

Wenxin Shi

List of Publications by Year in descending order

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97
papers

5,243
citations

87843

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docs citations

97
times ranked

5044
citing authors

#	ARTICLE	IF	CITATIONS
1	New mechanistic insights into the effect of cations on membrane fouling caused by anionic polyacrylamide. <i>Journal of Colloid and Interface Science</i> , 2022, 606, 10-21.	5.0	19
2	Comparative analysis of membrane fouling mechanisms induced by colloidal polymer: Effects of sodium and calcium ions. <i>Journal of Colloid and Interface Science</i> , 2022, 608, 780-791.	5.0	11
3	Tailoring S-vacancy concentration changes the type of the defect and photocatalytic activity in ZFS. <i>Journal of Hazardous Materials</i> , 2022, 428, 128215.	6.5	9
4	Rapid start-up of photo-granule process in a photo-sequencing batch reactor under low aeration conditions: Effect of inoculum AGS size. <i>Science of the Total Environment</i> , 2022, 820, 153204.	3.9	20
5	Discrepant effects of monovalent cations on membrane fouling induced by colloidal polymer: Evaluation and mechanism investigation. <i>Chemosphere</i> , 2022, 295, 133939.	4.2	14
6	Role of rotating speed on the stability of a self-sustaining algal-bacterial photo-granules process. <i>Bioresource Technology</i> , 2022, 353, 127134.	4.8	2
7	A novel strategy for rapid development of a self-sustaining symbiotic algal-bacterial granular sludge: Applying algal-mycelial pellets as nuclei. <i>Water Research</i> , 2022, 214, 118210.	5.3	61
8	Perylenetetracarboxylic acid nanosheets with internal electric fields and anisotropic charge migration for photocatalytic hydrogen evolution. <i>Nature Communications</i> , 2022, 13, 2067.	5.8	99
9	Revealing the influencing mechanisms of polystyrene microplastics (MPs) on the performance and stability of the algal-bacterial granular sludge. <i>Bioresource Technology</i> , 2022, 354, 127202.	4.8	27
10	Unveiling significance of Ca ²⁺ ion for start-up of aerobic granular sludge reactor by distinguishing its effects on physicochemical property and bioactivity of sludge. <i>Environmental Research</i> , 2022, 212, 113299.	3.7	15
11	Degradation mechanisms of cyanobacteria neurotoxin Î ² -N-methylamino-l-alanine (BMAA) during UV254/H ₂ O ₂ process: Kinetics and pathways. <i>Chemosphere</i> , 2022, 302, 134939.	4.2	10
12	Unravelling the biodegradation performance and mechanisms of acid orange 7 by aerobic granular sludge at different salinity levels. <i>Bioresource Technology</i> , 2022, 357, 127347.	4.8	13
13	A novel polyester-amide loose composite nanofiltration membrane for effective dye/salt separation: The effect of long molecule on the interfacial polymerization. <i>Journal of Membrane Science</i> , 2022, 657, 120675.	4.1	28
14	Microfiltration pretreatment of polymer-flooding produced wastewater before desalination: Role of Ca ²⁺ and Mg ²⁺ in membrane fouling. <i>Desalination</i> , 2022, 539, 115934.	4.0	14
15	Effect of voltage intensity on the nutrient removal performance and microbial community in the iron electrolysis-integrated aerobic granular sludge system. <i>Environmental Pollution</i> , 2021, 274, 116604.	3.7	17
16	Evolution of the sludge mineral composition enhances operation performance of the aerobic granular sludge reactor coupled with iron electrolysis. <i>Journal of Cleaner Production</i> , 2021, 295, 126394.	4.6	6
17	Monolithic nickel foam supported macro-catalyst: Manipulation of charge transfer for enhancement of photo-activity. <i>Chemical Engineering Journal</i> , 2021, 418, 129456.	6.6	5
18	Activating the Basal Plane of 2H-MoS ₂ by Doping Phosphor for Enhancement in the Photocatalytic Degradation of Organic Contaminants. <i>ACS Applied Materials & Interfaces</i> , 2021, 13, 38586-38594.	4.0	14

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19	Magnetite/hydrated cerium(III) carbonate for efficient phosphate elimination from aqueous solutions and the mechanistic investigation. <i>Chemical Engineering Journal</i> , 2021, 425, 128894.	6.6	24
20	Enhanced photoactivity and oxidizing ability simultaneously via internal electric field and valence band position by crystal structure of bismuth oxyiodide. <i>Applied Catalysis B: Environmental</i> , 2020, 262, 118262.	10.8	128
21	A sustainable strategy for effective regulation of aerobic granulation: Augmentation of the signaling molecule content by cultivating AHL-producing strains. <i>Water Research</i> , 2020, 169, 115193.	5.3	69
22	Adsorption mechanisms of crude oil onto polytetrafluoroethylene membrane: Kinetics and isotherm, and strategies for adsorption fouling control. <i>Separation and Purification Technology</i> , 2020, 235, 116212.	3.9	27
23	Impact factors on the production of $\hat{1}^2$ -methylamino-L-alanine (BMAA) by cyanobacteria. <i>Chemosphere</i> , 2020, 243, 125355.	4.2	15
24	Exploring the feasibility of sewage treatment by algal-bacterial consortia. <i>Critical Reviews in Biotechnology</i> , 2020, 40, 169-179.	5.1	24
25	One-step synthesis of zwitterionic polyethersulfone ultrafiltration membranes crosslinked by BSA. <i>Materials Letters</i> , 2020, 261, 127007.	1.3	9
26	Microalgal-bacterial consortia: From interspecies interactions to biotechnological applications. <i>Renewable and Sustainable Energy Reviews</i> , 2020, 118, 109563.	8.2	210
27	Effects and mechanism on the removal of neurotoxin $\hat{1}^2$ -N-methylamino-L-alanine (BMAA) by chlorination. <i>Science of the Total Environment</i> , 2020, 703, 135513.	3.9	3
28	Interfacial catalytic oxidation for membrane fouling mitigation during algae-laden water filtration: Higher efficiency without algae integrity loss. <i>Separation and Purification Technology</i> , 2020, 251, 117366.	3.9	13
29	Effect of pH on anionic polyacrylamide adhesion: New insights into membrane fouling based on XDLVO analysis. <i>Journal of Molecular Liquids</i> , 2020, 320, 114463.	2.3	36
30	Treatment of alkali/surfactant/polymer flooding oilfield wastewater with polytetrafluoroethylene microfiltration membrane: Performance and membrane fouling. <i>Journal of Environmental Chemical Engineering</i> , 2020, 8, 104462.	3.3	21
31	Treatment of municipal wastewater with aerobic granular sludge membrane bioreactor (AGMBR): Performance and membrane fouling. <i>Journal of Cleaner Production</i> , 2020, 273, 123124.	4.6	33
32	Significant acceleration of Fe ²⁺ /peroxydisulfate oxidation towards sulfisoxazole by addition of MoS ₂ . <i>Environmental Research</i> , 2020, 188, 109692.	3.7	27
33	Factors affecting the performance of forward osmosis treatment for oilfield produced water from surfactant-polymer flooding. <i>Journal of Membrane Science</i> , 2020, 615, 118457.	4.1	9
34	Recent Developments and Future Challenges of Hydrogels as Draw Solute in Forward Osmosis Process. <i>Water (Switzerland)</i> , 2020, 12, 692.	1.2	35
35	Insight into the size effect of Pd nanoparticles on the catalytic reduction of nitrite in water over Pd/C catalysts. <i>Environmental Science: Nano</i> , 2020, 7, 2117-2129.	2.2	16
36	Photocatalytic activity enhanced via surface hybridization. , 2020, 2, 308-349.		68

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37	Membrane fouling in microfiltration of alkali/surfactant/polymer flooding oilfield wastewater: Effect of interactions of key foulants. <i>Journal of Colloid and Interface Science</i> , 2020, 570, 20-30.	5.0	33
38	Research on Forward Osmosis Membrane Technology Still Needs Improvement in Water Recovery and Wastewater Treatment. <i>Water (Switzerland)</i> , 2020, 12, 107.	1.2	35
39	Remarkable phosphate removal and recovery from wastewater by magnetically recyclable La ₂ O ₃ /Fe ₃ O ₄ nanocomposites. <i>Journal of Hazardous Materials</i> , 2020, 397, 122597.	6.5	71
40	Thermodynamic and dynamic dual regulation Bi ₂ O ₃ /CO ₃ /Bi ₅ O ₇ enabling high-flux photogenerated charge migration for enhanced visible-light-driven photocatalysis. <i>Journal of Materials Chemistry A</i> , 2020, 8, 10252-10259.	5.2	45
41	Mechanistic insights into selective adsorption and separation of multi-component anionic dyes using magnetic zeolite imidazolate framework-67 composites. <i>Journal of Molecular Liquids</i> , 2019, 296, 111990.	2.3	39
42	Selective and enhanced adsorption of the monosubstituted benzenes on the Fe-modified MCM-41: Contribution of the substituent groups. <i>Chemosphere</i> , 2019, 237, 124546.	4.2	12
43	Air bubbling for membrane fouling control in a submerged direct forward osmosis system for municipal wastewater treatment. <i>Environmental Science: Water Research and Technology</i> , 2019, 5, 684-692.	1.2	7
44	Support membrane pore blockage (SMPB): An important phenomenon during the fabrication of thin film composite membrane via interfacial polymerization. <i>Separation and Purification Technology</i> , 2019, 215, 670-680.	3.9	51
45	Development of CuO coated ceramic hollow fiber membrane for peroxymonosulfate activation: a highly efficient singlet oxygen-dominated oxidation process for bisphenol a degradation. <i>Applied Catalysis B: Environmental</i> , 2019, 256, 117783.	10.8	217
46	Dendritic amine sheltered membrane for simultaneous ammonia selection and fouling mitigation in forward osmosis. <i>Journal of Membrane Science</i> , 2019, 584, 9-19.	4.1	19
47	Fouling mechanism of forward osmosis membrane in domestic wastewater concentration: Role of substrate structures. <i>Chemical Engineering Journal</i> , 2019, 370, 262-273.	6.6	52
48	Adsorption of anion polyacrylamide from aqueous solution by polytetrafluoroethylene (PTFE) membrane as an adsorbent: Kinetic and isotherm studies. <i>Journal of Colloid and Interface Science</i> , 2019, 544, 303-311.	5.0	32
49	Internal electric field engineering for steering photogenerated charge separation and enhancing photoactivity. <i>EcoMat</i> , 2019, 1, e12007.	6.8	134
50	New insights into the organic fouling mechanism of an <i>in situ</i> Ca ²⁺ modified thin film composite forward osmosis membrane. <i>RSC Advances</i> , 2019, 9, 38227-38234.	1.7	10
51	Efficiencies and mechanisms of the chemical cleaning of fouled polytetrafluoroethylene (PTFE) membranes during the microfiltration of alkali/surfactant/polymer flooding oilfield wastewater. <i>RSC Advances</i> , 2019, 9, 36940-36950.	1.7	11
52	Cobalt silicate hydroxide nanosheets in hierarchical hollow architecture with maximized cobalt active site for catalytic oxidation. <i>Chemical Engineering Journal</i> , 2019, 359, 79-87.	6.6	136
53	Effect of light intensity on the characteristics of algal-bacterial granular sludge and the role of N-acetyl-homoserine lactone in the granulation. <i>Science of the Total Environment</i> , 2019, 659, 372-383.	3.9	78
54	Polyamidoamine dendrimer grafted forward osmosis membrane with superior ammonia selectivity and robust antifouling capacity for domestic wastewater concentration. <i>Water Research</i> , 2019, 153, 1-10.	5.3	105

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55	Enhanced aerobic granulation by applying the low-intensity direct current electric field via reactive iron anode. <i>Water Research</i> , 2019, 149, 159-168.	5.3	49
56	Insights into simultaneous ammonia-selective and anti-fouling mechanism over forward osmosis membrane for resource recovery from domestic wastewater. <i>Journal of Membrane Science</i> , 2019, 573, 135-144.	4.1	30
57	Dual-Bioinspired Design for Constructing Membranes with Superhydrophobicity for Direct Contact Membrane Distillation. <i>Environmental Science & Technology</i> , 2018, 52, 3027-3036.	4.6	130
58	Identification and Regulation of Active Sites on Nanodiamonds: Establishing a Highly Efficient Catalytic System for Oxidation of Organic Contaminants. <i>Advanced Functional Materials</i> , 2018, 28, 1705295.	7.8	370
59	Dynamic changes of the fouling layer in forward osmosis based membrane processes for municipal wastewater treatment. <i>Journal of Membrane Science</i> , 2018, 549, 523-532.	4.1	33
60	The attachment potential and N-acyl-homoserine lactone-based quorum sensing in aerobic granular sludge and algal-bacterial granular sludge. <i>Applied Microbiology and Biotechnology</i> , 2018, 102, 5343-5353.	1.7	41
61	Pd and Pt nanoparticles supported on the mesoporous silica molecular sieve SBA-15 with enhanced activity and stability in catalytic bromate reduction. <i>Chemical Engineering Journal</i> , 2018, 344, 114-123.	6.6	31
62	Enhancement of aerobic granulation and nutrient removal by an algal-bacterial consortium in a lab-scale photobioreactor. <i>Chemical Engineering Journal</i> , 2018, 334, 2373-2382.	6.6	177
63	Interfacial electronic effects of palladium nanocatalysts on the by-product ammonia selectivity during nitrite catalytic reduction. <i>Environmental Science: Nano</i> , 2018, 5, 338-349.	2.2	24
64	Pt nanoparticles supported on amino-functionalized SBA-15 for enhanced aqueous bromate catalytic reduction. <i>Catalysis Communications</i> , 2018, 105, 11-15.	1.6	13
65	Breathable and asymmetrically superwetttable Janus membrane with robust oil-fouling resistance for durable membrane distillation. <i>Journal of Membrane Science</i> , 2018, 563, 602-609.	4.1	137
66	A novel polyester composite nanofiltration membrane prepared by interfacial polymerization catalysed by 4-dimethylaminopyridine: Enhanced the water permeability and anti-fouling ability. <i>Polymer</i> , 2018, 153, 24-32.	1.8	27
67	Adsorption Mechanism of Oil-in-Water on a $\text{TiO}_2/\text{Al}_2\text{O}_3$ -Polyvinylidene Fluoride (PVDF) Ultrafiltration Membrane. <i>Langmuir</i> , 2018, 34, 9907-9916.	1.6	16
68	Efficient As(III) removal by magnetic $\text{CuO-Fe}_3\text{O}_4$ nanoparticles through photo-oxidation and adsorption under light irradiation. <i>Journal of Colloid and Interface Science</i> , 2017, 495, 168-177.	5.0	81
69	Effect of Continuous Direct Recycling of Combined Residual Streams on Water Quality at the Pilot Scale in Different Seasons. <i>Journal of Environmental Engineering, ASCE</i> , 2017, 143, .	0.7	4
70	The impact of anionic polyacrylamide (APAM) on ultrafiltration efficiency in flocculation-ultrafiltration process. <i>Water Science and Technology</i> , 2017, 75, 1982-1989.	1.2	11
71	Silica hydrogel-mediated dissolution-recrystallization strategy for synthesis of ultrathin Fe_2O_3 nanosheets with highly exposed (1 1 0) facets: A superior photocatalyst for degradation of bisphenol S. <i>Chemical Engineering Journal</i> , 2017, 323, 64-73.	6.6	100
72	A novel polyester composite nanofiltration membrane formed by interfacial polymerization of pentaerythritol (PE) and trimesoyl chloride (TMC). <i>Applied Surface Science</i> , 2017, 416, 152-159.	3.1	85

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73	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
74	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
75	A novel polyesteramide thin film composite nanofiltration membrane prepared by interfacial polymerization of serinol and trimesoyl chloride (TMC) catalyzed by 4- ϵ -dimethylaminopyridine (DMAP). Journal of Membrane Science, 2017, 542, 68-80.	4.1	100
76	Gravity driven ultrafast removal of organic contaminants across catalytic superwetting membranes. Journal of Materials Chemistry A, 2017, 5, 25266-25275.	5.2	45
77	Heterogeneous activation of peroxymonosulfate by amorphous boron for degradation of bisphenol S. Journal of Hazardous Materials, 2017, 322, 532-539.	6.5	218
78	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
79	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
80	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
81	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
82	Carbon nanofiber matrix with embedded LaCO ₃ OH synchronously captures phosphate and organic carbon to starve bacteria. Journal of Materials Chemistry A, 2016, 4, 12799-12806.	5.2	36
83	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
84	Microstructured macroporous adsorbent composed of polypyrrole modified natural corncob-core sponge for Cr(VI) removal. RSC Advances, 2016, 6, 59292-59298.	1.7	19
85	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
86	Electrochemical-catalytic reduction of nitrate over Pd-Cu/Al ₂ O ₃ catalyst in cathode chamber: Enhanced removal efficiency and N ₂ selectivity. Chemical Engineering Journal, 2016, 290, 201-208.	6.6	104
87	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
88	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
89	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
90	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

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91	Influence of salts, anion polyacrylamide and crude oil on nanofiltration membrane fouling during desalination process of polymer flooding produced water. <i>Desalination</i> , 2015, 373, 27-37.	4.0	58
92	Morphology-tunable ultrafine metal oxide nanostructures uniformly grown on graphene and their applications in the photo-Fenton system. <i>Nanoscale</i> , 2015, 7, 14254-14263.	2.8	65
93	Highly Efficient Phosphate Scavenger Based on Well-Dispersed La(OH) ₃ Nanorods in Polyacrylonitrile Nanofibers for Nutrient-Starvation Antibacteria. <i>ACS Nano</i> , 2015, 9, 9292-9302.	7.3	177
94	Amorphous TiO ₂ doped with carbon for visible light photodegradation of rhodamine B and 4-chlorophenol. <i>Applied Surface Science</i> , 2015, 324, 35-43.	3.1	95
95	Formation of aerobic granules by Mg ²⁺ and Al ³⁺ augmentation in sequencing batch airlift reactor at low temperature. <i>Bioprocess and Biosystems Engineering</i> , 2012, 35, 1049-1055.	1.7	33
96	Removal of estrone, 17 β -ethinylestradiol, and 17 α -estradiol in algae and duckweed-based wastewater treatment systems. <i>Environmental Science and Pollution Research</i> , 2010, 17, 824-833.	2.7	142
97	Removal of dissolved oxygen from water using a Pd-resin based catalytic reactor. <i>Frontiers of Chemical Engineering in China</i> , 2009, 3, 107-111.	0.6	11