



















- 39 (2), Pp. 487-509.
- Renu, V., Kumar, G.S., 2016a. Temporal Moment Analysis of Multi-Species Radionuclide Transport in a Coupled Fracture-Skin-Matrix System with a Variable Fracture Aperture. *Environmental Modeling and Assessment* (Springer Publications), 21 (4), Pp. 547 – 562.
- Renu, V., Kumar, G.S., 2016b. Numerical Modeling on Benzene Dissolution into Groundwater and Transport of Dissolved Benzene in a Saturated Fracture-Matrix System. *Environmental Processes* (Springer Publications), 3(4), Pp.781-802.
- Renu, V., Kumar, G.S., 2017a. Benzene Dissolution and Transport in a Saturated Sinusoidal Fracture with non-uniform Flow: Numerical Investigation and Sensitivity Analysis. *Environmental Processes* (SpringerLink Publications), 4(3), Pp. 587-601.
- Renu, V., Kumar, G.S., 2017b. Multi-Component Transport of BTX in a Discretely Fractured Aquifer with Fracture-Skin: Numerical Investigation and Sensitivity analysis. (Ms. No. ENGE-D-17-00102R1) *Environmental Earth Sciences* (Springer Link Publications), 76(17), Pp. 1-15.
- Renu, V., Kumar, G.S., 2018a. Interaction of Dissolution, Sorption and Biodegradation on Transport of BTEX in a Saturated Groundwater System: Numerical Modeling and Spatial Moment Analysis. *Journal of Earth System Science* (Springer Publications), 127 (4), Pp. 1-21.
- Renu, V., Kumar, G.S., 2018b. Multispecies Transport Modeling on Biodegradation of BTX in a Saturated Fracture-Matrix System with Multiple Electron Acceptors. *Environmental Engineering Science* (Mary Ann Liebert, Inc. publishers).
- Renu, V., Kumar, G.S., 2018c. Mathematical Modeling on Mobility and Spreading of BTEX in a Discretely Fractured Aquifer System under the Coupled Effect of Dissolution, Sorption, and Biodegradation. *Transport in Porous Media* (Springer Publications), 123(2), Pp. 421-452.
- Renu, V., Kumar, G.S., 2019. Co-colloidal BTEX and Microbial transport in a Saturated Porous System: Numerical Modeling and Sensitivity Analysis. *Transport in Porous Media* (Springer-Link Publications), 127 (2), Pp. 269-294.
- Renu, V., Kumar, S.G., 2012. Numerical Modeling and Spatial Moment Analysis of Solute Mobility and Spreading in a Coupled Fracture-Skin-Matrix System. *Geotechnical and Geological Engineering* (SpringerLink), 30 (6), Pp. 1289-1302.
- Sekhar, M., Kumar, G.S., 2006. Modeling Transport of Linearly Sorbing Solutes in a Single Fracture: Asymptotic Behavior of Solute Velocity and Dispersivity. *Geotechnical and Geological Engineering* (Springer Science Publications), 24 (1), Pp. 183-201.
- Sekhar, M., Kumar, G.S., Mishra, D., 2006. Numerical Modeling and Analysis of Solute Velocity and Macrodispersion for Linearly and Nonlinearly Sorbing Solutes in a Single Fracture with Matrix Diffusion. *Journal of Hydrologic Engineering* (ASCE), 11(4), Pp. 319-328.
- Sharma, T., Kumar, G.S., Chon, B.H., Sangwai, J., 2015c. Thermal Stability of Oil-in-Water Pickering Emulsion in the Presence of Nanoparticle, Surfactant and Polymer. *Journal of Industrial and Engineering Chemistry* (Elsevier Publications), 22, Pp. 324-334.
- Sharma, T., Kumar, G.S., Sangwai, J., 2014a. Enhanced Oil Recovery using Oil-in-Water (O/W) Emulsion Stabilized by Nanoparticle, Surfactant and Polymer in the Presence of NaCl. *Geosystem Engineering* (Taylor & Francis Publications), 17 (3), Pp. 195-205.
- Sharma, T., Kumar, G.S., Sangwai, J., 2014b. Viscosity of the Oil-in-Water Pickering Emulsion Stabilized by Surfactant-Polymer and Nanoparticle-Surfactant-Polymer System. *Korea-Australia Rheology Journal* (Springer Publications), 26 (4), Pp. 1-11.
- Sharma, T., Kumar, G.S., Sangwai, J., 2015a. Comparative Effectiveness of Production Performance of Pickering Emulsion Stabilized by Nanoparticle-Surfactant-Polymer over Surfactant-Polymer (SP) Flooding for Enhanced Oil Recovery for Brownfield Reservoir. *Journal of Petroleum Science and Engineering* (Elsevier Publications), 129, Pp. 221-232.
- Sharma, T., Kumar, G.S., Sangwai, J., 2015b. Viscoelastic Properties of Oil-in-Water (O/W) Pickering Emulsion Stabilized by Surfactant-Polymer and Nanoparticle-Surfactant-Polymer System. *Industrial & Engineering Chemistry Research* (ACS Publications), 54(5), Pp. 1576-1584.
- Sivasankar, P., Kanna, R., Kumar, G.S., Gummadi, S.N., 2016. Numerical Modelling of Biophysicochemical effects on Multispecies Reactive Transport in Porous Media Involving *Pseudomonas Putida* for Potential Microbial Enhanced Oil Recovery Application. *Bioresource Technology* (Elsevier Publications), 211, Pp. 348 – 359.
- Sivasankar, P., Kumar, G.S., 2014. Numerical Modeling of Enhanced Oil Recovery by Microbial Flooding under Non-isothermal Conditions. *Journal of Petroleum Science and Engineering* (Elsevier Publications), 124, Pp. 161-172.
- Sivasankar, P., Kumar, G.S., 2017a. Influence of pH on dynamics of Microbial Enhanced Oil Recovery Processes using Biosurfactant Produced *Pseudomonas Putida*: Mathematical Modeling and Numerical Simulation. *Bioresource Technology* (Elsevier Publications), 224, Pp. 498-508.
- Sivasankar, P., Kumar, G.S., 2017b. Improved Empirical Relations for Estimating Original Oil in Place Recovered During Microbial Enhanced Oil Recovery Under Varied Salinity Conditions. *Petroleum Science and Technology* (Taylor & Francis Publications), 35 (21), Pp. 2036-2043.
- Sivasankar, P., Kumar, G.S., 2018. Modelling the influence of interaction between injection and formation brine salinities on in-situ microbial enhanced oil recovery processes by coupling of multiple-ion exchange transport model with multiphase fluid flow and multi-species reactive transport models. *Journal of Petroleum Science and Engineering* (Elsevier Publications), 163, Pp. 435-452.
- Sivasankar, P., Kumar, G.S., 2019. Influence of Bio-Clogging Induced Formation Damage on Performance of Microbial Enhanced Oil Recovery Processes. *Fuel* (Elsevier Publications), 236, Pp. 100-109.
- Srinivasa, R.D., Kumar, G.S., 2014. A comprehensive analysis on thermal and kinetic aspects of in-situ combustion: Numerical Approach. *Applied Mechanics and Materials*, 592-594, Pp. 1393-1397.
- Srinivasa, R.D., Kumar, G.S., 2015a. Numerical Simulation of Heavy Crude Oil Combustion in Porous Combustion-Tube. *Combustion Science & Technology* (Taylor & Francis Publications), 187 (12), Pp. 1905-1921.
- Srinivasa, R.D., Kumar, G.S., 2015b. A Numerical Study on Phase Behavior effects in Enhanced Oil Recovery by In-Situ Combustion. *Petroleum Science and Technology* (Taylor and Francis Publications), 33 (3), Pp. 353-362.
- Suresh, K.G., 2008. Effect of Sorption Intensities on Dispersivity and Macro-dispersion Coefficient in a Single Fracture with Matrix Diffusion. *Hydrogeology Journal* (Springer), 16 (2), Pp. 235-249.
- Suresh, K.G., 2009. Influence of Sorption Intensity on Solute Mobility in a Fractured Formation. *Journal of Environmental Engineering* (ASCE), 135 (1), Pp. 1-7.
- Suresh, K.G., 2014a. Mathematical Modeling of Groundwater Flow and Solute Transport in a Saturated Fractured Rock using Dual-Porosity Approach. *Journal of Hydrologic Engineering* (ASCE), 19 (12), Pp. 04014033-1 – 04014033-8.
- Suresh, K.G., 2014b. Mathematical Modeling on Transport of Petroleum Hydrocarbons in Saturated Fractured Rocks. *Sadhana – Academy proceedings in Engineering Sciences* (Springer Publications), 39 (5), Pp. 1119-1139.
- Suresh, K.G., 2015. Subsurface Transport of Nuclear Wastes in the Indian Subcontinent. *ISH Journal of Hydraulic Engineering* (Taylor and Francis Publications), 21 (2), Pp. 162-176.
- Suresh, K.G., 2016. Modeling Fluid Flow through Fractured Reservoirs: Is it different from Conventional Classical Porous Medium?. *Current Science* (Current Science Association & Indian Academy of Sciences), 110(4), Pp. 695-701.
- Suresh, K.G., 2019a. An Overview on Extension and Limitations of Macroscopic Darcy's Law for a Single and Multi-Phase Fluid Flow

- through a Porous Medium. *International Journal of Mining Science (ARC Journals, ISSN: 2454-9460)*, 5 (4), Pp. 1-21.
- Suresh, K.G., 2019b. A Critical Review on Conceptual and Mathematical Modelling Techniques and its Associated Fluid Dynamics of a Sandstone and Fractured Petroleum Reservoir. *International Journal of Emerging Engineering Research and Technology*, 7 (9), Pp. 39-51.
- Suresh, K.G., Ghassemi, A., 2005. Numerical Modeling of Non-Isothermal Quartz Dissolution/Precipitation in a Coupled Fracture-Matrix System. *Geothermics (Elsevier Science Publications)*, 34 (4), Pp. 411-439.
- Suresh, K.G., Ghassemi, A., 2006. Spatial Moment Analysis for One-Dimensional Nonisothermal Quartz Transport and Dissolution/Precipitation in a Fracture-Matrix System. *Journal of Hydrologic Engineering (ASCE)*, 11 (4), Pp. 338-346.
- Suresh, K.G., Rakesh, T.V., 2015. Numerical Modeling of Reactive Solute Transport in a Single Fracture with Matrix Diffusion under Complex Boundary Condition. *ISH Journal of Hydraulic Engineering (Taylor and Francis Publications)*, 21 (2), Pp. 125-141.
- Suresh, K.G., Rakesh, T.V., 2018. Numerical Modeling of Hyperbolic Dominant Transient Fluid Flow in Saturated Fractured Rocks using Darcian Approach. *Groundwater for Sustainable Development (Elsevier Publications)*, 7, Pp. 56-72.
- Suresh, K.G., Sekhar, M., 2005. Spatial Moment Analysis for Transport of Nonreactive Solutes in a Fracture-Matrix System. *Journal of Hydrologic Engineering (ASCE)*, 10 (3), Pp. 192-199.
- Suresh, K.G., Sekhar, M., Mishra, D., 2008. Time dependent dispersivity of linearly sorbing solutes in a single fracture with matrix diffusion. *Journal of Hydrologic Engineering (ASCE)*, 13 (4), Pp. 250-257.
- Suresh, K.G., Sekhar, M., Misra, D., 2006. Time Dependent Dispersivity Behavior of Non-Reactive Solutes in a System of Parallel Fractures. *Hydrology and Earth System Sciences Discussions (Copernicus Publications)*, 3 (3), Pp. 895-923.
- Suresh, K.G., Srinivasa, Reddy, 2017. Numerical Modeling of Forward In-Situ Combustion Process in Heavy Oil Reservoirs. *International Journal of Oil, Gas and Coal Technology (Inderscience Publishers)*, 16 (1), Pp. 43-58.
- Vasudevan, M., Berlin, M., Mohanasundaram, S., Kumar, G.S., Nambi, I.M., 2017. Numerical Investigations on Feasibility of Surfactant Enhanced Remediation of Polycyclic Aromatic Hydrocarbon in an Unsaturated Subsurface System beneath an Onshore Surface Spill Site. *International Journal of Environmental Technology and Management (Inderscience Publications)*, 20 (5/6), Pp. 321-346.
- Vasudevan, M., Johnston, C.D., Bastow, T.P., Lekmine, G., Rayner, J.L., Nambi, I.M., Kumar, G.S., Krishna, R.R., Davis, G.B., 2016a. Effect of compositional heterogeneity on dissolution of non-ideal LNAPL mixtures. *Journal of Contaminant Hydrology (Elsevier Publications)*, 194., Pp. 10-16.
- Vasudevan, M., Kumar, G.S., Nambi, I.M., 2014a. Numerical Modeling of Multi-Component LNAPL Dissolution Kinetics at Residual Saturation in a Saturated Sub-Surface System. *Sadhana Academy proceedings in Engineering Sciences (Springer Publications)*, 39 (6), Pp. 1387-1408.
- Vasudevan, M., Kumar, G.S., Nambi, I.M., 2014b. Numerical Study on Kinetic/Equilibrium Behavior of Dissolution of Toluene under Variable Sub-Surface Conditions. *European Journal of Environmental and Civil Engineering (Taylor & Francis Publications)*, 18(9), Pp. 1070-1093.
- Vasudevan, M., Kumar, G.S., Nambi, I.M., 2015. Numerical Modeling on Kinetics of Sorption and Dissolution and their interactions for Estimating Mass Removal of Toluene from Entrapped Soil Pores. *Arabian Journal of Geosciences (Springer Publications)*, 8(9), Pp. 6895-6910.
- Vasudevan, M., Kumar, G.S., Nambi, I.M., 2016b. Numerical Modeling on Rate Limited Dissolution Mass Transfer of Entrapped Petroleum Hydrocarbons in a Saturated Sub-Surface System. *ISH Journal of Hydraulic Engineering (Taylor and Francis Publications)*, 22 (1), Pp. 3-15.
- Vasudevan, Nambi, I.M., Kumar, G.S., 2016c. Scenario-based Modeling of Mass Transfer Mechanisms at a Petroleum Contaminated Field Site – Numerical Implications. *Journal of Environmental Management (Elsevier Publishers)*, 175., Pp. 9-19.
- Vijai, K.B., Kumar, G.S., Dani, K.C., Kumar, M., 2016. Physicochemical characterization and analysis of injection water quality during waterflooding at offshore petroleum facilities. *International Journal of Chemical Sciences (SCICHEM Publishing House; ISSN: 0972-768X)*, 14(4), Pp. 2867-2876.
- Vivek, R., Kumar, G.S., 2016. Numerical Investigation on Effect of Varying Injection Scenario and Relative Permeability Hysteresis on CO<sub>2</sub> Dissolution in Saline Aquifer. *Environmental Earth Sciences (Springer Publications)*, 75, 1192.
- Vivek, R., Kumar, G.S., 2019. An Improved Brine Relative Permeability Model with Hysteresis and Its Significance to Sequestered CO<sub>2</sub> in a Deep Saline Aquifer. *Environmental Earth Sciences (Springer Link Publications)*, 78, 151., Pp. 1-15.
- Vivek, R., Kumar, G.S., 2020. Evolution of Hysteresis Relative Permeability of Wetting Brine Phase using Contact Angle Hysteresis in a Partially Saturated CO<sub>2</sub>-Brine System. *Energy Sources, Part A: Recovery, Utilization, and Environmental Effects (Taylor & Francis Publications)*, Pp. 1-17.
- Vivek, R., Sivasankar, P., Kumar, G.S., 2017. Accelerating Dissolution Trapping by Low Saline WAG Injection Scenario. *Energy Procedia (Elsevier Publications)*, 114, Pp. 5038-5047.

