Ronald S Oremland

List of Publications by Year
in descending order

122 papers	13,484 citations	23544 58 h-index	22147 113 g-index
128 all docs	128 docs citations	128 times ranked	8059 citing authors

#	Article	IF	Citations
1	The Ecology of Arsenic. Science, 2003, 300, 939-944.	6.0	1,336
2	Arsenic and Selenium in Microbial Metabolism. Annual Review of Microbiology, 2006, 60, 107-130.	2.9	573
3	Bacterial respiration of arsenic and selenium. FEMS Microbiology Reviews, 1999, 23, 615-627.	3.9	493
4	Arsenic, microbes and contaminated aquifers. Trends in Microbiology, 2005, 13, 45-49.	3.5	470
5	A Bacterium That Can Grow by Using Arsenic Instead of Phosphorus. Science, 2011, 332, 1163-1166.	6.0	422
6	Structural and Spectral Features of Selenium Nanospheres Produced by Se-Respiring Bacteria. Applied and Environmental Microbiology, 2004, 70, 52-60.	1.4	421
7	Use of â€œSpecificâ€• Inhibitors in Biogeochemistry and Microbial Ecology. Advances in Microbial Ecology, 1988, , 285-383.	0.1	419
8	Bacillus arsenicoselenatis , sp. nov., and Bacillus selenitireducens , sp. nov.: two haloalkaliphiles from Mono Lake, California that respire oxyanions of selenium and arsenic. Archives of Microbiology, 1998, 171, 19-30.	1.0	416
9	Mobilization of Arsenite by Dissimilatory Reduction of Adsorbed Arsenate. Environmental Science & Technology, 2000, 34, 4747-4753.	4.6	364
10	Selenate Reduction to Elemental Selenium by Anaerobic Bacteria in Sediments and Culture: Biogeochemical Significance of a Novel, Sulfate-Independent Respiration. Applied and Environmental Microbiology, 1989, 55, 2333-2343.	1.4	326
11	Sulfate reduction and methanogenesis in marine sediments. Geochimica Et Cosmochimica Acta, 1978, 42, 209-214.	1.6	305
12	Anaerobic Oxidation of Arsenite in Mono Lake Water and by a Facultative, Arsenite-Oxidizing Chemoautotroph, Strain MLHE-1. Applied and Environmental Microbiology, 2002, 68, 4795-4802.	1.4	274
13	Methylmercury Decomposition in Sediments and Bacterial Cultures: Involvement of Methanogens and Sulfate Reducers in Oxidative Demethylation. Applied and Environmental Microbiology, 1991, 57, 130-137.	1.4	247
14	Metabolism of Reduced Methylated Sulfur Compounds in Anaerobic Sediments and by a Pure Culture of an Estuarine Methanogen. Applied and Environmental Microbiology, 1986, 52, 1037-1045.	1.4	238
15	Alkalilimnicola ehrlichii sp. nov., a novel, arsenite-oxidizing haloalkaliphilic gammaproteobacterium capable of chemoautotrophic or heterotrophic growth with nitrate or oxygen as the electron acceptor. International Journal of Systematic and Evolutionary Microbiology, 2007, 57, 504-512.	0.8	226
16	Isolation, Growth, and Metabolism of an Obligately Anaerobic, Selenate-Respiring Bacterium, Strain SES-3. Applied and Environmental Microbiology, 1994, 60, 3011-3019.	1.4	215
17	Formation of Tellurium Nanocrystals during Anaerobic Growth of Bacteria That Use Te Oxyanions as Respiratory Electron Acceptors. Applied and Environmental Microbiology, 2007, 73, 2135-2143.	1.4	200
18	Methyl-Mercury Degradation Pathways:Â A Comparison among Three Mercury-Impacted Ecosystems. Environmental Science & Technology, 2000, 34, 4908-4916.	4.6	195

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19	The respiratory arsenate reductase fromBacillus selenitireducensstrain MLS10. FEMS Microbiology Letters, 2003, 226, 107-112.	0.7	185
20	Note: Sulfurospirillum barnesii sp. nov. and Sulfurospirillum arsenophilum sp. nov., new members of the Sulfurospirillum clade of the Îµ-Proteobacteria. International Journal of Systematic and Evolutionary Microbiology, 1999, 49, 1177-1180.	0.8	183
21	Microbial Oxidation of Elemental Selenium in Soil Slurries and Bacterial Cultures. Environmental Science & Technology, 1998, 32, 3749-3755.	4.6	169
22	Identification of a Novel Arsenite Oxidase Gene, <i>arxA</i> , in the Haloalkaliphilic, Arsenite-Oxidizing Bacterium <i>Alkalilimnicola ehrlichii</i> Strain MLHE-1. Journal of Bacteriology, 2010, 192, 3755-3762.	1.0	168
23	The microbial arsenic cycle in Mono Lake, California. FEMS Microbiology Ecology, 2004, 48, 15-27.	1.3	166
24	Bacterial Methylmercury Degradation in Florida Everglades Peat Sediment. Environmental Science & Technology, 1998, 32, 2556-2563.	4.6	163
25	A Microbial Arsenic Cycle in a Salt-Saturated, Extreme Environment. Science, 2005, 308, 1305-1308.	6.0	158
26	Dissimilatory Arsenate Reduction with Sulfide as Electron Donor: Experiments with Mono Lake Water and Isolation of Strain MLMS-1, a Chemoautotrophic Arsenate Respirer. Applied and Environmental Microbiology, 2004, 70, 2741-2747.	1.4	155
27	Bacterial dissimilatory reduction of arsenate and sulfate in meromictic Mono Lake, California. Geochimica Et Cosmochimica Acta, 2000, 64, 3073-3084.	1.6	147
28	Sources and flux of natural gases from Mono Lake, California. Geochimica Et Cosmochimica Acta, 1987, 51, 2915-2929.	1.6	144
29	Measurement of in situ rates of selenate removal by dissimilatory bacterial reduction in sediments. Environmental Science & Technology, 1990, 24, 1157-1164.	4.6	142
30	Microbial Antimony Biogeochemistry: Enzymes, Regulation, and Related Metabolic Pathways. Applied and Environmental Microbiology, 2016, 82, 5482-5495.	1.4	142
31	Depletion of adenosine triphosphate inDesulfovibrio by oxyanions of group VI elements. Current Microbiology, 1979, 3, 101-103.	1.0	139
32	ArxA, a new clade of arsenite oxidase within the DMSO reductase family of molybdenum oxidoreductases. Environmental Microbiology, 2012, 14, 1635-1645.	1.8	134
33	Anaerobic Oxidation of Acetylene by Estuarine Sediments and Enrichment Cultures. Applied and Environmental Microbiology, 1981, 41, 396-403.	1.4	134
34	Arsenic in the Evolution of Earth and Extraterrestrial Ecosystems. Geomicrobiology Journal, 2009, 26, 522-536.	1.0	123
35	Simultaneous Reduction of Nitrate and Selenate by Cell Suspensions of Selenium-Respiring Bacteria. Applied and Environmental Microbiology, 1999, 65, 4385-4392.	1.4	121
36	Methanogenic activity in plankton samples and fish intestines A mechanism for in situ methanogenesis in oceanic surface waters. Limnology and Oceanography, 1979, 24, 1136-1141.	1.6	119

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37	Denitrification in San Francisco Bay Intertidal Sediments. Applied and Environmental Microbiology, 1984, 47, 1106-1112.	1.4	118
38	Reduction of Selenate to Selenide by Sulfate-Respiring Bacteria: Experiments with Cell Suspensions and Estuarine Sediments. Applied and Environmental Microbiology, 1987, 53, 1365-1369.	1.4	118
39	Respiratory arsenate reductase as a bidirectional enzyme. Biochemical and Biophysical Research Communications, 2009, 382, 298-302.	1.0	117
40	Reduction of Elemental Selenium to Selenide: Experiments with Anoxic Sediments and Bacteria that Respire Se-Oxyanions. Geomicrobiology Journal, 2003, 20, 587-602.	1.0	114
41	Evaluation of Methyl Fluoride and Dimethyl Ether as Inhibitors of Aerobic Methane Oxidation. Applied and Environmental Microbiology, 1992, 58, 2983-2992.	1.4	114
42	Fractionation of selenium isotopes during bacterial respiratory reduction of selenium oxyanions. Geochimica Et Cosmochimica Acta, 2000, 64, 3701-3709.	1.6	111
43	Investigating different mechanisms for biogenic selenite transformations:<i>Geobacter sulfurreducens</i>,<i>Shewanella oneidensis</i>and<i>Veillonella atypica</i>. Environmental Technology (United Kingdom), 2009, 30, 1313-1326.	1.2	111
44	Oxidation of ammonia and methane in an alkaline, saline lake. Limnology and Oceanography, 1999, 44, 178-188.	1.6	110
45	Selenihalanaerobacter shriftii gen. nov., sp. nov., a halophilic anaerobe from Dead Sea sediments that respires selenate. Archives of Microbiology, 2001, 175, 208-219.	1.0	110
46	Microbiological Reduction of Sb(V) in Anoxic Freshwater Sediments. Environmental Science & Technology, 2014, 48, 218-226.	4.6	108
47	Dissimilatory Selenate Reduction Potentials in a Diversity of Sediment Types. Applied and Environmental Microbiology, 1990, 56, 3550-3557.	1.4	108
48	Enrichment and isolation of Bacillus beveridgei sp. nov., a facultative anaerobic haloalkaliphile from Mono Lake, California, that respires oxyanions of tellurium, selenium, and arsenic. Extremophiles, 2009, 13, 695-705.	0.9	96
49	Inhibition of Methanogenesis in Marine Sediments by Acetylene and Ethylene: Validity of the Acetylene Reduction Assay for Anaerobic Microcosms. Applied Microbiology, 1975, 30, 707-709.	0.6	94
50	Microbiological Oxidation of Antimony(III) with Oxygen or Nitrate by Bacteria Isolated from Contaminated Mine Sediments. Applied and Environmental Microbiology, 2015, 81, 8478-8488.	1.4	93
51	Distribution, production, and ecophysiology of <i>Picocystis</i> strain ML in Mono Lake, California. Limnology and Oceanography, 2002, 47, 440-452.	1.6	87
52	Autotrophic processes in meromictic Big Soda Lake, Nevada. Limnology and Oceanography, 1983, 28, 1049-1061.	1.6	85
53	Relationship between productivity and N₂ (C₂H₂) fixation in a <i>Thalassia testudinum</i> community1. Limnology and Oceanography, 1979, 24, 117-125.	1.6	84
54	Distribution, abundance and carbon isotopic composition of gaseous hydrocarbons in Big Soda Lake, Nevada: An alkaline, meromictic lake. Geochimica Et Cosmochimica Acta, 1983, 47, 2107-2114.	1.6	84

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55	Nitrate Is a Preferred Electron Acceptor for Growth of Freshwater Selenate-Respiring Bacteria. Applied and Environmental Microbiology, 1992, 58, 426-428.	1.4	70
56	Diurnal fluctuations of O₂, N₂, and CH₄ in the rhizosphere of <i>Thalassia testudinum</i>1. Limnology and Oceanography, 1977, 22, 566-570.	1.6	68
57	Bacterially synthesized tellurium nanostructures for broadband ultrafast nonlinear optical applications. Nature Communications, 2019, 10, 3985.	5.8	68
58	Dissimilatory arsenate reductase activity and arsenate-respiring bacteria in bovine rumen fluid, hamster feces, and the termite hindgut. FEMS Microbiology Ecology, 2002, 41, 59-67.	1.3	64
59	Isolation of anaerobic oxalate-degrading bacteria from freshwater lake sediments. Archives of Microbiology, 1985, 141, 8-13.	1.0	59
60	Whither or wither geomicrobiology in the era of 'community metagenomics'. Nature Reviews Microbiology, 2005, 3, 572-578.	13.6	59
61	Formation of Methane and Carbon Dioxide from Dimethylselenide in Anoxic Sediments and by a Methanogenic Bacterium. Applied and Environmental Microbiology, 1986, 52, 1031-1036.	1.4	59
62	Methane Production in Shallow-Water, Tropical Marine Sediments. Applied Microbiology, 1975, 30, 602-608.	0.6	59
63	Ecophysiology of â€œ <i>Halarsenatibacter silvermanii</i> â€•Strain SLAS-1 ^T , gen. nov., sp. nov., a Facultative Chemoautotrophic Arsenate Respirer from Salt-Saturated Searles Lake, California. Applied and Environmental Microbiology, 2009, 75, 1950-1960.	1.4	58
64	Inhibition of Methanogenesis in Marine Sediments by Acetylene and Ethylene: Validity of the Acetylene Reduction Assay for Anaerobic Microcosms. Applied Microbiology, 1975, 30, 707-709.	0.6	53
65	Characterization of Microbial Arsenate Reduction in the Anoxic Bottom Waters of Mono Lake, California. Geomicrobiology Journal, 2002, 19, 23-40.	1.0	52
66	Coupled Arsenotrophy in a Hot Spring Photosynthetic Biofilm at Mono Lake, California. Applied and Environmental Microbiology, 2010, 76, 4633-4639.	1.4	50
67	Autotrophic microbial arsenotrophy in arsenic-rich soda lakes. FEMS Microbiology Letters, 2017, 364, .	0.7	49
68	Desulfohalophilus alkaliarsenatis gen. nov., sp. nov., an extremely halophilic sulfate- and arsenate-respiring bacterium from Searles Lake, California. Extremophiles, 2012, 16, 727-742.	0.9	48
69	Denitrification Associated with Periphyton Communities. Applied and Environmental Microbiology, 1981, 42, 745-748.	1.4	46
70	Seasonal changes in the chemistry and biology of a meromictic lake (Big Soda Lake, Nevada, U.S.A.). Hydrobiologia, 1983, 105, 195-206.	1.0	45
71	Meromixis in hypersaline Mono Lake, California. 3. Biogeochemical response to stratification and overturn. Limnology and Oceanography, 1993, 38, 1040-1051.	1.6	45
72	Differential cytochrome content and reductase activity in Geospirillum barnesii strain SeS3. Archives of Microbiology, 1997, 167, 1-5.	1.0	43

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73	Acetylene Fuels TCE Reductive Dechlorination by Defined <i>Dehalococcoides</i>/<i>Pelobacter</i> Consortia. Environmental Science & Technology, 2017, 51, 2366-2372.	4.6	41
74	Arsenic and the gastrointestinal tract microbiome. Environmental Microbiology Reports, 2020, 12, 136-159.	1.0	41
75	Big Soda Lake (Nevada). 2. Pelagic sulfate reduction. Limnology and Oceanography, 1987, 32, 794-803.	1.6	39
76	Methane efflux from the pelagic regions of four lakes. Global Biogeochemical Cycles, 1988, 2, 269-277.	1.9	39
77	Acetylene as Fast Food: Implications for Development of Life on Anoxic Primordial Earth and in the Outer Solar System. Astrobiology, 2008, 8, 45-58.	1.5	39
78	Arsenite as an Electron Donor for Anoxygenic Photosynthesis: Description of Three Strains of Ectothiorhodospira from Mono Lake, California and Big Soda Lake, Nevada. Life, 2017, 7, 1.	1.1	38
79	The genetic basis of anoxygenic photosynthetic arsenite oxidation. Environmental Microbiology, 2017, 19, 130-141.	1.8	37
80	Respiratory Selenite Reductase from Bacillus selenitireducens Strain MLS10. Journal of Bacteriology, 2019, 201, .	1.0	37
81	Acetylene as a substrate in the development of primordial bacterial communities. Origins of Life and Evolution of Biospheres, 1988, 18, 397-407.	0.8	36
82	Electricity generation by anaerobic bacteria and anoxic sediments from hypersaline soda lakes. Extremophiles, 2008, 12, 837-848.	0.9	32
83	Microbial sulfate reduction measured by an automated electrical impedance technique. Geomicrobiology Journal, 1979, 1, 355-372.	1.0	29
84	Redox Transformations of Arsenic Oxyanions in Periphyton Communities. Applied and Environmental Microbiology, 2004, 70, 6428-6434.	1.4	29
85	Hydrogen Metabolism by Decomposing Cyanobacterial Aggregates in Big Soda Lake, Nevada. Applied and Environmental Microbiology, 1983, 45, 1519-1525.	1.4	27
86	A Biogeochemical and Genetic Survey of Acetylene Fermentation by Environmental Samples and Bacterial Isolates. Geomicrobiology Journal, 2013, 30, 501-516.	1.0	26
87	NO connection with methane. Nature, 2010, 464, 500-501.	13.7	24
88	Dissimilatory Reduction of Selenate and Arsenate in Nature. , 0, , 199-224.		23
89	Arsenolipids in Cultured Picocystis Strain ML and Their Occurrence in Biota and Sediment from Mono Lake, California. Life, 2020, 10, 93.	1.1	20
90	Methane, arsenic, selenium and the origins of the DMSO reductase family. Scientific Reports, 2020, 10, 10946.	1.6	20

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91	Methane Oxidation and Molecular Characterization of Methanotrophs from a Former Mercury Mine Impoundment. Microorganisms, 2015, 3, 290-309.	1.6	19
92	Metabolic Capability and Phylogenetic Diversity of Mono Lake during a Bloom of the Eukaryotic Phototroph Picocystis sp. Strain ML. Applied and Environmental Microbiology, 2018, 84, .	1.4	18
93	Detection of Diazotrophy in the Acetylene-Fermenting Anaerobe Pelobacter sp. Strain SFB93. Applied and Environmental Microbiology, 2017, 83, .	1.4	15
94	Strong nonlinear photonic responses from microbiologically synthesized tellurium nanocomposites. Chemical Physics Letters, 2010, 484, 242-246.	1.2	14
95	Acetylenotrophy: a hidden but ubiquitous microbial metabolism?. FEMS Microbiology Ecology, 2018, 94, .	1.3	14
96	Arsenic in Ground Water: A Review of Current Knowledge and Relation to the CALFED Solution Area with Recommendations for Needed Research. San Francisco Estuary and Watershed Science, 2006, 4, .	0.2	13
97	Arsenate-dependent growth is independent of an ArrA mechanism of arsenate respiration in the termite hindgut isolate Citrobacter sp. strain TSA-1. Canadian Journal of Microbiology, 2018, 64, 619-627.	0.8	12
98	Stable Carbon Isotope Fractionation during Bacterial Acetylene Fermentation: Potential for Life Detection in Hydrocarbon-Rich Volatiles of Icy Planet(oid)s. Astrobiology, 2015, 15, 977-986.	1.5	11
99	Chemistry and Microbiology of a Sewage Spill in South San Francisco Bay. Estuaries and Coasts, 1983, 6, 399.	1.7	10
100	Genome Sequence of the Photoarsenotrophic Bacterium <i>Ectothiorhodospira</i> sp. Strain BSL-9, Isolated from a Hypersaline Alkaline Arsenic-Rich Extreme Environment. Genome Announcements, 2016, 4, .	0.8	9
101	A Microbial Arsenic Cycle in Sediments of an Acidic Mine Impoundment: Herman Pit, Clear Lake, California. Geomicrobiology Journal, 2016, 33, 677-689.	1.0	9
102	Syntrophotalea acetylenivorans sp. nov., a diazotrophic, acetylenotrophic anaerobe isolated from intertidal sediments. International Journal of Systematic and Evolutionary Microbiology, 2019, 71, .	0.8	9
103	Complete Genome Sequences of Two Acetylene-Fermenting Pelobacter acetylenicus Strains. Genome Announcements, 2017, 5, .	0.8	6
104	Acetylene-Fueled Trichloroethene Reductive Dechlorination in a Groundwater Enrichment Culture. MBio, 2021, 12, .	1.8	6
105	Complete Genome Sequence of the Acetylene-Fermenting Pelobacter sp. Strain SFB93. Genome Announcements, 2017, 5, .	0.8	5
106	The Ecology of Arsenic. ChemInform, 2003, 34, no.	0.1	4
107	A Random Biogeochemical Walk into Three Soda Lakes of the Western USA: With an Introduction to a Few of Their Microbial Denizens. Cellular Origin and Life in Extreme Habitats, 2013, , 179-199.	0.3	4
108	Nanoparticles Formed from Microbial Oxyanion Reduction of Toxic Group 15 and Group 16 Metalloids. , 2014, , 297-P2.		4

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109	Regulation of Arsenic Metabolic Pathways in Prokaryotes. , 0, , 195-210.		4
110	Draft Genome Sequence of Picocystis sp. Strain ML, Cultivated from Mono Lake, California. Microbiology Resource Announcements, 2019, 8, .	0.3	4
111	Bacteria Versus Selenium: A View from the Inside Out. Plant Ecophysiology, 2017, , 79-108.	1.5	3
112	Got Selenium?. FEMS Microbiology Ecology, 2020, 96, .	1.3	3
113	Improved ZnS nanoparticle properties through sequential NanoFermentation. Applied Microbiology and Biotechnology, 2018, 102, 8329-8339.	1.7	2
114	Why I never worked on anaerobic oxidation of methane (AOM) beyond the unsuccessful attempts of my NRC postdoc at NASA Ames Research Center (Sept. 1976â€"Sept. 1977). FEMS Microbiology Letters, 2019, 366, .	0.7	2
115	Salty, Alkali-Laced Tales (Mostly True) from the Great Basin Desert, California and Nevada. Advances in Environmental Microbiology, 2021, , 653-685.	0.1	2
116	Methods for Detection of Arsenate-Respiring Bacteria: Advances, Cautions, and Caveats. , 0, , 283-P1.		2
117	The Great (Toilet) Paper Chase: Our Study of the 1979 San Francisco Bay Sewage Spill (As Motivated by) Tj ETQq1 1 0.784314 rgBT /Ov e2020CN000132.	0.2	1
118	BUBBLES in the MUD: A Reminiscence and Perspective. Advances in Environmental Microbiology, 2021, , 637-652.	0.1	1
119	Microbial Transformations of Arsenic in the Subsurface. , 0, , 77-90.		1
120	Anaerobic Respiratory Iron(II) Oxidation. , 0, , 157-171.		1
121	Metabolomic changes in response to toxic arsenite. Environmental Microbiology, 2017, 19, 413-414.	1.8	0
122	Got acetylene: a personal research retrospective. FEMS Microbes, 2021, 2, .	0.8	0