Wilbur H Campbell

List of Publications by Year
in descending order

78 papers	4,992 citations	81900 39 h-index	88630 70 g-index
78 all docs	78 docs citations	78 times ranked	3045 citing authors

#	Article	IF	Citations
1	Non-toxic total nitrogen determination using a low alkaline persulfate digestion. MethodsX, 2020, 7, 100791.	1.6	5
2	Bioelectrocatalytic and electrochemical cascade for phosphate sensing with up to 6 electrons per analyte molecule. Biosensors and Bioelectronics, 2018, 117, 501-507.	10.1	13
3	Determination of phosphate in soil extracts in the field: A green chemistry enzymatic method. MethodsX, 2015, 2, 211-218.	1.6	10
4	Affinity binding via Zinc(II) for controlled orientation and electrochemistry of Histidine-tagged nitrate reductase in self-assembled monolayers. Bioelectrochemistry, 2013, 93, 46-50.	4.6	15
5	Enzyme-Catalyzed O₂ Removal System for Electrochemical Analysis under Ambient Air: Application in an Amperometric Nitrate Biosensor. Analytical Chemistry, 2012, 84, 2141-2146.	6.5	70
6	Nitrate reductase for nitrate analysis in water. Environmental Chemistry Letters, 2006, 4, 69-73.	16.2	26
7	Structural Basis of Eukaryotic Nitrate Reduction: Crystal Structures of the Nitrate Reductase Active Site. Plant Cell, 2005, 17, 1167-1179.	6.6	149
8	Viscosity Effects on Eukaryotic Nitrate Reductase Activity. Journal of Biological Chemistry, 2005, 280, 26049-26054.	3.4	19
9	Purification and biochemical characterization of simplified eukaryotic nitrate reductase expressed in Pichia pastoris. Protein Expression and Purification, 2004, 37, 61-71.	1.3	31
10	Corn Leaf Nitrate ReductaseA Nontoxic Alternative to Cadmium for Photometric Nitrate Determinations in Water Samples by Air-Segmented Continuous-Flow Analysis. Environmental Science & Technology, 2002, 36, 729-735.	10.0	52
11	Molecular Control of Nitrate Reductase and Other Enzymes Involved in Nitrate Assimilation. Advances in Photosynthesis and Respiration, 2002, , 35-48.	1.0	9
12	Pre-steady-state Kinetic Analysis of Recombinant Arabidopsis NADH:Nitrate Reductase. Journal of Biological Chemistry, 2001, 276, 26995-27002.	3.4	41
13	NEW NITRATE MEASUREMENT TOOLS TO ASSIST IN NUTRIENT MANAGEMENT. Proceedings of the Water Environment Federation, 2000, 2000, 452-460.	0.0	0
14	Recombinant Expression of Molybdenum Reductase Fragments of Plant Nitrate Reductase at High Levels in Pichia pastoris. Plant Physiology, 2000, 123, 743-756.	4.8	18
15	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
16	Structural Changes Induced by Catalytic Turnover at the Molybdenum Site of Arabidopsis Nitrate Reductase. Journal of the American Chemical Society, 1999, 121, 9730-9731.	13.7	39
17	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
18	Nitrate regulation of the oxidative pentose phosphate pathway in maize (Zea mays L.) root plastids: induction of 6-phosphogluconate dehydrogenase activity, protein and transcript levels. Plant Science, 1998, 134, 129-140.	3.6	45

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19	Construction and Characterization of Nitrate Reductase-Based Amperometric Electrode and Nitrate Assay of Fertilizers and Drinking Water. Analytical Chemistry, 1998, 70, 1511-1515.	6.5	72
20	Engineering of Pyridine Nucleotide Specificity of Nitrate Reductase: Mutagenesis of Recombinant CytochromebReductase Fragment ofNeurospora crassaNADPH:Nitrate Reductase. Archives of Biochemistry and Biophysics, 1998, 358, 104-115.	3.0	26
21	Biochemistry and Molecular Biology of Lignin-Specific O-Methyltransferases from Woody Plant Species. ACS Symposium Series, 1998, , 55-64.	0.5	1
22	Spectroscopic and Kinetic Characterization of the Recombinant Cytochrome c Reductase Fragment of Nitrate Reductase. Journal of Biological Chemistry, 1997, 272, 2122-2128.	3.4	17
23	Facile enzymic synthesis of caffeoyl CoA. Phytochemistry, 1997, 44, 605-608.	2.9	22
24	Characterization and Site-Directed Mutagenesis of Aspen Lignin-SpecificO-Methyltransferase Expressed inEscherichia coli. Archives of Biochemistry and Biophysics, 1996, 330, 329-341.	3.0	22
25	Nitrate reductase expression in maize leaves (Zea mays) during dark-light transitions. Complex effects of protein phosphatase inhibitors on enzyme activity, protein synthesis and transcript levels. Physiologia Plantarum, 1996, 98, 67-76.	5.2	18
26	Identification of Ser-543 as the Major Regulatory Phosphorylation Site in Spinach Leaf Nitrate Reductase. Plant Cell, 1996, 8, 505.	6.6	41
27	Nitrate reductase expression in maize leaves (Zea mays) during dark-light transitions. Complex effects of protein phosphatase inhibitors on enzyme activity, protein synthesis and transcript levels. Physiologia Plantarum, 1996, 98, 67-76.	5.2	3
28	Relationships between external nitrate availability, nitrate uptake and expression of nitrate reductase in roots of barley grown in N-limited split-root cultures. Planta, 1995, 196, 485.	3.2	12
29	The influence of cytokinins in nitrate regulation of nitrate reductase activity and expression in barley. Physiologia Plantarum, 1995, 93, 533-539.	5.2	44
30	The influence of cytokinins in nitrate regulation of nitrate reductase activity and expression in barley. Physiologia Plantarum, 1995, 93, 533-539.	5.2	39
31	Spectroscopic and Kinetic Characterization of the Recombinant Wild-type and C242S Mutant of the Cytochrome b Reductase Fragment of Nitrate Reductase. Journal of Biological Chemistry, 1995, 270, 24067-24072.	3.4	14
32	Identification of a maize root transcript expressed in the primary response to nitrate: characterization of a cDNA with homology to ferredoxin-NADP+ oxidoreductase. Plant Molecular Biology, 1994, 26, 679-690.	3.9	56
33	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
34	Crystal structure of the FAD-containing fragment of corn nitrate reductase at 2.5Ã¥ resolution: relationship to other flavoprotein reductases. Structure, 1994, 2, 809-821.	3.3	99
35	Comparative Studies of the Light Modulation of Nitrate Reductase and Sucrose-Phosphate Synthase Activities in Spinach Leaves. Plant Physiology, 1992, 100, 706-712.	4.8	68
36	Expression in Escherichia coli of Cytochrome c Reductase Activity from a Maize NADH:Nitrate Reductase Complementary DNA. Plant Physiology, 1992, 99, 693-699.	4.8	31

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37	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
38	Nitrate reductase transcript is expressed in the primary response of maize to environmental nitrate. Plant Molecular Biology, 1992, 18, 55-64.	3.9	89
39	Reduction of nitrate and nitrite in water by immobilized enzymes. Nature, 1992, 355, 717-719.	27.8	153
40	Characterization of bispecific caffeic acid/ 5-hydroxyferulic acid O-methyltransferase from aspen. Phytochemistry, 1992, 31, 1495-1498.	2.9	36
41	Regulation of Cytoplasmic C- and N- Metabolism by Protein Phosphorylation. , 1992, , 675-682.		5
42	Higher plant responses to environmental nitrate. Physiologia Plantarum, 1991, 82, 640-650.	5.2	168
43	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
44	Stress Responses in Alfalfa (Medicago sativa L.). Plant Physiology, 1991, 97, 7-14.	4.8	202
45	Higher plant responses to environmental nitrate. Physiologia Plantarum, 1991, 82, 640-650.	5.2	37
46	Fertile Fields. Plant Cell, 1990, 2, 829.	6.6	0
47	Codon Usage in Higher Plants, Green Algae, and Cyanobacteria. Plant Physiology, 1990, 92, 1-11.	4.8	222
48	Functional domains of assimilatory nitrate reductases and nitrite reductases. Trends in Biochemical Sciences, 1990, 15, 315-319.	7.5	206
49	High-level expression in Escherichia coli of the catalytically active flavin domain of corn leaf NADH:nitrate reductase and its comparison to human NADH:cytochrome B5 reductase. Biochemical and Biophysical Research Communications, 1990, 168, 1285-1291.	2.1	53
50	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
51	Oxygen Inhibition of Nitrate Reductase Biosynthesis in Detached Corn Leaves via Inhibition of Total Soluble Protein Synthesis. Plant Physiology, 1989, 91, 883-888.	4.8	8
52	Monoclonal antibody-based immunoaffinity chromatography for purifying corn and squash NADH: nitrate reductases. Evidence for an interchain disulfide bond in nitrate reductase. Plant Molecular Biology, 1989, 13, 233-246.	3.9	37
53	NADH substrate inhibition and enhanced thermal stability of higher plant nitrate reductase immobilized via a monoclonal antibody. Biochemical and Biophysical Research Communications, 1989, 161, 496-501.	2.1	12
54	Nitrate reductase and its role in nitrate assimilation in plants. Physiologia Plantarum, 1988, 74, 214-219.	5.2	133

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55	Phytochrome-Mediated Light Regulation of Nitrate Reductase Expression in Squash Cotyledons. Plant Physiology, 1988, 88, 242-244.	4.8	80
56	Immunogold Localization of Nitrate Reductase in Maize Leaves. Plant Physiology, 1988, 88, 1354-1357.	4.8	58
57	Regulation of molybdenum cofactor of maize leaf. Phytochemistry, 1987, 26, 2149-2150.	2.9	10
58	Properties of Bromphenol Blue as an Electron Donor for Higher Plant NADH: Nitrate Reductase. Plant Physiology, 1986, 82, 729-732.	4.8	22
59	Regulation of Corn Leaf Nitrate Reductase. Plant Physiology, 1986, 80, 442-447.	4.8	123
60	Regulation of Corn Leaf Nitrate Reductase. Plant Physiology, 1986, 80, 435-441.	4.8	45
61	Adaptation of the dye-binding protein assay to microtiter plates. Analytical Biochemistry, 1985, 147, 144-147.	2.4	137
62	Immunochemical Characterization of Nitrate Reductase Forms from Wild-Type (cv Williams) and nr1 Mutant Soybean. Plant Physiology, 1985, 77, 232-236.	4.8	16
63	Ferricâ€citrate reductase activity of nitrate reductase and it's role in iron assimilation by plants. Journal of Plant Nutrition, 1984, 7, 799-806.	1.9	30
64	An ELISA for Higher Plant Nitrate Reductase. Annals of the New York Academy of Sciences, 1984, 435, 123-125.	3.8	4
65	Heavy metal inactivation and chelator stimulation of higher plant nitrate reductase. BBA - Proteins and Proteomics, 1983, 742, 435-445.	2.1	45
66	Reduction of ferric citrate catalyzed by NADH:nitrate reductase. Biochemical and Biophysical Research Communications, 1983, 114, 1182-1188.	2.1	29
67	Purification of Squash NADH:Nitrate Reductase by Zinc Chelate Affinity Chromatography. Plant Physiology, 1983, 71, 205-207.	4.8	47
68	Immunological Approach to Structural Comparisons of Assimilatory Nitrate Reductases. Plant Physiology, 1981, 68, 1226-1230.	4.8	53
69	Purification and Characterization of NAD(P)H:Nitrate Reductase and NADH:Nitrate Reductase from Corn Roots. Plant Physiology, 1981, 68, 115-120.	4.8	55
70	Activation of Thalassiosira pseudonana nadh: Nitrate reductase. Phytochemistry, 1980, 19, 1601-1605.	2.9	8
71	Development of NAD(P)H: and NADH:Nitrate Reductase Activities in Soybean Cotyledons. Plant Physiology, 1980, 65, 595-599.	4.8	25
72	NADH dehydrogenase activity of higher plant nitrate reductase (NADH). Plant Science Letters, 1979, 16, 139-147.	1.8	24

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73	Isolation of NAD(P)H: Nitrate Reductase from the Scutellum of Maize. Zeitschrift FÃ¼r Pflanzenphysiologie, 1978, 88, 357-361.	1.4	28
74	Purification and Kinetics of Higher Plant NADH:Nitrate Reductase. Plant Physiology, 1978, 61, 611-616.	4.8	97
75	Separation of soybean leaf nitrate reductases by affinity chromatography. Plant Science Letters, 1976, 7, 239-247.	1.8	55
76	Metabolism of epidermal tissues, mesophyll cells, and bundle sheath strands resolved from mature nutsedge leaves. Archives of Biochemistry and Biophysics, 1974, 163, 246-262.	3.0	62
77	Phosphoenolpyruvate Carboxykinase in Plants Exhibiting Crassulacean Acid Metabolism. Plant Physiology, 1973, 52, 357-361.	4.8	149
78	A comparison of the physical and chemical properties of four cytochromes c from Azotobacter vinelandii. Biochemical Journal, 1973, 135, 617-630.	3.7	31