

# Amir Raouf

## List of Publications by Year in descending order

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65  
papers

1,609  
citations

279701

23  
h-index

330025

37  
g-index

68  
all docs

68  
docs citations

68  
times ranked

1521  
citing authors

#	ARTICLE	IF	CITATIONS
1	A New Method for Generating Pore-Network Models of Porous Media. <i>Transport in Porous Media</i> , 2010, 81, 391-407.	1.2	126
2	PoreFlow: A complex pore-network model for simulation of reactive transport in variably saturated porous media. <i>Computers and Geosciences</i> , 2013, 61, 160-174.	2.0	113
3	Pore-scale modeling of reactive transport in wellbore cement under CO <sub>2</sub> storage conditions. <i>International Journal of Greenhouse Gas Control</i> , 2012, 11, S67-S77.	2.3	93
4	A new formulation for pore-network modeling of two-phase flow. <i>Water Resources Research</i> , 2012, 48, .	1.7	73
5	Saturation-dependent solute dispersivity in porous media: Pore-scale processes. <i>Water Resources Research</i> , 2013, 49, 1943-1951.	1.7	71
6	Upscaling Transport of Adsorbing Solutes in Porous Media: Pore-Network Modeling. <i>Vadose Zone Journal</i> , 2010, 9, 624-636.	1.3	65
7	Multiscale modelling of dual-porosity porous media; a computational pore-scale study for flow and solute transport. <i>Advances in Water Resources</i> , 2017, 105, 82-95.	1.7	54
8	Direct simulations of two-phase flow experiments of different geometry complexities using Volume-of-Fluid (VOF) method. <i>Chemical Engineering Science</i> , 2019, 195, 820-827.	1.9	52
9	Characterizing the hydraulic properties of paper coating layer using FIB-SEM tomography and 3D pore-scale modeling. <i>Chemical Engineering Science</i> , 2017, 160, 275-280.	1.9	49
10	Reactive dispersive contaminant transport in coastal aquifers: Numerical simulation of a reactive Henry problem. <i>Journal of Contaminant Hydrology</i> , 2013, 145, 90-104.	1.6	46
11	Insights into the role of wettability in cathode catalyst layer of proton exchange membrane fuel cell; pore scale immiscible flow and transport processes. <i>Journal of Power Sources</i> , 2017, 349, 57-67.	4.0	46
12	Effects of Sand Compaction and Mixing on Pore Structure and the Unsaturated Soil Hydraulic Properties. <i>Vadose Zone Journal</i> , 2016, 15, 1-11.	1.3	38
13	The Effect of Grain Size Distribution on Nonlinear Flow Behavior in Sandy Porous Media. <i>Transport in Porous Media</i> , 2017, 120, 37-66.	1.2	34
14	Application of the modified Q-slope classification system for sedimentary rock slope stability assessment in Iran. <i>Engineering Geology</i> , 2020, 264, 105349.	2.9	34
15	Insight into particle retention and clogging in porous media; a pore scale study using lattice Boltzmann method. <i>Advances in Water Resources</i> , 2020, 138, 103530.	1.7	32
16	Upscaling of nanoparticle transport in porous media under unfavorable conditions: Pore scale to Darcy scale. <i>Journal of Contaminant Hydrology</i> , 2017, 200, 1-14.	1.6	30
17	Effect of Mean Network Coordination Number on Dispersivity Characteristics. <i>Transport in Porous Media</i> , 2012, 95, 447-463.	1.2	28
18	Reactive transport of CO <sub>2</sub> -rich fluids in simulated wellbore interfaces: Flow-through experiments on the 1-m length scale. <i>International Journal of Greenhouse Gas Control</i> , 2016, 54, 96-116.	2.3	28

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19	Correlation equations for average deposition rate coefficients of nanoparticles in a cylindrical pore. <i>Water Resources Research</i> , 2015, 51, 8034-8059.	1.7	27
20	UPSCALING TRANSPORT OF ADSORBING SOLUTES IN POROUS MEDIA. <i>Journal of Porous Media</i> , 2010, 13, 395-408.	1.0	27
21	Pore-Scale Study of Flow Rate on Colloid Attachment and Remobilization in a Saturated Micromodel. <i>Journal of Environmental Quality</i> , 2015, 44, 1376-1383.	1.0	26
22	Effects of Porosity and Water Saturation on the Effective Diffusivity of a Cathode Catalyst Layer. <i>Journal of the Electrochemical Society</i> , 2017, 164, F298-F305.	1.3	26
23	Meter-Scale Reactive Transport Modeling of CO <sub>2</sub> -Rich Fluid Flow along Debonded Wellbore Casing-Cement Interfaces. <i>Environmental Science &amp; Technology</i> , 2018, 52, 3786-3795.	4.6	23
24	An alternative approach to control saltwater intrusion in coastal aquifers using a freshwater surface recharge canal. <i>Journal of Contaminant Hydrology</i> , 2019, 222, 56-64.	1.6	23
25	Retention and remobilization of colloids during steady-state and transient two-phase flow. <i>Water Resources Research</i> , 2013, 49, 8005-8016.	1.7	22
26	Direct pore scale numerical simulation of colloid transport and retention. Part I: Fluid flow velocity, colloid size, and pore structure effects. <i>Advances in Water Resources</i> , 2020, 144, 103694.	1.7	22
27	Ionic strength and zeta potential effects on colloid transport and retention processes. <i>Colloids and Interface Science Communications</i> , 2021, 42, 100389.	2.0	22
28	Modeling Virus Transport and Remobilization during Transient Partially Saturated Flow. <i>Vadose Zone Journal</i> , 2012, 11, vzt2011.0090.	1.3	19
29	Unsaturated flow effects on solute transport in porous media. <i>Journal of Hydrology</i> , 2021, 598, 126301.	2.3	19
30	Oxidation of volatile organic vapours in air by solid potassium permanganate. <i>Chemosphere</i> , 2013, 91, 1534-1538.	4.2	18
31	Oxidation of trichloroethylene, toluene, and ethanol vapors by a partially saturated permeable reactive barrier. <i>Journal of Contaminant Hydrology</i> , 2014, 164, 193-208.	1.6	18
32	Evolution of pore-shape and its impact on pore conductivity during CO <sub>2</sub> injection in calcite: Single pore simulations and microfluidic experiments. <i>Advances in Water Resources</i> , 2020, 136, 103480.	1.7	17
33	Impact of water salinity differential on a crude oil droplet constrained in a capillary: Pore-scale mechanisms. <i>Fuel</i> , 2020, 274, 117798.	3.4	17
34	Insight into Heterogeneity Effects in Methane Hydrate Dissociation via Pore-Scale Modeling. <i>Transport in Porous Media</i> , 2018, 124, 183-201.	1.2	16
35	Petrophysical Correlations for the Permeability of Coquinas (Carbonate Rocks). <i>Transport in Porous Media</i> , 2020, 135, 287-308.	1.2	16
36	Solute dispersion under electric and pressure driven flows; pore scale processes. <i>Journal of Hydrology</i> , 2014, 517, 1107-1113.	2.3	15

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37	Virus-sized colloid transport in a single pore: Model development and sensitivity analysis. <i>Journal of Contaminant Hydrology</i> , 2014, 164, 163-180.	1.6	15
38	Salinization in a stratified aquifer induced by heat transfer from well casings. <i>Advances in Water Resources</i> , 2015, 86, 32-45.	1.7	15
39	Movement of a liquid droplet within a fibrous layer: Direct pore-scale modeling and experimental observations. <i>Chemical Engineering Science</i> , 2018, 191, 78-86.	1.9	15
40	Insight into particle detachment in clogging of porous media; a pore scale study using lattice Boltzmann method. <i>Advances in Water Resources</i> , 2021, 151, 103888.	1.7	14
41	Evaluation of a horizontal permeable reactive barrier for preventing upward diffusion of volatile organic compounds through the unsaturated zone. <i>Journal of Environmental Management</i> , 2015, 163, 204-213.	3.8	13
42	Large-scale pore network and continuum simulations of solute longitudinal dispersivity of a saturated sand column. <i>Advances in Water Resources</i> , 2020, 144, 103713.	1.7	12
43	The contribution of hydrodynamic processes to calcite dissolution rates and rate spectra. <i>Geochimica Et Cosmochimica Acta</i> , 2021, 307, 338-350.	1.6	12
44	The impact of pore-throat shape evolution during dissolution on carbonate rock permeability: Pore network modeling and experiments. <i>Advances in Water Resources</i> , 2021, 155, 103991.	1.7	12
45	A review of transport of nanoparticles in porous media. , 2020, , 351-381.		11
46	Droplet Imbibition into Paper Coating Layer: Pore-Network Modeling Simulation. <i>Transport in Porous Media</i> , 2018, 125, 239-258.	1.2	10
47	The Complexity of Porous Media Flow Characterized in a Microfluidic Model Based on Confocal Laser Scanning Microscopy and Micro-PIV. <i>Transport in Porous Media</i> , 2021, 136, 343-367.	1.2	10
48	Modeling of Horizontal Water Redistribution in an Unsaturated Soil. <i>Vadose Zone Journal</i> , 2016, 15, 1-11.	1.3	8
49	Modeling water imbibition into coated and uncoated papers. <i>Chemical Engineering Science</i> , 2018, 189, 33-42.	1.9	8
50	Water Flux Reduction in Microfiltration Membranes: A Pore Network Study. <i>Chemical Engineering and Technology</i> , 2018, 41, 1566-1576.	0.9	8
51	Unsaturated hydraulic properties of heterogeneously packed sands: A pore-scale computational study. <i>Journal of Hydrology</i> , 2018, 565, 570-580.	2.3	8
52	Computational and experimental pore-scale studies of a carbonate rock sample. <i>Journal of Hydrology and Hydromechanics</i> , 2019, 67, 372-383.	0.7	8
53	Water Curtain System Pre-design for Crude Oil Storage URCs: A Numerical Modeling and Genetic Programming Approach. <i>Geotechnical and Geological Engineering</i> , 2018, 36, 813-826.	0.8	7
54	Fluid flow and colloid transport experiment in single-porosity sample; tracking of colloid transport behavior in a saturated micromodel. <i>Advances in Water Resources</i> , 2022, 159, 104086.	1.7	7

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55	Morphometric dataset of the alluvial fans at the southern part of Nayband fault, Iran. Data in Brief, 2018, 21, 1756-1763.	0.5	6
56	Dissolution kinetics of volatile organic compound vapors in water: An integrated experimental and computational study. Journal of Contaminant Hydrology, 2017, 196, 43-51.	1.6	4
57	Effect of soil textural characteristics on longitudinal dispersion in saturated porous media. Journal of Hydrology and Hydromechanics, 2021, 69, 161-170.	0.7	4
58	Topographic features of nano-pores within the osteochondral interface and their effects on transport properties – a 3D imaging and modeling study. Journal of Biomechanics, 2021, 123, 110504.	0.9	4
59	The Use of Numerical Flow and Transport Models in Environmental Analyses. , 2014, , 349-376.		3
60	A quantitative study of salinity effect on water diffusion in n-alkane phases: From pore-scale experiments to molecular dynamic simulation. Fuel, 2022, 324, 124716.	3.4	3
61	Non-linear boundary conditions for the convection-diffusion equation in lattice Boltzmann framework. Chemical Engineering Science, 2022, 247, 116925.	1.9	2
62	Application of machine learning in colloids transport in porous media studies: Lattice Boltzmann simulation results as training data. Chemical Engineering Science, 2022, 253, 117548.	1.9	2
63	Detailed Modeling of Carbonate Acidizing by Coupling a Multi-Purpose Pore-Network Simulator to the Chemistry Package PHREEQC - Application to Chelating Agents. , 2017, , .		1
64	Dynamic Pore-Network Models Development. Advances in Mechanics and Mathematics, 2019, , 337-356.	0.2	1
65	Impacts of Receding of the Lakes Located in the Arid and Semi-arid Areas on the Coastal Groundwater: Integrated Modeling and Experimental Study. Water Resources Management, 2022, 36, 4057-4080.	1.9	1