

Michael G Hahn

List of Publications by Citations

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69
papers

4,579
citations

34
h-index

67
g-index

72
ext. papers

5,409
ext. citations

8.3
avg, IF

5.04
L-index

#	Paper	IF	Citations
69	Host-Pathogen Interactions : XIX. THE ENDOGENOUS ELICITOR, A FRAGMENT OF A PLANT CELL WALL POLYSACCHARIDE THAT ELICITS PHYTOALEXIN ACCUMULATION IN SOYBEANS. <i>Plant Physiology</i> , 1981 , 68, 1161-9	6.6	328
68	An Arabidopsis cell wall proteoglycan consists of pectin and arabinoxylan covalently linked to an arabinogalactan protein. <i>Plant Cell</i> , 2013 , 25, 270-87	11.6	312
67	Disrupting two Arabidopsis thaliana xylosyltransferase genes results in plants deficient in xyloglucan, a major primary cell wall component. <i>Plant Cell</i> , 2008 , 20, 1519-37	11.6	312
66	Oligosaccharins: structures and signal transduction. <i>Plant Molecular Biology</i> , 1994 , 26, 1379-411	4.6	309
65	A comprehensive toolkit of plant cell wall glycan-directed monoclonal antibodies. <i>Plant Physiology</i> , 2010 , 153, 514-25	6.6	290
64	Oligosaccharins--oligosaccharides that regulate growth, development and defence responses in plants. <i>Glycobiology</i> , 1992 , 2, 181-98	5.8	272
63	Efficient biomass pretreatment using ionic liquids derived from lignin and hemicellulose. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2014 , 111, E3587-95	11.5	239
62	The Arabidopsis irregular xylem8 mutant is deficient in glucuronoxylan and homogalacturonan, which are essential for secondary cell wall integrity. <i>Plant Cell</i> , 2007 , 19, 237-55	11.6	219
61	Functional identification of an Arabidopsis pectin biosynthetic homogalacturonan galacturonosyltransferase. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2006 , 103, 5236-41	11.5	198
60	Immunological approaches to plant cell wall and biomass characterization: Glycome Profiling. <i>Methods in Molecular Biology</i> , 2012 , 908, 61-72	1.4	107
59	Arabidopsis thaliana 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, 1000-14	14.4	99
58	Application of monoclonal antibodies to investigate plant cell wall deconstruction for biofuels production. <i>Energy and Environmental Science</i> , 2011 , 4, 4332	35.4	97
57	Analysis of the Golgi apparatus in Arabidopsis seed coat cells during polarized secretion of pectin-rich mucilage. <i>Plant Cell</i> , 2008 , 20, 1623-38	11.6	96
56	Sugar release and growth of biofuel crops are improved by downregulation of pectin biosynthesis. <i>Nature Biotechnology</i> , 2018 , 36, 249-257	44.5	93
55	Arabidopsis XXT5 gene encodes a putative alpha-1,6-xylosyltransferase that is involved in xyloglucan biosynthesis. <i>Plant Journal</i> , 2008 , 56, 101-15	6.9	92
54	Evolution and function of the plant cell wall synthesis-related glycosyltransferase family 8. <i>Plant Physiology</i> , 2010 , 153, 1729-46	6.6	87
53	Downregulation of GAUT12 in Populus deltoides 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	7.8	86

52	A Synthetic Glycan Microarray Enables Epitope Mapping of Plant Cell Wall Glycan-Directed Antibodies. <i>Plant Physiology</i> , 2017 , 175, 1094-1104	6.6	80
51	Mutations in multiple XXT genes of Arabidopsis reveal the complexity of xyloglucan biosynthesis. <i>Plant Physiology</i> , 2012 , 159, 1367-84	6.6	74
50	Characterization of a monoclonal antibody that recognizes an arabinosylated (1-->6)-beta-D-galactan epitope in plant complex carbohydrates. <i>Carbohydrate Research</i> , 1995 , 275, 295-307	3.0	70
49	CELLULOSE SYNTHASE-LIKE A2, a glucomannan synthase, is involved in maintaining adherent mucilage structure in Arabidopsis seed. <i>Plant Physiology</i> , 2014 , 164, 1842-56	6.6	65
48	Impact of engineered lignin composition on biomass recalcitrance and ionic liquid pretreatment efficiency. <i>Green Chemistry</i> , 2016 , 18, 4884-4895	10	58
47	Aspen pectate lyase PtxtPL1-27 mobilizes matrix polysaccharides from woody tissues and improves saccharification yield. <i>Biotechnology for Biofuels</i> , 2014 , 7, 11	7.8	56
46	Galactose-depleted xyloglucan is dysfunctional and leads to dwarfism in Arabidopsis. <i>Plant Physiology</i> , 2015 , 167, 1296-306	6.6	55
45	Molecular analysis of a family of Arabidopsis genes related to galacturonosyltransferases. <i>Plant Physiology</i> , 2011 , 155, 1791-805	6.6	48
44	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	7.8	46
43	Insights into plant cell wall structure, architecture, and integrity using glycome profiling of native and AFEX TM -pre-treated biomass. <i>Journal of Experimental Botany</i> , 2015 , 66, 4279-94	7	45
42	Biochemical and physiological characterization of fut4 and fut6 mutants defective in arabinogalactan-protein fucosylation in Arabidopsis. <i>Journal of Experimental Botany</i> , 2013 , 64, 5537-51	7	41
41	GALACTURONOSYLTRANSFERASE-LIKE5 is involved in the production of Arabidopsis seed coat mucilage. <i>Plant Physiology</i> , 2013 , 163, 1203-17	6.6	40
40	Understanding how the complex molecular architecture of mannan-degrading hydrolases contributes to plant cell wall degradation. <i>Journal of Biological Chemistry</i> , 2014 , 289, 2002-12	5.4	36
39	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	6.2	36
38	Immunological approaches to plant cell wall and biomass characterization: immunolocalization of glycan epitopes. <i>Methods in Molecular Biology</i> , 2012 , 908, 73-82	1.4	36
37	Two poplar glycosyltransferase genes, PdGATL1.1 and PdGATL1.2, are functional orthologs to PARVUS/AtGATL1 in Arabidopsis. <i>Molecular Plant</i> , 2009 , 2, 1040-50	14.4	34
36	Elicitors and defense gene induction in plants with altered lignin compositions. <i>New Phytologist</i> , 2018 , 219, 1235-1251	9.8	34
35	A cell wall reference profile for Miscanthus bioenergy crops highlights compositional and structural variations associated with development and organ origin. <i>New Phytologist</i> , 2017 , 213, 1710-1725	9.8	33

34	The elaborate route for UDP-arabinose delivery into the Golgi of plants. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2017 , 114, 4261-4266	11.5	31
33	The GMD1 and GMD2 genes of Arabidopsis encode isoforms of GDP-D-mannose 4,6-dehydratase with cell type-specific expression patterns. <i>Plant Physiology</i> , 2003 , 132, 883-92	6.6	31
32	ARABIDOPSIS DEHISCENCE ZONE POLYGALACTURONASE 1 (ADPG1) releases latent defense signals in stems with reduced lignin content. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2020 , 117, 3281-3290	11.5	29
31	Glycome and Proteome Components of Golgi Membranes Are Common between Two Angiosperms with Distinct Cell-Wall Structures. <i>Plant Cell</i> , 2019 , 31, 1094-1112	11.6	23
30	Immunological Approaches to Biomass Characterization and Utilization. <i>Frontiers in Bioengineering and Biotechnology</i> , 2015 , 3, 173	5.8	23
29	A DUF-246 family glycosyltransferase-like gene affects male fertility and the biosynthesis of pectic arabinogalactans. <i>BMC Plant Biology</i> , 2016 , 16, 90	5.3	22
28	Automated glycan assembly of galactosylated xyloglucan oligosaccharides and their recognition by plant cell wall glycan-directed antibodies. <i>Organic and Biomolecular Chemistry</i> , 2017 , 15, 9996-10000	3.9	20
27	Loss of function of foylpolylglutamate synthetase 1 reduces lignin content and improves cell wall digestibility in Arabidopsis. <i>Biotechnology for Biofuels</i> , 2015 , 8, 224	7.8	20
26	Working towards recalcitrance mechanisms: increased xylan and homogalacturonan production by overexpression of () causes increased recalcitrance and decreased growth in. <i>Biotechnology for Biofuels</i> , 2018 , 11, 9	7.8	19
25	Characterization of novel glycosyl hydrolases discovered by cell wall glycan directed monoclonal antibody screening and metagenome analysis of maize aerial root mucilage. <i>PLoS ONE</i> , 2018 , 13, e0204525	3.7	18
24	Desirable plant cell wall traits for higher-quality miscanthus lignocellulosic biomass. <i>Biotechnology for Biofuels</i> , 2019 , 12, 85	7.8	17
23	β1,3-Glucans are components of brown seaweed (Phaeophyceae) cell walls. <i>Protoplasma</i> , 2017 , 254, 997-1016	3.4	17
22	Comparative evaluation of variants total sugar release and structural features following pretreatment and digestion by two distinct biological systems. <i>Biotechnology for Biofuels</i> , 2017 , 10, 292	7.8	17
21	cell wall composition determines disease resistance specificity and fitness. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2021 , 118,	11.5	17
20	Tubulin perturbation leads to unexpected cell wall modifications and affects stomatal behaviour in Populus. <i>Journal of Experimental Botany</i> , 2015 , 66, 6507-18	7	16
19	Compensatory Guaiacyl Lignin Biosynthesis at the Expense of Syringyl Lignin in -Knockout Poplar. <i>Plant Physiology</i> , 2020 , 183, 123-136	6.6	16
18	Xylan hydrolysis in Populus trichocarpa [P. deltoides and model substrates during hydrothermal pretreatment. <i>Bioresource Technology</i> , 2015 , 179, 202-210	11	15
17	DGE-seq analysis of MUR3-related Arabidopsis mutants provides insight into how dysfunctional xyloglucan affects cell elongation. <i>Plant Science</i> , 2017 , 258, 156-169	5.3	14

16	Determination of glycoside hydrolase specificities during hydrolysis of plant cell walls using glycome profiling. <i>Biotechnology for Biofuels</i> , 2017 , 10, 31	7.8	13
15	A Hybrid Approach Enabling Large-Scale Glycomic Analysis of Post-Golgi Vesicles Reveals a Transport Route for Polysaccharides. <i>Plant Cell</i> , 2019 , 31, 627-644	11.6	12
14	Blueberry cell wall fractionation, characterization and glycome profiling. <i>Food Hydrocolloids</i> , 2019 , 90, 385-393	10.6	12
13	Immunolocalization of cell wall carbohydrate epitopes in seaweeds: presence of land plant epitopes in <i>Fucus vesiculosus</i> L. (Phaeophyceae). <i>Planta</i> , 2016 , 243, 337-54	4.7	11
12	A Glycan Array-Based Assay for the Identification and Characterization of Plant Glycosyltransferases. <i>Angewandte Chemie - International Edition</i> , 2020 , 59, 12493-12498	16.4	9
11	Effects of Extractive Ammonia Pretreatment on the Ultrastructure and Glycan Composition of Corn Stover. <i>Frontiers in Energy Research</i> , 2019 , 7,	3.8	9
10	Changes in cell wall properties coincide with overexpression of extensin fusion proteins in suspension cultured tobacco cells. <i>PLoS ONE</i> , 2014 , 9, e115906	3.7	8
9	The effect of switchgrass plant cell wall properties on its deconstruction by thermochemical pretreatments coupled with fungal enzymatic hydrolysis or <i>Clostridium thermocellum</i> consolidated bioprocessing. <i>Green Chemistry</i> , 2020 , 22, 7924-7945	10	7
8	Plant Fucosyltransferases and the Emerging Biological Importance of Fucosylated Plant Structures. <i>Critical Reviews in Plant Sciences</i> , 2019 , 38, 327-338	5.6	3
7	Combinatorial Glycomic Analyses to Direct CAZyme Discovery for the Tailored Degradation of Canola Meal Non-Starch Dietary Polysaccharides. <i>Microorganisms</i> , 2020 , 8,	4.9	3
6	Mechanistic insights into the digestion of complex dietary fibre by the rumen microbiota using combinatorial high-resolution glycomics and transcriptomic analyses.. <i>Computational and Structural Biotechnology Journal</i> , 2022 , 20, 148-164	6.8	1
5	FUT4 and FUT6 Are Arabinofuranose-Specific Fucosyltransferases. <i>Frontiers in Plant Science</i> , 2021 , 12, 589518	6.2	1
4	Cannabis Glandular Trichome Cell Walls Undergo Remodeling to Store Specialized Metabolites. <i>Plant and Cell Physiology</i> , 2021 ,	4.9	1
3	Protein, hydrophobic nature, and glycan profile of sugar beet pectin influence emulsifying activity. <i>Food Hydrocolloids</i> , 2022 , 123, 107131	10.6	1
2	A Glycan Array-Based Assay for the Identification and Characterization of Plant Glycosyltransferases. <i>Angewandte Chemie</i> , 2020 , 132, 12593-12598	3.6	0
1	Isolation and Glycomic Analysis of Trans-Golgi Network Vesicles in Plants. <i>Methods in Molecular Biology</i> , 2020 , 2177, 153-167	1.4	