

List of Publications by Year in descending order

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ARTICLE IF CITATIONS Streams as Mirrors: Reading Subsurface Water Chemistry From Stream Chemistry. Water Resources 4.2 Research, 2022, 58, e2021WR029931. Embracing the dynamic nature of soil structure: A paradigm illuminating the role of life in critical 9 9.1 35 zones of the Anthropocene. Earth-Science Reviews, 2022, 225, 103873. BioRT-Flux-PIHM v1.0: a biogeochemical reactive transport model at the watershed scale. Geoscientific 3.6 Model Development, 2022, 15, 315-333. Guidelines for Publicly Archiving Terrestrial Model Data to Enhance Usability, Intercomparison, and 4 1.3 3 Synthesis. Data Science Journal, 2022, 21, 3. Climate Controls on River Chemistry. Earth's Future, 2022, 10, . 6.3 28 From Soils to Streams: Connecting Terrestrial Carbon Transformation, Chemical Weathering, and 4.2 14 6 Solute Export Across Hydrological Regimes. Water Resources Research, 2022, 58, . Signatures of Hydrologic Function Across the Critical Zone Observatory Network. Water Resources 4.2 Research, 2021, 57, e2019WR026635. Toward catchment hydroâ€biogeochemical theories. Wiley Interdisciplinary Reviews: Water, 2021, 8, 8 6.5 65 e1495. From Hydrometeorology to River Water Quality: Can a Deep Learning Model Predict Dissolved Oxygen 10.0 116 at the Continental Scale?. Environmental Science & amp; Technology, 2021, 55, 2357-2368. Spatiotemporal Drivers of Hydrochemical Variability in a Tropical Glacierized Watershed in the Andes. 10 4.2 3 Water Resources Research, 2021, 57, e2020WR028722. Predicting algal blooms: Are we overlooking groundwater?. Science of the Total Environment, 2021, 8.0 769, 144442. The Limits of Homogenization: What Hydrological Dynamics can a Simple Model Represent at the 12 4.2 13 Catchment Scale?. Water Resources Research, 2021, 57, e2020WR029528. Drivers of Dissolved Organic Carbon Mobilization From Forested Headwater Catchments: A Multi 2.3 Scaled Approach. Frontiers in Water, 2021, 3, . Vertical Connectivity Regulates Water Transit Time and Chemical Weathering at the Hillslope Scale. 14 4.2 21 Water Resources Research, 2021, 57, e2020WR029207. The Chesapeake Bay program modeling system: Overview and recommendations for future development. Ecological Modelling, 2021, 456, 109635. Deepening roots can enhance carbonate weathering by amplifying 16 3.3 31 CO<sub&gt;2&lt;/sub&gt;-rich recharge. Biogeosciences, 2021, 18, 55-75. Depth of Solute Generation Is a Dominant Control on Concentrationâ€Discharge Relations. Water 4.2 38 Resources Research, 2020, 56, e2019WR026695. The Shallow and Deep Hypothesis: Subsurface Vertical Chemical Contrasts Shape Nitrate Export 18 10.0 67 Patterns from Different Land Uses. Environmental Science & amp; Technology, 2020, 54, 11915-11928.

#	Article	lF	CITATIONS
19	Significant stream chemistry response to temperature variations in a high-elevation mountain watershed. Communications Earth & Environment, 2020, 1, .	6.8	16
20	Temperature controls production but hydrology regulates export of dissolved organic carbon at the catchment scale. Hydrology and Earth System Sciences, 2020, 24, 945-966.	4.9	64
21	Nitrate removal and young stream water fractions at the catchment scale. Hydrological Processes, 2020, 34, 2725-2738.	2.6	30
22	Maximum Removal Efficiency of Barium, Strontium, Radium, and Sulfate with Optimum AMD-Marcellus Flowback Mixing Ratios for Beneficial Use in the Northern Appalachian Basin. Environmental Science & Technology, 2020, 54, 4829-4839.	10.0	11
23	Leveraging Environmental Research and Observation Networks to Advance Soil Carbon Science. Journal of Geophysical Research G: Biogeosciences, 2019, 124, 1047-1055.	3.0	24
24	Streamflow Generation From Catchments of Contrasting Lithologies: The Role of Soil Properties, Topography, and Catchment Size. Water Resources Research, 2019, 55, 9234-9257.	4.2	26
25	Multi-scale temporal variability in meltwater contributions in a tropical glacierized watershed. Hydrology and Earth System Sciences, 2019, 23, 405-425.	4.9	27
26	Distinct Source Water Chemistry Shapes Contrasting Concentrationâ€Ðischarge Patterns. Water Resources Research, 2019, 55, 4233-4251.	4.2	103
27	How landscape heterogeneity governs stream water concentration-discharge behavior in carbonate terrains (Konza Prairie, USA). Chemical Geology, 2019, 527, 118989.	3.3	34
28	Watershed Reactive Transport. Reviews in Mineralogy and Geochemistry, 2019, 85, 381-418.	4.8	31
29	13. Watershed Reactive Transport. , 2019, , 381-418.		6
30	Enhanced Uranium Immobilization by Phosphate Amendment under Variable Geochemical and Flow Conditions: Insights from Reactive Transport Modeling. Environmental Science & Technology, 2018, 52, 5841-5850.	10.0	29
31	Next generation modeling of microbial souring – Parameterization through genomic information. International Biodeterioration and Biodegradation, 2018, 126, 189-203.	3.9	21
32	The Effect of Lithology and Agriculture at the Susquehanna Shale Hills Critical Zone Observatory. Vadose Zone Journal, 2018, 17, 1-15.	2.2	23
33	Microbial Sulfate Reduction and Perchlorate Inhibition in a Novel Mesoscale Tank Experiment. Energy & Fuels, 2018, 32, 12049-12065.	5.1	5
34	Susquehanna Shale Hills Critical Zone Observatory: Shale Hills in the Context of Shaver's Creek Watershed. Vadose Zone Journal, 2018, 17, 1-19.	2.2	36
35	Steering operational synergies in terrestrial observation networks: opportunity for advancing Earth system dynamics modelling. Earth System Dynamics, 2018, 9, 593-609.	7.1	28
36	Mineralogy controls on reactive transport of Marcellus Shale waters. Science of the Total Environment, 2018, 630, 1573-1582.	8.0	13

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37	An upscaled rate law for mineral dissolution in heterogeneous media: The role of time and length scales. Geochimica Et Cosmochimica Acta, 2018, 235, 1-20.	3.9	43
38	Scale dependence of surface complexation capacity and rates in heterogeneous media. Science of the Total Environment, 2018, 635, 1547-1555.	8.0	7
39	Clay Distribution Patterns Regulate Natural Attenuation of Marcellus Shale Waters in Natural Aquifers. Energy & Fuels, 2018, 32, 9672-9682.	5.1	4
40	Understanding watershed hydrogeochemistry: 1. Development of RTâ€Fluxâ€PIHM. Water Resources Research, 2017, 53, 2328-2345.	4.2	58
41	Understanding watershed hydrogeochemistry: 2. Synchronized hydrological and geochemical processes drive stream chemostatic behavior. Water Resources Research, 2017, 53, 2346-2367.	4.2	76
42	An upscaled rate law for magnesite dissolution in heterogeneous porous media. Geochimica Et Cosmochimica Acta, 2017, 210, 289-305.	3.9	48
43	A reactive transport model for Marcellus shale weathering. Geochimica Et Cosmochimica Acta, 2017, 217, 421-440.	3.9	38
44	Expanding the role of reactive transport models in critical zone processes. Earth-Science Reviews, 2017, 165, 280-301.	9.1	207
45	Compositional Modeling of Dissolution-Induced Injectivity Alteration During CO2 Flooding in Carbonate Reservoirs. SPE Journal, 2016, 21, 0809-0826.	3.1	22
46	How long do natural waters "remember―release incidents of Marcellus Shale waters: a first order approximation using reactive transport modeling. Geochemical Transactions, 2016, 17, .	0.7	6
47	Fracture opening or self-sealing: Critical residence time as a unifying parameter for cement–CO2–brine interactions. International Journal of Greenhouse Gas Control, 2016, 47, 25-37.	4.6	73
48	Where Lower Calcite Abundance Creates More Alteration: Enhanced Rock Matrix Diffusivity Induced by Preferential Dissolution. Energy & amp; Fuels, 2016, 30, 4197-4208.	5.1	35
49	Reactive Transport Model of Sulfur Cycling as Impacted by Perchlorate and Nitrate Treatments. Environmental Science & Technology, 2016, 50, 7010-7018.	10.0	45
50	Review: Role of chemistry, mechanics, and transport on well integrity in CO2 storage environments. International Journal of Greenhouse Gas Control, 2016, 49, 149-160.	4.6	141
51	The role of host rock properties in determining potential CO2 migration pathways. International Journal of Greenhouse Gas Control, 2016, 45, 18-26.	4.6	12
52	A Mechanistic Model for Wettability Alteration by Chemically Tuned Waterflooding in Carbonate Reservoirs. SPE Journal, 2015, 20, 767-783.	3.1	73
53	Selfâ€healing of cement fractures under dynamic flow of <scp>CO</scp> ₂ â€rich brine. Water Resources Research, 2015, 51, 4684-4701.	4.2	59
54	Illite Spatial Distribution Patterns Dictate Cr(VI) Sorption Macrocapacity and Macrokinetics. Environmental Science & Technology, 2015, 49, 1374-1383.	10.0	21

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55	The role of magnesite spatial distribution patterns in determining dissolution rates: When do they matter?. Geochimica Et Cosmochimica Acta, 2015, 155, 107-121.	3.9	46
56	lsotopic insights into microbial sulfur cycling in oil reservoirs. Frontiers in Microbiology, 2014, 5, 480.	3.5	29
57	Development of a new compositional model with multi-component sorption isotherm and slip flow in tight gas reservoirs. Journal of Natural Gas Science and Engineering, 2014, 21, 1061-1072.	4.4	21
58	Geophysical monitoring and reactive transport simulations of bioclogging processes induced by <i>Leuconostoc mesenteroides</i> . Geophysics, 2014, 79, E61-E73.	2.6	12
59	Spatial zonation limits magnesite dissolution in porous media. Geochimica Et Cosmochimica Acta, 2014, 126, 555-573.	3.9	68
60	Solute transport in lowâ€heterogeneity sandboxes: The role of correlation length and permeability variance. Water Resources Research, 2014, 50, 8240-8264.	4.2	46
61	Uranium Bioreduction Rates across Scales: Biogeochemical Hot Moments and Hot Spots during a Biostimulation Experiment at Rifle, Colorado. Environmental Science & Technology, 2014, 48, 10116-10127.	10.0	47
62	Designing a Suite of Models to Explore Critical Zone Function. Procedia Earth and Planetary Science, 2014, 10, 7-15.	0.6	40
63	Reactive Geochemical Flow Modeling With CT Scanned Rock Fractures. , 2014, , .		1
64	A Mechanistic Model for Wettability Alteration by Chemically Tuned Water Flooding in Carbonate Reservoirs. , 2014, , .		17
65	Compositional Modeling of Reaction-Induced Injectivity Alteration During CO2 Flooding in Carbonate Reservoirs. , 2014, , .		4
66	Bioclogging and Permeability Alteration by <i>L. mesenteroides</i> in a Sandstone Reservoir: A Reactive Transport Modeling Study. Energy & Fuels, 2013, 27, 6538-6551.	5.1	33
67	Reactive Transport Modeling of Induced Selective Plugging by <i>Leuconostoc Mesenteroides</i> in Carbonate Formations. Geomicrobiology Journal, 2013, 30, 813-828.	2.0	36
68	Magnesite dissolution rates at different spatial scales: The role of mineral spatial distribution and flow velocity. Geochimica Et Cosmochimica Acta, 2013, 108, 91-106.	3.9	103
69	Dynamic Evolution of Cement Composition and Transport Properties under Conditions Relevant to Geological Carbon Sequestration. Energy & Fuels, 2013, 27, 4208-4220.	5.1	79
70	A new model for the biodegradation kinetics of oil droplets: application to the Deepwater Horizon oil spill in the Gulf of Mexico. Geochemical Transactions, 2013, 14, 4.	0.7	46
71	Reactive Transport Modeling of Interactions between Acid Gas (CO ₂ + H ₂ S) and Pozzolan-Amended Wellbore Cement under Geologic Carbon Sequestration Conditions. Energy & Fuels, 2013, 27, 6921-6937.	5.1	42
72	Dynamic alterations in wellbore cement integrity due to geochemical reactions in CO ₂ â€rich environments. Water Resources Research, 2013, 49, 4465-4475.	4.2	54

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73	Environmental Controls of Cadmium Desorption during CO ₂ Leakage. Environmental Science & Technology, 2012, 46, 4388-4395.	10.0	46
74	Physicochemical Heterogeneity Controls on Uranium Bioreduction Rates at the Field Scale. Environmental Science & Technology, 2011, 45, 9959-9966.	10.0	79
75	Quantifying solute transport processes: Are chemically "conservative―tracers electrically conservative?. Geophysics, 2011, 76, F53-F63.	2.6	26
76	Effects of physical and geochemical heterogeneities on mineral transformation and biomass accumulation during biostimulation experiments at Rifle, Colorado. Journal of Contaminant Hydrology, 2010, 112, 45-63.	3.3	137
77	Feedbacks Between Hydrological Heterogeneity and Bioremediation Induced Biogeochemical Transformations. Environmental Science & Technology, 2009, 43, 5197-5204.	10.0	34
78	Mineral Transformation and Biomass Accumulation Associated With Uranium Bioremediation at Rifle, Colorado. Environmental Science & Technology, 2009, 43, 5429-5435.	10.0	101
79	A stateâ€space Bayesian framework for estimating biogeochemical transformations using timeâ€lapse geophysical data. Water Resources Research, 2009, 45, .	4.2	19
80	Scale dependence of mineral dissolution rates within single pores and fractures. Geochimica Et Cosmochimica Acta, 2008, 72, 360-377.	3.9	199
81	Applicability of averaged concentrations in determining geochemical reaction rates in heterogeneous porous media. Numerische Mathematik, 2007, 307, 1146-1166.	1.4	42
82	Effects of mineral spatial distribution on reaction rates in porous media. Water Resources Research, 2007, 43, .	4.2	82
83	Reply to "Comment on upscaling geochemical reaction rates using pore-scale network modeling―by Peter C. Lichtner and Qinjun Kang. Advances in Water Resources, 2007, 30, 691-695.	3.8	14
84	Upscaling geochemical reaction rates using pore-scale network modeling. Advances in Water Resources, 2006, 29, 1351-1370.	3.8	283
85	Prediction and QSAR Analysis of Toxicity to Photobacterium phosphoreum for a Group of Heterocyclic Nitrogen Compounds. Bulletin of Environmental Contamination and Toxicology, 2000, 64, 316-322.	2.7	6
86	Comparison of four methods of predicting newly measured octanol/water coefficients (log) Tj ETQq0 0 0 rgBT /C Environmental Toxicology and Chemistry, 1999, 18, 2723-2728.	verlock 10 4.3) Tf 50 227 T 2
87	PREDICTION OF LOG KW USING MCIS AND LSER METHODS FOR HETEROCYCLIC NITROGEN COMPOUNDS. Journal of Liquid Chromatography and Related Technologies, 1999, 22, 897-907.	1.0	4
88	COMPARISON OF FOUR METHODS OF PREDICTING NEWLY MEASURED OCTANOL/WATER COEFFICIENTS (LOG) Toxicology and Chemistry, 1999, 18, 2723.	Tj ETQq0 4.3	0 0 rgBT /Ov 2
89	Mass transfer in soils with local stratification of hydraulic conductivity. Water Resources Research, 1994, 30, 2891-2900.	4.2	68
90	Modeling Low-Salinity Waterflooding in Chalk and Limestone Reservoirs. Energy & Fuels, 0, , .	5.1	33