## Omniphobic Membrane for Robust Membrane Distillation

Environmental Science and Technology Letters 1, 443-447 DOI: 10.1021/ez500267p

Citation Report

#	Article	IF	CITATIONS
1	Analysis of countercurrent membrane vapor extraction of a dilute aqueous biosolute. AICHE Journal, 2015, 61, 2795-2809.	1.8	10
2	Engineering Surface Energy and Nanostructure of Microporous Films for Expanded Membrane Distillation Applications. Environmental Science & Technology, 2016, 50, 8112-8119.	4.6	203
3	Composite Membrane with Underwater-Oleophobic Surface for Anti-Oil-Fouling Membrane Distillation. Environmental Science & Technology, 2016, 50, 3866-3874.	4.6	190
4	Fabrication of a superhydrophobic and oleophobic PTFE membrane: An application to selective gas permeation. Materials Research Bulletin, 2016, 83, 88-95.	2.7	27
5	High desalination permeability, wetting and fouling resistance on superhydrophobic carbon nanotube hollow fiber membrane under self-powered electrochemical assistance. Journal of Membrane Science, 2016, 514, 501-509.	4.1	64
6	Preparation of alumina membranes comprising a thin separation layer and a support with straight open pores for water desalination. Ceramics International, 2016, 42, 12427-12434.	2.3	47
7	Development of Omniphobic Desalination Membranes Using a Charged Electrospun Nanofiber Scaffold. ACS Applied Materials & Interfaces, 2016, 8, 11154-11161.	4.0	218
8	Antifouling membranes for sustainable water purification: strategies and mechanisms. Chemical Society Reviews, 2016, 45, 5888-5924.	18.7	977
9	Progress in fluorinated organically modified silicas. Polymer International, 2016, 65, 6-10.	1.6	9
10	High flux and antifouling properties of negatively charged membrane for dyeing wastewater treatment by membrane distillation. Water Research, 2016, 103, 362-371.	5.3	193
11	Preparation of Interconnected Biomimetic Poly(vinylidene) Tj ETQq0 0 0 rgBT /Overlock 10 Tf 50 347 Td (fluoride Inversion Process. ACS Applied Materials & Interfaces, 2016, 8, 32604-32615.	e- <i>co4.0</i>	-chlorotrifluc 24
12	Omniphobic Polyvinylidene Fluoride (PVDF) Membrane for Desalination of Shale Gas Produced Water by Membrane Distillation. Environmental Science & Technology, 2016, 50, 12275-12282.	4.6	307
13	Sunlight-Sensitive Anti-Fouling Nanostructured TiO2 coated Cu Meshes for Ultrafast Oily Water Treatment. Scientific Reports, 2016, 6, 25414.	1.6	49
14	The potential of direct contact membrane distillation for industrial textile wastewater treatment using PVDF-Cloisite 15A nanocomposite membrane. Chemical Engineering Research and Design, 2016, 111, 284-293.	2.7	63
15	Tailoring surface charge and wetting property for robust oil-fouling mitigation in membrane distillation. Journal of Membrane Science, 2016, 516, 113-122.	4.1	119
16	Environmental Applications of Interfacial Materials with Special Wettability. Environmental Science & Technology, 2016, 50, 2132-2150.	4.6	273
17	Ultrasonic irradiation control of silica fouling during membrane distillation process. Desalination, 2016, 386, 48-57.	4.0	34
18	Membrane-based processes for wastewater nutrient recovery: Technology, challenges, and future direction. Water Research, 2016, 89, 210-221.	5.3	405

#	Article	IF	CITATIONS
19	Evaluation of membrane-based desalting processes for RO brine treatment. Desalination and Water Treatment, 2016, 57, 7432-7439.	1.0	12
20	Membrane fouling and wetting in membrane distillation and their mitigation by novel membranes with special wettability. Water Research, 2017, 112, 38-47.	5.3	248
21	CF4 plasma-modified omniphobic electrospun nanofiber membrane for produced water brine treatment by membrane distillation. Journal of Membrane Science, 2017, 529, 234-242.	4.1	170
22	Coaxially electrospun super-amphiphobic silica-based membrane for anti-surfactant-wetting membrane distillation. Journal of Membrane Science, 2017, 531, 122-128.	4.1	100
23	Wetting prevention in membrane distillation through superhydrophobicity and recharging an air layer on the membrane surface. Journal of Membrane Science, 2017, 530, 42-52.	4.1	110
24	Anti-wetting behavior of negatively charged superhydrophobic PVDF membranes in direct contact membrane distillation of emulsified wastewaters. Journal of Membrane Science, 2017, 535, 230-238.	4.1	126
25	Understanding the impact of membrane properties and transport phenomena on the energetic performance of membrane distillation desalination. Journal of Membrane Science, 2017, 539, 458-474.	4.1	100
26	Superhydrophobic membranes via facile bio-inspired mineralization for vacuum membrane distillation. Journal of Membrane Science, 2017, 540, 98-107.	4.1	53
27	Intrinsically superhydrophobic PVDF membrane by phase inversion for membrane distillation. Desalination, 2017, 417, 77-86.	4.0	142
28	Membrane synthesis for membrane distillation: A review. Separation and Purification Technology, 2017, 182, 36-51.	3.9	318
29	The impact of low-surface-energy functional groups on oil fouling resistance in membrane distillation. Journal of Membrane Science, 2017, 527, 68-77.	4.1	58
30	Distillation membrane constructed by TiO2 nanofiber followed by fluorination for excellent water desalination performance. Desalination, 2017, 405, 51-58.	4.0	62
31	Novel Janus Membrane for Membrane Distillation with Simultaneous Fouling and Wetting Resistance. Environmental Science & Technology, 2017, 51, 13304-13310.	4.6	227
32	Probing Pore Wetting in Membrane Distillation Using Impedance: Early Detection and Mechanism of Surfactant-Induced Wetting. Environmental Science and Technology Letters, 2017, 4, 505-510.	3.9	79
33	Laminated PTFE membranes to enhance the performance in direct contact membrane distillation for high salinity solution. Desalination, 2017, 424, 140-148.	4.0	35
34	Bioinspired silica-based superhydrophobic materials. Applied Surface Science, 2017, 426, 1-18.	3.1	40
35	Membrane-based zero liquid discharge: Myth or reality?. Journal of the Taiwan Institute of Chemical Engineers, 2017, 80, 192-202.	2.7	95
36	Fabrication and characterization of electrospun superhydrophobic PVDF-HFP/SiNPs hybrid membrane for membrane distillation. Separation and Purification Technology, 2017, 189, 82-89.	3.9	84

#	Article	IF	CITATIONS
37	Synergistic effect of combined colloidal and organic fouling in membrane distillation: Measurements and mechanisms. Environmental Science: Water Research and Technology, 2017, 3, 119-127.	1.2	37
38	Membrane Distillation of Meat Industry Effluent with Hydrophilic Polyurethane Coated Polytetrafluoroethylene Membranes. Membranes, 2017, 7, 55.	1.4	18
39	Wetting Resistance of Commercial Membrane Distillation Membranes in Waste Streams Containing Surfactants and Oil. Applied Sciences (Switzerland), 2017, 7, 118.	1.3	54
40	Membrane Contactor. , 2017, , 335-356.		Ο
41	Preparation of high-efficiency ceramic planar membrane and its application for water desalination. Journal of Advanced Ceramics, 2018, 7, 117-123.	8.9	41
42	A critical review on membrane hybrid system for nutrient recovery from wastewater. Chemical Engineering Journal, 2018, 348, 143-156.	6.6	145
43	Anti-fouling graphene-based membranes for effective water desalination. Nature Communications, 2018, 9, 683.	5.8	197
44	Hierarchical Composite Membranes with Robust Omniphobic Surface Using Layer-By-Layer Assembly Technique. Environmental Science & Technology, 2018, 52, 2186-2196.	4.6	90
45	Amphiphobic surface modification of electrospun nanofibrous membranes for anti-wetting performance in membrane distillation. Desalination, 2018, 432, 23-31.	4.0	96
46	Mechanism of pore wetting in membrane distillation with alcohol vs. surfactant. Journal of Membrane Science, 2018, 559, 183-195.	4.1	109
47	Wetting phenomena in membrane distillation: Mechanisms, reversal, and prevention. Water Research, 2018, 139, 329-352.	5.3	498
48	Omniphobic Hollow-Fiber Membranes for Vacuum Membrane Distillation. Environmental Science & Technology, 2018, 52, 4472-4480.	4.6	118
49	Preparation of omniphobic PVDF membrane with hierarchical structure for treating saline oily wastewater using direct contact membrane distillation. Journal of Membrane Science, 2018, 555, 197-205.	4.1	156
50	Membrane distillation at the water-energy nexus: limits, opportunities, and challenges. Energy and Environmental Science, 2018, 11, 1177-1196.	15.6	740
51	Composite membrane with electrospun multiscale-textured surface for robust oil-fouling resistance in membrane distillation. Journal of Membrane Science, 2018, 546, 179-187.	4.1	83
52	Direct contact membrane distillation for the treatment of industrial dyeing wastewater and characteristic pollutants. Separation and Purification Technology, 2018, 195, 83-91.	3.9	131
53	Omniphobic membranes for direct contact membrane distillation: Effective deposition of zinc oxide nanoparticles. Desalination, 2018, 428, 255-263.	4.0	128
54	A novel dual-layer composite membrane with underwater-superoleophobic/hydrophobic asymmetric wettability for robust oil-fouling resistance in membrane distillation desalination. Desalination, 2018, 428, 240-249.	4.0	79

#	Article	IF	CITATIONS
55	Engineered Slippery Surface to Mitigate Gypsum Scaling in Membrane Distillation for Treatment of Hypersaline Industrial Wastewaters. Environmental Science & Technology, 2018, 52, 14362-14370.	4.6	148
56	Fabrication of Janus Membranes for Desalination of Oil-Contaminated Saline Water. ACS Applied Materials & Interfaces, 2018, 10, 44871-44879.	4.0	77
57	Relating Organic Fouling in Membrane Distillation to Intermolecular Adhesion Forces and Interfacial Surface Energies. Environmental Science & amp; Technology, 2018, 52, 14198-14207.	4.6	87
58	Specially Wettable Membranes for Oil–Water Separation. Advanced Materials Interfaces, 2018, 5, 1800576.	1.9	212
59	Removal of Sodium Dodecylbenzenesulfonate by Macroporous Adsorbent Resins. Materials, 2018, 11, 1324.	1.3	8
60	Membrane fouling and reusability in membrane distillation of shale oil and gas produced water: Effects of membrane surface wettability. Journal of Membrane Science, 2018, 567, 199-208.	4.1	101
61	Nanocoated amphiphobic membrane for flux enhancement and comprehensive anti-fouling performance in direct contact membrane distillation. Journal of Membrane Science, 2018, 567, 166-180.	4.1	78
62	Surface modification of glass fiber membranes by fluorographite coating for desalination of concentrated saline water with humic acid in direct-contact membrane distillation. Separation and Purification Technology, 2018, 205, 284-292.	3.9	28
63	F-POSS based Omniphobic Membrane for Robust Membrane Distillation. Materials Letters, 2018, 228, 85-88.	1.3	60
64	Self-roughened omniphobic coatings on nanofibrous membrane for membrane distillation. Separation and Purification Technology, 2018, 206, 14-25.	3.9	82
65	Model-guided design of high-performance membrane distillation modules for water desalination. Journal of Membrane Science, 2018, 563, 794-803.	4.1	13
66	Combined electrocoagulation and membrane distillation for treating high salinity produced waters. Journal of Membrane Science, 2018, 564, 82-96.	4.1	79
67	Antiwettability and Performance Stability of a Composite Hydrophobic/Hydrophilic Dual-Layer Membrane in Wastewater Treatment by Membrane Distillation. Industrial & Engineering Chemistry Research, 2018, 57, 9313-9322.	1.8	33
68	The role of nanotechnology in industrial water treatment. Nature Nanotechnology, 2018, 13, 670-672.	15.6	156
69	An ultrathin, porous and in-air hydrophilic/underwater oleophobic coating simultaneously increasing the flux and antifouling property of membrane for membrane distillation. Desalination, 2018, 445, 40-50.	4.0	57
70	Nanostructure depositions on alumina hollow fiber membranes for enhanced wetting resistance during membrane distillation. Journal of Membrane Science, 2018, 564, 227-236.	4.1	50
71	Kinetic model for surfactant-induced pore wetting in membrane distillation. Journal of Membrane Science, 2018, 564, 275-288.	4.1	54
72	Amphiphobic PFTMS@nano-SiO <sub>2</sub> /ePTFE Membrane for Oil Aerosol Removal. Industrial & Engineering Chemistry Research, 2018, 57, 10431-10438.	1.8	16

#	Article	IF	CITATIONS
73	Fluorographite-co-polydimethylsiloxane coated polyvinylidene-fluoride membrane for desalination of highly saline water with humic acid in direct contact membrane distillation. Environmental Research, 2018, 167, 255-266.	3.7	10
74	Membrane properties in membrane distillation. , 2018, , 107-156.		52
75	Principles and advancements of air gap membrane distillation. Reviews in Chemical Engineering, 2019, 35, 817-859.	2.3	28
76	Membrane distillation hybrids for water production and energy efficiency enhancement: A critical review. Applied Energy, 2019, 254, 113698.	5.1	126
77	Omniphobic re-entrant PVDF membrane with ZnO nanoparticles composite for desalination of low surface tension oily seawater. Water Research, 2019, 165, 114982.	5.3	95
78	Hydrophobic nanostructured wood membrane for thermally efficient distillation. Science Advances, 2019, 5, eaaw3203.	4.7	81
79	Electrospun cellulose nanofibers for superhydrophobic and oleophobic membranes. Journal of Membrane Science, 2019, 590, 117271.	4.1	80
80	Trade-off in membrane distillation with monolithic omniphobic membranes. Nature Communications, 2019, 10, 3220.	5.8	106
81	Facile fabrication of omniphobic PVDF composite membrane via a waterborne coating for anti-wetting and anti-fouling membrane distillation. Journal of Membrane Science, 2019, 589, 117262.	4.1	77
82	Electrospun nanofibrous omniphobic membrane for anti-surfactant-wetting membrane distillation desalination. Desalination, 2019, 468, 114068.	4.0	61
83	A review on polymer-based membranes for gas-liquid membrane contacting processes: Current challenges and future direction. Separation and Purification Technology, 2019, 229, 115791.	3.9	86
84	Membrane-based treatment of shale oil and gas wastewater: The current state of knowledge. Frontiers of Environmental Science and Engineering, 2019, 13, 1.	3.3	44
85	Anti-oil-fouling hydrophobic-superoleophobic composite membranes for robust membrane distillation performance. Science of the Total Environment, 2019, 696, 133883.	3.9	43
86	Surface modified polypropylene membranes for treating hydraulic fracturing produced waters by membrane distillation. Separation Science and Technology, 2019, 54, 2921-2932.	1.3	6
87	Hydrophobic Gas Transfer Membranes for Wastewater Treatment and Resource Recovery. Environmental Science & Technology, 2019, 53, 11618-11635.	4.6	64
88	Recent advances in membrane development for treating surfactant- and oil-containing feed streams via membrane distillation. Advances in Colloid and Interface Science, 2019, 273, 102022.	7.0	69
89	Identifying pore wetting thresholds of surfactants in direct contact membrane distillation. Separation and Purification Technology, 2019, 217, 17-23.	3.9	14
90	Refinery processed water treatment <i>via</i> the low energy Direct Contact Membrane Distillation (DCMD). Oil and Gas Science and Technology, 2019, 74, 3.	1.4	8

#	Article	IF	CITATIONS
91	3-[[3-(Triethoxysilyl)-propyl] amino] propane-1-sulfonic acid zwitterion grafted polyvinylidene fluoride antifouling membranes for concentrating greywater in direct contact membrane distillation. Desalination, 2019, 455, 71-78.	4.0	24
92	Development of an innovative capsule with three-dimension honeycomb architecture via one-step titration-gel method for the removal of methylene blue. International Journal of Biological Macromolecules, 2019, 128, 911-922.	3.6	15
93	Ionic Liquid Hydrogel Composite Membranes (IL-HCMs). ChemEngineering, 2019, 3, 47.	1.0	5
94	Engineering Carbon Nanotube Forest Superstructure for Robust Thermal Desalination Membranes. Advanced Functional Materials, 2019, 29, 1903125.	7.8	48
95	Design of omniphobic interfaces for membrane distillation – A review. Water Research, 2019, 162, 64-77.	5.3	204
96	Highly Effective Scaling Mitigation in Membrane Distillation Using a Superhydrophobic Membrane with Gas Purging. Environmental Science and Technology Letters, 2019, 6, 423-429.	3.9	69
97	Effect of surfactant hydrophobicity and charge type on membrane distillation performance. Journal of Membrane Science, 2019, 587, 117168.	4.1	34
98	A review of membrane development in membrane distillation for emulsified industrial or shale gas wastewater treatments with feed containing hybrid impurities. Journal of Environmental Management, 2019, 243, 45-66.	3.8	56
99	Performance Comparison between Polyvinylidene Fluoride and Polytetrafluoroethylene Hollow Fiber Membranes for Direct Contact Membrane Distillation. Membranes, 2019, 9, 52.	1.4	22
101	Emerging R&D on membranes and systems for water reuse and desalination. Chinese Journal of Chemical Engineering, 2019, 27, 1578-1585.	1.7	27
102	Antiwetting and Antifouling Janus Membrane for Desalination of Saline Oily Wastewater by Membrane Distillation. ACS Applied Materials & Interfaces, 2019, 11, 18456-18465.	4.0	120
103	Fouling and wetting in the membrane distillation driven wastewater reclamation process – A review. Advances in Colloid and Interface Science, 2019, 269, 370-399.	7.0	164
104	Dissolved Methane Harvesting Using Omniphobic Membranes for Anaerobically Treated Wastewaters. Environmental Science and Technology Letters, 2019, 6, 228-234.	3.9	28
106	Omniphobic Nanofibrous Membrane with Pine-Needle-Like Hierarchical Nanostructures: Toward Enhanced Performance for Membrane Distillation. ACS Applied Materials & Interfaces, 2019, 11, 47963-47971.	4.0	80
107	Distinct Behaviors between Gypsum and Silica Scaling in Membrane Distillation. Environmental Science & Technology, 2020, 54, 568-576.	4.6	105
108	An Overview of Membrane Distillation. , 2019, , 251-281.		10
109	Removal of sodium dodecylbenzenesulfonate using surface-functionalized mesoporous silica nanoparticles. Microporous and Mesoporous Materials, 2019, 275, 270-277.	2.2	30
110	Evaluation of a real-time visualization system for scaling detection during DCMD, and its correlation with wetting. Desalination, 2019, 454, 59-70.	4.0	21

#	Article	IF	CITATIONS
111	Significance of surface excess concentration in the kinetics of surfactant-induced pore wetting in membrane distillation. Desalination, 2019, 450, 46-53.	4.0	40
112	One-step melt-blowing of multi-scale micro/nano fabric membrane for advanced air-filtration. Polymer, 2019, 165, 174-179.	1.8	57
113	Preconcentration by solvent removal: techniques and applications. Analytical and Bioanalytical Chemistry, 2019, 411, 1715-1727.	1.9	19
114	Air-gap membrane distillation as a one-step process for textile wastewater treatment. Chemical Engineering Journal, 2019, 360, 1330-1340.	6.6	103
115	Development of a dual-layered PVDF-HFP/cellulose membrane with dual wettability for desalination of oily wastewater. Journal of Membrane Science, 2019, 570-571, 418-426.	4.1	37
116	Ceramic Membrane Distillation for Desalination. Separation and Purification Reviews, 2020, 49, 317-356.	2.8	31
117	An omniphobic slippery membrane with simultaneous anti-wetting and anti-scaling properties for robust membrane distillation. Journal of Membrane Science, 2020, 595, 117572.	4.1	98
118	Preparation of re-entrant and anti-fouling PVDF composite membrane with omniphobicity for membrane distillation. Journal of Membrane Science, 2020, 595, 117563.	4.1	51
119	Effect and mechanism of an anionic surfactant on membrane performance during direct contact membrane distillation. Journal of Membrane Science, 2020, 595, 117495.	4.1	50
120	Superhydrophobic membrane by hierarchically structured PDMS-POSS electrospray coating with cauliflower-shaped beads for enhanced MD performance. Journal of Membrane Science, 2020, 597, 117638.	4.1	44
121	Hydrodynamics and mechanism of hydrophobic foam column tray: Contact angle hysteresis effect. AICHE Journal, 2020, 66, e16793.	1.8	12
122	Patterned superhydrophobic polyvinylidene fluoride (PVDF) membranes for membrane distillation: Enhanced flux with improved fouling and wetting resistance. Journal of Membrane Science, 2020, 595, 117596.	4.1	93
123	Unprecedented scaling/fouling resistance of omniphobic polyvinylidene fluoride membrane with silica nanoparticle coated micropillars in direct contact membrane distillation. Journal of Membrane Science, 2020, 599, 117819.	4.1	81
124	Low surface energy nanofibrous membrane for enhanced wetting resistance in membrane distillation process. Desalination, 2020, 476, 114210.	4.0	39
125	Elucidating the Trade-off between Membrane Wetting Resistance and Water Vapor Flux in Membrane Distillation. Environmental Science & Technology, 2020, 54, 10333-10341.	4.6	56
126	Current advances in membrane technologies for produced water desalination. Desalination, 2020, 493, 114643.	4.0	102
127	Superhydrophobic-slip surface based heat and mass transfer mechanism in vacuum membrane distillation. Journal of Membrane Science, 2020, 614, 118505.	4.1	15
128	Achievements in membrane distillation processes for wastewater and water treatment. , 2020, , 221-238.		1

#	Article	IF	CITATIONS
129	Novel smart, super-hydrophobic, and next generation membranes for thermal induced membrane separation processes. , 2020, , 187-202.		0
130	Can Composite Janus Membranes with an Ultrathin Dense Hydrophilic Layer Resist Wetting in Membrane Distillation?. Environmental Science & Technology, 2020, 54, 12713-12722.	4.6	71
131	Origin of Fluoropolymer Affinity toward Water and Its Impact on Membrane Performance. ACS Applied Polymer Materials, 2020, 2, 5249-5258.	2.0	10
132	Omniphobic PVDF nanofibrous membrane for superior anti-wetting performance in direct contact membrane distillation. Journal of Membrane Science, 2020, 608, 118226.	4.1	75
133	Molecular engineering low-surface energy membranes by grafting perfluoro- <i>tert</i> -butoxy chains containing fluorous silica aerogels. Green Chemistry, 2020, 22, 3283-3295.	4.6	17
134	Pore wetting in membrane distillation treatment of municipal wastewater desalination brine and its mitigation by foam fractionation. Chemosphere, 2020, 257, 127214.	4.2	32
135	Hydrophilic/hydrophobic Janus membranes with a dual-function surface coating for rapid and robust membrane distillation desalination. Desalination, 2020, 491, 114561.	4.0	42
136	Selective adsorption of sodium dodecylbenzenesulfonate from a Cs ion mixture by electrospun mesoporous silica nanofibers. Chemosphere, 2020, 259, 127391.	4.2	11
137	Recovery of dissolved methane from anaerobically treated food waste leachate using solvent-based membrane contactor. Water Research, 2020, 175, 115693.	5.3	22
138	The relative insignificance of advanced materials in enhancing the energy efficiency of desalination technologies. Energy and Environmental Science, 2020, 13, 1694-1710.	15.6	206
139	Rheologically controlled design of nature-inspired superhydrophobic and self-cleaning membranes for clean water production. Npj Clean Water, 2020, 3, .	3.1	35
140	Ultrafast Ion Sieving from Honeycomb-like Polyamide Membranes Formed Using Porous Protein Assemblies. Nano Letters, 2020, 20, 5821-5829.	4.5	46
141	Wastewater treatment by membrane distillation. , 2020, , 3-34.		4
142	Macro-corrugated and nano-patterned hierarchically structured superomniphobic membrane for treatment of low surface tension oily wastewater by membrane distillation. Water Research, 2020, 174, 115600.	5.3	73
143	Effect of Temperature on the Structure and Filtration Performance of Polypropylene Melt-Blown Nonwovens. Autex Research Journal, 2021, 21, 207-217.	0.6	16
144	Separation of saline oily wastewater by membrane distillation. Chemical Papers, 2020, 74, 2277-2286.	1.0	24
145	Hybrid membrane distillation: Resource, nutrient and energy recovery. Journal of Membrane Science, 2020, 599, 117832.	4.1	90
146	A review of membrane wettability for the treatment of saline water deploying membrane distillation. Desalination, 2020, 479, 114312.	4.0	177

#	ARTICLE	IF	CITATIONS
147	Anisotropic performance of a superhydrophobic polyvinyl difluoride membrane with corrugated pattern in direct contact membrane distillation. Desalination, 2020, 481, 114363.	4.0	26
148	All Dry Bottomâ€Up Assembly of Omniphobic Interfaces. Advanced Materials Interfaces, 2020, 7, 1902159.	1.9	8
149	Omniphobic surface modification of electrospun nanofiber membrane via vapor deposition for enhanced anti-wetting property in membrane distillation. Journal of Membrane Science, 2020, 606, 118075.	4.1	49
150	Enhanced omniphobicity of mullite hollow fiber membrane with organosilane-functionalized TiO2 micro-flowers and nanorods layer deposition for desalination using direct contact membrane distillation. Journal of Membrane Science, 2020, 607, 118137.	4.1	41
151	Beneficial CNT Intermediate Layer for Membrane Fluorination toward Robust Superhydrophobicity and Wetting Resistance in Membrane Distillation. ACS Applied Materials & Interfaces, 2020, 12, 20942-20954.	4.0	44
152	Prospects of nanocomposite membranes for water treatment by membrane distillation. , 2020, , 299-320.		2
153	Highâ€performance desalination of highâ€salinity reverse osmosis brine by direct contact membrane distillation using superhydrophobic membranes. Journal of Applied Polymer Science, 2021, 138, 49768.	1.3	5
154	Hollow fiber membranes with hierarchical spherulite surface structure developed by thermally induced phase separation using triple-orifice spinneret for membrane distillation. Journal of Membrane Science, 2021, 618, 118586.	4.1	21
155	Wetting, Scaling, and Fouling in Membrane Distillation: State-of-the-Art Insights on Fundamental Mechanisms and Mitigation Strategies. ACS ES&T Engineering, 2021, 1, 117-140.	3.7	217
156	Hierarchical Janus membrane with superior fouling and wetting resistance for efficient water recovery from challenging wastewater via membrane distillation. Journal of Membrane Science, 2021, 618, 118676.	4.1	50
157	Nanoparticle-free and self-healing amphiphobic membrane for anti-surfactant-wetting membrane distillation. Journal of Environmental Sciences, 2021, 100, 298-305.	3.2	14
158	In-situ silica nanoparticle assembly technique to develop an omniphobic membrane for durable membrane distillation. Desalination, 2021, 499, 114832.	4.0	53
159	Porous evaporators with special wettability for low-grade heat-driven water desalination. Journal of Materials Chemistry A, 2021, 9, 702-726.	5.2	60
160	Wetting-resistant photothermal nanocomposite membranes for direct solar membrane distillation. Journal of Membrane Science, 2021, 620, 118913.	4.1	46
161	Can emerging membrane-based desalination technologies replace reverse osmosis?. Desalination, 2021, 500, 114844.	4.0	101
162	Understanding the fouling/scaling resistance of superhydrophobic/omniphobic membranes in membrane distillation. Desalination, 2021, 499, 114864.	4.0	86
163	Dissolved methane recovery from anaerobically treated wastewaters using solvent-based membrane contactor: An experimental and modelling study. Separation and Purification Technology, 2021, 258, 118004.	3.9	6
164	Nafion-PTFE hollow fiber composite membranes for improvement of anti-fouling and anti-wetting properties in vacuum membrane distillation. Journal of Membrane Science, 2021, 620, 118915.	4.1	20

#	Article	IF	CITATIONS
165	A Critical Review of Membrane Wettability in Membrane Distillation from the Perspective of Interfacial Interactions. Environmental Science & amp; Technology, 2021, 55, 1395-1418.	4.6	105
166	Preparation of an omniphobic nanofiber membrane by the self-assembly of hydrophobic nanoparticles for membrane distillation. Separation and Purification Technology, 2021, 259, 118134.	3.9	40
167	Superhydrophobic-omniphobic membrane with anti-deformable pores for membrane distillation with excellent wetting resistance. Journal of Membrane Science, 2021, 620, 118768.	4.1	68
168	A Mini Review on Antiwetting Studies in Membrane Distillation for Textile Wastewater Treatment. Processes, 2021, 9, 243.	1.3	15
169	Omniphobic membranes for distillation: Opportunities and challenges. Chinese Chemical Letters, 2021, 32, 3298-3306.	4.8	46
170	Membrane Contactors for Maximizing Biomethane Recovery in Anaerobic Wastewater Treatments: Recent Efforts and Future Prospect. Applied Sciences (Switzerland), 2021, 11, 1372.	1.3	7
171	A Conductive Hydrophobic Polyaniline Sandwiched Polyvinylidene Fluoride Membrane for Early Detection of Surfactant-Induced Wetting in Membrane Distillation Using Impedance. ACS Applied Polymer Materials, 2021, 3, 679-690.	2.0	17
172	Selection of Industrial Trade Waste Resource Recovery Technologies—A Systematic Review. Resources, 2021, 10, 29.	1.6	4
173	Selection of membranes and operational parameters aiming for the highest rejection of petrochemical pollutants via membrane distillation. Separation and Purification Technology, 2021, 259, 118143.	3.9	4
174	Fabrication of omniphobic PVDF composite membrane with dual-scale hierarchical structure via chemical bonding for robust membrane distillation. Journal of Membrane Science, 2021, 622, 119038.	4.1	43
175	Co-axially electrospun superhydrophobic nanofiber membranes with 3D-hierarchically structured surface for desalination by long-term membrane distillation. Journal of Membrane Science, 2021, 623, 119028.	4.1	38
176	Robust dual-layered omniphobic electrospun membrane with anti-wetting and anti-scaling functionalised for membrane distillation application. Journal of Membrane Science, 2021, 624, 119089.	4.1	52
177	Chargeâ€Gradient Hydrogels Enable Direct Zero Liquid Discharge for Hypersaline Wastewater Management. Advanced Materials, 2021, 33, e2100141.	11.1	37
178	Enhancing DCMD vapor flux of PVDF-HFP membrane with hydrophilic silica fibers. Separation and Purification Technology, 2021, 263, 118361.	3.9	11
179	Thin-film distillation coupled with membrane condenser for brine solutions concentration. Desalination, 2021, 503, 114956.	4.0	13
180	Omniphobic palygorskite coated Janus membrane with enhanced fouling and wetting resistance for direct contact membrane distillation. Desalination, 2021, 505, 114986.	4.0	31
181	Resistance of Polypropylene Membrane to Oil Fouling during Membrane Distillation. Membranes, 2021, 11, 552.	1.4	12
182	Recent trends in water purification using electrospun nanofibrous membranes. International Journal of Environmental Science and Technology, 2022, 19, 9149-9176.	1.8	28

#	Article	IF	CITATIONS
183	Preparation of photothermal membrane for vacuum membrane distillation with excellent anti-fouling ability through surface spraying. Journal of Membrane Science, 2021, 634, 119434.	4.1	29
184	Membrane distillation crystallization technology for zero liquid discharge and resource recovery: Opportunities, challenges and futuristic perspectives. Science of the Total Environment, 2022, 806, 150692.	3.9	67
185	A review on the manufacturing techniques of porous hydrophobic ceramic membranes applied to direct contact membrane distillation. Advances in Applied Ceramics, 2021, 120, 336-357.	0.6	5
186	Janus Membrane with a Dense Hydrophilic Surface Layer for Robust Fouling and Wetting Resistance in Membrane Distillation: New Insights into Wetting Resistance. Environmental Science & Technology, 2021, 55, 14156-14164.	4.6	57
187	Pore wetting in membrane distillation: A comprehensive review. Progress in Materials Science, 2021, 122, 100843.	16.0	92
188	Application of polypropylene membranes hydrophilized by plasma for water desalination by membrane distillation. Desalination, 2021, 515, 115187.	4.0	24
189	Metal oxide and carbon nanomaterial based membranes for reverse osmosis and membrane distillation: A comparative review. Environmental Research, 2021, 202, 111716.	3.7	29
190	Evaluation of Fenton and modified Fenton oxidation coupled with membrane distillation for produced water treatment: Benefits, challenges, and effluent toxicity. Science of the Total Environment, 2021, 796, 148953.	3.9	18
191	A tree-grapes-like PTFE fibrous membrane with super-hydrophobic and durable performance for oil/water separation. Separation and Purification Technology, 2021, 275, 119165.	3.9	29
192	Dual-layer membranes with a thin film hydrophilic MOF/PVA nanocomposite for enhanced antiwetting property in membrane distillation. Desalination, 2021, 518, 115268.	4.0	29
193	Evaluation of applying membrane distillation for landfill leachate treatment. Desalination, 2021, 520, 115358.	4.0	33
194	Comprehensive review of membrane design and synthesis for membrane distillation. Desalination, 2021, 518, 115168.	4.0	68
195	A systematic study on the impact of feed composition and substrate wettability on wetting and fouling of omniphobic and janus membranes in membrane distillation. Journal of Membrane Science, 2022, 641, 119873.	4.1	19
196	Progress in treatment of oilfield produced water using membrane distillation and potentials for beneficial re-use. Separation and Purification Technology, 2021, 278, 119494.	3.9	13
197	Mechanically strong Janus tri-bore hollow fiber membranes with asymmetric pores for anti-wetting and anti-fouling membrane distillation. Chemical Engineering Journal, 2022, 429, 132455.	6.6	21
198	Development of robust and superamphiphobic membranes using reduced graphene oxide (rGO)/PVDF-HFP nanocomposite mats for membrane distillation. Environmental Science: Nano, 2021, 8, 2883-2893.	2.2	12
199	Membrane distillation: recent technological developments and advancements in membrane materials. Emergent Materials, 2022, 5, 347-367.	3.2	33
200	Slippery for scaling resistance in membrane distillation: A novel porous micropillared superhydrophobic surface. Water Research, 2019, 155, 152-161.	5.3	183

#	Article	IF	CITATIONS
201	Bio-inspired super liquid-repellent membranes for membrane distillation: Mechanisms, fabrications and applications. Advances in Colloid and Interface Science, 2021, 297, 102547.	7.0	16
202	Thermoelectric heating and cooling for efficient membrane distillation. Case Studies in Thermal Engineering, 2021, 28, 101540.	2.8	10
203	Membrane and Membrane Reactors Operations in Chemical Engineering. , 2019, , .		1
204	Wetting indicators, modes, and trade-offs in membrane distillation. Journal of Membrane Science, 2022, 642, 119947.	4.1	10
205	Microstructure design and construction of anti-wetting and anti-fouling multifunctional Janus membrane for robust membrane distillation. Chemical Engineering Journal, 2022, 430, 132973.	6.6	33
206	ZnO-Nanorod Induced Omniphobic Polypropylene Membrane for Improved Anti-Wetting Performance in Membrane Distillation. SSRN Electronic Journal, 0, , .	0.4	0
207	Omniphobic Membranes: Fundamentals, Materials, and Applications. Chemistry in the Environment, 2021, , 184-206.	0.2	0
208	Transition of Fouling Characteristics after Development of Membrane Wetting in Membrane-Aerated Biofilm Reactors (MABRs). SSRN Electronic Journal, 0, , .	0.4	0
209	Scaling resistance by fluoro-treatments: the importance of wetting states. Journal of Materials Chemistry A, 2022, 10, 3058-3068.	5.2	13
210	Construction of omniphobic PVDF membranes for membrane distillation: Investigating the role of dimension, morphology, and coating technology of silica nanoparticles. Desalination, 2022, 525, 115498.	4.0	22
211	Robust reduced graphene oxide composite membranes for enhanced anti-wetting property in membrane distillation. Desalination, 2022, 526, 115549.	4.0	15
212	Unlock the secret of air blowing in developing high strength and superhydrophobic membranes for membrane distillation. Desalination, 2022, 527, 115579.	4.0	12
213	Application of superomniphobic electrospun membrane for treatment of real produced water through membrane distillation. Desalination, 2022, 528, 115602.	4.0	24
214	Interpreting contact angles of surfactant solutions on microporous hydrophobic membranes. , 2022, 2, 100015.		7
215	Electrospun Liquid-Infused Membranes for Emulsified Oil/Water Separation. Langmuir, 2022, 38, 2301-2313.	1.6	14
216	Anti-fouling and anti-wetting membranes for membrane distillation. Journal of Water Process Engineering, 2022, 46, 102634.	2.6	16
217	Polymer-based membranes for membrane distillation. , 2022, , 597-635.		0
218	Plasma-controlled surface wettability: recent advances and future applications. International Materials Reviews, 2023, 68, 82-119.	9.4	29

#	Article	IF	CITATIONS
220	Omniphobic surface modification of silica sand ceramic hollow fiber membrane for desalination via direct contact membrane distillation. Desalination, 2022, 532, 115705.	4.0	10
221	Transition of fouling characteristics after development of membrane wetting in membrane-aerated biofilm reactors (MABRs). Chemosphere, 2022, 299, 134355.	4.2	9
222	A review on membrane distillation in process engineering: design and exergy equations, materials and wetting problems. Frontiers of Chemical Science and Engineering, 2022, 16, 592-613.	2.3	8
223	Negative Pressure Membrane Distillation for Excellent Gypsum Scaling Resistance and Flux Enhancement. Environmental Science & Technology, 2022, 56, 1405-1412.	4.6	26
224	Membrane Distillation of Saline Water Contaminated with Oil and Surfactants. Membranes, 2021, 11, 988.	1.4	7
225	ZnO Nanorod Induced Omniphobic Polypropylene Membrane for Improved Antiwetting Performance in Membrane Distillation. Industrial & Engineering Chemistry Research, 2022, 61, 5963-5970.	1.8	5
226	g-C3N4 nanofibers network reinforced polyamide nanofiltration membrane for fast desalination. Separation and Purification Technology, 2022, 293, 121125.	3.9	18
227	Electrospraying technique in fabrication of separation membranes: A review. Desalination, 2022, 533, 115765.	4.0	17
228	Fouling and Membrane Degradation in Electromembrane and Baromembrane Processes. Membranes and Membrane Technologies, 2022, 4, 69-92.	0.6	32
229	Novel approach to surface functionalization of mullite-kaolinite hollow fiber membrane using organosilane-functionalized Co3O4 spider web-like layer deposition for desalination using direct contact membrane distillation. Ceramics International, 2022, 48, 21025-21036.	2.3	7
230	Long-Chain PFASs-Free Omniphobic Membranes for Sustained Membrane Distillation. ACS Applied Materials & Interfaces, 2022, 14, 23808-23816.	4.0	14
231	Non-fluoroalkyl functionalized hydrophobic surface modifications used in membrane distillation for cheaper and more environmentally friendly applications: A mini-review. Sustainable Chemistry and Pharmacy, 2022, 28, 100714.	1.6	6
232	Cost and efficiency perspectives of ceramic membranes for water treatment. Water Research, 2022, 220, 118629.	5.3	96
233	Immobilized graphene oxide-based membranes for improved pore wetting resistance in membrane distillation. Desalination, 2022, 537, 115898.	4.0	16
234	The advent of thermoplasmonic membrane distillation. Chemical Society Reviews, 2022, 51, 6087-6125.	18.7	56
235	A novel Cu-BTC@PVA/PVDF Janus membrane with underwater-oleophobic/hydrophobic asymmetric wettability for anti-fouling membrane distillation. Separation and Purification Technology, 2022, 299, 121807.	3.9	11
236	Comparison of omniphobic membranes and Janus membranes with a dense hydrophilic surface layer for robust membrane distillation. Journal of Membrane Science, 2022, 660, 120858.	4.1	18
237	A superhydrophobic carbon nanotube hollow fiber membrane for electrically self-heating membrane distillation. Desalination, 2022, 541, 116044.	4.0	7

#	Article	IF	CITATIONS
238	Work needed to force the water-air interface down in the re-entrant structured capillary pore. Desalination, 2022, 541, 116058.	4.0	17
239	Nanocomposite membranes for wastewater treatment via membrane distillation. , 2022, , 279-309.		Ο
240	Synthesis and applications of graphene and graphene-based nanocomposites: Conventional to artificial intelligence approaches. Frontiers in Environmental Chemistry, 0, 3, .	0.7	8
241	Recent Progress in Electrospun Nanofibers for theÂMembrane Distillation of Hypersaline Wastewaters. Advanced Fiber Materials, 2022, 4, 1357-1374.	7.9	46
242	Structural design of the electrospun nanofibrous membrane for membrane distillation application: a review. Environmental Science and Pollution Research, 2022, 29, 82632-82659.	2.7	4
243	Progress and challenges in recovering dissolved methane from anaerobic bioreactor permeate using membrane contactors: A comprehensive review. Journal of Water Process Engineering, 2022, 50, 103218.	2.6	5
244	Plasma-assisted facile fabrication of omniphobic graphene oxide membrane with anti-wetting property for membrane distillation. Journal of Membrane Science, 2023, 668, 121207.	4.1	12
245	Evolution of Membrane Surface Properties for Membrane Distillation: A Mini Review. Journal of Applied Membrane Science & Technology, 2022, 26, 45-64.	0.3	0
246	Negative Pressure Membrane Distillation: A Novel Strategy for Wetting Mitigation. Environmental Science and Technology Letters, 2023, 10, 52-58.	3.9	2
247	Membrane Materials for Forward Osmosis and Membrane Distillation in Oily Wastewater Treatment. ACS Symposium Series, 0, , 305-346.	0.5	1
248	Thinâ€Film Composite Membrane with a Hydrophobic Substrate for Robust Membrane Distillation. Advanced Materials Technologies, 2023, 8, .	3.0	1
249	Desalinating Real Shale Gas Wastewater by Membrane Distillation: Performance and Potentials. Water (Switzerland), 2023, 15, 439.	1.2	0
250	Synergies and potential of hybrid solar photovoltaic-thermal desalination technologies. Desalination, 2023, 552, 116424.	4.0	21
251	Silanization enabled superhydrophobic PTFE membrane with antiwetting and antifouling properties for robust membrane distillation. Journal of Membrane Science, 2023, 674, 121546.	4.1	15
252	Anti-fouling/wetting electrospun nanofibrous membranes for membrane distillation desalination: A comprehensive review. Desalination, 2023, 553, 116475.	4.0	16
253	Fouling characterization and treatment of water reuse concentrate with membrane distillation: Do organics really matter. Desalination, 2023, 553, 116443.	4.0	9
254	Omniphobic membranes in membrane distillation for desalination applications: A mini-review. Chemical Engineering Journal Advances, 2023, 14, 100486.	2.4	4
255	Zwitterionic poly(sulfobetaine methacrylate-co-acrylic acid) assisted simultaneous anti-wetting and anti-fouling membranes for membrane distillation. Desalination, 2023, 555, 116527.	4.0	8

#	Article	IF	CITATIONS
256	Quantifying the Benefits of Membranes with Ultrahigh Vapor Permeability for Membrane Distillation. ACS ES&T Engineering, 2023, 3, 981-988.	3.7	3
257	Janus Membrane with Hydrogel-like Coating for Robust Fouling and Wetting Resistance in Membrane Distillation. ACS Applied Materials & Interfaces, 2023, 15, 19504-19513.	4.0	10
258	Preparation and characterization of carbon black coated membranes for the treatment of saline water by membrane distillation. Journal of Coatings Technology Research, 0, , .	1.2	0