Bart M Nicolai

List of Publications by Year
in descending order

467	20,061	13099 68	24982 109
papers	citations	h-index	g-index

476	476	476	11967
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Nondestructive measurement of fruit and vegetable quality by means of NIR spectroscopy: A review. Postharvest Biology and Technology, 2007, 46, 99-118.	6.0	1,718
2	NIR Spectroscopy Applications for Internal and External Quality Analysis of Citrus Fruitâ€"A Review. Food and Bioprocess Technology, 2012, 5, 425-444.	4.7	371
3	Browning disorders in pear fruit. Postharvest Biology and Technology, 2007, 43, 1-13.	6.0	281
4	NON-DESTRUCTIVE MEASUREMENT OF ACIDITY, SOLUBLE SOLIDS, AND FIRMNESS OF JONAGOLD APPLES USING NIR-SPECTROSCOPY. Transactions of the American Society of Agricultural Engineers, 1998, 41, 1089-1094.	0.9	242
5	Postharvest quality of apple predicted by NIR-spectroscopy: Study of the effect of biological variability on spectra and model performance. Postharvest Biology and Technology, 2010, 55, 133-143.	6.0	227
6	Three-dimensional pore space quantification of apple tissue using X-ray computed microtomography. Planta, 2007, 226, 559-570.	3.2	189
7	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
8	Sensors for product characterization and quality of specialty cropsâ€"A review. Computers and Electronics in Agriculture, 2010, 74, 176-194.	7.7	182
9	Impact damage of apples during transport and handling. Postharvest Biology and Technology, 2007, 45, 157-167.	6.0	177
10	Non-destructive measurement of bitter pit in apple fruit using NIR hyperspectral imaging. Postharvest Biology and Technology, 2006, 40, 1-6.	6.0	164
11	A Three-Dimensional Multiscale Model for Gas Exchange in Fruit Â Â Â. Plant Physiology, 2011, 155, 1158-1168.	4.8	152
12	Nondestructive Measurement of Fruit and Vegetable Quality. Annual Review of Food Science and Technology, 2014, 5, 285-312.	9.9	151
13	Time-resolved and continuous wave NIR reflectance spectroscopy to predict soluble solids content and firmness of pear. Postharvest Biology and Technology, 2008, 47, 68-74.	6.0	145
14	CFD model of the airflow, heat and mass transfer in cool stores. International Journal of Refrigeration, 2005, 28, 368-380.	3.4	144
15	Characterisation of â€˜Braeburnâ€™ browning disorder by means of X-ray micro-CT. Postharvest Biology and Technology, 2013, 75, 114-124.	6.0	144
16	Multiscale modeling in food engineering. Journal of Food Engineering, 2013, 114, 279-291.	5.2	141
17	Metabolic characterization of tomato fruit during preharvest development, ripening, and postharvest shelf-life. Postharvest Biology and Technology, 2011, 62, 7-16.	6.0	136
18	Optical properties of apple skin and flesh in the wavelength range from 350 to 2200 nm. Applied Optics, 2008, 47, 908.	2.1	134

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19	Metabolic profiling of â€˜Conferenceâ€™ pears under low oxygen stress. Postharvest Biology and Technology, 2009, 51, 123-130.	6.0	133
20	Pectin modifications and the role of pectin-degrading enzymes during postharvest softening of Jonagold apples. Food Chemistry, 2014, 158, 283-291.	8.2	130
21	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
22	Climacteric or non-climacteric behavior in melon fruit. Postharvest Biology and Technology, 2008, 49, 27-37.	6.0	126
23	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
24	Protocol: An updated integrated methodology for analysis of metabolites and enzyme activities of ethylene biosynthesis. Plant Methods, 2011, 7, 17.	4.3	123
25	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
26	Kernel PLS regression on wavelet transformed NIR spectra for prediction of sugar content of apple. Chemometrics and Intelligent Laboratory Systems, 2007, 85, 243-252.	3.5	122
27	Dynamic mathematical model to predict microbial growth and inactivation during food processing. Applied and Environmental Microbiology, 1992, 58, 2901-2909.	3.1	120
28	Influence of storage conditions of apples on growth and patulin production by Penicillium expansum. International Journal of Food Microbiology, 2007, 119, 170-181.	4.7	114
29	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
30	Modelling transport phenomena in refrigerated food bulks, packages and stacks: basics and advances. International Journal of Refrigeration, 2006, 29, 985-997.	3.4	111
31	Instrumental measurement of beer taste attributes using an electronic tongue. Analytica Chimica Acta, 2009, 646, 111-118.	5.4	105
32	Targeted Systems Biology Profiling of Tomato Fruit Reveals Coordination of the Yang Cycle and a Distinct Regulation of Ethylene Biosynthesis during Postclimacteric Ripening Â Â Â. Plant Physiology, 2012, 160, 1498-1514.	4.8	104
33	Forced-convective cooling of citrus fruit: Package design. Journal of Food Engineering, 2013, 118, 8-18.	5.2	103
34	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
35	MRI and x-ray CT study of spatial distribution of core breakdown in â€˜Conferenceâ€™ pears. Magnetic Resonance Imaging, 2003, 21, 805-815.	1.8	102
36	The electronic tongue and ATRâ€“FTIR for rapid detection of sugars and acids in tomatoes. Sensors and Actuators B: Chemical, 2006, 116, 107-115.	7.8	101

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37	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
38	Multivariate calibration of spectroscopic sensors for postharvest quality evaluation: A review. Postharvest Biology and Technology, 2019, 158, 110981.	6.0	98
39	Analysis of tomato taste using two types of electronic tongues. Sensors and Actuators B: Chemical, 2008, 131, 10-17.	7.8	95
40	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
41	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
42	Postharvest quality of integrated and organically produced apple fruit. Postharvest Biology and Technology, 2007, 45, 11-19.	6.0	93
43	Hyperspectral imaging with multivariate analysis for technological parameters prediction and classification of muscle foods: A review. Meat Science, 2017, 123, 182-191.	5.5	92
44	Genotype effects on internal gas gradients in apple fruit. Journal of Experimental Botany, 2010, 61, 2745-2755.	4.8	89
45	Analysis of apples varieties â€“ comparison of electronic tongue with different analytical techniques. Sensors and Actuators B: Chemical, 2006, 116, 23-28.	7.8	88
46	Applicability of an enzymatic time temperature integrator as a quality indicator for mushrooms in the distribution chain. Postharvest Biology and Technology, 2006, 42, 104-114.	6.0	88
47	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
48	The relationship between gas transport properties and the histology of apple. Journal of the Science of Food and Agriculture, 2004, 84, 1131-1140.	3.5	84
49	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
50	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
51	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
52	Microfluidic analytical systems for food analysis. Trends in Food Science and Technology, 2011, 22, 386-404.	15.1	83
53	Shelf life modelling for first-expired-first-out warehouse management. Philosophical Transactions Series A, Mathematical, Physical, and Engineering Sciences, 2014, 372, 20130306.	3.4	83
54	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

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55	Multifractal properties of pore-size distribution in apple tissue using X-ray imaging. Journal of Food Engineering, 2010, 99, 206-215.	5.2	81
56	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
57	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
58	Postharvest precooling of fruit and vegetables: A review. Trends in Food Science and Technology, 2020, 100, 278-291.	15.1	81
59	Effect of turgor on micromechanical and structural properties of apple tissue: A quantitative analysis. Postharvest Biology and Technology, 2007, 44, 240-247.	6.0	79
60	PHâ€"Postharvest Technology. Biosystems Engineering, 2002, 81, 305-311.	4.3	78
61	Transcriptomic events associated with internal browning of apple during postharvest storage. BMC Plant Biology, 2014, 14, 328.	3.6	76
62	Micromechanical behaviour of onion epidermal tissue. Postharvest Biology and Technology, 2005, 37, 163-173.	6.0	75
63	A Continuum Model for Metabolic Gas Exchange in Pear Fruit. PLoS Computational Biology, 2008, 4, e1000023.	3.2	75
64	Proteomic analysis of core breakdown disorder in Conference pears (Pyrus communis L.). Proteomics, 2007, 7, 2083-2099.	2.2	74
65	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
66	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
67	Controlled atmosphere storage may lead to local ATP deficiency in apple. Postharvest Biology and Technology, 2013, 78, 103-112.	6.0	72
68	Modelling fruit (micro)structures, why and how?. Trends in Food Science and Technology, 2008, 19, 59-66.	15.1	71
69	Spatially resolved diffuse reflectance in the visible and near-infrared wavelength range for non-destructive quality assessment of â€˜Braeburnâ€™ apples. Postharvest Biology and Technology, 2014, 91, 39-48.	6.0	71
70	Prediction of optimal cooking time for boiled potatoes by hyperspectral imaging. Journal of Food Engineering, 2011, 105, 617-624.	5.2	70
71	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
72	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

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73	Microscale mechanisms of gas exchange in fruit tissue. New Phytologist, 2009, 182, 163-174.	7.3	68
74	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
75	Electronic tongue as a screening tool for rapid analysis of beer. Talanta, 2010, 81, 88-94.	5.5	66
76	Optical coherence tomography visualizes microstructure of apple peel. Postharvest Biology and Technology, 2013, 78, 123-132.	6.0	66
77	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
78	Application of MRI for tissue characterisation of â€˜Braeburnâ€™ apple. Postharvest Biology and Technology, 2013, 75, 96-105.	6.0	66
79	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
80	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
81	The essential oil of Nepeta nuda. Identification of a new nepetalactone diastereoisomer. Phytochemistry, 1987, 26, 2311-2314.	2.9	65
82	POSTHARVEST QUALITY OF INTEGRATED AND ORGANICALLY PRODUCED APPLE FRUIT. Acta Horticulturae, 2007, , 39-45.	0.2	65
83	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
84	Micromechanical behaviour of apple tissue in tensile and compression tests: Storage conditions and cultivar effect. Journal of Food Engineering, 2008, 86, 324-333.	5.2	64
85	Modelling airflow within model plant canopies using an integrated approach. Computers and Electronics in Agriculture, 2009, 66, 9-24.	7.7	64
86	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
87	OptiPa, an essential primer to develop models in the postharvest area. Computers and Electronics in Agriculture, 2007, 57, 99-106.	7.7	63
88	Non-destructive measurement of firmness and soluble solids content in bell pepper using NIR spectroscopy. Journal of Food Engineering, 2009, 94, 267-273.	5.2	63
89	Metabolic Responses to Low Temperature of Three Peach Fruit Cultivars Differently Sensitive to Cold Storage. Frontiers in Plant Science, 2018, 9, 706.	3.6	63
90	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

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91	Evaluation of Fourier transform-NIR spectroscopy for integrated external and internal quality assessment of Valencia oranges. Journal of Food Composition and Analysis, 2013, 31, 144-154.	3.9	62
92	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
93	Modelling the forced-air cooling mechanisms and performance of polylined horticultural produce. Postharvest Biology and Technology, 2016, 120, 23-35.	6.0	62
94	Non destructive analysis of the wax layer of apple (Malus domestica Borkh.) by means of confocal laser scanning microscopy. Planta, 2001, 213, 525-533.	3.2	61
95	Changes in respiration of fresh-cut butterhead lettuce under controlled atmospheres using low and superatmospheric oxygen conditions with different carbon dioxide levels. Postharvest Biology and Technology, 2006, 39, 48-55.	6.0	61
96	Calibration transfer between NIR diode array and FT-NIR spectrophotometers for measuring the soluble solids contents of apple. Postharvest Biology and Technology, 2007, 45, 38-45.	6.0	61
97	Sâ€adenosylâ€<scp>l</scp>â€methionine usage during climacteric ripening of tomato in relation to ethylene and polyamine biosynthesis and transmethylation capacity. Physiologia Plantarum, 2013, 148, 176-188.	5.2	61
98	Feasibility of ambient loading of citrus fruit into refrigerated containers for cooling during marine transport. Biosystems Engineering, 2015, 134, 20-30.	4.3	61
99	Expression analysis of candidate cell wall-related genes associated with changes in pectin biochemistry during postharvest apple softening. Postharvest Biology and Technology, 2016, 112, 176-185.	6.0	61
100	Comparative study of the O2, CO2 and temperature effect on respiration between â€˜Conferenceâ€™ pear cell protoplasts in suspension and intact pears. Journal of Experimental Botany, 2001, 52, 1769-1777.	4.8	59
101	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
102	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
103	High-Throughput Microplate Enzymatic Assays for Fast Sugar and Acid Quantification in Apple and Tomato. Journal of Agricultural and Food Chemistry, 2007, 55, 3240-3248.	5.2	58
104	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
105	Root aeration via aerenchymatous phellem: threeâ€dimensional microâ€imaging and radial O₂ profiles in Melilotus siculus. New Phytologist, 2012, 193, 420-431.	7.3	58
106	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
107	A CONTINUUM MODEL FOR AIRFLOW, HEAT AND MASS TRANSFER IN BULK OF CHICORY ROOTS. Transactions of the American Society of Agricultural Engineers, 2003, 46, 1603-1611.	0.9	57
108	A model for gas transport in pear fruit at multiple scales. Journal of Experimental Botany, 2010, 61, 2071-2081.	4.8	57

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109	Convective heat and mass transfer modelling at airâ€“porous material interfaces: Overview of existing methods and relevance. Chemical Engineering Science, 2012, 74, 49-58.	3.8	57
110	Tissue specific analysis reveals a differential organization and regulation of both ethylene biosynthesis and E8 during climacteric ripening of tomato. BMC Plant Biology, 2014, 14, 11.	3.6	57
111	Assessment of rind quality of â€˜Nules Clementineâ€™ mandarin fruit during postharvest storage: 2. Robust Vis/NIRS PLS models for prediction of physico-chemical attributes. Scientia Horticulturae, 2014, 165, 421-432.	3.6	57
112	Effect of maturation on the bulk optical properties of apple skin and cortex in the 500â€“1850Ânm wavelength range. Journal of Food Engineering, 2017, 214, 79-89.	5.2	57
113	The starch gelatinization in potatoes during cooking in relation to the modelling of texture kinetics. Journal of Food Engineering, 1995, 24, 165-179.	5.2	56
114	Treatment of missing values for multivariate statistical analysis of gelâ€based proteomics data. Proteomics, 2008, 8, 1371-1383.	2.2	56
115	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
116	A finite element model for mechanical deformation of single tomato suspension cells. Journal of Food Engineering, 2011, 103, 265-272.	5.2	56
117	Chillingâ€related cell damage of apple (Malus Ã— domestica Borkh.) fruit cortical tissue impacts antioxidant, lipid and phenolic metabolism. Physiologia Plantarum, 2015, 153, 204-220.	5.2	56
118	Physiological implications of controlled atmosphere storage of â€˜Conferenceâ€™ pears (Pyrus communis) Tj ETQq0 0 0 rgBT /Overlock	6.0	55
119	Targeted metabolomics study of â€˜Braeburnâ€™ apples during long-term storage. Postharvest Biology and Technology, 2014, 96, 33-41.	6.0	55
120	Assessment of bruise volumes in apples using X-ray computed tomography. Postharvest Biology and Technology, 2017, 128, 24-32.	6.0	55
121	Gas diffusion properties at different positions in the pear. Postharvest Biology and Technology, 2006, 41, 113-120.	6.0	54
122	CFD prototyping of an air-assisted orchard sprayer aimed at drift reduction. Computers and Electronics in Agriculture, 2007, 55, 16-27.	7.7	54
123	Modeling of Coupled Water Transport and Large Deformation During Dehydration of Apple Tissue. Food and Bioprocess Technology, 2013, 6, 1963-1978.	4.7	54
124	Predictive microbiology in a dynamic environment: a system theory approach. International Journal of Food Microbiology, 1995, 25, 227-249.	4.7	53
125	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
126	Starch Index Determination of Apple Fruit by Means of a Hyperspectral near Infrared Reflectance Imaging System. Journal of Near Infrared Spectroscopy, 2003, 11, 379-389.	1.5	52

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127	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
128	Evaluation of fast volatile analysis for detection of Botrytis cinerea infections in strawberry. Food Microbiology, 2012, 32, 406-414.	4.2	52
129	Microscale modelling of fruit tissue using Voronoi tessellations. Computers and Electronics in Agriculture, 2006, 52, 36-48.	7.7	51
130	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
131	Airflow through Beds of Apples and Chicory Roots. Biosystems Engineering, 2004, 88, 117-125.	4.3	50
132	A validated 2-D diffusionâ€“advection model for prediction of drift from ground boom sprayers. Atmospheric Environment, 2009, 43, 1674-1682.	4.1	50
133	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
134	The use of Vis/NIRS and chemometric analysis to predict fruit defects and postharvest behaviour of â€˜Nules Clementineâ€™ mandarin fruit. Food Chemistry, 2014, 163, 267-274.	8.2	50
135	Glare based apple sorting and iterative algorithm for bruise region detection using shortwave infrared hyperspectral imaging. Postharvest Biology and Technology, 2017, 130, 103-115.	6.0	50
136	X-ray computed tomography for 3D plant imaging. Trends in Plant Science, 2021, 26, 1171-1185.	8.8	50
137	Use of laser-scattering imaging to study tomato-fruit quality in relation to acoustic and compression measurements. International Journal of Food Science and Technology, 2000, 35, 503-510.	2.7	49
138	Where systems biology meets postharvest. Postharvest Biology and Technology, 2011, 62, 223-237.	6.0	49
139	Fuzzy finite element analysis of heat conduction problems with uncertain parameters. Journal of Food Engineering, 2011, 103, 38-46.	5.2	49
140	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
141	A metabolomics approach to elucidate apple fruit responses to static and dynamic controlled atmosphere storage. Postharvest Biology and Technology, 2017, 127, 76-87.	6.0	49
142	Managing quality variance in the postharvest food chain. Trends in Food Science and Technology, 2007, 18, 320-332.	15.1	48
143	Monitoring the Egg Freshness During Storage Under Modified Atmosphere by Fluorescence Spectroscopy. Food and Bioprocess Technology, 2008, 1, 346-356.	4.7	48
144	Evaluation of a chicory root cold store humidification system using computational fluid dynamics. Journal of Food Engineering, 2009, 94, 110-121.	5.2	48

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145	Mechanical characteristics of artificial cell walls. Journal of Food Engineering, 2010, 96, 287-294.	5.2	48
146	Kinetic modeling of firmness breakdown in â€˜Braeburnâ€™ apples stored under different controlled atmosphere conditions. Postharvest Biology and Technology, 2012, 67, 68-74.	6.0	48
147	Void space inside the developing seed of <scp>B</scp>rassica napus and the modelling of its function. New Phytologist, 2013, 199, 936-947.	7.3	48
148	Delayed response to cold stress is characterized by successive metabolic shifts culminating in apple fruit peel necrosis. BMC Plant Biology, 2017, 17, 77.	3.6	48
149	Respiration rates of fresh-cut bell peppers under supertamospheric and low oxygen with or without high carbon dioxide. Postharvest Biology and Technology, 2007, 45, 81-88.	6.0	47
150	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
151	Analysis of a novel class of predictive microbial growth models and application to coculture growth. International Journal of Food Microbiology, 2005, 100, 107-124.	4.7	46
152	High oxygen combined with high carbon dioxide improvesmicrobial and sensory quality of fresh-cut peppers. Postharvest Biology and Technology, 2007, 43, 230-237.	6.0	46
153	Gel-Based Proteomics Approach to the Study of Metabolic Changes in Pear Tissue during Storage. Journal of Agricultural and Food Chemistry, 2009, 57, 6997-7004.	5.2	46
154	Prediction of â€˜Nules Clementineâ€™ mandarin susceptibility to rind breakdown disorder using Vis/NIR spectroscopy. Postharvest Biology and Technology, 2012, 74, 1-10.	6.0	46
155	Mesophyll conductance and reaction-diffusion models for CO2 transport in C3 leaves; needs, opportunities and challenges. Plant Science, 2016, 252, 62-75.	3.6	46
156	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
157	Microplate Differential Calorimetric Biosensor for Ascorbic Acid Analysis in Food and Pharmaceuticals. Analytical Chemistry, 2007, 79, 6119-6127.	6.5	45
158	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
159	Improving the identification rate of data independent label-free quantitative proteomics experiments on non-model crops: A case study on apple fruit. Journal of Proteomics, 2014, 105, 31-45.	2.4	44
160	Non-destructive porosity mapping of fruit and vegetables using X-ray CT. Postharvest Biology and Technology, 2019, 150, 80-88.	6.0	44
161	Front face fluorescence spectroscopy as a tool for the assessment of egg freshness during storage at a temperature of 12.2Â°C and 87% relative humidity. Analytica Chimica Acta, 2007, 582, 83-91.	5.4	43
162	Aroma volatiles associated with the senescence of climacteric or non-climacteric melon fruit. Postharvest Biology and Technology, 2009, 52, 146-155.	6.0	43

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163	Forced-air cooling of polylined horticultural produce: Optimal cooling conditions and package design. Postharvest Biology and Technology, 2017, 126, 67-75.	6.0	43
164	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
165	Detection of Pseudomonas aeruginosa in sputum headspace through volatile organic compound analysis. Respiratory Research, 2012, 13, 87.	3.6	42
166	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
167	Sensitivity analysis with respect to the surface heat transfer coefficient as applied to thermal process calculations. Journal of Food Engineering, 1996, 28, 21-33.	5.2	41
168	Mapping consumer liking of tomatoes with fast aroma profiling techniques. Postharvest Biology and Technology, 2005, 38, 115-127.	6.0	41
169	The impact and retention of spray droplets on a horizontal hydrophobic surface. Biosystems Engineering, 2014, 126, 82-91.	4.3	41
170	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
171	Relating sensory analysis with electronic nose and headspace fingerprint MS for tomato aroma profiling. Postharvest Biology and Technology, 2005, 36, 143-155.	6.0	40
172	Proteomics for the Food Industry: Opportunities and Challenges. Critical Reviews in Food Science and Nutrition, 2010, 50, 680-692.	10.3	40
173	Dynamics of metabolic adaptation during initiation of controlled atmosphere storage of â€˜Jonagoldâ€™ apple: Effects of storage gas concentrations and conditioning. Postharvest Biology and Technology, 2016, 117, 9-20.	6.0	40
174	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
175	PHâ€”Postharvest Technology. Biosystems Engineering, 2000, 77, 183-191.	0.4	39
176	Influence of harvest time and 1-MCP application on postharvest ripening and ethylene biosynthesis of â€˜Jonagoldâ€™ apple. Postharvest Biology and Technology, 2012, 72, 11-19.	6.0	39
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