Christophe Dunand

List of Publications by Year
in descending order

97	10,715	53751 45	38368 95
papers	citations	h-index	g-index

103	103	103	13283
all docs	docs citations	times ranked	citing authors

#	Article	IF	Citations
1	Peroxidases have more functions than a Swiss army knife. Plant Cell Reports, 2005, 24, 255-265.	2.8	830
2	Performing the paradoxical: how plant peroxidases modify the cell wall. Trends in Plant Science, 2004, 9, 534-540.	4.3	737
3	The genome of Eucalyptus grandis. Nature, 2014, 510, 356-362.	13.7	725
4	A burst of plant NADPH oxidases. Trends in Plant Science, 2012, 17, 9-15.	4.3	581
5	Distribution of superoxide and hydrogen peroxide in Arabidopsis root and their influence on root development: possible interaction with peroxidases. New Phytologist, 2007, 174, 332-341.	3.5	491
6	The Chara Genome: Secondary Complexity and Implications for Plant Terrestrialization. Cell, 2018, 174, 448-464.e24.	13.5	420
7	Glutathione peroxidase family â€“ an evolutionary overview. FEBS Journal, 2008, 275, 3959-3970.	2.2	400
8	Primary transcripts of microRNAs encode regulatory peptides. Nature, 2015, 520, 90-93.	13.7	370
9	Specific functions of individual class III peroxidase genes. Journal of Experimental Botany, 2009, 60, 391-408.	2.4	354
10	The class III peroxidase multigenic family in rice and its evolution in land plantsâ˜†â˜†â˜†. Phytochemistry, 2004, 65, 1879-1893.	1.4	347
11	The MUR3 Gene of Arabidopsis Encodes a Xyloglucan Galactosyltransferase That Is Evolutionarily Related to Animal Exostosins. Plant Cell, 2003, 15, 1662-1670.	3.1	304
12	Algal ancestor of land plants was preadapted for symbiosis. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 13390-13395.	3.3	292
13	Reactive Oxygen Species during Plantâ€microorganism Early Interactions. Journal of Integrative Plant Biology, 2010, 52, 195-204.	4.1	275
14	Origin of strigolactones in the green lineage. New Phytologist, 2012, 195, 857-871.	3.5	258
15	Large-scale genome sequencing of mycorrhizal fungi provides insights into the early evolution of symbiotic traits. Nature Communications, 2020, 11, 5125.	5.8	258
16	Roles of cell wall peroxidases in plant development. Phytochemistry, 2015, 112, 15-21.	1.4	233
17	Insight into tradeâ€off between wood decay and parasitism from the genome of a fungal forest pathogen. New Phytologist, 2012, 194, 1001-1013.	3.5	210
18	Molecular link between auxin and ROS-mediated polar growth. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 5289-5294.	3.3	201

#	Article	IF	Citations
19	PeroxiBase: The peroxidase database. Phytochemistry, 2007, 68, 1605-1611.	1.4	187
20	Two cell wall associated peroxidases from Arabidopsis influence root elongation. Planta, 2006, 223, 965-974.	1.6	166
21	PeroxiBase: a database with new tools for peroxidase family classification. Nucleic Acids Research, 2009, 37, D261-D266.	6.5	141
22	PeroxiBase: a database for large-scale evolutionary analysis of peroxidases. Nucleic Acids Research, 2012, 41, D441-D444.	6.5	141
23	The peroxidaseâ€“cyclooxygenase superfamily: Reconstructed evolution of critical enzymes of the innate immune system. Proteins: Structure, Function and Bioinformatics, 2008, 72, 589-605.	1.5	140
24	CaM and CML emergence in the green lineage. Trends in Plant Science, 2015, 20, 483-489.	4.3	137
25	Expression analysis of the Arabidopsis peroxidase multigenic family. Phytochemistry, 2004, 65, 1331-1342.	1.4	130
26	Waving and skewing: how gravity and the surface of growth media affect root development in Arabidopsis. New Phytologist, 2007, 176, 37-43.	3.5	109
27	Prokaryotic origins of the non-animal peroxidase superfamily and organelle-mediated transmission to eukaryotes. Genomics, 2007, 89, 567-579.	1.3	100
28	Arabidopsis seed mucilage secretory cells: regulation and dynamics. Trends in Plant Science, 2015, 20, 515-524.	4.3	95
29	The class <scp>III</scp> peroxidase <scp>PRX</scp>17 is a direct target of the <scp>MADS</scp>â€box transcription factor AGAMOUSâ€LIKE15 (<scp>AGL</scp>15) and participates in lignified tissue formation. New Phytologist, 2017, 213, 250-263.	3.5	88
30	Phylogenetic distribution of catalase-peroxidases: Are there patches of order in chaos?. Gene, 2007, 397, 101-113.	1.0	86
31	Effects of low temperature plasmas and plasma activated waters on Arabidopsis thaliana germination and growth. PLoS ONE, 2018, 13, e0195512.	1.1	85
32	Identification of a hydrogen peroxide signalling pathway in the control of light-dependent germination in Arabidopsis. Planta, 2013, 238, 381-395.	1.6	77
33	Evolution and expression of class III peroxidases. Archives of Biochemistry and Biophysics, 2010, 500, 58-65.	1.4	73
34	RedoxiBase: A database for ROS homeostasis regulated proteins. Redox Biology, 2019, 26, 101247.	3.9	73
35	PeroxiBase: A class III plant peroxidase database. Phytochemistry, 2006, 67, 534-539.	1.4	68
36	Cell growth and differentiation in Arabidopsis epidermal cells. Journal of Experimental Botany, 2007, 58, 3829-3840.	2.4	62

#	Article	IF	Citations
37	Ascorbate peroxidaseâ€related (APxâ€R) is a new hemeâ€containing protein functionally associated with ascorbate peroxidase but evolutionarily divergent. New Phytologist, 2011, 191, 234-250.	3.5	57
38	Pectin Demethylesterification Generates Platforms that Anchor Peroxidases to Remodel Plant Cell Wall Domains. Developmental Cell, 2019, 48, 261-276.e8.	3.1	57
39	Plant Photoreceptors: Phylogenetic Overview. Journal of Molecular Evolution, 2005, 61, 559-569.	0.8	56
40	The Arabidopsis thaliana Class III Peroxidase AtPRX71 Negatively Regulates Growth under Physiological Conditions and in Response to Cell Wall Damage.. Plant Physiology, 2015, 169, pp.01464.2015.	2.3	56
41	Molecular and biochemical aspects of plant terrestrialization. Perspectives in Plant Ecology, Evolution and Systematics, 2012, 14, 49-59.	1.1	55
42	Highlighting reactive oxygen species as multitaskers in root development. IScience, 2021, 24, 101978.	1.9	53
43	Transcriptome analysis of various flower and silique development stages indicates a set of class III peroxidase genes potentially involved in pod shattering in Arabidopsis thaliana. BMC Genomics, 2010, 11, 528.	1.2	51
44	Patterning of Arabidopsis epidermal cells: epigenetic factors regulate the complex epidermal cell fate pathway. Trends in Plant Science, 2006, 11, 601-609.	4.3	50
45	Morphological and physiological traits of three major Arabidopsis thaliana accessions. Journal of Plant Physiology, 2007, 164, 980-992.	1.6	50
46	An anionic class III peroxidase from zucchini may regulate hypocotyl elongation through its auxin oxidase activity. Planta, 2009, 229, 823-836.	1.6	48
47	Reconstructing trait evolution in plant evoâ€“devo studies. Current Biology, 2019, 29, R1110-R1118.	1.8	47
48	Genome-Wide Characterization and Expression Profiling of the AUXIN RESPONSE FACTOR (ARF) Gene Family in Eucalyptus grandis. PLoS ONE, 2014, 9, e108906.	1.1	45
49	<i>Arabidopsis thaliana</i> root cell wall proteomics: Increasing the proteome coverage using a combinatorial peptide ligand library and description of unexpected Hyp in peroxidase amino acid sequences. Proteomics, 2016, 16, 491-503.	1.3	45
50	Explosive Tandem and Segmental Duplications of Multigenic Families in Eucalyptus grandis. Genome Biology and Evolution, 2015, 7, 1068-1081.	1.1	42
51	Purification and identification of a Ca 2+ -pectate binding peroxidase from Arabidopsis leaves. Phytochemistry, 2004, 65, 307-312.	1.4	41
52	New insights of low-temperature plasma effects on germination of three genotypes of Arabidopsis thaliana seeds under osmotic and saline stresses. Scientific Reports, 2019, 9, 8649.	1.6	40
53	PeroxiBase: a powerful tool to collect and analyse peroxidase sequences from Viridiplantae. Journal of Experimental Botany, 2009, 60, 453-459.	2.4	39
54	Identification and characterisation of Ca2+-pectate binding peroxidases inArabidopsis thaliana. Journal of Plant Physiology, 2002, 159, 1165-1171.	1.6	36

#	Article	IF	Citations
55	CsPrx25, a class III peroxidase in Citrus sinensis, confers resistance to citrus bacterial canker through the maintenance of ROS homeostasis and cell wall lignification. Horticulture Research, 2020, 7, 192.	2.9	35
56	Proline Hydroxylation in Cell Wall Proteins: Is It Yet Possible to Define Rules?. Frontiers in Plant Science, 2017, 8, 1802.	1.7	34
57	Genome-Wide Analysis of the AP2/ERF Family in Eucalyptus grandis: An Intriguing Over-Representation of Stress-Responsive DREB1/CBF Genes. PLoS ONE, 2015, 10, e0121041.	1.1	33
58	An enlarged cell wall proteome of <i>Arabidopsis thaliana</i> rosettes. Proteomics, 2016, 16, 3183-3187.	1.3	31
59	Cell wall proteome analysis of <i>Arabidopsis thaliana</i> mature stems. Proteomics, 2017, 17, 1600449.	1.3	27
60	Cell wall modifications of two Arabidopsis thaliana ecotypes, Col and Sha, in response to sub-optimal growth conditions: An integrative study. Plant Science, 2017, 263, 183-193.	1.7	26
61	Seed mucilage evolution: Diverse molecular mechanisms generate versatile ecological functions for particular environments. Plant, Cell and Environment, 2020, 43, 2857-2870.	2.8	25
62	Apoplastic class III peroxidases PRX62 and PRX69 promote Arabidopsis root hair growth at low temperature. Nature Communications, 2022, 13, 1310.	5.8	25
63	Automatic multigenic family annotation: risks and solutions. Trends in Genetics, 2014, 30, 323-325.	2.9	24
64	Expression of a peroxidase gene in zucchini in relation with hypocotyl growth. Plant Physiology and Biochemistry, 2003, 41, 805-811.	2.8	23
65	GECA: a fast tool for gene evolution and conservation analysis in eukaryotic protein families. Bioinformatics, 2012, 28, 1398-1399.	1.8	21
66	Expression of<i>PRX36</i>,<i>PMEI6</i>and<i>SBT1.7</i>is controlled by complex transcription factor regulatory networks for proper seed coat mucilage extrusion. Plant Signaling and Behavior, 2014, 9, e977734.	1.2	21
67	Coordination of five class III peroxidase-encoding genes for early germination events of Arabidopsis thaliana. Plant Science, 2020, 298, 110565.	1.7	20
68	Complementarity of medium-throughput in situ RNA hybridization and tissue-specific transcriptomics: case study of Arabidopsis seed development kinetics. Scientific Reports, 2016, 6, 24644.	1.6	17
69	Global analysis of non-animal peroxidases provides insights into the evolution of this gene family in the green lineage. Journal of Experimental Botany, 2020, 71, 3350-3360.	2.4	15
70	Class III Peroxidases PRX01, PRX44, and PRX73 Control Root Hair Growth in Arabidopsis thaliana. International Journal of Molecular Sciences, 2022, 23, 5375.	1.8	15
71	Cell-wall microdomain remodeling controls crucial developmental processes. Trends in Plant Science, 2022, 27, 1033-1048.	4.3	14
72	Characterization of the binding of Î±-l-Fuc (1â†’2)-Î²-d-Gal (1â†’), a xyloglucan signal, in blackberry protoplasts. Plant Science, 2000, 151, 183-192.	1.7	13

#	Article	IF	Citations
73	Localization of Superoxide in the Root Apex of<i>Arabidopsis</i>. Plant Signaling and Behavior, 2007, 2, 131-132.	1.2	13
74	Ascorbate peroxidase-related (APx-R) is not a duplicable gene. Plant Signaling and Behavior, 2011, 6, 1908-1913.	1.2	13
75	In silico definition of new ligninolytic peroxidase sub-classes in fungi and putative relation to fungal life style. Scientific Reports, 2019, 9, 20373.	1.6	13
76	Divergent evolutionary lines of fungal cytochromecperoxidases belonging to the superfamily of bacterial, fungal and plant heme peroxidases. FEBS Letters, 2006, 580, 6655-6664.	1.3	12
77	Transcriptomic and cell wall proteomic datasets of rosettes and floral stems from five Arabidopsis thaliana ecotypes grown at optimal or sub-optimal temperature. Data in Brief, 2019, 27, 104581.	0.5	11
78	Phenotypic Trait Variation as a Response to Altitude-Related Constraints in Arabidopsis Populations. Frontiers in Plant Science, 2019, 10, 430.	1.7	11
79	Expression analysis of the Arabidopsis peroxidase multigenic family. Phytochemistry, 2004, 65, 1331-1331.	1.4	10
80	Plant Cell Wall Proteins and Development. International Journal of Molecular Sciences, 2020, 21, 2731.	1.8	10
81	A powerful framework for an integrative study with heterogeneous omics data: from univariate statistics to multi-block analysis. Briefings in Bioinformatics, 2021, 22, .	3.2	10
82	Phenotyping and cell wall polysaccharide composition dataset of five arabidopsis ecotypes grown at optimal or sub-optimal temperatures. Data in Brief, 2019, 25, 104318.	0.5	7
83	The Class III Peroxidase Encoding Gene AtPrx62 Positively and Spatiotemporally Regulates the Low pH-Induced Cell Death in Arabidopsis thaliana Roots. International Journal of Molecular Sciences, 2020, 21, 7191.	1.8	7
84	An Integrative Study Showing the Adaptation to Sub-Optimal Growth Conditions of Natural Populations of Arabidopsis thaliana: A Focus on Cell Wall Changes. Cells, 2020, 9, 2249.	1.8	7
85	Mixotrophy in aquatic plants, an overlooked ability. Trends in Plant Science, 2022, 27, 147-157.	4.3	7
86	Global Evolutionary Analysis of 11 Gene Families Part of Reactive Oxygen Species (ROS) Gene Network in Four Eucalyptus Species. Antioxidants, 2020, 9, 257.	2.2	6
87	Myxospermy Evolution in Brassicaceae: A Highly Complex and Diverse Trait with Arabidopsis as an Uncommon Model. Cells, 2021, 10, 2470.	1.8	6
88	Class III Peroxidases in Response to Multiple Abiotic Stresses in Arabidopsis thaliana Pyrenean Populations. International Journal of Molecular Sciences, 2022, 23, 3960.	1.8	6
89	Transcession of DNA from Bacteria to Human Cells in Culture: A Possible Role in Oncogenesis. Annals of the New York Academy of Sciences, 2004, 1022, 195-201.	1.8	5
90	The Cell Wall PAC (Proline-Rich, Arabinogalactan Proteins, Conserved Cysteines) Domain-Proteins Are Conserved in the Green Lineage. International Journal of Molecular Sciences, 2020, 21, 2488.	1.8	5

#	Article	IF	Citations
91	Ethylene Signaling Causing Tolerance of Arabidopsis thaliana Roots to Low pH Stress is Linked to Class III Peroxidase Activity. Journal of Plant Growth Regulation, 2021, 40, 116-125.	2.8	5
92	Effects of Dielectric Barrier Ambient Air Plasma on Two Brassicaceae Seeds: Arabidopsis thaliana and Camelina sativa. International Journal of Molecular Sciences, 2021, 22, 9923.	1.8	3
93	APETALA3-nuclease hybrid protein: a potential tool for APETALA3 target gene mutagenesis. Plant Science, 1999, 148, 19-30.	1.7	2
94	Medium-Throughput RNA In Situ Hybridization of Serial Sections from Paraffin-Embedded Tissue Microarrays. Methods in Molecular Biology, 2019, 1933, 99-130.	0.4	2
95	Editorial: Co-Evolution of Plant Cell Wall Polymers. Frontiers in Plant Science, 2020, 11, 598299.	1.7	2
96	Automatic Prediction and Annotation: There Are Strong Biases for Multigenic Families. Frontiers in Genetics, 2021, 12, 697477.	1.1	2
97	Editorial for Special Issue: Research on Plant Cell Wall Biology. Cells, 2022, 11, 1480.	1.8	0