

Pieter Verboven

List of Publications by Citations

Source: <https://exaly.com/author-pdf/2175678/pieter-verboven-publications-by-citations.pdf>

Version: 2024-04-28

This document has been generated based on the publications and citations recorded by exaly.com. For the latest version of this publication list, visit the link given above.

The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

255
papers

7,379
citations

49
h-index

69
g-index

262
ext. papers

8,592
ext. citations

5.7
avg, IF

6
L-index

#	Paper	IF	Citations
255	Browning disorders in pear fruit. <i>Postharvest Biology and Technology</i> , 2007 , 43, 1-13	6.2	221
254	Three-dimensional gas exchange pathways in pome fruit characterized by synchrotron x-ray computed tomography. <i>Plant Physiology</i> , 2008 , 147, 518-27	6.6	170
253	Three-dimensional pore space quantification of apple tissue using X-ray computed microtomography. <i>Planta</i> , 2007 , 226, 559-70	4.7	167
252	A three-dimensional multiscale model for gas exchange in fruit. <i>Plant Physiology</i> , 2011 , 155, 1158-68	6.6	130
251	Characterisation of Braeburn browning disorder by means of X-ray micro-CT. <i>Postharvest Biology and Technology</i> , 2013 , 75, 114-124	6.2	120
250	CFD model of the airflow, heat and mass transfer in cool stores. <i>International Journal of Refrigeration</i> , 2005 , 28, 368-380	3.8	116
249	Nondestructive measurement of fruit and vegetable quality. <i>Annual Review of Food Science and Technology</i> , 2014 , 5, 285-312	14.7	115
248	Multiscale modeling in food engineering. <i>Journal of Food Engineering</i> , 2013 , 114, 279-291	6	108
247	Optimization of the humidification of cold stores by pressurized water atomizers based on a multiscale CFD model. <i>Journal of Food Engineering</i> , 2009 , 91, 228-239	6	99
246	Modelling transport phenomena in refrigerated food bulks, packages and stacks: basics and advances. <i>International Journal of Refrigeration</i> , 2006 , 29, 985-997	3.8	99
245	A novel type of dynamic controlled atmosphere storage based on the respiratory quotient (RQ-DCA). <i>Postharvest Biology and Technology</i> , 2016 , 115, 91-102	6.2	92
244	Pesticide-laden dust emission and drift from treated seeds during seed drilling: a review. <i>Pest Management Science</i> , 2013 , 69, 564-75	4.6	92
243	Pectin based food-ink formulations for 3-D printing of customizable porous food simulants. <i>Innovative Food Science and Emerging Technologies</i> , 2017 , 42, 138-150	6.8	88
242	Towards integrated performance evaluation of future packaging for fresh produce in the cold chain. <i>Trends in Food Science and Technology</i> , 2015 , 44, 201-225	15.3	81
241	Combined discrete element and CFD modelling of airflow through random stacking of horticultural products in vented boxes. <i>Journal of Food Engineering</i> , 2008 , 89, 33-41	6	79
240	Comparison of X-ray CT and MRI of watercore disorder of different apple cultivars. <i>Postharvest Biology and Technology</i> , 2014 , 87, 42-50	6.2	78
239	Forced-convective cooling of citrus fruit: Package design. <i>Journal of Food Engineering</i> , 2013 , 118, 8-18	6	77

238	Genotype effects on internal gas gradients in apple fruit. <i>Journal of Experimental Botany</i> , 2010 , 61, 2745-755	77
237	Forced-convective cooling of citrus fruit: Cooling conditions and energy consumption in relation to package design. <i>Journal of Food Engineering</i> , 2014 , 121, 118-127	6 75
236	The use of CFD to characterize and design post-harvest storage facilities: Past, present and future. <i>Computers and Electronics in Agriculture</i> , 2013 , 93, 184-194	6.5 72
235	Microfluidic analytical systems for food analysis. <i>Trends in Food Science and Technology</i> , 2011 , 22, 386-404	15.3 72
234	Multifractal properties of pore-size distribution in apple tissue using X-ray imaging. <i>Journal of Food Engineering</i> , 2010 , 99, 206-215	6 71
233	Investigation of far infrared radiation heating as an alternative technique for surface decontamination of strawberry. <i>Journal of Food Engineering</i> , 2007 , 79, 445-452	6 69
232	Prediction of moisture loss across the cuticle of apple (<i>Malus sylvestris</i> subsp. <i>mitis</i> (Wallr.)) during storage. <i>Postharvest Biology and Technology</i> , 2003 , 30, 75-88	6.2 68
231	Computational fluid dynamics modelling and validation of the isothermal airflow in a forced convection oven. <i>Journal of Food Engineering</i> , 2000 , 43, 41-53	6 67
230	Computational fluid dynamics modelling and validation of the temperature distribution in a forced convection oven. <i>Journal of Food Engineering</i> , 2000 , 43, 61-73	6 67
229	Synchrotron X-ray computed laminography of the three-dimensional anatomy of tomato leaves. <i>Plant Journal</i> , 2015 , 81, 169-82	6.9 65
228	Three-dimensional microscale modelling of CO ₂ transport and light propagation in tomato leaves enlightens photosynthesis. <i>Plant, Cell and Environment</i> , 2016 , 39, 50-61	8.4 64
227	Modelling fruit (micro)structures, why and how?. <i>Trends in Food Science and Technology</i> , 2008 , 19, 59-66	15.3 63
226	A permeation-diffusion-reaction model of gas transport in cellular tissue of plant materials. <i>Journal of Experimental Botany</i> , 2006 , 57, 4215-24	7 63
225	Controlled atmosphere storage may lead to local ATP deficiency in apple. <i>Postharvest Biology and Technology</i> , 2013 , 78, 103-112	6.2 62
224	A continuum model for metabolic gas exchange in pear fruit. <i>PLoS Computational Biology</i> , 2008 , 4, e1000023	10.23 62
223	Computation of airflow effects on heat and mass transfer in a microwave oven. <i>Journal of Food Engineering</i> , 2003 , 59, 181-190	6 62
222	Optical coherence tomography visualizes microstructure of apple peel. <i>Postharvest Biology and Technology</i> , 2013 , 78, 123-132	6.2 60
221	The FRISBEE tool, a software for optimising the trade-off between food quality, energy use, and global warming impact of cold chains. <i>Journal of Food Engineering</i> , 2015 , 148, 2-12	6 60

220	CFD modelling and wind tunnel validation of airflow through plant canopies using 3D canopy architecture. <i>International Journal of Heat and Fluid Flow</i> , 2009 , 30, 356-368	2.4	56
219	Modeling the propagation of light in realistic tissue structures with MMC-fpf: a meshed Monte Carlo method with free phase function. <i>Optics Express</i> , 2015 , 23, 17467-86	3.3	55
218	Integral performance evaluation of the fresh-produce cold chain: A case study for ambient loading of citrus in refrigerated containers. <i>Postharvest Biology and Technology</i> , 2016 , 112, 1-13	6.2	55
217	Microscale modeling of coupled water transport and mechanical deformation of fruit tissue during dehydration. <i>Journal of Food Engineering</i> , 2014 , 124, 86-96	6	55
216	Automatic analysis of the 3-D microstructure of fruit parenchyma tissue using X-ray micro-CT explains differences in aeration. <i>BMC Plant Biology</i> , 2015 , 15, 264	5.3	53
215	Exploration of Atmospheric Pressure Plasma Nanofilm Technology for Straightforward Bio-Active Coating Deposition: Enzymes, Plasmas and Polymers, an Elegant Synergy. <i>Plasma Processes and Polymers</i> , 2011 , 8, 965-974	3.4	52
214	Finite element modelling and MRI validation of 3D transient water profiles in pears during postharvest storage. <i>Journal of the Science of Food and Agriculture</i> , 2006 , 86, 745-756	4.3	52
213	3D printing of plant tissue for innovative food manufacturing: Encapsulation of alive plant cells into pectin based bio-ink. <i>Journal of Food Engineering</i> , 2019 , 263, 454-464	6	52
212	Convective heat and mass exchange predictions at leaf surfaces: Applications, methods and perspectives. <i>Computers and Electronics in Agriculture</i> , 2013 , 96, 180-201	6.5	51
211	Application of MRI for tissue characterisation of Braeburn apple. <i>Postharvest Biology and Technology</i> , 2013 , 75, 96-105	6.2	51
210	A novel method for 3-D microstructure modeling of pome fruit tissue using synchrotron radiation tomography images. <i>Journal of Food Engineering</i> , 2009 , 93, 141-148	6	51
209	X-ray CT for quantitative food microstructure engineering: The apple case. <i>Nuclear Instruments & Methods in Physics Research B</i> , 2014 , 324, 88-94	1.2	50
208	CFD modelling of flow and scalar exchange of spherical food products: Turbulence and boundary-layer modelling. <i>Journal of Food Engineering</i> , 2013 , 114, 495-504	6	50
207	Root aeration via aerenchymatous phellem: three-dimensional micro-imaging and radial O ₂ profiles in <i>Melilotus sicalus</i> . <i>New Phytologist</i> , 2012 , 193, 420-31	9.8	49
206	Development of a coaxial extrusion deposition for 3D printing of customizable pectin-based food simulant. <i>Journal of Food Engineering</i> , 2018 , 225, 42-52	6	48
205	A model for gas transport in pear fruit at multiple scales. <i>Journal of Experimental Botany</i> , 2010 , 61, 2071-81	6.1	48
204	Modelling airflow within model plant canopies using an integrated approach. <i>Computers and Electronics in Agriculture</i> , 2009 , 66, 9-24	6.5	48
203	Estimation of effective diffusivity of pear tissue and cuticle by means of a numerical water diffusion model. <i>Journal of Food Engineering</i> , 2006 , 72, 63-72	6	48

202	Gas diffusion properties at different positions in the pear. <i>Postharvest Biology and Technology</i> , 2006 , 41, 113-120	6.2	48
201	Feasibility of ambient loading of citrus fruit into refrigerated containers for cooling during marine transport. <i>Biosystems Engineering</i> , 2015 , 134, 20-30	4.8	47
200	Predicting drift from field spraying by means of a 3D computational fluid dynamics model. <i>Computers and Electronics in Agriculture</i> , 2007 , 56, 161-173	6.5	47
199	Modelling the forced-air cooling mechanisms and performance of polylined horticultural produce. <i>Postharvest Biology and Technology</i> , 2016 , 120, 23-35	6.2	46
198	Characterization of the 3-D microstructure of mango (<i>Mangifera indica</i> L. cv. Carabao) during ripening using X-ray computed microtomography. <i>Innovative Food Science and Emerging Technologies</i> , 2014 , 24, 28-39	6.8	46
197	A finite element model for mechanical deformation of single tomato suspension cells. <i>Journal of Food Engineering</i> , 2011 , 103, 265-272	6	46
196	Microscale modelling of fruit tissue using Voronoi tessellations. <i>Computers and Electronics in Agriculture</i> , 2006 , 52, 36-48	6.5	46
195	Prediction of moisture loss across the cuticle of apple (<i>Malus sylvestris</i> subsp. <i>mitis</i> (Wallr.)) during storage: part 2. Model simulations and practical applications. <i>Postharvest Biology and Technology</i> , 2003 , 30, 89-97	6.2	45
194	Spray deposition profiles in pome fruit trees: Effects of sprayer design, training system and tree canopy characteristics. <i>Crop Protection</i> , 2015 , 67, 200-213	2.7	44
193	The local surface heat transfer coefficient in thermal food process calculations: A CFD approach. <i>Journal of Food Engineering</i> , 1997 , 33, 15-35	6	44
192	Determination of the diffusion coefficient of tissue, cuticle, cutin and wax of apple. <i>Journal of Food Engineering</i> , 2003 , 58, 285-294	6	44
191	Ascorbic acid concentration in Cv. conference pears during fruit development and postharvest storage. <i>Journal of Agricultural and Food Chemistry</i> , 2003 , 51, 4757-63	5.7	43
190	Digital twins probe into food cooling and biochemical quality changes for reducing losses in refrigerated supply chains. <i>Resources, Conservation and Recycling</i> , 2019 , 149, 778-794	11.9	42
189	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. <i>Computers and Electronics in Agriculture</i> , 2010 , 71, 128-136	6.5	42
188	Microstructure-texture relationships of aerated sugar gels: Novel measurement techniques for analysis and control. <i>Innovative Food Science and Emerging Technologies</i> , 2013 , 18, 202-211	6.8	41
187	Void space inside the developing seed of <i>Brassica napus</i> and the modelling of its function. <i>New Phytologist</i> , 2013 , 199, 936-947	9.8	40
186	Evaluation of a chicory root cold store humidification system using computational fluid dynamics. <i>Journal of Food Engineering</i> , 2009 , 94, 110-121	6	40
185	Convective heat and mass exchange at surfaces of horticultural products: A microscale CFD modelling approach. <i>Agricultural and Forest Meteorology</i> , 2012 , 162-163, 71-84	5.8	39

184	Modeling of Coupled Water Transport and Large Deformation During Dehydration of Apple Tissue. <i>Food and Bioprocess Technology</i> , 2013 , 6, 1963-1978	5.1	38
183	Modelling pesticide flow and deposition from air-assisted orchard spraying in orchards: A new integrated CFD approach. <i>Agricultural and Forest Meteorology</i> , 2010 , 150, 1383-1392	5.8	38
182	Model-based design and validation of food texture of 3D printed pectin-based food simulants. <i>Journal of Food Engineering</i> , 2018 , 231, 72-82	6	37
181	Convective drying of fruit: Role and impact of moisture transport properties in modelling. <i>Journal of Food Engineering</i> , 2017 , 193, 95-107	6	37
180	Numerical analysis of the propagation of random parameter fluctuations in time and space during thermal food processes. <i>Journal of Food Engineering</i> , 1998 , 38, 259-278	6	36
179	Digital twins of food process operations: the next step for food process models?. <i>Current Opinion in Food Science</i> , 2020 , 35, 79-87	9.8	35
178	CFD prototyping of an air-assisted orchard sprayer aimed at drift reduction. <i>Computers and Electronics in Agriculture</i> , 2007 , 55, 16-27	6.5	35
177	A new integrated CFD modelling approach towards air-assisted orchard spraying Part II: Validation for different sprayer types. <i>Computers and Electronics in Agriculture</i> , 2010 , 71, 137-147	6.5	34
176	Assessment of bruise volumes in apples using X-ray computed tomography. <i>Postharvest Biology and Technology</i> , 2017 , 128, 24-32	6.2	33
175	Assessment of orchard sprayers using laboratory experiments and computational fluid dynamics modelling. <i>Biosystems Engineering</i> , 2013 , 114, 157-169	4.8	33
174	Exploring ambient loading of citrus fruit into reefer containers for cooling during marine transport using computational fluid dynamics. <i>Postharvest Biology and Technology</i> , 2015 , 108, 91-101	6.2	32
173	Localization of (photo)respiration and CO ₂ re-assimilation in tomato leaves investigated with a reaction-diffusion model. <i>PLoS ONE</i> , 2017 , 12, e0183746	3.7	32
172	Characterisation of structural patterns in bread as evaluated by X-ray computer tomography. <i>Journal of Food Engineering</i> , 2014 , 123, 67-77	6	31
171	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. <i>Innovative Food Science and Emerging Technologies</i> , 2014 , 24, 121-130	6.8	31
170	Virtual Fruit Tissue Generation Based on Cell Growth Modelling. <i>Food and Bioprocess Technology</i> , 2013 , 6, 859-869	5.1	31
169	Microscale modeling of water transport in fruit tissue. <i>Journal of Food Engineering</i> , 2013 , 118, 229-237	6	31
168	Postharvest precooling of fruit and vegetables: A review. <i>Trends in Food Science and Technology</i> , 2020 , 100, 278-291	15.3	30
167	The impact and retention of spray droplets on a horizontal hydrophobic surface. <i>Biosystems Engineering</i> , 2014 , 126, 82-91	4.8	30

166	Acoustic, mechanical and microstructural properties of extruded crisp bread. <i>Journal of Cereal Science</i> , 2013 , 58, 132-139	3.8	30
165	A new method developed to characterize the 3D microstructure of frozen apple using X-ray micro-CT. <i>Journal of Food Engineering</i> , 2017 , 212, 154-164	6	30
164	Virtual cold chain method to model the postharvest temperature history and quality evolution of fresh fruit – A case study for citrus fruit packed in a single carton. <i>Computers and Electronics in Agriculture</i> , 2018 , 144, 199-208	6.5	29
163	Dehydration of apple tissue: Intercomparison of neutron tomography with numerical modelling. <i>International Journal of Heat and Mass Transfer</i> , 2013 , 67, 173-182	4.9	29
162	Spatial development of transport structures in apple (<i>Malus domestica</i> Borkh.) fruit. <i>Frontiers in Plant Science</i> , 2015 , 6, 679	6.2	29
161	Prediction of water loss from pears (<i>Pyrus communis</i> cv. Conference) during controlled atmosphere storage as affected by relative humidity. <i>Journal of Food Engineering</i> , 2007 , 83, 149-155	6	29
160	Probing inside fruit slices during convective drying by quantitative neutron imaging. <i>Journal of Food Engineering</i> , 2016 , 178, 198-202	6	28
159	The mechanism of improved aeration due to gas films on leaves of submerged rice. <i>Plant, Cell and Environment</i> , 2014 , 37, 2433-52	8.4	28
158	Microstructural characterisation of commercial kiwifruit cultivars using X-ray micro computed tomography. <i>Postharvest Biology and Technology</i> , 2014 , 92, 79-86	6.2	28
157	Computation of mass transport properties of apple and rice from X-ray microtomography images. <i>Innovative Food Science and Emerging Technologies</i> , 2014 , 24, 14-27	6.8	28
156	CFD Modelling of the 3D Spatial and Temporal Distribution of 1-methylcyclopropene in a Fruit Storage Container. <i>Food and Bioprocess Technology</i> , 2013 , 6, 2235-2250	5.1	28
155	Analysis of the spatiotemporal temperature fluctuations inside an apple cool store in response to energy use concerns. <i>International Journal of Refrigeration</i> , 2016 , 66, 156-168	3.8	27
154	Water transport properties of artificial cell walls. <i>Journal of Food Engineering</i> , 2012 , 108, 393-402	6	27
153	Quantitative 3D shape description of dust particles from treated seeds by means of X-ray micro-CT. <i>Environmental Science & Technology</i> , 2015 , 49, 7310-8	10.3	25
152	A segmentation and classification algorithm for online detection of internal disorders in citrus using X-ray radiographs. <i>Postharvest Biology and Technology</i> , 2016 , 112, 205-214	6.2	25
151	Stomatal transpiration and droplet evaporation on leaf surfaces by a microscale modelling approach. <i>International Journal of Heat and Mass Transfer</i> , 2013 , 65, 180-191	4.9	25
150	A 3D contour based geometrical model generator for complex-shaped horticultural products. <i>Journal of Food Engineering</i> , 2015 , 157, 24-32	6	24
149	Prediction of water loss and viscoelastic deformation of apple tissue using a multiscale model. <i>Journal of Physics Condensed Matter</i> , 2014 , 26, 464111	1.8	24

148	Surface heat transfer coefficients to stationary spherical particles in an experimental unit for hydrofluidisation freezing of individual foods. <i>International Journal of Refrigeration</i> , 2003 , 26, 328-336	3.8	24
147	Forced-air cooling of polylined horticultural produce: Optimal cooling conditions and package design. <i>Postharvest Biology and Technology</i> , 2017 , 126, 67-75	6.2	23
146	Novel Application of Neutron Radiography to Forced Convective Drying of Fruit Tissue. <i>Food and Bioprocess Technology</i> , 2013 , 6, 3353-3367	5.1	23
145	Porous medium modeling and parameter sensitivity analysis of 1-MCP distribution in boxes with apple fruit. <i>Journal of Food Engineering</i> , 2013 , 119, 13-21	6	23
144	Modeling the diffusion-adsorption kinetics of 1-methylcyclopropene (1-MCP) in apple fruit and non-target materials in storage rooms. <i>Journal of Food Engineering</i> , 2011 , 102, 257-265	6	23
143	Digital twins are coming: Will we need them in supply chains of fresh horticultural produce?. <i>Trends in Food Science and Technology</i> , 2021 , 109, 245-258	15.3	23
142	Microstructure analysis and detection of mealiness in Borelle pear (<i>Pyrus communis</i> L.) by means of X-ray computed tomography. <i>Postharvest Biology and Technology</i> , 2016 , 120, 145-156	6.2	23
141	Modelling the relationship between CO ₂ assimilation and leaf anatomical properties in tomato leaves. <i>Plant Science</i> , 2015 , 238, 297-311	5.3	22
140	Modelling Cooling of Packaged Fruit Using 3D Shape Models. <i>Food and Bioprocess Technology</i> , 2018 , 11, 2008-2020	5.1	22
139	Non-destructive porosity mapping of fruit and vegetables using X-ray CT. <i>Postharvest Biology and Technology</i> , 2019 , 150, 80-88	6.2	22
138	Visualizing 3D Food Microstructure Using Tomographic Methods: Advantages and Disadvantages. <i>Annual Review of Food Science and Technology</i> , 2018 , 9, 323-343	14.7	21
137	Drying model for cylindrical pasta shapes using desorption isotherms. <i>Journal of Food Engineering</i> , 2008 , 86, 414-421	6	21
136	Analysis of fluid flow and reaction kinetics in a flow injection analysis biosensor. <i>Sensors and Actuators B: Chemical</i> , 2006 , 114, 728-736	8.5	21
135	A Combined Electromagnetic and Heat Transfer Model for Heating of Foods in Microwave Combination Ovens. <i>Journal of Microwave Power and Electromagnetic Energy</i> , 2002 , 37, 97-111	1.4	21
134	Propagation of stochastic temperature fluctuations in refrigerated fruits: Propagation des fluctuations de température stochastiques dans des fruits réfrigérés. <i>International Journal of Refrigeration</i> , 1999 , 22, 81-90	3.8	21
133	A microscale model for combined CO ₂ diffusion and photosynthesis in leaves. <i>PLoS ONE</i> , 2012 , 7, e48336	3.7	21
132	Quantitative neutron imaging of water distribution, venation network and sap flow in leaves. <i>Planta</i> , 2014 , 240, 423-36	4.7	20
131	Characterising kiwifruit (<i>Actinidia</i> sp.) near skin cellular structures using optical coherence tomography. <i>Postharvest Biology and Technology</i> , 2015 , 110, 247-256	6.2	19

130	Airflow measurement techniques for the improvement of forced-air cooling, refrigeration and drying operations. <i>Journal of Food Engineering</i> , 2014 , 143, 90-101	6	19
129	CFD model development and validation of a thermonebulisation fungicide fogging system for postharvest storage of fruit. <i>Journal of Food Engineering</i> , 2012 , 108, 59-68	6	19
128	A Multiphase Pore Scale Network Model of Gas Exchange in Apple Fruit. <i>Food and Bioprocess Technology</i> , 2014 , 7, 482-495	5.1	19
127	Design and optimization of a double-enzyme glucose assay in microfluidic lab-on-a-chip. <i>Biomicrofluidics</i> , 2009 , 3, 44103	3.2	19
126	Development of a visco-elastoplastic contact force model and its parameter determination for apples. <i>Postharvest Biology and Technology</i> , 2016 , 120, 157-166	6.2	19
125	Stochastic modelling for virtual engineering of controlled atmosphere storage of fruit. <i>Journal of Food Engineering</i> , 2016 , 176, 77-87	6	18
124	Contrast-enhanced 3D micro-CT of plant tissues using different impregnation techniques. <i>Plant Methods</i> , 2017 , 13, 105	5.8	18
123	Down-regulation of respiration in pear fruit depends on temperature. <i>Journal of Experimental Botany</i> , 2018 , 69, 2049-2060	7	18
122	Optical properties-microstructure-texture relationships of dried apple slices: Spatially resolved diffuse reflectance spectroscopy as a novel technique for analysis and process control. <i>Innovative Food Science and Emerging Technologies</i> , 2014 , 21, 160-168	6.8	18
121	Development and validation of a 3D CFD model of drift and its application to air-assisted orchard sprayers. <i>Biosystems Engineering</i> , 2017 , 154, 62-75	4.8	18
120	In-line NDT with X-Ray CT combining sample rotation and translation. <i>NDT and E International</i> , 2016 , 84, 89-98	4.1	18
119	3D pore structure analysis of intact Braeburn apples using X-ray micro-CT. <i>Postharvest Biology and Technology</i> , 2020 , 159, 111014	6.2	18
118	Microstructure affects light scattering in apples. <i>Postharvest Biology and Technology</i> , 2020 , 159, 110996	6.2	18
117	A two-dimensional microscale model of gas exchange during photosynthesis in maize (<i>Zea mays</i> L.) leaves. <i>Plant Science</i> , 2016 , 246, 37-51	5.3	17
116	Tissue breakdown of mango (<i>Mangifera indica</i> L. cv. Carabao) due to chilling injury. <i>Postharvest Biology and Technology</i> , 2017 , 125, 99-111	6.2	17
115	Measurement and modelling of water sorption isotherms of Conference pear flesh tissue in the high humidity range. <i>Postharvest Biology and Technology</i> , 2004 , 33, 229-241	6.2	17
114	Effect of dynamic storage temperatures on the microstructure of frozen carrot imaged using X-ray micro-CT. <i>Journal of Food Engineering</i> , 2019 , 246, 232-241	6	17
113	Multisensor X-ray inspection of internal defects in horticultural products. <i>Postharvest Biology and Technology</i> , 2017 , 128, 33-43	6.2	16

112	Combination of shape and X-ray inspection for apple internal quality control: in silico analysis of the methodology based on X-ray computed tomography. <i>Postharvest Biology and Technology</i> , 2019 , 148, 218-227	6.2	16
111	CFD-Based Analysis of 1-MCP Distribution in Commercial Cool Store Rooms: Porous Medium Model Application. <i>Food and Bioprocess Technology</i> , 2014 , 7, 1903-1916	5.1	16
110	New insights into the apple fruit dehydration process at the cellular scale by 3D continuum modeling. <i>Journal of Food Engineering</i> , 2018 , 239, 52-63	6	15
109	A Geometrical Model Generator for Quasi-Axisymmetric Biological Products. <i>Food and Bioprocess Technology</i> , 2014 , 7, 1783-1792	5.1	15
108	Cross-scale modelling of transpiration from stomata via the leaf boundary layer. <i>Annals of Botany</i> , 2014 , 114, 711-23	4.1	15
107	Effect of oven and forced convection continuous tumble (FCCT) roasting on the microstructure and dry milling properties of white maize. <i>Innovative Food Science and Emerging Technologies</i> , 2017 , 44, 54-66	6.8	15
106	3D Virtual Pome Fruit Tissue Generation Based on Cell Growth Modeling. <i>Food and Bioprocess Technology</i> , 2014 , 7, 542-555	5.1	15
105	A model-based approach to develop periodic thermal treatments for surface decontamination of strawberries. <i>Postharvest Biology and Technology</i> , 2004 , 34, 39-52	6.2	15
104	A variance propagation algorithm for stochastic heat and mass transfer problems in food processes. <i>International Journal for Numerical Methods in Engineering</i> , 2001 , 51, 961-983	2.4	15
103	Inline discrete tomography system: Application to agricultural product inspection. <i>Computers and Electronics in Agriculture</i> , 2017 , 138, 117-126	6.5	14
102	CFD modeling of industrial cooling of large beef carcasses. <i>International Journal of Refrigeration</i> , 2016 , 69, 324-339	3.8	14
101	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. <i>Food Packaging and Shelf Life</i> , 2019 , 21, 100369	8.2	14
100	Modelling the Effect of Tree Foliage on Sprayer Airflow in Orchards. <i>Boundary-Layer Meteorology</i> , 2011 , 138, 139-162	3.4	14
99	3D Printing of Monolithic Capillarity-Driven Microfluidic Devices for Diagnostics. <i>Advanced Materials</i> , 2021 , 33, e2008712	24	14
98	X-ray microtomography provides new insights into vacuum impregnation of spinach leaves. <i>Journal of Food Engineering</i> , 2016 , 188, 50-57	6	13
97	Reusable boxes for a beneficial apple cold chain: A precooling analysis. <i>International Journal of Refrigeration</i> , 2019 , 106, 338-349	3.8	12
96	Contactless and non-destructive differentiation of microstructures of sugar foams by hyperspectral scatter imaging. <i>Innovative Food Science and Emerging Technologies</i> , 2014 , 24, 131-137	6.8	12
95	A plant cell division algorithm based on cell biomechanics and ellipse-fitting. <i>Annals of Botany</i> , 2014 , 114, 605-17	4.1	12

94	Quality changes kinetics of apple tissue during frozen storage with temperature fluctuations. <i>International Journal of Refrigeration</i> , 2018 , 92, 165-175	3.8	12
93	Impact of drying methods on the changes of fruit microstructure unveiled by X-ray micro-computed tomography.. <i>RSC Advances</i> , 2019 , 9, 10606-10624	3.7	11
92	Wind tunnel and CFD study of dust dispersion from pesticide-treated maize seed. <i>Computers and Electronics in Agriculture</i> , 2016 , 128, 27-33	6.5	11
91	Assessment of the abrasion potential of pesticide-treated seeds using the Heubach test. <i>International Journal of Pest Management</i> , 2016 , 62, 348-359	1.5	11
90	Mimicking 3D food microstructure using limited statistical information from 2D cross-sectional image. <i>Journal of Food Engineering</i> , 2019 , 241, 116-126	6	11
89	Numerical Analysis of the Effects of Wind and Sprayer Type on Spray Distribution in Different Orchard Training Systems. <i>Boundary-Layer Meteorology</i> , 2015 , 157, 517-535	3.4	11
88	Modeling and optimization of a multi-enzyme electrokinetically driven multiplexed microchip for simultaneous detection of sugars. <i>Microfluidics and Nanofluidics</i> , 2009 , 7, 393-406	2.8	11
87	Simultaneous measurement of ethane diffusivity and skin resistance of D'Elton apples by efflux experiment. <i>Journal of Food Engineering</i> , 2009 , 95, 471-478	6	11
86	Simultaneous measurement of oxygen and carbon dioxide diffusivities in pear fruit tissue using optical sensors. <i>Journal of the Science of Food and Agriculture</i> , 2007 , 87, 1858-1867	4.3	11
85	MONTE CARLO SIMULATION OF FAR INFRARED RADIATION HEAT TRANSFER: THEORETICAL APPROACH. <i>Journal of Food Process Engineering</i> , 2006 , 29, 349-361	2.4	11
84	X-ray computed tomography for 3D plant imaging. <i>Trends in Plant Science</i> , 2021 , 26, 1171-1185	13.1	11
83	Nondestructive internal quality inspection of pear fruit by X-ray CT using machine learning. <i>Food Control</i> , 2020 , 113, 107170	6.2	10
82	Model based leak correction of real-time RQ measurement for dynamic controlled atmosphere storage. <i>Postharvest Biology and Technology</i> , 2018 , 136, 31-41	6.2	10
81	Effect of box materials on the distribution of 1-MCP gas during cold storage: A CFD study. <i>Journal of Food Engineering</i> , 2013 , 119, 150-158	6	10
80	The predictive power of batter rheological properties on cake 'quality'-The effect of pregelatinized flour, leavening acid type and mixing time. <i>Journal of Cereal Science</i> , 2017 , 77, 219-227	3.8	10
79	Effect of picking date, time and temperature on water sorption of Conference pear tissue. <i>Postharvest Biology and Technology</i> , 2004 , 33, 243-253	6.2	10
78	Fast inline inspection by Neural Network Based Filtered Backprojection: Application to apple inspection. <i>Case Studies in Nondestructive Testing and Evaluation</i> , 2016 , 6, 14-20		10
77	Optical coherence tomography: A review of the opportunities and challenges for postharvest quality evaluation. <i>Postharvest Biology and Technology</i> , 2019 , 150, 9-18	6.2	10

76	Comparison of spectral properties of three hyperspectral imaging (HSI) sensors in evaluating main chemical compositions of cured pork. <i>Journal of Food Engineering</i> , 2019 , 261, 100-108	6	9
75	Pore network model for permeability characterization of three-dimensionally-printed porous materials for passive microfluidics. <i>Physical Review E</i> , 2019 , 99, 033107	2.4	9
74	A numerical evaluation of adaptive on-off cooling strategies for energy savings during long-term storage of apples. <i>International Journal of Refrigeration</i> , 2018 , 85, 431-440	3.8	9
73	Artificial fruit for monitoring the thermal history of horticultural produce in the cold chain. <i>Journal of Food Engineering</i> , 2017 , 215, 51-60	6	9
72	Simultaneous measurement of neon diffusivity and skin resistance of Braeburn and Jonica apples. <i>Postharvest Biology and Technology</i> , 2008 , 50, 53-63	6.2	9
71	Design optimization of an enzymatic assay in an electrokinetically-driven microfluidic device. <i>Microfluidics and Nanofluidics</i> , 2008 , 5, 837-849	2.8	9
70	Designing Mechanical Properties of 3D Printed Cookies through Computer Aided Engineering. <i>Foods</i> , 2020 , 9,	4.9	9
69	The initiation of bud burst in grapevine features dynamic regulation of the apoplastic pore size. <i>Journal of Experimental Botany</i> , 2020 , 71, 719-729	7	9
68	Investigation of the metabolic consequences of impregnating spinach leaves with trehalose and applying a pulsed electric field. <i>Bioelectrochemistry</i> , 2016 , 112, 153-7	5.6	8
67	Investigating the performance of thermonebulisation fungicide fogging system for loaded fruit storage room using CFD model. <i>Journal of Food Engineering</i> , 2012 , 109, 87-97	6	8
66	Design of a flow-controlled asymmetric droplet splitter using computational fluid dynamics. <i>Microfluidics and Nanofluidics</i> , 2013 , 15, 243-252	2.8	8
65	Impact of anatomical traits of maize (<i>Zea mays</i> L.) leaf as affected by nitrogen supply and leaf age on bundle sheath conductance. <i>Plant Science</i> , 2016 , 252, 205-214	5.3	8
64	Four hundred years of cork imaging: New advances in the characterization of the cork structure. <i>Scientific Reports</i> , 2019 , 9, 19682	4.9	8
63	Neural network Hilbert transform based filtered backprojection for fast inline x-ray inspection. <i>Measurement Science and Technology</i> , 2018 , 29, 034012	2	8
62	Characteristics of dust particles abraded from pesticide treated seeds: 1. Size distribution using different measuring techniques. <i>Pest Management Science</i> , 2017 , 73, 1310-1321	4.6	7
61	Characteristics of dust particles abraded from pesticide treated seeds: 2. Density, porosity and chemical content. <i>Pest Management Science</i> , 2017 , 73, 1322-1333	4.6	7
60	Spatial distribution of gas concentrations and RQ in a controlled atmosphere storage container with pear fruit in very low oxygen conditions. <i>Postharvest Biology and Technology</i> , 2019 , 156, 110903	6.2	7
59	Eulerian-Lagrangian CFD modelling of pesticide dust emissions from maize planters. <i>Atmospheric Environment</i> , 2018 , 184, 304-314	5.3	7

58	Modelling postmortem evolution of pH in beef M. under two different cooling regimes. <i>Journal of Food Science and Technology</i> , 2018 , 55, 233-243	3.3	7
57	To disinfect or not to disinfect in postharvest research on the fungal decay of apple?. <i>International Journal of Food Microbiology</i> , 2018 , 266, 190-199	5.8	7
56	Comparing different techniques to assess the risk of dust drift from pesticide-coated seeds. <i>Pest Management Science</i> , 2017 , 73, 1908-1920	4.6	6
55	Understanding forced convective drying of apple tissue: Combining neutron radiography and numerical modelling. <i>Innovative Food Science and Emerging Technologies</i> , 2014 , 24, 97-105	6.8	6
54	Characterizing apple microstructure via directional statistical correlation functions. <i>Computers and Electronics in Agriculture</i> , 2017 , 138, 157-166	6.5	5
53	Building 3D Statistical Shape Models of Horticultural Products. <i>Food and Bioprocess Technology</i> , 2017 , 10, 2100-2112	5.1	5
52	Non-destructive internal disorder detection of Conference pears by semantic segmentation of X-ray CT scans using deep learning. <i>Expert Systems With Applications</i> , 2021 , 176, 114925	7.8	5
51	Reprint of "Optical properties-microstructure-texture relationships of dried apple slices: Spatially resolved diffuse reflectance spectroscopy as a novel technique for analysis and process control". <i>Innovative Food Science and Emerging Technologies</i> , 2014 , 24, 145-153	6.8	4
50	Differentiation of microstructures of sugar foams by means of spatially resolved spectroscopy 2012 ,		4
49	MODELLING TURBULENT AIR FLOW IN COOL ROOMS FOR HORTICULTURAL PRODUCTS. <i>Acta Horticulturae</i> , 2003 , 435-441	0.3	4
48	X-ray CT and porosity mapping to determine the effect of Fuji apple morphological and microstructural properties on the incidence of CO2 induced internal browning. <i>Postharvest Biology and Technology</i> , 2021 , 174, 111464	6.2	4
47	In silico study of the role of cell growth factors in photosynthesis using a virtual leaf tissue generator coupled to a microscale photosynthesis gas exchange model. <i>Journal of Experimental Botany</i> , 2020 , 71, 997-1009	7	4
46	Oxygen diffusivity mapping of fruit and vegetables based on X-ray CT. <i>Journal of Food Engineering</i> , 2021 , 306, 110640	6	4
45	Moisture barriers to control drying of fresh-cut fruit: Quantifying their impact by modeling. <i>Food and Bioprocess Technology</i> , 2017 , 101, 205-213	4.9	3
44	4D synchrotron microtomography and pore-network modelling for direct in situ capillary flow visualization in 3D printed microfluidic channels. <i>Lab on A Chip</i> , 2020 , 20, 2403-2411	7.2	3
43	3-D microstructural changes in relation to the evolution of quality during ripening of mango (<i>Mangifera indica</i> L. cv. Carabao). <i>Journal of the Science of Food and Agriculture</i> , 2020 , 100, 5207-5221	4.3	3
42	Modeling ice recrystallization in frozen carrot tissue during storage under dynamic temperature conditions. <i>Journal of Food Engineering</i> , 2020 , 278, 109911	6	3
41	Transport properties of fermentation metabolites inside Conference pear fruit. <i>Postharvest Biology and Technology</i> , 2016 , 117, 38-48	6.2	3

40	Multiscale modelling of postharvest storage of fruit and vegetables in a plant factory context. <i>IFAC Postprint Volumes IPPV / International Federation of Automatic Control</i> , 2011 , 44, 616-620		3
39	Non-destructive Evaluation 2009 , 421-441		3
38	A continuous/discrete simulation of controlled atmosphere (CA) cool storage systems: validation using industrial CA cool storage. <i>International Journal of Refrigeration</i> , 2005 , 28, 461-470	3.8	3
37	Extending 3D food printing application: Apple tissue microstructure as a digital model to create innovative cereal-based snacks. <i>Journal of Food Engineering</i> , 2022 , 316, 110845	6	3
36	Measurement and visualization of food microstructure 2018 , 3-28		3
35	Effect of Product Microstructure and Process Parameters on Modified Atmosphere Packaged Bread. <i>Food and Bioprocess Technology</i> , 2017 , 10, 328-339	5.1	2
34	Experimental and numerical analysis of the spray application on apple fruit in a bin for postharvest treatments. <i>Journal of Food Engineering</i> , 2017 , 202, 34-45	6	2
33	Applications of CT for Non-destructive Testing and Materials Characterization 2018 , 267-331		2
32	Dust Emission from Pesticide Treated Seeds During Seed Drilling. <i>Outlooks on Pest Management</i> , 2015 , 26, 215-219	1.7	2
31	Neural network based X-ray tomography for fast inspection of apples on a conveyor belt system 2015 ,		2
30	Sequential enzymatic quantification of two sugars in a single microchannel. <i>Microfluidics and Nanofluidics</i> , 2012 , 12, 779-786	2.8	2
29	Food Quality Control by Combining Light Propagation Models with Multiple vis/NIR Reflectance Measurements. <i>NIR News</i> , 2011 , 22, 14-16	0.8	2
28	A continuous/discrete simulation of controlled atmosphere (CA) cool storage systems: evaluation of plant performance/design and product quality evolution. <i>International Journal of Refrigeration</i> , 2005 , 28, 471-480	3.8	2
27	Optimizing precooling of large beef carcasses using a comprehensive computational fluid dynamics model. <i>Journal of Food Process Engineering</i> , 2019 , 42, e13053	2.4	1
26	Exploiting phase change materials in tunable passive heating system for low-resource point-of-care diagnostics. <i>Applied Thermal Engineering</i> , 2020 , 173, 115269	5.8	1
25	Non-Destructive Evaluation 2014 , 363-385		1
24	Gas Exchange Modeling 2009 ,		1
23	CFD Design and Optimization of Biosensors for the Food Industry. <i>Contemporary Food Engineering</i> , 2007 , 631-648		1

22	Hypoxic Storage of Fruit. <i>Plant Cell Monographs</i> , 2014 , 353-369	0.6	1
21	Fruit Microstructure Evaluation Using Synchrotron X-Ray Computed Tomography. <i>Food Engineering Series</i> , 2010 , 589-598	0.5	1
20	Size does matter Susceptibility of apple for grey mould is affected by cell size. <i>Plant Pathology</i> , 2020 , 69, 60-67	2.8	1
19	Revealing shape variability and cultivar effects on cooling of packaged fruit by combining CT-imaging with explicit CFD modelling. <i>Postharvest Biology and Technology</i> , 2020 , 162, 111098	6.2	1
18	Multiscale Modeling of Food Processes 2016 ,		1
17	Determination of Forced Convective Heat Transfer Coefficients on an Array of Disks. <i>Heat Transfer Engineering</i> , 1-13	1.7	1
16	Microstructural changes enhance oxygen transport in tomato (<i>Solanum lycopersicum</i>) fruit during maturation and ripening. <i>New Phytologist</i> , 2021 , 232, 2043-2056	9.8	1
15	Inline nondestructive internal disorder detection in pear fruit using explainable deep anomaly detection on X-ray images. <i>Computers and Electronics in Agriculture</i> , 2022 , 197, 106962	6.5	1
14	Digital twins in quality engineering. <i>Quality Engineering</i> , 1-5	1.4	1
13	Mathematical modeling Computer-aided food engineering 2022 , 277-290		0
12	Optimisation of onion bulb curing using a heat and mass transfer model. <i>Biosystems Engineering</i> , 2022 , 214, 42-57	4.8	0
11	Numerical and experimental study of airflow resistance across an array of sliced food items during drying. <i>Journal of Food Engineering</i> , 2022 , 312, 110739	6	0
10	Multiscale modelling of capillary imbibition in 3D-printed porous microfluidic channels. <i>Microfluidics and Nanofluidics</i> , 2022 , 26, 1	2.8	0
9	Gas exchange model using heterogeneous diffusivity to study internal browning in pear. <i>Postharvest Biology and Technology</i> , 2022 , 191, 111985	6.2	0
8	Multiscale Modeling of Transport Phenomena in Plant-Based Foods 2014 , 469-492		
7	Thermal Process Calculations 2010 , 1688-1694		
6	Biosensors: A Theoretical Approach to Understanding Practical Systems 283-319		
5	Computation of Airflow Effects in Microwave and Combination Heating. <i>Contemporary Food Engineering</i> , 2007 , 313-330		

- 4 Nondestructive evaluation: detection of external and internal attributes frequently associated with quality and damage **2022**, 399-433
- 3 Drying banana seeds for conservation. **2022**, 10, coab099
- 2 Multiscale Modeling of Transport Phenomena in Plant-Based Foods 469-492
- 1 Microfluidic Devices: 3D Printing of Monolithic Capillarity-Driven Microfluidic Devices for Diagnostics (Adv. Mater. 25/2021). *Advanced Materials*, **2021**, 33, 2170192 24