Li-Zhi Zhang

List of Publications by Citations

199 papers	6,145 citations	48 h-index	69 g-index
203 ext. papers	6,974 ext. citations	5.6 avg, IF	6.81 L-index

#	Paper	IF	Citations
199	Performance comparisons of desiccant wheels for air dehumidification and enthalpy recovery. *Applied Thermal Engineering*, **2002**, 22, 1347-1367	5.8	199
198	Energy savings potential of chilled-ceiling combined with desiccant cooling in hot and humid climates. *Energy and Buildings*, **2002**, 34, 487-495	7	196
197	Membrane-based Enthalpy Exchanger: material considerations and clarification of moisture resistance. *Journal of Membrane Science*, **2001**, 189, 179-191	9.6	137
196	Synthesis and characterization of a PVA/LiCl blend membrane for air dehumidification. *Journal of Membrane Science*, **2008**, 308, 198-206	9.6	124
195	Progress on heat and moisture recovery with membranes: From fundamentals to engineering applications. *Energy Conversion and Management*, **2012**, 63, 173-195	10.6	121
194	Design and testing of an automobile waste heat adsorption cooling system. *Applied Thermal Engineering*, **2000**, 20, 103-114	5.8	120
193	Energy performance of independent air dehumidification systems with energy recovery measures. *Energy*, **2006**, 31, 1228-1242	7.9	117
192	Indoor humidity behaviors associated with decoupled cooling in hot and humid climates. *Building and Environment*, **2003**, 38, 99-107	6.5	111
191	Energy requirements for conditioning fresh air and the long-term savings with a membrane-based energy recovery ventilator in Hong Kong. *Energy*, **2001**, 26, 119-135	7.9	106
190	Coupled heat and mass transfer in a counter flow hollow fiber membrane module for air humidification. *International Journal of Heat and Mass Transfer*, **2011**, 54, 1055-1063	4.9	102
189	Effectiveness Correlations for Heat and Moisture Transfer Processes in an Enthalpy Exchanger With Membrane Cores. *Journal of Heat Transfer*, **2002**, 124, 922-929	1.8	102
188	Heat and mass transfer in a membrane-based energy recovery ventilator. *Journal of Membrane Science*, **1999**, 163, 29-38	9.6	99
187	An Analytical Solution to Heat and Mass Transfer in Hollow Fiber Membrane Contactors for Liquid Desiccant Air Dehumidification. *Journal of Heat Transfer*, **2011**, 133,	1.8	94
186	Fluid flow and heat mass transfer in membrane parallel-plates channels used for liquid desiccant air dehumidification. *International Journal of Heat and Mass Transfer*, **2012**, 55, 2571-2580	4.9	93
185	Coupled heat and mass transfer in an application-scale cross-flow hollow fiber membrane module for air humidification. *International Journal of Heat and Mass Transfer*, **2012**, 55, 5861-5869	4.9	86
184	Heat and mass transfer in a randomly packed hollow fiber membrane module: A fractal model approach. *International Journal of Heat and Mass Transfer*, **2011**, 54, 2921-2931	4.9	86
183	Heat and mass transfer in a cross-flow membrane-based enthalpy exchanger under naturally formed boundary conditions. *International Journal of Heat and Mass Transfer*, **2007**, 50, 151-162	4.9	85

182	Researches and trends in membrane-based liquid desiccant air dehumidification. *Renewable and Sustainable Energy Reviews*, **2013**, 28, 425-440	16.2	82
181	Thermodynamic modeling of a novel air dehumidification system. *Energy and Buildings*, **2005**, 37, 279-286	7	79
180	Conjugate heat and mass transfer in a hollow fiber membrane module for liquid desiccant air dehumidification: A free surface model approach. *International Journal of Heat and Mass Transfer*, **2012**, 55, 3789-3799	4.9	78
179	Experimental investigation of the anti-dust effect of transparent hydrophobic coatings applied for solar cell covering glass. *Solar Energy Materials and Solar Cells*, **2017**, 160, 382-389	6.4	76
178	Effects of wall thickness on the heat and moisture transfers in desiccant wheels for air dehumidification and enthalpy recovery. *International Communications in Heat and Mass Transfer*, **2002**, 29, 255-268	5.8	74
177	Heat and mass transfer in a quasi-counter flow membrane-based total heat exchanger. *International Journal of Heat and Mass Transfer*, **2010**, 53, 5478-5486	4.9	72
176	A heat pump driven and hollow fiber membrane-based liquid desiccant air dehumidification system: Modeling and experimental validation. *Energy*, **2014**, 65, 441-451	7.9	71
175	Performance estimation of an adsorption cooling system for automobile waste heat recovery. *Applied Thermal Engineering*, **1997**, 17, 1127-1139	5.8	71
174	Conjugate heat and mass transfer in membrane-formed channels in all entry regions. *International Journal of Heat and Mass Transfer*, **2010**, 53, 815-824	4.9	69
173	Self-cleaning of Surfaces: the Role of Surface Wettability and Dust Types. *Scientific Reports*, **2016**, 6, 38239	4.9	68
172	Fabrication of a lithium chloride solution based composite supported liquid membrane and its moisture permeation analysis. *Journal of Membrane Science*, **2006**, 276, 91-100	9.6	67
171	Effects of coupled heat and mass transfers in adsorbent on the performance of a waste heat adsorption cooling unit. *Applied Thermal Engineering*, **1999**, 19, 195-215	5.8	67
170	A fractal model for gas permeation through porous membranes. *International Journal of Heat and Mass Transfer*, **2008**, 51, 5288-5295	4.9	66
169	One-step fabrication and analysis of an asymmetric cellulose acetate membrane for heat and moisture recovery. *Journal of Membrane Science*, **2011**, 366, 158-165	9.6	65
168	Titanium carbide Ti3C2Tx (MXene) enhanced PAN nanofiber membrane for air purification. *Journal of Membrane Science*, **2019**, 586, 162-169	9.6	63
167	Mechanical durability of superhydrophobic surfaces: The role of surface modification technologies. *Applied Surface Science*, **2017**, 392, 286-296	6.7	63
166	Durable superhydrophobic surface with highly antireflective and self-cleaning properties for the glass covers of solar cells. *Applied Surface Science*, **2018**, 454, 239-248	6.7	62
165	A review of liquid desiccant air dehumidification: From system to material manipulations. *Energy and Buildings*, **2020**, 215, 109897	7	61

164	Heat and moisture transfer in application scale parallel-plates enthalpy exchangers with novel membrane materials. *Journal of Membrane Science*, **2008**, 325, 672-682	9.6	61
163	Modeling VOCs emissions in a room with a single-zone multi-component multi-layer technique. *Building and Environment*, **2004**, 39, 523-531	6.5	60
162	Conjugate heat and mass transfer in a cross-flow hollow fiber membrane contactor for liquid desiccant air dehumidification. *International Journal of Heat and Mass Transfer*, **2012**, 55, 8061-8072	4.9	59
161	Heat and mass transfer in plate-fin enthalpy exchangers with different plate and fin materials. *International Journal of Heat and Mass Transfer*, **2009**, 52, 2704-2713	4.9	59
160	A three-dimensional non-equilibrium model for an intermittent adsorption cooling system. *Solar Energy*, **2000**, 69, 27-35	6.8	59
159	Flow maldistribution and thermal performance deterioration in a cross-flow air to air heat exchanger with plate-fin cores. *International Journal of Heat and Mass Transfer*, **2009**, 52, 4500-4509	4.9	56
158	Laminar flow and heat transfer in plate-fin triangular ducts in thermally developing entry region. *International Journal of Heat and Mass Transfer*, **2007**, 50, 1637-1640	4.9	56
157	Convective heat transfer in cross-corrugated triangular ducts under uniform heat flux boundary conditions. *International Journal of Heat and Mass Transfer*, **2011**, 54, 597-605	4.9	55
156	Independent air dehumidification with membrane-based total heat recovery: Modeling and experimental validation. *International Journal of Refrigeration*, **2010**, 33, 398-408	3.8	54
155	Heat transfer and friction coefficients in corrugated ducts confined by sinusoidal and arc curves. *International Journal of Heat and Mass Transfer*, **2002**, 45, 571-578	4.9	53
154	Performance study of a heat pump driven and hollow fiber membrane-based two-stage liquid desiccant air dehumidification system. *Applied Energy*, **2016**, 179, 727-737	10.7	50
153	Performance analysis of a direct expansion air dehumidification system combined with membrane-based total heat recovery. *Energy*, **2010**, 35, 3891-3901	7.9	48
152	Heat and mass transfer in plate-fin sinusoidal passages with vapor-permeable wall materials. *International Journal of Heat and Mass Transfer*, **2008**, 51, 618-629	4.9	48
151	Numerical Study of Periodically Fully Developed Flow and Heat Transfer in Cross-Corrugated Triangular Channels in Transitional Flow Regime. *Numerical Heat Transfer; Part A: Applications*, **2005**, 48, 387-405	2.3	48
150	Experimental investigation of dust deposition reduction on solar cell covering glass by different self-cleaning coatings. *Energy*, **2019**, 181, 645-653	7.9	47
149	Investigation of a solar energy driven and hollow fiber membrane-based humidification–dehumidification desalination system. *Applied Energy*, **2016**, 177, 393-408	10.7	47
148	Momentum and heat transfer in the adsorbent of a waste-heat adsorption cooling system. *Energy*, **1999**, 24, 605-624	7.9	44
147	Laminar fluid flow and mass transfer in a standard field and laboratory emission cell. *International Journal of Heat and Mass Transfer*, **2003**, 46, 91-100	4.9	43

146	Convective mass transport in cross-corrugated membrane exchangers. *Journal of Membrane Science* , **2005**, 260, 75-83	9.6	43
145	Analysis of thermal performance and energy savings of membrane based heat recovery ventilator. *Energy*, **2000**, 25, 515-527	7.9	43
144	Performance comparisons of honeycomb-type adsorbent beds (wheels) for air dehumidification with various desiccant wall materials. *Energy*, **2014**, 65, 430-440	7.9	41
143	Simultaneous heat and moisture transfer through a composite supported liquid membrane. *International Journal of Heat and Mass Transfer*, **2008**, 51, 2179-2189	4.9	41
142	A pre-cooling Munters environmental control desiccant cooling cycle in combination with chilled-ceiling panels. *Energy*, **2003**, 28, 275-292	7.9	41
141	Conjugate heat and mass transfer in membrane parallel-plates ducts for liquid desiccant air dehumidification: Effects of the developing entrances. *Journal of Membrane Science*, **2013**, 437, 82-89	9.6	39
140	Selective permeation of moisture and VOCs through polymer membranes used in total heat exchangers for indoor air ventilation. *Indoor Air*, **2012**, 22, 321-30	5.4	37
139	An analytical solution for heat mass transfer in a hollow fiber membrane based air-to-air heat mass exchanger. *Journal of Membrane Science*, **2010**, 360, 217-225	9.6	35
138	Turbulent Three-Dimensional Air Flow and Heat Transfer in a Cross-Corrugated Triangular Duct. *Journal of Heat Transfer*, **2005**, 127, 1151-1158	1.8	35
137	Flow maldistribution and performance deteriorations in a cross flow hollow fiber membrane module for air humidification. *Journal of Membrane Science*, **2013**, 427, 1-9	9.6	34
136	A physically-based model for prediction of VOCs emissions from paint applied to an absorptive substrate. *Building and Environment*, **2006**, 41, 1317-1325	6.5	34
135	Numerical and analytical study of the impinging and bouncing phenomena of droplets on superhydrophobic surfaces with microtextured structures. *Langmuir*, **2014**, 30, 11640-9	4	33
134	Coupled heat and mass transfer through asymmetric porous membranes with finger-like macrovoids structure. *International Journal of Heat and Mass Transfer*, **2009**, 52, 751-759	4.9	33
133	Turbulent heat and mass transfer across a hollow fiber membrane bundle considering interactions between neighboring fibers. *International Journal of Heat and Mass Transfer*, **2013**, 64, 162-172	4.9	32
132	Performance investigation on polymeric electrolyte membrane-based electrochemical air dehumidification system. *Applied Energy*, **2017**, 208, 1174-1183	10.7	32
131	Turbulent Heat and Mass Transfer Across a Hollow Fiber Membrane Tube Bank in Liquid Desiccant Air Dehumidification. *Journal of Heat Transfer*, **2012**, 134,	1.8	32
130	PM collection performance of electret filters electrospun with different dielectric materials-a numerical modeling and experimental study. *Building and Environment*, **2018**, 131, 210-219	6.5	31
129	Energy and economic analysis of a hollow fiber membrane-based desalination system driven by solar energy. *Desalination*, **2017**, 404, 200-214	10.3	30

128	Mass transfer of volatile organic compounds from painting material in a standard field and laboratory emission cell. *International Journal of Heat and Mass Transfer*, **2003**, 46, 2415-2423	4.9	30
127	Evaluation of moisture diffusivity in hydrophilic polymer membranes: A new approach. *Journal of Membrane Science*, **2006**, 269, 75-83	9.6	29
126	Conjugate heat and mass transfer in a total heat exchanger with cross-corrugated triangular ducts and one-step made asymmetric membranes. *International Journal of Heat and Mass Transfer*, **2015**, 84, 390-400	4.9	28
125	A heat pump driven and hollow fiber membrane-based liquid desiccant air dehumidification system: A transient performance study. *International Journal of Refrigeration*, **2016**, 67, 143-156	3.8	27
124	Flow maldistribution and performance deteriorations in a counter flow hollow fiber membrane module for air humidification/dehumidification. *International Journal of Heat and Mass Transfer*, **2014**, 74, 421-430	4.9	27
123	Experimental study of a membrane-based dehumidification cooling system. *Applied Thermal Engineering*, **2017**, 115, 1315-1321	5.8	27
122	Effects of substrate parameters on the emissions of volatile organic compounds from wet coating materials. *Building and Environment*, **2003**, 38, 939-946	6.5	27
121	Lattice Boltzmann Simulation of Droplets Impacting on Superhydrophobic Surfaces with Randomly Distributed Rough Structures. *Langmuir*, **2017**, 33, 820-829	4	26
120	Indoor experiments of dust deposition reduction on solar cell covering glass by transparent super-hydrophobic coating with different tilt angles. *Solar Energy*, **2019**, 188, 1146-1155	6.8	26
119	Membrane-based humidity pump: performance and limitations. *Journal of Membrane Science*, **2000**, 171, 207-216	9.6	26
118	A dual-scale analysis of a desiccant wheel with a novel organic–inorganic hybrid adsorbent for energy recovery. *Applied Energy*, **2016**, 163, 167-179	10.7	25
117	Preparation and properties of Ag-coated activated carbon nanocomposites for indoor air quality control. *Building and Environment*, **2013**, 63, 108-113	6.5	25
116	Fabrication and performance of a stable micro/nano composite electret filter for effective PM capture. *Science of the Total Environment*, **2020**, 725, 138297	10.2	24
115	Transport Phenomena in a Cross-Flow Hollow Fibre Membrane Bundle Used for Liquid Desiccant Air Dehumidification. *Indoor and Built Environment*, **2013**, 22, 559-574	1.8	24
114	A lattice Boltzmann simulation of mass transport through composite membranes. *AICHE Journal*, **2014**, 60, 3925-3938	3.6	23
113	Heat and Mass Transfer in a Total Heat Exchanger: Cross-Corrugated Triangular Ducts with Composite Supported Liquid Membrane. *Numerical Heat Transfer; Part A: Applications*, **2008**, 53, 1195-1210	2.3	23
112	Fouling resistance improvement with a new superhydrophobic electrospun PVDF membrane for seawater desalination. *Desalination*, **2020**, 476, 114246	10.3	23
111	Conjugate heat conduction in filled composite materials considering interactions between the filler and base materials. *International Journal of Heat and Mass Transfer*, **2013**, 64, 735-742	4.9	21

110	Convective mass transfer and pressure drop correlations for cross-flow structured hollow fiber membrane bundles under low Reynolds numbers but with turbulent flow behaviors. *Journal of Membrane Science*, **2013**, 434, 65-73	9.6	21
109	Module scale-up and performance evaluation of thin film composite hollow fiber membranes for pressure retarded osmosis. *Journal of Membrane Science*, **2018**, 548, 398-407	9.6	21
108	Fabrication and analysis of a highly hydrophobic and permeable block GO-PVP/PVDF membrane for membrane humidification-dehumidification desalination. *Journal of Membrane Science*, **2019**, 582, 367-380	9.6	20
107	Conjugate heat and mass transfer in a skewed flow hollow fiber membrane bank used for liquid desiccant air dehumidification. *International Journal of Heat and Mass Transfer*, **2016**, 93, 23-40	4.9	20
106	Facile fabrication of superhydrophobic films with fractal structures using epoxy resin microspheres. *Applied Surface Science*, **2014**, 292, 44-54	6.7	20
105	Influences of dust deposition on ground-mounted solar photovoltaic arrays: A CFD simulation study. *Renewable Energy*, **2019**, 135, 21-31	8.1	20
104	Experimental investigation on deposition reduction of different types of dust on solar PV cells by self-cleaning coatings. *Solar Energy*, **2020**, 206, 365-373	6.8	19
103	Performance manipulations of a composite membrane of low thermal conductivity for seawater desalination. *Chemical Engineering Science*, **2018**, 192, 61-73	4.4	19
102	Durable superhydrophobic surfaces made by intensely connecting a bipolar top layer to the substrate with a middle connecting layer. *Scientific Reports*, **2017**, 7, 9946	4.9	19
101	Thermally Developing Forced Convection and Heat Transfer in Rectangular Plate-Fin Passages Under Uniform Plate Temperature. *Numerical Heat Transfer; Part A: Applications*, **2007**, 52, 549-564	2.3	19
100	Investigation of moisture transfer effectiveness through a hydrophilic polymer membrane with a field and laboratory emission cell. *International Journal of Heat and Mass Transfer*, **2006**, 49, 1176-1184	4.9	19
99	Numerical study of heat and mass transfer in an enthalpy exchanger with a hydrophobic-hydrophilic composite membrane core. *Numerical Heat Transfer; Part A: Applications*, **2007**, 51, 697-714	2.3	19
98	Wettability and performance enhancement with durable super-hydrophilic surfaces for plastic liquid desiccant dehumidification systems. *Energy and Buildings*, **2019**, 187, 77-85	7	18
97	Flow Maldistribution and Performance Deteriorations in Membrane-Based Heat and Mass Exchangers. *Journal of Heat Transfer*, **2009**, 131,	1.8	17
96	A NUMERICAL STUDY OF LAMINAR FORCED CONVECTION IN SINUSOIDAL DUCTS WITH ARC LOWER BOUNDARIES UNDER UNIFORM WALL TEMPERATURE. *Numerical Heat Transfer; Part A: Applications*, **2001**, 40, 55-72	2.3	17
95	Modeling of dynamic deposition and filtration processes of airborne particles by a single fiber with a coupled lattice Boltzmann and discrete element method. *Building and Environment*, **2016**, 106, 274-285	6.5	17
94	A reliability-based optimization of membrane-type total heat exchangers under uncertain design parameters. *Energy*, **2016**, 101, 390-401	7.9	16
93	Fluid Flow and Heat Transfer in Plate-Fin and Tube Heat Exchangers in a Transitional Flow Regime. *Numerical Heat Transfer; Part A: Applications*, **2011**, 60, 766-784	2.3	16

92	Performance Deteriorations from Flow Maldistribution in Air-to-Air Heat Exchangers: A Parallel-Plates Membrane Core Case. *Numerical Heat Transfer; Part A: Applications*, **2009**, 56, 746-763	2.3	16
91	A lattice Boltzmann simulation of coalescence-induced droplet jumping on superhydrophobic surfaces with randomly distributed structures. *Applied Surface Science*, **2018**, 436, 172-182	6.7	16
90	Performance study of a solar-assisted hollow-fiber-membrane-based air humidification-dehumidification desalination system: Effects of membrane properties. *Chemical Engineering Science*, **2019**, 206, 164-179	4.4	15
89	Numerical study of dry deposition of monodisperse and polydisperse dust on building-mounted solar photovoltaic panels with different roof inclinations. *Solar Energy*, **2018**, 176, 535-544	6.8	15
88	Transient and conjugate heat and mass transfer in hexagonal ducts with adsorbent walls. *International Journal of Heat and Mass Transfer*, **2015**, 84, 271-281	4.9	14
87	Pinning-Depinning Mechanisms of the Contact Line during Evaporation of Microdroplets on Rough Surfaces: A Lattice Boltzmann Simulation. *Langmuir*, **2018**, 34, 7906-7915	4	14
86	Laminar flow and conjugate heat and mass transfer in a hollow fiber membrane bundle used for seawater desalination. *International Journal of Heat and Mass Transfer*, **2017**, 111, 123-137	4.9	13
85	Electrochemical impedance spectroscopy analysis of VI characteristics and a fast prediction model for PEM-based electrolytic air dehumidification. *International Journal of Hydrogen Energy*, **2019**, 44, 19533-19546	4.7	13
84	Oblique fluid flow and convective heat transfer across a tube bank under uniform wall heat flux boundary conditions. *International Journal of Heat and Mass Transfer*, **2015**, 91, 1259-1272	4.9	13
83	Enhanced thermal conductivity of PLA-based nanocomposites by incorporation of graphite nanoplatelets functionalized by tannic acid. *Journal of Applied Polymer Science*, **2018**, 135, 46397	2.9	13
82	Wave-wise falling film in liquid desiccant dehumidification systems: Model development and time-series parameter analysis. *International Journal of Heat and Mass Transfer*, **2019**, 132, 96-106	4.9	13
81	Performance prediction of PM 2.5 removal of real fibrous filters with a novel model considering rebound effect. *Applied Thermal Engineering*, **2017**, 111, 1536-1547	5.8	12
80	Nonlinear programming optimization of filler shapes for composite materials with inverse problem technique to maximize heat conductivity. *International Journal of Heat and Mass Transfer*, **2012**, 55, 7287-7296	4.9	12
79	Heat and mass transfer in a polymeric electrolyte membrane-based electrochemical air dehumidification system: Model development and performance analysis. *International Journal of Heat and Mass Transfer*, **2018**, 126, 888-898	4.9	12
78	Computer Simulations on a pH-Responsive Anticancer Drug Delivery System Using Zwitterion-Grafted Polyamidoamine Dendrimer Unimolecular Micelles. *Langmuir*, **2021**, 37, 1225-1234	4	12
77	Conjugate heat and mass transfer in a cross-flow hollow fiber membrane bundle used for seawater desalination considering air side turbulence. *Journal of Membrane Science*, **2017**, 533, 321-335	9.6	11
76	Thermal conductivity augmentation of composite polymer materials with artificially controlled filler shapes. *Journal of Applied Polymer Science*, **2014**, 131, n/a-n/a	2.9	11
75	DEVELOPMENT OF FRACTAL ULTRA-HYDROPHOBIC COATING FILMS TO PREVENT WATER VAPOR DEWING AND TO DELAY FROSTING. *Fractals*, **2014**, 22, 1440002	3.2	11

74	Selective adsorption of a novel high selective desiccant for prospective use in heat and moisture recovery for buildings. *Building and Environment*, **2012**, 49, 124-128	6.5	11
73	Durability analysis and degradation mechanism for an electrolytic air dehumidifier based on PEM. *International Journal of Hydrogen Energy*, **2020**, 45, 3971-3985	6.7	11
72	Heat and mass transfer in PEM-based electrolytic air dehumidification element with an optimized anode-side electrochemical model. *International Journal of Heat and Mass Transfer*, **2019**, 135, 1152-1166	4.9	10
71	Performance enhancement of solar-assisted liquid desiccant dehumidifiers using super-hydrophilic surface. *Energy and Buildings*, **2019**, 199, 461-471	7	10
70	Preparation and characterization of porous poly(vinylidene fluoride) membranes for dehumidification with poly(ethylene glycol) as an additive. *Journal of Applied Polymer Science*, **2010**, 118, 2696-2703	2.9	10
69	Effects of material properties on heat and mass transfer in honeycomb-type adsorbent wheels for total heat recovery. *Applied Thermal Engineering*, **2017**, 118, 345-356	5.8	9
68	Transient split features of slug flow at an impacting micro-T-junction: A numerical study. *International Journal of Heat and Mass Transfer*, **2017**, 112, 318-332	4.9	9
67	System-scale modeling and membrane structure parameter optimization for solar-powered sweeping gas membrane distillation desalination system. *Journal of Cleaner Production*, **2020**, 253, 119968	10.3	9
66	Evaluation the effect of fiber alignment on particle collection performance of mechanical/electret filters based on Voronoi tessellations. *Chemical Engineering Science*, **2019**, 197, 109-119	4.4	9
65	Development of liquid-air mass transfer correlations for liquid desiccant dehumidification considering the liquid/air contact and film instability. *International Journal of Heat and Mass Transfer*, **2019**, 141, 491-502	4.9	8
64	Preparation and selective adsorption of core□shell desiccant for heat and moisture recovery. *Colloids and Surfaces A: Physicochemical and Engineering Aspects*, **2012**, 406, 68-74	5.1	8
63	Effects of Membrane Parameters on Performance of Vapor Permeation through a Composite Supported Liquid Membrane. *Separation Science and Technology*, **2006**, 41, 3517-3538	2.5	8
62	Three-dimensional turbulent flow and conjugate heat and mass transfer in a cross-flow hollow fiber membrane bundle for seawater desalination. *International Journal of Heat and Mass Transfer*, **2018**, 120, 328-341	4.9	7
61	Fluid flow and mass transfer in an industrial-scale hollow fiber membrane contactor scaled up with small elements. *International Journal of Heat and Mass Transfer*, **2018**, 127, 289-301	4.9	7
60	Effect of groove configuration on two-phase flow instability for Ultra-Thin Looped Heat Pipes in thermal management system. *International Journal of Thermal Sciences*, **2017**, 121, 369-380	4.1	7
59	A Randomly Distributed Filler Model for Heat Conductivity Prediction in Filled Composite Materials Considering Fillers Aggregation. *Heat Transfer Engineering*, **2015**, 36, 929-936	1.7	7
58	Performance improvement of electrolytic air dehumidification systems with high-water-uptake polymer electrolyte membranes. *Journal of Applied Polymer Science*, **2019**, 136, 47676	2.9	6
57	Molecular-level evaluation and manipulation of thermal conductivity, moisture diffusivity and hydrophobicity of a GO-PVP/PVDF composite membrane. *International Journal of Heat and Mass Transfer*, **2020**, 152, 119508	4.9	6

56	Analysis and optimization of material physical characteristics for electrolytic air dehumidifier with a PEM. *Applied Thermal Engineering*, **2020**, 169, 114929	5.8	6
55	Visualization research on confined bubble growth feature and heat transfer characteristic in ultra-shallow micro channel. *International Journal of Heat and Mass Transfer*, **2016**, 103, 847-854	4.9	6
54	Conjugate Heat and Mass Transfer in Adsorbent Ducts **2013**, 21-74		6
53	Modelling on space-domain surface waves of vertical low-Re falling film and the enhancement on mass transfer in halide-solution/air absorption. *Chemical Engineering Science*, **2020**, 215, 115459	4.4	6
52	Molecular simulations on the hydration and underwater oleophobicity of zwitterionic self-assembled monolayers. *AICHE Journal*, **2021**, 67, e17103	3.6	6
51	A molecular level performance manipulation of thermal conductivity and moisture diffusivity through a composite membrane considering interfacial resistance. *Journal of Membrane Science*, **2019**, 583, 231-247	9.6	5
50	Fluid flow and heat transfer of cross flow hollow fiber membrane contactors with randomly distributed fibers: A topological study. *International Journal of Heat and Mass Transfer*, **2019**, 135, 186-198	4.9	5
49	Oblique fluid flow and heat transfer across a hollow fiber membrane bank under uniform temperature conditions. *Journal of Membrane Science*, **2014**, 470, 524-534	9.6	5
48	Sorption, permeation and selective transport of moisture/VOCs through a CA membrane for total heat recovery. *International Journal of Low-Carbon Technologies*, **2013**, 8, 64-69	2.8	5
47	Computer simulations on double hydrophobic PS-b-PMMA porous membrane by non-solvent induced phase separation. *Fluid Phase Equilibria*, **2020**, 523, 112784	2.5	5
46	A coarse-grained simulation of heat and mass transfer through a graphene oxide-based composite membrane. *Chemical Engineering Science*, **2021**, 243, 116692	4.4	5
45	Moisture transport through asymmetric porous membranes with finger-like holes for indoor humidity control: A lattice Boltzmann simulation approach. *Indoor and Built Environment*, **2016**, 25, 151-168	1.8	4
44	Cross flow and heat transfer of hollow-fiber tube banks with complex distribution patterns and various baffle designs. *International Journal of Heat and Mass Transfer*, **2020**, 147, 118937	4.9	4
43	Computer simulation of zwitterionic polymer brush grafted silica nanoparticles to modify polyvinylidene fluoride membrane. *Journal of Colloid and Interface Science*, **2021**, 587, 173-182	9.3	4
42	A new approach for air dehumidification at refrigerator temperatures: Electrolytic vapor dehumidifier with Proton Exchange Membrane (PEM). *International Journal of Refrigeration*, **2020**, 118, 453-461	3.8	3
41	Heat and Mass Transfer Across a Hollow Fiber Membrane Bundle **2013**, 181-232		3
40	Experimental investigation on membrane-based electrolytic dehumidification for air-conditioning systems. *Procedia Engineering*, **2017**, 205, 3194-3198		3
39	A hydrophobic-hydrophilic MXene/PVDF composite hollow fiber membrane with enhanced antifouling properties for seawater desalination. *Journal of Membrane Science*, **2022**, 644, 120146	9.6	3

38	Falling film liquid desiccant air dehumidification. *Experimental and Computational Multiphase Flow*, **2020**, 2, 187-198	4.2	3
37	Drift-flux correlation for upward two-phase flow in inclined pipes. *Chemical Engineering Science*, **2020**, 213, 115395	4.4	3
36	Flow and heat transfer for a two-phase slug flow in horizontal pipes: A mechanistic model. *Physics of Fluids*, **2021**, 33, 034117	4.4	3
35	Mechanisms of performance degradation and efficiency improvement of electret filters during neutral particle loading. *Powder Technology*, **2021**, 382, 133-143	5.2	3
34	Development of structurally modified OER catalysts with enhanced performance and longevity for PEM-based electrolytic air dehumidification. *International Journal of Hydrogen Energy*, **2021**, 46, 9267-9279	6.7	3
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