Michael J Wilkins

List of Publications by Citations

47 papers	3,829 citations	25 h-index	54 g-index
54 ext. papers	5,307 ext. citations	9.6 avg, IF	4.94 L-index

#	Paper	IF	Citations
47	Unusual biology across a group comprising more than 15% of domain Bacteria. *Nature*, **2015**, 523, 208-11	50.4	688
46	Thousands of microbial genomes shed light on interconnected biogeochemical processes in an aquifer system. *Nature Communications*, **2016**, 7, 13219	17.4	589
45	Fermentation, hydrogen, and sulfur metabolism in multiple uncultivated bacterial phyla. *Science*, **2012**, 337, 1661-5	33.3	464
44	Genomic expansion of domain archaea highlights roles for organisms from new phyla in anaerobic carbon cycling. *Current Biology*, **2015**, 25, 690-701	6.3	354
43	Acetate Availability and its Influence on Sustainable Bioremediation of Uranium-Contaminated Groundwater. *Geomicrobiology Journal*, **2011**, 28, 519-539	2.5	201
42	Groundwater-surface water mixing shifts ecological assembly processes and stimulates organic carbon turnover. *Nature Communications*, **2016**, 7, 11237	17.4	171
41	Microbial metabolisms in a 2.5-km-deep ecosystem created by hydraulic fracturing in shales. *Nature Microbiology*, **2016**, 1, 16146	26.6	144
40	Metabolic interdependencies between phylogenetically novel fermenters and respiratory organisms in an unconfined aquifer. *ISME Journal*, **2014**, 8, 1452-63	11.9	131
39	Proteogenomic monitoring of Geobacter physiology during stimulated uranium bioremediation. *Applied and Environmental Microbiology*, **2009**, 75, 6591-9	4.8	116
38	Critical biogeochemical functions in the subsurface are associated with bacteria from new phyla and little studied lineages. *Environmental Microbiology*, **2016**, 18, 159-73	5.2	111
37	Members of the Candidate Phyla Radiation are functionally differentiated by carbon- and nitrogen-cycling capabilities. *Microbiome*, **2017**, 5, 112	16.6	66
36	RubisCO of a nucleoside pathway known from Archaea is found in diverse uncultivated phyla in bacteria. *ISME Journal*, **2016**, 10, 2702-2714	11.9	65
35	Water Table Dynamics and Biogeochemical Cycling in a Shallow, Variably-Saturated Floodplain. *Environmental Science & Technology*, **2017**, 51, 3307-3317	10.3	62
34	Characterization and transcription of arsenic respiration and resistance genes during in situ uranium bioremediation. *ISME Journal*, **2013**, 7, 370-83	11.9	62
33	Influences of organic carbon speciation on hyporheic corridor biogeochemistry and microbial ecology. *Nature Communications*, **2018**, 9, 585	17.4	56
32	Viruses control dominant bacteria colonizing the terrestrial deep biosphere after hydraulic fracturing. *Nature Microbiology*, **2019**, 4, 352-361	26.6	49
31	Sulfide Generation by Dominant Microorganisms in Hydraulically Fractured Shales. *MSphere*, **2017**, 2,	5	41

30	Abundant carbon substrates drive extremely high sulfate reduction rates and methane fluxes in Prairie Pothole Wetlands. *Global Change Biology*, **2017**, 23, 3107-3120	11.4	39
29	Coupled laboratory and field investigations resolve microbial interactions that underpin persistence in hydraulically fractured shales. *Proceedings of the National Academy of Sciences of the United States of America*, **2018**, 115, E6585-E6594	11.5	35
28	Microbial Community Cohesion Mediates Community Turnover in Unperturbed Aquifers. *MSystems*, **2018**, 3,	7.6	34
27	Seasonal hyporheic dynamics control coupled microbiology and geochemistry in Colorado River sediments. *Journal of Geophysical Research G: Biogeosciences*, **2016**, 121, 2976-2987	3.7	32
26	Molecular analysis of the in situ growth rates of subsurface Geobacter species. *Applied and Environmental Microbiology*, **2013**, 79, 1646-53	4.8	32
25	Viral and metabolic controls on high rates of microbial sulfur and carbon cycling in wetland ecosystems. *Microbiome*, **2018**, 6, 138	16.6	29
24	Disturbed subsurface microbial communities follow equivalent trajectories despite different structural starting points. *Environmental Microbiology*, **2015**, 17, 622-36	5.2	28
23	Trends and future challenges in sampling the deep terrestrial biosphere. *Frontiers in Microbiology*, **2014**, 5, 481	5.7	27
22	CO2 exposure at pressure impacts metabolism and stress responses in the model sulfate-reducing bacterium Desulfovibrio vulgaris strain Hildenborough. *Frontiers in Microbiology*, **2014**, 5, 507	5.7	21
21	Members of and Influence System Biogeochemistry During Early Production of Hydraulically Fractured Natural Gas Wells in the Appalachian Basin. *Frontiers in Microbiology*, **2018**, 9, 2646	5.7	20
20	Genome-Resolved Metagenomics Extends the Environmental Distribution of the Phylum to the Deep Terrestrial Subsurface. *MSphere*, **2019**, 4,	5	18
19	Comparative genomics and physiology of the genus Methanohalophilus, a prevalent methanogen in hydraulically fractured shale. *Environmental Microbiology*, **2018**, 20, 4596-4611	5.2	16
18	Snowmelt Induced Hydrologic Perturbations Drive Dynamic Microbiological and Geochemical Behaviors across a Shallow Riparian Aquifer. *Frontiers in Earth Science*, **2016**, 4,	3.5	15
17	In situ transformation of ethoxylate and glycol surfactants by shale-colonizing microorganisms during hydraulic fracturing. *ISME Journal*, **2019**, 13, 2690-2700	11.9	13
16	Heterogeneity in Hyporheic Flow, Pore Water Chemistry, and Microbial Community Composition in an Alpine Streambed. *Journal of Geophysical Research G: Biogeosciences*, **2019**, 124, 3465-3478	3.7	11
15	Anoxia stimulates microbially catalyzed metal release from Animas River sediments. *Environmental Sciences: Processes and Impacts*, **2017**, 19, 578-585	4.3	10
14	Hyporheic Zone Microbiome Assembly Is Linked to Dynamic Water Mixing Patterns in Snowmelt-Dominated Headwater Catchments. *Journal of Geophysical Research G: Biogeosciences*, **2019**, 124, 3269-3280	3.7	10
13	Deep-Subsurface Pressure Stimulates Metabolic Plasticity in Shale-Colonizing spp. *Applied and Environmental Microbiology*, **2019**, 85,	4.8	9

12	Wetland Sediments Host Diverse Microbial Taxa Capable of Cycling Alcohols. *Applied and Environmental Microbiology*, **2019**, 85,	4.8	7
11	Seasonal manganese transport in the hyporheic zone of a snowmelt-dominated river (East River, Colorado, USA). *Hydrogeology Journal*, **2020**, 28, 1323-1341	3.1	7
10	Capability for arsenic mobilization in groundwater is distributed across broad phylogenetic lineages. *PLoS ONE*, **2019**, 14, e0221694	3.7	6
9	A Model Analysis of the Tidal Engine That Drives Nitrogen Cycling in Coastal Riparian Aquifers. *Water Resources Research*, **2020**, 56, e2019WR025662	5.4	6
8	Ecological Assembly Processes Are Coordinated between Bacterial and Viral Communities in Fractured Shale Ecosystems. *MSystems*, **2020**, 5,	7.6	6
7	Identification of Persistent Sulfidogenic Bacteria in Shale Gas Produced Waters. *Frontiers in Microbiology*, **2020**, 11, 286	5.7	5
6	Comparative geochemistry of flowback chemistry from the Utica/Point Pleasant and Marcellus formations. *Chemical Geology*, **2021**, 564, 120041	4.2	5
5	Draft Genome Sequences of Multiple Strains Isolated from Hydraulically Fractured Shale Environments. *Genome Announcements*, **2017**, 5,		4
4	Characterizing the Deep Terrestrial Subsurface Microbiome. *Methods in Molecular Biology*, **2018**, 1849, 1-15	1.4	3
3	Borgs are giant extrachromosomal elements with the potential to augment methane oxidation		2
2	Microbial colonization and persistence in deep fractured shales is guided by metabolic exchanges and viral predation.. *Microbiome*, **2022**, 10, 5	16.6	0
1	Ice Cover Influences Redox Dynamics in Prairie Pothole Wetland Sediments. *Journal of Geophysical Research G: Biogeosciences*, **2021**, 126, e2021JG006318	3.7	0