

# Mehdi Bahiraei

## List of Publications by Year in descending order

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Version: 2024-02-01

169  
papers

7,911  
citations

46984

47  
h-index

66879

78  
g-index

170  
all docs

170  
docs citations

170  
times ranked

3890  
citing authors

| #  | ARTICLE   | IF  | CITATIONS |
|----|---|-----|-----------|
| 1  | Flow and heat transfer characteristics of magnetic nanofluids: A review. <i>Journal of Magnetism and Magnetic Materials</i> , 2015, 374, 125-138.   | 1.0 | 256       |
| 2  | Electronics cooling with nanofluids: A critical review. <i>Energy Conversion and Management</i> , 2018, 172, 438-456.   | 4.4 | 246       |
| 3  | 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.  | 2.0 | 210       |
| 4  | 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.  | 2.3 | 210       |
| 5  | Application of Nanofluids in Thermal Performance Enhancement of Parabolic Trough Solar Collector: State-of-the-Art. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 463.   | 1.3 | 189       |
| 6  | Recent research contributions concerning use of nanofluids in heat exchangers: A critical review. <i>Applied Thermal Engineering</i> , 2018, 133, 137-159.  | 3.0 | 186       |
| 7  | 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.   | 4.6 | 168       |
| 8  | Graphene family nanofluids: A critical review and future research directions. <i>Energy Conversion and Management</i> , 2019, 196, 1222-1256.   | 4.4 | 153       |
| 9  | Particle migration in nanofluids: A critical review. <i>International Journal of Thermal Sciences</i> , 2016, 109, 90-113.  | 2.6 | 148       |
| 10 | 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.                                    | 4.6 | 147       |
| 11 | Synthesized CuFe <sub>2</sub> O <sub>4</sub> /SiO <sub>2</sub> 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. | 2.5 | 135       |
| 12 | 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.  | 4.3 | 126       |
| 13 | 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.   | 4.4 | 125       |
| 14 | 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.   | 4.4 | 124       |
| 15 | 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.                                    | 4.4 | 122       |
| 16 | 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.                           | 4.4 | 115       |
| 17 | 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.                                     | 2.0 | 108       |
| 18 | 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.                                | 4.4 | 108       |

| #  | ARTICLE  | IF  | CITATIONS |
|----|--|-----|-----------|
| 19 | Experimental study for developing an accurate model to predict viscosity of CuO-ethylene glycol nanofluid using genetic algorithm based neural network. Powder Technology, 2018, 338, 383-390.                                       | 2.1 | 101       |
| 20 | A review of numerical studies on solar collectors integrated with latent heat storage systems employing fins or nanoparticles. Renewable Energy, 2018, 118, 761-778.   | 4.3 | 100       |
| 21 | Experimental investigation and modeling of thermal conductivity and viscosity for non-Newtonian hybrid nanofluid containing coated CNT/Fe <sub>3</sub> O <sub>4</sub> nanoparticles. Powder Technology, 2017, 318, 441-450.          | 2.1 | 97        |
| 22 | 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        |
| 23 | Rheological characteristics of MgO/oil nanolubricants: Experimental study and neural network modeling. International Communications in Heat and Mass Transfer, 2017, 86, 245-252.  | 2.9 | 89        |
| 24 | Efficacy of a novel liquid block working with a nanofluid containing graphene nanoplatelets decorated with silver nanoparticles compared with conventional CPU coolers. Applied Thermal Engineering, 2017, 127, 1233-1245.           | 3.0 | 88        |
| 25 | A novel application for energy efficiency improvement using nanofluid in shell and tube heat exchanger equipped with helical baffles. Energy, 2015, 93, 2229-2240.   | 4.5 | 85        |
| 26 | Application of a hybrid nanofluid containing graphene nanoplatelet-platinum composite powder in a triple-tube heat exchanger equipped with inserted ribs. Applied Thermal Engineering, 2019, 149, 588-601.                           | 3.0 | 85        |
| 27 | Thermo-economic analysis and multi-objective optimization of absorption cooling system driven by various solar collectors. Energy Conversion and Management, 2018, 173, 715-727.   | 4.4 | 80        |
| 28 | Artificial intelligence in the field of nanofluids: A review on applications and potential future directions. Powder Technology, 2019, 353, 276-301.   | 2.1 | 80        |
| 29 | A Comprehensive Review on Different Numerical Approaches for Simulation in Nanofluids: Traditional and Novel Techniques. Journal of Dispersion Science and Technology, 2014, 35, 984-996.  | 1.3 | 77        |
| 30 | Second law analysis of a hybrid nanofluid in tubes equipped with double twisted tape inserts. Powder Technology, 2019, 345, 692-703.   | 2.1 | 71        |
| 31 | Application of conventional and hybrid nanofluids in different machining processes: A critical review. Advances in Colloid and Interface Science, 2020, 282, 102199.   | 7.0 | 70        |
| 32 | 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. Powder Technology, 2020, 366, 571-586.   | 2.1 | 70        |
| 33 | CFD analysis of employing a novel ecofriendly nanofluid in a miniature pin fin heat sink for cooling of electronic components: Effect of different configurations. Advanced Powder Technology, 2019, 30, 2503-2516.                  | 2.0 | 69        |
| 34 | Assessment and optimization of hydrothermal characteristics for a non-Newtonian nanofluid flow within miniaturized concentric-tube heat exchanger considering designer's viewpoint. Applied Thermal Engineering, 2017, 123, 266-276. | 3.0 | 68        |
| 35 | CFD simulation of irreversibilities for laminar flow of a power-law nanofluid within a minichannel with chaotic perturbations: An innovative energy-efficient approach. Energy Conversion and Management, 2017, 144, 374-387.        | 4.4 | 67        |
| 36 | Investigating exergy destruction and entropy generation for flow of a new nanofluid containing graphene-silver nanocomposite in a micro heat exchanger considering viscous dissipation. Powder Technology, 2018, 336, 298-310.       | 2.1 | 63        |

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|----|--|-----|-----------|
| 37 | 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.   | 4.4 | 61        |
| 38 | 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.  | 2.7 | 56        |
| 39 | Heat transfer and entropy generation optimization for flow of a non-Newtonian hybrid nanofluid containing coated CNT/Fe <sub>3</sub> O <sub>4</sub> nanoparticles in a concentric annulus. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , 2018, 84, 28-40.         | 2.7 | 56        |
| 40 | 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.  | 3.0 | 56        |
| 41 | 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.  | 2.5 | 55        |
| 42 | 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.   | 2.1 | 55        |
| 43 | 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.                                      | 1.9 | 52        |
| 44 | 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. | 3.6 | 52        |
| 45 | 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.                                    | 3.6 | 52        |
| 46 | 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.  | 2.3 | 51        |
| 47 | 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.   | 2.0 | 50        |
| 48 | Irreversibility analysis for flow of a non-Newtonian hybrid nanofluid containing coated CNT/Fe <sub>3</sub> O <sub>4</sub> nanoparticles in a minichannel heat exchanger. <i>Applied Thermal Engineering</i> , 2017, 125, 1083-1093.   | 3.0 | 50        |
| 49 | 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.   | 4.5 | 50        |
| 50 | 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.                                  | 2.9 | 50        |
| 51 | A two-phase simulation of convective heat transfer characteristics of water-Fe <sub>3</sub> O <sub>4</sub> ferrofluid in a square channel under the effect of permanent magnet. <i>Applied Thermal Engineering</i> , 2019, 147, 991-997.   | 3.0 | 49        |
| 52 | 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.  | 2.1 | 47        |
| 53 | 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.  | 4.6 | 47        |
| 54 | Numerical study of flow and heat transfer of water-Al <sub>2</sub> O <sub>3</sub> nanofluid inside a channel with an inner cylinder using Eulerian-Lagrangian approach. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018, 132, 651-665.                                   | 2.0 | 46        |

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|----|--|-----|-----------|
| 55 | 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.  | 4.4 | 45        |
| 56 | Entropy generation in a heat exchanger working with a biological nanofluid considering heterogeneous particle distribution. <i>Advanced Powder Technology</i> , 2017, 28, 2380-2392.   | 2.0 | 44        |
| 57 | 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.   | 2.1 | 44        |
| 58 | 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.   | 3.0 | 44        |
| 59 | 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.       | 2.0 | 42        |
| 60 | Effect of particle migration on flow and heat transfer characteristics of magnetic nanoparticle suspensions. <i>Journal of Molecular Liquids</i> , 2015, 209, 531-538.   | 2.3 | 42        |
| 61 | 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.                                   | 1.8 | 42        |
| 62 | 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.   | 3.0 | 41        |
| 63 | 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.   | 4.4 | 41        |
| 64 | Using Neural Network for Determination of Viscosity in Water-TiO <sub>2</sub> Nanofluid. <i>Advances in Mechanical Engineering</i> , 2012, 4, 742680.  | 0.8 | 41        |
| 65 | 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.   | 4.5 | 40        |
| 66 | Thermohydraulic characteristics of a micro plate heat exchanger operated with nanofluid considering different nanoparticle shapes. <i>Applied Thermal Engineering</i> , 2020, 179, 115621.   | 3.0 | 40        |
| 67 | 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.          | 2.7 | 38        |
| 68 | 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> , 2022, 395, 348-359.  | 2.1 | 38        |
| 69 | An empirical study to develop temperature-dependent models for thermal conductivity and viscosity of water-Fe <sub>3</sub> O <sub>4</sub> magnetic nanofluid. <i>Materials Chemistry and Physics</i> , 2016, 181, 333-343.                               | 2.0 | 37        |
| 70 | Effects of Geometry and Hydraulic Characteristics of Shallow Reservoirs on Sediment Entrapment. <i>Water (Switzerland)</i> , 2018, 10, 1725.   | 1.2 | 37        |
| 71 | Particle migration in nanofluids considering thermophoresis and its effect on convective heat transfer. <i>Thermochimica Acta</i> , 2013, 574, 47-54.  | 1.2 | 36        |
| 72 | 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. | 4.4 | 36        |

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|----|---|-----|-----------|
| 73 | 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.          | 2.9 | 36        |
| 74 | 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.          | 3.6 | 35        |
| 75 | Automatic cooling by means of thermomagnetic phenomenon of magnetic nanofluid in a toroidal loop. <i>Applied Thermal Engineering</i> , 2016, 107, 700-708.  | 3.0 | 34        |
| 76 | Prediction of entropy generation for nanofluid flow through a triangular minichannel using neural network. <i>Advanced Powder Technology</i> , 2016, 27, 673-683.   | 2.0 | 34        |
| 77 | 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.                            | 2.7 | 34        |
| 78 | 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.   | 2.0 | 34        |
| 79 | Performance Enhancement of Internal Combustion Engines through Vibration Control: State of the Art and Challenges. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 406.  | 1.3 | 34        |
| 80 | 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.  | 2.1 | 33        |
| 81 | 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.   | 2.0 | 33        |
| 82 | 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.            | 3.1 | 33        |
| 83 | 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.                 | 2.5 | 33        |
| 84 | 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.                | 2.5 | 32        |
| 85 | 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.                                     | 1.3 | 31        |
| 86 | Prediction of Nusselt Number and Friction Factor of Water-Al <sub>2</sub> O <sub>3</sub> Nanofluid Flow in Shell-and-Tube Heat Exchanger with Helical Baffles. <i>Chemical Engineering Communications</i> , 2015, 202, 260-268.                       | 1.5 | 31        |
| 87 | 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.                           | 2.5 | 31        |
| 88 | 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.   | 3.0 | 31        |
| 89 | 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.   | 2.7 | 30        |
| 90 | 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. | 2.3 | 30        |

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|-----|---|-----|-----------|
| 91  | Numerical Study and Optimization of Hydrothermal Characteristics of Mn <sup>2+</sup> /Zn Ferrite Nanofluid Within Annulus in the Presence of Magnetic Field. <i>Journal of Superconductivity and Novel Magnetism</i> , 2014, 27, 527-534.   | 0.8 | 29        |
| 92  | 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.  | 2.1 | 29        |
| 93  | Heat transfer characteristics of impinging jet on a hot surface with constant heat flux using Cu <sub>2</sub> O/water nanofluid: An experimental study. <i>International Communications in Heat and Mass Transfer</i> , 2020, 112, 104509.  | 2.9 | 29        |
| 94  | 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.   | 2.9 | 29        |
| 95  | 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.  | 2.3 | 28        |
| 96  | 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.  | 2.1 | 28        |
| 97  | A novel modification on preheating process of natural gas in pressure reduction stations to improve energy consumption, exergy destruction and CO <sub>2</sub> emission: Preheating based on real demand. <i>Energy</i> , 2019, 173, 598-609.   | 4.5 | 28        |
| 98  | 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.                                 | 1.8 | 28        |
| 99  | 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.  | 1.9 | 27        |
| 100 | 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.   | 2.9 | 27        |
| 101 | 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, 115981.   | 3.0 | 26        |
| 102 | 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.  | 1.7 | 25        |
| 103 | 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.  | 2.0 | 25        |
| 104 | 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.  | 2.1 | 25        |
| 105 | Thermohydraulic assessment of a novel hybrid nanofluid containing cobalt oxide-decorated reduced graphene oxide nanocomposite in a microchannel heat sink with sinusoidal cavities and rectangular ribs. <i>International Communications in Heat and Mass Transfer</i> , 2022, 131, 105769. | 2.9 | 25        |
| 106 | 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.   | 4.5 | 24        |
| 107 | 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.   | 4.5 | 23        |
| 108 | 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.  | 2.0 | 23        |

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|-----|---|-----|-----------|
| 109 | 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. | 2.9 | 23        |
| 110 | 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.   | 2.7 | 23        |
| 111 | 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.                         | 1.8 | 22        |
| 112 | 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 Bioproducts Processing</i> , 2020, 123, 437-449.   | 1.8 | 21        |
| 113 | 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.  | 2.0 | 21        |
| 114 | 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.   | 2.1 | 21        |
| 115 | Efficacy of a novel graphene quantum dots nanofluid in a microchannel heat exchanger. <i>Applied Thermal Engineering</i> , 2021, 189, 116673.   | 3.0 | 21        |
| 116 | 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.   | 7.0 | 21        |
| 117 | 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.  | 2.0 | 21        |
| 118 | Baking of Flat Bread in an Impingement Oven: Modeling and Optimization. <i>Drying Technology</i> , 2009, 27, 103-112.   | 1.7 | 20        |
| 119 | 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.  | 0.8 | 20        |
| 120 | Prediction of convective heat transfer of Al <sub>2</sub> O <sub>3</sub> -water nanofluid considering particle migration using neural network. <i>Engineering Computations</i> , 2014, 31, 843-863.   | 0.7 | 20        |
| 121 | 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.  | 2.7 | 20        |
| 122 | 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.  | 4.3 | 20        |
| 123 | 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.  | 2.0 | 20        |
| 124 | Employing response surface methodology and neural network to accurately model thermal conductivity of TiO <sub>2</sub> -water nanofluid using experimental data. <i>Chinese Journal of Physics</i> , 2021, 70, 14-25.   | 2.0 | 20        |
| 125 | Effect of water nano-droplet injection on steam ejector performance based on non-equilibrium spontaneous condensation: A droplet number study. <i>Applied Thermal Engineering</i> , 2021, 184, 116236.  | 3.0 | 19        |
| 126 | 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.   | 2.1 | 19        |



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|-----|---|-----|-----------|
| 127 | 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.  | 2.1 | 19        |
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