Ali Akbar Abbasian Arani

List of Publications by Year
in descending order

70 papers	3,639 citations	159358 30 h-index	133063 59 g-index
71 all docs	71 docs citations	71 times ranked	2014 citing authors

#	Article	IF	Citations
1	Experimental determination of thermal conductivity and dynamic viscosity of Ag–MgO/water hybrid nanofluid. International Communications in Heat and Mass Transfer, 2015, 66, 189-195.	2.9	512
2	Heat transfer improvement of water/single-wall carbon nanotubes (SWCNT) nanofluid in a novel design of a truncated double-layered microchannel heat sink. International Journal of Heat and Mass Transfer, 2017, 113, 780-795.	2.5	212
3	Experimental investigation of diameter effect on heat transfer performance and pressure drop of TiO2–water nanofluid. Experimental Thermal and Fluid Science, 2013, 44, 520-533.	1.5	167
4	Experimental study on the effect of TiO2–water nanofluid on heat transfer and pressure drop. Experimental Thermal and Fluid Science, 2012, 42, 107-115.	1.5	154
5	Thermal conductivity enhancement of SiO2–MWCNT (85:15%)–EG hybrid nanofluids. Journal of Thermal Analysis and Calorimetry, 2017, 128, 249-258.	2.0	140
6	Estimation of thermal conductivity of ethylene glycol-based nanofluid with hybrid suspensions of SWCNT–Al2O3 nanoparticles by correlation and ANN methods using experimental data. Journal of Thermal Analysis and Calorimetry, 2017, 128, 1359-1371.	2.0	124
7	Natural convection in a trapezoidal enclosure filled with carbon nanotube–EG–water nanofluid. International Journal of Heat and Mass Transfer, 2016, 92, 76-82.	2.5	123
8	Improving engine oil lubrication in light-duty vehicles by using of dispersing MWCNT and ZnO nanoparticles in 5W50 as viscosity index improvers (VII). Applied Thermal Engineering, 2018, 143, 493-506.	3.0	120
9	Optimization, modeling and accurate prediction of thermal conductivity and dynamic viscosity of stabilized ethylene glycol and water mixture Al 2 O 3 nanofluids by NSGA-II using ANN. International Communications in Heat and Mass Transfer, 2017, 82, 154-160.	2.9	113
10	ANN modeling, cost performance and sensitivity analyzing of thermal conductivity of DWCNT–SiO2/EG hybrid nanofluid for higher heat transfer. Journal of Thermal Analysis and Calorimetry, 2018, 131, 2381-2393.	2.0	105
11	Empirical study and model development of thermal conductivity improvement and assessment of cost and sensitivity of EG-water based SWCNT-ZnO (30%:70%) hybrid nanofluid. Journal of Molecular Liquids, 2017, 244, 252-261.	2.3	103
12	Multi-objective optimization of cost and thermal performance of double walled carbon nanotubes/water nanofluids by NSGA-II using response surface method. Applied Thermal Engineering, 2017, 112, 1648-1657.	3.0	101
13	Nanoparticle shape effects on thermal-hydraulic performance of boehmite alumina nanofluids in a sinusoidal–wavy mini-channel with phase shift and variable wavelength. International Journal of Mechanical Sciences, 2017, 128-129, 550-563.	3.6	100
14	Proposing new hybrid nano-engine oil for lubrication of internal combustion engines: Preventing cold start engine damages and saving energy. Energy, 2019, 170, 228-238.	4.5	96
15	Mixed convection heat transfer from surface-mounted block heat sources in a horizontal channel with nanofluids. International Journal of Heat and Mass Transfer, 2015, 89, 783-791.	2.5	94
16	Experimental investigation on non-Newtonian behavior of Al 2 O 3 -MWCNT/5W50 hybrid nano-lubricant affected by alterations of temperature, concentration and shear rate for engine applications. International Communications in Heat and Mass Transfer, 2017, 82, 97-102.	2.9	92
17	Application of three-level general factorial design approach for thermal conductivity of MgO/water nanofluids. Applied Thermal Engineering, 2017, 127, 1194-1199.	3.0	91
18	The optimization of viscosity and thermal conductivity in hybrid nanofluids prepared with magnetic nanocomposite of nanodiamond cobalt-oxide (ND-Co3O4) using NSGA-II and RSM. International Communications in Heat and Mass Transfer, 2016, 79, 128-134.	2.9	85

#	ARTICLE	IF	CITATIONS
19	An experimental determination and accurate prediction of dynamic viscosity of MWCNT(%40)-SiO2(%60)/5W50 nano-lubricant. Journal of Molecular Liquids, 2018, 259, 227-237.	2.3	84
20	Numerical study of mixed convection flow in a lid-driven cavity with sinusoidal heating on sidewalls using nanofluid. Superlattices and Microstructures, 2012, 51, 893-911.	1.4	78
21	A study on rheological characteristics of hybrid nano-lubricants containing MWCNT-TiO2 nanoparticles. Journal of Molecular Liquids, 2018, 260, 229-236.	2.3	77
22	Shell and tube heat exchanger optimization using new baffle and tube configuration. Applied Thermal Engineering, 2019, 157, 113736.	3.0	69
23	On the thermal characteristics of a manifold microchannel heat sink subjected to nanofluid using two-phase flow simulation. International Journal of Heat and Mass Transfer, 2019, 143, 118518.	2.5	67
24	Proposing a modified engine oil to reduce cold engine start damages and increase safety in high temperature operating conditions. Powder Technology, 2019, 355, 251-263.	2.1	66
25	MHD forced convection and entropy generation of CuO-water nanofluid in a microchannel considering slip velocity and temperature jump. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2017, 39, 775-790.	0.8	55
26	Natural convection in T-shaped cavities filled with water-based suspensions of COOH-functionalized multi walled carbon nanotubes. International Journal of Mechanical Sciences, 2017, 121, 21-32.	3.6	53
27	Experimental study on rheological behavior of monograde heavy-duty engine oil containing CNTs and oxide nanoparticles with focus on viscosity analysis. Journal of Molecular Liquids, 2018, 272, 319-329.	2.3	49
28	Stagnation-point flow of Ag-CuO/water hybrid nanofluids over a permeable stretching/shrinking sheet with temporal stability analysis. Powder Technology, 2021, 380, 152-163.	2.1	48
29	Double-diffusive natural convective in a porous square enclosure filled with nanofluid. International Journal of Thermal Sciences, 2015, 95, 88-98.	2.6	36
30	Mixed Convection Flow and Heat Transfer in an Up-Driven, Inclined, Square Enclosure Subjected to DWCNT-Water Nanofluid Containing Three Circular Heat Sources. Current Nanoscience, 2017, 13, 311-323.	0.7	32
31	On the Thermal Performance of a Fractal Microchannel Subjected to Water and Kerosene Carbon Nanotube Nanofluid. Scientific Reports, 2020, 10, 7243.	1.6	31
32	Two-Phase Inertial Flow in Homogeneous Porous Media: A Theoretical Derivation of a Macroscopic Model. Transport in Porous Media, 2008, 75, 371-400.	1.2	28
33	Numerical simulation of double-diffusive mixed convection in an enclosure filled with nanofluid using Bejanâ€™s heatlines and masslines. AEJ - Alexandria Engineering Journal, 2018, 57, 1287-1300.	3.4	27
34	Experimental investigation of thermal conductivity behavior of MWCNTS-Al2O3/ethylene glycol hybrid Nanofluid: providing new thermal conductivity correlation. Heat and Mass Transfer, 2019, 55, 2329-2339.	1.2	27
35	Numerical Simulation of Two-Phase Inertial Flow in Heterogeneous Porous Media. Transport in Porous Media, 2010, 84, 177-200.	1.2	22
36	Mixed convection heat transfer: an experimental study on Cu/heat transfer oil nanofluids inside annular tube. Heat and Mass Transfer, 2017, 53, 2875-2884.	1.2	22

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37	Al/ oil nanofluids inside annular tube: an experimental study on convective heat transfer and pressure drop. Heat and Mass Transfer, 2018, 54, 1053-1067.	1.2	22
38	Heat transfer intensification in pin-fin heat sink by changing pin-length/longitudinal-pitch. Chemical Engineering and Processing: Process Intensification, 2019, 141, 107544.	1.8	22
39	Numerical investigation of nanofluid flow characteristics and heat transfer inside a twisted tube with elliptic cross section. Journal of Thermal Analysis and Calorimetry, 2020, 140, 1237-1257.	2.0	21
40	Numerical study of laminar-forced convection of Al2O3-water nanofluids between two parallel plates. Journal of Mechanical Science and Technology, 2017, 31, 785-796.	0.7	18
41	MHD wedge flow of nanofluids with an analytic solution to an especial case by Lambert W-function and Homotopy Perturbation Method. Engineering Science and Technology, an International Journal, 2017, 20, 1515-1530.	2.0	17
42	Double-pass shell-and-tube heat exchanger performance enhancement with new combined baffle and elliptical tube bundle arrangement. International Journal of Thermal Sciences, 2021, 167, 106999.	2.6	13
43	Statistical analysis of enriched water heat transfer with various sizes of MgO nanoparticles using artificial neural networks modeling. Physica A: Statistical Mechanics and Its Applications, 2020, 554, 123950.	1.2	11
44	Analysis of fluid flow and heat transfer of nanofluid inside triangular enclosure equipped with rotational obstacle. Journal of Mechanical Science and Technology, 2019, 33, 4917-4929.	0.7	10
45	Improving shell and tube heat exchanger thermohydraulic performance using combined baffle. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 30, 4119-4140.	1.6	10
46	Thermal radiation effect on the flow field and heat transfer of Co3O4-diamond/EG hybrid nanofluid using experimental data: A numerical study. European Physical Journal Plus, 2019, 134, 1.	1.2	9
47	Wings shape effect on behavior of hybrid nanofluid inside a channel having vortex generator. Heat and Mass Transfer, 2019, 55, 1969-1983.	1.2	9
48	NUMERICAL SIMULATION OF NATURAL CONVECTION AROUND AN OBSTACLE PLACED IN AN ENCLOSURE FILLED WITH DIFFERENT TYPE OF NANOFLUID. Heat Transfer Research, 2013, , .	0.9	9
49	Free Convection in a Nanofluid Filled Square Cavity with an Horizontal Heated Plate. Defect and Diffusion Forum, 0, 312-315, 433-438.	0.4	8
50	Nanofluid multi-morphology effect on dual-fluid sinusoidal-wavy grooved absorber tube parabolic trough solar collector performances enhancement based on experimental data. International Communications in Heat and Mass Transfer, 2021, 123, 105201.	2.9	8
51	Energy and exergy analyses of nanofluid-filled parabolic trough solar collector with acentric absorber tube and insulator roof. Journal of Thermal Analysis and Calorimetry, 2021, 145, 787-816.	2.0	7
52	Shell-and-tube heat exchangers performance improvement employing hybrid segmentalâ€"helical baffles and ribbed tubes combination. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1.	0.8	6
53	Enhanced heat transfer in pin fin heat sink working with nitrogen gasâ€"water two-phase flow: variable pin length and longitudinal pitch. Journal of Thermal Analysis and Calorimetry, 2020, 140, 2875-2901.	2.0	5
54	Twisted tape variable wavelength effect on nanofluid flow and heat transfer inside elliptical shape tube. European Physical Journal Plus, 2021, 136, 1.	1.2	4

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55	Estimation of Heat Transfer Coefficient and Thermal Performance Factor of TiO2-water Nanofluid Using Different Thermal Conductivity Models. Current Nanoscience, 2017, 13, .	0.7	4
56	Numerical Study of Mixed Convection Inside a Î"-Shaped Cavity with Mg(OH2)-EG Nanofluids. Current Nanoscience, 2017, 13, .	0.7	3
57	Numerical study of different conduction models for Al2O3-water nanofluid with variable properties inside a trapezoidal enclosure. Journal of Mechanical Science and Technology, 2017, 31, 2433-2441.	0.7	2
58	Determining the Optimum Arrangement of Micromixers in a Microchannel Filled with CuO-Water Nanofluid via Minimizing Entropy Generation. Defect and Diffusion Forum, 2017, 378, 39-58.	0.4	2
59	NATURAL CONVECTION IN NANOFLUID-FILLED SQUARE CHAMBERS SUBJECTED TO LINEAR HEATING ON BOTH SIDES: A NUMERICAL STUDY. Heat Transfer Research, 2017, 48, 771-785.	0.9	2
60	Numerical optimization of obstructed high temperature heat exchanger for recovery from the flue gases by considering ash fouling characteristics. International Journal of Numerical Methods for Heat and Fluid Flow, 2020, 30, 2273-2303.	1.6	2
61	Two-phase nanofluid flow simulation with different nanoparticle morphologies in a novel parabolic trough solar collector equipped with acentric absorber tube and insulator roof. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2020, 42, 1.	0.8	2
62	Experimental thermal analysis of a turbulent nano enriched water flow in a circular tube. Physica A: Statistical Mechanics and Its Applications, 2021, 580, 124010.	1.2	2
63	Molybdenum disulfide/water nanofluid morphology effects on the solar collector: first and second thermodynamic law analysis. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2021, 43, 1.	0.8	2
64	Dynamics of a bubble in a power-law fluid confined within an elastic solid. European Journal of Mechanics, B/Fluids, 2022, 94, 29-36.	1.2	2
65	Thermally developing flow of Al 2 O 3 -water nanofluid through regular N-sided polygonal ducts: A semi-analytic weighted residuals approach. International Journal of Refrigeration, 2017, 78, 136-156.	1.8	1
66	Brownian models effect on turbulent fluid flow and heat transfer and entropy generation of water/boehmite alumina nanofluid inside enclosure. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 30, 2305-2327.	1.6	1
67	Shell and tube heat exchanger thermal-hydraulic analysis equipped with baffles and corrugated tubes filled with non-Newtonian two-phase nanofluid. International Journal of Numerical Methods for Heat and Fluid Flow, 2021, 31, 1214-1244.	1.6	1
68	Numerical Comparison of Two and Three Dimensional Flow Regimes in Porous Media. Defect and Diffusion Forum, 0, 312-315, 427-432.	0.4	0
69	Performance evaluation and entropy generation of chevron-type plate-fin equipped with ribs and holes. Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science, 0, , 095440622110127.	1.1	0
70	NATURAL CONVECTION IN A NANOFLUID-FILLED SQUARE CAVITY WITH AN ARC-SHAPED HEATED BAFFLE. Computational Thermal Sciences, 2012, 4, 159-168.	0.5	0