References

- A.K.Ghosh . S.K..Singh , Nupur Bose , S. Chaudhary, Arsenic contaminated aquifers: a study of the Ganga levee zones in Bihar, India, Annual Conference 2007, Royal Geographical Society, London, 29-31 August, 2007.
- Abell, A. B., Willis, K. L., & Lange, D. A. (1999). Mercury intrusion porosimetry and image analysis of cement-based materials. Journal of colloid and interface science, 211(1), 39-44.
- Abhinav A, Navin S, Kumar A, Kumar R, Ali M, et al. (2016) Prevalence of High Arsenic Concentration in Darbhanga District of Bihar: Health Assessment. J Environ Anal Toxicol 6:410. doi: 10.4172/2161-0525.1000410.
- Acchar, W., Vieira, F. A., & Hotza, D. (2006). Effect of marble and granite sludge in clay materials. *Materials Science and Engineering: A*, 419(1-2), 306-309.
- Adolph, E.F., (1947), *Physiology of Man in the Desert*, New York, Interscience Publishing, United Nations General Assembly, 1947.
- Afendi, M., and Teramoto, T., (2008), "Three-Point Bending Fracture Test of Epoxy Adhesive-Bonded Dissimilar Materials", Conference Proceeding of Kanto Branch, The Japan Society of Mechanical Engineers, pp. 369-370, 2008.
- Agarwal, A., (1981), Mud, Mud: The Potential of Earth-Based Materials for Third World Housing, London: Earthscan, 1981.
- Aggarwal, G. C., and Singh, N. T., (1984), "Energy and Economic Returns from Cattle Dung as Manure and Fuel", Energy, Vol. 9, No.1, pp.87-90, 1984.
- Agrafioti, E., Kalderis, D., & Diamadopoulos, E. (2014). Arsenic and chromium removal from water using biochars derived from rice husk, organic solid wastes and sewage sludge. *Journal of environmental management*, 133, 309-314.
- Agrawal, A. K., Singh, B., Kashyap, Y. S., Shukla, M., Sarkar, P. S., & Sinha, A. (2015). Design, development and first experiments on the X-ray imaging beamline at Indus-2 synchrotron source RRCAT, India. *Journal of synchrotron radiation*, 22(6), 1531-1539.
- Agrawal, D. P., (2007), *The Indus Civilization: An Interdisciplinary Perspective*, Aryan Books International, New Delhi, India, 2007.
- Aharinejad, S. H., and Lametschwandtner, A., (1992), Fundamentals of Scanning Electron Microscopy, In: Microvascular Corrosion Casting in Scanning Electron Microscopy, Springer Vienna, pp. 44-51, 1992
- Ahmed, M. F. (2001, May). An overview of arsenic removal technologies in Bangladesh and India. In *Proceedings of BUET-UNU international workshop on technologies for arsenic removal from drinking water, Dhaka* (pp. 5-7).
- Aimiuwu, V. O., (1992), "Evaporative Cooling of Water in Hot Arid Regions", Energy Conversion and Management, Vol.33, No.1, pp.69-74, 1992.
- Alexandratos, V. G., Elzinga, E. J., & Reeder, R. J. (2007). Arsenate uptake by calcite: macroscopic and spectroscopic characterization of adsorption and incorporation mechanisms. Geochimica et Cosmochimica Acta, 71(17), 4172-4187.
- Alexopoulos, E. C., (2010), "Introduction to Multivariate Regression Analysis", *Hippokratia*, Vol.14 (Suppl. 1), No.23, 2010.
- Alfredo H-S Ang and Wilson H. Tang, (1975) Probability concepts in engineering planning and design, John Wiley and Sons Inc. New York, pp 409.
- Ali, A., Ahmed, A., & Gad, A. (2017). Chemical and microstructural analyses for heavy metals removal from water media by ceramic membrane filtration. *Water Science and Technology*, 75(2), 439-450.
- Al-Khawaja, M. J., (2004), "Determination and Selecting the Optimum Thickness of Insulation for Buildings in Hot Countries by Accounting for Solar Radiation", *Applied Thermal Engineering*, Vol.24, No.17, pp.2601-2610, 2004.
- Allwood, J. M., Ashby, M. F., Gutowski, T. G., and Worrell, E., (2011), "Material Efficiency: A White Paper", *Resources, Conservation and Recycling*, Vol.55, No.3, pp.362-381, 2011.
- Altundoğan, H. S., Altundoğan, S., TuÈmen, F., & Bildik, M. (2000). Arsenic removal from aqueous solutions by adsorption on red mud. *Waste Management*, 20(8), 761-767.
- Amarasinghe, U., Shah, T., Turral, H., & Anand, B. K. (2007). *India's water future to 2025-2050: Business-as-usual scenario and deviations* (Vol. 123). IWMI.
- Anderson, M. A., Ferguson, J. F., & Gavis, J. (1976). Arsenate adsorption on amorphous aluminum hydroxide. *Journal of Colloid and Interface Science*, 54(3), 391-399.

- Ang, A. H. S., and Tang, W. H., (2007), *Probability Concepts in Engineering, Planning and Design*, Vol.1, John Wiley and Sons, New York, 2007.
- Annamalai, G. R., Ravisankar, R., Naseerutheen, A., Chandrasekaran, A., and Rajan, K., (2014), "Application of Various Spectroscopic Techniques to Characterize the Archaeological Pottery Excavated from Manaveli, Puducherry, India", Optik-International Journal for Light and Electron Optics, Vol.125, No.21, pp.6375-6378, 2014.
- Annan, E., Kan-Dapaah, K., Azeko, S. T., Mustapha, K., Asare, J., Zebaze Kana, M. G., & Soboyejo, W. (2016). Clay Mixtures and the Mechanical Properties of Microporous and Nanoporous Ceramic Water Filters. *Journal of Materials in Civil Engineering*, 28(10), 04016105.
- Annan, E., Mustapha, K., Odusanya, O. S., Malatesta, K., & Soboyejo, W. O. (2014). Statistics of flow and the scaling of ceramic water filters. Journal of Environmental Engineering, 140(11), 04014039.
- Annepu, R. K., (2012), Sustainable Solid Waste Management in India, Master Thesis, Columbia University, New York, 2012.
- Archer, A. R., Elmore, A. C., Bell, E., & Rozycki, C. (2011). Field investigation of arsenic in ceramic pot filter-treated drinking water. *Water Science and Technology*, 63(10), 2193-2198.
- Arencón, D., and Velasco, J. I., (2009), "Fracture Toughness of Polypropylene-Based Particulate Composites", *Materials*, Vol.2, No.4, pp.2046-2094, 2009.
- Arnold, D. E., (1999), Ceramic Theory and Cultural Process, Cambridge: Cambridge University Press, Cambridge, 1999.
- Arsene, M. A., Bilba, K., Soboyejo, A. B. O., and Soboyejo, W. O., (2005), "Influence of Chemical and Thermal Treatments on Tensile Strength of Fibers from Sugar Cane Bagasse and Banana Tree Trunk" In *Inter-American Conference on Non-Conventional Materials and Technologies in Ecological and Sustainable Construction (IACNOCMAT)*, Rio de Janerio, Brazil, 11-15 November, 2005.
- Arsène, M. A., Savastano Jr, H., Allameh, S. M., Ghavami, K., & Soboyejo, W. O. (2003, November). Cementitious composites reinforced with vegetable fibers. In Anais da 1st INTER AMERICAN CONFERENCE ON NONCONVENTIONAL MATERIALS AND TECHNOLOGIES IN THE ECOCONSTRUCTION AND INFRASTRUCTURE. João Pessoa-PB.
- Ashby, M. F., (2006), *Materials Selection in Mechanical Design*, Third Edition, Elsevier Butterworth Heinemann, Boston, 2006.
- Ashby, M. F., and Cebon, D., (2007), *Teaching Engineering Materials: The CES Edu Pack*, Engineering Department, Cambridge University, 1-13, 2007.
- Ashby, M. F., and Jones, D.R.H., (1998), Engineering Materials 2: An Introduction to Microstructures, Processing and Design, Second Edition, Butterworth-Heinemann, Boston, 1998.
- Ashby, M. F., Easterling, K. E., Harrysson, R., & Maiti, S. K. (1985). The fracture and toughness of woods. Proc. R. Soc. Lond. A, 398(1815), 261-280.
- ASTM C242-01, (2007), Standard Terminology of Ceramic Whitewares and Related Products", ASTM International, 2007.
- ASTM C99/C99M-15, (2015), Standard Test Method for Modulus of Rupture of Dimension Stone, American Society for Testing and Materials, USA, 2015.
- ASTM E399, (2012), Standard Test Method for Linear-Elastic Plane-Strain, Fracture Toughness K_{Ic} of Metallic Materials, ASTM International, USA, 2012.
- AWC, (2009), Perspectives on Water and Climate Change Adaptation, Vulnerability of Arid and Semi-Arid Regions to Climate Change-Impacts and Adaptive Strategies, Paper 9, The Arab Water Council, 2009.
- Azeko, S. T., Mustapha, K., Annan, E., Odusanya, O. S., and Soboyejo, W. O., (2015a), "Recycling of Polyethylene into Strong and Tough Earth-Based Composite Building Materials", *Journal of Materials in Civil Engineering*, Vol.28, No.2, pp.04015104, 2015.
- Azeko, S. T., Mustapha, K., Annan, E., Odusanya, O. S., Soboyejo, A. B., & Soboyejo, W. O. (2015). Statistical distributions of the strength and fracture toughness of recycled polyethylene-reinforced laterite composites. Journal of Materials in Civil Engineering, 28(3), 04015146.
- Aziz, H. A., & Smith, P. G. (1992). The influence of pH and coarse media on manganese precipitation from water. *Water Research*, 26(6), 853-855.
- Aziz, H. A., Adlan, M. N., & Ariffin, K. S. (2008). Heavy metals (Cd, Pb, Zn, Ni, Cu and Cr (III)) removal from water in Malaysia: post treatment by high quality limestone. *Bioresource technology*, 99(6), 1578-1583.
- Babel, S., & Kurniawan, T. A. (2003). Low-cost adsorbents for heavy metals uptake from contaminated water: a review. Journal of hazardous materials, 97(1-3), 219-243.
- Bahobail, M. A., (2012), "The Mud Additives and Their Effect on Thermal Conductivity of Adobe Bricks", *Journal of Engineering Sciences*, Vol. 40, No 1, pp.21-34, 2012.

- Baig, S. A., Mahmood, Q., Nawab, B., Shafqat, M. N., & Pervez, A. (2011). Improvement of drinking water quality by using plant biomass through household biosand filter–A decentralized approach. Ecological Engineering, 37(11), 1842-1848.
- Bailey, S. E., Olin, T. J., Bricka, R. M., & Adrian, D. D. (1999). A review of potentially low-cost sorbents for heavy metals. Water research, 33(11), 2469-2479.
- Bandyopadhyay, S. (2016). Sustainable Access to Treated Drinking Water in Rural India. In *Rural Water Systems for Multiple Uses and Livelihood Security* (pp. 203-227).
- Banerji, R., (2016), "Cultivating Rural Technology for Development", Press Information Bureau, Government of India, www.pib.nic.in/newsite/printrelease.aspx?relid=155839; 26 December 2016
- Barsoum, M., (2003), Fundamentals of Ceramics, Taylor and Francis, NY, USA, 2003.
- Bartelink, E. J., Wiersema, J. M., and Demaree, R. S., (2001), "Quantitative Analysis of Sharp-Force Trauma: An Application of Scanning Electron Microscopy in Forensic Anthropology", *Journal of Forensic Science*, Vol.46, No.6, pp.1288-1293, 2001.
- Baumgartner, J., Murcott, S., and Ezzati, M., (2007), Reconsidering 'Appropriate Technology': The Effects of Operating Conditions on the Bacterial Removal Performance of Two Household Drinking-Water Filter Systems, *Environmental Research Letters*, Vol.2, No.2, pp.024003, 2007.
- BBC Earth 2016, Deadly Oasis In The Sahara Desert Africa, Published by BBC Earth 2016 on April 20, 2016, Accessed on January 2017, BBChttps://www.youtube.com/watch?v=lPWEKUQLb9Y.
- Bell, F. G., (1983), Engineering Properties of Soils and Rocks, Butterworths, London, 1983.
- Bentur, A., and Mindess, S., (2007), *Fibre Reinforced Cementitious Composites*, Modern Concrete Technology Series, Taylor and Francis, NY, pp.595, 2007.
- Benture, A., (1989), Fiber Reinforced Cementitious Materials, Material Science of Concrete, Waterville: The American Ceramics Society, 223-284, 1989.
- Bentz, D. P. (2006). Modeling the influence of limestone filler on cement hydration using CEMHYD3D. Cement and Concrete Composites, 28(2), 124-129.
- Berodier, E., Bizzozero, J., & Muller, A. C. (2016). *Mercury intrusion porosimetry* (pp. 419-442). CRC Press: Boca Raton.
- Berry, J., Fischer G., and Guiteras R., (2012), "Eliciting and Utilizing Willingness to Pay: Evidence from Field Trials in Northern Ghana", 2012.
- Bertelli, G., Camino, G., Marchetti, E., Costa, L., Casorati, E., and Locatelli, R., (1989), "Parameters Affecting Fire Retardant Effectiveness in Intumescent Systems", *Polymer Degradation and Stability*, Vol.25, No.2-4, pp.277-292, 1989.
- Bhalerao, K., Shen, W., Soboyejo, A. B. O., Soboyejo, W. O., (2003), "A Probabilistic Multiparameter Framework for the Modeling of Fatigue Crack Growth in Concrete", *Cement and Concrete Composites*, Vol.25, Vol.6, pp.607–615, 2003.
- Bhalothia, M., Agrawal, S., Soni, A., Baroliya, P. K., & Goswami, A. K. (2015). Application of Marble Slurry a Low Cost Waste Material for the Removal of Co (II) Ions from Synthetic Aqueous Solutions. *Chemistry & Biology Interface*,5(6).
- Bhowmick S, Chakraborty S, Mondal P, et al. (2014) Montmorillonite-supported nanoscale zerovalent iron for removal of arsenic from aqueous solution: Kinetics and mechanism. Chemical Engineering Journal 243: 14–23.
- Bibi, S., Farooqi, A., Hussain, K., & Haider, N. (2015). Evaluation of industrial based adsorbents for simultaneous removal of arsenic and fluoride from drinking water. *Journal of cleaner production*, 87, 882-896.
- Bielefeldt, A. R., Kowalski, K., and Summers, R. S., (2009), "Bacterial Treatment Effectiveness of Point-of-Use Ceramic Water Filters", *Water Research*, Vol.43, No.14, pp.3559-3565, 2009.
- Bigas, H., Adeel, Z., and Schuster, B., (2009), What Makes Traditional Technologies Tick? Seeing Traditional Technologies in a New Light, Using Traditional Approaches for Water Management in Drylands, The United Nations Educational, Scientific and Cultural Organization, Paris, France, 2009.
- Binici, H., Aksogan, O., and Shah, T., (2005), "Investigation of Fibre Reinforced Mud Brick as A Building Material", *Construction and Building Materials*, Vol.19, No.4, pp.313-318, 2005.
- Binici, H., Aksogan, O., Bodur, M. N., Akca, E., and Kapur, S., (2007), "Thermal Isolation and Mechanical Properties of Fibre Reinforced Mud Bricks as Wall Materials", Construction and Building Materials, Vol.21, No.4, pp.901-906, 2007.
- Bissen, M., & Frimmel, F. H. (2003). Arsenic a review. Part II: oxidation of arsenic and its removal in water treatment. *CLEAN–Soil, Air, Water*, 31(2), 97-107.
- Bjorvatn, K., Reimann, C., Østvold, S. H., Tekle-Haimanot, R., Melaku, Z., and Siewers, U, (2003), "High-Fluoride Drinking Water, A Health Problem in The Ethiopian Rift Valley 1, Assessment of Lateritic Soils as Defluoridating Agents", *Oral health & preventive dentistry*, Vol.1, No.2, 2003.

- Blondet, M., and Garcia, G. V., (2004), Earthquake Resistant Earthen Buildings, *In Proceedings of 13th World Conference on Earthquake Engineering*, Vancouver, B.C. Canada, 1-6 August 2004.
- Boccaccini, A. R. (1998). Influence of stress concentrations on the mechanical property–porosity correlation in porous materials. Journal of Materials Science Letters, 17(15), 1273-1275.
- Borie, B. (1965). X-Ray Diffraction in Crystals, Imperfect Crystals, and Amorphous Bodies. *Journal of the American Chemical Society*, 87(1), 140-141.
- Bothe, J. V., & Brown, P. W. (1999). Arsenic immobilization by calcium arsenate formation. Environmental Science & Technology, 33(21), 3806-3811.
- Boulos, L., Prevost, M., Barbeau, B., Coallier, J., & Desjardins, R. (1999). LIVE/DEAD® BacLight™: application of a new rapid staining method for direct enumeration of viable and total bacteria in drinking water. Journal of microbiological Methods, 37(1), 77-86.
- Bowell, R. J. (1994). Sorption of arsenic by iron oxides and oxyhydroxides in soils. Applied geochemistry, 9(3), 279-286.
- Bower, T., Jefferson, A., Cleall, P., and Lyons, P., (2016), "A Micro-Mechanics Based Soil-Fibre Composite Model for Use with Finite Element Analysis", In *Proceedings of the 24th UK Conference of the Association for Computational Mechanics in Engineering*, Cardiff University, Cardiff, 31 March–01 April, 2016.
- Brick, T., Primrose, B., Chandrasekhar, R., Roy, S., Muliyil, J., and Kang, G., (2004), "Water Contamination in Urban South India: Household Storage Practices and Their Implications for Water Safety and Enteric Infections", *International Journal of Hygiene and Environmental Health*, Vol.207, No.5, pp.473-480, 2004.
- Brown, J. M., Proum, S., and Sobsey, M. D., (2008), "Escherichia Coli in Household Drinking Water and Diarrheal Disease Risk: Evidence from Cambodia", *Water Science and Technology*, Vol.58, No.4, pp.757-763, 2008.
- Brown, J., & Sobsey, M. D. (2009). Ceramic media amended with metal oxide for the capture of viruses in drinking water. Environmental technology, 30(4), 379-391.
- Brown, J., and Sobsey, M., (2006), Independent Appraisal of Ceramic Water Filtration Interventions in Cambodia, Final Report Submitted to UNICEF, Department of Environmental Sciences and Engineering, University of North Carolina of Public Health, 2006.
- Brown, J., Proum, S., & Sobsey, M. D. (2009). Sustained use of a household-scale water filtration device in rural Cambodia. *Journal of water and health*, 7(3), 404-412.
- Brown, J., Sobsey, M., Proum, S., (2007), "Use of Ceramic Water Filters in Cambodia" www.unicef.org/eapro/WSP_UNICEF_FN_CWP_Final.pdf; 05 June 2007.
- Brunhes, J., (1920), Human Geography, Chicago: Rand McNally, pp. 74, 1920.
- Burrows, W. D., & Renner, S. E. (1999). Biological warfare agents as threats to potable water. Environmental health perspectives, 107(12), 975.
- Buys, S., & Oakley, V. (2014). Conservation and restoration of ceramics. Routledge.
- C.T. Haan (1994), Statistical Methods in Hydrology, The Iowa State University Press, Ames, Iowa, (1994) 378.
- Cambell, F. C. (2010), Structural Composite Materials, ASM International, USA, 2010.
- Carlson, C., Hussain, S. M., Schrand, A. M., K. Braydich-Stolle, L., Hess, K. L., Jones, R. L., & Schlager, J. J. (2008). Unique cellular interaction of silver nanoparticles: size-dependent generation of reactive oxygen species. The journal of physical chemistry B, 112(43), 13608-13619.
- Carroll, D., & Starkey, H. C. (1971). Reactivity of clay minerals with acids and alkalies. Clays and Clay Minerals, 19(5), 321-333.
- Carty, W. M., & Lednor, P. W. (1996). Monolithic ceramics and heterogeneous catalysts: honeycombs and foams. Current Opinion in Solid State and Materials Science, 1(1), 88-95.
- Castro, L., Blázquez, M. L., González, F., Muñoz, J. A., & Ballester, A. (2018). Heavy metal adsorption using biogenic iron compounds. *Hydrometallurgy*.
- CES Edupack, (2016), User Manual and Getting Started Guide, Granta Design Limited, UK, 2016.
- CGWB, (2008), Ground Water Scenario-Barmer District Rajasthan, Ministry of Water Resource, Government of India, New Delhi, India, pp.9–11, 2011.
- CGWB, (2011), Select Case Studies Rain Harvesting and Artificial Recharge, Central Ground Water Board, Ministry of Water Resources, New Delhi, India, pp.9–11, 2011.
- Chamis, C. C. (1972), Design Properties of Randomly Reinforced Fiber Composites, Report No. E-6569, NASA TN D-6696, 27, 1972.
- Chanap, R., (2012), Study of Mechanical and Flexural Properties of Coconut Shell Ash Reinforced Epoxy Composites, Graduate Thesis, NIT Rourkela, India, 2012.
- Chandramouli, C., (2011), Census of India 2011, Provisional Population Totals, New Delhi, Government of India, 2011.

- Charles, G. M., (2009), Cow-powered Farm: Exploring the Possibilities of Anaerobic Digesters, Extension Bulletin E-3080, September 2009.
- Chassapis, K., Roulia, M., Vrettou, E., Fili, D., & Zervaki, M. (2010). Biofunctional characteristics of lignite fly ash modified by humates: a new soil conditioner. *Bioinorganic chemistry and applications*, 2010.
- Checkley, W., Gilman, R. H., Black, R. E., Epstein, L. D., Cabrera, L., Sterling, C. R., & Moulton, L. H. (2004). Effect of water and sanitation on childhood health in a poor Peruvian peri-urban community. Lancet, 363(9403), 112-118.
- Chen R, Zhang Z, Feng C, et al. (2010) Application of simplex-centroid mixture design in developing and optimizing ceramic adsorbent for As (V) removal from water solution. Microporous and Mesoporous Materials 131: 115–121.
- Chen, Y., Zhang, Y., Chen, T., Zhao, Y., & Bao, S. (2011). Preparation of eco-friendly construction bricks from hematite tailings. *Construction and Building Materials*, 25(4), 2107-2111.
- Chen, Z. X., Jin, X. Y., Chen, Z., Megharaj, M., & Naidu, R. (2011). Removal of methyl orange from aqueous solution using bentonite-supported nanoscale zero-valent iron. Journal of colloid and Interface Science, 363(2), 601-607.
- Cheng, X. F., Qian, H., Zhang, S. W., Zhang, Z. S., He, Y., and Ma, M. G., (2016), "Preparation and Characterization of Cellulose-CaCO₃ Composites by an Eco-Friendly Microwave-Assisted Route in A Mixed Solution of Ionic Liquid and Ethylene Glycol", *Bio Resources*, Vol.11, No.2, pp.4392-4401, 2016.
- Chiban, M., Zerbet, M., Carja, G., & Sinan, F. (2012). Application of low-cost adsorbents for arsenic removal: A review. *Journal of Environmental Chemistry and Ecotoxicology*, 4(5), 91-102.
- Chiew, H., Sampson, M. L., Huch, S., Ken, S., & Bostick, B. C. (2009). Effect of groundwater iron and phosphate on the efficacy of arsenic removal by iron-amended biosand filters. *Environmental science & technology*, 43(16), 6295-6300.
- Cho, K. R., Kim, Y. Y., Yang, P., Cai, W., Pan, H., Kulak, A. N., Lau, J. L., Kulshreshtha, P., Armes S. P., Meldrum, F. C., and De Yoreo, J. J., (2016), Direct Observation of Mineral-Organic Composite Formation Reveals Occlusion Mechanism, Nature Communications, 7, 10187, 2016.
- Choong, T. S., Chuah, T. G., Robiah, Y., Koay, F. G., & Azni, I. (2007). Arsenic toxicity, health hazards and removal techniques from water: an overview. *Desalination*, 217(1-3), 139-166.
- Christie, T., (1795), *The Analytical Review, or History of Literature, Domestic and Foreign, on an Enlarged Plan,* Vol. 21, Paul Church Yard, London, 1975.
- Clasen, T., & Boisson, S. (2006). Household-based ceramic water filters for the treatment of drinking water in disaster response: An assessment of a pilot programme in the Dominican Republic. Water Practice & Technology, 1(2).
- Clasen, T., Schmidt, W. P., Rabie, T., Roberts, I., & Cairncross, S. (2007). Interventions to improve water quality for preventing diarrhoea: systematic review and meta-analysis. *Bmj*, 334(7597), 782.
- Coutts, R. S. P., (1988), Wood Fiber-Reinforced Cementitious Materials, Natural Fiber Reinforced Cement and Concrete, Glasgow: Blackie, pp.1-62, 1988.
- Cox, D. R., Miller, H. D., (1965), *The Theory of Stochastic Processes*, Methuen and Company Limited, London, 1965.
- Cox, H. L., (1952), "The Elasticity and Strength of Paper and Other Fibrous Materials", *British Journal of Applied Physics*, Vol.3, No.3, pp.72, 1952.
- CPCB, (2012), "Status of Water Quality in India-2012", www.cpcb.nic.in/WQ_Status_Report2012.pdf, 2012.
- Cremades, A., (2000), Studying Noah's Ark: A Teaching Strategy for a Science and Seligion Course, 26th International Faith and Learning Seminar, Geoscience Research Institute Loma Linda, California, U.S.A. July 16-28, 2000.
- Cullen WR, Reimer KJ: Arsenic speciation in the environment. Chem Rev 1989, 89:713-764.
- Cullity, B. D. (2001). Elements of X-ray Diffraction.
- Cultrone, G., Sebastián, E., Elert, K., De la Torre, M. J., Cazalla, O., & Rodriguez-Navarro, C. (2004). Influence of mineralogy and firing temperature on the porosity of bricks. Journal of the European Ceramic Society, 24(3), 547-564.
- Dalas, E., Klepetsanis, P. G., and Koutsoukos, P. G., (2000), "Calcium Carbonate Deposition on Cellulose", *Journal of Colloid and Interface Science*, Vol.224, No.1, pp.56-62, 2000.
- Dave, L., Jakhar, P., Gupta, S., Satankar, R. K., Kaurwar, A., Soyam, D., Brown L.C., Plappally, A., (2017), "Application of Novel Fibres of Crotalaria Burhia for Rope, Rooftop Cover and Mat Production", *Journal of Environment and Nanotechnology*, Vol.6, No.2, pp.36-39, 2017.
- Davidge, R. W., & Evans, A. G. (1970). The strength of ceramics. Materials Science and Engineering, 6(5), 281-298.
- Degen, T., Sadki, M., Bron, E., König, U., & Nénert, G. (2014). The highscore suite. Powder Diffraction, 29(S2), S13-S18.

- Della, R. M., (1988), Natural Fiber Reinforced Cement and Concrete, Concrete Technology and Design, Editor: Swamy, R.N., MRS Bulletin 15.11, Vol. 5, Blackie and Son Limited.
- Diamadopoulos, E., Ioannidis, S., & Sakellaropoulos, G. P. (1993). As (V) removal from aqueous solutions by fly ash. *Water Research*, 27(12), 1773-1777.
- Dickens, S. N. and Pitts, F. R., (1963), Introduction to Human Geography, New York, 1963.
- Dikshit, R., (1974), Bhrigu-Sanhita Phalit Darpan (Phalit Prakash), Chawri Bazaar, Delhi, India, 1974.
- Dong, L., Zinin, P. V., Cowen, J. P., & Ming, L. C. (2009). Iron coated pottery granules for arsenic removal from drinking water. *Journal of Hazardous Materials*, 168(2-3), 626-632.
- Dongming, L., Wenge, Z., and Zongneng, Q., (1994), "The J-Integral Fracture Toughness of PP/CaCO₃ Composites", *Journal of Materials Science*, Vol.29, No.14, pp.3754-3758, 1994.
- D'Orazio, M., Cursio, G., Graziani, L., Aquilanti, L., Osimani, A., Clementi, F., ... & Amoroso, S. (2014). Effects of water absorption and surface roughness on the bioreceptivity of ETICS compared to clay bricks. Building and Environment, 77, 20-28.
- Dousova B, Fuitova L, Grygar T, et al. (2009) Modified aluminosilicates as low-cost sorbents of As(III) from anoxic groundwater. Journal of Hazardous Materials 165: 134–140.
- DRI. (2004). Dietary Reference Intakes (DRI) for water, potassium, sodium, chloride and sulphate. National Academy of Sciences.
- Drury, J., (2016), "Horse Dung Has Scientists on Scent of Antibiotic Success, Reuters, Technology", www.reuters.com/article/us-switzerland-horse-dung-mushrooms-idUSKBN0MC12920150316; 10 March 2016.
- Du, Y., Jain, N., and Shukla, A., (2006), "Effect of Particle Size on Fracture Behavior of Polyester/Al₂O₃ Composites", *In Proceedings of SEM Annual Conference*, Society of Experimental Mechanics, Saint Louis, Missouri, USA, 4 7 June, 2006.
- Duary, N., (2008), "Traditional Hira Potters of Lower Assam", *Indian Journal of Traditional Knowledge*, Vol.7, pp.98-102, 2008.
- Dubey, S., Soboyejo, A. B. O., and Soboyejo, W. O., (1997), "An Investigation of the Effects of Stress Ratio and Crack Closure on the Micromechanisms of Fatigue Crack Growth in Ti-6Al-4V", *Acta Materialia*, Vol.45, No.7, pp.2777-2787, 1997.
- Dumont, L., (1952), "A Remarkable Feature of South Indian Pot-Making", Man, Vol.52, pp.80-83, 1952
- Eckert, E.R.G., and Goldstein, R.J., (1976), *Measurements in Heat Transfer*, Second Edition, Hemisphere Publishing Corporation, Washington London, 1976.
- Ejiga, O., Paul, O., and Cordelia, O. O., (2012), "Sustainability in Traditional African Architecture: A Springboard for Sustainable Urban Cities", In Sustainable Futures: Architecture and Urbanism in the Global South Kampala, Uganda, 27–30 June, 2012.
- ENACTUS, IITM Project 2017, (http://alumni.iitm.ac.in/wp-content/uploads/2017/04/Enactus_IITM-Project-Trishna Community-Proposal.pdf).
- Erhuanga, E., Kashim, I. B., & Akinbogun, T. L. (2014). Development of ceramic filters for household water treatment in Nigeria. *Art and Design Review*, 2(01), 6.
- Eriksson, L., Trygg, J., & Wold, S. (2008). CV-ANOVA for significance testing of PLS and OPLS® models. Journal of Chemometrics, 22(11-12), 594-600.
- Escudero, C., Fiol, N., Villaescusa, I., & Bollinger, J. C. (2009). Arsenic removal by a waste metal (hydr) oxide entrapped into calcium alginate beads. *Journal of hazardous Materials*, 164(2-3), 533-541.
- Essig, A., Hofmann, D., Munch, D., Gayathri, S., Kunzler, M., Kallio, P. T., Sahl, H. G., Wider, G., Schneider, T., and Aebi, M., (2014), "Copsin, A Novel Peptide-Based Fungal Antibiotic Interfering with the Peptidoglycan Synthesis", *Journal of Biological Chemistry*, Vol.289, No.50, pp.34953-34964, 2014.
- Ezzatahmadi, N., Ayoko, G. A., Millar, G. J., Speight, R., Yan, C., Li, J., ... & Xi, Y. (2017). Clay-supported nanoscale zero-valent iron composite materials for the remediation of contaminated aqueous solutions: A review. *Chemical Engineering Journal*, 312, 336-350.
- Fahlin, C. J. (2003). Hydraulic Properties Investigation of the Potters for Peace Colloidal Silver Impregnated, Ceramic Filter. Unpublished Thesis, University of Colorado at Boulder, Boulder, CO, USA.
- Fan, M., Dai, D., and Huang, B., (2012), Fourier Transform Infrared Spectroscopy for Natural Fibres, *In Fourier transform-materials analysis*, Editor: Dr. Salih, InTech, 2012.
- Fang, J., Deng, B., & Whitworth, T. M. (2005). Arsenic removal from drinking water using clay membranes. FAO 2017, Computation of long-term annual renewable water resources (RWR) by country (in km³/year, average) for India, FAO of the UN, Generated from Aquastat Global Water Information System: 13 Oct 2017 at 15:31 CEST
- Faustino, J., Silva, E., Pinto, J., Soares, E., Cunha, V. M., and Soares, S. (2015), "Lightweight Concrete Masonry Units Based on Processed Granulate of Corn Cob as Aggregate", *Materiales de Construcción*, Vol.65, No.318, pp.055, 2015

- Fawell, J. K. (2006). Fluoride in drinking-water. World Health Organization.
- Feng, G., Kang, Y., Chen, F., Liu, Y. W., and Wang, X. C., (2018), "The Influence of Temperatures on Mixed-Mode (I+ II) and Mode-II Fracture Toughness of Sandstone", *Engineering Fracture Mechanics*, Vol. 189, pp.51-63, 2018.
- Ferrigno, T. H., (1987), *Principles of Filler Selection and Use*, Van Nostrand Reinhold: New York, USA, pp. 8-62, 1987.
- Fewtrell, L., Kaufmann, R. B., Kay, D., Enanoria, W., Haller, L., and Colford, J. M., (2005), "Water, Sanitation, and Hygiene Interventions to Reduce Diarrhoea in Less Developed Countries: A Systematic Review and Meta-Analysis", *The Lancet infectious diseases*, Vol.5, No.1, pp.42-52, 2005.
- Fimbel, P., and Siffert, B., (1986), "Interaction of Calcium Carbonate (Calcite) with Cellulose Fibres in Aqueous Medium", *Colloids and Surfaces*, Vol.20, No.1-2, pp.1-16, 1986.
- Firmansyah, F. (2018, April). Effectiveness Study of Drinking Water Treatment Using Clays/Andisol Adsorbent in Lariat Heavy Metal Cadmium (Cd) and Bacterial Pathogens. In *IOP Conference Series: Materials Science and Engineering* (Vol. 349, No. 1, p. 012047). IOP Publishing.
- Fisher, L. R., & Lark, P. D. (1979). An experimental study of the Washburn Eq. for liquid flow in very fine capillaries. *Journal of Colloid and Interface Science*, 69(3), 486-492.
- Flinn, R. A., and Trojan, P. A., (1975), Engineering Materials and Their Applications, Houghton Mifflin Company, Boston, pp.551, 1975.
- Foster, G. M., (1956), "Pottery-Making in Bengal", Southwestern Journal of Anthropology, Vol.12, No.4, pp.395-405, 1965.
- Freeman, E. S., (1957), "The Kinetics of the Thermal Decomposition of Potassium Nitrate and of the Reaction between Potassium Nitrite and Oxygen", *Journal of the American Chemical Society*, Vol.79, No.4, pp. 838–842, 1957.
- Freiman, S. W. (1981). Fracture Mechanics for Ceramics, Rocks, and Concrete: A Symposium (No. 745). ASTM International.
- Fu, F., & Wang, Q. (2011). Removal of heavy metal ions from wastewaters: a review. *Journal of environmental management*, 92(3), 407-418.
- Fuhrman, H.L., J.C. Tjell, and D McConchie (2004). Adsorption of Arsenic from Water Using Activated Neutralized Red Mud, Environ. Sci. Technol. 2004, 38, 2428-2434.
- Fw P, Brown KG, Chen CJ: Health implications of arsenic in drinking water. J AWWA 1994, 86:52-63.
- Gadgil, A., (1998), "Drinking Water in Developing Countries", *Annual Review of Energy and the Environment*, Vol.23, No.1, pp.253-286, 1998.
- Gajewski, A. (2008). Contact angle and sessile drop diameter hysteresis on metal surfaces. International Journal of Heat and Mass Transfer, 51(19-20), 4628-4636.
- Gaspard, J. P. (1982). Physisorption and Chemisorption. In Interfacial Aspects of Phase Transformations (pp. 103-118). Springer, Dordrecht.
- Gazulla, M. F., Sánchez, E., González, J. M., Portillo, M. C., & Orduña, M. (2011). Relationship between certain ceramic roofing tile characteristics and biodeterioration. Journal of the European Ceramic Society, 31(15), 2753-2761.
- Genç-Fuhrman, H., Tjell, J. C., & McConchie, D. (2004). Adsorption of arsenic from water using activated neutralized red mud. *Environmental science & technology*, 38(8), 2428-2434.
- German, R.M., (2016), Particulate Composite: Fundamentals and Application, Springer, First Edition, pp.436, 2016.
- GIYAR, M. R. (2011). A-Study of E-Commerce Related Practices in Selected Small Scale Wooden Handicraft Enterprises.
- Gladkov, S. O., (2013), *Dielectric Properties of Porous Media*, Springer Science and Business Media, Springer, Verlag, Vol. 59, 2003.
- Goldberg, S. (2002). Competitive adsorption of arsenate and arsenite on oxides and clay minerals. *Soil Science Society of America Journal*, 66(2), 413-421.
- Goldstein, J. I., Newbury, D. E., Michael, J. R., Ritchie, N. W., Scott, J. H. J., & Joy, D. C. (2017). *Scanning electron microscopy and X-ray microanalysis*. Springer.
- Goldstein, J., Newbury, D. E., Joy, D. C., Lyman, C. E., Echlin, P., Lifshin, E., Sawyer, L., Michael, J. R., (2003), Scanning Electron Microscopy and X-Ray Microanalysis, Third Edition, Springer, pp. 689, 2003
- Gopal, R., and Bhargava, T. N., (2014), "Appraisal of the Quality of Ground Waters in the Arid Zone of Rajasthan And Kutch", *Defence Science Journal*, Vol.31, No.1, pp.73-86, 2014.
- Gosselain, O. P., (1992), "Bonfire of the Enquiries, Pottery Firing Temperatures in Archaeology: What for?" *Journal of Archaeological Science*, Vol.19, No.3, pp.243-259, 1992.
- Greer, M., and Short, D., (1995), Aspect of the Composite Behaviour of Cob, In *A Seminar Paper on Out of Earth II, University of Plymouth*, 1995.

- Griffiths, L., Heap, M. J., Xu, T., Chen, C. F., & Baud, P. (2017). The influence of pore geometry and orientation on the strength and stiffness of porous rock. Journal of Structural Geology, 96, 149-160.
- Groenfeldt, D., (2003), "The Future of Indigenous Values: Cultural Relativism in the Face of Economic Development", *Futures*, Vol.35, No.9, pp.917-929, 2003.
- GSI, (2011), Geology and Mineral Resources of Rajasthan, Third Revised Edition, Miscellaneous Publication, pp.1–2, New Delhi, India, 2011.
- Guigue, J., Mathieu, O., Mounier, S., Lucas, Y., Laffont, R., Amiotte-Suchet, P., & Lévêque, J. The use of 3D-Fluorescence and potential biodegradability for the comparison of extraction procedures of water-extractable organic matter in soils, Presentation at WOMS13 Workshop on Organic Matter Spectroscopy IHSS Day at Toulon, France 2013.
- Guo, M., (2017), "Variability in Pottery Firing Technology: Choice or Technical Development?", *Chinese Archaeology*, Vol.17, No.1, pp.179-186, 2017.
- Gupta, A., (2014), "Human Hair "Waste" and its Utilization: Gaps and Possibilities", *Journal of Waste Management*, 2014.
- Gupta, S. K., & Chen, K. Y. (1978). Arsenic removal by adsorption. *Journal (Water Pollution Control Federation)*, 493-506.
- Gupta, S., Kaurwar A., Satankar R.K., Usha K., Sharif M.A.R., Plappally, A.K., (2016). Flow, Microbial Filtration And Petro-physical Properties Of Ceramic Plate Ware Gravity Water Filter During Cyclic Water Loading Events, in the Proceedings of From Pollution to Purification (ICW 2016), Dec. 12-15, 2016, Organized by IUIC, ASCEED & School of Environmental Sciences, Mahatma Gandhi University, Kottayam, Kerala.
- Gupta, S., Murumkar, A., Kaurwar, A., Satankar, R. K., Virat, J., Kumar, G., & Plappally, A. Identification of a Matrix Framework to Study the Life Cycle of Water in Indian Domestic Sector.
- Gupta, S., Satankar, R. K., Kaurwar, A., Aravind, U., Sharif, M., & Plappally, A. (2018) Household Production of Ceramic Water Filters in Western Rajasthan, India. *International Journal for Service Learning in Engineering*, 13(1), 53-66.
- Haan, CT., (1977), Statistical Methods in Hydrology, Iowa State University Press, Ames, Iowa, pp. 378, 1997.
- Haas Business School, (2009), Haas Newsroom: Winning Social Ventures Build Bricks from Cow Dung and Battle Autism with Video games, Haas School of Business, University of California, Berkeley, 2009.
- Habicht-Mauche, J. A., Eckert, S. L., and Huntley, D. L., (2006), *The Social Life of Pots: Glaze Wares and Cultural Dynamics in the Southwest*, AD 1250-1680, University of Arizona Press, Tucson, 2006.
- Hagan, J., Harley, N., Pointing, D., Sampson, M., (2009), *Resource Development International-Cambodia Ceramic Water Filter Handbook*, EWB Australia, Phnom Penh, Cambodia, 2009.
- Haldar, A., and Mahadevan, S., (2000), *Probability, Reliability and Statistical Methods in Engineering Design*, John Wiley and Sons, NY, USA, 2000.
- Hamidi Abdul Aziz, Salina Alias, Faridah Assari, Mohd Nordin Adlan, (2007). The use of alum, ferric chloride and ferrous sulphate as coagulants in removing suspended solids, colour and COD from semi-aerobic landfill leachate at controlled pH, Waste Management and Research, 2007, Volume: 25 issue: 6, page(s): 556-565.
- Handler, J., (1963), "Pottery Making in Rural Barbados", Southwestern Journal of Anthropology, Vol.19, No.3, pp.314-334, 1963.
- Haspel, B., Hoffmann, C., Elsner, P., and Weidenmann, K. A., (2015), "Characterization of The Interfacial Shear Strength of Glass-Fiber Reinforced Polymers Made from Novel RTM Processes", *International Journal of Plastics Technology*, Vol.19, No.2, pp.333-346, 2015.
- Hassan, A. F., Abdel-Mohsen, A. M., & Elhadidy, H. (2014). Adsorption of arsenic by activated carbon, calcium alginate and their composite beads. *International journal of biological macromolecules*, 68, 125-130.
- Hauge, S., Østerberg, R., Bjorvatn, K., and Selvig, K. A., (1994), "Defluoridation of Drinking Water with Pottery: Effect of Firing Temperature", European Journal of Oral Sciences, Vol.102, No.6, pp.329-333, 1994.
- Haussinger, D., Lang, F., & Gerok, W. (1994). Regulation of cell function by the cellular hydration state. Am J Physiol, 267(3 Pt 1), E343-355.
- Heathcote, K. A., (1995), "Durability of Earth Wall Building", Construction and Building Materials, Vol.9, No.3, pp.185-189, 1995.
- Henry, M., Maley, S., and Mehta, K. (2013), "Designing a Low-Cost Ceramic Water Filter Press" *International Journal for Service Learning in Engineering, Humanitarian Engineering and Social Entrepreneurship*, Vol. 8, No.1, pp.62-77, 2013.
- Higashikawa, F. S., Silva, C. A., & Bettiol, W. (2010). Chemical and physical properties of organic residues. Revista Brasileira de Ciência do Solo, 34(5), 1742-1752.
- Ho, Y. S., & McKay, G. (1999). Pseudo-second order model for sorption processes. *Process biochemistry*, 34(5), 451-465.

- Home, R. M., (1952), 'Ceramics for the Potter', Chas. A. Bennett Company, 1952.
- Hosetti, B. B., (2006), *Prospects and Perspectives of Solid Waste Management*, New Age International (P) Ltd. Chennai, 2006.
- Houben, H., and Guillaud, H., (1994), *Earth Construction: A Comprehensive Guide*, Intermediate Technology, London, 1994.
- Hudak PF: Nitrate, arsenic and selenium concentrations in the pecosvalley aquifer, West Texas, USA. Int J Environ Res 2010, 4:229–236.
- Hunter, P. R., (2009)," Household Water Treatment in Developing Countries: Comparing Different Intervention Types Using Meta-Regression", *Environmental Science and Technology*, Vol.43, No.23, pp.8991-8997, 2009.
- Hussain, J., Husain, I., and Arif, M., (2014), "Water Resources Management: Traditional Technology and Communities as Part of the Solution, Evolving Water Resources Systems: Understanding, Predicting and Managing Water–Society Interactions", *Proceedings of ICWRS*, Bologna, Italy, June, 2014.
- Hussam, A., & Munir, A. K. (2007). A simple and effective arsenic filter based on composite iron matrix: Development and deployment studies for groundwater of Bangladesh. *Journal of Environmental Science and Health Part A*, 42(12), 1869-1878.
- Ilse Köhler-Rollefson, (2004), Why does the camel need to be "saved"? in Saving the Camel and Peoples' Livelihoods: Building a Multi-Stakeholder Platform for the Conservation of the Camel in Rajasthan, In *Proceedings of an International Conference* Lokhit Pashu-Palak Sansthan, Sadri, Rajasthan, India, 23–25 November 2004.
- IMY 2013, Indian Mineral Yearbook, 52nd Edition, State Review (Bihar), Government Of India Ministry Of Mines, Indian Bureau Of Mines, Indian Bhavan, Civil Lines, Nagpur. Accessed and Retrieved from http://ibm.nic.in/writereaddata/files/09232015122822Bihar.pdf as of April 08 2015.
- Iqbal, M., (2017), "Taking on A "Drinking" Problem Head-On in Rajasthan", www.thehindu.com/todays-paper/tp-national/tp-otherstates/taking-on-a-drinking\problem-head-on-in-rajasthan/article18522033.ece; 25 May 2017.
- Iyer, N. C., (1884), The Brihat Samhita of Varahamihira, South Indian Press, Madurai, India, 1884.
- Jalan, J., & Ravallion, M. (2003). Does piped water reduce diarrhea for children in rural India?. *Journal of econometrics*, 112(1), 153-173.
- Jang, M., Chen, W., & Cannon, F. S. (2008). Preloading hydrous ferric oxide into granular activated carbon for arsenic removal. *Environmental science & technology*, 42(9), 3369-3374.
- Jassim, S. A. R., Shuwaikh, A. K. I., Jaafar, M. T., & Salman, R. D. (2017). A Performance Study of ceramic filter made with wood ash. Journal of Kerbala University 157-165.
- Jeong, Y. (2005). The adsorption of arsenic (V) by iron (Fe2O3) and aluminum (Al2O3) oxides.
- Johnson, S., Teshamulwa O., (2007), Project Report for Pure Home Water, MIT Sloan School, Ghana Independent Study, Massachusetts, USA, 2007.
- Jones, D. R. H., & Ashby, M. F. (2005). Engineering materials 2: an introduction to microstructures, processing and design. Elsevier.
- Jones, M. L., Kalmanovitch, D. P., Steadman, E. N., Zygarlicke, C. J., and Benson, S. A., (1992), Application of SEM Techniques to the Characterization of Coal and Coal Ash Products, *In Advances in Coal Spectroscopy Springer*, USA, pp. 1-27, 1992.
- Jones, T. P., (1826), *The Franklin Journal and the American Mechanics Magazine*, Franklin Institute of the State of Pennsylvania, Vol. 1, Judah Dobson, Pennsylvania, 1826.
- Joshi, A., & Chaudhuri, M. (1996). Removal of arsenic from ground water by iron oxide-coated sand. *Journal of environmental engineering*, 122(8), 769-771.
- Kala, C. P., Dhyani, P. P., and Sajwan, B. S., (2006), "Developing the Medicinal Plants Sector in Northern India: Challenges and Opportunities" *Journal of Ethnobiology and Ethnomedicine*, Vol.2, No.1, pp.32, 2006.
- Kalia, S., Dufresne, A., Cherian, B. M., Kaith, B. S., Avérous, L., Njuguna, J., and Nassiopoulos, E., (2011), "Cellulose-Based Bio-and Nanocomposites: A Review", *International Journal of Polymer Science*, 2011.
- Kalkoti, G., (2013), "Nature Endowment to Mankind, Kurukshetra", J. Rural Develop, Vol.61, No.8, 23-27, 2013.
- Kamala, C. T., Chu, K. H., Chary, N. S., Pandey, P. K., Ramesh, S. L., Sastry, A. R. K., & Sekhar, K. C. (2005). Removal of arsenic (III) from aqueous solutions using fresh and immobilized plant biomass. *Water Research*, 39(13), 2815-2826.
- Kaminskii, V. M., Nikolenko, A. N., and Sidorenko, I. Y., (1982), "A Two-Dimensional Stochastic Model of the Densification of Powdered Materials", *Powder Metallurgy and Metal Ceramics*, Vol.21, No.2, 104-106, 1982.

- Karaman, S., Ersahin, S., and Gunal, H., (2006)," Firing Temperature and Firing Time Influence on Mechanical and Physical Properties of Clay Bricks", *Journal of Scientific and Industrial Research (India)*, Vol.65, pp.153-159, 2006.
- Kaurwar, A., Gupta, S., Satankar, R.K. & Plappally, A.K., Marble slurry as a potential ceramic water filtration material: Comparative analysis with machined Fe powder and clay ceramics for effectiveness in As removal from water at point of use, poster presented in: 3rd Int. Conf. Desalin. Using Membr. Technol., Spain, April, 2017.
- Kaurwar, A., Satankar, R.K., Dave, L., Gupta, S., Oomen, J., Sharey, M., Bodhankar, S. and Plappally, A.K., 2018. Use of Clayey Salty Soils and its Composite Derivatives for Construction and Ceramics for Household Use in the Thar Desert in India, Reference Module in Materials Science and Materials Engineering, Elsevier, 2018.
- Kaurwar, A., Satankar, R., Gupta, S., Aravind, U. K., Kothari, K., Soboyejo, A., and Plappally, A., (2017)," Functional Demarcation of Traditional Off-White Colored Water Pots Manufactured from Rajasthan Clayey Soils and Red Colored Water Pots from Gujarat Clayey Soils Using Spectrographic, Cooling and Strength Studies--A Case Study from Jodhpur, Rajasthan, India" MRS Advances, Vol.2, No. 37-38, pp.2027-2032, 2017.
- Kauwar A., Vijay, A., Kumavat, A., Satankar, K.R., Gupta, S., Plappally, A. (2018). Use of marble and iron waste additives for enhancing Arsenic and E. Coli Contaminant Removal Capacity and Strength of Porous Clay Ceramic Materials for Point of Use Drinking Water Treatment (TDWT-2018-1857). *Desalination and Water Treatment* (Accepted).
- Kavas, T., & Olgun, A. (2008). Properties of cement and mortar incorporating marble dust and crushed brick. *Ceramics Silikaty*, 52(1), 24.
- Keefe, L., (2005), Earth Building, Routledge, London, 2005.
- Khwaja, A. I., (2004), "Is Increasing Community Participation Always a Good Thing?", *Journal of the European Economic Association*, Vol.2, No.2-3, pp.427-436, 2004.
- Kidman, H., (2017), "Sustainable Materials-Building with Earth and Stone", www.omrania.com/inspiration/sustainable-materials-building-earth-stone/; 1 December 2017.
- Kilikoglou, V., Vekinis, G., Maniatis, Y., & Day, P. M. (1998). Mechanical performance of quartz-tempered ceramics: part I, strength and toughness. Archaeometry, 40(2), 261-279.
- Kindhauser, M. K. (2003). Global defence against the infectious disease threat. Communicable Diseases 2002. World Health Organization, Geneva.
- Kord Mostafapour F, Bazrafshan E, Farzadkia M, Amini S: Arsenic removal from aqueous solutions by Salvadora Persica stem ash. J Chem 2013, 2013:1–8. 740847.
- Kosek, M., Bern, C., & Guerrant, R. L. (2003). The global burden of diarrhoeal disease, as estimated from studies published between 1992 and 2000. Bulletin of the World Health Organization, 81(3), 197-204.
- Kota S., (2013), "Handle Waste with Seriousness", www.dailypioneer.com/columnists/ope/handle-waste-with-seriousness.html; 14 February 2016.
- Kou, S. C., and Kou, S. G., (2003), "Modeling Growth Stocks via Birth-Death Processes", *Advances in Applied Probability*, Vol.35, No.3, pp.641-664, 2003.
- Kramer, C. (1985). Ceramic ethnoarchaeology. Annual review of anthropology, 14(1), 77-102.
- Kramer, C., (1997), Pottery in Rajasthan: Ethno Archaeology in Two Indian Cities, Washington and London: Smithsonian Institution Press, 1997.
- Krueger, D., (2017), "Why on Earth Do They Call It Throwing?" www.ceramicstoday.com/articles/why_throwing.htm; 10 January 2018.
- K-tron, (2016), "Calcium Carbonate in Plastics Compounding, Coperion K-Tron Woodbury-Glassboro Road Sewell, NJ, www.ktron.com/industries_served/Plastics/Calcium_Carbonate_in_Plastics_Compounding.cfm; 12 January 2016
- Kuila, U., & Prasad, M. (2013). Specific surface area and pore-size distribution in clays and shales. *Geophysical Prospecting*, 61(2), 341-362.
- Kumar, M. D., & Shah, T. (2006). Groundwater pollution and contamination in India: the emerging challenge. IWMI-TATA Water Policy Program Draft Paper, 1, 14.
- Kumric´ KR, ukic´ AB, Trtic´-Petrovic´ TM, et al. (2013) Simultaneous removal of divalent heavy metals from aqueous solutions using raw and mechanochemically treated interstratified montmorillonite/kaolinite clay. Industrial & Engineering Chemistry Research 52: 7930–7939.
- Lange, F. F. (1989). Powder processing science and technology for increased reliability. Journal of the American Ceramic Society, 72(1), 3-15. [15] J. Tay, Bricks Manufactured from Sludge, J. Environ. Eng. 113 (1987) 278–284.

- Lantagne, D. S. (2001a). Investigation of the Potters for Peace Colloidal Silver-Impregnated Ceramic Filter: Intrinsic Effectiveness and Field Performance in Rural Nicaragua: Istanbul Conference, Turkey.
- Lantagne, D. S. (2001b). Investigation of the Potters for Peace Colloidal Silver Impregnated Ceramic Filter Report II: Field Investigations: Alethia International.
- Lantagne, D. S. (2001c). Investigation of the Potters for Peace Colloidal Silver Impregnated Ceramic Filter. Report 1: Intrinsic Effectiveness: Alethia Environmental, Allston, Massachusetts.
- Lantagne, D. S., (2001), Investigation of The Potters for Peace Colloidal Silver Impregnated Ceramic Filter, Report Submitted to Jubilee House Community, USAID, 2001.
- Lantagne, D., and Clasen, T., (2012), "Point-of-Use Water Treatment in Emergency Response", *Waterlines*, Vol.31, No.1-2, pp.30-52, 2012.
- Lantagne, D., Klarman, M., Mayer, A., Preston, K., Napotnik, J., & Jellison, K. (2010). Effect of production variables on microbiological removal in locally-produced ceramic filters for household water treatment. International Journal of Environmental Health Research, 20(3), 171-187.
- Lark, R. M., & Webster, R. (2001). Changes in variance and correlation of soil properties with scale and location: analysis using an adapted maximal overlap discrete wavelet transform. European journal of soil science, 52(4), 547-562.
- Lauke, B., (2009), "Effect of Particle Size on Fracture Toughness of Polymer Composites", Conference Proceedings of ICF12, Ottawa, Canada, 2009.
- Lawrence, J., Li, L., & Spencer, J. T. (1999). Diode laser modification of ceramic material surface properties for improved wettability and adhesion. Applied surface science, 138, 388-393.
- Lee, V. G., & Yeh, T. H. (2008). Sintering effects on the development of mechanical properties of fired clay ceramics. Materials Science and Engineering: A, 485(1-2), 5-13.
- Lemonnier, P., (2013), Technological Choices: Transformation in Material Cultures Since the Neolithic, Routledge, New York, USA, 2013.
- Leonard Rogers, (1902), Report on An Experimental Enquiry on The Disinfection of Floors for Plague, The Indian Medical Gazette, May, pp.166-170, 1902.
- Li Q, Xu XT, Cui H, Pang J, Wei ZB, Sun Z, Zhai J: Comparison of two adsorbents for the removal of pentavalent arsenic from aqueous solutions. J Environ Manage 2012, 98:98–106.
- Li, Y. F., Yao, Y., & Wang, L. (2009). Recycling of industrial waste and performance of steel slag green concrete. *Journal of Central South university of technology*, 16(5), 768.
- Liu, C., Shi, B., Zhou, J., and Tang, C., (2011), "Quantification and Characterization of Micro-Porosity by Image Processing, Geometric Measurement and Statistical Methods: Application on SEM Images of Clay Materials", *Applied Clay Science*, Vol.54, No.1, pp.97-106, 2011.
- Liu, D. M. (1997). Influence of porosity and pore size on the compressive strength of porous hydroxyapatite ceramic. Ceramics International, 23(2), 135-139.
- Liu, Y., Xu, H., & Tay, J. H. (2005). Derivation of a general adsorption isotherm model. Journal of Environmental Engineering, 131(10), 1466-1468.
- Livestock Census, (2012), The 19th Livestock Census, Ministry of Agriculture Department of Animal Husbandry and Dairying, Krishi Bhavan, New Delhi, India, 2003.
- Lohbauer, U., Müller, F. A., & Petschelt, A. (2008). Influence of surface roughness on mechanical strength of resin composite versus glass ceramic materials. Dental Materials, 24(2), 250-256.
- Loksabha 2017, Lok Sabha Unstarred Question No.2330, Contaminated Drinking Water, Government Of India Ministry Of Drinking Water & Sanitation http://164.100.47.190/loksabhaquestions/annex/11/AU2330.pdf.
- Lumb, P., (1966), "The Variability of Natural Soils", Canadian Geotechnical Journal", Vol.3, No.2, pp.74-97, 1996.
- Luong, D.D., Gupta, N., Daoud, A., and Rohatgi, P.K., (2011), "High Strain Rate Compressive Characterization of Aluminum Alloy/Fly Ash Cenosphere Composites", *The Journal of The Minerals*, Metals and Materials Society (TMS), Vol.63, No.2, pp. 53-56, 2011.
- Lyman, C. E., Newbury, D. E., Goldstein, J., Williams, D. B., Romig Jr, A. D., Armstrong, J., ... & Peters, K.
 R. (2012). Scanning electron microscopy, X-ray microanalysis, and analytical electron microscopy: a laboratory workbook. Springer Science & Business Media. [34]
 K. Schladitz, Quantitative micro-CT, J. Microsc. 243 (2011) 111–117.
- Madejová, J. (2003). FTIR techniques in clay mineral studies. Vibrational spectroscopy, 31(1), 1-10.
- Mahanta, R., Chowdhury, J., & Nath, H. K. (2016). Health costs of arsenic contamination of drinking water in Assam, India. *Economic Analysis and Policy*, 49, 30-42.
- Mahendra D., (2014), "When in Rajasthan during Summers Use SAR Village Earthen Pots", www.news18.com/news/rajasthan/when-in-rajasthan-during-summers-use-Sarvillageearthen-pots-484265.html; 22 June, 2014.

- Mai, C. and Marisa, (2016), "Animal Dung Paper", www.chiangmaiwithmarisa.com/portfolio/animal-dung-paper/; 13 March 2016.
- Maini, S., (2010), Earthen Architecture for Sustainable Habitats and Compressed Stabilized Earth Block Technology, AR Riyadh Development Authority Research, International conference Architerre at Algier, www.Ada.gov.sa/idc/groups/public/documents/ar_ada_researches/004568.pdf: 13 February 2016.
- Maire, E., Buffiere, J. Y., Salvo, L., Blandin, J. J., Ludwig, W., and Letang, J. M., (2001), "On the Application of X-ray Microtomography in the Field of Materials Science", *Advanced Engineering Materials*, Vol.3, No.8, pp.539-546, 2001.
- Maji, S. K., Pal, A., & Pal, T. (2008). Arsenic removal from real-life groundwater by adsorption on laterite soil. *Journal of Hazardous Materials*, 151(2-3), 811-820.
- Malapane, T. A., Hackett, C., Netshandama, V., and Smith, J., (2012), "Ceramic Water Filter for Point-of-Use Water Treatment in Limpopo Province, South Africa", *In Systems and Information Design Symposium* (SIEDS), IEEE, pp. 107-111, 2012.
- Malmqvist, B., & Rundle, S. (2002). Threats to the running water ecosystems of the world. Environmental conservation, 29(2), 134-153.
- Management Institute. 47p. (IWMI Research Report 123).
- Manning, B. A., Fendorf, S. E., Bostick, B., & Suarez, D. L. (2002). Arsenic (III) oxidation and arsenic (V) adsorption reactions on synthetic birnessite. *Environmental Science & Technology*, 36(5), 976-981.
- Manoharan, C., Sutharsan, P., Dhanapandian, S., & Venkatachalapathy, R. (2012). Characteristics of some clay materials from Tamilnadu, India, and their possible ceramic uses. Cerâmica, 58(347), 412-418.
- Margolis, L and Chaouni, A., (2015), Out of Water-Design Solutions for Arid Regions, Birkhauser Verlag GmbH, Basel, Switzerland, 2015.
- Marikani, A., Maheswaran, A., Premanathan, M., and Amalraj, L., (2008), "Synthesis and Characterization of Calcium Phosphate-Based Bioactive Quaternary P₂O₅-CaO-Na₂O-K₂O glasses", *Journal of Non-Crystalline Solids*, Vol.354, No.33, pp.3929-3934, 2008.
- Markovich, I., Van Mier, J. G. M., and Walraven, J. C., (2001)," Single Fiber Pullout from Hybrid Fiber Reinforced Concrete, *Heron*, Vol.46, No.3, pp.191-200, 2001.
- Mary Gibbons Natrella, 1963, Experimental Statistics, Handbook 91, United States Department of Commerce, National Bureau of Standards (NBS), Washington D. C.
- Mathur, V. K., (2006), "Composite Materials from Local Resources", Construction and Building Materials, Vol.20, No.7, pp.470-477, 2006.
- Mehta, D., Mondal, P., & George, S. (2016). Utilization of marble waste powder as a novel adsorbent for removal of fluoride ions from aqueous solution. *Journal of Environmental Chemical Engineering*, 4(1), 932-942.
- MGIRI, (2008), An Improved Pottery Kiln, Rural Energy and Infrastructure Section, Mahatma Gandhi Institute of Rural Industrialization, Wardha, India, 2008.
- Milani, B., (2005), Building Materials in a Green Economy: Community-Based Strategies for Dematerialization, PhD thesis, University of Toronto, 2005.
- Milheiro, F. A. C., Freire, M. N., Silva, A. D., & Holanda, J. N. F. (2005). Densification behaviour of a red firing Brazilian kaolinitic clay. Ceramics international, 31(5), 757-763. [39] W.O. Soboyejo, A. B. O., Ozkan, H. E., Papritan, J. C., & Soboyejo, J. Test. Eval. 29 (2001) 372–379.
- Miller, T. R., and Watters T. R., (2010), "Pure Home Water Ceramic Filter Manufacturing Manual", www.web.mit.edu/watsan/Docs/Student Reports/Ghana/Final Report PHW Factory Manual RMiller and TWatters 5-24-10.pdf; 10 June 2010.
- Minke, G., (2012), Building with Earth, Design and Technology of a Sustainable Architecture, Berlin, Basel: Birkhäuser, 2012.
- Mira, K. M., (1954), "The Improved Village Pottery in the Rural Reconstruction of India", *Transactions of the Indian Ceramic Society*, Vol.13, No.3, pp.160-163, 1954.
- Mitchell, J. K., and Collin, J. G., (1984), *Earth Walls, in Cutting Edge Technologies*, The National Academies Press Washington D. C., 161-181, 1984.
- Mittal, A., Kataria, T., Das, G. K., and Chatterjee, S. G., (2006), "Evaporative Cooling of Water in a Small Vessel Under Varying Ambient Humidity", *International Journal of Green Energy*, Vol.3, No.4, pp.347-368, 2006.
- Mlilo, T. B., Brunson, L. R., & Sabatini, D. A. (2009). Arsenic and fluoride removal using simple materials. Journal of Environmental Engineering, 136(4), 391-398.
- Mohan, D., & Pittman Jr, C. U. (2007). Arsenic removal from water/wastewater using adsorbents a critical review. *Journal of hazardous materials*, 142(1-2), 1-53.

- Mohan, D., Sarswat, A., Ok, Y. S., & Pittman Jr, C. U. (2014). Organic and inorganic contaminants removal from water with biochar, a renewable, low cost and sustainable adsorbent–a critical review. *Bioresource technology*, 160, 191-202.
- Montgomery, M. A., & Elimelech, M. (2007). Water and sanitation in developing countries: including health in the equation.
- Moore, D. S. McCabe, G. P., Craig, B. A., (2011), *Introduction to the Practice of Statistics*, Sixth Edition, W. H. Freeman and Company, 2011.
- More, E., Probert, D., and Phaal, R., (2015), Improving Long-Term Strategic Planning: An Analysis of STEEPLE Factors Identified in Environmental Scanning Brainstorms. *In Management of Engineering and Technology (PICMET)*, Portland International Conference, IEEE, pp. 381-394, 2015.
- Morel, J. C., Mesbah, A., Oggero, M., and Walker, P., (2001)," Building Houses with Local Materials: Means to Drastically Reduce the Environmental Impact of Construction", *Building and Environment*, Vol.36, No.10, pp.1119-1126, 2001.
- Morris, J. F., Murphy, J., Fagerli, K., Schneeberger, C., Jaron, P., Moke, F. & Xiao, L. (2018). A Randomized Controlled Trial to Assess the Impact of Ceramic Water Filters on Prevention of Diarrhea and Cryptosporidiosis in Infants and Young Children Western Kenya, 2013.
- Murcott, S. (2006). Implementation, critical factors and challenges to scale-up of household drinking water treatment and safe storage systems. *Cambridge, MA: Massachusetts Institute of Technology*.
- Murugesan, G. S., Sathishkumar, M., & Swaminathan, K. (2006). Arsenic removal from groundwater by pretreated waste tea fungal biomass. *Bioresource Technology*, 97(3), 483-487.
- Mustapha, K., Azeko, S. T., Annan, E., Zebaze Kana, M. G., Daniel, L., and Soboyejo, W. O., (2016), "Pull-Out Behavior of Natural Fiber from Earth-Based Matrix", *Journal of Composite Materials*, Vol.50, No,25, pp.3539-3550, 2016.
- Nagar, D. N., (1953), Water Resources of Rajasthan and Their Utilization, Economic Weekly, pp.597-600, 1953.
- Nahar, N. M., Sharma, P., and Purohit, M. M., (2003), "Performance of Different Passive Techniques for Cooling of Buildings in Arid Regions", *Building and Environment*, Vol.38, No.1, pp.109–116, 2003.
- Nambuthiri, S., Fulcher, A., Koeser, A. K., Geneve, R., and Niu, G., (2015), "Moving toward sustainability with alternative containers for greenhouse and nursery crop production: A review and research update", *HortTechnology*, Vol.25, No.1, pp.8-16, 2015.
- Narasimhan, A. (2013). Essentials of heat and fluid flow in porous media (pp. 61-105). Boca Raton, FL: CRC. Nayak PS and Singh BK (2007) Instrumental characterization of clay by XRF, XRD and FTIR. Bulletin of Materials Science 30: 235–238.
- Nelson, S. A., (2015), "Phyllosilicates (Sheet Silicates) in Phyllosilicates (Micas, Chlorite, Talc, and Serpentine)", www.tulane.edu/~sanelson/eens211/phyllosilicates.htm; 10 December 2015.
- Nevasmaa, P., Laukkanen, A., Planman, T., Wallin, K., (2005), "A Novel Method for Fracture Toughness Assessment of Inhomogeneous Ferritic Steel Weldments Using Bimodal Master Curve Analysis", In Proceedings of 11th International Conference on Fracture (ICF), Turin, Italy, 20-25 March, 2005.
- Ng, K. S., Ujang, Z., & Le-Clech, P. (2004). Arsenic removal technologies for drinking water treatment. *Reviews in Environmental Science and Biotechnology*, *3*(1), 43-53.
- Ngai, T. K. K., Murcott, S., Shrestha, R. R., Dangol, B., & Maharjan, M. (2006). Development and dissemination of Kanchan[™] Arsenic Filter in rural Nepal. Water Science and Technology: Water Supply, 6(3), 137-146.
- Nigay, P. M., Nzihou, A., White, C. E., and Soboyejo, W. O., (2017), "Structure and Properties of Clay Ceramics for Thermal Energy Storage", *Journal of the American Ceramic Society*, pp.100:4748–4759, 2007.
- Niroumand, H., Zain, M. F. M., and Alhosseni, S. N., (2013), Earth Building Materials, Production, And Construction Techniques, IGI Global, USA, pp. 119-146, 2013.
- Njeru, G., (2016), "Don't Pooh-Pooh it: Making Paper from Elephant Dung", www.bbc.com/news/business-36162953; 10 June 2016.
- Norrish, K., & Chappell, B. W. (1977). X-ray fluorescence spectrometry.
- NRCE, (2015), Vision 2050, National Research Centre on Equines and Veterinary Type Culture Collection, Hissar, Haryana, India, 2015.
- Nriagu, J. O., Bhattacharya, P., Mukherjee, A. B., Bundschuh, J., Zevenhoven, R., & Loeppert, R. H. (2007). Arsenic in soil and groundwater: an overview. Trace Metals and other Contaminants in the Environment, 9, 3-60.
- Nye, J., (2017), Soft Power: The Origins and Political Progress of a Concept, Palgrave Communications, 3:17008, doi: 10.1057/palcomms.2017.8, 2017.
- Obada, D. O., Dodoo-Arhin, D., Dauda, M., Anafi, F. O., Ahmed, A. S., & Ajayi, O. A. (2017). The impact of kaolin dehydroxylation on the porosity and mechanical integrity of kaolin based ceramics using

- different pore formers. Results in Physics, 7, 2718-2727. [55] M.Youmoue, R.T.Fongang, J.C. Sofack, E. Kamseu, U.C. Melo, I.K.Tonle, C.Leonelli, & S. Rossignol, Ceram. Int. 43 (2017) 4496-4507.
- Ohki, A., Nakayachigo, K., Naka, K., & Maeda, S. (1996). Adsorption of inorganic and organic arsenic compounds by aluminium-loaded coral limestone. *Applied organometallic chemistry*, 10(9), 747-752.
- Olayemi, A. B., Awe, S., Eniola, K. I. T., Osanoto, I. B., Adegoke, A., and Abolade, G. O., (2005), "Effect of Storage on Bacteriological Quality of Borehole Water", *African Journal of Clinical and Experimental Microbiology*, Vol.6, No.3, pp.213-218, 2005.
- Oldham, R. D., (2011), A Manual of the Geology of India, Editors: Medlicott, H. M., Blanford, W. T., Digital Edition, Cambridge University Press, 2011.
- Olorunmaiye, J.A., (1996), "Evaporative Cooling of Water in Earthen Pots in Quiescent Air", *NSE Technical Transaction*, Vol.31, No.3, pp.80-91, 1996.
- Ortega-Morales, B. O., Reyes-Estebanez, M. M., Gaylarde, C. C., Camacho-Chab, J. C., Sanmartín, P., Chan-Bacab, M. J., ... & Pereañez-Sacarias, J. E. (2018). Antimicrobial properties of nanomaterials used to control microbial colonization of stone substrata. In *Advanced Materials for the Conservation of Stone* (pp. 277-298). Springer, Cham.
- Oyanedel-Craver, V. A., and Smith, J. A., (2007), "Sustainable Colloidal-Silver-Impregnated Ceramic Filter for Point-of-Use Water Treatment", *Environmental Science and Technology*, Vol.42, No.3, pp.927-933, 2007.
- Palanivel, R., and Kumar, U. R., (2011). "Thermal and Spectroscopic Analysis of Ancient Potteries", *Romanian Journal of Physics*, Vol.56, No.1-2, pp.195-208, 2011.
- Papachristodoulou, C., Oikonomou, A., Ioannides, K., & Gravani, K. (2006). A study of ancient pottery by means of X-ray fluorescence spectroscopy, multivariate statistics and mineralogical analysis. Analytica Chimica Acta, 573, 347-353.
- Pappu, A., Saxena, M., & Asolekar, S. R. (2007). Solid wastes generation in India and their recycling potential in building materials. Building and Environment, 42(6), 2311-2320.
- Paramasivam, R., and Mhaisalkar, V. A., (1990), Health Aspects of Traditional Water Harvesting Systems of Rajasthan, IRC Wash, Document No. 822-90-7955, INRA, 1990.
- Passman, S. D., White, T. J., & Lewis, R. D. (2014). Point-of-Use Water Filtration for Arsenic: A Sustainable and Simple Solution in Resource-Poor Settings. *International Journal for Service Learning in Engineering*, 9(1), 79.
- Patel, K. S., Shrivas, K., Brandt, R., Jakubowski, N., Corns, W., & Hoffmann, P. (2005). Arsenic contamination in water, soil, sediment and rice of central India. *Environmental Geochemistry and health*, 27(2), 131-145.
- Perryman, J., (2008), Smoke Firing: Contemporary Artists and Approaches, London: A and C Black, Philadelphia: University of Pennsylvania Press, 2008.
- Pesce, A. J., Rosén, C. G., & Pasby, T. L. (1971). Fluorescence spectroscopy: an introduction for biology and medicine. Marcel Dekker.
- Petala E, Dimos K, Douvalis A, et al. (2013) Nanoscale zero-valent iron supported on mesoporous silica: characterization and reactivity for Cr(VI) removal from aqueous solution. Journal of Hazardous Materials 261: 295–306.
- Pfaffenberger, B., (1992), "Social Anthropology of Technology", *Annual Review of Anthropology*, Vol.21, No.1, pp.491-516, 1992.
- PFP. Potters for Peace. Retrieved from < http://www.pottersforpeace.org>.
- Pierce, M. L., & Moore, C. B. (1982). Adsorption of arsenite and arsenate on amorphous iron hydroxide. *Water Research*, 16(7), 1247-1253.
- Pindi, P. K., Raghuveer Yadav, P., & Shiva Shanker, A. (2013). Identification of opportunistic pathogenic bacteria in drinking water samples of different rural health centers and their clinical impacts on humans. *BioMed research international*, 2013.
- Pinto, J., Paiva, A., Varum, H., Costa, A., Cruz, D., Pereira, S., Fernandes, L., Tavares, P. and Agarwal, J., (2011), "Corn's Cob as a Potential Ecological Thermal Insulation Material", *Energy and Buildings*, Vol.43, No.8, pp.1985-1990, 2011.
- Plappally, A. K. (2010). Theoretical and empirical modeling of flow, strength, leaching and micro-structural characteristics of V shaped porous ceramic water filters (Doctoral dissertation, The Ohio State University).
- Plappally, A. K., & Lienhard, J. H. (2013). Costs for water supply, treatment, end-use and reclamation. *Desalination and Water Treatment*, 51(1-3), 200-232.
- Plappally, A. K., (2012), "Energy Requirements for Water Production, Treatment, End Use, Reclamation, And Disposal", *Renewable and Sustainable Energy Reviews*, Vol.16, No.7, pp.4818-4848, 2012.

- Plappally, A. K., Hasija, A., Kusins, J., Jhaver, M., and Chee, A., (2013), "Water Use and Related Costs at Households in Western and Northern Parts of India", *Hydrology: Current Research*, Vol.4, No.158, pp.2, 2013.
- Plappally, A. K., Yakub, I., Brown, L. C., Soboyejo, W. O., & Soboyejo, A. B. O. (2011). Physical properties of porous clay ceramic-ware. *Journal of Engineering Materials and Technology*, 133(3), 031004.
- Plappally, A. K., Yakub, I., Brown, L. C., Soboyejo, W. O., and Soboyejo, A. B. O., (2009), "Theoretical and Experimental Investigation of Water Flow Through Porous Ceramic Clay Composite Water Filter", Fluid Dynamics and Material Processing, Vol.5, No.4, pp.373-398, 2009.
- Plappally, A., Chen, H., Ayinde, W., Alayande, S., Usoro, A., Friedman, K. C., Dare, E., Ogunyale, T., Yakub, I., Leftwich, M. and Malatesta, K., (2011), "A Field Study on the Use of Clay Ceramic Water Filters and Influences on The General Health in Nigeria", *Journal of Health Behavior and Public Health*, Vol.1, No.1, pp.1-14, 2011.
- Plappally, A., Soboyejo, A., Fausey, N., Soboyejo, W., and Brown, L., (2010), "Stochastic Modeling of Filtrate Alkalinity in Water Filtration Devices: Transport through Micro/Nano-Porous Clay Based Ceramic Materials", *Journal of Natural and Environmental Sciences*, Vol.1, No.2, pp.96-105, 2010.
- PODIUMSIM, 2017, Accessed from http://www.iwmi.cgiar.org/resources/models-and-software/podiumsim/.
- Pollard, S. J. T., Fowler, G. D., Sollars, C. J., & Perry, R. (1992). Low-cost adsorbents for waste and wastewater treatment: a review. *Science of the Total Environment*, 116(1-2), 31-52.
- Poole, B. R. (2002). Point-of-use water treatment for arsenic removal through iron oxide coated sand: Application for the Terai Region of Nepal (Doctoral dissertation, Massachusetts Institute of Technology).
- Postek, M. T., Vladár, A. E., Villarrubia, J. S., and Muto, A., (2016), "Comparison of Electron Imaging Modes for Dimensional Measurements in the Scanning Electron Microscope", *Microscopy and Microanalysis*", Vol. 22, No.4, pp. 768-777, 2016.
- Pradeep, T., & Anshup. (2009). Noble metal nanoparticles for water purification: A critical review. Thin Solid Films, 517(24), 6441-6478.
- Prasad, V. C. S., & Ganvir, V. (2006). DMAIC Approach in Rural Technology An Application to Making of Water Filters. Transactions of the Indian Ceramic Society, 65(4), 215-221.
- Pukanszky, B., Voros, G., (1993), "Mechanism of Interfacial Interactions in Particulate Filled Composites", *Composite Interfaces*, Vol.1, No.5, pp.411-427, 1993.
- Pullanagari, R. R., Yule, I. J., Tuohy, M. P., Hedley, M. J., Dynes, R. A., & King, W. M. (2012). In-field hyperspectral proximal sensing for estimating quality parameters of mixed pasture. Precision agriculture, 13(3), 351-369.
- Qiao, Y., (2003), "Fracture Toughness of Composite Materials Reinforced by Debondable Particulates", *Scripta Materialia*, Elsevier, Vol.49, No.6, pp.491-496, 2003.
- R Singh, S Gupta, S Raman, P Chakraborty, P Sharma, RK Sharma, Larry C Brown, X. Wei, A Plappally, Comparative analysis of hydrodynamics of treatment wetlands using finite volume models with empirical data, Desalination and Water Treatment 55 (13), 3587-3612.
- R. K. Satankar, A. Kaurwar, S. Gupta, K. Usha, S T. Azeko, W. O. Soboyejo, A. B.O. Soboyejo and A Plappally, (2018), Role of Equine Ordure in Enhancing Physical and Mechanical Properties of Natural Bio-active Composites, in Advanced Polymeric Materials For Sustainability And Innovations, Editor(S): D. Rouxel et al., Apple Academic Press, 370.
- Ramkumar, C.B., (2017), Green Dreams, KK booksellers, Chennai, India, 2017.
- Ramkumar, R., and Ragupathy, A., (2016), "Performance Evaluation of Indirect Evaporative Cooler Using Clay Pot", In AIP Conference Proceedings of International Conference on Condensed Matter and Applied Physics (ICC 2015), Vol. 1728, No. 1, p. 020081, 2016, Bikaner, Rajasthan, India, 30-31 October, 2016
- Ranjan, D., Talat, M., & Hasan, S. H. (2009). Biosorption of arsenic from aqueous solution using agricultural residue 'rice polish'. *Journal of Hazardous materials*, 166(2-3), 1050-1059.
- Rao, S. M., & Mamatha, P. (2004). Water quality in sustainable water management. *Current science*, 942-947. Rassin, A. G. (2012). A comprehensive study of Marble industry in Afghanistan. *Research & Statistics Department Afghanistan Investment Support Agency*.
- Ravi, M.R., Dhar P.L., and Kohli, S., (2007), "Energy Audit and Improvement of an Up-Draught Pottery Kiln", SESI Journal, 17, No 1-2, pp.70-86, 2007.
- Ravisankar, R., Annamalai, G. R., Naseerutheen, A., Chandrasekaran, A., Prasad, M. V. R., Satpathy, K. K., and Maheswaran, C., (2013), "Analytical Characterization of Recently Excavated Megalithic Sarcophagi Potsherds in Veeranam Village, Tiruvannamalai District, Tamilnadu, India", *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, Vol.115, pp.845-853, 2013.

- Ray, P. Z., & Shipley, H. J. (2015). Inorganic nano-adsorbents for the removal of heavy metals and arsenic: a review. *RSC Advances*, 5(38), 29885-29907.
- Rayner, J., Skinner, B., and Lantagne, D., (2013), "Current Practices in Manufacturing Locally-Made Ceramic Pot Filters for Water Treatment in Developing Countries", *Journal of Water Sanitation and Hygiene for Development*, Vol.3, No.2, pp.252-261, 2013.
- Ren, K. B., and Kagi, D. A., (1995), "Upgrading the Durability of Mud Bricks by Impregnation", *Building and Environment*, Vol.30, No.3, pp.433-440, 1995.
- Rice, R. W., (1971), The Compressive Strength of Ceramics, In: Kriegel W.W., Palmour H. (eds), Ceramics in Severe Environments, Materials Science Research, Vol.5, pp.195-196, Springer, Boston, MA, 1971.
- Rinzin, Y. C., Nizam, I., Singh, S., (2011), "Building Resilience in the Thar Desert", www.cseindia.org/bootcamp/wate_thar.htm; 11 June 2017.
- Rizzotto, M. (2012). Metal complexes as antimicrobial agents. In A search for antibacterial agents. InTech.
- RMC, (1990), Handbook on Ground Water Development, Roscoe Moss Company, John Wiley and Sons, 1990.
- Rob, D., Wilson, B., Perreault, S., Jones, L. A., (2013), "CeraMIT Report of Activity Nepal: January 2003", www.web.mit.edu/watsan/Docs/Student%20Reports/Nepal/Nepal/Nepal/Report2003.pdf; 10 March 2018.
- Robertson, C., Beanland, R., Boden, S. A., Hector, A. L., Kashtiban, R. J., Sloan, J., ... & Walcarius, A. (2015). Ordered mesoporous silica films with pores oriented perpendicular to a titanium nitride substrate. Physical Chemistry Chemical Physics, 17(6), 4763-4770.
- Rosegrant, M. W., & Binswanger, H. P. (1994). Markets in tradable water rights: potential for efficiency gains in developing country water resource allocation. World development, 22(11), 1613-1625.
- Rosenfeld, A. H., & Zanoni, C. A. (1975). U.S. Patent No. 3,885,875. Washington, DC: U.S. Patent and Trademark Office.
- Rosinger, A. Y. (2018). Household water insecurity after a historic flood: Diarrhea and dehydration in the Bolivian Amazon. *Social Science & Medicine*, 197, 192-202.
- Roux, V., (2015), *The White Matka-Ethnography of a Water Jar*, First Edition, Rupayan Sansthan Publishers, Jodhpur, Rajasthan, India, 2015.
- S.Gupta, R Singh, PR Chakraborty, RK Sharma, ABO Soboyejo, X Wei, A Plappally, 2015, Multi-variable approach to determine treatment efficiency of wetland: size effect and electro-kinetic effects, Desalination and Water Treatment 55 (13), 3576-3586.
- S. D. Freese, D L Trollip and D J Nozaic, Manual For Testing Of Water And Wastewater Treatment Chemical, WRC Report No. K5/1184, Pietermaritzburg.
- Saboya Jr, F., Xavier, G. C., & Alexandre, J. (2007). The use of the powder marble by-product to enhance the properties of brick ceramic. *Construction and Building Materials*, 21(10), 1950-1960. Saboya Jr, F., Xavier, G. C., & Alexandre, J. (2007). The use of the powder marble by-product to enhance
 - the properties of brick ceramic. Construction and Building Materials, 21(10), 1950-1960.
- Saha, D., Marwaha, S., & Mukherjee, A. (2018). Groundwater Resources and Sustainable Management Issues in India. In *Clean and Sustainable Groundwater in India* (pp. 1-11). Springer, Singapore.
- Salifu, T. A., (2015), Biodegradation and Recycling of Polyethylene into Composite Building Materials, PhD Thesis, African University of Science and Technology Abuja F.C.T, Nigeria, 2015.
- Salvinelli, C., (2016), Lifetime and Effectiveness Evaluation of Ceramic Pot Filters, Missouri University of Science and Technology, ProQuest Dissertations Publishing, 2016.
- Saraswati B., (1978), Pottery-Making Cultures and Indian Civilization, Abhinav Publications, New Delhi, 1978.
- Satankar, R. K., Kaurwar, A., Gupta, S., and Plappally, A., (2017), "Horse Dung and Soil-Based Composites for Construction of Aesthetic Shelves in Rural Homes of Western Rajasthan", *Journal of Environment and Nanotechnology*, Vol.6, No.2, pp.43-47, 2017.
- Satankar, R., Kaurwar, A., Gupta, S., Usha, K., Azeko, S.T., Soboyejo, W. O., Soboyejo A.B.O., (2018), "Role of Equine Ordure in Enhancing Physical and Mechanical Properties of Natural Bio-Active Composites" *In Advanced Polymeric Materials for Sustainability and Innovations*, Editor (S): D. Rouxel, et al., 2018, Apple Academic Press, NY, 2018.
- Savastano Jr, H., Warden, P. G., and Coutts, R. S. P., (2000), Blast Furnace Slag Cement Reinforced with Cellulose Fibers, *In Proc. 8th National Meeting on Technology of the Built Environment: Modernity and Sustainability, Salvador, Brazil* Vol. 2, pp.948-55, 2000.
- Saxton, B., and Coventry, K., (1995), The Engineering Performance of Cob, In Out of Earth II: National Conference on Earth Buildings, (Editors: Watson L. and Harries R.), Plymouth University, Plymouth pp. 65-77, 1995.
- Say, R., Yılmaz, N., & Denizli, A. (2003). Biosorption of cadmium, lead, mercury, and arsenic ions by the fungus Penicillium purpurogenum. *Separation Science and Technology*, 38(9), 2039-2053.
- Schultz, L. G. (1964). Quantitative interpretation of mineralogical composition from X-ray and chemical data for the Pierre Shale (No. 391-C).

- Schweitzer, R. W., Cunningham, J. A., and Mihelcic, J. R., (2012), "Hydraulic Modeling of Clay Ceramic Water Filters for Point-of-Use Water Treatment", *Environmental Science and Technology*, Vol.47, No.1, pp.429-435, 2012.
- Sdiri A, Higashi T, Hatta T, et al. (2011) Evaluating the adsorptive capacity of montmorillonitic and calcareous clays on the removal of several heavy metals in aqueous systems. Chemical Engineering Journal 172: 37–46.
- Servi, A. T. (2013). An experimental and analytical exploration of the effects of manufacturing parameters on ceramic pot filter performance (Doctoral dissertation, Massachusetts Institute of Technology).
- Shaffer, G. D., (1993), "An Archaeomagnetic Study of a Wattle and Daub Building Collapse", *Journal of Field Archaeology*, Vol.20, No.1, pp.59, 1993.
- Shafiquzzam M, Hasan M and Nakajima J (2013) Iron mixed ceramic pellet for arsenic removal from groundwater. Environmental Engineering Research 18: 163–168.
- Shah, P. A. K. (2017). Study of generation of waste in marble mining at different levels of mechanization and their quantification (Doctoral dissertation, MPUAT, Udaipur).
- Shao, Y., Li, B., & Liang, S. Y. (2015). Predictive modeling of surface roughness in grinding of ceramics. Machining Science and Technology, 19(2), 325-338.
- Sheik, Z., (2016), "Shaktiman is a Rare Horse, and There is More Than One Reason, www.indianexpress.com/article/explained/shaktiman-is-a-rare-horse-and-there-is-more-than-one-reason-for-it/; 20 December 2016.
- Shotyk, W., Krachler, M., and Chen, B., (2006), "Contamination of Canadian and European Bottled Waters with Antimony from PET Containers", *Journal of Environmental Monitoring*, Vol.8, No.2, pp.288-292, 2006.
- Shrimali, J. P., Jain, B. L., and Sharma, S. K., (2012), "Low Cost Roof System for Rural Housing", *Journal on Today's Ideas –Tomorrow's Technologies*, Vol. 2, No. 1, June 2014, pp. 1–12, 2012.
- Shuttleworth, R., & Bailey, G. L. J. (1948). The spreading of a liquid over a rough solid. Discussions of the Faraday Society, 3, 16-22.
- Sigdel A, Park J, Kwak H, et al. (2016) Arsenic removal from aqueous solutions by adsorption onto hydrous iron oxide-impregnated alginate beads. Journal of Industrial and Engineering Chemistry 35: 277–286.
- Sikdar, M., and Chaudhuri, P., (2015), "Pottery Making Tradition among the Prajapati Community of Gujarat, India", Eurasian Journal of Anthropology, Vol.6, No.1, pp.1-14, 2015.
- Simonis, J. J., and Basson, A. K., (2011), "Evaluation of A Low-Cost Ceramic Micro-Porous Filter for Elimination of Common Disease Microorganisms", *Physics and Chemistry of the Earth*, Parts A/B/C, Vol.36, No.14, pp.1129-1134, 2011.
- Sin, P., Veinthal, R., Sergejev, F., Antonov, M., & Stubna, I. (2012). Fracture toughness of ceramics fired at different temperatures. Materials Science, 18(1), 90-92.
- Singh, N., & Rajoria, M. (1987). Modelling and analysis of the marble industry of Rajasthan Part 1: Technology selection and goal-setting. *International Journal of Systems Science*, 18(1), 141-155.
- Singh, R. K., Pretty, J., and Pilgrim, S., (2010), "Traditional Knowledge and Biocultural Diversity: Learning from Tribal Communities for Sustainable Development in Northeast India", *Journal of Environmental Planning and Management*, Vol.53, No.4, pp.511-533, 2010.
- Sinopoli, C. M., (1991), "Seeking the Past through the Present: Recent Ethno-Archaeological Research in South Asia", *Asian Perspectives*, Vol.30, No.2, pp.177-192, 1991
- Sinter, V., (2009), Oxford English Dictionary, Second Edition, CD-ROM, Oxford University Press, 2009
- SKAT, (2008), "Appropriate Building Materials: A Catalogue of Potential Solutions", Swiss Centre for Development Cooperation in Technology and Management, www.collections.infocollections.org; 13 February 2016).
- Smedley PL, Kinniburgh DG: A review of the source, behaviour and distribution of Arsenic in natural waters. Appl Geochem 2002, 17:517–568.
- Smith, A. H., & Smith, M. M. H. (2004). Arsenic drinking water regulations in developing countries with extensive exposure. *Toxicology*, 198(1-3), 39-44.
- Smith, A. H., Lingas, E. O., & Rahman, M. (2000). Contamination of drinking-water by arsenic in Bangladesh: a public health emergency. *Bulletin of the World Health Organization*, 78(9), 1093-1103.
- Smith, B. C. (2011). Fundamentals of Fourier transform infrared spectroscopy. CRC press.
- Smith, V. L. (1972). Dynamics of waste accumulation: disposal versus recycling. The Quarterly Journal of Economics, 86(4), 600-616.
- Soboyejo A. B. O., Ozkan H. E., Papritan J. C., and Soboyejo, W. O., (2001), "A New Multiparameter Approach to the Prediction of Wear Rates in Agricultural Sprayer Nozzles", *Journal of Testing and Evaluation*, vol. 29, No.4, pp. 372-379, 2001.

- Soboyejo, A. B. O., (1965), Plastic Flow in Reinforced Concrete, Technical Publication No. 52, Stanford, CA, Department of Civil Engineering, Stanford University, 1965.
- Soboyejo, A. B. O., (1968), Propagation of Errors and Tolerance Analysis in Engineering Design and Stress Analysis Problems, Conference on Recent Advances in Stress Analysis: New Concepts and Techniques and their Practical application, The Joint British Committee for Stress Analysis, 26-29 March, 1968.
- Soboyejo, A. B. O., (1973), "Stochastic Analysis for Time-Dependent Load Transfer in Reinforced Concrete Columns", *Materials and Structures*, Vol. 6, No. 4, pp.269-276, 1973.
- Soboyejo, W. (2002). Mechanical properties of engineered materials (Vol. 152). CRC press.
- Soboyejo, W. (2003), Mechanical Properties of Engineered Materials, Marcel Dekker, New York, pp. 583, 2003.
- Sobsey, M. D., Stauber, C. E., Casanova, L. M., Brown, J. M., & Elliott, M. A. (2008). Point of use household drinking water filtration: A practical, effective solution for providing sustained access to safe drinking water in the developing world. Environmental Science & Technology, 42(12), 4261-4267.
- Sobsey, M. D., Stauber, C. E., Casanova, L. M., Brown, J. M., & Elliott, M. A. (2008). Point of use household drinking water filtration: a practical, effective solution for providing sustained access to safe drinking water in the developing world. *Environmental science & technology*, 42(12), 4261-4267.
- Sockalingam, S., and Nilakantan, G., (2012), "Fiber-Matrix Interface Characterization through the Microbond Test", *International Journal Aeronautical and Space Sciences*, Vol.13, No.3, pp.282-295, 2012.
- Soyam, D., Praveen, S., Bhagyawardhan, Gupta, S., Kaurwar, A., Satankar, R. K., Kothari, K., and Plappally, A. K., (2016), G-Filters for Water Filtration: Technology for Individual Potter, UBA Pavilion, India International Science Fest (IISF), NPL, New Delhi, 7-11 December, 2016.
- Srinivasan R (2011) Advances in application of natural clay and its composites in removal of biological, organic, and inorganic contaminants from drinking water. Advances in Materials Science and Engineering 2011: 1–16.
- Stauber, C. E., Elliott, M. A., Koksal, F., Ortiz, G. M., DiGiano, F. A., & Sobsey, M. D. (2006). Characterisation of the biosand filter for E. coli reductions from household drinking water under controlled laboratory and field use conditions. *Water science and technology*, 54(3), 1-7.
- Stipp, S. L., Hochella Jr, M. F., Parks, G. A., & Leckie, J. O. (1992). Cd2+ uptake by calcite, solid-state diffusion, and the formation of solid-solution: Interface processes observed with near-surface sensitive techniques (XPS, LEED, and AES). *Geochimica Cosmochimica Acta*, 56(5), 1941-1954.
- Striebig, B., Jantzen, T., Rowden, K., Dacquisto, J., & Reyes, R. (2006). Learning sustainability by design. Environmental engineering science, 23(3), 439-450.
- Sud, D., Mahajan, G., & Kaur, M. P. (2008). Agricultural waste material as potential adsorbent for sequestering heavy metal ions from aqueous solutions–A review. *Bioresource technology*, 99(14), 6017-6027.
- Sundaram, M. A. S., and Bhattacharya, B., (2013), Earthenware Water Filter: A Double-Edged Sustainable Design Concept for India, In ICoRD'13, Lecture Notes in Mechanical Engineering, pp.1421-1431, Springer, India, 2013.
- Suryanarayana, C., (2011), Experimental Techniques in Materials and Mechanics, CRC Press, Taylor and Francis Group, NY, USA, 2011.
- Sussman, H., (1976), "Existence and Uniqueness of Minimal Realizations of Nonlinear Systems", *Mathematical Systems Theory, Springer*, Vol.10, pp.263–284, 1976.
- Suthar, S., (2011), "Contaminated Drinking Water and Rural Health Perspectives in Rajasthan, India: An Overview of Recent Case Studies", *Environmental Monitoring and Assessment*, Vol.173, No.1, pp.837-849, 2011.
- Suthar, S., Chhimpa, V., and Singh, S., (2009), "Bacterial Contamination in Drinking Water: A Case Study in Rural Areas of Northern Rajasthan, India", *Environmental Monitoring and Assessment*, Vol.159, No.1, pp.43-50, 2009.
- T K Ngai, Arsenic speciation and evaluation of an adsorption media in Rupandehi and Nawalparasi districts of Nepal, M E Thesis in civil and environmental engineering AT THE M I T, MA, June 2002.
- Tallman DE, Shaikh AU: Redox stability of inorganic arsenic(III) and arsenic(V) in aqueous solution. Anal Chem 1980, 52:199–201.
- Tandon PK, Shukla RC and Singh SB (2013) Removal of arsenic(III) from water with clay-supported zerovalent iron nanoparticles synthesized with the help of tea liquor. Industrial & Engineering Chemistry Research 52: 10052–10058.

 Technology.
- TFS, (2016)," One Shot TM TOP10 Chemically Competent E. coli", MAN0001491, www.thermofisher.com/order/catalog/product/C404010; 10 December 2016.
- Thakur, V. K., Thakur, M. K., and Gupta, R. K., (2013), "Rapid Synthesis of Graft Copolymers from Natural Cellulose Fibers", *Carbohydrate Polymers*, Vol.98, No.1, pp.820-828, 2013.

- Tharoor, S., (2016), An Era of Darkness: The British Empire in India, Aleph Book Company, New Delhi, 2016
- The Hindu, (2014), "Good Old Earthen Pots, with a Modern Touch", www.thehindu.com/news/national/andhra-pradesh/good-old-earthen-pots-with-a-modern-touch/article5957193.ece; 25 December, 2017.
- The Hindu, (2016)," Clay Bottles, Jars to Beat the Heat", www.thehindu.com/news/national/karnataka/clay-bottles-jars-to-beat-the-heat/article8526494.ece; 10 July, 2017.
- Thompson, M., (2015), "A Critical Review of Water Purification Technology Appropriate for Developing Countries: Northern Ghana as a Case Study", *Desalination and Water Treatment*, Vol.54, No.13, pp.3487-3493, 2015.
- Tozsin, G., Arol, A. I., Oztas, T., & Kalkan, E. (2014). Using marble wastes as a soil amendment for acidic soil neutralization. *Journal of environmental management*, 133, 374-377.
- Trevett, A. F., Carter, R. C., and Tyrrel, S. F., (2004), "Water Quality Deterioration: A Study of Household Drinking Water Quality in Rural Honduras", *International Journal of Environmental Health Research*, Vol.14, No.4, pp.273-283, 2004.
- Turner, J. M., (2014), "Counting Carbon: The Politics of Carbon Footprints and Climate Governance from the Individual to the Global", *Global Environmental Politics*, Vol. 14, No. 1, pp.59-78, 2014.
- Tyeryar, M., Reed, J., Hackett, C., Gilmore, M., Abebe, L., and Singo, A., (2011), "A Study of the Feasibility of Creating a Ceramic Water Filter Factory in Limpopo Province South Africa", *Public*, Vol.1, pp.119-127, 2011.
- UNICEF. (2008). UNICEF Handbook on Water Quality. United Nations Children's Fund (UNICEF), New York.
- UNICEF/WHO. (2009). Diarrhoea: why children are still dying and what can be done. New York: United Nations Children's Fund.
- Urs, K., Whittell, R., (2009), *Resisting Reform? Water Profits and Democracy*, Sage Publications India Pvt. Ltd., New Delhi, India, 2009.
- V.C.S. Prasad, V. Ganvir, DMAIC Approach in Rural Technology An Application to Making of Water Filters, Trans. Indian Ceram. Soc. 65 (2006).
- Valdés J. B., (2008), Science and Engineering to Address Water Resource Management Issues in Arid and Semi-Arid Regions, Practical Cutting-edge Technology for Water Services, Discussion and Focus on Applications in Africa, Water Science Forum, State Dept., Washington, D.C., 2008.
- Valko, M., Leibfritz, D., Moncol, J., Cronin, M. T., Mazur, M., & Telser, J. (2007). Free radicals and antioxidants in normal physiological functions and human disease. *The international journal of biochemistry & cell biology*, 39(1), 44-84.
- Van der Laan, H., Van Halem, D., Smeets, P. W. M. H., Soppe, A. I. A., Kroesbergen, J., Wubbels, G., ... & Heijman, S. G. J. (2014). Bacteria and virus removal effectiveness of ceramic pot filters with different silver applications in a long term experiment. *Water research*, *51*, 47-54.
- Van Halem, D. (2006). Ceramic silver impregnated pot filters for household drinking water treatment in developing countries.
- Van Halem, D., Heijman, S. G. J., Soppe, A. I. A., Van Dijk, J. C., and Amy, G. L., (2007), "Ceramic Silver-Impregnated Pot Filters for Household Drinking Water Treatment in Developing Countries: Material Characterization and Performance Study", Water Science and Technology: Water Supply, Vol.7, No.5-6, pp.9-17, 2007.
- Van Loon, J. A. (2012). Analytical atomic absorption spectroscopy: selected methods. Elsevier.
- Velasco, P. M., Ortíz, M. M., Giró, M. M., & Velasco, L. M. (2014). Fired clay bricks manufactured by adding wastes as sustainable construction material—A review. *Construction and Building materials*, 63, 97-107.
- Velraj, G., Janaki, K., Musthafa, A. M., and Palanivel, R., (2009), "Spectroscopic and Porosimetry Studies to Estimate the Firing Temperature of Some Archaeological Pottery Shreds from India", *Applied Clay Science*, Vol.43, No.3, pp.303-307, 2009.
- Venkatarama Reddy, B. V., (2009), "Sustainable Materials for Low Carbon Buildings", *International Journal of Low-Carbon Technologies*, Vol.4, No.3, pp.175-181, 2009.
- Vincentelli, M., (2000), Women and Ceramics: Gendered Vessels, Manchester University Press, 2000.
- Vorburger, T. V., & Teague, E. C. (1981). Optical techniques for on-line measurement of surface topography. *Precision Engineering*, 3(2), 61-83.
- W. Teughels, N. Van Assche, I. Sliepen, M. Quirynen, Clin. Oral Implants Res. 17 (2006) 68-81. doi:10.1111/j.1600-0501.2006.01353.x.
- W.S. Rasband, ImageJ, https://imagej.nih.gov/ij/.
- Waked, A. M., (1986), "Solar Energy Storage in Rocks", Solar and Wind Technology, Vol.3, No.1, pp.27-31, 1986.

- Wang, M., (2003), "Developing Bioactive Composite Materials for Tissue Replacement", *Biomaterials*, Vol.24, No.13, pp.2133-2151, 2003.
- Water Aid 2017, Wild Water The State of the World's Water 2017, Ed. Stewart et al, Government of Sweden. WCC, (2008)," Sustainable Home Guidelines/ Earth Building" www.waitakere.govt.nz/abtcit/ec/bldsus/pdf/materials/earthbuilding.pdf; 20 February 2016.
- Wei X., Plappally A. K., Brown L.C., Soboyejo A.B.O., Dong B., Mao Z., 2011, Numerical and Multivariate Stochastic Approaches to Characterize Guilin Wetland Dynamics, Stochastic Environmental Research & Risk Assessment, 25(8), DOI:10.1007/s00477-011-0520-6.
- Wei, X., Plappally, A. K., Soboyejo, A. B., Dong, B., Mao, Z., and Brown, L. C., (2012), "Numerical and Multivariate Stochastic Approaches to Characterize Flow in A Constructed Wetland Basin", *Stochastic Environmental Research and Risk Assessment*, Vol.26. No.4, pp.545-556, 2012.
- Weidenfeller, B., Hofer, M., and Schilling, F. R., (2005), "Cooling Behaviour of Particle Filled Polypropylene during Injection Moulding Process", *Composites Part A: Applied Science and Manufacturing*, Vol.36, No.3, pp.345-351, 2005.
- Welton, J.E., (2003), SEM Petrology Atlas, Methods in Exploration Series No. 4, Chevron Oil Field Research Company, AAPG publications, Tulsa, OK, 2003.
- Wenhold, F., & Faber, M. (2009). Water in nutritional health of individuals and households: An overview. Water Sa, 35(1), 61-71.
- WHO (2000). Arsenic in drinking water.
- WHO (2015), "Fact sheet JUNE 2015", www.who.int/mediacentre/factsheets/fs391/en/; 17 December 2017.
- WHO. (2011). Guidelines for Drinking-Water Quality (4 ed.). Geneva, Switzerland.
- WHO/UNICEF. (2008). Progress on Drinking Water and Sanitation: Special Focus on Sanitation; World Health Organization and United Nations Children's Fund Joint Monitoring Programme for Water Supply and Sanitation. Geneva, Switzerland.
- WHO: Guidelines for Drinking-water Quality: Recommendations. 3rd edition. Geneva: World Health Organization; 2008.
- Wilby, C. B., (1977), Concrete for Structural Engineers-A text to CP 100, Newnes-Butterworths, London, UK, 1977.
- Wilkie, J. A., & Hering, J. G. (1996). Adsorption of arsenic onto hydrous ferric oxide: effects of adsorbate/adsorbent ratios and co-occurring solutes. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 107, 97-110.
- Wilkie, J. A., & Hering, J. G. (1996). Adsorption of arsenic onto hydrous ferric oxide: effects of adsorbate/adsorbent ratios and co-occurring solutes. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, 107, 97-110.
- Wolf skill, L. A., Dunlap, W., and Galloway, B. M., (1963), *Handbook for Building Homes of Earth. Texas Transportation Institute*, Rep. for the Agency for Int. Development, Bull. No.21, E 14-63, Texas A and M Univ., College Station, Texas, 1963.
- Wong, K. J., Yousif, B. F., Low, K. O., Ng, Y., and Tan, S. L., (2009)," Effects of Fillers on the Fracture Behavior of Particulate Polyester Composites", *Journal of Strain Analysis*, Vol.45, pp.67-78, 2009.
- Wooten, M. K. (2014). Nanofiltration membranes from oriented mesoporous silica thin films.
- World Health Organization. "WHO.(2003). Emerging issues in water and infectious disease." World Health Organization, Geneva, Switzerland.
- Worrell, E., Price, L., Martin, N., Hendriks, C., and Meida, L. O., (2001), "Carbon Dioxide Emissions from the Global Cement Industry", *Annual Review of Energy and the Environment*, Vol.26, No.1, pp.303-329, 2001.
- Wu, J. F., Cheng, H., Xu, X. H., & Deng, T. F. (2014). Effect of sintering aids on the densification of andalusite ceramics. InAdvanced Materials Research (Vol. 842, pp. 78-82). Trans Tech Publications.
- Xiaohua Wei , Xiugui Wang , Bing Dong , Xinjian Li , Anand K. Plappally , Zhi Mao & Larry C. Brown, 2012, Simplified residence time prediction models for constructed wetland water recycling systems, Desalination and Water Treatment, Volume 51, Issue 7-9, February 2012, pages 1494-1502.
- Xu, P., Zeng, G. M., Huang, D. L., Feng, C. L., Hu, S., Zhao, M. H., & Liu, Z. F. (2012). Use of iron oxide nanomaterials in wastewater treatment: a review. *Science of the Total Environment*, 424, 1-10.
- Xu, Y., Kinugawa, J., and Yagi K., (2003), "Development of Thermal Conductivity Prediction System for Composites", *Materials Transactions*, Vol.44, No.4, pp.629-632, 2003.
- Yadav, A., Kumar, G., Soboyejo, A. B. O., Gaur, R. S., Tiwari, S., and Plappally, A., (2015), "Empirical Models for Change in pH and Temperature Within Gravity-Based Reactor Columns", *Desalination and Water Treatment*, Vol.55, No.12, pp.3195-3209, 2015.
- Yakub, I. (2012). Micro-and nano-porous adsorptive materials for removal of contaminants from water at point-of-use (Doctoral dissertation, Princeton University).

- Yakub, I., & Soboyejo, W. (2013). Adsorption of fluoride from water using sintered clay-hydroxyapatite composites. *Journal of Environmental Engineering*, 139(7), 995-1003.
- Yakub, I., Du, J., & Soboyejo, W. O. (2012). Mechanical properties, modeling and design of porous clay ceramics. *Materials Science and Engineering: A*, 558, 21-29.
- Yao, S., Liu, Z., & Shi, Z. (2014). Arsenic removal from aqueous solutions by adsorption onto iron oxide/activated carbon magnetic composite. *Journal of Environmental Health Science and Engineering*, 12(1), 58.
- Yeung, Z. L. L., Kwok, R. C. W., & Yu, K. N. (2003). Determination of multi-element profiles of street dust using energy dispersive X-ray fluorescence (EDXRF). Applied Radiation and Isotopes, 58(3), 339-346.
- Zafar, A., Al-Ghafri, A. S., Al-Ghulaibi, N. M., Fetoui, M., Khan, F. F., Kobori, I., Liang, L., Oshima, K., Ouessar, Mohammed, Sghaier, Monghi, Qingwei, Sun, Tao, Wang and Wessels, J., (2008), What Makes Traditional Technologies Tick? A Review of Traditional Approaches for Water Management in Drylands, Editors: Adeel, Zafar, Schuster, Brigitte and Bigas, Harriet, UNU Desertification Series, Hamilton: UNU-INWEH, 2008.
- Zeng, H., Fisher, B., & Giammar, D. E. (2007). Individual and competitive adsorption of arsenate and phosphate to a high-surface-area iron oxide-based sorbent. *Environmental science & technology*, 42(1), 147-152.
- Zeng, Z., & Jiang, J. Q. (2005). Effects of the type and structure of modified clays on adsorption performance. *International journal of environmental studies*, 62(4), 403-414.
- Zenkert, D., (1995), An Introduction to Sandwich Construction, Chameleon Press Ltd., London, 1995.
- Zhandarov, S., and Mäder, E., (2005), "Characterization of Fiber/Matrix Interface Strength: Applicability of Different Tests, Approaches and Parameters", Composites Science and Technology, Vol.65, No.1, pp.149-160, 2005.
- Zhandarov, S., Pisanova, E., Mäder, E., and Nairn, J. A., (2001), "Investigation of Load Transfer Between the Fiber and the Matrix in Pull-Out Tests with Fibers Having Different Diameters", *Journal of Adhesion Science and Technology*, Vol.15, No.2, pp.205-222, 2001.
- Zhang, F. S., & Itoh, H. (2005). Iron oxide-loaded slag for arsenic removal from aqueous system. Chemosphere, 60(3), 319-325.
- Zhang, Y., Yang, M., & Huang, X. (2003). Arsenic (V) removal with a Ce (IV)-doped iron oxide adsorbent. *Chemosphere*, 51(9), 945-952.
- Zhou, W., Apkarian, R., Wang, Z. L., and Joy, D., (2006), Fundamentals of Scanning Electron Microscopy (SEM), In Scanning Microscopy for Nanotechnology, Springer, NY, USA, 2006.
- Zhu, Z. K., Yang, Y., Yin, J., and Qi, Z. N., (1999), "Preparation and Properties of Organ Soluble Polyimide/Silica Hybrid Materials by Sol-Gel Process", *Journal of Applied Polymer Science*, Vol.73, pp.2977–2984, 1999.
- Zum Gahr, K. H., (1998), "Wear by Hard Particles", Tribology International, Vol.31, No.10, pp.587-596, 1998.