Maureen C Mccann

List of Publications by Year
in descending order

94 papers	13,511 citations	46918 47 h-index	49773 87 g-index
99 all docs	99 docs citations	99 times ranked	13628 citing authors

#	Article	IF	Citations
1	The B73 Maize Genome: Complexity, Diversity, and Dynamics. Science, 2009, 326, 1112-1115.	6.0	3,612
2	The Sorghum bicolor genome and the diversification of grasses. Nature, 2009, 457, 551-556.	13.7	2,642
3	PROCUSTE1 Encodes a Cellulose Synthase Required for Normal Cell Elongation Specifically in Roots and Dark-Grown Hypocotyls of Arabidopsis. Plant Cell, 2000, 12, 2409-2423.	3.1	530
4	If Homogalacturonan Were a Side Chain of Rhamnogalacturonan I. Implications for Cell Wall Architecture. Plant Physiology, 2003, 132, 1781-1789.	2.3	527
5	COBRA encodes a putative GPI-anchored protein, which is polarly localized and necessary for oriented cell expansion in Arabidopsis. Genes and Development, 2001, 15, 1115-1127.	2.7	335
6	Cell Wall Architecture of the Elongating Maize Coleoptile. Plant Physiology, 2001, 127, 551-565.	2.3	263
7	Fourier Transform Infrared Microspectroscopy Is a New Way to Look at Plant Cell Walls. Plant Physiology, 1992, 100, 1940-1947.	2.3	205
8	A rapid method to screen for cell-wall mutants using discriminant analysis of Fourier transform infrared spectra. Plant Journal, 1998, 16, 385-392.	2.8	202
9	Biomass recalcitrance: a multi-scale, multi-factor, and conversion-specific property: Fig. 1.. Journal of Experimental Botany, 2015, 66, 4109-4118.	2.4	197
10	Arabidopsis Gâ€protein interactome reveals connections to cell wall carbohydrates and morphogenesis. Molecular Systems Biology, 2011, 7, 532.	3.2	191
11	DNA Topoisomerase VI Is Essential for Endoreduplication in Arabidopsis. Current Biology, 2002, 12, 1782-1786.	1.8	186
12	Designing the deconstruction of plant cell walls. Current Opinion in Plant Biology, 2008, 11, 314-320.	3.5	186
13	KOBITO1 Encodes a Novel Plasma Membrane Protein Necessary for Normal Synthesis of Cellulose during Cell Expansion in Arabidopsis. Plant Cell, 2002, 14, 2001-2013.	3.1	180
14	Maize and sorghum: genetic resources for bioenergy grasses. Trends in Plant Science, 2008, 13, 415-420.	4.3	172
15	Changes in cell wall architecture during cell elongation. Journal of Experimental Botany, 1994, 45, 1683-1691.	2.4	170
16	Restricted cell elongation in Arabidopsis hypocotyls is associated with a reduced average pectin esterification level. BMC Plant Biology, 2007, 7, 31.	1.6	166
17	Genetic Resources for Maize Cell Wall Biology Â Â Â. Plant Physiology, 2009, 151, 1703-1728.	2.3	152
18	The <i>Arabidopsis MUM2</i> Gene Encodes a Î²-Galactosidase Required for the Production of Seed Coat Mucilage with Correct Hydration Properties. Plant Cell, 2008, 19, 4007-4021.	3.1	145

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19	<i>AtBXL1</i> Encodes a Bifunctional <i>Î²</i>-<scp>d</scp>-Xylosidase/<i>Î±</i>-<scp>l</scp>-Arabinofuranosidase Required for Pectic Arabinan Modification in Arabidopsis Mucilage Secretory Cells Â Â Â. Plant Physiology, 2009, 150, 1219-1234.	2.3	127
20	Cell elongation in Arabidopsis hypocotyls involves dynamic changes in cell wall thickness. Journal of Experimental Botany, 2007, 58, 2079-2089.	2.4	117
21	Maize <i>Brittle stalk2</i> Encodes a COBRA-Like Protein Expressed in Early Organ Development But Required for Tissue Flexibility at Maturity. Plant Physiology, 2007, 145, 1444-1459.	2.3	116
22	Macromolecular biophysics of the plant cell wall: Concepts and methodology. Plant Physiology and Biochemistry, 2000, 38, 1-13.	2.8	112
23	Changes in pectin structure and localization during the growth of unadapted and NaCl-adapted tobacco cells. Plant Journal, 1994, 5, 773-785.	2.8	110
24	Early Gene Expression Associated with the Commitment and Differentiation of a Plant Tracheary Element Is Revealed by cDNAâ€"Amplified Fragment Length Polymorphism Analysis[W]. Plant Cell, 2002, 14, 2813-2824.	3.1	106
25	RHL1 is an essential component of the plant DNA topoisomerase VI complex and is required for ploidy-dependent cell growth. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 18736-18741.	3.3	106
26	Infrared microspectroscopy: Sampling heterogeneity in plant cell wall composition and architecture. Physiologia Plantarum, 1997, 100, 729-738.	2.6	105
27	A conserved functional role of pectic polymers in stomatal guard cells from a range of plant species. Planta, 2005, 221, 255-264.	1.6	101
28	A pectate lyase from Zinnia elegans is auxin inducible. Plant Journal, 2002, 13, 17-28.	2.8	98
29	Developmental regulation of pectic epitopes during potato tuberisation. Planta, 2001, 213, 869-880.	1.6	95
30	Title is missing!. Plant Molecular Biology, 2001, 47, 221-238.	2.0	92
31	Xylogenesis: the birth of a corpse. Current Opinion in Plant Biology, 2000, 3, 517-522.	3.5	91
32	Genomics of plant cell wall biogenesis. Planta, 2005, 221, 747-751.	1.6	90
33	In muro fragmentation of the rhamnogalacturonan I backbone in potato (Solanum tuberosum L.) results in a reduction and altered location of the galactan and arabinan side-chains and abnormal periderm development. Plant Journal, 2002, 30, 403-413.	2.8	86
34	Approaches to understanding the functional architecture of the plant cell wall. Phytochemistry, 2001, 57, 811-821.	1.4	83
35	Complexity in the spatial localization and length distribution of plant cellâ€wall matrix polysaccharides. Journal of Microscopy, 1992, 166, 123-136.	0.8	78
36	Tracheary element formation: building up to a dead end. Trends in Plant Science, 1997, 2, 333-338.	4.3	77

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37	Pectic epitopes are differentially distributed in the cell walls of potato (Solanum tuberosum) tubers. Physiologia Plantarum, 1999, 107, 201-213.	2.6	76
38	Neural Network Analyses of Infrared Spectra for Classifying Cell Wall Architectures. Plant Physiology, 2007, 143, 1314-1326.	2.3	76
39	Specific plasma membrane aquaporins of the PIP1 subfamily are expressed in sieve elements and guard cells. Biology of the Cell, 2005, 97, 519-534.	0.7	75
40	Dynamic changes in cell surface molecules are very early events in the differentiation of mesophyll cells from Zinnia elegans into tracheary elements. Plant Journal, 1995, 8, 891-906.	2.8	70
41	Extraction of pectic polysaccharides from sugar-beet cell walls. Journal of the Science of Food and Agriculture, 2000, 80, 17-28.	1.7	59
42	Direct Interference with Rhamnogalacturonan I Biosynthesis in Golgi Vesicles. Plant Physiology, 2002, 129, 95-102.	2.3	57
43	Comparative Genomics in Switchgrass Using 61,585 Highâ€Quality Expressed Sequence Tags. Plant Genome, 2008, 1, .	1.6	57
44	Mobility-resolved 13C-NMR spectroscopy of primary plant cell walls. Biopolymers, 1998, 39, 51-66.	1.2	51
45	Structure of cellulose-deficient secondary cell walls from the irx3 mutant of Arabidopsis thaliana. Phytochemistry, 2002, 61, 7-14.	1.4	51
46	The Maize Mixed-Linkage (1â†’3),(1â†’4)-<i>Î²</i>-<scp>d</scp>-Glucan Polysaccharide Is Synthesized at the Golgi Membrane Â. Plant Physiology, 2010, 153, 1362-1371.	2.3	51
47	Genetic Determinants for Enzymatic Digestion of Lignocellulosic Biomass Are Independent of Those for Lignin Abundance in a Maize Recombinant Inbred Population. Plant Physiology, 2014, 165, 1475-1487.	2.3	51
48	Cell-cell adhesion in fresh sugar-beet root parenchyma requires both pectin esters and calcium cross-links. Physiologia Plantarum, 2006, 126, 243-256.	2.6	49
49	Mobility-resolved 13C-NMR spectroscopy of primary plant cell walls. , 1996, 39, 51.		49
50	Redesigning plant cell walls for the biomass-based bioeconomy. Journal of Biological Chemistry, 2020, 295, 15144-15157.	1.6	48
51	A fasciclin-domain containing gene, ZeFLA11, is expressed exclusively in xylem elements that have reticulate wall thickenings in the stem vascular system of Zinnia elegans cv Envy. Planta, 2006, 223, 1281-1291.	1.6	45
52	The <i>thanatos</i> mutation in <i>Arabidopsis thaliana </i>cellulose synthase 3 (<i>AtCesA3</i>) has a dominantâ€negative effect on cellulose synthesis and plant growth. New Phytologist, 2009, 184, 114-126.	3.5	45
53	An abundant TIP expressed in mature highly vacuolated cells. Plant Journal, 2000, 21, 83-90.	2.8	43
54	Investigation of macromolecule orientation in dry and hydrated walls of single onion epidermal cells by FTIR microspectroscopy. Journal of Molecular Structure, 1997, 408-409, 257-260.	1.8	42

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55	Title is missing!. Plant and Soil, 2002, 247, 71-80.	1.8	39
56	Modulation of the cellulose content of tuber cell walls by antisense expression of different potato (Solanum tuberosum L.) CesA clones. Phytochemistry, 2004, 65, 535-546.	1.4	39
57	Overcoming cellulose recalcitrance in woody biomass for the lignin-first biorefinery. Biotechnology for Biofuels, 2019, 12, 171.	6.2	37
58	Glycome and Proteome Components of Golgi Membranes Are Common between Two Angiosperms with Distinct Cell-Wall Structures. Plant Cell, 2019, 31, 1094-1112.	3.1	35
59	Cell-wall structure and anisotropy in procuste, a cellulose synthase mutant of Arabidopsis thaliana. Planta, 2006, 224, 438-448.	1.6	33
60	Differential expression of cell-wall-related genes during the formation of tracheary elements in the Zinnia mesophyll cell system. , 2001, , 221-238.		32
61	Old and new ways to probe plant cell-wall architecture. Canadian Journal of Botany, 1995, 73, 103-113.	1.2	30
62	Cell Wall Architecture of the Elongating Maize Coleoptile. Plant Physiology, 2001, 127, 551-565.	2.3	29
63	We are good to grow: dynamic integration of cell wall architecture with the machinery of growth. Frontiers in Plant Science, 2012, 3, 187.	1.7	29
64	Envisioning the transition to a nextâ€•generation biofuels industry in the US Midwest. Biofuels, Bioproducts and Biorefining, 2012, 6, 376-386.	1.9	26
65	Rhamnogalacturonanâ€I is a determinant of cellâ€“cell adhesion in poplar wood. Plant Biotechnology Journal, 2020, 18, 1027-1040.	4.1	24
66	Characterizing visible and invisible cell wall mutant phenotypes. Journal of Experimental Botany, 2015, 66, 4145-4163.	2.4	23
67	Enhanced rates of enzymatic saccharification and catalytic synthesis of biofuel substrates in gelatinized cellulose generated by trifluoroacetic acid. Biotechnology for Biofuels, 2017, 10, 310.	6.2	23
68	Evolution of the Cell Wall Gene Families of Grasses. Frontiers in Plant Science, 2019, 10, 1205.	1.7	23
69	Zinnia. Everybody Needs Good Neighbors. Plant Physiology, 2001, 127, 1380-1382.	2.3	20
70	Validation of PyMBMS as a High-throughput Screen for Lignin Abundance in Lignocellulosic Biomass of Grasses. Bioenergy Research, 2014, 7, 899-908.	2.2	19
71	Cell wall targeted <i>in planta</i> iron accumulation enhances biomass conversion and seed iron concentration in Arabidopsis and rice. Plant Biotechnology Journal, 2016, 14, 1998-2009.	4.1	19
72	Transgenic ferritin overproduction enhances thermochemical pretreatments in Arabidopsis. Biomass and Bioenergy, 2015, 72, 55-64.	2.9	17

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73	Maize <i>Brittle Stalk2-Like3</i>, encoding a COBRA protein, functions in cell wall formation and carbohydrate partitioning. Plant Cell, 2021, 33, 3348-3366.	3.1	17
74	Transition of G1 to early S phase may be required for zinnia mesophyll cells to trans-differentiate to tracheary elements. Planta, 2004, 220, 172-176.	1.6	15
75	Lack of xyloglucan in the cell walls of the Arabidopsis <i>xxt1/xxt2</i> mutant results in specific increases in homogalacturonan and glucomannan. Plant Journal, 2022, 110, 212-227.	2.8	13
76	Directed plant cell-wall accumulation of iron: embedding co-catalyst for efficient biomass conversion. Biotechnology for Biofuels, 2016, 9, 225.	6.2	12
77	Remodelling Pectin Structure In Potato. Developments in Plant Genetics and Breeding, 2000, 6, 245-256.	0.6	10
78	Sustainable production of ammonia fertilizers from biomass. Biofuels, Bioproducts and Biorefining, 2020, 14, 725-733.	1.9	10
79	A RING Domain Gene Is Expressed in Different Cell Types of Leaf Trace, Stem, and Juvenile Bundles in the Stem Vascular System of Zinnia. Plant Physiology, 2005, 138, 1383-1395.	2.3	8
80	Expression profiles of cell-wall related genes vary broadly between two common maize inbreds during stem development. BMC Genomics, 2019, 20, 785.	1.2	8
81	Chimeric plantsâ€”the best of both worlds. Science, 2020, 369, 618-619.	6.0	8
82	PROCUSTE1 Encodes a Cellulose Synthase Required for Normal Cell Elongation Specifically in Roots and Dark-Grown Hypocotyls of Arabidopsis. Plant Cell, 2000, 12, 2409.	3.1	5
83	Isolation and characterization of ZePES and AtPES, the pescadillo orthologs from Zinnia and Arabidopsis. Plant Science, 2007, 173, 358-369.	1.7	5
84	The Cell Wall Arabinose-Deficient <i>Arabidopsis thaliana</i> Mutant <i>murus5</i> Encodes a Defective Allele of <i>REVERSIBLY GLYCOSYLATED POLYPEPTIDE2</i>. Plant Physiology, 2016, 171, 1905-1920.	2.3	5
85	Towards Unravelling the Biological Significance of the Individual Components of Pectic Hairy Regions in Plants. , 2003, , 15-34.		5
86	A TEMPO-catalyzed oxidationâ€“reduction method to probe surface and anhydrous crystalline-core domains of cellulose microfibril bundles. Cellulose, 2021, 28, 5305-5319.	2.4	4
87	Back to the Walls.. Plant Cell, 1997, 9, 281-282.	3.1	2
88	Differential distributions of trafficking and signaling proteins of the maize ER-Golgi apparatus. Plant Signaling and Behavior, 2019, 14, 1672513.	1.2	2
89	Iron incorporation both intra- and extra-cellularly improves the yield and saccharification of switchgrass (Panicum virgatum L.) biomass. Biotechnology for Biofuels, 2021, 14, 55.	6.2	2
90	The functions of cell wall polysaccharides in composition and architecture revealed through mutations. , 2002, , 71-80.		2

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91	Tailoring Plant Cell Wall Composition and Architecture for Conversion to Liquid Hydrocarbon Biofuels. , 2015, , 63-82.		2
92	COMPILE: a GWAS computational pipeline for gene discovery in complex genomes. BMC Plant Biology, 2022, 22, .	1.6	2
93	Pectin-associated mannans and xylans play distinct roles in cell-cell adhesion in pine and poplar wood. Industrial Crops and Products, 2022, 184, 115054.	2.5	1
94	Tailoring Biomass for Biochemical, Chemical or Thermochemical Catalytic Conversion. FASEB Journal, 2015, 29, 485.3.	0.2	0