

Xiao-mao Wang

List of Publications by Year in Descending Order

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Version: 2024-04-28

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The third column is the impact factor (IF) of the journal, and the fourth column is the number of citations of the article.

108
papers

3,137
citations

32
h-index

50
g-index

111
ext. papers

4,024
ext. citations

8.9
avg, IF

5.86
L-index

#	Paper	IF	Citations
108	Effect of synthesis conditions on the non-uniformity of nanofiltration membrane pore size distribution. <i>Journal of Membrane Science</i> , 2022 , 647, 120304	9.6	2
107	Performance enhancement of spiral-wound reverse osmosis membrane elements with novel diagonal-flow feed channels. <i>Desalination</i> , 2022 , 523, 115447	10.3	7
106	Techno-economic characteristics of wastewater treatment plants retrofitted from the conventional activated sludge process to the membrane bioreactor process. <i>Frontiers of Environmental Science and Engineering</i> , 2022 , 16, 1	5.8	6
105	The critical role of feed spacer channel porosity in membrane biofouling: Insights and implications. <i>Journal of Membrane Science</i> , 2022 , 649, 120395	9.6	3
104	Incorporating catalytic ceramic membrane into the integrated process of in situ ozonation, membrane filtration and biological degradation: Enhanced performance and underlying mechanisms. <i>Journal of Membrane Science</i> , 2022 , 652, 120509	9.6	1
103	Fluorescence-based method for fast quantification of active aluminums in natural and treated water.. <i>Journal of Hazardous Materials</i> , 2022 , 433, 128815	12.8	0
102	Tailored design of nanofiltration membranes for water treatment based on synthesis-property-performance relationships.. <i>Chemical Society Reviews</i> , 2021 ,	58.5	19
101	Roles and performance enhancement of feed spacer in spiral wound membrane modules for water treatment: A 20-year review on research evolvement. <i>Water Research</i> , 2021 , 198, 117146	12.5	15
100	Using loose nanofiltration membrane for lake water treatment: A pilot study. <i>Frontiers of Environmental Science and Engineering</i> , 2021 , 15, 1	5.8	8
99	Polyethylene-supported nanofiltration membrane with in situ formed surface patterns of millimeter size in resisting fouling. <i>Journal of Membrane Science</i> , 2021 , 620, 118830	9.6	9
98	Differentiating Solutes with Precise Nanofiltration for Next Generation Environmental Separations: A Review. <i>Environmental Science & Technology</i> , 2021 , 55, 1359-1376	10.3	36
97	Outlining the Roles of Membrane-Foulant and Foulant-Foulant Interactions in Organic Fouling During Microfiltration and Ultrafiltration: A Mini-Review. <i>Frontiers in Chemistry</i> , 2020 , 8, 417	5	25
96	Study on the removal of aesthetic indicators by ozone during advanced treatment of water reuse. <i>Journal of Water Process Engineering</i> , 2020 , 36, 101381	6.7	5
95	Electric field-based ionic control of selective separation layers. <i>Journal of Materials Chemistry A</i> , 2020 , 8, 4244-4251	13	22
94	Surface functionalization via synergistic grafting of surface-modified silica nanoparticles and layered double hydroxide nanosheets for fabrication of superhydrophilic but relatively oleophobic antifouling membranes. <i>Separation and Purification Technology</i> , 2020 , 247, 116955	8.3	9
93	Nanofiltration in pilot scale for wastewater reclamation: Long-term performance and membrane biofouling characteristics. <i>Chemical Engineering Journal</i> , 2020 , 395, 125087	14.7	21
92	Influences of temperature on the retention of PPCPs by nanofiltration membranes: Experiments and modeling assessment. <i>Journal of Membrane Science</i> , 2020 , 599, 117817	9.6	23

91	Key foulants and their interactive effect in organic fouling of nanofiltration membranes. <i>Journal of Membrane Science</i> , 2020 , 610, 118252	9.6	21
90	A Facile and Scalable Fabrication Procedure for Thin-Film Composite Membranes: Integration of Phase Inversion and Interfacial Polymerization. <i>Environmental Science & Technology</i> , 2020 , 54, 1946-1954	10.3	21
89	High-performance thin film nanocomposite membranes enabled by nanomaterials with different dimensions for nanofiltration. <i>Journal of Membrane Science</i> , 2020 , 596, 117717	9.6	47
88	Porous organic polymer embedded thin-film nanocomposite membranes for enhanced nanofiltration performance. <i>Journal of Membrane Science</i> , 2020 , 602, 117982	9.6	20
87	Enhanced micropollutants removal by nanofiltration and their environmental risks in wastewater reclamation: A pilot-scale study. <i>Science of the Total Environment</i> , 2020 , 744, 140954	10.2	6
86	Impacts of non-uniform filament feed spacers characteristics on the hydraulic and anti-fouling performances in the spacer-filled membrane channels: Experiment and numerical simulation. <i>Water Research</i> , 2020 , 185, 116251	12.5	14
85	A Simple Method to Identify the Dominant Fouling Mechanisms during Membrane Filtration Based on Piecewise Multiple Linear Regression. <i>Membranes</i> , 2020 , 10,	3.8	8
84	Electrically Tuning Ultrafiltration Behavior for Efficient Water Purification. <i>Environmental Science & Technology</i> , 2020 , 54, 11536-11545	10.3	3
83	Synergistic effects of combining ozonation, ceramic membrane filtration and biologically active carbon filtration for wastewater reclamation. <i>Journal of Hazardous Materials</i> , 2020 , 382, 121091	12.8	22
82	Direct photo transformation of tetracycline and sulfanamide group antibiotics in surface water: Kinetics, toxicity and site modeling. <i>Science of the Total Environment</i> , 2019 , 686, 1-9	10.2	15
81	Effect of varying piperazine concentration and post-modification on prepared nanofiltration membranes in selectively rejecting organic micropollutants and salts. <i>Journal of Membrane Science</i> , 2019 , 582, 274-283	9.6	60
80	Influence of pore size and membrane surface properties on arsenic removal by nanofiltration membranes. <i>Frontiers of Environmental Science and Engineering</i> , 2019 , 13, 1	5.8	17
79	Impacts of Metal-Organic Frameworks on Structure and Performance of Polyamide Thin-Film Nanocomposite Membranes. <i>ACS Applied Materials & Interfaces</i> , 2019 , 11, 13724-13734	9.5	61
78	Exploring the interactions of organic micropollutants with polyamide nanofiltration membranes: A molecular docking study. <i>Journal of Membrane Science</i> , 2019 , 577, 285-293	9.6	25
77	Determination of Surface Energy Parameters of Hydrophilic Porous Membranes via a Corrected Contact Angle Approach. <i>Langmuir</i> , 2019 , 35, 15009-15016	4	8
76	Quantifying the dynamic evolution of organic, inorganic and biological synergistic fouling during nanofiltration using statistical approaches. <i>Environment International</i> , 2019 , 133, 105201	12.9	12
75	Hierarchically textured superhydrophilic polyvinylidene fluoride membrane via nanocasting and post-fabrication grafting of surface-tailored silica nanoparticles. <i>Environmental Science: Nano</i> , 2019 , 6, 3579-3589	7.1	7
74	Current state and challenges of full-scale membrane bioreactor applications: A critical review. <i>Bioresour Technol</i> , 2019 , 271, 473-481	11	163

73	An extended standard blocking filtration law for exploring membrane pore internal fouling due to rate-determining adsorption. <i>Separation and Purification Technology</i> , 2019 , 212, 974-979	8.3	15
72	Preparation of nanofiltration membranes for high rejection of organic micropollutants and low rejection of divalent cations. <i>Journal of Membrane Science</i> , 2019 , 572, 152-160	9.6	50
71	Simultaneous determination of surface energy and roughness of dense membranes by a modified contact angle method. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2019 , 562, 370-376	5.1	30
70	Effect of the relative degree of foulant hydrophobicity on membrane fouling. <i>Journal of Membrane Science</i> , 2019 , 570-571, 1-8	9.6	37
69	Influences of multi influent matrices on the retention of PPCPs by nanofiltration membranes. <i>Separation and Purification Technology</i> , 2019 , 212, 299-306	8.3	42
68	Adsorption of pharmaceuticals onto isolated polyamide active layer of NF/RO membranes. <i>Chemosphere</i> , 2018 , 200, 36-47	8.4	36
67	Impact of membrane pore morphology on multi-cycle fouling and cleaning of hydrophobic and hydrophilic membranes during MBR operation. <i>Journal of Membrane Science</i> , 2018 , 556, 312-320	9.6	28
66	Quantifying the influence of solute-membrane interactions on adsorption and rejection of pharmaceuticals by NF/RO membranes. <i>Journal of Membrane Science</i> , 2018 , 551, 37-46	9.6	39
65	Core-shell structured mZVI/Ca(OH) particle: Morphology, aggregation and corrosion. <i>Journal of Colloid and Interface Science</i> , 2018 , 510, 199-206	9.3	5
64	Role of adsorption in combined membrane fouling by biopolymers coexisting with inorganic particles. <i>Chemosphere</i> , 2018 , 191, 226-234	8.4	16
63	Role of coexistence of negative and positive membrane surface charges in electrostatic effect for salt rejection by nanofiltration. <i>Desalination</i> , 2018 , 444, 75-83	10.3	32
62	Calcium hydroxide coating on highly reactive nanoscale zero-valent iron for in situ remediation application. <i>Chemosphere</i> , 2018 , 207, 715-724	8.4	3
61	Effects of conventional ozonation and electro-peroxone pretreatment of surface water on disinfection by-product formation during subsequent chlorination. <i>Water Research</i> , 2018 , 130, 322-332	12.5	56
60	Fluorescence quotient of excitation-emission matrices as a potential indicator of organic matter behavior in membrane bioreactors. <i>Environmental Science: Water Research and Technology</i> , 2018 , 4, 281-290	4.3	13
59	Correlating fluorescence spectral properties with DOM molecular weight and size distribution in wastewater treatment systems. <i>Environmental Science: Water Research and Technology</i> , 2018 , 4, 1933-1943	4.3	12
58	Characteristic Regions of the Fluorescence Excitation-Emission Matrix (EEM) To Identify Hydrophobic/Hydrophilic Contents of Organic Matter in Membrane Bioreactors. <i>Environmental Science & Technology</i> , 2018 , 52, 11251-11258	10.3	27
57	Relating the rejections of oligomeric ethylene glycols and saccharides by nanofiltration: Implication for membrane pore size determination. <i>Separation and Purification Technology</i> , 2018 , 205, 151-158	8.3	21
56	Non-uniform distribution of adsorptive fouling along hollow fiber membrane: Characterization and quantification. <i>Separation and Purification Technology</i> , 2018 , 205, 159-168	8.3	5

55	Effects of organic fouling and cleaning on the retention of pharmaceutically active compounds by ceramic nanofiltration membranes. <i>Journal of Membrane Science</i> , 2018 , 563, 734-742	9.6	31
54	Comparison of membrane fouling in ultrafiltration of down-flow and up-flow biological activated carbon effluents. <i>Frontiers of Environmental Science and Engineering</i> , 2018 , 12, 1	5.8	6
53	Effect of bromide on the transformation and genotoxicity of octyl-dimethyl-p-aminobenzoic acid during chlorination. <i>Journal of Hazardous Materials</i> , 2017 , 324, 626-633	12.8	6
52	Azo compound degradation kinetics and halonitromethane formation kinetics during chlorination. <i>Chemosphere</i> , 2017 , 174, 110-116	8.4	11
51	Mechanism and kinetics of halogenated compound removal by metallic iron: Transport in solution, diffusion and reduction within corrosion films. <i>Chemosphere</i> , 2017 , 178, 119-128	8.4	10
50	Evaluating Dissolved Ozone in a Bubble Column Using a Discrete-Bubble Model. <i>Ozone: Science and Engineering</i> , 2017 , 39, 44-53	2.4	6
49	Role of membrane and compound properties in affecting the rejection of pharmaceuticals by different RO/NF membranes. <i>Frontiers of Environmental Science and Engineering</i> , 2017 , 11, 1	5.8	44
48	The role of solubility on the rejection of trace organics by nanofiltration membrane: exemplified with disinfection by-products. <i>Environmental Science and Pollution Research</i> , 2017 , 24, 18400-18409	5.1	3
47	Silver Nanoparticles-Loaded Exfoliated Graphite and Its Anti-Bacterial Performance. <i>Applied Sciences (Switzerland)</i> , 2017 , 7, 852	2.6	8
46	Assessment of the hindered transport model in predicting the rejection of trace organic compounds by nanofiltration. <i>Journal of Membrane Science</i> , 2016 , 498, 57-66	9.6	19
45	Characterization of haloacetaldehyde and trihalomethane formation potentials during drinking water treatment. <i>Chemosphere</i> , 2016 , 159, 378-384	8.4	26
44	Effect of capacitive deionization on disinfection by-product precursors. <i>Science of the Total Environment</i> , 2016 , 568, 19-25	10.2	25
43	Pathway fraction of bromate formation during O ₃ and O ₃ /H ₂ O ₂ processes in drinking water treatment. <i>Chemosphere</i> , 2016 , 144, 2436-42	8.4	20
42	Fluorescence properties of dissolved organic matter as a function of hydrophobicity and molecular weight: case studies from two membrane bioreactors and an oxidation ditch. <i>RSC Advances</i> , 2016 , 6, 24050-24059	3.7	36
41	Effects of metal ions on disinfection byproduct formation during chlorination of natural organic matter and surrogates. <i>Chemosphere</i> , 2016 , 144, 1074-82	8.4	25
40	Membrane fouling in ultrafiltration of natural water after pretreatment to different extents. <i>Journal of Environmental Sciences</i> , 2016 , 43, 234-243	6.4	23
39	Chlorination of oxybenzone: Kinetics, transformation, disinfection byproducts formation, and genotoxicity changes. <i>Chemosphere</i> , 2016 , 154, 521-527	8.4	28
38	A thin-film nanocomposite nanofiltration membrane prepared on a support with in situ embedded zeolite nanoparticles. <i>Separation and Purification Technology</i> , 2016 , 166, 230-239	8.3	125

37	Disinfection byproducts in drinking water and regulatory compliance: A critical review. <i>Frontiers of Environmental Science and Engineering</i> , 2015 , 9, 3-15	5.8	85
36	Concentration levels of disinfection by-products in 14 swimming pools of China. <i>Frontiers of Environmental Science and Engineering</i> , 2015 , 9, 995-1003	5.8	14
35	Bromate Control by Dosing Hydrogen Peroxide and Ammonia during Ozonation of the Yellow River Water. <i>Ozone: Science and Engineering</i> , 2015 , 37, 127-133	2.4	11
34	Trihalomethane hydrolysis in drinking water at elevated temperatures. <i>Water Research</i> , 2015 , 78, 18-27	12.5	27
33	Filterability and structure of the fouling layers of biopolymer coexisting with ferric iron in ultrafiltration membrane. <i>Journal of Membrane Science</i> , 2015 , 495, 81-90	9.6	16
32	Rejection of pharmaceuticals during forward osmosis and prediction by using the solution-diffusion model. <i>Journal of Membrane Science</i> , 2015 , 476, 410-420	9.6	57
31	Pilot study for the treatment of sodium and fluoride-contaminated groundwater by using high-pressure membrane systems. <i>Frontiers of Environmental Science and Engineering</i> , 2015 , 9, 155-163	5.8	10
30	Effect of oxidation on amine-based pharmaceutical degradation and N-Nitrosodimethylamine formation. <i>Water Research</i> , 2015 , 87, 403-11	12.5	33
29	Performance of nanofiltration membrane in rejecting trace organic compounds: Experiment and model prediction. <i>Desalination</i> , 2015 , 370, 7-16	10.3	64
28	Determination of ketoacids in drinking water by DNPH derivatization and LC-ESI-MS/MS. <i>Analytical Methods</i> , 2015 , 7, 6207-6212	3.2	9
27	Fabrication and anti-biofouling properties of alumina and zeolite nanoparticle embedded ultrafiltration membranes. <i>Desalination</i> , 2015 , 365, 70-78	10.3	65
26	Effect of dissolved oxygen concentration on iron efficiency: Removal of three chloroacetic acids. <i>Water Research</i> , 2015 , 73, 342-52	12.5	45
25	Comparison of polyamide nanofiltration and low-pressure reverse osmosis membranes on As(III) rejection under various operational conditions. <i>Desalination</i> , 2014 , 334, 10-16	10.3	48
24	Effects of ozonation on disinfection byproduct formation and speciation during subsequent chlorination. <i>Chemosphere</i> , 2014 , 117, 515-20	8.4	56
23	Haloacetic acids in swimming pool and spa water in the United States and China. <i>Frontiers of Environmental Science and Engineering</i> , 2014 , 8, 820-824	5.8	19
22	Rejection of nine haloacetic acids and coupled reverse draw solute permeation in forward osmosis. <i>Desalination</i> , 2014 , 341, 1-9	10.3	29
21	Modeling of the initial deposition of individual particles during the cross-flow membrane filtration. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2014 , 440, 91-100	5.1	12
20	A systematic analysis of fouling evolution and irreversibility behaviors of MBR supernatant hydrophilic/hydrophobic fractions during microfiltration. <i>Journal of Membrane Science</i> , 2014 , 467, 206-216	9.6	38

19	Formation of disinfection by-products: effect of temperature and kinetic modeling. <i>Chemosphere</i> , 2013 , 90, 634-9	8.4	58
18	A unified model for quantification of concentration polarization (CP) of particles during cross-flow membrane filtration. <i>Colloids and Surfaces A: Physicochemical and Engineering Aspects</i> , 2012 , 407, 99-107 ^{5.1}		11
17	Anti-Fouling Property of Alumina-Doped Polyvinylidene Fluoride (PVDF) Membranes. <i>Journal of Water and Environment Technology</i> , 2012 , 10, 241-252	1.1	1
16	Spontaneous Formation of Nano-fibrillar Boehmite and the Enhancement Effect of Polyethylene Glycol. <i>Journal of the American Ceramic Society</i> , 2011 , 94, 4435-4443	3.8	4
15	Investigation of the role of biopolymer clusters in MBR membrane fouling using flash freezing and environmental scanning electron microscopy. <i>Chemosphere</i> , 2011 , 85, 1154-9	8.4	10
14	In situ embedment and growth of anhydrous and hydrated aluminum oxide particles on polyvinylidene fluoride (PVDF) membranes. <i>Journal of Membrane Science</i> , 2011 , 368, 134-143	9.6	78
13	Natural organic matter fouling of microfiltration membranes: Prediction of constant flux behavior from constant pressure materials properties determination. <i>Journal of Membrane Science</i> , 2011 , 366, 192-202	9.6	28
12	Combined effect of membrane and foulant hydrophobicity and surface charge on adsorptive fouling during microfiltration. <i>Journal of Membrane Science</i> , 2011 , 373, 140-151	9.6	147
11	Quantification of solid pressure in the concentration polarization (CP) layer of colloidal particles and its impact on ultrafiltration. <i>Journal of Colloid and Interface Science</i> , 2011 , 358, 290-300	9.3	7
10	Iron speciation and iron species transformation in activated sludge membrane bioreactors. <i>Water Research</i> , 2010 , 44, 3511-21	12.5	40
9	Analysis of polysaccharide, protein and humic acid retention by microfiltration membranes using Thomas-Dynamic adsorption model. <i>Journal of Membrane Science</i> , 2009 , 342, 22-34	9.6	50
8	Role of gelling soluble and colloidal microbial products in membrane fouling. <i>Environmental Science & Technology</i> , 2009 , 43, 9341-7	10.3	115
7	Retention of soluble microbial products in submerged membrane bioreactors. <i>Desalination and Water Treatment</i> , 2009 , 6, 131-137		2
6	Accumulation of biopolymer clusters in a submerged membrane bioreactor and its effect on membrane fouling. <i>Water Research</i> , 2008 , 42, 855-62	12.5	112
5	Multiphase flow models in quantifying constant pressure dead-end filtration and subsequent cake compression1. Dilute slurry filtration. <i>Journal of Membrane Science</i> , 2008 , 308, 35-43	9.6	9
4	Gel layer formation and hollow fiber membrane filterability of polysaccharide dispersions. <i>Journal of Membrane Science</i> , 2008 , 322, 204-213	9.6	61
3	Impact of gel layer formation on colloid retention in membrane filtration processes. <i>Journal of Membrane Science</i> , 2008 , 325, 486-494	9.6	75
2	Kinetics of quinoline degradation by O ₃ /UV in aqueous phase. <i>Chemosphere</i> , 2004 , 55, 733-41	8.4	24

- 1 Thin-film composite forward osmosis membrane in rejecting trace organic compounds: Impact of molecular charge66, 23-35

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