Thijs Defraeye

List of Publications by Year in descending order

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195 papers	7,494 citations	50170 46 h-index	79541 73 g-index
218 all docs	218 docs citations	218 times ranked	5264 citing authors

#	Article	IF	Citations
1	Urban Physics: Effect of the micro-climate on comfort, health and energy demand. Frontiers of Architectural Research, 2012, 1, 197-228.	1.3	265
2	Advanced computational modelling for drying processes â€“ A review. Applied Energy, 2014, 131, 323-344.	5.1	232
3	Convective heat transfer coefficients for exterior building surfaces: Existing correlations and CFD modelling. Energy Conversion and Management, 2011, 52, 512-522.	4.4	201
4	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
5	A Three-Dimensional Multiscale Model for Gas Exchange in Fruit Â Â Â. Plant Physiology, 2011, 155, 1158-1168.	2.3	152
6	Nondestructive Measurement of Fruit and Vegetable Quality. Annual Review of Food Science and Technology, 2014, 5, 285-312.	5.1	151
7	CFD analysis of convective heat transfer at the surfaces of a cube immersed in a turbulent boundary layer. International Journal of Heat and Mass Transfer, 2010, 53, 297-308.	2.5	148
8	Multiscale modeling in food engineering. Journal of Food Engineering, 2013, 114, 279-291.	2.7	141
9	Modeling the Maximum Spreading of Liquid Droplets Impacting Wetting and Nonwetting Surfaces. Langmuir, 2016, 32, 1299-1308.	1.6	134
10	A review of uncertainty characterisation approaches for the optimal design of distributed energy systems. Renewable and Sustainable Energy Reviews, 2018, 88, 258-277.	8.2	134
11	Aerodynamic study of different cyclist positions: CFD analysis and full-scale wind-tunnel tests. Journal of Biomechanics, 2010, 43, 1262-1268.	0.9	128
12	Towards integrated performance evaluation of future packaging for fresh produce in the cold chain. Trends in Food Science and Technology, 2015, 44, 201-225.	7.8	123
13	CFD simulations of the aerodynamic drag of two drafting cyclists. Computers and Fluids, 2013, 71, 435-445.	1.3	115
14	Forced-convective cooling of citrus fruit: Package design. Journal of Food Engineering, 2013, 118, 8-18.	2.7	103
15	Comparison of X-ray CT and MRI of watercore disorder of different apple cultivars. Postharvest Biology and Technology, 2014, 87, 42-50.	2.9	103
16	Digital twins probe into food cooling and biochemical quality changes for reducing losses in refrigerated supply chains. Resources, Conservation and Recycling, 2019, 149, 778-794.	5.3	102
17	Role of hydrogen bonding in hysteresis observed in sorption-induced swelling of soft nanoporous polymers. Nature Communications, 2018, 9, 3507.	5.8	101
18	Forced-convective cooling of citrus fruit: Cooling conditions and energy consumption in relation to package design. Journal of Food Engineering, 2014, 121, 118-127.	2.7	99

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19	The use of CFD to characterize and design post-harvest storage facilities: Past, present and future. Computers and Electronics in Agriculture, 2013, 93, 184-194.	3.7	95
20	Digital twins are coming: Will we need them in supply chains of fresh horticultural produce?. Trends in Food Science and Technology, 2021, 109, 245-258.	7.8	92
21	Energy Budget of Liquid Drop Impact at Maximum Spreading: Numerical Simulations and Experiments. Langmuir, 2016, 32, 1279-1288.	1.6	90
22	Digital twins of food process operations: the next step for food process models?. Current Opinion in Food Science, 2020, 35, 79-87.	4.1	88
23	Integral performance evaluation of the fresh-produce cold chain: A case study for ambient loading of citrus in refrigerated containers. Postharvest Biology and Technology, 2016, 112, 1-13.	2.9	81
24	Analysis of convective heat and mass transfer coefficients for convective drying of a porous flat plate by conjugate modelling. International Journal of Heat and Mass Transfer, 2012, 55, 112-124.	2.5	79
25	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
26	Computational fluid dynamics analysis of cyclist aerodynamics: Performance of different turbulence-modelling and boundary-layer modelling approaches. Journal of Biomechanics, 2010, 43, 2281-2287.	0.9	74
27	Impact of Moisture Adsorption on Structure and Physical Properties of Amorphous Biopolymers. Macromolecules, 2015, 48, 2793-2800.	2.2	72
28	Molecular Mechanism of Moisture-Induced Transition in Amorphous Cellulose. ACS Macro Letters, 2014, 3, 1037-1040.	2.3	71
29	The role of horticultural carton vent hole design on cooling efficiency and compression strength: A multi-parameter approach. Postharvest Biology and Technology, 2017, 124, 62-74.	2.9	70
30	CFD modelling of flow and scalar exchange of spherical food products: Turbulence and boundary-layer modelling. Journal of Food Engineering, 2013, 114, 495-504.	2.7	66
31	Application of MRI for tissue characterisation of â€˜Braeburnâ€™ apple. Postharvest Biology and Technology, 2013, 75, 96-105.	2.9	66
32	Microscale modeling of coupled water transport and mechanical deformation of fruit tissue during dehydration. Journal of Food Engineering, 2014, 124, 86-96.	2.7	65
33	Convective heat and mass exchange predictions at leaf surfaces: Applications, methods and perspectives. Computers and Electronics in Agriculture, 2013, 96, 180-201.	3.7	64
34	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
35	X-ray CT for quantitative food microstructure engineering: The apple case. Nuclear Instruments & Methods in Physics Research B, 2014, 324, 88-94.	0.6	62
36	Multiparameter Analysis of Cooling Efficiency of Ventilated Fruit Cartons using CFD: Impact of Vent Hole Design and Internal Packaging. Food and Bioprocess Technology, 2016, 9, 1481-1493.	2.6	62

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37	Feasibility of ambient loading of citrus fruit into refrigerated containers for cooling during marine transport. Biosystems Engineering, 2015, 134, 20-30.	1.9	61
38	Identifying heterogeneities in cooling and quality evolution for a pallet of packed fresh fruit by using virtual cold chains. Applied Thermal Engineering, 2018, 133, 407-417.	3.0	59
39	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
40	PIV measurements and analysis of transitional flow in a reduced-scale model: Ventilation by a free plane jet with Coanda effect. Building and Environment, 2012, 56, 301-313.	3.0	56
41	Modeling of Coupled Water Transport and Large Deformation During Dehydration of Apple Tissue. Food and Bioprocess Technology, 2013, 6, 1963-1978.	2.6	54
42	Reducing Computation Time with a Rolling Horizon Approach Applied to a MILP Formulation of Multiple Urban Energy Hub System. Procedia Computer Science, 2015, 51, 2137-2146.	1.2	54
43	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
44	Computational fluid dynamics analysis of drag and convective heat transfer of individual body segments for different cyclist positions. Journal of Biomechanics, 2011, 44, 1695-1701.	0.9	51
45	Convective drying of fruit: Role and impact of moisture transport properties in modelling. Journal of Food Engineering, 2017, 193, 95-107.	2.7	50
46	Exploring ambient loading of citrus fruit into reefer containers for cooling during marine transport using computational fluid dynamics. Postharvest Biology and Technology, 2015, 108, 91-101.	2.9	49
47	Urban Heat Island and Its Interaction with Heatwaves: A Review of Studies on Mesoscale. Sustainability, 2021, 13, 10923.	1.6	49
48	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
49	Convective heat and mass exchange at surfaces of horticultural products: A microscale CFD modelling approach. Agricultural and Forest Meteorology, 2012, 162-163, 71-84.	1.9	47
50	Influence of uncertainty in heatâ€“moisture transport properties on convective drying of porous materials by numerical modelling. Chemical Engineering Research and Design, 2013, 91, 36-42.	2.7	46
51	Environmental trade-offs in fresh-fruit cold chains by combining virtual cold chains with life cycle assessment. Applied Energy, 2019, 254, 113586.	5.1	46
52	Electrohydrodynamic drying of food: New insights from conjugate modeling. Journal of Cleaner Production, 2018, 198, 269-284.	4.6	45
53	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
54	Virtual cold chain method to model the postharvest temperature history and quality evolution of fresh fruit â€“ A case study for citrus fruit packed in a single carton. Computers and Electronics in Agriculture, 2018, 144, 199-208.	3.7	43

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55	Dynamic Wicking Process in Textiles. Transport in Porous Media, 2017, 119, 611-632.	1.2	42
56	Entropic multiple-relaxation-time multirange pseudopotential lattice Boltzmann model for two-phase flow. Physics of Fluids, 2018, 30, .	1.6	42
57	Future perspectives for electrohydrodynamic drying of biomaterials. Drying Technology, 2018, 36, 1-10.	1.7	42
58	Simulating external longwave radiation exchange for buildings. Energy and Buildings, 2014, 75, 472-482.	3.1	41
59	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
60	An adaptive temperature wall function for mixed convective flows at exterior surfaces of buildings in street canyons. Building and Environment, 2012, 49, 55-66.	3.0	38
61	Microscale modeling of water transport in fruit tissue. Journal of Food Engineering, 2013, 118, 229-237.	2.7	38
62	Cyclist Drag in Team Pursuit: Influence of Cyclist Sequence, Stature, and Arm Spacing. Journal of Biomechanical Engineering, 2014, 136, 011005.	0.6	38
63	Characterisation of structural patterns in bread as evaluated by X-ray computer tomography. Journal of Food Engineering, 2014, 123, 67-77.	2.7	38
64	Convective drying of fruit: A deeper look at the air-material interface by conjugate modeling. International Journal of Heat and Mass Transfer, 2017, 108, 1610-1622.	2.5	38
65	Coupled CFD, radiation and porous media model for evaluating the micro-climate in an urban environment. Journal of Wind Engineering and Industrial Aerodynamics, 2014, 128, 1-11.	1.7	37
66	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
67	Modelling Cooling of Packaged Fruit Using 3D Shape Models. Food and Bioprocess Technology, 2018, 11, 2008-2020.	2.6	36
68	Buoyancy effects on the flows around flat and steep street canyons in simplified urban settings subject to a neutral approaching boundary layer: Wind tunnel PIV measurements. Science of the Total Environment, 2021, 797, 149067.	3.9	35
69	An adjusted temperature wall function for turbulent forced convective heat transfer for bluff bodies in the atmospheric boundary layer. Building and Environment, 2011, 46, 2130-2141.	3.0	34
70	Virtual Fruit Tissue Generation Based on Cell Growth Modelling. Food and Bioprocess Technology, 2013, 6, 859-869.	2.6	34
71	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
72	Beyond-Cassie Mode of Wetting and Local Contact Angles of Droplets on Checkboard-Patterned Surfaces. Langmuir, 2017, 33, 6192-6200.	1.6	34

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73	Insights in convective drying of fruit by coupled modeling of fruit drying, deformation, quality evolution and convective exchange with the airflow. Applied Thermal Engineering, 2018, 129, 1026-1038.	3.0	34
74	Cutting-down the energy consumption of electrohydrodynamic drying by optimizing mesh collector electrode. Energy, 2020, 208, 118168.	4.5	34
75	CFD simulation of heat transfer at surfaces of bluff bodies in turbulent boundary layers: Evaluation of a forced-convective temperature wall function for mixed convection. Journal of Wind Engineering and Industrial Aerodynamics, 2012, 104-106, 439-446.	1.7	33
76	Porous medium modeling and parameter sensitivity analysis of 1-MCP distribution in boxes with apple fruit. Journal of Food Engineering, 2013, 119, 13-21.	2.7	33
77	Full-scale experiments in forced-air precoolers for citrus fruit: Impact of packaging design and fruit size on cooling rate and heterogeneity. Biosystems Engineering, 2018, 169, 115-125.	1.9	33
78	Advancement in Urban Climate Modelling at Local Scale: Urban Heat Island Mitigation and Building Cooling Demand. Atmosphere, 2020, 11, 1313.	1.0	33
79	A methodology to assess the influence of local wind conditions and building orientation on the convective heat transfer at building surfaces. Environmental Modelling and Software, 2010, 25, 1813-1824.	1.9	32
80	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
81	A 3D contour based geometrical model generator for complex-shaped horticultural products. Journal of Food Engineering, 2015, 157, 24-32.	2.7	32
82	CFD Modelling of the 3D Spatial and Temporal Distribution of 1-methylcyclopropene in a Fruit Storage Container. Food and Bioprocess Technology, 2013, 6, 2235-2250.	2.6	31
83	Comparison of freezing and convective dehydrofreezing of vegetables for reducing cell damage. Journal of Food Engineering, 2021, 293, 110376.	2.7	31
84	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
85	Probing inside fruit slices during convective drying by quantitative neutron imaging. Journal of Food Engineering, 2016, 178, 198-202.	2.7	30
86	Influence of sorption hysteresis on moisture transport in wood. Wood Science and Technology, 2016, 50, 259-283.	1.4	30
87	Water transport properties of artificial cell walls. Journal of Food Engineering, 2012, 108, 393-402.	2.7	29
88	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
89	Hydrogen bonds dominated frictional stick-slip of cellulose nanocrystals. Carbohydrate Polymers, 2021, 258, 117682.	5.1	29
90	Acoustically induced slip in sheared granular layers: Application to dynamic earthquake triggering. Geophysical Research Letters, 2015, 42, 9750-9757.	1.5	28

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91	Electrohydrodynamic drying of multiple food products: Evaluating the potential of emitter-collector electrode configurations for upscaling. Journal of Food Engineering, 2019, 240, 38-42.	2.7	28
92	Unveiling how ventilated packaging design and cold chain scenarios affect the cooling kinetics and fruit quality for each single citrus fruit in an entire pallet. Food Packaging and Shelf Life, 2019, 21, 100369.	3.3	28
93	Mapping the postharvest life of imported fruits from packhouse to retail stores using physics-based digital twins. Resources, Conservation and Recycling, 2022, 176, 105914.	5.3	28
94	PIV measurements of a plane wall jet in a confined space at transitional slot Reynolds numbers. Experiments in Fluids, 2012, 53, 499-517.	1.1	27
95	3D Virtual Pome Fruit Tissue Generation Based on Cell Growth Modeling. Food and Bioprocess Technology, 2014, 7, 542-555.	2.6	27
96	A Multiphase Pore Scale Network Model of Gas Exchange in Apple Fruit. Food and Bioprocess Technology, 2014, 7, 482-495.	2.6	27
97	Electrohydrodynamic Drying of Plant-Based Foods and Food Model Systems. Food Engineering Reviews, 2020, 12, 473-497.	3.1	27
98	Numerical analysis of convective drying of gypsum boards. International Journal of Heat and Mass Transfer, 2012, 55, 2590-2600.	2.5	26
99	Quantitative neutron imaging of water distribution, venation network and sap flow in leaves. Planta, 2014, 240, 423-436.	1.6	25
100	Dynamics of Contact Line Pinning and Depinning of Droplets Evaporating on Microribs. Langmuir, 2018, 34, 5635-5645.	1.6	25
101	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
102	Analysis of convective heat and mass transfer at the vertical walls of a street canyon. Journal of Wind Engineering and Industrial Aerodynamics, 2011, 99, 424-433.	1.7	24
103	CFD-Based Analysis of 1-MCP Distribution in Commercial Cool Store Rooms: Porous Medium Model Application. Food and Bioprocess Technology, 2014, 7, 1903-1916.	2.6	24
104	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
105	Novel Application of Neutron Radiography to Forced Convective Drying of Fruit Tissue. Food and Bioprocess Technology, 2013, 6, 3353-3367.	2.6	23
106	Towards more efficient intermittent drying of fruit: Insights from combined hygrothermal-quality modelling. Innovative Food Science and Emerging Technologies, 2016, 38, 262-271.	2.7	23
107	CFD modeling of industrial cooling of large beef carcasses. International Journal of Refrigeration, 2016, 69, 324-339.	1.8	23
108	Reusable boxes for a beneficial apple cold chain: A precooling analysis. International Journal of Refrigeration, 2019, 106, 338-349.	1.8	23

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109	Lattice Boltzmann Modeling of Drying of Porous Media Considering Contact Angle Hysteresis. Transport in Porous Media, 2021, 140, 395-420.	1.2	23
110	Multiphysics modeling of convective cooling of non-spherical, multi-material fruit to unveil its quality evolution throughout the cold chain. Food and Bioproducts Processing, 2019, 117, 310-320.	1.8	22
111	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
112	Time-resolved and time-averaged stereo-PIV measurements of a unit-ratio cavity. Experiments in Fluids, 2016, 57, 1.	1.1	21
113	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
114	Cross-scale modelling of transpiration from stomata via the leaf boundary layer. Annals of Botany, 2014, 114, 711-723.	1.4	20
115	Dynamic induced softening in frictional granular materials investigated by discrete-element-method simulation. Physical Review E, 2017, 96, 062901.	0.8	20
116	Moisture adsorption in palletised corrugated fibreboard cartons under shipping conditions: A CFD modelling approach. Food and Bioproducts Processing, 2019, 114, 43-59.	1.8	20
117	Ten questions concerning modeling of wind-driven rain in the built environment. Building and Environment, 2017, 114, 495-506.	3.0	19
118	Artificial fruit for monitoring the thermal history of horticultural produce in the cold chain. Journal of Food Engineering, 2017, 215, 51-60.	2.7	19
119	Woodâ€“Moisture Relationships Studied with Molecular Simulations: Methodological Guidelines. Forests, 2019, 10, 628.	0.9	19
120	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
121	The role of convection in electrohydrodynamic drying. Journal of Food Engineering, 2020, 271, 109777.	2.7	19
122	Pore-Scale Study on Convective Drying of Porous Media. Langmuir, 2022, 38, 6023-6035.	1.6	19
123	Hygromechanical mechanisms of wood cell wall revealed by molecular modeling and mixture rule analysis. Science Advances, 2021, 7, eabi8919.	4.7	18
124	Droplet evaporation in finite-size systems: Theoretical analysis and mesoscopic modeling. Physical Review E, 2022, 105, 025101.	0.8	18
125	Designing ventilated packaging for the fresh produce cold chain. Food and Bioproducts Processing, 2022, 134, 121-149.	1.8	18
126	Recent advances in drying at interfaces of biomaterials. Drying Technology, 2016, 34, 1904-1925.	1.7	17

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127	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
128	Predicting Transdermal Fentanyl Delivery Using Mechanistic Simulations for Tailored Therapy. Frontiers in Pharmacology, 2020, 11, 585393.	1.6	17
129	Nonâ€Lithography Hydrodynamic Printing of Micro/Nanostructures on Curved Surfaces. Angewandte Chemie - International Edition, 2020, 59, 14234-14240.	7.2	17
130	Spontaneous Imbibition in a Square Tube With Corner Films: Theoretical Model and Numerical Simulation. Water Resources Research, 2021, 57, e2020WR029190.	1.7	17
131	The role of water in the behavior of wood. Journal of Building Physics, 2013, 36, 398-421.	1.2	16
132	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
133	A film flow model for analysing gravity-driven, thin wavy fluid films. International Journal of Multiphase Flow, 2015, 73, 207-216.	1.6	16
134	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
135	Tricoupled hybrid lattice Boltzmann model for nonisothermal drying of colloidal suspensions in micropore structures. Physical Review E, 2019, 99, 053306.	0.8	16
136	Optimizing the postharvest supply chain of imported fresh produce with physics-based digital twins. Journal of Food Engineering, 2022, 329, 111077.	2.7	16
137	A Geometrical Model Generator for Quasi-Axisymmetric Biological Products. Food and Bioprocess Technology, 2014, 7, 1783-1792.	2.6	15
138	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
139	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
140	Effect of box materials on the distribution of 1-MCP gas during cold storage: A CFD study. Journal of Food Engineering, 2013, 119, 150-158.	2.7	14
141	A plant cell division algorithm based on cell biomechanics and ellipse-fitting. Annals of Botany, 2014, 114, 605-617.	1.4	14
142	Molecular Simulation of Sorption-Induced Deformation in Atomistic Nanoporous Materials. Langmuir, 2019, 35, 7751-7758.	1.6	14
143	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
144	Scaling-up electrohydrodynamic drying for energy-efficient food drying via physics-based simulations. Journal of Cleaner Production, 2021, 329, 129690.	4.6	14

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145	Moisture-induced crossover in the thermodynamic and mechanical response of hydrophilic biopolymer. Cellulose, 2020, 27, 89-99.	2.4	13
146	Identifyingin silicohow microstructural changes in cellular fruit affect the drying kinetics. Soft Matter, 2020, 16, 9929-9945.	1.2	12
147	Water uptake in clay brick at different temperatures: Experiments and numerical simulations. Journal of Building Physics, 2016, 39, 373-389.	1.2	11
148	When to stop drying fruit: Insights from hygrothermal modelling. Applied Thermal Engineering, 2017, 110, 1128-1136.	3.0	11
149	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
150	Electrohydrodynamic drying: Can we scaleâ€up the technology to make dried fruits and vegetables more nutritious and appealing?. Comprehensive Reviews in Food Science and Food Safety, 2021, 20, 5283-5313.	5.9	11
151	Digital twins enable the quantification of the trade-offs in maintaining citrus quality and marketability in the refrigerated supply chain. Nature Food, 2022, 3, 413-427.	6.2	11
152	Transport of Polar and Nonpolar Liquids in Softwood Imaged by Neutron Radiography. Transport in Porous Media, 2016, 113, 383-404.	1.2	10
153	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
154	Impact of size and shape of fresh-cut fruit on the drying time and fruit quality. Journal of Food Engineering, 2017, 210, 35-41.	2.7	10
155	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
156	Facile Fabrication of Microfluidic Chips for 3D Hydrodynamic Focusing and Wet Spinning of Polymeric Fibers. Polymers, 2020, 12, 633.	2.0	10
157	Measurement and visualization of food microstructure. , 2018, , 3-28.		9
158	Modeling wicking in textiles using the dual porosity approach. Textile Reseach Journal, 2019, 89, 3519-3528.	1.1	9
159	Inverse Mechanistic Modeling of Transdermal Drug Delivery for Fast Identification of Optimal Model Parameters. Frontiers in Pharmacology, 2021, 12, 641111.	1.6	9
160	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
161	How much do process parameters affect the residual quality attributes of dried fruits and vegetables for convective drying?. Food and Bioproducts Processing, 2022, 131, 176-190.	1.8	9
162	Dehydration mechanisms in electrohydrodynamic drying of plant-based foods. Food and Bioproducts Processing, 2022, 131, 202-216.	1.8	9

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163	Poromechanical modeling of moisture induced swelling anisotropy in cellular tissues of softwoods. RSC Advances, 2015, 5, 3560-3566.	1.7	8
164	A Poromechanical Model for Sorption Hysteresis in Nanoporous Polymers. Journal of Physical Chemistry B, 2020, 124, 8690-8703.	1.2	8
165	Disentangling Heat and Moisture Effects on Biopolymer Mechanics. Macromolecules, 2020, 53, 1527-1535.	2.2	8
166	Design and Assessment of District Heating Systems with Solar Thermal Prosumers and Thermal Storage. Energies, 2021, 14, 1184.	1.6	8
167	Improving Needleless Electrospinning Throughput by Tailoring Polyurethane Solution Properties with Polysiloxane Additives. ACS Applied Polymer Materials, 2022, 4, 2205-2215.	2.0	8
168	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
169	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
170	All-printed point-of-care immunosensing biochip for one drop blood diagnostics. Lab on A Chip, 2022, 22, 3008-3014.	3.1	7
171	Swelling of cellular solids: From conventional to re-entrant honeycombs. Applied Physics Letters, 2013, 102, .	1.5	6
172	Role of cellulose nanocrystals on hysteretic sorption and deformation of nanocomposites. Cellulose, 2020, 27, 6945-6960.	2.4	6
173	Predicting transdermal fentanyl delivery using physics-based simulations for tailored therapy based on the age. Drug Delivery, 2022, 29, 950-969.	2.5	6
174	A comparison of building energy optimization problems and mathematical test functions using static fitness landscape analysis. Journal of Building Performance Simulation, 2019, 12, 789-811.	1.0	5
175	CFD MODELING OF AIR COOLING OF MULTIPLE BEEF CARCASSES USING 3D GEOMETRICAL MODELS. Acta Horticulturae, 2013, , 159-164.	0.1	4
176	Assessment of a one-way nesting procedure for obstacle resolved large eddy simulation of the ABL. Computers and Fluids, 2016, 140, 136-147.	1.3	4
177	A new procedure for selecting moisture reference years for hygrothermal simulations. Bauphysik, 2016, 38, 361-365.	1.2	4
178	Moisture barriers to control drying of fresh-cut fruit: Quantifying their impact by modeling. Food and Bioproducts Processing, 2017, 101, 205-213.	1.8	4
179	Plate versus mesh collecting electrode for electrohydrodynamic (EHD) drying. Drying Technology, 2022, 40, 2759-2769.	1.7	4
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#	Article	IF	Citations
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