

# Mohammad Mohsen Sarafraz

## List of Publications by Year in Descending Order

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

113  
papers

4,981  
citations

52  
h-index

66  
g-index

119  
ext. papers

5,734  
ext. citations

4.3  
avg, IF

6.85  
L-index

#	Paper	IF	Citations
113	Thermal Performance Characteristics of a Microchannel Gas Heater for Solar Heating Applications. <i>Energies</i> , <b>2021</b> , 14, 7625	3.1	1
112	Fluid-structure interaction computational analysis and experiments of tsunami bore forces on coastal bridges. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , <b>2021</b> , 31, 1373-1395	4.5	3
111	Potentials of boiling heat transfer in advanced thermal energy systems. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2021</b> , 143, 1833-1854	4.1	5
110	Fundamental and subphenomena of boiling heat transfer. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2021</b> , 143, 1815-1832	4.1	8
109	Thermodynamic potential of a high-concentration hybrid photovoltaic/thermal plant for co-production of steam and electricity. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2021</b> , 143, 1389-1398	4.1	22
108	Sustainable three-stage chemical looping ammonia production (3CLAP) process. <i>Energy Conversion and Management</i> , <b>2021</b> , 229, 113735	10.6	8
107	Simulation study of a pulsed DBD with an electrode containing charge injector parts. <i>Physics of Plasmas</i> , <b>2021</b> , 28, 013502	2.1	1
106	Effect of swirling flow and particle-release pattern on drug delivery to human tracheobronchial airways. <i>Biomechanics and Modeling in Mechanobiology</i> , <b>2021</b> , 20, 2451-2469	3.8	3
105	Phase change heat transfer induced by plasmon heat generation in liquid micro-layer inside a micro-reactor. <i>Journal of Energy Storage</i> , <b>2021</b> , 42, 103033	7.8	5
104	Thermal and flow characteristics of liquid flow in a 3D-printed micro-reactor: A numerical and experimental study. <i>Applied Thermal Engineering</i> , <b>2021</b> , 199, 117531	5.8	4
103	Enzymatic pretreatment of recycled grease trap waste in batch and continuous-flow reactors for biodiesel production. <i>Chemical Engineering Journal</i> , <b>2021</b> , 426, 131703	14.7	4
102	Transient pool boiling and particulate deposition of copper oxide nano-suspensions. <i>International Journal of Heat and Mass Transfer</i> , <b>2020</b> , 155, 119743	4.9	48
101	Pool boiling heat transfer to CuO-H <sub>2</sub> O nanofluid on finned surfaces. <i>International Journal of Heat and Mass Transfer</i> , <b>2020</b> , 156, 119780	4.9	78
100	Potential application of Response Surface Methodology (RSM) for the prediction and optimization of thermal conductivity of aqueous CuO (II) nanofluid: A statistical approach and experimental validation. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2020</b> , 554, 124353	3.3	28
99	Development of human respiratory airway models: A review. <i>European Journal of Pharmaceutical Sciences</i> , <b>2020</b> , 145, 105233	5.1	20
98	Study of Two-Phase Newtonian Nanofluid Flow Hybrid with Hafnium Particles under the Effects of Slip. <i>Inventions</i> , <b>2020</b> , 5, 6	2.9	69
97	Thermodynamic potential of a novel plasma-assisted sustainable process for co-production of ammonia and hydrogen with liquid metals. <i>Energy Conversion and Management</i> , <b>2020</b> , 210, 112709	10.6	12

96	The resource gateway: Microfluidics and requirements engineering for sustainable space systems. <i>Chemical Engineering Science</i> , <b>2020</b> , 225, 115774	4.4	6
95	Enhancement of heat transfer in peristaltic flow in a permeable channel under induced magnetic field using different CNTs. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2020</b> , 140, 1277-1291	4.1	54
94	Numerical investigation of mixed convection heat transfer behavior of nanofluid in a cavity with different heat transfer areas. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2020</b> , 140, 2779-2803	4.1	40
93	Heat transfer evaluation of a micro heat exchanger cooling with spherical carbon-acetone nanofluid. <i>International Journal of Heat and Mass Transfer</i> , <b>2020</b> , 149, 119124	4.9	55
92	Performance index improvement of a double-pipe cooler with MgO/water-ethylene glycol (50:50) nano-suspension. <i>Propulsion and Power Research</i> , <b>2020</b> , 9, 75-86	3.6	5
91	Thermodynamic assessment and techno-economic analysis of a liquid indium-based chemical looping system for biomass gasification. <i>Energy Conversion and Management</i> , <b>2020</b> , 225, 113428	10.6	15
90	Operation analysis, response and performance evaluation of a pulsating heat pipe for low temperature heat recovery. <i>Energy Conversion and Management</i> , <b>2020</b> , 222, 113230	10.6	49
89	Thermal analysis and thermo-hydraulic characteristics of zirconia/water nanofluid under a convective boiling regime. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2020</b> , 139, 2413-2422	4.1	30
88	Thermal evaluation of a heat pipe working with n-pentane-acetone and n-pentane-methanol binary mixtures. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2020</b> , 139, 2435-2445	4.1	53
87	Numerical study on mixed convection of a non-Newtonian nanofluid with porous media in a two lid-driven square cavity. <i>Journal of Thermal Analysis and Calorimetry</i> , <b>2020</b> , 140, 1121-1145	4.1	115
86	Pool boiling heat transfer characteristics of iron oxide nano-suspension under constant magnetic field. <i>International Journal of Thermal Sciences</i> , <b>2020</b> , 147, 106131	4.1	90
85	Experimental investigation and performance optimisation of a catalytic reforming micro-reactor using response surface methodology. <i>Energy Conversion and Management</i> , <b>2019</b> , 199, 111983	10.6	25
84	Nanofluids as secondary fluid in the refrigeration system: Experimental data, regression, ANFIS, and NN modeling. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 144, 118635	4.9	41
83	Assessment of the thermal performance of a thermosyphon heat pipe using zirconia-acetone nanofluids. <i>Renewable Energy</i> , <b>2019</b> , 136, 884-895	8.1	72
82	Thermal Assessment of Nano-Particulate Graphene-Water/Ethylene Glycol (WEG 60:40) Nano-Suspension in a Compact Heat Exchanger. <i>Energies</i> , <b>2019</b> , 12, 1929	3.1	87
81	Thermal Evaluation of Graphene Nanoplatelets Nanofluid in a Fast-Responding HP with the Potential Use in Solar Systems in Smart Cities. <i>Applied Sciences (Switzerland)</i> , <b>2019</b> , 9, 2101	2.6	54
80	Numerical Simulation of Natural Convection Heat Transfer of Nanofluid With Cu, MWCNT, and Al <sub>2</sub> O <sub>3</sub> Nanoparticles in a Cavity With Different Aspect Ratios. <i>Journal of Thermal Science and Engineering Applications</i> , <b>2019</b> , 11,	1.9	62
79	Reforming of methanol with steam in a micro-reactor with Cu <sub>2</sub> SiO <sub>2</sub> porous catalyst. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 19628-19639	6.7	36

78	Heat transfer analysis of Ga-In-Sn in a compact heat exchanger equipped with straight micro-passages. <i>International Journal of Heat and Mass Transfer</i> , <b>2019</b> , 139, 675-684	4.9	49
77	Fluid and heat transfer characteristics of aqueous graphene nanoplatelet (GNP) nanofluid in a microchannel. <i>International Communications in Heat and Mass Transfer</i> , <b>2019</b> , 107, 24-33	5.8	62
76	Heat Transfer of Oil/MWCNT Nanofluid Jet Injection Inside a Rectangular Microchannel. <i>Symmetry</i> , <b>2019</b> , 11, 757	2.7	36
75	Thermal and hydraulic performance of a heat exchanger working with carbon-water nanofluid. <i>Heat and Mass Transfer</i> , <b>2019</b> , 55, 3443-3453	2.2	6
74	Potential of Solar Collectors for Clean Thermal Energy Production in Smart Cities using Nanofluids: Experimental Assessment and Efficiency Improvement. <i>Applied Sciences (Switzerland)</i> , <b>2019</b> , 9, 1877	2.6	57
73	Diurnal thermal evaluation of an evacuated tube solar collector (ETSC) charged with graphene nanoplatelets-methanol nano-suspension. <i>Renewable Energy</i> , <b>2019</b> , 142, 364-372	8.1	110
72	Filtration of per- and poly-fluoroalkyl from water and recycling of fluorine: a thermochemical equilibrium analysis. <i>Chemical Papers</i> , <b>2019</b> , 73, 1853-1862	1.9	
71	Experimental investigation of the reduction of liquid bismuth oxide with graphite. <i>Fuel Processing Technology</i> , <b>2019</b> , 188, 110-117	7.2	13
70	The thermo-chemical potential liquid chemical looping gasification with bismuth oxide. <i>International Journal of Hydrogen Energy</i> , <b>2019</b> , 44, 8038-8050	6.7	11
69	Pool boiling under the magnetic environment: experimental study on the role of magnetism in particulate fouling and bubbling of iron oxide/ethylene glycol nano-suspension. <i>Heat and Mass Transfer</i> , <b>2019</b> , 55, 119-132	2.2	10
68	Convective Bubbly Flow of Water in an Annular Pipe: Role of Total Dissolved Solids on Heat Transfer Characteristics and Bubble Formation. <i>Water (Switzerland)</i> , <b>2019</b> , 11, 1566	3	18
67	Smart optimization of a thermosyphon heat pipe for an evacuated tube solar collector using response surface methodology (RSM). <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2019</b> , 534, 122146	3.3	81
66	High Quality Syngas Production with Supercritical Biomass Gasification Integrated with a Water-Gas Shift Reactor. <i>Energies</i> , <b>2019</b> , 12, 2591	3.1	14
65	Experimental Investigation on Thermal Performance of a PV/T-PCM (Photovoltaic/Thermal) System Cooling with a PCM and Nanofluid. <i>Energies</i> , <b>2019</b> , 12, 2572	3.1	91
64	Marangoni effect on the thermal performance of glycerol/water mixture in microchannel. <i>Applied Thermal Engineering</i> , <b>2019</b> , 161, 114142	5.8	7
63	Statistical and experimental investigation on flow boiling heat transfer to carbon nanotube-therminol nanofluid. <i>Physica A: Statistical Mechanics and Its Applications</i> , <b>2019</b> , 536, 122505	3.3	5
62	Effects of magnetic field on micro cross jet injection of dispersed nanoparticles in a microchannel. <i>International Journal of Numerical Methods for Heat and Fluid Flow</i> , <b>2019</b> , 30, 2683-2704	4.5	75
61	Assessment of Iron Oxide (III)-Therminol 66 Nanofluid as a Novel Working Fluid in a Convective Radiator Heating System for Buildings. <i>Energies</i> , <b>2019</b> , 12, 4327	3.1	13

60	Radiation Heat Transfer in a Complex Geometry Containing Anisotropically-Scattering Mie Particles. <i>Energies</i> , <b>2019</b> , 12, 3986	3.1	4
59	Energetic Analysis of Different Configurations of Power Plants Connected to Liquid Chemical Looping Gasification. <i>Processes</i> , <b>2019</b> , 7, 763	2.9	11
58	Contact angle and heat transfer characteristics of a gravity-driven film flow of a particulate liquid metal on smooth and rough surfaces. <i>Applied Thermal Engineering</i> , <b>2019</b> , 149, 602-612	5.8	13
57	Experimental thermal energy assessment of a liquid metal eutectic in a microchannel heat exchanger equipped with a (10 Hz/50 Hz) resonator. <i>Applied Thermal Engineering</i> , <b>2019</b> , 148, 578-590	5.8	35
56	Heat transfer and pressure drop characteristics of MgO nanofluid in a double pipe heat exchanger. <i>Heat and Mass Transfer</i> , <b>2019</b> , 55, 1769-1781	2.2	22
55	Potential of molten lead oxide for liquid chemical looping gasification (LCLG): A thermochemical analysis. <i>International Journal of Hydrogen Energy</i> , <b>2018</b> , 43, 4195-4210	6.7	22
54	Thermal performance analysis of a microchannel heat sink cooling with copper oxide-indium (CuO/In) nano-suspensions at high-temperatures. <i>Applied Thermal Engineering</i> , <b>2018</b> , 137, 700-709	5.8	90
53	Demonstration of plausible application of gallium nano-suspension in microchannel solar thermal receiver: Experimental assessment of thermo-hydraulic performance of microchannel. <i>International Communications in Heat and Mass Transfer</i> , <b>2018</b> , 94, 39-46	5.8	76
52	Flow boiling heat transfer to MgO-therminol 66 heat transfer fluid: Experimental assessment and correlation development. <i>Applied Thermal Engineering</i> , <b>2018</b> , 138, 552-562	5.8	57
51	Rheological behaviour of various metal-based nano-fluids between rotating discs: a new insight. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , <b>2018</b> , 88, 37-48	5.3	51
50	Thermal performance analysis of a flat heat pipe working with carbon nanotube-water nanofluid for cooling of a high heat flux heater. <i>Heat and Mass Transfer</i> , <b>2018</b> , 54, 985-997	2.2	77
49	Thermal and hydraulic analysis of a rectangular microchannel with gallium-copper oxide nano-suspension. <i>Journal of Molecular Liquids</i> , <b>2018</b> , 263, 382-389	6	63
48	Heat transfer and fluid flow of MgO/ethylene glycol in a corrugated heat exchanger. <i>Journal of Mechanical Science and Technology</i> , <b>2018</b> , 32, 3975-3982	1.6	10
47	Thermal performance of a heat sink microchannel working with biologically produced silver-water nanofluid: Experimental assessment. <i>Experimental Thermal and Fluid Science</i> , <b>2018</b> , 91, 509-519	3	90
46	Pool boiling heat transfer to zinc oxide-ethylene glycol nano-suspension near the critical heat flux. <i>Journal of Mechanical Science and Technology</i> , <b>2018</b> , 32, 2309-2315	1.6	5
45	Thermal behavior of aqueous iron oxide nano-fluid as a coolant on a flat disc heater under the pool boiling condition. <i>Heat and Mass Transfer</i> , <b>2017</b> , 53, 265-275	2.2	72
44	Low-frequency vibration for fouling mitigation and intensification of thermal performance of a plate heat exchanger working with CuO/water nanofluid. <i>Applied Thermal Engineering</i> , <b>2017</b> , 121, 388-399	5.8	102
43	The relative performance of alternative oxygen carriers for liquid chemical looping combustion and gasification. <i>International Journal of Hydrogen Energy</i> , <b>2017</b> , 42, 16396-16407	6.7	36

42	Fouling formation and thermal performance of aqueous carbon nanotube nanofluid in a heat sink with rectangular parallel microchannel. <i>Applied Thermal Engineering</i> , <b>2017</b> , 123, 29-39	5.8	76
41	Potential use of liquid metal oxides for chemical looping gasification: A thermodynamic assessment. <i>Applied Energy</i> , <b>2017</b> , 195, 702-712	10.7	56
40	Thermal Performance and Viscosity of Biologically Produced Silver/Coconut Oil Nanofluids. <i>Chemical and Biochemical Engineering Quarterly</i> , <b>2017</b> , 30, 489-500	1.8	65
39	Green synthesis of silver nanoparticles using green tea leaves: Experimental study on the morphological, rheological and antibacterial behaviour. <i>Heat and Mass Transfer</i> , <b>2017</b> , 53, 3201-3209	2.2	87
38	On the convective thermal performance of a CPU cooler working with liquid gallium and CuO/water nanofluid: A comparative study. <i>Applied Thermal Engineering</i> , <b>2017</b> , 112, 1373-1381	5.8	87
37	Experimental studies on the stability of CuO nanoparticles dispersed in different base fluids: influence of stirring, sonication and surface active agents. <i>Heat and Mass Transfer</i> , <b>2016</b> , 52, 55-62	2.2	69
36	Heat transfer, pressure drop and fouling studies of multi-walled carbon nanotube nano-fluids inside a plate heat exchanger. <i>Experimental Thermal and Fluid Science</i> , <b>2016</b> , 72, 1-11	3	85
35	Critical heat flux and pool boiling heat transfer analysis of synthesized zirconia aqueous nano-fluids. <i>International Communications in Heat and Mass Transfer</i> , <b>2016</b> , 70, 75-83	5.8	85
34	On the fouling formation of functionalized and non-functionalized carbon nanotube nano-fluids under pool boiling condition. <i>Applied Thermal Engineering</i> , <b>2016</b> , 95, 433-444	5.8	72
33	Pool boiling heat transfer to aqueous alumina nano-fluids on the plain and concentric circular micro-structured (CCM) surfaces. <i>Experimental Thermal and Fluid Science</i> , <b>2016</b> , 72, 125-139	3	58
32	Experimental investigation on the pool boiling heat transfer to aqueous multi-walled carbon nanotube nanofluids on the micro-finned surfaces. <i>International Journal of Thermal Sciences</i> , <b>2016</b> , 100, 255-266	4.1	65
31	Comparatively experimental study on the boiling thermal performance of metal oxide and multi-walled carbon nanotube nanofluids. <i>Powder Technology</i> , <b>2016</b> , 287, 412-430	5.2	69
30	Boiling Heat Transfer of Alumina Nano-Fluids: Role of Nanoparticle Deposition on the Boiling Heat Transfer Coefficient. <i>Periodica Polytechnica: Chemical Engineering</i> , <b>2016</b> , 60, 252-258	1.3	64
29	Thermal performance of a counter-current double pipe heat exchanger working with COOH-CNT/water nanofluids. <i>Experimental Thermal and Fluid Science</i> , <b>2016</b> , 78, 41-49	3	77
28	Intensification of forced convection heat transfer using biological nanofluid in a double-pipe heat exchanger. <i>Experimental Thermal and Fluid Science</i> , <b>2015</b> , 66, 279-289	3	87
27	Role of nanofluid fouling on thermal performance of a thermosyphon: Are nanofluids reliable working fluid?. <i>Applied Thermal Engineering</i> , <b>2015</b> , 82, 212-224	5.8	76
26	Particulate fouling of CuO/water nanofluid at isothermal diffusive condition inside the conventional heat exchanger-experimental and modeling. <i>Experimental Thermal and Fluid Science</i> , <b>2015</b> , 60, 83-95	3	73
25	Boiling Thermal Performance of TiO <sub>2</sub> Aqueous NanoFluids as a Coolant on a Disc Copper Block. <i>Periodica Polytechnica: Chemical Engineering</i> , <b>2015</b> ,	1.3	6



24	Pool boiling heat transfer to dilute copper oxide aqueous nanofluids. <i>International Journal of Thermal Sciences</i> , <b>2015</b> , 90, 224-237	4.1	75
23	Upward Flow Boiling to DI-Water and CuO Nanofluids Inside the Concentric Annuli. <i>Journal of Applied Fluid Mechanics</i> , <b>2015</b> , 8, 651-659	1.5	43
22	Application of thermodynamic models to estimating the convective flow boiling heat transfer coefficient of mixtures. <i>Experimental Thermal and Fluid Science</i> , <b>2014</b> , 53, 70-85	3	29
21	Convective boiling and particulate fouling of stabilized CuO-ethylene glycol nanofluids inside the annular heat exchanger. <i>International Communications in Heat and Mass Transfer</i> , <b>2014</b> , 53, 116-123	5.8	81
20	Experimental studies on the effect of water contaminants in convective boiling heat transfer. <i>Ain Shams Engineering Journal</i> , <b>2014</b> , 5, 553-568	4.4	8
19	Scale formation and subcooled flow boiling heat transfer of CuO-water nanofluid inside the vertical annulus. <i>Experimental Thermal and Fluid Science</i> , <b>2014</b> , 52, 205-214	3	91
18	Thermal performance and efficiency of a thermosyphon heat pipe working with a biologically ecofriendly nanofluid. <i>International Communications in Heat and Mass Transfer</i> , <b>2014</b> , 57, 297-303	5.8	77
17	Nucleate pool boiling heat transfer characteristics of dilute Al <sub>2</sub> O <sub>3</sub> -ethylene glycol nanofluids. <i>International Communications in Heat and Mass Transfer</i> , <b>2014</b> , 58, 96-104	5.8	63
16	Experimental study on the influence of SO <sub>2</sub> gas injection to pure liquids on pool boiling heat transfer coefficients. <i>Heat and Mass Transfer</i> , <b>2014</b> , 50, 747-757	2.2	
15	Sedimentation and convective boiling heat transfer of CuO-water/ethylene glycol nanofluids. <i>Heat and Mass Transfer</i> , <b>2014</b> , 50, 1237-1249	2.2	68
14	Experimental study on the thermal performance and efficiency of a copper made thermosyphon heat pipe charged with alumina-ethylene glycol based nanofluids. <i>Powder Technology</i> , <b>2014</b> , 266, 378-387	5.2	70
13	Forced Convective and Nucleate Flow Boiling Heat Transfer to Alumina Nanofluids. <i>Periodica Polytechnica: Chemical Engineering</i> , <b>2014</b> , 58, 37	1.3	52
12	Experimental study on subcooled flow boiling heat transfer to water-ethylene glycol mixtures as a coolant inside a vertical annulus. <i>Experimental Thermal and Fluid Science</i> , <b>2013</b> , 50, 154-162	3	60
11	Forced convective and subcooled flow boiling heat transfer to pure water and n-heptane in an annular heat exchanger. <i>Annals of Nuclear Energy</i> , <b>2013</b> , 53, 401-410	1.7	64
10	Nucleate pool boiling heat transfer of binary nano mixtures under atmospheric pressure around a smooth horizontal cylinder. <i>Periodica Polytechnica: Chemical Engineering</i> , <b>2013</b> , 57, 71	1.3	32
9	Enhancement of nucleate pool boiling heat transfer to dilute binary mixtures using endothermic chemical reactions around the smoothed horizontal cylinder. <i>Heat and Mass Transfer</i> , <b>2012</b> , 48, 1755-1765 <sup>2,2</sup>		47
8	Influence of thermodynamic models on the prediction of pool boiling heat transfer coefficient of dilute binary mixtures. <i>International Communications in Heat and Mass Transfer</i> , <b>2012</b> , 39, 1303-1310	5.8	35
7	Nucleate pool boiling of aqueous solution of citric acid on a smoothed horizontal cylinder. <i>Heat and Mass Transfer</i> , <b>2012</b> , 48, 611-619	2.2	39

6	Development of a new correlation for estimating pool boiling heat transfer coefficient of MEG/DEG/water ternary mixture. <i>Chemical Industry and Chemical Engineering Quarterly</i> , <b>2012</b> , 18, 11-18	0.7	16
5	Experimental studies on nucleate pool boiling heat transfer to ethanol/MEG/DEG ternary mixture as a new coolant. <i>Chemical Industry and Chemical Engineering Quarterly</i> , <b>2012</b> , 18, 577-586	0.7	18
4	Subcooled flow boiling heat transfer of ethanol aqueous solutions in vertical annulus space. <i>Chemical Industry and Chemical Engineering Quarterly</i> , <b>2012</b> , 18, 315-327	0.7	41
3	Enhancement of the pool boiling heat transfer coefficient using the gas injection into the water. <i>Polish Journal of Chemical Technology</i> , <b>2012</b> , 14, 100-109	1	2
2	Artificial boiling heat transfer in the free convection to carbonic acid solution. <i>Experimental Thermal and Fluid Science</i> , <b>2011</b> , 35, 645-652	3	11
1	Accurate improvement of a mathematical correlation for estimating diffusion coefficient in gaseous hydrocarbons. <i>European Journal of Chemistry</i> , <b>2011</b> , 2, 485-488	0.6	