Qilin Li

List of Publications by Year in descending order

122 papers	15,399 citations	28190 55 h-index	17546 121 g-index
123 all docs	123 docs citations	123 times ranked	16750 citing authors

#	Article	IF	Citations
1	Antimicrobial nanomaterials for water disinfection and microbial control: Potential applications and implications. Water Research, 2008, 42, 4591-4602.	5.3	2,019
2	Applications of nanotechnology in water and wastewater treatment. Water Research, 2013, 47, 3931-3946.	5.3	1,919
3	Polysulfone ultrafiltration membranes impregnated with silver nanoparticles show improved biofouling resistance and virus removal. Water Research, 2009, 43, 715-723.	5.3	718
4	Organic Fouling and Chemical Cleaning of Nanofiltration Membranes:Â Measurements and Mechanisms. Environmental Science & Technology, 2004, 38, 4683-4693.	4.6	700
5	Nanotechnology for a Safe and Sustainable Water Supply: Enabling Integrated Water Treatment and Reuse. Accounts of Chemical Research, 2013, 46, 834-843.	7.6	607
6	Electrochemical ammonia synthesis via nitrate reduction on Fe single atom catalyst. Nature Communications, 2021, 12, 2870.	5.8	605
7	Selective Degradation of Organic Pollutants Using an Efficient Metal-Free Catalyst Derived from Carbonized Polypyrrole via Peroxymonosulfate Activation. Environmental Science & Technology, 2017, 51, 11288-11296.	4.6	514
8	The Technology Horizon for Photocatalytic Water Treatment: Sunrise or Sunset?. Environmental Science & Technology, 2019, 53, 2937-2947.	4.6	493
9	Nanophotonics-enabled solar membrane distillation for off-grid water purification. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, 6936-6941.	3.3	348
10	Fouling of reverse osmosis membranes by biopolymers in wastewater secondary effluent: Role of membrane surface properties and initial permeate flux. Journal of Membrane Science, 2007, 290, 173-181.	4.1	291
11	Porous Electrospun Fibers Embedding TiO₂ for Adsorption and Photocatalytic Degradation of Water Pollutants. Environmental Science & Technology, 2018, 52, 4285-4293.	4.6	286
12	Photochemistry of Dissolved Black Carbon Released from Biochar: Reactive Oxygen Species Generation and Phototransformation. Environmental Science & Technology, 2016, 50, 1218-1226.	4.6	252
13	Virus inactivation by silver doped titanium dioxide nanoparticles for drinking water treatment. Water Research, 2011, 45, 535-544.	5.3	217
14	Degradation of natural organic matter by TiO2 photocatalytic oxidation and its effect on fouling of low-pressure membranes. Water Research, 2008, 42, 1142-1150.	5.3	210
15	Pore blockage effect of NOM on atrazine adsorption kinetics of PAC: the roles of PAC pore size distribution and NOM molecular weight. Water Research, 2003, 37, 4863-4872.	5.3	174
16	In situ monitoring techniques for concentration polarization and fouling phenomena in membrane filtration. Advances in Colloid and Interface Science, 2004, 107, 83-108.	7.0	174
17	Synergistic effects in combined fouling of a loose nanofiltration membrane by colloidal materials and natural organic matter. Journal of Membrane Science, 2006, 278, 72-82.	4.1	174
18	Impact of Natural Organic Matter on the Physicochemical Properties of Aqueous C₆₀ Nanoparticles. Environmental Science & Technology, 2008, 42, 2853-2859.	4.6	170

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19	Elucidating competitive adsorption mechanisms of atrazine and NOM using model compounds. Water Research, 2003, 37, 773-784.	5.3	153
20	Trading oxidation power for efficiency: Differential inhibition of photo-generated hydroxyl radicals versus singlet oxygen. Water Research, 2014, 60, 259-266.	5.3	145
21	Combined fouling of nanofiltration membranes: Mechanisms and effect of organic matter. Journal of Membrane Science, 2009, 327, 87-95.	4.1	137
22	Studying the Role of Common Membrane Surface Functionalities on Adsorption and Cleaning of Organic Foulants Using QCM-D. Environmental Science & Technology, 2011, 45, 6309-6315.	4.6	136
23	Nanotechnology-enabled water treatment and reuse: emerging opportunities and challenges for developing countries. Trends in Food Science and Technology, 2011, 22, 618-624.	7.8	135
24	Effect of soil sorption and aquatic natural organic matter on the antibacterial activity of a fullerene water suspension. Environmental Toxicology and Chemistry, 2008, 27, 1888-1894.	2.2	132
25	Photothermal nanocomposite membranes for direct solar membrane distillation. Journal of Materials Chemistry A, 2017, 5, 23712-23719.	5.2	129
26	Advanced Materials, Technologies, and Complex Systems Analyses: Emerging Opportunities to Enhance Urban Water Security. Environmental Science & Technology, 2017, 51, 10274-10281.	4.6	129
27	Inhibitory effect of natural organic matter or other background constituents on photocatalytic advanced oxidation processes: Mechanistic model development and validation. Water Research, 2015, 84, 362-371.	5.3	125
28	Nanostructure on Taro Leaves Resists Fouling by Colloids and Bacteria under Submerged Conditions. Langmuir, 2011, 27, 10035-10040.	1.6	124
29	Simple Route to Enhanced Photocatalytic Activity of P25 Titanium Dioxide Nanoparticles by Silica Addition. Environmental Science & Technology, 2011, 45, 1563-1568.	4.6	124
30	Bio-derived ultrathin membrane for solar driven water purification. Nano Energy, 2019, 60, 567-575.	8.2	116
31	Kinetics of C₆₀ Fullerene Dispersion in Water Enhanced by Natural Organic Matter and Sunlight. Environmental Science & Technology, 2009, 43, 3574-3579.	4.6	113
32	Regional Variation in Water-Related Impacts of Shale Gas Development and Implications for Emerging International Plays. Environmental Science & Technology, 2014, 48, 8298-8306.	4.6	111
33	Selective membranes in water and wastewater treatment: Role of advanced materials. Materials Today, 2021, 50, 516-532.	8.3	106
34	Phosphate Changes Effect of Humic Acids on TiO₂ Photocatalysis: From Inhibition to Mitigation of Electronâ€“Hole Recombination. Environmental Science & Technology, 2017, 51, 514-521.	4.6	102
35	Overcoming implementation barriers for nanotechnology in drinking water treatment. Environmental Science: Nano, 2016, 3, 1241-1253.	2.2	101
36	Characterizing Photochemical Transformation of Aqueous nC₆₀ under Environmentally Relevant Conditions. Environmental Science & Technology, 2010, 44, 3008-3013.	4.6	100

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37	UV Irradiation and Humic Acid Mediate Aggregation of Aqueous Fullerene (nC₆₀) Nanoparticles. Environmental Science & Technology, 2010, 44, 7821-7826.	4.6	95
38	Aggregation Behavior of Dissolved Black Carbon: Implications for Vertical Mass Flux and Fractionation in Aquatic Systems. Environmental Science & Technology, 2017, 51, 13723-13732.	4.6	95
39	Photochemical Transformation of Carboxylated Multiwalled Carbon Nanotubes: Role of Reactive Oxygen Species. Environmental Science & Technology, 2013, 47, 14080-14088.	4.6	93
40	Modification of hydrophobic commercial PVDF microfiltration membranes into superhydrophilic membranes by the mussel-inspired method with dopamine and polyethyleneimine. Separation and Purification Technology, 2019, 212, 641-649.	3.9	93
41	Multi-endpoint, High-Throughput Study of Nanomaterial Toxicity in Caenorhabditis elegans. Environmental Science & Technology, 2015, 49, 2477-2485.	4.6	91
42	Multifunctional nanocoated membranes for high-rate electrothermal desalination of hypersaline waters. Nature Nanotechnology, 2020, 15, 1025-1032.	15.6	88
43	Novel Composite Electrodes for Selective Removal of Sulfate by the Capacitive Deionization Process. Environmental Science & Technology, 2018, 52, 9486-9494.	4.6	79
44	A Hybrid Metalâ€“Organic Frameworkâ€“Reduced Graphene Oxide Nanomaterial for Selective Removal of Chromate from Water in an Electrochemical Process. Environmental Science & Technology, 2020, 54, 13322-13332.	4.6	78
45	Comparison of nanosilver removal by flocculent and granular sludge and short- and long-term inhibition impacts. Water Research, 2014, 58, 62-70.	5.3	76
46	Opportunities for nanotechnology to enhance electrochemical treatment of pollutants in potable water and industrial wastewater â€“ a perspective. Environmental Science: Nano, 2020, 7, 2178-2194.	2.2	74
47	Quantitative structureâ€“activity relationship for the oxidation of aromatic organic contaminants in water by TAML/H2O2. Water Research, 2018, 140, 354-363.	5.3	69
48	Inhibition of biofilm formation by d-tyrosine: Effect of bacterial type and d-tyrosine concentration. Water Research, 2016, 92, 173-179.	5.3	68
49	Studying the impact of RO membrane surface functional groups on alginate fouling in seawater desalination. Journal of Membrane Science, 2014, 458, 120-127.	4.1	67
50	Silica Decorated TiO₂ for Virus Inactivation in Drinking Water â€“ Simple Synthesis Method and Mechanisms of Enhanced Inactivation Kinetics. Environmental Science & Technology, 2013, 47, 6463-6470.	4.6	65
51	Aqueous-Processed, High-Capacity Electrodes for Membrane Capacitive Deionization. Environmental Science & Technology, 2018, 52, 5859-5867.	4.6	65
52	Elevated Levels of Pathogenic Indicator Bacteria and Antibiotic Resistance Genes after Hurricane Harveyâ€™s Flooding in Houston. Environmental Science and Technology Letters, 2018, 5, 481-486.	3.9	65
53	In situremediation of subsurface contamination: opportunities and challenges for nanotechnology and advanced materials. Environmental Science: Nano, 2019, 6, 1283-1302.	2.2	65
54	Inorganic Scaling in Membrane Desalination: Models, Mechanisms, and Characterization Methods. Environmental Science & Technology, 2022, 56, 7484-7511.	4.6	60

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55	Control of nanofiltration membrane biofouling by Pseudomonas aeruginosa using d-tyrosine. Journal of Membrane Science, 2012, 423-424, 487-494.	4.1	58
56	Impact of Sunlight and Humic Acid on the Deposition Kinetics of Aqueous Fullerene Nanoparticles (nC₆₀). Environmental Science & Technology, 2012, 46, 13455-13462.	4.6	58
57	Removal of calcium ions from water by selective electrosorption using target-ion specific nanocomposite electrode. Water Research, 2019, 160, 445-453.	5.3	57
58	Polymer-Coated Nanoparticles for Reversible Emulsification and Recovery of Heavy Oil. Langmuir, 2018, 34, 6522-6528.	1.6	55
59	Bioaccumulation of¹⁴C₆₀by the EarthwormEisenia fetida. Environmental Science & Technology, 2010, 44, 9170-9175.	4.6	54
60	Fouling of microfiltration membranes by organic polymer coagulants and flocculants: Controlling factors and mechanisms. Water Research, 2011, 45, 357-365.	5.3	53
61	Microbial fuel cell fed by Barnett Shale produced water: Power production by hypersaline autochthonous bacteria and coupling to a desalination unit. Biochemical Engineering Journal, 2017, 117, 87-91.	1.8	53
62	Designing polymeric membranes with coordination chemistry for high-precision ion separations. Science Advances, 2022, 8, eabm9436.	4.7	50
63	Mechanistic inference on the reaction kinetics of phenols and anilines in carbon nanotubes-activated peroxydisulfate systems: pp-LFERs and QSARs analyses. Chemical Engineering Journal, 2020, 385, 123923.	6.6	48
64	Sweeping gas membrane distillation (SGMD) for wastewater treatment, concentration, and desalination: A comprehensive review. Chemical Engineering and Processing: Process Intensification, 2020, 153, 107960.	1.8	48
65	Wetting-resistant photothermal nanocomposite membranes for direct solar membrane distillation. Journal of Membrane Science, 2021, 620, 118913.	4.1	46
66	Regenerable antimicrobial activity in polyamide thin film nanocomposite membranes. Journal of Membrane Science, 2015, 476, 119-127.	4.1	45
67	Scaling Resistance in Nanophotonics-Enabled Solar Membrane Distillation. Environmental Science & Technology, 2020, 54, 2548-2555.	4.6	45
68	Exploring Topological Effects on Water Distribution System Performance Using Graph Theory and Statistical Models. Journal of Water Resources Planning and Management - ASCE, 2017, 143, .	1.3	42
69	Field Demonstration of a Nanophotonics-Enabled Solar Membrane Distillation Reactor for Desalination. Industrial & Engineering Chemistry Research, 2019, 58, 18829-18835.	1.8	42
70	Photocatalytic generation of multiple ROS types using low-temperature crystallized anodic TiO2 nanotube arrays. Journal of Hazardous Materials, 2013, 260, 434-441.	6.5	41
71	Predominant Effect of Material Surface Hydrophobicity on Gypsum Scale Formation. Environmental Science & Technology, 2020, 54, 15395-15404.	4.6	41
72	Humic acid-mediated visible-light degradation of phenol on phosphate-modified and Nafion-modified TiO2 surfaces. Chinese Journal of Catalysis, 2017, 38, 2076-2084.	6.9	40

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73	Three-Component Competitive Adsorption Model for Flow-Through PAC Systems. 1. Model Development and Verification with a PAC/Membrane System. Environmental Science & Technology, 2003, 37, 2997-3004.	4.6	39
74	Effects of d-amino acids and norspermidine on the disassembly of large, old-aged microbial aggregates. Water Research, 2014, 54, 247-253.	5.3	39
75	Sunlight Promotes Fast Release of Hazardous Cadmium from Widely-Used Commercial Cadmium Pigment. Environmental Science & Technology, 2017, 51, 6877-6886.	4.6	39
76	Enhanced photocatalytic performance of N-nitrosodimethylamine on TiO2 nanotube based on the role of singlet oxygen. Chemosphere, 2015, 120, 521-526.	4.2	38
77	The importance of system configuration for distributed direct potable water reuse. Nature Sustainability, 2020, 3, 548-555.	11.5	38
78	Competitive Effects of Natural Organic Matter:Â Parametrization and Verification of the Three-Component Adsorption Model COMPSORB. Environmental Science & Technology, 2006, 40, 350-356.	4.6	37
79	Impact of polymer flocculants on coagulation-microfiltration of surface water. Water Research, 2013, 47, 4538-4546.	5.3	36
80	Microbial fuel cells under extreme salinity: performance and microbial analysis. Environmental Chemistry, 2015, 12, 293.	0.7	36
81	Effects of N-acyl-homoserine lactones-based quorum sensing on biofilm formation, sludge characteristics, and bacterial community during the start-up of bioaugmented reactors. Science of the Total Environment, 2020, 735, 139449.	3.9	36
82	Novel regenerable antimicrobial nanocomposite membranes: Effect of silver loading and valence state. Journal of Membrane Science, 2017, 531, 68-76.	4.1	34
83	Displacement Effect of NOM on Atrazine Adsorption by PACs with Different Pore Size Distributions. Environmental Science & Technology, 2002, 36, 1510-1515.	4.6	33
84	The role of photochemical transformations in the aggregation and deposition of carboxylated multiwall carbon nanotubes suspended in water. Carbon, 2013, 55, 81-89.	5.4	33
85	Trihalomethane (THM) formation from synergic disinfection of biologically treated municipal wastewater: Effect of ultraviolet (UV) irradiation and titanium dioxide photocatalysis on dissolve organic matter fractions. Chemical Engineering Journal, 2016, 303, 252-260.	6.6	33
86	Single walled carbon nanotubes (SWNTs) as templates for the growth of TiO2: the effect of silicon in coverage and the positive and negative synergies for the photocatalytic degradation of Congo red dye. New Journal of Chemistry, 2011, 35, 400-406.	1.4	32
87	Does Aqueous Fullerene Inhibit the Growth of Saccharomyces cerevisiae or Escherichia coli ?. Applied and Environmental Microbiology, 2010, 76, 8239-8242.	1.4	31
88	Alumoxane/ferroxane nanoparticles for the removal of viral pathogens: the importance of surface functionality to nanoparticle activity. Nanoscale, 2012, 4, 5627.	2.8	27
89	Threshold Concentrations of Silver Ions Exist for the Sunlight-Induced Formation of Silver Nanoparticles in the Presence of Natural Organic Matter. Environmental Science & Technology, 2018, 52, 4040-4050.	4.6	26
90	Specific ion effects on the aggregation behavior of aquatic natural organic matter. Journal of Colloid and Interface Science, 2019, 556, 734-742.	5.0	25

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91	Ultrafiltration of dissolved organic matter in surface water by a polyvinylchloride hollow fiber membrane. Journal of Membrane Science, 2009, 327, 254-263.	4.1	24
92	Total Synthesis of Codeine. Chemistry - A European Journal, 2015, 21, 16379-16382.	1.7	24
93	Nanoparticle Enhanced Interfacial Solar Photothermal Water Disinfection Demonstrated in 3-D Printed Flow-Through Reactors. Environmental Science & Technology, 2019, 53, 7621-7631.	4.6	24
94	Low-cost high-efficiency solar membrane distillation for treatment of oil produced waters. Separation and Purification Technology, 2020, 250, 117170.	3.9	24
95	Eggshell membrane derived nitrogen rich porous carbon for selective electrosorption of nitrate from water. Water Research, 2022, 216, 118351.	5.3	24
96	Arsenic Removal by Nanoscale Magnetite in Guanajuato, Mexico. Environmental Engineering Science, 2014, 31, 393-402.	0.8	23
97	The effect of DOM on floc formation and membrane fouling in coagulation/ultrafiltration process for treating TiO 2 nanoparticles in various aquatic media. Chemical Engineering Journal, 2017, 316, 429-437.	6.6	23
98	Fundamental Mechanisms of Three-Component Combined Fouling with Experimental Verification. Langmuir, 2009, 25, 7815-7827.	1.6	22
99	d-Tyrosine loaded nanocomposite membranes for environmental-friendly, long-term biofouling control. Water Research, 2018, 130, 105-114.	5.3	22
100	Enhanced Charge Efficiency and Electrode Separation Utilizing Magnetic Carbon in Flow Electrode Capacitive Deionization. ACS ES&T Engineering, 2021, 1, 340-347.	3.7	21
101	In situ engineering of highly conductive TiO2/carbon heterostructure fibers for enhanced electrocatalytic degradation of water pollutants. Journal of Hazardous Materials, 2022, 429, 128328.	6.5	21
102	Detection and cell sorting of Pseudonocardia species by fluorescence in situ hybridization and flow cytometry using 16S rRNA-targeted oligonucleotide probes. Applied Microbiology and Biotechnology, 2018, 102, 3375-3386.	1.7	19
103	Self assembled, sulfonated pentablock copolymer cation exchange coatings for membrane capacitive deionization. Molecular Systems Design and Engineering, 2019, 4, 348-356.	1.7	19
104	The Combined Colloid-Organic Fouling on Nanofiltration Membrane for Wastewater Treatment and Reuse. Separation Science and Technology, 2010, 45, 935-940.	1.3	14
105	Modulating Particle Adhesion with Micro-patterned Surfaces. ACS Applied Materials & Interfaces, 2014, 6, 8199-8207.	4.0	14
106	Addition of a magnetite layer onto a polysulfone water treatment membrane to enhance virus removal. Water Science and Technology, 2011, 63, 2346-2352.	1.2	13
107	Three-Component Competitive Adsorption Model for Flow-Through PAC Systems. 2. Model Application to a PAC/Membrane System. Environmental Science & Technology, 2003, 37, 3005-3011.	4.6	12
108	Low-cost desalination of seawater and hypersaline brine using nanophotonics enhanced solar energy membrane distillation. Environmental Science: Water Research and Technology, 2020, 6, 2180-2196.	1.2	10

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109	A scoring mechanism for the rank aggregation of network robustness. Communications in Nonlinear Science and Numerical Simulation, 2013, 18, 2722-2732.	1.7	9
110	Electrochemically-active carbon nanotube coatings for biofouling mitigation: Cleaning kinetics and energy consumption for cathodic and anodic regimes. Journal of Colloid and Interface Science, 2021, 603, 391-397.	5.0	9
111	Pore Blockage Effects on Atrazine Adsorption in a Powdered Activated Carbon/Membrane System. I: Model Development. Journal of Environmental Engineering, ASCE, 2004, 130, 1242-1252.	0.7	8
112	Nanotechnology-Enabled Water Disinfection and Microbial Control: Merits and Limitations. , 2009, , 157-166.		8
113	Progress towards the responsible application of nanotechnology for water treatment. Water Research, 2013, 47, 3865.	5.3	8
114	Pore Blockage Effects on Atrazine Adsorption in a Powdered Activated Carbon/Membrane System. II: Model Verification and Application. Journal of Environmental Engineering, ASCE, 2004, 130, 1253-1262.	0.7	6
115	Adsorption of Low-Molecular-Weight Amines in Aqueous Solutions to Zeolites: An Approach to Impeding Low-Molecular-Weight Amines from Regenerating N-Nitrosamines. Industrial & Engineering Chemistry Research, 2017, 56, 12024-12031.	1.8	6
116	Energy recovery in electrified capacitive deionization systems for wastewater treatment and desalination: A comprehensive review. Chemical Engineering and Processing: Process Intensification, 2022, 178, 109030.	1.8	6
117	Bi-Polymer Electrospun Nanofibers Embedding Ag3PO4/P25 Composite for Efficient Photocatalytic Degradation and Anti-Microbial Activity. Catalysts, 2020, 10, 784.	1.6	5
118	Impact of Polymer Flocculants on Treated Water Quality in Surface Water Treatment by Coagulation-Microfiltration. Separation Science and Technology, 2014, 49, 682-690.	1.3	4
119	A Polysulfone/Cobalt Metalâ€“Organic Framework Nanocomposite Membrane with Enhanced Water Permeability and Fouling Resistance. ACS Applied Polymer Materials, 2022, 4, 3532-3542.	2.0	4
120	Nanotechnology-Enabled Water Disinfection and Microbial Control. , 2014, , 319-327.		3
121	Utilizing the broad electromagnetic spectrum and unique nanoscale properties for chemical-free water treatment. Current Opinion in Chemical Engineering, 2021, 33, 100709.	3.8	3
122	Treatment of brackish water reverse osmosis brine using only solar energy. Environmental Science: Water Research and Technology, 2021, 7, 1840-1851.	1.2	1