

Joaquin Jimenez-Martinez

List of Publications by Year in descending order

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Version: 2024-02-01

55
papers

2,315
citations

279798

23
h-index

214800

47
g-index

64
all docs

64
docs citations

64
times ranked

2677
citing authors

#	ARTICLE	IF	CITATIONS
1	Shale gas and non-aqueous fracturing fluids: Opportunities and challenges for supercritical CO ₂ . Applied Energy, 2015, 147, 500-509.	10.1	622
2	Mixing and Reaction Kinetics in Porous Media: An Experimental Pore Scale Quantification. Environmental Science & Technology, 2014, 48, 508-516.	10.0	155
3	A root zone modelling approach to estimating groundwater recharge from irrigated areas. Journal of Hydrology, 2009, 367, 138-149.	5.4	125
4	Transport of Nano- and Microplastic through Unsaturated Porous Media from Sewage Sludge Application. Environmental Science & Technology, 2020, 54, 911-920.	10.0	121
5	Challenges in modeling unstable two-phase flow experiments in porous micromodels. Water Resources Research, 2015, 51, 1381-1400.	4.2	112
6	Understanding hydraulic fracturing: a multi-scale problem. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2016, 374, 20150426.	3.4	92
7	Geo-material microfluidics at reservoir conditions for subsurface energy resource applications. Lab on A Chip, 2015, 15, 4044-4053.	6.0	87
8	Pore-scale mechanisms for the enhancement of mixing in unsaturated porous media and implications for chemical reactions. Geophysical Research Letters, 2015, 42, 5316-5324.	4.0	79
9	Temporal and spatial scaling of hydraulic response to recharge in fractured aquifers: Insights from a frequency domain analysis. Water Resources Research, 2013, 49, 3007-3023.	4.2	68
10	Irrigation return flow and nitrate leaching under different crops and irrigation methods in Western Mediterranean weather conditions. Agricultural Water Management, 2014, 134, 1-13.	5.6	62
11	Impact of saturation on dispersion and mixing in porous media: Photobleaching pulse injection experiments and shear-enhanced mixing model. Water Resources Research, 2017, 53, 1457-1472.	4.2	56
12	Occurrence and spatial distribution of emerging contaminants in the unsaturated zone. Case study: Guadalete River basin (Cadiz, Spain). Chemosphere, 2015, 119, S131-S137.	8.2	53
13	The role of groundwater in highly human-modified hydrosystems: a review of impacts and mitigation options in the Campo de Cartagena-Mar Menor coastal plain (SE Spain). Environmental Reviews, 2016, 24, 377-392.	4.5	44
14	Groundwater recharge in irrigated semi-arid areas: quantitative hydrological modelling and sensitivity analysis. Hydrogeology Journal, 2010, 18, 1811-1824.	2.1	43
15	Determination of the Effective Viscosity of Non-newtonian Fluids Flowing Through Porous Media. Frontiers in Physics, 2019, 7, .	2.1	41
16	Mixing in a three-phase system: Enhanced production of oil-wet reservoirs by CO ₂ injection. Geophysical Research Letters, 2016, 43, 196-205.	4.0	38
17	Dispersion and Mixing in Three-Dimensional Discrete Fracture Networks: Nonlinear Interplay Between Structural and Hydraulic Heterogeneity. Water Resources Research, 2018, 54, 3243-3258.	4.2	37
18	Groundwater modelling with limited data sets: the Chari-Logone area (Lake Chad Basin, Chad). Hydrological Processes, 2014, 28, 3714-3727.	2.6	34

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19	The Role of Leaky Boreholes in the Contamination of a Regional Confined Aquifer. A Case Study: The Campo de Cartagena Region, Spain. <i>Water, Air, and Soil Pollution</i> , 2011, 215, 311-327.	2.4	29
20	Hydrogeological modelling for the watershed management of the Mar Menor coastal lagoon (Spain). <i>Science of the Total Environment</i> , 2019, 663, 901-914.	8.0	29
21	Impact of small-scale saline tracer heterogeneity on electrical resistivity monitoring in fully and partially saturated porous media: Insights from geoelectrical milli-fluidic experiments. <i>Advances in Water Resources</i> , 2018, 113, 295-309.	3.8	28
22	Global change and agricultural management options for groundwater sustainability. <i>Computers and Electronics in Agriculture</i> , 2012, 86, 120-130.	7.7	27
23	Time Resolved in situ X-Ray Tomographic Microscopy Unraveling Dynamic Processes in Geologic Systems. <i>Frontiers in Earth Science</i> , 2020, 7, .	1.8	27
24	Crustal fingering facilitates free-gas methane migration through the hydrate stability zone. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020, 117, 31660-31664.	7.1	22
25	Homogenization of Dissolution and Enhanced Precipitation Induced by Bubbles in Multiphase Flow Systems. <i>Geophysical Research Letters</i> , 2020, 47, e2020GL087163.	4.0	21
26	From Flood to Drip Irrigation Under Climate Change: Impacts on Evapotranspiration and Groundwater Recharge in the Mediterranean Region of Valencia (Spain). <i>Earth's Future</i> , 2021, 9, e2020EF001859.	6.3	21
27	Mapping the local viscosity of non-Newtonian fluids flowing through disordered porous structures. <i>Scientific Reports</i> , 2020, 10, 11733.	3.3	19
28	Reactive transport modelling to infer changes in soil hydraulic properties induced by non-conventional water irrigation. <i>Journal of Hydrology</i> , 2017, 549, 114-124.	5.4	17
29	Characterizing the Impact of Fractured Caprock Heterogeneity on Supercritical CO ₂ Injection. <i>Transport in Porous Media</i> , 2020, 131, 935-955.	2.6	17
30	Eigenvector centrality for geometric and topological characterization of porous media. <i>Physical Review E</i> , 2017, 96, 013310.	2.1	16
31	Temporal scaling of groundwater discharge in dual and multicontinuum catchment models. <i>Water Resources Research</i> , 2013, 49, 8552-8564.	4.2	15
32	Impact of a transformation from flood to drip irrigation on groundwater recharge and nitrogen leaching under variable climatic conditions. <i>Science of the Total Environment</i> , 2022, 825, 153805.	8.0	14
33	Competition between growth and shear stress drives intermittency in preferential flow paths in porous medium biofilms. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2022, 119, .	7.1	14
34	Brackish groundwater desalination by reverse osmosis in southeastern Spain. Presence of emerging contaminants and potential impacts on soil-aquifer media. <i>Desalination and Water Treatment</i> , 2013, 51, 2431-2444.	1.0	12
35	Prediction of groundwater-induced flooding in a chalk aquifer for future climate change scenarios. <i>Hydrological Processes</i> , 2016, 30, 573-587.	2.6	11
36	Hydrological Modeling of the Effect of the Transition From Flood to Drip Irrigation on Groundwater Recharge Using Multi-Objective Calibration. <i>Water Resources Research</i> , 2021, 57, e2021WR029677.	4.2	11

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37	Impact of phases distribution on mixing and reactions in unsaturated porous media. <i>Advances in Water Resources</i> , 2020, 144, 103697.	3.8	8
38	Assessment and Prediction of Pore-Scale Reactive Mixing From Experimental Conservative Transport Data. <i>Water Resources Research</i> , 2020, 56, e2019WR026452.	4.2	8
39	Controlling pore-scale processes to tame subsurface biomineralization. <i>Reviews in Environmental Science and Biotechnology</i> , 2022, 21, 27-52.	8.1	8
40	Localization in Flow of Non-Newtonian Fluids Through Disordered Porous Media. <i>Frontiers in Physics</i> , 2021, 9, .	2.1	7
41	Comparison among monitoring strategies to assess water flow dynamic and soil hydraulic properties in agricultural soils. <i>Spanish Journal of Agricultural Research</i> , 2015, 13, e1201.	0.6	7
42	Reactive Transport with Fluid-Solid Interactions in Dual-Porosity Media. <i>ACS ES&T Water</i> , 2021, 1, 259-268.	4.6	6
43	Sharp Transition to Strongly Anomalous Transport in Unsaturated Porous Media. <i>Geophysical Research Letters</i> , 2022, 49, e2021GL096280.	4.0	6
44	Vadose zone tritium tracer test to estimate aquifer recharge from irrigated areas. <i>Hydrological Processes</i> , 2013, 27, 3150-3158.	2.6	5
45	Phase Saturation Control on Mixing-Driven Reactions in 3D Porous Media. <i>Environmental Science & Technology</i> , 2021, 55, 8742-8752.	10.0	5
46	Mixing Controlled Adsorption at the Liquid-Solid Interfaces in Unsaturated Porous Media. <i>Transport in Porous Media</i> , 2023, 146, 159-175.	2.6	5
47	Multiphase Transport of Tritium in Unsaturated Porous Media—Bare and Vegetated Soils. <i>Mathematical Geosciences</i> , 2012, 44, 187-208.	2.4	4
48	Dispersivity Determination Through a Modeling Approach From a Tracer Test Based on Total Br Concentration in Soil Samples. <i>Soil Science</i> , 2014, 179, 403-408.	0.9	4
49	Reduced gravity promotes bacterially mediated anoxic hotspots in unsaturated porous media. <i>Scientific Reports</i> , 2020, 10, 8614.	3.3	4
50	Structural control of the non-ionic surfactant alcohol ethoxylates (AEOs) on transport in natural soils. <i>Environmental Pollution</i> , 2021, 269, 116021.	7.5	4
51	Root hydraulic redistribution underlies the insensitivity of soil respiration to combined heat and drought. <i>Applied Soil Ecology</i> , 2021, 167, 104155.	4.3	4
52	Upscaling Mixing-Controlled Reactions in Unsaturated Porous Media. <i>Transport in Porous Media</i> , 2023, 146, 177-196.	2.6	4
53	Assessment of CHADFDM satellite-based input dataset for the groundwater recharge estimation in arid and data scarce regions. <i>Hydrological Processes</i> , 2021, 35, e14250.	2.6	2
54	Contribution of Pore-Scale Approach to Macroscale Geofluids Modelling in Porous Media. <i>Geofluids</i> , 2019, 2019, 1-4.	0.7	1

#	ARTICLE	IF	CITATIONS
55	Using Discovery Science To Increase Efficiency of Hydraulic Fracturing While Reducing Water Usage. ACS Symposium Series, 2015, , 71-88.	0.5	0