Zhongliang Liu

List of Publications by Year
in descending order

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71 papers	2,337 citations	201674 27 h-index	214800 47 g-index
72 all docs	72 docs citations	72 times ranked	1858 citing authors

#	Article	IF	Citations
1	A new method for fabrication of graphene/polyaniline nanocomplex modified microbial fuel cell anodes. Journal of Power Sources, 2013, 224, 139-144.	7.8	275
2	Three-dimensional macroporous anodes based on stainless steel fiber felt for high-performance microbial fuel cells. Journal of Power Sources, 2014, 258, 204-209.	7.8	169
3	Frost formation on a super-hydrophobic surface under natural convection conditions. International Journal of Heat and Mass Transfer, 2008, 51, 5975-5982.	4.8	164
4	Effect of contact angle on water droplet freezing process on a cold flat surface. Experimental Thermal and Fluid Science, 2012, 40, 74-80.	2.7	122
5	Numerical investigation of the influences of mixing chamber geometries on steam ejector performance. Desalination, 2014, 353, 15-20.	8.2	89
6	Experimental study on frost release on fin-and-tube heat exchangers by use of a novel anti-frosting paint. Experimental Thermal and Fluid Science, 2009, 33, 1049-1054.	2.7	81
7	An experimental study on the heat transfer characteristics of a heat pipe heat exchanger with latent heat storage. Part II: Simultaneous charging/discharging modes. Energy Conversion and Management, 2006, 47, 967-991.	9.2	72
8	Experimental study of the characteristics of solidification of stearic acid in an annulus and its thermal conductivity enhancement. Energy Conversion and Management, 2005, 46, 971-984.	9.2	70
9	Numerical study for the influences of primary nozzle on steam ejector performance. Applied Thermal Engineering, 2016, 106, 1148-1156.	6.0	68
10	An experimental study on minimizing frost deposition on a cold surface under natural convection conditions by use of a novel anti-frosting paint. Part I. Anti-frosting performance and comparison with the uncoated metallic surface. International Journal of Refrigeration, 2006, 29, 229-236.	3.4	64
11	Numerical study for the influences of primary steam nozzle distance and mixing chamber throat diameter on steam ejector performance. International Journal of Thermal Sciences, 2018, 132, 509-516.	4.9	51
12	A novel steam ejector with pressure regulation to optimize the entrained flow passage for performance improvement in MED-TVC desalination system. Energy, 2018, 158, 305-316.	8.8	51
13	An experimental study of frost formation on cryogenic surfaces under natural convection conditions. International Journal of Heat and Mass Transfer, 2016, 97, 569-577.	4.8	49
14	Preparation and anti-frosting performance of super-hydrophobic surface based on copper foil. International Journal of Thermal Sciences, 2011, 50, 432-439.	4.9	47
15	A comparative study of graphene-coated stainless steel fiber felt and carbon cloth as anodes in MFCs. Bioprocess and Biosystems Engineering, 2015, 38, 881-888.	3.4	42
16	Visualization experimental study of the condensing flow regime in the transonic mixing process of desalination-oriented steam ejector. Energy Conversion and Management, 2019, 197, 111849.	9.2	41
17	Deformation of freezing water droplets on a cold copper surface. Science in China Series D: Earth Sciences, 2006, 49, 590-600.	0.9	40
18	Polyaniline Modified Stainless Steel Fiber Felt for High-Performance Microbial Fuel Cell Anodes. Journal of Clean Energy Technologies, 2015, 3, 165-169.	0.1	40

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19	A novel steam ejector with auxiliary entrainment for energy conservation and performance optimization. Energy Conversion and Management, 2017, 148, 210-221.	9.2	38
20	Frost deposition on a horizontal cryogenic surface in free convection. International Journal of Heat and Mass Transfer, 2017, 113, 166-175.	4.8	37
21	Investigation on Separation Efficiency in Supersonic Separator with Gas-Droplet Flow Based on DPM Approach. Separation Science and Technology, 2014, 49, 2603-2612.	2.5	31
22	A novel anode fabricated by three-dimensional printing for use in urine-powered microbial fuel cell. Biochemical Engineering Journal, 2017, 124, 36-43.	3.6	29
23	Performance improvement of steam ejectors under designed parameters with auxiliary entrainment and structure optimization for high energy efficiency. Energy Conversion and Management, 2017, 153, 12-21.	9.2	29
24	Enhancing performance of microbial fuel cells byÂusing novel double-layer-capacitor-materials modified anodes. International Journal of Hydrogen Energy, 2018, 43, 1816-1823.	7.1	29
25	A novel steam ejector with pressure regulation to dredge the blocked entrained flow for performance improvement in MED-TVC desalination system. Energy Conversion and Management, 2018, 172, 237-247.	9.2	29
26	Combined auxiliary entrainment and structure optimization for performance improvement of steam ejector with consideration of back pressure variation. Energy Conversion and Management, 2018, 166, 163-173.	9.2	28
27	A combined pressure regulation technology with multi-optimization of the entrainment passage for performance improvement of the steam ejector in MED-TVC desalination system. Energy, 2019, 175, 46-57.	8.8	28
28	A double-choking theory as an explanation of the evolution laws of ejector performance with various operational and geometrical parameters. Energy Conversion and Management, 2020, 206, 112499.	9.2	28
29	An experimental study of pH distributions within an electricity-producing biofilm by using pH microelectrode. Electrochimica Acta, 2017, 251, 187-194.	5.2	26
30	Numerical investigation and improvement strategy of flow characteristics inside supersonic separator. Separation Science and Technology, 2018, 53, 940-952.	2.5	25
31	An experimental study of boiling and condensation co-existing phase change heat transfer in small confined space. International Journal of Heat and Mass Transfer, 2013, 64, 1082-1090.	4.8	24
32	Experimental study on a new method for improving the performance of thermal vapor compressors for multi-effect distillation desalination systems. Desalination, 2014, 344, 391-395.	8.2	24
33	Development and experimental studies on a fully-rotary valve energy recovery device for SWRO desalination system. Desalination, 2016, 397, 67-74.	8.2	22
34	Study on fundamental link between mixing efficiency and entrainment performance of a steam ejector. Energy, 2021, 215, 119128.	8.8	22
35	Improved electricity generation, coulombic efficiency and microbial community structure of microbial fuel cells using sodium citrate as an effective additive. Journal of Power Sources, 2021, 482, 228947.	7.8	21
36	A membraneless microfluidic fuel cell with continuous multistream flow through cotton threads. International Journal of Energy Research, 2020, 44, 2243-2251.	4.5	20

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37	Experimental study of frost growth on a horizontal cold surface under forced convection. Journal of Mechanical Science and Technology, 2010, 24, 1523-1529.	1.5	18
38	Catalytic oxidation characteristics of CH 4 â€“air mixtures over metal foam monoliths. Applied Energy, 2015, 156, 756-761.	10.1	18
39	Modification of the anodes using MoS2 nanoflowers for improving microbial fuel cells performance. Catalysis Today, 2021, 364, 111-117.	4.4	18
40	A novel stainless steel fiber felt/Pd nanocatalysts electrode for efficient ORR in air-cathode microbial fuel cells. Electrochimica Acta, 2019, 324, 134862.	5.2	17
41	Mixing process of two streams within a steam ejector from the perspectives of mass, momentum and energy transfer. Applied Thermal Engineering, 2021, 185, 116358.	6.0	17
42	An experimental study on minimizing frost deposition on a cold surface under natural convection conditions by use of a novel anti-frosting paint. Part II. Long-term performance, frost layer observation and mechanism analysis. International Journal of Refrigeration, 2006, 29, 237-242.	3.4	16
43	A visualization study of the influences of liquid levels on boiling and condensation co-existing phase change heat transfer phenomenon in small confined spaces. International Journal of Heat and Mass Transfer, 2014, 73, 415-423.	4.8	16
44	Visualization study of boiling and condensation co-existing phase change heat transfer in a small and closed space with a boiling surface of enhanced structures. International Journal of Heat and Mass Transfer, 2014, 79, 916-924.	4.8	15
45	Phase equilibrium calculation of multi-component gas separation of supersonic separator. Science China Technological Sciences, 2010, 53, 435-443.	4.0	14
46	Influences of friction drag on spontaneous condensation in water vapor supersonic flows. Science in China Series D: Earth Sciences, 2009, 52, 2653-2659.	0.9	13
47	Enhancing boiling and condensation co-existing heat transfer in a small and closed space by copper foam inserts. International Journal of Heat and Mass Transfer, 2017, 108, 961-971.	4.8	12
48	High electricity generation achieved by depositing rGO@MnO2 composite catalysts on three-dimensional stainless steel fiber felt for preparing the energy-efficient air cathode in microbial fuel cells. Energy, 2021, 222, 119971.	8.8	12
49	Studies on leakage characteristics and efficiency of a fully-rotary valve energy recovery device by CFD simulation. Desalination, 2017, 415, 40-48.	8.2	11
50	Energyâ€saving evaluation of a thermosyphon heat recovery unit for an airâ€conditioning system. Heat Transfer - Asian Research, 2013, 42, 377-388.	2.8	9
51	An optimization study on the seal structure of fully-rotary valve energy recovery device by CFD. Desalination, 2019, 459, 46-58.	8.2	9
52	Study on evolution laws of two-phase choking flow and entrainment performance of steam ejector oriented towards MED-TVC desalination system. Energy, 2022, 242, 122967.	8.8	9
53	Experimental investigations of frost release by hydrophilic surfaces. Frontiers of Energy and Power Engineering in China, 2010, 4, 475-487.	0.4	8
54	Frost formation on a bionic super-hydrophobic surface under natural convection conditions. Heat Transfer - Asian Research, 2008, 37, 412-420.	2.8	7

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55	Self-Nitrogen-Doped Carbon Nanosheets Modification of Anodes for Improving Microbial Fuel Cellsâ€™ Performance. Catalysts, 2020, 10, 381.	3.5	7
56	Experimental investigation of the influence of electric field on frost layer growth under natural convection condition*. Progress in Natural Science: Materials International, 2006, 16, 410-415.	4.4	6
57	Fractal model for simulation of frost formation and growth. Science China Technological Sciences, 2010, 53, 807-812.	4.0	6
58	Enhancing boiling and condensation co-existing heat transfer in a small and closed space by heat-conduction bridges. International Journal of Heat and Mass Transfer, 2017, 114, 891-902.	4.8	6
59	Experimental Study on Catalytic Combustion of Methane in a Microcombustor with Metal Foam Monolithic Catalyst. Catalysts, 2018, 8, 536.	3.5	6
60	Improved performance of microbial fuel cells using a gradient porous air cathode: An experiment and simulation study. Bioelectrochemistry, 2019, 130, 107335.	4.6	6
61	The theoretical analysis and experimental study on anti-frosting performance of surface characteristics. International Journal of Thermal Sciences, 2019, 137, 343-351.	4.9	6
62	A NEW METHOD FOR NUMERICAL TREATMENT OF DIFFUSION COEFFICIENTS AT CONTROL-VOLUME SURFACES. Numerical Heat Transfer, Part B: Fundamentals, 2005, 47, 491-505.	0.9	5
63	Experimental study of frost formation on straight cylindrical fins of cryogenic temperature under natural convection conditions. International Journal of Refrigeration, 2022, 135, 51-59.	3.4	5
64	Emissions and thermal efficiency investigation of a pressurized submerged combustion evaporator. International Journal of Low-Carbon Technologies, 2012, 7, 257-263.	2.6	4
65	Experimental study on the performance of single-piston free-piston expanderâ€”linear generator. Energy, 2021, 221, 119724.	8.8	4
66	Force and energy analysis of single-piston free-piston expanderâ€”linear generator. Energy, 2022, 251, 123926.	8.8	4
67	Carbon nanotube sponge 3D anodes for urine-powered microbial fuel cell. Energy Sources, Part A: Recovery, Utilization and Environmental Effects, 2017, 39, 1543-1547.	2.3	3
68	Study on Optimal Operating Mode of a Thermosyphon Heat Exchanger Unit in a Shopping Center. Journal of Energy Engineering - ASCE, 2013, 139, 275-280.	1.9	1
69	A One-Dimensional Heat Transfer Model Analysis of Heat Sinks. Heat Transfer Engineering, 2014, 35, 764-769.	1.9	1
70	CHARACTERISTICS OF HYDROGEN-ASSISTED CATALYTIC OXIDATION OF CH4/AIR MIXTURES OVER METAL FOAM-BASED MONOLITHIC CATALYST. International Journal of Energy for A Clean Environment, 2015, 16, 81-89.	1.1	1
71	Simulation of Denitrification of Vehicle Exhaust over Cu-CHA Bazite Catalyst for a Monolith Reactor. Catalysts, 2021, 11, 930.	3.5	1