Nicholas J Watmough

List of Publications by Year
in descending order

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82 papers	4,096 citations	101543 36 h-index	114465 63 g-index
84 all docs	84 docs citations	84 times ranked	4391 citing authors

#	Article	IF	Citations
1	Influence of the heme distal pocket on nitrite binding orientation and reactivity in Sperm Whale myoglobin. Biochemical Journal, 2021, 478, 927-942.	3.7	6
2	Regulation and Characterization of Mutants of fixABCX in Rhizobium leguminosarum. Molecular Plant-Microbe Interactions, 2021, 34, 1167-1180.	2.6	14
3	Ultrafast Light-Driven Electron Transfer in a Ru(II)tris(bipyridine)-Labeled Multiheme Cytochrome. Journal of the American Chemical Society, 2019, 141, 15190-15200.	13.7	28
4	Functional interactions between nitrite reductase and nitric oxide reductase from Paracoccus denitrificans. Scientific Reports, 2019, 9, 17234.	3.3	7
5	Photosensitised Multiheme Cytochromes as Lightâ€Driven Molecular Wires and Resistors. ChemBioChem, 2018, 19, 2206-2215.	2.6	10
6	Analysis of multiple haloarchaeal genomes suggests that the quinoneâ€dependent respiratory nitric oxide reductase is an important source of nitrous oxide in hypersaline environments. Environmental Microbiology Reports, 2017, 9, 788-796.	2.4	19
7	Tuning the modular Paracoccus denitrificans respirome to adapt from aerobic respiration to anaerobic denitrification. Environmental Microbiology, 2017, 19, 4953-4964.	3.8	47
8	Lipogenesis and Redox Balance in Nitrogen-Fixing Pea Bacteroids. Journal of Bacteriology, 2016, 198, 2864-2875.	2.2	43
9	Unexpected weak magnetic exchange coupling between haem and non-haem iron in the catalytic site of nitric oxide reductase (NorBC) from Paracoccus denitrificans. Biochemical Journal, 2013, 451, 389-394.	3.7	6
10	Mechanistic Insight into the Nitrosylation of the [4Feâ˜4S] Cluster of WhiB-like Proteins. Journal of the American Chemical Society, 2011, 133, 1112-1121.	13.7	124
11	Enzymology and ecology of the nitrogen cycle. Biochemical Society Transactions, 2011, 39, 175-178.	3.4	73
12	Electron transfer and half-reactivity in nitrogenase. Biochemical Society Transactions, 2011, 39, 201-206.	3.4	10
13	Electron transfer to the active site of the bacterial nitric oxide reductase is controlled by ligand binding to heme b3. Biochimica Et Biophysica Acta - Bioenergetics, 2011, 1807, 451-457.	1.0	15
14	Mutagenesis of tyrosine residues within helix VII in subunit I of the cytochrome cbb 3 oxidase from Rhodobacter capsulatus. Molecular Biology Reports, 2011, 38, 3319-3326.	2.3	1
15	Structure of a bacterial cell surface decaheme electron conduit. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 9384-9389.	7.1	301
16	The electron transfer flavoprotein: Ubiquinone oxidoreductases. Biochimica Et Biophysica Acta - Bioenergetics, 2010, 1797, 1910-1916.	1.0	197
17	Molecular dissection of bacterial acrylate catabolism â€“ unexpected links with dimethylsulfoniopropionate catabolism and dimethyl sulfide production. Environmental Microbiology, 2010, 12, 327-343.	3.8	116
18	Mitigating release of the potent greenhouse gas N2O from the nitrogen cycle â€“ could enzymic regulation hold the key?. Trends in Biotechnology, 2009, 27, 388-397.	9.3	438

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19	Exploring the terminal region of the proton pathway in the bacterial nitric oxide reductase. Journal of Inorganic Biochemistry, 2009, 103, 845-850.	3.5	36
20	Electrochemical Evidence for Multiple Peroxidatic Heme States of the Diheme Cytochrome c Peroxidase of Pseudomonas aeruginosa. Biochemistry, 2009, 48, 87-95.	2.5	20
21	The bacterial respiratory nitric oxide reductase. Biochemical Society Transactions, 2009, 37, 392-399.	3.4	62
22	Electron spin relaxation enhancement measurements of interspin distances in human, porcine, and Rhodobacter electron transfer flavoproteinâ€“ubiquinone oxidoreductase (ETFâ€“QO). Journal of Magnetic Resonance, 2008, 190, 222-232.	2.1	17
23	Ultrafast ligand binding dynamics in the active site of native bacterial nitric oxide reductase. Biochimica Et Biophysica Acta - Bioenergetics, 2008, 1777, 919-924.	1.0	17
24	Redox-Linked Structural Changes Associated with the Formation of a Catalytically Competent Form of the Diheme Cytochrome c Peroxidase from Pseudomonas aeruginosa[,]. Biochemistry, 2008, 47, 1947-1956.	2.5	30
25	Impact of Mutations on the Midpoint Potential of the [4Fe-4S]^{+1,+2} Cluster and on Catalytic Activity in Electron Transfer Flavoprotein-ubiquinone Oxidoreductase (ETF-QO). Biochemistry, 2008, 47, 92-100.	2.5	35
26	Defining the Proton Entry Point in the Bacterial Respiratory Nitric-oxide Reductase. Journal of Biological Chemistry, 2008, 283, 3839-3845.	3.4	48
27	The Respiratory Nitric Oxide Reductase (NorBC) from Paracoccus denitrificans. Methods in Enzymology, 2008, 437, 79-101.	1.0	23
28	A new assay for nitric oxide reductase reveals two conserved glutamate residues form the entrance to a proton-conducting channel in the bacterial enzyme. Biochemical Journal, 2007, 401, 111-119.	3.7	60
29	Activation of the cytochrome c peroxidase of Pseudomonas aeruginosa. The role of a heme-linked protein loop: A mutagenesis studies. Journal of Inorganic Biochemistry, 2007, 101, 1133-1139.	3.5	14
30	Histidine and not tyrosine is required for the Peroxideâ€induced formation of haem to protein crossâ€linked myoglobin. IUBMB Life, 2007, 59, 477-489.	3.4	18
31	Site-directed Mutagenesis of Five Conserved Residues of Subunit I of the Cytochrome cbb3 Oxidase in Rhodobacter capsulatus. BMB Reports, 2007, 40, 697-707.	2.4	4
32	Electron/Proton Coupling in Bacterial Nitric Oxide Reductase during Reduction of Oxygenâ€. Biochemistry, 2005, 44, 10711-10719.	2.5	51
33	Formation of a cytochrome câ€“nitrous oxide reductase complex is obligatory for N2O reduction by Paracoccus pantotrophus. Dalton Transactions, 2005, , 3501.	3.3	41
34	Redox-dependent Open and Closed Forms of the Active Site of the Bacterial Respiratory Nitric-oxide Reductase Revealed by Cyanide Binding Studies. Journal of Biological Chemistry, 2004, 279, 17120-17125.	3.4	22
35	The bacterial cytochrome cbb3 oxidases. Biochimica Et Biophysica Acta - Bioenergetics, 2004, 1655, 388-399.	1.0	260
36	The Nature of the Exchange Coupling between High-Spin Fe(III) Hemeo3and CuB(II) inEscherichiacoliQuinol Oxidase, Cytochromebo3:Â MCD and EPR Studies. Journal of the American Chemical Society, 2004, 126, 4157-4166.	13.7	49

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37	Complex Interactions of Carbon Monoxide with Reduced Cytochromecbb3Oxidase fromPseudomonas stutzeriâ€. Biochemistry, 2003, 42, 11263-11271.	2.5	15
38	Spectral Properties of Bacterial Nitric-oxide Reductase. Journal of Biological Chemistry, 2002, 277, 20146-20150.	3.4	38
39	Cytochrome cd1, Reductive Activation and Kinetic Analysis of a Multifunctional Respiratory Enzyme. Journal of Biological Chemistry, 2002, 277, 3093-3100.	3.4	51
40	A novel, kinetically stable, catalytically active, all-ferric, nitrite-bound complex of Paracoccus pantotrophus cytochrome cd1. Biochemical Journal, 2002, 366, 883-888.	3.7	14
41	Spectral properties of bacterial nitric oxide reductase. Biochemical Society Transactions, 2002, 30, A76-A76.	3.4	0
42	Nature of the Displaceable Heme-Axial Residue in theEcDos Protein, a Heme-Based Sensor fromEscherichia coliâ€. Biochemistry, 2002, 41, 8414-8421.	2.5	64
43	Molecular and Spectroscopic Analysis of the Cytochromecbb3 Oxidase from Pseudomonas stutzeri. Journal of Biological Chemistry, 2002, 277, 31474-31483.	3.4	30
44	Cytochrome cbb3 oxidase and bacterial microaerobic metabolism. Biochemical Society Transactions, 2002, 30, 653-658.	3.4	66
45	Intramolecular Electron Transfer from c Heme to d1 Heme in Bacterial Cytochrome cd1 Nitrite Reductase Occurs over the Same Distances at Very Different Rates Depending on the Source of the Enzyme. Biochemistry, 2001, 40, 8542-8547.	2.5	19
46	The Role of Î² Chains in the Control of the Hemoglobin Oxygen Binding Function:â€‰ Chimeric Human/Mouse Proteins, Structure, and Function. Biochemistry, 2001, 40, 15669-15675.	2.5	7
47	Reaction of Carbon Monoxide with the Reduced Active Site of Bacterial Nitric Oxide Reductaseâ€. Biochemistry, 2001, 40, 13361-13369.	2.5	37
48	Two Conserved Glutamates in the Bacterial Nitric Oxide Reductase Are Essential for Activity but Not Assembly of the Enzyme. Journal of Bacteriology, 2001, 183, 189-199.	2.2	107
49	Structure and enzymology of two bacterial diheme enzymes: Cytochrome cd1 nitrite reductase and cytochrome c peroxidase. Advances in Inorganic Chemistry, 2000, 51, 163-204.	1.0	36
50	A switch in heme axial ligation prepares Paracoccus pantotrophus cytochrome cd1 for catalysis. Nature Structural Biology, 2000, 7, 885-888.	9.7	38
51	Purification and Magneto-optical Spectroscopic Characterization of Cytoplasmic Membrane and Outer Membrane Multiheme c-Type Cytochromes from Shewanella frigidimarina NCIMB400. Journal of Biological Chemistry, 2000, 275, 8515-8522.	3.4	105
52	A Novel Conformer of Oxidized Paracoccus pantotrophus Cytochrome cd1 Observed by Freeze-Quench NIR-MCD Spectroscopy. Biochemical and Biophysical Research Communications, 2000, 279, 674-677.	2.1	13
53	Oxidase Reaction of Cytochrome cd1 from Paracoccus pantotrophus. Biochemistry, 2000, 39, 4028-4036.	2.5	37
54	Inorganic nitrogen metabolism in bacteria. Current Opinion in Chemical Biology, 1999, 3, 207-219.	6.1	239

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55	Nitric oxide in bacteria: synthesis and consumption. Biochimica Et Biophysica Acta - Bioenergetics, 1999, 1411, 456-474.	1.0	117
56	Electron Transfer Kinetics of caa3 Oxidase from Bacillusstearothermophilus: A Hypothesis for Thermophilicity. Biophysical Journal, 1999, 76, 438-442.	0.5	1
57	A Low-Redox Potential Heme in the Dinuclear Center of Bacterial Nitric Oxide Reductase: Implications for the Evolution of Energy-Conserving Hemeâ˜Copper Oxidases. Biochemistry, 1999, 38, 13780-13786.	2.5	102
58	The role of amino acid Î±38 in the control of oxygen binding to human adult and embryonic haemoglobin Portland. Biochemical Journal, 1999, 343, 681.	3.7	1
59	The role of amino acid Î±38 in the control of oxygen binding to human adult and embryonic haemoglobin Portland. Biochemical Journal, 1999, 343, 681-685.	3.7	4
60	The dinuclear center of cytochrome bo3 from Escherichia coli. Journal of Bioenergetics and Biomembranes, 1998, 30, 55-62.	2.3	46
61	Nature of the Coupling between the High-Spin Fe(III) Heme and CuB(II) in the Active Site of Terminal Oxidases:Â Dual-Mode EPR Spectra of Fluoride Cytochromebo3. Journal of the American Chemical Society, 1998, 120, 4232-4233.	13.7	32
62	The reaction of halides with pulsed cytochrome bo from Escherichia coli. Biochemical Journal, 1998, 331, 459-464.	3.7	12
63	Reaction of variant sperm-whale myoglobins with hydrogen peroxide: the effects of mutating a histidine residue in the haem distal pocket. Biochemical Journal, 1997, 326, 109-115.	3.7	54
64	A two-state analysis of co-operative oxygen binding in the three human embryonic haemoglobins. Biochemical Journal, 1997, 326, 299-303.	3.7	15
65	Fast Cytochrome bo from Escherichia coli reacts with azide and nitric oxide to form a complex analogous to that formed by cytochrome c oxidase. Biochemical Society Transactions, 1997, 25, 392S-392S.	3.4	1
66	A Conserved Glutamic Acid in Helix VI of Cytochrome bo3 Influences a Key Step in Oxygen Reduction. Biochemistry, 1997, 36, 13736-13742.	2.5	31
67	Cytochrome bo from Escherichia coli:â€‰ Binding of Azide to CuB. Biochemistry, 1996, 35, 13780-13787.	2.5	23
68	The reaction ofEscherichia colicytochromebowith H202: Evidence for the formation of an oxyferryl species by two distinct routes. FEBS Letters, 1996, 399, 21-25.	2.8	36
69	Electron Transfer between Cytochrome c and the Isolated CuA Domain: Identification of Substrate-Binding Residues in Cytochrome c Oxidase. Biochemistry, 1995, 34, 5824-5830.	2.5	86
70	Magnetic-circular-dichroism studies of Escherichia coli cytochrome bo. Identification of high-spin ferric, low-spin ferric and ferryl [Fe(IV)] forms of heme o. FEBS Journal, 1994, 219, 595-602.	0.2	42
71	Distinct forms of the haemo-Cu binuclear site of oxidised cytochromebofromEscherichia coli. FEBS Letters, 1993, 319, 151-154.	2.8	40
72	Structural and redox relationships between Paracoccus denitrificans, porcine and human electron-transferring flavoproteins. FEBS Journal, 1992, 205, 1089-1097.	0.2	18

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73	Tryptophan fluorescence in electron-transfer flavoprotein:ubiquinone oxidoreductase: fluorescence quenching by a brominated pseudosubstrate. Biochemistry, 1991, 30, 1317-1323.	2.5	22
74	Impaired mitochondrial beta-oxidation in a patient with an abnormality of the respiratory chain. Studies in skeletal muscle mitochondria.. Journal of Clinical Investigation, 1990, 85, 177-184.	8.2	65
75	Fatal Lactic Acidosis in Infancy with a Defect of Complex III of the Respiratory Chain. Pediatric Research, 1989, 25, 553-559.	2.3	114
76	Effects of tenotomy on muscle histology and energy metabolism in normal and dystrophic mice. Journal of the Neurological Sciences, 1989, 92, 307-316.	0.6	4
77	Tissue specific defect of complex I of the mitochondrial respiratory chain. Biochemical and Biophysical Research Communications, 1989, 160, 623-627.	2.1	17
78	Studies of [U-14C]palmitate metabolism by rat skeletal muscle mitochondria: identification of the products by radio-high-performance liquid chromatography. Biochemical Society Transactions, 1987, 15, 633-634.	3.4	3
79	A new simple screening method for the diagnosis of medium chain acyl-CoA dehydrogenase deficiency. Clinica Chimica Acta, 1987, 165, 39-44.	1.1	27
80	Creatine kinase activity in human skeletal-muscle membranes. Biochemical Society Transactions, 1986, 14, 126-127.	3.4	1
81	Evidence for a membrane-associated form of the major aminopeptidase of human skeletal muscle. Biochemical Society Transactions, 1985, 13, 162-163.	3.4	1
82	Measurement of phosphate concentration in the presence of very labile phosphate esters. Analytical Biochemistry, 1984, 140, 424-427.	2.4	3