Mehrdad Massoudi

List of Publications by Year
in descending order

141	2,509	236612	243296
papers	citations	25 h-index	44 g-index

142	142	142	1966
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Viscosity and thermal conductivity of nanofluids containing multi-walled carbon nanotubes stabilized by chitosan. International Journal of Thermal Sciences, 2011, 50, 12-18.	2.6	292
2	Experimental observations of the effects of shear rates and particle concentration on the viscosity of Fe2O3â€“deionized water nanofluids. International Journal of Thermal Sciences, 2009, 48, 1294-1301.	2.6	143
3	Slag Behavior in Gasifiers. Part I: Influence of Coal Properties and Gasification Conditions. Energies, 2013, 6, 784-806.	1.6	114
4	Chemical-Looping Combustion and Gasification of Coals and Oxygen Carrier Development: A Brief Review. Energies, 2015, 8, 10605-10635.	1.6	88
5	Local non-similarity solutions for the flow of a non-Newtonian fluid over a wedge. International Journal of Non-Linear Mechanics, 2001, 36, 961-976.	1.4	66
6	Constitutive relations for the interaction force in multicomponent particulate flows. International Journal of Non-Linear Mechanics, 2003, 38, 313-336.	1.4	58
7	Pulsatile flow of blood using a modified second-grade fluid model. Computers and Mathematics With Applications, 2008, 56, 199-211.	1.4	56
8	Multi-Constituent Simulation of Thrombus Deposition. Scientific Reports, 2017, 7, 42720.	1.6	56
9	A Review of Rheological Modeling of Cement Slurry in Oil Well Applications. Energies, 2020, 13, 570.	1.6	52
10	A Mixture Theory formulation for hydraulic or pneumatic transport of solid particles. International Journal of Engineering Science, 2010, 48, 1440-1461.	2.7	50
11	An Anisotropic Constitutive Equation for the Stress Tensor of Blood Based on Mixture Theory. Mathematical Problems in Engineering, 2008, 2008, 1-30.	0.6	47
12	A note on the meaning of mixture viscosity using the classical continuum theories of mixtures. International Journal of Engineering Science, 2008, 46, 677-689.	2.7	46
13	High fidelity computational simulation of thrombus formation in Thoratec HeartMate II continuous flow ventricular assist device. Scientific Reports, 2016, 6, 38025.	1.6	45
14	On some generalizations of the second grade fluid model. Nonlinear Analysis: Real World Applications, 2008, 9, 1169-1183.	0.9	44
15	On the representation of turbulent stresses for computing blood damage. International Journal of Engineering Science, 2010, 48, 1325-1331.	2.7	44
16	Three-dimensional constitutive relations for granular materials based on the dilatant double shearing mechanism and the concept of fabric. International Journal of Plasticity, 2006, 22, 826-857.	4.1	40
17	On the importance of material frame-indifference and lift forces in multiphase flows. Chemical Engineering Science, 2002, 57, 3687-3701.	1.9	37
18	Study of blood flow in several benchmark micro-channels using a two-fluid approach. International Journal of Engineering Science, 2015, 95, 49-59.	2.7	37

#	Article	IF	Citations
19	On the heat flux vector for flowing granular materialsâ€"Part I: effective thermal conductivity and background. Mathematical Methods in the Applied Sciences, 2006, 29, 1585-1598.	1.2	36
20	On the flow of granular materials with variable material properties. International Journal of Non-Linear Mechanics, 2001, 36, 25-37.	1.4	35
21	A numerical study of blood flow using mixture theory. International Journal of Engineering Science, 2014, 76, 56-72.	2.7	35
22	On the heat flux vector for flowing granular materialsâ€"part II: derivation and special cases. Mathematical Methods in the Applied Sciences, 2006, 29, 1599-1613.	1.2	31
23	Slag Behavior in Gasifiers. Part II: Constitutive Modeling of Slag. Energies, 2013, 6, 807-838.	1.6	31
24	Removal of malaria-infected red blood cells using magnetic cell separators: A computational study. Applied Mathematics and Computation, 2012, 218, 6841-6850.	1.4	30
25	Heat transfer analysis and flow of a slag-type fluid: Effects of variable thermal conductivity and viscosity. International Journal of Non-Linear Mechanics, 2015, 76, 8-19.	1.4	27
26	Natural convection and anisotropic heat transfer in a ferro-nanofluid under magnetic field. International Journal of Heat and Mass Transfer, 2019, 133, 581-595.	2.5	27
27	Modeling and numerical simulation of blood flow using the theory of interacting continua. International Journal of Non-Linear Mechanics, 2012, 47, 506-520.	1.4	26
28	Incorporating the effects of fabric in the dilatant double shearing model for planar deformation of granular materials. International Journal of Plasticity, 2006, 22, 628-653.	4.1	25
29	Boundary conditions in mixture theory and in CFD applications of higher order models. Computers and Mathematics With Applications, 2007, 53, 156-167.	1.4	25
30	Numerical Simulation of Nanofluid Suspensions in a Geothermal Heat Exchanger. Energies, 2018, 11, 919.	1.6	25
31	Design of microfluidic channels for magnetic separation of malaria-infected red blood cells. Microfluidics and Nanofluidics, 2016, 20, 1.	1.0	23
32	Steady Flow of a Cement Slurry. Energies, 2019, 12, 2604.	1.6	23
33	The frictional flow of a dense granular material based on the dilatant double shearing model. Computers and Mathematics With Applications, 2007, 53, 244-259.	1.4	22
34	Natural convection flow of a generalized second grade fluid between two vertical walls. Nonlinear Analysis: Real World Applications, 2008, 9, 80-93.	0.9	22
35	Effects of shear-dependent viscosity and hematocrit on blood flow. Applied Mathematics and Computation, 2019, 356, 299-311.	1.4	22
36	Simulation of thrombosis in a stenotic microchannel: The effects of vWF-enhanced shear activation of platelets. International Journal of Engineering Science, 2020, 147, 103206.	2.7	22

#	Article	IF	Citations
37	A continuumâ€“kinetic theory approach to the rapid flow of granular materials: the effects of volume fraction gradient. International Journal of Non-Linear Mechanics, 2001, 36, 637-648.	1.4	19
38	A Brief Review of Gas Migration in Oilwell Cement Slurries. Energies, 2021, 14, 2369.	1.6	19
39	Stability analysis of fluidized beds. International Journal of Engineering Science, 1988, 26, 765-769.	2.7	18
40	On the coefficients of the interaction forces in a two-phase flow of a fluid infused with particles. International Journal of Non-Linear Mechanics, 2014, 59, 76-82.	1.4	18
41	Fully developed flow of a drilling fluid between two rotating cylinders. Applied Mathematics and Computation, 2016, 281, 266-277.	1.4	18
42	Computational study of blood flow in microchannels. Journal of Computational and Applied Mathematics, 2016, 292, 174-187.	1.1	18
43	Transport of platelets induced by red blood cells based on mixture theory. International Journal of Engineering Science, 2017, 118, 16-27.	2.7	18
44	Conduction and dissipation in the shearing flow of granular materials modeled as non-Newtonian fluids. Powder Technology, 2007, 175, 146-162.	2.1	17
45	Heat Transfer and Dissipation Effects in the Flow of a Drilling Fluid. Fluids, 2016, 1, 4.	0.8	17
46	Recent Advances in Mechanics of Non-Newtonian Fluids. Fluids, 2020, 5, 10.	0.8	16
47	Unsteady flows of inhomogeneous incompressible fluids. International Journal of Non-Linear Mechanics, 2011, 46, 738-741.	1.4	15
48	Numerical solution to the shearing flow of granular materials between two plates. International Journal of Non-Linear Mechanics, 2005, 40, 1-9.	1.4	14
49	A generalization of Reiner's mathematical model for wet sand. Mechanics Research Communications, 2011, 38, 378-381.	1.0	14
50	Simulation of blood flow in a sudden expansion channel and a coronary artery. Journal of Computational and Applied Mathematics, 2020, 376, 112856.	1.1	14
51	The effect of slip boundary condition on the flow of granular materials: a continuum approach. International Journal of Non-Linear Mechanics, 2000, 35, 745-761.	1.4	13
52	Can Scientific Writing Be Creative?. Journal of Science Education and Technology, 2003, 12, 115-128.	2.4	13
53	Flow of granular materials modeled as a non-linear fluid. Mechanics Research Communications, 2013, 52, 62-68.	1.0	13
54	Effects of Shear Dependent Viscosity and Variable Thermal Conductivity on the Flow and Heat Transfer in a Slurry. Energies, 2015, 8, 11546-11574.	1.6	13

#	Article	IF	Citations
55	Effects of Anisotropic Thermal Conductivity and Lorentz Force on the Flow and Heat Transfer of a Ferro-Nanofluid in a Magnetic Field. Energies, 2017, 10, 1065.	1.6	13
56	Unsteady shear flow of fluids with pressure-dependent viscosity. International Journal of Engineering Science, 2006, 44, 915-926.	2.7	12
57	Analytical solutions to Stokes-type flows of inhomogeneous fluids. Applied Mathematics and Computation, 2012, 218, 6314-6329.	1.4	12
58	Exergy of air, CO2, and H2O for use as geothermal fluids. International Journal of Heat and Mass Transfer, 2018, 126, 448-456.	2.5	12
59	Heat losses associated with the upward flow of air, water, CO2 in geothermal production wells. International Journal of Heat and Mass Transfer, 2019, 132, 249-258.	2.5	12
60	Remarks on Constitutive Modeling of Nanofluids. Advances in Mechanical Engineering, 2012, 4, 927580.	0.8	12
61	On the thermodynamics of some generalized second-grade fluids. Continuum Mechanics and Thermodynamics, 2010, 22, 27-46.	1.4	11
62	Numerical Simulation of Red Blood Cell-Induced Platelet Transport in Saccular Aneurysms. Applied Sciences (Switzerland), 2017, 7, 484.	1.3	11
63	On the Qualities of a Teacher and a Student: An Eastern perspective based on Buddhism, Vedanta and Sufism. Intercultural Education, 2002, 13, 137-155.	0.4	10
64	Normal stress effects in the gravity driven flow of granular materials. International Journal of Non-Linear Mechanics, 2017, 92, 84-91.	1.4	10
65	A Continuum Model for the Unfolding of von Willebrand Factor. Annals of Biomedical Engineering, 2021, 49, 2646-2658.	1.3	10
66	Rapid flow of granular materials with density and fluctuation energy gradients. International Journal of Non-Linear Mechanics, 1994, 29, 487-492.	1.4	9
67	Chemically-reacting fluids with variable transport properties. Applied Mathematics and Computation, 2012, 219, 1761-1775.	1.4	9
68	Heat transfer in granular materials: effects of nonlinear heat conduction and viscous dissipation. Mathematical Methods in the Applied Sciences, 2013, 36, 1947-1964.	1.2	9
69	Heat transfer and flow of a dense suspension between two cylinders. International Journal of Heat and Mass Transfer, 2017, 112, 597-606.	2.5	9
70	Heat Transfer and Flow of Nanofluids in a Y-Type Intersection Channel with Multiple Pulsations: A Numerical Study. Energies, 2017, 10, 492.	1.6	9
71	Vertical flow of a multiphase mixture in a channel. Mathematical Problems in Engineering, 2001, 6, 505-526.	0.6	8
72	Magneto-hydrodynamics-driven mixing of a reagent and a phosphate-buffered solution: A computational study. Applied Mathematics and Computation, 2017, 298, 261-271.	1.4	8

#	Article	IF	Citations
73	Couette flow of granular materials. International Journal of Non-Linear Mechanics, 2003, 38, 11-20.	1.4	7
74	Boundary layer flow of a second grade fluid with variable heat flux at the wall. Applied Mathematics and Computation, 2003, 143, 201-212.	1.4	7
75	An anisotropic constitutive relation for the stress tensor of a rod-like (fibrous-type) granular material. Mathematical Problems in Engineering, 2005, 2005, 679-702.	0.6	7
76	A system theory approach to interfaith dialogue. Intercultural Education, 2006, 17, 421-437.	0.4	7
77	Flow of a nonâ€linear (densityâ€gradientâ€dependent) viscous fluid with heat generation, viscous dissipation and radiation. Mathematical Methods in the Applied Sciences, 2008, 31, 1685-1703.	1.2	7
78	Heat transfer and flow of a slag-type non-linear fluid: Effects of variable thermal conductivity. Applied Mathematics and Computation, 2014, 227, 77-91.	1.4	7
79	Falling film flow of a viscoelastic fluid along a wall. Mathematical Methods in the Applied Sciences, 2014, 37, 2840-2853.	1.2	7
80	On the Heat Flux Vector and Thermal Conductivity of Slags: A Brief Review. Energies, 2016, 9, 27.	1.6	7
81	Natural Convection in a Non-Newtonian Fluid: Effects of Particle Concentration. Fluids, 2019, 4, 192.	0.8	7
82	A non-linear fluid suspension model for blood flow. International Journal of Non-Linear Mechanics, 2019, 109, 32-39.	1.4	7
83	Effects of Temperature on the Flow and Heat Transfer in Gel Fuels: A Numerical Study. Energies, 2020, 13, 821.	1.6	7
84	On the motion of a second grade fluid due to longitudinal and torsional oscillations of a cylinder: A numerical study. Applied Mathematics and Computation, 2008, 203, 471-481.	1.4	6
85	On Thermomechanics of a Nonlinear Heat Conducting Suspension. Fluids, 2016, 1, 19.	0.8	6
86	Heat Transfer in a Drilling Fluid with Geothermal Applications. Energies, 2017, 10, 1349.	1.6	6
87	Flow Characteristics of Water-HPC Gel in Converging Tubes and Tapered Injectors. Energies, 2019, 12, 1643.	1.6	6
88	Pulsating Poiseuille flow of a cement slurry. International Journal of Non-Linear Mechanics, 2021, 133, 103717.	1.4	6
89	On the heat flux vector in mixtures. International Communications in Heat and Mass Transfer, 2005, 32, 1128-1134.	2.9	5
90	Implicit constitutive relations in thermoelasticity. International Journal of Non-Linear Mechanics, 2011, 46, 286-290.	1.4	5

#	Article	IF	Citations
91	Flow of granular materials with slip boundary condition: A continuumâ€“kinetic theory approach. Applied Mathematics and Computation, 2014, 242, 518-527.	1.4	5
92	Finite Element Simulations of an Elasto-Viscoplastic Model for Clay. Geosciences (Switzerland), 2019, 9, 145.	1.0	5
93	A Study of Temperature Distribution and Thermal Stresses in a Hot Rock Due to Rapid Cooling. Journal of Heat Transfer, 2020, 142, .	1.2	5
94	A comparative study of the hypoplasticity and the fabric-dependent dilatant double shearing models for granular materials. International Journal for Numerical and Analytical Methods in Geomechanics, 2007, 31, 735-756.	1.7	4
95	Heat transfer and Couette flow of a chemically reacting non-linear fluid. Mathematical Methods in the Applied Sciences, 2009, 33, n/a-n/a.	1.2	4
96	Unsteady motion of a non-linear viscoelastic fluid. International Journal of Non-Linear Mechanics, 2009, 44, 1063-1072.	1.4	4
97	Implicit Continuum Mechanics Approach to Heat Conduction in Granular Materials. Industrial & Engineering Chemistry Research, 2010, 49, 5215-5221.	1.8	4
98	The Couetteâ€“Poiseuille flow of a suspension modeled as a modified third-grade fluid. Archive of Applied Mechanics, 2016, 86, 921-932.	1.2	4
99	The Influence of Bubbles on Foamed Cement Viscosity Using an Extended Stokesian Dynamics Approach. Fluids, 2019, 4, 166.	0.8	4
100	Influence of shear rate and surface chemistry on thrombus formation in micro-crevice. Journal of Biomechanics, 2021, 121, 110397.	0.9	4
101	Using CO2 as a Cooling Fluid for Power Plants: A Novel Approach for CO2 Storage and Utilization. Applied Sciences (Switzerland), 2021, 11, 4974.	1.3	4
102	Energetic formulation of largeâ€deformation poroelasticity. International Journal for Numerical and Analytical Methods in Geomechanics, 0, , .	1.7	4
103	Flow of a binary mixture of linearly incompressible viscous fluids between two horizontal parallel plates. Mechanics Research Communications, 2008, 35, 603-608.	1.0	3
104	Flow of a fluid-solid mixture: Normal stress differences and slip boundary condition. International Journal of Non-Linear Mechanics, 2017, 90, 39-49.	1.4	3
105	Flow of blood in micro-channels: recent results based on mixture theory. International Journal of Advances in Engineering Sciences and Applied Mathematics, 2017, 9, 40-50.	0.7	3
106	Conduction and convection heat transfer in a dense granular suspension. Applied Mathematics and Computation, 2018, 332, 351-362.	1.4	3
107	Flow of a Dense Suspension Modeled as a Modified Second Grade Fluid. Fluids, 2018, 3, 55.	0.8	3
108	Characteristics of optimization algorithms applied to the electrode design of a magnetohydrodynamic micromixer. Journal of Mechanical Science and Technology, 2018, 32, 3667-3675.	0.7	3

#	Article	IF	Citations
109	Surfactant stabilized bubbles flowing in a Newtonian fluid. Mathematics and Mechanics of Solids, 2019, 24, 3823-3842.	1.5	3
110	The effects of particle concentration and various fluxes on the flow of a fluid-solid suspension. Applied Mathematics and Computation, 2019, 358, 151-160.	1.4	3
111	Numerical Simulations of the Flow of a Dense Suspension Exhibiting Yield-Stress and Shear-Thinning Effects. Energies, 2020, 13, 6635.	1.6	3
112	Constitutive modelling of flowing granular materials: A continuum approach. , 2007, , 63-107.		3
113	Modeling of solid particles in fluidized beds. Mathematical and Computer Modelling, 1990, 14, 785-789.	2.0	2
114	A NUMERICAL STUDY OF THE FLOW OF GRANULAR MATERIALS BETWEEN TWO VERTICAL FLAT PLATES WHICH ARE AT DIFFERENT TEMPERATURES. Particulate Science and Technology, 1999, 17, 149-163.	1.1	2
115	Flow of a mixture of a viscous fluid and a granular solid in an orthogonal rheometer. International Journal of Non-Linear Mechanics, 2005, 40, 507-514.	1.4	2
116	Modeling granular materials as compressible nonlinear fluids: Heat transfer boundary value problems. Mathematical Problems in Engineering, 2006, 2006, 1-31.	0.6	2
117	An Enquiry Into the Role and Importance of Ethics in Scientific Research. Interchange, 2008, 39, 443-468.	1.0	2
118	Convection-Radiation Heat Transfer in a Nonlinear Fluid with Temperature-Dependent Viscosity. Mathematical Problems in Engineering, 2009, 2009, 1-15.	0.6	2
119	Channel Flow of a Mixture of Granular Materials and a Fluid. , 2013, , .		2
120	A Possible Ethical Imperative Based on the Entropy Law. Entropy, 2016, 18, 389.	1.1	2
121	Entropy Analysis for a Nonlinear Fluid with a Nonlinear Heat Flux Vector. Entropy, 2017, 19, 689.	1.1	2
122	Simplicity and Sustainability: Pointers from Ethics and Science. Sustainability, 2018, 10, 1303.	1.6	2
123	Effects of Polydispersity on Structuring and Rheology in Flowing Suspensions. Journal of Applied Mechanics, Transactions ASME, 2019, 86, .	1.1	2
124	The Heat Flux Vector(s) in a Two Component Fluid Mixture. Fluids, 2020, 5, 77.	0.8	2
125	Mathematical Modelling of Granular Materials. , 2010, , 219-245.		2
126	STABILITY OF FLOWS IN FLUIDIZED BEDS. Particulate Science and Technology, 1996, 14, 185-211.	1.1	1

#	Article	IF	Citations
127	On the question of authority and the various responses to new ideas: A (possible) buddhist perspective. Interchange, 2004, 35, 447-474.	1.0	1
128	Numerical Study of a Non-Linear Model for the Heat Flux Vector for Granular Materials. , 2012, , .		1
129	Flow of Granular Materials Modeled as a Generalized Reiner-Rivlin Type Fluid. , 2012, , .		1
130	Laser-Induced Motion of a Nanofluid in a Micro-Channel. Fluids, 2016, 1, 35.	0.8	1
131	Mathematical Modeling of Fluid Flow and Heat Transfer in Petroleum Industries and Geothermal Applications. Energies, 2020, 13, 1344.	1.6	1
132	Pumping gaseous CO2 into a high-pressure, constant-volume storage cylinder: A thermodynamics analysis. Journal of Energy Storage, 2021, 40, 102706.	3.9	1
133	Mathematical Modeling of Fluid Flow and Heat Transfer in Petroleum Industries and Geothermal Applications 2020. Energies, 2021, 14, 5104.	1.6	1
134	A Simple Model for the Effective Thermal Conductivity of a Particulate Mixture. , 2002, , .		1
135	A Comparative Study of the Response of Double Shearing and Hypoplastic Models. , 2002, , .		1
136	Us and Them: Religious Education and the Role of Proper Communication in Conflict Prevention. Interchange, 2010, 41, 285-304.	1.0	0
137	Heat Transfer in Complex Fluids. , 2011, , .		0
138	Recent Advances in Fluid Mechanics: Feature Papers. Fluids, 2021, 6, 143.	0.8	0
139	Application of the Theory of Interacting Continua to Blood Flow. , 2011, , .		0
140	Study of Blood Flow in Micro-Channels Using Mixture Theory. , 2014, , .		0
141	Generalized mechanics of incompressible multiphase suspensions. Journal of Micromechanics and Molecular Physics, 0, , 1-9.	0.7	0