

Wolfgang Nitschke

List of Publications by Year in descending order

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47
papers

3,034
citations

159585

30
h-index

214800

47
g-index

47
all docs

47
docs citations

47
times ranked

2916
citing authors

#	ARTICLE	IF	CITATIONS
1	The Drive to Life on Wet and Icy Worlds. <i>Astrobiology</i> , 2014, 14, 308-343.	3.0	232
2	Early Evolution of Cytochrome bc Complexes. <i>Journal of Molecular Biology</i> , 2000, 300, 663-675.	4.2	164
3	Arsenite Oxidase, an Ancient Bioenergetic Enzyme. <i>Molecular Biology and Evolution</i> , 2003, 20, 686-693.	8.9	161
4	On the universal core of bioenergetics. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2013, 1827, 79-93.	1.0	153
5	Was nitric oxide the first deep electron sink?. <i>Trends in Biochemical Sciences</i> , 2009, 34, 9-15.	7.5	148
6	Redox bifurcations: Mechanisms and importance to life now, and at its origin. <i>BioEssays</i> , 2012, 34, 106-109.	2.5	135
7	The redox protein construction kit: pre-last universal common ancestor evolution of energy-conserving enzymes. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2003, 358, 267-274.	4.0	132
8	On the antiquity of metalloenzymes and their substrates in bioenergetics. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2013, 1827, 871-881.	1.0	121
9	Hydrothermal Focusing of Chemical and Chemiosmotic Energy, Supported by Delivery of Catalytic Fe, Ni, Mo/W, Co, S and Se, Forced Life to Emerge. <i>Journal of Molecular Evolution</i> , 2009, 69, 481-496.	1.8	117
10	[NiFe] hydrogenases from the hyperthermophilic bacterium <i>Aquifex aeolicus</i> : properties, function, and phylogenetics. <i>Extremophiles</i> , 2003, 7, 145-157.	2.3	111
11	Beating the acetyl coenzyme A-pathway to the origin of life. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013, 368, 20120258.	4.0	110
12	The inevitable journey to being. <i>Philosophical Transactions of the Royal Society B: Biological Sciences</i> , 2013, 368, 20120254.	4.0	110
13	Menaquinone as pool quinone in a purple bacterium. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2009, 106, 8549-8554.	7.1	107
14	Arsenics as bioenergetic substrates. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2013, 1827, 176-188.	1.0	105
15	Evidence for arsenic metabolism and cycling by microorganisms 2.7 billion years ago. <i>Nature Geoscience</i> , 2014, 7, 811-815.	12.9	100
16	Enzyme phylogenies as markers for the oxidation state of the environment: The case of respiratory arsenate reductase and related enzymes. <i>BMC Evolutionary Biology</i> , 2008, 8, 206.	3.2	97
17	The ineluctable requirement for the trans-iron elements molybdenum and/or tungsten in the origin of life. <i>Scientific Reports</i> , 2012, 2, 263.	3.3	92
18	The Rieske Protein: A Case Study on the Pitfalls of Multiple Sequence Alignments and Phylogenetic Reconstruction. <i>Molecular Biology and Evolution</i> , 2006, 23, 1180-1191.	8.9	63

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19	On the Natural History of Flavin-Based Electron Bifurcation. <i>Frontiers in Microbiology</i> , 2018, 9, 1357.	3.5	58
20	Methane: Fuel or Exhaust at the Emergence of Life?. <i>Astrobiology</i> , 2017, 17, 1053-1066.	3.0	54
21	The ci/bH moiety in the b6f complex studied by EPR: A pair of strongly interacting hemes. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2007, 104, 519-524.	7.1	53
22	Cyclic Electron Transfer in <i>Heliobacillus mobilis</i> Involving a Menaquinol-Oxidizing Cytochrome bc Complex and an RCI-Type Reaction Center. <i>Biochemistry</i> , 1997, 36, 4203-4211.	2.5	50
23	Energetics of the exchangeable quinone, Q _B , in Photosystem II. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2019, 116, 19458-19463.	7.1	48
24	From low- to high-potential bioenergetic chains: Thermodynamic constraints of Q-cycle function. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 1569-1579.	1.0	44
25	The obligate respiratory supercomplex from Actinobacteria. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 1705-1714.	1.0	41
26	The Small Subunit AroB of Arsenite Oxidase. <i>Journal of Biological Chemistry</i> , 2010, 285, 20442-20451.	3.4	40
27	<i>Chlamydomonas reinhardtii</i> Chloroplasts Contain a Homodimeric Pyruvate:Ferredoxin Oxidoreductase That Functions with FDX1 Å Å. <i>Plant Physiology</i> , 2012, 161, 57-71.	4.8	39
28	Evidence for a unique Rieske iron-sulphur centre in <i>Heliobacterium chlorum</i> . <i>FEBS Letters</i> , 1990, 261, 427-430.	2.8	37
29	Redox Components of Cytochrome bc-type Enzymes in Acidophilic Prokaryotes. <i>Journal of Biological Chemistry</i> , 1999, 274, 16760-16765.	3.4	34
30	Diversity of Cytochrome bc Complexes: Example of the Rieske Protein in Green Sulfur Bacteria. <i>Journal of Bacteriology</i> , 1998, 180, 3719-3723.	2.2	31
31	Concerted Up-regulation of Aldehyde/Alcohol Dehydrogenase (ADHE) and Starch in <i>Chlamydomonas reinhardtii</i> Increases Survival under Dark Anoxia. <i>Journal of Biological Chemistry</i> , 2017, 292, 2395-2410.	3.4	26
32	Fougerite: the not so simple progenitor of the first cells. <i>Interface Focus</i> , 2019, 9, 20190063.	3.0	25
33	Characterization of the Unbound 2[Fe4S4]-Ferredoxin-Like Photosystem I Subunit PsaC from the Cyanobacterium <i>Synechococcus elongatus</i> . <i>Biochemistry</i> , 1997, 36, 13629-13637.	2.5	23
34	Structural and Functional Characterization of the Unusual Triheme Cytochrome Bound to the Reaction Center of <i>Rhodovulum sulfidophilum</i> . <i>Journal of Biological Chemistry</i> , 2004, 279, 26090-26097.	3.4	23
35	The H-bond network surrounding the pyranopterins modulates redox cooperativity in the molybdenum- bis PGD cofactor in arsenite oxidase. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2016, 1857, 1353-1362.	1.0	23
36	On the why's and how's of clay minerals' importance in life's emergence. <i>Applied Clay Science</i> , 2020, 195, 105737.	5.2	21

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37	NO Binding and Dynamics in Reduced Heme ^a -Copper Oxidases ^a from <i>Paracoccus denitrificans</i> and <i>Thermus thermophilus</i> . <i>Biochemistry</i> , 2004, 43, 14118-14127.	2.5	20
38	Free energy conversion in the LUCA: Quo vadis?. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2014, 1837, 982-988.	1.0	20
39	Crystal structure and redox properties of a novel cyanobacterial heme protein with a His/Cys heme axial ligation and a Per-Arnt-Sim (PAS)-like domain. <i>Journal of Biological Chemistry</i> , 2017, 292, 9599-9612.	3.4	14
40	Hybrid cluster proteins in a photosynthetic microalga. <i>FEBS Journal</i> , 2020, 287, 721-735.	4.7	13
41	Mineralogy, geochemistry and occurrences of fougurite in a modern hydrothermal system and its implications for the origin of life. <i>Earth-Science Reviews</i> , 2022, 225, 103910.	9.1	11
42	The dyad of the Y-junction- and a flavin module unites diverse redox enzymes. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2021, 1862, 148401.	1.0	10
43	Aqueous electrochemistry: The toolbox for life's emergence from redox disequilibria. <i>Electrochemical Science Advances</i> , 2023, 3, .	2.8	7
44	The controversy on the ancestral arsenite oxidizing enzyme; deducing evolutionary histories with phylogeny and thermodynamics. <i>Biochimica Et Biophysica Acta - Bioenergetics</i> , 2020, 1861, 148252.	1.0	4
45	Phylogenetic and functional diversity of aldehyde-alcohol dehydrogenases in microalgae. <i>Plant Molecular Biology</i> , 2021, 105, 497-511.	3.9	4
46	Carbon Fixation: "Let Things Flow Naturally Forward in Whatever Way They Like". <i>Current Biology</i> , 2018, 28, R110-R112.	3.9	2
47	Structural evidence for a reaction intermediate mimic in the active site of a sulfite dehydrogenase. <i>Chemical Communications</i> , 2020, 56, 9850-9853.	4.1	1