Benoit Goyeau

List of Publications by Year
in descending order

64 papers	1,924 citations	218381 26 h-index	253896 43 g-index
66 all docs	66 docs citations	66 times ranked	1003 citing authors

#	Article	IF	Citations
1	Momentum transport in the free fluid-porous medium transition layer: one-domain approach. Chemical Engineering Science, 2022, 248, 117111.	1.9	1
2	Numerical analysis of the pore-scale mechanisms controlling the efficiency of immiscible displacement of a pollutant phase by a shear-thinning fluid. Chemical Engineering Science, 2022, 251, 117462.	1.9	4
3	A nonlinear asymptotic model for the inertial flow at a fluid-porous interface. Advances in Water Resources, 2021, 149, 103798.	1.7	7
4	A pore network modelling approach to investigate the interplay between local and Darcy viscosities during the flow of shear-thinning fluids in porous media. Journal of Colloid and Interface Science, 2021, 590, 446-457.	5.0	10
5	Channeling Effect and Tissue Morphology in a Perfusion Bioreactor Imaged by X-Ray Microtomography. Tissue Engineering and Regenerative Medicine, 2020, 17, 301-311.	1.6	1
6	Histological Method to Study the Effect of Shear Stress on Cell Proliferation and Tissue Morphology in a Bioreactor. Tissue Engineering and Regenerative Medicine, 2019, 16, 225-235.	1.6	13
7	Large-scale model of flow in heterogeneous and hierarchical porous media. Advances in Water Resources, 2017, 109, 41-57.	1.7	8
8	Asymptotic modeling of transport phenomena at the interface between a fluid and a porous layer: Jump conditions. Physical Review E, 2017, 95, 063302.	0.8	31
9	Macroscopic model for solidification in porous media. International Journal of Heat and Mass Transfer, 2017, 113, 704-715.	2.5	2
10	Averaged model for momentum and dispersion in hierarchical porous media. Physical Review E, 2015, 92, 023201.	0.8	13
11	A macroscopic model for slightly compressible gas slip-flow in homogeneous porous media. Physics of Fluids, 2014, 26, .	1.6	30
12	Coupled Upscaling Approaches For Conduction, Convection, and Radiation in Porous Media: Theoretical Developments. Transport in Porous Media, 2013, 98, 323-347.	1.2	18
13	A numerical simulation of columnar solidification: influence of inertia on channel segregation. Modelling and Simulation in Materials Science and Engineering, 2013, 21, 045016.	0.8	13
14	Velocity and stress jump conditions between a porous medium and a fluid. Advances in Water Resources, 2013, 62, 327-339.	1.7	59
15	A falling film on a porous medium. Journal of Fluid Mechanics, 2013, 716, 414-444.	1.4	40
16	Direct numerical simulation of turbulent heat transfer in a fluid-porous domain. Physics of Fluids, 2013, 25, .	1.6	49
17	DOWNSCALING PROCEDURE FOR CONVECTIVE HEAT TRANSFER IN PERIODIC POROUS MEDIA. Journal of Porous Media, 2013, 16, 123-135.	1.0	2
18	Discrete model combined with mimetic microfluidic chips to study cell growth in porous scaffold under flow conditions. Computer Methods in Biomechanics and Biomedical Engineering, 2012, 15, 25-26.	0.9	1

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19	Channel segregation during columnar solidification influence of inertia. , 2012, , .		0
20	Onset of convective instabilities in under-ice melt ponds. Physical Review E, 2012, 85, 066306.	0.8	6
21	Analysis of a numerical benchmark for columnar solidification of binary alloys. IOP Conference Series: Materials Science and Engineering, 2012, 33, 012086.	0.3	30
22	Modeling of MF/UF Membrane Fouling by a Protein: A New Multiscale Approach. Procedia Engineering, 2012, 44, 1842-1843.	1.2	0
23	Effect of Reaction and Adsorption at the Surface of Porous Pellets on the Concentration of Slurries. Industrial & Engineering Chemistry Research, 2012, 51, 12739-12750.	1.8	1
24	Thermosolutal Natural Convection in Partially Porous Domains. Journal of Heat Transfer, 2012, 134, .	1.2	6
25	Coupling a two-temperature model and a one-temperature model at a fluid-porous interface. International Journal of Heat and Mass Transfer, 2012, 55, 2510-2523.	2.5	17
26	A falling film down a slippery inclined plane. Journal of Fluid Mechanics, 2011, 684, 353-383.	1.4	95
27	One-domain approach for heat transfer between a porous medium and a fluid. International Journal of Heat and Mass Transfer, 2011, 54, 2089-2099.	2.5	27
28	Convective heat transfer in a channel partially filled with a porous medium. International Journal of Thermal Sciences, 2011, 50, 1355-1368.	2.6	50
29	Boundary conditions at a fluidâ€“porous interface for a convective heat transfer problem: Analysis of the jump relations. International Journal of Heat and Mass Transfer, 2011, 54, 3683-3693.	2.5	19
30	One-Domain Approach for Heat Transfer At The Fluid-Porous Medium Inter-Region. , 2010, , .		0
31	Derivation of Complete Jump Boundary Conditions Between Homogeneous Media. , 2010, , .		0
32	Downscaling Method from Macroscopic to Microscopic Scale in a Periodic Two-Dimensional Porous Medium. , 2010, , .		1
33	Numerical simulation of channel segregates during alloy solidification using TVD schemes. International Journal of Numerical Methods for Heat and Fluid Flow, 2010, 20, 841-866.	1.6	3
34	Stability analysis of thin film flow along a heated porous wall. Physics of Fluids, 2009, 21, .	1.6	77
35	Stability of natural convection in superposed fluid and porous layers: Equivalence of the one- and two-domain approaches. International Journal of Heat and Mass Transfer, 2009, 52, 533-536.	2.5	40
36	Call for contributions to a numerical benchmark problem for 2D columnar solidification of binary alloys. International Journal of Thermal Sciences, 2009, 48, 2013-2016.	2.6	66

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37	On the Equivalence of the Discontinuous One- and Two-Domain Approaches for the Modeling of Transport Phenomena at a Fluid/Porous Interface. Transport in Porous Media, 2009, 78, 403-418.	1.2	42
38	Stability of Thermosolutal Natural Convection in Superposed Fluid and Porous Layers. Transport in Porous Media, 2009, 78, 525-536.	1.2	30
39	Jump Condition for Diffusive and Convective Mass Transfer Between a Porous Medium and a Fluid Involving Adsorption and Chemical Reaction. Transport in Porous Media, 2009, 78, 459-476.	1.2	34
40	Computation of Jump Coefficients for Momentum Transfer Between a Porous Medium and a Fluid Using a Closed Generalized Transfer Equation. Transport in Porous Media, 2009, 78, 439.	1.2	33
41	Macroscopic Conduction Models by Volume Averaging for Two-Phase Systems. Topics in Applied Physics, 2009, , 95-105.	0.4	1
42	Diffusion and reaction in three-phase systems: Average transport equations and jump boundary conditions. Chemical Engineering Journal, 2008, 138, 307-332.	6.6	6
43	Natural convection in partially porous media: a brief overview. International Journal of Numerical Methods for Heat and Fluid Flow, 2008, 18, 465-490.	1.6	14
44	Large Particle Transport in Porous Media: Effect of Pore Plugging on the Macroscopic Transport Properties. Journal of Porous Media, 2008, 11, 343-360.	1.0	4
45	Stability of natural convection in superposed fluid and porous layers: Influence of the interfacial jump boundary condition. Physics of Fluids, 2007, 19, 058102.	1.6	20
46	Jump momentum boundary condition at a fluidâ€“porous dividing surface: Derivation of the closure problem. Chemical Engineering Science, 2007, 62, 4025-4039.	1.9	73
47	Linear stability of natural convection in superposed fluid and porous layers: Influence of the interfacial modelling. International Journal of Heat and Mass Transfer, 2007, 50, 1356-1367.	2.5	53
48	Diffusive mass transfer between a microporous medium and an homogeneous fluid: Jump boundary conditions. Chemical Engineering Science, 2006, 61, 1692-1704.	1.9	44
49	Chemical non-equilibrium modelling of columnar solidification. International Journal of Heat and Mass Transfer, 2006, 49, 4496-4510.	2.5	16
50	Stability of Natural Convection in Superposed Fluid and Porous Layers Using Integral Transforms. Numerical Heat Transfer, Part B: Fundamentals, 2006, 50, 409-424.	0.6	26
51	Convective heat and solute transfer in partially porous cavities. International Journal of Heat and Mass Transfer, 2005, 48, 1898-1908.	2.5	63
52	Dual reciprocity boundary element method solution of natural convection in Darcyâ€“Brinkman porous media. Engineering Analysis With Boundary Elements, 2004, 28, 23-41.	2.0	24
53	Macroscopic modeling of columnar dendritic solidification. Computational and Applied Mathematics, 2004, 23, .	1.3	3
54	Momentum transport at a fluidâ€“porous interface. International Journal of Heat and Mass Transfer, 2003, 46, 4071-4081.	2.5	255

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55	Averaged solute transport during solidification of a binary mixture: Active dispersion in dendritic structures. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 2002, 33, 365-376.	1.0	10
56	Passive dispersion in dendritic structures. Materials Science & Engineering A: Structural Materials: Properties, Microstructure and Processing, 2002, 323, 367-376.	2.6	6
57	Average momentum equation for interdendritic flow in a solidifying columnar mushy zone. International Journal of Heat and Mass Transfer, 2002, 45, 3651-3665.	2.5	43
58	Natural convection in porous media?dual reciprocity boundary element method solution of the Darcy model. International Journal for Numerical Methods in Fluids, 2000, 33, 279-312.	0.9	22
59	Heat transfer by thermosolutal natural convection in a vertical composite fluid-porous cavity. International Communications in Heat and Mass Transfer, 1999, 26, 1115-1126.	2.9	16
60	Numerical calculation of the permeability in a dendritic mushy zone. Metallurgical and Materials Transactions B: Process Metallurgy and Materials Processing Science, 1999, 30, 613-622.	1.0	54
61	Double Diffusive Natural Convection in a Composite Fluid-Porous Layer. Journal of Heat Transfer, 1998, 120, 234-242.	1.2	35
62	Averaged Momentum Equation for Flow Through a Nonhomogenenous Porous Structure. Transport in Porous Media, 1997, 28, 19-50.	1.2	32
63	Numerical study of double-diffusive natural convection in a porous cavity using the Darcy-Brinkman formulation. International Journal of Heat and Mass Transfer, 1996, 39, 1363-1378.	2.5	218
64	Numerical Modeling of Hot Water Storage in Aquifer by Finite Element Method. Developments in Water Science, 1988, 36, 325-330.	0.1	0