

Tao He

List of Publications by Year in descending order

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111
papers

6,237
citations

71102

41
h-index

71685

76
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112
all docs

112
docs citations

112
times ranked

5235
citing authors

#	ARTICLE	IF	CITATIONS
1	Towards non-toxic solvents for membrane preparation: a review. <i>Green Chemistry</i> , 2014, 16, 4034.	9.0	320
2	Superhydrophobic nanofiber membrane containing carbon nanotubes for high-performance direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2016, 502, 158-170.	8.2	320
3	Graphene oxide incorporated polysulfone substrate for the fabrication of flat-sheet thin-film composite forward osmosis membranes. <i>Journal of Membrane Science</i> , 2015, 493, 496-507.	8.2	213
4	Polymeric antimicrobial membranes enabled by nanomaterials for water treatment. <i>Journal of Membrane Science</i> , 2018, 550, 173-197.	8.2	198
5	CF ₄ plasma-modified superhydrophobic PVDF membranes for direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2014, 456, 155-161.	8.2	196
6	Slippery for scaling resistance in membrane distillation: A novel porous micropillared superhydrophobic surface. <i>Water Research</i> , 2019, 155, 152-161.	11.3	183
7	CF ₄ plasma surface modification of asymmetric hydrophilic polyethersulfone membranes for direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2012, 407-408, 164-175.	8.2	174
8	CF ₄ plasma-modified omniphobic electrospun nanofiber membrane for produced water brine treatment by membrane distillation. <i>Journal of Membrane Science</i> , 2017, 529, 234-242.	8.2	170
9	Water desalination using graphene-enhanced electrospun nanofiber membrane via air gap membrane distillation. <i>Journal of Membrane Science</i> , 2016, 520, 99-110.	8.2	167
10	Kinetics of (3-Aminopropyl)triethoxysilane (APTES) Silanization of Superparamagnetic Iron Oxide Nanoparticles. <i>Langmuir</i> , 2013, 29, 15275-15282.	3.5	166
11	Seawater desalination technology and engineering in China: A review. <i>Desalination</i> , 2021, 498, 114728.	8.2	163
12	Electrospun nanofiber membranes incorporating fluorosilane-coated TiO ₂ nanocomposite for direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2016, 520, 145-154.	8.2	161
13	Preparation of omniphobic PVDF membrane with hierarchical structure for treating saline oily wastewater using direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2018, 555, 197-205.	8.2	156
14	Adsorption of Drugs on Nanodiamond: Toward Development of a Drug Delivery Platform. <i>Molecular Pharmaceutics</i> , 2013, 10, 3728-3735.	4.6	154
15	Extraction of lithium from Chinese salt-lake brines by membranes: Design and practice. <i>Journal of Membrane Science</i> , 2021, 635, 119441.	8.2	146
16	Anti-wetting behavior of negatively charged superhydrophobic PVDF membranes in direct contact membrane distillation of emulsified wastewaters. <i>Journal of Membrane Science</i> , 2017, 535, 230-238.	8.2	126
17	Preparation of composite hollow fiber membranes: co-extrusion of hydrophilic coatings onto porous hydrophobic support structures. <i>Journal of Membrane Science</i> , 2002, 207, 143-156.	8.2	123
18	Lithium extraction from Chinese salt-lake brines: opportunities, challenges, and future outlook. <i>Environmental Science: Water Research and Technology</i> , 2017, 3, 593-597.	2.4	122

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19	Scaling mitigation in membrane distillation: From superhydrophobic to slippery. <i>Desalination</i> , 2019, 466, 36-43.	8.2	117
20	Preparation and characterization of nanofiltration membranes by coating polyethersulfone hollow fibers with sulfonated poly(ether ether ketone) (SPEEK). <i>Journal of Membrane Science</i> , 2008, 307, 62-72.	8.2	115
21	Treatment of shale gas drilling flowback fluids (SGDFs) by forward osmosis: Membrane fouling and mitigation. <i>Desalination</i> , 2015, 366, 113-120.	8.2	114
22	Water reclamation from shale gas drilling flow-back fluid using a novel forward osmosis-vacuum membrane distillation hybrid system. <i>Water Science and Technology</i> , 2014, 69, 1036-1044.	2.5	96
23	Understanding the fouling/scaling resistance of superhydrophobic/omniphobic membranes in membrane distillation. <i>Desalination</i> , 2021, 499, 114864.	8.2	86
24	A sacrificial-layer approach to fabricate polysulfone support for forward osmosis thin-film composite membranes with reduced internal concentration polarisation. <i>Journal of Membrane Science</i> , 2015, 481, 106-114.	8.2	85
25	Composite hollow fiber nanofiltration membranes for recovery of glyphosate from saline wastewater. <i>Water Research</i> , 2013, 47, 2065-2074.	11.3	81
26	CF ₄ plasma modified highly interconnective porous polysulfone membranes for direct contact membrane distillation (DCMD). <i>Desalination</i> , 2015, 369, 105-114.	8.2	81
27	Unprecedented scaling/fouling resistance of omniphobic polyvinylidene fluoride membrane with silica nanoparticle coated micropillars in direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2020, 599, 117819.	8.2	81
28	Effective evaporation of CF ₄ plasma modified PVDF membranes in direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2015, 482, 25-32.	8.2	75
29	Open porous hydrophilic supported thin-film composite forward osmosis membrane via co-casting for treatment of high-salinity wastewater. <i>Desalination</i> , 2017, 405, 76-84.	8.2	72
30	Extraction of boron from salt lake brine using 2-ethylhexanol. <i>Hydrometallurgy</i> , 2016, 160, 129-136.	4.3	69
31	Solvent stable nanoporous poly (ethylene-co-vinyl alcohol) barrier membranes for liquid-liquid extraction of lithium from a salt lake brine. <i>Journal of Membrane Science</i> , 2016, 520, 596-606.	8.2	66
32	Liquid desiccant lithium chloride regeneration by membrane distillation for air conditioning. <i>Separation and Purification Technology</i> , 2017, 177, 121-128.	7.9	65
33	Hydrophilic nanoporous ion-exchange membranes as a stabilizing barrier for liquid-liquid membrane extraction of lithium ions. <i>Journal of Membrane Science</i> , 2014, 471, 372-380.	8.2	58
34	A critical review on membrane extraction with improved stability: Potential application for recycling metals from city mine. <i>Desalination</i> , 2018, 440, 18-38.	8.2	58
35	Unprecedented Mg ²⁺ /Li ⁺ separation using layer-by-layer based nanofiltration hollow fiber membranes. <i>Desalination</i> , 2022, 525, 115492.	8.2	57
36	Recovery of lithium from salt lake brine of high Mg/Li ratio using Na[FeCl ₄ ·2TBP] as extractant: Thermodynamics, kinetics and processes. <i>Hydrometallurgy</i> , 2017, 173, 63-70.	4.3	53

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37	Formation of Superhydrophobic Polymerized <i>n</i> -Octadecylsiloxane Nanosheets. <i>Langmuir</i> , 2010, 26, 3579-3584.	3.5	52
38	Conversion of a Metastable Superhydrophobic Surface to an Ultraphobic Surface. <i>Langmuir</i> , 2008, 24, 8008-8012.	3.5	45
39	Cellulose triacetate forward osmosis membranes: preparation and characterization. <i>Desalination and Water Treatment</i> , 2013, 51, 2656-2665.	1.0	44
40	Improvement of permeability and rejection of an acid resistant polysulfonamide thin-film composite nanofiltration membrane by a sulfonated poly(ether ether ketone) interlayer. <i>Separation and Purification Technology</i> , 2020, 239, 116528.	7.9	44
41	Preparation of porous hollow fiber membranes with a triple-orifice spinneret. <i>Journal of Applied Polymer Science</i> , 2003, 87, 2151-2157.	2.6	43
42	Selective separation of copper and nickel by membrane extraction using hydrophilic nanoporous ion-exchange barrier membranes. <i>Chemical Engineering Research and Design</i> , 2018, 113, 1-9.	5.6	42
43	Polyethersulfone hollow fiber membranes prepared with Polarclean [®] as a more sustainable solvent. <i>Journal of Membrane Science</i> , 2020, 608, 118216.	8.2	41
44	Zwitterionic surface modification of forward osmosis membranes using N -aminoethyl piperazine propane sulfonate for grey water treatment. <i>Chemical Engineering Research and Design</i> , 2018, 116, 632-639.	5.6	40
45	Enabling sustainable green close-loop membrane lithium extraction by acid and solvent resistant poly (ether ether ketone) membrane. <i>Journal of Membrane Science</i> , 2019, 589, 117273.	8.2	40
46	A novel all solid-state asymmetric supercapacitor with superior electrochemical performance in a wide temperature range using a hydroquinone modified graphene xerogel as the cathode and N-doped Ti ₃ C ₂ T _x as the anode. <i>Journal of Materials Chemistry A</i> , 2020, 8, 1687-1696.	10.3	36
47	Composite hollow fiber membranes for organic solvent-based liquid-liquid extraction. <i>Journal of Membrane Science</i> , 2004, 234, 1-10.	8.2	35
48	Origin of delamination/adhesion in polyetherimide/polysulfone co-cast membranes. <i>Journal of Membrane Science</i> , 2010, 352, 173-179.	8.2	35
49	Laminated PTFE membranes to enhance the performance in direct contact membrane distillation for high salinity solution. <i>Desalination</i> , 2017, 424, 140-148.	8.2	35
50	Harvesting vapor by hygroscopic acid to create pore: Morphology, crystallinity and performance of poly (ether ether ketone) lithium ion battery separator. <i>Journal of Membrane Science</i> , 2019, 577, 1-11.	8.2	35
51	Synergy of slippery surface and pulse flow: An anti-scaling solution for direct contact membrane distillation. <i>Journal of Membrane Science</i> , 2020, 603, 118035.	8.2	35
52	Mitigation of gypsum and silica scaling in membrane distillation by pulse flow operation. <i>Journal of Membrane Science</i> , 2021, 624, 119107.	8.2	35
53	A sacrificial-layer approach to prepare microfiltration membranes. <i>Journal of Membrane Science</i> , 2008, 320, 1-7.	8.2	34
54	Towards stabilization of supported liquid membranes: preparation and characterization of polysulfone support and sulfonated poly (ether ether ketone) coated composite hollow fiber membranes. <i>Desalination</i> , 2008, 225, 82-94.	8.2	32

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55	Concentrating greywater using hollow fiber thin film composite forward osmosis membranes: Fouling and process optimization. <i>Chemical Engineering Science</i> , 2018, 190, 140-148.	3.8	32
56	The excellent capacitive capability for N,P-doped carbon microsphere/reduced graphene oxide nanocomposites in H ₂ SO ₄ /KI redox electrolyte. <i>Journal of Materials Science</i> , 2019, 54, 7665-7678.	3.7	32
57	Phenol rejection by cellulose triacetate and thin film composite forward osmosis membranes. <i>Separation and Purification Technology</i> , 2017, 186, 45-54.	7.9	30
58	From trace to pure: Recovery of scandium from the waste acid of titanium pigment production by solvent extraction. <i>Chemical Engineering Research and Design</i> , 2019, 121, 118-124.	5.6	29
59	Stabilization of composite hollow fiber nanofiltration membranes with a sulfonated poly(ether ether) Tj ETQq1 1 0.784314 rgBT /Ove	8.2	28
60	Ammonia-free preparation of Ag@SiO ₂ core/shell nanoparticles. <i>Applied Surface Science</i> , 2015, 345, 122-126.	6.1	27
61	The role of the surfactant sodium dodecyl sulfate to dynamically reduce mass transfer resistance of SPEEK coated membrane for oil-in-water emulsion treatment. <i>Journal of Membrane Science</i> , 2017, 541, 9-18.	8.2	27
62	Physical cleaning techniques to control fouling during the pre-concentration of high suspended-solid content solutions for resource recovery by forward osmosis. <i>Desalination</i> , 2018, 429, 134-141.	8.2	27
63	Anisotropic performance of a superhydrophobic polyvinyl difluoride membrane with corrugated pattern in direct contact membrane distillation. <i>Desalination</i> , 2020, 481, 114363.	8.2	26
64	Negative Pressure Membrane Distillation for Excellent Gypsum Scaling Resistance and Flux Enhancement. <i>Environmental Science & Technology</i> , 2022, 56, 1405-1412.	10.0	26
65	Layer-by-layer (LBL) hollow fiber nanofiltration membranes for seawater treatment: Ion rejection. <i>Desalination</i> , 2022, 534, 115793.	8.2	26
66	3-[[3-(Triethoxysilyl)-propyl] amino] propane-1-sulfonic acid zwitterion grafted polyvinylidene fluoride antifouling membranes for concentrating greywater in direct contact membrane distillation. <i>Desalination</i> , 2019, 455, 71-78.	8.2	24
67	Seawater-driven forward osmosis for pre-concentrating nutrients in digested sludge centrate. <i>Journal of Environmental Management</i> , 2019, 247, 135-139.	7.8	23
68	Impact of the ethylene content on poly (ethylene-co-vinyl alcohol) membrane morphology and performance via immersion precipitation for lithium extraction. <i>Journal of Membrane Science</i> , 2019, 579, 172-179.	8.2	22
69	Impact of SPEEK on PEEK membranes: Demixing, morphology and performance enhancement in lithium membrane extraction. <i>Journal of Membrane Science</i> , 2020, 615, 118448.	8.2	22
70	Concentrating underground brine by FO process: Influence of membrane types and spacer on membrane scaling. <i>Chemical Engineering Journal</i> , 2016, 285, 92-100.	12.7	21
71	Novel low cost hybrid extraction-distillation-reverse osmosis process for complete removal of N,N-dimethylformamide from industrial wastewater. <i>Chemical Engineering Research and Design</i> , 2019, 130, 317-325.	5.6	21
72	Arsenic removal using a sulfonated poly(ether ether ketone) coated hollow fiber nanofiltration membrane. <i>Environmental Science: Water Research and Technology</i> , 2015, 1, 839-845.	2.4	20

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73	Fouling resistance of 3-[[3-(trimethoxysilane)-propyl] amino] propane-1-sulfonic acid zwitterion modified poly (vinylidene fluoride) membranes. Separation and Purification Technology, 2020, 239, 116589.	7.9	20
74	Acid stable layer-by-layer nanofiltration membranes for phosphoric acid purification. Journal of Membrane Science, 2022, 644, 120090.	8.2	20
75	Morphological control and cross-flow filtration of microfiltration membranes prepared via a sacrificial-layer approach. Journal of Membrane Science, 2010, 353, 159-168.	8.2	19
76	Dehydration of forward osmosis membranes in treating high salinity wastewaters: Performance and implications. Journal of Membrane Science, 2016, 498, 365-373.	8.2	19
77	Tuning pore structure of the poly(vinylidene difluoride hexafluoropropylene) membrane for improvement in rate performance of Li-ion oxygen battery. Journal of Power Sources, 2013, 241, 288-294.	7.8	18
78	Biogas slurry as draw solution of forward osmosis process to extract clean water from micro-polluted water for hydroponic cultivation. Journal of Membrane Science, 2019, 576, 88-95.	8.2	18
79	Hyperbranched poly(amidoamine)/TMC reverse osmosis membrane for oily saline water treatment. Environmental Technology (United Kingdom), 2019, 40, 2779-2788.	2.2	16
80	Forward osmosis concentration of a vanadium leaching solution. Journal of Membrane Science, 2019, 582, 164-171.	8.2	15
81	Impact of dithiocarbamate-based polymeric additives on the performance of polyethersulfone membrane for the treatment of arsenic contaminated waters. Chemical Engineering Research and Design, 2022, 158, 589-606.	5.6	15
82	Morphological control of polymerized n-octadecylsiloxane. Applied Surface Science, 2011, 257, 2080-2085.	6.1	14
83	Thin-film distillation coupled with membrane condenser for brine solutions concentration. Desalination, 2021, 503, 114956.	8.2	13
84	Scaling resistance by fluoro-treatments: the importance of wetting states. Journal of Materials Chemistry A, 2022, 10, 3058-3068.	10.3	13
85	Feasibility of osmotic dilution for recycling spent dialysate: Process performance, scaling, and economic evaluation. Water Research, 2020, 168, 115157.	11.3	12
86	Operation of Three-Stage Process of Lithium Recovery from Geothermal Brine: Simulation. Membranes, 2021, 11, 175.	3.0	12
87	Modeling on swelling behavior of a confined polymer network. Journal of Polymer Science, Part B: Polymer Physics, 2008, 46, 1589-1593.	2.1	11
88	Modification of unsaturated polyester resins (UP) and reinforced UP resins via plasma treatment. Applied Surface Science, 2010, 257, 290-295.	6.1	11
89	Evidence of high temperature stable performance of polyether ether ketone (PEEK) separator with sponge-structured in lithium-ion battery. Journal of Materials Science, 2022, 57, 7042-7055.	3.7	11
90	Stable fouling resistance of polyethylene (PE) separator membrane via oxygen plasma plus zwitterion grafting. Separation and Purification Technology, 2022, 293, 121091.	7.9	11

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91	Preparation of hierarchical porous graphene nanosheets with high specific surface area and their electrochemical behaviors in supercapacitors. <i>Materials Chemistry and Physics</i> , 2016, 177, 171-178.	4.0	10
92	Membrane chemical exchange for lithium isotope enrichment(II): Multistage cascade process. <i>Fusion Engineering and Design</i> , 2020, 160, 111821.	1.9	10
93	Interconnected Porous Poly(ether imide) Separator for Thermally Stable Sodium Ion Battery. <i>ACS Applied Energy Materials</i> , 2021, 4, 11080-11089.	5.1	9
94	Does more solvent in bore liquid create more open inner surface in hollow fiber membranes?. <i>Polymers for Advanced Technologies</i> , 2008, 19, 801-806.	3.2	8
95	Direct preparation of dialysate from tap water via osmotic dilution. <i>Journal of Membrane Science</i> , 2020, 598, 117659.	8.2	8
96	Magnetic Fe ₃ O ₄ Nanoparticles: Synthesis and Application in Water Treatment. <i>Nanoscience and Nanotechnology - Asia</i> , 2012, 1, 14-24.	0.7	7
97	Effect of different reduction methods on electrochemical cycling stability of reduced graphene oxide in supercapacitors. <i>Journal of Applied Electrochemistry</i> , 2015, 45, 57-65.	2.9	7
98	2.5 Forward Osmosis and Forward Osmosis Membranes. , 2017, , 95-123.		7
99	Concentrating underground brine using a TFC hollow fiber forward osmosis membrane: effects of cleaning. <i>Environmental Science: Water Research and Technology</i> , 2018, 4, 851-862.	2.4	7
100	Increasing lithium extraction performance by adding sulfonated poly (ether ether ketone) into block copolymer ethylene vinyl alcohol membrane. <i>Journal of Chemical Technology and Biotechnology</i> , 2020, 95, 1559-1568.	3.2	7
101	Effects of low-toxicity solvent and binary mixed additives on the microstructure and performance of cellulose triacetate (CTA) membranes for forward osmosis. , 0, 130, 44-53.		7
102	Concentrating phosphoric acid by direct contact membrane distillation using a low-cost polyethylene separator. <i>Desalination</i> , 2022, 530, 115664.	8.2	6
103	Membrane distillation treating a real petrochemical reverse osmosis concentrate: Influence of membrane characteristics on the process performance. <i>Journal of Water Process Engineering</i> , 2021, 39, 101722.	5.6	5
104	Simultaneous cooling and provision of make-up water by forward osmosis for post-combustion CO ₂ capture. <i>Desalination</i> , 2020, 476, 114215.	8.2	4
105	Recycling water from spent dialysate by osmotic dilution: Impact of urea rejection of forward osmosis membrane on hemodialysis duration. <i>Desalination</i> , 2020, 496, 114605.	8.2	4
106	Sustainable fertilizer-drawn forward osmosis for the vegetable industry in reducing liquor from vegetable waste. <i>Environmental Technology (United Kingdom)</i> , 2021, 42, 388-396.	2.2	4
107	Sustainable Route in Preparation of Polymeric Membranes. <i>Green Chemistry and Sustainable Technology</i> , 2017, , 97-120.	0.7	3
108	Fabrication of dialyzer membrane-based forward osmosis modules via vacuum-assisted interfacial polymerization for the preparation of dialysate. <i>Journal of Membrane Science</i> , 2022, 659, 120814.	8.2	1

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109	Treatment of High-Salinity Wastewater from Shale Gas Exploitation by Forward Osmosis Processes. , 2015, , 339-361.		0
110	Removal of Emerging Trace Organic Chemicals by Forward Osmosis. , 2015, , 363-394.		0
111	Finger-Like Structure. , 2016, , 774-775.		0