## Barth F Smets

## List of Publications by Year in descending order

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247 papers

12,767 citations

23500 58 h-index 98 g-index

257 all docs

257 docs citations

times ranked

257

10894 citing authors

#	Article	IF	Citations
1	Challenges in microbial ecology: building predictive understanding of community function and dynamics. ISME Journal, 2016, 10, 2557-2568.	4.4	570
2	Physical constraints affecting bacterial habitats and activity in unsaturated porous media $\hat{a} \in \text{``a review}$ . Advances in Water Resources, 2007, 30, 1505-1527.	1.7	513
3	Broad host range plasmids can invade an unexpectedly diverse fraction of a soil bacterial community. ISME Journal, 2015, 9, 934-945.	4.4	330
4	Aggregate Size and Architecture Determine Microbial Activity Balance for One-Stage Partial Nitritation and Anammox. Applied and Environmental Microbiology, 2010, 76, 900-909.	1.4	318
5	Plasmid Transfer for Enhancing Degradation Capabilities. Environmental Health Perspectives, 1995, 103, 113.	2.8	298
6	Comparative genomics sheds light on niche differentiation and the evolutionary history of comammox <i>Nitrospira</i> . ISME Journal, 2018, 12, 1779-1793.	4.4	249
7	Variability in kinetic parameter estimates: A review of possible causes and a proposed terminology. Water Research, 1996, 30, 742-748.	5.3	238
8	Characterization of an Autotrophic Nitrogen-Removing Biofilm from a Highly Loaded Lab-Scale Rotating Biological Contactor. Applied and Environmental Microbiology, 2003, 69, 3626-3635.	1.4	231
9	iDynoMiCS: nextâ€generation individualâ€based modelling of biofilms. Environmental Microbiology, 2011, 13, 2416-2434.	1.8	217
10	Shifts between <i>Nitrospira</i> ―and <i>Nitrobacter</i> ―like nitrite oxidizers underlie the response of soil potential nitrite oxidation to changes in tillage practices. Environmental Microbiology, 2010, 12, 315-326.	1.8	214
11	Metagenomic analysis of rapid gravity sand filter microbial communities suggests novel physiology of <i>Nitrospira</i> spp ISME Journal, 2016, 10, 2569-2581.	4.4	213
12	Comammox <i>Nitrospira</i> are abundant ammonia oxidizers in diverse groundwaterâ€fed rapid sand filter communities. Environmental Microbiology, 2018, 20, 1002-1015.	1.8	211
13	Effective Biological Nitrogen Removal Treatment Processes for Domestic Wastewaters with Low C/N Ratios: A Review. Environmental Engineering Science, 2010, 27, 111-126.	0.8	184
14	Hydration-controlled bacterial motility and dispersal on surfaces. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 14369-14372.	3.3	182
15	Heterotrophic activity compromises autotrophic nitrogen removal in membrane-aerated biofilms: Results of a modeling study. Water Research, 2008, 42, 1102-1112.	5.3	175
16	Modeling Nitrous Oxide Production during Biological Nitrogen Removal via Nitrification and Denitrification: Extensions to the General ASM Models. Environmental Science & Extensions to the General ASM Models. Environmental Science & Extensions (2011, 45, 7768-7776.	4.6	161
17	Nitrogen Removal from Digested Black Water by One-Stage Partial Nitritation and Anammox. Environmental Science & Environmental	4.6	160
18	Mobilization of soil organic matter by complexing agents and implications for polycyclic aromatic hydrocarbon desorption. Chemosphere, 2001, 43, 1013-1021.	4.2	149

#	Article	IF	CITATIONS
19	Impact of Metal Sorption and Internalization on Nitrification Inhibition. Environmental Science & Emp; Technology, 2003, 37, 728-734.	4.6	142
20	Start-up of Autotrophic Nitrogen Removal Reactors via Sequential Biocatalyst Addition. Environmental Science & Environmental S	4.6	137
21	Biofilm Thickness Influences Biodiversity in Nitrifying MBBRs—Implications on Micropollutant Removal. Environmental Science & Technology, 2016, 50, 9279-9288.	4.6	135
22	Effects of heat-activated persulfate oxidation on soil microorganisms. Water Research, 2008, 42, 1013-1022.	5.3	129
23	Effect of Nickel and Cadmium Speciation on Nitrification Inhibition. Environmental Science & Emp; Technology, 2002, 36, 3074-3078.	4.6	127
24	Comparison of antibiotic-resistant bacteria and antibiotic resistance genes abundance in hospital and community wastewater: A systematic review. Science of the Total Environment, 2020, 743, 140804.	3.9	126
25	Ecological patterns, diversity and core taxa of microbial communities in groundwater-fed rapid gravity filters. ISME Journal, 2016, 10, 2209-2222.	4.4	125
26	Horizontal gene transfer: perspectives at a crossroads of scientific disciplines. Nature Reviews Microbiology, 2005, 3, 675-678.	13.6	123
27	Evaluation on the microbial interactions of anaerobic ammonium oxidizers and heterotrophs in Anammox biofilm. Water Research, 2012, 46, 4645-4652.	5.3	122
28	Critical assessment of extracellular polymeric substances extraction methods from mixed culture biomass. Water Research, 2013, 47, 5564-5574.	5.3	116
29	Metal stressors consistently modulate bacterial conjugal plasmid uptake potential in a phylogenetically conserved manner. ISME Journal, 2017, 11, 152-165.	4.4	114
30	Sequential Aeration of Membrane-Aerated Biofilm Reactors for High-Rate Autotrophic Nitrogen Removal: Experimental Demonstration. Environmental Science & Experimental Science, 2010, 44, 7628-7634.	4.6	109
31	Respirometric technique for determination of extant kinetic parameters describing biodegradation. Water Environment Research, 1996, 68, 917-926.	1.3	108
32	Spatial ecology of a wastewater network defines the antibiotic resistance genes in downstream receiving waters. Water Research, 2019, 162, 347-357.	5.3	108
33	Comparison of nitrification inhibition by metals in batch and continuous flow reactors. Water Research, 2004, 38, 3949-3959.	5.3	107
34	Water and sanitation: an essential battlefront in the war on antimicrobial resistance. FEMS Microbiology Ecology, 2018, 94, .	1.3	104
35	A conceptual framework for invasion in microbial communities. ISME Journal, 2016, 10, 2773-2779.	4.4	100
36	Estimating the Transfer Range of Plasmids Encoding Antimicrobial Resistance in a Wastewater Treatment Plant Microbial Community. Environmental Science and Technology Letters, 2018, 5, 260-265.	3.9	98

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37	Impact of Physiological State on Surface Thermodynamics and Adhesion ofPseudomonas aeruginosa. Environmental Science & Environ	4.6	95
38	Single-step nitrification models erroneously describe batch ammonia oxidation profiles when nitrite oxidation becomes rate limiting. Biotechnology and Bioengineering, 2000, 68, 396-406.	1.7	92
39	Diffusion and sorption of organic micropollutants in biofilms with varying thicknesses. Water Research, 2017, 123, 388-400.	5.3	87
40	Counter-diffusion biofilms have lower N2O emissions than co-diffusion biofilms during simultaneous nitrification and denitrification: Insights from depth-profile analysis. Water Research, 2017, 124, 363-371.	<b>5.</b> 3	87
41	Redox-stratification controlled biofilm (ReSCoBi) for completely autotrophic nitrogen removal: The effect of co- versus counter-diffusion on reactor performance. Biotechnology and Bioengineering, 2007, 97, 40-51.	1.7	84
42	The pH dependency of Nâ€converting enzymatic processes, pathways and microbes: effect on net N <sub>2</sub> O production. Environmental Microbiology, 2018, 20, 1623-1640.	1.8	80
43	From biofilm ecology to reactors: a focused review. Water Science and Technology, 2017, 75, 1753-1760.	1,2	79
44	Macro- and Nanoscale Observations of Adhesive Behavior for SeveralE. coliStrains (O157:H7 and) Tj ETQq0 0 (6395-6404.	0 rgBT /Over 4.6	ock 10 Tf 50 77
45	Microbes in biological processes for municipal landfill leachate treatment: Community, function and interaction. International Biodeterioration and Biodegradation, 2016, 113, 88-96.	1.9	74
46	Density and distribution of nitrifying guilds in rapid sand filters for drinking water production: Dominance of Nitrospira spp Water Research, 2017, 127, 239-248.	<b>5.</b> 3	74
47	Simultaneous Biodegradation of 2,4-Dinitrotoluene and 2,6-Dinitrotoluene in an Aerobic Fluidized-Bed Biofilm Reactor. Environmental Science & Environm	4.6	72
48	Surface physicochemical properties of Pseudomonas fluorescens and impact on adhesion and transport through porous media. Colloids and Surfaces B: Biointerfaces, 1999, 14, 121-139.	2.5	72
49	Effects of dynamic operating conditions on nitrification in biological rapid sand filters for drinking water treatment. Water Research, 2014, 64, 226-236.	5.3	71
50	Nitrous oxide emissions from biofilm processes for wastewater treatment. Applied Microbiology and Biotechnology, 2018, 102, 9815-9829.	1.7	71
51	Nitritation performance in membrane-aerated biofilm reactors differs from conventional biofilm systems. Water Research, 2010, 44, 6073-6084.	5.3	70
52	Aeration Strategies To Mitigate Nitrous Oxide Emissions from Single-Stage Nitritation/Anammox Reactors. Environmental Science & Environmental Science	4.6	69
53	Intermittent Aeration Suppresses Nitrite-Oxidizing Bacteria in Membrane-Aerated Biofilms: A Model-Based Explanation. Environmental Science & Eamp; Technology, 2017, 51, 6146-6155.	4.6	68
54	Novel Assay To Assess Permissiveness of a Soil Microbial Community toward Receipt of Mobile Genetic Elements. Applied and Environmental Microbiology, 2010, 76, 4813-4818.	1.4	67

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55	Evaluation of a rapid physical–chemical method for the determination of extant soluble COD. Water Research, 2002, 36, 617-624.	5.3	65
56	An individual-based approach to explain plasmid invasion in bacterial populations. FEMS Microbiology Ecology, 2011, 75, 17-27.	1.3	64
57	Structure, composition, and strength of nitrifying membrane-aerated biofilms. Water Research, 2014, 57, 151-161.	5.3	64
58	Plasmids persist in a microbial community by providing fitness benefit to multiple phylotypes. ISME Journal, 2020, 14, 1170-1181.	4.4	62
59	TNT biotransformation: when chemistry confronts mineralization. Applied Microbiology and Biotechnology, 2007, 76, 267-277.	1.7	61
60	The specific growth rate of Pseudomonas putida PAW1 influences the conjugal transfer rate of the TOL plasmid. Applied and Environmental Microbiology, 1993, 59, 3430-3437.	1.4	61
61	Enhancing the formation and shear resistance of nitrifying biofilms on membranes by surface modification. Water Research, 2009, 43, 3469-3478.	5.3	60
62	Pathogenic and Indigenous Denitrifying Bacteria are Transcriptionally Active and Key Multi-Antibiotic-Resistant Players in Wastewater Treatment Plants. Environmental Science & Emp; Technology, 2021, 55, 10862-10874.	4.6	60
63	Inoculum effects on community composition and nitritation performance of autotrophic nitrifying biofilm reactors with counterâ€diffusion geometry. Environmental Microbiology, 2010, 12, 2858-2872.	1.8	59
64	Longâ€ŧerm manure exposure increases soil bacterial community potential for plasmid uptake. Environmental Microbiology Reports, 2014, 6, 125-130.	1.0	59
65	Pathways and Controls of N <sub>2</sub> O Production in Nitritation–Anammox Biomass. Environmental Science & Technology, 2017, 51, 8981-8991.	4.6	59
66	Growth dependence of conjugation explains limited plasmid invasion in biofilms: an individualâ€based modelling study. Environmental Microbiology, 2011, 13, 2435-2452.	1.8	57
67	Towards a consensus-based biokinetic model for green microalgae–ÂThe ASM-A. Water Research, 2016, 103, 485-499.	5.3	57
68	Short-sludge age EBPR process – Microbial and biochemical process characterisation during reactor start-up and operation. Water Research, 2016, 104, 320-329.	5.3	57
69	Enzymatic Reduction of 2,4,6-Trinitrotoluene and Related Nitroarenes: Kinetics Linked to One-Electron Redox Potentials. Environmental Science & Enviro	4.6	56
70	Abiotic Nitrous Oxide (N <sub>2</sub> O) Production Is Strongly pH Dependent, but Contributes Little to Overall N <sub>2</sub> O Emissions in Biological Nitrogen Removal Systems. Environmental Science & Environmental & Environ	4.6	53
71	High Diversity among Environmental Escherichia coli Isolates from a Bovine Feedlot. Applied and Environmental Microbiology, 2004, 70, 1528-1536.	1.4	51
72	Nitritation performance and biofilm development of co- and counter-diffusion biofilm reactors: Modeling and experimental comparison. Water Research, 2009, 43, 2699-2709.	5.3	51

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73	Structure and activity of lacustrine sediment bacteria involved in nutrient and iron cycles. FEMS Microbiology Ecology, 2011, 77, 666-679.	1.3	51
74	Sensitivity analysis of autotrophic N removal by a granule based bioreactor: Influence of mass transfer versus microbial kinetics. Bioresource Technology, 2012, 123, 230-241.	4.8	51
75	Model-based evaluation of the role of Anammox on nitric oxide and nitrous oxide productions in membrane aerated biofilm reactor. Journal of Membrane Science, 2013, 446, 332-340.	4.1	51
76	Sequentially aerated membrane biofilm reactors for autotrophic nitrogen removal: microbial community composition and dynamics. Microbial Biotechnology, 2014, 7, 32-43.	2.0	50
77	Removal of micropollutants during biological phosphorus removal: Impact of redox conditions in MBBR. Science of the Total Environment, 2019, 663, 496-506.	3.9	50
78	Role of Ammonia Oxidation in Organic Micropollutant Transformation during Wastewater Treatment: Insights from Molecular, Cellular, and Community Level Observations. Environmental Science & Environme	4.6	49
79	Biomass characteristics in three sequencing batch reactors treating a wastewater containing synthetic organic chemicals. Water Research, 2005, 39, 710-720.	5.3	48
80	The Porous Surface Model, a Novel Experimental System for Online Quantitative Observation of Microbial Processes under Unsaturated Conditions. Applied and Environmental Microbiology, 2008, 74, 5195-5200.	1.4	48
81	Biodegradation in a Partially Saturated Sand Matrix: Compounding Effects of Water Content, Bacterial Spatial Distribution, and Motility. Environmental Science & Echnology, 2010, 44, 2386-2392.	4.6	48
82	Autotrophic Nitrogen Removal in a Membrane-Aerated Biofilm Reactor Under Continuous Aeration: A Demonstration. Environmental Engineering Science, 2013, 30, 38-45.	0.8	48
83	The role of genes in biological processes. Part 1. Environmental Science & Env	4.6	47
84	Conjugal TOL Transfer from Pseudomonas putida to Pseudomonas aeruginosa: Effects of Restriction Proficiency, Toxicant Exposure, Cell Density Ratios, and Conjugation Detection Method on Observed Transfer Efficiencies. Applied and Environmental Microbiology, 2005, 71, 51-57.	1.4	46
85	Microbial activity catalyzes oxygen transfer in membrane-aerated nitritating biofilm reactors. Journal of Membrane Science, 2013, 446, 465-471.	4.1	45
86	Limited diffusive fluxes of substrate facilitate coexistence of two competing bacterial strains. FEMS Microbiology Ecology, 2008, 64, 1-8.	1.3	44
87	Nitrous oxide production in intermittently aerated Partial Nitritation-Anammox reactor: oxic N2O production dominates and relates with ammonia removal rate. Chemical Engineering Journal, 2018, 335, 458-466.	6.6	43
88	Fate of Labile Organic Carbon in Paddy Soil Is Regulated by Microbial Ferric Iron Reduction. Environmental Science & Environme	4.6	42
89	Elucidating the microbial component of natural attenuation. Current Opinion in Biotechnology, 2003, 14, 283-288.	3.3	41
90	Saturation Mutagenesis of Burkholderia cepacia R34 2,4-Dinitrotoluene Dioxygenase at DntAc Valine 350 for Synthesizing Nitrohydroquinone, Methylhydroquinone, and Methoxyhydroquinone. Applied and Environmental Microbiology, 2004, 70, 3222-3231.	1.4	41

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91	Fine scale spatial variability of microbial pesticide degradation in soil: scales, controlling factors, and implications. Frontiers in Microbiology, 2014, 5, 667.	1.5	41
92	Reactor staging influences microbial community composition and diversity of denitrifying MBBRs-Implications on pharmaceutical removal. Water Research, 2018, 138, 333-345.	5.3	41
93	Stochastic processes govern invasion success in microbial communities when the invader is phylogenetically close to resident bacteria. ISME Journal, 2018, 12, 2748-2756.	4.4	41
94	Transcriptome Dynamics of Pseudomonas putida KT2440 under Water Stress. Applied and Environmental Microbiology, 2012, 78, 676-683.	1.4	40
95	Internal Porosity of Mineral Coating Supports Microbial Activity in Rapid Sand Filters for Groundwater Treatment. Applied and Environmental Microbiology, 2014, 80, 7010-7020.	1.4	40
96	Minimum influent concentrations of oxytetracycline, streptomycin and spiramycin in selecting antibiotic resistance in biofilm type wastewater treatment systems. Science of the Total Environment, 2020, 720, 137531.	3.9	40
97	Respirometric assay for biofilm kinetics estimation: Parameter identifiability and retrievability., 1998, 57, 35-45.		39
98	Applicability of two-step models in estimating nitrification kinetics from batch respirograms under different relative dynamics of ammonia and nitrite oxidation. Biotechnology and Bioengineering, 2000, 70, 54-64.	1.7	38
99	Enrichment, Isolation, and Characterization of High-Affinity N <sub>2</sub> O-Reducing Bacteria in a Gas-Permeable Membrane Reactor. Environmental Science & Environmental Scien	4.6	38
100	Enhancement of Polynuclear Aromatic Hydrocarbon Desorption by Complexing Agents in Weathered Soil. Environmental Engineering Science, 2004, 21, 515-523.	0.8	37
101	The effect of hydroxylamine on the activity and aggregate structure of autotrophic nitrifying bioreactor cultures. Biotechnology and Bioengineering, 2009, 102, 714-724.	1.7	37
102	Measuring biogeochemical heterogeneity at the micro scale in soils and sediments. Soil Biology and Biochemistry, 2015, 90, 122-138.	4.2	37
103	Reductive transformation of TNT by Escherichia coli: pathway description. Applied Microbiology and Biotechnology, 2005, 67, 397-404.	1.7	36
104	Optimizing experimental design to estimate ammonia and nitrite oxidation biokinetic parameters from batch respirograms. Water Research, 2005, 39, 4969-4978.	5.3	36
105	Presence, distribution, and diversity of iron-oxidizing bacteria at a landfill leachate-impacted groundwater surface water interface. FEMS Microbiology Ecology, 2010, 71, 260-271.	1.3	36
106	TOL plasmid carriage enhances biofilm formation and increases extracellular DNA content in Pseudomonas putida KT2440. FEMS Microbiology Letters, 2010, 312, 84-92.	0.7	36
107	Low nitrous oxide production through nitrifier-denitrification in intermittent-feed high-rate nitritation reactors. Water Research, 2017, 123, 429-438.	5.3	36
108	Evidence of co-metabolic bentazone transformation by methanotrophic enrichment from a groundwater-fed rapid sand filter. Water Research, 2018, 129, 105-114.	5.3	36

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109	The effect of pH on N2O production in intermittently-fed nitritation reactors. Water Research, 2019, 156, 223-231.	5.3	36
110	NAD(P)H:Flavin Mononucleotide Oxidoreductase Inactivation during 2,4,6-Trinitrotoluene Reduction. Applied and Environmental Microbiology, 2002, 68, 1690-1696.	1.4	35
111	EBP2R – An innovative enhanced biological nutrient recovery activated sludge system to produce growth medium for green microalgae cultivation. Water Research, 2015, 68, 821-830.	<b>5.</b> 3	35
112	Cultivation of methanotrophic bacteria in a novel bubble-free membrane bioreactor for microbial protein production. Bioresource Technology, 2020, 310, 123388.	4.8	34
113	Diversity of Iron Oxidizers in Groundwater-Fed Rapid Sand Filters: Evidence of Fe(II)-Dependent Growth by Curvibacter and Undibacterium spp Frontiers in Microbiology, 2018, 9, 2808.	1.5	33
114	DNA- and RNA-SIP Reveal <i>Nitrospira</i> spp. as Key Drivers of Nitrification in Groundwater-Fed Biofilters. MBio, 2019, 10, .	1.8	33
115	The effects of energy availability on the conjugative-transfer kinetics of plasmid RP4. Water Research, 1992, 26, 461-468.	5.3	32
116	Estimating biomass yield coefficients for autotrophic ammonia and nitrite oxidation from batch respirograms. Water Research, 2001, 35, 3153-3156.	<b>5.</b> 3	32
117	<i>Nitrotoga</i> is selected over <i>Nitrospira</i> in newly assembled biofilm communities from a tap water source community at increased nitrite loading. Environmental Microbiology, 2017, 19, 2785-2793.	1.8	32
118	Bacteria from wheat and cucurbit plant roots metabolize PAHs and aromatic root exudates: Implications for rhizodegradation. International Journal of Phytoremediation, 2017, 19, 877-883.	1.7	32
119	Regulation of key N2O production mechanisms during biological water treatment. Current Opinion in Biotechnology, 2019, 57, 119-126.	3.3	32
120	Aerobic Growth on Nitroglycerin as the Sole Carbon, Nitrogen, and Energy Source by a Mixed Bacterial Culture. Applied and Environmental Microbiology, 1998, 64, 3300-3304.	1.4	32
121	Protein Engineering of the Archetypal Nitroarene Dioxygenase of Ralstonia sp. Strain U2 for Activity on Aminonitrotoluenes and Dinitrotoluenes through Alpha-Subunit Residues Leucine 225, Phenylalanine 350, and Glycine 407. Journal of Bacteriology, 2005, 187, 3302-3310.	1.0	30
122	Evaluating Alternate Biokinetic Models for Trace Pollutant Cometabolism. Environmental Science & Evaluating Alternate Biokinetic Models for Trace Pollutant Cometabolism. Environmental Science & Evaluating Alternate Biokinetic Models for Trace Pollutant Cometabolism. Environmental Science & Evaluating Alternate Biokinetic Models for Trace Pollutant Cometabolism. Environmental Science & Evaluating Alternate Biokinetic Models for Trace Pollutant Cometabolism. Environmental Science & Evaluating Alternate Biokinetic Models for Trace Pollutant Cometabolism.	4.6	30
123	Evaluating robustness of a diesel-degrading bacterial consortium isolated from contaminated soil. New Biotechnology, 2016, 33, 852-859.	2.4	30
124	Challenges in using allylthiourea and chlorate as specific nitrification inhibitors. Chemosphere, 2017, 182, 301-305.	4.2	30
125	Saturation mutagenesis of 2,4-DNT dioxygenase of Burkholderia sp. strain DNT for enhanced dinitrotoluene degradation. Biotechnology and Bioengineering, 2005, 92, 416-426.	1.7	29
126	Spectrometric characterization of the effluent dissolved organic matter from an anammox reactor shows correlation between the EEM signature and anammox growth. Chemosphere, 2014, 117, 271-277.	4.2	29

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127	Depth investigation of rapid sand filters for drinking water production reveals strong stratification in nitrification biokinetic behavior. Water Research, 2016, 101, 402-410.	5.3	29
128	Evaluation of Respirometric Data: Identification of Features That Preclude Data Fitting with Existing Kinetic Expressions. Ecotoxicology and Environmental Safety, 1996, 33, 88-99.	2.9	28
129	Changes in measured biodegradation kinetics during the long-term operation of completely mixed activated sludge (CMAS) bioreactors. Water Science and Technology, 1996, 34, 35-42.	1.2	28
130	Novel assay to measure the plasmid mobilizing potential of mixed microbial communities. Frontiers in Microbiology, 2014, 5, 730.	1.5	27
131	Underestimation of ammoniaâ€oxidizing bacteria abundance by amplification bias in <i>amoA</i> â€targeted <scp>qPCR</scp> . Microbial Biotechnology, 2016, 9, 519-524.	2.0	27
132	A consilience model to describe N <sub>2</sub> O production during biological N removal. Environmental Science: Water Research and Technology, 2016, 2, 923-930.	1.2	27
133	Oxidative Transformation of Aminodinitrotoluene Isomers by Multicomponent Dioxygenases. Applied and Environmental Microbiology, 2001, 67, 5460-5466.	1.4	26
134	BENCH-SCALE EVALUATION OF IN SITU BIOREMEDIATION STRATEGIES FOR SOIL AT A FORMER MANUFACTURED GAS PLANT SITE. Environmental Toxicology and Chemistry, 2005, 24, 741.	2.2	26
135	Does microbial centimeter-scale heterogeneity impact MCPA degradation in and leaching from a loamy agricultural soil?. Science of the Total Environment, 2014, 472, 90-98.	3.9	26
136	Effect of long-term exposure, biogenic substrate presence, and electron acceptor conditions on the biodegradation of multiple substituted benzoates and phenolates. Water Research, 2005, 39, 3501-3510.	<b>5.</b> 3	25
137	Heterotrophs are key contributors to nitrous oxide production in activated sludge under low Câ€toâ€N ratios during nitrification—Batch experiments and modeling. Biotechnology and Bioengineering, 2017, 114, 132-140.	1.7	24
138	Extended-Spectrum Î <sup>2</sup> -Lactamase and Carbapenemase Genes are Substantially and Sequentially Reduced during Conveyance and Treatment of Urban Sewage. Environmental Science & E	4.6	24
139	Oxygen Transfer Model for a Flow-Through Hollow-Fiber Membrane Biofilm Reactor. Journal of Environmental Engineering, ASCE, 2009, 135, 806-814.	0.7	23
140	Combination of <sup>15</sup> N Tracer and Microbial Analyses Discloses N <sub>2</sub> O Sink Potential of the Anammox Community. Environmental Science &	4.6	23
141	Sorption equilibria for trichloroethene on algae. Water Research, 1990, 24, 355-360.	<b>5.</b> 3	22
142	Kinetic analysis of simultaneous 2,4-dinitrotoluene (DNT) and 2,6-DNT biodegradation in an aerobic fluidized-bed biofilm reactor., 1999, 63, 642-653.		22
143	Modelling N2O dynamics of activated sludge biomass: Uncertainty analysis and pathway contributions. Chemical Engineering Journal, 2020, 379, 122311.	6.6	22
144	Quantification of the kinetic differences between communities isolated from completely mixed activated sludge systems operated with or without a selector using a novel respirometric method. Water Science and Technology, 1994, 30, 255-261.	1.2	22

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145	Quantification of the effect of substrate concentration on the conjugal transfer rate of the TOL plasmid in short-term batch mating experiments. Letters in Applied Microbiology, 1995, 21, 167-172.	1.0	21
146	Plasmid Introduction in Metal-Stressed, Subsurface-Derived Microcosms: Plasmid Fate and Community Response. Applied and Environmental Microbiology, 2003, 69, 4087-4097.	1.4	21
147	Evaluation of Bioaugmentation with Entrapped Degrading Cells as a Soil Remediation Technology. Environmental Science & Environmental Science & Environ	4.6	21
148	Seasonal Arsenic Accumulation in Stream Sediments at a Groundwater Discharge Zone. Environmental Science & Environmental Scien	4.6	21
149	Dewatering methanotrophic enrichments intended for single cell protein production using biomimetic aquaporin forward osmosis membranes. Separation and Purification Technology, 2020, 235, 116133.	3.9	21
150	Coupling electrochemical ammonia extraction and cultivation of methane oxidizing bacteria for production of microbial protein. Journal of Environmental Management, 2020, 265, 110560.	3.8	21
151	TNT and nitroaromatic compounds are chemoattractants for Burkholderia cepacia R34 and Burkholderia sp. strain DNT. Applied Microbiology and Biotechnology, 2005, 69, 321-325.	1.7	20
152	Intestinal versus External Growth Conditions Change the Surficial Properties in a Collection of EnvironmentalEscherichia colilsolates. Environmental Science & Environmental Science & 2006, 40, 6976-6982.	4.6	20
153	Efficient Total Nitrogen Removal in an Ammonia Gas Biofilter through High-Rate OLAND. Environmental Science & Environmental Sc	4.6	20
154	Effect of the kinetics of ammonium and nitrite oxidation on nitritation success or failure for different biofilm reactor geometries. Biochemical Engineering Journal, 2012, 69, 123-129.	1.8	20
155	Stable nitrogen removal by anammox process after rapid temperature drops: Insights from metagenomics and metaproteomics. Bioresource Technology, 2021, 320, 124231.	4.8	20
156	High affinity p-nitrophenol oxidation by Bacillus sphaericus JS905. FEMS Microbiology Letters, 1998, 166, 115-120.	0.7	19
157	Observation and mathematical description of the acceleration phenomenon in batch respirograms associated with ammonium oxidation. Water Science and Technology, 2006, 54, 181-188.	1.2	19
158	A critical comparison of extant batch respirometric and substrate depletion assays for estimation of nitrification biokinetics. Biotechnology and Bioengineering, 2008, 101, 62-72.	1.7	19
159	A novel bench-scale column assay to investigate site-specific nitrification biokinetics in biological rapid sand filters. Water Research, 2013, 47, 6380-6387.	5.3	19
160	Protocol for Evaluating the Permissiveness of Bacterial Communities Toward Conjugal Plasmids by Quantification and Isolation of Transconjugants. Springer Protocols, 2014, , 275-288.	0.1	19
161	A Model Framework to Describe Growth-Linked Biodegradation of Trace-Level Pollutants in the Presence of Coincidental Carbon Substrates and Microbes. Environmental Science & E	4.6	19
162	Harvesting microalgae using activated sludge can decrease polymer dosing and enhance methane production via co-digestion in a bacterial-microalgal process. Algal Research, 2016, 20, 197-204.	2.4	19

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163	Insights into chronic zinc oxide nanoparticle stress responses of biological nitrogen removal system with nitrous oxide emission and its recovery potential. Bioresource Technology, 2021, 327, 124797.	4.8	19
164	Colony morphology and transcriptome profiling of P seudomonas putida KT 2440 and its mutants deficient in alginate or all EPS synthesis under controlled matric potentials. MicrobiologyOpen, 2014, 3, 457-469.	1.2	18
165	Intermittent aeration to regulate microbial activities in membrane-aerated biofilm reactors: Energy-efficient nitrogen removal and low nitrous oxide emission. Chemical Engineering Journal, 2022, 433, 133630.	6.6	18
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