Julien Berger

List of Publications by Year
in descending order

44	500	759233 12	794594 19
papers	citations	h-index	g-index

46	46	46	318
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Factors governing the development of moisture disorders for integration into building performance simulation. Journal of Building Engineering, 2015, 3, 1-15.	3.4	40
2	Bayesian inference for estimating thermal properties of a historic building wall. Building and Environment, 2016, 106, 327-339.	6.9	40
3	Stable explicit schemes for simulation of nonlinear moisture transfer in porous materials. Journal of Building Performance Simulation, 2018, 11, 129-144.	2.0	35
4	Dynamic experimental method for identification of hygric parameters of a hygroscopic material. Building and Environment, 2018, 131, 197-209.	6.9	23
5	Comparison of model numerical predictions of heat and moisture transfer in porous media with experimental observations at material and wall scales: An analysis of recent trends. Drying Technology, 2019, 37, 1363-1395.	3.1	22
6	Accurate numerical simulation of moisture front in porous material. Building and Environment, 2017, 118, 211-224.	6.9	19
7	2D whole-building hygrothermal simulation analysis based on a PGD reduced order model. Energy and Buildings, 2016, 112, 49-61.	6.7	18
8	Proper Generalized Decomposition model reduction in the Bayesian framework for solving inverse heat transfer problems. Inverse Problems in Science and Engineering, 2017, 25, 260-278.	1.2	17
9	On the optimal experiment design for heat and moisture parameter estimation. Experimental Thermal and Fluid Science, 2017, 81, 109-122.	2.7	16
10	An improved explicit scheme for whole-building hygrothermal simulation. Building Simulation, 2018, 11, 465-481.	5.6	16
11	A new model for simulating heat, air and moisture transport in porous building materials. International Journal of Heat and Mass Transfer, 2019, 134, 1041-1060.	4.8	15
12	An artificial intelligence-based method to efficiently bring CFD to building simulation. Journal of Building Performance Simulation, 2018, 11, 588-603.	2.0	14
13	Analysis and improvement of the VTT mold growth model: Application to bamboo fiberboard. Building and Environment, 2018, 138, 262-274.	6.9	14
14	Evaluation of the reliability of a heat and mass transfer model in hygroscopic material. International Journal of Heat and Mass Transfer, 2019, 142, 118258.	4.8	13
15	On the Solution of Coupled Heat and Moisture Transport in Porous Material. Transport in Porous Media, 2018, 121, 665-702.	2.6	12
16	On the comparison of three numerical methods applied to building simulation: Finite-differences, RC circuit approximation and a spectral method. Building Simulation, 2020, 13, 1-18.	5.6	12
17	Review of Reduced Order Models for Heat and Moisture Transfer in Building Physics with Emphasis in PGD Approaches. Archives of Computational Methods in Engineering, 2017, 24, 655-667.	10.2	11
18	Intelligent co-simulation: neural network vs. proper orthogonal decomposition applied to a 2D diffusive problem. Journal of Building Performance Simulation, 2018, 11, 568-587.	2.0	11

#	Article	IF	Citations
19	Numerical methods for diffusion phenomena in building physics: a practical introduction. , 2016, , .		11
20	An adaptive simulation of nonlinear heat and moisture transfer as a boundary value problem. International Journal of Thermal Sciences, 2018, 133, 120-139.	4.9	10
21	An efficient two-dimensional heat transfer model for building envelopes. Numerical Heat Transfer; Part A: Applications, 2021, 79, 163-194.	2.1	10
22	An efficient sensitivity analysis for energy performance of building envelope: A continuous derivative based approach. Building Simulation, 2021, 14, 909-930.	5.6	10
23	An innovative method to determine optimum insulation thickness based on non-uniform adaptive moving grid. Journal of the Brazilian Society of Mechanical Sciences and Engineering, 2019, 41, 1.	1.6	9
24	Solving nonlinear diffusive problems in buildings by means of a Spectral reduced-order model. Journal of Building Performance Simulation, 2019, 12, 17-36.	2.0	9
25	Searching an optimal experiment observation sequence to estimate the thermal properties of a multilayer wall under real climate conditions. International Journal of Heat and Mass Transfer, 2020, 155, 119810.	4.8	9
26	Weather-based indicators for analysis of moisture risks in buildings. Science of the Total Environment, 2020, 709, 134850.	8.0	8
27	Estimation of temperature-dependent thermal conductivity using proper generalised decomposition for building energy management. Journal of Building Physics, 2016, 40, 235-262.	2.4	7
28	Accelerated Aging Effects on the Hygrothermal Behaviour of Hemp Concrete: Experimental and Numerical Investigations. Energies, 2021, 14, 7005.	3.1	7
29	Estimation of the thermal properties of an historic building wall by combining modal identification method and optimal experiment design. Building and Environment, 2020, 185, 107065.	6.9	6
30	EVALUATING MODEL REDUCTION METHODS FOR HEAT AND MASS TRANSFER IN POROUS MATERIALS: PROPER ORTHOGONAL DECOMPOSITION AND PROPER GENERALIZED DECOMPOSITION. Journal of Porous Media, 2019, 22, 363-385.	1.9	6
31	Advanced Reduced-Order Models for Moisture Diffusion in Porous Media. Transport in Porous Media, 2018, 124, 965-994.	2.6	5
32	Numerical Methods for Diffusion Phenomena in Building Physics. , 2019, , .		5
33	Comparative Study of Three Models for Moisture Transfer in Hygroscopic Materials. Transport in Porous Media, 2019, 126, 379-410.	2.6	5
34	Parameter estimation and model selection for water sorption in a wood fibre material. Wood Science and Technology, 2020, 54, 1423-1446.	3.2	5
35	Critical assessment of a new mathematical model for hysteresis effects on heat and mass transfer in porous building material. International Journal of Thermal Sciences, 2020, 151, 106275.	4.9	5
36	An efficient method to estimate sorption isotherm curve coefficients. Inverse Problems in Science and Engineering, 2019, 27, 735-772.	1.2	4

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37	Critical assessment of efficient numerical methods for a long-term simulation of heat and moisture transfer in porous materials. International Journal of Thermal Sciences, 2019, 145, 105982.	4.9	4
38	An efficient numerical model for liquid water uptake in porous material and its parameter estimation. Numerical Heat Transfer; Part A: Applications, 2019, 75, 110-136.	2.1	3
39	A hybrid analyticalâ€“numerical method for computing coupled temperature and moisture content fields in porous soils. Journal of Building Physics, 2018, 42, 68-94.	2.4	2
40	An efficient numerical model for the simulation of coupled heat, air, and moisture transfer in porous media. Engineering Reports, 2020, 2, e12099.	1.7	2
41	Parametric PGD model used with orthogonal polynomials to assess efficiently the building's envelope thermal performance. Journal of Building Performance Simulation, 2021, 14, 132-154.	2.0	2
42	Average reduced model to simulate solutions for heat and mass transfer through porous material. Heat Transfer, 0, , .	3.0	0
43	Surface Transfer Coefficients Estimation for Heat Conduction Problem Using the Bayesian Framework. Heat Transfer Engineering, 0, , 1-20.	1.9	0
44	Assessing the wall energy efficiency design under climate change using POD reduced order model. Energy and Buildings, 2022, 268, 112187.	6.7	0