Xing Xie

List of Publications by Year
in descending order

68 papers	7,993 citations	117625 34 h-index	91884 69 g-index
73 all docs	73 docs citations	73 times ranked	11180 citing authors

#	Article	IF	Citations
1	Solution-Processed Graphene/MnO₂ Nanostructured Textiles for High-Performance Electrochemical Capacitors. Nano Letters, 2011, 11, 2905-2911.	9.1	1,195
2	Hybrid nanostructured materials for high-performance electrochemical capacitors. Nano Energy, 2013, 2, 213-234.	16.0	976
3	High-Performance Nanostructured Supercapacitors on a Sponge. Nano Letters, 2011, 11, 5165-5172.	9.1	670
4	Symmetrical MnO₂â€“Carbon Nanotubeâ€“Textile Nanostructures for Wearable Pseudocapacitors with High Mass Loading. ACS Nano, 2011, 5, 8904-8913.	14.6	582
5	Personal Thermal Management by Metallic Nanowire-Coated Textile. Nano Letters, 2015, 15, 365-371.	9.1	415
6	Three-Dimensional Carbon Nanotubeâˆ'Textile Anode for High-Performance Microbial Fuel Cells. Nano Letters, 2011, 11, 291-296.	9.1	388
7	Paper supercapacitors by a solvent-free drawing method. Energy and Environmental Science, 2011, 4, 3368.	30.8	290
8	Carbon nanotube-coated macroporous sponge for microbial fuel cell electrodes. Energy and Environmental Science, 2012, 5, 5265-5270.	30.8	284
9	Grapheneâ€“sponges as high-performance low-cost anodes for microbial fuel cells. Energy and Environmental Science, 2012, 5, 6862.	30.8	264
10	Lithiumâ€Ion Textile Batteries with Large Areal Mass Loading. Advanced Energy Materials, 2011, 1, 1012-1017.	19.5	230
11	Design and fabrication of bioelectrodes for microbial bioelectrochemical systems. Energy and Environmental Science, 2015, 8, 3418-3441.	30.8	223
12	Siliconâ€“Carbon Nanotube Coaxial Sponge as Liâ€Ion Anodes with High Areal Capacity. Advanced Energy Materials, 2011, 1, 523-527.	19.5	220
13	Gramine-induced growth inhibition, oxidative damage and antioxidant responses in freshwater cyanobacterium Microcystis aeruginosa. Aquatic Toxicology, 2009, 91, 262-269.	4.0	177
14	Conducting Nanosponge Electroporation for Affordable and High-Efficiency Disinfection of Bacteria and Viruses in Water. Nano Letters, 2013, 13, 4288-4293.	9.1	160
15	Static Electricity Powered Copper Oxide Nanowire Microbicidal Electroporation for Water Disinfection. Nano Letters, 2014, 14, 5603-5608.	9.1	118
16	Responses of enzymatic antioxidants and non-enzymatic antioxidants in the cyanobacterium Microcystis aeruginosa to the allelochemical ethyl 2-methyl acetoacetate (EMA) isolated from reed (Phragmites communis). Journal of Plant Physiology, 2008, 165, 1264-1273.	3.5	111
17	Nanowire-Modified Three-Dimensional Electrode Enabling Low-Voltage Electroporation for Water Disinfection. Environmental Science & Technology, 2016, 50, 7641-7649.	10.0	95
18	Digital Loop-Mediated Isothermal Amplification on a Commercial Membrane. ACS Sensors, 2019, 4, 242-249.	7.8	86

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19	Magnetically ultraresponsive nanoscavengers for next-generation water purification systems. Nature Communications, 2013, 4, 1866.	12.8	74
20	TriboPump: A Lowâ€Cost, Handâ€Powered Water Disinfection System. Advanced Energy Materials, 2019, 9, 1901320.	19.5	74
21	Nano-structured textiles as high-performance aqueous cathodes for microbial fuel cells. Energy and Environmental Science, 2011, 4, 1293.	30.8	72
22	Microbial battery for efficient energy recovery. Proceedings of the National Academy of Sciences of the United States of America, 2013, 110, 15925-15930.	7.1	67
23	Use of low cost and easily regenerated Prussian Blue cathodes for efficient electrical energy recovery in a microbial battery. Energy and Environmental Science, 2015, 8, 546-551.	30.8	63
24	Inactivation of Bacteria by Peracetic Acid Combined with Ultraviolet Irradiation: Mechanism and Optimization. Environmental Science & Technology, 2020, 54, 9652-9661.	10.0	60
25	A Cu₃P nanowire enabling high-efficiency, reliable, and energy-efficient low-voltage electroporation-inactivation of pathogens in water. Journal of Materials Chemistry A, 2018, 6, 18813-18820.	10.3	59
26	Monitoring and evaluation of removal of pathogens at municipal wastewater treatment plants. Water Science and Technology, 2010, 61, 1589-1599.	2.5	57
27	Performance of a mixing entropy battery alternately flushed with wastewater effluent and seawater for recovery of salinity-gradient energy. Energy and Environmental Science, 2014, 7, 2295-2300.	30.8	56
28	Carbon-nanotube sponges enabling highly efficient and reliable cell inactivation by low-voltage electroporation. Environmental Science: Nano, 2017, 4, 2010-2017.	4.3	56
29	Simultaneous determination of surface energy and roughness of dense membranes by a modified contact angle method. Colloids and Surfaces A: Physicochemical and Engineering Aspects, 2019, 562, 370-376.	4.7	49
30	Cellulose nanocrystal/silver (CNC/Ag) thin-film nanocomposite nanofiltration membranes with multifunctional properties. Environmental Science: Nano, 2020, 7, 803-816.	4.3	49
31	Asymmetric Membrane for Digital Detection of Single Bacteria in Milliliters of Complex Water Samples. ACS Nano, 2018, 12, 10281-10290.	14.6	45
32	Smartphone-Based in-Gel Loop-Mediated Isothermal Amplification (gLAMP) System Enables Rapid Coliphage MS2 Quantification in Environmental Waters. Environmental Science & Technology, 2018, 52, 6399-6407.	10.0	43
33	Locally Enhanced Electric Field Treatment (LEEFT) Promotes the Performance of Ozonation for Bacteria Inactivation by Disrupting the Cell Membrane. Environmental Science & Technology, 2020, 54, 14017-14025.	10.0	41
34	Elevating the stability of nanowire electrodes by thin polydopamine coating for low-voltage electroporation-disinfection of pathogens in water. Chemical Engineering Journal, 2019, 369, 1005-1013.	12.7	38
35	Rapid determination of the electroporation threshold for bacteria inactivation using a lab-on-a-chip platform. Environment International, 2019, 132, 105040.	10.0	36
36	Effects of Fe3O4 nanoparticle fabrication and surface modification on Chlorella sp. harvesting efficiency. Science of the Total Environment, 2020, 704, 135286.	8.0	35

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37	â€œNanofiltrationâ€•Enabled by Super-Absorbent Polymer Beads for Concentrating Microorganisms in Water Samples. Scientific Reports, 2016, 6, 20516.	3.3	33
38	Low-voltage alternating current powered polydopamine-protected copper phosphide nanowire for electroporation-disinfection in water. Journal of Materials Chemistry A, 2019, 7, 7347-7354.	10.3	33
39	Rationally designed tubular coaxial-electrode copper ionization cells (CECICs) harnessing non-uniform electric field for efficient water disinfection. Environment International, 2019, 128, 30-36.	10.0	31
40	Cell Transport Prompts the Performance of Low-Voltage Electroporation for Cell Inactivation. Scientific Reports, 2018, 8, 15832.	3.3	29
41	Locally enhanced electric field treatment (LEEFT) for water disinfection. Frontiers of Environmental Science and Engineering, 2020, 14, 1.	6.0	29
42	Airborne pathogenic microorganisms and air cleaning technology development: A review. Journal of Hazardous Materials, 2022, 424, 127429.	12.4	29
43	Enhancing the Nanomaterial Bio-Interface by Addition of Mesoscale Secondary Features: Crinkling of Carbon Nanotube Films To Create Subcellular Ridges. ACS Nano, 2014, 8, 11958-11965.	14.6	26
44	Silver Nanowire-Modified Filter with Controllable Silver Ion Release for Point-of-Use Disinfection. Environmental Science & Technology, 2019, 53, 7504-7512.	10.0	26
45	Emerging investigator series: locally enhanced electric field treatment (LEEFT) with nanowire-modified electrodes for water disinfection in pipes. Environmental Science: Nano, 2020, 7, 397-403.	4.3	25
46	Development of nanowire-modified electrodes applied in the locally enhanced electric field treatment (LEEFT) for water disinfection. Journal of Materials Chemistry A, 2020, 8, 12262-12277.	10.3	22
47	Charge-Free Mixing Entropy Battery Enabled by Low-Cost Electrode Materials. ACS Omega, 2019, 4, 11785-11790.	3.5	21
48	Inactivation and Removal Technologies for Algal-Bloom Control: Advances and Challenges. Current Pollution Reports, 2021, 7, 392-406.	6.6	19
49	Microfluidics for Environmental Applications. Advances in Biochemical Engineering/Biotechnology, 2020, , 267-290.	1.1	18
50	Impact of water quality parameters on bacteria inactivation by low-voltage electroporation: mechanism and control. Environmental Science: Water Research and Technology, 2018, 4, 872-881.	2.4	17
51	Self-Driven â€œMicrofiltrationâ€•Enabled by Porous Superabsorbent Polymer (PSAP) Beads for Biofluid Specimen Processing and Storage. , 2020, 2, 1545-1554.		16
52	Microwave-induced release and degradation of airborne antibiotic resistance genes (ARGs) from Escherichia coli bioaerosol based on microwave absorbing material. Journal of Hazardous Materials, 2020, 394, 122535.	12.4	16
53	Operando Investigation of Locally Enhanced Electric Field Treatment (LEEFT) Harnessing Lightning-Rod Effect for Rapid Bacteria Inactivation. Nano Letters, 2022, 22, 860-867.	9.1	16
54	Sunlight-Activated Propidium Monoazide Pretreatment for Differentiation of Viable and Dead Bacteria by Quantitative Real-Time Polymerase Chain Reaction. Environmental Science and Technology Letters, 2016, 3, 57-61.	8.7	15

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55	Making waves: Pathogen inactivation by electric field treatment: From liquid food to drinking water. Water Research, 2021, 207, 117817.	11.3	14
56	Self-driven membrane filtration by coreâ€“shell polymer composites. Journal of Materials Chemistry A, 2020, 8, 15942-15950.	10.3	13
57	Propidium monoazide pretreatment on a 3D-printed microfluidic device for efficient PCR determination of â€˜live<i>versus</i>deadâ€™ microbial cells. Environmental Science: Water Research and Technology, 2018, 4, 956-963.	2.4	11
58	Ternary Biocidal-Photocatalytic-Upconverting Nanocomposites for Enhanced Antibacterial Activity. ACS Sustainable Chemistry and Engineering, 2022, 10, 4741-4749.	6.7	11
59	Smartphone-powered efficient water disinfection at the point of use. Npj Clean Water, 2020, 3, .	8.0	9
60	Efficient microalgae inactivation and growth control by locally enhanced electric field treatment (LEEFT). Environmental Science: Nano, 2020, 7, 2021-2031.	4.3	8
61	Electric-field enhanced microalgae inactivation using a flow-through copper ionization cell. Journal of Hazardous Materials, 2020, 400, 123320.	12.4	8
62	Antimicrobial Nanomaterials for Water Disinfection. , 2012, , 465-494.		7
63	Use of an intermediate solid-state electrode to enable efficient hydrogen production from dilute organic matter. Nano Energy, 2017, 39, 499-505.	16.0	7
64	In Vivo Polymerization (â€œHard-Wiringâ€) of Bioanodes Enables Rapid Start-Up and Order-of-Magnitude Higher Power Density in a Microbial Battery. Environmental Science & Technology, 2020, 54, 14732-14739.	10.0	7
65	Microalgae Harvesting by Self-Driven 3D Microfiltration with Rationally Designed Porous Superabsorbent Polymer (PSAP) Beads. Environmental Science & Technology, 2021, 55, 15446-15455.	10.0	5
66	Improvement of detection method of Cryptosporidium and Giardia in reclaimed water. Frontiers of Environmental Science and Engineering in China, 2008, 2, 380-384.	0.8	3
67	A multi-parameter in-situ water quality analyzer based on a portable document scanner and 3D printed self-sampling cells. Analytica Chimica Acta, 2020, 1101, 176-183.	5.4	3
68	Self-Driven Pretreatment and Room-Temperature Storage of Water Samples for Virus Detection Using Enhanced Porous Superabsorbent Polymer Beads. Environmental Science & Technology, 2021, 55, 14059-14068.	10.0	3