Moritz Knoche

List of Publications by Year in descending order

137 papers	3,409 citations	147801 31 h-index	189892 50 g-index
140 all docs	140 docs citations	140 times ranked	1618 citing authors

#	Article	IF	Citations
1	Accurate Quantification of Anthocyanin in Red Flesh Apples Using Digital Photography and Image Analysis. Horticulturae, 2022, 8, 145.	2.8	3
2	Russeting of Fruits: Etiology and Management. Horticulturae, 2022, 8, 231.	2.8	16
3	Sweet cherry flesh cells burst in non-random clusters along minor veins. Planta, 2022, 255, 100.	3.2	1
4	Pathways of postharvest water loss from banana fruit. Postharvest Biology and Technology, 2022, 191, 111979.	6.0	6
5	Surface Moisture Induces Microcracks and Increases Water Vapor Permeance of Fruit Skins of Mango cv. Apple. Horticulturae, 2022, 8, 545.	2.8	4
6	Xylogenesis and phloemogenesis in the flesh of sweet cherry fruit are limited to early-stage development. Scientific Reports, 2022, 12, .	3.3	0
7	Surface moisture increases microcracking and water vapour permeance of apple fruit skin. Plant Biology, 2021, 23, 74-82.	3.8	19
8	Cutin Synthesis in Developing, Field-Grown Apple Fruit Examined by External Feeding of Labelled Precursors. Plants, 2021, 10, 497.	3.5	3
9	Penetration ofÂsweet cherry skin by 45Ca-salts: pathways and factors. Scientific Reports, 2021, 11, 11142.	3.3	3
10	Xylem, phloem and transpiration flows in developing European plums. PLoS ONE, 2021, 16, e0252085.	2.5	6
11	Strawberry fruit skins are far more permeable to osmotic water uptake than to transpirational water loss. PLoS ONE, 2021, 16, e0251351.	2.5	9
12	Water Soaking Disorder in Strawberries: Triggers, Factors, and Mechanisms. Frontiers in Plant Science, 2021, 12, 694123.	3.6	6
13	Xylem, phloem and transpiration flows in developing strawberries. Scientia Horticulturae, 2021, 288, 110305.	3.6	4
14	Factors affecting cuticle synthesis in apple fruit identified under field conditions. Scientia Horticulturae, 2021, 290, 110512.	3.6	3
15	Calcium uptake through skins of sweet cherry fruit: Effects of different calcium salts and surfactants. Scientia Horticulturae, 2021, 276, 109761.	3.6	12
16	Russeting in Apple is Initiated after Exposure to Moisture Ends: Molecular and Biochemical Evidence. Plants, 2021, 10, 65.	3.5	16
17	Low cuticle deposition rate in â€˜Appleâ€™ mango increases elastic strain, weakens the cuticle and increases russet. PLoS ONE, 2021, 16, e0258521.	2.5	6
18	Direct Evidence for a Radial Gradient in Age of the Apple Fruit Cuticle. Frontiers in Plant Science, 2021, 12, 730837.	3.6	3

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19	Shading affects fracture force and fracture strain of apple fruit skins. Scientia Horticulturae, 2020, 274, 109651.	3.6	4
20	Russeting in â€˜Appleâ€™ Mango: Triggers and Mechanisms. Plants, 2020, 9, 898.	3.5	12
21	Russeting in Apple Is Initiated After Exposure to Moisture Endsâ€”I. Histological Evidence. Plants, 2020, 9, 1293.	3.5	22
22	Russet Susceptibility in Apple Is Associated with Skin Cells that Are Larger, More Variable in Size, and of Reduced Fracture Strain. Plants, 2020, 9, 1118.	3.5	10
23	Decreased deposition and increased swelling of cell walls contribute to increased cracking susceptibility of developing sweet cherry fruit. Planta, 2020, 252, 96.	3.2	8
24	Rain cracking in sweet cherries is caused by surface wetness, not by water uptake. Scientia Horticulturae, 2020, 269, 109400.	3.6	10
25	Lenticels and apple fruit transpiration. Postharvest Biology and Technology, 2020, 167, 111221.	6.0	16
26	Calcium physiology of sweet cherry fruits. Trees - Structure and Function, 2020, 34, 1157-1167.	1.9	21
27	Swelling of cell walls in mature sweet cherry fruit: factors and mechanisms. Planta, 2020, 251, 65.	3.2	13
28	Spatial heterogeneity of flesh-cell osmotic potential in sweet cherry affects partitioning of absorbed water. Horticulture Research, 2020, 7, 51.	6.3	6
29	Water Influx through the Wetted Surface of a Sweet Cherry Fruit: Evidence for an Associated Solute Efflux. Plants, 2020, 9, 440.	3.5	4
30	Nondestructive Determination of Fruit Surface Area Using Archimedean Buoyancy. Hortscience: A Publication of the American Society for Hortcultural Science, 2020, 55, 1647-1653.	1.0	2
31	Effect of Orchard Management Factors on Flesh Color of Two Red-Fleshed Apple Clones. Horticulturae, 2019, 5, 54.	2.8	5
32	Crack initiation and propagation in sweet cherry skin: A simple chain reaction causes the crack to â€˜runâ€™. PLoS ONE, 2019, 14, e0219794.	2.5	30
33	Localized bursting of mesocarp cells triggers catastrophic fruit cracking. Horticulture Research, 2019, 6, 79.	6.3	19
34	Sweet Cherry Fruit: Ideal Osmometers?. Frontiers in Plant Science, 2019, 10, 164.	3.6	8
35	Russeting partially restores apple skin permeability to water vapour. Planta, 2019, 249, 849-860.	3.2	22
36	Calcium and the physiology of sweet cherries: A review. Scientia Horticulturae, 2019, 245, 107-115.	3.6	57

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37	Expression of putative aquaporin genes in sweet cherry is higher in flesh than skin and most are downregulated during development. Scientia Horticulturae, 2019, 244, 304-314.	3.6	20
38	Characterizing Neck Shrivel in European Plum. Journal of the American Society for Horticultural Science, 2019, 144, 38-44.	1.0	7
39	Patterns of microcracking in apple fruit skin reflect those of the cuticular ridges and of the epidermal cell walls. Planta, 2018, 248, 293-306.	3.2	14
40	Orange peel disorder in sweet cherry: Mechanism and triggers. Postharvest Biology and Technology, 2018, 137, 119-128.	6.0	6
41	Predicting osmotic potential from measurements of refractive index in cherries, grapes and plums. PLoS ONE, 2018, 13, e0207626.	2.5	10
42	The permeability concept: a useful tool in analyzing water transport through the sweet cherry fruit surface. Acta Horticulturae, 2017, , 367-374.	0.2	3
43	Cell wall swelling, fracture mode, and the mechanical properties of cherry fruit skins are closely related. Planta, 2017, 245, 765-777.	3.2	52
44	Mechanical properties of cuticles and their primary determinants. Journal of Experimental Botany, 2017, 68, 5351-5367.	4.8	63
45	Ongoing Growth Challenges Fruit Skin Integrity. Critical Reviews in Plant Sciences, 2017, 36, 190-215.	5.7	68
46	Physical rupture of the xylem in developing sweet cherry fruit causes progressive decline in xylem sap inflow rate. Planta, 2017, 246, 659-672.	3.2	32
47	Rain-induced cracking of sweet cherries.. , 2017, , 140-165.		21
48	Xylem, phloem, and transpiration flows in developing sweet cherry fruit. Trees - Structure and Function, 2016, 30, 1821-1830.	1.9	52
49	Rain Cracking in Sweet Cherries is not Due to Excess Water Uptake but to Localized Skin Phenomena. Journal of the American Society for Horticultural Science, 2016, 141, 653-660.	1.0	31
50	Fruit apoplast tension draws xylem water into mature sweet cherries. Scientia Horticulturae, 2016, 209, 270-278.	3.6	24
51	Mismatch between cuticle deposition and area expansion in fruit skins allows potentially catastrophic buildup of elastic strain. Planta, 2016, 244, 1145-1156.	3.2	31
52	Time to Fracture and Fracture Strain are Negatively Related in Sweet Cherry Fruit Skin. Journal of the American Society for Horticultural Science, 2016, 141, 485-489.	1.0	3
53	Factors Affecting Mechanical Properties of the Skin of Sweet Cherry Fruit. Journal of the American Society for Horticultural Science, 2016, 141, 45-53.	1.0	14
54	Mechanical Properties of Skins of Sweet Cherry Fruit of Differing Susceptibilities to Cracking. Journal of the American Society for Horticultural Science, 2016, 141, 162-168.	1.0	32

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55	Xylem conductance of sweet cherry pedicels. Trees - Structure and Function, 2015, 29, 1851-1860.	1.9	8
56	Water Uptake Through the Surface of Fleshy Soft Fruit: Barriers, Mechanism, Factors, and Potential Role in Cracking. , 2015, , 147-166.		9
57	Postharvest osmotic dehydration of pedicels of sweet cherry fruit. Postharvest Biology and Technology, 2015, 108, 86-90.	6.0	13
58	Pedicel Transpiration in Sweet Cherry Fruit: Mechanisms, Pathways, and Factors. Journal of the American Society for Horticultural Science, 2015, 140, 136-143.	1.0	19
59	Malic Acid Promotes Cracking of Sweet Cherry Fruit. Journal of the American Society for Horticultural Science, 2015, 140, 280-287.	1.0	29
60	Sweet Cherry Skin Has a Less Negative Osmotic Potential than the Flesh. Journal of the American Society for Horticultural Science, 2015, 140, 472-479.	1.0	24
61	Effect of sweet cherry genes PaLACS2 and PaATT1 on cuticle deposition, composition and permeability in Arabidopsis. Tree Genetics and Genomes, 2014, 10, 1711-1721.	1.6	4
62	Biaxial tensile tests identify epidermis and hypodermis as the main structural elements of sweet cherry skin. AoB PLANTS, 2014, 6, .	2.3	26
63	Evidence for a radial strain gradient in apple fruit cuticles. Planta, 2014, 240, 891-897.	3.2	31
64	FOLIAR UPTAKE OF PGRS: BARRIERS, MECHANISMS, MODEL SYSTEMS, AND FACTORS. Acta Horticulturae, 2014, , 125-141.	0.2	9
65	EFFECTS OF PH, TEMPERATURE, HUMIDITY, AND REWETTING ON CUTICULAR PENETRATION OF ABA. Acta Horticulturae, 2014, , 143-150.	0.2	1
66	Transcriptional dynamics of the developing sweet cherry (Prunus avium L.) fruit: sequencing, annotation and expression profiling of exocarp-associated genes. Horticulture Research, 2014, 1, 11.	6.3	82
67	Late-season Surface Water Induces Skin Spot in Apple. Hortscience: A Publication of the American Society for Hortcultural Science, 2014, 49, 1324-1327.	1.0	15
68	Russeting and Relative Growth Rate Are Positively Related in â€˜Conferenceâ€™ and â€˜Condoâ€™ Pear. Hortscience: A Publication of the American Society for Hortcultural Science, 2014, 49, 746-749.	1.0	12
69	Mature Sweet Cherries Have Low Turgor. Journal of the American Society for Horticultural Science, 2014, 139, 3-12.	1.0	33
70	Mechanical Properties of Apple Skin Are Determined by Epidermis and Hypodermis. Journal of the American Society for Horticultural Science, 2014, 139, 139-147.	1.0	26
71	Water Potential and Its Components in Developing Sweet Cherry. Journal of the American Society for Horticultural Science, 2014, 139, 349-355.	1.0	32
72	Intracuticular wax fixes and restricts strain in leaf and fruit cuticles. New Phytologist, 2013, 200, 134-143.	7.3	60

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73	Characterizing Penetration of Aminoethoxyvinylglycine (AVG) through Isolated Tomato Fruit Cuticles. Journal of Plant Growth Regulation, 2013, 32, 596-603.	5.1	3
74	Russeting in apple and pear: a plastic periderm replaces a stiff cuticle. AoB PLANTS, 2013, 5, pls048-pls048.	2.3	74
75	Russeting in Apple Seems Unrelated to the Mechanical Properties of the Cuticle at Maturity. Hortscience: A Publication of the American Society for Hortcultural Science, 2013, 48, 1135-1138.	1.0	15
76	Mottling on Sweet Cherry Fruit Is Caused by Exocarp Strain. Journal of the American Society for Horticultural Science, 2013, 138, 18-23.	1.0	4
77	Identification of putative candidate genes involved in cuticle formation in Prunus avium (sweet) Tj ETQq1 1 0.784314 rgBT /Overlock 10	2.9	74
78	Substantial water uptake into detached grape berries occurs through the stem surface. Australian Journal of Grape and Wine Research, 2012, 18, 109-114.	2.1	17
79	Structural and physiological changes associated with the skin spot disorder in apple. Postharvest Biology and Technology, 2012, 64, 111-118.	6.0	33
80	Studies on Water Transport through the Sweet Cherry Fruit Surface: XII. Variation in Cuticle Properties among Cultivars. Journal of the American Society for Horticultural Science, 2012, 137, 367-375.	1.0	10
81	Stress and Strain in the Sweet Cherry Skin. Journal of the American Society for Horticultural Science, 2012, 137, 383-390.	1.0	31
82	Fruit growth, cuticle deposition, water uptake, and fruit cracking in jostaberry, gooseberry, and black currant. Scientia Horticulturae, 2011, 128, 289-296.	3.6	38
83	Water Movement through the Surfaces of the Grape Berry and Its Stem. American Journal of Enology and Viticulture, 2011, 62, 340-350.	1.7	28
84	Russeting and Microcracking of â€˜Golden Deliciousâ€™ Apple Fruit Concomitantly Decline Due to Gibberellin A4+7 Application. Journal of the American Society for Horticultural Science, 2011, 136, 159-164.	1.0	67
85	Effect of Receiver pH on Infinite Dose Diffusion of 55FeCl3 across the Sweet Cherry Fruit Exocarp. Journal of the American Society for Horticultural Science, 2010, 135, 95-101.	1.0	1
86	Surface Moisture Induces Microcracks in the Cuticle of â€˜Golden Deliciousâ€™ Apple. Hortscience: A Publication of the American Society for Hortcultural Science, 2008, 43, 1929-1931.	1.0	48
87	Composition of the cuticle of developing sweet cherry fruit. Phytochemistry, 2007, 68, 1017-1025.	2.9	142
88	Gibberellins Increase Cuticle Deposition in Developing Tomato Fruit. Plant Growth Regulation, 2007, 51, 1-10.	3.4	24
89	Deposition and Strain of the Cuticle of Developing European Plum Fruit. Journal of the American Society for Horticultural Science, 2007, 132, 597-602.	1.0	32
90	Studies on Water Transport through the Sweet Cherry Fruit Surface. 10. Evidence for Polar Pathways across the Exocarp. Journal of Agricultural and Food Chemistry, 2006, 54, 3951-3958.	5.2	25

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91	Studies on Water Transport through the Sweet Cherry Fruit Surface. 11. FeCl3Decreases Water Permeability of Polar Pathways. Journal of Agricultural and Food Chemistry, 2006, 54, 6294-6302.	5.2	15
92	Water on the Surface Aggravates Microscopic Cracking of the Sweet Cherry Fruit Cuticle. Journal of the American Society for Horticultural Science, 2006, 131, 192-200.	1.0	76
93	Studies on water transport through the sweet cherry fruit surface: IX. Comparing permeability in water uptake and transpiration. Planta, 2005, 220, 474-485.	3.2	54
94	Characterization of Microcracks in the Cuticle of Developing Sweet Cherry Fruit. Journal of the American Society for Horticultural Science, 2005, 130, 487-495.	1.0	73
95	Changes in strain and deposition of cuticle in developing sweet cherry fruit. Physiologia Plantarum, 2004, 120, 667-677.	5.2	83
96	Effect of Triton X-100 concentration on NAA penetration through the isolated tomato fruit cuticular membrane. Crop Protection, 2004, 23, 141-146.	2.1	12
97	Studies on Water Transport through the Sweet Cherry Fruit Surface: VIII. Effect of Selected Cations on Water Uptake and Fruit Cracking. Journal of the American Society for Horticultural Science, 2004, 129, 781-788.	1.0	20
98	Surface characteristics of sweet cherry fruit: stomata-number, distribution, functionality and surface wetting. Scientia Horticulturae, 2003, 97, 265-278.	3.6	57
99	Epidermal Segments: A Useful Model System for Studying Water Transport through Fruit Surfaces. Hortscience: A Publication of the American Society for Hortcultural Science, 2003, 38, 1410-1413.	1.0	3
100	Studies on water transport through the sweet cherry fruit surface. VI. Effect of hydrostatic pressure on water uptake. Journal of Horticultural Science and Biotechnology, 2002, 77, 609-614.	1.9	9
101	Studies on Water Transport through the Sweet Cherry Fruit Surface. 7. Fe3+ and Al3+ Reduce Conductance for Water Uptake. Journal of Agricultural and Food Chemistry, 2002, 50, 7600-7608.	5.2	11
102	Analysing fruit shape in sweet cherry (Prunus avium L.). Scientia Horticulturae, 2002, 96, 139-150.	3.6	87
103	Studies on water transport through the sweet cherry fruit surface: III. Conductance of the cuticle in relation to fruit size. Physiologia Plantarum, 2002, 114, 414-421.	5.2	14
104	Studies on Water Transport Through the Sweet Cherry Fruit Surface: IV. Regions of Preferential Uptake. Hortscience: A Publication of the American Society for Hortcultural Science, 2002, 37, 637-641.	1.0	35
105	Studies on Water Transport through the Sweet Cherry Fruit Surface: V. Conductance for Water Uptake. Journal of the American Society for Horticultural Science, 2002, 127, 325-332.	1.0	33
106	Droplet sizing using silicone oils. Crop Protection, 2001, 20, 489-498.	2.1	8
107	Evidence for Surfactant Solubilization of Plant Epicuticular Wax. Journal of Agricultural and Food Chemistry, 2001, 49, 1809-1816.	5.2	43
108	Studies on water transport through the sweet cherry fruit surface: II. Conductance of the cuticle in relation to fruit development. Planta, 2001, 213, 927-936.	3.2	72

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109	Finite dose diffusion studies: III. Effects of temperature, humidity and deposit manipulation on NAA penetration through isolated tomato fruit cuticles. Pest Management Science, 2001, 57, 737-742.	3.4	7
110	Curvature of carrot (Daucus carota L.) sticks is related to number and distribution of xylem vessels. Postharvest Biology and Technology, 2001, 22, 133-139.	6.0	0
111	Selective Solubilization of Tomato Fruit Epicuticular Wax Constituents by Triton X-100 Surfactant. Journal of Pesticide Sciences, 2001, 26, 16-20.	1.4	5
112	Spray application factors and plant growth regulator performance: III. Interaction of daminozide uptake, translocation and phytotoxicity in bean seedlings. Pest Management Science, 2000, 56, 43-48.	3.4	3
113	Finite dose diffusion studies: I. Characterizing cuticular penetration in a model system using NAA and isolated tomato fruit cuticles. Pest Management Science, 2000, 56, 1005-1015.	3.4	21
114	Finite dose diffusion studies: II. Effect of concentration and pH on NAA penetration through isolated tomato fruit cuticles. Pest Management Science, 2000, 56, 1016-1022.	3.4	7
115	Studies on water transport through the sweet cherry fruit surface: characterizing conductance of the cuticular membrane using pericarp segments. Planta, 2000, 212, 127-135.	3.2	88
116	Spray Application Factors and Plant Growth Regulator Performance: IV. Dose Response Relationships. Journal of the American Society for Horticultural Science, 2000, 125, 195-199.	1.0	2
117	Spray application factors and plant growth regulator performance: II. Foliar uptake of gibberellic acid and 2,4-D. Pest Management Science, 1999, 55, 166-174.	0.4	2
118	595 The Cuticular Membrane: A Critical Factor in Rain-induced Cracking of Sweet Cherry Fruit. Hortscience: A Publication of the American Society for Hortcultural Science, 1999, 34, 549D-549.	1.0	10
119	Spray application factors and plant growth regulator performance: II. Foliar uptake of gibberellic acid and 2, 4-D. Pest Management Science, 1999, 55, 166-174.	0.4	4
120	Spray application factors and plant growth regulator performance: I. Bioassays and biological response. Pest Management Science, 1998, 54, 168-178.	0.4	7
121	Ventricular abnormality in patients with postpartum psychoses. Archives of Women's Mental Health, 1998, 1, 45-47.	2.6	12
122	Surfactant-Enhanced Penetration of Benzyladenine through Isolated Tomato Fruit Cuticular Membranes. Journal of Agricultural and Food Chemistry, 1998, 46, 2346-2352.	5.2	12
123	Organosilicone surfactant performance in agricultural spray application: a review. Weed Research, 1994, 34, 221-239.	1.7	94
124	Effect of droplet size and carrier volume on performance of foliage-applied herbicides. Crop Protection, 1994, 13, 163-178.	2.1	203
125	Considerations in the Use of an Infinite-Dose System for Studying Surfactant Effects on Diffusion in Isolated Cuticles. Journal of Agricultural and Food Chemistry, 1994, 42, 1013-1018.	5.2	14
126	Urea Penetration of Isolated Tomato Fruit Cuticles. Journal of the American Society for Horticultural Science, 1994, 119, 761-764.	1.0	17

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127	Studies on octylphenoxy surfactants: XI. Effect on NAA diffusion through the isolated tomato fruit cuticular membrane. Pest Management Science, 1993, 38, 211-217.	0.4	28
128	Interaction of Surfactant and Leaf Surface in Glyphosate Absorption. Weed Science, 1993, 41, 87-93.	1.5	17
129	Surfactant-induced phytotoxicity: evidence for interaction with epicuticular wax fine structure. Crop Protection, 1992, 11, 51-56.	2.1	30
130	Factors affecting the absorption of gibberellin A3 by sour cherry leaves. Crop Protection, 1992, 11, 57-63.	2.1	8
131	Surfactants Influence Foliar Absorption of Gibberellic Acid by Sour Cherry Leaves. Journal of the American Society for Horticultural Science, 1992, 117, 80-84.	1.0	10
132	Effect of non-ionic surfactants on ethylene release and leaf growth of Phaseolus vulgaris L.. Scientia Horticulturae, 1991, 46, 1-11.	3.6	20
133	Performance and stability of the organosilicon surfactant L-77: effect of pH, concentration, and temperature. Journal of Agricultural and Food Chemistry, 1991, 39, 202-206.	5.2	72
134	Studies on octylphenoxy surfactants: IX. Effect of oxyethylene chain length on GA3 absorption by sour cherry leaves. Journal of Plant Growth Regulation, 1991, 10, 173-177.	5.1	11
135	Stability of the Organosilicone Surfactant Silwet L-77 in Growth Regulator Sprays. Hortscience: A Publication of the American Society for Hortcultural Science, 1991, 26, 1498-1500.	1.0	7
136	PENETRATION OF OCTYLPHENOXY SURFACTANTS THROUGH ISOLATED TOMATO FRUIT CUTICLES. Hortscience: A Publication of the American Society for Hortcultural Science, 1990, 25, 1145g-1146.	1.0	1
137	The mechanism of rain cracking of sweet cherry fruit. Italus Hortus, 0, 26, 59-65.	0.9	2