

Debra Mohnen

List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/119474/publications.pdf>

Version: 2024-02-01

56
papers

8,946
citations

109321

35
h-index

161849

54
g-index

60
all docs

60
docs citations

60
times ranked

8189
citing authors

#	ARTICLE	IF	CITATIONS
1	Pectin structure and biosynthesis. <i>Current Opinion in Plant Biology</i> , 2008, 11, 266-277.	7.1	1,799
2	Pectins: structure, biosynthesis, and oligogalacturonide-related signaling. <i>Phytochemistry</i> , 2001, 57, 929-967.	2.9	1,596
3	The structure, function, and biosynthesis of plant cell wall pectic polysaccharides. <i>Carbohydrate Research</i> , 2009, 344, 1879-1900.	2.3	1,255
4	Evolving Views of Pectin Biosynthesis. <i>Annual Review of Plant Biology</i> , 2013, 64, 747-779.	18.7	458
5	An <i>Arabidopsis</i> Cell Wall Proteoglycan Consists of Pectin and Arabinoxylan Covalently Linked to an Arabinogalactan Protein. <i>Plant Cell</i> , 2013, 25, 270-287.	6.6	409
6	Oligosaccharins—oligosaccharides that regulate growth, development and defence responses in plants. <i>Glycobiology</i> , 1992, 2, 181-198.	2.5	301
7	The <i>Arabidopsis</i> irregular xylem8 Mutant Is Deficient in Glucuronoxylan and Homogalacturonan, Which Are Essential for Secondary Cell Wall Integrity. <i>Plant Cell</i> , 2007, 19, 237-255.	6.6	251
8	Functional identification of an <i>Arabidopsis</i> pectin biosynthetic homogalacturonan galacturonosyltransferase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006, 103, 5236-5241.	7.1	231
9	Pectin induces apoptosis in human prostate cancer cells: correlation of apoptotic function with pectin structure. <i>Glycobiology</i> , 2007, 17, 805-819.	2.5	201
10	Galacturonosyltransferase (GAUT)1 and GAUT7 are the core of a plant cell wall pectin biosynthetic homogalacturonan:galacturonosyltransferase complex. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2011, 108, 20225-20230.	7.1	183
11	Sugar release and growth of biofuel crops are improved by downregulation of pectin biosynthesis. <i>Nature Biotechnology</i> , 2018, 36, 249-257.	17.5	136
12	Downregulation of GAUT12 in <i>Populus deltoides</i> by RNA silencing results in reduced recalcitrance, increased growth and reduced xylan and pectin in a woody biofuel feedstock. <i>Biotechnology for Biofuels</i> , 2015, 8, 41.	6.2	133
13	The Catalytic Site of the Pectin Biosynthetic Enzyme β -1,4-Galacturonosyltransferase Is Located in the Lumen of the Golgi. <i>Plant Physiology</i> , 2001, 127, 360-371.	4.8	129
14	<i>Arabidopsis thaliana</i> T-DNA Mutants Implicate GAUT Genes in the Biosynthesis of Pectin and Xylan in Cell Walls and Seed Testa. <i>Molecular Plant</i> , 2009, 2, 1000-1014.	8.3	126
15	Evolution and Function of the Plant Cell Wall Synthesis-Related Glycosyltransferase Family 8. <i>Plant Physiology</i> , 2010, 153, 1729-1746.	4.8	120
16	Oligogalacturonides are able to induce flowers to form on tobacco explants. <i>Plant Journal</i> , 1991, 1, 217-225.	5.7	116
17	A review of xylan and lignin biosynthesis: Foundation for studying <i>Arabidopsis</i> irregular xylem mutants with pleiotropic phenotypes. <i>Critical Reviews in Biochemistry and Molecular Biology</i> , 2014, 49, 212-241.	5.2	91
18	Multitrait genome-wide association analysis of <i>Populus trichocarpa</i> identifies key polymorphisms controlling morphological and physiological traits. <i>New Phytologist</i> , 2019, 223, 293-309.	7.3	85

#	ARTICLE	IF	CITATIONS
19	Critical Review of Plant Cell Wall Matrix Polysaccharide Glycosyltransferase Activities Verified by Heterologous Protein Expression. <i>Frontiers in Plant Science</i> , 2019, 10, 915.	3.6	81
20	A Specialized Outer Layer of the Primary Cell Wall Joins Elongating Cotton Fibers into Tissue-Like Bundles. <i>Plant Physiology</i> , 2009, 150, 684-699.	4.8	80
21	Oligosaccharins: oligosaccharide regulatory molecules. <i>Accounts of Chemical Research</i> , 1992, 25, 77-83.	15.6	79
22	Carbohydrate and lignin are simultaneously solubilized from unpretreated switchgrass by microbial action at high temperature. <i>Energy and Environmental Science</i> , 2013, 6, 2186.	30.8	75
23	Solubilization and characterization of a galacturonosyltransferase that synthesizes the pectic polysaccharide homogalacturonan. <i>Plant Journal</i> , 1998, 13, 363-374.	5.7	72
24	Identification of Key Enzymes for Pectin Synthesis in Seed Mucilage. <i>Plant Physiology</i> , 2018, 178, 1045-1064.	4.8	63
25	GALACTURONOSYLTRANSFERASE-LIKE5 Is Involved in the Production of Arabidopsis Seed Coat Mucilage. <i>Plant Physiology</i> , 2013, 163, 1203-1217.	4.8	58
26	Deletion of a gene cluster encoding pectin degrading enzymes in <i>Caldicellulosiruptor bescii</i> reveals an important role for pectin in plant biomass recalcitrance. <i>Biotechnology for Biofuels</i> , 2014, 7, 147.	6.2	54
27	Loss of Arabidopsis GAUT12/IRX8 causes anther indehiscence and leads to reduced G lignin associated with altered matrix polysaccharide deposition. <i>Frontiers in Plant Science</i> , 2014, 5, 357.	3.6	50
28	Pectin biosynthesis: a solubilized β -1,4-galacturonosyltransferase from tobacco catalyzes the transfer of galacturonic acid from UDP-galacturonic acid onto the non-reducing end of homogalacturonan. <i>Planta</i> , 1999, 207, 512-517.	3.2	49
29	Multiple levers for overcoming the recalcitrance of lignocellulosic biomass. <i>Biotechnology for Biofuels</i> , 2019, 12, 15.	6.2	47
30	Biological Activity of Reducing-End-Derivatized Oligogalacturonides in Tobacco Tissue Cultures1. <i>Plant Physiology</i> , 1998, 116, 1289-1298.	4.8	43
31	A two-phase model for the non-processive biosynthesis of homogalacturonan polysaccharides by the GAUT1:GAUT7 complex. <i>Journal of Biological Chemistry</i> , 2018, 293, 19047-19063.	3.4	43
32	Identification and Partial Characterization of the Pectin Methyltransferase β -Homogalacturonan-Methyltransferase from Membranes of Tobacco Cell Suspensions1. <i>Plant Physiology</i> , 1998, 116, 337-347.	4.8	40
33	Subcellular localization and topology of homogalacturonan methyltransferase in suspension-cultured <i>Nicotiana tabacum</i> cells. <i>Planta</i> , 1999, 209, 112-117.	3.2	39
34	A Method for Biotin Labeling of Biologically Active Oligogalacturonides Using a Chemically Stable Hydrazide Linkage. <i>Analytical Biochemistry</i> , 1997, 249, 10-19.	2.4	37
35	Solubilization and Partial Characterization of Homogalacturonan-Methyltransferase from Microsomal Membranes of Suspension-Cultured Tobacco Cells. <i>Plant Physiology</i> , 1999, 121, 281-290.	4.8	36
36	Downregulation of pectin biosynthesis gene GAUT4 leads to reduced ferulate and lignin-carbohydrate cross-linking in switchgrass. <i>Communications Biology</i> , 2019, 2, 22.	4.4	35

#	ARTICLE	IF	CITATIONS
37	Working towards recalcitrance mechanisms: increased xylan and homogalacturonan production by overexpression of GALactUronosylTransferase12 (GAUT12) causes increased recalcitrance and decreased growth in Populus. <i>Biotechnology for Biofuels</i> , 2018, 11, 9.	6.2	31
38	Cell wall carbohydrates as signals in plants. <i>Seminars in Cell Biology</i> , 1993, 4, 93-102.	3.4	30
39	Pectic Cell Wall Fragments Regulate Tobacco Thin-Cell-Layer Explant Morphogenesis. <i>Plant Cell</i> , 1989, 1, 747.	6.6	29
40	Solid-supported enzymatic synthesis of pectic oligogalacturonides and their analysis by MALDI-TOF mass spectrometry. <i>Carbohydrate Research</i> , 2003, 338, 1951-1960.	2.3	23
41	Comparison of four glycosyl residue composition methods for effectiveness in detecting sugars from cell walls of dicot and grass tissues. <i>Biotechnology for Biofuels</i> , 2017, 10, 182.	6.2	22
42	Agronomic performance of Populus deltoides trees engineered for biofuel production. <i>Biotechnology for Biofuels</i> , 2017, 10, 253.	6.2	22
43	Pectin Synthesis and Pollen Tube Growth in Arabidopsis Involves Three GAUT1 Golgi-Anchoring Proteins: GAUT5, GAUT6, and GAUT7. <i>Frontiers in Plant Science</i> , 2020, 11, 585774.	3.6	21
44	Enzymatic Synthesis and Purification of [3H]Uridine Diphosphate Galacturonic Acid for Use in Studying Golgi-Localized Transporters. <i>Analytical Biochemistry</i> , 1999, 272, 224-231.	2.4	18
45	Pectin biopolymer mechanics and microstructure associated with polysaccharide phase transitions. <i>Journal of Biomedical Materials Research - Part A</i> , 2020, 108, 246-253.	4.0	17
46	Visualizing pectin polymer-polymer entanglement produced by interfacial water movement. <i>Carbohydrate Polymers</i> , 2020, 246, 116618.	10.2	14
47	Multiple Arabidopsis galacturonosyltransferases synthesize polymeric homogalacturonan by oligosaccharide acceptor-dependent or <i>de novo</i> synthesis. <i>Plant Journal</i> , 2022, 109, 1441-1456.	5.7	14
48	The Effect of Calcium on the Cohesive Strength and Flexural Properties of Low-Methoxyl Pectin Biopolymers. <i>Molecules</i> , 2020, 25, 75.	3.8	11
49	Plants Get Hyp to O-Glycosylation. <i>Science</i> , 2011, 332, 1393-1394.	12.6	10
50	Development of a filter assay for measuring homogalacturonan: β -(1,4)-Galacturonosyltransferase activity. <i>Analytical Biochemistry</i> , 2005, 343, 231-236.	2.4	8
51	Analysis of pectin biopolymer phase states using acoustic emissions. <i>Carbohydrate Polymers</i> , 2020, 227, 115282.	10.2	7
52	Water-Dependent Blending of Pectin Films: The Mechanics of Conjoined Biopolymers. <i>Molecules</i> , 2020, 25, 2108.	3.8	6
53	Oligogalacturonides are able to induce flowers to form on tobacco explants. <i>Plant Journal</i> , 1991, 1, 217-225.	5.7	4
54	Synthesis of the plant cell wall's most complex glycan: pectin - surprises in glycosyltransferase processing and anchoring in the Golgi. <i>FASEB Journal</i> , 2012, 26, 349.3.	0.5	2

#	ARTICLE	IF	CITATIONS
55	Composition and yield of non-cellulosic and cellulosic sugars in soluble and particulate fractions during consolidated bioprocessing of poplar biomass by <i>Clostridium thermocellum</i> . , 2022, 15, 23.		2
56	Plant glycobiology: a current snap shot!. <i>Glycobiology</i> , 2016, 26, 911-912.	2.5	1