

Chunhui Lu

List of Publications by Year in descending order

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Version: 2024-02-01

99
papers

3,163
citations

218677

26
h-index

168389

53
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104
all docs

104
docs citations

104
times ranked

2522
citing authors

| # | ARTICLE | IF | CITATIONS |
|----|---|------|-----------|
| 1 | Seawater intrusion processes, investigation and management: Recent advances and future challenges. <i>Advances in Water Resources</i> , 2013, 51, 3-26. | 3.8 | 1,046 |
| 2 | Novel $\text{Fe}_2\text{O}_3/\text{MXene}$ nanocomposite as heterogeneous activator of peroxymonosulfate for the degradation of salicylic acid. <i>Journal of Hazardous Materials</i> , 2020, 382, 121064. | 12.4 | 185 |
| 3 | Steady-state freshwater-seawater mixing zone in stratified coastal aquifers. <i>Journal of Hydrology</i> , 2013, 505, 24-34. | 5.4 | 124 |
| 4 | Effects of kinetic mass transfer and transient flow conditions on widening mixing zones in coastal aquifers. <i>Water Resources Research</i> , 2009, 45, . | 4.2 | 80 |
| 5 | Timescales of seawater intrusion and retreat. <i>Advances in Water Resources</i> , 2013, 59, 39-51. | 3.8 | 80 |
| 6 | How important is the impact of land-surface inundation on seawater intrusion caused by sea-level rise?. <i>Hydrogeology Journal</i> , 2013, 21, 1673-1677. | 2.1 | 72 |
| 7 | Facile construction of dual heterojunction $\text{CoO}/\text{TiO}_2/\text{MXene}$ hybrid with efficient and stable catalytic activity for phenol degradation with peroxymonosulfate under visible light irradiation. <i>Journal of Hazardous Materials</i> , 2021, 420, 126686. | 12.4 | 72 |
| 8 | Effects of commonly used nitrification inhibitors—dicyandiamide (DCD), 3,4-dimethylpyrazole phosphate (DMPP), and nitrapyrin—on soil nitrogen dynamics and nitrifiers in three typical paddy soils. <i>Geoderma</i> , 2020, 380, 114637. | 5.1 | 65 |
| 9 | Combined effects of tides, evaporation and rainfall on the soil conditions in an intertidal creek-marsh system. <i>Advances in Water Resources</i> , 2017, 103, 1-15. | 3.8 | 50 |
| 10 | Nonlinear interactions of waves and tides in a subterranean estuary. <i>Geophysical Research Letters</i> , 2015, 42, 2277-2284. | 4.0 | 45 |
| 11 | Seawater intrusion in response to sea-level rise in a coastal aquifer with a general-head inland boundary. <i>Journal of Hydrology</i> , 2015, 522, 135-140. | 5.4 | 42 |
| 12 | Dynamics of freshwater-seawater mixing zone development in dual-domain formations. <i>Water Resources Research</i> , 2010, 46, . | 4.2 | 40 |
| 13 | A Proof-of-Concept Study of Using a Less Permeable Slice Along the Shoreline to Increase Fresh Groundwater Storage of Oceanic Islands: Analytical and Experimental Validation. <i>Water Resources Research</i> , 2019, 55, 6450-6463. | 4.2 | 40 |
| 14 | Effect of soil particle size on the corrosion behavior of natural gas pipeline. <i>Engineering Failure Analysis</i> , 2015, 58, 19-30. | 4.0 | 39 |
| 15 | Seawater intrusion and retreat in tidally-affected unconfined aquifers: Laboratory experiments and numerical simulations. <i>Advances in Water Resources</i> , 2019, 132, 103393. | 3.8 | 39 |
| 16 | Solute transport influenced by unstable flow in beach aquifers. <i>Advances in Water Resources</i> , 2019, 125, 68-81. | 3.8 | 37 |
| 17 | Effects of episodic rainfall on a subterranean estuary. <i>Water Resources Research</i> , 2017, 53, 5774-5787. | 4.2 | 36 |
| 18 | Synergistic Features of Superoxide Molecule Anchoring and Charge Transfer on Two-Dimensional $\text{Ti}_3\text{C}_2\text{T}_x$ MXene for Efficient Peroxymonosulfate Activation. <i>ACS Applied Materials & Interfaces</i> , 2020, 12, 9209-9218. | 8.0 | 36 |

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|----|--|------|-----------|
| 19 | Dewatering of drinking water treatment sludge using the Fenton-like process induced by electro-osmosis. <i>Chemical Engineering Journal</i> , 2016, 293, 207-215. | 12.7 | 35 |
| 20 | Replenishing an unconfined coastal aquifer to control seawater intrusion: Injection or infiltration?. <i>Water Resources Research</i> , 2017, 53, 4775-4786. | 4.2 | 34 |
| 21 | Effects of pipe material on nitrogen transformation, microbial communities and functional genes in raw water transportation. <i>Water Research</i> , 2018, 143, 188-197. | 11.3 | 31 |
| 22 | Molecular Characteristics of Dissolved Organic Nitrogen and Its Interaction with Microbial Communities in a Prechlorinated Raw Water Distribution System. <i>Environmental Science & Technology</i> , 2020, 54, 1484-1492. | 10.0 | 31 |
| 23 | Short-term electrochemical corrosion behavior of pipeline steel in saline sandy environments. <i>Engineering Failure Analysis</i> , 2016, 59, 410-418. | 4.0 | 29 |
| 24 | Assessment of the impact of sea-level rise on steady-state seawater intrusion in a layered coastal aquifer. <i>Journal of Hydrology</i> , 2018, 563, 851-862. | 5.4 | 29 |
| 25 | Effects of macro-pores on water flow in coastal subsurface drainage systems. <i>Advances in Water Resources</i> , 2016, 87, 56-67. | 3.8 | 27 |
| 26 | Preventing Seawater Intrusion and Enhancing Safe Extraction Using Finite-Element Length, Impermeable Subsurface Barriers: 3D Analysis. <i>Water Resources Research</i> , 2020, 56, e2020WR027792. | 4.2 | 27 |
| 27 | Simultaneous removal of dissolved organic matter and nitrate from sewage treatment plant effluents using photocatalytic membranes. <i>Water Research</i> , 2018, 143, 250-259. | 11.3 | 26 |
| 28 | Analytical solutions of seawater intrusion in sloping confined and unconfined coastal aquifers. <i>Water Resources Research</i> , 2016, 52, 6989-7004. | 4.2 | 25 |
| 29 | Boundary Condition Effects on Maximum Groundwater Withdrawal in Coastal Aquifers. <i>Ground Water</i> , 2012, 50, 386-393. | 1.3 | 24 |
| 30 | Impact of kinetic mass transfer on free convection in a porous medium. <i>Water Resources Research</i> , 2016, 52, 3637-3653. | 4.2 | 24 |
| 31 | Engineered Photocatalytic Material Membrane Assemblies for Removing Nitrate from Water. <i>ACS Sustainable Chemistry and Engineering</i> , 2018, 6, 7042-7051. | 6.7 | 24 |
| 32 | Recovery efficiency of aquifer storage and recovery (ASR) with mass transfer limitation. <i>Water Resources Research</i> , 2011, 47, . | 4.2 | 23 |
| 33 | Maximizing Net Extraction Using an Injection-Extraction Well Pair in a Coastal Aquifer. <i>Ground Water</i> , 2013, 51, 219-228. | 1.3 | 23 |
| 34 | Threats to coastal aquifers. <i>Nature Climate Change</i> , 2013, 3, 605-605. | 18.8 | 23 |
| 35 | Defining the Effect of Stratification in Coastal Aquifers Using a New Parameter. <i>Water Resources Research</i> , 2018, 54, 5948-5957. | 4.2 | 23 |
| 36 | A comparison between ES-MDA and restart EnKF for the purpose of the simultaneous identification of a contaminant source and hydraulic conductivity. <i>Journal of Hydrology</i> , 2021, 595, 125681. | 5.4 | 23 |

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|----|--|------|-----------|
| 37 | An analytical solution for predicting the transient seepage from a subsurface drainage system. <i>Advances in Water Resources</i> , 2016, 91, 1-10. | 3.8 | 22 |
| 38 | Analytical, Experimental, and Numerical Investigation of Partially Penetrating Barriers for Expanding Island Freshwater Lenses. <i>Water Resources Research</i> , 2021, 57, e2020WR028386. | 4.2 | 22 |
| 39 | Transformation and fate of dissolved organic nitrogen in drinking water supply system: A full scale case study from Yixing, China. <i>Science of the Total Environment</i> , 2019, 673, 435-444. | 8.0 | 21 |
| 40 | Temperature Influenced the Comammox Community Composition in Drinking Water and Wastewater Treatment Plants. <i>Microbial Ecology</i> , 2021, 82, 870-884. | 2.8 | 21 |
| 41 | Measuring sustainability as distance to ideal position of economy, society and environment: Application to China's provincial water resources (2004-17). <i>Journal of Environmental Management</i> , 2021, 292, 112742. | 7.8 | 21 |
| 42 | Assessment of the impact of sea-level rise on seawater intrusion in sloping confined coastal aquifers. <i>Journal of Hydrology</i> , 2020, 586, 124872. | 5.4 | 20 |
| 43 | Groundwater pumping in head-controlled coastal systems: The role of lateral boundaries in quantifying the interface toe location and maximum pumping rate. <i>Journal of Hydrology</i> , 2014, 512, 147-156. | 5.4 | 18 |
| 44 | Predictability and Quantification of Complex Groundwater Table Dynamics Driven by Irregular Surface Water Fluctuations. <i>Water Resources Research</i> , 2018, 54, 2436-2451. | 4.2 | 18 |
| 45 | Evaluation of the performance of multiple-well hydraulic barriers on enhancing groundwater extraction in a coastal aquifer. <i>Advances in Water Resources</i> , 2020, 144, 103704. | 3.8 | 18 |
| 46 | Steady state analytical solutions for pumping in a fully bounded rectangular aquifer. <i>Water Resources Research</i> , 2015, 51, 8294-8302. | 4.2 | 17 |
| 47 | A Correction on Coastal Heads for Groundwater Flow Models. <i>Ground Water</i> , 2015, 53, 164-170. | 1.3 | 17 |
| 48 | Effects of a low-permeability layer on unstable flow pattern and land-sourced solute transport in coastal aquifers. <i>Journal of Hydrology</i> , 2021, 598, 126397. | 5.4 | 16 |
| 49 | Evaluation and application of the modified van Genuchten function for unsaturated porous media. <i>Journal of Hydrology</i> , 2019, 571, 279-287. | 5.4 | 15 |
| 50 | Effect of Anisotropy Structure on Plume Entropy and Reactive Mixing in Helical Flows. <i>Transport in Porous Media</i> , 2018, 121, 315-332. | 2.6 | 14 |
| 51 | Effects of Rate-Limited Mass Transfer on Modeling Vapor Intrusion with Aerobic Biodegradation. <i>Environmental Science & Technology</i> , 2016, 50, 9400-9406. | 10.0 | 13 |
| 52 | Variation of microbial communities and functional genes during the biofilm formation in raw water distribution systems and associated effects on the transformation of nitrogen pollutants. <i>Environmental Science and Pollution Research</i> , 2017, 24, 15347-15359. | 5.3 | 13 |
| 53 | Analysis of stagnation points for a pumping well in recharge areas. <i>Journal of Hydrology</i> , 2009, 373, 442-452. | 5.4 | 11 |
| 54 | Prediction of Environmental Properties in Water-Soil-Air Systems for Phthalates. <i>Bulletin of Environmental Contamination and Toxicology</i> , 2009, 83, 168-173. | 2.7 | 11 |

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|----|---|-----|-----------|
| 55 | A mobile-mobile transport model for simulating reactive transport in connected heterogeneous fields. <i>Journal of Hydrology</i> , 2018, 560, 97-108. | 5.4 | 11 |
| 56 | A simplified equation of approximate interface profile in stratified coastal aquifers. <i>Journal of Hydrology</i> , 2020, 580, 124249. | 5.4 | 11 |
| 57 | Assessing the contribution of groundwater to catchment travel time distributions through integrating conceptual flux tracking with explicit Lagrangian particle tracking. <i>Advances in Water Resources</i> , 2021, 149, 103849. | 3.8 | 11 |
| 58 | Non-point contaminant source identification in an aquifer using the ensemble smoother with multiple data assimilation. <i>Journal of Hydrology</i> , 2022, 606, 127405. | 5.4 | 11 |
| 59 | Expanding Freshwater Lenses Adjacent to Gaining Rivers Through Vertical Low-Hydraulic Conductivity Barriers: Analytical and Experimental Validation. <i>Water Resources Research</i> , 2020, 56, e2019WR025750. | 4.2 | 10 |
| 60 | Effect of cut-off wall on freshwater storage in small islands considering ocean surge inundation. <i>Journal of Hydrology</i> , 2021, 603, 127143. | 5.4 | 10 |
| 61 | Solute transport in divergent radial flow with multistep pumping. <i>Water Resources Research</i> , 2012, 48, . | 4.2 | 9 |
| 62 | Role of typical soil particle size distributions on the long-term corrosion behavior of pipeline steel. <i>Materials and Corrosion - Werkstoffe Und Korrosion</i> , 2016, 67, 471-483. | 1.5 | 9 |
| 63 | Analytical analysis of the temporal asymmetry between seawater intrusion and retreat. <i>Advances in Water Resources</i> , 2018, 111, 121-131. | 3.8 | 9 |
| 64 | Hydrometeorological disasters during COVID-19: Insights from topic modeling of global aid reports. <i>Science of the Total Environment</i> , 2022, 838, 155977. | 8.0 | 9 |
| 65 | Experimental and modeling investigation of pumping from a fresh groundwater lens in an idealized strip island. <i>Journal of Hydrology</i> , 2021, 602, 126734. | 5.4 | 8 |
| 66 | A novel two-step approach for optimal groundwater remediation by coupling extreme learning machine with evolutionary hunting strategy based metaheuristics. <i>Journal of Contaminant Hydrology</i> , 2021, 243, 103864. | 3.3 | 8 |
| 67 | Shifts in the community composition of methane-cycling microorganisms during lake shrinkage. <i>Geoderma</i> , 2018, 311, 9-14. | 5.1 | 7 |
| 68 | Plume deformation, mixing, and reaction kinetics: An analysis of interacting helical flows in three-dimensional porous media. <i>Physical Review E</i> , 2020, 102, 013110. | 2.1 | 7 |
| 69 | Effects of River Partial Penetration on the Occurrence of Riparian Freshwater Lenses: Theoretical Development. <i>Water Resources Research</i> , 2020, 56, e2020WR027786. | 4.2 | 7 |
| 70 | Watertable fluctuation-induced variability in the water retention curve: Sand column experiments. <i>Journal of Hydrology</i> , 2020, 589, 125125. | 5.4 | 7 |
| 71 | Effects of River Partial Penetration on the Occurrence of Riparian Freshwater Lenses: Experimental Investigation. <i>Water Resources Research</i> , 2021, 57, e2021WR029728. | 4.2 | 7 |
| 72 | Effects of Land Reclamation on a Subterranean Estuary. <i>Water Resources Research</i> , 2022, 58, . | 4.2 | 7 |

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|----|--|-----|-----------|
| 73 | New finite volume multiscale finite element model for simultaneously solving groundwater flow and darcian velocity fields in porous media. <i>Journal of Hydrology</i> , 2019, 573, 592-606. | 5.4 | 6 |
| 74 | Investigation of nitrogen pollutants transformation and its pathways along the long-distance prechlorinated raw water distribution system. <i>Chemosphere</i> , 2020, 255, 126833. | 8.2 | 6 |
| 75 | Analytical and Experimental Investigation of the Impact of Land Reclamation on Steady-State Seawater Extent in Coastal Aquifers. <i>Water Resources Research</i> , 2021, 57, e2020WR029028. | 4.2 | 6 |
| 76 | Analytical Solutions for Fresh Groundwater Lenses in Small Strip Islands With Spatially Variable Recharge. <i>Water Resources Research</i> , 2021, 57, e2020WR029497. | 4.2 | 6 |
| 77 | Using nitrate as a tracer to constrain age selection preferences in catchments with strong seasonality. <i>Journal of Hydrology</i> , 2021, 603, 126889. | 5.4 | 6 |
| 78 | Development of groundwater lens for transient recharge in strip islands. <i>Journal of Hydrology</i> , 2020, 590, 125209. | 5.4 | 5 |
| 79 | Effective Chemical Delivery Through Multi-Screen Wells to Enhance Mixing and Reaction of Solute Plumes in Porous Media. <i>Water Resources Research</i> , 2021, 57, e2020WR028551. | 4.2 | 5 |
| 80 | Effects of aquifer geometry on seawater intrusion in annulus segment island aquifers. <i>Hydrology and Earth System Sciences</i> , 2021, 25, 6591-6602. | 4.9 | 5 |
| 81 | Impacts of Heterogeneity on Aquifer Storage and Recovery in Saline Aquifers. <i>Water Resources Research</i> , 2022, 58, . | 4.2 | 5 |
| 82 | Study on the role of lateral unsaturated flow in triggering slope failure under varying boundary water level conditions. <i>Advances in Water Resources</i> , 2020, 143, 103669. | 3.8 | 4 |
| 83 | Improving salt leaching efficiency of subsurface drainage systems using low-permeability surface mulch. <i>Advances in Water Resources</i> , 2022, 162, 104147. | 3.8 | 4 |
| 84 | Niche Separation of Ammonia Oxidizers in Mudflat and Agricultural Soils Along the Yangtze River, China. <i>Frontiers in Microbiology</i> , 2018, 9, 3122. | 3.5 | 3 |
| 85 | Impact of Low- or High-Permeability Inclusion on Free Convection in a Porous Medium. <i>Geofluids</i> , 2019, 2019, 1-11. | 0.7 | 3 |
| 86 | A Semianalytical Method to Fast Delineate Seawater-Freshwater Interface in Two-Dimensional Heterogeneous Coastal Aquifers. <i>Water Resources Research</i> , 2020, 56, e2020WR027197. | 4.2 | 3 |
| 87 | A novel analytical model for the transit time distributions in urban groundwater systems. <i>Journal of Hydrology</i> , 2022, 605, 127379. | 5.4 | 3 |
| 88 | An analytical approach for urban groundwater transit time distributions accounting for the effect of stormwater infiltration system. <i>Journal of Hydrology</i> , 2022, 606, 127413. | 5.4 | 3 |
| 89 | High-Dimensional Groundwater Flow Inverse Modeling by Upscaled Effective Model on Principal Components. <i>Water Resources Research</i> , 2022, 58, . | 4.2 | 3 |
| 90 | Aquifer Storage and Recovery in Layered Saline Aquifers: Importance of Layer-Arrangements. <i>Water (Switzerland)</i> , 2021, 13, 2595. | 2.7 | 2 |

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|----|---|-----|-----------|
| 91 | On the intrusion and recovery of ocean-sourced ^3H and ^{14}C in coastal aquifers considering ocean-surge inundation. <i>Journal of Hydrology</i> , 2022, 604, 127241. | 5.4 | 2 |
| 92 | Approximate analytical solutions for assessing the effects of unsaturated flow on seawater extent in thin unconfined coastal aquifers. <i>Advances in Water Resources</i> , 2022, 160, 104104. | 3.8 | 2 |
| 93 | Study on Conveyance Coefficient Influenced by Momentum Exchange Under Steady and Unsteady Flows in Compound Open Channels. <i>Water Resources Management</i> , 0, , . | 3.9 | 2 |
| 94 | Comment on "Appropriate Boundary Condition for Dupuit-Boussinesq Theory on the Steady Groundwater Flow in an Unconfined Sloping Aquifer With Uniform Recharge" by Wu et al.. <i>Water Resources Research</i> , 2019, 55, 3593-3596. | 4.2 | 1 |
| 95 | New Finite Volume "Multiscale Finite-Element Model for Solving Solute Transport Problems in Porous Media. <i>Journal of Hydrologic Engineering - ASCE</i> , 2021, 26, 04021002. | 1.9 | 1 |
| 96 | On the use of modified Boussinesq equation for studying double-layered hillslope recession characteristics. <i>Journal of Hydrology</i> , 2021, 603, 127041. | 5.4 | 1 |
| 97 | Impact of a Low-Permeability Layer on the Pumping Efficiency Under Threats of Saltwater Up-Coning. <i>Frontiers in Environmental Science</i> , 0, 10, . | 3.3 | 1 |
| 98 | Reply to the comments by Willem J. Zaadnoordijk on "An analytical solution for predicting the transient seepage from a subsurface drainage system" by P. Xin, H.C. Dan, T. Zhou, C. Lu, J. Kong, L. Li [Adv. Water Resour. 91 (2016) 1-10]. <i>Advances in Water Resources</i> , 2016, 96, 440-442. | 3.8 | 0 |
| 99 | A rainfall event may produce a biased estimation of the indoor vapor intrusion risk through exterior soil-gas sampling. <i>Journal of Hydrology</i> , 2021, 603, 127117. | 5.4 | 0 |