Yan-Fang Guan

List of Publications by Year
in descending order

182 papers	36,482 citations	3334 91 h-index	3579 181 g-index
186 all docs	186 docs citations	186 times ranked	24081 citing authors

#	Article	IF	Citations
1	Tailored design of nanofiltration membranes for water treatment based on synthesisâ€“propertyâ€“performance relationships. Chemical Society Reviews, 2022, 51, 672-719.	38.1	182
2	Module-scale analysis of low-salt-rejection reverse osmosis: Design guidelines and system performance. Water Research, 2022, 209, 117936.	11.3	9
3	Perfect divalent cation selectivity with capacitive deionization. Water Research, 2022, 210, 117959.	11.3	46
4	Reply to â€œA resurrection of the Haber-Weiss reactionâ€• Nature Communications, 2022, 13, 395.	12.8	3
5	Machine learning reveals key ion selectivity mechanisms in polymeric membranes with subnanometer pores. Science Advances, 2022, 8, eabl5771.	10.3	45
6	Laser Interferometry for Precise Measurement of Ultralow Flow Rates from Permeable Materials. Environmental Science and Technology Letters, 2022, 9, 233-238.	8.7	0
7	Molecular Simulations to Elucidate Transport Phenomena in Polymeric Membranes. Environmental Science & Technology, 2022, 56, 3313-3323.	10.0	25
8	Designing polymeric membranes with coordination chemistry for high-precision ion separations. Science Advances, 2022, 8, eabm9436.	10.3	50
9	Catalytic Membrane with Copper Single-Atom Catalysts for Effective Hydrogen Peroxide Activation and Pollutant Destruction. Environmental Science & Technology, 2022, 56, 8733-8745.	10.0	31
10	Distinct impacts of natural organic matter and colloidal particles on gypsum crystallization. Water Research, 2022, 218, 118500.	11.3	22
11	Simultaneous nanocatalytic surface activation of pollutants and oxidants for highly efficient water decontamination. Nature Communications, 2022, 13, .	12.8	117
12	Contrasting behaviors of pre-ozonation on ceramic membrane biofouling: Early stage vs late stage. Water Research, 2022, 220, 118702.	11.3	12
13	Inorganic Scaling in Membrane Desalination: Models, Mechanisms, and Characterization Methods. Environmental Science & Technology, 2022, 56, 7484-7511.	10.0	60
14	Synergistic Nanowire-Enhanced Electroporation and Electrochlorination for Highly Efficient Water Disinfection. Environmental Science & Technology, 2022, 56, 10925-10934.	10.0	26
15	Mining Nontraditional Water Sources for a Distributed Hydrogen Economy. Environmental Science & Technology, 2022, 56, 10577-10585.	10.0	14
16	High performance polyester reverse osmosis desalination membrane with chlorine resistance. Nature Sustainability, 2021, 4, 138-146.	23.7	185
17	Colloidal stability of cellulose nanocrystals in aqueous solutions containing monovalent, divalent, and trivalent inorganic salts. Journal of Colloid and Interface Science, 2021, 584, 456-463.	9.4	32
18	Cobalt Single Atoms on Tetrapyridomacrocyclic Support for Efficient Peroxymonosulfate Activation. Environmental Science & Technology, 2021, 55, 1242-1250.	10.0	185

#	Article	IF	Citations
19	Photo-electrochemical Osmotic System Enables Simultaneous Metal Recovery and Electricity Generation from Wastewater. Environmental Science & Technology, 2021, 55, 604-613.	10.0	26
20	Removal of Emerging Wastewater Organic Contaminants by Polyelectrolyte Multilayer Nanofiltration Membranes with Tailored Selectivity. ACS ES&T Engineering, 2021, 1, 404-414.	7.6	41
21	Comment on â€œTechno-economic analysis of capacitive and intercalative water deionizationâ€•by M. Metzger, M. Besli, S. Kuppan, S. Hellstrom, S. Kim, E. Sebti, C. Subban and J. Christensen, Energy Environ. Sci., 2020, 13, 1544. Energy and Environmental Science, 2021, 14, 2494-2498.	30.8	4
22	Graphene oxide membranes with stable porous structure for ultrafast water transport. Nature Nanotechnology, 2021, 16, 337-343.	31.5	301
23	Precisely Engineered Photoreactive Titanium Nanoarray Coating to Mitigate Biofouling in Ultrafiltration. ACS Applied Materials & Interfaces, 2021, 13, 9975-9984.	8.0	14
24	Electrified Membranes for Water Treatment Applications. ACS ES&T Engineering, 2021, 1, 725-752.	7.6	139
25	Environmental Applications of Engineered Materials with Nanoconfinement. ACS ES&T Engineering, 2021, 1, 706-724.	7.6	80
26	Enhanced Photocatalytic Water Decontamination by Microâ€“Nano Bubbles: Measurements and Mechanisms. Environmental Science & Technology, 2021, 55, 7025-7033.	10.0	29
27	Membrane-Confined Iron Oxychloride Nanocatalysts for Highly Efficient Heterogeneous Fenton Water Treatment. Environmental Science & Technology, 2021, 55, 9266-9275.	10.0	135
28	Comparison of Energy Consumption of Osmotically Assisted Reverse Osmosis and Low-Salt-Rejection Reverse Osmosis for Brine Management. Environmental Science & Technology, 2021, 55, 10714-10723.	10.0	25
29	In Situ Characterization of Dehydration during Ion Transport in Polymeric Nanochannels. Journal of the American Chemical Society, 2021, 143, 14242-14252.	13.7	89
30	Plate-Based Kinetic Fluorescence Tests for High-Throughput Screening of Electrochemically Active Bacteria. ACS ES&T Water, 2021, 1, 2139-2145.	4.6	4
31	Chlorine-Resistant Epoxide-Based Membranes for Sustainable Water Desalination. Environmental Science and Technology Letters, 2021, 8, 818-824.	8.7	12
32	Membrane Materials for Selective Ion Separations at the Waterâ€“Energy Nexus. Advanced Materials, 2021, 33, e2101312.	21.0	100
33	Nanopore-Based Power Generation from Salinity Gradient: Why It Is Not Viable. ACS Nano, 2021, 15, 4093-4107.	14.6	101
34	Nanoscale Thickness Control of Nanoporous Films Derived from Directionally Photopolymerized Mesophases. Advanced Materials Interfaces, 2021, 8, 2001977.	3.7	9
35	Selective Fluoride Transport in Subnanometer TiO₂ Pores. ACS Nano, 2021, 15, 16828-16838.	14.6	16
36	Joule-Heated Layered Double Hydroxide Sponge for Rapid Removal of Silica from Water. Environmental Science & Technology, 2021, 55, 16130-16142.	10.0	12

#	Article	IF	Citations
37	Engineered Nanoconfinement Accelerating Spontaneous Manganese-Catalyzed Degradation of Organic Contaminants. Environmental Science & Technology, 2021, 55, 16708-16715.	10.0	50
38	Salt and Water Transport in Reverse Osmosis Membranes: Beyond the Solution-Diffusion Model. Environmental Science & Technology, 2021, 55, 16665-16675.	10.0	82
39	Graphene Oxide-Functionalized Membranes: The Importance of Nanosheet Surface Exposure for Biofouling Resistance. Environmental Science & Technology, 2020, 54, 517-526.	10.0	47
40	Similarities and differences between potassium and ammonium ions in liquid water: a first-principles study. Physical Chemistry Chemical Physics, 2020, 22, 2540-2548.	2.8	33
41	Minimal and zero liquid discharge with reverse osmosis using low-salt-rejection membranes. Water Research, 2020, 170, 115317.	11.3	102
42	Intrapore energy barriers govern ion transport and selectivity of desalination membranes. Science Advances, 2020, 6, .	10.3	161
43	Ionization behavior of nanoporous polyamide membranes. Proceedings of the National Academy of Sciences of the United States of America, 2020, 117, 30191-30200.	7.1	82
44	Janus electrocatalytic flow-through membrane enables highly selective singlet oxygen production. Nature Communications, 2020, 11, 6228.	12.8	142
45	Surface functionalization of reverse osmosis membranes with sulfonic groups for simultaneous mitigation of silica scaling and organic fouling. Water Research, 2020, 185, 116203.	11.3	50
46	Mechanism of Heterogeneous Fenton Reaction Kinetics Enhancement under Nanoscale Spatial Confinement. Environmental Science & Technology, 2020, 54, 10868-10875.	10.0	188
47	Pathways and Challenges for Biomimetic Desalination Membranes with Sub-Nanometer Channels. ACS Nano, 2020, 14, 10894-10916.	14.6	72
48	Rethinking wastewater risks and monitoring in light of the COVID-19 pandemic. Nature Sustainability, 2020, 3, 981-990.	23.7	195
49	Electrochemical-Osmotic Process for Simultaneous Recovery of Electric Energy, Water, and Metals from Wastewater. Environmental Science & Technology, 2020, 54, 8430-8442.	10.0	31
50	Towards single-species selectivity of membranes with subnanometre pores. Nature Nanotechnology, 2020, 15, 426-436.	31.5	389
51	The relative insignificance of advanced materials in enhancing the energy efficiency of desalination technologies. Energy and Environmental Science, 2020, 13, 1694-1710.	30.8	206
52	Relating Selectivity and Separation Performance of Lamellar Two-Dimensional Molybdenum Disulfide (MoS₂) Membranes to Nanosheet Stacking Behavior. Environmental Science & Technology, 2020, 54, 9640-9651.	10.0	82
53	Capillary-driven desalination in a synthetic mangrove. Science Advances, 2020, 6, eaax5253.	10.3	47
54	Energy Efficiency of Electro-Driven Brackish Water Desalination: Electrodialysis Significantly Outperforms Membrane Capacitive Deionization. Environmental Science & Technology, 2020, 54, 3663-3677.	10.0	133

#	Article	IF	Citations
55	Strong Differential Monovalent Anion Selectivity in Narrow Diameter Carbon Nanotube Porins. ACS Nano, 2020, 14, 6269-6275.	14.6	35
56	In Situ Electrochemical Generation of Reactive Chlorine Species for Efficient Ultrafiltration Membrane Self-Cleaning. Environmental Science & Technology, 2020, 54, 6997-7007.	10.0	84
57	Tunable Molybdenum Disulfide-Enabled Fiber Mats for High-Efficiency Removal of Mercury from Water. ACS Applied Materials & Interfaces, 2020, 12, 18446-18456.	8.0	55
58	Polyamide nanofiltration membrane with highly uniform sub-nanometre pores for sub-1â€‰Ã… precision separation. Nature Communications, 2020, 11, 2015.	12.8	398
59	Derivation of the Theoretical Minimum Energy of Separation of Desalination Processes. Journal of Chemical Education, 2020, 97, 4361-4369.	2.3	50
60	Precise nanofiltration in a fouling-resistant self-assembled membrane with water-continuous transport pathways. Science Advances, 2019, 5, eaav9308.	10.3	79
61	One-step sonochemical synthesis of a reduced graphene oxide â€“ ZnO nanocomposite with antibacterial and antibiofouling properties. Environmental Science: Nano, 2019, 6, 3080-3090.	4.3	36
62	Sub-1 Î¼m Free-Standing Symmetric Membrane for Osmotic Separations. Environmental Science and Technology Letters, 2019, 6, 492-498.	8.7	20
63	1,4-Dioxane as an emerging water contaminant: State of the science and evaluation of research needs. Science of the Total Environment, 2019, 690, 853-866.	8.0	85
64	Pathways and challenges for efficient solar-thermal desalination. Science Advances, 2019, 5, eaax0763.	10.3	311
65	Modification of forward osmosis membrane with naturally-available humic acid: Towards simultaneously improved filtration performance and antifouling properties. Environment International, 2019, 131, 105045.	10.0	9
66	Silica Removal Using Magnetic Ironâ€“Aluminum Hybrid Nanomaterials: Measurements, Adsorption Mechanisms, and Implications for Silica Scaling in Reverse Osmosis. Environmental Science & Technology, 2019, 53, 13302-13311.	10.0	22
67	Shape-Dependent Interactions of Manganese Oxide Nanomaterials with Lipid Bilayer Vesicles. Langmuir, 2019, 35, 13958-13966.	3.5	5
68	Tuning Pb(II) Adsorption from Aqueous Solutions on Ultrathin Iron Oxychloride (FeOCl) Nanosheets. Environmental Science & Technology, 2019, 53, 2075-2085.	10.0	121
69	Photografting Graphene Oxide to Inert Membrane Materials to Impart Antibacterial Activity. Environmental Science and Technology Letters, 2019, 6, 141-147.	8.7	33
70	Comparison of energy consumption in desalination by capacitive deionization and reverse osmosis. Desalination, 2019, 455, 100-114.	8.2	210
71	Single crystal texture by directed molecular self-assembly along dual axes. Nature Materials, 2019, 18, 1235-1243.	27.5	34
72	Engineering Carbon Nanotube Forest Superstructure for Robust Thermal Desalination Membranes. Advanced Functional Materials, 2019, 29, 1903125.	14.9	48

#	Article	IF	Citations
73	Tuning the permselectivity of polymeric desalination membranes via control of polymer crystallite size. Nature Communications, 2019, 10, 2347.	12.8	43
74	Critical Knowledge Gaps in Mass Transport through Single-Digit Nanopores: A Review and Perspective. Journal of Physical Chemistry C, 2019, 123, 21309-21326.	3.1	234
75	Monte Carlo Simulations of Framework Defects in Layered Two-Dimensional Nanomaterial Desalination Membranes: Implications for Permeability and Selectivity. Environmental Science & Technology, 2019, 53, 6214-6224.	10.0	80
76	Removal of calcium ions from water by selective electrosorption using target-ion specific nanocomposite electrode. Water Research, 2019, 160, 445-453.	11.3	57
77	Concentration and Recovery of Dyes from Textile Wastewater Using a Self-Standing, Support-Free Forward Osmosis Membrane. Environmental Science & Technology, 2019, 53, 3078-3086.	10.0	76
78	Actinia-like multifunctional nanocoagulant for single-step removal of water contaminants. Nature Nanotechnology, 2019, 14, 64-71.	31.5	89
79	Environmental performance of graphene-based 3D macrostructures. Nature Nanotechnology, 2019, 14, 107-119.	31.5	286
80	Reinventing Fenton Chemistry: Iron Oxychloride Nanosheet for pH-Insensitive H₂O₂ Activation. Environmental Science and Technology Letters, 2018, 5, 186-191.	8.7	202
81	Role of Ionic Charge Density in Donnan Exclusion of Monovalent Anions by Nanofiltration. Environmental Science & Technology, 2018, 52, 4108-4116.	10.0	196
82	The role of nanotechnology in tackling global water challenges. Nature Sustainability, 2018, 1, 166-175.	23.7	377
83	Elucidating the Role of Oxidative Debris in the Antimicrobial Properties of Graphene Oxide. ACS Applied Nano Materials, 2018, 1, 1164-1174.	5.0	42
84	Nanofoaming of Polyamide Desalination Membranes To Tune Permeability and Selectivity. Environmental Science and Technology Letters, 2018, 5, 123-130.	8.7	260
85	Emerging electrochemical and membrane-based systems to convert low-grade heat to electricity. Energy and Environmental Science, 2018, 11, 276-285.	30.8	172
86	A Self-Standing, Support-Free Membrane for Forward Osmosis with No Internal Concentration Polarization. Environmental Science and Technology Letters, 2018, 5, 266-271.	8.7	50
87	Membrane distillation at the water-energy nexus: limits, opportunities, and challenges. Energy and Environmental Science, 2018, 11, 1177-1196.	30.8	740
88	Bacterial inactivation by a carbon nanotubeâ€“iron oxide nanocomposite: a mechanistic study usingE. colimutants. Environmental Science: Nano, 2018, 5, 372-380.	4.3	22
89	Engineered Slippery Surface to Mitigate Gypsum Scaling in Membrane Distillation for Treatment of Hypersaline Industrial Wastewaters. Environmental Science & Technology, 2018, 52, 14362-14370.	10.0	148
90	Relating Organic Fouling in Membrane Distillation to Intermolecular Adhesion Forces and Interfacial Surface Energies. Environmental Science & Technology, 2018, 52, 14198-14207.	10.0	87

#	Article	IF	Citations
91	Controlled TiO₂ Growth on Reverse Osmosis and Nanofiltration Membranes by Atomic Layer Deposition: Mechanisms and Potential Applications. Environmental Science & Technology, 2018, 52, 14311-14320.	10.0	40
92	High-Performance Capacitive Deionization via Manganese Oxide-Coated, Vertically Aligned Carbon Nanotubes. Environmental Science and Technology Letters, 2018, 5, 692-700.	8.7	69
93	Layerâ€byâ€Layer Assembly of Crossâ€Functional Semiâ€transparent MXeneâ€Carbon Nanotubes Composite Films for Nextâ€Generation Electromagnetic Interference Shielding. Advanced Functional Materials, 2018, 28, 1803360.	14.9	407
94	High Performance Nanofiltration Membrane for Effective Removal of Perfluoroalkyl Substances at High Water Recovery. Environmental Science & Technology, 2018, 52, 7279-7288.	10.0	218
95	Permselectivity limits of biomimetic desalination membranes. Science Advances, 2018, 4, eaar8266.	10.3	72
96	High-Pressure Reverse Osmosis for Energy-Efficient Hypersaline Brine Desalination: Current Status, Design Considerations, and Research Needs. Environmental Science and Technology Letters, 2018, 5, 467-475.	8.7	213
97	Emerging opportunities for nanotechnology to enhance water security. Nature Nanotechnology, 2018, 13, 634-641.	31.5	627
98	Combined Organic Fouling and Inorganic Scaling in Reverse Osmosis: Role of Proteinâ€“Silica Interactions. Environmental Science & Technology, 2018, 52, 9145-9153.	10.0	66
99	Photocatalytic Reactive Ultrafiltration Membrane for Removal of Antibiotic Resistant Bacteria and Antibiotic Resistance Genes from Wastewater Effluent. Environmental Science & Technology, 2018, 52, 8666-8673.	10.0	157
100	Reactive, Self-Cleaning Ultrafiltration Membrane Functionalized with Iron Oxychloride Nanocatalysts. Environmental Science & Technology, 2018, 52, 8674-8683.	10.0	124
101	A Path to Ultraselectivity: Support Layer Properties To Maximize Performance of Biomimetic Desalination Membranes. Environmental Science & Technology, 2018, 52, 10737-10747.	10.0	36
102	Fabrication of a Desalination Membrane with Enhanced Microbial Resistance through Vertical Alignment of Graphene Oxide. Environmental Science and Technology Letters, 2018, 5, 614-620.	8.7	37
103	Highly efficient and sustainable non-precious-metal Feâ€“Nâ€“C electrocatalysts for the oxygen reduction reaction. Journal of Materials Chemistry A, 2018, 6, 2527-2539.	10.3	214
104	Antifouling Thin-Film Composite Membranes by Controlled Architecture of Zwitterionic Polymer Brush Layer. Environmental Science & Technology, 2017, 51, 2161-2169.	10.0	232
105	Maximizing the right stuff: The trade-off between membrane permeability and selectivity. Science, 2017, 356, .	12.6	1,864
106	Carbon nanotubes keep up the heat. Nature Nanotechnology, 2017, 12, 501-503.	31.5	62
107	Relating Silica Scaling in Reverse Osmosis to Membrane Surface Properties. Environmental Science & Technology, 2017, 51, 4396-4406.	10.0	136
108	Highly Selective Vertically Aligned Nanopores in Sustainably Derived Polymer Membranes by Molecular Templating. ACS Nano, 2017, 11, 3911-3921.	14.6	83

#	Article	IF	Citations
109	Enhanced antibacterial activity through the controlled alignment of graphene oxide nanosheets. Proceedings of the National Academy of Sciences of the United States of America, 2017, 114, E9793-E9801.	7.1	275
110	Energy Efficiency and Performance Limiting Effects in Thermo-Osmotic Energy Conversion from Low-Grade Heat. Environmental Science & Technology, 2017, 51, 12925-12937.	10.0	82
111	Loss of Phospholipid Membrane Integrity Induced by Two-Dimensional Nanomaterials. Environmental Science and Technology Letters, 2017, 4, 404-409.	8.7	39
112	An Osmotic Membrane Bioreactorâ€“Membrane Distillation System for Simultaneous Wastewater Reuse and Seawater Desalination: Performance and Implications. Environmental Science & Technology, 2017, 51, 14311-14320.	10.0	56
113	Performance and Mechanisms of Ultrafiltration Membrane Fouling Mitigation by Coupling Coagulation and Applied Electric Field in a Novel Electrocoagulation Membrane Reactor. Environmental Science & Technology, 2017, 51, 8544-8551.	10.0	84
114	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
115	Engineering Surface Energy and Nanostructure of Microporous Films for Expanded Membrane Distillation Applications. Environmental Science & Technology, 2016, 50, 8112-8119.	10.0	203
116	Development of Omniphobic Desalination Membranes Using a Charged Electrospun Nanofiber Scaffold. ACS Applied Materials & Interfaces, 2016, 8, 11154-11161.	8.0	218
117	Biofouling Mitigation in Forward Osmosis Using Graphene Oxide Functionalized Thin-Film Composite Membranes. Environmental Science & Technology, 2016, 50, 5840-5848.	10.0	160
118	Effect of Final Monomer Deposition Steps on Molecular Layer-by-Layer Polyamide Surface Properties. Langmuir, 2016, 32, 10815-10823.	3.5	15
119	Antifouling membranes for sustainable water purification: strategies and mechanisms. Chemical Society Reviews, 2016, 45, 5888-5924.	38.1	977
120	Materials for next-generation desalination and water purification membranes. Nature Reviews Materials, 2016, 1, .	48.7	1,977
121	Harvesting low-grade heat energy using thermo-osmotic vapour transport through nanoporousÂmembranes. Nature Energy, 2016, 1, .	39.5	226
122	Omniphobic Polyvinylidene Fluoride (PVDF) Membrane for Desalination of Shale Gas Produced Water by Membrane Distillation. Environmental Science & Technology, 2016, 50, 12275-12282.	10.0	307
123	The Global Rise of Zero Liquid Discharge for Wastewater Management: Drivers, Technologies, and Future Directions. Environmental Science & Technology, 2016, 50, 6846-6855.	10.0	682
124	Heterogeneous WS_x/WO₃ Thorn-Bush Nanofiber Electrodes for Sodium-Ion Batteries. ACS Nano, 2016, 10, 3257-3266.	14.6	121
125	Thin Polymer Films with Continuous Vertically Aligned 1 nm Pores Fabricated by Soft Confinement. ACS Nano, 2016, 10, 150-158.	14.6	92
126	Environmental Applications of Interfacial Materials with Special Wettability. Environmental Science & Technology, 2016, 50, 2132-2150.	10.0	273

#	Article	IF	Citations
127	The Critical Need for Increased Selectivity, Not Increased Water Permeability, for Desalination Membranes. Environmental Science and Technology Letters, 2016, 3, 112-120.	8.7	527
128	Pressure-retarded osmosis for power generation from salinity gradients: is it viable?. Energy and Environmental Science, 2016, 9, 31-48.	30.8	289
129	Membrane-based processes for wastewater nutrient recovery: Technology, challenges, and future direction. Water Research, 2016, 89, 210-221.	11.3	405
130	The role of forward osmosis and microfiltration in an integrated osmotic-microfiltration membrane bioreactor system. Chemosphere, 2015, 136, 125-132.	8.2	56
131	Elements Provide a Clue: Nanoscale Characterization of Thin-Film Composite Polyamide Membranes. ACS Applied Materials & Interfaces, 2015, 7, 16917-16922.	8.0	50
132	Engineering flat sheet microporous PVDF films for membrane distillation. Journal of Membrane Science, 2015, 492, 355-363.	8.2	118
133	Antimicrobial Properties of Graphene Oxide Nanosheets: Why Size Matters. ACS Nano, 2015, 9, 7226-7236.	14.6	806
134	Biofouling in forward osmosis and reverse osmosis: Measurements and mechanisms. Journal of Membrane Science, 2015, 493, 703-708.	8.2	137
135	Membrane-Based Osmotic Heat Engine with Organic Solvent for Enhanced Power Generation from Low-Grade Heat. Environmental Science & Technology, 2015, 49, 5820-5827.	10.0	76
136	Antimicrobial Electrospun Biopolymer Nanofiber Mats Functionalized with Graphene Oxideâ€“Silver Nanocomposites. ACS Applied Materials & Interfaces, 2015, 7, 12751-12759.	8.0	256
137	Interaction of Graphene Oxide with Bacterial Cell Membranes: Insights from Force Spectroscopy. Environmental Science and Technology Letters, 2015, 2, 112-117.	8.7	164
138	Selectivity and Mass Transfer Limitations in Pressure-Retarded Osmosis at High Concentrations and Increased Operating Pressures. Environmental Science & Technology, 2015, 49, 12551-12559.	10.0	46
139	Controlled Architecture of Dual-Functional Block Copolymer Brushes on Thin-Film Composite Membranes for Integrated â€œDefendingâ€•and â€œAttackingâ€•Strategies against Biofouling. ACS Applied Materials & Interfaces, 2015, 7, 23069-23079.	8.0	216
140	Impaired Performance of Pressure-Retarded Osmosis due to Irreversible Biofouling. Environmental Science & Technology, 2015, 49, 13050-13058.	10.0	75
141	Mitigating biofouling on thin-film composite polyamide membranes using a controlled-release platform. Journal of Membrane Science, 2014, 453, 84-91.	8.2	34
142	Molecular Design of Liquid Crystalline Brush-Like Block Copolymers for Magnetic Field Directed Self-Assembly: A Platform for Functional Materials. ACS Macro Letters, 2014, 3, 462-466.	4.8	59
143	Thin-Film Composite Polyamide Membranes Functionalized with Biocidal Graphene Oxide Nanosheets. Environmental Science and Technology Letters, 2014, 1, 71-76.	8.7	460
144	Direct contact membrane distillation with heat recovery: Thermodynamic insights from module scale modeling. Journal of Membrane Science, 2014, 453, 498-515.	8.2	168

#	ARTICLE	IF	CITATIONS
145	Low flow data logger in membrane distillation: An interdisciplinary laboratory in process control. , 2014, , .		2
146	Thermodynamic limits of extractable energy by pressure retarded osmosis. Energy and Environmental Science, 2014, 7, 2706-2714.	30.8	149
147	The road to nowhere: equilibrium partition coefficients for nanoparticles. Environmental Science: Nano, 2014, 1, 317-323.	4.3	129
148	In situ formation of silver nanoparticles on thin-film composite reverse osmosis membranes for biofouling mitigation. Water Research, 2014, 62, 260-270.	11.3	244
149	Reverse Osmosis Biofilm Dispersal by Osmotic Back-Flushing: Cleaning via Substratum Perforation. Environmental Science and Technology Letters, 2014, 1, 162-166.	8.7	39
150	Omniphobic Membrane for Robust Membrane Distillation. Environmental Science and Technology Letters, 2014, 1, 443-447.	8.7	288
151	Membrane scaling and flux decline during fertiliser-drawn forward osmosis desalination of brackish groundwater. Water Research, 2014, 57, 172-182.	11.3	101
152	Raising the Bar: Increased Hydraulic Pressure Allows Unprecedented High Power Densities in Pressure-Retarded Osmosis. Environmental Science and Technology Letters, 2014, 1, 55-59.	8.7	159
153	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
154	Probing the Viability of Oxo-Coupling Pathways in Iridium-Catalyzed Oxygen Evolution. Organometallics, 2013, 32, 5384-5390.	2.3	42
155	In Situ Surface Chemical Modification of Thin-Film Composite Forward Osmosis Membranes for Enhanced Organic Fouling Resistance. Environmental Science & Technology, 2013, 47, 12219-12228.	10.0	166
156	Aggregation rate and fractal dimension of fullerene nanoparticles via simultaneous multiangle static and dynamic light scattering measurement. Journal of Colloid and Interface Science, 2013, 392, 27-33.	9.4	75
157	Silica scaling and scaling reversibility in forward osmosis. Desalination, 2013, 312, 75-81.	8.2	154
158	Carbon nanotube bundling: influence on layer-by-layer assembly and antimicrobial activity. Soft Matter, 2013, 9, 2136.	2.7	32
159	Superhydrophilic Thin-Film Composite Forward Osmosis Membranes for Organic Fouling Control: Fouling Behavior and Antifouling Mechanisms. Environmental Science & Technology, 2012, 46, 11135-11144.	10.0	255
160	Improved Antifouling Properties of Polyamide Nanofiltration Membranes by Reducing the Density of Surface Carboxyl Groups. Environmental Science & Technology, 2012, 46, 13253-13261.	10.0	178
161	The Future of Seawater Desalination: Energy, Technology, and the Environment. Science, 2011, 333, 712-717.	12.6	4,908
162	Organic fouling of forward osmosis membranes: Fouling reversibility and cleaning without chemical reagents. Journal of Membrane Science, 2010, 348, 337-345.	8.2	744

#	Article	IF	Citations
163	Gypsum Scaling and Cleaning in Forward Osmosis: Measurements and Mechanisms. Environmental Science & Technology, 2010, 44, 2022-2028.	10.0	324
164	Increasing Functional Sustainability of Water and Sanitation Supplies in Rural Sub-Saharan Africa. Environmental Engineering Science, 2009, 26, 1017-1023.	1.6	109
165	Science and technology for water purification in the coming decades. , 2009, , 337-346.		110
166	Chemical and physical aspects of organic fouling of forward osmosis membranes. Journal of Membrane Science, 2008, 320, 292-302.	8.2	560
167	Modeling water flux in forward osmosis: Implications for improved membrane design. AICHE Journal, 2007, 53, 1736-1744.	3.6	323
168	Anti-fouling ultrafiltration membranes containing polyacrylonitrile-graft-poly(ethylene oxide) comb copolymer additives. Journal of Membrane Science, 2007, 298, 136-146.	8.2	404
169	Fouling of reverse osmosis membranes by hydrophilic organic matter: implications for water reuse. Desalination, 2006, 187, 313-321.	8.2	242
170	Relating Organic Fouling of Reverse Osmosis Membranes to Intermolecular Adhesion Forces. Environmental Science & Technology, 2006, 40, 980-987.	10.0	405
171	Nanofiltration of Hormone Mimicking Trace Organic Contaminants. Separation Science and Technology, 2005, 40, 2633-2649.	2.5	79
172	A Novel Method for Investigating the Influence of Feed Water Recovery on Colloidal and NOM Fouling of RO and NF Membranes. Environmental Engineering Science, 2005, 22, 496-509.	1.6	20
173	Organic Fouling and Chemical Cleaning of Nanofiltration Membranes:Â Measurements and Mechanisms. Environmental Science & Technology, 2004, 38, 4683-4693.	10.0	700
174	Particle Deposition onto Solid Surfaces with Micropatterned Charge Heterogeneity:Â The â€œHydrodynamic Bumpâ€•Effect. Langmuir, 2003, 19, 6594-6597.	3.5	55
175	Effect of Membrane Surface Roughness on Colloidâ˜Membrane DLVO Interactions. Langmuir, 2003, 19, 4836-4847.	3.5	419
176	A Novel Asymmetric Clamping Cell for Measuring Streaming Potential of Flat Surfaces. Langmuir, 2002, 18, 2193-2198.	3.5	167
177	Role of Charge (Donnan) Exclusion in Removal of Arsenic from Water by a Negatively Charged Porous Nanofiltration Membrane. Environmental Engineering Science, 2001, 18, 105-113.	1.6	232
178	Coupled model of concentration polarization and pore transport in crossflow nanofiltration. AICHE Journal, 2001, 47, 2733-2745.	3.6	108
179	The â€œShadow Effectâ€•in Colloid Transport and Deposition Dynamics in Granular Porous Media:Â Measurements and Mechanisms. Environmental Science & Technology, 2000, 34, 3681-3689.	10.0	153
180	Relative Insignificance of Mineral Grain Zeta Potential to Colloid Transport in Geochemically Heterogeneous Porous Media. Environmental Science & Technology, 2000, 34, 2143-2148.	10.0	245

#	Article	IF	Citations
181	Bacteriophage PRD1 and Silica Colloid Transport and Recovery in an Iron Oxide-Coated Sand Aquifer. Environmental Science & Technology, 1999, 33, 63-73.	10.0	199
182	Transport of in Situ Mobilized Colloidal Particles in Packed Soil Columns. Environmental Science & Technology, 1998, 32, 3562-3569.	10.0	219