

Mehdi Bahiraei

List of Publications by Citations

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167
papers

5,656
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170
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6,801
ext. citations

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L-index

#	Paper	IF	Citations
167	Flow and heat transfer characteristics of magnetic nanofluids: A review. <i>Journal of Magnetism and Magnetic Materials</i> , 2015 , 374, 125-138	2.8	206
166	Thermal conductivity modeling of MgO/EG nanofluids using experimental data and artificial neural network. <i>Journal of Thermal Analysis and Calorimetry</i> , 2014 , 118, 287-294	4.1	190
165	Efficacy of a hybrid nanofluid in a new microchannel heat sink equipped with both secondary channels and ribs. <i>Journal of Molecular Liquids</i> , 2019 , 273, 88-98	6	159
164	Recent research contributions concerning use of nanofluids in heat exchangers: A critical review. <i>Applied Thermal Engineering</i> , 2018 , 133, 137-159	5.8	149
163	Electronics cooling with nanofluids: A critical review. <i>Energy Conversion and Management</i> , 2018 , 172, 438-456	10.6	149
162	Application of Nanofluids in Thermal Performance Enhancement of Parabolic Trough Solar Collector: State-of-the-Art. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 463	2.6	134
161	Particle migration in nanofluids: A critical review. <i>International Journal of Thermal Sciences</i> , 2016 , 109, 90-113	4.1	129
160	Synthesized CuFe ₂ O ₄ /SiO ₂ nanocomposites added to water/EG: Evaluation of the thermophysical properties beside sensitivity analysis & EANN. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 127, 1169-1179	4.9	117
159	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	10.6	108
158	Performance improvement of a single slope solar still by employing thermoelectric cooling channel and copper oxide nanofluid: An experimental study. <i>Journal of Cleaner Production</i> , 2019 , 208, 1041-1052	10.3	108
157	Graphene family nanofluids: A critical review and future research directions. <i>Energy Conversion and Management</i> , 2019 , 196, 1222-1256	10.6	104
156	Investigating the efficacy of magnetic nanofluid as a coolant in double-pipe heat exchanger in the presence of magnetic field. <i>Energy Conversion and Management</i> , 2013 , 76, 1125-1133	10.6	103
155	Application of a novel biological nanofluid in a liquid block heat sink for cooling of an electronic processor: Thermal performance and irreversibility considerations. <i>Energy Conversion and Management</i> , 2017 , 149, 155-167	10.6	95
154	Thermal performance and second law characteristics of two new microchannel heat sinks operated with hybrid nanofluid containing graphene/silver nanoparticles. <i>Energy Conversion and Management</i> , 2018 , 168, 357-370	10.6	89
153	Employing artificial bee colony and particle swarm techniques for optimizing a neural network in prediction of heating and cooling loads of residential buildings. <i>Journal of Cleaner Production</i> , 2020 , 254, 120082	10.3	84
152	Rheological characteristics of MgO/oil nanolubricants: Experimental study and neural network modeling. <i>International Communications in Heat and Mass Transfer</i> , 2017 , 86, 245-252	5.8	84
151	Optimal arrangements of a heat sink partially filled with multilayered porous media employing hybrid nanofluid. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019 , 137, 1045-1058	4.1	78

150	Effect of employing a new biological nanofluid containing functionalized graphene nanoplatelets on thermal and hydraulic characteristics of a spiral heat exchanger. <i>Energy Conversion and Management</i> , 2019 , 180, 72-82	10.6	78
149	Experimental study for developing an accurate model to predict viscosity of CuO-ethylene glycol nanofluid using genetic algorithm based neural network. <i>Powder Technology</i> , 2018 , 338, 383-390	5.2	76
148	A novel application for energy efficiency improvement using nanofluid in shell and tube heat exchanger equipped with helical baffles. <i>Energy</i> , 2015 , 93, 2229-2240	7.9	75
147	Experimental and analytical investigations of productivity, energy and exergy efficiency of a single slope solar still enhanced with thermoelectric channel and nanofluid. <i>Renewable Energy</i> , 2019 , 135, 729-744	8.1	75
146	Experimental investigation and modeling of thermal conductivity and viscosity for non-Newtonian hybrid nanofluid containing coated CNT/Fe ₃ O ₄ nanoparticles. <i>Powder Technology</i> , 2017 , 318, 441-450	5.2	73
145	Efficacy of a novel liquid block working with a nanofluid containing graphene nanoplatelets decorated with silver nanoparticles compared with conventional CPU coolers. <i>Applied Thermal Engineering</i> , 2017 , 127, 1233-1245	5.8	71
144	A review of numerical studies on solar collectors integrated with latent heat storage systems employing fins or nanoparticles. <i>Renewable Energy</i> , 2018 , 118, 761-778	8.1	71
143	Application of a hybrid nanofluid containing graphene nanoplatelet-platinum composite powder in a triple-tube heat exchanger equipped with inserted ribs. <i>Applied Thermal Engineering</i> , 2019 , 149, 588-601	5.8	69
142	A Comprehensive Review on Different Numerical Approaches for Simulation in Nanofluids: Traditional and Novel Techniques. <i>Journal of Dispersion Science and Technology</i> , 2014 , 35, 984-996	1.5	68
141	CFD simulation of irreversibilities for laminar flow of a power-law nanofluid within a minichannel with chaotic perturbations: An innovative energy-efficient approach. <i>Energy Conversion and Management</i> , 2017 , 144, 374-387	10.6	64
140	Assessment and optimization of hydrothermal characteristics for a non-Newtonian nanofluid flow within miniaturized concentric-tube heat exchanger considering designer's viewpoint. <i>Applied Thermal Engineering</i> , 2017 , 123, 266-276	5.8	61
139	Second law analysis of a hybrid nanofluid in tubes equipped with double twisted tape inserts. <i>Powder Technology</i> , 2019 , 345, 692-703	5.2	61
138	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	4.1	57
137	Investigating exergy destruction and entropy generation for flow of a new nanofluid containing graphene-silver nanocomposite in a micro heat exchanger considering viscous dissipation. <i>Powder Technology</i> , 2018 , 336, 298-310	5.2	56
136	Artificial intelligence in the field of nanofluids: A review on applications and potential future directions. <i>Powder Technology</i> , 2019 , 353, 276-301	5.2	52
135	Optimizing energy efficiency of a specific liquid block operated with nanofluids for utilization in electronics cooling: A decision-making based approach. <i>Energy Conversion and Management</i> , 2017 , 154, 180-190	10.6	52
134	Thermo-economic analysis and multi-objective optimization of absorption cooling system driven by various solar collectors. <i>Energy Conversion and Management</i> , 2018 , 173, 715-727	10.6	49
133	Numerical investigation of entropy generation to predict irreversibilities in nanofluid flow within a microchannel: Effects of Brownian diffusion, shear rate and viscosity gradient. <i>Chemical Engineering Science</i> , 2017 , 172, 52-65	4.4	47

132	Application of a novel hybrid nanofluid containing graphene-platinum nanoparticles in a chaotic twisted geometry for utilization in miniature devices: Thermal and energy efficiency considerations. <i>International Journal of Mechanical Sciences</i> , 2018 , 138-139, 337-349	5.5	47
131	Investigating non-Newtonian nanofluid flow in a narrow annulus based on second law of thermodynamics. <i>Journal of Molecular Liquids</i> , 2016 , 219, 117-127	6	47
130	Heat transfer and entropy generation optimization for flow of a non-Newtonian hybrid nanofluid containing coated CNT/Fe ₃ O ₄ nanoparticles in a concentric annulus. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018 , 84, 28-40	5.3	43
129	Irreversibility analysis for flow of a non-Newtonian hybrid nanofluid containing coated CNT/Fe ₃ O ₄ nanoparticles in a minichannel heat exchanger. <i>Applied Thermal Engineering</i> , 2017 , 125, 1083-1093	5.8	42
128	Entropy generation in a heat exchanger working with a biological nanofluid considering heterogeneous particle distribution. <i>Advanced Powder Technology</i> , 2017 , 28, 2380-2392	4.6	42
127	Efficacy of a new graphene-platinum nanofluid in tubes fitted with single and twin twisted tapes regarding counter and co-swirling flows for efficient use of energy. <i>International Journal of Mechanical Sciences</i> , 2019 , 150, 290-303	5.5	41
126	Effect of particle migration on flow and heat transfer characteristics of magnetic nanoparticle suspensions. <i>Journal of Molecular Liquids</i> , 2015 , 209, 531-538	6	40
125	Thermal and hydraulic characteristics of a minichannel heat exchanger operated with a non-Newtonian hybrid nanofluid. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018 , 84, 149-161	5.3	39
124	CFD analysis of employing a novel ecofriendly nanofluid in a miniature pin fin heat sink for cooling of electronic components: Effect of different configurations. <i>Advanced Powder Technology</i> , 2019 , 30, 2503-2516	4.6	39
123	Effects of cobalt ferrite coated with silica nanocomposite on the thermal conductivity of an antifreeze: New nanofluid for refrigeration condensers. <i>International Journal of Refrigeration</i> , 2019 , 102, 86-95	3.8	39
122	A two-phase simulation of convective heat transfer characteristics of water-Fe ₃ O ₄ ferrofluid in a square channel under the effect of permanent magnet. <i>Applied Thermal Engineering</i> , 2019 , 147, 991-997	5.8	39
121	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	4.1	39
120	Efficacy of an eco-friendly nanofluid in a miniature heat exchanger regarding to arrangement of silver nanoparticles. <i>Energy Conversion and Management</i> , 2017 , 144, 224-234	10.6	38
119	Analyzing performance of a ribbed triple-tube heat exchanger operated with graphene nanoplatelets nanofluid based on entropy generation and exergy destruction. <i>International Communications in Heat and Mass Transfer</i> , 2019 , 107, 55-67	5.8	38
118	Thermal performance of Ag-water nanofluid in tube equipped with novel conical strip inserts using two-phase method: Geometry effects and particle migration considerations. <i>Powder Technology</i> , 2018 , 338, 87-100	5.2	38
117	Development of chaotic advection in laminar flow of a non-Newtonian nanofluid: A novel application for efficient use of energy. <i>Applied Thermal Engineering</i> , 2017 , 124, 1213-1223	5.8	36
116	Studying nanoparticle distribution in nanofluids considering the effective factors on particle migration and determination of phenomenological constants by Eulerian-Lagrangian simulation. <i>Advanced Powder Technology</i> , 2015 , 26, 802-810	4.6	36
115	Effects of geometrical parameters on hydrothermal characteristics of shell-and-tube heat exchanger with helical baffles: Numerical investigation, modeling and optimization. <i>Chemical Engineering Research and Design</i> , 2015 , 96, 43-53	5.5	35

114	Using neural network optimized by imperialist competition method and genetic algorithm to predict water productivity of a nanofluid-based solar still equipped with thermoelectric modules. <i>Powder Technology</i> , 2020 , 366, 571-586	5.2	34
113	Using Neural Network for Determination of Viscosity in Water-TiO ₂ Nanofluid. <i>Advances in Mechanical Engineering</i> , 2012 , 4, 742680	1.2	34
112	Multi-attribute optimization of a novel micro liquid block working with green graphene nanofluid regarding preferences of decision maker. <i>Applied Thermal Engineering</i> , 2018 , 143, 11-21	5.8	33
111	Particle migration in nanofluids considering thermophoresis and its effect on convective heat transfer. <i>Thermochimica Acta</i> , 2013 , 574, 47-54	2.9	33
110	Effects of Geometry and Hydraulic Characteristics of Shallow Reservoirs on Sediment Entrapment. <i>Water (Switzerland)</i> , 2018 , 10, 1725	3	33
109	Effect of line dipole magnetic field on entropy generation of Mn-Zn ferrite ferrofluid flowing through a minichannel using two-phase mixture model. <i>Powder Technology</i> , 2018 , 340, 370-379	5.2	33
108	Prediction of entropy generation for nanofluid flow through a triangular minichannel using neural network. <i>Advanced Powder Technology</i> , 2016 , 27, 673-683	4.6	32
107	Optimization of irreversibility and thermal characteristics of a mini heat exchanger operated with a new hybrid nanofluid containing carbon nanotubes decorated with magnetic nanoparticles. <i>Energy Conversion and Management</i> , 2017 , 150, 37-47	10.6	32
106	A numerical study of heat transfer characteristics of CuO/water nanofluid by Euler-Lagrange approach. <i>Journal of Thermal Analysis and Calorimetry</i> , 2016 , 123, 1591-1599	4.1	31
105	A comprehensive analysis of energy and exergy characteristics for a natural gas city gate station considering seasonal variations. <i>Energy</i> , 2018 , 155, 721-733	7.9	31
104	An empirical study to develop temperature-dependent models for thermal conductivity and viscosity of water-Fe ₃ O ₄ magnetic nanofluid. <i>Materials Chemistry and Physics</i> , 2016 , 181, 333-343	4.4	31
103	Second law analysis for flow of a nanofluid containing graphene-platinum nanoparticles in a minichannel enhanced with chaotic twisted perturbations. <i>Chemical Engineering Research and Design</i> , 2018 , 136, 230-241	5.5	30
102	Performance Enhancement of Internal Combustion Engines through Vibration Control: State of the Art and Challenges. <i>Applied Sciences (Switzerland)</i> , 2019 , 9, 406	2.6	29
101	Application of conventional and hybrid nanofluids in different machining processes: A critical review. <i>Advances in Colloid and Interface Science</i> , 2020 , 282, 102199	14.3	29
100	Irreversibility characteristics of a modified microchannel heat sink operated with nanofluid considering different shapes of nanoparticles. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 151, 119359	4.9	29
99	Numerical evaluation on thermal-hydraulic characteristics of dilute heat-dissipating nanofluids flow in microchannels. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019 , 135, 671-683	4.1	29
98	Thermohydraulic performance analysis of a spiral heat exchanger operated with water-alumina nanofluid: Effects of geometry and adding nanoparticles. <i>Energy Conversion and Management</i> , 2018 , 170, 62-72	10.6	28
97	Automatic cooling by means of thermomagnetic phenomenon of magnetic nanofluid in a toroidal loop. <i>Applied Thermal Engineering</i> , 2016 , 107, 700-708	5.8	27

96	Thermal Dispersion Model Compared with Euler-Lagrange Approach in Simulation of Convective Heat Transfer for Nanoparticle Suspensions. <i>Journal of Dispersion Science and Technology</i> , 2013 , 34, 1778-1789	1.5	27
95	Numerical Study and Optimization of Hydrothermal Characteristics of Mn ₂ N Ferrite Nanofluid Within Annulus in the Presence of Magnetic Field. <i>Journal of Superconductivity and Novel Magnetism</i> , 2014 , 27, 527-534	1.5	26
94	A comprehensive review on convective heat transfer of nanofluids in porous media: Energy-related and thermohydraulic characteristics. <i>Applied Thermal Engineering</i> , 2020 , 178, 115487	5.8	26
93	A two-phase simulation for analyzing thermohydraulic performance of Cu/water nanofluid within a square channel enhanced with 90° V-shaped ribs. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 145, 118612	4.9	25
92	Prediction of Nusselt Number and Friction Factor of Water-Al ₂ O ₃ Nanofluid Flow in Shell-and-Tube Heat Exchanger with Helical Baffles. <i>Chemical Engineering Communications</i> , 2015 , 202, 260-268	2.2	25
91	Investigating heat transfer and entropy generation for mixed convection of CuO/water nanofluid in an inclined annulus. <i>Journal of Molecular Liquids</i> , 2017 , 248, 36-47	6	24
90	Thermo-hydraulic performance of a biological nanofluid containing graphene nanoplatelets within a tube enhanced with rotating twisted tape. <i>Powder Technology</i> , 2019 , 355, 278-288	5.2	24
89	Predicting entropy generation of a hybrid nanofluid containing graphene/platinum nanoparticles through a microchannel liquid block using neural networks. <i>International Communications in Heat and Mass Transfer</i> , 2019 , 109, 104351	5.8	23
88	Using nanofluid as a smart suspension in cooling channels with discrete heat sources. <i>Journal of Thermal Analysis and Calorimetry</i> , 2015 , 119, 2079-2091	4.1	22
87	Thermohydraulic characteristics of a micro plate heat exchanger operated with nanofluid considering different nanoparticle shapes. <i>Applied Thermal Engineering</i> , 2020 , 179, 115621	5.8	22
86	Employing V-shaped ribs and nanofluid as two passive methods to improve second law characteristics of flow within a square channel: A two-phase approach. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 151, 119419	4.9	22
85	CFD simulation of nanofluid forced convection inside a three-dimensional annulus by two-phase mixture approach: Heat transfer and entropy generation analyses. <i>International Journal of Mechanical Sciences</i> , 2018 , 146-147, 396-404	5.5	22
84	Forced convection of a temperature-sensitive ferrofluid in presence of magnetic field of electrical current-carrying wire: A two-phase approach. <i>Advanced Powder Technology</i> , 2018 , 29, 2168-2175	4.6	22
83	Numerical simulation of nanofluid application in a C-shaped chaotic channel: A potential approach for energy efficiency improvement. <i>Energy</i> , 2014 , 74, 863-870	7.9	22
82	A decision-making based method to optimize energy efficiency of ecofriendly nanofluid flow inside a new heat sink enhanced with flow distributor. <i>Powder Technology</i> , 2019 , 342, 85-98	5.2	22
81	Second law assessment of nanofluid flow in a channel fitted with conical ribs for utilization in solar thermal applications: Effect of nanoparticle shape. <i>International Journal of Heat and Mass Transfer</i> , 2020 , 151, 119387	4.9	21
80	A proper model to predict energy efficiency, exergy efficiency, and water productivity of a solar still via optimized neural network. <i>Journal of Cleaner Production</i> , 2020 , 277, 123232	10.3	21
79	Modeling of energy efficiency for a solar still fitted with thermoelectric modules by ANFIS and PSO-enhanced neural network: A nanofluid application. <i>Powder Technology</i> , 2021 , 385, 185-198	5.2	21

78	Multi-criterion optimization of thermohydraulic performance of a mini pin fin heat sink operated with ecofriendly graphene nanoplatelets nanofluid considering geometrical characteristics. <i>Journal of Molecular Liquids</i> , 2019 , 276, 653-666	6	21
77	Design of an innovative distributor to improve flow uniformity using cylindrical obstacles in header of a fuel cell. <i>Energy</i> , 2018 , 152, 719-731	7.9	20
76	Optimizing thermophysical properties of nanofluids using response surface methodology and particle swarm optimization in a non-dominated sorting genetic algorithm. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2019 , 103, 7-19	5.3	20
75	Natural Convection of Magnetic Nanofluid in a Cavity Under Non-uniform Magnetic Field: A Novel Application. <i>Journal of Superconductivity and Novel Magnetism</i> , 2014 , 27, 587-594	1.5	19
74	Heat transfer characteristics of impinging jet on a hot surface with constant heat flux using Cu ₂ O-water nanofluid: An experimental study. <i>International Communications in Heat and Mass Transfer</i> , 2020 , 112, 104509	5.8	18
73	Irreversibility characteristics of nanofluid flow under chaotic advection in a minichannel for different nanoparticle types. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018 , 88, 25-36	5.3	18
72	Prediction of convective heat transfer of Al ₂ O ₃ -water nanofluid considering particle migration using neural network. <i>Engineering Computations</i> , 2014 , 31, 843-863	1.4	18
71	CFD simulation of combined electroosmotic-pressure driven micro-mixing in a microchannel equipped with triangular hurdle and zeta-potential heterogeneity. <i>Chemical Engineering Science</i> , 2019 , 199, 463-477	4.4	17
70	Neural network modeling of thermo-hydraulic attributes and entropy generation of an ecofriendly nanofluid flow inside tubes equipped with novel rotary coaxial double-twisted tape. <i>Powder Technology</i> , 2020 , 369, 162-175	5.2	17
69	Optimal modification of heating, ventilation, and air conditioning system performances in residential buildings using the integration of metaheuristic optimization and neural computing. <i>Energy and Buildings</i> , 2020 , 214, 109866	7	17
68	Comparative study of air and argon gases between cover and absorber coil in a cylindrical solar water heater: An experimental study. <i>Renewable Energy</i> , 2019 , 135, 426-436	8.1	17
67	Prediction of hydrothermal behavior of a non-Newtonian nanofluid in a square channel by modeling of thermophysical properties using neural network. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019 , 135, 901-910	4.1	17
66	Second law analysis of hybrid nanofluid flow in a microchannel heat sink integrated with ribs and secondary channels for utilization in miniature thermal devices. <i>Chemical Engineering and Processing: Process Intensification</i> , 2020 , 153, 107963	3.7	16
65	Entropy generation and exergy destruction for flow of a biologically functionalized graphene nanoplatelets nanofluid within tube enhanced with a novel rotary coaxial cross double-twisted tape. <i>International Communications in Heat and Mass Transfer</i> , 2020 , 113, 104546	5.8	16
64	Development of a model for entropy generation of water-TiO ₂ nanofluid flow considering nanoparticle migration within a minichannel. <i>Chemometrics and Intelligent Laboratory Systems</i> , 2016 , 157, 16-28	3.8	15
63	Baking of Flat Bread in an Impingement Oven: Modeling and Optimization. <i>Drying Technology</i> , 2009 , 27, 103-112	2.6	14
62	Baking of Flat Bread in an Impingement Oven: An Experimental Study of Heat Transfer and Quality Aspects. <i>Drying Technology</i> , 2008 , 26, 902-909	2.6	14
61	Application of an ecofriendly nanofluid containing graphene nanoplatelets inside a novel spiral liquid block for cooling of electronic processors. <i>Energy</i> , 2021 , 218, 119395	7.9	14

60	A novel modification on preheating process of natural gas in pressure reduction stations to improve energy consumption, exergy destruction and CO ₂ emission: Preheating based on real demand. <i>Energy</i> , 2019 , 173, 598-609	7.9	13
59	CFD analysis of second law characteristics for flow of a hybrid biological nanofluid under rotary motion of a twisted tape: Exergy destruction and entropy generation analyses. <i>Powder Technology</i> , 2020 , 372, 351-361	5.2	13
58	Heat transfer and flow characteristics of nanofluid in a narrow annulus: Numerical study, modelling and optimisation. <i>Canadian Journal of Chemical Engineering</i> , 2014 , 92, 747-757	2.3	13
57	Thermal and hydraulic characteristics of a hybrid nanofluid containing graphene sheets decorated with platinum through a new wavy cylindrical microchannel. <i>Applied Thermal Engineering</i> , 2020 , 181, 115581	5.8	13
56	Impact of thermophoresis on nanoparticle distribution in nanofluids. <i>Results in Physics</i> , 2017 , 7, 136-138	3.7	12
55	A novel thermal dispersion model to improve prediction of nanofluid convective heat transfer. <i>Advanced Powder Technology</i> , 2014 , 25, 1772-1779	4.6	12
54	Laminar Forced Convection of a Water-TiO ₂ Nanofluid in Annuli Considering Mass Conservation for Particles. <i>Chemical Engineering and Technology</i> , 2013 , 36, 2057-2064	2	12
53	A novel technique based on artificial intelligence for modeling the required temperature of a solar bread cooker equipped with concentrator through experimental data. <i>Food and Bioprocess Technology</i> , 2020 , 123, 437-449	4.9	12
52	Two-phase analysis of nanofluid flow within an innovative four-layer microchannel heat exchanger: Focusing on energy efficiency principle. <i>Powder Technology</i> , 2021 , 383, 484-497	5.2	12
51	A critical review on pulsating flow in conventional fluids and nanofluids: Thermo-hydraulic characteristics. <i>International Communications in Heat and Mass Transfer</i> , 2021 , 120, 104859	5.8	12
50	Thermal-hydraulic performance of a nanofluid in a shell-and-tube heat exchanger equipped with new trapezoidal inclined baffles: Nanoparticle shape effect. <i>Powder Technology</i> , 2021 , 395, 348-348	5.2	12
49	Evaluation of tree-base data mining algorithms in land used/land cover mapping in a semi-arid environment through Landsat 8 OLI image; Shiraz, Iran. <i>Geomatics, Natural Hazards and Risk</i> , 2020 , 11, 724-741	3.6	11
48	A 3D numerical study on natural convection flow of nanofluid inside a cubical cavity equipped with porous fins using two-phase mixture model. <i>Advanced Powder Technology</i> , 2020 , 31, 2480-2492	4.6	11
47	Assessment of hydrothermal characteristics of Mn-Zn ferrite nanofluid as a functional material under quadrupole magnetic field. <i>Powder Technology</i> , 2017 , 305, 174-182	5.2	11
46	Accuracy enhancement of thermal dispersion model in prediction of convective heat transfer for nanofluids considering the effects of particle migration. <i>Korean Journal of Chemical Engineering</i> , 2013 , 30, 1552-1558	2.8	11
45	Numerical investigation and optimization of flow and thermal characteristics of nanofluid within a chaotic geometry. <i>Advanced Powder Technology</i> , 2016 , 27, 184-192	4.6	10
44	Latest developments in nanofluid flow and heat transfer between parallel surfaces: A critical review. <i>Advances in Colloid and Interface Science</i> , 2021 , 294, 102450	14.3	10
43	Thermal performance of a new nanofluid containing biologically functionalized graphene nanoplatelets inside tubes equipped with rotating coaxial double-twisted tapes. <i>International Communications in Heat and Mass Transfer</i> , 2019 , 108, 104305	5.8	9

42	Effects of Various Forces on Particle Distribution and Thermal Features of Suspensions Containing Alumina Nanoparticles. <i>Journal of Dispersion Science and Technology</i> , 2014 , 35, 859-867	1.5	9
41	Performance enhancement of a triple-tube heat exchanger through heat transfer intensification using novel crimped-spiral ribs and nanofluid: A two-phase analysis. <i>Chemical Engineering and Processing: Process Intensification</i> , 2021 , 160, 108289	3.7	9
40	Employing response surface methodology and neural network to accurately model thermal conductivity of TiO ₂ Water nanofluid using experimental data. <i>Chinese Journal of Physics</i> , 2021 , 70, 14-25	3.5	9
39	A CFD study on thermohydraulic characteristics of a nanofluid in a shell-and-tube heat exchanger fitted with new unilateral ladder type helical baffles. <i>International Communications in Heat and Mass Transfer</i> , 2021 , 124, 105248	5.8	9
38	Employing elliptical pin-fins and nanofluid within a heat sink for cooling of electronic chips regarding energy efficiency perspective. <i>Applied Thermal Engineering</i> , 2021 , 183, 116159	5.8	9
37	Thermohydraulic performance of a nanofluid in a microchannel heat sink: Use of different microchannels for change in process intensity. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2021 , 125, 1-14	5.3	9
36	A comprehensive analysis for second law attributes of spiral heat exchanger operating with nanofluid using two-phase mixture model: Exergy destruction minimization attitude. <i>Advanced Powder Technology</i> , 2021 , 32, 211-224	4.6	9
35	Experimental Study of Nanofluid Convective Heat Transfer for Implementation of Dispersion Model Considering Non-Uniform Particle Distribution. <i>Experimental Heat Transfer</i> , 2014 , 27, 452-471	2.4	8
34	Experimental study on effect of employing twisted conical strip inserts on thermohydraulic performance considering geometrical parameters. <i>International Journal of Thermal Sciences</i> , 2020 , 149, 106178	4.1	8
33	Neural network combined with nature-inspired algorithms to estimate overall heat transfer coefficient of a ribbed triple-tube heat exchanger operating with a hybrid nanofluid. <i>Measurement: Journal of the International Measurement Confederation</i> , 2021 , 174, 108967	4.6	8
32	Spatial assessment of landslide risk using two novel integrations of neuro-fuzzy system and metaheuristic approaches; Ardabil Province, Iran. <i>Geomatics, Natural Hazards and Risk</i> , 2020 , 11, 230-258	3.6	7
31	A two-phase simulation for ferrofluid flow between two parallel plates under localized magnetic field by applying Lagrangian approach for nanoparticles. <i>European Journal of Mechanics, B/Fluids</i> , 2019 , 74, 252-259	2.4	7
30	Thermal analysis and electromagnetic characteristics of three single-sided flux pads for wireless power transfer. <i>Journal of Cleaner Production</i> , 2020 , 243, 118561	10.3	7
29	A combined multi-criterion optimization to determine optimum geometrical parameters for flow of an ecofriendly graphene-based nanofluid inside tube enhanced with twisted conical strip inserts. <i>Powder Technology</i> , 2021 , 377, 336-349	5.2	7
28	Numerical Investigation of Nanofluid Forced Convection in Channels with Discrete Heat Sources. <i>Journal of Applied Mathematics</i> , 2012 , 2012, 1-18	1.1	6
27	A comprehensive assessment of low-temperature preheating process in natural gas pressure reduction stations to better benefit from solar energy. <i>Energy</i> , 2020 , 209, 118430	7.9	6
26	Efficacy of a novel graphene quantum dots nanofluid in a microchannel heat exchanger. <i>Applied Thermal Engineering</i> , 2021 , 189, 116673	5.8	6
25	Predicting heat transfer rate of a ribbed triple-tube heat exchanger working with nanofluid using neural network enhanced by advanced optimization algorithms. <i>Powder Technology</i> , 2021 , 381, 459-476	5.2	6

24	A second law analysis on flow of a nanofluid in a shell-and-tube heat exchanger equipped with new unilateral ladder type helical baffles. <i>Powder Technology</i> , 2021 , 394, 234-249	5.2	6
23	Irreversibility characteristics of a mini shell and tube heat exchanger operating with a nanofluid considering effects of fins and nanoparticle shape. <i>Powder Technology</i> , 2022 , 398, 117117	5.2	5
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21	A CFD Study of [C2mim][CH3SO3]/Al2O3 Ionanofluid Flow and Heat Transfer in Grooved Tubes. <i>International Journal of Thermophysics</i> , 2021 , 42, 1	2.1	5
20	Thermohydraulic performance and effectiveness of a mini shell and tube heat exchanger working with a nanofluid regarding effects of fins and nanoparticle shape. <i>Advanced Powder Technology</i> , 2021 ,	4.6	4
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18	Modeling of irreversibility factors for nanofluid flow in different channels regarding nanoparticle arrangement. <i>Journal of Thermal Analysis and Calorimetry</i> , 2019 , 137, 607-622	4.1	4
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8	Second Law Analysis of Nanofluid Flow within a Circular Minichannel Considering Nanoparticle Migration. <i>Entropy</i> , 2016 , 18, 378	2.8	2
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6	A two-phase simulation for investigating natural convection characteristics of nanofluid inside a perturbed enclosure filled with porous medium. <i>Engineering With Computers</i> , 2020 , 1	4.5	1
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