Wenxin Shi

List of Publications by Year
in descending order

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97 papers	5,243 citations	87843 38 h-index	91828 69 g-index
97 all docs	97 docs citations	97 times ranked	5044 citing authors

#	Article	IF	Citations
1	Identification and Regulation of Active Sites on Nanodiamonds: Establishing a Highly Efficient Catalytic System for Oxidation of Organic Contaminants. Advanced Functional Materials, 2018, 28, 1705295.	7.8	370
2	Heterogeneous activation of peroxymonosulfate by amorphous boron for degradation of bisphenol S. Journal of Hazardous Materials, 2017, 322, 532-539.	6.5	218
3	Development of CuO coated ceramic hollow fiber membrane for peroxymonosulfate activation: a highly efficient singlet oxygen-dominated oxidation process for bisphenol a degradation. Applied Catalysis B: Environmental, 2019, 256, 117783.	10.8	217
4	Microalgal-bacterial consortia: From interspecies interactions to biotechnological applications. Renewable and Sustainable Energy Reviews, 2020, 118, 109563.	8.2	210
5	Highly Efficient Phosphate Scavenger Based on Well-Dispersed La(OH)₃ Nanorods in Polyacrylonitrile Nanofibers for Nutrient-Starvation Antibacteria. ACS Nano, 2015, 9, 9292-9302.	7.3	177
6	Enhancement of aerobic granulation and nutrient removal by an algalâ€“bacterial consortium in a lab-scale photobioreactor. Chemical Engineering Journal, 2018, 334, 2373-2382.	6.6	177
7	Removal of estrone, 17Î±-ethinylestradiol, and 17ÃŸ-estradiol in algae and duckweed-based wastewater treatment systems. Environmental Science and Pollution Research, 2010, 17, 824-833.	2.7	142
8	Breathable and asymmetrically superwettable Janus membrane with robust oil-fouling resistance for durable membrane distillation. Journal of Membrane Science, 2018, 563, 602-609.	4.1	137
9	Cobalt silicate hydroxide nanosheets in hierarchical hollow architecture with maximized cobalt active site for catalytic oxidation. Chemical Engineering Journal, 2019, 359, 79-87.	6.6	136
10	Internal electric field engineering for steering photogenerated charge separation and enhancing photoactivity. EcoMat, 2019, 1, e12007.	6.8	134
11	Dual-Bioinspired Design for Constructing Membranes with Superhydrophobicity for Direct Contact Membrane Distillation. Environmental Science & Technology, 2018, 52, 3027-3036.	4.6	130
12	Enhanced photoactivity and oxidizing ability simultaneously via internal electric field and valence band position by crystal structure of bismuth oxyiodide. Applied Catalysis B: Environmental, 2020, 262, 118262.	10.8	128
13	Polyamidoamine dendrimer grafted forward osmosis membrane with superior ammonia selectivity and robust antifouling capacity for domestic wastewater concentration. Water Research, 2019, 153, 1-10.	5.3	105
14	Electrochemical-catalytic reduction of nitrate over Pdâ€“Cu/Î³Al 2 O 3 catalyst in cathode chamber: Enhanced removal efficiency and N 2 selectivity. Chemical Engineering Journal, 2016, 290, 201-208.	6.6	104
15	Silica hydrogel-mediated dissolution-recrystallization strategy for synthesis of ultrathin Î±-Fe 2 O 3 nanosheets with highly exposed (1 1 0) facets: A superior photocatalyst for degradation of bisphenol S. Chemical Engineering Journal, 2017, 323, 64-73.	6.6	100
16	A novel polyesteramide thin film composite nanofiltration membrane prepared by interfacial polymerization of serinol and trimesoyl chloride (TMC) catalyzed by 4â€˜dimethylaminopyridine (DMAP). Journal of Membrane Science, 2017, 542, 68-80.	4.1	100
17	Perylenetetracarboxylic acid nanosheets with internal electric fields and anisotropic charge migration for photocatalytic hydrogen evolution. Nature Communications, 2022, 13, 2067.	5.8	99
18	Membrane fouling of forward osmosis (FO) membrane for municipal wastewater treatment: A comparison between direct FO and OMBR. Water Research, 2016, 104, 330-339.	5.3	98

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19	High performance thin-film composite (TFC) forward osmosis (FO) membrane fabricated on novel hydrophilic disulfonated poly(arylene ether sulfone) multiblock copolymer/polysulfone substrate. Journal of Membrane Science, 2016, 520, 529-539.	4.1	97
20	Amorphous TiO2 doped with carbon for visible light photodegradation of rhodamine B and 4-chlorophenol. Applied Surface Science, 2015, 324, 35-43.	3.1	95
21	Enhanced adsorption of the cationic dyes in the spherical CuO/meso-silica nano composite and impact of solution chemistry. Journal of Colloid and Interface Science, 2017, 485, 192-200.	5.0	90
22	A novel polyester composite nanofiltration membrane formed by interfacial polymerization of pentaerythritol (PE) and trimesoyl chloride (TMC). Applied Surface Science, 2017, 416, 152-159.	3.1	85
23	Adsorption of quinolone antibiotics in spherical mesoporous silica: Effects of the retained template and its alkyl chain length. Journal of Hazardous Materials, 2016, 305, 8-14.	6.5	83
24	Efficient As(III) removal by magnetic CuO-Fe3O4 nanoparticles through photo-oxidation and adsorption under light irradiation. Journal of Colloid and Interface Science, 2017, 495, 168-177.	5.0	81
25	Effect of light intensity on the characteristics of algal-bacterial granular sludge and the role of N-acyl-homoserine lactone in the granulation. Science of the Total Environment, 2019, 659, 372-383.	3.9	78
26	Remarkable phosphate removal and recovery from wastewater by magnetically recyclable La2O2CO3/β-Fe2O3 nanocomposites. Journal of Hazardous Materials, 2020, 397, 122597.	6.5	71
27	A sustainable strategy for effective regulation of aerobic granulation: Augmentation of the signaling molecule content by cultivating AHL-producing strains. Water Research, 2020, 169, 115193.	5.3	69
28	Photocatalytic activity enhanced via surface hybridization. , 2020, 2, 308-349.		68
29	Surface functionalization of TFC FO membranes with zwitterionic polymers: Improvement of antifouling and salt-responsive cleaning properties. Journal of Membrane Science, 2017, 544, 368-377.	4.1	66
30	Morphology-tunable ultrafine metal oxide nanostructures uniformly grown on graphene and their applications in the photo-Fenton system. Nanoscale, 2015, 7, 14254-14263.	2.8	65
31	A novel strategy for rapid development of a self-sustaining symbiotic algal-bacterial granular sludge: Applying algal-mycelial pellets as nuclei. Water Research, 2022, 214, 118210.	5.3	61
32	Influence of salts, anion polyacrylamide and crude oil on nanofiltration membrane fouling during desalination process of polymer flooding produced water. Desalination, 2015, 373, 27-37.	4.0	58
33	Fouling mechanism of forward osmosis membrane in domestic wastewater concentration: Role of substrate structures. Chemical Engineering Journal, 2019, 370, 262-273.	6.6	52
34	Support membrane pore blockage (SMPB): An important phenomenon during the fabrication of thin film composite membrane via interfacial polymerization. Separation and Purification Technology, 2019, 215, 670-680.	3.9	51
35	Enhanced aerobic granulation by applying the low-intensity direct current electric field via reactive iron anode. Water Research, 2019, 149, 159-168.	5.3	49
36	Gravity driven ultrafast removal of organic contaminants across catalytic superwetting membranes. Journal of Materials Chemistry A, 2017, 5, 25266-25275.	5.2	45

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37	Thermodynamic and dynamic dual regulation Bi₂O₂CO₃/Bi₅O₇I enabling high-flux photogenerated charge migration for enhanced visible-light-driven photocatalysis. Journal of Materials Chemistry A, 2020, 8, 10252-10259.	5.2	45
38	The attachment potential and N-acyl-homoserine lactone-based quorum sensing in aerobic granular sludge and algal-bacterial granular sludge. Applied Microbiology and Biotechnology, 2018, 102, 5343-5353.	1.7	41
39	Mechanistic insights into selective adsorption and separation of multi-component anionic dyes using magnetic zeolite imidazolate framework-67 composites. Journal of Molecular Liquids, 2019, 296, 111990.	2.3	39
40	Carbon nanofiber matrix with embedded LaCO₃OH synchronously captures phosphate and organic carbon to starve bacteria. Journal of Materials Chemistry A, 2016, 4, 12799-12806.	5.2	36
41	Effect of pH on anionic polyacrylamide adhesion: New insights into membrane fouling based on XDLVO analysis. Journal of Molecular Liquids, 2020, 320, 114463.	2.3	36
42	Recent Developments and Future Challenges of Hydrogels as Draw Solutes in Forward Osmosis Process. Water (Switzerland), 2020, 12, 692.	1.2	35
43	Research on Forward Osmosis Membrane Technology Still Needs Improvement in Water Recovery and Wastewater Treatment. Water (Switzerland), 2020, 12, 107.	1.2	35
44	Formation of aerobic granules by Mg2+ and Al3+ augmentation in sequencing batch airlift reactor at low temperature. Bioprocess and Biosystems Engineering, 2012, 35, 1049-1055.	1.7	33
45	Dynamic changes of the fouling layer in forward osmosis based membrane processes for municipal wastewater treatment. Journal of Membrane Science, 2018, 549, 523-532.	4.1	33
46	Treatment of municipal wastewater with aerobic granular sludge membrane bioreactor (AGMBR): Performance and membrane fouling. Journal of Cleaner Production, 2020, 273, 123124.	4.6	33
47	Membrane fouling in microfiltration of alkali/surfactant/polymer flooding oilfield wastewater: Effect of interactions of key foulants. Journal of Colloid and Interface Science, 2020, 570, 20-30.	5.0	33
48	Adsorption of anion polyacrylamide from aqueous solution by polytetrafluoroethylene (PTFE) membrane as an adsorbent: Kinetic and isotherm studies. Journal of Colloid and Interface Science, 2019, 544, 303-311.	5.0	32
49	Pd and Pt nanoparticles supported on the mesoporous silica molecular sieve SBA-15 with enhanced activity and stability in catalytic bromate reduction. Chemical Engineering Journal, 2018, 344, 114-123.	6.6	31
50	Insights into simultaneous ammonia-selective and anti-fouling mechanism over forward osmosis membrane for resource recovery from domestic wastewater. Journal of Membrane Science, 2019, 573, 135-144.	4.1	30
51	A novel polyester-amide loose composite nanofiltration membrane for effective dye/salt separation: The effect of long molecule on the interfacial polymerization. Journal of Membrane Science, 2022, 657, 120675.	4.1	28
52	A novel polyester composite nanofiltration membrane prepared by interfacial polymerization catalysed by 4-dimethylaminopyridine: Enhanced the water permeability and anti-fouling ability. Polymer, 2018, 153, 24-32.	1.8	27
53	Adsorption mechanisms of crude oil onto polytetrafluoroethylene membrane: Kinetics and isotherm, and strategies for adsorption fouling control. Separation and Purification Technology, 2020, 235, 116212.	3.9	27
54	Significant acceleration of Fe2+/ peroxydisulfate oxidation towards sulfisoxazole by addition of MoS2. Environmental Research, 2020, 188, 109692.	3.7	27

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55	Revealing the influencing mechanisms of polystyrene microplastics (MPs) on the performance and stability of the algal-bacterial granular sludge. Bioresource Technology, 2022, 354, 127202.	4.8	27
56	Interfacial electronic effects of palladium nanocatalysts on the by-product ammonia selectivity during nitrite catalytic reduction. Environmental Science: Nano, 2018, 5, 338-349.	2.2	24
57	Exploring the feasibility of sewage treatment by algalâ€“bacterial consortia. Critical Reviews in Biotechnology, 2020, 40, 169-179.	5.1	24
58	Magnetite/hydrated cerium(III) carbonate for efficient phosphate elimination from aqueous solutions and the mechanistic investigation. Chemical Engineering Journal, 2021, 425, 128894.	6.6	24
59	Programmable synthesis of metal hydroxide/oxide hollow architectures: towards an efficient and robust photocatalyst for water remediation. Journal of Materials Chemistry A, 2017, 5, 124-132.	5.2	23
60	Application of a polytetrafluoroethylene (PTFE) flat membrane for the treatment of pre-treated ASP flooding produced water in a Daqing oilfield. RSC Advances, 2016, 6, 62411-62419.	1.7	21
61	Treatment of alkali/surfactant/polymer flooding oilfield wastewater with polytetrafluoroethylene microfiltration membrane: Performance and membrane fouling. Journal of Environmental Chemical Engineering, 2020, 8, 104462.	3.3	21
62	Rapid start-up of photo-granule process in a photo-sequencing batch reactor under low aeration conditions: Effect of inoculum AGS size. Science of the Total Environment, 2022, 820, 153204.	3.9	20
63	Optimization of cleaning conditions on a polytetrafluoroethylene (PTFE) microfiltration membrane used in treatment of oil-field wastewater. RSC Advances, 2015, 5, 104960-104971.	1.7	19
64	Microstructured macroporous adsorbent composed of polypyrrole modified natural corncob-core sponge for Cr(<scp>vi</scp>) removal. RSC Advances, 2016, 6, 59292-59298.	1.7	19
65	Dendritic amine sheltered membrane for simultaneous ammonia selection and fouling mitigation in forward osmosis. Journal of Membrane Science, 2019, 584, 9-19.	4.1	19
66	New mechanistic insights into the effect of cations on membrane fouling caused by anionic polyacrylamide. Journal of Colloid and Interface Science, 2022, 606, 10-21.	5.0	19
67	Surface modification of piperazine-based nanofiltration membranes with serinol for enhanced antifouling properties in polymer flooding produced water treatment. RSC Advances, 2017, 7, 48904-48912.	1.7	18
68	Effect of voltage intensity on the nutrient removal performance and microbial community in the iron electrolysis-integrated aerobic granular sludge system. Environmental Pollution, 2021, 274, 116604.	3.7	17
69	Optimization of a membrane cleaning strategy for advanced treatment of polymer flooding produced water by nanofiltration. RSC Advances, 2016, 6, 28844-28853.	1.7	16
70	Adsorption Mechanism of Oil-in-Water on a TiO₂/Al₂O₃â€“Polyvinylidene Fluoride (PVDF) Ultrafiltration Membrane. Langmuir, 2018, 34, 9907-9916.	1.6	16
71	Insight into the size effect of Pd nanoparticles on the catalytic reduction of nitrite in water over Pd/C catalysts. Environmental Science: Nano, 2020, 7, 2117-2129.	2.2	16
72	Impact factors on the production of Î²-methylamino-L-alanine (BMAA) by cyanobacteria. Chemosphere, 2020, 243, 125355.	4.2	15

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73	Unveiling significance of Ca2+ ion for start-up of aerobic granular sludge reactor by distinguishing its effects on physicochemical property and bioactivity of sludge. Environmental Research, 2022, 212, 113299.	3.7	15
74	Activating the Basal Plane of 2H-MoS₂ by Doping Phosphor for Enhancement in the Photocatalytic Degradation of Organic Contaminants. ACS Applied Materials & Interfaces, 2021, 13, 38586-38594.	4.0	14
75	Discrepant effects of monovalent cations on membrane fouling induced by colloidal polymer: Evaluation and mechanism investigation. Chemosphere, 2022, 295, 133939.	4.2	14
76	Microfiltration pretreatment of polymer-flooding produced wastewater before desalination: Role of Ca2+ and Mg2+ in membrane fouling. Desalination, 2022, 539, 115934.	4.0	14
77	Pt nanoparticles supported on amino-functionalized SBA-15 for enhanced aqueous bromate catalytic reduction. Catalysis Communications, 2018, 105, 11-15.	1.6	13
78	Interfacial catalytic oxidation for membrane fouling mitigation during algae-laden water filtration: Higher efficiency without algae integrity loss. Separation and Purification Technology, 2020, 251, 117366.	3.9	13
79	Unravelling the biodegradation performance and mechanisms of acid orange 7 by aerobic granular sludge at different salinity levels. Bioresource Technology, 2022, 357, 127347.	4.8	13
80	Selective and enhanced adsorption of the monosubstituted benzenes on the Fe-modified MCM-41: Contribution of the substituent groups. Chemosphere, 2019, 237, 124546.	4.2	12
81	Removal of dissolved oxygen from water using a Pd-resin based catalytic reactor. Frontiers of Chemical Engineering in China, 2009, 3, 107-111.	0.6	11
82	The impact of anionic polyacrylamide (APAM) on ultrafiltration efficiency in flocculation-ultrafiltration process. Water Science and Technology, 2017, 75, 1982-1989.	1.2	11
83	Efficiencies and mechanisms of the chemical cleaning of fouled polytetrafluoroethylene (PTFE) membranes during the microfiltration of alkali/surfactant/polymer flooding oilfield wastewater. RSC Advances, 2019, 9, 36940-36950.	1.7	11
84	Comparative analysis of membrane fouling mechanisms induced by colloidal polymer: Effects of sodium and calcium ions. Journal of Colloid and Interface Science, 2022, 608, 780-791.	5.0	11
85	New insights into the organic fouling mechanism of an in situ Ca²⁺ modified thin film composite forward osmosis membrane. RSC Advances, 2019, 9, 38227-38234.	1.7	10
86	Degradation mechanisms of cyanobacteria neurotoxin Î²-N-methylamino-l-alanine (BMAA) during UV254/H2O2 process: Kinetics and pathways. Chemosphere, 2022, 302, 134939.	4.2	10
87	Evaluation of drinking water treatment combined filter backwash water recycling technology based on comet and micronucleus assay. Journal of Environmental Sciences, 2016, 42, 61-70.	3.2	9
88	One-step synthesis of zwitterionic polyethersulfone ultrafiltration membranes crosslinked by BSA. Materials Letters, 2020, 261, 127007.	1.3	9
89	Factors affecting the performance of forward osmosis treatment for oilfield produced water from surfactant-polymer flooding. Journal of Membrane Science, 2020, 615, 118457.	4.1	9
90	Tailoring S-vacancy concentration changes the type of the defect and photocatalytic activity in ZFS. Journal of Hazardous Materials, 2022, 428, 128215.	6.5	9

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91	Air bubbling for membrane fouling control in a submerged direct forward osmosis system for municipal wastewater treatment. Environmental Science: Water Research and Technology, 2019, 5, 684-692.	1.2	7
92	Evolution of the sludge mineral composition enhances operation performance of the aerobic granular sludge reactor coupled with iron electrolysis. Journal of Cleaner Production, 2021, 295, 126394.	4.6	6
93	Monolithic nickel foam supported macro-catalyst: Manipulation of charge transfer for enhancement of photo-activity. Chemical Engineering Journal, 2021, 418, 129456.	6.6	5
94	Effect of Continuous Direct Recycling of Combined Residual Streams on Water Quality at the Pilot Scale in Different Seasons. Journal of Environmental Engineering, ASCE, 2017, 143, .	0.7	4
95	Effect of disinfection method on odor and disinfection byproduct control in drinking water treatment. Desalination and Water Treatment, 2016, 57, 7753-7762.	1.0	3
96	Effects and mechanism on the removal of neurotoxin Î²-N-methylamino-l-alanine (BMAA) by chlorination. Science of the Total Environment, 2020, 703, 135513.	3.9	3
97	Role of rotating speed on the stability of a self-sustaining algal-bacterial photo-granules process. Bioresource Technology, 2022, 353, 127134.	4.8	2