Charles T Anderson

List of Publications by Year
in descending order

82 papers	4,318 citations	117571 34 h-index	118793 62 g-index
90 all docs	90 docs citations	90 times ranked	4820 citing authors

#	Article	IF	Citations
1	Do woody vines use gelatinous fibers to climb?. New Phytologist, 2022, 233, 126-131.	3.5	10
2	Stomata-mediated interactions between plants, herbivores, and the environment. Trends in Plant Science, 2022, 27, 287-300.	4.3	51
3	Super-resolution imaging illuminates new dynamic behaviors of cellulose synthase. Plant Cell, 2022, 34, 273-286.	3.1	17
4	Fifteen compelling open questions in plant cell biology. Plant Cell, 2022, 34, 72-102.	3.1	27
5	A glossary of plant cell structures: Current insights and future questions. Plant Cell, 2022, 34, 10-52.	3.1	27
6	Polygalacturonase activity promotes aberrant cell separation in the quasimodo2 mutant of Arabidopsis thaliana. Cell Surface, 2022, 8, 100069.	1.5	5
7	Arabidopsis pavement cell morphogenesis requires FERONIA binding to pectin for activation of ROP GTPase signaling. Current Biology, 2022, 32, 497-507.e4.	1.8	65
8	Dynamics of pectic homogalacturonan in cellular morphogenesis and adhesion, wall integrity sensing and plant development. Nature Plants, 2022, 8, 332-340.	4.7	63
9	Pectin methyltransferase QUASIMODO2 functions in the formation of seed coat mucilage in Arabidopsis. Journal of Plant Physiology, 2022, 274, 153709.	1.6	2
10	Turgor pressure change in stomatal guard cells arises from interactions between water influx and mechanical responses of their cell walls. Quantitative Plant Biology, 2022, 3, .	0.8	3
11	Silencing the alarm: an insect salivary enzyme closes plant stomata and inhibits volatile release. New Phytologist, 2021, 230, 793-803.	3.5	34
12	Integrated multi-wavelength microscope combining TIRFM and IRM modalities for imaging cellulases and other processive enzymes. Biomedical Optics Express, 2021, 12, 3253.	1.5	6
13	Polygalacturonase45 cleaves pectin and links cell proliferation and morphogenesis to leaf curvature in <i>Arabidopsis thaliana</i>. Plant Journal, 2021, 106, 1493-1508.	2.8	19
14	PECTATE LYASE LIKE12 patterns the guard cell wall to coordinate turgor pressure and wall mechanics for proper stomatal function in Arabidopsis. Plant Cell, 2021, 33, 3134-3150.	3.1	34
15	Nanoscale dynamics of cellulose digestion by the cellobiohydrolase TrCel7A. Journal of Biological Chemistry, 2021, 297, 101029.	1.6	8
16	A pectin methyltransferase modulates polysaccharide dynamics and interactions in Arabidopsis primary cell walls: Evidence from solid-state NMR. Carbohydrate Polymers, 2021, 270, 118370.	5.1	23
17	BdGT43B2 functions in xylan biosynthesis and is essential for seedling survival in <i>Brachypodium distachyon</i>. Plant Direct, 2020, 4, e00216.	0.8	10
18	BcsAB synthesized cellulose on nickel surface: polymerization of monolignols during cellulose synthesis alters cellulose morphology. Cellulose, 2020, 27, 5629-5639.	2.4	3

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19	Post-Synthetic Reduction of Pectin Methylesterification Causes Morphological Abnormalities and Alterations to Stress Response in Arabidopsis thaliana. Plants, 2020, 9, 1558.	1.6	10
20	Cell wall remodeling and vesicle trafficking mediate the root clock in <i>Arabidopsis</i>. Science, 2020, 370, 819-823.	6.0	73
21	Biosynthesis, Localisation, and Function of Pectins in Plants. , 2020, , 1-15.		8
22	Mutations in the Pectin Methyltransferase QUASIMODO2 Influence Cellulose Biosynthesis and Wall Integrity in Arabidopsis. Plant Cell, 2020, 32, 3576-3597.	3.1	72
23	Preferred crystallographic orientation of cellulose in plant primary cell walls. Nature Communications, 2020, 11, 4720.	5.8	41
24	Editorial: Regulation of and by the Plant Cell Wall. Frontiers in Plant Science, 2020, 11, 513.	1.7	2
25	Plant Cell Growth: Do Pectins Drive Lobe Formation inÂArabidopsis Pavement Cells?. Current Biology, 2020, 30, R660-R662.	1.8	36
26	Imaging the delivery and behavior of cellulose synthases in Arabidopsis thaliana using confocal microscopy. Methods in Cell Biology, 2020, 160, 201-213.	0.5	3
27	Dynamic Construction, Perception, and Remodeling of Plant Cell Walls. Annual Review of Plant Biology, 2020, 71, 39-69.	8.6	132
28	Pectic Polysaccharides in Plants: Structure, Biosynthesis, Functions, and Applications. Biologically-inspired Systems, 2019, , 487-514.	0.4	7
29	Synergistic Pectin Degradation and Guard Cell Pressurization Underlie Stomatal Pore Formation. Plant Physiology, 2019, 180, 66-77.	2.3	22
30	The stomatal flexoskeleton: how the biomechanics of guard cell walls animate an elastic pressure vessel. Journal of Experimental Botany, 2019, 70, 3561-3572.	2.4	10
31	Importin-Î² Directly Regulates the Motor Activity and Turnover of a Kinesin-4. Developmental Cell, 2018, 44, 642-651.e5.	3.1	17
32	Longevity in vivo of primary cell wall cellulose synthases. Plant Molecular Biology, 2018, 96, 279-289.	2.0	18
33	Cytosolic invertases contribute to cellulose biosynthesis and influence carbon partitioning in seedlings of <i>Arabidopsis thaliana</i>. Plant Journal, 2018, 94, 956-974.	2.8	52
34	Direct observation of the effects of cellulose synthesis inhibitors using live cell imaging of Cellulose Synthase (CESA) in Physcomitrella patens. Scientific Reports, 2018, 8, 735.	1.6	21
35	Release, Recycle, Rebuild: Cell-Wall Remodeling, Autodegradation, and Sugar Salvage for New Wall Biosynthesis during Plant Development. Molecular Plant, 2018, 11, 31-46.	3.9	81
36	Mechanical Effects of Cellulose, Xyloglucan, and Pectins on Stomatal Guard Cells of Arabidopsis thaliana. Frontiers in Plant Science, 2018, 9, 1566.	1.7	23

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37	A Profusion of Molecular Scissors for Pectins: Classification, Expression, and Functions of Plant Polygalacturonases. Frontiers in Plant Science, 2018, 9, 1208.	1.7	68
38	SHOU4 Proteins Regulate Trafficking of Cellulose Synthase Complexes to the Plasma Membrane. Current Biology, 2018, 28, 3174-3182.e6.	1.8	55
39	Balancing Strength and Flexibility: How the Synthesis, Organization, and Modification of Guard Cell Walls Govern Stomatal Development and Dynamics. Frontiers in Plant Science, 2018, 9, 1202.	1.7	37
40	Predicting Division Planes of Three-Dimensional Cells by Soap-Film Minimization. Plant Cell, 2018, 30, 2255-2266.	3.1	36
41	Finding order in a bustling construction zone: quantitative imaging and analysis of cell wall assembly in plants. Current Opinion in Plant Biology, 2018, 46, 62-67.	3.5	5
42	Activation tagging of Arabidopsis <i><scp>POLYGALACTURONASE INVOLVED IN EXPANSION</scp>2</i> promotes hypocotyl elongation, leaf expansion, stem lignification, mechanical stiffening, and lodging. Plant Journal, 2017, 89, 1159-1173.	2.8	55
43	POLYGALACTURONASE INVOLVED IN EXPANSION3 Functions in Seedling Development, Rosette Growth, and Stomatal Dynamics in <i>Arabidopsis thaliana</i>. Plant Cell, 2017, 29, 2413-2432.	3.1	117
44	Effects of Pectin Molecular Weight Changes on the Structure, Dynamics, and Polysaccharide Interactions of Primary Cell Walls of <i>Arabidopsis thaliana</i>: Insights from Solid-State NMR. Biomacromolecules, 2017, 18, 2937-2950.	2.6	69
45	Acetyl Bromide Soluble Lignin (ABSL) Assay for Total Lignin Quantification from Plant Biomass. Bio-protocol, 2017, 7, e2149.	0.2	46
46	Investigating Biochemical and Developmental Dependencies of Lignification with a Click-Compatible Monolignol Analog in Arabidopsis thaliana Stems. Frontiers in Plant Science, 2016, 7, 1309.	1.7	17
47	Plant cell wall imaging by metabolic clickâ€mediated labelling of rhamnogalacturonan II using azido 3â€deoxyâ€<scp>d</scp>â€<i>manno</i>â€octâ€2â€ulosonic acid. Plant Journal, 2016, 85, 437-447.	2.8	48
48	Identification of <i>Ourmiavirus</i> 30K movement protein amino acid residues involved in symptomatology, viral movement, subcellular localization and tubule formation. Molecular Plant Pathology, 2016, 17, 1063-1079.	2.0	14
49	Integrating cell biology, image analysis, and computational mechanical modeling to analyze the contributions of cellulose and xyloglucan to stomatal function. Plant Signaling and Behavior, 2016, 11, e1183086.	1.2	21
50	Synthesis of a suite of click-compatible sugar analogs for probing carbohydrate metabolism. Carbohydrate Research, 2016, 433, 54-62.	1.1	17
51	Interconnections between cell wall polymers, wall mechanics, and cortical microtubules: Teasing out causes and consequences. Plant Signaling and Behavior, 2016, 11, e1215396.	1.2	10
52	The valine and lysine residues in the conserved FxVTxK motif are important for the function of phylogenetically distant plant cellulose synthases. Glycobiology, 2016, 26, 509-519.	1.3	14
53	Functional Analysis of Cellulose and Xyloglucan in the Walls of Stomatal Guard Cells of Arabidopsis Â. Plant Physiology, 2016, 170, 1398-1419.	2.3	75
54	Xyloglucan Deficiency Disrupts Microtubule Stability and Cellulose Biosynthesis in Arabidopsis, Altering Cell Growth and Morphogenesis. Plant Physiology, 2016, 170, 234-249.	2.3	143

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55	The click-compatible sugar 6-deoxy-alkynyl glucose metabolically incorporates into Arabidopsis root hair tips and arrests their growth. Phytochemistry, 2016, 123, 16-24.	1.4	15
56	We be jamminâ€™: an update on pectin biosynthesis, trafficking and dynamics. Journal of Experimental Botany, 2016, 67, 495-502.	2.4	106
57	Inhibition of fucosylation of cell wall components by 2â€fluoro 2â€deoxyâ€•l â€fucose induces defects in root cell elongation. Plant Journal, 2015, 84, 1137-1151.	2.8	17
58	Imaging with the fluorogenic dye Basic Fuchsin reveals subcellular patterning and ecotype variation of lignification in<i>Brachypodium distachyon</i>. Journal of Experimental Botany, 2015, 66, 4295-4304.	2.4	43
59	The Fragile Fiber1 Kinesin Contributes to Cortical Microtubule-Mediated Trafficking of Cell Wall Components. Plant Physiology, 2015, 167, 780-792.	2.3	104
60	Activation Tag Screening for Cell Expansion Genes in Arabidopsis thaliana. Methods in Molecular Biology, 2015, 1242, 159-171.	0.4	1
61	A Versatile Click-Compatible Monolignol Probe to Study Lignin Deposition in Plant Cell Walls. PLoS ONE, 2015, 10, e0121334.	1.1	19
62	Molecular counting by photobleaching in protein complexes with many subunits: best practices and application to the cellulose synthesis complex. Molecular Biology of the Cell, 2014, 25, 3630-3642.	0.9	64
63	Development of a Clickable Designer Monolignol for Interrogation of Lignification in Plant Cell Walls. Bioconjugate Chemistry, 2014, 25, 2189-2196.	1.8	33
64	Phylogenetic analysis of pectin-related gene families in Physcomitrella patensand nine other plant species yields evolutionary insights into cell walls. BMC Plant Biology, 2014, 14, 79.	1.6	64
65	Computational and genetic evidence that different structural conformations of a non-catalytic region affect the function of plant cellulose synthase. Journal of Experimental Botany, 2014, 65, 6645-6653.	2.4	24
66	POLYGALACTURONASE INVOLVED IN EXPANSION1 Functions in Cell Elongation and Flower Development in <i>Arabidopsis</i>. Plant Cell, 2014, 26, 1018-1035.	3.1	160
67	Identification and Use of Fluorescent Dyes for Plant Cell Wall Imaging Using High-Throughput Screening. Methods in Molecular Biology, 2014, 1056, 103-109.	0.4	6
68	The Endocytosis of Cellulose Synthase in Arabidopsis Is Dependent on Î¼2, a Clathrin-Mediated Endocytosis Adaptin Â Â. Plant Physiology, 2013, 163, 150-160.	2.3	145
69	Roles of pectin in biomass yield and processing for biofuels. Frontiers in Plant Science, 2013, 4, 67.	1.7	122
70	Small Molecule Probes for Plant Cell Wall Polysaccharide Imaging. Frontiers in Plant Science, 2012, 3, 89.	1.7	37
71	Illuminating the wall. Plant Signaling and Behavior, 2012, 7, 661-663.	1.2	13
72	Metabolic click-labeling with a fucose analog reveals pectin delivery, architecture, and dynamics in <i>Arabidopsis</i> cell walls. Proceedings of the National Academy of Sciences of the United States of America, 2012, 109, 1329-1334.	3.3	141

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73	Identification of Fluorescent Compounds with Non-Specific Binding Property via High Throughput Live Cell Microscopy. PLoS ONE, 2012, 7, e28802.	1.1	6
74	Mechanosensing by the Primary Cilium: Deletion of Kif3A Reduces Bone Formation Due to Loading. PLoS ONE, 2012, 7, e33368.	1.1	106
75	Expression and characterization of the Neurospora crassa endoglucanase GH5-1. Protein Expression and Purification, 2011, 75, 147-154.	0.6	25
76	Real-Time Imaging of Cellulose Reorientation during Cell Wall Expansion in Arabidopsis Roots Â Â. Plant Physiology, 2010, 152, 787-796.	2.3	374
77	Centriole Age Underlies Asynchronous Primary Cilium Growth in Mammalian Cells. Current Biology, 2009, 19, 1498-1502.	1.8	142
78	Primary Cilia: Cellular Sensors for the Skeleton. Anatomical Record, 2008, 291, 1074-1078.	0.8	63
79	Primary cilia mediate mechanosensing in bone cells by a calcium-independent mechanism. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 13325-13330.	3.3	417
80	Genetic and Bioinformatic Analysis of 41C and the 2R Heterochromatin of Drosophila melanogaster: A Window on the Heterochromatin-Euchromatin Junction. Genetics, 2004, 166, 807-822.	1.2	24
81	Genetic and Bioinformatic Analysis of 41C and the 2R Heterochromatin of Drosophila melanogaster: A Window on the Heterochromatin-Euchromatin Junction. Genetics, 2004, 166, 807-822.	1.2	9
82	Drosophila p120catenin plays a supporting role in cell adhesion but is not an essential adherens junction component. Journal of Cell Biology, 2003, 160, 433-449.	2.3	126