Masoud Afrand

List of Publications by Citations

433 papers	22,736 citations	91 h-index	125 g-index
439 ext. papers	26,528 ext. citations	4.6 avg, IF	8.28 L-index

#	Paper	IF	Citations
433	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
432	Experimental study on thermal conductivity of ethylene glycol containing hybrid nano-additives and development of a new correlation. *Applied Thermal Engineering*, **2017**, 110, 1111-1119	5.8	252
431	Effects of temperature and nanoparticles concentration on rheological behavior of Fe3O4 Ag/EG hybrid nanofluid: An experimental study. *Experimental Thermal and Fluid Science*, **2016**, 77, 38-44	3	248
430	An experimental study on thermal conductivity of F-MWCNTs Fe 3 O 4 /EG hybrid nanofluid: Effects of temperature and concentration. *International Communications in Heat and Mass Transfer*, **2016**, 76, 171-177	5.8	246
429	Measurement of thermal conductivity of ZnO TiO2/EG hybrid nanofluid. *Journal of Thermal Analysis and Calorimetry*, **2016**, 125, 527-535	4.1	244
428	Mixed convection of copper water nanofluid in a shallow inclined lid driven cavity using the lattice Boltzmann method. *Physica A: Statistical Mechanics and Its Applications*, **2014**, 402, 150-168	3.3	235
427	An experimental study on the effect of diameter on thermal conductivity and dynamic viscosity of Fe/water nanofluids. *Journal of Thermal Analysis and Calorimetry*, **2015**, 119, 1817-1824	4.1	225
426	Effects of temperature and solid volume fraction on viscosity of SiO2-MWCNTs/SAE40 hybrid nanofluid as a coolant and lubricant in heat engines. *Applied Thermal Engineering*, **2016**, 102, 45-54	5.8	219
425	Simulation of copper water nanofluid in a microchannel in slip flow regime using the lattice Boltzmann method. *European Journal of Mechanics, B/Fluids*, **2015**, 49, 89-99	2.4	209
424	Experimental study on thermal conductivity of water-based Fe3O4 nanofluid: Development of a new correlation and modeled by artificial neural network. *International Communications in Heat and Mass Transfer*, **2016**, 75, 262-269	5.8	203
423	An updated review on application of nanofluids in heat exchangers for saving energy. *Energy Conversion and Management*, **2019**, 198, 111886	10.6	193
422	Thermal conductivity modeling of MgO/EG nanofluids using experimental data and artificial neural network. *Journal of Thermal Analysis and Calorimetry*, **2014**, 118, 287-294	4.1	190
421	Thermophysical properties, heat transfer and pressure drop of COOH-functionalized multi walled carbon nanotubes/water nanofluids. *International Communications in Heat and Mass Transfer*, **2014**, 58, 176-183	5.8	186
420	Heat transfer efficiency of Al2O3-MWCNT/thermal oil hybrid nanofluid as a cooling fluid in thermal and energy management applications: An experimental and theoretical investigation. *International Journal of Heat and Mass Transfer*, **2018**, 117, 474-486	4.9	185
419	Experimental studies on the convective heat transfer performance and thermophysical properties of MgO water nanofluid under turbulent flow. *Experimental Thermal and Fluid Science*, **2014**, 52, 68-78	3	180
418	Effects of temperature and concentration on rheological behavior of MWCNTs/SiO2(20 80)-SAE40 hybrid nano-lubricant. *International Communications in Heat and Mass Transfer*, **2016**, 76, 133-138	5.8	177
417	An applicable study on the thermal conductivity of SWCNT-MgO hybrid nanofluid and price-performance analysis for energy management. *Applied Thermal Engineering*, **2017**, 111, 1202-1210	5.8	176

416	Designing an artificial neural network to predict dynamic viscosity of aqueous nanofluid of TiO2 using experimental data. *International Communications in Heat and Mass Transfer*, **2016**, 75, 192-196	5.8	173
415	A new correlation for predicting the thermal conductivity of ZnO□Ag (50%□50%)/water hybrid nanofluid: An experimental study. *Powder Technology*, **2018**, 323, 367-373	5.2	170
414	Evaluation of thermal conductivity of MgO-MWCNTs/EG hybrid nanofluids based on experimental data by selecting optimal artificial neural networks. *Physica E: Low-Dimensional Systems and Nanostructures*, **2017**, 85, 90-96	3	166
413	An experimental study on rheological behavior of non-Newtonian hybrid nano-coolant for application in cooling and heating systems. *Experimental Thermal and Fluid Science*, **2016**, 76, 221-227	3	160
412	An inspection of thermal conductivity of CuO-SWCNTs hybrid nanofluid versus temperature and concentration using experimental data, ANN modeling and new correlation. *Journal of Molecular Liquids*, **2017**, 231, 364-369	6	155
411	Experimental study on thermal conductivity of ethylene glycol based nanofluids containing Al2O3 nanoparticles. *International Journal of Heat and Mass Transfer*, **2015**, 88, 728-734	4.9	155
410	Thermal conductivity enhancement of COOH-functionalized MWCNTs/ethylene glycol□water nanofluid for application in heating and cooling systems. *Applied Thermal Engineering*, **2016**, 105, 716-723	5.8	155
409	Examination of rheological behavior of MWCNTs/ZnO-SAE40 hybrid nano-lubricants under various temperatures and solid volume fractions. *Experimental Thermal and Fluid Science*, **2017**, 80, 384-390	3	154
408	Designing an artificial neural network to predict thermal conductivity and dynamic viscosity of ferromagnetic nanofluid. *International Communications in Heat and Mass Transfer*, **2015**, 68, 50-57	5.8	154
407	Experimental determination of viscosity of water based magnetite nanofluid for application in heating and cooling systems. *Journal of Magnetism and Magnetic Materials*, **2016**, 417, 243-248	2.8	154
406	Applicability of artificial neural network and nonlinear regression to predict thermal conductivity modeling of Al2O3□water nanofluids using experimental data. *International Communications in Heat and Mass Transfer*, **2015**, 66, 246-249	5.8	147
405	An experimental investigation and new correlation of viscosity of ZnO□EG nanofluid at various temperatures and different solid volume fractions. *Experimental Thermal and Fluid Science*, **2014**, 55, 1-5	3	145
404	Experimental study on thermal conductivity of DWCNT-ZnO/water-EG nanofluids. *International Communications in Heat and Mass Transfer*, **2015**, 68, 248-251	5.8	144
403	Heat transfer characteristics and pressure drop of COOH-functionalized DWCNTs/water nanofluid in turbulent flow at low concentrations. *International Journal of Heat and Mass Transfer*, **2014**, 73, 186-194	4.9	144
402	Effect of suspending hybrid nano-additives on rheological behavior of engine oil and pumping power. *Applied Thermal Engineering*, **2016**, 109, 524-534	5.8	144
401	Investigation of heat transfer performance and friction factor of a counter-flow double-pipe heat exchanger using nitrogen-doped, graphene-based nanofluids. *International Communications in Heat and Mass Transfer*, **2016**, 76, 16-23	5.8	138
400	Prediction of dynamic viscosity of a hybrid nano-lubricant by an optimal artificial neural network. *International Communications in Heat and Mass Transfer*, **2016**, 76, 209-214	5.8	137
399	Experimental evaluation, sensitivity analyzation and ANN modeling of thermal conductivity of ZnO-MWCNT/EG-water hybrid nanofluid for engineering applications. *Applied Thermal Engineering*, **2017**, 125, 673-685	5.8	136

398	Study on thermal conductivity of water-based nanofluids with hybrid suspensions of CNTs/Al2O3 nanoparticles. *Journal of Thermal Analysis and Calorimetry*, **2016**, 124, 455-460	4.1	136
397	Thermal conductivity of Al2O3/water nanofluids. *Journal of Thermal Analysis and Calorimetry*, **2014**, 117, 675-681	4.1	135
396	Investigation of rheological behavior of MWCNT (COOH-functionalized)/MgO - Engine oil hybrid nanofluids and modelling the results with artificial neural networks. *Journal of Molecular Liquids*, **2017**, 241, 173-181	6	133
395	Heat transfer reduction in buildings by embedding phase change material in multi-layer walls: Effects of repositioning, thermophysical properties and thickness of PCM. *Energy Conversion and Management*, **2019**, 195, 43-56	10.6	133
394	Estimation of thermal conductivity of Al2O3/water (40%)Ethylene glycol (60%) by artificial neural network and correlation using experimental data. *International Communications in Heat and Mass Transfer*, **2016**, 74, 125-128	5.8	132
393	Effects of temperature and concentration on the viscosity of nanofluids made of single-wall carbon nanotubes in ethylene glycol. *International Communications in Heat and Mass Transfer*, **2016**, 74, 108-113	5.8	131
392	An experimental study on stability and thermal conductivity of water/silica nanofluid: Eco-friendly production of nanoparticles. *Journal of Cleaner Production*, **2019**, 206, 1089-1100	10.3	129
391	An experimental study on rheological behavior of hybrid nanofluids made of iron and copper oxide in a binary mixture of water and ethylene glycol: Non-Newtonian behavior. *Experimental Thermal and Fluid Science*, **2016**, 79, 231-237	3	127
390	An experimental study on viscosity of alumina-engine oil: Effects of temperature and nanoparticles concentration. *International Communications in Heat and Mass Transfer*, **2016**, 76, 202-208	5.8	127
389	Recent advances in preparation methods and thermophysical properties of oil-based nanofluids: A state-of-the-art review. *Powder Technology*, **2019**, 352, 209-226	5.2	126
388	Modeling of thermal conductivity of MWCNT-SiO2 (30:70%)/EG hybrid nanofluid, sensitivity analyzing and cost performance for industrial applications. *Journal of Thermal Analysis and Calorimetry*, **2018**, 131, 1437-1447	4.1	126
387	A review of melting and freezing processes of PCM/nano-PCM and their application in energy storage. *Energy*, **2020**, 211, 118698	7.9	124
386	Thermal conductivity enhancement of SiO2MWCNT (85:15 %)EG hybrid nanofluids. *Journal of Thermal Analysis and Calorimetry*, **2017**, 128, 249-258	4.1	122
385	Effect of sonication characteristics on stability, thermophysical properties, and heat transfer of nanofluids: A comprehensive review. *Ultrasonics Sonochemistry*, **2019**, 58, 104701	8.9	120
384	Turbulent forced convection heat transfer and thermophysical properties of Mgowater nanofluid with consideration of different nanoparticles diameter, an empirical study. *Journal of Thermal Analysis and Calorimetry*, **2015**, 119, 1205-1213	4.1	117
383	Modeling of thermal conductivity of ZnO-EG using experimental data and ANN methods. *International Communications in Heat and Mass Transfer*, **2015**, 63, 35-40	5.8	116
382	Evaluation of thermal conductivity of COOH-functionalized MWCNTs/water via temperature and solid volume fraction by using experimental data and ANN methods. *Journal of Thermal Analysis and Calorimetry*, **2015**, 121, 1273-1278	4.1	115
381	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

380	A numerical study of natural convection in a vertical annulus filled with gallium in the presence of magnetic field. *Journal of Magnetism and Magnetic Materials*, **2017**, 430, 22-28	2.8	110
379	Applications of feedforward multilayer perceptron artificial neural networks and empirical correlation for prediction of thermal conductivity of Mg(OH) 2 EG using experimental data. *International Communications in Heat and Mass Transfer*, **2015**, 67, 46-50	5.8	110
378	Predicting the viscosity of multi-walled carbon nanotubes/water nanofluid by developing an optimal artificial neural network based on experimental data. *International Communications in Heat and Mass Transfer*, **2016**, 77, 49-53	5.8	110
377	Evaluating the effect of temperature and concentration on the thermal conductivity of ZnO-TiO2/EG hybrid nanofluid using artificial neural network and curve fitting on experimental data. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 519, 209-216	3.3	109
376	Multi-objective optimization of nanofluid flow in double tube heat exchangers for applications in energy systems. *Energy*, **2017**, 137, 160-171	7.9	107
375	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
374	Experimental evaluation of dynamic viscosity of ZnO MWCNTs/engine oil hybrid nanolubricant based on changes in temperature and concentration. *Journal of Thermal Analysis and Calorimetry*, **2019**, 136, 513-525	4.1	106
373	Developing dissimilar artificial neural networks (ANNs) to prediction the thermal conductivity of MWCNT-TiO2/Water-ethylene glycol hybrid nanofluid. *Powder Technology*, **2019**, 355, 602-610	5.2	106
372	An experimental evaluation of the effect of ZnO nanoparticles on the rheological behavior of engine oil. *Journal of Molecular Liquids*, **2017**, 236, 198-204	6	105
371	Effect of two isothermal obstacles on the natural convection of nanofluid in the presence of magnetic field inside an enclosure with sinusoidal wall temperature distribution. *International Journal of Heat and Mass Transfer*, **2018**, 121, 565-578	4.9	105
370	Molecular dynamic simulation of Copper and Platinum nanoparticles Poiseuille flow in a nanochannels. *Physica E: Low-Dimensional Systems and Nanostructures*, **2016**, 84, 152-161	3	105
369	Studies on optimum fins number in PCM-based heat sinks. *Energy*, **2019**, 171, 1088-1099	7.9	105
368	Numerical investigation of heat transfer in a power-law non-Newtonian fluid in a C-Shaped cavity with magnetic field effect using finite difference lattice Boltzmann method. *Computers and Fluids*, **2018**, 176, 51-67	2.8	105
367	An experimental study on thermal conductivity of MgO nanoparticles suspended in a binary mixture of water and ethylene glycol. *International Communications in Heat and Mass Transfer*, **2015** , 67, 173-175	5.8	104
366	Performance investigation of micro- and nano-sized particle erosion in a 90 elbow using an ANFIS model. *Powder Technology*, **2015**, 284, 336-343	5.2	103
365	A comprehensive review on rheological behavior of mono and hybrid nanofluids: Effective parameters and predictive correlations. *International Journal of Heat and Mass Transfer*, **2018**, 127, 997-1012	4.9	103
364	Natural convective heat transfer and entropy generation of alumina/water nanofluid in a tilted enclosure with an elliptic constant temperature: Applying magnetic field and radiation effects. *International Journal of Mechanical Sciences*, **2020**, 174, 105470	5.5	102
363	A renewable energy-driven thermoelectric-utilized solar still with external condenser loaded by silver/nanofluid for simultaneously water disinfection and desalination. *Desalination*, **2020**, 480, 114354	10.3	102

362	Investigation of free convection heat transfer and entropy generation of nanofluid flow inside a cavity affected by magnetic field and thermal radiation. *Journal of Thermal Analysis and Calorimetry*, **2019**, 137, 997-1019	4.1	102
361	An experimental study on the thermal conductivity of cerium oxide/ethylene glycol nanofluid: developing a new correlation. *Journal of Molecular Liquids*, **2018**, 266, 211-217	6	100
360	Experimental evaluation, new correlation proposing and ANN modeling of thermal properties of EG based hybrid nanofluid containing ZnO-DWCNT nanoparticles for internal combustion engines applications. *Applied Thermal Engineering*, **2018**, 133, 452-463	5.8	99
359	Electro- and thermophysical properties of water-based nanofluids containing copper ferrite nanoparticles coated with silica: Experimental data, modeling through enhanced ANN and curve fitting. *International Journal of Heat and Mass Transfer*, **2018**, 127, 925-935	4.9	98
358	Experimental investigation of thermal conductivity of CNTs-Al2O3/water: A statistical approach. *International Communications in Heat and Mass Transfer*, **2015**, 69, 29-33	5.8	97
357	Evaluation of rheological behavior of 10W40 lubricant containing hybrid nano-material by measuring dynamic viscosity. *Physica E: Low-Dimensional Systems and Nanostructures*, **2017**, 92, 47-54	3	96
356	Experimental investigation and development of new correlations for thermal conductivity of CuO/EG□water nanofluid. *International Communications in Heat and Mass Transfer*, **2015**, 65, 47-51	5.8	96
355	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
354	Thermal conductivity and viscosity of Mg(OH)2-ethylene glycol nanofluids. *Journal of Thermal Analysis and Calorimetry*, **2015**, 120, 1145-1149	4.1	96
353	Assessment of thermal conductivity enhancement of nano-antifreeze containing single-walled carbon nanotubes: Optimal artificial neural network and curve-fitting. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 521, 138-145	3.3	95
352	Designing an Artificial Neural Network (ANN) to predict the viscosity of Silver/Ethylene glycol nanofluid at different temperatures and volume fraction of nanoparticles. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 534, 122142	3.3	95
351	A survey on experimental and numerical studies of convection heat transfer of nanofluids inside closed conduits. *Advances in Mechanical Engineering*, **2016**, 8, 168781401667356	1.2	94
350	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
349	Effect of a novel clay/silica nanocomposite on water-based drilling fluids: Improvements in rheological and filtration properties. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2018**, 555, 339-350	5.1	93
348	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	4.1	93
347	Predicting the effects of magnesium oxide nanoparticles and temperature on the thermal conductivity of water using artificial neural network and experimental data. *Physica E: Low-Dimensional Systems and Nanostructures*, **2017**, 87, 242-247	3	92
346	Designing artificial neural network on thermal conductivity of Al2O3□water□EG (60□40 %) nanofluid using experimental data. *Journal of Thermal Analysis and Calorimetry*, **2016**, 126, 837-843	4.1	92
345	Develop 24 dissimilar ANNs by suitable architectures & training algorithms via sensitivity analysis to better statistical presentation: Measure MSEs between targets & ANN for Fe□CuO/Eg□Water nanofluid. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 519, 159-168	3.3	92

344	Thermal conductivity and viscosity optimization of nanodiamond-Co3O4/EG (40:60) aqueous nanofluid using NSGA-II coupled with RSM. *Journal of Molecular Liquids*, **2017**, 238, 545-552	6	91
343	Modeling and estimation of thermal conductivity of MgO□water/EG (60:40) by artificial neural network and correlation. *International Communications in Heat and Mass Transfer*, **2015**, 68, 98-103	5.8	91
342	Using artificial neural network to predict thermal conductivity of ethylene glycol with alumina nanoparticle. *Journal of Thermal Analysis and Calorimetry*, **2016**, 126, 643-648	4.1	91
341	Estimation of thermal conductivity of CNTs-water in low temperature by artificial neural network and correlation. *International Communications in Heat and Mass Transfer*, **2016**, 76, 376-381	5.8	90
340	Rheological behavior characteristics of TiO2-MWCNT/10w40 hybrid nano-oil affected by temperature, concentration and shear rate: An experimental study and a neural network simulating. *Physica E: Low-Dimensional Systems and Nanostructures*, **2017**, 94, 231-240	3	90
339	Effects of graphene oxide-silicon oxide hybrid nanomaterials on rheological behavior of water at various time durations and temperatures: Synthesis, preparation and stability. *Powder Technology*, **2018**, 335, 375-387	5.2	90
338	Entropy generation of boehmite alumina nanofluid flow through a minichannel heat exchanger considering nanoparticle shape effect. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 521, 724-736	3.3	89
337	Appraising influence of COOH-MWCNTs on thermal conductivity of antifreeze using curve fitting and neural network. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 514, 36-45	3.3	89
336	Using experimental data to estimate the heat transfer and pressure drop of non-Newtonian nanofluid flow through a circular tube: Applicable for use in heat exchangers. *Applied Thermal Engineering*, **2018**, 129, 1573-1581	5.8	89
335	Using a magnetic field to reduce natural convection in a vertical cylindrical annulus. *International Journal of Thermal Sciences*, **2017**, 118, 12-23	4.1	88
334	Effect of induced electric field on magneto-natural convection in a vertical cylindrical annulus filled with liquid potassium. *International Journal of Heat and Mass Transfer*, **2015**, 90, 418-426	4.9	88
333	Nanofluids: Physical phenomena, applications in thermal systems and the environment effects- a critical review. *Journal of Cleaner Production*, **2021**, 320, 128573	10.3	88
332	An experimental study on rheological behavior of ethylene glycol based nanofluid: Proposing a new correlation as a function of silica concentration and temperature. *Journal of Molecular Liquids*, **2017** , 233, 352-357	6	87
331	Energy-matrices, exergy, economic, environmental, exergoeconomic, enviroeconomic, and heat transfer (6E/HT) analysis of two passive/active solar still water desalination nearly 4000m: Altitude concept. *Journal of Cleaner Production*, **2020**, 261, 121243	10.3	87
330	Experimental investigation and model development of the non-Newtonian behavior of CuO-MWCNT-10w40 hybrid nano-lubricant for lubrication purposes. *Journal of Molecular Liquids*, **2018**, 249, 677-687	6	87
329	Modeling and prediction of rheological behavior of Al2O3-MWCNT/5W50 hybrid nano-lubricant by artificial neural network using experimental data. *Physica A: Statistical Mechanics and Its Applications*, **2018**, 510, 625-634	3.3	87
328	An experimental study on heat transfer and pressure drop of water/graphene oxide nanofluid in a copper tube under air cross-flow: Applicable as a heat exchanger. *Applied Thermal Engineering*, **2017**, 125, 69-79	5.8	86
327	A novel applicable experimental study on the thermal behavior of SWCNTs(60%)-MgO(40%)/EG hybrid nanofluid by focusing on the thermal conductivity. *Powder Technology*, **2019**, 342, 998-1007	5.2	86

326	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
325	Efficiency of ferromagnetic nanoparticles suspended in ethylene glycol for applications in energy devices: Effects of particle size, temperature, and concentration. *International Communications in Heat and Mass Transfer*, **2014**, 58, 138-146	5.8	85
324	Empirical analysis of heat transfer and friction factor of water/graphene oxide nanofluid flow in turbulent regime through an isothermal pipe. *Applied Thermal Engineering*, **2017**, 126, 538-547	5.8	85
323	Effects of functionalized single walled carbon nanotubes on thermal performance of antifreeze: An experimental study on thermal conductivity. *Applied Thermal Engineering*, **2017**, 120, 358-366	5.8	84
322	Mixed-convection flow and heat transfer in an inclined cavity equipped to a hot obstacle using nanofluids considering temperature-dependent properties. *International Journal of Heat and Mass Transfer*, **2015**, 85, 656-666	4.9	84
321	Rheological characteristics of MgO/oil nanolubricants: Experimental study and neural network modeling. *International Communications in Heat and Mass Transfer*, **2017**, 86, 245-252	5.8	84
320	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
319	Prediction of rheological behavior of SiO2-MWCNTs/10W40 hybrid nanolubricant by designing neural network. *Journal of Thermal Analysis and Calorimetry*, **2018**, 131, 2741-2748	4.1	83
318	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
317	3-D numerical investigation of natural convection in a tilted cylindrical annulus containing molten potassium and controlling it using various magnetic fields. *International Journal of Applied Electromagnetics and Mechanics*, **2014**, 46, 809-821	0.4	82
316	NUMERICAL SIMULATION OF ELECTRICALLY CONDUCTING FLUID FLOW AND FREE CONVECTIVE HEAT TRANSFER IN AN ANNULUS ON APPLYING A MAGNETIC FIELD. *Heat Transfer Research*, **2014**, 45, 749-766	3.9	82
315	Effect of twisted-tape inserts and nanofluid on flow field and heat transfer characteristics in a tube. *International Communications in Heat and Mass Transfer*, **2020**, 110, 104440	5.8	82
314	Viscosity and rheological properties of antifreeze based nanofluid containing hybrid nano-powders of MWCNTs and TiO2 under different temperature conditions. *Powder Technology*, **2019**, 342, 808-816	5.2	82
313	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
312	Effect of Magnetic Field on Free Convection in Inclined Cylindrical Annulus Containing Molten Potassium. *International Journal of Applied Mechanics*, **2015**, 07, 1550052	2.4	81
311	Numerical study on thermal performance of an air-cooled heat exchanger: Effects of hybrid nanofluid, pipe arrangement and cross section. *Energy Conversion and Management*, **2018**, 164, 615-628	10.6	81
310	The variations of heat transfer and slip velocity of FMWNT-water nano-fluid along the micro-channel in the lack and presence of a magnetic field. *Physica E: Low-Dimensional Systems and Nanostructures*, **2016**, 84, 474-481	3	80
309	Experimental investigation, model development and sensitivity analysis of rheological behavior of ZnO/10W40 nano-lubricants for automotive applications. *Physica E: Low-Dimensional Systems and Nanostructures*, **2017**, 90, 194-203	3	79

308	Multi-objective optimization of natural convection in a cylindrical annulus mold under magnetic field using particle swarm algorithm. *International Communications in Heat and Mass Transfer*, **2015**, 60, 13-20	5.8	79
307	First approach on nanofluid-based solar still in high altitude for water desalination and solar water disinfection (SODIS). *Desalination*, **2020**, 491, 114592	10.3	79
306	Price-performance evaluation of thermal conductivity enhancement of nanofluids with different particle sizes. *Applied Thermal Engineering*, **2018**, 128, 373-380	5.8	79
305	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
304	Mixed convection of non-Newtonian nanofluid in an H-shaped cavity with cooler and heater cylinders filled by a porous material: Two phase approach. *Advanced Powder Technology*, **2019**, 30, 2666-2685	4.6	78
303	Effects of geometric parameters on the performance of solar chimney power plants. *Energy*, **2018**, 162, 1052-1061	7.9	78
302	Three dimensional simulation of natural convection and entropy generation in an air and MWCNT/water nanofluid filled cuboid as two immiscible fluids with emphasis on the nanofluid height ratio's effects. *Journal of Molecular Liquids*, **2017**, 227, 223-233	6	76
301	Magneto-natural convection in square cavities with a source-sink pair on different walls. *International Journal of Applied Electromagnetics and Mechanics*, **2015**, 47, 21-32	0.4	76
300	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	5.2	76
299	Measuring the viscosity of Fe3O4-MWCNTs/EG hybrid nanofluid for evaluation of thermal efficiency: Newtonian and non-Newtonian behavior. *Journal of Molecular Liquids*, **2018**, 253, 169-177	6	75
298	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
297	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
296	A novel comparative experimental study on rheological behavior of mono & hybrid nanofluids concerned graphene and silica nano-powders: Characterization, stability and viscosity measurements. *Powder Technology*, **2020**, 366, 216-229	5.2	72
295	Investigation of permeability effect on slip velocity and temperature jump boundary conditions for FMWNT/Water nanofluid flow and heat transfer inside a microchannel filled by a porous media. *Physica E: Low-Dimensional Systems and Nanostructures*, **2018**, 97, 226-238	3	68
294	Optimization of MWCNTs (10%) □Al2O3 (90%)/5W50 nanofluid viscosity using experimental data and artificial neural network. *Physica A: Statistical Mechanics and Its Applications*, **2018**, 512, 731-744	3.3	67
293	EFFECT OF NANOFLUID VARIABLE PROPERTIES ON MIXED CONVECTION FLOW AND HEAT TRANSFER IN AN INCLINED TWO-SIDED LID-DRIVEN CAVITY WITH SINUSOIDAL HEATING ON SIDEWALLS. *Heat Transfer Research*, **2014**, 45, 409-432	3.9	67
292	Multi-objective energy and exergy optimization of different configurations of hybrid earth-air heat exchanger and building integrated photovoltaic/thermal system. *Energy Conversion and Management*, **2019**, 195, 1098-1110	10.6	65
291	Effect of alumina nano-powder on the convection and the entropy generation of water inside an inclined square cavity subjected to a magnetic field: Uniform and non-uniform temperature boundary conditions. *International Journal of Mechanical Sciences*, **2019**, 152, 99-117	5.5	65

290	Hydrothermal analysis of turbulent boehmite alumina nanofluid flow with different nanoparticle shapes in a minichannel heat exchanger using two-phase mixture model. *Physica A: Statistical Mechanics and Its Applications*, **2019**, 520, 275-288	3.3	65
289	Designing a neural network for predicting the heat transfer and pressure drop characteristics of Ag/water nanofluids in a heat exchanger. *Applied Thermal Engineering*, **2017**, 126, 559-565	5.8	64
288	A comparison of performance of several artificial intelligence methods for predicting the dynamic viscosity of TiO2/SAE 50 nano-lubricant. *Physica E: Low-Dimensional Systems and Nanostructures*, **2018**, 96, 85-93	3	63
287	Solutions for enhancement of energy and exergy efficiencies in air handling units. *Journal of Cleaner Production*, **2020**, 257, 120565	10.3	60
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