

Omid Ali Akbari

List of Publications by Year in descending order

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81
papers

5,902
citations

53794

45
h-index

74163

75
g-index

81
all docs

81
docs citations

81
times ranked

2367
citing authors

#	ARTICLE	IF	CITATIONS
1	Investigation of rib's height effect on heat transfer and flow parameters of laminar water-Al ₂ O ₃ nanofluid in a rib-microchannel. <i>Applied Mathematics and Computation</i> , 2016, 290, 135-153.	2.2	217
2	Investigation of turbulent heat transfer and nanofluid flow in a double pipe heat exchanger. <i>Advanced Powder Technology</i> , 2018, 29, 273-282.	4.1	215
3	Heat transfer improvement of water/single-wall carbon nanotubes (SWCNT) nanofluid in a novel design of a truncated double-layered microchannel heat sink. <i>International Journal of Heat and Mass Transfer</i> , 2017, 113, 780-795.	4.8	212
4	Analysis of heat transfer and nanofluid fluid flow in microchannels with trapezoidal, rectangular and triangular shaped ribs. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 91, 15-31.	2.7	176
5	A modified two-phase mixture model of nanofluid flow and heat transfer in a 3-D curved microtube. <i>Advanced Powder Technology</i> , 2016, 27, 2175-2185.	4.1	169
6	Influence of T-semi attached rib on turbulent flow and heat transfer parameters of a silver-water nanofluid with different volume fractions in a three-dimensional trapezoidal microchannel. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 88, 60-76.	2.7	167
7	The numerical modeling of water/FMWCNT nanofluid flow and heat transfer in a backward-facing contracting channel. <i>Physica B: Condensed Matter</i> , 2018, 537, 176-183.	2.7	167
8	The effect of aspect ratios of rib on the heat transfer and laminar water/TiO ₂ nanofluid flow in a two-dimensional rectangular microchannel. <i>Journal of Molecular Liquids</i> , 2017, 236, 254-265.	4.9	156
9	The effect of velocity and dimension of solid nanoparticles on heat transfer in non-Newtonian nanofluid. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 86, 68-75.	2.7	154
10	Numerical study on mixed convection of a non-Newtonian nanofluid with porous media in a two lid-driven square cavity. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 140, 1121-1145.	3.6	153
11	Application of nanofluid to improve the thermal performance of horizontal spiral coil utilized in solar ponds: Geometric study. <i>Renewable Energy</i> , 2018, 122, 1-16.	8.9	139
12	Increasing heat transfer of non-Newtonian nanofluid in rectangular microchannel with triangular ribs. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 93, 167-178.	2.7	127
13	Numerical investigation of flow and heat transfer characteristics in smooth, sinusoidal and zigzag-shaped microchannel with and without nanofluid. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 131, 1757-1766.	3.6	127
14	Application of a novel conical strip insert to improve the efficacy of water-Ag nanofluid for utilization in thermal systems: A two-phase simulation. <i>Energy Conversion and Management</i> , 2017, 151, 573-586.	9.2	125
15	The effect of attack angle of triangular ribs on heat transfer of nanofluids in a microchannel. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 131, 2893-2912.	3.6	125
16	Investigation of volume fraction of nanoparticles effect and aspect ratio of the twisted tape in the tube. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017, 129, 1911-1922.	3.6	123
17	The numerical investigation of heat transfer and pressure drop of turbulent flow in a triangular microchannel. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2017, 93, 179-189.	2.7	120
18	Numerical simulation of heat transfer and turbulent flow of water nanofluids copper oxide in rectangular microchannel with semi-attached rib. <i>Advances in Mechanical Engineering</i> , 2016, 8, 168781401664101.	1.6	115

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19	The numerical investigation of angle of attack of inclined rectangular rib on the turbulent heat transfer of Water-Al ₂ O ₃ nanofluid in a tube. <i>International Journal of Mechanical Sciences</i> , 2017, 131-132, 1106-1116.	6.7	110
20	Numerical investigation of turbulent flow and heat transfer of nanofluid inside a wavy microchannel with different wavelengths. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 139, 2365-2380.	3.6	110
21	Simultaneous investigations the effects of non-Newtonian nanofluid flow in different volume fractions of solid nanoparticles with slip and no-slip boundary conditions. <i>Thermal Science and Engineering Progress</i> , 2018, 5, 263-277.	2.7	108
22	Turbulent flow and heat transfer of Water/Al ₂ O ₃ nanofluid inside a rectangular ribbed channel. <i>Physica E: Low-Dimensional Systems and Nanostructures</i> , 2018, 96, 73-84.	2.7	108
23	CFD analysis of thermal and hydrodynamic characteristics of hybrid nanofluid in a new designed sinusoidal double-layered microchannel heat sink. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 134, 2305-2315.	3.6	108
24	Melting process in porous media around two hot cylinders: Numerical study using the lattice Boltzmann method. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 509, 316-335.	2.6	107
25	Numerical study of turbulent nanofluid heat transfer in a tubular heat exchanger with twin twisted-tape inserts. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 132, 741-759.	3.6	106
26	Solar parallel feed water heating repowering of a steam power plant: A case study in Iran. <i>Renewable and Sustainable Energy Reviews</i> , 2017, 77, 474-485.	16.4	105
27	Investigation into the effects of slip boundary condition on nanofluid flow in a double-layer microchannel. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 131, 2975-2991.	3.6	104
28	Effect of radiation on laminar natural convection of nanofluid in a vertical channel with single- and two-phase approaches. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 138, 779-794.	3.6	101
29	The investigation of simultaneous heat transfer of water/Al ₂ O ₃ nanofluid in a close enclosure by applying homogeneous magnetic field. <i>International Journal of Mechanical Sciences</i> , 2017, 133, 674-688.	6.7	100
30	The effect of using water/CuO nanofluid and L-shaped porous ribs on the performance evaluation criterion of microchannels. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 135, 145-159.	3.6	100
31	The effect of semi-attached and offset mid-truncated ribs and Water/TiO ₂ nanofluid on flow and heat transfer properties in a triangular microchannel. <i>Thermal Science and Engineering Progress</i> , 2017, 2, 140-150.	2.7	95
32	Effects of magnetic field on micro cross jet injection of dispersed nanoparticles in a microchannel. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2020, 30, 2683-2704.	2.8	94
33	The effect of rib shape on the behavior of laminar flow of oil/MWCNT nanofluid in a rectangular microchannel. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 134, 1611-1628.	3.6	93
34	Evaluation of synchronous execution of full repowering and solar assisting in a 200 MW steam power plant, a case study. <i>Applied Thermal Engineering</i> , 2017, 112, 111-123.	6.0	90
35	Impact of ribs on flow parameters and laminar heat transfer of water-aluminum oxide nanofluid with different nanoparticle volume fractions in a three-dimensional rectangular microchannel. <i>Advances in Mechanical Engineering</i> , 2015, 7, 168781401561815.	1.6	86
36	Thermal performance improvement in water nanofluid/GNP-SDBS in novel design of double-layer microchannel heat sink with sinusoidal cavities and rectangular ribs. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 136, 1333-1345.	3.6	76

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37	Numerical Simulation of Natural Convection Heat Transfer of Nanofluid With Cu, MWCNT, and Al ₂ O ₃ Nanoparticles in a Cavity With Different Aspect Ratios. <i>Journal of Thermal Science and Engineering Applications</i> , 2019, 11, .	1.5	73
38	Investigating the effect of nanoparticles diameter on turbulent flow and heat transfer properties of non-Newtonian carboxymethyl cellulose/CuO fluid in a microtube. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019, 29, 1699-1723.	2.8	66
39	Efficiency improvement of a steam power plant through solar repowering. <i>International Journal of Exergy</i> , 2017, 22, 158.	0.4	64
40	Numerical investigation of mixed convection heat transfer behavior of nanofluid in a cavity with different heat transfer areas. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 140, 2779-2803.	3.6	60
41	Performance Evaluation of Nanofluids in an Inclined Ribbed Microchannel for Electronic Cooling Applications. , 0, , .		58
42	A numerical investigation on the effects of mixed convection of Ag-water nanofluid inside a sim-circular lid-driven cavity on the temperature of an electronic silicon chip. <i>Applied Thermal Engineering</i> , 2019, 162, 114298.	6.0	58
43	Experimental and numerical investigations on heat transfer of a water-cooled lance for blowing oxidizing gas in an electrical arc furnace. <i>Energy Conversion and Management</i> , 2017, 148, 43-56.	9.2	53
44	Application of lattice Boltzmann method and spinodal decomposition phenomenon for simulating two-phase thermal flows. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2018, 509, 673-689.	2.6	50
45	Studying the Effect of Indentation on Flow Parameters and Slow Heat Transfer of Water-Silver Nano-Fluid with Varying Volume Fraction in a Rectangular Two-Dimensional Micro Channel. <i>Indian Journal of Science and Technology</i> , 2015, 8, .	0.7	47
46	Numerical study of flow and heat transfer of water-Al ₂ O ₃ nanofluid inside a channel with an inner cylinder using Eulerian-Lagrangian approach. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 132, 651-665.	3.6	46
47	Heat Transfer of Oil/MWCNT Nanofluid Jet Injection Inside a Rectangular Microchannel. <i>Symmetry</i> , 2019, 11, 757.	2.2	46
48	Hydrothermal performance of nanofluid flow in a sinusoidal double layer microchannel in order to geometric optimization. <i>International Communications in Heat and Mass Transfer</i> , 2020, 117, 104700.	5.6	46
49	Numerical investigation of nanofluid laminar forced convection heat transfer between two horizontal concentric cylinders in the presence of porous medium. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 141, 2095-2108.	3.6	40
50	Technical and environmental analysis of repowering the existing CHP system in a petrochemical plant: A case study. <i>Energy</i> , 2018, 159, 937-949.	8.8	39
51	Forced convection in a double tube heat exchanger using nanofluids with constant and variable thermophysical properties. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2020, 30, 3247-3265.	2.8	38
52	Effects of external wind breakers of Heller dry cooling system in power plants. <i>Applied Thermal Engineering</i> , 2018, 129, 1124-1134.	6.0	37
53	Numerical study of biomagnetic fluid flow in a duct with a constriction affected by a magnetic field. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 473, 42-50.	2.3	36
54	Investigating the thermal energy storage inside a double-wall tank utilizing phase-change materials (PCMs). <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 139, 2283-2294.	3.6	36

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55	Accurate meso-scale simulation of mixed convective heat transfer in a porous media for a vented square with hot elliptic obstacle: An LBM approach. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020, 537, 122439.	2.6	33
56	Natural convection heat transfer of water/Ag nanofluid inside an elliptical enclosure with different attack angles. <i>Mathematical Methods in the Applied Sciences</i> , 0, , .	2.3	31
57	A comprehensive study of two-phase flow and heat transfer of water/Ag nanofluid in an elliptical curved minichannel. <i>Chinese Journal of Chemical Engineering</i> , 2020, 28, 383-402.	3.5	28
58	Natural convection heat transfer enhancement of different nanofluids by adding dimple fins on a vertical channel wall. <i>Chinese Journal of Chemical Engineering</i> , 2020, 28, 643-659.	3.5	25
59	Optimization of geometry and nano-fluid properties on microchannel performance using Taguchi method and genetic algorithm. <i>International Communications in Heat and Mass Transfer</i> , 2020, 119, 104952.	5.6	25
60	Numerical investigation of turbulent flow and heat transfer in flat tube. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 135, 3471-3483.	3.6	24
61	Numerical investigation of the effect of water/Al ₂ O ₃ nanofluid on heat transfer in trapezoidal, sinusoidal and stepped microchannels. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2020, 30, 2439-2465.	2.8	24
62	Lattice-Boltzmann method for analysis of combined forced convection and radiation heat transfer in a channel with sinusoidal distribution on walls. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2019, 526, 121066.	2.6	24
63	Numerical study of mixed convection heat transfer inside a vertical microchannel with two-phase approach. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 135, 1119-1134.	3.6	23
64	Energy and exergy analyses of partial repowering of a natural gas-fired steam power plant. <i>International Journal of Exergy</i> , 2017, 23, 149.	0.4	22
65	Numerical investigation of heat transfer of nanofluid flow through a microchannel with heat sinks and sinusoidal cavities by using novel nozzle structure. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019, 138, 737-752.	3.6	22
66	Mixed convection heat transfer of a nanofluid in a closed elbow-shaped cavity (CESC). <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 144, 2295-2316.	3.6	22
67	Numerical investigation of heat and mass transfer of water-silver nanofluid in a spiral heat exchanger using a two-phase mixture method. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 144, 1003-1012.	3.6	14
68	Computational fluid dynamics and laminar heat transfer of water/Cu nanofluid in ribbed microchannel with a two-phase approach. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019, 29, 1563-1589.	2.8	12
69	Computational modeling of porous medium inside a channel with homogeneous nanofluid. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 140, 843-858.	3.6	11
70	Eulerian-Eulerian multi-phase RPI modeling of turbulent forced convective of boiling flow inside the tube with porous medium. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2020, 30, 2739-2757.	2.8	10
71	Numerical investigation of mixed convection of nanofluid flow in oblique rectangular microchannels with nanofluid jet injection. <i>European Physical Journal Plus</i> , 2021, 136, .	2.6	10
72	Natural convection of Water/MWCNT nanofluid flow in an enclosure for investigation of the first and second laws of thermodynamics. <i>AEJ - Alexandria Engineering Journal</i> , 2022, 61, 11687-11713.	6.4	9

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73	Modifications in the physical structure of a new two-layer micro-size heat sink with sinusoidal shaped cavities for heat transfer augmentation of nanofluid flow. <i>AEJ - Alexandria Engineering Journal</i> , 2022, 61, 11019-11030.	6.4	8
74	Numerical investigation of thermal performance augmentation of nanofluid flow in microchannel heat sinks by using of novel nozzle structure: sinusoidal cavities and rectangular ribs. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2019, 41, 1.	1.6	7
75	Numerical simulation of turbulent flow and forced heat transfer of water/CuO nanofluid inside a horizontal dimpled fin. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 139, 3711-3724.	3.6	7
76	Two-phase modeling of nanofluid forced convection in different arrangements of elliptical tube banks. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019, 30, 1937-1966.	2.8	6
77	Numerical simulation of the effect of using nanofluid in phase change process of cooling fluid. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2020, 30, 2913-2934.	2.8	6
78	The effects of oil/MWCNT nanofluids and geometries on the solid oxide fuel cell cooling systems: a CFD study. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 144, 245-256.	3.6	6
79	Thermal performance and entropy generation for nanofluid jet injection on a ribbed microchannel with oscillating heat flux: Investigation of the first and second laws of thermodynamics. <i>Chinese Journal of Chemical Engineering</i> , 2022, 42, 450-464.	3.5	6
80	Analysis of buckling of a multi-layered nanocomposite rectangular plate reinforced by single-walled carbon nanotubes on elastic medium considering nonlocal theory of Eringen and variational approach. <i>Indian Journal of Physics</i> , 2020, 94, 1009-1023.	1.8	4
81	Numerical study of natural convection of nanofluid in a rectangular closed enclosure (RCE) affected by hot and cold flow in a two-layer microchannel. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2022, 44, 1.	1.6	2