

List of Publications by Citations

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

110 papers	8,989 citations	45 h-index	94 g-index
127 ext. papers	11,176 ext. citations	6.8 avg, IF	6.33 L-index

#	Paper	IF	Citations
110	Reassessing PCR primers targeting nirS, nirK and nosZ genes for community surveys of denitrifying bacteria with DGGE. <i>FEMS Microbiology Ecology</i> , 2004 , 49, 401-17	4.3	893
109	The ecological coherence of high bacterial taxonomic ranks. <i>Nature Reviews Microbiology</i> , 2010 , 8, 523-9	22.2	406
108	Relationship between N-cycling communities and ecosystem functioning in a 50-year-old fertilization experiment. <i>ISME Journal</i> , 2009 , 3, 597-605	11.9	400
107	Soil bacterial networks are less stable under drought than fungal networks. <i>Nature Communications</i> , 2018 , 9, 3033	17.4	381
106	The unaccounted yet abundant nitrous oxide-reducing microbial community: a potential nitrous oxide sink. <i>ISME Journal</i> , 2013 , 7, 417-26	11.9	369
105	Phylogenetic analysis of nitrite, nitric oxide, and nitrous oxide respiratory enzymes reveal a complex evolutionary history for denitrification. <i>Molecular Biology and Evolution</i> , 2008 , 25, 1955-66	8.3	348
104	Microbes as Engines of Ecosystem Function: When Does Community Structure Enhance Predictions of Ecosystem Processes?. <i>Frontiers in Microbiology</i> , 2016 , 7, 214	5.7	321
103	PCR detection of genes encoding nitrite reductase in denitrifying bacteria. <i>Applied and Environmental Microbiology</i> , 1999 , 65, 1652-7	4.8	310
102	Activity and composition of the denitrifying bacterial community respond differently to long-term fertilization. <i>Applied and Environmental Microbiology</i> , 2005 , 71, 8335-43	4.8	264
101	Ecology of Denitrifying Prokaryotes in Agricultural Soil. <i>Advances in Agronomy</i> , 2007 , 96, 249-305	7.7	253
100	Recently identified microbial guild mediates soil N ₂ O sink capacity. <i>Nature Climate Change</i> , 2014 , 4, 801-805	20.5	245
99	Intergenomic comparisons highlight modularity of the denitrification pathway and underpin the importance of community structure for N ₂ O emissions. <i>PLoS ONE</i> , 2014 , 9, e114118	3.7	238
98	Importance of denitrifiers lacking the genes encoding the nitrous oxide reductase for N ₂ O emissions from soil. <i>Global Change Biology</i> , 2011 , 17, 1497-1504	11.4	237
97	Genomics and Ecology of Novel NO-Reducing Microorganisms. <i>Trends in Microbiology</i> , 2018 , 26, 43-55	12.4	212
96	Ecological and evolutionary factors underlying global and local assembly of denitrifier communities. <i>ISME Journal</i> , 2010 , 4, 633-41	11.9	172
95	Finding the missing link between diversity and activity using denitrifying bacteria as a model functional community. <i>Current Opinion in Microbiology</i> , 2005 , 8, 234-9	7.9	169
94	Responses of bacterial and archaeal ammonia oxidizers to soil organic and fertilizer amendments under long-term management. <i>Applied Soil Ecology</i> , 2010 , 45, 193-200	5	168

93	Knowledge gaps in soil carbon and nitrogen interactions [From molecular to global scale. <i>Soil Biology and Biochemistry</i> , 2011 , 43, 702-717	7.5	167
92	Soil resources influence spatial patterns of denitrifying communities at scales compatible with land management. <i>Applied and Environmental Microbiology</i> , 2010 , 76, 2243-50	4.8	167
91	Biochemical cycling in the rhizosphere having an impact on global change. <i>Plant and Soil</i> , 2009 , 321, 61-84.	14.2	162
90	Long-term impact of fertilization on activity and composition of bacterial communities and metabolic guilds in agricultural soil. <i>Soil Biology and Biochemistry</i> , 2007 , 39, 106-115	7.5	159
89	Structure and function of denitrifying and nitrifying bacterial communities in relation to the plant species in a constructed wetland. <i>FEMS Microbiology Ecology</i> , 2009 , 67, 308-19	4.3	130
88	Agricultural diversification promotes multiple ecosystem services without compromising yield. <i>Science Advances</i> , 2020 , 6,	14.3	127
87	Soil carbon quality and nitrogen fertilization structure bacterial communities with predictable responses of major bacterial phyla. <i>Applied Soil Ecology</i> , 2014 , 84, 62-68	5	124
86	Spatial patterns of bacterial taxa in nature reflect ecological traits of deep branches of the 16S rRNA bacterial tree. <i>Environmental Microbiology</i> , 2009 , 11, 3096-104	5.2	111
85	Differential responses of bacterial and archaeal groups at high taxonomical ranks to soil management. <i>Soil Biology and Biochemistry</i> , 2010 , 42, 1759-1765	7.5	108
84	Spatial distribution of ammonia-oxidizing bacteria and archaea across a 44-hectare farm related to ecosystem functioning. <i>ISME Journal</i> , 2011 , 5, 1213-25	11.9	106
83	Silver (Ag ⁺) reduces denitrification and induces enrichment of novel nirK genotypes in soil. <i>FEMS Microbiology Letters</i> , 2007 , 270, 189-94	2.9	106
82	Genetic potential for N ₂ O emissions from the sediment of a free water surface constructed wetland. <i>Water Research</i> , 2011 , 45, 5621-32	12.5	94
81	Metabolic profiles and genetic diversity of denitrifying communities in activated sludge after addition of methanol or ethanol. <i>Applied and Environmental Microbiology</i> , 2006 , 72, 5445-52	4.8	92
80	Inter-laboratory evaluation of the ISO standard 11063 "Soil quality - Method to directly extract DNA from soil samples". <i>Journal of Microbiological Methods</i> , 2011 , 84, 454-60	2.8	86
79	Spatial variations in denitrification activity in wetland sediments explained by hydrology and denitrifying community structure. <i>Water Research</i> , 2007 , 41, 4710-20	12.5	83
78	METABOLIC PROPERTIES OF DENITRIFYING BACTERIA ADAPTING TO METHANOL AND ETHANOL IN ACTIVATED SLUDGE. <i>Water Research</i> , 1998 , 32, 13-18	12.5	66
77	Activity and composition of ammonia oxidizing bacterial communities and emission dynamics of NH ₃ and N ₂ O in a compost reactor treating organic household waste. <i>Journal of Applied Microbiology</i> , 2009 , 106, 1502-11	4.7	62
76	Community survey of ammonia-oxidizing bacteria in full-scale activated sludge processes with different solids retention time. <i>Journal of Applied Microbiology</i> , 2005 , 99, 629-40	4.7	62

75	Non-denitrifying nitrous oxide-reducing bacteria - An effective N ₂ O sink in soil. <i>Soil Biology and Biochemistry</i> , 2016 , 103, 376-379	7.5	61
74	Archaeal Ammonia Oxidizers Dominate in Numbers, but Bacteria Drive Gross Nitrification in N-amended Grassland Soil. <i>Frontiers in Microbiology</i> , 2015 , 6, 1350	5.7	60
73	Habitat generalists and specialists in microbial communities across a terrestrial-freshwater gradient. <i>Scientific Reports</i> , 2016 , 6, 37719	4.9	58
72	Abundance of archaeal and bacterial ammonia oxidizers [Possible bioindicator for soil monitoring. <i>Ecological Indicators</i> , 2011 , 11, 1696-1698	5.8	57
71	Microbial functional diversity enhances predictive models linking environmental parameters to ecosystem properties. <i>Ecology</i> , 2015 , 96, 1985-93	4.6	54
70	Exploiting ecosystem services in agriculture for increased food security. <i>Global Food Security</i> , 2018 , 17, 57-63	8.3	52
69	Standardisation of methods in soil microbiology: progress and challenges. <i>FEMS Microbiology Ecology</i> , 2012 , 82, 1-10	4.3	51
68	Phenotypic and genotypic heterogeneity among closely related soil-borne N ₂ - and N ₂ O-producing Bacillus isolates harboring the nosZ gene. <i>FEMS Microbiology Ecology</i> , 2011 , 76, 541-52	4.3	50
67	Habitat diversity and ecosystem multifunctionality-The importance of direct and indirect effects. <i>Science Advances</i> , 2017 , 3, e1601475	14.3	49
66	Relative abundance of denitrifying and DNRA bacteria and their activity determine nitrogen retention or loss in agricultural soil. <i>Soil Biology and Biochemistry</i> , 2018 , 123, 97-104	7.5	46
65	Life on NO: deciphering the ecophysiology of NO respiring bacterial communities in a continuous culture. <i>ISME Journal</i> , 2018 , 12, 1142-1153	11.9	44
64	Nitrogen removal and spatial distribution of denitrifier and anammox communities in a bioreactor for mine drainage treatment. <i>Water Research</i> , 2014 , 66, 350-360	12.5	43
63	Relative importance of plant uptake and plant associated denitrification for removal of nitrogen from mine drainage in sub-arctic wetlands. <i>Water Research</i> , 2015 , 85, 377-83	12.5	38
62	Emergent macrophytes act selectively on ammonia-oxidizing bacteria and archaea. <i>Applied and Environmental Microbiology</i> , 2012 , 78, 6352-6	4.8	38
61	The role of plant type and salinity in the selection for the denitrifying community structure in the rhizosphere of wetland vegetation. <i>International Microbiology</i> , 2012 , 15, 89-99	3	38
60	Abundance and composition of epiphytic bacterial and archaeal ammonia oxidizers of marine red and brown macroalgae. <i>Applied and Environmental Microbiology</i> , 2012 , 78, 318-25	4.8	37
59	Adaptation of denitrifying bacteria to acetate and methanol in activated sludge. <i>Water Research</i> , 1996 , 30, 1445-1450	12.5	37
58	Soil type overrides plant effect on genetic and enzymatic N ₂ O production potential in arable soils. <i>Soil Biology and Biochemistry</i> , 2016 , 100, 125-128	7.5	34

57	Spatial and phyloecological analyses of nosZ genes underscore niche differentiation amongst terrestrial N ₂ O reducing communities. <i>Soil Biology and Biochemistry</i> , 2017 , 115, 82-91	7.5	34
56	Towards food, feed and energy crops mitigating climate change. <i>Trends in Plant Science</i> , 2011 , 16, 476-80	3.1	33
55	Ammonia oxidizing bacterial community composition and process performance in wastewater treatment plants under low temperature conditions. <i>Water Science and Technology</i> , 2012 , 65, 197-204	2.2	30
54	Crop cover is more important than rotational diversity for soil multifunctionality and cereal yields in European cropping systems. <i>Nature Food</i> , 2021 , 2, 28-37	14.4	30
53	Geospatial variation in co-occurrence networks of nitrifying microbial guilds. <i>Molecular Ecology</i> , 2019 , 28, 293-306	5.7	28
52	Habitat partitioning of marine benthic denitrifier communities in response to oxygen availability. <i>Environmental Microbiology Reports</i> , 2016 , 8, 486-92	3.7	27
51	Design and evaluation of primers targeting genes encoding NO-forming nitrite reductases: implications for ecological inference of denitrifying communities. <i>Scientific Reports</i> , 2016 , 6, 39208	4.9	27
50	Ammonia-oxidizing communities in agricultural soil incubated with organic waste residues. <i>Biology and Fertility of Soils</i> , 2006 , 42, 315-323	6.1	26
49	The DNRA-Denitrification Dichotomy Differentiates Nitrogen Transformation Pathways in Mountain Lake Benthic Habitats. <i>Frontiers in Microbiology</i> , 2019 , 10, 1229	5.7	25
48	Nitrogen fixation in shallow-water sediments: Spatial distribution and controlling factors. <i>Limnology and Oceanography</i> , 2014 , 59, 1932-1944	4.8	25
47	Intercropping affects genetic potential for inorganic nitrogen cycling by root-associated microorganisms in Medicago sativa and Dactylis glomerata. <i>Applied Soil Ecology</i> , 2017 , 119, 260-266	5	25
46	Comparison of T-RFLP and DGGE techniques to assess denitrifier community composition in soil. <i>Letters in Applied Microbiology</i> , 2009 , 48, 145-8	2.9	24
45	Temporal changes in abundance and composition of ammonia-oxidizing bacterial and archaeal communities in a drained peat soil in relation to N ₂ O emissions. <i>Journal of Soils and Sediments</i> , 2011 , 11, 1399-1407	3.4	22
44	Expression of nirK and nirS genes in two strains of Pseudomonas stutzeri harbouring both types of NO-forming nitrite reductases. <i>Research in Microbiology</i> , 2018 , 169, 343-347	4	21
43	A tipping point in carbon storage when forest expands into tundra is related to mycorrhizal recycling of nitrogen. <i>Ecology Letters</i> , 2021 , 24, 1193-1204	10	21
42	Growth yield and selection of nosZ clade II types in a continuous enrichment culture of N ₂ O respiring bacteria. <i>Environmental Microbiology Reports</i> , 2018 , 10, 239-244	3.7	19
41	Mixtures of macrophyte growth forms promote nitrogen cycling in wetlands. <i>Science of the Total Environment</i> , 2018 , 635, 1436-1443	10.2	18
40	Global phylogeography of chitinase genes in aquatic metagenomes. <i>Applied and Environmental Microbiology</i> , 2011 , 77, 1101-6	4.8	18

39	Two-stage anaerobic digestion for reduced hydrogen sulphide production. <i>Journal of Chemical Technology and Biotechnology</i> , 2016 , 91, 1055-1062	3.5	17
38	Soil functional operating range linked to microbial biodiversity and community composition using denitrifiers as model guild. <i>PLoS ONE</i> , 2012 , 7, e51962	3.7	17
37	Influence of genetically modified organisms on agro-ecosystem processes. <i>Agriculture, Ecosystems and Environment</i> , 2015 , 214, 96-106	5.7	16
36	External carbon addition for enhancing denitrification modifies bacterial community composition and affects CH ₄ and NO production in sub-arctic mining pond sediments. <i>Water Research</i> , 2019 , 158, 22-33	12.5	15
35	Lucerne (<i>Medicago sativa</i>) alters N ₂ O-reducing communities associated with cocksfoot (<i>Dactylis glomerata</i>) roots and promotes N ₂ O production in intercropping in a greenhouse experiment. <i>Soil Biology and Biochemistry</i> , 2019 , 137, 107547	7.5	14
34	Catch Crop Residues Stimulate NO Emissions During Spring, Without Affecting the Genetic Potential for Nitrite and NO Reduction. <i>Frontiers in Microbiology</i> , 2018 , 9, 2629	5.7	14
33	Potential denitrification rates are spatially linked to colonization patterns of nosZ genotypes in an alluvial wetland. <i>Ecological Engineering</i> , 2015 , 80, 191-197	3.9	13
32	Temporal Changes in Methane Oxidizing and Denitrifying Communities and Their Activities in a Drained Peat Soil. <i>Wetlands</i> , 2012 , 32, 1047-1055	1.7	13
31	Importance of plant species for nitrogen removal using constructed floating wetlands in a cold climate. <i>Ecological Engineering</i> , 2019 , 138, 126-132	3.9	12
30	Bacterial community diversity in paper mills processing recycled paper. <i>Journal of Industrial Microbiology and Biotechnology</i> , 2010 , 37, 1061-9	4.2	12
29	Substrate type determines microbial activity and community composition in bioreactors for nitrate removal by denitrification at low temperature. <i>Science of the Total Environment</i> , 2021 , 755, 143023	10.2	10
28	Brassicaceae cover crops reduce <i>Aphanomyces</i> pea root rot without suppressing genetic potential of microbial nitrogen cycling. <i>Plant and Soil</i> , 2015 , 392, 227-238	4.2	9
27	Abundance, activity and structure of denitrifier communities in phototrophic river biofilms (River Garonne, France). <i>Hydrobiologia</i> , 2013 , 716, 177-187	2.4	9
26	Unraveling negative biotic interactions determining soil microbial community assembly and functioning. <i>ISME Journal</i> , 2021 ,	11.9	9
25	Control of <i>Microthrix parvicella</i> and sludge bulking by ozone in a full-scale WWTP. <i>Water Science and Technology</i> , 2016 , 73, 866-72	2.2	9
24	Survey of bromodeoxyuridine uptake among environmental bacteria and variation in uptake rates in a taxonomically diverse set of bacterial isolates. <i>Journal of Microbiological Methods</i> , 2011 , 86, 376-8	2.8	8
23	Acetylene inhibition for measuring denitrification rates in activated sludge. <i>Water Science and Technology</i> , 1994 , 30, 161-167	2.2	8
22	Carbon and nitrogen cycling in Yedoma permafrost controlled by microbial functional limitations. <i>Nature Geoscience</i> , 2020 , 13, 794-798	18.3	8

21	Microbial adaptation, process performance and a suggested control strategy in a pre-denitrifying system with ethanol dosage. <i>Water Science and Technology</i> , 1996 , 34, 91	2.2	7
20	Combined removal of organic micropollutants and ammonium in reactive barriers developed for managed aquifer recharge. <i>Water Research</i> , 2021 , 190, 116669	12.5	7
19	Molecular analyses of soil denitrifying bacteria. 2006 , 146-165		6
18	Denitrification rates in lake sediments of mountains affected by high atmospheric nitrogen deposition. <i>Scientific Reports</i> , 2020 , 10, 3003	4.9	5
17	Intermittent addition of external carbon to enhance denitrification in activated sludge. <i>Water Science and Technology</i> , 1998 , 37, 227	2.2	5
16	Response of induced perturbation on replicating β -proteobacterial ammonia-oxidizing populations in soil. <i>Microbial Ecology</i> , 2012 , 63, 701-9	4.4	4
15	Molecular Tools to Assess the Diversity and Density of Denitrifying Bacteria in Their Habitats 2007 , 313-330		4
14	nir gene-based co-occurrence patterns reveal assembly mechanisms of soil denitrifiers in response to fire. <i>Environmental Microbiology</i> , 2021 , 23, 239-251	5.2	4
13	Habitat diversity and type govern potential nitrogen loss by denitrification in coastal sediments and differences in ecosystem-level diversities of disparate N ₂ O reducing communities. <i>FEMS Microbiology Ecology</i> , 2020 , 96,	4.3	3
12	Site-specific responses of fungal and bacterial abundances to experimental warming in litter and soil across Arctic and alpine tundra. <i>Arctic Science</i> , 1-14	2.2	3
11	Plant-microbe interactions in response to grassland herbivory and nitrogen eutrophication. <i>Soil Biology and Biochemistry</i> , 2021 , 156, 108208	7.5	2
10	Microbial controls on net production of nitrous oxide in a denitrifying woodchip bioreactor. <i>Journal of Environmental Quality</i> , 2021 , 50, 228-240	3.4	2
9	Loss in soil microbial diversity constrains microbiome selection and alters the abundance of N-cycling guilds in barley rhizosphere. <i>Applied Soil Ecology</i> , 2022 , 169, 104224	5	2
8	Disentangling the roles of plant functional diversity and plant traits in regulating plant nitrogen accumulation and denitrification in freshwaters. <i>Functional Ecology</i> ,	5.6	1
7	Diversity of archaea and niche preferences among putative ammonia-oxidizing Nitrososphaeria dominating across European arable soils. <i>Environmental Microbiology</i> , 2021 ,	5.2	1
6	Reactive nitrogen restructures and weakens microbial controls of soil NO emissions.. <i>Communications Biology</i> , 2022 , 5, 273	6.7	1
5	Land-use intensification differentially affects bacterial, fungal and protist communities and decreases microbiome network complexity.. <i>Environmental Microbiomes</i> , 2022 , 17, 1	5.6	0
4	Shaping of soil microbial communities by plants does not translate into specific legacy effects on organic carbon mineralization. <i>Soil Biology and Biochemistry</i> , 2021 , 163, 108449	7.5	0

3	Type of organic fertilizer rather than organic amendment per se increases abundance of soil biota. <i>PeerJ</i> , 2021 , 9, e11204	3.1	o
2	Nitrous oxide emissions and microbial communities during the transition to conservation agriculture using N-enhanced efficiency fertilisers in a semiarid climate. <i>Soil Biology and Biochemistry</i> , 2022 , 170, 108687	7.5	o
1	Minimizing tillage modifies fungal denitrifier communities, increases denitrification rates and enhances the genetic potential for fungal, relative to bacterial, denitrification. <i>Soil Biology and Biochemistry</i> , 2022 , 108718	7.5	o