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List of Publications by Year
in descending order

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92 papers	18,630 citations	22099 59 h-index	45213 90 g-index
92 all docs	92 docs citations	92 times ranked	13373 citing authors

#	Article	IF	Citations
1	Ammonia-oxidizing archaea possess a wide range of cellular ammonia affinities. ISME Journal, 2022, 16, 272-283.	4.4	96
2	A nitrite-oxidising bacterium constitutively consumes atmospheric hydrogen. ISME Journal, 2022, 16, 2213-2219.	4.4	17
3	Genomic and kinetic analysis of novel Nitrospinae enriched by cell sorting. ISME Journal, 2021, 15, 732-745.	4.4	23
4	Electrochemical enrichment of marine denitrifying bacteria to enhance nitrate metabolization in seawater. Journal of Environmental Chemical Engineering, 2021, 9, 105604.	3.3	5
5	Nitrogen Kinetic Isotope Effects of Nitrification by the Complete Ammonia Oxidizer Nitrospira inopinata. MSphere, 2021, 6, e0063421.	1.3	3
6	A refined set of rRNA-targeted oligonucleotide probes for in situ detection and quantification of ammonia-oxidizing bacteria. Water Research, 2020, 186, 116372.	5.3	19
7	Exploring the upper pH limits of nitrite oxidation: diversity, ecophysiology, and adaptive traits of haloalkalitolerant Nitrospira. ISME Journal, 2020, 14, 2967-2979.	4.4	52
8	Activity and Metabolic Versatility of Complete Ammonia Oxidizers in Full-Scale Wastewater Treatment Systems. MBio, 2020, 11, .	1.8	65
9	A fiber-deprived diet disturbs the fine-scale spatial architecture of the murine colon microbiome. Nature Communications, 2019, 10, 4366.	5.8	82
10	A Multicolor Fluorescence in situ Hybridization Approach Using an Extended Set of Fluorophores to Visualize Microorganisms. Frontiers in Microbiology, 2019, 10, 1383.	1.5	58
11	Low yield and abiotic origin of N2O formed by the complete nitrifier Nitrospira inopinata. Nature Communications, 2019, 10, 1836.	5.8	123
12	An automated Raman-based platform for the sorting of live cells by functional properties. Nature Microbiology, 2019, 4, 1035-1048.	5.9	170
13	Nitrospira. Trends in Microbiology, 2018, 26, 462-463.	3.5	157
14	Draft Genome Sequence of Telmatospirillum siberiense 26-4b1, an Acidotolerant Peatland Alphaproteobacterium Potentially Involved in Sulfur Cycling. Genome Announcements, 2018, 6, .	0.8	13
15	The draft genome sequence of â€œNitrospira lentaâ€•strain BS10, a nitrite oxidizing bacterium isolated from activated sludge. Standards in Genomic Sciences, 2018, 13, 32.	1.5	28
16	Cultivation and Genomic Analysis of â€œCandidatus Nitrosocaldus islandicus,â€•an Obligately Thermophilic, Ammonia-Oxidizing Thaumarchaeon from a Hot Spring Biofilm in Graendalur Valley, Iceland. Frontiers in Microbiology, 2018, 9, 193.	1.5	76
17	Characterization of the First â€œ Candidatus Nitrotogaâ€•Isolate Reveals Metabolic Versatility and Separate Evolution of Widespread Nitrite-Oxidizing Bacteria. MBio, 2018, 9, .	1.8	112
18	Crenothrix are major methane consumers in stratified lakes. ISME Journal, 2017, 11, 2124-2140.	4.4	146

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19	Giant viruses with an expanded complement of translation system components. Science, 2017, 356, 82-85.	6.0	234
20	Adaptability as the key to success for the ubiquitous marine nitrite oxidizer Nitrococcus. Science Advances, 2017, 3, e1700807.	4.7	74
21	Kinetic analysis of a complete nitrifier reveals an oligotrophic lifestyle. Nature, 2017, 549, 269-272.	13.7	588
22	AmoA-Targeted Polymerase Chain Reaction Primers for the Specific Detection and Quantification of Comammox Nitrospira in the Environment. Frontiers in Microbiology, 2017, 8, 1508.	1.5	313
23	Genomics of a phototrophic nitrite oxidizer: insights into the evolution of photosynthesis and nitrification. ISME Journal, 2016, 10, 2669-2678.	4.4	32
24	A New Perspective on Microbes Formerly Known as Nitrite-Oxidizing Bacteria. Trends in Microbiology, 2016, 24, 699-712.	3.5	625
25	Relative Abundance of Nitrotoga spp. in a Biofilter of a Cold-Freshwater Aquaculture Plant Appears To Be Stimulated by Slightly Acidic pH. Applied and Environmental Microbiology, 2016, 82, 1838-1845.	1.4	47
26	Dimeric chlorite dismutase from the nitrogenâ€fixing cyanobacterium <scp>C</scp>yanothece sp. <scp>PCC</scp>7425. Molecular Microbiology, 2015, 96, 1053-1068.	1.2	22
27	Nitrotoga-like bacteria are previously unrecognized key nitrite oxidizers in full-scale wastewater treatment plants. ISME Journal, 2015, 9, 708-720.	4.4	135
28	Structure and heme-binding properties of HemQ (chlorite dismutase-like protein) from Listeria monocytogenes. Archives of Biochemistry and Biophysics, 2015, 574, 36-48.	1.4	44
29	Comparison of Oxidation Kinetics of Nitrite-Oxidizing Bacteria: Nitrite Availability as a Key Factor in Niche Differentiation. Applied and Environmental Microbiology, 2015, 81, 745-753.	1.4	286
30	Cyanate as an energy source for nitrifiers. Nature, 2015, 524, 105-108.	13.7	231
31	Improved isolation strategies allowed the phenotypic differentiation of two Nitrospira strains from widespread phylogenetic lineages. FEMS Microbiology Ecology, 2015, 91, .	1.3	61
32	Complete nitrification by Nitrospira bacteria. Nature, 2015, 528, 504-509.	13.7	1,878
33	Expanded metabolic versatility of ubiquitous nitrite-oxidizing bacteria from the genus Nitrospira. Proceedings of the National Academy of Sciences of the United States of America, 2015, 112, 11371-11376.	3.3	439
34	Functionally relevant diversity of closely related Nitrospira in activated sludge. ISME Journal, 2015, 9, 643-655.	4.4	172
35	Three-Dimensional Stratification of Bacterial Biofilm Populations in a Moving Bed Biofilm Reactor for Nitritation-Anammox. International Journal of Molecular Sciences, 2014, 15, 2191-2206.	1.8	55
36	<scp>NxrB</scp> encoding the beta subunit of nitrite oxidoreductase as functional and phylogenetic marker for nitriteâ€oxidizing <scp>N</scp>itrospira. Environmental Microbiology, 2014, 16, 3055-3071.	1.8	280

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37	Spatial distribution analyses of natural phyllosphereâ€colonizing bacteria on <scp>A</scp>rabidopsis thaliana revealed by fluorescence in situ hybridization. Environmental Microbiology, 2014, 16, 2329-2340.	1.8	125
38	Manipulating Conserved Heme Cavity Residues of Chlorite Dismutase: Effect on Structure, Redox Chemistry, and Reactivity. Biochemistry, 2014, 53, 77-89.	1.2	32
39	Growth of nitrite-oxidizing bacteria by aerobic hydrogen oxidation. Science, 2014, 345, 1052-1054.	6.0	166
40	Nitrolancea hollandica gen. nov., sp. nov., a chemolithoautotrophic nitrite-oxidizing bacterium isolated from a bioreactor belonging to the phylum Chloroflexi. International Journal of Systematic and Evolutionary Microbiology, 2014, 64, 1859-1865.	0.8	82
41	Thermophilic biological nitrogen removal in industrial wastewater treatment. Applied Microbiology and Biotechnology, 2014, 98, 945-956.	1.7	26
42	Structure and Community Composition of Sprout-Like Bacterial Aggregates in a Dinaric Karst Subterranean Stream. Microbial Ecology, 2013, 66, 5-18.	1.4	32
43	New Methods for Analysis of Spatial Distribution and Coaggregation of Microbial Populations in Complex Biofilms. Applied and Environmental Microbiology, 2013, 79, 5978-5987.	1.4	64
44	Interactions of Nitrifying Bacteria and Heterotrophs: Identification of a Micavibrio-Like Putative Predator of Nitrospira spp. Applied and Environmental Microbiology, 2013, 79, 2027-2037.	1.4	90
45	Depletion of Unwanted Nucleic Acid Templates by Selective Cleavage: LNAzymes, Catalytically Active Oligonucleotides Containing Locked Nucleic Acids, Open a New Window for Detecting Rare Microbial Community Members. Applied and Environmental Microbiology, 2013, 79, 1534-1544.	1.4	10
46	Colonization of freshwater biofilms by nitrifying bacteria from activated sludge. FEMS Microbiology Ecology, 2013, 85, 104-115.	1.3	41
47	Enrichment and Genome Sequence of the Group I.1a Ammonia-Oxidizing Archaeon â€œCa. Nitrosotenuis uzonensisâ€•Representing a Clade Globally Distributed in Thermal Habitats. PLoS ONE, 2013, 8, e80835.	1.1	84
48	The Genome of Nitrospina gracilis Illuminates the Metabolism and Evolution of the Major Marine Nitrite Oxidizer. Frontiers in Microbiology, 2013, 4, 27.	1.5	243
49	Nitrogen processing and the role of epilithic biofilms downstream of a wastewater treatment plant. Freshwater Science, 2012, 31, 1057-1069.	0.9	46
50	Redox Thermodynamics of High-Spin and Low-Spin Forms of Chlorite Dismutases with Diverse Subunit and Oligomeric Structures. Biochemistry, 2012, 51, 9501-9512.	1.2	30
51	Impact of subunit and oligomeric structure on the thermal and conformational stability of chlorite dismutases. Biochimica Et Biophysica Acta - Proteins and Proteomics, 2012, 1824, 1031-1038.	1.1	18
52	Nitrification expanded: discovery, physiology and genomics of a nitrite-oxidizing bacterium from the phylum Chloroflexi. ISME Journal, 2012, 6, 2245-2256.	4.4	345
53	Co-Localized or Randomly Distributed? Pair Cross Correlation of In Vivo Grown Subgingival Biofilm Bacteria Quantified by Digital Image Analysis. PLoS ONE, 2012, 7, e37583.	1.1	39
54	In Situ Techniques and Digital Image Analysis Methods for Quantifying Spatial Localization Patterns of Nitrifiers and Other Microorganisms in Biofilm and Flocs. Methods in Enzymology, 2011, 496, 185-215.	0.4	30

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55	Isolation and characterization of a moderately thermophilic nitrite-oxidizing bacterium from a geothermal spring. FEMS Microbiology Ecology, 2011, 75, 195-204.	1.3	112
56	Looking inside the box: using Raman microspectroscopy to deconstruct microbial biomass stoichiometry one cell at a time. ISME Journal, 2011, 5, 196-208.	4.4	34
57	Linking Microbial and Ecosystem Ecology Using Ecological Stoichiometry: A Synthesis of Conceptual and Empirical Approaches. Ecosystems, 2011, 14, 261-273.	1.6	89
58	Thaumarchaeotes abundant in refinery nitrifying sludges express amoA but are not obligate autotrophic ammonia oxidizers. Proceedings of the National Academy of Sciences of the United States of America, 2011, 108, 16771-16776.	3.3	272
59	Unexpected Diversity of Chlorite Dismutases: a Catalytically Efficient Dimeric Enzyme from Nitrobacter winogradskyi. Journal of Bacteriology, 2011, 193, 2408-2417.	1.0	76
60	Drivers of bacterial colonization patterns in stream biofilms. FEMS Microbiology Ecology, 2010, 72, 47-57.	1.3	43
61	Double Labeling of Oligonucleotide Probes for Fluorescence In Situ Hybridization (DOPE-FISH) Improves Signal Intensity and Increases rRNA Accessibility. Applied and Environmental Microbiology, 2010, 76, 922-926.	1.4	160
62	Structural and functional characterisation of the chlorite dismutase from the nitrite-oxidizing bacterium â€œCandidatus Nitrospira defluviiâ€• Identification of a catalytically important amino acid residue. Journal of Structural Biology, 2010, 172, 331-342.	1.3	79
63	A Nitrospira metagenome illuminates the physiology and evolution of globally important nitrite-oxidizing bacteria. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 13479-13484.	3.3	732
64	Initial effects of experimental warming on carbon exchange rates, plant growth and microbial dynamics of a lichen-rich dwarf shrub tundra in Siberia. Plant and Soil, 2008, 307, 191-205.	1.8	126
65	A moderately thermophilic ammonia-oxidizing crenarchaeote from a hot spring. Proceedings of the National Academy of Sciences of the United States of America, 2008, 105, 2134-2139.	3.3	626
66	Environmental genomics reveals a functional chlorite dismutase in the nitriteâ€oxidizing bacterium â€˜Candidatus Nitrospira defluviiâ€™. Environmental Microbiology, 2008, 10, 3043-3056.	1.8	102
67	Quantification of Target Molecules Needed To Detect Microorganisms by Fluorescence In Situ Hybridization (FISH) and Catalyzed Reporter Deposition-FISH. Applied and Environmental Microbiology, 2008, 74, 5068-5077.	1.4	114
68	Nitrification in terrestrial hot springs of Iceland and Kamchatka. FEMS Microbiology Ecology, 2008, 64, 167-174.	1.3	173
69	Physiological and phylogenetic characterization of a novel lithoautotrophic nitrite-oxidizing bacterium, 'Candidatus Nitrospira bockiana'. International Journal of Systematic and Evolutionary Microbiology, 2008, 58, 242-250.	0.8	92
70	NH4+ ad-/desorption in sequencing batch reactors: simulation, laboratory and full-scale studies. Water Science and Technology, 2008, 58, 345-350.	1.2	17
71	Microbial landscapes: new paths to biofilm research. Nature Reviews Microbiology, 2007, 5, 76-81.	13.6	288
72	Raman-FISH: combining stable-isotope Raman spectroscopy and fluorescence in situ hybridization for the single cell analysis of identity and function. Environmental Microbiology, 2007, 9, 1878-1889.	1.8	305

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73	Quantification of uncultured microorganisms by fluorescence microscopy and digital image analysis. Applied Microbiology and Biotechnology, 2007, 75, 237-248.	1.7	95
74	Ecophysiology and niche differentiation of Nitrospira-like bacteria, the key nitrite oxidizers in wastewater treatment plants. Water Science and Technology, 2006, 54, 21-27.	1.2	36
75	daime, a novel image analysis program for microbial ecology and biofilm research. Environmental Microbiology, 2006, 8, 200-213.	1.8	565
76	Selective enrichment and molecular characterization of a previously uncultured Nitrospira-like bacterium from activated sludge. Environmental Microbiology, 2006, 8, 405-415.	1.8	143
77	Nitrite concentration influences the population structure of Nitrospira-like bacteria. Environmental Microbiology, 2006, 8, 1487-1495.	1.8	209
78	Deciphering the evolution and metabolism of an anammox bacterium from a community genome. Nature, 2006, 440, 790-794.	13.7	1,075
79	Linking microbial community structure with function: fluorescence in situ hybridization-microautoradiography and isotope arrays. Current Opinion in Biotechnology, 2006, 17, 83-91.	3.3	166
80	Soil carbon and nitrogen dynamics along a latitudinal transect in Western Siberia, Russia. Biogeochemistry, 2006, 81, 239-252.	1.7	27
81	Wastewater treatment: a model system for microbial ecology. Trends in Biotechnology, 2006, 24, 483-489.	4.9	216
82	Cohnâ€™sCrenothrixis a filamentous methane oxidizer with an unusual methane monooxygenase. Proceedings of the National Academy of Sciences of the United States of America, 2006, 103, 2363-2367.	3.3	229
83	Use of Stable-Isotope Probing, Full-Cycle rRNA Analysis, and Fluorescence In Situ Hybridization-Microautoradiography To Study a Methanol-Fed Denitrifying Microbial Community. Applied and Environmental Microbiology, 2004, 70, 588-596.	1.4	213
84	Molecular Analyses Of Microbial Community Structure And Function Of Flocs. , 2004, , 317-338.		1
85	Fluorescence in situ hybridisation for the identification and characterisation of prokaryotes. Current Opinion in Microbiology, 2003, 6, 302-309.	2.3	335
86	Microbial community composition and function in wastewater treatment plants. Antonie Van Leeuwenhoek, 2002, 81, 665-680.	0.7	341
87	In Situ Characterization of Nitrospira -Like Nitrite-Oxidizing Bacteria Active in Wastewater Treatment Plants. Applied and Environmental Microbiology, 2001, 67, 5273-5284.	1.4	718
88	Nitrification in sequencing biofilm batch reactors: lessons from molecular approaches. Water Science and Technology, 2001, 43, 9-18.	1.2	107
89	Cultivation-Independent, Semiautomatic Determination of Absolute Bacterial Cell Numbers in Environmental Samples by Fluorescence In Situ Hybridization. Applied and Environmental Microbiology, 2001, 67, 5810-5818.	1.4	173
90	Novel Nitrospira-like bacteria as dominant nitrite-oxidizers in biofilms from wastewater treatment plants: diversity and in situ physiology. Water Science and Technology, 2000, 41, 85-90.	1.2	131

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91	The Domain-specific Probe EUB338 is Insufficient for the Detection of all Bacteria: Development and Evaluation of a more Comprehensive Probe Set. Systematic and Applied Microbiology, 1999, 22, 434-444.	1.2	2,126
92	Diversity, Environmental Genomics, and Ecophysiology of Nitrite-Oxidizing Bacteria. , 0, , 295-322.		20