

# Mohsen Nasr Esfahany

## List of Publications by Citations

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103  
papers

4,156  
citations

32  
h-index

62  
g-index

106  
ext. papers

4,656  
ext. citations

4.2  
avg, IF

6.1  
L-index

#	Paper	IF	Citations
103	Experimental investigation of oxide nanofluids laminar flow convective heat transfer. <i>International Communications in Heat and Mass Transfer</i> , <b>2006</b> , 33, 529-535	5.8	636
102	Experimental investigation of convective heat transfer of Al <sub>2</sub> O <sub>3</sub> /water nanofluid in circular tube. <i>International Journal of Heat and Fluid Flow</i> , <b>2007</b> , 28, 203-210	2.4	554
101	Experimental study of turbulent convective heat transfer and pressure drop of dilute CuO/water nanofluid inside a circular tube. <i>International Communications in Heat and Mass Transfer</i> , <b>2010</b> , 37, 214-219	5.8	224
100	Numerical study of convective heat transfer of nanofluids in a circular tube two-phase model versus single-phase model. <i>International Communications in Heat and Mass Transfer</i> , <b>2010</b> , 37, 91-97	5.8	202
99	Experimental investigation of turbulent convective heat transfer of dilute Al <sub>2</sub> O <sub>3</sub> /water nanofluid inside a circular tube. <i>International Journal of Heat and Fluid Flow</i> , <b>2010</b> , 31, 606-612	2.4	184
98	Numerical Investigation of Nanofluid Laminar Convective Heat Transfer through a Circular Tube. <i>Numerical Heat Transfer; Part A: Applications</i> , <b>2007</b> , 52, 1043-1058	2.3	137
97	Mass transfer in nanofluids: A review. <i>International Journal of Thermal Sciences</i> , <b>2014</b> , 82, 84-99	4.1	122
96	Single chamber microbial fuel cell with spiral anode for dairy wastewater treatment. <i>Biosensors and Bioelectronics</i> , <b>2012</b> , 38, 264-9	11.8	115
95	Convective Heat Transfer of a Cu/Water Nanofluid Flowing Through a Circular Tube. <i>Experimental Heat Transfer</i> , <b>2009</b> , 22, 217-227	2.4	85
94	Experimental investigation of pool boiling of Fe <sub>3</sub> O <sub>4</sub> /ethylene glycol/water nanofluid in electric field. <i>International Journal of Thermal Sciences</i> , <b>2012</b> , 62, 149-153	4.1	73
93	Pool boiling characteristics of nanofluid on flat plate based on heater surface analysis. <i>International Communications in Heat and Mass Transfer</i> , <b>2013</b> , 47, 113-120	5.8	70
92	CFD analysis of turbulence in a baffled stirred tank, a three-compartment model. <i>Chemical Engineering Science</i> , <b>2009</b> , 64, 351-362	4.4	65
91	Mass transfer between phases in microchannels: A review. <i>Chemical Engineering and Processing: Process Intensification</i> , <b>2018</b> , 127, 213-237	3.7	64
90	Mechanisms of smart waterflooding in carbonate oil reservoirs - A review. <i>Journal of Petroleum Science and Engineering</i> , <b>2019</b> , 179, 276-291	4.4	63
89	Investigation of different configurations of microbial fuel cells for the treatment of oilfield produced water. <i>Applied Energy</i> , <b>2017</b> , 192, 457-465	10.7	59
88	Investigation of CuO/Water Nanofluid Laminar Convective Heat Transfer through a Circular Tube. <i>Journal of Enhanced Heat Transfer</i> , <b>2006</b> , 13, 279-289	1.7	58
87	Experimental investigation of the effect of nanoparticle size on thermal conductivity of in-situ prepared silica/ethanol nanofluid. <i>International Communications in Heat and Mass Transfer</i> , <b>2016</b> , 77, 148-154	5.8	55

86	Investigation of nanofluids heat transfer in a ribbed microchannel heat sink using single-phase and multiphase CFD models. <i>International Communications in Heat and Mass Transfer</i> , <b>2015</b> , 68, 122-129	5.8	54
85	CFD studies of solids hold-up distribution and circulation patterns in gas-solid fluidized beds. <i>Powder Technology</i> , <b>2010</b> , 200, 202-215	5.2	48
84	Absorption of Hydrogen Sulfide and Carbon Dioxide in Water Based Nanofluids. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2016</b> , 55, 4682-4690	3.9	46
83	Investigation of the effects of nanoparticle size on CO <sub>2</sub> absorption by silica-water nanofluid. <i>Separation and Purification Technology</i> , <b>2018</b> , 195, 208-215	8.3	46
82	Influence of orientation and roughness of heater surface on critical heat flux and pool boiling heat transfer coefficient of nanofluid. <i>Applied Thermal Engineering</i> , <b>2017</b> , 124, 353-361	5.8	45
81	Hydrogen Sulfide Bubble Absorption Enhancement in Water-Based Nanofluids. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2014</b> , 53, 16851-16858	3.9	45
80	Laminar forced convective mass transfer of Al <sub>2</sub> O <sub>3</sub> /electrolyte nanofluid in a circular tube. <i>International Journal of Thermal Sciences</i> , <b>2013</b> , 64, 251-256	4.1	45
79	Hydrodynamics and mass transfer in liquid-liquid non-circular microchannels: Comparison of two aspect ratios and three junction structures. <i>Chemical Engineering Journal</i> , <b>2017</b> , 322, 328-338	14.7	44
78	Experimental investigation of mass transfer of active ions in silica nanofluids. <i>International Communications in Heat and Mass Transfer</i> , <b>2013</b> , 46, 148-153	5.8	40
77	Turbulent mass transfer of Al <sub>2</sub> O <sub>3</sub> and TiO <sub>2</sub> electrolyte nanofluids in circular tube. <i>Microfluidics and Nanofluidics</i> , <b>2013</b> , 15, 501-508	2.8	39
76	Natural convective heat transfer of Fe <sub>3</sub> O <sub>4</sub> /ethylene glycol nanofluid in electric field. <i>International Journal of Thermal Sciences</i> , <b>2012</b> , 62, 114-119	4.1	38
75	CFD Simulation of Mass Transfer Efficiency and Pressure Drop in a Structured Packed Distillation Column. <i>Chemical Engineering and Technology</i> , <b>2007</b> , 30, 854-861	2	36
74	The influence of silica nanoparticles on hydrodynamics and mass transfer in spray liquid-liquid extraction column. <i>Separation and Purification Technology</i> , <b>2015</b> , 151, 74-81	8.3	33
73	Thermal performance analysis of nanofluids in a thermosyphon heat pipe using CFD modeling. <i>Heat and Mass Transfer</i> , <b>2013</b> , 49, 667-678	2.2	33
72	Liquid turbulence structure at a sheared and wavy gas-liquid interface. <i>International Journal of Multiphase Flow</i> , <b>1997</b> , 23, 205-226	3.6	33
71	Experimental investigation of the effects of the hydrophilic silica nanoparticles on mass transfer and hydrodynamics of single drop extraction. <i>Separation and Purification Technology</i> , <b>2016</b> , 170, 130-137	8.3	31
70	Heat transfer enhancement by application of nano-powder. <i>Journal of Nanoparticle Research</i> , <b>2010</b> , 12, 2611-2619	2.3	30
69	Parameter estimation and characterization of a single-chamber microbial fuel cell for dairy wastewater treatment. <i>Bioresource Technology</i> , <b>2013</b> , 146, 247-253	11	29

68	Experimental and Numerical Simulation of Dry Pressure Drop in High-Capacity Structured Packings. <i>Chemical Engineering and Technology</i> , <b>2016</b> , 39, 1161-1170	2	28
67	CFD simulation of the structured packings: A review. <i>Separation Science and Technology</i> , <b>2019</b> , 54, 2536-2554		28
66	Mass transfer into/from nanofluid drops in a spray liquid-liquid extraction column. <i>AIChE Journal</i> , <b>2016</b> , 62, 852-860	3.6	27
65	Influence of the uniform electric field on viscosity of magnetic nanofluid (Fe <sub>3</sub> O <sub>4</sub> -EG). <i>Journal of Applied Physics</i> , <b>2012</b> , 112, 094903	2.5	25
64	The effect of the size of square microchannels on hydrodynamics and mass transfer during liquid-liquid slug flow. <i>AIChE Journal</i> , <b>2017</b> , 63, 5019-5028	3.6	24
63	Experimental investigation of water self-diffusion coefficient and tracer diffusion coefficient of tert-butanol in water-based silica nanofluids. <i>International Journal of Thermal Sciences</i> , <b>2014</b> , 86, 166-174	4.1	24
62	Impact of salinity and connate water on low salinity water injection in secondary and tertiary stages for enhanced oil recovery in carbonate oil reservoirs. <i>Journal of Geophysics and Engineering</i> , <b>2018</b> , 15, 1242-1254	1.3	21
61	Experimental and numerical study of multiphase flow in new wire gauze with high capacity structured packing. <i>Chemical Engineering and Processing: Process Intensification</i> , <b>2016</b> , 108, 35-43	3.7	21
60	A comprehensive study on optimizing and thermoregulating properties of core-shell fibrous structures through coaxial electrospinning. <i>Journal of Materials Science</i> , <b>2018</b> , 53, 4665-4682	4.3	21
59	Impacts of solid-phase wall boundary condition on CFD simulation of conical spouted beds containing heavy zirconia particles. <i>Journal of the Taiwan Institute of Chemical Engineers</i> , <b>2016</b> , 64, 146-156	5.3	18
58	CFD Simulation of the Bubbling and Slugging Gas-Solid Fluidized Beds. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>2010</b> , 132,	2.1	18
57	Enhancement of dimethyl ether production with application of hydrogen-permselective Pd-based membrane in fluidized bed reactor. <i>Journal of Industrial and Engineering Chemistry</i> , <b>2012</b> , 18, 1157-1165	6.3	17
56	S-PVC Grain Morphology: A Review. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2015</b> , 54, 10953-10963	3.63	16
55	Effect of the phase ratio on the particle properties of poly(vinyl chloride) resins produced by suspension polymerization. <i>Journal of Applied Polymer Science</i> , <b>2008</b> , 110, 2748-2755	2.9	16
54	The effect of small vibrations on Marangoni convection and the free surface of a liquid bridge. <i>Acta Astronautica</i> , <b>2006</b> , 58, 622-632	2.9	15
53	Characterization of New Wire Gauze High-Capacity Structured Packing with Varied Inclination Angle. <i>Chemical Engineering and Technology</i> , <b>2017</b> , 40, 581-587	2	14
52	Application of water based nanofluids in bioscrubber for improvement of biogas sweetening in a pilot scale. <i>Chemical Engineering and Processing: Process Intensification</i> , <b>2019</b> , 143, 107603	3.7	14
51	Effect of electrohydrodynamic (EHD) on condensation of R-134a in presence of non-condensable gas. <i>International Communications in Heat and Mass Transfer</i> , <b>2009</b> , 36, 286-291	5.8	13

50	An experimental and numerical study of heat transfer in jacketed vessels by SiO <sub>2</sub> nanofluid. <i>Heat and Mass Transfer</i> , <b>2017</b> , 53, 2395-2405	2.2	12
49	Mathematical modeling of rapid temperature swing adsorption; the role of influencing parameters. <i>Separation and Purification Technology</i> , <b>2017</b> , 183, 181-193	8.3	12
48	Influence of silica nanoparticles on mass transfer in a membrane-based micro-contactor. <i>RSC Advances</i> , <b>2016</b> , 6, 19089-19097	3.7	12
47	The effects of feed splitting and heat integration in classical arrangements on cost minimization in separation of ternary mixture. <i>Chemical Engineering and Processing: Process Intensification</i> , <b>2013</b> , 63, 37-43	2.7	12
46	Experimental Study of the Effect of Reflux Rate during Suspension Polymerization on Particle Properties of PVC Resin. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2010</b> , 49, 1997-2002	3.9	12
45	Optimization and heat integration of hybrid R-HiDiC and pervaporation by combining GA and PSO algorithm in TAME synthesis. <i>Separation and Purification Technology</i> , <b>2020</b> , 236, 116288	8.3	12
44	Thermal performance of electrospun core-shell phase change fibrous layers at simulated body conditions. <i>Applied Thermal Engineering</i> , <b>2019</b> , 161, 113924	5.8	11
43	Experimental characterization of new wire gauze with high capacity structured packing. <i>Canadian Journal of Chemical Engineering</i> , <b>2017</b> , 95, 535-542	2.3	11
42	CFD Simulation of Gas Distribution Performance of Gas Inlet Systems in Packed Columns. <i>Chemical Engineering and Technology</i> , <b>2007</b> , 30, 1176-1180	2	11
41	Nonisothermal suspension polymerization of vinyl chloride for enhanced productivity. <i>Journal of Vinyl and Additive Technology</i> , <b>2016</b> , 22, 470-478	2	11
40	Experimental and numerical study of mass transfer efficiency in new wire gauze with high capacity structured packing. <i>Separation Science and Technology</i> , <b>2019</b> , 54, 2706-2717	2.5	11
39	Velocity Measurement in Carotid Artery: Quantitative Comparison of Time-Resolved 3D Phase-Contrast MRI and Image-based Computational Fluid Dynamics. <i>Iranian Journal of Radiology</i> , <b>2015</b> , 12, e18286	1.4	10
38	Bicarbonate flooding of homogeneous and heterogeneous cores from a carbonaceous petroleum reservoir. <i>Journal of Petroleum Science and Engineering</i> , <b>2019</b> , 178, 251-261	4.4	9
37	Optimization of a new combined approach to reduce energy consumption in the hybrid reactive distillation/pervaporation process. <i>Chemical Engineering and Processing: Process Intensification</i> , <b>2020</b> , 151, 107910	3.7	9
36	An experimental investigation of pool boiling characteristics of alumina-water nanofluid over micro-/nanostructured surfaces. <i>Heat Transfer Engineering</i> , <b>2019</b> , 40, 1691-1708	1.7	9
35	Oily wastewater treatment by a continuous flow microbial fuel cell and packages of cells with serial and parallel flow connections. <i>Bioelectrochemistry</i> , <b>2020</b> , 134, 107535	5.6	9
34	Investigation of the effects of nonisothermal suspension polymerization of vinyl chloride on resin properties. <i>Journal of Vinyl and Additive Technology</i> , <b>2017</b> , 23, 267-274	2	8
33	Three-dimensional CFD study of conical spouted beds containing heavy particles: Design parameters. <i>Korean Journal of Chemical Engineering</i> , <b>2017</b> , 34, 1541-1553	2.8	8

32	Investigation of the addition of nano-CaCo <sub>3</sub> at dry mixing or onset of fusion on the dispersion, torque, and mechanical properties of compounded PVC. <i>Journal of Vinyl and Additive Technology</i> , <b>2012</b> , 18, 153-160	2	8
31	Effect of applied EHD on in-tube condensation of R-134a within an assembled experimental rig including a laboratory heat exchanger. <i>Experimental Thermal and Fluid Science</i> , <b>2014</b> , 58, 112-120	3	7
30	Hexavalent chromium extraction from aqueous solutions in a liquid-liquid slug flow microreactor. <i>Chemical Engineering and Processing: Process Intensification</i> , <b>2020</b> , 157, 108156	3.7	7
29	Numerical study of slug flow heat transfer in microchannels. <i>International Journal of Thermal Sciences</i> , <b>2020</b> , 147, 106118	4.1	7
28	The effect of surface modification of (micro/nano)-calcium carbonate particles at various ratios on mechanical properties of poly(vinyl chloride) composites. <i>Journal of Thermoplastic Composite Materials</i> , <b>2015</b> , 28, 479-495	1.9	6
27	Modeling of the acute effects of primary hypertension and hypotension on the hemodynamics of intracranial aneurysms. <i>Annals of Biomedical Engineering</i> , <b>2015</b> , 43, 207-21	4.7	6
26	Optimization and heat integration of hybrid R <sub>1</sub> H <sub>2</sub> D <sub>1</sub> C <sub>2</sub> B <sub>1</sub> V process with the series-parallel arrangement of PV modules and recycle streams for TAME production. <i>Separation and Purification Technology</i> , <b>2020</b> , 242, 116786	8.3	6
25	Influences of initiator addition methods in suspension polymerization of vinyl chloride on poly(vinyl chloride) particles properties. <i>Journal of Vinyl and Additive Technology</i> , <b>2018</b> , 24, 116-123	2	6
24	Comparison of the effect of nano ZnO and conventional grade ZnO on the cross-linking densities of NR/BR and NR/SBR blends. <i>Journal of Elastomers and Plastics</i> , <b>2012</b> , 44, 443-451	1.6	6
23	Investigation of the effects of nonisothermal suspension polymerization of vinyl chloride on the fusion and degradation behavior of poly(vinyl chloride). <i>Journal of Vinyl and Additive Technology</i> , <b>2017</b> , 23, 259-266	2	5
22	Vinyl chloride removal from an air stream by biotrickling filter. <i>Journal of Environmental Science and Health - Part A Toxic/Hazardous Substances and Environmental Engineering</i> , <b>2012</b> , 47, 2263-9	2.3	5
21	Continuous Dosing of a Fast Initiator during Suspension Polymerization of Vinyl Chloride for Enhanced Productivity: Mathematical Modeling and Experimental Study. <i>Chemical Engineering Communications</i> , <b>2016</b> , 203, 1473-1483	2.2	5
20	Improvement of CO <sub>2</sub> absorption by Fe <sub>3</sub> O <sub>4</sub> /water nanofluid falling liquid film in presence of the magnetic field. <i>Canadian Journal of Chemical Engineering</i> , <b>2021</b> , 99, 519-529	2.3	5
19	Preparation and characterization of a novel calcium-conducting polymer inclusion membrane: Part I. <i>Korean Journal of Chemical Engineering</i> , <b>2018</b> , 35, 2052-2064	2.8	4
18	Influence of SiO <sub>2</sub> and graphene oxide nanoparticles on efficiency of biological removal process. <i>Environmental Technology (United Kingdom)</i> , <b>2017</b> , 38, 2763-2774	2.6	3
17	Effect of cell structure and heat pretreating of the microorganisms on performance of a microbial fuel cell. <i>Water Science and Technology</i> , <b>2019</b> , 79, 1746-1754	2.2	3
16	Characterization of interfacial interactions and emulsification properties of bicarbonate solutions and crude oil and the effects of temperature and pressure. <i>Journal of Molecular Liquids</i> , <b>2020</b> , 305, 112729	6	3
15	Mechanistic investigation of nonisothermal suspension polymerization of vinyl chloride. <i>Journal of Vinyl and Additive Technology</i> , <b>2018</b> , 24, 84-92	2	3

14	Influence of the specific surface area and silver crystallite size of mesoporous Ag/SrTiO <sub>3</sub> on the selectivity enhancement of ethylene oxide production. <i>Journal of Chemical Technology and Biotechnology</i> , <b>2019</b> , 94, 3839-3849	3.5	3
13	Pore network simulation for diffusion through a porous membrane: A comparison between Knudsen and Oscillator models. <i>Canadian Journal of Chemical Engineering</i> , <b>2014</b> , 92, 1059-1069	2.3	3
12	Effects of Variations of Flow and Heart Rate on Intra-Aneurysmal Hemodynamics in a Ruptured Internal Carotid Artery Aneurysm During Exercise. <i>Iranian Journal of Radiology</i> , <b>2016</b> , 13, e18217	1.4	3
11	Numerical study on increasing PVC suspension polymerization productivity by using PSO optimization algorithm. <i>International Journal of Plastics Technology</i> , <b>2016</b> , 20, 219-230	2.7	3
10	Influence of Physical Properties of Phases on Hydrodynamics and Mass Transfer Characteristics of a Liquid-Liquid Circular Microchannel <b>2016</b> ,		3
9	Enhancement of poly(vinyl chloride) productivity by continuous initiator injection. <i>Journal of Vinyl and Additive Technology</i> , <b>2017</b> , 23, 248-258	2	2
8	Development of pore network method in simulation of non-catalytic gas-solid reactions: Study of sulfur dioxide chemisorption on copper oxide sorbents. <i>Chemical Engineering Journal</i> , <b>2015</b> , 262, 295-312	14.7	2
7	Investigation of the effect of delayed reflux on PVC grain properties produced by suspension polymerization. <i>Journal of Applied Polymer Science</i> , <b>2010</b> , 117, NA-NA	2.9	2
6	INVESTIGATION OF THE EFFECT OF ELECTRIC FIELD ON CO <sub>2</sub> ABSORPTION IN WATER/Fe <sub>3</sub> O <sub>4</sub> NANOFUID. <i>Brazilian Journal of Chemical Engineering</i> , <b>2019</b> , 36, 1333-1342	1.7	2
5	Experimental study on the reduction of loratadine particle size through confined liquid impinging jets. <i>International Journal of Pharmaceutics</i> , <b>2020</b> , 587, 119668	6.5	2
4	Optimum process configuration for ETBE production based on TAC minimization. <i>Separation and Purification Technology</i> , <b>2021</b> , 256, 117744	8.3	2
3	A liquid-liquid microreactor for the intensification of hexavalent chromium removal from wastewaters. <i>Journal of Environmental Chemical Engineering</i> , <b>2021</b> , 9, 106543	6.8	1
2	The hybrid RDWC-per evaporation with series-parallel arrangement and heat integration for ETBE production. <i>Separation and Purification Technology</i> , <b>2021</b> , 268, 118695	8.3	1
1	Development of a Safe and Environmentally Friendly Sulfate Process for the Production of Titanium Oxide. <i>Industrial &amp; Engineering Chemistry Research</i> , <b>2022</b> , 61, 1786-1796	3.9	0