Maurice Bosch

List of Publications by Year
in descending order

55 papers	2,583 citations	257450 24 h-index	197818 49 g-index
57 all docs	57 docs citations	57 times ranked	3327 citing authors

#	Article	IF	Citations
1	Pectin Methylesterase, a Regulator of Pollen Tube Growth. Plant Physiology, 2005, 138, 1334-1346.	4.8	324
2	Pectin Methylesterases and Pectin Dynamics in Pollen Tubes. Plant Cell, 2005, 17, 3219-3226.	6.6	309
3	Exocytosis Precedes and Predicts the Increase in Growth in Oscillating Pollen Tubes. Plant Cell, 2009, 21, 3026-3040.	6.6	137
4	Reactive Oxygen Species and Nitric Oxide Mediate Actin Reorganization and Programmed Cell Death in the Self-Incompatibility Response of <i>Papaver</i> Â Â Â. Plant Physiology, 2011, 156, 404-416.	4.8	127
5	Identification of genes involved in cell wall biogenesis in grasses by differential gene expression profiling of elongating and non-elongating maize internodes. Journal of Experimental Botany, 2011, 62, 3545-3561.	4.8	107
6	Pistil Factors Controlling Pollination. Plant Cell, 2004, 16, S98-S106.	6.6	99
7	Temporal and spatial activation of caspase-like enzymes induced by self-incompatibility in <i>Papaver</i> pollen. Proceedings of the National Academy of Sciences of the United States of America, 2007, 104, 18327-18332.	7.1	98
8	Genomeâ€wide association studies and prediction of 17 traits related to phenology, biomass and cell wall composition in the energy grass <i>Miscanthus sinensis</i>. New Phytologist, 2014, 201, 1227-1239.	7.3	96
9	Evolution of self-compatibility by a mutant Sm-RNase in citrus. Nature Plants, 2020, 6, 131-142.	9.3	85
10	Physiological and growth responses to water deficit in the bioenergy crop Miscanthus x giganteus. Frontiers in Plant Science, 2013, 4, 468.	3.6	82
11	Silencing of the tobacco pollen pectin methylesterase NtPPME1 results in retarded in vivo pollen tube growth. Planta, 2006, 223, 736-745.	3.2	75
12	Self-incompatibility in<i>Papaver</i>: signalling to trigger PCD in incompatible pollen. Journal of Experimental Botany, 2008, 59, 481-490.	4.8	64
13	Pilot-scale production of xylo-oligosaccharides and fermentable sugars from Miscanthus using steam explosion pretreatment. Bioresource Technology, 2020, 296, 122285.	9.6	64
14	Self-Incompatibility-Induced Programmed Cell Death in Field Poppy Pollen Involves Dramatic Acidification of the Incompatible Pollen Tube Cytosol Â. Plant Physiology, 2015, 167, 766-779.	4.8	63
15	Genotype, development and tissue-derived variation of cell-wall properties in the lignocellulosic energy crop Miscanthus. Annals of Botany, 2014, 114, 1265-1277.	2.9	56
16	Linking Dynamic Phenotyping with Metabolite Analysis to Study Natural Variation in Drought Responses of Brachypodium distachyon. Frontiers in Plant Science, 2016, 7, 1751.	3.6	53
17	Genetic engineering of grass cell wall polysaccharides for biorefining. Plant Biotechnology Journal, 2017, 15, 1071-1092.	8.3	52
18	Progress towards elucidating the mechanisms of self-incompatibility in the grasses: further insights from studies in Lolium. Annals of Botany, 2011, 108, 677-685.	2.9	49

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19	Production of oligosaccharides and biofuels from Miscanthus using combinatorial steam explosion and ionic liquid pretreatment. Bioresource Technology, 2021, 323, 124625.	9.6	49
20	A cell wall reference profile for <i>Miscanthus</i> bioenergy crops highlights compositional and structural variations associated withÂdevelopment and organ origin. New Phytologist, 2017, 213, 1710-1725.	7.3	44
21	Class III Pistil-Specific Extensin-Like Proteins from Tobacco Have Characteristics of Arabinogalactan Proteins. Plant Physiology, 2001, 125, 2180-2188.	4.8	42
22	Heterogeneity and Glycan Masking of Cell Wall Microstructures in the Stems of Miscanthus x giganteus, and Its Parents M. sinensis and M. sacchariflorus. PLoS ONE, 2013, 8, e82114.	2.5	42
23	Initiation of Programmed Cell Death in Self-Incompatibility: Role for Cytoskeleton Modifications and Several Caspase-Like Activities. Molecular Plant, 2008, 1, 879-887.	8.3	34
24	Desirable plant cell wall traits for higher-quality miscanthus lignocellulosic biomass. Biotechnology for Biofuels, 2019, 12, 85.	6.2	29
25	Characterization of a legumain/vacuolar processing enzyme and YVADase activity in Papaver pollen. Plant Molecular Biology, 2010, 74, 381-393.	3.9	28
26	Advances in the genetic dissection of plant cell walls: tools and resources available in Miscanthus. Frontiers in Plant Science, 2013, 4, 217.	3.6	27
27	Exploring design principles of biological and living building envelopes: what can we learn from plant cell walls?. Intelligent Buildings International, 2018, 10, 78-102.	2.3	24
28	Modified expression of ZmMYB167 in Brachypodium distachyon and Zea mays leads to increased cell wall lignin and phenolic content. Scientific Reports, 2019, 9, 8800.	3.3	24
29	Review: Improving the Impact of Plant Science on Urban Planning and Design. Buildings, 2016, 6, 48.	3.1	22
30	Lignocellulosic feedstocks: research progress and challenges in optimizing biomass quality and yield. Frontiers in Plant Science, 2013, 4, 474.	3.6	21
31	Transcriptional and Metabolomic Analyses Indicate that Cell Wall Properties are Associated with Drought Tolerance in Brachypodium distachyon. International Journal of Molecular Sciences, 2019, 20, 1758.	4.1	21
32	Mechanical stimulation in <scp><i>Brachypodium distachyon</i></scp>: Implications for fitness, productivity, and cell wall properties. Plant, Cell and Environment, 2020, 43, 1314-1330.	5.7	20
33	Proteins implicated in mediating self-incompatibility-induced alterations to the actin cytoskeleton of Papaver pollen. Annals of Botany, 2011, 108, 659-675.	2.9	19
34	Nutrient and drought stress: implications for phenology and biomass quality in miscanthus. Annals of Botany, 2019, 124, 553-566.	2.9	19
35	Ectopic Expression of a Self-Incompatibility Module Triggers Growth Arrest and Cell Death in Vegetative Cells. Plant Physiology, 2020, 183, 1765-1779.	4.8	18
36	New opportunities and insights into Papaver self-incompatibility by imaging engineered Arabidopsis pollen. Journal of Experimental Botany, 2020, 71, 2451-2463.	4.8	18

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37	Self-incompatibility inPapaverpollen: programmed cell death in an acidic environment. Journal of Experimental Botany, 2018, 70, 2113-2123.	4.8	17
38	Self-incompatibility in Papaver: identification of the pollen S-determinant PrpS. Biochemical Society Transactions, 2010, 38, 588-592.	3.4	14
39	Self-Incompatibility Triggers Irreversible Oxidative Modification of Proteins in Incompatible Pollen. Plant Physiology, 2020, 183, 1391-1404.	4.8	13
40	A functional study of stylar hydroxyproline-rich glycoproteins during pollen tube growth. Sexual Plant Reproduction, 2003, 16, 87-98.	2.2	12
41	Self-incompatibility requires GPI anchor remodeling by the poppy PGAP1 ortholog HLD1. Current Biology, 2022, 32, 1909-1923.e5.	3.9	12
42	Biorefining Potential of Wild-Grown Arundo donax, Cortaderia selloana and Phragmites australis and the Feasibility of White-Rot Fungi-Mediated Pretreatments. Frontiers in Plant Science, 2021, 12, 679966.	3.6	11
43	Genomic index selection provides a pragmatic framework for setting and refining multi-objective breeding targets in Miscanthus. Annals of Botany, 2019, 124, 521-529.	2.9	10
44	Villin Controls the Formation and Enlargement of Punctate Actin Foci in Pollen Tubes. Journal of Cell Science, 2020, 133, .	2.0	10
45	A Comparison of Differential Gene Expression in Response to the Onset of Water Stress Between Three Hybrid Brachiaria Genotypes. Frontiers in Plant Science, 2021, 12, 637956.	3.6	9
46	ATP depletion plays a pivotal role in selfâ€incompatibility, revealing a link between cellular energy status, cytosolic acidification and actin remodelling in pollen tubes. New Phytologist, 2022, 236, 1691-1707.	7.3	7
47	Pollenâ€“stigma interactions in Brassicaceae: complex communication events regulating pollen hydration. Journal of Experimental Botany, 2020, 71, 2465-2468.	4.8	6
48	Transcriptional regulators of Arabidopsis secondary cell wall formation: tools to re-program and improve cell wall traits. Frontiers in Plant Science, 2014, 5, 192.	3.6	5
49	Plant biology: Stigmatic ROS decide whether pollen isÂaccepted or rejected. Current Biology, 2021, 31, R904-R906.	3.9	4
50	Cell Wall Biomass Preparation and Fourier Transform Mid-infrared (FTIR) Spectroscopy to Study Cell Wall Composition. Bio-protocol, 2015, 5, .	0.4	4
51	Mechanical stimulation in wheat triggers age- and dose-dependent alterations in growth, development and grain characteristics. Annals of Botany, 2021, 128, 589-603.	2.9	3
52	Oscillatory Pollen Tube Growth: Imaging the Underlying Structures and Physiological Processes. Microscopy and Microanalysis, 2005, 11, .	0.4	2
53	Unveiling the compositional remodelling of Arbutus unedo L. fruits during ripening. Scientia Horticulturae, 2022, 303, 111248.	3.6	2
54	The stigma of death. Nature Plants, 2018, 4, 323-324.	9.3	1

#	Article	IF	Citations
55	Plant reproduction: does size matter?. New Phytologist, 2011, 190, 812-815.	7.3	0