Zhenjun

List of Publications by Year
in descending order

140 papers	7,317 citations	50170 46 h-index	62479 80 g-index
143 all docs	143 docs citations	143 times ranked	5558 citing authors

#	Article	IF	Citations
1	Existing building retrofits: Methodology and state-of-the-art. Energy and Buildings, 2012, 55, 889-902.	3.1	861
2	Review of solid–liquid phase change materials and their encapsulation technologies. Renewable and Sustainable Energy Reviews, 2015, 48, 373-391.	8.2	677
3	Dynamic characteristics and energy performance of buildings using phase change materials: A review. Energy Conversion and Management, 2009, 50, 3169-3181.	4.4	273
4	Thermal management systems for Photovoltaics (PV) installations: A critical review. Solar Energy, 2013, 97, 238-254.	2.9	203
5	Field test and numerical investigation on the heat transfer characteristics and optimal design of the heat exchangers of a deep borehole ground source heat pump system. Energy Conversion and Management, 2017, 153, 603-615.	4.4	169
6	Nano-enhanced phase change materials for improved building performance. Renewable and Sustainable Energy Reviews, 2016, 58, 1256-1268.	8.2	144
7	Supervisory and optimal control of central chiller plants using simplified adaptive models and genetic algorithm. Applied Energy, 2011, 88, 198-211.	5.1	142
8	Energy efficient control of variable speed pumps in complex building central air-conditioning systems. Energy and Buildings, 2009, 41, 197-205.	3.1	134
9	Development and optimization of an innovative HVAC system with integrated PVT and PCM thermal storage for a net-zero energy retrofitted house. Energy and Buildings, 2015, 94, 21-32.	3.1	131
10	An optimal control strategy for complex building central chilled water systems for practical and real-time applications. Building and Environment, 2009, 44, 1188-1198.	3.0	119
11	In-situ implementation and validation of a CO2-based adaptive demand-controlled ventilation strategy in a multi-zone office building. Building and Environment, 2011, 46, 124-133.	3.0	119
12	A decision tree based data-driven diagnostic strategy for air handling units. Energy and Buildings, 2016, 133, 37-45.	3.1	119
13	Development and evaluation of a ceiling ventilation system enhanced by solar photovoltaic thermal collectors and phase change materials. Energy Conversion and Management, 2014, 88, 218-230.	4.4	112
14	Hybrid model predictive control of a residential HVAC system with on-site thermal energy generation and storage. Applied Energy, 2017, 187, 465-479.	5.1	108
15	Preparation, thermal characterization and examination of phase change materials (PCMs) enhanced by carbon-based nanoparticles for solar thermal energy storage. Journal of Energy Storage, 2019, 25, 100874.	3.9	107
16	Identification of typical building daily electricity usage profiles using Gaussian mixture model-based clustering and hierarchical clustering. Applied Energy, 2018, 231, 331-342.	5.1	101
17	Experimental and numerical investigation of heat transfer performance and sustainability of deep borehole heat exchangers coupled with ground source heat pump systems. Applied Thermal Engineering, 2019, 149, 975-986.	3.0	99
18	Energy performance and optimal control of air-conditioned buildings with envelopes enhanced by phase change materials. Energy Conversion and Management, 2011, 52, 3197-3205.	4.4	83

#	ARTICLE	IF	CITATIONS
19	A multi-objective design optimisation strategy for hybrid photovoltaic thermal collector (PVT)-solar air heater (SAH) systems with fins. Solar Energy, 2018, 163, 315-328.	2.9	79
20	A supervisory control strategy for building cooling water systems for practical and real time applications. Energy Conversion and Management, 2008, 49, 2324-2336.	4.4	78
21	Investigation on capacity matching in liquid desiccant and heat pump hybrid air-conditioning systems. International Journal of Refrigeration, 2012, 35, 160-170.	1.8	73
22	A variation focused cluster analysis strategy to identify typical daily heating load profiles of higher education buildings. Energy, 2017, 134, 90-102.	4.5	70
23	Thermal performance investigation and optimization of buildings with integrated phase change materials and solar photovoltaic thermal collectors. Energy and Buildings, 2016, 116, 562-573.	3.1	69
24	A model-based design optimization strategy for ground source heat pump systems with integrated photovoltaic thermal collectors. Applied Energy, 2018, 214, 178-190.	5.1	67
25	Building energy research in Hong Kong: A review. Renewable and Sustainable Energy Reviews, 2009, 13, 1870-1883.	8.2	66
26	Using electrodialysis for regeneration of aqueous lithium chloride solution in liquid desiccant air conditioning systems. Energy and Buildings, 2016, 116, 285-295.	3.1	66
27	A critical review on phase change material energy storage systems with cascaded configurations. Journal of Cleaner Production, 2021, 283, 124653.	4.6	66
28	Liquid desiccant lithium chloride regeneration by membrane distillation for air conditioning. Separation and Purification Technology, 2017, 177, 121-128.	3.9	65
29	A sensor fault detection strategy for air handling units using cluster analysis. Automation in Construction, 2016, 70, 77-88.	4.8	64
30	A dynamic model for air-based photovoltaic thermal systems working under real operating conditions. Applied Energy, 2014, 132, 216-225.	5.1	63
31	Development of a dynamic model for a hybrid photovoltaic thermal collector – Solar air heater with fins. Renewable Energy, 2017, 101, 816-834.	4.3	63
32	A model-based fault detection and diagnosis strategy for HVAC systems. International Journal of Energy Research, 2009, 33, 903-918.	2.2	61
33	A review of heating, ventilation and air conditioning technologies and innovations used in solar-powered net zero energy Solar Decathlon houses. Journal of Cleaner Production, 2019, 240, 118158.	4.6	59
34	Dynamic character investigation and optimization of a novel air-source heat pump system. Applied Thermal Engineering, 2017, 111, 122-133.	3.0	56
35	Recent advances and development in optimal design and control of ground source heat pump systems. Renewable and Sustainable Energy Reviews, 2020, 131, 110001.	8.2	56
36	An experimental investigation into stratum ventilation for the cooling of an office with asymmetrically distributed heat gains. Building and Environment, 2016, 110, 76-88.	3.0	55

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37	Multi-objective optimisation of thermal energy storage using phase change materials for solar air systems. Renewable Energy, 2019, 130, 1116-1129.	4.3	55
38	Assessing the performance of solar thermal driven membrane distillation for seawater desalination by computer simulation. Journal of Membrane Science, 2017, 542, 133-142.	4.1	54
39	Integrating photovoltaic thermal collectors and thermal energy storage systems using phase change materials with rotary desiccant cooling systems. Sustainable Cities and Society, 2018, 36, 131-143.	5.1	54
40	A model-based optimal control strategy for ground source heat pump systems with integrated solar photovoltaic thermal collectors. Applied Energy, 2018, 228, 1399-1412.	5.1	54
41	A multi-objective design optimization strategy for vertical ground heat exchangers. Energy and Buildings, 2015, 87, 233-242.	3.1	51
42	Optimal design of vertical ground heat exchangers by using entropy generation minimization method and genetic algorithms. Energy Conversion and Management, 2014, 87, 128-137.	4.4	50
43	Improving energy flexibility of a net-zero energy house using a solar-assisted air conditioning system with thermal energy storage and demand-side management. Applied Energy, 2021, 285, 116433.	5.1	50
44	Numerical study on the operating performances of a novel frost-free air-source heat pump unit using three different types of refrigerant. Applied Thermal Engineering, 2017, 112, 248-258.	3.0	49
45	A simplified dynamic model of building structures integrated with shaped-stabilized phase change materials. International Journal of Thermal Sciences, 2010, 49, 1722-1731.	2.6	48
46	Research of heat and moisture transfer influence on the characteristics of the ground heat pump exchangers in unsaturated soil. Energy and Buildings, 2016, 130, 140-149.	3.1	47
47	Understanding the risks and uncertainties introduced by common assumptions in energy simulations for Australian commercial buildings. Energy and Buildings, 2014, 75, 382-393.	3.1	46
48	Geographic Information System-assisted optimal design of renewable powered electric vehicle charging stations in high-density cities. Applied Energy, 2019, 255, 113855.	5.1	46
49	Performance amelioration of single basin solar still integrated with V- typeÂconcentrator: Energy, exergy, and economic analysis. Environmental Science and Pollution Research, 2021, 28, 3406-3420.	2.7	46
50	Measurement and evaluation of indoor air quality in naturally ventilated residential buildings. Indoor and Built Environment, 2019, 28, 1307-1323.	1.5	45
51	Effects of ground heat exchangers with different connection configurations on the heating performance of GSHP systems. Geothermics, 2019, 80, 20-30.	1.5	44
52	Flow and heat transfer characteristics of ice slurry in typical components of cooling systems: A review. International Journal of Heat and Mass Transfer, 2019, 141, 922-939.	2.5	42
53	A simplified method for optimal design of solar water heating systems based on life-cycle energy analysis. Renewable Energy, 2015, 74, 271-278.	4.3	41
54	Experimental investigation and control optimization of a ground source heat pump system. Applied Thermal Engineering, 2017, 127, 70-80.	3.0	41

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55	Online performance evaluation of alternative control strategies for building cooling water systems prior to in situ implementation. Applied Energy, 2009, 86, 712-721.	5.1	39
56	Investigation on the feasibility and performance of transcritical CO2 heat pump integrated with thermal energy storage for space heating. Renewable Energy, 2019, 134, 496-508.	4.3	39
57	Using Taguchi-Fibonacci search method to optimize phase change materials enhanced buildings with integrated solar photovoltaic thermal collectors. Energy, 2016, 106, 23-37.	4.5	38
58	Experimental investigation on thermal characteristics of transcritical CO2 heat pump unit combined with thermal energy storage for residential heating. Applied Thermal Engineering, 2020, 165, 114505.	3.0	37
59	Optimal design and size of a desiccant cooling system with onsite energy generation and thermal storage using a multilayer perceptron neural network and a genetic algorithm. Energy Conversion and Management, 2019, 180, 598-608.	4.4	36
60	Hybrid Model Predictive Control of a Residential HVAC System with PVT Energy Generation and PCM Thermal Storage. Energy Procedia, 2015, 83, 21-30.	1.8	35
61	Factors governing mass transfer during membrane electrodialysis regeneration of LiCl solution for liquid desiccant dehumidification systems. Sustainable Cities and Society, 2017, 28, 30-41.	5.1	35
62	Experimental performance analysis and evaluation of a novel frost-free air source heat pump system. Energy and Buildings, 2018, 175, 69-77.	3.1	35
63	Mathematical modelling and experimental investigation of solar air collectors with corrugated absorbers. Renewable Energy, 2020, 145, 164-179.	4.3	35
64	A data-driven strategy using long short term memory models and reinforcement learning to predict building electricity consumption. Applied Energy, 2022, 306, 118078.	5.1	35
65	Enhancing the performance of large primary-secondary chilled water systems by using bypass check valve. Energy, 2011, 36, 268-276.	4.5	34
66	Building energy performance assessment using volatility change based symbolic transformation and hierarchical clustering. Energy and Buildings, 2018, 166, 284-295.	3.1	34
67	Integrated life cycle cost method for sustainable structural design by focusing on a benchmark office building in Australia. Energy and Buildings, 2018, 166, 525-537.	3.1	32
68	Experimental investigation and seasonal performance assessment of a frost-free ASHP system with radiant floor heating. Energy and Buildings, 2018, 179, 200-212.	3.1	32
69	Development and evaluation of a comfort-oriented control strategy for thermal management of mixed-mode ventilated buildings. Energy and Buildings, 2019, 202, 109347.	3.1	32
70	Implications of global warming for commercial building retrofitting in Australian cities. Building and Environment, 2014, 74, 86-95.	3.0	30
71	Optimal design of a thermal energy storage system using phase change materials for a net-zero energy Solar Decathlon house. Energy and Buildings, 2020, 208, 109626.	3.1	30
72	Performance investigation and optimisation of electrodialysis regeneration for LiCl liquid desiccant cooling systems. Applied Thermal Engineering, 2019, 149, 1023-1034.	3.0	29

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73	Data-drivenÂalgorithm for real-time fatigue life prediction of structures with stochasticÂparameters. Computer Methods in Applied Mechanics and Engineering, 2020, 372, 113373.	3.4	29
74	Lattice Boltzmann simulation of flow and heat transfer evolution inside encapsulated phase change materials due to natural convection melting. Chemical Engineering Science, 2018, 189, 154-164.	1.9	28
75	An agglomerative hierarchical clustering-based strategy using Shared Nearest Neighbours and multiple dissimilarity measures to identify typical daily electricity usage profiles of university library buildings. Energy, 2019, 174, 735-748.	4.5	28
76	Impact of structural design solutions on the energy and thermal performance of an Australian office building. Building and Environment, 2017, 124, 258-282.	3.0	27
77	A review of heat and mass transfer improvement techniques for dehumidifiers and regenerators of liquid desiccant cooling systems. Applied Thermal Engineering, 2019, 162, 114271.	3.0	27
78	Experimental investigation and two-level model-based optimisation of a solar photovoltaic thermal collector coupled with phase change material thermal energy storage. Applied Thermal Engineering, 2021, 182, 116098.	3.0	27
79	Integrative modelling and optimisation of a desiccant cooling system coupled with a photovoltaic thermal-solar air heater. Solar Energy, 2019, 193, 929-947.	2.9	26
80	Performance enhancement of a complex chilled water system using a check valve: Experimental validation. Applied Thermal Engineering, 2010, 30, 2827-2832.	3.0	25
81	Using an air cycle heat pump system with a turbocharger to supply heating for full electric vehicles. International Journal of Refrigeration, 2017, 77, 11-19.	1.8	25
82	Thermal performance evaluation of an integrated photovoltaic thermal-phase change material system using Taguchi method. Energy Procedia, 2017, 121, 118-125.	1.8	25
83	A data-driven strategy to forecast next-day electricity usage and peak electricity demand of a building portfolio using cluster analysis, Cubist regression models and Particle Swarm Optimization. Journal of Cleaner Production, 2020, 273, 123115.	4.6	25
84	Optimisation of life cycle performance of a double-pass photovoltaic thermal-solar air heater with heat pipes. Renewable Energy, 2019, 138, 90-105.	4.3	24
85	Online fault detection and robust control of condenser cooling water systems in building central chiller plants. Energy and Buildings, 2011, 43, 153-165.	3.1	23
86	A Novel Multifeature Based On-Site Calibration Method for LiDAR-IMU System. IEEE Transactions on Industrial Electronics, 2020, 67, 9851-9861.	5.2	23
87	Development and modelling of a solar assisted liquid desiccant dehumidification air-conditioning system. Building Simulation, 2015, 8, 123-135.	3.0	21
88	Residential Building Retrofit through Numerical Simulation: A Case Study. Energy Procedia, 2017, 111, 91-100.	1.8	21
89	Linear regression models for prediction of annual heating and cooling demand in representative Australian residential dwellings. Energy Procedia, 2017, 121, 79-86.	1.8	21
90	Model-based Optimization of Ground Source Heat Pump Systems. Energy Procedia, 2017, 111, 12-20.	1.8	21

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91	Performance assessment of a novel natural gas pressure reduction station equipped with parabolic trough solar collectors. Renewable Energy, 2018, 128, 177-187.	4.3	21
92	Investigation on the optimal cooling tower input capacity of a cooling tower assisted ground source heat pump system. Energy and Buildings, 2018, 174, 239-253.	3.1	21
93	Development of a nodal model for predicting the vertical temperature profile in a stratum-ventilated room. Energy and Buildings, 2018, 159, 99-108.	3.1	19
94	Membrane fouling in direct contact membrane distillation for liquid desiccant regeneration: Effects of feed temperature and flow velocity. Journal of Membrane Science, 2022, 642, 119936.	4.1	19
95	Improving Positioning Accuracy of the Mobile Laser Scanning in GPS-Denied Environments: An Experimental Case Study. IEEE Sensors Journal, 2019, 19, 10753-10763.	2.4	17
96	Evaluation of plume potential and plume abatement of evaporative cooling towers in a subtropical region. Applied Thermal Engineering, 2008, 28, 1471-1484.	3.0	16
97	Characterisation and evaluation of a new phase change enhanced working solution for liquid desiccant cooling systems. Applied Thermal Engineering, 2019, 150, 1197-1205.	3.0	16
98	Direct contact membrane distillation for liquid desiccant regeneration and fresh water production: Experimental investigation, response surface modeling and optimization. Applied Thermal Engineering, 2021, 184, 116293.	3.0	16
99	Test and evaluation of energy saving potentials in a complex building central chilling system using genetic algorithm. Building Services Engineering Research and Technology, 2011, 32, 109-126.	0.9	15
100	Experimental investigation and performance evaluation of a mixed-flow air to air membrane enthalpy exchanger with different configurations. Applied Thermal Engineering, 2020, 166, 114682.	3.0	15
101	Solar medium-low temperature thermal utilization and effect analysis of boundary condition: A tutorial. Solar Energy, 2020, 197, 238-253.	2.9	15
102	Further analysis of the influence of interstage configurations on two-stage vapor compression heat pump systems. Applied Thermal Engineering, 2021, 184, 116050.	3.0	15
103	Thermal Comfort Evaluation of a Mixed-mode Ventilated Office Building with Advanced Natural Ventilation and Underfloor air Distribution Systems. Energy Procedia, 2017, 111, 520-529.	1.8	14
104	Using fuzzy clustering and weighted cumulative probability distribution techniques for optimal design of phase change material thermal energy storage. Journal of Cleaner Production, 2019, 233, 1259-1268.	4.6	13
105	Performance investigation and sensitivity analysis of shell-and-tube phase change material thermal energy storage. Journal of Energy Storage, 2021, 33, 102040.	3.9	13
106	Mathematical modelling and simulation analysis of electrodialysis regeneration for LiCl liquid desiccant air conditioning systems. International Journal of Refrigeration, 2019, 107, 234-245.	1.8	12
107	Effect of design parameters on thermal performance of integrated phase change material blind system for double skin façade buildings. International Journal of Low-Carbon Technologies, 2019, 14, 286-293.	1.2	12
108	Effects of initial mist conditions on simulation accuracy of humidity distribution in an environmental chamber. Building and Environment, 2012, 47, 217-222.	3.0	11

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109	Thermodynamic analysis and design optimisation of a cross flow air to air membrane enthalpy exchanger. Energy, 2020, 202, 117691.	4.5	11
110	Study on recent progress and advances in air-to-air membrane enthalpy exchangers: Materials selection, performance improvement, design optimisation and effects of operating conditions. Renewable and Sustainable Energy Reviews, 2022, 156, 111941.	8.2	11
111	Effects of different inlet vent positions on the uniformity of humidity inside a building chamber. Energy and Buildings, 2014, 76, 565-571.	3.1	10
112	Numerical analysis of indoor thermal comfort in a cross-ventilated space with top-hung windows. Energy Procedia, 2017, 121, 222-229.	1.8	10
113	Measurement and prediction of granite damage evolution in deep mine seams using acoustic emission. Measurement Science and Technology, 2019, 30, 114002.	1.4	10
114	A new strategy to benchmark and evaluate building electricity usage using multiple data mining technologies. Sustainable Energy Technologies and Assessments, 2020, 40, 100770.	1.7	10
115	Innovation in Sustainable Solar-Powered Net-Zero Energy Solar Decathlon Houses: A Review and Showcase. Buildings, 2021, 11, 171.	1.4	10
116	Performance evaluation of a novel frost-free air-source heat pump integrated with phase change materials (PCMs) and dehumidification. Energy Procedia, 2017, 121, 134-141.	1.8	9
117	Experimental investigation and evaluation of the performance of air-source heat pumps for indoor thermal comfort control. Journal of Mechanical Science and Technology, 2018, 32, 1437-1447.	0.7	9
118	Qualitative analysis of the use of building performance simulation for retrofitting lower quality office buildings in Australia. Energy and Buildings, 2018, 181, 84-94.	3.1	9
119	Above-roof air temperature effects on HVAC and cool roof performance: Experiments and development of a predictive model. Energy and Buildings, 2020, 222, 110071.	3.1	9
120	A comprehensive energy, exergy and enviroeconomic (3-E) analysis with carbon mitigation for multistage evaporation assisted milk powder production unit. Sustainable Energy Technologies and Assessments, 2021, 43, 100925.	1.7	9
121	Identification of Environmental and Contextual Driving Factors of Air Conditioning Usage Behaviour in the Sydney Residential Buildings. Buildings, 2021, 11, 122.	1.4	9
122	Air-to-air enthalpy exchangers: Membrane modification using metal-organic frameworks, characterisation and performance assessment. Journal of Cleaner Production, 2021, 293, 126157.	4.6	9
123	Prediction, potential and control of plume from wet cooling tower of commercial buildings in Hong Kong: A case study. International Journal of Energy Research, 2007, 31, 778-795.	2.2	7
124	Moisture diffusion measurement and evaluation for porous membranes used in enthalpy exchangers. Energy Procedia, 2019, 160, 499-506.	1.8	7
125	Energy and exergy analysis of a desiccant cooling system integrated with thermal energy storage and photovoltaic/thermal-solar air collectors. Science and Technology for the Built Environment, 2020, 26, 12-27.	0.8	7
126	A case study of SARS-CoV-2 transmission behavior in a severely air-polluted city (Delhi, India) and the potential usage of graphene based materials for filtering air-pollutants and controlling/monitoring the COVID-19 pandemic. Environmental Sciences: Processes and Impacts, 2021, 23, 923-946.	1.7	7

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127	A review of heat and mass transfer mechanisms of dehumidifiers and regenerators for liquid desiccant cooling systems. Science and Technology for the Built Environment, 2020, 26, 465-483.	0.8	6
128	Refrigerator cost trap for low-income households: Developments in measurement and verification of appliance replacements. Energy for Sustainable Development, 2021, 60, 1-14.	2.0	6
129	Simulation of the Melting Process of Ice Slurry for Energy Storage Using a Two-Fluid Lattice Boltzmann Method. Energy Procedia, 2017, 121, 110-117.	1.8	5
130	Study on performance evaluation of CO2 heat pump system integrated with thermal energy storage for space heating. Energy Procedia, 2019, 158, 1380-1387.	1.8	5
131	Experimental investigation of a regenerated air cycle heat pump heating system with a turbocharger. International Journal of Refrigeration, 2019, 100, 48-54.	1.8	5
132	Transient nonlinear heat transfer analysis using a generic grid refinement for structure parameter variations. International Journal of Thermal Sciences, 2020, 153, 106357.	2.6	5
133	A dynamic simulation platform for fault modelling and characterisation of building integrated photovoltaics. Renewable Energy, 2021, 179, 963-981.	4.3	5
134	Analytical solution for the heat and mass transfer of spherical grains during drying. Biosystems Engineering, 2021, 212, 399-412.	1.9	5
135	Effect of regulating main governing factors on the selectivity membranes of electrodialysis used for LiCl liquid desiccant regeneration. Journal of Building Engineering, 2020, 28, 101022.	1.6	3
136	An unsupervised data mining strategy for performance evaluation of ground source heat pump systems. Sustainable Energy Technologies and Assessments, 2021, 46, 101255.	1.7	3
137	Development of a Bayesian based adaptive optimisation algorithm for the thermostat settings in agile open plan offices. Energy and Buildings, 2021, 230, 110536.	3.1	2
138	An air cycle heat pump heating system using a turbocharger for full electric vehicle. Procedia Engineering, 2017, 205, 1405-1411.	1.2	1
139	Using Evidence Accumulation-Based Clustering and Symbolic Transformation to Group Multiple Buildings Based on Electricity Usage Patterns. Smart Innovation, Systems and Technologies, 2020, , 61-71.	0.5	1
140	Experimental investigation and performance analysis of an Organic Rankine Cycle for low-temperature heat to electricity generation. International Journal of Low-Carbon Technologies, 2019, 14, 500-507.	1.2	0