Zan Wu

List of Publications by Year
in descending order

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112 papers	3,371 citations	126907 33 h-index	155660 55 g-index
118 all docs	118 docs citations	118 times ranked	2135 citing authors

#	Article	IF	Citations
1	Thermal Conductivity of Ionic Liquid-Based Nanofluids Containing Magnesium Oxide and Aluminum Oxide Nanoparticles. Heat Transfer Engineering, 2022, 43, 1806-1819.	1.9	6
2	Pool Boiling of NOVEC-649 on Microparticle-Coated and Nanoparticle-Coated Surfaces. Heat Transfer Engineering, 2021, 42, 1732-1747.	1.9	10
3	Heat Transfer Study of a Hybrid Smooth and Spirally Corrugated Tube. Heat Transfer Engineering, 2021, 42, 242-250.	1.9	9
4	Nanoparticle-Assisted Pool Boiling Heat Transfer on Micro-Pin-Fin Surfaces. Langmuir, 2021, 37, 1089-1101.	3.5	20
5	Toward computationally effective modeling and simulation of droplet formation in microchannel junctions. Chemical Engineering Research and Design, 2021, 166, 135-147.	5.6	10
6	Analysis on breakup dynamics of hydrogen taylor bubble formation in a cross-junction microchannel. International Journal of Hydrogen Energy, 2021, 46, 33438-33452.	7.1	4
7	High conversion hydrogen peroxide microchannel reactors: Design and two-phase flow instability investigation. Chemical Engineering Journal, 2021, 422, 130080.	12.7	4
8	Coating engineering for boiling heat transfer toward immersion cooling. Advances in Heat Transfer, 2021, 53, 97-158.	0.9	2
9	Bubble dynamics and mechanistic boiling heat transfer prediction on a scored copper surface. Journal of Physics: Conference Series, 2021, 2116, 012009.	0.4	0
10	Analysis of Fouling in Six-Start Spirally Corrugated Tubes. Heat Transfer Engineering, 2020, 41, 1885-1900.	1.9	4
11	Application of ultrasound technology in the drying of food products. Ultrasonics Sonochemistry, 2020, 63, 104950.	8.2	110
12	Studies of gas-liquid two-phase flows in horizontal mini tubes using 3D reconstruction and numerical methods. International Journal of Multiphase Flow, 2020, 133, 103456.	3.4	19
13	An improved method to visualize two regions of interest synchronously in microfluidics. Flow Measurement and Instrumentation, 2020, 72, 101715.	2.0	6
14	Numerical studies of gas-liquid Taylor flows in vertical capillaries using CuO/water nanofluids. International Communications in Heat and Mass Transfer, 2020, 116, 104665.	5.6	9
15	Breakup dynamics of low-density gas and liquid interface during Taylor bubble formation in a microchannel flow-focusing device. Chemical Engineering Science, 2020, 215, 115473.	3.8	13
16	Breakup dynamics of gas-liquid interface during Taylor bubble formation in a microchannel flow-focusing device. Experimental Thermal and Fluid Science, 2020, 113, 110043.	2.7	5
17	Heat transfer prediction and critical heat flux mechanism for pool boiling of NOVEC-649 on microporous copper surfaces. International Journal of Heat and Mass Transfer, 2019, 141, 818-834.	4.8	38
18	Electrophoretic deposition surfaces to enhance HFE-7200 pool boiling heat transfer and critical heat flux. International Journal of Thermal Sciences, 2019, 146, 106107.	4.9	20

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19	Effects of a Dynamic Injection Flow Rate on Slug Generation in a Cross-Junction Square Microchannel. Processes, 2019, 7, 765.	2.8	10
20	Thermal Characteristics of a Stratospheric Airship with Natural Convection and External Forced Convection. International Journal of Aerospace Engineering, 2019, 2019, 1-11.	0.9	5
21	An analysis of pool boiling heat transfer on nanoparticle-coated surfaces. Energy Procedia, 2019, 158, 5880-5887.	1.8	8
22	Nucleate pool boiling heat transfer of acetone and HFE7200 on copper surfaces with nanoparticle coatings. Energy Procedia, 2019, 158, 5872-5879.	1.8	1
23	A comprehensive review on liquidâ€“liquid two-phase flow in microchannel: flow pattern and mass transfer. Microfluidics and Nanofluidics, 2019, 23, 1.	2.2	49
24	Saturated pool boiling heat transfer of acetone and HFE-7200 on modified surfaces by electrophoretic and electrochemical deposition. Applied Energy, 2019, 249, 286-299.	10.1	52
25	Slug Formation Analysis of Liquidâ€“Liquid Two-Phase Flow in T-Junction Microchannels. Journal of Thermal Science and Engineering Applications, 2019, 11, .	1.5	20
26	Heat transfer analysis on dimple geometries and arrangements in dimple jacketed heat exchanger. International Journal of Numerical Methods for Heat and Fluid Flow, 2019, 29, 2775-2791.	2.8	8
27	Magnetic Field Effect on Thermal, Dielectric, and Viscous Properties of a Transformer Oil-Based Magnetic Nanofluid. Energies, 2019, 12, 4532.	3.1	30
28	Correlations for prediction of the bubble departure radius on smooth flat surface during nucleate pool boiling. International Journal of Heat and Mass Transfer, 2019, 132, 699-714.	4.8	31
29	Flow patterns and slug scaling of liquid-liquid flow in square microchannels. International Journal of Multiphase Flow, 2019, 112, 27-39.	3.4	48
30	Pool boiling of HFE-7200 on nanoparticle-coating surfaces: Experiments and heat transfer analysis. International Journal of Heat and Mass Transfer, 2019, 133, 548-560.	4.8	45
31	Liquid-liquid two-phase flow patterns in ultra-shallow straight and serpentine microchannels. Heat and Mass Transfer, 2019, 55, 1095-1108.	2.1	25
32	A review on molten-salt-based and ionic-liquid-based nanofluids for medium-to-high temperature heat transfer. Journal of Thermal Analysis and Calorimetry, 2019, 136, 1037-1051.	3.6	54
33	Investigation of Mixed Convection in an Enclosure Filled with Nanofluids of Al₂O₃â€“Water and Graphene-Ethylene Glycol. Journal of Nanofluids, 2019, 8, 337-348.	2.7	2
34	Experimental comparative evaluation of a graphene nanofluid coolant in miniature plate heat exchanger. International Journal of Thermal Sciences, 2018, 130, 148-156.	4.9	65
35	Mass transfer between phases in microchannels: A review. Chemical Engineering and Processing: Process Intensification, 2018, 127, 213-237.	3.6	105
36	Dimensionless analysis on liquid-liquid flow patterns and scaling law on slug hydrodynamics in cross-junction microchannels. Chemical Engineering Journal, 2018, 344, 604-615.	12.7	73

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37	A Parametric Study of Hydrodynamic Cavitation Inside Globe Valves. Journal of Fluids Engineering, Transactions of the ASME, 2018, 140, .	1.5	35
38	Dryout-type critical heat flux in vertical upward annular flow: effects of entrainment rate, initial entrained fraction and diameter. Heat and Mass Transfer, 2018, 54, 81-90.	2.1	4
39	Heat transfer study on a hybrid smooth and spirally corrugated tube. MATEC Web of Conferences, 2018, 240, 01038.	0.2	0
40	Effects of nanoparticles on hydraulic cavitation. MATEC Web of Conferences, 2018, 240, 03004.	0.2	0
41	Pool Boiling Heat Transfer of N-Pentane and Acetone on Nanostructured Surfaces by Electrophoretic Deposition. , 2018, , .		2
42	Investigation of Bubble Departure Radius in Subcooled Pool Boiling Under Microgravity Condition. , 2018, , .		1
43	Water-Oil Flow in Square Microchannels With a Crossed Junction. , 2018, , .		0
44	Theoretical Model of Droplets Motions on Solid Surface With Radial Wettable and Evaporation Rate Gradients. , 2018, , .		0
45	The Hydraulic Cavitation Affected by Nanoparticles in Nanofluids. Computation, 2018, 6, 44.	2.0	1
46	Water-Silicone Oil Two-Phase Flow Hydrodynamics in a Square Glass Microchannel. , 2018, , .		1
47	Heat transfer correlations for jet impingement boiling over micro-pin-finned surface. International Journal of Heat and Mass Transfer, 2018, 126, 401-413.	4.8	22
48	A geometric study on shell side heat transfer and flow resistance of a six-start spirally corrugated tube. Numerical Heat Transfer; Part A: Applications, 2018, 73, 565-582.	2.1	11
49	Pool boiling heat transfer of N-pentane on micro/nanostructured surfaces. International Journal of Thermal Sciences, 2018, 130, 386-394.	4.9	35
50	Enhancement of loop heat pipe performance with the application of micro/nano hybrid structures. International Journal of Heat and Mass Transfer, 2018, 127, 1248-1263.	4.8	14
51	Thermophysical properties and convection heat transfer behavior of ionic liquid [C4mim][NTf2] at medium temperature in helically corrugated tubes. Applied Thermal Engineering, 2018, 142, 457-465.	6.0	10
52	Pool boiling heat transfer of FC-72 on pin-fin silicon surfaces with nanoparticle deposition. International Journal of Heat and Mass Transfer, 2018, 126, 1019-1033.	4.8	68
53	Entropy generation analysis of fully-developed turbulent heat transfer flow in inward helically corrugated tubes. Numerical Heat Transfer; Part A: Applications, 2018, 73, 788-805.	2.1	27
54	Effects of Graphene Ethylene Glycol/Water Nanofluids on the Performance of a Brazed Plate Heat Exchanger. Journal of Nanofluids, 2018, 7, 1069-1074.	2.7	7

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55	ANALYSIS OF NATURAL CONVECTION OF Cu AND TiO2 NANOFLUIDS INSIDE NONCONVENTIONAL ENCLOSURES. Journal of Enhanced Heat Transfer, 2018, 25, 315-332.	1.1	4
56	On Heat Transfer Issues for Wind Energy Systems. Journal of Energy Resources Technology, Transactions of the ASME, 2017, 139, .	2.3	6
57	The effect of the size of square microchannels on hydrodynamics and mass transfer during liquidâ€liquid slug flow. AIChE Journal, 2017, 63, 5019-5028.	3.6	34
58	Hydrodynamics and mass transfer in liquid-liquid non-circular microchannels: Comparison of two aspect ratios and three junction structures. Chemical Engineering Journal, 2017, 322, 328-338.	12.7	56
59	Local heat transfer in subcooled flow boiling in a vertical mini-gap channel. International Journal of Heat and Mass Transfer, 2017, 110, 796-804.	4.8	23
60	Two-Phase Flow Patterns in Microfluidic Cross-Shaped Junctions and Slug Hydrodynamics in the Dripping Regime. , 2017, , .		1
61	Liquid-Liquid Flow Patterns in Microchannels. , 2017, , .		3
62	Liquid-liquid flow patterns and slug hydrodynamics in square microchannels of cross-shaped junctions. Chemical Engineering Science, 2017, 174, 56-66.	3.8	51
63	Theoretical study of solvent effects on the decomposition of formic acid over a Co(111) surface. International Journal of Hydrogen Energy, 2017, 42, 24726-24736.	7.1	16
64	Numerical study on heat transfer enhancement for laminar flow in a tube with mesh conical frustum inserts. Numerical Heat Transfer; Part A: Applications, 2017, 72, 21-39.	2.1	9
65	Pool Boiling Heat Transfer of Water on Copper Surfaces With Nanoparticles Coating. , 2017, , .		5
66	Effects of Inlet Arrangements on Liquid-Liquid Flow Patterns in Cross-Junction Square Microchannels. , 2017, , .		0
67	Effects of Engineered Micro/Nanostructures on Nucleate Pool Boiling Heat Transfer. Nanoscience and Nanotechnology - Asia, 2017, 7, .	0.7	3
68	Influence of Physical Properties of Phases on Hydrodynamics and Mass Transfer Characteristics of a Liquid-Liquid Circular Microchannel. , 2016, , .		3
69	Effect of Entrainment on Liquid Film Dryout in Vertical Upward Annular Flow. , 2016, , .		0
70	Additional Remarks. , 2016, , 119-121.		0
71	Comparison of heat transfer characteristics of aviation kerosene flowing in smooth and enhanced mini tubes at supercritical pressures. International Journal of Numerical Methods for Heat and Fluid Flow, 2016, 26, 1289-1308.	2.8	19
72	Frictional Pressure Drop Correlations for Single-Phase Flow, Condensation, and Evaporation in Microfin Tubes. Journal of Heat Transfer, 2016, 138, .	2.1	9

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73	Flow-Pattern Based Heat Transfer Correlations for Stable Flow Boiling in Micro/Minichannels. Journal of Heat Transfer, 2016, 138, .	2.1	7
74	Effects of hybrid nanofluid mixture in plate heat exchangers. Experimental Thermal and Fluid Science, 2016, 72, 190-196.	2.7	222
75	Effects of Surfactant on Flow Boiling Heat Transfer of Ethylene Glycol/Water Mixtures in a Minitube. Heat Transfer Engineering, 2016, 37, 1126-1135.	1.9	9
76	Aqueous carbon nanotube nanofluids and their thermal performance in a helical heat exchanger. Applied Thermal Engineering, 2016, 96, 364-371.	6.0	39
77	Convective heat transfer performance of aggregate-laden nanofluids. International Journal of Heat and Mass Transfer, 2016, 93, 1107-1115.	4.8	10
78	A brief review on convection heat transfer of fluids at supercritical pressures in tubes and the recent progress. Applied Energy, 2016, 162, 494-505.	10.1	213
79	Heat Transfer Correlations for Elongated Bubbly Flow in Flow Boiling Micro/Minichannels. Heat Transfer Engineering, 2016, 37, 985-993.	1.9	41
80	Passive Techniques. , 2016, , 81-109.		0
81	Pressure drop and convective heat transfer of Al2O3/water and MWCNT/water nanofluids in a chevron plate heat exchanger. International Journal of Heat and Mass Transfer, 2015, 89, 620-626.	4.8	127
82	On Icing and Icing Mitigation of Wind Turbine Blades in Cold Climate. Journal of Energy Resources Technology, Transactions of the ASME, 2015, 137, .	2.3	36
83	Modified graphite filled natural rubber composites with good thermal conductivity. Chinese Journal of Chemical Engineering, 2015, 23, 853-859.	3.5	28
84	Condensation and evaporation heat transfer characteristics in horizontal smooth, herringbone and enhanced surface EHT tubes. International Journal of Heat and Mass Transfer, 2015, 85, 281-291.	4.8	88
85	Heat transfer to aviation kerosene flowing upward in smooth tubes at supercritical pressures. International Journal of Heat and Mass Transfer, 2015, 85, 1084-1094.	4.8	36
86	Experimental study on heat transfer of nanofluids in a vertical tube at supercritical pressures. International Communications in Heat and Mass Transfer, 2015, 63, 54-61.	5.6	6
87	Heat Transfer Correlations for Single-Phase Flow, Condensation, and Boiling in Microfin Tubes. Heat Transfer Engineering, 2015, 36, 582-595.	1.9	28
88	NUMERICAL STUDY ON FLOW AND CONVECTIVE HEAT TRANSFER OF AVIATION KEROSENE IN A VERTICAL MINITUBE AT SUPERCRITICAL PRESSURES. Computational Thermal Sciences, 2015, 7, 375-384.	0.9	0
89	Convective Condensation Inside Horizontal Smooth and Microfin Tubes. Journal of Heat Transfer, 2014, 136, .	2.1	40
90	Spiral Coil Inserts for Heat Transfer Enhancement in a Parallel-Plate Channel. Numerical Heat Transfer; Part A: Applications, 2014, 66, 756-772.	2.1	3

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91	On further enhancement of single-phase and flow boiling heat transfer in micro/minichannels. Renewable and Sustainable Energy Reviews, 2014, 40, 11-27.	16.4	109
92	Simple Flow-Pattern Based Heat Transfer Correlations for Flow Boiling in Micro/Minichannels. , 2014, , .		1
93	Frictional Pressure Drop Correlations for Single-Phase Flow, Condensation and Evaporation in Microfin Tubes. , 2014, , .		0
94	On Ice Accretion for Wind Turbines and Influence of Some Parameters. WIT Transactions on State-of-the-art in Science and Engineering, 2014, , 129-159.	0.0	4
95	Pressure drop and convective heat transfer of water and nanofluids in a double-pipe helical heat exchanger. Applied Thermal Engineering, 2013, 60, 266-274.	6.0	145
96	Evaporative Annular Flow in Micro/Minichannels: A Simple Heat Transfer Model. Journal of Thermal Science and Engineering Applications, 2013, 5, .	1.5	12
97	Convective vaporization in micro-fin tubes of different geometries. Experimental Thermal and Fluid Science, 2013, 44, 398-408.	2.7	89
98	ENDWALL HEAT TRANSFER AT THE TURN SECTION IN A TWO-PASS SQUARE CHANNEL WITH AND WITHOUT RIBS. Journal of Enhanced Heat Transfer, 2013, 20, 321-332.	1.1	1
99	Condensation Pressure Drop and Heat Transfer in 5-mm-OD Micro-Fin Tubes. , 2012, , .		0
100	Experimental investigation of condensation in micro-fin tubes of different geometries. Experimental Thermal and Fluid Science, 2012, 37, 19-28.	2.7	55
101	Modeling natural convection heat transfer from perforated plates. Journal of Zhejiang University: Science A, 2012, 13, 353-360.	2.4	13
102	CONVECTIVE CONDENSATION OF R410A IN MICRO-FIN TUBES. Journal of Enhanced Heat Transfer, 2012, 19, 515-525.	1.1	4
103	Generalized adiabatic pressure drop correlations in evaporative micro/mini-channels. Experimental Thermal and Fluid Science, 2011, 35, 866-872.	2.7	45
104	Correlations for saturated critical heat flux in microchannels. International Journal of Heat and Mass Transfer, 2011, 54, 379-389.	4.8	52
105	A new predictive tool for saturated critical heat flux in micro/mini-channels: Effect of the heated length-to-diameter ratio. International Journal of Heat and Mass Transfer, 2011, 54, 2880-2889.	4.8	33
106	Correlations for Saturated Critical Heat Flux in Microchannels. , 2010, , .		0
107	A general criterion for evaporative heat transfer in micro/mini-channels. International Journal of Heat and Mass Transfer, 2010, 53, 1967-1976.	4.8	102
108	A general correlation for evaporative heat transfer in micro/mini-channels. International Journal of Heat and Mass Transfer, 2010, 53, 1778-1787.	4.8	191

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109	A general correlation for adiabatic two-phase pressure drop in micro/mini-channels. International Journal of Heat and Mass Transfer, 2010, 53, 2732-2739.	4.8	167
110	An Analysis of Saturated Critical Heat Flux in Micro/Mini-Channels. , 2010, , .		0
111	Generalized Adiabatic Two-Phase Pressure Drop Correlation in Evaporative Micro/Mini-Channels. , 2009, , .		0
112	A COMPARATIVE STUDY ON THERMAL CONDUCTIVITY AND RHEOLOGY PROPERTIES OF ALUMINA AND MULTI-WALLED CARBON NANOTUBE NANOFLUIDS. Frontiers in Heat and Mass Transfer, 0, 5, .	0.2	4