

Frederik Hammes

List of Publications by Year in descending order

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81
papers

9,241
citations

34016

52
h-index

58464

82
g-index

82
all docs

82
docs citations

82
times ranked

8765
citing authors

#	ARTICLE	IF	CITATIONS
1	Assessment and Interpretation of Bacterial Viability by Using the LIVE/DEAD BacLight Kit in Combination with Flow Cytometry. <i>Applied and Environmental Microbiology</i> , 2007, 73, 3283-3290.	1.4	734
2	Key roles of pH and calcium metabolism in microbial carbonate precipitation. <i>Reviews in Environmental Science and Biotechnology</i> , 2002, 1, 3-7.	3.9	575
3	Flow-cytometric total bacterial cell counts as a descriptive microbiological parameter for drinking water treatment processes. <i>Water Research</i> , 2008, 42, 269-277.	5.3	485
4	Strain-Specific Ureolytic Microbial Calcium Carbonate Precipitation. <i>Applied and Environmental Microbiology</i> , 2003, 69, 4901-4909.	1.4	408
5	Biological Stability of Drinking Water: Controlling Factors, Methods, and Challenges. <i>Frontiers in Microbiology</i> , 2016, 7, 45.	1.5	287
6	Absolute quantification of microbial taxon abundances. <i>ISME Journal</i> , 2017, 11, 584-587.	4.4	273
7	Measurement and interpretation of microbial adenosine tri-phosphate (ATP) in aquatic environments. <i>Water Research</i> , 2010, 44, 3915-3923.	5.3	270
8	Rapid, cultivation-independent assessment of microbial viability in drinking water. <i>Water Research</i> , 2008, 42, 4010-4018.	5.3	239
9	Overnight stagnation of drinking water in household taps induces microbial growth and changes in community composition. <i>Water Research</i> , 2010, 44, 4868-4877.	5.3	226
10	Past, present and future applications of flow cytometry in aquatic microbiology. <i>Trends in Biotechnology</i> , 2010, 28, 416-424.	4.9	220
11	Mechanistic and kinetic evaluation of organic disinfection by-product and assimilable organic carbon (AOC) formation during the ozonation of drinking water. <i>Water Research</i> , 2006, 40, 2275-2286.	5.3	214
12	Abundance and composition of indigenous bacterial communities in a multi-step biofiltration-based drinking water treatment plant. <i>Water Research</i> , 2014, 62, 40-52.	5.3	179
13	Stabilization of flux during dead-end ultra-low pressure ultrafiltration. <i>Water Research</i> , 2010, 44, 3607-3616.	5.3	177
14	Kinetics of membrane damage to high (HNA) and low (LNA) nucleic acid bacterial clusters in drinking water by ozone, chlorine, chlorine dioxide, monochloramine, ferrate(VI), and permanganate. <i>Water Research</i> , 2011, 45, 1490-1500.	5.3	175
15	Inactivation of Antibiotic Resistant Bacteria and Resistance Genes by Ozone: From Laboratory Experiments to Full-Scale Wastewater Treatment. <i>Environmental Science & Technology</i> , 2016, 50, 11862-11871.	4.6	175
16	Rapid and direct estimation of active biomass on granular activated carbon through adenosine tri-phosphate (ATP) determination. <i>Water Research</i> , 2007, 41, 1973-1983.	5.3	174
17	Drinking water microbiology â€” from measurement to management. <i>Current Opinion in Biotechnology</i> , 2015, 33, 87-94.	3.3	170
18	Isolation and characterization of low nucleic acid (LNA)-content bacteria. <i>ISME Journal</i> , 2009, 3, 889-902.	4.4	169

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19	Development of biomass in a drinking water granular active carbon (GAC) filter. <i>Water Research</i> , 2011, 45, 6347-6354.	5.3	165
20	Cytometric methods for measuring bacteria in water: advantages, pitfalls and applications. <i>Analytical and Bioanalytical Chemistry</i> , 2010, 397, 1083-1095.	1.9	159
21	Big answers from small worlds: a user's guide for protist microcosms as a model system in ecology and evolution. <i>Methods in Ecology and Evolution</i> , 2015, 6, 218-231.	2.2	157
22	A microbiology-based multi-parametric approach towards assessing biological stability in drinking water distribution networks. <i>Water Research</i> , 2013, 47, 3015-3025.	5.3	153
23	A novel approach to calcium removal from calcium-rich industrial wastewater. <i>Water Research</i> , 2003, 37, 699-704.	5.3	136
24	Quantification of the Filterability of Freshwater Bacteria through 0.45, 0.22, and 0.1 µm Pore Size Filters and Shape-Dependent Enrichment of Filterable Bacterial Communities. <i>Environmental Science & Technology</i> , 2007, 41, 7080-7086.	4.6	130
25	Routine bacterial analysis with automated flow cytometry. <i>Journal of Microbiological Methods</i> , 2013, 94, 73-76.	0.7	123
26	<i>Escherichia coli</i> O157 can grow in natural freshwater at low carbon concentrations. <i>Environmental Microbiology</i> , 2008, 10, 2387-2396.	1.8	114
27	The feasibility of automated online flow cytometry for in-situ monitoring of microbial dynamics in aquatic ecosystems. <i>Frontiers in Microbiology</i> , 2014, 5, 265.	1.5	113
28	Growth of <i>Vibrio cholerae</i> O1 Ogawa Eltor in freshwater. <i>Microbiology (United Kingdom)</i> , 2007, 153, 1993-2001.	0.7	109
29	Dynamics of bacterial communities before and after distribution in a full-scale drinking water network. <i>Water Research</i> , 2015, 74, 180-190.	5.3	109
30	Influence of Size, Shape, and Flexibility on Bacterial Passage through Micropore Membrane Filters. <i>Environmental Science & Technology</i> , 2008, 42, 6749-6754.	4.6	108
31	Metal Decontamination of Soil, Sediment, and Sewage Sludge by Means of Transition Metal Chelant [S,S]-EDDS. <i>Journal of Environmental Engineering, ASCE</i> , 2001, 127, 802-811.	0.7	103
32	Formation of assimilable organic carbon (AOC) and specific natural organic matter (NOM) fractions during ozonation of phytoplankton. <i>Water Research</i> , 2007, 41, 1447-1454.	5.3	102
33	Biological Instability in a Chlorinated Drinking Water Distribution Network. <i>PLoS ONE</i> , 2014, 9, e96354.	1.1	102
34	Flow cytometry and adenosine tri-phosphate analysis: Alternative possibilities to evaluate major bacteriological changes in drinking water treatment and distribution systems. <i>Water Research</i> , 2012, 46, 4665-4676.	5.3	100
35	Assessing biological stability of drinking water without disinfectant residuals in a full-scale water supply system. <i>Journal of Water Supply: Research and Technology - AQUA</i> , 2010, 59, 31-40.	0.6	98
36	Evaluating the Growth Potential of Pathogenic Bacteria in Water. <i>Applied and Environmental Microbiology</i> , 2010, 76, 6477-6484.	1.4	94

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37	Development and laboratory-scale testing of a fully automated online flow cytometer for drinking water analysis. <i>Cytometry Part A: the Journal of the International Society for Analytical Cytology</i> , 2012, 81A, 508-516.	1.1	94
38	Nutrient gradients in a granular activated carbon biofilter drives bacterial community organization and dynamics. <i>Water Research</i> , 2011, 45, 6355-6361.	5.3	90
39	Flow Cytometric Assessment of Bacterial Abundance in Soils, Sediments and Sludge. <i>Frontiers in Microbiology</i> , 2016, 7, 903.	1.5	84
40	Phylogenetic clustering of small low nucleic acid-content bacteria across diverse freshwater ecosystems. <i>ISME Journal</i> , 2018, 12, 1344-1359.	4.4	84
41	Critical Evaluation of the Volumetric "Bottle Effect" on Microbial Batch Growth. <i>Applied and Environmental Microbiology</i> , 2010, 76, 1278-1281.	1.4	82
42	Identifying the underlying causes of biological instability in a full-scale drinking water supply system. <i>Water Research</i> , 2018, 135, 11-21.	5.3	78
43	Permeability of low molecular weight organics through nanofiltration membranes. <i>Water Research</i> , 2007, 41, 3968-3976.	5.3	76
44	A pipeline for developing and testing staining protocols for flow cytometry, demonstrated with SYBR Green I and propidium iodide viability staining. <i>Journal of Microbiological Methods</i> , 2016, 131, 172-180.	0.7	71
45	Biofilms in shower hoses. <i>Water Research</i> , 2018, 131, 274-286.	5.3	69
46	Inactivation efficiency of <i>Escherichia coli</i> and autochthonous bacteria during ozonation of municipal wastewater effluents quantified with flow cytometry and adenosine tri-phosphate analyses. <i>Water Research</i> , 2016, 101, 617-627.	5.3	68
47	FMNH ₂ -dependent monooxygenases initiate catabolism of sulfonamides in <i>Microbacterium</i> sp. strain BR1 subsisting on sulfonamide antibiotics. <i>Scientific Reports</i> , 2017, 7, 15783.	1.6	66
48	Cultivation-independent Assessment of Bacterial Viability. <i>Advances in Biochemical Engineering/Biotechnology</i> , 2010, 124, 123-150.	0.6	64
49	Microbiological tap water profile of a medium-sized building and effect of water stagnation. <i>Environmental Technology (United Kingdom)</i> , 2014, 35, 620-628.	1.2	62
50	Online flow cytometry reveals microbial dynamics influenced by concurrent natural and operational events in groundwater used for drinking water treatment. <i>Scientific Reports</i> , 2016, 6, 38462.	1.6	62
51	Behavior and stability of adenosine triphosphate (ATP) during chlorine disinfection. <i>Water Research</i> , 2016, 101, 490-497.	5.3	62
52	Calcium removal from industrial wastewater by bio-catalytic CaCO ₃ precipitation. <i>Journal of Chemical Technology and Biotechnology</i> , 2003, 78, 670-677.	1.6	61
53	Biofilms in shower hoses " choice of pipe material influences bacterial growth and communities. <i>Environmental Science: Water Research and Technology</i> , 2016, 2, 670-682.	1.2	57
54	Competition of <i>Escherichia coli</i> O157 with a drinking water bacterial community at low nutrient concentrations. <i>Water Research</i> , 2012, 46, 6279-6290.	5.3	54

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55	Short-term microbial dynamics in a drinking water plant treating groundwater with occasional high microbial loads. <i>Water Research</i> , 2016, 107, 11-18.	5.3	54
56	Monitoring of Dynamic Microbiological Processes Using Real-Time Flow Cytometry. <i>PLoS ONE</i> , 2013, 8, e80117.	1.1	41
57	Kinetics and Yields of Pesticide Biodegradation at Low Substrate Concentrations and under Conditions Restricting Assimilable Organic Carbon. <i>Applied and Environmental Microbiology</i> , 2014, 80, 1306-1313.	1.4	37
58	Laboratory-Scale Simulation and Real-Time Tracking of a Microbial Contamination Event and Subsequent Shock-Chlorination in Drinking Water. <i>Frontiers in Microbiology</i> , 2017, 8, 1900.	1.5	37
59	A uniform bacterial growth potential assay for different water types. <i>Water Research</i> , 2018, 142, 227-235.	5.3	37
60	360-Degree Distribution of Biofilm Quantity and Community in an Operational Unchlorinated Drinking Water Distribution Pipe. <i>Environmental Science & Technology</i> , 2020, 54, 5619-5628.	4.6	33
61	Spatiotemporal scales of river-groundwater interaction “ The role of local interaction processes and regional groundwater regimes. <i>Science of the Total Environment</i> , 2018, 618, 1224-1243.	3.9	32
62	Flow-cytometric quantification of microbial cells on sand from water biofilters. <i>Water Research</i> , 2018, 143, 66-76.	5.3	32
63	Detection of microbial disturbances in a drinking water microbial community through continuous acquisition and advanced analysis of flow cytometry data. <i>Water Research</i> , 2018, 145, 73-82.	5.3	29
64	Small-Scale Heterogeneity in Drinking Water Biofilms. <i>Frontiers in Microbiology</i> , 2019, 10, 2446.	1.5	27
65	Online analysis: Deeper insights into water quality dynamics in spring water. <i>Science of the Total Environment</i> , 2017, 599-600, 227-236.	3.9	26
66	Evaluating Monitoring Strategies to Detect Precipitation-Induced Microbial Contamination Events in Karstic Springs Used for Drinking Water. <i>Frontiers in Microbiology</i> , 2017, 8, 2229.	1.5	25
67	Growth of <i>Legionella</i> during COVID-19 lockdown stagnation. <i>Environmental Science: Water Research and Technology</i> , 2021, 7, 10-15.	1.2	23
68	The impact of industrial-scale cartridge filtration on the native microbial communities from groundwater. <i>Water Research</i> , 2008, 42, 4319-4326.	5.3	22
69	Continuous Monitoring of Enzymatic Reactions on Surfaces by Real-Time Flow Cytometry: Sortase A Catalyzed Protein Immobilization as a Case Study. <i>Bioconjugate Chemistry</i> , 2014, 25, 1492-1500.	1.8	20
70	Short-term organic carbon migration from polymeric materials in contact with chlorinated drinking water. <i>Science of the Total Environment</i> , 2018, 613-614, 1220-1227.	3.9	19
71	Feeding the Building Plumbing Microbiome: The Importance of Synthetic Polymeric Materials for Biofilm Formation and Management. <i>Water (Switzerland)</i> , 2020, 12, 1774.	1.2	19
72	Variable <i>Legionella</i> Response to Building Occupancy Patterns and Precautionary Flushing. <i>Microorganisms</i> , 2022, 10, 555.	1.6	19

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73	Bacterial Colonization of Pellet Softening Reactors Used during Drinking Water Treatment. Applied and Environmental Microbiology, 2011, 77, 1041-1048.	1.4	17
74	Dynamic Hydraulics in a Drinking Water Distribution System Influence Suspended Particles and Turbidity, But Not Microbiology. Water (Switzerland), 2021, 13, 109.	1.2	15
75	Stagnation leads to short-term fluctuations in the effluent water quality of biofilters: A problem for greywater reuse?. Water Research X, 2021, 13, 100120.	2.8	12
76	Bacterial growth in batch-operated membrane filtration systems for drinking water treatment. Separation and Purification Technology, 2015, 156, 165-174.	3.9	10
77	Construction of a Low-cost Mobile Incubator for Field and Laboratory Use. Journal of Visualized Experiments, 2019, , .	0.2	10
78	Potential probiotic approaches to control <i>Legionella</i> in engineered aquatic ecosystems. FEMS Microbiology Ecology, 2022, 98, .	1.3	8
79	Chemical Extraction of Microorganisms from Water-Saturated, Packed Sediment. Water Environment Research, 2013, 85, 503-513.	1.3	4
80	Substrate Pre-loading Influences Initial Colonization of GAC Biofilter Biofilms. Frontiers in Microbiology, 2020, 11, 596156.	1.5	2
81	Automated flow cytometry as a flexible tool for comparing disinfection characteristics of indigenous bacterial communities and pure cultures. Ecotoxicology and Environmental Safety, 2021, 225, 112799.	2.9	2