Zhiwen Luo

List of Publications by Year
in descending order

51 papers	1,721 citations	236612 25 h-index	288905 40 g-index
55 all docs	55 docs citations	55 times ranked	1503 citing authors

#	Article	IF	Citations
1	The influence of street layouts and viaduct settings on daily carbon monoxide exposure and intake fraction in idealized urban canyons. Environmental Pollution, 2017, 220, 72-86.	3.7	133
2	Quantitative ventilation assessments of idealized urban canopy layers with various urban layouts and the same building packing density. Building and Environment, 2014, 79, 152-167.	3.0	131
3	The urban cool island phenomenon in a highâ€rise highâ€density city and its mechanisms. International Journal of Climatology, 2017, 37, 890-904.	1.5	124
4	Possible Role of Aerosol Transmission in a Hospital Outbreak of Influenza. Clinical Infectious Diseases, 2010, 51, 1176-1183.	2.9	104
5	Natural ventilation assessment in typical open and semi-open urban environments under various wind directions. Building and Environment, 2013, 70, 318-333.	3.0	89
6	Passive urban ventilation by combined buoyancy-driven slope flow and wall flow: Parametric CFD studies on idealized city models. Atmospheric Environment, 2011, 45, 5946-5956.	1.9	60
7	Field measurement of natural ventilation rate in an idealised full-scale building located in a staggered urban array: Comparison between tracer gas and pressure-based methods. Building and Environment, 2018, 137, 246-256.	3.0	59
8	Street canyon ventilation and airborne pollutant dispersion: 2-D versus 3-D CFD simulations. Sustainable Cities and Society, 2019, 50, 101700.	5.1	57
9	A field study of urban microclimates in London. Renewable Energy, 2015, 73, 3-9.	4.3	55
10	Intake fraction of nonreactive motor vehicle exhaust in Hong Kong. Atmospheric Environment, 2010, 44, 1913-1918.	1.9	54
11	Health and economic benefits of building ventilation interventions for reducing indoor PM2.5 exposure from both indoor and outdoor origins in urban Beijing, China. Science of the Total Environment, 2018, 626, 546-554.	3.9	40
12	Revisiting the â€˜Venturi effectâ€™ in passage ventilation between two non-parallel buildings. Building and Environment, 2015, 94, 714-722.	3.0	39
13	Emergy-based sustainability assessment of different energy options for green buildings. Energy Conversion and Management, 2015, 100, 97-102.	4.4	35
14	Optimizing the thermal performance of building envelopes for energy saving in underground office buildings in various climates of China. Tunnelling and Underground Space Technology, 2018, 77, 26-35.	3.0	34
15	Impacts of urban microclimate on summertime sensible and latent energy demand for cooling in residential buildings of Hong Kong. Energy, 2019, 189, 116208.	4.5	34
16	Numerical and experimental studies of a Capillary-Tube embedded PCM component for improving indoor thermal environment. Applied Thermal Engineering, 2019, 148, 466-477.	3.0	34
17	The impact of building operations on urban heat/cool islands under urban densification: A comparison between naturally-ventilated and air-conditioned buildings. Applied Energy, 2019, 235, 129-138.	5.1	34
18	An integrated study of urban microclimates in Chongqing, China: Historical weather data, transverse measurement and numerical simulation. Sustainable Cities and Society, 2015, 14, 187-199.	5.1	32

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19	The influence of advertisement boards, street and source layouts on CO dispersion and building intake fraction in three-dimensional urban-like models. Building and Environment, 2019, 150, 297-321.	3.0	32
20	The influence of aspect ratios and wall heating conditions on flow and passive pollutant exposure in 2D typical street canyons. Building and Environment, 2020, 168, 106536.	3.0	31
21	The impact of indoor thermal stratification on the dispersion of human speech droplets. Indoor Air, 2021, 31, 369-382.	2.0	31
22	Revisiting physical distancing threshold in indoor environment using infection-risk-based modeling. Environment International, 2021, 153, 106542.	4.8	29
23	A novel flow-guide device for uniform exhaust in a central air exhaust ventilation system. Building and Environment, 2019, 149, 134-145.	3.0	28
24	Impact of neighbourhood-scale climate characteristics on building heating demand and night ventilation cooling potential. Renewable Energy, 2020, 150, 943-956.	4.3	28
25	A laboratory study of the expiratory airflow and particle dispersion in the stratified indoor environment. Building and Environment, 2020, 180, 106988.	3.0	28
26	Subsurface urban heat island and its effects on horizontal ground-source heat pump potential under climate change. Applied Thermal Engineering, 2015, 90, 530-537.	3.0	27
27	Airborne transmission of pathogen-laden expiratory droplets in open outdoor space. Science of the Total Environment, 2021, 773, 145537.	3.9	27
28	Role of pathogen-laden expiratory droplet dispersion and natural ventilation explaining a COVID-19 outbreak in a coach bus. Building and Environment, 2022, 220, 109160.	3.0	26
29	Evaluating single-sided natural ventilation models against full-scale idealised measurements: Impact of wind direction and turbulence. Building and Environment, 2020, 170, 106556.	3.0	24
30	A novel solar-assisted ground-source heat pump (SAGSHP) with seasonal heat-storage and heat cascade utilization: Field test and performance analysis. Solar Energy, 2020, 201, 362-372.	2.9	24
31	Effects of variability of local winds on cross ventilation for a simplified building within a full-scale asymmetric array: Overview of the Silsoe field campaign. Journal of Wind Engineering and Industrial Aerodynamics, 2018, 175, 408-418.	1.7	23
32	Influence of neighbouring structures on building faÃ§ade pressures: Comparison between full-scale, wind-tunnel, CFD and practitioner guidelines. Journal of Wind Engineering and Industrial Aerodynamics, 2019, 189, 22-33.	1.7	23
33	Urban meteorological forcing data for building energy simulations. Building and Environment, 2021, 204, 108088.	3.0	23
34	An investigation of formaldehyde concentration in residences and the development of a model for the prediction of its emission rates. Building and Environment, 2019, 147, 540-550.	3.0	20
35	Numerical investigations of reactive pollutant dispersion and personal exposure in 3D urban-like models. Building and Environment, 2020, 169, 106569.	3.0	17
36	Impact of COVID-19 lockdown on NO2 and PM2.5 exposure inequalities in London, UK. Environmental Research, 2021, 198, 111236.	3.7	13

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37	Natural Ventilation of a Small-Scale Road Tunnel by Wind Catchers: A CFD Simulation Study. Atmosphere, 2018, 9, 411.	1.0	12
38	Comparing different approaches for assessing the impact of COVID-19 lockdown on urban air quality in Reading, UK. Atmospheric Research, 2021, 261, 105730.	1.8	12
39	Ventilation in a Street Canyon under Diurnal Heating Conditions. International Journal of Ventilation, 2012, 11, 141-154.	0.2	11
40	Two-dimensional flow visualization and velocity measurement in natural convection near indoor heated surfaces using a thermal image velocimetry method. Applied Thermal Engineering, 2019, 146, 556-568.	3.0	11
41	Impact of inter-building longwave radiative exchanges on building energy performance and indoor overheating. Building and Environment, 2022, 209, 108628.	3.0	11
42	Quantifying the Health Burden Misclassification from the Use of Different PM2.5 Exposure Tier Models: A Case Study of London. International Journal of Environmental Research and Public Health, 2020, 17, 1099.	1.2	10
43	Inhalation exposure to particulate matter in rooms with underfloor air distribution. Indoor and Built Environment, 2014, 23, 236-245.	1.5	9
44	Crowdsourcing Urban Air Temperature Data for Estimating Urban Heat Island and Building Heating/Cooling Load in London. Energies, 2021, 14, 5208.	1.6	9
45	Revising the definition of anthropogenic heat flux from buildings: role of human activities and building storage heat flux. Atmospheric Chemistry and Physics, 2022, 22, 4721-4735.	1.9	8
46	Assessment of Overheating Risk in Gynaecology Scanning Rooms during Near-Heatwave Conditions: A Case Study of the Royal Berkshire Hospital in the UK. International Journal of Environmental Research and Public Health, 2019, 16, 3347.	1.2	7
47	Numerical Investigations of Urban Pollutant Dispersion and Building Intake Fraction with Various 3D Building Configurations and Tree Plantings. International Journal of Environmental Research and Public Health, 2022, 19, 3524.	1.2	7
48	Research of near-wall thermodynamic state for indoor airflow over the vertical heating unit using TIV/PIV/RTD. Building and Environment, 2019, 165, 106406.	3.0	4
49	An analytical model to predict the temperature in subway-tunnels by coupling thermal mass and ventilation. Journal of Building Engineering, 2021, 44, 102564.	1.6	4
50	Effects of Urban Ventilation Patterns on the Carbon Monoxide Concentration in a High-Rise Mega City. International Journal of Ventilation, 2011, 10, 239-250.	0.2	3
51	Guest Editorial Ventilation for Healthy Indoor Environments in Various Types of Buildings Extended Papers from Indoor Air 2014. International Journal of Ventilation, 2015, 14, 109-110.	0.2	0