Farooq Azam

List of Publications by Citations

102 papers	12,506 citations	51 h-index	111 g-index
137 ext. papers	14,931 ext. citations	8.2 avg, IF	6.26 L-index

#	Paper	IF	Citations
102	Microbial structuring of marine ecosystems. *Nature Reviews Microbiology*, **2007**, 5, 782-91	22.2	938
101	Microbial production of recalcitrant dissolved organic matter: long-term carbon storage in the global ocean. *Nature Reviews Microbiology*, **2010**, 8, 593-9	22.2	849
100	Genomic analysis of uncultured marine viral communities. *Proceedings of the National Academy of Sciences of the United States of America*, **2002**, 99, 14250-5	11.5	710
99	Intense hydrolytic enzyme activity on marine aggregates and implications for rapid particle dissolution. *Nature*, **1992**, 359, 139-142	50.4	702
98	Major role of bacteria in biogeochemical fluxes in the ocean's interior. *Nature*, **1988**, 332, 441-443	50.4	567
97	Bacterioplankton secondary production estimates for coastal waters of british columbia, antarctica, and california. *Applied and Environmental Microbiology*, **1980**, 39, 1085-95	4.8	554
96	Scientists' warning to humanity: microorganisms and climate change. *Nature Reviews Microbiology*, **2019**, 17, 569-586	22.2	516
95	The oceanic gel phase: a bridge in the DOM–POM continuum. *Marine Chemistry*, **2004**, 92, 67-85	3.7	483
94	Dynamics of bacterial community composition and activity during a mesocosm diatom bloom. *Applied and Environmental Microbiology*, **2000**, 66, 578-87	4.8	464
93	Accelerated dissolution of diatom silica by marine bacterial assemblages. *Nature*, **1999**, 397, 508-512	50.4	394
92	Bringing the ocean into the laboratory to probe the chemical complexity of sea spray aerosol. *Proceedings of the National Academy of Sciences of the United States of America*, **2013**, 110, 7550-5	11.5	345
91	Algicidal bacteria in the sea and their impact on algal blooms. *Journal of Eukaryotic Microbiology*, **2004**, 51, 139-44	3.6	344
90	Microbial ecology of four coral atolls in the Northern Line Islands. *PLoS ONE*, **2008**, 3, e1584	3.7	292
89	Antagonistic interactions among marine pelagic bacteria. *Applied and Environmental Microbiology*, **2001**, 67, 4975-83	4.8	276
88	The Microbial Loop. *Oceanography*, **2007**, 20, 28-33	2.3	227
87	Antagonistic interactions among coral-associated bacteria. *Environmental Microbiology*, **2010**, 12, 28-39	5.2	170
86	Bacterial mediation of carbon fluxes during a diatom bloom in a mesocosm. *Deep-Sea Research Part II: Topical Studies in Oceanography*, **1995**, 42, 75-97	2.3	165

85	Microbial food web structure in the Arabian Sea: a US JGOFS study. *Deep-Sea Research Part II: Topical Studies in Oceanography*, **2000**, 47, 1387-1422	2.3	158
84	Vertical distribution of picoeukaryotic diversity in the Sargasso Sea. *Environmental Microbiology*, **2007**, 9, 1233-52	5.2	153
83	Single bacterial strain capable of significant contribution to carbon cycling in the surface ocean. *Proceedings of the National Academy of Sciences of the United States of America*, **2014**, 111, 7202-7	11.5	134
82	Microbial Control of Sea Spray Aerosol Composition: A Tale of Two Blooms. *ACS Central Science*, **2015**, 1, 124-31	16.8	132
81	Thin laser light sheet microscope for microbial oceanography. *Optics Express*, **2002**, 10, 145-54	3.3	130
80	Oceanography. Microbes, molecules, and marine ecosystems. *Science*, **2004**, 303, 1622-4	33.3	123
79	Genome size distributions indicate variability and similarities among marine viral assemblages from diverse environments. *Limnology and Oceanography*, **2000**, 45, 1697-1706	4.8	116
78	Bacterial control of silicon regeneration from diatom detritus: Significance of bacterial ectohydrolases and species identity. *Limnology and Oceanography*, **2001**, 46, 1606-1623	4.8	112
77	Widespread N-acetyl-D-glucosamine uptake among pelagic marine bacteria and its ecological implications. *Applied and Environmental Microbiology*, **2002**, 68, 5554-62	4.8	96
76	Bacterial secondary production in freshwater measured by(3)H-thymidine incorporation method. *Microbial Ecology*, **1982**, 8, 101-13	4.4	94
75	Blooms of sequence-specific culturable bacteria in the sea. *FEMS Microbiology Letters*, **1993**, 102, 161-166	2.9	93
74	Role of silicon in diatom metabolism. V. Silicic acid transport and metabolism in the heterotrophic diatom Nitzschia alba. *Archives of Microbiology*, **1974**, 97, 103-14	3	92
73	Resilience of coral-associated bacterial communities exposed to fish farm effluent. *PLoS ONE*, **2009**, 4, e7319	3.7	85
72	Regulation of oceanic silicon and carbon preservation by temperature control on bacteria. *Science*, **2002**, 298, 1980-4	33.3	83
71	Abundance, diversity, and activity of microbial assemblages associated with coral reef fish guts and feces. *FEMS Microbiology Ecology*, **2010**, 73, 31-42	4.3	80
70	Trophic regulation of Vibrio cholerae in coastal marine waters. *Environmental Microbiology*, **2006**, 8, 21-9	5.2	80
69	2-n-Pentyl-4-quinolinol produced by a marine Alteromonas sp. and its potential ecological and biogeochemical roles. *Applied and Environmental Microbiology*, **2003**, 69, 568-76	4.8	80
68	Growth of Vibrio cholerae O1 in red tide waters off California. *Applied and Environmental Microbiology*, **2003**, 69, 6923-31	4.8	78

67	Impact of marine biogeochemistry on the chemical mixing state and cloud forming ability of nascent sea spray aerosol. *Journal of Geophysical Research D: Atmospheres*, **2013**, 118, 8553-8565	4.4	76
66	The balance between silica production and silica dissolution in the sea: Insights from Monterey Bay, California, applied to the global data set. *Limnology and Oceanography*, **2003**, 48, 1846-1854	4.8	74
65	Cultivation and ecosystem role of a marine roseobacter clade-affiliated cluster bacterium. *Applied and Environmental Microbiology*, **2008**, 74, 2595-603	4.8	72
64	Bacterial community composition during two consecutive NE Monsoon periods in the Arabian Sea studied by denaturing gradient gel electrophoresis (DGGE) of rRNA genes. *Deep-Sea Research Part II: Topical Studies in Oceanography*, **1999**, 46, 1791-1811	2.3	72
63	Germanium incorporation into the silica of diatom cell walls. *Archives of Microbiology*, **1973**, 92, 11-20	3	72
62	Cycling of Organic Matter by Bacterioplankton in Pelagic Marine Ecosystems: Microenvironmental Considerations **1984**, 345-360		71
61	A Dynamic Link between Ice Nucleating Particles Released in Nascent Sea Spray Aerosol and Oceanic Biological Activity during Two Mesocosm Experiments. *Journals of the Atmospheric Sciences*, **2017**, 74, 151-166	2.1	68
60	Silicic-acid uptake in diatoms studied with [(68)Ge]germanic acid as tracer. *Planta*, **1974**, 121, 205-12	4.7	68
59	Enrichment of Saccharides and Divalent Cations in Sea Spray Aerosol During Two Phytoplankton Blooms. *Environmental Science & Technology*, **2016**, 50, 11511-11520	10.3	68
58	Vibrio cholerae strains possess multiple strategies for abiotic and biotic surface colonization. *Journal of Bacteriology*, **2007**, 189, 5348-60	3.5	67
57	Antagonistic interactions among marine bacteria impede the proliferation of Vibrio cholerae. *Applied and Environmental Microbiology*, **2005**, 71, 8531-6	4.8	67
56	Diminished efficiency in the oceanic silica pump caused by bacteria-mediated silica dissolution. *Limnology and Oceanography*, **2003**, 48, 1855-1868	4.8	63
55	Taxon-specific aerosolization of bacteria and viruses in an experimental ocean-atmosphere mesocosm. *Nature Communications*, **2018**, 9, 2017	17.4	61
54	Constraining bacterial production, conversion efficiency and respiration in the Ross Sea, Antarctica, JanuaryEebruary, 1997. *Deep-Sea Research Part II: Topical Studies in Oceanography*, **2000**, 47, 3227-3247	2.3	59
53	Role of Silicon in Diatom Metabolism. *Physiologia Plantarum*, **1974**, 30, 265-272	4.6	52
52	The microbial carbon pump and the oceanic recalcitrant dissolved organic matter pool. *Nature Reviews Microbiology*, **2011**, 9, 555-555	22.2	50
51	The role of the microbial loop in Antarctic pelagic ecosystems. *Polar Research*, **1991**, 10, 239-244	2	50
50	A glimpse into the expanded genome content of Vibrio cholerae through identification of genes present in environmental strains. *Journal of Bacteriology*, **2005**, 187, 2992-3001	3.5	49

49	Advancing Model Systems for Fundamental Laboratory Studies of Sea Spray Aerosol Using the Microbial Loop. *Journal of Physical Chemistry A*, **2015**, 119, 8860-70	2.8	48
48	Transition metal associations with primary biological particles in sea spray aerosol generated in a wave channel. *Environmental Science & Technology*, **2014**, 48, 1324-33	10.3	48
47	Gradients of coastal fish farm effluents and their effect on coral reef microbes. *Environmental Microbiology*, **2008**, 10, 2299-312	5.2	48
46	Major role of microbes in carbon fluxes during Austral winter in the Southern Drake Passage. *PLoS ONE*, **2009**, 4, e6941	3.7	48
45	Widespread occurrence of phage-encoded exotoxin genes in terrestrial and aquatic environments in Southern California. *FEMS Microbiology Letters*, **2006**, 261, 141-9	2.9	46
44	Outer membrane vesicles containing signalling molecules and active hydrolytic enzymes released by a coral pathogen Vibrio shilonii AK1. *Environmental Microbiology*, **2016**, 18, 3850-3866	5.2	46
43	New method for counting bacteria associated with coral mucus. *Applied and Environmental Microbiology*, **2010**, 76, 6128-33	4.8	45
42	Actively growing bacteria in the inland sea of Japan, identified by combined bromodeoxyuridine immunocapture and denaturing gradient gel electrophoresis. *Applied and Environmental Microbiology*, **2007**, 73, 2787-98	4.8	43
41	New directions in coral reef microbial ecology. *Environmental Microbiology*, **2012**, 14, 833-44	5.2	42
40	Corals shed bacteria as a potential mechanism of resilience to organic matter enrichment. *ISME Journal*, **2012**, 6, 1159-65	11.9	41
39	Role of silicon in diatom metabolism. *Archives of Microbiology*, **1974**, 101, 1-8	3	41
38	Bacterial 5'-nucleotidase activity in estuarine and coastal marine waters: Characterization of enzyme activity. *Limnology and Oceanography*, **1991**, 36, 1427-1436	4.8	40
37	Use of plankton-derived vitamin B1 precursors, especially thiazole-related precursor, by key marine picoeukaryotic phytoplankton. *ISME Journal*, **2017**, 11, 753-765	11.9	38
36	Unveiling the enigma of refractory carbon in the ocean. *National Science Review*, **2018**, 5, 459-463	10.8	38
35	Evolving paradigms in biological carbon cycling in the ocean. *National Science Review*, **2018**, 5, 481-499	10.8	34
34	Elemental cycling and fluxes off southern California. *Eos*, **1989**, 70, 146	1.5	32
33	Bionic 3D printed corals. *Nature Communications*, **2020**, 11, 1748	17.4	32
32	High-resolution imaging of pelagic bacteria by Atomic Force Microscopy and implications for carbon cycling. *ISME Journal*, **2010**, 4, 427-39	11.9	31

31	Spatially explicit simulations of a microbial food web. *Limnology and Oceanography*, **1997**, 42, 613-622	4.8	30
30	Measurement of Bacterioplankton Growth in the Sea and Its Regulation by Environmental Conditions **1984**, 179-196		30
29	Quantitative role of shrimp fecal bacteria in organic matter fluxes in a recirculating shrimp aquaculture system. *FEMS Microbiology Ecology*, **2011**, 77, 134-45	4.3	29
28	Microbial biomass and viral infections of heterotrophic prokaryotes in the sub-surface layer of the central Arctic Ocean. *Deep-Sea Research Part I: Oceanographic Research Papers*, **2007**, 54, 1744-1757	2.5	28
27	Uptake of Cyclic AMP by Natural Populations of Marine Bacteria. *Applied and Environmental Microbiology*, **1982**, 43, 869-76	4.8	27
26	Response of bacterial communities from California coastal waters to alginate particles and an alginolytic Alteromonas macleodii strain. *Environmental Microbiology*, **2016**, 18, 4369-4377	5.2	23
25	Microbial distribution and activity across a water mass frontal zone in the California Current Ecosystem. *Journal of Plankton Research*, **2012**, 34, 802-814	2.2	22
24	BACTERIA-INDUCED MOTILITY REDUCTION IN LINGULODINIUM POLYEDRUM (DINOPHYCEAE)(1). *Journal of Phycology*, **2008**, 44, 923-8	3	21
23	Capsomer dynamics and stabilization in the T = 12 marine bacteriophage SIO-2 and its procapsid studied by CryoEM. *Structure*, **2012**, 20, 498-503	5.2	20
22	Detection of Active Microbial Enzymes in Nascent Sea Spray Aerosol: Implications for Atmospheric Chemistry and Climate. *Environmental Science and Technology Letters*, **2019**, 6, 171-177	11	19
21	Bacterial transformation and transport of organic matter in the Southern California Bight. *Progress in Oceanography*, **1992**, 30, 151-166	3.8	18
20	Nanoscale patchiness of bacteria in lake water studied with the spatial information preservation method. *Limnology and Oceanography*, **1998**, 43, 307-314	4.8	17
19	The role of the microbial loop in Antarctic pelagic ecosystems. *Polar Research*, **1991**, 10, 239-244	2	16
18	Insight into the resilience and susceptibility of marine bacteria to T6SS attack by Vibrio cholerae and Vibrio coralliilyticus. *PLoS ONE*, **2020**, 15, e0227864	3.7	12
17	Broad distribution and high proportion of protein synthesis active marine bacteria revealed by click chemistry at the single cell level. *Frontiers in Marine Science*, **2014**, 1,	4.5	12
16	Significance of bacteria in carbon fluxes in the Arabian Sea. *Journal of Earth System Science*, **1994**, 103, 341-351	1.8	12
15	Metabolic characterization of a model heterotrophic bacterium capable of significant chemical alteration of marine dissolved organic matter. *Marine Chemistry*, **2015**, 177, 357-365	3.7	10
14	Variations in the optical properties of a particle suspension associated with viral infection of marine bacteria. *Limnology and Oceanography*, **2010**, 55, 2317-2330	4.8	10

13	Occurrence and Characterization of a Phosphoenolpyruvate: Glucose Phosphotransferase System in a Marine Bacterium, Serratia marinorubra. *Applied and Environmental Microbiology*, **1979**, 38, 1086-91	4.8	10
12	Array atomic force microscopy for real-time multiparametric analysis. *Proceedings of the National Academy of Sciences of the United States of America*, **2019**, 116, 5872-5877	11.5	8
11	Correcting a major error in assessing organic carbon pollution in natural waters. *Science Advances*, **2021**, 7,	14.3	8
10	Introduction, history, and overview: The Methods to our madness. *Methods in Microbiology*, **2001**, 30, 1-12	2.8	7
9	Enrichment of Bacterioplankton Able to Utilize One-Carbon and Methylated Compounds in the Coastal Pacific Ocean. *Frontiers in Marine Science*, **2018**, 5,	4.5	7
8	Bacteria-driven production of alkyl nitrates in seawater. *Geophysical Research Letters*, **2015**, 42, 597-604	4.9	6
7	Bacteria in Oceanic Carbon Cycling as a Molecular Problem **1995**, 39-54		6
6	Viral Attachment to Biotic and Abiotic Surfaces in Seawater. *Applied and Environmental Microbiology*, **2020**, 86,	4.8	6
5	Bacterioplankton drawdown of coral mass-spawned organic matter. *ISME Journal*, **2018**, 12, 2238-2251	11.9	4
4	Dynamics of Bacterial Community Composition and Activity during a Mesocosm Diatom Bloom. *Applied and Environmental Microbiology*, **2000**, 66, 2282-2282	4.8	2
3	Synthetic algal-bacteria consortia for space-efficient microalgal growth in a simple hydrogel system. *Journal of Applied Phycology*, **2021**, 33, 2805-2815	3.2	2
2	Impact of dust addition on the microbial food web under present and future conditions of pH and temperature. *Biogeosciences*, **2022**, 19, 1303-1319	4.6	1
1	Ectohydrolytic enzyme activities of bacteria associated with Orbicella annularis coral. *Coral Reefs*, **2021**, 40, 1899	4.2	