

# John H Lienhard V

## List of Publications by Citations

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196  
papers

10,357  
citations

53  
h-index

96  
g-index

210  
ext. papers

12,272  
ext. citations

8.4  
avg, IF

7  
L-index

#	Paper	IF	Citations
196	Thermophysical properties of seawater: a review of existing correlations and data. <i>Desalination and Water Treatment</i> , <b>2010</b> , 16, 354-380		825
195	A History of the MIT Heat Transfer Laboratory. <i>Heat Transfer Engineering</i> , <b>2003</b> , 24, 3-17	1.7	482
194	Scaling and fouling in membrane distillation for desalination applications: A review. <i>Desalination</i> , <b>2015</b> , 356, 294-313	10.3	435
193	Energy requirements for water production, treatment, end use, reclamation, and disposal. <i>Renewable and Sustainable Energy Reviews</i> , <b>2012</b> , 16, 4818-4848	16.2	378
192	A review of polymeric membranes and processes for potable water reuse. <i>Progress in Polymer Science</i> , <b>2016</b> , 81, 209-237	29.6	304
191	Wetting phenomena in membrane distillation: Mechanisms, reversal, and prevention. <i>Water Research</i> , <b>2018</b> , 139, 329-352	12.5	299
190	The ins and outs of microorganism-electrode electron transfer reactions. <i>Nature Reviews Chemistry</i> , <b>2017</b> , 1,	34.6	276
189	The potential of solar-driven humidification-dehumidification desalination for small-scale decentralized water production. <i>Renewable and Sustainable Energy Reviews</i> , <b>2010</b> , 14, 1187-1201	16.2	251
188	Thermophysical properties of seawater: A review and new correlations that include pressure dependence. <i>Desalination</i> , <b>2016</b> , 390, 1-24	10.3	240
187	Quantifying the potential of ultra-permeable membranes for water desalination. <i>Energy and Environmental Science</i> , <b>2014</b> , 7, 1134-1141	35.4	227
186	Thermodynamic analysis of humidification dehumidification desalination cycles. <i>Desalination and Water Treatment</i> , <b>2010</b> , 16, 339-353		198
185	Entropy Generation Analysis of Desalination Technologies. <i>Entropy</i> , <b>2011</b> , 13, 1829-1864	2.8	191
184	On the potential of forward osmosis to energetically outperform reverse osmosis desalination. <i>Journal of Membrane Science</i> , <b>2014</b> , 469, 245-250	9.6	169
183	Energy consumption in desalinating produced water from shale oil and gas extraction. <i>Desalination</i> , <b>2015</b> , 366, 94-112	10.3	156
182	Ultrahigh-efficiency desalination via a thermally-localized multistage solar still. <i>Energy and Environmental Science</i> , <b>2020</b> , 13, 830-839	35.4	153
181	Energy efficiency comparison of single-stage membrane distillation (MD) desalination cycles in different configurations. <i>Desalination</i> , <b>2012</b> , 290, 54-66	10.3	151
180	Boiling and Evaporation in Small Diameter Channels. <i>Heat Transfer Engineering</i> , <b>2003</b> , 24, 18-40	1.7	133

179	On the cost of electrodialysis for the desalination of high salinity feeds. <i>Applied Energy</i> , <b>2014</b> , 136, 649-661.7	10.7	109
178	Technical evaluation of stand-alone solar powered membrane distillation systems. <i>Desalination</i> , <b>2012</b> , 286, 332-341	10.3	109
177	Second law analysis of reverse osmosis desalination plants: An alternative design using pressure retarded osmosis. <i>Energy</i> , <b>2011</b> , 36, 6617-6626	7.9	109
176	On exergy calculations of seawater with applications in desalination systems. <i>International Journal of Thermal Sciences</i> , <b>2011</b> , 50, 187-196	4.1	108
175	Effect of entropy generation on the performance of humidification-dehumidification desalination cycles. <i>International Journal of Thermal Sciences</i> , <b>2010</b> , 49, 1837-1847	4.1	108
174	Entropy generation minimization of combined heat and mass transfer devices. <i>International Journal of Thermal Sciences</i> , <b>2010</b> , 49, 2057-2066	4.1	105
173	Energy efficiency of permeate gap and novel conductive gap membrane distillation. <i>Journal of Membrane Science</i> , <b>2016</b> , 502, 171-178	9.6	95
172	Economic evaluation of stand-alone solar powered membrane distillation systems. <i>Desalination</i> , <b>2012</b> , 299, 55-62	10.3	94
171	Thermal design of the humidification dehumidification desalination system: An experimental investigation. <i>International Journal of Heat and Mass Transfer</i> , <b>2013</b> , 58, 740-748	4.9	87
170	Performance limits of zero and single extraction humidification-dehumidification desalination systems. <i>Applied Energy</i> , <b>2013</b> , 102, 1081-1090	10.7	87
169	Energy efficiency of batch and semi-batch (CCRO) reverse osmosis desalination. <i>Water Research</i> , <b>2016</b> , 106, 272-282	12.5	87
168	Wetting prevention in membrane distillation through superhydrophobicity and recharging an air layer on the membrane surface. <i>Journal of Membrane Science</i> , <b>2017</b> , 530, 42-52	9.6	82
167	Effect of temperature on ion transport in nanofiltration membranes: Diffusion, convection and electromigration. <i>Desalination</i> , <b>2017</b> , 420, 241-257	10.3	82
166	Fundamentals of low-pressure nanofiltration: Membrane characterization, modeling, and understanding the multi-ionic interactions in water softening. <i>Journal of Membrane Science</i> , <b>2017</b> , 521, 18-32	9.6	81
165	The hydraulic jump in circular jet impingement and in other thin liquid films. <i>Experiments in Fluids</i> , <b>1993</b> , 15, 108-116	2.5	80
164	Multistage vacuum membrane distillation (MSVMD) systems for high salinity applications. <i>Journal of Membrane Science</i> , <b>2016</b> , 497, 128-141	9.6	79
163	Energy efficiency of membrane distillation up to high salinity: Evaluating critical system size and optimal membrane thickness. <i>Applied Energy</i> , <b>2018</b> , 211, 715-734	10.7	79
162	Design and optimization of an air heating solar collector with integrated phase change material energy storage for use in humidification-dehumidification desalination. <i>Solar Energy</i> , <b>2012</b> , 86, 3417-3429	6.8	77

161	Generalized Least Energy of Separation for Desalination and Other Chemical Separation Processes. <i>Entropy</i> , <b>2013</b> , 15, 2046-2080	2.8	73
160	Membrane distillation model based on heat exchanger theory and configuration comparison. <i>Applied Energy</i> , <b>2016</b> , 184, 491-505	10.7	71
159	Thermodynamic balancing of the humidification dehumidification desalination system by mass extraction and injection. <i>International Journal of Heat and Mass Transfer</i> , <b>2013</b> , 57, 756-770	4.9	71
158	Comparison of fouling propensity between reverse osmosis, forward osmosis, and membrane distillation. <i>Journal of Membrane Science</i> , <b>2018</b> , 556, 352-364	9.6	70
157	Optimal operating conditions and configurations for humidification-dehumidification desalination cycles. <i>International Journal of Thermal Sciences</i> , <b>2011</b> , 50, 779-789	4.1	69
156	Combining air recharging and membrane superhydrophobicity for fouling prevention in membrane distillation. <i>Journal of Membrane Science</i> , <b>2016</b> , 505, 241-252	9.6	66
155	Effects of membrane properties on water production cost in small scale membrane distillation systems. <i>Desalination</i> , <b>2012</b> , 306, 60-71	10.3	66
154	SOLAR DESALINATION. <i>Annual Review of Heat Transfer</i> , <b>2012</b> , 15, 277-347	2.7	66
153	Optimal design and operation of electrodialysis for brackish-water desalination and for high-salinity brine concentration. <i>Desalination</i> , <b>2017</b> , 420, 167-182	10.3	62
152	How RO membrane permeability and other performance factors affect process cost and energy use: A review. <i>Desalination</i> , <b>2019</b> , 470, 114064	10.3	61
151	Treating produced water from hydraulic fracturing: Composition effects on scale formation and desalination system selection. <i>Desalination</i> , <b>2014</b> , 346, 54-69	10.3	61
150	An improved model for multiple effect distillation. <i>Desalination and Water Treatment</i> , <b>2013</b> , 51, 807-821		61
149	The cost effectiveness of electrodialysis for diverse salinity applications. <i>Desalination</i> , <b>2014</b> , 348, 57-65	10.3	60
148	High-temperature-steam-driven, varied-pressure, humidification-dehumidification system coupled with reverse osmosis for energy-efficient seawater desalination. <i>Energy</i> , <b>2012</b> , 37, 482-493	7.9	59
147	Stagnation-Point Heat Transfer During Impingement of Laminar Liquid Jets: Analysis Including Surface Tension. <i>Journal of Heat Transfer</i> , <b>1993</b> , 115, 99-105	1.8	59
146	Theoretical framework for predicting inorganic fouling in membrane distillation and experimental validation with calcium sulfate. <i>Journal of Membrane Science</i> , <b>2017</b> , 528, 381-390	9.6	57
145	Next-generation HVAC: Prospects for and limitations of desiccant and membrane-based dehumidification and cooling. <i>Applied Energy</i> , <b>2017</b> , 200, 330-346	10.7	57
144	Limits of power production due to finite membrane area in pressure retarded osmosis. <i>Journal of Membrane Science</i> , <b>2014</b> , 468, 81-89	9.6	55

143	Sodium Hydroxide Production from Seawater Desalination Brine: Process Design and Energy Efficiency. <i>Environmental Science &amp; Technology</i> , <b>2018</b> , 52, 5949-5958	10.3	52
142	Entropy Generation of Desalination Powered by Variable Temperature Waste Heat. <i>Entropy</i> , <b>2015</b> , 17, 7530-7566	2.8	52
141	Use of multiple extractions and injections to thermodynamically balance the humidification dehumidification desalination system. <i>International Journal of Heat and Mass Transfer</i> , <b>2014</b> , 68, 422-434	4.9	52
140	Costs for water supply, treatment, end-use and reclamation. <i>Desalination and Water Treatment</i> , <b>2013</b> , 51, 200-232		51
139	The benefits of hybridising electro dialysis with reverse osmosis. <i>Journal of Membrane Science</i> , <b>2014</b> , 469, 326-335	9.6	49
138	Thermodynamic balancing of a fixed-size two-stage humidification dehumidification desalination system. <i>Desalination</i> , <b>2015</b> , 369, 125-139	10.3	48
137	Utilization of Desalination Brine for Sodium Hydroxide Production: Technologies, Engineering Principles, Recovery Limits, and Future Directions. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2017</b> , 5, 11147-11162	8.3	48
136	Thermodynamic analysis of brine management methods: Zero-discharge desalination and salinity-gradient power production. <i>Desalination</i> , <b>2017</b> , 404, 291-303	10.3	48
135	Inorganic fouling mitigation by salinity cycling in batch reverse osmosis. <i>Water Research</i> , <b>2018</b> , 137, 384-394	3.4	47
134	Experimental study of thermal performance in air gap membrane distillation systems, including the direct solar heating of membranes. <i>Desalination</i> , <b>2013</b> , 330, 100-111	10.3	47
133	Superhydrophobic condenser surfaces for air gap membrane distillation. <i>Journal of Membrane Science</i> , <b>2015</b> , 492, 578-587	9.6	46
132	LIQUID JET IMPINGEMENT. <i>Annual Review of Heat Transfer</i> , <b>1995</b> , 6, 199-270	2.7	46
131	Entropy generation in condensation in the presence of high concentrations of noncondensable gases. <i>International Journal of Heat and Mass Transfer</i> , <b>2012</b> , 55, 5133-5147	4.9	45
130	Cost and energy requirements of hybrid RO and ED brine concentration systems for salt production. <i>Desalination</i> , <b>2019</b> , 456, 97-120	10.3	44
129	Effect of composition and nonideal solution behavior on desalination calculations for mixed electrolyte solutions with comparison to seawater. <i>Desalination</i> , <b>2013</b> , 318, 34-47	10.3	44
128	ENERGY EFFECTIVENESS OF SIMULTANEOUS HEAT AND MASS EXCHANGE DEVICES. <i>Frontiers in Heat and Mass Transfer</i> , <b>2010</b> , 1,		43
127	A new reverse electro dialysis design strategy which significantly reduces the levelized cost of electricity. <i>Journal of Membrane Science</i> , <b>2015</b> , 493, 605-614	9.6	42
126	Modeling of flat-sheet and spiral-wound nanofiltration configurations and its application in seawater nanofiltration. <i>Journal of Membrane Science</i> , <b>2015</b> , 493, 360-372	9.6	41

125	Reversing membrane wetting in membrane distillation: comparing dryout to backwashing with pressurized air. <i>Environmental Science: Water Research and Technology</i> , <b>2017</b> , 3, 930-939	4.2	40
124	Thermodynamic equipartition for increased second law efficiency. <i>Applied Energy</i> , <b>2014</b> , 118, 292-299	10.7	39
123	On the merits of using multi-stage and counterflow electrodialysis for reduced energy consumption. <i>Desalination</i> , <b>2018</b> , 439, 1-16	10.3	38
122	Impact of extraction on a humidification-dehumidification desalination system. <i>Desalination</i> , <b>2013</b> , 313, 87-96	10.3	37
121	Effectiveness-mass transfer units (MTU) model of an ideal pressure retarded osmosis membrane mass exchanger. <i>Journal of Membrane Science</i> , <b>2013</b> , 445, 211-219	9.6	37
120	Exergy analysis of a high-temperature-steam-driven, varied-pressure, humidification-dehumidification system coupled with reverse osmosis. <i>Applied Energy</i> , <b>2013</b> , 103, 552-561	10.7	37
119	Saving energy with an optimized two-stage reverse osmosis system. <i>Environmental Science: Water Research and Technology</i> , <b>2017</b> , 3, 659-670	4.2	36
118	Direct electrosynthesis of sodium hydroxide and hydrochloric acid from brine streams. <i>Nature Catalysis</i> , <b>2019</b> , 2, 106-113	36.5	36
117	Lithium Recovery from Oil and Gas Produced Water: A Need for a Growing Energy Industry. <i>ACS Energy Letters</i> , <b>2019</b> , 4, 1471-1474	20.1	34
116	Raising forward osmosis brine concentration efficiency through flow rate optimization. <i>Desalination</i> , <b>2015</b> , 366, 71-79	10.3	34
115	Relating transport modeling to nanofiltration membrane fabrication: Navigating the permeability-selectivity trade-off in desalination pretreatment. <i>Journal of Membrane Science</i> , <b>2018</b> , 554, 26-38	9.6	34
114	The effects of iCVD film thickness and conformality on the permeability and wetting of MD membranes. <i>Journal of Membrane Science</i> , <b>2017</b> , 523, 470-479	9.6	34
113	Primary energy and exergy of desalination technologies in a power-water cogeneration scheme. <i>Applied Energy</i> , <b>2019</b> , 252, 1133-1139	10.7	32
112	Analysis of reversible ejectors and definition of an ejector efficiency. <i>International Journal of Thermal Sciences</i> , <b>2012</b> , 54, 153-166	4.1	32
111	Experiments and modeling of bubble column dehumidifier performance. <i>International Journal of Thermal Sciences</i> , <b>2014</b> , 80, 65-75	4.1	31
110	Effectiveness-mass transfer units (MTU) model of a reverse osmosis membrane mass exchanger. <i>Journal of Membrane Science</i> , <b>2014</b> , 458, 189-198	9.6	31
109	Bubble columns for condensation at high concentrations of noncondensable gas: Heat-transfer model and experiments. <i>AIChE Journal</i> , <b>2013</b> , 59, 1780-1790	3.6	31
108	Entropy generation analysis of electrodialysis. <i>Desalination</i> , <b>2017</b> , 413, 184-198	10.3	30

107	In situ visualization of organic fouling and cleaning mechanisms in reverse osmosis and forward osmosis. <i>Desalination</i> , <b>2016</b> , 399, 138-147	10.3	30
106	Velocity Coefficients For Free Jets From Sharp-Edged Orifices. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>1984</b> , 106, 13-17	2.1	30
105	Split-feed counterflow reverse osmosis for brine concentration. <i>Desalination</i> , <b>2018</b> , 445, 280-291	10.3	30
104	Cost and energy needs of RO-ED-crystallizer systems for zero brine discharge seawater desalination. <i>Desalination</i> , <b>2019</b> , 457, 115-132	10.3	28
103	Increasing the power density and reducing the levelized cost of electricity of a reverse electrodialysis stack through blending. <i>Desalination</i> , <b>2015</b> , 369, 140-148	10.3	28
102	Splattering During Turbulent Liquid Jet Impingement on Solid Targets. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>1994</b> , 116, 338-344	2.1	28
101	On the present and future economic viability of stand-alone pressure-retarded osmosis. <i>Desalination</i> , <b>2017</b> , 408, 133-144	10.3	27
100	On the asymptotic flux of ultrapermeable seawater reverse osmosis membranes due to concentration polarisation. <i>Journal of Membrane Science</i> , <b>2016</b> , 520, 560-565	9.6	27
99	Simple method for balancing direct contact membrane distillation. <i>Desalination</i> , <b>2016</b> , 383, 53-59	10.3	26
98	Quantifying osmotic membrane fouling to enable comparisons across diverse processes. <i>Journal of Membrane Science</i> , <b>2016</b> , 511, 92-107	9.6	26
97	Design of Flat-Plate Dehumidifiers for HumidificationDehumidification Desalination Systems. <i>Heat Transfer Engineering</i> , <b>2013</b> , 34, 543-561	1.7	25
96	Effect of Nonideal Solution Behavior on Desalination of a Sodium Chloride Solution and Comparison to Seawater. <i>Journal of Energy Resources Technology, Transactions of the ASME</i> , <b>2013</b> , 135,	2.6	24
95	Water-Energy Nexus in Saudi Arabia. <i>Energy Procedia</i> , <b>2017</b> , 105, 3837-3843	2.3	23
94	Hybrid electrodialysis reverse osmosis system design and its optimization for treatment of highly saline brines. <i>IDA Journal of Desalination and Water Reuse</i> , <b>2014</b> , 6, 15-23		23
93	A novel solar-driven air gap membrane distillation system. <i>Desalination and Water Treatment</i> , <b>2013</b> , 51, 1344-1351		22
92	An Economics-Based Second Law Efficiency. <i>Entropy</i> , <b>2013</b> , 15, 2736-2765	2.8	22
91	Brackish water desalination for greenhouse agriculture: Comparing the costs of RO, CCRO, EDR, and monovalent-selective EDR. <i>Desalination</i> , <b>2020</b> , 475, 114188	10.3	22
90	Practical aspects of batch RO design for energy-efficient seawater desalination. <i>Desalination</i> , <b>2019</b> , 470, 114097	10.3	21

89	On Thermal Performance of Seawater Cooling Towers. <i>Journal of Engineering for Gas Turbines and Power</i> , <b>2011</b> , 133,	1.7	21
88	Effect of fouling on performance of pressure retarded osmosis (PRO) and forward osmosis (FO). <i>Journal of Membrane Science</i> , <b>2018</b> , 565, 450-462	9.6	20
87	Effect of mass extractions and injections on the performance of a fixed-size humidification-dehumidification desalination system. <i>Desalination</i> , <b>2013</b> , 314, 50-58	10.3	20
86	Thermal Stability of Two Fluid Layers Separated by a Solid Interlayer of Finite Thickness and Thermal Conductivity. <i>Journal of Heat Transfer</i> , <b>1984</b> , 106, 605-612	1.8	20
85	Minimum energy requirements for desalination of brackish groundwater in the United States with comparison to international datasets. <i>Water Research</i> , <b>2018</b> , 141, 387-404	12.5	19
84	Design and operation of membrane distillation with feed recirculation for high recovery brine concentration. <i>Desalination</i> , <b>2018</b> , 445, 51-62	10.3	19
83	Unpacking compaction: Effect of hydraulic pressure on alginate fouling. <i>Journal of Membrane Science</i> , <b>2017</b> , 544, 221-233	9.6	19
82	Liquid jet-array cooling modules for high heat fluxes. <i>AIChE Journal</i> , <b>1998</b> , 44, 769-779	3.6	19
81	Mechanical vapor compression-Membrane distillation hybrids for reduced specific energy consumption. <i>Desalination and Water Treatment</i> , <b>2016</b> , 57, 26507-26517		18
80	Economic framework for net power density and levelized cost of electricity in pressure-retarded osmosis. <i>Desalination</i> , <b>2018</b> , 448, 13-20	10.3	18
79	Brackish water desalination for greenhouses: Improving groundwater quality for irrigation using monovalent selective electrodialysis reversal. <i>Journal of Membrane Science</i> , <b>2020</b> , 610, 118072	9.6	17
78	Evaporative cooling of continuously drawn glass fibers by water sprays. <i>International Journal of Heat and Mass Transfer</i> , <b>2000</b> , 43, 777-790	4.9	17
77	Design and modeling of novel low-pressure nanofiltration hollow fiber modules for water softening and desalination pretreatment. <i>Desalination</i> , <b>2018</b> , 439, 58-72	10.3	16
76	Comprehensive condensation flow regimes in air gap membrane distillation: Visualization and energy efficiency. <i>Journal of Membrane Science</i> , <b>2018</b> , 555, 517-528	9.6	16
75	System scale analytical modeling of forward and assisted forward osmosis mass exchangers with a case study on fertigation. <i>Journal of Membrane Science</i> , <b>2016</b> , 510, 533-545	9.6	16
74	An Improved Approach to Conductive Boundary Conditions for the Rayleigh-Benard Instability. <i>Journal of Heat Transfer</i> , <b>1987</b> , 109, 378-387	1.8	16
73	The effect of increased top brine temperature on the performance and design of OT-MSF using a case study. <i>Desalination</i> , <b>2017</b> , 412, 32-38	10.3	15
72	Impact of salt retention on true batch reverse osmosis energy consumption: Experiments and model validation. <i>Desalination</i> , <b>2020</b> , 479, 114177	10.3	15

71	Thermal Design of Humidification-Dehumidification Systems for Affordable Small-Scale Desalination. <i>IDA Journal of Desalination and Water Reuse</i> , <b>2012</b> , 4, 24-34		15
70	Surface Disturbance Evolution and the Splattering of Turbulent Liquid Jets. <i>Journal of Fluids Engineering, Transactions of the ASME</i> , <b>1994</b> , 116, 721-727	2.1	15
69	Three dimensionless parameters influencing the optimal membrane orientation for forward osmosis. <i>Journal of Membrane Science</i> , <b>2014</b> , 458, 104-110	9.6	14
68	Sol-gel Synthesis of $\text{Au/Cu-TiO}_2$ Nanocomposite and Their Morphological and Optical Properties. <i>IEEE Photonics Journal</i> , <b>2013</b> , 5, 2201908-2201908	1.8	14
67	Air-Heating Solar Collectors for Humidification-Dehumidification Desalination Systems. <i>Journal of Solar Energy Engineering, Transactions of the ASME</i> , <b>2011</b> , 133,	2.3	14
66	An experimental analysis of fluctuating temperature measurements using hot-wires at different overheats. <i>Experiments in Fluids</i> , <b>1989</b> , 7, 265-270	2.5	13
65	Novel Positively Charged Metal-Coordinated Nanofiltration Membrane for Lithium Recovery. <i>ACS Applied Materials &amp; Interfaces</i> , <b>2021</b> , 13, 16906-16915	9.5	13
64	Design of Plate-Fin Tube Dehumidifiers for Humidification-Dehumidification Desalination Systems. <i>Heat Transfer Engineering</i> , <b>2015</b> , 36, 223-243	1.7	11
63	Heat transfer to a horizontal cylinder in a shallow bubble column. <i>International Journal of Heat and Mass Transfer</i> , <b>2014</b> , 79, 353-361	4.9	11
62	A low-cost, high-performance DC cold-wire bridge. <i>Journal of Physics E: Scientific Instruments</i> , <b>1988</b> , 21, 167-170		11
61	Plasmon Resonance Enhanced Photocatalysis Under Visible Light with Au/Cu $\text{TiO}_2$ Nanoparticles: Removal Cr (VI) from Water as a Case of Study. <i>Science of Advanced Materials</i> , <b>2013</b> , 5, 2007-2014	2.3	11
60	Metals Recovery from Seawater Desalination Brines: Technologies, Opportunities, and Challenges. <i>ACS Sustainable Chemistry and Engineering</i> , <b>2021</b> , 9, 7704-7712	8.3	11
59	Computational fluid dynamics modeling for performance assessment of permeate gap membrane distillation. <i>Journal of Membrane Science</i> , <b>2018</b> , 568, 55-66	9.6	11
58	Integrated Valorization of Desalination Brine through NaOH Recovery: Opportunities and Challenges. <i>Angewandte Chemie - International Edition</i> , <b>2019</b> , 58, 6502-6511	16.4	10
57	Effect of Module Inclination Angle on Air Gap Membrane Distillation <b>2014</b> ,		10
56	Techno-economic analysis of ion concentration polarization desalination for high salinity desalination applications. <i>Water Research</i> , <b>2019</b> , 155, 162-174	12.5	10
55	A new vacuum membrane distillation system using an aspirator: concept modeling and optimization. <i>Desalination and Water Treatment</i> , <b>2016</b> , 57, 12915-12928		9
54	Factors contributing to the change in permeate quality upon temperature variation in nanofiltration. <i>Desalination</i> , <b>2019</b> , 455, 58-70	10.3	9

53	Thermal Radiation in Rayleigh-Benard Instability. <i>Journal of Heat Transfer</i> , <b>1990</b> , 112, 100-109	1.8	9
52	Heat Transfer in Flat-Plate Boundary Layers: A Correlation for Laminar, Transitional, and Turbulent Flow. <i>Journal of Heat Transfer</i> , <b>2020</b> , 142,	1.8	9
51	On the electrical operation of batch electrodialysis for reduced energy consumption. <i>Environmental Science: Water Research and Technology</i> , <b>2019</b> , 5, 1172-1182	4.2	8
50	Rebuttal to Discussion of Second law analysis of reverse osmosis desalination plants: An alternative design using pressure retarded osmosis[[Energy 2011] 36: 6617-6626][Energy, <b>2012</b> , 46, 691-693	7.9	8
49	Formulation of Seawater Flow Exergy Using Accurate Thermodynamic Data <b>2010</b> ,		8
48	Entrance length effects on Graetz number scaling in laminar duct flows with periodic obstructions: Transport number correlations for spacer-filled membrane channel flows. <i>International Journal of Heat and Mass Transfer</i> , <b>2016</b> , 97, 842-852	4.9	7
47	An Analysis of Likely Scalants in the Treatment of Produced Water From Nova Scotia. <i>Heat Transfer Engineering</i> , <b>2015</b> , 36, 652-662	1.7	7
46	Variable Pressure Humidification Dehumidification Desalination System <b>2011</b> ,		7
45	Solute displacement in the aqueous phase of water-NaCl-organic ternary mixtures relevant to solvent-driven water treatment.. <i>RSC Advances</i> , <b>2020</b> , 10, 29516-29527	3.7	7
44	Treatment of greenhouse wastewater for reuse or disposal using monovalent selective electrodialysis. <i>Desalination</i> , <b>2021</b> , 507, 115037	10.3	7
43	Integrated Valorization of Desalination Brine through NaOH Recovery: Opportunities and Challenges. <i>Angewandte Chemie</i> , <b>2019</b> , 131, 6570-6579	3.6	6
42	Energy Savings in Desalination Technologies: Reducing Entropy Generation by Transport Processes. <i>Journal of Heat Transfer</i> , <b>2019</b> , 141,	1.8	6
41	Thermodynamics, Exergy, and Energy Efficiency in Desalination Systems <b>2017</b> , 127-206		6
40	Deformation-induced cleaning of organically fouled membranes: Fundamentals and techno-economic assessment for spiral-wound membranes. <i>Journal of Membrane Science</i> , <b>2021</b> , 626, 119169	9.6	6
39	A framework to analyze sulfate versus chloride selectivity in nanofiltration. <i>Environmental Science: Water Research and Technology</i> , <b>2019</b> , 5, 585-598	4.2	5
38	Helium as a Carrier Gas in Humidification Dehumidification Desalination Systems <b>2011</b> ,		5
37	Multistage pressure-retarded osmosis configurations: A unifying framework and thermodynamic analysis. <i>Desalination</i> , <b>2020</b> , 476, 114230	10.3	5
36	On the presence of solute-solvent transport coupling in reverse osmosis. <i>Journal of Membrane Science</i> , <b>2020</b> , 611, 118272	9.6	5

35	Comparative assessment of the effects of 3D printed feed spacers on process performance in MD systems. <i>Desalination</i> , <b>2021</b> , 503, 114940	10.3	5
34	Caustic Soda Production, Energy Efficiency, and Electrolyzers. <i>ACS Energy Letters</i> , 3563-3566	20.1	5
33	Analytical Modeling of a Bubble Column Dehumidifier <b>2013</b> ,		4
32	Air-Heating Solar Collectors for Humidification-Dehumidification Desalination Systems <b>2010</b> ,		4
31	Metrics Matter: Accurately Defining Energy Efficiency in Desalination. <i>Journal of Heat Transfer</i> , <b>2020</b> , 142,	1.8	4
30	An Effectiveness-Number of Transfer Units Relationship for Evaporators With Non-negligible Boiling Point Elevation Increases. <i>Journal of Heat Transfer</i> , <b>2016</b> , 138,	1.8	4
29	Modeling reverse osmosis element design using superposition and an analogy to convective heat transfer. <i>Journal of Membrane Science</i> , <b>2016</b> , 512, 38-49	9.6	4
28	Treating Irrigation Water Using High-Performance Membranes for Monovalent Selective Electrodialysis. <i>ACS ES&amp;T Water</i> , <b>2021</b> , 1, 117-124		4
27	The Need for Accurate Osmotic Pressure and Mass Transfer Resistances in Modeling Osmotically Driven Membrane Processes. <i>Membranes</i> , <b>2021</b> , 11,	3.8	4
26	The reversed chemical engine cycle with application to desalination processes. <i>Desalination</i> , <b>2016</b> , 398, 256-264	10.3	3
25	Humidification Dehumidification Desalination <b>2014</b> , 425-472		3
24	Thermodynamic Analysis of a Reverse Osmosis Desalination System Using Forward Osmosis for Energy Recovery <b>2012</b> ,		3
23	On Thermal Performance of Seawater Cooling Towers <b>2010</b> ,		3
22	Active Thermal Control of Distributed Parameter Systems With Application to Testing of Packaged IC Devices. <i>Journal of Heat Transfer</i> , <b>2003</b> , 125, 164-174	1.8	3
21	Large-area jet-array cooling modules for high heat fluxes <b>1996</b> ,		3
20	Desalination of brackish groundwater to improve water quality and water supply <b>2021</b> , 559-575		3
19	Monovalent selective electrodialysis: Modelling multi-ionic transport across selective membranes. <i>Water Research</i> , <b>2021</b> , 199, 117171	12.5	3
18	Effect of Nonideal Solution Behavior on Desalination of a Sodium Chloride (NaCl) Solution and Comparison to Seawater <b>2012</b> ,		2

17	Experiments on jet array cooling modules for high heat flux removal <b>1997</b> , 3151, 6		2
16	Thermal Management and Control in Testing Packaged Integrated Circuit (IC) Devices <b>1999</b> ,		2
15	M.I.T. Stirling-Cycle Heat Transfer Apparatus <b>1992</b> ,		2
14	A Numerical Solution Algorithm for a Heat and Mass Transfer Model of a Desalination System Based on Packed-Bed Humidification and Bubble Column dehumidification <b>2014</b> ,		2
13	Measurements of Heat Transfer Coefficients to Cylinders in Shallow Bubble Columns <b>2014</b> ,		2
12	Exterior Shape Factors From Interior Shape Factors. <i>Journal of Heat Transfer</i> , <b>2019</b> , 141,	1.8	2
11	Advances and challenges in metal ion separation from water. <i>Trends in Chemistry</i> , <b>2021</b> , 3, 819-831	14.8	2
10	Cost effectiveness of conventionally and solar powered monovalent selective electro dialysis for seawater desalination in greenhouses. <i>Applied Energy</i> , <b>2021</b> , 301, 117425	10.7	2
9	Active Thermal Control of Distributed Parameter Systems Excited at Multiple Frequencies. <i>Journal of Heat Transfer</i> , <b>2006</b> , 128, 93-99	1.8	1
8	Thermal Control Architecture for a Planetary and Lunar Surface Exploration Micro-Robot. <i>AIP Conference Proceedings</i> , <b>2007</b> ,	0	1
7	Linearization of Nongray Radiation Exchange: The Internal Fractional Function Reconsidered. <i>Journal of Heat Transfer</i> , <b>2019</b> , 141,	1.8	1
6	Entropy Generation Minimization for Energy-Efficient Desalination <b>2018</b> ,		1
5	Multicomponent Fickian solution-diffusion model for osmotic transport through membranes. <i>Journal of Membrane Science</i> , <b>2021</b> , 640, 119819	9.6	1
4	Thermodynamics of solvent-driven water extraction from hypersaline brines using dimethyl ether. <i>Chemical Engineering Journal</i> , <b>2022</b> , 434, 134391	14.7	0
3	Humidification-Dehumidification Desalination <b>2019</b> , 387-446		
2	Reply from the authors: Deformation-induced cleaning of organically fouled membranes. <i>Journal of Membrane Science</i> , <b>2021</b> , 642, 119961	9.6	
1	Replacing chloride anions in dyeing enables cheaper effluent concentration and recycling. <i>Desalination</i> , <b>2022</b> , 533, 115761	10.3	