Concepcion Avila

List of Publications by Year
in descending order

89 papers	2,752 citations	147801 31 h-index	206112 48 g-index
94 all docs	94 docs citations	94 times ranked	2855 citing authors

#	Article	IF	Citations
1	Ammonium assimilation and amino acid metabolism in conifers. Journal of Experimental Botany, 2007, 58, 2307-2318.	4.8	153
2	<i>De novo</i> assembly of maritime pine transcriptome: implications for forest breeding and biotechnology. Plant Biotechnology Journal, 2014, 12, 286-299.	8.3	115
3	Plastidic aspartate aminotransferases and the biosynthesis of essential amino acids in plants. Journal of Experimental Botany, 2014, 65, 5527-5534.	4.8	111
4	Molecular and enzymatic analysis of ammonium assimilation in woody plants. Journal of Experimental Botany, 2002, 53, 891-904.	4.8	105
5	Biosynthesis and Metabolic Fate of Phenylalanine in Conifers. Frontiers in Plant Science, 2016, 7, 1030.	3.6	98
6	Functional interactions between a glutamine synthetase promoter and MYB proteins. Plant Journal, 2004, 39, 513-526.	5.7	80
7	Up-Regulation and Localization of Asparagine Synthetase in Tomato Leaves Infected by the Bacterial Pathogen Pseudomonas syringae. Plant and Cell Physiology, 2004, 45, 770-780.	3.1	77
8	Single-Copy Genes as Molecular Markers for Phylogenomic Studies in Seed Plants. Genome Biology and Evolution, 2017, 9, 1130-1147.	2.5	75
9	A <scp>M</scp>yb transcription factor regulates genes of the phenylalanine pathway in maritime pine. Plant Journal, 2013, 74, 755-766.	5.7	64
10	The glutamine synthetase gene family in Populus. BMC Plant Biology, 2011, 11, 119.	3.6	63
11	Deciphering the Role of Aspartate and Prephenate Aminotransferase Activities in Plastid Nitrogen Metabolism. Plant Physiology, 2014, 164, 92-104.	4.8	60
12	Differential regulation of two glutamine synthetase genes by a single Dof transcription factor. Plant Journal, 2008, 56, 73-85.	5.7	59
13	EuroPineDB: a high-coverage web database for maritime pine transcriptome. BMC Genomics, 2011, 12, 366.	2.8	59
14	Spatial and temporal expression of two cytosolic glutamine synthetase genes in Scots pine: functional implications on nitrogen metabolism during early stages of conifer development. Plant Journal, 2001, 25, 93-102.	5.7	57
15	The NAC transcription factor family in maritime pine (Pinus Pinaster): molecular regulation of two genes involved in stress responses. BMC Plant Biology, 2015, 15, 254.	3.6	54
16	Increased sucrose level and altered nitrogen metabolism in Arabidopsis thaliana transgenic plants expressing antisense chloroplastic fructose-1,6-bisphosphatase. Journal of Experimental Botany, 2004, 55, 2495-2503.	4.8	52
17	Novel Insights into Regulation of Asparagine Synthetase in Conifers. Frontiers in Plant Science, 2012, 3, 100.	3.6	50
18	Developing SSCP markers in two Pinus species. Molecular Breeding, 1999, 5, 21-31.	2.1	49

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19	Different Characteristics of the Two Glutamate Synthases in the Green Leaves of Lycopersicon esculentum. Plant Physiology, 1987, 85, 1036-1039.	4.8	46
20	Poplar trees for phytoremediation of high levels of nitrate and applications in bioenergy. Plant Biotechnology Journal, 2016, 14, 299-312.	8.3	45
21	Molecular fundamentals of nitrogen uptake and transport in trees. Journal of Experimental Botany, 2017, 68, 2489-2500.	4.8	44
22	Cloning and sequence analysis of a cDNA for barley ferredoxin-dependent glutamate synthase and molecular analysis of photorespiratory mutants deficient in the enzyme. Planta, 1993, 189, 475-83.	3.2	42
23	Urinary Levels of 8-Hydroxydeoxyguanosine as a Marker of Oxidative Damage in Road Cycling. Free Radical Research, 2002, 36, 247-253.	3.3	42
24	Ammonium tolerance and the regulation of two cytosolic glutamine synthetases in the roots of sorghum. Functional Plant Biology, 2010, 37, 55.	2.1	42
25	Rootâ€“shoot interactions explain the reduction of leaf mineral content in <i>Arabidopsis</i> plants grown under elevated [<scp>CO₂</scp>] conditions. Physiologia Plantarum, 2016, 158, 65-79.	5.2	42
26	The gene expression landscape of pine seedling tissues. Plant Journal, 2017, 91, 1064-1087.	5.7	41
27	Nitrogen Metabolism and Biomass Production in Forest Trees. Frontiers in Plant Science, 2018, 9, 1449.	3.6	40
28	Expression patterns of two glutamine synthetase genes in zygotic and somatic pine embryos support specific roles in nitrogen metabolism during embryogenesis. New Phytologist, 2006, 169, 35-44.	7.3	39
29	Transcriptome analysis in maritime pine using laser capture microdissection and 454 pyrosequencing. Tree Physiology, 2014, 34, 1278-1288.	3.1	38
30	Root and shoot performance of Arabidopsis thaliana exposed to elevated CO2: A physiologic, metabolic and transcriptomic response. Journal of Plant Physiology, 2015, 189, 65-76.	3.5	37
31	Analysis of the WUSCHEL-RELATED HOMEOBOX gene family in Pinus pinaster : New insights into the gene family evolution. Plant Physiology and Biochemistry, 2018, 123, 304-318.	5.8	36
32	Understanding developmental and adaptive cues in pine through metabolite profiling and co-expression network analysis. Journal of Experimental Botany, 2015, 66, 3113-3127.	4.8	34
33	Identification of a small protein domain present in all plant lineages that confers high prephenate dehydratase activity. Plant Journal, 2016, 87, 215-229.	5.7	33
34	Two genes encoding distinct cytosolic glutamine synthetases are closely linked in the pine genome. FEBS Letters, 2000, 477, 237-243.	2.8	32
35	Molecular analysis of the 5'-upstream region of a gibberellin-inducible cytosolic glutamine synthetase gene (GS1b) expressed in pine vascular tissue. Planta, 2004, 218, 1036-1045.	3.2	32
36	Effects of phosphinotricin treatment on glutamine synthetase isoforms in Scots pine seedlings. Plant Physiology and Biochemistry, 1998, 36, 857-863.	5.8	31

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37	Differential expression of cell wall related genes in the seeds of soft- and hard-seeded pomegranate genotypes. Scientia Horticulturae, 2016, 205, 7-16.	3.6	31
38	The role of arginine metabolic pathway during embryogenesis and germination in maritime pine (Pinus) Tj ETQq0 0 0 rgBT /Overlock 10	3.1	31
39	Identification of genes regulated by ammonium availability in the roots of maritime pine trees. Amino Acids, 2010, 39, 991-1001.	2.7	30
40	Functional Expression of Two Pine Glutamine Synthetase Genes in Bacteria Reveals that they Encode Cytosolic Holoenzymes with Different Molecular and Catalytic Properties. Plant and Cell Physiology, 2002, 43, 802-809.	3.1	29
41	Redundancy and metabolic function of the glutamine synthetase gene family in poplar. BMC Plant Biology, 2015, 15, 20.	3.6	29
42	<i>Pp<scp>NAC</scp>1</i>, a main regulator of phenylalanine biosynthesis and utilization in maritime pine. Plant Biotechnology Journal, 2018, 16, 1094-1104.	8.3	29
43	Deciphering the molecular basis of ammonium uptake and transport in maritime pine. Plant, Cell and Environment, 2016, 39, 1669-1682.	5.7	23
44	A maritime pine antimicrobial peptide involved in ammonium nutrition. Plant, Cell and Environment, 2011, 34, 1443-1453.	5.7	21
45	Gene expression profiling in the stem of young maritime pine trees: detection of ammonium stress-responsive genes in the apex. Trees - Structure and Function, 2012, 26, 609-619.	1.9	21
46	Overexpression of a pine Dof transcription factor in hybrid poplars: A comparative study in trees growing under controlled and natural conditions. PLoS ONE, 2017, 12, e0174748.	2.5	21
47	Separation of two forms of glutamate synthase in leaves of tomato (Lycopersicon esculentum). Biochemical and Biophysical Research Communications, 1984, 122, 1125-1130.	2.1	20
48	Intensity of Exercise according to Topography in Professional Cyclists. Medicine and Science in Sports and Exercise, 2003, 35, 1209-1215.	0.4	20
49	Transcriptome-wide analysis supports environmental adaptations of two Pinus pinaster populations from contrasting habitats. BMC Genomics, 2015, 16, 909.	2.8	20
50	Root growth of somatic plants of hybrid Pinus strobus (L.) and P. wallichiana (A. B. Jacks.) is affected by the nitrogen composition of the somatic embryo germination medium. Trees - Structure and Function, 2018, 32, 371-381.	1.9	19
51	Effect of light-dark transition on glutamine synthetase activity in tomato leaves. Physiologia Plantarum, 1986, 66, 648-652.	5.2	18
52	Identification of genes differentially expressed in ectomycorrhizal roots during the Pinus pinasterâ€"Laccaria bicolor interaction. Planta, 2013, 237, 1637-1650.	3.2	18
53	The overexpression of the pine transcription factor <scp>PpDof</scp>5 in <i>Arabidopsis</i> leads to increased lignin content and affects carbon and nitrogen metabolism. Physiologia Plantarum, 2015, 155, 369-383.	5.2	18
54	Selection and testing of reference genes for accurate RT-qPCR in adult needles and seedlings of maritime pine. Tree Genetics and Genomes, 2016, 12, 1.	1.6	18

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55	Efficient preparation of maritime pine (Pinus pinaster) protoplasts suitable for transgene expression analysis. Plant Molecular Biology Reporter, 2001, 19, 361-366.	1.8	17
56	Nitrogen Economy and Nitrogen Environmental Interactions in Conifers. Agronomy, 2016, 6, 26.	3.0	15
57	Resources for conifer functional genomics at the omics era. Advances in Botanical Research, 2019, 89, 39-76.	1.1	15
58	Epidemiological and immunological aspects of human visceral leishmaniasis on Margarita Island, Venezuela. Memorias Do Instituto Oswaldo Cruz, 2002, 97, 1079-1083.	1.6	13
59	Enzymes Involved in the Biosynthesis of Arginine from Ornithine in Maritime Pine (Pinus pinaster Ait.). Plants, 2020, 9, 1271.	3.5	12
60	The family of Dof transcription factors in pine. Trees - Structure and Function, 2013, 27, 1547-1557.	1.9	11
61	Glutamate synthases from conifers: gene structure and phylogenetic studies. BMC Genomics, 2018, 19, 65.	2.8	11
62	Ammonium regulates the development of pine roots through hormonal crosstalk and differential expression of transcription factors in the apex. Plant, Cell and Environment, 2022, 45, 915-935.	5.7	11
63	Molecular characterization of a receptor-like protein kinase gene from pine (Pinus sylvestris L.). Planta, 2006, 224, 12-19.	3.2	10
64	Establishing gene models from the Pinus pinaster genome using gene capture and BAC sequencing. BMC Genomics, 2016, 17, 148.	2.8	10
65	The arogenate dehydratase ADT2 is essential for seed development in Arabidopsis. Plant and Cell Physiology, 2018, 59, 2409-2420.	3.1	10
66	Transcriptional analysis of arogenate dehydratase genes identifies a link between phenylalanine biosynthesis and lignin biosynthesis. Journal of Experimental Botany, 2020, 71, 3080-3093.	4.8	10
67	Inorganic Nitrogen Form Determines Nutrient Allocation and Metabolic Responses in Maritime Pine Seedlings. Plants, 2020, 9, 481.	3.5	10
68	A revised view on the evolution of glutamine synthetase isoenzymes in plants. Plant Journal, 2022, 110, 946-960.	5.7	10
69	The promoter of a cytosolic glutamine synthetase gene from the conifer Pinus sylvestris is active in cotyledons of germinating seeds and light-regulated in transgenic Arabidopsis thaliana. Physiologia Plantarum, 2001, 112, 388-396.	5.2	9
70	Deregulation of phenylalanine biosynthesis evolved with the emergence of vascular plants. Plant Physiology, 2022, 188, 134-150.	4.8	9
71	Identification of Metabolic Pathways Differentially Regulated in Somatic and Zygotic Embryos of Maritime Pine. Frontiers in Plant Science, 2022, 13, .	3.6	8
72	Spatial and temporal expression of two cytosolic glutamine synthetase genes in Scots pine: functional implications on nitrogen metabolism during early stages of conifer development. Plant Journal, 2001, 25, 93-102.	5.7	7

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73	Does Intermittent Hypoxia Increase Erythropoiesis in Professional Cyclists During a 3-Week Race?. Applied Physiology, Nutrition, and Metabolism, 2005, 30, 61-73.	1.7	7
74	Immunochemical Comparison of Glutamine Synthetases from Some Solanaceae Plants. Plant Physiology, 1986, 82, 585-587.	4.8	6
75	Interaction of cis-acting elements in the expression of a gene encoding cytosolic glutamine synthetase in pine seedlings. Physiologia Plantarum, 2004, 121, 537-545.	5.2	5
76	Elevated CO2 improved the growth of a double nitrate reductase defective mutant of Arabidopsis thaliana: The importance of maintaining a high energy status. Environmental and Experimental Botany, 2017, 140, 110-119.	4.2	5
77	Structural and Functional Characteristics of Two Molecular Variants of the Nitrogen Sensor PII in Maritime Pine. Frontiers in Plant Science, 2020, 11, 823.	3.6	4
78	Maritime Pine Genomics in Focus. Compendium of Plant Genomes, 2022, , 67-123.	0.5	4
79	Evaluation of the applicability of two different immunoassays for the detection of wheat gluten in baby foods. Biochemistry and Molecular Biology Education, 2000, 28, 261-264.	1.2	3
80	NAC Transcription Factors in Woody Plants. Progress in Botany Fortschritte Der Botanik, 2018, , 195-222.	0.3	3
81	Special Issue Editorial: Plant Nitrogen Assimilation and Metabolism. Plants, 2021, 10, 1278.	3.5	3
82	Functional Genomics of Mediterranean Pines. Compendium of Plant Genomes, 2022, , 193-218.	0.5	3
83	Evaluation of the applicability of two different immunoassays for the detection of wheat gluten in baby foods. Biochemistry and Molecular Biology Education, 2000, 28, 261-264.	1.2	2
84	An improved and rapid protocol for the isolation of poly(A)+-RNA from small samples of scots pine seedlings. Plant Molecular Biology Reporter, 2000, 18, 117-122.	1.8	2
85	Characterization of Three L-Asparaginases from Maritime Pine (Pinus pinaster Ait.). Frontiers in Plant Science, 2017, 8, 1075.	3.6	2
86	Understanding plant nitrogen nutrition through a laboratory experiment. Biochemistry and Molecular Biology Education, 2019, 47, 450-458.	1.2	2
87	Getting more bark for your buck: nitrogen economy of deciduous forest trees. Journal of Experimental Botany, 2020, 71, 4369-4372.	4.8	2
88	The amino acid permease PpAAP1 mediates arginine transport in maritime pine. Tree Physiology, 2021, , .	3.1	2
89	GENote v.Î²: A Web Tool Prototype for Annotation of Unfinished Sequences in Non-model Eukaryotes. Lecture Notes in Computer Science, 2012, , 66-71.	1.3	0