Kenneth H Nealson

List of Publications by Year
in descending order

109 papers	19,103 citations	17776 65 h-index	30277 107 g-index
111 all docs	111 docs citations	111 times ranked	16432 citing authors

#	Article	IF	Citations
1	Silicate minerals as a direct source of limiting nutrients: Siderophore synthesis and uptake promote ferric iron bioavailability from olivine and microbial growth. Geobiology, 2021, 19, 618-630.	1.1	5
2	On the 50th Anniversary of the discovery of autoinduction and the ensuing birth of quorum sensing. Environmental Microbiology, 2020, 22, 801-807.	1.8	2
3	FeGenie: A Comprehensive Tool for the Identification of Iron Genes and Iron Gene Neighborhoods in Genome and Metagenome Assemblies. Frontiers in Microbiology, 2020, 11, 37.	1.5	195
4	Differences in Applied Redox Potential on Cathodes Enrich for Diverse Electrochemically Active Microbial Isolates From a Marine Sediment. Frontiers in Microbiology, 2019, 10, 1979.	1.5	24
5	The kinetics of siderophoreâ€mediated olivine dissolution. Geobiology, 2019, 17, 401-416.	1.1	16
6	Bioelectrochemical Stimulation of Electromethanogenesis at a Seawater-Based Subsurface Aquifer in a Natural Gas Field. Frontiers in Energy Research, 2019, 6, .	1.2	9
7	Tracking Electron Uptake from a Cathode into <i>Shewanella</i> Cells: Implications for Energy Acquisition from Solid-Substrate Electron Donors. MBio, 2018, 9, .	1.8	115
8	Multi-heme cytochromes provide a pathway for survival in energy-limited environments. Science Advances, 2018, 4, eaao5682.	4.7	155
9	Seeing through porous media: An experimental study for unveiling interstitial flows. Hydrological Processes, 2018, 32, 402-407.	1.1	12
10	Variation in electrode redox potential selects for different microorganisms under cathodic current flow from electrodes in marine sediments. Environmental Microbiology, 2018, 20, 2270-2287.	1.8	17
11	Comparative metatranscriptomics reveals extracellular electron transfer pathways conferring microbial adaptivity to surface redox potential changes. ISME Journal, 2018, 12, 2844-2863.	4.4	68
12	Self-standing Electrochemical Set-up to Enrich Anode-respiring Bacteria On-site. Journal of Visualized Experiments, 2018, , .	0.2	1
13	<i>In situ</i> electrochemical enrichment and isolation of a magnetiteâ€reducing bacterium from a high pH serpentinizing spring. Environmental Microbiology, 2017, 19, 2272-2285.	1.8	59
14	An efficient microbial fuel cell using a CNTâ€“RTIL based nanocomposite. Journal of Materials Chemistry A, 2017, 5, 7979-7991.	5.2	5
15	A metabolic-activity-detecting approach to life detection: Restoring a chemostat from stop-feeding using a rapid bioactivity assay. Bioelectrochemistry, 2017, 118, 147-153.	2.4	9
16	Bioelectricity (electromicrobiology) and sustainability. Microbial Biotechnology, 2017, 10, 1114-1119.	2.0	35
17	Redox Sensing within the Genus Shewanella. Frontiers in Microbiology, 2017, 8, 2568.	1.5	32
18	13C Pathway Analysis for the Role of Formate in Electricity Generation by Shewanella Oneidensis MR-1 Using Lactate in Microbial Fuel Cells. Scientific Reports, 2016, 6, 20941.	1.6	27

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19	Evolution of Cell Size Homeostasis and Growth Rate Diversity during Initial Surface Colonization of <i>Shewanella oneidensis</i>. ACS Nano, 2016, 10, 9183-9192.	7.3	20
20	Electromicrobiology: realities, grand challenges, goals and predictions. Microbial Biotechnology, 2016, 9, 595-600.	2.0	79
21	Nanoelectronic Investigation Reveals the Electrochemical Basis of Electrical Conductivity in <i>Shewanella</i> and <i>Geobacter</i>. ACS Nano, 2016, 10, 9919-9926.	7.3	46
22	Real-Time Manganese Phase Dynamics during Biological and Abiotic Manganese Oxide Reduction. Environmental Science & Technology, 2016, 50, 4248-4258.	4.6	69
23	Functional roles of CymA and NapC in reduction of nitrate and nitrite by Shewanella putrefaciens W3-18-1. Microbiology (United Kingdom), 2016, 162, 930-941.	0.7	14
24	Enriching distinctive microbial communities from marine sediments via an electrochemical-sulfide-oxidizing process on carbon electrodes. Frontiers in Microbiology, 2015, 6, 111.	1.5	16
25	Modeling the transport and bioreduction of hexavalent chromium in aquifers: Influence of natural organic matter. Chemical Engineering Science, 2015, 138, 552-565.	1.9	19
26	Uptake of self-secreted flavins as bound cofactors for extracellular electron transfer in <i>Geobacter</i> species. Energy and Environmental Science, 2014, 7, 1357-1361.	15.6	176
27	Microbial population and functional dynamics associated with surface potential and carbon metabolism. ISME Journal, 2014, 8, 963-978.	4.4	140
28	Bound Flavin Model Suggests Similar Electronâ€Transfer Mechanisms in <i>Shewanella</i> and <i>Geobacter</i>. ChemElectroChem, 2014, 1, 1808-1812.	1.7	91
29	Cell-secreted Flavins Bound to Membrane Cytochromes Dictate Electron Transfer Reactions to Surfaces with Diverse Charge and pH. Scientific Reports, 2014, 4, 5628.	1.6	141
30	Marine sediments microbes capable of electrode oxidation as a surrogate for lithotrophic insoluble substrate metabolism. Frontiers in Microbiology, 2014, 5, 784.	1.5	86
31	A novel metatranscriptomic approach to identify gene expression dynamics during extracellular electron transfer. Nature Communications, 2013, 4, 1601.	5.8	162
32	Adaptation of soil microbes during establishment of microbial fuel cell consortium fed with lactate. Journal of Bioscience and Bioengineering, 2013, 115, 58-63.	1.1	27
33	Oxygen Consumption Rates of Bacteria under Nutrient-Limited Conditions. Applied and Environmental Microbiology, 2013, 79, 4921-4931.	1.4	52
34	Rate enhancement of bacterial extracellular electron transport involves bound flavin semiquinones. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 7856-7861.	3.3	402
35	Evaluation of microbial fuel cell Shewanella biocathodes for treatment of chromate contamination. RSC Advances, 2012, 2, 5844.	1.7	60
36	A study of the flavin response by Shewanella cultures in carbon-limited environments. RSC Advances, 2012, 2, 10020.	1.7	18

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37	<i>Shewanella oneidensis</i> MR-1 chemotaxis proteins and electron-transport chain components essential for congregation near insoluble electron acceptors. Biochemical Society Transactions, 2012, 40, 1167-1177.	1.6	45
38	Functionally Stable and Phylogenetically Diverse Microbial Enrichments from Microbial Fuel Cells during Wastewater Treatment. PLoS ONE, 2012, 7, e30495.	1.1	96
39	Current Production by Bacterial Communities in Microbial Fuel Cells Enriched from Wastewater Sludge with Different Electron Donors. Environmental Science & Technology, 2011, 45, 1139-1146.	4.6	85
40	Marine microbial community response to inorganic and organic sediment amendments in laboratory mesocosms. Ecotoxicology and Environmental Safety, 2011, 74, 1931-1941.	2.9	13
41	A rapid fingerprinting approach to distinguish between closely related strains of Shewanella. Journal of Microbiological Methods, 2011, 86, 62-68.	0.7	5
42	The utility of Shewanella japonica for microbial fuel cells. Bioresource Technology, 2011, 102, 290-297.	4.8	41
43	Electron flow and biofilms. MRS Bulletin, 2011, 36, 380-384.	1.7	44
44	Conserved synteny at the protein family level reveals genes underlying Shewanella speciesâ€™ cold tolerance and predicts their novel phenotypes. Functional and Integrative Genomics, 2010, 10, 97-110.	1.4	13
45	Genomic encyclopedia of sugar utilization pathways in the Shewanella genus. BMC Genomics, 2010, 11, 494.	1.2	89
46	Impacts of <i>Shewanella oneidensis c</i>â€type cytochromes on aerobic and anaerobic respiration. Microbial Biotechnology, 2010, 3, 455-466.	2.0	91
47	Sediment reactions defy dogma. Nature, 2010, 463, 1033-1034.	13.7	20
48	Electrical transport along bacterial nanowires from <i>Shewanella oneidensis</i> MR-1. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 18127-18131.	3.3	566
49	The impact of bacterial strain on the products of dissimilatory iron reduction. Geochimica Et Cosmochimica Acta, 2010, 74, 574-583.	1.6	47
50	Quantification of Electron Transfer Rates to a Solid Phase Electron Acceptor through the Stages of Biofilm Formation from Single Cells to Multicellular Communities. Environmental Science & Technology, 2010, 44, 2721-2727.	4.6	122
51	Reduction of nitrate in <i>Shewanella oneidensis</i> depends on atypical NAP and NRF systems with NapB as a preferred electron transport protein from CymA to NapA. ISME Journal, 2009, 3, 966-976.	4.4	119
52	Comparative systems biology across an evolutionary gradient within the <i>Shewanella</i> genus. Proceedings of the National Academy of Sciences of the United States of America, 2009, 106, 15909-15914.	3.3	96
53	Self-Sustained Phototrophic Microbial Fuel Cells Based on the Synergistic Cooperation between Photosynthetic Microorganisms and Heterotrophic Bacteria. Environmental Science & Technology, 2009, 43, 1648-1654.	4.6	176
54	The Influence of Carbon Source on the Products of Dissimilatory Iron Reduction. Geomicrobiology Journal, 2009, 26, 451-462.	1.0	15

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55	The polarization behavior of the anode in a microbial fuel cell. Electrochimica Acta, 2008, 53, 3508-3513.	2.6	79
56	The use of electrochemical impedance spectroscopy (EIS) in the evaluation of the electrochemical properties of a microbial fuel cell. Bioelectrochemistry, 2008, 72, 149-154.	2.4	218
57	Towards environmental systems biology of Shewanella. Nature Reviews Microbiology, 2008, 6, 592-603.	13.6	829
58	The Molecular Density of States in Bacterial Nanowires. Biophysical Journal, 2008, 95, L10-L12.	0.2	106
59	Utilization of DNA as a Sole Source of Phosphorus, Carbon, and Energy by <i>Shewanella</i> spp.: Ecological and Physiological Implications for Dissimilatory Metal Reduction. Applied and Environmental Microbiology, 2008, 74, 1198-1208.	1.4	129
60	Current Production and Metal Oxide Reduction by <i>Shewanella oneidensis</i> MR-1 Wild Type and Mutants. Applied and Environmental Microbiology, 2007, 73, 7003-7012.	1.4	513
61	Microbial ecology meets electrochemistry: electricity-driven and driving communities. ISME Journal, 2007, 1, 9-18.	4.4	433
62	Ecophysiology of the Genus Shewanella. , 2006, , 1133-1151.		98
63	Biogeographical distribution and diversity of microbes in methane hydrate-bearing deep marine sediments on the Pacific Ocean Margin. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2815-2820.	3.3	644
64	Quorum Sensing on a Global Scale: Massive Numbers of Bioluminescent Bacteria Make Milky Seas. Applied and Environmental Microbiology, 2006, 72, 2295-2297.	1.4	52
65	Electrically conductive bacterial nanowires produced by Shewanella oneidensis strain MR-1 and other microorganisms. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 11358-11363.	3.3	1,629
66	Shewanella loihica sp. nov., isolated from iron-rich microbial mats in the Pacific Ocean. International Journal of Systematic and Evolutionary Microbiology, 2006, 56, 1911-1916.	0.8	109
67	Comparative Genomics and Experimental Characterization of N-Acetylglucosamine Utilization Pathway of Shewanella oneidensis. Journal of Biological Chemistry, 2006, 281, 29872-29885.	1.6	120
68	MICROBIAL SURVIVAL: The Paleome: A Sedimentary Genetic Record of Past Microbial Communities. Astrobiology, 2005, 5, 141-153.	1.5	91
69	Global profiling of Shewanella oneidensis MR-1: Expression of hypothetical genes and improved functional annotations. Proceedings of the National Academy of Sciences of the United States of America, 2005, 102, 2099-2104.	3.3	113
70	Elemental and Redox Analysis of Single Bacterial Cells by X-ray Microbeam Analysis. Science, 2004, 306, 686-687.	6.0	170
71	Characterization of C 1 -Metabolizing Prokaryotic Communities in Methane Seep Habitats at the Kuroshima Knoll, Southern Ryukyu Arc, by Analyzing pmoA , mmoX , mxaF , mcrA , and 16S rRNA Genes. Applied and Environmental Microbiology, 2004, 70, 7445-7455.	1.4	130
72	Identification of 42 Possible Cytochrome C Genes in theShewanella oneidensisGenome and Characterization of Six Soluble Cytochromes. OMICS A Journal of Integrative Biology, 2004, 8, 57-77.	1.0	184

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73	Application of Fe isotopes to tracing the geochemical and biological cycling of Fe. Chemical Geology, 2003, 195, 87-117.	1.4	524
74	Microbial Communities Associated with GeologicalHorizons in Coastal Subseafloor Sediments from the Sea ofOkhotsk. Applied and Environmental Microbiology, 2003, 69, 7224-7235.	1.4	446
75	Transcriptional and Proteomic Analysis of a Ferric Uptake Regulator (Fur) Mutant of Shewanella oneidensis : Possible Involvement of Fur in Energy Metabolism, Transcriptional Regulation, and Oxidative Stress. Applied and Environmental Microbiology, 2002, 68, 881-892.	1.4	170
76	Microarray Transcription Profiling of a Shewanella oneidensis etrA Mutant. Journal of Bacteriology, 2002, 184, 4612-4616.	1.0	68
77	Gene and Protein Expression Profiles ofShewanella oneidensisduring Anaerobic Growth with Different Electron Acceptors. OMICS A Journal of Integrative Biology, 2002, 6, 39-60.	1.0	84
78	A directional electron transfer regulator based on heme-chain architecture in the small tetraheme cytochrome c from Shewanella oneidensis. FEBS Letters, 2002, 532, 333-337.	1.3	40
79	Isotopic fractionation between Fe(III) and Fe(II) in aqueous solutions. Earth and Planetary Science Letters, 2002, 195, 141-153.	1.8	305
80	Microbial metal-ion reduction and Mars: extraterrestrial expectations?. Current Opinion in Microbiology, 2002, 5, 296-300.	2.3	35
81	Genome sequence of the dissimilatory metal ionâ€"reducing bacterium Shewanella oneidensis. Nature Biotechnology, 2002, 20, 1118-1123.	9.4	771
82	Breathing metals as a way of life: geobiology in action. Antonie Van Leeuwenhoek, 2002, 81, 215-222.	0.7	185
83	Bacterial and archaeal populations associated with freshwater ferromanganous micronodules and sediments. Environmental Microbiology, 2001, 3, 10-18.	1.8	216
84	Shewanella pealeana sp. nov., a member of the microbial community associated with the accessory nidamental gland of the squid Loligo pealei. International Journal of Systematic and Evolutionary Microbiology, 1999, 49, 1341-1351.	0.8	67
85	Post-Viking microbiology: new approaches, new data, new insights. , 1999, 29, 73-93.		27
86	Polyphasic taxonomy of the genus Shewanella and description of Shewanella oneidensis sp. nov.. International Journal of Systematic and Evolutionary Microbiology, 1999, 49, 705-724.	0.8	574
87	Iron Isotope Biosignatures. Science, 1999, 285, 1889-1892.	6.0	357
88	Isotopic fractionation associated with biosynthesis of fatty acids by a marine bacterium under oxic and anoxic conditions. Organic Geochemistry, 1999, 30, 1571-1579.	0.9	117
89	The impact of structural Fe(III) reduction by bacteria on the surface chemistry of smectite clay minerals. Geochimica Et Cosmochimica Acta, 1999, 63, 3705-3713.	1.6	181
90	Metal Oxide Surfaces and Their Interactions with Aqueous Solutions and Microbial Organisms. Chemical Reviews, 1999, 99, 77-174.	23.0	981

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91	Life: past, present and future. Philosophical Transactions of the Royal Society B: Biological Sciences, 1999, 354, 1923-1939.	1.8	133
92	Breathing Manganese and Iron: Solid-State Respiration. Advances in Applied Microbiology, 1997, , 213-239.	1.3	43
93	The limits of life on Earth and searching for life on Mars. Journal of Geophysical Research, 1997, 102, 23675-23686.	3.3	104
94	SEDIMENT BACTERIA: Who's There, What Are They Doing, and What's New?. Annual Review of Earth and Planetary Sciences, 1997, 25, 403-434.	4.6	372
95	Reduction of iodate in seawater during Arabian Sea shipboard incubations and in laboratory cultures of the marine bacterium Shewanella putrefaciens strain MR-4. Marine Chemistry, 1997, 57, 347-354.	0.9	99
96	Reduction of Structural Fe(III) in Smectite by a Pure Culture of Shewanella Putrefaciens Strain MR-1. Clays and Clay Minerals, 1996, 44, 522-529.	0.6	211
97	Dissolution and Reduction of Magnetite by Bacteria. Environmental Science & Technology, 1995, 29, 2535-2540.	4.6	245
98	Iron and Manganese in Anaerobic Respiration: Environmental Significance, Physiology, and Regulation. Annual Review of Microbiology, 1994, 48, 311-343.	2.9	845
99	Effects of manganese oxide mineralogy on microbial and chemical manganese reduction. Geomicrobiology Journal, 1992, 10, 27-48.	1.0	104
100	Microbial reduction of manganese oxides: Interactions with iron and sulfur. Geochimica Et Cosmochimica Acta, 1988, 52, 2727-2732.	1.6	260
101	Isolation of the lux genes from photobacterium leiognathi and expression if escherichia coli. Gene, 1987, 54, 203-210.	1.0	30
102	Microbial Manganese Reduction by Enrichment Cultures from Coastal Marine Sediments. Applied and Environmental Microbiology, 1985, 50, 491-497.	1.4	104
103	Autoinduction of bacterial bioluminescence in a carbon limited chemostat. Archives of Microbiology, 1981, 129, 299-304.	1.0	66
104	Bacterial Bioluminescence Light Emission in the Mixed Function Oxidation of Reduced Flavin and Fatty Aldehyde. CRC Critical Reviews in Biochemistry, 1978, 5, 163-184.	2.0	20
105	[15] Isolation, identification, and manipulation of luminous bacteria. Methods in Enzymology, 1978, , 153-166.	0.4	157
106	Low oxygen is optimal for luciferase synthesis in some bacteria. Archives of Microbiology, 1977, 112, 9-16.	1.0	78
107	Autoinduction of bacterial luciferase. Archives of Microbiology, 1977, 112, 73-79.	1.0	284
108	The Inhibition of Bacterial Luciferase by Mixed Function Oxidase Inhibitors. Journal of Biological Chemistry, 1972, 247, 888-894.	1.6	29

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109	Cellular Control of the Synthesis and Activity of the Bacterial Luminescent System. Journal of Bacteriology, 1970, 104, 313-322.	1.0	1,032