

# Mousa Mohammadpourfard

## List of Publications by Year in descending order

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87  
papers

1,668  
citations

331670

21  
h-index

345221

36  
g-index

88  
all docs

88  
docs citations

88  
times ranked

1206  
citing authors

#	ARTICLE	IF	CITATIONS
1	Ionic liquids: Promising compounds for sustainable chemical processes and applications. <i>Chemical Engineering Research and Design</i> , 2020, 160, 264-300.	5.6	123
2	Numerical study of the ferrofluid flow and heat transfer through a rectangular duct in the presence of a non-uniform transverse magnetic field. <i>Journal of Magnetism and Magnetic Materials</i> , 2013, 327, 31-42.	2.3	117
3	A 3D numerical simulation of mixed convection of a magnetic nanofluid in the presence of non-uniform magnetic field in a vertical tube using two phase mixture model. <i>Journal of Magnetism and Magnetic Materials</i> , 2011, 323, 1963-1972.	2.3	104
4	Two-phase mixture model simulation of the hydro-thermal behavior of an electrical conductive ferrofluid in the presence of magnetic fields. <i>Journal of Magnetism and Magnetic Materials</i> , 2012, 324, 830-842.	2.3	104
5	A review on effects of magnetic fields and electric fields on boiling heat transfer and CHF. <i>Applied Thermal Engineering</i> , 2019, 151, 11-25.	6.0	61
6	Experimental investigation of the flow and heat transfer of magnetic nanofluid in a vertical tube in the presence of magnetic quadrupole field. <i>Experimental Thermal and Fluid Science</i> , 2018, 91, 155-165.	2.7	50
7	Development of human respiratory airway models: A review. <i>European Journal of Pharmaceutical Sciences</i> , 2020, 145, 105233.	4.0	50
8	Numerical study of magnetic field effects on the mixed convection of a magnetic nanofluid in a curved tube. <i>International Journal of Mechanical Sciences</i> , 2014, 78, 81-90.	6.7	43
9	Experimental study on the effect of magnetic field on critical heat flux of ferrofluid flow boiling in a vertical annulus. <i>Experimental Thermal and Fluid Science</i> , 2014, 58, 156-169.	2.7	39
10	Experimental investigation into lubrication properties and mechanism of vegetable-based CuO nanofluid in MQL grinding. <i>International Journal of Advanced Manufacturing Technology</i> , 2017, 92, 3807-3823.	3.0	39
11	Design and thermodynamic analysis of a novel methanol, hydrogen, and power trigeneration system based on renewable energy and flue gas carbon dioxide. <i>Energy Conversion and Management</i> , 2021, 233, 113922.	9.2	33
12	Numerical investigation of thermocapillary and buoyancy driven convection of nanofluids in a floating zone. <i>International Journal of Mechanical Sciences</i> , 2012, 65, 147-156.	6.7	32
13	Wettability alterations and magnetic field effects on the nucleation of magnetic nanofluids: A molecular dynamics simulation. <i>Journal of Molecular Liquids</i> , 2018, 260, 209-220.	4.9	32
14	Flow Structure and Particle Deposition Analyses for Optimization of a Pressurized Metered Dose Inhaler (pMDI) in a Model of Tracheobronchial Airway. <i>European Journal of Pharmaceutical Sciences</i> , 2021, 164, 105911.	4.0	32
15	Numerical investigation of TiO <sub>2</sub> and MWCNTs turbine meter oil nanofluids: Flow and hydrodynamic properties. <i>Fuel</i> , 2022, 320, 123943.	6.4	32
16	Experimental investigation of aerosol deposition through a realistic respiratory airway replica: An evaluation for MDI and DPI performance. <i>International Journal of Pharmaceutics</i> , 2019, 566, 157-172.	5.2	31
17	Lattice Boltzmann method for electrowetting modeling and simulation. <i>Computer Methods in Applied Mechanics and Engineering</i> , 2009, 198, 3852-3868.	6.6	28
18	Numerical and experimental study of the effects of ultrasonic vibrations of tool on machining characteristics of EDM process. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 96, 2657-2669.	3.0	26

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19	Dry powder inhaler aerosol deposition in a model of tracheobronchial airways: Validating CFD predictions with in vitro data. <i>International Journal of Pharmaceutics</i> , 2020, 587, 119599.	5.2	26
20	Investigation into the performance of eco-friendly graphite nanofluid as lubricant in MQL grinding. <i>Machining Science and Technology</i> , 2019, 23, 569-594.	2.5	24
21	Enhancement of the performance of a NEPCM filled shell-and-multi tube thermal energy storage system using magnetic field: A numerical study. <i>Applied Thermal Engineering</i> , 2020, 178, 115604.	6.0	24
22	Numerical study of non-uniform magnetic fields effects on subcooled nanofluid flow boiling. <i>Progress in Nuclear Energy</i> , 2014, 74, 232-241.	2.9	23
23	Numerical investigation of non-uniform transverse magnetic field effects on the swirling flow boiling of magnetic nanofluid in annuli. <i>International Communications in Heat and Mass Transfer</i> , 2016, 75, 240-252.	5.6	23
24	Numerical simulation of nucleate pool boiling on the horizontal surface for nano-fluid using wall heat flux partitioning method. <i>Computers and Fluids</i> , 2012, 66, 29-38.	2.5	22
25	A numerical simulation of the water vapor bubble rising in ferrofluid by volume of fluid model in the presence of a magnetic field. <i>Journal of Magnetism and Magnetic Materials</i> , 2018, 449, 185-196.	2.3	22
26	Numerical study on the effect of non-uniform magnetic fields on melting and solidification characteristics of NEPCMs in an annulus enclosure. <i>Energy Conversion and Management</i> , 2018, 171, 879-889.	9.2	21
27	Investigating the effects of external magnetic field on machining characteristics of electrical discharge machining process, numerically and experimentally. <i>International Journal of Advanced Manufacturing Technology</i> , 2019, 102, 55-65.	3.0	21
28	Dynamic analysis of a laminated cylindrical shell with piezoelectric layers under dynamic loads. <i>Finite Elements in Analysis and Design</i> , 2010, 46, 770-781.	3.2	20
29	Energy efficient hourly scheduling of multi-chiller systems using imperialistic competitive algorithm. <i>Computers and Electrical Engineering</i> , 2020, 82, 106550.	4.8	20
30	Exergoeconomic analysis and optimization of a high-efficient multi-generation system powered by Sabalan (Savalan) geothermal power plant including branched GAX cycle and electrolyzer unit. <i>Energy Conversion and Management</i> , 2022, 268, 115996.	9.2	20
31	Numerical simulation of nucleate pool boiling on the horizontal surface for ferrofluid under the effect of non-uniform magnetic field. <i>Heat and Mass Transfer</i> , 2014, 50, 1167-1176.	2.1	19
32	Experimental study of magnetic field effect on bubble lift-off diameter in sub-cooled flow boiling. <i>Experimental Thermal and Fluid Science</i> , 2017, 89, 62-71.	2.7	18
33	Two-phase simulation of non-uniform magnetic field effects on biofluid (blood) with magnetic nanoparticles through a collapsible tube. <i>Journal of Magnetism and Magnetic Materials</i> , 2013, 332, 172-179.	2.3	16
34	Risk-Constrained Optimal Chiller Loading Strategy Using Information Gap Decision Theory. <i>Applied Sciences (Switzerland)</i> , 2019, 9, 1925.	2.5	16
35	Entropy generation analysis for thermomagnetic convection of paramagnetic fluid inside a porous enclosure in the presence of magnetic quadrupole field. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 139, 2005-2022.	3.6	16
36	Thermodynamic and thermoeconomic analyses of a new dual-loop organic Rankine " Generator absorber heat exchanger power and cooling cogeneration system. <i>Energy Conversion and Management</i> , 2020, 224, 113356.	9.2	16

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37	Modelling of a fluidized bed carbonator reactor for post-combustion CO <sub>2</sub> capture considering bed hydrodynamics and sorbent characteristics. <i>Chemical Engineering Journal</i> , 2021, 406, 126762.	12.7	16
38	Multi-objective optimization of a novel biomass-based multigeneration system consisting of liquid natural gas open cycle and proton exchange membrane electrolyzer. <i>International Journal of Energy Research</i> , 2021, 45, 16806-16823.	4.5	15
39	Numerical study of ferrofluid flow and heat transfer in the presence of a non-uniform magnetic field in rectangular microchannels. <i>Heat Transfer - Asian Research</i> , 2012, 41, 302-317.	2.8	14
40	Hydrothermal Behavior of a Ferrofluid in a Corrugated Channel in the Presence of a Magnetic Field. <i>Heat Transfer - Asian Research</i> , 2014, 43, 80-92.	2.8	14
41	Design, evaluation, and optimization of an efficient solar-based multi-generation system with an energy storage option for Iran's summer peak demand. <i>Energy Conversion and Management</i> , 2021, 242, 114324.	9.2	14
42	Multi-objective configuration of an intelligent parking lot and combined hydrogen, heat and power (IPL-CHHP) based microgrid. <i>Sustainable Cities and Society</i> , 2022, 76, 103433.	10.4	14
43	Multi-objective optimization of a novel supercritical CO <sub>2</sub> cycle-based combined cycle for solar power tower plants integrated with SOFC and LNG cold energy and regasification. <i>International Journal of Energy Research</i> , 2022, 46, 12082-12107.	4.5	13
44	Numerical Investigation of the Transient Hydrothermal Behavior of a Ferrofluid Flowing Through a Helical Duct in the Presence of Nonuniform Magnetic Field. <i>Journal of Heat Transfer</i> , 2014, 136, .	2.1	12
45	3D Numerical Investigation of Thermal Characteristics of Nanofluid Flow through Helical Tubes Using Two-Phase Mixture Model. <i>International Journal for Computational Methods in Engineering Science and Mechanics</i> , 2014, 15, 512-521.	2.1	12
46	A biogas-steam combined cycle for sustainable development of industrial-scale water-power hybrid microgrids: design and optimal scheduling. <i>Biofuels, Bioproducts and Biorefining</i> , 2022, 16, 172-192.	3.7	12
47	On flow characteristics of liquid-solid mixed-phase nanofluid inside nanochannels. <i>Applied Mathematics and Mechanics (English Edition)</i> , 2014, 35, 1541-1554.	3.6	11
48	Molecular Dynamics Study of Aggregation in Nanofluid Flow: Effects of Liquid Nanoparticle Interaction Strength and Particles Volume Fraction. <i>International Journal of Applied Mechanics</i> , 2015, 07, 1550010.	2.2	11
49	Robust optimal self-scheduling of potable water and power producers under uncertain electricity prices. <i>Applied Thermal Engineering</i> , 2019, 162, 114258.	6.0	11
50	Numerical investigation of the condensation of a rising bubble inside a subcooled liquid under magnetic field. <i>International Journal of Thermal Sciences</i> , 2021, 160, 106674.	4.9	11
51	A novel approach to plasma channel radius determination and numerical modeling of electrical discharge machining process. <i>Journal of the Brazilian Society of Mechanical Sciences and Engineering</i> , 2020, 42, 1.	1.6	10
52	Lattice Boltzmann BGK model for gas flow in a microchannel. <i>Proceedings of the Institution of Mechanical Engineers, Part C: Journal of Mechanical Engineering Science</i> , 2008, 222, 1855-1860.	2.1	9
53	Numerical Investigation of the Magnetic Field Effects on the Entropy Generation and Heat Transfer in a Nanofluid Filled Cavity with Natural Convection. <i>Heat Transfer - Asian Research</i> , 2017, 46, 409-433.	2.8	9
54	Experimental and numerical study of swirling subcooled flow boiling of water in a vertical annulus. <i>Experimental Heat Transfer</i> , 2018, 31, 513-530.	3.2	9

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55	Design, worst case study, and sensitivity analysis of a net-zero energy building for sustainable urban development. <i>Sustainable Cities and Society</i> , 2020, 54, 101991.	10.4	9
56	Experimental study of the subcooled flow boiling heat transfer of magnetic nanofluid in a vertical tube under magnetic field. <i>Journal of Thermal Analysis and Calorimetry</i> , 2020, 140, 2805-2816.	3.6	9
57	Implementation of magnetic field force in molecular dynamics algorithm: NAMD source code version 2.12. <i>Journal of Molecular Modeling</i> , 2020, 26, 106.	1.8	8
58	Droplets Merging and Stabilization by Electrowetting: Lattice Boltzmann Study. <i>Journal of Adhesion Science and Technology</i> , 2012, 26, 1853-1871.	2.6	7
59	Finite difference simulation and experimental investigation: effects of physical synergetic properties of nanoparticles on temperature distribution and surface integrity of workpiece in nanofluid MQL grinding process. <i>International Journal of Advanced Manufacturing Technology</i> , 2018, 95, 2661-2679.	3.0	7
60	Lattice Boltzmann simulation of droplet base electrowetting. <i>International Journal of Computational Fluid Dynamics</i> , 2010, 24, 143-156.	1.2	6
61	Numerical investigation of subcooled boiling characteristics of magnetic nanofluid under the effect of quadrupole magnetic field. <i>Journal of Engineering Thermophysics</i> , 2017, 26, 427-446.	1.4	6
62	Eulerian–Eulerian simulation of non-uniform magnetic field effects on the ferrofluid nucleate pool boiling. <i>Journal of Engineering Thermophysics</i> , 2017, 26, 580-597.	1.4	6
63	Numerical simulations of the influence of Brownian and gravitational forces on the stability of CuO nanoparticles by the Eulerian–Lagrangian approach. <i>Heat Transfer - Asian Research</i> , 2018, 47, 72-87.	2.8	6
64	Simulation of ferrofluid flow boiling in helical tubes using two-fluid model. <i>Heat and Mass Transfer</i> , 2019, 55, 133-148.	2.1	6
65	Optimal Techno-Economic Planning of a Smart Parking Lot–Combined Heat, Hydrogen, and Power (SPL-CHHP)-Based Microgrid in the Active Distribution Network. <i>Applied Sciences (Switzerland)</i> , 2021, 11, 8043.	2.5	6
66	Thermodynamic design, evaluation, and optimization of a novel quadruple generation system combined of a fuel cell, an absorption refrigeration cycle, and an electrolyzer. <i>International Journal of Energy Research</i> , 2022, 46, 7261-7276.	4.5	6
67	NUMERICAL STUDY OF THE HYDROTHERMAL BEHAVIOR AND EXERGY DESTRUCTION OF MAGNETIC NANOFLUID IN CURVED RECTANGULAR MICROCHANNELS. <i>Heat Transfer Research</i> , 2015, 46, 795-818.	1.6	5
68	Electrowetting on dielectric and superhydrophobic surface: lattice Boltzmann study. <i>Indian Journal of Physics</i> , 2012, 86, 889-899.	1.8	3
69	Concentration polarization effects on the macromolecular transport in the presence of non-uniform magnetic field: A numerical study using a lumen-wall model. <i>Journal of Magnetism and Magnetic Materials</i> , 2014, 356, 111-119.	2.3	3
70	Molecular Dynamics Study of Ferrofluid Flow Inside Nanochannels Under Magnetic Fields. <i>Journal of Computational and Theoretical Nanoscience</i> , 2015, 12, 2339-2347.	0.4	3
71	Computational modeling of geometry effects on the IDL surface concentration in the presence of non-uniform magnetic field – links to atherosclerosis. <i>Journal of Magnetism and Magnetic Materials</i> , 2016, 398, 38-48.	2.3	2
72	Experimental study of the effects of quadrupole magnetic field and hydro-thermal parameters on bubble departure diameter and frequency in a vertical annulus. <i>Experimental Heat Transfer</i> , 2022, 35, 341-368.	3.2	2

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73	Non-uniform magnetic field impact on thermomagnetic convection of paramagnetic air in a permanent magnet-inserted horizontal annulus. <i>European Physical Journal Plus</i> , 2021, 136, 1.	2.6	2
74	OPTIMIZED FREE ENERGY-BASED LATTICE BOLTZMANN METHOD FOR MODELING MICRO DROP DYNAMICS. <i>International Journal of Computational Methods</i> , 2013, 10, 1350006.	1.3	1
75	Euler-Lagrangian Simulation of Magnetic Field Effects on the Mixed Convection of Ferrofluid. <i>Heat Transfer - Asian Research</i> , 2014, 43, 148-166.	2.8	1
76	Mechanobiology of LDL mass transport in the arterial wall under the effect of magnetic field, part I: Diffusion rate. <i>Journal of Magnetism and Magnetic Materials</i> , 2017, 426, 569-574.	2.3	1
77	Numerical investigation of nonuniform transverse magnetic field effects on the flow and heat transfer of magnetic nanofluid in a sintered porous channel. <i>Heat Transfer - Asian Research</i> , 2019, 48, 3790-3811.	2.8	1
78	Molecular dynamics simulation of the magnetic field influence on the oil-water interface. <i>Fluid Phase Equilibria</i> , 2020, 522, 112761.	2.5	1
79	Bubble Lift-Off Diameter and Frequency in Ferrofluid Subcooled Flow Boiling. <i>Heat Transfer Engineering</i> , 2023, 44, 512-529.	1.9	1
80	Numerical study of biofluid flow over a backward-facing step: The hydro-thermal behavior in the presence of magnetic field effects. <i>Proceedings of the Institution of Mechanical Engineers, Part E: Journal of Process Mechanical Engineering</i> , 2017, 231, 800-812.	2.5	0
81	Reduction of cavitation in refrigerant fluid flow through micro passages in the presence of external transverse magnetic fields. <i>Heat Transfer - Asian Research</i> , 2017, 46, 1130-1147.	2.8	0
82	Numerical study of the effects of internal and external forces on the nanoparticle mixing in a ferrofluid flow. <i>Heat Transfer - Asian Research</i> , 2019, 48, 2007-2028.	2.8	0
83	Vortex Suppression behind a Heated Circular Cylinder Placed between Parallel Walls by Applying Magnetic Field on a Magnetic Nanofluid Flow. <i>International Journal of Fluid Mechanics Research</i> , 2015, 42, 214-226.	0.4	0
84	AC Optimal Power Flow Incorporating Demand-Side Management Strategy. , 2020, , 147-165.		0
85	Implementation of Demand Response Programs on Unit Commitment Problem. , 2020, , 37-54.		0
86	Numerical investigation of blood flow and red blood cell rheology: the magnetic field effect. <i>Electromagnetic Biology and Medicine</i> , 2022, , 1-13.	1.4	0
87	Numerical Investigation of Tio2 and Mwcnt Turbine Meter Oil Nanofluids: Flow and Hydrodynamic Properties. <i>SSRN Electronic Journal</i> , 0, , .	0.4	0