Dominique Derome

List of Publications by Year
in descending order

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185 papers	5,004 citations	87843 38 h-index	138417 58 g-index
195 all docs	195 docs citations	195 times ranked	4116 citing authors

#	Article	IF	Citations
1	High-resolution CFD simulations for forced convective heat transfer coefficients at the facade of a low-rise building. Building and Environment, 2009, 44, 2396-2412.	3.0	155
2	Universal rescaling of drop impact on smooth and rough surfaces. Journal of Fluid Mechanics, 2016, 786, .	1.4	147
3	Modeling the Maximum Spreading of Liquid Droplets Impacting Wetting and Nonwetting Surfaces. Langmuir, 2016, 32, 1299-1308.	1.6	134
4	Rainwater runoff from building facades: A review. Building and Environment, 2013, 60, 339-361.	3.0	129
5	A comparative molecular dynamics study of crystalline, paracrystalline and amorphous states of cellulose. Cellulose, 2014, 21, 1103-1116.	2.4	122
6	Water Adsorption in Wood Microfibril-Hemicellulose System: Role of the Crystallineâ€“Amorphous Interface. Biomacromolecules, 2015, 16, 2972-2978.	2.6	107
7	Role of hydrogen bonding in hysteresis observed in sorption-induced swelling of soft nanoporous polymers. Nature Communications, 2018, 9, 3507.	5.8	101
8	Hysteretic swelling of wood at cellular scale probed by phase-contrast X-ray tomography. Journal of Structural Biology, 2011, 173, 180-190.	1.3	100
9	CFD simulation and validation of wind-driven rain on a building facade with an Eulerian multiphase model. Building and Environment, 2013, 61, 69-81.	3.0	95
10	Energy Budget of Liquid Drop Impact at Maximum Spreading: Numerical Simulations and Experiments. Langmuir, 2016, 32, 1279-1288.	1.6	90
11	Visualization and quantification of liquid water transport in softwood by means of neutron radiography. International Journal of Heat and Mass Transfer, 2012, 55, 6211-6221.	2.5	87
12	Parametric study of the influence of environmental factors and tree properties on the transpirative cooling effect of trees. Agricultural and Forest Meteorology, 2018, 248, 259-274.	1.9	79
13	The use of permeable and reflective pavements as a potential strategy for urban heat island mitigation. Urban Climate, 2020, 31, 100534.	2.4	76
14	Impact of Moisture Adsorption on Structure and Physical Properties of Amorphous Biopolymers. Macromolecules, 2015, 48, 2793-2800.	2.2	72
15	Molecular Mechanism of Moisture-Induced Transition in Amorphous Cellulose. ACS Macro Letters, 2014, 3, 1037-1040.	2.3	71
16	CFD analysis of forced convective heat transfer coefficients at windward building facades: Influence of building geometry. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 146, 102-116.	1.7	66
17	Thermal manikins controlled by human thermoregulation models for energy efficiency and thermal comfort research â€“ A review. Renewable and Sustainable Energy Reviews, 2017, 78, 1315-1330.	8.2	63
18	Numerical simulations of wind-driven rain on an array of low-rise cubic buildings and validation by field measurements. Building and Environment, 2014, 81, 283-295.	3.0	62

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19	Hygroscopic swelling and shrinkage of latewood cell wall micropillars reveal ultrastructural anisotropy. Journal of the Royal Society Interface, 2014, 11, 20140126.	1.5	60
20	Hysteresis in swelling and in sorption of wood tissue. Journal of Structural Biology, 2013, 182, 226-234.	1.3	59
21	Convective heat and mass transfer modelling at airâ€“porous material interfaces: Overview of existing methods and relevance. Chemical Engineering Science, 2012, 74, 49-58.	1.9	57
22	Hygrothermal modeling and evaluation of freeze-thaw damage risk of masonry walls retrofitted with internal insulation. Building and Environment, 2017, 125, 285-298.	3.0	57
23	Unraveling wetting transition through surface textures with X-rays: Liquid meniscus penetration phenomena. Scientific Reports, 2014, 4, 4055.	1.6	56
24	Influence of envelope properties on interior insulation solutions for masonry walls. Building and Environment, 2018, 135, 246-256.	3.0	55
25	Hysteretic moisture behavior of concrete: Modeling and analysis. Cement and Concrete Research, 2012, 42, 1379-1388.	4.6	53
26	Study of non-isothermal liquid evaporation in synthetic micro-pore structures with hybrid lattice Boltzmann model. Journal of Fluid Mechanics, 2019, 866, 33-60.	1.4	53
27	Computational up-scaling of anisotropic swelling and mechanical behavior of hierarchical cellular materials. Composites Science and Technology, 2012, 72, 744-751.	3.8	50
28	High-resolution field measurements of wind-driven rain on an array of low-rise cubic buildings. Building and Environment, 2014, 78, 1-13.	3.0	50
29	Robust moisture reference year methodology for hygrothermal simulations. Building and Environment, 2016, 110, 23-35.	3.0	50
30	Using life cycle assessment to derive an environmental index for light-frame wood wall assemblies. Building and Environment, 2010, 45, 2111-2122.	3.0	49
31	Coupled CFD, radiation and porous media transport model for evaluating evaporative cooling in an urban environment. Journal of Wind Engineering and Industrial Aerodynamics, 2012, 104-106, 455-463.	1.7	48
32	Wind-driven rain on two parallel wide buildings: Field measurements and CFD simulations. Journal of Wind Engineering and Industrial Aerodynamics, 2015, 146, 11-28.	1.7	48
33	Simulation of quasi-static drainage displacement in porous media on pore-scale: Coupling lattice Boltzmann method and pore network model. Journal of Hydrology, 2020, 588, 125080.	2.3	48
34	Hygromorphic behaviour of cellular material: hysteretic swelling and shrinkage of wood probed by phase contrast X-ray tomography. Philosophical Magazine, 2012, 92, 3680-3698.	0.7	43
35	Dynamic Wicking Process in Textiles. Transport in Porous Media, 2017, 119, 611-632.	1.2	42
36	Entropic multiple-relaxation-time multirange pseudopotential lattice Boltzmann model for two-phase flow. Physics of Fluids, 2018, 30, .	1.6	42

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37	Absorption of impinging water droplet in porous stones. Journal of Colloid and Interface Science, 2016, 471, 59-70.	5.0	40
38	Coupling of physical phenomena in urban microclimate: A model integrating air flow, wind-driven rain, radiation and transport in building materials. Urban Climate, 2018, 24, 398-418.	2.4	39
39	Improved pore network models to simulate single-phase flow in porous media by coupling with lattice Boltzmann method. Advances in Water Resources, 2020, 145, 103738.	1.7	39
40	Moisture adsorption of glucomannan and xylan hemicelluloses. Cellulose, 2016, 23, 1629-1637.	2.4	38
41	Drop impact on natural porous stones. Journal of Colloid and Interface Science, 2016, 469, 147-156.	5.0	38
42	Comparative study of flow field and drag coefficient of model and small natural trees in a wind tunnel. Urban Forestry and Urban Greening, 2018, 35, 230-239.	2.3	36
43	Water Diffusion in Amorphous Hydrophilic Systems: A Stop and Go Process. Langmuir, 2015, 31, 10843-10849.	1.6	35
44	Characterizing saline uptake and salt distributions in porous limestone with neutron radiography and X-ray micro-tomography. Journal of Building Physics, 2013, 36, 353-374.	1.2	34
45	Numerical modeling of turbulent dispersion for wind-driven rain on building facades. Environmental Fluid Mechanics, 2015, 15, 109-133.	0.7	34
46	Beyond-Cassie Mode of Wetting and Local Contact Angles of Droplets on Checkboard-Patterned Surfaces. Langmuir, 2017, 33, 6192-6200.	1.6	34
47	Sprays from droplets impacting a mesh. Journal of Fluid Mechanics, 2019, 871, 489-509.	1.4	34
48	Multiscale analysis of free swelling of Norway spruce. Composites Part A: Applied Science and Manufacturing, 2013, 54, 70-78.	3.8	33
49	Crystallization of hydrated and anhydrous salts in porous limestone resolved by synchrotron X-ray microtomography. Nuclear Instruments & Methods in Physics Research B, 2014, 324, 102-112.	0.6	33
50	Poroelastic model for adsorption-induced deformation of biopolymers obtained from molecular simulations. Physical Review E, 2015, 92, 022605.	0.8	33
51	Hygrothermal behavior of a massive wall with interior insulation during wetting. Building and Environment, 2015, 89, 59-71.	3.0	33
52	Advancement in Urban Climate Modelling at Local Scale: Urban Heat Island Mitigation and Building Cooling Demand. Atmosphere, 2020, 11, 1313.	1.0	33
53	Dehydration of apple tissue: Intercomparison of neutron tomography with numerical modelling. International Journal of Heat and Mass Transfer, 2013, 67, 173-182.	2.5	32
54	Stomatal transpiration and droplet evaporation on leaf surfaces by a microscale modelling approach. International Journal of Heat and Mass Transfer, 2013, 65, 180-191.	2.5	30

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55	Probing inside fruit slices during convective drying by quantitative neutron imaging. Journal of Food Engineering, 2016, 178, 198-202.	2.7	30
56	Influence of sorption hysteresis on moisture transport in wood. Wood Science and Technology, 2016, 50, 259-283.	1.4	30
57	Risk analysis of biodeterioration of wooden beams embedded in internally insulated masonry walls. Construction and Building Materials, 2015, 99, 159-168.	3.2	29
58	Swelling interactions of earlywood and latewood across a growth ring: global and local deformations. Wood Science and Technology, 2018, 52, 91-114.	1.4	29
59	Hydrogen bonds dominated frictional stick-slip of cellulose nanocrystals. Carbohydrate Polymers, 2021, 258, 117682.	5.1	29
60	Combining hygrothermal and corrosion models to predict corrosion of metal fasteners embedded in wood. Building and Environment, 2011, 46, 2060-2068.	3.0	28
61	Impact of hydration on the micromechanical properties of the polymer composite structure of wood investigated with atomistic simulations. Journal of the Mechanics and Physics of Solids, 2017, 103, 221-235.	2.3	28
62	Impact of evaporative cooling due to wetting of urban materials on local thermal comfort in a street canyon. Sustainable Cities and Society, 2019, 49, 101574.	5.1	28
63	Numerical analysis of convective drying of gypsum boards. International Journal of Heat and Mass Transfer, 2012, 55, 2590-2600.	2.5	26
64	Analysis of thermograms for the estimation of dimensions of cracks in building envelope. Infrared Physics and Technology, 2009, 52, 70-78.	1.3	25
65	Quantitative neutron imaging of water distribution, venation network and sap flow in leaves. Planta, 2014, 240, 423-436.	1.6	25
66	Computational fluid dynamics simulations of wind-driven rain on a mid-rise residential building with various types of facade details. Journal of Building Performance Simulation, 2017, 10, 125-143.	1.0	25
67	Dynamics of Contact Line Pinning and Depinning of Droplets Evaporating on Microribs. Langmuir, 2018, 34, 5635-5645.	1.6	25
68	CFD modeling of convective scalar transport in a macroporous material for drying applications. International Journal of Thermal Sciences, 2018, 123, 86-98.	2.6	25
69	New insights into the apple fruit dehydration process at the cellular scale by 3D continuum modeling. Journal of Food Engineering, 2018, 239, 52-63.	2.7	24
70	Energy-efficient mitigation measures for improving indoor thermal comfort during heat waves. Applied Energy, 2020, 278, 115620.	5.1	24
71	Assessment of risk of freeze-thaw damage in internally insulated masonry in a changing climate. Building and Environment, 2020, 175, 106773.	3.0	24
72	Novel Application of Neutron Radiography to Forced Convective Drying of Fruit Tissue. Food and Bioprocess Technology, 2013, 6, 3353-3367.	2.6	23

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73	Controlled 3D nanoparticle deposition by drying of colloidal suspension in designed thin micro-porous architectures. International Journal of Heat and Mass Transfer, 2020, 158, 120000.	2.5	23
74	Lattice Boltzmann Modeling of Drying of Porous Media Considering Contact Angle Hysteresis. Transport in Porous Media, 2021, 140, 395-420.	1.2	23
75	Hygroscopic Behavior of Paper and Books. Journal of Building Physics, 2007, 31, 9-34.	1.2	22
76	Time resolved analysis of water drainage in porous asphalt concrete using neutron radiography. Applied Radiation and Isotopes, 2013, 77, 5-13.	0.7	22
77	A review on advanced imaging technologies for the quantification of wicking in textiles. Textile Reseach Journal, 2017, 87, 110-132.	1.1	22
78	Droplet impact of Newtonian fluids and blood on simple fabrics: Effect of fabric pore size and underlying substrate. Physics of Fluids, 2021, 33, .	1.6	22
79	Variation of measured cross-sectional cell dimensions and calculated water vapor permeability across a single growth ring of spruce wood. Wood Science and Technology, 2012, 46, 827-840.	1.4	21
80	Smart wetting of permeable pavements as an evaporative-cooling measure for improving the urban climate during heat waves. Journal of Building Physics, 2021, 45, 36-66.	1.2	21
81	Experimental assessment of the velocity and temperature distribution in an indoor displacement ventilation jet. Building and Environment, 2012, 47, 150-160.	3.0	20
82	Temperature driven inward vapor diffusion under constant and cyclic loading in small-scale wall assemblies: Part 1 experimental investigation. Building and Environment, 2012, 48, 48-56.	3.0	20
83	Cross-scale modelling of transpiration from stomata via the leaf boundary layer. Annals of Botany, 2014, 114, 711-723.	1.4	20
84	Electrical conductivity sensors for water penetration monitoring in building masonry materials. Materials and Structures/Materiaux Et Constructions, 2016, 49, 2535-2547.	1.3	20
85	Numerical study of gravity-driven droplet displacement on a surface using the pseudopotential multiphase lattice Boltzmann model with high density ratio. Computers and Fluids, 2015, 117, 42-53.	1.3	19
86	Ten questions concerning modeling of wind-driven rain in the built environment. Building and Environment, 2017, 114, 495-506.	3.0	19
87	Woodâ€“Moisture Relationships Studied with Molecular Simulations: Methodological Guidelines. Forests, 2019, 10, 628.	0.9	19
88	Impact of drying methods on the changes of fruit microstructure unveiled by X-ray micro-computed tomography. RSC Advances, 2019, 9, 10606-10624.	1.7	19
89	Pore-Scale Study on Convective Drying of Porous Media. Langmuir, 2022, 38, 6023-6035.	1.6	19
90	Nonlinear Poro-Elastic Model for Unsaturated Porous Solids. Journal of Applied Mechanics, Transactions ASME, 2013, 80, .	1.1	18

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91	Analysis of time-resolved wind-driven rain on an array of low-rise cubic buildings using large eddy simulation and an Eulerian multiphase model. Building and Environment, 2017, 114, 68-81.	3.0	18
92	Coupling of sorption and deformation in soft nanoporous polymers: Molecular simulation and poromechanics. Journal of the Mechanics and Physics of Solids, 2020, 137, 103830.	2.3	18
93	Hygromechanical mechanisms of wood cell wall revealed by molecular modeling and mixture rule analysis. Science Advances, 2021, 7, eabi8919.	4.7	18
94	Droplet evaporation in finite-size systems: Theoretical analysis and mesoscopic modeling. Physical Review E, 2022, 105, 025101.	0.8	18
95	Recent advances in drying at interfaces of biomaterials. Drying Technology, 2016, 34, 1904-1925.	1.7	17
96	Moisture uptake and permeability of canvas paintings and their components. Journal of Cultural Heritage, 2016, 19, 445-453.	1.5	17
97	LBM Simulation of Self-Assembly of Clogging Structures by Evaporation of Colloidal Suspension in 2D Porous Media. Transport in Porous Media, 2019, 128, 929-943.	1.2	17
98	Nonâ€Lithography Hydrodynamic Printing of Micro/Nanostructures on Curved Surfaces. Angewandte Chemie - International Edition, 2020, 59, 14234-14240.	7.2	17
99	Spontaneous Imbibition in a Square Tube With Corner Films: Theoretical Model and Numerical Simulation. Water Resources Research, 2021, 57, e2020WR029190.	1.7	17
100	Comparison of experimental and numerical results of wood-frame wall assemblies wetted by simulated wind-driven rain infiltration. Energy and Buildings, 2007, 39, 1131-1139.	3.1	16
101	The role of water in the behavior of wood. Journal of Building Physics, 2013, 36, 398-421.	1.2	16
102	Liquid uptake in Scots pine sapwood and hardwood visualized and quantified by neutron radiography. Materials and Structures/Materiaux Et Constructions, 2014, 47, 1083-1096.	1.3	16
103	A film flow model for analysing gravity-driven, thin wavy fluid films. International Journal of Multiphase Flow, 2015, 73, 207-216.	1.6	16
104	Contact Angle Effects on Pore and Corner Arc Menisci in Polygonal Capillary Tubes Studied with the Pseudopotential Multiphase Lattice Boltzmann Model. Computation, 2016, 4, 12.	1.0	16
105	Is desiccation tolerance and avoidance reflected in xylem and phloem anatomy of two coexisting aridâ€zone coniferous trees?. Plant, Cell and Environment, 2018, 41, 1551-1564.	2.8	16
106	Tricoupled hybrid lattice Boltzmann model for nonisothermal drying of colloidal suspensions in micropore structures. Physical Review E, 2019, 99, 053306.	0.8	16
107	Hygromechanics of softwood cellulosic nanocomposite with intermolecular interactions at fiber-matrix interface investigated with molecular dynamics. Composites Part B: Engineering, 2022, 228, 109449.	5.9	16
108	Temperature driven inward vapor diffusion under constant and cyclic loading in small-scale wall assemblies: Part 2 heat-moisture transport simulations. Building and Environment, 2012, 47, 161-169.	3.0	15

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109	Distribution of moisture in reconstructed oil paintings on canvas during absorption and drying: A neutron radiography and NMR study. Studies in Conservation, 2017, 62, 393-409.	0.6	15
110	Insights from modeling dynamics of water sorption in spherical particles for adsorption heat pumps. International Journal of Heat and Mass Transfer, 2017, 105, 326-337.	2.5	15
111	Masonry brickâ€“cement mortar interface resistance to water transport determined with neutron radiography and numerical modeling. Journal of Building Physics, 2020, 44, 251-271.	1.2	15
112	Identification of multiple criteria for the evaluation of light-frame wood wall assemblies. Journal of Building Performance Simulation, 2008, 1, 221-236.	1.0	14
113	Hysteresis in modeling of poroelastic systems: Quasistatic equilibrium. Physical Review E, 2011, 83, 061408.	0.8	14
114	The role of geometrical disorder on swelling anisotropy of cellular solids. Mechanics of Materials, 2012, 55, 49-59.	1.7	14
115	Investigation of Water Uptake in Porous Asphalt Concrete Using Neutron Radiography. Transport in Porous Media, 2014, 105, 431-450.	1.2	14
116	The effect of moisture content on the corrosion of fasteners embedded in wood subjected to alkaline copper quaternary treatment. Corrosion Science, 2014, 83, 67-74.	3.0	14
117	Molecular Simulation of Sorption-Induced Deformation in Atomistic Nanoporous Materials. Langmuir, 2019, 35, 7751-7758.	1.6	14
118	Saline Water Evaporation and Crystallization-Induced Deformations in Building Stone: Insights from High-Resolution Neutron Radiography. Transport in Porous Media, 2019, 128, 895-913.	1.2	14
119	Inward vapor diffusion due to high temperature gradients in experimentally tested large-scale wall assemblies. Building and Environment, 2010, 45, 2790-2797.	3.0	13
120	Multicriteria decision analysis applied to the design of light-frame wood wall assemblies. Journal of Building Performance Simulation, 2010, 3, 33-52.	1.0	13
121	Micromechanics investigation of hygro-elastic behavior of cellular materials with multi-layered cell walls. Composite Structures, 2013, 95, 607-611.	3.1	13
122	Wetting and drying in hydrophobic, macroporous asphalt structures. Construction and Building Materials, 2017, 152, 82-95.	3.2	13
123	Moisture-induced crossover in the thermodynamic and mechanical response of hydrophilic biopolymer. Cellulose, 2020, 27, 89-99.	2.4	13
124	Assessment of moisture risk of wooden beam embedded in internally insulated masonry walls with 2D and 3D models. Building and Environment, 2021, 193, 107460.	3.0	13
125	Forced Convective Drying of Wet Porous Asphalt Imaged with Neutron Radiography. Advanced Engineering Materials, 2013, 15, 1136-1145.	1.6	12
126	Moisture storage and transport properties of preservative treated and untreated southern pine wood. Wood Material Science and Engineering, 2016, 11, 228-238.	1.1	12

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127	Mapping of Air Leakage in Exterior Wall Assemblies. Journal of Thermal Envelope and Building Science, 2000, 24, 132-154.	0.5	11
128	Moisture Accumulation in Cellulose Insulation Caused by Air Leakage in Flat Wood Frame Roofs. Journal of Thermal Envelope and Building Science, 2005, 28, 269-287.	0.5	11
129	Water uptake in clay brick at different temperatures: Experiments and numerical simulations. Journal of Building Physics, 2016, 39, 373-389.	1.2	11
130	Detergency and Its Implications for Oil Emulsion Sieving and Separation. Langmuir, 2017, 33, 4250-4259.	1.6	11
131	A cluster-based pore network model of drying with corner liquid films, with application to a macroporous material. International Journal of Heat and Mass Transfer, 2019, 140, 620-633.	2.5	11
132	Pore-scale simulation of drying in porous media using a hybrid lattice Boltzmann: pore network model. Drying Technology, 2022, 40, 719-734.	1.7	11
133	Neutron imaging of moisture displacement due to steep temperature gradients in hardwood. International Journal of Thermal Sciences, 2014, 81, 1-12.	2.6	10
134	Transport of Polar and Nonpolar Liquids in Softwood Imaged by Neutron Radiography. Transport in Porous Media, 2016, 113, 383-404.	1.2	10
135	Investigation of Gravity-Driven Drainage and Forced Convective Drying in a Macroporous Medium Using Neutron Radiography. Transport in Porous Media, 2017, 118, 119-142.	1.2	10
136	A non-rigid registration method for the analysis of local deformations in the wood cell wall. Advanced Structural and Chemical Imaging, 2018, 4, 1.	4.0	10
137	Analysis of moisture risk in internally insulated masonry walls. Building and Environment, 2022, 212, 108734.	3.0	10
138	Moisture Migration in Wood Under Heating Measured by Thermal Neutron Radiography. Experimental Heat Transfer, 2014, 27, 160-179.	2.3	9
139	A hygrothermo-mechanical model for wood: part A. Poroelastic formulation and validation with neutron imaging. Holzforschung, 2015, 69, 825-837.	0.9	9
140	Modeling wicking in textiles using the dual porosity approach. Textile Reseach Journal, 2019, 89, 3519-3528.	1.1	9
141	Four-dimensional imaging and free-energy analysis of sudden pore-filling events in wicking of yarns. Physical Review E, 2021, 103, 053101.	0.8	9
142	Poromechanical modeling of moisture induced swelling anisotropy in cellular tissues of softwoods. RSC Advances, 2015, 5, 3560-3566.	1.7	8
143	Comparison of the corrosion of fasteners embedded in wood measured in outdoor exposure with the predictions from a combined hygrothermal-corrosion model. Corrosion Science, 2016, 102, 178-185.	3.0	8
144	Two-stage wicking of yarns at the fiber scale investigated by synchrotron X-ray phase-contrast fast tomography. Textile Reseach Journal, 2019, 89, 4967-4979.	1.1	8

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145	A Poromechanical Model for Sorption Hysteresis in Nanoporous Polymers. Journal of Physical Chemistry B, 2020, 124, 8690-8703.	1.2	8
146	Disentangling Heat and Moisture Effects on Biopolymer Mechanics. Macromolecules, 2020, 53, 1527-1535.	2.2	8
147	Exposure to Condensation Moisture of Sheathing in Retrofitted Leaky Wall Assemblies. Journal of Architectural Engineering, 2006, 12, 72-82.	0.8	7
148	Understanding forced convective drying of apple tissue: Combining neutron radiography and numerical modelling. Innovative Food Science and Emerging Technologies, 2014, 24, 97-105.	2.7	7
149	Combined Use of Wind-Driven Rain Load and Potential Evaporation to Evaluate Moisture Damage Risk: Case Study on the Parliament Buildings in Ottawa, Canada. Buildings, 2021, 11, 476.	1.4	7
150	Wicking dynamics in yarns. Journal of Colloid and Interface Science, 2022, 625, 1-11.	5.0	7
151	Swelling of cellular solids: From conventional to re-entrant honeycombs. Applied Physics Letters, 2013, 102, .	1.5	6
152	A hygrothermo-mechanical model for wood: Part B. Parametric studies and application to wood welding. Holzforschung, 2015, 69, 839-849.	0.9	6
153	Using Modeling to Understand the Hygromechanical and Hysteretic Behavior of the S2 Cell Wall Layer of Wood. , 2018, , 247-269.		6
154	Role of cellulose nanocrystals on hysteretic sorption and deformation of nanocomposites. Cellulose, 2020, 27, 6945-6960.	2.4	6
155	Towards unraveling the moisture-induced shape memory effect of wood: the role of interface mechanics revealed by upscaling atomistic to composite modeling. NPG Asia Materials, 2021, 13, .	3.8	6
156	A Dynamic Pore Network Model for Imbibition Simulation Considering Corner Film Flow. Water Resources Research, 2022, 58, .	1.7	6
157	Coupled numerical simulations of cooling potential due to evaporation in a street canyon and an urban public square. Journal of Physics: Conference Series, 2019, 1343, 012016.	0.3	5
158	Large-Scale Testing of Two Flat Roof Assemblies Insulated with Cellulose. Journal of Architectural Engineering, 2000, 6, 12-23.	0.8	4
159	A new procedure for selecting moisture reference years for hygrothermal simulations. Bauphysik, 2016, 38, 361-365.	1.2	4
160	Turbulent airflow above a full-scale macroporous material: Boundary layer characterization and conditional statistical analysis. Experimental Thermal and Fluid Science, 2016, 74, 390-403.	1.5	4
161	Three-dimensional model of air speed in the secondary zone of displacement ventilation jet. Building and Environment, 2017, 114, 483-494.	3.0	4
162	Three influential factors on colloidal nanoparticle deposition for heat conduction enhancement in 3D chip stacks. Applied Thermal Engineering, 2021, 187, 116585.	3.0	4

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163	Coupled Hygro-Thermo-Mechanical Behavior of Amorphous Biopolymers: Molecular Dynamic Study of Softwood Lignin. , 2017, , .		3
164	Self-Driven Multiplex Reaction: Reactant and Product Diffusion via a Transpiration-Inspired Capillary. ACS Applied Materials & Interfaces, 2021, 13, 22031-22039.	4.0	3
165	Wicking through complex interfaces at interlacing yarns. Journal of Colloid and Interface Science, 2022, 626, 416-425.	5.0	3
166	Life-Cycle Analysis of Improvements to an Existing Energy-Efficient House in Montreal. Architectural Science Review, 2003, 46, 341-352.	1.1	2
167	Modeling of Moisture Behavior of Wood Planks in Nonvented Flat Roofs. Journal of Architectural Engineering, 2003, 9, 26-40.	0.8	2
168	Micro-Scale Restraint Methodology for Humidity Induced Swelling Investigated by Phase Contrast X-Ray Tomography. Experimental Mechanics, 2014, 54, 1215-1226.	1.1	2
169	Lattice Boltzmann modeling of heat conduction enhancement by colloidal nanoparticle deposition in microporous structures. Physical Review E, 2021, 103, 023311.	0.8	2
170	A study on diurnal microclimate hysteresis and plant morphology of a Buxus sempervirens using PIV, infrared thermography, and X-ray imaging. Agricultural and Forest Meteorology, 2022, 313, 108722.	1.9	2
171	Impact of climate change on the wind-driven rain exposure of a historical building. Journal of Physics: Conference Series, 2021, 2069, 012054.	0.3	2
172	Mitigation measures for urban heat island and their impact on pedestrian thermal comfort. Journal of Physics: Conference Series, 2021, 2069, 012058.	0.3	2
173	Investigation of coupled vapor and heat transport in hygroscopic material during adsorption and desorption. Building and Environment, 2022, 214, 108845.	3.0	2
174	Design of smart wetting of building materials as evaporative cooling measure for improving the urban climate during heat waves. E3S Web of Conferences, 2020, 172, 03001.	0.2	1
175	Drying of porous materials at pore scale using lattice Boltzmann and pore network models. Journal of Physics: Conference Series, 2021, 2069, 012001.	0.3	1
176	A Poromechanics Approach to Predict the Effective Swelling Behavior of Cellular Materials. , 2013, , .		0
177	The Role of Water in the Hygro-Thermo-Mechanical Behavior of Wood. , 2013, , .		0
178	Analysis of Sorption and Mechanical Hysteresis of Nano-Porous Materials: Upscaling Molecular Simulations with the Dependent Domain Theory. , 2017, , .		0
179	Understanding Hygromechanically-Coupled Behavior, Using Atomistic Simulations of Biopolymeric Nano-Composite Material. , 2017, , .		0
180	Simulation of indoor temperature and humidity conditions in the suburban and urban area over a hot summer. Journal of Physics: Conference Series, 2019, 1343, 012168.	0.3	0

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181	Frontispiz: Nonâ€Lithography Hydrodynamic Printing of Micro/Nanostructures on Curved Surfaces. Angewandte Chemie, 2020, 132, .	1.6	0
182	Frontispiece: Nonâ€Lithography Hydrodynamic Printing of Micro/Nanostructures on Curved Surfaces. Angewandte Chemie - International Edition, 2020, 59, .	7.2	0
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