

Mehdi Ashjaee

List of Publications by Year in descending order

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#	ARTICLE	IF	CITATIONS
1	A novel hybrid thermal management for Li-ion batteries using phase change materials embedded in copper foams combined with forced-air convection. International Journal of Thermal Sciences, 2019, 141, 47-61.	4.9	133
2	Energy, exergy and exergoeconomic (3E) analyses and multi-objective optimization of a solar and geothermal based integrated energy system. Applied Thermal Engineering, 2018, 143, 1011-1022.	6.0	116
3	Convective heat transfer characteristics of magnetite nanofluid under the influence of constant and alternating magnetic field. Powder Technology, 2015, 274, 258-267.	4.2	112
4	Experimental investigation on convective heat transfer and hydrodynamic characteristics of magnetite nanofluid under the influence of an alternating magnetic field. International Journal of Thermal Sciences, 2016, 99, 113-124.	4.9	105
5	Lithium-ion battery thermal management system with Al ₂ O ₃ /AgO/CuO nanofluids and phase change material. Applied Thermal Engineering, 2020, 180, 115840.	6.0	96
6	Effect of an alternating nonuniform magnetic field on ferrofluid flow and heat transfer in a channel. Journal of Magnetism and Magnetic Materials, 2014, 362, 80-89.	2.3	95
7	Experimental and numerical investigation of heat transfer in a miniature heat sink utilizing silica nanofluid. Superlattices and Microstructures, 2012, 51, 247-264.	3.1	90
8	Development of hybrid cooling method with PCM and Al ₂ O ₃ nanofluid in aluminium minichannels using heat source model of Li-ion batteries. Applied Thermal Engineering, 2020, 178, 115543.	6.0	84
9	Enhanced power generation through integrated renewable energy plants: Solar chimney and waste-to-energy. Energy Conversion and Management, 2018, 166, 48-63.	9.2	74
10	Hybrid thermal management of lithium-ion batteries using nanofluid, metal foam, and phase change material: an integrated numerical–experimental approach. Journal of Thermal Analysis and Calorimetry, 2020, 141, 1703-1715.	3.6	69
11	A comprehensive feasibility study of applying solar energy to design a zero energy building for a typical home in Tehran. Energy and Buildings, 2014, 72, 329-339.	6.7	65
12	Experimental investigation on thermal conductivity of MFe ₂ O ₄ (M=Fe and Co) magnetic nanofluids under influence of magnetic field. Thermochimica Acta, 2014, 598, 59-67.	2.7	63
13	The thermal efficiency improvement of a steam Rankine cycle by innovative design of a hybrid cooling tower and a solar chimney concept. Renewable Energy, 2013, 51, 465-473.	8.9	62
14	Multi-criteria optimization and comparative performance analysis of a power plant fed by municipal solid waste using a gasifier or digester. Energy Conversion and Management, 2018, 171, 863-878.	9.2	62
15	Experimental investigation on thermal conductivity of water based nickel ferrite nanofluids. Advanced Powder Technology, 2015, 26, 1529-1536.	4.1	56
16	Effect of magnetic field on the forced convection heat transfer and pressure drop of a magnetic nanofluid in a miniature heat sink. Heat and Mass Transfer, 2015, 51, 953-964.	2.1	54
17	Electricity production with low grade heat in thermal power plants by design improvement of a hybrid dry cooling tower and a solar chimney concept. Energy Conversion and Management, 2015, 94, 1-11.	9.2	53
18	Thermal Conductivity of Fe_2O_3 and Fe_3O_4 Magnetic Nanofluids Under the Influence of Magnetic Field. International Journal of Thermophysics, 2015, 36, 2720-2739.	2.1	48

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19	Study of heat transfer enhancement in a nanofluid-cooled miniature heat sink. International Communications in Heat and Mass Transfer, 2012, 39, 877-884.	5.6	43
20	Thermo-economic optimization of low-grade waste heat recovery in Yazd combined-cycle power plant (Iran) by a CO ₂ transcritical Rankine cycle. Energy, 2015, 86, 74-84.	8.8	37
21	Continuous power generation through a novel solar/geothermal chimney system: Technical/cost analyses and multi-objective particle swarm optimization. Journal of Cleaner Production, 2021, 283, 124666.	9.3	35
22	Novel hybrid thermal management for Li-ion batteries with nanofluid cooling in the presence of alternating magnetic field: An experimental study. Case Studies in Thermal Engineering, 2021, 28, 101539.	5.7	33
23	Experimental and Numerical Study of Mixed and Natural Convection in an Enclosure With a Discrete Heat Source and Ventilation Ports. Heat Transfer Engineering, 2014, 35, 63-73.	1.9	30
24	Experimental investigation on heat transfer of MgO nanofluid in tubes partially filled with metal foam. Powder Technology, 2019, 354, 734-742.	4.2	25
25	EXPERIMENTAL INVESTIGATION OF HEAT TRANSFER IN A NOVEL HEAT SINK BY MEANS OF ALUMINA NANOFLUIDS. Heat Transfer Research, 2012, 43, 709-720.	1.6	23
26	Heat transfer characteristics of laminar slot jet arrays impinging on a constant target surface temperature. Applied Thermal Engineering, 2015, 76, 252-260.	6.0	22
27	Experimental investigation on temperature field and heat transfer distribution of a slot burner methane/air flame impinging on a curved surface. Applied Thermal Engineering, 2018, 129, 761-771.	6.0	22
28	Investigation on trajectories and capture of magnetic drug carrier nanoparticles after injection into a direct vessel. Journal of Magnetism and Magnetic Materials, 2020, 497, 166065.	2.3	21
29	Hydrodynamics and Heat Transfer Characteristics of a Miniature Plate Pin-Fin Heat Sink Utilizing Al ₂ O ₃ -Water and TiO ₂ -Water Nanofluids. Journal of Thermal Science and Engineering Applications, 2015, 7, .	1.5	20
30	Heat Transfer and Hydrodynamic Performance Analysis of a Miniature Tangential Heat Sink Using Al ₂ O ₃ -H ₂ O and TiO ₂ -H ₂ O Nanofluids. Experimental Heat Transfer, 2016, 29, 536-560.	3.2	20
31	Thermal and hydrodynamic performances of MHD ferrofluid flow inside a porous channel. Experimental Thermal and Fluid Science, 2018, 90, 1-13.	2.7	20
32	Dynamic feasibility assessment and 3E analysis of a smart building energy system integrated with hybrid photovoltaic-thermal panels and energy storage. Sustainable Energy Technologies and Assessments, 2020, 42, 100835.	2.7	20
33	Experimental investigation of heat transfer and pressure drop of alumina-water nano-fluid in a porous miniature heat sink. Experimental Heat Transfer, 2018, 31, 495-512.	3.2	19
34	Experimental and Numerical Investigation on Free Convection From a Horizontal Cylinder Located Above an Adiabatic Surface. Heat Transfer Engineering, 2012, 33, 213-224.	1.9	18
35	Experimental Measurement of Laminar Burning Velocity and Flammability Limits of Landfill Gas at Atmospheric and Elevated Pressures. Energy & Fuels, 2017, 31, 3196-3205.	5.1	18
36	Experimental Investigation of Thermal Conductivity and Viscosity of SiO ₂ /Multiwalled Carbon Nanotube Hybrid Nanofluids. Journal of Nanoscience and Nanotechnology, 2019, 19, 3398-3407.	0.9	18

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37	Experimental investigation on thermo-physical properties and heat transfer characteristics of green synthesized highly stable CoFe ₂ O ₄ /rGO nanofluid. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2021, 610, 125923.	4.7	18
38	Design, dynamic simulation, and optimal size selection of a hybrid solar/wind and battery-based system for off-grid energy supply. <i>Renewable Energy</i> , 2022, 187, 1082-1099.	8.9	18
39	A novel numerical approach for investigation of the gas bubble characteristics in stagnant liquid using Young-Laplace equation. <i>Chemical Engineering Science</i> , 2017, 173, 37-48.	3.8	17
40	Experimental investigation on heat transfer and hydrodynamic behavior of magnetite nanofluid flow in a channel with recognition of the best models for transport properties. <i>Experimental Thermal and Fluid Science</i> , 2015, 68, 582-592.	2.7	16
41	Slot jet impingement cooling of a concave surface in an annulus. <i>Experimental Thermal and Fluid Science</i> , 2015, 68, 300-309.	2.7	15
42	Experimental and numerical study on heat transfer characteristics of various geometrical arrangement of impinging jet arrays. <i>International Journal of Thermal Sciences</i> , 2016, 102, 26-38.	4.9	15
43	4E analysis and tri-objective optimization of a triple-pressure combined cycle power plant with combustion chamber steam injection to control NO _x emission. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021, 145, 1317-1333.	3.6	15
44	Effect of flow conditions on spray cone angle of a two-fluid atomizer. <i>Journal of Mechanical Science and Technology</i> , 2011, 25, 365-369.	1.5	13
45	Study of mixed convection characteristics of confined planar jet impingement using the direct temperature gradient interferometric method. <i>International Journal of Thermal Sciences</i> , 2013, 71, 205-215.	4.9	13
46	Experimental investigation on premixed flame of H ₂ /CO in a slot burner using the Mach-Zehnder interferometry. <i>Optics and Laser Technology</i> , 2019, 115, 140-148.	4.6	13
47	Study of Electrohydrodynamic Micropumping Through Conduction Phenomenon. <i>IEEE Transactions on Industry Applications</i> , 2011, 47, 2224-2234.	4.9	12
48	Experimental and Numerical Investigation of the Laminar Burning Velocity and Combustion Characteristics of Biogas at High Pressures. <i>Energy & Fuels</i> , 2017, 31, 14169-14179.	5.1	12
49	Effect of orifice shape on bubble formation mechanism. <i>Meccanica</i> , 2018, 53, 2461-2483.	2.0	12
50	The influence of SiO ₂ nanoparticles on cavitation initiation and intensity in a centrifugal water pump. <i>Experimental Thermal and Fluid Science</i> , 2014, 55, 71-76.	2.7	11
51	Thermo-economic analysis of transcritical CO ₂ cycles with bounded and unbounded reheats in low-temperature heat recovery applications. <i>Energy</i> , 2017, 133, 676-690.	8.8	11
52	Combustion of Syngas in Intersecting Burners Using the Interferometry Method. <i>Energy & Fuels</i> , 2017, 31, 10121-10132.	5.1	11
53	On-demand heat transfer augmentation using magnetically triggered ferrofluid containing eco-friendly treated CoFe ₂ O ₄ /rGO. <i>Powder Technology</i> , 2021, 378, 468-486.	4.2	11
54	Neuro-Fuzzy Modeling of the Free Convection from Vertical Arrays of Isothermal Cylinders. <i>Journal of Thermophysics and Heat Transfer</i> , 2013, 27, 588-592.	1.6	10

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55	Experimental investigation on heat transfer characteristics of partially premixed round methane-air impinging flame jet using Mach-Zehnder interferometry. <i>International Journal of Thermal Sciences</i> , 2019, 137, 601-615.	4.9	10
56	Experimental investigations on the flame structure and temperature field of landfill gas in impinging slot burners. <i>Energy</i> , 2019, 170, 507-520.	8.8	10
57	Effect of flow diverters on free convection heat transfer from a pair of vertical arrays of isothermal cylinders. <i>Experimental Thermal and Fluid Science</i> , 2011, 35, 1398-1408.	2.7	9
58	A Numerical Study on Natural Convection Heat Transfer From a Horizontal Isothermal Cylinder Located Underneath an Adiabatic Ceiling. <i>Heat Transfer Engineering</i> , 2014, 35, 953-962.	1.9	9
59	Effect of SiO ₂ nanoparticle size on initiation and intensity of bubble formation in a water pump. <i>Experimental Thermal and Fluid Science</i> , 2016, 72, 40-46.	2.7	9
60	An investigation on effect of geometrical parameters on spray cone angle and droplet size distribution of a two-fluid atomizer. <i>Journal of Mechanical Science and Technology</i> , 2011, 25, 3047-3052.	1.5	8
61	Analytical Investigation of the Effect of Viscous Dissipation on Couette Flow in a Channel Partially Filled with a Porous Medium. <i>Transport in Porous Media</i> , 2011, 89, 1-13.	2.6	8
62	An experimental and numerical study on the combustion and flame characteristics of hydrogen in intersecting slot burners. <i>International Journal of Hydrogen Energy</i> , 2018, 43, 3034-3049.	7.1	8
63	Effect of different frequency functions on ferrofluid FHD flow. <i>Journal of Magnetism and Magnetic Materials</i> , 2019, 480, 112-131.	2.3	8
64	Mixed convection cooling of a heated circular cylinder by laminar upward-directed slot jet impingement. <i>Heat and Mass Transfer</i> , 2009, 46, 225-236.	2.1	7
65	Enhancement of Free Convection Heat Transfer from a Vertical Array of Isothermal Cylinders by Flow Diverters. <i>Heat Transfer Engineering</i> , 2009, 30, 197-206.	1.9	7
66	Experimental studies on the viscosity of Fe nanoparticles dispersed in ethylene glycol and water mixture. <i>Thermal Science</i> , 2016, 20, 1661-1670.	1.1	7
67	Experimental Investigation of Heat Transfer Coefficient from the Impingement of a Slot Jet Using Conjugate Gradient Method with Adjoint Equation. <i>Experimental Heat Transfer</i> , 2016, 29, 657-672.	3.2	7
68	Experimental investigation on the effect of nanofluid on the thermal performance of symmetric sintered U shaped heat pipe. <i>Heat and Mass Transfer</i> , 2016, 52, 1255-1264.	2.1	7
69	Thermal energy absorption in a heat sink with elliptical cross section and tangential impinging inlet flow of nanofluid. <i>Experimental Thermal and Fluid Science</i> , 2017, 89, 50-61.	2.7	7
70	Combined experimental-numerical investigation on the structure of methane/landfill gas flame using PIV. <i>Experimental Thermal and Fluid Science</i> , 2018, 94, 23-33.	2.7	7
71	Temperature field investigation of hydrogen/air and syngas/air axisymmetric laminar flames using Mach-Zehnder interferometry. <i>Applied Optics</i> , 2018, 57, 5057.	1.8	7
72	Investigating the effect of wearing glasses on the human eyes' temperature distribution in different ambient conditions. <i>Journal of Thermal Biology</i> , 2021, 99, 102971.	2.5	7

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73	Sustainability analysis and optimization of innovative geothermal-driven energy storage system for green production of H ₂ , NH ₃ , and pure O ₂ . International Journal of Hydrogen Energy, 2022, 47, 26156-26177.	7.1	7
74	SiO ₂ nanofluid planar jet impingement cooling on a convex heated plate. Heat and Mass Transfer, 2016, 52, 2735-2746.	2.1	6
75	Dynamic measurement of ferrofluid thermal conductivity under an external magnetic field. Heat and Mass Transfer, 2019, 55, 1583-1592.	2.1	6
76	Experimental design for estimation of the distribution of the convective heat transfer coefficient for a bubbly impinging jet. Journal of Thermal Analysis and Calorimetry, 2020, 140, 439-456.	3.6	6
77	Slot jet impingement heat transfer from an isothermal circular cylinder. , 2008, , .		3
78	Experimental investigation of natural convection in an enclosure with partial partitions at different angles. Thermal Science, 2014, 18, 1133-1144.	1.1	3
79	Experimental investigation of the effects of passivated aluminum nanoparticles on butane flame structure. Experimental Thermal and Fluid Science, 2019, 100, 33-48.	2.7	3
80	Different nanofluids effect on bubble characteristics at the isothermal bubble column. Canadian Journal of Chemical Engineering, 2021, 99, .	1.7	3
81	Investigating the effect of injection rate on the capture efficiency of nanoparticles in different geometries of stenosed vessel. Journal of Magnetism and Magnetic Materials, 2022, 544, 168665.	2.3	3
82	PDA and Neural Network Investigation of Swirl Spray Interaction Phenomena. Particle and Particle Systems Characterization, 2005, 22, 192-206.	2.3	2
83	Development of an Electrohydrodynamic conduction micropump using PCB/LCP MEMS technology. , 2008, , .		2
84	Numerical investigation of temperature increment effect on bubble dynamics in stagnant water and Al ₂ O ₃ nanofluid column. Particulate Science and Technology, 2019, 37, 292-302.	2.1	2
85	Thermal and Fluid-Flow Characteristics of Silver-Water Nanofluid in a Metal-Foam Filled Channel. Heat Transfer Engineering, 2021, 42, 1827-1845.	1.9	2
86	Characterization of thermal field in mixed-convection cooling of a flat plate by an impinging slot jet. , 2010, , .		1
87	Experimental study of a laminar premixed LFG/air flame in a slot burner using Mach-Zehnder interferometry. Thermal Science, 2016, 20, 1649-1660.	1.1	1
88	Experimental investigation of thermal boundary layer thickness effects on corona discharge current with razor-isothermal cylinder geometry. , 2007, , .		0
89	Liquid-Liquid Coaxial Swirl Injector Performance Prediction Using General Regression Neural Network. Particle and Particle Systems Characterization, 2008, 25, 454-464.	2.3	0