

Wilbur H Campbell

List of Publications by Year in descending order

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4,992
citations

81900

39
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88630

70
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78
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78
docs citations

78
times ranked

3045
citing authors

#	ARTICLE	IF	CITATIONS
1	NITRATE REDUCTASE STRUCTURE, FUNCTION AND REGULATION: Bridging the Gap between Biochemistry and Physiology. Annual Review of Plant Biology, 1999, 50, 277-303.	14.3	613
2	Codon Usage in Higher Plants, Green Algae, and Cyanobacteria. Plant Physiology, 1990, 92, 1-11.	4.8	222
3	Reversible light/dark modulation of spinach leaf nitrate reductase activity involves protein phosphorylation. Archives of Biochemistry and Biophysics, 1992, 296, 58-65.	3.0	209
4	Functional domains of assimilatory nitrate reductases and nitrite reductases. Trends in Biochemical Sciences, 1990, 15, 315-319.	7.5	206
5	Stress Responses in Alfalfa (<i>Medicago sativa</i> L.). Plant Physiology, 1991, 97, 7-14.	4.8	202
6	Higher plant responses to environmental nitrate. Physiologia Plantarum, 1991, 82, 640-650.	5.2	168
7	cDNA cloning, sequence analysis and seasonal expression of lignin-bispecific caffeic acid/5-hydroxyferulic acid O-methyltransferase of aspen. Plant Molecular Biology, 1991, 17, 1203-1215.	3.9	163
8	Reduction of nitrate and nitrite in water by immobilized enzymes. Nature, 1992, 355, 717-719.	27.8	153
9	Phosphoenolpyruvate Carboxykinase in Plants Exhibiting Crassulacean Acid Metabolism. Plant Physiology, 1973, 52, 357-361.	4.8	149
10	Structural Basis of Eukaryotic Nitrate Reduction: Crystal Structures of the Nitrate Reductase Active Site. Plant Cell, 2005, 17, 1167-1179.	6.6	149
11	Adaptation of the dye-binding protein assay to microtiter plates. Analytical Biochemistry, 1985, 147, 144-147.	2.4	137
12	Nitrate reductase and its role in nitrate assimilation in plants. Physiologia Plantarum, 1988, 74, 214-219.	5.2	133
13	Regulation of Corn Leaf Nitrate Reductase. Plant Physiology, 1986, 80, 442-447.	4.8	123
14	Modification of lignin biosynthesis in transgenic Nicotiana through expression of an antisense O-methyltransferase gene from Populus. Plant Molecular Biology, 1994, 26, 61-71.	3.9	123
15	cDNA Clones for Corn Leaf NADH:Nitrate Reductase and Chloroplast NAD(P) ⁺ :Glyceraldehyde-3-Phosphate Dehydrogenase. Plant Physiology, 1989, 90, 792-798.	4.8	102
16	Crystal structure of the FAD-containing fragment of corn nitrate reductase at 2.5Å resolution: relationship to other flavoprotein reductases. Structure, 1994, 2, 809-821.	3.3	99
17	Purification and Kinetics of Higher Plant NADH:Nitrate Reductase. Plant Physiology, 1978, 61, 611-616.	4.8	97
18	Nitrate reductase transcript is expressed in the primary response of maize to environmental nitrate. Plant Molecular Biology, 1992, 18, 55-64.	3.9	89

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19	Phytochrome-Mediated Light Regulation of Nitrate Reductase Expression in Squash Cotyledons. <i>Plant Physiology</i> , 1988, 88, 242-244.	4.8	80
20	Construction and Characterization of Nitrate Reductase-Based Amperometric Electrode and Nitrate Assay of Fertilizers and Drinking Water. <i>Analytical Chemistry</i> , 1998, 70, 1511-1515.	6.5	72
21	Enzyme-Catalyzed O ₂ Removal System for Electrochemical Analysis under Ambient Air: Application in an Amperometric Nitrate Biosensor. <i>Analytical Chemistry</i> , 2012, 84, 2141-2146.	6.5	70
22	Comparative Studies of the Light Modulation of Nitrate Reductase and Sucrose-Phosphate Synthase Activities in Spinach Leaves. <i>Plant Physiology</i> , 1992, 100, 706-712.	4.8	68
23	Metabolism of epidermal tissues, mesophyll cells, and bundle sheath strands resolved from mature nutsedge leaves. <i>Archives of Biochemistry and Biophysics</i> , 1974, 163, 246-262.	3.0	62
24	Substrate profiles and expression of caffeoyl coenzyme A and caffeic acid O-methyltransferases in secondary xylem of aspen during seasonal development. , 1998, 38, 513-520.		61
25	Immunogold Localization of Nitrate Reductase in Maize Leaves. <i>Plant Physiology</i> , 1988, 88, 1354-1357.	4.8	58
26	Identification of a maize root transcript expressed in the primary response to nitrate: characterization of a cDNA with homology to ferredoxin-NADP ⁺ oxidoreductase. <i>Plant Molecular Biology</i> , 1994, 26, 679-690.	3.9	56
27	Separation of soybean leaf nitrate reductases by affinity chromatography. <i>Plant Science Letters</i> , 1976, 7, 239-247.	1.8	55
28	Purification and Characterization of NAD(P)H:Nitrate Reductase and NADH:Nitrate Reductase from Corn Roots. <i>Plant Physiology</i> , 1981, 68, 115-120.	4.8	55
29	Immunological Approach to Structural Comparisons of Assimilatory Nitrate Reductases. <i>Plant Physiology</i> , 1981, 68, 1226-1230.	4.8	53
30	High-level expression in <i>Escherichia coli</i> of the catalytically active flavin domain of corn leaf NADH:nitrate reductase and its comparison to human NADH:cytochrome B5 reductase. <i>Biochemical and Biophysical Research Communications</i> , 1990, 168, 1285-1291.	2.1	53
31	Corn Leaf Nitrate Reductase A Nontoxic Alternative to Cadmium for Photometric Nitrate Determinations in Water Samples by Air-Segmented Continuous-Flow Analysis. <i>Environmental Science & Technology</i> , 2002, 36, 729-735.	10.0	52
32	Purification of Squash NADH:Nitrate Reductase by Zinc Chelate Affinity Chromatography. <i>Plant Physiology</i> , 1983, 71, 205-207.	4.8	47
33	Heavy metal inactivation and chelator stimulation of higher plant nitrate reductase. <i>BBA - Proteins and Proteomics</i> , 1983, 742, 435-445.	2.1	45
34	Regulation of Corn Leaf Nitrate Reductase. <i>Plant Physiology</i> , 1986, 80, 435-441.	4.8	45
35	Nitrate regulation of the oxidative pentose phosphate pathway in maize (<i>Zea mays</i> L.) root plastids: induction of 6-phosphogluconate dehydrogenase activity, protein and transcript levels. <i>Plant Science</i> , 1998, 134, 129-140.	3.6	45
36	The influence of cytokinins in nitrate regulation of nitrate reductase activity and expression in barley. <i>Physiologia Plantarum</i> , 1995, 93, 533-539.	5.2	44

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37	Identification of Ser-543 as the Major Regulatory Phosphorylation Site in Spinach Leaf Nitrate Reductase. <i>Plant Cell</i> , 1996, 8, 505.	6.6	41
38	Pre-steady-state Kinetic Analysis of Recombinant Arabidopsis NADH:Nitrate Reductase. <i>Journal of Biological Chemistry</i> , 2001, 276, 26995-27002.	3.4	41
39	The influence of cytokinins in nitrate regulation of nitrate reductase activity and expression in barley. <i>Physiologia Plantarum</i> , 1995, 93, 533-539.	5.2	39
40	Structural Changes Induced by Catalytic Turnover at the Molybdenum Site of Arabidopsis Nitrate Reductase. <i>Journal of the American Chemical Society</i> , 1999, 121, 9730-9731.	13.7	39
41	Monoclonal antibody-based immunoaffinity chromatography for purifying corn and squash NADH: nitrate reductases. Evidence for an interchain disulfide bond in nitrate reductase. <i>Plant Molecular Biology</i> , 1989, 13, 233-246.	3.9	37
42	Higher plant responses to environmental nitrate. <i>Physiologia Plantarum</i> , 1991, 82, 640-650.	5.2	37
43	Characterization of bispecific caffeic acid/ 5-hydroxyferulic acid O-methyltransferase from aspen. <i>Phytochemistry</i> , 1992, 31, 1495-1498.	2.9	36
44	A comparison of the physical and chemical properties of four cytochromes c from <i>Azotobacter vinelandii</i> . <i>Biochemical Journal</i> , 1973, 135, 617-630.	3.7	31
45	Expression in <i>Escherichia coli</i> of Cytochrome c Reductase Activity from a Maize NADH:Nitrate Reductase Complementary DNA. <i>Plant Physiology</i> , 1992, 99, 693-699.	4.8	31
46	Purification and biochemical characterization of simplified eukaryotic nitrate reductase expressed in <i>Pichia pastoris</i> . <i>Protein Expression and Purification</i> , 2004, 37, 61-71.	1.3	31
47	Ferric citrate reductase activity of nitrate reductase and it's role in iron assimilation by plants. <i>Journal of Plant Nutrition</i> , 1984, 7, 799-806.	1.9	30
48	Reduction of ferric citrate catalyzed by NADH:nitrate reductase. <i>Biochemical and Biophysical Research Communications</i> , 1983, 114, 1182-1188.	2.1	29
49	Isolation of NAD(P)H: Nitrate Reductase from the Scutellum of Maize. <i>Zeitschrift für Pflanzenphysiologie</i> , 1978, 88, 357-361.	1.4	28
50	Engineering of Pyridine Nucleotide Specificity of Nitrate Reductase: Mutagenesis of Recombinant Cytochrome b Reductase Fragment of <i>Neurospora crassa</i> NADPH:Nitrate Reductase. <i>Archives of Biochemistry and Biophysics</i> , 1998, 358, 104-115.	3.0	26
51	Nitrate reductase for nitrate analysis in water. <i>Environmental Chemistry Letters</i> , 2006, 4, 69-73.	16.2	26
52	Development of NAD(P)H: and NADH:Nitrate Reductase Activities in Soybean Cotyledons. <i>Plant Physiology</i> , 1980, 65, 595-599.	4.8	25
53	NADH dehydrogenase activity of higher plant nitrate reductase (NADH). <i>Plant Science Letters</i> , 1979, 16, 139-147.	1.8	24
54	Properties of Bromphenol Blue as an Electron Donor for Higher Plant NADH: Nitrate Reductase. <i>Plant Physiology</i> , 1986, 82, 729-732.	4.8	22

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55	Characterization and Site-Directed Mutagenesis of Aspen Lignin-Specific O-Methyltransferase Expressed in <i>Escherichia coli</i> . <i>Archives of Biochemistry and Biophysics</i> , 1996, 330, 329-341.	3.0	22
56	Facile enzymic synthesis of caffeoyl CoA. <i>Phytochemistry</i> , 1997, 44, 605-608.	2.9	22
57	Viscosity Effects on Eukaryotic Nitrate Reductase Activity. <i>Journal of Biological Chemistry</i> , 2005, 280, 26049-26054.	3.4	19
58	Nitrate reductase expression in maize leaves (<i>Zea mays</i>) during dark-light transitions. Complex effects of protein phosphatase inhibitors on enzyme activity, protein synthesis and transcript levels. <i>Physiologia Plantarum</i> , 1996, 98, 67-76.	5.2	18
59	Recombinant Expression of Molybdenum Reductase Fragments of Plant Nitrate Reductase at High Levels in <i>Pichia pastoris</i> . <i>Plant Physiology</i> , 2000, 123, 743-756.	4.8	18
60	Spectroscopic and Kinetic Characterization of the Recombinant Cytochrome c Reductase Fragment of Nitrate Reductase. <i>Journal of Biological Chemistry</i> , 1997, 272, 2122-2128.	3.4	17
61	Immunochemical Characterization of Nitrate Reductase Forms from Wild-Type (cv Williams) and nr1 Mutant Soybean. <i>Plant Physiology</i> , 1985, 77, 232-236.	4.8	16
62	Affinity binding via Zinc(II) for controlled orientation and electrochemistry of Histidine-tagged nitrate reductase in self-assembled monolayers. <i>Bioelectrochemistry</i> , 2013, 93, 46-50.	4.6	15
63	Spectroscopic and Kinetic Characterization of the Recombinant Wild-type and C242S Mutant of the Cytochrome b Reductase Fragment of Nitrate Reductase. <i>Journal of Biological Chemistry</i> , 1995, 270, 24067-24072.	3.4	14
64	Bioelectrocatalytic and electrochemical cascade for phosphate sensing with up to 6 electrons per analyte molecule. <i>Biosensors and Bioelectronics</i> , 2018, 117, 501-507.	10.1	13
65	NADH substrate inhibition and enhanced thermal stability of higher plant nitrate reductase immobilized via a monoclonal antibody. <i>Biochemical and Biophysical Research Communications</i> , 1989, 161, 496-501.	2.1	12
66	Relationships between external nitrate availability, nitrate uptake and expression of nitrate reductase in roots of barley grown in N-limited split-root cultures. <i>Planta</i> , 1995, 196, 485.	3.2	12
67	Regulation of molybdenum cofactor of maize leaf. <i>Phytochemistry</i> , 1987, 26, 2149-2150.	2.9	10
68	Determination of phosphate in soil extracts in the field: A green chemistry enzymatic method. <i>MethodsX</i> , 2015, 2, 211-218.	1.6	10
69	Molecular Control of Nitrate Reductase and Other Enzymes Involved in Nitrate Assimilation. <i>Advances in Photosynthesis and Respiration</i> , 2002, , 35-48.	1.0	9
70	Activation of <i>Thalassiosira pseudonana</i> nadh: Nitrate reductase. <i>Phytochemistry</i> , 1980, 19, 1601-1605.	2.9	8
71	Oxygen Inhibition of Nitrate Reductase Biosynthesis in Detached Corn Leaves via Inhibition of Total Soluble Protein Synthesis. <i>Plant Physiology</i> , 1989, 91, 883-888.	4.8	8
72	Non-toxic total nitrogen determination using a low alkaline persulfate digestion. <i>MethodsX</i> , 2020, 7, 100791.	1.6	5

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73	Regulation of Cytoplasmic C- and N- Metabolism by Protein Phosphorylation. , 1992, , 675-682.		5
74	An ELISA for Higher Plant Nitrate Reductase. Annals of the New York Academy of Sciences, 1984, 435, 123-125.	3.8	4
75	Nitrate reductase expression in maize leaves (<i>Zea mays</i>) during dark-light transitions. Complex effects of protein phosphatase inhibitors on enzyme activity, protein synthesis and transcript levels. <i>Physiologia Plantarum</i> , 1996, 98, 67-76.	5.2	3
76	Biochemistry and Molecular Biology of Lignin-Specific O-Methyltransferases from Woody Plant Species. ACS Symposium Series, 1998, , 55-64.	0.5	1
77	Fertile Fields. <i>Plant Cell</i> , 1990, 2, 829.	6.6	0
78	NEW NITRATE MEASUREMENT TOOLS TO ASSIST IN NUTRIENT MANAGEMENT. Proceedings of the Water Environment Federation, 2000, 2000, 452-460.	0.0	0