Pieter Verboven

List of Publications by Year
in descending order

258 papers	9,956 citations	23567 58 h-index	60623 81 g-index
262 all docs	262 docs citations	262 times ranked	5686 citing authors

#	Article	IF	Citations
1	Browning disorders in pear fruit. Postharvest Biology and Technology, 2007, 43, 1-13.	6.0	281
2	Three-dimensional pore space quantification of apple tissue using X-ray computed microtomography. Planta, 2007, 226, 559-570.	3.2	189
3	Three-Dimensional Gas Exchange Pathways in Pome Fruit Characterized by Synchrotron X-Ray Computed Tomography Â Â Â. Plant Physiology, 2008, 147, 518-527.	4.8	187
4	A Three-Dimensional Multiscale Model for Gas Exchange in Fruit Â Â Â. Plant Physiology, 2011, 155, 1158-1168.	4.8	152
5	Nondestructive Measurement of Fruit and Vegetable Quality. Annual Review of Food Science and Technology, 2014, 5, 285-312.	9.9	151
6	CFD model of the airflow, heat and mass transfer in cool stores. International Journal of Refrigeration, 2005, 28, 368-380.	3.4	144
7	Characterisation of â€˜Braeburnâ€™ browning disorder by means of X-ray micro-CT. Postharvest Biology and Technology, 2013, 75, 114-124.	6.0	144
8	Multiscale modeling in food engineering. Journal of Food Engineering, 2013, 114, 279-291.	5.2	141
9	Pectin based food-ink formulations for 3-D printing of customizable porous food simulants. Innovative Food Science and Emerging Technologies, 2017, 42, 138-150.	5.6	128
10	A novel type of dynamic controlled atmosphere storage based on the respiratory quotient (RQ-DCA). Postharvest Biology and Technology, 2016, 115, 91-102.	6.0	125
11	Towards integrated performance evaluation of future packaging for fresh produce in the cold chain. Trends in Food Science and Technology, 2015, 44, 201-225.	15.1	123
12	Optimization of the humidification of cold stores by pressurized water atomizers based on a multiscale CFD model. Journal of Food Engineering, 2009, 91, 228-239.	5.2	114
13	Modelling transport phenomena in refrigerated food bulks, packages and stacks: basics and advances. International Journal of Refrigeration, 2006, 29, 985-997.	3.4	111
14	Pesticideâ€laden dust emission and drift from treated seeds during seed drilling: a review. Pest Management Science, 2013, 69, 564-575.	3.4	108
15	Forced-convective cooling of citrus fruit: Package design. Journal of Food Engineering, 2013, 118, 8-18.	5.2	103
16	Comparison of X-ray CT and MRI of watercore disorder of different apple cultivars. Postharvest Biology and Technology, 2014, 87, 42-50.	6.0	103
17	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.	10.8	102
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.	5.2	99

#	Article	IF	Citations
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.	7.7	95
20	Combined discrete element and CFD modelling of airflow through random stacking of horticultural products in vented boxes. Journal of Food Engineering, 2008, 89, 33-41.	5.2	94
21	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.	15.1	92
22	Genotype effects on internal gas gradients in apple fruit. Journal of Experimental Botany, 2010, 61, 2745-2755.	4.8	89
23	Digital twins of food process operations: the next step for food process models?. Current Opinion in Food Science, 2020, 35, 79-87.	8.0	88
24	Investigation of far infrared radiation heating as an alternative technique for surface decontamination of strawberry. Journal of Food Engineering, 2007, 79, 445-452.	5.2	84
25	CFD modelling and wind tunnel validation of airflow through plant canopies using 3D canopy architecture. International Journal of Heat and Fluid Flow, 2009, 30, 356-368.	2.4	84
26	Threeâ€dimensional microscale modelling of <scp>CO</scp>₂ transport and light propagation in tomato leaves enlightens photosynthesis. Plant, Cell and Environment, 2016, 39, 50-61.	5.7	84
27	Microfluidic analytical systems for food analysis. Trends in Food Science and Technology, 2011, 22, 386-404.	15.1	83
28	Synchrotron <scp>X</scp>â€ray computed laminography of the threeâ€dimensional anatomy of tomato leaves. Plant Journal, 2015, 81, 169-182.	5.7	82
29	Computational fluid dynamics modelling and validation of the temperature distribution in a forced convection oven. Journal of Food Engineering, 2000, 43, 61-73.	5.2	81
30	Prediction of moisture loss across the cuticle of apple (Malus sylvestris subsp. mitis (Wallr.)) during storage. Postharvest Biology and Technology, 2003, 30, 75-88.	6.0	81
31	Multifractal properties of pore-size distribution in apple tissue using X-ray imaging. Journal of Food Engineering, 2010, 99, 206-215.	5.2	81
32	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.	6.0	81
33	3D printing of plant tissue for innovative food manufacturing: Encapsulation of alive plant cells into pectin based bio-ink. Journal of Food Engineering, 2019, 263, 454-464.	5.2	81
34	Postharvest precooling of fruit and vegetables: A review. Trends in Food Science and Technology, 2020, 100, 278-291.	15.1	81
35	Computational fluid dynamics modelling and validation of the isothermal airflow in a forced convection oven. Journal of Food Engineering, 2000, 43, 41-53.	5.2	80
36	A Continuum Model for Metabolic Gas Exchange in Pear Fruit. PLoS Computational Biology, 2008, 4, e1000023.	3.2	75

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37	The FRISBEE tool, a software for optimising the trade-off between food quality, energy use, and global warming impact of cold chains. Journal of Food Engineering, 2015, 148, 2-12.	5.2	74
38	Predicting drift from field spraying by means of a 3D computational fluid dynamics model. Computers and Electronics in Agriculture, 2007, 56, 161-173.	7.7	73
39	Controlled atmosphere storage may lead to local ATP deficiency in apple. Postharvest Biology and Technology, 2013, 78, 103-112.	6.0	72
40	Modelling fruit (micro)structures, why and how?. Trends in Food Science and Technology, 2008, 19, 59-66.	15.1	71
41	Spray deposition profiles in pome fruit trees: Effects of sprayer design, training system and tree canopy characteristics. Crop Protection, 2015, 67, 200-213.	2.1	70
42	Computation of airflow effects on heat and mass transfer in a microwave oven. Journal of Food Engineering, 2003, 59, 181-190.	5.2	69
43	A permeation-diffusion-reaction model of gas transport in cellular tissue of plant materials. Journal of Experimental Botany, 2006, 57, 4215-4224.	4.8	69
44	Automatic analysis of the 3-D microstructure of fruit parenchyma tissue using X-ray micro-CT explains differences in aeration. BMC Plant Biology, 2015, 15, 264.	3.6	68
45	Optical coherence tomography visualizes microstructure of apple peel. Postharvest Biology and Technology, 2013, 78, 123-132.	6.0	66
46	CFD modelling of flow and scalar exchange of spherical food products: Turbulence and boundary-layer modelling. Journal of Food Engineering, 2013, 114, 495-504.	5.2	66
47	Application of MRI for tissue characterisation of â€˜Braeburnâ€™ apple. Postharvest Biology and Technology, 2013, 75, 96-105.	6.0	66
48	Modeling the propagation of light in realistic tissue structures with MMC-fpf: a meshed Monte Carlo method with free phase function. Optics Express, 2015, 23, 17467.	3.4	66
49	Development of a coaxial extrusion deposition for 3D printing of customizable pectin-based food simulant. Journal of Food Engineering, 2018, 225, 42-52.	5.2	66
50	Microscale modeling of coupled water transport and mechanical deformation of fruit tissue during dehydration. Journal of Food Engineering, 2014, 124, 86-96.	5.2	65
51	Modelling airflow within model plant canopies using an integrated approach. Computers and Electronics in Agriculture, 2009, 66, 9-24.	7.7	64
52	Convective heat and mass exchange predictions at leaf surfaces: Applications, methods and perspectives. Computers and Electronics in Agriculture, 2013, 96, 180-201.	7.7	64
53	A novel method for 3-D microstructure modeling of pome fruit tissue using synchrotron radiation tomography images. Journal of Food Engineering, 2009, 93, 141-148.	5.2	62
54	X-ray CT for quantitative food microstructure engineering: The apple case. Nuclear Instruments & Methods in Physics Research B, 2014, 324, 88-94.	1.4	62

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55	Modelling the forced-air cooling mechanisms and performance of polylined horticultural produce. Postharvest Biology and Technology, 2016, 120, 23-35.	6.0	62
56	Exploration of Atmospheric Pressure Plasma Nanofilm Technology for Straightforward Bioâ€Active Coating Deposition: Enzymes, Plasmas and Polymers, an Elegant Synergy. Plasma Processes and Polymers, 2011, 8, 965-974.	3.0	61
57	Feasibility of ambient loading of citrus fruit into refrigerated containers for cooling during marine transport. Biosystems Engineering, 2015, 134, 20-30.	4.3	61
58	Finite element modelling and MRI validation of 3D transient water profiles in pears during postharvest storage. Journal of the Science of Food and Agriculture, 2006, 86, 745-756.	3.5	59
59	Characterization of the 3-D microstructure of mango (Mangifera indica L. cv. Carabao) during ripening using X-ray computed microtomography. Innovative Food Science and Emerging Technologies, 2014, 24, 28-39.	5.6	59
60	A new integrated CFD modelling approach towards air-assisted orchard spraying. Part I. Model development and effect of wind speed and direction on sprayer airflow. Computers and Electronics in Agriculture, 2010, 71, 128-136.	7.7	58
61	Root aeration via aerenchymatous phellem: threeâ€dimensional microâ€imaging and radial O₂ profiles in <i>Melilotus siculus</i>. New Phytologist, 2012, 193, 420-431.	7.3	58
62	Model-based design and validation of food texture of 3D printed pectin-based food simulants. Journal of Food Engineering, 2018, 231, 72-82.	5.2	58
63	Prediction of moisture loss across the cuticle of apple (Malus sylvestris subsp. mitis (Wallr.)) during storage: part 2. Model simulations and practical applications. Postharvest Biology and Technology, 2003, 30, 89-97.	6.0	57
64	A model for gas transport in pear fruit at multiple scales. Journal of Experimental Botany, 2010, 61, 2071-2081.	4.8	57
65	Modelling pesticide flow and deposition from air-assisted orchard spraying in orchards: A new integrated CFD approach. Agricultural and Forest Meteorology, 2010, 150, 1383-1392.	4.8	56
66	A finite element model for mechanical deformation of single tomato suspension cells. Journal of Food Engineering, 2011, 103, 265-272.	5.2	56
67	Assessment of bruise volumes in apples using X-ray computed tomography. Postharvest Biology and Technology, 2017, 128, 24-32.	6.0	55
68	Gas diffusion properties at different positions in the pear. Postharvest Biology and Technology, 2006, 41, 113-120.	6.0	54
69	CFD prototyping of an air-assisted orchard sprayer aimed at drift reduction. Computers and Electronics in Agriculture, 2007, 55, 16-27.	7.7	54
70	Modeling of Coupled Water Transport and Large Deformation During Dehydration of Apple Tissue. Food and Bioprocess Technology, 2013, 6, 1963-1978.	4.7	54
71	Assessment of orchard sprayers using laboratory experiments and computational fluid dynamics modelling. Biosystems Engineering, 2013, 114, 157-169.	4.3	54
72	The local surface heat transfer coefficient in thermal food process calculations: A CFD approach. Journal of Food Engineering, 1997, 33, 15-35.	5.2	52

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73	Estimation of effective diffusivity of pear tissue and cuticle by means of a numerical water diffusion model. Journal of Food Engineering, 2006, 72, 63-72.	5.2	52
74	Determination of the diffusion coefficient of tissue, cuticle, cutin and wax of apple. Journal of Food Engineering, 2003, 58, 285-294.	5.2	51
75	Microscale modelling of fruit tissue using Voronoi tessellations. Computers and Electronics in Agriculture, 2006, 52, 36-48.	7.7	51
76	Ascorbic Acid Concentration in Cv. Conference Pears during Fruit Development and Postharvest Storage. Journal of Agricultural and Food Chemistry, 2003, 51, 4757-4763.	5.2	50
77	Microstructureâ€"texture relationships of aerated sugar gels: Novel measurement techniques for analysis and control. Innovative Food Science and Emerging Technologies, 2013, 18, 202-211.	5.6	50
78	Convective drying of fruit: Role and impact of moisture transport properties in modelling. Journal of Food Engineering, 2017, 193, 95-107.	5.2	50
79	X-ray computed tomography for 3D plant imaging. Trends in Plant Science, 2021, 26, 1171-1185.	8.8	50
80	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.	6.0	49
81	Evaluation of a chicory root cold store humidification system using computational fluid dynamics. Journal of Food Engineering, 2009, 94, 110-121.	5.2	48
82	Void space inside the developing seed of <i><scp>B</scp>rassica napus</i> and the modelling of its function. New Phytologist, 2013, 199, 936-947.	7.3	48
83	Convective heat and mass exchange at surfaces of horticultural products: A microscale CFD modelling approach. Agricultural and Forest Meteorology, 2012, 162-163, 71-84.	4.8	47
84	Numerical analysis of the propagation of random parameter fluctuations in time and space during thermal food processes. Journal of Food Engineering, 1998, 38, 259-278.	5.2	45
85	A new integrated CFD modelling approach towards air-assisted orchard sprayingâ€"Part II: Validation for different sprayer types. Computers and Electronics in Agriculture, 2010, 71, 137-147.	7.7	44
86	A segmentation and classification algorithm for online detection of internal disorders in citrus using X-ray radiographs. Postharvest Biology and Technology, 2016, 112, 205-214.	6.0	44
87	Non-destructive porosity mapping of fruit and vegetables using X-ray CT. Postharvest Biology and Technology, 2019, 150, 80-88.	6.0	44
88	Forced-air cooling of polylined horticultural produce: Optimal cooling conditions and package design. Postharvest Biology and Technology, 2017, 126, 67-75.	6.0	43
89	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.	7.7	43
90	Development and validation of a 3D CFD model ofÂdrift and its application to air-assisted orchardÂsprayers. Biosystems Engineering, 2017, 154, 62-75.	4.3	42

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91	The impact and retention of spray droplets on a horizontal hydrophobic surface. Biosystems Engineering, 2014, 126, 82-91.	4.3	41
92	Analysis of the spatiotemporal temperature fluctuations inside an apple cool store in response to energy use concerns. International Journal of Refrigeration, 2016, 66, 156-168.	3.4	41
93	Localization of (photo)respiration and CO2 re-assimilation in tomato leaves investigated with a reaction-diffusion model. PLoS ONE, 2017, 12, e0183746.	2.5	40
94	A new method developed to characterize the 3D microstructure of frozen apple using X-ray micro-CT. Journal of Food Engineering, 2017, 212, 154-164.	5.2	39
95	Microscale modeling of water transport in fruit tissue. Journal of Food Engineering, 2013, 118, 229-237.	5.2	38
96	Characterisation of structural patterns in bread as evaluated by X-ray computer tomography. Journal of Food Engineering, 2014, 123, 67-77.	5.2	38
97	Spatial development of transport structures in apple (Malus Ã— domestica Borkh.) fruit. Frontiers in Plant Science, 2015, 6, 679.	3.6	38
98	Nondestructive internal quality inspection of pear fruit by X-ray CT using machine learning. Food Control, 2020, 113, 107170.	5.5	38
99	The mechanism of improved aeration due to gas films on leaves of submerged rice. Plant, Cell and Environment, 2014, 37, 2433-2452.	5.7	37
100	Modelling Cooling of Packaged Fruit Using 3D Shape Models. Food and Bioprocess Technology, 2018, 11, 2008-2020.	4.7	36
101	3D Printing of Monolithic Capillarityâ€Driven Microfluidic Devices for Diagnostics. Advanced Materials, 2021, 33, e2008712.	21.0	36
102	Characterizing the tissue of apple air-dried and osmo-air-dried rings by X-CT and OCT and relationship with ring crispness and fruit maturity at harvest measured by TRS. Innovative Food Science and Emerging Technologies, 2014, 24, 121-130.	5.6	35
103	Prediction of water loss from pears (Pyrus communis cv. Conference) during controlled atmosphere storage as affected by relative humidity. Journal of Food Engineering, 2007, 83, 149-155.	5.2	34
104	Virtual Fruit Tissue Generation Based on Cell Growth Modelling. Food and Bioprocess Technology, 2013, 6, 859-869.	4.7	34
105	Acoustic, mechanical and microstructural properties of extruded crisp bread. Journal of Cereal Science, 2013, 58, 132-139.	3.7	34
106	Microstructural characterisation of commercial kiwifruit cultivars using X-ray micro computed tomography. Postharvest Biology and Technology, 2014, 92, 79-86.	6.0	34
107	Computation of mass transport properties of apple and rice from X-ray microtomography images. Innovative Food Science and Emerging Technologies, 2014, 24, 14-27.	5.6	34
108	Effect of dynamic storage temperatures on the microstructure of frozen carrot imaged using X-ray micro-CT. Journal of Food Engineering, 2019, 246, 232-241.	5.2	34

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109	Porous medium modeling and parameter sensitivity analysis of 1-MCP distribution in boxes with apple fruit. Journal of Food Engineering, 2013, 119, 13-21.	5.2	33
110	Microstructure analysis and detection of mealiness in â€˜Forelleâ€™ pear (Pyrus communis L.) by means of X-ray computed tomography. Postharvest Biology and Technology, 2016, 120, 145-156.	6.0	33
111	Dehydration of apple tissue: Intercomparison of neutron tomography with numerical modelling. International Journal of Heat and Mass Transfer, 2013, 67, 173-182.	4.8	32
112	Prediction of water loss and viscoelastic deformation of apple tissue using a multiscale model. Journal of Physics Condensed Matter, 2014, 26, 464111.	1.8	32
113	A 3D contour based geometrical model generator for complex-shaped horticultural products. Journal of Food Engineering, 2015, 157, 24-32.	5.2	32
114	Quantitative 3D Shape Description of Dust Particles from Treated Seeds by Means of X-ray Micro-CT. Environmental Science & Technology, 2015, 49, 7310-7318.	10.0	32
115	Combination of shape and X-ray inspection for apple internal quality control: in silico analysis of the methodology based on X-ray computed tomography. Postharvest Biology and Technology, 2019, 148, 218-227.	6.0	32
116	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.	4.7	31
117	Stomatal transpiration and droplet evaporation on leaf surfaces by a microscale modelling approach. International Journal of Heat and Mass Transfer, 2013, 65, 180-191.	4.8	30
118	Probing inside fruit slices during convective drying by quantitative neutron imaging. Journal of Food Engineering, 2016, 178, 198-202.	5.2	30
119	Modeling the diffusionâ€“adsorption kinetics of 1-methylcyclopropene (1-MCP) in apple fruit and non-target materials in storage rooms. Journal of Food Engineering, 2011, 102, 257-265.	5.2	29
120	Water transport properties of artificial cell walls. Journal of Food Engineering, 2012, 108, 393-402.	5.2	29
121	In-line NDT with X-Ray CT combining sample rotation and translation. NDT and E International, 2016, 84, 89-98.	3.7	29
122	Contrast-enhanced 3D micro-CT of plant tissues using different impregnation techniques. Plant Methods, 2017, 13, 105.	4.3	29
123	Visualizing 3D Food Microstructure Using Tomographic Methods: Advantages and Disadvantages. Annual Review of Food Science and Technology, 2018, 9, 323-343.	9.9	29
124	3D pore structure analysis of intact â€˜Braeburnâ€™ apples using X-ray micro-CT. Postharvest Biology and Technology, 2020, 159, 111014.	6.0	29
125	Microstructure affects light scattering in apples. Postharvest Biology and Technology, 2020, 159, 110996.	6.0	29
126	Development of a visco-elastoplastic contact force model and its parameter determination for apples. Postharvest Biology and Technology, 2016, 120, 157-166.	6.0	28

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127	Tissue breakdown of mango (Mangifera indica L. cv. Carabao) due to chilling injury. Postharvest Biology and Technology, 2017, 125, 99-111.	6.0	28
128	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.	7.5	28
129	Pore network model for permeability characterization of three-dimensionally-printed porous materials for passive microfluidics. Physical Review E, 2019, 99, 033107.	2.1	28
130	A Combined Electromagnetic and Heat Transfer Model for Heating of Foods in Microwave Combination Ovens. Journal of Microwave Power and Electromagnetic Energy, 2002, 37, 97-111.	0.8	27
131	Surface heat transfer coefficients to stationary spherical particles in an experimental unit for hydrofluidisation freezing of individual foods. International Journal of Refrigeration, 2003, 26, 328-336.	3.4	27
132	3D Virtual Pome Fruit Tissue Generation Based on Cell Growth Modeling. Food and Bioprocess Technology, 2014, 7, 542-555.	4.7	27
133	A Multiphase Pore Scale Network Model of Gas Exchange in Apple Fruit. Food and Bioprocess Technology, 2014, 7, 482-495.	4.7	27
134	Analysis of fluid flow and reaction kinetics in a flow injection analysis biosensor. Sensors and Actuators B: Chemical, 2006, 114, 728-736.	7.8	26
135	Multisensor X-ray inspection of internal defects in horticultural products. Postharvest Biology and Technology, 2017, 128, 33-43.	6.0	26
136	Quantitative neutron imaging of water distribution, venation network and sap flow in leaves. Planta, 2014, 240, 423-436.	3.2	25
137	Modelling the relationship between CO2 assimilation and leaf anatomical properties in tomato leaves. Plant Science, 2015, 238, 297-311.	3.6	25
138	Characterising kiwifruit (Actinidia sp.) near skin cellular structures using optical coherence tomography. Postharvest Biology and Technology, 2015, 110, 247-256.	6.0	25
139	Comparison of spectral properties of three hyperspectral imaging (HSI) sensors in evaluating main chemical compositions of cured pork. Journal of Food Engineering, 2019, 261, 100-108.	5.2	25
140	Optical propertiesâ€“microstructureâ€“texture relationships of dried apple slices: Spatially resolved diffuse reflectance spectroscopy as a novel technique for analysis and process control. Innovative Food Science and Emerging Technologies, 2014, 21, 160-168.	5.6	24
141	CFD-Based Analysis of 1-MCP Distribution in Commercial Cool Store Rooms: Porous Medium Model Application. Food and Bioprocess Technology, 2014, 7, 1903-1916.	4.7	24
142	New insights into the apple fruit dehydration process at the cellular scale by 3D continuum modeling. Journal of Food Engineering, 2018, 239, 52-63.	5.2	24
143	A Microscale Model for Combined CO2 Diffusion and Photosynthesis in Leaves. PLoS ONE, 2012, 7, e48376.	2.5	24
144	Propagation of stochastic temperature fluctuations in refrigerated fruits. International Journal of Refrigeration, 1999, 22, 81-90.	3.4	23

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145	CFD model development and validation of a thermonebulisation fungicide fogging system for postharvest storage of fruit. Journal of Food Engineering, 2012, 108, 59-68.	5.2	23
146	Novel Application of Neutron Radiography to Forced Convective Drying of Fruit Tissue. Food and Bioprocess Technology, 2013, 6, 3353-3367.	4.7	23
147	CFD modeling of industrial cooling of large beef carcasses. International Journal of Refrigeration, 2016, 69, 324-339.	3.4	23
148	Down-regulation of respiration in pear fruit depends on temperature. Journal of Experimental Botany, 2018, 69, 2049-2060.	4.8	23
149	Quality changes kinetics of apple tissue during frozen storage with temperature fluctuations. International Journal of Refrigeration, 2018, 92, 165-175.	3.4	23
150	Mimicking 3D food microstructure using limited statistical information from 2D cross-sectional image. Journal of Food Engineering, 2019, 241, 116-126.	5.2	23
151	Reusable boxes for a beneficial apple cold chain: A precooling analysis. International Journal of Refrigeration, 2019, 106, 338-349.	3.4	23
152	Non-destructive internal disorder detection of Conference pears by semantic segmentation of X-ray CT scans using deep learning. Expert Systems With Applications, 2021, 176, 114925.	7.6	23
153	A model-based approach to develop periodic thermal treatments for surface decontamination of strawberries. Postharvest Biology and Technology, 2004, 34, 39-52.	6.0	22
154	Drying model for cylindrical pasta shapes using desorption isotherms. Journal of Food Engineering, 2008, 86, 414-421.	5.2	22
155	Airflow measurement techniques for the improvement of forced-air cooling, refrigeration and drying operations. Journal of Food Engineering, 2014, 143, 90-101.	5.2	22
156	Stochastic modelling for virtual engineering of controlled atmosphere storage of fruit. Journal of Food Engineering, 2016, 176, 77-87.	5.2	22
157	Optical coherence tomographyâ€"A review of the opportunities and challenges for postharvest quality evaluation. Postharvest Biology and Technology, 2019, 150, 9-18.	6.0	21
158	Measurement and modelling of water sorption isotherms of â€˜Conferenceâ€™ pear flesh tissue in the high humidity range. Postharvest Biology and Technology, 2004, 33, 229-241.	6.0	20
159	Design and optimization of a double-enzyme glucose assay in microfluidic lab-on-a-chip. Biomicrofluidics, 2009, 3, 44103.	2.4	20
160	Cross-scale modelling of transpiration from stomata via the leaf boundary layer. Annals of Botany, 2014, 114, 711-723.	2.9	20
161	Numerical Analysis of the Effects of Wind and Sprayer Type on Spray Distribution in Different Orchard Training Systems. Boundary-Layer Meteorology, 2015, 157, 517-535.	2.3	20
162	A two-dimensional microscale model of gas exchange during photosynthesis in maize (Zea mays L.) leaves. Plant Science, 2016, 246, 37-51.	3.6	20

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163	Inline discrete tomography system: Application to agricultural product inspection. Computers and Electronics in Agriculture, 2017, 138, 117-126.	7.7	20
164	Four hundred years of cork imaging: New advances in the characterization of the cork structure. Scientific Reports, 2019, 9, 19682.	3.3	20
165	The initiation of bud burst in grapevine features dynamic regulation of the apoplastic pore size. Journal of Experimental Botany, 2020, 71, 719-729.	4.8	20
166	Contactless and non-destructive differentiation of microstructures of sugar foams by hyperspectral scatter imaging. Innovative Food Science and Emerging Technologies, 2014, 24, 131-137.	5.6	19
167	Artificial fruit for monitoring the thermal history of horticultural produce in the cold chain. Journal of Food Engineering, 2017, 215, 51-60.	5.2	19
168	Impact of drying methods on the changes of fruit microstructure unveiled by X-ray micro-computed tomography. RSC Advances, 2019, 9, 10606-10624.	3.6	19
169	Designing Mechanical Properties of 3D Printed Cookies through Computer Aided Engineering. Foods, 2020, 9, 1804.	4.3	19
170	Modelling the Effect of Tree Foliage on Sprayer Airflow in Orchards. Boundary-Layer Meteorology, 2011, 138, 139-162.	2.3	18
171	Effect of oven and forced convection continuous tumble (FCCT) roasting on the microstructure and dry milling properties of white maize. Innovative Food Science and Emerging Technologies, 2017, 44, 54-66.	5.6	18
172	A variance propagation algorithm for stochastic heat and mass transfer problems in food processes. International Journal for Numerical Methods in Engineering, 2001, 51, 961-983.	2.8	17
173	Assessment of the abrasion potential of pesticide-treated seeds using the Heubach test. International Journal of Pest Management, 2016, 62, 348-359.	1.8	17
174	Impact of anatomical traits of maize (Zea mays L.) leaf as affected by nitrogen supply and leaf age on bundle sheath conductance. Plant Science, 2016, 252, 205-214.	3.6	16
175	A numerical evaluation of adaptive on-off cooling strategies for energy savings during long-term storage of apples. International Journal of Refrigeration, 2018, 85, 431-440.	3.4	16
176	Oxygen diffusivity mapping of fruit and vegetables based on X-ray CT. Journal of Food Engineering, 2021, 306, 110640.	5.2	16
177	Simultaneous measurement of oxygen and carbon dioxide diffusivities in pear fruit tissue using optical sensors. Journal of the Science of Food and Agriculture, 2007, 87, 1858-1867.	3.5	15
178	A Geometrical Model Generator for Quasi-Axisymmetric Biological Products. Food and Bioprocess Technology, 2014, 7, 1783-1792.	4.7	15
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