Vincent Burlat

List of Publications by Year
in descending order

62 papers	3,911 citations	159585 30 h-index	128289 60 g-index
64 all docs	64 docs citations	64 times ranked	4038 citing authors

#	Article	IF	Citations
1	The seco-iridoid pathway from Catharanthus roseus. Nature Communications, 2014, 5, 3606.	12.8	355
2	An alternative route to cyclic terpenes by reductive cyclization in iridoid biosynthesis. Nature, 2012, 492, 138-142.	27.8	298
3	Roles of cell wall peroxidases in plant development. Phytochemistry, 2015, 112, 15-21.	2.9	233
4	<i>De novo</i> biosynthesis of defense root exudates in response to <i>Fusarium</i> attack in barley. New Phytologist, 2010, 185, 577-588.	7.3	206
5	Co-expression of three MEP pathway genes andgeraniol 10-hydroxylasein internal phloem parenchyma ofCatharanthus roseusimplicates multicellular translocation of intermediates during the biosynthesis of monoterpene indole alkaloids and isoprenoid-derived primary metabolites. Plant Journal, 2004, 38, 131-141.	5.7	195
6	Regiochemical control of monolignol radical coupling: A new paradigm for lignin and lignan biosynthesis. Chemistry and Biology, 1999, 6, 143-151.	6.0	175
7	Down-regulation of the AtCCR1 gene in Arabidopsis thaliana: effects on phenotype, lignins and cell wall degradability. Planta, 2003, 217, 218-228.	3.2	165
8	Dirigent proteins and dirigent sites in lignifying tissues. Phytochemistry, 2001, 57, 883-897.	2.9	164
9	A look inside an alkaloid multisite plant: the Catharanthus logistics. Current Opinion in Plant Biology, 2014, 19, 43-50.	7.1	135
10	Strictosidine activation in Apocynaceae: towards a "nuclear time bomb"?. BMC Plant Biology, 2010, 10, 182.	3.6	129
11	Characterization of the plastidial geraniol synthase from Madagascar periwinkle which initiates the monoterpenoid branch of the alkaloid pathway in internal phloem associated parenchyma. Phytochemistry, 2013, 85, 36-43.	2.9	123
12	Optimization of the transient transformation of Catharanthus roseus cells by particle bombardment and its application to the subcellular localization of hydroxymethylbutenyl 4-diphosphate synthase and geraniol 10-hydroxylase. Plant Cell Reports, 2009, 28, 1215-1234.	5.6	105
13	Spatial distribution and hormonal regulation of gene products from methyl erythritol phosphate and monoterpene-secoiridoid pathways in Catharanthus roseus. Plant Molecular Biology, 2007, 65, 13-30.	3.9	103
14	A Pair of Tabersonine 16-Hydroxylases Initiates the Synthesis of Vindoline in an Organ-Dependent Manner in<i>Catharanthus roseus</i>Â Â Â. Plant Physiology, 2013, 163, 1792-1803.	4.8	97
15	Arabidopsis seed mucilage secretory cells: regulation and dynamics. Trends in Plant Science, 2015, 20, 515-524.	8.8	95
16	Phytochemical genomics of the Madagascar periwinkle: Unravelling the last twists of the alkaloid engine. Phytochemistry, 2015, 113, 9-23.	2.9	92
17	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.	7.3	88
18	Spatial organization of the vindoline biosynthetic pathway in Catharanthus roseus. Journal of Plant Physiology, 2011, 168, 549-557.	3.5	76

#	Article	IF	Citations
19	Cellular and sub-cellular organisation of the monoterpenoid indole alkaloid pathway in Catharanthus roseus. Phytochemistry Reviews, 2007, 6, 363-381.	6.5	69
20	Epidermis is a pivotal site of at least four secondary metabolic pathways in Catharanthus roseus aerial organs. Planta, 2006, 223, 1191-1200.	3.2	68
21	A single gene encodes isopentenyl diphosphate isomerase isoforms targeted to plastids, mitochondria and peroxisomes in Catharanthus roseus. Plant Molecular Biology, 2012, 79, 443-459.	3.9	60
22	The subcellular organization of strictosidine biosynthesis in <i>Catharanthusâ€ƒroseus</i> epidermis highlights several transâ€tonoplast translocations of intermediate metabolites. FEBS Journal, 2011, 278, 749-763.	4.7	58
23	Iridoid Synthase Activity Is Common among the Plant Progesterone 5Î²-Reductase Family. Molecular Plant, 2015, 8, 136-152.	8.3	57
24	Pectin Demethylesterification Generates Platforms that Anchor Peroxidases to Remodel Plant Cell Wall Domains. Developmental Cell, 2019, 48, 261-276.e8.	7.0	57
25	The Arabidopsis Lipid Transfer Protein 2 (AtLTP2) Is Involved in Cuticle-Cell Wall Interface Integrity and in Etiolated Hypocotyl Permeability. Frontiers in Plant Science, 2017, 8, 263.	3.6	51
26	<i>Brachypodium distachyon</i> as a model plant toward improved biofuel crops: Search for secreted proteins involved in biogenesis and disassembly of cell wall polymers. Proteomics, 2013, 13, 2438-2454.	2.2	46
27	Class II Cytochrome P450 Reductase Governs the Biosynthesis of Alkaloids. Plant Physiology, 2016, 172, 1563-1577.	4.8	44
28	Induced root-secreted phenolic compounds as a belowground plant defense. Plant Signaling and Behavior, 2010, 5, 1037-1038.	2.4	40
29	Relationship Between Ultrastructural Topochemistry of Lignin and Wood Properties. IAWA Journal, 1999, 20, 203-211.	2.7	39
30	Transcription factor Agamous-like 12 from Arabidopsis promotes tissue-like organization and alkaloid biosynthesis in Catharanthus roseus suspension cells. Metabolic Engineering, 2007, 9, 125-132.	7.0	33
31	Differential Subplastidial Localization and Turnover of Enzymes Involved in Isoprenoid Biosynthesis in Chloroplasts. PLoS ONE, 2016, 11, e0150539.	2.5	33
32	Interrelation between Lignin Deposition and Polysaccharide Matrices during the Assembly of Plant Cell Walls. Plant Biology, 2002, 4, 2-8.	3.8	30
33	Characterisation of CaaX-prenyltransferases in Catharanthus roseus: relationships with the expression of genes involved in the early stages of monoterpenoid biosynthetic pathway. Plant Science, 2005, 168, 1097-1107.	3.6	27
34	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.	3.6	26
35	Seed mucilage evolution: Diverse molecular mechanisms generate versatile ecological functions for particular environments. Plant, Cell and Environment, 2020, 43, 2857-2870.	5.7	25
36	Interaction of two MADS-box genes leads to growth phenotype divergence of all-flesh type of tomatoes. Nature Communications, 2021, 12, 6892.	12.8	23

#	Article	IF	Citations
37	Biosynthesis and Regulation of Alkaloids. , 2010, , 139-160.		22
38	Proteins prenylated by type I protein geranylgeranyltransferase act positively on the jasmonate signalling pathway triggering the biosynthesis of monoterpene indole alkaloids in Catharanthus roseus. Plant Cell Reports, 2009, 28, 83-93.	5.6	21
39	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.	2.4	21
40	Purification, molecular cloning, and cell-specific gene expression of the alkaloid-accumulation associated protein CrPS in Catharanthus roseus. Journal of Experimental Botany, 2005, 56, 1221-1228.	4.8	20
41	Coordination of five class III peroxidase-encoding genes for early germination events of Arabidopsis thaliana. Plant Science, 2020, 298, 110565.	3.6	20
42	Localization of a phosphatidylglycerol/ phosphatidylinositol transfer protein in Aspergillus oryzae. Canadian Journal of Microbiology, 1998, 44, 945-953.	1.7	19
43	Cellular and Subcellular Compartmentation of the 2C-Methyl-D-Erythritol 4-Phosphate Pathway in the Madagascar Periwinkle. Plants, 2020, 9, 462.	3.5	19
44	Hypermetamorphosis in a leaf-miner allows insects to cope with a confined nutritional space. Arthropod-Plant Interactions, 2015, 9, 75-84.	1.1	18
45	Complementarity of medium-throughput in situ RNA hybridization and tissue-specific transcriptomics: case study of Arabidopsis seed development kinetics. Scientific Reports, 2016, 6, 24644.	3.3	17
46	Cell-wall microdomain remodeling controls crucial developmental processes. Trends in Plant Science, 2022, 27, 1033-1048.	8.8	14
47	Triple subcellular targeting of isopentenyl diphosphate isomerases encoded by a single gene. Plant Signaling and Behavior, 2012, 7, 1495-1497.	2.4	13
48	Plant Cell Wall Proteomics as a Strategy to Reveal Candidate Proteins Involved in Extracellular Lipid Metabolism. Current Protein and Peptide Science, 2017, 19, 190-199.	1.4	8
49	Molecular cloning and characterisation of two calmodulin isoforms of the Madagascar periwinkle <i>Catharanthus roseus</i>. Plant Biology, 2011, 13, 36-41.	3.8	7
50	Cycloheximide as a tool to investigate protein import in peroxisomes: A case study of the subcellular localization of isoprenoid biosynthetic enzymes. Journal of Plant Physiology, 2012, 169, 825-829.	3.5	7
51	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.	4.1	7
52	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.	4.1	7
53	Myxospermy Evolution in Brassicaceae: A Highly Complex and Diverse Trait with Arabidopsis as an Uncommon Model. Cells, 2021, 10, 2470.	4.1	6
54	Low pH-induced cell wall disturbances in Arabidopsis thaliana roots lead to a pattern-specific programmed cell death in the different root zones and arrested elongation in late elongation zone. Environmental and Experimental Botany, 2021, 190, 104596.	4.2	6

#	Article	IF	Citations
55	The Jo-In protein welding system is a relevant tool to create CBM-containing plant cell wall degrading enzymes. New Biotechnology, 2021, 65, 31-41.	4.4	5
56	Localization of Dirigent Protein Involved in Lignan Biosynthesis: Implications for Lignification at the Tissue and Subcellular Level. , 1999, , 393-411.		5
57	CBMs as Probes to Explore Plant Cell Wall Heterogeneity Using Immunocytochemistry. Methods in Molecular Biology, 2017, 1588, 181-197.	0.9	4
58	Localization of a phosphatidylglycerol/ phosphatidylinositol transfer protein in <i>Aspergillus oryzae</i>. Canadian Journal of Microbiology, 1998, 44, 945-953.	1.7	3
59	Isolation of a cDNA encoding the alpha-subunit of CAAX-prenyltransferases from Catharanthus roseus and the expression of the active recombinant protein farnesyltransferase. Cellular and Molecular Biology Letters, 2005, 10, 649-57.	7.0	3
60	Medium-Throughput RNA In Situ Hybridization of Serial Sections from Paraffin-Embedded Tissue Microarrays. Methods in Molecular Biology, 2019, 1933, 99-130.	0.9	2
61	Iridoid Synthase Activity Is Common among the Plant Progesterone 5Â-Reductase Family. Molecular Plant, 2014, , .	8.3	1
62	Plant Cell Wall Proteomes: Bioinformatics and Cell Biology Tools to Assess the Bona Fide Cell Wall Localization of Proteins. Methods in Molecular Biology, 2020, 2149, 443-462.	0.9	0