

Ali Akbar Abbasian Arani

List of Publications by Citations

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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	Experimental determination of thermal conductivity and dynamic viscosity of Ag/MgO/water hybrid nanofluid. <i>International Communications in Heat and Mass Transfer</i> , 2015 , 66, 189-195	5.8	355
67	Heat transfer improvement of water/single-wall carbon nanotubes (SWCNT) nanofluid in a novel design of a truncated double-layered microchannel heat sink. <i>International Journal of Heat and Mass Transfer</i> , 2017 , 113, 780-795	4.9	180
66	Experimental investigation of diameter effect on heat transfer performance and pressure drop of TiO ₂ /water nanofluid. <i>Experimental Thermal and Fluid Science</i> , 2013 , 44, 520-533	3	141
65	Experimental study on the effect of TiO ₂ /water nanofluid on heat transfer and pressure drop. <i>Experimental Thermal and Fluid Science</i> , 2012 , 42, 107-115	3	124
64	Thermal conductivity enhancement of SiO ₂ /MWCNT (85:15 %)EG hybrid nanofluids. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017 , 128, 249-258	4.1	122
63	Estimation of thermal conductivity of ethylene glycol-based nanofluid with hybrid suspensions of SWCNT/Al ₂ O ₃ nanoparticles by correlation and ANN methods using experimental data. <i>Journal of Thermal Analysis and Calorimetry</i> , 2017 , 128, 1359-1371	4.1	112
62	Natural convection in a trapezoidal enclosure filled with carbon nanotube/EG/water nanofluid. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 92, 76-82	4.9	106
61	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. <i>International Communications in Heat and Mass Transfer</i> , 2017 , 82, 154-160	5.8	96
60	Improving engine oil lubrication in light-duty vehicles by using of dispersing MWCNT and ZnO nanoparticles in 5W50 as viscosity index improvers (VII). <i>Applied Thermal Engineering</i> , 2018 , 143, 493-506	5.8	93
59	ANN modeling, cost performance and sensitivity analyzing of thermal conductivity of DWCNT/BiO ₂ /EG hybrid nanofluid for higher heat transfer. <i>Journal of Thermal Analysis and Calorimetry</i> , 2018 , 131, 2381-2393	4.1	93
58	Mixed convection heat transfer from surface-mounted block heat sources in a horizontal channel with nanofluids. <i>International Journal of Heat and Mass Transfer</i> , 2015 , 89, 783-791	4.9	85
57	Multi-objective optimization of cost and thermal performance of double walled carbon nanotubes/water nanofluids by NSGA-II using response surface method. <i>Applied Thermal Engineering</i> , 2017 , 112, 1648-1657	5.8	84
56	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. <i>Journal of Molecular Liquids</i> , 2017 , 244, 252-261	6	82
55	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. <i>International Communications in Heat and Mass Transfer</i> , 2017 , 82, 97-102	5.8	81
54	Application of three-level general factorial design approach for thermal conductivity of MgO/water nanofluids. <i>Applied Thermal Engineering</i> , 2017 , 127, 1194-1199	5.8	79
53	Nanoparticle shape effects on thermal-hydraulic performance of boehmite alumina nanofluids in a sinusoidal/wavy mini-channel with phase shift and variable wavelength. <i>International Journal of Mechanical Sciences</i> , 2017 , 128-129, 550-563	5.5	77
52	Proposing new hybrid nano-engine oil for lubrication of internal combustion engines: Preventing cold start engine damages and saving energy. <i>Energy</i> , 2019 , 170, 228-238	7.9	75

51	The optimization of viscosity and thermal conductivity in hybrid nanofluids prepared with magnetic nanocomposite of nanodiamond cobalt-oxide (ND-Co ₃ O ₄) using NSGA-II and RSM. <i>International Communications in Heat and Mass Transfer</i> , 2016 , 79, 128-134	5.8	73
50	Numerical study of mixed convection flow in a lid-driven cavity with sinusoidal heating on sidewalls using nanofluid. <i>Superlattices and Microstructures</i> , 2012 , 51, 893-911	2.8	62
49	A study on rheological characteristics of hybrid nano-lubricants containing MWCNT-TiO ₂ nanoparticles. <i>Journal of Molecular Liquids</i> , 2018 , 260, 229-236	6	54
48	An experimental determination and accurate prediction of dynamic viscosity of MWCNT(%40)-SiO ₂ (%60)/5W50 nano-lubricant. <i>Journal of Molecular Liquids</i> , 2018 , 259, 227-237	6	51
47	Proposing a modified engine oil to reduce cold engine start damages and increase safety in high temperature operating conditions. <i>Powder Technology</i> , 2019 , 355, 251-263	5.2	50
46	MHD forced convection and entropy generation of CuO-water nanofluid in a microchannel considering slip velocity and temperature jump. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2017 , 39, 775-790	2	46
45	On the thermal characteristics of a manifold microchannel heat sink subjected to nanofluid using two-phase flow simulation. <i>International Journal of Heat and Mass Transfer</i> , 2019 , 143, 118518	4.9	43
44	Natural convection in T-shaped cavities filled with water-based suspensions of COOH-functionalized multi walled carbon nanotubes. <i>International Journal of Mechanical Sciences</i> , 2017 , 121, 21-32	5.5	41
43	Experimental study on rheological behavior of monograde heavy-duty engine oil containing CNTs and oxide nanoparticles with focus on viscosity analysis. <i>Journal of Molecular Liquids</i> , 2018 , 272, 319-329 ⁶		40
42	Shell and tube heat exchanger optimization using new baffle and tube configuration. <i>Applied Thermal Engineering</i> , 2019 , 157, 113736	5.8	38
41	Double-diffusive natural convective in a porous square enclosure filled with nanofluid. <i>International Journal of Thermal Sciences</i> , 2015 , 95, 88-98	4.1	30
40	Mixed Convection Flow and Heat Transfer in an Up-Driven, Inclined, Square Enclosure Subjected to DWCNT-Water Nanofluid Containing Three Circular Heat Sources. <i>Current Nanoscience</i> , 2017 , 13, 311-323 ¹⁴		28
39	Two-Phase Inertial Flow in Homogeneous Porous Media: A Theoretical Derivation of a Macroscopic Model. <i>Transport in Porous Media</i> , 2008 , 75, 371-400	3.1	25
38	Experimental investigation of thermal conductivity behavior of MWCNTs-Al ₂ O ₃ /ethylene glycol hybrid Nanofluid: providing new thermal conductivity correlation. <i>Heat and Mass Transfer</i> , 2019 , 55, 2329-2339 ²¹		
37	Numerical simulation of double-diffusive mixed convection in an enclosure filled with nanofluid using Bejan's heatlines and masslines. <i>AEJ - Alexandria Engineering Journal</i> , 2018 , 57, 1287-1300	6.1	20
36	Stagnation-point flow of Ag-CuO/water hybrid nanofluids over a permeable stretching/shrinking sheet with temporal stability analysis. <i>Powder Technology</i> , 2021 , 380, 152-163	5.2	20
35	On the Thermal Performance of a Fractal Microchannel Subjected to Water and Kerosene Carbon Nanotube Nanofluid. <i>Scientific Reports</i> , 2020 , 10, 7243	4.9	19
34	Numerical Simulation of Two-Phase Inertial Flow in Heterogeneous Porous Media. <i>Transport in Porous Media</i> , 2010 , 84, 177-200	3.1	19

33	Al/ oil nanofluids inside annular tube: an experimental study on convective heat transfer and pressure drop. <i>Heat and Mass Transfer</i> , 2018 , 54, 1053-1067	2.2	16
32	Numerical study of laminar-forced convection of Al ₂ O ₃ -water nanofluids between two parallel plates. <i>Journal of Mechanical Science and Technology</i> , 2017 , 31, 785-796	1.6	12
31	Numerical investigation of nanofluid flow characteristics and heat transfer inside a twisted tube with elliptic cross section. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020 , 140, 1237-1257	4.1	12
30	Mixed convection heat transfer: an experimental study on Cu/heat transfer oil nanofluids inside annular tube. <i>Heat and Mass Transfer</i> , 2017 , 53, 2875-2884	2.2	10
29	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
28	Statistical analysis of enriched water heat transfer with various sizes of MgO nanoparticles using artificial neural networks modeling. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020 , 554, 123950 ³		9
27	Heat transfer intensification in pin-fin heat sink by changing pin-length/longitudinal-pitch. <i>Chemical Engineering and Processing: Process Intensification</i> , 2019 , 141, 107544	3.7	8
26	Analysis of fluid flow and heat transfer of nanofluid inside triangular enclosure equipped with rotational obstacle. <i>Journal of Mechanical Science and Technology</i> , 2019 , 33, 4917-4929	1.6	7
25	Free Convection in a Nanofluid Filled Square Cavity with an Horizontal Heated Plate. <i>Defect and Diffusion Forum</i> , 2011 , 312-315, 433-438	0.7	5
24	NUMERICAL SIMULATION OF NATURAL CONVECTION AROUND AN OBSTACLE PLACED IN AN ENCLOSURE FILLED WITH DIFFERENT TYPE OF NANOFLUID. <i>Heat Transfer Research</i> , 2013 ,	3.9	5
23	Nanofluid multi-morphology effect on dual-fluid sinusoidal-wavy grooved absorber tube parabolic trough solar collector performances enhancement based on experimental data. <i>International Communications in Heat and Mass Transfer</i> , 2021 , 123, 105201	5.8	5
22	Improving shell and tube heat exchanger thermohydraulic performance using combined baffle. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019 , 30, 4119-4140	4.5	5
21	Estimation of Heat Transfer Coefficient and Thermal Performance Factor of TiO ₂ -water Nanofluid Using Different Thermal Conductivity Models. <i>Current Nanoscience</i> , 2017 , 13,	1.4	4
20	Wings shape effect on behavior of hybrid nanofluid inside a channel having vortex generator. <i>Heat and Mass Transfer</i> , 2019 , 55, 1969-1983	2.2	4
19	Double-pass shell-and-tube heat exchanger performance enhancement with new combined baffle and elliptical tube bundle arrangement. <i>International Journal of Thermal Sciences</i> , 2021 , 167, 106999	4.1	4
18	Numerical Study of Mixed Convection Inside a E-Shaped Cavity with Mg(OH) ₂ -EG Nanofluids. <i>Current Nanoscience</i> , 2017 , 13,	1.4	3
17	Enhanced heat transfer in pin fin heat sink working with nitrogen gas/water two-phase flow: variable pin length and longitudinal pitch. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020 , 140, 2875-2901	4.1	3
16	Thermal radiation effect on the flow field and heat transfer of Co ₃ O ₄ -diamond/EG hybrid nanofluid using experimental data: A numerical study. <i>European Physical Journal Plus</i> , 2019 , 134, 1	3.1	3

15	Energy and exergy analyses of nanofluid-filled parabolic trough solar collector with acentric absorber tube and insulator roof. <i>Journal of Thermal Analysis and Calorimetry</i> , 2021 , 145, 787-816	4.1	3
14	Numerical study of different conduction models for Al ₂ O ₃ -water nanofluid with variable properties inside a trapezoidal enclosure. <i>Journal of Mechanical Science and Technology</i> , 2017 , 31, 2433-2441	1.6	2
13	Determining the Optimum Arrangement of Micromixers in a Microchannel Filled with CuO-Water Nanofluid via Minimizing Entropy Generation. <i>Defect and Diffusion Forum</i> , 2017 , 378, 39-58	0.7	2
12	Twisted tape variable wavelength effect on nanofluid flow and heat transfer inside elliptical shape tube. <i>European Physical Journal Plus</i> , 2021 , 136, 1	3.1	2
11	Shell-and-tube heat exchangers performance improvement employing hybrid segmental helical baffles and ribbed tubes combination. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2021 , 43, 1	2	2
10	Thermally developing flow of Al ₂ O ₃ -water nanofluid through regular N-sided polygonal ducts: A semi-analytic weighted residuals approach. <i>International Journal of Refrigeration</i> , 2017 , 78, 136-156	3.8	1
9	Brownian models effect on turbulent fluid flow and heat transfer and entropy generation of water/boehmite alumina nanofluid inside enclosure. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019 , 30, 2305-2327	4.5	1
8	Numerical optimization of obstructed high temperature heat exchanger for recovery from the flue gases by considering ash fouling characteristics. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2019 , 30, 2273-2303	4.5	1
7	Experimental thermal analysis of a turbulent nano enriched water flow in a circular tube. <i>Physica A: Statistical Mechanics and Its Applications</i> , 2020 , 124010	3.3	1
6	NATURAL CONVECTION IN NANOFUID-FILLED SQUARE CHAMBERS SUBJECTED TO LINEAR HEATING ON BOTH SIDES: A NUMERICAL STUDY. <i>Heat Transfer Research</i> , 2017 , 48, 771-785	3.9	1
5	Molybdenum disulfide/water nanofluid morphology effects on the solar collector: first and second thermodynamic law analysis. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2021 , 43, 1	2	1
4	Two-phase nanofluid flow simulation with different nanoparticle morphologies in a novel parabolic trough solar collector equipped with acentric absorber tube and insulator roof. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2020 , 42, 1	2	0
3	Numerical Comparison of Two and Three Dimensional Flow Regimes in Porous Media. <i>Defect and Diffusion Forum</i> , 2011 , 312-315, 427-432	0.7	
2	Performance evaluation and entropy generation of chevron-type plate-fin equipped with ribs and holes. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 095440622110127	1.3	
1	Shell and tube heat exchanger thermal-hydraulic analysis equipped with baffles and corrugated tubes filled with non-Newtonian two-phase nanofluid. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , 2021 , 31, 1214-1244	4.5	