

# Zhiqiang Hu

## List of Publications by Year in descending order

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103  
papers

8,954  
citations

46984

47  
h-index

40954

93  
g-index

103  
all docs

103  
docs citations

103  
times ranked

11540  
citing authors

#	ARTICLE	IF	CITATIONS
1	Performance of AnMBRs treating low strength wastewater with different carbon sources at decreasing HRTs and its linkage to <i>Methanosaeta</i> with high specific affinity. <i>Environmental Science: Water Research and Technology</i> , 2022, 8, 849-861.	1.2	1
2	Solids retention time dependent, tunable diatom hierarchical micro/nanostructures and their effect on nutrient removal. <i>Water Research</i> , 2022, 216, 118346.	5.3	4
3	ZnO Nanorod Induced Omniphobic Polypropylene Membrane for Improved Antiwetting Performance in Membrane Distillation. <i>Industrial &amp; Engineering Chemistry Research</i> , 2022, 61, 5963-5970.	1.8	5
4	Arrested methanogenesis: Principles, practices, and perspectives. <i>Advances in Bioenergy</i> , 2022, , .	0.5	1
5	$N_2$ -Based Determination of Denitrification Kinetics with Confirmation of Simultaneous Denitrification and Fermentation of Carbohydrates. <i>ACS ES&amp;T Engineering</i> , 2022, 2, 1871-1882.	3.7	1
6	Selective removal of pharmaceuticals and personal care products from water by titanium incorporated hierarchical diatoms in the presence of natural organic matter. <i>Water Research</i> , 2021, 189, 116628.	5.3	22
7	Prediction of maximum algal productivity in membrane bioreactors with a light-dependent growth model. <i>Science of the Total Environment</i> , 2021, 753, 141922.	3.9	10
8	Harnessing solar energy using phototrophic microorganisms: A sustainable pathway to bioenergy, biomaterials, and environmental solutions. <i>Renewable and Sustainable Energy Reviews</i> , 2021, 146, 111181.	8.2	30
9	Cyanobacterial community succession and associated cyanotoxin production in hypereutrophic and eutrophic freshwaters. <i>Environmental Pollution</i> , 2021, 290, 118056.	3.7	45
10	Forward osmosis with an algal draw solution to concentrate municipal wastewater and recover resources. <i>Water Environment Research</i> , 2020, 92, 689-697.	1.3	9
11	Specific affinity and relative abundance of methanogens in acclimated anaerobic sludge treating low-strength wastewater. <i>Applied Microbiology and Biotechnology</i> , 2020, 104, 291-302.	1.7	6
12	Zero-valent iron-based technologies for removal of heavy metal(loid)s and organic pollutants from the aquatic environment: Recent advances and perspectives. <i>Journal of Cleaner Production</i> , 2020, 277, 123478.	4.6	82
13	Impact of decreasing hydraulic retention times on the specific affinity of methanogens and their community structures in an anaerobic membrane bioreactor process treating low strength wastewater. <i>Science of the Total Environment</i> , 2020, 739, 140373.	3.9	13
14	Improved chromium reduction and removal from wastewater in continuous flow bioelectrochemical systems. <i>Environmental Science and Pollution Research</i> , 2019, 26, 31945-31955.	2.7	9
15	Higher functionality of bacterial plasmid DNA in water after peracetic acid disinfection compared with chlorination. <i>Science of the Total Environment</i> , 2019, 685, 419-427.	3.9	36
16	Sources of anammox granular sludge and their sustainability in treating low-strength wastewater. <i>Chemosphere</i> , 2019, 226, 229-237.	4.2	8
17	Inhibition of regrowth of planktonic and biofilm bacteria after peracetic acid disinfection. <i>Water Research</i> , 2019, 149, 640-649.	5.3	68
18	An integrated electrochemical and biochemical system for sequential reduction of CO <sub>2</sub> to methane. <i>Fuel</i> , 2018, 220, 8-13.	3.4	28

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19	Biodegradation and toxicity of melamine at high activated sludge concentrations in a membrane bioreactor. <i>Water Science and Technology</i> , 2018, 77, 979-987.	1.2	5
20	A novel whole-cell biosensor of <i>Pseudomonas aeruginosa</i> to monitor the expression of quorum sensing genes. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 6023-6038.	1.7	7
21	Thermodynamic properties of an emerging chemical disinfectant, peracetic acid. <i>Science of the Total Environment</i> , 2018, 621, 948-959.	3.9	92
22	CO <sub>2</sub> Bubbling to Improve Algal Growth, Nutrient Removal, and Membrane Performance in an Algal Membrane Bioreactor. <i>Water Environment Research</i> , 2018, 90, 650-658.	1.3	12
23	Methane production improvement and associated methanogenic assemblages in bioelectrochemically assisted anaerobic digestion. <i>Biochemical Engineering Journal</i> , 2017, 117, 105-112.	1.8	82
24	Solids Retention Time Dependent Phototrophic Growth and Population Changes in Chemostat Cultivation Using Wastewater. <i>Water Environment Research</i> , 2016, 88, 5-12.	1.3	2
25	Evaluation of High Density Algal Cultivation for Secondary Wastewater Polishing. <i>Water Environment Research</i> , 2016, 88, 47-53.	1.3	22
26	Enrichment of denitrating bacteria from a methylotrophic denitrifying culture. <i>Applied Microbiology and Biotechnology</i> , 2016, 100, 10203-10213.	1.7	49
27	Governing factors affecting the impacts of silver nanoparticles on wastewater treatment. <i>Science of the Total Environment</i> , 2016, 572, 852-873.	3.9	49
28	A comparison of algal productivity and nutrient removal capacity between algal CSTR and algal MBR at the same light level under practical and optimal conditions. <i>Ecological Engineering</i> , 2016, 93, 66-72.	1.6	28
29	Effect of self-alkalization on nitrite accumulation in a high-rate denitrification system: Performance, microflora and enzymatic activities. <i>Water Research</i> , 2016, 88, 758-765.	5.3	91
30	Hydrogen production from the dissolution of nano zero valent iron and its effect on anaerobic digestion. <i>Water Research</i> , 2016, 88, 475-480.	5.3	83
31	Silver nanoparticles in aquatic environments: Physicochemical behavior and antimicrobial mechanisms. <i>Water Research</i> , 2016, 88, 403-427.	5.3	252
32	Kinetics of Nutrient Removal by Nano Zero-Valent Iron under Different Biochemical Environments. <i>Water Environment Research</i> , 2015, 87, 483-490.	1.3	6
33	Emission of Carbon Dioxide and Methane from Duckweed Ponds for Stormwater Treatment. <i>Water Environment Research</i> , 2015, 87, 805-812.	1.3	5
34	Roles of SRT and HRT of an algal membrane bioreactor system with a tanks-in-series configuration for secondary wastewater effluent polishing. <i>Ecological Engineering</i> , 2015, 85, 257-264.	1.6	90
35	Application of nano TiO <sub>2</sub> modified hollow fiber membranes in algal membrane bioreactors for high-density algae cultivation and wastewater polishing. <i>Bioresource Technology</i> , 2015, 193, 135-141.	4.8	86
36	Effect of operational modes on nitrogen removal and nitrous oxide emission in the process of simultaneous nitrification and denitrification. <i>Chemical Engineering Journal</i> , 2015, 280, 549-557.	6.6	64

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37	Kinetics and methane gas yields of selected C1 to C5 organic acids in anaerobic digestion. <i>Water Research</i> , 2015, 87, 112-118.	5.3	40
38	Evaluation of Anaerobic/Anoxic/Oxic (A <sup>2</sup> /O) and Reverse A <sup>2</sup> /O Processes in Biological Nutrient Removal. <i>Water Environment Research</i> , 2014, 86, 2186-2193.	1.3	14
39	Effect of Short-term Exposure of Selected Aromatic Nitrogen Compounds on Wastewater Treatment. <i>Water Environment Research</i> , 2014, 86, 2166-2175.	1.3	2
40	Filamentous sludge bulking control by nano zero-valent iron in activated sludge treatment systems. <i>Environmental Sciences: Processes and Impacts</i> , 2014, 16, 2721-2728.	1.7	5
41	Characterization and Quantification of Zinc Oxide and Titanium Dioxide Nanoparticles in Foods. <i>Food and Bioprocess Technology</i> , 2014, 7, 456-462.	2.6	24
42	Impact of hydraulic retention time on organic and nutrient removal in a membrane coupled sequencing batch reactor. <i>Water Research</i> , 2014, 55, 12-20.	5.3	59
43	Integration of microbial fuel cell techniques into activated sludge wastewater treatment processes to improve nitrogen removal and reduce sludge production. <i>Chemosphere</i> , 2014, 117, 151-157.	4.2	36
44	Changes in wastewater treatment performance and activated sludge properties of a membrane bioreactor at low temperature operation. <i>Environmental Sciences: Processes and Impacts</i> , 2014, 16, 2199-2207.	1.7	17
45	Rapid evaluation of algal and cyanobacterial activities through specific oxygen production rate measurement. <i>Ecological Engineering</i> , 2014, 73, 439-445.	1.6	29
46	Bacterial response to a continuous long-term exposure of silver nanoparticles at sub-ppm silver concentrations in a membrane bioreactor activated sludge system. <i>Water Research</i> , 2014, 50, 350-358.	5.3	95
47	Characterization and quantification of engineered nanoparticles in food by epithermal instrumental neutron activation analysis and electron microscopy. <i>Journal of Food Measurement and Characterization</i> , 2014, 8, 207-212.	1.6	4
48	Algae-facilitated chemical phosphorus removal during high-density <i>Chlorella emersonii</i> cultivation in a membrane bioreactor. <i>Bioresource Technology</i> , 2014, 153, 383-387.	4.8	113
49	Development of a virus concentration method using lanthanum-based chemical flocculation coupled with modified membrane filtration procedures. <i>Journal of Virological Methods</i> , 2013, 190, 41-48.	1.0	16
50	A comparison of nanosilver and silver ion effects on bioreactor landfill operations and methanogenic population dynamics. <i>Water Research</i> , 2013, 47, 3422-3430.	5.3	49
51	Impact of nano zero valent iron (NZVI) on methanogenic activity and population dynamics in anaerobic digestion. <i>Water Research</i> , 2013, 47, 6790-6800.	5.3	233
52	Quantitative detection of nitrate in water and wastewater by surface-enhanced Raman spectroscopy. <i>Environmental Monitoring and Assessment</i> , 2013, 185, 5673-5681.	1.3	51
53	Nutrient removal and greenhouse gas emissions in duckweed treatment ponds. <i>Water Research</i> , 2013, 47, 1390-1398.	5.3	39
54	Fate and toxicity of melamine in activated sludge treatment systems after a long-term sludge adaptation. <i>Water Research</i> , 2013, 47, 2307-2314.	5.3	37

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55	Toward the development of microbial indicators for wetland assessment. <i>Water Research</i> , 2013, 47, 1711-1725.	5.3	108
56	Attachment of silver nanoparticles (AgNPs) onto thin-film composite (TFC) membranes through covalent bonding to reduce membrane biofouling. <i>Journal of Membrane Science</i> , 2013, 441, 73-82.	4.1	319
57	Application of bacteriophages to selectively remove <i>Pseudomonas aeruginosa</i> in water and wastewater filtration systems. <i>Water Research</i> , 2013, 47, 4507-4518.	5.3	37
58	Impact of metallic and metal oxide nanoparticles on wastewater treatment and anaerobic digestion. <i>Environmental Sciences: Processes and Impacts</i> , 2013, 15, 39-48.	1.7	217
59	Combined treatment of <i>Pseudomonas aeruginosa</i> biofilms with bacteriophages and chlorine. <i>Biotechnology and Bioengineering</i> , 2013, 110, 286-295.	1.7	88
60	Simulated Storm-Water Runoff Treatment by Duckweed and Algae Ponds. <i>Journal of Environmental Engineering, ASCE</i> , 2013, 139, 509-515.	0.7	10
61	Start-Up Performance Evaluation of Submerged Membrane Bioreactors Using Conventional Activated Sludge Process and Modified Luzack-Ettinger Process. <i>Journal of Environmental Engineering, ASCE</i> , 2012, 138, 932-939.	0.7	13
62	Nanosilver impact on methanogenesis and biogas production from municipal solid waste. <i>Waste Management</i> , 2012, 32, 816-825.	3.7	67
63	Potential nanosilver impact on anaerobic digestion at moderate silver concentrations. <i>Water Research</i> , 2012, 46, 1176-1184.	5.3	120
64	Determination of low-density <i>Escherichia coli</i> and <i>Helicobacter pylori</i> suspensions in water. <i>Water Research</i> , 2012, 46, 2140-2148.	5.3	19
65	Temporal and spatial distributions of ammonia-oxidizing archaea and bacteria and their ratio as an indicator of oligotrophic conditions in natural wetlands. <i>Water Research</i> , 2012, 46, 4121-4129.	5.3	127
66	Biodegradation of nitrophenol compounds and the membrane fouling trends in different submerged membrane bioreactors. <i>Journal of Membrane Science</i> , 2012, 415-416, 93-100.	4.1	18
67	Seasonal population changes of ammonia-oxidizing organisms and their relationship to water quality in a constructed wetland. <i>Ecological Engineering</i> , 2012, 40, 100-107.	1.6	55
68	Nitrogen removal from wastewater using membrane aerated microbial fuel cell techniques. <i>Water Research</i> , 2011, 45, 1157-1164.	5.3	81
69	Rapid detection of food- and waterborne bacteria using surface-enhanced Raman spectroscopy coupled with silver nanosubstrates. <i>Applied Microbiology and Biotechnology</i> , 2011, 92, 1053-1061.	1.7	122
70	Bacteria and bacteriophage inactivation by silver and zinc oxide nanoparticles. <i>Colloids and Surfaces B: Biointerfaces</i> , 2011, 85, 161-167.	2.5	109
71	Improving Nitrogen Removal in Two Modified Decentralized Wastewater Systems. <i>Water Environment Research</i> , 2011, 83, 722-730.	1.3	5
72	Nitrifying bacterial growth inhibition in the presence of algae and cyanobacteria. <i>Biotechnology and Bioengineering</i> , 2010, 107, 1004-1011.	1.7	84

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73	Detecting Food- and Waterborne Viruses by Surface-Enhanced Raman Spectroscopy. <i>Journal of Food Science</i> , 2010, 75, M302-7.	1.5	50
74	Biomass characteristics of two types of submerged membrane bioreactors for nitrogen removal from wastewater. <i>Water Research</i> , 2010, 44, 3313-3320.	5.3	62
75	Lanthanum-based concentration and microrespirometric detection of microbes in water. <i>Water Research</i> , 2010, 44, 3385-3392.	5.3	9
76	Bacterial response to a shock load of nanosilver in an activated sludge treatment system. <i>Water Research</i> , 2010, 44, 5432-5438.	5.3	176
77	Interactions of nanosilver with <i>Escherichia coli</i> cells in planktonic and biofilm cultures. <i>Water Research</i> , 2010, 44, 6095-6103.	5.3	226
78	Environmental Risks of Nanomaterials. , 2009, , 591-618.		0
79	Nanoparticles for Treatment of Chlorinated Organic Contaminants. , 2009, , 93-115.		0
80	Biological Nutrient Removal from On-Site Wastewater Treatment Systems Using a Membrane Aerated Bioreactor. , 2009, , .		0
81	Nitrification Inhibition by UVA Photocatalytic TiO <sub>2</sub> Nanoparticles: The Role of Reactive Oxygen Species on Nanotoxicity. , 2009, , .		0
82	Antibacterial activities of zinc oxide nanoparticles against <i>Escherichia coli</i> O157:H7. <i>Journal of Applied Microbiology</i> , 2009, 107, 1193-1201.	1.4	696
83	Ammonia-oxidizing archaea involved in nitrogen removal. <i>Water Research</i> , 2009, 43, 1801-1809.	5.3	159
84	Role of sulfide and ligand strength in controlling nanosilver toxicity. <i>Water Research</i> , 2009, 43, 1879-1886.	5.3	278
85	Nitrification inhibition by silver nanoparticles. <i>Water Science and Technology</i> , 2009, 59, 1699-1702.	1.2	109
86	Evaporation-controlled chemical enhancement of SERS using a soft polymer substrate. <i>Chemical Communications</i> , 2009, , 6246.	2.2	18
87	Role of Reactive Oxygen Species in Determining Nitrification Inhibition by Metallic/Oxide Nanoparticles. <i>Journal of Environmental Engineering, ASCE</i> , 2009, 135, 1365-1370.	0.7	32
88	A critical comparison of extant batch respirometric and substrate depletion assays for estimation of nitrification biokinetics. <i>Biotechnology and Bioengineering</i> , 2008, 101, 62-72.	1.7	19
89	Electricity generation by a baffle-chamber membraneless microbial fuel cell. <i>Journal of Power Sources</i> , 2008, 179, 27-33.	4.0	102
90	Size Dependent and Reactive Oxygen Species Related Nanosilver Toxicity to Nitrifying Bacteria. <i>Environmental Science &amp; Technology</i> , 2008, 42, 4583-4588.	4.6	1,187

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91	Use of a Fractal-like Gold Nanostructure in Surface-Enhanced Raman Spectroscopy for Detection of Selected Food Contaminants. <i>Journal of Agricultural and Food Chemistry</i> , 2008, 56, 9843-9847.	2.4	131
92	The inhibitory effects of silver nanoparticles, silver ions, and silver chloride colloids on microbial growth. <i>Water Research</i> , 2008, 42, 3066-3074.	5.3	1,190
93	Electrochemical determination of anaerobic microbial decay coefficients. <i>Chemosphere</i> , 2008, 72, 312-318.	4.2	5
94	Spatial Distributions of Copper in Microbial Biofilms by Scanning Electrochemical Microscopy. <i>Environmental Science &amp; Technology</i> , 2007, 41, 936-941.	4.6	55
95	Determination of Spatial Distributions of Zinc and Active Biomass in Microbial Biofilms by Two-Photon Laser Scanning Microscopy. <i>Applied and Environmental Microbiology</i> , 2005, 71, 4014-4021.	1.4	50
96	Biomass characteristics in three sequencing batch reactors treating a wastewater containing synthetic organic chemicals. <i>Water Research</i> , 2005, 39, 710-720.	5.3	48
97	Effect of long-term exposure, biogenic substrate presence, and electron acceptor conditions on the biodegradation of multiple substituted benzoates and phenolates. <i>Water Research</i> , 2005, 39, 3501-3510.	5.3	25
98	Comparison of nitrification inhibition by metals in batch and continuous flow reactors. <i>Water Research</i> , 2004, 38, 3949-3959.	5.3	107
99	Impact of Metal Sorption and Internalization on Nitrification Inhibition. <i>Environmental Science &amp; Technology</i> , 2003, 37, 728-734.	4.6	142
100	Nitrification Inhibition by Ethylenediamine-Based Chelating Agents. <i>Environmental Engineering Science</i> , 2003, 20, 219-228.	0.8	17
101	Effect of Nickel and Cadmium Speciation on Nitrification Inhibition. <i>Environmental Science &amp; Technology</i> , 2002, 36, 3074-3078.	4.6	127
102	Evaluation of a rapid physical-chemical method for the determination of extant soluble COD. <i>Water Research</i> , 2002, 36, 617-624.	5.3	65
103	Impact of Silver Nanoparticles on Wastewater Treatment. <i>Water Intelligence Online</i> , 0, 9, .	0.3	4