Thomas P Curtis

List of Publications by Year
in descending order

75 papers	8,472 citations	101384 36 h-index	85405 71 g-index
80 all docs	80 docs citations	80 times ranked	10088 citing authors

#	Article	IF	Citations
1	Estimating prokaryotic diversity and its limits. Proceedings of the National Academy of Sciences of the United States of America, 2002, 99, 10494-10499.	3.3	975
2	Quantifying the roles of immigration and chance in shaping prokaryote community structure. Environmental Microbiology, 2006, 8, 732-740.	1.8	971
3	Accurate determination of microbial diversity from 454 pyrosequencing data. Nature Methods, 2009, 6, 639-641.	9.0	895
4	Challenges in microbial ecology: building predictive understanding of community function and dynamics. ISME Journal, 2016, 10, 2557-2568.	4.4	570
5	Combined niche and neutral effects in a microbial wastewater treatment community. Proceedings of the National Academy of Sciences of the United States of America, 2010, 107, 15345-15350.	3.3	504
6	Global diversity and biogeography of bacterial communities in wastewater treatment plants. Nature Microbiology, 2019, 4, 1183-1195.	5.9	491
7	Prokaryotic diversity and its limits: microbial community structure in nature and implications for microbial ecology. Current Opinion in Microbiology, 2004, 7, 221-226.	2.3	275
8	Performance of a pilot scale microbial electrolysis cell fed on domestic wastewater at ambient temperatures for a 12 month period. Bioresource Technology, 2014, 173, 87-95.	4.8	230
9	The rational exploration of microbial diversity. ISME Journal, 2008, 2, 997-1006.	4.4	190
10	Model based evaluation of the effect of pH and electrode geometry on microbial fuel cell performance. Bioelectrochemistry, 2010, 78, 8-24.	2.4	186
11	MICROBIOLOGY: Exploring Microbial Diversity--A Vast Below. Science, 2005, 309, 1331-1333.	6.0	181
12	Neutral assembly of bacterial communities. FEMS Microbiology Ecology, 2007, 62, 171-180.	1.3	177
13	EBI Metagenomics in 2017: enriching the analysis of microbial communities, from sequence reads to assemblies. Nucleic Acids Research, 2018, 46, D726-D735.	6.5	175
14	Composition and diversity of ammonia-oxidising bacterial communities in wastewater treatment reactors of different design treating identical wastewater. FEMS Microbiology Ecology, 2003, 43, 195-206.	1.3	165
15	Modeling Taxa-Abundance Distributions in Microbial Communities using Environmental Sequence Data. Microbial Ecology, 2007, 53, 443-455.	1.4	151
16	Quantitative Use of Fluorescent In Situ Hybridization To Examine Relationships between Mycolic Acid-Containing Actinomycetes and Foaming in Activated Sludge Plants. Applied and Environmental Microbiology, 2000, 66, 1158-1166.	1.4	148
17	The effect of flavin electron shuttles in microbial fuel cells current production. Applied Microbiology and Biotechnology, 2010, 85, 1373-1381.	1.7	123
18	Taxa-area relationships for microbes: the unsampled and the unseen. Ecology Letters, 2006, 9, 805-812.	3.0	112

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19	Peer Reviewed: Theoretical Ecology for Engineering Biology. Environmental Science & Technology, 2003, 37, 64A-70A.	4.6	96
20	What is the extent of prokaryotic diversity?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 2023-2037.	1.8	90
21	Low-Dissolved-Oxygen Nitrifying Systems Exploit Ammonia-Oxidizing Bacteria with Unusually High Yields. Applied and Environmental Microbiology, 2011, 77, 7787-7796.	1.4	80
22	Systematic study of the effect of operating variables on reactor performance and microbial diversity in laboratory-scale activated sludge reactors. Water Research, 2010, 44, 1341-1352.	5.3	78
23	Low-temperature limitation of bioreactor sludge in anaerobic treatment of domestic wastewater. Water Science and Technology, 2014, 69, 1004-1013.	1.2	77
24	Microbial community assembly, theory and rare functions. Frontiers in Microbiology, 2013, 4, 68.	1.5	74
25	Agreement between Theory and Measurement in Quantification of Ammonia-Oxidizing Bacteria. Applied and Environmental Microbiology, 2005, 71, 6325-6334.	1.4	73
26	Pro-poor sanitation technologies. Geoforum, 2007, 38, 901-907.	1.4	73
27	Avenues to the financial viability of microbial electrolysis cells [MEC] for domestic wastewater treatment and hydrogen production. International Journal of Hydrogen Energy, 2019, 44, 2426-2434.	3.8	73
28	Characterization of aerobic granular sludge treating high strength agro-based wastewater at different volumetric loadings. Bioresource Technology, 2013, 127, 181-187.	4.8	71
29	Occurrence and activity of Archaea in aerated activated sludge wastewater treatment plants. Environmental Microbiology, 2002, 4, 158-168.	1.8	70
30	Effect of wastewater composition on archaeal population diversity. Water Research, 2005, 39, 1576-1584.	5.3	70
31	Developing cold-adapted biomass for the anaerobic treatment of domestic wastewater at low temperatures (4, 8 and 15ÂÂ°C) with inocula from cold environments. Water Research, 2017, 112, 100-109.	5.3	67
32	Open circuit versus closed circuit enrichment of anodic biofilms in MFC: effect on performance and anodic communities. Applied Microbiology and Biotechnology, 2010, 87, 1699-1713.	1.7	59
33	Towards the design of diversity: stochastic models for community assembly in wastewater treatment plants. Water Science and Technology, 2006, 54, 227-236.	1.2	55
34	The microbial diversity of laboratory-scale wetlands appears to be randomly assembled. Water Research, 2008, 42, 3182-3190.	5.3	54
35	Enhanced nitrogen removal in an anoxic-oxic-anoxic process treating low COD/N tropical wastewater: Low-dissolved oxygen nitrification and utilization of slowly-biodegradable COD for denitrification. Science of the Total Environment, 2019, 693, 133526.	3.9	45
36	An Evaluation of the Performance and Economics of Membranes and Separators in Single Chamber Microbial Fuel Cells Treating Domestic Wastewater. PLoS ONE, 2015, 10, e0136108.	1.1	41

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37	NUFEB: A massively parallel simulator for individual-based modelling of microbial communities. PLoS Computational Biology, 2019, 15, e1007125.	1.5	40
38	Metabolites of an Oil Field Sulfide-Oxidizing, Nitrate-Reducing Sulfurimonas sp. Cause Severe Corrosion. Applied and Environmental Microbiology, 2019, 85, .	1.4	38
39	Bioenergetics analysis of ammonia-oxidizing bacteria and the estimation of their maximum growth yield. Water Research, 2019, 154, 238-245.	5.3	35
40	Nonlinear rheological characteristics of single species bacterial biofilms. Npj Biofilms and Microbiomes, 2020, 6, 19.	2.9	35
41	Fate of Cryptosporidium oocysts in an immobilised titanium dioxide reactor with electric field enhancement. Water Research, 2002, 36, 2410-2413.	5.3	34
42	Regulating, Measuring, and Modeling the Viscoelasticity of Bacterial Biofilms. Journal of Bacteriology, 2019, 201, .	1.0	33
43	Effect of Sludge Age on the Bacterial Diversity of Bench Scale Sequencing Batch Reactors. Environmental Science & Technology, 2009, 43, 2950-2956.	4.6	31
44	Quantification of effective exoelectrogens by most probable number (MPN) in a microbial fuel cell. Bioresource Technology, 2016, 218, 27-30.	4.8	28
45	High rate domestic wastewater treatment at 15 Â°C using anaerobic reactors inoculated with cold-adapted sediments/soils â€“ shaping robust methanogenic communities. Environmental Science: Water Research and Technology, 2019, 5, 70-82.	1.2	26
46	Maintenance affects the stability of a two-tiered microbial â€˜food chainâ€™?. Journal of Theoretical Biology, 2011, 276, 35-41.	0.8	25
47	Multi-scale modelling of bioreactorâ€“separator system for wastewater treatment with two-dimensional activated sludge floc dynamics. Water Research, 2014, 50, 382-395.	5.3	24
48	Lipolysis of domestic wastewater in anaerobic reactors operating at low temperatures. Environmental Science: Water Research and Technology, 2018, 4, 1002-1013.	1.2	24
49	Estimating bacterial diversity from clone libraries with flat rank abundance distributions. Environmental Microbiology, 2004, 6, 1081-1085.	1.8	23
50	Modelling the effects of dispersal mechanisms and hydrodynamic regimes upon the structure of microbial communities within fluvial biofilms. Environmental Microbiology, 2013, 15, 1216-1225.	1.8	22
51	Community Assembly in Wastewater-Fed Pilot-Scale Microbial Electrolysis Cells. Frontiers in Energy Research, 2018, 6, .	1.2	22
52	Enrichment of Nitrogen-Fixing Bacteria in a Nitrogen-Deficient Wastewater Treatment System. Environmental Science & Technology, 2020, 54, 3539-3548.	4.6	22
53	Individual Based Model Links Thermodynamics, Chemical Speciation and Environmental Conditions to Microbial Growth. Frontiers in Microbiology, 2019, 10, 1871.	1.5	20
54	Ammonia-Oxidizing Bacteria in Wastewater. Methods in Enzymology, 2011, 496, 269-286.	0.4	19

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55	N-acyl-homoserine-lactones signaling as a critical control point for phosphorus entrapment by multi-species microbial aggregates. Water Research, 2021, 204, 117627.	5.3	19
56	Understanding the complexity of wastewater: The combined impacts of carbohydrates and sulphate on the performance of bioelectrochemical systems. Water Research, 2020, 176, 115737.	5.3	18
57	In situ detection of rhodococci associated with activated sludge foams. Antonie Van Leeuwenhoek, 1998, 74, 41-48.	0.7	17
58	The comparison of the diversity of activated sludge plants. Water Science and Technology, 1998, 37, 71-78.	1.2	16
59	An efficient oxic-anoxic process for treating low COD/N tropical wastewater: Startup, optimization and nitrifying community structure. Chemosphere, 2020, 259, 127444.	4.2	15
60	Characterization of slowly-biodegradable organic compounds and hydrolysis kinetics in tropical wastewater for biological nitrogen removal. Water Science and Technology, 2020, 81, 71-80.	1.2	13
61	A preliminary and qualitative study of resource ratio theory to nitrifying labâ€scale bioreactors. Microbial Biotechnology, 2015, 8, 590-603.	2.0	10
62	Drift dynamics in microbial communities and the effective community size. Environmental Microbiology, 2021, 23, 2473-2483.	1.8	10
63	Looking for lipases and lipolytic organisms in low-temperature anaerobic reactors treating domestic wastewater. Water Research, 2022, 212, 118115.	5.3	10
64	The effect of anode potential on current production from complex substrates in bioelectrochemical systems: a case study with glucose. Applied Microbiology and Biotechnology, 2020, 104, 5133-5143.	1.7	7
65	Sewage treatment at 4 Â°C in anaerobic upflow reactors with and without a membrane â€“ performance, function and microbial diversity. Environmental Science: Water Research and Technology, 2021, 7, 156-171.	1.2	7
66	The limitations of the current protein classification tools in identifying lipolytic features in putative bacterial lipase sequences. Journal of Biotechnology, 2022, 351, 30-37.	1.9	6
67	Valorization of pulp and paper industry wastewater using sludge enriched with nitrogenâ€fixing bacteria. Water Environment Research, 2021, 93, 1734-1747.	1.3	5
68	Development of a Rapid Assay for Determining the Relative Abundance of Bacteria. Applied and Environmental Microbiology, 2005, 71, 8481-8490.	1.4	4
69	Composition and diversity of ammonia-oxidising bacterial communities in wastewater treatment reactors of different design treating identical wastewater. , 0, .		4
70	Modeling Risk of Failure in Nitrification: Simple Model Incorporating Abundance and Diversity. Journal of Environmental Engineering, ASCE, 2009, 135, 660-665.	0.7	3
71	Theory, community assembly, diversity and evolution in the microbial world. , 2001, , 59-76.		1
72	Response of the soil bacterial community to perturbation. , 2005, , 273-292.		1

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73	The Rational Design of a Financially Viable Microbial Electrolysis Cell for Domestic Wastewater Treatment. Frontiers in Chemical Engineering, 2022, 3, .	1.3	1
74	Multi-scale modeling of activated sludge floc structure formation in wastewater bioreactors. Computer Aided Chemical Engineering, 2011, 29, 96-100.	0.3	0
75	The Uncountables. , 0, , 33-54.		0