

# Mehrdad Massoudi

## List of Publications by Citations

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131  
papers

1,981  
citations

24  
h-index

39  
g-index

142  
ext. papers

2,217  
ext. citations

2.9  
avg, IF

5.54  
L-index

#	Paper	IF	Citations
131	Viscosity and thermal conductivity of nanofluids containing multi-walled carbon nanotubes stabilized by chitosan. <i>International Journal of Thermal Sciences</i> , <b>2011</b> , 50, 12-18	4.1	247
130	Experimental observations of the effects of shear rates and particle concentration on the viscosity of Fe <sub>2</sub> O <sub>3</sub> /ionized water nanofluids. <i>International Journal of Thermal Sciences</i> , <b>2009</b> , 48, 1294-1301	4.1	124
129	Slag Behavior in Gasifiers. Part I: Influence of Coal Properties and Gasification Conditions. <i>Energies</i> , <b>2013</b> , 6, 784-806	3.1	96
128	Chemical-Looping Combustion and Gasification of Coals and Oxygen Carrier Development: A Brief Review. <i>Energies</i> , <b>2015</b> , 8, 10605-10635	3.1	61
127	Constitutive relations for the interaction force in multicomponent particulate flows. <i>International Journal of Non-Linear Mechanics</i> , <b>2003</b> , 38, 313-336	2.8	52
126	Local non-similarity solutions for the flow of a non-Newtonian fluid over a wedge. <i>International Journal of Non-Linear Mechanics</i> , <b>2001</b> , 36, 961-976	2.8	49
125	A Mixture Theory formulation for hydraulic or pneumatic transport of solid particles. <i>International Journal of Engineering Science</i> , <b>2010</b> , 48, 1440-1461	5.7	46
124	Pulsatile flow of blood using a modified second-grade fluid model. <i>Computers and Mathematics With Applications</i> , <b>2008</b> , 56, 199-211	2.7	46
123	A note on the meaning of mixture viscosity using the classical continuum theories of mixtures. <i>International Journal of Engineering Science</i> , <b>2008</b> , 46, 677-689	5.7	44
122	Multi-Constituent Simulation of Thrombus Deposition. <i>Scientific Reports</i> , <b>2017</b> , 7, 42720	4.9	38
121	An Anisotropic Constitutive Equation for the Stress Tensor of Blood Based on Mixture Theory. <i>Mathematical Problems in Engineering</i> , <b>2008</b> , 2008, 1-30	1.1	37
120	On some generalizations of the second grade fluid model. <i>Nonlinear Analysis: Real World Applications</i> , <b>2008</b> , 9, 1169-1183	2.1	36
119	On the importance of material frame-indifference and lift forces in multiphase flows. <i>Chemical Engineering Science</i> , <b>2002</b> , 57, 3687-3701	4.4	36
118	Three-dimensional constitutive relations for granular materials based on the dilatant double shearing mechanism and the concept of fabric. <i>International Journal of Plasticity</i> , <b>2006</b> , 22, 826-857	7.6	35
117	On the Representation of Turbulent Stresses for Computing Blood Damage. <i>International Journal of Engineering Science</i> , <b>2010</b> , 48, 1325-1331	5.7	34
116	On the heat flux vector for flowing granular materials Part I: effective thermal conductivity and background. <i>Mathematical Methods in the Applied Sciences</i> , <b>2006</b> , 29, 1585-1598	2.3	34
115	High fidelity computational simulation of thrombus formation in Thoratec HeartMate II continuous flow ventricular assist device. <i>Scientific Reports</i> , <b>2016</b> , 6, 38025	4.9	34

114	On the flow of granular materials with variable material properties. <i>International Journal of Non-Linear Mechanics</i> , <b>2001</b> , 36, 25-37	2.8	31
113	On the heat flux vector for flowing granular materials Part II: derivation and special cases. <i>Mathematical Methods in the Applied Sciences</i> , <b>2006</b> , 29, 1599-1613	2.3	29
112	Study of blood flow in several benchmark micro-channels using a two-fluid approach. <i>International Journal of Engineering Science</i> , <b>2015</b> , 95, 49-59	5.7	28
111	A Review of Rheological Modeling of Cement Slurry in Oil Well Applications. <i>Energies</i> , <b>2020</b> , 13, 570	3.1	27
110	A numerical study of blood flow using mixture theory. <i>International Journal of Engineering Science</i> , <b>2014</b> , 76, 56-72	5.7	26
109	Slag Behavior in Gasifiers. Part II: Constitutive Modeling of Slag. <i>Energies</i> , <b>2013</b> , 6, 807-838	3.1	26
108	Removal of malaria-infected red blood cells using magnetic cell separators: A computational study. <i>Applied Mathematics and Computation</i> , <b>2012</b> , 218, 6841-6850	2.7	25
107	Boundary conditions in mixture theory and in CFD applications of higher order models. <i>Computers and Mathematics With Applications</i> , <b>2007</b> , 53, 156-167	2.7	22
106	Incorporating the effects of fabric in the dilatant double shearing model for planar deformation of granular materials. <i>International Journal of Plasticity</i> , <b>2006</b> , 22, 628-653	7.6	22
105	Natural convection and anisotropic heat transfer in a ferro-nanofluid under magnetic field. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 133, 581-595	4.9	22
104	Modeling and numerical simulation of blood flow using the Theory of Interacting Continua. <i>International Journal of Non-Linear Mechanics</i> , <b>2012</b> , 47, 506-520	2.8	21
103	The frictional flow of a dense granular material based on the dilatant double shearing model. <i>Computers and Mathematics With Applications</i> , <b>2007</b> , 53, 244-259	2.7	19
102	Natural convection flow of a generalized second grade fluid between two vertical walls. <i>Nonlinear Analysis: Real World Applications</i> , <b>2008</b> , 9, 80-93	2.1	19
101	Numerical Simulation of Nanofluid Suspensions in a Geothermal Heat Exchanger. <i>Energies</i> , <b>2018</b> , 11, 919	3.1	18
100	Heat transfer analysis and flow of a slag-type fluid: Effects of variable thermal conductivity and viscosity. <i>International Journal of Non-Linear Mechanics</i> , <b>2015</b> , 76, 8-19	2.8	18
99	Design of microfluidic channels for magnetic separation of malaria-infected red blood cells. <i>Microfluidics and Nanofluidics</i> , <b>2016</b> , 20, 1	2.8	17
98	A continuum kinetic theory approach to the rapid flow of granular materials: the effects of volume fraction gradient. <i>International Journal of Non-Linear Mechanics</i> , <b>2001</b> , 36, 637-648	2.8	17
97	Fully developed flow of a drilling fluid between two rotating cylinders. <i>Applied Mathematics and Computation</i> , <b>2016</b> , 281, 266-277	2.7	16

96	On the coefficients of the interaction forces in a two-phase flow of a fluid infused with particles. <i>International Journal of Non-Linear Mechanics</i> , <b>2014</b> , 59, 76-82	2.8	16
95	Heat Transfer and Dissipation Effects in the Flow of a Drilling Fluid. <i>Fluids</i> , <b>2016</b> , 1, 4	1.6	16
94	Transport of platelets induced by red blood cells based on mixture theory. <i>International Journal of Engineering Science</i> , <b>2017</b> , 118, 16-27	5.7	15
93	Steady Flow of a Cement Slurry. <i>Energies</i> , <b>2019</b> , 12, 2604	3.1	15
92	Unsteady flows of inhomogeneous incompressible fluids. <i>International Journal of Non-Linear Mechanics</i> , <b>2011</b> , 46, 738-741	2.8	15
91	Stability analysis of fluidized beds. <i>International Journal of Engineering Science</i> , <b>1988</b> , 26, 765-769	5.7	15
90	Effects of Anisotropic Thermal Conductivity and Lorentz Force on the Flow and Heat Transfer of a Ferro-Nanofluid in a Magnetic Field. <i>Energies</i> , <b>2017</b> , 10, 1065	3.1	13
89	A generalization of Reiner's mathematical model for wet sand. <i>Mechanics Research Communications</i> , <b>2011</b> , 38, 378-381	2.2	13
88	Conduction and dissipation in the shearing flow of granular materials modeled as non-Newtonian fluids. <i>Powder Technology</i> , <b>2007</b> , 175, 146-162	5.2	13
87	Numerical solution to the shearing flow of granular materials between two plates. <i>International Journal of Non-Linear Mechanics</i> , <b>2005</b> , 40, 1-9	2.8	13
86	Can Scientific Writing Be Creative?. <i>Journal of Science Education and Technology</i> , <b>2003</b> , 12, 115-128	2.8	12
85	The effect of slip boundary condition on the flow of granular materials: a continuum approach. <i>International Journal of Non-Linear Mechanics</i> , <b>2000</b> , 35, 745-761	2.8	12
84	Flow of granular materials modeled as a non-linear fluid. <i>Mechanics Research Communications</i> , <b>2013</b> , 52, 62-68	2.2	11
83	On the thermodynamics of some generalized second-grade fluids. <i>Continuum Mechanics and Thermodynamics</i> , <b>2010</b> , 22, 27-46	3.5	11
82	Unsteady shear flow of fluids with pressure-dependent viscosity. <i>International Journal of Engineering Science</i> , <b>2006</b> , 44, 915-926	5.7	11
81	Computational study of blood flow in microchannels. <i>Journal of Computational and Applied Mathematics</i> , <b>2016</b> , 292, 174-187	2.4	10
80	Effects of shear-dependent viscosity and hematocrit on blood flow. <i>Applied Mathematics and Computation</i> , <b>2019</b> , 356, 299-311	2.7	10
79	Numerical Simulation of Red Blood Cell-Induced Platelet Transport in Saccular Aneurysms. <i>Applied Sciences (Switzerland)</i> , <b>2017</b> , 7, 484	2.6	10

78	Analytical solutions to Stokes-type flows of inhomogeneous fluids. <i>Applied Mathematics and Computation</i> , <b>2012</b> , 218, 6314-6329	2.7	10
77	Heat transfer and flow of a dense suspension between two cylinders. <i>International Journal of Heat and Mass Transfer</i> , <b>2017</b> , 112, 597-606	4.9	9
76	Heat losses associated with the upward flow of air, water, CO <sub>2</sub> in geothermal production wells. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 132, 249-258	4.9	8
75	Effects of Shear Dependent Viscosity and Variable Thermal Conductivity on the Flow and Heat Transfer in a Slurry. <i>Energies</i> , <b>2015</b> , 8, 11546-11574	3.1	8
74	Chemically-reacting fluids with variable transport properties. <i>Applied Mathematics and Computation</i> , <b>2012</b> , 219, 1761-1775	2.7	8
73	Heat transfer in granular materials: effects of nonlinear heat conduction and viscous dissipation. <i>Mathematical Methods in the Applied Sciences</i> , <b>2013</b> , 36, 1947-1964	2.3	8
72	Vertical flow of a multiphase mixture in a channel. <i>Mathematical Problems in Engineering</i> , <b>2001</b> , 6, 505-526	2.1	8
71	A Brief Review of Gas Migration in Oilwell Cement Slurries. <i>Energies</i> , <b>2021</b> , 14, 2369	3.1	8
70	Exergy of air, CO <sub>2</sub> , and H <sub>2</sub> O for use as geothermal fluids. <i>International Journal of Heat and Mass Transfer</i> , <b>2018</b> , 126, 448-456	4.9	7
69	Heat transfer and flow of a slag-type non-linear fluid: Effects of variable thermal conductivity. <i>Applied Mathematics and Computation</i> , <b>2014</b> , 227, 77-91	2.7	7
68	Heat Transfer and Flow of Nanofluids in a Y-Type Intersection Channel with Multiple Pulsations: A Numerical Study. <i>Energies</i> , <b>2017</b> , 10, 492	3.1	7
67	A system theory approach to interfaith dialogue. <i>Intercultural Education</i> , <b>2006</b> , 17, 421-437	0.9	7
66	Couette flow of granular materials. <i>International Journal of Non-Linear Mechanics</i> , <b>2003</b> , 38, 11-20	2.8	7
65	Rapid flow of granular materials with density and fluctuation energy gradients. <i>International Journal of Non-Linear Mechanics</i> , <b>1994</b> , 29, 487-492	2.8	7
64	Simulation of thrombosis in a stenotic microchannel: The effects of vWF-enhanced shear activation of platelets. <i>International Journal of Engineering Science</i> , <b>2020</b> , 147,	5.7	7
63	Normal stress effects in the gravity driven flow of granular materials. <i>International Journal of Non-Linear Mechanics</i> , <b>2017</b> , 92, 84-91	2.8	6
62	Falling film flow of a viscoelastic fluid along a wall. <i>Mathematical Methods in the Applied Sciences</i> , <b>2014</b> , 37, 2840-2853	2.3	6
61	Heat Transfer in a Drilling Fluid with Geothermal Applications. <i>Energies</i> , <b>2017</b> , 10, 1349	3.1	6

60	An anisotropic constitutive relation for the stress tensor of a rod-like (fibrous-type) granular material. <i>Mathematical Problems in Engineering</i> , <b>2005</b> , 2005, 679-702	1.1	6
59	On the Qualities of a Teacher and a Student: An Eastern perspective based on Buddhism, Vedanta and Sufism. <i>Intercultural Education</i> , <b>2002</b> , 13, 137-155	0.9	6
58	Remarks on Constitutive Modeling of Nanofluids. <i>Advances in Mechanical Engineering</i> , <b>2012</b> , 4, 927580	1.2	6
57	Simulation of blood flow in a sudden expansion channel and a coronary artery. <i>Journal of Computational and Applied Mathematics</i> , <b>2020</b> , 376,	2.4	6
56	Flow of a non-linear (density-gradient-dependent) viscous fluid with heat generation, viscous dissipation and radiation. <i>Mathematical Methods in the Applied Sciences</i> , <b>2008</b> , 31, 1685-1703	2.3	5
55	On the motion of a second grade fluid due to longitudinal and torsional oscillations of a cylinder: A numerical study. <i>Applied Mathematics and Computation</i> , <b>2008</b> , 203, 471-481	2.7	5
54	On the heat flux vector in mixtures. <i>International Communications in Heat and Mass Transfer</i> , <b>2005</b> , 32, 1128-1134	5.8	5
53	On the Heat Flux Vector and Thermal Conductivity of Slags: A Brief Review. <i>Energies</i> , <b>2016</b> , 9, 27	3.1	5
52	A non-linear fluid suspension model for blood flow. <i>International Journal of Non-Linear Mechanics</i> , <b>2019</b> , 109, 32-39	2.8	5
51	Magneto-hydrodynamics-driven mixing of a reagent and a phosphate-buffered solution: A computational study. <i>Applied Mathematics and Computation</i> , <b>2017</b> , 298, 261-271	2.7	4
50	Flow Characteristics of Water-HPC Gel in Converging Tubes and Tapered Injectors. <i>Energies</i> , <b>2019</b> , 12, 1643	3.1	4
49	Effects of Temperature on the Flow and Heat Transfer in Gel Fuels: A Numerical Study. <i>Energies</i> , <b>2020</b> , 13, 821	3.1	4
48	The Couette-Boiseuille flow of a suspension modeled as a modified third-grade fluid. <i>Archive of Applied Mechanics</i> , <b>2016</b> , 86, 921-932	2.2	4
47	Finite Element Simulations of an Elasto-Viscoplastic Model for Clay. <i>Geosciences (Switzerland)</i> , <b>2019</b> , 9, 145	2.7	4
46	Flow of granular materials with slip boundary condition: A continuum kinetic theory approach. <i>Applied Mathematics and Computation</i> , <b>2014</b> , 242, 518-527	2.7	4
45	Unsteady motion of a non-linear viscoelastic fluid. <i>International Journal of Non-Linear Mechanics</i> , <b>2009</b> , 44, 1063-1072	2.8	4
44	Boundary layer flow of a second grade fluid with variable heat flux at the wall. <i>Applied Mathematics and Computation</i> , <b>2003</b> , 143, 201-212	2.7	4
43	On Thermomechanics of a Nonlinear Heat Conducting Suspension. <i>Fluids</i> , <b>2016</b> , 1, 19	1.6	4

42	A Continuum Model for the Unfolding of von Willebrand Factor. <i>Annals of Biomedical Engineering</i> , <b>2021</b> , 49, 2646-2658	4.7	4
41	Flow of a fluid-solid mixture: Normal stress differences and slip boundary condition. <i>International Journal of Non-Linear Mechanics</i> , <b>2017</b> , 90, 39-49	2.8	3
40	Heat transfer and Couette flow of a chemically reacting non-linear fluid. <i>Mathematical Methods in the Applied Sciences</i> , <b>2009</b> , 33, n/a-n/a	2.3	3
39	A comparative study of the hypoplasticity and the fabric-dependent dilatant double shearing models for granular materials. <i>International Journal for Numerical and Analytical Methods in Geomechanics</i> , <b>2007</b> , 31, 735-756	4	3
38	Flow of a binary mixture of linearly incompressible viscous fluids between two horizontal parallel plates. <i>Mechanics Research Communications</i> , <b>2008</b> , 35, 603-608	2.2	3
37	Natural Convection in a Non-Newtonian Fluid: Effects of Particle Concentration. <i>Fluids</i> , <b>2019</b> , 4, 192	1.6	3
36	Surfactant stabilized bubbles flowing in a Newtonian fluid. <i>Mathematics and Mechanics of Solids</i> , <b>2019</b> , 24, 3823-3842	2.3	2
35	Effects of Polydispersity on Structuring and Rheology in Flowing Suspensions. <i>Journal of Applied Mechanics, Transactions ASME</i> , <b>2019</b> , 86,	2.7	2
34	The effects of particle concentration and various fluxes on the flow of a fluid-solid suspension. <i>Applied Mathematics and Computation</i> , <b>2019</b> , 358, 151-160	2.7	2
33	Conduction and convection heat transfer in a dense granular suspension. <i>Applied Mathematics and Computation</i> , <b>2018</b> , 332, 351-362	2.7	2
32	Flow of blood in micro-channels: recent results based on mixture theory. <i>International Journal of Advances in Engineering Sciences and Applied Mathematics</i> , <b>2017</b> , 9, 40-50	0.6	2
31	Entropy Analysis for a Nonlinear Fluid with a Nonlinear Heat Flux Vector. <i>Entropy</i> , <b>2017</b> , 19, 689	2.8	2
30	Channel Flow of a Mixture of Granular Materials and a Fluid <b>2013</b> ,		2
29	Implicit Continuum Mechanics Approach to Heat Conduction in Granular Materials. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2010</b> , 49, 5215-5221	3.9	2
28	Convection-Radiation Heat Transfer in a Nonlinear Fluid with Temperature-Dependent Viscosity. <i>Mathematical Problems in Engineering</i> , <b>2009</b> , 2009, 1-15	1.1	2
27	Implicit constitutive relations in thermoelasticity. <i>International Journal of Non-Linear Mechanics</i> , <b>2011</b> , 46, 286-290	2.8	2
26	Modeling granular materials as compressible nonlinear fluids: Heat transfer boundary value problems. <i>Mathematical Problems in Engineering</i> , <b>2006</b> , 2006, 1-31	1.1	2
25	Flow of a mixture of a viscous fluid and a granular solid in an orthogonal rheometer. <i>International Journal of Non-Linear Mechanics</i> , <b>2005</b> , 40, 507-514	2.8	2



24	A NUMERICAL STUDY OF THE FLOW OF GRANULAR MATERIALS BETWEEN TWO VERTICAL FLAT PLATES WHICH ARE AT DIFFERENT TEMPERATURES. <i>Particulate Science and Technology</i> , <b>1999</b> , 17, 149-163	2.3	2
23	Modeling of solid particles in fluidized beds. <i>Mathematical and Computer Modelling</i> , <b>1990</b> , 14, 785-789		2
22	Constitutive modelling of flowing granular materials: A continuum approach <b>2007</b> , 63-107		2
21	A Possible Ethical Imperative Based on the Entropy Law. <i>Entropy</i> , <b>2016</b> , 18, 389	2.8	2
20	The Influence of Bubbles on Foamed Cement Viscosity Using an Extended Stokesian Dynamics Approach. <i>Fluids</i> , <b>2019</b> , 4, 166	1.6	2
19	Simplicity and Sustainability: Pointers from Ethics and Science. <i>Sustainability</i> , <b>2018</b> , 10, 1303	3.6	2
18	Flow of a Dense Suspension Modeled as a Modified Second Grade Fluid. <i>Fluids</i> , <b>2018</b> , 3, 55	1.6	2
17	Pulsating Poiseuille flow of a cement slurry. <i>International Journal of Non-Linear Mechanics</i> , <b>2021</b> , 133, 103717	2.8	2
16	Mathematical Modelling of Granular Materials <b>2010</b> , 219-245		2
15	Flow of Granular Materials Modeled as a Generalized Reiner-Rivlin Type Fluid <b>2012</b> ,		1
14	Numerical Study of a Non-Linear Model for the Heat Flux Vector for Granular Materials <b>2012</b> ,		1
13	An Enquiry Into the Role and Importance of Ethics in Scientific Research. <i>Interchange</i> , <b>2008</b> , 39, 443-468	0.6	1
12	On the question of authority and the various responses to new ideas: A (possible) buddhist perspective. <i>Interchange</i> , <b>2004</b> , 35, 447-474	0.6	1
11	STABILITY OF FLOWS IN FLUIDIZED BEDS. <i>Particulate Science and Technology</i> , <b>1996</b> , 14, 185-211	2	1
10	A Study of Temperature Distribution and Thermal Stresses in a Hot Rock Due to Rapid Cooling. <i>Journal of Heat Transfer</i> , <b>2020</b> , 142,	1.8	1
9	Influence of shear rate and surface chemistry on thrombus formation in micro-crevice. <i>Journal of Biomechanics</i> , <b>2021</b> , 121, 110397	2.9	1
8	Using CO2 as a Cooling Fluid for Power Plants: A Novel Approach for CO2 Storage and Utilization. <i>Applied Sciences (Switzerland)</i> , <b>2021</b> , 11, 4974	2.6	1
7	Laser-Induced Motion of a Nanofluid in a Micro-Channel. <i>Fluids</i> , <b>2016</b> , 1, 35	1.6	1



6	Pumping gaseous CO <sub>2</sub> into a high-pressure, constant-volume storage cylinder: A thermodynamics analysis. <i>Journal of Energy Storage</i> , <b>2021</b> , 40, 102706	7.8	1
5	Numerical Simulations of the Flow of a Dense Suspension Exhibiting Yield-Stress and Shear-Thinning Effects. <i>Energies</i> , <b>2020</b> , 13, 6635	3.1	0
4	The Heat Flux Vector(s) in a Two Component Fluid Mixture. <i>Fluids</i> , <b>2020</b> , 5, 77	1.6	0
3	Characteristics of optimization algorithms applied to the electrode design of a magnetohydrodynamic micromixer. <i>Journal of Mechanical Science and Technology</i> , <b>2018</b> , 32, 3667-3675	1.6	
2	Us and Them: Religious Education and the Role of Proper Communication in Conflict Prevention. <i>Interchange</i> , <b>2010</b> , 41, 285-304	0.6	
1	Generalized mechanics of incompressible multiphase suspensions. <i>Journal of Micromechanics and Molecular Physics</i> , 1-9	1.4	