Menghao Qin

List of Publications by Year
in descending order

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52 papers	1,348 citations	279487 23 h-index	344852 36 g-index
53 all docs	53 docs citations	53 times ranked	979 citing authors

#	Article	IF	Citations
1	Coupled heat and moisture transfer in multi-layer building materials. Construction and Building Materials, 2009, 23, 967-975.	3.2	120
2	Metal-Organic Frameworks as advanced moisture sorbents for energy-efficient high temperature cooling. Scientific Reports, 2018, 8, 15284.	1.6	113
3	Moisture buffering phenomenon and its impact on building energy consumption. Applied Thermal Engineering, 2017, 124, 337-345.	3.0	88
4	Simulation of whole building coupled hygrothermal-airflow transfer in different climates. Energy Conversion and Management, 2011, 52, 1470-1478.	4.4	59
5	Progress and potential of metal-organic frameworks (MOFs) as novel desiccants for built environment control: A review. Renewable and Sustainable Energy Reviews, 2020, 133, 110246.	8.2	58
6	Precise humidity control materials for autonomous regulation of indoor moisture. Building and Environment, 2020, 169, 106581.	3.0	56
7	Metal-organic framework MIL-100(Fe) as a novel moisture buffer material for energy-efficient indoor humidity control. Building and Environment, 2018, 145, 234-242.	3.0	52
8	Simulation of coupled heat and moisture transfer in air-conditioned buildings. Automation in Construction, 2009, 18, 624-631.	4.8	51
9	Phase change humidity control material and its impact on building energy consumption. Energy and Buildings, 2018, 174, 254-261.	3.1	50
10	An analytical method to calculate the coupled heat and moisture transfer in building materials. International Communications in Heat and Mass Transfer, 2006, 33, 39-48.	2.9	47
11	Reduce CO2 from buildings with technology to zero emissions. Sustainable Cities and Society, 2012, 2, 29-36.	5.1	47
12	Experimental and theoretical investigation of non-isothermal transfer in hygroscopic building materials. Building and Environment, 2008, 43, 2154-2162.	3.0	45
13	Nonisothermal moisture transport in hygroscopic building materials: modeling for the determination of moisture transport coefficients. Transport in Porous Media, 2008, 72, 255-271.	1.2	39
14	Synthesis and characteristics of hygroscopic phase change material: Composite microencapsulated phase change material (MPCM) and diatomite. Energy and Buildings, 2015, 106, 175-182.	3.1	38
15	Two-dimensional hygrothermal transfer in porous building materials. Applied Thermal Engineering, 2010, 30, 2555-2562.	3.0	34
16	Preparation and hygrothermal properties of composite phase change humidity control materials. Applied Thermal Engineering, 2016, 98, 1150-1157.	3.0	34
17	Experimental and Numerical Studies of Solar Chimney for Ventilation in Low Energy Buildings. Procedia Engineering, 2017, 205, 1612-1619.	1.2	34
18	Evaluation of Different Thermal Models in EnergyPlus for Calculating Moisture Effects on Building Energy Consumption in Different Climate Conditions. Procedia Engineering, 2015, 121, 1635-1641.	1.2	33

#	Article	IF	Citations
19	Evaluation of different thermal models in EnergyPlus for calculating moisture effects on building energy consumption in different climate conditions. Building Simulation, 2016, 9, 15-25.	3.0	33
20	A novel metal-organic frameworks based humidity pump for indoor moisture control. Building and Environment, 2021, 187, 107396.	3.0	30
21	Preparation and characteristics of composite phase change material (CPCM) with SiO 2 and diatomite as endothermal-hydroscopic material. Energy and Buildings, 2015, 86, 1-6.	3.1	26
22	Development of an Analytical Method for Simultaneous Heat and Moisture Transfer in Building Materials Utilizing Transfer Function Method. Journal of Materials in Civil Engineering, 2005, 17, 492-497.	1.3	25
23	Assessment of temperature gradient effects on moisture transfer through thermogradient coefficient. Building Simulation, 2012, 5, 107-115.	3.0	25
24	Development of a moisture buffer value model (MBM) for indoor moisture prediction. Applied Thermal Engineering, 2020, 171, 115096.	3.0	25
25	Improving building facade design using integrated simulation of daylighting, thermal performance and natural ventilation. Building Simulation, 2013, 6, 269-282.	3.0	20
26	Preparation and characterization of metal-organic framework /microencapsulated phase change material composites for indoor hygrothermal control. Journal of Building Engineering, 2020, 31, 101345.	1.6	19
27	Experimental and modeling investigation of water adsorption of hydrophilic carboxylate-based MOF for indoor moisture control. Energy, 2021, 228, 120654.	4.5	19
28	Development of a procedure for estimating the parameters of mechanistic VOC emission source models from chamber testing data. Building Simulation, 2021, 14, 269-282.	3.0	18
29	A Case Study Investigation of Indoor Air Quality in UK Passivhaus Dwellings. Energy Procedia, 2014, 62, 190-199.	1.8	17
30	Phase Change Humidity Control Material and its Application in Buildings. Procedia Engineering, 2017, 205, 1011-1018.	1.2	14
31	A simulation study of ventilation and indoor gaseous pollutant transport under different window/door opening behaviors. Building Simulation, 2017, 10, 395-405.	3.0	12
32	Effective indoor air quality for energy-efficient homes: a comparison of UK rating systems. Architectural Science Review, 2016, 59, 159-173.	1.1	10
33	Performance comparison between metal-organic framework (MOFs) and conventional desiccants (silica gel, zeolite) for a novel high temperature cooling system. IOP Conference Series: Materials Science and Engineering, 2019, 609, 052013.	0.3	10
34	Moisture Buffer Effect and its Impact on Indoor Environment. Procedia Engineering, 2017, 205, 1123-1129.	1.2	9
35	Simultaneous heat and moisture transport in porous building materials: evaluation of nonisothermal moisture transport properties. Journal of Materials Science, 2008, 43, 3655-3663.	1.7	8
36	Analytical methods to calculate combined heat and moisture transfer in porous building materials under different boundary conditions. Science and Technology for the Built Environment, 2015, 21, 993-1001.	0.8	6

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37	Effects of considering moisture hysteresis on wood decay risk simulations of building envelopes. Journal of Building Engineering, 2021, 42, 102444.	1.6	6
38	Synthesis and Characterization of Composite Phase Change Material (CPCM) with SiO2 and Diatomite as Endothermal-hygroscopic Material. Energy Procedia, 2015, 78, 201-206.	1.8	4
39	Synthesis and characteristics of composite phase change humidity control materials. Energy Procedia, 2017, 139, 493-498.	1.8	3
40	Combined heat, air moisture and pollutant simulations (CHAMPS) for buildings. Building Simulation, 2011, 4, 279-282.	3.0	2
41	Models for residential indoor pollution loads due to material emissions under dynamic temperature and humidity conditions. E3S Web of Conferences, 2020, 172, 11002.	0.2	2
42	Damage risk assessment of building materials with moisture hysteresis. Journal of Physics: Conference Series, 2021, 2069, 012043.	0.3	2
43	Reply on the comments regarding the paper â€œAssessment of temperature gradient effects on moisture transfer through thermogradient coefficientâ€• Building Simulation, 2013, 6, 109-110.	3.0	1
44	Development of a Procedure for Estimating the Parameters of Mechanistic Emission Source Models from Chamber Testing Data. , 2018, , .		1
45	Experimental investigation of a novel metal-organic framework (MOF) based humidity pump under high humidity conditions. Journal of Physics: Conference Series, 2021, 2069, 012049.	0.3	1
46	Recent progress on hygroscopic materials for indoor moisture buffering. Journal of Physics: Conference Series, 2021, 2069, 012003.	0.3	1
47	Three-dimensional geometry, pore parameter, and fractal characteristic analyses of medium-density fiberboard by X-ray tomography, coupling with scanning electron microscopy and mercury intrusion porosimetry. Journal of Building Physics, 2021, 44, 364-382.	1.2	0
48	Metal-organic framework (MOF) as a novel humidity control material for autonomous indoor moisture management. , 2021, , .		0
49	The energy saving performance of heat recovery ventilation system in residential buildings in the summer of hot-summer and cold-winter zone in China. , 2018, , .		0
50	Evaluation of the impact of phase change humidity control material on energy performance of office buildings. , 2018, , .		0
51	A mathematical model for predicting the indoor moisture variation by using moisture buffering theory. Journal of Physics: Conference Series, 2021, 2069, 012036.	0.3	0
52	Preliminary experimental research of metal-organic frameworks (MOFs) for formaldehyde dynamic adsorption. Journal of Physics: Conference Series, 2021, 2069, 012246.	0.3	0