

# Sebastian LÃ¼cker

## List of Publications by Year in descending order

Source: <https://exaly.com/author-pdf/8586701/publications.pdf>

Version: 2024-02-01

58  
papers

8,776  
citations

101543

36  
h-index

144013

57  
g-index

68  
all docs

68  
docs citations

68  
times ranked

7550  
citing authors

#	ARTICLE	IF	CITATIONS
1	Complete nitrification by a single microorganism. <i>Nature</i> , 2015, 528, 555-559.	27.8	1,336
2	A <i>Nitrospira</i> metagenome illuminates the physiology and evolution of globally important nitrite-oxidizing bacteria. <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2010, 107, 13479-13484.	7.1	732
3	A New Perspective on Microbes Formerly Known as Nitrite-Oxidizing Bacteria. <i>Trends in Microbiology</i> , 2016, 24, 699-712.	7.7	625
4	<i>daime</i> , a novel image analysis program for microbial ecology and biofilm research. <i>Environmental Microbiology</i> , 2006, 8, 200-213.	3.8	565
5	Expanded metabolic versatility of ubiquitous nitrite-oxidizing bacteria from the genus <i>Nitrospira</i> . <i>Proceedings of the National Academy of Sciences of the United States of America</i> , 2015, 112, 11371-11376.	7.1	439
6	Nitrogen-fixing populations of Planctomycetes and Proteobacteria are abundant in surface ocean metagenomes. <i>Nature Microbiology</i> , 2018, 3, 804-813.	13.3	436
7	Deep sequencing reveals exceptional diversity and modes of transmission for bacterial sponge symbionts. <i>Environmental Microbiology</i> , 2010, 12, 2070-2082.	3.8	394
8	Nitrification expanded: discovery, physiology and genomics of a nitrite-oxidizing bacterium from the phylum <i>Chloroflexi</i> . <i>ISME Journal</i> , 2012, 6, 2245-2256.	9.8	345
9	AmoA-Targeted Polymerase Chain Reaction Primers for the Specific Detection and Quantification of Comammox <i>Nitrospira</i> in the Environment. <i>Frontiers in Microbiology</i> , 2017, 8, 1508.	3.5	313
10	<i>NxrB</i> encoding the beta subunit of nitrite oxidoreductase as functional and phylogenetic marker for nitrite-oxidizing <i>Nitrospira</i> . <i>Environmental Microbiology</i> , 2014, 16, 3055-3071.	3.8	280
11	The Genome of <i>Nitrospina gracilis</i> Illuminates the Metabolism and Evolution of the Major Marine Nitrite Oxidizer. <i>Frontiers in Microbiology</i> , 2013, 4, 27.	3.5	243
12	16S rRNA Gene-Based Oligonucleotide Microarray for Environmental Monitoring of the Betaproteobacterial Order <i>Rhodocyclales</i> . <i>Applied and Environmental Microbiology</i> , 2005, 71, 1373-1386.	3.1	231
13	Complete nitrification: insights into the ecophysiology of comammox <i>Nitrospira</i> . <i>Applied Microbiology and Biotechnology</i> , 2019, 103, 177-189.	3.6	224
14	Growth of nitrite-oxidizing bacteria by aerobic hydrogen oxidation. <i>Science</i> , 2014, 345, 1052-1054.	12.6	166
15	Cultivation and functional characterization of 79 planctomycetes uncovers their unique biology. <i>Nature Microbiology</i> , 2020, 5, 126-140.	13.3	164
16	Lateral Gene Transfer of Dissimilatory (Bi)Sulfite Reductase Revisited. <i>Journal of Bacteriology</i> , 2005, 187, 2203-2208.	2.2	153
17	<i>Nitrotoga</i> -like bacteria are previously unrecognized key nitrite oxidizers in full-scale wastewater treatment plants. <i>ISME Journal</i> , 2015, 9, 708-720.	9.8	135
18	Spatial distribution analyses of natural phyllosphere-colonizing bacteria on <i>Arabidopsis thaliana</i> revealed by fluorescence <i>in situ</i> hybridization. <i>Environmental Microbiology</i> , 2014, 16, 2329-2340.	3.8	125

#	ARTICLE	IF	CITATIONS
19	Enrichment and physiological characterization of a novel comammox <i>Nitrospira</i> indicates ammonium inhibition of complete nitrification. <i>ISME Journal</i> , 2021, 15, 1010-1024.	9.8	117
20	Complete ammonia oxidation: an important control on nitrification in engineered ecosystems?. <i>Current Opinion in Biotechnology</i> , 2018, 50, 158-165.	6.6	115
21	Isolation and characterization of a moderately thermophilic nitrite-oxidizing bacterium from a geothermal spring. <i>FEMS Microbiology Ecology</i> , 2011, 75, 195-204.	2.7	112
22	Characterization of the First <i>Candidatus</i> Nitrotoga Isolate Reveals Metabolic Versatility and Separate Evolution of Widespread Nitrite-Oxidizing Bacteria. <i>MBio</i> , 2018, 9, .	4.1	112
23	Environmental genomics reveals a functional chlorite dismutase in the nitrite-oxidizing bacterium <i>Candidatus</i> Nitrospira defluvia <sup>TM</sup> . <i>Environmental Microbiology</i> , 2008, 10, 3043-3056.	3.8	102
24	Improved 16S rRNA-targeted probe set for analysis of sulfate-reducing bacteria by fluorescence in situ hybridization. <i>Journal of Microbiological Methods</i> , 2007, 69, 523-528.	1.6	98
25	Extremophilic nitrite-oxidizing <i>Chloroflexi</i> from Yellowstone hot springs. <i>ISME Journal</i> , 2020, 14, 364-379.	9.8	93
26	<i>Nitrolancea hollandica</i> gen. nov., sp. nov., a chemolithoautotrophic nitrite-oxidizing bacterium isolated from a bioreactor belonging to the phylum Chloroflexi. <i>International Journal of Systematic and Evolutionary Microbiology</i> , 2014, 64, 1859-1865.	1.7	82
27	Adaptability as the key to success for the ubiquitous marine nitrite oxidizer <i>Nitrococcus</i> . <i>Science Advances</i> , 2017, 3, e1700807.	10.3	74
28	Metagenomic recovery of two distinct comammox <i>Nitrospira</i> from the terrestrial subsurface. <i>Environmental Microbiology</i> , 2019, 21, 3627-3637.	3.8	69
29	Uncultured <i>Nitrospina</i> -like species are major nitrite oxidizing bacteria in oxygen minimum zones. <i>ISME Journal</i> , 2019, 13, 2391-2402.	9.8	67
30	Autotrophic and mixotrophic metabolism of an anammox bacterium revealed by in vivo 13C and 2H metabolic network mapping. <i>ISME Journal</i> , 2021, 15, 673-687.	9.8	64
31	Metabolic versatility of the nitrite-oxidizing bacterium <i>Nitrospira marina</i> and its proteomic response to oxygen-limited conditions. <i>ISME Journal</i> , 2021, 15, 1025-1039.	9.8	62
32	Linking Nitrogen Load to the Structure and Function of Wetland Soil and Rhizosphere Microbial Communities. <i>MSystems</i> , 2018, 3, .	3.8	56
33	Metagenomic profiling of ammonia- and methane-oxidizing microorganisms in two sequential rapid sand filters. <i>Water Research</i> , 2020, 185, 116288.	11.3	52
34	Resolving the complete genome of <i>Kuenenia stuttgartiensis</i> from a membrane bioreactor enrichment using Single-Molecule Real-Time sequencing. <i>Scientific Reports</i> , 2018, 8, 4580.	3.3	48
35	Relative Abundance of <i>Nitrotoga</i> spp. in a Biofilter of a Cold-Freshwater Aquaculture Plant Appears To Be Stimulated by Slightly Acidic pH. <i>Applied and Environmental Microbiology</i> , 2016, 82, 1838-1845.	3.1	47
36	Molecular characterization of the symbionts associated with marine nematodes of the genus <i>Robbea</i> . <i>Environmental Microbiology Reports</i> , 2009, 1, 136-144.	2.4	46

#	ARTICLE	IF	CITATIONS
37	Ammonia oxidation at pH 2.5 by a new gammaproteobacterial ammonia-oxidizing bacterium. ISME Journal, 2021, 15, 1150-1164.	9.8	39
38	Ecophysiology and niche differentiation of Nitrospira-like bacteria, the key nitrite oxidizers in wastewater treatment plants. Water Science and Technology, 2006, 54, 21-27.	2.5	36
39	Cultivation and Transcriptional Analysis of a Canonical Nitrospira Under Stable Growth Conditions. Frontiers in Microbiology, 2019, 10, 1325.	3.5	34
40	Metabolic Overlap in Environmentally Diverse Microbial Communities. Frontiers in Genetics, 2019, 10, 989.	2.3	33
41	Genomics of a phototrophic nitrite oxidizer: insights into the evolution of photosynthesis and nitrification. ISME Journal, 2016, 10, 2669-2678.	9.8	32
42	Defining Culture Conditions for the Hidden Nitrite-Oxidizing Bacterium Nitrolancea. Frontiers in Microbiology, 2020, 11, 1522.	3.5	30
43	The draft genome sequence of "Nitrospira lenta" strain BS10, a nitrite oxidizing bacterium isolated from activated sludge. Standards in Genomic Sciences, 2018, 13, 32.	1.5	28
44	Selective enrichment and metagenomic analysis of three novel comammox <i>Nitrospira</i> in a urine-fed membrane bioreactor. ISME Communications, 2021, 1, .	4.2	27
45	Chemosymbiotic bivalves contribute to the nitrogen budget of seagrass ecosystems. ISME Journal, 2019, 13, 3131-3134.	9.8	24
46	Distinct comammox Nitrospira catalyze ammonia oxidation in a full-scale groundwater treatment bioreactor under copper limited conditions. Water Research, 2022, 210, 117986.	11.3	24
47	Diversity, Environmental Genomics, and Ecophysiology of Nitrite-Oxidizing Bacteria. , 0, , 295-322.		20
48	First detection of thiotrophic symbiont phylotypes in the pelagic marine environment. FEMS Microbiology Ecology, 2011, 77, 223-227.	2.7	14
49	<i>Methylotetracoccus oryzae</i> Strain C50C1 Is a Novel Type Ib Gammaproteobacterial Methanotroph Adapted to Freshwater Environments. MSphere, 2019, 4, .	2.9	14
50	In Situ Quantification of Biological N <sub>2</sub> Production Using Naturally Occurring <sup>15</sup> N. Environmental Science & Technology, 2019, 53, 5168-5175.	10.0	14
51	Universal activity-based labeling method for ammonia- and alkane-oxidizing bacteria. ISME Journal, 2022, 16, 958-971.	9.8	12
52	Some like it cold: the cellular organization and physiological limits of cold-tolerant nitrite-oxidizing <i>Nitrotoga</i> . Environmental Microbiology, 2022, 24, 2059-2077.	3.8	9
53	The Family Nitrospinaceae. , 2014, , 231-237.		8
54	A general approach to explore prokaryotic protein glycosylation reveals the unique surface layer modulation of an anammox bacterium. ISME Journal, 2022, 16, 346-357.	9.8	8

#	ARTICLE	IF	CITATIONS
55	Investigating the Chemolithoautotrophic and Formate Metabolism of <i>Nitrospira moscoviensis</i> by Constraint-Based Metabolic Modeling and <sup>13</sup> C-Tracer Analysis. <i>MSystems</i> , 2021, 6, e0017321.	3.8	8
56	Cyclic Conversions in the Nitrogen Cycle. <i>Frontiers in Microbiology</i> , 2021, 12, 622504.	3.5	6
57	Linear polyacrylamide is highly efficient in precipitating and purifying environmental and ancient DNA. <i>Methods in Ecology and Evolution</i> , 2022, 13, 653-667.	5.2	4
58	Proteogenomic analysis of <i>Georgfuchsia toluolica</i> revealed unexpected concurrent aerobic and anaerobic toluene degradation. <i>Environmental Microbiology Reports</i> , 2021, 13, 841-851.	2.4	3