040-008-0425-8.

736.- Ground Water Estimation Committee. (1997). *Ground Water Estimation Methodology–1997.* Ministry of Water Resources, Govt of India.

737.- Niemi, A., Bensabat, J., Bergmann, P., Juhlin, C., Tatomir, A., Ghergut, I., ... & Liebscher, A. (2017). *Field Injection Operations and Monitoring of the Injected CO 2.* In Geological storage of CO2 in deep saline formations (pp. 381-471). Springer, Dordrecht. doi: 10.1007/978-94-024-0996-3_8.

738.- Farid, M. S. (1980). *Nile Delta groundwater study.* M. Sc Doctoral dissertation, Thesis, Fac. Engin., Cairo Univ., Cairo.

739.- Bahr, B. (1995). *Nile Delta aquifer with emphasis on saltwater intrusion in the northern area*. Doctoral dissertation, MSc. thesis, Technical University of Berlin, Institute for Applied Geoscience, Berlin, Germany.

740.- Wagner, W. (2011). *Northwestern Mountain and Rift Zone of the Northern Arabian Platform. In Groundwater in the Arab Middle East*. Springer, Berlin, Heidelberg 63-137. doi: 10.1007/978-3-642-19351-4_2.

741.- Flesch (2000). Hidrogeologisches Model der Sachsischen Kreide. Wiss. Mitt. Inst. Fur Geologie, 14, 1248-1433.

742.- Sracek, O., & Hirata, R. (2002). Geochemical and stable isotopic evolution of the Guarani Aquifer System in the state of São Paulo, Brazil. Hydrogeology Journal, 10(6), 643-655. doi: 10.1007/s10040-002-0222-8.

743.- Drozdov, A. V., & Sukhov, S. S. (2008). *A variety of natural systems of industrial groundwater on Siberian platform*. Water Resources, 35(3), 264-273. doi: 10.1134/S0097807808030020.

744.- Aavatsmark, I., & Gasda, S. E. (2018, September). *Estimation of reduced pressure build-up due to brine seepage using a convolution technique*. In ECMOR XVI-16th European Conference on the Mathematics of Oil Recovery . European Association of Geoscientists & Engineers,. 1, 1-18. doi: 10.3997/2214-4609.201802270.

745.- Chilingarian, G. V., & Wolf, K. H. (1975). *Compaction of coarse-grained sediments.* Elsevier. Developments in sedimentology, vol 18B. Elsevier, Amsterdam.

746.- Endom, J., & Kümpel, H. J. (1994). *Analysis of natural well level fluctuations in the KTB-Vorbohrung: Parameters from poroelastic aquifer and single fracture models*. Sci. Drill, 4, 147.

747.-Stober, I., & Bucher, K. (2007). *Hydraulic properties of the crystalline basement*. Hydrogeology Journal, 15(2), 213-224. doi: 10.1007/s10040-006-0094-4.

748.- Rumynin, V. G. (2011). *Light Wastewater Injection into a Deep Geological Formation Containing Brine ("Volzhsky Orgsintez" Deep-Well Disposal Site, Central Russia Region).* In Subsurface Solute Transport Models and Case Histories (pp. 545-557). Springer, Dordrecht. doi: 10.1007/978-94-007-1306-2_18.

749.- Oldenburg, C. M., & Pan, L. (2013). *Porous media compressed-air energy storage (PM-CAES): Theory and simulation of the coupled wellbore–reservoir system.* Transport in porous media, 97(2), 201-221.doi: 10.1007/s11242-012-0118-6.

750.- Hasiuk, F. J. (2019). *Testing Bulk Properties of Powder-Based 3D-Printed Reservoir Rock Proxies*. Transport in Porous Media, 129(2), 501-520. doi: 10.1007/s11242-018-1221-0.

751.- Singh, V. S. (2016). E*valuation of Groundwater Resources on the Coral Islands of Lakshadweep*, India. Springer.

752.- Babaei, M. (2019). *Integrated carbon sequestration–geothermal heat recovery: performance comparison between open and close systems.* Transport in Porous Media, 126(1), 249-273. doi: 10.1007/s11242-018-1042-1.

753.- Mou, J., Zhang, S., & Zhang, Y. (2012). *Acid leakoff mechanism in acid fracturing of naturally fractured carbonate oil reservoirs.* Transport in porous media, 91(2), 573-584. doi: 10.1007/s11242-011-9860-4.

754.- McCourt, T. A., Zhou, F., Bianchi, V., Pike, D., & Donovan, D. (2019). *Chip-Firing on a Graph for Modelling Complex Geological Architecture in CO Injection and Storage.* Transport in Porous Media, 129(1), 281-294. doi: 10.1007/s11242-019-01287-x.

755.- Tóth, T. M., & Vass, I. (2011). *Relationship between the geometric parameters of rock fractures, the size of percolation clusters and REV*. Mathematical Geosciences, 43(1), 75-97. doi: 10.1007/s11004-010-9315-4.

756.- Bell, F. G., & Culshaw, M. G. (1993). *A survey of the geotechnical properties of some relatively weak Triassic sandstones.* Engineering geology special publication, (8), 139-148.

757.- Karacan, E., & Yilmaz, I. (2000). *Geotechnical evaluation of Miocene gypsum from Sivas (Turkey)*. Geotechnical & Geological Engineering, 18(2), 79-90. doi. 10.1023/A:1008969726200.

758.- Stanchits, S., Vinciguerra, S., & Dresen, G. (2006). *Ultrasonic velocities, acoustic emission characteristics and crack damage of basalt and granite.* Pure and Applied Geophysics, 163(5-6), 975-994. doi: 10.1007/s00024-006-0059-5.

759.- Siegesmund, S., & Dürrast, H. (2011). *Physical and mechanical properties of rocks.* In Stone in architecture (pp. 97-225). Springer, Berlin, Heidelberg. doi: 10.1007/978-3-642-14475-2_3.

760.- Gupta, A. S., & Rao, S. K. (2001). W*eathering indices and their applicability for crystalline rocks*. Bulletin of Engineering Geology and the Environment, 60(3), 201-221. doi: 10.1007/s100640100113.

761.- Cant, J. L., Siratovich, P. A., Cole, J. W., Villeneuve, M. C., & Kennedy, B. M. (2018). *Matrix permeability of reservoir rocks, Ngatamariki geothermal field, Taupo Volcanic Zone, New Zealand.* Geothermal Energy, 6(1), 2. doi: 10.1186/s40517-017-0088-6.

762.- Farmer, I.W.(1968). *Engineering properties of rocks.* Spon, London, 180 pp.

763.- Arel, E., & Tugrul, A. (2001). *Weathering and its relation to geomechanical properties of Cavusbasi granitic rocks in northwestern Turkey.* Bulletin of Engineering Geology and the Environment, 60(2), 123-133. doi: 10.1007/s100640000091.

764.- Yagiz, S. (2011). *Correlation between slake durability and rock properties for some carbonate rocks*. Bulletin of engineering geology and the environment, 70(3), 377-383. doi: 10.1007/s10064-010-0317-8.

765.- Teymen, A. (2019). *Estimation of Los Angeles abrasion resistance of igneous rocks from mechanical aggregate properties*. Bulletin of Engineering Geology and the Environment, 78(2), 837-846. doi: 10.1007/s10064-017-1134-0.

766.- Böhm, F., Birner, J., Steiner, U., Koch, R., Sobott, R., Schneider, M., Wang, A. (2011). *Tafelbankiger Dolomit in der Kernbohrung Moosburg SC4: Ein Schlüssel zum Verständnis der Zuflussraten in Geothermiebohrungen des Malmaquifers (Östliches Molasse-Becken, Malm Süddeutschland).* Z Geol Wissenschaft, 39, 117-157.

767.- Tan, W. H., Ba, J., Guo, M. Q., Li, H., Zhang, L., Yu, T., & Chen, H. (2018). *Brittleness characteristics of tight oil siltstones.* Applied Geophysics, 15(2), 175-187. doi: 10.1007/s11770-018-0680-y.

768.- Yagiz, S. (2009). *Predicting uniaxial compressive strength, modulus of elasticity and index properties of rocks using the Schmidt hammer.* Bulletin of engineering geology and the environment, 68(1), 55-63. doi: 10.1007/s10064-008-0172-z.

769.- Ghasemi, E., Kalhori, H., Bagherpour, R., & Yagiz, S. (2018). *Model tree approach for predicting uniaxial compressive strength and Young's modulus of carbonate rocks.* Bulletin

of Engineering Geology and the Environment, 77(1), 331-343. doi. 10.1007/s10064-016-0931-1.

770.- Bell, F. G. (1981). *Geotechnical properties of some evaporitic rocks.* Bulletin of the International Association of Engineering Geology-Bulletin de l'Association Internationale de Géologie de l'Ingénieur, 24(1), 137-144. doi: 10.1007/BF02595264.

771.- Nettasana, T., Craig, J., & Tolson, B. (2012). *Conceptual and numerical models for sustainable groundwater management in the Thaphra area, Chi River Basin, Thailand.* Hydrogeology Journal, 20(7), 1355-1374. doi: 10.1007/s10040-012-0887-6.

772.- Petalas, C., Lambrakis, N., & Zaggana, E. (2006). *Hydrochemistry of waters of volcanic rocks: The case of the volcanosedimentary rocks of Thrace, Greece*. Water, Air, and Soil Pollution, 169(1-4), 375-394. doi: 10.1007/s11270-006-2816-6.

773.- Pearce, B.R., & Durick, A.M. (2002) A*ssessment and management of basalt aquifers on the Atherton Tablelands, North Queensland, Australia.* In: Proceedings of the international association of hydrogeologists international groundwater conference: balancing the groundwater budget, Darwin, 12–17.

774.- Kulkarni, H., Aslekar, U., & Joshi, D. (2018). S*pecific Yield of Unconfined Aquifers in Revisiting Efficiency of Groundwater Usage in Agricultural Systems.* In Clean and Sustainable Groundwater in India. Springer, Singapore. 125-137 pp. doi: 10.1007/978-981-10-4552-3_10.

776.- Ismail, Y. L., El Sayed, E., & Gomaa, M. A. (2006). *Preliminary Hydrogeologic Investigations of Nubia Sandstone and fractured Basement Aquifers in the Area between El Shalateen and Halayeb, Eastern Desert, Egypt.* In Uranium in the Environment (pp. 619-638). Springer, Berlin, Heidelberg. doi: 10.1007/3-540-28367-6_63.

777.- Ren, X.S., Hu, Z.L., Cao, Y.B., & He, S. (2007). *Groundwater resources assessment on Hai River Basin. In: Water resources assessment of Hai River Basin, Chapter 6*. China Water Power Press, Beijing, pp 68–89 (in Chinese).

778.- Research Group for Agricultural Groundwater. (1986). *Groundwater in Japan.* Tikyuu-shya (Tokyo), p 1043 (in Japanese).

779.- Peksezer-Sayit, A., Cankara-Kadioglu, C., & Yazicigil, H. (2015). *Assessment of dewatering requirements and their anticipated effects on groundwater resources: A case study from the Caldag Nickel Mine, Western Turkey.* Mine Water and the Environment, 34(2), 122-135. doi: 10.1007/s10230-014-0306-4.

780.- Ray, R. K., Mukherjee, A., & Mukherjee, R. (2014). *Estimation of specific yields of individual litho-units in a terrain with multiple litho-units: A water balance approach*. Journal of the Geological Society of India, 84(2), 221-226. doi: 10.1007/s12594-014-0126-y.

781.- Yidana, S. M., Alo, C., Addai, M. O., Fynn, O. F., & Essel, S. K. (2015). *Numerical analysis of groundwater flow and potential in parts of a crystalline aquifer system in Northern Ghana*. International journal of environmental science and technology, 12(12), 3805-3818. doi: 10.1007/s13762-015-0805-2.

782.- Spane, F. A., & Thorne, P. D. (1985). *Effects of drilling fluid invasion on hydraulic characterization of low-permeability basalt horizons: A field evaluation.* Environmental Geology and Water Sciences, 7(4), 227-236. doi: 10.1007/BF02509923.

783.- El Maghraby, M. M. (2015). *Hydrogeochemical characterization of groundwater aquifer in Al-Madinah Al-Munawarah City, Saudi Arabia.* Arabian Journal of Geosciences, 8(6), 4191-4206. doi: 10.1007/s12517-014-1505-9.

784.- Suk, H., Seo, M. W., & Kim, H. S. (2012). *Hydrogeological modeling for investigation of factors controlling the storage capacity of groundwater dam.* KSCE Journal of Civil Engineering, 16(6), 933-942. doi: 10.1007/s12205-012-1312-3.

785.- Vasanthavigar, M., Srinivasamoorthy, K., & Prasanna, M. V. (2012). *Evaluation of groundwater suitability for domestic, irrigational, and industrial purposes: a case study from Thirumanimuttar river basin, Tamilnadu, India*. Environmental monitoring and assessment, 184(1), 405-420. doi: 10.1007/s10661-011-1977-y.

786.- Buttrick, D. B., Van Rooy, J. L., & Ligthelm, R. (1993). *Environmental geological aspects of the dolomites of South Africa.* Journal of African Earth Sciences (and the Middle East), 16(1-2), 53-61. doi: 10.1016/0899-5362(93)90161-I.

787.- CGWB. (2008). *District groundwater brochure Chennai district Tamil Nadu.* Technical Report. pp 1–19

788.- Thangarajan, M., Linn, F., Uhl, V., Bakaya, T. B., & Gabaake, G. G. (1999). *Modelling an inland Delta aquifer system to evolve pre-development management schemes: a case study in Upper Thamalakane River valley, Botswana, southern Africa.* Environmental Geology, 38(4), 285-295. doi: 10.1007/s002540050426.

788.- Chinnasamy, P., & Agoramoorthy, G. (2015). *Groundwater storage and depletion trends in Tamil Nadu State, India.* Water Resources Management, 29(7), 2139-2152. doi: 10.1007/s11269-015-0932-z.

789.- Madhnure, P. (2004). *Impact of urbanization on the ground water regime in Nanded-Waghala City, Nanded district, Maharashtra*. Un-published report. Central Ground Water Board, Nagpur. 61.

790.- Singaraja, C., Chidambaram, S., Anandhan, P., Prasanna, M. V., Thivya, C., Thilagavathi, R., & Sarathidasan, J. (2014). *Determination of the utility of groundwater with respect to the geochemical parameters: a case study from Tuticorin District of Tamil Nadu (India).* Environment, development and sustainability, 16(3), 689-721. doi: 10.1007/s10668-013-9502-9.

791.- Stober, I., & Bucher, K. (2007). *Hydraulic properties of the crystalline basement*. Hydrogeology Journal, 15(2), 213-224. doi: 10.1007/s10040-006-0094-4.

792.- Panneer, M., Sivakumar, R., & Senthilkumar, M. (2017). *Fluoride hydrogeochemistry and its occurrence in drinking water in Morappur region of Dharmapuri District, South India.* International journal of environmental science and technology, 14(9), 1931-1944. doi: 10.1007/s13762-017-1277-3.

793.- Subburaj, A., Kumar, E. S., Suresh, S., Elanchelian, V., & Rajarajan, K. (2018). *Impact Assessment of Demonstrative Project on Artificial Recharge to Groundwater in Gangavalli Block, Salem District, Tamil Nadu.* In Clean and Sustainable Groundwater in India (pp. 191-202). Springer, Singapore. doi: 10.1007/978-981-10-4552-3_13.

794.- Van der Sommen, J. J., & Geirnaert, W. (1988). *On the continuity of aquifer systems on the crystalline basement of Burkina Faso*. In Estimation of natural groundwater recharge (pp. 29-45). Springer, Dordrecht. doi: 10.1007/978-94-015-7780-9_3.

795.- Développement, A. R. P. (2003). *Synthese des connaissances sur les ressources en eau souterraine dans la zone de l'ex-programme d'hydraulique villageoise Mali-Suisse [Summary of knowledge on groundwater resources in villages of southern Mali resulting from a Mali-Swiss partnership project].* Technical report for the Direction Nationale De L'Hydraulique. Ministere des Mines, de L'Energie et de L'Eau, Bamako, Mali. 85pp.

796.- Selvakumar, S., Ramkumar, K., Chandrasekar, N., Magesh, N. S., & Kaliraj, S. (2017). *Groundwater quality and its suitability for drinking and irrigational use in the Southern Tiruchirappalli district, Tamil Nadu, India.* Applied Water Science, 7(1), 411-420. doi: 10.1007/s13201-014-0256-9.

797.- CGWB. (2003). *Central Ground Water Board, Western Region, Jaipur.* Ground Water Year Book, 125p.

798.- CGWB. (2005). *Central Ground Water Board, Western Region, Jaipur.* Ground Water Exploration Report of Rajasthan, 287p.

799.- Kushwaha, R. K., Pandit, M. K., & Goyal, R. (2009). *MODFLOW based groundwater resource evaluation and prediction in Mendha sub-basin, NE Rajasthan.* Journal of the Geological Society of India, 74(4), 449. doi: 10.1007/s12594-009-0154-1.

800.- CGWB.(1995). *Ground Water Resources of India*. Faridabad, 147 pp.

801.- Shamsuddin, M. K. N., Sulaiman, W. N. A., Ramli, M. F., & Kusin, F. M. (2019). *Vertical hydraulic conductivity of riverbank and hyporheic zone sediment at Muda River riverbank filtration site, Malaysia*. Applied Water Science, 9(1), 8. doi: 10.1007/s13201-018-0880-x.

802.- Perens, R., & Vallner, L. (1997). *Water-bearing formation.* Geology and mineral resources of Estonia. Estonian Academy, Tallinn, Estonia. 137-145.

803.- Jõeleht, A., & Kukkonen, I. T. (2002). *Physical properties of Vendian to Devonian sedimentary rocks in Estonia.* GFF, 124(2), 65-72. doi: 10.1080/11035890201242065.

804.- Sivrikaya, O., & Hakbilir, S. (2013). *Comparison of fine-grained soils of the kolsuz and Araplı areas in the Central Anatolia (Niğde, Turkey) in terms of geotechnical properties.* Eurasian soil science, 46(5), 587-598. doi: 10.1134/S1064229313050189.

805.- Özbek, A. (2014). *Investigation of the effects of wetting–drying and freezing–thawing cycles on some physical and mechanical properties of selected ignimbrites*. Bulletin of Engineering Geology and the Environment, 73(2), 595-609. doi: 10.1007/s10064-013-0519-y.

806.- Binal, A., Kasapog˘lu, K.E., & Seg˘menog˘lu, C. (2004). *Comparative investigation of the effects of freezing and thawing process on geomechanical properties of Ankara ignimbrite under laboratory and field conditions*. In: VII Regional Rock Mechanics Symposium, Sivas, pp 59–66 (in Turkish).

807.- Binal, A., Kasapog˘lu, K.E., Go¨kc¸eog˘lu, C. (1998). *Variation of some physical and mechanical properties of the volcano-sedimentary rocks around Eskisehir–Yazilikaya under freezing–thawing effect.* Earth Sci J 20:41–54 (in Turkish).

808.- Sharda, V. N., Kurothe, R. S., Sena, D. R., Pande, V. C., & Tiwari, S. P. (2006). *Estimation of groundwater recharge from water storage structures in a semi-arid climate of India.* Journal of Hydrology, 329(1-2), 224-243. doi: 10.1016/j.jhydrol.2006.02.015.

809.- Worthington, S. R., Foley, A. E., & Soley, R. W. (2019). *Transient characteristics of effective porosity and specific yield in bedrock aquifers.* Journal of Hydrology, 578, 124-129. doi: 10.1016/j.jhydrol.2019.124129.

810.- Székely, F., Szűcs, P., Zákányi, B., Cserny, T., & Fejes, Z. (2015). *Comparative analyses of pumping tests conducted in layered rhyolitic volcanic formations*. Journal of Hydrology, 520, 180-185. doi: 10.1016/j.jhydrol.2014.11.038.

811.- Ran, Q., Ren, D., & Wang, Y. (2018). *Development of Volcanic Gas Reservoirs: The Theory, Key Technologies and Practice of Hydrocarbon Development.* Gulf Professional Publishing.

812.- Urrutia, J., Herrera, C., Custodio, E., Jódar, J., & Medina, A. (2019). *Groundwater recharge and hydrodynamics of complex volcanic aquifers with a shallow saline lake: Laguna Tuyajto, Andean Cordillera of northern Chile.* Science of the Total Environment, 697, 134116. doi: 10.1016/j.scitotenv.2019.134116.

813.- AAWSA, BCEOM, SEURECA, Tropics, 2000. *Addis Ababa Water Supply Project Stage-IIIA Groundwater-Phase II, Modeling of Akaki Well field, V1, Main Report*. Addis Ababa Water and Sewerage Authority, Addis Ababa, Ethiopia, p. 54.

814.- Gallardo, A. H. (2019). *Hydrogeological characterisation and groundwater exploration for the development of irrigated agriculture in the West Kimberley region, Western Australia.* Groundwater for Sustainable Development, 8, 187-197. doi: 10.1016/j.gsd.2018.11.004.

815.- Raiber, M., Webb, J. A., Cendón, D. I., White, P. A., & Jacobsen, G. E. (2015). *Environmental isotopes meet 3D geological modelling: Conceptualising recharge and structurally-controlled aquifer connectivity in the basalt plains of south-western Victoria, Australia*. Journal of Hydrology, 527, 262-280. doi: 10.1016/j.jhydrol.2015.04.053.

816.- White, A. F., Bullen, T. D., Schulz, M. S., Blum, A. E., Huntington, T. G., & Peters, N. E. (2001). *Differential rates of feldspar weathering in granitic regoliths.* Geochimica et Cosmochimica Acta, 65(6), 847-869. doi: 10.1016/S0016-7037(00)00577-9.

817.- Boisson, A., Baisset, M., Alazard, M., Perrin, J., Villesseche, D., Dewandel, B., ... & Ahmed, S. (2014). *Comparison of surface and groundwater balance approaches in the evaluation of managed aquifer recharge structures: Case of a percolation tank in a*

crystalline aquifer in India. Journal of hydrology, 519, 1620-1633. doi: 10.1016/j.jhydrol.2014.09.022.

818- Dewandel, B., Maréchal, J. C., Bour, O., Ladouche, B., Ahmed, S., Chandra, S., & Pauwels, H. (2012). *Upscaling and regionalizing hydraulic conductivity and effective porosity at watershed scale in deeply weathered crystalline aquifers.* Journal of Hydrology, 416, 83-97. doi: 10.1016/j.jhydrol.2011.11.038.

819.- CGWB.(2015). *Pilot Project Report on Aquifer Mapping in Lower Vellar Watershed, Cuddalore District, Tamil Nadu*. CGWB, South Eastern Coastal Region, Chennai.

820.- Kumar, P. S., Jegathambal, P., Nair, S., & James, E. J. (2015). *Temperature and pH dependent geochemical modeling of fluoride mobilization in the groundwater of a crystalline aquifer in southern India.* Journal of Geochemical Exploration, 156, 1-9. doi: 10.1016/j.gexplo.2015.04.008.

821.- Dewandel, B., Alazard, M., Lachassagne, P., Bailly-Comte, V., Couëffé, R., Grataloup, S., ... & Wyns, R. (2017). *Respective roles of the weathering profile and the tectonic fractures in the structure and functioning of crystalline thermo-mineral carbo-gaseous aquifers*. Journal of Hydrology, 547, 690-707. doi: 10.1016/j.jhydrol.2017.02.028.

822.- Cary, L., Pauwels, H., Ollivier, P., Picot, G., Leroy, P., Mougin, B., ... & Labille, J. (2015). *Evidence for TiO2 nanoparticle transfer in a hard-rock aquifer.* Journal of contaminant hydrology, 179, 148-159. doi: 10.1016/j.jconhyd.2015.06.007.

823.- Rodhe, A., & Bockgård, N. (2006). *Groundwater recharge in a hard rock aquifer: A conceptual model including surface-loading effects*. Journal of Hydrology, 330(3-4), 389-401. doi: 10.1016/j.jhydrol.2006.03.032.

824.- Aurelia, A., Silva, K. E., da Cunha Rebouças, A., Marlucia, M., & Santiago, F. (1989). *14 C analyses of groundwater from the Botucatu aquifer system in Brazil.* Radiocarbon, 31(3), 926-933. doi: 10.1017/S0033822200012546.

825.- Reboucas, A. D. C. (1976). *Recursos hídricos subterrâneos da bacia do Paraná: Análise de pré-viabilidade.* Doctoral dissertation, Universidade de São Paulo. doi: 10.11606/T.44.2014.tde-02062014-141431.

826.- Le Borgne, T., Bour, O., Paillet, F. L., & Caudal, J. P. (2006). *Assessment of preferential flow path connectivity and hydraulic properties at single-borehole and cross-borehole scales in a fractured aquifer.* Journal of Hydrology, 328(1-2), 347-359. doi: 10.1016/j.jhydrol.2005.12.029.

827.- De Silva, C. S., & Weatherhead, E. K. (1997). *Optimising the dimensions of agrowells in hard-rock aquifers in Sri Lanka*. Agricultural water management, 33(2-3), 117-126. doi: 10.1016/S0378-3774(96)01297-8.

828.- Pacheco, F. A., & Van der Weijden, C. H. (2012). *Integrating topography, hydrology and rock structure in weathering rate models of spring watersheds.* Journal of hydrology, 428, 32-50. doi: 10.1016/j.jhydrol.2012.01.019.

829.- Andersson, J. E., Ekman, L., Nordqvist, R., & Winberg, A. (1991). *Hydraulic testing and modelling of a low-angle fracture zone at Finnsjön, Sweden.* Journal of Hydrology, 126(1-2), 45-77. doi: 10.1016/0022-1694(91)90200-2.

830.- Pacheco, F. A., & Alencoão, A. M. (2006). *Role of fractures in weathering of solid rocks: narrowing the gap between laboratory and field weathering rates.* Journal of Hydrology, 316(1-4), 248-265. doi: 10.1016/j.jhydrol.2005.05.003.

831.- Von der Heyden, C. J., & New, M. G. (2004). *Groundwater pollution on the Zambian Copperbelt: deciphering the source and the risk.* Science of the Total Environment, 327(1-3), 17-30. doi: 10.1016/j.scitotenv.2003.08.028.

832.- Singh, R., Garg, K. K., Wani, S. P., Tewari, R. K., & Dhyani, S. K. (2014). *Impact of water management interventions on hydrology and ecosystem services in Garhkundar-Dabar watershed of Bundelkhand region, Central India.* Journal of Hydrology, 509, 132-149. doi: 10.1016/j.jhydrol.2013.11.030.

834.- Little, R., Muller, E., & Mackay, R. (1996). *Modelling of contaminant migration in a chalk aquifer*. Journal of hydrology, 175(1-4), 473-509. doi: 10.1016/S0022-1694(96)80021-7.

835.- Bloomfield, J. (1996). *Characterisation of hydrogeologically significant fracture distributions in the Chalk: an example from the Upper Chalk of southern England.* Journal of hydrology, 184(3-4), 355-379. doi: 10.1016/0022-1694(95)02954-0.

836.- D'Alessandro, M., Bidoglio, G., Mousty, F., Benito, J. V. S., & De Llano, A. Y. (1997). *Laboratory and in situ investigation of the isotopic ratio 79Br/81Br as a tracer of water migration in crystalline rocks*. Journal of Hydrology, 193(1-4), 351-362. doi: 10.1016/S0022-1694(96)03032-6.

837.- Gottschalk, I. P., Hermans, T., Knight, R., Caers, J., Cameron, D. A., Regnery, J., & McCray, J. E. (2017). *Integrating non-colocated well and geophysical data to capture subsurface heterogeneity at an aquifer recharge and recovery site.* Journal of Hydrology, 555, 407-419. doi: 10.1016/j.jhydrol.2017.10.028.

838.- Planer-Friedrich, B., Härtig, C., Lissner, H., Steinborn, J., Süß, E., Hassan, M. Q., ... & Merkel, B. (2012). *Organic carbon mobilization in a Bangladesh aquifer explained by seasonal monsoon-driven storativity changes*. Applied geochemistry, 27(12), 2324-2334. doi: 10.1016/j.apgeochem.2012.08.005.

839.- Medina, C. M. (2011). *Priorización de focos de contaminación de agua subterránea mediante una combinación de métodos tradicionales de protección y modelación numérica: acuífero del Valle de Tenancingo*. Doctoral dissertation, Master Thesis Universidad Autónoma del Estado de México.

840.- Shekhar, S. (2006). *An approximate projection of availability of the fresh groundwater resources in the South West district of NCT Delhi, India: a case study.* Hydrogeology Journal, 14(7), 1330-1338. doi: 10.1007/s10040-006-0049-9.

841.- Yustres, Á., Navarro, V., Asensio, L., Candel, M., & García, B. (2013). *Groundwater resources in the Upper Guadiana Basin (Spain): a regional modelling analysis*. Hydrogeology Journal, 21(5), 1129-1146. doi: 10.1007/s10040-013-0987-y.

842.- Maloszewski, P., Herrmann, A., & Zuber, A. (1999). *Interpretation of tracer tests performed in fractured rock of the Lange Bramke basin, Germany.* Hydrogeology Journal, 7(2), 209-218. doi:10.1007/s100400050193.

843.- Attard, G., Winiarski, T., Rossier, Y., & Eisenlohr, L. (2016). *Impact of underground structures on the flow of urban groundwater*. Hydrogeology Journal, 24(1), 5-19. doi: 10.1007/s10040-015-1317-3.

844.- Samper-Calvete, F. J., & García-Vera, M. A. (1998). *Inverse modeling of groundwater flow in the semiarid evaporitic closed basin of Los Monegros, Spain*. Hydrogeology Journal, 6(1), 33-49. doi: 10.1007/s100400050132.

845.- Wable, P. S., & Jha, M. K. (2018). *Application of Archimedean copulas to the impact assessment of hydro-climatic variables in semi-arid aquifers of western India*. Hydrogeology journal, 26(1), 89-108. doi: 10.1007/s10040-017-1636-7.

846.- Zechner, E., Konz, M., Younes, A., & Huggenberger, P. (2011). *Effects of tectonic structures, salt solution mining, and density-driven groundwater hydraulics on evaporite dissolution (Switzerland).* Hydrogeology Journal, 19(7), 1323-1334. doi: 10.1007/s10040-011-0759-5.

847.-Alkhatib, J., Engelhardt, I., Ribbe, L., & Sauter, M. (2019). *An integrated approach for choosing suitable pumping strategies for a semi-arid region in Jordan using a groundwater model coupled with analytical hierarchy techniques.* Hydrogeology Journal, 27(4), 1143-1157. doi: 10.1007/s10040-019-01925-0.

848.- Binet, S., Mudry, J., Bertrand, C., Guglielmi, Y., & Cova, R. (2006). *Estimation of quantitative descriptors of northeastern Mediterranean karst behavior: multiparametric study and local validation of the Siou-Blanc massif (Toulon, France)*. Hydrogeology Journal, 14(7), 1107-1121. doi: 10.1007/s10040-006-0044-1.

849.- Liesch, T., & Ohmer, M. (2016). *Comparison of GRACE data and groundwater levels for the assessment of groundwater depletion in Jordan*. Hydrogeology Journal, 24(6), 1547-1563. doi: 10.1007/s10040-016-1416-9.

850.- Neukum, C., Hötzl, H., & Himmelsbach, T. (2008). *Validation of vulnerability mapping methods by field investigations and numerical modelling.* Hydrogeology Journal, 16(4), 641-658. doi: 10.1007/s10040-007-0249-y.

851.- WRIS. (2016). *Water Resources Information System.* http://www.indiawris.nrsc.gov.in/wrpinfo/index.php?title=Main_Page.

852.- Bertleff, B., & Watzel, R. (2002). *Tiefe Aquifersysteme im südwestdeutschen Molassebecken: Eine umfassende hydrogeologische Analyse als Grundlage eines zukünftigen Quantitäts-und Qualitätsmanagements*. Abh. Landesamt Geol. Rohstoffe Bergbau Baden Wuerttemberg, 15, 75-90.

853.- Rühaak, W., Rath, V., & Clauser, C. (2010). *Detecting thermal anomalies within the Molasse Basin, southern Germany.* Hydrogeology Journal, 18(8), 1897-1915.

854.- Ravenscroft, P., Burgess, W. G., Ahmed, K. M., Burren, M., & Perrin, J. (2005). *Arsenic in groundwater of the Bengal Basin, Bangladesh: Distribution, field relations, and hydrogeological setting*. Hydrogeology Journal, 13(5-6), 727-751.

855.- Panagopoulos, G. P., Antonakos, A. K., & Lambrakis, N. J. (2006). *Optimization of the DRASTIC method for groundwater vulnerability assessment via the use of simple statistical methods and GIS*. Hydrogeology Journal, 14(6), 894-911. doi: 10.1007/s10040-005-0008-x.

856.- Urrutia, J., Jódar, J., Medina, A., Herrera, C., Chong, G., Urqueta, H., & Luque, J. A. (2018). *Hydrogeology and sustainable future groundwater abstraction from the Agua Verde aquifer in the Atacama Desert, northern Chile.* Hydrogeology Journal, 26(6), 1989-2007. doi: 10.1007/s10040-018-1740-3.

857.- Vargas, C., & Ortega-Guerrero, A. (2004). *Fracture hydraulic conductivity in the Mexico City clayey aquitard: Field piezometer rising-head tests.* Hydrogeology Journal, 12(3), 336-344. doi:10.1007/s10040-003-0302-4.

858.- Vandenbohede, A., Van Houtte, E., & Lebbe, L. (2008). *Groundwater flow in the vicinity of two artificial recharge ponds in the Belgian coastal dunes.* Hydrogeology journal, 16(8), 1669-1681. doi: 10.1007/s10040-008-0326-x.

859.- Yee, W. K., Chua, H. C. L., Lo, Y. M. E., Tay, J. H., Koe, C. C. L., & Robertson, P. A. (2004, July). *Use of fluorescein as a groundwater tracer in drift and pumpback test.* In 2nd Conference of the Asia Pacific Association for Hydrology and Water Resources, Singapore 5-9.

860.- Sanz, D., Castaño, S., Cassiraga, E., Sahuquillo, A., Gómez-Alday, J. J., Peña, S., & Calera, A. (2011). M*odeling aquifer–river interactions under the influence of groundwater abstraction in the Mancha Oriental System (SE Spain)*. Hydrogeology Journal, 19(2), 475-487. doi: 10.1007/s10040-010-0694-x.

861.- Freethey, G. W., & Cordy, G. E. (1991). *Geohydrology of Mesozoic rocks in the Upper Colorado River Basin in Arizona, Colorado, New Mexico, Utah, and Wyoming, excluding the San Juan Basin*. US Government Printing Office. 1411-c,1-118.

862.- Feseker, T. (2007). *Numerical studies on saltwater intrusion in a coastal aquifer in northwestern Germany.* Hydrogeology Journal, 15(2), 267-279. doi: 10.1007/s10040-006-0151-z.

863.- Yin, L., Hu, G., Huang, J., Wen, D., Dong, J., Wang, X., & Li, H. (2011). *Groundwater-recharge estimation in the Ordos Plateau, China: comparison of methods*. Hydrogeology Journal, 19(8), 1563-1575. doi: 10.1007/s10040-011-0777-3.

864.- Zhang, J., Wang, W., Wang, X., Yin, L., Zhu, L., Sun, F., ... & Love, A. J. (2019). *Seasonal variation in the precipitation recharge coefficient for the Ordos Plateau, Northwest China*. Hydrogeology journal, 27(2), 801-813. doi: 10.1007/s10040-018-1891-2.

865.-Subrahmanyam, K., & Yadaiah, P. (2001). *Assessment of the impact of industrial effluents on water quality in Patancheru and environs, Medak district, Andhra Pradesh, India.* Hydrogeology Journal, 9(3), 297-312. doi: 10.1007/s100400000120.

866.- Mayer, A., Nguyen, B. T., & Banton, O. (2016). *Using radon-222 to study coastal groundwater/surface-water interaction in the Crau coastal aquifer (southeastern France).* Hydrogeology Journal, 24(7), 1775-1789. doi: 10.1007/s10040-016-1424-9.

867.- Wu, Y., & Hunkeler, D. (2017). *Sedimentary roles on hyporheic exchange in karst conduits at low Reynolds numbers by laboratory experiments.* Hydrogeology Journal, 25(3), 787-798. doi: 10.1007/s10040-016-1531-7.

868.- Perrin, J., & Luetscher, M. (2008). *Inference of the structure of karst conduits using quantitative tracer tests and geological information: example of the Swiss Jura.* Hydrogeology Journal, 16(5), 951-967. doi: 10.1007/s10040-008-0281-6.

869.- Sheldon, H. A., Schaubs, P. M., Rachakonda, P. K., Trefry, M. G., Reid, L. B., Lester, D. R., ... & Regenauer-Lieb, K. (2015). *Groundwater cooling of a supercomputer in Perth, Western Australia: hydrogeological simulations and thermal sustainability.* Hydrogeology journal, 23(8), 1831-1849. doi: 10.1007/s10040-015-1280-z.

870.- Andreo, B., Ravbar, N., & Vías, J. M. (2009). *Source vulnerability mapping in carbonate (karst) aquifers by extension of the COP method: application to pilot sites.* Hydrogeology Journal, 17(3), 749-758. doi: 10.1007/s10040-008-0391-1.

871.- McGurk, B. E., & Presley, P. F. (2002). *Simulation of the effects of groundwater withdrawals on the Floridan aquifer system in east-central Florida: model expansion and revision.* St. Johns River Water Management District.

872.- Burgeap. (1995). *Etat de référence des eaux souterraines et proposition de suivi des impacts, Confluence Rhône/Durance-Bonpas [Groundwater status and proposal of monitoring of impacts, water meet of Rhone/Durance-Bonpas].* Report R/Av. 422 A:422-C795.22.

873.- Garnier, J. (1987). P*ropagation des pollutions accidentelles et protection des ouvrages de captage en nappe alluviale [Propagation of accidental pollution and protection of well fields in an alluvial aquifer].* BRGM report 87-SGN-839-PAC, BRGM, Orléans, France, 58 pp.

874.- Brouyère, S., Carabin, G., & Dassargues, A. (2004). *Climate change impacts on groundwater resources: modelled deficits in a chalky aquifer, Geer basin, Belgium.* Hydrogeology Journal, 12(2), 123-134. doi: 10.1007/s10040-003-0293-1.

875.- Qahman, K., & Larabi, A. (2006). *Evaluation and numerical modeling of seawater intrusion in the Gaza aquifer (Palestine)*. Hydrogeology Journal, 14(5), 713-728.doi: 10.1007/s10040-005-003-2.

876.- Yang, Z., Zhou, Y., Wenninger, J., Uhlenbrook, S., Wang, X., & Wan, L. (2017). *Groundwater and surface-water interactions and impacts of human activities in the Hailiutu*

catchment, northwest China. Hydrogeology Journal, 25(5), 1341-1355. doi.10.1007/s10040-017-1541-0.

877.- Vives, L., Varni, M., & Usunoff, E. (2005). *Behavior of the fresh-and saline-water phases in an urban area in Western Buenos Aires Province, Argentina.* Hydrogeology Journal, 13(2), 426-435. doi: 10.1007/s10040-004-0398-1.

878.- Bartlett, T. W., Smith, J. W. N., & Hardisty, P. E. (2014). *Quantifying the loss of available groundwater resource associated with point-source contamination in unused aquifers.* Hydrogeology journal, 22(4), 749-759. doi: 10.1007/s10040-014-1114-4.

879.- Ahmed, A. A. (2009). *Using lithologic modeling techniques for aquifer characterization and groundwater flow modeling of the Sohag area, Egypt.* Hydrogeology journal, 17(5), 1189-1201. doi: 10.1007/s10040-009-0461-z.

880.- Lin, J., Ma, R., Hu, Y., Sun, Z., Wang, Y., & McCarter, C. P. (2018). *Groundwater sustainability and groundwater/surface-water interaction in arid Dunhuang Basin, northwest China.* Hydrogeology Journal, 26(5), 1559-1572. doi: 10.1007/s10040-018-1743-0.

881.- Marine, I. W. (1981). *Comparison of laboratory, in situ, and rock mass measurements of the hydraulic conductivity of metamorphic rock at the Savannah River Plant near Aiken, South Carolina.* Water Resources Research, 17(3), 637-640. doi: 10.1029/WR017i003p00637.

882.- Barrocu, G. (2007). *Hydrogeology of granite rocks in Sardinia.* In: Groundwater in fractured rocks: IAH selected paper series (Vol. 9). CRC Press, 9.

883.-Masset, O., & Loew, S. (2010). *Hydraulic conductivity distribution in crystalline rocks, derived from inflows to tunnels and galleries in the Central Alps, Switzerland.* Hydrogeology Journal, 18(4), 863-891.

884.Ferris, D.M., Potter, G. & Ferguson, G. (2020). *Characterization of the hydraulic conductivity of glacial till aquitards.* Hydrogeol J. doi: 10.1007/s10040-020-02161-7.

885.- Keller, C.K. van der Kamp, G. & Cherry, J.A. (1988). *Hydrogeology of two Saskatchewan tills: I fractures, bulk permeability, and spatial variability of downward flow*. J Hydrol 101:97–121. https://doi.org/10. 1016/0022-1694(88)90030-3.

886.-Boldt-Leppin, BEJ., & Jim, H.M. (2003). Application of harmonic analysis of water levels to determine vertical hydraulic conductivities in clayrich aquitards. Ground Water 41:514–522. https://doi.org/10.1111/j. 1745-6584.2003.tb02385.x

887.- Shaw, R.J. (1997). *Hydrogeology of a thick clay-rich till and Cretaceous bedrock clay sequence in Saskatchewan*. University of Saskatchewan, Saskatoon, SK

888.- Kelln, C. (2001). *Determination of detailed stable isotope profiles and hydrogeological conditions in a complex clay-rich aquitard, Saskatchewan*. University of Saskatchewan, Saskatoon, SK

889.- Remenda, V. van der Kamp, G. & Cherry, J. (1996). *Use of vertical profiles of δ18O to constrain estimates of hydraulic conductivity in a thick, unfractured aquitard*. Water Resour Res 32:2979–2987. https://doi. org/10.1029/96WR01778

890.-Rasmuson, A., & Neretnieks, I. (1986). *Radionuclide transport in fast channels in crystalline rock.* Water Resources Research, 22(8), 1247-1256.

891.- Katsube, T. J., & Hume, J. P. (1987). *Permeability determination in crystalline rocks by standard geophysical logs*. Geophysics, 52(3), 342-352.

892.- Katsube, T. J., & Kamineni, D. C. (1983). *Effect of alteration on pore structure of crystalline rocks; core samples from Atikokan, Ontario.* The Canadian Mineralogist, 21(4), 637-646.

893.- Zhao, J. (1998). *Rock mass hydraulic conductivity of the Bukit Timah granite, Singapore*. Engineering geology, 50(1-2), 211-216.

894.- Gentzschein, B., & Tullborg, E. L. (1985). *The Taavinunnanen gabbro massif. A compilation of results from geological, geophysical and hydrogeological investigations* (No. SKB-TR--85-02). Swedish Nuclear Fuel and Waste Management Co.

895.- AS, G., & WASTE, A. N. (1992). Kaj Ahlbomfl Bengt Leijonfl Magnus Liedholmfi John Smelliel.

896.- Bottomley, D. J., Gascoyne, M., & Kamineni, D. C. (1990). *The geochemistry, age, and origin of groundwater in a mafic pluton, East Bull Lake, Ontario, Canada.* Geochimica et Cosmochimica Acta, 54(4), 993-1008.

897.- Manning, C. E., & Ingebritsen, S. E. (1999). *Permeability of the continental crust: Implications of geothermal data and metamorphic systems.* Reviews of Geophysics, 37(1), 127-150.

898.-Johnson, C. D. (1999, March). *Effects of lithology and fracture characteristics on hydraulic properties in crystalline rock: Mirror Lake Research Site, Grafton County, New Hampshire*. In US Geological Survey Toxic Substances Hydrology Program, Proceedings of the Technical Meeting, US Geological Survey Water-Resources Investigations (pp. 795-802).

899.- Belcher, W. R., Sweetkind, D. S., & Elliott, P. E. (2002). *Probability distributions of hydraulic conductivity for the hydrogeologic units of the Death Valley regional ground-water flow system, Nevada and California.* Water Resour. Investig. Rep, 2, 4212.

900.- Koch, M., Schubnel, A., Birk, S., & Winkler, G. (2011). *Architecture and hydraulic properties of a brittle fault core zone-example from the Semmering area (Austria)*.

901.- Marine, I. W. (1979). *Geohydrologic investigations of buried metamorphic rock and mudstone for the storage of radioactive waste* (No. DP-MS-79-13; CONF-790320-1). Du Pont de Nemours (EI) and Co., Aiken, SC (USA). Savannah River Lab.

902.- Zucchi, M., Brogi, A., Liotta, D., Rimondi, V., Ruggieri, G., Montegrossi, G., & Dini, A. (2017). *Permeability and hydraulic conductivity of faulted micaschist in the eastern Elba Island exhumed geothermal system (Tyrrhenian sea, Italy): insights from Cala Stagnone.* Geothermics, 70, 125-145. doi: 10.1016/j.geothermics.2017.05.007

903.- Bickle, M. J., & Baker, J. (1990). *Advective-diffusive transport of isotopic fronts: an example from Naxos, Greece.* Earth and Planetary Science Letters, 97(1-2), 78-93. doi:10.1016/0012-821X(90)90100-C.

904.- Voutilainen, M., Miettinen, A., Sardini, P., Parkkonen, J., Sammaljärvi, J., Gylling, B.,& Siitari-Kauppi, M. (2019). *Characterization of spatial porosity and mineral distribution of crystalline rock using X-ray micro computed tomography, C-14-PMMA autoradiography and scanning electron microscopy*. Applied geochemistry, 101, 50-61. doi: 0.1016/j.apgeochem.2018.12.024.

905.- Sardini, P., Siitari-Kauppi, M., Beaufort, D., & Hellmuth, K. H. (2006). *On the connected porosity of mineral aggregates in crystalline rocks*. American Mineralogist, 91(7), 1069-1080. doi: 10.2138/am.2006.1939.

906.- Lu, C., & Jackson, I. (1998). *Seismic-frequency laboratory measurements of shear mode viscoelasticity in crustal rocks II: thermally stressed quartzite and granite.* In Q of the Earth: Global, Regional, and Laboratory Studies (pp. 441-473). Birkhäuser, Basel. doi: 10.1007/978-3-0348-8711-3_10.

907.- Brace, N. F., Voegle, M., & Pratt, H. (1982). *Porosity, permeability, and their Relationship in Granite. Basalt, and Tuff. ONWI/E512-02900/TR-10, report prepared for Office of Nuclear Waste Isolation*. Battelle Memorial Institute, Columbus, OH, October.

908.- Kushnir, A. R., Heap, M. J., Baud, P., Gilg, H. A., Reuschlé, T., Lerouge, C. & Duringer, P. (2018). *Characterizing the physical properties of rocks from the Paleozoic to Permo-Triassic transition in the Upper Rhine Graben.* Geothermal Energy, 6(1), 16.

909.- Loo, W. W., Arnett, R. C., Leonhart, L. S., Luttrell, S. P., Wang, I. S., & McSpadden, W. R. (1984). *Effective porosities of basalt: A technical basis for values and probability distributions used in preliminary performance assessments.* (No. RHO-BWI-TI--254). Rockwell International Corp.