Carroll P Vance

List of Publications by Year
in descending order

124 papers	13,121 citations	34105 52 h-index	22832 112 g-index
126 all docs	126 docs citations	126 times ranked	10821 citing authors

#	Article	IF	Citations
1	Flavonoids are involved in phosphorus-deficiency-induced cluster-root formation in white lupin. Annals of Botany, 2022, 129, 101-112.	2.9	9
2	Fast neutron-induced structural rearrangements at a soybean NAP1 locus result in gnarled trichomes. Theoretical and Applied Genetics, 2016, 129, 1725-1738.	3.6	35
3	Transgene silencing of sucrose synthase in alfalfa (Medicago sativa L.) stem vascular tissue suggests a role for invertase in cell wall cellulose synthesis. BMC Plant Biology, 2015, 15, 283.	3.6	17
4	Carbon and Nitrogen Metabolism in Lotus. CSSA Special Publication - Crop Science Society of America, 2015, , 167-185.	0.1	1
5	Biodegradation of atrazine by three transgenic grasses and alfalfa expressing a modified bacterial atrazine chlorohydrolase gene. Transgenic Research, 2015, 24, 475-488.	2.4	15
6	The Medicago sativa gene index 1.2: a web-accessible gene expression atlas for investigating expression differences between Medicago sativa subspecies. BMC Genomics, 2015, 16, 502.	2.8	54
7	Genome Resilience and Prevalence of Segmental Duplications Following Fast Neutron Irradiation of Soybean. Genetics, 2014, 198, 967-981.	2.9	53
8	An RNA-Seq based gene expression atlas of the common bean. BMC Genomics, 2014, 15, 866.	2.8	142
9	Legume genomics: understanding biology through DNA and RNA sequencing. Annals of Botany, 2014, 113, 1107-1120.	2.9	52
10	Interactions between light intensity and phosphorus nutrition affect the phosphate-mining capacity of white lupin (Lupinus albus L.). Journal of Experimental Botany, 2014, 65, 2995-3003.	4.8	63
11	eQTL Networks Reveal Complex Genetic Architecture in the Immature Soybean Seed. Plant Genome, 2014, 7, plantgenome2013.08.0027.	2.8	15
12	A re-sequencing based assessment of genomic heterogeneity and fast neutron-induced deletions in a common bean cultivar. Frontiers in Plant Science, 2013, 4, 210.	3.6	18
13	Genomic Heterogeneity and Structural Variation in Soybean Near Isogenic Lines. Frontiers in Plant Science, 2013, 4, 104.	3.6	12
14	An RNA-Seq Transcriptome Analysis of Orthophosphate-Deficient White Lupin Reveals Novel Insights into Phosphorus Acclimation in Plants Â Â. Plant Physiology, 2013, 161, 705-724.	4.8	184
15	Regulatory Patterns of a Large Family of Defensin-Like Genes Expressed in Nodules of Medicago truncatula. PLoS ONE, 2013, 8, e60355.	2.5	41
16	Aluminum resistance mechanisms in oat (Avena sativa L.). Plant and Soil, 2012, 351, 121-134.	3.7	9
17	Characterization of the Linkage Group I Seed Protein QTL in Soybean. , 2012, , 175-195.		0
18	Real-time RT-PCR profiling of transcription factors including 34 MYBs and signaling components in white lupin reveals their P status dependent and organ-specific expression. Plant and Soil, 2011, 342, 481-493.	3.7	10

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19	Using RNA-Seq for gene identification, polymorphism detection and transcript profiling in two alfalfa genotypes with divergent cell wall composition in stems. BMC Genomics, 2011, 12, 199.	2.8	131
20	Update on White Lupin Cluster Root Acclimation to Phosphorus Deficiency Update on Lupin Cluster Roots. Plant Physiology, 2011, 156, 1025-1032.	4.8	69
21	White Lupin Cluster Root Acclimation to Phosphorus Deficiency and Root Hair Development Involve Unique Glycerophosphodiester Phosphodiesterases Â Â. Plant Physiology, 2011, 156, 1131-1148.	4.8	77
22	The Composition and Origins of Genomic Variation among Individuals of the Soybean Reference Cultivar Williams 82 Â Â. Plant Physiology, 2011, 155, 645-655.	4.8	137
23	Phenotypic and Genomic Analyses of a Fast Neutron Mutant Population Resource in Soybean Â Â. Plant Physiology, 2011, 156, 240-253.	4.8	175
24	Identification of genes induced in proteoid roots of white lupin under nitrogen and phosphorus deprivation, with functional characterization of a formamidase. Plant and Soil, 2010, 334, 137-150.	3.7	20
25	Transcript profiling of two alfalfa genotypes with contrasting cell wall composition in stems using a cross-species platform: optimizing analysis by masking biased probes. BMC Genomics, 2010, 11, 323.	2.8	23
26	RNA-Seq Atlas of Glycine max: A guide to the soybean transcriptome. BMC Plant Biology, 2010, 10, 160.	3.6	634
27	Complementary genetic and genomic approaches help characterize the linkage group I seed protein QTL in soybean. BMC Plant Biology, 2010, 10, 41.	3.6	96
28	Transcript profiling of common bean (Phaseolus vulgaris L.) using the GeneChip(R) Soybean Genome Array: optimizing analysis by masking biased probes. BMC Plant Biology, 2010, 10, 85.	3.6	19
29	MicroRNA expression profile in common bean (<i>Phaseolus vulgaris</i>) under nutrient deficiency stresses and manganese toxicity. New Phytologist, 2010, 187, 805-818.	7.3	174
30	Crucial roles of sucrose and microRNA399 in systemic signaling of P deficiency. Plant Signaling and Behavior, 2010, 5, 1556-1560.	2.4	24
31	Quantitative Trait Loci, Epigenetics, Sugars, and MicroRNAs: Quaternaries in Phosphate Acquisition and Use. Plant Physiology, 2010, 154, 582-588.	4.8	50
32	Systemic Signaling and Local Sensing of Phosphate in Common Bean: Cross-Talk between Photosynthate and MicroRNA399. Molecular Plant, 2010, 3, 428-437.	8.3	93
33	An Integrative Approach to Genomic Introgression Mapping Â Â. Plant Physiology, 2010, 154, 3-12.	4.8	45
34	Singleâ€Feature Polymorphism Discovery in the Transcriptome of Tetraploid Alfalfa. Plant Genome, 2009, 2, .	2.8	14
35	Global Changes in the Transcript and Metabolic Profiles during Symbiotic Nitrogen Fixation in Phosphorus-Stressed Common Bean Plants Â Â. Plant Physiology, 2009, 151, 1221-1238.	4.8	163
36	Knockdown of<i>CELL DIVISION CYCLE16</i>Reveals an Inverse Relationship between Lateral Root and Nodule Numbers and a Link to Auxin in<i>Medicago truncatula</i>Â Â Â. Plant Physiology, 2009, 151, 1155-1166.	4.8	52

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37	Integrating microarray analysis and the soybean genome to understand the soybeans iron deficiency response. BMC Genomics, 2009, 10, 376.	2.8	56
38	White Lupin (Lupinus albus) response to phosphorus stress: evidence for complex regulation of LaSAP1. Plant and Soil, 2009, 322, 1-15.	3.7	16
39	Medicago truncatula as a Model for Dicot Cell Wall Development. Bioenergy Research, 2009, 2, 59-76.	3.9	15
40	Essential role of MYB transcription factor: PvPHR1 and microRNA: PvmiR399 in phosphorusâ€deficiency signalling in common bean roots. Plant, Cell and Environment, 2008, 31, 1834-1843.	5.7	178
41	Plants without arbuscular mycorrhizae. Plant Ecophysiology, 2008, , 117-142.	1.5	20
42	Genomic and Genetic Control of Phosphate Stress in Legumes. Plant Physiology, 2007, 144, 594-603.	4.8	74
43	Phosphorus Stress in Common Bean: Root Transcript and Metabolic Responses. Plant Physiology, 2007, 144, 752-767.	4.8	300
44	Identification of candidate phosphorus stress induced genes in Phaseolus vulgaris through clustering analysis across several plant species. Functional Plant Biology, 2006, 33, 789.	2.1	50
45	The Affymetrix Medicago GeneChipÂ® array is applicable for transcript analysis of alfalfa (Medicago) Tj ETQq1 1 0.784314 rgBT /Overlo	2.1	37
46	Insights into Symbiotic Nitrogen Fixation in Medicago truncatula. Molecular Plant-Microbe Interactions, 2006, 19, 330-341.	2.6	32
47	Recruitment of Novel Calcium-Binding Proteins for Root Nodule Symbiosis in Medicago truncatula Â Â Â. Plant Physiology, 2006, 141, 167-177.	4.8	52
48	A Standardized Method for Analysis of Medicago truncatula Phenotypic Development. Plant Physiology, 2006, 142, 207-219.	4.8	45
49	Nitrogen Fixation by White Lupin under Phosphorus Deficiency. Annals of Botany, 2006, 98, 731-740.	2.9	170
50	Biodegradation of atrazine in transgenic plants expressing a modified bacterial atrazine chlorohydrolase (atzA) gene. Plant Biotechnology Journal, 2005, 3, 475-486.	8.3	86
51	Transgenic proteoid roots of white lupin: a vehicle for characterizing and silencing root genes involved in adaptation to P stress. Plant Journal, 2005, 44, 840-853.	5.7	77
52	Transgenic alfalfa secretes a fungal endochitinase protein to the rhizosphere. Plant and Soil, 2005, 269, 233-243.	3.7	24
53	RNA Interference Identifies a Calcium-Dependent Protein Kinase Involved in Medicago truncatula Root Development. Plant Cell, 2005, 17, 2911-2921.	6.6	147
54	Sequencing and Analysis of Common Bean ESTs. Building a Foundation for Functional Genomics. Plant Physiology, 2005, 137, 1211-1227.	4.8	138

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55	Signaling of phosphorus deficiency-induced gene expression in white lupin requires sugar and phloem transport. Plant Journal, 2004, 41, 257-268.	5.7	157
56	Localization of Superoxide Dismutases and Hydrogen Peroxide in Legume Root Nodules. Molecular Plant-Microbe Interactions, 2004, 17, 1294-1305.	2.6	115
57	Acclimation of white lupin to phosphorus deficiency involves enhanced expression of genes related to organic acid metabolism. Plant and Soil, 2003, 248, 99-116.	3.7	115
58	Antisense inhibition of NADH glutamate synthase impairs carbon/nitrogen assimilation in nodules of alfalfa (Medicago sativa L.). Plant Journal, 2003, 33, 1037-1049.	5.7	34
59	Phosphorus acquisition and use: critical adaptations by plants for securing a nonrenewable resource. New Phytologist, 2003, 157, 423-447.	7.3	2,243
60	Legumes: Importance and Constraints to Greater Use. Plant Physiology, 2003, 131, 872-877.	4.8	1,351
61	Nylon Filter Arrays Reveal Differential Gene Expression in Proteoid Roots of White Lupin in Response to Phosphorus Deficiency. Plant Physiology, 2003, 131, 1064-1079.	4.8	178
62	Acclimation of white lupin to phosphorus deficiency involves enhanced expression of genes related to organic acid metabolism. , 2003, , 99-116.		5
63	Genome-Wide Identification of Nodule-Specific Transcripts in the Model Legume Medicago truncatula Â. Plant Physiology, 2002, 130, 519-537.	4.8	229
64	Systemic expression of defense response genes in wheat spikes as a response to Fusarium graminearum infection. Physiological and Molecular Plant Pathology, 2001, 58, 1-12.	2.5	85
65	Symbiotic Nitrogen Fixation and Phosphorus Acquisition. Plant Nutrition in a World of Declining Renewable Resources. Plant Physiology, 2001, 127, 390-397.	4.8	687
66	Transgenic tobacco plants that overexpress alfalfa NADHâ€glutamate synthase have higher carbon and nitrogen content. Journal of Experimental Botany, 2001, 52, 2079-2087.	4.8	77
67	Overexpression of Malate Dehydrogenase in Transgenic Alfalfa Enhances Organic Acid Synthesis and Confers Tolerance to Aluminum. Plant Physiology, 2001, 127, 1836-1844.	4.8	339
68	Molecular Control of Acid Phosphatase Secretion into the Rhizosphere of Proteoid Roots from Phosphorus-Stressed White Lupin. Plant Physiology, 2001, 127, 594-606.	4.8	165
69	Overexpression of Malate Dehydrogenase in Transgenic Alfalfa Enhances Organic Acid Synthesis and Confers Tolerance to Aluminum. Plant Physiology, 2001, 127, 1836-1844.	4.8	39
70	Decreased NADH glutamate synthase activity in nodules and flowers of alfalfa (Medicago sativa L.) transformed with an antisense glutamate synthase transgene. Journal of Experimental Botany, 2000, 51, 29-39.	4.8	36
71	Proteoid Root Development of Phosphorus Deficient Lupin is Mimicked by Auxin and Phosphonate. Annals of Botany, 2000, 85, 921-928.	2.9	179
72	Fungal Development and Induction of Defense Response Genes During Early Infection of Wheat Spikes by Fusarium graminearum. Molecular Plant-Microbe Interactions, 2000, 13, 159-169.	2.6	271

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73	Decreased NADH glutamate synthase activity in nodules and flowers of alfalfa (Medicago sativa L.) transformed with an antisense glutamate synthase transgene. Journal of Experimental Botany, 2000, 51, 29-39.	4.8	3
74	NADH-Glutamate Synthase in Alfalfa Root Nodules. Immunocytochemical Localization1. Plant Physiology, 1999, 119, 829-838.	4.8	42
75	NADH-Glutamate Synthase in Alfalfa Root Nodules. Genetic Regulation and Cellular Expression1. Plant Physiology, 1999, 119, 817-828.	4.8	38
76	The Alfalfa (Medicago sativa) TDY1 Gene Encodes a Mitogen-Activated Protein Kinase Homolog. Molecular Plant-Microbe Interactions, 1999, 12, 882-893.	2.6	39
77	Aspartate Aminotransferase in Alfalfa Nodules: Localization of mRNA During Effective and Ineffective Nodule Development and Promoter Analysis. Molecular Plant-Microbe Interactions, 1999, 12, 263-274.	2.6	15
78	Expression Map for Genes Involved in Nitrogen and Carbon Metabolism in Alfalfa Root Nodules. Molecular Plant-Microbe Interactions, 1999, 12, 526-535.	2.6	22
79	Cloning and Developmental Expression of a Nodule-Enhanced Sucrose Synthase cDNA from Alfalfa. , 1999, , 23-31.		3
80	Inhibition of alfalfa root nodule phosphoenolpyruvate carboxylase through an antisense strategy impacts nitrogen fixation and plant growth. Phytochemistry, 1998, 49, 341-346.	2.9	32
81	Alfalfa malate dehydrogenase (MDH): molecular cloning and characterization of five different forms reveals a unique nodule-enhanced MDH. Plant Journal, 1998, 15, 173-184.	5.7	152
82	Glutamate synthase and nitrogen assimilation. Trends in Plant Science, 1998, 3, 51-56.	8.8	197
83	Legume Symbiotic Nitrogen Fixation: Agronomic Aspects. , 1998, , 509-530.		68
84	Nitrogen Assimilation in Alfalfa: Isolation and Characterization of an Asparagine Synthetase Gene Showing Enhanced Expression in Root Nodules and Dark-Adapted Leaves. Plant Cell, 1997, 9, 1339.	6.6	2
85	A Host-Controlled, Serogroup-Specific, Ineffective-Nodulation System in the Bradyrhizobium-Soybean (Glycine max) Symbiosis. Molecular Plant-Microbe Interactions, 1997, 10, 994-1001.	2.6	9
86	Localized and internal effect of nitrate on symbiotic dinitrogen fixation. Physiologia Plantarum, 1997, 101, 59-66.	5.2	13
87	Analyses of phosphoenolpyruvate carboxylase gene structure and expression in alfalfa nodules. Plant Journal, 1997, 12, 293-304.	5.7	37
88	Alfalfa NADH-dependent glutamate synthase: structure of the gene and importance in symbiotic N2 fixation. Plant Journal, 1995, 8, 345-358.	5.7	48
89	Genomic structure, expression and evolution of the alfalfa aspartate aminotransferase genes. Plant Molecular Biology, 1994, 25, 387-399.	3.9	31
90	Cellular localization of nodule-enhanced aspartate aminotransferase inMedicago sativa L.. Planta, 1994, 192, 202-210.	3.2	18

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91	Primary assimilation of nitrogen in alfalfa nodules: molecular features of the enzymes involved. Plant Science, 1994, 101, 51-64.	3.6	98
92	Molecular analysis of allelic polymorphism at the AAT2 locus of alfalfa. Molecular Genetics and Genomics, 1993, 241-241, 124-128.	2.4	5
93	Molecular Characterization of NADH-Dependent Glutamate Synthase from Alfalfa Nodules. Plant Cell, 1993, 5, 215.	6.6	2
94	Control of nitrogen and carbon metabolism in root nodules. Physiologia Plantarum, 1992, 85, 266-274.	5.2	1
95	Aspartate Aminotransferase in Effective and Ineffective Alfalfa Nodules. Plant Physiology, 1992, 98, 868-878.	4.8	69
96	Alfalfa root nodule phosphoenolpyruvate carboxylase: characterization of the cDNA and expression in effective and plant-controlled ineffective nodules. Plant Molecular Biology, 1992, 20, 437-450.	3.9	57
97	Control of nitrogen and carbon metabolism in root nodules. Physiologia Plantarum, 1992, 85, 266-274.	5.2	63
98	Synthesis of Nodulins and Nodule-Enhanced Polypeptides by Plant Gene-Controlled Ineffective Alfalfa Nodules. Journal of Experimental Botany, 1991, 42, 969-977.	4.8	20
99	Aspartate Aminotransferase in Alfalfa Root Nodules. Plant Physiology, 1990, 94, 1634-1640.	4.8	17
100	Aspartate Aminotransferase in Alfalfa Root Nodules. Plant Physiology, 1990, 93, 603-610.	4.8	38
101	Products of Dark CO₂ Fixation in Pea Root Nodules Support Bacteroid Metabolism. Plant Physiology, 1990, 93, 12-19.	4.8	124
102	Symbiotic Nitrogen Fixation: Recent Genetic Advances. , 1990, , 43-88.		10
103	Nitrogen Assimilating Enzyme Activities and Enzyme Protein during Development and Senescence of Effective and Plant Gene-Controlled Ineffective Alfalfa Nodules. Plant Physiology, 1989, 91, 898-904.	4.8	82
104	Purification and Characterization of NADH-Glutamate Synthase from Alfalfa Root Nodules. Plant Physiology, 1989, 90, 351-358.	4.8	69
105	Aspartate Aminotransferase in Alfalfa Root Nodules. Plant Physiology, 1989, 90, 1622-1629.	4.8	65
106	Carbon metabolism inBradyrhizobium japonicumbacteroids. FEMS Microbiology Letters, 1989, 63, 327-340.	1.8	13
107	Nodule physiology of a supernodulating pea mutant. Physiologia Plantarum, 1989, 77, 606-612.	5.2	17
108	Carbon metabolism in Bradyrhizobium japonicum bacteroids. FEMS Microbiology Letters, 1989, 63, 327-340.	1.8	4

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109	Alfalfa Root Nodule Carbon Dioxide Fixation. Plant Physiology, 1987, 84, 501-508.	4.8	48
110	Nonphotosynthetic CO₂ Fixation by Alfalfa (<i>Medicago sativa</i> L.) Roots and Nodules. Plant Physiology, 1987, 85, 283-289.	4.8	25
111	Symbiotic properties of Lotus pedunculitis root nodules induced by Rhizobium loti and Bradyrhizobium sp. (Lotus). Physiologia Plantarum, 1987, 69, 435-442.	5.2	11
112	Asparagine Biosynthesis in Alfalfa (Medicago sativa L.) Root Nodules. Plant Physiology, 1986, 82, 390-395.	4.8	54
113	Transport and Partitioning of CO2 Fixed by Root Nodules of Ureide and Amide Producing Legumes. Plant Physiology, 1985, 78, 774-778.	4.8	38
114	Tissue Cultures Derived from Ineffective Root Nodules of Alfalfa. Plant Physiology, 1984, 76, 984-988.	4.8	1
115	Alfalfa Root Nodule Carbon Dioxide Fixation. Plant Physiology, 1984, 75, 261-264.	4.8	49
116	Alfalfa Root Nodule Carbon Dioxide Fixation. Plant Physiology, 1983, 72, 469-473.	4.8	88
117	Root and Nodule Enzymes of Ammonia Assimilation in Two Plant-Conditioned Symbiotically Ineffective Genotypes of Alfalfa (<i>Medicago sativa</i> L.). Plant Physiology, 1982, 69, 614-618.	4.8	33
118	Purification and properties of caffeic acid O-methyltransferase from alfalfa root nodules. Phytochemistry, 1981, 20, 41-43.	2.9	11
119	Nitrate Assimilation during Vegetative Regrowth of Alfalfa. Plant Physiology, 1981, 68, 1052-1057.	4.8	57
120	Root Nodule Enzymes of Ammonia Assimilation in Alfalfa (<i>Medicago sativa</i> L.). Plant Physiology, 1981, 67, 1198-1203.	4.8	236
121	Nitrogen Fixation, Nodule Development, and Vegetative Regrowth of Alfalfa (<i>Medicago sativa</i> L.) following Harvest. Plant Physiology, 1979, 64, 1-8.	4.8	231
122	Regulation of Phytoalexin Synthesis in Jackbean Callus Cultures. Plant Physiology, 1978, 61, 226-230.	4.8	45
123	Soluble and Cell Wall Peroxidases in Reed Canarygrass in Relation to Disease Resistance and Localized Lignin Formation. Plant Physiology, 1976, 57, 920-922.	4.8	58
124	Regulation of Lignin Formation in Reed Canarygrass in Relation to Disease Resistance. Plant Physiology, 1976, 57, 915-919.	4.8	57