Ali Akbar Abbasian Arani

List of Publications by Year in Descending Order

68 papers	2,808 citations	28 h-index	52 g-index
71 ext. papers	3,229 ext. citations	3.7 avg, IF	6.09 L-index

#	Paper	IF	Citations
68	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	5.8	5
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	4.5	
66	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	5.2	20
65	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	4.1	3
64	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	2	1
63	Twisted tape variable wavelength effect on nanofluid flow and heat transfer inside elliptical shape tube. *European Physical Journal Plus*, **2021**, 136, 1	3.1	2
62	Shell-and-tube heat exchangers performance improvement employing hybrid segmental-helical baffles and ribbed tubes combination. *Journal of the Brazilian Society of Mechanical Sciences and Engineering*, **2021**, 43, 1	2	2
61	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	4.1	4
60	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	4.1	12
59	Experimental thermal analysis of a turbulent nano enriched water flow in a circular tube. *Physica A: Statistical Mechanics and Its Applications*, **2020**, 124010	3.3	1
58	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	3.3	9
57	On the Thermal Performance of a Fractal Microchannel Subjected to Water and Kerosene Carbon Nanotube Nanofluid. *Scientific Reports*, **2020**, 10, 7243	4.9	19
56	Enhanced heat transfer in pin fin heat sink working with nitrogen gas/water two-phase flow: variable pin length and longitudinal pitch. *Journal of Thermal Analysis and Calorimetry*, **2020**, 140, 2875-2901	4.1	3
55	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	2	0
54	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	1.6	7
53	Heat transfer intensification in pin-fin heat sink by changing pin-length/longitudinal-pitch. *Chemical Engineering and Processing: Process Intensification*, **2019**, 141, 107544	3.7	8
52	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	4.5	1

51	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*, **2019**, 30, 2273-2303	4.5	1
50	Shell and tube heat exchanger optimization using new baffle and tube configuration. *Applied Thermal Engineering*, **2019**, 157, 113736	5.8	38
49	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	4.9	43
48	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	5.2	50
47	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	2.2	21
46	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	4.5	5
45	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	7.9	75
44	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	3.1	3
43	Wings shape effect on behavior of hybrid nanofluid inside a channel having vortex generator. *Heat and Mass Transfer*, **2019**, 55, 1969-1983	2.2	4
42	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	6	51
41	A study on rheological characteristics of hybrid nano-lubricants containing MWCNT-TiO2 nanoparticles. *Journal of Molecular Liquids*, **2018**, 260, 229-236	6	54
40	Numerical simulation of double-diffusive mixed convection in an enclosure filled with nanofluid using Bejan heatlines and masslines. *AEJ - Alexandria Engineering Journal*, **2018**, 57, 1287-1300	6.1	20
39	Al/ oil nanofluids inside annular tube: an experimental study on convective heat transfer and pressure drop. *Heat and Mass Transfer*, **2018**, 54, 1053-1067	2.2	16
38	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	5.8	93
37	ANN modeling, cost performance and sensitivity analyzing of thermal conductivity of DWCNTSiO2/EG hybrid nanofluid for higher heat transfer. *Journal of Thermal Analysis and Calorimetry*, **2018**, 131, 2381-2393	4.1	93
36	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	6	40
35	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	2	46
34	Estimation of thermal conductivity of ethylene glycol-based nanofluid with hybrid suspensions of SWCNTAl2O3 nanoparticles by correlation and ANN methods using experimental data. *Journal of Thermal Analysis and Calorimetry*, **2017**, 128, 1359-1371	4.1	112

33	Numerical study of laminar-forced convection of Al2O3-water nanofluids between two parallel plates. *Journal of Mechanical Science and Technology*, **2017**, 31, 785-796	1.6	12
32	Thermally developing flow of Al2O3-water nanofluid through regular N-sided polygonal ducts: A semi-analytic weighted residuals approach. *International Journal of Refrigeration*, **2017**, 78, 136-156	3.8	1
31	Experimental investigation on non-Newtonian behavior of Al2O3-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	5.8	81
30	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	1.6	2
29	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	5.5	77
28	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	4.9	180
27	Mixed convection heat transfer: an experimental study on Cu/heat transfer oil nanofluids inside annular tube. *Heat and Mass Transfer*, **2017**, 53, 2875-2884	2.2	10
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	5.5	41
25	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	0.7	2
24	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	6	82
23	Application of three-level general factorial design approach for thermal conductivity of MgO/water nanofluids. *Applied Thermal Engineering*, **2017**, 127, 1194-1199	5.8	79
22	MHD wedge flow of nanofluids with an analytic solution to an especial case by Lambert W-function and Homotopy Perturbation Method **2017**, 20, 1515-1530		10
21	Thermal conductivity enhancement of SiO2□MWCNT (85:15 %)□EG hybrid nanofluids. *Journal of Thermal Analysis and Calorimetry*, **2017**, 128, 249-258	4.1	122
20	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	5.8	84
19	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	5.8	96
18	NATURAL CONVECTION IN NANOFLUID-FILLED SQUARE CHAMBERS SUBJECTED TO LINEAR HEATING ON BOTH SIDES: A NUMERICAL STUDY. *Heat Transfer Research*, **2017**, 48, 771-785	3.9	1
17	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	1.4	28
16	Estimation of Heat Transfer Coefficient and Thermal Performance Factor of TiO2-water Nanofluid Using Different Thermal Conductivity Models. *Current Nanoscience*, **2017**, 13,	1.4	4

15	Numerical Study of Mixed Convection Inside a □Shaped Cavity with Mg(OH2)-EG Nanofluids. *Current Nanoscience*, **2017**, 13,	1.4	3
14	Natural convection in a trapezoidal enclosure filled with carbon nanotube□EG□water nanofluid. *International Journal of Heat and Mass Transfer*, **2016**, 92, 76-82	4.9	106
13	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	5.8	73
12	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	4.9	85
11	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	5.8	355
10	Double-diffusive natural convective in a porous square enclosure filled with nanofluid. *International Journal of Thermal Sciences*, **2015**, 95, 88-98	4.1	30
9	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	3	141
8	NUMERICAL SIMULATION OF NATURAL CONVECTION AROUND AN OBSTACLE PLACED IN AN ENCLOSURE FILLED WITH DIFFERENT TYPE OF NANOFLUID. *Heat Transfer Research*, **2013**,	3.9	5
7	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	2.8	62
6	Experimental study on the effect of TiO2□water nanofluid on heat transfer and pressure drop. *Experimental Thermal and Fluid Science*, **2012**, 42, 107-115	3	124
5	Numerical Comparison of Two and Three Dimensional Flow Regimes in Porous Media. *Defect and Diffusion Forum*, **2011**, 312-315, 427-432	0.7	
4	Free Convection in a Nanofluid Filled Square Cavity with an Horizontal Heated Plate. *Defect and Diffusion Forum*, **2011**, 312-315, 433-438	0.7	5
3	Numerical Simulation of Two-Phase Inertial Flow in Heterogeneous Porous Media. *Transport in Porous Media*, **2010**, 84, 177-200	3.1	19
2	Two-Phase Inertial Flow in Homogeneous Porous Media: A Theoretical Derivation of a Macroscopic Model. *Transport in Porous Media*, **2008**, 75, 371-400	3.1	25
1	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*,095440622110127	1.3	