

Maria J Pea

List of Publications by Citations

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42
papers

2,595
citations

25
h-index

45
g-index

45
ext. papers

3,199
ext. citations

7.6
avg, IF

4.62
L-index

#	Paper	IF	Citations
42	Arabidopsis irregular xylem8 and irregular xylem9: implications for the complexity of glucuronoxylan biosynthesis. <i>Plant Cell</i> , 2007 , 19, 549-63	11.6	339
41	Human gut Bacteroidetes can utilize yeast mannan through a selfish mechanism. <i>Nature</i> , 2015 , 517, 165-169	36.9	307
40	Arabidopsis fragile fiber8, which encodes a putative glucuronyltransferase, is essential for normal secondary wall synthesis. <i>Plant Cell</i> , 2005 , 17, 3390-408	11.6	247
39	Structural analysis of xyloglucans in the primary cell walls of plants in the subclass Asteridae. <i>Carbohydrate Research</i> , 2005 , 340, 1826-40	2.9	175
38	Two Arabidopsis proteins synthesize acetylated xylan in vitro. <i>Plant Journal</i> , 2014 , 80, 197-206	6.9	133
37	4-O-methylation of glucuronic acid in Arabidopsis glucuronoxylan is catalyzed by a domain of unknown function family 579 protein. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 14253-8	11.5	123
36	Loss of highly branched arabinans and debranching of rhamnogalacturonan I accompany loss of firm texture and cell separation during prolonged storage of apple. <i>Plant Physiology</i> , 2004 , 135, 1305-13	6.6	115
35	Moss and liverwort xyloglucans contain galacturonic acid and are structurally distinct from the xyloglucans synthesized by hornworts and vascular plants. <i>Glycobiology</i> , 2008 , 18, 891-904	5.8	113
34	The galactose residues of xyloglucan are essential to maintain mechanical strength of the primary cell walls in Arabidopsis during growth. <i>Plant Physiology</i> , 2004 , 134, 443-51	6.6	102
33	Changes in Dehydrodiferulic Acids and Peroxidase Activity against Ferulic Acid Associated with Cell Walls during Growth of Pinus pinaster Hypocotyl. <i>Plant Physiology</i> , 1996 , 111, 941-946	6.6	77
32	A galacturonic acid-containing xyloglucan is involved in Arabidopsis root hair tip growth. <i>Plant Cell</i> , 2012 , 24, 4511-24	11.6	72
31	The structure and function of an arabinan-specific alpha-1,2-arabinofuranosidase identified from screening the activities of bacterial GH43 glycoside hydrolases. <i>Journal of Biological Chemistry</i> , 2011 , 286, 15483-95	5.4	71
30	AXY8 encodes an Fucosidase, underscoring the importance of apoplastic metabolism on the fine structure of Arabidopsis cell wall polysaccharides. <i>Plant Cell</i> , 2011 , 23, 4025-40	11.6	64
29	Introducing endo-xylanase activity into an exo-acting arabinofuranosidase that targets side chains. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2012 , 109, 6537-42	11.5	59
28	Galactose-depleted xyloglucan is dysfunctional and leads to dwarfism in Arabidopsis. <i>Plant Physiology</i> , 2015 , 167, 1296-306	6.6	55
27	Structural diversity of xylans in the cell walls of monocots. <i>Planta</i> , 2016 , 244, 589-606	4.7	50
26	The ability of land plants to synthesize glucuronoxylans predates the evolution of tracheophytes. <i>Glycobiology</i> , 2012 , 22, 439-51	5.8	49

25	Designer biomass for next-generation biorefineries: leveraging recent insights into xylan structure and biosynthesis. <i>Biotechnology for Biofuels</i> , 2017 , 10, 286	7.8	48
24	Gene regulatory networks for lignin biosynthesis in switchgrass (<i>Panicum virgatum</i>). <i>Plant Biotechnology Journal</i> , 2019 , 17, 580-593	11.6	36
23	Structural, mutagenic and in silico studies of xyloglucan fucosylation in <i>Arabidopsis thaliana</i> suggest a water-mediated mechanism. <i>Plant Journal</i> , 2017 , 91, 931-949	6.9	36
22	Methods for structural characterization of the products of cellulose- and xyloglucan-hydrolyzing enzymes. <i>Methods in Enzymology</i> , 2012 , 510, 121-39	1.7	36
21	Identification of an algal xylan synthase indicates that there is functional orthology between algal and plant cell wall biosynthesis. <i>New Phytologist</i> , 2018 , 218, 1049-1060	9.8	35
20	Role of apoplastic ascorbate and hydrogen peroxide in the control of cell growth in pine hypocotyls. <i>Plant and Cell Physiology</i> , 2004 , 45, 530-4	4.9	32
19	The cell wall stiffening mechanism in <i>Pinus pinaster</i> Aiton: regulation by apoplastic levels of ascorbate and hydrogen peroxide. <i>Journal of the Science of Food and Agriculture</i> , 1999 , 79, 416-420	4.3	31
18	Development of a thermophilic coculture for corn fiber conversion to ethanol. <i>Nature Communications</i> , 2020 , 11, 1937	17.4	25
17	Loss of function of foylpolylglutamate synthetase 1 reduces lignin content and improves cell wall digestibility in <i>Arabidopsis</i> . <i>Biotechnology for Biofuels</i> , 2015 , 8, 224	7.8	20
16	Biochemical and Genetic Analysis Identify CSLD3 as a beta-1,4-Glucan Synthase That Functions during Plant Cell Wall Synthesis. <i>Plant Cell</i> , 2020 , 32, 1749-1767	11.6	19
15	Changes in the abundance of cell wall apiogalacturonan and xylogalacturonan and conservation of rhamnogalacturonan II structure during the diversification of the Lemnoideae. <i>Planta</i> , 2018 , 247, 953-974	11.7	18
14	A xyloglucan from persimmon fruit cell walls. <i>Phytochemistry</i> , 1998 , 48, 607-610	4	16
13	Downregulation of a UDP-Arabinomutase Gene in Switchgrass (L.) Results in Increased Cell Wall Lignin While Reducing Arabinose-Glycans. <i>Frontiers in Plant Science</i> , 2016 , 7, 1580	6.2	16
12	Xyloglucan, galactomannan, glucuronoxylan, and rhamnogalacturonan I do not have identical structures in soybean root and root hair cell walls. <i>Planta</i> , 2015 , 242, 1123-38	4.7	13
11	Molecular Mechanism of Polysaccharide Acetylation by the <i>Arabidopsis</i> Xylan -acetyltransferase XOAT1. <i>Plant Cell</i> , 2020 , 32, 2367-2382	11.6	11
10	Nanocellulose-Based Sustainable Dyeing of Cotton Textiles with Minimized Water Pollution. <i>ACS Omega</i> , 2020 , 5, 9196-9203	3.9	11
9	Structural characterization of the heteroxylans from poplar and switchgrass. <i>Methods in Molecular Biology</i> , 2012 , 908, 215-28	1.4	9
8	Locating Methyl-Etherified and Methyl-Esterified Uronic Acids in the Plant Cell Wall Pectic Polysaccharide Rhamnogalacturonan II. <i>SLAS Technology</i> , 2020 , 25, 329-344	3	7

7	Autolysis Promotes the Extension Capacity of Zea mays Coleoptile Cell Walls in Response to Acid pH Solutions. <i>Plant and Cell Physiology</i> , 1999 , 40, 565-570	4.9	4
6	Mechanism and Reaction Energy Landscape for Apiose Cross-Linking by Boric Acid in Rhamnogalacturonan II. <i>Journal of Physical Chemistry B</i> , 2020 , 124, 10117-10125	3.4	3
5	Protocols for isolating and characterizing polysaccharides from plant cell walls: a case study using rhamnogalacturonan-II. <i>Biotechnology for Biofuels</i> , 2021 , 14, 142	7.8	3
4	Analytical Techniques for Determining the Role of Domain of Unknown Function 579 Proteins in the Synthesis of -Methylated Plant Polysaccharides. <i>SLAS Technology</i> , 2020 , 25, 345-355	3	2
3	Heterologous expression of plant glycosyltransferases for biochemistry and structural biology. <i>Methods in Cell Biology</i> , 2020 , 160, 145-165	1.8	2
2	Sequential extraction of dehydrodiferulates shows heterogeneity in their degree of association with Zea mays coleoptile cell walls. <i>Phytochemical Analysis</i> , 1998 , 9, 141-144	3.4	1
1	FUT4 and FUT6 Are Arabinofuranose-Specific Fucosyltransferases. <i>Frontiers in Plant Science</i> , 2021 , 12, 589518	6.2	1