Guangcai Gong

List of Publications by Year
in descending order

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71 papers	1,791 citations	279798 23 h-index	289244 40 g-index
72 all docs	72 docs citations	72 times ranked	1256 citing authors

#	Article	IF	Citations
1	Predicting indoor particle dispersion under dynamic ventilation modes with high-order Markov chain model. Building Simulation, 2022, 15, 1243-1258.	5.6	13
2	Predicting indoor deposited particle resuspension with a new probabilistic model based on Markov chain and turbulent burst. Aerosol Science and Technology, 2022, 56, 205-222.	3.1	2
3	Investigation of a new kind of in-situ measurement method of thermal resistance of building envelope. Energy and Buildings, 2022, 258, 111803.	6.7	8
4	Deep reinforcement learning optimal control strategy for temperature setpoint real-time reset in multi-zone building HVAC system. Applied Thermal Engineering, 2022, 212, 118552.	6.0	44
5	Numerical Investigation of the Elastic Lamina Deformation Based on Radial Layout D2Q9 Lattice Boltzmann Model. Journal of Engineering Mechanics - ASCE, 2022, 148, .	2.9	1
6	A hybrid deep transfer learning strategy for short term cross-building energy prediction. Energy, 2021, 215, 119208.	8.8	75
7	Investigation of exhaled pollutant distribution in the breathing microenvironment in a displacement ventilated room with indoor air stability conditions. Journal of Environmental Sciences, 2021, 99, 336-345.	6.1	6
8	Exergy analysis of updraft and downdraft fixed bed gasification of village-level solid waste. International Journal of Hydrogen Energy, 2021, 46, 221-233.	7.1	28
9	A clustering-based approach for â€œcross-scaleâ€•load prediction on building level in HVAC systems. Applied Energy, 2021, 282, 116223.	10.1	19
10	Influence of Wave Parallel Flow Field Design on the Performance of PEMFC. Journal of Energy Engineering - ASCE, 2021, 147, .	1.9	31
11	Assessment of personal exposure to infectious contaminant under the effect of indoor air stability. Environmental Science and Pollution Research, 2021, 28, 39322-39332.	5.3	1
12	Thermodynamic performance assessment of vacuum membrane-based dehumidification and air carrying energy radiant air-conditioning system (VMD-ACERS). Chinese Journal of Chemical Engineering, 2021, 34, 217-227.	3.5	4
13	Research on thermodynamic performance of a novel building cooling system integrating dew point evaporative cooling, air-carrying energy radiant air conditioning and vacuum membrane-based dehumidification (DAV-cooling system). Energy Conversion and Management, 2021, 245, 114551.	9.2	22
14	Control of exhaled SARS-CoV-2-laden aerosols in the interpersonal breathing microenvironment in a ventilated room with limited space air stability. Journal of Environmental Sciences, 2021, 108, 175-187.	6.1	22
15	Experimental investigation on the ventilation performance of diffuse ceiling ventilation in heating conditions. Building and Environment, 2021, 205, 108262.	6.9	8
16	Investigation of physiological and subjective responses under composite air carrying energy radiant air-conditioning system. Journal of Building Engineering, 2021, 43, 103146.	3.4	1
17	Effects of indoor air stability on exhaled contaminant flow and thermal plume in the interpersonal breathing microenvironment. International Journal of Thermal Sciences, 2021, 170, 107173.	4.9	9
18	A general multi-source ensemble transfer learning framework integrate of LSTM-DANN and similarity metric for building energy prediction. Energy and Buildings, 2021, 252, 111435.	6.7	33

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19	Thermodynamic Analysis of Hydrogen Production From Coal Char Gasification in Triple-Bed Circulating Fluidized Bed. Journal of Thermal Science and Engineering Applications, 2021, 13, .	1.5	0
20	Field study and numerical investigation on heating performance of air carrying energy radiant air-conditioning system in an office. Energy and Buildings, 2020, 209, 109712.	6.7	22
21	Computational modeling and prediction of the performance of air source heat pumps under frost prevention and retardation conditions. Energy and Buildings, 2020, 224, 110264.	6.7	8
22	Research on phase equilibrium effect and curve vacuum membrane-based dehumidification device. International Journal of Heat and Mass Transfer, 2020, 156, 119879.	4.8	12
23	Meta-learning strategy based on user preferences and a machine recommendation system for real-time cooling load and COP forecasting. Applied Energy, 2020, 270, 115144.	10.1	22
24	A novel self-adaptive control strategy of frost prevention and retardation for air source heat pumps in winter conditions. Applied Mathematical Modelling, 2020, 83, 284-300.	4.2	5
25	Comparison of Mixing and Displacement Ventilation under Limited Space Air Stability Conditions in a Space Capsule. Microgravity Science and Technology, 2020, 32, 749-759.	1.4	8
26	Numerical Study on Accumulative Effect Owing to Heat Storage by Building Envelopes in HVAC Systems. Journal of Energy Engineering - ASCE, 2020, 146, .	1.9	5
27	Dynamic coupling method between air-source heat pumps and buildings in Chinaâ€™s hot-summer/cold-winter zone. Applied Energy, 2019, 254, 113664.	10.1	29
28	Characterizing transport and deposition of particulate pollutants in a two-zone chamber using a Markov chain model combined with computational fluid dynamics. Applied Mathematical Modelling, 2019, 72, 650-662.	4.2	9
29	Estimating distributions of airborne contaminants released by sources with dynamic strength and dynamic location by a probabilistic model. Building and Environment, 2019, 153, 17-27.	6.9	5
30	A comprehensive mathematical model of a serialÂcomposite process for biomass and coalÂCo-gasification. International Journal of Hydrogen Energy, 2019, 44, 2603-2619.	7.1	6
31	Investigation on thermal comfort of air carrying energy radiant air-conditioning system in south-central China. Energy and Buildings, 2019, 182, 51-60.	6.7	39
32	Predicting thermophoresis induced particle deposition by using a modified Markov chain model. International Journal of Thermal Sciences, 2019, 136, 44-51.	4.9	10
33	Multi-criteria assessment and optimization study on 5â€¯kW PEMFC based residential CCHP system. Energy Conversion and Management, 2018, 160, 384-395.	9.2	104
34	Predicting airborne particle deposition by a modified Markov chain model for fast estimation of potential contaminant spread. Atmospheric Environment, 2018, 185, 137-146.	4.1	23
35	Thermodynamic modeling and analysis of a serial composite process for biomass and coal co-gasification. Renewable and Sustainable Energy Reviews, 2018, 82, 2768-2778.	16.4	30
36	A thermodynamic method to calculate energy & exergy consumption and CO2 emission of building materials based on economic indicator. Building Simulation, 2018, 11, 235-244.	5.6	6

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37	A Simplified Calculation Method for Building Envelope Cooling Loads in Central South China. Energies, 2018, 11, 1708.	3.1	11
38	Investigation of the ratio of exergy consumption to energy consumption for building energy efficiency. International Journal of Green Energy, 2018, 15, 681-691.	3.8	4
39	Research on the Hygroscopicity of a Composite Hygroscopic Material and its Influence on Indoor Thermal and Humidity Environment. Applied Sciences (Switzerland), 2018, 8, 430.	2.5	5
40	Investigation of operation performance of air carrying energy radiant air-conditioning system based on CFD and thermodynamic model. Building Simulation, 2018, 11, 1229-1243.	5.6	6
41	Exergy analysis of building thermal load and related energy flows in buildings. Indoor and Built Environment, 2017, 26, 1257-1273.	2.8	6
42	Investigations of equilibrium moisture content with Kelvin modification and dimensional analysis method for composite hygroscopic material. Construction and Building Materials, 2017, 139, 101-113.	7.2	12
43	Parametric analysis and optimization of PEMFC system for maximum power and efficiency using MOEA/D. Applied Thermal Engineering, 2017, 121, 400-409.	6.0	64
44	Inversion Method for Optimizing the Condensing Heat Recovery System of an Air-Source Heat Pump. Journal of Energy Engineering - ASCE, 2017, 143, 04016069.	1.9	5
45	Influence of Indoor Air Stability on Suspended Particle Dispersion and Deposition. Energy Procedia, 2017, 105, 4229-4235.	1.8	7
46	Investigation of heat load calculation for air carrying energy radiant air-conditioning system. Energy and Buildings, 2017, 138, 193-205.	6.7	20
47	Nature and characteristics of temperature background effect for interactive respiration process. Scientific Reports, 2017, 7, 8549.	3.3	8
48	A grid-merging operation to accelerate the Markov chain model in predicting steady-state and transient transmission of airborne particles. Building and Environment, 2017, 122, 82-93.	6.9	12
49	Human exhalation characterization with the aid of schlieren imaging technique. Building and Environment, 2017, 112, 190-199.	6.9	91
50	Performance evaluation of a novel method of frost prevention and retardation for air source heat pumps using the orthogonal experiment design method. Applied Energy, 2016, 169, 696-708.	10.1	92
51	Performance study of a dual power source residential CCHP system based on PEMFC and PTSC. Energy Conversion and Management, 2016, 119, 163-176.	9.2	70
52	Efficacy of integrated photovoltaics-air source heat pump systems for application in Central-south China. Renewable and Sustainable Energy Reviews, 2015, 49, 1190-1197.	16.4	43
53	Review of solar thermoelectric cooling technologies for use in zero energy buildings. Energy and Buildings, 2015, 102, 207-216.	6.7	124
54	A combined, large, multi-faceted bulbous faÃ§ade glazed curtain with open atrium as a natural ventilation solution for an energy efficient sustainable office building in Southern China. Indoor and Built Environment, 2015, 24, 813-832.	2.8	20

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55	Performance analysis of 5ÂkW PEMFC-based residential micro-CCHP with absorption chiller. International Journal of Hydrogen Energy, 2015, 40, 10647-10657.	7.1	84
56	Dimensionless and thermodynamic modelling of integrated photovoltaicsâ€“air source heat pump systems. Solar Energy, 2015, 118, 175-185.	6.1	15
57	Evaluation of a prototype active solar thermoelectric radiant wall system in winter conditions. Applied Thermal Engineering, 2015, 89, 36-43.	6.0	47
58	Proposing ultimate moisture buffering value (UMBV) for characterization of composite porous mortars. Construction and Building Materials, 2015, 82, 81-88.	7.2	23
59	Experimental study and performance analysis of a solar thermoelectric air conditioner with hot water supply. Energy and Buildings, 2015, 86, 619-625.	6.7	65
60	Numerical investigation of air stability in space capsule under low gravity conditions. Acta Astronautica, 2014, 103, 81-91.	3.2	10
61	The hygroscopic properties of wood fibre, sepiolite and expanded perlite-based breathable wall for moderating the humidity environment. Indoor and Built Environment, 2014, 23, 299-312.	2.8	15
62	Optimum design and experimental study of a thermoelectric ventilator. Applied Thermal Engineering, 2014, 67, 529-539.	6.0	42
63	Thermodynamic investigation of building integrated energy efficiency for building retrofit. Energy and Buildings, 2014, 77, 139-148.	6.7	14
64	Experimental evaluation of a solar thermoelectric cooled ceiling combined with displacement ventilation system. Energy Conversion and Management, 2014, 87, 559-565.	9.2	74
65	Combined Natural Convection and Radiation Heat Transfer of Various Absorbing-Emitting-Scattering Media in a Square Cavity. Advances in Mechanical Engineering, 2014, 6, 403690.	1.6	5
66	Exergy analysis of the building heating and cooling system from the power plant to the building envelop with hourly variable reference state. Energy and Buildings, 2013, 56, 94-99.	6.7	31
67	Research on frost formation in air source heat pump at cold-moist conditions in central-south China. Applied Energy, 2013, 102, 571-581.	10.1	42
68	Thermodynamic simulation of condensation heat recovery characteristics of a single stage centrifugal chiller in a hotel. Applied Energy, 2012, 91, 326-333.	10.1	27
69	Numerical simulation of indoor suspension particles based on v2-f model. Applied Mathematical Modelling, 2012, 36, 2510-2520.	4.2	9
70	Exergy analysis combined with LCA for building envelope energy efficiency retrofit. International Journal of Exergy, 2011, 8, 379.	0.4	4
71	Research on the Air Stability of Limited Space. International Journal of Green Energy, 2010, 7, 43-64.	3.8	14