

Baolong Wang

List of Publications by Year in descending order

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102
papers

3,207
citations

156536

32
h-index

206121

51
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102
all docs

102
docs citations

102
times ranked

1623
citing authors

#	ARTICLE	IF	CITATIONS
1	A modified exergy analysis method for vapor compression systems: Splitting refrigerant exergy destruction. <i>Applied Thermal Engineering</i> , 2022, 201, 117728.	3.0	6
2	Investigation of thermal comfort of room air conditioner during heating season. <i>Building and Environment</i> , 2022, 207, 108544.	3.0	13
3	Precision improvement method for onsite performance measurement of variable refrigerant flow system. <i>Building and Environment</i> , 2022, 208, 108626.	3.0	7
4	Performance simulation and applicability analysis of hybrid air conditioner in cooling season. <i>Building and Environment</i> , 2022, 210, 108692.	3.0	4
5	A computationally efficient scroll compressor model for both single-phase and two-phase compression considering scroll wrap temperature distribution. <i>International Journal of Refrigeration</i> , 2022, 138, 159-168.	1.8	1
6	Experimental investigation on indoor environment and energy performance of convective terminals. <i>Energy</i> , 2022, 251, 123929.	4.5	7
7	Comparative analysis of the energy efficiency of air-conditioner and variable refrigerant flow systems in residential buildings in the Yangtze River region. <i>Journal of Building Engineering</i> , 2022, 55, 104644.	1.6	3
8	A novel integrated index for simultaneous evaluation of the thermal comfort and energy efficiency of air-conditioning systems. <i>Journal of Building Engineering</i> , 2022, 57, 104885.	1.6	5
9	Field performance of household room air conditioners in Yangtze River Region in China: Case studies. <i>Journal of Building Engineering</i> , 2021, 34, 101952.	1.6	9
10	Upper-limit of performance improvement by using (quasi) two-stage vapor compression. <i>Applied Thermal Engineering</i> , 2021, 185, 116426.	3.0	10
11	Experimental investigation of a heat-source tower heat pump with self-regenerator using subcooling heat. <i>Energy and Buildings</i> , 2021, 240, 110858.	3.1	15
12	Methods for performance metering of indoor units in variable refrigerant flow systems based on built-in sensors. <i>Applied Thermal Engineering</i> , 2021, 196, 117268.	3.0	7
13	Experimental performance analysis of hybrid air conditioner in cooling season. <i>Building and Environment</i> , 2021, 204, 108160.	3.0	12
14	A general method to evaluate the applicability of natural energy for building cooling and heating: Revised degree hours. <i>Energy and Buildings</i> , 2021, 250, 111277.	3.1	4
15	Performance evaluation of novel double internal auto-cascade two-stage compression system using refrigerant mixtures. <i>Applied Thermal Engineering</i> , 2020, 168, 114898.	3.0	21
16	Experimental study on effects of supply-air humidification on energy and emission performance of domestic gas boilers. <i>Energy and Buildings</i> , 2020, 209, 109726.	3.1	14
17	Combination principle of hybrid sources and three typical types of hybrid source heat pumps for year-round efficient operation. <i>Energy</i> , 2020, 193, 116772.	4.5	18
18	All-condition measuring methods for field performance of room air conditioner. <i>Applied Thermal Engineering</i> , 2020, 180, 115887.	3.0	17

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19	Application of optimization method based on discretized thermal energy in condensing heat recovery system of combined heat and power plant. <i>Energy</i> , 2020, 213, 119013.	4.5	4
20	Numerical investigation of the energy efficiency of a serial pipe-embedded external wall system considering water temperature changes in the pipeline. <i>Journal of Building Engineering</i> , 2020, 31, 101435.	1.6	9
21	Effect of installation height of indoor unit on field heating performance of room air conditioner. <i>Journal of Building Engineering</i> , 2020, 32, 101527.	1.6	5
22	Theoretical Analysis of a Novel Two-Stage Compression System Using Refrigerant Mixtures. <i>Environmental Science and Engineering</i> , 2020, , 893-901.	0.1	0
23	Simulation of the performance of a gas-fired hot water system with compression-enhanced ejector heat pump using R152a. <i>Applied Thermal Engineering</i> , 2019, 162, 114159.	3.0	5
24	Experimental investigation on NH ₃ -H ₂ O generator-absorber heat exchange (GAX) absorption heat pump. <i>Energy</i> , 2019, 185, 337-349.	4.5	7
25	Review on recent developments of variable refrigerant flow systems since 2015. <i>Energy and Buildings</i> , 2019, 198, 444-466.	3.1	49
26	Comparative study of two-phase natural circulation and gas-side mechanically driven loop used in air-conditioning systems. <i>Applied Thermal Engineering</i> , 2019, 153, 848-860.	3.0	10
27	Experimental investigation of the regeneration performance of an internally heated regenerator used for heating tower solution regeneration. <i>Energy Conversion and Management</i> , 2019, 189, 184-194.	4.4	19
28	New method for measuring field performance of variable refrigerant flow systems based on compressor set energy conservation. <i>Applied Thermal Engineering</i> , 2019, 154, 530-539.	3.0	21
29	Experimental investigation on closed-type heating tower using glycerol solution. <i>International Journal of Refrigeration</i> , 2019, 99, 272-287.	1.8	11
30	CFD simulation of a rotary compressor with gas injection. <i>IOP Conference Series: Materials Science and Engineering</i> , 2019, 604, 012084.	0.3	1
31	Influence of occupant behavior on the energy performance of variable refrigerant flow systems for office buildings: A case study. <i>Journal of Building Engineering</i> , 2019, 22, 327-334.	1.6	21
32	Optimal volume ratio of two-stage vapour compression system using zeotropic refrigerant. <i>International Journal of Refrigeration</i> , 2019, 98, 343-353.	1.8	9
33	Energy saving potential of fresh air pre-handling system using shallow geothermal energy. <i>Energy and Buildings</i> , 2019, 185, 39-48.	3.1	31
34	Comparison of mechanical vapor recompression technology for solution regeneration in heat-source tower heat pumps. <i>Building Services Engineering Research and Technology</i> , 2019, 40, 360-378.	0.9	8
35	Review of experimentation and modeling of heat and mass transfer performance of fin-and-tube heat exchangers with dehumidification. <i>Applied Thermal Engineering</i> , 2019, 146, 701-717.	3.0	37
36	Performance analysis on compression-assisted absorption heat transformer: A new low-temperature heating system with higher heating capacity under lower ambient temperature. <i>Applied Thermal Engineering</i> , 2018, 134, 419-427.	3.0	15

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37	Numerical analysis on the performance of mechanical vapor recompression system for strong sodium chloride solution enrichment. <i>Applied Thermal Engineering</i> , 2018, 137, 386-394.	3.0	24
38	A general distributed parameter model for ground heat exchangers with arbitrary shape and type of heat sources. <i>Energy Conversion and Management</i> , 2018, 164, 667-679.	4.4	13
39	Experimental research on heat and mass transfer characteristics of cross-flow closed-type heat-source tower. <i>Applied Thermal Engineering</i> , 2018, 135, 289-303.	3.0	24
40	A performance evaluation index for two-phase thermosyphon loop used in HVAC systems. <i>Applied Thermal Engineering</i> , 2018, 131, 825-836.	3.0	27
41	An enhanced rotary compressor with gas injection through a novel end-plate injection structure. <i>Applied Thermal Engineering</i> , 2018, 131, 180-191.	3.0	16
42	Optimal design of rotary compressor oriented to end-plate gas injection with check valve. <i>International Journal of Refrigeration</i> , 2018, 88, 516-522.	1.8	8
43	Experimental research on vapor-injected rotary compressor through end-plate injection structure with check valve. <i>International Journal of Refrigeration</i> , 2018, 96, 131-138.	1.8	21
44	Compression-assisted absorption cycles using ammonia and various ionic liquids for cleaner heating. <i>Journal of Cleaner Production</i> , 2018, 195, 890-907.	4.6	34
45	Experimentally comparative study on two-phase natural and pump-driven loop used in HVAC systems. <i>Applied Thermal Engineering</i> , 2018, 142, 321-333.	3.0	27
46	Configurations of solar air source absorption heat pump and comparisons with conventional solar heating. <i>Applied Thermal Engineering</i> , 2018, 141, 630-641.	3.0	31
47	Numerical study of gas injected heat pump using zeotropic R32/R1234ze(E) mixture: Comparison of two type economizers. <i>Applied Thermal Engineering</i> , 2018, 142, 410-420.	3.0	15
48	Simulations of the energy performance of variable refrigerant flow system in representative operation modes for residential buildings in the hot summer and cold winter region in China. <i>Energy and Buildings</i> , 2018, 174, 414-427.	3.1	23
49	A novel internally hybrid absorption-compression heat pump for performance improvement. <i>Energy Conversion and Management</i> , 2018, 168, 237-251.	4.4	42
50	Application of smart models for prediction of the frost layer thickness on vertical cryogenic surfaces under natural convection. <i>Applied Thermal Engineering</i> , 2017, 115, 1128-1136.	3.0	38
51	A fast distributed parameter model of ground heat exchanger based on response factor. <i>Building Simulation</i> , 2017, 10, 183-192.	3.0	6
52	Simulation of recombined household multi-split variable refrigerant flow system with split-type air conditioners. <i>Applied Thermal Engineering</i> , 2017, 117, 343-354.	3.0	18
53	Energy-saving analysis of a hybrid power-driven heat pump system. <i>Applied Thermal Engineering</i> , 2017, 123, 1050-1059.	3.0	22
54	Utilization of ANN and ANFIS models to predict variable speed scroll compressor with vapor injection. <i>International Journal of Refrigeration</i> , 2017, 74, 475-487.	1.8	32

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55	Coupled heating of ground-coupled heat pump system with heat compensation unit: Performance improvement and borehole reduction. <i>Energy Conversion and Management</i> , 2017, 148, 57-67.	4.4	26
56	A Deep Heat Recovery Device between Flue Gas and Supply Air of Gas-fired Boiler by Using Non-contact Total Heat Exchanger. <i>Energy Procedia</i> , 2017, 105, 4976-4982.	1.8	20
57	A total heat recovery system between the flue gas and oxidizing air of a gas-fired boiler using a non-contact total heat exchanger. <i>Applied Energy</i> , 2017, 207, 613-623.	5.1	57
58	Robust model to predict the migration ratios of nanoparticles during the pool-boiling process of nanorefrigerants. <i>International Communications in Heat and Mass Transfer</i> , 2017, 84, 75-85.	2.9	21
59	Numerical research on R32/R1234ze(E) air source heat pump under variable mass concentration. <i>International Journal of Refrigeration</i> , 2017, 82, 1-10.	1.8	23
60	Performance improvement of air source heat pump using gas-injected rotary compressor through port on blade. <i>International Journal of Refrigeration</i> , 2017, 73, 91-98.	1.8	33
61	Performance Comparison between an Absorption-compression Hybrid Refrigeration System and a Double-effect Absorption Refrigeration System. <i>Procedia Engineering</i> , 2017, 205, 241-247.	1.2	9
62	Dynamic Performance Analysis for an Absorption Chiller under Different Working Conditions. <i>Applied Sciences (Switzerland)</i> , 2017, 7, 797.	1.3	13
63	An overview of the problems and solutions of soil thermal imbalance of ground-coupled heat pumps in cold regions. <i>Applied Energy</i> , 2016, 177, 515-536.	5.1	137
64	Analysis of a heat recovery system of the spray-drying process in a soy protein powder plant. <i>Applied Thermal Engineering</i> , 2016, 103, 1022-1030.	3.0	20
65	Experimental investigation on NH ₃ -H ₂ O compression-assisted absorption heat pump (CAHP) for low temperature heating in colder conditions. <i>International Journal of Refrigeration</i> , 2016, 67, 109-124.	1.8	30
66	NH ₃ -H ₂ O water source absorption heat pump (WSAHP) for low temperature heating: Experimental investigation on the off-design performance. <i>Energy</i> , 2016, 115, 697-710.	4.5	24
67	Performance analysis of an absorption-compression hybrid refrigeration system recovering condensation heat for generation. <i>Applied Thermal Engineering</i> , 2016, 108, 54-65.	3.0	30
68	Comparative research on air conditioner with gas-injected rotary compressor through injection port on blade. <i>Applied Thermal Engineering</i> , 2016, 106, 67-75.	3.0	17
69	Experimental investigation on NH ₃ -H ₂ O compression-assisted absorption heat pump (CAHP) for low temperature heating under lower driving sources. <i>Applied Energy</i> , 2016, 176, 258-271.	5.1	52
70	Simulation on effects of subcooler on cooling performance of multi-split variable refrigerant flow systems with different lengths of refrigerant pipeline. <i>Energy and Buildings</i> , 2016, 126, 301-309.	3.1	15
71	A novel vapor injection structure on the blade of a rotary compressor. <i>Applied Thermal Engineering</i> , 2016, 100, 1219-1228.	3.0	31
72	Performance analysis of hybrid ground-coupled heat pump system with multi-functions. <i>Energy Conversion and Management</i> , 2015, 92, 47-59.	4.4	49

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73	Hybrid ground source absorption heat pump in cold regions: Thermal balance keeping and borehole number reduction. <i>Applied Thermal Engineering</i> , 2015, 90, 322-334.	3.0	33
74	Heat recovery from Internet data centers for space heating based on an integrated air conditioner with thermosyphon. <i>Renewable Energy</i> , 2015, 80, 396-406.	4.3	43
75	Modeling and performance analysis of a two-phase thermosyphon loop with partially/fully liquid-filled downcomer. <i>International Journal of Refrigeration</i> , 2015, 58, 172-185.	1.8	57
76	Air source absorption heat pump in district heating: Applicability analysis and improvement options. <i>Energy Conversion and Management</i> , 2015, 96, 197-207.	4.4	22
77	Annual performance investigation and economic analysis of heating systems with a compression-assisted air source absorption heat pump. <i>Energy Conversion and Management</i> , 2015, 98, 290-302.	4.4	37
78	Experimental investigation on two-phase thermosyphon loop with partially liquid-filled downcomer. <i>Applied Energy</i> , 2015, 160, 10-17.	5.1	73
79	Combining ground source absorption heat pump with ground source electrical heat pump for thermal balance, higher efficiency and better economy in cold regions. <i>Renewable Energy</i> , 2015, 84, 74-88.	4.3	50
80	A new ground-coupled heat pump system integrated with a multi-mode air-source heat compensator to eliminate thermal imbalance in cold regions. <i>Energy and Buildings</i> , 2015, 107, 103-112.	3.1	58
81	Evaluation of two-phase suction, liquid injection and two-phase injection for decreasing the discharge temperature of the R32 scroll compressor. <i>International Journal of Refrigeration</i> , 2015, 59, 269-280.	1.8	48
82	An overview of ammonia-based absorption chillers and heat pumps. <i>Renewable and Sustainable Energy Reviews</i> , 2014, 31, 681-707.	8.2	138
83	Energy consumption model of integrated air conditioner with thermosyphon in mobile phone base station. <i>International Journal of Refrigeration</i> , 2014, 40, 1-10.	1.8	45
84	Simulation of a combined heating, cooling and domestic hot water system based on ground source absorption heat pump. <i>Applied Energy</i> , 2014, 126, 113-122.	5.1	72
85	A new solution for underground thermal imbalance of ground-coupled heat pump systems in cold regions: Heat compensation unit with thermosyphon. <i>Applied Thermal Engineering</i> , 2014, 64, 283-292.	3.0	81
86	Techno-economic analysis of air source absorption heat pump: Improving economy from a design perspective. <i>Energy and Buildings</i> , 2014, 81, 200-210.	3.1	33
87	Evaluation of ground source absorption heat pumps combined with borehole free cooling. <i>Energy Conversion and Management</i> , 2014, 79, 334-343.	4.4	59
88	Dynamic performance of self-operated three-way valve used in a hybrid air conditioner. <i>Applied Thermal Engineering</i> , 2014, 65, 384-393.	3.0	12
89	Absorption heating technologies: A review and perspective. <i>Applied Energy</i> , 2014, 130, 51-71.	5.1	160
90	Energy-Efficient Heating and Domestic Hot Water Systems Suitable for Different Regions. <i>Lecture Notes in Electrical Engineering</i> , 2014, , 601-607.	0.3	1

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91	A potential solution for thermal imbalance of ground source heat pump systems in cold regions: Ground source absorption heat pump. <i>Renewable Energy</i> , 2013, 59, 39-48.	4.3	97
92	A new heating system based on coupled air source absorption heat pump for cold regions: Energy saving analysis. <i>Energy Conversion and Management</i> , 2013, 76, 811-817.	4.4	39
93	Development of an integrated air conditioner with thermosyphon and the application in mobile phone base station. <i>International Journal of Refrigeration</i> , 2013, 36, 58-69.	1.8	85
94	Crystallization Analysis and Control of Ammonia-Based Air Source Absorption Heat Pump in Cold Regions. <i>Advances in Mechanical Engineering</i> , 2013, 5, 140341.	0.8	21
95	Energy saving potential of low temperature hot water system based on air source absorption heat pump. <i>Applied Thermal Engineering</i> , 2012, 48, 317-324.	3.0	66
96	Comparisons of different working pairs and cycles on the performance of absorption heat pump for heating and domestic hot water in cold regions. <i>Applied Thermal Engineering</i> , 2012, 48, 349-358.	3.0	76
97	Modulation method of scroll compressor based on suction gas bypass. <i>Applied Thermal Engineering</i> , 2012, 37, 183-189.	3.0	14
98	Optimization of refrigeration system with gas-injected scroll compressor. <i>International Journal of Refrigeration</i> , 2009, 32, 1544-1554.	1.8	78
99	Numerical analysis on the effects of refrigerant injection on the scroll compressor. <i>Applied Thermal Engineering</i> , 2009, 29, 37-46.	3.0	65
100	Numerical research on the scroll compressor with refrigeration injection. <i>Applied Thermal Engineering</i> , 2008, 28, 440-449.	3.0	73
101	Design of experimental bench and internal pressure measurement of scroll compressor with refrigerant injection. <i>International Journal of Refrigeration</i> , 2007, 30, 179-186.	1.8	40
102	A general geometrical model of scroll compressors based on discretional initial angles of involute. <i>International Journal of Refrigeration</i> , 2005, 28, 958-966.	1.8	68