Ming Xie

List of Publications by Year
in descending order

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59 papers	4,377 citations	147801 31 h-index	144013 57 g-index
60 all docs	60 docs citations	60 times ranked	3618 citing authors

#	Article	IF	Citations
1	Membrane-based processes for wastewater nutrient recovery: Technology, challenges, and future direction. Water Research, 2016, 89, 210-221.	11.3	405
2	Standard Methodology for Evaluating Membrane Performance in Osmotically Driven Membrane Processes. Desalination, 2013, 312, 31-38.	8.2	349
3	Comparison of the removal of hydrophobic trace organic contaminants by forward osmosis and reverse osmosis. Water Research, 2012, 46, 2683-2692.	11.3	270
4	A Forward Osmosisâ€“Membrane Distillation Hybrid Process for Direct Sewer Mining: System Performance and Limitations. Environmental Science & Technology, 2013, 47, 13486-13493.	10.0	234
5	Toward Resource Recovery from Wastewater: Extraction of Phosphorus from Digested Sludge Using a Hybrid Forward Osmosisâ€“Membrane Distillation Process. Environmental Science and Technology Letters, 2014, 1, 191-195.	8.7	229
6	Anti-fouling graphene-based membranes for effective water desalination. Nature Communications, 2018, 9, 683.	12.8	197
7	Thin-film composite forward osmosis membranes functionalized with graphene oxideâ€“silver nanocomposites for biofouling control. Journal of Membrane Science, 2017, 525, 146-156.	8.2	180
8	Role of pressure in organic fouling in forward osmosis and reverse osmosis. Journal of Membrane Science, 2015, 493, 748-754.	8.2	174
9	Biofouling Mitigation in Forward Osmosis Using Graphene Oxide Functionalized Thin-Film Composite Membranes. Environmental Science & Technology, 2016, 50, 5840-5848.	10.0	160
10	Effects of feed and draw solution temperature and transmembrane temperature difference on the rejection of trace organic contaminants by forward osmosis. Journal of Membrane Science, 2013, 438, 57-64.	8.2	153
11	Osmotic versus conventional membrane bioreactors integrated with reverse osmosis for water reuse: Biological stability, membrane fouling, and contaminant removal. Water Research, 2017, 109, 122-134.	11.3	152
12	Rejection of pharmaceutically active compounds by forward osmosis: Role of solution pH and membrane orientation. Separation and Purification Technology, 2012, 93, 107-114.	7.9	135
13	Relating rejection of trace organic contaminants to membrane properties in forward osmosis: Measurements, modelling and implications. Water Research, 2014, 49, 265-274.	11.3	124
14	Treatment of shale gas drilling flowback fluids (SGDFs) by forward osmosis: Membrane fouling and mitigation. Desalination, 2015, 366, 113-120.	8.2	114
15	Polyaniline-based adsorbents for aqueous pollutants removal: A review. Chemical Engineering Journal, 2021, 418, 129425.	12.7	108
16	Impact of humic acid fouling on membrane performance and transport of pharmaceutically active compounds in forward osmosis. Water Research, 2013, 47, 4567-4575.	11.3	104
17	Water reclamation from shale gas drilling flow-back fluid using a novel forward osmosisâ€“vacuum membrane distillation hybrid system. Water Science and Technology, 2014, 69, 1036-1044.	2.5	96
18	Biomimetic aquaporin membranes for osmotic membrane bioreactors: Membrane performance and contaminant removal. Bioresource Technology, 2018, 249, 62-68.	9.6	85

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19	Gypsum scaling in forward osmosis: Role of membrane surface chemistry. Journal of Membrane Science, 2016, 513, 250-259.	8.2	78
20	Trace organic contaminant rejection by aquaporin forward osmosis membrane: Transport mechanisms and membrane stability. Water Research, 2018, 132, 90-98.	11.3	76
21	Surface pattern by nanoimprint for membrane fouling mitigation: Design, performance and mechanisms. Water Research, 2017, 124, 238-243.	11.3	68
22	Impact of organic and colloidal fouling on trace organic contaminant rejection by forward osmosis: Role of initial permeate flux. Desalination, 2014, 336, 146-152.	8.2	62
23	Role of Reverse Divalent Cation Diffusion in Forward Osmosis Biofouling. Environmental Science & Technology, 2015, 49, 13222-13229.	10.0	50
24	Silica scaling in forward osmosis: From solution to membrane interface. Water Research, 2017, 108, 232-239.	11.3	50
25	Biodegradation of cellulose triacetate and polyamide forward osmosis membranes in an activated sludge bioreactor: Observations and implications. Journal of Membrane Science, 2016, 510, 284-292.	8.2	46
26	Osmotic dilution for sustainable greenwall irrigation by liquid fertilizer: Performance and implications. Journal of Membrane Science, 2015, 494, 32-38.	8.2	44
27	Salinity build-up in osmotic membrane bioreactors: Causes, impacts, and potential cures. Bioresource Technology, 2018, 257, 301-310.	9.6	43
28	Resource recovery from digested manure centrate: Comparison between conventional and aquaporin thin-film composite forward osmosis membranes. Journal of Membrane Science, 2020, 593, 117436.	8.2	42
29	Antifouling thin-film composite membranes with multi-defense properties by controllably constructing amphiphilic diblock copolymer brush layer. Journal of Membrane Science, 2020, 614, 118515.	8.2	42
30	Tweak in Puzzle: Tailoring Membrane Chemistry and Structure toward Targeted Removal of Organic Micropollutants for Water Reuse. Environmental Science and Technology Letters, 2022, 9, 247-257.	8.7	42
31	Synergistic effect of combined colloidal and organic fouling in membrane distillation: Measurements and mechanisms. Environmental Science: Water Research and Technology, 2017, 3, 119-127.	2.4	37
32	Seeing is believing: Insights from synchrotron infrared mapping for membrane fouling in osmotic membrane bioreactors. Water Research, 2018, 137, 355-361.	11.3	31
33	Antifouling Double-Skinned Forward Osmosis Membranes by Constructing Zwitterionic Brush-Decorated MWCNT Ultrathin Films. ACS Applied Materials & Interfaces, 2019, 11, 19462-19471.	8.0	30
34	Removal of glyphosate in neutralization liquor from the glycine-dimethylphosphit process by nanofiltration. Journal of Hazardous Materials, 2010, 181, 975-980.	12.4	29
35	Biodegradable Active Packaging with Controlled Release: Principles, Progress, and Prospects. ACS Food Science & Technology, 2022, 2, 1166-1183.	2.7	29
36	Spacer-induced forward osmosis membrane integrity loss during gypsum scaling. Desalination, 2016, 392, 85-90.	8.2	26

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37	Understanding the organic micropollutants transport mechanisms in the fertilizer-drawn forward osmosis process. Journal of Environmental Management, 2019, 248, 109240.	7.8	26
38	Direct contact membrane distillation of refining waste stream from precious metal recovery: Chemistry of silica and chromium (III) in membrane scaling. Journal of Membrane Science, 2020, 598, 117803.	8.2	24
39	Partial desalination and concentration of glyphosate liquor by nanofiltration. Journal of Hazardous Materials, 2011, 186, 960-964.	12.4	23
40	Synchrotron Fourier transform infrared mapping: A novel approach for membrane fouling characterization. Water Research, 2017, 111, 375-381.	11.3	19
41	In situ extracting organic-bound calcium: A novel approach to mitigating organic fouling in forward osmosis treating wastewater via gradient diffusion thin-films. Water Research, 2019, 156, 102-109.	11.3	18
42	Membrane distillation of a silver leaching solution: Role of the coexisting aluminum ions on silica scaling. Journal of Membrane Science, 2020, 603, 118021.	8.2	18
43	EDTA-based adsorption layer for mitigating FO membrane fouling via in situ removing calcium binding with organic foulants. Journal of Membrane Science, 2019, 578, 95-102.	8.2	17
44	A novel forward osmosis reactor assisted with microfiltration for deep thickening waste activated sludge: performance and implication. Water Research, 2021, 195, 116998.	11.3	14
45	Secret underneath: Fouling of membrane support layer in anaerobic osmotic membrane bioreactor (AnOMBR). Journal of Membrane Science, 2020, 614, 118530.	8.2	13
46	Characterization of scalants and strategies for scaling mitigation in membrane distillation of alkaline concentrated circulating cooling water. Desalination, 2022, 527, 115534.	8.2	13
47	Transport and accumulation of organic matter in forward osmosis-reverse osmosis hybrid system: Mechanism and implications. Separation and Purification Technology, 2016, 167, 6-16.	7.9	12
48	Nitrogen recovery from a palladium leachate via membrane distillation: System performance and ammonium chloride crystallization. Resources, Conservation and Recycling, 2022, 183, 106368.	10.8	12
49	In Situ Chemical Modification with Zwitterionic Copolymers of Nanofiltration Membranes: Cure for the Trade-Off between Filtration and Antifouling Performance. ACS Applied Materials & Interfaces, 2022, 14, 28842-28853.	8.0	12
50	Effects of surfactant addition to draw solution on the performance of osmotic membrane bioreactor. Journal of Membrane Science, 2021, 618, 118634.	8.2	11
51	Nanofiltration process of glyphosate simulated wastewater. Water Science and Technology, 2012, 65, 816-822.	2.5	10
52	Rejection of harsh pH saline solutions using graphene membranes. Carbon, 2021, 171, 240-247.	10.3	9
53	Engineering pressure retarded osmosis membrane bioreactor (PRO-MBR) for simultaneous water and energy recovery from municipal wastewater. Science of the Total Environment, 2022, 826, 154048.	8.0	9
54	Emerging investigator series: engineering membrane distillation with nanofabrication: design, performance and mechanisms. Environmental Science: Water Research and Technology, 2020, 6, 1786-1793.	2.4	7

#	Article	IF	Citations
55	Treatment of a platinum leachate by membrane distillation: Mechanism of combined silica scaling and organic fouling for distinct system performance decline. Chemical Engineering Research and Design, 2021, 146, 877-885.	5.6	7
56	Performance of coagulant-aided biomass filtration to protect ultrafiltration from membrane fouling in biogas slurry concentration. Environmental Technology and Innovation, 2022, 28, 102659.	6.1	5
57	Removal Mechanisms of Trace Organic Contaminants in Osmotically Driven Membrane Process. Procedia Engineering, 2012, 44, 269-272.	1.2	2
58	Emerging investigator series: onsite recycling of salineâ€“alkaline soil washing water by forward osmosis: techno-economic evaluation and implication. Environmental Science: Water Research and Technology, 2020, 6, 2881-2890.	2.4	2
59	Removal of Emerging Trace Organic Chemicals by Forward Osmosis. , 2015, , 363-394.		0