William T Sloan

List of Publications by Year
in descending order

81 papers	8,898 citations	126907 33 h-index	69250 77 g-index
85 all docs	85 docs citations	85 times ranked	12126 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.	7.1	975
2	Quantifying the roles of immigration and chance in shaping prokaryote community structure. Environmental Microbiology, 2006, 8, 732-740.	3.8	971
3	Accurate determination of microbial diversity from 454 pyrosequencing data. Nature Methods, 2009, 6, 639-641.	19.0	895
4	Insight into biases and sequencing errors for amplicon sequencing with the Illumina MiSeq platform. Nucleic Acids Research, 2015, 43, e37-e37.	14.5	626
5	Challenges in microbial ecology: building predictive understanding of community function and dynamics. ISME Journal, 2016, 10, 2557-2568.	9.8	570
6	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.	7.1	504
7	Global diversity and biogeography of bacterial communities in wastewater treatment plants. Nature Microbiology, 2019, 4, 1183-1195.	13.3	491
8	Sustainable wastewater treatment: How might microbial fuel cells contribute. Biotechnology Advances, 2010, 28, 871-881.	11.7	289
9	Microbial landscapes: new paths to biofilm research. Nature Reviews Microbiology, 2007, 5, 76-81.	28.6	288
10	Prokaryotic diversity and its limits: microbial community structure in nature and implications for microbial ecology. Current Opinion in Microbiology, 2004, 7, 221-226.	5.1	275
11	Fluvial network organization imprints on microbial co-occurrence networks. Proceedings of the National Academy of Sciences of the United States of America, 2014, 111, 12799-12804.	7.1	193
12	The rational exploration of microbial diversity. ISME Journal, 2008, 2, 997-1006.	9.8	190
13	Exploring Microbial Diversity--A Vast Below. Science, 2005, 309, 1331-1333.	12.6	181
14	Neutral assembly of bacterial communities. FEMS Microbiology Ecology, 2007, 62, 171-180.	2.7	177
15	Spatial-Temporal Survey and Occupancy-Abundance Modeling To Predict Bacterial Community Dynamics in the Drinking Water Microbiome. MBio, 2014, 5, e01135-14.	4.1	160
16	Headwaters are critical reservoirs of microbial diversity for fluvial networks. Proceedings of the Royal Society B: Biological Sciences, 2013, 280, 20131760.	2.6	153
17	Modeling Taxa-Abundance Distributions in Microbial Communities using Environmental Sequence Data. Microbial Ecology, 2007, 53, 443-455.	2.8	151
18	The active microbial community more accurately reflects the anaerobic digestion process: 16S rRNA (gene) sequencing as a predictive tool. Microbiome, 2018, 6, 63.	11.1	138

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19	Taxa-area relationships for microbes: the unsampled and the unseen. Ecology Letters, 2006, 9, 805-812.	6.4	112
20	Emerging investigators series: microbial communities in full-scale drinking water distribution systems â€“ a meta-analysis. Environmental Science: Water Research and Technology, 2016, 2, 631-644.	2.4	98
21	What is the extent of prokaryotic diversity?. Philosophical Transactions of the Royal Society B: Biological Sciences, 2006, 361, 2023-2037.	4.0	90
22	Long-Term and Ultra Longâ€“Term Blood Pressure Variability During Follow-Up and Mortality in 14 522 Patients With Hypertension. Hypertension, 2013, 62, 698-705.	2.7	81
23	Microbial community assembly, theory and rare functions. Frontiers in Microbiology, 2013, 4, 68.	3.5	74
24	Serum Chloride Is an Independent Predictor of Mortality in Hypertensive Patients. Hypertension, 2013, 62, 836-843.	2.7	67
25	Erosion of biofilm-bound fluvial sediments. Nature Geoscience, 2013, 6, 770-774.	12.9	65
26	Benchmarking of viral haplotype reconstruction programmes: an overview of the capacities and limitations of currently available programmes. Briefings in Bioinformatics, 2014, 15, 431-442.	6.5	59
27	Towards the design of diversity: stochastic models for community assembly in wastewater treatment plants. Water Science and Technology, 2006, 54, 227-236.	2.5	55
28	A physics-based function for modeling transient groundwater discharge at the watershed scale. Water Resources Research, 2000, 36, 225-241.	4.2	54
29	Blood Pressure Response to Patterns of Weather Fluctuations and Effect on Mortality. Hypertension, 2013, 62, 190-196.	2.7	47
30	Neutral mechanisms and niche differentiation in steadyâ€state insular microbial communities revealed by single cell analysis. Environmental Microbiology, 2019, 21, 164-181.	3.8	46
31	The impact of sampling, PCR, and sequencing replication on discerning changes in drinking water bacterial community over diurnal time-scales. Water Research, 2016, 90, 216-224.	11.3	45
32	Stream chemistry in the middle hills and high mountains of the Himalayas, Nepal. Journal of Hydrology, 1995, 166, 61-79.	5.4	43
33	Impact of industrial production system parameters on chicken microbiomes: mechanisms to improve performance and reduce Campylobacter. Microbiome, 2020, 8, 128.	11.1	38
34	Serum Uric Acid Level, Longitudinal Blood Pressure, Renal Function, and Long-Term Mortality in Treated Hypertensive Patients. Hypertension, 2013, 62, 105-111.	2.7	37
35	Bioreactor Scalability: Laboratory-Scale Bioreactor Design Influences Performance, Ecology, and Community Physiology in Expanded Granular Sludge Bed Bioreactors. Frontiers in Microbiology, 2017, 8, 664.	3.5	36
36	Predicting the effects of biochar on volatile petroleum hydrocarbon biodegradation and emanation from soil: A bacterial community finger-print analysis inferred modelling approach. Soil Biology and Biochemistry, 2014, 68, 20-30.	8.8	33

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37	Coupled virus - bacteria interactions and ecosystem function in an engineered microbial system. Water Research, 2019, 152, 264-273.	11.3	31
38	Life cycle assessment of biodiesel production from rapeseed oil: Influence of process parameters and scale. Bioresource Technology, 2022, 360, 127532.	9.6	29
39	Genome erosion and evidence for an intracellular niche â€“ exploring the biology of mycoplasmas in Atlantic salmon. Aquaculture, 2021, 541, 736772.	3.5	27
40	Family history of premature cardiovascular disease: blood pressure control and long-term mortality outcomes in hypertensive patients. European Heart Journal, 2014, 35, 563-570.	2.2	25
41	Biofilm community succession: a neutral perspective. Microbiology (United Kingdom), 2017, 163, 664-668.	1.8	25
42	Estimating bacterial diversity from clone libraries with flat rank abundance distributions. Environmental Microbiology, 2004, 6, 1081-1085.	3.8	23
43	The effect of metabolic stress on genome stability of a synthetic biology chassis Escherichia coli K12 strain. Microbial Cell Factories, 2018, 17, 8.	4.0	23
44	Modelling the effects of dispersal mechanisms and hydrodynamic regimes upon the structure of microbial communities within fluvial biofilms. Environmental Microbiology, 2013, 15, 1216-1225.	3.8	22
45	Herbicide-tolerant endophytic bacteria of rice plants as the biopriming agents for fertility recovery and disease suppression of unhealthy rice seeds. BMC Plant Biology, 2019, 19, 580.	3.6	22
46	Economic and environmental assessment of organic waste to biomethane conversion. Bioresource Technology, 2022, 345, 126500.	9.6	22
47	Quantifying the tensile strength of microbial mats grown over noncohesive sediments. Biotechnology and Bioengineering, 2012, 109, 1155-1164.	3.3	21
48	A comprehensive artificial neural network model for gasification process prediction. Applied Energy, 2022, 320, 119289.	10.1	21
49	In vitro and in vivo characterisation of Listeria monocytogenes outbreak isolates. Food Control, 2020, 107, 106784.	5.5	19
50	The role of shear dynamics in biofilm formation. Npj Biofilms and Microbiomes, 2022, 8, 33.	6.4	18
51	Single-Cell Microfluidics to Study the Effects of Genome Deletion on Bacterial Growth Behavior. ACS Synthetic Biology, 2017, 6, 2219-2227.	3.8	17
52	Application of Paramagnetically Tagged Molecules for Magnetic Resonance Imaging of Biofilm Mass Transport Processes. Applied and Environmental Microbiology, 2010, 76, 4027-4036.	3.1	16
53	Predicting river flows for future climates using an autoregressive multinomial logit model. Water Resources Research, 2008, 44, .	4.2	15
54	Investigation of Nanoparticle Transport Inside Coarse-Grained Geological Media Using Magnetic Resonance Imaging. Environmental Science & Technology, 2012, 46, 360-366.	10.0	15

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55	Nanoparticle transport in saturated porous medium using magnetic resonance imaging. Chemical Engineering Journal, 2015, 266, 156-162.	12.7	14
56	Bioactivities and genome insights of a thermotolerant antibioticsâ€producing Streptomyces sp. TM32 reveal its potentials for novel drug discovery. MicrobiologyOpen, 2019, 8, e842.	3.0	14
57	Probabilistic Models to Describe the Dynamics of Migrating Microbial Communities. PLoS ONE, 2015, 10, e0117221.	2.5	13
58	Impact of Methylobacterium in the drinking water microbiome on removal of trihalomethanes. International Biodeterioration and Biodegradation, 2019, 141, 10-16.	3.9	13
59	Magnetic Resonance Imaging of Mass Transport and Structure Inside a Phototrophic Biofilm. Current Microbiology, 2013, 66, 456-461.	2.2	12
60	A Keystone Methylobacterium Strain in Biofilm Formation in Drinking Water. Water (Switzerland), 2017, 9, 778.	2.7	12
61	A simple model of stream nitrate concentrations in forested and deforested catchments in Mid-Wales. Journal of Hydrology, 1994, 158, 61-78.	5.4	11
62	Long-Term Outcome following Attendance at a Transient Ischemic Attack Clinic. International Journal of Stroke, 2011, 6, 306-311.	5.9	11
63	Solar Septic Tank: Next Generation Sequencing Reveals Effluent Microbial Community Composition as a Useful Index of System Performance. Water (Switzerland), 2019, 11, 2660.	2.7	11
64	Techno-economic feasibility of distributed waste-to-hydrogen systems to support green transport in Glasgow. International Journal of Hydrogen Energy, 2022, 47, 13532-13551.	7.1	11
65	Influence of biofilms on heavy metal immobilization in sustainable urban drainage systems (SuDS). Environmental Technology (United Kingdom), 2015, 36, 2803-2814.	2.2	10
66	Drift dynamics in microbial communities and the effective community size. Environmental Microbiology, 2021, 23, 2473-2483.	3.8	10
67	A GIS framework for modelling nitrogen leaching from agricultural areas in the Middle Hills, Nepal. International Journal of Geographical Information Science, 1998, 12, 479-490.	4.8	9
68	The Role of the Motility of Methylobacterium in Bacterial Interactions in Drinking Water. Water (Switzerland), 2018, 10, 1386.	2.7	8
69	Characterization of nanoparticle transport through quartz and dolomite gravels by magnetic resonance imaging. International Journal of Environmental Science and Technology, 2015, 12, 3373-3384.	3.5	7
70	SalmoSim: the development of a three-compartment in vitro simulator of the Atlantic salmon GI tract and associated microbial communities. Microbiome, 2021, 9, 179.	11.1	5
71	Modelling long-term contaminant migration in a catchment at fine spatial and temporal scales using the UP system. Hydrological Processes, 1999, 13, 823-846.	2.6	4
72	â€˜Solar septic tankâ€™: evaluation of innovative decentralized treatment of blackwater in developing countries. Journal of Water Sanitation and Hygiene for Development, 2020, 10, 828-840.	1.8	4

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73	Incorporating topographic variability into a simple regional snowmelt model. Hydrological Processes, 2004, 18, 3371-3390.	2.6	3
74	Biochemistry shapes growth kinetics of nitrifiers and defines their activity under specific environmental conditions. Biotechnology and Bioengineering, 2022, 119, 1290-1300.	3.3	3
75	Validating Flow Cytometry as a Method for Quantifying Bdellovibrio Predatory Bacteria and Its Prey for Microbial Ecology. Microbiology Spectrum, 2022, 10, e0103321.	3.0	3
76	Deploying anIn VitroGut Model to Assay the Impact of the Mannan-Oligosaccharide Prebiotic Bio-Mos on the Atlantic Salmon (Salmo salar) Gut Microbiome. Microbiology Spectrum, 2022, 10, e0195321.	3.0	3
77	Theory, community assembly, diversity and evolution in the microbial world. , 2001, , 59-76.		1
78	Response to Effect of Serum Chloride on Mortality in Hypertensive Patients. Hypertension, 2014, 63, e15.	2.7	1
79	Metagenomic Sequencing Unravels Gene Fragments with Phylogenetic Signatures of O2-Tolerant NiFe Membrane-Bound Hydrogenases in Lacustrine Sediment. Current Microbiology, 2015, 71, 296-302.	2.2	1
80	Engineering artificial thermal mountains for large-scale water management and carbon drawdown. Environmental Science: Water Research and Technology, 2019, 5, 296-314.	2.4	0
81	The Uncountables. , 0, , 33-54.		0