Junjie Liu

List of Publications by Year in descending order

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117571 128225 4,652 148 34 60 h-index citations g-index papers 158 158 158 3661 docs citations times ranked citing authors all docs

#	Article	IF	CITATIONS
1	Building energy-consumption status worldwide and the state-of-the-art technologies for zero-energy buildings during the past decade. Energy and Buildings, 2016, 128, 198-213.	3.1	876
2	Water adsorption on carbon - A review. Advances in Colloid and Interface Science, 2017, 250, 64-78.	7.0	204
3	Particle image velocimetry measurement of indoor airflow field: A review of the technologies and applications. Energy and Buildings, 2014, 69, 367-380.	3.1	122
4	Accurate and high-resolution boundary conditions and flow fields in the first-class cabin of an MD-82 commercial airliner. Atmospheric Environment, 2012, 56, 33-44.	1.9	95
5	A review of studies applying machine learning models to predict occupancy and window-opening behaviours in smart buildings. Energy and Buildings, 2020, 223, 110159.	3.1	93
6	Evaluation of various categories of turbulence models for predicting air distribution in an airliner cabin. Building and Environment, 2013 , 65 , $118-131$.	3.0	85
7	Building energy saving potential in Hot Summer and Cold Winter (HSCW) Zone, China—Influence of building energy efficiency standards and implications. Energy Policy, 2013, 57, 253-262.	4.2	83
8	State-of-the-art methods for studying air distributions in commercial airliner cabins. Building and Environment, 2012, 47, 5-12.	3.0	81
9	Efficiency of energy recovery ventilator with various weathers and its energy saving performance in a residential apartment. Energy and Buildings, 2010, 42, 43-49.	3.1	78
10	2D-PIV measurement of aircraft cabin air distribution with a high spatial resolution. Building and Environment, 2014, 82, 9-19.	3.0	75
11	Performance of a biological degradation method for indoor formaldehyde removal. Building and Environment, 2012, 57, 253-258.	3.0	70
12	Experimental and simulation study on the performance of daylighting in an industrial building and its energy saving potential. Energy and Buildings, 2014, 73, 184-191.	3.1	70
13	Indoor air quality and occupants' ventilation habits in China: Seasonal measurement and long-term monitoring. Building and Environment, 2018, 142, 119-129.	3.0	70
14	Window-opening behavior in Chinese residential buildings across different climate zones. Building and Environment, 2018, 142, 234-243.	3.0	69
15	Numerical simulation on a horizontal airflow for airborne particles control in hospital operating room. Building and Environment, 2009, 44, 2284-2289.	3.0	66
16	Long-term monitoring of indoor CO2 and PM2.5 in Chinese homes: Concentrations and their relationships with outdoor environments. Building and Environment, 2018, 144, 238-247.	3.0	63
17	Experimental study of gaseous and particulate contaminants distribution in an aircraft cabin. Atmospheric Environment, 2014, 85, 223-233.	1.9	53
18	Impact of various ventilation modes on IAQ and energy consumption in Chinese dwellings: First long-term monitoring study in Tianjin, China. Building and Environment, 2018, 143, 99-106.	3.0	53

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19	Global airflow field distribution in a cabin mock-up measured via large-scale 2D-PIV. Building and Environment, 2015, 93, 234-244.	3.0	52
20	Experimental and numerical investigations of indoor air movement distribution with an office ceiling fan. Building and Environment, 2018, 130, 14-26.	3.0	50
21	Ventilation behavior in residential buildings with mechanical ventilation systems across different climate zones in China. Building and Environment, 2018, 143, 679-690.	3.0	50
22	Deep learning for automated cerebral aneurysm detection on computed tomography images. International Journal of Computer Assisted Radiology and Surgery, 2020, 15, 715-723.	1.7	50
23	A hybrid model for investigating transient particle transport in enclosed environments. Building and Environment, 2013, 62, 45-54.	3.0	47
24	Experimental verification of tracking algorithm for dynamically-releasing single indoor contaminant. Building Simulation, 2012, 5, 5-14.	3.0	46
25	Numerical investigation of airborne contaminant transport under different vortex structures in the aircraft cabin. International Journal of Heat and Mass Transfer, 2016, 96, 287-295.	2.5	44
26	Distributions of respiratory contaminants from a patient with different postures and exhaling modes in a single-bed inpatient room. Building and Environment, 2011, 46, 75-81.	3.0	43
27	Performance evaluation of different air distribution systems in an aircraft cabin mockup. Aerospace Science and Technology, 2017, 70, 359-366.	2.5	42
28	Investigation of Indoor Air Quality in Primary School Classrooms. Procedia Engineering, 2015, 121, 830-837.	1.2	40
29	Formaldehyde adsorption in carbon nanopores – New insights from molecular simulation. Chemical Engineering Journal, 2019, 370, 866-874.	6.6	40
30	Modeling and controlling indoor formaldehyde concentrations in apartments: On-site investigation in all climate zones of China. Building and Environment, 2018, 127, 98-106.	3.0	38
31	An innovative personalized displacement ventilation system for airliner cabins. Building and Environment, 2018, 137, 41-50.	3.0	37
32	Air change rates in urban Chinese bedrooms. Indoor Air, 2019, 29, 828-839.	2.0	37
33	Associations of indoor carbon dioxide concentrations, air temperature, and humidity with perceived air quality and sick building syndrome symptoms in Chinese homes. Indoor Air, 2021, 31, 1018-1028.	2.0	37
34	Operating behavior and corresponding performance of portable air cleaners in residential buildings, China. Building and Environment, 2019, 147, 473-481.	3.0	36
35	Study of the thermal insulation properties of the glass fiber board used for interior building envelope. Energy and Buildings, 2015, 107, 49-58.	3.1	35
36	Long-term indoor gas pollutant monitor of new dormitories with natural ventilation. Energy and Buildings, 2016, 129, 514-523.	3.1	35

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37	2D-PIV measurement of range hood-driven flow in a domestic kitchen. Energy and Buildings, 2018, 177, 64-76.	3.1	35
38	A study of ambient fine particles at Tianjin International Airport, China. Science of the Total Environment, 2016, 556, 126-135.	3.9	33
39	Mesh Type and Number for the CFD Simulations of Air Distribution in an Aircraft Cabin. Numerical Heat Transfer, Part B: Fundamentals, 2015, 67, 489-506.	0.6	32
40	Experimental study of transient air distribution of a jet collision region in an aircraft cabin mock-up. Energy and Buildings, 2016, 127, 786-793.	3.1	32
41	Effects of Vehicle Cabin Filter Efficiency on Ultrafine Particle Concentration Ratios Measured In-Cabin and On-Roadway. Aerosol Science and Technology, 2011, 45, 234-243.	1.5	31
42	On the mechanism of water adsorption in carbon micropores – A molecular simulation study. Chemical Engineering Journal, 2019, 357, 358-366.	6.6	31
43	An eight-city study of volatile organic compounds in Chinese residences: Compounds, concentrations, and characteristics. Science of the Total Environment, 2020, 698, 134137.	3.9	31
44	Turbulence characterization of instantaneous airflow in an aisle of an aircraft cabin mockup. Building and Environment, 2017, 116, 207-217.	3.0	30
45	A recurrent neural network using historical data to predict time series indoor PM2.5 concentrations for residential buildings. Indoor Air, 2021, 31, 1228-1237.	2.0	30
46	Evaluation of different air distribution systems in a commercial airliner cabin in terms of comfort and COVID-19 infection risk. Building and Environment, 2022, 208, 108590.	3.0	30
47	Predicting self-pollution inside school buses using a CFD and multi-zone coupled model. Atmospheric Environment, 2015, 107, 16-23.	1.9	29
48	TR-PIV measurement of exhaled flow using a breathing thermal manikin. Building and Environment, 2015, 94, 683-693.	3.0	27
49	Effects of the window openings on the micro-environmental condition in a school bus. Atmospheric Environment, 2017, 167, 434-443.	1.9	27
50	Operating behavior and corresponding performance of mechanical ventilation systems in Chinese residential buildings. Building and Environment, 2020, 170, 106600.	3.0	27
51	Experimental investigation of air distribution in an airliner cabin mockup with displacement ventilation. Building and Environment, 2021, 191, 107577.	3.0	27
52	Multi-objective building energy consumption prediction and optimization for eco-community planning. Energy and Buildings, 2013, 66, 22-32.	3.1	26
53	2D-PIV measurement of isothermal air jets from a multi-slot diffuser in aircraft cabin environment. Building and Environment, 2016, 99, 44-58.	3.0	26
54	An experimental study of a turbulent jet impinging on a flat surface. International Journal of Heat and Mass Transfer, 2015, 83, 820-832.	2.5	25

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55	Influencing factors and energy-saving control strategies for indoor fine particles in commercial office buildings in six Chinese cities. Energy and Buildings, 2017, 149, 171-179.	3.1	24
56	PIV methods for quantifying human thermal plumes in a cabin environment without ventilation. Journal of Visualization, 2017, 20, 535-548.	1.1	24
57	Assessment of turbulence models and air supply opening models for CFD modelling of airflow and gaseous contaminant distributions in aircraft cabins. Indoor and Built Environment, 2018, 27, 606-621.	1.5	24
58	An artificial neural network model using outdoor environmental parameters and residential building characteristics for predicting the nighttime natural ventilation effect. Building and Environment, 2019, 159, 106139.	3.0	24
59	A review of optimization approaches for controlling water-cooled central cooling systems. Building and Environment, 2021, 203, 108100.	3.0	24
60	Experimental study on characteristics of the jet flow from an aircraft gasper. Building and Environment, 2015, 93, 278-284.	3.0	23
61	Predicting contaminant dispersion using modified turbulent Schmidt numbers from different vortex structures. Building and Environment, 2018, 130, 120-127.	3.0	23
62	Thermal comfort diversity in Chinese urban residential buildings across various climates. Energy and Buildings, 2021, 231, 110632.	3.1	23
63	Coupled simulation of natural ventilation and daylighting for a residential community design. Energy and Buildings, 2014, 68, 686-695.	3.1	22
64	PIV experimental study of the large-scale dynamic airflow structures in an aircraft cabin: Swing and oscillation. Building and Environment, 2017, 125, 180-191.	3.0	22
65	Large-scale and long-term monitoring of the thermal environments and adaptive behaviors in Chinese urban residential buildings. Building and Environment, 2020, 168, 106524.	3.0	22
66	A holistic performance assessment of duct-type electrostatic precipitators. Journal of Cleaner Production, 2022, 357, 131997.	4.6	22
67	Impact of atmospheric particulate matter pollutants to IAQ of airport terminal buildings: A first field study at Tianjin Airport, China. Atmospheric Environment, 2018, 179, 222-226.	1.9	21
68	Near fields of annular slotted hoods measured via 2D-PIV. Building and Environment, 2018, 144, 1-8.	3.0	20
69	New indicators for air quality and distribution characteristics of pollutants in China. Building and Environment, 2020, 172, 106723.	3.0	20
70	Ceiling-fan-integrated air conditioning: Airflow and temperature characteristics of a sidewall-supply jet interacting with a ceiling fan. Building and Environment, 2020, 171, 106660.	3.0	20
71	The indoor volatile organic compound (VOC) characteristics and source identification in a new university campus in Tianjin, China. Journal of the Air and Waste Management Association, 2017, 67, 725-737.	0.9	19
72	Development of averaged solid–fluid potential energies for layers and solids of various geometries and dimensionality. Adsorption, 2018, 24, 1-9.	1.4	19

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73	Investigation of window-opening behaviour and indoor air quality in dwellings situated in the temperate zone in China. Indoor and Built Environment, 2021, 30, 938-956.	1.5	19
74	Chaotic behavior of human thermal plumes in an aircraft cabin mockup. International Journal of Heat and Mass Transfer, 2018, 119, 223-235.	2.5	18
75	PIV experimental research on gasper jets interacting with the main ventilation in an aircraft cabin. Building and Environment, 2018, 138, 149-159.	3.0	17
76	Cabin air quality on nonâ€smoking commercial flights: A review of published data on airborne pollutants. Indoor Air, 2021, 31, 926-957.	2.0	17
77	Investigation of the Performance of Airliner Cabin Air Filters throughout Lifetime Usage. Aerosol and Air Quality Research, 2013, 13, 1544-1551.	0.9	17
78	Turbulence measurements of a personal airflow outlet jet in aircraft cabin. Building and Environment, 2014, 82, 608-617.	3.0	15
79	Experimental investigation of the flow behavior of an isothermal impinging jet in a closed cabin. Building and Environment, 2015, 84, 238-250.	3.0	15
80	Experimental study of human thermal plumes in a small space via large-scale TR PIV system. International Journal of Heat and Mass Transfer, 2018, 127, 970-980.	2.5	15
81	Experimental investigation of large-scale flow structures in an aircraft cabin mock-up. Building and Environment, 2020, 184, 107224.	3.0	15
82	Experimental evaluation of particle exposure at different seats in a single-aisle aircraft cabin. Building and Environment, 2021, 202, 108049.	3.0	15
83	A method to optimize sampling locations for measuring indoor air distributions. Atmospheric Environment, 2015, 102, 355-365.	1.9	14
84	Numerical study of the instantaneous flow fields by large eddy simulation and stability analysis in a single aisle cabin model. Building and Environment, 2016, 96, 1-11.	3.0	14
85	Evaluation of relative weights for temperature, CO2, and noise in the aircraft cabin environment. Building and Environment, 2018, 131, 108-116.	3.0	14
86	Performance optimization of airliner cabin air filters. Building and Environment, 2021, 187, 107392.	3.0	14
87	A reinforcement learning approach for control of window behavior to reduce indoor PM2.5 concentrations in naturally ventilated buildings. Building and Environment, 2021, 200, 107978.	3.0	14
88	Statistical analysis of turbulent thermal convection in a cabin mockup. Building and Environment, 2017, 115, 34-41.	3.0	13
89	Bacterial community in commercial airliner cabins in China. International Journal of Environmental Health Research, 2020, 30, 284-295.	1.3	13
90	A review of removing SO2 and NOX by wet scrubbing. Sustainable Energy Technologies and Assessments, 2021, 47, 101451.	1.7	13

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91	Deep learning and physics-based modeling for the optimization of ice-based thermal energy systems in cooling plants. Applied Energy, 2022, 322, 119443.	5.1	13
92	Turbulent characteristics in the near fields of gasper jet flows in an aircraft cabin environment: Intermittently energetic coherent structures. Building and Environment, 2017, 117, 73-83.	3.0	12
93	Ventilation similarity of an aircraft cabin mockup with a real MD-82 commercial airliner. Building and Environment, 2017, 111, 80-90.	3.0	12
94	Fine particulate matter control performance of a new kind of suspended fan filter unit for use in office buildings. Building and Environment, 2019, 149, 468-476.	3.0	12
95	On the microscopic origin of the temperature evolution of isosteric heat for methane adsorption on graphite. Physical Chemistry Chemical Physics, 2017, 19, 27105-27115.	1.3	11
96	Towards a better understanding of adsorption of indoor air pollutants in porous mediaâ€"From mechanistic model to molecular simulation. Building Simulation, 2018, 11, 997-1010.	3.0	11
97	Laboratory and field investigation of portable air cleaners' long-term performance for particle removal to be published in: Building and environment. Building and Environment, 2020, 181, 107100.	3.0	11
98	Multizone modeling of pressure difference control analyses for an infectious disease hospital. Building and Environment, 2021, 206, 108341.	3.0	11
99	Window purifying ventilator using a cross-flow fan: Simulation and optimization. Building Simulation, 2016, 9, 481-488.	3.0	10
100	PIV measurement of human thermal convection flow in a simplified vehicle cabin. Building and Environment, 2018, 144, 305-315.	3.0	10
101	On the capture of ultralow-level benzene in indoor environments: Experiments, modeling and molecular simulation. Separation and Purification Technology, 2020, 251, 117306.	3.9	10
102	Experimental study of the impact of passenger behavior on the aircraft cabin environment. Science and Technology for the Built Environment, 2021, 27, 427-435.	0.8	10
103	Evaluation of different air distribution systems for sleeping spaces in transport vehicles. Building and Environment, 2015, 94, 665-675.	3.0	9
104	Analysis of chemical filter performance and activated carbon microstructure at low concentration. Building and Environment, 2020, 169, 106563.	3.0	9
105	On the capture of polar indoor air pollutants at sub-ppm level—A molecular simulation study. Building Simulation, 2020, 13, 989-997.	3.0	9
106	Study on the performance of two water-side free cooling methods in a semiconductor manufacturing factory. Energy and Buildings, 2021, 243, 110977.	3.1	9
107	Optimal chiller loading in dual-temperature chilled water plants for energy saving. Energy and Buildings, 2021, 252, 111425.	3.1	9
108	Generalizability evaluation of k-l μ models calibrated by using ensemble Kalman filtering for urban airflow and airborne contaminant dispersion. Building and Environment, 2022, 212, 108823.	3.0	9

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109	Near fields of gasper jet flows with wedged nozzle in aircraft cabin environment. Building and Environment, 2017, 125, 99-110.	3.0	8
110	Can carbon dioxide be a good indicator for formaldehyde in residences?—Monte Carlo modeling for a whole year. Science and Technology for the Built Environment, 2020, 26, 749-762.	0.8	8
111	Optimization of multi-V filter design for airliner environmental control system using an empirical model. Separation and Purification Technology, 2021, 257, 117966.	3.9	8
112	Assessment of a confined thermal plume by PIV combined with POD analysis. Applied Thermal Engineering, 2021, 188, 116590.	3.0	8
113	Field investigation of pollutant characteristics and targeted ventilation control strategies in high-ceiling aircraft spraying workshop. Chemical Engineering Research and Design, 2022, 159, 627-639.	2.7	8
114	Ultrafine particles in the cabin of a waiting commercial airliner at Tianjin International Airport, China. Indoor and Built Environment, 2018, 27, 1247-1258.	1.5	7
115	Experimental study of thermo-fluid boundary conditions, airflow and temperature distributions in a single aisle aircraft cabin mockup. Indoor and Built Environment, 2021, 30, 1185-1199.	1.5	7
116	Filtration of Bioaerosols Using Fibrous Air Filter Media. HVAC and R Research, 2009, 15, 1165-1174.	0.9	6
117	Monte Carlo simulation to control indoor pollutants from indoor and outdoor sources for residential buildings in Tianjin, China. Building and Environment, 2019, 165, 106376.	3.0	6
118	A field investigation of the thermal environment and adaptive thermal behavior in bedrooms in different climate regions in China. Indoor Air, 2021, 31, 887-898.	2.0	6
119	Competitive coadsorption of ammonia with water and sulfur dioxide on metal-organic frameworks at low pressure. Building and Environment, 2022, 207, 108421.	3.0	6
120	Operating resistance prediction of non-flat HEPA filters. Powder Technology, 2022, 408, 117718.	2.1	6
121	An experimental method to determine enzyme particle emission rate in workplace. Building and Environment, 2009, 44, 2327-2334.	3.0	5
122	Relationship between outdoor and indoor ozone pollution concentration. Transactions of Tianjin University, 2009, 15, 330-335.	3.3	5
123	Numerical Simulations of the Instantaneous Flow Fields in a Generic Aircraft Cabin with Various Categories Turbulence Models. Procedia Engineering, 2015, 121, 1827-1835.	1.2	5
124	Measuring and containing longitudinal flow: Important for airborne pollutants control in an aircraft cabin. Science and Technology for the Built Environment, 2015, 21, 1126-1133.	0.8	5
125	Influences of indoor environment and occupant behavior on mite allergen concentration in different regions of China. Building and Environment, 2020, 178, 106922.	3.0	5
126	Design with modeling techniques., 2021,, 109-183.		5

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127	Performance analysis of a centrifugal pump based on noise. Science and Technology for the Built Environment, 2021, 27, 1256-1268.	0.8	5
128	Integrated on-site collection and off-site analysis of airborne molecular contamination in cleanrooms for integrated circuit manufacturing processes. Building and Environment, 2022, 214, 108941.	3.0	5
129	Numerical and experimental study towards a novel torque damper with minimized air flow instability. Building and Environment, 2022, 217, 109114.	3.0	5
130	Physical environmental and behavioral drivers of heat recovery ventilation system feasibility in various climate zones. Energy Conversion and Management, 2022, 259, 115586.	4.4	5
131	2D-PIV Experimental Study on the Air Distribution with Natural Convection Effect of Passengers in an Air Cabin Mockup. Procedia Engineering, 2015, 121, 866-874.	1.2	4
132	A New Calculating Model for the Suitable Area of Air Cleaners Purifying Indoor Gaseous Chemical Contaminants. Procedia Engineering, 2015, 121, 1467-1474.	1.2	4
133	Estimating longâ€ŧerm timeâ€ෑesolved indoor PM _{2.5} of outdoor and indoor origin using easily obtainable inputs. Indoor Air, 2021, 31, 2020-2032.	2.0	4
134	Analysis of the characteristics of noise from substations in buildings. Building Services Engineering Research and Technology, 2022, 43, 41-56.	0.9	4
135	Size-resolved splashed cooking oil droplets from 1 to $1000 \hat{A} \hat{I} / 4$ m on surfaces: The impact of residential range hoods. Building and Environment, 2022, 210, 108705.	3.0	4
136	Experimental research on the impact of annular airflow on the spraying flow field: A source control technology of paint mist. Building and Environment, 2022, 207, 108444.	3.0	3
137	Simplified model for the calculation of the particle capture process in air filter media. Chemical Engineering Science, 2022, 249, 117358.	1.9	3
138	Fast real-time measurement method of a wet scrubber on particle purification efficiency with image information entropy analysis. Building and Environment, 2022, 218, 109133.	3.0	3
139	Longâ€term performance analysis of chemical filters in clean rooms based on a prediction model. Indoor Air, 2021, 31, 783-794.	2.0	2
140	Simulation Study of a Novel Cylindrical Micro-Electrostatic Particulate Air Filter with High Filtration Efficiency and Low Resistance. Buildings, 2021, 11, 465.	1.4	2
141	An Overview of the Applications of Particle Image Velocimetry for Indoor Airflow Field Measurement. Lecture Notes in Electrical Engineering, 2014, , 223-231.	0.3	1
142	A Method to Generate Experimental Aerosol with Similar Particle Size Distribution to Atmospheric Aerosol. Atmosphere, $2021,12,1669.$	1.0	1
143	Energy Consumption Simulation for Residential Buildings With Shading Devices in Different Regions., 2007,, 627.		0
144	Another move-forward in the building energy world. Energy and Buildings, 2014, 68, 633.	3.1	0

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145	Improving the built environment from the systematic view. Science and Technology for the Built Environment, 2017, 23, 227-228.	0.8	0
146	Experimental Analysis of Residential Ventilation and Dehumidification Strategies in Chongqing. E3S Web of Conferences, 2019, 111, 01004.	0.2	0
147	Response to the Letter to the Editor sent by Judith Anderson, industrial hygienist at the association of flight attendants. Indoor Air, 2022, 32, e13006.	2.0	O
148	Optimization of Corrugated Sheet Packing Structure Based on Analysis of Falling Film Flow Characteristics. Sustainability, 2022, 14, 5861.	1.6	0