Davood Toghraie

List of Publications by Year
in descending order

453 papers	20,990 citations	3151 92 h-index	18115 120 g-index
457 all docs	457 docs citations	457 times ranked	5801 citing authors

#	Article	IF	Citations
1	Measurement of thermal conductivity of ZnO–TiO2/EG hybrid nanofluid. Journal of Thermal Analysis and Calorimetry, 2016, 125, 527-535.	2.0	312
2	Effects of temperature and nanoparticles concentration on rheological behavior of Fe 3 O 4 –Ag/EG hybrid nanofluid: An experimental study. Experimental Thermal and Fluid Science, 2016, 77, 38-44.	1.5	309
3	An experimental study on the effect of diameter on thermal conductivity and dynamic viscosity of Fe/water nanofluids. Journal of Thermal Analysis and Calorimetry, 2015, 119, 1817-1824.	2.0	265
4	Mixed convection of copper–water nanofluid in a shallow inclined lid driven cavity using the lattice Boltzmann method. Physica A: Statistical Mechanics and Its Applications, 2014, 402, 150-168.	1.2	263
5	Experimental study on thermal conductivity of water-based Fe3O4 nanofluid: Development of a new correlation and modeled by artificial neural network. International Communications in Heat and Mass Transfer, 2016, 75, 262-269.	2.9	241
6	Investigation of rib's height effect on heat transfer and flow parameters of laminar water–Al 2 O 3 nanofluid in a rib-microchannel. Applied Mathematics and Computation, 2016, 290, 135-153.	1.4	217
7	A new correlation for predicting the thermal conductivity of ZnO–Ag (50%–50%)/water hybrid nanofluid: An experimental study. Powder Technology, 2018, 323, 367-373.	2.1	217
8	Thermal conductivity modeling of MgO/EG nanofluids using experimental data and artificial neural network. Journal of Thermal Analysis and Calorimetry, 2014, 118, 287-294.	2.0	210
9	Effects of temperature and concentration on rheological behavior of MWCNTs/SiO 2 (20–80)-SAE40 hybrid nano-lubricant. International Communications in Heat and Mass Transfer, 2016, 76, 133-138.	2.9	203
10	Developing a new correlation to estimate the thermal conductivity of MWCNT-CuO/water hybrid nanofluid via an experimental investigation. Journal of Thermal Analysis and Calorimetry, 2017, 129, 859-867.	2.0	194
11	Designing an artificial neural network to predict dynamic viscosity of aqueous nanofluid of TiO2 using experimental data. International Communications in Heat and Mass Transfer, 2016, 75, 192-196.	2.9	191
12	Energy and exergy analysis of Montazeri Steam Power Plant in Iran. Renewable and Sustainable Energy Reviews, 2016, 56, 454-463.	8.2	189
13	Examination of rheological behavior of MWCNTs/ZnO-SAE40 hybrid nano-lubricants under various temperatures and solid volume fractions. Experimental Thermal and Fluid Science, 2017, 80, 384-390.	1.5	178
14	Experimental determination of viscosity of water based magnetite nanofluid for application in heating and cooling systems. Journal of Magnetism and Magnetic Materials, 2016, 417, 243-248.	1.0	172
15	An experimental study on the stability and thermal conductivity of water-ethylene glycol/TiO2-MWCNTs hybrid nanofluid: Developing a new correlation. Powder Technology, 2018, 338, 806-818.	2.1	168
16	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. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 88, 60-76.	1.3	167
17	The numerical modeling of water/FMWCNT nanofluid flow and heat transfer in a backward-facing contracting channel. Physica B: Condensed Matter, 2018, 537, 176-183.	1.3	167
18	Experimental investigation of rheological behavior of the hybrid nanofluid of MWCNT–alumina/water (80%)–ethylene-glycol (20%). Journal of Thermal Analysis and Calorimetry, 2018, 132, 1001-1015.	2.0	167

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19	Developing dissimilar artificial neural networks (ANNs) to prediction the thermal conductivity of MWCNT-TiO2/Water-ethylene glycol hybrid nanofluid. Powder Technology, 2019, 355, 602-610.	2.1	162
20	Experimental study of the effect of solid volume fraction and Reynolds number on heat transfer coefficient and pressure drop of CuO–Water nanofluid. Experimental Thermal and Fluid Science, 2016, 76, 342-351.	1.5	161
21	The effect of aspect ratios of rib on the heat transfer and laminar water/TiO 2 nanofluid flow in a two-dimensional rectangular microchannel. Journal of Molecular Liquids, 2017, 236, 254-265.	2.3	156
22	The effect of velocity and dimension of solid nanoparticles on heat transfer in non-Newtonian nanofluid. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 86, 68-75.	1.3	154
23	Statistical investigation for developing a new model for rheological behavior of ZnO–Ag (50%–50%)/Water hybrid Newtonian nanofluid using experimental data. Physica A: Statistical Mechanics and Its Applications, 2019, 525, 741-751.	1.2	150
24	Fluid flow and heat transfer of non-Newtonian nanofluid in a microtube considering slip velocity and temperature jump boundary conditions. European Journal of Mechanics, B/Fluids, 2017, 61, 25-32.	1.2	143
25	Experimental evaluation of dynamic viscosity of ZnO–MWCNTs/engine oil hybrid nanolubricant based on changes in temperature and concentration. Journal of Thermal Analysis and Calorimetry, 2019, 136, 513-525.	2.0	143
26	Statistical investigation for developing a new model for rheological behavior of Silica–ethylene glycol/Water hybrid Newtonian nanofluid using experimental data. Physica A: Statistical Mechanics and Its Applications, 2019, 525, 616-627.	1.2	140
27	Estimation of thermal conductivity of Al2O3/water (40%)–ethylene glycol (60%) by artificial neural network and correlation using experimental data. International Communications in Heat and Mass Transfer, 2016, 74, 125-128.	2.9	139
28	MHD mixed convection and entropy generation in a lid-driven cavity with rotating cylinders filled by a nanofluid using two phase mixture model. Journal of Magnetism and Magnetic Materials, 2019, 483, 224-248.	1.0	136
29	An experimental study on viscosity of alumina-engine oil: Effects of temperature and nanoparticles concentration. International Communications in Heat and Mass Transfer, 2016, 76, 202-208.	2.9	135
30	Designing an Artificial Neural Network (ANN) to predict the viscosity of Silver/Ethylene glycol nanofluid at different temperatures and volume fraction of nanoparticles. Physica A: Statistical Mechanics and Its Applications, 2019, 534, 122142.	1.2	134
31	Multi-objective optimization of nanofluid flow in double tube heat exchangers for applications in energy systems. Energy, 2017, 137, 160-171.	4.5	128
32	Increasing heat transfer of non-Newtonian nanofluid in rectangular microchannel with triangular ribs. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 93, 167-178.	1.3	127
33	Numerical investigation of flow and heat transfer characteristics in smooth, sinusoidal and zigzag-shaped microchannel with and without nanofluid. Journal of Thermal Analysis and Calorimetry, 2018, 131, 1757-1766.	2.0	127
34	Experimental and numerical investigation of temperature distribution and melt pool geometry during pulsed laser welding of Ti6Al4V alloy. Optics and Laser Technology, 2014, 59, 52-59.	2.2	126
35	Numerical investigation of laminar flow and heat transfer of non-Newtonian nanofluid within a porous medium. Powder Technology, 2018, 325, 78-91.	2.1	126
36	Application of a novel conical strip insert to improve the efficacy of water–Ag nanofluid for utilization in thermal systems: A two-phase simulation. Energy Conversion and Management, 2017, 151, 573-586.	4.4	125

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37	A comprehensive study of the performance of a heat pipe by using of various nanofluids. Advanced Powder Technology, 2017, 28, 3074-3084.	2.0	124
38	Effect of twisted-tape inserts and nanofluid on flow field and heat transfer characteristics in a tube. International Communications in Heat and Mass Transfer, 2020, 110, 104440.	2.9	124
39	Investigation of volume fraction of nanoparticles effect and aspect ratio of the twisted tape in the tube. Journal of Thermal Analysis and Calorimetry, 2017, 129, 1911-1922.	2.0	123
40	Impact of variable fluid properties on forced convection of Fe3O4/CNT/water hybrid nanofluid in a double-pipe mini-channel heat exchanger. Journal of Thermal Analysis and Calorimetry, 2019, 137, 1031-1043.	2.0	123
41	An experimental study on MWCNTâ€"water nanofluids flow and heat transfer in double-pipe heat exchanger using porous media. Journal of Thermal Analysis and Calorimetry, 2019, 137, 1797-1807.	2.0	122
42	Experimental measurements of thermal conductivity of engine oil-based hybrid and mono nanofluids with tungsten oxide (WO3) and MWCNTs inclusions. Powder Technology, 2020, 371, 37-44.	2.1	122
43	Numerical simulation of heat transfer and fluid flow of Water-CuO Nanofluid in a sinusoidal channel with a porous medium. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 87, 134-140.	1.3	120
44	The numerical investigation of heat transfer and pressure drop of turbulent flow in a triangular microchannel. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 93, 179-189.	1.3	120
45	Mixed convection of non-Newtonian nanofluid in an H-shaped cavity with cooler and heater cylinders filled by a porous material: Two phase approach. Advanced Powder Technology, 2019, 30, 2666-2685.	2.0	120
46	Effects of nanoparticles to present a statistical model for the viscosity of MgO-Water nanofluid. Powder Technology, 2019, 342, 166-180.	2.1	120
47	A numerical study of natural convection in a vertical annulus filled with gallium in the presence of magnetic field. Journal of Magnetism and Magnetic Materials, 2017, 430, 22-28.	1.0	119
48	Experimental investigation for developing a new model for the thermal conductivity of Silica/Water-Ethylene glycol (40%â€"60%) nanofluid at different temperatures and solid volume fractions. Journal of Molecular Liquids, 2017, 232, 105-112.	2.3	119
49	The study of heat transfer and laminar flow of kerosene/multi-walled carbon nanotubes (MWCNTs) nanofluid in the microchannel heat sink with slip boundary condition. Journal of Thermal Analysis and Calorimetry, 2018, 131, 1553-1566.	2.0	118
50	Free convection heat transfer and entropy generation analysis of water-Fe$_3$O$_4$/CNT hybrid nanofluid in a concentric annulus. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 29, 915-934.	1.6	118
51	Molecular dynamic simulation of Copper and Platinum nanoparticles Poiseuille flow in a nanochannels. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 84, 152-161.	1.3	117
52	Numerical simulation of heat transfer enhancement in a plate-fin heat exchanger using a new type of vortex generators. Applied Thermal Engineering, 2018, 133, 671-681.	3.0	117
53	Entropy generation analysis of different nanofluid flows in the space between two concentric horizontal pipes in the presence of magnetic field: Single-phase and two-phase approaches. Computers and Mathematics With Applications, 2019, 77, 662-692.	1.4	117
54	An experimental study on rheological behavior of a nanofluid containing oxide nanoparticle and proposing a new correlation. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 99, 285-293.	1.3	116

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55	Numerical simulation of heat transfer and turbulent flow of water nanofluids copper oxide in rectangular microchannel with semi-attached rib. Advances in Mechanical Engineering, 2016, 8, 168781401664101.	0.8	115
56	An experimental study on the thermal conductivity of cerium oxide/ethylene glycol nanofluid: developing a new correlation. Journal of Molecular Liquids, 2018, 266, 211-217.	2.3	114
57	Effects of geometric parameters on the performance of solar chimney power plants. Energy, 2018, 162, 1052-1061.	4.5	113
58	Experimental investigation and develop ANNs by introducing the suitable architectures and training algorithms supported by sensitivity analysis: Measure thermal conductivity and viscosity for liquid paraffin based nanofluid containing Al2O3 nanoparticles. Journal of Molecular Liquids, 2019, 276, 850-860.	2.3	111
59	The numerical investigation of angle of attack of inclined rectangular rib on the turbulent heat transfer of Water-Al2O3 nanofluid in a tube. International Journal of Mechanical Sciences, 2017, 131-132, 1106-1116.	3.6	110
60	An experimental study on the rheological behavior of hybrid Tungsten oxide (WO3)-MWCNTs/engine oil Newtonian nanofluids. Journal of Molecular Structure, 2019, 1197, 497-507.	1.8	110
61	Molecular dynamics simulation of fluid flow passing through a nanochannel: Effects of geometric shape of roughnesses. Journal of Molecular Liquids, 2019, 275, 192-203.	2.3	110
62	Numerical investigation of turbulent flow and heat transfer of nanofluid inside a wavy microchannel with different wavelengths. Journal of Thermal Analysis and Calorimetry, 2020, 139, 2365-2380.	2.0	110
63	Energy efficiency optimization of the waste heat recovery system with embedded phase change materials in greenhouses: A thermo-economic-environmental study. Journal of Energy Storage, 2020, 30, 101445.	3.9	109
64	Numerical thermal analysis of water's boiling heat transfer based on a turbulent jet impingement on heated surface. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 84, 454-465.	1.3	108
65	Simultaneous investigations the effects of non-Newtonian nanofluid flow in different volume fractions of solid nanoparticles with slip and no-slip boundary conditions. Thermal Science and Engineering Progress, 2018, 5, 263-277.	1.3	108
66	Turbulent flow and heat transfer of Water/Al 2 O 3 nanofluid inside a rectangular ribbed channel. Physica E: Low-Dimensional Systems and Nanostructures, 2018, 96, 73-84.	1.3	108
67	CFD analysis of thermal and hydrodynamic characteristics of hybrid nanofluid in a new designed sinusoidal double-layered microchannel heat sink. Journal of Thermal Analysis and Calorimetry, 2018, 134, 2305-2315.	2.0	108
68	Melting process in porous media around two hot cylinders: Numerical study using the lattice Boltzmann method. Physica A: Statistical Mechanics and Its Applications, 2018, 509, 316-335.	1.2	107
69	Numerical study of turbulent nanofluid heat transfer in a tubular heat exchanger with twin twisted-tape inserts. Journal of Thermal Analysis and Calorimetry, 2018, 132, 741-759.	2.0	106
70	Mixed convection of Water-Aluminum oxide nanofluid in an inclined lid-driven cavity containing a hot elliptical centric cylinder. International Journal of Heat and Mass Transfer, 2018, 116, 1237-1249.	2.5	106
71	Using of Artificial Neural Networks (ANNs) to predict the thermal conductivity of Zinc Oxide–Silver (50%–50%)/Water hybrid Newtonian nanofluid. International Communications in Heat and Mass Transfer, 2020, 116, 104645.	2.9	106
72	Solar parallel feed water heating repowering of a steam power plant: A case study in Iran. Renewable and Sustainable Energy Reviews, 2017, 77, 474-485.	8.2	105

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73	Modeling different structures in perturbed Poiseuille flow in a nanochannel by using of molecular dynamics simulation: Study the equilibrium. Physica A: Statistical Mechanics and Its Applications, 2019, 515, 13-30.	1.2	105
74	Experimental investigation for developing a new model for the dynamic viscosity of silver/ethylene glycol nanofluid at different temperatures and solid volume fractions. Journal of Thermal Analysis and Calorimetry, 2018, 131, 1449-1461.	2.0	104
75	Investigation into the effects of slip boundary condition on nanofluid flow in a double-layer microchannel. Journal of Thermal Analysis and Calorimetry, 2018, 131, 2975-2991.	2.0	104
76	Heat and fluid flow analysis of metal foam embedded in a double-layered sinusoidal heat sink under local thermal non-equilibrium condition using nanofluid. Journal of Thermal Analysis and Calorimetry, 2019, 138, 1461-1476.	2.0	104
77	Measurement of the thermal conductivity of MWCNT-CuO/water hybrid nanofluid using artificial neural networks (ANNs). Journal of Thermal Analysis and Calorimetry, 2021, 143, 1097-1105.	2.0	104
78	Using artificial neural network to predict thermal conductivity of ethylene glycol with alumina nanoparticle. Journal of Thermal Analysis and Calorimetry, 2016, 126, 643-648.	2.0	103
79	The effect of geometrical parameters, roughness and the number of nanoparticles on the self-diffusion coefficient in Couette flow in a nanochannel by using of molecular dynamics simulation. Physica B: Condensed Matter, 2017, 518, 20-32.	1.3	103
80	Molecular dynamics study of an electro-kinetic fluid transport in a charged nanochannel based on the role of the stern layer. Physica A: Statistical Mechanics and Its Applications, 2015, 426, 25-34.	1.2	102
81	Designing artificial neural network on thermal conductivity of Al2O3–water–EG (60–40Â%) nanofluid using experimental data. Journal of Thermal Analysis and Calorimetry, 2016, 126, 837-843.	2.0	102
82	Effect of radiation on laminar natural convection of nanofluid in a vertical channel with single- and two-phase approaches. Journal of Thermal Analysis and Calorimetry, 2019, 138, 779-794.	2.0	101
83	A comprehensive experimental investigation of thermal conductivity of a ternary hybrid nanofluid containing MWCNTs- titania-zinc oxide/water-ethylene glycol (80:20) as well as binary and mono nanofluids. Synthetic Metals, 2020, 268, 116501.	2.1	101
84	The investigation of simultaneous heat transfer of water/Al2O3 nanofluid in a close enclosure by applying homogeneous magnetic field. International Journal of Mechanical Sciences, 2017, 133, 674-688.	3.6	100
85	Numerical simulation of laminar forced convection of water-CuO nanofluid inside a triangular duct. Physica E: Low-Dimensional Systems and Nanostructures, 2017, 85, 103-108.	1.3	100
86	The effect of using water/CuO nanofluid and L-shaped porous ribs on the performance evaluation criterion of microchannels. Journal of Thermal Analysis and Calorimetry, 2019, 135, 145-159.	2.0	100
87	Molecular dynamics simulation of Poiseuille flow in a rough nano channel with checker surface roughnesses geometry. Heat and Mass Transfer, 2014, 50, 105-113.	1.2	99
88	The effects of surface roughness geometry of flow undergoing Poiseuille flow by molecular dynamics simulation. Heat and Mass Transfer, 2014, 50, 95-104.	1.2	99
89	Two-phase investigation of water-Al$_2$O$_3$ nanofluid in a micro concentric annulus under non-uniform heat flux boundary conditions. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 30, 1795-1814.	1.6	99
90	Molecular dynamics simulation of annular flow boiling with the modified Lennard-Jones potential function. Heat and Mass Transfer, 2012, 48, 141-152.	1.2	98

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91	The surface charge density effect on the electro-osmotic flow in a nanochannel: a molecular dynamics study. Heat and Mass Transfer, 2015, 51, 661-670.	1.2	98
92	Molecular dynamics simulation of liquid–vapor phase equilibrium by using the modified Lennard-Jones potential function. Heat and Mass Transfer, 2010, 46, 287-294.	1.2	97
93	The effect of semi-attached and offset mid-truncated ribs and Water/TiO2 nanofluid on flow and heat transfer properties in a triangular microchannel. Thermal Science and Engineering Progress, 2017, 2, 140-150.	1.3	95
94	Computational fluid dynamics simulation of heat transfer and fluid flow characteristics in a vortex tube by considering the various parameters. International Journal of Heat and Mass Transfer, 2017, 113, 432-443.	2.5	95
95	Parametric investigation of thermal characteristic in trapezoidal cavity receiver for a linear Fresnel solar collector concentrator. Energy, 2018, 153, 17-26.	4.5	95
96	Molecular dynamics simulation of nonodroplets with the modified Lennard-Jones potential function. Heat and Mass Transfer, 2011, 47, 579-588.	1.2	94
97	Numerical investigation of the pseudopotential lattice Boltzmann modeling of liquid–vapor for multi-phase flows. Physica A: Statistical Mechanics and Its Applications, 2018, 489, 65-77.	1.2	94
98	Investigation of finned heat sink performance with nano enhanced phase change material (NePCM). Thermal Science and Engineering Progress, 2018, 5, 50-59.	1.3	93
99	The effect of rib shape on the behavior of laminar flow of oil/MWCNT nanofluid in a rectangular microchannel. Journal of Thermal Analysis and Calorimetry, 2018, 134, 1611-1628.	2.0	93
100	Nanoscale Poiseuille flow and effects of modified Lennard–Jones potential function. Heat and Mass Transfer, 2010, 46, 791-801.	1.2	92
101	Optimal arrangements of a heat sink partially filled with multilayered porous media employing hybrid nanofluid. Journal of Thermal Analysis and Calorimetry, 2019, 137, 1045-1058.	2.0	91
102	Effect of Magnetic Field on Free Convection in Inclined Cylindrical Annulus Containing Molten Potassium. International Journal of Applied Mechanics, 2015, 07, 1550052.	1.3	90
103	Evaluation of synchronous execution of full repowering and solar assisting in a 200 MW steam power plant, a case study. Applied Thermal Engineering, 2017, 112, 111-123.	3.0	90
104	The rheological behavior of MWCNTs–ZnO/Water–Ethylene glycol hybrid non-Newtonian nanofluid by using of an experimental investigation. Journal of Materials Research and Technology, 2020, 9, 8401-8406.	2.6	90
105	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. Advances in Mechanical Engineering, 2015, 7, 168781401561815.	0.8	86
106	Longitudinal vibration and instabilities of carbon nanotubes conveying fluid considering size effects of nanoflow and nanostructure. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 83, 164-173.	1.3	85
107	ANALYSIS OF LAMINAR MIXED CONVECTION IN AN INCLINED SQUARE LID-DRIVEN CAVITY WITH A NANOFLUID BY USING AN ARTIFICIAL NEURAL NETWORK. Heat Transfer Research, 2014, 45, 361-390.	0.9	84
108	Molecular dynamics simulation of Couette and Poiseuille Water-Copper nanofluid flows in rough and smooth nanochannels with different roughness configurations. Chemical Physics, 2019, 527, 110505.	0.9	80

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109	EFFECT OF NANOFLUID VARIABLE PROPERTIES ON MIXED CONVECTION FLOW AND HEAT TRANSFER IN AN INCLINED TWO-SIDED LID-DRIVEN CAVITY WITH SINUSOIDAL HEATING ON SIDEWALLS. Heat Transfer Research, 2014, 45, 409-432.	0.9	80
110	Longitudinal vibration and stability analysis of carbon nanotubes conveying viscous fluid. Physica E: Low-Dimensional Systems and Nanostructures, 2016, 83, 275-283.	1.3	79
111	Molecular dynamic simulation to study the effects of roughness elements with cone geometry on the boiling flow inside a microchannel. International Journal of Heat and Mass Transfer, 2019, 141, 1-8.	2.5	78
112	Thermal performance improvement in water nanofluid/GNPâ€"SDBS in novel design of double-layer microchannel heat sink with sinusoidal cavities and rectangular ribs. Journal of Thermal Analysis and Calorimetry, 2019, 136, 1333-1345.	2.0	76
113	Prediction of boiling flow characteristics in rough and smooth microchannels using molecular dynamics simulation: Investigation the effects of boundary wall temperatures. Journal of Molecular Liquids, 2020, 306, 112937.	2.3	75
114	Two phase natural convection and thermal radiation of Non-Newtonian nanofluid in a porous cavity considering inclined cavity and size of inside cylinders. International Communications in Heat and Mass Transfer, 2019, 108, 104285.	2.9	71
115	Using perceptron feed-forward Artificial Neural Network (ANN) for predicting the thermal conductivity of graphene oxide-Al2O3/water-ethylene glycol hybrid nanofluid. Case Studies in Thermal Engineering, 2021, 26, 101055.	2.8	71
116	Energy, exergy and environmental (3E) analysis of the existing CHP system in a petrochemical plant. Renewable and Sustainable Energy Reviews, 2019, 99, 234-242.	8.2	70
117	Investigation of thermal properties of DNA structure with precise atomic arrangement via equilibrium and non-equilibrium molecular dynamics approaches. Computer Methods and Programs in Biomedicine, 2020, 185, 105169.	2.6	70
118	Nano scale lattice Boltzmann method to simulate the mixed convection heat transfer of air in a lid-driven cavity with an endothermic obstacle inside. Physica A: Statistical Mechanics and Its Applications, 2018, 508, 681-701.	1.2	67
119	Investigating the effect of nanoparticles diameter on turbulent flow and heat transfer properties of non-Newtonian carboxymethyl cellulose/CuO fluid in a microtube. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 29, 1699-1723.	1.6	66
120	Efficiency improvement of a steam power plant through solar repowering. International Journal of Exergy, 2017, 22, 158.	0.2	64
121	The molecular dynamics simulation of thermal manner of Ar/Cu nanofluid flow: The effects of spherical barriers size. Journal of Molecular Liquids, 2020, 319, 114183.	2.3	62
122	An experimental investigation for study the rheological behavior of waterâ€"carbon nanotube/magnetite nanofluid subjected to a magnetic field. Physica A: Statistical Mechanics and Its Applications, 2019, 534, 122129.	1.2	60
123	Molecular dynamics simulation of Water-Copper nanofluid flow in a three-dimensional nanochannel with different types of surface roughness geometry for energy economic management. Journal of Molecular Liquids, 2020, 311, 113222.	2.3	57
124	Investigation on the effect of functionalization of single-walled carbon nanotubes on the mechanical properties of epoxy glass composites: Experimental and molecular dynamics simulation. Journal of Materials Research and Technology, 2021, 12, 1931-1945.	2.6	56
125	Heat transfer and entropy generation analysis of water-Fe3O4/CNT hybrid magnetic nanofluid flow in a trapezoidal wavy enclosure containing porous media with the Galerkin finite element method. European Physical Journal Plus, 2021, 136, 1.	1.2	55
126	Fabrication of tragacanthin gum-carboxymethyl chitosan bio-nanocomposite wound dressing with silver-titanium nanoparticles using freeze-drying method. Materials Chemistry and Physics, 2022, 279, 125770.	2.0	55

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127	Comprehensive simulation of nanofluid flow and heat transfer in straight ribbed microtube using single-phase and two-phase models for choosing the best conditions. Journal of Thermal Analysis and Calorimetry, 2020, 139, 701-720.	2.0	54
128	Effect of solid surface structure on the condensation flow of Argon in rough nanochannels with different roughness geometries using molecular dynamics simulation. International Communications in Heat and Mass Transfer, 2020, 117, 104741.	2.9	54
129	Molecular dynamics simulation of Doxorubicin loading with N-isopropyl acrylamide carbon nanotube in a drug delivery system. Computer Methods and Programs in Biomedicine, 2020, 184, 105303.	2.6	53
130	Dynamic stability of functionally graded nanobeam based on nonlocal Timoshenko theory considering surface effects. Physica B: Condensed Matter, 2017, 520, 97-105.	1.3	52
131	Fabrication of shapeless scaffolds reinforced with baghdadite-magnetite nanoparticles using a 3D printer and freeze-drying technique. Journal of Materials Research and Technology, 2021, 14, 3070-3079.	2.6	52
132	Energy, exergy, environmental and economic analyzes (4E) and multi-objective optimization of a PEM fuel cell equipped with coolant channels. Renewable and Sustainable Energy Reviews, 2022, 157, 112021.	8.2	51
133	Application of lattice Boltzmann method and spinodal decomposition phenomenon for simulating two-phase thermal flows. Physica A: Statistical Mechanics and Its Applications, 2018, 509, 673-689.	1.2	50
134	Effects of multi inlet guide channels on the performance of a cyclone separator. Powder Technology, 2019, 356, 353-372.	2.1	50
135	Heat transfer enhancement in a counter-flow sinusoidal parallel-plate heat exchanger partially filled with porous media using metal foam in the channels' divergent sections. Journal of Thermal Analysis and Calorimetry, 2020, 141, 1669-1685.	2.0	50
136	Removal of hexavalent chromium from aqueous media using pomegranate peels modified by polymeric coatings: Effects of various composite synthesis parameters. Synthetic Metals, 2020, 265, 116416.	2.1	50
137	Comprehensive beam models for buckling and bending behavior of simple nanobeam based on nonlocal strain gradient theory and surface effects. Mechanics of Materials, 2019, 139, 103209.	1.7	49
138	Removal of hexavalent chromium from water using polyaniline/ wood sawdust/ poly ethylene glycol composite: an experimental study. Journal of Environmental Health Science & Engineering, 2019, 17, 53-62.	1.4	48
139	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. Indian Journal of Science and Technology, 2015, 8, .	0.5	47
140	Thermal performance of Ag–water nanofluid in tube equipped with novel conical strip inserts using two-phase method: Geometry effects and particle migration considerations. Powder Technology, 2018, 338, 87-100.	2.1	47
141	MHD nanofluid free convection inside the wavy triangular cavity considering periodic temperature boundary condition and velocity slip mechanisms. International Journal of Thermal Sciences, 2021, 170, 107179.	2.6	47
142	A molecular dynamics simulation of the glass transition temperature and volumetric thermal expansion coefficient of thermoset polymer based epoxy nanocomposite reinforced by CNT: A statistical study. Physica A: Statistical Mechanics and Its Applications, 2020, 546, 123995.	1.2	46
143	Hydrothermal performance of nanofluid flow in a sinusoidal double layer microchannel in order to geometric optimization. International Communications in Heat and Mass Transfer, 2020, 117, 104700.	2.9	46
144	Applying Artificial Neural Networks (ANNs) for prediction of the thermal characteristics of water/ethylene glycol-based mono, binary and ternary nanofluids containing MWCNTs, titania, and zinc oxide. Powder Technology, 2021, 388, 418-424.	2.1	46

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145	Energy analysis of a proton exchange membrane fuel cell (PEMFC) with an open-ended anode using agglomerate model: A CFD study. Energy, 2019, 188, 116090.	4.5	45
146	Finite element analysis and experimental evaluation on stress distribution and sensitivity of dental implants to assess optimum length and thread pitch. Computer Methods and Programs in Biomedicine, 2020, 187, 105258.	2.6	45
147	Numerical investigation of non-Newtonian blood flow within an artery with cone shape of stenosis in various stenosis angles. Computer Methods and Programs in Biomedicine, 2020, 192, 105434.	2.6	45
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