

Junjie Liu

List of Publications by Citations

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146
papers

2,995
citations

28
h-index

48
g-index

158
ext. papers

3,715
ext. citations

5.8
avg, IF

5.91
L-index

#	Paper	IF	Citations
146	Building energy-consumption status worldwide and the state-of-the-art technologies for zero-energy buildings during the past decade. <i>Energy and Buildings</i> , 2016 , 128, 198-213	7	559
145	Water adsorption on carbon - A review. <i>Advances in Colloid and Interface Science</i> , 2017 , 250, 64-78	14.3	122
144	Particle image velocimetry measurement of indoor airflow field: A review of the technologies and applications. <i>Energy and Buildings</i> , 2014 , 69, 367-380	7	92
143	Accurate and high-resolution boundary conditions and flow fields in the first-class cabin of an MD-82 commercial airliner. <i>Atmospheric Environment</i> , 2012 , 56, 33-44	5.3	82
142	Efficiency of energy recovery ventilator with various weathers and its energy saving performance in a residential apartment. <i>Energy and Buildings</i> , 2010 , 42, 43-49	7	67
141	Evaluation of various categories of turbulence models for predicting air distribution in an airliner cabin. <i>Building and Environment</i> , 2013 , 65, 118-131	6.5	66
140	State-of-the-art methods for studying air distributions in commercial airliner cabins. <i>Building and Environment</i> , 2012 , 47, 5-12	6.5	62
139	2D-PIV measurement of aircraft cabin air distribution with a high spatial resolution. <i>Building and Environment</i> , 2014 , 82, 9-19	6.5	59
138	Window-opening behavior in Chinese residential buildings across different climate zones. <i>Building and Environment</i> , 2018 , 142, 234-243	6.5	53
137	Experimental and simulation study on the performance of daylighting in an industrial building and its energy saving potential. <i>Energy and Buildings</i> , 2014 , 73, 184-191	7	52
136	Performance of a biological degradation method for indoor formaldehyde removal. <i>Building and Environment</i> , 2012 , 57, 253-258	6.5	52
135	Building energy saving potential in Hot Summer and Cold Winter (HSCW) Zone, China: Influence of building energy efficiency standards and implications. <i>Energy Policy</i> , 2013 , 57, 253-262	7.2	49
134	Indoor air quality and occupants' ventilation habits in China: Seasonal measurement and long-term monitoring. <i>Building and Environment</i> , 2018 , 142, 119-129	6.5	48
133	Numerical simulation on a horizontal airflow for airborne particles control in hospital operating room. <i>Building and Environment</i> , 2009 , 44, 2284-2289	6.5	48
132	Experimental study of gaseous and particulate contaminants distribution in an aircraft cabin. <i>Atmospheric Environment</i> , 2014 , 85, 223-233	5.3	47
131	Global airflow field distribution in a cabin mock-up measured via large-scale 2D-PIV. <i>Building and Environment</i> , 2015 , 93, 234-244	6.5	46
130	A review of studies applying machine learning models to predict occupancy and window-opening behaviours in smart buildings. <i>Energy and Buildings</i> , 2020 , 223, 110159	7	41

129	Long-term monitoring of indoor CO ₂ and PM _{2.5} in Chinese homes: Concentrations and their relationships with outdoor environments. <i>Building and Environment</i> , 2018 , 144, 238-247	6.5	40
128	A hybrid model for investigating transient particle transport in enclosed environments. <i>Building and Environment</i> , 2013 , 62, 45-54	6.5	37
127	Experimental and numerical investigations of indoor air movement distribution with an office ceiling fan. <i>Building and Environment</i> , 2018 , 130, 14-26	6.5	36
126	Numerical investigation of airborne contaminant transport under different vortex structures in the aircraft cabin. <i>International Journal of Heat and Mass Transfer</i> , 2016 , 96, 287-295	4.9	34
125	Ventilation behavior in residential buildings with mechanical ventilation systems across different climate zones in China. <i>Building and Environment</i> , 2018 , 143, 679-690	6.5	34
124	Experimental verification of tracking algorithm for dynamically-releasing single indoor contaminant. <i>Building Simulation</i> , 2012 , 5, 5-14	3.9	34
123	Distributions of respiratory contaminants from a patient with different postures and exhaling modes in a single-bed inpatient room. <i>Building and Environment</i> , 2011 , 46, 75-81	6.5	31
122	Modeling and controlling indoor formaldehyde concentrations in apartments: On-site investigation in all climate zones of China. <i>Building and Environment</i> , 2018 , 127, 98-106	6.5	30
121	Experimental study of transient air distribution of a jet collision region in an aircraft cabin mock-up. <i>Energy and Buildings</i> , 2016 , 127, 786-793	7	28
120	Impact of various ventilation modes on IAQ and energy consumption in Chinese dwellings: First long-term monitoring study in Tianjin, China. <i>Building and Environment</i> , 2018 , 143, 99-106	6.5	28
119	2D-PIV measurement of range hood-driven flow in a domestic kitchen. <i>Energy and Buildings</i> , 2018 , 177, 64-76	7	28
118	A study of ambient fine particles at Tianjin International Airport, China. <i>Science of the Total Environment</i> , 2016 , 556, 126-35	10.2	27
117	Mesh Type and Number for the CFD Simulations of Air Distribution in an Aircraft Cabin. <i>Numerical Heat Transfer, Part B: Fundamentals</i> , 2015 , 67, 489-506	1.3	26
116	An innovative personalized displacement ventilation system for airliner cabins. <i>Building and Environment</i> , 2018 , 137, 41-50	6.5	26
115	Performance evaluation of different air distribution systems in an aircraft cabin mockup. <i>Aerospace Science and Technology</i> , 2017 , 70, 359-366	4.9	25
114	Study of the thermal insulation properties of the glass fiber board used for interior building envelope. <i>Energy and Buildings</i> , 2015 , 107, 49-58	7	24
113	Long-term indoor gas pollutant monitor of new dormitories with natural ventilation. <i>Energy and Buildings</i> , 2016 , 129, 514-523	7	24
112	Investigation of Indoor Air Quality in Primary School Classrooms. <i>Procedia Engineering</i> , 2015 , 121, 830-837		24

111	2D-PIV measurement of isothermal air jets from a multi-slot diffuser in aircraft cabin environment. <i>Building and Environment</i> , 2016 , 99, 44-58	6.5	23
110	Turbulence characterization of instantaneous airflow in an aisle of an aircraft cabin mockup. <i>Building and Environment</i> , 2017 , 116, 207-217	6.5	22
109	Deep learning for automated cerebral aneurysm detection on computed tomography images. <i>International Journal of Computer Assisted Radiology and Surgery</i> , 2020 , 15, 715-723	3.9	22
108	Multi-objective building energy consumption prediction and optimization for eco-community planning. <i>Energy and Buildings</i> , 2013 , 66, 22-32	7	21
107	Effects of Vehicle Cabin Filter Efficiency on Ultrafine Particle Concentration Ratios Measured In-Cabin and On-Roadway. <i>Aerosol Science and Technology</i> , 2011 , 45, 234-243	3.4	21
106	Air change rates in urban Chinese bedrooms. <i>Indoor Air</i> , 2019 , 29, 828-839	5.4	20
105	Formaldehyde adsorption in carbon nanopores [New insights from molecular simulation. <i>Chemical Engineering Journal</i> , 2019 , 370, 866-874	14.7	20
104	TR-PIV measurement of exhaled flow using a breathing thermal manikin. <i>Building and Environment</i> , 2015 , 94, 683-693	6.5	20
103	Experimental study on characteristics of the jet flow from an aircraft gasper. <i>Building and Environment</i> , 2015 , 93, 278-284	6.5	19
102	Assessment of turbulence models and air supply opening models for CFD modelling of airflow and gaseous contaminant distributions in aircraft cabins. <i>Indoor and Built Environment</i> , 2018 , 27, 606-621	1.8	19
101	Coupled simulation of natural ventilation and daylighting for a residential community design. <i>Energy and Buildings</i> , 2014 , 68, 686-695	7	19
100	Influencing factors and energy-saving control strategies for indoor fine particles in commercial office buildings in six Chinese cities. <i>Energy and Buildings</i> , 2017 , 149, 171-179	7	18
99	An artificial neural network model using outdoor environmental parameters and residential building characteristics for predicting the nighttime natural ventilation effect. <i>Building and Environment</i> , 2019 , 159, 106139	6.5	18
98	Predicting self-pollution inside school buses using a CFD and multi-zone coupled model. <i>Atmospheric Environment</i> , 2015 , 107, 16-23	5.3	18
97	An experimental study of a turbulent jet impinging on a flat surface. <i>International Journal of Heat and Mass Transfer</i> , 2015 , 83, 820-832	4.9	18
96	On the mechanism of water adsorption in carbon micropores [A molecular simulation study. <i>Chemical Engineering Journal</i> , 2019 , 357, 358-366	14.7	18
95	Predicting contaminant dispersion using modified turbulent Schmidt numbers from different vortex structures. <i>Building and Environment</i> , 2018 , 130, 120-127	6.5	17
94	Operating behavior and corresponding performance of portable air cleaners in residential buildings, China. <i>Building and Environment</i> , 2019 , 147, 473-481	6.5	17

93	Effects of the window openings on the micro-environmental condition in a school bus. <i>Atmospheric Environment</i> , 2017 , 167, 434-443	5.3	16
92	PIV experimental study of the large-scale dynamic airflow structures in an aircraft cabin: Swing and oscillation. <i>Building and Environment</i> , 2017 , 125, 180-191	6.5	16
91	Investigation of the Performance of Airliner Cabin Air Filters throughout Lifetime Usage. <i>Aerosol and Air Quality Research</i> , 2013 , 13, 1544-1551	4.6	15
90	PIV methods for quantifying human thermal plumes in a cabin environment without ventilation. <i>Journal of Visualization</i> , 2017 , 20, 535-548	1.6	14
89	PIV experimental research on gasper jets interacting with the main ventilation in an aircraft cabin. <i>Building and Environment</i> , 2018 , 138, 149-159	6.5	14
88	Turbulence measurements of a personal airflow outlet jet in aircraft cabin. <i>Building and Environment</i> , 2014 , 82, 608-617	6.5	14
87	Experimental investigation of air distribution in an airliner cabin mockup with displacement ventilation. <i>Building and Environment</i> , 2021 , 191, 107577	6.5	14
86	Development of averaged solid fluid potential energies for layers and solids of various geometries and dimensionality. <i>Adsorption</i> , 2018 , 24, 1-9	2.6	14
85	New indicators for air quality and distribution characteristics of pollutants in China. <i>Building and Environment</i> , 2020 , 172, 106723	6.5	13
84	Impact of atmospheric particulate matter pollutants to IAQ of airport terminal buildings: A first field study at Tianjin Airport, China. <i>Atmospheric Environment</i> , 2018 , 179, 222-226	5.3	13
83	Chaotic behavior of human thermal plumes in an aircraft cabin mockup. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 119, 223-235	4.9	13
82	Near fields of annular slotted hoods measured via 2D-PIV. <i>Building and Environment</i> , 2018 , 144, 1-8	6.5	13
81	Experimental investigation of the flow behavior of an isothermal impinging jet in a closed cabin. <i>Building and Environment</i> , 2015 , 84, 238-250	6.5	13
80	An eight-city study of volatile organic compounds in Chinese residences: Compounds, concentrations, and characteristics. <i>Science of the Total Environment</i> , 2020 , 698, 134137	10.2	13
79	Statistical analysis of turbulent thermal convection in a cabin mockup. <i>Building and Environment</i> , 2017 , 115, 34-41	6.5	12
78	A method to optimize sampling locations for measuring indoor air distributions. <i>Atmospheric Environment</i> , 2015 , 102, 355-365	5.3	12
77	Ventilation similarity of an aircraft cabin mockup with a real MD-82 commercial airliner. <i>Building and Environment</i> , 2017 , 111, 80-90	6.5	12
76	Operating behavior and corresponding performance of mechanical ventilation systems in Chinese residential buildings. <i>Building and Environment</i> , 2020 , 170, 106600	6.5	12

75	Large-scale and long-term monitoring of the thermal environments and adaptive behaviors in Chinese urban residential buildings. <i>Building and Environment</i> , 2020 , 168, 106524	6.5	12
74	Investigation of window-opening behaviour and indoor air quality in dwellings situated in the temperate zone in China. <i>Indoor and Built Environment</i> , 2020 , 1420326X2092474	1.8	11
73	Cabin air quality on non-smoking commercial flights: A review of published data on airborne pollutants. <i>Indoor Air</i> , 2021 , 31, 926-957	5.4	11
72	Associations of indoor carbon dioxide concentrations, air temperature, and humidity with perceived air quality and sick building syndrome symptoms in Chinese homes. <i>Indoor Air</i> , 2021 , 31, 1018-1028	5.4	11
71	The indoor volatile organic compound (VOC) characteristics and source identification in a new university campus in Tianjin, China. <i>Journal of the Air and Waste Management Association</i> , 2017 , 67, 725-737	2.4	10
70	Turbulent characteristics in the near fields of gasper jet flows in an aircraft cabin environment: Intermittently energetic coherent structures. <i>Building and Environment</i> , 2017 , 117, 73-83	6.5	10
69	A review of optimization approaches for controlling water-cooled central cooling systems. <i>Building and Environment</i> , 2021 , 203, 108100	6.5	10
68	Experimental investigation of large-scale flow structures in an aircraft cabin mock-up. <i>Building and Environment</i> , 2020 , 184, 107224	6.5	9
67	Window purifying ventilator using a cross-flow fan: Simulation and optimization. <i>Building Simulation</i> , 2016 , 9, 481-488	3.9	9
66	Bacterial community in commercial airliner cabins in China. <i>International Journal of Environmental Health Research</i> , 2020 , 30, 284-295	3.6	9
65	Experimental evaluation of particle exposure at different seats in a single-aisle aircraft cabin. <i>Building and Environment</i> , 2021 , 202, 108049	6.5	9
64	On the microscopic origin of the temperature evolution of isosteric heat for methane adsorption on graphite. <i>Physical Chemistry Chemical Physics</i> , 2017 , 19, 27105-27115	3.6	8
63	Evaluation of relative weights for temperature, CO ₂ , and noise in the aircraft cabin environment. <i>Building and Environment</i> , 2018 , 131, 108-116	6.5	8
62	Fine particulate matter control performance of a new kind of suspended fan filter unit for use in office buildings. <i>Building and Environment</i> , 2019 , 149, 468-476	6.5	8
61	Thermal comfort diversity in Chinese urban residential buildings across various climates. <i>Energy and Buildings</i> , 2021 , 231, 110632	7	8
60	Experimental study of human thermal plumes in a small space via large-scale TR PIV system. <i>International Journal of Heat and Mass Transfer</i> , 2018 , 127, 970-980	4.9	8
59	Evaluation of different air distribution systems for sleeping spaces in transport vehicles. <i>Building and Environment</i> , 2015 , 94, 665-675	6.5	7
58	On the capture of polar indoor air pollutants at sub-ppm level: A molecular simulation study. <i>Building Simulation</i> , 2020 , 13, 989-997	3.9	7

57	Ceiling-fan-integrated air conditioning: Airflow and temperature characteristics of a sidewall-supply jet interacting with a ceiling fan. <i>Building and Environment</i> , 2020 , 171, 106660	6.5	7
56	Towards a better understanding of adsorption of indoor air pollutants in porous media: From mechanistic model to molecular simulation. <i>Building Simulation</i> , 2018 , 11, 997-1010	3.9	7
55	PIV measurement of human thermal convection flow in a simplified vehicle cabin. <i>Building and Environment</i> , 2018 , 144, 305-315	6.5	7
54	On the capture of ultralow-level benzene in indoor environments: Experiments, modeling and molecular simulation. <i>Separation and Purification Technology</i> , 2020 , 251, 117306	8.3	6
53	Numerical study of the instantaneous flow fields by large eddy simulation and stability analysis in a single aisle cabin model. <i>Building and Environment</i> , 2016 , 96, 1-11	6.5	6
52	Near fields of gasper jet flows with wedged nozzle in aircraft cabin environment. <i>Building and Environment</i> , 2017 , 125, 99-110	6.5	6
51	Monte Carlo simulation to control indoor pollutants from indoor and outdoor sources for residential buildings in Tianjin, China. <i>Building and Environment</i> , 2019 , 165, 106376	6.5	5
50	Can carbon dioxide be a good indicator for formaldehyde in residences? Monte Carlo modeling for a whole year. <i>Science and Technology for the Built Environment</i> , 2020 , 26, 749-762	1.8	5
49	Filtration of Bioaerosols Using Fibrous Air Filter Media. <i>HVAC and R Research</i> , 2009 , 15, 1165-1174		5
48	Performance optimization of airliner cabin air filters. <i>Building and Environment</i> , 2021 , 187, 107392	6.5	5
47	A recurrent neural network using historical data to predict time series indoor PM2.5 concentrations for residential buildings. <i>Indoor Air</i> , 2021 , 31, 1228-1237	5.4	5
46	Numerical Simulations of the Instantaneous Flow Fields in a Generic Aircraft Cabin with Various Categories Turbulence Models. <i>Procedia Engineering</i> , 2015 , 121, 1827-1835		4
45	Experimental study of thermo-fluid boundary conditions, airflow and temperature distributions in a single aisle aircraft cabin mockup. <i>Indoor and Built Environment</i> , 2020 , 1420326X2093227	1.8	4
44	Ultrafine particles in the cabin of a waiting commercial airliner at Tianjin International Airport, China. <i>Indoor and Built Environment</i> , 2018 , 27, 1247-1258	1.8	4
43	An experimental method to determine enzyme particle emission rate in workplace. <i>Building and Environment</i> , 2009 , 44, 2327-2334	6.5	4
42	Evaluation of different air distribution systems in a commercial airliner cabin in terms of comfort and COVID-19 infection risk. <i>Building and Environment</i> , 2021 , 208, 108590	6.5	4
41	Analysis of chemical filter performance and activated carbon microstructure at low concentration. <i>Building and Environment</i> , 2020 , 169, 106563	6.5	4
40	Assessment of a confined thermal plume by PIV combined with POD analysis. <i>Applied Thermal Engineering</i> , 2021 , 188, 116590	5.8	4

39	A reinforcement learning approach for control of window behavior to reduce indoor PM2.5 concentrations in naturally ventilated buildings. <i>Building and Environment</i> , 2021 , 200, 107978	6.5	4
38	A New Calculating Model for the Suitable Area of Air Cleaners Purifying Indoor Gaseous Chemical Contaminants. <i>Procedia Engineering</i> , 2015 , 121, 1467-1474		3
37	Measuring and containing longitudinal flow: Important for airborne pollutants control in an aircraft cabin. <i>Science and Technology for the Built Environment</i> , 2015 , 21, 1126-1133	1.8	3
36	Relationship between outdoor and indoor ozone pollution concentration. <i>Transactions of Tianjin University</i> , 2009 , 15, 330-335	2.9	3
35	Study on the performance of two water-side free cooling methods in a semiconductor manufacturing factory. <i>Energy and Buildings</i> , 2021 , 243, 110977	7	3
34	Optimization of multi-V filter design for airliner environmental control system using an empirical model. <i>Separation and Purification Technology</i> , 2021 , 257, 117966	8.3	3
33	A review of removing SO2 and NOX by wet scrubbing. <i>Sustainable Energy Technologies and Assessments</i> , 2021 , 47, 101451	4.7	3
32	Influences of indoor environment and occupant behavior on mite allergen concentration in different regions of China. <i>Building and Environment</i> , 2020 , 178, 106922	6.5	2
31	2D-PIV Experimental Study on the Air Distribution with Natural Convection Effect of Passengers in an Air Cabin Mockup. <i>Procedia Engineering</i> , 2015 , 121, 866-874		2
30	Laboratory and field investigation of portable air cleaners—long-term performance for particle removal to be published in: Building and environment. <i>Building and Environment</i> , 2020 , 181, 107100	6.5	2
29	A field investigation of the thermal environment and adaptive thermal behavior in bedrooms in different climate regions in China. <i>Indoor Air</i> , 2020 , 31, 887	5.4	2
28	Experimental study of the impact of passenger behavior on the aircraft cabin environment. <i>Science and Technology for the Built Environment</i> , 2021 , 27, 427-435	1.8	2
27	Multizone modeling of pressure difference control analyses for an infectious disease hospital. <i>Building and Environment</i> , 2021 , 206, 108341	6.5	2
26	Optimal chiller loading in dual-temperature chilled water plants for energy saving. <i>Energy and Buildings</i> , 2021 , 252, 111425	7	2
25	Influence of Ventilation on Indoor Air Quality 2022 , 1-38		2
24	A holistic performance assessment of duct-type electrostatic precipitators. <i>Journal of Cleaner Production</i> , 2022 , 357, 131997	10.3	2
23	Experimental research on the impact of annular airflow on the spraying flow field: A source control technology of paint mist. <i>Building and Environment</i> , 2022 , 207, 108444	6.5	1
22	Experimental Measurement of Airflow Turbulence Characteristics in a Full-Size Aircraft Cabin. <i>Lecture Notes in Electrical Engineering</i> , 2014 , 341-349	0.2	1

21	Integrated on-site collection and off-site analysis of airborne molecular contamination in cleanrooms for integrated circuit manufacturing processes. <i>Building and Environment</i> , 2022 , 214, 108941	6.5	1
20	Physical environmental and behavioral drivers of heat recovery ventilation system feasibility in various climate zones. <i>Energy Conversion and Management</i> , 2022 , 259, 115586	10.6	1
19	Fast real-time measurement method of a wet scrubber on particle purification efficiency with image information entropy analysis. <i>Building and Environment</i> , 2022 , 218, 109133	6.5	1
18	Field investigation of pollutant characteristics and targeted ventilation control strategies in high-ceiling aircraft spraying workshop. <i>Chemical Engineering Research and Design</i> , 2022 , 159, 627-639	5.5	0
17	Size-resolved splashed cooking oil droplets from 1 to 1000 μm on surfaces: The impact of residential range hoods. <i>Building and Environment</i> , 2022 , 210, 108705	6.5	0
16	Simplified model for the calculation of the particle capture process in air filter media. <i>Chemical Engineering Science</i> , 2022 , 249, 117358	4.4	0
15	Simulation Study of a Novel Cylindrical Micro-Electrostatic Particulate Air Filter with High Filtration Efficiency and Low Resistance. <i>Buildings</i> , 2021 , 11, 465	3.2	0
14	Competitive coadsorption of ammonia with water and sulfur dioxide on metal-organic frameworks at low pressure. <i>Building and Environment</i> , 2022 , 207, 108421	6.5	0
13	An Overview of the Applications of Particle Image Velocimetry for Indoor Airflow Field Measurement. <i>Lecture Notes in Electrical Engineering</i> , 2014 , 223-231	0.2	0
12	Design with modeling techniques 2021 , 109-183		0
11	Estimating long-term time-resolved indoor PM of outdoor and indoor origin using easily obtainable inputs. <i>Indoor Air</i> , 2021 , 31, 2020-2032	5.4	0
10	Performance analysis of a centrifugal pump based on noise. <i>Science and Technology for the Built Environment</i> , 2021 , 27, 1256-1268	1.8	0
9	A Method to Generate Experimental Aerosol with Similar Particle Size Distribution to Atmospheric Aerosol. <i>Atmosphere</i> , 2021 , 12, 1669	2.7	0
8	Numerical and experimental study towards a novel torque damper with minimized air flow instability. <i>Building and Environment</i> , 2022 , 109114	6.5	0
7	Experimental Analysis of Residential Ventilation and Dehumidification Strategies in Chongqing. <i>E3S Web of Conferences</i> , 2019 , 111, 01004	0.5	
6	Energy Consumption Simulation for Residential Buildings With Shading Devices in Different Regions 2007 , 627		
5	Generalizability evaluation of k- ϵ models calibrated by using ensemble Kalman filtering for urban airflow and airborne contaminant dispersion. <i>Building and Environment</i> , 2022 , 212, 108823	6.5	
4	Long-term performance analysis of chemical filters in clean rooms based on a prediction model. <i>Indoor Air</i> , 2021 , 31, 783-794	5.4	

- 3 Analysis of the characteristics of noise from substations in buildings. *Building Services Engineering Research and Technology*, 014362442110356 2.3
- 2 Response to the Letter to the Editor sent by Judith Anderson, industrial hygienist at the association of flight attendants.. *Indoor Air*, **2022**, 32, e13006 5.4
- 1 Optimization of Corrugated Sheet Packing Structure Based on Analysis of Falling Film Flow Characteristics. *Sustainability*, **2022**, 14, 5861 3.6