Marc Prat

List of Publications by Year
in descending order

23 papers	614 citations	623734 14 h-index	677142 22 g-index
23 all docs	23 docs citations	23 times ranked	457 citing authors

#	Article	IF	Citations
1	Numerical and experimental network study of evaporation in capillary porous media. Phase distributions. Chemical Engineering Science, 1996, 51, 5171-5185.	3.8	128
2	Effect of Efflorescence Formation on Drying Kinetics of Porous Media. Transport in Porous Media, 2009, 80, 441-454.	2.6	67
3	Paradoxical drying of a fired-clay brick due to salt crystallization. Chemical Engineering Science, 2014, 109, 204-211.	3.8	56
4	Evaporation of a sodium chloride solution from a saturated porous medium with efflorescence formation. Journal of Fluid Mechanics, 2014, 749, 701-749.	3.4	53
5	Invasion percolation with inlet multiple injections and the water management problem in proton exchange membrane fuel cells. Journal of Power Sources, 2010, 195, 825-828.	7.8	46
6	Validation of pore network simulations of ex-situ water distributions in a gas diffusion layer of proton exchange membrane fuel cells with X-ray tomographic images. Journal of Power Sources, 2016, 331, 462-474.	7.8	45
7	Characterization of pore network structure in catalyst layers of polymer electrolyte fuel cells. Journal of Power Sources, 2014, 247, 322-326.	7.8	32
8	Coupled continuum and condensationâ€“evaporation pore network model of the cathode inÂpolymer-electrolyte fuel cell. International Journal of Hydrogen Energy, 2017, 42, 8150-8165.	7.1	31
9	Evaporation in Capillary Porous Media at the Perfect Pistonâ€Like Invasion Limit: Evidence of Nonlocal Equilibrium Effects. Water Resources Research, 2017, 53, 10433-10449.	4.2	23
10	Kinematics in a slowly drying porous medium: Reconciliation of pore network simulations and continuum modeling. Physics of Fluids, 2017, 29, 022102.	4.0	22
11	A pore network study of evaporation from the surface of a drying nonâ€hygroscopic porous medium. AIChE Journal, 2018, 64, 1435-1447.	3.6	19
12	Pore network model of drying with Kelvin effect. Physics of Fluids, 2021, 33, .	4.0	19
13	From micro-scale to macro-scale modeling of solute transport in drying capillary porous media. International Journal of Heat and Mass Transfer, 2021, 165, 120722.	4.8	15
14	Non-local equilibrium continuum modeling of partially saturated drying porous media: Comparison with pore network simulations. Chemical Engineering Science, 2020, 228, 115957.	3.8	14
15	On the current distribution at the channel â€“ rib scale in polymer-electrolyte fuel cells. International Journal of Hydrogen Energy, 2018, 43, 5112-5123.	7.1	11
16	Determination of the throat size distribution of a porous medium as an inverse optimization problem combining pore network modeling and genetic and hill climbing algorithms. Physical Review E, 2021, 103, 023303.	2.1	10
17	Combined wicking and evaporation of NaCl solution with efflorescence formation: The efflorescence exclusion zone. Physics of Fluids, 2020, 32, .	4.0	8
18	Locus of first crystals on the evaporative surface of a vertically textured porous medium. EPJ Applied Physics, 2018, 81, 11102.	0.7	7

#	Article	IF	Citations
19	Evaluation of pore size distribution via fluid-fluid displacement porosimetry: The viscous bias. International Journal of Multiphase Flow, 2022, 149, 103983.	3.4	3
20	Identification of local contact angle distribution inside a porous medium from an inverse optimization procedure. Physical Review Fluids, 2021, 6, .	2.5	2
21	Coupling between internal and external mass transfer during stage-1 evaporation in capillary porous media: Interfacial resistance approach. Physical Review E, 2021, 104, 055102.	2.1	2
22	Optimisation of Gas Access Through a Thin Porous Layer with a Partially Occluded Inlet Surface. Transport in Porous Media, 2020, 133, 49-69.	2.6	1
23	Percolating and nonpercolating liquid phase continuum model of drying in capillary porous media with application to solute transport in the very low PÃ©clet number limit. Physical Review Fluids, 2022, 7, .	2.5	0